

Anejo nº 2 Cartografía y Topografía.

1.	Introducción y objeto	1	5.	Levantamiento topográfico.....	6
2.	Proyección y marco de referencia	1	6.	Edición cartográfica	6
3.	Red básica	2	6.1.	Procesos de la edición cartográfica.....	6
3.1.	Observación de la red	2	6.1.1.	Volcado y toponimia	7
3.1.1.	Instrumentación.....	2	6.1.2.	Procesos.....	7
3.1.2.	Señalización y materialización de la red básica.....	2	6.1.3.	Generación de producto final	8
3.1.3.	Observación de la red básica	2			
3.1.3.1.	Observación de enlace a las redes oficiales.....	2	Apéndices		
3.1.3.2.	Observación de los nuevos vértices de la red básica	3	Apéndice 1. Red oficial. Reseñas		
3.1.3.3.	Nivelación geométrica.....	3	Apéndice 1.1. Reseñas ERGNSS		
3.2.	Cálculo y ajuste de la red	3	Apéndice 1.2. Reseña referencia altimétrica		
3.2.1.	Cálculo de la red básica	3	Apéndice 2. Gráficos		
3.2.2.	Compensación y ajuste de la red básica	4	Apéndice 2.1. Enlace con la Geodesia		
3.2.3.	Cálculo de la nivelación geométrica	5	Apéndice 2.2. Gráfico de nivelación		
4.	Bases de replanteo	5	Apéndice 2.3. Gráfico Red Principal. GPS		
4.1.	Materialización de las bases de replanteo	5	Apéndice 2.4. Gráfico Bases de Replanteo		
4.2.	Observación de las bases de replanteo.....	6	Apéndice 3. Nivelación		
4.2.1.	Observación clásica	6	Apéndice 3.1. Datos de campo		
4.3.	Cálculo de las coordenadas de las bases de replanteo	6	Apéndice 3.2. Cálculo		
4.3.1.	Cálculo clásica	6	Apéndice 4. Baselines de la Red GPS		
4.4.	Instrumentación.....	6	Apéndice 5. Ajuste de la Red GPS		
			Apéndice 6. Datos de campo de las poligonales		
			Apéndice 7. Ajuste por mínimos cuadrados. (Replanteo)		
			Apéndice 8. Ajuste comprobación altimetría		
			Apéndice 9. Coordenadas		
			Apéndice 9.1. Red principal. GPS		
			Apéndice 9.2. Red Replanteo		
			Apéndice 10. Reseñas		
			Apéndice 10.1. Reseñas Red Principal. GPS		
			Apéndice 10.2. Reseñas Red Replanteo		
			Apéndice 11. Radiación puntos taquimétrico		
			Apéndice 12. Librería de códigos		
			Apéndice 13. Aparatos utilizados		

1. Introducción y objeto

El objeto del trabajo al que hace referencia el presente anejo, es la realización de un taquimétrico a escala 1/500, necesario para la redacción del, Proyecto de Construcción del Metro Ligerero en Superficie del Centro de Sevilla. Tramo: San Bernardo - Centro Nervión.

Estos trabajos se han llevado a cabo en los meses de agosto y septiembre de 2018, desarrollándose en las siguientes fases:

- Enlace a la red existente.
- Densificación, implantación y cálculo de la nueva Red de Bases.
- Toma de datos de puntos para el taquimétrico
- Cálculo y edición

2. Proyección y marco de referencia

El marco de referencia de este trabajo está definido por la red de bases existentes del *PROYECTO DE TRAZADO DE: INFRAESTRUCTURA, SUPERESTRUCTURA DE VÍA, INSTALACIONES E INTEGRACIÓN URBANA DE LA LÍNEA DE METRO LIGERO EN SUPERFICIE DEL CENTRO DE SEVILLA. FASE 2: PRADO DE SAN SEBASTIÁN – SAN BERNARDO – SANTA JUSTA*, propiedad del *EXCELENTISIMO AYUNTAMIENTO DE SEVILLA – TUSSAM*.

Las coordenadas de esta Red se calculan a partir de la Red urbana de la Gerencia de Urbanismo de Sevilla, que en el año de ejecución de dicho proyecto, 2008, el sistema de referencia utilizado era el European Datum 1950.

- Elipsoide: Hayford Internacional 1.909
- Punto fundamental donde coinciden la vertical astronómica y geodésica:
- POSTDAM (Torre de Helmert).
- Origen de longitudes referidas al meridiano de Greenwich.
- Origen de latitudes referidas al Ecuador.

No obstante, como el marco de referencia de dicha Red es obsoleto, se ha procedido a la comprobación de las coordenadas transformadas de la Red existente a partir de la Rejilla de transformación de coordenadas del Instituto geográfico Nacional. (PENR2009.gsb)

Las discrepancias obtenidas a partir de dicha transformación se encuentran fuera de las tolerancias admitidas para la realización de cartografía a escala 1/500, por lo que se procede a la implantación de una nueva Red de bases de Replanteo.

Como sistema de proyección para este proyecto se ha utilizado el sistema de coordenadas UTM (Universal Transversal de Mercator), en huso 30.

La definición del sistema de referencia necesario para la realización del taquimétrico a escala 1/500 de la zona objeto de trabajo, se ha ajustado a partir del sistema geodésico de referencia ETRS89, definido por el Instituto Geográfico Nacional, por:

- Elipsoide GRS80:
 - Radio de la tierra (semieje mayor): 6.378,137 m.
 - Aplanamiento: 1/298,257222101.
- Origen de coordenadas geodésicas:
 - Latitudes referidas al Ecuador y consideradas positivas al Norte y negativas al Sur del mismo.
 - Longitudes referidas al Meridiano de Greenwich y consideradas positivas al Este y negativas al Oeste del mismo.

El sistema de referencia ETRS89, es un sistema geocéntrico, definido sobre el elipsoide GRS80 que, a efectos prácticos, coincide con el datum WGS84, y con diferencias mínimas en el achatamiento o aplastamiento, por lo que todas las observaciones y cálculos se referirán a este sistema.

El plano de referencia altimétrico está definido por la Red existentedel *PROYECTO DE TRAZADO DE: INFRAESTRUCTURA, SUPERESTRUCTURA DE VÍA, INSTALACIONES E INTEGRACIÓN URBANA DE LA LÍNEA DE METRO LIGERO EN SUPERFICIE DEL CENTRO DE SEVILLA. FASE 2: PRADO DE SAN SEBASTIÁN – SAN BERNARDO – SANTA JUSTA*, propiedad del *EXCELENTISIMO AYUNTAMIENTO DE SEVILLA – TUSSAM*, la cual se ha comprobado su bondad al entrar dentro de la tolerancia de 7mm√K, suficiente para la precisión de la Red de bases de Replanteo necesaria para la realización de cartografía a escala 1/500.

La definición del sistema de referencia se ha ajustado a partir de la Red de Estaciones Permanentes de la Comunidad Autónoma de Andalucía adscritas a la Red del Instituto Geográfico Nacional (ERGNS).

La Red gestionada por la Comunidad de Andalucía se denomina Red de Posicionamiento de Andalucía (en adelante RAP). Esta Red está gestionada por el Instituto de Estadística y Cartografía de Andalucía (IECA) y está homologada por el IGN. Está con procedimientos GNSS y tiene la gran ventaja de que es muy estable a lo largo de todo el territorio y su precisión es acorde a la instrumentación GNSS que

se empleará para la realización de los trabajos topográficos. Se estima una precisión interna de la red de 0,01 m.

La red está referida al sistema de referencia ETRS89, idéntico sistema de referencia en el que trabaja la instrumentación GNSS.

La estación ERGNSS que se ha utilizado para el cálculo de la Red ha sido:

Estación	Descripción	Latitud	Longitud	Altitud Elipsoidal
SEVILLA	ERGNSS	37º 20 '44.54401 ' ' N	5º 58 '17.61790 ' ' W	102.960

3. Red básica

Los vértices de la Red Básica, que se ha materializado, observado y han intervenido en el cálculo de la zona de trabajo, componen una estructura de 31 vértices que está formada por:

- Vértices ERGNSS: 1 ud.
- Nuevos Vértices Red Básica: 10 ud.
- Bases de Replanteo:20 ud.

El resumen de esta fase del trabajo es el siguiente:

- Se materializan en campo la totalidad de los vértices que completan la Red Básica.
- Se dota de altura ortométrica a esta red, mediante nivelación geométrica.
- Se triangulan la totalidad de los Vértices de la Red Básica entre sí, teniendo especial cuidado de que cada vértice este radiado directamente con al menos otros tres vértices de la propia red.
- Se calcula el ajuste de la red utilizando como puntos de control el Vértice ERGNSS.

3.1. Observación de la red

Para la realización del trabajo de campo se tuvieron en cuenta las circunstancias particulares de la zona de actuación: limitación de accesos a fincas privadas, la topografía del terreno, y la precaución a la hora de trabajar cerca de instalaciones ferroviarias en uso, y carreteras.

3.1.1. Instrumentación

Para la observación GNSS se han utilizado 6 receptores GNSS de la casa TOPCON: 4 unidades del modelo Hiper +, y 2 unidades del modelo Hiper V.

Para la nivelación geométrica de la Red Básica se ha utilizado un nivel digital de la casa Leica, modelo Sprinter 250M.

3.1.2. Señalización y materialización de la red básica

La monumentación empleada para los diferentes vértices, ha sido por medio de clavos de acero incrustados en elementos sólidos del terreno, que garantizan en todo momento la perdurabilidad de los mismos a lo largo del tiempo.

Las bases son intervisibles con al menos otras dos bases de la misma Red.

3.1.3. Observación de la red básica

3.1.3.1. Observación de enlace a las redes oficiales

La extensión de la zona de trabajo, así como su longitud, fueron los condicionantes que se analizaron para realizar el enlace a los marcos de referencia estables y oficiales, definidos por el Sistema de Referencia ETRS89.

Para la observación del enlace a la Red REGENTE se utilizó la estación de Referencia de la RAP SEVI

Coordenadas ETRS89 GEOGRÁFICAS

Estación	Descripción	Latitud	Longitud	Altitud Elipsoidal
SEVILLA	ERGNSS	37º 20 '44.54401 ' ' N	5º 58 '17.61790 ' ' W	102.960

En la zona de proyecto se han utilizado como señal altimétrica dela Red de bases del PROYECTO DE TRAZADO DE: INFRAESTRUCTURA,SUPERESTRUCTURA DE VÍA, INSTALACIONES E INTEGRACIÓN URBANA DE LA LÍNEA DE METRO LIGERO EN SUPERFICIE DEL CENTRO DE SEVILLA. FASE 2: PRADO DE SAN SEBASTIÁN – SAN BERNARDO – SANTA JUSTA, propiedad del EXCELENTISIMO AYUNTAMIENTO DE SEVILLA – TUSSAM, la base 5006. Se han comprobado las cotas de las bases del mismo proyecto: 5025, 5026, 5037, 5030, 5032, 5035 y 5039,

La observación se realizó empleando seis receptores GPS de forma simultánea.

Para evitar indeterminaciones, y como criterio general para todos los trabajos que se realicen sobre pilares, se decidió que la altura de la antena receptora en cada uno de los vértices fuera medida desde la base del pilar al plano físico de referencia (BPA) en la parte inferior del amplificador, de tal forma que todos los aparatos trabajaran de igual forma con los offset de los centros de fase definidos por el constructor de los equipos. Se denominó a la antena como -Unknown- sobre pilar, y así figura en los apartados de información de cada base línea.

Se siguieron las recomendaciones básicas de este tipo de trabajos, de tal manera que el tiempo de observación de cada baselínea fuera el suficiente para corregir las ambigüedades.

Toda la observación se ha realizado aplicando el método estático. Así mismo en todas las observaciones realizadas, se han cumplido las condiciones mínimas de observación siguientes:

- Número mínimos de satélites: 5.
- Máscara de elevación: 15°.
- GDOP inferior a 5.

No se produjeron apantallamientos en los periodos de observación, y el intervalo de registros que se ha empleado ha sido de 1 segundo.

Se utilizaron los ficheros RINEX de las ERGNSS bajados de los sitios Web oficiales, y correspondientes a cada caso.

3.1.3.2. Observación de los nuevos vértices de la red básica

La segunda fase de la observación a realizar, era la toma de datos para la obtención de las coordenadas de los vértices de la Red Básica que se han señalado.

Todas las observaciones sobre los vértices de la Red Básica se realizaron sobre trípode, con lo cual fue necesario extremar los cuidados en las puestas a realizar.

En general no hubo incidencias importantes que afectaran a la observación, aunque si fue necesario condicionar algunos puntos de observación a la disponibilidad de acceso en momentos aislados.

Se realizó la observación de la Red Básica con criterios similares a los descritos en la fase anterior, siendo su modificación más considerable la que tiene relación con el tiempo de observación de las baselíneas. En general el tiempo mínimo de observación para cada baselínea no fue inferior a 15 minutos, siempre en función de la longitud de la baselínea.

Se realizó la observación de los 10 vértices materializados.

Todos los datos relativos a la observación topográfica realizada se encuentran en el apéndice correspondiente del presente documento.

3.1.3.3. Nivelación geométrica

La determinación de la altura ortométrica de la Red Básica se realizó a partir de la observación de una nivelación geométrica enlazada a la Red existente del PROYECTO DE TRAZADO DE:

INFRAESTRUCTURA, SUPERESTRUCTURA DE VÍA, INSTALACIONES E INTEGRACIÓN URBANA DE LA LÍNEA DE METRO LIGERO EN SUPERFICIE DEL CENTRO DE SEVILLA. FASE 2: PRADO DE SAN SEBASTIÁN – SAN BERNARDO – SANTA JUSTA, propiedad del EXCELENTÍSIMO AYUNTAMIENTO DE SEVILLA – TUSSAM

El procedimiento de observación fue el siguiente:

- Nivelación geométrica doble (ida y vuelta), distancia máxima no superior a 1,5 km.
- Método del punto medio.
- Separación entre miras máxima de 40 metros, realizándose el punto medio al medir con el distanciómetro del nivel digital. (en la medida de lo posible según la topografía del terreno).

La nivelación se realizó con nivel digital Leica Sprinter 250M.

3.2. Cálculo y ajuste de la red

3.2.1. Cálculo de la red básica

La descarga de los datos registrados durante la fase de observación se realizó directamente desde el receptor a PC mediante cable. El programa de descarga de la información que se ha empleado, así como en el que va a realizar todo el cálculo posterior, ha sido el Leica Geo Office V5 (LGO).

Una vez descargados los datos se volcaron sobre el programa de trabajo como Datos Crudos, y se inició la fase de proceso de baselíneas. Todas las baselíneas calculadas han resuelto las ambigüedades, lo que se pone de manifiesto en los reportes de información que de cada una de ellas se han generado.

En el cálculo de las baselíneas se tuvieron en cuenta los valores de offset de los centros de fase que indica el constructor:

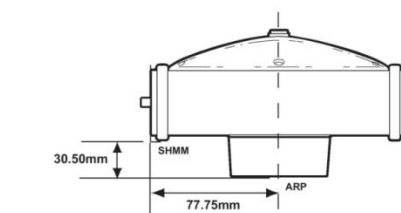
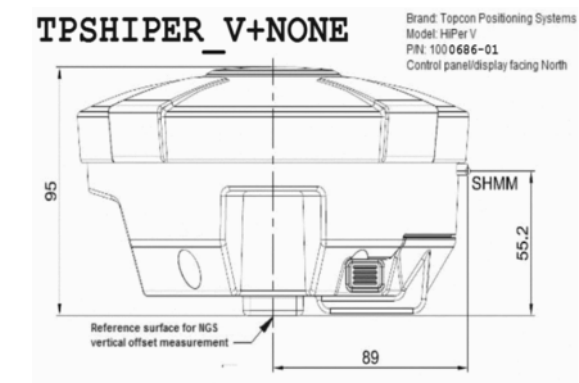


Figura 3-1. Desviaciones de la Antena del HIPer+

- Desviación vertical SHMM a ARP = 30.50mm
- Desviación vertical SHMM a ARP = 77.75mm

Table 3-1. Mediciones de la Desviación de la Antena del HIPer+

	A Centro de Fase L1	A Centro de Fase L2
Hacia arriba	102mm	94mm



En primer lugar, se inició el cálculo a partir de las observaciones RINEX de la ERGNSS, fijando las coordenadas en el sistema de referencia ETRS89 que fueron facilitadas por el IGN y los organismos competentes.

Desde ellas, se fueron calculando los vectores de cada una de las baselíneas, fijando las coordenadas de los puntos medidos en el avance progresivo que se iba realizando. Al llegar a datos de coordenadas de estaciones por diferentes caminos se estudiaron las discrepancias, y se prosiguió el cálculo desde ésta con el promedio obtenido entre los valores (diferencias medias). De esta forma, y de forma progresiva, se fueron determinando las coordenadas de los vértices observados en una primera aproximación.

Una vez confirmada la precisión de la observación, se realizó un segundo cálculo que era el que se consideraría definitivo para determinar las coordenadas en el sistema de referencia ETRS89 de los vértices de la propia Red Básica.

A partir de estos datos se obtuvieron unos valores de las coordenadas promediadas de todos los vértices de la Red.

Estas coordenadas, obtenidas se consideraron como coordenadas "a priori" en el posterior proceso de cálculo y compensación de la red por el método de los mínimos cuadrados.

Se realizó un Ajuste por Mínimos Cuadrados tomando como puntos fijo de control, el vértice ERGNSS de la RAP, para obtener unas coordenadas definitivas del resto de vértices de la Red.

De este proceso se obtiene un reporte del Ajuste de la Red, donde se comprueba la bondad de los resultados, que se incluye en el apéndice correspondiente, y se obtienen las coordenadas ajustadas para los vértices observados.

Finalizado este proceso de control y cálculo de vectores, se procedió al cálculo de los cierres de las figuras geométricas que se podían formar con las baselíneas efectuadas, de tal forma que el cierre de cada triángulo espacial fuera menor a 0,03 m. en las tres componentes del vector.

El programa utilizado (LGO) contiene un módulo para el cálculo de los cierres espaciales indicados, denominado MOVE 3 Versión 3.4.

Una vez comprobada la bondad de los errores obtenidos, se procedió a compensar la Red Básica mediante el procedimiento de mínimos cuadrados.

3.2.2. Compensación y ajuste de la red básica

Finalizado el proceso de vectores y cálculo de cierres de los polígonos espaciales, se procedió al cálculo y compensación de todas las observaciones con el método de ajuste por mínimos cuadrados.

Para realizar este ajuste se consideraron como coordenadas de partida "a priori" las que se habían obtenido para los vértices de la Red Básica en las diferencias medias. Los vértices que se fijaron en el cálculo fueron los correspondientes a la Red REGENTE y ERGNSS, facilitada por el IGN y la RAP en el ajuste.

El programa de cálculo LGO contiene un módulo denominado MOVE Versión 3.4 para Diseño y Ajuste de Redes Geodésicas, con el que se ha realizado el cálculo. Los datos de entrada de las observaciones ajustadas fueron:

Adjustment

Type:	Minimally constrained
Dimension:	3D
Coordinate system:	WGS 1984
Height mode:	Ellipsoidal
Number of iterations:	1
Maximum coord correction in last iteration:	0.0000 m  (tolerance is met)

Stations

Number of (partly) known stations:	1
Number of unknown stations:	10
Total:	11

Observations

GPS coordinate differences:	75 (25 baselines)
Known coordinates:	3
Total:	78

Unknowns

Coordinates:	33
Total:	33

Degrees of freedom:	45
---------------------	----

Testing

Alfa (multi dimensional):	0.5393
Alfa 0 (one dimensional):	5.0 %
Beta:	80.0 %
Sigma a-priori (GPS):	25.0
Critical value W-test:	1.96
Critical value T-test (2-dimensional):	2.42
Critical value T-test (3-dimensional):	1.89
Critical value F-test:	0.96
F-test:	0.55  (accepted)

Los datos del elipsoide en el que se ha efectuado el cálculo, ETRS89, son los siguientes

- Semi-eje mayor: 6.378.137,0000 m.
- Aplanamiento: 1/298,257223563.

La desviación estándar "a priori" que se fijó en el cálculo para las líneas GPS fue de 0.005 m + 1ppm. Del cálculo realizado se indican a continuación los valores de las elipses de error absolutas al 95% del nivel de confianza.

Las precisiones de las coordenadas compensadas de los vértices de la Red Básica, en el sistema de referencia ETRS89 (en coordenadas geográficas de Latitud y Longitud y Altura Elipsoidal), y precisión interna de las mismas, expresada según el valor de la desviación estándar al 95% del nivel de confianza, se indican en su apéndice correspondiente dentro de este mismo documento.

8001	Latitude	37° 22' 42.11604" N	-0.0025 m	0.0161 m	
	Longitude	5° 58' 44.19968" W	0.0039 m	0.0154 m	
	Height	58.1878 m	0.0034 m	0.0204 m	
8002	Latitude	37° 22' 41.56896" N	-0.0041 m	0.0159 m	
	Longitude	5° 58' 41.57802" W	0.0001 m	0.0151 m	
	Height	58.1468 m	0.0100 m	0.0291 m	
8007	Latitude	37° 22' 38.24977" N	-0.0017 m	0.0157 m	
	Longitude	5° 58' 30.30085" W	0.0028 m	0.0146 m	
	Height	59.0411 m	0.0068 m	0.0327 m	
8008	Latitude	37° 22' 40.61471" N	-0.0001 m	0.0157 m	
	Longitude	5° 58' 29.48612" W	0.0030 m	0.0145 m	
	Height	58.7449 m	0.0036 m	0.0287 m	
8100	Latitude	37° 23' 18.46079" N	0.0014 m	0.0166 m	
	Longitude	5° 58' 23.72018" W	-0.0005 m	0.0144 m	
	Height	60.0321 m	-0.0034 m	0.0293 m	
8101	Latitude	37° 23' 13.90078" N	0.0014 m	0.0190 m	
	Longitude	5° 58' 19.15466" W	-0.0005 m	0.0151 m	
	Height	60.3011 m	-0.0034 m	0.0214 m	
8102	Latitude	37° 22' 58.83902" N	0.0015 m	0.0155 m	
	Longitude	5° 58' 23.34487" W	-0.0006 m	0.0141 m	
	Height	60.2383 m	-0.0035 m	0.0279 m	
8103	Latitude	37° 22' 56.52558" N	0.0014 m	0.0157 m	
	Longitude	5° 58' 24.28015" W	-0.0005 m	0.0140 m	
	Height	60.1883 m	-0.0034 m	0.0280 m	
8104	Latitude	37° 22' 49.64129" N	0.0013 m	0.0154 m	
	Longitude	5° 58' 25.90150" W	-0.0006 m	0.0140 m	
	Height	58.1667 m	-0.0038 m	0.0275 m	
8105	Latitude	37° 22' 46.80512" N	0.0016 m	0.0154 m	
	Longitude	5° 58' 27.44295" W	-0.0005 m	0.0139 m	
	Height	58.2930 m	-0.0032 m	0.0272 m	
SEV1	Latitude	37° 24' 39.19786" N	0.0000 m	-	fixed
	Longitude	6° 00' 07.92324" W	0.0000 m	-	fixed
	Height	69.7169 m	0.0000 m	-	fixed

3.2.3. Cálculo de la nivelación geométrica

El cálculo se ha realizado compensando los desniveles de ida y los de vuelta, siempre que estos estuviesen dentro de las tolerancias de $\pm 7\sqrt{K}$.

4. Bases de replanteo

Esta fase de trabajo se ha realizado con anterioridad a la realización de los trabajos de toma de datos para los levantamientos con estación total para la radiación de todos lo elementos, tanto planimétricos como altimétricos, que definan con exactitud la zona de proyecto para su posterior representación cartográfica, y con posterioridad al cálculo y ajuste de la Red Básica.

Fundamentalmente se consiste en:

- Materialización de las Bases de Replanteo.
- Observación mediante poligonal clásica
- Cálculo de las coordenadas de las Bases de Replanteo.

De cada una de las bases se ha realizado una reseña indicando, tanto de forma gráfica como literal la ubicación de cada una de ellas.

4.1. Materialización de las bases de replanteo

La densificación de la Red Básica se hace necesaria para poder llevar coordenadas a las zonas de trabajos a levantar con estación total.

La dificultad en el acceso a las zonas, la topografía del terreno, y las condiciones climatológicas han sido factores que han determinado de manera muy significativa la ubicación de esta Red de Bases de Replanteo.

La mayoría de las Bases de Replanteo se han apoyado en objetos estables del terreno como arquetas y elementos de vía, mediante clavos de acero y/o marcas grabadas sobre los mismos.

4.2. Observación de las bases de replanteo

4.2.1. Observación clásica

Las bases de replanteo se observaron con procedimientos de topografía clásica. Dichos procedimientos se basaron en todos los casos en la realización de poligonales de precisión. Para ello se realizaron:

- Observaciones angulares aplicando el método de la regla de Bessel, realizando lecturas en CD y CI, eliminando los errores sistemáticos del instrumento.
- Medición electrónica de distancias, en los dos sentidos del tramo medido.

El inicio y final de los itinerarios se realizó a partir de los vértices de la Red Básica que se habían enlazado por procedimientos GPS a la Red ERGNSS.

Cuando fue posible no se realizaron únicamente observaciones topográficas entre un vértice y sus inmediatos anterior y siguiente, sino que, con objeto de disponer de la mayor redundancia de datos posibles, se realizaron observaciones con todos aquellos que eran intervisibles.

Esta superabundancia de datos se empleó, con sus tratamientos correspondientes, en los posteriores ajustes de la red que se realizaron en cada zona de actuación.

4.3. Cálculo de las coordenadas de las bases de replanteo

4.3.1. Cálculo clásica

La descarga de los datos registrados durante la fase de observación se realizó directamente desde el receptor a PC mediante cable.

Todo el proceso de cálculo de la Red de Bases de Replanteo se realizó en el sistema de referencia ETRS89, en 3D, con el programa de cálculo Topcal21

En primer lugar se calcularon las poligonales principales partiendo de las coordenadas conocidas de la Red Básica, las cuales se compensaron dentro de las tolerancias admitidas.

Debido a la gran redundancia de observaciones, una vez calculadas todas las coordenadas de las bases de replanteo en distintas poligonales, se procede al ajuste por Mínimos Cuadrados del total de las observaciones.

Cálculo de la nivelación geométrica

El 100% de las bases de la Red Básica están niveladas geométricamente, así como el 100% de las bases de replanteo que se utilizan en la radiación de elementos, y el 80% de las bases de replanteo que se usan como parte de los itinerarios.

Las bases de replanteo que no se nivelan geométricamente se ajustan mediante el cálculo altimétrico de las observaciones cenitales recíprocas y simultáneas de las observaciones por clásica.

4.4. Instrumentación

Para la observación GNSS se han utilizado 3 receptores GNSS de la casa TOPCON del modelo Hiper V.

Para la nivelación geométrica de la Red Básica se ha utilizado un nivel digital de la casa Leica, modelo Sprinter 250M.

Para las observaciones por topografía clásica se utiliza una estación total Geomax Zoom90

5. Levantamiento topográfico

Estos levantamientos han consistido en la radiación en campo todos los elementos planimétricos y altimétricos necesarios para representar a escala 1/500 toda la superficie de la zona de estudio.

Así mismo se han identificado y representado los servicios afectados en superficie, y los subterráneos del mismo modo mediante la información de la tapa de cada registro.

Se han representado fielmente tanto la señalización vertical como la señalización horizontal, diferenciando claramente las zonas de aparcamiento, flechas indicadoras de dirección, líneas discontinuas, límites de velocidad y señalización para peatones.

6. Edición cartográfica

6.1. Procesos de la edición cartográfica

Los criterios que se cumplieron a la hora de la elaboración de la cartografía objeto de este proyecto han sido los siguientes:

- Cuando una entidad tanto lineal como superficial por razón de sus dimensiones se extendía más allá de una hoja, los puntos de conexión de los distintos fragmentos pertenecientes a la misma entidad poseen coordenadas idénticas.
- Si dos elementos lineales se superponen o coinciden, bien a lo largo de un tramo, bien en su totalidad, la zona común a ambos registra las mismas coordenadas en una entidad que en la otra.
- Las líneas de entidades que son paralelas se generaron manualmente para garantizar la calidad en la representación gráfica e impresión visual. Lo mismo se tuvo en cuenta a la hora de la realización de ángulos rectos en esquinas y demás, así como acuerdos tangenciales.
- Se aplicó simbología cartográfica a todos aquellos elementos que por sus dimensiones en la realidad la requieran a la hora de su representación cartográfica.

En cuanto a criterios a la hora de codificar los objetos cartográficos se han distribuido en capas de acuerdo a lo especificado por ESTUDIO CARTOGRAFICO GEA S.A. a la Dirección Facultativa, respetando para ello la codificación marcada.

La descripción geométrica en función de la primitiva gráfica que representa cada entidad es:

- Puntual: Cuando el elemento a representar se identifica por un solo punto con coordenadas tridimensionales. Si es necesario en función de su naturaleza, podrá ir acompañado por atributos alfanuméricos.
- Lineal: Cuando el elemento a representar tiene continuidad lineal como forma de entidad geométrica, pudiendo estar compuesto por uno o más tramos.
- Superficial: Cuando el elemento a representar tiene continuidad como elemento lineal cerrado, formando el contorno del objeto en sí.

En lo referente a las relaciones topológicas de los objetos cartográficos a representar, se consideraron las usuales de coincidencia, conectividad, inclusión, etc. A partir de estos criterios, se definen a nivel topológico dos elementos: el nodo y el tramo. El nodo es el elemento que establece una relación de conectividad entre tramos de un elemento cartográfico lineal, y establece una discontinuidad entre estos. El tramo así mismo será el objeto cartográfico fundamental a nivel lineal. El tramo estará compuesto por un tipo de polilíneas: las formadas por segmentos de recta como sucesión de coordenadas tridimensionales de los vértices geométricos. Todos los tramos en cuestión están delimitados entre dos nodos consecutivos.

6.1.1. Volcado y toponimia

Los datos tomados en la revisión, a los cuales se añade la toponimia correspondiente, se han volcado en las minutas. Tanto en los planos como en los ficheros gráficos se reflejan los topónimos de la zona; a este efecto se rotularon los accidentes principales del relieve (sierras, cerros, picos, collados,

desfiladeros, parajes, etc.), y la hidrografía (ríos, arroyos, lagos, embalses, canales, manantiales, fuentes, etc.).

Igualmente se han rotulado, todos los núcleos de población y construcciones aisladas de importancia (monasterios, ermitas, fábricas, granjas, etc.).

Los caminos, sendas, cañadas, etc. lo han sido cuando poseían nombre propio, tomándolo del catálogo oficial del organismo competente.

Todas las vías de comunicación incluyen un topónimo que indique la población más cercana cuando salga de la zona restituida.

Los topónimos se extrajeron de fuentes informativas legales, adoptándose la denominación local en el caso de no existir información oficial sobre el topónimo.

6.1.2. Procesos

La edición garantiza que el soporte contenga los detalles planimétricos y altimétricos de origen artificial o natural del terreno, especificados el Pliego de condiciones.

La edición se estructuró en función de una serie de fases de volcado de datos y una serie de controles de calidad, comprobando que no se han efectuado errores o subsanando los producidos.

EDICIÓN PLANIMÉTRICA

La edición planimétrica, en primer lugar, consiste en un chequeo previo de la información restituida, obteniendo un "Original-Borrador". Este "Original-Borrador" es el empleado como se ha indicado en la revisión.

La revisión se completa con un segundo chequeo en gabinete, donde se vuelca la información recogida en soporte papel al soporte digital, con tantas modificaciones y correcciones como sean oportunas para la correcta transcripción de la información.

La fase de edición planimétrica, concluye integrando la unión automática, al soporte digital resultante del volcado de la información recogida en campo, y su posterior salida gráfica para una segunda revisión.

Edición Altimétrica

En primer lugar, se procede a realizar una serie de controles de la información altimétrica obtenida mediante el proceso de restitución. Estos chequeos contemplarán la correcta definición altimétrica del "Original-Borrador".

Tras la revisión y con la información obtenida, se efectuó una edición altimétrica de esas zonas, realizando el curvado independientemente e incluyendo esa información a la minuta que, con la ayuda de programas generados a tal efecto, proporcionarán el correcto encaje de la nueva información obtenida en campo y el "Original-Borrador".

En esta fase se emplea el modelo digital del terreno para la detección de elementos volcados con una cota errónea, y su posterior modificación.

EDICIÓN DIGITAL

La edición final, tiene la finalidad de aplicar el control de calidad informático establecido para el soporte digital. Además del proceso de validación, en esta fase se procede a la corrección de los errores producto de la aplicación de estas validaciones. Esta secuencia se repite hasta llegar al error cero. Una vez validado el soporte se procede a su salida gráfica y digital.

Con la validación del soporte digital se aseguró que los trabajos realizados cumplen las normas métricas y estructurales establecidas en el Pliego de Condiciones. Por ello, todas y cada una de las fases del trabajo lleva asociada una fase de control. Estos procesos de validación están definidos en el control de calidad y son los siguientes:

- Control de Mapas, afecta a la georeferenciación.
- Control de Codificación, afecta a la estructura del soporte digital.
- Control Geométrico, se prepara la cartografía para las futuras creaciones topológicas.
- Control Altimétrico, afecta a la fiabilidad Altimétrica.
- Coplanareidad entre curvas de nivel.
- Altimetría asociada a las curvas de nivel.
- Correspondencia Altimétrica entre los puntos de cota y curvas de nivel.
- Correspondencia Altimétrica entre las distintas entidades.
- Saltos bruscos en cota.
- Control de Continuidad Analítica entre Mapas del mismo Lote.

6.1.3. Generación de producto final

Como producto final de la edición cartográfica se entregan:

- Ficheros en formato DWG acordados con la Dirección Técnica, en soporte DVD o CD. Entrega de las series cartográficas para escala 1/500.
- Fichero de forma continua, en la distribución de tramos determinada por la dirección técnica.

- Ficheros de recursos de CAD.
- Modelo de codificación de datos alfanuméricos empleado.

Apéndices

Apéndice 1. Red oficial. Reseñas

1.1 Reseñas ERGNSS



Área de Geodesia

Subdirección General de Geodesia y Cartografía

Reseña de Estación Permanente - ERGNSS

24-nov-2018

Situación:

Código.....: **SEV1**
Nombre.....: **Sevilla**
Código IERS: 17003M001
Instalación...: 25 de octubre de 2017

Municipio: Sevilla

Provincia: Sevilla

Localización.: Edificio de laboratorios de la Escuela Técnica Superior de Ingeniería, Universidad de Sevilla. Intersección de Camino de los Descubrimientos con la Calle Euclides

Construcción: Bloque de hormigón armado de 0.5 m de altura. La marca de coordenadas se encuentra en el interior de la pieza metálica donde se enrosca la antena.

Coordenadas ETRS89:

Longitud.....: - 6° 00' 07,92324"
Latitud.....: 37° 24' 39,19784"
Altitud elipsoidal: 69.717 m.

X.....: 5044666.858 m.

Y.....: -530411.774 m.

Z.....: 3853755.376 m.

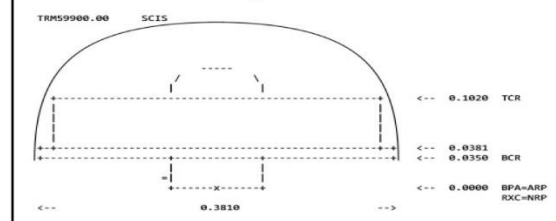
X UTM.....: 765322.235 m.
Y UTM.....: 4144674.181 m.
Huso.....: 29

Altitud sobre el nivel medio del mar:

Instrumentación:

Receptor: TRIMBLE NETR9
Antena: TRM59900.00 SCIS Altura: 0.0350 m. (BPA)
Offset de centros de fase de antena: L1 0.111 m. L2 0.125 m.

Esquema antena



Información adicional:

Esta estación permanente, además de a la red ERGNSS, pertenece a la siguiente red:

- Red Andaluza de Posicionamiento:

<http://www.ideandalucia.es/portal/web/portal-posicionamiento>

Datos horarios a 1, 5, 15 y 30 segundos y diarios a 30 segundos

<ftp://ftp.geodesia.ign.es>

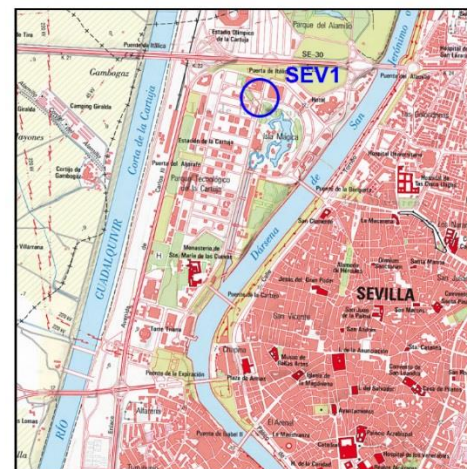
Datos horarios a 1 segundo y diarios a 30 segundos:

[Consulta de datos RINEX](#)

Emite correcciones diferenciales a través del Caster <http://ergnss-ip.ign.es>

E-mail de contacto IGN: buzon-geodesia@fomento.es

E-mail de contacto RAP: rap.ieca@juntadeandalucia.es



Observaciones:



1.2 Reseña referencia altimétrica



Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
 Tramo: San Bernardo - Centro Nervión



Reseña de Vértice Topográfico

Nombre del vértice topográfico: **5006** Municipio: Sevilla
 Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 29.03665"	X (UTM):	236605,342
Latitud	37° 22' 41.56612"	Y (UTM):	4140983,131
Anamorfosis :	1.00045435	Alt Orto :	8,888
		Converg. :	-1° 48' 25"

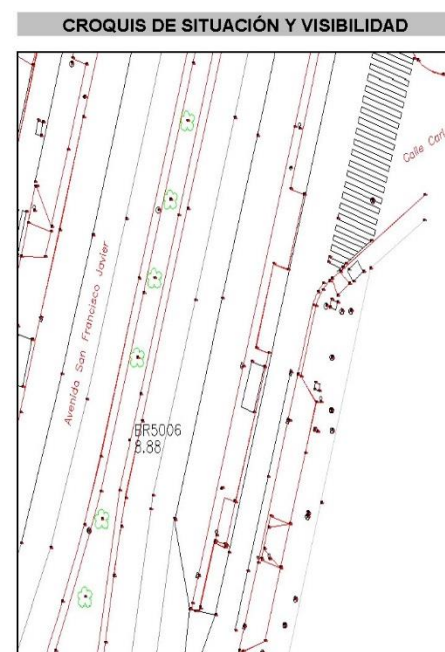
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero Instalación: 01/08/2018

Situación:

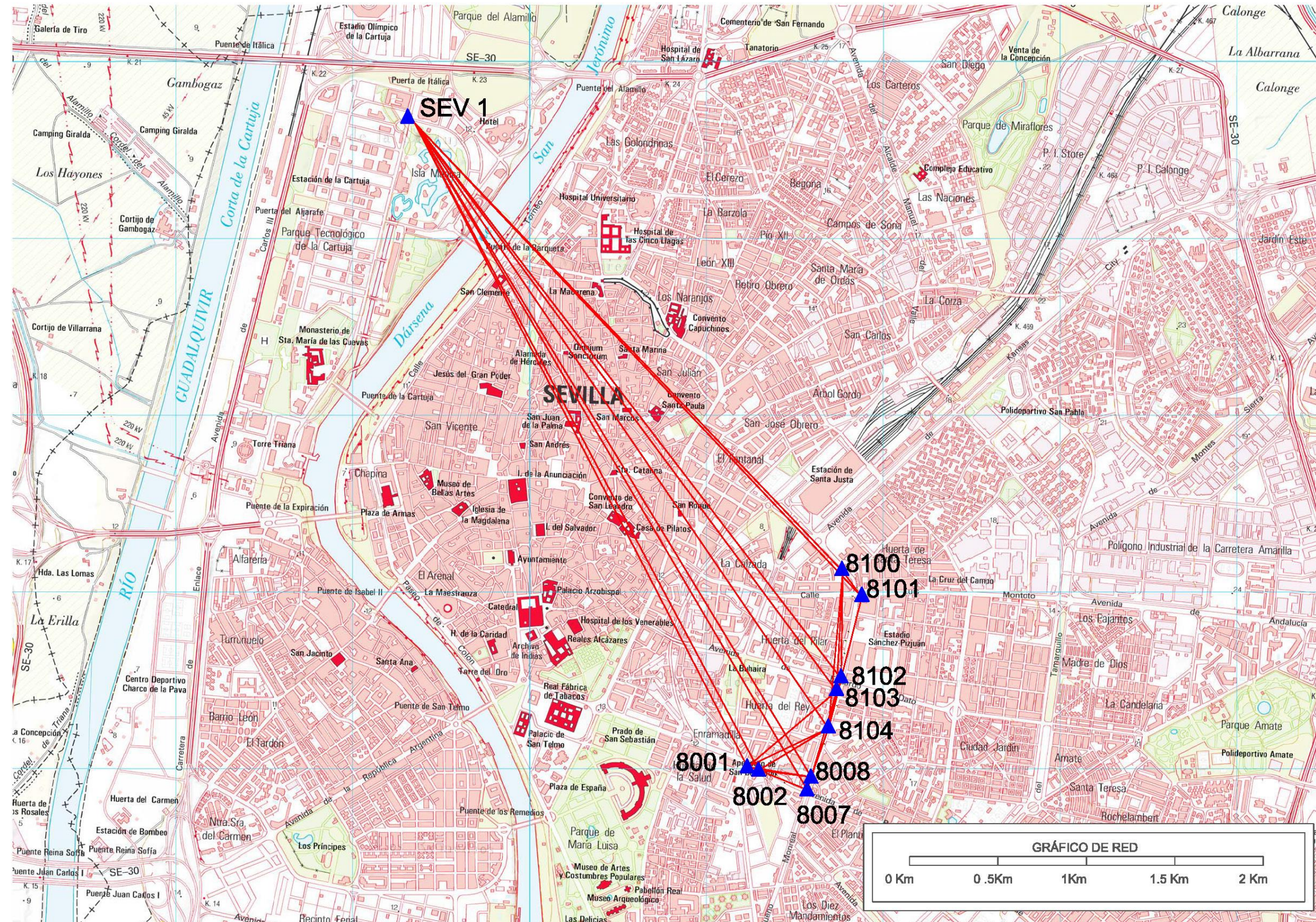
Base situada en medianera de la Av.De San Francisco Javier, en el lado izquierdo sentido Calle Camilo José Cela, frente al número 21.

Acotaciones: A:Árbol=7,87; B:Árbol=6,95;C: Perpendicular al bordillo=0,99

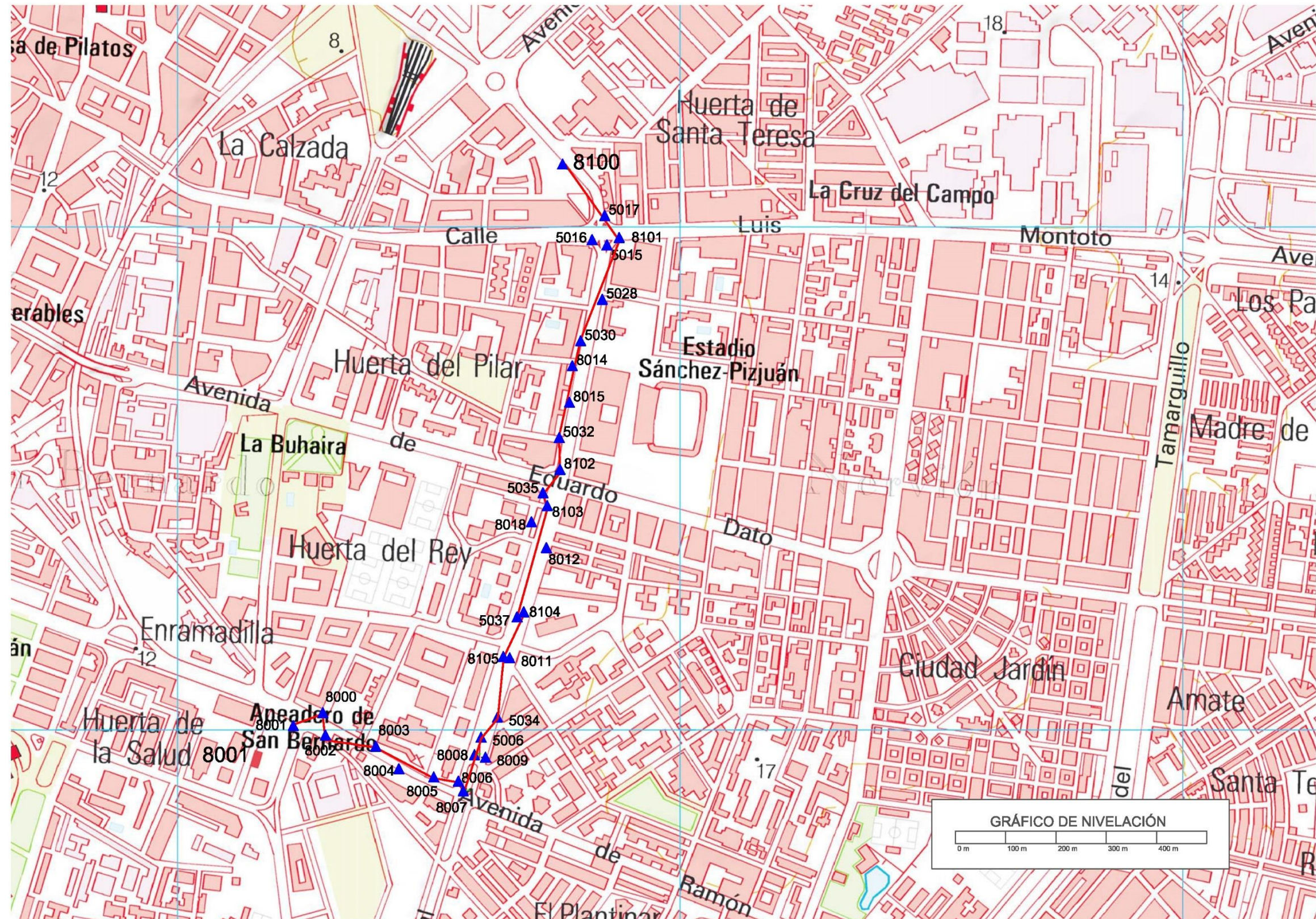


Apéndice 2. Gráficos

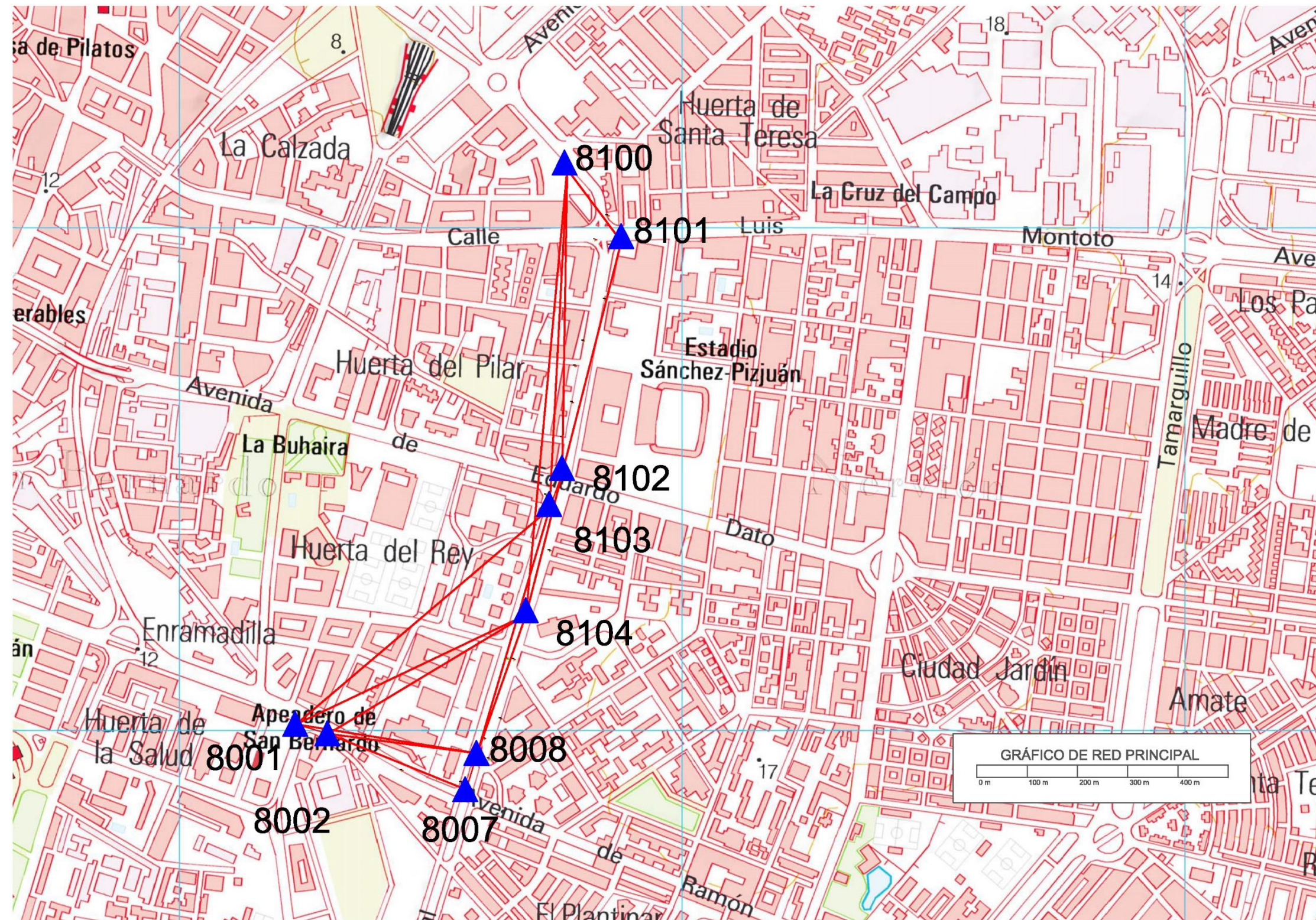
Apéndice 2. 1 Enlace con la Geodesía



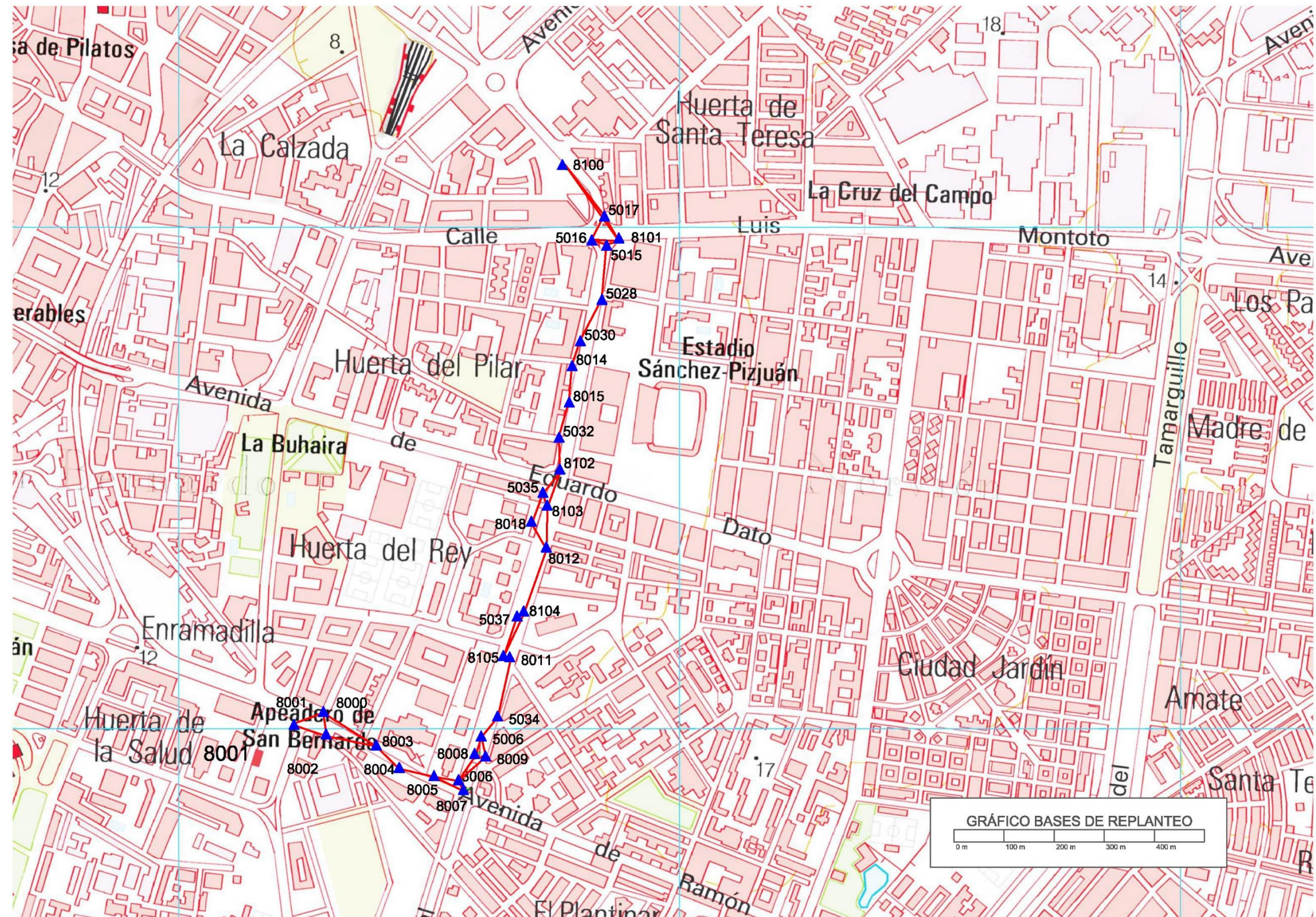
Apéndice 2.2 Gráfico de nivelación



Apéndice 2.3 Gráfico de Red principal



Apéndice 2.4 Gráfico de Red de Replanteo



Apéndice 3. Red Básica Nivelación Geométrica

3.1 Libreta de Campo

Punto	Lectura espalda	Lectura frente	Desnivel	Elevación	Distancia espalda	Distancia frente
5006	1,2436			8,8880	25,198	
1	1,9673	1,3707	-0,1270	8,7610	35,301	33,648
8007	1,4231	1,4223	0,5450	9,3059	35,554	41,971
8006	1,6832	1,6828	-0,2597	9,0462	20,495	20,506
8005	1,5970	1,6327	0,0506	9,0968	32,465	29,362
3	1,5621	1,6271	-0,0301	9,0666	28,745	47,681
8003	1,3849	1,6866	-0,1245	8,9421	48,263	24,050
8002	1,7273	1,9200	-0,5351	8,4070	28,748	58,371
8000	1,5674	1,5320	0,1953	8,6023	24,306	12,427
8001	1,7515	1,7379	-0,1704	8,4319	43,771	43,165
8000	1,5923	1,5813	0,1702	8,6021	29,349	24,020
8002	1,7875	1,7874	-0,1951	8,4070	30,082	30,099
3	1,5782	1,4462	0,3413	8,7483	27,333	26,344
8003	1,5454	1,3839	0,1943	8,9425	29,504	42,239
4	1,6169	1,4117	0,1336	9,0762	29,270	32,164
8005	1,6391	1,5992	0,0178	9,0939	27,213	39,728
8006	1,6891	1,6895	-0,0504	9,0435	22,707	22,694
8007	1,2042	1,4273	0,2618	9,3053	37,199	37,586
5	1,2852	1,6363	-0,4320	8,8732	23,172	43,568
5006	1,2888	1,2733	0,0119	8,8851	34,407	26,337
5006	1,2887	1,2884	0,0004	8,8880	34,393	34,409
5039	1,7772	1,7771	-0,4884	8,3996	23,482	23,485
6	1,6812	1,8118	-0,0346	8,3649	38,527	48,003
8105	1,6065	1,4869	0,1943	8,5592	43,555	49,282
8104	1,7831	1,7415	-0,1350	8,4242	39,174	51,821
5037	1,5211	1,5215	0,2615	8,6858	48,513	48,547
9	1,8620	1,5162	0,0049	8,6907	39,154	58,579
10	2,0929	0,9281	0,9340	9,6246	27,277	39,464
8103	1,6999	1,2970	0,7959	10,4206	37,986	26,730
5035	1,7379	1,7374	-0,0375	10,3831	34,555	34,473
8102	0,8799	1,6540	0,0839	10,4670	44,946	42,087
5032	1,8307	1,8302	-0,9504	9,5167	41,278	41,304
12	1,2030	1,5114	0,3193	9,8360	58,539	51,110
13	1,3047	1,3226	-0,1197	9,7163	46,641	44,016
5030	1,5737	1,4028	-0,0980	9,6183	50,195	43,667
13	1,5334	1,1001	0,4736	10,0919	28,907	64,159
14	1,4250	1,1652	0,3682	10,4600	21,534	44,912
8101	1,4660	1,3902	0,0349	10,4949	32,043	16,561
15	1,5628	1,6008	-0,1348	10,3601	54,944	41,225

Punto	Lectura espalda	Lectura frente	Desnivel	Elevación	Distancia espalda	Distancia frente
8100	1,7053	1,7058	-0,1430	10,2171	58,867	58,876
5025	1,6850	1,6317	0,0736	10,2907	37,249	29,139
5026	1,5766	1,6155	0,0695	10,3603	47,022	41,083
8101	1,4434	1,4442	0,1324	10,4927	60,469	60,476
17	1,4347	1,4762	-0,0328	10,4598	46,095	32,067
18	1,3132	1,9963	-0,5617	9,8982	44,394	64,971
19	1,4705	1,5718	-0,2586	9,6395	42,045	45,534
20	1,4743	1,5224	-0,0519	9,5877	35,665	47,176
5032	2,0846	1,5479	-0,0736	9,5140	44,866	38,355
8102	1,7486	1,1354	0,9493	10,4633	41,359	29,119
8103	0,6867	1,7940	-0,0453	10,4180	47,087	43,953
30	0,6046	1,7195	-1,0328	9,3851	42,455	39,059
31	1,4476	1,3061	-0,7014	8,6837	49,345	47,796
8104	1,7127	1,7126	-0,2651	8,4186	12,073	12,060
5037	1,4003	1,4492	0,2635	8,6821	41,638	7,415
8105	1,4461	1,5294	-0,1292	8,5530	44,282	41,491
32	1,5612	1,4207	0,0254	8,5783	38,886	39,100
8010	1,3690	1,3691	0,1922	8,7705	4,279	4,276
5006		1,2530	0,1159	8,8864		44,069

3.2 Cálculo de la nivelación

BASES	ida	vuelta	error	desnivel	cota definitiva
					8,888
5006 8007	0,4179	-0,4201	-0,0022	0,4190	9,307
8007 8006	-0,2597	0,2618	0,0020	-0,2607	9,046
8006 8005	0,0506	-0,0504	0,0001	0,0505	9,097
8005 8003	-0,1546	0,1514	-0,0033	-0,1530	8,944
8003 8002	-0,5351	0,5356	0,0005	-0,5353	8,408
8002 8000	0,1953	-0,1951	0,0002	0,1952	8,604
8000 8001	-0,1704	0,1702	-0,0002	-0,1703	8,433
	cotas parciales ida	cotas parciales vuelta	error	cota definitiva	
5006 5039	8,3996	8,3996	0,0000	8,400	
5039 8105	8,5592	8,5530	0,0063	8,556	
8105 8104	8,4242	8,4186	0,0056	8,421	
8104 5037	8,6858	8,6858	0,0000	8,686	
5037 8103	10,4206	10,4180	0,0026	10,419	
8103 5035	10,3831	10,3831	0,0000	10,383	
5035 8102	10,4670	10,4633	0,0037	10,465	
8102 5032	9,5167	9,5140	0,0026	9,515	
5032 8101	10,4949	10,4927	0,0023	10,494	
8101 8100	10,2171	10,2171	0,0000	10,217	
8100 5025	10,2907				
5026 5026	10,3603				
5026 8101	10,4927				
8101 5032	9,5140				
5032 8102	10,4633				
8102 8103	10,4180				
8103 8104	8,4186				
8104 5037	8,6821				
8037 8105	8,5530				

Apéndice 4. Baselines

Reference Id	Rover Id	GNSS Type	Start	Duration	Type	Frequency	dX	dY	dZ	Posn. Qlty	Hgt. Qlty	Posn. + Hgt. Qlty	Slope Distance	Sd. Slope Distance	Ref. Ant Hgt.	Rov. Ant. Hgt.	Sd. X	Sd. Y	Sd. Z
8101	8100	GPS	08/10/2018 8:49	37' 51"	Static	L1 + L2	-967.960	-1.027.960	1.115.339	0.0003	0.0004	0.0005	1.799.341	0.0002	13.700	14.250	0.0004	0.0002	0.0003
8103	8100	GPS	08/10/2018 8:57	29' 17"	Static	L1 + L2	-4.070.593	564.432	5.372.333	0.0002	0.0003	0.0003	6.763.895	0.0001	14.400	14.250	0.0003	0.0001	0.0001
8103	8102	GPS	08/10/2018 9:05	1h 00' 08"	Static	L1 + L2	-406.288	273.809	567.065	0.0002	0.0003	0.0004	749.403	0.0001	14.400	14.650	0.0003	0.0001	0.0002
8101	8102	GPS	08/10/2018 9:05	22' 36"	Static	L1 + L2	2.688.545	-1.314.392	-3.721.667	0.0421	0.0506	0.0658	4.775.636	0.0333	13.700	14.650	0.0441	0.0279	0.0401
8103	8104	GPS	08/10/2018 9:45	21' 03"	Static	L1 + L2	1.223.989	-529.073	-1.698.794	0.0003	0.0007	0.0008	2.159.623	0.0002	14.400	14.700	0.0006	0.0002	0.0004
8105	8102	GPS	08/10/2018 9:45	20' 15"	Static	L1 + L2	-2.119.856	1.235.563	2.959.824	0.0002	0.0004	0.0004	3.844.602	0.0001	14.680	14.650	0.0003	0.0001	0.0002
8105	8104	GPS	08/10/2018 9:45	58' 07"	Static	L1 + L2	-489.486	432.519	694.026	0.0001	0.0002	0.0002	953.069	0.0001	14.680	14.700	0.0002	0.0001	0.0002
8008	8104	GPS	08/10/2018 10:15	28' 23"	Static	L1 + L2	-1.593.018	1.053.406	2.207.836	0.0003	0.0008	0.0009	2.919.231	0.0002	15.530	14.700	0.0006	0.0002	0.0006
8008	8007	GPS	08/10/2018 10:23	21' 10"	Static	L1 + L2	421.939	-245.690	-577.325	0.0005	0.0018	0.0019	756.109	0.0004	15.530	14.800	0.0013	0.0002	0.0013
8105	8007	GPS	08/10/2018 10:23	20' 17"	Static	L1 + L2	1.525.000	-866.656	-2.091.633	0.0004	0.0012	0.0012	2.729.770	0.0003	14.680	14.800	0.0008	0.0003	0.0009
8008	8007	GPS	08/10/2018 11:05	26' 33"	Static	L1 + L2	421.617	-245.633	-577.599	0.0002	0.0004	0.0004	756.120	0.0001	14.550	14.930	0.0003	0.0002	0.0002
8008	8001	GPS	08/10/2018 11:07	24' 32"	Static	L1 + L2	-660.726	-3.570.577	364.466	0.0002	0.0004	0.0005	3.649.441	0.0002	14.550	13.720	0.0003	0.0002	0.0002
8002	8001	GPS	08/10/2018 11:11	21' 01"	Static	L1 + L2	-168.633	-630.902	134.302	0.0003	0.0006	0.0007	666.717	0.0002	13.820	13.720	0.0005	0.0003	0.0003
8002	8007	GPS	08/10/2018 11:11	20' 52"	Static	L1 + L2	913.704	2.694.067	-807.758	0.0002	0.0004	0.0004	2.957.250	0.0001	13.820	14.930	0.0003	0.0002	0.0002
SEV1	8101	GPS	08/10/2018 8:49	39' 00"	Static	L1 + L2	18.600.530	24.948.609	-20.948.083	0.0021	0.0028	0.0035	37.513.131	0.0018	0.0350	13.700	0.0027	0.0012	0.0019
SEV1	8103	GPS	08/10/2018 8:57	1h 08' 30"	Static	L1 + L2	21.703.166	23.356.186	-25.204.892	0.0009	0.0016	0.0018	40.642.655	0.0006	0.0350	14.400	0.0014	0.0006	0.0009
SEV1	8105	GPS	08/10/2018 9:45	58' 00"	Static	L1 + L2	23.416.775	22.394.572	-27.597.567	0.0007	0.0015	0.0016	42.561.578	0.0004	0.0350	14.680	0.0011	0.0005	0.0012
SEV1	8008	GPS	08/10/2018 10:15	31' 00"	Static	L1 + L2	24.520.388	21.773.683	-29.111.302	0.0018	0.0050	0.0053	43.849.864	0.0012	0.0350	15.530	0.0033	0.0011	0.0039
SEV1	8008	GPS	08/10/2018 11:00	32' 00"	Static	L1 + L2	24.520.269	21.773.532	-29.111.464	0.0009	0.0015	0.0017	43.849.831	0.0005	0.0350	14.550	0.0013	0.0007	0.0010
SEV1	8002	GPS	08/10/2018 11:11	20' 30"	Static	L1 + L2	24.028.022	18.833.968	-28.881.365	0.0011	0.0017	0.0020	42.026.152	0.0005	0.0350	13.820	0.0016	0.0009	0.0008

Apéndice 5. Ajuste de la Red

1. NETWORK ADJUSTMENT

www.MOVE3.com

(c) 1993-2006 Grontmij

Licensed to Leica Geosystems AG

Created: 11/26/2018 11:15:45

Project Information

Project name:	metro sevilla
Date created:	11/23/2018 11:47:44
Time zone:	2h 00'
Manager:	Jose M ^a Donoso
Client:	Ayesa. Metro Sevilla
Street:	Gea Cartografía S.A.
Coordinate system name:	WGS 1984
Application software:	LEICA Geo Office 5.0
Processing kernel:	MOVE3 3.4

General Information

Adjustment

Type:	Minimally constrained	
Dimension:	3D	
Coordinate system:	WGS 1984	
Height mode:	Ellipsoidal	
Number of iterations:	1	
Maximum coord correction in last iteration:	0.0000 m	(tolerance is met)

Stations

Number of (partly) known stations:	1
Number of unknown stations:	10
Total:	11

Observations

GPS coordinate differences:	75 (25 baselines)
Known coordinates:	3
Total:	78

Unknowns

Coordinates:	33
Total:	33

Degrees of freedom:	45
---------------------	----

Testing

Alfa (multi dimensional):	0.5393	
Alfa 0 (one dimensional):	5.0 %	
Beta:	80.0 %	
Sigma a-priori (GPS):	25.0	
Critical value W-test:	1.96	
Critical value T-test (2-dimensional):	2.42	
Critical value T-test (3-dimensional):	1.89	
Critical value F-test:	0.96	
F-test:	0.55	(accepted)

Results based on a-posteriori variance factor

Adjustment Results

Coordinates

Station		Coordinate	Corr	Prec (95%)	
8001	Latitude	37° 22' 42.11604" N	-0.0025 m	0.0161 m	
	Longitude	5° 58' 44.19968" W	0.0039 m	0.0154 m	
	Height	58.1878 m	0.0034 m	0.0404 m	
8002	Latitude	37° 22' 41.56896" N	-0.0041 m	0.0159 m	
	Longitude	5° 58' 41.57802" W	0.0001 m	0.0151 m	
	Height	58.1468 m	0.0100 m	0.0391 m	
8007	Latitude	37° 22' 38.24977" N	-0.0017 m	0.0157 m	
	Longitude	5° 58' 30.30085" W	0.0028 m	0.0146 m	
	Height	59.0411 m	0.0068 m	0.0387 m	
8008	Latitude	37° 22' 40.61471" N	-0.0001 m	0.0157 m	
	Longitude	5° 58' 29.48612" W	0.0030 m	0.0145 m	
	Height	58.7449 m	0.0036 m	0.0387 m	
8100	Latitude	37° 23' 18.46079" N	0.0014 m	0.0166 m	
	Longitude	5° 58' 23.72018" W	-0.0005 m	0.0144 m	
	Height	60.0321 m	-0.0034 m	0.0393 m	
8101	Latitude	37° 23' 13.90078" N	0.0014 m	0.0190 m	
	Longitude	5° 58' 19.15466" W	-0.0005 m	0.0151 m	
	Height	60.3011 m	-0.0034 m	0.0414 m	
8102	Latitude	37° 22' 58.83902" N	0.0015 m	0.0155 m	
	Longitude	5° 58' 23.34487" W	-0.0006 m	0.0141 m	
	Height	60.2383 m	-0.0035 m	0.0379 m	
8103	Latitude	37° 22' 56.52558" N	0.0014 m	0.0157 m	
	Longitude	5° 58' 24.28015" W	-0.0005 m	0.0140 m	
	Height	60.1883 m	-0.0034 m	0.0380 m	
8104	Latitude	37° 22' 49.64129" N	0.0013 m	0.0154 m	
	Longitude	5° 58' 25.90150" W	-0.0006 m	0.0140 m	
	Height	58.1667 m	-0.0038 m	0.0375 m	
8105	Latitude	37° 22' 46.80512" N	0.0016 m	0.0154 m	
	Longitude	5° 58' 27.44295" W	-0.0005 m	0.0139 m	
	Height	58.2930 m	-0.0032 m	0.0372 m	
SEV1	Latitude	37° 24' 39.19786" N	0.0000 m	-	fixed

Longitude 6° 00' 07.92324" W 0.0000 m - fixed
Height 69.7169 m 0.0000 m - fixed

Observations and Residuals

	Station	Target	Adj obs	Resid	Resid (ENH)	Sd
DX	8105	8104	-48.9477 m	-0.0008 m	-0.0002 m	0.0036 m
DY			43.2521 m	-0.0001 m	-0.0001 m	0.0014 m
DZ			69.4034 m	-0.0008 m	-0.0011 m	0.0035 m
DX	8105	8008	110.3552 m	-0.0033 m	0.0019 m	0.0072 m
DY			-62.0908 m	0.0023 m	-0.0012 m	0.0027 m
DZ			-151.3798 m	-0.0042 m	-0.0054 m	0.0077 m
DX	8105	8007	152.5232 m	-0.0232 m	-0.0095 m	0.0074 m
DY			-86.6585 m	-0.0071 m	-0.0067 m	0.0027 m
DZ			-209.1378 m	-0.0255 m	-0.0333 m	0.0076 m
DX	8104	8008	159.3029 m	-0.0008 m	0.0022 m	0.0072 m
DY			-105.3429 m	0.0023 m	0.0004 m	0.0027 m
DZ			-220.7831 m	-0.0002 m	-0.0009 m	0.0076 m
DX	8104	8007	201.4709 m	0.0057 m	-0.0024 m	0.0074 m
DY			-129.9106 m	-0.0030 m	0.0023 m	0.0028 m
DZ			-278.5411 m	0.0074 m	0.0093 m	0.0075 m
DX	8103	8105	171.3530 m	-0.0062 m	0.0087 m	0.0068 m
DY			-96.1662 m	0.0094 m	0.0016 m	0.0029 m
DZ			-239.2778 m	-0.0034 m	-0.0077 m	0.0049 m
DX	8103	8104	122.4053 m	-0.0063 m	0.0061 m	0.0067 m
DY			-52.9141 m	0.0068 m	0.0003 m	0.0029 m
DZ			-169.8745 m	-0.0050 m	-0.0086 m	0.0047 m
DX	8103	8102	-40.6331 m	0.0043 m	-0.0047 m	0.0058 m
DY			27.3861 m	-0.0052 m	0.0000 m	0.0027 m
DZ			56.7028 m	0.0038 m	0.0061 m	0.0036 m
DX	8102	8105	211.9861 m	-0.0003 m	-0.0040 m	0.0053 m
DY			-123.5523 m	-0.0039 m	-0.0013 m	0.0023 m
DZ			-295.9806 m	-0.0015 m	-0.0009 m	0.0041 m
DX	8102	8104	163.0384 m	0.0054 m	-0.0014 m	0.0052 m
DY			-80.3002 m	-0.0020 m	-0.0001 m	0.0023 m
DZ			-226.5772 m	0.0042 m	0.0069 m	0.0039 m
DX	8101	8103	310.2636 m	-0.0032 m	0.0003 m	0.0085 m
DY			-159.2387 m	0.0006 m	0.0043 m	0.0032 m
DZ			-425.6970 m	0.0029 m	-0.0008 m	0.0055 m
DX	8100	8103	407.0616 m	-0.0025 m	-0.0001 m	0.0057 m
DY			-56.4431 m	0.0002 m	0.0012 m	0.0021 m
DZ			-537.2325 m	-0.0004 m	-0.0022 m	0.0031 m
DX	8100	8102	366.4285 m	0.0310 m	-0.0037 m	0.0078 m
DY			-29.0570 m	-0.0069 m	-0.0151 m	0.0033 m
DZ			-480.5298 m	0.0052 m	0.0282 m	0.0046 m
DX	8100	8101	96.7981 m	-0.0021 m	0.0002 m	0.0083 m
DY			102.7956 m	0.0004 m	0.0026 m	0.0032 m
DZ			-111.5356 m	0.0017 m	-0.0006 m	0.0054 m

DX	SEV1	8105	2341.6689 m	0.0091 m	0.0050 m	0.0160 m
DY			2239.4536 m	0.0041 m	0.0032 m	0.0077 m
DZ			-2759.7671 m	0.0107 m	0.0133 m	0.0125 m
DX	SEV1	8103	2170.3160 m	0.0009 m	-0.0005 m	0.0166 m
DY			2335.6197 m	-0.0006 m	-0.0010 m	0.0078 m
DZ			-2520.4893 m	-0.0005 m	0.0005 m	0.0125 m
DX	SEV1	8100	1763.2543 m	0.0208 m	-0.0029 m	0.0173 m
DY			2392.0629 m	-0.0051 m	-0.0119 m	0.0080 m
DZ			-1983.2567 m	0.0012 m	0.0176 m	0.0128 m
DX	8002	8008	49.2106 m	0.0065 m	-0.0047 m	0.0058 m
DY			293.9679 m	-0.0055 m	-0.0021 m	0.0033 m
DZ			-23.0147 m	0.0028 m	0.0073 m	0.0036 m
DX	8002	8007	91.3785 m	-0.0081 m	0.0057 m	0.0058 m
DY			269.4002 m	0.0066 m	0.0029 m	0.0032 m
DZ			-80.7727 m	-0.0031 m	-0.0089 m	0.0036 m
DX	8001	8008	66.0796 m	-0.0069 m	0.0034 m	0.0060 m
DY			357.0536 m	0.0042 m	0.0009 m	0.0034 m
DZ			-36.4421 m	-0.0045 m	-0.0086 m	0.0044 m
DX	8001	8007	108.2475 m	0.0087 m	-0.0056 m	0.0061 m
DY			332.4859 m	-0.0066 m	-0.0004 m	0.0034 m
DZ			-94.2001 m	0.0067 m	0.0115 m	0.0046 m
DX	SEV1	8002	2402.8136 m	-0.0104 m	-0.0001 m	0.0169 m
DY			1883.3949 m	0.0010 m	0.0041 m	0.0084 m
DZ			-2888.1322 m	-0.0028 m	-0.0100 m	0.0130 m
DX	8002	8001	-16.8690 m	0.0057 m	-0.0038 m	0.0071 m
DY			-63.0857 m	-0.0045 m	-0.0015 m	0.0040 m
DZ			13.4274 m	0.0028 m	0.0066 m	0.0047 m
DX	8007	8008	-42.1680 m	-0.0260 m	-0.0014 m	0.0045 m
DY			24.5677 m	0.0013 m	-0.0045 m	0.0023 m
DZ			57.7580 m	-0.0255 m	-0.0361 m	0.0036 m
DX	8007	8008	-42.1680 m	0.0063 m	-0.0037 m	0.0045 m
DY			24.5677 m	-0.0044 m	-0.0025 m	0.0023 m
DZ			57.7580 m	0.0019 m	0.0065 m	0.0036 m

GPS Baseline Vector Residuals

	Station	Target	Adj vector [m]	Resid [m]	Resid [ppm]
DV	8105	8104	95.3071	0.0011	11.8
DV	8105	8008	197.3560	0.0058	29.4
DV	8105	8007	272.9682	0.0352	129.0
DV	8104	8008	291.9242	0.0024	8.3
DV	8104	8007	367.4948	0.0098	26.8
DV	8103	8105	309.6186	0.0118	38.0
DV	8103	8104	215.9636	0.0106	48.9
DV	8103	8102	74.9417	0.0077	103.2
DV	8102	8105	384.4578	0.0043	11.0
DV	8102	8104	290.4598	0.0071	24.4
DV	8101	8103	550.3075	0.0043	7.9

DV	8100	8103	676.3903	0.0025	3.7	DY			0.0178 m	74	1.7	-0.52	
DV	8100	8102	604.9984	0.0321	53.1	DZ			0.0208 m	58	2.0	0.39	
DV	8100	8101	179.9361	0.0027	14.9	DX	8103	8105	0.0279 m	76	1.5	0.09	1.21
DV	SEV1	8105	4256.1579	0.0146	3.4	DY			0.0183 m	75	1.6	1.82	
DV	SEV1	8103	4064.2659	0.0012	0.3	DZ			0.0224 m	84	1.4	-0.27	
DV	SEV1	8100	3572.7213	0.0215	6.0	DX	8103	8104	0.0288 m	78	1.5	0.14	0.67
DV	8002	8008	298.9456	0.0089	29.9	DY			0.0180 m	75	1.6	1.29	
DV	8002	8007	295.7207	0.0109	36.8	DZ			0.0214 m	80	1.4	-0.32	
DV	8001	8008	364.9408	0.0093	25.4	DX	8103	8102	0.0222 m	40	3.6	-0.93	2.20
DV	8001	8007	362.1299	0.0128	35.3	DY			0.0136 m	38	4.0	-2.34	
DV	SEV1	8002	4202.6179	0.0108	2.6	DZ			0.0155 m	23	4.4	0.82	
DV	8002	8001	66.6683	0.0078	116.3	DX	8102	8105	0.0158 m	52	2.9	-0.13	1.01
DV	8007	8008	75.6154	0.0364	481.7	DY			0.0119 m	52	2.7	-1.66	
DV	8007	8008	75.6154	0.0079	104.6	DZ			0.0128 m	49	3.0	-0.24	
						DX	8102	8104	0.0160 m	56	2.7	0.05	0.48
						DY			0.0120 m	55	2.6	-0.43	
						DZ			0.0127 m	40	3.0	0.52	
						DX	8101	8103	0.0425 m	48	2.9	-0.36	0.18
						DY			0.0145 m	48	2.8	0.31	
						DZ			0.0266 m	55	2.5	0.65	
						DX	8100	8103	0.0324 m	22	5.3	-0.84	0.25
						DY			0.0126 m	16	6.3	-0.26	
						DZ			0.0194 m	14	6.7	0.06	
						DX	8100	8102	0.0452 m	84	1.2	1.66	1.11
						DY			0.0232 m	88	1.1	-0.07	
						DZ			0.0270 m	85	1.2	-0.82	
						DX	8100	8101	0.0425 m	39	3.5	-0.36	0.18
						DY			0.0145 m	39	3.5	0.31	
						DZ			0.0266 m	37	3.8	0.65	
						DX	SEV1	8105	0.0608 m	42	2.9	0.25	0.11
						DY			0.0409 m	57	2.4	0.45	
						DZ			0.0592 m	85	2.2	0.04	
						DX	SEV1	8103	0.0810 m	83	1.3	0.04	0.00
						DY			0.0417 m	65	2.1	-0.06	
						DZ			0.0571 m	64	1.9	-0.07	
						DX	SEV1	8100	0.1433 m	93	0.7	0.35	0.06
						DY			0.0593 m	86	1.3	-0.16	
						DZ			0.0848 m	85	1.2	-0.27	
						DX	8002	8008	0.0187 m	60	2.6	0.07	0.87
						DY			0.0157 m	52	2.7	-1.20	
						DZ			0.0128 m	38	3.0	0.20	
						DX	8002	8007	0.0188 m	54	3.0	-0.28	1.43
						DY			0.0156 m	48	2.9	1.51	
						DZ			0.0131 m	32	3.5	-0.03	
						DX	8001	8008	0.0195 m	49	2.9	-0.28	0.66
						DY			0.0167 m	50	2.8	0.77	
						DZ			0.0148 m	46	3.0	-0.19	
						DX	8001	8007	0.0220 m	52	2.2	0.41	1.15

Absolute Error Ellipses (2D - 95% 1D - 95%)

Station	A [m]	B [m]	A/B	Phi	Sd Hgt [m]								
8001	0.0220	0.0171	1.3	40°	0.0404								
8002	0.0219	0.0164	1.3	40°	0.0391								
8007	0.0212	0.0164	1.3	37°	0.0387								
8008	0.0211	0.0163	1.3	36°	0.0387								
8100	0.0215	0.0170	1.3	25°	0.0393								
8101	0.0241	0.0184	1.3	14°	0.0414								
8102	0.0207	0.0161	1.3	33°	0.0379								
8103	0.0207	0.0162	1.3	31°	0.0380								
8104	0.0206	0.0159	1.3	34°	0.0375								
8105	0.0205	0.0158	1.3	34°	0.0372								
SEV1	0.0000	0.0000	1.0	0°	0.0000								

Testing and Estimated Errors

Observation Tests

	Station	Target	MDB	Red	BNR	W-Test	T-Test						
DX	8105	8104	0.0121 m	16	5.2	-0.22	0.06	DX	SEV1	8100	0.1433 m	93	0.7
DY			0.0095 m	20	5.5	-0.20		DY			0.0593 m	86	1.3
DZ			0.0111 m	36	4.6	0.00		DZ			0.0848 m	85	1.2
DX	8105	8008	0.0187 m	57	2.0	0.07	0.09	DX	8002	8008	0.0187 m	60	2.6
DY			0.0163 m	69	2.0	0.45		DY			0.0157 m	52	2.7
DZ			0.0211 m	86	1.8	-0.10		DZ			0.0128 m	38	3.0
DX	8105	8007	0.0203 m	71	1.9	0.27	0.62	DX	8002	8007	0.0188 m	54	3.0
DY			0.0176 m	66	2.5	-0.61		DY			0.0156 m	48	2.9
DZ			0.0208 m	74	1.9	-0.53		DZ			0.0131 m	32	3.5
DX	8104	8008	0.0177 m	48	2.4	-0.06	0.15	DX	8001	8008	0.0195 m	49	2.9
DY			0.0154 m	62	2.3	0.67		DY			0.0167 m	50	2.8
DZ			0.0197 m	84	2.2	0.15		DZ			0.0148 m	46	3.0
DX	8104	8007	0.0218 m	85	1.7	-0.14	0.24	DX	8001	8007	0.0220 m	52	2.2

DY			0.0174 m	56	2.4	-1.27	
DZ			0.0180 m	75	1.8	0.07	
DX	SEV1	8002	0.0660 m	73	2.1	-0.47	0.08
DY			0.0512 m	82	1.9	-0.35	
DZ			0.0531 m	51	2.5	0.19	
DX	8002	8001	0.0215 m	62	2.6	0.09	0.16
DY			0.0189 m	65	2.4	-0.51	
DZ			0.0153 m	53	2.7	-0.14	
DX	8007	8008	0.0179 m	72	1.6	-0.51	0.33
DY			0.0154 m	76	1.6	0.37	
DZ							
DX	8007	8008	0.0171 m	76	1.7	0.66	0.60
DY			0.0142 m	72	1.8	-0.91	
DZ			0.0132 m	53	2.2	-0.31	

Redundancy:

W-Test:

T-Test (3-dimensional):

Estimated Errors (Observations)

Estimated Errors For Observations With Rejected W-Tests (max 10)

	Station	Target	W-Test	Fact	Est err
DY	8103	8102	-2.34	1.2	-0.0113 m

Estimated Errors For Observations With Rejected T-Tests (max 10)

	Station	Target	T-Test	Fact	Est err
DX	8103	8102	2.20	1.1	0.0078 m
DY					-0.0130 m
DZ					0.0085 m

Apéndice 6. Poligonales

Poligonal

Proyecto: zona 1
Sistema de referencia: UTM ETRS89
Proyección: UTM - 30N
Unidad lineal: metros

Fecha de cálculo: 14/08/2018 11:32
Elipsoide: WGS-84
Unidad angular: centesimal

Ficheros utilizados

Puntos
gps.pts

Visuales
observaciones.obs

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8002	8000	117.9937	100.1867	39.047	1.300	1.603
8000	8002	355.6740	100.8902	39.041	1.300	1.645
8000	8001	46.5597	100.5521	59.862	1.300	1.645
8001	8000	208.9084	100.1692	59.860	1.300	1.620

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8002 - 8000	0.010	0.014	0.012	0.010
8000 - 8001	0.000	0.014	0.013	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8002	8000	388.0207	39.065	0.189
8000	8002	188.0207	39.055	-0.201
8000	8001	278.9160	59.887	-0.174
8001	8000	78.9160	59.887	0.161

Resumen

Longitud de la poligonal	98.947 m
Número de ejes	2
Error de cierre angular	0.0289 gon
Error de cierre en X	-0.025 m
Error de cierre en Y	0.005 m
Error total en XY	0.025 m
Error de cierre en Z	-0.005 m
Error relativo en planimetría	1 / 3916
Tolerancia angular	0.0236 gon
Tolerancia en XY	0.012 m
Tolerancia en Z	0.007 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
8002	236296.809	4140992.958	8.406	270.0174	
8000	236289.493	4141031.330	8.599	232.3515	
8001	236232.845	4141011.860	8.428	270.0173	

Fichero de salida: zona1.pts Includo

Poligonal

Proyecto: zona 1
Sistema de referencia: UTM ETRS89
Proyección: UTM - 30N
Unidad lineal: metros

Fecha de cálculo: 14/08/2018 13:14
Elipsoide: WGS-84
Unidad angular: centesimal

Ficheros utilizados

Puntos
gps.pts

Visuales
observaciones.obs

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8002	8003	247.8068	99.8604	101.825	1.300	1.603
8003	8002	85.4542	100.2641	101.823	1.700	1.577
8003	8004	316.8682	100.3182	64.274	1.300	1.633
8004	8003	79.2275	100.3427	64.273	1.300	1.615
8004	8005	244.5351	100.1723	71.154	1.300	1.615
8005	8004	396.0939	100.4062	71.154	1.300	1.620
8005	8007	203.6666	100.0533	64.748	1.300	1.560
8007	8005	353.5303	100.5195	64.747	1.300	1.613

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8002 - 8003	0.003	0.014	0.018	0.010
8003 - 8004	0.001	0.014	0.019	0.010
8004 - 8005	0.001	0.014	0.011	0.010
8005 - 8007	0.003	0.014	0.009	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8002	8003	117.8140	101.871	0.527
8003	8002	317.8140	101.868	-0.545
8003	8004	149.2179	64.302	0.012
8004	8003	349.2179	64.301	-0.031
8004	8005	114.5154	71.186	0.123
8005	8004	314.5154	71.185	-0.134

8005	8007	122.0780	64.777	0.206
8007	8005	322.0780	64.774	-0.215

Resumen

Longitud de la poligonal	302.133 m
Número de ejes	4
Error de cierre angular	-0.0506 gon
Error de cierre en X	0.013 m
Error de cierre en Y	0.026 m
Error total en XY	0.028 m
Error de cierre en Z	0.003 m
Error relativo en planimetría	1 / 4473
Tolerancia angular	0.0200 gon
Tolerancia en XY	0.081 m
Tolerancia en Z	0.010 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
8002	236296.809	4140992.958	8.406	270.0174	
8003	236394.721	4140964.845	8.943	232.3548	
8004	236440.747	4140919.953	8.965	269.9854	
8005	236510.093	4140903.878	9.094	318.4164	
8007	236571.015	4140881.876	9.305	368.5376	

Fichero de salida: zona1.pts Includido

Poligonal

Proyecto: zona 1 Fecha de cálculo: 14/08/2018 13:16
Sistema de referencia: UTM ETRS89
Proyección: UTM - 30N Elipsoide: WGS-84
Unidad lineal: metros Unidad angular: centesimal

Ficheros utilizados

Puntos Visuales
gps.pts observaciones.obs
zona1.pts

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8005	8006	192.2666	100.4063	49.661	1.300	1.560
8006	8005	191.0042	100.3127	49.664	1.300	1.587
8006	8008	314.0478	100.2962	67.799	1.300	1.587
8008	8006	46.0116	100.1531	67.797	1.300	1.472

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8005 - 8006	0.003	0.014	0.014	0.010
8006 - 8008	0.001	0.014	0.019	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8005	8006	110.6718	49.683	-0.057
8006	8005	310.6718	49.686	0.043
8006	8008	33.7041	67.829	-0.028
8008	8006	233.7041	67.828	0.009

Resumen

Longitud de la poligonal	117.512 m
Número de ejes	2
Error de cierre angular	-0.0338 gon
Error de cierre en X	0.023 m
Error de cierre en Y	0.019 m
Error total en XY	0.029 m
Error de cierre en Z	-0.000 m
Error relativo en planimetría	1 / 3995
Tolerancia angular	0.0195 gon
Tolerancia en XY	0.017 m
Tolerancia en Z	0.007 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
8005	236510.093	4140903.878	9.094	318.4164	
8006	236559.090	4140895.597	9.044	119.6620	
8008	236593.359	4140954.150	9.025	187.6813	

Fichero de salida: zona1.pts Includido

Poligonal

Proyecto: zona 1 Fecha de cálculo: 14/08/2018 13:18
Sistema de referencia: UTM ETRS89
Proyección: UTM - 30N Elipsoide: WGS-84
Unidad lineal: metros Unidad angular: centesimal

Ficheros utilizados

Puntos Visuales
gps.pts observaciones.obs
zona1.pts

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8005	9003	112.4360	108.2388	22.665	1.300	1.560
9003	8005	312.4393	93.2905	22.601	1.300	1.576
9003	9002	171.7187	103.5095	4.679	1.300	1.576
9002	9003	371.7426	104.4783	4.684	1.300	1.600
9002	9001	294.5418	103.2847	17.980	1.300	1.600
9001	9002	94.5410	98.8716	17.958	1.300	1.598
9001	9004	204.7693	100.1361	22.274	0.090	1.580
9004	9001	30.5022	104.9744	22.343	0.090	1.591

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8005 - 9003	0.000	0.014	0.011	0.010
9003 - 9002	0.001	0.014	0.011	0.010
9002 - 9001	0.001	0.014	0.011	0.010
9001 - 9004	0.001	0.012	1.199	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8005	9003	30.8524	22.486	-2.665
9003	8005	230.8524	22.486	2.654
9003	9002	90.1318	4.674	0.018
9002	9003	290.1318	4.675	-0.029
9002	9001	212.9310	17.964	-0.627
9001	9002	12.9310	17.963	0.616
9001	9004	123.1593	22.284	1.442
9004	9001	323.1593	22.285	-0.243

Resumen

Longitud de la poligonal	67.408 m
Número de ejes	4
Error de cierre angular	Colgada
Error de cierre en X	Colgada
Error de cierre en Y	Colgada
Error total en XY	Colgada
Error de cierre en Z	Colgada
Error relativo en planimetría	Colgada
Tolerancia angular	0.1276 gon
Tolerancia en XY	0.013 m
Tolerancia en Z	0.010 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
--------	---	---	---	-------	--------

8005	236510.093	4140903.878	9.094	318.4164
9003	236520.569	4140923.775	6.435	318.4131
9002	236525.187	4140924.497	6.458	318.3892
9001	236521.563	4140906.902	5.837	318.3900
9004	236542.389	4140898.973	6.679	292.6571

Fichero de salida: zona1.pts Includo

Poligonal

Proyecto: zona 1

Fecha de cálculo: 14/08/2018 13:19

Sistema de referencia: UTM ETRS89

Proyección: UTM - 30N

Elipsoide: WGS-84

Unidad lineal: metros

Unidad angular: centesimal

Ficheros utilizados

Puntos	Visuales
gps.pts	observaciones.obs
zona1.pts	

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
9001	9000	201.1956	100.1908	22.122	1.300	1.598
9000	9001	1.2631	101.5887	22.122	1.300	1.610

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
9001 - 9000	0.007	0.014	0.010	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
9001	9000	119.5856	22.132	0.232
9000	9001	319.5856	22.125	-0.242

Resumen

Longitud de la poligonal 22.129 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
9001	236521.563	4140906.902	5.837	318.3900	
9000	236542.653	4140900.201	6.073	318.3225	

Fichero de salida: zona1.pts Includo

Poligonal

Proyecto: zona 1

Fecha de cálculo: 24/08/2018 09:09

Sistema de referencia: UTM ETRS89

Proyección: UTM - 30N

Unidad lineal: metros

Elipsoide: WGS-84

Unidad angular: centesimal

Ficheros utilizados

Puntos

gps.pts

Visuales

observaciones.obs

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8008	8009	343.1411	101.2410	23.397	1.300	1.472
8009	8008	144.8746	99.8719	23.392	1.300	1.522
8009	5006	200.3526	100.1522	40.827	1.300	1.522
5006	8009	234.7202	100.2486	40.836	1.300	1.320
5006	8011	71.1876	100.2255	167.747	1.300	1.320
8011	5006	20.1239	99.8485	167.747	1.300	1.450
8011	5037	206.6307	99.8388	82.757	1.300	1.450
5037	8011	321.9633	100.4043	82.757	1.400	1.551
5037	8105	333.2934	100.2230	83.143	1.400	1.551
8105	5037	215.6441	100.1150	83.138	1.300	1.580

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8008 - 8009	0.001	0.014	0.015	0.010
8009 - 5006	0.009	0.014	0.015	0.010
5006 - 8011	0.001	0.014	0.022	0.011
8011 - 5037	0.001	0.014	0.014	0.010
5037 - 8105	0.005	0.014	0.010	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8008	8009	130.8229	23.403	-0.284
8009	8008	330.8229	23.403	0.269
8009	5006	386.3013	40.845	0.124
5006	8009	186.3013	40.854	-0.139
5006	8011	22.7692	167.822	-0.573
8011	5006	222.7692	167.822	0.551
8011	5037	9.2765	82.794	0.360
5037	8011	209.2765	82.793	-0.374
5037	8105	220.6071	83.180	-0.140
8105	5037	20.6071	83.176	0.130

Resumen

Longitud de la poligonal	398.046 m
Número de ejes	5

Error de cierre angular 0.0029 gon

Error de cierre en X -0.023 m

Error de cierre en Y -0.024 m

Error total en XY 0.033 m

Error de cierre en Z 0.005 m

Error relativo en planimetría 1 / 11988

Tolerancia angular 0.0309 gon

Tolerancia en XY 0.016 m

Tolerancia en Z 0.011 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
8008	236593.359	4140954.150	9.025	187.6813	
8009	236614.071	4140943.255	8.748	185.9485	
5006	236605.346	4140983.161	8.881	351.5814	
8011	236664.088	4141140.353	8.322	202.6456	
5037	236676.104	4141222.264	8.690	287.3135	
8105	236649.643	4141143.401	8.556	204.9635	

Fichero de salida:

zona1.pts

Incluido

Poligonal

Proyecto: zona 1

Sistema de referencia: UTM ETRS89

Proyección: UTM - 30N

Unidad lineal: metros

Fecha de cálculo: 24/08/2018 10:04

Elipsoide: WGS-84

Unidad angular: centesimal

Ficheros utilizados

Puntos

gps.pts

Visuales

observaciones.obs

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8104	8018	40.4078	99.6998	179.355	1.300	1.601
8018	8104	98.2199	100.5186	179.371	1.300	1.597
8018	8012	59.4041	100.9204	59.272	1.300	1.597
8012	8018	1.6137	99.7155	59.257	1.300	1.600
8012	5035	30.6392	99.3883	111.012	1.300	1.600
5035	8012	69.0045	100.7303	111.004	1.700	1.607
5035	8103	52.7262	100.5942	28.782	1.300	1.607
8103	5035	294.0465	100.6831	28.799	1.300	1.575

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
-----	-------------	------------	-------------	------------

8104 - 8018	0.012	0.014	0.014	0.011
8018 - 8012	0.009	0.014	0.005	0.010
8012 - 5035	0.010	0.014	0.002	0.010
5035 - 8103	0.017	0.014	0.004	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8104	8018	5.4238	179.434	1.149
8018	8104	205.4238	179.446	-1.162
8018	8012	166.6087	59.293	-0.560
8012	8018	366.6087	59.283	0.565
8012	5035	395.6350	111.057	1.367
5035	8012	195.6350	111.047	-1.366
5035	8103	179.3574	28.794	0.038
8103	5035	379.3574	28.810	-0.034

Resumen

Longitud de la poligonal	378.582 m
Número de ejes	4
Error de cierre angular	0.0037 gon
Error de cierre en X	0.021 m
Error de cierre en Y	0.008 m
Error total en XY	0.022 m
Error de cierre en Z	-0.001 m
Error relativo en planimetría	1 / 7329
Tolerancia angular	0.0242 gon
Tolerancia en XY	0.014 m
Tolerancia en Z	0.010 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
8104	236690.322	4141229.638	8.424	365.0153	
8018	236705.615	4141408.431	9.579	107.2043	
8012	236735.314	4141357.114	9.017	364.9954	
5035	236727.721	4141467.908	10.383	126.6308	
8103	236736.901	4141440.607	10.419	85.3116	

Fichero de salida: zona1.pts Includido

Poligonal

Proyecto: zona 1 Fecha de cálculo: 24/08/2018 10:23
Sistema de referencia: UTM ETRS89
Proyección: UTM - 30N Elipsoide: WGS-84
Unidad lineal: metros Unidad angular: centesimal

Ficheros utilizados

Puntos	Visuales
gps.pts	observaciones.obs

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8102	8013	255.9784	100.6101	141.941	1.300	1.641
8013	8102	56.5263	99.6741	141.933	1.300	1.573
8013	8014	253.7034	100.1805	72.734	1.300	1.573
8014	8013	151.6249	100.2860	72.729	1.300	1.547
8014	5030	366.9696	100.2097	52.250	1.300	1.547
5030	8014	184.0910	100.4133	52.252	1.300	1.551
5030	5028	394.2570	99.7184	93.131	1.700	1.551
5028	5030	246.5284	100.3799	93.131	1.300	1.574
5028	8015	21.3481	99.8379	108.481	1.290	1.516
8015	5028	191.5133	100.4738	108.483	1.300	1.612
8015	8101	68.1881	100.4814	26.323	1.300	1.612
8101	8015	236.8311	101.0012	26.325	1.300	1.608

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8102 - 8013	0.003	0.014	0.017	0.011
8013 - 8014	0.005	0.014	0.012	0.010
8014 - 5030	0.001	0.014	0.013	0.010
5030 - 5028	0.001	0.015	0.018	0.010
5028 - 8015	0.001	0.014	0.008	0.010
8015 - 8101	0.001	0.014	0.007	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8102	8013	7.9483	141.999	-1.018
8013	8102	207.9483	141.995	1.001
8013	8014	5.1280	72.767	0.067
8014	8013	205.1280	72.761	-0.079
8014	5030	20.4753	52.273	0.075
5030	8014	220.4753	52.275	-0.088
5030	5028	30.6440	93.172	0.263
5028	5030	230.6440	93.171	-0.281
5028	8015	5.4663	108.530	0.503
8015	5028	205.4663	108.529	-0.495
8015	8101	82.1437	26.334	0.113
8101	8015	282.1437	26.334	-0.106

Resumen

Longitud de la poligonal	495.070 m
Número de ejes	6
Error de cierre angular	0.0184 gon
Error de cierre en X	-0.025 m
Error de cierre en Y	0.024 m
Error total en XY	0.020 m
Error de cierre en Z	0.003 m
Error relativo en planimetría	1 / 4515
Tolerancia angular	0.0281 gon
Tolerancia en XY	0.054 m
Tolerancia en Z	0.013 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
8102	236762.158	4141511.200	10.465	151.9672	
8013	236779.813	4141652.107	9.457	151.4233	
8014	236785.654	4141724.643	9.530	53.5044	
5030	236802.168	4141774.242	9.612	36.3856	
5028	236845.287	4141856.837	9.885	384.1169	
8015	236854.573	4141964.978	10.384	13.9543	
8101	236879.873	4141972.271	10.494	45.3153	

Fichero de salida: zona1.pts Includido

Poligonal

Proyecto: zona 1 Fecha de cálculo: 24/08/2018 11:05

Sistema de referencia: UTM ETRS89

Proyección: UTM - 30N

Unidad lineal: metros

Elipsoide: WGS-84

Unidad angular: centesimal

Ficheros utilizados

Puntos	Visuales
gps.pts	observaciones.obs

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8101	8016	258.2698	100.5077	54.964	1.300	1.608
8016	8101	61.0515	100.1107	54.970	1.290	1.521
8016	8017	388.1410	100.3626	54.267	1.300	1.615
8017	8016	185.3736	100.3544	54.268	1.300	1.600
8017	8015	149.8831	100.3018	58.644	1.300	1.600
8015	8017	381.2327	100.3581	58.645	1.300	1.612

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8101 - 8016	0.008	0.014	0.005	0.010
8016 - 8017	0.001	0.014	0.004	0.010
8017 - 8015	0.001	0.014	0.005	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8101	8016	303.5858	54.987	-0.130
8016	8101	103.5858	54.995	0.136
8016	8017	30.6760	54.291	0.006
8017	8016	230.6760	54.292	-0.002
8017	8015	195.1863	58.670	0.022
8015	8017	395.1863	58.671	-0.018

Resumen

Longitud de la poligonal	167.952 m
Número de ejes	3
Error de cierre angular	0.0029 gon
Error de cierre en X	0.012 m
Error de cierre en Y	0.004 m
Error total en XY	0.013 m
Error de cierre en Z	-0.001 m
Error relativo en planimetría	1 / 13426
Tolerancia angular	0.0231 gon
Tolerancia en XY	0.012 m
Tolerancia en Z	0.009 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
8101	236879.873	4141972.271	10.494	45.3153	
8016	236824.973	4141975.368	10.361	42.5347	
8017	236850.137	4142023.479	10.364	45.3028	
8015	236854.573	4141964.978	10.384	13.9543	

Fichero de salida: zona1.pts Includido

Poligonal

Proyecto: zona 1 Fecha de cálculo: 24/08/2018 11:07

Sistema de referencia: UTM ETRS89

Proyección: UTM - 30N

Unidad lineal: metros

Elipsoide: WGS-84

Unidad angular: centesimal

Ficheros utilizados

Puntos			Visuales			
gps.pts			observaciones.obs			
Visuales utilizadas						
Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8102	5032	245.7473	101.1670	70.758	1.300	1.641
5032	8102	13.9226	99.3613	70.748	1.300	1.531

Comparación de distancias y desniveles				
Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8102 - 5032	0.002	0.014	0.015	0.010

Datos calculados				
Estación	Visado	Acimut	Dist.Red.	Desnivel
8102	5032	397.7145	70.778	-0.956
5032	8102	197.7145	70.776	0.941

Coordenadas finales					
Número	X	Y	Z	Desor	Nombre
8102	236762.158	4141511.200	10.465	151.9672	
5032	236759.618	4141581.932	9.517	183.7919	

Fichero de salida: zona1.pts Includo

Poligonal
Proyecto: zona 1 Fecha de cálculo: 24/08/2018 11:08
Sistema de referencia: UTM ETRS89
Proyección: UTM - 30N Elipsoide: WGS-84
Unidad lineal: metros Unidad angular: centesimal

Ficheros utilizados

Puntos gps.pts	Visuales observaciones.obs					
-------------------	-------------------------------	--	--	--	--	--

Visuales utilizadas						
Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8008	8009	343.1411	101.2410	23.397	1.300	1.472
8009	8008	144.8746	99.8719	23.392	1.300	1.522
8009	5034	232.5815	100.4532	82.933	1.300	1.522
5034	8009	293.4081	99.9051	82.969	1.300	1.524
5034	5006	318.6883	99.6772	51.209	1.300	1.524
5006	5034	92.2440	100.6365	51.211	1.300	1.320

Comparación de distancias y desniveles				
Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8008 - 8009	0.001	0.014	0.015	0.010
8009 - 5034	0.038	0.014	0.020	0.010
5034 - 5006	0.000	0.014	0.008	0.010

Datos calculados				
Estación	Visado	Acimut	Dist.Red.	Desnivel
8008	8009	130.8264	23.403	-0.284
8009	8008	330.8264	23.403	0.269
8009	5034	18.5372	82.968	-0.368
5034	8009	218.5372	83.006	0.348
5034	5006	243.8214	51.232	0.484
5006	5034	43.8214	51.232	-0.492

Resumen		
Longitud de la poligonal		157.622 m
Número de ejes		3
Error de cierre angular		0.0159 gon
Error de cierre en X		-0.004 m
Error de cierre en Y		-0.023 m
Error total en XY		0.023 m
Error de cierre en Z		0.003 m
Error relativo en planimetría		1 / 6832
Tolerancia angular		0.0319 gon
Tolerancia en XY		0.012 m
Tolerancia en Z		0.009 m

Coordenadas finales					
Número	X	Y	Z	Desor	Nombre
8008	236593.359	4140954.150	9.025	187.6813	
8009	236614.071	4140943.252	8.749	185.9537	
5034	236637.893	4141022.734	8.392	325.1311	
5006	236605.346	4140983.161	8.881	351.5814	

Fichero de salida: zona1.pts Includo

Poligonal
Proyecto: zona 1 Fecha de cálculo: 24/08/2018 11:14
Sistema de referencia: UTM ETRS89
Proyección: UTM - 30N Elipsoide: WGS-84
Unidad lineal: metros Unidad angular: centesimal

Ficheros utilizados

Puntos	Visuales
gps.pts	observaciones.obs

Visuales utilizadas

Estación	Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst
8001	8000	208.9084	100.1692	59.860	1.300	1.620
8000	8001	46.5597	100.5521	59.862	1.300	1.645
8000	8002	355.6740	100.8902	39.041	1.300	1.645
8002	8000	117.9937	100.1867	39.047	1.300	1.603

Comparación de distancias y desniveles

Eje	Error dist.	Tolerancia	Error desn.	Tolerancia
8001 - 8000	0.000	0.014	0.013	0.010
8000 - 8002	0.010	0.014	0.012	0.010

Datos calculados

Estación	Visado	Acimut	Dist.Red.	Desnivel
8001	8000	78.9160	59.887	0.161
8000	8001	278.9160	59.887	-0.174
8000	8002	188.0207	39.055	-0.201
8002	8000	388.0207	39.065	0.189

Resumen

Longitud de la poligonal	98.947 m
Número de ejes	2
Error de cierre angular	-0.0289 gon
Error de cierre en X	0.025 m
Error de cierre en Y	-0.005 m
Error total en XY	0.025 m
Error de cierre en Z	0.005 m
Error relativo en planimetría	1 / 3916
Tolerancia angular	0.0236 gon
Tolerancia en XY	0.012 m
Tolerancia en Z	0.007 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
8001	236232.845	4141011.860	8.428	270.0173	
8000	236289.493	4141031.330	8.599	232.3515	
8002	236296.809	4140992.958	8.406	270.0174	

Fichero de salida:	zona1.pts	Incluido
--------------------	-----------	----------

Apéndice 7. Compensación MMCC

Compensación MM.CC. de redes topográficas

Proyecto : zona 1 Fecha de cálculo : 24/08/2018 11:33

Sistema de referencia : UTM ETRS89

Proyección : UTM - 30N Elipsoide : WGS-84

Ficheros utilizados

Puntos Visuales

gps.pts observaciones.obs

Características de la red

Tipo de red : Triangulateración

Observaciones de dirección : 128

Observaciones de distancia : 128

Observaciones de altimetría : 119

Ecuaciones de observación : 375

Número de incógnitas de planimetría : 46

Número de incógnitas de desorientación : 31

Número de incógnitas de altimetría : 23

Parámetros sistemáticos de distancia : 1

Número total de incógnitas : 101

Número de vértices fijos de planimetría : 8

Número de vértices fijos de altimetría : 8

Número total de vértices : 31

Error kilométrico a priori : 0.050 metros

Desviación estándar a priori : 1.000

Desviación estándar estimada planimétrica : 1.290

Varianza estimada planimétrica : 1.665

Desviación estándar estimada altimétrica : 2.513

Varianza estimada altimétrica : 6.316

Los residuos sin ponderar están en segundos para las direcciones

Los residuos sin ponderar están en metros para las distancias

Los residuos sin ponderar están en metros para los desniveles

Factor de escala calculado para distancias medidas 42.111 ppm ± 18.135

Coordenadas iniciales

Número	X	Y	Z	Tipo
5006	236605.346	4140983.161	8.881	Incógnita
5028	236845.287	4141856.837	9.885	Incógnita
5030	236802.168	4141774.242	9.618	Incógnita
5032	236759.618	4141581.932	9.517	Incógnita
5034	236637.893	4141022.734	8.400	Incógnita
5035	236727.721	4141467.908	10.383	Incógnita
5037	236676.104	4141222.264	8.690	Incógnita
8000	236289.493	4141031.330	8.601	Incógnita
8001	236232.845	4141011.860	8.428	AP
8002	236296.809	4140992.958	8.406	AP
8003	236394.721	4140964.845	8.941	Incógnita
8004	236440.747	4140919.953	8.965	Incógnita
8005	236510.093	4140903.878	9.094	Incógnita
8006	236559.090	4140895.597	9.044	Incógnita
8007	236571.015	4140881.876	9.305	Incógnita
8008	236593.359	4140954.150	9.025	Incógnita
8009	236614.087	4140943.221	8.743	Incógnita
8011	236664.088	4141140.353	8.322	Incógnita
8012	236735.314	4141357.114	9.017	Incógnita
8013	236779.813	4141652.107	9.457	Incógnita
8014	236785.654	4141724.643	9.530	Incógnita
8015	236854.573	4141964.978	10.384	Incógnita
8016	236824.973	4141975.368	10.361	Incógnita
8017	236850.137	4142023.479	10.364	Incógnita
8018	236705.615	4141408.431	9.579	Incógnita
8100	236772.002	4142116.387	10.217	AP
8101	236879.873	4141972.271	10.494	AP
8102	236762.158	4141511.200	10.465	AP
8103	236736.901	4141440.607	10.419	AP
8104	236690.322	4141229.638	8.421	AP
8105	236649.643	4141143.401	8.556	AP

Pesos y residuos de las observaciones planimétricas

Estación	Visado	Lectura	Error a priori	Residuo ponderado	Residuo sin ponderar	Clase	8003	8004	316.8956	71.39	-2.43	-173.64	Dirección
5006	5034	92.2440	88.96	0.15	13.13	Dirección	8003	8005	298.6568	37.21	-9.68	-360.14	Dirección
5006	8009	234.7202	110.98	-0.79	-87.58	Dirección	8004	8003	79.2275	71.39	0.61	43.42	Dirección
5006	8011	71.1876	30.23	2.46	74.45	Dirección	8004	8003	79.2282	71.39	0.51	36.42	Dirección
5028	5030	246.5284	50.29	0.33	16.61	Dirección	8004	8005	244.5351	64.76	-1.23	-79.85	Dirección
5028	5030	246.5353	50.29	-1.04	-52.39	Dirección	8005	8003	12.5255	37.21	5.62	209.11	Dirección
5028	8015	21.3481	43.76	1.20	52.39	Dirección	8005	8003	12.5255	37.21	5.62	209.11	Dirección
5028	8015	21.3550	43.76	-0.38	-16.61	Dirección	8005	8003	12.5381	37.21	2.23	83.11	Dirección
5030	5028	394.2570	50.29	0.26	13.17	Dirección	8005	8003	12.5385	37.21	2.13	79.11	Dirección
5030	8014	184.0910	87.23	-0.15	-13.17	Dirección	8005	8004	396.0939	64.76	0.81	52.33	Dirección
5032	8014	227.7037	34.02	-1.16	-39.54	Dirección	8005	8004	396.0974	64.76	0.27	17.33	Dirección
5032	8102	13.9226	65.11	0.61	39.54	Dirección	8005	8004	396.0978	64.76	0.21	13.33	Dirección
5034	5006	318.6883	88.96	1.00	88.87	Dirección	8005	8006	192.2666	91.66	-1.08	-99.32	Dirección
5034	8009	293.4081	56.00	-1.59	-88.87	Dirección	8005	8006	192.2671	91.66	-1.14	-104.32	Dirección
5035	8012	69.0045	42.87	-2.42	-103.83	Dirección	8005	8006	192.2799	91.66	-2.53	-232.32	Dirección
5035	8018	95.9925	72.30	1.64	118.87	Dirección	8005	8007	203.6666	70.88	-0.73	-51.82	Dirección
5035	8102	316.1041	82.56	3.00	247.94	Dirección	8005	8007	203.6691	70.88	-1.08	-76.82	Dirección
5035	8103	52.7262	156.91	-1.68	-262.98	Dirección	8005	8007	203.6713	70.88	-1.39	-98.82	Dirección
5037	8011	321.9633	56.13	-0.53	-29.92	Dirección	8006	8005	191.0042	91.66	-0.68	-62.33	Dirección
5037	8012	139.0270	33.60	-0.07	-2.33	Dirección	8006	8007	34.7862	248.02	0.16	39.69	Dirección
5037	8105	333.2934	55.88	0.58	32.25	Dirección	8006	8008	314.0478	67.80	0.19	12.82	Dirección
8000	8001	46.5597	76.43	2.61	199.58	Dirección	8006	8008	314.0481	67.80	0.14	9.82	Dirección
8000	8002	355.6740	116.08	-1.10	-127.11	Dirección	8007	8005	353.5303	70.88	-0.41	-28.92	Dirección
8000	8003	303.5351	38.76	-1.87	-72.46	Dirección	8007	8008	50.5506	61.12	0.23	14.18	Dirección
8001	8000	208.9084	76.43	-0.10	-7.45	Dirección	8007	8009	70.4332	61.65	0.24	14.74	Dirección
8001	8002	248.2748	68.92	0.07	4.73	Dirección	8008	8006	46.0116	67.80	-0.60	-40.64	Dirección
8001	8002	248.2750	68.92	0.04	2.73	Dirección	8008	8007	31.3903	61.12	-0.74	-45.18	Dirección
8002	8000	117.9937	116.08	0.73	84.27	Dirección	8008	8009	343.1411	192.61	2.40	462.82	Dirección
8002	8001	48.2748	68.92	1.93	133.14	Dirección	8008	8105	230.7383	26.73	-14.11	-377.00	Dirección
8002	8003	247.8068	46.34	-2.31	-107.20	Dirección	8009	5006	200.3526	110.98	-3.62	-402.08	Dirección
8002	8003	247.8071	46.34	-2.38	-110.20	Dirección	8009	5034	232.5815	56.00	-5.93	-332.11	Dirección
8003	8000	103.5191	38.76	6.67	258.65	Dirección	8009	8007	52.9701	61.65	4.78	294.87	Dirección
8003	8000	103.5284	38.76	4.27	165.65	Dirección	8009	8008	144.8746	192.61	2.28	439.31	Dirección
8003	8000	103.5351	38.76	2.55	98.65	Dirección	8011	5006	20.1239	30.23	4.47	135.06	Dirección
8003	8000	103.5351	38.76	2.55	98.65	Dirección	8011	5037	206.6307	56.13	2.19	122.82	Dirección
8003	8000	103.5441	38.76	0.22	8.65	Dirección	8011	8105	110.6349	305.24	-0.84	-257.88	Dirección
8003	8002	85.4542	46.34	3.92	181.53	Dirección	8012	5035	30.6392	42.87	-1.93	-82.70	Dirección
8003	8002	85.4745	46.34	-0.46	-21.47	Dirección	8012	5037	261.3171	33.60	2.74	92.05	Dirección
8003	8004	316.8682	71.39	1.41	100.36	Dirección	8012	8018	1.6137	77.19	-3.38	-261.22	Dirección
8003	8004	316.8817	71.39	-0.49	-34.64	Dirección	8012	8104	256.5621	36.10	6.98	251.87	Dirección
8003	8004	316.8932	71.39	-2.10	-149.64	Dirección	8013	8014	253.7034	63.41	0.24	15.38	Dirección
8003	8004	316.8955	71.39	-2.42	-172.64	Dirección	8013	8102	56.5263	34.63	-0.44	-15.38	Dirección
							8014	5030	366.9696	87.23	0.07	6.24	Dirección

8014	8013	151.6249	63.41	-0.10	-6.24	Dirección	8105	8104	223.0963	49.23	4.43	218.17	Dirección
8015	5028	191.5133	43.76	0.29	12.57	Dirección	5006	5034	51.211	0.010	0.65	0.006	Distancia
8015	5028	191.5199	43.76	-1.22	-53.43	Dirección	5006	8009	40.836	0.010	3.21	0.031	Distancia
8015	8016	307.5582	144.17	-0.42	-60.33	Dirección	5006	8011	167.747	0.010	-1.27	-0.013	Distancia
8015	8016	307.5650	144.17	-0.89	-128.33	Dirección	5028	5030	93.131	0.010	0.15	0.001	Distancia
8015	8017	381.2327	77.99	1.35	104.95	Dirección	5028	5030	93.136	0.010	-0.39	-0.004	Distancia
8015	8101	68.1881	171.53	0.37	63.29	Dirección	5028	8015	108.481	0.010	0.95	0.009	Distancia
8015	8101	68.1883	171.53	0.36	61.29	Dirección	5028	8015	108.478	0.010	1.24	0.012	Distancia
8016	8015	78.9645	144.17	-0.42	-60.06	Dirección	5030	5028	93.131	0.010	0.07	0.001	Distancia
8016	8015	78.9651	144.17	-0.46	-66.06	Dirección	5030	8014	52.252	0.010	0.15	0.001	Distancia
8016	8017	388.1410	84.07	0.71	59.67	Dirección	5032	8014	144.978	0.010	2.33	0.023	Distancia
8016	8101	61.0515	83.04	0.44	36.22	Dirección	5032	8102	70.748	0.010	0.12	0.001	Distancia
8016	8101	61.0521	83.04	0.36	30.22	Dirección	5034	5006	51.209	0.010	0.66	0.006	Distancia
8017	8015	149.8831	77.99	-0.87	-67.47	Dirección	5034	8009	82.969	0.010	-0.64	-0.006	Distancia
8017	8016	185.3736	84.07	0.02	1.98	Dirección	5035	8012	111.004	0.010	0.67	0.007	Distancia
8017	8100	310.1768	39.62	0.65	25.58	Dirección	5035	8018	63.425	0.010	0.85	0.008	Distancia
8017	8101	121.1979	77.29	0.52	39.91	Dirección	5035	8102	55.281	0.010	1.30	0.013	Distancia
8018	5035	315.4296	72.30	1.47	106.26	Dirección	5035	8103	28.782	0.010	0.97	0.009	Distancia
8018	8012	59.4041	77.19	-2.27	-174.97	Dirección	5037	8011	82.757	0.010	-0.52	-0.005	Distancia
8018	8012	59.4046	77.19	-2.33	-179.97	Dirección	5037	8012	147.176	0.010	3.35	0.034	Distancia
8018	8103	341.8667	101.27	2.63	266.19	Dirección	5037	8105	83.143	0.010	0.38	0.004	Distancia
8018	8104	98.2199	28.70	-0.61	-17.51	Dirección	8000	8001	59.862	0.010	1.39	0.014	Distancia
8100	8017	110.1768	39.62	-1.76	-69.89	Dirección	8000	8002	39.041	0.010	0.85	0.008	Distancia
8100	8101	113.7725	28.63	2.44	69.89	Dirección	8000	8003	124.424	0.010	-0.91	-0.009	Distancia
8101	8015	236.8311	171.53	-0.86	-147.29	Dirección	8001	8000	59.860	0.010	1.39	0.013	Distancia
8101	8016	258.2698	83.04	0.11	9.37	Dirección	8001	8002	66.662	0.010	0.71	0.007	Distancia
8101	8017	321.1754	77.29	1.98	152.74	Dirección	8001	8002	66.659	0.010	1.02	0.010	Distancia
8101	8100	313.7793	28.63	-0.52	-14.81	Dirección	8002	8000	39.047	0.010	-0.14	-0.001	Distancia
8102	5032	245.7473	65.11	0.05	3.49	Dirección	8002	8001	66.668	0.010	0.07	0.001	Distancia
8102	5035	90.8014	82.56	1.22	100.49	Dirección	8002	8003	101.825	0.010	-0.31	-0.003	Distancia
8102	8013	255.9784	34.63	-3.01	-104.17	Dirección	8002	8003	101.827	0.010	-0.51	-0.005	Distancia
8102	8103	69.9065	61.64	0.00	0.19	Dirección	8003	8000	124.418	0.010	-0.14	-0.001	Distancia
8103	5035	294.0465	156.91	-0.38	-59.13	Dirección	8003	8000	124.417	0.010	-0.01	-0.000	Distancia
8103	8018	163.7948	101.27	0.33	33.65	Dirección	8003	8000	124.423	0.010	-0.61	-0.006	Distancia
8103	8102	336.5621	61.64	0.41	25.48	Dirección	8003	8000	124.423	0.010	-0.61	-0.006	Distancia
8104	5037	304.6245	281.41	-2.91	-819.57	Dirección	8003	8000	124.422	0.010	-0.52	-0.005	Distancia
8104	8012	56.5621	36.10	10.96	395.64	Dirección	8003	8002	101.823	0.010	-0.03	-0.000	Distancia
8104	8018	40.4078	28.70	8.95	257.01	Dirección	8003	8002	101.820	0.010	0.55	0.005	Distancia
8104	8105	263.0445	49.23	3.39	166.93	Dirección	8003	8004	64.274	0.010	-0.89	-0.009	Distancia
8105	5037	215.6441	55.88	4.18	233.65	Dirección	8003	8004	64.270	0.010	-0.48	-0.005	Distancia
8105	5037	215.6441	55.88	4.18	233.65	Dirección	8003	8004	64.270	0.010	-0.49	-0.005	Distancia
8105	8011	308.3032	305.24	-0.19	-59.23	Dirección	8003	8004	64.272	0.010	-0.71	-0.007	Distancia
8105	8011	308.3599	305.24	-2.05	-626.23	Dirección	8003	8004	64.270	0.010	-0.51	-0.005	Distancia

8003	8005	130.444	0.010	-1.31	-0.013	Distancia	8015	5028	108.483	0.010	1.01	0.010	Distancia
8004	8003	64.273	0.010	-0.77	-0.008	Distancia	8015	5028	108.487	0.010	0.57	0.006	Distancia
8004	8003	64.278	0.010	-1.29	-0.013	Distancia	8015	8016	31.355	0.010	0.28	0.003	Distancia
8004	8005	71.154	0.010	-0.13	-0.001	Distancia	8015	8016	31.354	0.010	0.43	0.004	Distancia
8005	8003	130.449	0.010	-1.74	-0.018	Distancia	8015	8017	58.645	0.010	-0.16	-0.002	Distancia
8005	8003	130.450	0.010	-1.84	-0.019	Distancia	8015	8101	26.323	0.010	-0.41	-0.004	Distancia
8005	8003	130.449	0.011	-1.72	-0.018	Distancia	8015	8101	26.326	0.010	-0.75	-0.007	Distancia
8005	8003	130.443	0.011	-1.15	-0.012	Distancia	8016	8015	31.352	0.010	0.60	0.006	Distancia
8005	8004	71.154	0.010	-0.01	-0.000	Distancia	8016	8015	31.356	0.010	0.11	0.001	Distancia
8005	8004	71.152	0.010	0.16	0.002	Distancia	8016	8017	54.267	0.010	0.40	0.004	Distancia
8005	8004	71.151	0.010	0.27	0.003	Distancia	8016	8101	54.970	0.010	-0.77	-0.007	Distancia
8005	8006	49.661	0.010	0.96	0.009	Distancia	8016	8101	54.965	0.010	-0.23	-0.002	Distancia
8005	8006	49.663	0.010	0.76	0.007	Distancia	8017	8015	58.644	0.010	-0.09	-0.001	Distancia
8005	8006	49.667	0.010	0.38	0.004	Distancia	8017	8016	54.268	0.010	0.30	0.003	Distancia
8005	8007	64.748	0.010	-0.42	-0.004	Distancia	8017	8100	121.335	0.010	0.71	0.007	Distancia
8005	8007	64.756	0.010	-1.24	-0.012	Distancia	8017	8101	59.186	0.010	0.32	0.003	Distancia
8005	8007	64.746	0.010	-0.20	-0.002	Distancia	8018	5035	63.439	0.010	-1.38	-0.013	Distancia
8006	8005	49.664	0.010	0.61	0.006	Distancia	8018	8012	59.272	0.010	-0.13	-0.001	Distancia
8006	8007	18.164	0.010	0.69	0.007	Distancia	8018	8012	59.274	0.010	-0.34	-0.003	Distancia
8006	8008	67.799	0.010	1.54	0.015	Distancia	8018	8103	44.865	0.010	-0.32	-0.003	Distancia
8006	8008	67.798	0.010	1.65	0.016	Distancia	8018	8104	179.371	0.010	-0.04	-0.000	Distancia
8007	8005	64.747	0.010	-0.09	-0.001	Distancia	8100	8017	121.334	0.010	0.73	0.007	Distancia
8007	8008	75.608	0.010	0.68	0.007	Distancia	8100	8101	179.931	0.010	0.32	0.003	Distancia
8007	8009	74.927	0.010	0.02	0.000	Distancia	8101	8015	26.325	0.010	-0.36	-0.003	Distancia
8008	8006	67.797	0.010	1.70	0.017	Distancia	8101	8016	54.964	0.010	0.02	0.000	Distancia
8008	8007	75.596	0.010	1.98	0.020	Distancia	8101	8017	59.191	0.010	-0.05	-0.000	Distancia
8008	8009	23.397	0.010	3.07	0.030	Distancia	8101	8100	179.934	0.010	0.12	0.001	Distancia
8008	8105	197.377	0.010	-2.19	-0.022	Distancia	8102	5032	70.758	0.010	-0.05	-0.000	Distancia
8009	5006	40.827	0.010	4.12	0.040	Distancia	8102	5035	55.292	0.010	0.30	0.003	Distancia
8009	5034	82.933	0.010	3.24	0.032	Distancia	8102	8013	141.941	0.010	1.01	0.010	Distancia
8009	8007	74.919	0.010	0.39	0.004	Distancia	8102	8103	74.942	0.010	0.04	0.000	Distancia
8009	8008	23.392	0.010	3.13	0.030	Distancia	8103	5035	28.799	0.010	-0.76	-0.007	Distancia
8011	5006	167.747	0.010	-1.32	-0.013	Distancia	8103	8018	44.855	0.010	1.29	0.013	Distancia
8011	5037	82.757	0.010	-0.67	-0.007	Distancia	8103	8102	74.954	0.010	-1.26	-0.012	Distancia
8011	8105	14.747	0.010	1.00	0.010	Distancia	8104	5037	15.996	0.010	1.38	0.013	Distancia
8012	5035	111.012	0.010	-0.32	-0.003	Distancia	8104	8012	135.093	0.011	2.91	0.031	Distancia
8012	5037	147.174	0.010	3.73	0.037	Distancia	8104	8018	179.355	0.010	1.16	0.012	Distancia
8012	8018	59.257	0.010	0.84	0.008	Distancia	8104	8105	95.287	0.010	2.02	0.020	Distancia
8012	8104	135.110	0.011	1.16	0.012	Distancia	8105	5037	83.138	0.010	0.85	0.008	Distancia
8013	8014	72.734	0.010	0.43	0.004	Distancia	8105	5037	83.149	0.010	-0.28	-0.003	Distancia
8013	8102	141.933	0.010	1.35	0.013	Distancia	8105	8011	14.760	0.010	0.42	0.004	Distancia
8014	5030	52.250	0.010	0.27	0.003	Distancia	8105	8011	14.751	0.010	1.51	0.014	Distancia
8014	8013	72.729	0.010	0.99	0.010	Distancia	8105	8104	95.286	0.010	2.20	0.022	Distancia

Correcciones, precisiones y elipses de error planimétricas

Número	Correcciones		Precisiones		Semiejes elipses de error		
	X	Y	X	Y	Mayor	Menor	Orientación
5006	-0.004	-0.030	0.010	0.010	0.011	0.009	338.7776
5028	0.000	-0.001	0.012	0.007	0.012	0.007	304.0548
5030	0.001	-0.008	0.017	0.009	0.018	0.008	312.8981
5032	-0.004	0.004	0.008	0.008	0.008	0.008	341.1330
5034	-0.001	-0.029	0.012	0.011	0.013	0.010	327.7604
5035	0.010	-0.000	0.004	0.005	0.005	0.004	20.1624
5037	-0.008	0.011	0.005	0.005	0.005	0.004	49.9968
8000	-0.017	0.002	0.005	0.004	0.005	0.004	313.4732
8003	0.008	0.023	0.005	0.006	0.006	0.005	397.7252
8004	0.013	0.014	0.007	0.008	0.008	0.007	11.3033
8005	0.010	-0.009	0.008	0.009	0.009	0.008	0.8245
8006	0.002	-0.031	0.009	0.011	0.011	0.009	395.7969
8007	0.005	-0.029	0.010	0.011	0.011	0.010	392.5776
8008	-0.019	-0.034	0.008	0.010	0.010	0.008	391.3461
8009	-0.025	-0.006	0.010	0.010	0.010	0.009	359.2602
8011	-0.009	-0.006	0.005	0.005	0.005	0.005	318.3124
8012	-0.022	-0.011	0.005	0.005	0.005	0.005	379.1558
8013	0.008	-0.007	0.013	0.008	0.013	0.008	310.9998
8014	0.004	-0.010	0.017	0.009	0.018	0.008	310.8952
8015	-0.006	-0.004	0.005	0.004	0.005	0.004	300.6134
8016	-0.005	-0.001	0.005	0.006	0.006	0.005	381.9464
8017	-0.008	-0.003	0.004	0.005	0.005	0.004	375.1486
8018	0.007	-0.002	0.005	0.005	0.005	0.005	43.7666

Test de Baarda planimétrico

Estación	Visado	Desv.Tip. Observ.	Desv.Tip. Residuo	Residuo sin Pond.	Residuo tipificado	Clase
8016	8101	0.005	0.012	0.000	0.00	Distancia
8101	8016	64.147	85.819	0.42	0.00	Dirección
8011	8105	199.652	339.715	-2.52	0.01	Dirección
8016	8101	60.406	88.493	0.99	0.01	Dirección
8012	5035	0.006	0.011	0.000	0.01	Distancia
8003	8004	0.004	0.012	0.000	0.02	Distancia
5006	8011	0.008	0.010	0.000	0.02	Distancia
8008	8006	0.006	0.011	0.000	0.02	Distancia
8006	8008	0.006	0.011	-0.000	0.02	Distancia
8003	8000	0.004	0.012	-0.000	0.03	Distancia
8011	5006	0.008	0.010	-0.000	0.03	Distancia
8004	8003	0.004	0.012	-0.000	0.03	Distancia
8005	8006	0.005	0.011	0.001	0.05	Distancia
5006	5034	95.231	64.066	3.58	0.06	Dirección
8016	8015	0.005	0.012	-0.001	0.06	Distancia
8016	8101	60.406	88.493	-5.01	0.06	Dirección
8005	8004	0.005	0.012	0.001	0.06	Distancia
8014	8013	76.871	28.036	1.92	0.07	Dirección
8014	5030	99.276	53.036	-3.63	0.07	Dirección
8006	8005	0.005	0.011	-0.001	0.07	Distancia
8100	8017	0.005	0.012	-0.001	0.08	Distancia
5032	8102	72.988	41.597	-3.46	0.08	Dirección
5032	8014	42.403	11.366	0.95	0.08	Dirección
8005	8004	0.005	0.012	-0.001	0.08	Distancia
8016	8015	82.446	166.761	-14.26	0.09	Dirección
8005	8003	0.005	0.013	-0.001	0.09	Distancia
5030	8014	0.008	0.010	0.001	0.09	Distancia
8015	8016	0.005	0.012	0.001	0.09	Distancia
8002	8000	83.330	124.433	12.21	0.10	Dirección
8017	8100	0.005	0.012	-0.001	0.10	Distancia
5028	8015	0.006	0.011	0.001	0.10	Distancia
8007	8009	0.006	0.011	-0.001	0.10	Distancia
8016	8017	0.005	0.011	-0.001	0.11	Distancia
8003	8000	0.004	0.012	-0.001	0.11	Distancia
8003	8000	0.004	0.012	-0.001	0.11	Distancia
8006	8007	196.017	252.942	-27.22	0.11	Dirección
8102	5032	0.008	0.010	0.001	0.11	Distancia
8012	5035	41.403	36.670	-3.98	0.11	Dirección
8006	8008	0.006	0.011	-0.001	0.11	Distancia
8101	8017	0.005	0.012	-0.001	0.11	Distancia
8016	8015	82.446	166.761	-20.26	0.12	Dirección

8015	8101	0.005	0.011	-0.001	0.12	Distancia	8003	8002	0.005	0.013	-0.003	0.22	Distancia
8003	8004	0.004	0.012	-0.002	0.13	Distancia	8005	8006	0.005	0.011	0.003	0.23	Distancia
8003	8000	20.040	45.819	6.37	0.14	Dirección	8009	8007	0.006	0.011	0.002	0.23	Distancia
8003	8000	20.040	45.819	6.37	0.14	Dirección	8104	8018	0.005	0.012	0.003	0.23	Distancia
8105	5037	0.005	0.012	0.002	0.14	Distancia	8004	8003	56.554	72.694	-16.90	0.23	Dirección
8007	8005	0.005	0.011	-0.002	0.14	Distancia	8015	5028	0.006	0.011	-0.003	0.23	Distancia
8005	8004	0.005	0.012	0.002	0.15	Distancia	8005	8007	0.005	0.011	-0.003	0.24	Distancia
8102	5032	57.235	61.496	9.32	0.15	Dirección	5028	5030	0.007	0.011	-0.003	0.24	Distancia
5006	8009	0.007	0.011	0.002	0.16	Distancia	8003	8002	0.005	0.012	0.003	0.25	Distancia
8015	5028	0.006	0.011	0.002	0.16	Distancia	8005	8004	32.915	76.797	-19.50	0.25	Dirección
8012	8018	0.005	0.011	-0.002	0.16	Distancia	8013	8014	0.008	0.010	-0.003	0.26	Distancia
8017	8015	0.005	0.011	-0.002	0.16	Distancia	5028	5030	0.007	0.011	0.003	0.26	Distancia
8102	8013	0.008	0.010	-0.002	0.16	Distancia	8005	8006	0.005	0.011	-0.003	0.27	Distancia
8015	8101	0.005	0.011	0.002	0.17	Distancia	5032	8102	0.008	0.010	0.003	0.28	Distancia
8013	8102	0.008	0.010	0.002	0.17	Distancia	8015	5028	37.991	41.766	11.80	0.28	Dirección
8002	8001	0.001	0.013	-0.002	0.17	Distancia	8003	8000	0.004	0.012	0.003	0.28	Distancia
8011	8105	0.005	0.011	0.002	0.17	Distancia	8014	8013	0.008	0.010	0.003	0.29	Distancia
8002	8000	0.005	0.012	0.002	0.17	Distancia	8005	8004	32.915	76.797	-23.50	0.31	Dirección
8003	8005	0.005	0.012	-0.002	0.18	Distancia	8101	8100	34.032	14.374	-4.67	0.32	Dirección
5030	5028	0.007	0.011	0.002	0.18	Distancia	8105	8011	0.005	0.011	-0.004	0.33	Distancia
8003	8004	0.004	0.012	0.002	0.19	Distancia	8004	8003	56.554	72.694	-23.90	0.33	Dirección
8004	8005	0.005	0.012	-0.002	0.19	Distancia	8001	8002	0.001	0.013	0.004	0.33	Distancia
8103	8102	66.748	43.245	8.26	0.19	Dirección	8011	5006	36.606	13.471	-4.52	0.34	Dirección
5037	8012	0.006	0.011	0.002	0.20	Distancia	8105	8011	197.665	340.875	115.74	0.34	Dirección
8017	8016	0.005	0.011	-0.002	0.20	Distancia	8011	5037	55.871	46.071	15.70	0.34	Dirección
8017	8101	0.005	0.012	0.002	0.20	Distancia	8000	8001	0.005	0.012	-0.004	0.34	Distancia
5034	5006	77.823	84.362	-16.73	0.20	Dirección	8001	8000	0.005	0.012	-0.004	0.35	Distancia
5034	8009	64.054	33.464	6.67	0.20	Dirección	8100	8101	0.003	0.013	-0.004	0.35	Distancia
8003	8004	0.004	0.012	0.002	0.20	Distancia	8001	8002	54.835	70.004	24.50	0.35	Dirección
8015	8101	106.653	193.872	39.06	0.20	Dirección	8016	8015	0.005	0.012	0.004	0.35	Distancia
8005	8004	32.915	76.797	15.50	0.20	Dirección	8000	8003	0.004	0.012	-0.004	0.35	Distancia
8016	8017	75.934	77.482	15.87	0.20	Dirección	5028	8015	0.006	0.011	0.004	0.36	Distancia
8003	8004	0.004	0.012	0.002	0.20	Distancia	5035	8102	0.005	0.011	0.004	0.37	Distancia
8015	8016	95.588	159.591	-33.06	0.21	Dirección	5028	5030	44.464	47.250	17.31	0.37	Dirección
8101	8015	0.005	0.011	0.002	0.21	Distancia	5037	8105	47.721	54.048	-19.84	0.37	Dirección
8014	5030	0.008	0.010	0.002	0.21	Distancia	8001	8002	54.835	70.004	26.50	0.38	Dirección
8015	8101	106.653	193.872	41.06	0.21	Dirección	8003	8000	0.004	0.012	0.005	0.39	Distancia
8015	8016	0.005	0.012	0.002	0.21	Distancia	5035	8103	0.005	0.012	0.005	0.39	Distancia
8101	8016	0.005	0.012	0.003	0.22	Distancia	8105	5037	41.853	58.710	-23.79	0.41	Dirección
8015	8016	95.588	159.591	34.94	0.22	Dirección	8105	5037	41.853	58.710	-23.79	0.41	Dirección
8102	8103	0.001	0.013	-0.003	0.22	Distancia	8005	8007	0.005	0.011	-0.005	0.42	Distancia
5037	8011	48.196	54.048	-12.07	0.22	Dirección	8008	8007	0.006	0.012	0.005	0.43	Distancia
8015	8017	0.005	0.011	-0.003	0.22	Distancia	8009	8008	150.140	198.297	-86.58	0.44	Dirección

8005	8006	53.508	105.480	-46.42	0.44	Dirección	8007	8008	55.388	56.152	-41.08	0.73	Dirección
8016	8101	0.005	0.012	-0.005	0.45	Distancia	5037	8011	0.006	0.011	0.009	0.76	Distancia
8004	8003	0.004	0.012	-0.005	0.45	Distancia	8018	8103	0.005	0.011	-0.009	0.77	Distancia
5032	8014	0.009	0.009	0.004	0.47	Distancia	8103	8018	81.947	101.792	-79.02	0.78	Dirección
5035	8012	44.062	33.427	-15.68	0.47	Dirección	8018	8104	0.005	0.012	-0.009	0.78	Distancia
8002	8003	0.005	0.012	-0.006	0.47	Distancia	8013	8102	43.423	10.545	8.48	0.80	Dirección
8017	8016	66.163	85.976	-40.45	0.47	Dirección	8013	8014	73.796	35.346	-28.42	0.80	Dirección
8102	5035	0.005	0.011	-0.006	0.48	Distancia	8008	8105	0.009	0.010	0.008	0.81	Distancia
8005	8006	53.508	105.480	-51.42	0.49	Dirección	8103	5035	113.706	167.544	136.19	0.81	Dirección
8012	5037	0.006	0.011	0.006	0.49	Distancia	8001	8000	63.222	75.724	-62.75	0.83	Dirección
5035	8018	54.694	75.571	37.41	0.50	Dirección	8008	8009	150.164	198.278	164.32	0.83	Dirección
8101	8100	0.003	0.013	-0.006	0.50	Distancia	8017	8101	61.968	78.132	-64.97	0.83	Dirección
5028	8015	38.993	40.831	-21.48	0.53	Dirección	8012	8104	0.005	0.013	-0.011	0.84	Distancia
8009	5034	61.705	37.621	-20.22	0.54	Dirección	5035	8012	0.006	0.012	0.010	0.85	Distancia
8104	8018	27.348	24.971	13.70	0.55	Dirección	8101	8017	51.480	85.407	72.78	0.85	Dirección
8005	8003	0.005	0.012	-0.007	0.56	Distancia	5035	8103	99.239	176.498	-152.37	0.86	Dirección
8102	5035	65.451	84.067	47.02	0.56	Dirección	8003	8004	34.322	85.468	-76.86	0.90	Dirección
8005	8003	0.005	0.013	-0.007	0.56	Distancia	8003	8004	34.322	85.468	-77.86	0.91	Dirección
8001	8002	0.001	0.013	0.007	0.57	Distancia	8008	8009	0.006	0.011	0.010	0.93	Distancia
8005	8003	21.870	42.735	-24.82	0.58	Dirección	8101	8015	98.794	197.993	-192.71	0.97	Dirección
5037	8012	38.763	19.419	11.50	0.59	Dirección	8018	8012	0.005	0.011	-0.011	0.98	Distancia
8012	8018	54.027	83.690	-50.24	0.60	Dirección	8009	8008	0.006	0.011	0.011	0.98	Distancia
8105	8011	0.005	0.011	0.007	0.60	Distancia	8009	5006	0.007	0.011	0.010	0.99	Distancia
8006	8007	0.005	0.011	0.007	0.61	Distancia	8018	5035	58.836	72.394	71.85	0.99	Dirección
5006	5034	0.007	0.010	0.006	0.61	Distancia	8000	8002	0.005	0.012	0.012	1.00	Distancia
8103	8018	0.005	0.012	0.007	0.61	Distancia	8018	8012	48.327	87.106	87.49	1.00	Dirección
5034	5006	0.007	0.010	0.006	0.62	Distancia	8105	8104	44.760	45.068	45.67	1.01	Dirección
8104	8012	0.005	0.013	0.008	0.62	Distancia	8103	5035	0.005	0.012	-0.012	1.04	Distancia
8003	8004	34.322	85.468	-53.86	0.63	Dirección	8018	8012	48.327	87.106	92.49	1.06	Dirección
8004	8005	64.454	53.168	33.55	0.63	Dirección	5006	8011	38.094	8.385	-8.96	1.07	Dirección
8005	8003	0.005	0.012	-0.008	0.64	Distancia	8018	8103	74.745	107.192	115.85	1.08	Dirección
8002	8003	0.005	0.012	-0.008	0.64	Distancia	8105	5037	0.005	0.012	0.013	1.09	Distancia
8011	5037	0.006	0.011	0.007	0.64	Distancia	5028	5030	44.464	47.250	-51.69	1.09	Dirección
5030	8014	100.398	50.878	-33.21	0.65	Dirección	8005	8007	43.921	80.220	-89.73	1.12	Dirección
5030	5028	62.642	16.899	11.04	0.65	Dirección	8005	8007	0.005	0.011	-0.013	1.12	Distancia
5035	8102	73.535	77.095	51.52	0.67	Dirección	8102	8013	39.319	21.233	-23.91	1.13	Dirección
8007	8008	0.006	0.012	-0.008	0.67	Distancia	8018	8012	0.005	0.011	-0.013	1.15	Distancia
8005	8003	21.870	42.735	-28.82	0.67	Dirección	8006	8008	56.803	66.556	-77.12	1.16	Dirección
5037	8105	0.005	0.012	0.008	0.68	Distancia	5028	8015	38.993	40.831	47.52	1.16	Dirección
8009	5006	86.985	113.874	-78.81	0.69	Dirección	8104	8012	29.643	35.939	43.00	1.20	Dirección
8102	8103	53.921	58.463	41.20	0.70	Dirección	8018	5035	0.006	0.011	-0.014	1.20	Distancia
8003	8004	34.322	85.468	61.14	0.72	Dirección	8009	5034	0.007	0.010	0.013	1.20	Distancia
5035	8018	0.006	0.011	0.008	0.73	Distancia	8006	8008	56.803	66.556	-80.12	1.20	Dirección

8103	8102	0.001	0.013	-0.015	1.23	Distancia
5006	8009	108.604	93.481	115.40	1.23	Dirección
8012	5037	30.474	30.839	-38.34	1.24	Dirección
8104	8105	0.002	0.013	0.016	1.26	Distancia
8017	8015	59.559	81.102	-102.92	1.27	Dirección
8104	5037	0.005	0.011	0.015	1.28	Distancia
8015	5028	37.991	41.766	-54.20	1.30	Dirección
8105	8011	197.665	340.875	-451.26	1.32	Dirección
8105	8104	0.002	0.013	0.018	1.40	Distancia
8005	8007	43.921	80.220	-114.73	1.43	Dirección
8009	8007	68.660	40.175	57.76	1.44	Dirección
8015	8017	66.179	75.796	117.60	1.55	Dirección
8008	8007	55.228	56.309	87.67	1.56	Dirección
8002	8003	38.207	45.989	-71.80	1.56	Dirección
8003	8000	20.040	45.819	73.37	1.60	Dirección
8000	8002	74.750	129.768	-209.02	1.61	Dirección
8002	8003	38.207	45.989	-74.80	1.63	Dirección
8100	8017	33.441	38.663	-64.35	1.66	Dirección
8100	8101	30.936	20.194	33.61	1.66	Dirección
8005	8006	53.508	105.480	-179.42	1.70	Dirección
8005	8007	43.921	80.220	-136.73	1.70	Dirección
8012	8104	32.069	33.792	58.07	1.72	Dirección
8104	5037	181.811	314.245	-555.48	1.77	Dirección
8003	8000	20.040	45.819	-83.63	1.83	Dirección
8003	8002	28.579	52.517	96.04	1.83	Dirección
8104	8105	29.692	56.151	-103.27	1.84	Dirección
8008	8006	59.876	63.806	121.12	1.90	Dirección
8003	8002	28.579	52.517	-106.96	2.04	Dirección
8003	8004	34.322	85.468	196.14	2.29	Dirección
8005	8003	21.870	42.735	101.18	2.37	Dirección
8005	8003	21.870	42.735	101.18	2.37	Dirección
5034	8009	0.007	0.010	-0.025	2.42	Distancia
8017	8100	46.288	21.693	52.61	2.43	Dirección
8000	8003	45.004	21.807	-53.70	2.46	Dirección
8018	8104	32.597	17.575	-45.50	2.59	Dirección
8006	8005	82.077	85.161	291.01	3.42	Dirección
8007	8009	59.052	53.302	-183.08	3.43	Dirección
8003	8000	20.040	45.819	166.37	3.63	Dirección
8008	8105	33.068	9.764	-38.77	3.97	Dirección
8000	8001	65.989	73.324	299.49	4.08	Dirección
8002	8001	48.054	74.821	319.98	4.28	Dirección
8007	8005	65.272	64.062	297.21	4.64	Dirección
8003	8005	35.209	32.632	-161.73	4.96	Dirección

Marca para aquellas observaciones que superan el límite crítico de 3.29

Pesos y residuos de las observaciones altimétricas

Estación	Visado	Lectura	Error a priori	Residuo ponderado	Residuo sin ponderar	Clase
5006	5034	-0.492	0.003	4.24	0.011	Desnivel
5006	8009	-0.139	0.002	0.67	0.001	Desnivel
5006	8011	-0.573	0.008	1.61	0.014	Desnivel
5028	5030	-0.281	0.005	3.06	0.014	Desnivel
5028	5030	-0.278	0.005	2.45	0.011	Desnivel
5028	8015	0.503	0.005	-0.72	-0.004	Desnivel
5028	8015	0.490	0.005	1.71	0.009	Desnivel
5030	5028	0.263	0.005	0.76	0.004	Desnivel
5030	8014	-0.088	0.003	0.02	0.000	Desnivel
5032	8014	0.006	0.007	0.98	0.007	Desnivel
5032	8102	0.941	0.004	1.96	0.007	Desnivel
5034	5006	0.484	0.003	-1.10	-0.003	Desnivel
5034	8009	0.348	0.004	-1.22	-0.005	Desnivel
5035	8012	-1.366	0.006	-0.06	-0.000	Desnivel
5035	8018	-0.804	0.003	0.14	0.000	Desnivel
5035	8102	0.086	0.003	-1.39	-0.004	Desnivel
5035	8103	0.038	0.001	-1.67	-0.002	Desnivel
5037	8011	-0.374	0.004	1.49	0.006	Desnivel
5037	8012	0.318	0.007	1.16	0.009	Desnivel
5037	8105	-0.140	0.004	1.40	0.006	Desnivel
8000	8001	-0.174	0.003	0.31	0.001	Desnivel
8000	8002	-0.201	0.002	2.98	0.006	Desnivel
8000	8003	0.330	0.006	1.63	0.010	Desnivel
8001	8000	0.161	0.003	3.97	0.012	Desnivel
8002	8000	0.189	0.002	3.29	0.006	Desnivel
8002	8003	0.527	0.005	1.59	0.008	Desnivel
8002	8003	0.530	0.005	1.00	0.005	Desnivel
8003	8000	-0.347	0.006	1.14	0.007	Desnivel
8003	8000	-0.350	0.006	1.58	0.010	Desnivel
8003	8000	-0.351	0.006	1.76	0.011	Desnivel
8003	8000	-0.352	0.006	1.88	0.012	Desnivel
8003	8000	-0.348	0.006	1.21	0.008	Desnivel
8003	8002	-0.545	0.005	1.93	0.010	Desnivel
8003	8002	-0.544	0.005	1.83	0.009	Desnivel
8003	8004	0.012	0.003	3.74	0.012	Desnivel

8003	8004	0.016	0.003	2.59	0.008	Desnivel	8011	8105	0.234	0.001	-0.01	-0.000	Desnivel
8003	8004	0.018	0.003	1.97	0.006	Desnivel	8012	5035	1.367	0.006	-0.25	-0.001	Desnivel
8003	8004	0.016	0.003	2.63	0.008	Desnivel	8012	5037	-0.331	0.007	0.55	0.004	Desnivel
8003	8004	0.015	0.003	2.75	0.009	Desnivel	8012	8018	0.565	0.003	-1.02	-0.003	Desnivel
8003	8005	0.136	0.007	2.55	0.017	Desnivel	8012	8104	-0.592	0.007	-0.56	-0.004	Desnivel
8004	8003	-0.031	0.003	2.10	0.007	Desnivel	8013	8014	0.067	0.004	1.63	0.006	Desnivel
8004	8003	-0.031	0.003	2.17	0.007	Desnivel	8013	8102	1.001	0.007	1.02	0.007	Desnivel
8004	8005	0.123	0.004	1.77	0.006	Desnivel	8014	5030	0.075	0.003	4.95	0.013	Desnivel
8005	8003	-0.153	0.007	-0.00	-0.000	Desnivel	8014	8013	-0.079	0.004	1.77	0.006	Desnivel
8005	8003	-0.155	0.007	0.28	0.002	Desnivel	8015	5028	-0.495	0.005	-0.79	-0.004	Desnivel
8005	8003	-0.157	0.007	0.65	0.004	Desnivel	8015	5028	-0.487	0.005	-2.18	-0.012	Desnivel
8005	8003	-0.158	0.007	0.71	0.005	Desnivel	8015	8016	-0.024	0.002	0.73	0.001	Desnivel
8005	8004	-0.134	0.004	1.32	0.005	Desnivel	8015	8016	-0.020	0.002	-1.61	-0.003	Desnivel
8005	8004	-0.137	0.004	2.16	0.008	Desnivel	8015	8017	-0.018	0.003	-0.79	-0.002	Desnivel
8005	8004	-0.136	0.004	2.10	0.007	Desnivel	8015	8101	0.113	0.001	-2.27	-0.003	Desnivel
8005	8006	-0.057	0.002	2.74	0.007	Desnivel	8015	8101	0.110	0.001	-0.26	-0.000	Desnivel
8005	8006	-0.056	0.002	2.62	0.006	Desnivel	8016	8015	0.025	0.002	-0.96	-0.002	Desnivel
8005	8006	-0.053	0.002	1.08	0.003	Desnivel	8016	8015	0.027	0.002	-2.80	-0.004	Desnivel
8005	8007	0.206	0.003	1.53	0.005	Desnivel	8016	8017	0.006	0.003	-1.14	-0.003	Desnivel
8005	8007	0.207	0.003	1.28	0.004	Desnivel	8016	8101	0.136	0.003	-0.94	-0.003	Desnivel
8005	8007	0.203	0.003	2.35	0.008	Desnivel	8016	8101	0.136	0.003	-1.13	-0.003	Desnivel
8006	8005	0.043	0.002	2.74	0.007	Desnivel	8017	8015	0.022	0.003	-0.75	-0.002	Desnivel
8006	8007	0.254	0.001	8.13	0.007	Desnivel	8017	8016	-0.002	0.003	-0.39	-0.001	Desnivel
8006	8008	-0.028	0.003	2.71	0.009	Desnivel	8017	8100	-0.151	0.006	0.67	0.004	Desnivel
8006	8008	-0.029	0.003	2.89	0.010	Desnivel	8017	8101	0.131	0.003	-0.18	-0.001	Desnivel
8007	8005	-0.215	0.003	1.27	0.004	Desnivel	8018	5035	0.805	0.003	-0.36	-0.001	Desnivel
8007	8008	-0.291	0.004	2.80	0.011	Desnivel	8018	8012	-0.560	0.003	-0.78	-0.002	Desnivel
8007	8009	-0.562	0.004	-0.04	-0.000	Desnivel	8018	8012	-0.560	0.003	-0.77	-0.002	Desnivel
8008	8006	0.009	0.003	2.88	0.010	Desnivel	8018	8103	0.844	0.002	-1.84	-0.004	Desnivel
8008	8007	0.270	0.004	2.58	0.010	Desnivel	8018	8104	-1.162	0.009	0.48	0.004	Desnivel
8008	8009	-0.284	0.001	1.73	0.002	Desnivel	8100	8017	0.153	0.006	-0.92	-0.006	Desnivel
8008	8105	-0.477	0.010	0.79	0.008	Desnivel	8101	8015	-0.106	0.001	-3.08	-0.004	Desnivel
8009	5006	0.124	0.002	6.61	0.014	Desnivel	8101	8016	-0.130	0.003	-1.04	-0.003	Desnivel
8009	5034	-0.368	0.004	6.02	0.025	Desnivel	8101	8017	-0.128	0.003	-0.76	-0.002	Desnivel
8009	8007	0.542	0.004	5.29	0.020	Desnivel	8102	5032	-0.956	0.004	2.18	0.008	Desnivel
8009	8008	0.269	0.001	11.01	0.013	Desnivel	8102	5035	-0.094	0.003	4.16	0.012	Desnivel
8011	5006	0.551	0.008	0.97	0.008	Desnivel	8102	8013	-1.018	0.007	1.42	0.010	Desnivel
8011	5037	0.360	0.004	1.95	0.008	Desnivel	8103	5035	-0.034	0.001	-1.41	-0.002	Desnivel

8103	8018	-0.839	0.002	-0.35	-0.001	Desnivel	Test de Baarda altimétrico						
8104	5037	0.265	0.001	4.86	0.004	Desnivel	Estación	Visado	Desv.Tip. Observ.	Desv.Tip. Residuo	Residuo sin Pond.	Residuo tipificado	Clase
8104	8012	0.590	0.007	0.92	0.006	Desnivel	5035	8018	0.003	0.007	-0.000	0.02	Desnivel
8104	8018	1.149	0.009	1.05	0.009	Desnivel	8105	5037	0.002	0.010	-0.000	0.02	Desnivel
8105	5037	0.130	0.004	0.91	0.004	Desnivel	8015	8016	0.002	0.004	0.000	0.02	Desnivel
8105	5037	0.120	0.004	3.46	0.014	Desnivel	8015	5028	0.006	0.012	-0.000	0.04	Desnivel
8105	8011	-0.247	0.001	17.47	0.013	Desnivel	8012	5035	0.004	0.013	-0.001	0.05	Desnivel
8105	8011	-0.238	0.001	5.02	0.004	Desnivel	8005	8003	0.004	0.016	0.001	0.05	Desnivel
Correcciones y precisiones alimétricas							8018	5035	0.003	0.007	-0.001	0.07	Desnivel
							8012	8104	0.004	0.016	-0.001	0.08	Desnivel
							5035	8012	0.004	0.013	-0.001	0.08	Desnivel
							8016	8015	0.002	0.004	-0.000	0.12	Desnivel
							8104	5037	0.002	0.001	-0.000	0.13	Desnivel
							8003	8000	0.005	0.015	0.002	0.13	Desnivel
							8012	5037	0.005	0.018	0.003	0.14	Desnivel
							8005	8004	0.004	0.008	0.001	0.15	Desnivel
							8005	8007	0.003	0.008	0.001	0.15	Desnivel
							8003	8000	0.005	0.015	0.002	0.16	Desnivel
							8005	8003	0.004	0.016	0.003	0.16	Desnivel
							8017	8101	0.003	0.007	-0.001	0.19	Desnivel
							8005	8007	0.003	0.008	-0.001	0.19	Desnivel
							8015	8101	0.002	0.003	-0.001	0.20	Desnivel
							5035	8103	0.002	0.003	-0.001	0.22	Desnivel
							8017	8100	0.003	0.015	0.003	0.22	Desnivel
							8101	8017	0.003	0.007	-0.002	0.22	Desnivel
							8104	8012	0.004	0.016	0.004	0.23	Desnivel
							8016	8017	0.003	0.006	-0.002	0.25	Desnivel
							5028	5030	0.006	0.010	0.003	0.25	Desnivel
							8016	8101	0.002	0.007	-0.002	0.27	Desnivel
							8015	8017	0.003	0.007	-0.002	0.27	Desnivel
Número	Corrección Z	Precisión Z											
5006	-0.002	0.007											
5028	0.004	0.006											
5030	-0.005	0.008											
5032	0.001	0.006											
5034	-0.010	0.008											
5035	-0.002	0.002											
5037	-0.004	0.002											
8000	-0.002	0.003											
8003	0.003	0.004											
8004	-0.001	0.005											
8005	0.002	0.006											
8006	0.002	0.006											
8007	-0.004	0.006											
8008	-0.001	0.007											
8009	0.004	0.007											
8011	-0.005	0.001											
8012	-0.003	0.004											
8013	0.000	0.008											
8014	0.001	0.008											
8015	0.000	0.002											
8016	-0.001	0.002											
8017	0.001	0.003											
8018	-0.002	0.003											
							8003	8004	0.003	0.008	0.002	0.27	Desnivel
							8005	8007	0.003	0.008	-0.002	0.30	Desnivel
							8018	8104	0.003	0.022	0.007	0.30	Desnivel
							5035	8102	0.002	0.007	-0.002	0.31	Desnivel
							8104	8018	0.003	0.022	0.007	0.31	Desnivel
							8003	8000	0.005	0.015	0.005	0.32	Desnivel
							8005	8003	0.004	0.016	0.005	0.32	Desnivel
							8100	8017	0.003	0.015	-0.005	0.32	Desnivel
							8005	8003	0.004	0.016	0.005	0.34	Desnivel
							8016	8101	0.002	0.007	-0.002	0.35	Desnivel
							8018	8103	0.003	0.005	-0.002	0.37	Desnivel
							8018	8012	0.004	0.006	-0.002	0.38	Desnivel
							8018	8012	0.004	0.006	-0.002	0.38	Desnivel

8008	8105	0.007	0.024	0.009	0.39	Desnivel	8003	8005	0.004	0.016	0.016	1.00	Desnivel
8003	8000	0.005	0.015	0.006	0.39	Desnivel	8105	5037	0.002	0.010	0.010	1.01	Desnivel
8017	8015	0.003	0.007	-0.003	0.40	Desnivel	8015	8016	0.002	0.004	-0.004	1.01	Desnivel
8000	8001	0.003	0.007	0.003	0.43	Desnivel	8000	8003	0.005	0.015	0.015	1.02	Desnivel
8005	8006	0.003	0.006	0.002	0.43	Desnivel	8003	8004	0.003	0.008	0.008	1.02	Desnivel
8017	8016	0.003	0.006	-0.003	0.43	Desnivel	8002	8000	0.003	0.004	0.004	1.07	Desnivel
8003	8000	0.005	0.015	0.007	0.44	Desnivel	8006	8007	0.002	0.001	0.001	1.08	Desnivel
8012	8018	0.004	0.006	-0.003	0.44	Desnivel	8005	8006	0.003	0.006	0.006	1.10	Desnivel
5028	8015	0.006	0.012	0.005	0.45	Desnivel	8015	8101	0.002	0.003	-0.003	1.13	Desnivel
8013	8102	0.008	0.016	0.007	0.45	Desnivel	8005	8006	0.003	0.006	0.007	1.15	Desnivel
5037	8011	0.002	0.010	0.005	0.46	Desnivel	8105	8011	0.001	0.002	-0.002	1.17	Desnivel
5032	8014	0.009	0.016	0.008	0.48	Desnivel	5030	8014	0.004	0.005	0.006	1.20	Desnivel
8005	8004	0.004	0.008	0.004	0.49	Desnivel	8009	5034	0.005	0.009	0.011	1.20	Desnivel
8005	8004	0.004	0.008	0.004	0.52	Desnivel	8004	8005	0.004	0.008	0.010	1.21	Desnivel
5006	8011	0.007	0.020	0.010	0.52	Desnivel	8006	8005	0.003	0.006	0.007	1.24	Desnivel
8003	8002	0.004	0.012	0.006	0.52	Desnivel	5030	5028	0.006	0.010	0.012	1.24	Desnivel
8003	8004	0.003	0.008	0.004	0.54	Desnivel	8102	5032	0.006	0.007	0.008	1.25	Desnivel
5028	5030	0.006	0.010	0.005	0.54	Desnivel	8103	5035	0.002	0.003	-0.004	1.30	Desnivel
8003	8004	0.003	0.008	0.004	0.55	Desnivel	8009	8007	0.004	0.009	0.012	1.33	Desnivel
5037	8012	0.005	0.018	0.010	0.56	Desnivel	8101	8015	0.002	0.003	-0.004	1.34	Desnivel
8101	8016	0.002	0.007	-0.004	0.56	Desnivel	8007	8005	0.003	0.008	0.011	1.38	Desnivel
8003	8002	0.004	0.012	0.007	0.56	Desnivel	8001	8000	0.003	0.007	0.010	1.40	Desnivel
8011	5006	0.007	0.020	0.011	0.57	Desnivel	8004	8003	0.003	0.008	0.011	1.46	Desnivel
8003	8004	0.003	0.008	0.005	0.60	Desnivel	8102	5035	0.002	0.007	0.010	1.47	Desnivel
5028	8015	0.006	0.012	-0.008	0.64	Desnivel	8004	8003	0.003	0.008	0.011	1.49	Desnivel
8015	5028	0.006	0.012	-0.008	0.66	Desnivel	8014	5030	0.004	0.005	0.007	1.49	Desnivel
8102	8013	0.008	0.016	0.010	0.66	Desnivel	8007	8008	0.004	0.009	0.013	1.50	Desnivel
8103	8018	0.003	0.005	-0.003	0.66	Desnivel	8008	8006	0.004	0.008	0.013	1.71	Desnivel
8002	8003	0.004	0.012	0.008	0.68	Desnivel	8009	5006	0.003	0.004	0.007	1.80	Desnivel
5006	5034	0.004	0.005	0.004	0.70	Desnivel	8000	8002	0.003	0.004	0.008	1.94	Desnivel
8006	8008	0.004	0.008	0.006	0.73	Desnivel	5006	8009	0.003	0.004	0.008	1.97	Desnivel
8008	8007	0.004	0.009	0.007	0.80	Desnivel	8009	8008	0.002	0.002	0.007	3.39	Desnivel
8006	8008	0.004	0.008	0.006	0.81	Desnivel	8008	8009	0.002	0.002	0.008	3.54	Desnivel
8014	8013	0.006	0.007	0.006	0.83	Desnivel	8011	8105	0.001	0.002	0.005	3.60	Desnivel
5034	5006	0.004	0.005	0.005	0.89	Desnivel	8105	8011	0.001	0.002	0.007	4.87	Desnivel
5034	8009	0.005	0.009	0.009	0.92	Desnivel	# : Marca para aquellas observaciones que superan el límite crítico de 3.29						
8002	8003	0.004	0.012	0.011	0.93	Desnivel							
8011	5037	0.002	0.010	0.010	0.94	Desnivel							
8007	8009	0.004	0.009	0.008	0.94	Desnivel							
8016	8015	0.002	0.004	-0.003	0.94	Desnivel							
8013	8014	0.006	0.007	0.007	0.95	Desnivel							
5037	8105	0.002	0.010	0.010	0.96	Desnivel							
5032	8102	0.006	0.007	0.006	0.98	Desnivel							

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
5006	236605.342	4140983.131	8.879	351.5758	
5028	236845.287	4141856.836	9.889	384.0970	
5030	236802.169	4141774.234	9.613	36.3690	
5032	236759.614	4141581.936	9.518	183.7891	
5034	236637.892	4141022.705	8.390	325.1335	
5035	236727.731	4141467.908	10.381	126.6600	
5037	236676.096	4141222.275	8.686	287.3092	
8000	236289.476	4141031.332	8.599	232.3272	
8001	236232.845	4141011.860	8.428	270.0147	
8002	236296.809	4140992.958	8.406	269.9854	
8003	236394.729	4140964.868	8.944	232.3212	
8004	236440.760	4140919.967	8.964	269.9832	
8005	236510.103	4140903.869	9.096	318.4262	
8006	236559.092	4140895.566	9.046	119.6548	
8007	236571.020	4140881.847	9.301	368.5238	
8008	236593.340	4140954.116	9.024	187.6712	
8009	236614.062	4140943.215	8.747	185.9628	
8011	236664.079	4141140.347	8.317	202.6390	
8012	236735.292	4141357.103	9.014	365.0241	
8013	236779.821	4141652.100	9.457	151.4120	
8014	236785.658	4141724.633	9.531	53.4874	
8015	236854.567	4141964.974	10.384	13.9353	
8016	236824.968	4141975.367	10.360	42.5340	
8017	236850.129	4142023.476	10.365	45.3070	
8018	236705.622	4141408.429	9.577	107.2194	
8100	236772.002	4142116.387	10.217	45.3187	
8101	236879.873	4141972.271	10.494	45.3157	
8102	236762.158	4141511.200	10.465	151.9631	
8103	236736.901	4141440.607	10.419	85.3108	
8104	236690.322	4141229.638	8.421	365.0256	
8105	236649.643	4141143.401	8.556	204.9589	
Fichero de salida :		CompensacionMMCC total.pts	Incluido		

Apéndice 8. Cálculo Compensación Planimetría

Compensación de altimetría

Proyecto : zona 1 Fecha de cálculo : 26/11/2018 17:56

Sistema de referencia : UTM ETRS89

Proyección : UTM - 30NElipsoide : WGS-84

Ficheros utilizados

Puntos Visuales

gps.pts observaciones.obs

observaciones 2.obs

Coordenadas iniciales

Número	X	Y	Z	Tipo
5006	236605.346	4140983.161	8.888	Fijo
5028	236845.287	4141856.837	9.885	Incógnita
5030	236802.168	4141774.242	9.618	Fijo
5032	236759.618	4141581.932	9.515	Fijo
5034	236637.893	4141022.734	8.400	Incógnita
5035	236727.721	4141467.908	10.383	Fijo
5037	236676.104	4141222.264	8.684	Fijo
8000	236289.493	4141031.330	8.601	Fijo
8001	236232.845	4141011.860	8.428	Fijo
8002	236296.809	4140992.958	8.406	Fijo
8003	236394.721	4140964.845	8.941	Fijo
8004	236440.747	4140919.953	8.965	Incógnita
8005	236510.093	4140903.878	9.094	Fijo
8006	236559.090	4140895.597	9.044	Fijo
8007	236571.015	4140881.876	9.305	Fijo
8008	236593.359	4140954.150	9.025	Incógnita
8009	236614.087	4140943.221	8.743	Incógnita
8011	236664.088	4141140.353	8.322	Incógnita
8012	236735.314	4141357.114	9.017	Incógnita
8013	236779.813	4141652.107	9.457	Incógnita
8014	236785.654	4141724.643	9.530	Incógnita
8015	236854.573	4141964.978	10.384	Incógnita
8016	236824.973	4141975.368	10.361	Incógnita
8017	236850.137	4142023.479	10.364	Incógnita
8018	236705.615	4141408.431	9.579	Incógnita
8100	236772.002	4142116.387	10.217	Fijo
8101	236879.873	4141972.271	10.494	Fijo
8102	236762.158	4141511.200	10.465	Fijo
8103	236736.901	4141440.607	10.419	Fijo

8104 236690.322 4141229.638 8.421 Fijo

8105 236649.643 4141143.401 8.556 Fijo

Visuales utilizadas

Estación	Visado	Vertical	Dist.Geom.	Desnivel	Peso	Residuo	Mira	Inst
5006	5034	100.6365	51.211	-0.492	1.000	-0.003	1.300	1.320
5006	8009	100.2486	40.836	-0.139	1.253	-0.004	1.300	1.320
5006	8011	100.2255	167.747	-0.573	0.305	-0.001	1.300	1.320
5028	5030	100.3799	93.131	-0.281	0.550	-0.007	1.300	1.574
5028	5030	100.3383	93.136	-0.278	0.550	-0.004	1.300	1.516
5028	8015	99.8379	108.481	0.503	0.472	0.010	1.290	1.516
5028	8015	99.8738	108.478	0.490	0.472	-0.004	1.300	1.574
5030	5028	99.7184	93.131	0.263	0.550	-0.011	1.700	1.551
5030	8014	100.4133	52.252	-0.088	0.980	-0.005	1.300	1.551
5032	8014	100.0994	144.978	0.006	0.353	-0.014	1.300	1.531
5034	5006	99.6772	51.209	0.484	1.000	-0.006	1.300	1.524
5034	8009	99.9051	82.969	0.348	0.617	-0.006	1.300	1.524
5035	8012	100.7303	111.004	-1.366	0.461	0.004	1.700	1.607
5035	8012	100.7398	111.028	-1.368	0.461	0.001	1.700	1.621
5035	8018	101.1159	63.425	-0.804	0.808	-0.001	1.300	1.607
5035	8018	101.1252	63.442	-0.800	0.808	0.004	1.300	1.621
5037	8011	100.4043	82.757	-0.374	0.619	-0.007	1.400	1.551
5037	8012	99.9281	147.176	0.318	0.348	-0.011	1.400	1.551
8003	8004	100.3182	64.274	0.012	0.797	-0.008	1.300	1.633
8003	8004	100.3096	64.270	0.016	0.797	-0.004	1.300	1.628
8003	8004	100.2997	64.270	0.018	0.797	-0.002	1.300	1.620
8003	8004	100.2592	64.272	0.016	0.797	-0.004	1.300	1.577
8003	8004	100.2596	64.270	0.015	0.797	-0.005	1.300	1.577
8004	8003	100.3427	64.273	-0.031	0.797	-0.011	1.300	1.615
8004	8003	100.3429	64.278	-0.031	0.797	-0.011	1.300	1.615
8004	8005	100.1723	71.154	0.123	0.720	-0.010	1.300	1.615
8005	8004	100.4062	71.154	-0.134	0.720	-0.001	1.300	1.620
8005	8004	100.3552	71.152	-0.137	0.720	-0.004	1.300	1.560
8005	8004	100.3550	71.151	-0.136	0.720	-0.003	1.300	1.560
8006	8008	100.2962	67.799	-0.028	0.755	-0.012	1.300	1.587
8006	8008	100.2968	67.798	-0.029	0.755	-0.013	1.300	1.587
8007	8008	100.1717	75.608	-0.291	0.677	-0.014	1.700	1.613
8007	8009	100.7436	74.927	-0.562	0.684	-0.010	1.300	1.613
8008	8006	100.1531	67.797	0.009	0.755	-0.007	1.300	1.472
8008	8007	99.5807	75.596	0.270	0.677	-0.007	1.700	1.472
8008	8009	101.2410	23.397	-0.284	2.187	-0.009	1.300	1.472
8008	8105	100.2100	197.377	-0.477	0.260	-0.005	1.300	1.472

8009	5006	100.1522	40.827	0.124	1.253	-0.011	1.300	1.522	8017	8101	100.1260	59.200	0.136	0.865	0.009	1.300	1.553
8009	5034	100.4532	82.933	-0.368	0.617	-0.014	1.300	1.522	8018	5035	99.4955	63.417	0.802	0.808	-0.002	1.300	1.599
8009	8007	99.7282	74.919	0.542	0.684	-0.010	1.300	1.522	8018	5035	99.4903	63.439	0.805	0.808	0.001	1.300	1.597
8009	8008	99.8719	23.392	0.269	2.187	-0.006	1.300	1.522	8018	8012	100.9204	59.272	-0.560	0.864	0.006	1.300	1.597
8011	5006	99.8485	167.747	0.551	0.305	-0.021	1.300	1.450	8018	8012	100.9204	59.274	-0.560	0.864	0.006	1.300	1.597
8011	5037	99.8388	82.757	0.360	0.619	-0.008	1.300	1.450	8018	8012	100.9358	59.273	-0.572	0.864	-0.006	1.300	1.599
8011	8105	99.6374	14.747	0.234	3.471	-0.005	1.300	1.450	8018	8102	99.6813	117.245	0.887	0.437	0.001	1.300	1.599
8012	5035	99.3883	111.012	1.367	0.461	-0.002	1.300	1.600	8018	8103	99.2386	44.864	0.836	1.142	-0.004	1.300	1.599
8012	5037	100.2735	147.174	-0.331	0.348	-0.002	1.300	1.600	8018	8103	99.2238	44.865	0.844	1.142	0.004	1.300	1.597
8012	5037	100.2365	147.170	-0.321	0.348	0.008	1.300	1.524	8018	8104	100.5170	179.369	-1.156	0.286	0.002	1.300	1.599
8012	8018	99.7155	59.257	0.565	0.864	-0.001	1.300	1.600	8018	8104	100.5186	179.371	-1.162	0.286	-0.004	1.300	1.597
8012	8018	99.2013	59.251	0.568	0.864	0.002	1.700	1.524	8100	8017	100.0841	121.334	0.153	0.422	0.003	1.300	1.612
8012	8104	100.1853	135.110	-0.592	0.379	0.000	1.800	1.600	8100	8017	100.0451	121.329	0.159	0.422	0.009	1.300	1.544
8012	8104	100.0478	135.095	-0.576	0.379	0.016	2.000	1.524	8101	8015	101.0012	26.325	-0.106	1.946	0.003	1.300	1.608
8013	8014	100.1805	72.734	0.067	0.704	-0.007	1.300	1.573	8101	8015	101.0130	26.323	-0.109	1.946	-0.000	1.300	1.610
8013	8102	99.6741	141.933	1.001	0.361	-0.004	1.300	1.573	8101	8015	100.9483	26.320	-0.108	1.946	0.001	1.300	1.584
8014	5030	100.2097	52.250	0.075	0.980	-0.008	1.300	1.547	8101	8016	100.5077	54.964	-0.130	0.932	0.003	1.300	1.608
8014	8013	100.2860	72.729	-0.079	0.704	-0.005	1.300	1.547	8101	8016	100.4821	54.983	-0.132	0.932	0.001	1.300	1.584
8015	5028	100.4738	108.483	-0.495	0.472	-0.001	1.300	1.612	8101	8017	100.4689	59.191	-0.128	0.865	-0.000	1.300	1.608
8015	5028	100.4418	108.487	-0.487	0.472	0.006	1.290	1.555	8101	8017	100.4417	59.207	-0.127	0.865	0.001	1.300	1.584
8015	8016	100.5872	31.355	-0.024	1.633	0.000	1.290	1.555	8101	8017	100.4695	59.185	-0.126	0.865	0.001	1.300	1.610
8015	8016	100.6752	31.354	-0.020	1.633	0.004	1.300	1.612	8102	8013	100.6101	141.941	-1.018	0.361	-0.013	1.300	1.641
8015	8017	100.3581	58.645	-0.018	0.873	0.001	1.300	1.612	8103	8018	101.2978	44.855	-0.839	1.142	0.001	1.500	1.575
8015	8101	100.4814	26.323	0.113	1.946	0.004	1.300	1.612	8104	8012	99.6288	135.093	0.590	0.379	-0.003	1.800	1.601
8015	8101	100.3741	26.326	0.110	1.946	0.002	1.290	1.555	8104	8018	99.6998	179.355	1.149	0.286	-0.009	1.300	1.601
8016	8015	100.4598	31.367	0.029	1.633	0.004	1.300	1.555	8105	8011	102.0487	14.760	-0.247	3.471	-0.007	1.300	1.528
8016	8015	100.5900	31.352	0.025	1.633	-0.000	1.300	1.615	8105	8011	102.2348	14.751	-0.238	3.471	0.002	1.300	1.580
8016	8015	100.4135	31.356	0.027	1.633	0.003	1.290	1.521									
8016	8017	100.2907	54.276	0.007	0.944	0.001	1.300	1.555									
8016	8017	100.3626	54.267	0.006	0.944	0.000	1.300	1.615									
8016	8101	100.1319	54.975	0.141	0.932	0.008	1.300	1.555									
8016	8101	100.1107	54.970	0.136	0.932	0.002	1.290	1.521									
8016	8101	100.2074	54.965	0.136	0.932	0.003	1.300	1.615									
8017	8015	100.3018	58.644	0.022	0.873	0.004	1.300	1.600									
8017	8016	100.3544	54.268	-0.002	0.944	0.004	1.300	1.600									
8017	8016	100.2884	54.267	0.007	0.944	0.013	1.300	1.553									
8017	8100	100.2371	121.335	-0.151	0.422	-0.001	1.300	1.600									
8017	8100	100.1977	121.391	-0.123	0.422	0.027	1.300	1.553									
8017	8100	100.1992	121.327	-0.326	0.422	-0.176	1.500	1.553									
8017	8100	100.2040	121.330	-0.135	0.422	0.015	1.300	1.553									
8017	8100	100.2043	121.332	-0.136	0.422	0.014	1.300	1.553									
8017	8101	100.1825	59.186	0.131	0.865	0.003	1.300	1.600									

Resumen

Número de incógnitas 13
 Número de visuales 106
 Varianza a posteriori 0.020 m

Coordenadas finales

Número	X	Y	Z	Desor	Nombre
5028	236845.287	4141856.837	9.892	384.1169	
5034	236637.893	4141022.734	8.399	325.1311	
8004	236440.747	4140919.953	8.961	269.9854	
8008	236593.359	4140954.150	9.028	187.6813	
8009	236614.087	4140943.221	8.753	185.9537	
8011	236664.088	4141140.353	8.317	202.6456	
8012	236735.314	4141357.114	9.013	364.9954	
8013	236779.813	4141652.107	9.460	151.4233	
8014	236785.654	4141724.643	9.535	53.5044	
8015	236854.573	4141964.978	10.385	13.9543	
8016	236824.973	4141975.368	10.361	42.5347	
8017	236850.137	4142023.479	10.367	45.3028	
8018	236705.615	4141408.431	9.579	107.2043	
Fichero de salida :		Altimetria.pts	Incluido		

Apéndice 9. Coordenadas

9.1 Coordenadas de la Red

Coordenadas UTM

BASE	X	Y	Z
8100	236772,002	4142116,387	10,217
8101	236879,873	4141972,271	10,494
8102	236762,158	4141511,200	10,465
8103	236736,901	4141440,607	10,419
8104	236690,322	4141229,638	8,421
8001	236232,845	4141011,860	8,428
8002	236296,809	4140992,958	8,406
8007	236571,020	4140881,847	9,305
8008	236593,340	4140954,116	9,024

Coordenadas Geográficas

BASE	LATITUD (ETRS89)	LONGITUD (ETRS89)
8100	37º 23' 18,46080"	-5º 58' 23,72018"
8101	37º 23' 13,90080"	-5º 58' 19,15467"
8102	37º 22' 58,83903"	-5º 58' 23,34487"
8103	37º 22' 56,52558"	-5º 58' 24,28016"
8104	37º 22' 49,64130"	-5º 58' 25,90151"
8001	37º 22' 42,11603"	-5º 58' 44,19970"
8002	37º 22' 41,56897"	-5º 58' 41,57803"
8007	37º 22' 38,24882"	-5º 58' 30,30062"
8008	37º 22' 40,61359"	-5º 58' 29,48685"

9.2 Coordenadas de las Bases de Replanteo

Coordenadas UTM

BASE	LATITUD (ETRS89)	LONGITUD (ETRS89)
8000	37º 22' 42,80501"	-5º 58' 41,92502"
8003	37º 22' 40,75890"	-5º 58' 37,56572"
8004	37º 22' 39,35093"	-5º 58' 35,63896"
8005	37º 22' 38,90018"	-5º 58' 32,80250"
8006	37º 22' 38,68121"	-5º 58' 30,80256"
8009	37º 22' 40,28152"	-5º 58' 28,63141"
8011	37º 22' 46,72091"	-5º 58' 26,85284"
8012	37º 22' 53,81790"	-5º 58' 24,23856"
8013	37º 23' 03,42309"	-5º 58' 22,80800"
8014	37º 23' 05,77956"	-5º 58' 22,66384"
8015	37º 23' 13,63847"	-5º 58' 20,17307"
8016	37º 23' 13,94503"	-5º 58' 21,38847"
8017	37º 23' 15,52976"	-5º 58' 20,42822"
8018	37º 22' 55,45085"	-5º 58' 25,50918"
5028	37º 23' 10,12467"	-5º 58' 20,41149"
5032	37º 23' 01,12870"	-5º 58' 23,53877"
5035	37º 22' 57,40093"	-5º 58' 24,68752"
5037	37º 22' 49,38816"	-5º 58' 26,46978"
8105	37º 22' 46,80513"	-5º 58' 27,44297"
5006	37º 22' 41,56612"	-5º 58' 29,03665"
5034	37º 22' 42,88184"	-5º 58' 27,76556"

Coordenadas Geográficas

BASE	X	Y	Z
8000	236289,476	4141031,332	8,601
8003	236394,729	4140964,868	8,941
8004	236440,76	4140919,967	8,964
8005	236510,103	4140903,869	9,094
8006	236559,092	4140895,566	9,044
8009	236614,062	4140943,215	8,747
8011	236664,079	4141140,347	8,317
8012	236735,292	4141357,103	9,014
8013	236779,821	4141652,100	9,457
8014	236785,658	4141724,633	9,531
8015	236854,567	4141964,974	10,384
8016	236824,968	4141975,367	10,360
8017	236850,129	4142023,476	10,365
8018	236705,622	4141408,429	9,577
5028	236845,287	4141856,836	9,889
5032	236759,614	4141581,936	9,515
5035	236727,731	4141467,908	10,383
5037	236676,096	4141222,275	8,684
8105	236649,643	4141143,401	8,556
5006	236605,342	4140983,131	8,879
5034	236637,892	4141022,705	8,390

Apéndice 10. Reseñas

10.1 Reseñas Bases De La Red GPS



Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8001		Municipio: Sevilla	
		Provincia: Sevilla	Huso: 30
SISTEMA ETRS89			
Longitud	-5° 58' 44,19970"	X (UTM):	236232,845
Latitud	37° 22' 42,11603"	Y (UTM):	4141011,860
Anamorfosis :	1,00045677	Alt Orto :	8,428
		Converg. :	-1° 48' 34"

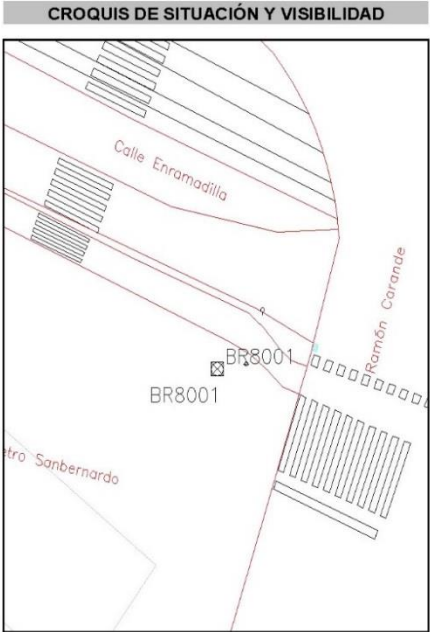
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:
Base situada en la calle Enramadilla, en acerado junto a la parada del metro.

Acotaciones: A:Farola=2,47;B:Señal=4,82;C:Señal=4,39





Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8002		Municipio: Sevilla	
		Provincia: Sevilla	Huso: 30
SISTEMA ETRS89			
Longitud	-5° 58' 41,57803"	X (UTM):	236296,809
Latitud	37° 22' 41,56897"	Y (UTM):	4140992,958
Anamorfosis :	1,00045636	Alt Orto :	8,406
		Converg. :	-1° 48' 32"

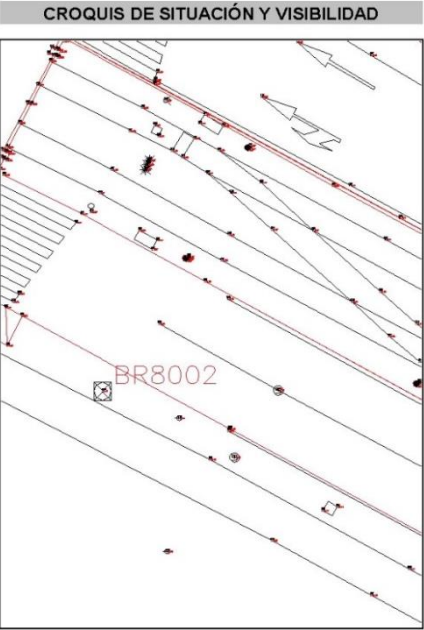
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:
Base situada en Avenida Ramón y Cajal en el acerado de la Facultad de Ciencias del Trabajo, entre la barandilla y el carril bici, próximo al paso de peatones.

Acotaciones: A:Farola=4,51;B: Registro=8,19;C: Rampa=8,85





Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

Reseña de Vértice Topográfico



Nombre del vértice topográfico: **8007** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 30,30062"	X (UTM):	236571,020
Latitud	37° 22' 38,24882"	Y (UTM):	4140881,847
Anamorfofis :	1,00045458	Alt Orto :	9,305
		Converg. :	-1° 48' 25"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero Instalación: 01/08/2018

Situación:
Base situada en isleta de la Avd. San Francisco Javier, cruce con la Avd. Ramón y Cajal.

Acotaciones: A:Registro=4,40;B: Registro=4,30;C:Rampa=3,27

FOTOGRAFIA DE SITUACIÓN



CROQUIS DE SITUACIÓN Y VISIBILIDAD





Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

Reseña de Vértice Topográfico



Nombre del vértice topográfico: **8008** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 29,48685"	X (UTM):	236593,340
Latitud	37° 22' 40,61359"	Y (UTM):	4140954,116
Anamorfofis :	1,00045443	Alt Orto :	9,028
		Converg. :	-1° 48' 25"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero Instalación: 01/08/2018

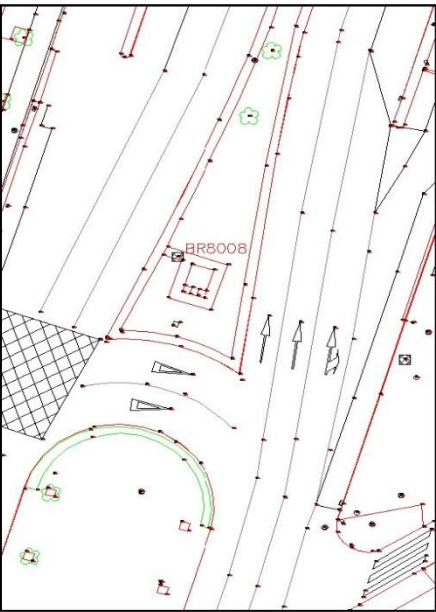
Situación:
Base situada en mediana de la Avd. San Francisco Javier, próxima al cruce con la calle Espinosa y Cárcel.

Acotaciones: A:Esquina bordillo=1,39;B: Esquina bordillo=1,44; C:Esquina bordillo=0,51

FOTOGRAFIA DE SITUACIÓN



CROQUIS DE SITUACIÓN Y VISIBILIDAD





Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

Reseña de Vértice Topográfico



Nombre del vértice topográfico: 8100		Municipio:	Sevilla	
		Provincia:	Sevilla	Huso: 30
SISTEMA ETRS89				
Longitud	-5° 58' 23,72018"	X (UTM):	236772,002	
Latitud	37° 23' 18,46080"	Y (UTM):	4142116,387	
Anamorfosis :	1,00045327	Alt Orto :	10,217	
		Converg. :	-1° 48' 23"	

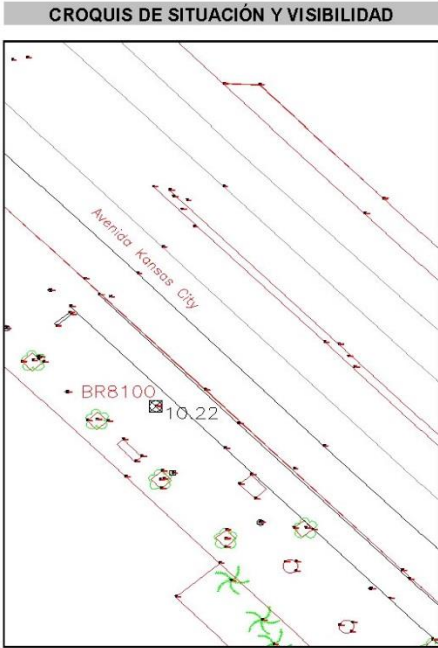
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:
Base situada en Avd. Kansas City, junto a comienzo de aparcamiento, en el
acerao del margen derecho sentido, Luis Montoto.

Acotaciones: A:Alcorque=3,92;B:Alcorque=4,46;C:Farola=6,91





Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

Reseña de Vértice Topográfico



Nombre del vértice topográfico: 8101		Municipio:	Sevilla	
		Provincia:	Sevilla	Huso: 30
SISTEMA ETRS89				
Longitud	-5° 58' 19,15467"	X (UTM):	236879,873	
Latitud	37° 23' 13,90080"	Y (UTM):	4141972,271	
Anamorfosis :	1,00045257	Alt Orto :	10,494	
		Converg. :	-1° 48' 20"	

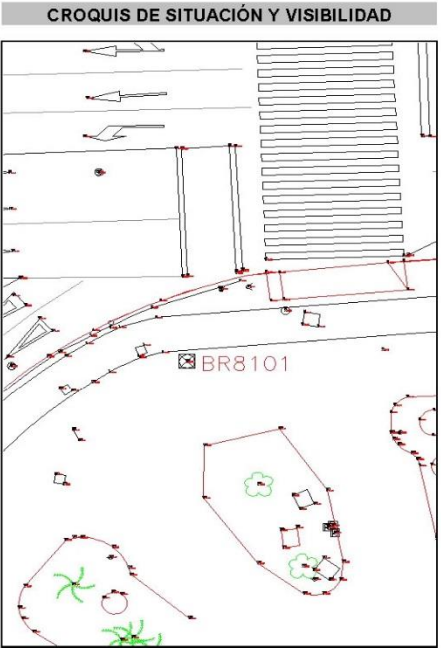
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:
Base situada en la calle Luis montoto, junto a paso de peatones, en el acerao
del Corte Ingles, frente a colegio Publico Borbolla.

Acotaciones: A:Registro=2,61;B:Registro=7,21;C:Farola=6,61



GEA
CARTOGRAFIA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **8102** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 23,34487"	X (UTM):	236762,158
Latitud	37° 22' 58,83903"	Y (UTM):	4141511,200
Anamorfosis :	1,00045334	Alt Orto :	10,465
		Converg. :	-1° 48' 22"

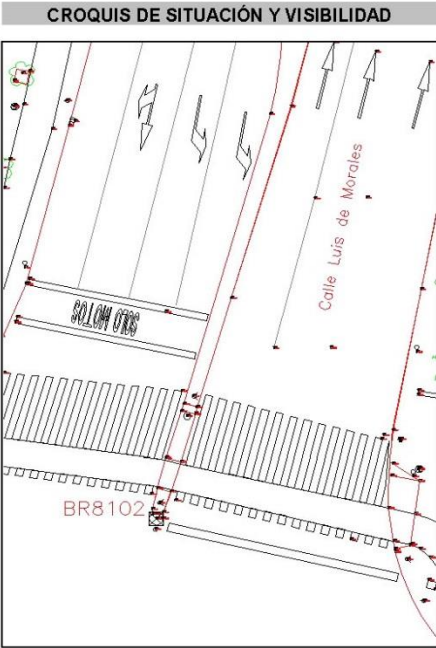
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero Instalación: 01/08/2018

Situación:

Base situada en mediana de cruce de la avd. Luis de morales con la Avd. Eduardo Dato.

Acotaciones: A:Esquina bordillo=0,83;B:Esquina bordillo=0,69;C:Farola1,33



GEA
CARTOGRAFIA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **8103** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 24,28016"	X (UTM):	236736,901
Latitud	37° 22' 56,52558"	Y (UTM):	4141440,607
Anamorfosis :	1,0004535	Alt Orto :	10,419
		Converg. :	-1° 48' 23"

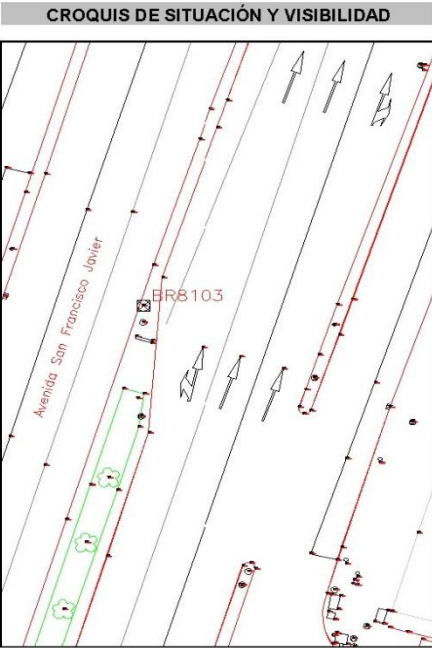
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero Instalación: 01/08/2018

Situación:

Baae situada mediana central de la Avd. San Francisco Javier, cruce con Adv. Eduardo Dato

Acotaciones: A:Cartel=2,78;B:Cartel=3,17;C:Registro=1,45





Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



ayesa

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8104

Municipio: Sevilla

Provincia: Sevilla

Huso: 30

SISTEMA ETRS89

Longitud-5° 58' 25,90151"

X (UTM):236690,322

Latitud37° 22' 49,64130"

Y (UTM):4141229,638

Anamorfosis:1,0004538

Alt Orto:8,421

Converg.: -1° 48' 23"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

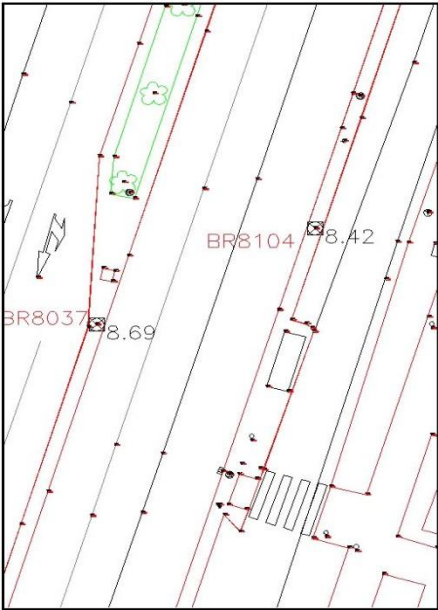
Situación:
Base situada en la mediana de la derecha de la Avd.San Francisco Javier, sentido Eduardo Dato, frente al edificio de Sevilla 2.

Acotaciones: A:Parada de Bus=8,05;B:Parada Bus=8,27;C:Farola=7,00

FOTOGRAFIA DE SITUACIÓN



CROQUIS DE SITUACIÓN Y VISIBILIDAD



Reseñas base de Replanteo



ayesa

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8000		Municipio:	Sevilla
		Provincia:	Sevilla
		Huso:	30
SISTEMA ETRS89			
Longitud	-5° 58' 41,92502"	X (UTM):	236289,476
Latitud	37° 22' 42,80501"	Y (UTM):	4141031,332
Anamorfosis :	1,0004564	Alt Orto :	8,601
		Converg. :	-1° 48' 33"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal:

Clavo de acero

Instalación:

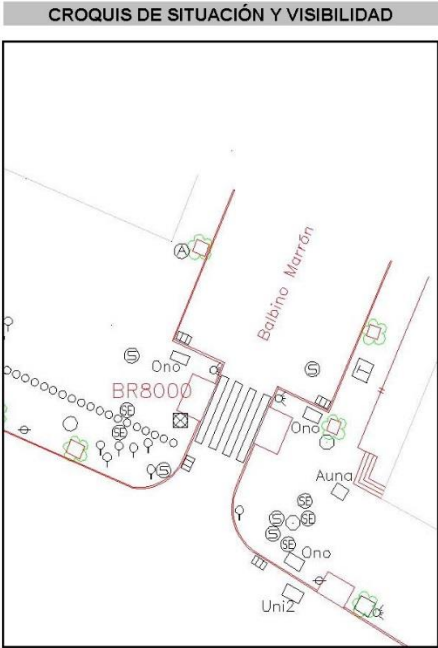
01/08/2018

Situación:

Base situada en la Avenida Ramón y Cajal esquina con la calle Bambino Marrón.

Acotaciones:

A:Rampa=0,73;B: Rampa=1,44; C:Esquina Registro=3,84





ayesa

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8003		Municipio:	Sevilla
		Provincia:	Sevilla
		Huso:	30
SISTEMA ETRS89			
Longitud	-5° 58' 37,56572"	X (UTM):	236394,729
Latitud	37° 22' 40,75890"	Y (UTM):	4140964,868
Anamorfosis :	1,00045572	Alt Orto :	8,941
		Converg. :	-1° 48' 30"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal:

Clavo de acero

Instalación:

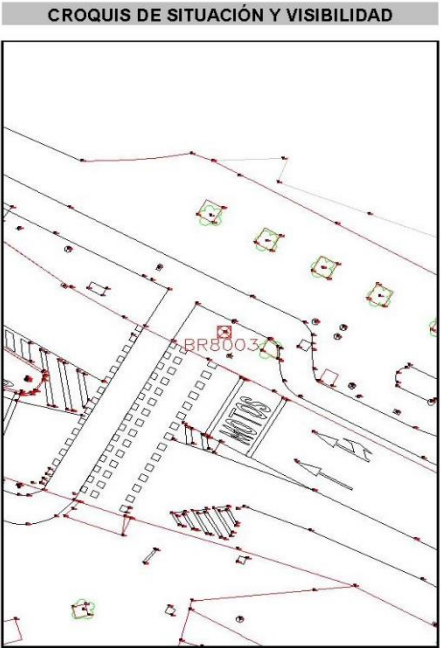
01/08/2018

Situación:

Base situada en la Avenida Ramón y Cajal, en el acerado del campus Ramón y Cajal, junto a paso de peatones , frente a la calle Avión cuatro vientos.

Acotaciones:

A:Esquina carril bici=3,28;B: Farola=2,07;C: Alcorque=3,21





GEA
CARTOGRAFÍA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



ayesa

Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **8004** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 35,63896"	X (UTM):	236440,76
Latitud	37° 22' 39,35093"	Y (UTM):	4140919,967
Anamorfosis :	1,00045542	Alt Orto :	8,961
		Converg. :	-1° 48' 29"

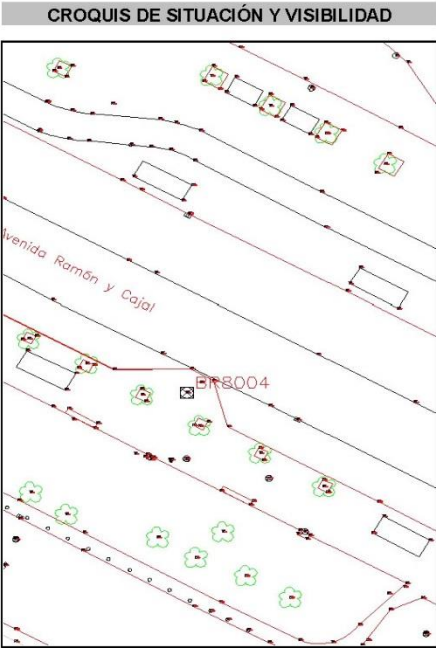
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:
Base situada en la Avenida Ramón y Cajal, en el acerado derecho sentido Avd. San Francisco Javier, junto a parada de bus.

Acotaciones: A:Alcorque=2,81;B: Alcorque=2,32;C: Bordillo=2,12





GEA
CARTOGRAFÍA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



ayesa

Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **8005** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 32,80250"	X (UTM):	236510,103
Latitud	37° 22' 38,90018"	Y (UTM):	4140903,869
Anamorfosis :	1,00045497	Alt Orto :	9,094
		Converg. :	-1° 48' 27"

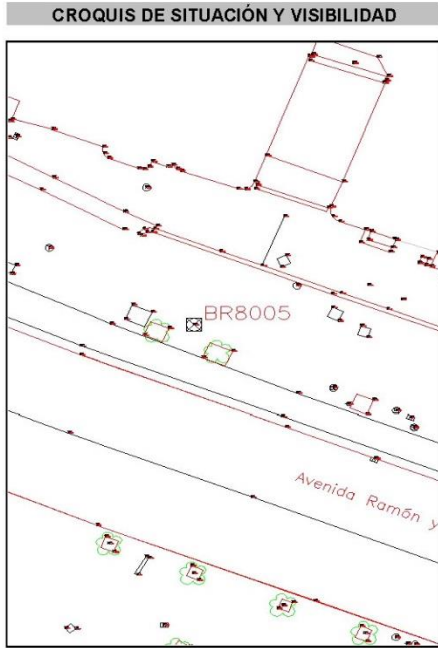
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:
Base situada en la Avenida San Francisco Javier, en el acerado del edificio de Sevilla 1, frente a muro de parking .

Acotaciones: A:Registro=2,93;B: Alcorque=1,68;C:Alcorque =1,82



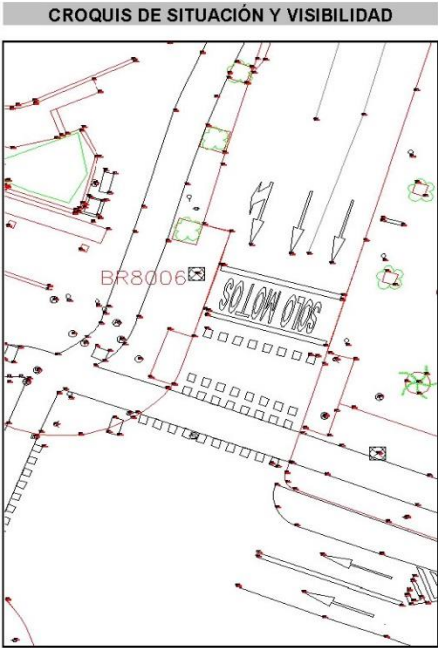


Proyecto de Construcción del Metro Ligeró en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8006		Municipio: Sevilla
		Provincia: Sevilla
		Huso: 30
SISTEMA ETRS89		
Longitud	-5° 58' 30,80256"	X (UTM): 236559,092
Latitud	37° 22' 38,68121"	Y (UTM): 4140895,566
Anamorfosis :	1,00045465	Alt Orto : 9,044
		Converg. : -1° 48' 26"
DESCRIPCIÓN Y OBSERVACIONES		
Tipo señal: Clavo de acero		
Instalación: 01/08/2018		
Situación:		
Base situada en acerado de la Avenida San Francisco Javier, esquina con la Avd. Ramón y Cajal.		
Acotaciones: A:Alcorque=2,16;B: Alcorque=3,07;C: Rampa=4,66		



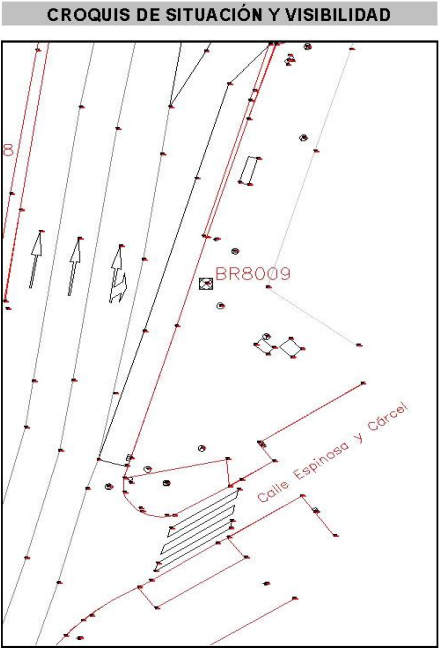


Proyecto de Construcción del Metro Ligeró en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8009		Municipio: Sevilla
		Provincia: Sevilla
		Huso: 30
SISTEMA ETRS89		
Longitud	-5° 58' 28,63141"	X (UTM): 236614,062
Latitud	37° 22' 40,28152"	Y (UTM): 4140943,215
Anamorfosis :	1,0004543	Alt Orto : 8,753
		Converg. : -1° 48' 25"
DESCRIPCIÓN Y OBSERVACIONES		
Tipo señal: Clavo de acero		
Instalación: 01/08/2018		
Situación:		
Base situada en la Avd. San Francisco Javier, esquina con la calle Espinosa y Cárcel.		
Acotaciones: A: Edificio=4,53;B:Registro=2,18; C:Farola=4,00		





ayesa

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **8011** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 26,85284"	X (UTM):	236664,079
Latitud	37° 22' 46,72091"	Y (UTM):	4141140,347
Anamorfosis :	1,00045397	Alt Orto :	8,317
		Converg. :	-1° 48' 24"

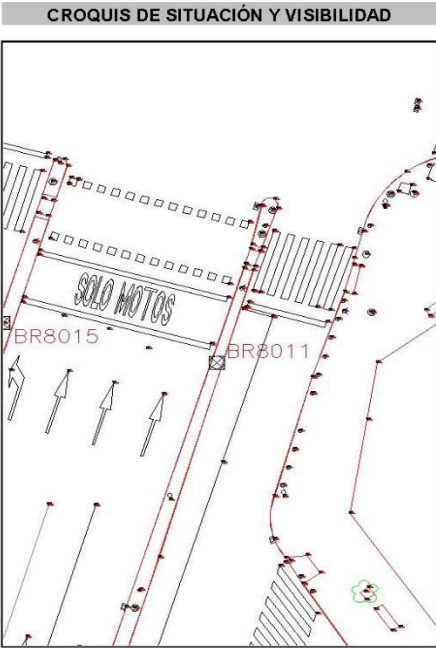
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:
Base situada en mediana de la derecha de la Avd. San Francisco Javier sentido Eduardo Dato, próximo al cruce con la calle Sta. Joaquina de Vedruna.

Acotaciones: A:Farola=6,00;B:Perpendicular al bordillo=0,42;C:Perpendicular al bordillo=0,35





ayesa

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **8012** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 24,23856"	X (UTM):	236735,292
Latitud	37° 22' 53,81790"	Y (UTM):	4141357,103
Anamorfosis :	1,00045351	Alt Orto :	9,013
		Converg. :	-1° 48' 22"

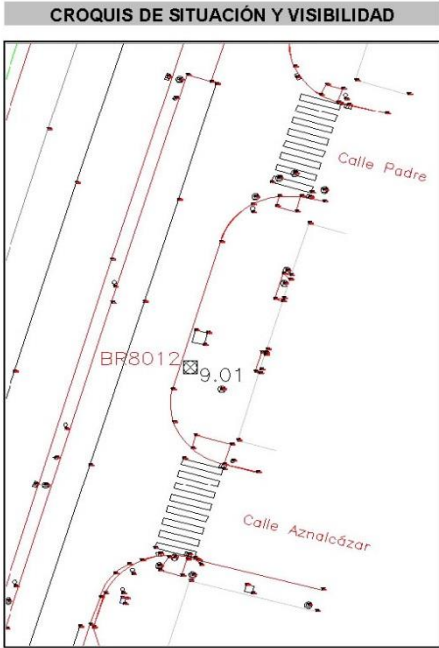
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:
Base situada en la avenida San Francisco Javier, esquina con la calle Aznalcázar.

Acotaciones: A: Registro=2,85; B: Registro=2,07; C: Registro=2,13





Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa

Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8013

Municipio: Sevilla

Provincia: Sevilla

Huso: 30

SISTEMA ETRS89

Longitud

-5° 58' 22,80800"

X (UTM):

236779,821

Latitud

37° 23' 03,42309"

Y (UTM):

4141652,100

Anamorfosis :

1,00045322

Alt Orto :

9,460

Converg. :

-1° 48' 22"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

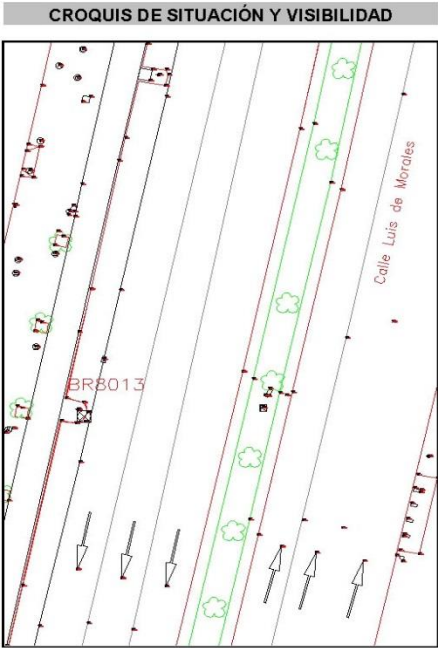
Instalación: 01/08/2018

Situación:

Base situada en la Calle Luis de Morales, en acerado saliente del margen izquierdo sentido Avd. Luis Montoto, entre las calle Luis Belmonte y Martinez de Medina.

Acotaciones:

A: Farola=0,83;B: Esquina bordillo=2,19;C: Esquina bordillo=1,80





Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa

Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8014

Municipio: Sevilla

Provincia: Sevilla

Huso: 30

SISTEMA ETRS89

Longitud

-5° 58' 22,66384"

X (UTM):

236785,658

Latitud

37° 23' 05,77956"

Y (UTM):

4141724,633

Anamorfosis :

1,00045318

Alt Orto :

9,535

Converg. :

-1° 48' 22"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

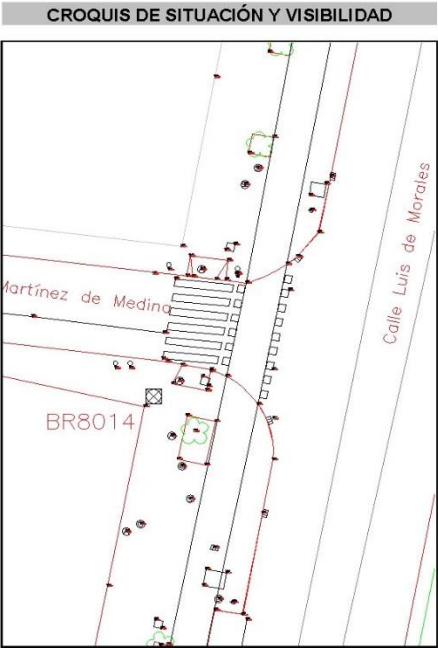
Instalación: 01/08/2018

Situación:

Base situada en la Calle Luis de Morales, esquina con la calle Martinez de Medina.

Acotaciones:

A: Señal=3,14; B: Señal=2,51; C: Registro=2,05



GEA
CARTOGRAFIA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **8015** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 20,17307"	X (UTM):	236854,567
Latitud	37° 23' 13,63847"	Y (UTM):	4141964,974
Anamorfosis :	1,00045274	Alt Orto :	10,385
		Converg. :	-1° 48' 21"

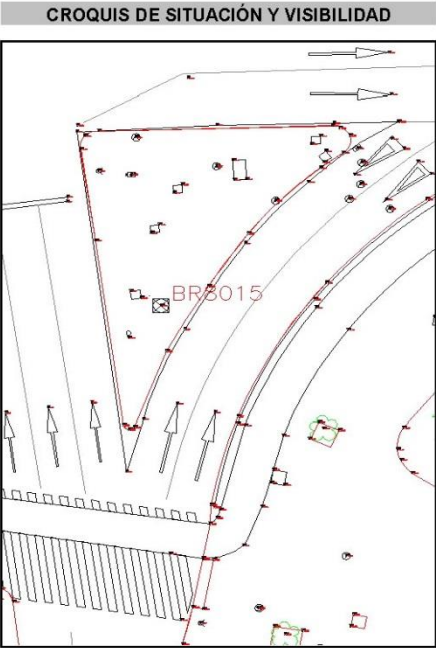
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero Instalación: 01/08/2018

Situación:

Base situada en isleta de la Calle Luis de Morales, cruce con Luis Montoto.

Acotaciones: A: Registro=1,40; B: Señal=2,99; C: Registro=5,47



GEA
CARTOGRAFIA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **8016** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 21,38847"	X (UTM):	236824,968
Latitud	37° 23' 13,94503"	Y (UTM):	4141975,367
Anamorfosis :	1,00045293	Alt Orto :	10,361
		Converg. :	-1° 48' 22"

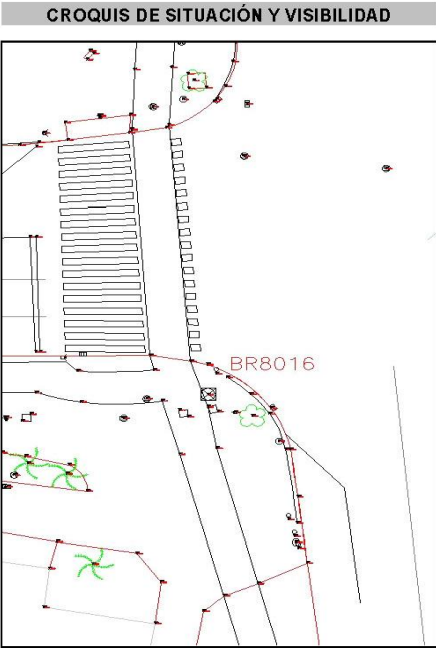
DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero Instalación: 01/08/2018

Situación:

Base situada en esquina de la Calle Luis de Morales, con Luis Montoto en el acerado del Hotel Los Lebreros.

Acotaciones: A: Señal=1,86; B: Registro=0,99; C: Registro=1,84



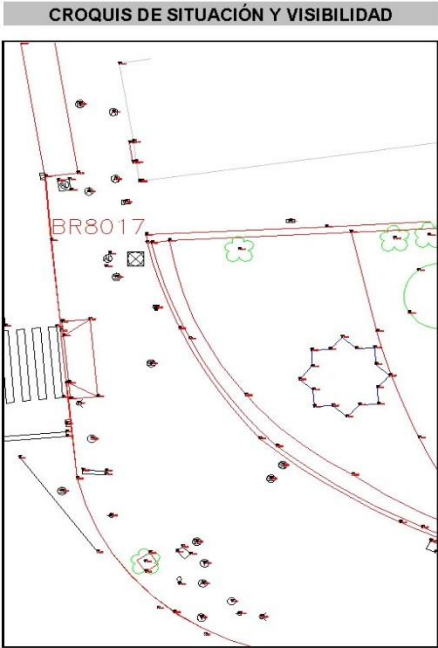


Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8017		Municipio: Sevilla
		Provincia: Sevilla
		Huso: 30
SISTEMA ETRS89		
Longitud	-5° 58' 20,42822"	X (UTM): 236850,129
Latitud	37° 23' 15,52976"	Y (UTM): 4142023,476
Anamorfosis :	1,00045277	Alt Orto : 10,367
		Converg. : -1° 48' 21"
DESCRIPCIÓN Y OBSERVACIONES		
Tipo señal: Clavo de acero		
Instalación: 01/08/2018		
Situación:		
Base situada en Avd. Kansas City, próxima al cruce con Luis Montoto, junto a muro de de arriate.		
Acotaciones: A: Esquina muro=1,87;B: Sumidero=4,13;C: Registro=1,66		



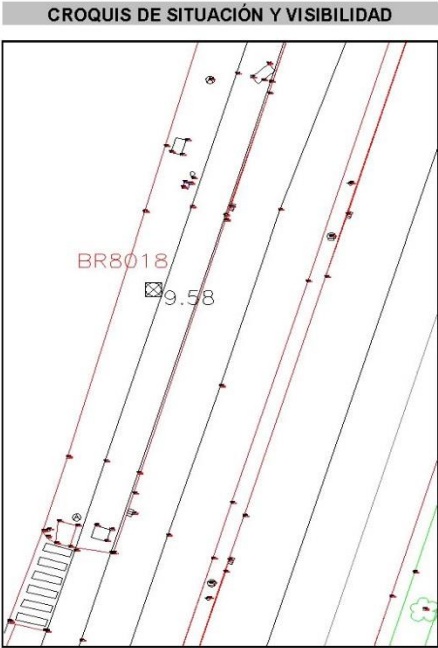


Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8018		Municipio: Sevilla
		Provincia: Sevilla
		Huso: 30
SISTEMA ETRS89		
Longitud	-5° 58' 25,50918"	X (UTM): 236705,622
Latitud	37° 22' 55,45085"	Y (UTM): 4141408,429
Anamorfosis :	1,0004537	Alt Orto : 9,579
		Converg. : -1° 48' 23"
DESCRIPCIÓN Y OBSERVACIONES		
Tipo señal: Clavo de acero		
Instalación: 01/08/2018		
Situación:		
Base situada en Avd. San Francisco Javier en el acerdo izquierdo sentido Eduardo Dato, frente a la calle Manuel Casana.		
Acotaciones: A: Parquimetro=7,65;B:Señal=8,58;C: Registro=10,01		





GEA
CARTOGRAFIA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



ayesa
Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **5006** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89					
Longitud	-5° 58' 29.03665"	X (UTM):	236605,342		
Latitud	37° 22' 41.56612"	Y (UTM):	4140983,131		
Anamorfosis :	1.00045435	Alt Orto :	8,888		
		Converg. :	-1° 48' 25"		

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

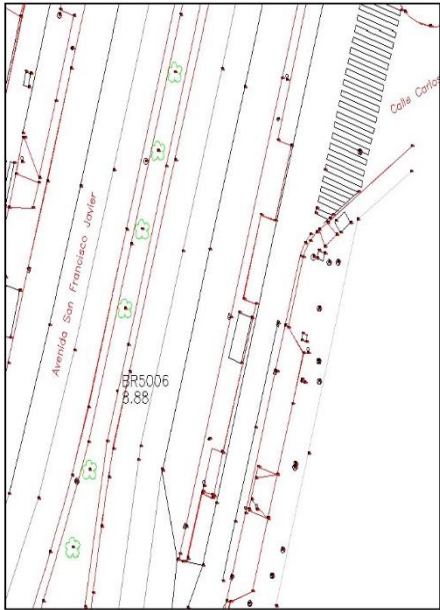
Situación:
Base situada en medianera de la Av.De San Francisco Javier, en el lado izquierdo sentido Calle Camilo José Cela,frente al número 21.

Acotaciones: A:Árbol=7,87; B:Árbol=6,95;C: Perpendicular al bordillo=0,99

FOTOGRAFIA DE SITUACIÓN



CROQUIS DE SITUACIÓN Y VISIBILIDAD





GEA
CARTOGRAFIA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



ayesa
Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **5028** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89					
Longitud	-5° 58' 20.41149"	X (UTM):	236845,287		
Latitud	37° 23' 10.12467"	Y (UTM):	4141856,836		
Anamorfosis :	1,0004528	Alt Orto :	9,892		
		Converg. :	-1° 48' 21"		

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal: Clavo de acero

Instalación: 01/08/2018

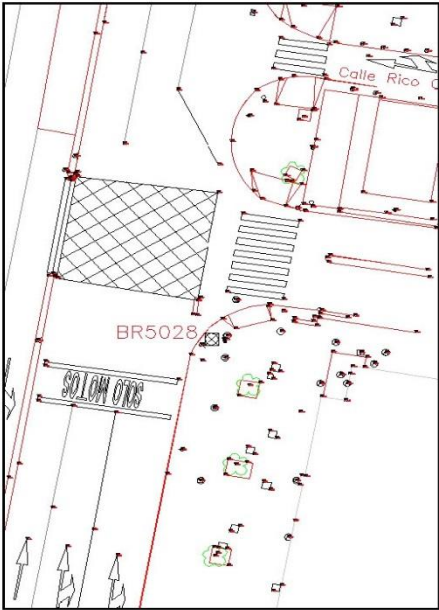
Situación:
Base situada en esquina de calles Rico Cejudo con Luis Montoto.

Acotaciones: A:Farola=0,82;BPapelera=0,94;C:Registro=2,06

FOTOGRAFIA DE SITUACIÓN



CROQUIS DE SITUACIÓN Y VISIBILIDAD





GEA
CARTOGRAFIA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



ayesa

Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 5030		Municipio: Sevilla
		Provincia: Sevilla
		Huso: 30
SISTEMA ETRS89		
Longitud	-5° 58' 22.05682"	X (UTM): 236802,168
Latitud	37° 23' 07.40381"	Y (UTM): 4141774,242
Anamorfosis :	1,00045308	Alt Orto : 9,618
		Converg. : -1° 48' 22"
DESCRIPCIÓN Y OBSERVACIONES		
Tipo señal: Clavo de acero		
Instalación: 01/08/2018		
Situación:		
Base situada en acerado de la calle Luis de Morales frente a la calle Luis Arenas Ladislao.		
Acotaciones: A:Esquina alcorque=2,80;B:Esquina alcorque=3,03;C:Farola=3,63		



GEA
CARTOGRAFIA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

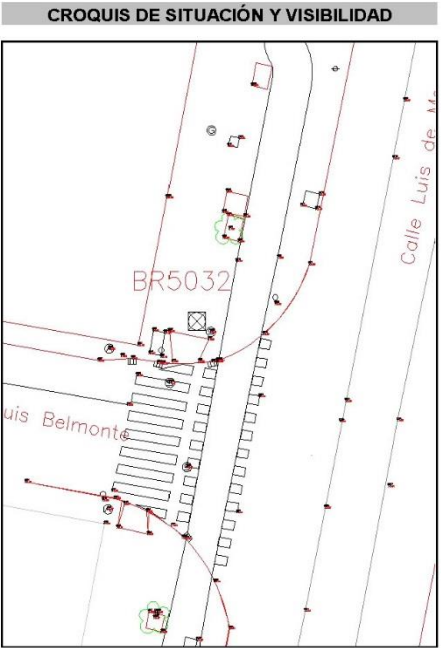
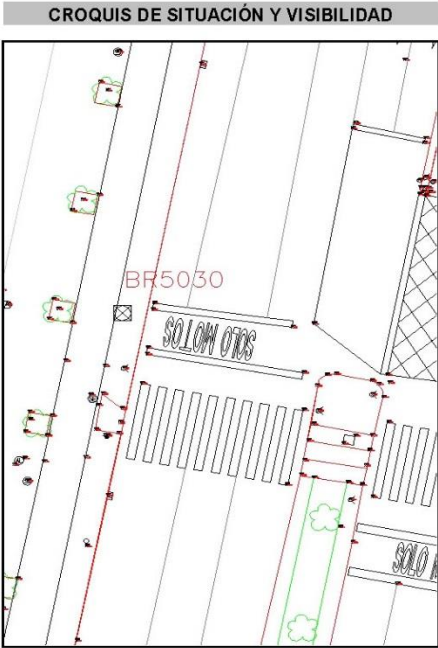


ayesa

Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 5032		Municipio: Sevilla
		Provincia: Sevilla
		Huso: 30
SISTEMA ETRS89		
Longitud	-5° 58' 23,53877"	X (UTM): 236759,614
Latitud	37° 23' 01,12870"	Y (UTM): 4141581,936
Anamorfosis :	1,00045335	Alt Orto : 9,515
		Converg. : -1° 48' 22"
DESCRIPCIÓN Y OBSERVACIONES		
Tipo señal: Clavo de acero		
Instalación: 01/08/2018		
Situación:		
Base situada en la esquina de la calle Luis Belmonte con la Avd. Luis de Morales.		
Acotaciones: A:Registro=1,05;B:Señal=2,65;C:Alcorque=5,15		





GEA
CARTOGRAFÍA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



ayesa

Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **5034** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 27.76556"	X (UTM):	236637,892
Latitud	37° 22' 42.88184"	Y (UTM):	4141022,705
Anamorfosis :	1.00045414	Alt Orto :	8,400
		Converg. :	-1° 48' 24"

DESCRIPCIÓN Y OBSERVACIONES

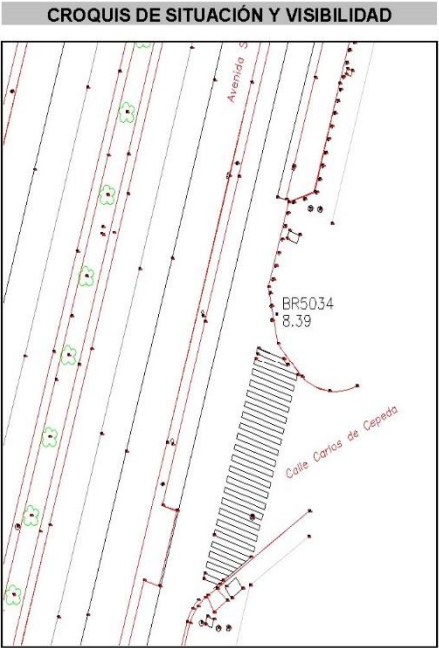
Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:

Base situada en acerado de la Av. De San Francisco Javier, esquina con Carlos de Cepeda.

Acotaciones: A: Pivote = 8,41;B: Pivote=8,42; C: Esquina registro=10,67





GEA
CARTOGRAFÍA

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión



ayesa

Engineering.
Information.
Imagination.

Reseña de Vértice Topográfico

Nombre del vértice topográfico: **5035** Municipio: Sevilla
Provincia: Sevilla Huso: 30

SISTEMA ETRS89			
Longitud	-5° 58' 24.68752"	X (UTM):	236727,731
Latitud	37° 22' 57.40093"	Y (UTM):	4141467,908
Anamorfosis :	1,00045356	Alt Orto :	10,383
		Converg. :	-1° 48' 23"

DESCRIPCIÓN Y OBSERVACIONES

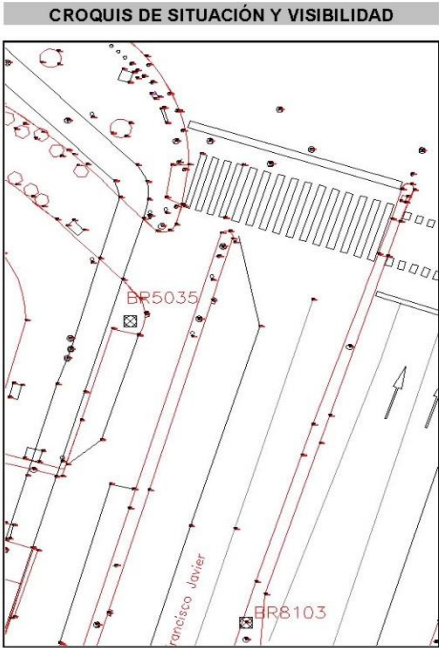
Tipo señal: Clavo de acero

Instalación: 01/08/2018

Situación:

Base situada en la esquina de la Avd. Eduardo Dato con la Avd. San Francisco Javier en el margen izquierdo sentido Santa Justa.

Acotaciones: A:Esquina bordillo=0,57;B:Esquina bordillo=1,58;C:Sumidero=1,43





ayesa

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 5037

Municipio: Sevilla

Provincia: Sevilla

Huso: 30

SISTEMA ETRS89

Longitud

-5° 58' 26,46978"

X (UTM):

236676,096

Latitud

37° 22' 49,38816"

Y (UTM):

4141222,275

Anamorfosis :

1,0004539

Alt Orto :

8,684

Converg. :

-1° 48' 24"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal:

Clavo de acero

Instalación:

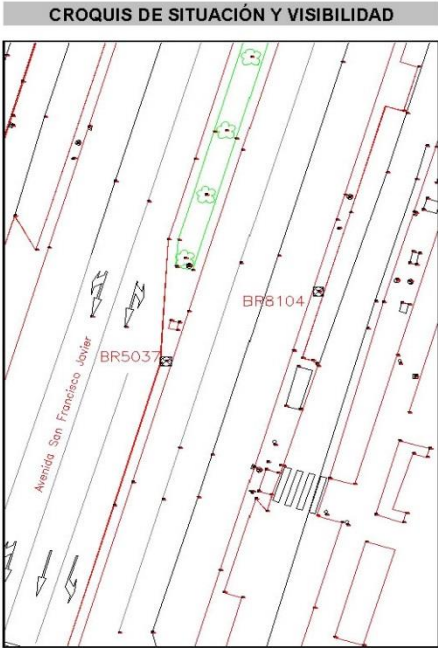
01/08/2018

Situación:

Base situada en la Avd. San Francisco Javier en mediana central antes de llegar al cruce con la calle Santa Joaquina de Vedruna.

Acotaciones:

A:Esquina bordillo=0,55;B:Registro=3,57;C:Registro=3,54





ayesa

Proyecto de Construcción del Metro Ligero en Superficie del Centro de Sevilla.
Tramo: San Bernardo - Centro Nervión

ayesa

Reseña de Vértice Topográfico

Nombre del vértice topográfico: 8105

Municipio: Sevilla

Provincia: Sevilla

Huso: 30

SISTEMA ETRS89

Longitud

-5° 58' 27,44297"

X (UTM):

236649,643

Latitud

37° 22' 46,80513"

Y (UTM):

4141143,401

Anamorfosis :

1,00045407

Alt Orto :

8,556

Converg. :

-1° 48' 24"

DESCRIPCIÓN Y OBSERVACIONES

Tipo señal:

Clavo de acero

Instalación:

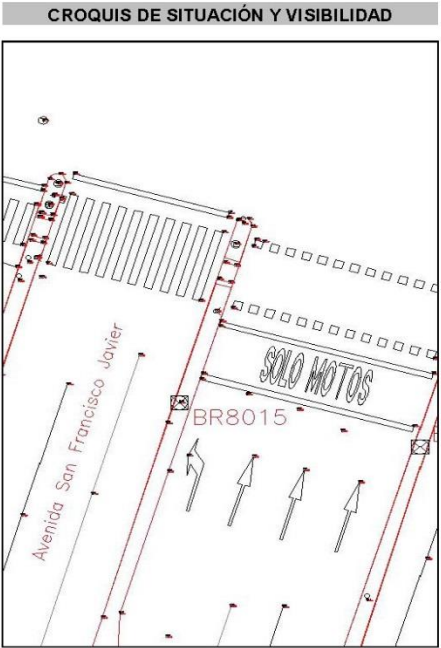
01/08/2018

Situación:

Base situada en mediana central de la Avd. San Francisco Javier, cruce con las calle Camilo José Cela y calle Santa Joaquina de Vedruna.

Acotaciones:

A:Registro=11,59;B:Perpendicular al bordillo=0,58;C=Perpendicular al bordillo: 0,32



Apéndice 11. Radiación puntos taquimétrico

Radiación de puntos								52	312.1423	101.6846	12.107	1.300	1.645	144.4938	12.108
Proyecto : zona 1 Fecha de cálculo : 14/08/2018 13:20								53	311.3622	101.6483	13.342	1.300	1.645	143.7137	13.344
Sistema de referencia : UTM ETRS89								54	308.6758	101.1298	18.130	1.300	1.645	141.0273	18.135
Proyección : UTM - 30N Elipsoide : WGS-84								55	306.6636	100.8355	24.537	1.300	1.645	139.0151	24.546
Ficheros utilizados								56	305.2802	100.6652	32.478	1.300	1.645	137.6317	32.491
Puntos Visuales								57	304.3295	100.4075	45.316	1.300	1.645	136.6810	45.336
zona1.pts observaciones.obs								58	304.4945	100.3772	49.565	1.300	1.645	136.8460	49.587
Radiación desde la estación 8000								59	304.5923	100.3581	53.065	1.300	1.645	136.9438	53.088
X	236289.493	Desorientación		232.3515				60	303.6586	100.2255	67.081	1.300	1.645	136.0101	67.111
Y	4141031.330	Nombre						61	303.1863	100.1648	80.592	1.300	1.645	135.5378	80.628
Z	8.599	Coef. anamorfosis		1.0004567775				62	302.8487	100.1936	89.123	1.300	1.645	135.2002	89.163
Visuales utilizadas								62	302.8748	100.1948	89.124	1.300	1.645	135.2263	89.164
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.	64	302.6728	100.1843	87.677	1.300	1.645	135.0243	87.717
1	304.8846	105.3545	5.354	1.300	1.645	137.2361	5.338	65	302.7205	100.1893	86.936	1.300	1.645	135.0720	86.975
2	322.4698	105.2092	5.911	1.300	1.645	154.8213	5.894	66	300.7301	100.1753	85.344	1.300	1.645	133.0816	85.383
3	337.5844	103.6540	8.325	1.300	1.645	169.9359	8.315	67	300.3285	100.1623	84.851	1.300	1.645	132.6800	84.889
4	335.8340	102.9377	10.124	1.300	1.645	168.1855	10.118	68	302.6194	100.1601	80.753	1.300	1.645	134.9709	80.790
5	323.9248	102.0265	15.284	1.300	1.645	156.2763	15.283	69	300.2527	100.1693	77.620	1.300	1.645	132.6042	77.655
6	316.7709	101.4757	14.813	1.300	1.645	149.1224	14.816	70	299.7359	100.1544	77.013	1.300	1.645	132.0874	77.048
7	314.2915	101.2587	17.525	1.300	1.645	146.6430	17.530	71	300.4866	100.2375	66.233	1.300	1.645	132.8381	66.263
8	321.1643	101.7822	17.337	1.300	1.645	153.5158	17.338	72	299.9766	100.2231	65.618	1.300	1.645	132.3281	65.647
9	315.8622	101.3138	23.495	1.300	1.645	148.2137	23.501	73	299.1705	100.1921	66.292	1.300	1.645	131.5220	66.322
10	310.2334	101.0487	26.190	1.300	1.645	142.5849	26.198	74	299.2914	100.2260	62.643	1.300	1.645	131.6429	62.671
11	308.4711	100.9323	32.807	1.300	1.645	140.8226	32.818	75	299.9361	100.2446	62.290	1.300	1.645	132.2876	62.318
12	307.1490	100.7037	40.246	1.300	1.645	139.5005	40.262	76	301.6882	100.2538	62.782	1.300	1.645	134.0397	62.810
13	309.9913	100.7363	41.907	1.300	1.645	142.3428	41.923	77	302.7212	100.2852	61.915	1.300	1.645	135.0727	61.943
14	305.9891	100.3437	72.576	1.300	1.645	138.3406	72.608	78	302.6347	100.2759	62.832	1.300	1.645	134.9862	62.860
15	303.9153	100.2037	88.705	1.300	1.645	136.2668	88.745	79	303.5112	100.2680	64.116	1.300	1.645	135.8627	64.145
16	304.1639	100.1844	82.958	1.300	1.645	136.5154	82.995	80	304.1135	100.2987	63.948	1.300	1.645	136.4650	63.976
17	304.6535	100.2176	73.005	1.300	1.645	137.0050	73.038	81	304.0435	100.3155	63.244	1.300	1.645	136.3950	63.272
18	305.0245	100.2659	66.972	1.300	1.645	137.3760	67.002	82	305.1423	100.3209	64.402	1.300	1.645	137.4938	64.430
19	305.8351	100.3708	56.159	1.300	1.645	138.1866	56.184	83	305.2760	100.2514	69.131	1.300	1.645	137.6275	69.162
20	303.0202	100.3595	55.281	1.300	1.645	135.3717	55.305	84	305.3311	100.2264	72.144	1.300	1.645	137.6826	72.176
21	303.2328	100.3909	51.681	1.300	1.645	135.5843	51.704	85	302.9124	100.3526	56.778	1.300	1.645	135.2639	56.803
22	303.1333	100.3859	49.886	1.300	1.645	135.4848	49.908	86	302.8885	100.3544	55.482	1.300	1.645	135.2400	55.506
23	302.8460	100.4055	47.698	1.300	1.645	135.1975	47.719	87	302.9489	100.3718	55.093	1.300	1.645	135.3004	55.117
24	305.7433	100.4332	45.093	1.300	1.645	138.0948	45.112	88	302.8248	100.3787	53.874	1.300	1.645	135.1763	53.898
25	306.8321	100.6411	35.628	1.300	1.645	139.1836	35.642	89	301.5919	100.3637	53.098	1.300	1.645	133.9434	53.121
26	303.3444	100.6181	33.740	1.300	1.645	135.6959	33.754	90	300.7932	100.3566	52.485	1.300	1.645	133.1447	52.508
27	304.4909	100.9474	21.402	1.300	1.645	136.8424	21.409	91	305.8548	100.3809	58.455	1.300	1.645	138.2063	58.481
28	310.6251	101.0882	21.055	1.300	1.645	142.9766	21.062	92	305.1209	100.3598	57.330	1.300	1.645	137.4724	57.355
29	317.3582	101.7030	12.637	1.300	1.645	149.7097	12.638	93	305.0735	100.3591	58.404	1.300	1.645	137.4250	58.430
30	316.5816	102.1778	9.943	1.300	1.645	148.9331	9.942	94	300.6604	100.5376	45.069	1.300	1.645	133.0119	45.088
31	299.6311	102.7756	7.903	1.300	1.645	131.9826	7.899	95	300.5935	100.4541	44.262	1.300	1.645	132.9450	44.281
32	289.2106	103.0062	7.604	1.300	1.645	121.5621	7.599	96	300.6811	100.6865	38.176	1.300	1.645	133.0326	38.191
33	283.5326	103.2732	6.804	1.300	1.645	115.8841	6.798	97	300.6218	100.6528	37.280	1.300	1.645	132.9733	37.295
34	280.6279	104.4246	5.408	1.300	1.645	112.9794	5.397	98	300.5639	100.8063	31.138	1.300	1.645	132.9154	31.150
35	254.6901	103.4707	6.385	1.300	1.645	87.0416	6.378	99	300.5002	100.8206	30.264	1.300	1.645	132.8517	30.275
36	265.9558	102.6306	8.225	1.300	1.645	98.3073	8.222	100	313.3008	101.3559	18.670	1.300	1.645	145.6523	18.674
37	272.7096	102.3549	9.196	1.300	1.645	105.0611	9.194	101	319.5626	101.3784	18.107	1.300	1.645	151.9141	18.111
38	284.1970	102.1810	9.948	1.300	1.645	116.5485	9.947	102	314.1505	101.3592	17.704	1.300	1.645	146.5020	17.708
39	291.5890	101.9486	10.293	1.300	1.645	123.9405	10.293	103	316.1106	101.3877	18.361	1.300	1.645	148.4621	18.365
40	304.1643	101.9365	11.282	1.300	1.645	136.5158	11.282	104	301.5128	100.8531	30.765	1.300	1.645	133.8643	30.776
41	306.5247	101.4817	13.719	1.300	1.645	138.8762	13.722	105	301.2863	100.7219	37.827	1.300	1.645	133.6378	37.842
42	307.5485	101.3965	14.419	1.300	1.645	139.9000	14.422	106	301.2137	100.5524	44.510	1.300	1.645	133.5652	44.529
43	306.3091	101.1753	17.484	1.300	1.645	138.6606	17.489	107	296.7548	101.5273	60.895	0.000	1.645	129.1063	60.905
44	307.3486	101.1804	17.515	1.300	1.645	139.7001	17.520	108	296.4047	100.3163	51.869	1.300	1.645	128.7562	51.892
45	308.7189	101.3926	14.480	1.300	1.645	141.0704	14.483	109	295.8271	100.3867	42.157	1.300	1.645	128.1786	42.175
46	314.0463	101.4635	14.581	1.300	1.645	146.3978	14.584	110	294.8716	100.5132	32.965	1.300	1.645	127.2231	32.979
47	311.7325	101.2183	17.763	1.300	1.645	144.0840	17.768	111	292.2545	100.6571	20.399	1.300	1.645	124.6060	20.407
48	271.5365	103.1605	6.736	1.30											

116	261.7789	101.4079	13.966	1.300	1.645	94.1304	13.969	
117	271.7714	102.1320	11.042	1.300	1.645	104.1229		11.041
118	267.2025	102.1448	10.750	1.300	1.645	99.5540	10.749	
119	270.3153	102.2475	10.492	1.300	1.645	102.6668		10.490
120	269.3196	102.1993	10.874	1.300	1.645	101.6711		10.872
121	268.0263	102.2797	9.788	1.300	1.645	100.3778		9.786
122	263.7457	102.2095	10.054	1.300	1.645	96.0972	10.053	
123	264.6856	102.5757	8.694	1.300	1.645	97.0371	8.691	
124	257.7264	102.5505	8.198	1.300	1.645	90.0779	8.195	
125	275.2497	101.8907	10.820	1.300	1.645	107.6012		10.820
126	277.4980	102.0405	10.093	1.300	1.645	109.8495		10.092
127	291.5475	101.4307	13.054	1.300	1.645	123.8990		13.057
128	291.0788	101.6827	12.065	1.300	1.645	123.4303		12.066
129	295.8124	101.5216	12.966	1.300	1.645	128.1639		12.968
130	302.0862	102.1053	10.434	1.300	1.645	134.4377		10.433
131	308.7616	102.0836	10.655	1.300	1.645	141.1131		10.654
132	310.8708	102.0679	10.749	1.300	1.645	143.2223		10.748
133	315.2356	102.1794	10.370	1.300	1.645	147.5871		10.369
134	316.7364	102.3019	9.603	1.300	1.645	149.0879		9.601
135	322.8522	102.1452	10.471	1.300	1.645	155.2037		10.470
136	321.5200	102.3154	9.617	1.300	1.645	153.8715		9.615
137	329.1571	102.7938	7.995	1.300	1.645	161.5086		7.991
138	332.5663	102.9154	11.071	1.300	1.645	164.9178		11.064
139	322.1541	102.0642	11.529	1.300	1.645	154.5056		11.528
140	323.5837	101.7581	13.264	1.300	1.645	155.9352		13.265
141	320.3377	101.7703	13.034	1.300	1.645	152.6892		13.035
142	322.8872	101.9837	11.900	1.300	1.645	155.2387		11.900
143	313.7220	101.6185	13.761	1.300	1.645	146.0735		13.763
144	310.7241	101.6178	13.570	1.300	1.645	143.0756		13.572
145	311.5694	101.7163	12.938	1.300	1.645	143.9209		12.939
146	320.2823	101.6321	14.723	1.300	1.645	152.6338		14.725
147	315.9522	101.2022	19.453	1.300	1.645	148.3037		19.458
148	314.1856	100.9713	23.358	1.300	1.645	146.5371		23.366
149	307.5236	100.6943	33.835	1.300	1.645	139.8751		33.848
150	310.2060	100.9072	34.304	1.300	1.645	142.5575		34.316
151	311.2268	100.9234	33.901	1.300	1.645	143.5783		33.913
152	307.9446	100.8106	38.604	1.300	1.645	140.2961		38.618
153	310.7769	100.8061	39.607	1.300	1.645	143.1284		39.622
154	308.9252	100.5057	42.016	1.300	1.645	141.2767		42.034
155	310.3920	100.7486	41.041	1.300	1.645	142.7435		41.057
156	311.8199	100.8863	35.280	1.300	1.645	144.1714		35.293
157	313.6936	101.0702	29.527	1.300	1.645	146.0451		29.536
158	314.8759	101.1814	26.693	1.300	1.645	147.2274		26.701
159	318.9446	104.2805	26.123	0.000	1.645	151.2961		26.076
160	327.2252	103.9618	27.220	0.000	1.645	159.5767		27.180
161	338.9240	100.9907	23.364	1.300	1.645	171.2755		23.372
162	337.8996	101.0534	22.936	1.300	1.645	170.2511		22.943
163	347.2902	101.2930	18.958	1.300	1.645	179.6417		18.963
164	348.3813	101.2137	19.417	1.300	1.645	180.7328		19.422
165	327.8188	102.2381	13.769	1.300	1.645	160.1703		13.767
166	327.1438	102.0501	14.731	1.300	1.645	159.4953		14.730
167	330.2553	102.0548	15.134	1.300	1.645	162.6068		15.133
168	332.9527	102.1794	14.062	1.300	1.645	165.3042		14.060
9999	0.0000	97.3258	43.301	0.000	1.645	232.3515	43.282	

Coordenadas calculadas

Número	X	Y	Z
1	236293.943	4141028.383	8.494
2	236293.333	4141026.859	8.461
3	236293.275	4141023.925	8.467
4	236294.341	4141022.450	8.477
5	236299.183	4141019.512	8.458
6	236300.112	4141020.999	8.601
7	236302.524	4141019.606	8.598
8	236301.057	4141018.412	8.459

9	236306.570	4141015.185	8.459
10	236310.045	4141015.084	8.513
11	236315.792	4141011.699	8.464
12	236322.250	4141007.921	8.499
13	236322.480	4141005.457	8.460
14	236349.326	4140990.198	8.553
15	236364.222	4140983.465	8.661
16	236359.206	4140986.293	8.704
17	236350.535	4140991.226	8.695
18	236345.275	4140994.215	8.665
19	236335.868	4140999.614	8.617
20	236336.479	4141002.158	8.632
21	236333.327	4141003.912	8.627
22	236331.846	4141004.930	8.642
23	236330.102	4141006.271	8.640
24	236326.766	4141005.918	8.637
25	236318.594	4141010.752	8.585
26	236318.078	4141013.380	8.617
27	236307.416	4141019.620	8.626
28	236305.934	4141018.168	8.584
29	236298.470	4141022.434	8.606
30	236296.639	4141024.419	8.604
31	236296.416	4141027.527	8.600
32	236296.660	4141028.805	8.585
33	236296.080	4141029.652	8.594
34	236294.778	4141030.237	8.569
35	236295.739	4141032.620	8.596
36	236297.711	4141031.549	8.604
37	236298.657	4141030.600	8.604
38	236299.105	4141028.774	8.603
39	236299.066	4141027.550	8.629
40	236298.969	4141025.208	8.601
41	236300.734	4141023.462	8.625
42	236301.174	4141022.871	8.628
43	236303.855	4141021.350	8.621
44	236303.715	4141021.099	8.619
45	236301.065	4141022.621	8.627
46	236300.372	4141021.618	8.609
47	236303.168	4141019.987	8.604
48	236296.211	4141030.919	8.610
49	236297.692	4141029.455	8.596
50	236297.694	4141027.587	8.613
51	236297.708	4141025.409	8.622
52	236298.762	4141023.540	8.624
53	236299.812	4141022.871	8.599
54	236303.991	4141020.435	8.622
55	236309.572	4141017.211	8.622
56	236316.470	4141013.223	8.605
57	236327.509	4141006.630	8.654
58	236331.003	4141004.206	8.651
59	236333.890	4141002.223	8.646
60	236346.151	4140995.361	8.707
61	236357.881	4140988.623	8.736
62	236365.370	4140984.504	8.674
62	236365.351	4140984.472	8.672
64	236364.266	4140985.470	8.691
65	236363.600	4140985.802	8.686
66	236363.604	4140988.932	8.710
67	236363.441	4140989.642	8.728
68	236358.396	4140989.149	8.741
69	236357.184	4140993.275	8.738
70	236356.959	4140994.119	8.758
71	236347.134	4140998.646	8.697
72	236346.856	4140999.408	8.714

73	236347.849	4140999.817	8.744
74	236344.580	4141001.447	8.722
75	236343.966	4141001.062	8.705
76	236343.536	4140999.324	8.694
77	236342.270	4140998.905	8.667
78	236343.097	4140998.498	8.672
79	236343.726	4140997.077	8.674
80	236343.258	4140996.656	8.644
81	236342.704	4140997.097	8.631
82	236343.068	4140995.540	8.620
83	236346.922	4140992.791	8.671
84	236349.390	4140991.059	8.688
85	236337.802	4141001.450	8.630
86	236336.710	4141002.150	8.635
87	236336.351	4141002.310	8.623
88	236335.370	4141003.042	8.624
89	236335.240	4141004.330	8.641
90	236335.044	4141005.211	8.650
91	236337.754	4140998.303	8.595
92	236337.196	4140999.486	8.620
93	236338.113	4140998.926	8.615
94	236328.653	4141008.984	8.564
95	236327.975	4141009.424	8.629
96	236322.657	4141012.391	8.533
97	236321.896	4141012.866	8.562
98	236316.571	4141015.933	8.550
99	236315.826	4141016.391	8.554
100	236303.568	4141019.057	8.547
101	236301.908	4141018.145	8.552
102	236302.683	4141019.515	8.566
103	236302.789	4141018.662	8.544
104	236316.016	4141015.720	8.532
105	236322.174	4141012.253	8.515
106	236327.974	4141008.926	8.558
107	236344.142	4141004.444	8.784
108	236336.180	4141008.680	8.687
109	236327.604	4141013.266	8.688
110	236319.502	4141017.654	8.678
111	236308.394	4141023.638	8.734
112	236303.894	4141026.059	8.662
113	236301.965	4141027.065	8.645
114	236302.832	4141029.297	8.662
115	236302.140	4141029.577	8.649
116	236303.402	4141032.616	8.635
117	236300.510	4141030.616	8.574
118	236300.241	4141031.406	8.582
119	236299.974	4141030.891	8.574
120	236300.361	4141031.045	8.569
121	236299.279	4141031.272	8.594
122	236299.526	4141031.946	8.595
123	236298.174	4141031.735	8.593
124	236297.588	4141032.602	8.616
125	236300.236	4141030.041	8.623
126	236299.464	4141029.775	8.621
127	236301.640	4141026.543	8.651
128	236300.751	4141026.989	8.625
129	236301.212	4141025.778	8.634
130	236298.436	4141025.958	8.599
131	236298.001	4141024.918	8.595
132	236297.857	4141024.581	8.595
133	236297.097	4141024.282	8.589
134	236296.378	4141024.639	8.597
135	236296.267	4141023.347	8.591
136	236295.866	4141024.131	8.594

137	236294.035	4141024.756	8.593
138	236295.286	4141021.904	8.437
139	236297.047	4141022.623	8.570
140	236297.958	4141021.118	8.578
141	236298.312	4141021.732	8.582
142	236297.187	4141022.253	8.573
143	236299.806	4141022.217	8.594
144	236300.074	4141022.832	8.599
145	236299.473	4141023.095	8.595
146	236299.465	4141020.496	8.567
147	236303.613	4141017.943	8.577
148	236306.889	4141015.731	8.588
149	236316.916	4141011.488	8.575
150	236316.422	4141010.061	8.455
151	236315.766	4141009.887	8.453
152	236320.630	4141008.486	8.453
153	236320.365	4141006.495	8.443
154	236322.996	4141005.946	8.611
155	236321.638	4141005.789	8.462
156	236316.625	4141008.761	8.453
157	236311.634	4141011.782	8.448
158	236309.177	4141013.290	8.449
159	236307.552	4141012.520	8.489
160	236305.614	4141009.448	8.551
161	236299.684	4141010.297	8.581
162	236299.828	4141010.847	8.565
163	236295.454	4141013.329	8.559
164	236295.281	4141012.791	8.574
165	236297.555	4141020.171	8.460
166	236298.245	4141019.482	8.470
167	236297.879	4141018.734	8.456
168	236296.782	4141019.307	8.463
9999	236268.432	4140993.517	12.063

Radiación desde la estación 8003

X	236394.721	Desorientación	232.3548
Y	4140964.845	Nombre	
Z	8.943	Coef. anamorfosis	1.0004560939

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
169	109.9254	101.7732	64.102	0.000	1.633	342.2802	64.106
170	112.4780	101.7492	64.803	0.000	1.633	344.8328	64.808
171	109.9986	100.5436	61.857	1.300	1.633	342.3534	61.883
172	110.2317	100.5439	61.099	1.300	1.633	342.5865	61.125
173	109.0741	100.5568	60.740	1.300	1.633	341.4289	60.765
174	110.9455	100.5348	58.009	1.300	1.633	343.3003	58.033
175	113.6248	100.4622	57.620	1.300	1.633	345.9796	57.645
176	113.2692	100.5142	60.097	1.300	1.633	345.6240	60.122
177	113.4016	100.5194	59.661	1.300	1.633	345.7564	59.686
178	113.7476	100.4829	58.378	1.300	1.633	346.1024	58.403
179	115.6483	100.5496	58.995	1.300	1.633	348.0031	59.020
180	117.0503	100.5658	50.384	1.300	1.633	349.4051	50.405
181	115.5075	100.5828	49.263	1.300	1.633	347.8623	49.283
182	114.7015	100.5945	49.083	1.300	1.633	347.0563	49.103
183	114.4408	100.5673	49.678	1.300	1.633	346.7956	49.699
184	115.8723	100.5996	46.722	1.300	1.633	348.2271	46.741
185	116.1908	100.6768	45.999	1.300	1.633	348.5456	46.017
186	117.0219	100.6342	46.250	1.300	1.633	349.3767	46.269
187	118.1330	100.6917	42.582	1.300	1.633	350.4878	42.599
188	118.4902	100.7066	41.948	1.300	1.633	350.8450	41.964
189	119.3005	100.7066	42.163	1.300	1.633	351.6553	42.180
190	121.3750	100.6767	42.841	1.300	1.633	353.7298	42.858
191	121.8769	101.1486	39.421	1.300	1.633	354.2317	39.432
192	123.3221	101.2806	37.736	1.300	1.633	355.6769	37.746
193	122.6293	101.3010	37.331	1.300	1.633	354.9841	37.340

194	116.8558	101.2836	35.820	1.300	1.633	349.2106	35.829
195	117.1291	101.2485	36.158	1.300	1.633	349.4839	36.167
196	116.0140	101.1321	37.900	1.300	1.633	348.3688	37.911
197	108.7915	101.1174	34.719	1.300	1.633	341.1463	34.729
198	104.0830	101.1356	35.287	1.300	1.633	336.4378	35.297
199	100.5841	101.1877	37.449	1.300	1.633	332.9389	37.460
200	99.9435	101.1658	39.518	1.300	1.633	332.2983	39.529
201	100.1173	101.2338	38.669	1.300	1.633	332.4721	38.679
202	100.1063	99.9144	54.421	2.150	1.633	332.4611	54.446
203	99.0447	99.8514	56.385	2.150	1.633	331.3995	56.410
204	98.1619	99.8226	56.662	2.150	1.633	330.5167	56.688
205	99.3463	99.8689	57.437	2.150	1.633	331.7011	57.463
206	105.3361	100.6594	53.263	1.300	1.633	337.6909	53.284
207	102.2932	100.8886	40.570	1.300	1.633	334.6480	40.584
208	102.0726	100.9047	40.347	1.300	1.633	334.4274	40.361
209	100.3207	100.8990	41.184	1.300	1.633	332.6755	41.199
210	108.0771	101.0693	34.867	1.300	1.633	340.4319	34.878
211	107.6785	101.0206	36.555	1.300	1.633	340.0333	36.567
212	113.2113	100.9990	37.079	1.300	1.633	345.5661	37.091
213	113.6866	101.0765	35.656	1.300	1.633	346.0414	35.667
214	116.6265	101.2133	35.747	1.300	1.633	348.9813	35.757
215	116.7739	101.2237	35.221	1.300	1.633	349.1287	35.230
216	109.7973	101.1214	34.056	1.300	1.633	342.1521	34.066
217	109.5726	101.1115	34.504	1.300	1.633	341.9274	34.514
218	108.7410	101.1208	34.194	1.300	1.633	341.0958	34.204
219	117.1185	101.2417	34.795	1.300	1.633	349.4733	34.804
220	117.7124	101.2358	33.845	1.300	1.633	350.0672	33.854
221	118.4201	101.2539	32.889	1.300	1.633	350.7749	32.898
222	118.3153	101.2050	37.839	1.300	1.633	350.6701	37.849
223	117.1384	101.2394	36.419	1.300	1.633	349.4932	36.429
224	118.3873	101.1185	31.679	1.300	1.633	350.7421	31.689
225	117.1868	101.0873	30.223	1.300	1.633	349.5416	30.232
226	108.9985	101.1453	30.885	1.300	1.633	341.3533	30.894
227	101.7128	101.1520	30.243	1.300	1.633	334.0676	30.252
228	101.7921	101.1350	30.731	1.300	1.633	334.1469	30.740
229	101.7527	101.1085	34.767	1.300	1.633	334.1075	34.778
230	101.7659	101.1084	35.756	1.300	1.633	334.1207	35.767
231	102.6480	101.1002	35.315	1.300	1.633	335.0028	35.326
232	101.8811	101.1888	29.755	1.300	1.633	334.2359	29.763
233	103.0081	101.1427	29.313	1.300	1.633	335.3629	29.322
234	102.9847	101.1810	29.076	1.300	1.633	335.3395	29.084
235	108.1659	101.1804	30.477	1.300	1.633	340.5207	30.486
236	108.8286	101.1751	30.612	1.300	1.633	341.1834	30.621
237	109.4851	101.0689	28.838	1.300	1.633	341.8399	28.847
238	117.3271	101.0966	29.986	1.300	1.633	349.6819	29.995
239	116.0573	101.1338	31.643	1.300	1.633	348.4121	31.652
240	119.9180	101.3286	32.378	1.300	1.633	352.2728	32.386
241	121.6103	101.3787	30.482	1.300	1.633	353.9651	30.489
242	126.1641	101.3615	31.584	1.300	1.633	358.5189	31.591
243	118.4310	100.7867	25.970	1.300	1.633	350.7858	25.980
244	127.6112	100.9136	18.467	1.300	1.633	359.9660	18.473
245	52.2715	101.7079	14.157	1.300	1.628	284.6263	14.158
246	51.9271	101.6857	14.310	1.300	1.628	284.2819	14.311
247	50.5348	101.7803	14.168	1.300	1.628	282.8896	14.169
248	50.4229	101.7224	14.320	1.300	1.628	282.7777	14.321
249	48.8689	101.8079	14.364	1.300	1.628	281.2237	14.365
250	49.1013	101.7385	14.474	1.300	1.628	281.4561	14.475
251	45.7551	101.8293	15.231	1.300	1.628	278.1099	15.232
252	46.2504	101.7631	15.350	1.300	1.628	278.6052	15.351
253	45.1501	101.8191	15.677	1.300	1.628	277.5049	15.678
254	45.9611	101.7244	15.707	1.300	1.628	278.3159	15.708
255	46.4698	101.7732	16.442	1.300	1.628	278.8246	16.443
256	47.1895	101.6862	16.329	1.300	1.628	279.5443	16.331
257	50.1613	101.6620	15.562	1.300	1.628	282.5161	15.564

258	50.7389	101.6619	15.472	1.300	1.628	283.0937	15.474
259	51.3363	101.6619	15.556	1.300	1.628	283.6911	15.558
260	72.1162	100.9787	25.743	1.300	1.628	304.4710	25.752
261	72.4563	100.9788	25.658	1.300	1.628	304.8111	25.667
262	72.8338	100.9786	25.751	1.300	1.628	305.1886	25.760
263	60.1891	101.3777	20.784	1.300	1.628	292.5439	20.789
264	56.3756	101.4876	20.925	1.300	1.628	288.7304	20.929
265	57.4219	101.4643	21.297	1.300	1.628	289.7767	21.301
266	62.8195	101.4213	25.988	1.300	1.628	295.1743	25.993
267	63.1612	101.2265	25.950	1.300	1.628	295.5160	25.957
268	69.0363	101.0436	24.657	1.300	1.628	301.3911	24.665
269	74.6934	100.9959	29.629	1.300	1.628	307.0482	29.639
270	77.8328	100.9169	33.498	1.300	1.628	310.1876	33.510
271	80.2574	100.8565	37.350	1.300	1.628	312.6122	37.364
272	87.5831	100.7632	36.015	1.300	1.628	319.9379	36.029
273	87.1881	100.7855	34.734	1.300	1.628	319.5429	34.747
274	83.9955	100.8194	30.216	1.300	1.628	316.3503	30.227
275	73.8369	101.1535	21.599	1.300	1.628	306.1917	21.605
276	71.2195	101.1840	20.492	1.300	1.628	303.5743	20.498
277	86.8232	100.7840	34.753	1.300	1.628	319.1780	34.766
278	88.8905	100.7815	37.739	1.300	1.628	321.2453	37.753
279	91.0843	100.6792	46.767	1.300	1.628	323.4391	46.786
280	91.0718	100.6173	48.114	1.300	1.628	323.4266	48.134
281	91.8816	100.6472	51.435	1.300	1.628	324.2364	51.456
282	91.6095	100.6506	51.356	1.300	1.628	323.9643	51.377
283	93.8157	100.5606	67.607	1.300	1.628	326.1705	67.635
284	93.8756	100.5263	70.156	1.300	1.628	326.2304	70.185
285	95.3172	100.4683	89.807	1.300	1.628	327.6720	89.845
286	95.3664	100.4600	93.905	1.300	1.628	327.7212	93.945
287	95.9756	100.4137	105.239	1.300	1.628	328.3304	105.285
288	96.0688	100.4001	111.092	1.300	1.628	328.4236	111.140
289	91.2727	100.5264	110.889	1.300	1.628	323.6275	110.936
290	90.9831	100.5382	106.102	1.300	1.628	323.3379	106.146
291	90.2889	100.5803	98.352	1.300	1.628	322.6437	98.393
292	88.2655	100.6547	81.274	1.300	1.628	320.6203	81.307
293	84.8067	100.7875	63.025	1.300	1.628	317.1615	63.049
294	81.9332	100.8703	53.114	1.300	1.628	314.2880	53.133
295	82.1315	100.7209	53.088	1.300	1.628	314.4863	53.109
296	74.9815	101.1072	39.010	1.300	1.628	307.3363	39.022
297	68.3255	101.2726	30.610	1.300	1.628	300.6803	30.618
298	64.9990	101.0733	25.878	1.300	1.628	297.3538	25.886
299	67.9689	101.1078	25.089	1.300	1.628	300.3237	25.097
300	79.4019	100.8526	37.465	1.300	1.628	311.7567	37.479
301	76.9389	100.8499	37.935	1.300	1.628	309.2937	37.949
302	85.8420	100.7738	32.976	1.300	1.628	318.1968	32.989
303	84.6780	100.7516	32.703	1.300	1.628	317.0328	32.716
304	85.2064	100.7841	32.028	1.300	1.628	317.5612	32.040
305	86.0757	100.8658	37.046	1.300	1.628	318.4305	37.059
306	83.6085	100.8568	37.427	1.300	1.628	315.9633	37.441
307	90.0805	100.7117	51.485	1.300	1.628	322.4353	51.505
308	88.2012	100.7113	51.653	1.300	1.628	320.5560	51.673
309	85.3695	100.7017	52.265	1.300	1.628	317.7243	52.286
310	83.6052	100.7010	52.602	1.300	1.628	315.9600	52.623
311	87.4113	100.5965	68.194	1.300	1.628	319.7661	68.222
312	88.7527	100.5965	67.729	1.300	1.628	321.1075	67.757
313	90.9309	100.5986	67.066	1.300	1.628	323.2857	67.094
314	92.3612	100.6029	67.111	1.300	1.628	324.7160	67.138
315	93.6149	100.5330	80.286	1.300	1.628	325.9697	80.320
316	92.4245	100.5340	80.415	1.300	1.628	324.7793	80.449
317	90.5557	100.5273	80.679	1.300	1.628	322.9105	80.713
318	89.3641	100.5284	80.865	1.300	1.628	321.7189	80.899
319	89.8467	100.5172	83.911	1.300	1.628	322.2015	83.946
320	90.8687	100.5171	83.763	1.300	1.628	323.2235	83.798
321	90.2108	100.5100	85.704	1.300	1.628	322.5656	85.740

322	90.7512	100.4997	87.772	1.300	1.628	323.1060	87.809	386	95.2443	100.3243	98.993	1.500	1.628	327.5991	99.037
323	91.5242	100.4908	90.388	1.300	1.628	323.8790	90.426	387	95.3264	100.3241	98.916	1.500	1.628	327.6812	98.960
324	92.9487	100.4667	95.994	1.300	1.628	325.3035	96.035	388	95.4258	100.3240	98.998	1.500	1.628	327.7806	99.042
325	93.6049	100.3261	98.876	1.500	1.628	325.9597	98.920	389	94.6707	100.3622	84.479	1.500	1.628	327.0255	84.516
326	93.9156	100.3228	100.524	1.500	1.628	326.2704	100.568	390	94.5789	100.3608	84.413	1.500	1.628	326.9337	84.450
327	94.1794	100.3112	105.373	1.500	1.628	326.5342	105.420	391	94.4729	100.3607	84.482	1.500	1.628	326.8277	84.519
328	95.0781	100.3112	105.276	1.500	1.628	327.4329	105.323	392	89.4132	100.3608	85.348	1.500	1.628	321.7680	85.385
329	94.8181	100.3248	100.454	1.500	1.628	327.1729	100.498	393	89.3243	100.3611	85.280	1.500	1.628	321.6791	85.317
330	94.3759	100.3295	97.590	1.500	1.628	326.7307	97.633	394	89.2094	100.3611	85.357	1.500	1.628	321.5642	85.394
331	93.5208	100.3402	93.890	1.500	1.628	325.8756	93.931	395	89.2489	100.3593	84.071	1.500	1.628	321.6037	84.108
332	94.2910	100.3468	90.045	1.500	1.628	326.6458	90.085	396	88.8232	100.3501	84.155	1.500	1.628	321.1780	84.192
333	92.3070	100.3523	89.148	1.500	1.628	324.6618	89.187	397	89.0868	100.3588	82.904	1.500	1.628	321.4416	82.940
334	91.6373	100.3584	86.620	1.500	1.628	323.9921	86.658	398	90.6242	100.3672	82.261	1.500	1.628	322.9790	82.297
335	90.9164	100.3621	83.751	1.500	1.628	323.2712	83.788	399	90.5406	100.3672	81.521	1.500	1.628	322.8954	81.557
336	92.9647	100.3559	86.694	1.500	1.628	325.3195	86.732	400	94.3503	100.3719	83.259	1.500	1.628	326.7051	83.295
337	92.7445	100.3104	105.424	1.500	1.628	325.0993	105.471	401	94.7885	100.3754	83.195	1.500	1.628	327.1433	83.231
338	91.8499	100.3052	105.587	1.500	1.628	324.2047	105.634	402	94.7423	100.3753	81.980	1.500	1.628	327.0971	82.016
339	91.2083	100.3315	97.916	1.500	1.628	323.5631	97.959	403	94.1546	100.3675	80.427	1.500	1.628	326.5094	80.462
340	92.1741	100.3307	98.077	1.500	1.628	324.5289	98.120	404	93.8529	100.3709	80.476	1.500	1.628	326.2077	80.511
341	92.1422	100.3005	111.262	1.500	1.628	324.4970	111.311	405	94.1357	100.3709	79.924	1.500	1.628	326.4905	79.959
342	93.0026	100.3002	111.179	1.500	1.628	325.3574	111.228	406	93.8478	100.3769	79.944	1.500	1.628	326.2026	79.979
343	94.3574	100.3000	111.104	1.500	1.628	326.7122	111.153	407	93.8143	100.3826	80.110	1.500	1.628	326.1691	80.145
344	95.2139	100.2974	111.021	1.500	1.628	327.5687	111.070	408	91.2726	100.3876	80.440	1.500	1.628	323.6274	80.475
345	95.9790	100.2976	111.057	1.500	1.628	328.3338	111.106	409	91.0227	100.3785	80.735	1.500	1.628	323.3775	80.770
346	95.6265	100.2963	111.062	1.500	1.628	327.9813	111.111	410	89.1177	100.3917	80.833	1.500	1.628	321.4725	80.868
347	95.6224	100.2988	111.280	1.500	1.628	327.9772	111.329	411	89.1069	100.3918	80.645	1.500	1.628	321.4617	80.680
348	95.4071	100.3034	111.301	1.500	1.628	327.7619	111.350	412	88.7871	100.3919	80.771	1.500	1.628	321.1419	80.806
349	95.4151	100.3036	111.025	1.500	1.628	327.7699	111.074	413	88.8611	100.4145	81.258	1.500	1.628	321.2159	81.293
350	93.6801	100.3035	111.228	1.500	1.628	326.0349	111.277	414	89.1462	100.3729	81.207	1.500	1.628	321.5010	81.243
351	91.9814	100.3138	111.423	1.500	1.628	324.3362	111.472	415	89.1415	100.3692	81.050	1.500	1.628	321.4963	81.085
352	91.9899	100.3136	111.557	1.500	1.628	324.3447	111.606	416	91.7235	100.3601	80.655	1.500	1.628	324.0783	80.690
353	91.7600	100.3067	111.588	1.500	1.628	324.1148	111.637	417	91.5234	100.3587	80.744	1.500	1.628	323.8782	80.779
354	91.7628	100.3061	111.417	1.500	1.628	324.1176	111.466	418	91.3031	100.3544	80.715	1.500	1.628	323.6579	80.750
355	91.4004	100.3127	111.486	1.500	1.628	323.7552	111.535	419	91.4627	100.3716	80.396	1.500	1.628	323.8175	80.431
356	91.3907	100.3043	111.212	1.500	1.628	323.7455	111.261	420	91.2674	100.3454	76.282	1.500	1.628	323.6222	76.316
357	91.7462	100.2984	111.224	1.500	1.628	324.1010	111.273	421	90.5460	100.4103	72.030	1.500	1.628	322.9008	72.061
358	91.7329	100.3068	111.038	1.500	1.628	324.0877	111.087	422	89.8081	100.4463	67.708	1.500	1.628	322.1629	67.737
359	91.9763	100.3014	111.034	1.500	1.628	324.3311	111.083	423	89.7809	100.4335	65.951	1.500	1.628	322.1357	65.979
360	91.9763	100.3013	111.255	1.500	1.628	324.3311	111.304	424	89.6555	100.4335	65.862	1.500	1.628	322.0103	65.890
361	93.7083	100.2998	110.983	1.500	1.628	326.0631	111.032	425	89.4999	100.4335	65.947	1.500	1.628	321.8547	65.975
362	95.4303	100.2998	110.896	1.500	1.628	327.7851	110.945	426	86.1291	100.4710	48.759	1.500	1.628	318.4839	48.780
363	95.4225	100.2999	110.719	1.500	1.628	327.7773	110.768	427	85.9320	100.4710	48.668	1.500	1.628	318.2868	48.689
364	95.6265	100.2995	110.714	1.500	1.628	327.9813	110.763	428	85.7479	100.4710	48.759	1.500	1.628	318.1027	48.780
365	95.6389	100.2978	110.927	1.500	1.628	327.9937	110.976	429	89.1712	100.4544	63.115	1.500	1.628	321.5260	63.142
366	95.9672	100.2949	110.865	1.500	1.628	328.3220	110.914	430	88.3856	100.4765	58.688	1.500	1.628	320.7404	58.713
367	95.6333	100.3422	104.275	1.500	1.628	327.9881	104.321	431	87.7535	100.4828	55.452	1.500	1.628	320.1083	55.476
368	94.7145	100.3150	104.261	1.500	1.628	327.0693	104.307	432	86.6977	100.5182	52.724	1.500	1.628	319.0525	52.746
369	94.4247	100.3156	103.821	1.500	1.628	326.7795	103.867	433	86.2078	100.5293	52.843	1.500	1.628	318.5626	52.865
370	94.1411	100.3180	102.807	1.500	1.628	326.4959	102.852	434	86.5950	100.3970	68.273	1.500	1.628	318.9498	68.303
371	94.0854	100.3179	102.126	1.500	1.628	326.4402	102.171	435	86.9435	100.4246	62.202	1.500	1.628	319.2983	62.229
372	94.8480	100.3179	101.952	1.500	1.628	327.2028	101.997	436	85.6652	100.4522	62.861	1.500	1.628	318.0200	62.888
373	95.6672	100.3121	100.803	1.500	1.628	328.0220	100.848	437	84.9411	100.4235	61.089	1.500	1.628	317.2959	61.115
374	95.7604	100.3169	101.991	1.500	1.628	328.1152	102.036	438	82.7912	100.4618	52.757	1.500	1.628	315.1460	52.780
375	95.4030	100.3199	102.046	1.500	1.628	327.7578	102.091	439	81.8855	100.4577	52.375	1.500	1.628	314.2403	52.397
376	93.5419	100.3051	103.723	1.500	1.628	325.8967	103.769	440	87.5545	100.4614	51.585	1.500	1.628	319.9093	51.607
377	93.3762	100.3022	103.723	1.500	1.628	325.7310	103.769	441	87.3716	100.4737	51.042	1.500	1.628	319.7264	51.064
378	93.1932	100.3049	103.714	1.500	1.628	325.5480	103.760	442	86.1298	100.4624	51.872	1.500	1.628	318.4846	51.894
379	91.1587	100.3057	105.651	1.500	1.628	323.5135	105.698	443	91.4144	100.4633	50.826	1.500	1.628	323.7692	50.848
380	91.1728	100.3060	102.754	1.500	1.628	323.5276	102.800	444	90.6234	100.4756	50.340	1.500	1.628	322.9782	50.361
381	91.0672	100.3166	101.633	1.500	1.628	323.4220	101.678	445	90.7476	100.4755	50.281	1.500	1.628	323.1024	50.302
382	90.6980	100.3138	101.703	1.500	1.628	323.0528	101.748	446	89.5913	100.4900	45.092	1.500	1.628	321.9461	45.111
383	90.9104	100.3225	99.715	1.500	1.628	323.2652	99.759	447	87.3883	100.5057	37.323	1.500	1.628	319.7431	37.339
384	90.8416	100.3226	99.657	1.500	1.628	323.1964	99.701	448	74.5275	100.5301	36.332	1.500	1.628	306.8823	36.347
385	90.7439	100.3226	99.717	1.500	1.628	323.0987	99.761	449	73.2497	100.5326	36.051	1.500	1.628	305.6045	36.066

450	67.8179	100.5855	26.951	1.500	1.628	300.1727	26.962	565	71.8290	100.3065	60.369	1.700	1.577	304.1838	60.396
451	67.3777	100.5911	26.690	1.500	1.628	299.7325	26.701	566	74.2640	100.3415	59.793	1.700	1.577	306.6188	59.819
452	66.8909	100.5993	26.055	1.500	1.628	299.2457	26.066	567	76.3422	100.3712	59.187	1.700	1.577	308.6970	59.213
453	67.5333	100.6097	25.771	1.500	1.628	299.8881	25.782	568	76.4761	100.4788	59.108	1.700	1.577	308.8309	59.133
454	68.9689	100.6032	26.405	1.500	1.628	301.3237	26.416	569	71.5549	100.4881	49.399	1.700	1.577	303.9097	49.420
455	69.0897	100.5932	26.597	1.500	1.628	301.4445	26.608	570	71.6195	100.3607	49.739	1.700	1.577	303.9743	49.761
507	96.1092	100.1403	105.308	1.700	1.577	328.4640	105.356	571	69.9339	100.3905	50.310	1.700	1.577	302.2887	50.332
508	95.6412	100.1460	93.071	1.700	1.577	327.9960	93.113	572	71.4115	100.4218	49.581	1.700	1.577	303.7663	49.602
509	93.7172	100.1414	64.294	1.700	1.577	326.0720	64.323	573	69.9653	100.4100	50.146	1.700	1.577	302.3201	50.168
510	91.5843	100.0809	47.638	1.700	1.577	323.9391	47.660	574	68.5515	100.3532	52.200	1.700	1.577	300.9063	52.223
511	88.5241	100.0020	35.757	1.700	1.577	320.8789	35.773	575	67.1803	100.3124	54.336	1.700	1.577	299.5351	54.360
512	85.5367	99.8998	30.014	1.700	1.577	317.8915	30.028	576	58.4346	100.2746	49.807	1.700	1.577	290.7894	49.829
513	84.9940	99.8922	29.598	1.700	1.577	317.3488	29.611	577	59.2660	100.3133	47.579	1.700	1.577	291.6208	47.600
514	84.7409	99.8858	29.136	1.700	1.577	317.0957	29.149	578	61.0567	100.3567	45.227	1.700	1.577	293.4115	45.247
515	83.2069	99.8735	28.988	1.700	1.577	315.5617	29.001	579	61.2012	100.4020	45.100	1.700	1.577	293.5560	45.120
516	83.5742	99.8686	29.411	1.700	1.577	315.9290	29.424	580	52.1362	100.3485	42.984	1.700	1.577	284.4910	43.003
517	56.6848	99.7115	15.005	1.700	1.577	289.0396	15.012	581	42.6283	100.3009	42.753	1.700	1.577	274.9831	42.772
518	63.5276	99.5701	14.915	1.700	1.577	295.8824	14.921	582	41.0328	100.5703	35.884	1.700	1.577	273.3876	35.899
519	60.7658	99.5599	14.110	1.700	1.577	293.1206	14.116	583	49.4530	100.4758	35.732	1.700	1.577	281.8078	35.747
520	59.3827	99.5431	13.738	1.700	1.577	291.7375	13.744	584	64.4046	100.4792	40.688	1.700	1.577	296.7594	40.705
521	38.0584	100.0340	14.518	1.700	1.577	270.4132	14.525	585	66.2714	100.5515	42.187	1.700	1.577	298.6262	42.205
522	39.3166	100.0517	14.868	1.700	1.577	271.6714	14.875	586	58.6817	100.5488	37.340	1.700	1.577	291.0365	37.356
523	35.0986	100.0173	13.792	1.700	1.577	267.4534	13.798	587	41.0014	100.5643	35.729	1.700	1.577	273.3562	35.744
524	33.6002	100.0088	13.450	1.700	1.577	265.9550	13.456	588	36.7594	100.5556	36.185	1.700	1.577	269.1142	36.200
525	53.8801	99.5007	12.521	1.700	1.577	286.2349	12.526	589	27.6660	100.5469	37.808	1.700	1.577	260.0208	37.824
526	55.6753	99.5024	12.888	1.700	1.577	288.0301	12.893	590	28.8700	100.3351	39.778	1.700	1.577	261.2248	39.796
527	49.1315	99.4966	11.684	1.700	1.577	281.4863	11.689	591	37.5558	100.3760	38.243	1.700	1.577	269.9106	38.260
528	46.7027	99.5021	11.319	1.700	1.577	279.0575	11.324	592	39.7386	100.2073	45.995	1.700	1.577	272.0934	46.016
529	34.5673	99.8694	11.958	1.700	1.577	266.9221	11.963	593	39.8247	100.2059	46.707	1.700	1.577	272.1795	46.728
530	32.5877	99.9907	12.575	1.700	1.577	264.9425	12.581	594	39.7479	100.2033	47.352	1.700	1.577	272.1027	47.373
531	30.1800	100.0295	13.082	1.700	1.577	262.5348	13.088	595	33.2087	100.2040	49.168	1.700	1.577	265.5635	49.190
532	44.7433	100.1057	16.964	1.700	1.577	277.0981	16.972	596	33.8297	100.1280	50.921	1.700	1.577	266.1845	50.944
533	46.2163	100.0601	16.485	1.700	1.577	278.5711	16.492	597	43.1846	100.2043	46.845	1.700	1.577	275.5394	46.866
534	47.0367	100.0574	16.808	1.700	1.577	279.3915	16.816	598	45.7600	100.1703	48.899	1.700	1.577	278.1148	48.921
535	30.5809	100.3689	21.356	1.700	1.577	262.9357	21.365	599	45.9296	100.2170	43.425	1.700	1.577	278.2844	43.444
536	38.2226	100.4096	23.660	1.700	1.577	270.5774	23.670	600	50.3028	100.1188	53.477	1.700	1.577	282.6576	53.501
537	38.9845	100.4119	23.937	1.700	1.577	271.3393	23.947	601	53.6379	100.1426	53.821	1.700	1.577	285.9927	53.845
538	51.4467	100.1424	19.886	1.700	1.577	283.8015	19.895	602	53.3083	100.1760	50.449	1.700	1.577	285.6631	50.472
539	62.5690	100.2585	26.348	1.700	1.577	294.9238	26.360	603	66.5757	98.8463	64.546	3.120	1.577	298.9305	64.565
540	74.6001	100.4026	39.045	1.700	1.577	306.9549	39.062	604	75.0927	100.3720	59.695	1.700	1.577	307.4475	59.721
541	81.5130	100.3527	52.839	1.700	1.577	313.8678	52.862	605	75.4358	100.3691	58.923	1.700	1.577	307.7906	58.949
542	79.4943	100.3948	52.573	1.700	1.577	311.8491	52.596	606	76.3752	100.3634	69.755	1.700	1.577	308.7300	69.786
543	76.0910	100.4594	53.582	1.700	1.577	308.4458	53.605	607	76.7861	100.3691	69.193	1.700	1.577	309.1409	69.223
544	86.8065	100.3381	73.673	1.700	1.577	319.1613	73.705	608	75.8760	100.3593	68.447	1.700	1.577	308.2308	68.477
545	89.9663	100.2811	96.829	1.700	1.577	322.3211	96.872	609	78.8439	100.3895	67.812	1.700	1.577	311.1987	67.842
546	87.6943	100.3615	113.307	1.700	1.577	320.0491	113.357	610	74.4572	100.3115	80.634	1.700	1.577	306.8120	80.670
547	87.8065	100.3616	114.316	1.700	1.577	320.1613	114.366	611	79.5263	100.3441	76.733	1.700	1.577	311.8811	76.767
548	86.7405	100.2478	114.677	1.700	1.577	319.0953	114.728	612	81.6903	100.3105	82.045	1.700	1.577	314.0451	82.081
549	86.5364	100.2655	111.581	1.700	1.577	318.8912	111.631	613	82.7376	100.3108	81.535	1.700	1.577	315.0924	81.571
550	86.0415	100.2681	107.599	1.700	1.577	318.3963	107.647	614	82.8501	100.3064	81.716	1.700	1.577	315.2049	81.752
551	87.1280	100.3567	107.329	1.700	1.577	319.4828	107.376	615	83.2340	100.2753	88.355	1.700	1.577	315.5888	88.394
552	87.2273	100.3778	108.322	1.700	1.577	319.5821	108.369	616	83.5150	100.2793	87.605	1.700	1.577	315.8698	87.644
553	85.3839	100.3678	94.488	1.700	1.577	317.7387	94.529	617	84.3873	100.2670	93.793	1.700	1.577	316.7421	93.835
554	85.2937	100.2739	94.514	1.700	1.577	317.6485	94.556	618	85.2539	100.2694	97.323	1.700	1.577	317.6087	97.366
555	84.0750	100.2653	95.077	1.700	1.577	316.4298	95.119	619	80.3753	100.2159	96.203	1.700	1.577	312.7301	96.246
556	81.5986	100.2621	90.691	1.700	1.577	313.9534	90.731	620	84.0899	100.2130	112.747	1.700	1.577	316.4447	112.798
557	80.2662	100.2950	84.679	1.700	1.577	312.6210	84.717	621	87.4884	100.2589	115.515	1.700	1.577	319.8432	115.567
558	81.6726	100.3152	82.955	1.700	1.577	314.0274	82.992	622	86.9211	100.2154	119.548	1.700	1.577	319.2759	119.602
559	83.1776	100.3078	82.546	1.700	1.577	315.5324	82.583	623	85.6716	100.2030	119.301	1.700	1.577	318.0264	119.355
560	83.2780	100.4265	82.540	1.700	1.577	315.6328	82.576	624	87.1661	100.2441	117.832	1.700	1.577	319.5209	117.885
561	80.4092	100.4873	70.672	1.700	1.577	312.7640	70.702	625	87.4326	100.2515	117.167	1.700	1.577	319.7874	117.219
562	80.3095	100.3895	70.749	1.700	1.577	312.6643	70.780	626	87.9583	100.3599	112.984	1.700	1.577	320.3131	113.034
563	78.4334	100.3725	70.836	1.700	1.577	310.7882	70.867	627	88.2228	100.3526	112.812	1.700	1.577	320.5776	112.862
564	76.4264	100.3566	71.347	1.700	1.577	308.7812	71.378	628	87.7816	100.3504	107.856	1.700	1.577	320.1364	107.903

629	87.4798	100.3559	108.024	1.700	1.577	319.8346	108.071	693	88.6335	99.6737	9.880	1.700	1.577	320.9883	9.884
630	90.9670	100.2679	111.203	1.700	1.577	323.3218	111.253	694	93.0522	99.5530	9.742	1.700	1.577	325.4070	9.746
631	90.6395	100.2721	106.211	1.700	1.577	322.9943	106.258	695	110.2666	98.8236	7.898	1.700	1.577	342.6214	7.900
632	89.1315	100.3219	114.470	1.700	1.577	321.4863	114.521	696	111.5335	98.8400	7.202	1.700	1.577	343.8883	7.204
633	88.0351	100.3798	114.623	1.700	1.577	320.3899	114.673	697	121.9116	98.7812	7.550	1.700	1.577	354.2664	7.552
634	88.3133	100.3194	99.958	1.700	1.577	320.6681	100.002	698	87.7234	100.0775	12.858	1.700	1.577	320.0782	12.864
635	87.3185	100.3552	92.545	1.700	1.577	319.6733	92.586	699	157.4240	99.4235	15.807	1.700	1.577	389.7788	15.814
636	85.4104	100.3905	79.853	1.700	1.577	317.7652	79.888	700	163.8078	98.7992	15.008	1.700	1.577	396.1626	15.012
637	83.4907	100.4777	77.050	1.700	1.577	315.8455	77.083	701	185.6699	97.3318	15.802	1.700	1.577	18.0247	15.795
638	82.0148	100.4795	74.823	1.700	1.577	314.3696	74.855	702	186.7155	98.2467	13.691	1.700	1.577	19.0703	13.692
639	81.3402	100.4896	72.790	1.700	1.577	313.6950	72.821	703	172.8032	98.9385	13.711	1.700	1.577	5.1580	13.715
640	81.2883	100.5066	70.345	1.700	1.577	313.6431	70.375	704	214.0280	98.8071	12.737	1.700	1.577	46.3828	12.741
641	83.2931	100.4260	66.334	1.700	1.577	315.6479	66.363	705	257.1154	99.1435	19.517	1.700	1.577	89.4702	19.524
642	82.0769	100.4901	76.000	1.700	1.577	314.4317	76.032	706	262.3782	97.5447	24.576	1.700	1.577	94.7330	24.569
643	76.4680	100.4931	58.151	1.700	1.577	308.8228	58.176	707	256.2080	97.5324	25.899	1.700	1.577	88.5628	25.891
644	76.0803	100.4614	53.591	1.700	1.577	308.4351	53.614	708	242.6488	97.5060	19.648	1.700	1.577	75.0036	19.642
645	79.4445	100.3950	52.575	1.700	1.577	311.7993	52.598	709	219.6576	97.6635	15.067	1.700	1.577	52.0124	15.064
646	71.2016	100.5073	41.581	1.700	1.577	303.5564	41.599	710	272.4567	99.9137	22.059	1.500	1.577	104.8115	22.069
647	75.6191	100.4724	56.756	1.700	1.577	307.9739	56.780	711	270.6086	99.8993	20.766	1.500	1.577	102.9634	20.775
648	70.5527	100.5228	47.419	1.700	1.577	302.9075	47.439	712	274.5956	99.9688	20.174	1.500	1.577	106.9504	20.183
649	65.7239	100.5492	41.287	1.700	1.577	298.0787	41.304	713	264.7698	99.9270	17.703	1.500	1.577	97.1246	17.711
650	59.1629	100.5578	37.304	1.700	1.577	291.5177	37.320	714	261.8775	99.9259	16.480	1.500	1.577	94.2323	16.487
651	47.0480	100.5596	35.266	1.700	1.577	279.4028	35.281	715	266.6782	99.7547	15.730	1.500	1.577	99.0330	15.737
652	37.8374	100.5679	35.845	1.700	1.577	270.1922	35.860	716	255.9817	99.9796	12.343	1.500	1.577	88.3365	12.349
653	26.0477	100.5451	37.990	1.700	1.577	258.4025	38.006	717	245.5215	99.8505	12.351	1.500	1.577	77.8763	12.357
654	46.7929	100.4807	35.924	1.700	1.577	279.1477	35.939	718	250.7375	99.8839	11.283	1.500	1.577	83.0923	11.288
655	45.0879	100.5207	36.049	1.700	1.577	277.4427	36.064	719	228.9057	99.9464	10.424	1.500	1.577	61.2605	10.429
656	45.3714	100.3519	42.476	1.700	1.577	277.7262	42.495	720	233.3209	99.8723	9.172	1.500	1.577	65.6757	9.176
657	42.8017	100.3510	42.520	1.700	1.577	275.1565	42.539	721	223.7909	99.9283	8.525	1.500	1.577	56.1457	8.529
658	43.2611	100.3471	42.481	1.700	1.577	275.6159	42.500	722	197.5375	99.8474	9.399	1.500	1.577	29.8923	9.403
659	43.1831	100.3531	41.789	1.700	1.577	275.5379	41.807	723	196.8246	99.5398	7.962	1.500	1.577	29.1794	7.965
660	49.7342	100.4176	42.779	1.700	1.577	282.0890	42.798	724	185.5506	99.0973	8.167	1.500	1.577	17.9054	8.170
661	64.3203	100.4848	40.659	1.700	1.577	296.6751	40.676	725	166.9330	99.2412	10.859	1.500	1.577	399.2878	10.863
662	63.6533	100.4476	46.025	1.700	1.577	296.0081	46.045	726	162.1442	99.2079	9.601	1.500	1.577	394.4990	9.605
663	65.3482	100.4191	46.040	1.700	1.577	297.7030	46.060	727	154.8326	98.5721	10.499	1.500	1.577	387.1874	10.501
664	66.8046	100.4070	45.164	1.700	1.577	299.1594	45.184	728	161.0997	99.0236	10.221	1.500	1.577	393.4545	10.224
665	67.0388	100.4001	45.401	1.700	1.577	299.3936	45.421	729	191.7076	99.5919	8.567	1.500	1.577	24.0624	8.571
666	38.3443	100.3199	40.600	1.700	1.577	270.6991	40.618	730	226.3559	99.9077	9.327	1.500	1.577	58.7107	9.331
667	36.5744	100.3039	41.091	1.700	1.577	268.9292	41.109	731	251.0585	99.8656	12.198	1.500	1.577	83.4133	12.204
668	37.0230	100.2950	41.738	1.700	1.577	269.3778	41.757	732	265.7437	100.1049	16.468	1.500	1.577	98.0985	16.475
669	35.7435	100.2771	41.779	1.700	1.577	268.0983	41.798	733	273.1957	100.0292	20.799	1.500	1.577	105.5505	20.808
670	36.2948	100.2879	40.895	1.700	1.577	268.6496	40.913	734	280.4088	100.3646	14.307	1.500	1.577	112.7636	14.313
671	30.8247	100.2730	44.468	1.700	1.577	263.1795	44.488	735	281.6632	100.3866	14.115	1.500	1.577	114.0180	14.121
672	102.0351	100.2570	28.524	1.700	1.577	334.3899	28.537	736	284.3342	100.4403	13.600	1.500	1.577	116.6890	13.606
673	99.9511	100.3247	26.649	1.700	1.577	332.3059	26.661	737	288.0989	100.4623	13.827	1.500	1.577	120.4537	13.833
674	98.8926	100.2923	24.056	1.700	1.577	331.2474	24.067	738	289.5230	100.5222	13.883	1.500	1.577	121.8778	13.889
675	96.6455	100.2326	20.080	1.700	1.577	329.0003	20.089	739	264.5524	100.3700	9.035	1.500	1.577	96.9072	9.039
676	88.1871	100.1460	12.350	1.700	1.577	320.5419	12.356	740	270.4545	100.6454	8.597	1.500	1.577	102.8093	8.600
677	78.3559	99.5695	7.810	1.700	1.577	310.7107	7.813	741	259.0556	100.7873	6.961	1.500	1.577	91.4104	6.964
678	398.7954	100.1849	2.676	1.700	1.577	231.1502	2.677	742	277.0831	101.1976	6.703	1.500	1.577	109.4379	6.705
679	55.8748	99.6555	4.021	1.700	1.577	288.2296	4.023	743	281.9159	101.6037	5.690	1.500	1.577	114.2707	5.691
680	73.0127	99.6894	6.116	1.700	1.577	305.3675	6.119	744	41.9206	101.3278	35.320	1.300	1.620	274.2754	35.328
681	113.7617	98.5235	5.685	1.700	1.577	346.1165	5.686	745	41.8113	101.3552	34.843	1.300	1.620	274.1661	34.851
682	123.0424	97.2188	3.287	1.700	1.577	355.3972	3.285	746	27.0378	100.6160	37.064	1.700	1.620	259.3926	37.079
683	105.1132	99.3394	15.550	1.700	1.577	337.4680	15.556	747	41.3611	100.6536	32.846	1.700	1.620	273.7159	32.859
684	115.0159	99.2741	16.075	1.700	1.577	347.3707	16.081	748	40.9378	100.5902	31.819	1.700	1.620	273.2926	31.832
685	102.5848	99.1750	13.947	1.700	1.577	334.9396	13.952	749	39.3041	100.4374	31.322	1.700	1.620	271.6589	31.335
686	101.1058	99.5564	18.081	1.700	1.577	333.4606	18.089	750	39.2307	100.5763	31.962	1.700	1.620	271.5855	31.975
687	105.3580	99.7595	19.532	1.700	1.577	337.7128	19.541	751	37.9088	100.4680	31.508	1.700	1.620	270.2636	31.521
688	105.3757	99.8192	20.744	1.700	1.577	337.7305	20.753	752	45.6882	100.3947	29.230	1.700	1.620	278.0430	29.243
689	100.7155	99.7953	19.611	1.700	1.577	333.0703	19.620	753	45.2806	100.3951	29.080	1.700	1.620	277.6354	29.093
690	109.1280	99.8410	26.157	1.700	1.577	341.4828	26.169	754	43.4579	100.4133	30.137	1.700	1.620	275.8127	30.150
691	107.5632	99.8524	25.378	1.700	1.577	339.9180	25.389	755	43.3352	100.3677	27.340	1.700	1.620	275.6900	27.352
692	90.1413	99.7473	11.099	1.700	1.577	322.4961	11.104	756	46.6487	100.4505	31.579	1.700	1.620	279.0035	31.593

757	38.1805	100.3426	27.426	1.700	1.620	270.5353	27.438	821	338.8120	100.0642	39.582	1.500	1.620	171.1668	39.600
758	39.4224	100.3446	26.802	1.700	1.620	271.7772	26.814	822	329.9189	100.3070	50.392	1.300	1.620	162.2737	50.414
759	36.3587	100.2949	26.802	1.700	1.620	268.7135	26.814	823	331.5603	100.3164	49.470	1.300	1.620	163.9151	49.492
760	25.8061	100.3161	30.900	1.700	1.620	258.1609	30.914	824	331.4449	100.3371	49.531	1.300	1.620	163.7997	49.553
761	24.3530	100.2894	30.516	1.700	1.620	256.7078	30.530	825	330.2718	101.8664	49.072	0.100	1.620	162.6266	49.073
762	23.5768	100.2980	31.214	1.700	1.620	255.9316	31.228	826	329.5405	100.3401	50.149	1.300	1.620	161.8953	50.171
763	24.6945	100.5466	34.106	1.700	1.620	257.0493	34.120	827	331.5833	100.4468	41.737	1.300	1.620	163.9381	41.755
764	25.5021	100.4649	33.274	1.700	1.620	257.8569	33.288	828	331.9435	100.4011	42.510	1.300	1.620	164.2983	42.528
765	27.0703	100.2915	29.003	1.700	1.620	259.4251	29.016	829	334.6363	100.3713	43.090	1.300	1.620	166.9911	43.109
766	25.5480	100.2708	29.278	1.700	1.620	257.9028	29.291	830	335.0836	100.3639	43.246	1.300	1.620	167.4384	43.265
767	24.0326	100.2512	29.550	1.700	1.620	256.3874	29.563	830	335.0842	100.3641	43.244	1.300	1.620	167.4390	43.263
768	3.5440	100.0951	36.690	1.700	1.620	235.8988	36.707	831	334.1901	100.3641	43.598	1.300	1.620	166.5449	43.617
769	9.5886	100.2483	39.290	1.700	1.620	241.9434	39.308	832	329.5328	100.6989	35.178	1.300	1.620	161.8876	35.192
770	396.3735	99.9870	36.636	1.700	1.620	228.7283	36.653	833	327.7332	101.0437	34.648	1.300	1.620	160.0880	34.659
771	398.9670	100.7306	34.881	1.300	1.620	231.3218	34.895	834	331.5130	100.8868	31.421	1.300	1.620	163.8678	31.432
772	396.2060	100.6806	33.542	1.300	1.620	228.5608	33.555	835	332.9490	100.8359	31.806	1.300	1.620	165.3038	31.818
773	393.4094	100.5822	35.395	1.300	1.620	225.7642	35.410	836	331.9645	100.7868	32.781	1.300	1.620	164.3193	32.793
774	3.8327	100.8567	32.341	1.300	1.620	236.1875	32.353	837	332.0117	100.7868	32.004	1.300	1.620	164.3665	32.016
775	6.5617	100.9191	31.146	1.300	1.620	238.9165	31.157	838	332.0957	101.1664	30.169	1.300	1.620	164.4505	30.178
776	3.8249	100.8736	29.634	1.300	1.620	236.1797	29.645	839	340.8652	101.5076	24.213	1.300	1.620	173.2200	24.217
777	14.9055	101.0793	28.273	1.300	1.620	247.2603	28.282	840	364.2656	101.7988	18.918	1.300	1.620	196.6204	18.919
778	18.4682	101.1365	27.345	1.300	1.620	250.8230	27.353	841	362.1578	101.1130	19.760	1.300	1.620	194.5126	19.766
779	16.0443	101.1990	25.613	1.300	1.620	248.3991	25.620	842	364.5161	101.1110	20.052	1.300	1.620	196.8709	20.058
780	392.9404	100.9379	26.708	1.300	1.620	225.2952	26.717	843	374.3414	101.1969	23.525	1.300	1.620	206.6962	23.532
781	394.4136	100.9689	25.926	1.300	1.620	226.7684	25.935	844	349.0528	101.2823	23.458	1.300	1.620	181.4076	23.464
782	396.2957	100.9840	26.565	1.300	1.620	228.6505	26.574	845	21.0963	101.7969	19.703	1.300	1.620	253.4511	19.704
783	387.2214	100.5826	32.206	1.300	1.620	219.5762	32.219	846	38.1680	101.5659	23.928	1.300	1.620	270.5228	23.932
784	388.3339	100.6328	31.366	1.300	1.620	220.6887	31.379	847	49.9621	101.5073	29.650	1.300	1.620	282.3169	29.655
785	386.5726	100.6344	30.821	1.300	1.620	218.9274	30.833	848	50.2580	101.4718	30.287	1.300	1.620	282.6128	30.293
786	386.9412	100.6936	31.108	1.300	1.620	219.2960	31.120	849	49.9956	101.4366	31.827	1.300	1.620	282.3504	31.833
787	396.0099	100.7110	35.020	1.300	1.620	228.3647	35.034	850	48.7132	101.4638	32.170	1.300	1.620	281.0680	32.176
788	394.3635	101.0750	26.434	1.300	1.620	226.7183	26.442	851	42.9734	101.4608	32.372	1.300	1.620	275.3282	32.378
789	15.4375	101.2157	26.848	1.300	1.620	247.7923	26.855	852	42.3932	101.2676	30.160	1.300	1.620	274.7480	30.168
790	16.8831	101.0894	27.947	1.300	1.620	249.2379	27.956	853	32.9682	101.1979	31.052	1.300	1.620	265.3230	31.061
791	17.2063	101.1058	28.163	1.300	1.620	249.5611	28.172	854	23.9451	101.1135	32.733	1.300	1.620	256.2999	32.743
792	21.5637	100.7898	24.838	1.500	1.620	253.9185	24.847	855	25.5989	101.4603	34.830	1.300	1.620	257.9537	34.837
793	23.7239	100.8064	24.412	1.500	1.620	256.0787	24.421	856	35.4863	101.4460	33.065	1.300	1.620	267.8411	33.071
794	22.7232	100.7340	20.550	1.500	1.620	255.0780	20.558	857	39.9146	101.4340	32.607	1.300	1.620	272.2694	32.614
795	26.4487	100.7680	21.332	1.500	1.620	258.8035	21.340	858	36.5562	101.3109	25.035	1.300	1.620	268.9110	25.041
796	9.1205	100.7941	20.123	1.500	1.620	241.4753	20.131	859	32.7694	101.2536	28.096	1.300	1.620	265.1242	28.103
797	8.6721	100.9105	19.244	1.500	1.620	241.0269	19.251	860	31.9699	101.2577	27.213	1.300	1.620	264.3247	27.220
798	8.5365	101.0405	18.460	1.500	1.620	240.8913	18.466	861	30.9899	101.2996	26.454	1.300	1.620	263.3447	26.461
799	395.7433	100.9585	17.749	1.500	1.620	228.0981	17.755	862	19.5694	101.3200	23.643	1.300	1.620	251.9242	23.649
800	394.0662	100.6479	17.706	1.500	1.620	226.4210	17.713	863	14.3946	101.3854	22.517	1.300	1.620	246.7494	22.522
801	393.9191	100.6081	19.306	1.500	1.620	226.2739	19.314	864	10.7542	101.4196	20.584	1.300	1.620	243.1090	20.588
802	385.0352	100.5077	19.666	1.500	1.620	217.3900	19.674	865	9.9955	101.7471	18.605	1.300	1.620	242.3503	18.606
803	384.4678	100.5002	19.677	1.500	1.620	216.8226	19.685	866	17.8634	101.7339	19.508	1.300	1.620	250.2182	19.510
804	386.2997	100.6417	21.022	1.500	1.620	218.6545	21.030	867	19.3465	101.3665	20.684	1.300	1.620	251.7013	20.689
805	378.7693	100.5409	24.233	1.500	1.620	211.1241	24.243	868	20.9644	101.3108	21.172	1.300	1.620	253.3192	21.177
806	377.9305	100.4645	24.977	1.500	1.620	210.2853	24.988	869	38.8041	101.5722	24.022	1.300	1.620	271.1589	24.026
807	364.5941	100.2958	25.022	1.500	1.620	196.9489	25.033	870	38.0488	101.5804	23.763	1.300	1.620	270.4036	23.766
808	377.1146	99.9968	30.946	1.500	1.620	209.4694	30.960	871	52.4711	101.5344	20.127	1.300	1.620	284.8259	20.130
809	377.4387	99.7088	31.910	1.500	1.620	209.7935	31.924	872	47.1053	101.7150	16.815	1.300	1.620	279.4601	16.817
810	374.2403	99.6569	32.221	1.500	1.620	206.5951	32.235	873	46.2576	101.7547	16.489	1.300	1.620	278.6124	16.490
811	374.4427	99.8746	31.199	1.500	1.620	206.7975	31.213	874	30.3574	101.6627	21.498	1.300	1.620	262.7122	21.500
812	372.9895	100.0921	28.257	1.500	1.620	205.3443	28.270	875	19.6881	101.8661	19.236	1.300	1.620	252.0429	19.236
813	371.6940	99.9544	27.370	1.500	1.620	204.0488	27.382	876	20.1523	101.8932	18.826	1.300	1.620	252.5071	18.826
814	375.9331	100.2713	27.978	1.500	1.620	208.2879	27.990	877	11.2235	101.9467	18.203	1.300	1.620	243.5783	18.203
815	375.5182	100.0114	27.008	1.500	1.620	207.8730	27.020	878	395.9819	101.8313	17.448	1.300	1.620	228.3367	17.449
816	379.3418	99.5327	37.707	1.500	1.620	211.6966	37.723	879	395.9391	101.8826	16.951	1.300	1.620	228.2939	16.951
817	378.8863	99.4625	37.533	1.500	1.620	211.2411	37.549	880	21.3001	101.9125	17.903	1.300	1.620	253.6549	17.903
818	378.3760	99.7534	33.973	1.500	1.620	210.7308	33.988	881	20.6546	101.8920	18.379	1.300	1.620	253.0094	18.379
819	374.5705	100.5433	24.294	1.500	1.620	206.9253	24.304	882	65.8098	103.5296	7.046	1.300	1.620	298.1646	7.038
820	350.1871	100.0796	31.771	1.500	1.620	182.5419	31.785	883	89.2297	100.7726	37.703	1.300	1.620	321.5845	37.717

884	85.5143	100.8492	29.560	1.300	1.620	317.8691	29.571	948	371.2990	99.6783	35.636	1.400	1.620	203.6538	35.652
885	71.0307	101.3596	17.308	1.300	1.620	303.3855	17.312	949	371.5643	99.6663	35.985	1.400	1.620	203.9191	36.001
886	40.1058	102.1697	10.225	1.300	1.620	272.4606	10.224	950	378.6531	99.6226	37.873	1.400	1.620	211.0079	37.890
887	391.8484	102.5116	8.524	1.300	1.620	224.2032	8.521	951	379.1907	99.6679	37.835	1.400	1.620	211.5455	37.852
888	392.9146	102.4666	10.139	1.300	1.620	225.2694	10.136	952	379.2644	99.6616	38.189	1.400	1.620	211.6192	38.206
889	389.3923	102.4145	8.725	1.300	1.620	221.7471	8.723	953	372.4503	99.5860	38.503	1.400	1.620	204.8051	38.520
890	386.1105	102.3376	8.813	1.300	1.620	218.4653	8.811	954	374.7485	99.8594	42.255	1.400	1.620	207.1033	42.274
891	383.2576	102.2664	10.016	1.300	1.620	215.6124	10.014	955	352.2713	99.6609	48.114	1.400	1.620	184.6261	48.135
892	379.6012	102.2776	9.093	1.300	1.620	211.9560	9.091	956	343.4018	99.7473	56.047	1.400	1.620	175.7566	56.072
893	376.3791	102.2480	9.272	1.300	1.620	208.7339	9.270	957	345.8236	99.7000	48.567	1.400	1.620	178.1784	48.589
894	374.9929	102.1568	10.266	1.300	1.620	207.3477	10.265	958	346.1491	99.7058	48.252	1.400	1.620	178.5039	48.273
895	372.6800	102.1378	10.538	1.300	1.620	205.0348	10.537	959	346.8978	99.7092	47.117	1.400	1.620	179.2526	47.138
896	369.7625	102.2442	9.541	1.300	1.620	202.1173	9.539	960	352.1848	99.6741	43.569	1.400	1.620	184.5396	43.588
897	375.9821	102.2666	9.204	1.300	1.620	208.3369	9.202	961	341.1527	99.8442	47.833	1.400	1.620	173.5075	47.855
898	378.5417	102.2891	9.060	1.300	1.620	210.8965	9.058	962	338.9766	99.9027	46.727	1.400	1.620	171.3314	46.748
899	344.7456	106.8384	4.478	1.300	1.620	177.1004	4.454	963	337.5730	99.9023	48.371	1.400	1.620	169.9278	48.393
900	348.6489	107.2234	4.180	1.300	1.620	181.0037	4.155	964	342.5949	99.7413	51.176	1.400	1.620	174.9497	51.199
901	326.1855	104.3028	7.254	1.300	1.620	158.5403	7.241	965	340.5980	99.8088	50.043	1.400	1.620	172.9528	50.066
902	325.0017	104.0730	7.602	1.300	1.620	157.3565	7.590	966	341.2105	99.7554	52.718	1.400	1.620	173.5653	52.742
903	339.2089	101.8238	12.440	1.300	1.620	171.5637	12.441	967	333.5934	100.0051	48.378	1.400	1.620	165.9482	48.400
904	325.7382	102.5190	10.996	1.300	1.620	158.0930	10.992	968	332.5861	100.0396	47.946	1.400	1.620	164.9409	47.968
905	338.6937	101.3924	15.309	1.300	1.620	171.0485	15.312	969	331.9771	100.0307	48.794	1.400	1.620	164.3319	48.816
906	324.4613	100.9195	23.123	1.300	1.620	156.8161	23.131	970	331.6991	100.0487	49.328	1.400	1.620	164.0539	49.350
907	317.5937	100.7201	31.956	1.300	1.620	149.9485	31.968	971	335.2315	99.9252	50.884	1.400	1.620	167.5863	50.907
908	313.4300	100.5472	42.372	1.300	1.620	145.7848	42.390	972	339.7502	99.7695	53.302	1.400	1.620	172.1050	53.326
909	310.7193	100.4224	53.211	1.300	1.620	143.0741	53.234	973	337.0753	99.7181	56.725	1.400	1.620	169.4301	56.750
910	309.0852	100.8757	31.293	1.300	1.620	141.4400	31.304	974	334.5016	99.7232	60.597	1.400	1.620	166.8564	60.624
911	314.7435	100.7375	31.670	1.300	1.620	147.0983	31.682	975	335.0148	99.9035	62.311	1.400	1.620	167.3696	62.339
912	380.6886	101.8467	17.167	1.300	1.620	213.0434	17.168	976	340.0921	99.8288	55.113	1.400	1.620	172.4469	55.138
913	383.6313	101.8939	16.283	1.300	1.620	215.9861	16.283	977	342.7068	99.8670	56.893	1.400	1.620	175.0616	56.919
914	379.7463	101.9508	15.919	1.300	1.620	212.1011	15.919	978	342.2068	99.8826	57.965	1.400	1.620	174.5616	57.991
915	375.3576	101.8648	17.410	1.300	1.620	207.7124	17.410	979	342.3658	99.8892	58.523	1.400	1.620	174.7206	58.550
916	376.6001	101.8605	17.348	1.300	1.620	208.9549	17.348	980	342.7771	99.9029	58.762	1.400	1.620	175.1319	58.789
917	379.9877	101.9315	16.198	1.300	1.620	212.3425	16.198	981	343.1605	99.8268	57.291	1.400	1.620	175.5153	57.317
918	381.8285	101.8999	16.419	1.300	1.620	214.1833	16.419	982	342.6621	99.8305	57.869	1.400	1.620	175.0169	57.895
919	379.4522	101.8538	17.209	1.300	1.620	211.8070	17.210	983	338.9633	99.6853	55.880	1.400	1.620	171.3181	55.905
920	372.6233	101.8476	17.607	1.300	1.620	204.9781	17.608	984	337.8094	99.7055	57.302	1.400	1.620	170.1642	57.327
921	377.6534	101.9694	15.749	1.300	1.620	210.0082	15.749	985	336.7698	99.7266	58.822	1.400	1.620	169.1246	58.848
922	373.3851	101.9798	15.470	1.300	1.620	205.7399	15.470	986	336.0372	99.7332	60.424	1.400	1.620	168.3920	60.451
923	367.5588	101.8361	18.035	1.300	1.620	199.9136	18.036	987	333.8218	99.7320	60.146	1.400	1.620	166.1766	60.173
924	368.7818	101.8370	17.907	1.300	1.620	201.1366	17.908	988	332.1407	99.6624	57.131	1.400	1.620	164.4955	57.156
925	373.7717	101.9811	15.803	1.300	1.620	206.1265	15.803	989	328.4643	100.1307	52.760	1.400	1.620	160.8191	52.784
926	375.9360	101.9613	15.941	1.300	1.620	208.2908	15.941	990	328.7419	100.3839	42.278	1.400	1.620	161.0967	42.296
927	371.4479	101.8418	17.664	1.300	1.620	203.8027	17.665	991	331.0951	100.5170	36.907	1.400	1.620	163.4499	36.923
928	366.0422	101.8563	17.773	1.300	1.620	198.3970	17.774	992	84.1978	100.9600	21.673	1.400	1.620	316.5526	21.680
929	371.1711	101.9690	15.353	1.300	1.620	203.5259	15.353	993	356.8492	107.1885	2.085	1.400	1.620	189.2040	2.073
930	366.6014	101.9442	15.181	1.300	1.620	198.9562	15.181	994	301.0876	104.3880	3.216	1.400	1.620	133.4424	3.210
931	364.0826	101.8957	16.623	1.300	1.620	196.4374	16.623	995	279.4759	104.1042	3.393	1.400	1.620	111.8307	3.387
932	364.4901	101.9061	16.872	1.300	1.620	196.8449	16.872	996	300.7542	103.4011	4.623	1.400	1.620	133.1090	4.619
933	367.1528	101.9383	15.512	1.300	1.620	199.5076	15.512	997	287.0784	103.7222	4.206	1.400	1.620	119.4332	4.201
934	369.3214	101.9593	15.586	1.300	1.620	201.6762	15.586	998	301.4859	102.1974	8.344	1.400	1.620	133.8407	8.343
935	365.5334	101.8826	17.451	1.300	1.620	197.8882	17.451	999	301.0256	101.8896	9.411	1.400	1.620	133.3804	9.411
936	363.6999	101.8915	15.411	1.300	1.620	196.0547	15.411	1000	296.0979	101.6081	10.752	1.400	1.620	128.4527	10.753
937	361.4173	101.8581	15.279	1.300	1.620	193.7721	15.279	1001	299.5115	101.4945	11.625	1.400	1.620	131.8663	11.627
938	344.7459	101.4720	18.435	1.300	1.620	177.1007	18.438	1002	298.6179	100.8482	14.838	1.500	1.620	130.9727	14.843
939	328.8797	101.0183	26.248	1.300	1.620	161.2345	26.257	1003	299.9156	100.1948	40.281	1.500	1.620	132.2704	40.299
940	320.7105	100.8160	36.385	1.300	1.620	153.0653	36.399	1004	303.8015	100.1636	41.030	1.500	1.620	136.1563	41.049
941	340.6464	99.8189	54.291	1.300	1.620	173.0012	54.315	1005	304.4336	100.2204	34.093	1.500	1.620	136.7884	34.108
942	343.5097	99.7124	51.195	1.400	1.620	175.8645	51.218	1006	299.8121	100.2804	33.201	1.500	1.620	132.1669	33.216
943	342.9834	99.7214	50.951	1.400	1.620	175.3382	50.974	1007	305.7917	100.4498	25.305	1.500	1.620	138.1465	25.316
944	346.8367	99.6881	48.114	1.400	1.620	179.1915	48.135	1008	299.6990	100.4910	23.480	1.500	1.620	132.0538	23.490
945	350.5414	99.6745	45.206	1.400	1.620	182.8962	45.226	1009	298.0068	100.5324	22.058	1.500	1.620	130.3616	22.067
946	359.5269	99.6847	39.955	1.400	1.620	191.8817	39.973	1010	299.9970	100.6432	18.703	1.500	1.620	132.3518	18.711
947	370.7756	99.7008	35.767	1.400	1.620	203.1304	35.783	1011	307.6927	100.6117	18.638	1.500	1.620	140.0475	18.646

1012	300.9903	100.7325	16.664	1.500	1.620	133.3451	16.670
1013	317.3961	101.3637	7.981	1.500	1.620	149.7509	7.983
1014	302.1875	101.5618	8.232	1.500	1.620	134.5423	8.233
1015	295.9296	101.4807	7.452	1.500	1.620	128.2844	7.453
1016	281.8256	101.4665	6.840	1.500	1.620	114.1804	6.841
1017	269.9870	101.3096	6.652	1.500	1.620	102.3418	6.654
1018	258.7695	101.1500	6.077	1.500	1.620	91.1243 6.079	
1019	204.1587	101.6937	3.707	1.500	1.620	36.5135 3.707	
1020	208.6679	106.4849	1.203	1.500	1.620	41.0227 1.197	
1021	277.7882	102.3869	3.421	1.500	1.620	110.1430	3.420
1022	288.3379	102.1129	4.399	1.500	1.620	120.6927	4.399
1023	302.3876	102.0637	4.764	1.500	1.620	134.7424	4.764
1024	316.4158	101.7240	6.153	1.500	1.620	148.7706	6.154
1025	317.4873	101.3669	7.981	1.500	1.620	149.8421	7.983
1026	328.3765	102.8295	6.317	1.500	1.620	160.7313	6.314
1027	308.1771	100.9461	22.297	1.500	1.620	140.5319	22.305
1028	305.1795	100.4081	36.637	1.500	1.620	137.5343	36.653
1029	304.0285	100.3138	48.717	1.500	1.620	136.3833	48.739
1030	303.6726	100.3233	54.681	1.500	1.620	136.0274	54.705
1031	266.9288	98.4084 28.619	1.500	1.620	99.2836 28.623		
1032	271.1071	98.6151 33.994	1.500	1.620	103.4619	34.001	
1033	276.4650	99.2094 37.642	1.500	1.620	108.8198	37.656	
1034	279.6486	99.6246 41.208	1.500	1.620	112.0034	41.226	
1035	279.4348	99.5839 40.401	1.500	1.620	111.7896	40.418	
1036	280.3883	99.9410 38.793	1.500	1.620	112.7431	38.811	
1037	271.7485	99.9004 27.921	1.500	1.620	104.1033	27.934	
9999	37.6657 96.4237	73.000 0.000	1.620	270.0205	72.918		
9999	37.7762 96.1380	72.933 0.000	1.628	270.1310	72.832		

Coordenadas calculadas

Número	X	Y	Z
169	236344.240	4141004.359	8.791
170	236345.330	4141006.805	8.796
171	236346.035	4141003.045	8.748
172	236346.770	4141002.752	8.754
173	236346.375	4141001.657	8.745
174	236349.601	4141001.344	8.789
175	236351.469	4141002.953	8.858
176	236349.388	4141004.338	8.791
177	236349.799	4141004.145	8.790
178	236350.974	4141003.538	8.834
179	236351.699	4141005.249	8.767
180	236358.748	4141000.153	8.829
181	236358.722	4140998.504	8.825
182	236358.432	4140997.925	8.818
183	236357.855	4140998.175	8.834
184	236360.762	4140996.963	8.836
185	236361.447	4140996.633	8.787
186	236361.685	4140997.241	8.816
187	236364.831	4140995.197	8.814
188	236365.444	4140994.910	8.811
189	236365.681	4140995.436	8.808
190	236366.242	4140996.873	8.821
191	236368.751	4140994.519	8.565
192	236370.514	4140993.806	8.517
193	236370.463	4140993.233	8.513
194	236369.074	4140989.864	8.554
195	236368.940	4140990.212	8.567
196	236367.235	4140990.957	8.602
197	236366.996	4140985.762	8.667
198	236365.049	4140983.963	8.647
199	236362.164	4140983.374	8.578
200	236360.171	4140984.051	8.553
201	236360.965	4140983.730	8.527
202	236347.201	4140991.420	8.500

203	236345.034	4140991.554	8.558
204	236344.422	4140990.990	8.584
205	236344.236	4140992.292	8.545
206	236350.505	4140994.581	8.725
207	236360.000	4140985.859	8.710
208	236360.119	4140985.624	8.703
209	236358.831	4140985.075	8.695
210	236366.644	4140985.537	8.691
211	236365.149	4140986.354	8.690
212	236366.732	4140989.184	8.694
213	236367.982	4140988.450	8.673
214	236369.036	4140989.722	8.595
215	236369.470	4140989.414	8.599
216	236367.853	4140985.789	8.676
217	236367.425	4140985.969	8.674
218	236367.399	4140985.424	8.674
219	236369.908	4140989.251	8.598
220	236370.808	4140988.809	8.619
221	236371.744	4140988.389	8.628
222	236368.240	4140991.889	8.560
223	236368.758	4140990.399	8.567
224	236372.576	4140987.512	8.720
225	236373.190	4140986.068	8.760
226	236370.119	4140983.532	8.721
227	236368.698	4140980.273	8.729
228	236368.298	4140980.554	8.728
229	236364.816	4140982.599	8.671
230	236363.969	4140983.111	8.654
231	236364.601	4140983.304	8.666
232	236369.159	4140980.091	8.721
233	236369.808	4140980.308	8.750
234	236370.004	4140980.174	8.737
235	236370.205	4140982.966	8.711
236	236370.287	4140983.301	8.711
237	236371.883	4140982.469	8.792
238	236373.405	4140985.949	8.760
239	236371.788	4140986.662	8.713
240	236372.653	4140988.548	8.601
241	236374.546	4140987.704	8.616
242	236375.562	4140989.964	8.601
243	236376.578	4140983.441	8.955
244	236383.854	4140979.785	9.011
245	236380.973	4140961.460	8.891
246	236380.843	4140961.348	8.892
247	236381.061	4140961.083	8.875
248	236380.920	4140961.018	8.884
249	236380.976	4140960.670	8.863
250	236380.855	4140960.688	8.876
251	236380.381	4140959.711	8.834
252	236380.228	4140959.783	8.846
253	236380.012	4140959.420	8.823
254	236379.915	4140959.598	8.846
255	236379.179	4140959.476	8.813
256	236379.226	4140959.688	8.839
257	236379.740	4140960.625	8.865
258	236379.789	4140960.784	8.867
259	236379.671	4140960.903	8.865
260	236369.033	4140966.653	8.875
261	236369.127	4140966.783	8.877
262	236369.047	4140966.943	8.875
263	236374.075	4140962.416	8.821
264	236374.119	4140961.160	8.782
265	236373.694	4140961.439	8.781
266	236368.802	4140962.877	8.691

267	236368.828	4140963.019	8.771	331	236308.442	4141001.982	8.570
268	236370.062	4140965.384	8.867	332	236312.412	4141001.459	8.581
269	236365.263	4140968.120	8.808	333	236312.142	4140998.538	8.578
270	236361.639	4140970.185	8.789	334	236314.144	4140996.736	8.584
271	236358.088	4140972.199	8.769	335	236316.469	4140994.796	8.595
272	236360.445	4140975.946	8.839	336	236314.758	4140998.438	8.587
273	236361.598	4140975.345	8.843	337	236297.342	4141005.359	8.558
274	236365.485	4140972.524	8.882	338	236296.630	4141004.047	8.566
275	236373.218	4140966.943	8.880	339	236303.395	4141000.281	8.562
276	236374.255	4140965.996	8.890	340	236303.794	4141001.723	8.562
277	236361.520	4140975.161	8.843	341	236291.549	4141006.629	8.547
278	236359.050	4140977.212	8.808	342	236292.200	4141007.987	8.548
279	236351.071	4140981.684	8.772	343	236293.210	4141010.128	8.548
280	236349.809	4140982.161	8.805	344	236293.903	4141011.455	8.553
281	236346.949	4140983.965	8.748	345	236294.438	4141012.679	8.553
282	236346.941	4140983.732	8.746	346	236294.170	4141012.125	8.555
283	236332.720	4140991.873	8.676	347	236293.970	4141012.211	8.550
284	236330.409	4140992.952	8.691	348	236293.791	4141011.879	8.541
285	236313.230	4141002.680	8.611	349	236294.048	4141011.775	8.542
286	236309.542	4141004.473	8.593	350	236292.620	4141009.095	8.542
287	236299.690	4141010.167	8.588	351	236291.295	4141006.428	8.523
288	236294.475	4141012.835	8.574	352	236291.176	4141006.492	8.522
289	236291.338	4141005.079	8.355	353	236290.997	4141006.129	8.534
290	236295.627	4141002.892	8.375	354	236291.158	4141006.070	8.536
291	236302.487	4140999.109	8.375	355	236290.861	4141005.505	8.524
292	236317.642	4140990.723	8.436	356	236291.110	4141005.390	8.540
293	236333.949	4140981.637	8.492	357	236291.327	4141005.972	8.551
294	236342.920	4140976.671	8.545	358	236291.491	4141005.882	8.537
295	236342.981	4140976.826	8.670	359	236291.652	4141006.275	8.546
296	236355.958	4140969.332	8.593	360	236291.447	4141006.357	8.545
297	236364.105	4140965.173	8.659	361	236292.864	4141009.043	8.549
298	236368.857	4140963.770	8.835	362	236294.176	4141011.744	8.550
299	236369.624	4140964.973	8.835	363	236294.330	4141011.657	8.550
300	236357.879	4140971.728	8.770	364	236294.485	4141011.977	8.551
301	236357.176	4140970.366	8.765	365	236294.302	4141012.087	8.553
302	236363.071	4140974.147	8.870	366	236294.603	4141012.577	8.558
303	236363.169	4140973.494	8.885	367	236300.320	4141009.245	8.511
304	236363.892	4140973.572	8.877	368	236299.702	4141007.873	8.556
305	236359.204	4140975.425	8.767	369	236299.909	4141007.260	8.557
306	236358.451	4140974.136	8.768	370	236300.648	4141006.427	8.558
307	236346.381	4140982.623	8.696	371	236301.236	4141006.070	8.562
308	236345.718	4140981.242	8.694	372	236301.894	4141007.115	8.563
309	236344.449	4140979.215	8.695	373	236303.486	4141007.816	8.578
310	236343.743	4140977.900	8.692	374	236302.474	4141008.457	8.564
311	236329.761	4140985.689	8.632	375	236302.181	4141007.962	8.559
312	236330.654	4140986.901	8.637	376	236299.420	4141005.902	8.575
313	236332.066	4140988.843	8.641	377	236299.313	4141005.654	8.579
314	236332.579	4140990.261	8.636	378	236299.204	4141005.376	8.575
315	236320.992	4140996.709	8.599	379	236296.151	4141003.003	8.564
316	236320.290	4140995.374	8.597	380	236298.862	4141001.978	8.578
317	236319.178	4140993.269	8.603	381	236299.847	4141001.416	8.566
318	236318.484	4140991.913	8.600	382	236299.571	4141000.890	8.570
319	236315.828	4140993.531	8.590	383	236301.549	4141000.496	8.567
320	236316.437	4140994.741	8.591	384	236301.565	4141000.375	8.567
321	236314.311	4140994.604	8.585	385	236301.455	4141000.253	8.566
322	236312.632	4140996.021	8.583	386	236304.846	4141006.448	8.567
323	236310.581	4140997.974	8.575	387	236304.969	4141006.532	8.568
324	236306.172	4141002.019	8.568	388	236304.960	4141006.706	8.568
325	236303.912	4141004.074	8.565	389	236317.707	4140999.656	8.591
326	236302.594	4141005.178	8.562	390	236317.717	4140999.518	8.593
327	236298.326	4141007.523	8.557	391	236317.596	4140999.418	8.593
328	236299.026	4141008.839	8.557	392	236314.278	4140993.476	8.588
329	236303.239	4141006.451	8.559	393	236314.303	4140993.341	8.588
330	236305.569	4141004.646	8.567	394	236314.179	4140993.221	8.587

395	236315.409	4140992.843	8.597	510	236350.391	4140982.348	8.760
396	236315.145	4140992.339	8.609	511	236360.854	4140976.369	8.819
397	236316.440	4140992.255	8.604	512	236365.871	4140973.174	8.867
398	236317.727	4140993.910	8.597	513	236366.202	4140972.816	8.870
399	236318.382	4140993.548	8.601	514	236366.616	4140972.579	8.872
400	236318.647	4140998.771	8.585	515	236366.582	4140971.864	8.878
401	236318.941	4140999.267	8.581	516	236366.213	4140972.131	8.881
402	236320.023	4140998.710	8.588	517	236379.931	4140962.274	8.888
403	236321.134	4140997.391	8.607	518	236379.831	4140963.881	8.921
404	236320.936	4140997.061	8.603	519	236380.687	4140963.323	8.918
405	236321.585	4140997.165	8.606	520	236381.092	4140963.067	8.919
406	236321.421	4140996.842	8.598	521	236381.737	4140958.336	8.812
407	236321.252	4140996.870	8.590	522	236381.295	4140958.443	8.808
408	236319.725	4140994.032	8.582	523	236382.687	4140958.095	8.816
409	236319.335	4140993.843	8.592	524	236383.143	4140957.988	8.818
410	236318.409	4140991.607	8.574	525	236382.486	4140962.158	8.918
411	236318.582	4140991.532	8.575	526	236382.055	4140962.435	8.921
412	236318.330	4140991.190	8.574	527	236383.523	4140961.494	8.913
413	236317.900	4140991.438	8.542	528	236384.004	4140961.187	8.909
414	236318.068	4140991.765	8.596	529	236384.336	4140958.905	8.845
415	236318.214	4140991.708	8.602	530	236384.000	4140958.262	8.822
416	236319.733	4140994.642	8.615	531	236383.835	4140957.580	8.814
417	236319.557	4140994.439	8.617	532	236378.835	4140958.871	8.792
418	236319.482	4140994.168	8.622	533	236379.154	4140959.398	8.805
419	236319.853	4140994.240	8.602	534	236378.779	4140959.497	8.805
420	236323.599	4140992.518	8.658	535	236376.875	4140953.097	8.696
421	236327.272	4140990.212	8.607	536	236373.534	4140954.291	8.668
422	236331.047	4140987.954	8.597	537	236373.160	4140954.425	8.665
423	236332.690	4140987.327	8.622	538	236375.466	4140959.838	8.776
424	236332.729	4140987.175	8.623	539	236368.445	4140962.746	8.713
425	236332.595	4140987.052	8.622	540	236355.892	4140969.104	8.573
426	236347.983	4140978.810	8.711	541	236343.108	4140976.270	8.528
427	236348.027	4140978.640	8.711	542	236343.033	4140974.578	8.494
428	236347.900	4140978.530	8.711	543	236341.587	4140971.936	8.434
429	236335.154	4140985.791	8.621	544	236324.329	4140986.696	8.429
430	236339.096	4140983.637	8.632	545	236303.742	4140998.119	8.393
431	236341.990	4140982.078	8.651	546	236286.939	4140999.958	8.178
432	236344.319	4140980.397	8.642	547	236286.042	4141000.462	8.172
433	236344.087	4140980.042	8.632	548	236285.115	4140998.744	8.375
434	236329.422	4140984.878	8.646	549	236287.969	4140997.487	8.356
435	236335.329	4140983.422	8.657	550	236291.537	4140995.521	8.368
436	236334.335	4140982.410	8.625	551	236292.334	4140997.196	8.219
437	236335.847	4140981.246	8.665	552	236291.438	4140997.656	8.178
438	236343.428	4140977.284	8.689	553	236303.837	4140990.846	8.275
439	236343.629	4140976.469	8.695	554	236303.775	4140990.724	8.414
440	236345.617	4140980.723	8.697	555	236302.752	4140989.122	8.424
441	236346.089	4140980.416	8.692	556	236306.160	4140984.573	8.447
442	236344.999	4140979.702	8.695	557	236311.664	4140981.531	8.428
443	236347.376	4140983.392	8.701	558	236313.736	4140982.984	8.410
444	236347.604	4140982.631	8.695	559	236314.584	4140984.795	8.421
445	236347.694	4140982.702	8.696	560	236314.622	4140984.920	8.268
446	236352.264	4140980.090	8.724	561	236325.435	4140978.926	8.279
447	236359.163	4140976.240	8.775	562	236325.337	4140978.833	8.388
448	236358.586	4140968.767	8.769	563	236324.869	4140976.797	8.406
449	236358.794	4140968.016	8.770	564	236324.020	4140974.660	8.421
450	236367.759	4140964.919	8.823	565	236334.455	4140968.812	8.530
451	236368.020	4140964.733	8.823	566	236335.224	4140971.054	8.500
452	236368.657	4140964.537	8.826	567	236336.060	4140972.910	8.475
453	236368.939	4140964.800	8.824	568	236336.156	4140973.022	8.376
454	236368.311	4140965.395	8.821	569	236345.394	4140967.879	8.442
455	236368.120	4140965.449	8.823	570	236345.057	4140967.950	8.538
507	236299.722	4141010.397	8.589	571	236344.421	4140966.655	8.512
508	236310.467	4141004.486	8.607	572	236345.205	4140967.778	8.492
509	236335.717	4140990.458	8.678	573	236344.586	4140966.673	8.497

574	236342.503	4140965.589	8.531	638	236321.765	4140981.598	8.257
575	236340.362	4140964.449	8.554	639	236323.578	4140980.390	8.261
576	236345.412	4140957.661	8.605	640	236325.956	4140979.812	8.261
577	236347.532	4140958.598	8.586	641	236330.353	4140980.993	8.377
578	236349.716	4140960.171	8.567	642	236320.634	4140981.934	8.235
579	236349.832	4140960.286	8.535	643	236337.103	4140972.882	8.370
580	236352.988	4140954.473	8.585	644	236341.577	4140971.928	8.432
581	236355.209	4140948.467	8.618	645	236343.024	4140974.538	8.494
582	236361.913	4140950.272	8.499	646	236353.187	4140967.168	8.489
583	236360.423	4140954.769	8.553	647	236338.385	4140971.939	8.399
584	236354.068	4140962.774	8.514	648	236347.331	4140967.011	8.431
585	236352.526	4140963.935	8.455	649	236353.435	4140963.599	8.464
586	236357.735	4140959.603	8.498	650	236357.732	4140959.888	8.493
587	236362.062	4140950.319	8.504	651	236361.271	4140953.629	8.510
588	236362.698	4140947.964	8.504	652	236362.720	4140948.662	8.500
589	236364.113	4140942.623	8.495	653	236364.544	4140941.742	8.495
590	236362.081	4140942.078	8.611	654	236360.692	4140953.283	8.549
591	236360.656	4140947.428	8.594	655	236360.897	4140952.333	8.525
592	236353.056	4140945.314	8.671	656	236354.801	4140950.279	8.585
593	236352.384	4140945.069	8.669	657	236355.380	4140948.663	8.586
594	236351.824	4140944.744	8.669	658	236355.301	4140948.962	8.589
595	236352.553	4140939.516	8.663	659	236355.962	4140949.173	8.588
596	236350.796	4140939.040	8.718	660	236353.606	4140952.963	8.540
597	236351.272	4140947.278	8.670	661	236354.100	4140962.722	8.511
598	236348.662	4140948.357	8.689	662	236348.766	4140961.960	8.497
599	236353.779	4140950.312	8.672	663	236348.691	4140963.184	8.517
600	236343.192	4140950.451	8.721	664	236349.541	4140964.249	8.532
601	236342.174	4140953.093	8.700	665	236349.302	4140964.413	8.535
602	236345.524	4140953.575	8.681	666	236358.330	4140946.804	8.616
603	236330.165	4140963.761	8.570	667	236358.411	4140945.569	8.624
604	236335.408	4140971.816	8.472	668	236357.702	4140945.526	8.627
605	236336.213	4140972.041	8.479	669	236358.062	4140944.766	8.638
606	236325.590	4140974.385	8.422	670	236358.669	4140945.502	8.635
607	236326.210	4140974.751	8.419	671	236357.469	4140940.526	8.630
608	236326.815	4140973.674	8.434	672	236370.247	4140979.522	8.705
609	236327.926	4140976.718	8.406	673	236371.420	4140977.802	8.684
610	236314.512	4140973.461	8.426	674	236373.495	4140976.190	8.710
611	236319.287	4140979.089	8.406	675	236376.680	4140973.684	8.747
612	236314.629	4140982.808	8.420	676	236383.003	4140968.763	8.792
613	236315.431	4140984.003	8.422	677	236387.018	4140966.154	8.873
614	236315.289	4140984.186	8.427	678	236393.462	4140962.482	8.812
615	236308.963	4140986.275	8.439	679	236390.767	4140964.106	8.842
616	236309.786	4140986.468	8.436	680	236388.624	4140965.361	8.850
617	236304.112	4140989.239	8.427	681	236390.462	4140968.614	8.952
618	236301.055	4140991.435	8.409	682	236392.603	4140967.357	8.964
619	236300.392	4140983.963	8.494	683	236381.782	4140973.482	8.982
620	236285.665	4140993.660	8.444	684	236382.890	4140975.737	9.003
621	236284.723	4141000.287	8.351	685	236382.818	4140972.124	9.001
622	236280.560	4141000.508	8.417	686	236379.074	4140973.921	8.946
623	236280.119	4140998.192	8.441	687	236378.510	4140975.756	8.894
624	236282.335	4141000.429	8.369	688	236377.507	4140976.438	8.879
625	236283.118	4141000.696	8.358	689	236377.689	4140974.585	8.883
626	236287.393	4141000.303	8.182	690	236373.914	4140980.716	8.886
627	236287.704	4141000.694	8.196	691	236374.161	4140979.743	8.879
628	236292.170	4140998.409	8.227	692	236384.303	4140968.688	8.864
629	236291.852	4140997.974	8.217	693	236385.369	4140968.045	8.871
630	236290.850	4141004.696	8.353	694	236385.740	4140968.633	8.889
631	236295.319	4141002.396	8.367	695	236388.526	4140969.748	8.966
632	236286.661	4141002.767	8.242	696	236389.162	4140969.428	8.951
633	236285.879	4141000.949	8.137	697	236389.750	4140970.531	8.965
634	236299.943	4140996.744	8.319	698	236382.491	4140968.836	8.805
635	236306.521	4140993.004	8.304	699	236392.193	4140980.456	8.963
636	236317.923	4140986.850	8.331	700	236393.816	4140979.830	9.103
637	236320.013	4140983.834	8.242	701	236399.133	4140980.012	9.482

702	236398.761	4140977.928	9.197	766	236371.604	4140946.857	8.739
703	236395.831	4140978.516	9.049	767	236371.828	4140946.140	8.747
704	236403.204	4140974.351	9.059	768	236375.102	4140933.822	8.808
705	236413.978	4140968.060	9.083	769	236370.657	4140933.765	8.710
706	236419.206	4140966.876	9.768	770	236378.736	4140931.862	8.871
707	236420.195	4140969.472	9.824	771	236378.237	4140934.090	8.863
708	236412.868	4140972.361	9.590	772	236380.167	4140934.611	8.905
709	236405.704	4140975.155	9.373	773	236380.778	4140932.296	8.940
710	236416.727	4140963.179	9.050	774	236377.305	4140937.580	8.828
711	236415.474	4140963.879	9.053	775	236376.839	4140939.331	8.814
712	236414.784	4140962.646	9.030	776	236378.766	4140939.861	8.857
713	236412.414	4140965.645	9.040	777	236375.601	4140944.005	8.784
714	236411.141	4140966.337	9.039	778	236375.131	4140945.756	8.775
715	236410.456	4140965.085	9.081	779	236377.066	4140946.280	8.781
716	236406.863	4140967.095	9.024	780	236384.382	4140940.210	8.870
717	236406.339	4140969.054	9.049	781	236384.134	4140941.170	8.869
718	236405.613	4140967.808	9.041	782	236383.161	4140940.918	8.853
719	236403.277	4140970.807	9.029	783	236384.969	4140934.138	8.968
720	236402.595	4140969.557	9.039	784	236384.702	4140935.109	8.951
721	236401.305	4140970.267	9.030	785	236385.688	4140935.365	8.956
722	236398.976	4140973.231	9.043	786	236385.432	4140935.144	8.924
723	236398.245	4140971.989	9.078	787	236379.623	4140933.232	8.872
724	236396.988	4140972.694	9.136	788	236383.946	4140940.698	8.817
725	236394.599	4140975.708	9.150	789	236376.401	4140945.209	8.751
726	236393.892	4140974.414	9.140	790	236375.191	4140944.843	8.785
727	236392.622	4140975.135	9.256	791	236374.938	4140944.788	8.774
728	236393.671	4140975.016	9.177	792	236376.104	4140948.390	8.755
729	236397.884	4140972.811	9.075	793	236375.885	4140949.302	8.754
730	236402.157	4140970.482	9.034	794	236379.072	4140951.513	8.826
731	236406.512	4140967.989	9.046	795	236377.695	4140951.980	8.806
732	236411.189	4140965.338	8.993	796	236382.514	4140948.838	8.812
733	236415.450	4140963.034	9.011	797	236383.156	4140949.456	8.788
734	236408.747	4140961.995	8.938	798	236383.659	4140950.060	8.761
735	236408.501	4140961.761	8.934	799	236387.136	4140948.792	8.796
736	236407.862	4140961.319	8.926	800	236387.579	4140948.636	8.883
737	236407.846	4140960.477	8.920	801	236386.974	4140947.153	8.879
738	236407.798	4140960.166	8.906	802	236389.413	4140945.901	8.906
739	236403.749	4140965.284	8.968	803	236389.579	4140945.843	8.909
740	236403.313	4140964.466	8.933	804	236388.646	4140944.711	8.851
741	236401.621	4140965.782	8.934	805	236390.506	4140940.972	8.857
742	236401.352	4140963.855	8.894	806	236390.701	4140940.183	8.881
743	236400.269	4140963.580	8.877	807	236395.920	4140939.841	8.947
744	236362.238	4140950.955	8.527	808	236390.133	4140934.227	9.065
745	236362.700	4140951.088	8.522	809	236389.829	4140933.298	9.209
746	236364.932	4140942.766	8.505	810	236391.387	4140932.783	9.237
747	236364.623	4140951.661	8.526	811	236391.394	4140933.810	9.125
748	236365.649	4140951.880	8.568	812	236392.350	4140936.675	9.022
749	236366.439	4140951.352	8.648	813	236392.980	4140937.518	9.083
750	236365.878	4140951.043	8.574	814	236391.087	4140937.092	8.944
751	236366.576	4140950.651	8.632	815	236391.388	4140938.032	9.058
752	236367.200	4140954.958	8.682	816	236387.829	4140927.757	9.340
753	236367.405	4140954.834	8.683	817	236388.125	4140927.881	9.380
754	236366.721	4140953.664	8.668	818	236389.019	4140931.339	9.195
755	236369.339	4140954.653	8.705	819	236392.082	4140940.685	8.856
756	236364.831	4140954.614	8.640	820	236403.328	4140934.248	9.023
757	236370.169	4140952.595	8.716	821	236412.049	4140929.238	9.023
758	236370.499	4140953.344	8.718	822	236422.878	4140923.027	9.020
759	236371.080	4140952.192	8.739	823	236421.296	4140923.094	9.017
760	236370.246	4140945.960	8.710	824	236421.404	4140923.090	9.001
761	236370.982	4140945.648	8.724	825	236421.903	4140923.988	9.025
762	236370.681	4140944.914	8.717	826	236422.989	4140923.396	8.995
763	236368.076	4140943.533	8.570	827	236417.128	4140929.612	8.970
764	236368.464	4140944.384	8.620	828	236417.340	4140928.831	8.995
765	236371.401	4140947.579	8.730	829	236416.085	4140927.403	9.012

830	236415.897	4140927.117	9.016	893	236393.453	4140955.662	8.936
830	236415.896	4140927.119	9.016	894	236393.539	4140954.649	8.915
831	236416.602	4140927.114	9.014	895	236393.888	4140954.342	8.909
832	236414.553	4140935.774	8.877	896	236394.404	4140955.311	8.927
833	236415.054	4140936.778	8.695	897	236393.519	4140955.722	8.936
834	236411.618	4140938.341	8.826	898	236393.178	4140955.920	8.937
835	236411.216	4140937.637	8.846	899	236396.289	4140960.676	8.783
836	236412.153	4140937.069	8.858	900	236395.942	4140960.874	8.790
837	236411.720	4140937.715	8.868	901	236399.110	4140959.087	8.773
838	236410.710	4140939.252	8.710	902	236399.433	4140958.896	8.777
839	236404.610	4140942.740	8.690	903	236400.095	4140953.626	8.907
840	236395.725	4140945.953	8.729	904	236401.445	4140956.150	8.828
841	236396.422	4140945.153	8.918	905	236401.447	4140951.090	8.928
842	236395.706	4140944.812	8.913	906	236409.235	4140946.835	8.929
843	236392.250	4140941.444	8.821	907	236417.344	4140942.259	8.902
844	236401.476	4140942.375	8.791	908	236426.612	4140936.920	8.899
845	236380.053	4140951.688	8.707	909	236436.227	4140931.513	8.910
846	236373.309	4140954.156	8.675	910	236419.624	4140945.877	8.833
847	236366.202	4140956.714	8.561	911	236418.121	4140943.487	8.896
848	236365.551	4140956.674	8.563	912	236391.228	4140948.037	8.765
849	236364.103	4140956.133	8.545	913	236390.675	4140949.073	8.779
850	236363.957	4140955.417	8.524	914	236391.713	4140949.213	8.775
851	236364.744	4140952.609	8.520	915	236392.617	4140947.563	8.753
852	236366.895	4140953.191	8.663	916	236392.289	4140947.668	8.756
853	236368.155	4140948.751	8.679	917	236391.600	4140948.951	8.772
854	236369.394	4140944.093	8.691	918	236391.093	4140948.832	8.773
855	236367.210	4140943.474	8.464	919	236391.547	4140947.931	8.762
856	236365.780	4140948.841	8.512	920	236393.345	4140947.292	8.752
857	236365.153	4140951.084	8.529	921	236392.255	4140949.291	8.776
858	236372.607	4140953.097	8.748	922	236393.328	4140949.439	8.782
859	236370.730	4140950.208	8.710	923	236394.745	4140946.810	8.743
860	236371.664	4140950.378	8.726	924	236394.401	4140946.941	8.747
861	236372.527	4140950.438	8.723	925	236393.202	4140949.116	8.771
862	236377.501	4140948.636	8.773	926	236392.651	4140949.040	8.772
863	236379.629	4140948.128	8.773	927	236393.666	4140947.212	8.752
864	236381.821	4140948.800	8.804	928	236395.168	4140947.078	8.745
865	236383.236	4140950.206	8.753	929	236393.871	4140949.516	8.788
866	236380.878	4140951.097	8.732	930	236394.970	4140949.667	8.800
867	236379.706	4140950.613	8.819	931	236395.651	4140948.248	8.768
868	236378.986	4140950.672	8.827	932	236395.557	4140947.994	8.758
869	236373.119	4140954.330	8.670	933	236394.841	4140949.334	8.791
870	236373.477	4140954.190	8.673	934	236394.310	4140949.265	8.784
871	236375.160	4140960.093	8.778	935	236395.300	4140947.404	8.747
872	236378.772	4140959.513	8.810	936	236395.675	4140949.464	8.805
873	236379.152	4140959.409	8.809	937	236396.213	4140949.639	8.817
874	236376.804	4140952.960	8.702	938	236401.211	4140947.587	8.837
875	236380.689	4140951.687	8.699	939	236409.739	4140943.308	8.843
876	236380.895	4140952.068	8.703	940	236419.190	4140937.899	8.797
877	236383.211	4140950.743	8.707	941	236417.071	4140915.342	9.418
878	236387.208	4140949.097	8.761	942	236413.677	4140917.265	9.395
879	236387.433	4140949.541	8.762	943	236413.977	4140917.649	9.386
880	236381.356	4140952.933	8.725	944	236410.176	4140919.259	9.399
881	236381.125	4140952.478	8.717	945	236406.726	4140921.242	9.394
882	236387.685	4140964.643	8.873	946	236399.804	4140925.197	9.361
883	236359.151	4140977.390	8.806	947	236392.962	4140929.106	9.331
884	236366.307	4140973.037	8.869	948	236392.676	4140929.252	9.343
885	236377.433	4140965.766	8.894	949	236392.506	4140928.913	9.352
886	236385.439	4140960.559	8.915	950	236388.202	4140927.521	9.388
887	236391.559	4140956.933	8.927	951	236387.894	4140927.615	9.361
888	236390.802	4140955.498	8.870	952	236387.786	4140927.274	9.366
889	236391.799	4140956.627	8.932	953	236391.816	4140926.435	9.414
890	236392.201	4140956.402	8.940	954	236390.014	4140922.834	9.257
891	236392.289	4140955.131	8.907	955	236406.232	4140918.107	9.420
892	236393.023	4140955.914	8.938	956	236415.561	4140912.790	9.386

957	236411.051	4140919.084	9.392
958	236410.713	4140919.298	9.386
959	236409.813	4140920.189	9.379
960	236405.202	4140922.536	9.386
961	236414.065	4140921.075	9.280
962	236415.068	4140922.758	9.235
963	236416.740	4140921.752	9.238
964	236414.351	4140917.559	9.371
965	236415.357	4140919.231	9.314
966	236415.997	4140916.586	9.366
967	236419.392	4140923.206	9.159
968	236419.822	4140923.970	9.133
969	236420.663	4140923.493	9.140
970	236421.129	4140923.155	9.126
971	236419.535	4140920.396	9.223
972	236417.346	4140916.557	9.356
973	236420.936	4140914.513	9.415
974	236424.876	4140912.254	9.427
975	236425.292	4140910.517	9.258
976	236417.847	4140914.792	9.312
977	236416.452	4140912.238	9.282
978	236417.281	4140911.423	9.270
979	236417.364	4140910.852	9.265
980	236417.106	4140910.485	9.253
981	236416.226	4140911.716	9.319
982	236416.862	4140911.352	9.317
983	236419.064	4140914.519	9.440
984	236420.615	4140913.699	9.428
985	236422.156	4140912.784	9.416
986	236423.517	4140911.694	9.417
987	236425.207	4140912.967	9.417
988	236424.970	4140916.350	9.466
989	236425.194	4140921.747	9.055
990	236418.989	4140930.204	8.908
991	236414.774	4140933.843	8.864
992	236373.769	4140970.419	8.836
993	236395.071	4140962.803	8.928
994	236397.498	4140963.236	8.942
995	236398.050	4140964.220	8.945
996	236398.729	4140962.550	8.916
997	236398.727	4140963.583	8.917
998	236401.912	4140960.617	8.875
999	236402.868	4140960.134	8.884
1000	236404.418	4140960.198	8.892
1001	236404.921	4140959.266	8.890
1002	236407.842	4140957.905	8.865
1003	236429.952	4140945.281	8.940
1004	236429.325	4140942.766	8.958
1005	236423.291	4140946.214	8.945
1006	236423.786	4140948.767	8.917
1007	236415.626	4140950.568	8.884
1008	236415.296	4140953.512	8.882
1009	236414.326	4140954.716	8.879
1010	236411.067	4140955.741	8.874
1011	236409.797	4140953.875	8.884
1012	236409.156	4140956.508	8.871
1013	236400.387	4140959.223	8.892
1014	236401.772	4140960.594	8.861
1015	236401.451	4140961.642	8.890
1016	236401.393	4140963.334	8.906
1017	236401.370	4140964.601	8.926
1018	236400.741	4140965.690	8.953
1019	236396.732	4140967.960	8.965
1020	236395.440	4140965.803	8.941

1021	236398.098	4140964.303	8.935
1022	236398.889	4140963.441	8.917
1023	236398.792	4140962.373	8.909
1024	236399.155	4140960.579	8.897
1025	236400.379	4140959.215	8.892
1026	236398.373	4140959.695	8.782
1027	236412.655	4140951.585	8.732
1028	236425.186	4140944.466	8.828
1029	236435.714	4140938.483	8.823
1030	236440.897	4140935.513	8.786
1031	236423.342	4140965.168	9.779
1032	236428.672	4140962.997	9.803
1033	236432.016	4140959.645	9.531
1034	236435.216	4140957.118	9.306
1035	236434.448	4140957.403	9.327
1036	236432.756	4140957.129	9.099
1037	236422.596	4140963.046	9.107
9999	236329.740	4140931.762	14.662
9999	236329.759	4140931.914	14.993

Radiación desde la estación 8004

X	236440.747	Desorientación	269.9854
Y	4140919.953	Nombre	
Z	8.965	Coef. anamorfosis	1.0004557949

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
1038	60.6808	101.1541	27.647	1.300	1.615	330.6662	27.655
1039	59.1131	101.6818	17.047	1.300	1.615	329.0985	17.049
1040	52.4619	104.3586	5.966	1.300	1.615	322.4473	5.955
1041	139.9638	115.5398	2.187	1.300	1.615	9.9492	2.123
1042	198.8266	114.2097	2.350	1.300	1.615	68.8120	2.293
1043	277.6482	105.9610	4.320	1.300	1.615	147.6336	4.303
1044	266.6502	101.3243	17.418	1.300	1.615	136.6356	17.422
1045	265.4773	100.8234	26.301	1.300	1.615	135.4627	26.311
1046	258.9945	100.8627	31.513	1.300	1.615	128.9799	31.524
1047	260.9709	100.5551	43.129	1.300	1.615	130.9563	43.147
1048	261.8863	100.4977	43.942	1.300	1.615	131.8717	43.961
1049	262.6424	100.4708	44.099	1.300	1.615	132.6278	44.118
1050	266.5404	100.3821	44.155	1.300	1.615	136.5258	44.174
1051	286.3113	100.2947	24.469	1.300	1.615	156.2967	24.480
1052	293.8039	100.3957	25.581	1.300	1.615	163.7893	25.592
1053	301.8493	100.1807	25.499	1.300	1.615	171.8347	25.510
1054	305.8470	99.8685	24.978	1.400	1.615	175.8324	24.989
1055	312.1304	99.7429	22.680	1.400	1.615	182.1158	22.690
1056	328.2964	99.7572	18.630	1.400	1.615	198.2818	18.638
1057	363.5523	99.8506	15.908	1.400	1.615	233.5377	15.915
1058	390.0463	99.6000	15.936	1.300	1.615	260.0317	15.943
1059	366.6445	99.7390	14.543	1.300	1.615	236.6299	14.549
1060	321.1234	99.6756	18.425	1.300	1.615	191.1088	18.433
1061	305.7944	99.7540	23.251	1.300	1.615	175.7798	23.261
1062	300.0116	99.7836	24.412	1.300	1.615	169.9970	24.423
1063	293.3422	99.7434	24.113	1.300	1.615	163.3276	24.124
1064	279.7442	100.2346	23.604	1.300	1.615	149.7296	23.615
1065	284.1038	99.9434	23.296	1.300	1.615	154.0892	23.307
1066	288.7643	100.6303	15.596	1.300	1.615	158.7497	15.602
1067	290.3132	100.5564	15.701	1.300	1.615	160.2986	15.708
1068	291.6484	100.6037	14.945	1.300	1.615	161.6338	14.951
1069	290.3219	100.6496	14.768	1.300	1.615	160.3073	14.774
1070	357.4720	102.0606	6.179	1.300	1.615	227.4574	6.179
1071	357.7877	101.8364	6.446	1.300	1.615	227.7731	6.446
1072	363.4995	101.8363	6.444	1.300	1.615	233.4849	6.444
1073	363.0405	102.0321	6.159	1.300	1.615	233.0259	6.159
1074	22.8809	101.5103	10.395	1.300	1.615	292.8663	10.397
1075	390.1599	99.5107	14.790	1.300	1.615	260.1453	14.796
1076	375.6742	99.5744	14.072	1.300	1.615	245.6596	14.078

1077	371.0640	99.4072	6.623	1.300	1.615	241.0494	6.626	1141	279.8297	99.2986	25.360	1.700	1.615	149.8151	25.370
1078	13.4837	99.6166	9.056	1.300	1.615	283.4691	9.060	1142	266.3300	100.2312	42.873	1.300	1.615	136.3154	42.892
1079	341.2258	99.0580	12.806	1.300	1.615	211.2112	12.810	1143	262.6310	100.3472	41.863	1.300	1.615	132.6164	41.881
1080	326.9579	99.3078	14.390	1.300	1.615	196.9433	14.396	1144	262.5307	100.3531	41.029	1.300	1.615	132.5161	41.047
1081	312.4945	99.4075	16.586	1.300	1.615	182.4799	16.593	1145	261.2882	100.3832	41.094	1.300	1.615	131.2736	41.112
1082	303.4129	99.4523	19.548	1.300	1.615	173.3983	19.556	1146	261.8982	100.3834	35.839	1.300	1.615	131.8836	35.855
1083	315.7541	99.1838	12.436	1.300	1.615	185.7395	12.441	1147	261.8267	100.4063	35.002	1.300	1.615	131.8121	35.017
1084	315.7544	99.6647	21.227	1.300	1.615	185.7398	21.236	1148	260.2938	100.4522	35.059	1.300	1.615	130.2792	35.074
1085	319.9404	99.6567	20.018	1.300	1.615	189.9258	20.027	1149	263.9516	100.4724	29.584	1.300	1.615	133.9370	29.597
1086	323.9162	99.6667	19.096	1.300	1.615	193.9016	19.104	1150	264.8768	100.4886	28.902	1.300	1.615	134.8622	28.914
1087	4.2109	100.0087	27.324	1.300	1.615	274.1963	27.336	1151	263.3143	100.5025	28.491	1.300	1.615	133.2997	28.503
1088	397.1137	99.2648	28.352	1.600	1.615	267.0991	28.363	1152	268.7251	100.5953	24.437	0.100	1.615	138.7105	24.409
1089	399.0269	98.5992	28.462	1.900	1.615	269.0123	28.468	1153	266.7989	103.8024	23.598	0.100	1.615	136.7843	23.567
1090	1.6265	98.6260	29.066	1.900	1.615	271.6119	29.072	1154	266.6845	103.7018	24.371	0.100	1.615	136.6699	24.341
1091	7.4467	99.8368	26.764	1.300	1.615	277.4321	26.776	1155	260.3081	100.5310	31.757	1.300	1.615	130.2935	31.770
1092	6.1982	99.8931	26.355	1.300	1.615	276.1836	26.367	1156	262.0514	100.3808	41.692	1.300	1.615	132.0368	41.710
1093	2.8360	98.8866	31.325	1.710	1.615	272.8214	31.334	1157	261.3868	100.4429	35.638	1.300	1.615	131.3722	35.653
1094	394.8217	99.5737	28.531	1.400	1.615	264.8071	28.543	1158	263.2929	100.5120	29.016	1.300	1.615	133.2783	29.028
1095	380.6440	99.4318	26.122	1.400	1.615	250.6294	26.133	1159	267.2508	100.6405	23.964	1.300	1.615	137.2362	23.974
1096	377.0742	99.5298	24.818	1.400	1.615	247.0596	24.829	1160	280.5914	100.1385	23.700	1.300	1.615	150.5768	23.711
1097	375.6750	103.2698	24.083	0.000	1.615	245.6604	24.062	1161	275.3131	100.6204	18.703	1.300	1.615	145.2985	18.711
1098	380.5123	99.6967	23.636	1.400	1.615	250.4977	23.646	1162	269.6231	104.8571	18.531	0.100	1.615	139.6085	18.485
1099	379.1268	99.7381	22.842	1.400	1.615	249.1122	22.852	1163	268.6082	100.5953	22.596	1.300	1.615	138.5936	22.605
1100	376.1485	99.7744	21.988	1.400	1.615	246.1339	21.998	1164	289.0864	100.6200	15.108	1.300	1.615	159.0718	15.114
1101	381.3263	99.7764	21.800	1.400	1.615	251.3117	21.810	1165	285.2655	101.3346	9.751	1.300	1.615	155.2509	9.753
1102	381.4012	99.7127	23.732	1.400	1.615	251.3866	23.743	1166	273.2979	100.9772	13.826	1.300	1.615	143.2833	13.831
1103	377.0960	99.5932	23.807	1.400	1.615	247.0814	23.817	1167	269.9311	101.2057	12.906	1.300	1.615	139.9165	12.910
1104	385.0958	99.9742	16.881	1.400	1.615	255.0812	16.889	1168	280.1998	101.7180	8.269	1.300	1.615	150.1852	8.270
1105	377.7366	99.9410	20.520	1.400	1.615	247.7220	20.529	1169	275.2061	102.2341	7.335	1.300	1.615	145.1915	7.334
1106	380.8366	99.8029	18.287	1.400	1.615	250.8220	18.295	1170	294.0203	105.2504	3.009	1.300	1.615	164.0057	3.000
1107	366.1926	99.5392	24.441	1.400	1.615	236.1780	24.451	1171	318.5240	105.1925	2.893	1.300	1.615	188.5094	2.885
1108	364.7003	99.3645	25.373	1.400	1.615	234.6857	25.383	1172	15.2883	104.7308	3.279	1.300	1.615	285.2737	3.271
1109	352.6614	99.3790	25.372	1.400	1.615	222.6468	25.382	1173	36.3381	104.7383	3.549	1.300	1.615	306.3235	3.541
1110	340.4485	99.5424	25.996	1.400	1.615	210.4339	26.007	1174	26.7979	105.5241	3.475	1.300	1.615	296.7833	3.463
1111	339.6366	99.5532	26.078	1.400	1.615	209.6220	26.089	1175	309.3407	105.7988	3.038	1.300	1.615	179.3261	3.027
1112	321.8235	99.1758	30.673	1.700	1.615	191.8089	30.684	1176	277.9509	102.3009	7.692	1.300	1.615	147.9363	7.690
1113	320.2771	99.0832	32.403	1.700	1.615	190.2625	32.414	1177	272.2402	101.2220	13.309	1.300	1.615	142.2256	13.313
1114	310.7678	98.9953	37.276	1.700	1.615	180.7532	37.288	1178	183.9728	115.1553	1.458	1.300	1.615	53.9582	1.418
1115	312.4261	99.2497	34.885	1.700	1.615	182.4115	34.898	1179	342.9967	101.9687	5.970	1.300	1.615	212.9821	5.970
1116	312.3810	99.2756	34.614	1.700	1.615	182.3664	34.627	1180	330.2945	102.2091	5.734	1.300	1.615	200.2799	5.733
1117	310.9639	99.2961	33.435	1.700	1.615	180.9493	33.448	1181	360.0124	102.0180	6.263	1.300	1.615	229.9978	6.263
1118	310.3479	99.2867	33.991	1.700	1.615	180.3333	34.004	1182	300.7981	100.9301	10.917	1.300	1.615	170.7835	10.921
1119	310.0043	99.1608	35.348	1.700	1.615	179.9897	35.361	1183	298.6496	101.0475	10.689	1.300	1.615	168.6350	10.692
1120	310.5895	99.0273	36.825	1.700	1.615	180.5749	36.837	1184	311.1523	101.2213	8.920	1.300	1.615	181.1377	8.922
1121	311.8519	99.2812	33.361	1.700	1.615	181.8373	33.374	1185	4.1165	101.9429	7.727	1.300	1.615	274.1019	7.727
1122	311.7466	99.2642	34.624	1.700	1.615	181.7320	34.637	1186	6.5029	102.1571	7.361	1.300	1.615	276.4883	7.360
1123	310.8975	99.2682	34.433	1.700	1.615	180.8829	34.446	1187	20.5909	101.7688	9.182	1.300	1.615	290.5763	9.183
1124	303.5433	99.4213	32.856	1.700	1.615	173.5287	32.870	1188	31.7515	101.7739	9.292	1.300	1.615	301.7369	9.293
1125	303.4599	99.4327	32.461	1.700	1.615	173.4453	32.474	1189	42.6304	101.9505	8.709	1.300	1.615	312.6158	8.709
1126	301.2761	99.1682	33.081	1.700	1.615	171.2615	33.093	1190	48.6661	101.4970	12.835	1.300	1.615	318.6515	12.837
1127	301.3731	99.1477	33.301	1.700	1.615	171.3585	33.313	1191	46.5683	102.0255	8.618	1.300	1.615	316.5537	8.618
1128	296.5000	99.1947	31.717	1.700	1.615	166.4854	31.729	1192	51.1646	102.4053	7.583	1.300	1.615	321.1500	7.581
1129	298.6346	99.4107	31.054	1.700	1.615	168.6200	31.067	1193	55.8625	101.8958	12.608	1.300	1.615	325.8479	12.608
1130	297.6608	99.4813	30.944	1.700	1.615	167.6462	30.957	1194	52.4802	101.5147	13.477	1.300	1.615	322.4656	13.479
1131	298.2053	99.4283	30.104	1.700	1.615	168.1907	30.116	1195	58.0643	101.2161	18.232	1.300	1.615	328.0497	18.237
1132	293.3291	99.3443	31.151	1.700	1.615	163.3145	31.163	1196	55.5488	105.0359	19.176	0.100	1.615	325.5342	19.125
1133	296.9353	99.4597	30.544	1.700	1.615	166.9207	30.557	1197	59.1954	100.9272	23.624	1.300	1.615	329.1808	23.632
1134	296.3674	99.4540	30.713	1.700	1.615	166.3528	30.726	1198	57.2570	100.8487	24.492	1.300	1.615	327.2424	24.501
1135	294.5698	99.3483	31.387	1.700	1.615	164.5552	31.400	1199	58.2515	100.9811	24.095	1.300	1.615	328.2369	24.103
1136	295.6370	99.3410	30.198	1.700	1.615	165.6224	30.210	1200	57.1444	101.2362	18.703	1.300	1.615	327.1298	18.708
1137	297.0634	99.3628	29.133	1.700	1.615	167.0488	29.145	1201	53.6143	102.1418	13.021	1.300	1.615	323.5997	13.020
1138	295.7540	99.3404	28.745	1.700	1.615	165.7394	28.757	1202	50.4924	102.9917	8.136	1.300	1.615	320.4778	8.131
1139	295.3989	99.3392	25.752	1.700	1.615	165.3843	25.762	1203	69.7705	102.0394	18.398	1.300	1.615	339.7559	18.397
1140	284.4159	99.3143	27.859	1.700	1.615	154.4013	27.870	1204	67.3981	100.3836	30.542	1.700	1.615	337.3835	30.555

1205	68.7113	100.4279	24.107	1.700	1.615	338.6967	24.117		1269	132.8466	100.8134	22.886	1.300	1.615	2.8320	22.895	
1206	72.2944	100.6697	13.117	1.700	1.615	342.2798	13.122		1270	131.7425	100.9731	20.265	1.300	1.615	1.7279	20.272	
1207	97.7035	101.5392	3.933	1.700	1.615	367.6889	3.934		1271	126.1826	100.9457	21.204	1.300	1.615	396.1680	21.211	
1208	240.9441	100.9296	6.464	1.700	1.615	110.9295	6.466		1272	121.7395	100.9641	21.618	1.300	1.615	391.7249	21.625	
1209	256.3550	100.1144	21.110	1.700	1.615	126.3404	21.120		1273	127.6722	100.8400	23.547	1.300	1.615	397.6576	23.556	
1210	258.5226	99.9927	31.568	1.700	1.615	128.5080	31.582		1274	124.3966	100.8389	23.932	1.300	1.615	394.3820	23.941	
1211	247.0827	101.0022	8.814	1.700	1.615	117.0681	8.817		1275	111.3890	100.8141	25.398	1.300	1.615	381.3744	25.407	
1212	96.9896	100.2933	48.472	1.300	1.615	366.9750	48.493		1276	108.0624	100.8021	26.135	1.300	1.615	378.0478	26.145	
1213	99.4019	100.2686	46.884	1.300	1.615	369.3873	46.905		1277	104.6102	100.7874	27.577	1.300	1.615	374.5956	27.587	
1214	98.5956	100.2680	46.388	1.300	1.615	368.5810	46.409		1278	100.7133	100.7855	25.537	1.300	1.615	370.6987	25.547	
1215	100.4677	100.2264	44.327	1.300	1.615	370.4531	44.347		1279	105.1631	100.8450	23.918	1.300	1.615	375.1485	23.927	
1216	101.3356	100.2347	44.773	1.300	1.615	371.3210	44.793		1280	108.8189	100.9013	23.223	1.300	1.615	378.8043	23.231	
1217	102.3353	100.2694	42.416	1.300	1.615	372.3207	42.435		1281	117.4947	100.9787	22.042	1.300	1.615	387.4801	22.049	
1218	98.5702	100.2365	45.705	1.300	1.615	368.5556	45.725		1282	116.3811	101.0317	19.302	1.300	1.615	386.3665	19.308	
1219	99.6752	100.2899	44.512	1.300	1.615	369.6606	44.532		1283	128.6855	101.2530	16.761	1.300	1.615	398.6709	16.765	
1220	101.4165	100.2392	45.321	1.300	1.615	371.4019	45.341		1284	131.5574	101.1216	18.106	1.300	1.615	1.5428	18.111	
1221	102.3509	100.2502	41.885	1.300	1.615	372.3363	41.904		1285	115.8160	100.8036	25.827	1.300	1.615	385.8014	25.837	
1222	104.2321	100.2202	40.233	1.300	1.615	374.2175	40.251		1286	109.2785	100.7176	29.075	1.300	1.615	379.2639	29.086	
1223	106.0123	100.2863	41.081	1.300	1.615	375.9977	41.099		1287	107.7687	100.6911	29.862	1.300	1.615	377.7541	29.874	
1224	108.0957	100.3904	37.245	1.300	1.615	378.0811	37.261		1288	110.8585	100.6599	29.827	1.300	1.615	380.8439	29.839	
1225	109.7954	100.4041	36.168	1.300	1.615	379.7808	36.184		1289	97.2545	100.5982	37.610	1.300	1.615	367.2399	37.625	
1226	111.5836	100.3491	37.181	1.300	1.615	381.5690	37.197		1290	96.3151	100.6319	38.495	1.300	1.615	366.3005	38.511	
1227	114.6033	100.2014	33.449	1.300	1.615	384.5887	33.464		1291	97.9695	100.5439	39.086	1.300	1.615	367.9549	39.102	
1228	116.3558	100.2126	34.543	1.300	1.615	386.3412	34.558		1292	93.2903	100.5679	41.875	1.300	1.615	363.2757	41.892	
1229	116.5608	100.3246	32.522	1.300	1.615	386.5462	32.536		1293	92.6106	100.6092	42.785	1.300	1.615	362.5960	42.802	
1230	134.5050	100.4277	28.512	1.300	1.615	4.4904	28.524		1294	94.1285	100.4882	43.317	1.300	1.615	364.1139	43.335	
1231	133.0459	100.4987	27.208	1.300	1.615	3.0313	27.220		1295	90.0670	100.5510	46.226	1.300	1.615	360.0524	46.245	
1232	136.0428	100.5256	26.621	1.300	1.615	6.0282	26.632		1296	89.4505	100.5027	47.176	1.300	1.615	359.4359	47.196	
1233	138.4367	100.4648	27.760	1.300	1.615	8.4221	27.772		1297	89.4505	100.5026	47.156	1.300	1.615	359.4359	47.176	
1234	137.1801	100.5076	26.333	1.300	1.615	7.1655	26.344		1297	91.0296	100.4462	47.725	1.300	1.615	361.0150	47.746	
1235	142.9001	100.5263	25.468	1.300	1.615	12.8855	25.479		1298	87.8245	100.4915	49.218	1.300	1.615	357.8099	49.239	
1236	149.6611	100.4721	26.297	1.300	1.615	19.6465	26.308		1299	88.2503	100.4920	49.244	1.300	1.615	358.2357	49.265	
1237	148.8833	100.4846	24.824	1.300	1.615	18.8687	24.835		1300	89.2489	100.4548	49.186	1.300	1.615	359.2343	49.207	
1238	155.1871	100.4594	24.419	1.300	1.615	25.1725	24.429		1301	89.8989	100.4412	49.824	1.300	1.615	359.8843	49.845	
1239	145.2124	100.5037	26.712	1.300	1.615	15.1978	26.723		1302	90.1535	100.4308	50.018	1.300	1.615	360.1389	50.040	
1240	144.3626	100.5411	25.423	1.300	1.615	14.3480	25.434		1303	83.9537	100.8408	42.356	1.300	1.615	353.9391	42.372	
1241	147.7293	100.5298	25.006	1.300	1.615	17.7147	25.016		1304	93.0121	100.9806	30.115	1.300	1.615	362.9975	30.125	
1242	156.6514	100.4833	24.399	1.300	1.615	26.6368	24.409		1305	117.4593	101.4978	18.079	1.300	1.615	387.4447	18.082	
1243	156.9581	100.4188	25.834	1.300	1.615	26.9435	25.845		1306	130.8986	102.0401	15.627	1.300	1.615	0.8840	15.626	
1244	160.4297	100.3869	25.725	1.300	1.615	30.4151	25.736		1307	190.0515	101.8931	15.069	1.300	1.615	60.0369	15.069	
1245	171.1066	100.3866	23.962	1.300	1.615	41.0920	23.972		1308	220.9280	101.1596	22.357	1.300	1.615	90.9134	22.363	
1246	170.4467	100.3024	25.827	1.300	1.615	40.4321	25.838		1309	238.6232	100.5695	36.622	1.300	1.615	108.6086	36.637	
1247	182.7891	100.4235	26.935	1.300	1.615	52.7745	26.947		1310	243.8709	100.4192	46.234	1.300	1.615	113.8563	46.254	
1248	185.9351	100.4244	27.366	1.300	1.615	55.9205	27.378		1311	247.2351	100.3434	56.506	1.300	1.615	117.2205	56.531	
1249	183.9535	100.3645	25.596	1.300	1.615	53.9389	25.607		1312	247.4852	100.2767	57.847	1.300	1.615	117.4706	57.873	
1250	186.1554	100.3628	29.137	1.300	1.615	56.1408	29.150		1313	248.3869	100.2522	64.451	1.300	1.615	118.3723	64.480	
1251	184.6918	100.3207	29.772	1.300	1.615	54.6772	29.785		1314	249.5059	100.1739	79.043	1.300	1.615	119.4913	79.079	
1252	169.0244	100.3991	28.248	1.300	1.615	39.0098	28.260		1315	249.8847	100.1636	85.353	1.300	1.615	119.8701	85.391	
1253	150.3451	100.4190	28.802	1.300	1.615	20.3305	28.814		1316	250.4184	100.1403	96.533	1.300	1.615	120.4038	96.577	
1254	151.9726	100.3739	28.229	1.300	1.615	21.9580	28.241		1317	250.7648	100.1335	106.393	1.300	1.615	120.7502	106.441	
1255	138.5385	100.3951	30.391	1.300	1.615	8.5239	30.404		1318	254.2013	100.0749	104.082	1.300	1.615	124.1867	104.129	
1256	137.0530	100.3244	33.144	1.300	1.615	7.0384	33.159		1319	254.2425	100.0841	92.366	1.300	1.615	124.2279	92.408	
1257	123.2306	100.3374	34.853	1.300	1.615	393.2160	34.868		1320	254.1806	100.1007	78.704	1.300	1.615	124.1660	78.740	
1258	126.2676	100.2891	35.158	1.300	1.615	396.2530	35.174		1321	254.1091	100.1455	65.641	1.300	1.615	124.0945	65.671	
1259	147.2849	99.7446	33.232	1.300	1.615	17.2703	33.247		1322	253.9398	100.1890	58.035	1.300	1.615	123.9252	58.061	
1260	156.2032	99.3418	34.614	1.300	1.615	26.1886	34.628		1323	253.4765	100.2182	53.710	1.300	1.615	123.4619	53.734	
1261	157.3101	99.3192	35.470	1.300	1.615	27.2955	35.484		1324	252.9891	100.2393	50.502	1.300	1.615	122.9745	50.525	
1262	163.7419	98.9683	33.385	1.300	1.615	33.7273	33.396		1325	249.9966	100.3496	38.824	1.300	1.615	119.9820	38.841	
1263	161.7019	99.0758	33.467	1.300	1.615	31.6873	33.479		1326	244.3911	100.5718	27.348	1.300	1.615	114.3765	27.359	
1264	195.4244	100.2321	33.122	1.300	1.615	65.4098	33.137		1327	233.0223	101.0796	17.422	1.300	1.615	103.0077	17.427	
1265	203.2608	100.6574	25.216	1.300	1.615	73.2462	25.226		1328	209.3803	101.9829	10.573	1.300	1.615	79.3657	10.573	
1266	204.3436	100.7529	22.420	1.300	1.615	74.3290	22.429		1329	115.7034	102.0678	10.712	1.300	1.615	385.6888	10.711	
1267	170.3518	101.0664	17.899	1.300	1.615	40.3372	17.905		1330	81.9786	100.9047	26.941	1.300	1.615	351.9640	26.951	
1268	163.7795	100.9527	20.299	1.300	1.615	33.7649	20.306		1331	86.6472	100.8515	33.473	1.300	1.615	356.6326	33.485	

1332	81.3315	100.7506	32.712	1.300	1.615	351.3169	32.725	1063	236453.887	4140899.723	9.377
1333	90.2814	100.5101	47.137	1.300	1.615	360.2668	47.157	1064	236457.516	4140903.326	9.193
1334	99.4510	100.3308	45.246	1.300	1.615	369.4364	45.266	1065	236456.135	4140902.449	9.301
1335	93.6703	100.6238	42.630	1.300	1.615	363.6557	42.647	1066	236450.164	4140907.513	9.126
1336	97.2313	100.7049	38.450	1.300	1.615	367.2167	38.465	1067	236449.920	4140907.203	9.143
1337	103.6573	100.2226	41.681	1.300	1.615	373.6427	41.700	1068	236449.222	4140907.636	9.138
1338	110.0888	100.4264	37.280	1.300	1.615	380.0742	37.296	1069	236449.373	4140907.959	9.129
1339	108.6705	100.7806	29.974	1.300	1.615	378.6559	29.985	1070	236438.164	4140914.341	9.080
1340	116.0404	100.3340	33.263	1.300	1.615	386.0258	33.278	1071	236438.023	4140914.111	9.094
1341	134.3146	100.4868	27.698	1.300	1.615	4.3000	27.710	1072	236437.511	4140914.380	9.094
1342	145.9217	100.6989	25.804	1.300	1.615	15.9071	25.814	1073	236437.693	4140914.605	9.083
1343	158.0736	100.6003	25.005	1.300	1.615	28.0590	25.015	1074	236430.415	4140918.791	9.033
1344	171.3629	100.4844	25.030	1.300	1.615	41.3483	25.041	1075	236428.757	4140911.284	9.394
1345	184.4377	100.5059	26.674	1.300	1.615	54.4231	26.685	1076	236431.493	4140909.344	9.374
1346	186.1945	101.1487	17.130	1.300	1.615	56.1799	17.135	1077	236436.765	4140914.658	9.342
1347	188.4729	101.2857	15.628	1.300	1.615	58.4583	15.632	1078	236431.991	4140917.627	9.335
1348	202.8051	101.1006	17.725	1.300	1.615	72.7905	17.730	1079	236438.503	4140907.341	9.470
1349	205.3490	100.8865	20.634	1.300	1.615	75.3344	20.641	1080	236441.438	4140905.574	9.437
1350	203.2022	100.8375	21.606	1.300	1.615	73.1876	21.614	1081	236445.256	4140903.985	9.434
1351	208.1825	100.7941	21.408	1.300	1.615	78.1679	21.416	1082	236448.683	4140902.080	9.448
1352	206.8826	100.9410	21.587	1.300	1.615	76.8680	21.594	1083	236443.510	4140907.824	9.439
1353	192.3960	100.4013	28.617	1.300	1.615	62.3814	28.629	1084	236445.464	4140899.248	9.392
1354	196.7324	100.4123	28.071	1.300	1.615	66.7178	28.083	1085	236443.903	4140900.177	9.388
1355	195.2193	100.3926	28.471	1.300	1.615	65.2047	28.483	1086	236442.574	4140900.937	9.380
1356	205.4498	100.2326	35.555	1.300	1.615	75.4352	35.571	1087	236415.625	4140909.174	9.276
1357	203.2272	100.1877	36.766	1.300	1.615	73.2126	36.783	1088	236416.088	4140905.939	9.308
1358	201.4198	100.1927	35.796	1.300	1.615	71.4052	35.812	1089	236415.585	4140906.637	9.306
1359	201.8543	100.2336	34.517	1.300	1.615	71.8397	34.532	1090	236414.517	4140907.415	9.307
1360	195.4930	100.2325	33.140	1.300	1.615	65.4784	33.155	1091	236415.636	4140910.659	9.349
1360	206.6548	102.4951	33.089	0.100	1.615	76.6402	33.079	1092	236416.204	4140910.318	9.324
1361	210.5159	100.2949	32.908	1.300	1.615	80.5013	32.923	1093	236412.225	4140906.979	9.418
1362	209.1018	100.2708	33.044	1.300	1.615	79.0872	33.059	1094	236416.455	4140904.966	9.371
1363	220.2771	100.6672	27.515	1.300	1.615	90.2625	27.526	1095	236422.086	4140901.658	9.413
1364	222.7835	100.5342	27.539	1.300	1.615	92.7689	27.551	1096	236424.020	4140901.605	9.363
1365	218.8632	100.5298	27.318	1.300	1.615	88.8486	27.329	1097	236424.931	4140901.819	9.344
1366	213.8119	100.6688	23.495	1.300	1.615	83.7973	23.504	1098	236423.896	4140903.364	9.293
1367	217.5988	100.5337	25.820	1.300	1.615	87.5842	25.831	1099	236424.815	4140903.571	9.274
Coordenadas calculadas											
Número	X	Y	Z								
1038	236416.239	4140932.766	8.779					1100	236426.165	4140903.483	9.258
1039	236425.448	4140927.477	8.830					1101	236425.011	4140904.853	9.257
1040	236435.158	4140922.010	8.872					1102	236423.597	4140903.534	9.287
1041	236441.077	4140922.051	8.751					1103	236424.695	4140902.358	9.332
1042	236442.770	4140921.032	8.760					1104	236427.891	4140909.001	9.187
1043	236443.901	4140917.026	8.876					1105	236426.759	4140904.927	9.199
1044	236455.363	4140910.472	8.918					1106	236427.644	4140907.185	9.237
1045	236463.080	4140906.043	8.940					1107	236427.587	4140899.345	9.357
1046	236469.061	4140906.093	8.853					1108	236427.591	4140898.245	9.433
1047	236478.893	4140899.790	8.904					1109	236431.907	4140896.160	9.428
1048	236479.312	4140898.853	8.937					1110	236436.503	4140894.295	9.367
1049	236479.196	4140898.319	8.954					1111	236436.819	4140894.162	9.363
1050	236477.848	4140895.976	9.015					1112	236444.684	4140889.523	9.277
1051	236456.263	4140901.019	9.167					1113	236445.686	4140887.917	9.347
1052	236454.531	4140898.391	9.121					1114	236451.849	4140884.356	9.468
1053	236451.669	4140896.899	9.208					1115	236450.266	4140886.378	9.291
1054	236450.007	4140896.743	9.232					1116	236450.216	4140886.646	9.274
1055	236447.038	4140898.153	9.272					1117	236450.607	4140887.992	9.250
1056	236441.250	4140901.322	9.251					1118	236451.085	4140887.559	9.261
1057	236432.745	4140906.196	9.217					1119	236451.679	4140886.325	9.346
1058	236427.844	4140910.589	9.380					1120	236451.813	4140884.818	9.443
1059	236432.830	4140907.747	9.340					1121	236450.140	4140887.928	9.257
1060	236443.313	4140901.700	9.374					1122	236450.550	4140886.732	9.280
1061	236449.385	4140898.355	9.370					1123	236450.936	4140887.048	9.276
1062	236451.836	4140898.193	9.363					1124	236454.024	4140889.885	9.179
								1125	236453.903	4140890.263	9.169
								1126	236455.184	4140890.175	9.312

1127	236455.234	4140889.955	9.326	1191	236432.419	4140922.169	9.006
1128	236456.689	4140892.521	9.281	1192	236433.580	4140922.426	8.994
1129	236455.448	4140892.585	9.168	1193	236429.164	4140924.933	8.905
1130	236455.811	4140892.909	9.132	1194	236428.098	4140924.612	8.959
1131	236455.176	4140893.519	9.150	1195	236424.252	4140927.731	8.932
1132	236457.727	4140893.822	9.201	1196	236423.140	4140927.420	8.965
1133	236455.920	4140893.430	9.139	1197	236419.554	4140930.410	8.936
1134	236456.241	4140893.420	9.144	1198	236418.455	4140930.121	8.954
1135	236457.340	4140893.296	9.201	1199	236418.976	4140930.297	8.909
1136	236456.279	4140894.042	9.193	1200	236423.712	4140927.687	8.917
1137	236455.167	4140894.626	9.172	1201	236428.612	4140924.670	8.842
1138	236455.486	4140895.262	9.178	1202	236433.033	4140922.524	8.898
1139	236454.075	4140897.907	9.147	1203	236425.822	4140930.710	8.691
1140	236459.046	4140898.932	9.180	1204	236415.310	4140936.882	8.696
1141	236458.738	4140902.066	9.159	1205	236420.949	4140933.727	8.718
1142	236476.848	4140896.791	9.124	1206	236430.414	4140928.042	8.742
1143	236477.251	4140899.422	9.052	1207	236438.835	4140923.391	8.785
1144	236476.555	4140899.888	9.053	1208	236447.118	4140918.849	8.786
1145	236476.997	4140900.560	9.033	1209	236460.084	4140911.462	8.842
1146	236472.198	4140902.738	9.064	1210	236469.215	4140906.279	8.884
1147	236471.482	4140903.174	9.057	1211	236449.249	4140917.618	8.741
1148	236471.928	4140903.893	9.031	1212	236416.704	4140962.067	9.057
1149	236466.237	4140904.913	9.061	1213	236419.051	4140961.539	9.082
1150	236465.433	4140904.899	9.058	1214	236418.761	4140960.824	9.085
1151	236465.439	4140905.715	9.055	1215	236420.896	4140959.609	9.123
1152	236460.781	4140906.009	9.101	1216	236421.244	4140960.278	9.115
1153	236460.488	4140907.082	9.071	1217	236422.873	4140958.440	9.101
1154	236461.160	4140906.695	9.064	1218	236419.069	4140960.214	9.110
1155	236468.988	4140905.400	9.015	1219	236420.319	4140959.523	9.077
1156	236477.286	4140899.838	9.031	1220	236421.057	4140960.796	9.110
1157	236472.158	4140903.086	9.032	1221	236423.106	4140957.963	9.116
1158	236465.899	4140905.461	9.047	1222	236424.888	4140956.948	9.141
1159	236460.735	4140906.717	9.039	1223	236425.616	4140958.166	9.095
1160	236457.360	4140903.036	9.229	1224	236428.170	4140955.028	9.052
1161	236454.917	4140907.735	9.098	1225	236429.447	4140954.327	9.051
1162	236455.768	4140909.180	9.068	1226	236430.128	4140955.603	9.076
1163	236459.324	4140907.074	9.069	1227	236432.725	4140952.442	9.174
1164	236449.808	4140907.857	9.133	1228	236433.389	4140953.719	9.165
1165	236447.052	4140912.512	9.076	1229	236433.922	4140951.766	9.114
1166	236451.502	4140911.258	9.068	1230	236442.757	4140948.407	9.089
1167	236451.201	4140912.379	9.036	1231	236442.042	4140947.142	9.067
1168	236446.577	4140914.089	9.057	1232	236443.265	4140946.466	9.060
1169	236446.309	4140915.174	9.023	1233	236444.410	4140947.483	9.077
1170	236442.354	4140917.420	9.032	1234	236443.706	4140946.131	9.070
1171	236441.265	4140917.116	9.044	1235	236445.869	4140944.912	9.070
1172	236437.563	4140919.203	9.037	1236	236448.737	4140945.019	9.085
1173	236437.224	4140920.304	9.016	1237	236448.000	4140943.705	9.091
1174	236437.288	4140919.778	8.979	1238	236450.157	4140942.498	9.104
1175	236441.713	4140917.085	9.004	1239	236447.066	4140945.919	9.069
1176	236446.358	4140914.694	9.002	1240	236446.431	4140944.744	9.064
1177	236451.237	4140911.757	9.025	1241	236447.618	4140944.008	9.072
1178	236441.810	4140920.891	8.936	1242	236450.665	4140942.257	9.095
1179	236439.538	4140914.107	9.095	1243	236451.362	4140943.518	9.110
1180	236440.722	4140914.220	9.081	1244	236452.580	4140942.808	9.124
1181	236437.904	4140914.373	9.082	1245	236455.168	4140939.103	9.135
1182	236445.585	4140910.163	9.121	1246	236456.076	4140940.754	9.157
1183	236445.804	4140910.533	9.104	1247	236460.613	4140938.159	9.101
1184	236443.352	4140911.420	9.109	1248	236461.820	4140937.431	9.098
1185	236433.651	4140916.896	9.044	1249	236459.939	4140936.906	9.134
1186	236433.883	4140917.296	9.031	1250	236463.248	4140938.484	9.114
1187	236431.665	4140918.599	9.025	1251	236463.297	4140939.412	9.130
1188	236431.458	4140920.207	9.021	1252	236457.000	4140943.072	9.103
1189	236432.208	4140921.668	9.013	1253	236449.793	4140947.311	9.091
1190	236428.457	4140923.661	8.978	1254	236450.296	4140946.531	9.114

1255	236444.806	4140950.085	9.091
1256	236444.405	4140952.910	9.111
1257	236437.038	4140954.624	9.095
1258	236438.678	4140955.066	9.120
1259	236449.656	4140951.984	9.413
1260	236454.593	4140951.692	9.638
1261	236455.499	4140952.226	9.659
1262	236457.623	4140948.771	9.821
1263	236456.731	4140949.370	9.766
1264	236469.111	4140937.085	9.159
1265	236463.778	4140930.245	9.020
1266	236461.377	4140928.754	9.015
1267	236451.347	4140934.383	8.980
1268	236451.019	4140937.470	8.976
1269	236441.765	4140942.825	8.988
1270	236441.297	4140940.218	8.970
1271	236439.471	4140941.126	8.965
1272	236437.944	4140941.396	8.953
1273	236439.880	4140943.493	8.969
1274	236438.637	4140943.801	8.965
1275	236433.419	4140944.281	8.955
1276	236431.909	4140944.559	8.951
1277	236430.028	4140945.373	8.939
1278	236429.399	4140942.841	8.965
1279	236431.642	4140942.080	8.963
1280	236433.154	4140941.909	8.951
1281	236436.438	4140941.578	8.941
1282	236436.643	4140938.820	8.967
1283	236440.397	4140936.715	8.950
1284	236441.186	4140938.059	8.961
1285	236435.032	4140945.150	8.954
1286	236431.439	4140947.510	8.952
1287	236430.519	4140948.022	8.956
1288	236431.903	4140948.452	8.971
1289	236422.228	4140952.706	8.927
1290	236421.300	4140953.193	8.898
1291	236421.885	4140954.206	8.946
1292	236417.899	4140955.067	8.907
1293	236417.021	4140955.578	8.871
1294	236417.592	4140956.584	8.948
1295	236413.595	4140957.389	8.880
1296	236412.669	4140957.888	8.908
1297	236412.680	4140957.872	8.908
1297	236413.302	4140959.023	8.946
1298	236410.452	4140958.769	8.900
1299	236410.696	4140958.992	8.900
1300	236411.347	4140959.412	8.929
1301	236411.375	4140960.226	8.935
1302	236411.423	4140960.500	8.942
1303	236412.696	4140951.710	8.721
1304	236424.206	4140945.131	8.816
1305	236437.204	4140937.685	8.855
1306	236440.964	4140935.578	8.779
1307	236452.943	4140928.804	8.832
1308	236462.883	4140923.135	8.873
1309	236477.050	4140915.014	8.953
1310	236485.910	4140909.965	8.976
1311	236495.222	4140904.848	8.975
1312	236496.454	4140904.270	9.029
1313	236502.560	4140901.602	9.025
1314	236516.148	4140896.118	9.064
1315	236522.013	4140893.732	9.061
1316	236532.406	4140889.528	9.068
1317	236541.584	4140885.871	9.058

1318	236537.451	4140881.337	9.158
1319	236526.543	4140885.628	9.159
1320	236513.881	4140890.777	9.156
1321	236501.770	4140895.688	9.130
1322	236494.756	4140898.643	9.108
1323	236490.873	4140900.596	9.096
1324	236488.017	4140902.113	9.090
1325	236477.690	4140907.961	9.067
1326	236467.412	4140913.827	9.034
1327	236458.155	4140919.130	8.985
1328	236450.769	4140923.321	8.951
1329	236438.359	4140930.395	8.932
1330	236422.287	4140939.589	8.897
1331	236419.660	4140945.965	8.832
1332	236418.091	4140943.567	8.894
1333	236413.189	4140958.220	8.902
1334	236419.840	4140960.102	9.045
1335	236417.701	4140955.838	8.862
1336	236421.803	4140953.430	8.854
1337	236423.971	4140958.130	9.134
1338	236429.263	4140955.437	9.030
1339	236430.881	4140948.269	8.913
1340	236433.501	4140952.432	9.106
1341	236442.617	4140947.600	9.068
1342	236447.130	4140944.966	8.997
1343	236451.419	4140942.578	9.044
1344	236455.891	4140939.895	9.090
1345	236460.881	4140937.467	9.068
1346	236453.980	4140930.838	8.971
1347	236453.167	4140929.445	8.964
1348	236456.882	4140927.303	8.974
1349	236459.858	4140927.752	8.993
1350	236460.472	4140928.790	8.996
1351	236460.916	4140927.155	9.013
1352	236460.931	4140927.628	8.961
1353	236464.522	4140935.903	9.100
1354	236465.079	4140933.975	9.098
1355	236465.081	4140934.758	9.105
1356	236473.702	4140933.341	9.150
1357	236474.321	4140934.978	9.172
1358	236473.007	4140935.503	9.172
1359	236471.956	4140934.735	9.153
1360	236469.145	4140937.064	9.159
1360	236471.623	4140931.821	9.184
1361	236472.137	4140929.880	9.128
1362	236472.038	4140930.619	9.140
1363	236467.951	4140924.147	8.992
1364	236468.120	4140923.076	9.049
1365	236467.658	4140924.716	9.053
1366	236463.494	4140925.871	9.033
1367	236466.088	4140924.959	9.064

Radiación desde la estación 8005

X	236510.093	Desorientación	318.4164
Y	4140903.878	Nombre	
Z	9.094	Coef. anamorfosis	1.0004553447

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
477	192.1428	100.7108	34.032	1.300	1.560	110.5592	34.045
478	188.9876	100.6993	34.529	1.300	1.560	107.4040	34.543
479	196.3569	100.4219	40.236	1.300	1.560	114.7733	40.253
480	194.5707	100.2467	33.753	1.500	1.560	112.9871	33.768
481	188.2905	100.2434	21.623	1.500	1.560	106.7069	21.633
482	175.6030	100.2264	12.792	1.500	1.560	94.0194	12.798
483	165.9712	102.9401	9.971	1.500	1.560	84.3876	9.965

484	131.1874	107.5926	6.403	1.500	1.560	49.6038	6.360		1409	349.4608	101.4984	20.898	1.300	1.620	267.8772	20.902
485	100.7831	107.9838	5.895	1.500	1.560	19.1995	5.851		1410	307.1048	101.7395	16.528	1.300	1.620	225.5212	16.529
486	59.8123	101.0160	7.777	1.500	1.560	378.2287	7.780		1411	258.5462	101.1473	22.440	1.300	1.620	176.9626	22.447
487	54.4545	99.8904	8.005	1.500	1.560	372.8709	8.009		1412	234.3974	100.3562	38.098	1.500	1.620	152.8138	38.115
488	50.4238	99.1684	7.842	1.500	1.560	368.8402	7.845		1413	253.4233	101.9417	50.408	0.000	1.620	171.8397	50.407
489	51.5687	98.9350	7.647	1.500	1.560	369.9851	7.649		1414	266.0846	100.3016	42.259	1.300	1.620	184.5010	42.278
490	55.1001	98.9248	7.707	1.500	1.560	373.5165	7.709		1415	285.2379	100.3904	36.114	1.300	1.620	203.6543	36.130
491	57.9382	98.8780	7.590	1.500	1.560	376.3546	7.592		1416	300.2164	100.3515	34.447	1.300	1.620	218.6328	34.462
492	165.4654	99.9263	9.361	1.500	1.560	83.8818	9.365		1417	310.6223	100.3823	34.567	1.300	1.620	229.0387	34.582
493	189.6968	99.8515	22.345	1.500	1.560	108.1132	22.355		1418	313.7294	99.0856	40.870	2.150	1.620	232.1458	40.884
494	196.7582	99.9534	40.211	1.500	1.560	115.1746	40.229		1419	310.9701	98.9380	41.659	2.150	1.620	229.3865	41.672
495	182.4396	97.3954	35.743	1.700	1.560	100.8560	35.729		1420	306.6191	98.7376	34.520	2.150	1.620	225.0355	34.529
496	184.1285	97.3698	35.416	1.700	1.560	102.5449	35.402		1421	288.8088	98.8107	35.738	2.150	1.620	207.2252	35.748
497	183.5385	97.2862	34.468	1.700	1.560	101.9549	34.452		1422	267.0556	98.9580	41.884	2.150	1.620	185.4720	41.897
498	181.8142	97.3016	34.799	1.700	1.560	100.2306	34.784		1423	253.6587	101.8353	50.452	0.000	1.620	172.0751	50.454
499	184.5795	100.2341	35.316	1.500	1.560	102.9959	35.332		1423	253.6589	101.8433	50.453	0.000	1.620	172.0753	50.455
500	183.9852	100.2325	34.334	1.500	1.560	102.4016	34.349		1424	251.6772	100.4185	48.170	1.300	1.620	170.0936	48.191
501	177.0584	100.2511	25.844	1.500	1.560	95.4748	25.856		1425	249.5554	102.3014	45.366	0.000	1.620	167.9718	45.357
502	175.6243	100.2512	24.730	1.500	1.560	94.0407	24.741		1426	250.9609	100.5708	43.895	1.300	1.620	169.3773	43.913
503	152.1785	99.0977	14.702	1.500	1.560	70.5949	14.707		1427	250.4775	100.5938	42.805	1.300	1.620	168.8939	42.823
504	137.8034	103.5672	12.415	1.500	1.560	56.2198	12.401		1428	254.8263	100.6128	39.716	1.300	1.620	173.2427	39.732
505	134.6956	104.1151	12.330	1.500	1.560	53.1120	12.310		1429	254.3945	100.6731	38.595	1.300	1.620	172.8109	38.610
506	131.5772	104.3757	12.781	1.500	1.560	49.9936	12.757		1430	257.2012	99.1784	39.868	2.150	1.620	175.6176	39.883
1368	366.7112	100.4688	39.080	1.300	1.620	285.1276	39.097		1431	259.6657	99.1480	35.535	2.150	1.620	178.0821	35.548
1369	365.4458	100.7667	33.715	1.300	1.620	283.8622	33.728		1432	259.2169	99.1345	34.414	2.150	1.620	177.6333	34.426
1370	369.8566	100.9240	31.543	1.300	1.620	288.2730	31.554		1433	263.5853	100.7641	32.117	1.300	1.620	182.0017	32.129
1371	371.8171	101.0168	31.145	1.300	1.620	290.2335	31.155		1434	265.6271	100.7550	31.776	1.300	1.620	184.0435	31.788
1372	373.6069	101.0335	31.544	1.300	1.620	292.0233	31.554		1435	265.4508	100.7914	30.651	1.300	1.620	183.8672	30.663
1373	368.2327	100.4917	34.395	1.300	1.620	286.6491	34.410		1436	266.1305	100.7698	30.768	1.300	1.620	184.5469	30.780
1374	368.3174	100.5690	33.596	1.300	1.620	286.7338	33.610		1437	266.1305	100.7697	30.769	1.300	1.620	184.5469	30.781
1375	366.5653	99.7777	51.459	1.700	1.620	284.9817	51.482		1438	266.2386	103.4082	30.845	0.000	1.620	184.6550	30.815
1376	365.8630	99.6446	52.362	1.700	1.620	284.2794	52.385		1439	273.8297	98.9233	28.116	2.150	1.620	192.2461	28.125
1377	352.4226	99.7296	41.679	1.700	1.620	270.8390	41.698		1440	274.2072	98.8995	27.010	2.150	1.620	192.6236	27.018
1378	345.0553	99.5699	39.533	1.700	1.620	263.4717	39.550		1441	285.4554	98.6998	24.758	2.150	1.620	203.8718	24.764
1379	344.1696	99.7889	38.073	1.700	1.620	262.5860	38.090		1442	282.3842	98.7224	24.502	2.150	1.620	200.8006	24.508
1380	332.4987	99.7084	34.765	1.700	1.620	250.9151	34.780		1443	323.0112	98.3307	21.638	2.150	1.620	241.4276	21.640
1381	331.0985	99.7077	34.701	1.700	1.620	249.5149	34.716		1444	326.3943	98.2944	21.127	2.150	1.620	244.8107	21.129
1382	330.1385	99.7269	35.398	1.700	1.620	248.5549	35.414		1445	341.5373	98.5063	22.835	2.150	1.620	259.9537	22.839
1383	327.5086	99.9239	40.043	1.700	1.620	245.9250	40.061		1446	344.7330	98.4850	22.641	2.150	1.620	263.1494	22.645
1384	327.4819	99.7817	43.364	1.700	1.620	245.8983	43.383		1447	353.0416	100.7388	25.410	1.300	1.620	271.4580	25.420
1385	330.1156	99.6149	38.434	1.700	1.620	248.5320	38.451		1448	342.8100	101.6177	19.106	1.300	1.620	261.2264	19.108
1386	340.4417	99.6919	41.210	1.700	1.620	258.8581	41.228		1449	339.5682	101.0106	20.240	1.300	1.620	257.9846	20.247
1387	342.0027	99.3679	41.791	1.700	1.620	260.4191	41.808		1450	334.2791	101.0994	18.676	1.300	1.620	252.6955	18.682
1388	344.1072	99.5321	39.182	1.700	1.620	262.5236	39.199		1451	327.2577	100.6006	27.216	1.300	1.620	245.6741	27.227
1389	343.6412	99.5335	39.001	1.700	1.620	262.0576	39.018		1452	324.7013	98.5990	27.795	2.150	1.620	243.1177	27.801
1390	338.6130	99.5689	37.350	1.700	1.620	257.0294	37.366		1453	324.9741	98.5989	26.957	2.150	1.620	243.3905	26.963
1391	338.3677	99.5617	37.703	1.700	1.620	256.7841	37.719		1454	304.1592	100.7096	24.600	1.300	1.620	222.5756	24.610
1392	332.5051	99.5652	35.798	1.700	1.620	250.9215	35.813		1455	302.4223	100.7161	24.418	1.300	1.620	220.8387	24.428
1393	331.9377	99.5323	35.699	1.700	1.620	250.3541	35.714		1456	291.7495	100.6336	27.141	1.300	1.620	210.1659	27.152
1394	331.7283	99.5135	36.051	1.700	1.620	250.1447	36.066		1457	287.0459	101.0009	22.924	1.300	1.620	205.4623	22.932
1395	351.7316	99.4872	46.257	1.700	1.620	270.1480	46.276		1458	235.1338	100.4042	39.305	1.300	1.620	153.5502	39.322
1396	329.2182	99.6882	38.542	1.700	1.620	247.6346	38.559		1459	233.6699	100.3652	40.330	1.300	1.620	152.0863	40.348
1397	329.6878	99.7044	34.293	1.700	1.620	248.1042	34.308		1460	234.2800	100.3464	41.431	1.300	1.620	152.6964	41.449
1398	328.4531	99.7083	34.119	1.700	1.620	246.8695	34.134		1461	233.3795	100.3190	41.364	1.300	1.620	151.7959	41.382
1399	329.0861	99.7079	32.919	1.700	1.620	247.5025	32.934		1462	236.1417	100.4268	39.838	1.300	1.620	154.5581	39.855
1400	322.7467	98.9650	35.784	2.150	1.620	241.1631	35.795		1463	238.8880	100.4509	36.067	1.300	1.620	157.3044	36.082
1401	344.9679	99.0381	37.884	2.150	1.620	263.3843	37.897		1464	238.4243	100.4757	34.981	1.300	1.620	156.8407	34.996
1402	348.9089	98.8415	31.949	2.150	1.620	267.3253	31.958		1465	253.5453	100.6335	26.614	1.300	1.620	171.9617	26.625
1403	318.6862	100.5256	35.304	1.300	1.620	237.1026	35.319		1466	253.1821	100.6119	25.398	1.300	1.620	171.5985	25.408
1404	319.9126	100.4922	32.603	1.300	1.620	238.3290	32.617		1467	265.6841	100.8114	22.266	1.300	1.620	184.1005	22.274
1405	321.9073	98.7031	30.568	2.150	1.620	240.3237	30.576		1468	262.6447	100.7740	22.076	1.300	1.620	181.0611	22.084
1406	332.5870	98.7337	27.792	2.150	1.620	251.0034	27.799		1469	280.7078	101.0363	19.415	1.300	1.620	199.1242	19.421
1407	348.3214	98.8030	30.760	2.150	1.620	266.7378	30.769		1470	282.2514	101.1046	18.321	1.300	1.620	200.6678	18.327
1408	352.9061	100.6446	31.365	1.300	1.620	271.3225	31.378		1471	300.5314	100.4557	18.054	1.500	1.620	218.9478	18.062

1472	303.7025	100.4585	17.130	1.500	1.620	222.1189	17.137
1473	292.9655	100.3020	17.927	1.500	1.620	211.3819	17.935
1474	292.1972	100.3051	17.969	1.500	1.620	210.6136	17.977
1475	293.8577	100.3055	19.367	1.500	1.620	212.2741	19.376
1476	354.0662	100.3117	24.677	1.500	1.620	272.4826	24.688
1477	343.5535	100.3561	22.648	1.500	1.620	261.9699	22.658
1478	324.9285	98.3687	21.388	2.150	1.620	243.3449	21.391
1479	302.3559	97.9789	17.573	2.150	1.620	220.7723	17.572
1480	284.5113	98.7187	24.747	2.150	1.620	202.9277	24.753
1481	281.8701	98.3077	18.906	2.150	1.620	200.2865	18.908
1482	264.6030	98.3454	22.120	2.150	1.620	183.0194	22.123
1483	273.6033	99.0184	27.520	2.150	1.620	192.0197	27.529
1484	264.6986	98.3576	22.154	2.150	1.620	183.1150	22.157
1485	253.2189	98.6394	25.998	2.150	1.620	171.6353	26.004
1486	265.2424	99.0770	30.992	2.150	1.620	183.6588	31.003
1487	259.5425	99.1370	35.099	2.150	1.620	177.9589	35.112
1488	255.1900	99.2459	39.033	2.150	1.620	173.6064	39.048
1489	250.8060	100.5716	43.243	1.300	1.620	169.2224	43.261
1490	234.0958	100.4300	40.791	1.300	1.620	152.5122	40.809
1491	238.6764	100.5650	35.477	1.300	1.620	157.0928	35.492
1492	24.9186	100.3597	46.851	1.300	1.620	343.3350	46.872
1493	24.3542	100.3511	49.991	1.300	1.620	342.7706	50.013
1494	18.9574	100.3474	57.895	1.300	1.620	337.3738	57.920
1495	17.3203	100.3844	57.742	1.300	1.620	335.7367	57.767
1496	17.2510	100.3852	57.992	1.300	1.620	335.6674	58.017
1497	11.2346	100.4774	55.519	1.300	1.620	329.6510	55.543
1498	11.1042	100.4715	54.349	1.300	1.620	329.5206	54.372
1499	10.6743	100.4883	47.273	1.300	1.620	329.0907	47.293
1500	8.8593	100.5103	46.231	1.300	1.620	327.2757	46.250
1501	8.3508	100.5267	41.781	1.300	1.620	326.7672	41.799
1502	10.0437	100.5584	40.481	1.300	1.620	328.4601	40.498
1503	9.5429	100.5760	36.168	1.300	1.620	327.9593	36.183
1504	9.3643	100.5658	34.958	1.300	1.620	327.7807	34.972
1505	8.7641	100.5580	31.140	1.300	1.620	327.1805	31.153
1506	5.9868	100.5714	30.071	1.300	1.620	324.4032	30.083
1507	6.7812	100.5507	32.352	1.300	1.620	325.1976	32.365
1508	20.3428	100.2932	41.819	1.300	1.620	338.7592	41.838
1509	22.8531	100.3191	40.613	1.300	1.620	341.2695	40.631
1510	21.8346	100.3195	46.158	1.300	1.620	340.2510	46.178
1511	19.6955	100.3416	47.439	1.300	1.620	338.1119	47.460
1512	19.1198	100.3792	54.171	1.300	1.620	337.5362	54.195
1513	20.5924	100.3488	55.738	1.300	1.620	339.0088	55.762
1514	21.9181	100.3291	58.293	1.300	1.620	340.3345	58.319
1515	14.5731	100.4492	56.518	1.300	1.620	332.9895	56.542
1516	11.7362	100.4660	56.363	1.300	1.620	330.1526	56.387
1517	10.0671	100.4794	51.599	1.300	1.620	328.4835	51.621
1518	10.0902	100.4504	48.810	1.300	1.620	328.5066	48.831
1519	10.5423	100.5452	38.701	1.300	1.620	328.9587	38.717
1520	14.6202	100.5173	38.587	1.300	1.620	333.0366	38.603
1521	14.7989	100.5509	26.755	1.300	1.620	333.2153	26.766
1522	14.2256	100.5942	24.718	1.300	1.620	332.6420	24.728
1523	12.7569	100.6327	23.596	1.300	1.620	331.1733	23.606
1524	6.8748	100.7591	21.102	1.300	1.620	325.2912	21.110
1525	3.7640	100.8236	19.771	1.300	1.620	322.1804	19.778
1526	1.6337	100.9165	18.070	1.300	1.620	320.0501	18.076
1527	393.7168	100.9216	18.759	1.300	1.620	312.1332	18.766
1528	397.3744	100.8121	21.266	1.300	1.620	315.7908	21.274
1529	0.7726	100.7514	22.436	1.300	1.620	319.1890	22.445
1530	6.6297	100.6940	24.657	1.300	1.620	325.0461	24.667
1531	8.4977	100.6842	25.692	1.300	1.620	326.9141	25.702
1532	8.8928	100.6385	26.908	1.300	1.620	327.3092	26.919
1533	387.7361	101.2028	14.216	1.300	1.620	306.1525	14.220
1534	399.7668	101.1435	14.772	1.300	1.620	318.1832	14.776
1535	382.3210	103.3609	5.496	1.300	1.620	300.7374	5.491

1536	368.1635	103.0969	7.682	1.300	1.620	286.5799	7.676
1537	237.4626	101.4784	9.054	1.300	1.620	155.8790	9.056
1538	223.2727	102.0903	8.557	1.300	1.620	141.6891	8.556
1539	217.4728	100.5648	23.923	1.300	1.620	135.8892	23.933
1540	211.8462	100.7249	24.983	1.300	1.620	130.2626	24.993
1541	210.6058	100.5680	32.017	1.300	1.620	129.0222	32.030
1542	209.2881	100.5685	34.380	1.300	1.620	127.7045	34.394
1543	206.4204	102.7851	36.942	0.000	1.620	124.8368	36.923
1544	212.1484	100.4212	36.396	1.300	1.620	130.5648	36.412
1545	206.7718	100.5708	34.172	1.300	1.620	125.1882	34.186
1546	195.2246	100.6157	25.982	1.300	1.620	113.6410	25.993
1547	194.7724	100.6088	25.008	1.300	1.620	113.1888	25.018
1548	191.6479	100.4891	25.263	1.300	1.620	110.0643	25.274
1549	207.6114	101.0578	20.831	1.300	1.620	126.0278	20.838
1550	209.8436	101.0629	20.857	1.300	1.620	128.2600	20.864
1551	210.0491	101.1342	19.592	1.300	1.620	128.4655	19.598
1552	212.9261	101.1571	16.430	1.300	1.620	131.3425	16.435
1553	210.7918	101.2394	15.892	1.300	1.620	129.2082	15.896
1554	210.6483	101.3465	14.834	1.300	1.620	129.0647	14.837
1555	210.3423	101.5214	13.122	1.300	1.620	128.7587	13.124
1556	215.9769	101.3086	13.230	1.300	1.620	134.3933	13.233
1557	215.6192	101.5297	11.829	1.300	1.620	134.0356	11.831
1558	186.9634	101.5617	11.449	1.300	1.620	105.3798	11.451
1559	182.1301	101.5814	10.989	1.300	1.620	100.5465	10.991
1560	179.6527	101.7886	9.511	1.300	1.620	98.0691	9.512
1561	172.4220	101.7341	9.208	1.300	1.620	90.8384	9.209
1562	155.1315	101.9607	7.411	1.300	1.620	73.5479	7.411
1563	212.2261	102.1270	10.357	1.300	1.620	130.6425	10.356
1564	224.6345	105.9777	3.236	1.300	1.620	143.0509	3.223
1565	267.6144	107.3417	2.581	1.300	1.620	186.0308	2.565
1566	371.4136	112.4299	1.719	1.300	1.620	289.8300	1.687
1567	366.8615	105.1211	3.406	1.300	1.620	285.2779	3.397
1568	2.8602	106.7898	2.955	1.300	1.620	321.2766	2.940
1569	4.2519	104.5202	4.347	1.300	1.620	322.6683	4.338
1570	387.5195	104.6859	4.568	1.300	1.620	305.9359	4.558
1571	16.5932	101.1574	11.238	1.300	1.620	335.0096	11.241
1572	4.9232	101.2134	12.639	1.300	1.620	323.3396	12.642
1573	1.3676	101.2348	12.701	1.300	1.620	319.7840	12.704
1574	2.0718	101.1157	13.934	1.300	1.620	320.4882	13.938
1575	1.2747	100.9595	16.911	1.300	1.620	319.6911	16.917
1576	29.5599	100.2739	30.395	1.300	1.620	347.9763	30.409
1577	29.9236	100.2421	29.964	1.300	1.620	348.3400	29.977
1578	31.6182	100.6200	26.505	1.300	1.620	350.0346	26.516
1579	29.9466	100.6468	26.309	1.300	1.620	348.3630	26.320
1580	30.8283	100.6417	25.110	1.300	1.620	349.2447	25.120
1581	33.3637	100.6672	23.392	1.300	1.620	351.7801	23.401
1582	28.5246	100.5744	22.674	1.300	1.620	346.9410	22.683
1583	27.7960	100.5650	23.347	1.300	1.620	346.2124	23.357
1584	37.9310	101.0792	18.547	1.300	1.620	356.3474	18.553
1585	62.9544	102.0598	10.914	1.300	1.620	381.3708	10.913
1586	119.6071	108.4050	22.648	1.300	1.620	38.0235	22.461
1587	119.3815	108.3230	22.982	1.300	1.620	37.7979	22.796
1588	115.7090	108.0448	23.856	1.300	1.620	34.1254	23.677
1589	104.2967	111.4850	23.699	0.000	1.620	22.7131	23.325
1590	104.4239	108.6465	21.973	1.300	1.620	22.8403	21.781
1591	104.0789	108.6459	21.972	1.300	1.620	22.4953	21.780
1592	104.5735	108.7488	21.670	1.300	1.620	22.9899	21.475
1593	104.6764	108.5710	22.177	1.300	1.620	23.0928	21.986
1594	119.5383	108.5066	22.417	1.300	1.620	37.9547	22.227
1595	128.1459	106.3287	14.731	1.300	1.620	46.5623	14.665
1596	103.9671	106.1353	13.817	1.400	1.620	22.3835	13.759
1597	105.0620	105.8119	11.475	1.400	1.620	23.4784	11.432
1598	105.0621	105.9201	11.164	1.400	1.620	23.4785	11.121
1599	131.1673	105.4221	12.574	1.400	1.620	49.5837	12.534

1600	103.8557	105.7992	11.633	1.400	1.620	22.2721	11.590
1601	101.6775	105.4549	10.907	1.400	1.620	20.0939	10.872
1602	98.6158	105.0713	10.786	1.400	1.620	17.0322	10.757
1603	121.1488	106.1871	10.233	1.400	1.620	39.5652	10.189
1604	135.8275	107.8697	8.112	1.400	1.620	54.2439	8.054
1605	139.8761	105.9315	7.243	1.700	1.620	58.2925	7.215
1606	145.1366	101.4653	13.400	1.700	1.620	63.5530	13.403
1607	148.3544	101.7087	12.594	1.700	1.620	66.7708	12.595
1608	155.6673	100.2403	14.009	1.700	1.620	74.0837	14.015
1609	152.7147	100.1104	14.768	1.700	1.620	71.1311	14.775
1610	154.4939	99.3327	14.296	1.700	1.620	72.9103	14.302
1611	148.7645	99.3022	13.138	1.700	1.620	67.1809	13.143
1612	146.5794	99.3226	13.632	1.700	1.620	64.9958	13.637
1613	76.9070	100.2412	11.753	1.700	1.620	395.3234	11.758
1614	75.5290	99.9268	11.926	1.700	1.620	393.9454	11.931
1615	74.2370	99.7053	12.280	1.700	1.620	392.6534	12.285
1616	72.3533	99.6333	12.181	1.700	1.620	390.7697	12.186
1617	67.6429	99.3973	12.733	1.700	1.620	386.0593	12.738
1618	66.0346	99.4497	12.414	1.700	1.620	384.4510	12.419
1619	64.0549	99.4094	12.327	1.700	1.620	382.4713	12.332
1620	62.5054	99.3850	12.479	1.700	1.620	380.9218	12.484
1621	54.8972	99.3594	13.908	1.700	1.620	373.3136	13.914
1622	54.3944	99.3320	14.347	1.700	1.620	372.8108	14.353
1623	55.1272	99.4213	14.807	1.700	1.620	373.5436	14.813
1624	45.8139	99.4168	17.594	1.700	1.620	364.2303	17.601
1625	39.7277	99.6438	19.729	1.700	1.620	358.1441	19.738
1626	39.0530	99.6553	19.709	1.700	1.620	357.4694	19.718
1627	31.1579	100.5229	29.533	1.300	1.620	349.5743	29.545
1628	35.3680	100.6960	25.734	1.300	1.620	353.7844	25.744
1629	39.8936	100.8125	22.524	1.300	1.620	358.3100	22.532
1630	30.2098	100.2490	30.571	1.300	1.620	348.6262	30.585
1631	27.1895	100.3801	38.499	1.300	1.620	345.6059	38.516
1632	26.0193	100.3882	42.332	1.300	1.620	344.4357	42.350
1633	25.2788	100.4379	28.495	1.300	1.620	343.6952	28.507
1634	31.1357	100.7789	22.322	1.300	1.620	349.5521	22.330
1635	36.2374	101.0402	18.830	1.300	1.620	354.6538	18.836
1636	32.5177	100.8125	18.434	1.300	1.620	350.9341	18.441
1637	37.4684	101.1985	14.582	1.300	1.620	355.8848	14.586
1638	50.4781	101.9744	9.760	1.300	1.620	368.8945	9.760
1639	61.5338	103.4694	7.938	1.300	1.620	379.9502	7.930
1640	45.4501	101.1063	8.618	1.300	1.620	363.8665	8.621
1641	32.0452	100.6722	14.457	1.300	1.620	350.4616	14.463
1642	27.8483	100.6364	18.118	1.300	1.620	346.2647	18.125
9999	201.2761	97.6843	102.051	0.000	1.620	119.6925	102.030
Coordenadas calculadas							
Número	X	Y	Z				
477	236543.671	4140898.257	8.974				
478	236544.402	4140899.870	8.975				
479	236549.267	4140894.621	9.087				
480	236543.161	4140897.037	9.023				
481	236531.606	4140901.604	9.071				
482	236522.834	4140905.079	9.108				
483	236519.760	4140906.298	8.694				
484	236514.562	4140908.404	8.392				
485	236511.831	4140909.466	8.417				
486	236507.484	4140911.207	9.030				
487	236506.782	4140911.171	9.168				
488	236506.405	4140910.802	9.256				
489	236506.619	4140910.693	9.282				
490	236506.978	4140910.930	9.284				
491	236507.337	4140910.953	9.288				
492	236519.160	4140906.224	9.165				
493	236532.267	4140901.037	9.206				
494	236549.185	4140894.380	9.183				

495	236545.819	4140903.398	10.416
496	236545.466	4140902.464	10.417
497	236544.529	4140902.821	10.423
498	236544.876	4140903.752	10.429
499	236545.386	4140902.216	9.024
500	236544.418	4140902.583	9.029
501	236535.883	4140905.715	9.052
502	236534.726	4140906.191	9.056
503	236523.259	4140910.433	9.362
504	236519.675	4140911.750	8.459
505	236519.212	4140912.147	8.357
506	236519.112	4140912.900	8.276
1368	236472.058	4140894.828	9.126
1369	236477.443	4140895.420	9.008
1370	236479.073	4140898.099	8.956
1371	236479.304	4140899.118	8.917
1372	236478.786	4140899.935	8.902
1373	236476.437	4140896.715	9.148
1374	236477.210	4140896.925	9.114
1375	236460.037	4140891.846	9.194
1376	236459.297	4140891.074	9.306
1377	236472.694	4140885.439	9.191
1378	236476.877	4140882.410	9.281
1379	236478.394	4140882.760	9.140
1380	236485.148	4140879.641	9.173
1381	236485.732	4140879.144	9.173
1382	236485.626	4140878.275	9.166
1383	236483.635	4140873.797	9.062
1384	236481.455	4140871.290	9.163
1385	236483.538	4140876.070	9.246
1386	236477.179	4140879.051	9.213
1387	236476.109	4140879.528	9.429
1388	236477.492	4140882.113	9.302
1389	236477.802	4140881.976	9.300
1390	236480.920	4140880.529	9.267
1391	236480.736	4140880.195	9.274
1392	236484.405	4140878.924	9.258
1393	236484.699	4140878.766	9.276
1394	236484.532	4140878.434	9.289
1395	236468.812	4140882.965	9.387
1396	236483.859	4140875.619	9.203
1397	236486.566	4140878.907	9.173
1398	236487.172	4140878.585	9.170
1399	236487.737	4140879.695	9.165
1400	236488.527	4140875.308	9.146
1401	236478.293	4140883.264	9.136
1402	236482.252	4140888.187	9.145
1403	236490.655	4140874.390	9.123
1404	236491.620	4140876.997	9.162
1405	236491.996	4140879.234	9.187
1406	236490.129	4140884.534	9.117
1407	236483.429	4140888.524	9.142
1408	236481.845	4140890.217	9.096
1409	236491.796	4140893.774	8.922
1410	236503.643	4140888.660	8.962
1411	236518.040	4140882.886	9.010
1412	236535.827	4140875.763	9.001
1413	236531.670	4140858.323	9.177
1414	236520.284	4140862.847	9.214
1415	236508.020	4140867.808	9.193
1416	236500.150	4140870.882	9.224
1417	236494.860	4140872.832	9.206
1418	236490.315	4140868.096	9.151
1419	236491.533	4140866.568	9.259

1420	236496.861	4140871.985	9.248	1483	236513.535	4140876.565	8.988
1421	236506.044	4140868.360	9.232	1484	236515.901	4140882.497	9.135
1422	236519.571	4140863.067	9.250	1485	236521.299	4140880.413	9.120
1423	236531.521	4140858.201	9.260	1486	236517.964	4140873.891	9.013
1423	236531.521	4140858.200	9.253	1487	236522.008	4140870.850	9.040
1424	236531.908	4140860.908	9.097	1488	236525.822	4140868.139	9.026
1425	236531.961	4140864.142	9.074	1489	236530.202	4140865.575	9.026
1426	236530.411	4140864.948	9.020	1490	236537.788	4140873.906	9.138
1427	236530.194	4140866.067	9.015	1491	236532.243	4140876.147	9.099
1428	236526.305	4140867.604	9.032	1492	236473.668	4140933.377	9.149
1429	236526.086	4140868.736	9.006	1493	236470.949	4140935.008	9.138
1430	236524.997	4140866.885	9.079	1494	236461.870	4140935.962	9.098
1431	236522.091	4140870.417	9.040	1495	236461.191	4140934.630	9.065
1432	236521.941	4140871.555	9.032	1496	236460.946	4140934.709	9.063
1433	236519.056	4140873.025	9.028	1497	236460.467	4140928.823	8.998
1434	236517.977	4140873.084	9.037	1498	236461.462	4140928.197	9.012
1435	236517.780	4140874.195	9.033	1499	236467.652	4140924.745	9.051
1436	236517.491	4140874.001	9.042	1500	236468.023	4140923.094	9.043
1437	236517.491	4140874.000	9.042	1501	236471.935	4140920.940	9.068
1438	236517.449	4140873.954	9.063	1502	236473.575	4140921.386	9.059
1439	236513.510	4140875.962	9.039	1503	236477.344	4140919.263	9.087
1440	236513.216	4140877.041	9.031	1504	236478.398	4140918.660	9.103
1441	236508.588	4140879.160	9.070	1505	236481.737	4140916.779	9.141
1442	236509.785	4140879.372	9.056	1506	236482.193	4140915.130	9.144
1443	236496.984	4140886.661	9.131	1507	236480.230	4140916.357	9.134
1444	236496.419	4140887.771	9.130	1508	236475.773	4140927.806	9.221
1445	236491.625	4140890.441	9.100	1509	236477.705	4140928.411	9.210
1446	236491.137	4140891.490	9.103	1510	236472.841	4140931.168	9.182
1447	236487.185	4140892.860	9.119	1511	236470.887	4140930.624	9.159
1448	236494.420	4140892.947	8.928	1512	236465.049	4140934.013	9.091
1449	236494.098	4140891.465	9.093	1513	236464.475	4140935.948	9.109
1450	236496.336	4140891.239	9.091	1514	236463.093	4140938.405	9.113
1451	236492.192	4140883.363	9.157	1515	236460.974	4140931.885	9.015
1452	236492.671	4140882.214	9.176	1516	236459.913	4140929.598	9.002
1453	236493.106	4140882.940	9.157	1517	236463.553	4140926.212	9.025
1454	236501.548	4140880.800	9.140	1518	236466.076	4140925.021	9.069
1455	236502.239	4140880.748	9.139	1519	236475.313	4140920.889	9.083
1456	236505.776	4140877.072	9.144	1520	236476.572	4140923.024	9.100
1457	236508.128	4140881.031	9.054	1521	236486.888	4140917.219	9.182
1458	236536.305	4140874.567	9.164	1522	236488.545	4140916.009	9.183
1459	236537.673	4140874.429	9.183	1523	236489.261	4140914.981	9.179
1460	236538.135	4140873.355	9.189	1524	236490.627	4140912.046	9.162
1461	236538.518	4140873.803	9.207	1525	236491.503	4140910.631	9.158
1462	236536.187	4140873.753	9.147	1526	236492.906	4140909.478	9.154
1463	236532.518	4140875.611	9.159	1527	236491.667	4140907.433	9.142
1464	236532.042	4140876.621	9.153	1528	236489.470	4140909.101	9.143
1465	236521.444	4140879.794	9.149	1529	236488.660	4140910.542	9.149
1466	236521.056	4140880.957	9.170	1530	236487.311	4140913.334	9.145
1467	236515.598	4140882.295	9.130	1531	236486.654	4140914.424	9.138
1468	236516.566	4140882.764	9.146	1532	236485.613	4140915.075	9.144
1469	236510.360	4140884.459	9.098	1533	236495.939	4140905.251	9.145
1470	236509.901	4140885.553	9.096	1534	236495.915	4140908.042	9.149
1471	236504.796	4140886.611	9.085	1535	236504.602	4140903.942	9.124
1472	236504.258	4140887.765	9.091	1536	236502.586	4140902.272	9.040
1473	236506.903	4140886.229	9.129	1537	236515.878	4140896.912	9.204
1474	236507.110	4140886.151	9.128	1538	236516.879	4140898.667	9.133
1475	236506.380	4140884.862	9.121	1539	236530.322	4140891.090	9.202
1476	236487.676	4140893.536	9.093	1540	236532.315	4140892.440	9.129
1477	236491.359	4140891.134	9.087	1541	236538.852	4140889.777	9.128
1478	236496.628	4140887.257	9.112	1542	236541.281	4140889.379	9.107
1479	236504.460	4140887.233	9.122	1543	236544.242	4140889.836	9.098
1480	236508.955	4140879.151	9.062	1544	236542.388	4140887.061	9.173
1481	236510.008	4140884.971	9.066	1545	236541.638	4140890.703	9.108
1482	236515.924	4140882.538	9.139	1546	236535.491	4140898.351	9.163

1547	236534.576	4140898.732	9.175	1611	236521.528	4140910.358	9.158
1548	236535.051	4140899.900	9.220	1612	236521.720	4140911.005	9.159
1549	236529.213	4140895.594	9.068	1613	236509.230	4140915.605	8.969
1550	236528.934	4140894.918	9.066	1614	236508.960	4140915.756	9.028
1551	236527.764	4140895.405	9.065	1615	236508.678	4140916.082	9.071
1552	236524.576	4140896.110	9.115	1616	236508.332	4140915.937	9.084
1553	236524.345	4140896.838	9.105	1617	236507.326	4140916.312	9.134
1554	236523.411	4140897.337	9.100	1618	236507.090	4140915.929	9.121
1555	236521.901	4140898.149	9.100	1619	236506.740	4140915.746	9.128
1556	236521.441	4140897.072	9.142	1620	236506.407	4140915.806	9.134
1557	236520.273	4140897.850	9.130	1621	236504.430	4140916.587	9.154
1558	236521.503	4140902.912	9.133	1622	236504.148	4140916.942	9.164
1559	236521.083	4140903.784	9.141	1623	236504.113	4140917.431	9.149
1560	236519.600	4140904.167	9.147	1624	236500.716	4140918.774	9.175
1561	236519.206	4140905.199	9.163	1625	236498.031	4140919.502	9.124
1562	236516.873	4140906.870	9.186	1626	236497.878	4140919.357	9.121
1563	236519.272	4140899.084	9.068	1627	236489.062	4140924.630	9.171
1564	236512.607	4140901.861	9.110	1628	236493.003	4140923.132	9.133
1565	236510.651	4140901.375	9.117	1629	236496.370	4140921.750	9.126
1566	236508.427	4140903.610	9.080	1630	236488.005	4140925.033	9.294
1567	236506.787	4140903.100	9.140	1631	236481.045	4140929.170	9.184
1568	236507.316	4140904.843	9.099	1632	236477.647	4140931.096	9.156
1569	236506.027	4140905.391	9.106	1633	236488.041	4140921.944	9.218
1570	236505.555	4140904.303	9.078	1634	236494.192	4140919.557	9.141
1571	236500.509	4140909.753	9.210	1635	236497.782	4140918.135	9.106
1572	236498.291	4140908.410	9.173	1636	236497.246	4140917.108	9.179
1573	236497.997	4140907.763	9.168	1637	236500.775	4140915.100	9.139
1574	236496.870	4140908.287	9.170	1638	236505.512	4140912.496	9.111
1575	236493.979	4140909.028	9.159	1639	236507.637	4140911.418	8.982
1576	236487.918	4140924.686	9.283	1640	236505.459	4140911.147	9.264
1577	236488.350	4140924.516	9.300	1641	236499.941	4140914.179	9.261
1578	236491.354	4140922.638	9.156	1642	236496.547	4140915.921	9.233
1579	236491.010	4140922.005	9.147	9999	236607.280	4140872.819	14.426
1580	236492.121	4140921.429	9.161	Radiación desde la estación 8006			
1581	236494.015	4140920.882	9.169	X	236559.090	Desorientación	119.6620
1582	236493.301	4140919.129	9.209	Y	4140895.597	Nombre	
1583	236492.624	4140919.383	9.207	Z	9.044	Coef. anamorfosis	1.0004550266
1584	236498.345	4140918.238	9.100	Visuales utilizadas			
1585	236506.945	4140914.328	9.061	Visado	Horizontal	Vertical	Dist.Geom.
1586	236522.725	4140922.451	6.432	1643	180.3314	100.3167	76.117
1587	236522.846	4140922.773	6.418	1644	181.0085	100.3906	75.110
1588	236522.185	4140924.234	6.407	1645	180.9117	100.3812	73.029
1589	236518.239	4140925.735	6.462	1646	179.8711	100.2082	71.951
1590	236517.741	4140924.272	6.439	1647	177.9701	100.1629	76.110
1591	236517.630	4140924.312	6.439	1648	177.8745	100.2192	77.682
1592	236517.681	4140923.969	6.445	1649	179.8661	100.2145	82.045
1593	236517.895	4140924.434	6.437	1650	179.2498	100.1998	83.760
1594	236522.573	4140922.271	6.427	1651	179.3122	100.1565	85.482
1595	236519.888	4140914.793	7.952	1652	173.6252	99.4880	87.357
1596	236514.832	4140916.796	7.984	1653	171.2152	99.3996	85.194
1597	236514.214	4140914.542	8.268	1654	172.5077	99.4389	87.985
1598	236514.102	4140914.251	8.277	1655	173.7738	99.4605	90.897
1599	236518.898	4140912.799	8.244	1656	174.7264	99.4747	93.134
1600	236514.065	4140914.766	8.256	1657	177.1489	99.4895	98.937
1601	236513.468	4140914.213	8.380	1658	177.2135	99.5374	97.273
1602	236512.937	4140914.252	8.456	1659	170.7581	99.4866	82.514
1603	236516.026	4140912.162	8.321	1660	147.9720	100.4172	46.106
1604	236516.154	4140909.181	8.314	1661	154.2784	100.2342	38.902
1605	236515.814	4140908.274	8.340	1662	152.6286	99.9144	37.979
1606	236521.358	4140911.139	8.706	1663	153.0554	99.9026	38.387
1607	236521.011	4140910.158	8.676	1664	115.7394	100.2704	27.512
1608	236522.963	4140909.428	8.961	1665	114.2856	99.8980	30.753
1609	236523.374	4140910.351	8.988	1666	110.4469	99.8948	35.196
1610	236523.119	4140909.782	9.164	1667	107.6436	99.9457	37.528
						Mira	Inst
						Acimut	Dist.Red.
						299.9934	76.151
						300.6705	75.143
						300.5737	73.061
						299.5331	71.983
						297.6321	76.144
						297.5365	77.717
						299.5281	82.082
						298.9118	83.798
						298.9742	85.520
						293.2872	87.394
						290.8772	85.229
						292.1697	88.021
						293.4358	90.935
						294.3884	93.173
						296.8109	98.979
						296.8755	97.315
						290.4201	82.549
						267.6340	46.126
						273.9404	38.919
						272.2906	37.996
						272.7174	38.404
						235.4014	27.524
						233.9476	30.767
						230.1089	35.212
						227.3056	37.545

1668	100.9897	100.2256	45.086	1.500	1.587	220.6517	45.106
1669	100.1785	100.2803	46.881	1.500	1.587	219.8405	46.902
1670	100.0992	100.3280	54.301	1.500	1.587	219.7612	54.325
1671	102.5650	100.3004	54.540	1.500	1.587	222.2270	54.564
1672	103.0342	100.1026	46.635	1.500	1.587	222.6962	46.656
1673	103.2330	100.1032	46.300	1.500	1.587	222.8950	46.321
1674	103.8007	100.0872	45.775	1.500	1.587	223.4627	45.796
1675	106.6960	100.0649	42.628	1.500	1.587	226.3580	42.647
1676	113.0321	99.9313	36.861	1.500	1.587	232.6941	36.878
1677	116.0049	99.9588	34.494	1.500	1.587	235.6669	34.510
1678	119.1507	99.9087	30.931	1.500	1.587	238.8127	30.945
1679	114.6667	99.8892	30.437	1.500	1.587	234.3287	30.451
1680	113.9181	99.8870	30.204	1.500	1.587	233.5801	30.218
1681	112.2148	99.9047	28.691	1.500	1.587	231.8768	28.704
1682	111.6744	99.9043	28.655	1.500	1.587	231.3364	28.668
1683	111.1870	99.8719	30.034	1.500	1.587	230.8490	30.048
1684	111.1290	99.9038	30.906	1.500	1.587	230.7910	30.920
1685	110.1480	99.9235	30.145	1.500	1.587	229.8100	30.159
1686	109.6098	99.9233	31.522	1.500	1.587	229.2718	31.536
1687	106.2594	99.8719	30.376	1.500	1.587	225.9214	30.390
1688	102.1596	99.9906	36.543	1.500	1.587	221.8216	36.560
1689	101.9550	100.0477	36.315	1.500	1.587	221.6170	36.331
1690	100.9803	100.1529	43.112	1.500	1.587	220.6423	43.131
1691	100.9655	100.3040	54.071	1.500	1.587	220.6275	54.095
1692	102.6440	100.2795	54.173	1.500	1.587	222.3060	54.197
1693	103.2077	100.1481	46.396	1.500	1.587	222.8697	46.417
1694	103.0890	100.1151	47.176	1.500	1.587	222.7510	47.197
1695	104.6999	100.1187	40.237	1.500	1.587	224.3619	40.255
1696	105.1721	100.0748	39.830	1.500	1.587	224.8341	39.848
1697	105.1648	100.0748	39.410	1.500	1.587	224.8268	39.428
1698	103.8090	100.0933	39.237	1.500	1.587	223.4710	39.255
1699	103.7261	100.1122	40.160	1.500	1.587	223.3881	40.178
1700	107.7622	100.0043	40.043	1.500	1.587	227.4242	40.061
1701	112.6350	99.9329	34.952	1.500	1.587	232.2970	34.968
1702	113.3912	99.9337	33.902	1.500	1.587	233.0532	33.917
1703	115.1714	99.9821	35.411	1.500	1.587	234.8334	35.427
1704	115.9101	99.9737	34.206	1.500	1.587	235.5721	34.222
1705	114.6543	99.9725	33.991	1.500	1.587	234.3163	34.006
1706	118.8642	100.0256	35.027	1.500	1.587	238.5262	35.043
1707	117.3603	100.0265	42.280	1.500	1.587	237.0223	42.299
1708	117.4665	100.0751	45.254	1.500	1.587	237.1285	45.274
1709	122.6555	100.0420	44.024	1.500	1.587	242.3175	44.044
1710	125.5702	100.1296	41.463	1.500	1.587	245.2322	41.482
1711	117.5341	100.0716	45.231	1.500	1.587	237.1961	45.251
1712	117.4605	100.0243	42.259	1.500	1.587	237.1225	42.278
1713	111.1156	99.9995	42.911	1.500	1.587	230.7776	42.930
1714	119.0298	100.0043	34.953	1.500	1.587	238.6918	34.969
1715	128.8223	100.2032	40.755	1.500	1.587	248.4843	40.773
1716	136.5007	100.1621	43.456	1.500	1.587	256.1627	43.476
1717	135.6381	100.1611	42.241	1.500	1.587	255.3001	42.260
1718	128.1986	100.1567	41.931	1.500	1.587	247.8606	41.950
1719	128.4316	100.4777	40.952	1.300	1.587	248.0936	40.969
1720	122.9293	100.3924	39.719	1.300	1.587	242.5913	39.736
1721	122.5427	100.4081	40.784	1.300	1.587	242.2047	40.802
1722	121.6537	100.4002	39.492	1.300	1.587	241.3157	39.509
1723	114.6793	100.2928	38.704	1.300	1.587	234.3413	38.721
1724	113.1278	100.2654	39.712	1.300	1.587	232.7898	39.730
1725	120.6839	100.2468	46.239	1.300	1.587	240.3459	46.260
1726	107.3138	100.4300	52.518	1.300	1.587	226.9758	52.541
1727	106.5526	100.3884	57.400	1.300	1.587	226.2146	57.425
1728	106.8698	100.1364	57.268	1.300	1.587	226.5318	57.294
1729	107.6193	100.1371	52.711	1.300	1.587	227.2813	52.735
1730	120.7552	100.1314	46.499	1.300	1.587	240.4172	46.520
1731	116.3962	100.3064	47.630	1.300	1.587	236.0582	47.651

1732	99.8250	100.7595	55.289	1.300	1.587	219.4870	55.310	
1733	99.8976	100.7069	45.359	1.300	1.587	219.5596	45.377	
1734	99.8945	100.6436	42.275	1.300	1.587	219.5565	42.292	
1735	102.1469	100.5109		42.226	1.300	1.587	221.8089	42.244
1736	102.3112	100.4979		40.083	1.300	1.587	221.9732	40.100
1737	99.9421	100.6229	40.063	1.300	1.587	219.6041	40.079	
1738	99.9969	100.6008	34.845	1.300	1.587	219.6589	34.859	
1739	102.8897	100.6503		30.671	1.300	1.587	222.5517	30.683
1740	110.1855	100.6839		27.830	1.300	1.587	229.8475	27.841
1741	99.3039	100.6118	37.100	1.300	1.587	218.9659	37.115	
1742	98.5076	100.5846	37.092	1.300	1.587	218.1696	37.107	
1743	99.2898	100.6195	42.098	1.300	1.587	218.9518	42.115	
1744	83.4329	100.3163	38.198	1.300	1.587	203.0949	38.215	
1745	85.2563	100.3481	43.040	1.300	1.587	204.9183	43.059	
1746	115.2595	100.7345		26.737	1.300	1.587	234.9215	26.747
1747	122.1436	101.0487		16.690	1.300	1.587	241.8056	16.695
1748	145.2592	100.8222		19.982	1.300	1.587	264.9212	19.989
1749	144.2569	100.7819		20.372	1.300	1.587	263.9189	20.380
1750	125.5250	101.2611		16.433	1.300	1.587	245.1870	16.437
1751	123.8867	101.2579		14.814	1.300	1.587	243.5487	14.818
1752	126.3831	101.3146		12.719	1.300	1.587	246.0451	12.722
1753	105.5528	101.3312		13.361	1.300	1.587	225.2148	13.364
1754	109.1155	101.4937		13.456	1.300	1.587	228.7775	13.458
1755	109.6685	101.7429		12.278	1.300	1.587	229.3305	12.279
1756	105.6173	101.5504		11.573	1.300	1.587	225.2793	11.575
1757	142.9333	101.0154		14.967	1.300	1.587	262.5953	14.972
1758	140.0115	101.0773		13.950	1.300	1.587	259.6735	13.954
1759	141.4786	100.9587		12.863	1.300	1.587	261.1406	12.867
1760	140.8614	101.1976		9.139	1.300	1.587	260.5234	9.142
1761	129.8857	101.7145		7.079	1.300	1.587	249.5477	7.080
1762	140.7663	101.8424		6.475	1.300	1.587	260.4283	6.475
1763	113.9592	102.1310		7.553	1.300	1.587	233.6212	7.552
1764	127.4787	101.4602		9.083	1.300	1.587	247.1407	9.085
1765	129.6000	101.4257		8.288	1.300	1.587	249.2620	8.290
1766	136.1306	101.2994		8.675	1.300	1.587	255.7926	8.677
1767	147.8366	101.0775		9.426	1.300	1.587	267.4986	9.429
1768	151.7628	101.0978		13.063	1.300	1.587	271.4248	13.067
1769	147.9126	101.1127		13.948	1.300	1.587	267.5746	13.952
1770	150.2968	101.1156		14.413	1.300	1.587	269.9588	14.417
1771	154.7640	101.0254		15.294	1.300	1.587	274.4260	15.299
1772	158.6627	101.0036		14.485	1.300	1.587	278.3247	14.490
1773	160.5693	100.9444		15.029	1.300	1.587	280.2313	15.034
1774	153.5701	100.4041		20.906	1.300	1.587	273.2321	20.915
1775	158.4814	100.8006		18.261	1.300	1.587	278.1434	18.268
1776	149.5183	100.6455		18.070	1.300	1.587	269.1803	18.077
1777	144.3928	100.9549		14.743	1.300	1.587	264.0548	14.748
1778	142.5183	101.0102		14.096	1.300	1.587	262.1803	14.101
1779	140.7149	101.1109		13.744	1.300	1.587	260.3769	13.748
1780	133.1943	101.1465		16.972	1.300	1.587	252.8563	16.977
1781	125.4750	101.3614		15.957	1.300	1.587	245.1370	15.961
1782	130.5403	101.2772		12.985	1.300	1.587	250.2023	12.988
1783	130.1092	101.4977		12.473	1.300	1.587	249.7712	12.475
1784	102.9935	101.7181		11.335	1.300	1.587	222.6555	11.336
1785	94.6231	102.0919	9.000	1.300	1.587	214.2851	8.999	
1786	129.0262	101.5431		9.780	1.300	1.587	248.6882	9.782
1787	126.5547	101.7313		7.260	1.300	1.587	246.2167	7.261
1788	134.9753	103.2995		5.136	1.300	1.587	254.6373	5.131
1789	236.9453	105.8038		3.150	1.300	1.587	356.6073	3.138
1790	221.6800	103.1851		5.212	1.300	1.587	341.3420	5.208
1791	150.5631	101.7984		6.824	1.300	1.587	270.2251	6.824
1792	157.3913	101.9162		7.026	1.300	1.587	277.0533	7.026
1793	164.9008	101.2341		8.778	1.300	1.587	284.5628	8.780
1794	167.1012	101.1635		9.649	1.300	1.587	286.7632	9.652
1795	154.3185	102.5157		6.412	1.300	1.587	273.9805	6.410

1796	145.7378	101.3867	7.448	1.300	1.587	265.3998	7.450	1860	210.5460	93.0143	14.586	2.000	1.587	330.2080	14.505
1797	143.0558	101.1683	8.810	1.300	1.587	262.7178	8.813	1861	211.2935	92.6576	14.495	2.000	1.587	330.9555	14.405
1798	142.8563	101.1238	11.182	1.300	1.587	262.5183	11.185	1862	212.4964	92.5016	14.639	2.000	1.587	332.1584	14.544
1799	154.7213	101.0975	13.867	1.300	1.587	274.3833	13.871	1863	216.7124	95.9911	15.993	1.300	1.587	336.3744	15.969
1800	158.6041	100.7737	18.453	1.300	1.587	278.2661	18.460	1864	214.4096	95.6653	9.448	1.300	1.587	334.0716	9.430
1801	204.3082	100.4420	36.576	1.300	1.587	323.9702	36.592	1865	216.2345	95.6701	9.310	1.300	1.587	335.8965	9.293
1802	204.3080	100.4420	36.136	1.300	1.587	323.9700	36.152	1866	219.0217	95.7252	9.331	1.300	1.587	338.6837	9.314
1803	203.4264	100.4582	36.118	1.300	1.587	323.0884	36.133	1867	238.9852	96.6762	11.100	1.300	1.587	358.6472	11.090
1804	203.4265	100.4571	36.578	1.300	1.587	323.0885	36.594	1868	240.8052	97.2491	13.305	1.300	1.587	360.4672	13.299
1805	205.5553	100.4341	35.723	1.300	1.587	325.2173	35.738	1869	214.4021	100.8134	9.156	1.300	1.587	334.0641	9.159
1806	203.4894	100.4617	35.751	1.300	1.587	323.1514	35.766	1870	217.0996	101.5414	7.695	1.300	1.587	336.7616	7.696
1807	202.0152	100.4839	34.795	1.300	1.587	321.6772	34.810	1871	227.7995	101.3184	8.197	1.300	1.587	347.4615	8.199
1808	201.3986	100.5408	32.189	1.300	1.587	321.0606	32.202	1872	223.8183	100.9733	9.339	1.300	1.587	343.4803	9.342
1809	201.0502	100.5907	30.207	1.300	1.587	320.7122	30.219	1873	217.7903	101.3933	7.945	1.300	1.587	337.4523	7.947
1810	200.7881	100.6742	27.093	1.300	1.587	320.4501	27.104	1874	226.3388	101.2842	8.341	1.300	1.587	346.0008	8.343
1811	203.4703	100.6731	27.034	1.300	1.587	323.1323	27.045	1875	223.8309	101.0421	9.161	1.300	1.587	343.4929	9.164
1812	203.1130	100.7116	26.675	1.300	1.587	322.7750	26.685	1876	231.7397	101.3269	8.423	1.300	1.587	351.4017	8.425
1813	205.9420	100.6667	26.661	1.300	1.587	325.6040	26.672	1877	240.7198	101.3749	9.360	1.300	1.587	360.3818	9.362
1814	205.7399	100.7533	25.063	1.300	1.587	325.4019	25.073	1878	238.2340	101.2122	9.893	1.300	1.587	357.8960	9.896
1815	202.7260	100.7911	25.038	1.300	1.587	322.3880	25.047	1879	231.0186	101.0005	9.634	1.300	1.587	350.6806	9.637
1816	203.6150	100.7643	25.201	1.300	1.587	323.2770	25.211	1880	283.8919	101.3718	18.355	1.300	1.587	3.5539	18.359
1817	200.7268	100.7686	25.200	1.300	1.587	320.3888	25.210	1881	281.4263	101.4737	16.738	1.300	1.587	1.0883	16.741
1818	200.1171	100.9452	21.071	1.300	1.587	319.7791	21.078	1882	272.6913	101.6809	12.406	1.300	1.587	392.3533	12.407
1819	199.3906	101.2170	16.871	1.300	1.587	319.0526	16.876	1883	240.9827	102.2789	6.191	1.300	1.587	360.6447	6.190
1820	198.1175	100.6052	13.046	1.500	1.587	317.7795	13.051	1884	273.6158	102.2986	6.825	1.300	1.587	393.2778	6.824
1821	194.6299	100.5697	7.959	1.500	1.587	314.2919	7.962	1885	286.1159	101.6570	13.456	1.300	1.587	5.7779	13.458
1822	213.0805	100.5727	7.972	1.500	1.587	332.7425	7.975	1886	289.0217	101.4934	15.332	1.300	1.587	8.6837	15.335
1823	213.3533	100.6158	6.781	1.500	1.587	333.0153	6.784	1887	295.5248	101.3827	21.800	1.300	1.587	15.1868	21.805
1824	212.6707	100.6059	9.340	1.500	1.587	332.3327	9.344	1888	296.0408	101.9099	21.377	1.300	1.587	15.7028	21.377
1825	217.7446	99.5065	9.036	1.500	1.587	337.4066	9.040	1889	295.4246	102.2807	16.761	1.300	1.587	15.0866	16.758
1826	219.3687	99.4980	9.097	1.500	1.587	339.0307	9.101	1890	294.5744	101.5046	16.033	1.300	1.587	14.2364	16.036
1827	240.0226	99.9061	10.944	1.500	1.587	359.6846	10.949	1891	294.3544	101.5761	14.778	1.300	1.587	14.0164	14.780
1828	242.1646	99.8903	13.400	1.500	1.587	361.8266	13.406	1892	289.0258	101.5273	14.986	1.300	1.587	8.6878	14.988
1829	236.7247	96.7409	13.693	2.150	1.587	356.3867	13.681	1893	290.6122	101.4695	16.254	1.300	1.587	10.2742	16.257
1830	234.9358	96.2975	13.825	2.150	1.587	354.5978	13.808	1894	284.0601	101.7061	11.190	1.300	1.587	3.7221	11.191
1831	233.2299	95.6714	13.894	2.150	1.587	352.8919	13.868	1895	292.4264	102.0048	9.301	1.300	1.587	12.0884	9.301
1832	222.2219	95.4720	15.535	2.150	1.587	341.8839	15.503	1896	292.9689	103.5770	8.395	1.300	1.587	12.6309	8.386
1833	252.4327	100.9568	15.204	1.300	1.587	372.0947	15.209	1897	287.5801	105.5127	3.774	1.300	1.587	7.2421	3.762
1834	252.4943	100.8645	16.260	1.300	1.587	372.1563	16.266	1898	319.1278	105.6806	3.903	1.300	1.587	38.7898	3.889
1835	236.0213	95.7175	16.818	2.150	1.587	355.6833	16.788	1899	353.7540	111.9013	1.663	1.300	1.587	73.4160	1.635
1836	230.8378	95.3035	17.574	2.150	1.587	350.4998	17.534	1900	83.6796	103.6145	4.841	1.300	1.587	203.3416	4.835
1837	228.4569	94.9602	18.468	2.150	1.587	348.1189	18.419	1901	106.3977	103.7062	4.666	1.300	1.587	226.0597	4.660
1838	226.6222	94.9640	19.928	2.150	1.587	346.2842	19.875	1902	104.1941	102.1147	8.537	1.300	1.587	223.8561	8.536
1839	227.2983	95.9478	19.963	2.000	1.587	346.9603	19.932	1903	92.0388	100.0338	8.633	1.700	1.587	211.7008	8.637
1840	229.1811	95.7359	18.515	2.000	1.587	348.8431	18.482	1904	68.5150	99.5351	2.760	1.700	1.587	188.1770	2.761
1841	232.5336	95.5775	17.498	2.000	1.587	352.1956	17.464	1905	103.8650	100.0679	11.830	1.700	1.587	223.5270	11.835
1842	236.5435	95.5084	17.041	2.000	1.587	356.2055	17.006	1906	116.2599	100.0125	14.549	1.700	1.587	235.9219	14.556
1843	264.1554	98.0990	16.819	2.000	1.587	383.8174	16.819	1907	134.2456	99.9916	17.263	1.700	1.587	253.9076	17.271
1844	264.3683	98.4326	16.620	2.000	1.587	384.0303	16.622	1908	152.0618	99.8938	21.016	1.700	1.587	271.7238	21.025
1845	209.6968	95.4103	25.475	2.380	1.587	329.3588	25.420	1909	314.6286	100.0179	39.396	1.800	1.587	34.2906	39.414
1846	209.3082	95.6687	25.257	2.000	1.587	328.9702	25.210	1910	317.4491	99.6566	40.604	1.800	1.587	37.1111	40.622
1847	207.2094	95.5596	25.190	2.000	1.587	326.8714	25.140	1911	319.0418	99.6295	40.163	1.800	1.587	38.7038	40.181
1848	211.9306	95.3320	19.667	2.000	1.587	331.5926	19.623	1912	321.2923	99.5861	33.965	1.800	1.587	40.9543	33.980
1849	211.2554	94.3380	19.420	2.000	1.587	330.9174	19.352	1913	323.3010	99.4559	33.485	1.800	1.587	42.9630	33.499
1850	213.4924	94.3338	19.495	2.000	1.587	333.1544	19.427	1914	320.7425	99.8893	28.880	1.800	1.587	40.4045	28.893
1851	215.2850	94.3885	19.469	2.000	1.587	334.9470	19.402	1915	327.0404	99.4050	27.479	1.800	1.587	46.7024	27.490
1852	216.5569	94.2672	19.036	2.000	1.587	336.2189	18.967	1916	329.6182	99.3054	27.121	1.800	1.587	49.2802	27.132
1853	216.6797	95.3989	19.425	2.000	1.587	336.3417	19.383	1917	336.1888	99.0079	21.360	1.800	1.587	55.8508	21.367
1854	215.4597	95.3993	19.687	2.000	1.587	335.1217	19.645	1918	339.5348	98.9614	21.156	1.800	1.587	59.1968	21.163
1855	213.6865	95.4420	19.760	2.000	1.587	333.3485	19.718	1919	337.4919	98.9889	22.259	1.800	1.587	57.1539	22.266
1856	216.4384	94.9327	15.458	2.000	1.587	336.1004	15.416	1920	331.4505	99.4685	19.986	1.800	1.587	51.1125	19.994
1857	213.0767	94.2505	14.429	2.000	1.587	332.7387	14.377	1921	344.6774	98.8490	16.641	1.800	1.587	64.3394	16.646
1858	210.9805	94.0538	14.273	2.000	1.587	330.6425	14.217	1922	351.8979	98.6216	16.026	1.800	1.587	71.5599	16.030
1859	209.5409	93.9114	14.473	2.000	1.587	329.2029	14.413	1923	356.5287	98.5027	16.108	1.800	1.587	76.1907	16.111

1924	359.0042	98.4092	12.931	1.800	1.587	78.6662	12.933	
1925	360.0660	98.3588	12.820	1.800	1.587	79.7280	12.822	
1926	363.5559	98.3207	14.021	1.800	1.587	83.2179	14.022	
1927	375.2486	98.0590	12.356	1.800	1.587	94.9106	12.356	
1928	366.1586	98.7183	11.340	1.800	1.587	85.8206	11.343	
1929	379.5293	97.9419	12.475	1.800	1.587	99.1913	12.474	
1930	384.6578	97.9130	13.038	1.800	1.587	104.3198		13.037
1931	12.5966	97.7770	11.297	1.800	1.587	132.2586	11.295	
1932	20.0025	97.8175	11.247	1.800	1.587	139.6645	11.245	
1933	19.1298	97.8051	10.650	1.800	1.587	138.7918	10.648	
1934	16.2070	97.8216	12.285	1.800	1.587	135.8690	12.283	
1935	41.5224	98.2271	15.120	1.800	1.587	161.1844	15.121	
1936	45.9599	98.5081	13.757	1.800	1.587	165.6219	13.759	
1937	24.5694	98.2574	10.838	1.800	1.587	144.2314	10.839	
1938	54.8329	98.7320	15.676	1.800	1.587	174.4949	15.680	
1939	54.3748	98.6708	15.771	1.800	1.587	174.0368	15.775	
1940	47.4696	98.5790	14.026	1.800	1.587	167.1316	14.029	
1941	48.0896	98.3257	17.547	1.800	1.587	167.7516	17.549	
1942	40.6163	98.2160	16.215	1.800	1.587	160.2783	16.216	
1943	56.9162	98.7151	16.306	1.800	1.587	176.5782	16.310	
1944	57.7699	98.7052	16.974	1.800	1.587	177.4319	16.978	
1945	56.7308	98.7313	17.647	1.800	1.587	176.3928	17.651	
1946	43.1404	98.9888	22.693	1.800	1.587	162.8024	22.700	
1947	32.3874	99.2119	30.559	1.800	1.587	152.0494	30.571	
1948	31.3899	99.2185	31.056	1.800	1.587	151.0519	31.068	
1949	29.7208	99.2410	31.077	1.800	1.587	149.3828	31.089	
1950	30.3601	98.9934	30.441	1.800	1.587	150.0221	30.451	
1951	39.7114	98.6206	23.152	1.800	1.587	159.3734	23.157	
1952	28.0519	99.2509	30.456	1.800	1.587	147.7139	30.468	
1953	23.4339	99.3143	29.478	1.800	1.587	143.0959	29.490	
1954	29.8595	98.9174	28.427	1.800	1.587	149.5215	28.436	
1955	25.1195	98.9193	27.199	1.800	1.587	144.7815	27.207	
1956	30.7231	98.5944	21.717	1.800	1.587	150.3851	21.722	
1957	36.7288	98.6986	22.847	1.800	1.587	156.3908	22.853	
1958	23.7862	98.9666	27.709	1.800	1.587	143.4482	27.718	
1959	10.9518	98.9514	26.056	1.800	1.587	130.6138	26.064	
1960	10.3033	99.1103	27.750	1.800	1.587	129.9653	27.760	
1961	22.6265	99.2968	29.330	1.800	1.587	142.2885	29.342	
1962	22.3034	98.7832	24.879	1.800	1.587	141.9654	24.886	
1963	21.1723	98.7531	24.043	1.800	1.587	140.8343	24.049	
1964	23.2395	98.5410	21.823	1.800	1.587	142.9015	21.827	
1965	24.2885	98.5321	21.177	1.800	1.587	143.9505	21.181	
1966	22.5645	98.0216	15.288	1.800	1.587	142.2265	15.288	
1967	38.2847	98.1867	13.752	1.800	1.587	157.9467	13.753	
1968	34.7194	97.9813	13.910	1.800	1.587	154.3814	13.909	
1969	30.2524	97.9844	14.512	1.800	1.587	149.9144	14.511	
1970	22.4675	98.3826	20.397	1.800	1.587	142.1295	20.400	
1971	18.6174	98.8726	25.930	1.800	1.587	138.2794	25.938	
1972	10.2393	99.4206	27.911	1.800	1.587	129.9013	27.922	
1973	6.8942	98.8771	25.666	1.800	1.587	126.5562	25.674	
1974	7.1817	98.8674	24.857	1.800	1.587	126.8437	24.864	
1975	8.6929	98.6348	22.447	1.800	1.587	128.3549	22.452	
1976	6.9718	98.5479	21.387	1.800	1.587	126.6338	21.391	
1977	11.6281	98.5440	21.718	1.800	1.587	131.2901	21.722	
1978	10.3561	98.9085	21.608	1.800	1.587	130.0181	21.615	
1979	13.3221	98.6453	16.744	1.800	1.587	132.9841	16.748	
1980	10.4222	98.0856	16.922	1.800	1.587	130.0842	16.922	
1981	14.7011	97.9724	16.051	1.800	1.587	134.3631	16.050	
1982	16.1618	98.0782	17.219	1.800	1.587	135.8238	17.219	
1983	388.9059	98.2290	16.670	1.800	1.587	108.5679		16.671
1984	383.6752	98.1569	16.095	1.800	1.587	103.3372		16.096
1985	385.0169	98.2795	17.497	1.800	1.587	104.6789		17.499
1986	388.2190	98.5424	20.547	1.800	1.587	107.8810		20.551
1987	390.9906	98.6449	21.603	1.800	1.587	110.6526		21.608

1988	386.2693	98.6752	21.494	1.800	1.587	105.9313	21.499
1989	388.6118	99.0137	21.232	1.800	1.587	108.2738	21.239
1990	11.2199	98.7133	23.623	1.800	1.587	130.8819	23.629
1991	14.8493	98.6643	23.228	1.800	1.587	134.5113	23.233
1992	14.6241	98.6357	23.011	1.800	1.587	134.2861	23.016
1993	0.0150	99.0859	26.927	1.800	1.587	119.6770	26.936
1994	392.2267	98.9156	24.090	1.800	1.587	111.8887	24.097
1995	390.1346	98.9087	24.078	1.800	1.587	109.7966	24.085
1996	388.2185	98.9273	24.296	1.800	1.587	107.8805	24.304
1997	391.1217	98.9616	24.789	1.800	1.587	110.7837	24.797
1998	391.3536	99.0003	25.587	1.800	1.587	111.0156	25.595
1999	384.8285	99.5205	28.073	1.800	1.587	104.4905	28.085
2000	374.8561	99.1864	27.287	1.800	1.587	94.5181	27.297
2001	372.2336	99.1274	26.931	1.800	1.587	91.8956	26.941
2002	367.1557	99.1291	27.225	1.800	1.587	86.8177	27.235
2003	367.8867	98.8622	23.956	1.800	1.587	87.5487	23.963
2004	371.6360	98.7999	23.169	1.800	1.587	91.2980	23.175
2005	368.8598	98.7281	22.589	1.800	1.587	88.5218	22.595
2006	369.4396	99.0272	23.219	1.800	1.587	89.1016	23.227
2007	366.9878	98.7843	22.319	1.800	1.587	86.6498	22.325
2008	366.1388	98.7224	21.853	1.800	1.587	85.8008	21.859
2009	372.2771	98.7683	22.756	1.800	1.587	91.9391	22.762
2010	373.9514	98.7461	22.543	1.800	1.587	93.6134	22.549
2011	374.1437	98.7469	22.831	1.800	1.587	93.8057	22.837
2012	365.0111	98.6536	19.727	1.800	1.587	84.6731	19.732
2013	364.1047	98.6027	18.765	1.800	1.587	83.7667	18.769
2014	359.1081	98.6816	19.183	1.800	1.587	78.7701	19.188
2015	363.5114	99.1519	19.189	1.800	1.587	83.1734	19.196
2016	364.2281	99.6626	31.973	1.800	1.587	83.8901	31.987
2017	358.7590	99.2226	30.360	1.800	1.587	78.4210	30.371
2018	356.2985	99.1092	27.113	1.800	1.587	75.9605	27.123
2019	354.7128	99.0564	26.327	1.800	1.587	74.3748	26.336
2020	352.5445	99.0998	27.246	1.800	1.587	72.2065	27.256
2021	356.4106	99.1031	27.170	1.800	1.587	76.0726	27.180
2022	348.7444	98.9041	24.179	1.800	1.587	68.4064	24.186
2023	346.2313	98.8877	23.016	1.800	1.587	65.8933	23.023
2024	344.5903	98.9135	23.956	1.800	1.587	64.2523	23.963
2025	348.0898	99.1377	28.663	1.800	1.587	67.7518	28.673
2026	345.0369	99.2057	30.233	1.800	1.587	64.6989	30.244
2027	348.3019	99.4065	34.935	1.800	1.587	67.9639	34.949
2028	350.4232	99.4455	34.967	1.800	1.587	70.0852	34.982
2029	353.2093	99.7150	36.239	1.800	1.587	72.8713	36.255
2030	342.2856	99.4836	40.115	1.800	1.587	61.9476	40.132
2031	340.4319	99.4697	40.239	1.800	1.587	60.0939	40.256
2032	340.0340	99.4859	40.531	1.800	1.587	59.6960	40.548
2033	334.4347	99.5423	45.977	1.800	1.587	54.0967	45.997
2034	336.0225	99.6015	45.779	1.800	1.587	55.6845	45.799
2035	337.6635	99.8903	47.563	1.800	1.587	57.3255	47.584
2036	327.6902	99.5524	45.633	1.800	1.587	47.3522	45.653
2037	330.0488	99.5215	51.466	2.150	1.587	49.7108	51.488
2038	323.8706	99.4967	51.466	2.150	1.587	43.5326	51.488
2039	317.3117	99.5005	48.303	2.150	1.587	36.9737	48.323
2040	316.3000	99.1402	39.927	2.150	1.587	35.9620	39.941
2041	317.9706	99.2515	47.359	2.150	1.587	37.6326	47.377
2042	317.1577	99.3117	47.916	2.150	1.587	36.8197	47.935
2043	328.3741	99.2716	50.652	2.150	1.587	48.0361	50.672
2044	336.4677	99.2002	47.028	2.150	1.587	56.1297	47.046
2045	337.3574	99.2554	47.488	2.150	1.587	57.0194	47.506
2046	326.1182	99.3424	51.576	2.150	1.587	45.7802	51.597
2047	316.8676	99.1585	42.255	2.150	1.587	36.5296	42.270
2048	65.4298	98.7840	32.959	2.150	1.587	185.0918	32.968
2049	66.5804	98.6956	33.223	2.150	1.587	186.2424	33.231
2050	66.5924	98.6995	33.864	2.150	1.587	186.2544	33.872
2051	62.1958	98.7666	35.633	2.150	1.587	181.8578	35.642

2052	61.0753	98.8687	34.694	2.150	1.587	180.7373	34.704
2053	58.4216	98.9168	37.481	2.150	1.587	178.0836	37.493
2054	57.5646	98.9280	37.643	2.150	1.587	177.2266	37.655
2055	56.6660	98.9194	37.514	2.150	1.587	176.3280	37.526
2056	56.5353	98.9711	37.175	2.150	1.587	176.1973	37.187
2057	56.7069	98.9451	36.831	2.150	1.587	176.3689	36.843
2057	57.5563	98.7450	37.012	2.150	1.587	177.2183	37.022
2058	60.4903	98.6404	36.193	2.150	1.587	180.1523	36.201
2059	60.6971	98.5765	35.080	2.150	1.587	180.3591	35.087
2060	62.5273	98.4944	34.747	2.150	1.587	182.1893	34.753
2061	64.5838	98.4567	33.699	2.150	1.587	184.2458	33.704

Coordenadas calculadas

Número	X	Y	Z	
1643	236482.940	4140895.589	8.953	
1644	236483.952	4140896.388	8.870	
1645	236486.032	4140896.255	8.894	
1646	236487.109	4140895.069	9.096	
1647	236482.999	4140892.765	9.136	
1648	236481.432	4140892.590	9.064	
1649	236477.011	4140894.988	9.055	
1650	236475.305	4140894.164	9.068	
1651	236473.581	4140894.219	9.121	
1652	236472.182	4140886.398	9.184	
1653	236474.735	4140883.425	9.285	
1654	236471.734	4140884.797	9.257	
1655	236468.638	4140886.237	9.252	
1656	236466.279	4140887.394	9.250	
1657	236460.236	4140890.640	9.275	
1658	236461.893	4140890.822	9.188	
1659	236477.474	4140883.221	9.147	
1660	236518.798	4140873.143	9.029	
1661	236523.386	4140880.106	9.188	
1662	236524.637	4140879.576	9.182	
1663	236524.159	4140879.637	9.190	
1664	236544.561	4140872.220	9.014	
1665	236543.450	4140869.101	9.180	
1666	236543.051	4140864.250	9.189	
1667	236543.476	4140861.453	9.163	
1668	236544.713	4140852.843	8.971	
1669	236544.709	4140850.954	8.925	
1670	236542.497	4140843.868	8.851	
1671	236540.424	4140844.325	8.874	
1672	236542.807	4140851.874	9.056	
1673	236542.788	4140852.239	9.056	
1674	236542.592	4140852.876	9.068	
1675	236541.933	4140856.553	9.087	
1676	236540.973	4140863.476	9.171	
1677	236540.752	4140866.363	9.153	
1678	236541.371	4140870.227	9.175	
1679	236543.454	4140869.467	9.184	
1680	236543.880	4140869.486	9.184	
1681	236545.311	4140870.416	9.174	
1682	236545.542	4140870.332	9.174	
1683	236545.093	4140869.008	9.191	
1684	236544.712	4140868.223	9.178	
1685	236545.479	4140868.684	9.167	
1686	236545.095	4140867.336	9.169	
1687	236547.056	4140867.691	9.192	
1688	236546.803	4140861.164	9.136	
1689	236546.989	4140861.340	9.104	
1690	236545.349	4140854.713	9.027	
1691	236541.868	4140844.317	8.873	
1692	236540.487	4140844.693	8.893	
1693	236542.772	4140852.143	9.023	

1694	236542.580	4140851.381	9.046
1695	236544.059	4140858.253	9.056
1696	236543.937	4140858.742	9.084
1697	236544.101	4140859.129	9.085
1698	236544.943	4140858.980	9.073
1699	236544.659	4140858.100	9.060
1700	236542.362	4140859.195	9.128
1701	236542.102	4140865.033	9.168
1702	236542.261	4140866.149	9.166
1703	236540.659	4140865.342	9.141
1704	236540.948	4140866.580	9.145
1705	236541.634	4140866.412	9.146
1706	236539.154	4140866.777	9.117
1707	236535.855	4140860.251	9.113
1708	236534.157	4140857.806	9.078
1709	236531.922	4140860.930	9.102
1710	236532.035	4140864.152	9.047
1711	236534.130	4140857.852	9.080
1712	236535.811	4140860.305	9.115
1713	236539.135	4140857.586	9.131
1714	236539.122	4140866.890	9.129
1715	236530.954	4140866.087	9.001
1716	236525.521	4140867.970	9.020
1717	236526.826	4140868.303	9.024
1718	236530.441	4140864.954	9.028
1719	236531.001	4140865.772	9.024
1720	236534.445	4140864.426	9.086
1721	236533.979	4140863.438	9.069
1722	236535.212	4140864.120	9.083
1723	236539.201	4140862.374	9.153
1724	236539.520	4140861.021	9.165
1725	236531.697	4140858.320	9.152
1726	236537.487	4140847.703	8.976
1727	236536.107	4140842.972	8.981
1728	236535.898	4140843.207	9.208
1729	236537.177	4140847.630	9.217
1730	236531.500	4140858.141	9.235
1731	236533.521	4140855.387	9.102
1732	236542.423	4140842.858	8.671
1733	236545.367	4140852.345	8.827
1734	236546.302	4140855.285	8.904
1735	236544.900	4140855.808	8.992
1736	236545.523	4140857.862	9.017
1737	236546.942	4140857.403	8.939
1738	236548.496	4140862.386	9.002
1739	236548.447	4140866.818	9.018
1740	236546.510	4140870.760	9.032
1741	236548.196	4140860.116	8.974
1742	236548.643	4140859.991	8.990
1743	236546.737	4140855.334	8.921
1744	236557.233	4140857.427	9.141
1745	236555.767	4140852.666	9.096
1746	236545.143	4140872.774	9.022
1747	236548.898	4140882.374	9.056
1748	236542.059	4140885.131	9.073
1749	236541.897	4140884.655	9.081
1750	236548.378	4140883.129	9.005
1751	236549.726	4140884.113	9.038
1752	236550.670	4140886.060	9.068
1753	236553.934	4140883.267	9.051
1754	236553.212	4140883.490	9.015
1755	236553.631	4140884.598	8.995
1756	236554.614	4140884.922	9.049
1757	236546.629	4140887.297	9.092

1758	236547.843	4140887.337	9.095	1822	236552.147	4140899.520	9.059
1759	236548.547	4140888.221	9.137	1823	236553.198	4140898.959	9.065
1760	236551.651	4140890.284	9.159	1824	236550.926	4140900.141	9.042
1761	236554.120	4140890.555	9.140	1825	236551.567	4140900.608	9.201
1762	236553.826	4140891.826	9.143	1826	236551.647	4140900.833	9.203
1763	236555.285	4140889.073	9.078	1827	236552.611	4140904.423	9.147
1764	236552.961	4140888.891	9.123	1828	236551.525	4140906.664	9.154
1765	236553.297	4140889.667	9.145	1829	236550.434	4140906.191	9.182
1766	236552.422	4140890.044	9.154	1830	236550.057	4140906.039	9.284
1767	236550.864	4140890.989	9.171	1831	236549.739	4140905.838	9.425
1768	236547.318	4140889.926	9.106	1832	236546.823	4140905.076	9.585
1769	236546.909	4140888.794	9.087	1833	236552.635	4140909.368	9.102
1770	236546.249	4140889.043	9.078	1834	236552.201	4140910.331	9.110
1771	236545.009	4140889.615	9.085	1835	236548.325	4140908.478	9.611
1772	236545.432	4140890.758	9.103	1836	236546.789	4140908.092	9.776
1773	236544.775	4140891.003	9.108	1837	236545.687	4140908.230	9.941
1774	236539.997	4140887.059	9.198	1838	236544.241	4140908.806	10.056
1775	236541.889	4140889.447	9.101	1839	236544.340	4140909.002	9.901
1776	236543.090	4140887.183	9.148	1840	236545.786	4140908.426	9.870
1777	236546.631	4140887.705	9.110	1841	236547.175	4140908.364	9.845
1778	236547.406	4140887.704	9.107	1842	236548.292	4140908.735	9.832
1779	236547.920	4140887.582	9.091	1843	236554.861	4140911.875	9.133
1780	236546.559	4140884.143	9.025	1844	236554.964	4140911.699	9.040
1781	236548.699	4140883.482	8.990	1845	236536.325	4140906.909	10.086
1782	236549.877	4140886.442	9.070	1846	236536.446	4140906.677	10.348
1783	236550.301	4140886.744	9.037	1847	236536.157	4140905.896	10.386
1784	236555.141	4140884.971	9.025	1848	236541.834	4140904.940	10.072
1785	236557.088	4140886.823	9.035	1849	236541.976	4140904.630	10.356
1786	236552.318	4140888.539	9.094	1850	236542.239	4140905.263	10.364
1787	236554.270	4140890.167	9.133	1851	236542.539	4140905.721	10.345
1788	236555.207	4140892.242	9.065	1852	236543.111	4140905.815	10.343
1789	236557.113	4140898.034	9.044	1853	236542.781	4140906.070	10.034
1790	236554.942	4140898.746	9.070	1854	236542.360	4140905.893	10.052
1791	236552.999	4140892.520	9.138	1855	236542.016	4140905.460	10.044
1792	236552.516	4140893.119	9.119	1856	236546.087	4140903.878	9.860
1793	236550.567	4140893.488	9.161	1857	236546.573	4140902.668	9.932
1794	236549.646	4140893.604	9.154	1858	236546.488	4140902.179	9.962
1795	236553.208	4140893.049	9.078	1859	236546.167	4140901.979	10.013
1796	236552.714	4140891.744	9.169	1860	236546.188	4140902.224	10.228
1797	236551.746	4140890.726	9.169	1861	236546.355	4140902.328	10.299
1798	236549.788	4140889.385	9.133	1862	236546.363	4140902.635	10.351
1799	236546.327	4140890.164	9.092	1863	236545.658	4140904.232	10.337
1800	236541.696	4140889.416	9.107	1864	236550.979	4140900.406	9.974
1801	236525.062	4140909.051	9.077	1865	236551.236	4140900.563	9.964
1802	236525.471	4140908.889	9.080	1866	236551.443	4140900.914	9.957
1803	236525.307	4140908.416	9.071	1867	236552.383	4140904.428	9.910
1804	236524.877	4140908.579	9.068	1868	236551.353	4140906.413	9.906
1805	236526.119	4140909.386	9.087	1869	236551.211	4140900.267	9.214
1806	236525.663	4140908.319	9.072	1870	236552.642	4140899.798	9.145
1807	236526.279	4140907.222	9.066	1871	236553.066	4140901.158	9.161
1808	236528.634	4140906.057	9.057	1872	236551.844	4140901.493	9.188
1809	236530.456	4140905.256	9.051	1873	236552.480	4140900.007	9.157
1810	236533.373	4140904.154	9.044	1874	236552.832	4140901.114	9.163
1811	236533.811	4140905.209	9.045	1875	236551.983	4140901.382	9.181
1812	236534.094	4140904.941	9.033	1876	236553.265	4140901.684	9.155
1813	236534.547	4140906.037	9.052	1877	236553.633	4140903.204	9.129
1814	236535.987	4140905.338	9.034	1878	236553.012	4140903.406	9.142
1815	236535.576	4140904.225	9.020	1879	236552.349	4140902.484	9.179
1816	236535.546	4140904.610	9.028	1880	236560.115	4140913.927	8.935
1817	236535.163	4140903.533	9.027	1881	236559.376	4140912.335	8.943
1818	236539.021	4140902.041	9.018	1882	236557.604	4140907.915	9.003
1819	236542.965	4140900.572	9.008	1883	236555.503	4140900.641	9.109
1820	236546.545	4140899.194	9.007	1884	236558.371	4140902.382	9.084
1821	236551.328	4140897.369	9.060	1885	236560.310	4140908.999	8.981

1886	236561.175	4140910.789	8.971	1950	236580.615	4140874.057	9.312
1887	236564.243	4140916.784	8.857	1951	236572.885	4140876.997	9.332
1888	236564.310	4140916.327	8.690	1952	236581.394	4140874.840	9.189
1889	236563.024	4140911.886	8.731	1953	236582.077	4140877.124	9.148
1890	236562.646	4140911.233	8.952	1954	236579.348	4140875.641	9.314
1891	236562.318	4140910.020	8.965	1955	236579.839	4140877.998	9.293
1892	236561.129	4140910.446	8.971	1956	236574.357	4140880.145	9.310
1893	236561.703	4140911.642	8.956	1957	236573.549	4140877.899	9.298
1894	236559.744	4140906.769	9.031	1958	236580.600	4140878.114	9.281
1895	236560.846	4140904.730	9.038	1959	236582.199	4140883.540	9.260
1896	236560.743	4140903.818	8.859	1960	236583.831	4140883.007	9.219
1897	236559.517	4140899.334	9.004	1961	236582.193	4140877.508	9.155
1898	236561.316	4140898.786	8.983	1962	236578.762	4140880.355	9.306
1899	236560.585	4140896.260	9.022	1963	236578.360	4140881.207	9.302
1900	236558.837	4140890.768	9.056	1964	236576.146	4140881.976	9.331
1901	236557.235	4140891.321	9.059	1965	236575.421	4140882.108	9.319
1902	236555.966	4140887.653	9.047	1966	236571.136	4140886.184	9.306
1903	236557.512	4140887.105	8.926	1967	236567.528	4140884.737	9.222
1904	236559.600	4140892.883	8.951	1968	236568.226	4140885.108	9.272
1905	236554.815	4140884.560	8.918	1969	236569.365	4140885.349	9.290
1906	236551.306	4140883.297	8.928	1970	236575.184	4140883.061	9.349
1907	236546.152	4140884.156	8.933	1971	236580.479	4140880.924	9.290
1908	236540.105	4140886.562	8.966	1972	236583.989	4140882.959	9.085
1909	236579.308	4140929.430	8.820	1973	236582.562	4140885.195	9.284
1910	236581.452	4140929.510	9.050	1974	236581.777	4140885.420	9.273
1911	236582.041	4140928.578	9.065	1975	236579.352	4140885.924	9.312
1912	236579.473	4140922.784	9.052	1976	236578.637	4140886.906	9.319
1913	236580.020	4140921.752	9.117	1977	236578.241	4140885.345	9.328
1914	236576.221	4140918.863	8.881	1978	236578.346	4140885.778	9.201
1915	236577.496	4140916.016	9.088	1979	236573.640	4140887.302	9.187
1916	236578.057	4140914.997	9.127	1980	236574.158	4140887.894	9.340
1917	236575.522	4140909.255	9.164	1981	236572.858	4140887.348	9.342
1918	236576.053	4140908.251	9.176	1982	236573.654	4140886.411	9.351
1919	236576.501	4140909.476	9.184	1983	236575.611	4140893.360	9.295
1920	236573.473	4140909.486	8.998	1984	236575.164	4140894.753	9.297
1921	236573.192	4140904.441	9.132	1985	236576.542	4140894.312	9.304
1922	236573.547	4140902.522	9.178	1986	236579.484	4140893.059	9.301
1923	236574.087	4140901.483	9.210	1987	236580.396	4140891.998	9.291
1924	236571.304	4140899.850	9.154	1988	236580.496	4140893.597	9.278
1925	236571.267	4140899.611	9.161	1989	236580.150	4140892.844	9.160
1926	236572.628	4140899.251	9.201	1990	236579.993	4140884.579	9.308
1927	236571.407	4140896.583	9.208	1991	236578.993	4140883.610	9.318
1928	236570.153	4140898.102	9.059	1992	236578.848	4140883.792	9.324
1929	236571.563	4140895.755	9.234	1993	236584.750	4140887.403	9.217
1930	236572.097	4140894.713	9.258	1994	236582.769	4140891.123	9.241
1931	236568.966	4140890.115	9.225	1995	236582.891	4140891.905	9.244
1932	236568.223	4140889.035	9.216	1996	236583.208	4140892.596	9.240
1933	236567.822	4140889.502	9.198	1997	236583.532	4140891.416	9.235
1934	236569.475	4140889.036	9.251	1998	236584.303	4140891.190	9.233
1935	236567.749	4140883.200	9.252	1999	236587.105	4140893.617	9.042
1936	236566.165	4140883.795	9.153	2000	236586.286	4140897.944	9.180
1937	236567.417	4140888.657	9.127	2001	236585.813	4140899.017	9.200
1938	236565.205	4140881.158	9.143	2002	236585.743	4140901.196	9.203
1939	236565.347	4140881.116	9.160	2003	236582.596	4140900.254	9.259
1940	236566.016	4140883.396	9.144	2004	236582.049	4140898.755	9.268
1941	236567.604	4140880.252	9.292	2005	236581.319	4140899.648	9.282
1942	236568.564	4140882.436	9.285	2006	236581.978	4140899.554	9.186
1943	236564.956	4140880.378	9.160	2007	236580.926	4140900.244	9.257
1944	236564.984	4140879.674	9.176	2008	236580.407	4140900.432	9.269
1945	236565.487	4140879.145	9.183	2009	236581.670	4140898.471	9.271
1946	236571.612	4140876.662	9.191	2010	236581.526	4140897.855	9.275
1947	236580.000	4140873.296	9.209	2011	236581.819	4140897.815	9.280
1948	236580.693	4140873.269	9.212	2012	236578.253	4140900.301	9.248
1949	236581.286	4140873.828	9.201	2013	236577.252	4140900.331	9.243

2014	236577.221	4140901.877	9.228				
2015	236577.620	4140900.612	9.086				
2016	236590.059	4140903.605	9.000				
2017	236587.734	4140905.695	9.202				
2018	236584.302	4140905.597	9.210				
2019	236583.321	4140905.914	9.221				
2020	236583.789	4140907.122	9.216				
2021	236584.373	4140905.573	9.214				
2022	236580.359	4140907.113	9.247				
2023	236578.887	4140907.349	9.233				
2024	236579.374	4140908.357	9.240				
2025	236584.163	4140909.508	9.219				
2026	236584.803	4140911.521	9.208				
2027	236589.707	4140912.451	9.157				
2028	236590.280	4140911.436	9.135				
2029	236592.103	4140910.583	8.993				
2030	236592.264	4140918.181	9.156				
2031	236591.693	4140919.210	9.166				
2032	236591.780	4140919.587	9.158				
2033	236593.639	4140925.962	9.162				
2034	236594.234	4140924.965	9.118				
2035	236596.378	4140925.158	8.913				
2036	236590.001	4140929.192	9.152				
2037	236595.332	4140932.169	8.868				
2038	236591.618	4140935.509	8.888				
2039	236585.604	4140935.997	8.860				
2040	236580.472	4140929.333	9.020				
2041	236585.494	4140934.934	9.038				
2042	236585.294	4140935.735	8.999				
2043	236593.798	4140932.515	9.061				
2044	236595.401	4140925.511	9.072				
2045	236596.175	4140925.288	9.036				
2046	236593.078	4140934.417	9.014				
2047	236582.036	4140931.097	9.039				
2048	236566.740	4140863.529	9.110				
2049	236566.216	4140863.139	9.162				
2050	236566.347	4140862.511	9.173				
2051	236569.111	4140861.392	9.171				
2052	236569.432	4140862.469	9.097				
2053	236571.744	4140860.304	9.119				
2054	236572.275	4140860.326	9.115				
2055	236572.724	4140860.636	9.118				
2056	236572.673	4140860.979	9.082				
2057	236572.454	4140861.263	9.091				
2057	236572.058	4140860.920	9.210				
2058	236570.195	4140861.141	9.254				
2059	236569.744	4140862.166	9.265				
2060	236568.687	4140862.195	9.303				
2061	236567.346	4140862.919	9.298				
Radiación desde la estación 8007							
X	236571.015	Desorientación	368.5376				
Y	4140881.876	Nombre					
Z	9.305	Coef. anamorfosis	1.0004549492				
Visuales utilizadas							
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
2062	260.3141	101.0097	34.242	1.300	1.613	228.8517	34.253
2063	260.8479	101.0192	32.452	1.300	1.613	229.3855	32.463
2064	261.3376	101.0724	30.831	1.300	1.613	229.8752	30.841
2065	262.0388	101.0428	28.875	1.300	1.613	230.5764	28.884
2066	260.3561	100.9804	27.893	1.300	1.613	228.8937	27.902
2067	257.8434	100.8942	27.359	1.300	1.613	226.3810	27.369
2068	241.4646	100.8954	27.714	1.300	1.613	210.0022	27.724
2069	224.0463	101.0450	30.346	1.300	1.613	192.5839	30.356
2070	225.8737	101.0191	32.604	1.300	1.613	194.4113	32.615

2071	227.1860	100.9922	34.524	1.300	1.613	195.7236	34.535
2072	230.8793	100.9254	40.556	1.300	1.613	199.4169	40.570
2073	232.9197	100.6484	37.911	1.300	1.613	201.4573	37.926
2074	234.5260	100.6401	38.403	1.300	1.613	203.0636	38.418
2075	228.9779	100.6990	31.196	1.300	1.613	197.5155	31.208
2076	236.6197	100.5316	31.093	1.300	1.613	205.1573	31.106
2077	237.4528	100.5080	29.983	1.300	1.613	205.9904	29.996
2078	239.9489	100.4762	30.732	1.300	1.613	208.4865	30.745
2079	247.5682	100.5157	29.956	1.300	1.613	216.1058	29.969
2080	249.2984	100.5450	29.286	1.300	1.613	217.8360	29.298
2081	251.0156	100.5453	30.134	1.300	1.613	219.5532	30.147
2082	255.6412	100.6195	29.663	1.300	1.613	224.1788	29.675
2083	257.1810	100.6197	30.501	1.300	1.613	225.7186	30.513
2084	254.5948	100.6947	37.443	1.300	1.613	223.1324	37.458
2085	256.1055	100.7223	36.671	1.300	1.613	224.6431	36.685
2086	255.1498	100.7886	36.988	1.300	1.613	223.6874	37.002
2087	234.0932	100.6629	38.087	1.300	1.613	202.6308	38.102
2088	230.5834	100.6545	31.239	1.300	1.613	199.1210	31.252
2089	237.6132	100.4802	30.789	1.300	1.613	206.1508	30.802
2090	249.6639	100.5046	30.203	1.300	1.613	218.2015	30.216
2091	240.5782	100.7485	37.370	1.300	1.613	209.1158	37.384
2092	255.8727	100.5777	33.562	1.300	1.613	224.4103	33.576
2093	257.8538	100.6297	28.711	1.300	1.613	226.3914	28.723
2094	243.4311	100.4615	30.271	1.300	1.613	211.9687	30.284
2095	229.6698	100.6800	35.250	1.300	1.613	198.2074	35.264
2096	229.6554	100.6777	35.212	1.300	1.613	198.1930	35.226
2097	228.1144	100.6775	34.517	1.300	1.613	196.6520	34.531
2098	231.0658	100.6227	30.550	1.300	1.613	199.6034	30.562
2099	259.1258	100.6651	33.159	1.300	1.613	227.6634	33.172
2100	238.1420	100.5189	29.538	1.300	1.613	206.6796	29.550
2101	236.3964	100.5477	29.723	1.300	1.613	204.9340	29.735
2102	228.0134	100.6953	31.232	1.300	1.613	196.5510	31.244
2103	262.1582	101.0021	32.904	1.300	1.613	230.6958	32.915
2104	264.0671	101.1031	28.112	1.300	1.613	232.6047	28.121
2105	260.0797	100.6849	29.321	1.300	1.613	228.6173	29.333
2106	259.3262	100.7836	30.746	1.300	1.613	227.8638	30.758
2107	258.9545	100.7838	32.352	1.300	1.613	227.4921	32.364
2108	230.4475	100.6648	33.531	1.300	1.613	198.9851	33.544
2109	229.2835	100.6821	31.938	1.300	1.613	197.8211	31.951
2110	264.3122	101.1167	26.558	1.300	1.613	232.8498	26.566
2111	264.6162	101.1026	26.197	1.300	1.613	233.1538	26.205
2112	284.9961	101.3060	29.871	1.300	1.613	253.5337	29.878
2113	284.6342	101.3047	30.189	1.300	1.613	253.1718	30.196
2114	263.5015	101.0767	28.192	1.300	1.613	232.0391	28.201
2115	264.2655	101.1118	26.436	1.300	1.613	232.8031	26.444
2116	259.0970	100.9602	26.711	1.300	1.613	227.6346	26.720
2117	263.5497	101.1855	23.596	1.300	1.613	232.0873	23.603
2118	252.8303	101.1276	23.441	1.300	1.613	221.3679	23.448
2119	234.4983	101.1613	24.775	1.300	1.613	203.0359	24.782
2120	226.3132	101.1363	26.069	1.300	1.613	194.8508	26.077
2121	227.6725	101.0212	29.082	1.300	1.613	196.2101	29.091
2122	226.7804	101.0429	29.249	1.300	1.613	195.3180	29.258
2123	221.9908	101.5723	21.744	1.300	1.613	190.5284	21.747
2124	223.2457	101.5547	21.901	1.300	1.613	191.7833	21.904
2125	221.1406	100.9644	21.631	1.500	1.613	189.6782	21.638
2126	226.2396	100.9172	21.680	1.500	1.613	194.7772	21.688
2127	225.6934	101.0164	20.820	1.500	1.613	194.2310	20.827
2128	221.9860	100.9288	19.798	1.500	1.613	190.5236	19.805
2129	216.5889	100.6957	17.346	1.500	1.613	185.1265	17.353
2130	203.3683	100.5318	18.786	1.500	1.613	171.9059	18.794
2131	229.1922	100.7439	13.945	1.500	1.613	197.7298	13.950
2132	249.2441	100.8001	12.954	1.500	1.613	217.7817	12.959
2133	278.6934	100.8366	13.718	1.500	1.613	247.2310	13.723
2134	259.2573	100.8363	11.612	1.500	1.613	227.7949	11.616

2135	259.9322	101.4052	8.575	1.500	1.613	228.4698	8.577	2199	161.4274	100.1778	26.305	1.500	1.613	129.9650	26.317
2136	281.7868	100.9182	11.203	1.500	1.613	250.3244	11.207	2200	155.6975	100.1635	26.113	1.500	1.613	124.2351	26.125
2137	282.9204	101.0031	10.955	1.500	1.613	251.4580	10.959	2201	162.7085	100.7240	22.670	1.500	1.613	131.2461	22.679
2138	223.2033	100.8470	11.672	1.500	1.613	191.7409	11.676	2202	156.0733	100.9473	21.243	1.500	1.613	124.6109	21.250
2139	219.8054	100.8464	11.671	1.500	1.613	188.3430	11.675	2203	154.8935	101.0001	20.995	1.500	1.613	123.4311	21.002
2140	220.6287	100.9636	10.932	1.500	1.613	189.1663	10.936	2204	136.1161	101.0307	21.468	1.500	1.613	104.6537	21.475
2141	219.3550	100.9974	10.579	1.500	1.613	187.8926	10.582	2205	137.6555	100.7875	23.396	1.500	1.613	106.1931	23.405
2142	218.6145	100.9048	11.438	1.500	1.613	187.1521	11.442	2206	166.3860	100.2308	37.176	1.500	1.613	134.9236	37.193
2143	215.5806	100.9748	11.299	1.500	1.613	184.1182	11.303	2207	163.6729	100.1961	36.950	1.500	1.613	132.2105	36.967
2144	217.0623	101.1467	9.976	1.500	1.613	185.5999	9.979	2208	163.7861	100.3035	35.891	1.500	1.613	132.3237	35.907
2145	215.7711	101.2313	9.669	1.500	1.613	184.3087	9.672	2209	166.6983	100.4472	36.099	1.500	1.613	135.2359	36.114
2146	213.9880	100.8607	11.827	1.500	1.613	182.5256	11.831	2210	164.7627	100.3281	32.471	1.500	1.613	133.3003	32.485
2147	178.9481	100.9323	13.402	1.500	1.613	147.4857	13.407	2211	167.4777	100.5654	24.858	1.500	1.613	136.0153	24.868
2148	187.7010	100.9316	13.085	1.500	1.613	156.2386	13.090	2212	154.8258	100.5399	23.051	1.500	1.613	123.3634	23.061
2149	193.3234	101.0016	12.256	1.500	1.613	161.8610	12.260	2213	160.3712	100.1249	37.067	1.500	1.613	128.9088	37.084
2150	229.8163	101.6895	7.686	1.500	1.613	198.3539	7.687	2214	160.0350	100.0976	35.708	1.500	1.613	128.5726	35.724
2151	280.7984	101.7685	7.720	1.500	1.613	249.3360	7.721	2215	162.3534	100.2068	35.845	1.500	1.613	130.8910	35.861
2152	296.2977	101.7118	7.863	1.500	1.613	264.8353	7.864	2216	162.1041	100.5133	37.130	1.300	1.613	130.6417	37.146
2153	309.5963	102.0481	7.142	1.500	1.613	278.1339	7.142	2217	157.9533	100.4931	40.551	1.300	1.613	126.4909	40.568
2154	321.5257	102.3786	6.736	1.500	1.613	290.0633	6.734	2218	157.2891	100.4528	39.955	1.300	1.613	125.8267	39.972
2155	324.3223	102.2269	7.103	1.500	1.613	292.8599	7.102	2219	156.0350	100.4525	39.967	1.300	1.613	124.5726	39.984
2156	399.6799	102.0238	8.420	1.500	1.613	368.2175	8.420	2220	156.0187	100.4226	41.135	1.300	1.613	124.5563	41.153
2157	396.9531	101.9515	8.742	1.500	1.613	365.4907	8.742	2221	157.9144	100.4920	41.259	1.300	1.613	126.4520	41.276
2158	375.9537	101.5358	14.776	1.500	1.613	344.4913	14.778	2222	156.7397	100.5443	40.631	1.300	1.613	125.2773	40.648
2159	379.1730	101.4692	15.447	1.500	1.613	347.7106	15.450	2223	160.4729	100.4963	36.475	1.300	1.613	129.0105	36.490
2160	380.5025	101.4689	15.641	1.500	1.613	349.0401	15.644	2224	161.5390	100.5403	35.645	1.300	1.613	130.0766	35.660
2161	5.8656	102.0187	8.886	1.500	1.613	374.4032	8.886	2225	163.1842	100.5873	34.622	1.300	1.613	131.7218	34.636
2162	18.5093	101.5974	11.936	1.500	1.613	387.0469	11.938	2226	162.3779	100.6045	34.016	1.300	1.613	130.9155	34.030
2163	19.3472	101.6213	12.279	1.500	1.613	387.8848	12.281	2227	160.9458	100.5195	33.525	1.300	1.613	129.4834	33.539
2164	391.9815	101.4012	17.622	1.500	1.613	360.5191	17.626	2228	152.0691	100.3868	34.790	1.300	1.613	120.6067	34.805
2165	18.0952	101.3984	14.797	1.500	1.613	386.6328	14.800	2229	151.0298	100.3479	35.298	1.300	1.613	119.5674	35.313
2166	8.4024	101.3994	16.225	1.500	1.613	376.9400	16.228	2230	150.9615	100.3749	34.008	1.300	1.613	119.4991	34.023
2167	0.4557	101.4144	17.942	1.500	1.613	368.9933	17.946	2231	160.7716	100.5312	30.355	1.300	1.613	129.3092	30.368
2168	149.2357	101.4675	12.234	1.500	1.613	117.7733	12.236	2232	158.9075	100.5315	30.198	1.300	1.613	127.4451	30.211
2169	149.3707	101.3758	12.762	1.500	1.613	117.9083	12.765	2233	159.0367	100.5453	29.302	1.300	1.613	127.5743	29.314
2170	171.6760	101.0884	12.919	1.500	1.613	140.2136	12.923	2234	153.0725	100.5999	26.919	1.300	1.613	121.6101	26.930
2171	164.9552	100.7086	21.365	1.500	1.613	133.4928	21.373	2235	151.9231	100.6416	26.202	1.300	1.613	120.4607	26.213
2172	151.6778	101.0630	20.701	1.500	1.613	120.2154	20.707	2236	148.7597	100.9079	24.209	1.300	1.613	117.2973	24.218
2173	84.3908	100.7493	51.389	1.500	1.613	52.9284	51.409	2237	144.4784	100.4900	25.732	1.300	1.613	113.0160	25.743
2174	83.4791	100.8626	46.301	1.500	1.613	52.0167	46.318	2238	144.1946	100.8157	24.518	1.300	1.613	112.7322	24.527
2175	83.9501	100.9352	42.948	1.500	1.613	52.4877	42.963	2239	146.2479	100.8156	24.460	1.300	1.613	114.7855	24.469
2176	85.4998	101.0185	40.160	1.500	1.613	54.0374	40.173	2240	136.1963	100.9491	25.190	1.300	1.613	104.7339	25.199
2177	90.0597	101.2111	35.194	1.500	1.613	58.5973	35.204	2241	134.2308	101.2380	24.160	1.300	1.613	102.7684	24.166
2178	92.8386	101.1484	36.341	1.500	1.613	61.3762	36.352	2242	153.4483	101.2450	22.370	1.300	1.613	121.9859	22.376
2179	102.4299	101.2260	31.007	1.500	1.613	70.9675	31.015	2243	165.4312	100.9781	24.926	1.300	1.613	133.9688	24.934
2180	133.8069	101.0407	23.472	1.500	1.613	102.3445	23.480	2244	163.0761	100.7930	25.532	1.300	1.613	131.6137	25.542
2181	132.4802	101.0566	21.593	1.500	1.613	101.0178	21.600	2245	168.1939	100.9216	27.529	1.300	1.613	136.7315	27.539
2182	155.0485	101.0192	20.997	1.500	1.613	123.5861	21.004	2246	167.8842	100.8520	29.787	1.300	1.613	136.4218	29.798
2183	160.7930	100.9027	21.856	1.500	1.613	129.3306	21.864	2247	147.7167	100.1807	35.487	1.300	1.613	116.2543	35.503
2184	165.8200	100.6397	23.646	1.500	1.613	134.3576	23.656	2248	147.0512	100.2331	33.092	1.300	1.613	115.5888	33.107
2185	167.9927	100.5685	24.948	1.500	1.613	136.5303	24.958	2249	131.8959	99.1058	27.938	2.000	1.613	100.4335	27.948
2186	169.3675	100.5327	29.778	1.500	1.613	137.9051	29.790	2250	126.8251	99.0159	28.957	2.000	1.613	95.3627	28.967
2187	167.1692	100.6036	35.366	1.500	1.613	135.7068	35.380	2251	126.4066	99.3711	28.145	2.000	1.613	94.9442	28.156
2188	166.6502	100.4993	36.985	1.500	1.613	135.1878	37.001	2252	121.4708	99.4672	29.047	2.000	1.613	90.0084	29.059
2189	164.8870	100.4233	44.101	1.500	1.613	133.4246	44.120	2253	122.5494	99.1561	29.946	2.000	1.613	91.0870	29.957
2190	164.8375	100.1974	37.419	1.500	1.613	133.3751	37.436	2254	105.9105	99.7211	36.561	2.000	1.613	74.4481	36.577
2191	158.6600	100.1978	40.445	1.500	1.613	127.1976	40.463	2255	103.8762	99.7846	35.465	2.000	1.613	72.4138	35.481
2192	156.6055	100.1371	38.745	1.500	1.613	125.1431	38.762	2256	93.1965	99.8823	42.082	2.000	1.613	61.7341	42.101
2193	155.1380	100.1302	35.937	1.500	1.613	123.6756	35.953	2257	84.8542	100.0051	45.121	2.000	1.613	53.3918	45.141
2194	159.3276	100.1176	35.918	1.500	1.613	127.8652	35.934	2258	87.2204	99.9705	43.006	2.000	1.613	55.7580	43.025
2195	159.6768	100.0990	36.967	1.500	1.613	128.2144	36.984	2259	86.0924	99.9701	43.083	2.000	1.613	54.6300	43.103
2196	160.6743	100.1872	37.993	1.500	1.613	129.2119	38.010	2260	85.8193	99.9919	41.865	2.000	1.613	54.3569	41.884
2197	155.3239	100.1406	31.194	1.500	1.613	123.8615	31.208	2261	91.4434	99.9375	41.460	2.000	1.613	59.9810	41.479
2198	160.2161	100.1425	31.243	1.500	1.613	128.7537	31.257	2262	91.6573	99.9526	39.934	2.000	1.613	60.1949	39.952

2263	90.1012	99.9822	40.067	2.000	1.613	58.6388	40.085		2326	131.5875	101.6678	21.485	1.300	1.613	100.1251	21.487
2264	95.8975	99.9276	37.972	2.000	1.613	64.4351	37.989		2327	122.5291	101.7889	19.661	1.300	1.613	91.0667	19.662
2265	85.5935	100.2122		39.122	2.000	1.613	54.1311	39.140	2328	103.9505	101.6576	23.726	1.300	1.613	72.4881	23.729
2266	85.5766	101.3506		39.076	1.300	1.613	54.1142	39.085	2329	89.2523	101.4167	30.724	1.300	1.613	57.7899	30.730
2267	89.9546	101.5651		34.811	1.300	1.613	58.4922	34.816	2330	78.9196	101.1175	40.252	1.300	1.613	47.4572	40.264
2268	102.8190	101.6264			1.300	1.613	71.3566	27.951	2331	74.1944	100.9571	47.498	1.300	1.613	42.7320	47.514
2269	131.3426	101.6720			1.300	1.613	99.8802	21.593	2332	69.8162	100.8571	56.576	1.300	1.613	38.3538	56.597
2270	183.5046	100.7109			1.300	1.613	152.0422	44.283	2333	66.1887	100.8356	56.919	1.300	1.613	34.7263	56.940
2271	188.3080	100.8162			1.300	1.613	156.8456	38.134	2334	70.4827	100.9380	46.895	1.300	1.613	39.0203	46.911
2272	196.2517	101.1424			1.300	1.613	164.7893	35.056	2335	80.0344	101.2637	32.799	1.300	1.613	48.5720	32.807
2273	204.5609	101.2498			1.300	1.613	173.0985	35.795	2336	95.5445	101.6464	22.792	1.300	1.613	64.0821	22.795
2274	210.2864	101.1970			1.300	1.613	178.8240	39.309	2337	119.1460	102.0741	16.969	1.300	1.613	87.6836	16.968
2275	210.9947	101.1752			1.300	1.613	179.5323	39.890	2338	75.0598	101.1456	35.495	1.300	1.613	43.5974	35.505
2276	214.6679	101.1237			1.300	1.613	183.2055	43.460	2339	79.4535	101.1622	36.496	1.300	1.613	47.9911	36.506
2277	212.9982	100.8351			1.300	1.613	181.5358	43.865	2340	83.8104	101.2906	37.748	1.300	1.613	52.3480	37.757
2278	210.0734	100.8433			1.300	1.613	178.6110	41.292	8009	70.4332	100.7436	74.927	1.300	1.613	38.9708	74.956
2279	210.2095	100.8659			1.300	1.613	178.7471	40.415	9999	0.0000	103.4911	33.912	0.000	1.613	368.5376	33.876
2280	208.9545	100.8488			1.300	1.613	177.4921	40.435	Coordenadas calculadas							
2280	209.4036	100.8477			1.300	1.613	177.9412	40.471	Número X	Y	Z					
2281	205.9157	100.8650			1.300	1.613	174.4533	38.387	2062	236556.017	4140851.081	9.075				
2282	209.8285	101.2126			1.300	1.613	178.3661	39.032	2063	236556.557	4140852.811	9.099				
2283	209.1337	100.8706			1.300	1.613	177.6713	39.875	2064	236557.068	4140854.369	9.099				
2284	210.8553	101.1470			1.300	1.613	179.3929	38.605	2065	236557.669	4140856.260	9.145				
2285	211.5262	101.1206			1.300	1.613	180.0638	38.297	2066	236558.782	4140856.798	9.189				
2286	211.6775	101.1385			1.300	1.613	180.2151	39.309	2067	236559.995	4140856.824	9.234				
2287	212.3286	101.1166			1.300	1.613	180.8662	39.080	2068	236566.677	4140854.494	9.228				
2288	206.4498	101.2216			1.300	1.613	174.9874	35.402	2069	236574.543	4140851.726	9.120				
2289	222.1917	101.0317			1.300	1.613	190.7293	30.261	2070	236573.874	4140849.387	9.096				
2290	226.1214	100.9450			1.300	1.613	194.6590	34.883	2071	236573.333	4140847.418	9.080				
2291	211.5477	100.7472			1.300	1.613	180.0853	45.582	2072	236571.387	4140841.308	9.029				
2292	205.3877	100.7599			1.300	1.613	173.9253	40.212	2073	236570.147	4140843.960	9.232				
2293	203.7597	100.6446			1.300	1.613	172.2973	41.324	2074	236569.167	4140843.502	9.232				
2294	203.6040	100.6632			1.300	1.613	172.1416	41.086	2075	236572.233	4140850.692	9.276				
2295	203.7636	100.7271			1.300	1.613	172.3012	40.057	2076	236568.498	4140850.872	9.358				
2296	199.7218	100.7618			1.300	1.613	168.2594	37.507	2077	236568.197	4140852.013	9.379				
2297	198.3323	100.7103			1.300	1.613	166.8699	37.493	2078	236566.929	4140851.404	9.388				
2298	198.6516	100.6785			1.300	1.613	167.1892	38.609	2079	236563.514	4140852.861	9.375				
2299	191.9831	100.6845			1.300	1.613	160.5207	44.988	2080	236562.914	4140853.720	9.367				
2300	188.9739	100.6324			1.300	1.613	157.5115	41.660	2081	236561.901	4140853.140	9.360				
2301	187.8895	100.5970			1.300	1.613	156.4271	40.816	2082	236560.013	4140854.316	9.329				
2302	188.2709	100.6179			1.300	1.613	156.8085	39.680	2083	236559.021	4140853.819	9.321				
2303	189.3295	100.6607			1.300	1.613	157.8671	39.359	2084	236557.702	4140846.864	9.209				
2304	189.0319	100.6296			1.300	1.613	157.5695	38.556	2085	236557.166	4140847.905	9.202				
2305	191.3719	100.6727			1.300	1.613	159.9095	38.793	2086	236557.563	4140847.406	9.160				
2306	192.8043	100.7116			1.300	1.613	161.3419	37.448	2087	236569.441	4140843.806	9.221				
2307	196.5354	100.7869			1.300	1.613	165.0730	35.735	2088	236571.447	4140850.627	9.297				
2308	192.0421	100.9890			1.300	1.613	160.5797	34.973	2089	236568.044	4140851.218	9.386				
2309	186.0765	100.7601			1.300	1.613	154.6141	38.855	2090	236562.493	4140852.887	9.379				
2310	190.4982	100.9049			1.300	1.613	159.0358	34.486	2091	236565.680	4140844.874	9.179				
2311	171.2449	100.8832			1.300	1.613	139.7825	30.244	2092	236558.454	4140850.738	9.314				
2312	169.1047	100.8008			1.300	1.613	137.6423	35.252	2093	236559.446	4140855.586	9.334				
2313	168.3688	101.4721			1.300	1.613	136.9064	19.347	2094	236565.355	4140852.126	9.399				
2314	167.3770	101.6383			1.300	1.613	135.9146	17.169	2095	236572.008	4140846.626	9.242				
2315	146.5254	101.9071			1.300	1.613	115.0630	16.767	2096	236572.015	4140846.664	9.243				
2316	144.0129	101.9457			1.300	1.613	112.5505	16.263	2097	236572.830	4140847.393	9.251				
2317	153.3040	101.6587			1.300	1.613	121.8416	20.662	2098	236571.205	4140851.314	9.319				
2318	153.2460	101.6588			1.300	1.613	121.7836	20.232	2099	236557.050	4140851.787	9.272				
2319	151.7166	101.6674			1.300	1.613	120.2542	20.217	2100	236567.920	4140852.488	9.377				
2320	151.6143	101.6678			1.300	1.613	120.1519	20.677	2101	236568.713	4140852.230	9.362				
2321	156.3136	101.6286			1.300	1.613	124.8512	20.823	2102	236572.707	4140850.678	9.277				
2322	157.1234	102.3602			1.300	1.613	125.6610	12.329	2103	236555.752	4140852.714	9.100				
2323	152.1464	102.4825			1.300	1.613	120.6840	12.254	2104	236557.234	4140857.364	9.131				
2324	149.3265	102.5319			1.300	1.613	117.8641	12.200	2105	236558.269	4140855.457	9.303				
2325	120.8176	102.4984			1.300	1.613	89.3552	13.669	2106	236557.979	4140854.018	9.240				

2107	236557.469	4140852.483	9.220	2171	236589.498	4140871.143	9.180
2108	236571.550	4140848.336	9.268	2172	236590.687	4140875.410	9.072
2109	236572.108	4140849.944	9.276	2173	236609.000	4140916.517	8.813
2110	236557.907	4140858.769	9.152	2174	236604.787	4140913.574	8.791
2111	236557.977	4140859.145	9.164	2175	236602.558	4140911.045	8.787
2112	236548.748	4140861.954	9.005	2176	236601.165	4140908.425	8.776
2113	236548.626	4140861.614	8.999	2177	236599.032	4140903.191	8.749
2114	236557.414	4140857.172	9.141	2178	236600.879	4140902.602	8.763
2115	236557.984	4140858.866	9.156	2179	236598.861	4140895.535	8.821
2116	236559.777	4140857.634	9.215	2180	236594.479	4140881.012	9.034
2117	236559.616	4140861.208	9.179	2181	236592.612	4140881.531	9.060
2118	236563.292	4140859.737	9.203	2182	236590.594	4140874.271	9.082
2119	236569.834	4140857.122	9.166	2183	236590.599	4140872.155	9.108
2120	236573.122	4140855.885	9.153	2184	236591.308	4140869.720	9.180
2121	236572.746	4140852.836	9.152	2185	236591.976	4140868.328	9.195
2122	236573.165	4140852.697	9.139	2186	236595.679	4140865.168	9.169
2123	236574.239	4140860.369	9.081	2187	236600.975	4140863.056	9.083
2124	236573.834	4140860.154	9.083	2188	236602.506	4140862.450	9.128
2125	236574.508	4140860.521	9.090	2189	236609.192	4140859.761	9.125
2126	236572.792	4140860.261	9.106	2190	236603.423	4140863.137	9.302
2127	236572.900	4140861.135	9.086	2191	236607.841	4140865.110	9.292
2128	236573.952	4140862.290	9.129	2192	236606.793	4140866.962	9.335
2129	236575.032	4140864.995	9.228	2193	236604.510	4140868.811	9.345
2130	236579.042	4140864.883	9.261	2194	236603.562	4140866.645	9.352
2131	236571.512	4140867.935	9.255	2195	236604.426	4140866.017	9.361
2132	236567.442	4140869.419	9.255	2196	236605.093	4140865.040	9.306
2133	236561.742	4140871.760	9.238	2197	236600.056	4140870.451	9.349
2134	236566.103	4140871.349	9.265	2198	236599.138	4140868.234	9.348
2135	236567.306	4140874.143	9.229	2199	236594.470	4140869.941	9.345
2136	236563.050	4140873.992	9.256	2200	236595.270	4140872.169	9.351
2137	236563.091	4140874.307	9.245	2201	236591.017	4140871.187	9.160
2138	236572.526	4140870.298	9.263	2202	236590.697	4140873.864	9.102
2139	236573.141	4140870.396	9.263	2203	236590.610	4140874.319	9.088
2140	236572.867	4140871.098	9.253	2204	236592.433	4140880.308	9.070
2141	236573.016	4140871.484	9.252	2205	236594.309	4140879.603	9.129
2142	236573.309	4140870.666	9.255	2206	236602.750	4140862.481	9.283
2143	236573.806	4140870.923	9.245	2207	236603.350	4140863.960	9.304
2144	236573.253	4140872.151	9.238	2208	236602.392	4140864.418	9.247
2145	236573.375	4140872.497	9.231	2209	236601.738	4140862.892	9.164
2146	236574.222	4140870.488	9.258	2210	236599.157	4140865.648	9.251
2147	236580.862	4140872.778	9.222	2211	236592.009	4140868.546	9.197
2148	236579.321	4140871.759	9.227	2212	236592.540	4140873.602	9.223
2149	236577.928	4140871.751	9.225	2213	236604.341	4140865.609	9.345
2150	236571.214	4140874.192	9.214	2214	236603.201	4140866.375	9.363
2151	236565.613	4140876.360	9.204	2215	236602.736	4140865.150	9.302
2152	236564.321	4140877.750	9.207	2216	236603.940	4140864.680	9.319
2153	236564.291	4140879.471	9.188	2217	236608.121	4140865.478	9.304
2154	236564.363	4140880.829	9.166	2218	236607.743	4140866.101	9.334
2155	236563.958	4140881.081	9.170	2219	236608.057	4140866.823	9.334
2156	236566.984	4140889.268	9.150	2220	236609.144	4140866.393	9.345
2157	236566.505	4140889.365	9.150	2221	236608.779	4140865.215	9.299
2158	236559.701	4140891.384	9.062	2222	236608.501	4140866.157	9.271
2159	236559.705	4140892.401	9.062	2223	236603.782	4140865.817	9.334
2160	236559.788	4140892.770	9.057	2224	236602.769	4140865.649	9.316
2161	236567.538	4140890.053	9.136	2225	236601.440	4140865.323	9.299
2162	236568.603	4140893.567	9.119	2226	236601.111	4140865.992	9.295
2163	236568.692	4140893.935	9.105	2227	236601.021	4140866.893	9.344
2164	236560.771	4140896.220	9.030	2228	236604.013	4140870.806	9.407
2165	236567.930	4140896.351	9.093	2229	236604.673	4140871.192	9.425
2166	236565.264	4140897.051	9.061	2230	236603.454	4140871.617	9.418
2167	236562.616	4140897.735	9.019	2231	236598.221	4140868.384	9.365
2168	236582.778	4140878.504	9.136	2232	236598.461	4140869.252	9.366
2169	236583.278	4140878.332	9.142	2233	236597.622	4140869.572	9.367
2170	236581.444	4140874.245	9.197	2234	236596.408	4140872.909	9.364

2235	236595.885	4140873.596	9.354	2298	236590.045	4140848.282	9.207
2236	236594.344	4140875.377	9.273	2299	236597.160	4140845.265	9.135
2237	236596.222	4140876.649	9.420	2300	236596.800	4140849.155	9.204
2238	236595.053	4140877.003	9.304	2301	236596.820	4140850.253	9.236
2239	236594.827	4140876.244	9.305	2302	236595.918	4140850.983	9.233
2240	236596.144	4140880.004	9.243	2303	236595.203	4140850.827	9.210
2241	236595.159	4140880.825	9.148	2304	236594.851	4140851.572	9.237
2242	236592.070	4140874.301	9.181	2305	236593.862	4140850.524	9.208
2243	236592.483	4140869.194	9.235	2306	236592.383	4140851.123	9.200
2244	236593.472	4140869.707	9.300	2307	236589.652	4140851.385	9.177
2245	236594.096	4140866.854	9.220	2308	236591.313	4140853.397	9.075
2246	236596.068	4140865.743	9.219	2309	236596.428	4140852.484	9.154
2247	236605.367	4140872.910	9.517	2310	236591.706	4140854.286	9.128
2248	236603.134	4140873.850	9.497	2311	236595.543	4140864.183	9.199
2249	236598.962	4140881.686	9.310	2312	236600.282	4140862.225	9.175
2250	236599.905	4140883.984	9.366	2313	236587.201	4140871.278	9.171
2251	236599.083	4140884.110	9.196	2314	236585.524	4140872.696	9.176
2252	236599.717	4140886.418	9.161	2315	236587.315	4140877.946	9.116
2253	236600.679	4140886.056	9.315	2316	236586.963	4140878.691	9.121
2254	236604.685	4140896.166	9.078	2317	236590.473	4140874.925	9.080
2255	236603.217	4140896.774	9.038	2318	236590.074	4140875.087	9.091
2256	236605.737	4140905.686	8.996	2319	236590.218	4140875.552	9.089
2257	236604.589	4140912.051	8.915	2320	236590.665	4140875.439	9.076
2258	236604.062	4140909.427	8.938	2321	236590.271	4140873.953	9.085
2259	236603.627	4140910.059	8.938	2322	236582.356	4140877.040	9.161
2260	236602.587	4140909.398	8.923	2323	236582.628	4140877.964	9.140
2261	236604.565	4140906.267	8.959	2324	236582.738	4140878.497	9.133
2262	236603.409	4140905.260	8.948	2325	236584.493	4140884.151	9.082
2263	236602.933	4140906.125	8.929	2326	236592.502	4140881.834	9.055
2264	236603.229	4140902.012	8.961	2327	236590.484	4140884.626	9.066
2265	236600.427	4140907.699	8.788	2328	236592.562	4140891.814	9.000
2266	236600.379	4140907.671	8.789	2329	236595.234	4140900.791	8.934
2267	236598.689	4140903.002	8.762	2330	236598.326	4140911.461	8.912
2268	236596.184	4140894.032	8.904	2331	236600.566	4140919.082	8.904
2269	236592.608	4140881.917	9.051	2332	236603.087	4140928.508	8.857
2270	236601.308	4140849.575	9.124	2333	236600.557	4140930.553	8.871
2271	236594.930	4140852.173	9.129	2334	236598.001	4140920.248	8.927
2272	236589.431	4140852.046	8.989	2335	236593.687	4140905.589	8.967
2273	236585.695	4140849.229	8.916	2336	236590.277	4140894.065	9.029
2274	236583.851	4140844.722	8.879	2337	236587.666	4140885.138	9.065
2275	236583.620	4140844.030	8.882	2338	236593.473	4140909.376	8.979
2276	236582.348	4140839.920	8.851	2339	236596.002	4140908.492	8.952
2277	236583.560	4140839.843	9.043	2340	236598.680	4140907.572	8.853
2278	236584.629	4140842.893	9.071	8009	236614.087	4140943.221	8.743
2279	236584.258	4140843.693	9.069	9999	236554.946	4140911.699	9.059
2280	236585.015	4140843.942	9.079	Radiación desde la estación 8008			
2280	236584.759	4140843.811	9.079	X	236593.359	Desorientación	187.6813
2281	236586.009	4140846.539	9.097	Y	4140954.150	Nombre	
2282	236584.025	4140845.076	8.875	Z	9.025	Coef. anamorfosis	1.0004548041
2283	236584.716	4140844.428	9.073	Visuales utilizadas			
2284	236583.294	4140845.276	8.923	Visado	Horizontal	Vertical	Dist.Geom.
2285	236582.813	4140845.441	8.944	2341	58.2750	100.2375	54.662 1.300
2286	236583.036	4140844.451	8.915	2341	58.3351	100.2353	54.642 1.300
2287	236582.585	4140844.548	8.933	2342	58.2156	100.2426	54.083 1.300
2288	236584.569	4140849.172	8.939	2343	58.4277	100.2479	53.709 1.300
2289	236575.406	4140851.936	9.128	2344	63.0016	100.3061	46.650 1.300
2290	236573.938	4140847.116	9.100	2345	63.2774	100.3110	46.535 1.300
2291	236585.042	4140838.507	9.083	2346	64.0197	100.3272	46.536 1.300
2292	236587.029	4140844.990	9.138	2347	66.3969	100.3005	47.428 1.300
2293	236588.435	4140844.404	9.200	2348	67.4788	100.3332	45.996 1.300
2294	236588.426	4140844.661	9.190	2349	67.6542	100.3267	45.809 1.300
2295	236587.899	4140845.551	9.161	2350	68.1728	100.3063	46.010 1.300
2296	236588.950	4140848.935	9.169	2351	73.4002	100.4199	40.496 1.300
2297	236589.658	4140849.347	9.200	2352	73.5207	100.4132	40.556 1.300
							Mira
							Inst
							Acimut
							Dist.Red.
							245.9563
							246.0164
							245.8969
							246.1090
							250.6829
							250.9587
							251.7010
							254.0782
							255.1601
							255.3355
							255.8541
							261.0815
							261.2020

2353	74.9872	99.7993	39.171	1.700	1.472	262.6685	39.189	2417	58.2634	100.0788	46.767	1.500	1.472	245.9447	46.788
2354	73.6862	99.8121	37.597	1.700	1.472	261.3675	37.614	2418	57.6500	100.0943	46.725	1.500	1.472	245.3313	46.746
2355	73.6999	99.7647	36.183	1.700	1.472	261.3812	36.199	2419	56.7781	100.1249	46.443	1.500	1.472	244.4594	46.464
2356	74.0610	102.7662	35.867	0.000	1.472	261.7423	35.849	2420	56.1111	100.1244	47.571	1.500	1.472	243.7924	47.592
2357	87.0791	99.8476	29.146	1.700	1.472	274.7604	29.159	2421	55.7473	100.0979	51.323	1.500	1.472	243.4286	51.346
2358	107.5191	100.0433	24.218	1.700	1.472	295.2004	24.229	2422	53.7461	100.3914	47.559	1.500	1.472	241.4274	47.580
2359	145.7926	100.2075	23.285	1.700	1.472	333.4739	23.295	2423	58.6171	100.0135	52.590	1.500	1.472	246.2984	52.614
2360	161.6662	100.3666	25.640	1.700	1.472	349.3475	25.651	2424	58.1782	100.0604	46.690	1.500	1.472	245.8595	46.711
2361	159.8983	99.8879	27.387	1.800	1.472	347.5796	27.399	2425	55.6956	100.2186	45.303	1.500	1.472	243.3769	45.323
2362	170.7252	99.9753	30.113	1.800	1.472	358.4065	30.127	2426	64.6598	100.2274	38.432	1.500	1.472	252.3411	38.449
2363	170.2782	99.9751	30.390	1.800	1.472	357.9595	30.404	2427	62.3767	100.3620	36.408	1.500	1.472	250.0580	36.424
2364	171.6595	100.0384	30.878	1.800	1.472	359.3408	30.892	2428	56.4365	100.4809	40.710	1.500	1.472	244.1178	40.727
2365	174.2133	100.0991	29.253	1.800	1.472	361.8946	29.266	2429	55.2793	100.4441	40.351	1.500	1.472	242.9606	40.368
2366	187.5892	100.0745	36.360	1.800	1.472	375.2705	36.376	2430	54.5022	100.3960	41.433	1.500	1.472	242.1835	41.451
2367	194.9307	100.0910	42.784	1.800	1.472	382.6120	42.803	2431	57.4726	100.5135	42.043	1.500	1.472	245.1539	42.061
2368	198.4160	100.1415	47.017	1.800	1.472	386.0973	47.038	2432	51.4483	100.2665	53.012	1.500	1.472	239.1296	53.036
2369	201.3200	100.2058	47.847	1.800	1.472	389.0013	47.868	2433	51.3823	100.2667	51.775	1.500	1.472	239.0636	51.798
2370	202.9205	100.2686	47.175	1.800	1.472	390.6018	47.196	2434	57.8471	100.5020	39.543	1.500	1.472	245.5284	39.560
2371	202.1125	100.2686	46.048	1.800	1.472	389.7938	46.068	2435	68.5117	100.7739	29.248	1.500	1.472	256.1930	29.259
2372	199.2314	100.2411	41.741	1.800	1.472	386.9127	41.760	2436	76.6142	101.0240	26.198	1.500	1.472	264.2955	26.206
2373	195.6165	100.1111	40.806	1.800	1.472	383.2978	40.824	2437	79.7633	100.6864	25.027	1.500	1.472	267.4446	25.037
2374	194.0729	100.2178	36.604	1.800	1.472	381.7542	36.620	2438	86.5395	100.5695	25.601	1.500	1.472	274.2208	25.612
2375	190.7272	100.0907	36.232	1.800	1.472	378.4085	36.248	2439	117.7655	100.8776	20.137	1.500	1.472	305.4468	20.144
2376	190.2029	100.2858	33.755	1.800	1.472	377.8842	33.770	2440	116.9567	101.1977	17.899	1.500	1.472	304.6380	17.904
2377	187.8446	100.2481	33.447	1.800	1.472	375.5259	33.462	2441	119.6157	101.8593	17.663	1.500	1.472	307.2970	17.663
2378	187.4228	100.2903	31.680	1.800	1.472	375.1041	31.694	2442	119.8133	101.8592	16.992	1.500	1.472	307.4946	16.992
2379	183.5492	100.1485	31.563	1.800	1.472	371.2305	31.577	2443	156.2809	101.9946	18.258	1.500	1.472	343.9622	18.257
2380	179.5594	100.2061	27.611	1.800	1.472	367.2407	27.623	2444	157.9930	101.9818	19.140	1.500	1.472	345.6743	19.139
2381	175.0487	100.0922	27.663	1.800	1.472	362.7300	27.676	2445	161.4891	101.3659	19.893	1.500	1.472	349.1704	19.897
2382	165.3466	100.3229	23.222	1.800	1.472	353.0279	23.232	2446	161.3224	101.0767	22.300	1.500	1.472	349.0037	22.307
2383	159.6506	99.9731	23.893	1.800	1.472	347.3319	23.904	2447	182.3525	100.9283	28.828	1.500	1.472	370.0338	28.838
2384	164.3967	100.1360	24.135	1.800	1.472	352.0780	24.146	2448	186.0325	101.0850	27.321	1.500	1.472	373.7138	27.329
2385	162.3527	100.0413	24.414	1.800	1.472	350.0340	24.425	2449	187.8089	101.3936	27.878	1.500	1.472	375.4902	27.884
2386	150.4531	100.0132	20.874	1.800	1.472	338.1344	20.883	2450	200.3601	101.0359	38.064	1.500	1.472	388.0414	38.076
2387	145.6810	99.9727	21.904	1.800	1.472	333.3623	21.914	2451	200.7236	100.8005	38.862	1.500	1.472	388.4049	38.877
2388	158.8844	100.2963	20.048	1.800	1.472	346.5657	20.057	2452	197.0757	100.7026	39.221	1.500	1.472	384.7570	39.236
2389	168.0778	101.1461	20.462	1.800	1.472	355.7591	20.468	2453	201.3946	100.7579	40.787	1.500	1.472	389.0759	40.803
2390	133.2649	99.9132	20.089	1.800	1.472	320.9462	20.098	2454	204.9529	101.0251	43.482	1.500	1.472	392.6342	43.496
2391	133.6084	100.6410	16.455	1.800	1.472	321.2897	16.462	2455	206.5808	100.9098	46.325	1.500	1.472	394.2621	46.341
2392	123.1121	100.6881	16.605	1.800	1.472	310.7934	16.612	2456	212.8216	100.7031	51.578	1.500	1.472	0.5029	51.598
2393	132.9719	99.9625	19.899	1.800	1.472	320.6532	19.908	2457	212.8913	100.7030	51.634	1.500	1.472	0.5726	51.654
2394	126.9514	99.7535	21.254	1.800	1.472	314.6327	21.263	2458	213.1059	100.6920	51.609	1.500	1.472	0.7872	51.629
2395	124.6050	100.0099	20.249	1.800	1.472	312.2863	20.258	2459	215.5120	100.7392	48.067	1.500	1.472	3.1933	48.086
2396	113.0433	99.9375	20.592	1.800	1.472	300.7246	20.601	2460	216.8597	100.8003	47.818	1.500	1.472	4.5410	47.836
2397	109.9255	99.8500	22.355	1.800	1.472	297.6068	22.365	2461	212.6938	100.5929	49.438	1.500	1.472	0.3751	49.458
2398	108.2593	100.7915	21.750	1.500	1.472	295.9406	21.758	2462	211.6945	100.7239	48.359	1.500	1.472	399.3758	48.378
2399	101.7492	102.0197	18.838	1.500	1.472	289.4305	18.837	2463	215.4613	100.6459	47.626	1.500	1.472	3.1426	47.645
2400	94.9111	100.8368	21.392	1.500	1.472	282.5924	21.400	2464	214.5816	100.6625	45.320	1.500	1.472	2.2629	45.338
2401	96.7680	100.6894	22.962	1.500	1.472	284.4493	22.971	2465	210.4971	100.6513	45.337	1.500	1.472	398.1784	45.355
2402	94.4104	100.4428	25.197	1.500	1.472	282.0917	25.208	2466	212.3464	100.7291	37.859	1.500	1.472	0.0277	37.874
2403	84.2767	100.5261	26.522	1.500	1.472	271.9580	26.533	2467	210.1724	100.7932	33.743	1.500	1.472	397.8537	33.756
2404	82.0330	100.4575	27.460	1.500	1.472	269.7143	27.472	2468	207.2489	100.7821	34.295	1.500	1.472	394.9302	34.308
2405	86.4216	100.3677	27.604	1.500	1.472	274.1029	27.616	2469	205.7413	100.9884	33.552	1.500	1.472	393.4226	33.563
2406	77.3471	100.3045	30.284	1.500	1.472	265.0284	30.297	2470	207.5871	100.9532	31.895	1.500	1.472	395.2684	31.906
2407	74.9043	100.2531	30.849	1.500	1.472	262.5856	30.863	2471	209.4886	101.1308	31.482	1.500	1.472	397.1699	31.491
2408	75.0228	100.1507	33.024	1.500	1.472	262.7041	33.039	2472	208.1244	100.8596	30.904	1.500	1.472	395.8057	30.915
2409	68.8716	100.2733	34.889	1.500	1.472	256.5529	34.904	2473	213.9593	100.9480	39.811	1.500	1.472	1.6406	39.825
2410	69.2531	100.1997	37.046	1.500	1.472	256.9344	37.063	2474	199.3713	101.4978	21.782	1.500	1.472	387.0526	21.786
2411	67.1907	100.2408	36.869	1.500	1.472	254.8720	36.885	2475	197.6664	101.4031	21.736	1.500	1.472	385.3477	21.741
2412	62.3039	100.8136	35.488	1.500	1.472	249.9852	35.501	2476	196.9969	101.3730	22.151	1.500	1.472	384.6782	22.156
2413	61.2832	100.3056	38.537	1.500	1.472	248.9645	38.554	2477	170.5066	101.9400	20.657	1.500	1.472	358.1879	20.657
2414	63.3705	100.2028	40.013	1.500	1.472	251.0518	40.031	2478	169.2810	101.9122	21.150	1.500	1.472	356.9623	21.150
2415	64.0554	100.1290	42.134	1.500	1.472	251.7367	42.153	2479	181.4381	101.4463	24.900	1.500	1.472	369.1194	24.905
2416	60.9763	100.0351	45.984	1.500	1.472	248.6576	46.005	2480	182.2162	101.4636	24.424	1.500	1.472	369.8975	24.429

2481	170.2846	101.9357	20.679	1.500	1.472	357.9659	20.679	2544	230.8287	100.2241	210.726	1.300	1.472	18.5100	210.820
2482	171.6529	101.7096	19.937	1.500	1.472	359.3342	19.939	2545	230.9362	100.2219	210.280	1.300	1.472	18.6175	210.374
2483	165.6476	101.8289	18.723	1.500	1.472	353.3289	18.724	2546	230.9617	100.2427	192.610	1.300	1.472	18.6430	192.696
2484	167.5766	101.6933	17.821	1.500	1.472	355.2579	17.823	2547	230.9925	100.2608	182.362	1.300	1.472	18.6738	182.443
2485	134.8908	101.7841	14.935	1.500	1.472	322.5721	14.936	2548	231.1577	100.2340	177.658	1.300	1.472	18.8390	177.737
2485	167.5766	101.6932	17.741	1.500	1.472	355.2579	17.743	2549	230.9474	100.2351	176.757	1.300	1.472	18.6287	176.836
2486	93.7769	101.3381	17.919	1.500	1.472	281.4582	17.923	2550	230.9885	100.2455	172.133	1.300	1.472	18.6698	172.210
2487	69.6220	100.7660	26.287	1.500	1.472	257.3033	26.297	2551	231.3035	100.2544	170.777	1.300	1.472	18.9848	170.853
2488	68.0944	100.7218	27.219	1.500	1.472	255.7757	27.230	2552	231.0175	100.2628	159.637	1.300	1.472	18.6988	159.708
2489	71.0232	100.8822	27.948	1.500	1.472	258.7045	27.958	2553	231.4234	100.2839	155.434	1.300	1.472	19.1047	155.503
2490	48.4794	100.4862	23.070	1.500	1.472	236.1607	23.080	2554	231.4663	100.2840	148.802	1.300	1.472	19.1476	148.868
2491	55.5775	101.1857	11.356	1.500	1.472	243.2588	11.359	2555	231.0706	100.3000	145.585	1.300	1.472	19.7519	145.649
2492	40.3835	99.7226	63.088	1.700	1.472	228.0648	63.116	2556	231.5059	100.3060	142.140	1.300	1.472	19.1872	142.203
2493	41.8957	99.7391	52.043	1.700	1.472	229.5770	52.066	2557	231.5628	100.3178	133.997	1.300	1.472	19.2441	134.056
2494	46.1519	99.8229	39.185	1.700	1.472	233.8332	39.203	2558	231.1367	100.3266	131.045	1.300	1.472	18.8180	131.103
2495	53.6298	99.9805	26.552	1.700	1.472	241.3111	26.564	2559	231.6009	100.3257	126.900	1.300	1.472	19.2822	126.956
2496	69.8535	100.1554	12.194	1.700	1.472	257.5348	12.199	2560	231.6434	100.3603	119.276	1.300	1.472	19.3247	119.328
2497	84.4784	100.4919	13.931	1.700	1.472	272.1597	13.937	2561	231.2329	100.3640	116.614	1.300	1.472	18.9142	116.665
2498	61.0736	100.1081	26.374	1.700	1.472	248.7549	26.386	2562	231.6723	100.3762	112.487	1.300	1.472	19.3536	112.536
2499	50.6570	99.9494	40.132	1.700	1.472	238.3383	40.150	2563	231.7354	100.4057	110.961	1.300	1.472	19.4167	111.009
2500	45.0430	99.8108	53.836	1.700	1.472	232.7243	53.860	2564	231.8354	100.4122	105.066	1.300	1.472	19.5167	105.111
2501	59.3716	99.8198	45.920	1.700	1.472	247.0529	45.941	2565	231.3529	100.4408	101.786	1.300	1.472	19.0342	101.830
2502	63.3401	99.9898	40.637	1.700	1.472	251.0214	40.655	2566	231.9108	100.3973	97.666	1.300	1.472	19.5921	97.708
2503	68.7379	99.9616	35.833	1.700	1.472	256.4192	35.849	2567	232.0714	100.4141	90.790	1.300	1.472	19.7527	90.829
2504	74.2467	99.9516	31.454	1.700	1.472	261.9280	31.468	2568	231.4647	100.4753	86.493	1.300	1.472	19.1460	86.530
2505	83.8750	100.1927	27.070	1.700	1.472	271.5563	27.082	2569	232.2009	100.4401	83.135	1.300	1.472	19.8822	83.171
2506	95.6166	100.1217	23.437	1.700	1.472	283.2979	23.448	2570	232.1955	100.4400	75.504	1.300	1.472	19.8768	75.536
2507	110.4081	100.4093	20.986	1.700	1.472	298.0894	20.995	2571	232.4470	100.4874	68.185	1.300	1.472	20.1283	68.214
2508	129.5314	100.2961	20.300	1.700	1.472	317.2127	20.309	2572	231.7970	100.5361	65.581	1.300	1.472	19.4783	65.608
2509	148.0993	100.4552	21.017	1.700	1.472	335.7806	21.026	2573	232.7058	100.4795	60.540	1.300	1.472	20.3871	60.566
2510	163.1007	100.5558	23.023	1.700	1.472	350.7820	23.033	2574	233.0098	100.5455	53.223	1.300	1.472	20.6911	53.245
2511	177.6262	100.5227	27.181	1.700	1.472	365.3075	27.192	2575	233.5573	100.6703	45.912	1.300	1.472	21.2386	45.930
2512	185.7065	100.4904	31.523	1.700	1.472	373.3878	31.536	2576	232.3794	100.6945	44.221	1.300	1.472	20.0607	44.238
2513	192.5086	100.4409	35.930	1.700	1.472	380.1899	35.945	2577	234.0691	100.7428	38.589	1.300	1.472	21.7504	38.604
2514	197.9765	100.4154	41.073	1.700	1.472	385.6578	41.091	2578	233.6131	101.0902	25.762	1.300	1.472	21.2944	25.770
2515	201.3718	100.4161	46.699	1.700	1.472	389.0531	46.719	2579	236.1041	101.0749	23.492	1.300	1.472	23.7854	23.499
2516	53.4437	102.3988	10.901	1.300	1.472	241.1250	10.898	2580	238.5675	101.6027	16.269	1.300	1.472	26.2488	16.271
2517	51.5726	102.3852	10.793	1.300	1.472	239.2539	10.790	2581	229.9831	102.2097	10.549	1.300	1.472	17.6644	10.547
2518	53.8843	102.4022	10.810	1.300	1.472	241.5656	10.807	2582	215.1229	105.1795	3.963	1.300	1.472	2.8042	3.952
2519	86.6181	107.1258	3.502	1.300	1.472	274.2994	3.482	8009	343.1411	101.2410	23.397	1.300	1.472	130.8224	23.403
2520	228.3449	101.9974	14.967	1.300	1.472	16.0262	14.966	8010	231.7673	100.3836	71.620	1.300	1.472	19.4486	71.651
2521	230.9574	101.3709	22.281	1.300	1.472	18.6387	22.286	8105	230.7383	100.2100	197.377	1.300	1.472	18.4196	197.465
2522	233.0744	101.2286	22.009	1.300	1.472	20.7557	22.015	Coordenadas calculadas							
2523	231.2579	101.2206	28.740	1.300	1.472	18.9392	28.748	Número X	Y	Z					
2524	231.0208	100.8184	45.299	1.300	1.472	18.7021	45.316	2341	236557.222	4140913.104	8.993				
2525	231.6566	100.6759	51.874	1.300	1.472	19.3379	51.895	2341	236557.197	4140913.153	8.995				
2526	230.8585	100.6397	67.960	1.300	1.472	18.5398	67.987	2342	236557.643	4140913.506	8.991				
2527	230.8219	100.5594	77.305	1.300	1.472	18.5032	77.337	2343	236557.756	4140913.905	8.988				
2528	230.7781	100.5096	94.021	1.300	1.472	18.4594	94.061	2344	236560.006	4140921.505	8.973				
2529	230.7315	100.4260	113.294	1.300	1.472	18.4128	113.343	2345	236559.947	4140921.730	8.970				
2530	230.7296	100.3748	131.720	1.300	1.472	18.4109	131.777	2346	236559.571	4140922.121	8.958				
2531	230.6670	100.3027	157.610	1.300	1.472	18.3483	157.680	2347	236557.729	4140922.815	8.973				
2532	230.8084	100.2611	168.606	1.300	1.472	18.4897	168.681	2348	236558.293	4140924.353	8.956				
2533	230.6596	100.2953	169.787	1.300	1.472	18.3409	169.862	2349	236558.354	4140924.570	8.962				
2534	230.6597	100.2626	181.784	1.300	1.472	18.3410	181.865	2350	236557.959	4140924.728	8.976				
2535	230.6259	100.2328	195.796	1.300	1.472	18.3072	195.883	2351	236560.183	4140930.897	8.930				
2536	230.6635	100.2104	206.228	1.300	1.472	18.3448	206.320	2352	236560.090	4140930.925	8.934				
2537	230.6746	100.2114	207.425	1.300	1.472	18.3559	207.518	2353	236560.717	4140932.464	8.921				
2538	230.8801	100.2148	207.426	1.300	1.472	18.5614	207.519	2354	236562.461	4140932.700	8.908				
2539	230.8800	100.2150	206.204	1.300	1.472	18.5613	206.296	2355	236563.619	4140933.513	8.931				
2540	230.7577	100.2063	208.863	1.300	1.472	18.4390	208.957	2356	236563.790	4140933.880	8.939				
2541	230.7612	100.2019	210.320	1.300	1.472	18.4425	210.414	2357	236566.462	4140942.890	8.867				
2542	230.6412	100.2250	210.442	1.300	1.472	18.3225	210.536	2358	236569.199	4140952.325	8.781				
2543	230.6523	100.2203	210.468	1.300	1.472	18.3336	210.562	2359	236573.210	4140965.842	8.721				

2360	236575.036	4140972.101	8.649	2424	236562.546	4140919.043	8.953
2361	236573.262	4140972.774	8.745	2425	236564.812	4140918.947	8.842
2362	236575.047	4140978.072	8.709	2426	236565.190	4140927.980	8.860
2363	236574.709	4140978.162	8.709	2427	236567.580	4140928.418	8.790
2364	236574.943	4140978.953	8.678	2428	236567.340	4140922.817	8.690
2365	236576.869	4140978.328	8.652	2429	236568.139	4140922.630	8.716
2366	236579.581	4140987.816	8.655	2430	236567.859	4140921.471	8.739
2367	236581.813	4140995.367	8.636	2431	236565.966	4140922.233	8.658
2368	236583.168	4141000.071	8.593	2432	236562.775	4140910.821	8.775
2369	236585.130	4141001.306	8.542	2433	236563.533	4140911.801	8.780
2370	236586.417	4141000.833	8.498	2434	236567.418	4140924.283	8.685
2371	236586.005	4140999.628	8.503	2435	236570.758	4140935.568	8.642
2372	236584.835	4140995.030	8.539	2436	236571.167	4140940.211	8.576
2373	236582.771	4140993.577	8.626	2437	236571.525	4140941.897	8.727
2374	236583.007	4140989.277	8.572	2438	236569.819	4140944.060	8.768
2375	236581.299	4140988.333	8.645	2439	236573.288	4140955.871	8.719
2376	236581.862	4140985.903	8.546	2440	236575.503	4140955.453	8.660
2377	236580.809	4140985.169	8.567	2441	236575.811	4140956.170	8.481
2378	236581.278	4140983.451	8.553	2442	236576.484	4140956.146	8.501
2379	236579.570	4140982.557	8.623	2443	236579.285	4140965.779	8.425
2380	236579.764	4140978.196	8.608	2444	236578.938	4140966.733	8.401
2381	236578.067	4140977.217	8.657	2445	236579.107	4140968.035	8.570
2382	236577.731	4140971.340	8.579	2446	236577.341	4140969.675	8.620
2383	236575.763	4140970.330	8.707	2447	236580.280	4140979.852	8.577
2384	236576.852	4140971.772	8.645	2448	236582.393	4140979.183	8.531
2385	236576.097	4140971.430	8.681	2449	236582.887	4140979.993	8.387
2386	236576.112	4140965.925	8.693	2450	236586.249	4140991.556	8.378
2387	236574.386	4140965.116	8.706	2451	236586.317	4140992.383	8.508
2388	236578.433	4140967.547	8.604	2452	236584.054	4140992.267	8.564
2389	236580.253	4140969.871	8.329	2453	236586.392	4140994.353	8.512
2390	236574.339	4140960.644	8.724	2454	236588.338	4140997.355	8.297
2391	236577.809	4140959.553	8.531	2455	236589.188	4141000.303	8.335
2392	236576.986	4140956.953	8.518	2456	236593.767	4141005.747	8.428
2393	236574.489	4140960.496	8.709	2457	236593.824	4141005.802	8.427
2394	236572.655	4140958.994	8.779	2458	236593.997	4141005.775	8.436
2395	236573.477	4140958.035	8.694	2459	236595.770	4141002.175	8.439
2396	236572.759	4140954.384	8.717	2460	236596.768	4141001.864	8.396
2397	236571.010	4140953.309	8.750	2461	236593.650	4141003.607	8.537
2398	236571.645	4140952.764	8.727	2462	236592.885	4141002.525	8.447
2399	236574.781	4140951.037	8.399	2463	236595.710	4141001.737	8.514
2400	236572.754	4140948.371	8.716	2464	236594.970	4140999.459	8.526
2401	236571.070	4140948.594	8.748	2465	236592.061	4140999.487	8.533
2402	236569.142	4140947.152	8.822	2466	236593.375	4140992.024	8.564
2403	236569.359	4140942.837	8.778	2467	236592.221	4140987.886	8.577
2404	236568.938	4140941.568	8.800	2468	236590.630	4140988.349	8.576
2405	236567.997	4140943.223	8.838	2469	236589.897	4140987.534	8.476
2406	236567.519	4140938.331	8.852	2470	236590.990	4140985.968	8.520
2407	236567.675	4140937.038	8.874	2471	236591.960	4140985.610	8.438
2408	236565.829	4140935.883	8.919	2472	236591.324	4140984.998	8.580
2409	236566.272	4140932.135	8.847	2473	236594.385	4140993.961	8.404
2410	236564.458	4140930.947	8.881	2474	236588.959	4140975.487	8.485
2411	236565.359	4140930.138	8.858	2475	236588.399	4140975.317	8.518
2412	236568.262	4140929.041	8.544	2476	236588.078	4140975.667	8.519
2413	236566.544	4140926.448	8.812	2477	236580.747	4140970.509	8.368
2414	236564.589	4140926.315	8.870	2478	236580.125	4140970.648	8.362
2415	236562.750	4140925.167	8.912	2479	236581.747	4140976.182	8.431
2416	236561.522	4140920.941	8.972	2480	236582.234	4140975.898	8.436
2417	236562.448	4140919.027	8.939	2481	236580.676	4140970.483	8.368
2418	236562.815	4140918.762	8.928	2482	236581.471	4140970.157	8.462
2419	236563.484	4140918.564	8.906	2483	236580.829	4140968.064	8.459
2420	236563.142	4140917.381	8.904	2484	236581.839	4140967.749	8.523
2421	236560.986	4140914.295	8.918	2485	236579.352	4140959.335	8.579
2422	236564.536	4140916.294	8.705	2485	236581.891	4140967.688	8.525
2423	236558.380	4140914.847	8.986	2486	236576.191	4140949.003	8.620

2487	236572.758	4140937.806	8.681
2488	236572.440	4140936.719	8.688
2489	236571.080	4140937.260	8.610
2490	236580.943	4140934.694	8.821
2491	236586.221	4140945.314	8.786
2492	236566.427	4140897.068	9.072
2493	236570.030	4140907.603	9.010
2494	236573.492	4140920.354	8.906
2495	236577.306	4140932.985	8.805
2496	236583.774	4140946.603	8.767
2497	236580.734	4140948.248	8.689
2498	236575.070	4140935.131	8.752
2499	236570.615	4140921.063	8.829
2500	236566.876	4140907.250	8.957
2501	236562.412	4140920.197	8.927
2502	236564.154	4140925.867	8.804
2503	236565.587	4140931.481	8.819
2504	236567.352	4140936.433	8.821
2505	236568.935	4140942.448	8.715
2506	236570.714	4140948.069	8.752
2507	236572.373	4140953.520	8.662
2508	236573.788	4140959.574	8.703
2509	236575.567	4140965.355	8.647
2510	236577.274	4140970.635	8.596
2511	236579.263	4140977.404	8.574
2512	236580.557	4140982.971	8.554
2513	236582.353	4140988.369	8.548
2514	236584.180	4140994.202	8.529
2515	236585.365	4141000.180	8.492
2516	236586.798	4140945.448	8.786
2517	236587.119	4140945.347	8.793
2518	236586.794	4140945.566	8.789
2519	236590.157	4140952.782	8.806
2520	236597.087	4140968.645	8.727
2521	236599.791	4140975.488	8.717
2522	236600.410	4140975.005	8.772
2523	236601.786	4140981.635	8.646
2524	236606.481	4140997.524	8.615
2525	236608.881	4141003.669	8.646
2526	236612.880	4141019.275	8.514
2527	236615.522	4141028.243	8.518
2528	236620.252	4141044.284	8.445
2529	236625.686	4141062.785	8.440
2530	236630.940	4141080.455	8.423
2531	236638.178	4141105.326	8.449
2532	236641.664	4141115.767	8.507
2533	236641.622	4141117.011	8.411
2534	236645.032	4141128.519	8.449
2535	236648.916	4141141.990	8.483
2536	236651.993	4141151.963	8.518
2537	236652.368	4141153.101	8.511
2538	236653.010	4141152.911	8.500
2539	236652.658	4141151.740	8.503
2540	236653.038	4141154.403	8.523
2541	236653.466	4141155.797	8.533
2542	236653.120	4141156.026	8.456
2543	236653.163	4141156.041	8.471
2544	236653.796	4141156.122	8.458
2545	236654.008	4141155.592	8.467
2546	236648.986	4141138.642	8.465
2547	236646.110	4141128.800	8.452
2548	236645.191	4141124.162	8.546
2549	236644.369	4141123.469	8.546
2550	236643.141	4141119.007	8.535

2551	236643.558	4141117.462	8.516
2552	236639.597	4141107.018	8.539
2553	236639.327	4141102.703	8.505
2554	236637.462	4141096.335	8.534
2555	236635.643	4141093.527	8.512
2556	236635.572	4141089.943	8.515
2557	236633.268	4141082.128	8.529
2558	236631.550	4141079.567	8.526
2559	236631.227	4141075.327	8.549
2560	236629.028	4141068.023	8.523
2561	236627.513	4141065.704	8.531
2562	236627.046	4141061.526	8.533
2563	236626.694	4141060.036	8.491
2564	236625.080	4141054.361	8.517
2565	236623.353	4141051.462	8.493
2566	236622.956	4141047.268	8.588
2567	236621.091	4141040.642	8.607
2568	236618.992	4141036.796	8.552
2569	236618.914	4141033.297	8.623
2570	236616.562	4141026.034	8.675
2571	236614.569	4141018.983	8.675
2572	236613.121	4141016.711	8.645
2573	236612.425	4141011.637	8.741
2574	236610.361	4141004.608	8.741
2575	236608.399	4140997.548	8.714
2576	236607.070	4140996.210	8.715
2577	236606.293	4140990.523	8.747
2578	236601.819	4140978.492	8.756
2579	236601.936	4140976.028	8.800
2580	236599.879	4140969.058	8.787
2581	236596.248	4140964.294	8.831
2582	236593.533	4140958.098	8.875
8009	236614.072	4140943.257	8.741
8010	236614.909	4141022.484	8.766
8105	236649.699	4141143.408	8.548

Radiación desde la estación 9000

X	236542.653	Desorientación	318.3225
Y	4140900.201	Nombre	
Z	6.073	Coef. anamorfosis	1.0004551333

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
456	143.9677	97.1682	3.457	0.000	1.610	62.2902	3.455
457	140.2819	128.6145	3.682	0.000	1.610	58.6044	3.318
458	140.6258	103.3053	3.342	0.000	1.610	58.9483	3.339
459	147.7233	83.5071	3.737	0.000	1.610	66.0458	3.614
460	153.8136	82.0658	3.414	0.000	1.610	72.1361	3.281
461	212.8628	142.7564	2.565	0.000	1.610	131.1853	2.009
462	212.9971	95.5487	2.032	0.000	1.610	131.3196	2.028
463	264.3517	127.5663	3.727	0.000	1.610	182.6742	3.385
463	264.3534	127.5712	2.935	0.000	1.610	182.6759	2.665
464	264.1769	96.7279	3.398	0.000	1.610	182.4994	3.395
464	264.1978	97.0548	3.392	0.000	1.610	182.5203	3.390
465	264.1759	82.3941	3.505	0.000	1.610	182.4984	3.373
466	264.3163	127.6818	3.729	0.000	1.610	182.6388	3.384
467	147.6423	83.4688	3.746	0.000	1.610	65.9648	3.622
468	210.8473	97.9806	2.017	0.000	1.610	129.1698	2.017
469	252.3014	108.1847	2.750	0.000	1.610	170.6239	2.729
10000	0.0000	105.6053	19.768	0.000	1.610	318.3225	19.700

Coordenadas calculadas

Número	X	Y	Z
456	236545.519	4140902.130	7.837
457	236545.293	4140902.210	6.084
458	236545.321	4140902.208	7.510
459	236545.765	4140902.038	8.641

460	236545.624	4140901.592	8.632				
461	236544.425	4140899.256	6.087				
462	236544.440	4140899.243	7.825				
463	236543.562	4140896.941	6.120				
463	236543.369	4140897.634	6.452				
464	236543.574	4140896.934	7.858				
464	236543.572	4140896.938	7.840				
465	236543.568	4140896.954	8.640				
466	236543.564	4140896.943	6.113				
467	236545.769	4140902.047	8.645				
468	236544.461	4140899.309	7.747				
469	236543.867	4140897.758	7.331				
10000	236523.763	4140905.793	5.945				
Radiación desde la estación 9001							
X	236521.563		Desorientación	318.3900			
Y	4140906.902		Nombre				
Z	5.837		Coef. anamorfosis	1.0004552702			
Visuales utilizadas							
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
470	201.9769	99.1764	24.118	0.000	1.598	120.3669	24.127
471	206.3553	100.2753		24.098	0.000	1.598	124.7453
472	94.2911	101.7942	9.518	1.300	1.598	12.6811	9.519
473	98.9074	101.7102	9.444	1.300	1.598	17.2974	9.445
Coordenadas calculadas							
Número	X	Y	Z				
470	236544.466	4140899.314	7.747				
471	236543.873	4140897.765	7.330				
472	236523.447	4140916.232	5.866				
473	236524.098	4140916.000	5.881				
Radiación desde la estación 9002							
X	236525.187		Desorientación	318.3892			
Y	4140924.497		Nombre				
Z	6.458		Coef. anamorfosis	1.0004552467			
Visuales utilizadas							
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
474	294.5655	103.2875	17.973	1.300	1.600	212.9547	17.957
475	294.8435	106.7147	8.480	1.300	1.600	213.2327	8.437
476	289.7586	106.5124	8.601	1.300	1.600	208.1478	8.560
Coordenadas calculadas							
Número	X	Y	Z				
474	236521.558	4140906.910	5.831				
475	236523.446	4140916.241	5.866				
476	236524.094	4140916.007	5.880				
Radiación desde la estación 9004							
X	236542.389		Desorientación	292.6571			
Y	4140898.973		Nombre				
Z	6.679		Coef. anamorfosis	1.0004551350			
Visuales utilizadas							
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
550	243.3132	92.0318	7.766	0.000	1.591	135.9703	7.709
551	323.7648	62.3494	1.753	0.000	1.591	216.4219	1.456
552	2.6244	81.9437	3.447	0.000	1.591	295.2815	3.311
553	273.6544	95.5803	2.359	0.000	1.591	166.3115	2.354
554	157.0871	97.7389	4.457	0.000	1.591	49.7442	4.456
555	149.2535	95.2257	5.533	0.000	1.591	41.9106	5.520
556	149.2531	90.2396	5.574	0.000	1.591	41.9102	5.511
557	152.6487	101.9136	4.636	0.000	1.591	45.3058	4.636
558	165.3416	87.3754	4.894	0.000	1.591	57.9987	4.800
559	172.4190	88.2579	5.270	0.000	1.591	65.0761	5.183
560	160.1385	86.7020	4.677	0.000	1.591	52.7956	4.577
561	268.5804	77.4571	2.776	0.000	1.591	161.2375	2.605
562	80.5845	89.2550	5.772	0.000	1.591	373.2416	5.693
563	59.2604	93.2428	9.207	0.000	1.591	351.9175	9.159
Coordenadas calculadas							

Número	X	Y	Z	
550	236548.900	4140894.845	9.240	
551	236542.018	4140897.565	9.248	
552	236539.087	4140898.728	9.235	
553	236543.578	4140896.941	8.434	
554	236545.527	4140902.137	8.429	
555	236545.766	4140903.339	8.685	
556	236545.761	4140903.332	9.121	
557	236545.417	4140902.484	8.131	
558	236546.182	4140901.915	9.234	
559	236546.812	4140901.676	9.237	
560	236545.765	4140902.064	9.240	
561	236543.879	4140896.836	9.233	
562	236540.066	4140904.170	9.240	
563	236536.111	4140905.642	9.246	

Radiación de puntos

Proyecto : zona 1 Fecha de cálculo : 24/08/2018 11:38

Sistema de referencia : UTM ETRS89

Proyección : UTM - 30N Elipsoide : WGS-84

Ficheros utilizados

Puntos Visuales

CompensacionMMCC total.pts observaciones.obs

Radiación desde la estación 5006

X 236605.342 Desorientación 351.5758

Y 4140983.131 Nombre

Z 8.879 Coef. anamorfosis 1.0004547264

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
2977	3.9854	100.6519	31.290	1.300	1.320	355.5612	31.303
2978	1.9873	100.5609	32.815	1.300	1.320	353.5631	32.829
2979	1.3306	100.5384	32.650	1.300	1.320	352.9064	32.664
2980	0.5906	100.5159	32.694	1.300	1.320	352.1664	32.708
2981	390.0118	100.4804	30.604	1.300	1.320	341.5876	30.617
2982	389.9189	100.5492	30.171	1.300	1.320	341.4947	30.184
2983	389.4169	100.5976	29.833	1.300	1.320	340.9927	29.845
2984	388.6916	98.8583	29.656	2.150	1.320	340.2674	29.665
2985	390.1198	98.7677	27.887	2.150	1.320	341.6956	27.894
2986	389.5470	98.7798	29.447	2.150	1.320	341.1228	29.455
2987	388.8735	101.6737	17.065	1.300	1.320	340.4493	17.067
2988	391.6265	101.6137	18.946	1.300	1.320	343.2023	18.948
2989	4.0696	101.4393	21.422	1.300	1.320	355.6454	21.426
2990	13.0991	101.3005	23.967	1.300	1.320	364.6749	23.973
2991	8.8617	101.4199	25.773	1.300	1.320	360.4375	25.778
2992	30.3778	101.1921	26.992	1.300	1.320	381.9536	26.999
2993	36.0614	101.1578	29.408	1.300	1.320	387.6372	29.416
2994	37.1231	100.8574	31.185	1.300	1.320	388.6989	31.196
2995	38.4062	100.9300	33.908	1.300	1.320	389.9820	33.920
2996	35.5264	100.9935	34.762	1.300	1.320	387.1022	34.774
2997	35.2140	100.6355	34.297	1.500	1.320	386.7898	34.311
2998	40.5541	99.5443	41.018	2.150	1.320	392.1299	41.036
2999	43.2039	99.4998	40.359	2.150	1.320	394.7797	40.376
3000	43.5181	99.5798	37.893	2.150	1.320	395.0939	37.909
3001	47.5864	100.8390	45.970	1.300	1.320	399.1622	45.987
3002	47.1952	100.7837	48.304	1.300	1.320	398.7710	48.322
3003	51.5347	100.5717	59.438	1.300	1.320	3.1105	59.463
3004	53.2808	100.6853	65.097	1.300	1.320	4.8566	65.123
3005	52.5822	100.6428	66.472	1.300	1.320	4.1580	66.499
3006	54.2571	100.5142	72.720	1.300	1.320	5.8329	72.751
3007	55.4319	100.5852	77.409	1.300	1.320	7.0077	77.441
3008	54.9026	100.5789	79.419	1.300	1.320	6.4784	79.452
3009	56.0370	100.4817	85.010	1.300	1.320	7.6128	85.046
3010	56.5386	100.4361	88.855	1.300	1.320	8.1144	88.893
3011	57.0184	100.5145	89.905	1.300	1.320	8.5942	89.943

3012	56.3641	100.5318	90.428	1.300	1.320	7.9399	90.466	3076	44.4897	99.8036	67.919	2.150	1.320	396.0655	67.949	
3013	55.1863	99.9472	99.047	2.150	1.320	6.7621	99.092	3077	45.5090	99.8484	65.808	2.150	1.320	397.0848	65.838	
3014	52.5393	99.9426	80.656	2.150	1.320	4.1151	80.693	3078	47.5853	99.8950	70.483	2.150	1.320	399.1611	70.515	
3015	50.4036	99.8858	70.012	2.150	1.320	1.9794	70.044	3079	45.9425	99.8711	72.092	2.150	1.320	397.5183	72.125	
3016	47.8215	99.8145	60.568	2.150	1.320	399.3973	60.595	3080	45.0638	99.8138	74.346	2.150	1.320	396.6396	74.379	
3017	44.1350	99.7035	51.068	2.150	1.320	395.7108	51.091	3081	46.8451	99.8684	75.671	2.150	1.320	398.4209	75.705	
3018	34.1951	99.5027	36.234	2.150	1.320	385.7709	36.249	3082	46.4285	99.8781	77.415	2.150	1.320	398.0043	77.450	
3019	18.6780	99.0897	25.796	2.150	1.320	370.2538	25.805	3083	47.0794	99.9001	77.158	2.150	1.320	398.6552	77.193	
3020	25.6791	99.3518	30.304	2.150	1.320	377.2549	30.316	3084	47.3522	99.9001	78.030	2.150	1.320	398.9280	78.065	
3021	24.6510	99.3943	30.679	2.150	1.320	376.2268	30.692	3085	45.1846	99.7653	79.164	2.150	1.320	396.7604	79.199	
3022	24.2127	99.3188	29.263	2.150	1.320	375.7885	29.275	3086	47.7496	99.9066	78.027	2.150	1.320	399.3254	78.062	
3023	5.8848	100.6674	30.093	1.300	1.320	357.4606	30.105	3087	48.3114	99.9185	77.782	2.150	1.320	399.8872	77.817	
3024	5.2266	100.8718	28.204	1.300	1.320	356.8024	28.214	3088	48.5828	99.9409	78.994	2.150	1.320	0.1586	79.030	
3025	12.8771	100.5949	32.858	1.300	1.320	364.4529	32.871	3089	49.7027	99.9500	79.422	2.150	1.320	1.2785	79.458	
3026	17.9821	100.8222	33.370	1.300	1.320	369.5579	33.382	3090	49.3091	99.9346	80.263	2.150	1.320	0.8849	80.299	
3027	14.8849	100.8363	31.798	1.300	1.320	366.4607	31.810	3091	47.8818	99.9144	79.650	2.150	1.320	399.4576	79.686	
3028	1.5457	100.9632	26.968	1.300	1.320	353.1215	26.977	3092	47.1428	99.8433	81.787	2.150	1.320	398.7186	81.824	
3029	8.6618	101.0791	26.274	1.300	1.320	360.2376	26.282	3093	48.8541	99.9266	83.558	2.150	1.320	0.4299	83.596	
3030	26.6868	100.8840	35.462	1.300	1.320	378.2626	35.475	3094	50.5904	99.9504	83.472	2.150	1.320	2.1662	83.510	
3031	23.9201	100.7762	37.071	1.300	1.320	375.4959	37.085	3095	49.0973	99.9291	84.910	2.150	1.320	0.6731	84.948	
3032	37.5644	99.6298	52.239	2.150	1.320	389.1402	52.262	3096	48.3524	99.8484	87.031	2.150	1.320	399.9282	87.070	
3033	40.0033	99.7046	51.261	2.150	1.320	391.5791	51.284	3097	50.2649	99.9525	91.074	2.150	1.320	1.8407	91.115	
3034	32.4261	99.6570	44.603	2.150	1.320	384.0019	44.623	3098	49.5888	99.8962	93.067	2.150	1.320	1.1646	93.109	
3035	33.2996	99.6936	44.293	2.150	1.320	384.8754	44.313	3099	51.7584	99.9393	92.455	2.150	1.320	3.3342	92.497	
3036	31.4595	99.6501	43.570	2.150	1.320	383.0353	43.589	3100	51.0357	99.9545	95.668	2.150	1.320	2.6115	95.711	
3037	30.9399	99.6378	40.155	2.150	1.320	382.5157	40.173	3101	50.3886	99.8964	97.734	2.150	1.320	1.9644	97.778	
3038	22.3815	99.3558	38.980	2.150	1.320	373.9573	38.996	3102	49.5584	100.3596		98.789	1.300	1.320	1.1342	98.832
3039	21.7286	99.3312	37.376	2.150	1.320	373.3044	37.391	3103	51.6500	100.4875		98.877	1.300	1.320	3.2258	98.919
3040	19.1297	99.2338	37.970	2.150	1.320	370.7055	37.984	3104	52.7147	100.5332		96.097	1.300	1.320	4.2905	96.137
3041	17.9129	99.2164	36.593	2.150	1.320	369.4887	36.607	3105	51.1279	100.4821		98.082	1.300	1.320	2.7037	98.124
3042	21.5987	99.2807	35.821	2.150	1.320	373.1745	35.835	3106	51.3234	100.4563		100.321	1.300	1.320	2.8992	100.364
3043	20.6629	99.2297	35.449	2.150	1.320	372.2387	35.462	3107	51.3089	100.4461		100.781	1.300	1.320	2.8847	100.824
3044	20.3065	99.2215	35.618	2.150	1.320	371.8823	35.631	3108	51.5269	100.4695		100.294	1.300	1.320	3.1027	100.337
3045	20.8041	99.2321	35.969	2.150	1.320	372.3799	35.983	3109	51.6743	100.4653		100.812	1.300	1.320	3.2501	100.855
3046	12.9576	99.0579	35.023	2.150	1.320	364.5334	35.035	3110	52.1757	100.4598		103.028	1.300	1.320	3.7515	103.072
3047	19.9868	99.2487	38.817	2.150	1.320	371.5626	38.832	3111	51.6154	100.3855		105.092	1.300	1.320	3.1912	105.138
3048	20.2230	99.1780	41.958	2.150	1.320	371.7988	41.974	3112	50.6335	100.3456		105.312	1.300	1.320	2.2093	105.358
3049	20.5454	99.2237	42.071	2.150	1.320	372.1212	42.087	3113	51.2096	100.3277		109.232	1.300	1.320	2.7854	109.280
3050	20.5928	99.3899	42.707	2.150	1.320	372.1686	42.724	3114	55.1338	100.3786		115.099	1.500	1.320	6.7096	115.149
3051	24.8491	99.2820	46.186	2.150	1.320	376.4249	46.204	3115	51.9661	100.5270		90.491	1.500	1.320	3.5419	90.529
3052	25.3481	99.2396	46.265	2.150	1.320	376.9239	46.283	3116	49.5905	100.5647		77.987	1.500	1.320	1.1663	78.019
3053	25.6454	99.2319	46.669	2.150	1.320	377.2212	46.687	3117	47.0118	100.6187		68.075	1.500	1.320	398.5876	68.103
3054	27.5082	99.4705	45.478	2.150	1.320	379.0840	45.497	3118	47.3474	100.6321		67.932	1.500	1.320	398.9232	67.959
3055	28.0747	99.5062	45.881	2.150	1.320	379.6505	45.900	3119	36.5088	100.7145		45.231	1.500	1.320	388.0846	45.249
3056	27.7120	98.7314	46.150	2.670	1.320	379.2878	46.162	3120	34.8616	100.7753		42.304	1.500	1.320	386.4374	42.320
3057	32.5086	99.6044	51.875	2.150	1.320	384.0844	51.898	3121	28.3411	100.7908		36.436	1.500	1.320	379.9169	36.450
3058	32.9083	99.6090	51.777	2.150	1.320	384.4841	51.799	3122	15.2902	100.8821		28.505	1.500	1.320	366.8660	28.515
3059	34.3890	99.6498	51.885	2.150	1.320	385.9648	51.908	3123	392.2769	101.1413		22.424	1.500	1.320	343.8527	22.431
3060	36.2838	99.6172	53.877	2.150	1.320	387.8596	53.900	3124	351.3789	100.9241		21.240	1.500	1.320	302.9547	21.247
3061	36.7759	99.6605	51.248	2.150	1.320	388.3517	51.270	3125	309.6332	100.3333		16.198	1.500	1.320	261.2090	16.205
3062	35.1593	99.6274	51.972	2.150	1.320	386.7351	51.995	3126	298.3888	99.9548	13.672	1.500	1.320	249.9646	13.678	
3063	39.3180	99.7258	56.063	2.150	1.320	390.8938	56.088	3127	386.8688	100.4131		6.373	1.500	1.320	338.4446	6.376
3064	37.6756	99.6907	55.430	2.150	1.320	389.2514	55.454	3128	387.6008	100.6980		10.199	1.500	1.320	339.1766	10.203
3065	38.7313	99.7076	54.941	2.150	1.320	390.3071	54.965	3129	33.0525	100.5181		18.824	1.500	1.320	384.6283	18.832
3066	38.4639	99.6692	57.646	2.150	1.320	390.0397	57.671	3130	47.0374	100.3400		19.714	1.500	1.320	398.6132	19.723
3067	40.9068	99.7739	58.884	2.150	1.320	392.4826	58.910	3131	56.0438	100.3261		36.009	1.500	1.320	7.6196	36.025
3068	39.3986	99.7062	59.528	2.150	1.320	390.9744	59.554	3132	50.4117	100.4066		37.925	1.500	1.320	1.9875	37.941
3069	38.7742	99.6981	61.806	2.150	1.320	390.3500	61.833	3133	54.9689	100.3714		52.644	1.500	1.320	6.5447	52.667
3070	41.9774	99.8003	61.079	2.150	1.320	393.5532	61.106	3134	60.3620	100.2516		60.775	1.500	1.320	11.9378	60.802
3071	44.5782	99.8464	61.198	2.150	1.320	396.1540	61.226	3135	61.8286	100.2471		79.911	1.500	1.320	13.4044	79.947
3072	43.2757	99.7844	64.515	2.150	1.320	394.8515	64.544	3136	69.4780	100.2220		93.534	1.500	1.320	21.0538	93.576
3073	41.0537	99.6930	63.146	2.150	1.320	392.6295	63.174	3137	71.6167	100.2656		93.553	1.500	1.320	23.1925	93.595
3074	42.7789	99.7466	71.615	2.150	1.320	394.3547	71.647	3138	72.3471	100.3059		82.281	1.500	1.320	23.9229	82.317
3075	43.8346	99.7966	70.443	2.150	1.320	395.4104	70.475	3139	69.9732	100.2557		80.636	1.500	1.320	21.5490	80.672

3140	70.5955	100.2572	67.262	1.500	1.320	22.1713	67.292	
3141	73.8873	100.3118	65.518	1.500	1.320	25.4631	65.547	
3142	76.3091	100.3511	49.053	1.500	1.320	27.8849	49.074	
3143	72.3216	100.2865	46.768	1.500	1.320	23.8974	46.789	
3144	75.2181	100.3194	31.521	1.500	1.320	26.7939	31.535	
3145	81.7184	100.4282	31.369	1.500	1.320	33.2942	31.383	
3146	95.1307	100.5766	16.962	1.500	1.320	46.7065	16.969	
3147	84.9965	100.4492	14.809	1.500	1.320	36.5723	14.815	
3148	223.4911	100.1611		6.730	1.500	1.320	175.0669	6.733
3149	206.5482	100.4870		9.097	1.500	1.320	158.1240	9.101
10000	0.0000	96.7867	37.813	1.300	1.320	351.5758	37.782	
Coordenadas calculadas								
Número	X	Y	Z					
2977	236585.223	4141007.112	8.578					
2978	236583.464	4141007.607	8.610					
2979	236583.324	4141007.258	8.623					
2980	236583.015	4141007.033	8.634					
2981	236581.029	4141001.740	8.668					
2982	236581.346	4141001.441	8.638					
2983	236581.473	4141001.048	8.619					
2984	236581.416	4141000.669	8.581					
2985	236583.220	4141000.123	8.589					
2986	236581.822	4141000.862	8.613					
2987	236591.606	4140993.260	8.450					
2988	236590.592	4140995.026	8.419					
2989	236591.593	4140999.564	8.414					
2990	236592.712	4141003.507	8.409					
2991	236590.334	4141004.090	8.324					
2992	236597.791	4141009.053	8.393					
2993	236599.665	4141011.995	8.364					
2994	236599.833	4141013.838	8.479					
2995	236600.026	4141016.632	8.403					
2996	236598.345	4141017.194	8.356					
2997	236598.273	4141016.706	8.356					
2998	236600.282	4141023.854	8.342					
2999	236602.035	4141023.372	8.366					
3000	236602.424	4141020.928	8.299					
3001	236604.737	4141029.114	8.293					
3002	236604.409	4141031.445	8.304					
3003	236608.246	4141042.523	8.365					
3004	236610.305	4141048.065	8.198					
3005	236609.682	4141049.488	8.228					
3006	236611.998	4141055.577	8.312					
3007	236613.849	4141060.104	8.188					
3008	236613.413	4141062.172	8.177					
3009	236615.488	4141067.570	8.256					
3010	236616.642	4141071.304	8.291					
3011	236617.447	4141072.256	8.173					
3012	236616.596	4141072.895	8.144					
3013	236615.848	4141081.665	8.131					
3014	236610.554	4141063.655	8.122					
3015	236607.520	4141053.141	8.175					
3016	236604.768	4141043.724	8.225					
3017	236601.903	4141034.106	8.287					
3018	236597.307	4141018.479	8.332					
3019	236593.719	4141006.170	8.418					
3020	236594.740	4141011.533	8.357					
3021	236594.146	4141011.708	8.341					
3022	236594.475	4141010.314	8.362					
3023	236586.690	4141006.762	8.583					
3024	236587.633	4141005.096	8.513					
3025	236587.927	4141011.010	8.592					
3026	236589.981	4141012.769	8.468					
3027	236589.348	4141010.628	8.481					

3028	236587.224	4141003.119	8.491					
3029	236589.973	4141004.452	8.453					
3030	236593.463	4141016.558	8.406					
3031	236591.418	4141017.503	8.447					
3032	236596.470	4141034.635	8.353					
3033	236598.578	4141033.967	8.287					
3034	236594.246	4141026.352	8.289					
3035	236594.913	4141026.199	8.262					
3036	236593.863	4141025.182	8.288					
3037	236594.447	4141021.798	8.277					
3038	236589.831	4141018.910	8.443					
3039	236590.118	4141017.283	8.441					
3040	236588.474	4141017.165	8.506					
3041	236588.462	4141015.614	8.499					
3042	236590.685	4141015.832	8.454					
3043	236590.363	4141015.275	8.478					
3044	236590.111	4141015.344	8.484					
3045	236590.216	4141015.780	8.483					
3046	236586.818	4141012.869	8.567					
3047	236588.567	4141018.153	8.507					
3048	236587.351	4141021.054	8.591					
3049	236587.495	4141021.247	8.562					
3050	236587.253	4141021.838	8.458					
3051	236588.620	4141026.203	8.570					
3052	236588.931	4141026.407	8.601					
3053	236588.991	4141026.861	8.612					
3054	236590.662	4141026.195	8.427					
3055	236590.919	4141026.707	8.405					
3056	236590.587	4141026.872	8.448					
3057	236592.502	4141033.416	8.371					
3058	236592.842	4141033.400	8.367					
3059	236593.991	4141033.783	8.334					
3060	236595.125	4141036.055	8.373					
3061	236596.013	4141033.546	8.322					
3062	236594.586	4141034.002	8.353					
3063	236597.347	4141038.647	8.290					
3064	236596.024	4141037.797	8.318					
3065	236597.006	4141037.461	8.301					
3066	236596.356	4141040.098	8.348					
3067	236598.402	4141041.632	8.258					
3068	236596.927	4141042.088	8.324					
3069	236596.005	4141044.256	8.342					
3070	236599.165	4141043.925	8.241					
3071	236601.646	4141044.245	8.197					
3072	236600.128	4141047.464	8.267					
3073	236598.044	4141045.882	8.353					
3074	236598.997	4141054.497	8.334					
3075	236600.266	4141053.423	8.274					
3076	236601.145	4141050.951	8.259					
3077	236602.328	4141048.900	8.206					
3078	236604.413	4141053.640	8.165					
3079	236602.531	4141055.201	8.195					
3080	236601.418	4141057.407	8.266					
3081	236603.464	4141058.813	8.205					
3082	236602.915	4141060.543	8.197					
3083	236603.712	4141060.307	8.170					
3084	236604.028	4141061.186	8.172					
3085	236601.314	4141062.228	8.341					
3086	236604.515	4141061.189	8.164					
3087	236605.204	4141060.949	8.149					
3088	236605.539	4141062.161	8.122					
3089	236606.938	4141062.573	8.111					
3090	236606.458	4141063.423	8.132					
3091	236604.663	4141062.815	8.156					

					Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
3092	236603.695	4141064.939	8.250		6828	177.1274	106.0512	4.588	1.300	1.574	161.2244	4.569
3093	236605.907	4141066.725	8.145		6829	205.5648	102.5358	10.372	1.300	1.574	189.6618	10.368
3094	236608.183	4141066.593	8.114		6830	215.1914	101.5741	17.698	1.300	1.574	199.2884	17.701
3095	236606.240	4141068.075	8.144		6831	218.7641	101.1306	25.020	1.300	1.574	202.8611	25.027
3096	236605.244	4141070.202	8.256		6832	220.1182	100.8961	32.067	1.300	1.574	204.2152	32.078
3097	236607.976	4141074.209	8.117		6833	221.6854	100.6451	39.146	1.300	1.574	205.7824	39.162
3098	236607.045	4141076.225	8.201		6834	222.3459	100.4784	46.765	1.300	1.574	206.4429	46.785
3099	236610.184	4141075.502	8.137		6835	222.9776	100.4720	53.910	1.300	1.574	207.0746	53.933
3100	236609.267	4141078.762	8.118		6836	224.1747	100.3306	67.943	1.300	1.574	208.2717	67.973
3101	236608.359	4141080.863	8.208		6837	224.3632	100.3718	76.430	1.300	1.574	208.4602	76.463
3102	236607.103	4141081.948	8.341		6838	247.4771	100.4123	101.864	1.300	1.574	231.5741	101.908
3103	236610.352	4141081.923	8.142		6839	248.8467	99.7483	94.690	1.574	232.9437	94.732	
3104	236611.816	4141079.050	8.094		6840	250.5371	99.8133	87.756	1.574	234.6341	87.795	
3105	236609.508	4141081.167	8.157		6841	252.4784	99.8513	80.937	1.574	236.5754	80.973	
3106	236609.911	4141083.391	8.180		6842	257.8310	100.4732	67.566	1.300	1.574	241.9280	67.595
3107	236609.909	4141083.852	8.193		6843	261.2433	100.4733	60.746	1.300	1.574	245.3403	60.772
3108	236610.230	4141083.349	8.160		6844	266.4645	99.5548	53.750	1.574	250.5615	53.773	
3109	236610.489	4141083.855	8.162		6845	272.0356	99.5313	48.019	1.574	256.1326	48.039	
3110	236611.412	4141086.025	8.155		6846	288.0083	100.3991	50.403	1.300	1.574	272.1053	50.425
3111	236610.610	4141088.137	8.263		6847	277.1684	100.4396	49.012	1.300	1.574	261.2654	49.033
3112	236608.998	4141088.426	8.328		6848	289.9582	100.5854	49.473	1.300	1.574	274.0552	49.493
3113	236610.122	4141092.307	8.337		6849	286.7347	100.6753	42.914	1.300	1.574	270.8317	42.931
3114	236617.456	4141097.642	8.015		6850	281.7679	100.7808	39.612	1.300	1.574	265.8649	39.627
3115	236610.376	4141073.520	7.950		6851	277.9729	100.7628	38.816	1.300	1.574	262.0699	38.831
3116	236606.771	4141061.138	8.007		6852	273.5295	100.8682	38.988	1.300	1.574	257.6265	39.002
3117	236603.831	4141051.217	8.037		6853	272.0212	100.9364	39.568	1.300	1.574	256.1182	39.582
3118	236604.193	4141051.081	8.025		6854	268.5682	100.8783	41.683	1.300	1.574	252.6652	41.698
3119	236596.922	4141027.590	8.191		6855	258.2998	100.7908	55.643	1.300	1.574	242.3968	55.664
3120	236596.394	4141024.495	8.184		6856	253.5465	100.5123	67.712	1.300	1.574	237.6435	67.740
3121	236594.033	4141017.782	8.246		6857	255.1206	100.5637	63.737	1.300	1.574	239.2176	63.763
3122	236591.162	4141007.871	8.304		6858	256.7024	100.4711	64.486	1.300	1.574	240.7994	64.513
3123	236588.026	4140997.389	8.297		6859	255.8727	100.5294	63.888	1.300	1.574	239.9697	63.915
3124	236584.118	4140984.117	8.390		6860	256.4309	100.4999	64.164	1.300	1.574	240.5279	64.191
3125	236592.053	4140973.857	8.614		6861	257.2083	100.4999	62.615	1.300	1.574	241.3053	62.641
3126	236595.676	4140973.454	8.708		6862	256.7426	100.4996	64.007	1.300	1.574	240.8396	64.034
3127	236600.094	4140986.752	8.657		6863	262.9390	100.3550	64.471	1.300	1.574	247.0360	64.499
3128	236597.011	4140989.021	8.587		6864	263.1983	100.3551	64.723	1.300	1.574	247.2953	64.751
3129	236600.839	4141001.417	8.546		6865	262.9000	100.3472	64.616	1.300	1.574	246.9970	64.644
3130	236604.913	4141002.849	8.593		6866	260.6312	100.4989	57.825	1.300	1.574	244.7282	57.849
3131	236609.644	4141018.899	8.514		6867	262.8700	100.0983	53.017	1.700	1.574	246.9670	53.041
3132	236606.526	4141021.054	8.457		6868	262.1568	100.1259	52.639	1.700	1.574	246.2538	52.663
3133	236610.747	4141035.520	8.392		6869	262.9830	100.1197	51.699	1.700	1.574	247.0800	51.722
3134	236616.677	4141042.868	8.459		6870	265.6266	100.0791	49.327	1.700	1.574	249.7236	49.349
3135	236622.051	4141061.312	8.389		6871	267.4590	100.0132	51.240	1.700	1.574	251.5560	51.263
3136	236635.728	4141071.637	8.373		6872	265.8600	100.1097	46.844	1.700	1.574	249.9570	46.865
3137	236638.690	4141070.584	8.309		6873	264.9672	100.1360	48.025	1.700	1.574	249.0642	48.047
3138	236635.552	4141059.705	8.304		6874	265.4635	100.1170	48.475	1.700	1.574	249.5605	48.497
3139	236632.130	4141059.226	8.375		6875	264.0117	100.1460	48.656	1.700	1.574	248.1087	48.678
3140	236628.307	4141046.384	8.427		6876	270.1297	100.1535	42.109	1.700	1.574	254.2267	42.128
3141	236630.866	4141043.505	8.378		6877	271.3135	100.1173	41.570	1.700	1.574	255.4105	41.589
3142	236626.157	4141027.573	8.428		6878	272.0980	100.1064	42.273	1.700	1.574	256.1950	42.292
3143	236622.496	4141026.662	8.488		6879	273.0742	100.0772	41.343	1.700	1.574	257.1712	41.362
3144	236618.226	4141011.914	8.541		6880	273.8915	100.0710	39.800	1.700	1.574	257.9885	39.818
3145	236621.017	4141010.319	8.488		6881	278.2604	100.1259	37.798	1.700	1.574	262.3574	37.815
3146	236616.704	4140995.735	8.545		6881	279.3548	100.1210	37.088	1.700	1.574	263.4518	37.105
3147	236613.393	4140995.569	8.594		6882	286.6337	100.0900	42.615	1.700	1.574	270.7307	42.634
3148	236607.912	4140976.908	8.682		6883	290.8069	99.3717	44.918	1.574	274.9039	44.936	
3149	236610.906	4140975.930	8.629		6884	295.4678	99.3820	47.772	1.574	279.5648	47.791	
10000	236579.296	4141010.500	10.807		6885	290.4382	99.3565	41.801	1.574	274.5352	41.818	
Radiación desde la estación 5028					6886	296.3778	99.4319	44.866	1.574	280.4748	44.884	
X	236845.287	Desorientación	384.0970		6887	299.0052	99.2782	44.870	1.574	283.1022	44.887	
Y	4141856.836	Nombre			6888	295.1102	100.4784	39.644	1.300	1.574	279.2072	39.661
Z	9.889	Coef. anamorfosis	1.0004531698		6889	295.2004	100.4582	39.394	1.300	1.574	279.2974	39.411
Visuales utilizadas												

6890	295.4360	100.4211	39.244	1.300	1.574	279.5330	39.261	6954	347.9072	99.9724 31.253	1.300	1.574	332.0042	31.267	
6891	295.8268	100.3864	39.111	1.300	1.574	279.9238	39.128	6955	346.3080	99.9339 31.303	1.300	1.574	330.4050	31.317	
6892	297.0279	99.9772 40.515	1.300	1.574	281.1249	40.533		6956	342.8444	100.1110	30.082	1.300	1.574	326.9414	30.096
6893	302.9429	99.9092 38.999	1.300	1.574	287.0399	39.017		6957	351.2450	100.2424	30.998	1.300	1.574	335.3420	31.012
6894	301.8995	99.9897 37.487	1.300	1.574	285.9965	37.504		6958	354.8754	100.6783	29.331	1.300	1.574	338.9724	29.343
6895	303.2612	99.9459 37.177	1.300	1.574	287.3582	37.194		6959	356.6420	101.0356	29.580	1.300	1.574	340.7390	29.589
6896	303.6854	100.0449	37.345	1.300	1.574	287.7824	37.362	6960	371.0442	100.4006	34.868	1.300	1.574	355.1412	34.883
6897	305.4710	100.6649	40.296	1.300	1.574	289.5680	40.312	6961	352.4173	99.7993 34.119	1.300	1.574	336.5143	34.134	
6898	305.1397	100.7865	39.456	1.300	1.574	289.2367	39.471	6962	346.4950	99.2032 42.216	1.500	1.574	330.5920	42.232	
6899	303.8139	100.3106	37.267	1.300	1.574	287.9109	37.283	6963	338.6888	98.1286 41.084	2.150	1.574	322.7858	41.085	
6900	303.4888	100.2712	37.149	1.300	1.574	287.5858	37.165	6964	322.4569	98.0954 40.567	2.150	1.574	306.5539	40.567	
6901	302.7544	100.2368	36.397	1.300	1.574	286.8514	36.413	6965	364.3673	99.5970 39.853	1.300	1.574	348.4643	39.870	
6902	300.8545	100.1385	36.947	1.300	1.574	284.9515	36.964	6966	367.1633	99.5534 47.609	1.300	1.574	351.2603	47.629	
6903	299.5403	100.2993	35.298	1.300	1.574	283.6373	35.314	6967	368.1388	99.5611 50.461	1.300	1.574	352.2358	50.483	
6904	301.6610	100.3410	34.944	1.300	1.574	285.7580	34.959	6968	371.8261	99.5295 47.155	1.300	1.574	355.9231	47.175	
6905	300.9307	100.5543	33.618	1.300	1.574	285.0277	33.632	6969	374.4795	99.6186 45.703	1.300	1.574	358.5765	45.723	
6906	299.4413	100.7780	32.032	1.300	1.574	283.5383	32.044	6970	374.9452	99.6015 45.847	1.300	1.574	359.0422	45.867	
6907	294.7250	101.1253	30.690	1.300	1.574	278.8220	30.699	6971	379.1184	100.0852	42.850	1.300	1.574	363.2154	42.869
6908	290.4498	101.1475	31.163	1.300	1.574	274.5468	31.172	6972	382.1044	100.2835	41.537	1.300	1.574	366.2014	41.555
6909	288.6898	101.1254	32.008	1.300	1.574	272.7868	32.017	6973	384.4920	100.5026	43.078	1.300	1.574	368.5890	43.096
6910	287.2885	101.0275	33.590	1.300	1.574	271.3855	33.601	6974	390.6862	100.4784	49.550	1.300	1.574	374.7832	49.571
6911	288.1797	100.8925	36.077	1.300	1.574	272.2767	36.090	6975	389.2603	100.1269	49.794	1.300	1.574	373.3573	49.816
6912	290.8970	100.7548	38.245	1.300	1.574	274.9940	38.260	6976	388.5854	100.1259	48.969	1.300	1.574	372.6824	48.991
6913	293.0443	100.5243	37.445	1.300	1.574	277.1413	37.461	6977	389.5559	100.1986	48.487	1.300	1.574	373.6529	48.509
6914	295.1879	100.4573	39.225	1.300	1.574	279.2849	39.242	6978	381.6898	100.0311	44.738	1.300	1.574	365.7868	44.758
6915	292.6812	100.6753	40.042	1.300	1.574	276.7782	40.058	6979	381.0643	99.9508 44.691	1.300	1.574	365.1613	44.711	
6916	293.0374	100.6388	40.158	1.300	1.574	277.1344	40.174	6980	378.3838	99.7308 46.385	1.300	1.574	362.4808	46.406	
6917	294.4311	100.4763	38.357	1.300	1.574	278.5281	38.373	6981	380.7296	99.5312 46.015	1.300	1.574	364.8266	46.035	
6918	292.8646	100.5775	38.907	1.300	1.574	276.9616	38.923	6982	381.8872	99.7492 45.564	1.300	1.574	365.9842	45.584	
6919	293.6532	100.5518	39.755	1.300	1.574	277.7502	39.771	6983	382.2253	99.4967 46.641	1.300	1.574	366.3223	46.661	
6920	290.7647	100.6291	37.295	1.300	1.574	274.8617	37.310	6984	382.8278	99.6225 46.911	1.300	1.574	366.9248	46.931	
6921	289.5479	100.6431	36.338	1.300	1.574	273.6449	36.353	6985	382.8805	99.6618 48.019	1.300	1.574	366.9775	48.040	
6922	291.3797	100.8621	31.228	1.300	1.574	275.4767	31.239	6986	382.2594	99.7180 48.640	1.300	1.574	366.3564	48.661	
6923	294.3578	100.6749	32.144	1.300	1.574	278.4548	32.157	6987	384.2463	99.7134 48.470	1.300	1.574	368.3433	48.491	
6924	297.5116	101.1810	29.299	1.300	1.574	281.6086	29.307	6988	383.7149	99.8109 51.099	1.300	1.574	367.8119	51.122	
6925	303.8707	100.2672	36.815	1.300	1.574	287.9677	36.831	6989	386.7609	100.0405	49.307	1.300	1.574	370.8579	49.329
6926	313.1290	100.2661	35.351	1.300	1.574	297.2260	35.367	6990	382.3851	99.6172 56.003	1.300	1.574	366.4821	56.027	
6927	308.9703	101.2489	27.100	1.300	1.574	293.0673	27.107	6991	389.3014	99.8145 57.657	1.300	1.574	373.3984	57.683	
6928	311.3294	100.5425	32.042	1.300	1.574	295.4264	32.055	6992	391.6271	99.9745 56.311	1.300	1.574	375.7241	56.336	
6929	313.8108	102.3600	35.708	0.100	1.574	297.9078	35.700	6993	390.4967	99.5490 53.779	1.700	1.574	374.5937	53.802	
6930	312.9731	100.3319	33.339	1.300	1.574	297.0701	33.354	6994	388.2507	99.5046 50.967	1.700	1.574	372.3477	50.988	
6931	312.9924	100.6242	30.939	1.300	1.574	297.0894	30.951	6995	388.4126	99.3380 52.147	1.700	1.574	372.5096	52.168	
6932	314.5622	100.8583	29.056	1.300	1.574	298.6592	29.066	6996	387.3629	99.2781 52.691	1.700	1.574	371.4599	52.711	
6933	318.8230	101.2054	26.708	1.300	1.574	302.9200	26.715	6997	388.1523	99.2390 53.461	1.700	1.574	372.2493	53.481	
6934	319.2316	101.2381	26.440	1.300	1.574	303.3286	26.447	6998	385.2193	99.3061 52.683	1.700	1.574	369.3163	52.704	
6935	322.9424	101.2540	26.282	1.300	1.574	307.0394	26.289	6999	388.3681	99.2962 55.373	1.700	1.574	372.4651	55.395	
6936	317.0935	100.7627	28.940	1.300	1.574	301.1905	28.951	7000	389.3460	99.3716 55.184	1.700	1.574	373.4430	55.206	
6937	317.2483	100.5972	29.163	1.300	1.574	301.3453	29.175	7001	388.7168	99.3716 53.818	1.700	1.574	372.8138	53.840	
6938	322.7809	100.4025	28.702	1.300	1.574	306.8779	28.714	7002	389.2752	99.3912 54.051	1.700	1.574	373.3722	54.073	
6939	330.1547	100.4010	28.604	1.300	1.574	314.2517	28.616	7003	390.7584	99.5341 54.033	1.700	1.574	374.8554	54.056	
6940	334.5774	100.8070	26.660	1.300	1.574	318.6744	26.670	7004	393.7194	99.7316 54.040	1.700	1.574	377.8164	54.064	
6941															

7018	207.7898	101.1857	15.357	1.300	1.574	191.8868	15.361	7082	377.5499	107.6550	2.497	1.500	1.574	361.6469	2.480
7019	208.4074	101.6682	9.871	1.300	1.574	192.5044	9.872	7083	383.5202	108.4786	2.287	1.500	1.574	367.6172	2.268
7020	210.5974	101.4671	11.109	1.300	1.574	194.6944	11.111	7084	399.4993	105.2881	3.519	1.500	1.574	383.5963	3.508
7021	200.6794	101.2591	10.326	1.300	1.574	184.7764	10.329	7085	98.1930 114.0338	1.175	1.300	1.574	82.2900	1.147	
7022	220.3683	102.0404	11.575	1.300	1.574	204.4653	11.574	7086	117.4842	116.3123	0.984	0.000	1.574	101.5812	0.952
7023	234.0753	103.2156	11.464	1.300	1.574	218.1723	11.455	7087	117.4841	116.3119	0.984	1.300	1.574	101.5811	0.952
7024	230.5827	102.7705	9.252	1.300	1.574	214.6797	9.247	7088	283.1385	120.3678	0.945	1.300	1.574	267.2355	0.897
7025	198.2965	101.8333	9.114	1.300	1.574	182.3935	9.114	7089	242.1946	110.5066	1.951	1.300	1.574	226.2916	1.925
7026	196.5516	101.5402	9.839	1.300	1.574	180.6486	9.841	7090	32.6281 105.4629	4.008	1.300	1.516	16.7251	3.995	
7027	196.6788	101.3413	12.178	1.300	1.574	180.7758	12.181	7090	34.4481 107.3003	3.013	1.300	1.516	18.5451	2.995	
7028	195.4268	101.1508	12.951	1.300	1.574	179.5238	12.955	7091	79.0927 103.5187	5.986	1.300	1.516	63.1897	5.980	
7029	184.2538	102.0129	8.492	1.300	1.574	168.3508	8.492	7092	51.9135 101.8105	11.459	1.300	1.516	36.0105	11.460	
7030	183.3829	101.8050	9.267	1.300	1.574	167.4799	9.267	7093	29.0592 102.1896	10.514	1.300	1.516	13.1562	10.513	
7031	185.5574	100.9872	12.975	1.300	1.574	169.6544	12.979	7094	73.8922 103.6781	10.307	1.300	1.516	57.9892	10.294	
7032	192.1080	100.7746	15.901	1.300	1.574	176.2050	15.907	7095	71.7472 103.4683	10.450	1.300	1.516	55.8442	10.439	
7033	195.4441	100.7470	17.029	1.300	1.574	179.5411	17.036	7096	71.7168 103.5565	10.750	1.300	1.516	55.8138	10.738	
7034	185.6571	100.9667	13.405	1.300	1.574	169.7541	13.410	7097	92.9014 106.4491	16.181	1.300	1.516	76.9984	16.105	
7035	183.2290	100.9887	12.749	1.300	1.574	167.3260	12.753	7098	95.3572 106.6342	16.117	1.300	1.516	79.4542	16.037	
7036	182.1781	107.1499	13.030	0.000	1.574	166.2751	12.954	7099	82.4317 105.7260	18.180	1.300	1.516	66.5287	18.115	
7037	150.6681	100.9891	8.989	1.300	1.574	134.7651	8.992	7100	82.3427 105.1755	18.456	1.300	1.516	66.4397	18.403	
7038	147.1219	107.6614	10.688	0.000	1.574	131.2189	10.615	7101	60.8689 101.9511	13.693	1.300	1.516	44.9659	13.693	
7039	129.9074	100.4398	10.064	1.300	1.574	114.0044	10.068	7102	60.2197 101.9073	13.883	1.300	1.516	44.3167	13.883	
7040	128.7551	100.4610	17.531	1.300	1.574	112.8521	17.538	7103	49.2116 100.7678	12.781	1.300	1.516	33.3086	12.786	
7041	113.3195	100.9170	14.303	1.300	1.574	97.4165 14.308		7104	48.3624 100.8357	12.316	1.300	1.516	32.4594	12.320	
7042	121.4662	100.9791	12.252	1.300	1.574	105.5632	12.256	7105	52.4722 101.0458	12.920	1.300	1.516	36.5692	12.924	
7043	126.9396	101.1124	11.568	1.300	1.574	111.0366	11.571	7106	51.2377 101.6483	12.340	1.300	1.516	35.3347	12.341	
7044	117.6458	101.7565	8.721	1.300	1.574	101.7428	8.722	7107	34.5513 101.6579	12.010	1.300	1.516	18.6483	12.011	
7045	122.5419	101.2596	10.486	1.300	1.574	106.6389	10.489	7108	21.2579 101.4171	16.258	1.300	1.516	5.3549	16.261	
7046	129.3724	101.1801	10.918	1.300	1.574	113.4694	10.921	7109	25.5478 100.9723	20.579	1.300	1.516	9.6448	20.586	
7047	124.3951	101.1350	10.944	1.300	1.574	108.4921	10.947	7110	32.4011 100.7820	22.212	1.300	1.516	16.4981	22.220	
7048	123.5951	101.4613	8.515	1.300	1.574	107.6921	8.517	7111	29.9918 100.8093	21.718	1.300	1.516	14.0888	21.726	
7049	134.0355	100.0133	10.069	1.300	1.574	118.1325	10.074	7112	30.4331 100.4866	19.712	1.300	1.516	14.5301	19.720	
7050	135.6296	100.5606	9.494	1.300	1.574	119.7266	9.498	7113	38.9207 100.2821	20.130	1.290	1.516	23.0177	20.139	
7051	138.9053	100.1461	10.169	1.300	1.574	123.0023	10.174	7113	39.1832 100.2993	20.118	1.290	1.516	23.2802	20.127	
7052	143.9258	101.2810	8.430	1.300	1.574	128.0228	8.432	7114	38.7310 100.3995	22.653	1.290	1.516	22.8280	22.663	
7053	167.3896	102.9431	4.899	1.300	1.574	151.4866	4.896	7115	60.0812 98.5736 25.245	1.600	1.516	44.1782	25.250		
7054	191.5823	103.6272	4.967	1.300	1.574	175.6793	4.961	7116	56.4798 98.7072 24.456	1.600	1.516	40.5768	24.462		
7055	213.4290	103.9065	5.611	1.300	1.574	197.5260	5.603	7117	48.8674 98.9678 23.173	1.600	1.516	32.9644	23.180		
7056	179.6537	110.3421	1.805	1.300	1.574	163.7507	1.782	7118	44.5291 99.1186 22.661	1.600	1.516	28.6261	22.669		
7057	143.1802	103.7549	4.714	1.300	1.574	127.2772	4.708	7119	42.1910 99.3112 26.312	1.600	1.516	26.2880	26.322		
7058	150.7749	103.7542	4.869	1.300	1.574	134.8719	4.863	7120	45.6038 99.2399 26.647	1.600	1.516	29.7008	26.657		
7059	148.3139	103.1371	5.428	1.300	1.574	132.4109	5.424	7121	49.2299 99.1190 27.187	1.600	1.516	33.3269	27.197		
7060	155.2071	103.7558	4.867	1.300	1.574	139.3041	4.861	7122	52.1304 99.0010 27.919	1.600	1.516	36.2274	27.928		
7061	157.3612	103.2037	5.355	1.300	1.574	141.4582	5.351	7123	56.1457 98.8557 28.627	1.600	1.516	40.2427	28.635		
7062	107.3759	103.6013	4.904	1.300	1.574	91.4729 4.898		7124	61.7961 98.5166 25.202	1.600	1.516	45.8931	25.207		
7063	88.3356 102.8419	5.490	1.300	1.574	72.4326 5.487			7125	50.2085 98.9336 23.011	1.600	1.516	34.3055	23.018		
7064	97.5480 103.1269	5.998	1.300	1.574	81.6450 5.993			7126	42.5797 99.1341 17.855	1.600	1.516	26.6767	17.861		
7065	100.4542	103.1106	5.863	1.300	1.574	84.5512 5.859		7127	42.8367 99.1116 17.257	1.600	1.516	26.9337	17.263		
7066	106.2360	102.5644	7.411	1.300	1.574	90.3330 7.408		7128	75.7143 97.8384 19.017	1.600	1.516	59.8113	19.015		
7067	100.7753	103.1285	7.667	1.300	1.574	84.8723 7.661		7129	61.7819 98.1317 15.966	1.600	1.516	45.8789	15.966		
7068	99.9063 103.3056	7.385	1.300	1.574	84.0033 7.378			7130	72.0824 97.8332 16.660	1.600	1.516	56.1794	16.658		
7069	102.7648	102.9822	7.217	1.300	1.574	86.8618 7.212		7131	71.1086 97.8245 15.978	1.600	1.516	55.2056	15.976		
7070	101.4259	103.0856	7.700	1.300	1.574	85.5229 7.694		7132	79.8914 97.9008 18.248	1.600	1.516	63.9884	18.246		
7071	98.6092														

7144	38.1363	99.5861	22.879	1.600	1.516	22.2333	22.889	7208	11.3044	100.1009	50.025	1.290	1.516	395.4014	50.048	
7145	28.1032	100.0297		22.473	1.600	1.516	12.2002	22.483	7209	6.1779	100.1497	37.608	1.290	1.516	390.2749	37.625
7146	28.1524	100.0060		24.998	1.600	1.516	12.2494	25.009	7210	4.6137	100.0602	36.416	1.290	1.516	388.7107	36.432
7147	36.7567	100.4080		25.370	1.290	1.516	20.8537	25.381	7211	397.6793	100.2974	26.900	1.290	1.516	381.7763	26.912
7148	44.0177	100.1579		25.534	1.290	1.516	28.1147	25.545	7212	395.5649	100.1933	26.230	1.290	1.516	379.6619	26.242
7149	25.0423	100.6142		18.491	1.290	1.516	9.1393	18.498	7213	375.1516	100.3414	16.963	1.290	1.516	359.2486	16.970
7150	27.7932	100.5322		19.766	1.290	1.516	11.8902	19.774	7214	375.1671	100.4188	16.565	1.290	1.516	359.2641	16.572
7151	22.8230	101.0077		26.821	1.290	1.516	6.9200	26.830	7215	376.3110	100.4715	16.575	1.290	1.516	360.4080	16.582
7152	59.2174	98.8950	29.085	1.600	1.516	43.3144	29.094	7216	379.5586	100.1007	17.817	1.290	1.516	363.6556	17.825	
7153	58.0641	98.6300	38.315	1.600	1.516	42.1611	38.323	7217	377.2096	100.5520	16.650	1.290	1.516	361.3066	16.657	
7154	45.9888	99.1577	35.166	1.600	1.516	30.0858	35.179	7218	374.4985	100.4356	16.517	1.290	1.516	358.5955	16.524	
7155	43.1497	99.1408	40.982	1.600	1.516	27.2467	40.997	7219	375.0659	100.3846	17.294	1.290	1.516	359.1629	17.301	
7156	43.3678	99.2219	36.468	1.600	1.516	27.4648	36.482	7220	373.5537	100.4288	16.649	1.290	1.516	357.6507	16.656	
7157	42.6153	99.2679	35.716	1.600	1.516	26.7123	35.730	7221	374.4924	100.4837	16.325	1.290	1.516	358.5894	16.332	
7158	44.8536	99.2365	33.560	1.600	1.516	28.9506	33.573	7222	376.4367	100.5608	16.352	1.290	1.516	360.5337	16.359	
7159	44.1166	99.2503	32.793	1.600	1.516	28.2136	32.806	7223	343.2813	100.8091	11.998	1.290	1.516	327.3783	12.002	
7160	45.8656	99.2027	29.351	1.600	1.516	29.9626	29.362	7224	344.4551	100.7328	12.416	1.290	1.516	328.5521	12.421	
7161	45.0096	99.2481	28.589	1.600	1.516	29.1066	28.600	7225	306.2000	100.9878	11.865	1.290	1.516	290.2970	11.869	
7162	38.0132	99.5008	29.726	1.600	1.516	22.1102	29.739	7226	304.2951	101.0030	11.967	1.290	1.516	288.3921	11.971	
7163	35.7943	99.5677	28.511	1.600	1.516	19.8913	28.523	7227	292.5730	100.9795	13.064	1.290	1.516	276.6700	13.068	
7164	34.5832	99.8857	25.630	1.600	1.516	18.6802	25.642	7228	291.0258	100.9793	13.245	1.290	1.516	275.1228	13.249	
7165	29.8205	99.9905	26.054	1.600	1.516	13.9175	26.066	7229	256.1156	107.6177	4.098	1.290	1.516	240.2126	4.071	
7166	27.6214	99.6928	28.202	1.600	1.516	11.7184	28.214	7230	395.6513	108.6955	3.386	1.290	1.516	379.7483	3.356	
7167	30.5327	100.3964		27.913	1.290	1.516	14.6297	27.925	7231	18.2783	102.2160	12.016	1.290	1.516	2.3753	12.014
7168	37.6814	100.3185		25.667	1.290	1.516	21.7784	25.678	7232	18.0215	101.7392	14.314	1.290	1.516	2.1185	14.315
7169	27.4943	100.7238		26.501	1.290	1.516	11.5913	26.511	7233	8.3766	100.8653	20.526	1.290	1.516	392.4736	20.533
7170	23.6226	100.8875		30.129	1.290	1.516	7.7196	30.140	7234	14.6839	100.5586	30.593	1.290	1.516	398.7809	30.606
7171	25.4472	100.4142		30.537	1.290	1.516	9.5442	30.550	7235	18.1281	100.3386	43.499	1.290	1.516	2.2251	43.518
7172	28.2760	100.3660		28.817	1.290	1.516	12.3730	28.830	7236	19.8121	100.1778	54.982	1.290	1.516	3.9091	55.007
7173	25.2134	100.3476		34.009	1.290	1.516	9.3104	34.024	7237	22.5997	100.2013	59.935	1.290	1.516	6.6967	59.962
7174	42.2832	99.9614	31.637	1.290	1.516	26.3802	31.651	7238	18.7226	100.0919	60.322	1.290	1.516	2.8196	60.349	
7175	42.1924	99.9615	31.636	1.290	1.516	26.2894	31.650	7239	15.8346	100.0337	60.817	1.290	1.516	399.9316	60.844	
7176	37.8160	99.8574	38.984	1.290	1.516	21.9130	39.001	7240	17.1565	100.0467	60.537	1.290	1.516	1.2535	60.564	
7177	37.6409	99.8417	39.718	1.290	1.516	21.7379	39.736	7241	15.5796	100.1517	51.434	1.290	1.516	399.6766	51.457	
7178	35.8495	99.7567	46.894	1.290	1.516	19.9465	46.915	7242	12.3113	100.2528	39.600	1.290	1.516	396.4083	39.618	
7179	35.7218	99.7568	47.622	1.290	1.516	19.8188	47.643	7243	2.6260	100.5097	23.873	1.290	1.516	386.7230	23.883	
7180	34.4712	99.7898	54.780	1.290	1.516	18.5682	54.804	7244	392.3588	100.7626	17.146	1.290	1.516	376.4558	17.153	
7181	35.3770	99.7900	54.863	1.290	1.516	19.4740	54.887	9989	0.0000	71.3569	108.780	1.300	1.574	384.0970	97.998	
7182	34.3716	99.7898	55.520	1.290	1.516	18.4686	55.545	9999	0.0017	71.3221	108.807	0.000	1.516	384.0987	97.996	
7183	26.4739	100.1176		51.452	1.290	1.516	10.5709	51.475	10000	0.0017	71.3218	108.806	0.000	1.516	384.0987	97.995
Coordenadas calculadas																
Número X Y Z																
6828	236847.901		4141853.088	9.728												
6829	236846.963		4141846.604	9.750												
6830	236845.485		4141839.137	9.726												
6831	236844.163		4141831.834	9.719												
6832	236843.165		4141824.828	9.712												
6833	236841.735		4141817.836	9.766												
6834	236840.560		4141810.291	9.812												
6835	236839.306		4141803.236	9.764												
6836	236836.480		4141789.436	9.811												
6837	236835.156		4141781.047	9.717												
6838	236796.791		4141767.207	9.504												
6839	236798.424		4141774.507	9.688												
6840	236799.845		4141781.716	9.571												
6841	236801.283		4141788.863	9.503												
6842	236803.918		4141803.379	9.661												
6843	236805.573		4141810.836	9.712												
6844	236806.930		4141819.150	9.689												
6845	236808.208		4141826.292	9.667												
6846	236799.626		4141835.442	9.847												
6847	236805.054		4141828.809	9.825												
6848	236799.847		4141837.219	9.708												
6849	236806.784		4141837.847	9.708												

6850	236811.221	4141836.592	9.677	6913	236810.215	4141843.672	9.855
6851	236813.147	4141835.045	9.698	6914	236808.105	4141844.291	9.881
6852	236814.610	4141832.751	9.631	6915	236807.865	4141842.546	9.738
6853	236814.742	4141831.662	9.581	6916	236807.677	4141842.715	9.760
6854	236814.594	4141828.611	9.588	6917	236809.076	4141844.137	9.876
6855	236810.897	4141813.066	9.472	6918	236808.885	4141843.056	9.810
6856	236807.526	4141800.597	9.618	6919	236807.920	4141843.217	9.819
6857	236808.445	4141804.794	9.599	6920	236810.848	4141842.483	9.795
6858	236806.715	4141805.124	9.686	6921	236812.005	4141842.213	9.796
6859	236807.744	4141805.110	9.632	6922	236816.337	4141845.098	9.740
6860	236807.127	4141805.219	9.659	6923	236814.954	4141846.160	9.822
6861	236807.436	4141806.924	9.672	6924	236817.194	4141848.487	9.620
6862	236806.969	4141805.532	9.661	6925	236809.112	4141849.916	10.009
6863	236801.851	4141809.155	9.804	6926	236809.954	4141855.295	10.015
6864	236801.487	4141809.147	9.802	6927	236818.341	4141853.890	9.632
6865	236801.783	4141809.021	9.811	6928	236813.314	4141854.535	9.890
6866	236807.905	4141812.687	9.710	6929	236809.607	4141855.663	10.040
6867	236809.610	4141817.587	9.681	6930	236811.969	4141855.302	9.989
6868	236810.303	4141817.472	9.659	6931	236814.368	4141855.421	9.860
6869	236810.429	4141818.624	9.666	6932	236816.227	4141856.224	9.771
6870	236810.544	4141821.790	9.702	6933	236818.600	4141858.061	9.657
6871	236808.164	4141821.484	9.753	6934	236818.876	4141858.218	9.649
6872	236812.171	4141823.675	9.682	6935	236819.159	4141859.737	9.645
6873	236811.816	4141822.366	9.661	6936	236816.341	4141857.377	9.816
6874	236811.232	4141822.308	9.674	6937	236816.119	4141857.452	9.890
6875	236811.904	4141821.408	9.652	6938	236816.740	4141859.932	9.982
6876	236813.587	4141829.089	9.662	6939	236817.385	4141863.189	9.983
6877	236813.489	4141830.031	9.687	6940	236819.756	4141864.548	9.825
6878	236812.618	4141829.978	9.693	6941	236820.301	4141866.904	9.670
6879	236812.938	4141831.062	9.713	6942	236818.663	4141871.539	10.010
6880	236813.829	4141832.426	9.719	6943	236818.553	4141871.971	10.020
6881	236813.892	4141835.757	9.688	6944	236817.345	4141873.654	10.207
6881	236814.131	4141836.685	9.693	6945	236815.901	4141873.938	10.288
6882	236807.080	4141837.918	9.703	6946	236815.042	4141868.864	10.266
6883	236803.798	4141839.577	9.756	6947	236816.017	4141869.574	10.228
6884	236799.937	4141841.757	9.777	6948	236816.687	4141869.015	10.226
6885	236806.770	4141840.551	9.736	6949	236816.219	4141868.547	10.194
6886	236802.497	4141843.285	9.714	6950	236816.673	4141872.115	10.233
6887	236801.972	4141845.061	9.822	6951	236817.134	4141873.152	10.234
6888	236807.723	4141844.111	9.865	6952	236817.349	4141872.495	10.200
6889	236807.942	4141844.244	9.880	6953	236818.787	4141872.503	10.040
6890	236808.038	4141844.430	9.904	6954	236817.888	4141871.901	10.177
6891	236808.089	4141844.700	9.926	6955	236817.474	4141871.231	10.196
6892	236806.522	4141844.994	10.178	6956	236817.846	4141869.195	10.111
6893	236807.076	4141848.948	10.219	6957	236818.933	4141873.181	10.045
6894	236808.687	4141848.653	10.169	6958	236821.273	4141873.698	9.851
6895	236808.824	4141849.499	10.195	6959	236821.552	4141874.505	9.682
6896	236808.611	4141849.710	10.137	6960	236822.691	4141883.411	9.944
6897	236805.515	4141850.260	9.742	6961	236816.615	4141875.358	10.271
6898	236806.379	4141850.194	9.676	6962	236807.838	4141876.358	10.492
6899	236808.674	4141849.799	9.981	6963	236806.806	4141871.229	10.521
6900	236808.826	4141849.635	10.005	6964	236804.935	4141861.005	10.527
6901	236809.648	4141849.369	10.028	6965	236816.423	4141884.340	10.415
6902	236809.351	4141848.180	10.083	6966	236812.281	4141891.175	10.497
6903	236811.134	4141847.859	9.997	6967	236810.866	4141893.764	10.511
6904	236811.199	4141849.080	9.976	6968	236815.173	4141893.149	10.512
6905	236812.581	4141848.999	9.870	6969	236817.592	4141893.216	10.437
6906	236814.308	4141848.642	9.772	6970	236817.772	4141893.533	10.450
6907	236816.271	4141846.811	9.621	6971	236821.872	4141892.746	10.106
6908	236816.574	4141844.702	9.601	6972	236824.247	4141892.671	9.978
6909	236816.151	4141843.563	9.597	6973	236824.876	4141894.792	9.823
6910	236815.024	4141842.237	9.621	6974	236826.161	4141902.569	9.791
6911	236812.566	4141841.612	9.657	6975	236825.042	4141902.353	10.064
6912	236809.941	4141842.191	9.710	6976	236824.904	4141901.385	10.066

6977	236825.779	4141901.249	10.012	7041	236859.583	4141857.416	9.957
6978	236822.374	4141895.285	10.141	7042	236857.496	4141855.766	9.975
6979	236822.022	4141895.018	10.198	7043	236856.685	4141854.840	9.961
6980	236819.494	4141895.413	10.359	7044	236854.005	4141856.597	9.922
6981	236821.127	4141896.021	10.502	7045	236855.719	4141855.744	9.956
6982	236822.073	4141896.066	10.343	7046	236855.965	4141854.543	9.961
6983	236821.738	4141897.118	10.532	7047	236856.137	4141855.380	9.968
6984	236821.986	4141897.575	10.441	7048	236853.742	4141855.809	9.968
6985	236821.470	4141898.557	10.418	7049	236854.955	4141854.005	10.161
6986	236820.751	4141898.859	10.379	7050	236854.333	4141853.940	10.079
6987	236822.156	4141899.455	10.381	7051	236854.804	4141853.240	10.140
6988	236820.527	4141901.561	10.315	7052	236852.915	4141853.243	9.993
6989	236823.486	4141901.086	10.132	7053	236848.667	4141853.294	9.937
6990	236817.133	4141905.276	10.500	7054	236847.137	4141852.232	9.880
6991	236821.879	4141909.556	10.331	7055	236845.505	4141851.237	9.819
6992	236824.321	4141909.126	10.186	7056	236846.248	4141855.335	9.871
6993	236824.381	4141906.410	10.144	7057	236849.569	4141854.880	9.885
6994	236823.830	4141903.090	10.160	7058	236849.438	4141854.304	9.876
6995	236823.454	4141904.215	10.305	7059	236850.023	4141854.192	9.896
6996	236822.440	4141904.339	10.361	7060	236849.250	4141854.022	9.876
6997	236822.705	4141905.316	10.402	7061	236849.543	4141853.593	9.894
6998	236820.857	4141903.536	10.337	7062	236850.142	4141857.490	9.886
6999	236822.068	4141907.130	10.375	7063	236850.268	4141859.138	9.918
7000	236822.920	4141907.308	10.308	7064	236851.033	4141858.540	9.869
7001	236822.988	4141905.841	10.294	7065	236850.974	4141858.244	9.877
7002	236823.324	4141906.247	10.280	7066	236852.610	4141857.957	9.865
7003	236824.487	4141906.730	10.159	7067	236852.733	4141858.639	9.786
7004	236826.827	4141907.651	9.991	7068	236852.434	4141858.671	9.780
7005	236824.404	4141910.701	10.210	7069	236852.346	4141858.314	9.825
7006	236824.314	4141910.898	10.122	7070	236852.783	4141858.571	9.790
7007	236818.236	4141919.860	10.495	7071	236852.854	4141858.944	9.621
7008	236817.989	4141919.585	10.502	7072	236854.774	4141858.606	9.371
7009	236819.025	4141917.980	10.506	7073	236855.312	4141858.773	9.128
7010	236820.229	4141916.340	10.497	7074	236852.940	4141859.206	9.462
7011	236821.344	4141914.685	10.424	7075	236849.288	4141859.687	9.794
7012	236820.232	4141915.870	10.487	7076	236846.010	4141858.522	9.782
7013	236826.972	4141907.620	9.857	7077	236843.739	4141855.591	9.621
7014	236845.740	4141839.778	9.891	7078	236846.926	4141857.705	9.902
7015	236846.320	4141839.709	9.890	7079	236849.501	4141858.405	9.928
7016	236845.672	4141839.348	9.804	7080	236849.212	4141859.500	9.914
7017	236846.576	4141841.140	9.870	7081	236847.016	4141860.076	9.751
7018	236847.239	4141841.599	9.877	7082	236843.882	4141858.879	9.664
7019	236846.447	4141847.032	9.904	7083	236844.183	4141858.817	9.659
7020	236846.212	4141845.764	9.907	7084	236844.393	4141860.229	9.671
7021	236847.733	4141846.801	9.959	7085	236846.390	4141857.151	9.906
7022	236844.476	4141845.290	9.792	7086	236846.239	4141856.812	11.214
7023	236842.062	4141845.845	9.584	7087	236846.239	4141856.812	9.914
7024	236843.174	4141847.833	9.761	7088	236844.506	4141856.394	9.866
7025	236847.776	4141848.068	9.901	7089	236844.514	4141855.073	9.843
7026	236848.232	4141847.447	9.925	7090	236846.325	4141860.694	9.762
7027	236848.910	4141845.206	9.907	7090	236846.147	4141859.704	9.760
7028	236849.382	4141844.546	9.929	7091	236850.295	4141860.104	9.774
7029	236849.337	4141849.372	9.895	7092	236851.429	4141866.511	9.779
7030	236849.818	4141848.752	9.900	7093	236847.444	4141867.125	9.744
7031	236851.242	4141845.304	9.962	7094	236853.420	4141863.147	9.510
7032	236851.095	4141842.027	9.970	7095	236853.314	4141863.510	9.536
7033	236850.668	4141840.673	9.963	7096	236853.541	4141863.705	9.505
7034	236851.421	4141844.912	9.960	7097	236860.353	4141862.529	8.469
7035	236851.549	4141845.726	9.965	7098	236860.496	4141861.922	8.429
7036	236851.833	4141845.658	10.003	7099	236860.955	4141865.927	8.472
7037	236852.971	4141852.166	10.023	7100	236861.192	4141866.094	8.606
7038	236854.652	4141851.836	10.180	7101	236854.174	4141867.253	9.685
7039	236855.113	4141854.639	10.094	7102	236854.190	4141867.489	9.689
7040	236862.469	4141853.319	10.036	7103	236851.676	4141867.911	9.951

7104	236851.300	4141867.589	9.943	7167	236851.648	4141884.027	9.941
7105	236852.309	4141867.686	9.893	7168	236853.901	4141881.026	9.987
7106	236851.791	4141867.325	9.786	7169	236850.087	4141882.909	9.814
7107	236848.755	4141868.336	9.792	7170	236848.933	4141886.754	9.695
7108	236846.653	4141873.040	9.743	7171	236849.850	4141887.043	9.916
7109	236848.394	4141877.186	9.791	7172	236850.855	4141885.123	9.949
7110	236850.981	4141878.314	9.832	7173	236850.245	4141890.497	9.929
7111	236850.056	4141878.032	9.829	7174	236858.031	4141885.809	10.134
7112	236849.749	4141876.045	9.954	7175	236857.989	4141885.826	10.134
7113	236852.411	4141875.673	10.026	7176	236858.448	4141893.550	10.202
7113	236852.484	4141875.632	10.021	7177	236858.593	4141894.278	10.214
7114	236853.240	4141878.057	9.973	7178	236859.747	4141901.467	10.294
7115	236861.436	4141876.246	10.371	7179	236859.881	4141902.189	10.297
7116	236859.844	4141876.495	10.302	7180	236861.046	4141909.326	10.296
7117	236856.761	4141876.978	10.181	7181	236861.816	4141909.175	10.296
7118	236855.140	4141877.252	10.119	7182	236861.176	4141910.060	10.299
7119	236855.850	4141880.946	10.090	7183	236853.795	4141907.603	10.020
7120	236857.277	4141880.644	10.123	7184	236852.442	4141899.345	9.984
7121	236858.883	4141880.390	10.181	7185	236854.063	4141899.063	10.033
7122	236860.336	4141880.363	10.243	7186	236853.288	4141898.951	10.004
7123	236862.207	4141879.938	10.320	7187	236855.065	4141897.163	10.080
7124	236861.925	4141875.772	10.392	7188	236854.900	4141896.179	10.081
7125	236857.099	4141876.592	10.191	7189	236853.914	4141890.132	10.035
7126	236852.555	4141873.152	10.048	7190	236853.758	4141889.142	10.018
7127	236852.375	4141872.577	10.046	7191	236854.760	4141888.969	10.123
7128	236860.637	4141868.058	10.451	7192	236854.915	4141890.970	10.094
7129	236855.823	4141868.833	10.274	7193	236850.423	4141895.625	9.762
7130	236858.152	4141867.418	10.372	7194	236853.869	4141911.877	10.005
7131	236857.469	4141867.172	10.351	7195	236854.633	4141912.377	10.025
7132	236860.691	4141866.616	10.407	7196	236845.326	4141943.697	10.267
7133	236852.312	4141875.555	10.017	7197	236844.464	4141944.720	10.272
7134	236851.347	4141874.785	10.016	7198	236843.186	4141943.109	10.243
7135	236851.617	4141870.641	10.039	7199	236844.317	4141943.932	10.364
7136	236850.494	4141869.776	10.054	7200	236846.237	4141935.581	10.181
7137	236850.409	4141870.237	10.056	7201	236845.066	4141935.065	10.220
7138	236848.055	4141870.612	9.902	7202	236845.340	4141932.195	10.198
7139	236848.202	4141868.984	9.771	7203	236845.819	4141932.065	10.150
7140	236850.437	4141867.716	9.841	7204	236845.481	4141935.182	10.230
7141	236851.564	4141869.500	10.048	7205	236843.773	4141919.608	10.115
7142	236850.854	4141869.742	9.971	7206	236843.147	4141918.738	10.141
7143	236851.710	4141875.034	9.813	7207	236841.339	4141907.544	10.124
7144	236853.119	4141878.343	9.954	7208	236841.675	4141906.753	10.036
7145	236849.569	4141878.908	9.795	7209	236839.562	4141894.023	10.027
7146	236850.070	4141881.384	9.803	7210	236838.860	4141892.697	10.081
7147	236853.453	4141880.867	9.953	7211	236837.688	4141882.653	9.989
7148	236856.205	4141879.931	10.052	7212	236837.045	4141881.750	10.035
7149	236847.934	4141875.144	9.937	7213	236835.151	4141870.447	10.024
7150	236848.959	4141876.266	9.950	7214	236835.392	4141870.130	10.006
7151	236848.198	4141883.507	9.691	7215	236835.627	4141870.313	9.992
7152	236863.590	4141879.452	10.310	7216	236835.655	4141871.834	10.087
7153	236868.852	4141887.058	10.630	7217	236835.775	4141870.510	9.971
7154	236861.300	4141888.159	10.270	7218	236835.282	4141869.987	10.002
7155	236862.302	4141894.135	10.358	7219	236834.934	4141870.698	10.011
7156	236860.542	4141889.975	10.251	7220	236835.006	4141869.941	10.003
7157	236859.843	4141889.466	10.216	7221	236835.397	4141869.833	9.991
7158	236860.034	4141886.997	10.208	7222	236835.783	4141870.151	9.971
7159	236859.354	4141886.472	10.191	7223	236834.378	4141861.840	9.963
7160	236858.602	4141883.006	10.173	7224	236834.095	4141862.222	9.972
7161	236857.912	4141882.498	10.143	7225	236833.556	4141855.034	9.931
7162	236855.409	4141884.799	10.038	7226	236833.515	4141854.665	9.927
7163	236854.055	4141883.978	9.999	7227	236833.086	4141852.153	9.914
7164	236852.703	4141881.382	9.851	7228	236833.036	4141851.789	9.911
7165	236850.940	4141882.281	9.809	7229	236842.883	4141853.551	9.626
7166	236850.451	4141884.574	9.941	7230	236844.237	4141860.024	9.654

7231	236845.735	4141868.842	9.697							6647	362.1186	101.0383	13.620	1.300	1.551	398.4876	13.624
7232	236845.763	4141871.143	9.724							6648	358.0932	100.7563	15.244	1.300	1.551	394.4622	15.250
7233	236842.865	4141877.226	9.836							6649	362.6991	100.7424	17.181	1.300	1.551	399.0681	17.188
7234	236844.701	4141887.436	9.847							6650	360.8038	100.6222	18.826	1.300	1.551	397.1728	18.834
7235	236846.808	4141900.327	9.884							6651	362.7962	100.6220	19.215	1.300	1.551	399.1652	19.223
7236	236848.663	4141911.739	9.962							6652	350.5207	100.3838	18.803	1.300	1.551	386.8897	18.811
7237	236851.583	4141916.466	9.926							6653	363.3252	100.3874	20.552	1.300	1.551	399.6942	20.561
7238	236847.959	4141917.126	10.028							6654	366.7127	100.4412	21.603	1.300	1.551	3.0817	21.612
7239	236845.222	4141917.680	10.083							6655	366.4790	100.4966	19.799	1.300	1.551	2.8480	19.807
7240	236846.479	4141917.389	10.071							6656	373.8781	100.8002	18.288	1.300	1.551	10.2471	18.295
7241	236845.026	4141908.292	9.993							6657	380.8109	98.7522	17.016	2.150	1.551	17.1799	17.020
7242	236843.053	4141896.391	9.958							6658	377.4170	98.0557	21.577	2.150	1.551	13.7860	21.577
7243	236840.342	4141880.202	9.924							6659	373.8027	100.6639	21.035	1.300	1.551	10.1717	21.043
7244	236839.087	4141872.829	9.910							6660	373.2719	100.6136	22.791	1.300	1.551	9.6409	22.800
9989	236821.061	4141951.792	57.472							6661	372.3210	100.5013	25.509	1.300	1.551	8.6900	25.520
9999	236821.064	4141951.791	58.779							6662	367.8271	100.3941	26.246	1.300	1.551	4.1961	26.257
10000	236821.064	4141951.790	58.779							6663	372.4881	100.4991	26.941	1.300	1.551	8.8571	26.952
Radiación desde la estación 5030										6664	363.4319	100.1962	32.296	1.300	1.551	399.8009	32.310
X	236802.169		Desorientación	36.3690						6665	363.0269	100.2054	31.090	1.300	1.551	399.3959	31.104
Y	4141774.234		Nombre							6666	359.1017	100.2460	26.150	1.300	1.551	395.4707	26.162
Z	9.613		Coef. anamorfosis	1.0004534494						6667	359.2691	100.2087	28.318	1.300	1.551	395.6381	28.331
Visuales utilizadas										6668	358.9092	100.2015	27.942	1.300	1.551	395.2782	27.954
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.			6669	361.4355	100.1274	32.512	1.300	1.551	397.8045	32.527
6606	44.9598	100.6082	29.925	1.300	1.551	81.3288	29.937			6670	361.8197	100.1058	33.556	1.300	1.551	398.1887	33.571
6607	78.3148	100.3451	43.632	1.300	1.551	114.6838	43.651			6671	362.4466	100.1232	33.527	1.300	1.551	398.8156	33.542
6608	81.8729	100.2183	39.715	1.300	1.551	118.2419	39.733			6672	368.4546	100.2866	29.730	1.300	1.551	4.8236	29.743
6609	86.1224	100.2408	39.839	1.300	1.551	122.4914	39.857			6673	367.1872	100.2443	29.800	1.300	1.551	3.5562	29.813
6610	91.6735	100.1942	43.307	1.300	1.551	128.0425	43.326			6674	366.9423	100.2965	28.915	1.300	1.551	3.3113	28.928
6611	89.7303	100.0714	49.305	1.300	1.551	126.0993	49.327			6675	368.2806	100.3016	28.845	1.300	1.551	4.6496	28.858
6612	92.5889	100.1965	42.903	1.300	1.551	128.9579	42.922			6676	363.1686	100.1273	34.900	1.300	1.551	399.5376	34.916
6613	93.3574	100.2111	42.597	1.300	1.551	129.7264	42.616			6677	368.8002	100.1000	36.987	1.300	1.551	5.1692	37.004
6614	94.0211	100.2113	42.906	1.300	1.551	130.3901	42.925			6678	369.9969	100.1659	36.020	1.300	1.551	6.3659	36.036
6615	97.2546	100.2349	43.027	1.300	1.551	133.6236	43.046			6679	370.2157	100.1450	36.902	1.300	1.551	6.5847	36.919
6616	102.9246	100.7444	17.243	1.300	1.551	139.2936	17.250			6680	370.5661	100.1586	37.733	1.300	1.551	6.9351	37.750
6617	111.2131	100.3948	18.005	1.300	1.551	147.5821	18.013			6681	371.1993	100.1738	44.421	1.300	1.551	7.5683	44.441
6618	148.6998	106.4342	4.804	1.300	1.551	185.0688	4.782			6682	370.0078	100.1338	45.414	1.300	1.551	6.3768	45.434
6619	133.2400	109.9984	3.088	1.300	1.551	169.6090	3.051			6683	365.8027	100.0667	47.566	1.300	1.551	2.1717	47.587
6620	127.7580	111.2796	2.753	1.300	1.551	164.1270	2.711			6684	371.1078	100.1847	49.064	1.300	1.551	7.4768	49.086
6621	55.3012	117.5228	1.824	1.700	1.551	91.6702	1.756			6685	370.1935	100.1845	50.100	1.300	1.551	6.5625	50.122
6622	41.6573	115.9889	1.990	1.700	1.551	78.0263	1.928			6686	370.7984	100.1443	52.626	1.300	1.551	7.1674	52.650
6623	69.5999	101.5195	9.856	1.300	1.551	105.9689	9.858			6687	371.8222	100.1648	51.638	1.300	1.551	8.1912	51.661
6624	86.4892	101.2666	11.177	1.300	1.551	122.8582	11.180			6688	371.5916	100.1450	53.552	1.300	1.551	7.9606	53.576
6625	172.2833	97.8185	15.460	2.150	1.551	208.6523	15.458			6689	368.5972	100.0662	57.719	1.300	1.551	4.9662	57.745
6626	170.7423	102.4952	8.060	1.300	1.551	207.1113	8.057			6690	372.5351	100.1118	59.975	1.300	1.551	8.9041	60.002
6627	168.1974	100.7708	11.990	1.700	1.551	204.5664	11.995			6691	34.5384	100.4155	33.685	1.300	1.551	70.9074	33.699
6628	176.5904	102.3747	7.780	1.300	1.551	212.9594	7.778			6692	34.9966	100.8459	32.717	1.300	1.551	71.3656	32.729
6629	165.7910	103.1845	7.875	1.300	1.551	202.1600	7.869			6693	38.0691	100.1805	36.558	1.300	1.551	74.4381	36.574
6630	164.9922	104.0299	7.214	1.300	1.551	201.3612	7.203			6694	39.4574	100.0341	37.834	1.300	1.551	75.8264	37.851
6631	163.9708	104.3680	6.299	1.300	1.551	200.3398	6.287			6695	35.6794	100.1659	37.534	1.300	1.551	72.0484	37.551
6632	177.2808	103.3260	5.443	1.300	1.551	213.6498	5.438			6696	35.8026	100.1258	38.220	1.300	1.551	72.1716	38.237
6633	162.3515	105.1639	3.646	1.300	1.551	198.7205	3.636			6697	36.3710	100.1572	37.958	1.300	1.551	72.7400	37.975
6634	182.0964	104.7366	3.655	1.300	1.551	218.4654	3.647			6698	36.8722	100.1060	38.430	1.300	1.551	73.2412	38.447
6635	215.5104	103.0270	4.576	1.300	1.551	251.8794	4.573			6699	35.6706	100.1373	39.375	1.300	1.551	72.0396	39.393
6636	250.3233	103.9293	3.040	1.300	1.551	286.6923	3.036			6700	33.6307	100.2707	39.216	1.300	1.551	69.9997	39.233
6637	258.0407	102.0204	4.299	1.300	1.551	294.4097	4.299			6701	36.8737	100.0861	40.708	1.300	1.551	73.2427	40.726
6638	278.0812	102.2298	4.119	1.300	1.551	314.4502	4.118			6702	38.1701	100.0694	40.891	1.300	1.551	74.5391	40.909
6639	178.3510	102.8682	6.241	1.300	1.551	214.7200	6.237			6703	37.0730	100.1160	42.105	1.300	1.551	73.4420	42.124
6640	184.9563	103.0151	5.713	1.300	1.551	221.3253	5.709			6704	31.2207	99.9740	45.100	1.300	1.551	67.5897	45.120
6641	240.1951	101.2869	7.858	1.300	1.551	276.5641	7.860			6705	32.8628	99.7939	46.552	1.300	1.551	69.2318	46.573
6642	269.1260	101.2205	6.708	1.300	1.551	305.4950	6.710			6706	34.8373	99.8643	47.573	1.300	1.551	71.2063	47.594
6643	229.9983	100.9424	9.548	1.300	1.551	266.3673	9.551			6707	36.3475	99.0456	48.212	2.150	1.551	72.7165	48.228
6644	277.1792	100.9998	7.212	1.300	1.551	313.5482	7.214			6708	34.6967	99.7403	47.652	1.300	1.551	71.0657	47.673
6645	337.4808	101.1860	7.379	1.300	1.551	373.8498	7.381			6709	33.2525	99.7338	48.267	1.300	1.551	69.6215	48.288
6646	352.3615	101.2702	7.940	1.300	1.551	388.7305	7.942			6710	32.7919	99.7483	48.110	1.300	1.551	69.1609	48.131

6711	32.3626	99.7445	48.369	1.300	1.551	68.7316	48.390	6775	49.1567	100.4996	28.056	1.500	1.551	85.5257	28.068
6712	32.3694	99.7241	50.473	1.300	1.551	68.7384	50.495	6776	29.1809	100.2652	32.238	1.500	1.551	65.5499	32.252
6713	31.2293	99.7241	51.195	1.300	1.551	67.5983	51.218	6777	24.0623	100.1014	29.720	1.500	1.551	60.4313	29.733
6714	28.4683	99.8066	48.657	1.300	1.551	64.8373	48.679	6778	19.2244	99.9211	27.750	1.500	1.551	55.5934	27.763
6715	28.1436	99.9543	47.357	1.300	1.551	64.5126	47.378	6779	31.0109	100.0255	24.662	1.500	1.551	67.3799	24.673
6716	28.6392	100.0661	44.943	1.300	1.551	65.0082	44.963	6780	7.6664	99.9600	38.983	1.500	1.551	44.0354	39.001
6717	28.5845	100.0111	45.752	1.300	1.551	64.9535	45.773	6781	396.6832	99.8670	57.685	1.500	1.551	33.0522	57.711
6718	34.1033	99.9629	43.698	1.300	1.551	70.4723	43.718	6782	391.2459	99.8655	75.812	1.500	1.551	27.6149	75.846
6719	34.5694	99.9401	43.958	1.300	1.551	70.9384	43.978	6783	389.5774	99.8521	84.012	1.500	1.551	25.9464	84.050
6720	34.5722	99.9502	43.785	1.300	1.551	70.9412	43.805	6784	390.8038	99.8441	72.756	1.500	1.551	27.1728	72.789
6721	34.0233	100.2339	37.735	1.300	1.551	70.3923	37.752	6785	393.2013	99.3569	73.438	2.150	1.551	29.5703	73.467
6722	30.2007	100.7441	35.004	1.300	1.551	66.5697	35.017	6786	396.1992	99.4625	74.436	2.150	1.551	32.5682	74.467
6723	20.2027	100.6190	41.094	1.300	1.551	56.5717	41.111	6787	385.6209	99.9354	93.251	1.300	1.551	21.9899	93.293
6724	22.3756	100.3662	42.351	1.300	1.551	58.7446	42.369	6788	385.9163	99.9485	93.378	1.300	1.551	22.2853	93.420
6725	28.3773	100.8977	35.653	1.300	1.551	64.7463	35.666	6789	386.4371	99.8765	88.061	1.300	1.551	22.8061	88.101
6726	23.1387	100.2781	43.690	1.300	1.551	59.5077	43.709	6790	388.2626	99.9674	78.158	1.300	1.551	24.6316	78.193
6727	21.6848	100.2786	43.732	1.300	1.551	58.0538	43.751	6791	388.0898	99.9494	76.858	1.300	1.551	24.4588	76.893
6728	19.1768	99.9640	45.804	1.500	1.551	55.5458	45.825	6792	390.5812	99.9599	65.377	1.300	1.551	26.9502	65.407
6729	21.6108	99.8500	46.065	1.500	1.551	57.9798	46.086	6793	391.3032	100.0176	64.388	1.300	1.551	27.6722	64.417
6730	20.4579	99.8590	47.039	1.500	1.551	56.8269	47.060	6794	395.0426	100.0709	52.618	1.300	1.551	31.4116	52.642
6731	22.9469	99.7803	46.935	1.500	1.551	59.3159	46.956	6795	395.0120	100.0124	51.177	1.300	1.551	31.3810	51.200
6732	27.1888	99.5867	49.090	1.500	1.551	63.5578	49.111	6796	3.9316	100.1021	35.685	1.300	1.551	40.3006	35.701
6733	25.4677	99.6294	50.146	1.500	1.551	61.8367	50.168	6797	5.2108	100.1788	35.272	1.300	1.551	41.5798	35.288
6734	23.3172	99.6466	52.232	1.500	1.551	59.6862	52.255	6798	18.6667	100.3055	25.293	1.300	1.551	55.0357	25.304
6735	22.5726	99.6453	53.261	1.500	1.551	58.9416	53.284	6799	19.5018	100.2456	24.168	1.300	1.551	55.8708	24.179
6736	15.1877	99.1232	49.691	2.150	1.551	51.5567	49.709	6800	35.0416	100.3124	19.119	1.300	1.551	71.4106	19.127
6737	11.6755	99.4166	49.032	2.150	1.551	48.0445	49.052	6801	36.2201	100.3537	19.166	1.300	1.551	72.5891	19.174
6738	17.0945	99.0161	52.305	2.150	1.551	53.4635	52.322	6802	35.8173	100.4263	19.501	1.300	1.551	72.1863	19.509
6739	14.8868	99.0567	52.575	2.150	1.551	51.2558	52.593	6803	33.5831	100.1956	19.691	1.300	1.551	69.9521	19.700
6740	15.8267	99.0391	51.519	2.150	1.551	52.1957	51.536	6804	33.5616	100.3236	19.302	1.300	1.551	69.9306	19.310
6741	6.6429	99.2632	57.567	2.150	1.551	43.0119	57.589	6805	35.4696	100.2505	19.341	1.300	1.551	71.8386	19.350
6742	5.1583	99.4820	58.682	2.150	1.551	41.5273	58.707	6806	34.9612	100.4576	19.948	1.300	1.551	71.3302	19.956
6743	9.9799	99.1315	59.052	2.150	1.551	46.3489	59.073	6807	36.3868	100.3574	18.868	1.300	1.551	72.7558	18.876
6744	11.9232	99.7709	58.637	1.500	1.551	48.2922	58.663	6808	37.1443	100.4258	19.156	1.300	1.551	73.5133	19.164
6745	11.0890	99.8096	60.703	1.500	1.551	47.4580	60.730	6809	36.7630	100.4591	19.507	1.300	1.551	73.1320	19.515
6746	12.1562	99.7971	61.861	1.500	1.551	48.5252	61.889	6810	81.9684	100.6923	16.107	1.300	1.551	118.3374	16.113
6747	11.9725	99.7968	61.048	1.500	1.551	48.3415	61.075	6811	80.1825	100.6785	15.835	1.300	1.551	116.5515	15.841
6748	12.3245	99.7347	65.357	1.500	1.551	48.6935	65.386	6812	67.6491	101.1664	11.075	1.300	1.551	104.0181	11.078
6749	11.7460	99.7432	65.368	1.500	1.551	48.1150	65.397	6813	16.4464	100.6074	18.016	1.300	1.551	52.8154	18.023
6750	11.6433	99.7389	66.041	1.500	1.551	48.0123	66.070	6814	15.9137	100.6074	18.375	1.300	1.551	52.2827	18.382
6751	9.9127	99.7574	67.833	1.500	1.551	46.2817	67.863	6815	27.2297	100.3222	20.742	1.300	1.551	63.5987	20.751
6752	9.9186	99.7577	67.005	1.500	1.551	46.2876	67.035	6816	26.5729	100.2962	20.971	1.300	1.551	62.9419	20.980
6753	7.5287	99.8570	65.806	1.500	1.551	43.8977	65.836	6817	13.3783	100.2361	26.205	1.300	1.551	49.7473	26.217
6754	6.9934	99.8853	64.009	1.500	1.551	43.3624	64.038	6818	9.1573	100.3250	25.032	1.300	1.551	45.5263	25.043
6755	3.8714	99.9370	66.591	1.500	1.551	40.2404	66.621	6819	12.9957	100.3342	23.306	1.300	1.551	49.3647	23.316
6756	3.1379	99.9322	68.200	1.500	1.551	39.5069	68.231	6820	1.5566	100.1890	32.271	1.300	1.551	37.9256	32.285
6757	1.7376	99.9230	71.522	1.500	1.551	38.1066	71.554	6821	397.4660	100.2821	31.029	1.300	1.551	33.8350	31.043
6758	1.5025	100.1816	65.982	1.500	1.551	37.8715	66.012	6822	391.0877	100.1754	42.218	1.300	1.551	27.4567	42.237
6759	3.3420	99.8654	71.678	1.500	1.551	39.7110	71.710	6823	394.4837	100.1007	43.455	1.300	1.551	30.8527	43.475
6760	4.9070	99.8039	71.068	1.500	1.551	41.2760	71.100	6824	393.3174	99.9982	53.526	1.300	1.551	29.6864	53.550
6761	9.3672	99.7448	70.173	1.500	1.551	45.7362	70.204	6825	390.1979	100.0423	52.833	1.300	1.551	26.5669	52.857
6762	9.1640	99.7664	69.373	1.500	1.551	45.5330	69.404	6826	387.8898	100.0954	52.253	1.300	1.551	24.2588	52.277
6763	7.6708	99.7381	73.633	1.500	1.551	44.0398	73.666	6827	386.1718	100.1263	51.248	1.300	1.551	22.5408	51.271
6764	7.4720	99.7517	72.874	1.500	1.551	43.8410	72.906	9880	0.0000	79.7242	95.939	1.300	1.551	36.3690	91.155
6765	5.3146	99.7550	78.741	1.500	1.551	41.6836	78.776	Coordenadas calculadas							
6766	5.1749	99.7555	78.013	1.500	1.551	41.5439	78.048	Número X	Y	Z					
6767	2.1169	99.8257	77.870	1.500	1.551	38.4859	77.905								

6614	236840.296	4141754.513	9.722	6678	236805.767	4141810.091	9.770
6615	236839.350	4141752.542	9.706	6679	236805.981	4141810.956	9.780
6616	236816.236	4141764.251	9.663	6680	236806.274	4141811.761	9.770
6617	236815.381	4141761.990	9.753	6681	236807.440	4141818.362	9.743
6618	236803.281	4141769.584	9.379	6682	236806.713	4141819.441	9.769
6619	236803.571	4141771.524	9.381	6683	236803.792	4141821.794	9.814
6620	236803.617	4141771.942	9.379	6684	236807.921	4141822.982	9.722
6621	236803.910	4141774.464	8.968	6685	236807.327	4141824.091	9.719
6622	236803.984	4141774.887	8.970	6686	236808.084	4141826.551	9.745
6623	236811.984	4141773.312	9.629	6687	236808.798	4141825.469	9.731
6624	236812.636	4141770.306	9.642	6688	236808.851	4141827.392	9.742
6625	236800.075	4141758.919	9.544	6689	236806.669	4141831.804	9.804
6626	236801.271	4141766.227	9.548	6690	236810.534	4141833.651	9.759
6627	236801.310	4141762.271	9.319	6691	236832.411	4141789.104	9.644
6628	236800.597	4141766.617	9.574	6692	236831.643	4141788.464	9.430
6629	236801.902	4141766.370	9.470	6693	236835.835	4141788.529	9.761
6630	236802.015	4141767.033	9.408	6694	236837.324	4141788.264	9.844
6631	236802.136	4141767.948	9.432	6695	236836.158	4141790.197	9.766
6632	236801.012	4141768.921	9.580	6696	236836.811	4141790.422	9.789
6633	236802.242	4141770.600	9.569	6697	236836.716	4141790.003	9.771
6634	236801.126	4141770.740	9.592	6698	236837.270	4141789.923	9.800
6635	236798.842	4141771.098	9.647	6699	236837.823	4141790.985	9.779
6636	236799.200	4141773.605	9.677	6700	236837.126	4141792.046	9.698
6637	236797.887	4141773.857	9.728	6701	236839.351	4141790.852	9.809
6638	236798.157	4141775.161	9.720	6702	236839.850	4141790.163	9.820
6639	236800.740	4141768.163	9.583	6703	236840.681	4141791.302	9.788
6640	236800.292	4141768.843	9.594	6704	236841.568	4141796.226	9.883
6641	236794.836	4141771.406	9.705	6705	236843.408	4141795.877	10.015
6642	236795.485	4141774.813	9.736	6706	236844.978	4141795.034	9.966
6643	236793.920	4141769.420	9.723	6707	236846.036	4141794.277	9.737
6644	236795.118	4141775.758	9.751	6708	236845.003	4141795.164	10.059
6645	236799.222	4141781.002	9.727	6709	236845.063	4141796.412	10.066
6646	236800.771	4141782.052	9.706	6710	236844.763	4141796.649	10.055
6647	236801.846	4141787.855	9.642	6711	236844.839	4141797.058	10.058
6648	236800.844	4141789.427	9.683	6712	236846.698	4141798.046	10.083
6649	236801.918	4141791.420	9.664	6713	236846.895	4141799.191	10.086
6650	236801.333	4141793.049	9.680	6714	236843.610	4141799.775	10.012
6651	236801.917	4141793.456	9.676	6715	236842.375	4141799.298	9.898
6652	236798.323	4141792.648	9.751	6716	236840.510	4141797.723	9.818
6653	236802.071	4141794.795	9.739	6717	236841.179	4141798.179	9.856
6654	236803.215	4141795.821	9.714	6718	236841.268	4141793.792	9.890
6655	236803.055	4141794.022	9.710	6719	236841.644	4141793.620	9.906
6656	236805.101	4141792.293	9.634	6720	236841.489	4141793.542	9.899
6657	236806.707	4141790.639	9.348	6721	236835.911	4141791.166	9.726
6658	236806.805	4141795.307	9.673	6722	236832.469	4141791.789	9.455
6659	236805.517	4141795.010	9.645	6723	236834.080	4141800.154	9.465
6660	236805.609	4141796.774	9.645	6724	236835.949	4141799.810	9.621
6661	236805.642	4141799.517	9.663	6725	236832.505	4141792.991	9.362
6662	236803.899	4141800.435	9.702	6726	236837.331	4141800.199	9.673
6663	236805.907	4141800.926	9.653	6727	236836.762	4141801.021	9.673
6664	236802.068	4141806.545	9.765	6728	236837.269	4141803.695	9.690
6665	236801.874	4141805.337	9.764	6729	236838.575	4141802.492	9.773
6666	236800.310	4141800.330	9.763	6730	236838.816	4141803.758	9.768
6667	236800.230	4141802.499	9.771	6731	236839.859	4141802.241	9.826
6668	236800.098	4141802.112	9.776	6732	236843.451	4141800.837	9.983
6669	236801.048	4141806.742	9.799	6733	236843.590	4141802.539	9.956
6670	236801.214	4141807.792	9.808	6734	236844.292	4141805.157	9.954
6671	236801.545	4141807.771	9.799	6735	236844.751	4141806.266	9.961
6672	236804.421	4141803.892	9.730	6736	236838.168	4141808.514	9.699
6673	236803.834	4141804.001	9.750	6737	236835.773	4141809.968	9.464
6674	236803.673	4141803.123	9.730	6738	236841.124	4141809.165	9.823
6675	236804.275	4141803.015	9.728	6739	236840.084	4141810.683	9.793
6676	236801.916	4141809.149	9.794	6740	236839.846	4141809.398	9.792
6677	236805.171	4141811.116	9.806	6741	236838.185	4141819.172	9.681

6742	236837.806	4141820.888	9.492
6743	236841.477	4141818.331	9.820
6744	236842.523	4141816.813	9.875
6745	236843.364	4141818.857	9.846
6746	236844.906	4141818.998	9.862
6747	236844.216	4141818.531	9.859
6748	236847.446	4141821.408	9.937
6749	236847.023	4141821.826	9.928
6750	236847.407	4141822.389	9.935
6751	236847.273	4141824.940	9.923
6752	236846.727	4141824.317	9.919
6753	236844.053	4141825.029	9.812
6754	236842.492	4141823.983	9.780
6755	236841.531	4141827.984	9.730
6756	236841.846	4141829.743	9.737
6757	236842.488	4141833.348	9.751
6758	236839.163	4141828.906	9.476
6759	236844.056	4141832.440	9.816
6760	236845.105	4141830.906	9.883
6761	236848.378	4141827.087	9.946
6762	236847.684	4141826.630	9.919
6763	236849.161	4141830.965	9.967
6764	236848.501	4141830.526	9.949
6765	236850.142	4141836.719	9.968
6766	236849.562	4141836.245	9.964
6767	236846.449	4141838.332	9.878
6768	236845.413	4141839.847	9.856
6769	236838.487	4141850.831	9.756
6770	236836.930	4141841.308	9.724
6771	236833.727	4141821.952	9.657
6772	236832.238	4141814.585	9.641
6773	236829.921	4141802.397	9.612
6774	236826.840	4141785.995	9.575
6775	236829.515	4141780.561	9.444
6776	236829.813	4141790.848	9.530
6777	236826.342	4141791.548	9.617
6778	236823.447	4141792.067	9.699
6779	236823.674	4141786.331	9.654
6780	236827.046	4141804.271	9.689
6781	236830.804	4141824.341	9.785
6782	236834.047	4141843.056	9.825
6783	236835.485	4141851.400	9.860
6784	236832.303	4141840.493	9.843
6785	236835.080	4141839.918	9.756
6786	236838.625	4141839.168	9.643
6787	236833.757	4141862.017	9.959
6788	236834.208	4141861.989	9.940
6789	236833.060	4141856.742	10.035
6790	236831.674	4141846.648	9.905
6791	236830.990	4141845.522	9.926
6792	236829.038	4141833.867	9.906
6793	236829.296	4141832.661	9.847
6794	236827.102	4141820.597	9.806
6795	236826.398	4141819.339	9.854
6796	236823.290	4141803.018	9.807
6797	236823.613	4141802.259	9.765
6798	236821.420	4141790.657	9.743
6799	236820.768	4141789.684	9.771
6800	236819.400	4141782.538	9.770
6801	236819.594	4141782.238	9.758
6802	236819.846	4141782.489	9.734
6803	236819.715	4141783.191	9.804
6804	236819.366	4141783.020	9.766
6805	236819.656	4141782.517	9.788

6806	236820.136	4141782.921	9.721
6807	236819.343	4141782.068	9.758
6808	236819.699	4141781.980	9.736
6809	236819.972	4141782.228	9.724
6810	236817.619	4141769.657	9.689
6811	236817.478	4141770.162	9.695
6812	236813.225	4141773.536	9.661
6813	236815.465	4141786.403	9.692
6814	236815.625	4141786.758	9.689
6815	236819.620	4141785.464	9.759
6816	236819.694	4141785.769	9.767
6817	236820.634	4141792.846	9.767
6818	236818.590	4141793.142	9.736
6819	236818.491	4141790.885	9.742
6820	236820.285	4141800.958	9.768
6821	236817.902	4141800.995	9.727
6822	236819.826	4141812.604	9.748
6823	236822.423	4141812.703	9.796
6824	236826.245	4141822.067	9.866
6825	236823.592	4141822.555	9.829
6826	236821.611	4141822.761	9.786
6827	236819.946	4141822.325	9.763
9880	236851.458	4141850.915	39.906

Radiación desde la estación 5032

X	236759.614	Desorientación	183.7891
Y	4141581.936	Nombre	
Z	9.518	Coef. anamorfosis	1.0004537254

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
4831	69.9866	101.4271	13.240	1.300	1.531	253.7757	13.243
4832	45.0880	101.7783	10.778	1.300	1.531	228.8771	10.779
4833	24.3866	101.8152	11.263	1.300	1.531	208.1757	11.264
4834	9.0291	101.0520	16.909	1.300	1.531	192.8182	16.914
4835	11.4541	100.7202	21.073	1.300	1.531	195.2432	21.081
4836	14.1041	100.1879	22.069	1.300	1.531	197.8932	22.079
4837	14.3246	100.2103	20.165	1.300	1.531	198.1137	20.174
4838	16.1099	100.2241	17.424	1.300	1.531	199.8990	17.432
4839	16.9967	100.2142	18.677	1.300	1.531	200.7858	18.685
4840	19.4546	100.1743	18.548	1.300	1.531	203.2437	18.556
4841	24.3936	99.8940	21.047	1.300	1.531	208.1827	21.056
4842	18.2391	100.0673	22.730	1.300	1.531	202.0282	22.740
4843	31.2564	101.0605	11.970	1.300	1.531	215.0455	11.974
4844	40.7096	100.8344	12.168	1.300	1.531	224.4987	12.172
4845	41.3837	101.6643	10.815	1.300	1.531	225.1728	10.816
4846	33.2349	101.6744	10.784	1.300	1.531	217.0240	10.785
4847	45.5773	100.9769	11.480	1.300	1.531	229.3664	11.484
4848	48.2991	100.9319	11.178	1.300	1.531	232.0882	11.182
4849	74.1516	100.6434	16.032	1.300	1.531	257.9407	16.038
4850	46.9399	101.7833	10.479	1.300	1.531	230.7290	10.480
4851	2.1362	101.5775	10.714	1.300	1.531	185.9253	10.716
4852	369.8383	103.7731	5.497	1.300	1.531	153.6274	5.490
4853	71.0975	105.9732	4.544	1.300	1.531	254.8866	4.526
4854	84.5805	108.1280	4.265	1.300	1.531	268.3696	4.232
4855	61.4319	110.7015	3.082	1.300	1.531	245.2210	3.040
4856	391.6775	111.4402	2.419	1.300	1.531	175.4666	2.381
4857	19.6178	101.7616	11.922	1.300	1.531	203.4069	11.923
4858	20.5613	101.8355	11.861	1.300	1.531	204.3504	11.861
4859	11.5834	101.4572	14.273	1.300	1.531	195.3725	14.276
4860	20.6814	102.4421	7.998	1.300	1.531	204.4705	7.996
4861	25.1370	100.2629	16.064	1.300	1.531	208.9261	16.071
4862	43.4977	107.5975	3.713	1.300	1.531	227.2868	3.688
4863	354.7844	115.6821	1.027	1.300	1.531	138.5735	0.996
4864	104.2284	101.3883	15.023	1.300	1.531	288.0175	15.026
4865	61.7521	103.6268	6.062	1.300	1.531	245.5412	6.055

4866	113.7844	100.0169	14.883	1.700	1.531	297.5735	14.890
4867	93.0663	100.5748	6.049	1.700	1.531	276.8554	6.051
4868	90.0249	101.8675	4.732	1.700	1.531	273.8140	4.732
4869	65.2407	102.0946	3.169	1.700	1.531	249.0298	3.169
4870	381.3116	100.3072	2.488	1.700	1.531	165.1007	2.489
4871	287.7830	99.7066	7.251	1.700	1.531	71.5721	7.254
4872	327.3803	99.9314	3.946	1.700	1.531	111.1694	3.948
4873	384.2637	110.5805	2.519	1.700	1.531	168.0528	2.485
4874	383.9921	110.6771	2.486	1.300	1.531	167.7812	2.452
4875	255.2180	103.4463	4.043	1.300	1.531	39.0071	4.039
4876	275.6314	102.3445	5.873	1.300	1.531	59.4205	5.872
4877	264.8913	101.9025	8.772	1.300	1.531	48.6804	8.772
4878	270.0524	101.7809	9.278	1.300	1.531	53.8415	9.279
4879	267.1645	101.6466	9.975	1.300	1.531	50.9536	9.976
4880	302.9988	103.1662	4.674	1.300	1.531	86.7879	4.670
4881	237.0112	102.8690	4.847	1.300	1.531	20.8003	4.844
4882	235.2578	102.3681	6.081	1.300	1.531	19.0469	6.080
4883	248.4784	102.6291	5.021	1.300	1.531	32.2675	5.019
4884	95.7091	108.6691	1.941	1.300	1.531	279.4982	1.924
4885	103.6658	106.7533	2.548	1.300	1.531	287.4549	2.535
4886	79.5049	106.2474	3.227	1.300	1.531	263.2940	3.213
4887	96.2596	110.1069	1.698	1.300	1.531	280.0487	1.677
4888	376.7562	114.0366	1.219	1.300	1.531	160.5453	1.190
4889	12.2984	112.3686	2.214	1.300	1.531	196.0875	2.173
4890	52.3951	110.9860	2.651	1.300	1.531	236.1842	2.613
4891	67.6028	106.7438	2.820	1.300	1.531	251.3919	2.805
4892	97.8366	104.4705	5.271	1.300	1.531	281.6257	5.260
4893	92.6643	105.3293	3.599	1.300	1.531	276.4534	3.588
4894	119.0300	99.5284	15.543	1.700	1.531	302.8191	15.550
4895	200.5615	101.5104	7.003	1.300	1.531	384.3506	7.004
4896	239.0177	104.4261	5.429	1.300	1.531	22.8068	5.418
4897	25.6941	100.7089	16.403	1.300	1.531	209.4832	16.409
4898	26.5283	100.2529	24.011	1.300	1.531	210.3174	24.022
4899	27.5511	99.8583	38.475	1.300	1.531	211.3402	38.492
4900	27.8861	99.5330	45.525	1.300	1.531	211.6752	45.544
4901	13.4889	99.3483	70.323	1.300	1.531	197.2780	70.351
4902	13.8517	99.3487	70.413	1.300	1.531	197.6408	70.441
4903	14.1803	99.3821	70.048	1.300	1.531	197.9694	70.076
4904	13.5115	99.3732	70.766	1.300	1.531	197.3006	70.795
4905	14.0420	99.3646	71.557	1.300	1.531	197.8311	71.586
4906	14.1366	99.3752	70.400	1.300	1.531	197.9257	70.428
4907	13.6821	99.2747	69.584	1.300	1.531	197.4712	69.611
4908	12.9361	99.3811	68.827	1.300	1.531	196.7252	68.855
4909	13.8002	99.4088	68.525	1.300	1.531	197.5893	68.553
4910	13.1364	99.4289	66.336	1.300	1.531	196.9255	66.363
4911	12.1490	99.4149	66.653	1.300	1.531	195.9381	66.680
4912	11.9016	99.4731	62.968	1.300	1.531	195.6907	62.994
4913	10.9247	99.0405	63.247	1.700	1.531	194.7138	63.268
4914	10.8035	98.9288	62.767	1.700	1.531	194.5926	62.786
4915	11.6829	98.9688	62.459	1.700	1.531	195.4720	62.479
4916	10.9318	98.9096	61.935	1.700	1.531	194.7209	61.954
4917	11.5186	99.0466	63.353	1.700	1.531	195.3077	63.375
4918	0.2466	99.0612	42.147	1.700	1.531	184.0357	42.161
4919	396.4842	99.0433	36.908	1.700	1.531	180.2733	36.921
4920	394.3271	99.0577	33.392	1.700	1.531	178.1162	33.403
4921	393.3385	99.0707	31.452	1.700	1.531	177.1276	31.463
4922	389.9457	98.9472	28.110	1.700	1.531	173.7348	28.119
4923	389.0478	98.7909	32.844	1.700	1.531	172.8369	32.853
4924	391.6803	98.7979	31.993	1.700	1.531	175.4694	32.002
4925	388.4400	98.7634	28.758	1.700	1.531	172.2291	28.766
4926	385.4066	98.5413	27.534	1.700	1.531	169.1957	27.539
4927	379.5913	98.7635	23.127	1.700	1.531	163.3804	23.133
4928	373.6249	98.4808	22.442	1.700	1.531	157.4140	22.446
4929	332.5220	98.1551	17.207	1.700	1.531	116.3111	17.208

4930	325.2387	98.4822	16.288	1.700	1.531	109.0278	16.291
4931	313.6174	98.4262	17.604	1.700	1.531	97.4065	17.607
4932	282.1297	98.7906	23.250	1.700	1.531	65.9188	23.256
4933	277.3154	99.1422	23.701	1.700	1.531	61.1045	23.710
4934	218.6376	100.6131	18.805	1.300	1.531	2.4267	18.813
4935	227.5813	100.6412	20.494	1.300	1.531	11.3704	20.502
4936	230.9371	100.6734	21.265	1.300	1.531	14.7262	21.273
4937	231.5701	101.0050	16.313	1.300	1.531	15.3592	16.318
4938	231.6447	100.7705	13.310	1.300	1.531	15.4338	13.315
4938	231.9727	100.7682	13.311	1.300	1.531	15.7618	13.316
4939	231.8985	100.7728	13.327	1.300	1.531	15.6876	13.332
4939	232.1414	100.9861	12.360	1.300	1.531	15.9305	12.364
4940	231.5716	101.3080	10.334	1.300	1.531	15.3607	10.336
4941	228.2263	101.3692	9.790	1.300	1.531	12.0154	9.792
4942	232.2013	102.2906	6.174	1.300	1.531	15.9904	6.173
4943	231.5259	101.8686	7.328	1.300	1.531	15.3150	7.328
4944	244.8283	102.2041	6.378	1.300	1.531	28.6174	6.377
4945	227.6463	100.6426	20.496	1.300	1.531	11.4354	20.504
4946	222.7122	100.5419	22.190	1.300	1.531	6.5013	22.199
4947	220.8248	100.5044	22.265	1.300	1.531	4.6139	22.274
4948	220.2381	100.5517	21.016	1.300	1.531	4.0272	21.025
4949	222.7031	100.3460	31.096	1.300	1.531	6.4922	31.110
4950	231.8351	100.4028	36.108	1.300	1.531	15.6242	36.124
4951	230.3098	100.3295	34.872	1.300	1.531	14.0989	34.887
4952	230.2368	100.3224	36.084	1.300	1.531	14.0259	36.100
4953	231.8941	100.4021	37.853	1.300	1.531	15.6832	37.869
4954	229.4824	100.3906	39.590	1.300	1.531	13.2715	39.607
4955	227.9465	100.3609	40.159	1.300	1.531	11.7356	40.177
4956	229.9814	100.3705	40.665	1.300	1.531	13.7705	40.683
4957	231.4811	100.2776	43.063	1.300	1.531	15.2702	43.082
4958	230.1195	100.3013	41.821	1.300	1.531	13.9086	41.839
4959	226.2393	100.2978	42.942	1.300	1.531	10.0284	42.961
4960	224.5735	100.2540	43.280	1.300	1.531	8.3626	43.299
4961	224.6298	100.2297	44.010	1.300	1.531	8.4189	44.030
4962	224.8928	100.2562	44.024	1.300	1.531	8.6819	44.044
4963	225.0383	100.2564	46.066	1.300	1.531	8.8274	46.086
4964	224.6351	100.2407	46.108	1.300	1.531	8.4242	46.129
4965	225.0558	100.2628	43.711	1.300	1.531	8.8449	43.730
4966	226.7094	100.2784	45.641	1.300	1.531	10.4985	45.661
4967	225.2472	100.2725	45.675	1.300	1.531	9.0363	45.695
4968	225.1477	100.2724	44.446	1.300	1.531	8.9368	44.466
4969	225.0538	100.2075	51.066	1.300	1.531	8.8429	51.089
4970	225.2459	100.2314	51.080	1.300	1.531	9.0350	51.103
4971	230.3645	100.3363	49.240	1.300	1.531	14.1536	49.262
4972	231.4443	100.3357	46.765	1.300	1.531	15.2334	46.785
4973	285.5454	100.4192	43.242	1.300	1.531	69.3345	43.261
4974	280.2858	100.3932	45.180	1.300	1.531	64.0749	45.200
4975	280.0548	100.3736	47.342	1.300	1.531	63.8439	47.363
4976	280.4508	100.3630	46.716	1.300	1.531	64.2399	46.736
4977	276.6751	100.3694	49.886	1.300	1.531	60.4642	49.908
4978	278.5874	100.4169	45.682	1.300	1.531	62.3765	45.702
4979	280.5992	100.3828	45.696	1.300	1.531	64.3883	45.716
4980	278.7113	100.6840	43.751	1.300	1.531	62.5004	43.768
4981	273.6531	100.4046	49.779	1.300	1.531	57.4422	49.800
4982	275.4731	100.3926	49.673	1.300	1.531	59.2622	49.695
4983	280.8768	100.2326	54.393	1.300	1.531	64.6659	54.417
4984	276.2233	100.2408	58.016	1.300	1.531	60.0124	58.042
4985	275.4839	100.2609	57.433	1.300	1.531	59.2730	57.458
4986	275.8249	100.2601	56.728	1.300	1.531	59.6140	56.753
4987	275.6520	100.2075	59.620	1.300	1.531	59.4411	59.647
4988	275.1626	100.2262	59.785	1.300	1.531	58.9517	59.812
4989	275.1274	100.2169	60.350	1.300	1.531	58.9165	60.377
4990	271.8812	100.3738	53.123	1.300	1.531	55.6703	53.146
4991	270.1674	100.3679	53.352	1.300	1.531	53.9565	53.375

4992	268.7383	100.3621	54.002	1.300	1.531	52.5274	54.026
4993	267.5789	100.3255	58.220	1.300	1.531	51.3680	58.246
4994	267.2600	100.3505	56.825	1.300	1.531	51.0491	56.850
4995	267.6317	100.3205	58.858	1.300	1.531	51.4208	58.884
4996	270.9652	100.2236	66.214	1.300	1.531	54.7543	66.244
4997	270.2079	100.2255	65.845	1.300	1.531	53.9970	65.874
4998	269.6680	100.2159	66.564	1.300	1.531	53.4571	66.594
4999	269.7625	100.2388	65.720	1.300	1.531	53.5516	65.749
6000	267.9343	100.2468	35.499	1.300	1.531	51.7234	35.515
6001	268.7538	99.9880	33.191	1.300	1.531	52.5429	33.206
6002	286.1157	99.8731	24.802	1.300	1.531	69.9048	24.813
6003	290.3439	100.1779	24.742	1.300	1.531	74.1330	24.753
6004	348.3699	99.8991	21.218	1.300	1.531	132.1590	21.228
6005	358.1292	99.5521	21.563	1.300	1.531	141.9183	21.572
6006	12.5758	99.1161	55.571	1.700	1.531	196.3649	55.591
6007	388.8178	98.9098	25.617	1.700	1.531	172.6069	25.625
6008	393.2414	98.9404	23.706	1.700	1.531	177.0305	23.713
6009	375.9698	98.8948	12.633	1.700	1.531	159.7589	12.637
6010	359.4454	98.5672	14.344	1.700	1.531	143.2345	14.347
6011	297.4263	98.8329	14.527	1.700	1.531	81.2154	14.531
6012	267.5139	99.3972	22.650	1.700	1.531	51.3030	22.659
6013	274.0412	99.4502	14.520	1.700	1.531	57.8303	14.526
6014	345.8313	98.6776	9.700	1.700	1.531	129.6204	9.702
6015	392.1342	98.9820	17.043	1.700	1.531	175.9233	17.049
9899	0.0000	87.4252	127.373	1.300	1.531	183.7891	124.952

Coordenadas calculadas

Número	X	Y	Z
4831	236749.711	4141573.144	9.452
4832	236754.891	4141572.248	9.447
4833	236758.171	4141570.766	9.427
4834	236761.518	4141565.130	9.469
4835	236761.188	4141560.914	9.510
4836	236760.344	4141559.870	9.683
4837	236760.212	4141561.771	9.682
4838	236759.642	4141564.505	9.687
4839	236759.383	4141563.252	9.686
4840	236758.669	4141563.404	9.698
4841	236756.915	4141561.054	9.784
4842	236758.890	4141559.208	9.725
4843	236756.810	4141570.295	9.549
4844	236755.044	4141570.654	9.589
4845	236755.448	4141571.955	9.466
4846	236756.764	4141571.535	9.465
4847	236754.502	4141571.653	9.572
4848	236754.213	4141572.145	9.585
4849	236746.950	4141572.095	9.586
4850	236754.750	4141572.654	9.455
4851	236761.964	4141571.482	9.483
4852	236763.268	4141577.840	9.423
4853	236756.178	4141578.991	9.323
4854	236755.893	4141579.919	9.205
4855	236757.632	4141579.632	9.233
4856	236760.509	4141579.730	9.316
4857	236758.976	4141570.031	9.419
4858	236758.804	4141570.103	9.407
4859	236760.651	4141567.698	9.422
4860	236759.053	4141573.960	9.442
4861	236757.368	4141566.023	9.682
4862	236758.081	4141578.582	9.306
4863	236760.433	4141581.369	9.498
4864	236744.853	4141579.125	9.421
4865	236755.643	4141577.366	9.403
4866	236744.735	4141581.369	9.345
4867	236753.958	4141579.784	9.294

4868	236755.277	4141580.044	9.210
4869	236757.408	4141579.662	9.244
4870	236760.911	4141579.812	9.337
4871	236766.157	4141585.069	9.382
4872	236763.501	4141581.247	9.353
4873	236760.809	4141579.757	8.932
4874	236760.803	4141579.792	9.334
4875	236761.937	4141585.241	9.530
4876	236764.333	4141585.431	9.532
4877	236765.687	4141588.266	9.486
4878	236766.559	4141588.090	9.489
4879	236766.773	4141588.884	9.491
4880	236764.184	4141582.899	9.516
4881	236761.169	4141586.524	9.530
4882	236761.406	4141587.746	9.522
4883	236762.050	4141586.324	9.541
4884	236757.789	4141581.327	9.485
4885	236757.128	4141581.440	9.479
4886	236756.920	4141580.185	9.432
4887	236758.018	4141581.419	9.480
4888	236760.305	4141580.968	9.482
4889	236759.747	4141579.767	9.321
4890	236758.208	4141579.734	9.293
4891	236757.587	4141579.996	9.450
4892	236754.571	4141580.439	9.379
4893	236756.269	4141580.639	9.448
4894	236744.080	4141582.625	9.464
4895	236757.909	4141588.730	9.582
4896	236761.514	4141587.011	9.371
4897	236757.179	4141565.709	9.566
4898	236755.738	4141558.230	9.653
4899	236752.793	4141544.053	9.834
4900	236751.308	4141537.156	10.083
4901	236762.621	4141511.650	10.469
4902	236762.224	4141511.544	10.469
4903	236761.849	4141511.896	10.429
4904	236762.615	4141511.205	10.446
4905	236762.052	4141510.392	10.463
4906	236761.908	4141511.545	10.440
4907	236762.378	4141512.380	10.542
4908	236763.154	4141513.173	10.418
4909	236762.209	4141513.433	10.385
4910	236762.818	4141515.650	10.344
4911	236763.866	4141515.392	10.361
4912	236763.875	4141519.086	10.270
4913	236764.861	4141518.886	10.302
4914	236764.941	4141519.376	10.405
4915	236764.054	4141519.615	10.360
4916	236764.746	4141520.195	10.409
4917	236764.281	4141518.734	10.297
4918	236770.076	4141541.094	9.970
4919	236770.872	4141546.774	9.903
4920	236770.872	4141550.487	9.843
4921	236770.676	4141552.482	9.808
4922	236770.889	4141556.177	9.813
4923	236773.210	4141552.029	9.972
4924	236771.642	4141552.281	9.953
4925	236771.768	4141555.865	9.907
4926	236772.425	4141557.559	9.979
4927	236772.199	4141562.526	9.798
4928	236773.534	4141564.328	9.884
4929	236776.260	4141577.576	9.847
4930	236775.741	4141579.634	9.737
4931	236777.206	4141582.653	9.784

4932	236779.616	4141593.800	9.790
4933	236779.034	4141595.538	9.668
4934	236760.331	4141600.735	9.567
4935	236763.256	4141602.112	9.542
4936	236764.491	4141602.643	9.524
4937	236763.513	4141597.782	9.491
4938	236762.810	4141594.862	9.587
4938	236762.877	4141594.846	9.588
4939	236762.866	4141594.866	9.587
4939	236762.676	4141593.915	9.557
4940	236762.084	4141591.973	9.536
4941	236761.451	4141591.555	9.538
4942	236761.148	4141587.915	9.526
4943	236761.360	4141589.054	9.533
4944	236762.385	4141587.680	9.528
4945	236763.277	4141602.111	9.542
4946	236761.877	4141604.020	9.560
4947	236761.227	4141604.152	9.572
4948	236760.943	4141602.919	9.566
4949	236762.781	4141612.884	9.580
4950	236768.391	4141616.978	9.520
4951	236767.277	4141615.972	9.568
4952	236767.503	4141617.164	9.566
4953	236768.849	4141618.662	9.510
4954	236767.811	4141620.686	9.506
4955	236766.978	4141621.432	9.521
4956	236768.345	4141621.671	9.512
4957	236769.849	4141623.785	9.561
4958	236768.682	4141622.781	9.551
4959	236766.353	4141624.365	9.548
4960	236765.285	4141624.863	9.576
4961	236765.420	4141625.582	9.590
4962	236765.602	4141625.571	9.571
4963	236765.984	4141627.581	9.563
4964	236765.700	4141627.662	9.574
4965	236765.670	4141625.245	9.568
4966	236767.110	4141626.978	9.549
4967	236766.078	4141627.172	9.553
4968	236765.835	4141625.965	9.558
4969	236766.688	4141632.533	9.582
4970	236766.842	4141632.525	9.563
4971	236770.476	4141629.986	9.489
4972	236770.702	4141627.389	9.502
4973	236797.952	4141601.978	9.464
4974	236797.806	4141606.111	9.470
4975	236799.541	4141607.413	9.471
4976	236799.169	4141606.830	9.482
4977	236800.203	4141610.976	9.459
4978	236797.564	4141607.401	9.449
4979	236798.362	4141606.196	9.474
4980	236796.006	4141606.253	9.279
4981	236798.695	4141612.803	9.432
4982	236799.476	4141611.610	9.442
4983	236805.862	4141610.612	9.550
4984	236806.577	4141616.043	9.529
4985	236805.710	4141616.238	9.513
4986	236805.325	4141615.573	9.517
4987	236807.559	4141617.418	9.554
4988	236807.417	4141617.885	9.536
4989	236807.849	4141618.251	9.543
4990	236800.388	4141616.025	9.437
4991	236799.627	4141617.261	9.440
4992	236799.302	4141618.592	9.442
4993	236801.675	4141622.228	9.451

4994	236800.470	4141621.467	9.436
4995	236802.170	4141622.634	9.452
4996	236809.819	4141625.152	9.516
4997	236809.025	4141625.502	9.516
4998	236809.189	4141626.400	9.523
4999	236808.626	4141625.763	9.502
6000	236785.397	4141606.360	9.611
6001	236784.013	4141604.460	9.755
6002	236781.706	4141593.234	9.798
6003	236782.352	4141591.720	9.679
6004	236778.190	4141571.664	9.782
6005	236776.676	4141568.737	9.900
6006	236762.786	4141526.436	10.120
6007	236770.303	4141558.647	9.787
6008	236767.985	4141559.750	9.743
6009	236767.080	4141571.741	9.568
6010	236770.778	4141572.925	9.671
6011	236773.517	4141586.162	9.615
6012	236775.961	4141597.628	9.563
6013	236771.068	4141590.870	9.474
6014	236768.285	4141577.583	9.550
6015	236765.909	4141566.093	9.621
9899	236791.089	4141461.013	34.745

Radiación desde la estación 5034

X	236637.892	Desorientación	325.1335
Y	4141022.705	Nombre	
Z	8.390	Coef. anamorfosis	1.0004545151

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
2794	300.3924	100.1368	53.416	1.300	1.524	225.5259	53.440
2795	300.3591	100.1366	53.347	1.300	1.524	225.4926	53.371
2796	300.3125	100.1366	53.198	1.300	1.524	225.4460	53.222
2797	302.0033	100.0852	53.560	1.300	1.524	227.1368	53.584
2798	300.8788	100.1757	49.233	1.300	1.524	226.0123	49.255
2799	303.7452	100.3403	35.354	1.300	1.524	228.8787	35.370
2800	306.6120	100.2801	35.642	1.300	1.524	231.7455	35.658
2801	310.3711	99.4044 28.099	1.700	1.524	235.5046		28.110
2802	306.3557	99.5289 27.678	1.700	1.524	231.4892		27.690
2803	310.7870	99.4522 20.866	1.700	1.524	235.9205		20.875
2804	315.6987	99.3535 21.408	1.700	1.524	240.8322		21.417
2805	369.1774	98.8747 8.091	1.700	1.524	294.3109		8.093
2806	53.4028 99.5283	12.941 1.700	1.524	378.5363		12.947	
2807	74.5045 99.8923	26.186 1.700	1.524	399.6380		26.198	
2808	81.9501 100.0237	43.522 1.700	1.524	7.0836		43.542	
2809	84.7484 100.0095	57.791 1.700	1.524	9.8819		57.817	
2810	88.0730 99.9974	73.432 1.700	1.524	13.2065		73.465	
2811	88.4576 100.0060	78.163 1.700	1.524	13.5911		78.198	
2812	85.7299 100.0672	74.342 1.700	1.524	10.8634		74.376	
2813	85.1126 100.0618	68.401 1.700	1.524	10.2461		68.432	
2814	85.5917 99.9328	68.506 1.700	1.524	10.7252		68.537	
2815	83.8791 100.0837	59.357 1.700	1.524	9.0126		59.384	
2816	82.5350 100.0835	51.950 1.700	1.524	7.6685		51.973	
2817	83.1277 99.9171	51.829 1.700	1.524	8.2612		51.852	
2818	80.7768 99.8630	42.303 1.700	1.524	5.9103		42.322	
2819	79.5612 99.8852	38.354 1.700	1.524	4.6947		38.371	
2820	77.0394 100.1197	34.340 1.700	1.524	2.1729		34.355	
2821	66.1167 100.0122	20.773 1.700	1.524	391.2502			20.782
2822	54.4717 99.0537	14.123 1.700	1.524	379.6052		14.128	
2823	48.7869 99.7433	13.337 1.700	1.524	373.9204		13.343	
2824	373.2142	98.1591 8.307	1.700	1.524	298.3477		8.307
2825	324.7633	98.9609 16.570	1.700	1.524	249.8968		16.575
2826	326.7954	99.5015 16.903	1.700	1.524	251.9289		16.910
2827	319.2467	99.0545 19.903	1.700	1.524	244.3802		19.910
2828	307.5785	99.7045 37.860	1.700	1.524	232.7120		37.877

2829	306.3931	99.3810	36.984	1.700	1.524	231.5266	36.999	2893	91.4311	99.7842	73.553	2.000	1.524	16.5646	73.586
2830	303.6430	99.3331	36.692	1.700	1.524	228.7765	36.707	2894	91.2457	99.8317	66.725	2.000	1.524	16.3792	66.755
2831	302.6337	99.4141	40.924	1.700	1.524	227.7672	40.941	2895	90.3975	99.7931	66.848	2.000	1.524	15.5310	66.878
2832	303.5229	99.4771	48.725	1.700	1.524	228.6564	48.745	2896	90.0997	99.7928	58.611	2.000	1.524	15.2332	58.637
2833	301.9886	99.5274	53.354	1.700	1.524	227.1221	53.377	2897	89.1999	99.7677	45.803	2.000	1.524	14.3334	45.823
2834	300.5474	99.5521	53.165	1.700	1.524	225.6809	53.188	2898	86.1204	99.5185	25.601	2.000	1.524	11.2539	25.612
2835	301.1380	99.5123	49.164	1.700	1.524	226.2715	49.185	2899	75.0932	98.2902	10.354	2.000	1.524	0.2267	10.355
2836	301.1455	99.6380	59.561	1.700	1.524	226.2790	59.587	2900	81.2952	98.4074	10.226	2.000	1.524	6.4287	10.227
2837	301.5902	99.6034	60.061	1.700	1.524	226.7237	60.087	2901	84.0009	99.0227	13.216	2.000	1.524	9.1344	13.220
2838	302.2017	99.6247	59.649	1.700	1.524	227.3352	59.675	2902	87.6069	99.5097	21.432	2.000	1.524	12.7404	21.441
2839	302.5665	99.6957	57.080	1.700	1.524	227.7000	57.105	2903	90.0814	99.7897	38.924	2.000	1.524	15.2149	38.941
2840	302.0242	99.5179	52.891	1.700	1.524	227.1577	52.913	2904	91.0544	99.8177	58.379	2.000	1.524	16.1879	58.405
2841	296.0300	99.7445	25.084	1.700	1.524	221.1635	25.095	2905	91.3762	99.8418	68.033	2.000	1.524	16.5097	68.064
2842	296.1293	99.7124	24.599	1.700	1.524	221.2628	24.610	2906	93.0194	99.7926	95.597	2.000	1.524	18.1529	95.640
2843	290.7452	99.6079	24.611	1.700	1.524	215.8787	24.622	2907	92.8938	99.7892	93.501	2.000	1.524	18.0273	93.543
2844	291.3623	99.6281	25.034	1.700	1.524	216.4958	25.045	2908	92.4978	99.7898	93.514	2.000	1.524	17.6313	93.556
2845	283.3599	99.3787	21.978	1.700	1.524	208.4934	21.987	2909	92.4385	99.7804	91.471	2.000	1.524	17.5720	91.512
2846	296.6464	99.6556	21.024	1.700	1.524	221.7799	21.033	2910	93.6351	99.7385	85.027	2.000	1.524	18.7686	85.065
2847	309.0000	99.2273	4.697	1.700	1.524	234.1335	4.699	2911	93.6472	99.7353	84.642	2.000	1.524	18.7807	84.680
2848	249.9419	97.6165	6.014	1.700	1.524	175.0754	6.013	2912	93.4167	99.7352	84.641	2.000	1.524	18.5502	84.679
2849	309.4054	99.2513	4.247	1.700	1.524	234.5389	4.249	2913	93.5506	99.7402	84.204	2.000	1.524	18.6841	84.241
2850	258.6899	97.3924	4.796	1.700	1.524	183.8234	4.794	2914	94.5167	99.7403	73.397	2.000	1.524	19.6502	73.430
2851	263.0814	97.3941	4.111	1.700	1.524	188.2149	4.109	2915	96.7966	99.7174	70.488	1.900	1.524	21.9301	70.519
2852	312.5106	99.0402	3.720	1.700	1.524	237.6441	3.721	2916	96.6858	99.6623	66.243	1.900	1.524	21.8193	66.272
2853	284.2949	99.2831	18.378	1.700	1.524	209.4284	18.385	2917	94.2898	99.7843	64.776	1.900	1.524	19.4233	64.805
2854	291.8536	99.6502	25.475	1.700	1.524	216.9871	25.486	2918	92.1210	99.9508	62.329	1.900	1.524	17.2545	62.357
2855	288.5462	99.3217	26.233	1.700	1.524	213.6797	26.243	2919	96.9483	99.6761	61.434	1.900	1.524	22.0818	61.461
2856	291.3094	99.4007	27.605	1.700	1.524	216.4429	27.616	2920	97.6335	99.6580	53.184	1.900	1.524	22.7670	53.207
2857	293.8755	99.7767	26.346	1.700	1.524	219.0090	26.358	2921	94.5327	99.7695	56.102	1.900	1.524	19.6662	56.127
2858	287.4246	99.2676	25.955	1.700	1.524	212.5581	25.965	2922	94.6758	99.7811	45.943	1.900	1.524	19.8093	45.964
2859	289.4291	99.3374	25.050	1.700	1.524	214.5626	25.060	2923	96.3231	99.6945	46.002	1.900	1.524	21.4566	46.022
2860	284.8172	99.1663	24.861	1.700	1.524	209.9507	24.870	2924	96.6344	99.6279	41.731	1.900	1.524	21.7679	41.749
2861	263.7016	98.4359	20.266	1.700	1.524	188.8351	20.269	2925	94.8339	99.8210	41.707	1.900	1.524	19.9674	41.726
2862	261.9953	98.7734	18.046	1.700	1.524	187.1288	18.051	2926	97.5824	99.6653	46.269	1.900	1.524	22.7159	46.289
2863	215.1299	97.7555	11.058	1.700	1.524	140.2634	11.056	2927	98.4695	99.5617	41.369	1.900	1.524	23.6030	41.387
2864	230.3722	100.4011	9.115	1.300	1.524	155.5057	9.119	2928	99.0279	99.4916	37.531	1.900	1.524	24.1614	37.547
2865	245.8694	101.6410	6.321	1.300	1.524	171.0029	6.322	2929	97.4212	99.5810	37.835	1.900	1.524	22.5547	37.851
2866	272.8654	106.4768	2.692	1.300	1.524	197.9989	2.679	2930	95.7097	99.6317	37.205	1.900	1.524	20.8432	37.221
2867	50.5493	111.0559	2.587	1.300	1.524	375.6828	2.549	2931	99.5152	99.4507	36.288	1.900	1.524	24.6487	36.303
2868	83.1868	103.0471	10.029	1.300	1.524	8.3203	10.022	2932	100.0806	99.3613	31.493	1.900	1.524	25.2141	31.506
2869	98.3852	102.4048	11.635	1.300	1.524	23.5187	11.632	2933	100.2007	99.3613	31.103	1.900	1.524	25.3342	31.116
2870	95.8409	101.4935	21.656	1.300	1.524	20.9744	21.660	2934	100.1931	99.3121	27.728	1.900	1.524	25.3266	27.739
2871	94.6905	99.6918	37.209	2.000	1.524	19.8240	37.225	2935	98.5231	99.3881	27.849	1.900	1.524	23.6566	27.860
2872	94.1614	99.8096	52.569	2.000	1.524	19.2949	52.593	2936	98.4108	99.4064	29.149	1.900	1.524	23.5443	29.161
2873	93.9869	99.8234	66.435	2.000	1.524	19.1204	66.465	2937	96.6369	99.4628	29.077	1.900	1.524	21.7704	29.089
2874	93.8851	99.7842	73.398	2.000	1.524	19.0186	73.431	2938	96.8964	99.4681	28.328	1.900	1.524	22.0299	28.340
2875	93.7777	99.7810	81.552	2.000	1.524	18.9112	81.588	2939	97.1932	99.4150	26.529	1.900	1.524	22.3267	26.540
2876	92.0132	99.8373	86.384	2.000	1.524	17.1467	86.423	2940	97.3506	99.3837	26.125	1.900	1.524	22.4841	26.136
2877	92.4411	99.7943	95.251	2.000	1.524	17.5746	95.294	2941	96.6090	99.4115	26.058	1.900	1.524	21.7425	26.069
2878	92.1863	99.7998	94.119	2.000	1.524	17.3198	94.161	2942	96.7907	99.3874	25.611	1.900	1.524	21.9242	25.621
2879	92.1003	99.8056	92.834	2.000	1.524	17.2338	92.876	2943	95.7426	99.4817	27.681	1.900	1.524	20.8761	27.693
2880	92.1193	99.7954	91.574	2.000	1.524	17.2528	91.615	2944	95.8932	100.9188	26.211	1.300	1.524	21.0267	26.220
2881	92.0959	99.7811	90.166	2.000	1.524	17.2294	90.206	2945	96.0167	100.9466	24.857	1.300	1.524	21.1502	24.866
2882	92.0419	99.7731	88.927	2.000	1.524	17.1754	88.967	2946	96.2359	100.9726	23.668	1.300	1.524	21.3694	23.676
2883	92.0369	99.7644	87.725	2.000	1.524	17.1704	87.764	2947	96.4084	100.9907	22.370	1.300	1.524	21.5419	22.377
2884	92.0998	99.7601	86.507	2.000	1.524	17.2333	86.546	2948	98.4555	100.9099	23.217	1.300	1.524	23.5890	23.225
2885	92.5658	99.7635	85.245	2.000	1.524	17.6993	85.283	2949	96.9624	100.9441	23.172	1.300	1.524	22.0959	23.180
2886	92.9401	99.7582	84.181	2.000	1.524	18.0736	84.219	2950	96.9891	100.9765	22.685	1.300	1.524	22.1226	22.693
2887	93.4029	99.7422	83.136	2.000	1.524	18.5364	83.173	2951	96.6278	101.0604	21.216	1.300	1.524	21.7613	21.223
2888	93.8397	99.7376	81.874	2.000	1.524	18.9732	81.910	2952	96.8084	101.0766	20.131	1.300	1.524	21.9419	20.137
2889	92.0046	99.8268	86.007	2.000	1.524	17.1381	86.046	2953	97.0445	101.0937	19.014	1.300	1.524	22.1780	19.020
2890	90.9520	99.8165	86.070	2.000	1.524	16.0855	86.109	2954	97.2788	101.1137	17.791	1.300	1.524	22.4123	17.796
2891	90.7178	99.7836	79.325	2.000	1.524	15.8513	79.360	2955	97.5333	101.1719	16.608	1.300	1.524	22.6668	16.613
2892	90.5699	99.7672	73.503	2.000	1.524	15.7034	73.536	2956	97.9312	101.2347	15.340	1.300	1.524	23.0647	15.344

2957	98.3967	101.2615	14.130	1.300	1.524	23.5302	14.134	
2958	98.9835	101.3659	12.916	1.300	1.524	24.1170	12.919	
2959	99.6729	101.5533	11.684	1.300	1.524	24.8064	11.686	
2960	93.5282	101.7878	10.688	1.300	1.524	18.6617	10.689	
2961	86.8526	102.0230	10.102	1.300	1.524	11.9861	10.101	
2962	105.4610	101.4768	10.493	1.300	1.524	30.5945	10.495	
2963	116.5147	100.9919	10.084	1.300	1.524	41.6482	10.087	
2964	99.3313	101.6653	10.134	1.300	1.524	24.4648	10.135	
2965	96.9847	102.1660	7.446	1.300	1.524	22.1182	7.445	
2966	86.4586	102.6005	7.548	1.300	1.524	11.5921	7.545	
2967	85.5550	102.8104	6.745	1.300	1.524	10.6885	6.741	
2968	83.6178	102.2885	9.065	1.300	1.524	8.7513	9.063	
2969	82.2645	102.5160	7.843	1.300	1.524	7.3980	7.840	
2970	80.4643	103.0758	6.653	1.300	1.524	5.5978	6.648	
2971	77.4060	103.5926	5.428	1.300	1.524	2.5395	5.422	
2972	73.1019	104.6261	4.284	1.300	1.524	398.2354	4.275	
2973	65.8417	106.0302	3.109	1.300	1.524	390.9752	3.096	
2974	49.8056	108.8560	2.022	1.300	1.524	374.9391	2.003	
2975	26.6131	116.9607	0.969	1.300	1.524	351.7466	0.935	
2976	323.7421	117.6520	0.860	1.300	1.524	248.8756	0.828	
8010	374.2001	99.5911	22.994	1.300	1.524	299.3336	23.004	
9999	0.0000	65.1269	60.803	0.000	1.524	325.1335	51.930	

Coordenadas calculadas

Número	X	Y	Z
2794	236617.034	4140973.503	8.500
2795	236617.087	4140973.556	8.500
2796	236617.181	4140973.678	8.500
2797	236615.737	4140973.915	8.543
2798	236618.322	4140977.504	8.479
2799	236622.392	4140990.912	8.425
2800	236620.839	4140991.389	8.458
2801	236623.015	4140998.854	8.477
2802	236624.748	4140998.334	8.419
2803	236626.729	4141005.066	8.394
2804	236625.078	4141005.544	8.432
2805	236629.831	4141021.983	8.357
2806	236633.609	4141034.922	8.310
2807	236637.743	4141048.902	8.259
2808	236642.727	4141065.977	8.198
2809	236646.831	4141079.827	8.206
2810	236653.023	4141094.595	8.218
2811	236654.460	4141099.128	8.207
2812	236650.522	4141096.000	8.136
2813	236648.858	4141090.252	8.148
2814	236649.384	4141090.271	8.287
2815	236646.271	4141081.495	8.137
2816	236644.138	4141074.302	8.146
2817	236644.602	4141074.121	8.282
2818	236641.816	4141064.845	8.306
2819	236640.719	4141060.972	8.284
2820	236639.065	4141057.040	8.150
2821	236635.045	4141043.291	8.210
2822	236633.443	4141036.114	8.424
2823	236632.578	4141034.944	8.268
2824	236629.588	4141022.489	8.455
2825	236626.191	4141010.965	8.485
2826	236625.578	4141011.115	8.347
2827	236625.110	4141007.440	8.510
2828	236619.275	4140989.719	8.390
2829	236620.309	4140990.151	8.574
2830	236621.859	4140989.685	8.599
2831	236620.596	4140985.597	8.591
2832	236616.684	4140978.815	8.615
2833	236615.834	4140974.099	8.611

2834	236617.014	4140973.786	8.589
2835	236618.166	4140977.649	8.591
2836	236613.988	4140968.123	8.553
2837	236613.403	4140967.834	8.589
2838	236613.049	4140968.447	8.566
2839	236613.822	4140970.920	8.487
2840	236615.998	4140974.533	8.615
2841	236629.702	4140998.984	8.315
2842	236629.825	4140999.455	8.326
2843	236631.814	4140998.845	8.366
2844	236631.475	4140998.496	8.361
2845	236634.967	4141000.913	8.429
2846	236630.836	4141002.891	8.328
2847	236635.492	4141018.665	8.271
2848	236640.186	4141017.147	8.440
2849	236635.699	4141019.066	8.264
2850	236639.097	4141018.065	8.411
2851	236638.649	4141018.666	8.383
2852	236635.818	4141019.615	8.270
2853	236635.179	4141004.521	8.421
2854	236631.172	4140998.121	8.354
2855	236632.296	4140997.065	8.494
2856	236630.838	4140996.005	8.474
2857	236630.138	4140997.513	8.307
2858	236632.803	4140997.243	8.513
2859	236632.210	4140998.298	8.475
2860	236634.021	4140998.138	8.540
2861	236641.429	4141002.747	8.712
2862	236641.517	4141005.022	8.562
2863	236646.810	4141016.169	8.604
2864	236643.759	4141015.724	8.557
2865	236640.673	4141017.028	8.451
2866	236637.976	4141020.027	8.341
2867	236636.942	4141025.070	8.167
2868	236639.198	4141032.641	8.135
2869	236642.092	4141033.552	8.175
2870	236644.900	4141043.200	8.106
2871	236649.298	4141058.140	8.095
2872	236653.589	4141072.900	8.072
2873	236657.556	4141086.194	8.099
2874	236659.504	4141092.883	8.164
2875	236661.774	4141100.720	8.195
2876	236660.889	4141106.012	8.136
2877	236663.866	4141114.390	8.223
2878	236663.195	4141113.403	8.211
2879	236662.728	4141112.198	8.198
2880	236662.418	4141110.976	8.209
2881	236662.009	4141109.628	8.225
2882	236661.604	4141108.453	8.232
2883	236661.277	4141107.296	8.239
2884	236661.035	4141106.099	8.241
2885	236661.298	4141104.713	8.231
2886	236661.482	4141103.552	8.235
2887	236661.769	4141102.377	8.251
2888	236661.944	4141101.004	8.252
2889	236660.777	4141105.651	8.149
2890	236659.418	4141106.079	8.163
2891	236657.449	4141099.618	8.184
2892	236655.848	4141094.015	8.183
2893	236656.824	4141093.814	8.164
2894	236654.878	4141087.263	8.091
2895	236654.046	4141087.602	8.132
2896	236651.790	4141079.671	8.105
2897	236648.122	4141067.372	8.082

2898	236642.396	4141047.918	8.108
2899	236637.929	4141033.060	8.192
2900	236638.923	4141032.880	8.170
2901	236639.783	4141035.789	8.117
2902	236642.154	4141043.718	8.079
2903	236647.111	4141060.539	8.043
2904	236652.584	4141079.232	8.082
2905	236655.346	4141088.492	8.084
2906	236664.795	4141114.483	8.226
2907	236664.028	4141112.522	8.225
2908	236663.473	4141112.696	8.224
2909	236662.832	4141110.753	8.230
2910	236662.609	4141104.100	8.264
2911	236662.512	4141103.726	8.267
2912	236662.219	4141103.814	8.267
2913	236662.263	4141103.344	8.258
2914	236660.199	4141092.664	8.214
2915	236661.707	4141089.081	8.328
2916	236660.164	4141085.122	8.366
2917	236657.359	4141084.517	8.234
2918	236654.587	4141082.786	8.063
2919	236658.786	4141080.506	8.327
2920	236656.517	4141072.546	8.300
2921	236654.956	4141076.175	8.218
2922	236651.965	4141066.461	8.172
2923	236653.111	4141066.138	8.235
2924	236651.891	4141062.037	8.258
2925	236650.766	4141062.395	8.132
2926	236654.061	4141066.078	8.258
2927	236652.887	4141061.280	8.299
2928	236651.803	4141057.580	8.314
2929	236651.024	4141058.205	8.263
2930	236649.862	4141057.949	8.230
2931	236651.599	4141056.321	8.328
2932	236650.047	4141051.772	8.330
2933	236649.950	4141051.389	8.326
2934	236648.639	4141048.277	8.314
2935	236648.008	4141048.664	8.282
2936	236648.433	4141049.894	8.286
2937	236647.647	4141050.110	8.260
2938	236647.504	4141049.365	8.251
2939	236647.010	4141047.629	8.258
2940	236646.932	4141047.227	8.267
2941	236646.623	4141047.268	8.255
2942	236646.542	4141046.822	8.261
2943	236646.811	4141048.922	8.240
2944	236646.396	4141047.508	8.236
2945	236646.002	4141046.211	8.245
2946	236645.691	4141045.059	8.253
2947	236645.321	4141043.813	8.266
2948	236646.302	4141044.354	8.283
2949	236645.777	4141044.503	8.271
2950	236645.620	4141044.041	8.266
2951	236645.006	4141042.700	8.261
2952	236644.696	4141041.658	8.274
2953	236644.385	4141040.582	8.288
2954	236644.029	4141039.410	8.303
2955	236643.683	4141038.276	8.309
2956	236643.330	4141037.053	8.317
2957	236642.998	4141035.884	8.334
2958	236642.670	4141034.708	8.337
2959	236642.331	4141033.515	8.329
2960	236640.981	4141032.937	8.314
2961	236639.783	4141032.628	8.293

2962	236642.744	4141032.011	8.371
2963	236644.031	4141030.709	8.457
2964	236641.692	4141032.101	8.349
2965	236640.427	4141029.705	8.361
2966	236639.258	4141030.125	8.306
2967	236639.019	4141029.352	8.317
2968	236639.134	4141031.683	8.289
2969	236638.801	4141030.492	8.305
2970	236638.476	4141029.327	8.293
2971	236638.108	4141028.122	8.308
2972	236637.774	4141026.978	8.303
2973	236637.455	4141025.770	8.320
2974	236637.124	4141024.555	8.334
2975	236637.249	4141023.384	8.359
2976	236637.317	4141022.109	8.379
8010	236614.889	4141022.464	8.762
9999	236589.957	4141042.678	41.581

Radiación desde la estación 5037

X	236676.096	Desorientación	287.3092
Y	4141222.275	Nombre	
Z	8.686	Coef. anamorfosis	1.0004542672

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
3903	382.1157	100.9267	37.825	1.400	1.551	269.4249	37.838
3904	391.2127	101.2577	37.777	1.400	1.551	278.5219	37.787
3905	394.1711	101.1213	32.240	1.400	1.551	281.4803	32.250
3906	381.8308	100.9515	37.365	1.400	1.551	269.1400	37.378
3907	383.2053	101.0179	36.956	1.400	1.551	270.5145	36.968
3908	382.6403	100.9681	37.241	1.400	1.551	269.9495	37.254
3909	371.1339	101.0218	38.171	1.400	1.551	258.4431	38.183
3910	371.1421	101.0224	37.848	1.400	1.551	258.4513	37.860
3911	371.1154	101.0226	37.374	1.400	1.551	258.4246	37.386
3912	371.6386	101.0444	36.932	1.400	1.551	258.9478	36.944
3913	376.1999	101.2574	32.852	1.400	1.551	263.5091	32.860
3914	377.8295	101.3030	31.917	1.400	1.551	265.1387	31.925
3915	378.9141	101.2421	32.405	1.400	1.551	266.2233	32.414
3916	382.4252	101.2144	32.564	1.400	1.551	269.7344	32.573
3917	380.2505	101.3616	30.465	1.400	1.551	267.5597	30.472
3918	393.5505	101.0743	31.645	1.400	1.551	280.8597	31.655
3919	396.1907	100.8323	31.205	1.400	1.551	283.4999	31.216
3920	394.3317	100.9608	29.783	1.400	1.551	281.6409	29.793
3921	391.8416	101.1870	30.607	1.400	1.551	279.1508	30.616
3922	389.9298	101.2927	29.616	1.400	1.551	277.2390	29.623
3923	389.4661	101.6880	26.651	1.400	1.551	276.7753	26.654
3924	396.9274	101.1356	27.474	1.400	1.551	284.2366	27.482
3925	0.4390 101.0732	27.881	1.400	1.551	287.7482	27.890	
3926	392.9391	101.0335	29.045	1.400	1.551	280.2483	29.054
3927	7.0662 100.9685	28.762	1.400	1.551	294.3754	28.772	
3928	23.0665 101.3569	23.876	1.400	1.551	310.3757	23.881	
3929	26.2748 101.2802	24.774	1.400	1.551	313.5840	24.780	
3930	1.3388 101.5609	23.324	1.500	1.551	288.6480	23.328	
3931	23.6399 101.8726	21.443	1.300	1.551	310.9491	21.443	
3932	29.6759 101.6637	23.540	1.300	1.551	316.9851	23.543	
3933	35.3643 101.2672	26.993	1.300	1.551	322.6735	27.000	
3934	39.9191 102.1731	21.393	1.300	1.551	327.2283	21.390	
3935	43.5087 101.4812	25.837	1.300	1.551	330.8179	25.842	
3936	51.7538 101.5328	25.012	1.300	1.551	339.0630	25.016	
3937	53.5357 101.4068	26.362	1.300	1.551	340.8449	26.367	
3938	65.1301 101.0664	31.292	1.300	1.551	352.4393	31.302	
3939	73.9689 101.2378	30.343	1.300	1.551	361.2781	30.351	
3940	74.4283 101.1162	31.887	1.300	1.551	361.7375	31.897	
3941	72.0629 101.2236	30.065	1.300	1.551	359.3721	30.073	
3942	79.2653 101.7633	28.815	1.300	1.551	366.5745	28.817	
3943	80.3435 101.6770	29.713	1.300	1.551	367.6527	29.716	

3944	85.3785	101.2489	32.550	1.300	1.551	372.6877	32.558	4008	119.2199	99.9131	117.091	1.800	1.551	6.5291	117.144	
3945	85.0388	101.1092	35.657	1.300	1.551	372.3480	35.668	4009	119.3826	99.9883	117.808	1.800	1.551	6.6918	117.861	
3946	68.6739	100.5358	37.312	1.500	1.551	355.9831	37.328	4010	119.4773	100.4307		84.430	1.300	1.551	6.7865	84.466
3947	70.1128	100.5184	37.970	1.500	1.551	357.4220	37.986	4011	119.8069	100.3574		84.471	1.300	1.551	7.1161	84.508
3948	80.0568	100.5528	37.570	1.500	1.551	367.3660	37.586	4012	119.3277	100.4173		80.640	1.300	1.551	6.6369	80.675
3949	87.9901	100.6510	38.204	1.500	1.551	375.2993	38.219	4013	119.0277	100.4077		78.317	1.300	1.551	6.3369	78.351
3950	88.0063	100.5820	39.739	1.500	1.551	375.3155	39.755	4014	120.1030	100.4380		83.217	1.300	1.551	7.4122	83.253
3951	92.0219	100.9554	41.076	1.300	1.551	379.3311	41.090	4015	119.5202	100.4010		81.419	1.300	1.551	6.8294	81.454
3952	95.4246	101.0116	40.412	1.300	1.551	382.7338	40.425	4016	117.6822	100.3782		88.739	1.300	1.551	4.9914	88.778
3953	94.2985	101.2318	39.006	1.300	1.551	381.6077	39.016	4017	117.7388	100.5177		68.189	1.300	1.551	5.0480	68.218
3954	92.6067	100.8657	42.528	1.300	1.551	379.9159	42.543	4018	116.7367	100.5547		68.148	1.300	1.551	4.0459	68.176
3955	92.7056	100.8827	42.743	1.300	1.551	380.0148	42.758	4019	111.3879	100.6799		60.617	1.300	1.551	398.6971	60.641
3956	92.2051	100.8720	42.929	1.300	1.551	379.5143	42.944	4020	112.9134	100.6988		51.886	1.300	1.551	0.2226	51.906
3957	93.0217	100.8721	43.084	1.300	1.551	380.3309	43.099	4021	114.0282	100.7579		53.438	1.300	1.551	1.3374	53.458
3958	90.5948	100.7705	45.494	1.300	1.551	377.9040	45.511	4022	112.2390	100.8142		51.982	1.300	1.551	399.5482	52.001
3959	97.4091	100.7983	47.218	1.300	1.551	384.7183	47.236	4023	111.6531	100.7707		48.748	1.300	1.551	398.9623	48.766
3960	96.9497	100.7498	48.734	1.300	1.551	384.2589	48.753	4024	110.3362	100.1672		47.334	1.800	1.551	397.6454	47.355
3961	97.4561	100.6471	53.646	1.300	1.551	384.7653	53.668	4025	108.0796	100.1945		47.918	1.800	1.551	395.3888	47.939
3962	103.6286	100.6689	57.019	1.300	1.551	390.9378	57.042	4026	105.7204	100.2011		43.664	1.800	1.551	393.0296	43.684
3963	103.0959	100.6218	58.487	1.300	1.551	390.4051	58.511	4027	108.2162	100.1285		42.986	1.800	1.551	395.5254	43.005
3964	105.5928	100.4878	53.983	1.700	1.551	392.9020	54.006	4028	109.0274	100.1277		41.496	1.800	1.551	396.3366	41.515
3965	106.5233	100.4176	56.729	1.700	1.551	393.8325	56.753	4029	98.9037	100.2525	37.899	1.800	1.551	386.2129	37.916	
3966	106.9068	100.2380	57.989	1.700	1.551	394.2160	58.015	4030	86.2079	101.5316	28.261	1.300	1.551	373.5171	28.266	
3967	105.0165	100.2204	59.542	1.700	1.551	392.3257	59.569	4031	94.5155	101.5612	25.863	1.300	1.551	381.8247	25.867	
3968	102.1584	100.1161	61.620	1.700	1.551	389.4676	61.648	4032	90.9185	101.4506	24.595	1.300	1.551	378.2277	24.600	
3969	104.1536	100.2171	60.922	1.700	1.551	391.4628	60.949	4033	88.2001	101.4797	23.177	1.300	1.551	375.5093	23.181	
3970	105.4105	100.2173	61.446	1.700	1.551	392.7197	61.473	4034	61.5125	102.3868	16.958	1.300	1.551	348.8217	16.954	
3971	104.5960	100.1948	61.802	1.700	1.551	391.9052	61.830	4035	65.2064	102.3919	16.295	1.300	1.551	352.5156	16.291	
3972	107.3036	100.1786	62.187	1.700	1.551	394.6128	62.215	4036	65.2448	102.0151	20.990	1.300	1.551	352.5540	20.989	
3973	107.9718	100.1856	61.898	1.700	1.551	395.2810	61.926	4037	28.3652	102.2405	18.052	1.300	1.551	315.6744	18.049	
3974	108.4523	100.1864	63.070	1.700	1.551	395.7615	63.098	4038	23.5165	102.2327	16.645	1.300	1.551	310.8257	16.642	
3975	107.9327	100.1551	67.032	1.700	1.551	395.2419	67.062	4039	1.8198	102.0877	18.356	1.300	1.551	289.1290	18.354	
3976	107.3302	100.1110	68.416	1.700	1.551	394.6394	68.447	4040	395.9052	102.1078	17.612	1.300	1.551	283.2144	17.610	
3977	107.0233	100.0601	73.530	1.700	1.551	394.3325	73.563	4041	397.0753	102.5547	16.194	1.300	1.551	284.3845	16.188	
3978	109.2399	100.1092	76.177	1.700	1.551	396.5491	76.211	4042	367.2004	101.4160	25.836	1.300	1.551	254.5096	25.841	
3979	111.0652	100.0843	77.567	1.700	1.551	398.3744	77.602	4043	365.6608	101.3750	28.832	1.300	1.551	252.9700	28.838	
3980	110.5288	100.0727	78.928	1.700	1.551	397.8380	78.964	4044	351.9507	100.8985	42.903	1.300	1.551	239.2599	42.918	
3981	112.4333	100.0613	82.279	1.700	1.551	399.7425	82.316	4045	352.5732	100.8976	43.671	1.300	1.551	239.8824	43.686	
3982	114.5646	100.0809	84.323	1.700	1.551	1.8738	84.361	4046	353.1827	100.9260	43.558	1.300	1.551	240.4919	43.573	
3983	114.6955	100.2124	82.993	1.700	1.551	2.0047	83.030	4047	352.8604	100.7905	42.652	1.300	1.551	240.1696	42.668	
3984	114.2006	100.2055	81.896	1.700	1.551	1.5098	81.933	4048	352.7594	100.9079	41.426	1.300	1.551	240.0686	41.441	
3985	111.0799	100.0066	87.888	1.700	1.551	398.3891	87.928	4049	353.3716	100.7814	41.677	1.300	1.551	240.6808	41.693	
3986	109.2656	99.4628	92.841	2.550	1.551	396.5748	92.880	4050	353.8088	100.8257	41.055	1.300	1.551	241.1180	41.070	
3987	109.5219	99.4598	93.893	2.550	1.551	396.8311	93.932	4051	355.1018	100.9768	39.889	1.300	1.551	242.4110	39.902	
3988	112.9493	100.2267	96.494	1.300	1.551	0.2585	96.537	4052	354.1182	100.8835	39.658	1.300	1.551	241.4274	39.672	
3989	115.4382	100.0077	98.698	1.700	1.551	2.7474	98.743	4053	355.7445	100.8806	37.187	1.300	1.551	243.0537	37.200	
3990	114.9370	99.9836	99.984	1.700	1.551	2.2462	100.029	4054	356.3473	100.9865	38.055	1.300	1.551	243.6565	38.068	
3991	115.3681	99.9910	101.370	1.700	1.551	2.6773	101.416	4055	356.9136	100.8809	36.587	1.300	1.551	244.2228	36.600	
3992	115.8126	100.0106	101.187	1.700	1.551	3.1218	101.233	4056	358.7869	101.0881	35.884	1.300	1.551	246.0961	35.895	
3993	115.6228	100.0054	99.958	1.700	1.551	2.9320	100.003	4057	365.7712	101.1569	34.694	1.300	1.551	253.0804	34.704	
3994	114.2040	99.9873	99.937	1.700	1.551	1.5132	99.982	4058	375.0878	101.4075	28.337	1.300	1.551	262.3970	28.343	
3995	116.1964	99.9494	103.169	1.800	1.551	3.5056	103.216	4059	355.2057	100.9763	40.859	1.300	1.551	242.5149	40.873	
3996	117.4272	99.9766	101.877	1.800	1.551	4.7364	101.923	4060	357.7755	101.0422	37.164	1.300	1.551	245.0847	37.176	
3997	117.7437	100.0275	103.516	1.800	1.551	5.0529	103.563	4061	365.7907	101.1531	39.748	1.300	1.551	253.0999	39.759	
3998	118.0698	100.0445	104.616	1.800	1.551	5.3790	104.663	4062	362.6268	101.0681	43.162	1.300	1.551	249.9360	43.175	
3999	116.9865	99.9351	109.406	1.800	1.551	4.2957	109.455	4063	352.1232	100.8799	41.041	1.300	1.551	239.4324	41.056	
4000	116.5469	99.8812	110.707	1.800	1.551	3.8561	110.757	4064	355.1281	100.9747	36.354	1.300	1.551	242.4373	36.366	
4001	115.3967	99.8155	111.799	1.800	1.551	2.7059	111.849	4065	355.9056	101.0178	35.450	1.300	1.551	243.2148	35.462	
4002	115.6498	99.8254	112.175	1.800	1.551	2.9590	112.225	4066	356.1817	101.0172	35.106	1.300	1.551	243.4909	35.117	
4003	117.3960	99.8625	116.524	1.800	1.551	4.7052	116.576	4067	332.5823	100.6782	32.847	1.300	1.551	219.8915	32.860	
4004	117.5597	99.8685	116.489	1.800	1.551	4.8689	116.541	4068	332.5513	100.6611	33.224	1.300	1.551	219.8605	33.237	
4005	117.6381	99.8677	116.811	1.800	1.551	4.9473	116.864	4069	332.5930	100.6392	34.229	1.300	1.551	219.9022	34.243	
4006	117.5858	99.8682	116.110	1.800	1.551	4.8950	116.162	4070	332.3385	100.5624	39.239	1.300	1.551	219.6477	39.255	
4007	118.1180	99.8783	118.006	1.800	1.551	5.4272	118.059	4071	329.4713	100.5879	41.171	1.300	1.551	216.7805	41.188	

4072	329.4602	100.5920	40.784	1.300	1.551	216.7694	40.801	4135	166.0959	101.4452	33.911	1.300	1.551	53.4051	33.918
4073	329.1863	100.6128	39.367	1.300	1.551	216.4955	39.383	4136	164.8008	101.4079	33.369	1.300	1.551	52.1100	33.376
4074	328.9370	100.7107	34.312	1.300	1.551	216.2462	34.325	4137	174.4864	99.8359 28.047	2.150	1.551	61.7956	28.060	
4075	311.9483	101.2424	36.128	1.300	1.551	199.2575	36.137	4138	184.1209	99.7640 26.265	2.150	1.551	71.4301	26.277	
4076	314.2517	101.0888	41.001	1.300	1.551	201.5609	41.014	4139	183.0706	99.7371 25.797	2.150	1.551	70.3798	25.808	
4077	312.3488	101.0928	42.073	1.300	1.551	199.6580	42.086	4140	188.6764	99.7292 23.209	2.150	1.551	75.9856	23.219	
4078	313.2765	101.0736	42.255	1.300	1.551	200.5857	42.268	4141	193.6470	99.6703 21.229	2.150	1.551	80.9562	21.238	
4079	313.8045	101.0730	41.830	1.300	1.551	201.1137	41.843	4142	201.0955	99.5536 19.113	2.150	1.551	88.4047	19.121	
4080	313.0262	100.9027	41.536	1.300	1.551	200.3354	41.551	4143	210.8718	99.7336 21.588	2.150	1.551	98.1810	21.598	
4081	312.6532	100.8854	40.901	1.300	1.551	199.9624	40.916	4144	213.4526	99.3848 21.840	2.150	1.551	100.7618	21.849	
4082	312.2673	100.9242	40.171	1.300	1.551	199.5765	40.185	4145	227.6257	99.2358 23.320	2.150	1.551	114.9349	23.329	
4083	313.5753	101.1890	40.031	1.300	1.551	200.8845	40.042	5104	182.3054	101.6708	16.011	1.400	1.551	69.6146	16.013
4084	311.6162	100.9870	38.718	1.300	1.551	198.9254	38.731	9998	0.0000 75.0395	79.878 1.300	1.551	287.3092	73.850		
4085	311.0426	101.1972	36.683	1.300	1.551	198.3518	36.693	Coordenadas calculadas							
4086	311.7921	101.1613	37.966	1.300	1.551	199.1013	37.977	Número X	Y	Z					
4087	310.7086	101.1577	38.160	1.300	1.551	198.0178	38.171	3903	236642.539	4141204.793	8.287				
4088	309.8576	101.1731	36.761	1.300	1.551	197.1668	36.771	3904	236640.439	4141209.767	8.091				
4089	310.3347	101.0338	36.140	1.300	1.551	197.6439	36.152	3905	236645.201	4141213.025	8.269				
4090	309.2123	101.0490	35.293	1.300	1.551	196.5215	35.304	3906	236643.024	4141204.858	8.279				
4091	305.2515	101.2680	30.799	1.300	1.551	192.5607	30.807	3907	236643.023	4141205.759	8.246				
4092	311.6888	101.2587	35.897	1.300	1.551	198.9980	35.906	3908	236642.916	4141205.336	8.271				
4093	315.6614	101.1177	28.642	1.300	1.551	202.9706	28.651	3909	236645.763	4141199.083	8.224				
4094	322.4942	100.9326	29.000	1.300	1.551	209.8034	29.010	3910	236646.017	4141199.283	8.229				
4095	314.1413	101.7166	14.597	1.300	1.551	201.4505	14.598	3911	236646.403	4141199.558	8.237				
4096	299.7274	102.0450	14.679	1.300	1.551	187.0366	14.678	3912	236646.571	4141200.069	8.231				
4097	212.2626	102.8875	13.643	1.300	1.551	99.5718 13.635		3913	236648.488	4141204.454	8.188				
4098	213.8591	102.8798	14.019	1.300	1.551	101.1683	14.011	3914	236648.839	4141205.654	8.184				
4099	215.0642	102.8503	14.154	1.300	1.551	102.3734	14.146	3915	236648.139	4141205.873	8.205				
4100	206.7668	103.7080	11.910	1.300	1.551	94.0760 11.895		3916	236647.135	4141207.366	8.216				
4101	167.1156	101.5736	21.399	1.300	1.551	54.4248 21.402		3917	236649.495	4141207.411	8.186				
4102	164.6130	102.0085	21.871	1.300	1.551	51.9222 21.870		3918	236645.861	4141212.901	8.303				
4103	165.4897	101.7346	23.346	1.300	1.551	52.7989 23.348		3919	236645.922	4141214.274	8.429				
4104	162.2083	101.3758	24.503	1.300	1.551	49.5175 24.508		3920	236647.533	4141213.802	8.388				
4105	160.9058	101.7614	24.262	1.300	1.551	48.2150 24.264		3921	236647.108	4141212.427	8.266				
4106	157.1223	101.1386	34.569	1.300	1.551	44.4315 34.579		3922	236648.346	4141211.908	8.236				
4107	163.7444	101.4589	28.715	1.300	1.551	51.0536 28.720		3923	236651.196	4141212.766	8.130				
4108	153.9361	99.6052 39.085	2.150	1.551	41.2453 39.102			3924	236649.452	4141215.539	8.347				
4109	149.8967	100.9229	41.008	1.300	1.551	37.2059 41.022		3925	236648.721	4141216.941	8.367				
4110	147.6727	100.9986	42.271	1.300	1.551	34.9819 42.285		3926	236648.429	4141213.405	8.366				
4111	146.1416	100.6618	48.346	1.300	1.551	33.4508 48.365		3927	236647.437	4141219.736	8.400				
4112	144.9030	100.6085	52.872	1.300	1.551	32.2122 52.894		3928	236652.531	4141226.150	8.328				
4113	144.2341	100.7745	52.887	1.300	1.551	31.5433 52.907		3929	236651.878	4141227.522	8.339				
4114	143.8815	100.6339	59.488	1.300	1.551	31.1907 59.512		3930	236653.138	4141218.137	8.165				
4115	142.7907	100.6936	59.389	1.300	1.551	30.0999 59.412		3931	236654.969	4141225.945	8.306				
4116	140.4465	100.3644	77.218	1.300	1.551	27.7557 77.252		3932	236653.386	4141228.482	8.322				
4117	139.2193	100.4499	82.340	1.300	1.551	26.5285 82.375		3933	236650.790	4141231.689	8.400				
4118	139.8109	100.3587	82.451	1.300	1.551	27.1201 82.487		3934	236656.633	4141231.147	8.207				
4119	140.2147	100.3957	82.312	1.300	1.551	27.5239 82.348		3935	236653.223	4141234.302	8.336				
4120	141.5842	100.4173	82.628	1.300	1.551	28.8934 82.664		3936	236655.643	4141236.680	8.335				
4121	141.8415	100.4272	82.696	1.300	1.551	29.1507 82.732		3937	236654.972	4141238.055	8.355				
4122	144.2326	100.5860	67.832	1.300	1.551	31.5418 67.860		3938	236654.826	4141245.240	8.413				
4123	147.2946	100.7341	55.544	1.300	1.551	34.6038 55.565		3939	236658.753	4141247.183	8.347				
4124	157.7989	101.1676	34.560	1.300	1.551	45.1081 34.570		3940	236658.059	4141248.582	8.378				
4125	177.0285	99.7268 38.369	2.150	1.551	64.3377 38.386			3941	236658.180	4141246.429	8.359				
4126	177.0868	99.6073 38.578	2.150	1.551	64.3960 38.595			3942	236661.651	4141247.210	8.139				
4127	177.0291	99.6072 38.577	2.150	1.551	64.3383 38.594			3943	236661.638	4141248.237	8.154				
4127	178.0616	99.6746 40.615	2.150	1.551	65.3708 40.633			3944	236662.552	4141251.883	8.299				
4128	173.4237	99.6304 37.036	2.150	1.551	60.7329 37.052			3945	236661.086	4141254.631	8.316				
4129	174.3700	99.6177 37.470	2.150	1.551	61.6792 37.486			3946	236652.295	4141251.030	8.423				
4130	174.7833	99.5735 36.041	2.150	1.551	62.0925 36.057			3947	236652.543	4141252.077	8.428				
4131	168.9264	101.2858	36.552	1.300	1.551	56.2356 36.561		3948	236657.662	4141255.030	8.411				
4132	171.3545	101.4636	32.915	1.300	1.551	58.6637 32.921		3949	236661.636	4141257.653	8.346				
4133	170.2960	101.4615	32.533	1.300	1.551	57.6052 32.539		3950	236661.064	4141259.079	8.374				
4134	171.8218	99.8290 31.539	2.150	1.551	59.1310 31.553			3951	236662.989	4141261.218	8.321				

3952	236665.266	4141261.222	8.295	4016	236683.049	4141310.780	8.410
3953	236664.980	4141259.674	8.182	4017	236681.500	4141290.278	8.383
3954	236662.896	4141262.719	8.359	4018	236680.426	4141290.314	8.343
3955	236662.892	4141262.944	8.344	4019	236674.855	4141282.903	8.290
3956	236662.514	4141263.015	8.349	4020	236676.277	4141274.181	8.368
3957	236662.991	4141263.334	8.347	4021	236677.219	4141275.722	8.301
3958	236660.615	4141265.072	8.387	4022	236675.727	4141274.275	8.272
3959	236664.866	4141268.156	8.345	4023	236675.301	4141271.035	8.347
3960	236664.164	4141269.545	8.363	4024	236674.345	4141269.598	8.313
3961	236663.375	4141274.413	8.392	4025	236672.627	4141270.089	8.291
3962	236668.004	4141278.740	8.338	4026	236671.323	4141265.697	8.299
3963	236667.311	4141280.122	8.366	4027	236673.076	4141265.174	8.350
3964	236670.087	4141275.946	8.124	4028	236673.708	4141263.721	8.354
3965	236670.606	4141278.762	8.165	4029	236667.949	4141259.305	8.287
3966	236670.832	4141280.051	8.320	4030	236664.674	4141248.130	8.257
3967	236668.933	4141281.411	8.331	4031	236668.811	4141247.095	8.303
3968	236665.943	4141283.081	8.425	4032	236667.846	4141245.450	8.377
3969	236667.947	4141282.677	8.329	4033	236667.397	4141243.762	8.398
3970	236669.081	4141283.347	8.327	4034	236663.888	4141234.039	8.301
3971	236668.255	4141283.606	8.348	4035	236665.041	4141234.240	8.325
3972	236670.838	4141284.267	8.363	4036	236661.862	4141237.700	8.273
3973	236671.510	4141284.031	8.357	4037	236658.591	4141226.674	8.302
3974	236671.898	4141285.233	8.353	4038	236659.694	4141225.091	8.353
3975	236671.088	4141289.150	8.374	4039	236658.008	4141219.156	8.335
3976	236670.339	4141290.479	8.418	4040	236659.094	4141217.685	8.354
3977	236669.556	4141295.547	8.468	4041	236660.392	4141218.344	8.287
3978	236671.967	4141298.374	8.407	4042	236656.576	4141205.342	8.362
3979	236674.115	4141299.852	8.435	4043	236654.775	4141202.856	8.314
3980	236673.415	4141301.193	8.447	4044	236651.275	4141187.263	8.332
3981	236675.763	4141304.591	8.458	4045	236650.483	4141186.885	8.321
3982	236678.579	4141306.600	8.430	4046	236650.213	4141187.223	8.304
3983	236678.710	4141305.264	8.261	4047	236650.924	4141187.823	8.408
3984	236678.039	4141304.185	8.273	4048	236651.702	4141188.775	8.346
3985	236673.871	4141310.175	8.528	4049	236651.230	4141188.809	8.426
3986	236671.101	4141315.020	8.471	4050	236651.376	4141189.478	8.405
3987	236671.422	4141316.091	8.484	4051	236651.436	4141190.904	8.325
3988	236676.488	4141318.811	8.594	4052	236652.064	4141190.710	8.387
3989	236680.356	4141320.926	8.526	4053	236652.812	4141193.262	8.423
3990	236679.625	4141322.242	8.563	4054	236651.989	4141192.813	8.347
3991	236680.360	4141323.601	8.552	4055	236652.668	4141194.156	8.431
3992	236681.058	4141323.386	8.521	4056	236652.318	4141195.386	8.324
3993	236680.700	4141322.172	8.529	4057	236650.398	4141198.951	8.307
3994	236678.472	4141322.229	8.558	4058	236652.555	4141206.490	8.311
3995	236681.777	4141325.334	8.520	4059	236650.784	4141190.183	8.311
3996	236683.672	4141323.916	8.475	4060	236651.915	4141194.038	8.329
3997	236684.307	4141325.512	8.393	4061	236646.647	4141195.563	8.217
3998	236684.929	4141326.565	8.365	4062	236645.597	4141191.715	8.213
3999	236683.476	4141331.481	8.549	4063	236652.261	4141188.846	8.370
4000	236682.801	4141332.829	8.644	4064	236653.610	4141193.694	8.381
4001	236680.849	4141334.023	8.762	4065	236653.831	4141194.675	8.370
4002	236681.310	4141334.379	8.745	4066	236653.928	4141195.038	8.376
4003	236684.704	4141338.533	8.689	4067	236665.995	4141191.006	8.587
4004	236685.000	4141338.476	8.678	4068	236665.894	4141190.642	8.592
4005	236685.169	4141338.786	8.681	4069	236665.564	4141189.692	8.593
4006	236685.019	4141338.094	8.678	4070	236664.172	4141184.874	8.590
4007	236686.148	4141339.905	8.663	4071	236665.365	4141182.510	8.557
4008	236688.089	4141338.803	8.598	4072	236665.472	4141182.882	8.558
4009	236688.462	4141339.486	8.459	4073	236666.005	4141184.207	8.558
4010	236685.083	4141306.262	8.366	4074	236667.431	4141189.061	8.554
4011	236685.523	4141306.255	8.463	4075	236676.517	4141186.140	8.232
4012	236684.491	4141302.512	8.409	4076	236675.090	4141181.274	8.236
4013	236683.882	4141300.238	8.436	4077	236676.322	4141180.190	8.215
4014	236685.767	4141304.964	8.365	4078	236675.707	4141180.009	8.225
4015	236684.817	4141303.261	8.425	4079	236675.364	4141180.438	8.232

4080	236675.877	4141180.725	8.348
4081	236676.120	4141181.359	8.368
4082	236676.363	4141182.091	8.354
4083	236675.540	4141182.237	8.189
4084	236676.750	4141183.550	8.337
4085	236677.046	4141185.594	8.247
4086	236676.632	4141184.302	8.245
4087	236677.284	4141184.123	8.243
4088	236677.732	4141185.540	8.260
4089	236677.434	4141186.148	8.350
4090	236678.024	4141187.023	8.356
4091	236679.688	4141191.678	8.324
4092	236676.661	4141186.373	8.227
4093	236674.760	4141193.656	8.434
4094	236671.646	4141193.608	8.512
4095	236675.763	4141207.680	8.543
4096	236679.064	4141207.900	8.466
4097	236689.731	4141222.367	8.318
4098	236690.105	4141222.018	8.303
4099	236690.232	4141221.748	8.304
4100	236687.940	4141223.380	8.244
4101	236692.244	4141236.321	8.408
4102	236692.020	4141237.266	8.247
4103	236693.315	4141238.043	8.301
4104	236693.294	4141239.736	8.408
4105	236692.765	4141239.906	8.266
4106	236698.318	4141248.769	8.319
4107	236696.738	4141242.245	8.279
4108	236699.694	4141253.454	8.329
4109	236698.729	4141256.489	8.343
4110	236698.180	4141258.335	8.274
4111	236700.356	4141264.116	8.435
4112	236701.732	4141268.541	8.432
4113	236701.251	4141268.819	8.294
4114	236704.101	4141274.786	8.345
4115	236703.152	4141275.169	8.290
4116	236708.720	4141292.300	8.495
4117	236709.438	4141297.601	8.356
4118	236710.182	4141297.390	8.473
4119	236710.600	4141297.046	8.426
4120	236712.339	4141296.570	8.396
4121	236712.669	4141296.484	8.382
4122	236708.359	4141281.975	8.313
4123	236704.833	4141269.832	8.297
4124	236698.592	4141248.524	8.303
4125	236708.615	4141242.671	8.252
4126	236708.811	4141242.752	8.325
4127	236708.791	4141242.781	8.325
4127	236710.864	4141243.303	8.295
4128	236706.321	4141243.707	8.302
4129	236706.994	4141243.501	8.312
4130	236705.947	4141242.498	8.329
4131	236704.353	4141245.475	8.199
4132	236702.318	4141242.180	8.180
4133	236701.683	4141242.378	8.190
4134	236701.367	4141241.168	8.172
4135	236701.327	4141244.942	8.167
4136	236700.465	4141245.080	8.199
4137	236699.253	4141238.121	8.159
4138	236699.771	4141233.675	8.184
4139	236699.161	4141233.854	8.194
4140	236697.683	4141230.827	8.186
4141	236696.391	4141228.534	8.197
4142	236694.901	4141225.738	8.221

4143	236697.685	4141222.892	8.177
4144	236697.943	4141222.014	8.298
4145	236698.786	4141216.852	8.367
5104	236690.319	4141229.631	8.417
9998	236603.709	4141207.651	39.459

Radiación desde la estación 8000

X	236289.476	Desorientación	232.3272
Y	4141031.332	Nombre	
Z	8.599	Coef. anamorfosis	1.0004567776

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
1	304.8846	105.3545	5.354	1.300	1.645	137.2118	5.338
2	322.4698	105.2092	5.911	1.300	1.645	154.7970	5.894
3	337.5844	103.6540	8.325	1.300	1.645	169.9116	8.315
4	335.8340	102.9377	10.124	1.300	1.645	168.1612	10.118
5	323.9248	102.0265	15.284	1.300	1.645	156.2520	15.283
6	316.7709	101.4757	14.813	1.300	1.645	149.0981	14.816
7	314.2915	101.2587	17.525	1.300	1.645	146.6187	17.530
8	321.1643	101.7822	17.337	1.300	1.645	153.4915	17.338
9	315.8622	101.3138	23.495	1.300	1.645	148.1894	23.501
10	310.2334	101.0487	26.190	1.300	1.645	142.5606	26.198
11	308.4711	100.9323	32.807	1.300	1.645	140.7983	32.818
12	307.1490	100.7037	40.246	1.300	1.645	139.4762	40.262
13	309.9913	100.7363	41.907	1.300	1.645	142.3185	41.923
14	305.9891	100.3437	72.576	1.300	1.645	138.3163	72.608
15	303.9153	100.2037	88.705	1.300	1.645	136.2425	88.745
16	304.1639	100.1844	82.958	1.300	1.645	136.4911	82.995
17	304.6535	100.2176	73.005	1.300	1.645	136.9807	73.038
18	305.0245	100.2659	66.972	1.300	1.645	137.3517	67.002
19	305.8351	100.3708	56.159	1.300	1.645	138.1623	56.184
20	303.0202	100.3595	55.281	1.300	1.645	135.3474	55.305
21	303.2328	100.3909	51.681	1.300	1.645	135.5600	51.704
22	303.1333	100.3859	49.886	1.300	1.645	135.4605	49.908
23	302.8460	100.4055	47.698	1.300	1.645	135.1732	47.719
24	305.7433	100.4332	45.093	1.300	1.645	138.0705	45.112
25	306.8321	100.6411	35.628	1.300	1.645	139.1593	35.642
26	303.3444	100.6181	33.740	1.300	1.645	135.6716	33.754
27	304.4909	100.9474	21.402	1.300	1.645	136.8181	21.409
28	310.6251	101.0882	21.055	1.300	1.645	142.9523	21.062
29	317.3582	101.7030	12.637	1.300	1.645	149.6854	12.638
30	316.5816	102.1778	9.943	1.300	1.645	148.9088	9.942
31	299.6311	102.7756	7.903	1.300	1.645	131.9583	7.899
32	289.2106	103.0062	7.604	1.300	1.645	121.5378	7.599
33	283.5326	103.2732	6.804	1.300	1.645	115.8598	6.798
34	280.6279	104.4246	5.408	1.300	1.645	112.9551	5.397
35	254.6901	103.4707	6.385	1.300	1.645	87.0173 6.378	
36	265.9558	102.6306	8.225	1.300	1.645	98.2830 8.222	
37	272.7096	102.3549	9.196	1.300	1.645	105.0368	9.194
38	284.1970	102.1810	9.948	1.300	1.645	116.5242	9.947
39	291.5890	101.9486	10.293	1.300	1.645	123.9162	10.293
40	304.1643	101.9365	11.282	1.300	1.645	136.4915	11.282
41	306.5247	101.4817	13.719	1.300	1.645	138.8519	13.722
42	307.5485	101.3965	14.419	1.300	1.645	139.8757	14.422
43	306.3091	101.1753	17.484	1.300	1.645	138.6363	17.489
44	307.3486	101.1804	17.515	1.300	1.645	139.6758	17.520
45	308.7189	101.3926	14.480	1.300	1.645	141.0461	14.483
46	314.0463	101.4635	14.581	1.300	1.645	146.3735	14.584
47	311.7325	101.2183	17.763	1.300	1.645	144.0597	17.768
48	271.5365	103.1605	6.736	1.300	1.645	103.8637	6.731
49	281.9620	102.6318	8.414	1.300	1.645	114.2892	8.411
50	294.9087	102.3406	9.017	1.300	1.645	127.2359	9.015
51	307.4073	102.0228	10.127	1.300	1.645	139.7345	10.126
52	312.1423	101.6846	12.107	1.300	1.645	144.4695	12.108
53	311.3622	101.6483	13.342	1.300	1.645	143.6894	13.344

54	308.6758	101.1298	18.130	1.300	1.645	141.0030	18.135	118	267.2025	102.1448	10.750	1.300	1.645	99.5297	10.749
55	306.6636	100.8355	24.537	1.300	1.645	138.9908	24.546	119	270.3153	102.2475	10.492	1.300	1.645	102.6425	10.490
56	305.2802	100.6652	32.478	1.300	1.645	137.6074	32.491	120	269.3196	102.1993	10.874	1.300	1.645	101.6468	10.872
57	304.3295	100.4075	45.316	1.300	1.645	136.6567	45.336	121	268.0263	102.2797	9.788	1.300	1.645	100.3535	9.786
58	304.4945	100.3772	49.565	1.300	1.645	136.8217	49.587	122	263.7457	102.2095	10.054	1.300	1.645	96.0729	10.053
59	304.5923	100.3581	53.065	1.300	1.645	136.9195	53.088	123	264.6856	102.5757	8.694	1.300	1.645	97.0128	8.691
60	303.6586	100.2255	67.081	1.300	1.645	135.9858	67.111	124	257.7264	102.5505	8.198	1.300	1.645	90.0536	8.195
61	303.1863	100.1648	80.592	1.300	1.645	135.5135	80.628	125	275.2497	101.8907	10.820	1.300	1.645	107.5769	10.820
62	302.8487	100.1936	89.123	1.300	1.645	135.1759	89.163	126	277.4980	102.0405	10.093	1.300	1.645	109.8252	10.092
62	302.8748	100.1948	89.124	1.300	1.645	135.2020	89.164	127	291.5475	101.4307	13.054	1.300	1.645	123.8747	13.057
64	302.6728	100.1843	87.677	1.300	1.645	135.0000	87.717	128	291.0788	101.6827	12.065	1.300	1.645	123.4060	12.066
65	302.7205	100.1893	86.936	1.300	1.645	135.0477	86.975	129	295.8124	101.5216	12.966	1.300	1.645	128.1396	12.968
66	300.7301	100.1753	85.344	1.300	1.645	133.0573	85.383	130	302.0862	102.1053	10.434	1.300	1.645	134.4134	10.433
67	300.3285	100.1623	84.851	1.300	1.645	132.6557	84.889	131	308.7616	102.0836	10.655	1.300	1.645	141.0888	10.654
68	302.6194	100.1601	80.753	1.300	1.645	134.9466	80.790	132	310.8708	102.0679	10.749	1.300	1.645	143.1980	10.748
69	300.2527	100.1693	77.620	1.300	1.645	132.5799	77.655	133	315.2356	102.1794	10.370	1.300	1.645	147.5628	10.369
70	299.7359	100.1544	77.013	1.300	1.645	132.0631	77.048	134	316.7364	102.3019	9.603	1.300	1.645	149.0636	9.601
71	300.4866	100.2375	66.233	1.300	1.645	132.8138	66.263	135	322.8522	102.1452	10.471	1.300	1.645	155.1794	10.470
72	299.9766	100.2231	65.618	1.300	1.645	132.3038	65.647	136	321.5200	102.3154	9.617	1.300	1.645	153.8472	9.615
73	299.1705	100.1921	66.292	1.300	1.645	131.4977	66.322	137	329.1571	102.7938	7.995	1.300	1.645	161.4843	7.991
74	299.2914	100.2260	62.643	1.300	1.645	131.6186	62.671	138	332.5663	102.9154	11.071	1.300	1.645	164.8935	11.064
75	299.9361	100.2446	62.290	1.300	1.645	132.2633	62.318	139	322.1541	102.0642	11.529	1.300	1.645	154.4813	11.528
76	301.6882	100.2538	62.782	1.300	1.645	134.0154	62.810	140	323.5837	101.7581	13.264	1.300	1.645	155.9109	13.265
77	302.7212	100.2852	61.915	1.300	1.645	135.0484	61.943	141	320.3377	101.7703	13.034	1.300	1.645	152.6649	13.035
78	302.6347	100.2759	62.832	1.300	1.645	134.9619	62.860	142	322.8872	101.9837	11.900	1.300	1.645	155.2144	11.900
79	303.5112	100.2680	64.116	1.300	1.645	135.8384	64.145	143	313.7220	101.6185	13.761	1.300	1.645	146.0492	13.763
80	304.1135	100.2987	63.948	1.300	1.645	136.4407	63.976	144	310.7241	101.6178	13.570	1.300	1.645	143.0513	13.572
81	304.0435	100.3155	63.244	1.300	1.645	136.3707	63.272	145	311.5694	101.7163	12.938	1.300	1.645	143.8966	12.939
82	305.1423	100.3209	64.402	1.300	1.645	137.4695	64.430	146	320.2823	101.6321	14.723	1.300	1.645	152.6095	14.725
83	305.2760	100.2514	69.131	1.300	1.645	137.6032	69.162	147	315.9522	101.2022	19.453	1.300	1.645	148.2794	19.458
84	305.3311	100.2264	72.144	1.300	1.645	137.6583	72.176	148	314.1856	100.9713	23.358	1.300	1.645	146.5128	23.366
85	302.9124	100.3526	56.778	1.300	1.645	135.2396	56.803	149	307.5236	100.6943	33.835	1.300	1.645	139.8508	33.848
86	302.8885	100.3544	55.482	1.300	1.645	135.2157	55.506	150	310.2060	100.9072	34.304	1.300	1.645	142.5332	34.316
87	302.9489	100.3718	55.093	1.300	1.645	135.2761	55.117	151	311.2268	100.9234	33.901	1.300	1.645	143.5540	33.913
88	302.8248	100.3787	53.874	1.300	1.645	135.1520	53.898	152	307.9446	100.8106	38.604	1.300	1.645	140.2718	38.618
89	301.5919	100.3637	53.098	1.300	1.645	133.9191	53.121	153	310.7769	100.8061	39.607	1.300	1.645	143.1041	39.622
90	300.7932	100.3566	52.485	1.300	1.645	133.1204	52.508	154	308.9252	100.5057	42.016	1.300	1.645	141.2524	42.034
91	305.8548	100.3809	58.455	1.300	1.645	138.1820	58.481	155	310.3920	100.7486	41.041	1.300	1.645	142.7192	41.057
92	305.1209	100.3598	57.330	1.300	1.645	137.4481	57.355	156	311.8199	100.8863	35.280	1.300	1.645	144.1471	35.293
93	305.0735	100.3591	58.404	1.300	1.645	137.4007	58.430	157	313.6936	101.0702	29.527	1.300	1.645	146.0208	29.536
94	300.6604	100.5376	45.069	1.300	1.645	132.9876	45.088	158	314.8759	101.1814	26.693	1.300	1.645	147.2031	26.701
95	300.5935	100.4541	44.262	1.300	1.645	132.9207	44.281	159	318.9446	104.2805	26.123	0.000	1.645	151.2718	26.076
96	300.6811	100.6865	38.176	1.300	1.645	133.0083	38.191	160	327.2252	103.9618	27.220	0.000	1.645	159.5524	27.180
97	300.6218	100.6528	37.280	1.300	1.645	132.9490	37.295	161	338.9240	100.9907	23.364	1.300	1.645	171.2512	23.372
98	300.5639	100.8063	31.138	1.300	1.645	132.8911	31.150	162	337.8996	101.0534	22.936	1.300	1.645	170.2268	22.943
99	300.5002	100.8206	30.264	1.300	1.645	132.8274	30.275	163	347.2902	101.2930	18.958	1.300	1.645	179.6174	18.963
100	313.3008	101.3559	18.670	1.300	1.645	145.6280	18.674	164	348.3813	101.2137	19.417	1.300	1.645	180.7085	19.422
101	319.5626	101.3784	18.107	1.300	1.645	151.8898	18.111	165	327.8188	102.2381	13.769	1.300	1.645	160.1460	13.767
102	314.1505	101.3592	17.704	1.300	1.645	146.4777	17.708	166	327.1438	102.0501	14.731	1.300	1.645	159.4710	14.730
103	316.1106	101.3877	18.361	1.300	1.645	148.4378	18.365	167	330.2553	102.0548	15.134	1.300	1.645	162.5825	15.133
104	301.5128	100.8531	30.765	1.300	1.645	133.8400	30.776	168	332.9527	102.1794	14.062	1.300	1.645	165.2799	14.060
105	301.2863	100.7219	37.827	1.300	1.645	133.6135	37.842	9999	0.0000	97.3258	43.301	0.000	1.645	232.3272	43.282
106	301.2137	100.5524	44.510	1.300	1.645	133.5409	44.529	Coordenadas calculadas							
107	296.7548	101.5273	60.895	0.000	1.645	129.0820	60.905	Número X Y Z							
108	296.4047	100.3163	51.869	1.300	1.645	128.7319	51.892	1	236293.928	4141028.387	8.494				
109	295.8271	100.3867	42.157	1.300	1.645	128.1543	42.175	2	236293.319	4141026.862	8.461				
110	294.8716	100.5132	32.965	1.300	1.645	127.1988	32.979	3	236293.262	4141023.928	8.466				
111	292.2545	100.6571	20.399	1.300	1.645	124.5817	20.407	4	236294.328	4141022.453	8.477				
112	289.9864	101.1711	15.331	1.300	1.645	122.3136	15.335	5	236299.172	4141019.518	8.458				
113	288.6277	101.4456	13.179	1.300	1.645	120.9549	13.182	6	236300.100	4141021.005	8.601				
114	277.2764	101.3336	13.490	1.300	1.645	109.6036	13.493	7	236302.512	4141019.612	8.597				
115	276.4163	101.4734	12.766	1.300	1.645	108.7435	12.768	8	236301.046	4141018.418	8.459				
116	261.7789	101.4079	13.966	1.300	1.645	94.1061	13.969	9	236306.560	4141015.194	8.459				
117	271.7714	102.1320	11.042	1.300	1.645	104.0986	11.041	10	236310.035	4141015.093	8.513				

11	236315.783	4141011.710	8.464	75	236343.961	4141001.085	8.705
12	236322.243	4141007.935	8.499	76	236343.532	4140999.346	8.694
13	236322.473	4141005.472	8.459	77	236342.267	4140998.927	8.667
14	236349.326	4140990.222	8.552	78	236343.093	4140998.520	8.672
15	236364.225	4140983.495	8.661	79	236343.723	4140997.099	8.674
16	236359.207	4140986.322	8.704	80	236343.255	4140996.679	8.644
17	236350.534	4140991.251	8.695	81	236342.700	4140997.119	8.631
18	236345.273	4140994.238	8.664	82	236343.066	4140995.562	8.620
19	236335.864	4140999.634	8.617	83	236346.920	4140992.815	8.671
20	236336.474	4141002.178	8.632	84	236349.389	4140991.084	8.688
21	236333.322	4141003.930	8.627	85	236337.797	4141001.470	8.630
22	236331.840	4141004.948	8.642	86	236336.705	4141002.170	8.635
23	236330.095	4141006.288	8.640	87	236336.346	4141002.330	8.622
24	236326.760	4141005.934	8.637	88	236335.364	4141003.061	8.624
25	236318.586	4141010.765	8.585	89	236335.235	4141004.349	8.641
26	236318.069	4141013.393	8.616	90	236335.037	4141005.230	8.650
27	236307.404	4141019.629	8.625	91	236337.750	4140998.323	8.594
28	236305.923	4141018.176	8.584	92	236337.192	4140999.506	8.620
29	236298.457	4141022.440	8.606	93	236338.110	4140998.946	8.615
30	236296.626	4141024.424	8.604	94	236328.646	4141009.000	8.563
31	236296.401	4141027.531	8.599	95	236327.968	4141009.441	8.628
32	236296.645	4141028.810	8.585	96	236322.648	4141012.406	8.532
33	236296.065	4141029.656	8.594	97	236321.887	4141012.880	8.562
34	236294.762	4141030.241	8.568	98	236316.560	4141015.945	8.550
35	236295.723	4141032.624	8.596	99	236315.815	4141016.403	8.554
36	236297.695	4141031.554	8.604	100	236303.556	4141019.065	8.546
37	236298.642	4141030.605	8.604	101	236301.897	4141018.151	8.552
38	236299.090	4141028.779	8.603	102	236302.671	4141019.522	8.566
39	236299.051	4141027.556	8.629	103	236302.777	4141018.669	8.544
40	236298.955	4141025.213	8.601	104	236316.006	4141015.732	8.532
41	236300.721	4141023.468	8.625	105	236322.165	4141012.267	8.515
42	236301.161	4141022.878	8.628	106	236327.967	4141008.942	8.558
43	236303.842	4141021.358	8.621	107	236344.136	4141004.467	8.783
44	236303.703	4141021.106	8.619	108	236336.173	4141008.699	8.686
45	236301.052	4141022.628	8.627	109	236327.594	4141013.282	8.688
46	236300.359	4141021.624	8.609	110	236319.491	4141017.667	8.678
47	236303.156	4141019.994	8.604	111	236308.381	4141023.647	8.733
48	236296.195	4141030.924	8.610	112	236303.879	4141026.066	8.662
49	236297.676	4141029.460	8.596	113	236301.950	4141027.071	8.645
50	236297.679	4141027.592	8.612	114	236302.816	4141029.304	8.661
51	236297.694	4141025.414	8.622	115	236302.125	4141029.584	8.649
52	236298.749	4141023.545	8.624	116	236303.386	4141032.623	8.635
53	236299.799	4141022.877	8.599	117	236300.494	4141030.622	8.574
54	236303.979	4141020.442	8.622	118	236300.225	4141031.411	8.582
55	236309.561	4141017.221	8.622	119	236299.958	4141030.897	8.574
56	236316.461	4141013.235	8.605	120	236300.345	4141031.051	8.568
57	236327.502	4141006.646	8.654	121	236299.262	4141031.278	8.594
58	236330.997	4141004.224	8.650	122	236299.510	4141031.952	8.595
59	236333.885	4141002.241	8.646	123	236298.158	4141031.740	8.592
60	236346.148	4140995.385	8.707	124	236297.572	4141032.607	8.616
61	236357.881	4140988.651	8.736	125	236300.220	4141030.047	8.623
62	236365.372	4140984.535	8.673	126	236299.449	4141029.781	8.620
62	236365.353	4140984.503	8.672	127	236301.626	4141026.549	8.651
64	236364.267	4140985.500	8.691	128	236300.736	4141026.995	8.625
65	236363.601	4140985.832	8.686	129	236301.198	4141025.785	8.634
66	236363.604	4140988.962	8.709	130	236298.422	4141025.963	8.599
67	236363.440	4140989.672	8.728	131	236297.987	4141024.923	8.595
68	236358.396	4140989.177	8.741	132	236297.844	4141024.586	8.595
69	236357.183	4140993.303	8.738	133	236297.083	4141024.286	8.589
70	236356.957	4140994.147	8.758	134	236296.365	4141024.644	8.597
71	236347.130	4140998.670	8.697	135	236296.254	4141023.352	8.591
72	236346.852	4140999.432	8.714	136	236295.852	4141024.135	8.594
73	236347.845	4140999.841	8.744	137	236294.021	4141024.759	8.593
74	236344.575	4141001.470	8.722	138	236295.273	4141021.908	8.437

[illegible]

260	72.1162	100.9787	25.743	1.300	1.628	304.4374	25.752	324	92.9487	100.4667	95.994	1.300	1.628	325.2699	96.035
261	72.4563	100.9788	25.658	1.300	1.628	304.7775	25.667	325	93.6049	100.3261	98.876	1.500	1.628	325.9261	98.920
262	72.8338	100.9786	25.751	1.300	1.628	305.1550	25.760	326	93.9156	100.3228	100.524	1.500	1.628	326.2368	100.568
263	60.1891	101.3777	20.784	1.300	1.628	292.5103	20.789	327	94.1794	100.3112	105.373	1.500	1.628	326.5006	105.420
264	56.3756	101.4876	20.925	1.300	1.628	288.6968	20.929	328	95.0781	100.3112	105.276	1.500	1.628	327.3993	105.323
265	57.4219	101.4643	21.297	1.300	1.628	289.7431	21.301	329	94.8181	100.3248	100.454	1.500	1.628	327.1393	100.498
266	62.8195	101.4213	25.988	1.300	1.628	295.1407	25.993	330	94.3759	100.3295	97.590	1.500	1.628	326.6971	97.633
267	63.1612	101.2265	25.950	1.300	1.628	295.4824	25.957	331	93.5208	100.3402	93.890	1.500	1.628	325.8420	93.931
268	69.0363	101.0436	24.657	1.300	1.628	301.3575	24.665	332	94.2910	100.3468	90.045	1.500	1.628	326.6122	90.085
269	74.6934	100.9959	29.629	1.300	1.628	307.0146	29.639	333	92.3070	100.3523	89.148	1.500	1.628	324.6282	89.187
270	77.8328	100.9169	33.498	1.300	1.628	310.1540	33.510	334	91.6373	100.3584	86.620	1.500	1.628	323.9585	86.658
271	80.2574	100.8565	37.350	1.300	1.628	312.5786	37.364	335	90.9164	100.3621	83.751	1.500	1.628	323.2376	83.788
272	87.5831	100.7632	36.015	1.300	1.628	319.9043	36.029	336	92.9647	100.3559	86.694	1.500	1.628	325.2859	86.732
273	87.1881	100.7855	34.734	1.300	1.628	319.5093	34.747	337	92.7445	100.3104	105.424	1.500	1.628	325.0657	105.471
274	83.9955	100.8194	30.216	1.300	1.628	316.3167	30.227	338	91.8499	100.3052	105.587	1.500	1.628	324.1711	105.634
275	73.8369	101.1535	21.599	1.300	1.628	306.1581	21.605	339	91.2083	100.3315	97.916	1.500	1.628	323.5295	97.959
276	71.2195	101.1840	20.492	1.300	1.628	303.5407	20.498	340	92.1741	100.3307	98.077	1.500	1.628	324.4953	98.120
277	86.8232	100.7840	34.753	1.300	1.628	319.1444	34.766	341	92.1422	100.3005	111.262	1.500	1.628	324.4634	111.311
278	88.8905	100.7815	37.739	1.300	1.628	321.2117	37.753	342	93.0026	100.3002	111.179	1.500	1.628	325.3238	111.228
279	91.0843	100.6792	46.767	1.300	1.628	323.4055	46.786	343	94.3574	100.3000	111.104	1.500	1.628	326.6786	111.153
280	91.0718	100.6173	48.114	1.300	1.628	323.3930	48.134	344	95.2139	100.2974	111.021	1.500	1.628	327.5351	111.070
281	91.8816	100.6472	51.435	1.300	1.628	324.2028	51.456	345	95.9790	100.2976	111.057	1.500	1.628	328.3002	111.106
282	91.6095	100.6506	51.356	1.300	1.628	323.9307	51.377	346	95.6265	100.2963	111.062	1.500	1.628	327.9477	111.111
283	93.8157	100.5606	67.607	1.300	1.628	326.1369	67.635	347	95.6224	100.2988	111.280	1.500	1.628	327.9436	111.329
284	93.8756	100.5263	70.156	1.300	1.628	326.1968	70.185	348	95.4071	100.3034	111.301	1.500	1.628	327.7283	111.350
285	95.3172	100.4683	89.807	1.300	1.628	327.6384	89.845	349	95.4151	100.3036	111.025	1.500	1.628	327.7363	111.074
286	95.3664	100.4600	93.905	1.300	1.628	327.6876	93.945	350	93.6801	100.3035	111.228	1.500	1.628	326.0013	111.277
287	95.9756	100.4137	105.239	1.300	1.628	328.2968	105.285	351	91.9814	100.3138	111.423	1.500	1.628	324.3026	111.472
288	96.0688	100.4001	111.092	1.300	1.628	328.3900	111.140	352	91.9899	100.3136	111.557	1.500	1.628	324.3111	111.606
289	91.2727	100.5264	110.889	1.300	1.628	323.5939	110.936	353	91.7600	100.3067	111.588	1.500	1.628	324.0812	111.637
290	90.9831	100.5382	106.102	1.300	1.628	323.3043	106.146	354	91.7628	100.3061	111.417	1.500	1.628	324.0840	111.466
291	90.2889	100.5803	98.352	1.300	1.628	322.6101	98.393	355	91.4004	100.3127	111.486	1.500	1.628	323.7216	111.535
292	88.2655	100.6547	81.274	1.300	1.628	320.5867	81.307	356	91.3907	100.3043	111.212	1.500	1.628	323.7119	111.261
293	84.8067	100.7875	63.025	1.300	1.628	317.1279	63.049	357	91.7462	100.2984	111.224	1.500	1.628	324.0674	111.273
294	81.9332	100.8703	53.114	1.300	1.628	314.2544	53.133	358	91.7329	100.3068	111.038	1.500	1.628	324.0541	111.087
295	82.1315	100.7209	53.088	1.300	1.628	314.4527	53.109	359	91.9763	100.3014	111.034	1.500	1.628	324.2975	111.083
296	74.9815	101.1072	39.010	1.300	1.628	307.3027	39.022	360	91.9763	100.3013	111.255	1.500	1.628	324.2975	111.304
297	68.3255	101.2726	30.610	1.300	1.628	300.6467	30.618	361	93.7083	100.2998	110.983	1.500	1.628	326.0295	111.032
298	64.9990	101.0733	25.878	1.300	1.628	297.3202	25.886	362	95.4303	100.2998	110.896	1.500	1.628	327.7515	110.945
299	67.9689	101.1078	25.089	1.300	1.628	300.2901	25.097	363	95.4225	100.2999	110.719	1.500	1.628	327.7437	110.768
300	79.4019	100.8526	37.465	1.300	1.628	311.7231	37.479	364	95.6265	100.2995	110.714	1.500	1.628	327.9477	110.763
301	76.9389	100.8499	37.935	1.300	1.628	309.2601	37.949	365	95.6389	100.2978	110.927	1.500	1.628	327.9601	110.976
302	85.8420	100.7738	32.976	1.300	1.628	318.1632	32.989	366	95.9672	100.2949	110.865	1.500	1.628	328.2884	110.914
303	84.6780	100.7516	32.703	1.300	1.628	316.9992	32.716	367	95.6333	100.3422	104.275	1.500	1.628	327.9545	104.321
304	85.2064	100.7841	32.028	1.300	1.628	317.5276	32.040	368	94.7145	100.3150	104.261	1.500	1.628	327.0357	104.307
305	86.0757	100.8658	37.046	1.300	1.628	318.3969	37.059	369	94.4247	100.3156	103.821	1.500	1.628	326.7459	103.867
306	83.6085	100.8568	37.427	1.300	1.628	315.9297	37.441	370	94.1411	100.3180	102.807	1.500	1.628	326.4623	102.852
307	90.0805	100.7117	51.485	1.300	1.628	322.4017	51.505	371	94.0854	100.3179	102.126	1.500	1.628	326.4066	102.171
308	88.2012	100.7113	51.653	1.300	1.628	320.5224	51.673	372	94.8480	100.3179	101.952	1.500	1.628	327.1692	101.997
309	85.3695	100.7017	52.265	1.300	1.628	317.6907	52.286	373	95.6672	100.3121	100.803	1.500	1.628	327.9884	100.848
310	83.6052	100.7010	52.602	1.300	1.628	315.9264	52.623	374	95.7604	100.3169	101.991	1.500	1.628	328.0816	102.036
311	87.4113	100.5965	68.194	1.300	1.628	319.7325	68.222	375	95.4030	100.3199	102.046	1.500	1.628	327.7242	102.091
312	88.7527	100.5965	67.729	1.300	1.628	321.0739	67.757	376	93.5419	100.3051	103.723	1.500	1.628	325.8631	103.769
313	90.9309	100.5986	67.066	1.300	1.628	323.2521	67.094	377	93.3762	100.3022	103.723	1.500	1.628	325.6974	103.769
314	92.3612	100.6029	67.111	1.300	1.628	324.6824	67.138	378	93.1932	100.3049	103.714	1.500	1.628	325.5144	103.760
315	93.6149	100.5330	80.286	1.300	1.628	325.9361	80.320	379	91.1587	100.3057	105.651	1.500	1.628	323.4799	105.698
316	92.4245	100.5340	80.415	1.300	1.628	324.7457	80.449	380	91.1728	100.3060	102.754	1.500	1.628	323.4940	102.800
317	90.5557	100.5273	80.679	1.300	1.628	322.8769	80.713	381	91.0672	100.3166	101.633	1.500	1.628	323.3884	101.678
318	89.3641	100.5284	80.865	1.300	1.628	321.6853	80.899	382	90.6980	100.3138	101.703	1.500	1.628	323.0192	101.748
319	89.8467	100.5172	83.911	1.300	1.628	322.1679	83.946	383	90.9104	100.3225	99.715	1.500	1.628	323.2316	99.759
320	90.8687	100.5171	83.763	1.300	1.628	323.1899	83.798	384	90.8416	100.3226	99.657	1.500	1.628	323.1628	99.701
321	90.2108	100.5100	85.704	1.300	1.628	322.5320	85.740	385	90.7439	100.3226	99.717	1.500	1.628	323.0651	99.761
322	90.7512	100.4997	87.772	1.300	1.628	323.0724	87.809	386	95.2443	100.3243	98.993	1.500	1.628	327.5655	99.037
323	91.5242	100.4908	90.388	1.300	1.628	323.8454	90.426	387	95.3264	100.3241	98.916	1.500	1.628	327.6476	98.960

388	95.4258	100.3240	98.998	1.500	1.628	327.7470	99.042	452	66.8909	100.5993	26.055	1.500	1.628	299.2121	26.066
389	94.6707	100.3622	84.479	1.500	1.628	326.9919	84.516	453	67.5333	100.6097	25.771	1.500	1.628	299.8545	25.782
390	94.5789	100.3608	84.413	1.500	1.628	326.9001	84.450	454	68.9689	100.6032	26.405	1.500	1.628	301.2901	26.416
391	94.4729	100.3607	84.482	1.500	1.628	326.7941	84.519	455	69.0897	100.5932	26.597	1.500	1.628	301.4109	26.608
392	89.4132	100.3608	85.348	1.500	1.628	321.7344	85.385	507	96.1092	100.1403	105.308	1.700	1.577	328.4304	105.356
393	89.3243	100.3611	85.280	1.500	1.628	321.6455	85.317	508	95.6412	100.1460	93.071	1.700	1.577	327.9624	93.113
394	89.2094	100.3611	85.357	1.500	1.628	321.5306	85.394	509	93.7172	100.1414	64.294	1.700	1.577	326.0384	64.323
395	89.2489	100.3593	84.071	1.500	1.628	321.5701	84.108	510	91.5843	100.0809	47.638	1.700	1.577	323.9055	47.660
396	88.8232	100.3501	84.155	1.500	1.628	321.1444	84.192	511	88.5241	100.0020	35.757	1.700	1.577	320.8453	35.773
397	89.0868	100.3588	82.904	1.500	1.628	321.4080	82.940	512	85.5367	99.8998	30.014	1.700	1.577	317.8579	30.028
398	90.6242	100.3672	82.261	1.500	1.628	322.9454	82.297	513	84.9940	99.8922	29.598	1.700	1.577	317.3152	29.611
399	90.5406	100.3672	81.521	1.500	1.628	322.8618	81.557	514	84.7409	99.8858	29.136	1.700	1.577	317.0621	29.149
400	94.3503	100.3719	83.259	1.500	1.628	326.6715	83.295	515	83.2069	99.8735	28.988	1.700	1.577	315.5281	29.001
401	94.7885	100.3754	83.195	1.500	1.628	327.1097	83.231	516	83.5742	99.8686	29.411	1.700	1.577	315.8954	29.424
402	94.7423	100.3753	81.980	1.500	1.628	327.0635	82.016	517	56.6848	99.7115	15.005	1.700	1.577	289.0060	15.012
403	94.1546	100.3675	80.427	1.500	1.628	326.4758	80.462	518	63.5276	99.5701	14.915	1.700	1.577	295.8488	14.921
404	93.8529	100.3709	80.476	1.500	1.628	326.1741	80.511	519	60.7658	99.5599	14.110	1.700	1.577	293.0870	14.116
405	94.1357	100.3709	79.924	1.500	1.628	326.4569	79.959	520	59.3827	99.5431	13.738	1.700	1.577	291.7039	13.744
406	93.8478	100.3769	79.944	1.500	1.628	326.1690	79.979	521	38.0584	100.0340	14.518	1.700	1.577	270.3796	14.525
407	93.8143	100.3826	80.110	1.500	1.628	326.1355	80.145	522	39.3166	100.0517	14.868	1.700	1.577	271.6378	14.875
408	91.2726	100.3876	80.440	1.500	1.628	323.5938	80.475	523	35.0986	100.0173	13.792	1.700	1.577	267.4198	13.798
409	91.0227	100.3785	80.735	1.500	1.628	323.3439	80.770	524	33.6002	100.0088	13.450	1.700	1.577	265.9214	13.456
410	89.1177	100.3917	80.833	1.500	1.628	321.4389	80.868	525	53.8801	99.5007	12.521	1.700	1.577	286.2013	12.526
411	89.1069	100.3918	80.645	1.500	1.628	321.4281	80.680	526	55.6753	99.5024	12.888	1.700	1.577	287.9965	12.893
412	88.7871	100.3919	80.771	1.500	1.628	321.1083	80.806	527	49.1315	99.4966	11.684	1.700	1.577	281.4527	11.689
413	88.8611	100.4145	81.258	1.500	1.628	321.1823	81.293	528	46.7027	99.5021	11.319	1.700	1.577	279.0239	11.324
414	89.1462	100.3729	81.207	1.500	1.628	321.4674	81.243	529	34.5673	99.8694	11.958	1.700	1.577	266.8885	11.963
415	89.1415	100.3692	81.050	1.500	1.628	321.4627	81.085	530	32.5877	99.9907	12.575	1.700	1.577	264.9089	12.581
416	91.7235	100.3601	80.655	1.500	1.628	324.0447	80.690	531	30.1800	100.0295	13.082	1.700	1.577	262.5012	13.088
417	91.5234	100.3587	80.744	1.500	1.628	323.8446	80.779	532	44.7433	100.1057	16.964	1.700	1.577	277.0645	16.972
418	91.3031	100.3544	80.715	1.500	1.628	323.6243	80.750	533	46.2163	100.0601	16.485	1.700	1.577	278.5375	16.492
419	91.4627	100.3716	80.396	1.500	1.628	323.7839	80.431	534	47.0367	100.0574	16.808	1.700	1.577	279.3579	16.816
420	91.2674	100.3454	76.282	1.500	1.628	323.5886	76.316	535	30.5809	100.3689	21.356	1.700	1.577	262.9021	21.365
421	90.5460	100.4103	72.030	1.500	1.628	322.8672	72.061	536	38.2226	100.4096	23.660	1.700	1.577	270.5438	23.670
422	89.8081	100.4463	67.708	1.500	1.628	322.1293	67.737	537	38.9845	100.4119	23.937	1.700	1.577	271.3057	23.947
423	89.7809	100.4335	65.951	1.500	1.628	322.1021	65.979	538	51.4467	100.1424	19.886	1.700	1.577	283.7679	19.895
424	89.6555	100.4335	65.862	1.500	1.628	321.9767	65.890	539	62.5690	100.2585	26.348	1.700	1.577	294.8902	26.360
425	89.4999	100.4335	65.947	1.500	1.628	321.8211	65.975	540	74.6001	100.4026	39.045	1.700	1.577	306.9213	39.062
426	86.1291	100.4710	48.759	1.500	1.628	318.4503	48.780	541	81.5130	100.3527	52.839	1.700	1.577	313.8342	52.862
427	85.9320	100.4710	48.668	1.500	1.628	318.2532	48.689	542	79.4943	100.3948	52.573	1.700	1.577	311.8155	52.596
428	85.7479	100.4710	48.759	1.500	1.628	318.0691	48.780	543	76.0910	100.4594	53.582	1.700	1.577	308.4122	53.605
429	89.1712	100.4544	63.115	1.500	1.628	321.4924	63.142	544	86.8065	100.3381	73.673	1.700	1.577	319.1277	73.705
430	88.3856	100.4765	58.688	1.500	1.628	320.7068	58.713	545	89.9663	100.2811	96.829	1.700	1.577	322.2875	96.872
431	87.7535	100.4828	55.452	1.500	1.628	320.0747	55.476	546	87.6943	100.3615	113.307	1.700	1.577	320.0155	113.357
432	86.6977	100.5182	52.724	1.500	1.628	319.0189	52.746	547	87.8065	100.3616	114.316	1.700	1.577	320.1277	114.366
433	86.2078	100.5293	52.843	1.500	1.628	318.5290	52.865	548	86.7405	100.2478	114.677	1.700	1.577	319.0617	114.728
434	86.5950	100.3970	68.273	1.500	1.628	318.9162	68.303	549	86.5364	100.2655	111.581	1.700	1.577	318.8576	111.631
435	86.9435	100.4246	62.202	1.500	1.628	319.2647	62.229	550	86.0415	100.2681	107.599	1.700	1.577	318.3627	107.647
436	85.6652	100.4522	62.861	1.500	1.628	317.9864	62.888	551	87.1280	100.3567	107.329	1.700	1.577	319.4492	107.376
437	84.9411	100.4235	61.089	1.500	1.628	317.2623	61.115	552	87.2273	100.3778	108.322	1.700	1.577	319.5485	108.369
438	82.7912	100.4618	52.757	1.500	1.628	315.1124	52.780	553	85.3839	100.3678	94.488	1.700	1.577	317.7051	94.529
439	81.8855	100.4577	52.375	1.500	1.628	314.2067	52.397	554	85.2937	100.2739	94.514	1.700	1.577	317.6149	94.556
440	87.5545	100.4614	51.585	1.500	1.628	319.8757	51.607	555	84.0750	100.2653	95.077	1.700	1.577	316.3962	95.119
441	87.3716	100.4737	51.042	1.500	1.628	319.6928	51.064	556	81.5986	100.2621	90.691	1.700	1.577	313.9198	90.731
442	86.1298	100.4624	51.872	1.500	1.628	318.4510	51.894	557	80.2662	100.2950	84.679	1.700	1.577	312.5874	84.717
443	91.4144	100.4633	50.826	1.500	1.628	323.7356	50.848	558	81.6726	100.3152	82.955	1.700	1.577	313.9938	82.992
444	90.6234	100.4756	50.340	1.500	1.628	322.9446	50.361	559	83.1776	100.3078	82.546	1.700	1.577	315.4988	82.583
445	90.7476	100.4755	50.281	1.500	1.628	323.0688	50.302	560	83.2780	100.4265	82.540	1.700	1.577	315.5992	82.576
446	89.5913	100.4900	45.092	1.500	1.628	321.9125	45.111	561	80.4092	100.4873	70.672	1.700	1.577	312.7304	70.702
447	87.3883	100.5057	37.323	1.500	1.628	319.7095	37.339	562	80.3095	100.3895	70.749	1.700	1.577	312.6307	70.780
448	74.5275	100.5301	36.332	1.500	1.628	306.8487	36.347	563	78.4334	100.3725	70.836	1.700	1.577	310.7546	70.867
449	73.2497	100.5326	36.051	1.500	1.628	305.5709	36.066	564	76.4264	100.3566	71.347	1.700	1.577	308.7476	71.378
450	67.8179	100.5855	26.951	1.500	1.628	300.1391	26.962	565	71.8290	100.3065	60.369	1.700	1.577	304.1502	60.396
451	67.3777	100.5911	26.690	1.500	1.628	299.6989	26.701	566	74.2640	100.3415	59.793	1.700	1.577	306.5852	59.819

567	76.3422	100.3712	59.187	1.700	1.577	308.6634	59.213	631	90.6395	100.2721	106.211	1.700	1.577	322.9607	106.258
568	76.4761	100.4788	59.108	1.700	1.577	308.7973	59.133	632	89.1315	100.3219	114.470	1.700	1.577	321.4527	114.521
569	71.5549	100.4881	49.399	1.700	1.577	303.8761	49.420	633	88.0351	100.3798	114.623	1.700	1.577	320.3563	114.673
570	71.6195	100.3607	49.739	1.700	1.577	303.9407	49.761	634	88.3133	100.3194	99.958	1.700	1.577	320.6345	100.002
571	69.9339	100.3905	50.310	1.700	1.577	302.2551	50.332	635	87.3185	100.3552	92.545	1.700	1.577	319.6397	92.586
572	71.4115	100.4218	49.581	1.700	1.577	303.7327	49.602	636	85.4104	100.3905	79.853	1.700	1.577	317.7316	79.888
573	69.9653	100.4100	50.146	1.700	1.577	302.2865	50.168	637	83.4907	100.4777	77.050	1.700	1.577	315.8119	77.083
574	68.5515	100.3532	52.200	1.700	1.577	300.8727	52.223	638	82.0148	100.4795	74.823	1.700	1.577	314.3360	74.855
575	67.1803	100.3124	54.336	1.700	1.577	299.5015	54.360	639	81.3402	100.4896	72.790	1.700	1.577	313.6614	72.821
576	58.4346	100.2746	49.807	1.700	1.577	290.7558	49.829	640	81.2883	100.5066	70.345	1.700	1.577	313.6095	70.375
577	59.2660	100.3133	47.579	1.700	1.577	291.5872	47.600	641	83.2931	100.4260	66.334	1.700	1.577	315.6143	66.363
578	61.0567	100.3567	45.227	1.700	1.577	293.3779	45.247	642	82.0769	100.4901	76.000	1.700	1.577	314.3981	76.032
579	61.2012	100.4020	45.100	1.700	1.577	293.5224	45.120	643	76.4680	100.4931	58.151	1.700	1.577	308.7892	58.176
580	52.1362	100.3485	42.984	1.700	1.577	284.4574	43.003	644	76.0803	100.4614	53.591	1.700	1.577	308.4015	53.614
581	42.6283	100.3009	42.753	1.700	1.577	274.9495	42.772	645	79.4445	100.3950	52.575	1.700	1.577	311.7657	52.598
582	41.0328	100.5703	35.884	1.700	1.577	273.3540	35.899	646	71.2016	100.5073	41.581	1.700	1.577	303.5228	41.599
583	49.4530	100.4758	35.732	1.700	1.577	281.7742	35.747	647	75.6191	100.4724	56.756	1.700	1.577	307.9403	56.780
584	64.4046	100.4792	40.688	1.700	1.577	296.7258	40.705	648	70.5527	100.5228	47.419	1.700	1.577	302.8739	47.439
585	66.2714	100.5515	42.187	1.700	1.577	298.5926	42.205	649	65.7239	100.5492	41.287	1.700	1.577	298.0451	41.304
586	58.6817	100.5488	37.340	1.700	1.577	291.0029	37.356	650	59.1629	100.5578	37.304	1.700	1.577	291.4841	37.320
587	41.0014	100.5643	35.729	1.700	1.577	273.3226	35.744	651	47.0480	100.5596	35.266	1.700	1.577	279.3692	35.281
588	36.7594	100.5556	36.185	1.700	1.577	269.0806	36.200	652	37.8374	100.5679	35.845	1.700	1.577	270.1586	35.860
589	27.6660	100.5469	37.808	1.700	1.577	259.9872	37.824	653	26.0477	100.5451	37.990	1.700	1.577	258.3689	38.006
590	28.8700	100.3351	39.778	1.700	1.577	261.1912	39.796	654	46.7929	100.4807	35.924	1.700	1.577	279.1141	35.939
591	37.5558	100.3760	38.243	1.700	1.577	269.8770	38.260	655	45.0879	100.5207	36.049	1.700	1.577	277.4091	36.064
592	39.7386	100.2073	45.995	1.700	1.577	272.0598	46.016	656	45.3714	100.3519	42.476	1.700	1.577	277.6926	42.495
593	39.8247	100.2059	46.707	1.700	1.577	272.1459	46.728	657	42.8017	100.3510	42.520	1.700	1.577	275.1229	42.539
594	39.7479	100.2033	47.352	1.700	1.577	272.0691	47.373	658	43.2611	100.3471	42.481	1.700	1.577	275.5823	42.500
595	33.2087	100.2040	49.168	1.700	1.577	265.5299	49.190	659	43.1831	100.3531	41.789	1.700	1.577	275.5043	41.807
596	33.8297	100.1280	50.921	1.700	1.577	266.1509	50.944	660	49.7342	100.4176	42.779	1.700	1.577	282.0554	42.798
597	43.1846	100.2043	46.845	1.700	1.577	275.5058	46.866	661	64.3203	100.4848	40.659	1.700	1.577	296.6415	40.676
598	45.7600	100.1703	48.899	1.700	1.577	278.0812	48.921	662	63.6533	100.4476	46.025	1.700	1.577	295.9745	46.045
599	45.9296	100.2170	43.425	1.700	1.577	278.2508	43.444	663	65.3482	100.4191	46.040	1.700	1.577	297.6694	46.060
600	50.3028	100.1188	53.477	1.700	1.577	282.6240	53.501	664	66.8046	100.4070	45.164	1.700	1.577	299.1258	45.184
601	53.6379	100.1426	53.821	1.700	1.577	285.9591	53.845	665	67.0388	100.4001	45.401	1.700	1.577	299.3600	45.421
602	53.3083	100.1760	50.449	1.700	1.577	285.6295	50.472	666	38.3443	100.3199	40.600	1.700	1.577	270.6655	40.618
603	66.5757	98.8463	64.546	3.120	1.577	298.8969	64.565	667	36.5744	100.3039	41.091	1.700	1.577	268.8956	41.109
604	75.0927	100.3720	59.695	1.700	1.577	307.4139	59.721	668	37.0230	100.2950	41.738	1.700	1.577	269.3442	41.757
605	75.4358	100.3691	58.923	1.700	1.577	307.7570	58.949	669	35.7435	100.2771	41.779	1.700	1.577	268.0647	41.798
606	76.3752	100.3634	69.755	1.700	1.577	308.6964	69.786	670	36.2948	100.2879	40.895	1.700	1.577	268.6160	40.913
607	76.7861	100.3691	69.193	1.700	1.577	309.1073	69.223	671	30.8247	100.2730	44.468	1.700	1.577	263.1459	44.488
608	75.8760	100.3593	68.447	1.700	1.577	308.1972	68.477	672	102.0351	100.2570	28.524	1.700	1.577	334.3563	28.537
609	78.8439	100.3895	67.812	1.700	1.577	311.1651	67.842	673	99.9511	100.3247	26.649	1.700	1.577	332.2723	26.661
610	74.4572	100.3115	80.634	1.700	1.577	306.7784	80.670	674	98.8926	100.2923	24.056	1.700	1.577	331.2138	24.067
611	79.5263	100.3441	76.733	1.700	1.577	311.8475	76.767	675	96.6455	100.2326	20.080	1.700	1.577	328.9667	20.089
612	81.6903	100.3105	82.045	1.700	1.577	314.0115	82.081	676	88.1871	100.1460	12.350	1.700	1.577	320.5083	12.356
613	82.7376	100.3108	81.535	1.700	1.577	315.0588	81.571	677	78.3559	99.5695	7.810	1.700	1.577	310.6771	7.813
614	82.8501	100.3064	81.716	1.700	1.577	315.1713	81.752	678	398.7954	100.1849	2.676	1.700	1.577	231.1166	2.677
615	83.2340	100.2753	88.355	1.700	1.577	315.5552	88.394	679	55.8748	99.6555	4.021	1.700	1.577	288.1960	4.023
616	83.5150	100.2793	87.605	1.700	1.577	315.8362	87.644	680	73.0127	99.6894	6.116	1.700	1.577	305.3339	6.119
617	84.3873	100.2670	93.793	1.700	1.577	316.7085	93.835	681	113.7617	98.5235	5.685	1.700	1.577	346.0829	5.686
618	85.2539	100.2694	97.323	1.700	1.577	317.5751	97.366	682	123.0424	97.2188	3.287	1.700	1.577	355.3636	3.285
619	80.3753	100.2159	96.203	1.700	1.577	312.6965	96.246	683	105.1132	99.3394	15.550	1.700	1.577	337.4344	15.556
620	84.0899	100.2130	112.747	1.700	1.577	316.4111	112.798	684	115.0159	99.2741	16.075	1.700	1.577	347.3371	16.081
621	87.4884	100.2589	115.515	1.700	1.577	319.8096	115.567	685	102.5848	99.1750	13.947	1.700	1.577	334.9060	13.952
622	86.9211	100.2154	119.548	1.700	1.577	319.2423	119.602	686	101.1058	99.5564	18.081	1.700	1.577	333.4270	18.089
623	85.6716	100.2030	119.301	1.700	1.577	317.9928	119.355	687	105.3580	99.7595	19.532	1.700	1.577	337.6792	19.541
624	87.1661	100.2441	117.832	1.700	1.577	319.4873	117.885	688	105.3757	99.8192	20.744	1.700	1.577	337.6969	20.753
625	87.4326	100.2515	117.167	1.700	1.577	319.7538	117.219	689	100.7155	99.7953	19.611	1.700	1.577	333.0367	19.620
626	87.9583	100.3599	112.984	1.700	1.577	320.2795	113.034	690	109.1280	99.8410	26.157	1.700	1.577	341.4492	26.169
627	88.2228	100.3526	112.812	1.700	1.577	320.5440	112.862	691	107.5632	99.8524	25.378	1.700	1.577	339.8844	25.389
628	87.7816	100.3504	107.856	1.700	1.577	320.1028	107.903	692	90.1413	99.7473	11.099	1.700	1.577	322.4625	11.104
629	87.4798	100.3559	108.024	1.700	1.577	319.8010	108.071	693	88.6335	99.6737	9.880	1.700	1.577	320.9547	9.884
630	90.9670	100.2679	111.203	1.700	1.577	323.2882	111.253	694	93.0522	99.5530	9.742	1.700	1.577	325.3734	9.746

695	110.2666	98.8236	7.898	1.700	1.577	342.5878	7.900	759	36.3587	100.2949	26.802	1.700	1.620	268.6799	26.814
696	111.5335	98.8400	7.202	1.700	1.577	343.8547	7.204	760	25.8061	100.3161	30.900	1.700	1.620	258.1273	30.914
697	121.9116	98.7812	7.550	1.700	1.577	354.2328	7.552	761	24.3530	100.2894	30.516	1.700	1.620	256.6742	30.530
698	87.7234	100.0775	12.858	1.700	1.577	320.0446	12.864	762	23.5768	100.2980	31.214	1.700	1.620	255.8980	31.228
699	157.4240	99.4235	15.807	1.700	1.577	389.7452	15.814	763	24.6945	100.5466	34.106	1.700	1.620	257.0157	34.120
700	163.8078	98.7992	15.008	1.700	1.577	396.1290	15.012	764	25.5021	100.4649	33.274	1.700	1.620	257.8233	33.288
701	185.6699	97.3318	15.802	1.700	1.577	17.9911	15.795	765	27.0703	100.2915	29.003	1.700	1.620	259.3915	29.016
702	186.7155	98.2467	13.691	1.700	1.577	19.0367	13.692	766	25.5480	100.2708	29.278	1.700	1.620	257.8692	29.291
703	172.8032	98.9385	13.711	1.700	1.577	5.1244	13.715	767	24.0326	100.2512	29.550	1.700	1.620	256.3538	29.563
704	214.0280	98.8071	12.737	1.700	1.577	46.3492	12.741	768	3.5440	100.0951	36.690	1.700	1.620	235.8652	36.707
705	257.1154	99.1435	19.517	1.700	1.577	89.4366	19.524	769	9.5886	100.2483	39.290	1.700	1.620	241.9098	39.308
706	262.3782	97.5447	24.576	1.700	1.577	94.6994	24.569	770	396.3735	99.9870	36.636	1.700	1.620	228.6947	36.653
707	256.2080	97.5324	25.899	1.700	1.577	88.5292	25.891	771	398.9670	100.7306	34.881	1.300	1.620	231.2882	34.895
708	242.6488	97.5060	19.648	1.700	1.577	74.9700	19.642	772	396.2060	100.6806	33.542	1.300	1.620	228.5272	33.555
709	219.6576	97.6635	15.067	1.700	1.577	51.9788	15.064	773	393.4094	100.5822	35.395	1.300	1.620	225.7306	35.410
710	272.4567	99.9137	22.059	1.500	1.577	104.7779	22.069	774	3.8327	100.8567	32.341	1.300	1.620	236.1539	32.353
711	270.6086	99.8993	20.766	1.500	1.577	102.9298	20.775	775	6.5617	100.9191	31.146	1.300	1.620	238.8829	31.157
712	274.5956	99.9688	20.174	1.500	1.577	106.9168	20.183	776	3.8249	100.8736	29.634	1.300	1.620	236.1461	29.645
713	264.7698	99.9270	17.703	1.500	1.577	97.0910	17.711	777	14.9055	101.0793	28.273	1.300	1.620	247.2267	28.282
714	261.8775	99.9259	16.480	1.500	1.577	94.1987	16.487	778	18.4682	101.1365	27.345	1.300	1.620	250.7894	27.353
715	266.6782	99.7547	15.730	1.500	1.577	98.9994	15.737	779	16.0443	101.1990	25.613	1.300	1.620	248.3655	25.620
716	255.9817	99.9796	12.343	1.500	1.577	88.3029	12.349	780	392.9404	100.9379	26.708	1.300	1.620	225.2616	26.717
717	245.5215	99.8505	12.351	1.500	1.577	77.8427	12.357	781	394.4136	100.9689	25.926	1.300	1.620	226.7348	25.935
718	250.7375	99.8839	11.283	1.500	1.577	83.0587	11.288	782	396.2957	100.9840	26.565	1.300	1.620	228.6169	26.574
719	228.9057	99.9464	10.424	1.500	1.577	61.2269	10.429	783	387.2214	100.5826	32.206	1.300	1.620	219.5426	32.219
720	233.3209	99.8723	9.172	1.500	1.577	65.6421	9.176	784	388.3339	100.6328	31.366	1.300	1.620	220.6551	31.379
721	223.7909	99.9283	8.525	1.500	1.577	56.1121	8.529	785	386.5726	100.6344	30.821	1.300	1.620	218.8938	30.833
722	197.5375	99.8474	9.399	1.500	1.577	29.8587	9.403	786	386.9412	100.6936	31.108	1.300	1.620	219.2624	31.120
723	196.8246	99.5398	7.962	1.500	1.577	29.1458	7.965	787	396.0099	100.7110	35.020	1.300	1.620	228.3311	35.034
724	185.5506	99.0973	8.167	1.500	1.577	17.8718	8.170	788	394.3635	101.0750	26.434	1.300	1.620	226.6847	26.442
725	166.9330	99.2412	10.859	1.500	1.577	399.2542	10.863	789	15.4375	101.2157	26.848	1.300	1.620	247.7587	26.855
726	162.1442	99.2079	9.601	1.500	1.577	394.4654	9.605	790	16.8831	101.0894	27.947	1.300	1.620	249.2043	27.956
727	154.8326	98.5721	10.499	1.500	1.577	387.1538	10.501	791	17.2063	101.1058	28.163	1.300	1.620	249.5275	28.172
728	161.0997	99.0236	10.221	1.500	1.577	393.4209	10.224	792	21.5637	100.7898	24.838	1.500	1.620	253.8849	24.847
729	191.7076	99.5919	8.567	1.500	1.577	24.0288	8.571	793	23.7239	100.8064	24.412	1.500	1.620	256.0451	24.421
730	226.3559	99.9077	9.327	1.500	1.577	58.6771	9.331	794	22.7232	100.7340	20.550	1.500	1.620	255.0444	20.558
731	251.0585	99.8656	12.198	1.500	1.577	83.3797	12.204	795	26.4487	100.7680	21.332	1.500	1.620	258.7699	21.340
732	265.7437	100.1049	16.468	1.500	1.577	98.0649	16.475	796	9.1205	100.7941	20.123	1.500	1.620	241.4417	20.131
733	273.1957	100.0292	20.799	1.500	1.577	105.5169	20.808	797	8.6721	100.9105	19.244	1.500	1.620	240.9933	19.251
734	280.4088	100.3646	14.307	1.500	1.577	112.7300	14.313	798	8.5365	101.0405	18.460	1.500	1.620	240.8577	18.466
735	281.6632	100.3866	14.115	1.500	1.577	113.9844	14.121	799	395.7433	100.9585	17.749	1.500	1.620	228.0645	17.755
736	284.3342	100.4403	13.600	1.500	1.577	116.6554	13.606	800	394.0662	100.6479	17.706	1.500	1.620	226.3874	17.713
737	288.0989	100.4623	13.827	1.500	1.577	120.4201	13.833	801	393.9191	100.6081	19.306	1.500	1.620	226.2403	19.314
738	289.5230	100.5222	13.883	1.500	1.577	121.8442	13.889	802	385.0352	100.5077	19.666	1.500	1.620	217.3564	19.674
739	264.5524	100.3700	9.035	1.500	1.577	96.8736	9.039	803	384.4678	100.5002	19.677	1.500	1.620	216.7890	19.685
740	270.4545	100.6454	8.597	1.500	1.577	102.7757	8.600	804	386.2997	100.6417	21.022	1.500	1.620	218.6209	21.030
741	259.0556	100.7873	6.961	1.500	1.577	91.3768	6.964	805	378.7693	100.5409	24.233	1.500	1.620	211.0905	24.243
742	277.0831	101.1976	6.703	1.500	1.577	109.4043	6.705	806	377.9305	100.4645	24.977	1.500	1.620	210.2517	24.988
743	281.9159	101.6037	5.690	1.500	1.577	114.2371	5.691	807	364.5941	100.2958	25.022	1.500	1.620	196.9153	25.033
744	41.9206	101.3278	35.320	1.300	1.620	274.2418	35.328	808	377.1146	99.9968	30.946	1.500	1.620	209.4358	30.960
745	41.8113	101.3552	34.843	1.300	1.620	274.1325	34.851	809	377.4387	99.7088	31.910	1.500	1.620	209.7599	31.924
746	27.0378	100.6160	37.064	1.700	1.620	259.3590	37.079	810	374.2403	99.6569	32.221	1.500	1.620	206.5615	32.235
747	41.3611	100.6536	32.846	1.700	1.620	273.6823	32.859	811	374.4427	99.8746	31.199	1.500	1.620	206.7639	31.213
748	40.9378	100.5902	31.819	1.700	1.620	273.2590	31.832	812	372.9895	100.0921	28.257	1.500	1.620	205.3107	28.270
749	39.3041	100.4374	31.322	1.700	1.620	271.6253	31.335	813	371.6940	99.9544	27.370	1.500	1.620	204.0152	27.382
750	39.2307	100.5763	31.962	1.700	1.620	271.5519	31.975	814	375.9331	100.2713	27.978	1.500	1.620	208.2543	27.990
751	37.9088	100.4680	31.508	1.700	1.620	270.2300	31.521	815	375.5182	100.0114	27.008	1.500	1.620	207.8394	27.020
752	45.6882	100.3947	29.230	1.700	1.620	278.0094	29.243	816	379.3418	99.5327	37.707	1.500	1.620	211.6630	37.723
753	45.2806	100.3951	29.080	1.700	1.620	277.6018	29.093	817	378.8863	99.4625	37.533	1.500	1.620	211.2075	37.549
754	43.4579	100.4133	30.137	1.700	1.620	275.7791	30.150	818	378.3760	99.7534	33.973	1.500	1.620	210.6972	33.988
755	43.3352	100.3677	27.340	1.700	1.620	275.6564	27.352	819	374.5705	100.5433	24.294	1.500	1.620	206.8917	24.304
756	46.6487	100.4505	31.579	1.700	1.620	278.9699	31.593	820	350.1871	100.0796	31.771	1.500	1.620	182.5083	31.785
757	38.1805	100.3426	27.426	1.700	1.620	270.5017	27.438	821	338.8120	100.0642	39.582	1.500	1.620	171.1332	39.600
758	39.4224	100.3446	26.802	1.700	1.620	271.7436	26.814	822	329.9189	100.3070	50.392	1.300	1.620	162.2401	50.414

823	331.5603	100.3164	49.470	1.300	1.620	163.8815	49.492
824	331.4449	100.3371	49.531	1.300	1.620	163.7661	49.553
825	330.2718	101.8664	49.072	0.100	1.620	162.5930	49.073
826	329.5405	100.3401	50.149	1.300	1.620	161.8617	50.171
827	331.5833	100.4468	41.737	1.300	1.620	163.9045	41.755
828	331.9435	100.4011	42.510	1.300	1.620	164.2647	42.528
829	334.6363	100.3713	43.090	1.300	1.620	166.9575	43.109
830	335.0836	100.3639	43.246	1.300	1.620	167.4048	43.265
830	335.0842	100.3641	43.244	1.300	1.620	167.4054	43.263
831	334.1901	100.3641	43.598	1.300	1.620	166.5113	43.617
832	329.5328	100.6989	35.178	1.300	1.620	161.8540	35.192
833	327.7332	101.0437	34.648	1.300	1.620	160.0544	34.659
834	331.5130	100.8868	31.421	1.300	1.620	163.8342	31.432
835	332.9490	100.8359	31.806	1.300	1.620	165.2702	31.818
836	331.9645	100.7868	32.781	1.300	1.620	164.2857	32.793
837	332.0117	100.7868	32.004	1.300	1.620	164.3329	32.016
838	332.0957	101.1664	30.169	1.300	1.620	164.4169	30.178
839	340.8652	101.5076	24.213	1.300	1.620	173.1864	24.217
840	364.2656	101.7988	18.918	1.300	1.620	196.5868	18.919
841	362.1578	101.1130	19.760	1.300	1.620	194.4790	19.766
842	364.5161	101.1110	20.052	1.300	1.620	196.8373	20.058
843	374.3414	101.1969	23.525	1.300	1.620	206.6626	23.532
844	349.0528	101.2823	23.458	1.300	1.620	181.3740	23.464
845	21.0963	101.7969	19.703	1.300	1.620	253.4175	19.704
846	38.1680	101.5659	23.928	1.300	1.620	270.4892	23.932
847	49.9621	101.5073	29.650	1.300	1.620	282.2833	29.655
848	50.2580	101.4718	30.287	1.300	1.620	282.5792	30.293
849	49.9956	101.4366	31.827	1.300	1.620	282.3168	31.833
850	48.7132	101.4638	32.170	1.300	1.620	281.0344	32.176
851	42.9734	101.4608	32.372	1.300	1.620	275.2946	32.378
852	42.3932	101.2676	30.160	1.300	1.620	274.7144	30.168
853	32.9682	101.1979	31.052	1.300	1.620	265.2894	31.061
854	23.9451	101.1135	32.733	1.300	1.620	256.2663	32.743
855	25.5989	101.4603	34.830	1.300	1.620	257.9201	34.837
856	35.4863	101.4460	33.065	1.300	1.620	267.8075	33.071
857	39.9146	101.4340	32.607	1.300	1.620	272.2358	32.614
858	36.5562	101.3109	25.035	1.300	1.620	268.8774	25.041
859	32.7694	101.2536	28.096	1.300	1.620	265.0906	28.103
860	31.9699	101.2577	27.213	1.300	1.620	264.2911	27.220
861	30.9899	101.2996	26.454	1.300	1.620	263.3111	26.461
862	19.5694	101.3200	23.643	1.300	1.620	251.8906	23.649
863	14.3946	101.3854	22.517	1.300	1.620	246.7158	22.522
864	10.7542	101.4196	20.584	1.300	1.620	243.0754	20.588
865	9.9955	101.7471	18.605	1.300	1.620	242.3167	18.606
866	17.8634	101.7339	19.508	1.300	1.620	250.1846	19.510
867	19.3465	101.3665	20.684	1.300	1.620	251.6677	20.689
868	20.9644	101.3108	21.172	1.300	1.620	253.2856	21.177
869	38.8041	101.5722	24.022	1.300	1.620	271.1253	24.026
870	38.0488	101.5804	23.763	1.300	1.620	270.3700	23.766
871	52.4711	101.5344	20.127	1.300	1.620	284.7923	20.130
872	47.1053	101.7150	16.815	1.300	1.620	279.4265	16.817
873	46.2576	101.7547	16.489	1.300	1.620	278.5788	16.490
874	30.3574	101.6627	21.498	1.300	1.620	262.6786	21.500
875	19.6881	101.8661	19.236	1.300	1.620	252.0093	19.236
876	20.1523	101.8932	18.826	1.300	1.620	252.4735	18.826
877	11.2235	101.9467	18.203	1.300	1.620	243.5447	18.203
878	395.9819	101.8313	17.448	1.300	1.620	228.3031	17.449
879	395.9391	101.8826	16.951	1.300	1.620	228.2603	16.951
880	21.3001	101.9125	17.903	1.300	1.620	253.6213	17.903
881	20.6546	101.8920	18.379	1.300	1.620	252.9758	18.379
882	65.8098	103.5296	7.046	1.300	1.620	298.1310	7.038
883	89.2297	100.7726	37.703	1.300	1.620	321.5509	37.717
884	85.5143	100.8492	29.560	1.300	1.620	317.8355	29.571
885	71.0307	101.3596	17.308	1.300	1.620	303.3519	17.312

886	40.1058	102.1697	10.225	1.300	1.620	272.4270	10.224
887	391.8484	102.5116	8.524	1.300	1.620	224.1696	8.521
888	392.9146	102.4666	10.139	1.300	1.620	225.2358	10.136
889	389.3923	102.4145	8.725	1.300	1.620	221.7135	8.723
890	386.1105	102.3376	8.813	1.300	1.620	218.4317	8.811
891	383.2576	102.2664	10.016	1.300	1.620	215.5788	10.014
892	379.6012	102.2776	9.093	1.300	1.620	211.9224	9.091
893	376.3791	102.2480	9.272	1.300	1.620	208.7003	9.270
894	374.9929	102.1568	10.266	1.300	1.620	207.3141	10.265
895	372.6800	102.1378	10.538	1.300	1.620	205.0012	10.537
896	369.7625	102.2442	9.541	1.300	1.620	202.0837	9.539
897	376.9821	102.2666	9.204	1.300	1.620	208.3033	9.202
898	378.5417	102.2891	9.060	1.300	1.620	210.8629	9.058
899	344.7456	106.8384	4.478	1.300	1.620	177.0668	4.454
900	348.6489	107.2234	4.180	1.300	1.620	180.9701	4.155
901	326.1855	104.3028	7.254	1.300	1.620	158.5067	7.241
902	325.0017	104.0730	7.602	1.300	1.620	157.3229	7.590
903	339.2089	101.8238	12.440	1.300	1.620	171.5301	12.441
904	325.7382	102.5190	10.996	1.300	1.620	158.0594	10.992
905	338.6937	101.3924	15.309	1.300	1.620	171.0149	15.312
906	324.4613	100.9195	23.123	1.300	1.620	156.7825	23.131
907	317.5937	100.7201	31.956	1.300	1.620	149.9149	31.968
908	313.4300	100.5472	42.372	1.300	1.620	145.7512	42.390
909	310.7193	100.4224	53.211	1.300	1.620	143.0405	53.234
910	309.0852	100.8757	31.293	1.300	1.620	141.4064	31.304
911	314.7435	100.7375	31.670	1.300	1.620	147.0647	31.682
912	380.6886	101.8467	17.167	1.300	1.620	213.0098	17.168
913	383.6313	101.8939	16.283	1.300	1.620	215.9525	16.283
914	379.7463	101.9508	15.919	1.300	1.620	212.0675	15.919
915	375.3576	101.8648	17.410	1.300	1.620	207.6788	17.410
916	376.6001	101.8605	17.348	1.300	1.620	208.9213	17.348
917	379.9877	101.9315	16.198	1.300	1.620	212.3089	16.198
918	381.8285	101.8999	16.419	1.300	1.620	214.1497	16.419
919	379.4522	101.8538	17.209	1.300	1.620	211.7734	17.210
920	372.6233	101.8476	17.607	1.300	1.620	204.9445	17.608
921	377.6534	101.9694	15.749	1.300	1.620	209.9746	15.749
922	373.3851	101.9798	15.470	1.300	1.620	205.7063	15.470
923	367.5588	101.8361	18.035	1.300	1.620	199.8800	18.036
924	368.7818	101.8370	17.907	1.300	1.620	201.1030	17.908
925	373.7717	101.9811	15.803	1.300	1.620	206.0929	15.803
926	375.9360	101.9613	15.941	1.300	1.620	208.2572	15.941
927	371.4479	101.8418	17.664	1.300	1.620	203.7691	17.665
928	366.0422	101.8563	17.773	1.300	1.620	198.3634	17.774
929	371.1711	101.9690	15.353	1.300	1.620	203.4923	15.353
930	366.6014	101.9442	15.181	1.300	1.620	198.9226	15.181
931	364.0826	101.8957	16.623	1.300	1.620	196.4038	16.623
932	364.4901	101.9061	16.872	1.300	1.620	196.8113	16.872
933	367.1528	101.9383	15.512	1.300	1.620	199.4740	15.512
934	369.3214	101.9593	15.586	1.300	1.620	201.6426	15.586
935	365.5334	101.8826	17.451	1.300	1.620	197.8546	17.451
936	363.6999	101.8915	15.411	1.300	1.620	196.0211	15.411
937	361.4173	101.8581	15.279	1.300	1.620	193.7385	15.279
938	344.7459	101.4720	18.435	1.300	1.620	177.0671	18.438
939	328.8797	101.0183	26.248	1.300	1.620	161.2009	26.257
940	320.7105	100.8160	36.385	1.300	1.620	153.0317	36.399
941	340.6464	99.8189	54.291	1.300	1.620	172.9676	54.315
942	343.5097	99.7124	51.195	1.400	1.620	175.8309	51.218
943	342.9834	99.7214	50.951	1.400	1.620	175.3046	50.974
944	346.8367	99.6881	48.114	1.400	1.620	179.1579	48.135
945	350.5414	99.6745	45.206	1.400	1.620	182.8626	45.226
946	359.5269	99.6847	39.955	1.400	1.620	191.8481	39.973
947	370.7756	99.7008	35.767	1.400	1.620	203.0968	35.783
948	371.2990	99.6783	35.636	1.400	1.620	203.6202	35.652
949	371.5643	99.6663	35.985	1.400	1.620	203.8855	36.001

950	378.6531	99.6226	37.873	1.400	1.620	210.9743	37.890	1014	302.1875	101.5618	8.232	1.500	1.620	134.5087	8.233
951	379.1907	99.6679	37.835	1.400	1.620	211.5119	37.852	1015	295.9296	101.4807	7.452	1.500	1.620	128.2508	7.453
952	379.2644	99.6616	38.189	1.400	1.620	211.5856	38.206	1016	281.8256	101.4665	6.840	1.500	1.620	114.1468	6.841
953	372.4503	99.5860	38.503	1.400	1.620	204.7715	38.520	1017	269.9870	101.3096	6.652	1.500	1.620	102.3082	6.654
954	374.7485	99.8594	42.255	1.400	1.620	207.0697	42.274	1018	258.7695	101.1500	6.077	1.500	1.620	91.0907	6.079
955	352.2713	99.6609	48.114	1.400	1.620	184.5925	48.135	1019	204.1587	101.6937	3.707	1.500	1.620	36.4799	3.707
956	343.4018	99.7473	56.047	1.400	1.620	175.7230	56.072	1020	208.6679	106.4849	1.203	1.500	1.620	40.9891	1.197
957	345.8236	99.7000	48.567	1.400	1.620	178.1448	48.589	1021	277.7882	102.3869	3.421	1.500	1.620	110.1094	3.420
958	346.1491	99.7058	48.252	1.400	1.620	178.4703	48.273	1022	288.3379	102.1129	4.399	1.500	1.620	120.6591	4.399
959	346.8978	99.7092	47.117	1.400	1.620	179.2190	47.138	1023	302.3876	102.0637	4.764	1.500	1.620	134.7088	4.764
960	352.1848	99.6741	43.569	1.400	1.620	184.5060	43.588	1024	316.4158	101.7240	6.153	1.500	1.620	148.7370	6.154
961	341.1527	99.8442	47.833	1.400	1.620	173.4739	47.855	1025	317.4873	101.3669	7.981	1.500	1.620	149.8085	7.983
962	338.9766	99.9027	46.727	1.400	1.620	171.2978	46.748	1026	328.3765	102.8295	6.317	1.500	1.620	160.6977	6.314
963	337.5730	99.9023	48.371	1.400	1.620	169.8942	48.393	1027	308.1771	100.9461	22.297	1.500	1.620	140.4983	22.305
964	342.5949	99.7413	51.176	1.400	1.620	174.9161	51.199	1028	305.1795	100.4081	36.637	1.500	1.620	137.5007	36.653
965	340.5980	99.8088	50.043	1.400	1.620	172.9192	50.066	1029	304.0285	100.3138	48.717	1.500	1.620	136.3497	48.739
966	341.2105	99.7554	52.718	1.400	1.620	173.5317	52.742	1030	303.6726	100.3233	54.681	1.500	1.620	135.9938	54.705
967	333.5934	100.0051	48.378	1.400	1.620	165.9146	48.400	1031	266.9288	98.4084	28.619	1.500	1.620	99.2500	28.623
968	332.5861	100.0396	47.946	1.400	1.620	164.9073	47.968	1032	271.1071	98.6151	33.994	1.500	1.620	103.4283	34.001
969	331.9771	100.0307	48.794	1.400	1.620	164.2983	48.816	1033	276.4650	99.2094	37.642	1.500	1.620	108.7862	37.656
970	331.6991	100.0487	49.328	1.400	1.620	164.0203	49.350	1034	279.6486	99.6246	41.208	1.500	1.620	111.9698	41.226
971	335.2315	99.9252	50.884	1.400	1.620	167.5527	50.907	1035	279.4348	99.5839	40.401	1.500	1.620	111.7560	40.418
972	339.7502	99.7695	53.302	1.400	1.620	172.0714	53.326	1036	280.3883	99.9410	38.793	1.500	1.620	112.7095	38.811
973	337.0753	99.7181	56.725	1.400	1.620	169.3965	56.750	1037	271.7485	99.9004	27.921	1.500	1.620	104.0697	27.934
974	334.5016	99.7232	60.597	1.400	1.620	166.8228	60.624	9999	37.6657	96.4237	73.000	0.000	1.620	269.9869	72.918
975	335.0148	99.9035	62.311	1.400	1.620	167.3360	62.339	9999	37.7762	96.1380	72.933	0.000	1.628	270.0974	72.832
976	340.0921	99.8288	55.113	1.400	1.620	172.4133	55.138	Coordenadas calculadas							
977	342.7068	99.8670	56.893	1.400	1.620	175.0280	56.919	Número X	Y	Z					
978	342.2068	99.8826	57.965	1.400	1.620	174.5280	57.991	169	236344.228	4141004.355	8.792				
979	342.3658	99.8892	58.523	1.400	1.620	174.6870	58.550	170	236345.317	4141006.802	8.797				
980	342.7771	99.9029	58.762	1.400	1.620	175.0983	58.789	171	236346.024	4141003.041	8.749				
981	343.1605	99.8268	57.291	1.400	1.620	175.4817	57.317	172	236346.759	4141002.749	8.755				
982	342.6621	99.8305	57.869	1.400	1.620	174.9833	57.895	173	236346.364	4141001.653	8.746				
983	338.9633	99.6853	55.880	1.400	1.620	171.2845	55.905	174	236349.591	4141001.342	8.790				
984	337.8094	99.7055	57.302	1.400	1.620	170.1306	57.327	175	236351.457	4141002.952	8.859				
985	336.7698	99.7266	58.822	1.400	1.620	169.0910	58.848	176	236349.376	4141004.336	8.792				
986	336.0372	99.7332	60.424	1.400	1.620	168.3584	60.451	177	236349.787	4141004.144	8.791				
987	333.8218	99.7320	60.146	1.400	1.620	166.1430	60.173	178	236350.963	4141003.538	8.834				
988	332.1407	99.6624	57.131	1.400	1.620	164.4619	57.156	179	236351.687	4141005.249	8.768				
989	328.4643	100.1307	52.760	1.400	1.620	160.7855	52.784	180	236358.738	4141000.156	8.829				
990	328.7419	100.3839	42.278	1.400	1.620	161.0631	42.296	181	236358.713	4140998.508	8.826				
991	331.0951	100.5170	36.907	1.400	1.620	163.4163	36.923	182	236358.423	4140997.928	8.819				
992	84.1978	100.9600	21.673	1.400	1.620	316.5190	21.680	183	236357.846	4140998.178	8.835				
993	356.8492	107.1885	2.085	1.400	1.620	189.1704	2.073	184	236360.754	4140996.968	8.837				
994	301.0876	104.3880	3.216	1.400	1.620	133.4088	3.210	185	236361.439	4140996.638	8.788				
995	279.4759	104.1042	3.393	1.400	1.620	111.7971	3.387	186	236361.677	4140997.245	8.816				
996	300.7542	103.4011	4.623	1.400	1.620	133.0754	4.619	187	236364.823	4140995.204	8.815				
997	287.0784	103.7222	4.206	1.400	1.620	119.3996	4.201	188	236365.437	4140994.917	8.812				
998	301.4859	102.1974	8.344	1.400	1.620	133.8071	8.343	189	236365.673	4140995.443	8.809				
999	301.0256	101.8896	9.411	1.400	1.620	133.3468	9.411	190	236366.234	4140996.880	8.822				
1000	296.0979	101.6081	10.752	1.400	1.620	128.4191	10.753	191	236368.744	4140994.528	8.566				
1001	299.5115	101.4945	11.625	1.400	1.620	131.8327	11.627	192	236370.507	4140993.816	8.518				
1002	298.6179	100.8482	14.838	1.500	1.620	130.9391	14.843	193	236370.457	4140993.243	8.514				
1003	299.9156	100.1948	40.281	1.500	1.620	132.2368	40.299	194	236369.069	4140989.873	8.555				
1004	303.8015	100.1636	41.030	1.500	1.620	136.1227	41.049	195	236368.935	4140990.220	8.568				
1005	304.4336	100.2204	34.093	1.500	1.620	136.7548	34.108	196	236367.230	4140990.965	8.603				
1006	299.8121	100.2804	33.201	1.500	1.620	132.1333	33.216	197	236366.994	4140985.769	8.668				
1007	305.7917	100.4498	25.305	1.500	1.620	138.1129	25.316	198	236365.048	4140983.970	8.648				
1008	299.6990	100.4910	23.480	1.500	1.620	132.0202	23.490	199	236362.163	4140983.379	8.579				
1009	298.0068	100.5324	22.058	1.500	1.620	130.3280	22.067	200	236360.169	4140984.055	8.554				
1010	299.9970	100.6432	18.703	1.500	1.620	132.3182	18.711	201	236360.964	4140983.735	8.528				
1011	307.6927	100.6117	18.638	1.500	1.620	140.0139	18.646	202	236347.196	4140991.417	8.500				
1012	300.9903	100.7325	16.664	1.500	1.620	133.3115	16.670	203	236345.028	4140991.550	8.559				
1013	317.3961	101.3637	7.981	1.500	1.620	149.7173	7.983	204	236344.417	4140990.986	8.585				

205	236344.230	4140992.287	8.546	269	236365.270	4140968.127	8.809
206	236350.498	4140994.580	8.726	270	236361.645	4140970.190	8.790
207	236359.998	4140985.863	8.711	271	236358.093	4140972.202	8.770
208	236360.117	4140985.628	8.704	272	236360.447	4140975.950	8.840
209	236358.829	4140985.078	8.696	273	236361.601	4140975.350	8.844
210	236366.641	4140985.545	8.692	274	236365.490	4140972.531	8.883
211	236365.146	4140986.361	8.691	275	236373.225	4140966.954	8.881
212	236366.727	4140989.192	8.695	276	236374.263	4140966.007	8.891
213	236367.978	4140988.458	8.674	277	236361.523	4140975.166	8.844
214	236369.031	4140989.730	8.596	278	236359.052	4140977.215	8.809
215	236369.466	4140989.423	8.600	279	236351.070	4140981.684	8.773
216	236367.851	4140985.797	8.677	280	236349.809	4140982.159	8.806
217	236367.422	4140985.976	8.675	281	236346.948	4140983.962	8.749
218	236367.397	4140985.431	8.675	282	236346.940	4140983.729	8.747
219	236369.903	4140989.261	8.599	283	236332.715	4140991.862	8.677
220	236370.804	4140988.819	8.620	284	236330.403	4140992.941	8.692
221	236371.740	4140988.399	8.629	285	236313.219	4141002.660	8.612
222	236368.235	4140991.898	8.561	286	236309.530	4141004.450	8.594
223	236368.753	4140990.407	8.568	287	236299.675	4141010.139	8.589
224	236372.573	4140987.523	8.721	288	236294.458	4141012.804	8.575
225	236373.187	4140986.079	8.761	289	236291.326	4141005.047	8.356
226	236370.117	4140983.541	8.722	290	236295.616	4141002.862	8.376
227	236368.699	4140980.281	8.730	291	236302.477	4140999.083	8.376
228	236368.298	4140980.563	8.729	292	236317.637	4140990.704	8.437
229	236364.816	4140982.606	8.672	293	236333.949	4140981.627	8.493
230	236363.968	4140983.117	8.655	294	236342.923	4140976.666	8.546
231	236364.600	4140983.311	8.667	295	236342.983	4140976.821	8.671
232	236369.159	4140980.100	8.722	296	236355.964	4140969.334	8.594
233	236369.808	4140980.317	8.751	297	236364.113	4140965.179	8.660
234	236370.004	4140980.183	8.738	298	236368.866	4140963.778	8.836
235	236370.204	4140982.975	8.712	299	236369.633	4140964.982	8.836
236	236370.286	4140983.311	8.712	300	236357.884	4140971.730	8.770
237	236371.882	4140982.479	8.793	301	236357.181	4140970.368	8.766
238	236373.403	4140985.960	8.761	302	236363.074	4140974.152	8.871
239	236371.785	4140986.672	8.714	303	236363.173	4140973.500	8.886
240	236372.649	4140988.559	8.601	304	236363.896	4140973.578	8.878
241	236374.542	4140987.716	8.617	305	236359.207	4140975.429	8.768
242	236375.558	4140989.977	8.602	306	236358.455	4140974.139	8.768
243	236376.577	4140983.454	8.956	307	236346.380	4140982.620	8.697
244	236383.855	4140979.802	9.012	308	236345.718	4140981.238	8.695
245	236380.984	4140961.475	8.892	309	236344.450	4140979.211	8.696
246	236380.854	4140961.363	8.893	310	236343.745	4140977.896	8.693
247	236381.071	4140961.098	8.876	311	236329.758	4140985.677	8.633
248	236380.931	4140961.033	8.885	312	236330.651	4140986.890	8.638
249	236380.987	4140960.685	8.864	313	236332.062	4140988.832	8.642
250	236380.866	4140960.703	8.877	314	236332.574	4140990.251	8.637
251	236380.392	4140959.725	8.834	315	236320.984	4140996.693	8.600
252	236380.240	4140959.798	8.847	316	236320.282	4140995.357	8.598
253	236380.023	4140959.435	8.824	317	236319.172	4140993.252	8.604
254	236379.926	4140959.612	8.847	318	236318.479	4140991.895	8.601
255	236379.190	4140959.491	8.814	319	236315.821	4140993.512	8.591
256	236379.237	4140959.702	8.840	320	236316.429	4140994.722	8.592
257	236379.751	4140960.639	8.866	321	236314.304	4140994.584	8.586
258	236379.800	4140960.799	8.868	322	236312.624	4140995.999	8.584
259	236379.681	4140960.918	8.866	323	236310.572	4140997.952	8.576
260	236369.040	4140966.661	8.876	324	236306.161	4141001.995	8.569
261	236369.135	4140966.792	8.878	325	236303.900	4141004.048	8.566
262	236369.054	4140966.951	8.876	326	236302.582	4141005.151	8.563
263	236374.085	4140962.428	8.822	327	236298.312	4141007.494	8.558
264	236374.130	4140961.171	8.783	328	236299.012	4141008.811	8.558
265	236373.704	4140961.451	8.782	329	236303.226	4141006.425	8.560
266	236368.812	4140962.886	8.692	330	236305.556	4141004.621	8.568
267	236368.838	4140963.027	8.772	331	236308.431	4141001.958	8.571
268	236370.070	4140965.394	8.868	332	236312.402	4141001.438	8.582

333	236312.133	4140998.516	8.579	397	236316.435	4140992.236	8.605
334	236314.136	4140996.716	8.585	398	236317.720	4140993.892	8.598
335	236316.462	4140994.777	8.596	399	236318.375	4140993.530	8.602
336	236314.749	4140998.418	8.588	400	236318.638	4140998.753	8.586
337	236297.329	4141005.330	8.559	401	236318.931	4140999.249	8.582
338	236296.618	4141004.018	8.567	402	236320.014	4140998.693	8.589
339	236303.385	4141000.255	8.563	403	236321.126	4140997.374	8.608
340	236303.783	4141001.697	8.563	404	236320.928	4140997.045	8.604
341	236291.536	4141006.596	8.548	405	236321.576	4140997.149	8.607
342	236292.186	4141007.955	8.549	406	236321.413	4140996.826	8.599
343	236293.194	4141010.097	8.549	407	236321.244	4140996.854	8.591
344	236293.887	4141011.424	8.554	408	236319.718	4140994.015	8.583
345	236294.422	4141012.648	8.554	409	236319.329	4140993.826	8.592
346	236294.154	4141012.094	8.556	410	236318.404	4140991.589	8.575
347	236293.954	4141012.180	8.550	411	236318.577	4140991.514	8.576
348	236293.775	4141011.848	8.542	412	236318.325	4140991.172	8.575
349	236294.031	4141011.744	8.543	413	236317.895	4140991.420	8.543
350	236292.605	4141009.063	8.543	414	236318.062	4140991.747	8.597
351	236291.281	4141006.396	8.524	415	236318.209	4140991.690	8.602
352	236291.162	4141006.459	8.523	416	236319.726	4140994.625	8.616
353	236290.984	4141006.097	8.535	417	236319.550	4140994.421	8.617
354	236291.145	4141006.038	8.537	418	236319.475	4140994.150	8.623
355	236290.848	4141005.473	8.525	419	236319.846	4140994.222	8.603
356	236291.097	4141005.357	8.541	420	236323.593	4140992.502	8.659
357	236291.314	4141005.940	8.551	421	236327.267	4140990.199	8.608
358	236291.478	4141005.849	8.538	422	236331.044	4140987.942	8.598
359	236291.639	4141006.242	8.547	423	236332.687	4140987.317	8.623
360	236291.434	4141006.325	8.546	424	236332.726	4140987.165	8.624
361	236292.850	4141009.011	8.550	425	236332.592	4140987.042	8.623
362	236294.160	4141011.714	8.551	426	236347.984	4140978.808	8.711
363	236294.314	4141011.627	8.551	427	236348.028	4140978.637	8.712
364	236294.469	4141011.946	8.552	428	236347.901	4140978.528	8.711
365	236294.286	4141012.056	8.554	429	236335.152	4140985.782	8.622
366	236294.586	4141012.547	8.559	430	236339.095	4140983.630	8.633
367	236300.305	4141009.218	8.512	431	236341.989	4140982.073	8.652
368	236299.688	4141007.845	8.557	432	236344.320	4140980.392	8.643
369	236299.895	4141007.232	8.558	433	236344.088	4140980.038	8.633
370	236300.635	4141006.400	8.559	434	236329.420	4140984.866	8.647
371	236301.222	4141006.043	8.563	435	236335.328	4140983.413	8.657
372	236301.881	4141007.088	8.564	436	236334.335	4140982.400	8.626
373	236303.472	4141007.790	8.578	437	236335.847	4140981.237	8.666
374	236302.460	4141008.431	8.565	438	236343.430	4140977.280	8.690
375	236302.167	4141007.935	8.560	439	236343.631	4140976.464	8.696
376	236299.407	4141005.874	8.576	440	236345.617	4140980.719	8.698
377	236299.300	4141005.626	8.580	441	236346.089	4140980.413	8.692
378	236299.192	4141005.348	8.576	442	236345.000	4140979.698	8.695
379	236296.139	4141002.974	8.565	443	236347.375	4140983.390	8.702
380	236298.851	4141001.950	8.579	444	236347.604	4140982.628	8.696
381	236299.836	4141001.388	8.567	445	236347.694	4140982.699	8.697
382	236299.561	4141000.862	8.571	446	236352.264	4140980.090	8.725
383	236301.539	4141000.469	8.567	447	236359.166	4140976.244	8.776
384	236301.555	4141000.348	8.568	448	236358.592	4140968.770	8.770
385	236301.445	4141000.226	8.567	449	236358.801	4140968.020	8.771
386	236304.833	4141006.423	8.568	450	236367.767	4140964.927	8.824
387	236304.956	4141006.506	8.569	451	236368.029	4140964.741	8.824
388	236304.947	4141006.681	8.569	452	236368.666	4140964.545	8.827
389	236317.697	4140999.638	8.592	453	236368.948	4140964.809	8.825
390	236317.707	4140999.499	8.594	454	236368.319	4140965.403	8.822
391	236317.586	4140999.399	8.594	455	236368.128	4140965.457	8.824
392	236314.272	4140993.456	8.589	507	236299.706	4141010.369	8.590
393	236314.296	4140993.321	8.589	508	236310.455	4141004.464	8.608
394	236314.172	4140993.201	8.588	509	236335.712	4140990.449	8.678
395	236315.403	4140992.823	8.598	510	236350.391	4140982.347	8.761
396	236315.139	4140992.320	8.610	511	236360.857	4140976.373	8.820

512	236365.875	4140973.181	8.868	576	236345.425	4140957.658	8.606
513	236366.207	4140972.823	8.871	577	236347.544	4140958.596	8.587
514	236366.621	4140972.587	8.873	578	236349.727	4140960.170	8.568
515	236366.587	4140971.872	8.879	579	236349.843	4140960.285	8.536
516	236366.218	4140972.138	8.882	580	236353.002	4140954.473	8.586
517	236379.941	4140962.288	8.889	581	236355.226	4140948.468	8.619
518	236379.840	4140963.895	8.922	582	236361.929	4140950.277	8.500
519	236380.696	4140963.338	8.919	583	236360.437	4140954.773	8.554
520	236381.102	4140963.082	8.920	584	236354.078	4140962.775	8.515
521	236381.749	4140958.351	8.813	585	236352.535	4140963.935	8.456
522	236381.307	4140958.458	8.809	586	236357.746	4140959.606	8.499
523	236382.699	4140958.110	8.817	587	236362.078	4140950.324	8.504
524	236383.156	4140958.004	8.819	588	236362.716	4140947.969	8.505
525	236382.496	4140962.174	8.919	589	236364.134	4140942.629	8.496
526	236382.064	4140962.451	8.922	590	236362.102	4140942.083	8.612
527	236383.533	4140961.510	8.913	591	236360.673	4140947.432	8.595
528	236384.015	4140961.204	8.910	592	236353.075	4140945.314	8.671
529	236384.348	4140958.922	8.846	593	236352.403	4140945.069	8.670
530	236384.012	4140958.279	8.823	594	236351.843	4140944.744	8.670
531	236383.847	4140957.597	8.815	595	236352.576	4140939.516	8.664
532	236378.847	4140958.885	8.793	596	236350.818	4140939.039	8.719
533	236379.165	4140959.412	8.806	597	236351.290	4140947.277	8.671
534	236378.790	4140959.510	8.806	598	236348.679	4140948.355	8.690
535	236376.890	4140953.110	8.697	599	236353.796	4140950.313	8.673
536	236373.548	4140954.302	8.669	600	236343.209	4140950.446	8.721
537	236373.174	4140954.436	8.666	601	236342.188	4140953.088	8.701
538	236375.478	4140959.850	8.777	602	236345.538	4140953.571	8.682
539	236368.455	4140962.754	8.714	603	236330.174	4140963.749	8.571
540	236355.898	4140969.106	8.574	604	236335.413	4140971.807	8.472
541	236343.110	4140976.265	8.528	605	236336.218	4140972.033	8.480
542	236343.037	4140974.573	8.495	606	236325.594	4140974.371	8.423
543	236341.592	4140971.930	8.435	607	236326.213	4140974.737	8.420
544	236324.326	4140986.681	8.430	608	236326.819	4140973.661	8.435
545	236303.733	4140998.093	8.394	609	236327.929	4140976.705	8.406
546	236286.929	4140999.923	8.178	610	236314.517	4140973.441	8.427
547	236286.032	4141000.427	8.173	611	236319.288	4140979.072	8.407
548	236285.106	4140998.709	8.375	612	236314.628	4140982.788	8.421
549	236287.960	4140997.453	8.356	613	236315.430	4140983.983	8.423
550	236291.530	4140995.489	8.369	614	236315.288	4140984.166	8.428
551	236292.325	4140997.164	8.220	615	236308.961	4140986.252	8.439
552	236291.429	4140997.624	8.179	616	236309.783	4140986.445	8.437
553	236303.832	4140990.820	8.276	617	236304.108	4140989.214	8.428
554	236303.770	4140990.698	8.415	618	236301.050	4140991.407	8.410
555	236302.747	4140989.096	8.425	619	236300.391	4140983.936	8.495
556	236306.158	4140984.549	8.448	620	236285.659	4140993.624	8.445
557	236311.663	4140981.509	8.429	621	236284.713	4141000.251	8.352
558	236313.735	4140982.964	8.411	622	236280.550	4141000.470	8.417
559	236314.582	4140984.775	8.422	623	236280.110	4140998.154	8.441
560	236314.620	4140984.900	8.268	624	236282.325	4141000.392	8.370
561	236325.436	4140978.912	8.280	625	236283.108	4141000.659	8.359
562	236325.338	4140978.819	8.388	626	236287.383	4141000.269	8.183
563	236324.871	4140976.783	8.407	627	236287.694	4141000.660	8.197
564	236324.024	4140974.645	8.422	628	236292.161	4140998.377	8.228
565	236334.462	4140968.802	8.531	629	236291.844	4140997.942	8.218
566	236335.230	4140971.044	8.501	630	236290.838	4141004.663	8.354
567	236336.064	4140972.901	8.476	631	236295.308	4141002.366	8.368
568	236336.160	4140973.013	8.377	632	236286.650	4141002.732	8.243
569	236345.401	4140967.875	8.442	633	236285.869	4141000.913	8.138
570	236345.064	4140967.946	8.539	634	236299.934	4140996.716	8.320
571	236344.429	4140966.650	8.513	635	236306.515	4140992.979	8.305
572	236345.212	4140967.774	8.493	636	236317.920	4140986.832	8.332
573	236344.594	4140966.669	8.498	637	236320.012	4140983.817	8.243
574	236342.511	4140965.584	8.532	638	236321.764	4140981.582	8.258
575	236340.371	4140964.442	8.555	639	236323.579	4140980.375	8.262

640	236325.957	4140979.798	8.262	704	236403.207	4140974.378	9.060
641	236330.353	4140980.982	8.377	705	236413.985	4140968.093	9.084
642	236320.633	4140981.917	8.236	706	236419.213	4140966.911	9.769
643	236337.107	4140972.874	8.371	707	236420.202	4140969.508	9.825
644	236341.582	4140971.923	8.433	708	236412.873	4140972.393	9.591
645	236343.027	4140974.533	8.495	709	236405.707	4140975.183	9.374
646	236353.195	4140967.168	8.490	710	236416.736	4140963.213	9.051
647	236338.390	4140971.931	8.400	711	236415.483	4140963.912	9.054
648	236347.339	4140967.009	8.432	712	236414.794	4140962.679	9.031
649	236353.445	4140963.600	8.465	713	236412.422	4140965.677	9.041
650	236357.743	4140959.891	8.494	714	236411.148	4140966.368	9.040
651	236361.285	4140953.634	8.511	715	236410.465	4140965.115	9.082
652	236362.738	4140948.667	8.501	716	236406.870	4140967.124	9.025
653	236364.564	4140941.748	8.496	717	236406.345	4140969.082	9.050
654	236360.707	4140953.287	8.550	718	236405.620	4140967.836	9.042
655	236360.912	4140952.337	8.526	719	236403.283	4140970.834	9.030
656	236354.817	4140950.280	8.586	720	236402.601	4140969.583	9.039
657	236355.397	4140948.665	8.587	721	236401.311	4140970.293	9.031
658	236355.318	4140948.964	8.590	722	236398.980	4140973.256	9.044
659	236355.979	4140949.175	8.589	723	236398.250	4140972.013	9.079
660	236353.621	4140952.963	8.541	724	236396.993	4140972.718	9.137
661	236354.110	4140962.723	8.512	725	236394.602	4140975.730	9.150
662	236348.777	4140961.958	8.498	726	236393.895	4140974.436	9.141
663	236348.700	4140963.182	8.518	727	236392.625	4140975.156	9.257
664	236349.550	4140964.247	8.532	728	236393.675	4140975.038	9.178
665	236349.311	4140964.411	8.536	729	236397.888	4140972.835	9.076
666	236358.348	4140946.807	8.617	730	236402.163	4140970.508	9.035
667	236358.430	4140945.572	8.625	731	236406.519	4140968.018	9.047
668	236357.721	4140945.528	8.628	732	236411.197	4140965.369	8.994
669	236358.081	4140944.769	8.639	733	236415.460	4140963.067	9.012
670	236358.688	4140945.506	8.636	734	236408.757	4140962.025	8.939
671	236357.490	4140940.528	8.630	735	236408.511	4140961.791	8.935
672	236370.248	4140979.531	8.706	736	236407.872	4140961.349	8.927
673	236371.422	4140977.812	8.685	737	236407.857	4140960.506	8.921
674	236373.498	4140976.201	8.711	738	236407.809	4140960.195	8.907
675	236376.684	4140973.696	8.748	739	236403.757	4140965.312	8.969
676	236383.009	4140968.780	8.793	740	236403.322	4140964.493	8.934
677	236387.026	4140966.172	8.874	741	236401.629	4140965.808	8.935
678	236393.472	4140962.504	8.813	742	236401.361	4140963.881	8.895
679	236390.776	4140964.126	8.843	743	236400.278	4140963.606	8.878
680	236388.632	4140965.380	8.851	744	236362.254	4140950.960	8.528
681	236390.469	4140968.634	8.953	745	236362.716	4140951.093	8.522
682	236392.610	4140967.378	8.965	746	236364.953	4140942.772	8.506
683	236381.786	4140973.497	8.982	747	236364.638	4140951.667	8.527
684	236382.893	4140975.754	9.004	748	236365.665	4140951.887	8.569
685	236382.822	4140972.140	9.002	749	236366.455	4140951.359	8.649
686	236379.077	4140973.935	8.947	750	236365.894	4140951.050	8.575
687	236378.513	4140975.770	8.895	751	236366.592	4140950.659	8.632
688	236377.509	4140976.451	8.880	752	236367.214	4140954.966	8.683
689	236377.693	4140974.598	8.884	753	236367.419	4140954.842	8.684
690	236373.914	4140980.727	8.886	754	236366.735	4140953.672	8.668
691	236374.162	4140979.754	8.880	755	236369.353	4140954.662	8.706
692	236384.310	4140968.705	8.865	756	236364.845	4140954.620	8.641
693	236385.376	4140968.063	8.872	757	236370.185	4140952.604	8.717
694	236385.747	4140968.650	8.889	758	236370.514	4140953.353	8.719
695	236388.532	4140969.767	8.967	759	236371.096	4140952.202	8.740
696	236389.168	4140969.447	8.952	760	236370.265	4140945.969	8.711
697	236389.756	4140970.551	8.966	761	236371.001	4140945.658	8.725
698	236382.498	4140968.851	8.805	762	236370.700	4140944.924	8.718
699	236392.193	4140980.477	8.964	763	236368.096	4140943.541	8.571
700	236393.817	4140979.852	9.104	764	236368.483	4140944.392	8.621
701	236399.134	4140980.037	9.483	765	236371.419	4140947.589	8.731
702	236398.763	4140977.952	9.198	766	236371.622	4140946.868	8.740
703	236395.832	4140978.539	9.050	767	236371.846	4140946.150	8.748

768	236375.127	4140933.834	8.809	831	236416.630	4140927.148	9.015
769	236370.682	4140933.775	8.711	832	236414.577	4140935.807	8.878
770	236378.763	4140931.876	8.872	833	236415.078	4140936.811	8.696
771	236378.262	4140934.103	8.864	834	236411.641	4140938.373	8.826
772	236380.191	4140934.625	8.906	835	236411.239	4140937.668	8.847
773	236380.804	4140932.311	8.940	836	236412.177	4140937.101	8.859
774	236377.328	4140937.593	8.829	837	236411.743	4140937.746	8.869
775	236376.861	4140939.344	8.814	838	236410.732	4140939.283	8.711
776	236378.788	4140939.874	8.857	839	236404.631	4140942.767	8.691
777	236375.621	4140944.018	8.785	840	236395.743	4140945.976	8.730
778	236375.150	4140945.768	8.776	841	236396.441	4140945.176	8.919
779	236377.084	4140946.293	8.782	842	236395.726	4140944.834	8.914
780	236384.404	4140940.226	8.871	843	236392.271	4140941.465	8.822
781	236384.155	4140941.186	8.870	844	236401.497	4140942.401	8.792
782	236383.182	4140940.934	8.854	845	236380.069	4140951.703	8.708
783	236384.994	4140934.155	8.969	846	236373.323	4140954.167	8.676
784	236384.726	4140935.126	8.952	847	236366.215	4140956.721	8.562
785	236385.712	4140935.382	8.957	848	236365.564	4140956.681	8.564
786	236385.456	4140935.161	8.925	849	236364.116	4140956.139	8.546
787	236379.648	4140933.246	8.873	850	236363.971	4140955.423	8.524
788	236383.968	4140940.715	8.818	851	236364.759	4140952.616	8.521
789	236376.420	4140945.222	8.751	852	236366.910	4140953.198	8.664
790	236375.210	4140944.855	8.786	853	236368.172	4140948.759	8.680
791	236374.958	4140944.800	8.775	854	236369.414	4140944.102	8.692
792	236376.121	4140948.402	8.756	855	236367.230	4140943.482	8.465
793	236375.902	4140949.314	8.755	856	236365.797	4140948.848	8.513
794	236379.088	4140951.527	8.827	857	236365.169	4140951.091	8.530
795	236377.710	4140951.993	8.807	858	236372.622	4140953.108	8.749
796	236382.531	4140948.854	8.813	859	236370.747	4140950.218	8.711
797	236383.173	4140949.472	8.789	860	236371.680	4140950.388	8.727
798	236383.675	4140950.076	8.762	861	236372.543	4140950.449	8.724
799	236387.153	4140948.810	8.797	862	236377.518	4140948.650	8.774
800	236387.596	4140948.655	8.884	863	236379.646	4140948.142	8.774
801	236386.992	4140947.171	8.880	864	236381.838	4140948.815	8.805
802	236389.432	4140945.920	8.907	865	236383.252	4140950.223	8.754
803	236389.598	4140945.863	8.909	866	236380.894	4140951.112	8.733
804	236388.665	4140944.731	8.852	867	236379.722	4140950.627	8.820
805	236390.527	4140940.992	8.858	868	236379.002	4140950.686	8.828
806	236390.723	4140940.203	8.882	869	236373.133	4140954.340	8.671
807	236395.942	4140939.864	8.948	870	236373.491	4140954.201	8.674
808	236390.157	4140934.247	9.066	871	236375.171	4140960.105	8.779
809	236389.854	4140933.318	9.210	872	236378.783	4140959.527	8.811
810	236391.413	4140932.804	9.238	873	236379.164	4140959.423	8.810
811	236391.419	4140933.831	9.126	874	236376.819	4140952.973	8.703
812	236392.374	4140936.696	9.023	875	236380.705	4140951.702	8.700
813	236393.004	4140937.540	9.084	876	236380.910	4140952.083	8.704
814	236391.110	4140937.112	8.945	877	236383.227	4140950.760	8.708
815	236391.411	4140938.052	9.059	878	236387.225	4140949.115	8.762
816	236387.857	4140927.776	9.341	879	236387.449	4140949.559	8.763
817	236388.153	4140927.899	9.381	880	236381.371	4140952.949	8.726
818	236389.045	4140931.358	9.196	881	236381.140	4140952.493	8.718
819	236392.104	4140940.706	8.857	882	236387.694	4140964.661	8.874
820	236403.353	4140934.275	9.024	883	236359.153	4140977.393	8.807
821	236412.077	4140929.270	9.024	884	236366.312	4140973.044	8.870
822	236422.909	4140923.065	9.021	885	236377.442	4140965.779	8.894
823	236421.326	4140923.130	9.018	886	236385.450	4140960.577	8.916
824	236421.435	4140923.127	9.002	887	236391.571	4140956.953	8.928
825	236421.933	4140924.025	9.026	888	236390.816	4140955.518	8.871
826	236423.020	4140923.434	8.996	889	236391.812	4140956.648	8.933
827	236417.156	4140929.647	8.971	890	236392.214	4140956.423	8.941
828	236417.368	4140928.865	8.996	891	236392.303	4140955.152	8.908
829	236416.113	4140927.436	9.013	892	236393.037	4140955.935	8.939
830	236415.926	4140927.151	9.017	893	236393.466	4140955.684	8.937
830	236415.925	4140927.153	9.017	894	236393.553	4140954.671	8.916

895	236393.903	4140954.363	8.910	959	236409.845	4140920.219	9.379
896	236394.417	4140955.333	8.928	960	236405.233	4140922.564	9.387
897	236393.533	4140955.744	8.936	961	236414.097	4140921.108	9.281
898	236393.191	4140955.941	8.938	962	236415.099	4140922.791	9.236
899	236396.300	4140960.699	8.784	963	236416.771	4140921.786	9.238
900	236395.953	4140960.897	8.791	964	236414.385	4140917.592	9.372
901	236399.122	4140959.111	8.774	965	236415.390	4140919.264	9.314
902	236399.445	4140958.920	8.778	966	236416.031	4140916.619	9.367
903	236400.109	4140953.651	8.908	967	236419.423	4140923.241	9.160
904	236401.459	4140956.176	8.829	968	236419.852	4140924.005	9.134
905	236401.463	4140951.115	8.929	969	236420.693	4140923.529	9.141
906	236409.254	4140946.865	8.930	970	236421.159	4140923.191	9.126
907	236417.365	4140942.293	8.903	971	236419.567	4140920.431	9.224
908	236426.636	4140936.959	8.900	972	236417.380	4140916.592	9.357
909	236436.254	4140931.557	8.911	973	236420.972	4140914.549	9.415
910	236419.642	4140945.913	8.834	974	236424.913	4140912.292	9.428
911	236418.141	4140943.521	8.897	975	236425.330	4140910.556	9.259
912	236391.245	4140948.057	8.766	976	236417.882	4140914.826	9.312
913	236390.692	4140949.093	8.780	977	236416.488	4140912.272	9.283
914	236391.730	4140949.234	8.776	978	236417.318	4140911.457	9.271
915	236392.635	4140947.584	8.754	979	236417.401	4140910.886	9.266
916	236392.306	4140947.689	8.757	980	236417.143	4140910.520	9.254
917	236391.617	4140948.972	8.773	981	236416.262	4140911.750	9.320
918	236391.110	4140948.853	8.774	982	236416.899	4140911.386	9.318
919	236391.565	4140947.952	8.763	983	236419.100	4140914.554	9.440
920	236393.363	4140947.313	8.753	984	236420.651	4140913.735	9.429
921	236392.272	4140949.312	8.777	985	236422.192	4140912.820	9.417
922	236393.345	4140949.460	8.783	986	236423.553	4140911.731	9.417
923	236394.763	4140946.832	8.744	987	236425.243	4140913.006	9.417
924	236394.419	4140946.963	8.747	988	236425.004	4140916.388	9.467
925	236393.219	4140949.138	8.772	989	236425.226	4140921.785	9.056
926	236392.668	4140949.061	8.773	990	236419.016	4140930.239	8.909
927	236393.684	4140947.234	8.753	991	236414.799	4140933.876	8.864
928	236395.186	4140947.100	8.746	992	236373.775	4140970.430	8.837
929	236393.888	4140949.538	8.789	993	236395.080	4140962.825	8.929
930	236394.986	4140949.689	8.801	994	236397.507	4140963.260	8.943
931	236395.668	4140948.271	8.769	995	236398.059	4140964.244	8.945
932	236395.574	4140948.017	8.759	996	236398.738	4140962.575	8.917
933	236394.858	4140949.356	8.792	997	236398.737	4140963.607	8.918
934	236394.327	4140949.287	8.784	998	236401.923	4140960.643	8.876
935	236395.317	4140947.426	8.748	999	236402.879	4140960.161	8.885
936	236395.692	4140949.487	8.806	1000	236404.429	4140960.225	8.892
937	236396.230	4140949.662	8.818	1001	236404.933	4140959.293	8.891
938	236401.229	4140947.613	8.838	1002	236407.854	4140957.935	8.866
939	236409.759	4140943.338	8.844	1003	236429.971	4140945.322	8.941
940	236419.213	4140937.934	8.798	1004	236429.345	4140942.806	8.959
941	236417.106	4140915.376	9.419	1005	236423.309	4140946.252	8.946
942	236413.710	4140917.297	9.395	1006	236423.803	4140948.805	8.918
943	236414.011	4140917.681	9.387	1007	236415.642	4140950.601	8.885
944	236410.208	4140919.289	9.400	1008	236415.310	4140953.545	8.883
945	236406.757	4140921.271	9.395	1009	236414.340	4140954.748	8.880
946	236399.834	4140925.222	9.362	1010	236411.080	4140955.772	8.875
947	236392.989	4140929.127	9.332	1011	236409.812	4140953.905	8.885
948	236392.703	4140929.274	9.344	1012	236409.169	4140956.538	8.872
949	236392.534	4140928.934	9.353	1013	236400.399	4140959.248	8.893
950	236388.230	4140927.540	9.389	1014	236401.782	4140960.620	8.862
951	236387.922	4140927.633	9.362	1015	236401.461	4140961.668	8.891
952	236387.815	4140927.293	9.367	1016	236401.403	4140963.360	8.907
953	236391.845	4140926.456	9.415	1017	236401.379	4140964.627	8.927
954	236390.045	4140922.854	9.257	1018	236400.749	4140965.716	8.954
955	236406.266	4140918.135	9.420	1019	236396.739	4140967.983	8.965
956	236415.598	4140912.824	9.387	1020	236395.448	4140965.825	8.942
957	236411.084	4140919.114	9.393	1021	236398.107	4140964.327	8.936
958	236410.746	4140919.329	9.387	1022	236398.898	4140963.465	8.918

1023	236398.802	4140962.397	8.910							1079	341.2258	99.0580	12.806	1.300	1.615	211.2090	12.810	
1024	236399.166	4140960.604	8.897							1080	326.9579	99.3078	14.390	1.300	1.615	196.9411	14.396	
1025	236400.391	4140959.240	8.893							1081	312.4945	99.4075	16.586	1.300	1.615	182.4777	16.593	
1026	236398.384	4140959.720	8.783							1082	303.4129	99.4523	19.548	1.300	1.615	173.3961	19.556	
1027	236412.671	4140951.617	8.733							1083	315.7541	99.1838	12.436	1.300	1.615	185.7373	12.441	
1028	236425.205	4140944.504	8.829							1084	315.7544	99.6647	21.227	1.300	1.615	185.7376	21.236	
1029	236435.737	4140938.527	8.824							1085	319.9404	99.6567	20.018	1.300	1.615	189.9236	20.027	
1030	236440.921	4140935.560	8.787							1086	323.9162	99.6667	19.096	1.300	1.615	193.8994	19.104	
1031	236423.350	4140965.205	9.780							1087	4.2109	100.0087	27.324	1.300	1.615	274.1941	27.336	
1032	236428.682	4140963.038	9.804							1088	397.1137	99.2648	28.352	1.600	1.615	267.0969	28.363	
1033	236432.028	4140959.687	9.532							1089	399.0269	98.5992	28.462	1.900	1.615	269.0101	28.468	
1034	236435.229	4140957.162	9.307							1090	1.6265	98.6260	29.066	1.900	1.615	271.6097	29.072	
1035	236434.461	4140957.446	9.328							1091	7.4467	99.8368	26.764	1.300	1.615	277.4299	26.776	
1036	236432.769	4140957.171	9.100							1092	6.1982	99.8931	26.355	1.300	1.615	276.1814	26.367	
1037	236422.606	4140963.083	9.108							1093	2.8360	98.8866	31.325	1.710	1.615	272.8192	31.334	
9999	236329.766	4140931.750	14.663							1094	394.8217	99.5737	28.531	1.400	1.615	264.8049	28.543	
9999	236329.785	4140931.902	14.994							1095	380.6440	99.4318	26.122	1.400	1.615	250.6272	26.133	
Radiación desde la estación 8004										1096	377.0742	99.5298	24.818	1.400	1.615	247.0574	24.829	
X	236440.760	Desorientación	269.9832							1097	375.6750	103.2698		24.083	0.000	1.615	245.6582	24.062
Y	4140919.967	Nombre								1098	380.5123	99.6967	23.636	1.400	1.615	250.4955	23.646	
Z	8.964	Coef. anamorfosis	1.0004557948							1099	379.1268	99.7381	22.842	1.400	1.615	249.1100	22.852	
Visuales utilizadas										1100	376.1485	99.7744	21.988	1.400	1.615	246.1317	21.998	
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.			1101	381.3263	99.7764	21.800	1.400	1.615	251.3095	21.810	
1038	60.6808	101.1541	27.647	1.300	1.615	330.6640	27.655			1102	381.4012	99.7127	23.732	1.400	1.615	251.3844	23.743	
1039	59.1131	101.6818	17.047	1.300	1.615	329.0963	17.049			1103	377.0960	99.5932	23.807	1.400	1.615	247.0792	23.817	
1040	52.4619	104.3586	5.966	1.300	1.615	322.4451	5.955			1104	385.0958	99.9742	16.881	1.400	1.615	255.0790	16.889	
1041	139.9638	115.5398	2.187	1.300	1.615	9.9470	2.123			1105	377.7366	99.9410	20.520	1.400	1.615	247.7198	20.529	
1042	198.8266	114.2097	2.350	1.300	1.615	68.8098	2.293			1106	380.8366	99.8029	18.287	1.400	1.615	250.8198	18.295	
1043	277.6482	105.9610	4.320	1.300	1.615	147.6314		4.303		1107	366.1926	99.5392	24.441	1.400	1.615	236.1758	24.451	
1044	266.6502	101.3243	17.418	1.300	1.615	136.6334	17.422			1108	364.7003	99.3645	25.373	1.400	1.615	234.6835	25.383	
1045	265.4773	100.8234	26.301	1.300	1.615	135.4605	26.311			1109	352.6614	99.3790	25.372	1.400	1.615	222.6446	25.382	
1046	258.9945	100.8627	31.513	1.300	1.615	128.9777	31.524			1110	340.4485	99.5424	25.996	1.400	1.615	210.4317	26.007	
1047	260.9709	100.5551	43.129	1.300	1.615	130.9541	43.147			1111	339.6366	99.5532	26.078	1.400	1.615	209.6198	26.089	
1048	261.8863	100.4977	43.942	1.300	1.615	131.8695	43.961			1112	321.8235	99.1758	30.673	1.700	1.615	191.8067	30.684	
1049	262.6424	100.4708	44.099	1.300	1.615	132.6256	44.118			1113	320.2771	99.0832	32.403	1.700	1.615	190.2603	32.414	
1050	266.5404	100.3821	44.155	1.300	1.615	136.5236	44.174			1114	310.7678	98.9953	37.276	1.700	1.615	180.7510	37.288	
1051	286.3113	100.2947	24.469	1.300	1.615	156.2945	24.480			1115	312.4261	99.2497	34.885	1.700	1.615	182.4093	34.898	
1052	293.8039	100.3957	25.581	1.300	1.615	163.7871	25.592			1116	312.3810	99.2756	34.614	1.700	1.615	182.3642	34.627	
1053	301.8493	100.1807	25.499	1.300	1.615	171.8325	25.510			1117	310.9639	99.2961	33.435	1.700	1.615	180.9471	33.448	
1054	305.8470	99.8685	24.978	1.400	1.615	175.8302	24.989			1118	310.3479	99.2867	33.991	1.700	1.615	180.3311	34.004	
1055	312.1304	99.7429	22.680	1.400	1.615	182.1136	22.690			1119	310.0043	99.1608	35.348	1.700	1.615	179.9875	35.361	
1056	328.2964	99.7572	18.630	1.400	1.615	198.2796	18.638			1120	310.5895	99.0273	36.825	1.700	1.615	180.5727	36.837	
1057	363.5523	99.8506	15.908	1.400	1.615	233.5355	15.915			1121	311.8519	99.2812	33.361	1.700	1.615	181.8351	33.374	
1058	390.0463	99.6000	15.936	1.300	1.615	260.0295	15.943			1122	311.7466	99.2642	34.624	1.700	1.615	181.7298	34.637	
1059	366.6445	99.7390	14.543	1.300	1.615	236.6277	14.549			1123	310.8975	99.2682	34.433	1.700	1.615	180.8807	34.446	
1060	321.1234	99.6756	18.425	1.300	1.615	191.1066	18.433			1124	303.5433	99.4213	32.856	1.700	1.615	173.5265	32.870	
1061	305.7944	99.7540	23.251	1.300	1.615	175.7776	23.261			1125	303.4599	99.4327	32.461	1.700	1.615	173.4431	32.474	
1062	300.0116	99.7836	24.412	1.300	1.615	169.9948	24.423			1126	301.2761	99.1682	33.081	1.700	1.615	171.2593	33.093	
1063	293.3422	99.7434	24.113	1.300	1.615	163.3254	24.124			1127	301.3731	99.1477	33.301	1.700	1.615	171.3563	33.313	
1064	279.7442	100.2346	23.604	1.300	1.615	149.7274	23.615			1128	296.5000	99.1947	31.717	1.700	1.615	166.4832	31.729	
1065	284.1038	99.9434	23.296	1.300	1.615	154.0870	23.307			1129	298.6346	99.4107	31.054	1.700	1.615	168.6178	31.067	
1066	288.7643	100.6303	15.596	1.300	1.615	158.7475	15.602			1130	297.6608	99.4813	30.944	1.700	1.615	167.6440	30.957	
1067	290.3132	100.5564	15.701	1.300	1.615	160.2964	15.708			1131	298.2053	99.4283	30.104	1.700	1.615	168.1885	30.116	
1068	291.6484	100.6037	14.945	1.300	1.615	161.6316	14.951			1132	293.3291	99.3443	31.151	1.700	1.615	163.3123	31.163	
1069	290.3219	100.6496	14.768	1.300	1.615	160.3051	14.774			1133	296.9353	99.4597	30.544	1.700	1.615	166.9185	30.557	
1070	357.4720	102.0606	6.179	1.300	1.615	227.4552	6.179			1134	296.3674	99.4540	30.713	1.700	1.615	166.3506	30.726	
1071	357.7877	101.8364	6.446	1.300	1.615	227.7709	6.446			1135	294.5698	99.3483	31.387	1.700	1.615	164.5530	31.400	
1072	363.4995	101.8363	6.444	1.300	1.615	233.4827	6.444			1136	295.6370	99.3410	30.198	1.700	1.615	165.6202	30.210	
1073	363.0405	102.0321	6.159	1.300	1.615	233.0237	6.159			1137	297.0634	99.3628	29.133	1.700	1.615	167.0466	29.145	
1074	22.8809	101.5103	10.395	1.300	1.615	292.8641	10.397			1138	295.7540	99.3404	28.745	1.700	1.615	165.7372	28.757	
1075	390.1599	99.5107	14.790	1.300	1.615	260.1431	14.796			1139	295.3989	99.3392	25.752	1.700	1.615	165.3821	25.762	
1076	375.6742	99.5744	14.072	1.300	1.615	245.6574	14.078			1140	284.4159	99.3143	27.859	1.700	1.615	154.3991	27.870	
1077	371.0640	99.4072	6.623	1.300	1.615	241.0472	6.626			1141	279.8297	99.2986	25.360	1.700	1.615	149.8129	25.370	
1078	13.4837	99.6166	9.056	1.300	1.615	283.4669	9.060			1142	266.3300	100.2312		42.873	1.300	1.615	136.3132	42.892

1143	262.6310	100.3472	41.863	1.300	1.615	132.6142	41.881	1207	97.7035	101.5392	3.933	1.700	1.615	367.6867	3.934
1144	262.5307	100.3531	41.029	1.300	1.615	132.5139	41.047	1208	240.9441	100.9296	6.464	1.700	1.615	110.9273	6.466
1145	261.2882	100.3832	41.094	1.300	1.615	131.2714	41.112	1209	256.3550	100.1144	21.110	1.700	1.615	126.3382	21.120
1146	261.8982	100.3834	35.839	1.300	1.615	131.8814	35.855	1210	258.5226	99.9927	31.568	1.700	1.615	128.5058	31.582
1147	261.8267	100.4063	35.002	1.300	1.615	131.8099	35.017	1211	247.0827	101.0022	8.814	1.700	1.615	117.0659	8.817
1148	260.2938	100.4522	35.059	1.300	1.615	130.2770	35.074	1212	96.9896	100.2933	48.472	1.300	1.615	366.9728	48.493
1149	263.9516	100.4724	29.584	1.300	1.615	133.9348	29.597	1213	99.4019	100.2686	46.884	1.300	1.615	369.3851	46.905
1150	264.8768	100.4886	28.902	1.300	1.615	134.8600	28.914	1214	98.5956	100.2680	46.388	1.300	1.615	368.5788	46.409
1151	263.3143	100.5025	28.491	1.300	1.615	133.2975	28.503	1215	100.4677	100.2264	44.327	1.300	1.615	370.4509	44.347
1152	268.7251	103.5953	24.437	0.100	1.615	138.7083	24.409	1216	101.3356	100.2347	44.773	1.300	1.615	371.3188	44.793
1153	266.7989	103.8024	23.598	0.100	1.615	136.7821	23.567	1217	102.3353	100.2694	42.416	1.300	1.615	372.3185	42.435
1154	266.6845	103.7018	24.371	0.100	1.615	136.6677	24.341	1218	98.5702	100.2365	45.705	1.300	1.615	368.5534	45.725
1155	260.3081	100.5310	31.757	1.300	1.615	130.2913	31.770	1219	99.6752	100.2899	44.512	1.300	1.615	369.6584	44.532
1156	262.0514	100.3808	41.692	1.300	1.615	132.0346	41.710	1220	101.4165	100.2392	45.321	1.300	1.615	371.3997	45.341
1157	261.3868	100.4429	35.638	1.300	1.615	131.3700	35.653	1221	102.3509	100.2502	41.885	1.300	1.615	372.3341	41.904
1158	263.2929	100.5120	29.016	1.300	1.615	133.2761	29.028	1222	104.2321	100.2202	40.233	1.300	1.615	374.2153	40.251
1159	267.2508	100.6405	23.964	1.300	1.615	137.2340	23.974	1223	106.0123	100.2863	41.081	1.300	1.615	375.9955	41.099
1160	280.5914	100.1385	23.700	1.300	1.615	150.5746	23.711	1224	108.0957	100.3904	37.245	1.300	1.615	378.0789	37.261
1161	275.3131	100.6204	18.703	1.300	1.615	145.2963	18.711	1225	109.7954	100.4041	36.168	1.300	1.615	379.7786	36.184
1162	269.6231	104.8571	18.531	0.100	1.615	139.6063	18.485	1226	111.5836	100.3491	37.181	1.300	1.615	381.5668	37.197
1163	268.6082	100.5953	22.596	1.300	1.615	138.5914	22.605	1227	114.6033	100.2014	33.449	1.300	1.615	384.5865	33.464
1164	289.0864	100.6200	15.108	1.300	1.615	159.0696	15.114	1228	116.3558	100.2126	34.543	1.300	1.615	386.3390	34.558
1165	285.2655	101.3346	9.751	1.300	1.615	155.2487	9.753	1229	116.5608	100.3246	32.522	1.300	1.615	386.5440	32.536
1166	273.2979	100.9772	13.826	1.300	1.615	143.2811	13.831	1230	134.5050	100.4277	28.512	1.300	1.615	4.4882	28.524
1167	269.9311	101.2057	12.906	1.300	1.615	139.9143	12.910	1231	133.0459	100.4987	27.208	1.300	1.615	3.0291	27.220
1168	280.1998	101.7180	8.269	1.300	1.615	150.1830	8.270	1232	136.0428	100.5256	26.621	1.300	1.615	6.0260	26.632
1169	275.2061	102.2341	7.335	1.300	1.615	145.1893	7.334	1233	138.4367	100.4648	27.760	1.300	1.615	8.4199	27.772
1170	294.0203	105.2504	3.009	1.300	1.615	164.0035	3.000	1234	137.1801	100.5076	26.333	1.300	1.615	7.1633	26.344
1171	318.5240	105.1925	2.893	1.300	1.615	188.5072	2.885	1235	142.9001	100.5263	25.468	1.300	1.615	12.8833	25.479
1172	15.2883	104.7308	3.279	1.300	1.615	285.2715	3.271	1236	149.6611	100.4721	26.297	1.300	1.615	19.6443	26.308
1173	36.3381	104.7383	3.549	1.300	1.615	306.3213	3.541	1237	148.8833	100.4846	24.824	1.300	1.615	18.8665	24.835
1174	26.7979	105.5241	3.475	1.300	1.615	296.7811	3.463	1238	155.1871	100.4594	24.419	1.300	1.615	25.1703	24.429
1175	309.3407	105.7988	3.038	1.300	1.615	179.3239	3.027	1239	145.2124	100.5037	26.712	1.300	1.615	15.1956	26.723
1176	277.9509	102.3009	7.692	1.300	1.615	147.9341	7.690	1240	144.3626	100.5411	25.423	1.300	1.615	14.3458	25.434
1177	272.2402	101.2220	13.309	1.300	1.615	142.2234	13.313	1241	147.7293	100.5298	25.006	1.300	1.615	17.7125	25.016
1178	183.9728	115.1553	1.458	1.300	1.615	53.9560	1.418	1242	156.6514	100.4833	24.399	1.300	1.615	26.6346	24.409
1179	342.9967	101.9687	5.970	1.300	1.615	212.9799	5.970	1243	156.9581	100.4188	25.834	1.300	1.615	26.9413	25.845
1180	330.2945	102.2091	5.734	1.300	1.615	200.2777	5.733	1244	160.4297	100.3869	25.725	1.300	1.615	30.4129	25.736
1181	360.0124	102.0180	6.263	1.300	1.615	229.9956	6.263	1245	171.1066	100.3866	23.962	1.300	1.615	41.0898	23.972
1182	300.7981	100.9301	10.917	1.300	1.615	170.7813	10.921	1246	170.4467	100.3024	25.827	1.300	1.615	40.4299	25.838
1183	298.6496	101.0475	10.689	1.300	1.615	168.6328	10.692	1247	182.7891	100.4235	26.935	1.300	1.615	52.7723	26.947
1184	311.1523	101.2213	8.920	1.300	1.615	181.1355	8.922	1248	185.9351	100.4244	27.366	1.300	1.615	55.9183	27.378
1185	4.1165	101.9429	7.727	1.300	1.615	274.0997	7.727	1249	183.9535	100.3645	25.596	1.300	1.615	53.9367	25.607
1186	6.5029	102.1571	7.361	1.300	1.615	276.4861	7.360	1250	186.1554	100.3628	29.137	1.300	1.615	56.1386	29.150
1187	20.5909	101.7688	9.182	1.300	1.615	290.5741	9.183	1251	184.6918	100.3207	29.772	1.300	1.615	54.6750	29.785
1188	31.7515	101.7739	9.292	1.300	1.615	301.7347	9.293	1252	169.0244	100.3991	28.248	1.300	1.615	39.0076	28.260
1189	42.6304	101.9505	8.709	1.300	1.615	312.6136	8.709	1253	150.3451	100.4190	28.802	1.300	1.615	20.3283	28.814
1190	48.6661	101.4970	12.835	1.300	1.615	318.6493	12.837	1254	151.9726	100.3739	28.229	1.300	1.615	21.9558	28.241
1191	46.5683	102.0255	8.618	1.300	1.615	316.5515	8.618	1255	138.5385	100.3951	30.391	1.300	1.615	8.5217	30.404
1192	51.1646	102.4053	7.583	1.300	1.615	321.1478	7.581	1256	137.0530	100.3244	33.144	1.300	1.615	7.0362	33.159
1193	55.8625	101.8958	12.608	1.300	1.615	325.8457	12.608	1257	123.2306	100.3374	34.853	1.300	1.615	393.2138	34.868
1194	52.4802	101.5147	13.477	1.300	1.615	322.4634	13.479	1258	126.2676	100.2891	35.158	1.300	1.615	396.2508	35.174
1195	58.0643	101.2161	18.232	1.300	1.615	328.0475	18.237	1259	147.2849	99.7446	33.232	1.300	1.615	17.2681	33.247
1196	55.5488	105.0359	19.176	0.100	1.615	325.5320	19.125	1260	156.2032	99.3418	34.614	1.300	1.615	26.1864	34.628
1197	59.1954	100.9272	23.624	1.300	1.615	329.1786	23.632	1261	157.3101	99.3192	35.470	1.300	1.615	27.2933	35.484
1198	57.2570	100.8487	24.492	1.300	1.615	327.2402	24.501	1262	163.7419	98.9683	33.385	1.300	1.615	33.7251	33.396
1199	58.2515	100.9811	24.095	1.300	1.615	328.2347	24.103	1263	161.7019	99.0758	33.467	1.300	1.615	31.6851	33.479
1200	57.1444	101.2362	18.703	1.300	1.615	327.1276	18.708	1264	195.4244	100.2321	33.122	1.300	1.615	65.4076	33.137
1201	53.6143	102.1418	13.021	1.300	1.615	323.5975	13.020	1265	203.2608	100.6574	25.216	1.300	1.615	73.2440	25.226
1202	50.4924	102.9917	8.136	1.300	1.615	320.4756	8.131	1266	204.3436	100.7529	22.420	1.300	1.615	74.3268	22.429
1203	69.7705	102.0394	18.398	1.300	1.615	339.7537	18.397	1267	170.3518	101.0664	17.899	1.300	1.615	40.3350	17.905
1204	67.3981	100.3836	30.542	1.700	1.615	337.3813	30.555	1268	163.7795	100.9527	20.299	1.300	1.615	33.7627	20.306
1205	68.7113	100.4279	24.107	1.700	1.615	338.6945	24.117	1269	132.8466	100.8134	22.886	1.300	1.615	2.8298	22.895
1206	72.2944	100.6697	13.117	1.700	1.615	342.2776	13.122	1270	131.7425	100.9731	20.265	1.300	1.615	1.7257	20.272

1271	126.1826	100.9457	21.204	1.300	1.615	396.1658	21.211
1272	121.7395	100.9641	21.618	1.300	1.615	391.7227	21.625
1273	127.6722	100.8400	23.547	1.300	1.615	397.6554	23.556
1274	124.3966	100.8389	23.932	1.300	1.615	394.3798	23.941
1275	111.3890	100.8141	25.398	1.300	1.615	381.3722	25.407
1276	108.0624	100.8021	26.135	1.300	1.615	378.0456	26.145
1277	104.6102	100.7874	27.577	1.300	1.615	374.5934	27.587
1278	100.7133	100.7855	25.537	1.300	1.615	370.6965	25.547
1279	105.1631	100.8450	23.918	1.300	1.615	375.1463	23.927
1280	108.8189	100.9013	23.223	1.300	1.615	378.8021	23.231
1281	117.4947	100.9787	22.042	1.300	1.615	387.4779	22.049
1282	116.3811	101.0317	19.302	1.300	1.615	386.3643	19.308
1283	128.6855	101.2530	16.761	1.300	1.615	398.6687	16.765
1284	131.5574	101.1216	18.106	1.300	1.615	1.5406 18.111	
1285	115.8160	100.8036	25.827	1.300	1.615	385.7992	25.837
1286	109.2785	100.7176	29.075	1.300	1.615	379.2617	29.086
1287	107.7687	100.6911	29.862	1.300	1.615	377.7519	29.874
1288	110.8585	100.6599	29.827	1.300	1.615	380.8417	29.839
1289	97.2545 100.5982	37.610	1.300	1.615	367.2377	37.625	
1290	96.3151 100.6319	38.495	1.300	1.615	366.2983	38.511	
1291	97.9695 100.5439	39.086	1.300	1.615	367.9527	39.102	
1292	93.2903 100.5679	41.875	1.300	1.615	363.2735	41.892	
1293	92.6106 100.6092	42.785	1.300	1.615	362.5938	42.802	
1294	94.1285 100.4882	43.317	1.300	1.615	364.1117	43.335	
1295	90.0670 100.5510	46.226	1.300	1.615	360.0502	46.245	
1296	89.4505 100.5027	47.176	1.300	1.615	359.4337	47.196	
1297	89.4505 100.5026	47.156	1.300	1.615	359.4337	47.176	
1297	91.0296 100.4462	47.725	1.300	1.615	361.0128	47.746	
1298	87.8245 100.4915	49.218	1.300	1.615	357.8077	49.239	
1299	88.2503 100.4920	49.244	1.300	1.615	358.2335	49.265	
1300	89.2489 100.4548	49.186	1.300	1.615	359.2321	49.207	
1301	89.8989 100.4412	49.824	1.300	1.615	359.8821	49.845	
1302	90.1535 100.4308	50.018	1.300	1.615	360.1367	50.040	
1303	83.9537 100.8408	42.356	1.300	1.615	353.9369	42.372	
1304	93.0121 100.9806	30.115	1.300	1.615	362.9953	30.125	
1305	117.4593	101.4978	18.079	1.300	1.615	387.4425	18.082
1306	130.8986	102.0401	15.627	1.300	1.615	0.8818 15.626	
1307	190.0515	101.8931	15.069	1.300	1.615	60.0347 15.069	
1308	220.9280	101.1596	22.357	1.300	1.615	90.9112 22.363	
1309	238.6232	100.5695	36.622	1.300	1.615	108.6064	36.637
1310	243.8709	100.4192	46.234	1.300	1.615	113.8541	46.254
1311	247.2351	100.3434	56.506	1.300	1.615	117.2183	56.531
1312	247.4852	100.2767	57.847	1.300	1.615	117.4684	57.873
1313	248.3869	100.2522	64.451	1.300	1.615	118.3701	64.480
1314	249.5059	100.1739	79.043	1.300	1.615	119.4891	79.079
1315	249.8847	100.1636	85.353	1.300	1.615	119.8679	85.391
1316	250.4184	100.1403	96.533	1.300	1.615	120.4016	96.577
1317	250.7648	100.1335	106.393	1.300	1.615	120.7480	106.441
1318	254.2013	100.0749	104.082	1.300	1.615	124.1845	104.129
1319	254.2425	100.0841	92.366	1.300	1.615	124.2257	92.408
1320	254.1806	100.1007	78.704	1.300	1.615	124.1638	78.740
1321	254.1091	100.1455	65.641	1.300	1.615	124.0923	65.671
1322	253.9398	100.1890	58.035	1.300	1.615	123.9230	58.061
1323	253.4765	100.2182	53.710	1.300	1.615	123.4597	53.734
1324	252.9891	100.2393	50.502	1.300	1.615	122.9723	50.525
1325	249.9966	100.3496	38.824	1.300	1.615	119.9798	38.841
1326	244.3911	100.5718	27.348	1.300	1.615	114.3743	27.359
1327	233.0223	101.0796	17.422	1.300	1.615	103.0055	17.427
1328	209.3803	101.9829	10.573	1.300	1.615	79.3635 10.573	
1329	115.7034	102.0678	10.712	1.300	1.615	385.6866	10.711
1330	81.9786 100.9047	26.941	1.300	1.615	351.9618	26.951	
1331	86.6472 100.8515	33.473	1.300	1.615	356.6304	33.485	
1332	81.3315 100.7506	32.712	1.300	1.615	351.3147	32.725	
1333	90.2814 100.5101	47.137	1.300	1.615	360.2646	47.157	

1334	99.4510	100.3308	45.246	1.300	1.615	369.4342	45.266
1335	93.6703	100.6238	42.630	1.300	1.615	363.6535	42.647
1336	97.2313	100.7049	38.450	1.300	1.615	367.2145	38.465
1337	103.6573	100.2226	41.681	1.300	1.615	373.6405	41.700
1338	110.0888	100.4264	37.280	1.300	1.615	380.0720	37.296
1339	108.6705	100.7806	29.974	1.300	1.615	378.6537	29.985
1340	116.0404	100.3340	33.263	1.300	1.615	386.0236	33.278
1341	134.3146	100.4868	27.698	1.300	1.615	4.2978	27.710
1342	145.9217	100.6989	25.804	1.300	1.615	15.9049	25.814
1343	158.0736	100.6003	25.005	1.300	1.615	28.0568	25.015
1344	171.3629	100.4844	25.030	1.300	1.615	41.3461	25.041
1345	184.4377	100.5059	26.674	1.300	1.615	54.4209	26.685
1346	186.1945	101.1487	17.130	1.300	1.615	56.1777	17.135
1347	188.4729	101.2857	15.628	1.300	1.615	58.4561	15.632
1348	202.8051	101.1006	17.725	1.300	1.615	72.7883	17.730
1349	205.3490	100.8865	20.634	1.300	1.615	75.3322	20.641
1350	203.2022	100.8375	21.606	1.300	1.615	73.1854	21.614
1351	208.1825	100.7941	21.408	1.300	1.615	78.1657	21.416
1352	206.8826	100.9410	21.587	1.300	1.615	76.8658	21.594
1353	192.3960	100.4013	28.617	1.300	1.615	62.3792	28.629
1354	196.7324	100.4123	28.071	1.300	1.615	66.7156	28.083
1355	195.2193	100.3926	28.471	1.300	1.615	65.2025	28.483
1356	205.4498	100.2326	35.555	1.300	1.615	75.4330	35.571
1357	203.2272	100.1877	36.766	1.300	1.615	73.2104	36.783
1358	201.4198	100.1927	35.796	1.300	1.615	71.4030	35.812
1359	201.8543	100.2336	34.517	1.300	1.615	71.8375	34.532
1360	195.4930	100.2325	33.140	1.300	1.615	65.4762	33.155
1360	206.6548	102.4951	33.089	0.100	1.615	76.6380	33.079
1361	210.5159	100.2949	32.908	1.300	1.615	80.4991	32.923
1362	209.1018	100.2708	33.044	1.300	1.615	79.0850	33.059
1363	220.2771	100.6672	27.515	1.300	1.615	90.2603	27.526
1364	222.7835	100.5342	27.539	1.300	1.615	92.7667	27.551
1365	218.8632	100.5298	27.318	1.300	1.615	88.8464	27.329
1366	213.8119	100.6688	23.495	1.300	1.615	83.7951	23.504
1367	217.5988	100.5337	25.820	1.300	1.615	87.5820	25.831

Coordenadas calculadas

Número	X	Y	Z
1038	236416.252		4140932.778
1039	236425.461		4140927.490
1040	236435.172		4140922.023
1041	236441.091		4140922.064
1042	236442.783		4140921.046
1043	236443.914		4140917.039
1044	236455.377		4140910.486
1045	236463.094		4140906.058
1046	236469.075		4140906.108
1047	236478.907		4140899.805
1048	236479.327		4140898.868
1049	236479.210		4140898.334
1050	236477.862		4140895.991
1051	236456.277		4140901.033
1052	236454.546		4140898.405
1053	236451.683		4140896.913
1054	236450.021		4140896.757
1055	236447.052		4140898.166
1056	236441.264		4140901.335
1057	236432.759		4140906.209
1058	236427.858		4140910.602
1059	236432.844		4140907.760
1060	236443.327		4140901.713
1061	236449.399		4140898.369
1062	236451.850		4140898.207
1063	236453.902		4140899.737
1064	236457.530		4140903.340

1065	236456.149	4140902.463	9.300	1129	236455.462	4140892.599	9.166
1066	236450.178	4140907.527	9.124	1130	236455.826	4140892.923	9.131
1067	236449.934	4140907.216	9.142	1131	236455.191	4140893.533	9.149
1068	236449.236	4140907.650	9.137	1132	236457.742	4140893.836	9.200
1069	236449.387	4140907.973	9.128	1133	236455.934	4140893.444	9.138
1070	236438.178	4140914.354	9.079	1134	236456.255	4140893.434	9.142
1071	236438.037	4140914.124	9.093	1135	236457.354	4140893.310	9.200
1072	236437.525	4140914.393	9.093	1136	236456.293	4140894.056	9.191
1073	236437.707	4140914.618	9.082	1137	236455.182	4140894.640	9.170
1074	236430.429	4140918.804	9.032	1138	236455.501	4140895.275	9.177
1075	236428.770	4140911.297	9.392	1139	236454.089	4140897.920	9.146
1076	236431.507	4140909.357	9.373	1140	236459.060	4140898.946	9.179
1077	236436.778	4140914.671	9.340	1141	236458.752	4140902.080	9.158
1078	236432.004	4140917.640	9.333	1142	236476.862	4140896.806	9.123
1079	236438.516	4140907.354	9.468	1143	236477.265	4140899.437	9.051
1080	236441.452	4140905.588	9.435	1144	236476.569	4140899.903	9.051
1081	236445.270	4140903.998	9.433	1145	236477.011	4140900.575	9.032
1082	236448.697	4140902.093	9.447	1146	236472.212	4140902.752	9.063
1083	236443.524	4140907.837	9.438	1147	236471.496	4140903.189	9.055
1084	236445.478	4140899.261	9.391	1148	236471.942	4140903.908	9.030
1085	236443.917	4140900.190	9.387	1149	236466.251	4140904.927	9.059
1086	236442.588	4140900.950	9.379	1150	236465.447	4140904.913	9.057
1087	236415.639	4140909.187	9.275	1151	236465.453	4140905.729	9.054
1088	236416.102	4140905.952	9.306	1152	236460.795	4140906.023	9.099
1089	236415.599	4140906.650	9.305	1153	236460.502	4140907.096	9.070
1090	236414.531	4140907.427	9.306	1154	236461.174	4140906.709	9.063
1091	236415.650	4140910.671	9.347	1155	236469.002	4140905.414	9.014
1092	236416.217	4140910.330	9.323	1156	236477.300	4140899.853	9.030
1093	236412.239	4140906.991	9.417	1157	236472.172	4140903.101	9.031
1094	236416.469	4140904.978	9.370	1158	236465.913	4140905.475	9.045
1095	236422.101	4140901.671	9.412	1159	236460.749	4140906.731	9.038
1096	236424.034	4140901.618	9.362	1160	236457.374	4140903.050	9.227
1097	236424.945	4140901.832	9.342	1161	236454.931	4140907.749	9.097
1098	236423.910	4140903.377	9.291	1162	236455.782	4140909.194	9.066
1099	236424.829	4140903.583	9.273	1163	236459.338	4140907.088	9.068
1100	236426.179	4140903.496	9.257	1164	236449.822	4140907.870	9.132
1101	236425.025	4140904.865	9.255	1165	236447.066	4140912.526	9.074
1102	236423.611	4140903.547	9.286	1166	236451.516	4140911.272	9.067
1103	236424.709	4140902.371	9.331	1167	236451.215	4140912.393	9.034
1104	236427.905	4140909.014	9.186	1168	236446.591	4140914.102	9.056
1105	236426.773	4140904.940	9.198	1169	236446.323	4140915.187	9.021
1106	236427.658	4140907.198	9.235	1170	236442.368	4140917.434	9.031
1107	236427.602	4140899.358	9.356	1171	236441.278	4140917.129	9.043
1108	236427.605	4140898.258	9.432	1172	236437.576	4140919.217	9.035
1109	236431.921	4140896.173	9.426	1173	236437.237	4140920.318	9.015
1110	236436.518	4140894.308	9.366	1174	236437.301	4140919.792	8.978
1111	236436.833	4140894.175	9.362	1175	236441.726	4140917.098	9.002
1112	236444.699	4140889.536	9.276	1176	236446.372	4140914.708	9.001
1113	236445.700	4140887.931	9.345	1177	236451.251	4140911.771	9.023
1114	236451.864	4140884.370	9.467	1178	236441.823	4140920.905	8.935
1115	236450.281	4140886.392	9.290	1179	236439.552	4140914.121	9.094
1116	236450.231	4140886.659	9.273	1180	236440.735	4140914.234	9.080
1117	236450.622	4140888.005	9.249	1181	236437.918	4140914.386	9.080
1118	236451.100	4140887.573	9.260	1182	236445.599	4140910.176	9.119
1119	236451.694	4140886.339	9.345	1183	236445.818	4140910.546	9.103
1120	236451.828	4140884.831	9.441	1184	236443.366	4140911.433	9.108
1121	236450.154	4140887.942	9.256	1185	236433.664	4140916.909	9.043
1122	236450.565	4140886.746	9.279	1186	236433.897	4140917.310	9.029
1123	236450.951	4140887.062	9.275	1187	236431.678	4140918.612	9.024
1124	236454.038	4140889.898	9.178	1188	236431.471	4140920.220	9.020
1125	236453.918	4140890.277	9.168	1189	236432.222	4140921.681	9.012
1126	236455.198	4140890.189	9.311	1190	236428.470	4140923.674	8.977
1127	236455.248	4140889.969	9.325	1191	236432.432	4140922.182	9.005
1128	236456.704	4140892.535	9.280	1192	236433.594	4140922.439	8.992

1193	236429.177	4140924.946	8.903	1257	236437.051	4140954.637	9.094
1194	236428.112	4140924.625	8.958	1258	236438.690	4140955.079	9.119
1195	236424.265	4140927.744	8.931	1259	236449.668	4140951.998	9.412
1196	236423.153	4140927.433	8.963	1260	236454.606	4140951.706	9.637
1197	236419.567	4140930.423	8.935	1261	236455.511	4140952.239	9.658
1198	236418.468	4140930.133	8.952	1262	236457.636	4140948.785	9.820
1199	236418.989	4140930.310	8.908	1263	236456.744	4140949.384	9.765
1200	236423.725	4140927.700	8.916	1264	236469.124	4140937.099	9.158
1201	236428.625	4140924.683	8.841	1265	236463.791	4140930.259	9.018
1202	236433.047	4140922.537	8.897	1266	236461.390	4140928.768	9.014
1203	236425.835	4140930.723	8.690	1267	236451.361	4140934.396	8.979
1204	236415.323	4140936.895	8.695	1268	236451.032	4140937.483	8.975
1205	236420.962	4140933.740	8.717	1269	236441.778	4140942.839	8.986
1206	236430.427	4140928.055	8.741	1270	236441.310	4140940.231	8.969
1207	236438.848	4140923.404	8.784	1271	236439.484	4140941.140	8.964
1208	236447.132	4140918.862	8.784	1272	236437.957	4140941.410	8.951
1209	236460.098	4140911.476	8.841	1273	236439.893	4140943.506	8.968
1210	236469.229	4140906.293	8.882	1274	236438.650	4140943.814	8.963
1211	236449.262	4140917.631	8.740	1275	236433.432	4140944.294	8.954
1212	236416.716	4140962.079	9.056	1276	236431.922	4140944.572	8.950
1213	236419.063	4140961.552	9.081	1277	236430.041	4140945.386	8.938
1214	236418.773	4140960.837	9.084	1278	236429.412	4140942.855	8.964
1215	236420.908	4140959.622	9.121	1279	236431.655	4140942.093	8.961
1216	236421.256	4140960.290	9.114	1280	236433.167	4140941.922	8.950
1217	236422.885	4140958.453	9.099	1281	236436.451	4140941.591	8.940
1218	236419.081	4140960.226	9.109	1282	236436.656	4140938.834	8.966
1219	236420.331	4140959.536	9.076	1283	236440.410	4140936.728	8.949
1220	236421.069	4140960.809	9.109	1284	236441.199	4140938.073	8.960
1221	236423.118	4140957.975	9.114	1285	236435.045	4140945.163	8.953
1222	236424.900	4140956.961	9.140	1286	236431.452	4140947.523	8.951
1223	236425.628	4140958.179	9.094	1287	236430.532	4140948.035	8.955
1224	236428.182	4140955.041	9.050	1288	236431.916	4140948.465	8.970
1225	236429.459	4140954.340	9.049	1289	236422.241	4140952.719	8.925
1226	236430.140	4140955.616	9.075	1290	236421.312	4140953.206	8.897
1227	236432.737	4140952.455	9.173	1291	236421.897	4140954.218	8.945
1228	236433.401	4140953.733	9.164	1292	236417.911	4140955.079	8.905
1229	236433.934	4140951.779	9.113	1293	236417.033	4140955.591	8.869
1230	236442.770	4140948.420	9.087	1294	236417.604	4140956.597	8.947
1231	236442.055	4140947.155	9.066	1295	236413.608	4140957.401	8.879
1232	236443.278	4140946.480	9.059	1296	236412.681	4140957.901	8.906
1233	236444.423	4140947.496	9.076	1297	236412.693	4140957.885	8.907
1234	236443.718	4140946.144	9.069	1297	236413.314	4140959.035	8.944
1235	236445.881	4140944.926	9.068	1298	236410.464	4140958.782	8.899
1236	236448.750	4140945.032	9.084	1299	236410.709	4140959.004	8.898
1237	236448.013	4140943.719	9.090	1300	236411.359	4140959.424	8.928
1238	236450.169	4140942.512	9.103	1301	236411.387	4140960.238	8.934
1239	236447.079	4140945.932	9.067	1302	236411.435	4140960.513	8.940
1240	236446.443	4140944.757	9.063	1303	236412.708	4140951.722	8.720
1241	236447.631	4140944.021	9.071	1304	236424.219	4140945.144	8.815
1242	236450.677	4140942.271	9.094	1305	236437.217	4140937.698	8.853
1243	236451.374	4140943.532	9.109	1306	236440.977	4140935.591	8.778
1244	236452.593	4140942.822	9.122	1307	236452.956	4140928.818	8.831
1245	236455.181	4140939.117	9.133	1308	236462.896	4140923.149	8.872
1246	236456.089	4140940.767	9.156	1309	236477.063	4140915.029	8.951
1247	236460.626	4140938.173	9.100	1310	236485.923	4140909.980	8.974
1248	236461.833	4140937.445	9.096	1311	236495.236	4140904.863	8.974
1249	236459.952	4140936.920	9.132	1312	236496.468	4140904.285	9.028
1250	236463.261	4140938.499	9.113	1313	236502.574	4140901.618	9.024
1251	236463.310	4140939.426	9.129	1314	236516.162	4140896.134	9.063
1252	236457.013	4140943.086	9.102	1315	236522.027	4140893.748	9.060
1253	236449.806	4140947.325	9.089	1316	236532.420	4140889.544	9.067
1254	236450.308	4140946.545	9.113	1317	236541.598	4140885.888	9.056
1255	236444.818	4140950.099	9.090	1318	236537.466	4140881.354	9.157
1256	236444.418	4140952.923	9.110	1319	236526.558	4140885.645	9.157

1320	236513.896	4140890.793	9.155							486	59.8123	101.0160	7.777	1.500	1.560	378.2385	7.780		
1321	236501.784	4140895.703	9.129							487	54.4545	99.8904	8.005	1.500	1.560	372.8807	8.009		
1322	236494.770	4140898.658	9.107							488	50.4238	99.1684	7.842	1.500	1.560	368.8500	7.845		
1323	236490.887	4140900.611	9.095							489	51.5687	98.9350	7.647	1.500	1.560	369.9949	7.649		
1324	236488.031	4140902.128	9.089							490	55.1001	98.9248	7.707	1.500	1.560	373.5263	7.709		
1325	236477.704	4140907.976	9.066							491	57.9382	98.8780	7.590	1.500	1.560	376.3644	7.592		
1326	236467.425	4140913.842	9.033							492	165.4654		99.9263	9.361	1.500	1.560	83.8916	9.365	
1327	236458.168	4140919.144	8.983							493	189.6968		99.8515	22.345	1.500	1.560	108.1230	22.355	
1328	236450.782	4140923.334	8.950							494	196.7582		99.9534	40.211	1.500	1.560	115.1844	40.229	
1329	236438.372	4140930.408	8.931							495	182.4396		97.3954	35.743	1.700	1.560	100.8658	35.729	
1330	236422.300	4140939.602	8.896							496	184.1285		97.3698	35.416	1.700	1.560	102.5547	35.402	
1331	236419.673	4140945.978	8.831							497	183.5385		97.2862	34.468	1.700	1.560	101.9647	34.452	
1332	236418.103	4140943.579	8.893							498	181.8142		97.3016	34.799	1.700	1.560	100.2404	34.784	
1333	236413.201	4140958.232	8.901							499	184.5795		100.2341		35.316	1.500	1.560	103.0057	35.332
1334	236419.852	4140960.115	9.044							500	183.9852		100.2325		34.334	1.500	1.560	102.4114	34.349
1335	236417.713	4140955.850	8.861							501	177.0584		100.2511		25.844	1.500	1.560	95.4846	25.856
1336	236421.815	4140953.443	8.853							502	175.6243		100.2512		24.730	1.500	1.560	94.0505	24.741
1337	236423.984	4140958.143	9.133							503	152.1785		99.0977	14.702	1.500	1.560	70.6047	14.707	
1338	236429.275	4140955.450	9.029							504	137.8034		103.5672		12.415	1.500	1.560	56.2296	12.401
1339	236430.893	4140948.282	8.911							505	134.6956		104.1151		12.330	1.500	1.560	53.1218	12.310
1340	236433.513	4140952.446	9.104							506	131.5772		104.3757		12.781	1.500	1.560	50.0034	12.757
1341	236442.630	4140947.613	9.067							1368	366.7112		100.4688		39.080	1.300	1.620	285.1374	39.097
1342	236447.143	4140944.979	8.996							1369	365.4458		100.7667		33.715	1.300	1.620	283.8720	33.728
1343	236451.432	4140942.592	9.043							1370	369.8566		100.9240		31.543	1.300	1.620	288.2828	31.554
1344	236455.904	4140939.909	9.088							1371	371.8171		101.0168		31.145	1.300	1.620	290.2433	31.155
1345	236460.894	4140937.481	9.067							1372	373.6069		101.0335		31.544	1.300	1.620	292.0331	31.554
1346	236453.994	4140930.852	8.970							1373	368.2327		100.4917		34.395	1.300	1.620	286.6589	34.410
1347	236453.180	4140929.459	8.963							1374	368.3174		100.5690		33.596	1.300	1.620	286.7436	33.610
1348	236456.896	4140927.317	8.972							1375	366.5653		99.7777	51.459	1.700	1.620	284.9915	51.482	
1349	236459.871	4140927.766	8.991							1376	365.8630		99.6446	52.362	1.700	1.620	284.2892	52.385	
1350	236460.485	4140928.804	8.995							1377	352.4226		99.7296	41.679	1.700	1.620	270.8488	41.698	
1351	236460.929	4140927.169	9.012							1378	345.0553		99.5699	39.533	1.700	1.620	263.4815	39.550	
1352	236460.945	4140927.642	8.960							1379	344.1696		99.7889	38.073	1.700	1.620	262.5958	38.090	
1353	236464.535	4140935.918	9.098							1380	332.4987		99.7084	34.765	1.700	1.620	250.9249	34.780	
1354	236465.092	4140933.990	9.097							1381	331.0985		99.7077	34.701	1.700	1.620	249.5247	34.716	
1355	236465.094	4140934.772	9.103							1382	330.1385		99.7269	35.398	1.700	1.620	248.5647	35.414	
1356	236473.715	4140933.355	9.149							1383	327.5086		99.9239	40.043	1.700	1.620	245.9348	40.061	
1357	236474.334	4140934.992	9.170							1384	327.4819		99.7817	43.364	1.700	1.620	245.9081	43.383	
1358	236473.020	4140935.518	9.171							1385	330.1156		99.6149	38.434	1.700	1.620	248.5418	38.451	
1359	236471.969	4140934.750	9.152							1386	340.4417		99.6919	41.210	1.700	1.620	258.8679	41.228	
1360	236469.158	4140937.078	9.158							1387	342.0027		99.3679	41.791	1.700	1.620	260.4289	41.808	
1360	236471.637	4140931.835	9.182							1388	344.1072		99.5321	39.182	1.700	1.620	262.5334	39.199	
1361	236472.150	4140929.895	9.126							1389	343.6412		99.5335	39.001	1.700	1.620	262.0674	39.018	
1362	236472.051	4140930.633	9.138							1390	338.6130		99.5689	37.350	1.700	1.620	257.0392	37.366	
1363	236467.965	4140924.162	8.990							1391	338.3677		99.5617	37.703	1.700	1.620	256.7939	37.719	
1364	236468.133	4140923.090	9.048							1392	332.5051		99.5652	35.798	1.700	1.620	250.9313	35.813	
1365	236467.671	4140924.730	9.051							1393	331.9377		99.5323	35.699	1.700	1.620	250.3639	35.714	
1366	236463.507	4140925.885	9.032							1394	331.7283		99.5135	36.051	1.700	1.620	250.1545	36.066	
1367	236466.101	4140924.973	9.062							1395	351.7316		99.4872	46.257	1.700	1.620	270.1578	46.276	
Radiación desde la estación 8005										1396	329.2182		99.6882	38.542	1.700	1.620	247.6444	38.559	
X	236510.103	Desorientación	318.4262							1397	329.6878		99.7044	34.293	1.700	1.620	248.1140	34.308	
Y	4140903.869	Nombre								1398	328.4531		99.7083	34.119	1.700	1.620	246.8793	34.134	
Z	9.096	Coef. anamorfosis	1.0004553446							1399	329.0861		99.7079	32.919	1.700	1.620	247.5123	32.934	
Visuales utilizadas										1400	322.7467		98.9650	35.784	2.150	1.620	241.1729	35.795	
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.			1401	344.9679		99.0381	37.884	2.150	1.620	263.3941	37.897	
477	192.1428	100.7108	34.032	1.300	1.560	110.5690	34.045			1402	348.9089		98.8415	31.949	2.150	1.620	267.3351	31.958	
478	188.9876	100.6993	34.529	1.300	1.560	107.4138	34.543			1403	318.6862		100.5256		35.304	1.300	1.620	237.1124	35.319
479	196.3569	100.4219	40.236	1.300	1.560	114.7831	40.253			1404	319.9126		100.4922		32.603	1.300	1.620	238.3388	32.617
480	194.5707	100.2467	33.753	1.500	1.560	112.9969	33.768			1405	321.9073		98.7031	30.568	2.150	1.620	240.3335	30.576	
481	188.2905	100.2434	21.623	1.500	1.560	106.7167	21.633			1406	332.5870		98.7337	27.792	2.150	1.620	251.0132	27.799	
482	175.6030	100.2264	12.792	1.500	1.560	94.0292	12.798			1407	348.3214		98.8030	30.760	2.150	1.620	266.7476	30.769	
483	165.9712	102.9401	9.971	1.500	1.560	84.3974	9.965			1408	352.9061		100.6446		31.365	1.300	1.620	271.3323	31.378
484	131.1874	107.5926	6.403	1.500	1.560	49.6136	6.360			1409	349.4608		101.4984		20.898	1.300	1.620	267.8870	20.902
485	100.7831	107.9838	5.895	1.500	1.560	19.2093	5.851			1410	307.1048		101.7395		16.528	1.300	1.620	225.5310	16.529

1411	258.5462	101.1473	22.440	1.300	1.620	176.9724	22.447	1474	292.1972	100.3051	17.969	1.500	1.620	210.6234	17.977
1412	234.3974	100.3562	38.098	1.500	1.620	152.8236	38.115	1475	293.8577	100.3055	19.367	1.500	1.620	212.2839	19.376
1413	253.4233	101.9417	50.408	0.000	1.620	171.8495	50.407	1476	354.0662	100.3117	24.677	1.500	1.620	272.4924	24.688
1414	266.0846	100.3016	42.259	1.300	1.620	184.5108	42.278	1477	343.5535	100.3561	22.648	1.500	1.620	261.9797	22.658
1415	285.2379	100.3904	36.114	1.300	1.620	203.6641	36.130	1478	324.9285	98.3687	21.388	2.150	1.620	243.3547	21.391
1416	300.2164	100.3515	34.447	1.300	1.620	218.6426	34.462	1479	302.3559	97.9789	17.573	2.150	1.620	220.7821	17.572
1417	310.6223	100.3823	34.567	1.300	1.620	229.0485	34.582	1480	284.5113	98.7187	24.747	2.150	1.620	202.9375	24.753
1418	313.7294	99.0856	40.870	2.150	1.620	232.1556	40.884	1481	281.8701	98.3077	18.906	2.150	1.620	200.2963	18.908
1419	310.9701	98.9380	41.659	2.150	1.620	229.3963	41.672	1482	264.6030	98.3454	22.120	2.150	1.620	183.0292	22.123
1420	306.6191	98.7376	34.520	2.150	1.620	225.0453	34.529	1483	273.6033	99.0184	27.520	2.150	1.620	192.0295	27.529
1421	288.8088	98.8107	35.738	2.150	1.620	207.2350	35.748	1484	264.6986	98.3576	22.154	2.150	1.620	183.1248	22.157
1422	267.0556	98.9580	41.884	2.150	1.620	185.4818	41.897	1485	253.2189	98.6394	25.998	2.150	1.620	171.6451	26.004
1423	253.6587	101.8353	50.452	0.000	1.620	172.0849	50.454	1486	265.2424	99.0770	30.992	2.150	1.620	183.6686	31.003
1423	253.6589	101.8433	50.453	0.000	1.620	172.0851	50.455	1487	259.5425	99.1370	35.099	2.150	1.620	177.9687	35.112
1424	251.6772	100.4185	48.170	1.300	1.620	170.1034	48.191	1488	255.1900	99.2459	39.033	2.150	1.620	173.6162	39.048
1425	249.5554	102.3014	45.366	0.000	1.620	167.9816	45.357	1489	250.8060	100.5716	43.243	1.300	1.620	169.2322	43.261
1426	250.9609	100.5708	43.895	1.300	1.620	169.3871	43.913	1490	234.0958	100.4300	40.791	1.300	1.620	152.5220	40.809
1427	250.4775	100.5938	42.805	1.300	1.620	168.9037	42.823	1491	238.6764	100.5650	35.477	1.300	1.620	157.1026	35.492
1428	254.8263	100.6128	39.716	1.300	1.620	173.2525	39.732	1492	24.9186	100.3597	46.851	1.300	1.620	343.3448	46.872
1429	254.3945	100.6731	38.595	1.300	1.620	172.8207	38.610	1493	24.3542	100.3511	49.991	1.300	1.620	342.7804	50.013
1430	257.2012	99.1784	39.868	2.150	1.620	175.6274	39.883	1494	18.9574	100.3474	57.895	1.300	1.620	337.3836	57.920
1431	259.6657	99.1480	35.535	2.150	1.620	178.0919	35.548	1495	17.3203	100.3844	57.742	1.300	1.620	335.7465	57.767
1432	259.2169	99.1345	34.414	2.150	1.620	177.6431	34.426	1496	17.2510	100.3852	57.992	1.300	1.620	335.6772	58.017
1433	263.5853	100.7641	32.117	1.300	1.620	182.0115	32.129	1497	11.2346	100.4774	55.519	1.300	1.620	329.6608	55.543
1434	265.6271	100.7550	31.776	1.300	1.620	184.0533	31.788	1498	11.1042	100.4715	54.349	1.300	1.620	329.5304	54.372
1435	265.4508	100.7914	30.651	1.300	1.620	183.8770	30.663	1499	10.6743	100.4883	47.273	1.300	1.620	329.1005	47.293
1436	266.1305	100.7698	30.768	1.300	1.620	184.5567	30.780	1500	8.8593	100.5103	46.231	1.300	1.620	327.2855	46.250
1437	266.1305	100.7697	30.769	1.300	1.620	184.5567	30.781	1501	8.3508	100.5267	41.781	1.300	1.620	326.7770	41.799
1438	266.2386	103.4082	30.845	0.000	1.620	184.6648	30.815	1502	10.0437	100.5584	40.481	1.300	1.620	328.4699	40.498
1439	273.8297	98.9233	28.116	2.150	1.620	192.2559	28.125	1503	9.5429	100.5760	36.168	1.300	1.620	327.9691	36.183
1440	274.2072	98.8995	27.010	2.150	1.620	192.6334	27.018	1504	9.3643	100.5658	34.958	1.300	1.620	327.7905	34.972
1441	285.4554	98.6998	24.758	2.150	1.620	203.8816	24.764	1505	8.7641	100.5580	31.140	1.300	1.620	327.1903	31.153
1442	282.3842	98.7224	24.502	2.150	1.620	200.8104	24.508	1506	5.9868	100.5714	30.071	1.300	1.620	324.4130	30.083
1443	323.0112	98.3307	21.638	2.150	1.620	241.4374	21.640	1507	6.7812	100.5507	32.352	1.300	1.620	325.2074	32.365
1444	326.3943	98.2944	21.127	2.150	1.620	244.8205	21.129	1508	20.3428	100.2932	41.819	1.300	1.620	338.7690	41.838
1445	341.5373	98.5063	22.835	2.150	1.620	259.9635	22.839	1509	22.8531	100.3191	40.613	1.300	1.620	341.2793	40.631
1446	344.7330	98.4850	22.641	2.150	1.620	263.1592	22.645	1510	21.8346	100.3195	46.158	1.300	1.620	340.2608	46.178
1447	353.0416	100.7388	25.410	1.300	1.620	271.4678	25.420	1511	19.6955	100.3416	47.439	1.300	1.620	338.1217	47.460
1448	342.8100	101.6177	19.106	1.300	1.620	261.2362	19.108	1512	19.1198	100.3792	54.171	1.300	1.620	337.5460	54.195
1449	339.5682	101.0106	20.240	1.300	1.620	257.9944	20.247	1513	20.5924	100.3488	55.738	1.300	1.620	339.0186	55.762
1450	334.2791	101.0994	18.676	1.300	1.620	252.7053	18.682	1514	21.9181	100.3291	58.293	1.300	1.620	340.3443	58.319
1451	327.2577	100.6006	27.216	1.300	1.620	245.6839	27.227	1515	14.5731	100.4492	56.518	1.300	1.620	332.9993	56.542
1452	324.7013	98.5990	27.795	2.150	1.620	243.1275	27.801	1516	11.7362	100.4660	56.363	1.300	1.620	330.1624	56.387
1453	324.9741	98.5989	26.957	2.150	1.620	243.4003	26.963	1517	10.0671	100.4794	51.599	1.300	1.620	328.4933	51.621
1454	304.1592	100.7096	24.600	1.300	1.620	222.5854	24.610	1518	10.0902	100.4504	48.810	1.300	1.620	328.5164	48.831
1455	302.4223	100.7161	24.418	1.300	1.620	220.8485	24.428	1519	10.5423	100.5452	38.701	1.300	1.620	328.9685	38.717
1456	291.7495	100.6336	27.141	1.300	1.620	210.1757	27.152	1520	14.6202	100.5173	38.587	1.300	1.620	333.0464	38.603
1457	287.0459	101.0009	22.924	1.300	1.620	205.4721	22.932	1521	14.7989	100.5509	26.755	1.300	1.620	333.2251	26.766
1458	235.1338	100.4042	39.305	1.300	1.620	153.5600	39.322	1522	14.2256	100.5942	24.718	1.300	1.620	332.6518	24.728
1459	233.6699	100.3652	40.330	1.300	1.620	152.0961	40.348	1523	12.7569	100.6327	23.596	1.300	1.620	331.1831	23.606
1460	234.2800	100.3464	41.431	1.300	1.620	152.7062	41.449	1524	6.8748	100.7591	21.102	1.300	1.620	325.3010	21.110
1461	233.3795	100.3190	41.364	1.300	1.620	151.8057	41.382	1525	3.7640	100.8236	19.771	1.300	1.620	322.1902	19.778
1462	236.1417	100.4268	39.838	1.300	1.620	154.5679	39.855	1526	1.6337	100.9165	18.070	1.300	1.620	320.0599	18.076
1463	238.8880	100.4509	36.067	1.300	1.620	157.3142	36.082	1527	393.7168	100.9216	18.759	1.300	1.620	312.1430	18.766
1464	238.4243	100.4757	34.981	1.300	1.620	156.8505	34.996	1528	397.3744	100.8121	21.266	1.300	1.620	315.8006	21.274
1465	253.5453	100.6335	26.614	1.300	1.620	171.9715	26.625	1529	0.7726	100.7514	22.436	1.300	1.620	319.1988	22.445
1466	253.1821	100.6119	25.398	1.300	1.620	171.6083	25.408	1530	6.6297	100.6940	24.657	1.300	1.620	325.0559	24.667
1467	265.6841	100.8114	22.266	1.300	1.620	184.1103	22.274	1531	8.4977	100.6842	25.692	1.300	1.620	326.9239	25.702
1468	262.6447	100.7740	22.076	1.300	1.620	181.0709	22.084	1532	8.8928	100.6385	26.908	1.300	1.620	327.3190	26.919
1469	280.7078	101.0363	19.415	1.300	1.620	199.1340	19.421	1533	387.7361	101.2028	14.216	1.300	1.620	306.1623	14.220
1470	282.2514	101.1046	18.321	1.300	1.620	200.6776	18.327	1534	399.7668	101.1435	14.772	1.300	1.620	318.1930	14.776
1471	300.5314	100.4557	18.054	1.500	1.620	218.9576	18.062	1535	382.3210	103.3609	5.496	1.300	1.620	300.7472	5.491
1472	303.7025	100.4585	17.130	1.500	1.620	222.1287	17.137	1536	368.1635	103.0969	7.682	1.300	1.620	286.5897	7.676
1473	292.9655	100.3020	17.927	1.500	1.620	211.3917	17.935	1537	237.4626	101.4784	9.054	1.300	1.620	155.8888	9.056

1538	223.2727	102.0903	8.557	1.300	1.620	141.6989	8.556
1539	217.4728	100.5648	23.923	1.300	1.620	135.8990	23.933
1540	211.8462	100.7249	24.983	1.300	1.620	130.2724	24.993
1541	210.6058	100.5680	32.017	1.300	1.620	129.0320	32.030
1542	209.2881	100.5685	34.380	1.300	1.620	127.7143	34.394
1543	206.4204	102.7851	36.942	0.000	1.620	124.8466	36.923
1544	212.1484	100.4212	36.396	1.300	1.620	130.5746	36.412
1545	206.7718	100.5708	34.172	1.300	1.620	125.1980	34.186
1546	195.2246	100.6157	25.982	1.300	1.620	113.6508	25.993
1547	194.7724	100.6088	25.008	1.300	1.620	113.1986	25.018
1548	191.6479	100.4891	25.263	1.300	1.620	110.0741	25.274
1549	207.6114	101.0578	20.831	1.300	1.620	126.0376	20.838
1550	209.8436	101.0629	20.857	1.300	1.620	128.2698	20.864
1551	210.0491	101.1342	19.592	1.300	1.620	128.4753	19.598
1552	212.9261	101.1571	16.430	1.300	1.620	131.3523	16.435
1553	210.7918	101.2394	15.892	1.300	1.620	129.2180	15.896
1554	210.6483	101.3465	14.834	1.300	1.620	129.0745	14.837
1555	210.3423	101.5214	13.122	1.300	1.620	128.7685	13.124
1556	215.9769	101.3086	13.230	1.300	1.620	134.4031	13.233
1557	215.6192	101.5297	11.829	1.300	1.620	134.0454	11.831
1558	186.9634	101.5617	11.449	1.300	1.620	105.3896	11.451
1559	182.1301	101.5814	10.989	1.300	1.620	100.5563	10.991
1560	179.6527	101.7886	9.511	1.300	1.620	98.0789 9.512	
1561	172.4220	101.7341	9.208	1.300	1.620	90.8482 9.209	
1562	155.1315	101.9607	7.411	1.300	1.620	73.5577 7.411	
1563	212.2261	102.1270	10.357	1.300	1.620	130.6523	10.356
1564	224.6345	105.9777	3.236	1.300	1.620	143.0607	3.223
1565	267.6144	107.3417	2.581	1.300	1.620	186.0406	2.565
1566	371.4136	112.4299	1.719	1.300	1.620	289.8398	1.687
1567	366.8615	105.1211	3.406	1.300	1.620	285.2877	3.397
1568	2.8602 106.7898	2.955	1.300	1.620	321.2864	2.940	
1569	4.2519 104.5202	4.347	1.300	1.620	322.6781	4.338	
1570	387.5195	104.6859	4.568	1.300	1.620	305.9457	4.558
1571	16.5932 101.1574	11.238	1.300	1.620	335.0194	11.241	
1572	4.9232 101.2134	12.639	1.300	1.620	323.3494	12.642	
1573	1.3676 101.2348	12.701	1.300	1.620	319.7938	12.704	
1574	2.0718 101.1157	13.934	1.300	1.620	320.4980	13.938	
1575	1.2747 100.9595	16.911	1.300	1.620	319.7009	16.917	
1576	29.5599 100.2739	30.395	1.300	1.620	347.9861	30.409	
1577	29.9236 100.2421	29.964	1.300	1.620	348.3498	29.977	
1578	31.6182 100.6200	26.505	1.300	1.620	350.0444	26.516	
1579	29.9466 100.6468	26.309	1.300	1.620	348.3728	26.320	
1580	30.8283 100.6417	25.110	1.300	1.620	349.2545	25.120	
1581	33.3637 100.6672	23.392	1.300	1.620	351.7899	23.401	
1582	28.5246 100.5744	22.674	1.300	1.620	346.9508	22.683	
1583	27.7960 100.5650	23.347	1.300	1.620	346.2222	23.357	
1584	37.9310 101.0792	18.547	1.300	1.620	356.3572	18.553	
1585	62.9544 102.0598	10.914	1.300	1.620	381.3806	10.913	
1586	119.6071	108.4050	22.648	1.300	1.620	38.0333 22.461	
1587	119.3815	108.3230	22.982	1.300	1.620	37.8077 22.796	
1588	115.7090	108.0448	23.856	1.300	1.620	34.1352 23.677	
1589	104.2967	111.4850	23.699	0.000	1.620	22.7229 23.325	
1590	104.4239	108.6465	21.973	1.300	1.620	22.8501 21.781	
1591	104.0789	108.6459	21.972	1.300	1.620	22.5051 21.780	
1592	104.5735	108.7488	21.670	1.300	1.620	22.9997 21.475	
1593	104.6764	108.5710	22.177	1.300	1.620	23.1026 21.986	
1594	119.5383	108.5066	22.417	1.300	1.620	37.9645 22.227	
1595	128.1459	106.3287	14.731	1.300	1.620	46.5721 14.665	
1596	103.9671	106.1353	13.817	1.400	1.620	22.3933 13.759	
1597	105.0620	105.8119	11.475	1.400	1.620	23.4882 11.432	
1598	105.0621	105.9201	11.164	1.400	1.620	23.4883 11.121	
1599	131.1673	105.4221	12.574	1.400	1.620	49.5935 12.534	
1600	103.8557	105.7992	11.633	1.400	1.620	22.2819 11.590	
1601	101.6775	105.4549	10.907	1.400	1.620	20.1037 10.872	

1602	98.6158 105.0713	10.786	1.400	1.620	17.0420 10.757	
1603	121.1488	106.1871	10.233	1.400	1.620	39.5750 10.189
1604	135.8275	107.8697	8.112	1.400	1.620	54.2537 8.054
1605	139.8761	105.9315	7.243	1.700	1.620	58.3023 7.215
1606	145.1366	101.4653	13.400	1.700	1.620	63.5628 13.403
1607	148.3544	101.7087	12.594	1.700	1.620	66.7806 12.595
1608	155.6673	100.2403	14.009	1.700	1.620	74.0935 14.015
1609	152.7147	100.1104	14.768	1.700	1.620	71.1409 14.775
1610	154.4939	99.3327 14.296	1.700	1.620	72.9201 14.302	
1611	148.7645	99.3022 13.138	1.700	1.620	67.1907 13.143	
1612	146.5794	99.3226 13.632	1.700	1.620	65.0056 13.637	
1613	76.9070 100.2412	11.753	1.700	1.620	395.3332	11.758
1614	75.5290 99.9268 11.926	1.700	1.620	393.9552	11.931	
1615	74.2370 99.7053 12.280	1.700	1.620	392.6632	12.285	
1616	72.3533 99.6333 12.181	1.700	1.620	390.7795	12.186	
1617	67.6429 99.3973 12.733	1.700	1.620	386.0691	12.738	
1618	66.0346 99.4497 12.414	1.700	1.620	384.4608	12.419	
1619	64.0549 99.4094 12.327	1.700	1.620	382.4811	12.332	
1620	62.5054 99.3850 12.479	1.700	1.620	380.9316	12.484	
1621	54.8972 99.3594 13.908	1.700	1.620	373.3234	13.914	
1622	54.3944 99.3320 14.347	1.700	1.620	372.8206	14.353	
1623	55.1272 99.4213 14.807	1.700	1.620	373.5534	14.813	
1624	45.8139 99.4168 17.594	1.700	1.620	364.2401	17.601	
1625	39.7277 99.6438 19.729	1.700	1.620	358.1539	19.738	
1626	39.0530 99.6553 19.709	1.700	1.620	357.4792	19.718	
1627	31.1579 100.5229	29.533	1.300	1.620	349.5841	29.545
1628	35.3680 100.6960	25.734	1.300	1.620	353.7942	25.744
1629	39.8936 100.8125	22.524	1.300	1.620	358.3198	22.532
1630	30.2098 100.2490	30.571	1.300	1.620	348.6360	30.585
1631	27.1895 100.3801	38.499	1.300	1.620	345.6157	38.516
1632	26.0193 100.3882	42.332	1.300	1.620	344.4455	42.350
1633	25.2788 100.4379	28.495	1.300	1.620	343.7050	28.507
1634	31.1357 100.7789	22.322	1.300	1.620	349.5619	22.330
1635	36.2374 101.0402	18.830	1.300	1.620	354.6636	18.836
1636	32.5177 100.8125	18.434	1.300	1.620	350.9439	18.441
1637	37.4684 101.1985	14.582	1.300	1.620	355.8946	14.586
1638	50.4781 101.9744	9.760	1.300	1.620	368.9043	9.760
1639	61.5338 103.4694	7.938	1.300	1.620	379.9600	7.930
1640	45.4501 101.1063	8.618	1.300	1.620	363.8763	8.621
1641	32.0452 100.6722	14.457	1.300	1.620	350.4714	14.463
1642	27.8483 100.6364	18.118	1.300	1.620	346.2745	18.125
9003	112.4360	108.2388	22.665	1.300	1.560	30.8622 22.486
9003	112.4442	108.2413	22.655	1.300	1.560	30.8704 22.476
9003	112.4445	108.2414	22.660	1.300	1.560	30.8707 22.481
9999	201.2761	97.6843 102.051	0.000	1.620	119.7023	102.030
Coordenadas calculadas						
Número X		Y	Z			
477	236543.680		4140898.243	8.976		
478	236544.412		4140899.856	8.977		
479	236549.276		4140894.606	9.090		
480	236543.170		4140897.023	9.026		
481	236531.616		4140901.591	9.074		
482	236522.845		4140905.068	9.111		
483	236519.770		4140906.287	8.696		
484	236514.573		4140908.394	8.394		
485	236511.842		4140909.456	8.419		
486	236507.495		4140911.199	9.032		
487	236506.794		4140911.162	9.170		
488	236506.416		4140910.793	9.259		
489	236506.630		4140910.684	9.284		
490	236506.989		4140910.921	9.286		
491	236507.349		4140910.944	9.290		
492	236519.170		4140906.214	9.167		
493	236532.277		4140901.024	9.208		

494	236549.194	4140894.365	9.186	1419	236491.537	4140866.561	9.261
495	236545.829	4140903.383	10.418	1420	236496.867	4140871.978	9.251
496	236545.477	4140902.449	10.419	1421	236506.049	4140868.352	9.234
497	236544.539	4140902.806	10.425	1422	236519.575	4140863.057	9.252
498	236544.887	4140903.738	10.431	1423	236531.525	4140858.188	9.262
499	236545.396	4140902.202	9.026	1423	236531.525	4140858.188	9.256
500	236544.428	4140902.568	9.031	1424	236531.912	4140860.895	9.100
501	236535.894	4140905.701	9.054	1425	236531.966	4140864.129	9.077
502	236534.736	4140906.178	9.059	1426	236530.415	4140864.936	9.023
503	236523.270	4140910.421	9.365	1427	236530.198	4140866.054	9.017
504	236519.687	4140911.739	8.461	1428	236526.310	4140867.593	9.034
505	236519.224	4140912.136	8.360	1429	236526.091	4140868.724	9.008
506	236519.124	4140912.889	8.279	1430	236525.002	4140866.874	9.081
1368	236472.067	4140894.824	9.129	1431	236522.096	4140870.405	9.042
1369	236477.452	4140895.416	9.010	1432	236521.946	4140871.544	9.034
1370	236479.082	4140898.094	8.959	1433	236519.061	4140873.014	9.031
1371	236479.313	4140899.113	8.919	1434	236517.983	4140873.073	9.040
1372	236478.796	4140899.931	8.904	1435	236517.786	4140874.185	9.035
1373	236476.446	4140896.711	9.151	1436	236517.497	4140873.991	9.044
1374	236477.219	4140896.921	9.116	1437	236517.497	4140873.990	9.044
1375	236460.045	4140891.844	9.196	1438	236517.455	4140873.944	9.066
1376	236459.305	4140891.072	9.309	1439	236513.516	4140875.952	9.042
1377	236472.701	4140885.436	9.193	1440	236513.223	4140877.032	9.033
1378	236476.884	4140882.406	9.283	1441	236508.594	4140879.151	9.072
1379	236478.401	4140882.755	9.143	1442	236509.791	4140879.363	9.058
1380	236485.155	4140879.636	9.176	1443	236496.991	4140886.653	9.134
1381	236485.739	4140879.138	9.176	1444	236496.426	4140887.764	9.132
1382	236485.633	4140878.270	9.168	1445	236491.634	4140890.434	9.102
1383	236483.641	4140873.792	9.064	1446	236491.145	4140891.484	9.105
1384	236481.460	4140871.285	9.165	1447	236487.194	4140892.854	9.121
1385	236483.544	4140876.065	9.249	1448	236494.429	4140892.940	8.931
1386	236477.185	4140879.046	9.216	1449	236494.106	4140891.458	9.095
1387	236476.115	4140879.523	9.431	1450	236496.344	4140891.232	9.094
1388	236477.499	4140882.109	9.304	1451	236492.199	4140883.357	9.160
1389	236477.809	4140881.972	9.302	1452	236492.678	4140882.207	9.178
1390	236480.927	4140880.524	9.269	1453	236493.113	4140882.933	9.160
1391	236480.743	4140880.190	9.276	1454	236501.554	4140880.792	9.142
1392	236484.412	4140878.918	9.261	1455	236502.246	4140880.740	9.142
1393	236484.706	4140878.760	9.279	1456	236505.782	4140877.063	9.146
1394	236484.539	4140878.428	9.292	1457	236508.135	4140881.022	9.056
1395	236468.819	4140882.962	9.389	1458	236536.311	4140874.554	9.167
1396	236483.865	4140875.614	9.205	1459	236537.679	4140874.415	9.185
1397	236486.573	4140878.902	9.176	1460	236538.140	4140873.341	9.191
1398	236487.178	4140878.579	9.173	1461	236538.523	4140873.789	9.209
1399	236487.743	4140879.690	9.167	1462	236536.192	4140873.739	9.149
1400	236488.533	4140875.302	9.148	1463	236532.524	4140875.598	9.161
1401	236478.301	4140883.259	9.139	1464	236532.048	4140876.609	9.155
1402	236482.260	4140888.181	9.148	1465	236521.450	4140879.783	9.151
1403	236490.660	4140874.384	9.125	1466	236521.063	4140880.946	9.172
1404	236491.627	4140876.990	9.164	1467	236515.605	4140882.285	9.133
1405	236492.002	4140879.227	9.189	1468	236516.573	4140882.754	9.148
1406	236490.136	4140884.527	9.119	1469	236510.367	4140884.450	9.100
1407	236483.437	4140888.519	9.145	1470	236509.908	4140885.544	9.098
1408	236481.854	4140890.212	9.099	1471	236504.804	4140886.602	9.087
1409	236491.805	4140893.767	8.924	1472	236504.266	4140887.757	9.093
1410	236503.651	4140888.651	8.965	1473	236506.911	4140886.221	9.131
1411	236518.047	4140882.875	9.012	1474	236507.117	4140886.142	9.130
1412	236535.833	4140875.749	9.003	1475	236506.388	4140884.853	9.123
1413	236531.673	4140858.310	9.179	1476	236487.684	4140893.531	9.095
1414	236520.288	4140862.837	9.216	1477	236491.367	4140891.127	9.090
1415	236508.025	4140867.799	9.195	1478	236496.636	4140887.250	9.114
1416	236500.155	4140870.874	9.226	1479	236504.468	4140887.225	9.124
1417	236494.866	4140872.825	9.209	1480	236508.962	4140879.142	9.064
1418	236490.320	4140868.090	9.153	1481	236510.015	4140884.961	9.069

1482	236515.931	4140882.528	9.141	1546	236535.501	4140898.338	9.165
1483	236513.541	4140876.555	8.991	1547	236534.586	4140898.719	9.177
1484	236515.908	4140882.486	9.138	1548	236535.061	4140899.886	9.222
1485	236521.306	4140880.402	9.122	1549	236529.222	4140895.582	9.070
1486	236517.970	4140873.881	9.016	1550	236528.943	4140894.906	9.068
1487	236522.013	4140870.839	9.042	1551	236527.773	4140895.393	9.067
1488	236525.827	4140868.127	9.029	1552	236524.585	4140896.099	9.118
1489	236530.207	4140865.563	9.028	1553	236524.354	4140896.827	9.107
1490	236537.794	4140873.893	9.141	1554	236523.420	4140897.326	9.103
1491	236532.250	4140876.135	9.102	1555	236521.910	4140898.138	9.103
1492	236473.683	4140933.373	9.152	1556	236521.451	4140897.061	9.144
1493	236470.964	4140935.004	9.141	1557	236520.282	4140897.839	9.132
1494	236461.885	4140935.960	9.101	1558	236521.513	4140902.901	9.135
1495	236461.206	4140934.628	9.068	1559	236521.093	4140903.773	9.143
1496	236460.961	4140934.708	9.066	1560	236519.610	4140904.156	9.149
1497	236460.481	4140928.821	9.000	1561	236519.217	4140905.188	9.166
1498	236461.477	4140928.196	9.014	1562	236516.884	4140906.859	9.188
1499	236467.666	4140924.742	9.054	1563	236519.282	4140899.073	9.070
1500	236468.036	4140923.091	9.046	1564	236512.617	4140901.851	9.113
1501	236471.948	4140920.936	9.071	1565	236510.661	4140901.366	9.119
1502	236473.588	4140921.382	9.061	1566	236508.438	4140903.601	9.083
1503	236477.356	4140919.259	9.089	1567	236506.797	4140903.091	9.143
1504	236478.410	4140918.655	9.106	1568	236507.327	4140904.834	9.102
1505	236481.749	4140916.774	9.143	1569	236506.038	4140905.382	9.108
1506	236482.205	4140915.125	9.146	1570	236505.565	4140904.294	9.080
1507	236480.242	4140916.352	9.136	1571	236500.520	4140909.746	9.212
1508	236475.787	4140927.802	9.224	1572	236498.302	4140908.403	9.175
1509	236477.719	4140928.407	9.213	1573	236498.008	4140907.756	9.170
1510	236472.856	4140931.165	9.185	1574	236496.881	4140908.280	9.172
1511	236470.901	4140930.620	9.162	1575	236493.990	4140909.021	9.161
1512	236465.064	4140934.011	9.094	1576	236487.932	4140924.680	9.286
1513	236464.491	4140935.946	9.111	1577	236488.364	4140924.510	9.302
1514	236463.109	4140938.403	9.115	1578	236491.367	4140922.632	9.158
1515	236460.989	4140931.883	9.018	1579	236491.023	4140921.998	9.149
1516	236459.927	4140929.596	9.004	1580	236492.134	4140921.422	9.163
1517	236463.567	4140926.209	9.028	1581	236494.028	4140920.875	9.171
1518	236466.090	4140925.018	9.071	1582	236493.314	4140919.122	9.212
1519	236475.326	4140920.885	9.085	1583	236492.637	4140919.376	9.209
1520	236476.585	4140923.020	9.103	1584	236498.358	4140918.230	9.102
1521	236486.900	4140917.213	9.185	1585	236506.957	4140914.319	9.063
1522	236488.557	4140916.003	9.186	1586	236522.738	4140922.440	6.435
1523	236489.273	4140914.975	9.182	1587	236522.860	4140922.762	6.420
1524	236490.639	4140912.040	9.165	1588	236522.199	4140924.223	6.410
1525	236491.514	4140910.624	9.161	1589	236518.253	4140925.724	6.464
1526	236492.917	4140909.471	9.156	1590	236517.754	4140924.262	6.441
1527	236491.678	4140907.427	9.145	1591	236517.643	4140924.302	6.441
1528	236489.481	4140909.095	9.145	1592	236517.694	4140923.958	6.448
1529	236488.672	4140910.536	9.152	1593	236517.908	4140924.424	6.440
1530	236487.322	4140913.329	9.148	1594	236522.587	4140922.260	6.430
1531	236486.666	4140914.418	9.140	1595	236519.900	4140914.782	7.954
1532	236485.625	4140915.069	9.146	1596	236514.844	4140916.786	7.987
1533	236495.950	4140905.243	9.148	1597	236514.226	4140914.532	8.270
1534	236495.926	4140908.035	9.151	1598	236514.114	4140914.242	8.280
1535	236504.613	4140903.934	9.126	1599	236518.909	4140912.788	8.247
1536	236502.597	4140902.264	9.043	1600	236514.077	4140914.756	8.258
1537	236515.888	4140896.902	9.206	1601	236513.480	4140914.203	8.383
1538	236516.889	4140898.657	9.135	1602	236512.948	4140914.243	8.458
1539	236530.331	4140891.077	9.204	1603	236516.037	4140912.152	8.323
1540	236532.323	4140892.427	9.132	1604	236516.166	4140909.171	8.316
1541	236538.860	4140889.763	9.131	1605	236515.825	4140908.264	8.342
1542	236541.289	4140889.365	9.109	1606	236521.370	4140911.128	8.708
1543	236544.250	4140889.821	9.101	1607	236521.022	4140910.147	8.678
1544	236542.396	4140887.046	9.176	1608	236522.974	4140909.416	8.963
1545	236541.646	4140890.688	9.110	1609	236523.386	4140910.340	8.991

1610	236523.130	4140909.771	9.166					1664	115.7394	100.2704	27.512	1.500	1.587	235.3942	27.524
1611	236521.539	4140910.347	9.160					1665	114.2856	99.8980 30.753	1.500	1.587	233.9404	30.767	
1612	236521.732	4140910.994	9.161					1666	110.4469	99.8948 35.196	1.500	1.587	230.1017	35.212	
1613	236509.242	4140915.596	8.972					1667	107.6436	99.9457 37.528	1.500	1.587	227.2984	37.545	
1614	236508.972	4140915.747	9.030					1668	100.9897	100.2256	45.086	1.500	1.587	220.6445	45.106
1615	236508.691	4140916.073	9.073					1669	100.1785	100.2803	46.881	1.500	1.587	219.8333	46.902
1616	236508.344	4140915.928	9.086					1670	100.0992	100.3280	54.301	1.500	1.587	219.7540	54.325
1617	236507.338	4140916.304	9.137					1671	102.5650	100.3004	54.540	1.500	1.587	222.2198	54.564
1618	236507.102	4140915.920	9.124					1672	103.0342	100.1026	46.635	1.500	1.587	222.6890	46.656
1619	236506.752	4140915.737	9.131					1673	103.2330	100.1032	46.300	1.500	1.587	222.8878	46.321
1620	236506.420	4140915.797	9.137					1674	103.8007	100.0872	45.775	1.500	1.587	223.4555	45.796
1621	236504.442	4140916.579	9.156					1675	106.6960	100.0649	42.628	1.500	1.587	226.3508	42.647
1622	236504.160	4140916.934	9.167					1676	113.0321	99.9313 36.861	1.500	1.587	232.6869	36.878	
1623	236504.125	4140917.422	9.151					1677	116.0049	99.9588 34.494	1.500	1.587	235.6597	34.510	
1624	236500.728	4140918.766	9.177					1678	119.1507	99.9087 30.931	1.500	1.587	238.8055	30.945	
1625	236498.044	4140919.494	9.127					1679	114.6667	99.8892 30.437	1.500	1.587	234.3215	30.451	
1626	236497.891	4140919.350	9.123					1680	113.9181	99.8870 30.204	1.500	1.587	233.5729	30.218	
1627	236489.075	4140924.624	9.174					1681	112.2148	99.9047 28.691	1.500	1.587	231.8696	28.704	
1628	236493.016	4140923.125	9.135					1682	111.6744	99.9043 28.655	1.500	1.587	231.3292	28.668	
1629	236496.383	4140921.742	9.129					1683	111.1870	99.8719 30.034	1.500	1.587	230.8418	30.048	
1630	236488.018	4140925.027	9.297					1684	111.1290	99.9038 30.906	1.500	1.587	230.7838	30.920	
1631	236481.059	4140929.165	9.187					1685	110.1480	99.9235 30.145	1.500	1.587	229.8028	30.159	
1632	236477.661	4140931.092	9.158					1686	109.6098	99.9233 31.522	1.500	1.587	229.2646	31.536	
1633	236488.054	4140921.938	9.220					1687	106.2594	99.8719 30.376	1.500	1.587	225.9142	30.390	
1634	236494.205	4140919.550	9.143					1688	102.1596	99.9906 36.543	1.500	1.587	221.8144	36.560	
1635	236497.795	4140918.127	9.109					1689	101.9550	100.0477	36.315	1.500	1.587	221.6098	36.331
1636	236497.258	4140917.101	9.181					1690	100.9803	100.1529	43.112	1.500	1.587	220.6351	43.131
1637	236500.787	4140915.092	9.142					1691	100.9655	100.3040	54.071	1.500	1.587	220.6203	54.095
1638	236505.523	4140912.488	9.114					1692	102.6440	100.2795	54.173	1.500	1.587	222.2988	54.197
1639	236507.648	4140911.409	8.984					1693	103.2077	100.1481	46.396	1.500	1.587	222.8625	46.417
1640	236505.470	4140911.139	9.267					1694	103.0890	100.1151	47.176	1.500	1.587	222.7438	47.197
1641	236499.953	4140914.171	9.264					1695	104.6999	100.1187	40.237	1.500	1.587	224.3547	40.255
1642	236496.559	4140915.914	9.235					1696	105.1721	100.0748	39.830	1.500	1.587	224.8269	39.848
9003	236520.582	4140923.764	6.431					1697	105.1648	100.0748	39.410	1.500	1.587	224.8196	39.428
9003	236520.580	4140923.754	6.432					1698	103.8090	100.0933	39.237	1.500	1.587	223.4638	39.255
9003	236520.582	4140923.758	6.431					1699	103.7261	100.1122	40.160	1.500	1.587	223.3809	40.178
9999	236607.286	4140872.794	14.428					1700	107.7622	100.0043	40.043	1.500	1.587	227.4170	40.061
Radiación desde la estación 8006								1701	112.6350	99.9329 34.952	1.500	1.587	232.2898	34.968	
X	236559.092	Desorientación	119.6548					1702	113.3912	99.9337 33.902	1.500	1.587	233.0460	33.917	
Y	4140895.566	Nombre						1703	115.1714	99.9821 35.411	1.500	1.587	234.8262	35.427	
Z	9.046	Coef. anamorfosis	1.0004550266					1704	115.9101	99.9737 34.206	1.500	1.587	235.5649	34.222	
Visuales utilizadas								1705	114.6543	99.9725 33.991	1.500	1.587	234.3091	34.006	
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.	1706	118.8642	100.0256	35.027	1.500	1.587	238.5190	35.043
1643	180.3314	100.3167	76.117	1.300	1.587	299.9862	76.151	1707	117.3603	100.0265	42.280	1.500	1.587	237.0151	42.299
1644	181.0085	100.3906	75.110	1.300	1.587	300.6633	75.143	1708	117.4665	100.0751	45.254	1.500	1.587	237.1213	45.274
1645	180.9117	100.3812	73.029	1.300	1.587	300.5665	73.061	1709	122.6555	100.0420	44.024	1.500	1.587	242.3103	44.044
1646	179.8711	100.2082	71.951	1.300	1.587	299.5259	71.983	1710	125.5702	100.1296	41.463	1.500	1.587	245.2250	41.482
1647	177.9701	100.1629	76.110	1.300	1.587	297.6249	76.144	1711	117.5341	100.0716	45.231	1.500	1.587	237.1889	45.251
1648	177.8745	100.2192	77.682	1.300	1.587	297.5293	77.717	1712	117.4605	100.0243	42.259	1.500	1.587	237.1153	42.278
1649	179.8661	100.2145	82.045	1.300	1.587	299.5209	82.082	1713	111.1156	99.9995 42.911	1.500	1.587	230.7704	42.930	
1650	179.2498	100.1998	83.760	1.300	1.587	298.9046	83.798	1714	119.0298	100.0043	34.953	1.500	1.587	238.6846	34.969
1651	179.3122	100.1565	85.482	1.300	1.587	298.9670	85.520	1715	128.8223	100.2032	40.755	1.500	1.587	248.4771	40.773
1652	173.6252	99.4880 87.357	2.150	1.587	293.2800		87.394	1716	136.5007	100.1621	43.456	1.500	1.587	256.1555	43.476
1653	171.2152	99.3996 85.194	2.150	1.587	290.8700		85.229	1717	135.6381	100.1611	42.241	1.500	1.587	255.2929	42.260
1654	172.5077	99.4389 87.985	2.150	1.587	292.1625		88.021	1718	128.1986	100.1567	41.931	1.500	1.587	247.8534	41.950
1655	173.7738	99.4605 90.897	2.150	1.587	293.4286		90.935	1719	128.4316	100.4777	40.952	1.300	1.587	248.0864	40.969
1656	174.7264	99.4747 93.134	2.150	1.587	294.3812		93.173	1720	122.9293	100.3924	39.719	1.300	1.587	242.5841	39.736
1657	177.1489	99.4895 98.937	2.150	1.587	296.8037		98.979	1721	122.5427	100.4081	40.784	1.300	1.587	242.1975	40.802
1658	177.2135	99.5374 97.273	2.150	1.587	296.8683		97.315	1722	121.6537	100.4002	39.492	1.300	1.587	241.3085	39.509
1659	170.7581	99.4866 82.514	2.150	1.587	290.4129		82.549	1723	114.6793	100.2928	38.704	1.300	1.587	234.3341	38.721
1660	147.9720	100.4172	46.106	1.300	1.587	267.6268	46.126	1724	113.1278	100.2654	39.712	1.300	1.587	232.7826	39.730
1661	154.2784	100.2342	38.902	1.300	1.587	273.9332	38.919	1725	120.6839	100.2468	46.239	1.300	1.587	240.3387	46.260
1662	152.6286	99.9144 37.979	1.500	1.587	272.2834		37.996	1726	107.3138	100.4300	52.518	1.300	1.587	226.9686	52.541
1663	153.0554	99.9026 38.387	1.500	1.587	272.7102		38.404	1727	106.5526	100.3884	57.400	1.300	1.587	226.2074	57.425

1728	106.8698	100.1364	57.268	1.300	1.587	226.5246	57.294	1792	157.3913	101.9162	7.026	1.300	1.587	277.0461	7.026
1729	107.6193	100.1371	52.711	1.300	1.587	227.2741	52.735	1793	164.9008	101.2341	8.778	1.300	1.587	284.5556	8.780
1730	120.7552	100.1314	46.499	1.300	1.587	240.4100	46.520	1794	167.1012	101.1635	9.649	1.300	1.587	286.7560	9.652
1731	116.3962	100.3064	47.630	1.300	1.587	236.0510	47.651	1795	154.3185	102.5157	6.412	1.300	1.587	273.9733	6.410
1732	99.8250	100.7595	55.289	1.300	1.587	219.4798	55.310	1796	145.7378	101.3867	7.448	1.300	1.587	265.3926	7.450
1733	99.8976	100.7069	45.359	1.300	1.587	219.5524	45.377	1797	143.0558	101.1683	8.810	1.300	1.587	262.7106	8.813
1734	99.8945	100.6436	42.275	1.300	1.587	219.5493	42.292	1798	142.8563	101.1238	11.182	1.300	1.587	262.5111	11.185
1735	102.1469	100.5109	42.226	1.300	1.587	221.8017	42.244	1799	154.7213	101.0975	13.867	1.300	1.587	274.3761	13.871
1736	102.3112	100.4979	40.083	1.300	1.587	221.9660	40.100	1800	158.6041	100.7737	18.453	1.300	1.587	278.2589	18.460
1737	99.9421	100.6229	40.063	1.300	1.587	219.5969	40.079	1801	204.3082	100.4420	36.576	1.300	1.587	323.9630	36.592
1738	99.9969	100.6008	34.845	1.300	1.587	219.6517	34.859	1802	204.3080	100.4420	36.136	1.300	1.587	323.9628	36.152
1739	102.8897	100.6503	30.671	1.300	1.587	222.5445	30.683	1803	203.4264	100.4582	36.118	1.300	1.587	323.0812	36.133
1740	110.1855	100.6839	27.830	1.300	1.587	229.8403	27.841	1804	203.4265	100.4571	36.578	1.300	1.587	323.0813	36.594
1741	99.3039	100.6118	37.100	1.300	1.587	218.9587	37.115	1805	205.5553	100.4341	35.723	1.300	1.587	325.2101	35.738
1742	98.5076	100.5846	37.092	1.300	1.587	218.1624	37.107	1806	203.4894	100.4617	35.751	1.300	1.587	323.1442	35.766
1743	99.2898	100.6195	42.098	1.300	1.587	218.9446	42.115	1807	202.0152	100.4839	34.795	1.300	1.587	321.6700	34.810
1744	83.4329	100.3163	38.198	1.300	1.587	203.0877	38.215	1808	201.3986	100.5408	32.189	1.300	1.587	321.0534	32.202
1745	85.2563	100.3481	43.040	1.300	1.587	204.9111	43.059	1809	201.0502	100.5907	30.207	1.300	1.587	320.7050	30.219
1746	115.2595	100.7345	26.737	1.300	1.587	234.9143	26.747	1810	200.7881	100.6742	27.093	1.300	1.587	320.4429	27.104
1747	122.1436	101.0487	16.690	1.300	1.587	241.7984	16.695	1811	203.4703	100.6731	27.034	1.300	1.587	323.1251	27.045
1748	145.2592	100.8222	19.982	1.300	1.587	264.9140	19.989	1812	203.1130	100.7116	26.675	1.300	1.587	322.7678	26.685
1749	144.2569	100.7819	20.372	1.300	1.587	263.9117	20.380	1813	205.9420	100.6667	26.661	1.300	1.587	325.5968	26.672
1750	125.5250	101.2611	16.433	1.300	1.587	245.1798	16.437	1814	205.7399	100.7533	25.063	1.300	1.587	325.3947	25.073
1751	123.8867	101.2579	14.814	1.300	1.587	243.5415	14.818	1815	202.7260	100.7911	25.038	1.300	1.587	322.3808	25.047
1752	126.3831	101.3146	12.719	1.300	1.587	246.0379	12.722	1816	203.6150	100.7643	25.201	1.300	1.587	323.2698	25.211
1753	105.5528	101.3312	13.361	1.300	1.587	225.2076	13.364	1817	200.7268	100.7686	25.200	1.300	1.587	320.3816	25.210
1754	109.1155	101.4937	13.456	1.300	1.587	228.7703	13.458	1818	200.1171	100.9452	21.071	1.300	1.587	319.7719	21.078
1755	109.6685	101.7429	12.278	1.300	1.587	229.3233	12.279	1819	199.3906	101.2170	16.871	1.300	1.587	319.0454	16.876
1756	105.6173	101.5504	11.573	1.300	1.587	225.2721	11.575	1820	198.1175	100.6052	13.046	1.500	1.587	317.7723	13.051
1757	142.9333	101.0154	14.967	1.300	1.587	262.5881	14.972	1821	194.6299	100.5697	7.959	1.500	1.587	314.2847	7.962
1758	140.0115	101.0773	13.950	1.300	1.587	259.6663	13.954	1822	213.0805	100.5727	7.972	1.500	1.587	332.7353	7.975
1759	141.4786	100.9587	12.863	1.300	1.587	261.1334	12.867	1823	213.3533	100.6158	6.781	1.500	1.587	333.0081	6.784
1760	140.8614	101.1976	9.139	1.300	1.587	260.5162	9.142	1824	212.6707	100.6059	9.340	1.500	1.587	332.3255	9.344
1761	129.8857	101.7145	7.079	1.300	1.587	249.5405	7.080	1825	217.7446	99.5065	9.036	1.500	1.587	337.3994	9.040
1762	140.7663	101.8424	6.475	1.300	1.587	260.4211	6.475	1826	219.3687	99.4980	9.097	1.500	1.587	339.0235	9.101
1763	113.9592	102.1310	7.553	1.300	1.587	233.6140	7.552	1827	240.0226	99.9061	10.944	1.500	1.587	359.6774	10.949
1764	127.4787	101.4602	9.083	1.300	1.587	247.1335	9.085	1828	242.1646	99.8903	13.400	1.500	1.587	361.8194	13.406
1765	129.6000	101.4257	8.288	1.300	1.587	249.2548	8.290	1829	236.7247	96.7409	13.693	2.150	1.587	356.3795	13.681
1766	136.1306	101.2994	8.675	1.300	1.587	255.7854	8.677	1830	234.9358	96.2975	13.825	2.150	1.587	354.5906	13.808
1767	147.8366	101.0775	9.426	1.300	1.587	267.4914	9.429	1831	233.2299	95.6714	13.894	2.150	1.587	352.8847	13.868
1768	151.7628	101.0978	13.063	1.300	1.587	271.4176	13.067	1832	222.2219	95.4720	15.535	2.150	1.587	341.8767	15.503
1769	147.9126	101.1127	13.948	1.300	1.587	267.5674	13.952	1833	252.4327	100.9568	15.204	1.300	1.587	372.0875	15.209
1770	150.2968	101.1156	14.413	1.300	1.587	269.9516	14.417	1834	252.4943	100.8645	16.260	1.300	1.587	372.1491	16.266
1771	154.7640	101.0254	15.294	1.300	1.587	274.4188	15.299	1835	236.0213	95.7175	16.818	2.150	1.587	355.6761	16.788
1772	158.6627	101.0036	14.485	1.300	1.587	278.3175	14.490	1836	230.8378	95.3035	17.574	2.150	1.587	350.4926	17.534
1773	160.5693	100.9444	15.029	1.300	1.587	280.2241	15.034	1837	228.4569	94.9602	18.468	2.150	1.587	348.1117	18.419
1774	153.5701	100.4041	20.906	1.300	1.587	273.2249	20.915	1838	226.6222	94.9640	19.928	2.150	1.587	346.2770	19.875
1775	158.4814	100.8006	18.261	1.300	1.587	278.1362	18.268	1839	227.2983	95.9478	19.963	2.000	1.587	346.9531	19.932
1776	149.5183	100.6455	18.070	1.300	1.587	269.1731	18.077	1840	229.1811	95.7359	18.515	2.000	1.587	348.8359	18.482
1777	144.3928	100.9549	14.743	1.300	1.587	264.0476	14.748	1841	232.5336	95.5775	17.498	2.000	1.587	352.1884	17.464
1778	142.5183	101.0102	14.096	1.300	1.587	262.1731	14.101	1842	236.5435	95.5084	17.041	2.000	1.587	356.1983	17.006
1779	140.7149	101.1109	13.744	1.300	1.587	260.3697	13.748	1843	264.1554	98.0990	16.819	2.000	1.587	383.8102	16.819
1780	133.1943	101.1465	16.972	1.300	1.587	252.8491	16.977	1844	264.3683	98.4326	16.620	2.000	1.587	384.0231	16.622
1781	125.4750	101.3614	15.957	1.300	1.587	245.1298	15.961	1845	209.6968	95.4103	25.475	2.380	1.587	329.3516	25.420
1782	130.5403	101.2772	12.985	1.300	1.587	250.1951	12.988	1846	209.3082	95.6687	25.257	2.000	1.587	328.9630	25.210
1783	130.1092	101.4977	12.473	1.300	1.587	249.7640	12.475	1847	207.2094	95.5596	25.190	2.000	1.587	326.8642	25.140
1784	102.9935	101.7181	11.335	1.300	1.587	222.6483	11.336	1848	211.9306	95.3320	19.667	2.000	1.587	331.5854	19.623
1785	94.6231	102.0919	9.000	1.300	1.587	214.2779	8.999	1849	211.2554	94.3380	19.420	2.000	1.587	330.9102	19.352
1786	129.0262	101.5431	9.780	1.300	1.587	248.6810	9.782	1850	213.4924	94.3338	19.495	2.000	1.587	333.1472	19.427
1787	126.5547	101.7313	7.260	1.300	1.587	246.2095	7.261	1851	215.2850	94.3885	19.469	2.000	1.587	334.9398	19.402
1788	134.9753	103.2995	5.136	1.300	1.587	254.6301	5.131	1852	216.5569	94.2672	19.036	2.000	1.587	336.2117	18.967
1789	236.9453	105.8038	3.150	1.300	1.587	356.6001	3.138	1853	216.6797	95.3989	19.425	2.000	1.587	336.3345	19.383
1790	221.6800	103.1851	5.212	1.300	1.587	341.3348	5.208	1854	215.4597	95.3993	19.687	2.000	1.587	335.1145	19.645
1791	150.5631	101.7984	6.824	1.300	1.587	270.2179	6.824	1855	213.6865	95.4420	19.760	2.000	1.587	333.3413	19.718

1856	216.4384	94.9327	15.458	2.000	1.587	336.0932	15.416	1920	331.4505	99.4685	19.986	1.800	1.587	51.1053	19.994
1857	213.0767	94.2505	14.429	2.000	1.587	332.7315	14.377	1921	344.6774	98.8490	16.641	1.800	1.587	64.3322	16.646
1858	210.9805	94.0538	14.273	2.000	1.587	330.6353	14.217	1922	351.8979	98.6216	16.026	1.800	1.587	71.5527	16.030
1859	209.5409	93.9114	14.473	2.000	1.587	329.1957	14.413	1923	356.5287	98.5027	16.108	1.800	1.587	76.1835	16.111
1860	210.5460	93.0143	14.586	2.000	1.587	330.2008	14.505	1924	359.0042	98.4092	12.931	1.800	1.587	78.6590	12.933
1861	211.2935	92.6576	14.495	2.000	1.587	330.9483	14.405	1925	360.0660	98.3588	12.820	1.800	1.587	79.7208	12.822
1862	212.4964	92.5016	14.639	2.000	1.587	332.1512	14.544	1926	363.5559	98.3207	14.021	1.800	1.587	83.2107	14.022
1863	216.7124	95.9911	15.993	1.300	1.587	336.3672	15.969	1927	375.2486	98.0590	12.356	1.800	1.587	94.9034	12.356
1864	214.4096	95.6653	9.448	1.300	1.587	334.0644	9.430	1928	366.1586	98.7183	11.340	1.800	1.587	85.8134	11.343
1865	216.2345	95.6701	9.310	1.300	1.587	335.8893	9.293	1929	379.5293	97.9419	12.475	1.800	1.587	99.1841	12.474
1866	219.0217	95.7252	9.331	1.300	1.587	338.6765	9.314	1930	384.6578	97.9130	13.038	1.800	1.587	104.3126	13.037
1867	238.9852	96.6762	11.100	1.300	1.587	358.6400	11.090	1931	12.5966	97.7770	11.297	1.800	1.587	132.2514	11.295
1868	240.8052	97.2491	13.305	1.300	1.587	360.4600	13.299	1932	20.0025	97.8175	11.247	1.800	1.587	139.6573	11.245
1869	214.4021	100.8134	9.156	1.300	1.587	334.0569	9.159	1933	19.1298	97.8051	10.650	1.800	1.587	138.7846	10.648
1870	217.0996	101.5414	7.695	1.300	1.587	336.7544	7.696	1934	16.2070	97.8216	12.285	1.800	1.587	135.8618	12.283
1871	227.7995	101.3184	8.197	1.300	1.587	347.4543	8.199	1935	41.5224	98.2271	15.120	1.800	1.587	161.1772	15.121
1872	223.8183	100.9733	9.339	1.300	1.587	343.4731	9.342	1936	45.9599	98.5081	13.757	1.800	1.587	165.6147	13.759
1873	217.7903	101.3933	7.945	1.300	1.587	337.4451	7.947	1937	24.5694	98.2574	10.838	1.800	1.587	144.2242	10.839
1874	226.3388	101.2842	8.341	1.300	1.587	345.9936	8.343	1938	54.8329	98.7320	15.676	1.800	1.587	174.4877	15.680
1875	223.8309	101.0421	9.161	1.300	1.587	343.4857	9.164	1939	54.3748	98.6708	15.771	1.800	1.587	174.0296	15.775
1876	231.7397	101.3269	8.423	1.300	1.587	351.3945	8.425	1940	47.4696	98.5790	14.026	1.800	1.587	167.1244	14.029
1877	240.7198	101.3749	9.360	1.300	1.587	360.3746	9.362	1941	48.0896	98.3257	17.547	1.800	1.587	167.7444	17.549
1878	238.2340	101.2122	9.893	1.300	1.587	357.8888	9.896	1942	40.6163	98.2160	16.215	1.800	1.587	160.2711	16.216
1879	231.0186	101.0005	9.634	1.300	1.587	350.6734	9.637	1943	56.9162	98.7151	16.306	1.800	1.587	176.5710	16.310
1880	283.8919	101.3718	18.355	1.300	1.587	3.5467	18.359	1944	57.7699	98.7052	16.974	1.800	1.587	177.4247	16.978
1881	281.4263	101.4737	16.738	1.300	1.587	1.0811	16.741	1945	56.7308	98.7313	17.647	1.800	1.587	176.3856	17.651
1882	272.6913	101.6809	12.406	1.300	1.587	392.3461	12.407	1946	43.1404	98.9888	22.693	1.800	1.587	162.7952	22.700
1883	240.9827	102.2789	6.191	1.300	1.587	360.6375	6.190	1947	32.3874	99.2119	30.559	1.800	1.587	152.0422	30.571
1884	273.6158	102.2986	6.825	1.300	1.587	393.2706	6.824	1948	31.3899	99.2185	31.056	1.800	1.587	151.0447	31.068
1885	286.1159	101.6570	13.456	1.300	1.587	5.7707	13.458	1949	29.7208	99.2410	31.077	1.800	1.587	149.3756	31.089
1886	289.0217	101.4934	15.332	1.300	1.587	8.6765	15.335	1950	30.3601	98.9934	30.441	1.800	1.587	150.0149	30.451
1887	295.5248	101.3827	21.800	1.300	1.587	15.1796	21.805	1951	39.7114	98.6206	23.152	1.800	1.587	159.3662	23.157
1888	296.0408	101.9099	21.377	1.300	1.587	15.6956	21.377	1952	28.0519	99.2509	30.456	1.800	1.587	147.7067	30.468
1889	295.4246	102.2807	16.761	1.300	1.587	15.0794	16.758	1953	23.4339	99.3143	29.478	1.800	1.587	143.0887	29.490
1890	294.5744	101.5046	16.033	1.300	1.587	14.2292	16.036	1954	29.8595	98.9174	28.427	1.800	1.587	149.5143	28.436
1891	294.3544	101.5761	14.778	1.300	1.587	14.0092	14.780	1955	25.1195	98.9193	27.199	1.800	1.587	144.7743	27.207
1892	289.0258	101.5273	14.986	1.300	1.587	8.6806	14.988	1956	30.7231	98.5944	21.717	1.800	1.587	150.3779	21.722
1893	290.6122	101.4695	16.254	1.300	1.587	10.2670	16.257	1957	36.7288	98.6986	22.847	1.800	1.587	156.3836	22.853
1894	284.0601	101.7061	11.190	1.300	1.587	3.7149	11.191	1958	23.7862	98.9666	27.709	1.800	1.587	143.4410	27.718
1895	292.4264	102.0048	9.301	1.300	1.587	12.0812	9.301	1959	10.9518	98.9514	26.056	1.800	1.587	130.6066	26.064
1896	292.9689	103.5770	8.395	1.300	1.587	12.6237	8.386	1960	10.3033	99.1103	27.750	1.800	1.587	129.9581	27.760
1897	287.5801	105.5127	3.774	1.300	1.587	7.2349	3.762	1961	22.6265	99.2968	29.330	1.800	1.587	142.2813	29.342
1898	319.1278	105.6806	3.903	1.300	1.587	38.7826	3.889	1962	22.3034	98.7832	24.879	1.800	1.587	141.9582	24.886
1899	353.7540	111.9013	1.663	1.300	1.587	73.4088	1.635	1963	21.1723	98.7531	24.043	1.800	1.587	140.8271	24.049
1900	83.6796	103.6145	4.841	1.300	1.587	203.3344	4.835	1964	23.2395	98.5410	21.823	1.800	1.587	142.8943	21.827
1901	106.3977	103.7062	4.666	1.300	1.587	226.0525	4.660	1965	24.2885	98.5321	21.177	1.800	1.587	143.9433	21.181
1902	104.1941	102.1147	8.537	1.300	1.587	223.8489	8.536	1966	22.5645	98.0216	15.288	1.800	1.587	142.2193	15.288
1903	92.0388	100.0338	8.633	1.700	1.587	211.6936	8.637	1967	38.2847	98.1867	13.752	1.800	1.587	157.9395	13.753
1904	68.5150	99.5351	2.760	1.700	1.587	188.1698	2.761	1968	34.7194	97.9813	13.910	1.800	1.587	154.3742	13.909
1905	103.8650	100.0679	11.830	1.700	1.587	223.5198	11.835	1969	30.2524	97.9844	14.512	1.800	1.587	149.9072	14.511
1906	116.2599	100.0125	14.549	1.700	1.587	235.9147	14.556	1970	22.4675	98.3826	20.397	1.800	1.587	142.1223	20.400
1907	134.2456	99.9916	17.263	1.700	1.587	253.9004	17.271	1971	18.6174	98.8726	25.930	1.800	1.587	138.2722	25.938
1908	152.0618	99.8938	21.016	1.700	1.587	271.7166	21.025	1972	10.2393	99.4206	27.911	1.800	1.587	129.8941	27.922
1909	314.6286	100.0179	39.396	1.800	1.587	34.2834	39.414	1973	6.8942	98.8771	25.666	1.800	1.587	126.5490	25.674
1910	317.4491	99.6566	40.604	1.800	1.587	37.1039	40.622	1974	7.1817	98.8674	24.857	1.800	1.587	126.8365	24.864
1911	319.0418	99.6295	40.163	1.800	1.587	38.6966	40.181	1975	8.6929	98.6348	22.447	1.800	1.587	128.3477	22.452
1912	321.2923	99.5861	33.965	1.800	1.587	40.9471	33.980	1976	6.9718	98.5479	21.387	1.800	1.587	126.6266	21.391
1913	323.3010	99.4559	33.485	1.800	1.587	42.9558	33.499	1977	11.6281	98.5440	21.718	1.800	1.587	131.2829	21.722
1914	320.7425	99.8893	28.880	1.800	1.587	40.3973	28.893	1978	10.3561	98.9085	21.608	1.800	1.587	130.0109	21.615
1915	327.0404	99.4050	27.479	1.800	1.587	46.6952	27.490	1979	13.3221	98.6453	16.744	1.800	1.587	132.9769	16.748
1916	329.6182	99.3054	27.121	1.800	1.587	49.2730	27.132	1980	10.4222	98.0856	16.922	1.800	1.587	130.0770	16.922
1917	336.1888	99.0079	21.360	1.800	1.587	55.8436	21.367	1981	14.7011	97.9724	16.051	1.800	1.587	134.3559	16.050
1918	339.5348	98.9614	21.156	1.800	1.587	59.1896	21.163	1982	16.1618	98.0782	17.219	1.800	1.587	135.8166	17.219
1919	337.4919	98.9889	22.259	1.800	1.587	57.1467	22.266	1983	388.9059	98.2290	16.670	1.800	1.587	108.5607	16.671

1984	383.6752	98.1569	16.095	1.800	1.587	103.3300	16.096
1985	385.0169	98.2795	17.497	1.800	1.587	104.6717	17.499
1986	388.2190	98.5424	20.547	1.800	1.587	107.8738	20.551
1987	390.9906	98.6449	21.603	1.800	1.587	110.6454	21.608
1988	386.2693	98.6752	21.494	1.800	1.587	105.9241	21.499
1989	388.6118	99.0137	21.232	1.800	1.587	108.2666	21.239
1990	11.2199	98.7133	23.623	1.800	1.587	130.8747	23.629
1991	14.8493	98.6643	23.228	1.800	1.587	134.5041	23.233
1992	14.6241	98.6357	23.011	1.800	1.587	134.2789	23.016
1993	0.0150	99.0859	26.927	1.800	1.587	119.6698	26.936
1994	392.2267	98.9156	24.090	1.800	1.587	111.8815	24.097
1995	390.1346	98.9087	24.078	1.800	1.587	109.7894	24.085
1996	388.2185	98.9273	24.296	1.800	1.587	107.8733	24.304
1997	391.1217	98.9616	24.789	1.800	1.587	110.7765	24.797
1998	391.3536	99.0003	25.587	1.800	1.587	111.0084	25.595
1999	384.8285	99.5205	28.073	1.800	1.587	104.4833	28.085
2000	374.8561	99.1864	27.287	1.800	1.587	94.5109	27.297
2001	372.2336	99.1274	26.931	1.800	1.587	91.8884	26.941
2002	367.1557	99.1291	27.225	1.800	1.587	86.8105	27.235
2003	367.8867	98.8622	23.956	1.800	1.587	87.5415	23.963
2004	371.6360	98.7999	23.169	1.800	1.587	91.2908	23.175
2005	368.8598	98.7281	22.589	1.800	1.587	88.5146	22.595
2006	369.4396	99.0272	23.219	1.800	1.587	89.0944	23.227
2007	366.9878	98.7843	22.319	1.800	1.587	86.6426	22.325
2008	366.1388	98.7224	21.853	1.800	1.587	85.7936	21.859
2009	372.2771	98.7683	22.756	1.800	1.587	91.9319	22.762
2010	373.9514	98.7461	22.543	1.800	1.587	93.6062	22.549
2011	374.1437	98.7469	22.831	1.800	1.587	93.7985	22.837
2012	365.0111	98.6536	19.727	1.800	1.587	84.6659	19.732
2013	364.1047	98.6027	18.765	1.800	1.587	83.7595	18.769
2014	359.1081	98.6816	19.183	1.800	1.587	78.7629	19.188
2015	363.5114	99.1519	19.189	1.800	1.587	83.1662	19.196
2016	364.2281	99.6626	31.973	1.800	1.587	83.8829	31.987
2017	358.7590	99.2226	30.360	1.800	1.587	78.4138	30.371
2018	356.2985	99.1092	27.113	1.800	1.587	75.9533	27.123
2019	354.7128	99.0564	26.327	1.800	1.587	74.3676	26.336
2020	352.5445	99.0998	27.246	1.800	1.587	72.1993	27.256
2021	356.4106	99.1031	27.170	1.800	1.587	76.0654	27.180
2022	348.7444	98.9041	24.179	1.800	1.587	68.3992	24.186
2023	346.2313	98.8877	23.016	1.800	1.587	65.8861	23.023
2024	344.5903	98.9135	23.956	1.800	1.587	64.2451	23.963
2025	348.0898	99.1377	28.663	1.800	1.587	67.7446	28.673
2026	345.0369	99.2057	30.233	1.800	1.587	64.6917	30.244
2027	348.3019	99.4065	34.935	1.800	1.587	67.9567	34.949
2028	350.4232	99.4455	34.967	1.800	1.587	70.0780	34.982
2029	353.2093	99.7150	36.239	1.800	1.587	72.8641	36.255
2030	342.2856	99.4836	40.115	1.800	1.587	61.9404	40.132
2031	340.4319	99.4697	40.239	1.800	1.587	60.0867	40.256
2032	340.0340	99.4859	40.531	1.800	1.587	59.6888	40.548
2033	334.4347	99.5423	45.977	1.800	1.587	54.0895	45.997
2034	336.0225	99.6015	45.779	1.800	1.587	55.6773	45.799
2035	337.6635	99.8903	47.563	1.800	1.587	57.3183	47.584
2036	327.6902	99.5524	45.633	1.800	1.587	47.3450	45.653
2037	330.0488	99.5215	51.466	2.150	1.587	49.7036	51.488
2038	323.8706	99.4967	51.466	2.150	1.587	43.5254	51.488
2039	317.3117	99.5005	48.303	2.150	1.587	36.9665	48.323
2040	316.3000	99.1402	39.927	2.150	1.587	35.9548	39.941
2041	317.9706	99.2515	47.359	2.150	1.587	37.6254	47.377
2042	317.1577	99.3117	47.916	2.150	1.587	36.8125	47.935
2043	328.3741	99.2716	50.652	2.150	1.587	48.0289	50.672
2044	336.4677	99.2002	47.028	2.150	1.587	56.1225	47.046
2045	337.3574	99.2554	47.488	2.150	1.587	57.0122	47.506
2046	326.1182	99.3424	51.576	2.150	1.587	45.7730	51.597
2047	316.8676	99.1585	42.255	2.150	1.587	36.5224	42.270

2048	65.4298	98.7840	32.959	2.150	1.587	185.0846	32.968
2049	66.5804	98.6956	33.223	2.150	1.587	186.2352	33.231
2050	66.5924	98.6995	33.864	2.150	1.587	186.2472	33.872
2051	62.1958	98.7666	35.633	2.150	1.587	181.8506	35.642
2052	61.0753	98.8687	34.694	2.150	1.587	180.7301	34.704
2053	58.4216	98.9168	37.481	2.150	1.587	178.0764	37.493
2054	57.5646	98.9280	37.643	2.150	1.587	177.2194	37.655
2055	56.6660	98.9194	37.514	2.150	1.587	176.3208	37.526
2056	56.5353	98.9711	37.175	2.150	1.587	176.1901	37.187
2057	56.7069	98.9451	36.831	2.150	1.587	176.3617	36.843
2057	57.5563	98.7450	37.012	2.150	1.587	177.2111	37.022
2058	60.4903	98.6404	36.193	2.150	1.587	180.1451	36.201
2059	60.6971	98.5765	35.080	2.150	1.587	180.3519	35.087
2060	62.5273	98.4944	34.747	2.150	1.587	182.1821	34.753
2061	64.5838	98.4567	33.699	2.150	1.587	184.2386	33.704

Coordenadas calculadas

Número	X	Y	Z
1643	236482.941	4140895.550	8.955
1644	236483.953	4140896.349	8.873
1645	236486.034	4140896.216	8.896
1646	236487.111	4140895.030	9.098
1647	236483.001	4140892.726	9.139
1648	236481.434	4140892.551	9.066
1649	236477.012	4140894.949	9.057
1650	236475.307	4140894.125	9.071
1651	236473.583	4140894.179	9.123
1652	236472.185	4140886.358	9.186
1653	236474.738	4140883.385	9.287
1654	236471.737	4140884.757	9.259
1655	236468.641	4140886.196	9.254
1656	236466.281	4140887.354	9.252
1657	236460.238	4140890.599	9.277
1658	236461.895	4140890.781	9.190
1659	236477.477	4140883.182	9.149
1660	236518.802	4140873.108	9.031
1661	236523.390	4140880.072	9.190
1662	236524.640	4140879.542	9.184
1663	236524.162	4140879.603	9.192
1664	236544.565	4140872.188	9.016
1665	236543.455	4140869.069	9.182
1666	236543.056	4140864.218	9.191
1667	236543.481	4140861.420	9.165
1668	236544.720	4140852.811	8.973
1669	236544.715	4140850.922	8.927
1670	236542.504	4140843.836	8.853
1671	236540.432	4140844.292	8.876
1672	236542.813	4140851.842	9.058
1673	236542.795	4140852.207	9.058
1674	236542.598	4140852.844	9.070
1675	236541.939	4140856.520	9.090
1676	236540.978	4140863.444	9.173
1677	236540.757	4140866.330	9.155
1678	236541.376	4140870.194	9.177
1679	236543.459	4140869.435	9.186
1680	236543.885	4140869.454	9.187
1681	236545.315	4140870.385	9.176
1682	236545.546	4140870.300	9.176
1683	236545.098	4140868.976	9.194
1684	236544.716	4140868.191	9.180
1685	236545.483	4140868.652	9.169
1686	236545.100	4140867.304	9.171
1687	236547.060	4140867.660	9.194
1688	236546.808	4140861.132	9.139
1689	236546.995	4140861.308	9.106

1690	236545.355	4140854.681	9.030	1754	236553.215	4140883.459	9.017
1691	236541.875	4140844.284	8.875	1755	236553.634	4140884.567	8.997
1692	236540.494	4140844.660	8.895	1756	236554.617	4140884.892	9.051
1693	236542.778	4140852.111	9.025	1757	236546.632	4140887.266	9.094
1694	236542.587	4140851.349	9.048	1758	236547.846	4140887.305	9.097
1695	236544.065	4140858.221	9.058	1759	236548.549	4140888.190	9.139
1696	236543.943	4140858.710	9.086	1760	236551.653	4140890.253	9.161
1697	236544.107	4140859.097	9.087	1761	236554.122	4140890.524	9.142
1698	236544.949	4140858.948	9.076	1762	236553.828	4140891.795	9.146
1699	236544.665	4140858.068	9.062	1763	236555.287	4140889.043	9.080
1700	236542.367	4140859.163	9.130	1764	236552.964	4140888.860	9.125
1701	236542.107	4140865.001	9.170	1765	236553.299	4140889.636	9.147
1702	236542.266	4140866.117	9.168	1766	236552.425	4140890.013	9.156
1703	236540.664	4140865.309	9.143	1767	236550.866	4140890.958	9.174
1704	236540.953	4140866.548	9.147	1768	236547.320	4140889.895	9.108
1705	236541.639	4140866.380	9.148	1769	236546.911	4140888.762	9.089
1706	236539.159	4140866.745	9.119	1770	236546.251	4140889.011	9.080
1707	236535.860	4140860.218	9.116	1771	236545.011	4140889.583	9.087
1708	236534.163	4140857.773	9.080	1772	236545.434	4140890.726	9.105
1709	236531.928	4140860.897	9.104	1773	236544.777	4140890.971	9.110
1710	236532.040	4140864.119	9.049	1774	236540.000	4140887.027	9.200
1711	236534.136	4140857.819	9.082	1775	236541.891	4140889.415	9.103
1712	236535.816	4140860.272	9.117	1776	236543.093	4140887.151	9.150
1713	236539.140	4140857.554	9.133	1777	236546.634	4140887.673	9.112
1714	236539.127	4140866.857	9.131	1778	236547.408	4140887.672	9.109
1715	236530.959	4140866.054	9.003	1779	236547.923	4140887.550	9.093
1716	236525.526	4140867.936	9.023	1780	236546.562	4140884.111	9.027
1717	236526.831	4140868.269	9.026	1781	236548.702	4140883.451	8.992
1718	236530.446	4140864.920	9.030	1782	236549.880	4140886.410	9.073
1719	236531.006	4140865.739	9.026	1783	236550.303	4140886.712	9.040
1720	236534.450	4140864.393	9.088	1784	236555.143	4140884.940	9.027
1721	236533.984	4140863.404	9.072	1785	236557.090	4140886.792	9.037
1722	236535.217	4140864.087	9.085	1786	236552.320	4140888.508	9.096
1723	236539.207	4140862.341	9.155	1787	236554.272	4140890.136	9.136
1724	236539.525	4140860.989	9.168	1788	236555.209	4140892.211	9.067
1725	236531.702	4140858.287	9.154	1789	236557.114	4140898.003	9.046
1726	236537.494	4140847.670	8.978	1790	236554.944	4140898.715	9.072
1727	236536.114	4140842.939	8.983	1791	236553.001	4140892.489	9.140
1728	236535.905	4140843.174	9.211	1792	236552.518	4140893.088	9.122
1729	236537.184	4140847.598	9.220	1793	236550.569	4140893.457	9.163
1730	236531.506	4140858.108	9.237	1794	236549.648	4140893.573	9.157
1731	236533.527	4140855.354	9.104	1795	236553.210	4140893.018	9.080
1732	236542.430	4140842.825	8.674	1796	236552.716	4140891.713	9.171
1733	236545.373	4140852.313	8.830	1797	236551.748	4140890.695	9.171
1734	236546.308	4140855.253	8.906	1798	236549.790	4140889.354	9.136
1735	236544.906	4140855.776	8.994	1799	236546.329	4140890.133	9.094
1736	236545.529	4140857.830	9.020	1800	236541.698	4140889.384	9.109
1737	236546.948	4140857.371	8.941	1801	236525.062	4140909.017	9.079
1738	236548.501	4140862.355	9.004	1802	236525.471	4140908.855	9.082
1739	236548.452	4140866.787	9.020	1803	236525.307	4140908.382	9.073
1740	236546.515	4140870.728	9.034	1804	236524.877	4140908.545	9.070
1741	236548.202	4140860.085	8.977	1805	236526.119	4140909.352	9.090
1742	236548.648	4140859.959	8.993	1806	236525.663	4140908.285	9.074
1743	236546.743	4140855.302	8.923	1807	236526.279	4140907.188	9.069
1744	236557.239	4140857.396	9.143	1808	236528.634	4140906.023	9.060
1745	236555.773	4140852.636	9.098	1809	236530.457	4140905.222	9.053
1746	236545.147	4140872.742	9.025	1810	236533.374	4140904.121	9.046
1747	236548.901	4140882.342	9.058	1811	236533.812	4140905.176	9.047
1748	236542.062	4140885.099	9.075	1812	236534.095	4140904.908	9.035
1749	236541.900	4140884.622	9.083	1813	236534.547	4140906.004	9.054
1750	236548.381	4140883.098	9.008	1814	236535.988	4140905.305	9.037
1751	236549.729	4140884.081	9.040	1815	236535.576	4140904.192	9.022
1752	236550.673	4140886.028	9.070	1816	236535.547	4140904.578	9.031
1753	236553.937	4140883.236	9.054	1817	236535.163	4140903.500	9.029

1818	236539.022	4140902.008	9.020	1882	236557.604	4140907.884	9.006
1819	236542.966	4140900.540	9.011	1883	236555.504	4140900.610	9.111
1820	236546.546	4140899.163	9.009	1884	236558.372	4140902.352	9.087
1821	236551.329	4140897.338	9.062	1885	236560.310	4140908.969	8.983
1822	236552.148	4140899.489	9.061	1886	236561.175	4140910.759	8.973
1823	236553.200	4140898.928	9.067	1887	236564.242	4140916.754	8.860
1824	236550.927	4140900.110	9.044	1888	236564.309	4140916.297	8.692
1825	236551.568	4140900.577	9.203	1889	236563.024	4140911.856	8.733
1826	236551.648	4140900.802	9.205	1890	236562.646	4140911.203	8.954
1827	236552.611	4140904.391	9.149	1891	236562.318	4140909.990	8.967
1828	236551.525	4140906.633	9.156	1892	236561.129	4140910.416	8.974
1829	236550.434	4140906.160	9.184	1893	236561.702	4140911.612	8.958
1830	236550.057	4140906.008	9.287	1894	236559.745	4140906.738	9.033
1831	236549.740	4140905.807	9.427	1895	236560.846	4140904.700	9.040
1832	236546.824	4140905.044	9.587	1896	236560.744	4140903.788	8.862
1833	236552.635	4140909.337	9.105	1897	236559.518	4140899.304	9.007
1834	236552.201	4140910.300	9.112	1898	236561.317	4140898.756	8.985
1835	236548.325	4140908.447	9.614	1899	236560.586	4140896.229	9.024
1836	236546.790	4140908.060	9.778	1900	236558.839	4140890.738	9.058
1837	236545.687	4140908.198	9.944	1901	236557.238	4140891.291	9.062
1838	236544.241	4140908.774	10.058	1902	236555.968	4140887.622	9.050
1839	236544.340	4140908.970	9.903	1903	236557.514	4140887.075	8.928
1840	236545.786	4140908.394	9.872	1904	236559.602	4140892.853	8.953
1841	236547.175	4140908.332	9.848	1905	236554.818	4140884.530	8.920
1842	236548.292	4140908.704	9.834	1906	236551.309	4140883.266	8.930
1843	236554.861	4140911.844	9.135	1907	236546.155	4140884.125	8.935
1844	236554.964	4140911.668	9.042	1908	236540.107	4140886.530	8.968
1845	236536.326	4140906.876	10.088	1909	236579.306	4140929.402	8.822
1846	236536.446	4140906.644	10.350	1910	236581.450	4140929.482	9.052
1847	236536.157	4140905.863	10.389	1911	236582.039	4140928.550	9.067
1848	236541.835	4140904.908	10.074	1912	236579.471	4140922.756	9.054
1849	236541.976	4140904.598	10.358	1913	236580.019	4140921.724	9.119
1850	236542.240	4140905.230	10.366	1914	236576.220	4140918.835	8.883
1851	236542.539	4140905.688	10.347	1915	236577.496	4140915.987	9.090
1852	236543.111	4140905.783	10.345	1916	236578.057	4140914.969	9.129
1853	236542.781	4140906.038	10.036	1917	236575.522	4140909.227	9.166
1854	236542.361	4140905.861	10.055	1918	236576.053	4140908.222	9.178
1855	236542.017	4140905.428	10.047	1919	236576.501	4140909.448	9.187
1856	236546.088	4140903.846	9.862	1920	236573.473	4140909.457	9.000
1857	236546.574	4140902.637	9.934	1921	236573.193	4140904.412	9.134
1858	236546.489	4140902.147	9.964	1922	236573.547	4140902.493	9.180
1859	236546.168	4140901.947	10.015	1923	236574.088	4140901.454	9.212
1860	236546.189	4140902.192	10.230	1924	236571.305	4140899.821	9.156
1861	236546.356	4140902.297	10.301	1925	236571.268	4140899.582	9.164
1862	236546.363	4140902.603	10.353	1926	236572.630	4140899.222	9.203
1863	236545.659	4140904.200	10.339	1927	236571.408	4140896.554	9.210
1864	236550.980	4140900.375	9.976	1928	236570.154	4140898.073	9.061
1865	236551.237	4140900.532	9.966	1929	236571.565	4140895.726	9.236
1866	236551.444	4140900.883	9.959	1930	236572.099	4140894.684	9.260
1867	236552.383	4140904.397	9.912	1931	236568.968	4140890.086	9.227
1868	236551.353	4140906.381	9.908	1932	236568.225	4140889.005	9.219
1869	236551.212	4140900.236	9.216	1933	236567.825	4140889.473	9.200
1870	236552.643	4140899.767	9.147	1934	236569.477	4140889.007	9.253
1871	236553.067	4140901.127	9.163	1935	236567.752	4140883.171	9.254
1872	236551.845	4140901.461	9.190	1936	236566.168	4140883.766	9.155
1873	236552.481	4140899.976	9.159	1937	236567.419	4140888.628	9.130
1874	236552.833	4140901.083	9.165	1938	236565.209	4140881.129	9.145
1875	236551.984	4140901.350	9.183	1939	236565.350	4140881.086	9.162
1876	236553.266	4140901.653	9.158	1940	236566.019	4140883.367	9.146
1877	236553.634	4140903.173	9.131	1941	236567.608	4140880.222	9.294
1878	236553.013	4140903.375	9.145	1942	236568.567	4140882.407	9.287
1879	236552.350	4140902.453	9.182	1943	236564.960	4140880.348	9.162
1880	236560.114	4140913.897	8.938	1944	236564.987	4140879.644	9.178
1881	236559.376	4140912.305	8.946	1945	236565.490	4140879.115	9.185

1946	236571.616	4140876.633	9.194
1947	236580.004	4140873.267	9.211
1948	236580.697	4140873.241	9.214
1949	236581.290	4140873.800	9.204
1950	236580.619	4140874.029	9.314
1951	236572.889	4140876.968	9.335
1952	236581.398	4140874.812	9.191
1953	236582.081	4140877.096	9.151
1954	236579.352	4140875.613	9.316
1955	236579.843	4140877.970	9.295
1956	236574.360	4140880.116	9.313
1957	236573.552	4140877.871	9.300
1958	236580.603	4140878.086	9.283
1959	236582.201	4140883.513	9.262
1960	236583.834	4140882.980	9.221
1961	236582.196	4140877.480	9.157
1962	236578.765	4140880.327	9.309
1963	236578.363	4140881.179	9.304
1964	236576.149	4140881.947	9.333
1965	236575.424	4140882.080	9.321
1966	236571.139	4140886.155	9.308
1967	236567.531	4140884.708	9.225
1968	236568.229	4140885.079	9.274
1969	236569.368	4140885.320	9.292
1970	236575.187	4140883.032	9.351
1971	236580.482	4140880.896	9.292
1972	236583.992	4140882.931	9.087
1973	236582.565	4140885.167	9.286
1974	236581.779	4140885.393	9.275
1975	236579.355	4140885.896	9.314
1976	236578.639	4140886.878	9.321
1977	236578.244	4140885.317	9.330
1978	236578.349	4140885.750	9.204
1979	236573.643	4140887.274	9.189
1980	236574.160	4140887.866	9.342
1981	236572.861	4140887.319	9.344
1982	236573.657	4140886.382	9.353
1983	236575.612	4140893.331	9.297
1984	236575.165	4140894.725	9.299
1985	236576.543	4140894.283	9.306
1986	236579.486	4140893.031	9.303
1987	236580.398	4140891.970	9.293
1988	236580.498	4140893.569	9.280
1989	236580.152	4140892.816	9.162
1990	236579.996	4140884.551	9.310
1991	236578.996	4140883.582	9.320
1992	236578.851	4140883.763	9.326
1993	236584.753	4140887.375	9.220
1994	236582.771	4140891.095	9.243
1995	236582.893	4140891.877	9.246
1996	236583.210	4140892.568	9.242
1997	236583.534	4140891.389	9.237
1998	236584.306	4140891.162	9.235
1999	236587.107	4140893.590	9.045
2000	236586.288	4140897.917	9.182
2001	236585.814	4140898.990	9.202
2002	236585.744	4140901.169	9.206
2003	236582.597	4140900.226	9.261
2004	236582.051	4140898.727	9.270
2005	236581.320	4140899.621	9.284
2006	236581.979	4140899.526	9.188
2007	236580.927	4140900.216	9.259
2008	236580.408	4140900.404	9.272
2009	236581.671	4140898.443	9.273

2010	236581.527	4140897.827	9.277
2011	236581.821	4140897.787	9.282
2012	236578.254	4140900.273	9.250
2013	236577.253	4140900.303	9.245
2014	236577.222	4140901.849	9.230
2015	236577.621	4140900.583	9.089
2016	236590.059	4140903.578	9.003
2017	236587.734	4140905.668	9.204
2018	236584.303	4140905.569	9.212
2019	236583.322	4140905.886	9.223
2020	236583.790	4140907.094	9.218
2021	236584.373	4140905.546	9.216
2022	236580.359	4140907.085	9.249
2023	236578.888	4140907.321	9.235
2024	236579.374	4140908.329	9.242
2025	236584.163	4140909.480	9.221
2026	236584.803	4140911.494	9.210
2027	236589.707	4140912.424	9.159
2028	236590.280	4140911.409	9.138
2029	236592.103	4140910.556	8.995
2030	236592.263	4140918.155	9.159
2031	236591.692	4140919.184	9.168
2032	236591.779	4140919.560	9.160
2033	236593.637	4140925.936	9.164
2034	236594.232	4140924.938	9.120
2035	236596.377	4140925.132	8.915
2036	236589.999	4140929.165	9.154
2037	236595.329	4140932.143	8.870
2038	236591.615	4140935.482	8.890
2039	236585.601	4140935.969	8.862
2040	236580.470	4140929.305	9.022
2041	236585.491	4140934.907	9.040
2042	236585.291	4140935.708	9.001
2043	236593.796	4140932.489	9.063
2044	236595.399	4140925.484	9.074
2045	236596.173	4140925.262	9.039
2046	236593.075	4140934.391	9.016
2047	236582.034	4140931.069	9.042
2048	236566.745	4140863.499	9.113
2049	236566.221	4140863.109	9.164
2050	236566.352	4140862.481	9.175
2051	236569.116	4140861.363	9.173
2052	236569.437	4140862.440	9.100
2053	236571.750	4140860.275	9.121
2054	236572.280	4140860.297	9.117
2055	236572.730	4140860.607	9.120
2056	236572.678	4140860.950	9.084
2057	236572.460	4140861.234	9.093
2057	236572.063	4140860.891	9.213
2058	236570.200	4140861.112	9.256
2059	236569.750	4140862.137	9.267
2060	236568.692	4140862.166	9.305
2061	236567.351	4140862.890	9.300

Radiación desde la estación 8007

X	236571.020	Desorientación	368.5238
Y	4140881.847	Nombre	
Z	9.301	Coef. anamorfosis	1.0004549491

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
2062	260.3141	101.0097	34.242	1.300	1.613	228.8379	34.253
2063	260.8479	101.0192	32.452	1.300	1.613	229.3717	32.463
2064	261.3376	101.0724	30.831	1.300	1.613	229.8614	30.841
2065	262.0388	101.0428	28.875	1.300	1.613	230.5626	28.884
2066	260.3561	100.9804	27.893	1.300	1.613	228.8799	27.902

2067	257.8434	100.8942	27.359	1.300	1.613	226.3672	27.369	2131	229.1922	100.7439	13.945	1.500	1.613	197.7160	13.950
2068	241.4646	100.8954	27.714	1.300	1.613	209.9884	27.724	2132	249.2441	100.8001	12.954	1.500	1.613	217.7679	12.959
2069	224.0463	101.0450	30.346	1.300	1.613	192.5701	30.356	2133	278.6934	100.8366	13.718	1.500	1.613	247.2172	13.723
2070	225.8737	101.0191	32.604	1.300	1.613	194.3975	32.615	2134	259.2573	100.8363	11.612	1.500	1.613	227.7811	11.616
2071	227.1860	100.9922	34.524	1.300	1.613	195.7098	34.535	2135	259.9322	101.4052	8.575	1.500	1.613	228.4560	8.577
2072	230.8793	100.9254	40.556	1.300	1.613	199.4031	40.570	2136	281.7868	100.9182	11.203	1.500	1.613	250.3106	11.207
2073	232.9197	100.6484	37.911	1.300	1.613	201.4435	37.926	2137	282.9204	101.0031	10.955	1.500	1.613	251.4442	10.959
2074	234.5260	100.6401	38.403	1.300	1.613	203.0498	38.418	2138	223.2033	100.8470	11.672	1.500	1.613	191.7271	11.676
2075	228.9779	100.6990	31.196	1.300	1.613	197.5017	31.208	2139	219.8054	100.8464	11.671	1.500	1.613	188.3292	11.675
2076	236.6197	100.5316	31.093	1.300	1.613	205.1435	31.106	2140	220.6287	100.9636	10.932	1.500	1.613	189.1525	10.936
2077	237.4528	100.5080	29.983	1.300	1.613	205.9766	29.996	2141	219.3550	100.9974	10.579	1.500	1.613	187.8788	10.582
2078	239.9489	100.4762	30.732	1.300	1.613	208.4727	30.745	2142	218.6145	100.9048	11.438	1.500	1.613	187.1383	11.442
2079	247.5682	100.5157	29.956	1.300	1.613	216.0920	29.969	2143	215.5806	100.9748	11.299	1.500	1.613	184.1044	11.303
2080	249.2984	100.5450	29.286	1.300	1.613	217.8222	29.298	2144	217.0623	101.1467	9.976	1.500	1.613	185.5861	9.979
2081	251.0156	100.5453	30.134	1.300	1.613	219.5394	30.147	2145	215.7711	101.2313	9.669	1.500	1.613	184.2949	9.672
2082	255.6412	100.6195	29.663	1.300	1.613	224.1650	29.675	2146	213.9880	100.8607	11.827	1.500	1.613	182.5118	11.831
2083	257.1810	100.6197	30.501	1.300	1.613	225.7048	30.513	2147	178.9481	100.9323	13.402	1.500	1.613	147.4719	13.407
2084	254.5948	100.6947	37.443	1.300	1.613	223.1186	37.458	2148	187.7010	100.9316	13.085	1.500	1.613	156.2248	13.090
2085	256.1055	100.7223	36.671	1.300	1.613	224.6293	36.685	2149	193.3234	101.0016	12.256	1.500	1.613	161.8472	12.260
2086	255.1498	100.7886	36.988	1.300	1.613	223.6736	37.002	2150	229.8163	101.6895	7.686	1.500	1.613	198.3401	7.687
2087	234.0932	100.6629	38.087	1.300	1.613	202.6170	38.102	2151	280.7984	101.7685	7.720	1.500	1.613	249.3222	7.721
2088	230.5834	100.6545	31.239	1.300	1.613	199.1072	31.252	2152	296.2977	101.7118	7.863	1.500	1.613	264.8215	7.864
2089	237.6132	100.4802	30.789	1.300	1.613	206.1370	30.802	2153	309.5963	102.0481	7.142	1.500	1.613	278.1201	7.142
2090	249.6639	100.5046	30.203	1.300	1.613	218.1877	30.216	2154	321.5257	102.3786	6.736	1.500	1.613	290.0495	6.734
2091	240.5782	100.7485	37.370	1.300	1.613	209.1020	37.384	2155	324.3223	102.2269	7.103	1.500	1.613	292.8461	7.102
2092	255.8727	100.5777	33.562	1.300	1.613	224.3965	33.576	2156	399.6799	102.0238	8.420	1.500	1.613	368.2037	8.420
2093	257.8538	100.6297	28.711	1.300	1.613	226.3776	28.723	2157	396.9531	101.9515	8.742	1.500	1.613	365.4769	8.742
2094	243.4311	100.4615	30.271	1.300	1.613	211.9549	30.284	2158	375.9537	101.5358	14.776	1.500	1.613	344.4775	14.778
2095	229.6698	100.6800	35.250	1.300	1.613	198.1936	35.264	2159	379.1730	101.4692	15.447	1.500	1.613	347.6968	15.450
2096	229.6554	100.6777	35.212	1.300	1.613	198.1792	35.226	2160	380.5025	101.4689	15.641	1.500	1.613	349.0263	15.644
2097	228.1144	100.6775	34.517	1.300	1.613	196.6382	34.531	2161	5.8656	102.0187	8.886	1.500	1.613	374.3894	8.886
2098	231.0658	100.6227	30.550	1.300	1.613	199.5896	30.562	2162	18.5093	101.5974	11.936	1.500	1.613	387.0331	11.938
2099	259.1258	100.6651	33.159	1.300	1.613	227.6496	33.172	2163	19.3472	101.6213	12.279	1.500	1.613	387.8710	12.281
2100	238.1420	100.5189	29.538	1.300	1.613	206.6658	29.550	2164	391.9815	101.4012	17.622	1.500	1.613	360.5053	17.626
2101	236.3964	100.5477	29.723	1.300	1.613	204.9202	29.735	2165	18.0952	101.3984	14.797	1.500	1.613	386.6190	14.800
2102	228.0134	100.6953	31.232	1.300	1.613	196.5372	31.244	2166	8.4024	101.3994	16.225	1.500	1.613	376.9262	16.228
2103	262.1582	101.0021	32.904	1.300	1.613	230.6820	32.915	2167	0.4557	101.4144	17.942	1.500	1.613	368.9795	17.946
2104	264.0671	101.1031	28.112	1.300	1.613	232.5909	28.121	2168	149.2357	101.4675	12.234	1.500	1.613	117.7595	12.236
2105	260.0797	100.6849	29.321	1.300	1.613	228.6035	29.333	2169	149.3707	101.3758	12.762	1.500	1.613	117.8945	12.765
2106	259.3262	100.7836	30.746	1.300	1.613	227.8500	30.758	2170	171.6760	101.0884	12.919	1.500	1.613	140.1998	12.923
2107	258.9545	100.7838	32.352	1.300	1.613	227.4783	32.364	2171	164.9552	100.7086	21.365	1.500	1.613	133.4790	21.373
2108	230.4475	100.6648	33.531	1.300	1.613	198.9713	33.544	2172	151.6778	101.0630	20.701	1.500	1.613	120.2016	20.707
2109	229.2835	100.6821	31.938	1.300	1.613	197.8073	31.951	2173	84.3908	100.7493	51.389	1.500	1.613	52.9146	51.409
2110	264.3122	101.1167	26.558	1.300	1.613	232.8360	26.566	2174	83.4791	100.8626	46.301	1.500	1.613	52.0029	46.318
2111	264.6162	101.1026	26.197	1.300	1.613	233.1400	26.205	2175	83.9501	100.9352	42.948	1.500	1.613	52.4739	42.963
2112	284.9961	101.3060	29.871	1.300	1.613	253.5199	29.878	2176	85.4998	101.0185	40.160	1.500	1.613	54.0236	40.173
2113	284.6342	101.3047	30.189	1.300	1.613	253.1580	30.196	2177	90.0597	101.2111	35.194	1.500	1.613	58.5835	35.204
2114	263.5015	101.0767	28.192	1.300	1.613	232.0253	28.201	2178	92.8386	101.1484	36.341	1.500	1.613	61.3624	36.352
2115	264.2655	101.1118	26.436	1.300	1.613	232.7893	26.444	2179	102.4299	101.2260	31.007	1.500	1.613	70.9537	31.015
2116	259.0970	100.9602	26.711	1.300	1.613	227.6208	26.720	2180	133.8069	101.0407	23.472	1.500	1.613	102.3307	23.480
2117	263.5497	101.1855	23.596	1.300	1.613	232.0735	23.603	2181	132.4802	101.0566	21.593	1.500	1.613	101.0040	21.600
2118	252.8303	101.1276	23.441	1.300	1.613	221.3541	23.448	2182	155.0485	101.0192	20.997	1.500	1.613	123.5723	21.004
2119	234.4983	101.1613	24.775	1.300	1.613	203.0221	24.782	2183	160.7930	100.9027	21.856	1.500	1.613	129.3168	21.864
2120	226.3132	101.1363	26.069	1.300	1.613	194.8370	26.077	2184	165.8200	100.6397	23.646	1.500	1.613	134.3438	23.656
2121	227.6725	101.0212	29.082	1.300	1.613	196.1963	29.091	2185	167.9927	100.5685	24.948	1.500	1.613	136.5165	24.958
2122	226.7804	101.0429	29.249	1.300	1.613	195.3042	29.258	2186	169.3675	100.5327	29.778	1.500	1.613	137.8913	29.790
2123	221.9908	101.5723	21.744	1.300	1.613	190.5146	21.747	2187	167.1692	100.6036	35.366	1.500	1.613	135.6930	35.380
2124	223.2457	101.5547	21.901	1.300	1.613	191.7695	21.904	2188	166.6502	100.4993	36.985	1.500	1.613	135.1740	37.001
2125	221.1406	100.9644	21.631	1.500	1.613	189.6644	21.638	2189	164.8870	100.4233	44.101	1.500	1.613	133.4108	44.120
2126	226.2396	100.9172	21.680	1.500	1.613	194.7634	21.688	2190	164.8375	100.1974	37.419	1.500	1.613	133.3613	37.436
2127	225.6934	101.0164	20.820	1.500	1.613	194.2172	20.827	2191	158.6600	100.1978	40.445	1.500	1.613	127.1838	40.463
2128	221.9860	100.9288	19.798	1.500	1.613	190.5098	19.805	2192	156.6055	100.1371	38.745	1.500	1.613	125.1293	38.762
2129	216.5889	100.6957	17.346	1.500	1.613	185.1127	17.353	2193	155.1380	100.1302	35.937	1.500	1.613	123.6618	35.953
2130	203.3683	100.5318	18.786	1.500	1.613	171.8921	18.794	2194	159.3276	100.1176	35.918	1.500	1.613	127.8514	35.934

2195	159.6768	100.0990	36.967	1.500	1.613	128.2006	36.984	2259	86.0924	99.9701	43.083	2.000	1.613	54.6162	43.103		
2196	160.6743	100.1872	37.993	1.500	1.613	129.1981	38.010	2260	85.8193	99.9919	41.865	2.000	1.613	54.3431	41.884		
2197	155.3239	100.1406	31.194	1.500	1.613	123.8477	31.208	2261	91.4434	99.9375	41.460	2.000	1.613	59.9672	41.479		
2198	160.2161	100.1425	31.243	1.500	1.613	128.7399	31.257	2262	91.6573	99.9526	39.934	2.000	1.613	60.1811	39.952		
2199	161.4274	100.1778	26.305	1.500	1.613	129.9512	26.317	2263	90.1012	99.9822	40.067	2.000	1.613	58.6250	40.085		
2200	155.6975	100.1635	26.113	1.500	1.613	124.2213	26.125	2264	95.8975	99.9276	37.972	2.000	1.613	64.4213	37.989		
2201	162.7085	100.7240	22.670	1.500	1.613	131.2323	22.679	2265	85.5935	100.2122		39.122	2.000	1.613	54.1173	39.140	
2202	156.0733	100.9473	21.243	1.500	1.613	124.5971	21.250	2266	85.5766	101.3506		39.076	1.300	1.613	54.1004	39.085	
2203	154.8935	101.0001	20.995	1.500	1.613	123.4173	21.002	2267	89.9546	101.5651		34.811	1.300	1.613	58.4784	34.816	
2204	136.1161	101.0307	21.468	1.500	1.613	104.6399	21.475	2268	102.8190		101.6264		27.947	1.300	1.613	71.3428	27.951
2205	137.6555	100.7875	23.396	1.500	1.613	106.1793	23.405	2269	131.3426		101.6720		21.591	1.300	1.613	99.8664	21.593
2206	166.3860	100.2308	37.176	1.500	1.613	134.9098	37.193	2270	183.5046		100.7109		44.266	1.300	1.613	152.0284	44.283
2207	163.6729	100.1961	36.950	1.500	1.613	132.1967	36.967	2271	188.3080		100.8162		38.120	1.300	1.613	156.8318	38.134
2208	163.7861	100.3035	35.891	1.500	1.613	132.3099	35.907	2272	196.2517		101.1424		35.046	1.300	1.613	164.7755	35.056
2209	166.6983	100.4472	36.099	1.500	1.613	135.2221	36.114	2273	204.5609		101.2498		35.786	1.300	1.613	173.0847	35.795
2210	164.7627	100.3281	32.471	1.500	1.613	133.2865	32.485	2274	210.2864		101.1970		39.298	1.300	1.613	178.8102	39.309
2211	167.4777	100.5654	24.858	1.500	1.613	136.0015	24.868	2275	210.9947		101.1752		39.879	1.300	1.613	179.5185	39.890
2212	154.8258	100.5399	23.051	1.500	1.613	123.3496	23.061	2276	214.6679		101.1237		43.447	1.300	1.613	183.1917	43.460
2213	160.3712	100.1249	37.067	1.500	1.613	128.8950	37.084	2277	212.9982		100.8351		43.849	1.300	1.613	181.5220	43.865
2214	160.0350	100.0976	35.708	1.500	1.613	128.5588	35.724	2278	210.0734		100.8433		41.277	1.300	1.613	178.5972	41.292
2215	162.3534	100.2068	35.845	1.500	1.613	130.8772	35.861	2279	210.2095		100.8659		40.400	1.300	1.613	178.7333	40.415
2216	162.1041	100.5133	37.130	1.300	1.613	130.6279	37.146	2280	208.9545		100.8488		40.420	1.300	1.613	177.4783	40.435
2217	157.9533	100.4931	40.551	1.300	1.613	126.4771	40.568	2280	209.4036		100.8477		40.456	1.300	1.613	177.9274	40.471
2218	157.2891	100.4528	39.955	1.300	1.613	125.8129	39.972	2281	205.9157		100.8650		38.373	1.300	1.613	174.4395	38.387
2219	156.0350	100.4525	39.967	1.300	1.613	124.5588	39.984	2282	209.8285		101.2126		39.021	1.300	1.613	178.3523	39.032
2220	156.0187	100.4226	41.135	1.300	1.613	124.5425	41.153	2283	209.1337		100.8706		39.861	1.300	1.613	177.6575	39.875
2221	157.9144	100.4920	41.259	1.300	1.613	126.4382	41.276	2284	210.8553		101.1470		38.594	1.300	1.613	179.3791	38.605
2222	156.7397	100.5443	40.631	1.300	1.613	125.2635	40.648	2285	211.5262		101.1206		38.286	1.300	1.613	180.0500	38.297
2223	160.4729	100.4963	36.475	1.300	1.613	128.9967	36.490	2286	211.6775		101.1385		39.297	1.300	1.613	180.2013	39.309
2224	161.5390	100.5403	35.645	1.300	1.613	130.0628	35.660	2287	212.3286		101.1166		39.068	1.300	1.613	180.8524	39.080
2225	163.1842	100.5873	34.622	1.300	1.613	131.7080	34.636	2288	206.4498		101.2216		35.392	1.300	1.613	174.9736	35.402
2226	162.3779	100.6045	34.016	1.300	1.613	130.9017	34.030	2289	222.1917		101.0317		30.251	1.300	1.613	190.7155	30.261
2227	160.9458	100.5195	33.525	1.300	1.613	129.4696	33.539	2290	226.1214		100.9450		34.871	1.300	1.613	194.6452	34.883
2228	152.0691	100.3868	34.790	1.300	1.613	120.5929	34.805	2291	211.5477		100.7472		45.564	1.300	1.613	180.0715	45.582
2229	151.0298	100.3479	35.298	1.300	1.613	119.5536	35.313	2292	205.3877		100.7599		40.197	1.300	1.613	173.9115	40.212
2230	150.9615	100.3749	34.008	1.300	1.613	119.4853	34.023	2293	203.7597		100.6446		41.307	1.300	1.613	172.2835	41.324
2231	160.7716	100.5312	30.355	1.300	1.613	129.2954	30.368	2294	203.6040		100.6632		41.070	1.300	1.613	172.1278	41.086
2232	158.9075	100.5315	30.198	1.300	1.613	127.4313	30.211	2295	203.7636		100.7271		40.041	1.300	1.613	172.2874	40.057
2233	159.0367	100.5453	29.302	1.300	1.613	127.5605	29.314	2296	199.7218		100.7618		37.493	1.300	1.613	168.2456	37.507
2234	153.0725	100.5999	26.919	1.300	1.613	121.5963	26.930	2297	198.3323		100.7103		37.478	1.300	1.613	166.8561	37.493
2235	151.9231	100.6416	26.202	1.300	1.613	120.4469	26.213	2298	198.6516		100.6785		38.594	1.300	1.613	167.1754	38.609
2236	148.7597	100.9079	24.209	1.300	1.613	117.2835	24.218	2299	191.9831		100.6845		44.970	1.300	1.613	160.5069	44.988
2237	144.4784	100.4900	25.732	1.300	1.613	113.0022	25.743	2300	188.9739		100.6324		41.643	1.300	1.613	157.4977	41.660
2238	144.1946	100.8157	24.518	1.300	1.613	112.7184	24.527	2301	187.8895		100.5970		40.799	1.300	1.613	156.4133	40.816
2239	146.2479	100.8156	24.460	1.300	1.613	114.7717	24.469	2302	188.2709		100.6179		39.664	1.300	1.613	156.7947	39.680
2240	136.1963	100.9491	25.190	1.300	1.613	104.7201	25.199	2303	189.3295		100.6607		39.343	1.300	1.613	157.8533	39.359
2241	134.2308	101.2380	24.160	1.300	1.613	102.7546	24.166	2304	189.031								

2322	157.1234	102.3602	12.332	1.300	1.613	125.6472	12.329
2323	152.1464	102.4825	12.258	1.300	1.613	120.6702	12.254
2324	149.3265	102.5319	12.204	1.300	1.613	117.8503	12.200
2325	120.8176	102.4984	13.673	1.300	1.613	89.3414 13.669	
2326	131.5875	101.6678	21.485	1.300	1.613	100.1113	21.487
2327	122.5291	101.7889	19.661	1.300	1.613	91.0529 19.662	
2328	103.9505	101.6576	23.726	1.300	1.613	72.4743 23.729	
2329	89.2523 101.4167	30.724	1.300	1.613	57.7761 30.730		
2330	78.9196 101.1175	40.252	1.300	1.613	47.4434 40.264		
2331	74.1944 100.9571	47.498	1.300	1.613	42.7182 47.514		
2332	69.8162 100.8571	56.576	1.300	1.613	38.3400 56.597		
2333	66.1887 100.8356	56.919	1.300	1.613	34.7125 56.940		
2334	70.4827 100.9380	46.895	1.300	1.613	39.0065 46.911		
2335	80.0344 101.2637	32.799	1.300	1.613	48.5582 32.807		
2336	95.5445 101.6464	22.792	1.300	1.613	64.0683 22.795		
2337	119.1460	102.0741	16.969	1.300	1.613	87.6698 16.968	
2338	75.0598 101.1456	35.495	1.300	1.613	43.5836 35.505		
2339	79.4535 101.1622	36.496	1.300	1.613	47.9773 36.506		
2340	83.8104 101.2906	37.748	1.300	1.613	52.3342 37.757		
9999	0.0000 103.4911	33.912	0.000	1.613	368.5238	33.876	

Coordenadas calculadas

Número	X	Y	Z
2062	236556.029	4140851.048	9.071
2063	236556.569	4140852.779	9.094
2064	236557.079	4140854.337	9.095
2065	236557.680	4140856.228	9.141
2066	236558.792	4140856.767	9.184
2067	236560.006	4140856.792	9.230
2068	236566.688	4140854.464	9.224
2069	236574.555	4140851.698	9.116
2070	236573.887	4140849.359	9.092
2071	236573.346	4140847.390	9.076
2072	236571.401	4140841.279	9.024
2073	236570.160	4140843.931	9.228
2074	236569.180	4140843.473	9.228
2075	236572.245	4140850.663	9.271
2076	236568.510	4140850.843	9.354
2077	236568.208	4140851.984	9.375
2078	236566.940	4140851.374	9.384
2079	236563.525	4140852.831	9.371
2080	236562.925	4140853.689	9.363
2081	236561.912	4140853.109	9.356
2082	236560.025	4140854.284	9.325
2083	236559.032	4140853.787	9.317
2084	236557.715	4140846.832	9.205
2085	236557.179	4140847.873	9.198
2086	236557.575	4140847.374	9.156
2087	236569.454	4140843.777	9.217
2088	236571.458	4140850.599	9.293
2089	236568.055	4140851.188	9.382
2090	236562.505	4140852.856	9.375
2091	236565.693	4140844.844	9.175
2092	236558.466	4140850.707	9.309
2093	236559.457	4140855.555	9.330
2094	236565.367	4140852.096	9.394
2095	236572.021	4140846.597	9.237
2096	236572.028	4140846.635	9.239
2097	236572.843	4140847.365	9.247
2098	236571.217	4140851.285	9.315
2099	236557.062	4140851.755	9.267
2100	236567.932	4140852.458	9.373
2101	236568.724	4140852.200	9.358
2102	236572.719	4140850.649	9.273
2103	236555.764	4140852.681	9.096

2104	236557.245	4140857.332	9.127
2105	236558.280	4140855.426	9.298
2106	236557.990	4140853.986	9.235
2107	236557.481	4140852.451	9.216
2108	236571.562	4140848.307	9.264
2109	236572.120	4140849.915	9.272
2110	236557.917	4140858.737	9.148
2111	236557.987	4140859.113	9.160
2112	236548.758	4140861.920	9.001
2113	236548.636	4140861.580	8.995
2114	236557.425	4140857.140	9.137
2115	236557.994	4140858.834	9.152
2116	236559.787	4140857.603	9.211
2117	236559.626	4140861.177	9.175
2118	236563.302	4140859.706	9.199
2119	236569.844	4140857.093	9.162
2120	236573.133	4140855.856	9.149
2121	236572.757	4140852.808	9.147
2122	236573.176	4140852.668	9.135
2123	236574.248	4140860.341	9.077
2124	236573.844	4140860.125	9.079
2125	236574.518	4140860.493	9.086
2126	236572.802	4140860.233	9.102
2127	236572.909	4140861.106	9.081
2128	236573.962	4140862.262	9.125
2129	236575.041	4140864.967	9.224
2130	236579.051	4140864.855	9.257
2131	236571.521	4140867.906	9.251
2132	236567.450	4140869.390	9.251
2133	236561.750	4140871.729	9.234
2134	236566.110	4140871.319	9.261
2135	236567.313	4140874.113	9.225
2136	236563.057	4140873.961	9.252
2137	236563.097	4140874.276	9.241
2138	236572.533	4140870.269	9.259
2139	236573.149	4140870.367	9.259
2140	236572.874	4140871.070	9.248
2141	236573.023	4140871.456	9.248
2142	236573.316	4140870.638	9.251
2143	236573.813	4140870.895	9.241
2144	236573.260	4140872.123	9.234
2145	236573.382	4140872.468	9.227
2146	236574.230	4140870.459	9.254
2147	236580.869	4140872.751	9.218
2148	236579.328	4140871.732	9.222
2149	236577.936	4140871.724	9.221
2150	236571.221	4140874.163	9.210
2151	236565.619	4140876.330	9.199
2152	236564.327	4140877.719	9.202
2153	236564.296	4140879.441	9.184
2154	236564.368	4140880.799	9.162
2155	236563.963	4140881.051	9.165
2156	236566.988	4140889.238	9.146
2157	236566.508	4140889.335	9.146
2158	236559.704	4140891.352	9.057
2159	236559.707	4140892.369	9.057
2160	236559.790	4140892.739	9.053
2161	236567.541	4140890.023	9.132
2162	236568.605	4140893.538	9.114
2163	236568.695	4140893.905	9.101
2164	236560.773	4140896.188	9.026
2165	236567.932	4140896.321	9.089
2166	236565.266	4140897.021	9.057
2167	236562.618	4140897.704	9.015

2168	236582.783	4140878.478	9.132	2232	236598.469	4140869.229	9.362
2169	236583.284	4140878.306	9.138	2233	236597.630	4140869.549	9.363
2170	236581.451	4140874.218	9.193	2234	236596.415	4140872.886	9.360
2171	236589.506	4140871.118	9.176	2235	236595.892	4140873.572	9.350
2172	236590.694	4140875.386	9.068	2236	236594.351	4140875.353	9.269
2173	236608.997	4140916.497	8.809	2237	236596.228	4140876.626	9.416
2174	236604.786	4140913.552	8.787	2238	236595.059	4140876.980	9.300
2175	236602.557	4140911.023	8.783	2239	236594.833	4140876.220	9.301
2176	236601.164	4140908.403	8.771	2240	236596.150	4140879.980	9.238
2177	236599.033	4140903.168	8.744	2241	236595.164	4140880.802	9.144
2178	236600.880	4140902.580	8.758	2242	236592.076	4140874.277	9.176
2179	236598.863	4140895.512	8.817	2243	236592.491	4140869.170	9.231
2180	236594.484	4140880.988	9.030	2244	236593.479	4140869.683	9.296
2181	236592.617	4140881.506	9.056	2245	236594.104	4140866.830	9.215
2182	236590.601	4140874.246	9.078	2246	236596.076	4140865.720	9.215
2183	236590.606	4140872.131	9.104	2247	236605.374	4140872.888	9.513
2184	236591.316	4140869.696	9.176	2248	236603.141	4140873.828	9.493
2185	236591.984	4140868.303	9.191	2249	236598.967	4140881.663	9.306
2186	236595.688	4140865.144	9.165	2250	236599.910	4140883.961	9.361
2187	236600.984	4140863.034	9.079	2251	236599.087	4140884.087	9.192
2188	236602.515	4140862.428	9.124	2252	236599.721	4140886.395	9.157
2189	236609.202	4140859.741	9.121	2253	236600.683	4140886.034	9.311
2190	236603.432	4140863.115	9.298	2254	236604.687	4140896.144	9.074
2191	236607.850	4140865.090	9.288	2255	236603.218	4140896.752	9.034
2192	236606.802	4140866.941	9.330	2256	236605.737	4140905.664	8.992
2193	236604.518	4140868.790	9.340	2257	236604.588	4140912.029	8.910
2194	236603.570	4140866.623	9.348	2258	236604.061	4140909.406	8.934
2195	236604.434	4140865.995	9.356	2259	236603.626	4140910.037	8.934
2196	236605.102	4140865.019	9.302	2260	236602.587	4140909.376	8.919
2197	236600.064	4140870.428	9.345	2261	236604.565	4140906.245	8.955
2198	236599.146	4140868.211	9.344	2262	236603.409	4140905.238	8.944
2199	236594.478	4140869.917	9.340	2263	236602.933	4140906.103	8.925
2200	236595.277	4140872.146	9.347	2264	236603.229	4140901.990	8.957
2201	236591.024	4140871.162	9.156	2265	236600.427	4140907.676	8.784
2202	236590.704	4140873.839	9.098	2266	236600.379	4140907.648	8.785
2203	236590.617	4140874.295	9.084	2267	236598.690	4140902.979	8.758
2204	236592.438	4140880.283	9.066	2268	236596.186	4140894.008	8.900
2205	236594.315	4140879.579	9.124	2269	236592.613	4140881.892	9.047
2206	236602.760	4140862.459	9.279	2270	236601.320	4140849.552	9.120
2207	236603.359	4140863.938	9.300	2271	236594.942	4140852.149	9.125
2208	236602.401	4140864.396	9.243	2272	236589.442	4140852.021	8.985
2209	236601.747	4140862.870	9.160	2273	236585.707	4140849.204	8.911
2210	236599.165	4140865.625	9.247	2274	236583.864	4140844.696	8.875
2211	236592.017	4140868.521	9.193	2275	236583.634	4140844.003	8.878
2212	236592.547	4140873.577	9.218	2276	236582.362	4140839.893	8.847
2213	236604.349	4140865.587	9.341	2277	236583.574	4140839.817	9.039
2214	236603.210	4140866.353	9.359	2278	236584.642	4140842.867	9.067
2215	236602.745	4140865.128	9.297	2279	236584.271	4140843.667	9.064
2216	236603.949	4140864.658	9.315	2280	236585.028	4140843.916	9.075
2217	236608.130	4140865.457	9.300	2280	236584.773	4140843.785	9.075
2218	236607.751	4140866.080	9.330	2281	236586.022	4140846.513	9.093
2219	236608.066	4140866.802	9.330	2282	236584.038	4140845.050	8.871
2220	236609.153	4140866.372	9.341	2283	236584.729	4140844.402	9.069
2221	236608.788	4140865.194	9.295	2284	236583.307	4140845.249	8.919
2222	236608.509	4140866.136	9.267	2285	236582.826	4140845.415	8.940
2223	236603.790	4140865.795	9.330	2286	236583.049	4140844.424	8.911
2224	236602.777	4140865.626	9.311	2287	236582.598	4140844.522	8.929
2225	236601.448	4140865.300	9.295	2288	236584.581	4140849.146	8.935
2226	236601.119	4140865.970	9.291	2289	236575.418	4140851.908	9.124
2227	236601.029	4140866.870	9.340	2290	236573.951	4140847.087	9.096
2228	236604.020	4140870.784	9.403	2291	236585.057	4140838.481	9.079
2229	236604.681	4140871.170	9.421	2292	236587.042	4140844.964	9.134
2230	236603.462	4140871.595	9.414	2293	236588.448	4140844.378	9.196
2231	236598.229	4140868.361	9.361	2294	236588.439	4140844.636	9.186

2295	236587.912	4140845.526	9.157	2351	73.4002	100.4199	40.496	1.300	1.472	261.0714	40.513
2296	236588.962	4140848.910	9.165	2352	73.5207	100.4132	40.556	1.300	1.472	261.1919	40.574
2297	236589.670	4140849.322	9.196	2353	74.9872	99.7993	39.171	1.700	1.472	262.6584	39.189
2298	236590.057	4140848.257	9.203	2354	73.6862	99.8121	37.597	1.700	1.472	261.3574	37.614
2299	236597.173	4140845.242	9.130	2355	73.6999	99.7647	36.183	1.700	1.472	261.3711	36.199
2300	236596.813	4140849.132	9.200	2356	74.0610	102.7662	35.867	0.000	1.472	261.7322	35.849
2301	236596.832	4140850.230	9.231	2357	87.0791	99.8476	29.146	1.700	1.472	274.7503	29.159
2302	236595.930	4140850.960	9.229	2358	107.5191	100.0433	24.218	1.700	1.472	295.1903	24.229
2303	236595.215	4140850.803	9.206	2359	145.7926	100.2075	23.285	1.700	1.472	333.4638	23.295
2304	236594.863	4140851.548	9.233	2360	161.6662	100.3666	25.640	1.700	1.472	349.3374	25.651
2305	236593.874	4140850.500	9.204	2361	159.8983	99.8879	27.387	1.800	1.472	347.5695	27.399
2306	236592.395	4140851.099	9.196	2362	170.7252	99.9753	30.113	1.800	1.472	358.3964	30.127
2307	236589.664	4140851.360	9.172	2363	170.2782	99.9751	30.390	1.800	1.472	357.9494	30.404
2308	236591.324	4140853.372	9.071	2364	171.6595	100.0384	30.878	1.800	1.472	359.3307	30.892
2309	236596.439	4140852.461	9.150	2365	174.2133	100.0991	29.253	1.800	1.472	361.8845	29.266
2310	236591.717	4140854.262	9.124	2366	187.5892	100.0745	36.360	1.800	1.472	375.2604	36.376
2311	236595.552	4140864.159	9.194	2367	194.9307	100.0910	42.784	1.800	1.472	382.6019	42.803
2312	236600.292	4140862.203	9.171	2368	198.4160	100.1415	47.017	1.800	1.472	386.0872	47.038
2313	236587.208	4140871.253	9.167	2369	201.3200	100.2058	47.847	1.800	1.472	388.9912	47.868
2314	236585.531	4140872.670	9.172	2370	202.9205	100.2686	47.175	1.800	1.472	390.5917	47.196
2315	236587.321	4140877.920	9.112	2371	202.1125	100.2686	46.048	1.800	1.472	389.7837	46.068
2316	236586.969	4140878.665	9.117	2372	199.2314	100.2411	41.741	1.800	1.472	386.9026	41.760
2317	236590.480	4140874.901	9.076	2373	195.6165	100.1111	40.806	1.800	1.472	383.2877	40.824
2318	236590.081	4140875.062	9.087	2374	194.0729	100.2178	36.604	1.800	1.472	381.7441	36.620
2319	236590.224	4140875.527	9.084	2375	190.7272	100.0907	36.232	1.800	1.472	378.3984	36.248
2320	236590.671	4140875.415	9.072	2376	190.2029	100.2858	33.755	1.800	1.472	377.8741	33.770
2321	236590.278	4140873.928	9.081	2377	187.8446	100.2481	33.447	1.800	1.472	375.5158	33.462
2322	236582.362	4140877.013	9.157	2378	187.4228	100.2903	31.680	1.800	1.472	375.0940	31.694
2323	236582.634	4140877.938	9.136	2379	183.5492	100.1485	31.563	1.800	1.472	371.2204	31.577
2324	236582.744	4140878.471	9.129	2380	179.5594	100.2061	27.611	1.800	1.472	367.2306	27.623
2325	236584.498	4140884.125	9.077	2381	175.0487	100.0922	27.663	1.800	1.472	362.7199	27.676
2326	236592.507	4140881.809	9.051	2382	165.3466	100.3229	23.222	1.800	1.472	353.0178	23.232
2327	236590.488	4140884.601	9.061	2383	159.6506	99.9731	23.893	1.800	1.472	347.3218	23.904
2328	236592.565	4140891.790	8.996	2384	164.3967	100.1360	24.135	1.800	1.472	352.0679	24.146
2329	236595.235	4140900.767	8.930	2385	162.3527	100.0413	24.414	1.800	1.472	350.0239	24.425
2330	236598.325	4140911.438	8.907	2386	150.4531	100.0132	20.874	1.800	1.472	338.1243	20.883
2331	236600.564	4140919.060	8.900	2387	145.6810	99.9727	21.904	1.800	1.472	333.3522	21.914
2332	236603.082	4140928.486	8.852	2388	158.8844	100.2963	20.048	1.800	1.472	346.5556	20.057
2333	236600.552	4140930.530	8.867	2389	168.0778	101.1461	20.462	1.800	1.472	355.7490	20.468
2334	236597.998	4140920.225	8.923	2390	133.2649	99.9132	20.089	1.800	1.472	320.9361	20.098
2335	236593.687	4140905.565	8.963	2391	133.6084	100.6410	16.455	1.800	1.472	321.2796	16.462
2336	236590.279	4140894.040	9.025	2392	123.1121	100.6881	16.605	1.800	1.472	310.7833	16.612
2337	236587.671	4140885.113	9.061	2393	132.9719	99.9625	19.899	1.800	1.472	320.6431	19.908
2338	236593.473	4140909.352	8.975	2394	126.9514	99.7535	21.254	1.800	1.472	314.6226	21.263
2339	236596.001	4140908.468	8.948	2395	124.6050	100.0099	20.249	1.800	1.472	312.2762	20.258
2340	236598.679	4140907.549	8.849	2396	113.0433	99.9375	20.592	1.800	1.472	300.7145	20.601
9999	236554.945	4140911.666	9.055	2397	109.9255	99.8500	22.355	1.800	1.472	297.5967	22.365
Radiación desde la estación 8008				2398	108.2593	100.7915	21.750	1.500	1.472	295.9305	21.758
X	236593.340	Desorientación	187.6712	2399	101.7492	102.0197	18.838	1.500	1.472	289.4204	18.837
Y	4140954.116	Nombre		2400	94.9111	100.8368	21.392	1.500	1.472	282.5823	21.400
Z	9.024	Coef. anamorfosis	1.0004548043	2401	96.7680	100.6894	22.962	1.500	1.472	284.4392	22.971
Visuales utilizadas				2402	94.4104	100.4428	25.197	1.500	1.472	282.0816	25.208
Visado	Horizontal	Vertical	Dist.Geom.	2403	84.2767	100.5261	26.522	1.500	1.472	271.9479	26.533
2341	58.2750	100.2375	54.662	1.300	1.472	245.9462	54.686	1.500	1.472	269.7042	27.472
2341	58.3351	100.2353	54.642	1.300	1.472	246.0063	54.666	1.500	1.472	274.0928	27.616
2342	58.2156	100.2426	54.083	1.300	1.472	245.8868	54.107	1.500	1.472	265.0183	30.297
2343	58.4277	100.2479	53.709	1.300	1.472	246.0989	53.733	1.500	1.472	262.5755	30.863
2344	63.0016	100.3061	46.650	1.300	1.472	250.6728	46.671	1.500	1.472	262.6940	33.039
2345	63.2774	100.3110	46.535	1.300	1.472	250.9486	46.556	1.500	1.472	256.5428	34.904
2346	64.0197	100.3272	46.536	1.300	1.472	251.6909	46.556	1.500	1.472	256.9243	37.063
2347	66.3969	100.3005	47.428	1.300	1.472	254.0681	47.449	1.500	1.472	254.8619	36.885
2348	67.4788	100.3332	45.996	1.300	1.472	255.1500	46.016	1.500	1.472	249.9751	35.501
2349	67.6542	100.3267	45.809	1.300	1.472	255.3254	45.829	1.500	1.472	248.9544	38.554
2350	68.1728	100.3063	46.010	1.300	1.472	255.8440	46.030	1.500	1.472	251.0417	40.031

2415	64.0554	100.1290	42.134	1.500	1.472	251.7266	42.153	2479	181.4381	101.4463	24.900	1.500	1.472	369.1093	24.905
2416	60.9763	100.0351	45.984	1.500	1.472	248.6475	46.005	2480	182.2162	101.4636	24.424	1.500	1.472	369.8874	24.429
2417	58.2634	100.0788	46.767	1.500	1.472	245.9346	46.788	2481	170.2846	101.9357	20.679	1.500	1.472	357.9558	20.679
2418	57.6500	100.0943	46.725	1.500	1.472	245.3212	46.746	2482	171.6529	101.7096	19.937	1.500	1.472	359.3241	19.939
2419	56.7781	100.1249	46.443	1.500	1.472	244.4493	46.464	2483	165.6476	101.8289	18.723	1.500	1.472	353.3188	18.724
2420	56.1111	100.1244	47.571	1.500	1.472	243.7823	47.592	2484	167.5766	101.6933	17.821	1.500	1.472	355.2478	17.823
2421	55.7473	100.0979	51.323	1.500	1.472	243.4185	51.346	2485	134.8908	101.7841	14.935	1.500	1.472	322.5620	14.936
2422	53.7461	100.3914	47.559	1.500	1.472	241.4173	47.580	2485	167.5766	101.6932	17.741	1.500	1.472	355.2478	17.743
2423	58.6171	100.0135	52.590	1.500	1.472	246.2883	52.614	2486	93.7769	101.3381	17.919	1.500	1.472	281.4481	17.923
2424	58.1782	100.0604	46.690	1.500	1.472	245.8494	46.711	2487	69.6220	100.7660	26.287	1.500	1.472	257.2932	26.297
2425	55.6956	100.2186	45.303	1.500	1.472	243.3668	45.323	2488	68.0944	100.7218	27.219	1.500	1.472	255.7656	27.230
2426	64.6598	100.2274	38.432	1.500	1.472	252.3310	38.449	2489	71.0232	100.8822	27.948	1.500	1.472	258.6944	27.958
2427	62.3767	100.3620	36.408	1.500	1.472	250.0479	36.424	2490	48.4794	100.4862	23.070	1.500	1.472	236.1506	23.080
2428	56.4365	100.4809	40.710	1.500	1.472	244.1077	40.727	2491	55.5775	101.1857	11.356	1.500	1.472	243.2487	11.359
2429	55.2793	100.4441	40.351	1.500	1.472	242.9505	40.368	2492	40.3835	99.7226	63.088	1.700	1.472	228.0547	63.116
2430	54.5022	100.3960	41.433	1.500	1.472	242.1734	41.451	2493	41.8957	99.7391	52.043	1.700	1.472	229.5669	52.066
2431	57.4726	100.5135	42.043	1.500	1.472	245.1438	42.061	2494	46.1519	99.8229	39.185	1.700	1.472	233.8231	39.203
2432	51.4483	100.2665	53.012	1.500	1.472	239.1195	53.036	2495	53.6298	99.9805	26.552	1.700	1.472	241.3010	26.564
2433	51.3823	100.2667	51.775	1.500	1.472	239.0535	51.798	2496	69.8535	100.1554	12.194	1.700	1.472	257.5247	12.199
2434	57.8471	100.5020	39.543	1.500	1.472	245.5183	39.560	2497	84.4784	100.4919	13.931	1.700	1.472	272.1496	13.937
2435	68.5117	100.7739	29.248	1.500	1.472	256.1829	29.259	2498	61.0736	100.1081	26.374	1.700	1.472	248.7448	26.386
2436	76.6142	101.0240	26.198	1.500	1.472	264.2854	26.206	2499	50.6570	99.9494	40.132	1.700	1.472	238.3282	40.150
2437	79.7633	100.6864	25.027	1.500	1.472	267.4345	25.037	2500	45.0430	99.8108	53.836	1.700	1.472	232.7142	53.860
2438	86.5395	100.5695	25.601	1.500	1.472	274.2107	25.612	2501	59.3716	99.8198	45.920	1.700	1.472	247.0428	45.941
2439	117.7655	100.8776	20.137	1.500	1.472	305.4367	20.144	2502	63.3401	99.9898	40.637	1.700	1.472	251.0113	40.655
2440	116.9567	101.1977	17.899	1.500	1.472	304.6279	17.904	2503	68.7379	99.9616	35.833	1.700	1.472	256.4091	35.849
2441	119.6157	101.8593	17.663	1.500	1.472	307.2869	17.663	2504	74.2467	99.9516	31.454	1.700	1.472	261.9179	31.468
2442	119.8133	101.8592	16.992	1.500	1.472	307.4845	16.992	2505	83.8750	100.1927	27.070	1.700	1.472	271.5462	27.082
2443	156.2809	101.9946	18.258	1.500	1.472	343.9521	18.257	2506	95.6166	100.1217	23.437	1.700	1.472	283.2878	23.448
2444	157.9930	101.9818	19.140	1.500	1.472	345.6642	19.139	2507	110.4081	100.4093	20.986	1.700	1.472	298.0793	20.995
2445	161.4891	101.3659	19.893	1.500	1.472	349.1603	19.897	2508	129.5314	100.2961	20.300	1.700	1.472	317.2026	20.309
2446	161.3224	101.0767	22.300	1.500	1.472	348.9936	22.307	2509	148.0993	100.4552	21.017	1.700	1.472	335.7705	21.026
2447	182.3525	100.9283	28.828	1.500	1.472	370.0237	28.838	2510	163.1007	100.5558	23.023	1.700	1.472	350.7719	23.033
2448	186.0325	101.0850	27.321	1.500	1.472	373.7037	27.329	2511	177.6262	100.5227	27.181	1.700	1.472	365.2974	27.192
2449	187.8089	101.3936	27.878	1.500	1.472	375.4801	27.884	2512	185.7065	100.4904	31.523	1.700	1.472	373.3777	31.536
2450	200.3601	101.0359	38.064	1.500	1.472	388.0313	38.076	2513	192.5086	100.4409	35.930	1.700	1.472	380.1798	35.945
2451	200.7236	100.8005	38.862	1.500	1.472	388.3948	38.877	2514	197.9765	100.4154	41.073	1.700	1.472	385.6477	41.091
2452	197.0757	100.7026	39.221	1.500	1.472	384.7469	39.236	2515	201.3718	100.4161	46.699	1.700	1.472	389.0430	46.719
2453	201.3946	100.7579	40.787	1.500	1.472	389.0658	40.803	2516	53.4437	102.3988	10.901	1.300	1.472	241.1149	10.898
2454	204.9529	101.0251	43.482	1.500	1.472	392.6241	43.496	2517	51.5726	102.3852	10.793	1.300	1.472	239.2438	10.790
2455	206.5808	100.9098	46.325	1.500	1.472	394.2520	46.341	2518	53.8843	102.4022	10.810	1.300	1.472	241.5555	10.807
2456	212.8216	100.7031	51.578	1.500	1.472	0.4928	51.598	2519	86.6181	107.1258	3.502	1.300	1.472	274.2893	3.482
2457	212.8913	100.7030	51.634	1.500	1.472	0.5625	51.654	2520	228.3449	101.9974	14.967	1.300	1.472	16.0161	14.966
2458	213.1059	100.6920	51.609	1.500	1.472	0.7771	51.629	2521	230.9574	101.3709	22.281	1.300	1.472	18.6286	22.286
2459	215.5120	100.7392	48.067	1.500	1.472	3.1832	48.086	2522	233.0744	101.2286	22.009	1.300	1.472	20.7456	22.015
2460	216.8597	100.8003	47.818	1.500	1.472	4.5309	47.836	2523	231.2579	101.2206	28.740	1.300	1.472	18.9291	28.748
2461	212.6938	100.5929	49.438	1.500	1.472	0.3650	49.458	2524	231.0208	100.8184	45.299	1.300	1.472	18.6920	45.316
2462	211.6945	100.7239	48.359	1.500	1.472	399.3657	48.378	2525	231.6566	100.6759	51.874	1.300	1.472	19.3278	51.895
2463	215.4613	100.6459	47.626	1.500	1.472	3.1325	47.645	2526	230.8585	100.6397	67.960	1.300	1.472	18.5297	67.987
2464	214.5816	100.6625	45.320	1.500	1.472	2.2528	45.338	2527	230.8219	100.5594	77.305	1.300	1.472	18.4931	77.337
2465	210.4971	100.6513	45.337	1.500	1.472	398.1683	45.355	2528	230.7781	100.5096	94.021	1.300	1.472	18.4493	94.061
2466	212.3464	100.7291	37.859	1.500	1.472	0.0176	37.874	2529	230.7315	100.4260	113.294	1.300	1.472	18.4027	113.343
2467	210.1724	100.7932	33.743	1.500	1.472	397.8436	33.756	2530	230.7296	100.3748	131.720	1.300	1.472	18.4008	131.777
2468	207.2489	100.7821	34.295	1.500	1.472	394.9201	34.308	2531	230.6670	100.3027	157.610	1.300	1.472	18.3382	157.680
2469	205.7413	100.9884	33.552	1.500	1.472	393.4125	33.563	2532	230.8084	100.2611	168.606	1.300	1.472	18.4796	168.681
2470	207.5871	100.9532	31.895	1.500	1.472	395.2583	31.906	2533	230.6596	100.2953	169.787	1.300	1.472	18.3308	169.862
2471	209.4886	101.1308	31.482	1.500	1.472	397.1598	31.491	2534	230.6597	100.2626	181.784	1.300	1.472	18.3309	181.865
2472	208.1244	100.8596	30.904	1.500	1.472	395.7956	30.915	2535	230.6259	100.2328	195.796	1.300	1.472	18.2971	195.883
2473	213.9593	100.9480	39.811	1.500	1.472	1.6305	39.825	2536	230.6635	100.2104	206.228	1.300	1.472	18.3347	206.320
2474	199.3713	101.4978	21.782	1.500	1.472	387.0425	21.786	2537	230.6746	100.2114	207.425	1.300	1.472	18.3458	207.518
2475	197.6664	101.4031	21.736	1.500	1.472	385.3376	21.741	2538	230.8801	100.2148	207.426	1.300	1.472	18.5513	207.519
2476	196.9969	101.3730	22.151	1.500	1.472	384.6681	22.156	2539	230.8800	100.2150	206.204	1.300	1.472	18.5512	206.296
2477	170.5066	101.9400	20.657	1.500	1.472	358.1778	20.657	2540	230.7577	100.2063	208.863	1.300	1.472	18.4289	208.957
2478	169.2810	101.9122	21.150	1.500	1.472	356.9522	21.150	2541	230.7612	100.2019	210.320	1.300	1.472	18.4324	210.414

2542	230.6412	100.2250	210.442	1.300	1.472	18.3124	210.536	2360	236575.014	4140972.064	8.648
2543	230.6523	100.2203	210.468	1.300	1.472	18.3235	210.562	2361	236573.241	4140972.736	8.744
2544	230.8287	100.2241	210.726	1.300	1.472	18.4999	210.820	2362	236575.024	4140978.035	8.707
2545	230.9362	100.2219	210.280	1.300	1.472	18.6074	210.374	2363	236574.686	4140978.125	8.707
2546	230.9617	100.2427	192.610	1.300	1.472	18.6329	192.696	2364	236574.921	4140978.916	8.677
2547	230.9925	100.2608	182.362	1.300	1.472	18.6637	182.443	2365	236576.846	4140978.291	8.650
2548	231.1577	100.2340	177.658	1.300	1.472	18.8289	177.737	2366	236579.557	4140987.780	8.653
2549	230.9474	100.2351	176.757	1.300	1.472	18.6186	176.836	2367	236581.788	4140995.331	8.634
2550	230.9885	100.2455	172.133	1.300	1.472	18.6597	172.210	2368	236583.142	4141000.035	8.591
2551	231.3035	100.2544	170.777	1.300	1.472	18.9747	170.853	2369	236585.104	4141001.270	8.541
2552	231.0175	100.2628	159.637	1.300	1.472	18.6887	159.708	2370	236586.391	4141000.797	8.497
2553	231.4234	100.2839	155.434	1.300	1.472	19.0946	155.503	2371	236585.979	4140999.592	8.500
2554	231.4663	100.2840	148.802	1.300	1.472	19.1375	148.868	2372	236584.809	4140994.995	8.538
2555	231.0706	100.3000	145.585	1.300	1.472	18.7418	145.649	2373	236582.746	4140993.542	8.624
2556	231.5059	100.3060	142.140	1.300	1.472	19.1771	142.203	2374	236582.982	4140989.241	8.570
2557	231.5628	100.3178	133.997	1.300	1.472	19.2340	134.056	2375	236581.275	4140988.297	8.644
2558	231.1367	100.3266	131.045	1.300	1.472	18.8079	131.103	2376	236581.838	4140985.867	8.544
2559	231.6009	100.3257	126.900	1.300	1.472	19.2721	126.956	2377	236580.786	4140985.133	8.565
2560	231.6434	100.3603	119.276	1.300	1.472	19.3146	119.328	2378	236581.255	4140983.415	8.551
2561	231.2329	100.3640	116.614	1.300	1.472	18.9041	116.665	2379	236579.546	4140982.521	8.622
2562	231.6723	100.3762	112.487	1.300	1.472	19.3435	112.536	2380	236579.741	4140978.160	8.606
2563	231.7354	100.4057	110.961	1.300	1.472	19.4066	111.009	2381	236578.044	4140977.180	8.656
2564	231.8354	100.4122	105.066	1.300	1.472	19.5066	105.111	2382	236577.709	4140971.303	8.578
2565	231.3529	100.4408	101.786	1.300	1.472	19.0241	101.830	2383	236575.742	4140970.293	8.706
2566	231.9108	100.3973	97.666	1.300	1.472	19.5820	97.708	2384	236576.830	4140971.735	8.644
2567	232.0714	100.4141	90.790	1.300	1.472	19.7426	90.829	2385	236576.076	4140971.393	8.680
2568	231.4647	100.4753	86.493	1.300	1.472	19.1359	86.530	2386	236576.091	4140965.888	8.691
2569	232.2009	100.4401	83.135	1.300	1.472	19.8721	83.171	2387	236574.365	4140965.078	8.705
2570	232.1955	100.4400	75.504	1.300	1.472	19.8667	75.536	2388	236578.412	4140967.510	8.602
2571	232.4470	100.4874	68.185	1.300	1.472	20.1182	68.214	2389	236580.231	4140969.835	8.327
2572	231.7970	100.5361	65.581	1.300	1.472	19.4682	65.608	2390	236574.319	4140960.607	8.723
2573	232.7058	100.4795	60.540	1.300	1.472	20.3770	60.566	2391	236577.790	4140959.516	8.530
2574	233.0098	100.5455	53.223	1.300	1.472	20.6810	53.245	2392	236576.966	4140956.916	8.516
2575	233.5573	100.6703	45.912	1.300	1.472	21.2285	45.930	2393	236574.470	4140960.459	8.707
2576	232.3794	100.6945	44.221	1.300	1.472	20.0506	44.238	2394	236572.635	4140958.957	8.778
2577	234.0691	100.7428	38.589	1.300	1.472	21.7403	38.604	2395	236573.458	4140957.998	8.692
2578	233.6131	101.0902	25.762	1.300	1.472	21.2843	25.770	2396	236572.740	4140954.347	8.716
2579	236.1041	101.0749	23.492	1.300	1.472	23.7753	23.499	2397	236570.991	4140953.272	8.748
2580	238.5675	101.6027	16.269	1.300	1.472	26.2387	16.271	2398	236571.627	4140952.726	8.725
2581	229.9831	102.2097	10.549	1.300	1.472	17.6543	10.547	2399	236574.763	4140951.000	8.398
2582	215.1229	105.1795	3.963	1.300	1.472	2.7941	3.952	2400	236572.736	4140948.334	8.714
8010	231.7673	100.3836	71.620	1.300	1.472	19.4385	71.651	2401	236571.052	4140948.557	8.747
Coordenadas calculadas								2402	236569.124	4140947.114	8.820
Número	X	Y	Z					2403	236569.342	4140942.799	8.776
2341	236557.210	4140913.064	8.992					2404	236568.921	4140941.530	8.798
2341	236557.185	4140913.113	8.994					2405	236567.980	4140943.185	8.836
2342	236557.631	4140913.466	8.990					2406	236567.503	4140938.293	8.851
2343	236557.743	4140913.865	8.987					2407	236567.659	4140937.000	8.873
2344	236559.992	4140921.465	8.971					2408	236565.814	4140935.844	8.917
2345	236559.934	4140921.690	8.968					2409	236566.257	4140932.097	8.846
2346	236559.557	4140922.081	8.956					2410	236564.443	4140930.908	8.879
2347	236557.715	4140922.775	8.972					2411	236565.344	4140930.100	8.856
2348	236558.279	4140924.313	8.955					2412	236568.247	4140929.003	8.542
2349	236558.340	4140924.531	8.961					2413	236566.530	4140926.410	8.811
2350	236557.945	4140924.688	8.974					2414	236564.575	4140926.277	8.868
2351	236560.168	4140930.858	8.929					2415	236562.736	4140925.128	8.910
2352	236560.075	4140930.886	8.932					2416	236561.508	4140920.902	8.970
2353	236560.702	4140932.425	8.919					2417	236562.435	4140918.988	8.938
2354	236562.446	4140932.661	8.907					2418	236562.802	4140918.723	8.926
2355	236563.603	4140933.474	8.929					2419	236563.471	4140918.525	8.905
2356	236563.775	4140933.841	8.938					2420	236563.129	4140917.342	8.903
2357	236566.445	4140942.851	8.865					2421	236560.974	4140914.256	8.917
2358	236569.180	4140952.287	8.779					2422	236564.524	4140916.255	8.703
2359	236573.190	4140965.805	8.720					2423	236558.368	4140914.808	8.985

2424	236562.533	4140919.004	8.951	2487	236572.742	4140937.768	8.679
2425	236564.799	4140918.908	8.840	2488	236572.424	4140936.682	8.687
2426	236565.176	4140927.942	8.858	2489	236571.064	4140937.222	8.608
2427	236567.565	4140928.380	8.789	2490	236580.927	4140934.658	8.819
2428	236567.327	4140922.779	8.688	2491	236586.203	4140945.279	8.784
2429	236568.125	4140922.592	8.714	2492	236566.418	4140897.030	9.071
2430	236567.846	4140921.432	8.738	2493	236570.019	4140907.565	9.009
2431	236565.952	4140922.194	8.657	2494	236573.478	4140920.317	8.905
2432	236562.763	4140910.782	8.774	2495	236577.290	4140932.949	8.804
2433	236563.521	4140911.762	8.779	2496	236583.757	4140946.567	8.766
2434	236567.404	4140924.245	8.684	2497	236580.716	4140948.211	8.688
2435	236570.742	4140935.530	8.640	2498	236575.054	4140935.094	8.751
2436	236571.151	4140940.173	8.574	2499	236570.602	4140921.025	8.828
2437	236571.508	4140941.860	8.726	2500	236566.865	4140907.212	8.956
2438	236569.802	4140944.022	8.767	2501	236562.399	4140920.157	8.926
2439	236573.269	4140955.834	8.718	2502	236564.140	4140925.828	8.802
2440	236575.484	4140955.416	8.659	2503	236565.572	4140931.443	8.817
2441	236575.792	4140956.133	8.480	2504	236567.336	4140936.394	8.820
2442	236576.465	4140956.109	8.499	2505	236568.918	4140942.410	8.714
2443	236579.264	4140965.743	8.424	2506	236570.696	4140948.031	8.751
2444	236578.917	4140966.697	8.400	2507	236572.355	4140953.482	8.661
2445	236579.086	4140967.999	8.569	2508	236573.768	4140959.537	8.701
2446	236577.320	4140969.638	8.618	2509	236575.547	4140965.318	8.645
2447	236580.258	4140979.815	8.575	2510	236577.252	4140970.599	8.595
2448	236582.370	4140979.147	8.530	2511	236579.241	4140977.367	8.572
2449	236582.864	4140979.957	8.385	2512	236580.533	4140982.935	8.553
2450	236586.224	4140991.521	8.376	2513	236582.329	4140988.333	8.547
2451	236586.292	4140992.348	8.507	2514	236584.155	4140994.167	8.528
2452	236584.029	4140992.231	8.563	2515	236585.339	4141000.145	8.490
2453	236586.367	4140994.318	8.510	2516	236586.781	4140945.412	8.785
2454	236588.312	4140997.320	8.296	2517	236587.102	4140945.312	8.791
2455	236589.162	4141000.268	8.334	2518	236586.776	4140945.530	8.788
2456	236593.740	4141005.712	8.426	2519	236590.139	4140952.748	8.804
2457	236593.797	4141005.768	8.426	2520	236597.066	4140968.611	8.726
2458	236593.970	4141005.741	8.435	2521	236599.769	4140975.454	8.716
2459	236595.744	4141002.141	8.438	2522	236600.388	4140974.972	8.771
2460	236596.742	4141001.831	8.395	2523	236601.763	4140981.602	8.645
2461	236593.624	4141003.573	8.535	2524	236606.455	4140997.492	8.613
2462	236592.858	4141002.491	8.446	2525	236608.855	4141003.637	8.645
2463	236595.684	4141001.703	8.512	2526	236612.851	4141019.244	8.513
2464	236594.944	4140999.425	8.524	2527	236615.491	4141028.213	8.517
2465	236592.035	4140999.452	8.532	2528	236620.219	4141044.254	8.443
2466	236593.351	4140991.989	8.562	2529	236625.650	4141062.756	8.438
2467	236592.197	4140987.852	8.575	2530	236630.901	4141080.427	8.421
2468	236590.606	4140988.315	8.574	2531	236638.135	4141105.299	8.448
2469	236589.873	4140987.499	8.475	2532	236641.620	4141115.740	8.506
2470	236590.966	4140985.933	8.518	2533	236641.577	4141116.985	8.410
2471	236591.936	4140985.576	8.436	2534	236644.986	4141128.493	8.448
2472	236591.300	4140984.964	8.578	2535	236648.867	4141141.964	8.482
2473	236594.360	4140993.927	8.403	2536	236651.943	4141151.939	8.516
2474	236588.937	4140975.452	8.483	2537	236652.318	4141153.076	8.509
2475	236588.377	4140975.282	8.517	2538	236652.960	4141152.886	8.498
2476	236588.056	4140975.632	8.518	2539	236652.608	4141151.715	8.502
2477	236580.725	4140970.473	8.366	2540	236652.988	4141154.378	8.521
2478	236580.104	4140970.612	8.360	2541	236653.415	4141155.772	8.531
2479	236581.724	4140976.146	8.430	2542	236653.069	4141156.002	8.454
2480	236582.211	4140975.862	8.434	2543	236653.112	4141156.016	8.470
2481	236580.655	4140970.446	8.367	2544	236653.745	4141156.097	8.456
2482	236581.450	4140970.121	8.460	2545	236653.958	4141155.567	8.465
2483	236580.808	4140968.027	8.458	2546	236648.938	4141138.617	8.463
2484	236581.818	4140967.713	8.522	2547	236646.064	4141128.775	8.450
2485	236579.333	4140959.299	8.577	2548	236645.145	4141124.136	8.544
2485	236581.870	4140967.652	8.524	2549	236644.324	4141123.443	8.545
2486	236576.173	4140948.966	8.619	2550	236643.096	4141118.981	8.533

2551	236643.513	4141117.436	8.515							2608	34.6168	100.6238	19.378	1.300	1.522	220.5796	19.386	
2552	236639.554	4141106.991	8.538							2609	36.0254	100.7043	18.185	1.300	1.522	221.9882	18.192	
2553	236639.285	4141102.676	8.504							2610	36.5205	100.9203	16.372	1.300	1.522	222.4833	16.378	
2554	236637.421	4141096.308	8.533							2611	48.6754	104.8963	4.372	1.300	1.522	234.6382	4.361	
2555	236635.602	4141093.499	8.511							2612	214.1639	106.9407		4.098	1.300	1.522	0.1267	4.076
2556	236635.532	4141089.915	8.514							2613	227.5345	102.2494		14.806	1.300	1.522	13.4973	14.803
2557	236633.229	4141082.100	8.528							2614	229.3723	101.6001		21.671	1.300	1.522	15.3351	21.674
2558	236631.511	4141079.539	8.524							2615	236.0282	101.4066		23.325	1.300	1.522	21.9910	23.330
2559	236631.189	4141075.299	8.547							2616	235.2118	101.1097		30.039	1.300	1.522	21.1746	30.048
2560	236628.991	4141067.994	8.521							2617	229.9836	101.2775		30.091	1.300	1.522	15.9464	30.099
2561	236627.476	4141065.675	8.530							2618	230.0870	101.2165		31.138	1.300	1.522	16.0498	31.146
2562	236627.010	4141061.497	8.532							2619	235.1352	100.8686		30.113	1.300	1.522	21.0980	30.124
2563	236626.658	4141060.007	8.489							2620	230.1475	101.1787		33.116	1.300	1.522	16.1103	33.125
2564	236625.046	4141054.331	8.516							2621	234.7647	100.8212		34.156	1.300	1.522	20.7275	34.169
2565	236623.319	4141051.433	8.491							2622	230.2618	101.1556		34.164	1.300	1.522	16.2246	34.174
2566	236622.923	4141047.238	8.587							2623	234.7541	101.0570		34.196	1.300	1.522	20.7169	34.207
2567	236621.059	4141040.612	8.605							2624	234.3981	100.9367		40.764	1.300	1.522	20.3609	40.778
2568	236618.960	4141036.766	8.550							2625	234.1733	100.8639		45.528	1.300	1.522	20.1361	45.544
2569	236618.882	4141033.267	8.621							2626	230.7968	100.8983		47.210	1.300	1.522	16.7596	47.227
2570	236616.532	4141026.004	8.674							2627	230.9483	100.8594		53.680	1.300	1.522	16.9111	53.699
2571	236614.540	4141018.952	8.674							2628	231.4751	100.7982		55.335	1.300	1.522	17.4379	55.356
2572	236613.092	4141016.680	8.644							2629	232.1233	100.7630		56.316	1.300	1.522	18.0861	56.337
2573	236612.397	4141011.605	8.740							2630	236.9851	100.4323		58.968	1.300	1.522	22.9479	58.993
2574	236610.335	4141004.576	8.740							2630	237.0187	100.4324		59.024	1.300	1.522	22.9815	59.049

2671	229.1922	100.8101	29.734	1.500	1.522	15.1550	29.745		2734	136.6526	100.6834	13.216	1.300	1.522	322.6154	13.221
2672	228.4255	100.9338	23.882	1.500	1.522	14.3883	23.890		2735	139.1872	101.1312	10.313	1.300	1.522	325.1500	10.316
2673	226.7221	101.2029	16.434	1.500	1.522	12.6849	16.439		2736	144.4357	101.8243	7.244	1.300	1.522	330.3985	7.244
2674	210.3853	103.3167	4.177	1.500	1.522	396.3481		4.173	2737	185.1072	100.9390	15.177	1.300	1.522	371.0700	15.182
2675	225.9790	101.1172	4.009	1.500	1.522	11.9418	4.010		2738	179.3276	100.6492	18.159	1.300	1.522	365.2904	18.166
2676	254.8454	100.8111	3.612	1.500	1.522	40.8082	3.613		2739	203.4791	100.5309	35.401	1.300	1.522	389.4419	35.416
2677	236.1409	100.5528	9.284	1.500	1.522	22.1037	9.288		2740	207.8092	100.6732	32.998	1.300	1.522	393.7720	33.011
2678	231.2731	100.7313	9.239	1.500	1.522	17.2359	9.243		2741	210.5621	101.0065	24.830	1.300	1.522	396.5249	24.838
2679	235.3388	100.5032	11.664	1.500	1.522	21.3016	11.669		2742	195.9146	101.5464	11.892	1.300	1.522	381.8774	11.894
2680	246.7440	100.1959	14.760	1.500	1.522	32.7068	14.767		2743	140.8158	102.8621	5.183	1.300	1.522	326.7786	5.180
2681	233.3543	100.4889	20.188	1.500	1.522	19.3171	20.197		2744	53.3271	101.0306	11.847	1.300	1.522	239.2899	11.851
2682	234.0179	100.4888	20.600	1.500	1.522	19.9807	20.609		2745	43.3700	99.8292	20.115	1.500	1.522	229.3328	20.124
2683	233.1244	100.4914	20.623	1.500	1.522	19.0872	20.632		2746	39.3631	99.8072	28.563	1.500	1.522	225.3259	28.576
2684	233.0489	100.4914	21.037	1.500	1.522	19.0117	21.046		2747	37.4855	100.0140	40.491	1.500	1.522	223.4483	40.509
2685	236.1771	100.4476	22.218	1.500	1.522	22.1399	22.228		2748	146.0648	99.3812	24.780	1.500	1.522	332.0276	24.790
2686	240.5133	100.3545	25.550	1.500	1.522	26.4761	25.561		2749	143.6642	99.3753	24.708	1.500	1.522	329.6270	24.718
2687	241.1444	100.4511	28.138	1.500	1.522	27.1072	28.150		2750	144.4468	99.3437	22.920	1.500	1.522	330.4096	22.929
2688	231.8949	100.5794	30.386	1.500	1.522	17.8577	30.399		2751	132.7308	99.2975	22.598	1.500	1.522	318.6936	22.607
2689	238.0988	100.3742	35.529	1.500	1.522	24.0616	35.544		2752	132.3603	99.1837	18.467	1.500	1.522	318.3231	18.474
2690	238.0616	100.3740	35.854	1.500	1.522	24.0244	35.870		2753	149.5694	99.1286	19.001	1.500	1.522	335.5322	19.008
2691	235.6700	100.3795	43.062	1.500	1.522	21.6328	43.081		2754	145.8872	99.1693	19.816	1.500	1.522	331.8500	19.823
2692	235.0147	100.4048	42.997	1.500	1.522	20.9775	43.016		2755	135.8669	99.1409	19.430	1.500	1.522	321.8297	19.437
2693	234.9682	100.4047	43.244	1.500	1.522	20.9310	43.263		2756	144.4742	99.2942	21.935	1.500	1.522	330.4370	21.944
2694	237.0130	100.3669	45.495	1.500	1.522	22.9758	45.515		2757	135.6515	99.2645	21.572	1.500	1.522	321.6143	21.580
2695	238.0315	100.3296	43.819	1.500	1.522	23.9943	43.838		2758	137.7241	99.7180	21.644	1.500	1.522	323.6869	21.654
2696	234.9047	100.3787	45.715	1.500	1.522	20.8675	45.735		2759	137.9519	99.7916	20.872	1.500	1.522	323.9147	20.881
2697	234.2121	100.3789	46.590	1.500	1.522	20.1749	46.610		2760	135.7319	99.9749	20.860	1.500	1.522	321.6947	20.869
2698	233.3721	99.5202	46.568	2.000	1.522	19.3349	46.588		2761	137.9741	99.8139	20.232	1.500	1.522	323.9369	20.241
2699	233.3078	99.5203	47.179	2.000	1.522	19.2706	47.199		2762	135.9333	99.8617	20.135	1.500	1.522	321.8961	20.144
2700	234.9133	99.5159	49.951	2.000	1.522	20.8761	49.972		2763	138.3913	99.6327	19.566	1.500	1.522	324.3541	19.575
2701	235.9598	99.5316	54.575	2.000	1.522	21.9226	54.598		2764	121.5645	99.5903	26.144	1.500	1.522	307.5273	26.155
2702	234.7324	99.5576	54.190	2.000	1.522	20.6952	54.213		2765	121.0714	99.5729	26.060	1.500	1.522	307.0342	26.071
2703	233.8450	99.5698	54.771	2.000	1.522	19.8078	54.795		2766	118.2086	99.6641	20.583	1.500	1.522	304.1714	20.592
2704	232.9474	99.6056	54.795	2.000	1.522	18.9102	54.819		2767	121.2988	99.3371	21.008	1.500	1.522	307.2616	21.016
2705	232.9192	99.6056	54.065	2.000	1.522	18.8820	54.088		2768	124.6843	99.6413	21.521	1.500	1.522	310.6471	21.530
2706	232.4236	99.6056	54.077	2.000	1.522	18.3864	54.100		2769	125.9609	99.6486	20.958	1.500	1.522	311.9237	20.967
2707	230.2528	99.7394	47.268	2.000	1.522	16.2156	47.289		2770	114.3797	99.2631	15.772	1.500	1.522	300.3425	15.778
2708	229.0448	99.6918	47.236	2.000	1.522	15.0076	47.257		2771	107.4575	99.5815	15.138	1.500	1.522	293.4203	15.145
2709	230.3784	99.7236	43.024	2.000	1.522	16.3412	43.043		2772	141.8963	99.7661	15.330	1.500	1.522	327.8591	15.337
2710	228.1407	99.5471	37.476	2.000	1.522	14.1035	37.492		2773	145.6795	99.3048	16.619	1.500	1.522	331.6423	16.626
2711	226.8993	99.2938	28.722	2.000	1.522	12.8621	28.733		2774	178.8764	99.7412	24.129	1.500	1.522	364.8392	24.140
2712	225.7008	101.3376	23.279	1.300	1.522	11.6636	23.284		2775	182.7257	100.0251	24.720	1.500	1.522	368.6885	24.731
2713	229.8655	101.2633	30.165	1.300	1.522	15.8283	30.173		2776	196.5535	99.9416	36.730	1.500	1.522	382.5163	36.747
2714	228.9158	101.2332	30.127	1.300	1.522	14.8786	30.135		2777	190.7080	100.1358	29.667	1.500	1.522	376.6708	29.680
2715	230.1762	101.1583	34.163	1.300	1.522	16.1390	34.173		2778	195.2543	100.1276	33.561	1.500	1.522	381.2171	33.576
2716	220.6186	100.9805	30.582	1.300	1.522	6.5814	30.592		2779	197.5225	100.1148	35.886	1.500	1.522	383.4853	35.902
2717	221.3529	101.0284	30.002	1.300	1.522	7.3157	30.012		2780	203.1334	100.4697	42.187	1.300	1.522	389.0962	42.205
2718	218.7706	101.1316	24.330	1.300	1.522	4.7334	24.337		2781	203.4681	100.3241	44.616	1.300	1.522	389.4309	44.636
2719	213.1857	101.0194	24.613	1.300	1.522	399.1485		24.621	2782	211.1537	100.3085	60.025	1.300	1.522	397.1165	60.051
2720	213.8268	101.1894	20.463	1.300	1.522	399.7896		20.469	2783	212.3570	100.3998	60.533	1.300	1.522	398.3198	60.559
2721	202.9384	101.2309	15.789	1.300	1.522	388.9012		15.793	2784	215.4405	100.2829	74.846	1.300	1.522	1.4033	74.879
2722	210.6959	101.0038	24.878	1.300	1.522	396.6587		24.886	2785	216.5850	100.3591	76.352	1.300	1.522	2.5478	76.385
2723	52.9622	99.0008	74.923	2.150	1.522	238.9250	74.948		2786	219.0574	100.3404	90.376	1.300	1.522	5.0202	90.416
2723	68.4390	100.1942	22.326	1.300	1.522	254.4018	22.336		2787	218.9016	100.2731	93.908	1.300	1.522	4.8644	93.950
2724	86.1333	100.3338	17.269	1.300	1.522	272.0961	17.277		2788	218.1137	100.2958	86.828	1.300	1.522	4.0765	86.866
2725	104.6829	100.4924	15.037	1.300	1.522	290.6457		15.043	2789	217.2434	100.2661	86.574	1.300	1.522	3.2062	86.612
2726	102.3558	100.2187	20.488	1.300	1.522	288.3186		20.497	2790	217.1011	100.2845	86.671	1.300	1.522	3.0639	86.709
2727	106.8952	100.2580	23.736	1.300	1.522	292.8580		23.747	2791	217.1779	100.2637	87.268	1.300	1.522	3.1407	87.307
2728	107.8183	100.4333	29.660	1.300	1.522	293.7811		29.673	2792	221.2804	100.3245	108.850	1.300	1.522	7.2432	108.898
2729	98.6338	100.2426	22.048	1.300	1.522	284.5966	22.058		2793	220.9002	100.2743	110.340	1.300	1.522	6.8630	110.389
2730	108.6819	100.2849	19.517	1.300	1.522	294.6447		19.526	Coordenadas calculadas							
2731	118.2905	100.4278	27.375	1.300	1.522	304.2533		27.387	Número X	Y	Z					
2732	76.7291	100.4434	15.523	1.300	1.522	262.6919	15.530		2583	236600.969	4140902.544	8.758				
2733	69.0293	100.6666	13.117	1.300	1.522	254.9921	13.122		2584	236599.013	4140903.096	8.730				

2585	236601.410	4140908.893	8.769
2586	236603.501	4140912.235	8.773
2587	236605.444	4140914.009	8.786
2588	236608.997	4140916.486	8.806
2589	236609.888	4140917.071	8.795
2590	236610.282	4140914.668	8.949
2591	236616.984	4140919.108	8.949
2592	236614.835	4140920.382	8.806
2593	236615.682	4140920.888	8.820
2594	236621.168	4140924.549	8.835
2595	236622.145	4140923.149	8.830
2596	236623.615	4140921.050	8.828
2597	236625.684	4140934.419	8.802
2598	236617.972	4140929.226	8.804
2599	236618.188	4140928.950	8.808
2600	236619.098	4140927.619	8.838
2601	236616.656	4140925.973	8.832
2602	236615.758	4140925.394	8.809
2603	236615.611	4140927.792	8.931
2604	236611.613	4140922.834	8.787
2605	236609.110	4140923.451	8.884
2606	236611.060	4140922.793	8.804
2607	236609.201	4140923.167	8.791
2608	236607.904	4140924.834	8.779
2609	236607.903	4140926.098	8.768
2610	236608.398	4140927.848	8.732
2611	236611.805	4140939.484	8.633
2612	236614.070	4140947.291	8.523
2613	236617.177	4140957.687	8.446
2614	236619.233	4140964.264	8.425
2615	236621.962	4140965.167	8.454
2616	236623.873	4140971.617	8.446
2617	236621.523	4140972.375	8.365
2618	236621.832	4140973.377	8.374
2619	236623.864	4140971.700	8.558
2620	236622.356	4140975.286	8.356
2621	236624.992	4140975.589	8.529
2622	236622.678	4140976.285	8.349
2623	236624.998	4140975.627	8.401
2624	236626.883	4140981.925	8.369
2625	236628.229	4140986.500	8.351
2626	236626.352	4140988.815	8.303
2627	236628.160	4140995.031	8.245
2628	236629.036	4140996.507	8.276
2629	236629.853	4140997.295	8.294
2630	236634.870	4140998.417	8.569
2630	236634.919	4140998.459	8.568
2631	236628.839	4140977.498	8.587
2632	236624.840	4140963.857	8.656
2633	236622.166	4140954.884	8.760
2634	236618.606	4140942.901	8.845
2635	236625.380	4140937.770	9.001
2636	236620.439	4140936.767	8.898
2637	236621.161	4140937.487	8.915
2638	236620.292	4140938.396	8.910
2639	236619.079	4140937.600	8.881

Radiación de puntos
Proyecto : zona 1 Fecha de cálculo : 03/09/2018 13:13
Sistema de referencia : UTM ETRS89
Proyección : UTM - 30N Elipsoide : WGS-84
Ficheros utilizados
Puntos Visuales

CompensacionMMCC total.pts			observaciones 2.obs				
Radiación desde la estación 5035							
X	236727.731		Desorientación		91.5502		
Y	4141467.908		Nombre				
Z	10.381		Coef. anamorfosis		1.0004539322		
Visuales utilizadas							
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
8102	351.2148	100.2723	55.285	1.300	1.621	42.7650	55.309
8103	87.8230	100.6452	28.775	1.300	1.621	179.3732	28.787
9431	132.1040	101.1780	55.888	1.300	1.621	223.6542	55.904
9432	132.1301	101.1930	55.483	1.300	1.621	223.6803	55.498
9433	131.7135	101.1925	55.468	1.300	1.621	223.2637	55.483
9434	131.6925	101.1911	55.038	1.300	1.621	223.2427	55.053
9435	134.5838	101.2542	53.520	1.300	1.621	226.1340	53.534
9436	134.0147	101.2348	53.788	1.300	1.621	225.5649	53.802
9437	133.2097	101.2094	53.712	1.300	1.621	224.7599	53.727
9438	133.3347	101.2253	52.604	1.300	1.621	224.8849	52.618
9439	130.5604	101.2882	46.834	1.300	1.621	222.1106	46.846
9440	129.5461	101.2810	46.811	1.300	1.621	221.0963	46.823
9441	129.6457	101.2913	45.564	1.300	1.621	221.1959	45.575
9442	131.8502	101.2920	46.926	1.300	1.621	223.4004	46.938
9443	128.8824	101.2789	46.771	1.300	1.621	220.4326	46.783
9444	128.6522	101.3785	47.606	1.300	1.621	220.2024	47.616
9445	133.7147	101.3400	47.956	1.300	1.621	225.2649	47.967
9446	138.8248	101.4896	36.887	1.300	1.621	230.3750	36.894
9447	133.7067	101.5194	35.199	1.300	1.621	225.2569	35.205
9448	129.7169	101.5562	34.934	1.300	1.621	221.2671	34.939
9449	129.6356	101.6180	33.157	1.300	1.621	221.1858	33.161
9450	130.1320	101.8198	28.568	1.300	1.621	221.6822	28.569
9451	129.5681	101.8617	28.342	1.300	1.621	221.1183	28.343
9452	130.1280	102.5723	22.077	1.300	1.621	221.6782	22.069
9453	131.3246	102.6899	22.002	1.300	1.621	222.8748	21.992
9454	131.6618	102.6658	21.982	1.300	1.621	223.2120	21.973
9455	138.0736	103.2304	22.188	1.300	1.621	229.6238	22.169
9456	140.3790	103.4653	22.350	1.300	1.621	231.9292	22.327
9457	144.2375	103.6366	23.254	1.300	1.621	235.7877	23.227
9458	146.7235	104.1011	24.995	1.300	1.621	238.2737	24.954
9459	147.2076	103.9529	25.114	1.300	1.621	238.7578	25.077
9460	145.7011	103.0072	24.981	1.300	1.621	237.2513	24.964
9461	144.5652	102.2280	26.216	1.300	1.621	236.1154	26.212
9462	137.5891	102.1290	25.598	1.300	1.621	229.1393	25.595
9463	142.5672	102.0232	27.478	1.300	1.621	234.1174	27.477
9464	143.3305	102.1455	26.364	1.300	1.621	234.8807	26.361
9465	141.7624	102.1046	26.182	1.300	1.621	233.3126	26.180
9466	144.1330	102.2732	26.193	1.300	1.621	235.6832	26.188
9467	137.5726	102.1335	25.592	1.300	1.621	229.1228	25.589
9468	142.5769	102.0215	27.478	1.300	1.621	234.1271	27.477
9469	143.3127	102.1470	26.360	1.300	1.621	234.8629	26.357
9470	141.0526	101.9911	27.318	1.300	1.621	232.6028	27.317
9471	137.3585	103.2663	21.934	1.300	1.621	228.9087	21.915
9472	140.2809	103.5309	20.873	1.300	1.621	231.8311	20.850
9473	138.1148	103.4188	20.706	1.300	1.621	229.6650	20.685
9474	137.0502	102.8406	23.005	1.300	1.621	228.6004	22.992
9475	148.9440	104.6396	17.733	1.300	1.621	240.4942	17.694
9476	148.5071	104.3252	18.250	1.300	1.621	240.0573	18.216
9477	146.2964	103.9055	23.104	1.300	1.621	237.8466	23.071
9478	160.1580	104.4597	16.372	1.300	1.621	251.7082	16.339
9479	159.9144	104.4020	15.931	1.300	1.621	251.4646	15.900
9480	160.5396	104.3075	15.222	1.300	1.621	252.0898	15.194
9481	169.0060	104.6109	11.889	1.300	1.621	260.5562	11.863
9482	173.7799	104.6818	10.928	1.300	1.621	265.3301	10.903
9483	170.8303	104.7888	10.467	1.300	1.621	262.3805	10.442
9484	170.9837	106.0597	6.057	1.300	1.621	262.5339	6.032
9485	177.4359	106.2925	5.397	1.300	1.621	268.9861	5.373

9486	188.5652	106.3691	5.051	1.300	1.621	280.1154	5.028	9550	277.7713	98.3798	22.192	2.150	1.621	369.3215	22.195
9487	159.2613	105.1579	8.220	1.300	1.621	250.8115	8.197	9551	289.7415	97.4871	15.708	2.150	1.621	381.2917	15.703
9488	141.3685	105.2904	7.411	1.300	1.621	232.9187	7.389	9552	303.4883	101.5486	11.187	1.300	1.621	395.0385	11.189
9489	134.7271	105.0819	9.852	1.300	1.621	226.2773	9.825	9553	315.4381	101.8703	9.252	1.300	1.621	6.9883	9.252
9490	208.8465	104.0658	8.321	1.300	1.621	300.3967	8.308	9554	316.5374	101.1154	11.033	1.300	1.621	8.0876	11.036
9491	242.8052	101.9514	11.874	1.300	1.621	334.3554	11.874	9555	315.0031	100.6810	12.622	1.300	1.621	6.5533	12.627
9492	245.1355	104.8462	18.912	0.100	1.621	336.6857	18.866	9556	310.7221	100.4320	14.085	1.300	1.621	2.2723	14.091
9493	253.3668	100.8249	18.986	1.300	1.621	344.9170	18.993	9557	302.0951	101.0990	12.688	1.300	1.621	393.6453	12.692
9494	254.2438	100.8521	18.335	1.300	1.621	345.7940	18.342	9558	318.6760	101.4160	9.594	1.300	1.621	10.2262	9.596
9495	249.5093	100.8187	18.588	1.300	1.621	341.0595	18.595	9559	326.4554	100.9262	8.915	1.300	1.621	18.0056	8.918
9496	246.9352	100.4137	28.847	1.300	1.621	338.4854	28.859	9560	326.4599	100.8529	10.098	1.300	1.621	18.0101	10.102
9497	249.1563	100.6193	29.088	1.300	1.621	340.7065	29.100	9561	329.8055	100.5913	10.915	1.300	1.621	21.3557	10.919
9498	249.4793	100.6444	28.326	1.300	1.621	341.0295	28.337	9562	327.6924	100.2009	14.330	1.300	1.621	19.2426	14.336
9499	246.4843	103.1947	27.863	0.100	1.621	338.0345	27.841	9563	324.9846	99.9973	14.843	1.300	1.621	16.5348	14.850
9500	247.4350	100.5606	26.684	1.300	1.621	338.9852	26.695	9564	322.9394	100.1286	14.455	1.300	1.621	14.4896	14.462
9501	250.5330	100.7612	27.191	1.300	1.621	342.0832	27.201	9565	324.1427	100.8021	11.465	1.300	1.621	15.6929	11.469
9502	251.6451	100.9252	26.489	1.300	1.621	343.1953	26.498	9566	322.4332	99.9150	16.641	1.300	1.621	13.9834	16.649
9503	255.7653	100.8454	25.151	1.300	1.621	347.3155	25.160	9567	332.0304	100.3434	17.440	1.300	1.621	23.5806	17.448
9504	254.1447	100.8794	24.825	1.300	1.621	345.6949	24.834	9568	323.4669	99.7765	17.686	1.300	1.621	15.0171	17.694
9505	255.6535	100.9123	23.702	1.300	1.621	347.2037	23.710	9569	320.6701	99.8515	19.360	1.300	1.621	12.2203	19.369
9506	255.6155	100.6844	23.043	1.300	1.621	347.1657	23.052	9570	317.8955	99.8228	20.765	1.300	1.621	9.4457	20.774
9507	256.1661	100.7115	22.522	1.300	1.621	347.7163	22.531	9571	312.3252	99.7999	23.185	1.300	1.621	3.8754	23.195
9508	257.9576	100.9810	21.674	1.300	1.621	349.5078	21.681	9572	306.7704	99.7951	25.573	1.300	1.621	398.3206	25.584
9509	258.6081	101.0007	21.343	1.300	1.621	350.1583	21.350	9573	291.3695	99.8125	28.861	1.300	1.621	382.9197	28.874
9510	260.4188	101.1039	20.238	1.300	1.621	351.9690	20.244	9574	292.9397	99.8038	28.502	1.300	1.621	384.4899	28.515
9511	261.1187	101.1083	19.848	1.300	1.621	352.6689	19.854	9575	294.2954	99.8067	28.102	1.300	1.621	385.8456	28.115
9512	263.0459	101.1928	18.862	1.300	1.621	354.5961	18.867	9576	308.5853	99.8289	23.251	1.300	1.621	0.1355	23.261
9513	264.6905	101.2940	17.804	1.300	1.621	356.2407	17.808	9577	309.8738	99.8140	22.660	1.300	1.621	1.4240	22.670
9514	267.9614	101.5365	15.282	1.300	1.621	359.5116	15.284	9578	311.4311	99.8287	22.149	1.300	1.621	2.9813	22.159
9515	269.6936	101.7693	13.656	1.300	1.621	361.2438	13.657	9579	313.5200	99.8497	21.631	1.300	1.621	5.0702	21.641
9516	270.6056	101.9888	12.446	1.300	1.621	362.1558	12.446	9580	309.8862	99.8550	21.938	1.300	1.621	1.4364	21.948
9517	324.4020	102.2191	8.356	1.300	1.621	15.9522	8.355	9581	313.3786	99.8467	20.592	1.300	1.621	4.9288	20.601
9518	331.2485	102.0065	8.676	1.300	1.621	22.7987	8.676	9582	314.4522	99.8545	20.150	1.300	1.621	6.0024	20.159
9519	333.4122	101.7705	9.363	1.300	1.621	24.9624	9.364	9583	315.4793	99.8453	20.337	1.300	1.621	7.0295	20.346
9520	332.2204	101.1756	11.231	1.300	1.621	23.7706	11.234	9584	317.0473	99.8513	19.421	1.300	1.621	8.5975	19.430
9521	328.6092	100.4322	14.830	1.300	1.621	20.1594	14.836	9585	316.4173	99.7968	19.302	1.300	1.621	7.9675	19.311
9522	321.4254	100.4129	19.314	1.300	1.621	12.9756	19.322	9586	318.3939	99.8165	18.097	1.300	1.621	9.9441	18.105
9523	311.7222	100.2377	23.939	1.300	1.621	3.2724	23.950	9587	308.0222	99.8752	21.538	1.300	1.621	399.5724	21.548
9524	302.1598	100.1345	27.385	1.300	1.621	393.7100	27.397	9588	308.9658	99.8394	22.423	1.300	1.621	0.5160	22.433
9525	293.9994	100.0964	29.663	1.300	1.621	385.5496	29.676	9589	306.7146	99.8577	22.758	1.300	1.621	398.2648	22.768
9526	284.5860	100.1566	32.574	1.300	1.621	376.1362	32.589	9590	293.6261	99.9593	25.031	1.300	1.621	385.1763	25.042
9527	281.7147	100.1581	33.660	1.300	1.621	373.2649	33.675	9591	293.0056	99.9690	23.884	1.300	1.621	384.5558	23.895
9528	282.6018	100.1255	33.619	1.300	1.621	374.1520	33.634	9592	289.6906	100.0238	24.402	1.300	1.621	381.2408	24.413
9529	279.2442	99.9485	33.020	1.300	1.621	370.7944	33.035	9593	302.8605	100.1487	17.015	1.300	1.621	394.4107	17.023
9530	277.5521	100.1457	35.661	1.300	1.621	369.1023	35.677	9594	306.9016	100.1205	16.652	1.300	1.621	398.4518	16.659
9531	275.8362	99.9607	34.641	1.300	1.621	367.3864	34.657	9595	308.1666	100.0125	17.865	1.300	1.621	399.7168	17.873
9532	273.0147	98.4238	37.162	2.150	1.621	364.5649	37.167	9596	291.3576	100.1966	18.787	1.300	1.621	382.9078	18.795
9533	277.8883	100.0300	31.727	1.300	1.621	369.4385	31.741	9597	283.2017	100.1173	25.314	1.300	1.621	374.7519	25.325
9534	276.9306	100.1168	29.560	1.300	1.621	368.4808	29.573	9598	297.9419	100.0562	18.624	1.300	1.621	389.4921	18.632
9535	277.5749	100.1597	27.448	1.300	1.621	369.1251	27.460	9599	289.8543	101.0456	14.649	1.300	1.621	381.4045	14.654
9536	282.7816	99.9322	31.303	1.300	1.621	374.3318	31.317	9600	293.0453	100.9842	14.533	1.300	1.621	384.5955	14.538
9537	281.7232	99.9755	30.201	1.300	1.621	373.2734	30.215	9601	285.8058	100.9508	15.854	1.300	1.621	377.3560	15.859
9538	282.0370	100.0042	28.737	1.300	1.621	373.5872	28.750	9602	288.4871	100.8810	16.205	1.300	1.621	380.0373	16.211
9539	274.3842	98.3781	30.260	2.150	1.621	365.9344	30.264	9603	281.0026	100.8105	18.116	1.300	1.621	372.5528	18.123
9540	272.1580	98.4557	31.952	2.150	1.621	363.7082	31.957	9604	283.6938	100.8353	18.402	1.300	1.621	375.2440	18.409
9541	267.6931	98.5372	29.188	2.150	1.621	359.2433	29.193	9605	277.4995	100.7850	19.599	1.300	1.621	369.0497	19.606
9542	272.9932	98.3693	27.677	2.150	1.621	364.5434	27.680	9606	280.1548	100.8070	19.686	1.300	1.621	371.7050	19.693
9543	267.7315	98.6317	26.367	2.150	1.621	359.2817	26.373	9607	275.9574	99.5405	21.213	1.700	1.621	367.5076	21.222
9544	263.0093	98.8940	31.597	2.150	1.621	354.5595	31.607	9608	269.1987	99.6245	23.511	1.700	1.621	360.7489	23.521
9545	265.3119	98.6878	32.335	2.150	1.621	356.8621	32.343	9609	266.7204	99.6522	25.415	1.700	1.621	358.2706	25.426
9546	268.1396	98.5757	30.400	2.150	1.621	359.6898	30.406	9610	263.2812	98.7009	27.698	2.150	1.621	354.8314	27.705
9547	265.4187	98.8743	30.160	2.150	1.621	356.9689	30.169	9611	303.8746	99.1165	50.401	2.150	1.621	395.4248	50.419
9548	267.8081	98.9239	28.429	2.150	1.621	359.3583	28.438	9612	294.0774	99.1899	53.959	2.150	1.621	385.6276	53.979
9549	269.6708	98.7368	27.259	2.150	1.621	361.2210	27.266	9613	293.8735	99.2090	53.661	2.150	1.621	385.4237	53.681

9614	294.4242	99.1930	50.357	2.150	1.621	385.9744	50.376	9678	0.5260	99.6883	47.478	1.500	1.621	92.0762	47.499
9615	289.8298	99.2131	52.052	2.150	1.621	381.3800	52.072	9679	0.8848	99.6824	48.219	1.500	1.621	92.4350	48.240
9616	288.2803	99.0735	50.348	2.150	1.621	379.8305	50.365	9680	397.6842	99.7165	48.836	1.500	1.621	89.2344	48.858
9617	285.3666	99.1121	48.850	2.150	1.621	376.9168	48.867	9681	397.4325	99.7137	52.585	1.500	1.621	88.9827	52.608
9618	285.6370	98.9119	49.159	2.150	1.621	377.1872	49.174	9682	64.6969	100.3991	38.788	1.500	1.621	156.2471	38.805
9619	289.4838	100.0083	47.175	1.300	1.621	381.0340	47.196	9683	68.5541	100.3891	39.228	1.500	1.621	160.1043	39.245
9620	290.6223	100.2189	46.293	1.300	1.621	382.1725	46.314	9684	73.7570	100.3789	43.125	1.500	1.621	165.3072	43.144
9621	291.4899	100.0946	47.761	1.300	1.621	383.0401	47.783	9685	74.6505	100.3852	43.085	1.500	1.621	166.2007	43.104
9622	294.1212	100.0817	46.700	1.300	1.621	385.6714	46.721	9686	74.6795	100.3820	42.390	1.500	1.621	166.2297	42.408
9623	293.0684	100.2250	45.282	1.300	1.621	384.6186	45.302	9687	72.7455	100.4116	41.294	1.500	1.621	164.2957	41.312
9624	293.4920	100.2245	45.130	1.300	1.621	385.0422	45.150	9688	70.8943	100.1681	40.759	1.500	1.621	162.4445	40.777
9625	296.5688	100.2046	44.033	1.300	1.621	388.1190	44.053	9689	73.5452	100.3677	38.747	1.500	1.621	165.0954	38.764
9626	297.2750	100.0868	44.934	1.300	1.621	388.8252	44.954	9690	77.5596	100.3180	36.116	1.500	1.621	169.1098	36.132
9627	298.5566	100.1050	45.819	1.300	1.621	390.1068	45.840	9691	81.7859	100.3231	34.046	1.500	1.621	173.3361	34.061
9628	300.2077	100.0935	46.115	1.300	1.621	391.7579	46.136	9692	92.2051	100.2210	36.511	1.500	1.621	183.7553	36.527
9629	300.8255	100.2101	48.272	1.300	1.621	392.3757	48.294	9693	94.8118	100.2308	35.686	1.500	1.621	186.3620	35.702
9630	294.2295	100.1345	47.709	1.300	1.621	385.7797	47.730	9694	93.2408	99.9554	36.804	1.500	1.621	184.7910	36.821
9631	294.5575	100.1124	47.087	1.300	1.621	386.1077	47.108	9695	88.7764	100.1882	32.221	1.500	1.621	180.3266	32.235
9632	294.3890	100.0909	46.403	1.300	1.621	385.9392	46.424	9696	88.5233	100.2394	32.037	1.500	1.621	180.0735	32.051
9633	295.0928	100.1991	49.028	1.300	1.621	386.6430	49.050	9697	90.7095	100.2511	31.315	1.500	1.621	182.2597	31.329
9634	294.3332	100.1512	48.047	1.300	1.621	385.8834	48.069	9698	88.8625	100.2032	30.232	1.500	1.621	180.4127	30.246
9635	298.4704	100.2254	48.933	1.300	1.621	390.0206	48.955	9699	54.8624	100.3708	18.228	1.500	1.621	146.4126	18.236
9636	300.9041	100.1029	46.269	1.300	1.621	392.4543	46.290	9700	48.8736	100.2698	18.665	1.500	1.621	140.4238	18.673
9637	299.0649	99.9796	43.891	1.300	1.621	390.6151	43.911	9701	390.8575	99.8326	21.191	1.500	1.621	82.4077	21.201
9638	301.6872	99.9732	42.976	1.300	1.621	393.2374	42.995	9702	389.5271	99.8904	20.564	1.500	1.621	81.0773	20.573
9639	297.5964	100.2138	43.696	1.300	1.621	389.1466	43.716	9703	381.9331	99.8262	22.660	1.500	1.621	73.4833	22.670
9640	307.7793	99.9767	42.753	1.300	1.621	399.3295	42.772	9704	383.2553	99.7805	23.171	1.500	1.621	74.8055	23.181
9641	312.4266	99.9514	42.088	1.300	1.621	3.9768	42.107	9705	378.6882	99.7718	23.984	1.500	1.621	70.2384	23.995
9642	312.3365	99.8993	41.451	1.300	1.621	3.8867	41.470	9706	379.4729	99.7606	24.268	1.500	1.621	71.0231	24.279
9643	312.7549	99.8879	41.042	1.300	1.621	4.3051	41.060	9707	378.4169	99.7277	24.654	1.500	1.621	69.9671	24.665
9644	315.1873	99.8913	41.015	1.300	1.621	6.7375	41.033	9708	376.3579	99.8612	24.567	1.500	1.621	67.9081	24.578
9645	317.7526	99.8792	40.997	1.300	1.621	9.3028	41.015	9709	376.3128	99.8043	25.445	1.500	1.621	67.8630	25.456
9646	315.8869	99.9838	43.096	1.300	1.621	7.4371	43.115	9710	377.6714	99.8452	25.389	1.500	1.621	69.2216	25.400
9647	315.7882	99.9538	42.240	1.300	1.621	7.3384	42.259	9711	374.4049	99.8068	25.983	1.500	1.621	65.9551	25.995
9648	319.6704	100.1961	40.821	1.300	1.621	11.2206	40.839	9712	371.0599	99.6850	27.796	1.500	1.621	62.6101	27.808
9649	324.6181	100.3016	42.369	1.300	1.621	16.1683	42.388	9713	382.3246	99.8281	30.307	1.500	1.621	73.8748	30.321
9650	323.2585	100.0033	42.182	1.300	1.621	14.8087	42.201	9714	387.5949	99.7629	30.642	1.500	1.621	79.1451	30.656
9651	316.0644	99.8828	40.761	1.300	1.621	7.6146	40.779	9715	356.0513	99.5079	21.121	1.500	1.621	47.6015	21.130
9652	298.4069	99.9662	43.779	1.300	1.621	389.9571	43.799	9716	343.7285	99.5892	22.482	1.500	1.621	35.2787	22.492
9653	297.0079	100.2103	43.586	1.300	1.621	388.5581	43.605	9717	350.7591	99.6488	18.024	1.500	1.621	42.3093	18.032
9654	286.2722	99.3013	32.820	1.700	1.621	377.8224	32.833	9718	331.0153	99.5918	16.093	1.500	1.621	22.5655	16.100
9655	399.9537	99.8975	63.752	1.300	1.621	91.5039	63.781	9719	333.2580	100.0040	11.139	1.500	1.621	24.8082	11.144
9656	399.7148	100.0224	65.865	1.300	1.621	91.2650	65.895	9720	351.6000	99.6050	11.879	1.500	1.621	43.1502	11.884
9657	396.0582	100.0001	58.154	1.300	1.621	87.6084	58.180	9721	344.4801	99.5445	16.630	1.500	1.621	36.0303	16.637
9658	393.5964	100.0279	53.980	1.300	1.621	85.1466	54.004	9722	355.4422	99.7174	10.690	1.500	1.621	46.9924	10.695
9659	392.7073	100.0856	49.520	1.300	1.621	84.2575	49.542	9723	357.5467	99.6669	11.242	1.500	1.621	49.0969	11.247
9660	398.6758	100.3312	43.390	1.300	1.621	90.2260	43.409	9724	361.3233	99.7704	10.932	1.500	1.621	52.8735	10.937
9661	396.1174	100.2598	44.352	1.300	1.621	87.6676	44.372	9725	361.3298	99.5894	9.949	1.500	1.621	52.8800	9.953
9662	4.0668	100.1572	42.923	1.300	1.621	95.6170	42.942	9726	364.2724	99.2031	9.106	1.500	1.621	55.8226	9.109
9663	9.2244	100.2627	41.820	1.300	1.621	100.7746	41.839	9727	375.7578	99.1924	7.410	1.500	1.621	67.3080	7.413
9664	7.8284	100.4955	40.853	1.300	1.621	99.3786	40.870	9728	26.3330	100.3017	5.093	1.500	1.621	117.8832	5.095
9665	4.7522	100.4257	41.570	1.300	1.621	96.3024	41.588	9729	5.8248	100.0526	5.464	1.500	1.621	97.3750	5.466
9666	399.4028	99.9143	61.293	1.300	1.621	90.9530	61.321	9730	390.4495	100.7284	6.741	1.500	1.621	81.9997	6.744
9667	398.3435	99.1245	58.880	2.000	1.621	89.8937	58.901	9731	102.3972	101.5055	15.384	1.500	1.621	193.9474	15.387
9668	397.3610	99.1971	59.982	2.000	1.621	88.9112	60.004	9732	108.8831	101.5498	16.986	1.500	1.621	200.4333	16.989
9669	398.1184	99.2196	61.849	2.000	1.621	89.6686	61.872	9733	111.7961	100.8617	22.153	1.500	1.621	203.3463	22.161
9670	398.4278	99.2950	63.773	2.000	1.621	89.9780	63.798	9734	114.5886	100.7951	27.604	1.500	1.621	206.1388	27.614
9671	395.7605	99.9971	58.378	1.300	1.621	87.3107	58.404	9735	112.7810	101.1584	26.465	1.500	1.621	204.3312	26.473
9672	395.7300	99.8318	55.937	1.300	1.621	87.2802	55.962	9736	120.4237	101.0480	29.747	1.500	1.621	211.9739	29.756
9673	0.7958	99.7754	55.112	1.500	1.621	92.3460	55.137	9737	116.6227	101.0908	29.955	1.500	1.621	208.1729	29.964
9674	399.4803	99.7543	52.721	1.500	1.621	91.0305	52.744	9738	120.7067	101.0458	29.709	1.500	1.621	212.2569	29.718
9675	399.7268	99.7664	52.231	1.500	1.621	91.2770	52.254	9739	115.4202	101.9412	14.834	1.500	1.621	206.9704	14.834
9676	399.4353	99.7478	50.580	1.500	1.621	90.9855	50.602	9740	107.6042	101.6897	15.226	1.500	1.621	199.1544	15.228
9677	0.9125	99.7192	47.361	1.500	1.621	92.4627	47.382	9741	363.2954	99.7544	10.863	1.500	1.621	54.8456	10.868

9742	11.4846	100.3940	10.266	1.500	1.621	103.0348	10.270
9743	0.0038	99.9204	14.551	1.500	1.621	91.5540	14.558
9744	82.0282	100.4554	20.552	1.500	1.621	173.5784	20.561
9745	92.6330	100.7953	19.167	1.500	1.621	184.1832	19.174
9746	110.5776	100.6073	39.273	1.500	1.621	202.1278	39.289
9747	106.2784	100.4675	41.861	1.500	1.621	197.8286	41.879
10002	0.0000	85.7939	153.962	0.000	1.621	91.5502	150.212
Coordenadas calculadas							
Número	X	Y	Z				
8102	236762.154	4141511.200	10.466				
8103	236736.896	4141440.619	10.411				
9431	236707.434	4141415.819	9.668				
9432	236707.560	4141416.205	9.663				
9433	236707.904	4141416.088	9.663				
9434	236708.075	4141416.483	9.673				
9435	236706.367	4141418.822	9.648				
9436	236706.702	4141418.386	9.659				
9437	236707.358	4141418.194	9.682				
9438	236707.683	4141419.259	9.690				
9439	236711.786	4141423.859	9.755				
9440	236712.498	4141423.632	9.761				
9441	236712.836	4141424.835	9.778				
9442	236710.864	4141424.105	9.750				
9443	236712.973	4141423.514	9.763				
9444	236712.873	4141422.669	9.672				
9445	236709.191	4141423.669	9.693				
9446	236710.789	4141435.135	9.839				
9447	236714.128	4141435.437	9.862				
9448	236716.275	4141434.900	9.848				
9449	236716.898	4141436.566	9.860				
9450	236718.188	4141440.979	9.886				
9451	236718.501	4141441.110	9.874				
9452	236720.361	4141447.106	9.810				
9453	236719.998	4141447.320	9.773				
9454	236719.896	4141447.379	9.782				
9455	236717.783	4141448.095	9.577				
9456	236716.997	4141448.330	9.486				
9457	236715.351	4141448.255	9.375				
9458	236713.616	4141447.329	9.093				
9459	236713.390	4141447.336	9.144				
9460	236713.943	4141447.097	9.523				
9461	236713.646	4141445.802	9.785				
9462	236716.421	4141444.947	9.846				
9463	236713.701	4141444.283	9.829				
9464	236714.000	4141445.406	9.814				
9465	236714.649	4141445.231	9.837				
9466	236713.809	4141445.727	9.767				
9467	236716.429	4141444.950	9.845				
9468	236713.697	4141444.285	9.830				
9469	236714.008	4141445.405	9.813				
9470	236714.345	4141444.095	9.848				
9471	236718.118	4141448.214	9.577				
9472	236717.735	4141449.610	9.545				
9473	236718.437	4141449.428	9.591				
9474	236717.746	4141447.197	9.676				
9475	236717.220	4141453.674	9.411				
9476	236717.011	4141453.180	9.463				
9477	236714.809	4141448.795	9.286				
9478	236715.872	4141456.668	9.556				
9479	236716.233	4141456.926	9.602				
9480	236716.641	4141457.522	9.673				
9481	236718.073	4141461.019	9.842				
9482	236718.405	4141462.259	9.899				
9483	236719.060	4141462.090	9.916				

9484	236722.714	4141464.559	10.127
9485	236722.983	4141465.392	10.170
9486	236722.947	4141466.363	10.198
9487	236721.862	4141462.186	10.037
9488	236724.079	4141461.485	10.087
9489	236723.790	4141458.908	9.917
9490	236719.424	4141467.959	10.171
9491	236717.545	4141474.009	10.338
9492	236711.912	4141478.187	10.464
9493	236713.273	4141480.224	10.456
9494	236713.934	4141479.993	10.457
9495	236712.872	4141479.086	10.463
9496	236703.987	4141484.311	10.515
9497	236704.380	4141485.272	10.419
9498	236705.078	4141484.933	10.416
9499	236704.713	4141483.569	10.505
9500	236705.887	4141483.252	10.467
9501	236706.260	4141484.608	10.377
9502	236707.102	4141484.539	10.317
9503	236709.206	4141484.933	10.368
9504	236709.025	4141484.241	10.359
9505	236710.246	4141483.921	10.363
9506	236710.722	4141483.466	10.455
9507	236711.238	4141483.258	10.451
9508	236712.282	4141483.120	10.368
9509	236712.672	4141483.042	10.367
9510	236713.866	4141482.658	10.351
9511	236714.293	4141482.523	10.357
9512	236715.387	4141482.176	10.349
9513	236716.432	4141481.672	10.340
9514	236718.653	4141480.204	10.333
9515	236719.921	4141479.111	10.323
9516	236720.761	4141478.218	10.313
9517	236729.803	4141476.001	10.411
9518	236730.772	4141476.033	10.429
9519	236731.309	4141476.561	10.442
9520	236731.829	4141478.368	10.495
9521	236732.351	4141482.006	10.602
9522	236731.642	4141486.830	10.577
9523	236728.962	4141491.826	10.613
9524	236725.029	4141495.171	10.644
9525	236721.053	4141496.823	10.657
9526	236715.799	4141498.233	10.622
9527	236714.001	4141498.657	10.619
9528	236714.447	4141498.807	10.636
9529	236713.102	4141497.527	10.729
9530	236711.088	4141499.465	10.621
9531	236710.743	4141498.115	10.724
9532	236708.095	4141499.465	10.772
9533	236713.072	4141496.061	10.687
9534	236713.680	4141493.930	10.648
9535	236714.929	4141492.201	10.633
9536	236715.444	4141496.714	10.736
9537	236715.416	4141495.499	10.714
9538	236716.142	4141494.219	10.700
9539	236712.299	4141493.941	10.623
9540	236710.484	4141494.811	10.627
9541	236710.292	4141491.320	10.523
9542	236713.099	4141491.405	10.561
9543	236711.990	4141489.067	10.419
9544	236707.039	4141491.799	10.401
9545	236707.455	4141493.105	10.519
9546	236709.739	4141492.419	10.532
9547	236708.857	4141491.443	10.386

9548	236710.785	4141490.745	10.333	9612	236715.648	4141520.517	10.539
9549	236712.131	4141490.270	10.393	9613	236715.547	4141520.188	10.519
9550	236717.445	4141487.575	10.417	9614	236716.722	4141517.066	10.491
9551	236723.183	4141482.937	10.472	9615	236712.717	4141517.768	10.496
9552	236726.860	4141479.062	10.430	9616	236712.040	4141515.766	10.585
9553	236728.745	4141477.104	10.430	9617	236710.398	4141513.598	10.534
9554	236729.130	4141478.855	10.509	9618	236710.485	4141513.958	10.693
9555	236729.029	4141480.468	10.567	9619	236713.878	4141513.025	10.696
9556	236728.234	4141481.990	10.607	9620	236714.931	4141512.417	10.543
9557	236726.466	4141480.536	10.483	9621	236715.152	4141514.005	10.631
9558	236729.266	4141477.380	10.489	9622	236717.304	4141513.450	10.642
9559	236730.220	4141476.471	10.573	9623	236716.892	4141511.894	10.542
9560	236730.551	4141477.608	10.567	9624	236717.220	4141511.817	10.543
9561	236731.326	4141478.219	10.601	9625	236719.557	4141511.195	10.561
9562	236731.999	4141481.594	10.657	9626	236719.881	4141512.171	10.641
9563	236731.545	4141482.259	10.703	9627	236720.636	4141513.195	10.627
9564	236730.994	4141481.996	10.673	9628	236721.775	4141513.657	10.635
9565	236730.530	4141479.030	10.558	9629	236721.961	4141515.855	10.543
9566	236731.359	4141484.156	10.724	9630	236717.158	4141514.452	10.602
9567	236734.047	4141484.172	10.608	9631	236717.533	4141513.899	10.619
9568	236731.866	4141485.112	10.764	9632	236717.561	4141513.204	10.636
9569	236731.426	4141486.921	10.747	9633	236717.515	4141515.882	10.549
9570	236730.802	4141488.454	10.760	9634	236717.160	4141514.799	10.588
9571	236729.142	4141491.060	10.775	9635	236720.089	4141516.262	10.529
9572	236727.056	4141493.483	10.785	9636	236722.257	4141513.873	10.628
9573	236720.077	4141495.749	10.787	9637	236721.281	4141511.342	10.716
9574	236720.853	4141495.580	10.790	9638	236723.173	4141510.661	10.720
9575	236721.532	4141495.330	10.788	9639	236720.314	4141510.989	10.556
9576	236727.781	4141491.169	10.765	9640	236727.281	4141510.678	10.718
9577	236728.238	4141490.572	10.768	9641	236730.360	4141509.933	10.734
9578	236728.769	4141490.042	10.762	9642	236730.261	4141509.300	10.768
9579	236729.453	4141489.480	10.753	9643	236730.506	4141508.874	10.775
9580	236728.226	4141489.850	10.752	9644	236732.066	4141508.712	10.772
9581	236729.325	4141488.447	10.752	9645	236733.703	4141508.486	10.780
9582	236729.629	4141487.977	10.748	9646	236732.757	4141510.729	10.713
9583	236729.973	4141488.130	10.752	9647	236732.592	4141509.886	10.733
9584	236730.347	4141487.161	10.748	9648	236734.892	4141508.114	10.577
9585	236730.142	4141487.067	10.764	9649	236738.381	4141508.936	10.502
9586	236730.548	4141485.792	10.754	9650	236737.460	4141508.972	10.700
9587	236727.587	4141489.455	10.744	9651	236732.597	4141508.396	10.777
9588	236727.913	4141490.340	10.759	9652	236720.850	4141511.163	10.726
9589	236727.111	4141490.667	10.753	9653	236719.936	4141510.811	10.558
9590	236721.953	4141492.274	10.718	9654	236716.523	4141498.768	10.662
9591	236721.991	4141491.103	10.714	9655	236790.945	4141476.394	10.805
9592	236720.641	4141491.268	10.693	9656	236793.007	4141476.921	10.679
9593	236726.239	4141484.865	10.663	9657	236784.813	4141479.161	10.702
9594	236727.326	4141484.562	10.671	9658	236780.272	4141480.394	10.679
9595	236727.652	4141485.781	10.699	9659	236775.767	4141480.034	10.636
9596	236722.745	4141486.030	10.644	9660	236770.630	4141474.546	10.477
9597	236717.949	4141491.267	10.656	9661	236771.273	4141476.450	10.521
9598	236724.670	4141486.287	10.686	9662	236770.572	4141470.862	10.596
9599	236723.512	4141481.941	10.462	9663	236769.567	4141467.399	10.530
9600	236724.248	4141482.022	10.478	9664	236768.600	4141468.307	10.384
9601	236722.208	4141482.774	10.465	9665	236769.249	4141470.322	10.424
9602	236722.731	4141483.328	10.478	9666	236788.434	4141476.593	10.785
9603	236720.158	4141484.372	10.472	9667	236785.892	4141477.219	10.812
9604	236720.752	4141484.942	10.461	9668	236786.828	4141478.307	10.759
9605	236718.570	4141485.242	10.461	9669	236788.791	4141477.905	10.761
9606	236719.264	4141485.688	10.453	9670	236790.740	4141477.910	10.709
9607	236717.364	4141486.425	10.455	9671	236784.979	4141479.472	10.705
9608	236714.131	4141487.098	10.441	9672	236782.580	4141479.015	10.850
9609	236712.233	4141488.064	10.441	9673	236782.470	4141474.521	10.697
9610	236709.683	4141488.927	10.417	9674	236779.953	4141475.314	10.706
9611	236724.111	4141518.196	10.552	9675	236779.496	4141475.045	10.694

9676	236777.827	4141475.049	10.703
9677	236774.781	4141473.504	10.711
9678	236774.863	4141473.804	10.735
9679	236775.631	4141473.627	10.743
9680	236775.892	4141476.130	10.720
9681	236779.554	4141476.967	10.739
9682	236752.350	4141437.912	10.259
9683	236750.747	4141436.120	10.263
9684	236750.096	4141431.013	10.246
9685	236749.556	4141430.738	10.242
9686	236749.187	4141431.327	10.248
9687	236749.705	4141432.925	10.235
9688	236750.415	4141434.022	10.395
9689	236747.936	4141434.826	10.279
9690	236744.583	4141435.946	10.322
9691	236741.584	4141436.791	10.330
9692	236736.951	4141432.563	10.376
9693	236735.321	4141433.022	10.373
9694	236736.444	4141432.133	10.528
9695	236737.535	4141437.199	10.407
9696	236737.600	4141437.414	10.382
9697	236736.349	4141437.787	10.379
9698	236736.891	4141439.083	10.406
9699	236741.332	4141455.760	10.396
9700	236742.765	4141456.832	10.423
9701	236748.127	4141473.692	10.558
9702	236747.402	4141473.933	10.538
9703	236748.463	4141477.080	10.564
9704	236749.121	4141476.844	10.582
9705	236749.151	4141478.721	10.588
9706	236749.538	4141478.581	10.594
9707	236749.702	4141479.117	10.608
9708	236749.252	4141479.779	10.556
9709	236750.012	4141480.219	10.580
9710	236750.220	4141479.715	10.564
9711	236750.097	4141481.156	10.581
9712	236750.880	4141483.317	10.640
9713	236755.534	4141480.004	10.584
9714	236756.757	4141477.771	10.616
9715	236742.099	4141483.401	10.666
9716	236739.567	4141487.033	10.647
9717	236738.852	4141482.102	10.602
9718	236733.319	4141483.007	10.605
9719	236731.965	4141478.216	10.502
9720	236735.184	4141477.165	10.576
9721	236736.653	4141481.951	10.621
9722	236734.928	4141475.819	10.550
9723	236735.570	4141475.972	10.561
9724	236735.806	4141475.284	10.542
9725	236735.080	4141474.620	10.566
9726	236734.734	4141473.734	10.616
9727	236734.188	4141471.549	10.596
9728	236732.627	4141466.495	10.478
9729	236733.193	4141468.133	10.498
9730	236734.207	4141469.789	10.425
9731	236729.192	4141452.591	10.138
9732	236727.616	4141450.919	10.089
9733	236726.567	4141445.777	10.202
9734	236725.073	4141440.422	10.158
9735	236725.932	4141441.496	10.021
9736	236722.167	4141438.676	10.013
9737	236723.895	4141438.190	9.989
9738	236722.045	4141438.738	10.014
9739	236726.110	4141453.163	10.050

9740	236727.934	4141452.682	10.098				
9741	236735.978	4141474.986	10.544				
9742	236737.990	4141467.418	10.439				
9743	236742.161	4141469.833	10.520				
9744	236736.022	4141449.092	10.355				
9745	236732.446	4141449.322	10.263				
9746	236726.418	4141428.641	10.128				
9747	236729.159	4141426.053	10.195				
10002	236876.622	4141487.787	46.076				
Radiación desde la estación 8012							
X	236735.292	Desorientación	350.9212				
Y	4141357.103	Nombre					
Z	9.014	Coef. anamorfosis	1.0004538832				
Visuales utilizadas							
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
5037	275.4198	100.2365	147.170	1.300	1.524	226.3410	147.236
8104	270.6763	100.0478	135.095	2.000	1.524	221.5975	135.156
9000	224.7302	102.1063	8.100	1.300	1.524	175.6514	8.099
9001	231.1298	103.2377	8.495	1.300	1.524	182.0510	8.488
9002	253.4967	103.6740	7.340	1.300	1.524	204.4179	7.331
9003	260.1898	102.6074	14.780	1.300	1.524	211.1110	14.774
9004	247.8645	102.3959	15.347	1.300	1.524	198.7857	15.343
9005	216.2359	102.5616	9.683	1.300	1.524	167.1571	9.680
9006	230.1300	103.4014	8.155	1.300	1.524	181.0512	8.147
9007	247.9582	104.5670	6.532	1.300	1.524	198.8794	6.518
9008	266.1940	106.0002	4.573	1.300	1.524	217.1152	4.555
9009	289.5034	111.5966	2.266	1.300	1.524	240.4246	2.230
9010	62.4503	101.2954	10.268	1.300	1.524	13.3715	10.271
9011	69.8174	100.6172	13.778	1.300	1.524	20.7386	13.784
9012	76.5467	100.5606	15.073	1.300	1.524	27.4679	15.079
9013	82.3643	100.6211	15.794	1.300	1.524	33.2855	15.800
9014	88.6927	100.5390	16.348	1.300	1.524	39.6139	16.355
9015	84.6868	100.7770	16.054	1.300	1.524	35.6080	16.060
9016	86.8734	100.3480	17.126	1.300	1.524	37.7946	17.133
9017	74.3030	100.3163	16.433	1.300	1.524	25.2242	16.440
9018	70.0188	100.5496	14.431	1.300	1.524	20.9400	14.437
9019	77.5706	100.1653	17.231	1.300	1.524	28.4918	17.239
9020	70.9403	100.1030	13.157	1.300	1.524	21.8615	13.163
9021	83.8009	100.4091	14.577	1.300	1.524	34.7221	14.583
9022	77.3330	100.3416	14.271	1.300	1.524	28.2542	14.277
9023	89.4351	99.9183	14.305	1.300	1.524	40.3563	14.311
9024	95.3284	100.1885	10.387	1.300	1.524	46.2496	10.392
9025	99.0516	100.1654	9.505	1.300	1.524	49.9728	9.509
9026	95.0969	100.2360	10.002	1.300	1.524	46.0181	10.006
9027	98.2056	100.2046	10.274	1.300	1.524	49.1268	10.279
9028	99.3031	99.9850	9.980	1.300	1.524	50.2243	9.985
9029	104.9075	100.0140	8.636	1.300	1.524	55.8287	8.640
9030	106.0326	100.6954	8.412	1.300	1.524	56.9538	8.415
9031	101.9665	100.8009	8.128	1.300	1.524	52.8877	8.131
9032	132.5929	101.3720	5.649	1.300	1.524	83.5141	5.650
9033	215.7598	102.0970	6.767	1.300	1.524	166.6810	6.766
9034	154.2743	102.5639	4.630	1.300	1.524	105.1955	4.628
9035	134.2491	102.0769	5.207	1.300	1.524	85.1703	5.207
9036	135.6910	101.3299	5.482	1.300	1.524	86.6122	5.483
9037	137.6185	101.2189	5.403	1.300	1.524	88.5397	5.404
9038	151.4495	101.3412	5.026	1.300	1.524	102.3707	5.027
9039	155.1494	102.1813	4.965	1.300	1.524	106.0706	4.964
9040	221.1267	102.2905	6.841	1.300	1.524	172.0479	6.840
9041	245.1869	103.3105	5.469	1.300	1.524	196.1081	5.464
9042	191.4308	104.6544	2.847	1.300	1.524	142.3520	2.841
9043	75.6113	103.8157	3.004	1.300	1.524	26.5325	3.000
9044	80.3925	105.9728	2.035	1.300	1.524	31.3137	2.027
9045	56.5819	104.0092	2.990	1.300	1.524	7.5031	2.985
9046	84.2045	100.6199	16.442	1.300	1.524	35.1257	16.449

9047	72.7321	100.3906	15.877	1.300	1.524	23.6533	15.884	
9048	79.0713	99.8738	23.702	1.300	1.524	29.9925	23.713	
9049	80.4099	99.8850	23.905	1.300	1.524	31.3311	23.916	
9050	69.1393	99.9127	24.490	1.300	1.524	20.0605	24.501	
9051	87.4569	99.8062	24.692	1.300	1.524	38.3781	24.703	
9052	78.3085	99.8753	23.737	1.300	1.524	29.2297	23.748	
9053	74.6365	99.8456	23.751	1.300	1.524	25.5577	23.762	
9054	68.0616	99.8780	25.263	1.300	1.524	18.9828	25.274	
9055	65.4906	99.6893	28.012	1.300	1.524	16.4118	28.024	
9056	66.0729	99.3976	44.348	1.300	1.524	16.9941	44.366	
9057	68.9539	99.3135	48.523	1.300	1.524	19.8751	48.542	
9058	73.7021	99.3500	49.827	1.300	1.524	24.6233	49.847	
9059	74.1289	99.1806	48.339	1.300	1.524	25.0501	48.357	
9060	71.4484	99.1306	49.126	1.300	1.524	22.3696	49.144	
9061	69.6222	99.1130	48.539	1.300	1.524	20.5434	48.556	
9062	68.0671	99.1376	47.535	1.300	1.524	18.9883	47.552	
9063	67.2751	99.1132	46.229	1.300	1.524	18.1963	46.245	
9064	66.4904	99.1254	44.750	1.300	1.524	17.4116	44.766	
9065	66.4622	99.1829	43.237	1.300	1.524	17.3834	43.253	
9066	70.9884	99.1632	47.577	1.300	1.524	21.9096	47.594	
9067	69.6574	99.1736	46.239	1.300	1.524	20.5786	46.256	
9068	74.2777	99.1748	43.779	1.300	1.524	25.1989	43.795	
9069	69.8374	99.1234	48.010	1.300	1.524	20.7586	48.027	
9070	74.4146	99.1636	39.213	1.300	1.524	25.3358	39.227	
9071	75.4278	99.0780	37.303	1.300	1.524	26.3490	37.316	
9072	72.5565	99.2923	31.221	1.300	1.524	23.4777	31.233	
9073	76.9064	99.4328	29.397	1.300	1.524	27.8276	29.409	
9074	76.9009	99.3625	30.888	1.300	1.524	27.8221	30.900	
9075	76.2139	99.3907	31.668	1.300	1.524	27.1351	31.681	
9076	79.2533	99.5097	25.889	1.300	1.524	30.1745	25.900	
9077	88.3753	99.5539	26.891	1.300	1.524	39.2965	26.902	
9078	79.3196	99.6054	24.212	1.300	1.524	30.2408	24.222	
9079	77.8865	99.5459	24.855	1.300	1.524	28.8077	24.866	
9080	74.7823	99.5191	24.683	1.300	1.524	25.7035	24.693	
9081	56.5425	99.3050	29.724	1.300	1.524	7.4637	29.736	
9082	52.8871	97.6579	30.061	2.000	1.524	3.8083	30.054	
9083	52.8396	97.8975	34.555	2.000	1.524	3.7608	34.552	
9084	55.3469	97.9272	36.114	2.000	1.524	6.2681	36.111	
9085	59.9920	98.1123	40.966	2.000	1.524	10.9132	40.967	
9086	58.7430	97.9938	35.158	2.000	1.524	9.6642	35.156	
9087	57.4300	97.8220	30.404	2.000	1.524	8.3512	30.400	
9088	57.1122	97.8056	29.462	2.000	1.524	8.0334	29.458	
9089	54.1384	97.4735	22.845	2.000	1.524	5.0596	22.837	
9090	314.9732	100.5744		26.831	1.300	1.524	265.8944	26.842
9091	321.8655	100.5181		29.453	1.300	1.524	272.7867	29.465
9092	325.7765	100.2109		26.862	1.300	1.524	276.6977	26.874
9093	323.7519	100.2550		24.752	1.300	1.524	274.6731	24.763
9094	360.0117	99.6870	19.313	1.300	1.524	310.9329	19.322	
9095	360.0333	99.7229	21.494	1.300	1.524	310.9545	21.504	
9096	361.8362	100.0245		22.374	1.300	1.524	312.7574	22.384
9097	371.0249	99.8140	18.291	1.300	1.524	321.9461	18.299	
9098	369.5015	99.0856	19.625	1.300	1.524	320.4227	19.632	
9099	9.6072	98.3758	25.134	1.300	1.524	360.5284	25.137	
9100	8.3239	98.6081	25.324	1.300	1.524	359.2451	25.329	
9101	8.0103	98.5983	25.555	1.300	1.524	358.9315	25.560	
9102	9.2771	98.8415	25.960	1.300	1.524	360.1983	25.967	
9103	23.0130	99.0396	28.535	1.300	1.524	373.9342	28.545	
9104	19.0274	99.1220	32.435	1.300	1.524	369.9486	32.447	
9105	23.0847	98.8735	33.420	1.300	1.524	374.0059	33.430	
9106	27.2301	98.8418	32.651	1.300	1.524	378.1513	32.660	
9107	35.9385	98.5797	41.424	1.300	1.524	386.8597	41.432	
9108	41.1820	98.9240	45.834	1.300	1.524	392.1032	45.848	
9109	36.9896	98.9793	48.715	1.300	1.524	387.9108	48.731	
9110	38.4798	98.7636	48.976	1.300	1.524	389.4010	48.989	

9111	41.7804	98.7792	49.225	1.300	1.524	392.7016	49.238	
9112	41.0033	98.7941	48.424	1.300	1.524	391.9245	48.437	
9113	47.7778	99.0601	60.623	1.300	1.524	398.6990	60.644	
9114	44.6755	99.0722	64.115	1.300	1.524	395.5967	64.137	
9115	46.6599	99.0167	67.188	1.300	1.524	397.5811	67.210	
9116	48.6617	98.3195	66.656	2.000	1.524	399.5829	66.663	
9117	48.0293	98.1507	67.822	2.150	1.524	398.9505	67.824	
9118	46.1104	97.9299	61.960	2.150	1.524	397.0316	61.955	
9119	43.7867	98.8387	55.986	1.300	1.524	394.7079	56.002	
9120	40.4807	98.6948	49.692	1.300	1.524	391.4019	49.704	
9121	35.8387	98.7364	42.334	1.300	1.524	386.7599	42.345	
9122	30.1885	98.7146	36.583	1.300	1.524	381.1097	36.592	
9123	22.0129	98.7140	30.693	1.300	1.524	372.9341	30.701	
9124	7.5797	98.6573	24.695	1.300	1.524	358.5009	24.701	
9125	390.7348	99.1348	21.495	1.300	1.524	341.6560	21.503	
9126	56.7718	99.1277	41.194	1.300	1.524	7.6930	41.209	
9127	57.0643	99.1659	48.733	1.300	1.524	7.9855	48.751	
9128	57.7403	99.0235	48.595	1.300	1.524	8.6615	48.611	
9129	58.2833	98.5160	51.381	1.700	1.524	9.2045	51.390	
9130	58.4648	98.5163	52.003	1.700	1.524	9.3860	52.012	
9131	60.1647	98.6538	60.394	1.700	1.524	11.0859	60.408	
9132	59.6822	98.6405	60.869	1.700	1.524	10.6034	60.883	
9133	59.0898	98.6980	60.507	1.700	1.524	10.0110	60.522	
9134	59.6404	98.5934	60.071	1.700	1.524	10.5616	60.083	
9135	59.3349	98.5948	58.793	1.700	1.524	10.2561	58.805	
9136	59.0018	98.6216	52.050	1.700	1.524	9.9230	52.061	
9137	61.5567	98.6069	51.813	1.700	1.524	12.4779	51.824	
9138	66.4054	98.7067	54.115	1.700	1.524	17.3266	54.128	
9139	67.2779	98.7246	54.109	1.700	1.524	18.1991	54.123	
9140	66.3422	98.6801	52.849	1.700	1.524	17.2634	52.862	
9141	70.5378	98.8174	53.325	1.700	1.524	21.4590	53.340	
9142	70.8454	98.7677	49.876	1.700	1.524	21.7666	49.889	
9143	73.4200	98.7080	55.081	1.700	1.524	24.3412	55.095	
9144	72.8818	98.7137	54.055	1.700	1.524	23.8030	54.068	
9145	71.3244	98.7017	54.280	1.700	1.524	22.2456	54.293	
9146	69.4943	98.6803	54.858	1.700	1.524	20.4155	54.871	
9147	68.2444	98.6591	55.988	1.700	1.524	19.1656	56.001	
9148	69.3694	98.6724	54.970	1.700	1.524	20.2906	54.983	
9149	70.3744	98.7085	55.478	1.700	1.524	21.2956	55.492	
9150	70.0659	98.6948	56.168	1.700	1.524	20.9871	56.182	
9151	68.6223	98.6783	55.321	1.700	1.524	19.5435	55.334	
9152	68.4428	98.6886	56.212	1.700	1.524	19.3640	56.225	
9153	69.6939	98.6973	55.492	1.700	1.524	20.6151	55.505	
9154	70.7337	98.6863	57.549	1.700	1.524	21.6549	57.563	
9155	72.0094	98.6522	58.211	1.700	1.524	22.9306	58.224	
9156	71.9041	98.6219	59.440	1.700	1.524	22.8253	59.453	
9157	71.2312	98.6718	58.154	1.700	1.524	22.1524	58.168	
9158	72.5754	98.6352	58.062	1.700	1.524	23.4966	58.075	
9159	74.2245	98.6676	58.227	1.700	1.524	25.1457	58.241	
9160	72.2464	98.6083	59.481	1.700	1.524	23.1676	59.494	
9161	67.1166	98.6552	57.886	1.700	1.524	18.0378	57.899	
9162	67.8467	98.6605	57.357	1.700	1.524	18.7679	57.370	
9163	67.8431	98.6667	58.287	1.700	1.524	18.7643	58.301	
9164	67.6723	98.6833	59.541	1.700	1.524	18.5935	59.555	
9165	66.8879	98.6835	59.463	1.700	1.524	17.8091	59.477	
9166	68.6711	98.6899	60.842	1.700	1.524	19.5923	60.857	
9167	68.3055	98.6887	60.868	1.700	1.524	19.2267	60.883	
9168	68.3054	98.6885	61.238	1.700	1.524	19.2266	61.253	
9169	68.4774	98.6884	61.586	1.700	1.524	19.3986	61.601	
9170	67.2458	98.6878	62.476	1.700	1.524	18.1670	62.491	
9171	67.0366	98.6851	59.944	1.700	1.524	17.9578	59.958	

9175	64.8621	98.8357	71.744	1.700	1.524	15.7833	71.764		9239	329.9254	100.6837	50.933	1.300	1.524	280.8466	50.953
9176	65.2630	98.5575	78.989	2.150	1.524	16.1842	79.004		9240	342.1205	100.5755	47.200	1.300	1.524	293.0417	47.219
9177	66.6655	98.6389	77.142	2.150	1.524	17.5867	77.159		9241	357.6169	100.4181	44.193	1.300	1.524	308.5381	44.212
9178	70.5389	98.5855	89.668	2.150	1.524	21.4601	89.686		9242	355.6599	100.4828	43.306	1.300	1.524	306.5811	43.324
9179	69.2725	98.5938	90.596	2.150	1.524	20.1937	90.615		9243	368.7473	100.3729	43.550	1.300	1.524	319.6685	43.569
9180	68.4014	98.4316	76.369	2.150	1.524	19.3226	76.380		9244	370.5623	100.3569	42.590	1.300	1.524	321.4835	42.609
9181	67.2140	98.3956	72.071	2.150	1.524	18.1352	72.081		9245	2.0594	99.6316	38.937	1.300	1.524	352.9806	38.954
9182	71.6441	98.2202	66.942	2.150	1.524	22.5653	66.946		9246	3.5158	99.6032	39.613	1.300	1.524	354.4370	39.630
9183	329.7968	99.6516	59.845	2.150	1.524	280.7180	59.871		9247	5.3627	99.7486	39.695	1.300	1.524	356.2839	39.713
9184	331.0546	99.5380	54.349	2.150	1.524	281.9758	54.372		9248	5.3621	99.7658	40.934	1.300	1.524	356.2833	40.952
9185	331.3980	99.5382	53.981	2.150	1.524	282.3192	54.004		9249	392.2645	99.8456	36.009	1.300	1.524	343.1857	36.025
9186	343.2315	99.4007	49.103	2.150	1.524	294.1527	49.123		9250	380.6608	100.1613	33.543	1.300	1.524	331.5820	33.558
9187	357.7562	99.2097	46.159	2.150	1.524	308.6774	46.176		9251	382.1530	100.1960	34.777	1.300	1.524	333.0742	34.793
9188	365.2071	99.1943	45.650	2.150	1.524	316.1283	45.667		9252	360.5672	100.4832	32.970	1.300	1.524	311.4884	32.984
9189	368.4276	99.1952	45.586	2.150	1.524	319.3488	45.603		9253	359.4280	100.5168	34.059	1.300	1.524	310.3492	34.073
9190	375.1846	99.4723	45.978	2.150	1.524	326.1058	45.997		9254	348.7107	100.5181	34.587	1.300	1.524	299.6319	34.601
9191	383.1537	99.5289	47.128	2.150	1.524	334.0749	47.148		9255	345.4465	100.6911	34.810	1.300	1.524	296.3677	34.824
9192	384.3880	99.3420	44.113	2.150	1.524	335.3092	44.131		9256	342.6741	100.6357	35.896	1.300	1.524	293.5953	35.910
9193	388.9884	99.4970	45.065	2.150	1.524	339.9096	45.084		9257	341.3327	100.7009	36.831	1.300	1.524	292.2539	36.845
9194	387.9650	99.6193	47.309	2.150	1.524	338.8862	47.330		9258	342.4884	100.7526	38.474	1.300	1.524	293.4096	38.489
9195	385.3817	99.3327	44.099	2.150	1.524	336.3029	44.117		9259	335.9267	99.6606	40.432	2.000	1.524	286.8479	40.450
9196	386.0374	99.2976	44.733	2.150	1.524	336.9586	44.751		9260	331.5705	99.6056	39.931	2.000	1.524	282.4917	39.948
9197	384.7199	99.3018	46.576	2.150	1.524	335.6411	46.594		9261	322.8854	99.7618	42.779	2.000	1.524	273.8066	42.798
9198	384.3977	99.3458	47.318	2.150	1.524	335.3189	47.337		9262	312.0231	99.8961	51.296	2.000	1.524	262.9443	51.319
9199	383.1194	99.3462	44.143	2.150	1.524	334.0406	44.161		9263	309.7362	100.0522	53.008	2.000	1.524	260.6574	53.032
9200	381.4105	99.2902	43.818	2.150	1.524	332.3317	43.835		9264	307.7573	100.0420	56.887	2.000	1.524	258.6785	56.913
9201	375.7960	99.3203	42.752	2.150	1.524	326.7172	42.769		9265	308.8128	99.9514	54.383	2.000	1.524	259.7340	54.408
9202	376.0827	99.2306	40.522	2.150	1.524	327.0039	40.537		9266	313.0877	100.0461	54.243	2.000	1.524	264.0089	54.268
9203	375.9910	99.2580	40.391	2.150	1.524	326.9122	40.407		9267	311.1871	100.0546	58.187	2.000	1.524	262.1083	58.213
9204	371.5033	99.1320	40.401	2.150	1.524	322.4245	40.416		9268	322.2182	100.8587	48.722	1.300	1.524	273.1394	48.740
9205	372.8794	99.1005	41.319	2.150	1.524	323.8006	41.334		9269	342.9849	100.7895	39.902	1.300	1.524	293.9061	39.917
9206	372.6250	99.1319	43.429	2.150	1.524	323.5462	43.445		9270	361.7497	100.5132	37.141	1.300	1.524	312.6709	37.157
9207	371.1419	99.1520	44.225	2.150	1.524	322.0631	44.241		9271	361.6149	100.2623	28.905	1.300	1.524	312.5361	28.918
9208	375.4813	99.3314	43.268	2.150	1.524	326.4025	43.285		9272	360.9687	100.1333	25.362	1.300	1.524	311.8899	25.373
9209	373.5460	99.0820	43.092	2.150	1.524	324.4672	43.107		9273	324.5592	100.5532	32.239	1.300	1.524	275.4804	32.252
9210	373.4212	99.1800	44.431	2.150	1.524	324.3424	44.447		9274	329.1943	100.6279	34.936	1.300	1.524	280.1155	34.950
9211	375.2318	99.3832	44.579	2.150	1.524	326.1530	44.597		9275	307.8875	100.6722	48.398	1.300	1.524	258.8087	48.417
9212	383.1871	99.5269	47.103	2.150	1.524	334.1083	47.123		9276	303.5663	100.6146	46.529	1.300	1.524	254.4875	46.548
9213	368.6323	99.1221	43.101	2.150	1.524	319.5535	43.116		9277	291.6528	100.5539	67.586	1.300	1.524	242.5740	67.614
9214	367.3343	99.1065	43.044	2.150	1.524	318.2555	43.059		9278	294.6421	100.5969	69.254	1.300	1.524	245.5633	69.282
9215	367.3203	99.0685	42.604	2.150	1.524	318.2415	42.619		9279	288.8496	100.5110	86.891	1.300	1.524	239.7708	86.928
9216	359.2317	99.1695	42.853	2.150	1.524	310.1529	42.869		9280	286.1758	100.4756	86.037	1.300	1.524	237.0970	86.074
9217	357.5052	99.1862	42.988	2.150	1.524	308.4264	43.004		9281	282.2219	100.4052	108.140	1.300	1.524	233.1431	108.187
9218	357.6674	99.1873	43.546	2.150	1.524	308.5886	43.562		9282	283.8408	100.4235	111.639	1.300	1.524	234.7620	111.687
9219	364.8165	99.1743	44.449	2.150	1.524	315.7377	44.465		9283	281.2344	100.3651	132.207	1.300	1.524	232.1556	132.265
9220	362.4180	100.4622	41.306	1.300	1.524	313.3392	41.324		9284	279.4307	100.3401	132.640	1.300	1.524	230.3519	132.698
9221	360.4697	100.4735	41.440	1.300	1.524	311.3909	41.458		9285	277.5833	100.3063	145.541	1.300	1.524	228.5045	145.605
9222	360.3602	100.5070	40.726	1.300	1.524	311.2814	40.743		9286	279.0568	100.3219	145.944	1.300	1.524	229.9780	146.008
9223	361.4774	100.4363	42.507	1.300	1.524	312.3986	42.525		10000	0.0000	74.0678	69.733	0.000	1.524	350.9212	64.056
9224	358.6198	100.5587	40.513	1.300	1.524	309.5410	40.530		Coordenadas calculadas							
9225	360.2877	100.6686	40.243	1.300	1.524	311.2089	40.259		Número	X	Y	Z				
9226	355.2945	100.4546	43.864	1.300	1.524	306.2157	43.883		5037	236676.095	4141222.292	8.693				
9227	354.4223	100.5037	43.500	1.300	1.524	305.3435	43.518		8104	236690.314	4141229.651	8.438				
9228	346.4350	100.9000	42.235	1.300	1.524	297.3562	42.250		9000	236738.314	4141349.589	8.971				
9229	331.1020	100.7781	47.607	1.300	1.524	282.0232	47.625		9001	236737.653	4141348.951	8.807				
9230	331.2644	100.6767	50.088	1.300	1.524	282.1856	50.108		9002	236734.783	4141349.790	8.815				
9231	327.1159	100.6349	53.612	1.300	1.524	278.0371	53.634		9003	236732.726	4141342.554	8.633				
9232	326.8767	100.6525	53.373	1.300	1.524	277.7979	53.394		9004	236735.584	4141341.763	8.661				
9233	326.4713	100.6526	53.627	1.300	1.524	277.3925	53.648		9005	236740.067	4141348.684	8.849				
9234	326.1558	100.6629	53.640	1.300	1.524	277.0770	53.661		9006	236737.681	4141349.315	8.803				
9235	323.5584	100.5177	59.017	1.300	1.524	274.4796	59.042		9007	236735.406	4141350.586	8.770				
9236	320.0020	100.5576	61.977	1.300	1.524	270.9232	62.003		9008	236734.082	4141352.712	8.808				
9237	314.5884	100.9312	59.085	1.300	1.524	265.5096	59.105		9009	236733.969	4141355.309	8.828				
9238	331.8825	100.6143	51.306	1.300	1.524	282.8037	51.327		9010	236737.433	4141367.148	9.030				

9011	236739.703	4141370.162	9.105	9075	236748.390	4141385.950	9.542
9012	236741.598	4141370.801	9.106	9076	236747.113	4141380.148	9.438
9013	236743.182	4141370.793	9.084	9077	236750.863	4141379.041	9.427
9014	236744.824	4141370.393	9.100	9078	236746.370	4141378.644	9.389
9015	236743.813	4141370.716	9.043	9079	236746.164	4141379.466	9.416
9016	236744.876	4141371.305	9.145	9080	236744.993	4141379.811	9.425
9017	236741.637	4141372.270	9.157	9081	236738.770	4141386.635	9.563
9018	236739.955	4141370.766	9.114	9082	236737.088	4141387.104	9.644
9019	236742.752	4141372.644	9.194	9083	236737.332	4141391.595	9.680
9020	236739.724	4141369.498	9.217	9084	236738.841	4141393.040	9.714
9021	236742.857	4141369.571	9.145	9085	236742.280	4141397.469	9.753
9022	236741.422	4141369.998	9.162	9086	236740.608	4141391.856	9.646
9023	236743.768	4141368.634	9.257	9087	236739.268	4141387.242	9.579
9024	236742.194	4141364.871	9.208	9088	236738.999	4141386.327	9.554
9025	236742.013	4141363.830	9.214	9089	236737.105	4141379.869	9.445
9026	236741.911	4141364.608	9.201	9090	236712.210	4141343.401	8.996
9027	236742.459	4141364.471	9.205	9091	236708.478	4141344.888	8.999
9028	236742.377	4141364.139	9.241	9092	236710.198	4141347.485	9.150
9029	236741.934	4141362.629	9.237	9093	236712.463	4141347.510	9.139
9030	236741.855	4141362.370	9.147	9094	236716.254	4141360.405	9.333
9031	236741.296	4141362.586	9.136	9095	236714.106	4141360.785	9.332
9032	236740.754	4141358.550	9.117	9096	236713.356	4141361.559	9.230
9033	236738.674	4141351.243	9.016	9097	236718.069	4141363.287	9.292
9034	236739.905	4141356.726	9.052	9098	236716.661	4141363.294	9.520
9035	236740.358	4141358.305	9.069	9099	236720.686	4141377.562	9.880
9036	236740.654	4141358.248	9.124	9100	236720.162	4141377.417	9.792
9037	236740.609	4141358.071	9.135	9101	236719.923	4141377.527	9.801
9038	236740.315	4141356.916	9.133	9102	236720.094	4141378.159	9.711
9039	236740.233	4141356.631	9.068	9103	236723.928	4141383.289	9.669
9040	236738.199	4141350.913	8.992	9104	236720.538	4141386.002	9.686
9041	236735.626	4141351.650	8.954	9105	236722.018	4141387.785	9.830
9042	236737.527	4141355.350	9.031	9106	236724.301	4141387.859	9.833
9043	236736.506	4141359.847	9.059	9107	236726.800	4141397.656	10.163
9044	236736.249	4141358.890	9.048	9108	236729.619	4141402.599	10.013
9045	236735.643	4141360.068	9.050	9109	236726.093	4141404.958	10.020
9046	236743.914	4141371.111	9.078	9110	236727.173	4141405.415	10.190
9047	236741.058	4141371.904	9.141	9111	236729.659	4141406.018	10.183
9048	236746.055	4141378.233	9.285	9112	236729.164	4141405.151	10.156
9049	236746.592	4141378.181	9.282	9113	236734.052	4141417.735	10.134
9050	236742.885	4141380.398	9.272	9114	236730.859	4141421.087	10.173
9051	236749.298	4141377.452	9.314	9115	236732.739	4141424.265	10.276
9052	236745.816	4141378.392	9.285	9116	236734.855	4141423.765	10.298
9053	236744.577	4141378.976	9.296	9117	236734.174	4141424.918	10.359
9054	236742.717	4141381.263	9.287	9118	236732.404	4141418.991	10.403
9055	236742.437	4141384.202	9.375	9119	236730.642	4141412.912	10.260
9056	236746.995	4141399.898	9.658	9120	236728.599	4141406.355	10.257
9057	236750.201	4141403.299	9.762	9121	236726.548	4141398.536	10.079
9058	236754.094	4141403.268	9.747	9122	236724.592	4141392.096	9.977
9059	236753.832	4141401.765	9.861	9123	236722.629	4141385.071	9.859
9060	236752.207	4141403.244	9.909	9124	236720.307	4141376.739	9.759
9061	236750.690	4141403.153	9.915	9125	236718.230	4141370.191	9.531
9062	236749.266	4141402.556	9.883	9126	236740.259	4141398.012	9.803
9063	236748.331	4141401.473	9.883	9127	236741.391	4141405.471	9.877
9064	236747.383	4141400.206	9.853	9128	236741.885	4141405.265	9.984
9065	236746.956	4141398.754	9.794	9129	236742.696	4141407.957	10.036
9066	236751.350	4141401.907	9.864	9130	236742.932	4141408.552	10.051
9067	236749.985	4141400.964	9.839	9131	236745.758	4141416.598	10.116
9068	236752.178	4141397.512	9.806	9132	236745.385	4141417.144	10.138
9069	236750.676	4141402.600	9.900	9133	236744.770	4141416.878	10.076
9070	236750.494	4141393.265	9.754	9134	236745.214	4141416.362	10.166
9071	236750.299	4141391.269	9.779	9135	236744.724	4141415.147	10.136
9072	236746.551	4141386.237	9.586	9136	236743.374	4141408.534	9.966
9073	236747.741	4141383.747	9.500	9137	236745.384	4141407.935	9.972
9074	236748.370	4141385.100	9.548	9138	236749.842	4141409.239	9.938

9139	236750.554	4141409.030	9.923	9203	236698.442	4141373.680	8.859
9140	236749.451	4141408.033	9.934	9204	236697.358	4141371.047	8.939
9141	236752.933	4141407.442	9.829	9205	236696.813	4141372.199	8.972
9142	236752.019	4141404.105	9.804	9206	236694.785	4141372.808	8.981
9143	236755.848	4141408.220	9.956	9207	236693.681	4141372.131	8.978
9144	236755.040	4141407.436	9.931	9208	236695.676	4141374.545	8.843
9145	236753.880	4141408.116	9.946	9209	236695.329	4141373.266	9.010
9146	236752.588	4141409.177	9.976	9210	236694.054	4141373.688	8.961
9147	236751.897	4141410.586	10.018	9211	236694.405	4141374.913	8.820
9148	236752.521	4141409.317	9.985	9212	236694.772	4141381.160	8.739
9149	236753.510	4141409.519	9.964	9213	236694.193	4141370.139	8.983
9150	236753.479	4141410.260	9.990	9214	236693.991	4141369.282	8.993
9151	236752.013	4141409.851	9.987	9215	236694.411	4141369.149	9.012
9152	236752.131	4141410.748	9.997	9216	236692.967	4141363.911	8.948
9153	236752.953	4141409.724	9.974	9217	236692.664	4141362.779	8.938
9154	236754.497	4141411.368	10.026	9218	236692.125	4141362.963	8.944
9155	236755.813	4141411.591	10.071	9219	236692.178	4141367.984	8.965
9156	236756.154	4141412.776	10.125	9220	236694.872	4141365.699	8.939
9157	236755.126	4141411.785	10.052	9221	236694.496	4141364.482	8.930
9158	236756.243	4141411.267	10.083	9222	236695.187	4141364.286	8.914
9159	236757.702	4141410.860	10.057	9223	236693.570	4141365.333	8.947
9160	236756.468	4141412.701	10.139	9224	236695.216	4141363.155	8.883
9161	236751.478	4141412.694	10.061	9225	236695.655	4141364.155	8.816
9162	236751.961	4141411.999	10.045	9226	236691.618	4141361.381	8.925
9163	236752.228	4141412.890	10.059	9227	236691.927	4141360.752	8.894
9164	236752.439	4141414.137	10.070	9228	236693.078	4141355.349	8.642
9165	236751.714	4141414.268	10.068	9229	236689.553	4141343.833	8.657
9166	236753.726	4141415.101	10.091	9230	236687.133	4141343.264	8.706
9167	236753.401	4141415.230	10.092	9231	236684.818	4141338.965	8.704
9168	236753.511	4141415.584	10.100	9232	236685.112	4141338.857	8.692
9169	236753.773	4141415.866	10.107	9233	236684.991	4141338.450	8.689
9170	236752.883	4141417.067	10.126	9234	236685.072	4141338.196	8.680
9171	236751.981	4141414.692	10.077	9235	236680.931	4141334.064	8.759
9172	236752.543	4141418.537	10.010	9236	236679.645	4141329.759	8.696
9173	236752.180	4141417.412	9.991	9237	236684.650	4141326.625	8.374
9174	236750.092	4141417.981	10.089	9238	236685.826	4141343.407	8.744
9175	236752.902	4141426.674	10.151	9239	236686.627	4141342.004	8.692
9176	236755.161	4141433.569	10.178	9240	236688.354	4141351.953	8.812
9177	236756.337	4141431.337	10.038	9241	236691.477	4141363.015	8.948
9178	236764.955	4141441.742	10.381	9242	236692.199	4141361.574	8.910
9179	236763.555	4141443.198	10.390	9243	236693.786	4141370.351	8.983
9180	236758.120	4141429.992	10.270	9244	236695.086	4141371.211	9.000
9181	236755.549	4141426.279	10.205	9245	236709.066	4141385.907	9.464
9182	236758.527	4141419.888	10.260	9246	236709.288	4141387.010	9.485
9183	236678.146	4141339.246	8.716	9247	236710.115	4141387.815	9.395
9184	236683.084	4141341.914	8.783	9248	236709.328	4141388.774	9.389
9185	236683.357	4141342.297	8.780	9249	236707.242	4141379.710	9.326
9186	236686.376	4141352.598	8.851	9250	236705.779	4141373.077	9.154
9187	236689.544	4141363.378	8.962	9251	236705.090	4141374.377	9.131
9188	236691.082	4141368.549	8.966	9252	236702.843	4141363.023	8.988
9189	236691.779	4141370.751	8.965	9253	236701.668	4141362.618	8.962
9190	236693.108	4141375.441	8.770	9254	236700.691	4141356.903	8.957
9191	236694.738	4141381.151	8.737	9255	236700.525	4141355.118	8.861
9192	236697.777	4141380.344	8.845	9256	236699.563	4141353.497	8.880
9193	236698.780	4141383.551	8.745	9257	236698.719	4141352.631	8.833
9194	236696.520	4141384.249	8.672	9258	236697.009	4141353.126	8.784
9195	236698.156	4141380.919	8.851	9259	236695.702	4141348.806	8.754
9196	236697.873	4141381.648	8.882	9260	236696.845	4141346.255	8.786
9197	236695.811	4141381.848	8.899	9261	236696.065	4141339.987	8.699
9198	236695.055	4141382.039	8.875	9262	236692.423	4141328.891	8.622
9199	236697.295	4141379.607	8.842	9263	236692.068	4141326.377	8.495
9200	236696.989	4141378.421	8.877	9264	236689.953	4141322.702	8.501
9201	236696.234	4141374.530	8.845	9265	236691.409	4141324.940	8.580
9202	236698.347	4141373.787	8.878	9266	236689.468	4141328.032	8.499

[illegible]

349	297.2836	100.5230	36.966	1.300	1.555	398.0784	36.981
350	292.9915	100.4354	37.399	1.300	1.555	393.7863	37.415
351	296.9658	100.4141	43.328	1.300	1.555	397.7606	43.347
352	300.3469	100.3679	43.089	1.300	1.555	1.1417 43.108	
353	300.1107	100.4332	47.068	1.300	1.555	0.9055 47.088	
354	299.1514	101.7188	51.596	0.100	1.555	399.9462	51.600
355	296.2942	100.2116	51.393	1.300	1.555	397.0890	51.416
356	294.8534	100.2117	52.410	1.300	1.555	395.6482	52.433
357	294.8281	100.1614	53.528	1.300	1.555	395.6229	53.552
358	295.8311	100.1865	53.600	1.300	1.555	396.6259	53.624
359	295.2007	100.2625	52.921	1.300	1.555	395.9955	52.944
360	296.1263	100.2417	48.177	1.300	1.555	396.9211	48.198
361	295.3520	100.3301	44.788	1.300	1.555	396.1468	44.808
362	293.1438	100.3470	43.520	1.300	1.555	393.9386	43.539
363	294.3689	100.3964	41.309	1.300	1.555	395.1637	41.327
364	296.1859	100.3932	41.134	1.300	1.555	396.9807	41.152
365	295.1425	100.4506	38.399	1.300	1.555	395.9373	38.415
366	295.6372	100.4881	37.662	1.300	1.555	396.4320	37.678
367	297.7089	100.5354	37.289	1.300	1.555	398.5037	37.305
368	300.4999	100.4853	37.176	1.300	1.555	1.2947 37.192	
369	299.9892	100.5033	34.367	1.300	1.555	0.7840 34.381	
370	301.8765	100.5829	28.996	1.300	1.555	2.6713 29.008	
371	299.8854	100.5566	29.459	1.300	1.555	0.6802 29.471	
372	281.5628	100.9916	28.881	1.300	1.555	382.3576	28.891
373	281.9255	100.9931	28.617	1.300	1.555	382.7203	28.626
374	280.6885	101.0003	28.255	1.300	1.555	381.4833	28.264
375	282.6536	100.9402	29.684	1.300	1.555	383.4484	29.694
376	285.7219	100.7838	32.365	1.300	1.555	386.5167	32.377
377	288.3343	100.6229	35.084	1.300	1.555	389.1291	35.098
378	290.5434	100.5162	37.467	1.300	1.555	391.3382	37.483
379	287.6166	100.6173	34.217	1.300	1.555	388.4114	34.231
380	288.3712	100.5457	33.830	1.300	1.555	389.1660	33.844
381	286.1049	100.7325	33.391	1.300	1.555	386.8997	33.404
382	279.1536	100.6565	33.956	1.300	1.555	379.9484	33.970
383	283.2183	100.5710	34.641	1.300	1.555	384.0131	34.655
384	278.2847	100.6427	35.898	1.300	1.555	379.0795	35.912
385	281.0240	100.6235	34.794	1.300	1.555	381.8188	34.808
386	282.0369	100.6352	34.947	1.300	1.555	382.8317	34.961
387	283.5690	100.4919	41.884	1.300	1.555	384.3638	41.902
388	278.3221	100.6048	40.712	1.300	1.555	379.1169	40.729
389	276.6202	100.5255	44.856	1.300	1.555	377.4150	44.875
390	279.0589	100.5016	44.008	1.300	1.555	379.8537	44.027
391	281.0986	100.4410	43.907	1.300	1.555	381.8934	43.926
392	281.0713	100.4423	42.603	1.300	1.555	381.8661	42.621
393	283.8674	100.4978	35.525	1.300	1.555	384.6622	35.540
394	284.3780	100.5270	35.228	1.300	1.555	385.1728	35.243
395	285.4886	100.5273	35.860	1.300	1.555	386.2834	35.875
396	285.7844	100.5364	35.940	1.300	1.555	386.5792	35.955
397	286.5636	100.5495	36.437	1.300	1.555	387.3584	36.452
398	285.7381	99.0480 36.794	2.150	1.555	386.5329	36.806	
399	287.0186	100.5172	37.484	1.300	1.555	387.8134	37.500
400	287.5200	100.5170	37.281	1.300	1.555	388.3148	37.297
401	288.3228	100.5170	37.755	1.300	1.555	389.1176	37.771
402	288.5707	100.5169	37.883	1.300	1.555	389.3655	37.899
403	289.8468	100.4815	38.818	1.300	1.555	390.6416	38.834
404	287.0869	100.5087	38.691	1.300	1.555	387.8817	38.707
405	293.2226	100.2788	46.992	1.300	1.555	394.0174	47.013
406	289.3123	99.1808 46.874	2.150	1.555	390.1071	46.891	
407	293.3121	99.1693 50.053	2.150	1.555	394.1069	50.071	
408	294.2212	100.1442	59.612	1.300	1.555	395.0160	59.639
409	295.0588	100.1445	60.806	1.300	1.555	395.8536	60.833
410	294.6378	100.2150	60.164	1.300	1.555	395.4326	60.191
411	293.6900	100.1420	66.832	1.300	1.555	394.4848	66.862
412	294.4708	100.1431	68.029	1.300	1.555	395.2656	68.060

413	294.0329	100.2204	67.382	1.300	1.555	394.8277	67.412
414	295.0038	100.1429	63.108	1.300	1.555	395.7986	63.136
415	297.3491	100.1974	63.542	1.300	1.555	398.1439	63.570
416	297.2410	100.3209	65.590	1.300	1.555	398.0358	65.619
417	294.3200	101.2372	68.727	0.100	1.555	395.1148	68.745
418	293.8611	100.1664	74.460	1.300	1.555	394.6559	74.493
419	296.2974	100.3340	76.346	1.300	1.555	397.0922	76.379
420	295.2439	100.2654	87.439	1.300	1.555	396.0387	87.478
421	295.0125	100.1906	89.005	1.300	1.555	395.8073	89.045
422	296.3376	100.0938	109.295	1.300	1.555	397.1324	109.344
423	296.5493	100.0876	109.988	1.300	1.555	397.3441	110.038
424	300.0408	100.0657	98.869	1.300	1.555	0.8356 98.914	
425	300.8356	100.0664	98.481	1.300	1.555	1.6304 98.525	
426	302.7853	99.9542 88.243	1.500	1.555	3.5801 88.283		
427	302.2119	99.9324 87.287	1.500	1.555	3.0067 87.326		
428	305.5194	99.8924 73.608	1.500	1.555	6.3142 73.641		
429	305.2117	99.9375 70.862	1.500	1.555	6.0065 70.894		
430	308.8899	99.8689 57.801	1.500	1.555	9.6847 57.827		
431	310.0804	99.9176 57.748	1.500	1.555	10.8752 57.774		
432	312.5663	99.9547 51.452	1.500	1.555	13.3611 51.475		
433	311.4472	99.8773 50.918	1.500	1.555	12.2420 50.941		
434	315.0674	100.0443	42.688	1.500	1.555	15.8622 42.707	
435	319.3793	100.1185	35.407	1.500	1.555	20.1741 35.423	
436	320.6172	100.1430	35.050	1.500	1.555	21.4120 35.066	
437	321.1057	100.1977	35.800	1.500	1.555	21.9005 35.816	
438	321.6266	100.2047	33.835	1.500	1.555	22.4214 33.850	
439	319.6690	99.9274 36.413	1.500	1.555	20.4638 36.429		
440	319.9835	99.9584 35.896	1.500	1.555	20.7783 35.912		
441	319.3709	99.9321 36.782	1.500	1.555	20.1657 36.799		
442	315.1137	99.9074 44.015	1.500	1.555	15.9085 44.035		
443	319.5043	100.1500	39.510	1.500	1.555	20.2991 39.528	
444	330.6352	100.2787	43.753	1.500	1.555	31.4300 43.772	
445	327.1082	100.2176	47.930	1.500	1.555	27.9030 47.951	
446	321.4874	100.2060	57.306	1.500	1.555	22.2822 57.332	
447	323.7191	100.2035	53.273	1.500	1.555	24.5139 53.297	
448	327.5802	100.2142	47.799	1.500	1.555	28.3750 47.820	
449	330.2291	100.2667	44.721	1.500	1.555	31.0239 44.741	
450	332.6542	100.3175	41.775	1.500	1.555	33.4490 41.793	
451	332.9263	100.3331	41.513	1.500	1.555	33.7211 41.531	
452	335.6964	100.3580	38.133	1.500	1.555	36.4912 38.150	
453	320.4096	100.1806	37.120	1.500	1.555	21.2044 37.137	
8015	20.7015 100.4598	31.367	1.300	1.555	121.4963	31.380	
9998	0.0000 89.5292	176.274 0.000	1.555	100.7948	173.973		
Coordenadas calculadas							
Número	X	Y	Z				
248	236731.172		4141993.298	9.962			
249	236735.201		4141993.384	9.952			
250	236734.841		4141997.263	10.110			
251	236731.609		4141997.229	10.112			
252	236729.727		4141994.895	10.100			
253	236730.171		4141994.578	10.085			
254	236730.057		4141993.700	10.058			
255	236731.349		4141994.740	10.024			
256	236737.750		4141993.468	10.081			
257	236750.985		4141993.792	10.120			
258	236740.812		4141993.480	9.987			
259	236735.953		4141996.774	10.179			
260	236737.166		4141994.167	10.097			
261	236740.076		4141995.417	10.141			
262	236744.090		4141994.955	10.137			
263	236745.280		4141994.979	10.133			
264	236745.259		4141996.178	10.166			
265	236758.423		4141995.545	10.098			
266	236758.452		4141993.850	10.037			

267	236762.474	4141993.924	10.049	331	236826.617	4142002.272	10.333
268	236758.543	4141998.038	10.138	332	236825.343	4141999.062	10.307
269	236761.991	4141998.197	10.138	333	236825.512	4141999.218	10.092
270	236763.824	4141993.998	10.135	334	236827.549	4141998.869	10.118
271	236770.630	4141994.078	10.058	335	236827.392	4141994.638	10.243
272	236768.236	4141995.965	10.187	336	236823.596	4142001.293	10.357
273	236768.195	4141996.964	10.198	337	236823.661	4142000.094	10.324
274	236769.470	4141997.010	10.197	338	236824.840	4142000.155	10.328
275	236768.338	4141994.870	10.162	339	236823.993	4142000.751	10.382
276	236772.569	4141998.565	10.208	340	236823.284	4141999.240	10.295
277	236775.581	4141997.147	10.198	341	236821.265	4141998.644	10.252
278	236776.768	4141997.169	10.204	342	236823.166	4142003.888	10.376
279	236776.807	4141995.972	10.195	343	236822.493	4142001.806	10.364
280	236776.208	4141996.633	10.222	344	236820.021	4142001.646	10.372
281	236775.321	4141998.203	10.195	345	236820.366	4142007.283	10.425
282	236778.435	4141998.427	10.200	346	236822.851	4142006.946	10.380
283	236779.804	4141998.056	10.198	347	236820.742	4142009.965	10.421
284	236779.371	4141996.795	10.198	348	236823.279	4142009.810	10.367
285	236778.029	4141997.423	10.192	349	236823.852	4142012.331	10.312
286	236781.640	4141995.935	10.195	350	236821.322	4142012.604	10.359
287	236780.701	4141994.257	10.188	351	236823.444	4142018.686	10.333
288	236778.590	4141994.222	10.077	352	236825.741	4142018.467	10.366
289	236784.090	4141998.653	10.223	353	236825.638	4142022.450	10.295
290	236784.301	4141998.723	10.223	354	236824.925	4142026.967	10.422
291	236786.731	4141995.114	10.215	355	236822.618	4142026.729	10.445
292	236787.747	4141995.654	10.214	356	236821.387	4142027.678	10.441
293	236789.601	4141994.932	10.242	357	236821.289	4142028.792	10.480
294	236789.247	4141998.712	10.240	358	236822.128	4142028.915	10.458
295	236791.945	4141995.968	10.238	359	236821.640	4142028.206	10.397
296	236793.132	4141995.981	10.229	360	236822.638	4142023.509	10.432
297	236793.143	4141994.806	10.227	361	236822.258	4142020.092	10.383
298	236792.810	4141995.296	10.244	362	236820.829	4142018.708	10.378
299	236795.215	4141994.452	10.207	363	236821.832	4142016.574	10.358
300	236796.646	4141994.422	10.120	364	236823.017	4142016.472	10.361
301	236793.049	4141999.112	10.246	365	236822.518	4142013.704	10.343
302	236797.488	4141999.225	10.236	366	236822.858	4142012.985	10.326
303	236801.046	4141999.767	10.322	367	236824.092	4142012.661	10.302
304	236805.954	4142001.281	10.347	368	236825.725	4142012.551	10.332
305	236809.444	4142003.012	10.297	369	236825.392	4142009.745	10.344
306	236812.568	4142005.430	10.257	370	236826.185	4142004.349	10.350
307	236798.209	4141998.294	10.237	371	236825.283	4142004.836	10.358
308	236800.502	4141998.853	10.293	372	236817.064	4142003.155	10.165
309	236801.185	4141999.554	10.317	373	236817.293	4142002.945	10.169
310	236807.071	4142001.323	10.347	374	236816.863	4142002.444	10.171
311	236806.842	4142001.265	10.340	375	236817.335	4142004.063	10.177
312	236806.296	4142001.049	10.343	376	236818.162	4142007.020	10.217
313	236805.869	4141998.641	10.306	377	236819.004	4142009.954	10.272
314	236807.288	4141995.243	10.268	378	236819.884	4142012.503	10.311
315	236813.625	4141995.745	10.258	379	236818.772	4142009.032	10.283
316	236812.324	4141995.511	10.164	380	236819.236	4142008.722	10.325
317	236813.970	4141996.520	10.279	381	236818.143	4142008.066	10.231
318	236817.732	4141997.905	10.262	382	236814.445	4142007.665	10.265
319	236815.548	4141995.935	10.159	383	236816.357	4142008.935	10.305
320	236815.375	4141997.343	10.272	384	236813.378	4142009.357	10.253
321	236819.738	4141997.959	10.240	385	236815.162	4142008.765	10.274
322	236819.678	4141996.534	10.150	386	236815.654	4142009.064	10.267
323	236819.837	4141996.779	10.164	387	236814.780	4142016.011	10.292
324	236822.316	4141997.161	10.153	388	236811.846	4142013.923	10.228
325	236822.161	4141996.928	10.140	389	236809.380	4142017.447	10.245
326	236826.133	4142000.269	10.124	390	236811.267	4142017.207	10.269
327	236826.811	4142004.366	10.159	391	236812.643	4142017.528	10.311
328	236827.221	4142007.033	10.167	392	236812.991	4142016.270	10.319
329	236826.335	4142012.098	10.339	393	236816.488	4142009.880	10.337
330	236826.669	4142006.042	10.340	394	236816.834	4142009.658	10.324

395	236817.298	4142010.412	10.318
396	236817.445	4142010.526	10.312
397	236817.777	4142011.102	10.301
398	236817.240	4142011.353	10.315
399	236817.834	4142012.181	10.311
400	236818.161	4142012.037	10.312
401	236818.543	4142012.587	10.309
402	236818.667	4142012.738	10.308
403	236819.280	4142013.782	10.322
404	236817.645	4142013.375	10.306
405	236820.557	4142022.172	10.410
406	236817.711	4142021.693	10.368
407	236820.340	4142025.224	10.418
408	236820.304	4142034.823	10.480
409	236821.009	4142036.071	10.477
410	236820.654	4142035.403	10.412
411	236819.183	4142041.978	10.466
412	236819.912	4142043.238	10.463
413	236819.497	4142042.556	10.382
414	236820.805	4142038.365	10.474
415	236823.115	4142038.910	10.418
416	236822.944	4142040.954	10.285
417	236819.698	4142043.909	10.480
418	236818.722	4142049.598	10.421
419	236821.481	4142051.666	10.215
420	236819.529	4142062.675	10.251
421	236819.108	4142064.218	10.349
422	236820.045	4142084.600	10.455
423	236820.379	4142085.308	10.465
424	236826.267	4142074.272	10.514
425	236827.491	4142073.860	10.513
426	236829.930	4142063.510	10.479
427	236829.091	4142062.596	10.508
428	236832.260	4142048.646	10.540
429	236831.647	4142045.945	10.485
430	236833.731	4142032.526	10.534
431	236834.790	4142032.300	10.490
432	236835.693	4142025.712	10.452
433	236834.704	4142025.369	10.513
434	236835.500	4142016.755	10.386
435	236836.007	4142009.026	10.349
436	236836.541	4142008.468	10.337
437	236837.048	4142009.084	10.304
438	236836.645	4142007.139	10.306
439	236836.478	4142009.930	10.457
440	236836.483	4142009.383	10.439
441	236836.431	4142010.334	10.454
442	236835.858	4142018.034	10.479
443	236837.360	4142012.902	10.322
444	236845.712	4142013.912	10.224
445	236845.319	4142018.785	10.251
446	236844.628	4142029.222	10.230
447	236844.988	4142024.761	10.245
448	236845.584	4142018.515	10.254
449	236845.919	4142014.899	10.228
450	236845.931	4142011.523	10.207
451	236845.953	4142011.207	10.198
452	236845.658	4142007.419	10.201
453	236837.110	4142010.462	10.310
8015	236854.577	4141964.971	10.389
9998	236998.928	4141973.195	40.779
Radiación desde la estación 8017			
X	236850.129	Desorientación	364.7232
Y	4142023.476	Nombre	

Z	10.365	Coef. anamorfosis	1.0004531384
Visuales utilizadas			
Visado	Horizontal	Vertical Dist.Geom.	Mira Inst Acimut Dist.Red.
454	390.7708	100.1984	121.329 1.300 1.553 355.4940 121.383
455	1.3560 102.9875	6.941	1.300 1.553 366.0792 6.936
456	395.2981	102.2377	6.859 1.300 1.553 360.0213 6.858
457	389.9474	102.1221	7.234 1.300 1.553 354.6706 7.233
458	391.4878	102.4856	6.227 1.300 1.553 356.2110 6.225
459	0.8085 103.6524	5.507	1.300 1.553 365.5317 5.500
460	21.5888 104.1051	5.720	1.300 1.553 386.3120 5.711
461	25.5024 105.7180	4.031	1.300 1.553 390.2256 4.017
462	38.1672 104.0231	5.414	1.300 1.553 2.8904 5.406
463	109.7827	100.9689	20.960 1.300 1.553 74.5059 20.967
464	112.0785	100.7191	23.901 1.300 1.553 76.8017 23.910
465	127.2544	99.7968 22.828	1.620 1.553 91.9776 22.838
466	117.8535	103.1958	9.804 1.300 1.553 82.5767 9.796
467	123.2874	100.8894	11.820 1.600 1.553 88.0106 11.824
468	59.1852 111.0185	1.811	1.300 1.553 23.9084 1.785
469	70.7016 113.4349	1.344	1.300 1.553 35.4248 1.315
470	82.1758 108.7743	1.490	1.300 1.553 46.8990 1.477
471	202.8730	102.3424	5.522 1.300 1.553 167.5962 5.521
472	200.9139	102.8892	6.445 1.300 1.553 165.6371 6.441
473	200.4550	100.9848	14.544 1.300 1.553 165.1782 14.549
474	197.9911	101.1439	15.558 1.300 1.553 162.7143 15.563
475	189.2037	100.3392	24.310 1.300 1.553 153.9269 24.321
476	187.2363	100.6121	25.483 1.300 1.553 151.9595 25.493
477	181.8750	100.3448	31.032 1.300 1.553 146.5982 31.046
478	180.9923	100.3746	30.621 1.300 1.553 145.7155 30.634
479	180.7755	100.3512	30.760 1.300 1.553 145.4987 30.773
480	178.7097	100.4190	29.864 1.300 1.553 143.4329 29.877
481	179.6354	100.4461	29.356 1.300 1.553 144.3586 29.369
482	178.4133	99.7161 28.777	1.600 1.553 143.1365 28.790
483	181.8948	99.8356 28.618	1.600 1.553 146.6180 28.631
484	174.8537	99.8753 21.220	1.600 1.553 139.5769 21.230
485	156.1357	99.7056 15.505	1.600 1.553 120.8589 15.512
486	126.2800	99.6693 13.227	1.600 1.553 91.0032 13.233
487	128.7650	99.6351 22.316	1.600 1.553 93.4882 22.326
488	153.3785	99.6906 23.577	1.600 1.553 118.1017 23.587
489	165.8855	99.7641 17.452	1.600 1.553 130.6087 17.460
490	169.8678	99.7856 17.198	1.600 1.553 134.5910 17.206
491	173.2621	99.8924 17.852	1.600 1.553 137.9853 17.860
492	175.8850	99.9633 16.945	1.600 1.553 140.6082 16.953
493	180.1250	99.8383 16.846	1.600 1.553 144.8482 16.854
494	179.9821	99.7743 15.720	1.600 1.553 144.7053 15.727
495	183.3357	99.8737 14.920	1.600 1.553 148.0589 14.927
496	179.6718	99.6837 14.092	1.600 1.553 144.3950 14.098
497	179.5431	99.6794 13.006	1.600 1.553 144.2663 13.012
498	173.8408	99.6114 13.058	1.600 1.553 138.5640 13.064
499	169.2506	99.5974 12.431	1.600 1.553 133.9738 12.436
500	166.2153	99.5794 13.376	1.600 1.553 130.9385 13.382
501	161.1807	99.6074 13.698	1.600 1.553 125.9039 13.704
502	162.7968	99.6226 14.780	1.600 1.553 127.5200 14.786
503	160.7350	99.6580 15.793	1.600 1.553 125.4582 15.800
504	164.7142	99.6530 16.340	1.600 1.553 129.4374 16.347
505	100.4184	105.0255	2.406 1.300 1.553 65.1416 2.400
506	195.8403	101.6557	11.574 1.300 1.553 160.5635 11.575
507	189.1462	100.7163	19.943 1.300 1.553 153.8694 19.951
508	151.4657	100.5584	19.266 1.300 1.553 116.1889 19.274
509	149.3349	100.8766	17.066 1.300 1.553 114.0581 17.072
510	138.2102	100.7211	17.220 1.300 1.553 102.9334 17.227
511	129.4189	100.5865	17.925 1.300 1.553 94.1421 17.932
512	129.6125	100.5126	15.812 1.300 1.553 94.3357 15.819
513	128.6445	102.2168	6.348 1.300 1.553 93.3677 6.347
514	216.1482	100.4401	25.905 1.300 1.553 180.8714 25.916

515	219.2032	100.4553	25.327	1.300	1.553	183.9264	25.338	579	26.9540	102.3197	10.296	1.300	1.553	391.6772	10.294	
516	240.5832	100.8044	17.810	1.300	1.553	205.3064	17.817	580	386.8175	100.2532	46.945	1.300	1.553	351.5407	46.966	
517	219.8296	100.5480	24.396	1.300	1.553	184.5528	24.406	581	385.9893	99.6853	46.060	1.700	1.553	350.7125	46.080	
518	225.0866	100.5152	25.125	1.300	1.553	189.8098	25.136	582	386.0926	99.7733	46.622	1.700	1.553	350.8158	46.643	
519	222.7476	100.5973	21.459	1.300	1.553	187.4708	21.468	583	386.6868	99.7101	51.532	1.700	1.553	351.4100	51.555	
520	223.7666	100.5635	22.810	1.300	1.553	188.4898	22.819	584	386.0363	99.6840	49.545	1.700	1.553	350.7595	49.567	
521	223.2707	100.6528	19.906	1.300	1.553	187.9939	19.914	585	391.8869	99.7817	53.529	1.700	1.553	356.6101	53.553	
522	226.1988	100.6423	20.121	1.300	1.553	190.9220	20.129	586	391.4419	99.8009	54.932	1.700	1.553	356.1651	54.957	
523	227.4026	100.6416	20.400	1.300	1.553	192.1258	20.408	587	391.9066	99.8638	54.310	1.700	1.553	356.6298	54.334	
524	224.9575	100.5929	20.680	1.300	1.553	189.6807	20.688	588	387.7442	99.7487	57.986	1.700	1.553	352.4674	58.012	
525	227.7705	100.5368	22.644	1.300	1.553	192.4937	22.653	589	388.9502	99.7006	58.324	1.700	1.553	353.6734	58.350	
526	233.4472	100.6140	21.628	1.300	1.553	198.1704	21.637	590	387.3782	99.6906	56.621	1.700	1.553	352.1014	56.646	
527	232.5439	100.6267	20.356	1.300	1.553	197.2671	20.364	591	387.1833	99.7044	59.833	1.700	1.553	351.9065	59.859	
528	233.4809	100.7250	20.939	1.300	1.553	198.2041	20.947	592	387.0702	99.7965	63.046	1.700	1.553	351.7934	63.074	
529	210.3366	100.6067	29.861	1.300	1.553	175.0598	29.873	593	387.7439	99.8095	63.780	1.700	1.553	352.4671	63.808	
530	229.1522	100.9253	24.551	1.300	1.553	193.8754	24.559	594	389.2131	99.8410	66.099	1.700	1.553	353.9363	66.129	
531	249.8695	101.8051	15.601	1.300	1.553	214.5927	15.602	595	390.2778	99.8539	66.097	1.700	1.553	355.0010	66.127	
532	242.9163	101.0054	15.024	1.300	1.553	207.6395	15.029	596	390.2459	99.8365	64.964	1.700	1.553	354.9691	64.993	
533	242.9724	101.0355	14.767	1.300	1.553	207.6956	14.772	597	389.8543	99.9591	65.479	1.700	1.553	354.5775	65.509	
534	249.0437	101.1184	14.966	1.300	1.553	213.7669	14.970	598	394.6367	99.8705	62.494	1.700	1.553	359.3599	62.522	
535	248.6667	101.3598	12.720	1.300	1.553	213.3899	12.723	599	393.1777	99.7910	55.438	1.700	1.553	357.9009	55.463	
536	256.4964	101.5104	10.574	1.300	1.553	221.2196	10.576	600	395.5738	99.8986	54.425	1.700	1.553	360.2970	54.449	
537	257.8391	102.1019	12.151	1.300	1.553	222.5623	12.150	601	397.1834	99.9091	60.322	1.700	1.553	361.9066	60.349	
538	260.0305	101.5743	10.443	1.300	1.553	224.7537	10.445	602	394.3881	99.8487	58.246	1.700	1.553	359.1113	58.272	
539	250.3453	101.6896	9.793	1.300	1.553	215.0685	9.794	603	397.1082	99.9236	66.585	1.700	1.553	361.8314	66.615	
540	263.4216	102.6290	9.483	1.300	1.553	228.1448	9.479	604	394.9912	99.9193	66.598	1.700	1.553	359.7144	66.628	
541	279.0757	103.4269	6.886	1.300	1.553	243.7989	6.879	605	397.2190	99.9973	59.230	1.700	1.553	361.9422	59.257	
542	286.0772	102.5573	6.238	1.300	1.553	250.8004	6.236	606	397.2763	100.0536	66.565	1.700	1.553	361.9995	66.595	
543	272.6381	103.1789	5.032	1.300	1.553	237.3613	5.028	607	396.5494	100.0859	72.166	1.700	1.553	361.2726	72.199	
544	203.6412	100.9633	17.286	1.300	1.553	168.3644	17.292	608	394.0346	99.8673	64.317	1.700	1.553	358.7578	64.346	
545	199.5497	100.8922	16.839	1.300	1.553	164.2729	16.845	609	393.9044	99.8633	64.135	1.700	1.553	358.6276	64.164	
546	226.9746	102.2933	7.295	1.300	1.553	191.6978	7.294	610	392.8383	99.8592	65.034	1.700	1.553	357.5615	65.063	
547	212.4624	103.9451	3.586	1.300	1.553	177.1856	3.581	611	394.4650	99.9274	70.237	1.700	1.553	359.1882	70.269	
548	282.5734	110.3031	1.731	1.300	1.553	247.2966	1.709	612	394.5429	99.9357	69.126	1.700	1.553	359.2661	69.157	
549	317.1520	110.1666	1.905	1.300	1.553	281.8752	1.882	613	394.3813	99.9682	69.543	1.700	1.553	359.1045	69.574	
550	349.7025	112.6041	1.646	1.300	1.553	314.4257	1.615	614	391.4525	100.0024	106.222	1.700	1.553	356.1757	106.270	
551	35.7558	103.3694	6.757	1.300	1.553	0.4790	6.751	615	392.0601	100.0118	105.170	1.700	1.553	356.7833	105.217	
552	33.9039	103.4017	6.731	1.300	1.553	398.6271	6.724	616	391.8632	100.0386	105.630	1.700	1.553	356.5864	105.678	
553	32.4724	102.9865	8.103	1.300	1.553	397.1956	8.098	617	392.1900	100.0403	98.292	1.700	1.553	356.9132	98.336	
554	34.4986	102.8920	8.155	1.300	1.553	399.2218	8.150	618	392.5626	100.0054	96.691	1.700	1.553	357.2858	96.735	
555	30.6693	101.7887	13.582	1.300	1.553	395.3925	13.583	619	394.0270	100.0368	97.131	1.700	1.553	358.7502	97.175	
556	15.2135	101.1898	16.009	1.300	1.553	379.9367	16.013	620	394.0653	100.0985	98.105	1.700	1.553	358.7885	98.149	
557	7.5438	100.1463	16.462	1.600	1.553	372.2670	16.469	621	392.7535	99.9870	91.842	1.700	1.553	357.4767	91.883	
558	14.1413	99.9949	25.633	1.600	1.553	378.8645	25.645	622	392.1705	99.9734	90.637	1.700	1.553	356.8937	90.678	
559	19.0246	99.8579	25.395	1.600	1.553	383.7478	25.406	623	392.3443	100.0399	91.205	1.700	1.553	357.0675	91.246	
560	21.1682	99.9527	37.422	1.600	1.553	385.8914	37.439	624	392.2906	99.9789	86.738	1.700	1.553	357.0138	86.777	
561	23.8344	100.0011	38.526	1.600	1.553	388.5576	38.543	625	392.5463	99.9820	84.545	1.700	1.553	357.2695	84.583	
562	23.8411	100.6259	39.609	1.300	1.553	388.5643	39.625	626	392.6066	99.9672	83.441	1.700	1.553	357.3298	83.479	
563	23.2879	100.7358	39.180	1.300	1.553	388.0111	39.195	627	392.8046	100.0437	83.997	1.700	1.553	357.5278	84.035	
564	27.6875	100.6084	35.426	1.300	1.553	392.4107	35.440	628	392.9855	99.9553	77.337	1.700	1.553	357.7087	77.372	
565	27.7397	100.6356	33.096	1.300	1.553	392.4629	33.109	629	392.4111	99.9420	73.917	1.700	1.553	357.1343	73.950	
566	27.3357	100.6467	33.056	1.300	1.553	392.0589	33.069	10000	0.0000	93.2200	245.539	0.000	1.553	364.7232	244.257	
567	27.3569	100.6639	31.629	1.300	1.553	392.0801	31.642	Coordenadas calculadas								
568	27.8788	100.6456	31.620	1.300	1.553	392.6020	31.633	Número X Y Z								
569	22.0484	100.5342	31.053	1.300	1.553	386.7716	31.066	454	236772.016	4142116.386	10.240					
570	24.1349	100.7629	34.697	1.300	1.553	388.8581	34.710	455	236846.605	4142029.451	10.292					
571	23.4296	101.0349	23.174	1.300	1.553	388.1528	23.181	456	236846.100	4142029.026	10.377					
572	28.2055	100.7887	27.199	1.300	1.553	392.9287	27.209	457	236845.403	4142028.952	10.377					
573	21.3187	101.2509	19.162	1.300	1.553	386.0419	19.167	458	236846.177	4142028.286	10.375					
574	23.3091	101.4064	17.001	1.300	1.553	388.0323	17.005	459	236847.294	4142028.190	10.302					
575	21.9867	101.2099	17.567	1.300	1.553	386.7099	17.572	460	236848.911	4142029.055	10.249					
576	17.1755	100.9781	16.494	1.300	1.553	381.8987	16.499	461	236849.515	4142027.446	10.256					
577	19.2755	101.4504	16.979	1.300	1.553	383.9987	16.982	462	236850.374	4142028.876	10.276					
578	15.9140	101.8737	11.279	1.300	1.553	380.6372	11.279	463	236869.437	4142031.650	10.299					

464	236872.469	4142031.997	10.348	528	236850.720	4142002.537	10.379
465	236872.786	4142026.347	10.371	529	236861.535	4141995.866	10.333
466	236859.560	4142026.124	10.126	530	236852.488	4141999.030	10.261
467	236861.744	4142025.690	10.153	531	236846.584	4142008.283	10.175
468	236850.784	4142025.137	10.306	532	236848.330	4142008.555	10.380
469	236850.823	4142024.593	10.336	533	236848.348	4142008.812	10.378
470	236851.121	4142024.570	10.413	534	236846.917	4142008.854	10.355
471	236852.819	4142018.655	10.415	535	236847.473	4142011.034	10.346
472	236853.439	4142017.951	10.325	536	236846.669	4142013.482	10.367
473	236857.696	4142011.050	10.393	537	236845.912	4142012.081	10.217
474	236858.731	4142010.507	10.338	538	236846.169	4142013.811	10.360
475	236866.233	4142005.252	10.488	539	236847.832	4142013.955	10.358
476	236867.592	4142004.903	10.373	540	236846.073	4142014.908	10.226
477	236873.223	4142002.727	10.450	541	236845.761	4142018.162	10.247
478	236873.198	4142003.320	10.438	542	236845.664	4142019.123	10.367
479	236873.372	4142003.308	10.448	543	236847.345	4142019.290	10.367
480	236873.318	4142004.638	10.421	544	236858.372	4142008.276	10.356
481	236872.652	4142004.629	10.412	545	236859.094	4142009.215	10.382
482	236872.559	4142005.428	10.446	546	236851.077	4142016.245	10.355
483	236871.420	4142004.335	10.392	547	236851.385	4142020.123	10.396
484	236867.387	4142011.112	10.359	548	236848.973	4142022.217	10.339
485	236864.816	4142018.484	10.389	549	236848.323	4142022.948	10.315
486	236863.230	4142025.340	10.386	550	236848.556	4142023.839	10.294
487	236872.338	4142025.756	10.446	551	236850.180	4142030.227	10.260
488	236872.769	4142016.859	10.432	552	236849.984	4142030.199	10.258
489	236865.609	4142015.401	10.382	553	236849.772	4142031.566	10.238
490	236864.857	4142014.581	10.376	554	236850.029	4142031.626	10.247
491	236864.903	4142013.441	10.348	555	236849.147	4142037.023	10.236
492	236863.748	4142013.381	10.328	556	236845.165	4142038.701	10.319
493	236862.971	4142012.561	10.361	557	236843.179	4142038.407	10.280
494	236862.135	4142013.318	10.373	558	236841.771	4142047.720	10.320
495	236861.001	4142013.248	10.347	559	236843.713	4142048.059	10.374
496	236860.936	4142014.422	10.388	560	236841.900	4142059.999	10.346
497	236860.120	4142015.140	10.383	561	236843.239	4142061.399	10.317
498	236860.868	4142016.038	10.397	562	236843.049	4142062.464	10.228
499	236860.836	4142017.150	10.396	563	236842.791	4142061.978	10.165
500	236861.961	4142017.226	10.406	564	236845.914	4142058.665	10.279
501	236862.714	4142018.053	10.402	565	236846.218	4142056.354	10.287
502	236863.555	4142017.282	10.405	566	236846.015	4142056.288	10.282
503	236864.682	4142017.325	10.403	567	236846.203	4142054.873	10.288
504	236864.759	4142016.184	10.407	568	236846.461	4142054.896	10.297
505	236852.178	4142024.725	10.428	569	236843.720	4142053.874	10.357
506	236856.850	4142014.052	10.317	570	236844.085	4142057.656	10.202
507	236863.353	4142008.538	10.393	571	236845.840	4142046.257	10.241
508	236868.783	4142018.628	10.449	572	236847.113	4142050.518	10.281
509	236866.786	4142019.737	10.383	573	236845.960	4142042.184	10.241
510	236867.337	4142022.683	10.423	574	236846.951	4142040.181	10.242
511	236867.985	4142025.124	10.453	575	236846.487	4142040.666	10.284
512	236865.885	4142024.882	10.490	576	236845.501	4142039.313	10.364
513	236856.442	4142024.136	10.397	577	236845.905	4142039.925	10.231
514	236857.799	4141998.721	10.439	578	236846.751	4142034.238	10.286
515	236856.459	4141998.942	10.437	579	236848.787	4142033.682	10.243
516	236848.646	4142005.721	10.393	580	236817.732	4142057.480	10.431
517	236855.993	4141999.785	10.408	581	236817.912	4142056.422	10.446
518	236854.135	4141998.662	10.414	582	236817.573	4142056.878	10.384
519	236854.327	4142002.423	10.416	583	236814.491	4142060.729	10.453
520	236854.232	4142001.029	10.416	584	236815.501	4142058.941	10.464
521	236853.862	4142003.915	10.414	585	236816.390	4142065.065	10.401
522	236852.990	4142003.551	10.415	586	236815.208	4142065.912	10.390
523	236852.647	4142003.224	10.412	587	236815.911	4142065.682	10.334
524	236853.468	4142003.059	10.425	588	236810.729	4142066.055	10.447
525	236852.794	4142000.980	10.427	589	236811.318	4142067.046	10.492
526	236850.751	4142001.848	10.409	590	236811.418	4142064.831	10.493
527	236851.003	4142003.131	10.417	591	236809.088	4142067.052	10.496

592	236806.803	4142069.315	10.419				
593	236806.792	4142070.310	10.409				
594	236806.348	4142073.036	10.383				
595	236807.184	4142073.760	10.370				
596	236807.895	4142072.877	10.385				
597	236807.255	4142073.006	10.260				
598	236812.873	4142073.686	10.345				
599	236816.067	4142067.247	10.400				
600	236818.330	4142067.676	10.305				
601	236816.135	4142073.340	10.304				
602	236815.223	4142070.137	10.356				
603	236812.540	4142078.473	10.298				
604	236810.725	4142077.203	10.302				
605	236816.777	4142072.456	10.220				
606	236812.697	4142078.555	10.162				
607	236808.868	4142082.723	10.121				
608	236811.299	4142074.785	10.352				
609	236811.304	4142074.561	10.356				
610	236809.898	4142074.610	10.362				
611	236808.105	4142079.793	10.298				
612	236808.837	4142078.953	10.288				
613	236808.446	4142079.182	10.253				
614	236782.616	4142105.545	10.214				
615	236784.063	4142105.367	10.199				
616	236783.520	4142105.519	10.154				
617	236788.540	4142100.137	10.156				
618	236789.986	4142099.242	10.210				
619	236791.479	4142100.956	10.162				
620	236790.938	4142101.768	10.066				
621	236793.218	4142095.613	10.237				
622	236793.315	4142094.149	10.256				
623	236793.154	4142094.748	10.161				
624	236795.887	4142091.212	10.247				
625	236797.524	4142089.711	10.242				
626	236798.273	4142088.895	10.261				
627	236798.132	4142089.493	10.160				
628	236802.428	4142084.394	10.272				
629	236804.014	4142081.287	10.285				
10000	236721.601	4142231.183	38.022				
Radiación desde la estación 8018							
X	236705.622	Desorientación	198.9929				
Y	4141408.429	Nombre					
Z	9.577	Coef. anamorfosis	1.0004540757				
Visuales utilizadas							
Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
8102	233.0252	99.6813	117.245	1.300	1.599	32.0181	117.297
8103	250.0937	99.2386	44.864	1.300	1.599	49.0866	44.881
8104	6.4491	100.5170	179.369	1.300	1.599	205.4420	179.444
9287	303.8687	100.1474	52.167	1.300	1.599	102.8616	52.190
9288	303.5477	100.1475	52.164	1.300	1.599	102.5406	52.187
9289	303.3406	100.1617	51.448	1.300	1.599	102.3335	51.471
9290	302.9943	100.1723	50.234	1.300	1.599	101.9872	50.257
9291	302.7956	100.1357	49.637	1.300	1.599	101.7885	49.659
9292	299.1887	100.0458	46.200	1.300	1.599	98.1816	46.221
9293	292.8667	99.9517	46.119	1.300	1.599	91.8596	46.140
9294	301.6452	99.9341	50.521	1.300	1.599	100.6381	50.544
9295	302.0779	99.9358	51.678	1.300	1.599	101.0708	51.701
9296	301.9613	99.9192	51.790	1.300	1.599	100.9542	51.813
9297	302.7408	99.9353	51.990	1.300	1.599	101.7337	52.013
9298	298.8863	100.0524	53.233	1.300	1.599	97.8792	53.257
9299	301.2835	99.6250	60.584	1.700	1.599	100.2764	60.610
9300	301.0976	99.4548	61.323	1.700	1.599	100.0905	61.348
9301	299.8561	99.2545	62.123	1.700	1.599	98.8490	62.147
9302	311.7254	99.7434	58.525	1.700	1.599	110.7183	58.551

9303	313.6341	99.7151	57.341	1.700	1.599	112.6270	57.366
9304	313.0936	99.6895	56.853	1.700	1.599	112.0865	56.878
9305	313.0390	99.6646	55.940	1.700	1.599	112.0319	55.965
9306	312.6395	99.6359	51.861	1.700	1.599	111.6324	51.884
9307	311.4446	99.6227	51.022	1.700	1.599	110.4375	51.044
9308	310.8723	99.6902	51.177	1.700	1.599	109.8652	51.200
9309	308.3497	99.6587	51.456	1.700	1.599	107.3426	51.479
9310	308.8895	99.5649	50.691	1.700	1.599	107.8824	50.713
9311	310.1848	99.5460	50.378	1.700	1.599	109.1777	50.400
9312	309.9288	99.5113	48.767	1.700	1.599	108.9217	48.788
9313	309.8734	99.5531	50.481	1.700	1.599	108.8663	50.503
9314	309.4246	99.5280	49.010	1.700	1.599	108.4175	49.031
9315	308.1207	99.6113	49.263	1.700	1.599	107.1136	49.284
9316	308.3281	99.6297	50.505	1.700	1.599	107.3210	50.527
9317	266.4932	99.1613	69.275	1.700	1.599	65.4861	69.300
9318	266.2752	99.1791	70.200	1.700	1.599	65.2681	70.226
9319	266.0829	99.1926	70.393	1.700	1.599	65.0758	70.419
9320	260.3437	99.3049	71.143	1.700	1.599	59.3366	71.171
9321	256.3106	99.4021	78.301	1.700	1.599	55.3035	78.333
9322	257.0850	99.2385	78.660	1.700	1.599	56.0779	78.690
9323	257.6810	99.2412	76.565	1.700	1.599	56.6739	76.594
9324	254.3095	99.2464	83.712	1.700	1.599	53.3024	83.744
9325	255.4728	99.2143	83.530	1.700	1.599	54.4657	83.561
9326	252.8530	99.1586	94.693	1.700	1.599	51.8459	94.728
9327	252.7922	99.1692	94.184	1.700	1.599	51.7851	94.219
9328	252.0594	99.1841	94.918	1.700	1.599	51.0523	94.953
9329	251.5661	99.1867	94.298	1.700	1.599	50.5590	94.333
9330	251.0038	99.1875	93.771	1.700	1.599	49.9967	93.806
9331	250.8850	99.1871	92.688	1.700	1.599	49.8779	92.722
9332	250.4002	99.1602	97.673	1.700	1.599	49.3931	97.709
9333	250.5551	99.1659	98.988	1.700	1.599	49.5480	99.024
9334	250.4663	99.1638	96.923	1.700	1.599	49.4592	96.958
9335	250.3236	99.1667	96.886	1.700	1.599	49.3165	96.922
9336	250.4223	99.1949	95.587	1.700	1.599	49.4152	95.623
9337	249.9273	99.3104	94.360	1.700	1.599	48.9202	94.397
9338	251.3601	99.3211	89.265	1.700	1.599	50.3530	89.300
9339	253.0851	99.3518	84.820	1.700	1.599	52.0780	84.854
9340	247.8642	98.8791	86.942	2.150	1.599	46.8571	86.968
9341	247.0399	98.8679	88.858	2.150	1.599	46.0328	88.884
9342	246.6563	98.8700	89.002	2.150	1.599	45.6492	89.028
9343	246.4018	98.8616	88.514	2.150	1.599	45.3947	88.540
9344	247.1182	98.7653	87.426	2.150	1.599	46.1111	87.449
9345	247.7670	98.8683	86.168	2.150	1.599	46.7599	86.193
9346	247.3485	98.8505	85.912	2.150	1.599	46.3414	85.937
9347	247.9623	98.8635	84.091	2.150	1.599	46.9552	84.116
9348	248.3699	98.8636	84.338	2.150	1.599	47.3628	84.363
9349	249.3834	98.7664	80.456	2.150	1.599	48.3763	80.477
9350	249.9978	98.7453	78.897	2.150	1.599	48.9907	78.917
9351	249.7574	98.7569	79.720	2.150	1.599	48.7503	79.741
9352	249.2446	98.8809	79.394	2.150	1.599	48.2375	79.418
9353	249.4359	98.8805	79.026	2.150	1.599	48.4288	79.050
9354	250.5923	98.8515	75.991	2.150	1.599	49.5852	76.013
9355	250.7916	98.8370	75.597	2.150	1.599	49.7845	75.619
9356	250.4475	98.8376	75.797	2.150	1.599	49.4404	75.819
9357	248.2346	98.8798	81.662	2.150	1.599	47.2275	81.686
9358	246.6853	98.8624	86.258	2.150	1.599	45.6782	86.283
9359	262.7684	99.1623	57.894	1.700	1.599	61.7613	57.915
9360	262.4463	99.1178	56.630	1.700	1.599	61.4392	56.650
9361	264.0202	99.3947	55.456	1.300	1.599	63.0131	55.479
9362	264.3618	99.4427	37.787	1.300	1.599	63.3547	37.803
9363	262.8737	99.2219	37.406	1.300	1.599	61.8666	37.420
9364	261.7089	97.7750	38.169	2.150	1.599	60.7018	38.163
9365	249.1730	98.7783	47.741	1.700	1.599	48.1659	47.754
9366	247.4427	98.8861	48.095	1.700	1.599	46.4356	48.109

9367	241.1532	99.0382	62.005	1.700	1.599	40.1461	62.026		10001	0.0000	87.9301	200.759	0.000	1.599	198.9929	197.250
9368	241.7801	99.0508	63.445	1.700	1.599	40.7730	63.467		Coordenadas calculadas							
9369	239.5122	98.5883	69.464	2.150	1.599	38.5051	69.478		Número X	Y	Z					
9370	222.5165	99.6736	62.294	1.300	1.599	21.5094	62.321		8102	236762.160	4141511.201	10.463				
9371	224.7033	99.6085	62.490	1.300	1.599	23.6962	62.517		8103	236736.900	4141440.617	10.412				
9372	224.5064	99.6090	64.468	1.300	1.599	23.4993	64.496		8104	236690.302	4141229.640	8.421				
9373	223.6834	99.5981	65.592	1.300	1.599	22.6763	65.620		9287	236757.760	4141406.084	9.755				
9374	221.8784	99.5936	66.670	1.300	1.599	20.8713	66.699		9288	236757.768	4141406.347	9.755				
9375	219.6566	99.5958	67.932	1.300	1.599	18.6495	67.961		9289	236757.059	4141406.543	9.745				
9376	215.7628	99.5977	70.476	1.300	1.599	14.7557	70.506		9290	236755.854	4141406.860	9.740				
9377	219.2318	99.5293	67.404	1.300	1.599	18.2247	67.433		9291	236755.262	4141407.034	9.770				
9378	217.9203	98.9458	70.085	2.000	1.599	16.9132	70.107		9292	236751.824	4141409.749	9.843				
9379	216.9672	98.8212	70.731	2.150	1.599	15.9601	70.751		9293	236751.386	4141414.313	9.911				
9380	216.6170	98.8296	70.132	2.150	1.599	15.6099	70.152		9294	236756.164	4141407.922	9.928				
9381	224.7037	99.6101	62.399	1.300	1.599	23.6966	62.426		9295	236757.316	4141407.559	9.928				
9382	225.5317	99.8195	52.562	1.300	1.599	24.5246	52.586		9296	236757.430	4141407.652	9.942				
9383	223.4227	100.1009		49.494	1.300	1.599	22.4156	49.516	9297	236757.617	4141407.013	9.929				
9384	222.8180	100.0381		49.644	1.300	1.599	21.8109	49.666	9298	236758.850	4141410.203	9.832				
9385	220.5217	100.0743		50.026	1.300	1.599	19.5146	50.049	9299	236766.232	4141408.166	9.833				
9386	220.5660	100.1499		48.989	1.300	1.599	19.5589	49.011	9300	236766.971	4141408.342	10.001				
9387	218.9887	99.0867	48.956	2.150	1.599	17.9816	48.973		9301	236767.759	4141409.553	10.203				
9388	220.3096	99.1437	48.211	2.150	1.599	19.3025	48.228		9302	236763.346	4141398.618	9.712				
9389	222.7894	99.0524	48.127	2.150	1.599	21.7823	48.143		9303	236761.864	4141397.125	9.732				
9390	219.8454	99.2888	47.524	2.150	1.599	18.8383	47.543		9304	236761.478	4141397.695	9.753				
9391	223.4052	99.0534	48.351	2.150	1.599	22.3981	48.368		9305	236760.590	4141397.915	9.771				
9392	23.6897	102.9838		25.949	1.300	1.599	222.6826	25.932	9306	236756.642	4141399.001	9.772				
9393	17.7586	102.7826		25.872	1.300	1.599	216.7515	25.859	9307	236755.982	4141400.098	9.778				
9394	12.2021	102.2532		26.036	1.300	1.599	211.1950	26.031	9308	236756.208	4141400.527	9.725				
9395	9.7673	102.6871		19.445	1.300	1.599	208.7602	19.436	9309	236756.759	4141402.505	9.752				
9396	17.0859	103.0840		19.693	1.300	1.599	216.0788	19.679	9310	236755.947	4141402.166	9.822				
9397	9.3248	102.7247		19.432	1.300	1.599	208.3177	19.423	9311	236755.499	4141401.188	9.835				
9398	21.4135	103.5272		19.544	1.300	1.599	220.4064	19.523	9312	236753.932	4141401.614	9.850				
9399	23.5416	103.6687		19.283	1.300	1.599	222.5345	19.260	9313	236755.636	4141401.418	9.830				
9400	24.8955	103.7953		18.988	1.300	1.599	223.8884	18.963	9314	236754.225	4141401.965	9.839				
9401	23.8927	103.3668		18.724	1.300	1.599	222.8856	18.706	9315	236754.599	4141402.933	9.777				
9402	22.5965	103.0975		17.958	1.300	1.599	221.5894	17.945	9316	236755.816	4141402.631	9.770				
9403	18.3282	102.6903		17.908	1.300	1.599	217.3211	17.900	9317	236764.985	4141444.186	10.389				
9404	18.4006	103.1971		19.532	1.300	1.599	217.3935	19.516	9318	236765.654	4141444.869	10.381				
9405	14.2230	102.4883		17.613	1.300	1.599	213.2159	17.608	9319	236765.708	4141445.151	10.369				
9406	10.6926	102.3731		17.754	1.300	1.599	209.6855	17.750	9320	236762.762	4141450.860	10.253				
9407	11.2732	102.6637		18.616	1.300	1.599	210.2661	18.608	9321	236765.429	4141459.018	10.211				
9408	5.8958	102.7301		16.428	1.300	1.599	204.8887	16.420	9322	236766.315	4141458.514	10.417				
9409	6.2317	102.8636		14.953	1.300	1.599	205.2246	14.945	9323	236765.153	4141456.625	10.389				
9410	5.5156	102.4773		13.462	1.300	1.599	204.5085	13.458	9324	236767.829	4141464.495	10.467				
9411	16.1317	102.5191		12.929	1.300	1.599	215.1246	12.925	9325	236768.705	4141463.229	10.507				
9412	27.4456	103.2223		13.392	1.300	1.599	226.4385	13.381	9326	236774.519	4141473.441	10.728				
9413	194.5461	102.9391		5.647	1.300	1.599	393.5390	5.644	9327	236774.087	4141473.158	10.705				
9414	225.1601	102.3463		6.406	1.300	1.599	24.1530	6.405	9328	236773.865	4141474.452	10.693				
9415	245.4933	102.2646		6.987	1.300	1.599	44.4862	6.986	9329	236772.909	4141474.544	10.681				
9416	248.0010	103.2356		6.730	1.300	1.599	46.9939	6.724	9330	236771.950	4141474.763	10.673				
9417	244.2908	102.6022		7.670	1.300	1.599	43.2837	7.667	9331	236771.061	4141474.119	10.660				
9418	261.0497	101.0774		9.781	1.300	1.599	60.0426	9.784	9332	236774.051	4141478.175	10.765				
9419	366.8602	102.5501		8.240	1.300	1.599	165.8531	8.237	9333	236775.144	4141478.945	10.773				
9420	397.8933	101.8979		17.992	1.300	1.599	196.8862	17.992	9334	236773.598	4141477.569	10.749				
9421	385.9499	100.9024		20.304	1.500	1.599	184.9428	20.311	9335	236773.417	4141477.695	10.744				
9422	379.8988	100.8072		17.482	1.500	1.599	178.8917	17.489	9336	236772.614	4141476.663	10.685				
9423	381.5960	100.8368		16.340	1.500	1.599	180.5889	16.346	9337	236771.230	4141476.300	10.498				
9424	297.2693	99.8306	9.683	1.500	1.599	96.2622	9.687		9338	236769.116	4141471.223	10.428				
9425	295.7012	99.9177	10.863	1.500	1.599	94.6941	10.868		9339	236767.549	4141466.440	10.340				
9426	265.6475	98.2114	14.579	1.700	1.599	64.6404	14.580		9340	236764.008	4141472.884	10.557				
9427	280.0163	97.9788	11.837	1.700	1.599	79.0092	11.836		9341	236764.437	4141475.072	10.606				
9428	274.2660	98.7521	13.330	1.700	1.599	73.2589	13.333		9342	236764.129	4141475.533	10.606				
9429	240.1338	98.8136	28.315	1.700	1.599	39.1267	28.323		9343	236763.541	4141475.397	10.609				
9430	236.3316	98.8655	27.793	1.700	1.599	35.3245	27.801		9344	236763.568	4141473.924	10.722				

9345	236763.391	4141472.399	10.558
9346	236762.798	4141472.585	10.577
9347	236762.190	4141470.683	10.527
9348	236762.754	4141470.502	10.531
9349	236761.059	4141466.768	10.585
9350	236760.534	4141465.110	10.581
9351	236760.890	4141465.910	10.583
9352	236760.203	4141466.119	10.422
9353	236760.122	4141465.688	10.416
9354	236759.020	4141462.527	10.397
9355	236758.912	4141462.080	10.407
9356	236758.761	4141462.510	10.410
9357	236760.814	4141468.650	10.463
9358	236762.355	4141473.439	10.567
9359	236753.401	4141441.162	10.238
9360	236752.194	4141440.683	10.261
9361	236751.998	4141438.878	10.403
9362	236737.333	4141429.007	10.207
9363	236736.528	4141429.527	10.333
9364	236736.742	4141430.519	10.359
9365	236738.403	4141443.155	10.392
9366	236737.684	4141444.298	10.317
9367	236742.195	4141458.525	10.413
9368	236743.548	4141459.318	10.422
9369	236745.130	4141465.582	10.566
9370	236726.281	4141467.227	10.195
9371	236728.359	4141466.665	10.260
9372	236728.893	4141468.581	10.272
9373	236728.505	4141469.930	10.290
9374	236727.100	4141471.575	10.301
9375	236725.248	4141473.495	10.307
9376	236721.819	4141477.050	10.321
9377	236724.664	4141473.117	10.374
9378	236724.030	4141476.076	10.336
9379	236723.175	4141476.968	10.336
9380	236722.652	4141476.483	10.315
9381	236728.326	4141466.580	10.258
9382	236725.383	4141457.161	10.025
9383	236722.699	4141454.907	9.797
9384	236722.307	4141455.209	9.846
9385	236720.725	4141456.145	9.817
9386	236720.444	4141455.145	9.760
9387	236719.272	4141455.462	9.728
9388	236720.022	4141454.457	9.674
9389	236721.775	4141453.782	9.742
9390	236719.486	4141453.905	9.557
9391	236722.291	4141453.834	9.745
9392	236696.577	4141384.125	8.660
9393	236698.896	4141383.460	8.745
9394	236701.068	4141382.799	8.954
9395	236702.956	4141389.176	9.055
9396	236700.705	4141389.375	8.922
9397	236703.092	4141389.172	9.044
9398	236699.471	4141389.901	8.793
9399	236698.947	4141390.363	8.765
9400	236698.673	4141390.786	8.744
9401	236699.042	4141390.918	8.886
9402	236699.653	4141391.506	9.002
9403	236700.812	4141391.187	9.119
9404	236700.356	4141389.637	8.895
9405	236701.993	4141391.200	9.187
9406	236702.932	4141390.884	9.214
9407	236702.635	4141390.062	9.097
9408	236704.363	4141392.057	9.171

9409	236704.397	4141393.535	9.203
9410	236704.670	4141395.005	9.352
9411	236702.581	4141395.867	9.364
9412	236700.224	4141396.186	9.198
9413	236705.051	4141414.043	9.615
9414	236707.994	4141414.378	9.640
9415	236710.116	4141413.777	9.627
9416	236710.148	4141413.403	9.534
9417	236710.443	4141414.391	9.562
9418	236713.542	4141414.175	9.710
9419	236709.832	4141401.349	9.546
9420	236706.502	4141390.458	9.339
9421	236710.382	4141388.683	9.388
9422	236711.315	4141391.893	9.454
9423	236710.530	4141392.837	9.461
9424	236715.293	4141408.997	9.701
9425	236716.453	4141409.334	9.690
9426	236718.011	4141416.117	9.885
9427	236716.821	4141412.261	9.851
9428	236717.797	4141413.866	9.737
9429	236721.954	4141431.569	10.003
9430	236720.269	4141432.059	9.971
10001	236708.743	4141211.204	49.013

Radiación desde la estación 8100

X	236772.002	Desorientación	367.8302
Y	4142116.387	Nombre	
Z	10.217	Coef. anamorfosis	1.0004536451

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
630	188.7175	100.1477	49.115	1.300	1.544	156.5477	49.137
631	190.1364	100.1282	49.212	1.300	1.544	157.9666	49.234
632	188.8199	100.1588	47.993	1.300	1.544	156.6501	48.015
633	189.3983	100.3132	48.409	1.300	1.544	157.2285	48.430
634	191.9214	100.1236	48.743	1.300	1.544	159.7516	48.765
635	193.9303	100.2133	39.008	1.300	1.544	161.7605	39.025
636	191.2431	100.2146	42.010	1.300	1.544	159.0733	42.029
637	189.7061	100.2469	40.805	1.300	1.544	157.5363	40.823
638	190.1739	100.4027	41.409	1.300	1.544	158.0041	41.427
639	191.1366	100.3098	35.659	1.300	1.544	158.9668	35.675
640	192.7273	100.2551	34.846	1.300	1.544	160.5575	34.861
641	190.8594	100.3386	33.599	1.300	1.544	158.6896	33.614
642	191.5268	100.5139	34.132	1.300	1.544	159.3570	34.146
643	198.4789	100.3301	26.828	1.300	1.544	166.3091	26.840
644	202.3362	100.4429	25.385	1.300	1.544	170.1664	25.396
645	206.4204	100.3956	23.012	1.300	1.544	174.2506	23.022
646	206.4564	100.5309	20.744	1.300	1.544	174.2866	20.753
647	209.5109	100.8795	16.565	1.300	1.544	177.3411	16.571
648	210.7173	101.0938	14.825	1.300	1.544	178.5475	14.830
649	226.3819	99.1170 17.066	1.700	1.544	194.2121	17.072	
650	208.5810	99.4423 28.164	1.700	1.544	176.4112	28.176	
651	191.4269	99.4074 25.096	1.700	1.544	159.2571	25.106	
652	189.8879	99.4290 24.498	1.700	1.544	157.7181	24.508	
653	192.3233	99.3495 24.079	1.700	1.544	160.1535	24.089	
654	191.9851	100.6135	18.209	1.300	1.544	159.8153	18.216
655	190.1771	100.7395	17.557	1.300	1.544	158.0073	17.564
656	192.6489	100.6733	17.067	1.300	1.544	160.4791	17.074
657	206.5767	100.8810	13.671	1.300	1.544	174.4069	13.676
658	203.1186	100.9862	12.273	1.300	1.544	170.9488	12.277
659	205.0611	101.5138	12.965	1.300	1.544	172.8913	12.967
660	226.3076	102.5048	6.506	1.300	1.544	194.1378	6.504
661	228.6180	101.5293	7.357	1.300	1.544	196.4482	7.358
662	227.0005	102.1640	5.785	1.300	1.544	194.8307	5.784
663	254.9764	101.6658	6.696	1.300	1.544	222.8066	6.697
664	218.4531	102.1592	6.083	1.300	1.544	186.2833	6.082

665	190.1238	100.9949	13.114	1.300	1.544	157.9540	13.118
666	184.5992	101.3795	11.227	1.300	1.544	152.4294	11.229
667	184.6968	101.6555	9.478	1.300	1.544	152.5270	9.479
668	176.4895	101.7966	9.524	1.300	1.544	144.3197	9.525
669	171.1364	102.5452	6.492	1.300	1.544	138.9666	6.490
670	147.2536	103.1968	6.541	1.300	1.544	115.0838	6.536
671	5.8724	101.8980	10.858	1.300	1.544	373.7026	10.858
672	391.6977	101.6337	11.051	1.300	1.544	359.5279	11.052
673	3.5792	102.2674	12.612	1.300	1.544	371.4094	12.610
674	108.6498	106.5115	4.084	1.300	1.544	76.4800	4.064
675	251.7776	102.0493	5.188	1.300	1.544	219.6078	5.188
676	247.5690	102.5152	4.621	1.300	1.544	215.3992	4.619
677	276.9839	103.2387	3.867	1.300	1.544	244.8141	3.864
678	310.2154	103.5107	3.934	1.300	1.544	278.0456	3.930
679	317.0515	102.3929	5.439	1.300	1.544	284.8817	5.438
680	359.3589	101.5205	9.482	1.300	1.544	327.1891	9.484
681	355.7584	101.2248	10.981	1.300	1.544	323.5886	10.984
682	369.9219	100.9982	16.399	1.300	1.544	337.7521	16.404
683	366.9089	100.8415	17.761	1.300	1.544	334.7391	17.767
684	374.1791	100.7287	23.488	1.300	1.544	342.0093	23.497
685	371.8678	100.6325	24.782	1.300	1.544	339.6980	24.792
686	376.2579	100.6739	25.819	1.300	1.544	344.0881	25.829
687	368.3744	100.5938	24.678	1.300	1.544	336.2046	24.688
688	371.0232	100.4969	29.270	1.300	1.544	338.8534	29.282
689	360.3128	100.7142	25.870	1.300	1.544	328.1430	25.880
690	370.4761	100.6884	21.748	1.300	1.544	338.3063	21.757
691	372.6023	100.7452	21.535	1.300	1.544	340.4325	21.543
692	371.4695	100.7498	19.591	1.300	1.544	339.2997	19.598
693	392.9893	100.8790	26.066	1.300	1.544	360.8195	26.075
694	394.0231	101.2667	24.426	1.300	1.544	361.8533	24.432
695	372.9733	100.9392	24.028	1.300	1.544	340.8035	24.036
696	368.7228	101.1840	17.291	1.300	1.544	336.5530	17.296
697	358.1216	101.9441	10.238	1.300	1.544	325.9518	10.238
698	316.1071	104.0762	4.697	1.300	1.544	283.9373	4.689
699	229.0491	102.5841	6.560	1.300	1.544	196.8793	6.558
700	361.2209	101.4808	9.950	1.300	1.544	329.0511	9.952
701	344.0894	102.0734	6.918	1.300	1.544	311.9196	6.917
702	380.1865	101.5686	10.485	1.300	1.544	348.0167	10.487
703	389.4609	101.7039	10.461	1.300	1.544	357.2911	10.462
704	389.4303	101.6599	10.673	1.300	1.544	357.2605	10.674
705	366.9555	101.1263	13.373	1.300	1.544	334.7857	13.377
706	389.8785	101.3986	13.151	1.300	1.544	357.7087	13.154
707	31.5065	100.6017	19.575	1.300	1.544	399.3367	19.583
708	35.7064	100.5953	19.290	1.300	1.544	3.5366	19.298
709	36.7270	99.8037	18.724	1.300	1.544	4.5572	18.732
710	39.3507	99.7694	17.666	1.300	1.544	7.1809	17.674
711	105.7839	100.7543	14.169	1.300	1.544	73.6141	14.174
712	108.2853	100.7465	15.116	1.300	1.544	76.1155	15.122
713	113.5944	99.7456	15.435	1.300	1.544	81.4246	15.442
714	117.8902	99.7701	15.668	1.300	1.544	85.7204	15.675
715	151.3540	100.3224	27.054	1.300	1.544	119.1842	27.066
716	150.6311	100.3665	28.004	1.300	1.544	118.4613	28.016
717	153.0537	99.7485	29.458	1.300	1.544	120.8839	29.471
718	155.1582	99.7647	30.755	1.300	1.544	122.9884	30.769
719	165.9836	100.1163	47.236	1.300	1.544	133.8138	47.257
720	165.4039	100.0849	48.629	1.300	1.544	133.2341	48.651
721	166.2548	99.7454	49.449	1.300	1.544	134.0850	49.471
722	166.7741	99.7169	50.285	1.300	1.544	134.6043	50.307
723	171.1318	99.9569	62.304	1.300	1.544	138.9620	62.332
724	170.7980	99.9728	63.787	1.300	1.544	138.6282	63.816
725	171.7073	99.8768	64.082	1.300	1.544	139.5375	64.111
726	171.4807	99.8852	65.076	1.300	1.544	139.3109	65.105
727	176.4312	99.8414	88.407	1.300	1.544	144.2614	88.447
728	171.6081	99.8158	81.439	1.300	1.544	139.4383	81.475

729	170.4272	99.4968	82.719	2.150	1.544	138.2574	82.754
730	164.0172	99.4793	73.691	2.150	1.544	131.8474	73.722
731	164.9579	99.4428	71.771	2.150	1.544	132.7881	71.801
732	158.2754	99.3716	59.469	2.150	1.544	126.1056	59.493
733	156.4701	99.4576	60.391	2.150	1.544	124.3003	60.416
734	157.1767	99.3543	58.301	2.150	1.544	125.0069	58.324
735	155.3848	99.4379	58.282	2.150	1.544	123.2150	58.306
736	152.7125	99.4258	53.966	2.150	1.544	120.5427	53.988
737	153.9675	99.3186	52.660	2.150	1.544	121.7977	52.681
738	153.5952	99.2984	51.011	2.150	1.544	121.4254	51.031
739	151.5149	99.2663	51.961	2.150	1.544	119.3451	51.981
740	140.7920	99.1429	40.465	2.150	1.544	108.6222	40.480
741	141.7897	99.2216	38.016	2.150	1.544	109.6199	38.030
742	120.2861	98.9818	27.865	2.150	1.544	88.1163	27.874
743	117.9940	98.9080	29.542	2.150	1.544	85.8242	29.551
744	115.4719	98.9893	26.653	2.150	1.544	83.3021	26.662
745	109.3951	98.9240	27.573	2.150	1.544	77.2253	27.582
746	80.3321	98.8485	25.474	2.150	1.544	48.1623	25.481
747	80.0380	101.1666	23.520	1.300	1.544	47.8682	23.527
748	43.6038	100.9477	29.166	1.300	1.544	11.4340	29.176
749	49.4920	100.8490	29.689	1.300	1.544	17.3222	29.700
750	26.5035	100.7149	37.947	1.300	1.544	394.3337	37.962
10001	0.0000	89.9731	186.615	1.620	1.544	367.8302	184.388

Coordenadas calculadas

Número	X	Y	Z
630	236802.996	4142078.258	10.347
631	236802.198	4142077.500	10.362
632	236802.228	4142079.081	10.341
633	236802.147	4142078.482	10.223
634	236800.819	4142077.047	10.367
635	236794.059	4142084.193	10.330
636	236797.198	4142082.748	10.319
637	236797.257	4142084.314	10.303
638	236797.391	4142083.652	10.199
639	236793.437	4142087.870	10.288
640	236792.245	4142088.005	10.321
641	236792.315	4142089.605	10.282
642	236792.351	4142088.966	10.186
643	236785.552	4142093.219	10.322
644	236783.472	4142093.729	10.284
645	236781.062	4142095.223	10.318
646	236780.158	4142097.304	10.288
647	236777.776	4142100.855	10.232
648	236776.905	4142102.392	10.206
649	236773.552	4142099.385	10.298
650	236782.205	4142090.124	10.308
651	236786.995	4142096.249	10.295
652	236787.109	4142097.089	10.281
653	236786.114	4142096.865	10.307
654	236782.752	4142101.681	10.286
655	236782.765	4142102.508	10.257
656	236781.933	4142102.499	10.281
657	236777.353	4142103.801	10.272
658	236777.412	4142105.366	10.271
659	236777.358	4142104.578	10.153
660	236772.600	4142109.911	10.205
661	236772.412	4142109.040	10.284
662	236772.471	4142110.622	10.264
663	236769.654	4142110.115	10.286
664	236773.302	4142110.445	10.255
665	236780.050	4142106.027	10.256
666	236779.634	4142108.149	10.218
667	236778.433	4142109.424	10.215
668	236779.310	4142110.279	10.192

669	236777.314	4142112.658	10.202
670	236778.355	4142114.853	10.133
671	236767.643	4142126.332	10.137
672	236765.439	4142125.280	10.177
673	236766.527	4142127.746	10.012
674	236775.792	4142117.855	10.044
675	236770.429	4142111.443	10.294
676	236770.895	4142111.902	10.278
677	236769.501	4142113.442	10.264
678	236768.304	4142115.058	10.244
679	236766.717	4142115.108	10.257
680	236763.370	4142120.315	10.235
681	236761.763	4142120.364	10.250
682	236758.398	4142125.555	10.204
683	236756.815	4142125.608	10.226
684	236753.438	4142130.791	10.192
685	236751.876	4142130.864	10.215
686	236752.123	4142132.879	10.188
687	236751.200	4142129.682	10.231
688	236748.006	4142133.169	10.233
689	236748.610	4142127.459	10.171
690	236754.067	4142128.702	10.226
691	236754.660	4142129.168	10.209
692	236756.021	4142127.732	10.230
693	236756.948	4142137.678	10.101
694	236758.223	4142136.563	9.975
695	236752.736	4142130.759	10.107
696	236757.480	4142125.781	10.139
697	236762.603	4142120.446	10.148
698	236767.461	4142115.216	10.160
699	236772.323	4142109.837	10.195
700	236763.069	4142120.772	10.230
701	236765.205	4142117.675	10.236
702	236764.360	4142123.568	10.203
703	236765.498	4142124.582	10.181
704	236765.362	4142124.745	10.183
705	236760.573	4142123.338	10.224
706	236763.892	4142126.744	10.172
707	236771.798	4142135.969	10.276
708	236773.073	4142135.655	10.281
709	236773.342	4142135.071	10.519
710	236773.991	4142133.949	10.525
711	236784.976	4142122.095	10.293
712	236786.072	4142121.928	10.284
713	236786.791	4142120.829	10.523
714	236787.284	4142119.874	10.518
715	236797.848	4142108.354	10.324
716	236798.848	4142108.376	10.300
717	236799.902	4142106.892	10.577
718	236800.786	4142105.516	10.575
719	236812.749	4142092.450	10.375
720	236814.173	4142092.127	10.396
721	236814.550	4142091.147	10.659
722	236815.059	4142090.369	10.685
723	236823.020	4142080.576	10.503
724	236824.426	4142079.998	10.488
725	236824.141	4142079.081	10.585
726	236825.084	4142078.691	10.579
727	236839.919	4142059.730	10.682
728	236838.337	4142069.080	10.697
729	236840.257	4142069.596	10.265
730	236836.690	4142081.026	10.214
731	236834.488	4142081.021	10.239
732	236826.563	4142092.669	10.198

733	236828.070	4142093.882	10.126
734	236825.884	4142094.061	10.203
735	236826.474	4142095.593	10.126
736	236823.204	4142099.267	10.098
737	236821.625	4142098.700	10.175
738	236820.170	4142099.535	10.173
739	236821.602	4142100.833	10.210
740	236812.111	4142110.921	10.156
741	236809.599	4142110.662	10.076
742	236799.392	4142121.560	10.057
743	236800.823	4142122.913	10.118
744	236797.752	4142123.300	10.034
745	236797.837	4142126.045	10.077
746	236789.492	4142134.918	10.072
747	236788.072	4142133.571	10.030
748	236777.214	4142145.094	10.027
749	236779.984	4142144.994	10.065
750	236768.628	4142154.198	10.035
10001	236682.742	4142277.730	39.414

Radiación desde la estación 8101

X	236879.873	Desorientación	369.4739
Y	4141972.271	Nombre	
Z	10.494	Coef. anamorfosis	1.0004529456

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
1	356.3885	106.2917	2.951	1.300	1.584	325.8624	2.938
2	339.1855	106.3344	3.095	1.300	1.584	308.6594	3.081
3	360.1523	103.2520	5.370	1.300	1.584	329.6262	5.365
4	353.6323	104.3465	6.294	1.300	1.584	323.1062	6.282
5	349.2474	102.7498	6.319	1.300	1.584	318.7213	6.316
6	343.3607	102.7504	6.405	1.300	1.584	312.8346	6.402
7	320.6238	103.8263	4.917	1.300	1.584	290.0977	4.910
8	336.2828	106.5971	2.964	1.300	1.584	305.7567	2.949
9	363.8819	103.6832	4.874	1.300	1.584	333.3558	4.868
10	395.2925	104.7939	3.685	1.300	1.584	364.7664	3.676
11	356.1758	111.3039	1.688	1.300	1.584	325.6497	1.662
12	55.3595 102.9089	5.608	1.300	1.584	24.8334	5.605	
13	70.2774 102.3595	6.557	1.300	1.584	39.7513	6.555	
14	63.7985 102.4303	6.634	1.300	1.584	33.2724	6.632	
15	72.4243 102.9987	8.071	1.300	1.584	41.8982	8.066	
16	7.1877 105.7727	4.657	1.300	1.584	376.6616	4.640	
17	397.1636 104.1791	4.446	1.300	1.584	366.6375	4.438	
18	86.6397 102.6116	6.799	1.300	1.584	56.1136	6.796	
19	90.3934 102.7106	7.502	1.300	1.584	59.8673	7.499	
20	108.0262 101.0037	14.770	1.300	1.584	77.5001	14.775	
21	99.7961 100.9368	15.358	1.300	1.584	69.2700	15.363	
22	98.1177 101.5128	14.440	1.300	1.584	67.5916	14.442	
23	77.7956 102.8571	8.598	1.300	1.584	47.2695	8.593	
24	98.3949 101.3628	15.524	1.300	1.584	67.8688	15.527	
25	68.5897 111.0238	8.899	0.100	1.584	38.0636	8.770	
26	62.1645 103.2163	7.333	1.300	1.584	31.6384	7.327	
27	59.6001 103.4880	7.027	1.300	1.584	29.0740	7.020	
28	96.6230 102.5331	7.154	1.300	1.584	66.0969	7.152	
29	102.3440 102.4737	8.172	1.300	1.584	71.8179	8.170	
30	108.4913 102.5193	7.705	1.300	1.584	77.9652	7.702	
31	111.8411 102.4267	8.610	1.300	1.584	81.3150	8.608	
32	126.1671 101.4742	12.300	1.300	1.584	95.6410	12.302	
33	154.7496 101.1363	13.766	1.300	1.584	124.2235	13.770	
34	148.2703 101.1934	13.315	1.300	1.584	117.7442	13.319	
35	145.7218 101.1301	13.417	1.300	1.584	115.1957	13.421	
36	142.2066 101.0219	14.063	1.300	1.584	111.6805	14.068	
37	138.1982 100.6102	19.374	1.300	1.584	107.6721	19.382	
38	138.8388 100.5717	20.373	1.300	1.584	108.3127	20.381	
39	142.5315 100.5112	21.345	1.300	1.584	112.0054	21.354	

40	153.2625	100.4110	23.314	1.300	1.584	122.7364	23.324	104	122.3646	100.0572	58.924	1.300	1.584	91.8385	58.951
41	162.6395	100.2738	25.286	1.300	1.584	132.1134	25.297	105	121.9298	100.0569	54.688	1.300	1.584	91.4037	54.713
42	176.1114	100.3722	28.398	1.300	1.584	145.5853	28.410	106	121.4767	100.0951	48.192	1.300	1.584	90.9506	48.214
43	182.6271	100.3741	28.832	1.300	1.584	152.1010	28.845	107	120.6003	100.0059	59.085	1.300	1.584	90.0742	59.112
44	186.4195	100.4054	27.645	1.300	1.584	155.8934	27.657	108	120.4207	100.1183	42.149	1.300	1.584	89.8946	42.168
45	187.8456	100.4058	26.225	1.300	1.584	157.3195	26.236	109	119.7219	100.1677	37.887	1.300	1.584	89.1958	37.904
46	187.1133	100.4443	24.946	1.300	1.584	156.5872	24.957	110	117.9752	100.1302	42.322	1.300	1.584	87.4491	42.341
47	186.2783	100.4154	24.567	1.300	1.584	155.7522	24.578	111	126.7289	100.1605	47.964	1.300	1.584	96.2028	47.985
48	181.6175	100.4452	23.557	1.300	1.584	151.0914	23.567	112	126.6647	100.1895	47.608	1.300	1.584	96.1386	47.629
49	180.2547	100.4457	23.017	1.300	1.584	149.7286	23.027	113	127.5488	100.1544	45.088	1.300	1.584	97.0227	45.108
50	160.6125	100.9525	16.394	1.300	1.584	130.0864	16.400	114	127.7257	100.2236	35.934	1.300	1.584	97.1996	35.950
51	159.3950	100.9809	16.081	1.300	1.584	128.8689	16.086	115	127.6648	100.2399	35.247	1.300	1.584	97.1387	35.263
52	158.3487	101.0039	15.569	1.300	1.584	127.8226	15.574	116	127.7204	100.2280	35.365	1.300	1.584	97.1943	35.381
53	157.3523	101.0412	14.557	1.300	1.584	126.8262	14.562	117	130.4513	100.1486	34.940	1.300	1.584	99.9252	34.956
54	153.7437	99.7891 14.301	1.300	1.584	123.2176	14.307		118	116.1637	100.0842	55.468	1.300	1.584	85.6376	55.493
55	148.3224	99.6266 15.181	1.300	1.584	117.7963	15.188		119	111.3551	100.2233	39.390	1.300	1.584	80.8290	39.408
56	144.6797	99.6451 15.889	1.300	1.584	114.1536	15.896		120	98.5555 100.5544	22.814	1.300	1.584	68.0294	22.823	
57	151.5892	103.9292	16.348	0.100	1.584	121.0631	16.324	121	98.6625 101.3370	15.777	1.300	1.584	68.1364	15.781	
58	151.7704	103.2525	19.438	0.100	1.584	121.2443	19.421	122	61.6577 100.9055	27.203	1.300	1.584	31.1316	27.213	
59	152.9782	103.1604	20.088	0.100	1.584	122.4521	20.072	123	41.9982 101.0910	24.150	1.300	1.584	11.4721	24.157	
60	152.5024	99.5111 20.501	1.300	1.584	121.9763	20.510		124	98.4070 100.3785	57.948	1.300	1.584	67.8809	57.973	
61	155.7659	103.4145	18.137	0.100	1.584	125.2398	18.119	125	100.5280	100.3377	61.943	1.300	1.584	70.0019	61.970
62	155.7583	103.5975	17.492	0.100	1.584	125.2322	17.472	126	96.7019 100.2983	63.758	1.300	1.584	66.1758	63.786	
63	159.1272	103.9050	17.068	0.100	1.584	128.6011	17.044	127	96.6947 100.3253	64.076	1.300	1.584	66.1686	64.104	
64	172.2390	102.6052	22.139	0.100	1.584	141.7129	22.130	128	99.0347 100.3256	62.891	1.300	1.584	68.5086	62.919	
65	175.1618	102.6991	22.181	0.100	1.584	144.6357	22.171	129	100.5447	100.3454	62.684	1.300	1.584	70.0186	62.711
66	171.7624	99.1068 23.057	1.300	1.584	141.2363	23.065		130	101.3877	99.8608 63.265	1.800	1.584	70.8616	63.293	
67	167.8181	99.1790 23.839	1.300	1.584	137.2920	23.848		131	103.0061	99.7989 66.886	1.800	1.584	72.4800	66.916	
68	163.6387	99.3624 23.206	1.300	1.584	133.1126	23.215		132	100.7887	99.8389 62.763	1.800	1.584	70.2626	62.791	
69	167.3086	102.3187	23.435	0.100	1.584	136.7825	23.430	133	100.9947	99.6977 63.668	1.800	1.584	70.4686	63.696	
70	171.7321	99.0627 24.862	1.300	1.584	141.2060	24.871		134	100.7272	99.6977 63.347	1.800	1.584	70.2011	63.375	
71	170.2026	99.2735 25.469	1.300	1.584	139.6765	25.479		135	99.5696 99.7399 63.306	1.800	1.584	69.0435	63.334		
72	171.2452	99.5750 26.272	1.300	1.584	140.7191	26.283		136	99.4627 99.7030 64.203	1.800	1.584	68.9366	64.231		
73	180.2774	99.1791 25.651	1.300	1.584	149.7513	25.660		137	98.9554 99.7375 63.122	1.800	1.584	68.4293	63.150		
74	178.6047	99.0914 26.243	1.300	1.584	148.0786	26.252		138	97.8446 99.7833 63.662	1.800	1.584	67.3185	63.690		
75	179.0547	99.3724 26.956	1.300	1.584	148.5286	26.967		139	98.1201 99.7086 64.858	1.800	1.584	67.5940	64.887		
76	184.6312	99.4458 25.432	1.300	1.584	154.1051	25.443		140	97.5053 99.6906 65.349	1.800	1.584	66.9792	65.378		
77	166.6844	99.4191 19.917	1.300	1.584	136.1583	19.925		141	98.9297 99.6839 68.103	1.800	1.584	68.4036	68.133		
78	118.9239	100.8296	18.295	1.300	1.584	88.3978 18.302		142	94.8968 99.7007 66.773	1.800	1.584	64.3707	66.802		
79	116.6672	100.8567	17.799	1.300	1.584	86.1411 17.805		143	96.2177 99.6868 65.807	1.800	1.584	65.6916	65.836		
80	115.5994	100.7196	19.526	1.300	1.584	85.0733 19.534		144	95.6713 99.6861 64.802	1.800	1.584	65.1452	64.830		
81	109.9897	100.5151	21.947	1.300	1.584	79.4636 21.956		145	97.3323 99.6863 65.175	1.800	1.584	66.8062	65.204		
82	109.0947	100.8125	23.594	1.300	1.584	78.5686 23.603		146	92.4586 99.6673 56.701	1.800	1.584	61.9325	56.726		
83	116.3764	100.5276	23.960	1.300	1.584	85.8503 23.970		147	94.7620 99.7255 58.944	1.800	1.584	64.2359	58.970		
84	122.9789	100.5439	23.549	1.300	1.584	92.4528 23.559		148	92.6838 99.6802 60.186	1.800	1.584	62.1577	60.212		
85	126.4676	100.4028	25.855	1.300	1.584	95.9415 25.866		149	92.9379 99.7388 60.414	1.800	1.584	62.4118	60.441		
86	125.1939	100.4533	25.973	1.300	1.584	94.6678 25.984		150	96.0247 99.7653 58.758	1.800	1.584	65.4986	58.784		
87	132.8752	100.1742	28.575	1.300	1.584	102.3491	28.588	151	98.6396 99.7664 55.462	1.800	1.584	68.1135	55.487		
88	131.0821	100.1590	28.692	1.300	1.584	100.5560	28.705	152	98.4006 99.6982 52.861	1.800	1.584	67.8745	52.884		
89	133.0965	100.1594	29.318	1.300	1.584	102.5704	29.331	153	99.0847 99.6666 51.112	1.800	1.584	68.5586	51.134		
90	146.6049	102.6663	28.501	0.180	1.584	116.0788	28.489	154	97.3857 99.5215 51.685	1.800	1.584	66.8596	51.707		
91	161.8487	100.1543	29.949	1.300	1.584	131.3226	29.962	155	93.3638 99.5304 46.386	1.800	1.584	62.8377	46.406		
92	160.7347	100.0895	33.606	1.300	1.584	130.2086	33.621	156	88.1192 99.5295 40.964	1.800	1.584	57.5931	40.981		
93	138.0608	100.0856	31.992	1.300	1.584	107.5347	32.006	157	86.3746 99.5957 49.410	1.800	1.584	55.8485	49.431		
94	134.6682	100.0550	36.829	1.300	1.584	104.1421	36.846	158	86.9047 99.5959 49.411	1.800	1.584	56.3786	49.432		
95	134.7983	100.0602	37.565	1.300	1.584	104.2722	37.582	159	87.9732 99.5955 49.181	1.800	1.584	57.4471	49.202		
96	135.9466	100.0605	46.416	1.300	1.584	105.4205	46.437	160	89.3578 99.6740 47.174	1.800	1.584	58.8317	47.195		
97	136.005														

168	97.8657	99.5914	54.235	1.800	1.584	67.3396	54.258	
169	95.7077	99.6284	56.166	1.800	1.584	65.1816	56.190	
170	94.7673	99.6609	55.946	1.800	1.584	64.2412	55.970	
171	95.5367	99.6883	57.800	1.800	1.584	65.0106	57.825	
172	96.9361	99.6169	56.024	1.800	1.584	66.4100	56.048	
173	93.0350	99.6917	57.909	1.800	1.584	62.5089	57.934	
174	97.1197	99.7678	57.766	1.800	1.584	66.5936	57.792	
175	94.8799	99.5994	52.945	1.800	1.584	64.3538	52.968	
176	93.3357	99.4997	52.494	1.800	1.584	62.8096	52.516	
177	93.9182	99.6416	52.448	1.800	1.584	63.3921	52.471	
178	84.3068	99.6197	42.343	1.800	1.584	53.7807	42.361	
179	85.6593	99.6235	42.894	1.800	1.584	55.1332	42.913	
180	83.1560	99.5616	42.442	1.800	1.584	52.6299	42.460	
181	89.1428	99.7031	41.637	1.800	1.584	58.6167	41.655	
182	92.6306	99.7353	45.189	1.800	1.584	62.1045	45.209	
183	85.7524	99.7022	48.814	1.800	1.584	55.2263	48.835	
184	82.7072	99.6872	46.097	1.800	1.584	52.1811	46.117	
185	79.6706	99.5203	43.487	1.800	1.584	49.1445	43.505	
186	81.3903	99.5483	41.364	1.800	1.584	50.8642	41.382	
187	80.1612	99.5611	41.339	1.800	1.584	49.6351	41.357	
188	74.1307	99.6409	36.789	1.800	1.584	43.6046	36.805	
189	72.6887	99.6049	36.856	1.800	1.584	42.1626	36.872	
190	72.0314	99.5037	31.327	1.800	1.584	41.5053	31.340	
191	74.0397	99.7905	31.998	1.800	1.584	43.5136	32.012	
192	74.1616	99.6270	35.496	1.800	1.584	43.6355	35.511	
193	72.2845	99.6258	34.624	1.800	1.584	41.7584	34.639	
194	71.1922	99.5702	35.406	1.800	1.584	40.6661	35.421	
195	72.9918	99.6626	35.236	1.800	1.584	42.4657	35.251	
196	62.5803	99.7223	31.330	1.800	1.584	32.0542	31.344	
197	63.9539	99.6627	31.503	1.800	1.584	33.4278	31.517	
198	60.9639	99.5025	31.756	1.800	1.584	30.4378	31.769	
199	59.8143	99.5507	31.405	1.800	1.584	29.2882	31.418	
200	60.4417	99.5930	30.804	1.800	1.584	29.9156	30.817	
201	57.2459	99.5474	30.019	1.800	1.584	26.7198	30.032	
202	67.7202	99.5564	37.212	1.800	1.584	37.1941	37.228	
203	63.8099	100.4409		35.654	1.300	1.584	33.2838	35.669
204	61.7189	100.5742		28.676	1.300	1.584	31.1928	28.688
205	62.9368	100.5539		28.362	1.300	1.584	32.4107	28.374
206	53.2525	100.9895		24.712	1.300	1.584	22.7264	24.720
207	58.8357	100.9194		27.241	1.300	1.584	28.3096	27.250
208	58.4869	100.6732		29.769	1.300	1.584	27.9608	29.781
209	41.7709	100.9324		27.128	1.300	1.584	11.2448	27.137
210	33.3047	100.8856		26.795	1.300	1.584	2.7786	26.804
211	34.0138	101.1227		24.280	1.300	1.584	3.4877	24.287
212	33.1750	100.7707		30.271	1.300	1.584	2.6489	30.282
213	34.9075	101.0462		30.352	1.300	1.584	4.3814	30.362
214	39.2750	100.9643		30.640	1.300	1.584	8.7489	30.650
215	41.1935	100.5688		30.805	1.300	1.584	10.6674	30.818
216	40.3150	101.0084		27.180	1.300	1.584	9.7889	27.189
216	42.0511	100.8824		27.358	1.300	1.584	11.5250	27.368
217	44.1888	100.7297		27.706	1.300	1.584	13.6627	27.717
218	47.2051	100.7326		28.117	1.300	1.584	16.6790	28.128
219	42.8835	100.5988		29.910	1.300	1.584	12.3574	29.922
220	42.4005	100.7287		28.090	1.300	1.584	11.8744	28.101
221	39.2584	101.0890		26.979	1.300	1.584	8.7323	26.987
222	39.0047	101.0257		27.834	1.300	1.584	8.4786	27.843
223	36.8186	101.0110		27.718	1.300	1.584	6.2925	27.727
224	37.2401	100.9879		28.568	1.300	1.584	6.7140	28.577
225	38.2674	100.9948		30.087	1.300	1.584	7.7413	30.097
226	29.1111	100.2433		28.424	1.500	1.584	398.5850	28.437
227	30.6894	100.2434		28.159	1.500	1.584	0.1633	28.171
228	28.3330	100.1674		29.775	1.500	1.584	397.8069	29.788
229	28.2935	100.1711		30.082	1.500	1.584	397.7674	30.095
230	27.5244	100.1927		29.731	1.500	1.584	396.9983	29.744

231	20.6328	100.3007		29.259	1.500	1.584	390.1067	29.272
232	18.2862	100.3008		29.603	1.500	1.584	387.7601	29.616
233	18.7834	100.2164		24.701	1.500	1.584	388.2573	24.712
234	29.3711	100.2474		26.757	1.500	1.584	398.8450	26.769
235	22.0625	100.2484		29.902	1.500	1.584	391.5364	29.915
236	22.1149	100.2349		30.188	1.500	1.584	391.5888	30.201
237	21.1868	100.2247		30.280	1.500	1.584	390.6607	30.293
238	21.0231	100.2456		29.858	1.500	1.584	390.4970	29.871
239	19.3099	100.2414		30.019	1.500	1.584	388.7838	30.032
240	19.4638	100.1591		30.414	1.500	1.584	388.9377	30.428
241	18.2634	100.1775		30.567	1.500	1.584	387.7373	30.581
242	17.1317	100.1777		30.785	1.500	1.584	386.6056	30.799
243	16.5305	100.2126		30.469	1.500	1.584	386.0044	30.483
244	6.6817	100.2869		30.643	1.500	1.584	376.1556	30.657
245	7.8544	100.2388		32.955	1.500	1.584	377.3283	32.970
246	7.8574	100.2222		33.791	1.500	1.584	377.3313	33.806
247	387.8727	100.4732		28.834	1.500	1.584	357.3466	28.846
8015	312.6477	101.0130		26.323	1.300	1.610	282.1216	26.332
8015	312.6537	100.9483		26.320	1.300	1.584	282.1276	26.329
8019	97.2764	100.2182		54.819	1.300	1.610	66.7503	54.843
9999	0.0000	79.1477	67.357	0.000	1.584	369.4739	63.804	

Coordenadas calculadas

Número	X	Y	Z	
1	236877.174		4141973.432	10.487
2	236876.820		4141972.689	10.471
3	236875.078		4141974.679	10.504
4	236874.000		4141974.501	10.349
5	236873.828		4141974.102	10.505
6	236873.601		4141973.553	10.501
7	236875.022		4141971.510	10.483
8	236876.936		4141972.537	10.471
9	236875.658		4141974.707	10.496
10	236877.941		4141975.398	10.501
11	236878.344		4141972.923	10.480
12	236882.004		4141977.455	10.522
13	236883.705		4141977.589	10.535
14	236883.184		4141978.018	10.525
15	236884.806		4141978.652	10.398
16	236878.210		4141976.603	10.356
17	236877.652		4141976.114	10.486
18	236885.117		4141976.594	10.499
19	236885.930		4141976.691	10.459
20	236893.735		4141977.385	10.545
21	236893.481		4141979.402	10.552
22	236892.484		4141979.310	10.435
23	236885.683		4141978.602	10.392
24	236893.464		4141979.779	10.446
25	236884.810		4141979.519	10.445
26	236883.366		4141978.712	10.408
27	236882.969		4141978.571	10.393
28	236886.034		4141975.902	10.493
29	236887.255		4141975.771	10.461
30	236887.119		4141974.884	10.473
31	236888.113		4141974.761	10.450
32	236892.146		4141973.113	10.493
33	236892.658		4141967.157	10.532
34	236892.678		4141968.607	10.528
35	236892.913		4141969.098	10.540
36	236893.704		4141969.704	10.552
37	236899.114		4141969.941	10.592
38	236900.081		4141969.617	10.595
39	236900.848		4141968.268	10.607
40	236901.725		4141964.117	10.628
41	236902.019		4141960.045	10.669

42	236901.306	4141953.622	10.612	106	236927.600	4141979.101	10.706
43	236899.585	4141951.213	10.609	107	236938.268	4141981.450	10.773
44	236897.538	4141950.991	10.602	108	236921.511	4141978.936	10.700
45	236896.174	4141951.713	10.611	109	236917.232	4141978.673	10.678
46	236895.603	4141952.896	10.604	110	236921.394	4141980.565	10.692
47	236895.613	4141953.395	10.618	111	236927.773	4141975.131	10.657
48	236896.249	4141955.323	10.613	112	236927.415	4141975.158	10.636
49	236896.225	4141956.058	10.617	113	236924.932	4141974.380	10.669
50	236894.475	4141964.806	10.533	114	236915.788	4141973.852	10.652
51	236894.334	4141965.224	10.530	115	236915.100	4141973.855	10.645
52	236893.983	4141965.679	10.533	116	236915.219	4141973.830	10.651
53	236893.161	4141966.315	10.540	117	236914.829	4141972.312	10.697
54	236893.239	4141967.168	10.825	118	236933.960	4141984.685	10.705
55	236894.471	4141968.080	10.867	119	236917.507	4141983.960	10.640
56	236895.378	4141968.766	10.867	120	236899.878	4141983.257	10.579
57	236895.312	4141966.968	10.970	121	236893.718	4141979.844	10.447
58	236898.223	4141965.910	10.985	122	236892.656	4141996.294	10.391
59	236898.710	4141965.338	10.981	123	236884.203	4141996.037	10.364
60	236899.173	4141965.331	10.935	124	236930.623	4142000.295	10.434
61	236896.587	4141965.274	11.006	125	236935.090	4142000.403	10.450
62	236895.990	4141965.526	10.990	126	236934.866	4142004.589	10.479
63	236895.225	4141964.869	10.932	127	236935.136	4142004.756	10.451
64	236897.420	4141958.786	11.072	128	236935.249	4142002.141	10.457
65	236896.814	4141957.969	11.038	129	236935.758	4142000.725	10.438
66	236898.266	4141958.354	11.102	130	236936.652	4142000.240	10.417
67	236899.745	4141959.087	11.085	131	236940.633	4142000.305	10.490
68	236900.018	4141960.733	11.010	132	236935.937	4142000.547	10.437
69	236899.500	4141959.474	11.125	133	236936.838	4142000.770	10.581
70	236899.713	4141957.274	11.144	134	236936.431	4142000.864	10.579
71	236900.562	4141957.400	11.069	135	236935.866	4142001.869	10.537
72	236900.961	4141956.583	10.953	136	236936.608	4142002.383	10.578
73	236898.088	4141954.197	11.109	137	236935.416	4142002.320	10.539
74	236898.988	4141954.277	11.153	138	236935.354	4142003.550	10.495
75	236899.377	4141953.648	11.044	139	236936.533	4142003.892	10.575
76	236896.667	4141953.159	10.999	140	236936.652	4142004.682	10.596
77	236896.670	4141961.553	10.960	141	236939.785	4142004.715	10.616
78	236897.872	4141975.588	10.540	142	236936.484	4142007.736	10.592
79	236897.258	4141976.117	10.539	143	236936.378	4142006.058	10.602
80	236898.872	4141976.809	10.557	144	236935.227	4142006.019	10.598
81	236900.697	4141979.232	10.600	145	236936.412	4142004.749	10.599
82	236902.151	4141980.067	10.477	146	236926.756	4142004.205	10.575
83	236903.253	4141977.555	10.579	147	236929.780	4142003.684	10.532
84	236903.266	4141975.057	10.577	148	236929.757	4142005.992	10.581
85	236905.687	4141973.919	10.614	149	236930.081	4142005.920	10.526
86	236905.766	4141974.445	10.593	150	236930.234	4142002.592	10.495
87	236908.441	4141971.216	10.700	151	236928.544	4141998.915	10.482
88	236908.577	4141972.020	10.706	152	236926.165	4141997.839	10.529
89	236909.180	4141971.087	10.705	153	236924.897	4141996.511	10.546
90	236907.458	4141965.152	10.705	154	236924.731	4141997.989	10.667
91	236906.281	4141958.117	10.705	155	236918.594	4141997.848	10.620
92	236909.779	4141956.909	10.731	156	236912.093	4141997.595	10.581
93	236911.655	4141968.492	10.735	157	236917.885	4142003.870	10.592
94	236916.641	4141969.875	10.746	158	236918.148	4142003.553	10.592
95	236917.370	4141969.751	10.743	159	236918.487	4142002.764	10.591
96	236926.142	4141968.322	10.734	160	236917.539	4142000.707	10.520
97	236926.886	4141968.214	10.733	161	236915.187	4142000.915	10.426
98	236935.605	4141966.779	10.729	162	236914.010	4142002.990	10.517
99	236936.351	4141966.663	10.729	163	236918.820	4142000.530	10.566
100	236940.249	4141971.888	10.728	164	236920.868	4142000.525	10.567
101	236938.674	4141976.892	10.684	165	236921.986	4142001.213	10.618
102	236938.439	4141979.362	10.714	166	236922.776	4142001.264	10.639
103	236941.083	4141982.026	10.623	167	236922.812	4142000.666	10.611
104	236938.340	4141979.808	10.725	168	236927.146	4141998.902	10.626
105	236934.088	4141979.636	10.729	169	236927.867	4142001.494	10.606

170	236927.244	4142002.082	10.576
171	236929.182	4142002.476	10.561
172	236928.299	4142000.491	10.615
173	236928.048	4142004.451	10.559
174	236929.889	4142001.224	10.489
175	236924.752	4142000.404	10.611
176	236923.680	4142001.235	10.691
177	236923.905	4142000.808	10.573
178	236911.552	4142000.394	10.531
179	236912.562	4142000.072	10.532
180	236911.111	4142001.029	10.570
181	236913.033	4141997.482	10.472
182	236917.306	4141997.621	10.466
183	236917.120	4142003.855	10.506
184	236913.581	4142003.745	10.505
185	236910.220	4142003.445	10.606
186	236909.529	4142001.132	10.572
187	236908.948	4142001.682	10.563
188	236903.157	4142000.775	10.486
189	236902.546	4142001.348	10.507
190	236898.889	4141997.183	10.522
191	236900.089	4141997.092	10.383
192	236902.352	4141999.762	10.486
193	236900.999	4141999.722	10.482
194	236900.992	4142000.708	10.517
195	236901.682	4141999.966	10.465
196	236894.996	4141999.725	10.415
197	236895.672	4141999.542	10.445
198	236894.490	4142000.478	10.526
199	236893.823	4142000.423	10.500
200	236893.827	4141999.748	10.475
201	236892.111	4141999.696	10.491
202	236900.407	4142003.324	10.537
203	236897.684	4142003.175	10.531
204	236893.374	4141997.583	10.519
205	236893.702	4141997.046	10.531
206	236888.511	4141995.433	10.394
207	236891.595	4141996.871	10.385
208	236892.536	4141999.225	10.463
209	236884.641	4141998.986	10.381
210	236881.043	4141999.050	10.405
211	236881.203	4141996.522	10.350
212	236881.133	4142002.527	10.412
213	236881.961	4142002.561	10.279
214	236884.072	4142002.632	10.314
215	236885.013	4142002.657	10.503
216	236884.037	4141999.139	10.348
216	236884.800	4141999.191	10.399
217	236885.776	4141999.352	10.460
218	236887.158	4141999.439	10.454
219	236885.645	4142001.631	10.497
220	236885.084	4141999.884	10.457
221	236883.563	4141999.005	10.317
222	236883.570	4141999.867	10.330
223	236882.609	4141999.863	10.338
224	236882.881	4142000.690	10.335
225	236883.524	4142002.146	10.308
226	236879.241	4142000.701	10.469
227	236879.945	4142000.442	10.470
228	236878.847	4142002.042	10.500
229	236878.818	4142002.348	10.497
230	236878.471	4142001.982	10.488
231	236875.342	4142001.190	10.440
232	236874.214	4142001.341	10.438

233	236875.341	4141996.564	10.494
234	236879.387	4141999.035	10.474
235	236875.908	4142001.922	10.461
236	236875.894	4142002.209	10.467
237	236875.445	4142002.239	10.471
238	236875.431	4142001.810	10.463
239	236874.609	4142001.838	10.464
240	236874.612	4142002.240	10.502
241	236874.019	4142002.286	10.493
242	236873.441	4142002.391	10.492
243	236873.225	4142002.020	10.476
244	236868.657	4142000.802	10.440
245	236868.378	4142003.172	10.454
246	236868.088	4142003.956	10.460
247	236861.960	4141994.881	10.364
8015	236854.573	4141964.973	10.385
8015	236854.575	4141964.976	10.386
8019	236927.405	4141999.630	10.616
9999	236850.438	4142028.880	33.748

Radiación de puntos

Proyecto : zona 1 Fecha de cálculo : 03/09/2018 13:17

Sistema de referencia : UTM ETRS89

Proyección : UTM - 30N Elipsoide : WGS-84

Ficheros utilizados

Puntos Visuales

zona3.pts observaciones 2.obs

Radiación desde la estación 8019

X	236927.405	Desorientación	62.2933
Y	4141999.630	Nombre	
Z	10.616	Coef. anamorfosis	1.0004526374

Visuales utilizadas

Visado	Horizontal	Vertical	Dist.Geom.	Mira	Inst	Acimut	Dist.Red.
300	136.0301	100.8358	12.663	1.300	1.595	198.3234	12.668
301	133.6774	101.0269	9.914	1.300	1.595	195.9707	9.917
302	129.0976	101.9298	7.280	1.300	1.595	191.3909	7.280
303	118.4692	103.6617	5.035	1.300	1.595	180.7625	5.029
304	174.5109	109.2955	2.544	1.300	1.595	236.8042	2.518
305	35.8733 103.3607	8.480	1.300	1.595	98.1666	8.472	
306	43.3318 102.3372	10.506	1.300	1.595	105.6251		10.504
307	37.3674 100.9113	24.172	1.300	1.595	99.6607	24.180	
308	45.6192 100.3715	32.282	1.300	1.595	107.9125		32.296
309	51.1547 100.1777	34.360	1.300	1.595	113.4480		34.375
310	52.8077 100.0543	38.533	1.300	1.595	115.1010		38.550
311	56.9932 100.0596	39.565	1.300	1.595	119.2865		39.583
312	61.6626 100.1915	40.609	1.300	1.595	123.9559		40.627
313	55.9913 100.0797	58.002	1.300	1.595	118.2846		58.028
314	49.5017 99.9290 63.067	1.300	1.595	111.7950	63.095		
315	53.8561 100.0519	64.354	1.300	1.595	116.1494		64.383
316	54.0741 100.0553	63.944	1.300	1.595	116.3674		63.973
317	43.9430 99.9328 61.836	1.300	1.595	106.2363	61.864		
318	43.7486 99.9359 62.279	1.300	1.595	106.0419	62.307		
319	43.3625 99.9342 65.278	1.300	1.595	105.6558	65.307		
320	43.2624 99.9346 65.695	1.300	1.595	105.5557	65.725		
321	53.0032 100.0458	67.619	1.300	1.595	115.2965		67.649
322	53.1170 100.0503	67.240	1.300	1.595	115.4103		67.270
323	47.9429 99.9046 69.838	1.300	1.595	110.2362	69.869		
324	45.1919 99.9012 69.570	1.300	1.595	107.4852	69.601		
325	42.6112 99.9278 69.170	1.300	1.595	104.9045	69.201		
326	38.5832 100.0688	65.121	1.300	1.595	100.8765		65.150
327	35.9869 100.1569	72.049	1.300	1.595	98.2802	72.081	
328	35.6786 100.0863	84.070	1.300	1.595	97.9719	84.108	
329	35.6982 100.0671	89.148	1.300	1.595	97.9915	89.188	
330	35.6792 100.0636	90.732	1.300	1.595	97.9725	90.773	

331	35.6893	100.0624	91.057	1.300	1.595	97.9826	91.098	395	39.4441	99.7003	257.506	1.300	1.595	101.7374	257.619		
332	35.7675	100.0488	94.025	1.300	1.595	98.0608	94.067	396	38.7143	99.6868	257.975	1.300	1.595	101.0076	258.088		
333	35.8003	100.0488	94.450	1.300	1.595	98.0936	94.493	397	37.9304	99.6901	257.874	1.300	1.595	100.2237	257.987		
334	40.1680	99.9115	94.584	1.300	1.595	102.4613	94.627	398	37.0692	99.7129	257.661	1.300	1.595	99.3625	257.774		
335	40.2110	99.9105	94.150	1.300	1.595	102.5043	94.192	399	36.2551	99.7375	256.801	1.300	1.595	98.5484	256.915		
336	40.6261	99.9079	91.188	1.300	1.595	102.9194	91.229	400	36.2288	99.6937	275.630	1.300	1.595	98.5221	275.751		
337	40.6674	99.9088	90.779	1.300	1.595	102.9607	90.820	401	36.9623	99.6700	276.255	1.300	1.595	99.2556	276.376		
338	48.7129	99.9812	90.722	1.300	1.595	111.0062	90.763	402	37.7592	99.6526	276.287	1.300	1.595	100.0525	276.407		
339	49.5642	99.9974	85.830	1.300	1.595	111.8575	85.869	403	38.4929	99.6448	276.980	1.300	1.595	100.7862	277.100		
340	47.2178	99.9281	91.234	1.300	1.595	109.5111	91.275	404	39.2242	99.6572	277.385	1.300	1.595	101.5175	277.506		
341	46.0430	99.9105	101.612	1.300	1.595	108.3363	101.658	405	39.7911	99.6583	289.771	1.300	1.595	102.0844	289.897		
342	43.9104	99.8550	101.383	1.300	1.595	106.2037	101.428	406	39.7896	99.6582	290.252	1.300	1.595	102.0829	290.379		
343	41.8146	99.8573	101.575	1.300	1.595	104.1079	101.621	407	39.7508	99.6488	293.226	1.300	1.595	102.0441	293.354		
344	39.9026	99.8991	101.880	1.300	1.595	102.1959	101.926	408	39.7387	99.6488	293.681	1.300	1.595	102.0320	293.809		
345	37.6130	99.9703	101.050	1.300	1.595	99.9063	101.096	409	39.7468	99.6454	295.250	1.300	1.595	102.0401	295.378		
346	35.7464	100.0255	100.115	1.300	1.595	98.0397	100.160	410	39.6966	99.6288	300.673	1.300	1.595	101.9899	300.803		
347	35.6765	100.0528	94.657	1.300	1.595	97.9698	94.700	411	35.7725	99.4724	300.259	2.150	1.595	98.0658	300.384		
348	36.4984	99.9848	108.362	1.300	1.595	98.7917	108.411	412	35.7590	99.4814	294.638	2.150	1.595	98.0523	294.761		
349	38.5140	99.9184	108.407	1.300	1.595	100.8073	108.456	413	35.8365	99.4814	293.950	2.150	1.595	98.1298	294.073		
350	40.2214	99.8705	113.483	1.300	1.595	102.5147	113.534	414	36.1867	99.4777	287.486	2.150	1.595	98.4800	287.606		
351	42.0856	99.8419	113.682	1.300	1.595	104.3789	113.733	415	37.6278	99.6131	293.287	1.300	1.595	99.9211	293.414		
352	43.9731	99.8659	113.983	1.300	1.595	106.2664	114.034	416	37.6252	99.6130	292.835	1.300	1.595	99.9185	292.962		
353	44.8557	99.8945	115.498	1.300	1.595	107.1490	115.550	417	37.6577	99.6185	289.838	1.300	1.595	99.9510	289.963		
354	41.9124	99.8304	134.261	1.300	1.595	104.2057	134.321	418	37.6566	99.6220	289.448	1.300	1.595	99.9499	289.573		
355	43.4980	99.8666	135.260	1.300	1.595	105.7913	135.321	419	35.6824	99.7090	279.438	1.300	1.595	97.9757	279.561		
356	40.3791	99.8302	135.194	1.300	1.595	102.6724	135.254	420	40.2059	99.7162	266.875	1.300	1.595	102.4992	266.993		
357	38.7649	99.8679	135.746	1.300	1.595	101.0582	135.807	421	40.8342	99.7916	233.664	1.300	1.595	103.1275	233.768		
358	37.1850	99.9097	136.013	1.300	1.595	99.4783	136.074	422	35.7185	99.8338	225.405	1.300	1.595	98.0118	225.506		
359	35.7438	99.9592	129.748	1.300	1.595	98.0371	129.806	423	35.6958	99.8789	192.868	1.300	1.595	97.9891	192.955		
360	35.7474	99.9482	136.843	1.300	1.595	98.0407	136.905	424	42.2256	99.7242	182.100	1.700	1.595	104.5189	182.180		
361	35.7353	99.9215	155.993	1.300	1.595	98.0286	156.063	425	44.6276	99.7040	132.977	1.700	1.595	106.9209	133.035		
362	37.0259	99.8865	156.877	1.300	1.595	99.3192	156.947	426	35.6197	99.7658	127.632	1.700	1.595	97.9130	127.689		
363	38.4037	99.8529	156.709	1.300	1.595	100.6970	156.779	427	35.5291	99.7758	83.886	1.700	1.595	97.8224	83.923		
364	39.7206	99.8229	156.608	1.300	1.595	102.0139	156.678	428	49.7745	99.6861	84.481	1.700	1.595	112.0678	84.518		
365	40.9924	99.8176	157.303	1.300	1.595	103.2857	157.373	429	62.6126	99.6448	43.847	1.700	1.595	124.9059	43.866		
366	42.3799	99.8508	158.363	1.300	1.595	104.6732	158.434	430	35.2715	99.8573	32.436	1.700	1.595	97.5648	32.451		
367	41.4910	99.8383	183.368	1.300	1.595	103.7843	183.450	431	235.3492	100.1883			113.974	1.700	1.595	297.6425	114.025
368	41.2315	99.8287	183.211	1.300	1.595	103.5248	183.293	432	232.9617	100.1382			119.024	1.700	1.595	295.2550	119.077
369	40.7947	99.8167	186.480	1.300	1.595	103.0880	186.563	433	231.4928	100.0895			118.384	1.700	1.595	293.7861	118.437
370	39.6849	99.8008	186.355	1.300	1.595	101.9782	186.438	434	231.4533	100.0851			117.877	1.700	1.595	293.7466	117.930
371	38.7300	99.8070	186.015	1.300	1.595	101.0233	186.098	435	231.3231	100.0818			114.924	1.700	1.595	293.6164	114.976
372	37.5487	99.8368	180.808	1.300	1.595	99.8420	180.889	436	231.3060	100.0849			114.489	1.700	1.595	293.5993	114.541
373	36.2580	99.8735	180.986	1.300	1.595	98.5513	181.067	437	226.1757	100.1378			115.542	1.700	1.595	288.4690	115.594
374	36.9615	99.8423	193.440	1.300	1.595	99.2548	193.527	438	226.2197	100.1355			115.844	1.700	1.595	288.5130	115.896
375	38.1746	99.8161	196.709	1.300	1.595	100.4679	196.797	439	226.5024	100.1327			118.803	1.700	1.595	288.7957	118.856
376	39.1039	99.8049	197.520	1.300	1.595	101.3972	197.608	440	226.5447	100.1369			119.228	1.700	1.595	288.8380	119.281
377	39.9816	99.8051	198.058	1.300	1.595	102.2749	198.146	441	227.8060	100.3288			130.580	1.300	1.595	290.0993	130.637
378	41.0050	99.8373	199.955	1.300	1.595	103.2983											

459	232.7669	100.2203	208.727	1.300	1.595	295.0602	208.820	358	237063.474	4142000.745	11.105
460	231.8285	100.2421	208.586	1.300	1.595	294.1218	208.679	359	237057.150	4142003.632	10.995
8016	222.8981	100.3289	105.248	1.300	1.595	285.1914	105.294	360	237064.245	4142003.843	11.024
8101	204.4591	100.4755	54.840	1.300	1.595	266.7524	54.863	361	237083.393	4142004.462	11.105
Coordenadas calculadas											
Número	X	Y	Z								
300	236927.738	4141986.967	10.745					362	237084.343	4142001.309	11.192
301	236928.032	4141989.733	10.751					363	237084.175	4141997.914	11.275
302	236928.386	4141992.417	10.691					364	237084.004	4141994.675	11.348
303	236928.901	4141994.829	10.622					365	237084.568	4141991.512	11.363
304	236926.029	4141997.521	10.541					366	237085.412	4141988.011	11.284
305	236935.873	4141999.874	10.464					367	237110.531	4141988.732	11.379
306	236937.867	4141998.703	10.526					368	237110.417	4141989.487	11.406
307	236951.585	4141999.759	10.565					369	237113.749	4141990.584	11.450
308	236959.452	4141995.627	10.723					370	237113.753	4141993.838	11.496
309	236961.016	4141992.423	10.815					371	237113.479	4141996.639	11.477
310	236964.876	4141990.571	10.879					372	237108.293	4142000.079	11.377
311	236965.185	4141987.821	10.874					373	237108.425	4142003.750	11.273
312	236965.189	4141984.701	10.789					374	237120.918	4142001.896	11.393
313	236983.056	4141983.192	10.839					375	237124.196	4141998.184	11.482
314	236989.420	4141988.007	10.982					376	237124.965	4141995.294	11.519
315	236989.727	4141983.473	10.859					377	237125.425	4141992.551	11.520
316	236989.275	4141983.364	10.856					378	237127.181	4141989.271	11.425
317	236988.972	4141993.580	10.977					379	237139.350	4141992.170	11.572
318	236989.431	4141993.726	10.974					380	237139.286	4141995.097	11.618
319	236992.455	4141993.836	10.979					381	237139.321	4141998.147	11.588
320	236992.879	4141993.902	10.979					382	237138.733	4142001.877	11.515
321	236993.111	4141983.532	10.863					383	237138.435	4142006.078	11.399
322	236992.714	4141983.505	10.858					384	237135.397	4142006.046	11.384
323	236996.373	4141988.444	11.016					385	237153.533	4142006.343	11.520
324	236996.525	4141991.466	11.020					386	237156.762	4142004.814	11.628
325	236996.401	4141994.304	10.990					387	237147.445	4142001.799	11.603
326	236992.549	4141998.733	10.841					388	237166.991	4142005.021	11.757
327	236999.460	4142001.577	10.734					389	237167.433	4142001.846	11.853
328	237011.470	4142002.309	10.798					390	237168.089	4141998.390	11.962
329	237016.549	4142002.444	10.818					391	237168.187	4141995.071	11.986
330	237018.132	4142002.521	10.821					392	237165.927	4141991.789	11.881
331	237018.457	4142002.517	10.823					393	237144.828	4141991.847	11.641
332	237021.428	4142002.495	10.840					394	237178.386	4141988.900	11.905
333	237021.855	4142002.459	10.839					395	237184.928	4141992.600	12.127
334	237021.961	4141995.973	11.043					396	237185.461	4141995.546	12.184
335	237021.524	4141995.926	11.044					397	237185.390	4141998.724	12.170
336	237018.538	4141995.448	11.044					398	237185.166	4142002.211	12.077
337	237018.126	4141995.408	11.042					399	237184.253	4142005.488	11.974
338	237016.815	4141984.017	10.939					400	237203.081	4142006.031	12.242
339	237011.788	4141983.729	10.915					401	237203.762	4142002.862	12.348
340	237017.663	4141986.044	11.015					402	237203.812	4141999.402	12.423
341	237028.192	4141986.357	11.055					403	237204.484	4141996.208	12.461
342	237028.352	4141989.762	11.143					404	237204.832	4141993.016	12.409
343	237028.814	4141993.078	11.140					405	237217.147	4141990.140	12.471
344	237029.270	4141996.115	11.073					406	237217.628	4141990.131	12.475
345	237028.500	4141999.779	10.959					407	237220.607	4141990.213	12.534
346	237027.517	4142002.714	10.872					408	237221.064	4141990.254	12.536
347	237022.056	4142002.650	10.833					409	237222.632	4141990.166	12.561
348	237035.796	4142001.688	10.938					410	237228.061	4141990.229	12.670
349	237035.852	4141998.255	11.051					411	237227.650	4142008.755	12.555
350	237040.850	4141995.147	11.143					412	237222.028	4142008.647	12.466
351	237040.869	4141991.813	11.194					413	237221.351	4142008.268	12.461
352	237040.887	4141988.424	11.152					414	237214.929	4142006.496	12.425
353	237042.227	4141986.682	11.103					415	237220.818	4141999.994	12.699
354	237061.433	4141990.763	11.270					416	237220.366	4142000.005	12.696
355	237062.166	4141987.337	11.196					417	237217.368	4141999.853	12.653
356	237062.540	4141993.954	11.273					418	237216.978	4141999.858	12.635
357	237063.193	4141997.373	11.194					419	237206.824	4142008.518	12.193
								420	237194.192	4141989.151	12.105
								421	237160.891	4141988.151	11.679

422	237152.801	4142006.672	11.503
423	237120.263	4142005.724	11.280
424	237109.126	4141986.709	11.302
425	237059.655	4141985.196	11.131
426	237055.025	4142003.815	10.982
427	237011.279	4142002.500	10.807
428	237010.409	4141983.705	10.928
429	236967.956	4141982.903	10.756
430	236959.832	4142000.871	10.584
431	236813.458	4141995.409	10.175
432	236808.658	4141990.763	10.254
433	236809.531	4141988.088	10.346
434	236810.043	4141988.065	10.355
435	236813.007	4141988.121	10.364
436	236813.443	4141988.134	10.359
437	236813.702	4141978.807	10.262
438	236813.390	4141978.832	10.265
439	236810.384	4141978.820	10.264
440	236809.952	4141978.823	10.256
441	236798.344	4141979.395	10.238
442	236799.146	4141983.441	10.306
443	236799.145	4141986.489	10.348
444	236794.045	4141989.232	10.249
445	236793.903	4141992.624	10.162
446	236774.954	4141987.587	10.217
447	236774.562	4141984.605	10.268
448	236773.594	4141981.610	10.204
449	236753.197	4141978.773	10.116
450	236754.106	4141982.663	10.193
451	236753.971	4141985.640	10.206
452	236754.557	4141990.106	10.084
453	236756.699	4141993.498	10.030
454	236751.310	4141993.398	10.041
455	236727.679	4141992.924	9.961
456	236720.648	4141992.631	9.973
457	236719.727	4141989.283	10.015
458	236719.447	4141986.458	10.098
459	236719.213	4141983.443	10.192
460	236719.615	4141980.389	10.121
8016	236824.947	4141975.358	10.368
8101	236879.855	4141972.263	10.502

Apéndice 12. Librería de Códigos

010001	PLINE	CURVA NIVEL DIRECTORA	040005	3DPOLY	CARRETERA ABANDONADA
010002	PLINE	CURVA NIVEL FINA	040006	3DPOLY	ARCEN CARRETERA
010003	PLINE	CURVA DIRECTORA DEPRESION	040007	3DPOLY	CAMINO
010004	PLINE	CURVA FINA DEPRESION	040008	3DPOLY	SENDA-VEREDA
010005	3DPOLY	BANCAL TIERRA-TALUD	040009	3DPOLY	FERROCARRIL
010006	3DPOLY	ROCAS	040010	3DPOLY	FERROCARRIL ABANDONADO
010007	3DPOLY	ZANJA	040011	3DPOLY	FERROCARRIL
010008	BLOQUE	COTA	040012	3DPOLY	FERROCARRIL ABANDONADO
010009	3DPOLY	ESCOMBRERA	040013	3DPOLY	TELESFERICO-FUNICULAR
010010	3DPOLY	DESMONTE	040014	3DPOLY	PUENTE
010011	3DPOLY	TERRAPLEN	040015	3DPOLY	TUNEL
010012	PLINE	CURVA DIRECTORA OCULTA	040016	3DPOLY	PASO ELEVADO PEATONES
010013	PLINE	CURVA DIRECTORA DEP. OCULTA	040017	3DPOLY	ANDEN
010014	PLINE	CURVA FINA OCULTA	040018	3DPOLY	BASCULA
010015	PLINE	CURVA FINA DEP. OCULTA	040019	3DPOLY	TELEFONO AUTOPISTA
010018	3DPOLY	PIE DE TALUD	040020	3DPOLY	QUITAMIEDOS FABRICA
019001	TEXTO	TEXTO COTA CURVA NIVEL	040021	3DPOLY	QUITAMIEDOS METALICO
019008	TEXTO	TEXTO COTA	040022	3DPOLY	LINEA BLANCA CONTINUA
020001	3DPOLY	LIMITE AGUA	040023	3DPOLY	APARCAMIENTOS
020002	3DPOLY	RIO	040024	3DPOLY	CUNETA OBRA
020003	3DPOLY	ARROYO	040025	3DPOLY	LINEA BLANCA DISCONTINUA
020004	3DPOLY	VAGUADA	040026	3DPOLY	RAMPA
020005	3DPOLY	RAMBLA	040027	3DPOLY	PISTA
020006	3DPOLY	ACEQUIA-CANAL(interior)	040028	3DPOLY	ENTRADA-SALIDA SUBTERRANEO
020007	3DPOLY	ACEQUIA 1 LINEA	040029	3DPOLY	TOPE VIA FERROCARRIL
020008	3DPOLY	ALBERCA-PISCINA(interior)	040030	3DPOLY	LINEA BLANCA CONTINUA
020009	3DPOLY	ABREVADERO (interior)	040031	3DPOLY	ESTACION FERROCARRIL
020010	3DPOLY	FUENTE (interior)	040032	3DPOLY	CAMINO MARGEN DISCONTINUO
020011	3DPOLY	POZO (interior)	040033	3DPOLY	ESTACION SERVICIO
020012	3DPOLY	SIFON (interior)	040034	3DPOLY	CARRIL BICI
020013	3DPOLY	BORDE EXT. ELEMENTO CON AGUA	040041	3DPOLY	LINEA BLANCA DISCONTINUA
020014	3DPOLY	DEPOSITO AGUA	040042	3DPOLY	LINEA AZUL DISCONTINUA
020015	3DPOLY	ACUEDUCTO	040043	3DPOLY	BORDILLO ARRIBA
020016	3DPOLY	TUBERIA	041003	3DPOLY	CARRETERA 1 ORDEN ESTATAL
020017	3DPOLY	ARQUETA	043003	3DPOLY	CARRETERA AUTONOMICA
020018	3DPOLY	PRESA-EMBALSE	044003	3DPOLY	CARRETERA SECUNDARIA
020019	3DPOLY	MUELLE-EMBARCADERO	049001	TEXTO	TEXTO AUTOVIA
020020	3DPOLY	ESPIGON	049002	TEXTO	TEXTO AUTOVIA EN CONST
020021	3DPOLY	ESCLUSA	049003	TEXTO	TEXTO CARRETERA
020022	3DPOLY	FARO	049004	TEXTO	TEXTO CARRETERA EN CONST
020023	3DPOLY	ESCOLLERA	049005	TEXTO	TEXTO CARRETERA ABANDONADA
020024	3DPOLY	EMBALSE	049007	TEXTO	TEXTO CAMINO
020025	3DPOLY	EJE RIO	049008	TEXTO	TEXTO CAÑADA-VIA PECUARIA
020026	3DPOLY	LAGO LAGUNA	049009	TEXTO	TEXTO FERROCARRIL
020027	3DPOLY	MAR	049025	TEXTO	TEXTO AEROPUERTO
021006	3DPOLY	EJE ACEQUIA-CANAL(interior)	049027	TEXTO	TEXTO PISTA
029002	TEXTO	TEXTO RIO	049050	TEXTO	TEXTO GASOLINERA
029003	TEXTO	TEXTO ARROYO	049051	TEXTO	TEXTO PUERTO NAVAL
029005	TEXTO	TEXTO RAMBLA	050001	3DPOLY	CASA (borde ext. manzana)
029006	TEXTO	TEXTO ACEQUIA-CANAL	050002	3DPOLY	CASA EN CONSTRUCCION
029018	TEXTO	TEXTO PRESA-EMBALSE	050003	3DPOLY	CASA EN RUINAS
029025	TEXTO	TEXTO MAR	050004	3DPOLY	PATIO INTERIOR
029026	TEXTO	TEXTOOCEANO	050005	3DPOLY	DIVISION ALTURAS
029027	TEXTO	TEXTO GOLFO	050006	3DPOLY	DIVISORIA AGUAS
030001	3DPOLY	LIMITE CULTIVO	050007	3DPOLY	CLARABOYA-TRAGALUZ
030002	3DPOLY	MASA ARBOLES	050008	3DPOLY	CHIMENEA
030003	3DPOLY	SETO	050009	3DPOLY	PASAJE
030004	3DPOLY	JARDIN	050010	3DPOLY	CIMIENTOS
030005	3DPOLY	CORTAFUEGOS	050011	3DPOLY	MARQUESINA
030023	3DPOLY	LINEA ZONA VERDE	050012	3DPOLY	CHAMIZO
040001	3DPOLY	AUTOVIA-AUTOPISTA	050013	3DPOLY	INVERNADERO
040002	3DPOLY	AUTOVIA EN CONSTRUCCION	050014	3DPOLY	CEMENTERIO
040003	3DPOLY	CARRETERA	050015	3DPOLY	INSTALACIONES DEPORTIVAS
040004	3DPOLY	CARRETERA EN CONSTRUCCION	050016	3DPOLY	PLATAFORMA HORMIGON

050017 3DPOLY TRANSFORMADOR ELECTRICO
050018 3DPOLY MURO DOBLE LINEA
050019 3DPOLY TAPIA
050020 3DPOLY VALLA
050021 3DPOLY ALAMBRADA
050022 3DPOLY CERCA MADERA
050023 3DPOLY MURO CONTENCIÓN
050024 3DPOLY CENTRAL ELECTRICA
050025 3DPOLY KIOSKO
050026 3DPOLY CABINA TELEFONICA
050027 3DPOLY BUS
050028 3DPOLY MAQUINARIA
050029 3DPOLY ESTRUCTURA METALICA
050030 3DPOLY CARTEL PUBLICITARIO
050031 3DPOLY SILO-DEPOSITO
050032 3DPOLY ACERA-BORDILLO ARRIBA
050033 3DPOLY TORRE METALICA
050034 3DPOLY ACERA-BORDILLO
050035 3DPOLY ALCORQUE
050036 3DPOLY BANCO
050037 3DPOLY BUZON
050038 3DPOLY JARDINERA-MACETERO
050039 3DPOLY REGISTRO
050040 3DPOLY ESCALERA-GRADAS
050041 3DPOLY L. E. BAJA TENSION
050042 3DPOLY L. E. MEDIA TENSION
050043 3DPOLY L. E. ALTA TENSION
050044 3DPOLY BARANDILLA
050045 3DPOLY VOLADIZO
050046 3DPOLY ALERO
050047 3DPOLY EDIFICIO PUBLICO O SINGULAR
050048 3DPOLY LINEA TELEFONICA
050049 3DPOLY MONUMENTO
050050 3DPOLY SURTIDOR GASOLINERA
050053 3DPOLY CONTENEDOR RECICLABLES
050054 3DPOLY VERJA-CANCELA
050055 3DPOLY PILAR MURO, TAPIA, ETC.
050056 3DPOLY PERGOLAS
050057 3DPOLY ARMARIO TRAFICO
050058 3DPOLY ELEMENTO NO CLASIFICADO
050061 3DPOLY COBERTIZO
050062 3DPOLY CASETA
050064 3DPOLY JUEGOS INFANTILES
050065 3DPOLY PORCHE
050066 3DPOLY SOPORTAL
050067 3DPOLY SUMIDERO
059001 TEXTO TEXTO N PLANTAS EDF.
059002 TEXTO TEXTO CONSTRUCCION
059003 TEXTO TEXTO RUINAS
059012 TEXTO TEXTO COBERTIZO
059015 TEXTO TEXTO INSTALACIONES DEP.
059031 TEXTO TEXTO SILO-DEPOSITO
059046 TEXTO TEXTO N° POLICIA
059047 TEXTO TEXTO EDIFICIO PUBLICO
059053 TEXTO TEXTO POLIGONO-FABRICAS
060001 BLOQUE POSTE
060002 BLOQUE FAROLA
060003 BLOQUE TORRE METALICA
060004 BLOQUE SEMAFORO
060005 BLOQUE ARBOL
060006 BLOQUE PALMERA
060007 BLOQUE REGISTRO
060008 BLOQUE BUZON
060009 BLOQUE VERTICE GEODESICO 2

060010 BLOQUE SEÑAL NIVELACION PRECISA
060011 BLOQUE SEÑAL NIVELACION NORMAL
060012 BLOQUE SEÑAL NIVELACION TRIGONOM.
060013 BLOQUE MOJON
060014 BLOQUE REGISTRO SANEAMIENTO
060015 BLOQUE REGISTRO ALUMBRADO
060016 BLOQUE REGISTRO SEMAFORO
060017 BLOQUE MANANTIAL
060018 BLOQUE MINA-CANTERA
060019 BLOQUE PAPELERA
060020 BLOQUE NORAY
060021 BLOQUE AGUJA FERROCARRIL
060022 BLOQUE SEÑAL TRAFICO
060023 BLOQUE HITO KILOMETRICO
060024 BLOQUE VERTICE GEODESICO 1\$ORDEN
060025 BLOQUE VERTICE TOPOGRAFICO
060026 BLOQUE PUNTO APOYO
060027 BLOQUE REGISTRO AGUA
060028 BLOQUE REGISTRO GAS
060029 BLOQUE REGISTRO ELECTRICO
060030 BLOQUE REGISTRO TELEFONICO
060031 BLOQUE BOCA RIEGO
060032 BLOQUE BOCA INCENDIOS
060033 BLOQUE ALCANTARILLA
060034 BLOQUE SUMIDERO-VENTILACION
060049 BLOQUE TELEFONO AUTOVIA
060050 BLOQUE SURTIDOR GASOLINA
060051 BLOQUE METRADO
060052 BLOQUE PIVOTE
060053 BLOQUE ALCORQUE CON ARBOL
060055 BLOQUE TORRE ILUMINACION
060056 BLOQUE FAROLA BACULO
060057 BLOQUE FAROLA DOBLE BACULO
060058 BLOQUE FAROLA TRIPLE BACULO
060059 BLOQUE FAROLA CUADRUPLE BACULO
060060 BLOQUE FAROLA EN PARED
060061 BLOQUE POZO
060062 BLOQUE FUENTE
060063 BLOQUE VERTICE GEODESICO 3\$ORDEN
060065 BLOQUE JARDINERA-MACETERO
069009 TEXTO TEXTO VERTICE GEOD. 2\$ORD
069018 TEXTO TEXTO MINA-CANTERA
069024 TEXTO TEXTO VERTICE GEOD. 1\$ORD
069025 TEXTO TEXTO VERTICE TOPOGRAFICO
069026 TEXTO TEXTO PUNTO APOYO
069051 TEXTO TEXTO METRADO
069061 TEXTO TEXTO POZO
069062 TEXTO TEXTO FUENTE
069063 TEXTO TEXTO VERTICE GEOD. 3\$ORD
070001 PLINE LIMITE TERMINO MUNICIPAL
070002 PLINE LIMITE TERMINO PROVINCIAL
070003 PLINE LIMITE TERMINO AUTONOMICO
070004 PLINE LIMITE TERMINO NACIONAL
070005 PLINE LIMITE PARQUE NACIONAL
070006 PLINE LIMITE PARQUE NATURAL
079001 TEXTO TEXTO TERMINO MUNICIPAL
079002 TEXTO TEXTO TERMINO PROVINCIAL
079003 TEXTO TEXTO TERMINO AUTONOMICO
079004 TEXTO TEXTO TERMINO NACIONAL
079010 TEXTO TEXTO BARRIO
079011 TEXTO TEXTO URBANIZACION
079012 TEXTO TEXTO CALLE
079013 TEXTO TEXTO PARQUE
089003 TEXTO TEXTO Balsa-LAGUNA

1 PLINE LIMITE TRABAJO
189101 TEXTO TEXTO PROVINCIA
189102 TEXTO TEXTO TERMINO MUNICIPAL
189103 TEXTO TEXTO CASCO URBANO
189201 TEXTO TEXTO URBANIZACIONES
189203 TEXTO TEXTO PARAJES
189300 TEXTO OTROS TEXTOS INFORMACION URBANA
189301 TEXTO TEXTOS VIAS PUBLICAS
189401 TEXTO TEXTO NŞ POLICIA PARCELA
189600 TEXTO OTROS TEXTOS HIDROGRAFIA
189601 TEXTO TEXTO MAR
189602 TEXTO TEXTO RIO
189603 TEXTO TEXTO ARROYO
189604 TEXTO TEXTO EMBALSE LAGO PANTANO
189605 TEXTO TEXTO CANAL
189606 TEXTO TEXTO PLAYA
189701 TEXTO TEXTO SIERRA LOMA
189702 TEXTO TEXTO PICO COLLADO CERRO
189801 TEXTO TEXTO AUTOPISTA AUTOVIA
189802 TEXTO TEXTO CARRETERA
189803 TEXTO TEXTO CAMINO
189804 TEXTO TEXTO FERROCARRIL
TEXTOS TEXTO TEXTOS

Apéndice 13. Aparatos utilizados

Instrumento GNSS Hiper V de la casa Topcon 2ud

SEGUIMIENTO GNSS:

- Cantidad de canales 226 capaces de hacer un seguimiento de hasta 112 satélites
- Cantidad de satélites con seguimiento GPS, GLONASS, SBAS, EGNOS, MSAS, QZSS

CONECTIVIDAD INALÁMBRICA:

- Bluetooth V2.1 + EDR, Clase 2, 115, 200 bps
- Radio UHF, amplio espectro, celular (opciones)

CERTIFICACIONES Y ESTÁNDARES:

- Protección contra el agua/polvo IP67
- Índice de choque Caída de polo de 6,56 pies (2 m)

RENDIMIENTO:

- Temperatura de funcionamiento *De -40 °C a 65 °C
- (de -40 °F a 149 °F)
- **De -20 °C a 65 °C
- (de -4 °F a 149 °F)
- ***De -20 °C a 55 °C
- (de -4 °F a 131 °F)
- *Potencia externa
- **Batería
- ***Celular

FÍSICO Y AMBIENTAL:

- Caja/Carcasa de aleación de magnesio
- Dimensiones
- 184 mm de prof. x 95 mm de alt. (7,24" x 3,74")
- Peso *De 1,0 kg a 1,28 kg
- (de 2,20 lb a 2,82 lb)
- **205 g (7,23 onzas) (195 g)
- *Receptor HiPer V
- **Batería (BDC70)

ENERGÍA Y ELECTRICIDAD:

- Batería estándar Batería extraíble, recargable de ión litio, de 7,2 V, 4,3 Ah
- Tiempo de funcionamiento * > 7,5 horas en modo estático con conexión Bluetooth®
- Rango de voltaje de entrada De 6,7 a 18 VCC
- *A 20 °C (68 °F)

PRECISIÓN:

- Precisión Static/Fast Static:
- H: 3.0 mm + 0.4 ppm
- V: 5.0 mm + 0.5 ppm

- *Precision Static:
- H: 3.0 mm + 0.1 ppm
- V: 3.5 mm + 0.4 ppm
- RTK (L1+L2):
- H: 5 mm + 0.5 ppm
- V: 10 mm + 0.8 ppm
- *See brochure for more information.

DATOS:

- Salida de datos en tiempo real TPS, RTCM SC104 v2.x, 3.x and MSM, CMR/CMR+
- Salida ASCII NMEA 0183 version 2.x, 3.x and 4.x

COMUNICACIONES:

- Celular Integrated HSPA+/CDMA

Instrumento GNSS Hiper Plus de la casa Topcon 4ud

DESCRIPCIÓN :

- 40 canales integrados en el receptor/antena GPS+ con MINTER interface

ESPECIFICACIONES DE BÚSQUEDA:

- Canales Búsqueda L1: 40 L1 GPS. L1+L2: 20 GPS L1+L2 (GD),
- 20 GPS L1+L2+GLONASS (GGD) (Hiper GGD & Hiper+)
- Señal seguida L1/L2 C/A y Código P y Portadora y GLONASS

RENDIMIENTO:

- Especificaciones (1 sigma)
- Precisión BaseLinea 3mm + 1ppm para L1; 5mm + 1.5ppm para L1
- Precisión RTK (OTF) 10mm + 1.5ppm para L1; 15mm + 2ppm para L1
- Inicialización <60 segundos
- Re-inicialización <10 segundos
- Readquisición <1 segundo

ESPECIFICACIONES DE POTENCIA:

- Batería Batería interna Litio-Ion más 1 puerto externo de alimentación
- Duración de la batería Más de 14 horas
- Alimentación externa 6 a 28 voltios DC
- Consumo de energía Menos de 4.2 W (Hiper sin módem menos de 3.0 W)

ESPECIFICACIONES AMBIENTALES:

- Carcasa Extrusión de aluminio, impermeabilizada
- Temperatura Operativa -30°C a 60°C
- Dimensiones W:159 x H:172 x D:88 mm
- Peso 1.65 kg

ESPECIFICACIONES DE ANTENA GPS+:

- Antena GPS / GLONASS Integrada (Hiper GD, Hiper GGD & Hiper+)
- Tipo Antena Microstrip (Hiper/HiperGGD)/ Antena centrada UHF (sólo Hiper+)
- Plano de Tierra Antena en plano extendido de tierra

ESPECIFICACIONES DE RADIO:

- UHF Radio Módem Interna Rx o Externa Tx/Rx
- CDPD & GSM Módem Modelo Opcional

COMUNICACIÓN SIN CABLES:

- Comunicación Bluetooth® version 1.1 comp.**† (sólo Hiper+)
- I/O
- Puertos Comunicación 4x serie (RS232)
- Otras señales entrada / salida 1pps, Marcador de Eventos
- Indicador de Estados 4x3-color LEDs (Verde, Rojo, Amarillo), 2 teclas de función (MINTER)
- Unidad de Control & Display Externa: FC-1000, FC-100, Ranger, u otra

MEMORIA Y ALMACENAMIENTO:

- Memoria Interna 96MB (Hiper/HiperGGD). 1 Gbytes (sólo Hiper+)
- Almacenamiento Datos Brutos Hasta 20 veces por segundo (20Hz)
- Tipo de Dato Código y Portadora de L1 y L2, GPS y GLONASS

SALIDA DE DATOS:

- Salida de datos tiempo Real RTCM SC104 versión 2.1, 2.2, 2.3, CMR, CMR+
- Salida ASCII NMEA 0183 versión 2.2
- Otras Salidas Formato TPS
- Velocidad Hasta 20 veces por segundo (20Hz)



Pag 1-2

CERTIFICADO DE CALIBRACIÓN

Número de Certificado: **AD1603**

Expedido a: **ESTUDIOS CARTOGRAFICOS GEA**

Tipo: **NIVEL DIGITAL** Fabricante: **LEICA** Modelo: **SPRINTER**
Nº Inventario: **Nº de Serie: 2211876**

Precisión	Eje óptico (mm)	(+/-)2,0mm
Precisión	Electrónica (mm)	(+/-)1,5mm

PATRONES UTILIZADOS:

Angulos: Colimador LEICA s/n NR-11218,452207 compuesto por 3 telescopios: Horizontal, elevación y depresión a 45° con certificado del CEM nº: 120205001

PROCEDIMIENTO:

Norma **ISO SVTOPO_2011_001**

Condiciones Ambientales:

Temperatura (°C)	21,0
Humedad relativa (%)	65,0

Incertidumbres Resultado

Eje óptico (mm)	± 1,5
-----------------	-------

Fecha	Calibración	11/06/2017
	Próxima Calibración Recomendada *	11/06/2018

* Se recomienda seguir las fechas de calibración para el buen funcionamiento de su aparato, no obstante entre estas no queda exento a cualquier circunstancia previsible de revisión.

GEOAVANCE, S.L.
C.I.F. 45-07639164

TÉCNICO: Clemente Díaz Blas

Las unidades angulares se expresan en mgon o milésimas de grado centesimal. La equivalencia con la unidad angular del Sistema Internacional es la siguiente: 100000mgon=90°sexagesimales. Las incertidumbres asignadas tanto al instrumento objeto del presente certificado como de los patrones, corresponden a un nivel de confianza del 95% (k=2). Este certificado no atribuye al equipo otras características que las mostradas por los datos aquí contenidos. Los resultados se refieren al momento y condiciones en que se efectuaron las mediciones y poseen trazabilidad a los patrones indicados, certificados por el C.E.M. (Centro Español de Metrología). GEOAVANCE, S.L. certifica que el equipo reseñado ha superado los procesos de control que se le ha garantizado en la fecha de emisión de este certificado, cumple con las especificaciones técnicas nominales. No se permite la reproducción parcial de este documento sin autorización expresa para ello.

Instrumento level Sprinter 250M de la casa Leica 1ud

PRECISIONES DE ALTURA

- Medición electrónica Desviación típica en medición de altura por km de doble nivelación (ISO 17123-2)
- Medición óptica 1.0/0.7* mm Con mira de aluminio estándar con escala E/con graduación: 2,5 mm
- Lectura de mira sencilla Desviación típica: 0,6 mm (electrónica) y 1,2 mm (óptica) a 30 m

PRECISIONES DE DISTANCIA

- Desviación típica de medición de distancia de 10 mm para D ≤ 10 m y (distancia en m x 0.001) para D > 10 m

ALCANCE

- 2 -100 m (electrónico)

MODOS DE MEDICIÓN

- Aislado y seguimiento

TIEMPO PARA MEDIDA AISLADA <3 SEG

COMPENSADOR

- Compensador de péndulo de amortiguación magnética (rango +/- 10 min)

ANTEOJO AUMENTO (ÓPTICO): 24X

REGISTRO DE DATOS HASTA 1.000 PUNTOS

CONDICIONES AMBIENTALES IP55

FUENTE DE ALIMENTACIÓN PILAS SECAS AA (4 X LR6/AA/AM3 1,5 V)

PESO <2.5 KG

Instrumento TPS Zoom 90 de la casa Geomax 1ud

■ MEDICIÓN DE ÁNGULOS

- Precisión 1 pulgada (0,3 mgon), 2 pulgadas (0,6 mgon), 5 pulgadas (1,5 mgon)
- Resolución de pantalla
- 0,1 pulgadas (0,1 mgon)
- Método Absoluto, continuo o diametral
- Compensación Eje cuádruple

■ MEDICIÓN DE LA DISTANCIA AL PRISMA

- Alcance
- Precisión
- Tiempo
- Modo estándar:

- 3500 m / 1 mm + 1,5 ppm / típico 0,8 s*
- Modo largo:
- >10 000 m / 5 mm + 2 ppm / típico 2,5 s

■ ESPECIFICACIONES FÍSICAS

- Peso Entre 5,0 y 5,3 kg (sin batería ni base nivelante)
- Temperatura de funcionamiento/almacenaje
- De -20 °C a 50 °C / de -40 °C a 70 °C
- Tipo de protección Calificación IP55 de resistencia al polvo y al agua
- Humedad 95 %, sin condensación

■ INTERFAZ

- Teclado Dos teclados alfanuméricos completos, 35 teclas, con iluminación (opcional el segundo)
- Pantalla Tecnología VGA completa de 640 x 480 píxeles en color, táctil y con retroiluminación LED
- Grabación de datos Memoria interna de 1 GB, tarjeta SD extraíble y memoria USB
- Puertos Serie, USB, Bluetooth interno, mando Bluetooth de largo alcance y alimentación externa
- Sistema operativo Microsoft Windows CE 6.0

■ ALIMENTACIÓN

- Batería interna Extraíble de ion de litio 4,4 Ah / 7,4 V
- Tiempo de funcionamiento
- De 7 a 10 h***

■ PLOMADA

- Tipo Puntero láser, intensidad ajustable
- Precisión 1,5 mm a 1,5 m de altura del instrumento

- MEDICIÓN DE LA DISTANCIA SIN REFLECTOR
 - accXess10: 1000 m
 - Precisión: 2 mm + 2 ppm**
 - Tiempo: Valor típico de 3 s
 - Precisión de las capturas: 8 x 20 mm a 50 m
- NAVLIGHT™
 - Alcance y Precisión: 5 m a 150 m / 5 cm a 150 m
- MOTORIZACIÓN
 - Tecnología Controladores Hybrid
- SCOUT (RECONOCIMIENTO)
 - Alcance 300 m a prisma circular
- TRACK (SEGUIMIENTO)
 - Alcance 800 m a prisma circular
 - Velocidad máxima 90 km/h a 100 m
- AIM (FIJACIÓN DEL OBJETIVO)
 - Alcance 1000 m a prisma circular
 - Precisión de Hz/V 1 pulgada
 - Técnica Procesamiento de imagen



CERTIFICADO DE CALIBRACIÓN

Número de Certificado: **ET16026**

Expedido a: GEOAVANCE, S.L.

Tipo: ET Fabricante: LEICA Modelo: TS06
 N° CONTROL N° Serie: 1323055

Precisión	Angulo Horizontal (mgon)	(+/-1.5mgon)
	Angulo Vertical (mgon)	(+/-1.5mgon)
	Distancia	(+/-)1,5mm + 2,0 ppm

PATRONES UTILIZADOS:

1.- Angulos: Colimador LEICA s/n NR-11218,452207 compuesto por 3 telescopios: Horizontal, elevación y depresión a 45° con patrón Estacion Total Leica TC1800 /N 425514 con certificado CEM15254001

2.- Distancias: La base de distancias ha sido calibrada por el CEM con un taquimetrico electronico de 0,01 mm de resolucion, con trazabilidad a patrones nacionales. N° de certificado: CEM152545002

PROCEDIMIENTO:

Norma ISO SVTOPO_2011_001

Condiciones Ambientales:

Temperatura (°C)	21 +/-2
Humedad relativa (%)	65.0

Incertidumbres Resultado

Angulo Horizontal (mgon)	± 2,0
Angulo Vertical (mgon)	± 2,0
Distancia (m)	0.003

Fecha	Calibración	17/12/2017
	Próxima Calibración Recomendada *	17/12/2018

* Se recomienda seguir las fechas de calibración para el buen funcionamiento de su aparato, no obstante entre estas no queda exento a cualquier circunstancia previsible de revisión.

GEOAVANCE, S.L.
 C.I.F. B-91259164

TÉCNICO: Clemente Díaz Blas

Las unidades angulares se expresan en mgon o milésimas de grado centesimal. La equivalencia con la unidad angular del Sistema Internacional es la siguiente: 100000mgon=90°sexagesimales. Las incertidumbres asignadas tanto al instrumento objeto del presente certificado como de los patrones, corresponden a un nivel de confianza del 95% (k=2). Este certificado no atribuye al equipo otras características que las mostradas por los datos aquí contenidos. Los resultados se refieren al momento y condiciones en que se efectuaron las mediciones y poseen trazabilidad a los patrones indicados, certificados por el C.E.M. (Centro Español de Metrología). GEOAVANCE, S.L. certifica que el equipo reseñado ha superado los procesos de control que se le ha garantizado en la fecha de emisión de este certificado, cumple con las especificaciones técnicas nominales. No se permite la reproducción parcial de este documento sin autorización expresa para ello.



CERTIFICADO DE CALIBRACION

Número de Certificado: ET16026

Expedido a: GEOAVANCE, S.L.

Tipo: ET Fabricante: LEICA Modelo: TS06
N° Serie: 1323055

ÁNGULO HORIZONTAL

LECTURA	MEDIDAS ENTRADA			MEDIDAS SALIDA		
	C.D.	C.I.	DESVIACIÓN	C.D.	C.I.	DESVIACIÓN
L1	0.0000	200.0002	0.0002	0.0000	200.0004	0.0004
L2	0.0000	200.0002	0.0002	0.0000	200.0000	0.0000
L3	0.0000	200.0000	0.0000	0.0000	200.0000	0.0000
L4	0.0000	200.0004	0.0004	0.0000	200.0004	0.0004
L5	0.0000	200.0004	0.0004	0.0000	200.0000	0.0000
LECTURA MEDIA	200.0002			200.0002		
DESVIACION TIPICA	0.0000			0.0000		
TEORICO	200.0000			200.0000		
DIFERENCIA	0.0002			0.0002		

ÁNGULO VERTICAL

LECTURA	MEDIDAS ENTRADA			MEDIDAS SALIDA		
	C.D.	C.I.	DESVIACIÓN	C.D.	C.I.	DESVIACIÓN
L1	100.0026	300.0020	0.0046	100.0002	300.0002	0.0004
L2	100.0024	300.0022	0.0046	100.0004	300.0002	0.0006
L3	100.0024	300.0022	0.0046	100.0004	300.0002	0.0006
L4	100.0026	300.0020	0.0046	100.0004	300.0004	0.0008
L5	100.0024	300.0022	0.0046	100.0004	300.0002	0.0006
LECTURA MEDIA	400.0046			400.0006		
DESVIACION TIPICA	0.0000			0.0000		
TEORICO	400.0000			400.0000		
DIFERENCIA	0.0046			0.0006		

DISTANCIAS

LECTURA	DATOS ENTRADA	ξ	DATOS SALIDA	ξ
L1	14.456	0.000	14.456	0.000
L2	14.457	0.001	14.456	0.000
L3	14.456	0.000	14.456	0.000
L4	14.457	0.001	14.457	0.001
L5	14.456	0.000	14.456	0.000

DISTANCIA TEÓRICA 14.456

MEDIA	14.456		14.456	
DES. TIPICA	0.001		0.001	
DIFERENCIA	0.000		0.000	

PLOMADA

ξ	X
CORREGIDO	X

Fórmulas usadas:

$$\text{Lectura media: } X_{media} = \frac{\sum X_i}{n}$$

$$\text{Diferencias: } \Delta = |X_{NOMINAL} - X_{media}|$$

$$\text{Desviación típica: } \sigma = \sqrt{\frac{\sum (X_i - X)^2}{(n-1)}}$$

