

## **Consejo Superior Geográfico**

Comisión Especializada del Sistema Geodésico

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# **Informe de cálculo de las coordenadas ETRS89 (ETRF2000) de las redes públicas de estaciones permanentes GNSS en España**

**Mayo 2026**

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## **1. INTRODUCCIÓN.**

El presente informe contiene los resultados de la solución acumulativa del procesamiento continuo de las estaciones GNSS de las redes de las Comunidades Autónomas y el Instituto Geográfico Nacional, dentro de las actividades del Grupo de Trabajo de la Comisión Especializada del Sistema Geodésico (Consejo Superior Geográfico). Se excluyen de este cálculo las estaciones GNSS ubicadas en las Islas Canarias, por no estar en el ámbito de aplicación de ETRS89.

Las instituciones que han trabajado para la realización de este cálculo son el Instituto Geográfico Nacional (IGN), el Institut Cartogràfic i Geològic de Catalunya (ICGC), el Instituto Tecnológico Agrario de Castilla y León (ITACYL) y la Sociedad de Ciencias Aranzadi y contiene los datos GNSS de todas las estaciones públicas existentes en España (salvo Islas Canarias) pertenecientes a IGN y Comunidades Autónomas desde el 17 de abril de 2011 hasta el 31 de diciembre de 2025.

El Grupo de Trabajo de la Comisión Especializada del Sistema Geodésico se formó a comienzos de 2018 y obtuvo la primera solución a partir del procesamiento de más de 6 años de datos, en el marco ETRF2000, cumpliendo las recomendaciones de EUREF ("[Guidelines for the EPN Analysis Centres](#)") en esa época y se convino por parte de todos los gestores de redes GNSS el cambio de coordenadas de todas las estaciones de forma simultánea el 15 de marzo del mismo año. Desde esa fecha, todas las redes han operado con un conjunto de coordenadas en ETRF2000 (2017,0) de forma que el marco geodésico es consistente, homogéneo y único para toda España (a excepción de Canarias, cuyo marco de referencia es REGCAN95). Esta primera solución comprendía datos desde 17 de abril de 2011 hasta 31 de diciembre de 2017.

A finales de 2020 se obtuvo una segunda solución acumulativa con datos desde abril de 2011 hasta 31 de diciembre de 2019. Para el cambio efectivo de coordenadas de las estaciones que hubiesen variado sustancialmente su posición, el Grupo de Trabajo acordó unos umbrales de (12, 12, 20 mm) en las componentes (N, E, Up) respectivamente, de tal forma que las coordenadas de las estaciones no se cambiaran con cada solución acumulativa que el grupo publicara si no fuera estrictamente necesario al superar esos límites. Esta decisión venía motivada por la necesidad de que las estaciones GNSS fueran consideradas una referencia geodésica estable a lo largo del tiempo. Si la diferencia entre las coordenadas obtenidas con la nueva solución y la anterior superaban este umbral, se procedía al cambio efectivo y oficial de coordenadas de esa estación. De lo contrario, las coordenadas anteriores, permanecerían como oficiales sin cambios.

La realización de estas soluciones periódicas, aunque con datos continuos y acumulativos, aparte de cumplir otros objetivos, contribuye a la detección de cambios de coordenadas por diferentes motivos, tales como cambios de instrumentación, movimientos o deformaciones locales en el entorno de la estación/edificio, falta de adaptación del marco de referencia a una región u otras circunstancias.

La tercera solución acumulativa se publicó en 2022, procesando todos los datos desde 17 de abril de 2011 hasta el 31 de diciembre de 2021.

Finalmente, la solución del presente informe es la cuarta solución acumulativa del Grupo de Trabajo y recoge el procesamiento con datos desde la fecha origen, 17 de abril de 2011, hasta el 31 de diciembre de 2025, casi 15 años de datos.

Esta última solución ha tenido un lapso más grande de tiempo respecto a la anterior debido a que la entrada en vigor de ITRF2020 ha supuesto cambios importantes en las opciones de procesamiento y por ello se ha requerido un reprocesamiento completo de los datos. Es por ello que la solución actual es más homogénea, sin discontinuidades por efecto de cambios en los sucesivos ITRF (IGb08 e ITRF2014 en las anteriores soluciones) ni por cambios en los diferentes estándares de cálculo inherentes a cada ITRF.

## **2. REPROCESAMIENTO EN ITRF2020 Y SOLUCION COMBINADA.**

La entrada en vigor del ITRF2020 a finales de noviembre de 2022 y el cambio sustancial por parte de EUREF de procesar los datos de la *EUREF Permanent Network* (EPN) similar al IGS introdujo cambios en el procesamiento:

- Actualización de las funciones de mapeo troposférico.
- Tratamiento de las desalineaciones de las antenas hacia el norte.
- No se considera mezcla de correcciones del centro de fase de antena entre diferentes sistemas (GPS, GLONASS, GALILEO).
- Exclusión de sistemas GNSS cuyas antenas y radomos no dispongan de valores de calibración en el fichero de calibración de antenas (IGS20.ATX).
- Nuevos modelos geofísicos y de carga oceánica.
- No se calcula carga atmosférica.
- No se utilizan calibraciones absolutas de variaciones de fase.
- No se utilizan calibraciones individuales de las antenas

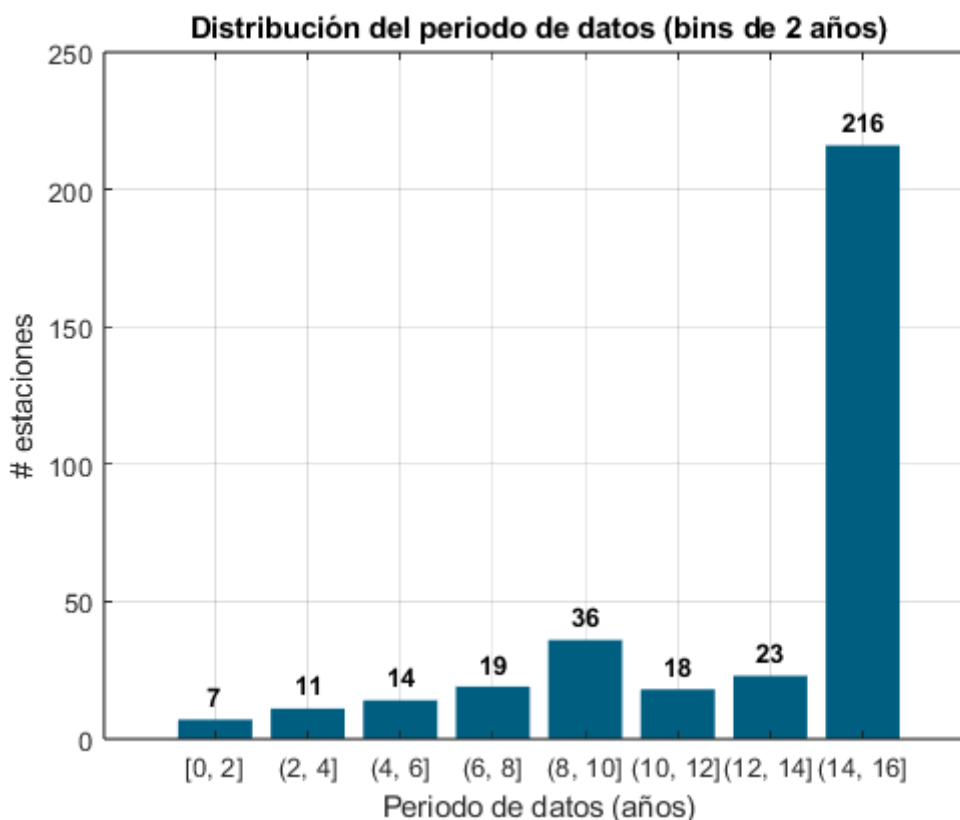
Todo ello, hizo necesario replantearse en el Grupo de Trabajo un reprocesamiento en ITRF2020 de todo el periodo de datos que diera homogeneidad a todo el periodo 2011-2026 y evitara posibles discontinuidades por cambios de ITRF. Además, aseguraría la consistencia entre los

productos y datum IGS, EUREF y la solución acumulativa del Grupo de Trabajo en ITRF2020, IGc20.

Los cuatro centros de análisis del Grupo de Trabajo acordaron, por tanto, reprocesar todo el periodo de datos 2011-2026, siguiendo las directrices de EUREF. En el caso de ITACYL se hizo el reprocesamiento en ITRF2020, pero utilizando calibraciones individuales de antena, por lo que las soluciones de este centro no se han integrado en la solución combinada, con calibración genérica, sirviendo su solución para contrastar y validar la solución final.

En la presente solución se han procesado un total de 344 estaciones tanto del IGN y redes regionales como estaciones datum IGS/EUREF dentro y fuera del territorio nacional. De ellas, 20 estaciones aparecen por primera vez en la solución, por corresponder a estaciones nuevas. Del total, 180 estaciones presentan discontinuidades, el 52%. Esto hace que al final se estimen 606 coordenadas considerando aquellas estaciones que presentan discontinuidades como dobles (o incluso triples o más dependiendo de las discontinuidades de cada estación).

Considerando el periodo de datos y las estaciones disponibles, se puede ver en el siguiente gráfico que el 75% de las estaciones tienen más de 10 años y que tan solo 18 estaciones tienen menos de 4 años de datos (fig. 1).



**Fig. 1. Distribución de estaciones en función del periodo de datos.**

En la siguiente tabla se pueden ver las opciones básicas y características generales del reprocesamiento de cada Centro de Análisis.

**Tabla 1. Opciones de procesamiento y características de los Centros de Análisis.**

Centro de Análisis	ARA	ICGC	IGN	ITACYL
Software	Bernese Software v5.4			GAMIT
Periodo	(2011-04-17, 2025-12-31)			
# Soluciones diarias	5227	5363	5373	5373
# Estaciones procesadas	280	140	300	88
Individual Calibrations	NO	NO	NO	YES
Marco de Referencia	ITRF2020-u2024			
Orbitas	IGS-Repro 3 GNSS Orbits (CODE)			
Modelo Troposfera	VMF3 OP/EI			
Modelo de carga oceánica	FES2014b			
Modelo de antena	IGS20.ATX	IGS20.ATX	IGS20.ATX	IGS20.ATX + ind. calibr.
Producto	Ficheros SNX/NQ0 diarios			

En total se han considerado 43 estaciones datum diferentes (100 si se consideran las discontinuidades de estas) con coordenadas en la solución acumulativa de EPN de la semana 2370, procedente del reprocesamiento completo que EUREF ha llevado a cabo en ITRF2020 (Solución EPN-Repro3 [C2370]).

En la siguiente figura se puede ver un mapa con todas las estaciones procesadas, así como la distinción entre estaciones que conforman el datum y las que no. También se visualizan las estaciones en función del número de Centros de Análisis que las han procesado en la combinación.

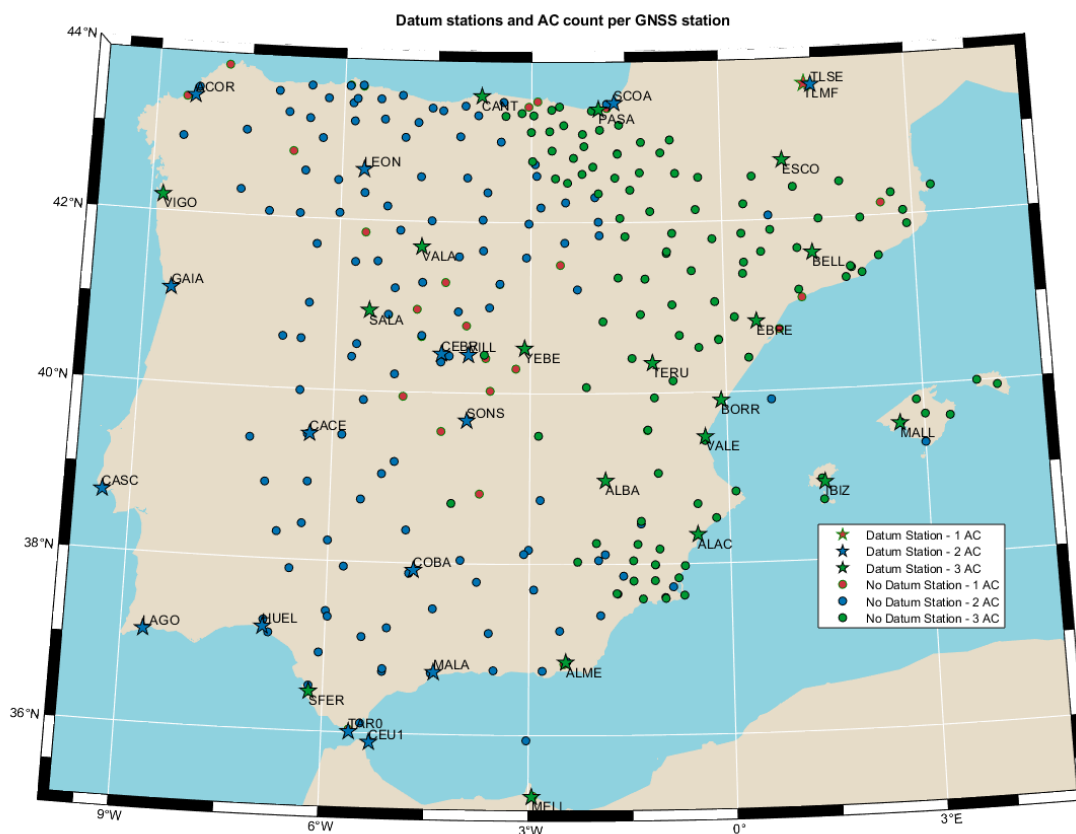


Fig. 2. Estaciones datum utilizadas.

La solución se ha obtenido mediante combinación de ecuaciones normales de las soluciones diarias combinadas de los centros de análisis y finalmente se ha alineado con ITRF2020 época 2026.0, EPN-Repro3 [C2370], mediante un Helmert de mínimos residuos, solo traslaciones. En esta transformación se rechazan las estaciones datum cuyo residuo sea superior a (5, 5, 10) mm en componentes norte, este y altura.

Las estadísticas de la transformación Helmert para llevar la combinación al datum se puede ver en la siguiente tabla (Tabla 2), así como los histogramas de las diferentes componentes (figura 3). Se puede observar un RMS del orden de 1 mm en planimetría y 2 mm en altimetría.

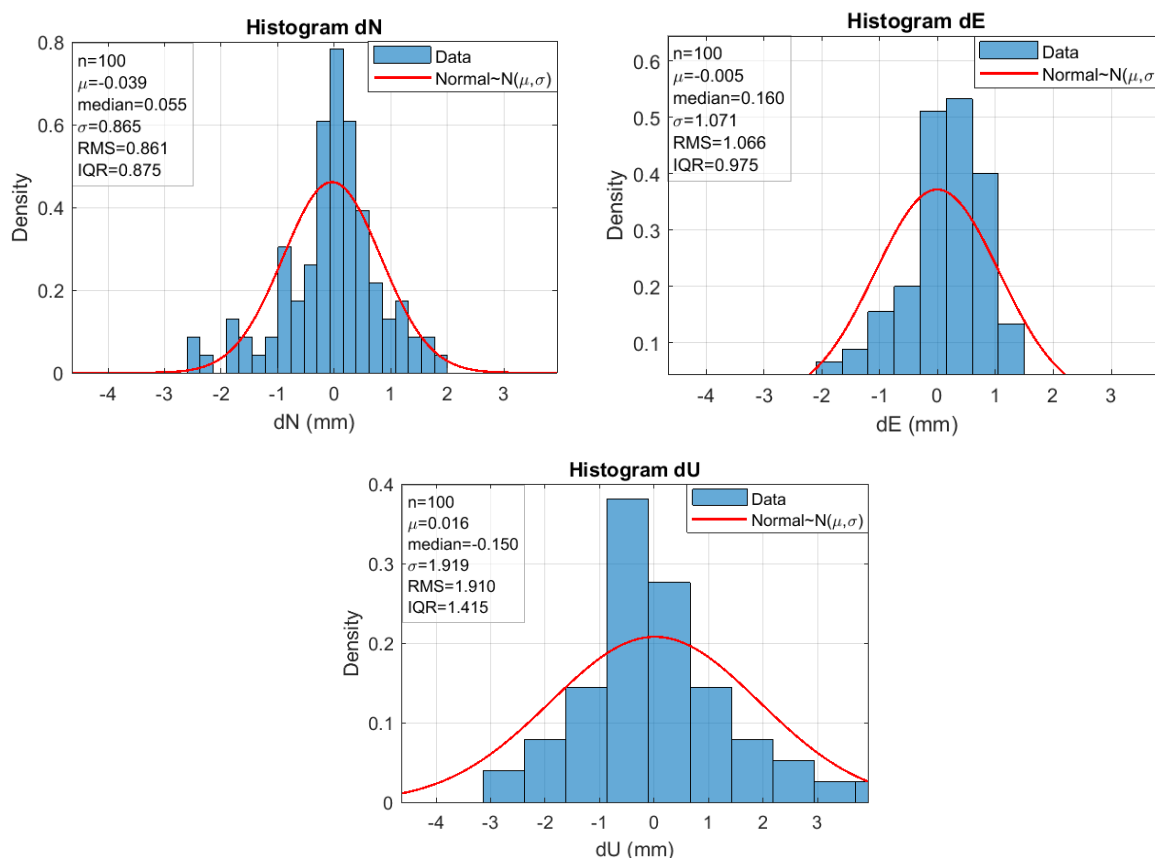
Tabla 2. Estadísticas de la transformación Helmert de la solución al datum (N, E, Up) en mm

RMS / COMPONENT	0.87	1.07	1.92
IQR	0.87	0.98	1.42
MEAN	-0.04	-0.00	0.02
MEDIAN	0.05	0.16	-0.15
MIN	-2.52	-4.44	-7.56
MAX	1.80	4.04	7.38
OVERALL RMS/IQR/MAX (3D)	1.36	1.12	8.17

NUMBER OF PARAMETERS : 3  
 NUMBER OF STATIONS : 100  
 NUMBER OF COORDINATES : 300  
 RMS OF TRANSFORMATION : 1.36 MM

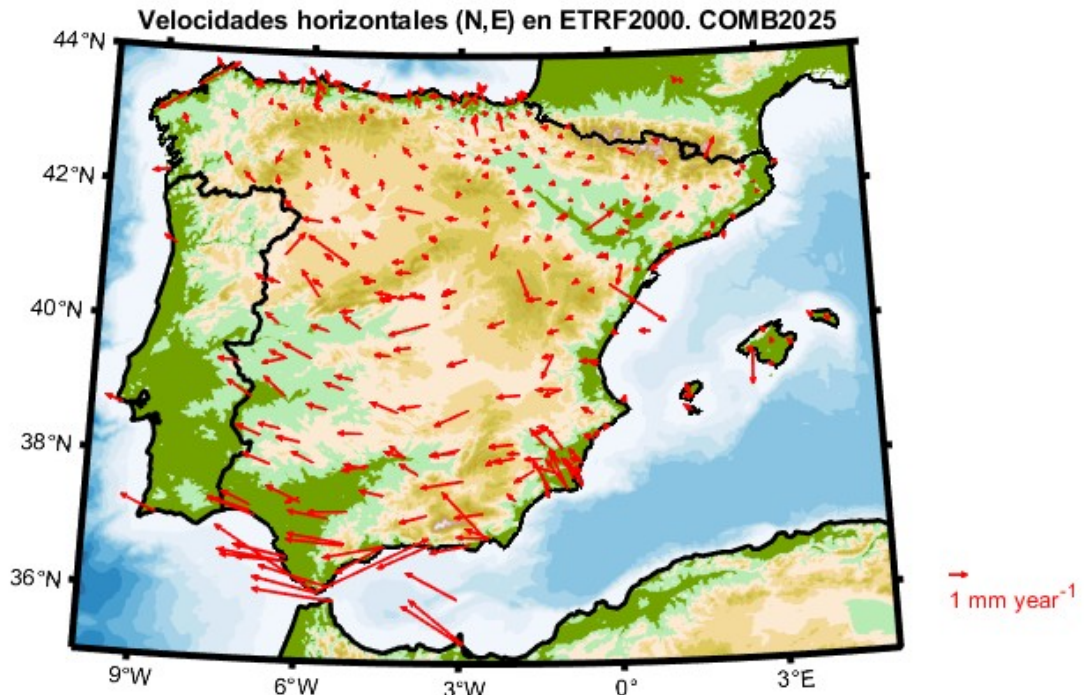
PARAMETERS :

TRANSLATION IN X : 0.00 +- 0.14 MM  
 TRANSLATION IN Y : 0.00 +- 0.14 MM  
 TRANSLATION IN Z : -0.00 +- 0.14 MM

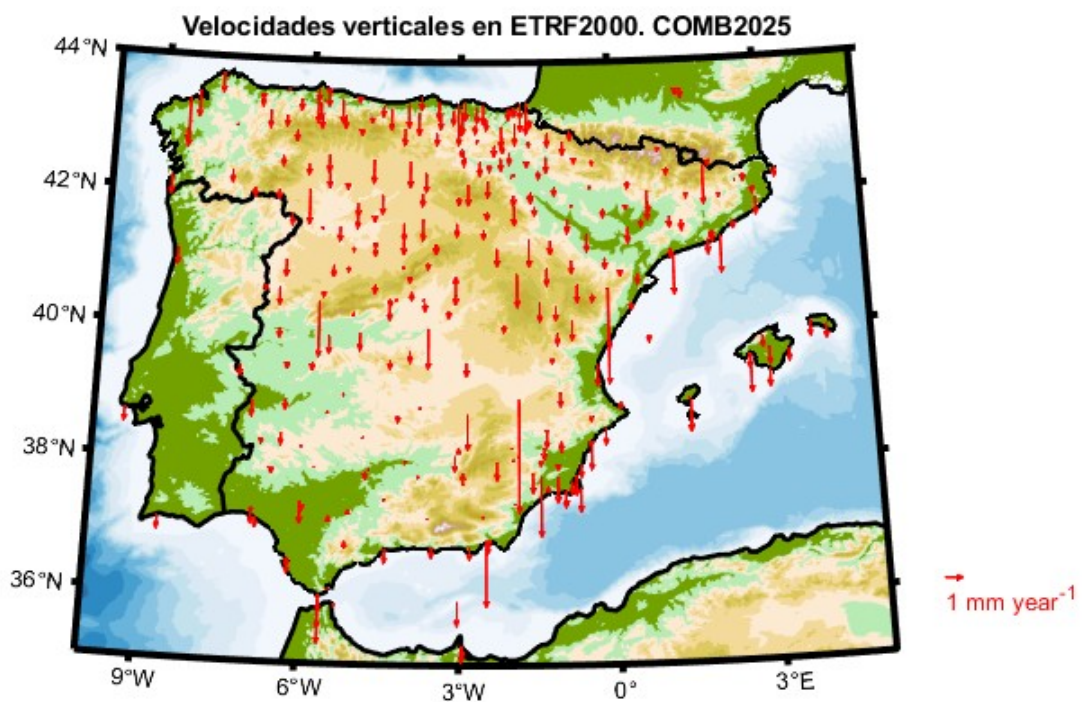


**Fig. 3. Histogramas de residuos de la transformación Helmert (componentes N, E, Up)**

A partir del cálculo y las series temporales, Anexo VI, se obtienen las velocidades de las estaciones. En las figuras 4 y 5 se muestran las velocidades horizontales y verticales en ETRF2000 para la red de estaciones. Se han eliminado de la figura las estaciones con velocidades anómalas, bien por una corta historia temporal o bien por efectos relacionados con la geodinámica local, efectos en la instrumentación o monumentación.



**Fig. 4. Mapa de velocidades horizontales ETRF2000**



**Fig. 5. Mapa de velocidades verticales ETRF2000**

### **3. ACTUALIZACION DE LAS COORDENADAS OFICIALES**

Finalmente, a partir de las coordenadas ITRF2020 (2026,0) resultantes, se han obtenido coordenadas en el marco ETRF2000 (2026,0). El procedimiento ordinario de actualización de coordenadas que se ha adoptado en pasadas soluciones es la actualización si las diferencias de coordenadas entre cada nuevo cálculo y las oficiales vigentes sobrepasan los 12 mm en planimetría y los 20 mm en altimetría.

No obstante, este cálculo no se enmarca dentro del procedimiento ordinario de actualización, dado que se basa en un reprocesamiento homogéneo que incorpora nuevas opciones de procesado, incluyendo el uso de funciones de mapeo troposférico actualizadas, la consideración de desalineaciones de antenas de los receptores hacia el norte y un nuevo tratamiento del centro de fase de antena entre distintos sistemas (excluyendo aquellos sistemas GNSS cuyas calibraciones de antena y radomo no están disponibles en el fichero IGS20.ATX.

**Se recomienda en este caso proceder a la actualización completa de las coordenadas de todas las estaciones para conservar la homogeneidad y consistencia del cálculo. Las coordenadas de las estaciones listadas en el Anexo I, correspondientes al cálculo 2026,0 deben ser cambiadas por los gestores de las redes GNSS a partir de la recepción de este informe.**

El Anexo I contiene los resultados de cálculo en coordenadas cartesianas geocéntricas (X, Y, Z), coordenadas geodésicas (latitud, longitud, altura elipsoidal) y coordenadas UTM (N, E, altura elipsoidal, huso) de todas las estaciones procesadas en el ámbito de España. En las columnas “vigentes UTM” están las coordenadas actualmente vigentes de las estaciones, procedentes de la combinación de 2018 (o posteriores combinaciones si fueron cambiadas) y la última columna contiene las diferencias en milímetros de estas últimas con las calculadas en esta combinación de 2026. Aparecen sombreadas en esta columna las diferencias mayores que (12, 12, 20) mm, umbral que se utiliza para el cambio. No obstante en esta solución se recomienda la actualización completa de coordenadas.



## **Anexo I: Coordenadas ETRS89 (ETRF2000 2026,0)**

*Informe de cálculo de las coordenadas ETRF2000 de las redes públicas de estaciones permanentes GNSS en España*

**COORDENADAS ETRF2000 1 ENERO 2026 (CARTESIANAS, GEOGRÁFICAS Y UTM) VIGENTES UTM Y DIFERENCIAS CON COORDENADAS ANTERIORES.**

Se somborean en naranja las estaciones que sobrepasan el umbral de 12, 12, 20 mm en componentes norte, este y altura. Aunque en esta solución se recomienda cambiar la totalidad de las coordenadas. En azul se sombran las nuevas estaciones que han entrado al cálculo.

Red	Estación	CARTESIANAS			GEOGRÁFICAS								UTM				VIGENTES UTM				Diferencias (mm)		
		X	Y	Z	lat °	lat '	lat ''	lon °	lon '	lon ''	E/W	h elips	E	N	h	huso	X	Y	Z	huso	Δ <sub>E</sub>	Δ <sub>N</sub>	Δ <sub>h</sub>
Andalucía	ALGC	5135570.613	-489449.808	3738221.724	36	6	39.74864	5	26	39.04044	W	117.175	280000.738	3999031.162	117.175	30	280000.755	3999031.157	117.171	30	-17	5	4
Andalucía	AND2	5017458.062	-353479.084	3909148.244	38	2	25.29352	4	1	47.35204	W	284.235	409632.946	4210793.455	284.235	30	409632.954	4210793.457	284.239	30	-8	-2	-4
Andalucía	ARAC	5007190.781	-576288.630	3896600.479	37	53	37.95806	6	33	55.47733	W	725.031	714074.094	4196835.031	725.031	29	714074.109	4196835.025	725.026	29	-15	6	5
Andalucía	CAAL	5081921.534	-226112.515	3838297.571	37	13	15.92353	2	32	51.39586	W	2210.702	540135.157	4119494.892	2210.702	30	540135.166	4119494.891	2210.697	30	-9	1	5
Andalucía	CABR	5053918.526	-391028.477	3859089.811	37	28	4.63548	4	25	27.25428	W	572.063	374054.376	4147738.462	572.063	30	374054.384	4147738.461	572.073	30	-8	1	-10
Andalucía	CAZA	5011763.822	-505522.382	3900415.568	37	56	16.35331	5	45	35.21365	W	663.040	257471.188	4202514.903	663.040	30	257471.204	4202514.903	663.037	30	-16	0	3
Andalucía	CRDB	5023360.649	-420749.338	3894832.043	37	52	38.63824	4	47	16.20668	W	196.008	342765.545	4193718.825	196.008	30	342765.556	4193718.831	195.999	30	-11	-6	9
Andalucía	HULV	5044358.196	-611644.373	3842260.037	37	16	49.02380	6	54	48.75991	W	116.189	684971.961	4128006.483	116.189	29	684971.972	4128006.485	116.181	29	-11	-2	8
Andalucía	HUOV	5070413.828	-171935.011	3853104.526	37	24	5.61514	1	56	31.64989	W	352.188	593629.675	4139945.258	352.188	30	593629.681	4139945.259	352.192	30	-6	-1	-4
Andalucía	EJID	5110462.586	-250262.432	3795531.915	36	45	9.69948	2	48	12.84905	W	155.004	517534.092	4067456.502	155.004	30	517534.103	4067456.504	155.002	30	-11	-2	2
Andalucía	LEBR	5076496.300	-540901.776	3810560.753	36	55	20.72845	6	4	54.95153	W	77.599	759933.376	4090245.076	77.599	29	759933.417	4090245.076	77.553	29	-41	0	46
Andalucía	MLGA	5103686.781	-395880.400	3792208.994	36	42	56.14722	4	26	7.47971	W	115.662	371804.813	4064283.458	115.662	30	371804.828	4064283.463	115.660	30	-15	-5	2
Andalucía	MOTR	5106803.435	-314181.600	3795722.969	36	45	17.14579	3	31	13.88330	W	166.935	453537.401	4067794.259	166.935	30	453537.414	4067794.265	166.934	30	-13	-6	1
Andalucía	OSUN	5064632.610	-451576.092	3838171.706	37	13	56.32162	5	5	42.61265	W	363.146	314137.476	4122700.597	363.146	30	314137.484	4122700.601	363.146	30	-8	-4	0
Andalucía	PALC	5046810.779	-258521.946	3879916.946	37	42	8.40647	2	55	56.64940	W	916.864	505958.779	4172791.471	916.864	30	505958.790	4172791.474	916.862	30	-11	-3	2
Andalucía	POZO	4988766.997	-423244.343	3939354.594	38	23	0.47951	4	50	57.59167	W	736.049	338476.300	4249981.720	736.049	30	338476.315	4249981.715	736.051	30	-15	5	-2
Andalucía	RON1	5098497.026	-459286.469	3793221.248	36	43	20.05054	5	8	50.87699	W	820.776	308221.248	4066209.401	820.776	30	308221.262	4066209.400	820.771	30	-14	1	5
Andalucía	UCA1	5101025.023	-555217.250	3775803.371	36	31	54.17486	6	12	42.70486	W	67.721	749619.476	4046543.086	67.721	29	749619.490	4046543.086	67.718	29	-14	0	3
Andalucía	UIAE	5036325.106	-332899.168	3887177.048	37	47	15.93830	3	46	54.22048	W	527.761	431168.509	4182554.775	527.761	30	431168.522	4182554.777	527.754	30	-13	-2	7
Andalucía	VIAR	5014599.638	-263899.056	3920551.426	38	10	3.49817	3	0	44.91760	W	746.481	498907.041	4224415.186	746.481	30	498907.054	4224415.192	746.473	30	-13	-6	8
Aragón	ACIN	4862768.366	-121966.458	4113424.239	40	24	31.95702	1	26	12.38586	W	1178.308	632639.897	4474313.272	1178.308	30	632639.906	4474313.276	1178.324	30	-9	-4	-16
Aragón	ALCA	4816720.572	-12101.969	4167450.596	41	3	24.97298	0	8	38.23746	W	391.823	740004.77	4549008.288	391.823	30	740004.779	4549008.292	391.835	30	-8	-4	-12











*Informe de cálculo de las coordenadas ETRF2000 de las redes públicas de estaciones permanentes GNSS en España*

IGN	BCL1	4792220.796	181223.521	4191031.882	41	20	30.38525	2	9	56.43360	E	56.073	430195.46 2	4577034.040	56.073	31	430195.464	4577034.047	56.094	31	-2	-7	-21	
IGN	BCLN	4788065.142	167551.163	4196354.984	41	24	19.49681	2	0	14.98367	E	84.791	416763.26 0	4584242.088	84.791	31	416763.267	4584242.093	84.798	31	-7	-5	-7	
IGN	BEJR	4840699.646	-487305.164	4112275.777	40	23	45.36769	5	44	54.61494	W	1095.096	266734.67 0	4475331.081	1095.096	30	266734.678	4475331.077	1095.11 4	30	-8	4	-18	
IGN	BLGU	4675866.226	-65347.605	4325231.768	42	57	29.67178	0	48	2.46776	W	1649.230	679387.05 9	4758524.501	1649.230	30	679387.064	4758524.506	1649.23 2	30	-5	-5	-2	
IGN	BUIT	4811616.616	-305829.343	4163151.550	41	0	2.18412	3	38	12.70694	W	1032.669	446439.17 9	4539019.710	1032.669	30	446439.185	4539019.709	1032.66 5	30	-6	1	4	
IGN	BURB	4657108.844	-553978.360	4309679.404	42	46	20.17646	6	47	1.12081	W	1051.472	681320.78 4	4737908.578	1051.472	29								
IGN	CACE	4899866.797	-544567.615	4033769.763	39	28	43.89816	6	20	30.42744	W	436.495	728635.77 1	4373291.863	436.495	29	728635.783	4373291.864	436.501	29	-12	-1	-6	
IGN	CANT	4625924.660	-307096.781	4365771.141	43	28	19.11785	3	47	53.03933	W	99.242	435450.90 5	4813538.529	99.242	30	435450.912	4813538.527	99.245	30	-7	2	-3	
IGN	CARG	5059185.489	-85999.186	3870099.217	37	35	47.75071	0	58	25.88002	W	57.310	678869.71 7	4162988.202	57.310	30	678869.734	4162988.190	57.321	30	-17	12	-11	
IGN	CEU1	5150907.982	-478415.122	3718518.217	35	53	31.09002	5	18	23.02081	W	52.445	291829.26 7	3974423.517	52.445	30	291829.295	3974423.516	52.444	30	-28	1	1	
IGN	CLTR	4965779.857	-326027.864	3977284.560	38	49	13.00231	3	45	22.89056	W	785.614	434339.81 7	4297104.685	785.614	30	434339.824	4297104.686	785.616	30	-7	-1	-2	
IGN	COBA	5021256.055	-414685.116	3898182.161	37	54	56.17573	4	43	16.00147	W	202.064	348712.37 1	4197847.764	202.064	30	348712.387	4197847.771	202.067	30	-16	-7	-3	
IGN	CUEN	4884861.444	-182506.512	4084819.248	40	4	22.17515	2	8	22.81193	W	998.058	573359.91 4	4436194.871	998.058	30	573359.927	4436194.875	998.063	30	-13	-4	-5	
IGN	EBRO	4840621.897	71330.778	4138740.735	40	43	3.40504	0	50	39.27152	E	54.305	317919.39 5	4509645.207	54.305	31								
IGN	FRAG	4783341.489	27062.589	4205079.434	41	30	34.05038	0	19	26.96668	E	181.765	276689.24 9	4598771.550	181.765	31	276689.254	4598771.551	181.771	31	-5	-1	-6	
IGN	FRRL	4587906.800	-672424.907	4364929.376	43	27	41.15761	8	20	17.40797	W	111.604	553539.40 3	4812270.891	111.604	29	553539.385	4812270.882	111.619	29	18	9	-15	
IGN	FUDE	4645300.466	-390541.373	4341266.538	43	9	12.90816	4	48	20.48472	W	1903.171	353186.67 0	4779453.002	1903.171	30	353186.671	4779453.004	1903.17 4	30	-1	-2	-3	
IGN	GIRO	4738101.808	236301.865	4249110.801	42	2	29.70787	2	51	18.46379	E	112.680	488009.92 8	4654403.586	112.680	31	488009.933	4654403.580	112.690	31	-5	6	-10	
IGN	GRA1	5077918.014	-319155.721	3834700.927	37	11	23.63824	3	35	47.06084	W	823.252	447066.15 8	4116105.411	823.252	30	447066.172	4116105.419	823.255	30	-14	-8	-3	
IGN	GUDI	4706776.493	-588343.899	4251196.022	42	3	32.59440	7	7	29.92242	W	1074.640	655144.05 7	4658033.855	1074.640	29	655144.065	4658033.853	1074.62 7	29	-8	2	13	
IGN	HOND	4640529.680	-145676.531	4358781.338	43	23	5.20008	1	47	52.98454	W	166.245	597355.73 8	4804246.643	166.245	30	597355.742	4804246.645	166.244	30	-4	-2	1	
IGN	HUE1	5055038.934	-605792.452	3829116.564	37	7	55.20533	6	50	1.31248	W	56.420	692427.88 2	4111712.434	56.420	29	692427.894	4111712.432	56.421	29	-12	2	-1	
IGN	HUEL	5049613.138	-612885.695	3835143.847	37	11	59.92357	6	55	13.07989	W	81.834	684568.79 9	4119082.776	81.834	29	684568.818	4119082.769	81.846	29	-19	7	-12	
IGN	IBIZ	4967979.680	125662.804	3984692.527	38	54	40.48261	1	26	56.26291	E	59.844	365521.75 8	4308070.899	59.844	31	365521.767	4308070.902	59.857	31	-9	-3	-13	
IGN	ICOL	4899669.821	58552.779	4069403.158	39	53	54.45276	0	41	4.81970	E	94.693	302062.22 4	4419053.331	94.693	31	302062.232	4419053.335	94.696	31	-8	-4	-3	
IGN	IGNE	4851137.671	-314518.710	4116282.017	40	26	45.00848	3	42	34.28402	W	766.910	439830.77 5	4477484.223	766.910	30	439830.782	4477484.229	766.910	30	-7	-6	0	
IGN	JACA	4704765.672	-59661.073	4292726.508	42	34	2.41496	0	43	35.50116	W	738.917	686606.06 4	4715275.265	738.917	30	686606.072	4715275.268	738.927	30	-8	-3	-10	
IGN	LEON	4680871.368	-463168.414	4294606.542	42	35	18.25894	5	39	3.51320	W	970.223	282480.01 4	4718516.206	970.223	30	282480.022	4718516.209	970.234	30	-8	-3	-11	

*Informe de cálculo de las coordenadas ETRF2000 de las redes públicas de estaciones permanentes GNSS en España*

IGN	LNGS	4594268.397	-689086.524	4355620.324	43	20	47.48842	8	31	48.39679	W	62.383	538084.034	4799404.124	62.383	29	538084.041	4799404.131	62.392	29	-7	-7	-9
IGN	LUGO	4632372.433	-613539.255	4327264.446	42	59	35.08616	7	32	40.86902	W	476.597	618634.486	4761073.807	476.597	29	618634.493	4761073.808	476.600	29	-7	-1	-3
IGN	MAD1	4854006.861	-312714.692	4112991.997	40	24	26.08088	3	41	10.07174	W	724.442	441781.249	4473184.959	724.442	30	441781.256	4473184.962	724.447	30	-7	-3	-5
IGN	MAL1	4918778.929	226582.589	4040490.902	39	33	36.63673	2	38	14.83584	E	53.787	468855.544	4379005.766	53.787	31	468855.546	4379005.775	53.797	31	-2	-9	-10
IGN	MALA	5103282.407	-392096.823	3793146.850	36	43	34.00262	4	23	36.72110	W	119.821	375562.026	4065394.795	119.821	30	375562.041	4065394.809	119.825	30	-15	-14	-4
IGN	MALL	4919369.687	225499.578	4039849.591	39	33	9.44525	2	37	28.38320	E	62.041	467743.568	4378172.043	62.041	31	467743.575	4378172.044	62.040	31	-7	-1	1
IGN	MELI	5205628.354	-268411.292	3663428.145	35	16	52.26798	2	57	5.96362	W	88.811	504396.275	3904227.269	88.811	30	504396.291	3904227.263	88.806	30	-16	6	5
IGN	MLLL	5205101.846	-266278.870	3664265.710	35	17	26.35804	2	55	42.75649	W	54.143	506497.386	3905278.715	54.143	30	506497.323	3905278.689	54.141	30	63	26	2
IGN	MOFR	5069015.334	-484732.990	3828251.294	37	7	14.60219	5	27	44.61854	W	276.357	281234.269	4111102.681	276.357	30	281234.289	4111102.680	276.342	30	-20	1	15
IGN	MOLI	4830386.909	-158492.684	4149832.902	40	50	28.45187	1	52	45.44944	W	1119.374	594479.984	4521737.382	1119.374	30	594479.984	4521737.398	1119.390	30	0	-16	-16
IGN	MOTA	4922399.031	-246774.787	4036074.429	39	30	11.55161	2	52	12.02999	W	779.759	511176.043	4372628.685	779.759	30	511176.058	4372628.691	779.766	30	-15	-6	-7
IGN	OLOT	4732259.681	207441.907	4257794.104	42	8	34.65802	2	30	35.97700	E	600.489	459509.746	4665765.347	600.489	31							
IGN	ONOR	4815416.227	-576024.319	4129950.666	40	36	25.63351	6	49	16.89150	W	849.340	684317.595	4497426.619	849.340	29	684317.601	4497426.620	849.344	29	-6	-1	-4
IGN	ORTG	4572083.562	-632104.169	4387283.152	43	44	22.73143	7	52	17.09090	W	66.463	590878.365	4843575.593	66.463	29							
IGN	ORUS	4865082.732	-273800.756	4102950.355	40	17	15.16582	3	13	16.09223	W	862.692	481203.243	4459696.269	862.692	30	481203.248	4459696.269	862.680	30	-5	0	12
IGN	PENI	4864338.072	30472.472	4111614.204	40	23	44.42096	0	21	32.12161	E	108.571	275852.169	4475023.747	108.571	31	275852.174	4475023.753	108.570	31	-5	-6	1
IGN	PNAV	4826152.784	-336622.553	4145875.805	40	47	7.76897	3	59	23.63874	W	2235.340	416477.984	4515416.348	2235.340	30	416477.991	4515416.350	2235.330	30	-7	-2	10
IGN	PUIG	4714323.285	153959.855	4280589.251	42	24	56.48472	1	52	13.78024	E	1162.347	407067.768	4696549.407	1162.347	31	407067.762	4696549.407	1162.360	31	6	0	-13
IGN	RIO1	4708447.179	-199490.837	4284089.311	42	27	51.26688	2	25	33.95028	W	450.359	547182.297	4701481.978	450.359	30	547182.301	4701481.982	450.366	30	-4	-4	-7
IGN	RODI	4684083.439	-624179.221	4270909.118	42	17	55.81921	7	35	24.91357	W	1033.394	616205.099	4683919.024	1033.394	29	616205.104	4683919.025	1033.398	29	-5	-1	-4
IGN	SALA	4803054.794	-462131.636	4158378.642	40	56	42.29182	5	29	45.11000	W	854.955	289910.390	4535660.314	854.955	30	289910.398	4535660.315	854.961	30	-8	-1	-6
IGN	SEV1	5044666.853	-530411.783	3853755.364	37	24	39.19763	6	0	7.92364	W	69.706	765322.225	4144674.174	69.706	29	765322.235	4144674.181	69.717	29	-10	-7	-11
IGN	SMDV	4853359.963	-371425.010	4108815.235	40	21	29.81254	4	22	34.62481	W	670.780	383135.210	4468433.177	670.780	30	383135.218	4468433.180	670.791	30	-8	-3	-11
IGN	SNTG	4628811.720	-696053.069	4318397.554	42	53	7.55437	8	33	6.20345	W	312.729	536606.146	4748189.772	312.729	29	536606.154	4748189.772	312.736	29	-8	0	-7
IGN	SONS	4904660.505	-339868.060	4050823.482	39	40	31.26331	3	57	50.29157	W	808.940	417326.740	4392169.392	808.940	30	417326.754	4392169.397	808.944	30	-14	-5	-4
IGN	SPAB	4911538.464	-373754.169	4039874.922	39	32	45.23435	4	21	5.97469	W	1006.105	383860.044	4378230.679	1006.105	30	383860.052	4378230.682	1006.112	30	-8	-3	-7
IGN	TALR	4940565.764	-452704.103	3995657.108	39	2	6.29095	5	14	7.41635	W	498.924	306518.726	4323047.283	498.924	30	306518.737	4323047.282	498.909	30	-11	1	15
IGN	TALV	4878606.278	-421920.070	4073797.118	39	56	50.34386	4	56	34.27429	W	458.310	334025.541	4423717.251	458.310	30	334025.561	4423717.248	458.315	30	-20	3	-5

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IGN	TARO	5140804.893	-504304.508	3728988.735	36	0	30.78778	5	36	9.70398	W	49.995	265425.44 7	3988030.541	49.995	30	265425.506	3988030.435	50.073	30	-59	106	-78
IGN	TAR2	5139149.088	-504524.729	3731311.279	36	2	2.76374	5	36	24.91560	W	100.438	265120.43 7	3990875.395	100.438	30	265120.430	3990875.391	100.437	30	7	4	1
IGN	TRRG	4813794.874	101945.378	4169074.328	41	4	44.29693	1	12	47.57306	E	55.071	349904.75 7	4549061.823	55.071	31	349904.763	4549061.829	55.080	31	-6	-6	-9
IGN	TARR	4771756.965	97124.805	4217574.064	41	39	26.55695	1	9	57.75426	E	491.470	347300.91 9	4613360.972	491.470	31	347300.924	4613360.978	491.479	31	-5	-6	-9
IGN	TERU	4867391.671	-95523.917	4108341.247	40	21	1.78967	1	7	27.48468	W	956.159	659292.12 2	4468348.661	956.159	30	659292.121	4468348.666	956.167	30	0	-5	-8
IGN	TUD1	4741779.227	-132733.496	4249843.927	42	2	55.03700	1	36	12.32719	W	340.758	615574.19 4	4656118.117	340.758	30	615574.202	4656118.118	340.759	30	-8	-1	-1
IGN	UTI1	4923207.255	-104440.258	4041273.068	39	33	49.57913	1	12	55.01772	W	798.671	653312.64 2	4380863.139	798.671	30	653312.646	4380863.150	798.665	30	-4	-11	6
IGN	VALE	4929534.020	-29050.707	4033709.897	39	28	50.97029	0	20	15.54475	W	77.554	728984.95 0	4373520.433	77.554	30	728984.964	4373520.432	77.559	30	-14	1	-5
IGN	VEG1	4601456.042	-568981.664	4365325.516	43	27	59.86289	7	2	56.35316	W	78.378	657816.86 3	4814484.041	78.378	29	657816.867	4814484.041	78.384	29	-4	0	-6
IGN	VICA	5017778.377	-270248.154	3916251.061	38	7	3.48388	3	4	58.31382	W	852.434	492736.31 5	4218870.176	852.434	30	492736.331	4218870.180	852.442	30	-16	-4	-8
IGN	VIGO	4677481.049	-725205.087	4260827.155	42	11	2.31803	8	48	47.05855	W	87.747	515436.27 7	4670220.244	87.747	29	515436.285	4670220.247	87.761	29	-8	-3	-14
IGN	VILH	4975338.584	-246937.866	3971451.314	38	45	4.17910	2	50	29.01826	W	1022.736	513781.95 5	4289175.167	1022.736	30	513781.969	4289175.174	1022.74 3	30	-14	-7	-7
IGN	XIX1	4606617.064	-459669.598	4372677.954	43	33	28.94303	5	41	54.15180	W	59.413	282056.54 4	4826325.004	59.413	30	282056.543	4826325.004	59.407	30	1	0	6
IGN	XIXO	4605738.843	-459868.550	4373716.910	43	34	12.40849	5	42	6.85966	W	156.528	281815.03 7	4827675.247	156.528	30	281815.044	4827675.243	156.524	30	-7	4	4
IGN	YEB1	4848800.386	-261769.679	4123001.048	40	31	25.60030	3	5	24.71201	W	975.336	492359.89 3	4485897.985	975.336	30	492359.902	4485897.989	975.336	30	-9	-4	0
IGN	YEB2	4848805.156	-261553.899	4123000.903	40	31	25.74131	3	5	15.54860	W	970.024	492575.50 2	4485902.114	970.024	30							
IGN	YEBE	4848724.902	-261632.498	4123093.894	40	31	29.63122	3	5	19.06616	W	972.751	492492.85 8	4486022.136	972.751	30	492492.865	4486022.139	972.758	30	-7	-3	-7
IGN	ZARA	4773803.530	-73506.546	4215453.666	41	38	0.22150	0	52	55.79375	W	296.081	676401.96 8	4611240.252	296.081	30	676401.977	4611240.257	296.094	30	-9	-5	-13
IGN	ZFRA	4972357.276	-558621.769	3942963.483	38	25	33.63956	6	24	36.15404	W	587.416	726087.28 6	4256260.606	587.416	29	726087.302	4256260.605	587.430	29	-16	1	-14
La Rioja	CALH	4722455.030	-164501.839	4270170.347	42	17	41.79185	1	59	42.11729	W	411.390	582843.97 5	4683013.112	411.390	30	582843.980	4683013.113	411.390	30	-5	-1	0
La Rioja	CASO	4700702.569	-239260.661	4290677.820	42	32	37.48963	2	54	49.60267	W	564.200	507079.54 5	4710154.318	564.200	30	507079.554	4710154.323	564.198	30	-9	-5	2
La Rioja	CERV	4744255.975	-160966.205	4246699.268	42	0	26.66563	1	56	35.60312	W	723.308	587510.12 7	4651138.747	723.308	30	587510.142	4651138.758	723.317	30	-15	-11	-9
La Rioja	SROM	4726071.217	-202807.634	4265655.902	42	14	2.34501	2	27	25.91562	W	1150.482	544788.50 7	4675898.417	1150.482	30	544788.511	4675898.417	1150.48 6	30	-4	0	-4
La Rioja	VTRO	4729356.192	-235164.321	4261094.775	42	10	28.84919	2	50	47.94983	W	1626.171	512665.06 5	4669182.457	1626.171	30	512665.071	4669182.461	1626.17 8	30	-6	-4	-7
Murcia	ABAN	5019757.184	-92324.512	3920866.194	38	10	30.21665	1	3	13.24141	W	207.761	670482.65 8	4227028.677	207.761	30	670482.667	4227028.669	207.768	30	-9	8	-7
Murcia	AIRM	5044843.798	-99386.065	3888654.830	37	48	23.48057	1	7	42.99913	W	253.946	664741.04 3	4185998.156	253.946	30	664741.059	4185998.156	253.962	30	-16	0	-16
Murcia	ALHA	5044368.584	-127398.361	3888453.142	37	48	15.24251	1	26	48.22634	W	252.310	636738.92	4185231.015	252.310	30	636738.922	4185231.011	252.331	30	6	4	-21



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Pais Vasco	ALDA	4687280.514	-190877.118	4308106.533	42	45	15.84353	2	19	54.95095	W	881.795	554669.69 4	4733758.404	881.795	30	554669.699	4733758.404	881.799	30	-5	0	-4
Pais Vasco	AMUR	4661499.799	-244591.805	4332269.462	43	3	22.29026	3	0	12.92717	W	299.242	499707.58 0	4767054.830	299.242	30	499707.580	4767054.832	299.246	30	0	-2	-4
Pais Vasco	APBI	4638707.497	-246758.242	4356032.167	43	21	5.92009	3	2	42.02185	W	59.765	496352.61 8	4799866.504	59.765	30							
Pais Vasco	BIDA	4644178.181	-145778.868	4354832.060	43	20	39.24186	1	47	52.44335	W	932.051	597432.79 0	4799744.135	932.051	30							
Pais Vasco	BRZR	4662221.343	-220770.447	4333309.017	43	3	57.22906	2	42	39.97912	W	667.943	523522.15 7	4768173.077	667.943	30	523522.160	4768173.077	667.946	30	-3	0	-3
Pais Vasco	ELCI	4704010.530	-215109.213	4288289.335	42	30	53.60504	2	37	5.69561	W	525.685	531359.59 8	4707017.079	525.685	30	531359.604	4707017.084	525.694	30	-6	-5	-9
Pais Vasco	ELGE	4657557.749	-202242.018	4338991.466	43	8	13.40902	2	29	10.87609	W	535.724	541773.26 2	4776163.073	535.724	30	541773.265	4776163.074	535.723	30	-3	-1	1
Pais Vasco	EMAZ	4645924.558	-276950.417	4347759.150	43	14	32.93588	3	24	41.21593	W	868.055	466595.64 1	4787824.774	868.055	30	466595.651	4787824.785	868.065	30	-10	-11	-10
Pais Vasco	GERN	4642811.673	-217223.471	4353278.457	43	19	2.65926	2	40	43.48970	W	78.928	526049.61 3	4796113.203	78.928	30	526049.609	4796113.215	78.931	30	4	-12	-3
Pais Vasco	IGEL	4645951.788	-165575.050	4352550.004	43	18	23.01808	2	2	27.87166	W	314.693	577771.09 5	4795286.641	314.693	30	577771.100	4795286.638	314.700	30	-5	3	-7
Pais Vasco	ISPS	4640596.835	-206964.324	4356391.500	43	21	15.64013	2	33	13.03870	W	265.459	536173.79 5	4800262.109	265.459	30	536173.801	4800262.103	265.463	30	-6	6	-4
Pais Vasco	KAST	4646949.424	-240747.812	4348014.573	43	15	0.95026	2	57	56.56234	W	321.627	502783.41 2	4788607.366	321.627	30	502783.404	4788607.358	321.641	30	8	8	-14
Pais Vasco	LANT	4687496.345	-244091.429	4304688.921	42	42	55.53049	2	58	51.10979	W	532.457	501566.93 7	4729214.206	532.457	30	501566.946	4729214.196	532.459	30	-9	10	-2
Pais Vasco	LAZK	4666098.697	-178186.740	4330463.249	43	2	4.40736	2	11	12.91603	W	226.442	566235.72 3	4764973.109	226.442	30	566235.727	4764973.111	226.455	30	-4	-2	-13
Pais Vasco	LEMZ	4634635.818	-234971.585	4361117.948	43	24	49.79606	2	54	8.48149	W	153.391	507905.18 3	4806776.460	153.391	30							
Pais Vasco	PASA	4644909.422	-156645.616	4353622.659	43	19	18.34273	1	55	53.46970	W	67.364	586634.58 3	4797101.176	67.364	30	586634.588	4797101.176	67.372	30	-5	0	-8
Pais Vasco	SOPU	4643998.255	-255914.454	4350062.719	43	16	36.74309	3	9	15.04519	W	168.894	487489.67 8	4791573.366	168.894	30	487489.684	4791573.366	168.906	30	-6	0	-12
Pais Vasco	VITO	4679398.051	-218437.055	4314897.948	42	50	24.19112	2	40	21.57791	W	600.458	526750.01 4	4743105.171	600.458	30	526750.018	4743105.166	600.461	30	-4	5	-3

## **Anexo II: Velocidades ETRS89 (ETRF2000)**

COMB2026\_ETRF2000.VEL

LOCAL GEODETIC DATUM: ETRF2000

STATION NAME	VX (M/Y)	VY (M/Y)	VZ (M/Y)
ABAN 19430M001	-0.00021	-0.00079	0.00121
ACAL 19431M001	-0.00125	-0.00045	0.00042
ACIN 19378M001	-0.00076	-0.00075	-0.00076
ACNS 19306M001	-0.00084	-0.00036	-0.00009
ACOR 13434M001	-0.00745	0.01605	-0.00486
AGRD 19307M001	-0.00058	0.00020	-0.00094
AIO2 13499M002	-0.00063	-0.00138	-0.00051
AIRM 19432M001	-0.00142	-0.00126	-0.00057
AJAL 19308M001	-0.00022	-0.00032	-0.00127
ALAC 13433M001	-0.00039	-0.00052	-0.00009
ALBA 13452M001	-0.00484	-0.00111	-0.00402
ALBO 19481M001	-0.00209	-0.00271	0.00044
ALC1 19370M002	0.00011	0.00008	-0.00034
ALCA 19370M001	-0.00033	-0.00049	-0.00052
ALCO 13496M001	-0.00042	-0.00059	0.00011
ALDA 19383M001	-0.00049	-0.00025	-0.00039
ALGC 13456M001	-0.00091	-0.00366	0.00091
ALHA 19433M001	-0.00179	0.00041	-0.00306
ALI1 13433M002	-0.00149	0.00040	-0.00070
ALIA 19376M001	-0.00065	-0.00030	-0.00076
ALM1 13437M003	-0.00451	-0.00225	-0.00005
ALME 13437M001	-0.00073	-0.00173	-0.00039
ALMO 19405M001	-0.00076	-0.00147	0.00023
ALMR 13437M002	-0.00064	-0.00127	0.00017
ALMZ 17017M001	-0.00054	0.00025	-0.00020
ALOR 19485M001	-0.00075	-0.00031	-0.00036
ALSA 19419M001	-0.00140	-0.00019	0.00011
AMUR 19388M001	-0.00050	0.00022	-0.00024
AND2 13477M002	-0.00042	-0.00112	0.00015
ANDU 13477M001	-0.00058	-0.00084	0.00044
APBI 15011M001	-0.00192	-0.00031	-0.00115
ARAC 13467M001	-0.00078	-0.00146	0.00023
ARAJ 15014M001	-0.00147	-0.00210	-0.00192
ARAS 19498M001	-0.00037	-0.00063	-0.00056
ARDU 19348M001	-0.00121	-0.00146	-0.00059
ARES 15016M001	-0.00105	-0.00015	-0.00125
ARIB 19425M001	-0.00063	-0.00032	-0.00045
ARSP 19309M001	0.00012	-0.00073	0.00003
ASTO 19310M001	-0.00077	-0.00015	-0.00018
AVEL 13440M001	-0.00025	-0.00032	-0.00059
AVI2 19413M001	-0.00031	-0.00060	-0.00046
AVIL 19311M001	-0.00018	-0.00072	0.00017
AVL1 19470M002	-0.00049	-0.00004	-0.00216
AVLS 19470M001	-0.00111	-0.00039	0.00013
AXPV 10057M001	-0.00046	-0.00009	-0.00000
AYOR 13499M001	0.00010	-0.00101	-0.00039
BADJ 19401M001	-0.00140	-0.00118	0.00008
BCL1 19482M001	-0.00125	0.00006	-0.00170
BCLN 13412M001	-0.00044	-0.00021	-0.00042
BEJR 17010M001	-0.00335	-0.00067	-0.00087
BELL 13431M001	-0.00040	-0.00038	-0.00044
BERG 19303M002	-0.00263	0.00304	-0.00502
BEUD 19404M001	-0.00043	-0.00026	-0.00020
BIDA 00000M000	-0.00124	0.00009	-0.00069
BINE 19369M001	-0.00001	-0.00017	-0.00041
BLGU 19494M001	-0.00032	-0.00030	-0.00039

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BORR 13480M001	-0.00050	0.00042	-0.00057
BRJA 19374M001	-0.00023	-0.00038	-0.00047
BRST 10004M004	-0.00122	-0.00012	-0.00043
BRZR 19387M001	-0.00059	0.00004	-0.00011
BUIT 19483M001	-0.00046	-0.00033	-0.00008
BUOS 19312M001	-0.00061	-0.00060	-0.00044
BURB 15023M001	0.00004	-0.00142	0.00051
BURG 19314M001	-0.00090	-0.00041	-0.00065
CAAL 13474M001	-0.00004	-0.00161	-0.00026
CABO 19312M111	-0.00098	-0.00083	0.00102
CABP 15020M001	-0.00173	-0.00026	0.00005
CABR 13473M001	-0.00039	-0.00130	0.00014
CACE 13447M001	-0.00064	-0.00088	0.00002
CALA 19377M001	-0.00052	-0.00016	-0.00087
CALH 19343M001	-0.00020	-0.00022	0.00013
CANT 13438M001	-0.00071	-0.00017	-0.00032
CARC 19424M001	-0.00028	-0.00025	-0.00041
CARG 19412M001	-0.00169	-0.00114	0.00071
CARV 19434M001	0.00021	-0.00109	-0.00010
CASO 19344M001	0.00012	-0.00068	0.00004
CASC 13909S001	-0.00103	-0.00078	-0.00030
CASE 13494M001	-0.00083	-0.00014	-0.00049
CASO 19471M001	-0.00086	-0.00018	-0.00019
CATU 19402M001	-0.00017	-0.00109	0.00030
CATY 19372M001	-0.00087	-0.00030	-0.00130
CAZA 13471M001	-0.00057	-0.00117	0.00040
CBON 19486M001	-0.00076	-0.00027	-0.00025
CBRN 15001M001	-0.00124	-0.00009	-0.00056
CCEX 13447M002	-0.00002	-0.00125	-0.00032
CDCR 15022M001	-0.00062	-0.00066	-0.00088
CDRD 19313M001	-0.00094	-0.00058	-0.00051
CEBR 13408M001	-0.00047	-0.00076	-0.00020
CERV 19345M001	-0.00031	-0.00035	-0.00052
CEU1 13449M002	-0.00091	-0.00439	0.00036
CIEZ 19435M001	-0.00107	-0.00079	0.00031
CLTR 15009M001	0.00018	-0.00121	-0.00004
CNAR 19472M001	-0.00070	-0.00041	-0.00030
COBA 13453M001	-0.00003	-0.00142	-0.00032
CORI 19392M001	-0.00087	-0.00064	0.00010
CRDB 13461M001	-0.00057	-0.00110	-0.00015
CREU 13432M001	-0.00041	-0.00030	-0.00038
CRNA 19373M001	-0.00042	-0.00031	-0.00072
CRPO 17006M001	0.00007	0.00001	-0.00040
CRTG 13483M001	-0.00193	-0.00084	0.00086
CRVC 13485M001	0.00006	-0.00068	0.00004
CSOS 19368M001	-0.00027	-0.00089	0.00027
CUEN 19410M001	-0.00015	-0.00093	-0.00051
DARE 13208S001	-0.00040	-0.00001	0.00006
DENI 13498M001	-0.00005	0.00017	0.00059
DOUR 13113M001	0.00309	-0.00406	0.03913
EBRE 13410M001	-0.00044	-0.00028	-0.00043
EBRO 15025M001	-0.00721	-0.00641	0.00254
EIVI 19487M001	-0.00039	-0.00031	0.00037
EJEA 19371M001	-0.00030	-0.00032	-0.00038
EJID 15008M001	-0.00040	-0.00217	-0.00075
ELCI 19382M001	-0.00047	-0.00028	-0.00065
ELGE 19353S001	-0.00060	-0.00019	-0.00022
EMAZ 17001M001	-0.00071	-0.00027	-0.00063
ESCO 13435M001	-0.00025	-0.00036	-0.00008
ESPU 15019M001	-0.00052	-0.00107	-0.00120
ESTE 19426M001	-0.00047	-0.00027	-0.00049
FORM 19488M001	-0.00095	-0.00050	-0.00036
FRAG 19380M001	-0.00073	-0.00030	-0.00044
FRNE 14607M001	-0.00482	-0.00600	-0.00039
FRRL 19493M001	-0.00165	0.00245	-0.00006

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FUDE 17009M001	-0.00037	-0.00010	-0.00005
GAIA 13902M001	-0.00107	-0.00055	-0.00033
GARR 13489M001	-0.00065	-0.00035	-0.00050
GERN 19389M001	-0.00070	-0.00018	-0.00049
GIRO 19381M001	-0.00022	-0.00018	-0.00029
GMSR 15026M001	-0.00640	-0.00191	-0.00129
GRA1 13459M002	0.00020	-0.00156	-0.00030
GRAS 10002M006	-0.00007	-0.00020	-0.00006
GRAU 19367M001	-0.00025	-0.00031	-0.00033
GRSL 19477M001	-0.00090	0.00016	-0.00047
GUDI 19439M001	-0.00081	-0.00046	0.00008
GUIJ 19315M001	-0.00056	-0.00058	0.00008
HERR 19393M001	-0.00022	-0.00095	0.00015
HERS 13212M007	-0.00086	-0.00034	-0.00022
HERT 13212M010	-0.00056	-0.00008	-0.00010
HOND 15012M002	-0.00082	-0.00017	-0.00039
HUEL 17004M001	-0.00128	-0.00245	0.00037
HUEL 13451M001	-0.00105	-0.00189	0.00011
HULV 13451M002	-0.00083	-0.00150	0.00040
HUOV 13479M001	-0.00021	-0.00049	0.00041
IBIZ 13454S001	-0.00135	-0.00055	-0.00104
ICOL 17014M001	-0.00032	-0.00067	-0.00023
IEJA 19375M001	-0.00035	-0.00031	-0.00031
IENG 12724S001	-0.00019	-0.00001	-0.00015
IGEL 19352S001	-0.00069	-0.00013	-0.00019
IGNE 13411M001	0.00015	-0.00044	-0.00001
ISPS 19484M001	-0.00141	-0.00021	-0.00003
JACA 19356M001	-0.00012	-0.00056	-0.00036
JERE 19397M001	-0.00071	-0.00126	0.00022
JUMA 13486M002	-0.00017	-0.00058	-0.00010
JUMI 13486M001	-0.00055	-0.00079	-0.00072
KAST 19499M001	-0.00163	0.00139	0.00004
LAGO 13903M001	-0.00141	-0.00174	0.00022
LANT 19384M001	-0.00052	-0.00023	-0.00018
LARE 19440M001	-0.00076	-0.00057	-0.00068
LAZK 19354S001	-0.00096	-0.00011	-0.00071
LEBR 13466M001	0.01693	-0.01278	0.01197
LEIT 19428M001	-0.00108	-0.00033	-0.00056
LEMZ 15010M001	-0.00097	0.00003	-0.00047
LENA 19474M001	-0.00078	-0.00041	-0.00017
LEON 13475M001	-0.00084	-0.00048	-0.00060
LERM 19316M001	-0.00067	-0.00043	-0.00032
LLEI 13488M001	-0.00022	-0.00038	-0.00043
LLER 19398M001	-0.00040	-0.00131	0.00011
LLIV 13436M001	-0.00024	-0.00026	-0.00026
LNGS 15005M001	-0.00147	-0.00141	-0.00263
LORC 13484M001	-0.04939	0.00564	-0.04213
LOSA 19421M001	-0.00066	-0.00045	-0.00035
LRCA 13484M002	-0.01599	0.00598	-0.01830
LROC 10023M001	-0.00067	-0.00012	-0.00052
LUAR 19478M001	-0.00057	-0.00048	0.00036
LUGO 19358M001	-0.00043	-0.00027	0.00024
MAD1 15003M001	-0.00061	-0.00081	-0.00012
MAD2 13407S012	0.00002	-0.00067	0.00000
MADR 13407S012	0.00019	-0.00066	-0.00002
MAL1 13444M002	-0.00042	-0.00011	-0.00286
MALA 13443M001	0.00006	-0.00266	-0.00172
MALL 13444M001	-0.00070	-0.00036	-0.00042
MAN2 10091M002	-0.00084	-0.00007	-0.00043
MARE 13490M002	-0.00034	-0.00032	-0.00014
MAZA 19436M001	-0.00072	-0.00090	0.00142
MCIA 13482M002	-0.00065	-0.00057	0.00031
MDNR 19390M002	-0.00111	-0.00011	-0.00000
MDPM 19317M001	-0.00057	-0.00008	-0.00041
MEDA 19399M001	-0.00122	-0.00104	0.00044

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MEDI	12711M003	-0.00343	0.00028	0.00036
MELI	19379M001	-0.00215	-0.00321	0.00118
MENC	19490M001	-0.00082	-0.00037	-0.00037
MEQU	19365M001	-0.00013	-0.00062	-0.00018
MIBR	19357M001	-0.00073	-0.00012	-0.00048
MLGA	13460M001	0.00016	-0.00323	-0.00050
MLLL	19379M002	-0.00207	-0.00284	0.00156
MOFR	19415M001	-0.00018	-0.00219	0.00048
MOLI	19408M001	-0.00034	0.00061	-0.00240
MORE	19303M001	-0.00259	0.00166	-0.00323
MOTA	19406M001	-0.00041	-0.00108	-0.00073
MOTR	13478M001	0.00012	-0.00295	-0.00142
MRAT	19437M001	-0.00004	-0.00134	-0.00016
MUL1	19438M001	-0.00024	-0.00096	-0.00022
MUNI	19364M001	-0.00046	-0.00047	-0.00056
MURC	13482M001	-0.00044	-0.00054	0.00058
MYRG	19318M001	-0.00061	-0.00026	0.00014
NAVA	19394M001	-0.00105	-0.00089	-0.00043
NOT1	12717M004	-0.00292	-0.00238	0.00255
NVDA	15027M001	-0.00705	-0.00541	0.00057
OLM1	19319M002	-0.00045	-0.00044	-0.00001
OLME	19319M001	-0.00085	-0.00063	-0.00022
OLOT	15013M001	-0.00013	0.00021	0.00024
ONOR	17011M001	-0.00053	-0.00047	0.00008
ORON	19427M001	-0.00049	-0.00019	-0.00015
ORTG	15017M001	-0.00115	-0.00023	-0.00040
ORUS	15002M001	-0.00032	-0.00028	-0.00031
OSCA	17008M001	-0.00002	-0.00045	-0.00026
OSUN	13465M001	0.00011	-0.00217	0.00011
OVIE	15015M001	-0.00064	-0.00014	-0.00070
PALC	19349M001	0.00063	-0.00235	0.00010
PALE	19320M001	-0.00122	-0.00003	-0.00025
PAML	19416M001	-0.00039	-0.00051	0.00018
PANE	19475M001	-0.00075	-0.00025	-0.00006
PAS2	19351S001	-0.00047	-0.00008	-0.00021
PASA	19351S001	-0.00051	-0.00012	-0.00023
PDB1	19321M002	-0.00110	-0.00213	0.00119
PDBC	19321M001	-0.00021	-0.00040	-0.00012
PEN1	19322M002	-0.00133	-0.00007	-0.00114
PENA	19322M001	-0.00084	-0.00025	-0.00055
PENI	19391M001	-0.00016	-0.00018	-0.00051
PLAN	13442M001	-0.00048	-0.00004	-0.00016
PNAV	15007M001	-0.00031	-0.00081	-0.00022
PONF	19323M001	0.00004	-0.00037	-0.00092
POZO	13468M001	-0.00006	-0.00135	0.00007
PRAT	12760M001	-0.00073	-0.00051	0.00150
PSBR	19324M001	-0.00075	-0.00000	-0.00006
PUIG	19496M001	-0.00243	0.00055	-0.00061
QINT	19325M001	-0.00014	-0.00015	-0.00053
QNT0	19363M001	-0.00138	0.00146	0.00009
RABT	35001M002	-0.00105	-0.00394	0.00122
RENS	19441M001	-0.00090	-0.00000	-0.00037
REUS	13491M001	-0.00033	-0.00047	-0.00038
RIAA	19327M002	-0.00057	-0.00040	-0.00027
RIAN	19326M001	-0.00062	0.00008	0.00018
RIAZ	19327M001	-0.00038	-0.00035	-0.00033
RIBE	19473M001	-0.00056	0.00053	0.00017
RIO1	13448M002	-0.00020	-0.00043	-0.00035
RIOS	19390M001	-0.00142	-0.00030	-0.00059
RNAN	19442M001	-0.00127	-0.00033	-0.00041
ROAG	13402M007	-0.00046	-0.00357	0.00030
ROAP	13402M006	-0.00115	-0.00365	0.00011
RODI	17012M001	-0.00099	-0.00026	0.00006
RON1	17002M001	-0.00011	-0.00317	0.00048
ROND	13464M001	-0.00058	-0.00307	0.00037

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RONL 19420M001	-0.00056	-0.00029	-0.00052
ROVE 12774M001	-0.00081	-0.00020	0.00070
SABI 19362M001	-0.00005	-0.00027	-0.00032
SALA 13469M001	-0.00077	-0.00042	-0.00017
SALD 19328M001	-0.00086	0.00011	-0.00092
SALI 15021M001	-0.00140	-0.00087	-0.00009
SALS 19476M001	-0.00106	0.00019	0.00020
SANR 19423M001	-0.00006	-0.00023	-0.00025
SANS 19422M001	-0.00084	-0.00040	-0.00040
SARR 19360M001	-0.00074	-0.00039	-0.00086
SART 18497M001	-0.30204	-0.05265	-0.26942
SBAR 13492M001	-0.00023	-0.00060	-0.00012
SCOA 10088M002	-0.00153	-0.00029	-0.00094
SEV1 17003M001	-0.00088	-0.00068	-0.00104
SEVI 13457M001	-0.00099	-0.00179	0.00046
SFER 13402M004	-0.00011	-0.00275	0.00035
SGVA 19329M001	-0.00017	-0.00063	-0.00016
SINE 19491M001	-0.00094	-0.00012	-0.00043
SIRO 19495M001	-0.00045	-0.00024	0.00033
SJO1 19489M002	-0.00051	-0.00033	-0.00029
SJOR 19489M001	-0.00089	-0.00026	-0.00050
SMDV 19497M001	-0.00075	-0.00055	-0.00043
SNTG 19409M001	-0.00095	-0.00003	-0.00014
SONA 13495M001	-0.00026	-0.00028	-0.00009
SONS 13446M001	-0.00045	-0.00091	-0.00051
SOPU 19386M001	-0.00074	-0.00011	-0.00040
SORG 13493M001	-0.00036	-0.00045	-0.00016
SORI 13481M001	-0.00017	-0.00020	-0.00049
SPAB 17015M001	-0.00051	-0.00082	-0.00028
SRNA 19361M001	-0.00018	-0.00016	-0.00051
SROM 19346M001	-0.00074	-0.00033	-0.00063
STVD 19330M001	-0.00125	-0.00004	-0.00154
TAFA 19417M001	-0.00041	-0.00046	-0.00009
TALR 19414M001	-0.00041	-0.00098	0.00018
TALV 17016M001	-0.00125	-0.00081	-0.00015
TAR0 19350M002	-0.00411	-0.00533	0.00182
TAR2 19350M003	-0.00342	0.00640	0.00087
TARI 19350M001	-0.00153	-0.00347	0.00015
TARR 17005M001	-0.00018	-0.00059	-0.00074
TERU 13487M001	-0.00057	-0.00056	-0.00056
TLMF 10003M010	-0.00048	-0.00022	-0.00006
TLSE 10003M009	-0.00055	-0.00006	-0.00022
TORO 19302M002	-0.00071	-0.00068	-0.00021
TORO 19332M001	-0.00079	-0.00041	-0.00040
TORR 19302M001	-0.00060	-0.00077	0.00051
TRAU 19492M001	-0.00065	-0.00030	-0.00025
TRLV 19443M001	-0.00129	0.00006	-0.00048
TRRG 15006M001	-0.00093	-0.00140	-0.00222
TRUJ 19395M001	-0.00101	-0.00149	0.00032
TUD1 19418M002	-0.00037	-0.00040	-0.00051
TUDE 19418M001	-0.00024	-0.00031	-0.00045
UCA1 13455M002	-0.00062	-0.00278	0.00045
UCAD 13455M001	-0.00091	-0.00278	0.00030
UJAE 13458M001	-0.00033	-0.00101	0.00057
UPNA 19429M001	-0.00029	-0.00047	-0.00008
UTI1 19301M002	0.00066	-0.00064	-0.00106
UTIE 19301M001	-0.00014	-0.00062	-0.00029
VALA 13463M002	-0.00052	-0.00041	-0.00004
VALC 19396M001	-0.00069	-0.00110	-0.00032
VALE 13439M001	-0.00091	-0.00101	-0.00078
VBLO 19333M001	-0.00060	-0.00002	-0.00025
VCIA 13497M001	-0.00008	-0.00049	0.00005
VCRD 19444M001	-0.00132	-0.00010	-0.00047
VDGO 19334M001	-0.00144	-0.00037	-0.00062
VEG1 19479M002	-0.00090	-0.00014	-0.00011

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VEGA 19479M001	-0.00055	-0.00043	-0.00001
VIAE 13472M001	0.00039	-0.00151	-0.00010
VICA 19411M001	-0.00067	-0.00138	-0.00064
VIGO 13450M001	-0.00085	-0.00084	-0.00080
VILH 17019M001	-0.00113	-0.00182	-0.00193
VILL 13406M001	0.00040	-0.00083	0.00019
VITO 19385M001	-0.00083	-0.00022	0.00061
VJOI 17013M001	-0.00055	-0.00020	-0.00083
VLFF 15024M001	-0.01452	-0.00874	-0.02450
VNAN 17007M001	-0.00107	-0.00016	-0.00007
VRO1 19366M002	0.00055	-0.00026	-0.00090
VRO2 19366M003	-0.00163	-0.00063	-0.00173
VROB 19366M001	-0.00022	-0.00028	-0.00028
VTGD 19335M001	-0.00140	0.00117	0.00029
VTRO 19347M001	-0.00077	0.00001	-0.00090
XIX1 19480M002	-0.00069	0.00072	-0.00057
XIXO 19480M001	-0.00072	-0.00014	0.00023
YEB1 13420M002	0.00000	-0.00071	-0.00003
YEB2 13420M003	0.00095	-0.00087	0.00050
YEBE 13420M001	-0.00039	-0.00063	-0.00045
ZARA 13462M001	-0.00044	-0.00057	-0.00061
ZFRA 19355M001	-0.00085	-0.00114	-0.00025
ZGZA 13462M002	-0.00043	-0.00043	-0.00062
ZIM2 14001M008	-0.00030	0.00004	0.00068
ZIMM 14001M004	-0.00012	-0.00015	0.00066
ZMRA 19305M001	-0.00033	-0.00111	0.00003
ZOUF 12763M001	-0.00003	-0.00006	0.00159
ZUER 19359M001	-0.00011	-0.00023	-0.00013

## **Anexo III: Velocidades NEU ETRS89 (ETRF2000)**

COMB2026\_ETRF2000.VEL.NEU

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Informe de cálculo de las coordenadas ETRF2000 de las redes públicas de estaciones permanentes GNSS en España

LOCAL GEODETIC DATUM: ETRF2000

STATION NAME	VN (M/Y)	VE (M/Y)	VU (M/Y)
ABAN 19430M001	0.001072	-0.000794	0.000594
ACAL 19431M001	0.001093	-0.000469	-0.000726
ACIN 19378M001	-0.000098	-0.000769	-0.001057
ACNS 19306M001	0.000462	-0.000451	-0.000653
AGRD 19307M001	-0.000309	0.000180	-0.001064
AIO2 13499M002	-0.000015	-0.001391	-0.000791
AIRM 19432M001	0.000405	-0.001288	-0.001452
AJAL 19308M001	-0.000819	-0.000328	-0.000993
ALAC 13433M001	0.000169	-0.000523	-0.000358
ALBA 13452M001	-0.000105	-0.001266	-0.0006261
ALBO 19481M001	0.001497	-0.002817	-0.001315
ALC1 19370M002	-0.000328	0.000080	-0.000141
ALCA 19370M001	-0.000176	-0.000491	-0.000589
ALCO 13496M001	0.000345	-0.000593	-0.000255
ALDA 19383M001	0.000039	-0.000270	-0.000617
ALGC 13456M001	0.001064	-0.003730	0.000085
ALHA 19433M001	-0.001315	0.000365	-0.003298
ALI1 13433M002	0.000377	0.000388	-0.001605
ALIA 19376M001	-0.000155	-0.000308	-0.000985
ALM1 13437M003	0.002603	-0.002443	-0.003558
ALME 13437M001	0.000081	-0.001760	-0.000758
ALMO 19405M001	0.000586	-0.001521	-0.000364
ALMR 13437M002	0.000487	-0.001296	-0.000366
ALMZ 17017M001	0.000215	0.000226	-0.000545
ALOR 19485M001	0.000219	-0.000255	-0.000822
ALSA 19419M001	0.001028	-0.000243	-0.000945
AMUR 19388M001	0.000173	0.000193	-0.000537
AND2 13477M002	0.000328	-0.001147	-0.000176
ANDU 13477M001	0.000667	-0.000879	-0.000138
APBI 15011M001	0.000469	-0.000412	-0.002172
ARAC 13467M001	0.000555	-0.001540	-0.000338
ARAJ 15014M001	-0.000612	-0.002188	-0.002257
ARAS 19498M001	-0.000200	-0.000637	-0.000634
ARDU 19348M001	0.000299	-0.001536	-0.001223
ARES 15016M001	-0.000224	-0.000137	-0.001618
ARIB 19425M001	0.000095	-0.000334	-0.000762
ARSP 19309M001	-0.000096	-0.000716	0.000160
ASTO 19310M001	0.000373	-0.000230	-0.000675
AVEL 13440M001	-0.000270	-0.000317	-0.000583
AVI2 19413M001	-0.000179	-0.000623	-0.000497
AVIL 19311M001	0.000208	-0.000732	0.000019
AVL1 19470M002	-0.001232	-0.000090	-0.001839
AVLS 19470M001	0.000827	-0.000502	-0.000681
AXPV 10057M001	0.000321	-0.000047	-0.000338
AYOR 13499M001	-0.000378	-0.001008	-0.000154
BADJ 19401M001	0.000845	-0.001342	-0.000920
BCL1 19482M001	-0.000453	0.000107	-0.002059
BCLN 13412M001	-0.000019	-0.000194	-0.000613
BEJR 17010M001	0.001454	-0.001002	-0.003051
BELL 13431M001	-0.000057	-0.000370	-0.000598
BERG 19303M002	-0.002096	0.003036	-0.005268
BEUD 19404M001	0.000149	-0.000240	-0.000461
BIDA 00000M000	0.000351	0.000051	-0.001377
BINE 19369M001	-0.000298	-0.000170	-0.000282
BLGU 19494M001	-0.000070	-0.000304	-0.000497
BORR 13480M001	-0.000116	0.000419	-0.000750
BRJA 19374M001	-0.000204	-0.000386	-0.000477
BRST 10004M004	0.000617	-0.000215	-0.001123
BRZR 19387M001	0.000323	0.000012	-0.000507
BUIT 19483M001	0.000227	-0.000359	-0.000383

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BUOS 19312M001	0.000054	-0.000632	-0.000724
BURG 19314M001	0.000107	-0.000467	-0.001082
CAAL 13474M001	-0.000226	-0.001610	-0.000132
CABO 19312M111	0.001400	-0.000842	-0.000145
CABP 15020M001	0.001094	-0.000281	-0.001337
CABR 13473M001	0.000287	-0.001326	-0.000144
CACE 13447M001	0.000358	-0.000945	-0.000403
CALA 19377M001	-0.000319	-0.000172	-0.000960
CALH 19343M001	0.000226	-0.000227	-0.000055
CANT 13438M001	0.000247	-0.000217	-0.000726
CARC 19424M001	-0.000118	-0.000257	-0.000478
CARG 19412M001	0.001582	-0.001169	-0.000890
CARV 19434M001	-0.000231	-0.001082	0.000133
CAS0 19344M001	-0.000075	-0.000673	0.000141
CASC 13909S001	0.000321	-0.000938	-0.000881
CASE 13494M001	0.000193	-0.000098	-0.000950
CASO 19471M001	0.000436	-0.000259	-0.000742
CATU 19402M001	0.000274	-0.001101	0.000138
CATY 19372M001	-0.000407	-0.000325	-0.001505
CAZA 13471M001	0.000592	-0.001221	-0.000109
CBON 19486M001	0.000301	-0.000225	-0.000756
CBRN 15001M001	0.000436	-0.000207	-0.001275
CCEX 13447M002	-0.000323	-0.001244	-0.000112
CDCR 15022M001	-0.000328	-0.000684	-0.001009
CDRD 19313M001	0.000177	-0.000683	-0.000991
CEBR 13408M001	0.000114	-0.000794	-0.000442
CERV 19345M001	-0.000187	-0.000360	-0.000569
CEU1 13449M002	0.000585	-0.004455	-0.000194
CIEZ 19435M001	0.000894	-0.000816	-0.000633
CLTR 15009M001	-0.000193	-0.001196	0.000177
CNAR 19472M001	0.000225	-0.000487	-0.000678
COBA 13453M001	-0.000306	-0.001418	-0.000128
CORI 19392M001	0.000585	-0.000735	-0.000542
CRDB 13461M001	0.000174	-0.001144	-0.000468
CREU 13432M001	0.000006	-0.000276	-0.000571
CRNA 19373M001	-0.000268	-0.000319	-0.000786
CRPO 17006M001	-0.000346	0.000016	-0.000212
CRTG 13483M001	0.001850	-0.000873	-0.000993
CRVC 13485M001	-0.000019	-0.000678	0.000089
CSOS 19368M001	0.000387	-0.000888	-0.000022
CUEN 19410M001	-0.000316	-0.000935	-0.000416
DARE 13208S001	0.000356	-0.000028	-0.000190
DENI 13498M001	0.000491	0.000170	0.000331
EBRE 13410M001	-0.000036	-0.000276	-0.000616
EIVI 19487M001	0.000538	-0.000300	-0.000077
EJEA 19371M001	-0.000085	-0.000326	-0.000473
EJID 15008M001	-0.000425	-0.002187	-0.000684
ELCI 19382M001	-0.000170	-0.000301	-0.000776
ELGE 19353S001	0.000244	-0.000216	-0.000582
EMAZ 17001M001	0.000016	-0.000312	-0.000936
ESCO 13435M001	0.000115	-0.000356	-0.000242
ESPU 15019M001	-0.000647	-0.001084	-0.001123
ESTE 19426M001	-0.000049	-0.000286	-0.000670
FORM 19488M001	0.000321	-0.000476	-0.000976
FRAG 19380M001	0.000155	-0.000296	-0.000840
FRRL 19493M001	0.001324	0.002185	-0.001484
FUDE 17009M001	0.000210	-0.000131	-0.000297
GAIA 13902M001	0.000393	-0.000704	-0.000952
GARR 13489M001	0.000061	-0.000328	-0.000827
GERN 19389M001	0.000117	-0.000213	-0.000839
GIRO 19381M001	-0.000062	-0.000169	-0.000364
GRA1 13459M002	-0.000419	-0.001544	0.000056
GRAS 10002M006	0.000021	-0.000190	-0.000109
GRAU 19367M001	-0.000075	-0.000309	-0.000408
GRSL 19477M001	0.000283	0.000051	-0.000987

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GUDI 19439M001	0.000560	-0.000557	-0.000501
GUIJ 19315M001	0.000386	-0.000633	-0.000328
HERR 19393M001	0.000202	-0.000966	-0.000010
HERS 13212M007	0.000530	-0.000335	-0.000715
HERT 13212M010	0.000372	-0.000077	-0.000431
HOND 15012M002	0.000276	-0.000196	-0.000860
HUE1 17004M001	0.000886	-0.002585	-0.000557
HUEL 13451M001	0.000580	-0.002003	-0.000582
HULV 13451M002	0.000708	-0.001589	-0.000270
HUOV 13479M001	0.000443	-0.000497	0.000095
IBIZ 13454S001	0.000047	-0.000516	-0.001714
ICOL 17014M001	0.000034	-0.000666	-0.000399
IEJA 19375M001	-0.000010	-0.000312	-0.000466
IENG 12724S001	0.000028	0.000015	-0.000240
IGEL 19352S001	0.000332	-0.000154	-0.000629
IGNE 13411M001	-0.000123	-0.000429	0.000129
ISPS 19484M001	0.000939	-0.000273	-0.001038
JACA 19356M001	-0.000189	-0.000561	-0.000327
JERE 19397M001	0.000518	-0.001335	-0.000300
JUMA 13486M002	0.000019	-0.000584	-0.000185
JUMI 13486M001	-0.000233	-0.000803	-0.000864
KAST 19499M001	0.001194	0.001304	-0.001211
LAGO 13903M001	0.000858	-0.001933	-0.000770
LANT 19384M001	0.000212	-0.000257	-0.000495
LARE 19440M001	0.000004	-0.000615	-0.000994
LAZK 19354S001	0.000133	-0.000147	-0.001183
LEIT 19428M001	0.000321	-0.000366	-0.001163
LEMZ 15010M001	0.000325	-0.000019	-0.001028
LENA 19474M001	0.000378	-0.000487	-0.000652
LEON 13475M001	0.000092	-0.000560	-0.000987
LERM 19316M001	0.000191	-0.000473	-0.000690
LLEI 13488M001	-0.000173	-0.000378	-0.000453
LLER 19398M001	0.000248	-0.001345	-0.000137
LLIV 13436M001	-0.000024	-0.000252	-0.000359
LNGS 15005M001	-0.001058	-0.001612	-0.002710
LOSA 19421M001	0.000177	-0.000475	-0.000710
LROC 10023M001	0.000121	-0.000134	-0.000837
LUAR 19478M001	0.000613	-0.000542	-0.000123
LUGO 19358M001	0.000442	-0.000324	-0.000122
MAD1 15003M001	0.000269	-0.000848	-0.000502
MAD2 13407S012	-0.000045	-0.000667	0.000053
MADR 13407S012	-0.000170	-0.000644	0.000168
MAL1 13444M002	-0.001935	-0.000091	-0.002149
MALA 13443M001	-0.001536	-0.002648	-0.000817
MALL 13444M001	0.000132	-0.000328	-0.000819
MAN2 10091M002	0.000337	-0.000068	-0.000882
MARE 13490M002	0.000129	-0.000305	-0.000357
MAZA 19436M001	0.001552	-0.000916	0.000312
MCIA 13482M002	0.000637	-0.000583	-0.000313
MDNR 19390M002	0.000732	-0.000207	-0.000816
MDPM 19317M001	0.000084	-0.000114	-0.000692
MEDA 19399M001	0.001032	-0.001169	-0.000578
MEDI 12711M003	0.002573	0.000967	-0.002103
MELI 19379M001	0.002108	-0.003316	-0.000936
MENC 19490M001	0.000258	-0.000314	-0.000884
MEQU 19365M001	-0.000047	-0.000619	-0.000219
MIBR 19357M001	0.000137	-0.000157	-0.000857
MLGA 13460M001	-0.000646	-0.003208	0.000029
MLLL 19379M002	0.002384	-0.002942	-0.000668
MOFR 19415M001	0.000365	-0.002197	0.000313
MOLI 19408M001	-0.001580	0.000599	-0.001842
MOTA 19406M001	-0.000337	-0.001099	-0.000739
MOTR 13478M001	-0.001318	-0.002937	-0.000609
MRAT 19437M001	-0.000130	-0.001341	-0.000094
MUL1 19438M001	-0.000040	-0.000966	-0.000305

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MUNI 19364M001	-0.000125	-0.000476	-0.000710
MURC 13482M001	0.000721	-0.000549	0.000019
MYRG 19318M001	0.000496	-0.000315	-0.000339
NAVA 19394M001	0.000285	-0.000987	-0.001012
NOT1 12717M004	0.004102	-0.001544	-0.001219
OLM1 19319M002	0.000265	-0.000475	-0.000317
OLME 19319M001	0.000360	-0.000697	-0.000743
OLOT 15013M001	0.000259	0.000215	0.000072
ONOR 17011M001	0.000367	-0.000530	-0.000305
ORON 19427M001	0.000222	-0.000204	-0.000456
ORTG 15017M001	0.000477	-0.000385	-0.001077
ORUS 15002M001	-0.000040	-0.000298	-0.000432
OSCA 17008M001	-0.000182	-0.000450	-0.000187
OSUN 13465M001	-0.000095	-0.002152	0.000307
OVIE 15015M001	-0.000082	-0.000205	-0.000933
PALC 19349M001	-0.000379	-0.002315	0.000654
PALE 19320M001	0.000627	-0.000127	-0.001069
PAML 19416M001	0.000387	-0.000521	-0.000153
PANE 19475M001	0.000456	-0.000309	-0.000570
PAS2 19351S001	0.000168	-0.000096	-0.000484
PASA 19351S001	0.000180	-0.000137	-0.000526
PDB1 19321M002	0.001490	-0.002221	0.000097
PDBC 19321M001	0.000022	-0.000417	-0.000209
PEN1 19322M002	0.000025	-0.000165	-0.001745
PENA 19322M001	0.000133	-0.000310	-0.000978
PENI 19391M001	-0.000284	-0.000179	-0.000453
PLAN 13442M001	0.000198	-0.000023	-0.000467
PNAV 15007M001	-0.000001	-0.000830	-0.000335
PONF 19323M001	-0.000733	-0.000363	-0.000562
POZO 13468M001	0.000021	-0.001350	0.000086
PRAT 12760M001	0.001646	-0.000360	0.000453
PSBR 19324M001	0.000454	-0.000087	-0.000593
PUIG 19496M001	0.001176	0.000629	-0.002191
QINT 19325M001	-0.000306	-0.000157	-0.000453
QNT0 19363M001	0.000989	0.001448	-0.000985
RABT 35001M002	0.001331	-0.004037	0.000208
RENS 19441M001	0.000342	-0.000065	-0.000909
REUS 13491M001	-0.000063	-0.000463	-0.000506
RIA1 19327M002	0.000156	-0.000434	-0.000587
RIAN 19326M001	0.000557	0.000026	-0.000334
RIAZ 19327M001	-0.000012	-0.000372	-0.000487
RIBE 19473M001	0.000539	0.000478	-0.000322
RIO1 13448M002	-0.000136	-0.000438	-0.000370
RIOS 19390M001	0.000488	-0.000424	-0.001427
RNAN 19442M001	0.000553	-0.000427	-0.001184
ROAG 13402M007	0.000284	-0.003599	0.000121
ROAP 13402M006	0.000533	-0.003753	-0.000537
RODI 17012M001	0.000682	-0.000388	-0.000660
RON1 17002M001	0.000280	-0.003167	0.000427
ROND 13464M001	0.000477	-0.003110	-0.000021
RONL 19420M001	-0.000004	-0.000299	-0.000761
ROVE 12774M001	0.001086	-0.000041	-0.000077
SABI 19362M001	-0.000203	-0.000270	-0.000252
SALA 13469M001	0.000348	-0.000492	-0.000660
SALD 19328M001	-0.000093	0.000039	-0.001260
SALI 15021M001	0.000780	-0.000889	-0.001151
SALS 19476M001	0.000884	0.000073	-0.000643
SANR 19423M001	-0.000150	-0.000232	-0.000207
SANS 19422M001	0.000268	-0.000419	-0.000882
SARR 19360M001	-0.000184	-0.000400	-0.001116
SBAR 13492M001	0.000080	-0.000591	-0.000268
SCOA 10088M002	0.000362	-0.000335	-0.001751
SEV1 17003M001	-0.000338	-0.000768	-0.001271
SEVI 13457M001	0.000850	-0.001883	-0.000356
SFER 13402M004	0.000170	-0.002746	0.000359

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SGVA 19329M001	-0.000039	-0.000641	-0.000199
SINE 19491M001	0.000272	-0.000070	-0.001002
SIRO 19495M001	0.000531	-0.000284	-0.000081
SJOR 19489M001	0.000185	-0.000213	-0.001015
SMDV 19497M001	0.000129	-0.000606	-0.000816
SNTG 19409M001	0.000534	-0.000171	-0.000780
SONA 13495M001	0.000112	-0.000273	-0.000259
SONS 13446M001	-0.000146	-0.000939	-0.000623
SOPU 19386M001	0.000211	-0.000151	-0.000808
SORG 13493M001	0.000130	-0.000443	-0.000380
SORI 13481M001	-0.000258	-0.000207	-0.000447
SPAB 17015M001	0.000068	-0.000856	-0.000522
SRNA 19361M001	-0.000261	-0.000161	-0.000474
SROM 19346M001	0.000021	-0.000361	-0.000960
STVD 19330M001	-0.000313	-0.000171	-0.001952
TAFa 19417M001	0.000202	-0.000472	-0.000353
TALR 19414M001	0.000341	-0.001013	-0.000134
TALV 17016M001	0.000640	-0.000915	-0.000998
TAR0 19350M002	0.003571	-0.005706	-0.001818
TAR2 19350M003	0.003074	0.006035	-0.002746
TARI 19350M001	0.000817	-0.003603	-0.000870
TARR 17005M001	-0.000425	-0.000586	-0.000635
TERU 13487M001	-0.000065	-0.000571	-0.000789
TLMF 10003M010	0.000291	-0.000208	-0.000393
TLSE 10003M009	0.000221	-0.000046	-0.000551
TORO 19302M002	0.000266	-0.000688	-0.000682
TORO 19332M001	0.000196	-0.000482	-0.000825
TORR 19302M001	0.000766	-0.000777	-0.000152
TRAU 19492M001	0.000233	-0.000267	-0.000670
TRLV 19443M001	0.000537	-0.000031	-0.001268
TRRG 15006M001	-0.001043	-0.001380	-0.002182
TRUJ 19395M001	0.000789	-0.001585	-0.000455
TUD1 19418M002	-0.000138	-0.000410	-0.000608
TUDE 19418M001	-0.000179	-0.000317	-0.000473
UCA1 13455M002	0.000549	-0.002831	0.000014
UCAD 13455M001	0.000601	-0.002862	-0.000307
UJAE 13458M001	0.000611	-0.001030	0.000142
UPNA 19429M001	0.000129	-0.000478	-0.000257
UTI1 19301M002	-0.001246	-0.000626	-0.000156
UTIE 19301M001	-0.000143	-0.000623	-0.000283
VALA 13463M002	0.000293	-0.000451	-0.000388
VALC 19396M001	0.000099	-0.001178	-0.000625
VALE 13439M001	-0.000027	-0.001015	-0.001194
VBLO 19333M001	0.000222	-0.000086	-0.000605
VCIA 13497M001	0.000088	-0.000490	-0.000028
VCRD 19444M001	0.000555	-0.000188	-0.001276
VDGO 19334M001	0.000496	-0.000470	-0.001459
VEG1 19479M002	0.000523	-0.000249	-0.000711
VEGA 19479M001	0.000332	-0.000494	-0.000365
VIAR 13472M001	-0.000368	-0.001487	0.000307
VICA 19411M001	-0.000136	-0.001414	-0.000863
VIGO 13450M001	-0.000115	-0.000960	-0.001064
VILH 17019M001	-0.000855	-0.001874	-0.002018
VILL 13406M001	-0.000151	-0.000800	0.000470
VITO 19385M001	0.001004	-0.000258	-0.000186
VJOI 17013M001	-0.000307	-0.000202	-0.000947
VNAN 17007M001	0.000655	-0.000264	-0.000823
VRO1 19366M002	-0.001040	-0.000261	-0.000174
VROB 19366M001	-0.000067	-0.000279	-0.000350
VTGD 19335M001	0.001218	0.001006	-0.000958
VTRO 19347M001	-0.000150	-0.000028	-0.001175
XIX1 19480M002	0.000109	0.000648	-0.000942
XIXO 19480M001	0.000651	-0.000211	-0.000350
YEB1 13420M002	-0.000048	-0.000709	0.000010
YEB2 13420M003	-0.000267	-0.000818	0.001082

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YEBE 13420M001	-0.000111	-0.000650	-0.000563
ZARA 13462M001	-0.000169	-0.000577	-0.000728
ZFRA 19355M001	0.000250	-0.001228	-0.000717
ZGZA 13462M002	-0.000182	-0.000437	-0.000728
ZIM2 14001M008	0.000678	0.000079	0.000297
ZIMM 14001M004	0.000552	-0.000133	0.000387
ZMRA 19305M001	0.000167	-0.001137	-0.000143
ZOUF 12763M001	0.001124	-0.000052	0.001125
ZUER 19359M001	-0.000026	-0.000231	-0.000166

## **Anexo IV: Coordenadas ITRS (ITRF2020 2026,0)**

Informe de cálculo de las coordenadas ETRF2000 de las redes públicas de estaciones permanentes GNSS en España

LOCAL GEODETIC DATUM: IGS20

EPOCH: 2026-01-01 00:00:00

STATION NAME	X (M)	Y (M)	Z (M)
ABAN 19430M001	5019756.78028	-92323.79378	3920866.72373
ACAL 19431M001	5050254.88160	-75879.24244	3881894.09278
ACIN 19378M001	4862767.94956	-121965.75853	4113424.75436
ACNS 19306M001	4740593.28624	-527730.22446	4221367.18410
ACOR 13434M001	4594489.46886	-678367.23670	4357066.33256
AGR1 19307M001	4756259.07742	-160320.57162	4233797.04245
AIO2 13499M002	4958705.04693	-91678.10172	3998026.10489
AIRM 19432M001	5044843.39792	-99385.34331	3888655.36245
AJAL 19308M001	4801696.19993	-190640.14086	4181086.07950
ALAC 13433M001	5009050.96702	-42071.77826	3935058.00467
ALBA 13452M001	4962847.70805	-160853.68957	3990884.63312
ALBO 19481M001	5162721.71068	-273659.64780	3722826.28605
ALC1 19370M002	4816654.42656	-12214.68474	4167535.07444
ALCA 19370M001	4816720.13603	-12101.27560	4167451.10626
ALCO 13496M001	4984687.00745	-41198.47024	3966606.46516
ALDA 19383M001	4687280.09159	-190876.44014	4308107.03329
ALGC 13456M001	5135570.28134	-489449.07377	3738222.27080
ALHA 19433M001	5044368.18787	-127397.63938	3888453.67497
ALI1 13433M002	5009094.82280	-41777.09985	3935000.45337
ALIA 19376M001	4845013.48682	-59465.04877	4135530.73869
ALM1 13437M003	5106413.05117	-221608.68750	3802540.51565
ALME 13437M001	5105219.90118	-219278.12243	3804387.39942
ALMO 19405M001	4971155.26286	-363335.79146	3967323.05641
ALMR 13437M002	5104673.57218	-217597.21607	3805330.14156
ALMZ 17017M001	4779815.07435	-211947.50069	4205107.30167
ALOR 19485M001	4884753.82222	353584.99687	4072521.65862
ALSA 19419M001	4677250.76249	-176770.26866	4319079.95541
AMUR 19388M001	4661499.38220	-244591.13044	4332269.96087
AND2 13477M002	5017457.69606	-353478.36497	3909148.77723
ANDU 13477M001	5017452.98235	-353521.33725	3909149.84662
APBI 15011M001	4638707.07823	-246757.57018	4356032.66440
ARAC 13467M001	5007190.44775	-576287.91195	3896601.01485
ARAJ 15014M001	4881627.50644	-308196.49553	4080510.20725
ARAS 19498M001	4896737.11799	-94156.34563	4074155.59247
ARDU 19348M001	4762207.81005	-311513.23673	4218509.36983
ARES 15016M001	4744000.28198	60396.35275	4250932.45980
ARIB 19425M001	4676495.24037	-103032.64427	4322929.27961
ARSP 19309M001	4859223.82821	-432200.84396	4095956.82916
ASTO 19310M001	4687266.49226	-497176.34929	4283843.99711
AVEL 13440M001	4755887.81248	62302.79071	4236278.47110
AVI2 19413M001	4829770.25539	-395227.70774	4134964.15368
AVIL 19311M001	4830657.11777	-395396.94358	4133873.43637
AVL1 19470M002	4604888.79148	-476930.05618	4372677.61899
AVLS 19470M001	4604378.81456	-476286.58572	4373386.04645
AXPV 10057M001	4614666.63525	430786.89457	4367411.78578
AYOR 13499M001	4958705.26450	-91680.08303	3998024.11514
BADJ 19401M001	4934001.10541	-604879.56728	3983295.70023
BCL1 19482M001	4792220.33056	181224.21074	4191032.38699
BCLN 13412M001	4788064.67739	167551.85140	4196355.48882
BEJR 17010M001	4840699.28237	-487304.46667	4112276.29646
BELL 13431M001	4775849.16465	116814.77430	4213019.22605
BERG 19303M002	4849453.93311	-8238.58658	4130350.08302
BEUD 19404M001	4723446.81892	220747.31415	4267255.48163
BIDA 00000M000	4644177.74810	-145778.19671	4354832.55632
BINE 19369M001	4758461.81944	24577.80050	4233287.58091
BLGU 19494M001	4675865.78398	-65346.92950	4325232.26557
BORR 13480M001	4899518.85783	-7115.13131	4069961.90798
BRJA 19374M001	4757928.39242	-126764.11459	4232288.53120
BRST 10004M004	4231162.33523	-332746.30572	4745131.14154
BRZR 19387M001	4662220.92223	-220769.77279	4333309.51571
BUIT 19483M001	4811616.22177	-305828.64942	4163152.06353

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BUOS	19312M001	4771362.72294	-255731.34592	4212134.02859
BURB	15023M001	4657108.47304	-553977.68574	4309679.90777
BURG	19314M001	4712044.09999	-303624.17516	4274801.89623
CAAL	13474M001	5081921.15606	-226111.78875	3838298.10863
CABO	19312M111	5057218.51131	-61647.08586	3873111.69917
CABP	15020M001	5057219.46047	-61647.24542	3873111.92174
CABR	13473M001	5053918.17011	-391027.75358	3859090.34829
CACE	13447M001	4899866.44793	-544566.90976	4033770.28814
CALA	19377M001	4825782.22066	-109394.76394	4156452.16629
CALH	19343M001	4722454.60638	-164501.15736	4270170.85090
CANT	13438M001	4625924.24858	-307096.11081	4365771.63757
CARC	19424M001	4717608.27999	-118657.49312	4277009.54978
CARG	19412M001	5059185.08853	-85998.46263	3870099.75023
CARV	19434M001	5027036.76695	-172708.38387	3910012.37319
CASO	19344M001	4700702.15517	-239259.98213	4290678.32270
CASC	13909S001	4917536.78636	-815725.79946	3965857.65052
CASE	13494M001	4749772.26791	240960.21271	4236096.40555
CASO	19471M001	4638385.21614	-433753.62864	4342706.53031
CATU	19402M001	4959262.20476	-480911.08444	3969353.73526
CATY	19372M001	4793283.93013	-137216.42672	4192304.75394
CAZA	13471M001	5011763.47857	-505521.66311	3900416.10318
CBON	19486M001	4911589.67780	291138.09174	4045072.73467
CBRN	15001M001	4619819.10286	-437553.30204	4361463.13014
CCEX	13447M002	4900064.63899	-547717.39971	4033275.78434
CDCR	15022M001	5027477.23134	-200169.60171	3908845.51452
CDRD	19313M001	4819303.52748	-552337.99011	4128399.31917
CEBR	13408M001	4846664.77309	-370194.88933	4116929.71456
CERV	19345M001	4744255.55284	-160965.52095	4246699.77375
CEUL	13449M002	5150907.65012	-478414.38665	3718518.76450
CIEZ	19435M001	5015255.27395	-120893.74739	3926008.83300
CLTR	15009M001	4965779.48213	-326027.15159	3977285.08790
CNAR	19472M001	4629385.81952	-530836.00666	4341283.15489
COBA	13453M001	5021255.69875	-414684.39680	3898182.69627
CORI	19392M001	4862596.31283	-555710.94927	4076614.30871
CRDB	13461M001	5023360.29431	-420748.61797	3894832.57846
CREU	13432M001	4715420.05326	273178.18658	4271946.92064
CRNA	19373M001	4795404.30563	-102253.30229	4190966.04288
CRPO	17006M001	4786491.72849	-428003.48946	4180874.80861
CRTG	13483M001	5058509.16647	-86466.67404	3870991.14613
CRVC	13485M001	5022497.60988	-163861.16335	3915914.88269
CSOS	19368M001	4709301.99186	39917.26910	4288334.48926
CUEN	19410M001	4884861.03934	-182505.80956	4084819.76683
DARE	13208S001	3811965.09569	-175799.48176	5093615.91954
DENI	13498M001	4974895.44752	9001.45224	3978090.20196
DOUR	13113M001	4086777.86787	328452.33804	4869782.93927
EBRE	13410M001	4833519.91990	41537.52088	4147461.79743
EBRO	15025M001	4840621.45100	71331.47367	4138741.24594
EIVI	19487M001	4965340.66840	121946.79463	3988188.09232
EJEA	19371M001	4736993.56999	-93429.92964	4256244.44481
EJID	15008M001	5110462.21537	-250261.70163	3795532.45582
ELCI	19382M001	4704010.11198	-215108.53350	4288289.83721
ELGE	19353S001	4657557.32564	-202241.34472	4338991.96456
EMAZ	17001M001	4645924.14430	-276949.74425	4347759.64812
ESCO	13435M001	4696264.71382	79978.89752	4304245.24459
ESPU	15019M001	5041149.53038	-140683.14994	3894363.96297
ESTE	19426M001	4695723.67405	-165982.48377	4299461.21952
FORM	19488M001	4982379.63191	124272.23876	3966900.34879
FRAG	19380M001	4783341.04398	27063.27768	4205079.94068
FRNE	14607M001	4645428.69714	1098212.31467	4216362.05407
FRRL	19493M001	4587906.44126	-672424.24109	4364929.87477
FUDE	17009M001	4645300.06923	-390540.70069	4341267.03755
GAIA	13902M001	4759095.28632	-718818.21868	4171491.62839
GARR	13489M001	4796983.32571	160309.42800	4187340.50124
GERN	19389M001	4642811.25032	-217222.79968	4353278.95404
GIRO	19381M001	4738101.32980	236302.54725	4249111.30038

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GMSR	15026M001	4786406.23290	-361916.66670	4187223.39287
GRAI	13459M002	5077917.64999	-319154.99474	3834701.46542
GRAS	10002M006	4581690.62058	556115.23534	4389361.03873
GRAU	19367M001	4733034.59312	28147.65062	4261728.61449
GRSL	19477M001	4621833.72160	-557428.48487	4346272.05203
GUDI	19439M001	4706776.13125	-588343.21852	4251196.53033
GUIJ	19315M001	4830459.35681	-480249.46545	4124995.69719
HERR	19393M001	4931778.43998	-435813.70082	4008253.89132
HESI	13212M007	4033469.82679	23673.24042	4924301.52014
HERT	13212M010	4033460.65150	23538.15557	4924318.46709
HOND	15012M002	4640529.24683	-145675.85989	4358781.83346
HUEL	17004M001	5055038.61121	-605791.72814	3829117.10522
HUEL	13451M001	5049612.81522	-612884.97180	3835144.38751
HULV	13451M002	5044357.87243	-611643.64989	3842260.57657
HUOV	13479M001	5070413.44082	-171934.28619	3853105.06201
IBIZ	13454S001	4967979.24024	125663.51560	3984693.04884
ICOL	17014M001	4899669.38304	58553.48252	4069403.67477
IEJA	19375M001	4855888.79362	-34413.37450	4123415.36726
IENG	12724S001	4476537.14007	600431.82607	4488761.57297
IGEL	19352S001	4645951.35786	-165574.37773	4352550.50056
IGNE	13411M001	4851137.28248	-314518.01176	4116282.53428
ISPS	19484M001	4640596.41103	-206963.65288	4356391.99665
JACA	19356M001	4704765.23208	-59660.39398	4292727.00880
JERE	19397M001	4975837.36714	-591520.67654	3933688.19925
JUMA	13486M002	4997065.67249	-115636.75639	3949589.49212
JUMI	13486M001	4999148.81476	-115816.84661	3946873.12514
KAST	19499M001	4646949.00512	-240747.14010	4348015.07039
LAGO	13903M001	5035246.35775	-767656.69632	3826194.61138
LANT	19384M001	4687495.92993	-244090.75104	4304689.42303
LARE	19440M001	4632831.88869	-279026.01970	4360314.50604
LAZK	19354S001	4666098.27056	-178186.06562	4330463.74786
LEBR	13466M001	5076495.96901	-540901.04910	3810561.29484
LEIT	19428M001	4663520.86570	-155858.59371	4334519.96425
LEMZ	15010M001	4634635.39675	-234970.91428	4361118.44439
LENA	19474M001	4636819.40485	-473021.41048	4339900.27983
LEON	13475M001	4680870.98558	-463167.73670	4294607.04625
LERM	19316M001	4735507.23956	-310944.63198	4248424.11986
LLEI	13488M001	4774382.38909	49690.74971	4215085.30025
LLER	19398M001	4989172.60487	-525325.65889	3926553.60179
LLIV	13436M001	4709586.03224	162245.01914	4285914.51553
LNGS	15005M001	4594268.04127	-689085.85783	4355620.82357
LORC	13484M001	5054086.15260	-148833.33239	3875323.65002
LOSA	19421M001	4701480.57237	-180216.14662	4292617.80486
LRCA	13484M002	5053795.33030	-149954.70254	3875687.71719
LROC	10023M001	4424632.31775	-94174.83967	4577544.31272
LUAR	19478M001	4600350.01929	-526429.41017	4371859.55565
LUGO	19358M001	4632372.06891	-613538.58384	4327264.94792
MAD1	15003M001	4854006.47216	-312713.99329	4112992.51511
MAD2	13407S012	4849202.17181	-360328.55746	4114913.45599
MADR	13407S012	4849202.17336	-360328.55882	4114913.45653
MAL1	13444M002	4918778.47012	226583.29406	4040491.41750
MALA	13443M001	5103282.05701	-392096.09295	3793147.39200
MALL	13444M001	4919369.22795	225500.28311	4039850.10736
MAN2	10091M002	4274275.65962	11584.70677	4718386.24168
MARE	13490M002	4777633.42218	203109.66773	4206595.64800
MAZA	19436M001	5058844.05063	-115727.64557	3869851.29608
MCIA	13482M002	5032231.43161	-98601.84355	3904658.79904
MDNR	19390M002	4737408.18220	-418524.94457	4236958.06829
MDPM	19317M001	4668236.93169	-284178.58386	4323181.28115
MEDA	19399M001	4938921.97913	-549498.70493	3985272.37532
MEDI	12711M003	4461400.36362	919593.97733	4449505.00706
MELI	19379M001	5205627.99754	-268410.54998	3663428.69497
MENC	19490M001	4881780.04447	326921.01676	4078081.16451
MEQU	19365M001	4792937.27448	25394.76242	4194157.16680
MIBR	19357M001	4690310.66629	-240753.12489	4301821.22301

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MLGA	13460M001	5103686.43149	-395879.67032	3792209.53563
MLLL	19379M002	5205101.48934	-266278.12807	3664266.25966
MOFR	19415M001	5069014.99433	-484732.26424	3828251.83469
MOLI	19408M001	4830386.49479	-158491.98858	4149833.41550
MORE	19303M001	4849098.29916	-8594.70265	4130986.27176
MOTA	19406M001	4922398.63891	-246774.08016	4036074.95233
MOTR	13478M001	5106803.07349	-314180.87034	3795723.50985
MRAT	19437M001	5013378.56732	-174967.47566	3927818.37505
MUL1	19438M001	5028271.77952	-127176.95487	3909243.94630
MUNI	19364M001	4818549.27664	-67906.67122	4165523.32223
MURC	13482M001	5032093.43153	-98789.31705	3904835.97628
MYRG	19318M001	4715120.58340	-434378.97022	4260053.71157
NAVA	19394M001	4877541.06949	-473529.98405	4069261.09949
NOT1	12717M004	4934545.85814	1321265.37734	3806456.43279
NVDA	15027M001	4806919.59375	-400117.84314	4160448.40972
OLM1	19319M002	4784317.74250	-391989.67992	4186852.11906
OLME	19319M001	4784317.42647	-391989.31129	4186851.03991
OLOT	15013M001	4732259.20583	207442.58876	4257794.60270
ONOR	17011M001	4815415.87393	-576023.62494	4129951.18390
ORON	19427M001	4659695.70833	-130864.60987	4338948.96258
ORTG	15017M001	4572083.19505	-632103.50493	4387283.64885
ORUS	15002M001	4865082.33900	-273800.05579	4102950.87282
OSCA	17008M001	4736900.60845	-34213.60473	4257470.84335
OSUN	13465M001	5064632.26454	-451575.36693	3838172.24550
OVIE	15015M001	4620652.02492	-473850.51798	4356840.49143
PALC	19349M001	5046810.40184	-258521.22342	3879917.48092
PALE	19320M001	4732004.27510	-377196.61909	4246779.06304
PAML	19416M001	4685099.19120	-133832.03008	4312070.65571
PANE	19475M001	4632463.54446	-371362.02684	4353900.14164
PAS2	19351S001	4644908.99083	-156644.94391	4353623.15490
PASA	19351S001	4644908.99085	-156644.94398	4353623.15496
PDB1	19321M002	4808577.21342	-437825.38890	4154827.24623
PDBC	19321M001	4808744.06883	-437635.97334	4154653.09683
PEN1	19322M002	4765458.97822	-343229.93066	4212368.25233
PENA	19322M001	4765448.03792	-343233.13609	4212377.25220
PENI	19391M001	4864337.63480	30473.17101	4111614.71769
PLAN	13442M001	4787328.56750	166086.32832	4197602.97223
PNAV	15007M001	4826152.39592	-336621.85781	4145876.32027
PONF	19323M001	4675271.30849	-539439.81134	4291332.83846
POZO	13468M001	4988766.63894	-423243.62730	3939355.12541
PRAT	12760M001	4518263.81123	886377.07991	4399019.62416
PSBR	19324M001	4712137.23582	-548290.59380	4250492.45345
PUIG	19496M001	4714322.81569	153960.53440	4280589.74889
QINT	19325M001	4742322.78845	-251335.19445	4245186.42812
QNT0	19363M001	4789430.95308	-41540.36668	4198124.16252
RABT	35001M002	5255617.51151	-631745.32251	3546322.85945
RENS	19441M001	4660722.39705	-336677.74707	4327854.41391
REUS	13491M001	4807313.88035	98057.71297	4176768.10661
RIA1	19327M002	4792320.33115	-291457.21194	4186570.28373
RIAN	19326M001	4656841.72783	-407916.09333	4326357.22617
RIAZ	19327M001	4792551.09784	-291510.02305	4186314.37486
RIBE	19473M001	4618538.91907	-409516.11593	4365145.89134
RIO1	13448M002	4708446.75977	-199490.15667	4284089.81373
RIOS	19390M001	4737412.16674	-418524.54301	4236950.45446
RNAN	19442M001	4636110.06618	-357683.27242	4351900.75741
ROAG	13402M007	5105577.26463	-555208.78373	3769714.18426
ROAP	13402M006	5105509.54802	-555200.29273	3769790.47695
RODI	17012M001	4684083.08094	-624178.54302	4270909.62440
RON1	17002M001	5098496.68551	-459285.74000	3793221.79078
ROND	13464M001	5096416.62353	-458741.26659	3796044.05173
RONL	19420M001	4686229.97646	-78093.31685	4312557.88585
ROVE	12774M001	4364680.26305	851737.21959	4557205.17643
SABI	19362M001	4709044.40114	-29760.37353	4288538.54613
SALA	13469M001	4803054.42286	-462130.94312	4158379.15766
SALD	19328M001	4692758.25132	-389352.90064	4288996.45866

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SALI	15021M001	5043277.52922	-68531.24950	3891029.29418
SALS	19476M001	4613647.08768	-505772.88869	4360584.60759
SANR	19423M001	4719234.43628	-159785.39894	4273809.23365
SANS	19422M001	4702834.85041	-105650.84987	4293534.88104
SARR	19360M001	4882976.18157	-69206.00813	4090589.22765
SART	18497M001	4865367.64933	791976.99058	4034869.37743
SBAR	13492M001	4745754.62992	180181.81301	4244589.45107
SCOA	10088M002	4639940.43283	-136224.81781	4359552.49886
SEV1	17003M001	5044666.51700	-530411.06050	3853755.90228
SEVI	13457M001	5049343.61036	-528172.90447	3848027.40676
SFER	13402M004	5105518.84600	-555145.50079	3769803.67907
SGVA	19329M001	4812625.23895	-346689.58091	4158877.12108
SINE	19491M001	4911221.42431	258705.93974	4047910.37037
SIRO	19495M001	4617120.38408	-468329.56886	4360987.76988
SJO1	19489M002	4934251.13443	258556.45015	4019801.92314
SJOR	19489M001	4934529.62026	258450.32455	4019465.46787
SMDV	19497M001	4853359.58335	-371424.31106	4108815.75344
SNTG	19409M001	4628811.36865	-696052.39756	4318398.05704
SONA	13495M001	4746473.30641	125685.97195	4245468.79345
SONS	13446M001	4904660.12579	-339867.35516	4050824.00531
SOPU	19386M001	4643997.83821	-255913.78150	4350063.21710
SORG	13493M001	4719087.27946	93310.19560	4277294.83539
SORI	13481M001	4761046.61633	-205416.61475	4226698.44525
SPAB	17015M001	4911538.09042	-373753.46322	4039875.44576
SRNA	19361M001	4762586.19527	-13524.83146	4228739.82839
SROM	19346M001	4726070.79962	-202806.95206	4265656.40610
STVD	19330M001	4715995.40462	-496864.25057	4252246.63174
TAFA	19417M001	4706422.11591	-137769.23032	4288745.07897
TALR	19414M001	4940565.40513	-452703.39280	3995657.63621
TALV	17016M001	4878605.90787	-421919.36769	4073797.63980
TAR0	19350M002	5140804.56468	-504303.77388	3728989.28244
TAR2	19350M003	5139148.75912	-504523.99489	3731311.82642
TARI	19350M001	5140808.01252	-504297.38849	3728985.26657
TARR	17005M001	4771756.50891	97125.49162	4217574.56834
TERU	13487M001	4867391.25215	-95523.21740	4108341.76308
TLMF	10003M010	4627009.58195	111069.87498	4374123.34228
TLSE	10003M009	4627851.57999	119640.42057	4372993.79498
TORO	19302M002	5033804.63076	-59783.22719	3903333.07553
TOR0	19332M001	4761773.54084	-449366.41403	4206574.17503
TORR	19302M001	5033804.95771	-59822.38675	3903320.03595
TRAU	19492M001	4899859.63832	247497.64731	4062910.75595
TRLV	19443M001	4633347.53772	-328510.97997	4356365.55171
TRRG	15006M001	4813794.42119	101946.07009	4169074.83653
TRUJ	19395M001	4904335.19997	-502972.07529	4033927.88019
TUD1	19418M002	4741778.80147	-132732.81170	4249844.43238
TUDE	19418M001	4741783.57584	-132733.82148	4249841.00981
UCA1	13455M002	5101024.69709	-555216.52021	3775803.91520
UCAD	13455M001	5101039.06559	-555095.21959	3775798.24543
UJAE	13458M001	5036324.73961	-332898.44689	3887177.58247
UPNA	19429M001	4685466.73706	-133788.80982	4311640.61726
UTI1	19301M002	4923206.84257	-104439.55165	4041273.58883
UTIE	19301M001	4922872.82448	-103857.04616	4041694.22000
VALA	13463M002	4753521.27523	-391504.95718	4221501.01797
VALC	19396M001	4895695.27784	-622661.59224	4027720.10171
VALE	13439M001	4929533.59720	-29050.00004	4033710.41758
VBLO	19333M001	4648840.47266	-515300.89096	4323298.75142
VCIA	13497M001	4932702.49941	-29607.09836	4029833.52727
VCRD	19444M001	4642968.33259	-312434.10016	4347614.99349
VDGO	19334M001	4697595.17185	-329355.49573	4288633.52417
VEG1	19479M002	4601455.66801	-568980.99702	4365326.01443
VEGA	19479M001	4601467.33535	-568971.43977	4365316.46298
VIAR	13472M001	5014599.25880	-263898.33713	3920551.95762
VICA	19411M001	5017777.99931	-270247.43502	3916251.59330
VIGO	13450M001	4677480.70645	-725204.41026	4260827.66257
VILH	17019M001	4975338.19782	-246937.15277	3971451.84208

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VILL	13406M001	4849833.50199	-335048.62145	4116015.19785
VITO	19385M001	4679397.63203	-218436.37887	4314898.44813
VJOI	17013M001	4996056.07316	-17296.61716	3951709.36331
VLFF	15024M001	4735618.07477	-463740.43929	4234171.93053
VNAN	17007M001	4701243.09113	-463394.69054	4272264.28717
VRO1	19366M002	4830179.30386	13150.46507	4152174.41456
VRO2	19366M003	4830179.31594	13150.84656	4152174.07896
VROB	19366M001	4830264.57136	13140.15333	4152095.21246
VTGD	19335M001	4790227.08287	-540127.63261	4163705.18693
VTRO	19347M001	4729355.77973	-235163.63865	4261095.28063
XIX1	19480M002	4606616.67423	-459668.93072	4372678.45181
XIXO	19480M001	4605738.45306	-459867.88221	4373717.40752
YEB1	13420M002	4848799.98892	-261768.98076	4123001.56455
YEB2	13420M003	4848804.75923	-261553.20130	4123001.41927
YEBE	13420M001	4848724.50464	-261631.80055	4123094.41083
ZARA	13462M001	4773803.09873	-73505.85858	4215454.17345
ZFRA	19355M001	4972356.93662	-558621.05491	3942964.01520
ZGZA	13462M002	4772401.18884	-72989.58061	4217010.47481
ZIM2	14001M008	4331299.58596	567537.70156	4633133.95921
ZIMM	14001M004	4331296.77629	567556.25675	4633134.17858
ZMRA	19305M001	4760050.02489	-478407.11426	4205230.57720
ZOUF	12763M001	4282709.71566	986659.82021	4609470.04489
ZUER	19359M001	4756718.46838	-65624.14397	4234787.49407

## **Anexo V: Velocidades ITRS (ITRF2020)**

COMB2026\_ITRF20.VEL

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 LOCAL GEODETIC DATUM: IGS20

STATION NAME	VX (M/Y)	VY (M/Y)	VZ (M/Y)
ABAN 19430M001	-0.00982	0.02003	0.01444
ACAL 19431M001	-0.01084	0.02047	0.01372
ACIN 19378M001	-0.01070	0.01955	0.01209
ACNS 19306M001	-0.00946	0.01956	0.01261
ACOR 13434M001	-0.01580	0.03548	0.00754
AGRD 19307M001	-0.01065	0.02014	0.01166
AIO2 13499M002	-0.01042	0.01924	0.01257
AIRM 19432M001	-0.01093	0.01965	0.01273
AJAL 19308M001	-0.01005	0.01978	0.01145
ALAC 13433M001	-0.01023	0.02026	0.01309
ALBA 13452M001	-0.01435	0.01953	0.00909
ALBO 19481M001	-0.01055	0.01861	0.01410
ALC1 19370M002	-0.01037	0.02021	0.01235
ALCA 19370M001	-0.01081	0.01964	0.01217
ALCO 13496M001	-0.01033	0.02011	0.01323
ALDA 19383M001	-0.01061	0.01946	0.01205
ALGC 13456M001	-0.00858	0.01758	0.01459
ALHA 19433M001	-0.01119	0.02132	0.01025
ALII 13433M002	-0.01133	0.02118	0.01248
ALIA 19376M001	-0.01088	0.01993	0.01202
ALM1 13437M003	-0.01335	0.01887	0.01345
ALME 13437M001	-0.00959	0.01939	0.01311
ALMO 19405M001	-0.00944	0.01922	0.01345
ALMR 13437M002	-0.00951	0.01985	0.01366
ALMZ 17017M001	-0.01034	0.02028	0.01248
ALOR 19485M001	-0.01242	0.02001	0.01236
ALSA 19419M001	-0.01160	0.01948	0.01252
AMUR 19388M001	-0.01047	0.01985	0.01215
AND2 13477M002	-0.00900	0.01972	0.01348
ANDU 13477M001	-0.00916	0.02000	0.01377
APBI 15011M001	-0.01193	0.01924	0.01119
ARAC 13467M001	-0.00847	0.01936	0.01362
ARAJ 15014M001	-0.01062	0.01828	0.01105
ARAS 19498M001	-0.01033	0.01978	0.01236
ARDU 19348M001	-0.01066	0.01852	0.01208
ARES 15016M001	-0.01200	0.01973	0.01123
ARIB 19425M001	-0.01112	0.01935	0.01192
ARSP 19309M001	-0.00859	0.01958	0.01299
ASTO 19310M001	-0.00965	0.01958	0.01238
AVEL 13440M001	-0.01118	0.01960	0.01192
AVI2 19413M001	-0.00925	0.01961	0.01241
AVIL 19311M001	-0.00911	0.01950	0.01305
AVL1 19470M002	-0.00965	0.01941	0.01019
AVLS 19470M001	-0.01028	0.01906	0.01247
AXPV 10057M001	-0.01310	0.01930	0.01201
AYOR 13499M001	-0.00969	0.01961	0.01269
BADJ 19401M001	-0.00918	0.01940	0.01330
BCL1 19482M001	-0.01253	0.02009	0.01085
BCLN 13412M001	-0.01168	0.01980	0.01213
BEJR 17010M001	-0.01188	0.01959	0.01207
BELL 13431M001	-0.01148	0.01960	0.01210
BERG 19303M002	-0.01304	0.02328	0.00775
BEUD 19404M001	-0.01203	0.01953	0.01216
BIDA 00000M000	-0.01164	0.01965	0.01162
BINE 19369M001	-0.01078	0.01976	0.01212
BLGU 19494M001	-0.01096	0.01936	0.01197
BORR 13480M001	-0.01078	0.02083	0.01232
BRJA 19374M001	-0.01042	0.01957	0.01212
BRST 10004M004	-0.01178	0.01803	0.01093

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BRZR	19387M001	-0.01065	0.01967	0.01228
BUIT	19483M001	-0.00980	0.01981	0.01271
BUOS	19312M001	-0.01026	0.01940	0.01223
BURB	15023M001	-0.00868	0.01822	0.01302
BURG	19314M001	-0.01051	0.01940	0.01189
CAAL	13474M001	-0.00895	0.01944	0.01318
CABO	19312M111	-0.01060	0.02012	0.01433
CABP	15020M001	-0.01135	0.02069	0.01336
CABR	13473M001	-0.00871	0.01966	0.01358
CACE	13447M001	-0.00877	0.01958	0.01313
CALA	19377M001	-0.01060	0.02001	0.01188
CALH	19343M001	-0.01033	0.01961	0.01264
CANT	13438M001	-0.01051	0.01934	0.01201
CARC	19424M001	-0.01060	0.01956	0.01207
CARG	19412M001	-0.01121	0.01982	0.01404
CARV	19434M001	-0.00907	0.01977	0.01318
CASO	19344M001	-0.00977	0.01908	0.01253
CASC	13909S001	-0.00796	0.01975	0.01297
CASE	13494M001	-0.01244	0.01973	0.01193
CASO	19471M001	-0.01012	0.01938	0.01222
CATU	19402M001	-0.00840	0.01956	0.01353
CATY	19372M001	-0.01093	0.01977	0.01138
CAZA	13471M001	-0.00855	0.01966	0.01378
CBON	19486M001	-0.01213	0.02015	0.01256
CBRN	15001M001	-0.01053	0.01941	0.01181
CCEX	13447M002	-0.00814	0.01921	0.01279
CDCR	15022M001	-0.00979	0.02020	0.01241
CDRD	19313M001	-0.00926	0.01961	0.01240
CEBR	13408M001	-0.00946	0.01951	0.01271
CERV	19345M001	-0.01040	0.01955	0.01205
CEU1	13449M002	-0.00857	0.01690	0.01408
CIEZ	19435M001	-0.01058	0.02002	0.01354
CLTR	15009M001	-0.00866	0.01945	0.01315
CNAR	19472M001	-0.00958	0.01913	0.01213
COBA	13453M001	-0.00835	0.01944	0.01304
CORI	19392M001	-0.00906	0.01969	0.01312
CRDB	13461M001	-0.00886	0.01976	0.01322
CREU	13432M001	-0.01223	0.01945	0.01194
CRNA	19373M001	-0.01061	0.01976	0.01195
CRPO	17006M001	-0.00885	0.02008	0.01238
CRTG	13483M001	-0.01145	0.02011	0.01419
CRVC	13485M001	-0.00927	0.02016	0.01330
CSOS	19368M001	-0.01123	0.01887	0.01267
CUEN	19410M001	-0.00979	0.01945	0.01242
DARE	13208S001	-0.01234	0.01665	0.01032
DENI	13498M001	-0.01018	0.02083	0.01367
DOUR	13113M001	-0.01029	0.01351	0.04987
EBRE	13410M001	-0.01108	0.01990	0.01228
EBRO	15025M001	-0.01795	0.01379	0.01526
EIVI	19487M001	-0.01098	0.02031	0.01338
EJEA	19371M001	-0.01067	0.01955	0.01214
EJID	15008M001	-0.00912	0.01897	0.01277
ELCI	19382M001	-0.01045	0.01949	0.01184
ELGE	19353S001	-0.01074	0.01942	0.01215
EMAZ	17001M001	-0.01059	0.01931	0.01174
ESCO	13435M001	-0.01140	0.01935	0.01227
ESPU	15019M001	-0.00989	0.01983	0.01210
ESTE	19426M001	-0.01066	0.01947	0.01196
FORM	19488M001	-0.01150	0.02018	0.01269
FRAG	19380M001	-0.01145	0.01972	0.01215
FRNE	14607M001	-0.01966	0.01337	0.01145
FRRL	19493M001	-0.01004	0.02185	0.01232
FUDE	17009M001	-0.00979	0.01948	0.01236
GAIA	13902M001	-0.00884	0.01944	0.01250
GARR	13489M001	-0.01184	0.01970	0.01207

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GERN	19389M001	-0.01082	0.01938	0.01185
GIRO	19381M001	-0.01184	0.01966	0.01211
GMSR	15026M001	-0.01558	0.01815	0.01146
GRA1	13459M002	-0.00834	0.01948	0.01317
GRAS	10002M006	-0.01324	0.01905	0.01182
GRAU	19367M001	-0.01110	0.01953	0.01213
GRSL	19477M001	-0.00969	0.01967	0.01195
GUDI	19439M001	-0.00927	0.01935	0.01272
GUIJ	19315M001	-0.00915	0.01964	0.01299
HERR	19393M001	-0.00871	0.01961	0.01330
HERS	13212M007	-0.01319	0.01708	0.01051
HERT	13212M010	-0.01289	0.01734	0.01063
HOND	15012M002	-0.01123	0.01938	0.01191
HUE1	17004M001	-0.00871	0.01853	0.01390
HUEL	13451M001	-0.00846	0.01907	0.01362
HULV	13451M002	-0.00826	0.01945	0.01390
HUOV	13479M001	-0.00936	0.02051	0.01380
IBTZ	13454S001	-0.01194	0.02008	0.01197
ICOL	17014M001	-0.01085	0.01973	0.01264
IEJA	19375M001	-0.01065	0.01996	0.01249
IENG	12724S001	-0.01375	0.01888	0.01145
IGEL	19352S001	-0.01101	0.01944	0.01213
IGNE	13411M001	-0.00905	0.01984	0.01289
ISPS	19484M001	-0.01157	0.01934	0.01230
JACA	19356M001	-0.01071	0.01920	0.01207
JERE	19397M001	-0.00843	0.01946	0.01354
JUMA	13486M002	-0.00976	0.02017	0.01308
JUMI	13486M001	-0.01013	0.01997	0.01247
KAST	19499M001	-0.01165	0.02097	0.01240
LAGO	13903M001	-0.00821	0.01918	0.01376
LANT	19384M001	-0.01042	0.01949	0.01228
LARE	19440M001	-0.01066	0.01896	0.01166
LAZK	19354S001	-0.01118	0.01953	0.01167
LEBR	13466M001	0.00930	0.00827	0.02552
LEIT	19428M001	-0.01139	0.01930	0.01180
LEMZ	15010M001	-0.01104	0.01956	0.01185
LENA	19474M001	-0.00988	0.01915	0.01225
LEON	13475M001	-0.00988	0.01923	0.01193
LERM	19316M001	-0.01019	0.01946	0.01228
LLEI	13488M001	-0.01105	0.01960	0.01213
LLEP	19398M001	-0.00836	0.01945	0.01344
LLIV	13436M001	-0.01166	0.01949	0.01209
LNGS	15005M001	-0.00978	0.01802	0.00978
LORC	13484M001	-0.05868	0.02658	-0.02879
LOSA	19421M001	-0.01078	0.01931	0.01212
LRCA	13484M002	-0.02528	0.02692	-0.00496
LROC	10023M001	-0.01177	0.01868	0.01122
LUAR	19478M001	-0.00954	0.01896	0.01271
LUGO	19358M001	-0.00896	0.01928	0.01271
MAD1	15003M001	-0.00981	0.01948	0.01278
MAD2	13407S012	-0.00901	0.01961	0.01291
MADR	13407S012	-0.00884	0.01962	0.01289
MAL1	13444M002	-0.01153	0.02034	0.00999
MALA	13443M001	-0.00811	0.01847	0.01184
MALL	13444M001	-0.01180	0.02009	0.01243
MAN2	10091M002	-0.01266	0.01819	0.01090
MARE	13490M002	-0.01174	0.01965	0.01237
MAZA	19436M001	-0.01013	0.02006	0.01476
MCIA	13482M002	-0.01020	0.02030	0.01357
MDNR	19390M002	-0.01019	0.01979	0.01265
MDPM	19317M001	-0.01036	0.01957	0.01202
MEDA	19399M001	-0.00922	0.01955	0.01365
MEDI	12711M003	-0.01812	0.01906	0.01181
MELI	19379M001	-0.01049	0.01825	0.01495
MENC	19490M001	-0.01240	0.01994	0.01235

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MEQU	19365M001	-0.01082	0.01943	0.01243
MIBR	19357M001	-0.01064	0.01961	0.01198
MLGA	13460M001	-0.00799	0.01790	0.01306
MLLL	19379M002	-0.01042	0.01861	0.01533
MOFR	19415M001	-0.00807	0.01883	0.01399
MOLI	19408M001	-0.01022	0.02080	0.01038
MORE	19303M001	-0.01300	0.02190	0.00954
MOTA	19406M001	-0.00969	0.01943	0.01232
MOTR	13478M001	-0.00835	0.01818	0.01212
MRAT	19437M001	-0.00935	0.01947	0.01309
MUL1	19438M001	-0.00969	0.01990	0.01305
MUNI	19364M001	-0.01072	0.01968	0.01216
MURC	13482M001	-0.00999	0.02033	0.01384
MYRG	19318M001	-0.00968	0.01957	0.01274
NAVA	19394M001	-0.00954	0.01949	0.01260
NOT1	12717M004	-0.01768	0.01792	0.01503
NVDA	15027M001	-0.01603	0.01473	0.01339
OLM1	19319M002	-0.00952	0.01962	0.01275
OLME	19319M001	-0.00992	0.01943	0.01254
OLOT	15013M001	-0.01166	0.02003	0.01263
ONOR	17011M001	-0.00876	0.01971	0.01299
ORON	19427M001	-0.01091	0.01942	0.01219
ORTG	15017M001	-0.00975	0.01912	0.01193
ORUS	15002M001	-0.00965	0.02004	0.01260
OSCA	17008M001	-0.01062	0.01941	0.01224
OSUN	13465M001	-0.00793	0.01883	0.01360
OVIE	15015M001	-0.00978	0.01937	0.01168
PALC	19349M001	-0.00825	0.01858	0.01346
PALE	19320M001	-0.01048	0.01985	0.01237
PAML	19416M001	-0.01074	0.01919	0.01259
PANE	19475M001	-0.01028	0.01929	0.01231
PAS2	19351S001	-0.01082	0.01948	0.01211
PASA	19351S001	-0.01086	0.01944	0.01209
PDB1	19321M002	-0.00992	0.01801	0.01403
PDBC	19321M001	-0.00903	0.01974	0.01272
PEN1	19322M002	-0.01064	0.01992	0.01155
PENA	19322M001	-0.01015	0.01974	0.01214
PENI	19391M001	-0.01068	0.02011	0.01228
PLAN	13442M001	-0.01172	0.01997	0.01239
PNAV	15007M001	-0.00950	0.01939	0.01262
PONF	19323M001	-0.00870	0.01933	0.01163
POZO	13468M001	-0.00844	0.01940	0.01335
PRAT	12760M001	-0.01518	0.01847	0.01310
PSBR	19324M001	-0.00936	0.01982	0.01258
PUIG	19496M001	-0.01381	0.02032	0.01176
QINT	19325M001	-0.00988	0.01975	0.01207
QNT0	19363M001	-0.01182	0.02150	0.01272
RABT	35001M002	-0.00773	0.01770	0.01526
RENS	19441M001	-0.01050	0.01963	0.01206
REUS	13491M001	-0.01126	0.01962	0.01224
RIA1	19327M002	-0.01002	0.01968	0.01247
RIAN	19326M001	-0.00994	0.01970	0.01263
RIAZ	19327M001	-0.00983	0.01973	0.01241
RIBE	19473M001	-0.00997	0.02002	0.01252
RIO1	13448M002	-0.01023	0.01935	0.01214
RIOS	19390M001	-0.01050	0.01960	0.01206
RNAN	19442M001	-0.01084	0.01922	0.01197
ROAG	13402M007	-0.00795	0.01758	0.01393
ROAP	13402M006	-0.00864	0.01750	0.01374
RODI	17012M001	-0.00935	0.01947	0.01266
RON1	17002M001	-0.00802	0.01795	0.01406
ROND	13464M001	-0.00850	0.01804	0.01394
RONL	19420M001	-0.01112	0.01941	0.01187
ROVE	12774M001	-0.01549	0.01826	0.01193
SABI	19362M001	-0.01074	0.01950	0.01211

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SALA 13469M001	-0.00950	0.01971	0.01266
SALD 19328M001	-0.01017	0.01986	0.01161
SALI 15021M001	-0.01104	0.02003	0.01319
SALS 19476M001	-0.01008	0.01967	0.01258
SANR 19423M001	-0.01022	0.01959	0.01225
SANS 19422M001	-0.01125	0.01936	0.01204
SARR 19360M001	-0.01083	0.01997	0.01202
SART 18497M001	-0.31530	-0.03247	-0.25692
SBAR 13492M001	-0.01163	0.01927	0.01232
SCOA 10088M002	-0.01197	0.01925	0.01136
SEV1 17003M001	-0.00865	0.02026	0.01243
SEVI 13457M001	-0.00876	0.01917	0.01394
SFER 13402M004	-0.00760	0.01840	0.01398
SGVA 19329M001	-0.00935	0.01952	0.01265
SINE 19491M001	-0.01219	0.02030	0.01239
SIRO 19495M001	-0.00962	0.01925	0.01270
SJO1 19489M002	-0.01169	0.02017	0.01259
SJOR 19489M001	-0.01207	0.02024	0.01238
SMDV 19497M001	-0.00972	0.01974	0.01249
SNTG 19409M001	-0.00915	0.01952	0.01235
SONA 13495M001	-0.01145	0.01960	0.01237
SONS 13446M001	-0.00941	0.01955	0.01253
SOPU 19386M001	-0.01070	0.01946	0.01195
SORG 13493M001	-0.01150	0.01934	0.01224
SORI 13481M001	-0.01005	0.01976	0.01214
SPAB 17015M001	-0.00931	0.01967	0.01279
SRNA 19361M001	-0.01080	0.01979	0.01204
SROM 19346M001	-0.01071	0.01951	0.01191
STVD 19330M001	-0.01006	0.01979	0.01109
TAFA 19417M001	-0.01069	0.01931	0.01237
TALR 19414M001	-0.00881	0.01961	0.01335
TALV 17016M001	-0.00994	0.01957	0.01286
TAR0 19350M002	-0.01170	0.01593	0.01552
TAR2 19350M003	-0.01101	0.02765	0.01457
TARI 19350M001	-0.00912	0.01779	0.01385
TARR 17005M001	-0.01120	0.01938	0.01179
TERU 13487M001	-0.01060	0.01975	0.01229
TLMF 10003M010	-0.01191	0.01925	0.01211
TLSE 10003M009	-0.01201	0.01941	0.01195
TOR0 19302M002	-0.01041	0.02019	0.01304
TOR0 19332M001	-0.00968	0.01958	0.01233
TORR 19302M001	-0.01030	0.02010	0.01376
TRAU 19492M001	-0.01189	0.02008	0.01255
TRLV 19443M001	-0.01099	0.01960	0.01188
TRRG 15006M001	-0.01185	0.01871	0.01042
TRUJ 19395M001	-0.00930	0.01898	0.01342
TUD1 19418M002	-0.01058	0.01949	0.01204
TUDE 19418M001	-0.01045	0.01958	0.01210
UCA1 13455M002	-0.00812	0.01835	0.01407
UCAD 13455M001	-0.00841	0.01835	0.01392
UJAE 13458M001	-0.00894	0.01989	0.01394
UPNA 19429M001	-0.01063	0.01923	0.01233
UTI1 19301M002	-0.00918	0.01986	0.01193
UTIE 19301M001	-0.00998	0.01988	0.01270
VALA 13463M002	-0.00967	0.01954	0.01264
VALC 19396M001	-0.00851	0.01935	0.01281
VALE 13439M001	-0.01102	0.01951	0.01220
VBLO 19333M001	-0.00950	0.01958	0.01222
VCIA 13497M001	-0.01018	0.02004	0.01304
VCRD 19444M001	-0.01106	0.01947	0.01190
VDGO 19334M001	-0.01098	0.01939	0.01190
VEG1 19479M002	-0.00969	0.01931	0.01226
VEGA 19479M001	-0.00934	0.01902	0.01236
VIAR 13472M001	-0.00856	0.01931	0.01318
VICA 19411M001	-0.00959	0.01945	0.01266

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VIGO 13450M001	-0.00880	0.01887	0.01183
VILH 17019M001	-0.01026	0.01887	0.01125
VILL 13406M001	-0.00872	0.01945	0.01309
VITO 19385M001	-0.01086	0.01947	0.01304
VJOI 17013M001	-0.01052	0.02054	0.01231
VLFF 15024M001	-0.02342	0.01116	-0.01183
VNAN 17007M001	-0.01006	0.01962	0.01251
VRO1 19366M002	-0.01000	0.01992	0.01181
VRO2 19366M003	-0.01218	0.01955	0.01098
VROB 19366M001	-0.01077	0.01990	0.01243
VTGD 19335M001	-0.00984	0.02126	0.01312
VTRO 19347M001	-0.01061	0.01987	0.01166
XIX1 19480M002	-0.00992	0.02018	0.01177
XIXO 19480M001	-0.00995	0.01931	0.01257
YEB1 13420M002	-0.00942	0.01956	0.01284
YEB2 13420M003	-0.00847	0.01940	0.01337
YEBE 13420M001	-0.00981	0.01964	0.01242
ZARA 13462M001	-0.01080	0.01942	0.01200
ZFRA 19355M001	-0.00872	0.01956	0.01305
ZGZA 13462M002	-0.01079	0.01956	0.01198
ZIM2 14001M008	-0.01406	0.01843	0.01194
ZIMM 14001M004	-0.01388	0.01824	0.01192
ZMRA 19305M001	-0.00911	0.01887	0.01276
ZOUF 12763M001	-0.01534	0.01809	0.01257
ZUER 19359M001	-0.01054	0.01970	0.01243

## **Anexo VI: Discontinuidades de las estaciones**

Informe de cálculo de las coordenadas ETRF2000 de las redes públicas de estaciones permanentes GNSS en España

STATION NAME	FROM	TO
*****	YYYY MM DD HH MM SS	YYYY MM DD HH MM SS
ACNS 19306M00101		2017 08 09 11 44 44
ACNS 19306M00102	2017 08 09 11 44 45	
ACOR 13434M00105		2019 02 04 11 44 44
ACOR 13434M00106	2019 02 04 11 44 45	2024 05 31 11 44 44
ACOR 13434M00107	2024 05 31 11 44 45	
AGRD 19307M00101		2014 03 18 11 44 44
AGRD 19307M00102	2014 03 18 11 44 45	2020 09 26 11 44 44
AGRD 19307M00103	2020 09 26 11 44 45	
AIO2 13499M00201		2020 07 03 11 44 44
AIO2 13499M00202	2020 07 03 11 44 45	
ALCO 13496M00101		2017 06 06 11 44 44
ALCO 13496M00102	2017 06 06 11 44 45	2023 05 06 11 44 44
ALCO 13496M00103	2023 05 06 11 44 45	
ALDA 19383M00101		2012 03 25 11 44 44
ALDA 19383M00102	2012 03 25 11 44 45	
ALGC 13456M00101		2019 10 02 11 44 44
ALGC 13456M00102	2019 10 02 11 44 45	
ALHA 19433M00101		2019 09 26 11 44 44
ALHA 19433M00102	2019 09 26 11 44 45	2023 07 21 11 44 44
ALHA 19433M00103	2023 07 21 11 44 45	
ALIA 19376M00101		2024 04 18 11 44 44
ALIA 19376M00102	2024 04 18 11 44 45	
ALMO 19405M00101		2021 12 06 11 44 44
ALMO 19405M00102	2021 12 06 11 44 45	
AMUR 19388M00101		2012 03 25 11 44 44
AMUR 19388M00102	2012 03 25 11 44 45	2017 03 04 11 44 44
AMUR 19388M00103	2017 03 04 11 44 45	
ARAC 13467M00101		2017 02 23 11 44 44
ARAC 13467M00102	2017 02 23 11 44 45	
ARDU 19348M00101		2021 04 09 11 44 44
ARDU 19348M00102	2021 04 09 11 44 45	
ARIB 19425M00101		2018 10 30 11 44 44
ARIB 19425M00102	2018 10 30 11 44 45	
ASTO 19310M00101		2013 06 06 11 44 44
ASTO 19310M00102	2013 06 06 11 44 45	2020 09 17 11 44 44
ASTO 19310M00103	2020 09 17 11 44 45	
AVEL 13440M00101		2012 11 28 11 44 44
AVEL 13440M00102	2012 11 28 11 44 45	2014 04 16 11 44 44
AVEL 13440M00103	2014 04 16 11 44 45	2016 04 05 11 44 44
AVEL 13440M00104	2016 04 05 11 44 45	
AVI2 19413M00101		2014 11 28 11 44 44
AVI2 19413M00102	2014 11 28 11 44 45	2018 02 01 11 44 44
AVI2 19413M00103	2018 02 01 11 44 45	2019 12 19 11 44 44
AVI2 19413M00104	2019 12 19 11 44 45	
AXPV 10057M00101		2011 10 20 11 44 44
AXPV 10057M00102	2011 10 20 11 44 45	
BELL 13431M00102		2012 01 26 11 44 44
BELL 13431M00103	2012 01 26 11 44 45	2014 09 22 11 44 44
BELL 13431M00104	2014 09 22 11 44 45	2016 05 12 11 44 44
BELL 13431M00105	2016 05 12 11 44 45	
BERG 19303M00201		2013 03 06 11 44 44
BERG 19303M00202	2013 03 06 11 44 45	2014 11 30 11 44 44
BERG 19303M00203	2014 11 30 11 44 45	2015 03 22 11 44 44
BERG 19303M00204	2015 03 22 11 44 45	2018 10 20 11 44 44
BERG 19303M00205	2018 10 20 11 44 45	2020 01 29 11 44 44
BERG 19303M00206	2020 01 29 11 44 45	2022 03 22 11 44 44
BERG 19303M00207	2022 03 22 11 44 45	2024 10 30 11 44 44
BERG 19303M00208	2024 10 30 11 44 45	2025 03 04 11 44 44
BERG 19303M00209	2025 03 04 11 44 45	
BEUD 19404M00101		2016 04 20 11 44 44
BEUD 19404M00102	2016 04 20 11 44 45	
BORR 13480M00101		2016 06 21 11 44 44
BORR 13480M00102	2016 06 21 11 44 45	2023 04 03 11 44 44

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BORR 13480M00103	2023 04 03 11 44 45	2025 05 08 11 44 44
BORR 13480M00104	2025 05 08 11 44 45	
BRJA 19374M00101		2024 04 17 11 44 44
BRJA 19374M00102	2024 04 17 11 44 45	
BRST 10004M00404		2011 10 26 11 44 44
BRST 10004M00405	2011 10 26 11 44 45	
BUOS 19312M00101		2013 02 06 11 44 44
BUOS 19312M00102	2013 02 06 11 44 45	2018 02 18 11 44 44
BUOS 19312M00103	2018 02 18 11 44 45	
BURG 19314M00101		2020 08 25 11 44 44
BURG 19314M00102	2020 08 25 11 44 45	
CAAL 13474M00101		2016 02 18 11 44 44
CAAL 13474M00102	2016 02 18 11 44 45	2017 09 29 11 44 44
CAAL 13474M00103	2017 09 29 11 44 45	
CABO 19312M11101		2011 11 26 11 44 44
CABO 19312M11102	2011 11 26 11 44 45	
CABR 13473M00101		2019 05 27 11 44 44
CABR 13473M00102	2019 05 27 11 44 45	
CACE 13447M00104		2015 06 23 11 44 44
CACE 13447M00105	2015 06 23 11 44 45	
CALA 19377M00101		2025 04 15 11 44 44
CALA 19377M00102	2025 04 15 11 44 45	
CANT 13438M00103		2011 10 20 11 44 44
CANT 13438M00104	2011 10 20 11 44 45	
CARC 19424M00101		2018 11 08 11 44 44
CARC 19424M00102	2018 11 08 11 44 45	
CARV 19434M00101		2015 03 13 11 44 44
CARV 19434M00102	2015 03 13 11 44 45	
CASC 13909S00104		2019 09 18 11 44 44
CASC 13909S00105	2019 09 18 11 44 45	2021 01 26 11 44 44
CASC 13909S00106	2021 01 26 11 44 45	
CASO 19471M00101		2025 12 04 11 44 44
CASO 19471M00102	2025 12 04 11 44 45	
CATU 19402M00101		2019 02 12 11 44 44
CATU 19402M00102	2019 02 12 11 44 45	
CAZA 13471M00101		2016 12 14 11 44 44
CAZA 13471M00102	2016 12 14 11 44 45	
CCEX 13447M00201		2015 12 12 11 44 44
CCEX 13447M00202	2015 12 12 11 44 45	2019 02 22 11 44 44
CCEX 13447M00203	2019 02 22 11 44 45	
CEBR 13408M00101		2012 12 21 11 44 44
CEBR 13408M00102	2012 12 21 11 44 45	2019 09 19 11 44 44
CEBR 13408M00103	2019 09 19 11 44 45	
CEU1 13449M00201		2014 09 26 11 44 44
CEU1 13449M00202	2014 09 26 11 44 45	2014 12 22 11 44 44
CEU1 13449M00203	2014 12 22 11 44 45	2015 04 09 11 44 44
CEU1 13449M00204	2015 04 09 11 44 45	2016 03 08 11 44 44
CEU1 13449M00205	2016 03 08 11 44 45	
CERV 19345M00101		2021 12 14 11 44 44
CERV 19345M00102	2021 12 14 11 44 45	
CIEZ 19435M00101		2023 07 06 11 44 44
CIEZ 19435M00102	2023 07 06 11 44 45	
CNAR 19472M00101		2019 11 11 11 44 44
CNAR 19472M00102	2019 11 11 11 44 45	2022 08 18 11 44 44
CNAR 19472M00103	2022 08 18 11 44 45	
COBA 13453M00102		2015 04 16 11 44 44
COBA 13453M00103	2015 04 16 11 44 45	
CORI 19392M00101		2024 01 01 11 44 44
CORI 19392M00102	2024 01 01 11 44 45	
CRDB 13461M00101		2020 09 18 11 44 44
CRDB 13461M00102	2020 09 18 11 44 45	2025 01 28 11 44 44
CRDB 13461M00103	2025 01 28 11 44 45	2025 07 10 11 44 44
CRDB 13461M00104	2025 07 10 11 44 45	
CREU 13432M00102		2016 05 17 11 44 44
CREU 13432M00103	2016 05 17 11 44 45	

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CRTG 13483M00101		2019 07 11 11 44 44
CRTG 13483M00102	2019 07 11 11 44 45	
CSOS 19368M00101		2022 10 06 11 44 44
CSOS 19368M00102	2022 10 06 11 44 45	
DARE 13208S00102		2012 02 20 11 44 44
DARE 13208S00103	2012 02 20 11 44 45	2012 03 30 11 44 44
DARE 13208S00104	2012 03 30 11 44 45	2018 10 04 11 44 44
DARE 13208S00105	2018 10 04 11 44 45	
DENI 13498M00101		2015 03 04 11 44 44
DENI 13498M00102	2015 03 04 11 44 45	2023 02 19 11 44 44
DENI 13498M00103	2023 02 19 11 44 45	2025 02 20 11 44 44
DENI 13498M00104	2025 02 20 11 44 45	
EBRE 13410M00102		2014 12 09 11 44 44
EBRE 13410M00103	2014 12 09 11 44 45	2016 12 14 11 44 44
EBRE 13410M00104	2016 12 14 11 44 45	
EJEA 19371M00101		2022 05 20 11 44 44
EJEA 19371M00102	2022 05 20 11 44 45	
ELCI 19382M00101		2012 03 23 11 44 44
ELCI 19382M00102	2012 03 23 11 44 45	
ELGE 19353S00101		2014 04 01 11 44 44
ELGE 19353S00102	2014 04 01 11 44 45	2021 02 19 11 44 44
ELGE 19353S00103	2021 02 19 11 44 45	
EMAZ 17001M00101		2022 08 01 11 44 44
EMAZ 17001M00102	2022 08 01 11 44 45	
ESCO 13435M00102		2016 09 28 11 44 44
ESCO 13435M00103	2016 09 28 11 44 45	
ESTE 19426M00101		2018 11 26 11 44 44
ESTE 19426M00102	2018 11 26 11 44 45	
FRRL 19493M00101		2023 11 29 11 44 44
FRRL 19493M00102	2023 11 29 11 44 45	
GAIA 13902M00102		2012 06 03 11 44 44
GAIA 13902M00103	2012 06 03 11 44 45	2014 06 17 11 44 44
GAIA 13902M00104	2014 06 17 11 44 45	2019 10 13 11 44 44
GAIA 13902M00105	2019 10 13 11 44 45	2021 01 26 11 44 44
GAIA 13902M00106	2021 01 26 11 44 45	
GARR 13489M00101		2016 02 17 11 44 44
GARR 13489M00102	2016 02 17 11 44 45	
GERN 19389M00101		2012 03 27 11 44 44
GERN 19389M00102	2012 03 27 11 44 45	2019 03 09 11 44 44
GERN 19389M00103	2019 03 09 11 44 45	
GIRO 19381M00101		2018 08 11 11 44 44
GIRO 19381M00102	2018 08 11 11 44 45	
GRSL 19477M00101		2016 08 25 11 44 44
GRSL 19477M00102	2016 08 25 11 44 45	2025 12 05 11 44 44
GRSL 19477M00103	2025 12 05 11 44 45	
GUIJ 19315M00101		2020 08 21 11 44 44
GUIJ 19315M00102	2020 08 21 11 44 45	
HERR 19393M00101		2024 01 01 11 44 44
HERR 19393M00102	2024 01 01 11 44 45	
HERT 13212M01002		2015 03 03 11 44 59
HERT 13212M01003	2015 03 03 11 45 00	
HUEL 13451M00103		2015 04 15 11 44 44
HUEL 13451M00104	2015 04 15 11 44 45	2019 07 25 11 44 44
HUEL 13451M00105	2019 07 25 11 44 45	2022 03 16 11 44 44
HUEL 13451M00106	2022 03 16 11 44 45	2022 10 21 11 44 44
HUEL 13451M00107	2022 10 21 11 44 45	
HULV 13451M00201		2020 09 30 11 44 44
HULV 13451M00202	2020 09 30 11 44 45	
IEJA 19375M00101		2024 04 17 11 44 44
IEJA 19375M00102	2024 04 17 11 44 45	
IENG 12724S00101		2019 04 11 11 44 44
IENG 12724S00102	2019 04 11 11 44 45	2023 06 09 11 44 44
IENG 12724S00103	2023 06 09 11 44 45	
IGEL 19352S00101		2014 07 01 11 44 44
IGEL 19352S00102	2014 07 01 11 44 45	2022 01 18 11 44 44

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IGEL 19352S00103	2022 01 18 11 44 45	
ISPS 19484M00101		2024 12 20 11 44 44
ISPS 19484M00102	2024 12 20 11 44 45	
LAGO 13903M00102		2016 12 27 11 44 44
LAGO 13903M00103	2016 12 27 11 44 45	2019 11 26 11 44 44
LAGO 13903M00104	2019 11 26 11 44 45	2021 01 26 11 44 44
LAGO 13903M00105	2021 01 26 11 44 45	
LANT 19384M00101		2012 03 20 11 44 44
LANT 19384M00102	2012 03 20 11 44 45	2015 09 11 11 44 44
LANT 19384M00103	2015 09 11 11 44 45	2016 10 09 11 44 44
LANT 19384M00104	2016 10 10 11 44 45	2017 01 29 11 44 44
LANT 19384M00105	2017 01 29 11 44 45	
LAZK 19354S00101		2012 03 27 11 44 44
LAZK 19354S00102	2012 03 27 11 44 45	
LEBR 13466M00101		2018 10 04 11 44 44
LEBR 13466M00102	2018 10 04 11 44 45	2023 10 18 11 44 44
LEBR 13466M00103	2023 10 18 11 44 45	
LEIT 19428M00101		2018 10 30 11 44 44
LEIT 19428M00102	2018 10 30 11 44 45	
LENA 19474M00101		2012 07 07 11 44 44
LENA 19474M00102	2012 07 07 11 44 45	2018 07 07 11 44 44
LENA 19474M00103	2018 07 07 11 44 45	
LERM 19316M00101		2017 03 11 11 44 44
LERM 19316M00102	2017 03 11 11 44 45	2018 06 15 11 44 44
LERM 19316M00103	2018 06 15 11 44 45	
LLEI 13488M00101		2016 03 04 11 44 44
LLEI 13488M00102	2016 03 04 11 44 45	
LLEP 19398M00101		2024 01 01 11 44 44
LLEP 19398M00102	2024 01 01 11 44 45	
LLIV 13436M00102		2016 04 28 11 44 44
LLIV 13436M00103	2016 04 28 11 44 45	
LORC 13484M00101		2023 08 03 11 44 44
LORC 13484M00102	2023 08 03 11 44 45	
LOSA 19421M00101		2019 02 06 11 44 44
LOSA 19421M00102	2019 02 06 11 44 45	
LRCA 13484M00201		2023 07 20 11 44 44
LRCA 13484M00202	2023 07 20 11 44 45	
LUAR 19478M00101		2020 02 25 11 44 44
LUAR 19478M00102	2020 02 25 11 44 45	2022 08 18 11 44 44
LUAR 19478M00103	2022 08 18 11 44 45	
MAD2 13407S01211		2012 02 22 11 44 44
MAD2 13407S01212	2012 02 22 11 44 45	2017 09 14 11 44 44
MAD2 13407S01213	2017 09 14 11 44 45	
MADR 13407S01205		2014 01 15 11 44 44
MADR 13407S01206	2014 01 15 11 44 45	2017 09 08 11 44 44
MADR 13407S01207	2017 09 08 11 44 45	
MAL1 13444M00201		2018 06 18 11 44 44
MAL1 13444M00202	2018 06 18 11 44 45	
MALA 13443M00102		2013 03 13 11 44 44
MALA 13443M00103	2013 03 13 11 44 45	2015 11 30 11 44 44
MALA 13443M00104	2015 11 30 11 44 45	
MALL 13444M00103		2022 05 18 11 44 44
MALL 13444M00104	2022 05 18 11 44 45	
MAN2 10091M00201		2016 10 12 11 44 44
MAN2 10091M00202	2016 10 12 11 44 45	
MARE 13490M00201		2012 01 26 11 44 44
MARE 13490M00202	2012 01 26 11 44 45	
MAZA 19436M00101		2023 07 21 11 44 44
MAZA 19436M00102	2023 07 21 11 44 45	
MDNR 19390M00201		2018 06 10 11 44 44
MDNR 19390M00202	2018 06 10 11 44 45	
MDPM 19317M00101		2020 10 09 11 44 44
MDPM 19317M00102	2020 10 09 11 44 45	
MELI 19379M00101		2016 01 25 11 44 44
MELI 19379M00102	2016 01 25 11 44 45	

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MIBR 19357M00101				2017 11 25 11 44 44
MIBR 19357M00102	2017 11 25 11 44 45			2018 05 23 11 44 44
MIBR 19357M00103	2018 05 23 11 44 45			2020 07 18 11 44 44
MIBR 19357M00104	2020 07 18 11 44 45			
MLGA 13460M00101				2020 09 23 11 44 44
MLGA 13460M00102	2020 09 23 11 44 45			
MLLL 19379M00201				2020 11 22 11 44 44
MLLL 19379M00202	2020 11 22 11 44 45			2024 11 29 11 44 44
MLLL 19379M00203	2024 11 29 11 44 45			
MRAT 19437M00101				2015 09 24 11 44 44
MRAT 19437M00102	2015 09 24 11 44 45			2023 07 22 11 44 44
MRAT 19437M00103	2023 07 22 11 44 45			
MUL1 19438M00101				2014 12 04 11 44 44
MUL1 19438M00102	2014 12 04 11 44 45			2021 09 16 11 44 44
MUL1 19438M00103	2021 09 16 11 44 45			
MYRG 19318M00101				2017 11 03 11 44 44
MYRG 19318M00102	2017 11 03 11 44 45			
NAVA 19394M00101				2023 11 29 11 44 44
NAVA 19394M00102	2023 11 29 11 44 45			
ORON 19427M00101				2018 10 30 11 44 44
ORON 19427M00102	2018 10 30 11 44 45			
OSUN 13465M00101				2017 11 29 11 44 44
OSUN 13465M00102	2017 11 29 11 44 45			
PALE 19320M00101				2017 08 23 11 44 44
PALE 19320M00102	2017 08 23 11 44 45			
PANE 19475M00101				2025 12 03 11 44 44
PANE 19475M00102	2025 12 03 11 44 45			
PASA 19351S00103				2011 06 06 11 44 44
PASA 19351S00104	2011 06 06 11 44 45			
PDB1 19321M00201				2024 06 28 11 44 44
PDB1 19321M00202	2024 06 28 11 44 45			2025 05 20 11 44 44
PDB1 19321M00203	2025 05 20 11 44 45			
PLAN 13442M00101				2016 05 24 11 44 44
PLAN 13442M00102	2016 05 24 11 44 45			
PONF 19323M00101				2017 12 11 11 44 44
PONF 19323M00102	2017 12 11 11 44 45			
POZO 13468M00101				2018 10 01 11 44 44
POZO 13468M00102	2018 10 01 11 44 45			
PRAT 12760M00101				2011 12 06 11 44 44
PRAT 12760M00102	2011 12 06 11 44 45			2021 03 12 11 44 44
PRAT 12760M00103	2021 03 12 11 44 45			2021 07 05 11 44 44
PRAT 12760M00104	2021 07 05 11 44 45			
PSBR 19324M00101				2018 06 27 11 44 44
PSBR 19324M00102	2018 06 27 11 44 45			
QNT0 19363M00101				2025 04 15 11 44 44
QNT0 19363M00102	2025 04 15 11 44 45			
RENS 19441M00101				2018 06 24 11 44 44
RENS 19441M00102	2018 06 24 11 44 45			
REUS 13491M00101				2016 04 20 11 44 44
REUS 13491M00102	2016 04 20 11 44 45			
RIA1 19327M00201				2017 08 11 11 44 44
RIA1 19327M00202	2017 08 11 11 44 45			
RIAN 19326M00101				2020 10 19 11 44 44
RIAN 19326M00102	2020 10 19 11 44 45			
RIBE 19473M00101				2019 11 21 11 44 44
RIBE 19473M00102	2019 11 21 11 44 45			2022 11 12 11 44 44
RIBE 19473M00103	2022 11 12 11 44 45			
RNAN 19442M00101				2020 07 23 11 44 44
RNAN 19442M00102	2020 07 23 11 44 45			2022 07 24 11 44 44
RNAN 19442M00103	2022 07 24 11 44 45			
ROAP 13402M00601				2011 10 26 11 44 44
ROAP 13402M00602	2011 10 26 11 44 45			2014 11 22 11 44 44
ROAP 13402M00603	2014 11 22 11 45 45			
RONL 19420M00101				2018 10 29 11 44 44
RONL 19420M00102	2018 10 29 11 44 45			

Informe de cálculo de las coordenadas ETRF2000 de las redes públicas de estaciones permanentes GNSS en España

SALI 15021M00101		2023 08 17 11 44 44
SALI 15021M00102	2023 08 17 11 44 45	
SALS 19476M00101		2018 07 12 11 44 44
SALS 19476M00102	2018 07 12 11 44 45	2022 09 05 11 44 44
SALS 19476M00103	2022 09 05 11 44 45	
SANR 19423M00101		2018 11 26 11 44 44
SANR 19423M00102	2018 11 26 11 44 45	
SBAR 13492M00101		2016 03 11 11 44 44
SBAR 13492M00102	2016 03 11 11 44 45	
SCOA 10088M00203		2022 02 02 11 44 44
SCOA 10088M00204	2022 02 02 11 44 45	
SFER 13402M00409		2014 01 30 11 44 44
SFER 13402M00410	2014 01 30 11 44 45	2016 09 06 11 44 44
SFER 13402M00411	2016 09 06 11 44 45	2019 01 17 11 44 44
SFER 13402M00412	2019 01 17 11 44 45	2023 01 19 11 44 44
SFER 13402M00413	2023 01 19 11 44 45	
SGVA 19329M00101		2020 02 16 11 44 44
SGVA 19329M00102	2020 02 16 11 44 45	2020 10 02 11 44 44
SGVA 19329M00103	2020 10 02 11 44 45	
SINE 19491M00101		2020 01 28 11 44 44
SINE 19491M00102	2020 01 28 11 44 45	
SONA 13495M00101		2016 05 03 11 44 44
SONA 13495M00102	2016 05 03 11 44 45	
SONS 13446M00104		2021 02 03 11 44 44
SONS 13446M00105	2021 02 03 11 44 45	
SOPU 19386M00101		2012 03 27 11 44 44
SOPU 19386M00102	2012 03 27 11 44 45	2018 12 11 11 44 44
SOPU 19386M00103	2018 12 11 11 44 45	
SORG 13493M00101		2016 04 26 11 44 44
SORG 13493M00102	2016 04 26 11 44 45	
SORI 13481M00101		2020 09 30 11 44 44
SORI 13481M00102	2020 09 30 11 44 45	
SROM 19346M00101		2020 10 21 11 44 44
SROM 19346M00102	2020 10 21 11 44 45	
TAR0 19350M00201		2023 12 22 11 44 44
TAR0 19350M00202	2023 12 22 11 44 45	
TARI 19350M00101		2018 05 29 11 44 44
TARI 19350M00102	2018 05 29 11 44 45	
TERU 13487M00101		2016 02 03 11 44 44
TERU 13487M00102	2016 02 03 11 44 45	2021 02 18 11 44 44
TERU 13487M00103	2021 02 18 11 44 45	
TLMF 10003M01002		2012 09 28 11 44 44
TLMF 10003M01003	2012 09 28 11 44 45	
TLSE 10003M00903		2012 09 04 11 44 44
TLSE 10003M00904	2012 09 04 11 44 45	2016 03 11 11 44 44
TLSE 10003M00905	2016 03 11 11 44 45	2016 03 21 11 44 44
TLSE 10003M00906	2016 03 21 11 44 45	
TORO 19332M00101		2018 01 11 11 44 44
TORO 19332M00102	2018 01 11 11 44 45	
TORR 19302M00101		2022 02 10 11 44 44
TORR 19302M00102	2022 02 10 11 44 45	
TUD1 19418M00201		2025 05 30 11 44 44
TUD1 19418M00202	2025 05 30 11 44 45	
TUDE 19418M00101		2018 11 09 11 44 44
TUDE 19418M00102	2018 11 09 11 44 45	
UCA1 13455M00201		2018 10 03 11 44 44
UCA1 13455M00202	2018 10 03 11 44 45	
UJAE 13458M00101		2018 10 01 11 44 44
UJAE 13458M00102	2018 10 01 11 44 45	
UPNA 19429M00101		2018 11 08 11 44 44
UPNA 19429M00102	2018 11 08 11 44 45	
UTIE 19301M00101		2017 04 01 11 44 44
UTIE 19301M00102	2017 04 01 11 44 45	2022 02 09 11 44 44
UTIE 19301M00103	2022 02 09 11 44 45	2025 07 18 11 44 44
UTIE 19301M00104	2025 07 18 11 44 45	

Informe de cálculo de las coordenadas ETRF2000 de las redes públicas de estaciones permanentes GNSS en España

VALC 19396M00101		2016 11 10 11 44 44
VALC 19396M00102	2016 11 10 11 44 45	2019 02 01 11 44 44
VALC 19396M00103	2019 02 01 11 44 45	
VALE 13439M00105		2016 08 26 11 44 44
VALE 13439M00106	2016 08 26 11 44 45	2022 03 28 11 44 44
VALE 13439M00107	2022 03 28 11 44 45	
VBLO 19333M00101		2016 07 17 11 44 44
VBLO 19333M00102	2016 07 17 11 44 45	2018 05 10 11 44 44
VBLO 19333M00103	2018 05 10 11 44 45	2020 08 27 11 44 44
VBLO 19333M00104	2020 08 27 11 44 45	
VCIA 13497M00101		2022 02 09 11 44 44
VCIA 13497M00102	2022 02 09 11 44 45	
VCRD 19444M00101		2013 03 18 11 44 44
VCRD 19444M00102	2013 03 18 11 44 45	2017 02 03 11 44 44
VCRD 19444M00103	2017 02 03 11 44 45	2020 07 23 11 44 44
VCRD 19444M00104	2020 07 23 11 44 45	
VDGO 19334M00101		2020 10 12 11 44 44
VDGO 19334M00102	2020 10 12 11 44 45	
VIAR 13472M00101		2019 09 25 11 44 44
VIAR 13472M00102	2019 09 25 11 44 45	
VIGO 13450M00102		2021 04 28 11 44 44
VIGO 13450M00103	2021 04 29 11 44 45	2022 11 27 11 44 44
VIGO 13450M00104	2022 11 27 11 44 44	
VILL 13406M00104		2012 12 28 11 44 44
VILL 13406M00105	2012 12 28 11 44 45	2020 01 08 11 44 44
VILL 13406M00106	2020 01 08 11 44 45	
VITO 19385M00101		2012 03 25 11 44 44
VITO 19385M00102	2012 03 25 11 44 45	
VJOI 17013M00101		2023 09 29 11 44 44
VJOI 17013M00102	2023 09 29 11 44 45	
VNAN 17007M00101		2018 03 24 11 44 44
VNAN 17007M00102	2018 03 24 11 44 45	
VTGD 19335M00101		2011 07 01 11 44 59
VTGD 19335M00102	2011 07 01 11 45 00	2012 07 18 11 44 59
VTGD 19335M00103	2012 07 18 11 45 00	2012 10 02 11 44 59
VTGD 19335M00104	2012 10 02 11 44 59	2017 08 24 11 45 00
VTGD 19335M00105	2017 08 24 11 45 00	2021 09 22 11 44 59
VTGD 19335M00106	2021 09 22 11 45 00	
VTRO 19347M00101		2020 10 19 11 44 44
VTRO 19347M00102	2020 10 19 11 44 45	
XIXO 19480M00101		2017 08 26 11 44 44
XIXO 19480M00102	2017 08 26 11 44 45	
YEBE 13420M00101		2021 03 24 11 44 44
YEBE 13420M00102	2021 03 24 11 44 45	
ZIM2 14001M00802		2013 10 10 11 44 44
ZIM2 14001M00803	2013 10 10 11 44 45	
ZMRA 19305M00101		2020 11 14 11 44 44
ZMRA 19305M00102	2020 11 14 11 44 45	

## **Anexo VII: Coordenadas ETRS89 (ETRF2000) por tramos de discontinuidades**

Coordenadas ETRS89 (ETRF2000) y discontinuidades por estación

```
LOCAL GEODETIC DATUM: ETRF2000          EPOCH: 2026-01-01 00:00:00

STATION NAME          X (M)          Y (M)          Z (M)          FROM          TO
*****
ABAN 19430M001        5019757.18406  -92324.51241  3920866.19384  2011 04 17    2025 12 31
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ACAL	19431M001	5050255.28439	-75879.96478	3881893.56032	2011	04	17	2023	08	16
ACIN	19378M001	4862768.36551	-121966.45776	4113424.23851	2011	04	17	2025	12	31
ACNS	19306M001	4740593.66988	-527730.91850	4221366.68273	2011	04	17	2017	08	09
ACNS	19306M001	4740593.65361	-527730.90930	4221366.67346	2017	08	10	2025	12	31
ACOR	13434M001	4594489.85276	-678367.96550	4357065.85252	2011	04	17	2019	02	04
ACOR	13434M001	4594489.85403	-678367.96518	4357065.85419	2019	02	05	2024	05	31
ACOR	13434M001	4594489.82625	-678367.90328	4357065.83305	2024	06	01	2025	12	31
AGRD	19307M001	4756259.49517	-160321.24959	4233796.53735	2011	04	17	2014	03	18
AGRD	19307M001	4756259.48457	-160321.24721	4233796.53811	2014	03	19	2020	09	26
AGRD	19307M001	4756259.49813	-160321.25760	4233796.53582	2020	09	27	2025	12	31
AIO2	13499M002	4958705.47295	-91678.80617	3998025.57384	2019	10	10	2020	07	03
AIO2	13499M002	4958705.45737	-91678.81280	3998025.58064	2020	07	04	2025	12	31
AIRM	19432M001	5044843.79795	-99386.06506	3888654.83014	2013	02	11	2025	12	31
AJAL	19308M001	4801696.61186	-190640.83263	4181085.56825	2011	04	17	2025	12	31
ALAC	13433M001	5009051.37915	-42072.49540	3935057.47650	2011	04	17	2025	12	31
ALBA	13452M001	4962848.10805	-160854.40137	3990884.10748	2011	04	17	2025	12	31
ALBO	19481M001	5162722.07178	-273660.38449	3722825.74028	2015	11	19	2025	12	31
ALC1	19370M002	4816654.86270	-12215.37782	4167534.56442	2016	06	01	2025	12	31
ALCA	19370M001	4816720.57218	-12101.96869	4167450.59624	2011	04	17	2025	12	31
ALCO	13496M001	4984687.41243	-41199.18385	3966605.93258	2011	04	17	2017	06	06
ALCO	13496M001	4984687.43116	-41199.18770	3966605.93906	2017	06	07	2023	05	06
ALCO	13496M001	4984687.42239	-41199.18438	3966605.93926	2023	05	07	2025	12	31
ALDA	19383M001	4687280.51665	-190877.11247	4308106.52219	2011	04	17	2012	03	25
ALDA	19383M001	4687280.51425	-190877.11750	4308106.53253	2012	03	26	2025	12	31
ALGC	13456M001	5135570.61092	-489449.80637	3738221.71638	2011	04	17	2019	10	02
ALGC	13456M001	5135570.61305	-489449.80757	3738221.72433	2019	10	03	2025	12	31
ALHA	19433M001	5044368.59467	-127398.37007	3888453.13210	2012	10	17	2019	09	26
ALHA	19433M001	5044368.59440	-127398.36192	3888453.14342	2019	09	27	2023	07	21
ALHA	19433M001	5044368.58390	-127398.36116	3888453.14230	2023	07	22	2025	12	31
ALI1	13433M002	5009095.23496	-41777.81700	3934999.92520	2023	10	06	2025	12	31
ALIA	19376M001	4845013.91244	-59465.73720	4135530.22678	2011	04	17	2024	04	18
ALIA	19376M001	4845013.91353	-59465.74558	4135530.22538	2024	04	19	2025	12	31
ALM1	13437M003	5106413.42648	-221609.41717	3802539.97586	2018	11	25	2025	12	31
ALME	13437M001	5105220.27698	-219278.85195	3804386.85977	2011	04	17	2025	12	31
ALMO	19405M001	4971155.62393	-363336.50523	3967322.53176	2013	06	23	2021	12	06
ALMO	19405M001	4971155.63205	-363336.50480	3967322.52702	2021	12	07	2025	12	31
ALMR	13437M002	5104673.94830	-217597.94552	3805329.60199	2011	04	17	2019	10	03
ALMZ	17017M001	4779815.48529	-211948.18978	4205106.79212	2018	05	17	2025	12	31
ALOR	19485M001	4884754.30221	353584.29676	4072521.14760	2011	04	17	2025	12	31
ALSA	19419M001	4677251.18809	-176770.94471	4319079.45578	2011	04	17	2025	12	31
AMUR	19388M001	4661499.83137	-244591.69542	4332269.43946	2011	04	17	2012	03	25
AMUR	19388M001	4661499.83429	-244591.69547	4332269.43533	2012	03	26	2017	03	04
AMUR	19388M001	4661499.79927	-244591.80468	4332269.46168	2017	03	05	2025	12	31
AND2	13477M002	5017458.06170	-353479.08401	3909148.24371	2019	12	10	2025	12	31
ANDU	13477M001	5017453.34798	-353522.05629	3909149.31310	2011	04	17	2019	12	10
APBI	15011M001	4638707.49700	-246758.24153	4356032.16727	2021	08	01	2025	12	31
ARAC	13467M001	5007190.77837	-576288.63068	3896600.46879	2011	04	17	2017	02	23
ARAC	13467M001	5007190.78060	-576288.63012	3896600.47895	2017	02	24	2025	12	31
ARAJ	15014M001	4881627.89310	-308197.19760	4080509.68692	2021	08	12	2025	12	31
ARAS	19498M001	4896737.53455	-94157.04902	4074155.07390	2016	11	24	2025	12	31
ARDU	19348M001	4762208.21493	-311513.92283	4218508.86860	2011	04	17	2021	04	09
ARDU	19348M001	4762208.20796	-311513.92385	4218508.86042	2021	04	10	2025	12	31
ARES	15016M001	4744000.73551	60395.66903	4250931.95751	2023	06	28	2025	12	31
ARIB	19425M001	4676495.68373	-103033.31795	4322928.78389	2011	04	17	2018	10	30
ARIB	19425M001	4676495.67678	-103033.32001	4322928.78113	2018	10	31	2025	12	31
ARSP	19309M001	4859224.19854	-432201.54350	4095956.30905	2011	04	17	2025	12	31
ASTO	19310M001	4687266.86330	-497176.99937	4283843.49735	2011	04	17	2013	06	06
ASTO	19310M001	4687266.87777	-497177.00160	4283843.47651	2013	06	07	2020	09	17
ASTO	19310M001	4687266.86927	-497177.02736	4283843.49182	2020	09	18	2025	12	31
AVEL	13440M001	4755888.28299	62302.10389	4236277.96937	2011	04	17	2012	11	28
AVEL	13440M001	4755888.28272	62302.10005	4236277.96582	2012	11	29	2014	04	16
AVEL	13440M001	4755888.26549	62302.10321	4236277.95906	2014	04	17	2016	04	05
AVEL	13440M001	4755888.26504	62302.10552	4236277.96774	2016	04	06	2025	12	31
AVI2	19413M001	4829770.63779	-395228.42012	4134963.63138	2014	07	29	2014	11	28
AVI2	19413M001	4829770.63125	-395228.40276	4134963.64192	2014	11	29	2018	02	01

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AVI2	19413M001	4829770.63861	-395228.41283	4134963.63329	2018	02	02	2019	12	19
AVI2	19413M001	4829770.63430	-395228.40354	4134963.63683	2019	12	20	2025	12	31
AVIL	19311M001	4830657.49656	-395397.63949	4133872.91944	2011	04	17	2015	09	12
AVL1	19470M002	4604889.17889	-476930.72377	4372677.12154	2019	04	17	2025	12	31
AVLS	19470M001	4604379.20213	-476287.25324	4373385.54906	2011	04	17	2019	05	03
AXPV	10057M001	4614667.15828	430786.22523	4367411.30610	2011	04	17	2011	10	20
AXPV	10057M001	4614667.15119	430786.22881	4367411.30064	2011	10	21	2025	12	31
AYOR	13499M001	4958705.67494	-91680.79411	3998023.59089	2011	04	17	2019	09	22
BADJ	19401M001	4934001.44156	-604880.27641	3983295.17065	2011	04	17	2025	12	31
BCL1	19482M001	4792220.79616	181223.52146	4191031.88201	2015	12	02	2025	12	31
BCLN	13412M001	4788065.14150	167551.16258	4196354.98403	2012	01	31	2025	12	31
BEJR	17010M001	4840699.64624	-487305.16401	4112275.77723	2017	11	07	2025	12	31
BELL	13431M001	4775849.61649	116814.08718	4213018.71624	2011	04	17	2012	01	26
BELL	13431M001	4775849.60269	116814.08454	4213018.70270	2012	01	27	2014	09	22
BELL	13431M001	4775849.60372	116814.08514	4213018.70347	2014	09	23	2016	05	12
BELL	13431M001	4775849.62297	116814.08680	4213018.72165	2016	05	13	2025	12	31
BERG	19303M002	4849454.33099	-8239.24856	4130349.52126	2012	04	12	2013	03	06
BERG	19303M002	4849454.33545	-8239.25377	4130349.52861	2013	03	07	2014	11	30
BERG	19303M002	4849454.33759	-8239.25665	4130349.53210	2014	12	01	2015	03	22
BERG	19303M002	4849454.34136	-8239.25949	4130349.53810	2015	03	23	2018	10	20
BERG	19303M002	4849454.34420	-8239.26323	4130349.54436	2018	10	21	2020	01	29
BERG	19303M002	4849454.34916	-8239.26551	4130349.54478	2020	01	30	2022	03	22
BERG	19303M002	4849454.35920	-8239.27278	4130349.55499	2022	03	23	2024	10	30
BERG	19303M002	4849454.36154	-8239.28022	4130349.56473	2024	10	31	2025	03	04
BERG	19303M002	4849454.36666	-8239.28377	4130349.57005	2025	03	04	2025	12	31
BEUD	19404M001	4723447.33870	220746.63738	4267255.01939	2012	11	06	2016	04	20
BEUD	19404M001	4723447.29660	220746.63367	4267254.98353	2016	04	21	2025	12	31
BIDA	00000M000	4644178.18113	-145778.86847	4354832.06017	2012	01	01	2025	12	31
BINE	19369M001	4758462.26638	24577.11486	4233287.07677	2011	04	17	2025	12	31
BLGU	19494M001	4675866.22594	-65347.60506	4325231.76770	2016	05	12	2025	12	31
BORR	13480M001	4899519.29012	-7115.82579	4069961.38582	2011	04	17	2016	06	21
BORR	13480M001	4899519.28911	-7115.83063	4069961.38589	2016	06	22	2023	04	03
BORR	13480M001	4899519.28811	-7115.83363	4069961.38766	2023	04	04	2025	05	08
BORR	13480M001	4899519.28640	-7115.83473	4069961.39041	2025	05	08	2025	12	31
BRJA	19374M001	4757928.81724	-126764.78907	4232288.02193	2011	04	17	2024	04	17
BRJA	19374M001	4757928.81777	-126764.80067	4232288.02490	2024	04	18	2025	12	31
BRST	10004M004	4231162.77377	-332746.92812	4745130.68726	2011	04	17	2011	10	26
BRST	10004M004	4231162.77457	-332746.92513	4745130.68032	2011	10	27	2025	12	31
BRZR	19387M001	4662221.34277	-220770.44706	4333309.01681	2011	04	17	2025	12	31
BUIT	19483M001	4811616.61579	-305829.34274	4163151.54967	2016	01	28	2025	12	31
BUOS	19312M001	4771363.10956	-255732.02840	4212133.55342	2011	04	17	2013	02	06
BUOS	19312M001	4771363.10874	-255732.02911	4212133.54893	2013	02	07	2018	02	18
BUOS	19312M001	4771363.12824	-255732.03406	4212133.51917	2018	02	19	2025	12	31
BURB	15023M001	4657108.84415	-553978.36010	4309679.40439	2023	09	26	2025	12	31
BURG	19314M001	4712044.50460	-303624.85140	4274801.39129	2011	04	17	2020	08	25
BURG	19314M001	4712044.50379	-303624.85595	4274801.39154	2020	08	26	2025	12	31
CAAL	13474M001	5081921.51270	-226112.50770	3838297.56582	2011	04	17	2016	02	18
CAAL	13474M001	5081921.52472	-226112.51303	3838297.56762	2016	02	19	2017	09	29
CAAL	13474M001	5081921.53379	-226112.51548	3838297.57105	2017	09	30	2025	12	31
CABO	19312M111	5057218.90818	-61647.80906	3873111.16350	2011	04	17	2011	11	26
CABO	19312M111	5057218.91538	-61647.80901	3873111.16627	2011	11	27	2017	10	19
CABP	15020M001	5057219.86454	-61647.96857	3873111.38884	2023	08	17	2025	12	31
CABR	13473M001	5053918.53396	-391028.48373	3859089.81357	2011	04	17	2019	05	27
CABR	13473M001	5053918.52614	-391028.47720	3859089.81085	2019	05	28	2025	12	31
CACE	13447M001	4899866.79653	-544567.61426	4033769.76278	2011	04	17	2015	06	23
CACE	13447M001	4899866.79697	-544567.61456	4033769.76261	2015	06	24	2025	12	31
CALA	19377M001	4825782.63683	-109395.46075	4156451.65599	2011	04	17	2025	04	15
CALA	19377M001	4825782.64205	-109395.45850	4156451.65402	2025	04	16	2025	12	31
CALH	19343M001	4722455.02958	-164501.83908	4270170.34730	2011	04	17	2025	12	31
CANT	13438M001	4625924.67087	-307096.78754	4365771.14670	2011	04	17	2011	10	20
CANT	13438M001	4625924.65959	-307096.78070	4365771.14072	2011	10	21	2025	12	31
CARC	19424M001	4717608.71292	-118658.17165	4277009.04604	2011	04	17	2018	11	08
CARC	19424M001	4717608.71028	-118658.17409	4277009.04730	2018	11	09	2025	12	31
CARG	19412M001	5059185.48888	-85999.18610	3870099.21679	2014	05	23	2025	12	31
CARV	19434M001	5027037.16245	-172709.10581	3910011.84800	2011	04	17	2015	03	13

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CARV	19434M001	5027037.15838	-172709.10366	3910011.84146	2015	03	14	2025	12	31
CASO	19344M001	4700702.56947	-239260.66132	4290677.82000	2011	04	17	2025	12	31
CASC	13909S001	4917537.08706	-815726.50651	3965857.12144	2011	04	17	2019	09	18
CASC	13909S001	4917537.13248	-815726.51245	3965857.15251	2019	09	19	2021	01	26
CASC	13909S001	4917537.09097	-815726.50673	3965857.11926	2021	01	27	2025	12	31
CASE	13494M001	4749772.74581	240959.52901	4236095.90533	2011	04	17	2025	12	31
CASO	19471M001	4638385.59898	-433754.31607	4342706.02810	2011	04	17	2025	12	04
CASO	19471M001	4638385.60717	-433754.30040	4342706.03044	2025	12	05	2025	12	31
CATU	19402M001	4959262.55782	-480911.79652	3969353.20177	2011	04	17	2019	02	12
CATU	19402M001	4959262.55738	-480911.79653	3969353.20521	2019	02	13	2025	12	31
CATY	19372M001	4793284.35060	-137217.11728	4192304.24424	2011	04	17	2025	12	31
CAZA	13471M001	5011763.81653	-505522.37871	3900415.56444	2011	04	17	2016	12	14
CAZA	13471M001	5011763.82182	-505522.38174	3900415.56792	2016	12	15	2025	12	31
CBON	19486M001	4911590.14660	291137.38800	4045072.22029	2011	04	17	2025	12	31
CBRN	15001M001	4619819.49493	-437553.97145	4361462.63191	2019	04	08	2025	12	31
CCEX	13447M002	4900064.98717	-547718.10354	4033275.25758	2011	04	17	2015	12	12
CCEX	13447M002	4900064.99482	-547718.10887	4033275.25319	2015	12	13	2019	02	22
CCEX	13447M002	4900064.98754	-547718.10455	4033275.25874	2019	02	23	2025	12	31
CDCR	15022M001	5027477.61877	-200170.32164	3908844.98234	2023	09	04	2025	12	31
CDRD	19313M001	4819303.88345	-552338.68487	4128398.80094	2011	04	17	2025	12	31
CEBR	13408M001	4846665.15533	-370195.58614	4116929.20257	2011	04	17	2012	12	21
CEBR	13408M001	4846665.15154	-370195.58496	4116929.19440	2012	12	22	2019	09	19
CEBR	13408M001	4846665.15403	-370195.58718	4116929.19653	2019	09	20	2025	12	31
CERV	19345M001	4744255.97475	-160966.19678	4246699.27411	2011	04	17	2021	12	14
CERV	19345M001	4744255.97455	-160966.20541	4246699.26821	2021	12	15	2025	12	31
CEU1	13449M002	5150907.98536	-478415.11925	3718518.22451	2011	04	17	2014	09	26
CEU1	13449M002	5150907.98026	-478415.11737	3718518.21771	2014	09	27	2014	12	22
CEU1	13449M002	5150907.98195	-478415.12228	3718518.21509	2014	12	23	2015	04	09
CEU1	13449M002	5150907.98388	-478415.11863	3718518.22314	2015	04	10	2016	03	08
CEU1	13449M002	5150907.98172	-478415.12231	3718518.21677	2016	03	09	2025	12	31
CIEZ	19435M001	5015255.69165	-120894.46336	3926008.31769	2013	02	11	2023	07	06
CIEZ	19435M001	5015255.67411	-120894.46555	3926008.30311	2023	07	07	2025	12	31
CLTR	15009M001	4965779.85748	-326027.86418	3977284.55956	2020	11	16	2025	12	31
CNAR	19472M001	4629386.19650	-530836.67876	4341282.66085	2011	04	17	2019	11	11
CNAR	19472M001	4629386.22046	-530836.68720	4341282.67873	2019	11	12	2022	08	18
CNAR	19472M001	4629386.19660	-530836.67746	4341282.65440	2022	08	19	2025	12	31
COBA	13453M001	5021256.04606	-414685.11810	3898182.15178	2011	04	17	2015	04	16
COBA	13453M001	5021256.05474	-414685.11643	3898182.16149	2015	04	17	2025	12	31
CORI	19392M001	4862596.65730	-555711.64259	4076613.77710	2011	04	17	2024	01	01
CORI	19392M001	4862596.66392	-555711.64944	4076613.78644	2024	01	02	2011	04	17
CRDB	13461M001	5023360.63487	-420749.33977	3894832.03681	2011	04	17	2020	09	18
CRDB	13461M001	5023360.64997	-420749.33594	3894832.04521	2020	09	19	2025	01	28
CRDB	13461M001	5023360.64820	-420749.33074	3894832.04681	2025	01	29	2025	07	10
CRDB	13461M001	5023360.64915	-420749.33787	3894832.04339	2025	07	11	2025	12	31
CREU	13432M001	4715420.52247	273177.50547	4271946.40524	2011	04	17	2016	05	17
CREU	13432M001	4715420.53877	273177.50735	4271946.42403	2016	05	18	2025	12	31
CRNA	19373M001	4795404.73096	-102253.99301	4190965.53350	2011	04	17	2025	12	31
CRPO	17006M001	4786492.10662	-428004.17989	4180874.29525	2017	07	27	2025	12	31
CRTG	13483M001	5058509.62251	-86467.42658	3870990.67335	2011	04	17	2019	07	11
CRTG	13483M001	5058509.56683	-86467.39743	3870990.61275	2019	07	12	2025	12	31
CRVC	13485M001	5022498.00307	-163861.88255	3915914.35150	2011	04	17	2023	07	12
CSOS	19368M001	4709302.44117	39916.58381	4288333.98932	2011	04	17	2022	10	06
CSOS	19368M001	4709302.44565	39916.58969	4288333.98985	2022	10	07	2025	12	31
CUEN	19410M001	4884861.44425	-182506.51172	4084819.24806	2014	04	10	2025	12	31
DENI	13498M001	4974895.88093	9000.75112	3978089.67891	2011	04	17	2015	03	04
DENI	13498M001	4974895.87758	9000.74088	3978089.67882	2015	03	05	2023	02	19
DENI	13498M001	4974895.88055	9000.74488	3978089.67214	2023	02	20	2025	02	20
DENI	13498M001	4974895.87057	9000.73950	3978089.67769	2025	02	21	2025	12	31
DOUR	13113M001	4086778.41160	328451.73962	4869782.50078	2011	04	17	2025	12	31
EBRE	13410M001	4833520.36733	41536.82304	4147461.28662	2011	04	17	2014	12	09
EBRE	13410M001	4833520.36255	41536.82572	4147461.28609	2014	12	10	2016	12	14
EBRE	13410M001	4833520.36197	41536.82588	4147461.28664	2016	12	15	2025	12	31
EBRO	15025M001	4840621.89656	71330.77789	4138740.73493	2024	11	27	2025	12	31
EIVI	19487M001	4965341.10835	121946.08349	3988187.57056	2011	04	17	2025	12	31
EJEA	19371M001	4736994.00201	-93430.61360	4256243.94459	2011	04	17	2022	05	20

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EJEA	19371M001	4736994.00211	-93430.61298	4256243.94092	2022	05	21	2025	12	31
EJID	15008M001	5110462.58601	-250262.43187	3795531.91523	2020	09	23	2025	12	31
ELCI	19382M001	4704010.52580	-215109.20696	4288289.33370	2011	04	17	2012	03	23
ELCI	19382M001	4704010.52952	-215109.21304	4288289.33456	2012	03	24	2011	04	17
ELGE	19353S001	4657557.66682	-202242.02399	4338991.39241	2011	04	17	2014	04	01
ELGE	19353S001	4657557.76010	-202242.02372	4338991.44973	2014	04	02	2021	02	19
ELGE	19353S001	4657557.74930	-202242.01835	4338991.46636	2021	02	20	2011	04	17
EMAZ	17001M001	4645924.55412	-276950.41351	4347759.15529	2016	11	29	2022	08	01
EMAZ	17001M001	4645924.55808	-276950.41661	4347759.14988	2022	08	02	2025	12	31
ESCO	13435M001	4696265.16790	79978.21559	4304244.73849	2011	04	17	2016	09	28
ESCO	13435M001	4696265.17465	79978.21987	4304244.74697	2016	09	29	2025	12	31
ESPU	15019M001	5041149.92503	-140683.87139	3894363.43041	2023	08	18	2025	12	31
ESTE	19426M001	4695724.10582	-165983.16308	4299460.71516	2011	04	17	2018	11	26
ESTE	19426M001	4695724.09952	-165983.16212	4299460.71835	2018	11	27	2025	12	31
FORM	19488M001	4982380.07038	124271.52552	3966899.82549	2011	04	17	2025	12	31
FRAG	19380M001	4783341.48888	27062.58892	4205079.43429	2012	01	31	2025	12	31
FRNE	14607M001	4645429.29473	1098211.64904	4216361.57540	2019	07	24	2025	12	31
FRRL	19493M001	4587906.79904	-672424.90876	4364929.37425	2016	04	08	2023	11	29
FRRL	19493M001	4587906.80016	-672424.90683	4364929.37595	2023	11	30	2011	04	17
FUDE	17009M001	4645300.46630	-390541.37326	4341266.53770	2017	10	13	2025	12	31
GAIA	13902M001	4759095.61874	-718818.91230	4171491.11954	2011	04	17	2012	06	03
GAIA	13902M001	4759095.61775	-718818.91239	4171491.11956	2012	06	04	2014	06	17
GAIA	13902M001	4759095.62637	-718818.91028	4171491.11579	2014	06	18	2019	10	13
GAIA	13902M001	4759095.66632	-718818.91210	4171491.15343	2019	10	14	2021	01	26
GAIA	13902M001	4759095.62222	-718818.90609	4171491.11318	2021	01	27	2025	12	31
GARR	13489M001	4796983.76395	160308.73508	4187339.97278	2011	04	17	2016	02	17
GARR	13489M001	4796983.78803	160308.73802	4187339.99553	2016	02	18	2025	12	31
GERN	19389M001	4642811.65713	-217223.46887	4353278.44626	2011	04	17	2012	03	27
GERN	19389M001	4642811.66233	-217223.47953	4353278.45923	2012	03	28	2019	03	09
GERN	19389M001	4642811.67306	-217223.47147	4353278.45697	2019	03	10	2025	12	31
GIRO	19381M001	4738101.81853	236301.86632	4249110.79934	2012	02	01	2018	08	11
GIRO	19381M001	4738101.80814	236301.86500	4249110.80116	2018	08	12	2025	12	31
GMSR	15026M001	4786406.62098	-361917.35698	4187222.88050	2025	02	26	2025	12	31
GRA1	13459M002	5077918.01417	-319155.72117	3834700.92683	2011	04	17	2025	12	31
GRAS	10002M006	4581691.15614	556114.57438	4389360.55839	2011	04	17	2025	12	31
GRAU	19367M001	4733035.04298	28146.96819	4261728.11273	2011	04	17	2025	12	31
GRSL	19477M001	4621834.08312	-557429.16055	4346271.54982	2012	03	22	2016	08	25
GRSL	19477M001	4621834.09318	-557429.16703	4346271.54833	2016	08	26	2025	12	05
GRSL	19477M001	4621834.09532	-557429.15476	4346271.55183	2025	12	06	2025	12	31
GUDI	19439M001	4706776.49251	-588343.89920	4251196.02189	2015	03	05	2025	12	31
GUIJ	19315M001	4830459.72405	-480250.16499	4124995.17111	2011	04	17	2020	08	21
GUIJ	19315M001	4830459.72276	-480250.16150	4124995.17901	2020	08	22	2025	12	31
HERR	19393M001	4931778.81085	-435814.40449	4008253.35414	2011	04	17	2024	01	01
HERR	19393M001	4931778.80234	-435814.40941	4008253.36448	2024	01	02	2025	12	31
HERS	13212M007	4033470.33183	23672.64773	4924301.08210	2011	04	17	2025	12	31
HERT	13212M010	4033461.15632	23537.56099	4924318.03268	2011	04	17	2015	03	03
HERT	13212M010	4033461.15652	23537.56288	4924318.02905	2015	03	04	2025	12	31
HOND	15012M002	4640529.68021	-145676.53119	4358781.33764	2021	06	23	2025	12	31
HUE1	17004M001	5055038.93410	-605792.45223	3829116.56445	2017	06	25	2025	12	31
HUEL	13451M001	5049613.14041	-612885.68059	3835143.84091	2011	04	17	2015	04	15
HUEL	13451M001	5049613.14172	-612885.68445	3835143.84285	2015	04	16	2019	07	25
HUEL	13451M001	5049613.14640	-612885.68405	3835143.84548	2019	07	26	2022	03	16
HUEL	13451M001	5049613.13761	-612885.69523	3835143.84714	2022	10	21	2025	12	31
HULV	13451M002	5044358.18275	-611644.37634	3842260.03087	2011	04	17	2020	09	30
HULV	13451M002	5044358.19561	-611644.37267	3842260.03670	2020	10	01	2025	12	31
HUOV	13479M001	5070413.82751	-171935.01131	3853104.52628	2011	04	17	2025	12	31
IBIZ	13454S001	4967979.68042	125662.80415	3984692.52689	2011	04	17	2025	12	31
ICOL	17014M001	4899669.82089	58552.77931	4069403.15814	2018	01	31	2025	12	31
IEJA	19375M001	4855889.21662	-34414.07405	4123414.85013	2011	04	17	2024	04	17
IEJA	19375M001	4855889.22286	-34414.07259	4123414.85332	2024	04	18	2025	12	31
IENG	12724S001	4476537.67357	600431.17529	4488761.09320	2011	04	17	2019	04	11
IENG	12724S001	4476537.68891	600431.18150	4488761.10558	2019	04	12	2023	06	09
IENG	12724S001	4476537.69030	600431.17876	4488761.10286	2023	06	10	2025	12	31
IGEL	19352S001	4645951.73176	-165575.04957	4352549.95335	2011	04	17	2014	07	01
IGEL	19352S001	4645951.79129	-165575.04973	4352550.00024	2014	07	02	2022	01	18

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IGEL	19352S001	4645951.78788	-165575.04978	4352550.00396	2022	01	19	2025	12	31
IGNE	13411M001	4851137.67128	-314518.71004	4116282.01666	2011	04	17	2025	12	31
ISPS	19484M001	4640596.83321	-206964.32282	4356391.49635	2016	01	23	2024	12	20
ISPS	19484M001	4640596.83549	-206964.32437	4356391.49993	2024	12	21	2025	12	31
JACA	19356M001	4704765.67209	-59661.07315	4292726.50836	2011	04	17	2025	12	31
JERE	19397M001	4975837.70097	-591521.39084	3933687.66601	2011	04	17	2025	12	31
JUMA	13486M002	4997066.07540	-115637.47230	3949588.96399	2011	04	17	2025	12	31
JUMI	13486M001	4999149.21741	-115817.56277	3946872.59681	2011	04	17	2023	07	11
KAST	19499M001	4646949.42407	-240747.81249	4348014.57259	2016	11	29	2025	12	31
LAGO	13903M001	5035246.65780	-767657.41736	3826194.07057	2011	04	17	2016	12	27
LAGO	13903M001	5035246.65612	-767657.41049	3826194.07372	2016	12	28	2019	11	26
LAGO	13903M001	5035246.69937	-767657.42336	3826194.10256	2019	11	27	2021	01	26
LAGO	13903M001	5035246.65732	-767657.41811	3826194.06999	2021	01	27	2025	12	31
LANT	19384M001	4687496.34645	-244091.41915	4304688.92362	2011	04	17	2012	03	20
LANT	19384M001	4687496.34495	-244091.42794	4304688.92215	2012	03	21	2015	09	11
LANT	19384M001	4687496.34608	-244091.43556	4304688.91938	2015	09	12	2016	10	09
LANT	19384M001	4687496.34959	-244091.42499	4304688.91193	2016	10	10	2017	01	29
LANT	19384M001	4687496.34473	-244091.42857	4304688.92147	2017	01	30	2025	12	31
LARE	19440M001	4632832.30323	-279026.69039	4360314.00897	2011	04	17	2025	12	31
LAZK	19354S001	4666098.64029	-178186.74103	4330463.20328	2011	04	17	2012	03	27
LAZK	19354S001	4666098.69692	-178186.74026	4330463.24923	2012	03	28	2025	12	31
LEBR	13466M001	5076496.25773	-540901.75314	3810560.72071	2011	04	17	2018	10	04
LEBR	13466M001	5076496.25600	-540901.75160	3810560.72417	2018	10	05	2023	10	18
LEBR	13466M001	5076496.29956	-540901.77574	3810560.75307	2023	10	19	2025	12	31
LEIT	19428M001	4663521.29493	-155859.26723	4334519.46051	2011	04	17	2018	10	30
LEIT	19428M001	4663521.29558	-155859.26796	4334519.46618	2018	10	31	2025	12	31
LEMZ	15010M001	4634635.81763	-234971.58509	4361117.94780	2021	01	21	2025	12	31
LENA	19474M001	4636819.79816	-473022.09510	4339899.79223	2011	04	17	2012	07	07
LENA	19474M001	4636819.79701	-473022.08168	4339899.77905	2012	07	08	2018	07	07
LENA	19474M001	4636819.79005	-473022.08211	4339899.77952	2018	07	08	2025	12	31
LEON	13475M001	4680871.36835	-463168.41390	4294606.54205	2011	04	17	2025	12	31
LERM	19316M001	4735507.63004	-310945.30727	4248423.61383	2011	04	17	2017	03	11
LERM	19316M001	4735507.63966	-310945.31310	4248423.60719	2017	03	12	2018	06	15
LERM	19316M001	4735507.64009	-310945.31574	4248423.61291	2018	06	16	2025	12	31
LLEI	13488M001	4774382.83166	49690.06116	4215084.78746	2011	04	17	2016	03	04
LLEI	13488M001	4774382.83805	49690.06216	4215084.79501	2016	03	05	2025	12	31
LLER	19398M001	4989172.95062	-525326.37615	3926553.06103	2011	04	17	2024	01	01
LLER	19398M001	4989172.94753	-525326.37476	3926553.06832	2024	01	02	2025	12	31
LLIV	13436M001	4709586.49176	162244.34206	4285914.01819	2011	04	17	2016	04	28
LLIV	13436M001	4709586.50320	162244.34015	4285914.01787	2016	04	29	2025	12	31
LNGS	15005M001	4594268.39701	-689086.52439	4355620.32391	2020	01	23	2025	12	31
LORC	13484M001	5054086.55744	-148834.04911	3875323.12574	2011	04	17	2023	08	03
LORC	13484M001	5054086.54447	-148834.05543	3875323.11614	2023	08	04	2025	12	31
LOSA	19421M001	4701480.99771	-180216.82894	4292617.30196	2011	04	17	2019	02	06
LOSA	19421M001	4701480.99523	-180216.82574	4292617.30296	2019	02	07	2025	12	31
LRCA	13484M002	5053795.71186	-149955.41909	3875687.16666	2013	02	11	2023	07	20
LRCA	13484M002	5053795.72204	-149955.42555	3875687.18332	2023	07	21	2025	12	31
LROC	10023M001	4424632.77692	-94175.48330	4577543.83739	2011	04	17	2025	12	31
LUAR	19478M001	4600350.41464	-526430.08760	4371859.06938	2011	04	17	2020	02	25
LUAR	19478M001	4600350.42632	-526430.08699	4371859.08638	2020	02	26	2022	08	18
LUAR	19478M001	4600350.39958	-526430.07727	4371859.05788	2022	08	19	2025	12	31
LUGO	19358M001	4632372.43302	-613539.25514	4327264.44591	2011	04	17	2025	12	31
MAD1	15003M001	4854006.86094	-312714.69193	4112991.99725	2019	12	13	2025	12	31
MAD2	13407S012	4849202.55457	-360329.25544	4114912.93810	2011	04	17	2012	02	22
MAD2	13407S012	4849202.55886	-360329.25791	4114912.94045	2012	02	23	2017	09	14
MAD2	13407S012	4849202.55398	-360329.25561	4114912.93787	2017	09	15	2025	12	31
MADR	13407S012	4849202.55750	-360329.25529	4114912.93794	2011	04	17	2014	01	15
MADR	13407S012	4849202.56152	-360329.25903	4114912.94167	2014	01	16	2017	09	08
MADR	13407S012	4849202.55553	-360329.25697	4114912.93841	2017	09	09	2025	12	31
MAL1	13444M002	4918778.92294	226582.58903	4040490.89802	2015	10	12	2018	06	18
MAL1	13444M002	4918778.92937	226582.58914	4040490.90153	2018	06	19	2025	12	31
MALA	13443M001	5103282.41005	-392096.81376	3793146.84648	2011	04	17	2013	03	13
MALA	13443M001	5103282.40665	-392096.81876	3793146.84209	2013	03	14	2015	11	30
MALA	13443M001	5103282.40726	-392096.82263	3793146.84997	2015	12	01	2025	12	31
MALL	13444M001	4919369.67913	225499.57864	4039849.58337	2011	04	17	2022	05	18

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MALL	13444M001	4919369.68699	225499.57811	4039849.59133	2022	05	19	2025	12	31
MAN2	10091M002	4274276.14965	11584.08348	4718385.78395	2011	04	17	2016	10	12
MAN2	10091M002	4274276.14568	11584.08282	4718385.78159	2016	10	13	2025	12	31
MARE	13490M002	4777633.89962	203108.98033	4206595.14903	2011	04	17	2012	01	26
MARE	13490M002	4777633.89221	203108.98037	4206595.14467	2012	01	27	2025	12	31
MAZA	19436M001	5058844.43069	-115728.36939	3869850.75829	2011	04	17	2023	07	21
MAZA	19436M001	5058844.44673	-115728.36909	3869850.76224	2023	07	22	2025	12	31
MCIA	13482M002	5032231.83311	-98602.56374	3904658.26791	2011	04	17	2025	12	31
MDNR	19390M002	4737408.54949	-418525.63250	4236957.57803	2016	03	11	2018	06	10
MDNR	19390M002	4737408.56644	-418525.62881	4236957.55957	2018	06	11	2025	13	31
MDPM	19317M001	4668237.34530	-284179.25617	4323180.78088	2011	04	17	2020	10	09
MDPM	19317M001	4668237.34236	-284179.25906	4323180.78076	2020	10	10	2025	12	31
MEDA	19399M001	4938922.32334	-549499.41459	3985271.84612	2011	04	17	2025	12	31
MEDI	12711M003	4461400.95569	919593.33384	4449504.54278	2011	04	17	2025	12	31
MELI	19379M001	5205628.35447	-268411.29227	3663428.14382	2011	12	14	2016	01	25
MELI	19379M001	5205628.35432	-268411.29189	3663428.14530	2016	01	26	2025	12	31
MENC	19490M001	4881780.52115	326920.31690	4078080.65338	2011	04	17	2025	12	31
MEQU	19365M001	4792937.71822	25394.07245	4194156.65950	2011	04	17	2025	12	31
MIBR	19357M001	4690311.09423	-240753.80190	4301820.72648	2011	06	24	2017	11	25
MIBR	19357M001	4690311.07900	-240753.79939	4301820.71390	2017	11	26	2018	05	23
MIBR	19357M001	4690311.08909	-240753.80463	4301820.72673	2018	05	24	2020	07	18
MIBR	19357M001	4690311.08132	-240753.80277	4301820.72124	2020	07	19	2025	12	31
MLGA	13460M001	5103686.76943	-395880.40168	3792208.98630	2011	04	17	2020	09	23
MLGA	13460M001	5103686.78112	-395880.40006	3792208.99351	2020	09	24	2025	12	31
MLLL	19379M002	5205101.80833	-266278.96299	3664265.75099	2020	01	23	2020	11	22
MLLL	19379M002	5205101.85224	-266278.95043	3664265.69429	2020	11	23	2024	11	29
MLLL	19379M002	5205101.84649	-266278.86991	3664265.71007	2024	11	30	2025	12	31
MOFR	19415M001	5069015.33439	-484732.98988	3828251.29445	2014	10	01	2025	12	31
MOLI	19408M001	4830386.90864	-158492.68386	4149832.90209	2012	12	03	2025	12	31
MORE	19303M001	4849098.73271	-8595.39980	4130985.75882	2011	04	17	2012	04	11
MOTA	19406M001	4922399.03053	-246774.78717	4036074.42915	2013	07	12	2025	12	31
MOTR	13478M001	5106803.43505	-314181.60029	3795722.96865	2011	04	17	2025	12	31
MRAT	19437M001	5013378.96104	-174968.21547	3927817.83749	2011	04	17	2015	09	24
MRAT	19437M001	5013378.95532	-174968.19763	3927817.83495	2015	09	25	2023	07	22
MRAT	19437M001	5013378.95995	-174968.19377	3927817.84455	2023	07	23	2025	12	31
MUL1	19438M001	5028272.15602	-127177.67475	3909243.40051	2011	04	17	2014	12	04
MUL1	19438M001	5028272.04906	-127177.66981	3909243.31663	2014	12	05	2021	09	16
MUL1	19438M001	5028272.17735	-127177.67466	3909243.41512	2021	09	17	2025	12	31
MUNI	19364M001	4818549.70469	-67907.36474	4165522.81123	2011	04	17	2025	12	31
MURC	13482M001	5032093.83302	-98790.03722	3904835.44516	2011	04	17	2025	12	31
MYRG	19318M001	4715120.98122	-434379.65600	4260053.21749	2011	04	17	2017	11	03
MYRG	19318M001	4715120.96734	-434379.65168	4260053.20466	2017	11	04	2025	12	31
NAVA	19394M001	4877541.43639	-473530.68280	4069260.56404	2011	04	17	2023	11	29
NAVA	19394M001	4877541.43166	-473530.68595	4069260.57708	2023	11	30	2025	12	31
NOT1	12717M004	4934546.45239	1321264.67737	3806455.93053	2011	04	17	2025	12	31
NVDA	15027M001	4806919.97412	-400118.53608	4160447.89490	2025	04	09	2025	12	31
OLM1	19319M002	4784318.12627	-391990.37000	4186851.60643	2015	07	11	2025	12	31
OLME	19319M001	4784317.81024	-391990.00137	4186850.52728	2011	04	17	2018	07	11
OLOT	15013M001	4732259.68081	207441.90712	4257794.10360	2022	07	24	2025	12	31
ONOR	17011M001	4815416.22666	-576024.31925	4129950.66567	2017	11	24	2025	12	31
ORON	19427M001	4659696.15273	-130865.28524	4338948.46789	2011	04	17	2018	10	30
ORON	19427M001	4659696.14213	-130865.28356	4338948.46523	2018	10	31	2025	12	31
ORTG	15017M001	4572083.56159	-632104.16861	4387283.15208	2023	02	02	2025	12	31
ORUS	15002M001	4865082.73246	-273800.75572	4102950.35452	2019	07	15	2025	12	31
OSCA	17008M001	4736901.04909	-34214.28787	4257470.34033	2017	08	13	2025	12	31
OSUN	13465M001	5064632.60770	-451576.10586	3838171.70389	2011	04	17	2017	11	29
OSUN	13465M001	5064632.61017	-451576.09198	3838171.70616	2017	11	30	2025	12	31
OVIE	15015M001	4620652.41143	-473851.18757	4356839.99259	2011	04	17	2025	12	31
PALC	19349M001	5046810.77850	-258521.94587	3879916.94610	2011	04	17	2025	12	31
PALE	19320M001	4732004.67458	-377197.30934	4246778.56348	2011	04	17	2017	08	23
PALE	19320M001	4732004.66606	-377197.30256	4246778.55543	2017	08	24	2025	12	31
PAML	19416M001	4685099.62231	-133832.70699	4312070.15599	2011	04	17	2017	10	26
PANE	19475M001	4632463.93538	-371362.71253	4353899.63658	2011	04	17	2025	12	03
PANE	19475M001	4632463.94532	-371362.69771	4353899.64324	2025	12	04	2011	04	17
PAS2	19351S001	4644909.42221	-156645.61580	4353622.65852	2014	04	01	2025	12	31

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PASA	19351S001	4644909.41157	-156645.61469	4353622.64630	2011	04	17	2011	06	06
PASA	19351S001	4644909.42223	-156645.61587	4353622.65858	2011	06	07	2025	12	31
PDB1	19321M002	4808577.58469	-437826.07652	4154826.73698	2018	07	14	2024	06	28
PDB1	19321M002	4808577.58631	-437826.08168	4154826.73276	2024	06	29	2025	05	20
PDB1	19321M002	4808577.58795	-437826.08212	4154826.73069	2025	05	21	2025	12	31
PDBC	19321M001	4808744.44337	-437636.66658	4154652.58128	2011	04	17	2018	07	04
PEN1	19322M002	4765459.37109	-343230.61827	4212367.74216	2018	07	18	2025	12	31
PENA	19322M001	4765448.43079	-343233.82370	4212376.74203	2011	04	17	2018	07	18
PENI	19391M001	4864338.07225	30472.47211	4111614.20391	2012	04	25	2025	12	31
PLAN	13442M001	4787329.01810	166085.63667	4197602.45626	2011	04	17	2016	05	24
PLAN	13442M001	4787329.03151	166085.63958	4197602.46748	2016	05	25	2025	12	31
PNAV	15007M001	4826152.78410	-336622.55305	4145875.80463	2020	07	17	2025	12	31
PONF	19323M001	4675271.66944	-539440.49821	4291332.37929	2011	04	17	2017	12	11
PONF	19323M001	4675271.68012	-539440.48796	4291332.33364	2017	12	12	2025	12	31
POZO	13468M001	4988767.00336	-423244.34288	3939354.58824	2011	04	17	2018	10	01
POZO	13468M001	4988766.99722	-423244.34294	3939354.59350	2018	10	02	2025	12	31
PRAT	12760M001	4518264.40631	886376.43166	4399019.13972	2011	04	17	2011	12	06
PRAT	12760M001	4518264.37694	886376.42487	4399019.13901	2011	12	07	2021	03	12
PRAT	12760M001	4518264.38581	886376.42549	4399019.14370	2021	03	13	2021	07	05
PRAT	12760M001	4518264.39434	886376.42896	4399019.15423	2021	07	06	2025	12	31
PSBR	19324M001	4712137.60121	-548291.27712	4250491.94090	2011	04	17	2018	06	27
PSBR	19324M001	4712137.60273	-548291.27510	4250491.94512	2018	06	28	2025	12	31
PUIG	19496M001	4714323.28502	153959.85479	4280589.25067	2016	06	09	2025	12	31
QINT	19325M001	4742323.19718	-251335.87893	4245185.92143	2011	04	17	2025	12	31
QNT0	19363M001	4789431.38764	-41541.05644	4198123.65457	2025	04	16	2025	12	31
RABT	35001M002	5255617.80655	-631746.07107	3546322.29970	2011	04	17	2025	12	31
RENS	19441M001	4660722.80800	-336678.42608	4327853.91298	2011	04	17	2018	06	24
RENS	19441M001	4660722.80064	-336678.42145	4327853.91344	2018	06	25	2025	12	31
REUS	13491M001	4807314.34050	98057.02028	4176767.59957	2011	04	17	2016	04	20
REUS	13491M001	4807314.33293	98057.02146	4176767.59905	2016	04	21	2025	12	31
RIAL	19327M002	4792320.73600	-291457.90688	4186569.76490	2016	01	25	2017	08	11
RIAL	19327M002	4792320.72920	-291457.90281	4186569.77186	2017	08	12	2025	12	31
RIAN	19326M001	4656842.12359	-407916.76401	4326356.72982	2011	04	17	2020	10	19
RIAN	19326M001	4656842.12116	-407916.76739	4326356.72500	2020	10	20	2025	12	31
RIAZ	19327M001	4792551.49587	-291510.71395	4186313.86297	2011	04	17	2016	01	25
RIBE	19473M001	4618539.31884	-409516.80003	4365145.40193	2011	04	17	2019	11	21
RIBE	19473M001	4618539.34149	-409516.79264	4365145.42157	2019	11	22	2022	11	12
RIBE	19473M001	4618539.31545	-409516.78511	4365145.39365	2022	11	13	2025	12	31
RIOL	13448M002	4708447.17917	-199490.83672	4284089.31090	2012	01	31	2025	12	31
RIOS	19390M001	4737412.55098	-418525.22725	4236949.94574	2011	04	17	2016	03	11
RNAN	19442M001	4636110.47370	-357683.94455	4351900.26361	2011	04	17	2020	07	23
RNAN	19442M001	4636110.50041	-357683.94356	4351900.27692	2020	07	24	2022	07	24
RNAN	19442M001	4636110.46882	-357683.94373	4351900.25888	2022	07	25	2025	12	31
ROAG	13402M007	5105577.58966	-555209.51396	3769713.63958	2018	10	03	2025	12	31
ROAP	13402M006	5105509.86278	-555201.02975	3769789.92060	2011	04	17	2011	10	26
ROAP	13402M006	5105509.83879	-555201.02032	3769789.90726	2011	10	27	2014	11	22
ROAP	13402M006	5105509.87306	-555201.02295	3769789.93228	2014	11	23	2017	12	12
RODI	17012M001	4684083.43876	-624179.22089	4270909.11750	2017	12	14	2025	12	31
RON1	17002M001	5098497.02621	-459286.46923	3793221.24820	2017	06	16	2025	12	31
ROND	13464M001	5096416.96455	-458741.99557	3796043.50935	2011	04	17	2017	06	24
RONL	19420M001	4686230.42219	-78093.99895	4312557.38033	2011	04	17	2018	10	29
RONL	19420M001	4686230.41553	-78093.99374	4312557.38684	2018	10	30	2025	12	31
ROVE	12774M001	4364680.85461	851736.58804	4557204.72004	2011	04	17	2025	12	31
SABI	19362M001	4709044.84505	-29761.05314	4288538.04573	2011	04	17	2025	12	31
SALA	13469M001	4803054.79423	-462131.63569	4158378.64227	2011	04	17	2025	12	31
SALD	19328M001	4692758.64412	-389353.57919	4288995.95447	2011	04	17	2025	12	31
SALI	15021M001	5043277.90945	-68531.96011	3891028.77295	2011	04	17	2023	08	17
SALI	15021M001	5043277.93384	-68531.97096	3891028.76247	2023	08	18	2025	12	31
SALS	19476M001	4613647.46996	-505773.56325	4360584.11809	2011	04	17	2018	07	12
SALS	19476M001	4613647.47144	-505773.56919	4360584.11280	2018	07	13	2022	09	05
SALS	19476M001	4613647.46996	-505773.55745	4360584.10891	2022	09	06	2025	12	31
SANR	19423M001	4719234.86458	-159786.08104	4273808.73166	2011	04	17	2018	11	26
SANR	19423M001	4719234.86046	-159786.08024	4273808.73042	2018	11	27	2025	12	31
SANS	19422M001	4702835.28395	-105651.52894	4293534.38010	2011	04	17	2025	12	31
SARR	19360M001	4882976.60308	-69206.70971	4090588.71071	2011	04	17	2025	12	31

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SART	18497M001	4865368.18822	791976.29529	4034868.87435	2018	12	17	2025	12	31
SBAR	13492M001	4745755.09127	180181.12606	4244588.93848	2011	04	17	2016	03	11
SBAR	13492M001	4745755.09992	180181.12955	4244588.95034	2016	03	12	2025	12	31
SCOA	10088M002	4639940.86416	-136225.48947	4359551.99947	2011	04	17	2022	02	02
SCOA	10088M002	4639940.86761	-136225.48901	4359552.00324	2022	02	03	2025	12	31
SEV1	17003M001	5044666.85273	-530411.78321	3853755.36361	2017	12	25	2025	12	31
SEVI	13457M001	5049343.94592	-528173.62775	3848026.86769	2011	04	17	2018	04	05
SFER	13402M004	5105519.16869	-555146.23681	3769803.12003	2011	04	17	2014	01	30
SFER	13402M004	5105519.15031	-555146.23214	3769803.11939	2014	01	31	2016	09	06
SFER	13402M004	5105519.15323	-555146.23012	3769803.12180	2016	09	07	2019	01	17
SFER	13402M004	5105519.17213	-555146.23304	3769803.13478	2019	01	18	2023	01	19
SFER	13402M004	5105519.17104	-555146.23101	3769803.13440	2023	01	20	2025	12	31
SGVA	19329M001	4812625.62961	-346690.27451	4158876.61667	2011	04	17	2020	02	16
SGVA	19329M001	4812625.63289	-346690.27608	4158876.61306	2020	02	17	2020	10	02
SGVA	19329M001	4812625.62679	-346690.27445	4158876.60653	2020	10	03	2025	12	31
SINE	19491M001	4911221.88736	258705.23749	4047909.85626	2011	04	17	2020	01	28
SINE	19491M001	4911221.88875	258705.23590	4047909.85556	2020	01	29	2025	12	31
SIRO	19495M001	4617120.77173	-468330.23799	4360987.27144	2016	06	21	2025	12	31
SJ01	19489M002	4934251.59646	258555.74344	4019801.40621	2024	03	14	2025	12	31
SJOR	19489M001	4934530.08224	258449.61781	4019464.95091	2011	04	17	2022	05	17
SMDV	19497M001	4853359.96342	-371425.00975	4108815.23477	2016	12	01	2025	12	31
SNTG	19409M001	4628811.72025	-696053.06852	4318397.55412	2013	12	19	2025	12	31
SONA	13495M001	4746473.77311	125685.29200	4245468.28414	2011	04	17	2016	05	03
SONA	13495M001	4746473.76874	125685.28818	4245468.29187	2016	05	04	2025	12	31
SONS	13446M001	4904660.50128	-339868.05680	4050823.47845	2011	04	17	2021	02	03
SONS	13446M001	4904660.50542	-339868.06018	4050823.48239	2021	02	04	2025	12	31
SOPU	19386M001	4643998.25069	-255914.45378	4350062.72127	2011	04	17	2012	03	27
SOPU	19386M001	4643998.25978	-255914.45335	4350062.72157	2012	03	28	2018	12	11
SOPU	19386M001	4643998.25517	-255914.45355	4350062.71935	2018	12	12	2025	12	31
SORG	13493M001	4719087.74648	93309.51674	4277294.33600	2011	04	17	2016	04	26
SORG	13493M001	4719087.73990	93309.51515	4277294.33586	2016	04	27	2025	12	31
SORI	13481M001	4761047.03387	-205417.30209	4226697.94139	2011	04	17	2020	09	30
SORI	13481M001	4761047.03003	-205417.30146	4226697.93752	2020	10	01	2025	12	31
SPAB	17015M001	4911538.46430	-373754.16918	4039874.92171	2018	02	14	2025	12	31
SRNA	19361M001	4762586.63641	-13525.51776	4228739.32332	2011	04	17	2025	12	31
SR0M	19346M001	4726071.22666	-202807.63724	4265655.88750	2011	04	17	2020	10	21
SR0M	19346M001	4726071.21699	-202807.63436	4265655.90161	2020	10	22	2025	12	31
STVD	19330M001	4715995.77900	-496864.93226	4252246.12382	2011	04	17	2025	12	31
TAFA	19417M001	4706422.54448	-137769.90994	4288744.57724	2011	04	17	2025	12	31
TALR	19414M001	4940565.76401	-452704.10251	3995657.10831	2014	07	24	2025	12	31
TALV	17016M001	4878606.27778	-421920.06963	4073797.11806	2018	05	14	2025	12	31
TAR0	19350M002	5140805.01043	-504304.48057	3728988.70528	2019	06	06	2023	12	22
TAR0	19350M002	5140804.89348	-504304.50835	3728988.73526	2023	12	23	2025	12	31
TAR2	19350M003	5139149.08809	-504524.72915	3731311.27939	2019	06	14	2025	12	31
TARI	19350M001	5140808.34182	-504298.12145	3728984.71687	2011	04	17	2018	05	29
TARI	19350M001	5140808.34132	-504298.12296	3728984.71939	2018	05	30	2019	05	03
TARR	17005M001	4771756.96482	97124.80457	4217574.06403	2017	06	21	2025	12	31
TERU	13487M001	4867391.67181	-95523.91336	4108341.24904	2011	04	17	2016	02	03
TERU	13487M001	4867391.67990	-95523.92175	4108341.23759	2016	02	04	2021	02	18
TERU	13487M001	4867391.67142	-95523.91712	4108341.24719	2021	02	19	2025	12	31
TLMF	10003M010	4627010.06782	111069.20080	4374122.86667	2011	04	17	2012	09	28
TLMF	10003M010	4627010.05310	111069.20626	4374122.85144	2012	09	29	2025	12	31
TLSE	10003M009	4627852.05305	119639.75182	4372993.30461	2011	04	17	2012	09	04
TLSE	10003M009	4627852.05261	119639.74619	4372993.30462	2012	09	05	2016	03	11
TLSE	10003M009	4627852.05377	119639.74424	4372993.30017	2016	03	12	2016	03	21
TLSE	10003M009	4627852.05226	119639.75178	4372993.30418	2016	03	22	2025	12	31
TOR0	19302M002	5033805.03767	-59783.94745	3903332.54482	2022	11	09	2025	12	31
TOR0	19332M001	4761773.93437	-449367.10503	4206573.67873	2011	04	17	2018	01	11
TOR0	19332M001	4761773.91811	-449367.10140	4206573.66362	2018	01	12	2025	12	31
TORR	19302M001	5033805.36266	-59823.11375	3903319.50955	2011	04	17	2022	02	10
TORR	19302M001	5033805.36461	-59823.10701	3903319.50524	2022	02	11	2025	12	31
TRAU	19492M001	4899860.10245	247496.94482	4062910.24203	2011	04	17	2025	12	31
TRLV	19443M001	4633347.94488	-328511.65085	4356365.05386	2014	08	21	2025	12	31
TRRG	15006M001	4813794.87367	101945.37779	4169074.32843	2020	01	09	2025	12	31
TRUJ	19395M001	4904335.55495	-502972.78059	4033927.35487	2011	04	17	2025	12	31

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TUD1	19418M002	4741779.22830	-132733.49360	4249843.92168	2015	10	22	2025	05	30
TUD1	19418M002	4741779.22746	-132733.49576	4249843.92748	2025	05	30	2025	12	31
TUDE	19418M001	4741784.00639	-132734.50444	4249840.49996	2011	04	17	2018	11	09
TUDE	19418M001	4741784.00183	-132734.50554	4249840.50491	2018	11	10	2025	12	31
UCA1	13455M002	5101025.01557	-555217.24824	3775803.36777	2015	06	01	2018	10	03
UCA1	13455M002	5101025.02264	-555217.24988	3775803.37094	2018	10	04	2025	12	31
UCAD	13455M001	5101039.39115	-555095.94926	3775797.70117	2011	04	17	2015	03	05
UJAE	13458M001	5036325.09852	-332899.16541	3887177.04536	2011	04	17	2018	10	01
UJAE	13458M001	5036325.10631	-332899.16822	3887177.04751	2018	10	02	2025	12	31
UPNA	19429M001	4685467.17515	-133789.48885	4311640.11775	2011	04	17	2018	11	08
UPNA	19429M001	4685467.16814	-133789.48678	4311640.11750	2018	11	09	2025	12	31
UTI1	19301M002	4923207.25488	-104440.25836	4041273.06767	2018	05	17	2025	12	31
UTIE	19301M001	4922873.22832	-103857.75027	4041693.69663	2011	04	17	2017	04	01
UTIE	19301M001	4922873.23493	-103857.75139	4041693.69717	2017	04	02	2022	02	09
UTIE	19301M001	4922873.24443	-103857.75150	4041693.69862	2022	02	10	2025	07	18
UTIE	19301M001	4922873.23690	-103857.75282	4041693.69888	2025	07	19	2025	12	31
VALA	13463M002	4753521.66201	-391505.64339	4221500.50818	2011	04	17	2025	12	31
VALC	19396M001	4895695.62331	-622662.30026	4027719.56921	2011	04	17	2016	11	10
VALC	19396M001	4895695.62060	-622662.29943	4027719.57407	2016	11	11	2019	02	01
VALC	19396M001	4895695.61524	-622662.29663	4027719.57539	2019	02	02	2025	12	31
VALE	13439M001	4929534.01958	-29050.70265	4033709.89477	2011	04	17	2016	08	26
VALE	13439M001	4929534.02034	-29050.70245	4033709.89490	2016	08	27	2022	03	28
VALE	13439M001	4929534.01957	-29050.70727	4033709.89693	2022	03	29	2025	12	31
VBLO	19333M001	4648840.84723	-515301.56289	4323298.23481	2011	04	17	2016	07	17
VBLO	19333M001	4648840.83834	-515301.57090	4323298.23489	2016	07	18	2018	05	10
VBLO	19333M001	4648840.84285	-515301.56529	4323298.24365	2018	05	11	2020	08	27
VBLO	19333M001	4648840.85043	-515301.56421	4323298.24938	2020	08	28	2025	12	31
VCIA	13497M001	4932702.93419	-29607.80212	4029833.01092	2011	04	17	2022	02	09
VCIA	13497M001	4932702.92137	-29607.80599	4029833.00632	2022	02	10	2025	12	31
VCRD	19444M001	4642968.74447	-312434.77431	4347614.49335	2011	04	17	2013	03	18
VCRD	19444M001	4642968.74647	-312434.76991	4347614.50634	2013	03	19	2017	02	03
VCRD	19444M001	4642968.75243	-312434.78723	4347614.50194	2017	02	04	2020	07	23
VCRD	19444M001	4642968.74130	-312434.77222	4347614.49500	2020	07	24	2025	12	31
VDGO	19334M001	4697595.56458	-329356.17670	4288633.02220	2011	04	17	2020	10	12
VDGO	19334M001	4697595.57316	-329356.17476	4288633.02043	2020	10	13	2025	12	31
VEG1	19479M002	4601456.04169	-568981.66433	4365325.51592	2015	07	22	2025	12	31
VEGA	19479M001	4601467.70903	-568972.10708	4365315.96447	2011	04	17	2016	03	31
VIAR	13472M001	5014599.63226	-263899.05877	3920551.41859	2011	04	17	2019	09	25
VIAR	13472M001	5014599.63816	-263899.05562	3920551.42569	2019	09	26	2025	12	31
VICA	19411M001	5017778.37740	-270248.15392	3916251.06098	2014	05	09	2025	12	31
VIGO	13450M001	4677481.05086	-725205.08905	4260827.16085	2011	04	17	2021	04	28
VIGO	13450M001	4677481.04928	-725205.08535	4260827.15624	2021	04	29	2022	11	27
VIGO	13450M001	4677481.04901	-725205.08739	4260827.15475	2022	11	28	2011	04	17
VILH	17019M001	4975338.58392	-246937.86636	3971451.31402	2018	12	11	2025	12	31
VILL	13406M001	4849833.86915	-335049.31918	4116014.66625	2011	04	17	2012	12	28
VILL	13406M001	4849833.89074	-335049.31963	4116014.68145	2012	12	29	2020	01	08
VILL	13406M001	4849833.88785	-335049.31962	4116014.68005	2020	01	09	2025	12	31
VITO	19385M001	4679398.05584	-218437.04023	4314897.94620	2011	04	17	2012	03	25
VITO	19385M001	4679398.05135	-218437.05531	4314897.94769	2012	03	26	2025	12	31
VJOI	17013M001	4996056.48042	-17297.33279	3951708.82752	2017	12	19	2023	09	29
VJOI	17013M001	4996056.49023	-17297.33261	3951708.83670	2023	09	30	2025	12	31
VLFF	15024M001	4735618.45234	-463741.12339	4234171.42130	2024	11	19	2025	12	31
VNAN	17007M001	4701243.47443	-463395.36919	4272263.77889	2017	07	25	2018	03	24
VNAN	17007M001	4701243.47197	-463395.37031	4272263.78110	2018	03	25	2025	12	31
VRO1	19366M002	4830179.74230	13149.77038	4152173.90367	2021	06	02	2024	04	15
VRO2	19366M003	4830179.75438	13150.15187	4152173.56807	2024	04	15	2025	12	31
VROB	19366M001	4830265.00979	13139.45863	4152094.70156	2011	04	17	2021	06	03
VTGD	19335M001	4790227.44266	-540128.30587	4163704.67940	2011	04	17	2011	07	01
VTGD	19335M001	4790227.44133	-540128.31145	4163704.67767	2011	07	02	2012	07	18
VTGD	19335M001	4790227.43849	-540128.30422	4163704.67278	2012	07	19	2012	10	02
VTGD	19335M001	4790227.43926	-540128.31273	4163704.67512	2012	10	03	2017	08	24
VTGD	19335M001	4790227.44135	-540128.31709	4163704.67241	2017	08	25	2021	09	22
VTGD	19335M001	4790227.44358	-540128.32371	4163704.67155	2021	09	23	2025	12	31
VTRO	19347M001	4729356.20219	-235164.31091	4261094.76579	2011	04	17	2020	10	19
VTRO	19347M001	4729356.19211	-235164.32146	4261094.77537	2020	10	20	2025	12	31

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XIX1	19480M002	4606617.06410	-459669.59849	4372677.95446	2018 06 28	2025 12 31
XIXO	19480M001	4605738.83516	-459868.54878	4373716.90152	2015 11 12	2017 08 26
XIXO	19480M001	4605738.84299	-459868.54987	4373716.91025	2017 08 27	2025 12 31
YEB1	13420M002	4848800.38580	-261769.67863	4123001.04793	2011 04 17	2025 12 31
YEB2	13420M003	4848805.15614	-261553.89917	4123000.90265	2022 06 04	2025 12 31
YEBE	13420M001	4848724.90061	-261632.50071	4123093.89163	2011 04 17	2021 03 24
YEBE	13420M001	4848724.90155	-261632.49841	4123093.89421	2021 03 25	2025 12 31
ZARA	13462M001	4773803.53022	-73506.54648	4215453.66647	2011 04 17	2025 12 31
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ZIM2	14001M008	4331300.14081	567537.07552	4633133.50635	2011 04 17	2013 10 10
ZIM2	14001M008	4331300.14370	567537.07267	4633133.50189	2013 10 11	2025 12 31
ZIMM	14001M004	4331297.33404	567555.62786	4633133.72126	2011 04 17	2025 12 31
ZMRA	19305M001	4760050.40176	-478407.80148	4205230.07581	2011 04 17	2020 11 14
ZMRA	19305M001	4760050.39791	-478407.80146	4205230.06551	2020 11 15	2025 12 31
ZOUF	12763M001	4282710.33070	986659.20002	4609469.59784	2011 04 17	2025 12 31
ZUER	19359M001	4756718.90263	-65624.82970	4234786.98878	2011 04 17	2025 12 31