

Título del estudio : Reporte de resultados del levantamiento fotogramétrico con RPAS y DGPS en el ámbito de la unidad fiscalizable Corihuarmi de Minera IRL SA, ubicada en los distritos Chongos Alto y Huantán, provincias Huancayo y Yauyos, departamento Junín y Lima, en abril y mayo de 2023.

Etapa : Segunda ejecución

Fecha de ejecución : Del 25 de abril al 03 de mayo de 2023

Expediente de evaluación : 011-2023-DEAM-EAC Código de acción : 0003-4-2023-412

Tipo de evaluación : Programada

Fecha : 28/06/2023 Reporte N°: RR-012-2023-STEC

1. INFORMACIÓN GENERAL

a. Tipo	Evaluación Ambiental Causalidad
b. Distrito	Chongos Alto y Huantán
c. Provincia	Huancayo y Yauyos
d. Departamento	Junín y Lima
e. Ámbito de estudio	Zona 1, Zona 2 y Zona 3 de la unidad fiscalizable Corihuarmi
f. Unidad Fiscalizable/ actividades económicas en la zona de estudio	Unidad fiscalizable Corihuarmi

Profesionales que aportaron a este documento:

N.º	Nombres y Apellidos	Profesión	Actividad desarrollada	N.º de Colegiatura
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2	Marco Antonio Miranda Valiente	Ingeniero Ambiental	Gabinete	CIP 180884
3	Xiomara Solanch Mandujano Reyes	Ingeniera Ambiental	Gabinete	CIP 233811

2. DATOS DEL MONITOREO

Matriz evaluada	Superficie terrestre
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3. RESULTADOS

Se presenta en anexos los resultados del procesamiento fotogramétrico con RPAS¹ y DGPS² en la Zona 1, Zona 2 y Zona 3 de la unidad fiscalizable Corihuarmi, ubicada en los distritos Chongos Alto y Huantán, provincias Huancayo y Yauyos, departamentos Junín y Lima. Estos resultados se materializan en el procesamiento de puntos geodésicos, ortomosaicos RGB y modelos de elevación digital.

¹ Remotely Piloted Aircraft System (RPAS).

² Differential Global Positioning System (DGPS).

4. ANEXOS

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Profesionales que aportaron a este documento:

Anexos

Reporte de resultados del levantamiento fotogramétrico con RPAS y DGPS en el ámbito de la unidad fiscalizable Cerro de Pasco de Minera IRL SA, ubicada en los distritos Chongos Alto y Huantán, provincias Huancayo y Yauyos, departamento Junín y Lima, en abril y mayo de 2023

Anexo A

Resultados de superficie terrestre

Anexo A.1

Procesamiento fotogramétrico

Tabla A.1.1

Resumen de imágenes procesadas



PERÚ

Ministerio
del Ambiente

Organismo de Evaluación y
Fiscalización Ambiental - OEFA

STEC: Subdirección Técnica
Científica

Decenio de la Igualdad de Oportunidades para Mujeres y Hombres
"Año de la unidad, la paz y el desarrollo"

Tabla A.1.1 Resumen de imágenes procesadas

Zona de Evaluación	N° Reporte de software de procesamiento fotogramétrico	Tipo de Sensor	Cantidad de imágenes procesadas	Cantidad de imágenes alineadas	Área cubierta (km ²)	Resolución (cm/pix)	Tamaño de archivo	Productos generados
Zona 1	RSPF-0030-2023-ITEGI	RGB	572	572	1,118	11,45	0,346 GB	Modelo de elevación digital
						3,71	1,43 GB	Ortomosaico RGB
Zona 2	RSPF-0032-2023-ITEGI	RGB	78	78	0,230	11,29	0,080 GB	Modelo de elevación digital
						3,92	0,263 GB	Ortomosaico RGB
Zona	RSPF-0033-2023-ITEGI	RGB	621	632	1,082	6,60	1,93 GB	Modelo de elevación digital
						3,86	1,32 GB	Ortomosaico RGB

Anexo A.1.2

Reporte de software de procesamiento fotogramétrico

Reporte de Software de Procesamiento
Fotogramétrico

RSPF-0030-2023-ITEGI

Zona 1 - Unidad Minera Corihuarmi

Código de Estudio: ITE-2023-032

17 mayo 2023

Quality Report



Generated with Pix4Denterprise version 4.5.6



Important: Click on the different icons for:



Help to analyze the results in the Quality Report



Additional information about the sections



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Summary



Project	CORIHUARM 3
Processed	2023-05-17 14:12:46
Camera Model Name(s)	FC6310_8.8_4864x3648 (RGB)
Average Ground Sampling Distance (GSD)	3.71 cm / 1.46 in
Area Covered	1.118 km ² / 111.7853 ha / 0.43 sq. mi. / 276.3704 acres

Quality Check



Images	median of 12506 keypoints per image	
Dataset	572 out of 572 images calibrated (100%), all images enabled	
Camera Optimization	0.95% relative difference between initial and optimized internal camera parameters	
Matching	median of 7634.67 matches per calibrated image	
Georeferencing	yes, 5 GCPs (5 3D), mean RMS error = 0.003 m	

Preview

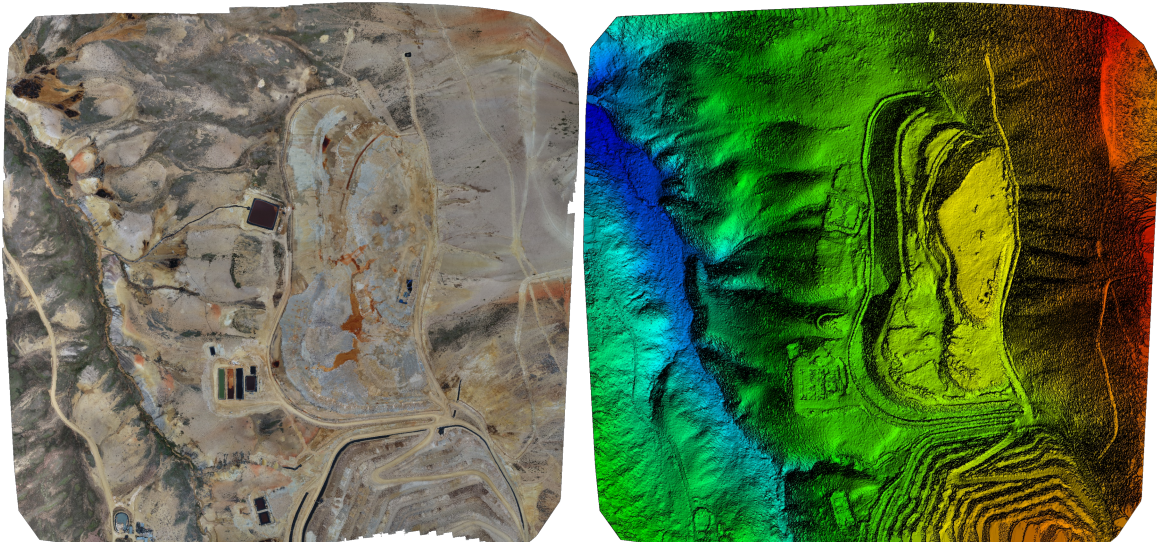


Figure 1: Orthomosaic and the corresponding sparse Digital Surface Model (DSM) before densification.

Calibration Details



Number of Calibrated Images	572 out of 572
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Initial Image Positions

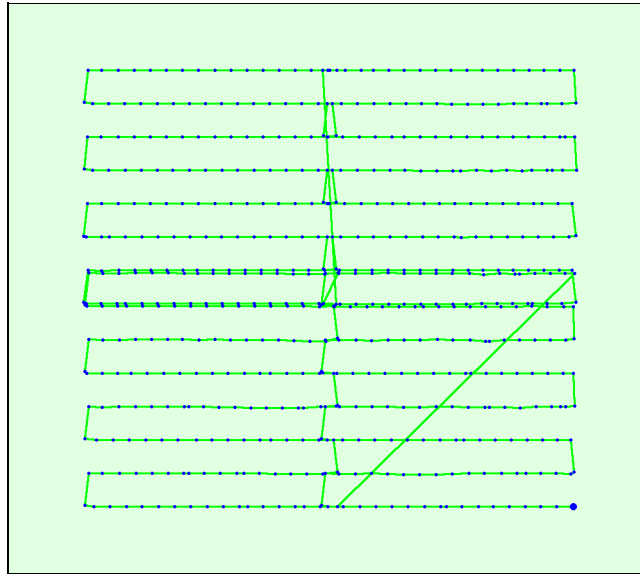
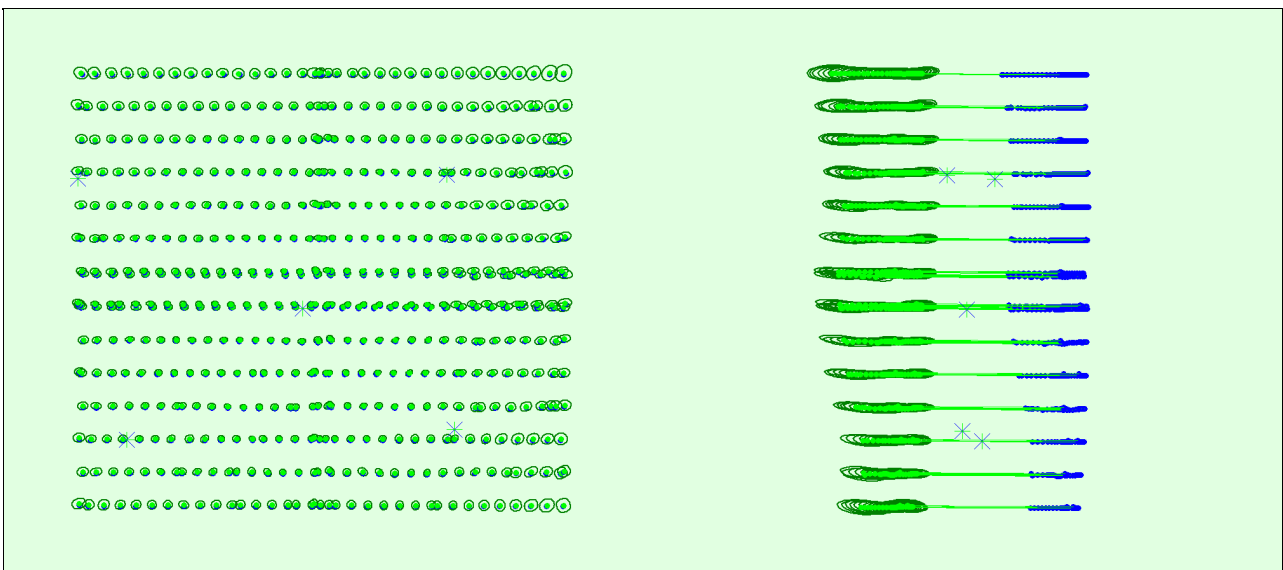
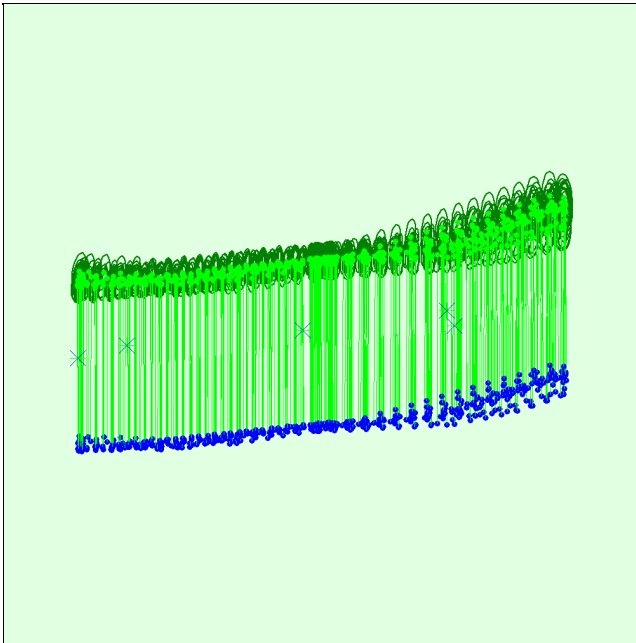


Figure 2: Top view of the initial image position. The green line follows the position of the images in time starting from the large blue dot.

Computed Image/GCPs/Manual Tie Points Positions





Uncertainty ellipses 500x magnified

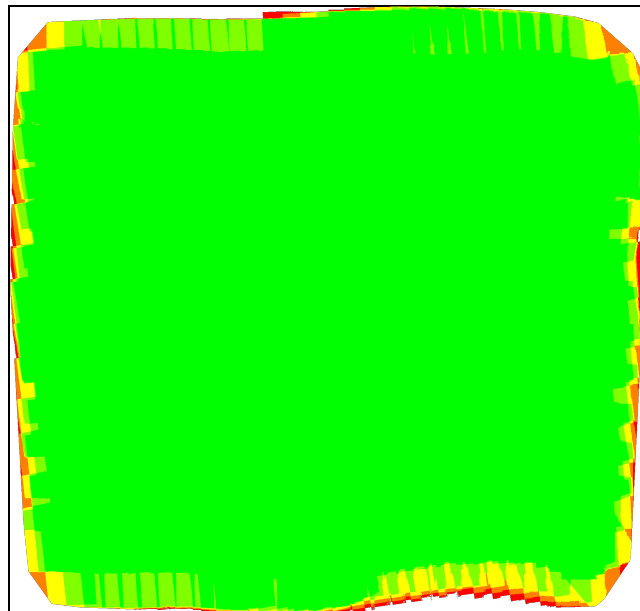
Figure 3: Offset between initial (blue dots) and computed (green dots) image positions as well as the offset between the GCPs initial positions (blue crosses) and their computed positions (green crosses) in the top-view (XY plane), front-view (XZ plane), and side-view (YZ plane). Dark green ellipses indicate the absolute position uncertainty of the bundle block adjustment result.

? Absolute camera position and orientation uncertainties



	X[m]	Y[m]	Z[m]	Omega [degree]	Phi [degree]	Kappa [degree]
Mean	0.018	0.015	0.066	0.005	0.007	0.002
Sigma	0.004	0.004	0.010	0.001	0.001	0.001

? Overlap



Number of overlapping images: 1 2 3 4 5+

Figure 4: Number of overlapping images computed for each pixel of the orthomosaic. Red and yellow areas indicate low overlap for which poor results may be generated. Green areas indicate an overlap of over 5 images for every pixel. Good quality results will be generated as long as the number of keypoint matches is also sufficient for these areas (see Figure 5 for keypoint matches).

Bundle Block Adjustment Details



Number of 2D Keypoint Observations for Bundle Block Adjustment	4217380
Number of 3D Points for Bundle Block Adjustment	1017232
Mean Reprojection Error [pixels]	0.087

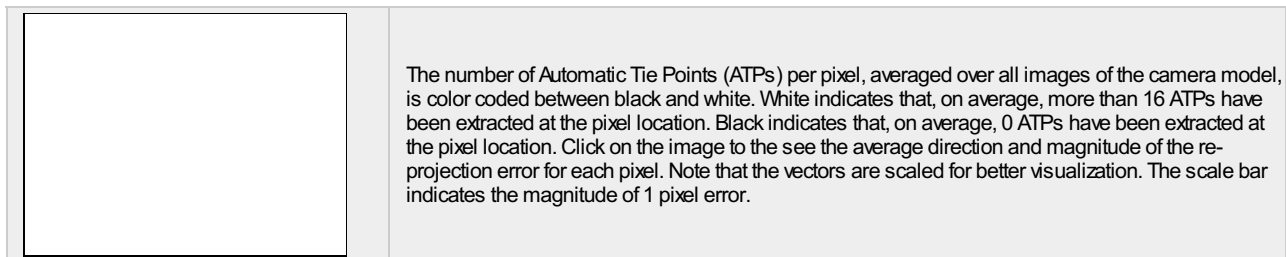
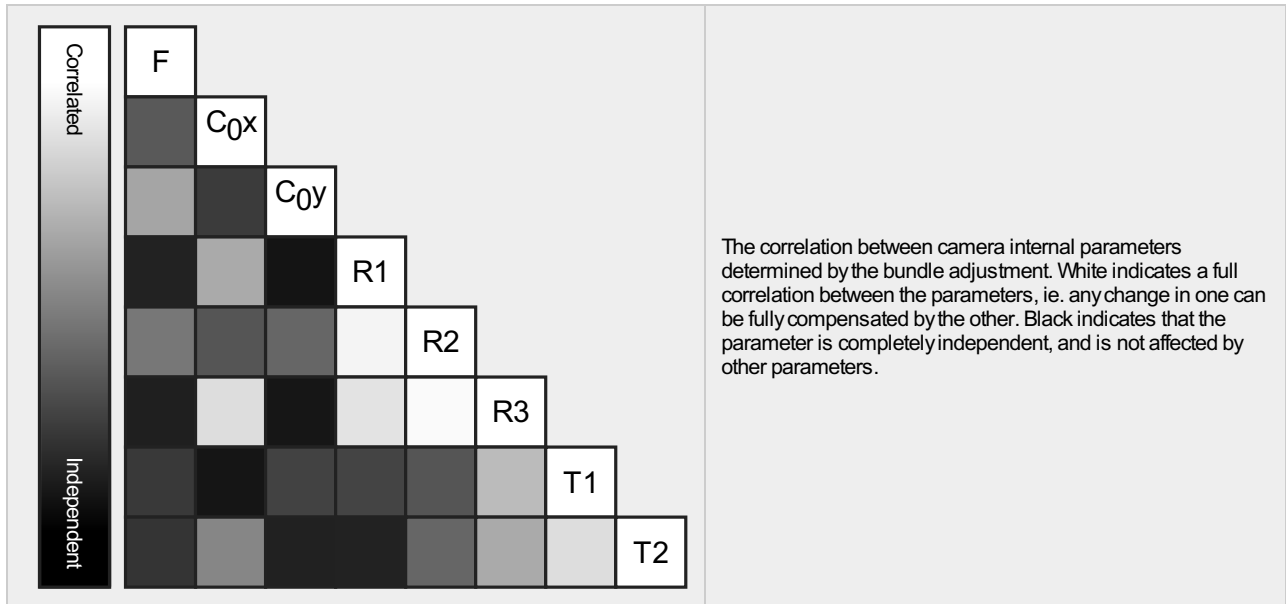
Internal Camera Parameters

FC6310_8.8_4864x3648 (RGB). Sensor Dimensions: 11.407 [mm] x 8.556 [mm]



EXIF ID: FC6310S_8.8_4864x3648

	Focal Length	Principal Point x	Principal Point y	R1	R2	R3	T1	T2
Initial Values	3666.955 [pixel] 8.600 [mm]	2432.001 [pixel] 5.704 [mm]	1823.999 [pixel] 4.278 [mm]	0.004	-0.017	0.019	-0.000	0.000
Optimized Values	3701.909 [pixel] 8.682 [mm]	2408.467 [pixel] 5.649 [mm]	1816.640 [pixel] 4.261 [mm]	-0.010	-0.006	0.015	-0.002	-0.002
Uncertainties (Sigma)	1.677 [pixel] 0.004 [mm]	0.062 [pixel] 0.000 [mm]	0.067 [pixel] 0.000 [mm]	0.000	0.000	0.000	0.000	0.000



2D Keypoints Table



	Number of 2D Keypoints per Image	Number of Matched 2D Keypoints per Image
Median	12506	7635
Mn	9353	3686
Max	16124	9652
Mean	12411	7373

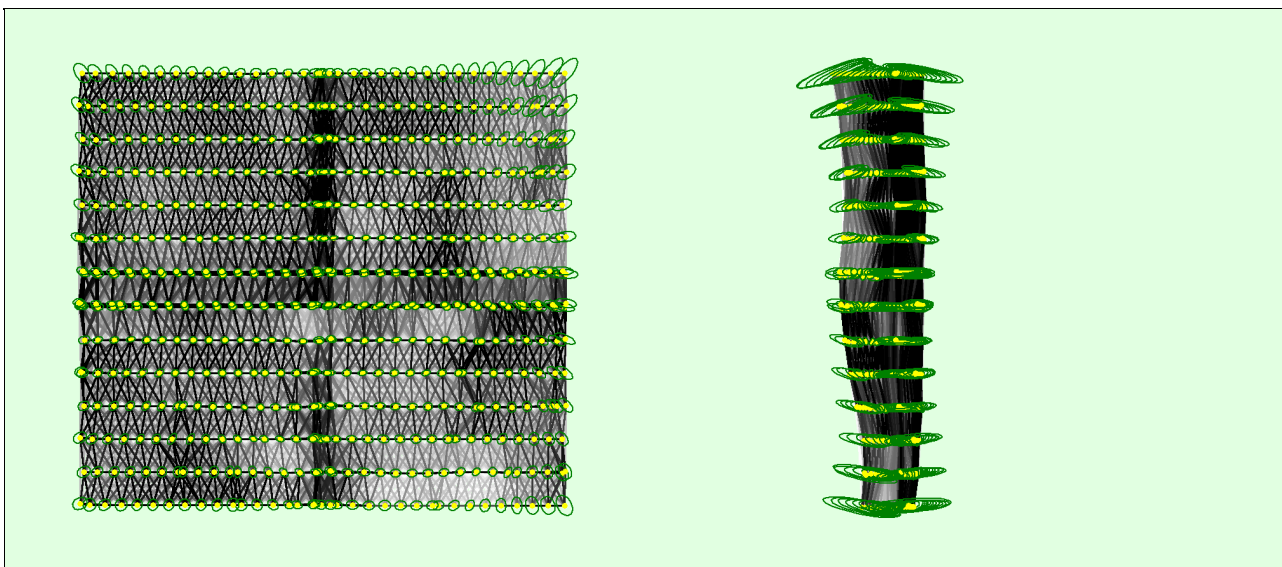
3D Points from 2D Keypoint Matches



	Number of 3D Points Observed
In 2 Images	430880

In 3 Images	193024
In 4 Images	111614
In 5 Images	69101
In 6 Images	47840
In 7 Images	36556
In 8 Images	29691
In 9 Images	21476
In 10 Images	17166
In 11 Images	13799
In 12 Images	11937
In 13 Images	8614
In 14 Images	5918
In 15 Images	4689
In 16 Images	3595
In 17 Images	2872
In 18 Images	2291
In 19 Images	1808
In 20 Images	1375
In 21 Images	883
In 22 Images	647
In 23 Images	433
In 24 Images	320
In 25 Images	224
In 26 Images	146
In 27 Images	75
In 28 Images	59
In 29 Images	49
In 30 Images	62
In 31 Images	44
In 32 Images	39
In 33 Images	5

? 2D Keypoint Matches



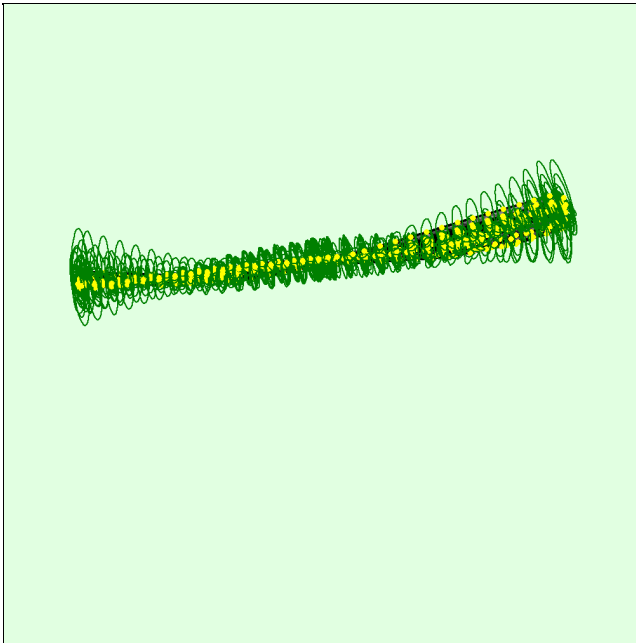


Figure 5: Computed image positions with links between matched images. The darkness of the links indicates the number of matched 2D keypoints between the images. Bright links indicate weak links and require manual tie points or more images. Dark green ellipses indicate the relative camera position uncertainty of the bundle block adjustment result.

Relative camera position and orientation uncertainties

	X[m]	Y[m]	Z[m]	Omega [degree]	Phi [degree]	Kappa [degree]
Mean	0.021	0.017	0.050	0.015	0.018	0.002
Sigma	0.006	0.008	0.030	0.009	0.009	0.001

Geolocation Details

Ground Control Points

GCP Name	Accuracy XYZ [m]	Error X [m]	Error Y [m]	Error Z [m]	Projection Error [pixel]	Verified/Marked
PAF-COR-01 (3D)	0.020/ 0.020	0.001	0.005	0.002	0.337	10 / 10
PAF-COR-02 (3D)	0.020/ 0.020	0.003	0.002	0.001	0.404	10 / 10
PAF-COR-03 (3D)	0.020/ 0.020	-0.004	-0.011	-0.006	0.302	10 / 10
PAF-COR-04 (3D)	0.020/ 0.020	-0.000	0.001	-0.000	0.279	9 / 9
PAF-COR-05 (3D)	0.020/ 0.020	0.000	0.003	0.000	0.270	10 / 10
Mean [m]		0.000004	0.000014	-0.000449		
Sigma [m]		0.002253	0.005704	0.002711		
RMS Error [m]		0.002253	0.005704	0.002748		

Localisation accuracy per GCP and mean errors in the three coordinate directions. The last column counts the number of calibrated images where the GCP has been automatically verified vs. manually marked.

Absolute Geolocation Variance

Mn Error [m]	Max Error [m]	Geolocation Error X [%]	Geolocation Error Y [%]	Geolocation Error Z [%]
--------------	---------------	-------------------------	-------------------------	-------------------------

-	-15.00	0.00	0.00	0.00
-15.00	-12.00	0.00	0.00	0.00
-12.00	-9.00	0.00	0.00	0.35
-9.00	-6.00	0.00	0.00	10.31
-6.00	-3.00	0.00	0.00	12.94
-3.00	0.00	50.00	55.94	20.45
0.00	3.00	50.00	44.06	29.72
3.00	6.00	0.00	0.00	23.78
6.00	9.00	0.00	0.00	2.45
9.00	12.00	0.00	0.00	0.00
12.00	15.00	0.00	0.00	0.00
15.00	-	0.00	0.00	0.00
Mean [m]		0.063761	-2.257096	-329.768911
Sigma [m]		1.025466	0.231903	3.932704
RMS Error [m]		1.027447	2.268978	329.792360

Min Error and Max Error represent geolocation error intervals between -1.5 and 1.5 times the maximum accuracy of all the images. Columns X, Y, Z show the percentage of images with geolocation errors within the predefined error intervals. The geolocation error is the difference between the initial and computed image positions. Note that the image geolocation errors do not correspond to the accuracy of the observed 3D points.

Geolocation Bias	X	Y	Z
Translation [m]	0.063761	-2.257096	-329.768911

Bias between image initial and computed geolocation given in output coordinate system.

Relative Geolocation Variance

Relative Geolocation Error	Images X[%]	Images Y[%]	Images Z[%]
[-1.00, 1.00]	100.00	100.00	100.00
[-2.00, 2.00]	100.00	100.00	100.00
[-3.00, 3.00]	100.00	100.00	100.00
Mean of Geolocation Accuracy [m]	5.000000	5.000000	10.000000
Sigma of Geolocation Accuracy [m]	0.000000	0.000000	0.000000

Images X, Y, Z represent the percentage of images with a relative geolocation error in X, Y, Z.

Geolocation Orientational Variance	RMS [degree]
Omega	0.578
Phi	0.787
Kappa	4.561

Geolocation RMS error of the orientation angles given by the difference between the initial and computed image orientation angles.

Initial Processing Details

System Information

Hardware	CPU: Intel(R) Core(TM) i9-9900KS CPU @ 4.00GHz RAM: 64GB GPU: NVIDIA GeForce RTX 2060 SUPER (Driver: 27.21.14.6172)
Operating System	Windows 10 Pro, 64-bit

Coordinate Systems

Image Coordinate System	WGS 84
Ground Control Point (GCP) Coordinate System	WGS 84 / UTMzone 18S (EGM2008 Geoid)
Output Coordinate System	WGS 84 / UTMzone 18S (EGM2008 Geoid)

Processing Options



Detected Template	RODRIGO*
Keypoints Image Scale	Custom, Image Scale: 0.5
Advanced: Matching Image Pairs	Aerial Grid or Corridor
Advanced: Matching Strategy	Use Geometrically Verified Matching: no
Advanced: Keypoint Extraction	Targeted Number of Keypoints: Automatic
Advanced: Calibration	Calibration Method: Standard Internal Parameters Optimization: All External Parameters Optimization: All Rematch: Auto, no

Point Cloud Densification details



Processing Options



Image Scale	multiscale, 1/2 (Half image size, Default)
Point Density	Low (Fast)
Minimum Number of Matches	3
3D Textured Mesh Generation	no
LOD	Generated: no
Advanced: Image Groups	group1
Advanced: Use Processing Area	yes
Advanced: Use Annotations	yes
Time for Point Cloud Densification	10m:57s
Time for Point Cloud Classification	NA
Time for 3D Textured Mesh Generation	NA

Results



Number of Generated Tiles	1
Number of 3D Densified Points	15571832
Average Density (per m ³)	19.73

DSM, Orthomosaic and Index Details



Processing Options



DSM and Orthomosaic Resolution	1 x GSD (3.71 [cm/pixel])
DSM Filters	Noise Filtering: yes Surface Smoothing: yes, Type: Sharp
Orthomosaic	Generated: yes Merge Tiles: yes GeoTIFF Without Transparency: no Google Maps Tiles and KML: no
Time for DSM Generation	00s
Time for Orthomosaic Generation	29m:36s
Time for DTM Generation	00s
Time for Contour Lines Generation	00s
Time for Reflectance Map Generation	00s
Time for Index Map Generation	00s

Reporte de Software de Procesamiento
Fotogramétrico

RSPF-0032-2023-ITEGI

Zona 2 - Unidad Minera Corihuarmi

Código de Estudio: ITE-2023-032

17 mayo 2023

Quality Report



Generated with Pix4Denterprise version 4.5.6



Important: Click on the different icons for:



Help to analyze the results in the Quality Report



Additional information about the sections



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Summary



Project	CORIHUARM 2
Processed	2023-05-17 12:34:52
Camera Model Name(s)	FC6310_8.8_4864x3648 (RGB)
Average Ground Sampling Distance (GSD)	3.92 cm / 1.54 in
Area Covered	0.230 km ² / 23.0169 ha / 0.09 sq. mi. / 56.9055 acres

Quality Check



Images	median of 12887 keypoints per image	
Dataset	78 out of 78 images calibrated (100%), all images enabled	
Camera Optimization	0.96% relative difference between initial and optimized internal camera parameters	
Matching	median of 8713.54 matches per calibrated image	
Georeferencing	yes, 4 GCPs (4 3D), mean RMS error = 0.004 m	

Preview

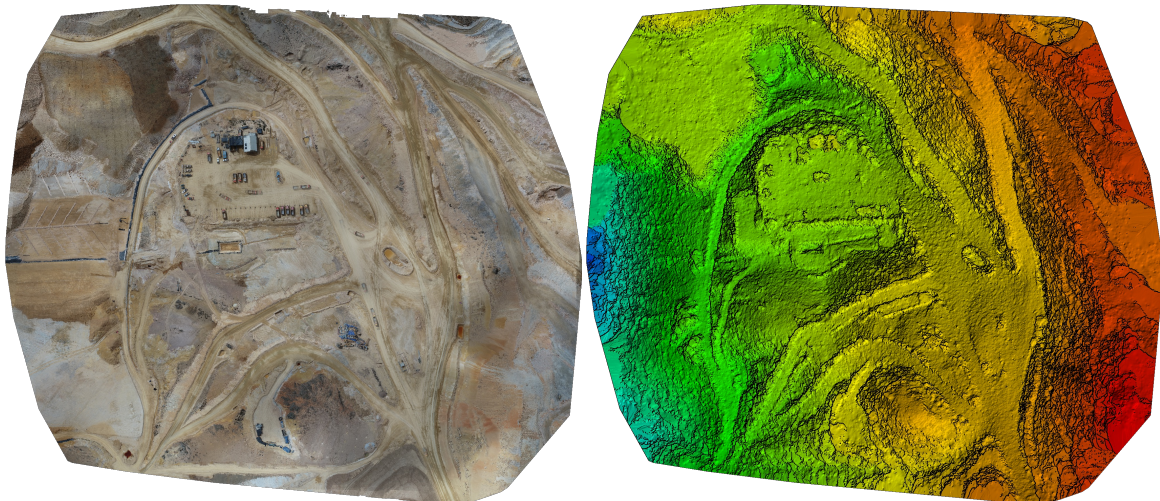


Figure 1: Orthomosaic and the corresponding sparse Digital Surface Model (DSM) before densification.

Calibration Details



Number of Calibrated Images	78 out of 78
Number of Geolocated Images	78 out of 78

? Initial Image Positions

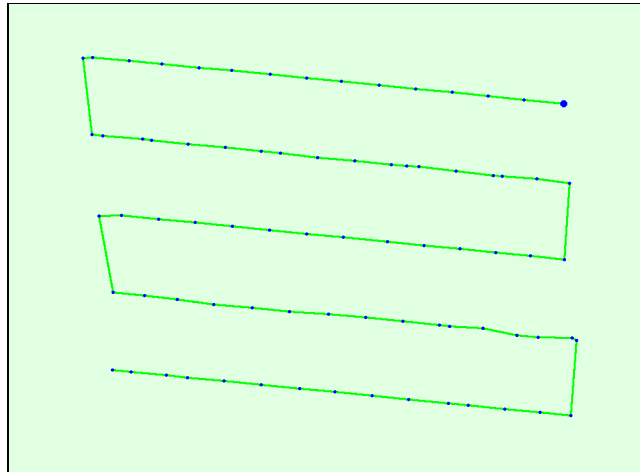
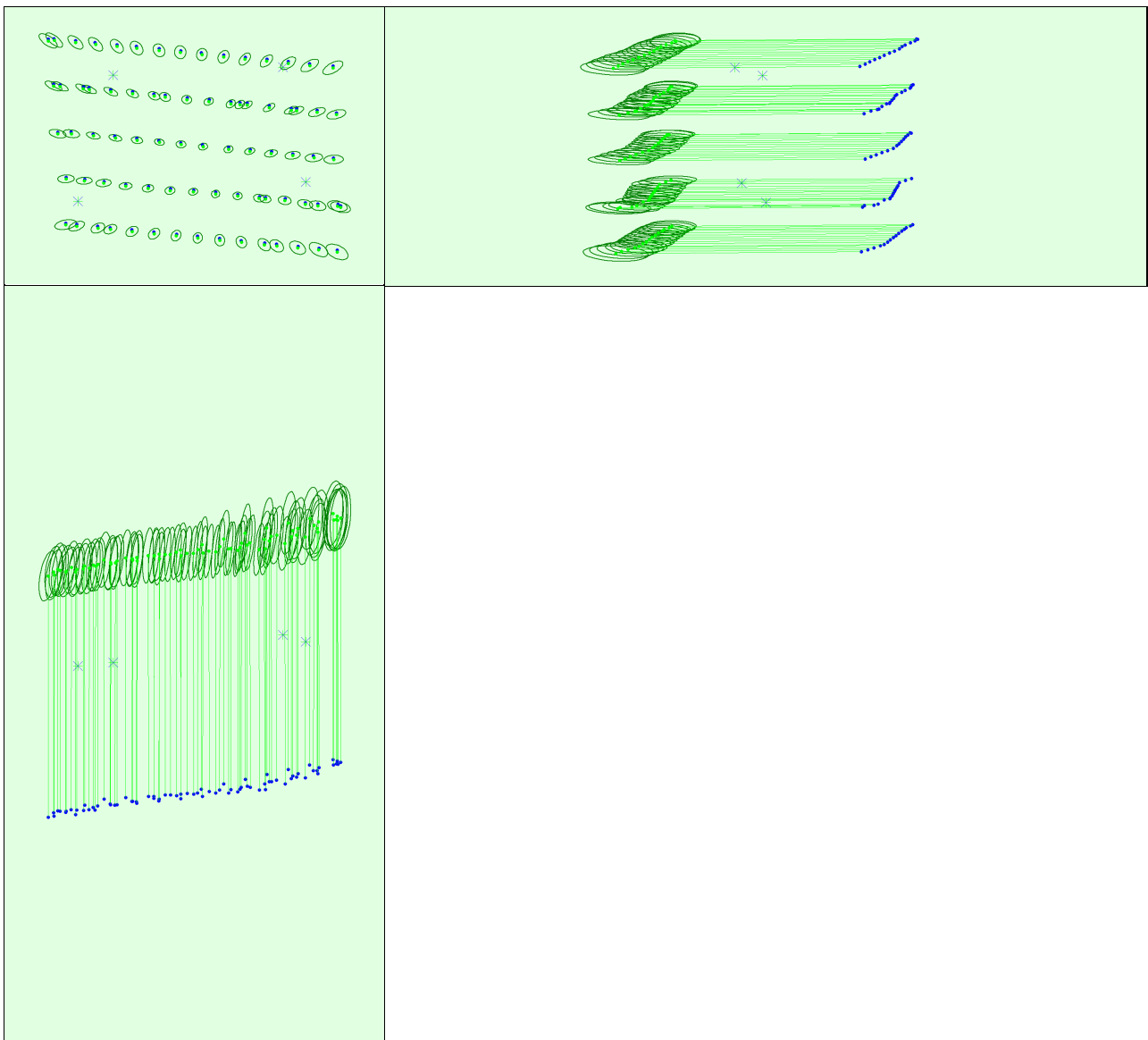


Figure 2: Top view of the initial image position. The green line follows the position of the images in time starting from the large blue dot.

? Computed Image/GCPs/Manual Tie Points Positions



Uncertainty ellipses 100x magnified

Figure 3: Offset between initial (blue dots) and computed (green dots) image positions as well as the offset between the GCPs initial positions (blue crosses) and their computed positions (green crosses) in the top-view (XY plane), front-view (XZ plane), and side-view (YZ plane). Dark green ellipses indicate the absolute position uncertainty of the bundle block adjustment result.

🔍 Absolute camera position and orientation uncertainties



	X[m]	Y[m]	Z[m]	Omega [degree]	Phi [degree]	Kappa [degree]
Mean	0.099	0.072	0.399	0.027	0.037	0.007
Sigma	0.025	0.017	0.027	0.007	0.009	0.002

🔍 Overlap

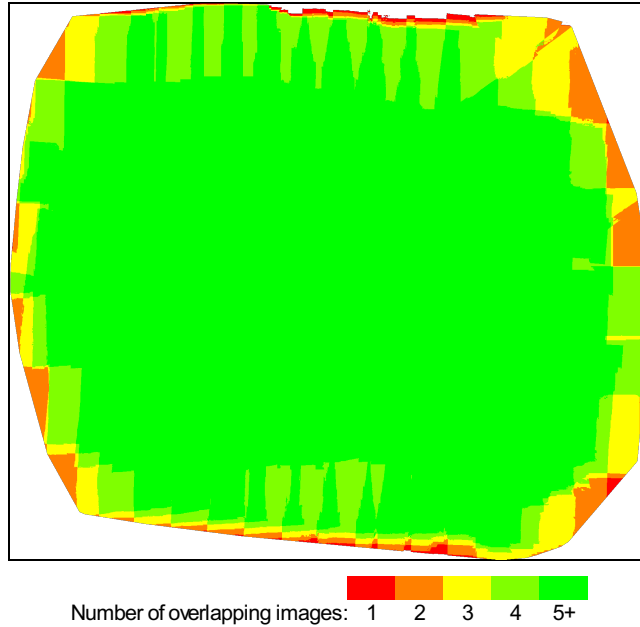


Figure 4: Number of overlapping images computed for each pixel of the orthomosaic. Red and yellow areas indicate low overlap for which poor results may be generated. Green areas indicate an overlap of over 5 images for every pixel. Good quality results will be generated as long as the number of keypoint matches is also sufficient for these areas (see Figure 5 for keypoint matches).

Bundle Block Adjustment Details



Number of 2D Keypoint Observations for Bundle Block Adjustment	673246
Number of 3D Points for Bundle Block Adjustment	193599
Mean Reprojection Error [pixels]	0.106

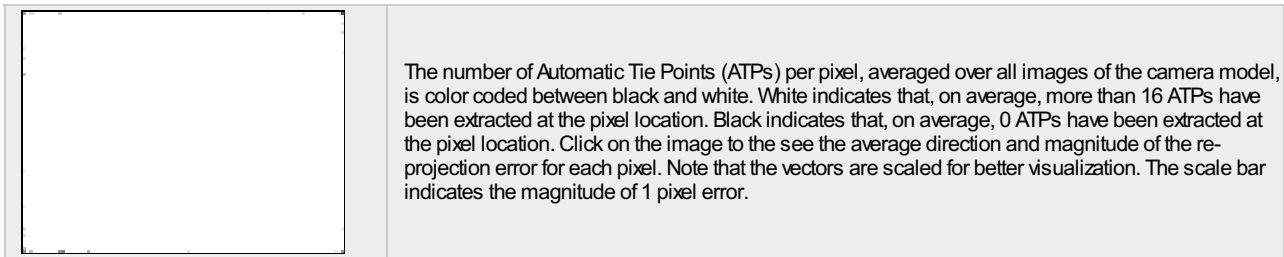
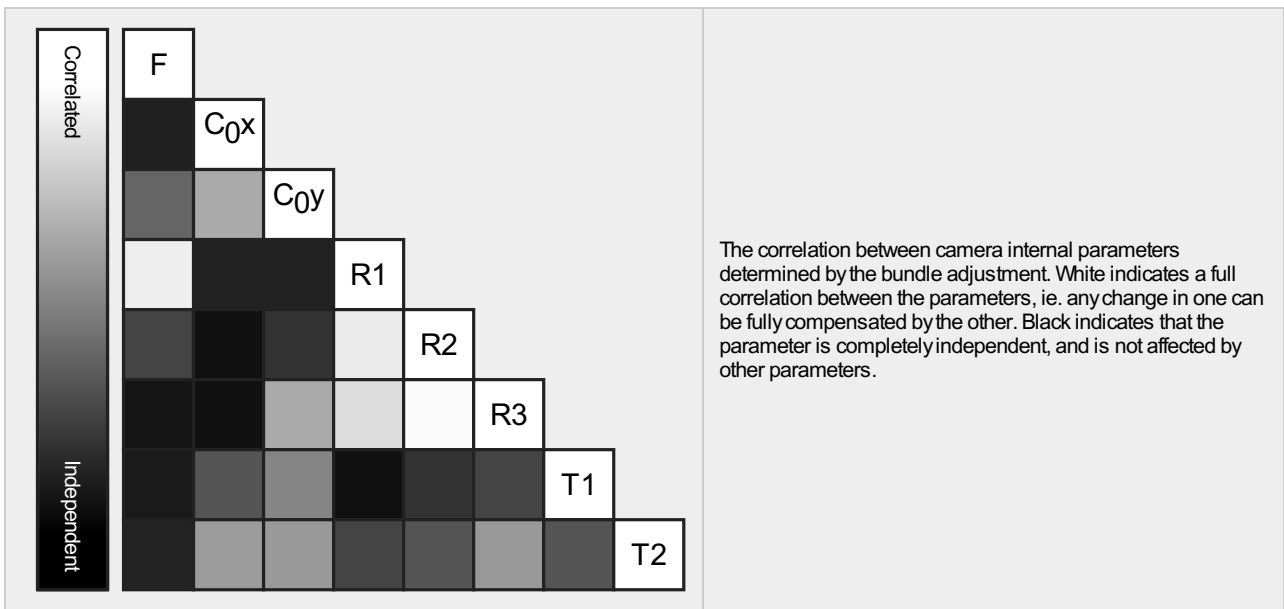
🔍 Internal Camera Parameters

📷 FC6310_8.8_4864x3648 (RGB). Sensor Dimensions: 11.407 [mm] x 8.556 [mm]



EXIF ID: FC6310S_8.8_4864x3648

	Focal Length	Principal Point x	Principal Point y	R1	R2	R3	T1	T2
Initial Values	3666.955 [pixel] 8.600 [mm]	2432.001 [pixel] 5.704 [mm]	1823.999 [pixel] 4.278 [mm]	0.004	-0.017	0.019	-0.000	0.000
Optimized Values	3702.413 [pixel] 8.683 [mm]	2407.986 [pixel] 5.647 [mm]	1816.664 [pixel] 4.261 [mm]	-0.010	-0.007	0.015	-0.002	-0.002
Uncertainties (Sigma)	9.945 [pixel] 0.023 [mm]	0.591 [pixel] 0.001 [mm]	0.568 [pixel] 0.001 [mm]	0.001	0.002	0.003	0.000	0.000



2D Keypoints Table

	Number of 2D Keypoints per Image	Number of Matched 2D Keypoints per Image
Median	12887	8714
Mn	11344	6008
Max	14000	10583
Mean	12885	8631

3D Points from 2D Keypoint Matches

	Number of 3D Points Observed
In 2 Images	99495
In 3 Images	35806
In 4 Images	20246
In 5 Images	11467
In 6 Images	6879
In 7 Images	5009
In 8 Images	3920
In 9 Images	2952
In 10 Images	2314
In 11 Images	1643
In 12 Images	1219
In 13 Images	931
In 14 Images	712
In 15 Images	384
In 16 Images	277
In 17 Images	177
In 18 Images	93
In 19 Images	43
In 20 Images	23
In 21 Images	8
In 22 Images	1

2D Keypoint Matches

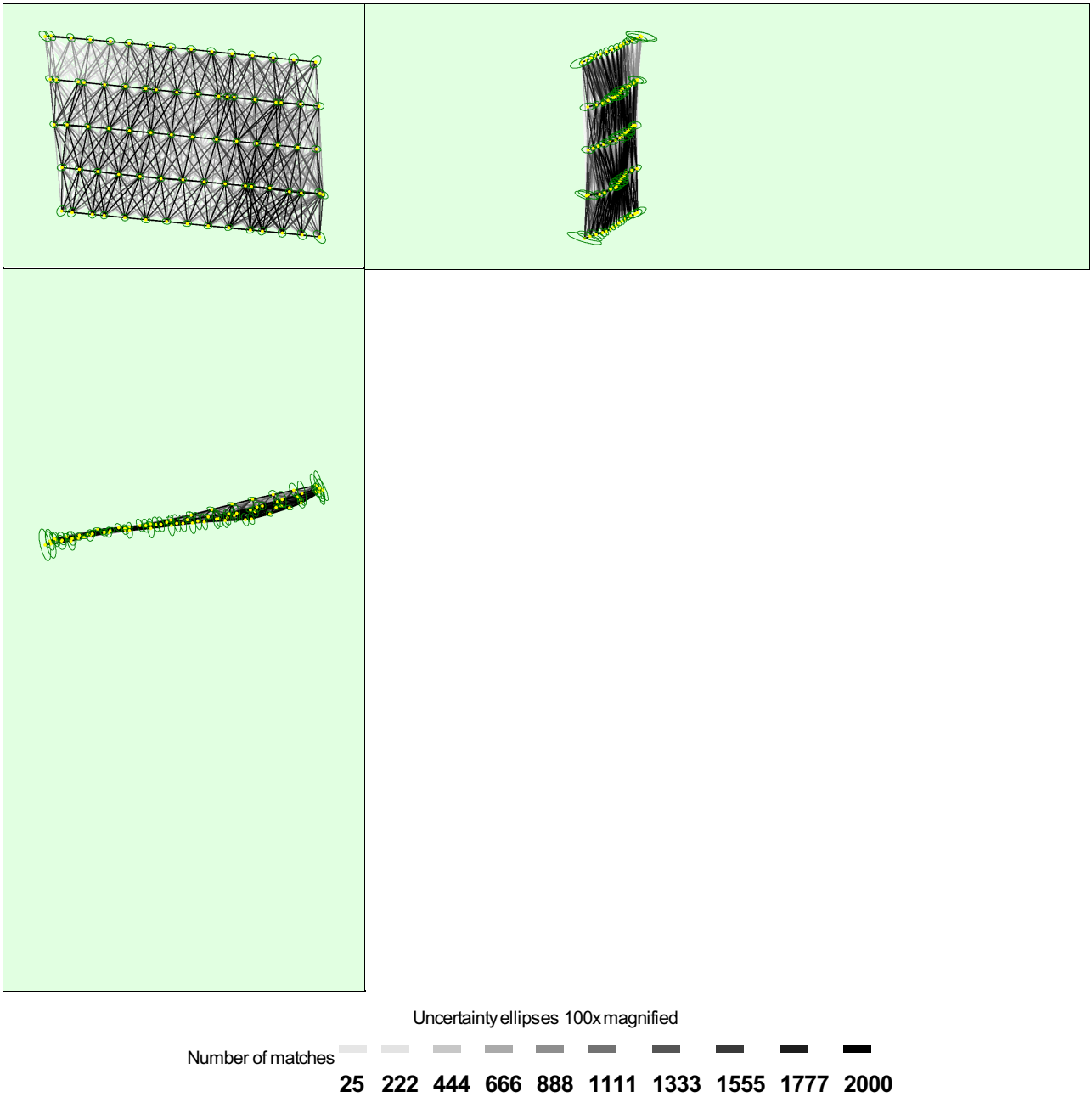


Figure 5: Computed image positions with links between matched images. The darkness of the links indicates the number of matched 2D keypoints between the images. Bright links indicate weak links and require manual tie points or more images. Dark green ellipses indicate the relative camera position uncertainty of the bundle block adjustment result.

Relative camera position and orientation uncertainties



	X[m]	Y[m]	Z[m]	Omega [degree]	Phi [degree]	Kappa [degree]
Mean	0.062	0.054	0.089	0.060	0.082	0.008
Sigma	0.009	0.012	0.055	0.029	0.043	0.002

Geolocation Details



Ground Control Points



GCP Name	Accuracy XYZ [m]	Error X [m]	Error Y [m]	Error Z [m]	Projection Error [pixel]	Verified/Marked
PAF-COR-12 (3D)	0.020/ 0.020	0.004	0.002	0.002	0.952	10 / 10
PAF-COR-13 (3D)	0.020/ 0.020	-0.003	-0.005	-0.012	0.299	4 / 5
PAF-COR-14 (3D)	0.020/ 0.020	-0.005	0.004	-0.009	0.457	8 / 8
PAF-COR-15 (3D)	0.020/ 0.020	0.001	-0.003	-0.000	0.605	10 / 10
Mean [m]		-0.000543	-0.000487	-0.004658		
Sigma [m]		0.003466	0.003513	0.005708		
RMS Error [m]		0.003509	0.003546	0.007368		

Localisation accuracy per GCP and mean errors in the three coordinate directions. The last column counts the number of calibrated images where the GCP has been automatically verified vs. manually marked.

? Absolute Geolocation Variance



Min Error [m]	Max Error [m]	Geolocation Error X [%]	Geolocation Error Y [%]	Geolocation Error Z [%]
-	-15.00	0.00	0.00	0.00
-15.00	-12.00	0.00	0.00	0.00
-12.00	-9.00	0.00	0.00	0.00
-9.00	-6.00	0.00	0.00	0.00
-6.00	-3.00	0.00	0.00	20.51
-3.00	0.00	43.59	48.72	23.08
0.00	3.00	56.41	51.28	42.31
3.00	6.00	0.00	0.00	14.10
6.00	9.00	0.00	0.00	0.00
9.00	12.00	0.00	0.00	0.00
12.00	15.00	0.00	0.00	0.00
15.00	-	0.00	0.00	0.00
Mean [m]		-0.141702	2.524911	-348.977622
Sigma [m]		0.426903	0.087663	2.810976
RMS Error [m]		0.449806	2.526432	348.988942

Min Error and Max Error represent geolocation error intervals between -1.5 and 1.5 times the maximum accuracy of all the images. Columns X, Y, Z show the percentage of images with geolocation errors within the predefined error intervals. The geolocation error is the difference between the initial and computed image positions. Note that the image geolocation errors do not correspond to the accuracy of the observed 3D points.

Geolocation Bias	X	Y	Z
Translation [m]	-0.141702	2.524911	-348.977622

Bias between image initial and computed geolocation given in output coordinate system.

? Relative Geolocation Variance



Relative Geolocation Error	Images X [%]	Images Y [%]	Images Z [%]
[-1.00, 1.00]	100.00	100.00	100.00
[-2.00, 2.00]	100.00	100.00	100.00
[-3.00, 3.00]	100.00	100.00	100.00
Mean of Geolocation Accuracy [m]	5.000000	5.000000	10.000000
Sigma of Geolocation Accuracy [m]	0.000000	0.000000	0.000000

Images X, Y, Z represent the percentage of images with a relative geolocation error in X, Y, Z.

Geolocation Orientational Variance	RMS [degree]
Omega	0.338
Phi	0.711
Kappa	4.404

Initial Processing Details



System Information



Hardware	CPU: Intel(R) Core(TM) i9-9900KS CPU @ 4.00GHz RAM: 64GB GPU: NMDIA GeForce RTX 2060 SUPER (Driver: 27.21.14.6172)
Operating System	Windows 10 Pro, 64-bit

Coordinate Systems



Image Coordinate System	WGS 84
Ground Control Point (GCP) Coordinate System	WGS 84 / UTMzone 18S (EGM2008 Geoid)
Output Coordinate System	WGS 84 / UTMzone 18S (EGM2008 Geoid)

Processing Options



Detected Template	RODRIGO*
Keypoints Image Scale	Custom, Image Scale: 0.5
Advanced: Matching Image Pairs	Aerial Grid or Corridor
Advanced: Matching Strategy	Use Geometrically Verified Matching: no
Advanced: Keypoint Extraction	Targeted Number of Keypoints: Automatic
Advanced: Calibration	Calibration Method: Standard Internal Parameters Optimization: All External Parameters Optimization: All Rematch: Auto, yes

Point Cloud Densification details



Processing Options



Image Scale	multiscale, 1/2 (Half image size, Default)
Point Density	Low (Fast)
Minimum Number of Matches	3
3D Textured Mesh Generation	no
LOD	Generated: no
Advanced: Image Groups	group1
Advanced: Use Processing Area	yes
Advanced: Use Annotations	yes
Time for Point Cloud Densification	01m:28s
Time for Point Cloud Classification	NA
Time for 3D Textured Mesh Generation	NA

Results



Number of Generated Tiles	1
Number of 3D Densified Points	2673346
Average Density (per m ³)	15.17

DSM, Orthomosaic and Index Details



Processing Options



DSM and Orthomosaic Resolution	1 x GSD (3.92 [cm/pixel])
DSM Filters	Noise Filtering: yes Surface Smoothing: yes, Type: Sharp
Orthomosaic	Generated: yes Merge Tiles: yes GeoTIFF Without Transparency: no Google Maps Tiles and KML: no
Time for DSM Generation	00s
Time for Orthomosaic Generation	04m:58s
Time for DTM Generation	00s
Time for Contour Lines Generation	00s
Time for Reflectance Map Generation	00s
Time for Index Map Generation	00s

Reporte de Software de Procesamiento
Fotogramétrico

RSPF-0033-2023-ITEGI

Zona 3 - Unidad Minera Corihuarmi

Código de Estudio: ITE-2023-032

17 mayo 2023

- !** **Important:** Click on the different icons for:
- ?** Help to analyze the results in the Quality Report
 - i** Additional information about the sections

💡 Click [here](#) for additional tips to analyze the Quality Report

Summary **i**

Project	CORIHUARM
Processed	2023-05-17 11:11:37
Camera Model Name(s)	FC6310_8.8_4864x3648 (RGB)
Average Ground Sampling Distance (GSD)	3.86 cm / 1.52 in
Area Covered	1.082 km ² / 108.2011 ha / 0.42 sq. mi. / 267.5091 acres

Quality Check **i**

? Images	median of 13740 keypoints per image	✓
? Dataset	621 out of 632 images calibrated (98%), all images enabled	✓
? Camera Optimization	0.93% relative difference between initial and optimized internal camera parameters	✓
? Matching	median of 7995.76 matches per calibrated image	✓
? Georeferencing	yes, 4 GCPs (4 3D), mean RMS error = 0.009 m	✓

? Preview **i**

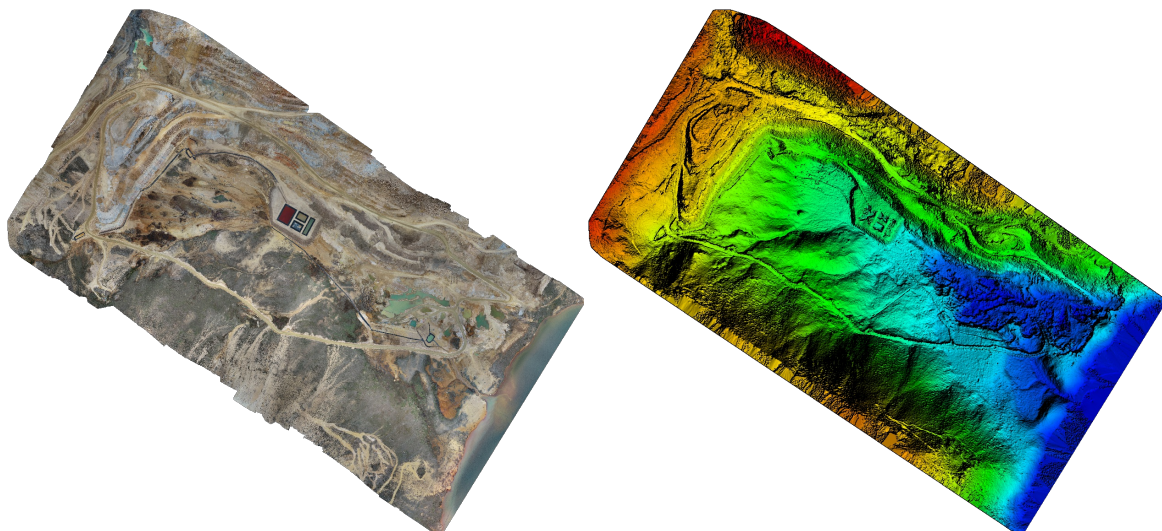


Figure 1: Orthomosaic and the corresponding sparse Digital Surface Model (DSM) before densification.

Calibration Details **i**

Number of Calibrated Images	621 out of 632
-----------------------------	----------------

Initial Image Positions

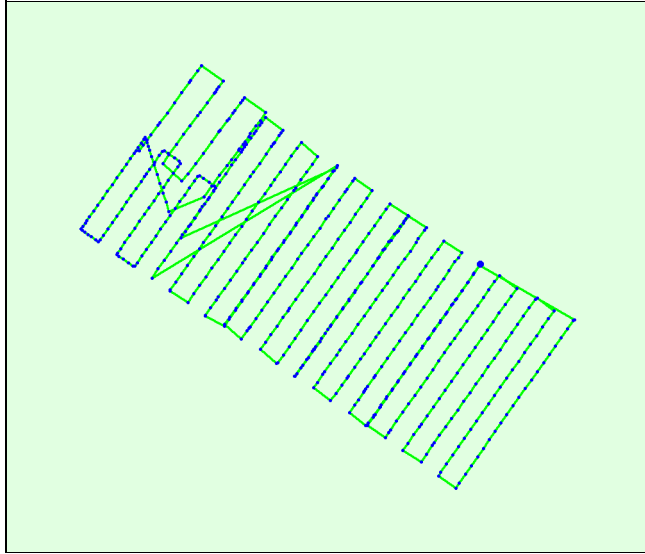


Figure 2: Top view of the initial image position. The green line follows the position of the images in time starting from the large blue dot.

Computed Image/GCPs/Manual Tie Points Positions

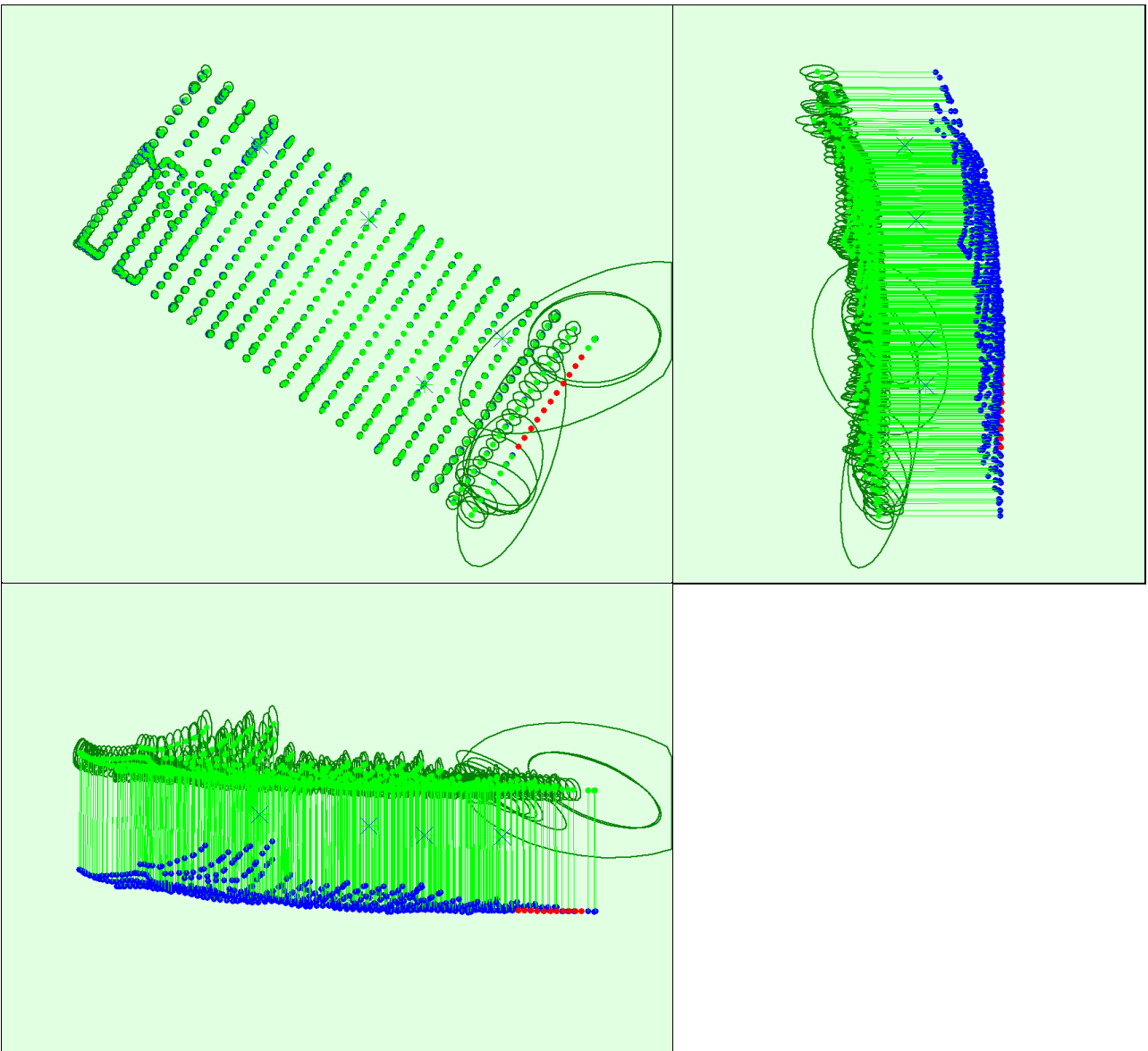


Figure 3: Offset between initial (blue dots) and computed (green dots) image positions as well as the offset between the GCPs initial positions (blue crosses) and their computed positions (green crosses) in the top-view (XY plane), front-view (XZ plane), and side-view (YZ plane). Red dots indicate disabled or uncalibrated images. Dark green ellipses indicate the absolute position uncertainty of the bundle block adjustment result.

Absolute camera position and orientation uncertainties

	X[m]	Y[m]	Z[m]	Omega [degree]	Phi [degree]	Kappa [degree]
Mean	0.025	0.024	0.063	0.009	0.008	0.003
Sigma	0.041	0.038	0.022	0.014	0.013	0.010

Overlap

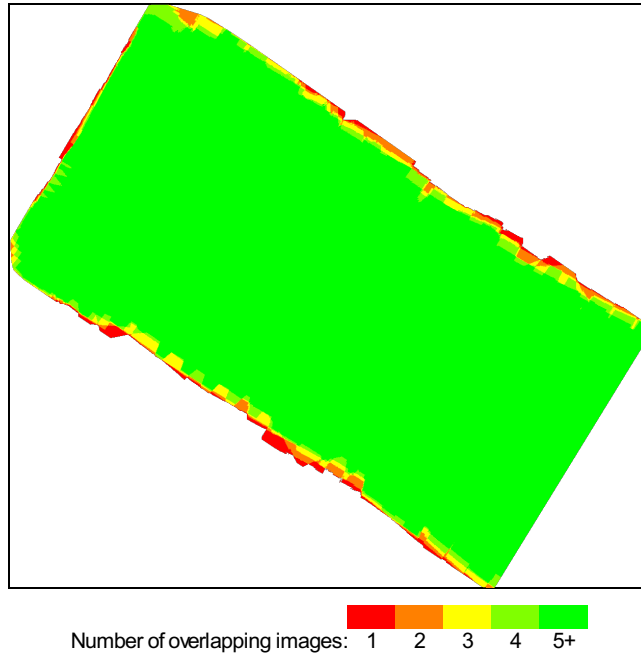


Figure 4: Number of overlapping images computed for each pixel of the orthomosaic. Red and yellow areas indicate low overlap for which poor results may be generated. Green areas indicate an overlap of over 5 images for every pixel. Good quality results will be generated as long as the number of keypoint matches is also sufficient for these areas (see Figure 5 for keypoint matches).

Bundle Block Adjustment Details

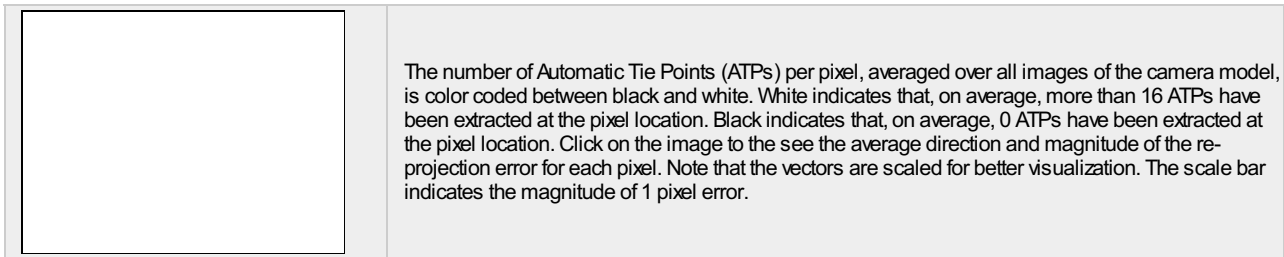
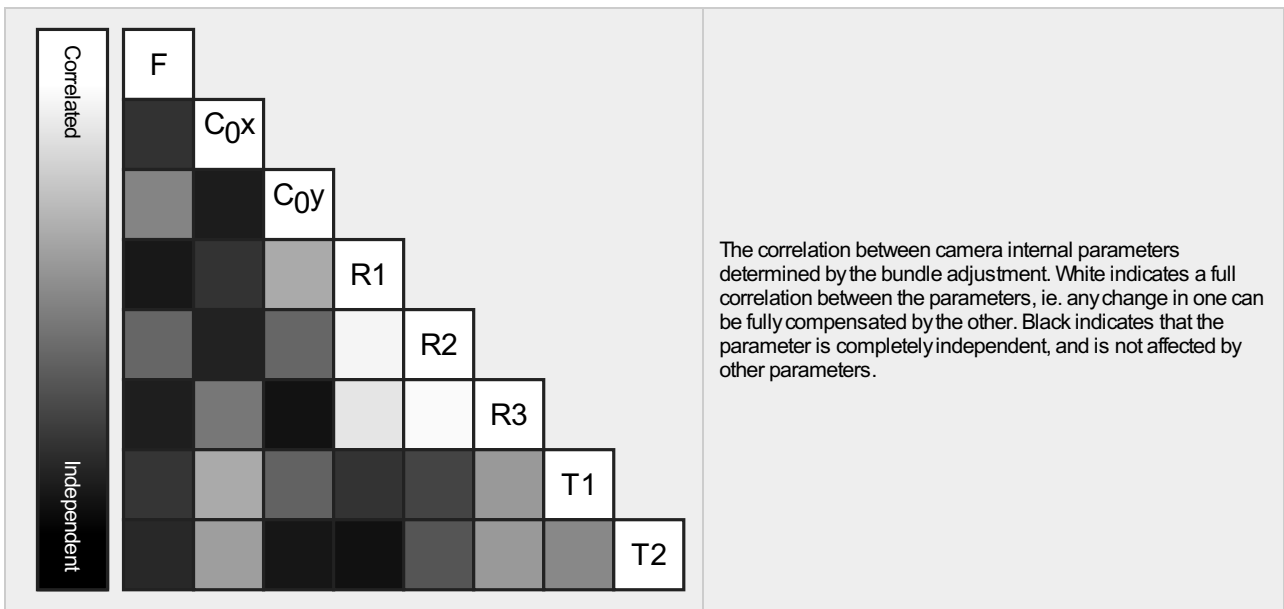
Number of 2D Keypoint Observations for Bundle Block Adjustment	5067413
Number of 3D Points for Bundle Block Adjustment	1203457
Mean Reprojection Error [pixels]	0.087

Internal Camera Parameters

FC6310_8.8_4864x3648 (RGB). Sensor Dimensions: 11.407 [mm] x 8.556 [mm]

EXIF ID: FC6310S_8.8_4864x3648

	Focal Length	Principal Point x	Principal Point y	R1	R2	R3	T1	T2
Initial Values	3666.955 [pixel] 8.600 [mm]	2432.001 [pixel] 5.704 [mm]	1823.999 [pixel] 4.278 [mm]	0.004	-0.017	0.019	-0.000	0.000
Optimized Values	3701.167 [pixel] 8.680 [mm]	2408.428 [pixel] 5.648 [mm]	1816.570 [pixel] 4.260 [mm]	-0.010	-0.006	0.015	-0.002	-0.002
Uncertainties (Sigma)	1.478 [pixel] 0.003 [mm]	0.057 [pixel] 0.000 [mm]	0.057 [pixel] 0.000 [mm]	0.000	0.000	0.000	0.000	0.000



2D Keypoints Table

	Number of 2D Keypoints per Image	Number of Matched 2D Keypoints per Image
Median	13740	7996
Mn	10989	89
Max	26363	17883
Mean	14129	8160

3D Points from 2D Keypoint Matches

	Number of 3D Points Observed
In 2 Images	522889
In 3 Images	227340
In 4 Images	128160
In 5 Images	79171
In 6 Images	52869
In 7 Images	37785
In 8 Images	29497
In 9 Images	23534
In 10 Images	19283
In 11 Images	15669
In 12 Images	13459
In 13 Images	11297
In 14 Images	9539
In 15 Images	7517
In 16 Images	6042
In 17 Images	4913
In 18 Images	3832
In 19 Images	2920
In 20 Images	2045
In 21 Images	1439
In 22 Images	1062

In 23 Images	846
In 24 Images	576
In 25 Images	407
In 26 Images	328
In 27 Images	250
In 28 Images	230
In 29 Images	157
In 30 Images	131
In 31 Images	58
In 32 Images	60
In 33 Images	54
In 34 Images	32
In 35 Images	25
In 36 Images	18
In 37 Images	14
In 38 Images	6
In 40 Images	2
In 43 Images	1

2D Keypoint Matches

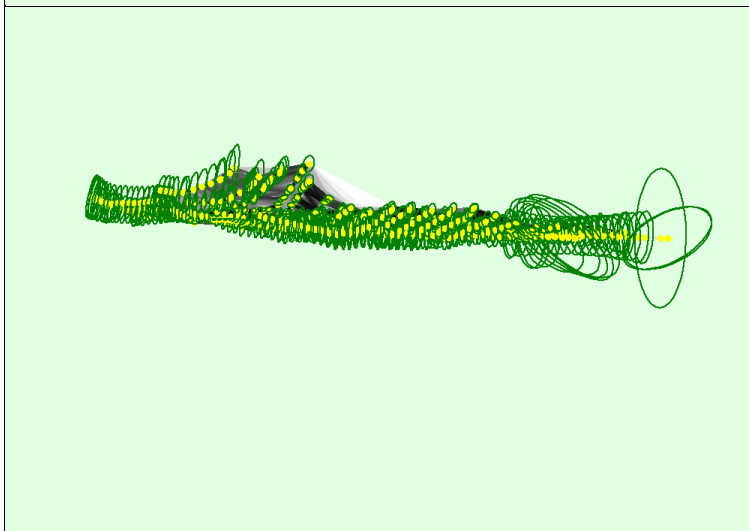
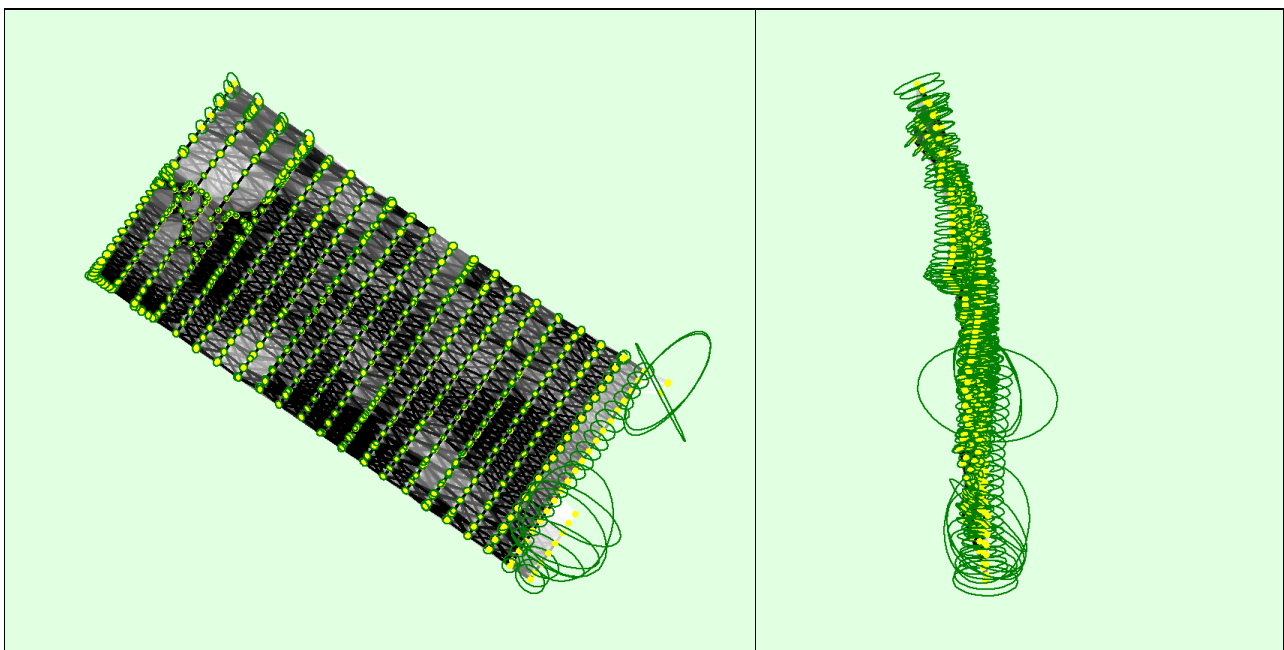


Figure 5: Computed image positions with links between matched images. The darkness of the links indicates the number of matched 2D keypoints between the

images. Bright links indicate weak links and require manual tie points or more images. Dark green ellipses indicate the relative camera position uncertainty of the bundle block adjustment result.

Relative camera position and orientation uncertainties

	X[m]	Y[m]	Z[m]	Omega [degree]	Phi [degree]	Kappa [degree]
Mean	0.021	0.022	0.051	0.012	0.016	0.003
Sigma	0.024	0.025	0.035	0.010	0.011	0.007

Geolocation Details

Ground Control Points

GCP Name	Accuracy XYZ [m]	Error X [m]	Error Y [m]	Error Z [m]	Projection Error [pixel]	Verified/Marked
PAF-COR-06 (3D)	0.020/ 0.020	0.002	0.001	-0.053	0.208	7 / 7
PAF-COR-07 (3D)	0.020/ 0.020	-0.002	-0.004	0.000	0.352	8 / 8
PAF-COR-08 (3D)	0.020/ 0.020	0.003	-0.002	0.002	0.414	8 / 8
PAF-COR-09 (3D)	0.020/ 0.020	-0.003	0.004	-0.001	0.437	9 / 9
Mean [m]		0.000106	-0.000108	-0.013132		
Sigma [m]		0.002427	0.002985	0.023158		
RMS Error [m]		0.002430	0.002986	0.026622		

Localisation accuracy per GCP and mean errors in the three coordinate directions. The last column counts the number of calibrated images where the GCP has been automatically verified vs. manually marked.

Absolute Geolocation Variance

Min Error [m]	Max Error [m]	Geolocation Error X [%]	Geolocation Error Y [%]	Geolocation Error Z [%]
-	-15.00	0.00	0.00	0.00
-15.00	-12.00	0.00	0.00	0.00
-12.00	-9.00	0.00	0.00	5.31
-9.00	-6.00	0.00	0.00	23.99
-6.00	-3.00	0.64	0.16	16.59
-3.00	0.00	43.96	41.06	10.47
0.00	3.00	55.23	58.78	5.15
3.00	6.00	0.16	0.00	12.40
6.00	9.00	0.00	0.00	6.60
9.00	12.00	0.00	0.00	16.43
12.00	15.00	0.00	0.00	3.06
15.00	-	0.00	0.00	0.00
Mean [m]		-1.076038	0.065395	-347.224447
Sigma [m]		1.665999	1.123374	7.239904
RMS Error [m]		1.983283	1.125276	347.299918

Min Error and Max Error represent geolocation error intervals between -1.5 and 1.5 times the maximum accuracy of all the images. Columns X, Y, Z show the percentage of images with geolocation errors within the predefined error intervals. The geolocation error is the difference between the initial and computed image positions. Note that the image geolocation errors do not correspond to the accuracy of the observed 3D points.

Geolocation Bias	X	Y	Z
Translation [m]	-1.076038	0.065395	-347.224447

Bias between image initial and computed geolocation given in output coordinate system.

Relative Geolocation Variance



Relative Geolocation Error	Images X [%]	Images Y [%]	Images Z [%]
[-1.00, 1.00]	100.00	100.00	82.93
[-2.00, 2.00]	100.00	100.00	100.00
[-3.00, 3.00]	100.00	100.00	100.00
Mean of Geolocation Accuracy [m]	5.000000	5.000000	10.000000
Sigma of Geolocation Accuracy [m]	0.000000	0.000000	0.000000

Images X, Y, Z represent the percentage of images with a relative geolocation error in X, Y, Z.

Geolocation Orientational Variance	RMS [degree]
Omega	0.807
Phi	0.314
Kappa	4.399

Geolocation RMS error of the orientation angles given by the difference between the initial and computed image orientation angles.

Initial Processing Details



System Information



Hardware	CPU: Intel(R) Core(TM) i9-9900KS CPU @ 4.00GHz RAM: 64GB GPU: NVIDIA GeForce RTX 2060 SUPER (Driver: 27.21.14.6172)
Operating System	Windows 10 Pro, 64-bit

Coordinate Systems



Image Coordinate System	WGS 84
Ground Control Point (GCP) Coordinate System	WGS 84 / UTM zone 18S (EGM2008 Geoid)
Output Coordinate System	WGS 84 / UTM zone 18S (EGM2008 Geoid)

Processing Options



Detected Template	RODRIGO*
Keypoints Image Scale	Custom, Image Scale: 0.5
Advanced: Matching Image Pairs	Aerial Grid or Corridor
Advanced: Matching Strategy	Use Geometrically Verified Matching: no
Advanced: Keypoint Extraction	Targeted Number of Keypoints: Automatic
Advanced: Calibration	Calibration Method: Standard Internal Parameters Optimization: All External Parameters Optimization: All Rematch: Auto, no

Point Cloud Densification details



Processing Options



Image Scale	multiscale, 1/2 (Half image size, Default)
Point Density	Low (Fast)
Minimum Number of Matches	3
3D Textured Mesh Generation	no
LOD	Generated: no
Advanced: Image Groups	group1

Advanced: Use Processing Area	yes
Advanced: Use Annotations	yes
Time for Point Cloud Densification	12m:17s
Time for Point Cloud Classification	NA
Time for 3D Textured Mesh Generation	NA

Results



Number of Generated Tiles	1
Number of 3D Densified Points	14433871
Average Density (per m ³)	17.9

DSM, Orthomosaic and Index Details



Processing Options



DSM and Orthomosaic Resolution	1 x GSD (3.86 [cm/pixel])
DSM Filters	Noise Filtering: yes Surface Smoothing: yes, Type: Sharp
Orthomosaic	Generated: yes Merge Tiles: yes GeoTIFF Without Transparency: no Google Maps Tiles and KML: no
Time for DSM Generation	00s
Time for Orthomosaic Generation	41m:54s
Time for DTM Generation	00s
Time for Contour Lines Generation	00s
Time for Reflectance Map Generation	00s
Time for Index Map Generation	00s

Anexo A.2

Procesamiento de puntos de apoyo fotogramétrico

Anexo A.2.1

Lista resumen de puntos geodésicos procesados

**PERÚ**Ministerio
del AmbienteOrganismo de Evaluación y
Fiscalización Ambiental - OEFASTEC: Subdirección Técnica
CientíficaDecenio de la Igualdad de Oportunidades para Mujeres y Hombres
"Año de la unidad, la paz y el desarrollo"**Tabla A.2.1** Lista resumen de puntos geodésicos procesados

N.º	Sector / Zona	N.º Reporte de software de procesamiento o geodésico	Código	Coordenadas UTM WGS 84 Zona 18 Sur		Altura ortométrica (m)	Método	Precisión 3D (m)	Precisión 2D (m)	Precisión 1D (m)	
				Este (m)	Norte (m)						
1	ZONA 1	RSPG-005-2023-ITEGI	PAF-COR-01	437420,31	8610963,07	4705,78	Estático	0,0002	0,0001	0,0002	
2			PAF-COR-02	437404,09	8611471,11	4734,93	Estático	0,0003	0,0001	0,0002	
3			PAF-COR-03	437118,01	8611203,77	4696,28	Estático	0,0003	0,0001	0,0003	
4			PAF-COR-04	436670,42	8611463,18	4640,17	Estático	0,0003	0,0001	0,0003	
5			PAF-COR-05	436768,14	8610942,24	4665,84	Estático	0,0003	0,0001	0,0002	
6	ZONA 3		PAF-COR-06	439140,30	8609792,40	4741,88	Estático	0,0003	0,0001	0,0003	
7			PAF-COR-07	439458,56	8609577,24	4708,72	Estático	0,0003	0,0001	0,0002	
8			PAF-COR-08	439846,59	8609230,43	4677,12	Estático	0,0002	0,0001	0,0002	
9			PAF-COR-09	439621,31	8609097,48	4682,84	Estático	0,0002	0,0001	0,0002	
10			PAF-COR-10	439304,51	8609226,29	4695,63	Estático	0,0002	0,0001	0,0002	
11	PAF-COR-11		438920,33	8609445,23	4719,47	Estático	0,0004	0,0002	0,0004		
12	ZONA 2		PAF-COR-12	438242,84	8609867,31	4811,64	Estático	0,0003	0,0002	0,0003	
13			PAF-COR-13	438210,01	8610032,64	4821,22	Estático	0,0002	0,0001	0,0002	
14			PAF-COR-14	437915,07	8609839,40	4776,39	Estático	0,0002	0,0001	0,0002	
15			PAF-COR-15	437965,99	8610021,22	4781,52	Estático	0,0006	0,0003	0,0006	
16	ZONA 1	RSPG-006-2023-ITEGI(*)	L1-1	437144,13	8611250,88	4699,87	Estático	0,0003	0,0002	0,0002	
17			L1-2	437115,66	8611142,16	4697,06	Estático	0,0003	0,0002	0,0003	
18			L2-1	437156,61	8611247,36	4700,40	Estático	0,0003	0,0002	0,0003	
19			L2-2	437122,29	8611138,69	4697,49	Estático	0,0003	0,0002	0,0003	
20			L3-1	437165,42	8611245,22	4700,26	Estático	0,0003	0,0002	0,0002	
21			L3-2	437128,93	8611137,16	4697,59	Estático	0,0003	0,0002	0,0003	
22			L4-2	437150,63	8611011,97	4697,71	Estático	0,0005	0,0002	0,0004	
23			L4-1	437122,24	8611118,44	4697,41	Estático	0,0004	0,0002	0,0004	
24			L5-1	437098,68	8611103,50	4696,48	Estático	0,0006	0,0003	0,0005	
25			L5-2	437102,79	8610988,46	4694,69	Estático	0,0004	0,0002	0,0003	
26			L6-1	437054,90	8611094,65	4694,42	Estático	0,0004	0,0002	0,0003	
27			L6-2	437052,66	8610981,06	4,692,70	Estático	0,0006	0,0003	0,0005	
28			L7-1	436985,94	8611104,35	4681,90	Estático	0,0003	0,0002	0,0003	
29			L7-2	436991,96	8610990,65	4684,08	Estático	0,0004	0,0002	0,0004	
30			L8-1	436950,95	8611115,05	4675,08	Estático	0,0004	0,0002	0,0003	
31			L8-2	436952,25	8611000,89	4674,32	Estático	0,0005	0,0002	0,0004	
32			ZONA 3	TSS-01-I	439170,40	8609713,92	4704,25	Estático	0,0004	0,0002	0,0004
33				TSS-01-F	439278,54	8609677,16	4703,33	Estático	0,0004	0,0002	0,0003
34	TSS-02-I	439160,67		8609696,17	4704,13	Estático	0,0004	0,0002	0,0003		



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STEC: Subdirección Técnica
Científica

Decenio de la Igualdad de Oportunidades para Mujeres y Hombres
"Año de la unidad, la paz y el desarrollo"

N.º	Sector / Zona	N.º Reporte de software de procesamiento o geodésico	Código	Coordenadas UTM WGS 84 Zona 18 Sur		Altura ortométrica (m)	Método	Precisión 3D (m)	Precisión 2D (m)	Precisión 1D (m)
				Este (m)	Norte (m)					
35			TSS-02-F	439264,56	8609651,47	4697,76	Estático	0,0004	0,0002	0,0003
36			TSS-03-I	439112,80	8609680,12	4701,66	Estático	0,0006	0,0002	0,0005
37			TSS-03-F	439222,16	8609705,93	4704,92	Estático	0,0004	0,0002	0,0003
38			TSS-04-I	439150,16	8609682,59	4697,65	Estático	0,0012	0,0005	0,0011
39			TSS-04-F	439254,38	8609637,47	4693,11	Estático	0,0007	0,0003	0,0006

(*)Puntos adicionales colectados con el DGPS

Anexo A.2.2

Reporte de software de procesamiento geodésico

RSPG-005-2023-ITEGI

Zona 1, 2 y 3

Puntos de apoyo fotogramétrico

Código de Estudio: ITE-2023-032

GNSS Processing Report

Report created: 18/05/2023 18:48:49

Project Details

General

Project Name: CORIHUARM1
Owner: -
Lead Surveyor: -
Date Created: 28/04/2023 05:49:14
Last Accessed: 17/05/2023 00:42:02
Application Software: Infinity 3.2

Customer Details

Customer Name: -
Contact Person: -
Number: -
Email: -
Skype: -
Website: -

Master Coordinate System

Coordinate System Name: UTM WGS84 18S
Transformation Type: Classical 3D
Residual Distribution: None
Ellipsoid: WGS 1984
Projection Type: UTM
Geoid Model: PER EGM08
CSCS Model: -

Path: C:\Users\Rodrigo\Documents\Leica Geosystems\Infinity\Projects\CORIHUARM1\CORIHUARM1.iprj
Size: 505.4 MB
Comments: -

Baseline C02 - PAF-COR-01

Processing Parameters (27/04/2023 12:10:11 - 27/04/2023 12:21:20)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised: 15 km
Possible Ambiguities Fix up to: 300 km
Min. Duration for Float Solution (static): 00:05:00

Results Baseline: C02 - PAF-COR-01

Acquisition

Start Time - End Time: 27/04/2023 12:10:12 - 27/04/2023 12:21:20
Duration: 00:11:08

Antennas

	Reference - C02	Rover - PAF-COR-01
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811

Antenna Name / SN: LEIGS18 / - LEIGS18 / -
Carrier Offset: 0.0000 m 0.0000 m
Height Reading: 1.5000 m 2.0000 m
Antenna Height: 1.5000 m 2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-01		Reference - C02	Rover - PAF-COR-01
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 51.94842" S	Easting:	438,215.5500 m	437,420.3120 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 33.91049" W	Northing:	8,609,405.6600 m	8,610,963.0727 m
WGS84 Ellip. Height:	4,889.3308 m	4,741.5478 m	Ortho. Height:	4,853.4775 m	4,705.7752 m
WGS84 Cartesian X:	1,552,826.4364 m	1,552,107.4189 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,601.8431 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,444.4304 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 50.75507"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 26.24200"	SD ΔLongitude:	0.0001 m
ΔHeight:	-147.7829 m	SD ΔHeight:	0.0002 m
ΔX:	-719.0175 m	SD ΔX:	0.0001 m
ΔY:	-386.8426 m	SD ΔY:	0.0001 m
ΔZ:	1,555.6170 m	SD ΔZ:	0.0001 m
Slope Dist.:	1,756.8659 m	SD Slope Dist.:	0.0001 m

M0:	0.2652 m	CQ 1D:	0.0002 m
Q11:	0.00000010	CQ 2D:	0.0001 m
Q12:	-0.00000010	CQ 3D:	0.0002 m
Q22:	0.00000032		
Q13:	-0.00000001		
Q23:	0.00000005		
Q33:	0.00000005		

Frequency:	L1/E1/L2	GDOP:	1.5 - 1.8	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.1 - 1.3	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/8
		VDOP:	0.9 - 1.1	Galileo SVs:	9/9
				QZSS SVs:	-

Ephemeris Type:
GPS: Precise
GLONASS: Precise
Beidou: Broadcast
Galileo: Precise

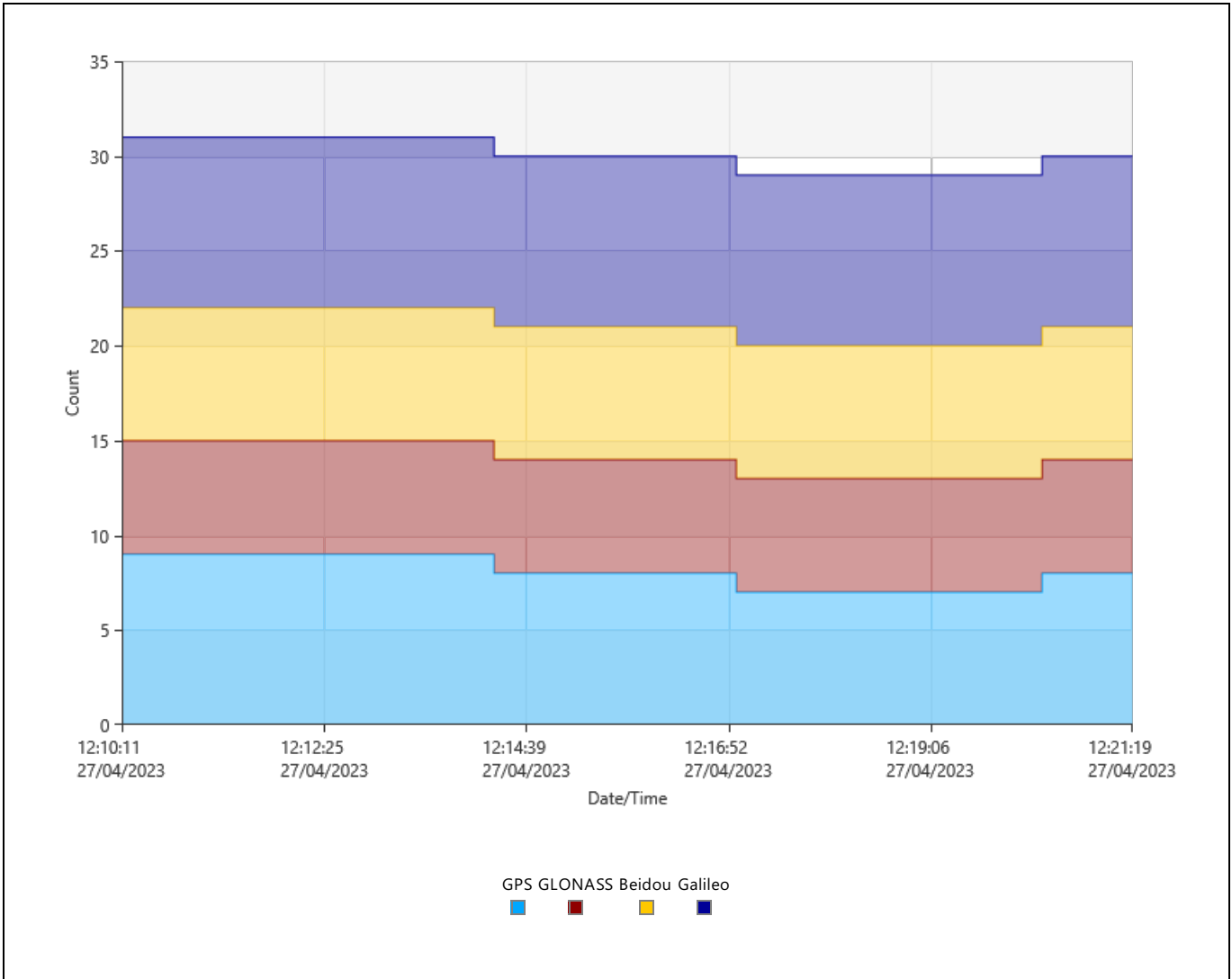
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Processed Date/Time: 10/05/2023 10:49:26

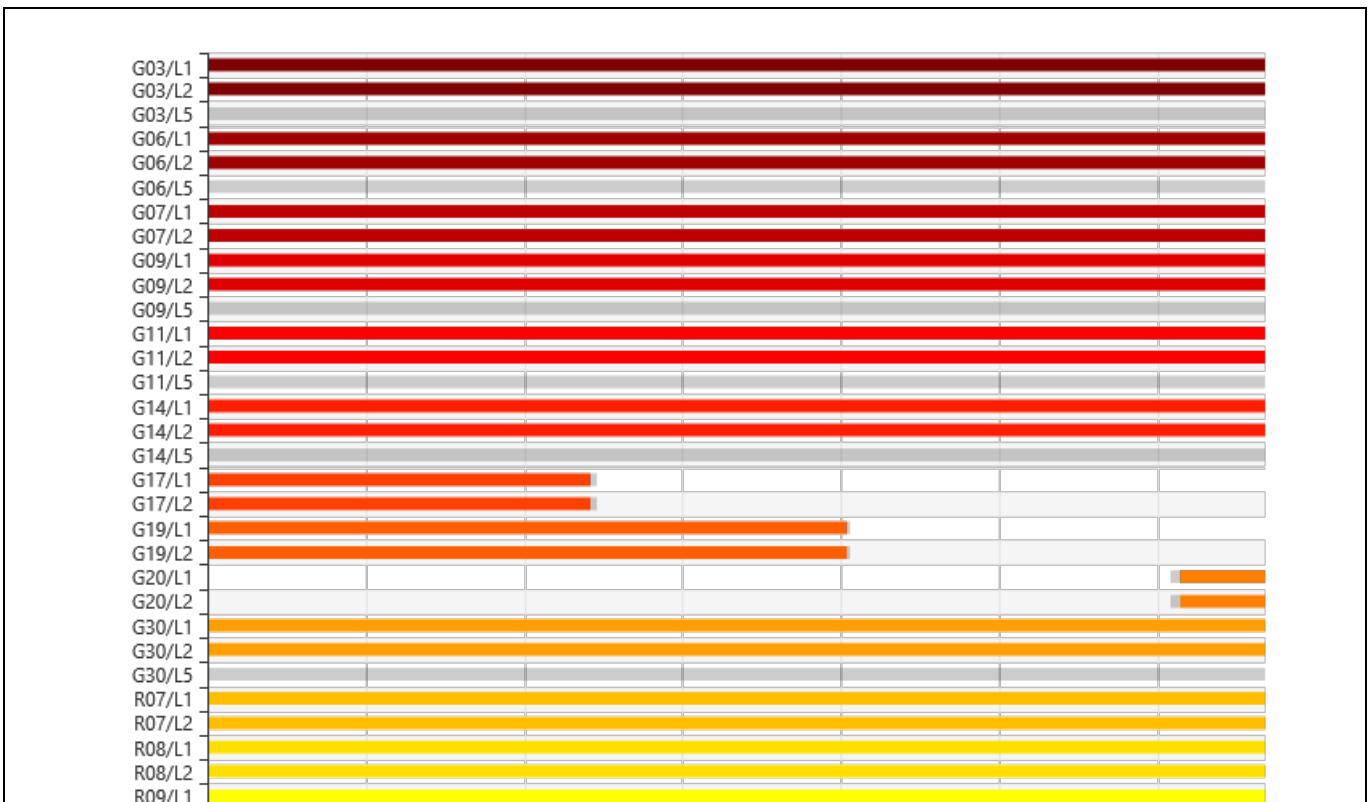
Satellites

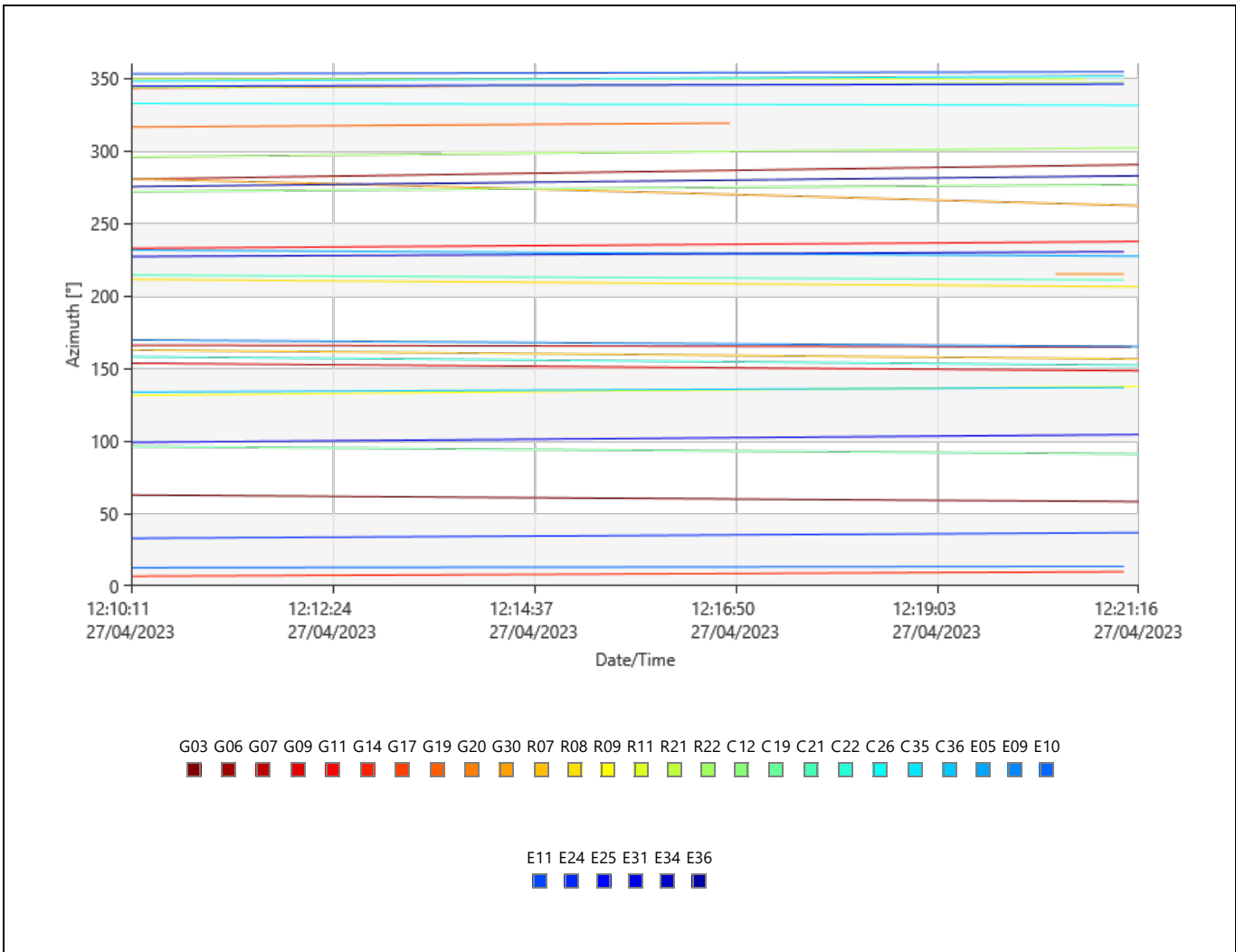
Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14 - G17 G19 G20 G30	
GLONASS	R07 R08 R09 R11 R21 R22 -	

SVs Tracked

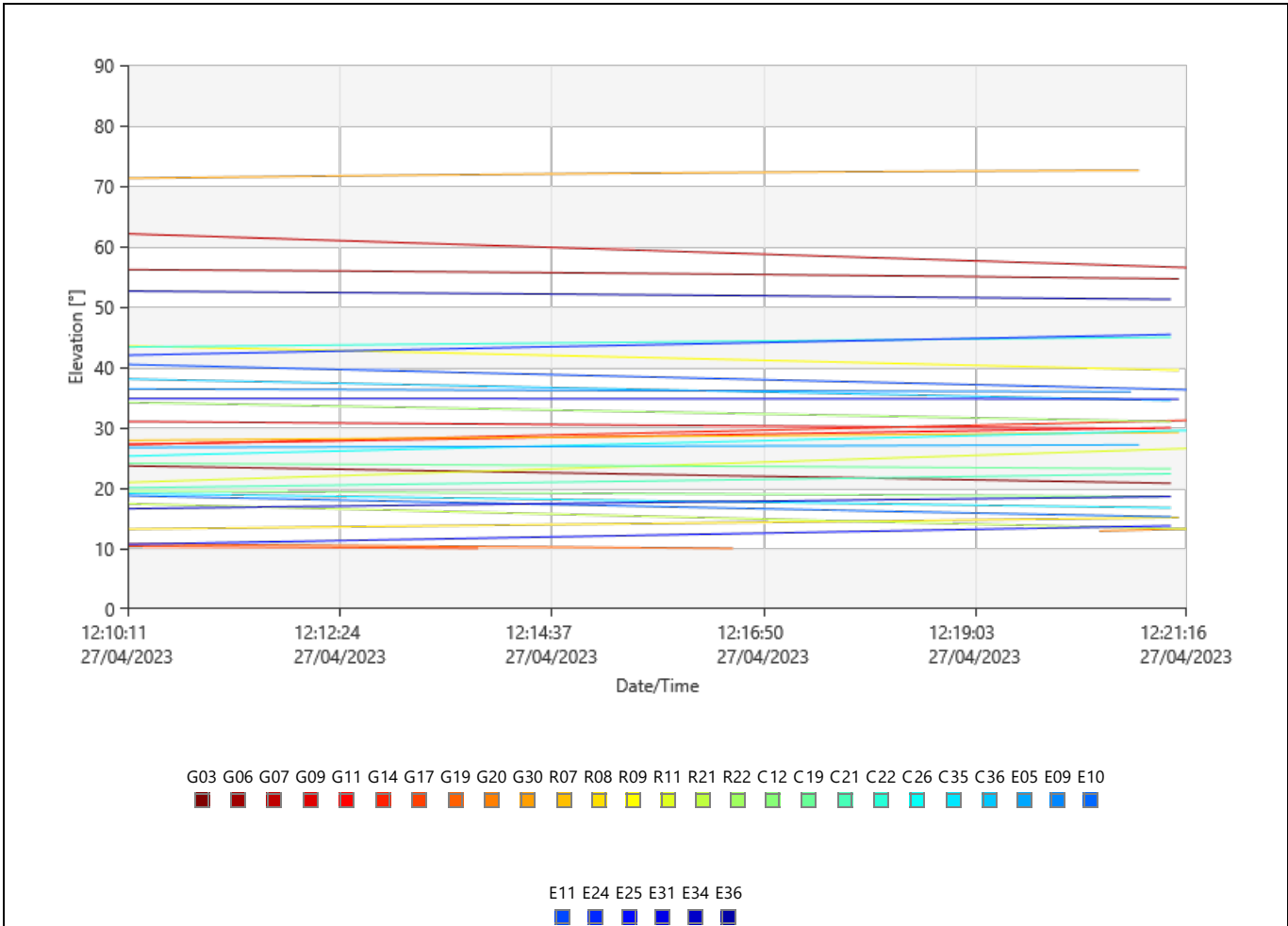


Signals Tracked





Elevation



Status	From Epoch	To Epoch	Duration
Fixed	27/04/2023 12:10:12	27/04/2023 12:21:20	00:11:08

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 27/04/2023 11:32:18
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 27/04/2023 17:59:45
 Origin Date/Time: 27/04/2023 11:32:18

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.8966392590	0.0124498998
0	1	0.9902551237	0.0096957198
0	2	-0.4798840624	0.0031185447
1	0	0.1788919173	0.0067097133
1	1	-0.0197848160	0.0037938104

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

G17

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Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:14:14	Used
	27/04/2023 12:14:14	27/04/2023 12:14:18	Rejected
	27/04/2023 12:14:18	27/04/2023 12:21:20	No Data
L2	27/04/2023 12:10:12	27/04/2023 12:14:14	Used
	27/04/2023 12:14:14	27/04/2023 12:14:18	Rejected
	27/04/2023 12:14:18	27/04/2023 12:21:20	No Data

G19

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:16:56	Used
	27/04/2023 12:16:56	27/04/2023 12:16:58	Rejected
	27/04/2023 12:16:58	27/04/2023 12:21:20	No Data
L2	27/04/2023 12:10:12	27/04/2023 12:16:56	Used
	27/04/2023 12:16:56	27/04/2023 12:16:58	Rejected
	27/04/2023 12:16:58	27/04/2023 12:21:20	No Data

G20

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:20:20	No Data
	27/04/2023 12:20:20	27/04/2023 12:20:26	Rejected
	27/04/2023 12:20:26	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:20:20	No Data
	27/04/2023 12:20:20	27/04/2023 12:20:26	Rejected
	27/04/2023 12:20:26	27/04/2023 12:21:20	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

R07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used

R09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used

R21

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used

R22

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
L2	27/04/2023 12:10:12	27/04/2023 12:21:20	Used

E05

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:10:12	27/04/2023 12:21:20	Used
E5a	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
E5b	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

B2	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

C21

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
B2	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
B2	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

C26

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
B2	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

C35

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
B2	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
B2	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected
L5	27/04/2023 12:10:12	27/04/2023 12:21:20	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R06.
Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-02

Processing Parameters (27/04/2023 12:28:41 - 27/04/2023 12:40:14)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for lono Minimised: 15 km
Possible Ambiguities Fix up to: 300 km
Min. Duration for Float Solution (static): 00:05:00

Results Baseline: C02 - PAF-COR-02

Acquisition

Start Time - End Time: 27/04/2023 12:28:41 - 27/04/2023 12:40:14
Duration: 00:11:33

Antennas

	Reference - C02	Rover - PAF-COR-02
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.5000 m	2.0000 m
Antenna Height:	1.5000 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-02	Reference - C02	Rover - PAF-COR-02
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 35.40886" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 34.41138" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,770.6760 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,552,127.4029 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,740.2875 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,378,954.3055 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 01' 07.29462"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 26.74289"	SD ΔLongitude:	0.0001 m
ΔHeight:	-118.6548 m	SD ΔHeight:	0.0002 m
ΔX:	-699.0335 m	SD ΔX:	0.0001 m
ΔY:	-525.2870 m	SD ΔY:	0.0002 m
ΔZ:	2,045.7419 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,224.7774 m	SD Slope Dist.:	0.0001 m

M0:	0.3754 m	CQ 1D:	0.0002 m
Q11:	0.00000009	CQ 2D:	0.0001 m
Q12:	-0.00000010	CQ 3D:	0.0003 m
Q22:	0.00000039		
Q13:	-0.00000002		
Q23:	0.00000009		
Q33:	0.00000006		

Frequency:	L1/E1/L2	GDOP:	1.6 - 2.3	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.2 - 1.6	GLONASS SVs:	6/6

Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	0/8
		VDOP:	1.1 - 1.5	Galileo SVs:	9/9
				QZSS SVs:	-
Ephemeris Type:					
GPS	Precise				
GLONASS	Precise				
Beidou	Broadcast				
Galileo	Precise				

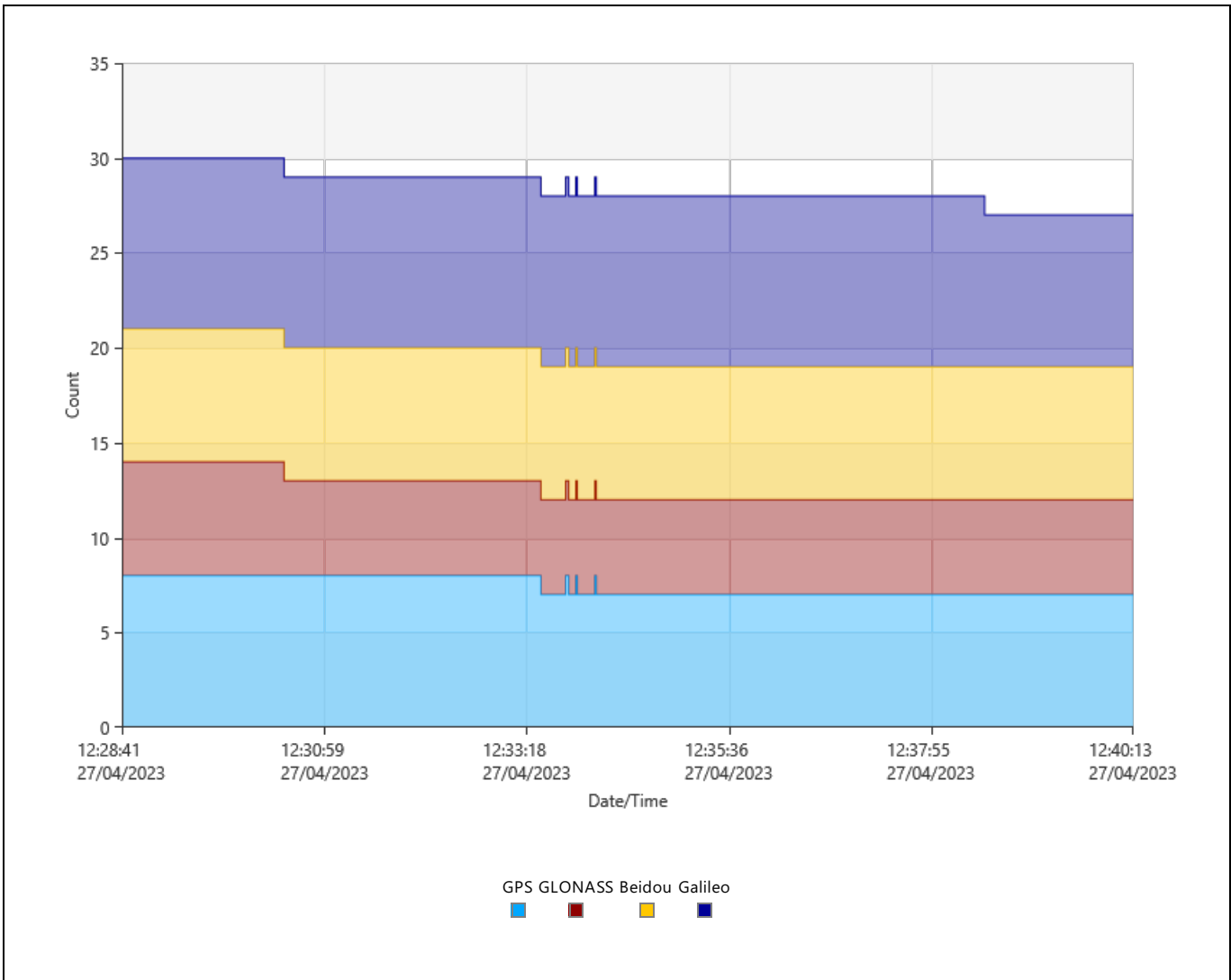
Processing Info (27/04/2023 12:28:41 - 27/04/2023 12:40:14)

Processed Date/Time: 10/05/2023 10:49:26

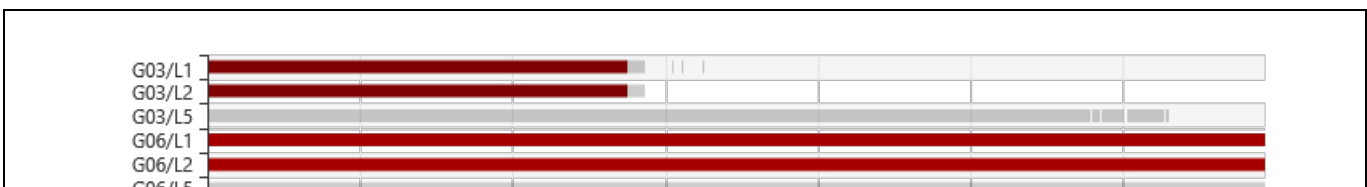
Satellites

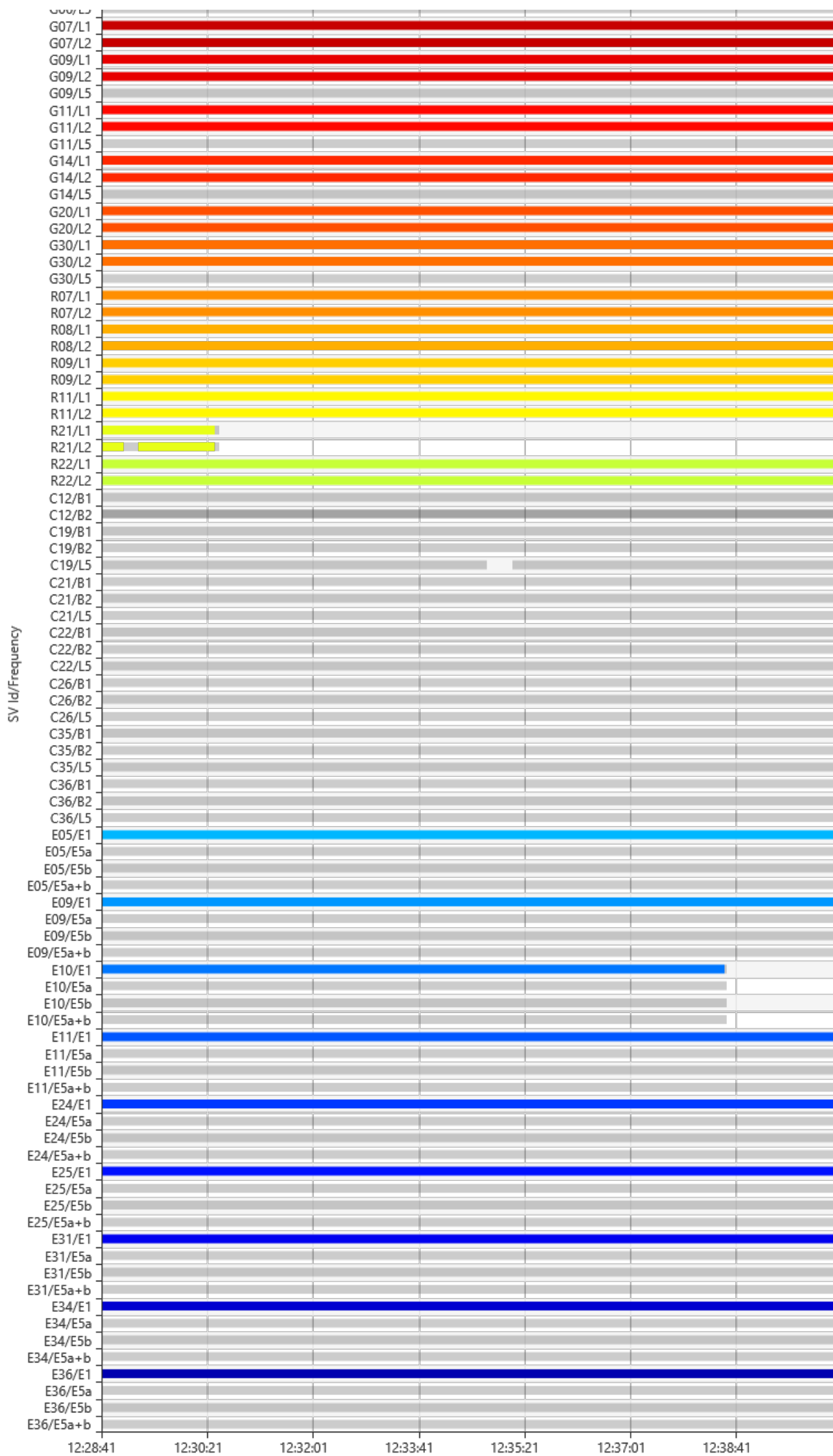
Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14 G20 G30	-
GLONASS	R07 R08 R09 R11 R21 R22	-
Galileo	E05 E09 E10 E11 E24 E25 E31 E34 E36	-

SVs Tracked

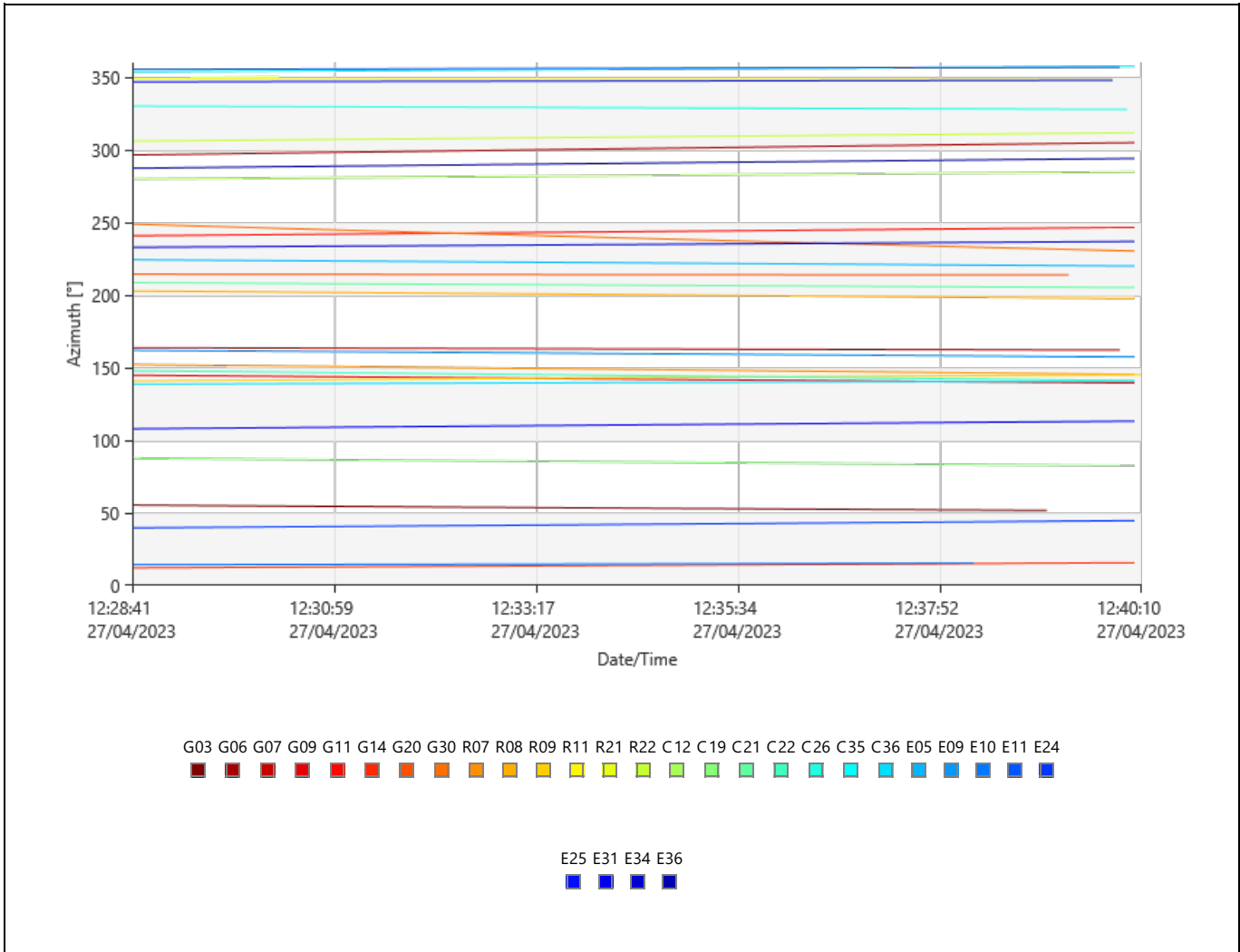


Signals Tracked

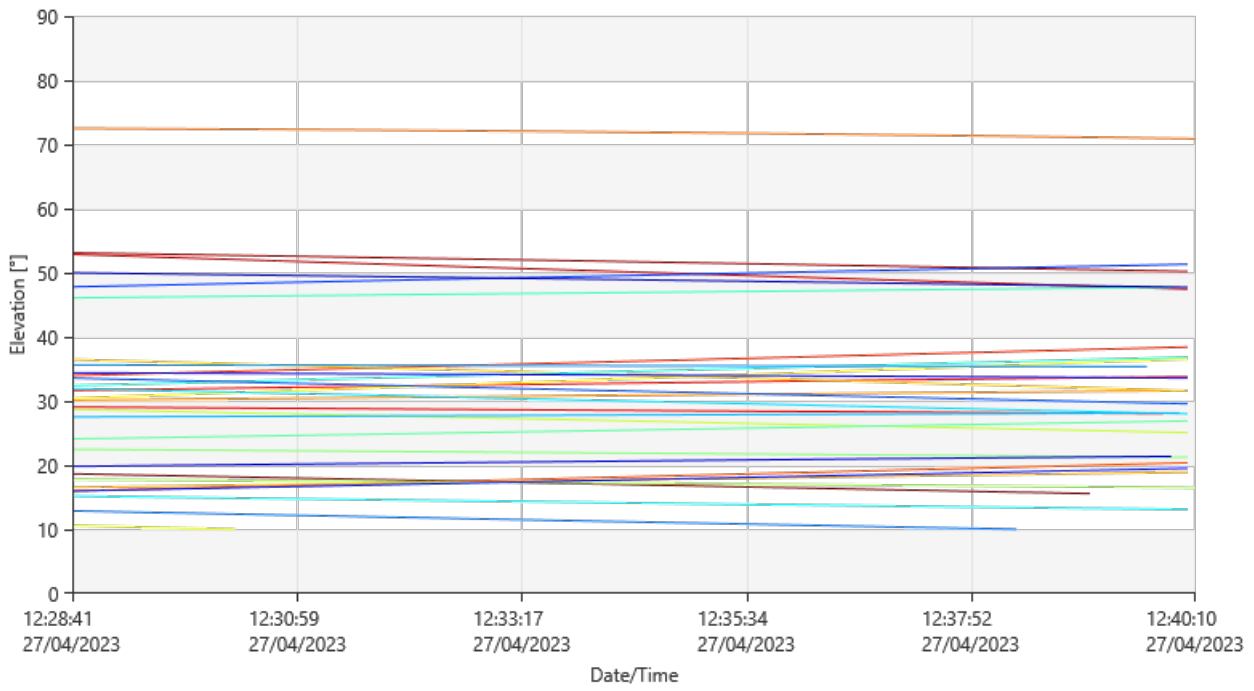




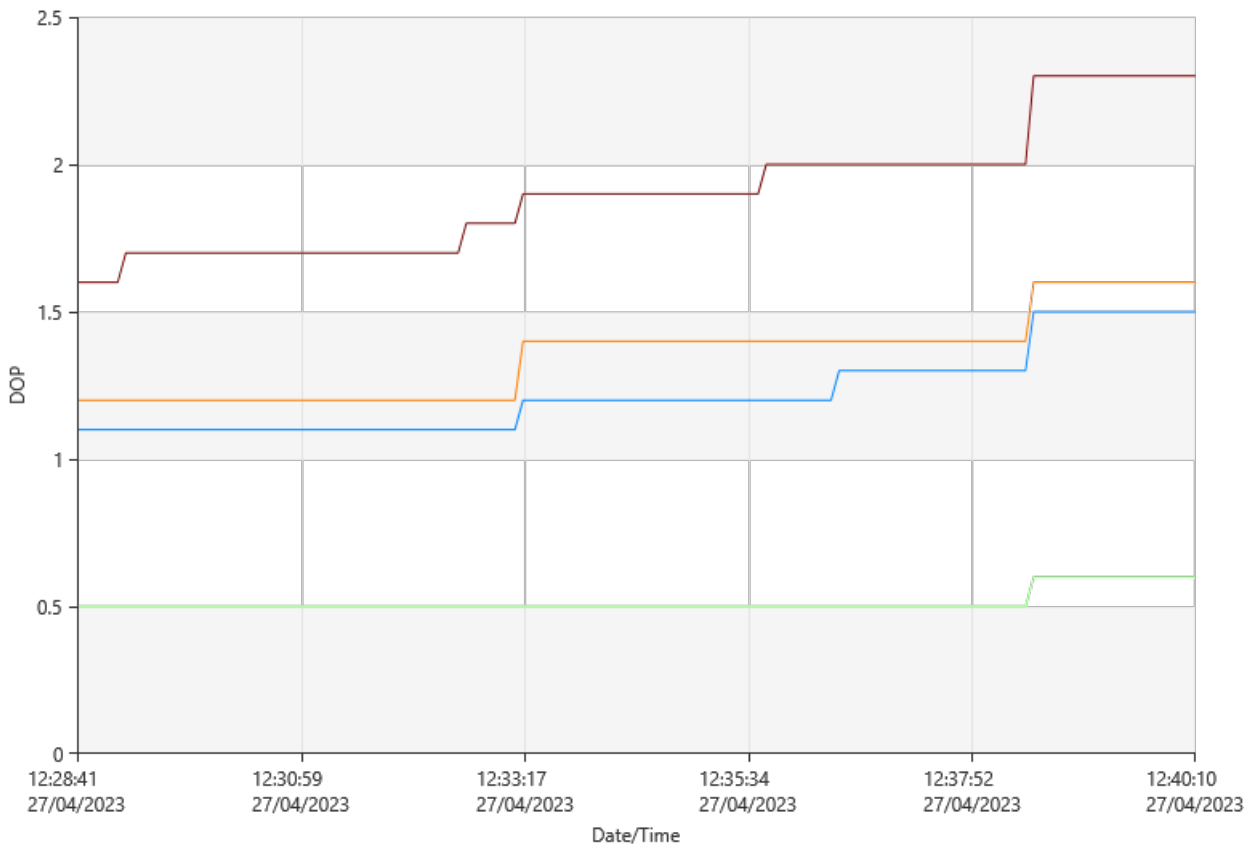
Azimuth



Elevation



DOP



GDOP PDOP HDOP VDOP



Observation Statistics

Common Epochs: 694

GPS Observations

Frequency	Used	Rejected
L1	5,133	16
L2	5,133	12
L5	0	4,095

GLONASS Observations

Frequency	Used	Rejected
L1	3,577	4
L2	3,563	18

Beidou Observations

Frequency	Used	Rejected
B1	0	4,858
B2	0	5,552
L5	0	4,139

Galileo Observations

Frequency	Used	Rejected
E1	6,141	2
E5a	0	6,143
E5b	0	6,143
E5a+b	0	6,143

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	16	13	0	9
Total	18	13	14	9
Independently fixed	87	87	0	87
Possible independently fixed	87	87	87	87

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	99.88	99.88	100.00	100.00	0.00	0.00	100.00
Not fixed	0.12	0.12	0.00	0.00	100.00	100.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	27/04/2023 12:28:41	27/04/2023 12:40:14	00:11:33

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 27/04/2023 11:32:18
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 27/04/2023 17:59:45
 Origin Date/Time: 27/04/2023 11:32:18

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.8966392590	0.0124498998
0	1	0.9902551237	0.0096957198
0	2	-0.4798840624	0.0031185447
1	0	0.1788919173	0.0067097133
1	1	-0.0197848160	0.0037938104

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
	27/04/2023 12:28:41	27/04/2023 12:33:16	Used
	27/04/2023 12:33:16	27/04/2023 12:33:28	Rejected
	27/04/2023 12:33:28	27/04/2023 12:33:45	No Data

L1	27/04/2023 12:33:45	27/04/2023 12:33:47	Rejected
	27/04/2023 12:33:47	27/04/2023 12:33:52	No Data
	27/04/2023 12:33:52	27/04/2023 12:33:53	Rejected
	27/04/2023 12:33:53	27/04/2023 12:34:05	No Data
	27/04/2023 12:34:05	27/04/2023 12:34:06	Rejected
	27/04/2023 12:34:06	27/04/2023 12:40:14	No Data
L2	27/04/2023 12:28:41	27/04/2023 12:33:16	Used
	27/04/2023 12:33:16	27/04/2023 12:33:28	Rejected
	27/04/2023 12:33:28	27/04/2023 12:40:14	No Data
L5	27/04/2023 12:28:41	27/04/2023 12:38:20	Rejected
	27/04/2023 12:38:20	27/04/2023 12:38:21	No Data
	27/04/2023 12:38:21	27/04/2023 12:38:26	Rejected
	27/04/2023 12:38:26	27/04/2023 12:38:27	No Data
	27/04/2023 12:38:27	27/04/2023 12:38:42	Rejected
	27/04/2023 12:38:42	27/04/2023 12:38:44	No Data
	27/04/2023 12:38:44	27/04/2023 12:39:08	Rejected
	27/04/2023 12:39:08	27/04/2023 12:39:09	No Data
	27/04/2023 12:39:09	27/04/2023 12:39:11	Rejected
	27/04/2023 12:39:11	27/04/2023 12:40:14	No Data

G06

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

R07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used

R08

Frequency	From Epoch	To Epoch	Status

L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used

R09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used

R21

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:30:28	Used
	27/04/2023 12:30:28	27/04/2023 12:30:32	Rejected
	27/04/2023 12:30:32	27/04/2023 12:40:14	No Data
L2	27/04/2023 12:28:41	27/04/2023 12:29:02	Used
	27/04/2023 12:29:02	27/04/2023 12:29:16	Rejected
	27/04/2023 12:29:16	27/04/2023 12:30:28	Used
	27/04/2023 12:30:28	27/04/2023 12:30:32	Rejected
	27/04/2023 12:30:32	27/04/2023 12:40:14	No Data

R22

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
L2	27/04/2023 12:28:41	27/04/2023 12:40:14	Used

E05

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
E5a	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5a+b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

E09

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
E5a	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5a+b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

E10

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:38:30	Used
	27/04/2023 12:38:30	27/04/2023 12:38:32	Rejected
	27/04/2023 12:38:32	27/04/2023 12:40:14	No Data
E5a	27/04/2023 12:28:41	27/04/2023 12:38:32	Rejected
	27/04/2023 12:38:32	27/04/2023 12:40:14	No Data
E5b	27/04/2023 12:28:41	27/04/2023 12:38:32	Rejected
	27/04/2023 12:38:32	27/04/2023 12:40:14	No Data
E5a+b	27/04/2023 12:28:41	27/04/2023 12:38:32	Rejected
	27/04/2023 12:38:32	27/04/2023 12:40:14	No Data

E11

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
E5a	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5a+b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

E24

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
E5a	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

E5a+b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
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E25

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
E5a	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5a+b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

E31

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
E5a	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5a+b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

E34

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
E5a	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5a+b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

E36

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:28:41	27/04/2023 12:40:14	Used
E5a	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
E5a+b	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

C12

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
B2	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
B2	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
L5	27/04/2023 12:28:41	27/04/2023 12:34:45	Rejected
	27/04/2023 12:34:45	27/04/2023 12:35:10	No Data
	27/04/2023 12:35:10	27/04/2023 12:40:14	Rejected

C21

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
B2	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
B2	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

C26

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
B2	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

C35

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
B2	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
B2	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected
L5	27/04/2023 12:28:41	27/04/2023 12:40:14	Rejected

Cycle Slips

Slip Count: 6

SV	Frequency	Epoch	Slip Value	Flag	
C 19	B1	27/04/2023 12:34:26	-	RIA	
		27/04/2023 12:34:32	-	RIA	
		27/04/2023 12:35:12	-	RIA	
C 35	B2	27/04/2023 12:35:12	-	RIA	
		B1	27/04/2023 12:40:04	-	RIA
			27/04/2023 12:39:52	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R06.

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-03

Processing Parameters (27/04/2023 12:51:05 - 27/04/2023 13:02:06)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Wideline Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - PAF-COR-03

Acquisition

Start Time - End Time: 27/04/2023 12:51:05 - 27/04/2023 13:02:05
Duration: 00:11:00

Antennas

	Reference - C02	Rover - PAF-COR-03
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.5000 m	2.0000 m
Antenna Height:	1.5000 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1		L2	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-03		Reference - C02	Rover - PAF-COR-03
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 44.09146" S	Easting:	438,215.5500 m	437,118.0123 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 43.91091" W	Northing:	8,609,405.6600 m	8,611,203.7672 m
WGS84 Ellip. Height:	4,889.3308 m	4,732.0407 m	Ortho. Height:	4,853.4775 m	4,696.2800 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,825.6173 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,719.0016 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,206.5257 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 58.61202"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 36.24241"	SD ΔLongitude:	0.0001 m
ΔHeight:	-157.2901 m	SD ΔHeight:	0.0003 m
ΔX:	-1,000.8190 m	SD ΔX:	0.0001 m
ΔY:	-504.0012 m	SD ΔY:	0.0003 m
ΔZ:	1,793.5217 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,114.7993 m	SD Slope Dist.:	0.0001 m

M0:	0.4009 m	CQ 1D:	0.0003 m
Q11:	0.00000009	CQ 2D:	0.0001 m
Q12:	-0.00000011	CQ 3D:	0.0003 m
Q22:	0.00000052		
Q13:	-0.00000003		
Q23:	0.00000016		
Q33:	0.00000009		

Frequency:	L1/E1/L2	GDOP:	2.0 - 2.6	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.4 - 1.8	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	0/8
		VDOP:	1.3 - 1.7	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

Processing Info (27/04/2023 12:51:05 - 27/04/2023 13:02:06)

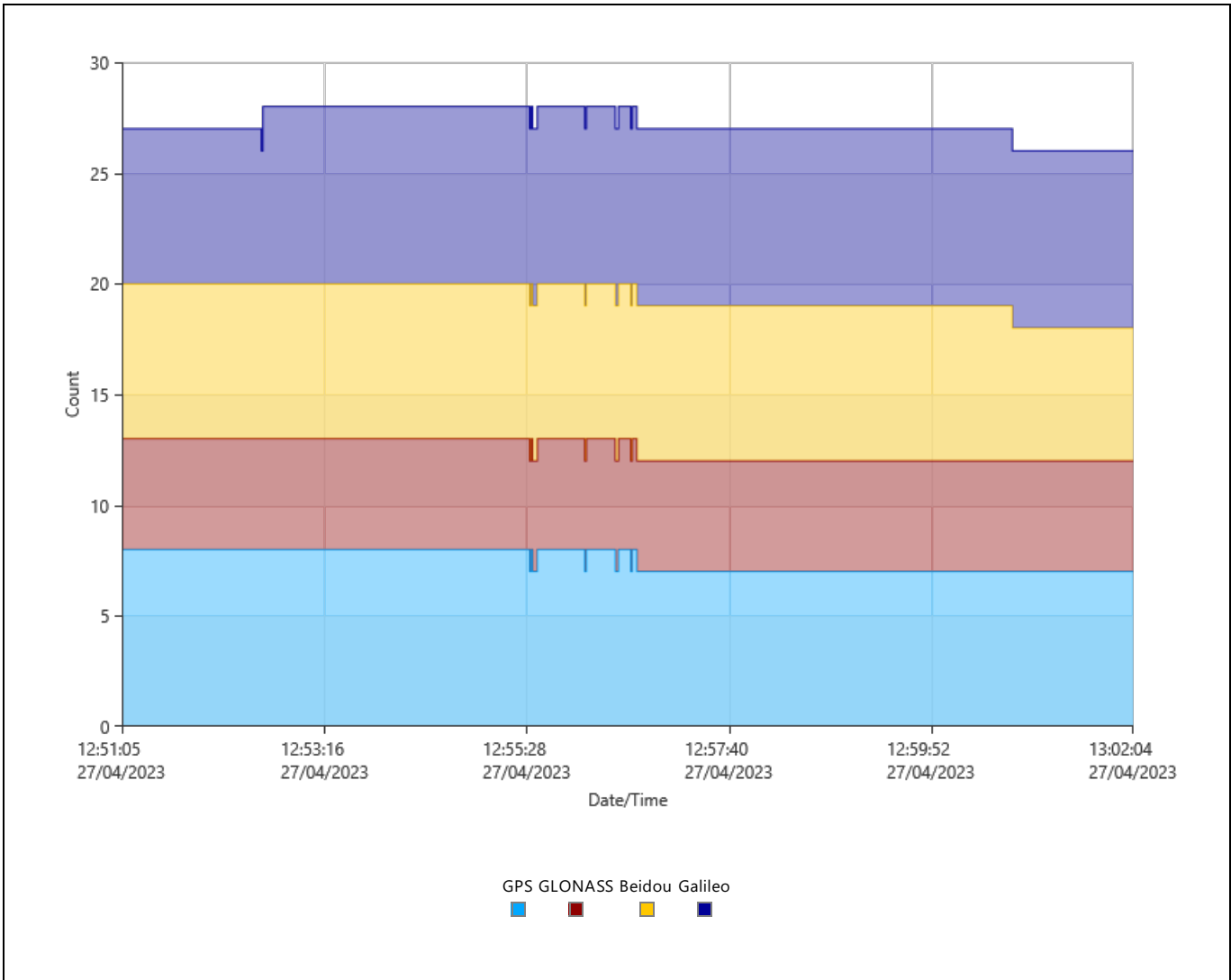
Processed Date/Time: 10/05/2023 10:49:26

Satellites

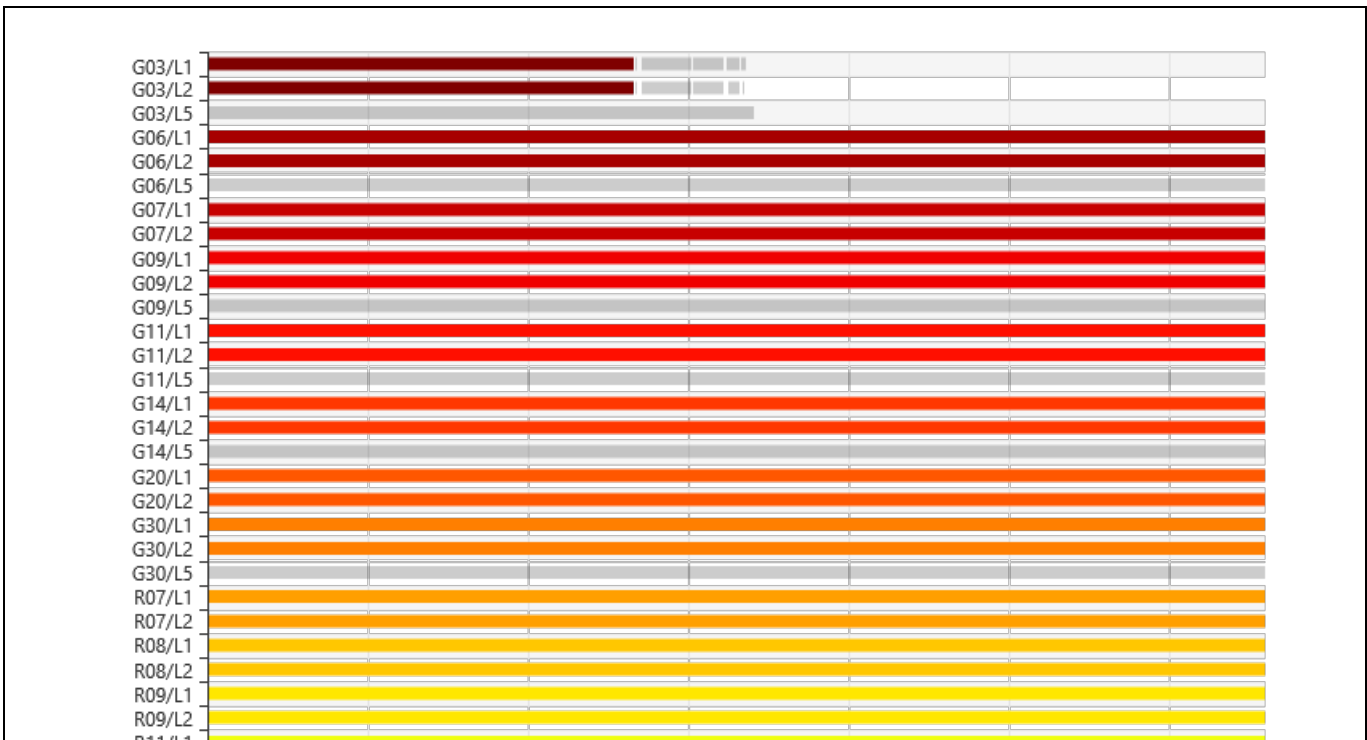
Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14	-

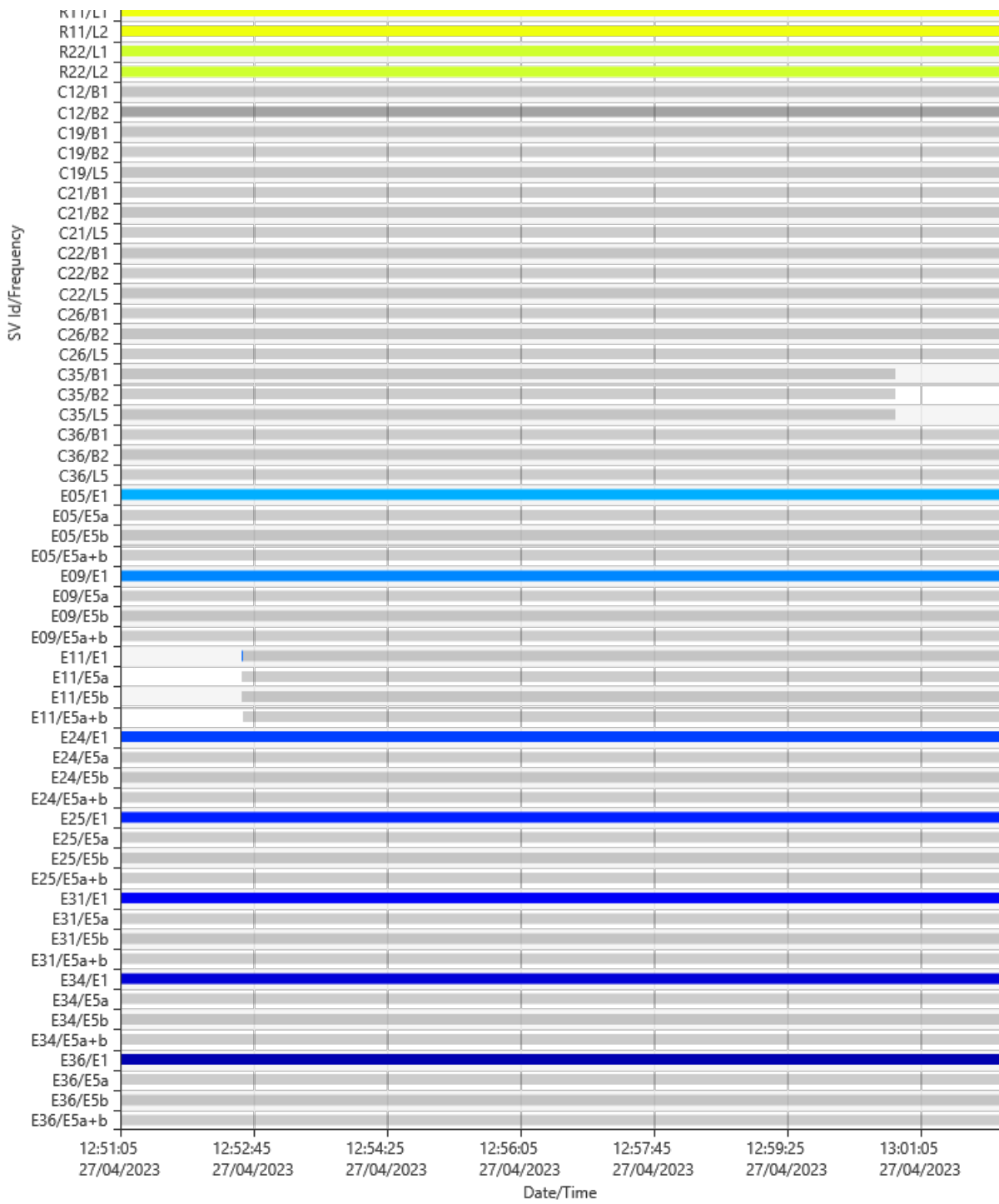
GLONASS G20 G30
 R07 R08 R09 R11 R22 -
 Galileo E05 E09 E11 E24 E25 E31 -
 E34 E36

SVs Tracked

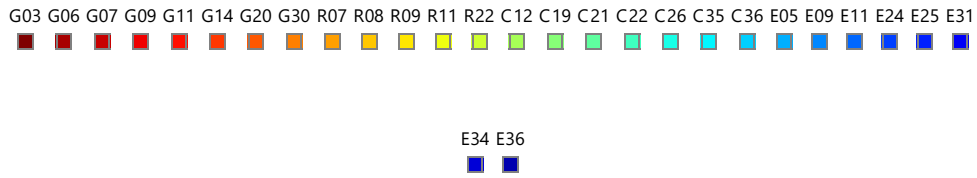
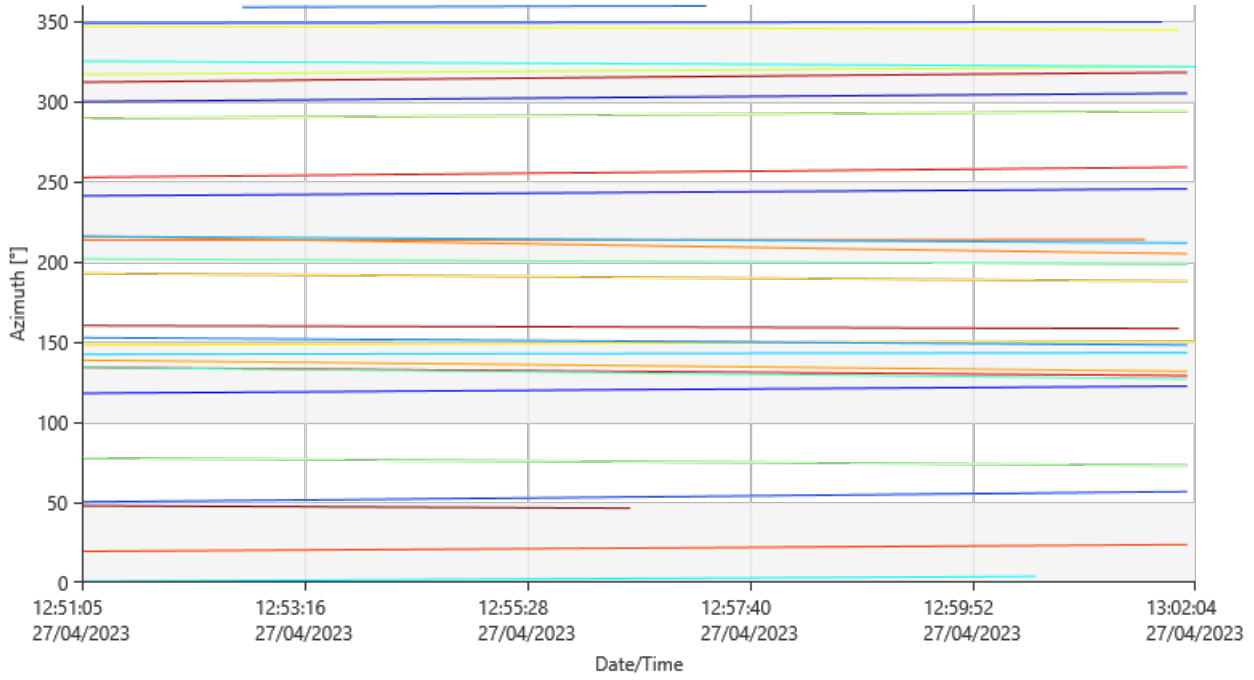


Signals Tracked

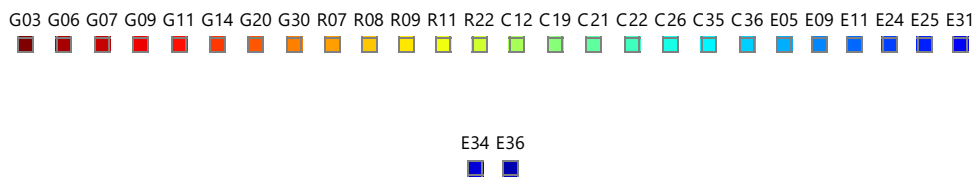
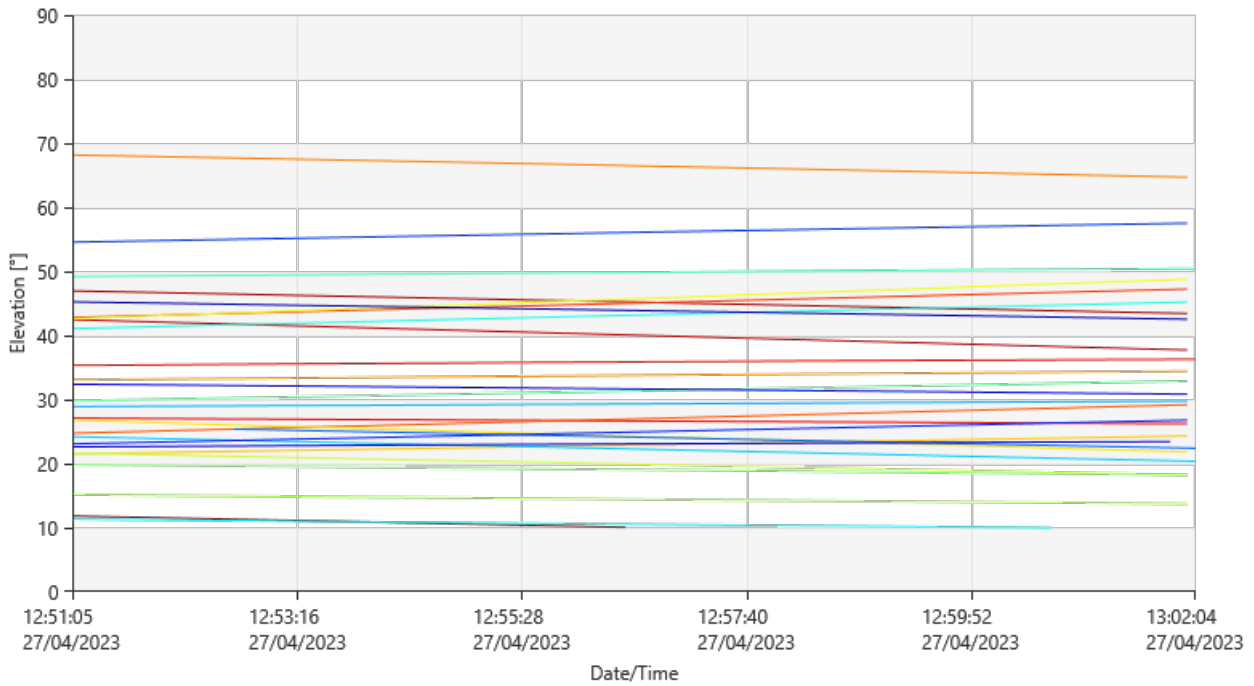




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	27/04/2023 12:51:05	27/04/2023 13:02:05	00:11:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 27/04/2023 11:32:18
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 27/04/2023 17:59:45
Origin Date/Time: 27/04/2023 11:32:18

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.8966392590	0.0124498998
0	1	0.9902551237	0.0096957198
0	2	-0.4798840624	0.0031185447
1	0	0.1788919173	0.0067097133
1	1	-0.0197848160	0.0037938104

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 12:55:31	Used
	27/04/2023 12:55:31	27/04/2023 12:55:32	No Data
	27/04/2023 12:55:32	27/04/2023 12:55:33	Rejected
	27/04/2023 12:55:33	27/04/2023 12:55:36	No Data
	27/04/2023 12:55:36	27/04/2023 12:56:07	Rejected
	27/04/2023 12:56:07	27/04/2023 12:56:08	No Data
	27/04/2023 12:56:08	27/04/2023 12:56:27	Rejected
	27/04/2023 12:56:27	27/04/2023 12:56:29	No Data
	27/04/2023 12:56:29	27/04/2023 12:56:37	Rejected
	27/04/2023 12:56:37	27/04/2023 12:56:38	No Data
	27/04/2023 12:56:38	27/04/2023 12:56:41	Rejected
27/04/2023 12:56:41	27/04/2023 13:02:05	No Data	
L2	27/04/2023 12:51:05	27/04/2023 12:55:31	Used
	27/04/2023 12:55:31	27/04/2023 12:55:32	No Data
	27/04/2023 12:55:32	27/04/2023 12:55:33	Rejected
	27/04/2023 12:55:33	27/04/2023 12:55:36	No Data
	27/04/2023 12:55:36	27/04/2023 12:56:07	Rejected
	27/04/2023 12:56:07	27/04/2023 12:56:08	No Data
	27/04/2023 12:56:08	27/04/2023 12:56:27	Rejected
	27/04/2023 12:56:27	27/04/2023 12:56:30	No Data
	27/04/2023 12:56:30	27/04/2023 12:56:37	Rejected
	27/04/2023 12:56:37	27/04/2023 12:56:39	No Data
27/04/2023 12:56:39	27/04/2023 12:56:40	Rejected	
L5	27/04/2023 12:56:40	27/04/2023 13:02:05	No Data
	27/04/2023 12:51:05	27/04/2023 12:56:46	Rejected
	27/04/2023 12:56:46	27/04/2023 13:02:05	No Data

G06

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used

L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
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G09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

R07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used

R09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used

R22

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
L2	27/04/2023 12:51:05	27/04/2023 13:02:05	Used

E05

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
E5a	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5a+b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

E09

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used

E5a	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5a+b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

E11

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:51:05	27/04/2023 12:52:36	No Data
	27/04/2023 12:52:36	27/04/2023 12:52:37	Used
	27/04/2023 12:52:37	27/04/2023 13:02:05	Rejected
E5a	27/04/2023 12:51:05	27/04/2023 12:52:36	No Data
	27/04/2023 12:52:36	27/04/2023 13:02:05	Rejected
E5b	27/04/2023 12:51:05	27/04/2023 12:52:36	No Data
	27/04/2023 12:52:36	27/04/2023 13:02:05	Rejected
E5a+b	27/04/2023 12:51:05	27/04/2023 12:52:37	No Data
	27/04/2023 12:52:37	27/04/2023 13:02:05	Rejected

E24

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
E5a	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5a+b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

E25

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
E5a	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5a+b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

E31

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
E5a	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5a+b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

E34

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
E5a	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5a+b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

E36

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 12:51:05	27/04/2023 13:02:05	Used
E5a	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
E5a+b	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

C12

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
B2	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
B2	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

C21

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
B2	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
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C22

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
B2	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

C26

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
B2	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

C35

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:51:05	27/04/2023 13:00:46	Rejected
	27/04/2023 13:00:46	27/04/2023 13:02:05	No Data
B2	27/04/2023 12:51:05	27/04/2023 13:00:46	Rejected
	27/04/2023 13:00:46	27/04/2023 13:02:05	No Data
L5	27/04/2023 12:51:05	27/04/2023 13:00:46	Rejected
	27/04/2023 13:00:46	27/04/2023 13:02:05	No Data

C36

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
B2	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected
L5	27/04/2023 12:51:05	27/04/2023 13:02:05	Rejected

Cycle Slips

Slip Count: 9

SV	Frequency	Epoch	Slip Value	Flag
C35	B1	27/04/2023 12:52:26	-	RIA
		27/04/2023 12:58:08	-	RIA
		27/04/2023 12:58:18	-	RIA
		27/04/2023 12:58:24	-	RIA
		27/04/2023 12:58:48	-	RIA
		27/04/2023 12:58:50	-	RIA
	B2	27/04/2023 12:58:08	-	RIA
		27/04/2023 12:58:18	-	RIA
		27/04/2023 12:58:24	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.
RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.
Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R06.
Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-04

Processing Parameters (27/04/2023 13:22:47 - 27/04/2023 13:33:20)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - PAF-COR-04

Acquisition

Start Time - End Time:	27/04/2023 13:22:48 - 27/04/2023 13:33:19
Duration:	00:10:31

Antennas

	Reference - C02	Rover - PAF-COR-04
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.5000 m	2.0000 m
Antenna Height:	1.5000 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-04	Reference - C02	Rover - PAF-COR-04	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 35.61478" S	Easting:	438,215.5500 m	436,670.4221 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 58.72450" W	Northing:	8,609,405.6600 m	8,611,463.1753 m
WGS84 Ellip. Height:	4,889.3308 m	4,675.9198 m	Ortho. Height:	4,853.4775 m	4,640.1731 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,392.6867 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,832.2901 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,378,939.8809 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 01' 07.08870"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 51.05600"	SD ΔLongitude:	0.0001 m
ΔHeight:	-213.4110 m	SD ΔHeight:	0.0003 m
ΔX:	-1,433.7496 m	SD ΔX:	0.0001 m
ΔY:	-617.2897 m	SD ΔY:	0.0003 m
ΔZ:	2,060.1665 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,584.7574 m	SD Slope Dist.:	0.0001 m

M0:	0.3979 m	CQ 1D:	0.0003 m
Q11:	0.00000008	CQ 2D:	0.0001 m

Q12: -0.00000008 CQ 3D: 0.0003 m
 Q22: 0.00000046
 Q13: -0.00000002
 Q23: 0.00000014
 Q33: 0.00000009

Frequency: L1/E1/L2 GDOP: 1.6 - 2.0 GPS SVs: 9/9
 Solution Optimisation: None PDOP: 1.1 - 1.4 GLONASS SVs: 5/5
 Solution Type: Phase Fixed HDOP: 0.5 - 0.6 Beidou SVs: 0/7
 VDOP: 1.0 - 1.2 Galileo SVs: 8/8
 QZSS SVs: -

Ephemeris Type:
 GPS: Precise
 GLONASS: Precise
 Beidou: Broadcast
 Galileo: Precise

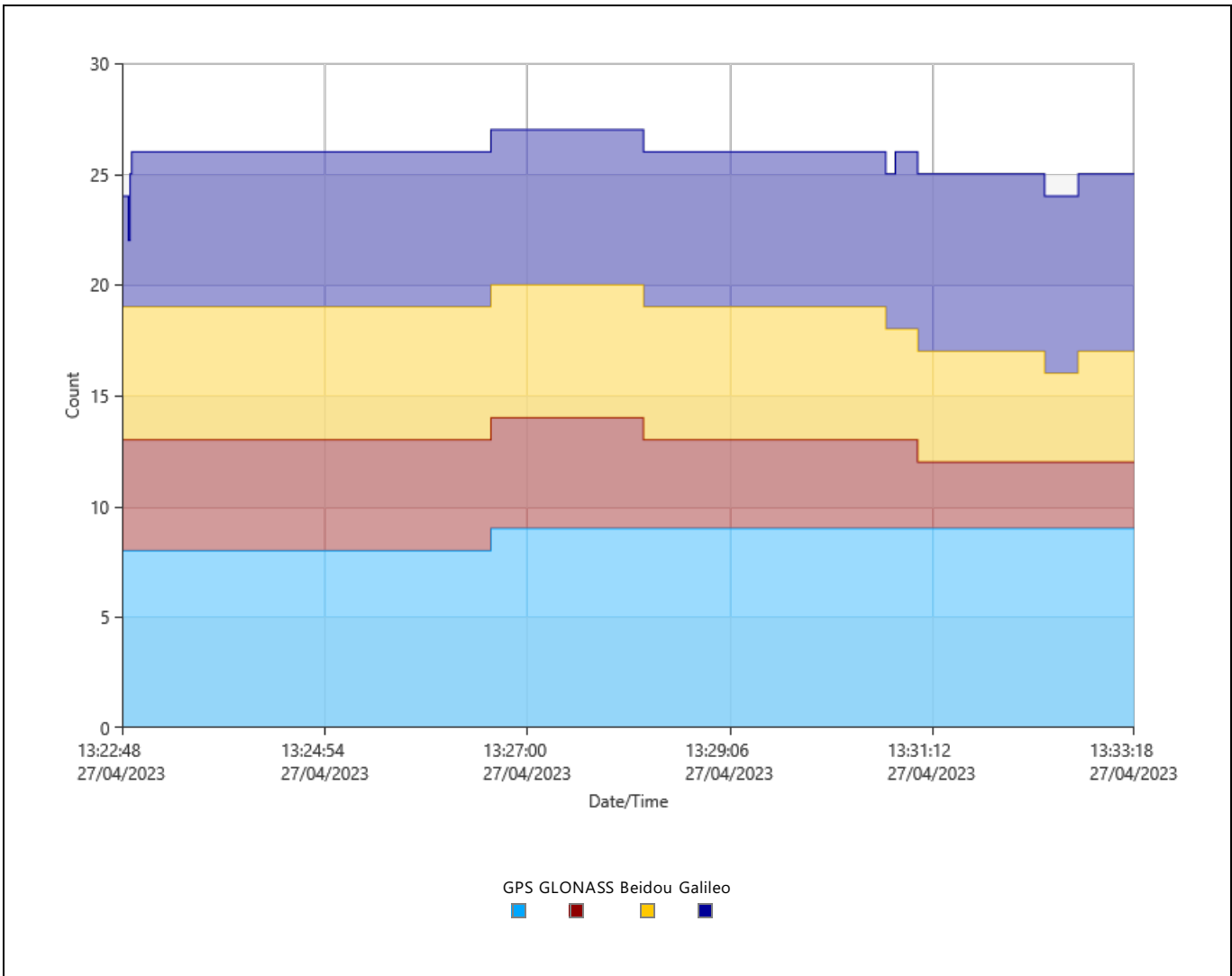
Processing Info (27/04/2023 13:22:47 - 27/04/2023 13:33:20)

Processed Date/Time: 10/05/2023 10:49:26

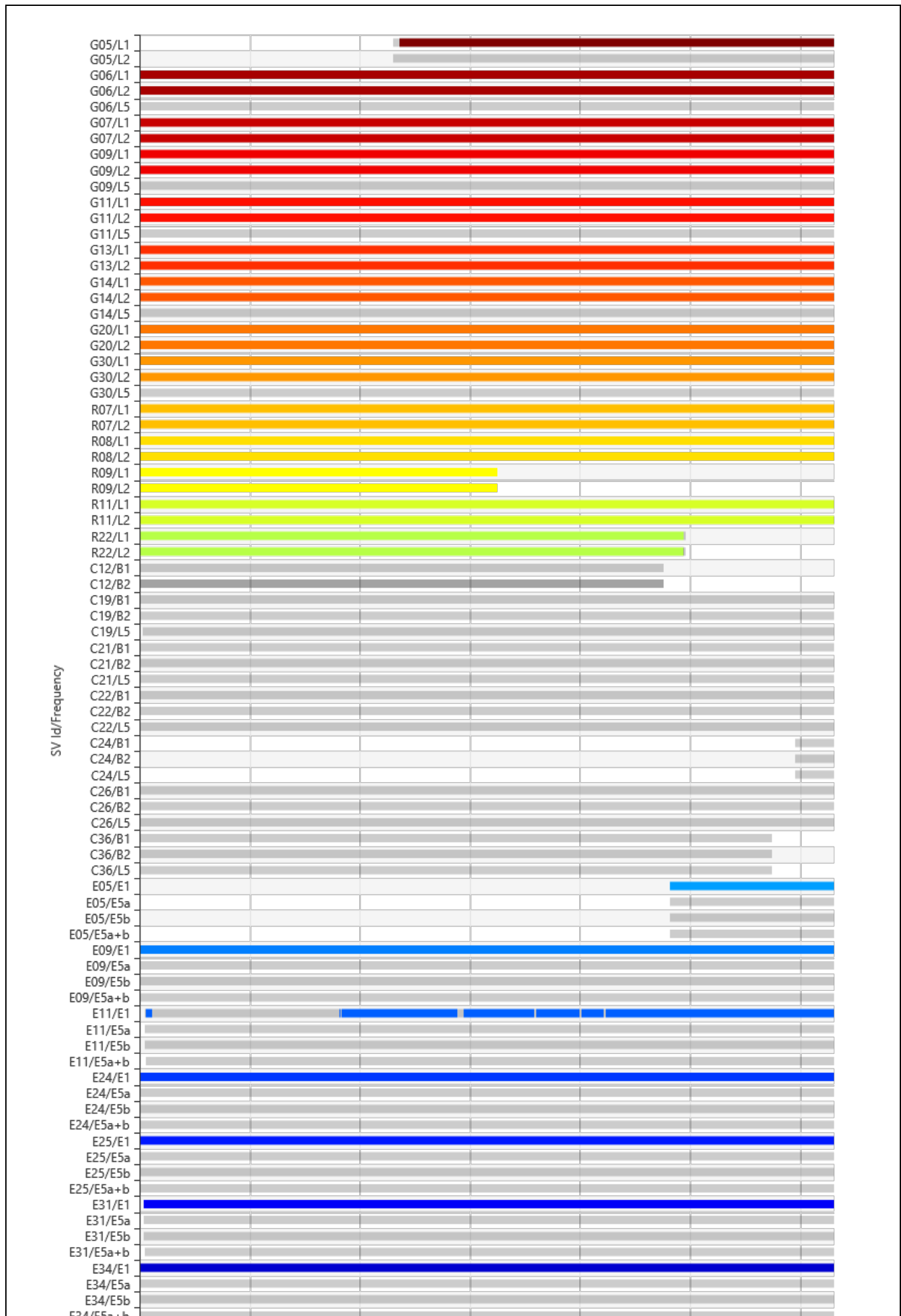
Satellites

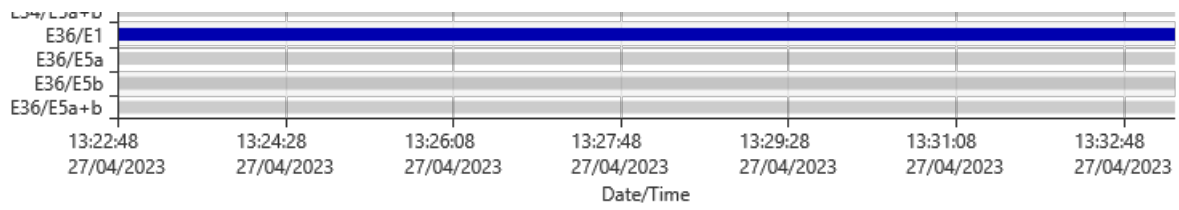
Satellite System	Used	Manually Disabled
GPS	G05 G06 G07 G09 G11 G13 G14 G20 G30	-
GLONASS	R07 R08 R09 R11 R22	-
Galileo	E05 E09 E11 E24 E25 E31 E34 E36	-

SVs Tracked

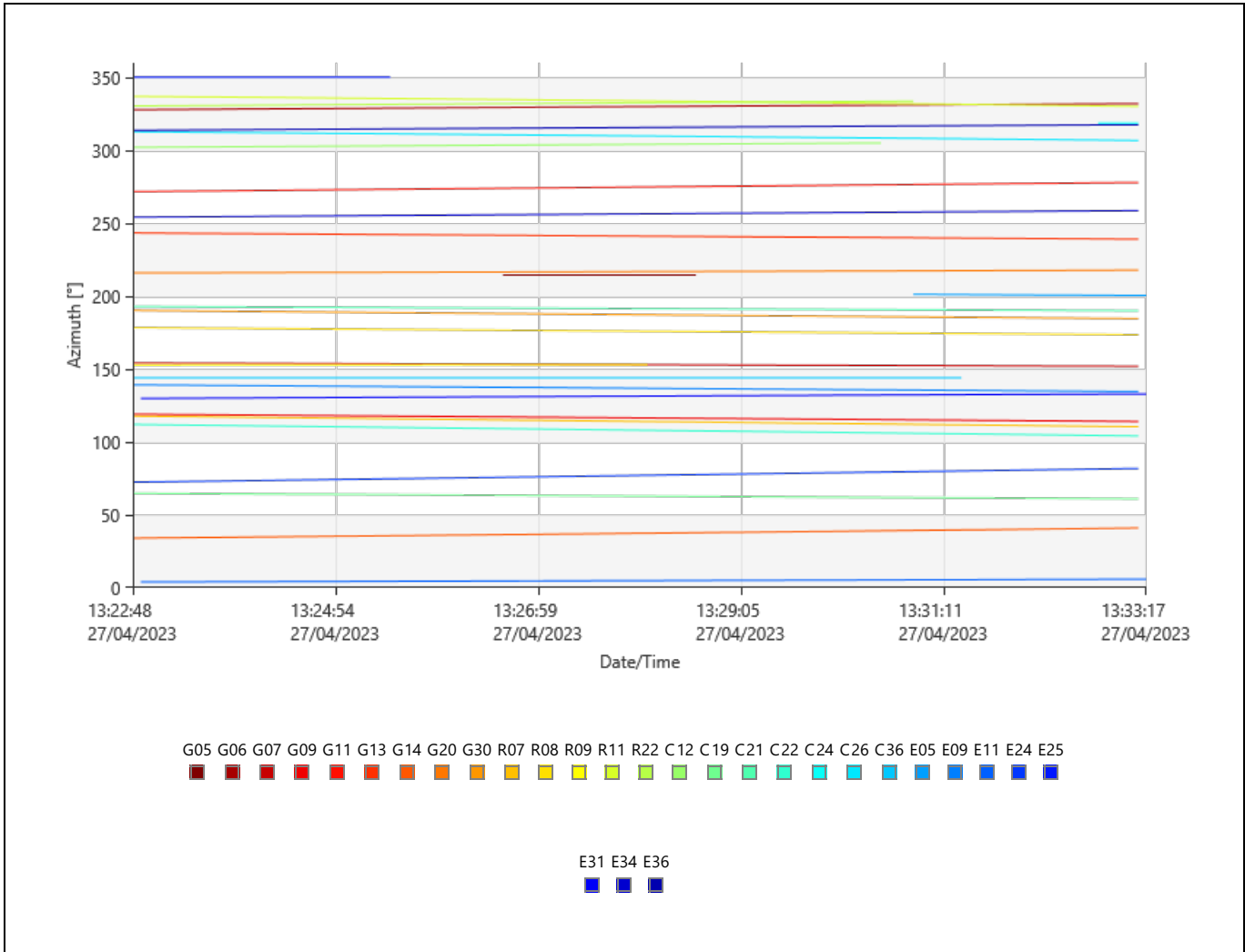


Signals Tracked

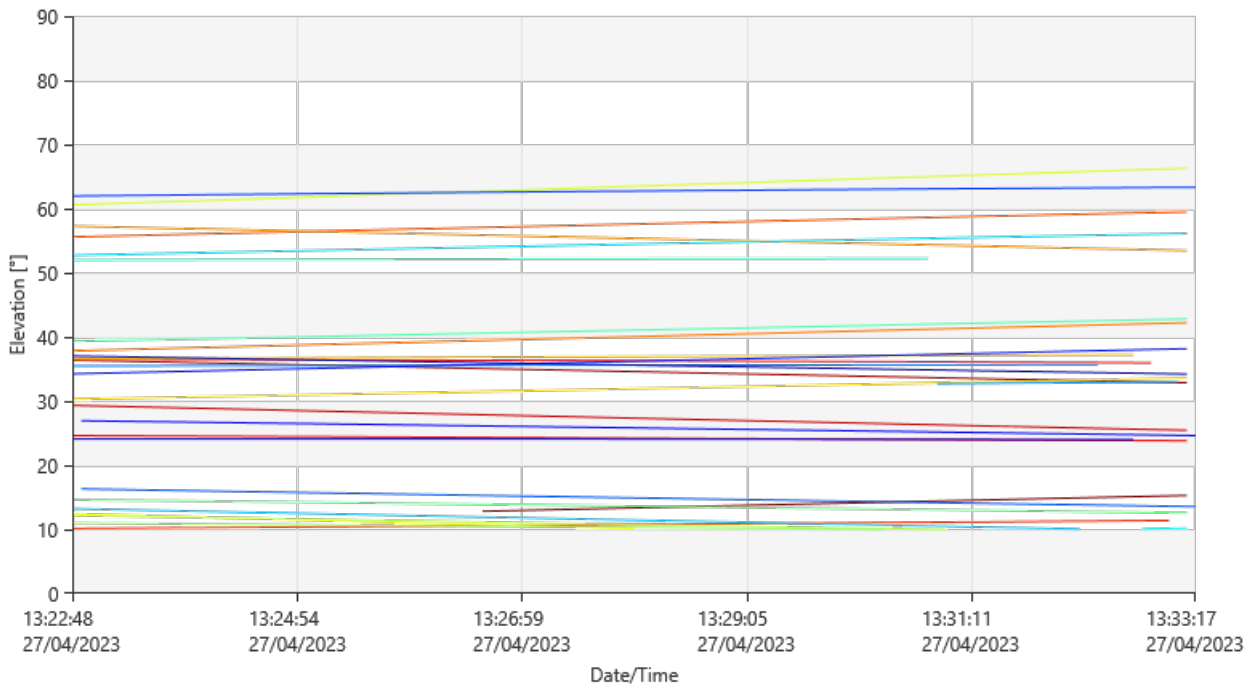




Azimuth



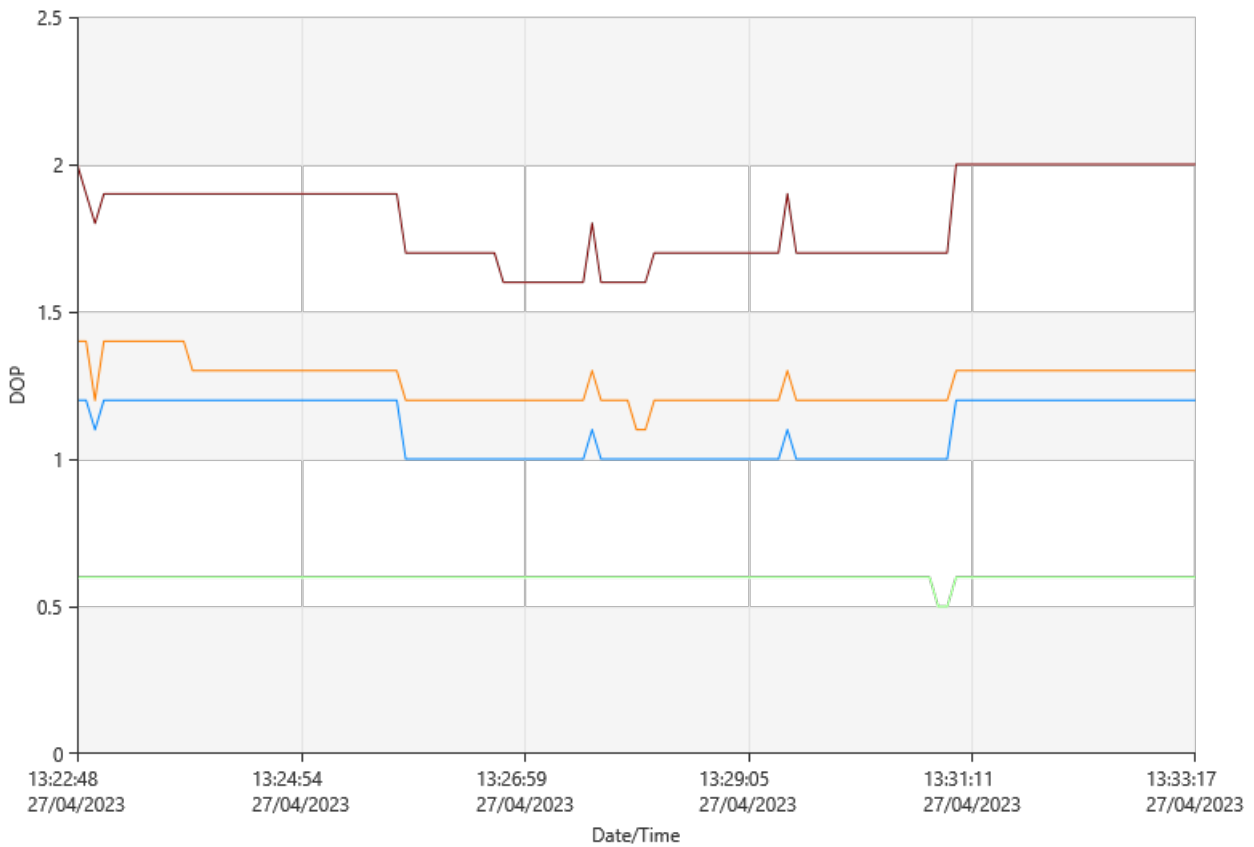
Elevation



G05 G06 G07 G09 G11 G13 G14 G20 G30 R07 R08 R09 R11 R22 C12 C19 C21 C22 C24 C26 C36 E05 E09 E11 E24 E25

E31 E34 E36

DOP



GDOP PDOP HDOP VDOP



Observation Statistics

Common Epochs: 632

GPS Observations

Frequency	Used	Rejected
L1	5,452	6
L2	5,056	402
L5	0	3,160

GLONASS Observations

Frequency	Used	Rejected
L1	2,715	2
L2	2,715	2

Beidou Observations

Frequency	Used	Rejected
B1	0	3,615
B2	0	4,091
L5	0	3,136

Galileo Observations

Frequency	Used	Rejected
E1	4,382	183
E5a	0	4,565
E5b	0	4,565
E5a+b	0	4,563

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	18	10	0	13
Total	19	10	14	14
Independently fixed	79	79	0	79
Possible independently fixed	79	79	79	79

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	99.96	100.00	100.00	0.00	0.00	99.96
Not fixed	0.00	0.04	0.00	0.00	100.00	100.00	0.04
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	27/04/2023 13:22:48	27/04/2023 13:33:19	00:10:31

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 27/04/2023 11:32:18
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 27/04/2023 17:59:45
 Origin Date/Time: 27/04/2023 11:32:18

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.8966392590	0.0124498998
0	1	0.9902551237	0.0096957198
0	2	-0.4798840624	0.0031185447
1	0	0.1788919173	0.0067097133
1	1	-0.0197848160	0.0037938104

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:26:38	No Data
	27/04/2023 13:26:38	27/04/2023 13:26:44	Rejected
	27/04/2023 13:26:44	27/04/2023 13:33:19	Used

L2	27/04/2023 13:22:48	27/04/2023 13:26:38	No Data
	27/04/2023 13:26:38	27/04/2023 13:33:19	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L5	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L5	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L5	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L5	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L5	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

R07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used

R09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:28:13	Used
	27/04/2023 13:28:13	27/04/2023 13:33:19	No Data
L2	27/04/2023 13:22:48	27/04/2023 13:28:13	Used
	27/04/2023 13:28:13	27/04/2023 13:33:19	No Data

R11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
L2	27/04/2023 13:22:48	27/04/2023 13:33:19	Used

R22

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:22:48	27/04/2023 13:31:02	Used
	27/04/2023 13:31:02	27/04/2023 13:31:04	Rejected
	27/04/2023 13:31:04	27/04/2023 13:33:19	No Data
L2	27/04/2023 13:22:48	27/04/2023 13:31:02	Used
	27/04/2023 13:31:02	27/04/2023 13:31:04	Rejected
	27/04/2023 13:31:04	27/04/2023 13:33:19	No Data

E05

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:22:48	27/04/2023 13:30:50	No Data
	27/04/2023 13:30:50	27/04/2023 13:33:19	Used
E5a	27/04/2023 13:22:48	27/04/2023 13:30:50	No Data
	27/04/2023 13:30:50	27/04/2023 13:33:19	Rejected
E5b	27/04/2023 13:22:48	27/04/2023 13:30:50	No Data
	27/04/2023 13:30:50	27/04/2023 13:33:19	Rejected
E5a+b	27/04/2023 13:22:48	27/04/2023 13:30:50	No Data
	27/04/2023 13:30:50	27/04/2023 13:33:19	Rejected

E09

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
E5a	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5a+b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

E11

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:22:48	27/04/2023 13:22:53	No Data
	27/04/2023 13:22:53	27/04/2023 13:22:54	Rejected
	27/04/2023 13:22:54	27/04/2023 13:22:59	Used
	27/04/2023 13:22:59	27/04/2023 13:25:50	Rejected
	27/04/2023 13:25:50	27/04/2023 13:25:51	Used
	27/04/2023 13:25:51	27/04/2023 13:25:52	Rejected
	27/04/2023 13:25:52	27/04/2023 13:27:37	Used
	27/04/2023 13:27:37	27/04/2023 13:27:42	Rejected
	27/04/2023 13:27:42	27/04/2023 13:28:47	Used
	27/04/2023 13:28:47	27/04/2023 13:28:48	Rejected
	27/04/2023 13:28:48	27/04/2023 13:29:28	Used
	27/04/2023 13:29:28	27/04/2023 13:29:30	Rejected
	27/04/2023 13:29:30	27/04/2023 13:29:50	Used
	27/04/2023 13:29:50	27/04/2023 13:29:52	Rejected
27/04/2023 13:29:52	27/04/2023 13:33:19	Used	
E5a	27/04/2023 13:22:48	27/04/2023 13:22:53	No Data
	27/04/2023 13:22:53	27/04/2023 13:33:19	Rejected
E5b	27/04/2023 13:22:48	27/04/2023 13:22:53	No Data
	27/04/2023 13:22:53	27/04/2023 13:33:19	Rejected
E5a+b	27/04/2023 13:22:48	27/04/2023 13:22:54	No Data
	27/04/2023 13:22:54	27/04/2023 13:33:19	Rejected

E24

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
E5a	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5a+b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

E25

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
E5a	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5a+b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

E31

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:22:48	27/04/2023 13:22:52	No Data
	27/04/2023 13:22:52	27/04/2023 13:33:19	Used
E5a	27/04/2023 13:22:48	27/04/2023 13:22:52	No Data
	27/04/2023 13:22:52	27/04/2023 13:33:19	Rejected
E5b	27/04/2023 13:22:48	27/04/2023 13:22:52	No Data
	27/04/2023 13:22:52	27/04/2023 13:33:19	Rejected
E5a+b	27/04/2023 13:22:48	27/04/2023 13:22:53	No Data
	27/04/2023 13:22:53	27/04/2023 13:33:19	Rejected

E34

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
E5a	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5a+b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

E36

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:22:48	27/04/2023 13:33:19	Used
E5a	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
E5a+b	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

C12

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:22:48	27/04/2023 13:30:44	Rejected
	27/04/2023 13:30:44	27/04/2023 13:33:19	No Data
B2	27/04/2023 13:22:48	27/04/2023 13:30:44	Rejected
	27/04/2023 13:22:48	27/04/2023 13:30:44	Rejected
	27/04/2023 13:30:44	27/04/2023 13:33:19	No Data
	27/04/2023 13:30:44	27/04/2023 13:33:19	No Data

C19

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
B2	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
L5	27/04/2023 13:22:48	27/04/2023 13:22:51	No Data
	27/04/2023 13:22:51	27/04/2023 13:33:19	Rejected

C21

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
B2	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
L5	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
B2	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
L5	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

C24

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:22:48	27/04/2023 13:32:44	No Data
	27/04/2023 13:32:44	27/04/2023 13:33:19	Rejected
B2	27/04/2023 13:22:48	27/04/2023 13:32:44	No Data
	27/04/2023 13:32:44	27/04/2023 13:33:19	Rejected
L5	27/04/2023 13:22:48	27/04/2023 13:32:44	No Data
	27/04/2023 13:32:44	27/04/2023 13:33:19	Rejected

C26

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
B2	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected
L5	27/04/2023 13:22:48	27/04/2023 13:33:19	Rejected

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:22:48	27/04/2023 13:32:23	Rejected
	27/04/2023 13:32:23	27/04/2023 13:33:19	No Data
B2	27/04/2023 13:22:48	27/04/2023 13:32:23	Rejected
	27/04/2023 13:32:23	27/04/2023 13:33:19	No Data
L5	27/04/2023 13:22:48	27/04/2023 13:32:23	Rejected
	27/04/2023 13:32:23	27/04/2023 13:33:19	No Data

Cycle Slips

Slip Count: 7

SV	Frequency	Epoch	Slip Value	Flag
G05	L2	27/04/2023 13:26:42	-	RIA
E11	E1	27/04/2023 13:25:50	-128.0000000000	Flagged
		27/04/2023 13:25:52	-	RIA
		27/04/2023 13:28:06	-7.0000000000	Flagged
		27/04/2023 13:28:48	-	RIA
		27/04/2023 13:29:28	-	RIA
		27/04/2023 13:29:30	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R06.

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-05

Processing Parameters (27/04/2023 13:44:16 - 27/04/2023 13:55:05)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - PAF-COR-05

Acquisition

Start Time - End Time: 27/04/2023 13:44:17 - 27/04/2023 13:55:04

Duration: 00:10:47

Antennas

	Reference - C02	Rover - PAF-COR-05
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.5000 m	2.0000 m
Antenna Height:	1.5000 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-05	Reference - C02	Rover - PAF-COR-05
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 52.57989" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 55.52454" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,701.6160 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,464.3008 m		4,665.8382 m
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,722.6125 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,454.6980 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 50.12359"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 47.85604"	SD ΔLongitude:	0.0001 m
ΔHeight:	-187.7148 m	SD ΔHeight:	0.0002 m
ΔX:	-1,362.1355 m	SD ΔX:	0.0001 m
ΔY:	-507.6121 m	SD ΔY:	0.0002 m
ΔZ:	1,545.3494 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,121.6003 m	SD Slope Dist.:	0.0001 m

M0:	0.4050 m	CQ 1D:	0.0002 m
Q11:	0.00000007	CQ 2D:	0.0001 m
Q12:	-0.00000005	CQ 3D:	0.0003 m
Q22:	0.00000031		
Q13:	-0.00000001		
Q23:	0.00000007		
Q33:	0.00000007		

Frequency:	L1/E1/L2	GDOP:	1.6 - 1.9	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.1 - 1.2	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/5
		VDOP:	0.9 - 1.1	Galileo SVs:	7/7
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

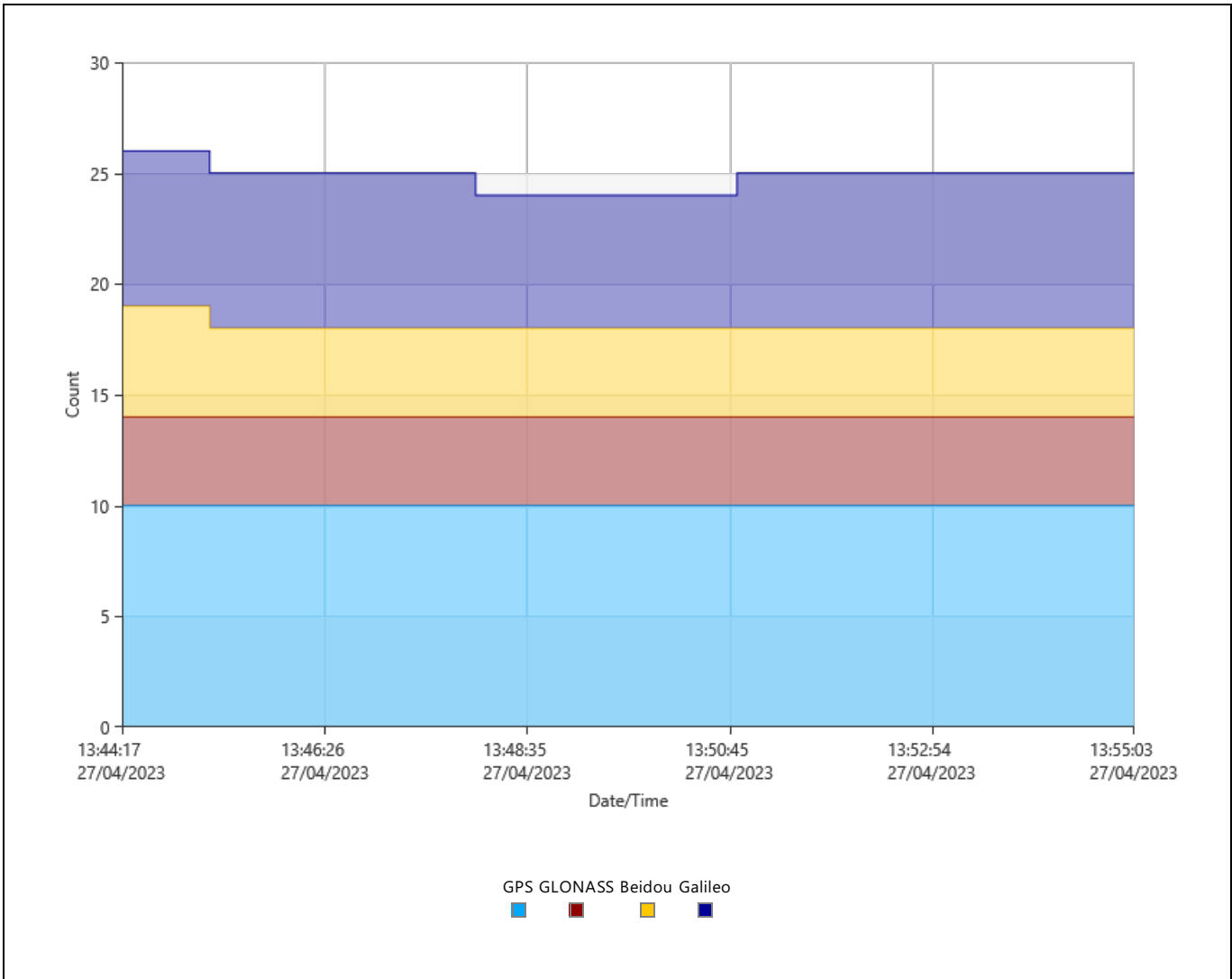
Processing Info (27/04/2023 13:44:16 - 27/04/2023 13:55:05)

Processed Date/Time: 10/05/2023 10:49:26

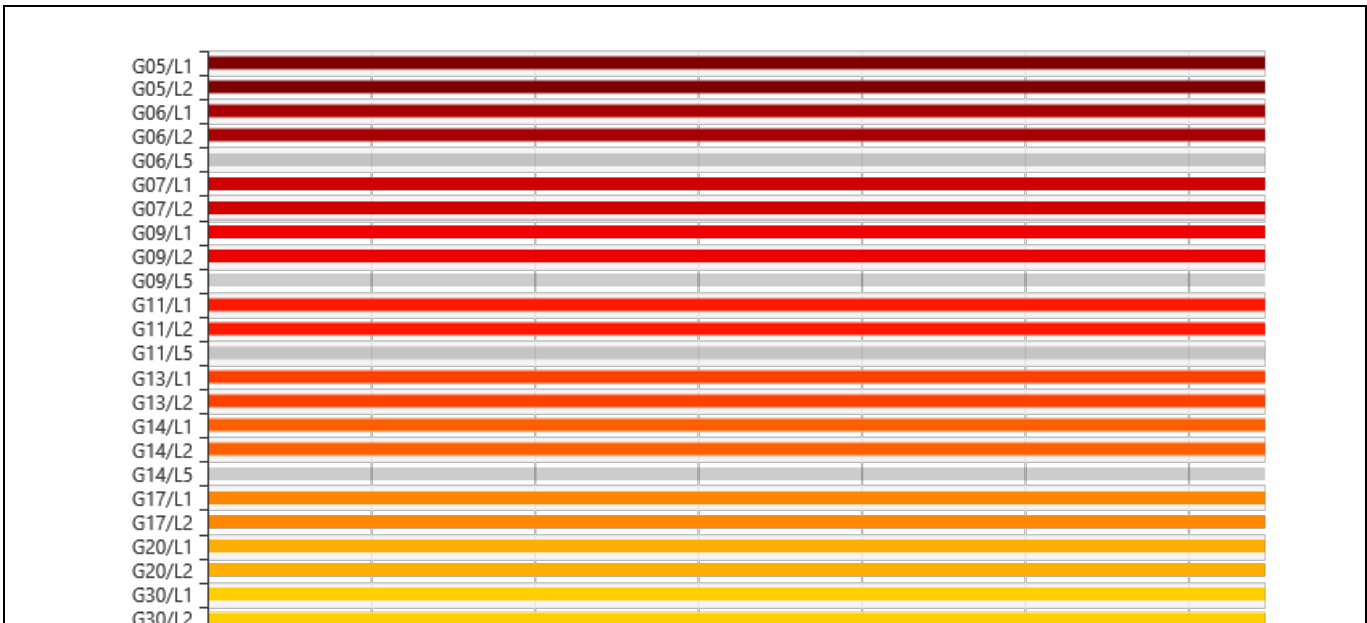
Satellites

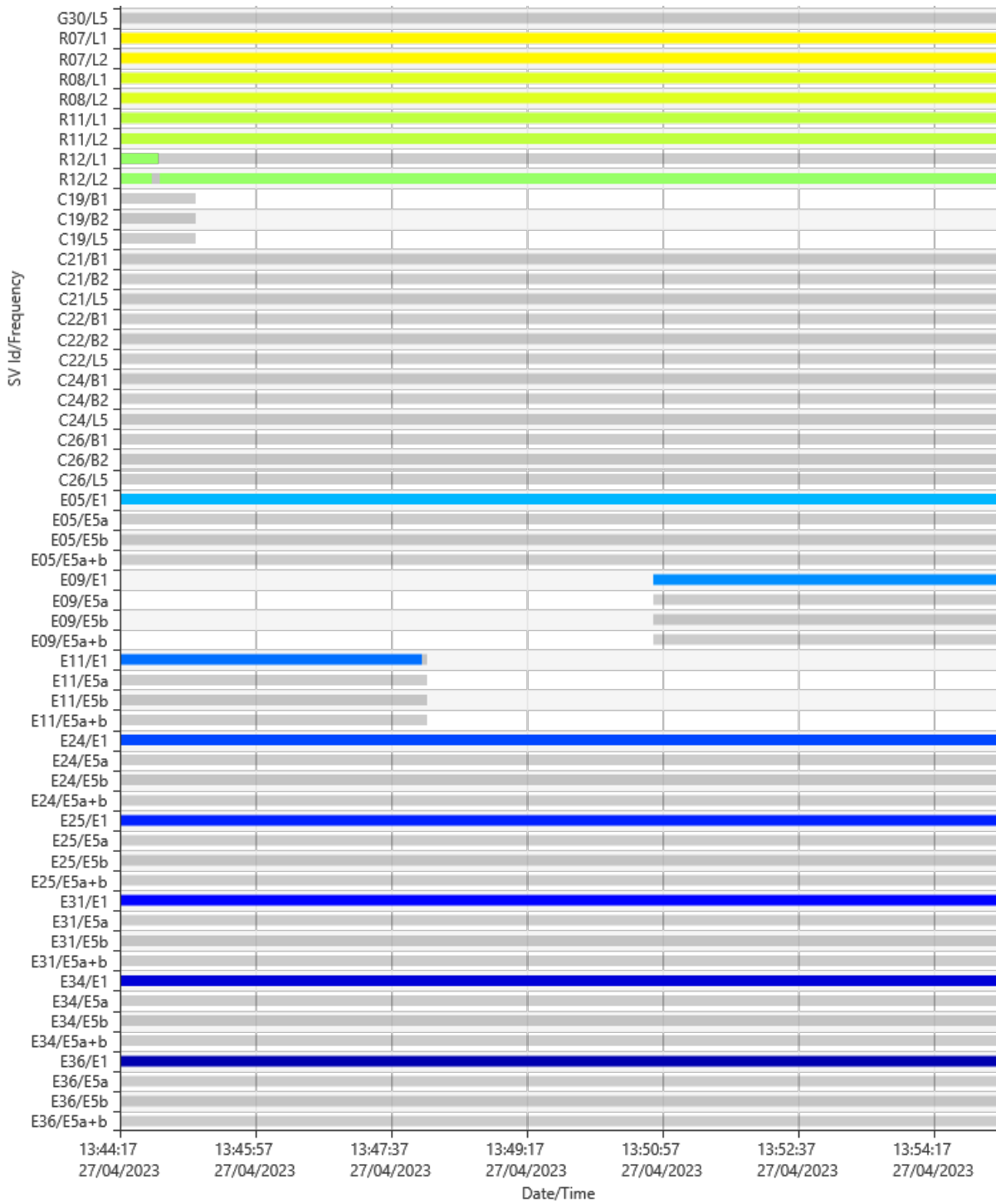
Satellite System	Used	Manually Disabled
GPS	G05 G06 G07 G09 G11 G13 G14 G17 G20 G30	-
GLONASS	R07 R08 R11 R12	-
Galileo	E05 E09 E11 E24 E25 E31 E34 E36	-

SVs Tracked

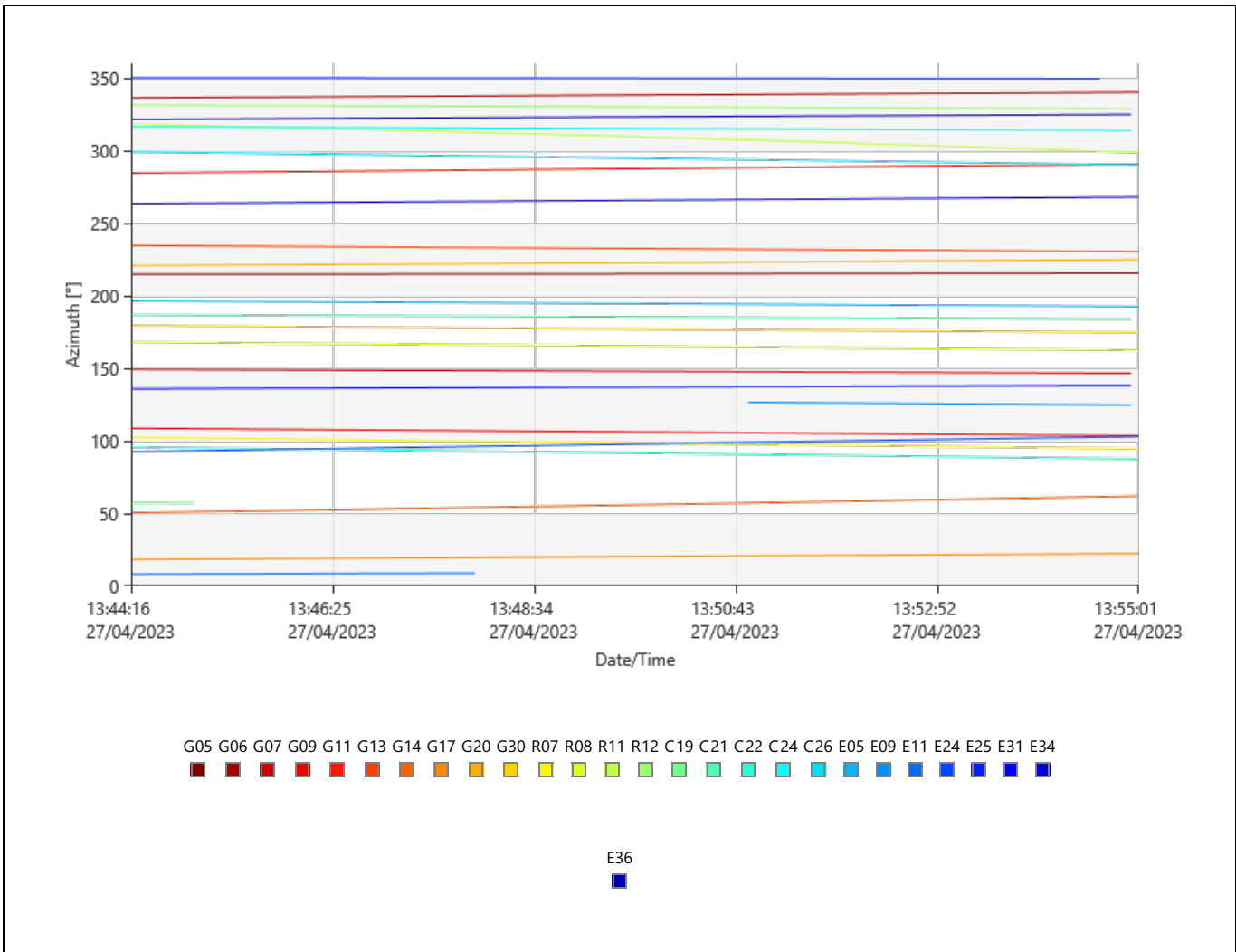


Signals Tracked

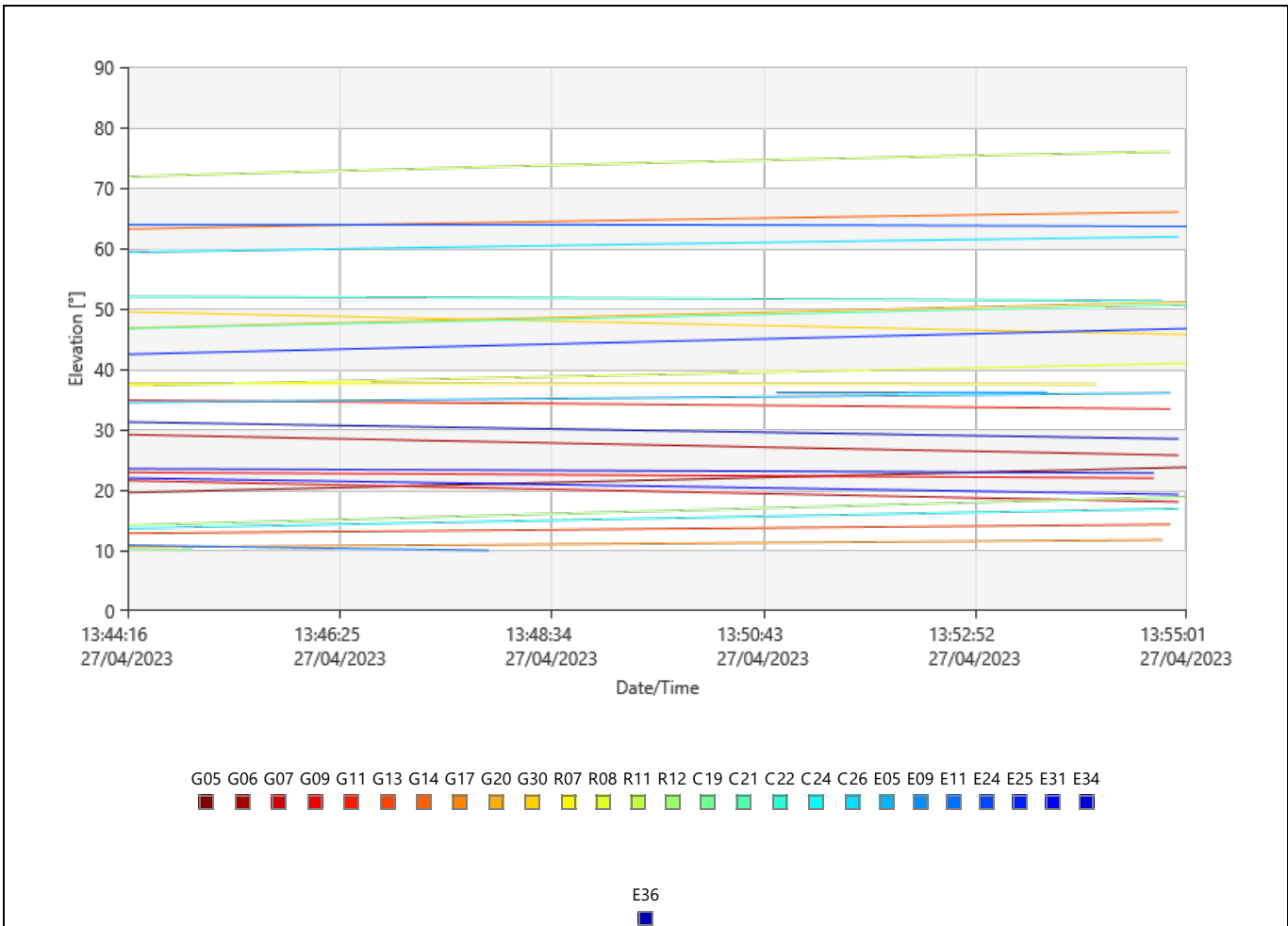




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	27/04/2023 13:44:17	27/04/2023 13:55:04	00:10:47

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 27/04/2023 11:32:18
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 27/04/2023 17:59:45
 Origin Date/Time: 27/04/2023 11:32:18

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.8966392590	0.0124498998
0	1	0.9902551237	0.0096957198
0	2	-0.4798840624	0.0031185447
1	0	0.1788919173	0.0067097133
1	1	-0.0197848160	0.0037938104

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

G06

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

R07

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
L2	27/04/2023 13:44:17	27/04/2023 13:55:04	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 13:44:17	27/04/2023 13:44:45	Used
	27/04/2023 13:44:45	27/04/2023 13:55:04	Rejected
L2	27/04/2023 13:44:17	27/04/2023 13:44:41	Used
	27/04/2023 13:44:41	27/04/2023 13:44:46	Rejected
	27/04/2023 13:44:46	27/04/2023 13:55:04	Used

E05

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
E5a	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5a+b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

E09

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:44:17	27/04/2023 13:50:50	No Data
	27/04/2023 13:50:50	27/04/2023 13:55:04	Used
E5a	27/04/2023 13:44:17	27/04/2023 13:50:50	No Data
	27/04/2023 13:50:50	27/04/2023 13:55:04	Rejected
E5b	27/04/2023 13:44:17	27/04/2023 13:50:50	No Data
	27/04/2023 13:50:50	27/04/2023 13:55:04	Rejected
E5a+b	27/04/2023 13:44:17	27/04/2023 13:50:50	No Data
	27/04/2023 13:50:50	27/04/2023 13:55:04	Rejected

E11

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:44:17	27/04/2023 13:48:00	Used
	27/04/2023 13:48:00	27/04/2023 13:48:03	Rejected
	27/04/2023 13:48:03	27/04/2023 13:55:04	No Data
E5a	27/04/2023 13:44:17	27/04/2023 13:48:03	Rejected
	27/04/2023 13:48:03	27/04/2023 13:55:04	No Data

E5b	27/04/2023 13:44:17	27/04/2023 13:48:03	Rejected
	27/04/2023 13:48:03	27/04/2023 13:55:04	No Data
E5a+b	27/04/2023 13:44:17	27/04/2023 13:48:03	Rejected
	27/04/2023 13:48:03	27/04/2023 13:55:04	No Data

E24

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
E5a	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5a+b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

E25

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
E5a	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5a+b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

E31

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
E5a	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5a+b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

E34

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
E5a	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5a+b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

E36

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 13:44:17	27/04/2023 13:55:04	Used
E5a	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
E5a+b	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:44:17	27/04/2023 13:45:13	Rejected
	27/04/2023 13:45:13	27/04/2023 13:55:04	No Data
B2	27/04/2023 13:44:17	27/04/2023 13:45:13	Rejected
	27/04/2023 13:45:13	27/04/2023 13:55:04	No Data
L5	27/04/2023 13:44:17	27/04/2023 13:45:13	Rejected
	27/04/2023 13:45:13	27/04/2023 13:55:04	No Data

C21

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
B2	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
B2	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

C24

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
B2	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

C26

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
B2	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected
L5	27/04/2023 13:44:17	27/04/2023 13:55:04	Rejected

Cycle Slips

Slip Count: 1

SV	Frequency	Epoch	Slip Value	Flag
E11	E1	27/04/2023 13:45:06	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R06.

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-06

Processing Parameters (27/04/2023 15:40:03 - 27/04/2023 15:51:19)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - PAF-COR-06

Acquisition

Start Time - End Time: 27/04/2023 15:40:04 - 27/04/2023 15:51:19
Duration: 00:11:15

Antennas

	Reference - C02	Rover - PAF-COR-06
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.5000 m	2.0000 m
Antenna Height:	1.5000 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-06	Reference - C02	Rover - PAF-COR-06
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 30.17853" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 36.99422" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,777.6970 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,717.5314 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,959.7178 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,599.8001 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 12.52496"	SD ΔLatitude:	0.0001 m
ΔLongitude:	0° 00' 30.67428"	SD ΔLongitude:	0.0001 m
ΔHeight:	-111.6338 m	SD ΔHeight:	0.0003 m
ΔX:	891.0950 m	SD ΔX:	0.0001 m
ΔY:	255.2826 m	SD ΔY:	0.0002 m
ΔZ:	400.2473 m	SD ΔZ:	0.0001 m
Slope Dist.:	1,009.6621 m	SD Slope Dist.:	0.0001 m

M0:	0.3342 m	CQ 1D:	0.0003 m
Q11:	0.00000013	CQ 2D:	0.0001 m
Q12:	-0.00000019	CQ 3D:	0.0003 m
Q22:	0.00000048		
Q13:	-0.00000007		
Q23:	0.00000015		
Q33:	0.00000009		

Frequency:	L1/E1/L2	GDOP:	2.1 - 2.2	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.4	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.6	Beidou SVs:	0/5
		VDOP:	1.2 - 1.3	Galileo SVs:	6/6
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

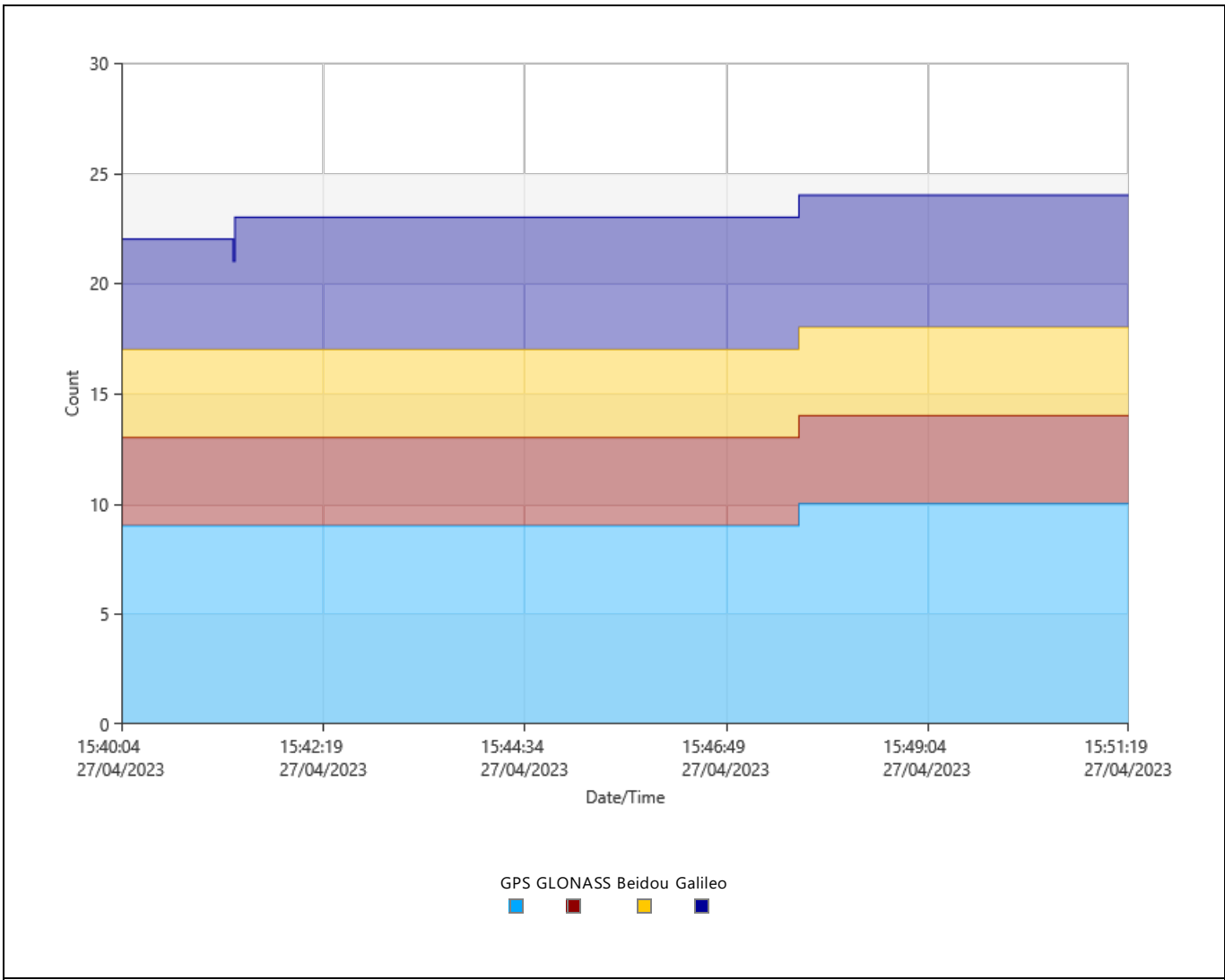
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Processed Date/Time: 10/05/2023 10:49:26

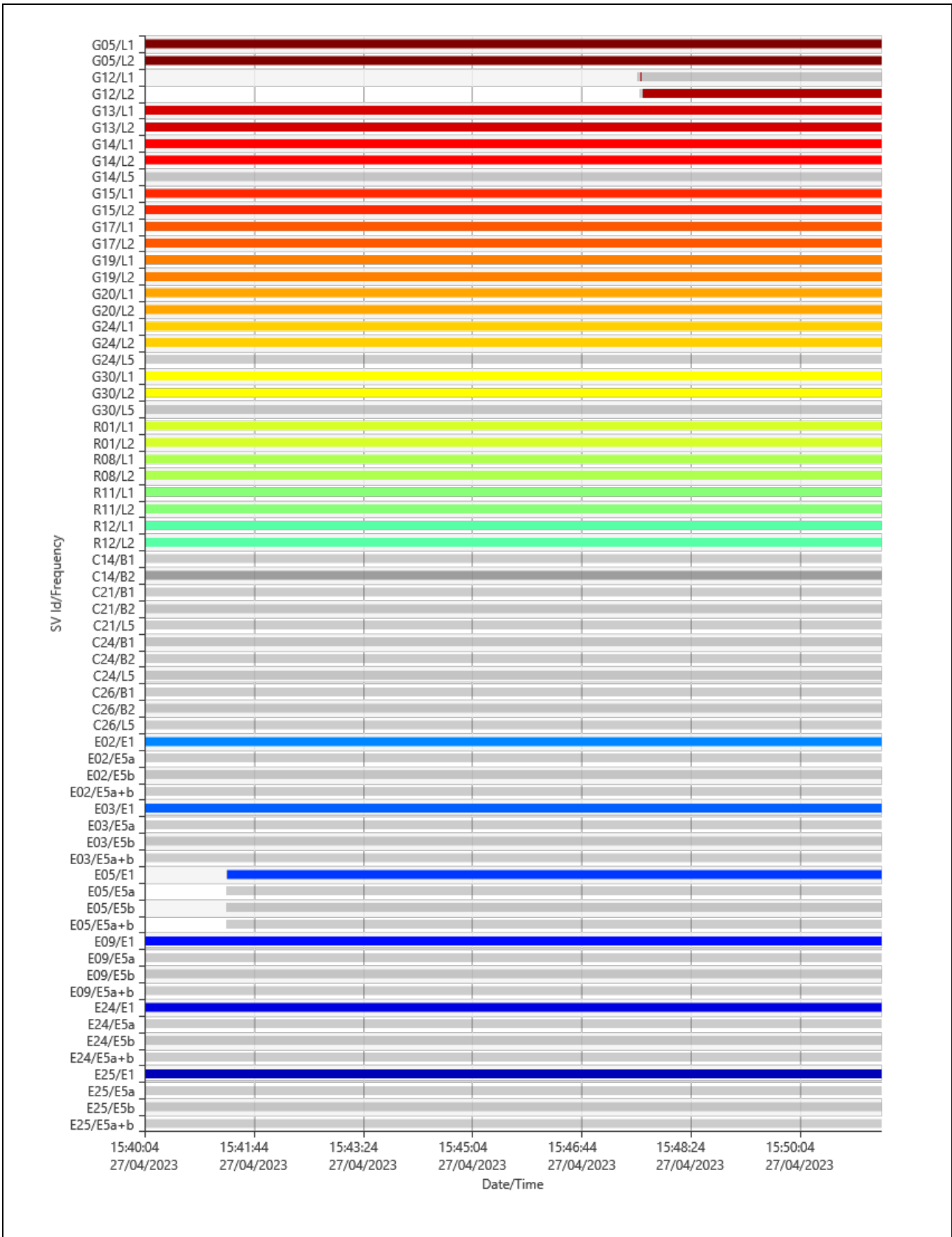
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G12 G13 G14 G15 G17 G19 G20 G24 G30	-
GLONASS	R01 R08 R11 R12	-
Galileo	E02 E03 E05 E09 E24 E25	-

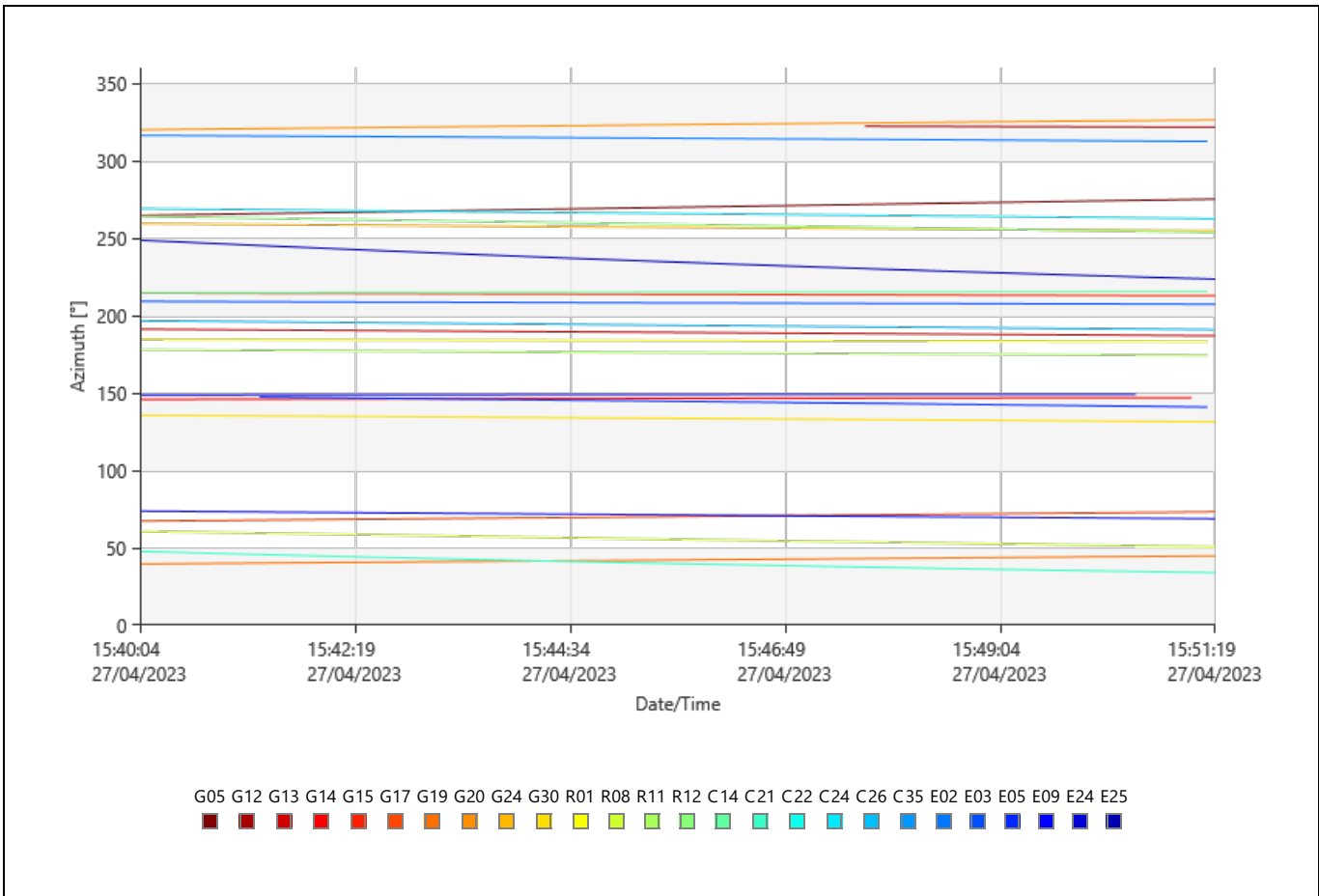
SVs Tracked



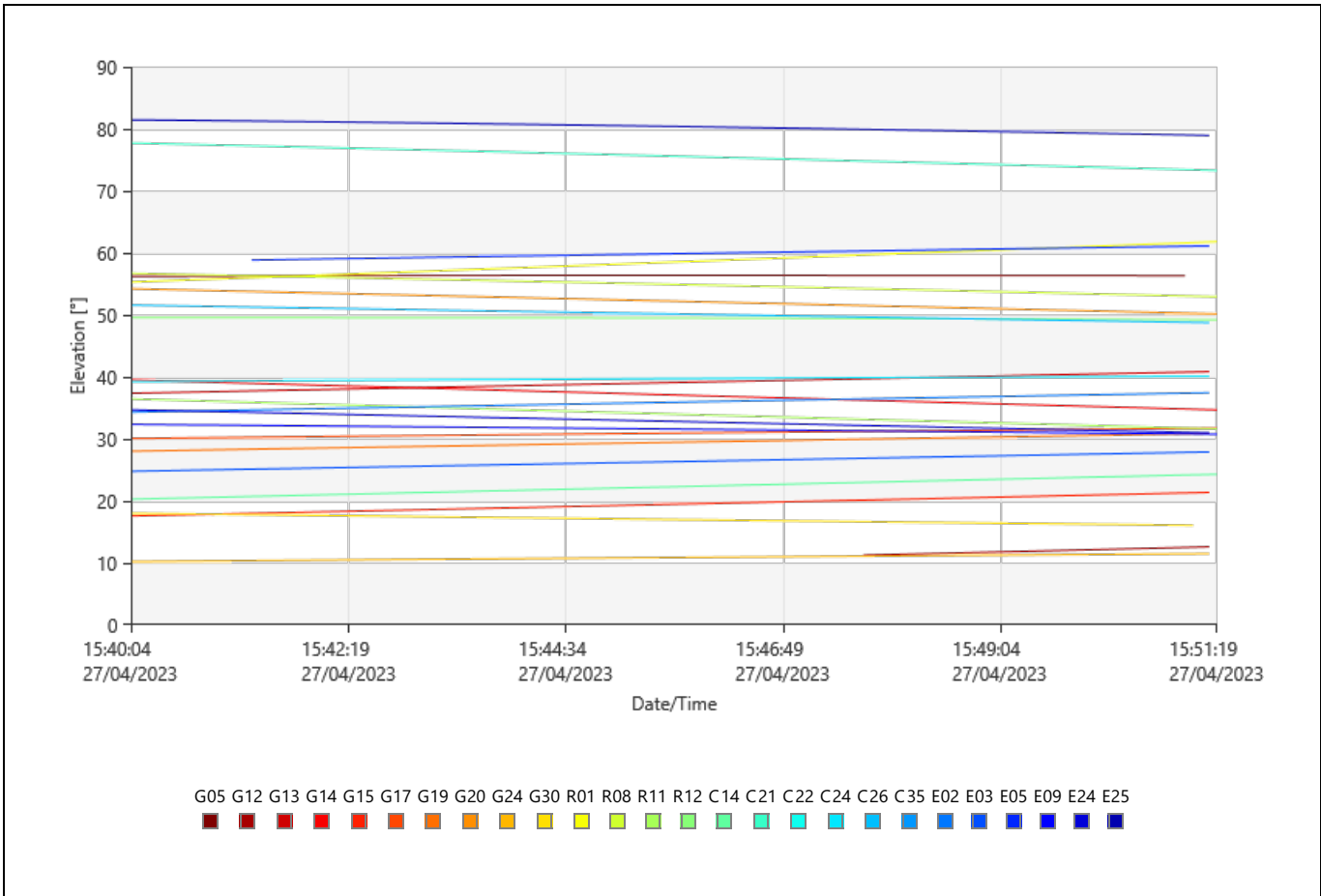
Signals Tracked



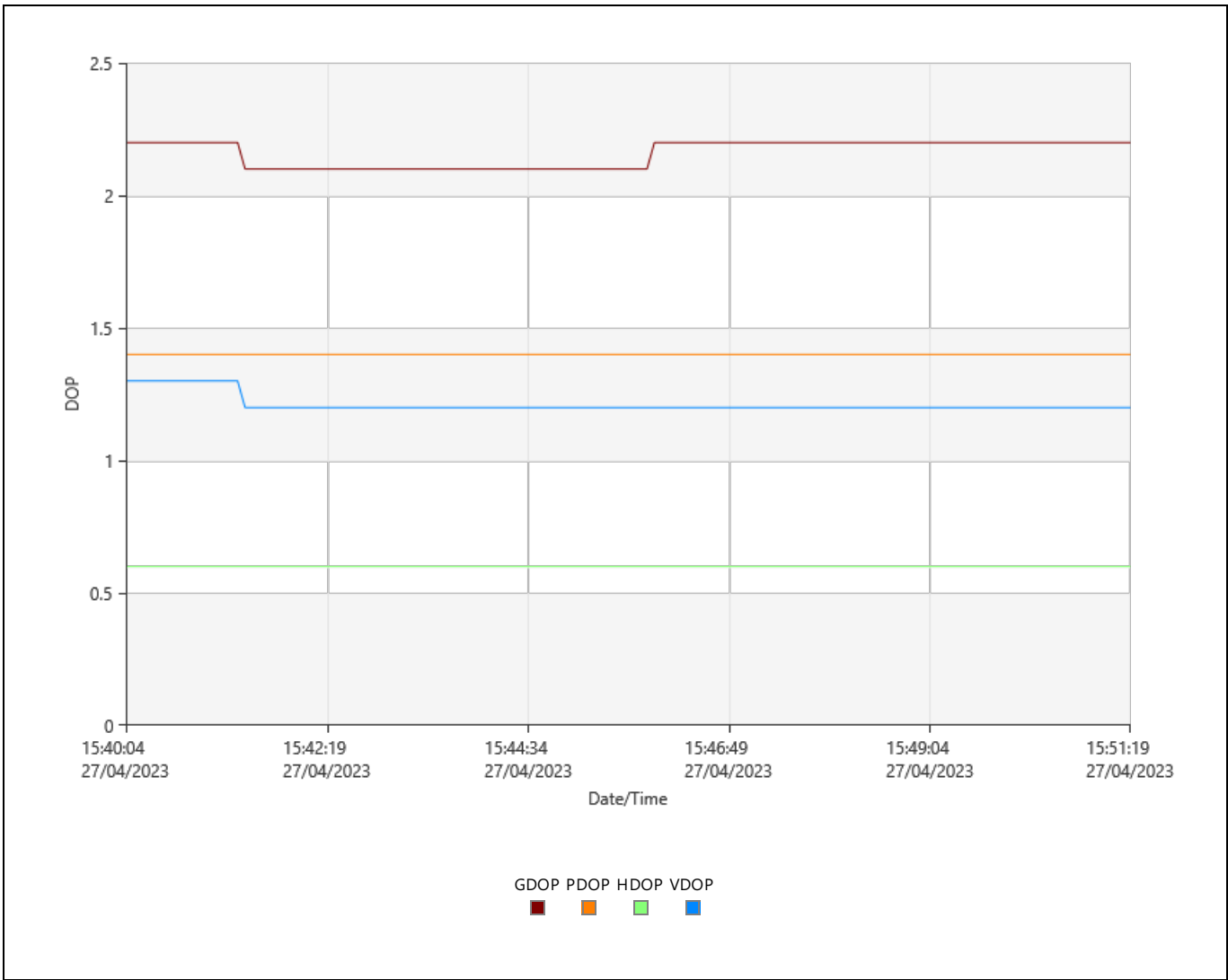
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 676

GPS Observations

Frequency	Used	Rejected
L1	6,085	224
L2	6,304	3
L5	0	2,028

GLONASS Observations

Frequency	Used	Rejected
L1	2,704	0
L2	2,704	0

Beidou Observations

Frequency	Used	Rejected
B1	0	2,704
B2	0	3,380
L5	0	2,028

Galileo Observations

Frequency	Used	Rejected
E1	3,980	1
E5a	0	3,981
E5b	0	3,981
E5a+b	0	3,981

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	20	8	0	6
Total	20	8	8	6
Independently fixed	84	84	0	84
Possible independently fixed	84	84	84	84

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	0.00	0.00	100.00
Not fixed	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	27/04/2023 15:40:04	27/04/2023 15:51:19	00:11:15

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 27/04/2023 11:32:18
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 27/04/2023 17:59:45
Origin Date/Time: 27/04/2023 11:32:18

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.8966392590	0.0124498998
0	1	0.9902551237	0.0096957198
0	2	-0.4798840624	0.0031185447
1	0	0.1788919173	0.0067097133
1	1	-0.0197848160	0.0037938104

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

G12

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:47:35	No Data
	27/04/2023 15:47:35	27/04/2023 15:47:38	Rejected
	27/04/2023 15:47:38	27/04/2023 15:47:39	Used
	27/04/2023 15:47:39	27/04/2023 15:51:19	Rejected
L2	27/04/2023 15:40:04	27/04/2023 15:47:37	No Data
	27/04/2023 15:40:04	27/04/2023 15:47:40	No Data
	27/04/2023 15:47:37	27/04/2023 15:47:40	Rejected
	27/04/2023 15:47:40	27/04/2023 15:51:19	Used
	27/04/2023 15:47:40	27/04/2023 15:51:19	No Data

G13

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L5	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

G15

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

G17

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
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G20

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

G24

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L5	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

G30

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L5	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

R01

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
L2	27/04/2023 15:40:04	27/04/2023 15:51:19	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
E5a	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5a+b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

E03

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
E5a	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5a+b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

E05

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 15:40:04	27/04/2023 15:41:19	No Data
	27/04/2023 15:41:19	27/04/2023 15:41:20	Rejected
	27/04/2023 15:41:20	27/04/2023 15:51:19	Used
E5a	27/04/2023 15:40:04	27/04/2023 15:41:19	No Data
	27/04/2023 15:41:19	27/04/2023 15:51:19	Rejected
E5b	27/04/2023 15:40:04	27/04/2023 15:41:19	No Data
	27/04/2023 15:41:19	27/04/2023 15:51:19	Rejected
E5a+b	27/04/2023 15:40:04	27/04/2023 15:41:19	No Data
	27/04/2023 15:41:19	27/04/2023 15:51:19	Rejected

E09

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Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
E5a	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5a+b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

E24

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
E5a	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5a+b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

E25

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 15:40:04	27/04/2023 15:51:19	Used
E5a	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
E5a+b	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

C14

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
B2	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

C21

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
B2	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
L5	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

C24

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
B2	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
L5	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

C26

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
B2	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected
L5	27/04/2023 15:40:04	27/04/2023 15:51:19	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R06.
 Missing orbits for satellite R10.
 Missing orbits for satellite R23.
 No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-07

Processing Parameters (27/04/2023 16:09:36 - 27/04/2023 16:20:31)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	

Ephemeris Type: Precise Precise No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set: NGS Absolute NGS Absolute

Processing Strategy

Solution Type: Phase Fixed Phase Fixed
Solution Optimisation: Automatic None
Frequency to use in Iono Automatic Automatic
Minimised:
Tropospheric Model: VMF with GPT2 model VMF with GPT2 model
Ionospheric Model: Computed Computed
Allow Widelane Fix: Automatic Automatic

General Settings

Min. Distance for Iono 15 km
Minimised:
Possible Ambiguities Fix 300 km
up to:
Min. Duration for Float 00:05:00
Solution (static):

Results Baseline: C02 - PAF-COR-07

Acquisition

Start Time - End Time: 27/04/2023 16:09:37 - 27/04/2023 16:20:31
Duration: 00:10:54

Antennas

	Reference - C02	Rover - PAF-COR-07
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.5000 m	2.0000 m
Antenna Height:	1.5000 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1	L2	L1	L2
	East	-0.0003 m	0.0024 m	-0.0003 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-07	Reference - C02	Rover - PAF-COR-07
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 37.20452" S	Easting:	438,215.5500 m 439,458.5590 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 26.46186" W	Northing:	8,609,405.6600 m 8,609,577.2422 m
WGS84 Ellip. Height:	4,889.3308 m	4,744.5440 m	Ortho. Height:	4,853.4775 m 4,708.7177 m
WGS84 Cartesian X:	1,552,826.4364 m	1,554,005.8331 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,803.4795 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,803.4666 m		

Baseline Vector and Quality - WGS84

Δ Latitude:	0° 00' 05.49896"	SD Δ Latitude:	0.0001 m
Δ Longitude:	0° 00' 41.20663"	SD Δ Longitude:	0.0001 m
Δ Height:	-144.7868 m	SD Δ Height:	0.0002 m
Δ X:	1,179.3967 m	SD Δ X:	0.0001 m
Δ Y:	411.5209 m	SD Δ Y:	0.0002 m
Δ Z:	196.5808 m	SD Δ Z:	0.0001 m
Slope Dist.:	1,264.5039 m	SD Slope Dist.:	0.0001 m

M0:	0.3572 m	CQ 1D:	0.0002 m
Q11:	0.00000007	CQ 2D:	0.0001 m
Q12:	-0.00000010	CQ 3D:	0.0003 m
Q22:	0.00000035		
Q13:	-0.00000003		
Q23:	0.00000009		
Q33:	0.00000006		

Frequency:	L1/E1/L2	GDOP:	1.7 - 1.9	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.2 - 1.3	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	0/6
		VDOP:	1.0 - 1.1	Galileo SVs:	6/6
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

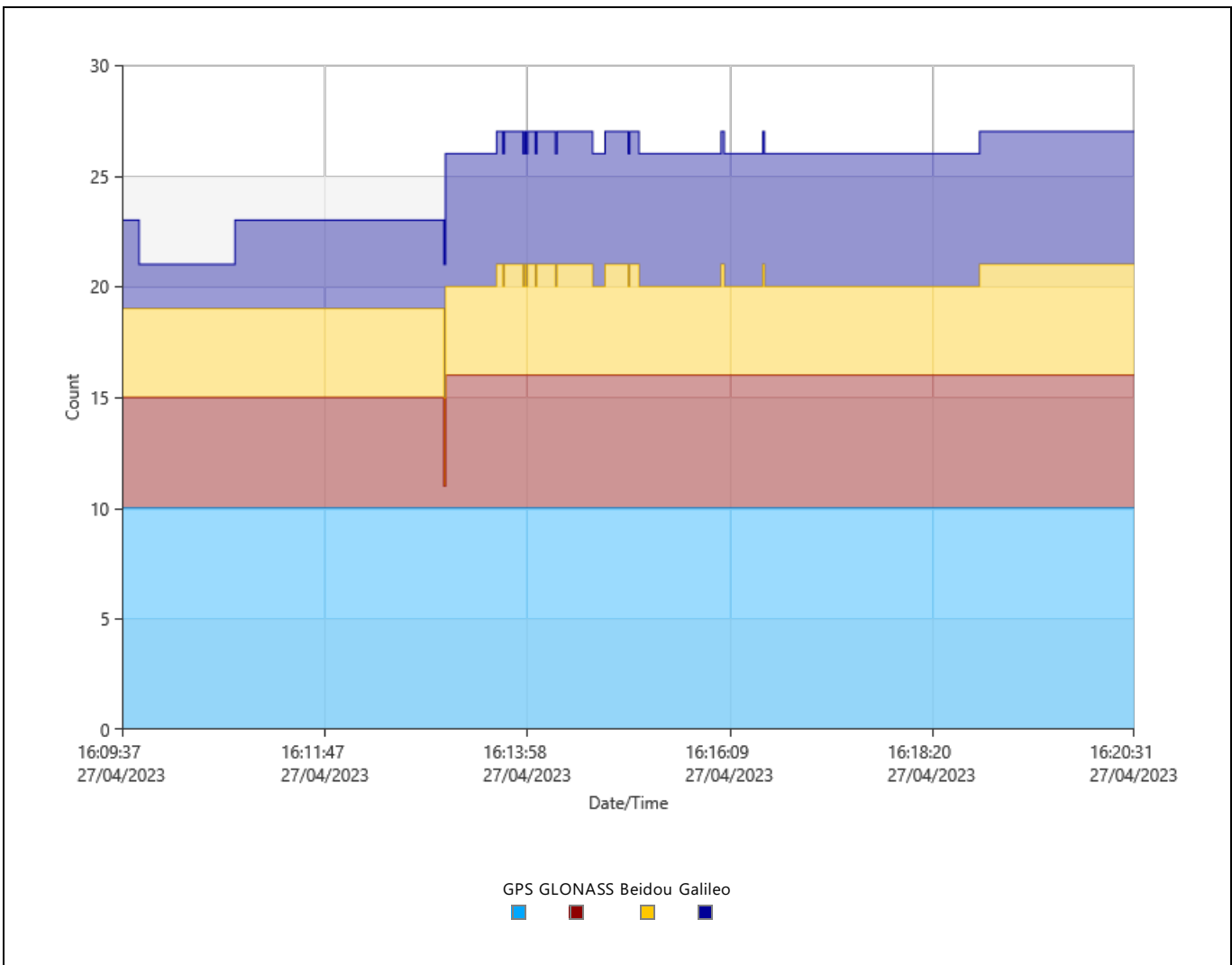
Processing Info (27/04/2023 16:09:36 - 27/04/2023 16:20:31)

Processed Date/Time: 10/05/2023 10:49:26

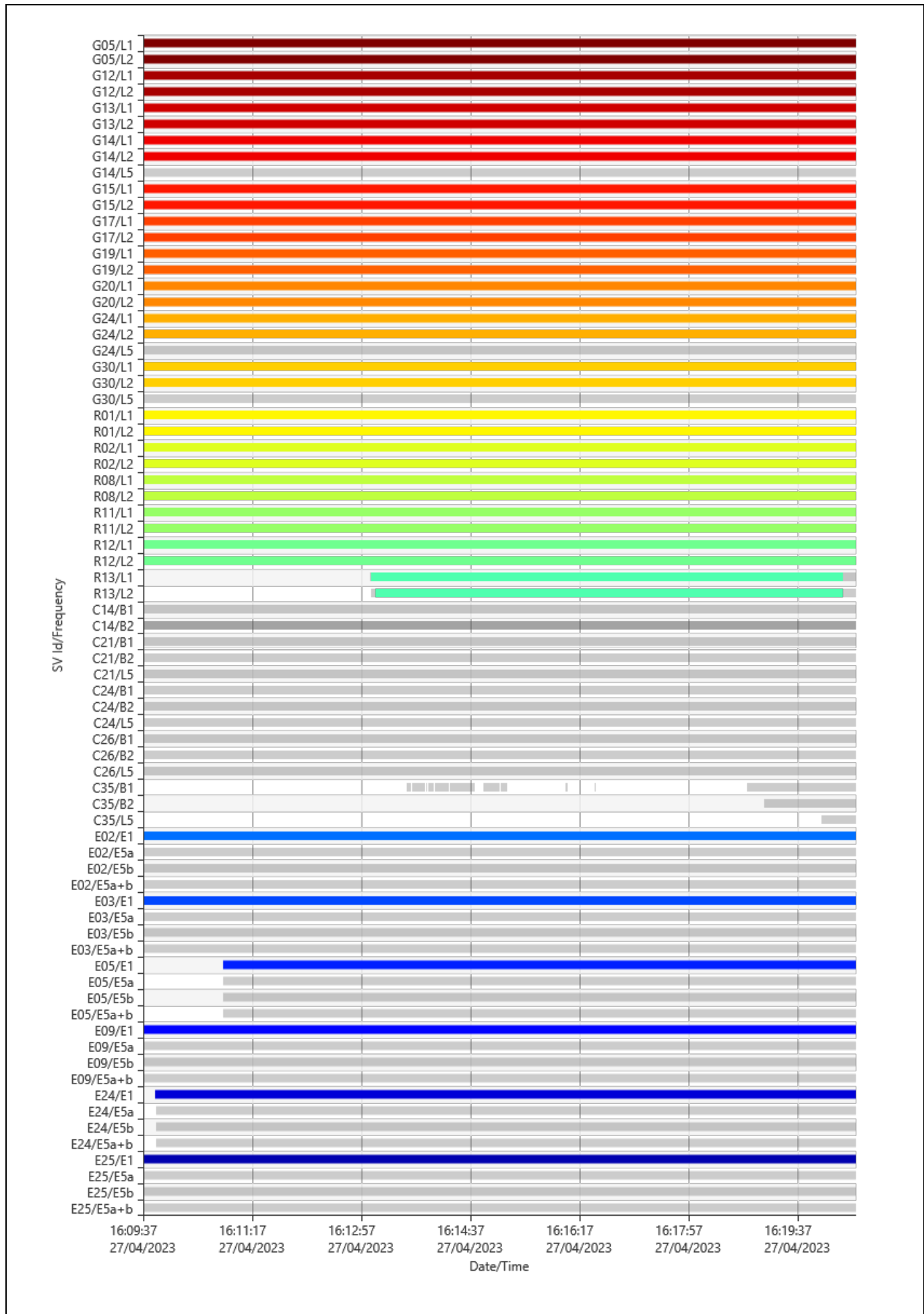
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G12 G13 G14 G15 G17 G19 G20 G24 G30	-
GLONASS	R01 R02 R08 R11 R12 R13	-
Galileo	E02 E03 E05 E09 E24 E25	-

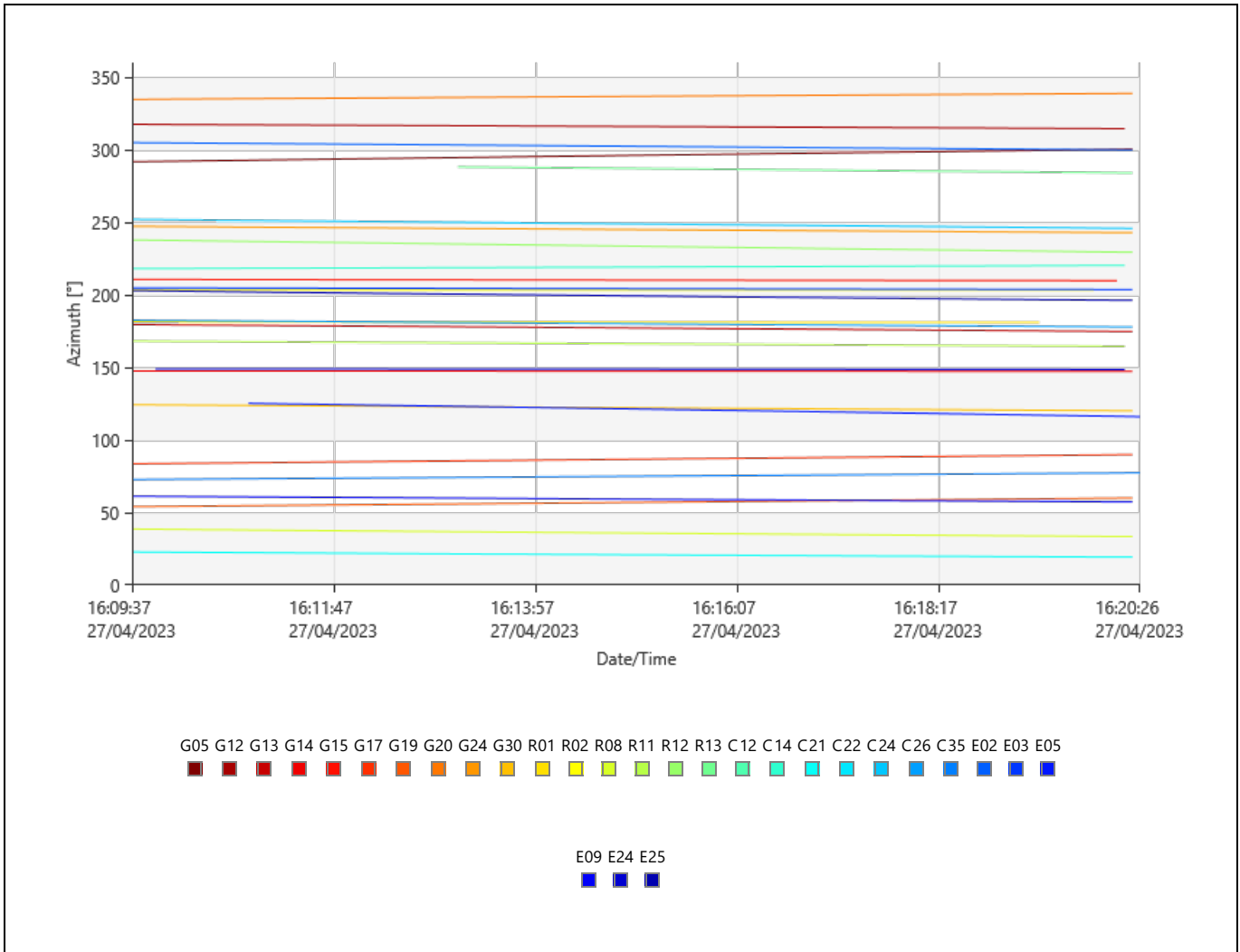
SVs Tracked



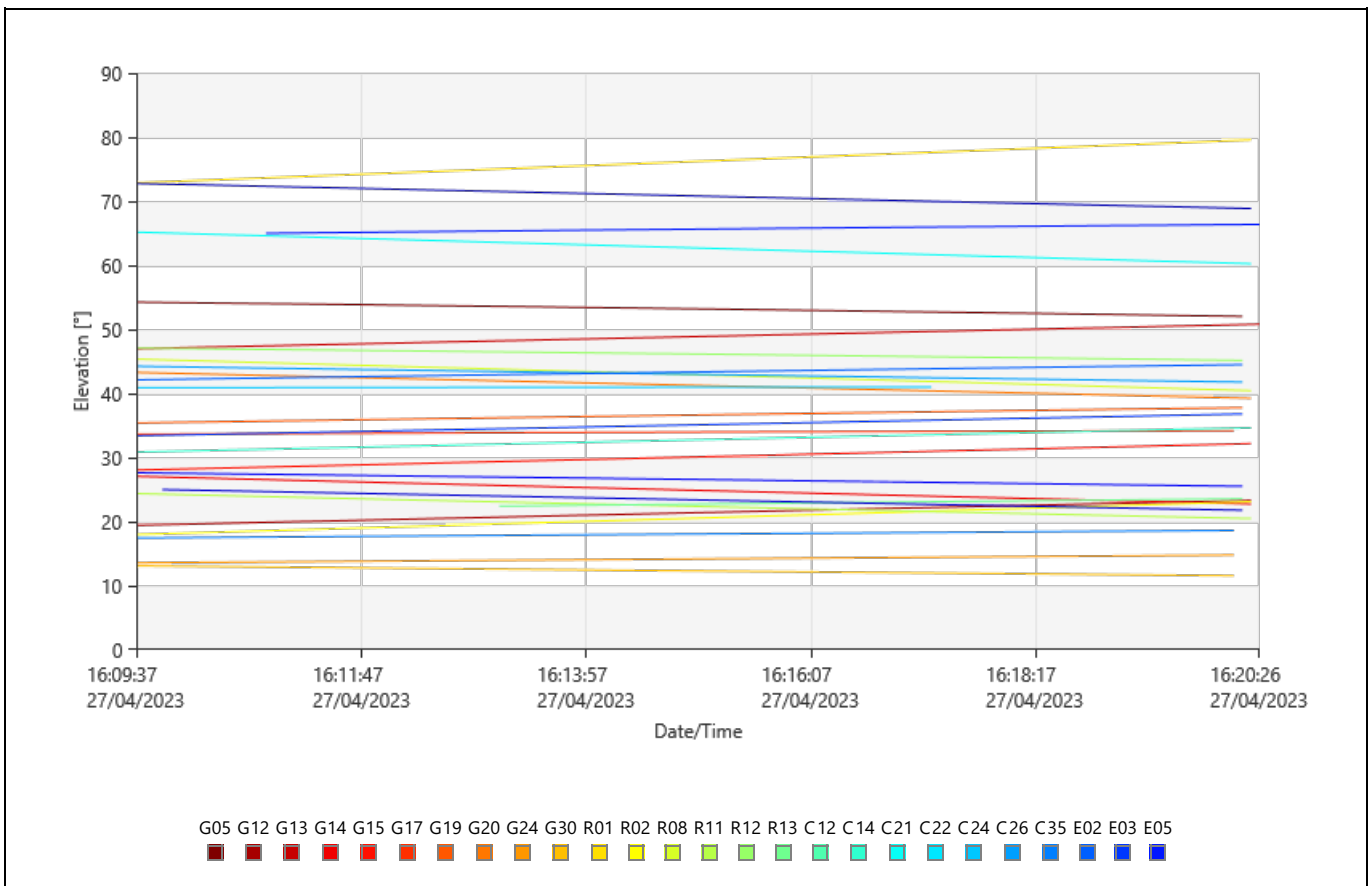
Signals Tracked



Azimuth



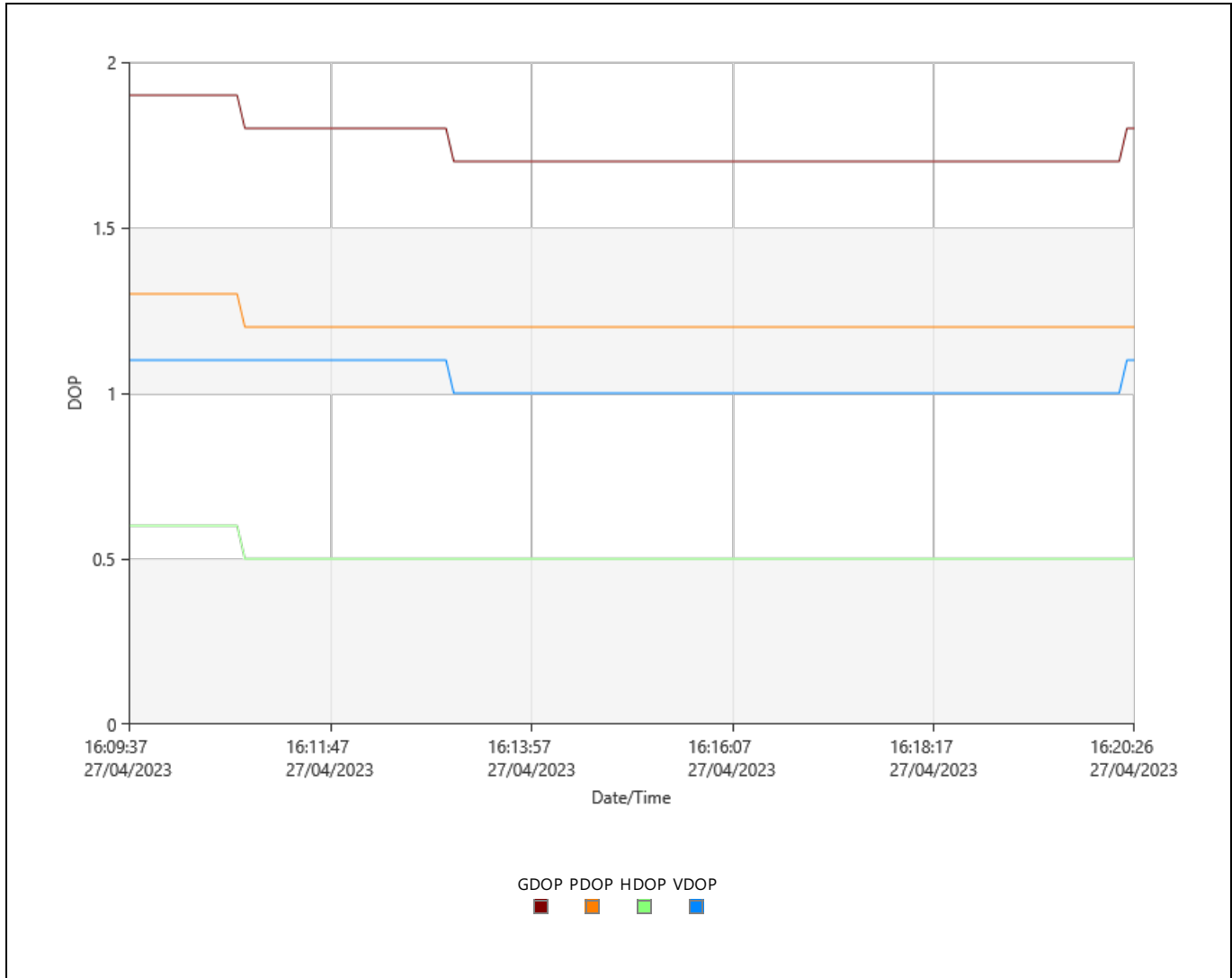
Elevation



E09 E24 E25



DOP



Observation Statistics

Common Epochs: 655

GPS Observations

Frequency	Used	Rejected
L1	6,550	0
L2	6,550	0
L5	0	1,965

GLONASS Observations

Frequency	Used	Rejected
L1	3,708	14
L2	3,704	17

Beidou Observations

Frequency	Used	Rejected
B1	0	2,802
B2	0	3,360
L5	0	1,998

Galileo Observations

Frequency	Used	Rejected
E1	3,846	0
E5a	0	3,845
E5b	0	3,845
E5a+b	0	3,845

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	20	12	0	6
Total	20	14	10	6
Independently fixed	82	82	0	82
Possible independently fixed	82	82	82	82

Average time between independent fixes: 00:00:06

% of Epochs	GPS	GLONASS	Beidou	Galileo

	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	99.81	99.76	0.00	0.00	100.00
Not fixed	0.00	0.00	0.19	0.24	100.00	100.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	27/04/2023 16:09:37	27/04/2023 16:20:31	00:10:54

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 27/04/2023 11:32:18
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 27/04/2023 17:59:45
 Origin Date/Time: 27/04/2023 11:32:18

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.8966392590	0.0124498998
0	1	0.9902551237	0.0096957198
0	2	-0.4798840624	0.0031185447
1	0	0.1788919173	0.0067097133
1	1	-0.0197848160	0.0037938104

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

G12

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

G13

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L5	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

G15

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

G17

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

G24

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L5	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

G30

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L5	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

R01

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

R02

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
L2	27/04/2023 16:09:37	27/04/2023 16:20:31	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:09:37	27/04/2023 16:13:05	No Data
	27/04/2023 16:13:05	27/04/2023 16:13:06	Rejected
	27/04/2023 16:13:06	27/04/2023 16:20:19	Used
	27/04/2023 16:20:19	27/04/2023 16:20:31	Rejected
L2	27/04/2023 16:09:37	27/04/2023 16:13:06	No Data
	27/04/2023 16:13:06	27/04/2023 16:13:10	Rejected
	27/04/2023 16:13:10	27/04/2023 16:20:19	Used
	27/04/2023 16:20:19	27/04/2023 16:20:31	Rejected

E02

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
E5a	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
E5b	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
E5a+b	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

E03

Frequency	From Epoch	To Epoch	Status

E1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
E5a	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
E5b	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
E5a+b	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

E05

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:09:37	27/04/2023 16:10:50	No Data
	27/04/2023 16:10:50	27/04/2023 16:20:31	Used
E5a	27/04/2023 16:09:37	27/04/2023 16:10:50	No Data
	27/04/2023 16:10:50	27/04/2023 16:20:31	Rejected
E5b	27/04/2023 16:09:37	27/04/2023 16:10:50	No Data
	27/04/2023 16:10:50	27/04/2023 16:20:31	Rejected
E5a+b	27/04/2023 16:09:37	27/04/2023 16:10:50	No Data
	27/04/2023 16:10:50	27/04/2023 16:20:31	Rejected

E09

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
E5a	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
E5b	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
E5a+b	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

E24

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:09:37	27/04/2023 16:09:48	No Data
	27/04/2023 16:09:48	27/04/2023 16:20:31	Used
E5a	27/04/2023 16:09:37	27/04/2023 16:09:49	No Data
	27/04/2023 16:09:49	27/04/2023 16:20:31	Rejected
E5b	27/04/2023 16:09:37	27/04/2023 16:09:49	No Data
	27/04/2023 16:09:49	27/04/2023 16:20:31	Rejected
E5a+b	27/04/2023 16:09:37	27/04/2023 16:09:49	No Data
	27/04/2023 16:09:49	27/04/2023 16:20:31	Rejected

E25

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:09:37	27/04/2023 16:20:31	Used
E5a	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
E5b	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
E5a+b	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

C14

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
B2	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

C21

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
B2	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
L5	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

C24

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
B2	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
L5	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

C26

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
B2	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected
L5	27/04/2023 16:09:37	27/04/2023 16:20:31	Rejected

C35

Frequency	From Epoch	To Epoch	Status

B1	27/04/2023 16:09:37	27/04/2023 16:13:39	No Data
	27/04/2023 16:13:39	27/04/2023 16:13:43	Rejected
	27/04/2023 16:13:43	27/04/2023 16:13:44	No Data
	27/04/2023 16:13:44	27/04/2023 16:13:56	Rejected
	27/04/2023 16:13:56	27/04/2023 16:13:57	No Data
	27/04/2023 16:13:57	27/04/2023 16:13:58	Rejected
	27/04/2023 16:13:58	27/04/2023 16:13:59	No Data
	27/04/2023 16:13:59	27/04/2023 16:14:04	Rejected
	27/04/2023 16:14:04	27/04/2023 16:14:05	No Data
	27/04/2023 16:14:05	27/04/2023 16:14:17	Rejected
	27/04/2023 16:14:17	27/04/2023 16:14:18	No Data
	27/04/2023 16:14:18	27/04/2023 16:14:41	Rejected
	27/04/2023 16:14:41	27/04/2023 16:14:49	No Data
	27/04/2023 16:14:49	27/04/2023 16:15:04	Rejected
	27/04/2023 16:15:04	27/04/2023 16:15:05	No Data
	27/04/2023 16:15:05	27/04/2023 16:15:11	Rejected
	27/04/2023 16:15:11	27/04/2023 16:16:04	No Data
	27/04/2023 16:16:04	27/04/2023 16:16:06	Rejected
	27/04/2023 16:16:06	27/04/2023 16:16:31	No Data
	27/04/2023 16:16:31	27/04/2023 16:16:32	Rejected
27/04/2023 16:16:32	27/04/2023 16:18:51	No Data	
27/04/2023 16:18:51	27/04/2023 16:20:31	Rejected	
B2	27/04/2023 16:09:37	27/04/2023 16:19:07	No Data
	27/04/2023 16:19:07	27/04/2023 16:20:31	Rejected
L5	27/04/2023 16:09:37	27/04/2023 16:19:59	No Data
	27/04/2023 16:19:59	27/04/2023 16:20:31	Rejected

Cycle Slips

Slip Count: 1

SV	Frequency	Epoch	Slip Value	Flag
C35	B1	27/04/2023 16:20:08	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R06.

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-08

Processing Parameters (27/04/2023 16:32:19 - 27/04/2023 16:43:05)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model: 15 km

Minimised:
Possible Ambiguities Fix 300 km
up to:
Min. Duration for Float 00:05:00
Solution (static):

Results Baseline: C02 - PAF-COR-08

Acquisition

Start Time - End Time: 27/04/2023 16:32:19 - 27/04/2023 16:43:04
Duration: 00:10:45

Antennas

	Reference - C02	Rover - PAF-COR-08
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.5000 m	2.0000 m
Antenna Height:	1.5000 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-08		Reference - C02	Rover - PAF-COR-08
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 48.52101" S	Easting:	438,215.5500 m	439,846.5891 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 13.62640" W	Northing:	8,609,405.6600 m	8,609,230.4321 m
WGS84 Ellip. Height:	4,889.3308 m	4,712.9544 m	Ortho. Height:	4,853.4775 m	4,677.1170 m
WGS84 Cartesian X:	1,552,826.4364 m	1,554,354.7032 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,603.5154 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,381,136.2459 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	-0° 00' 05.81752"	SD ΔLatitude:	0.0001 m
ΔLongitude:	0° 00' 54.04209"	SD ΔLongitude:	0.0001 m
ΔHeight:	-176.3764 m	SD ΔHeight:	0.0002 m
ΔX:	1,528.2669 m	SD ΔX:	0.0001 m
ΔY:	611.4850 m	SD ΔY:	0.0002 m
ΔZ:	-136.1984 m	SD ΔZ:	0.0001 m
Slope Dist.:	1,651.6851 m	SD Slope Dist.:	0.0001 m

M0:	0.3163 m	CQ 1D:	0.0002 m
Q11:	0.00000007	CQ 2D:	0.0001 m
Q12:	-0.00000008	CQ 3D:	0.0002 m
Q22:	0.00000041		
Q13:	-0.00000001		
Q23:	0.00000007		
Q33:	0.00000005		

Frequency:	L1/E1/L2	GDOP:	1.8 - 2.0	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.2 - 1.3	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	0/9
		VDOP:	1.0 - 1.2	Galileo SVs:	6/6
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

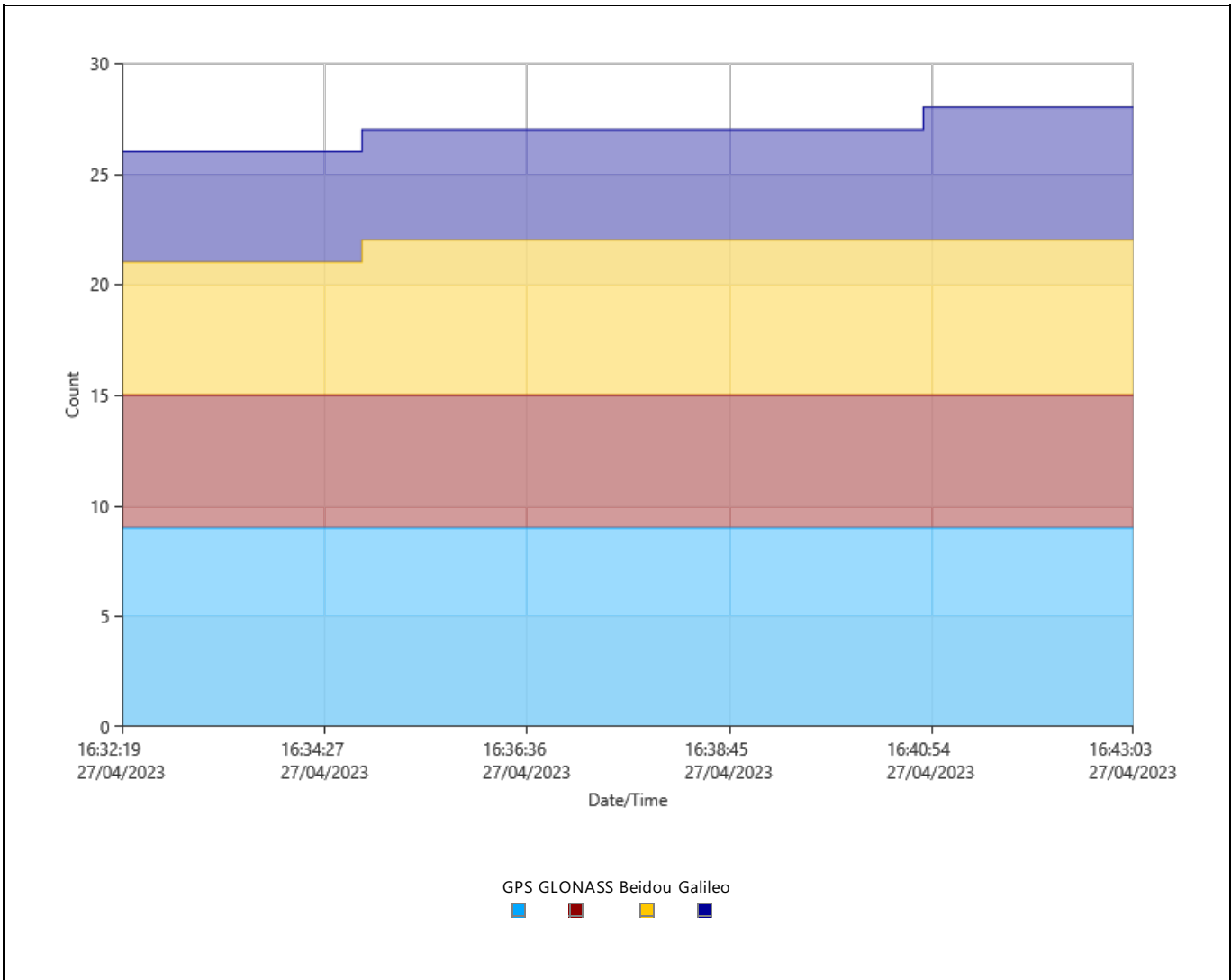
Processing Info (27/04/2023 16:32:19 - 27/04/2023 16:43:05)

Processed Date/Time: 10/05/2023 10:49:26

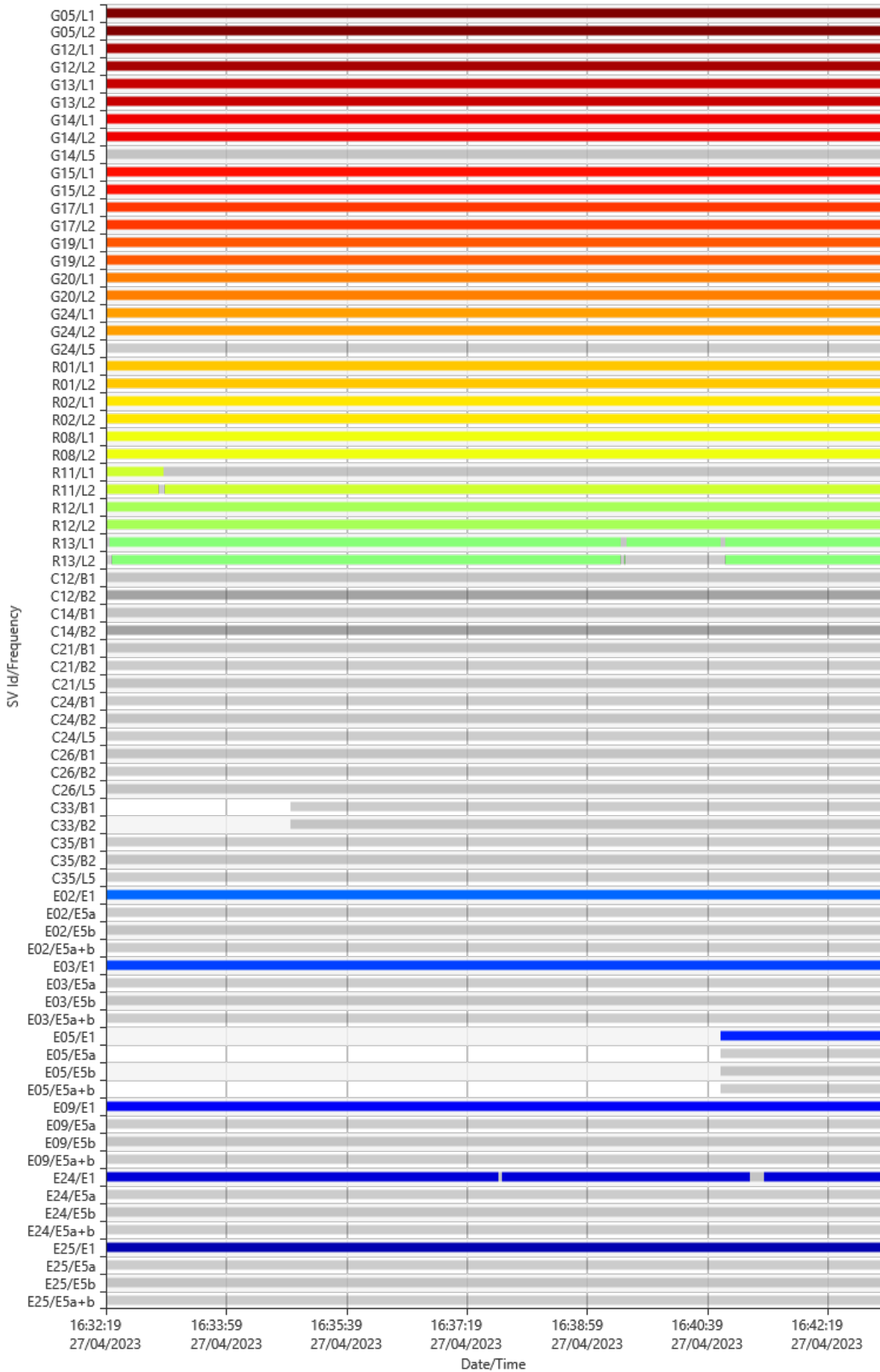
Satellites

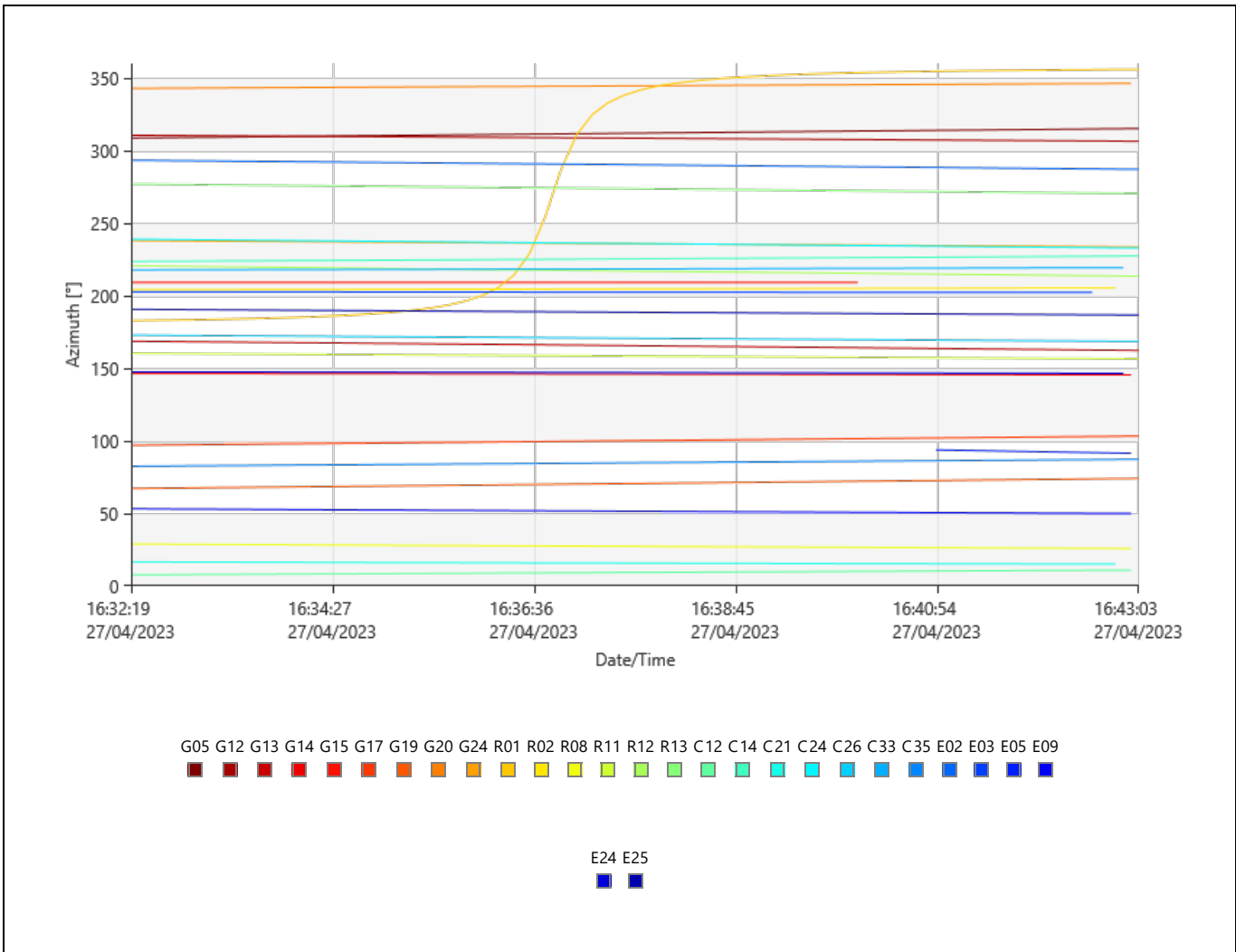
Satellite System	Used	Manually Disabled
GPS	G05 G12 G13 G14 G15 G17 - G19 G20 G24	
GLONASS	R01 R02 R08 R11 R12 R13 -	
Galileo	E02 E03 E05 E09 E24 E25 -	

SVs Tracked

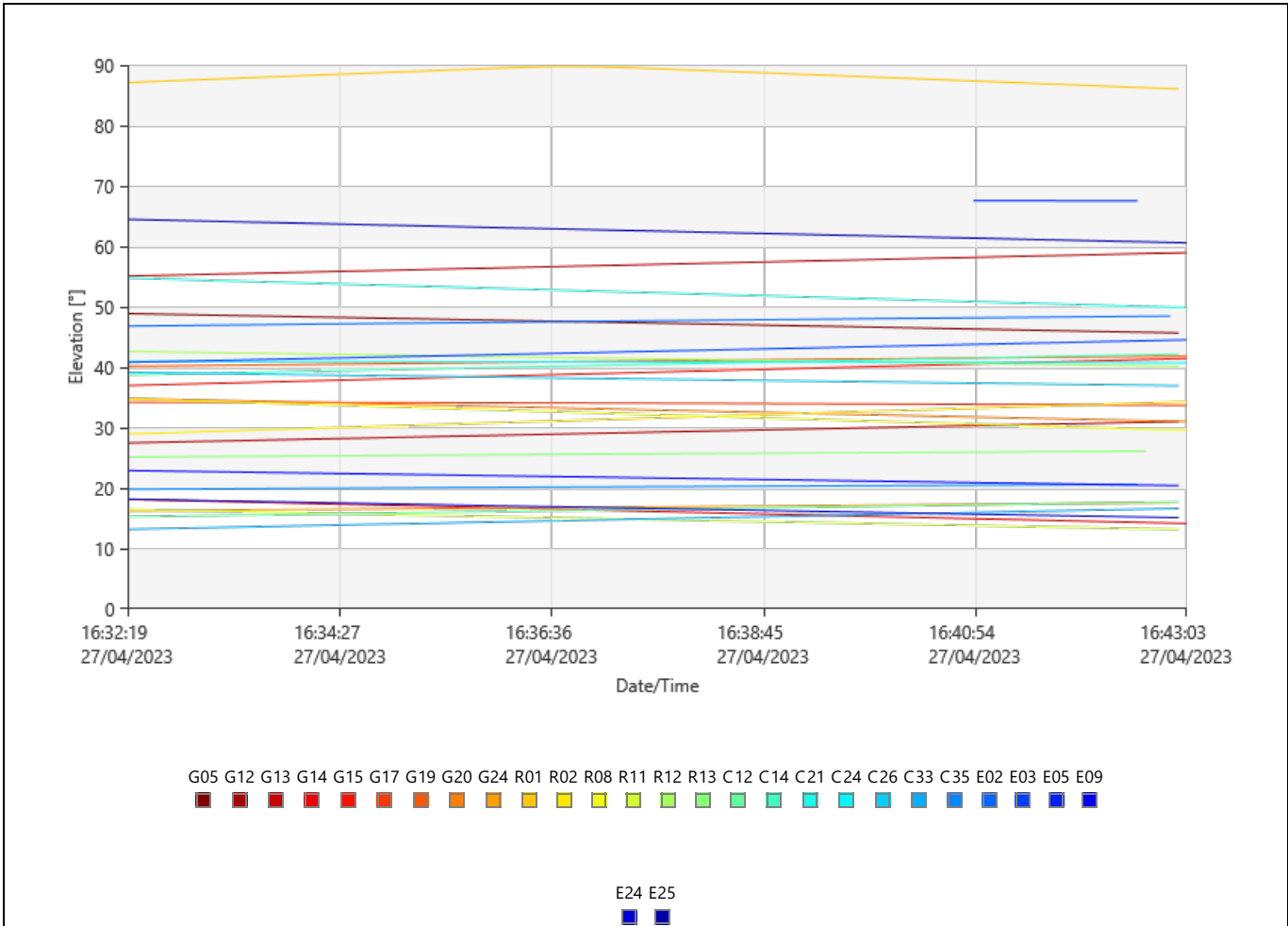


Signals Tracked





Elevation



Status	From Epoch	To Epoch	Duration
Fixed	27/04/2023 16:32:19	27/04/2023 16:43:04	00:10:45

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 27/04/2023 11:32:18
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 27/04/2023 17:59:45
 Origin Date/Time: 27/04/2023 11:32:18

Deg. Latitude	Deg. Time	Value	RMS
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0	1	0.9902551237	0.0096957198
0	2	-0.4798840624	0.0031185447
1	0	0.1788919173	0.0067097133
1	1	-0.0197848160	0.0037938104

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

G12

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

G13

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L5	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

G15

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

G17

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

G24

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L5	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

R01

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

R02

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:33:07	Used
	27/04/2023 16:33:07	27/04/2023 16:43:04	Rejected
L2	27/04/2023 16:32:19	27/04/2023 16:33:03	Used
	27/04/2023 16:33:03	27/04/2023 16:33:08	Rejected
	27/04/2023 16:33:08	27/04/2023 16:43:04	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
L2	27/04/2023 16:32:19	27/04/2023 16:43:04	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	27/04/2023 16:32:19	27/04/2023 16:32:22	Rejected
	27/04/2023 16:32:22	27/04/2023 16:39:27	Used
	27/04/2023 16:39:27	27/04/2023 16:39:32	Rejected
	27/04/2023 16:39:32	27/04/2023 16:40:50	Used
	27/04/2023 16:40:50	27/04/2023 16:40:54	Rejected
L2	27/04/2023 16:40:54	27/04/2023 16:43:04	Used
	27/04/2023 16:32:19	27/04/2023 16:32:20	No Data
	27/04/2023 16:32:20	27/04/2023 16:32:24	Rejected
	27/04/2023 16:32:24	27/04/2023 16:39:27	Used
	27/04/2023 16:39:27	27/04/2023 16:39:30	Rejected
	27/04/2023 16:39:30	27/04/2023 16:39:31	Used
	27/04/2023 16:39:31	27/04/2023 16:40:54	Rejected
	27/04/2023 16:40:54	27/04/2023 16:43:04	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
E5a	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5a+b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

E03

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
E5a	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

E5a+b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
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E05

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:32:19	27/04/2023 16:40:50	No Data
	27/04/2023 16:40:50	27/04/2023 16:43:04	Used
E5a	27/04/2023 16:32:19	27/04/2023 16:40:50	No Data
	27/04/2023 16:40:50	27/04/2023 16:43:04	Rejected
E5b	27/04/2023 16:32:19	27/04/2023 16:40:50	No Data
	27/04/2023 16:40:50	27/04/2023 16:43:04	Rejected
E5a+b	27/04/2023 16:32:19	27/04/2023 16:40:50	No Data
	27/04/2023 16:40:50	27/04/2023 16:43:04	Rejected

E09

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
E5a	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5a+b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

E24

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:32:19	27/04/2023 16:37:45	Used
	27/04/2023 16:37:45	27/04/2023 16:37:48	Rejected
	27/04/2023 16:37:48	27/04/2023 16:41:15	Used
	27/04/2023 16:41:15	27/04/2023 16:41:26	Rejected
E5a	27/04/2023 16:41:26	27/04/2023 16:43:04	Used
	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5a+b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

E25

Frequency	From Epoch	To Epoch	Status
E1	27/04/2023 16:32:19	27/04/2023 16:43:04	Used
E5a	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
E5a+b	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

C12

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
B2	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

C14

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
B2	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

C21

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
B2	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
L5	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

C24

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
B2	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
L5	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

C26

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
B2	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
L5	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

C33

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:32:19	27/04/2023 16:34:52	No Data
	27/04/2023 16:34:52	27/04/2023 16:43:04	Rejected
B2	27/04/2023 16:32:19	27/04/2023 16:34:52	No Data
	27/04/2023 16:34:52	27/04/2023 16:43:04	Rejected

C35

Frequency	From Epoch	To Epoch	Status
B1	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
B2	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected
L5	27/04/2023 16:32:19	27/04/2023 16:43:04	Rejected

Cycle Slips

Slip Count: 2

SV	Frequency	Epoch	Slip Value	Flag
E24	E1	27/04/2023 16:37:44	-17.0000000000	Flagged
		27/04/2023 16:41:26	-	Flagged

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R06.

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-09

Processing Parameters (28/04/2023 10:51:53 - 28/04/2023 11:02:02)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Wideline Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - PAF-COR-09

Acquisition

Start Time - End Time: 28/04/2023 10:51:53 - 28/04/2023 11:02:02

Duration: 00:10:09

Antennas

	Reference - C02	Rover - PAF-COR-09
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.3350 m	2.0000 m
Antenna Height:	1.3350 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-09	Reference - C02	Rover - PAF-COR-09
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 52.83348" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 21.10193" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,718.6849 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,554,130.2199 m		4,682.8366 m
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,637.2876 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,381,266.9296 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	-0° 00' 10.13000"	SD ΔLatitude:	0.0001 m
ΔLongitude:	0° 00' 46.56657"	SD ΔLongitude:	0.0001 m
ΔHeight:	-170.6459 m	SD ΔHeight:	0.0002 m
ΔX:	1,303.7835 m	SD ΔX:	0.0001 m
ΔY:	577.7129 m	SD ΔY:	0.0002 m
ΔZ:	-266.8821 m	SD ΔZ:	0.0001 m
Slope Dist.:	1,450.8031 m	SD Slope Dist.:	0.0001 m

M0:	0.3282 m	CQ 1D:	0.0002 m
Q11:	0.00000010	CQ 2D:	0.0001 m
Q12:	-0.00000009	CQ 3D:	0.0002 m
Q22:	0.00000031		
Q13:	-0.00000002		
Q23:	0.00000007		
Q33:	0.00000006		

Frequency:	L1/E1/L2	GDOP:	1.6 - 1.7	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.1 - 1.2	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/7
		VDOP:	1.0 - 1.1	Galileo SVs:	7/7
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

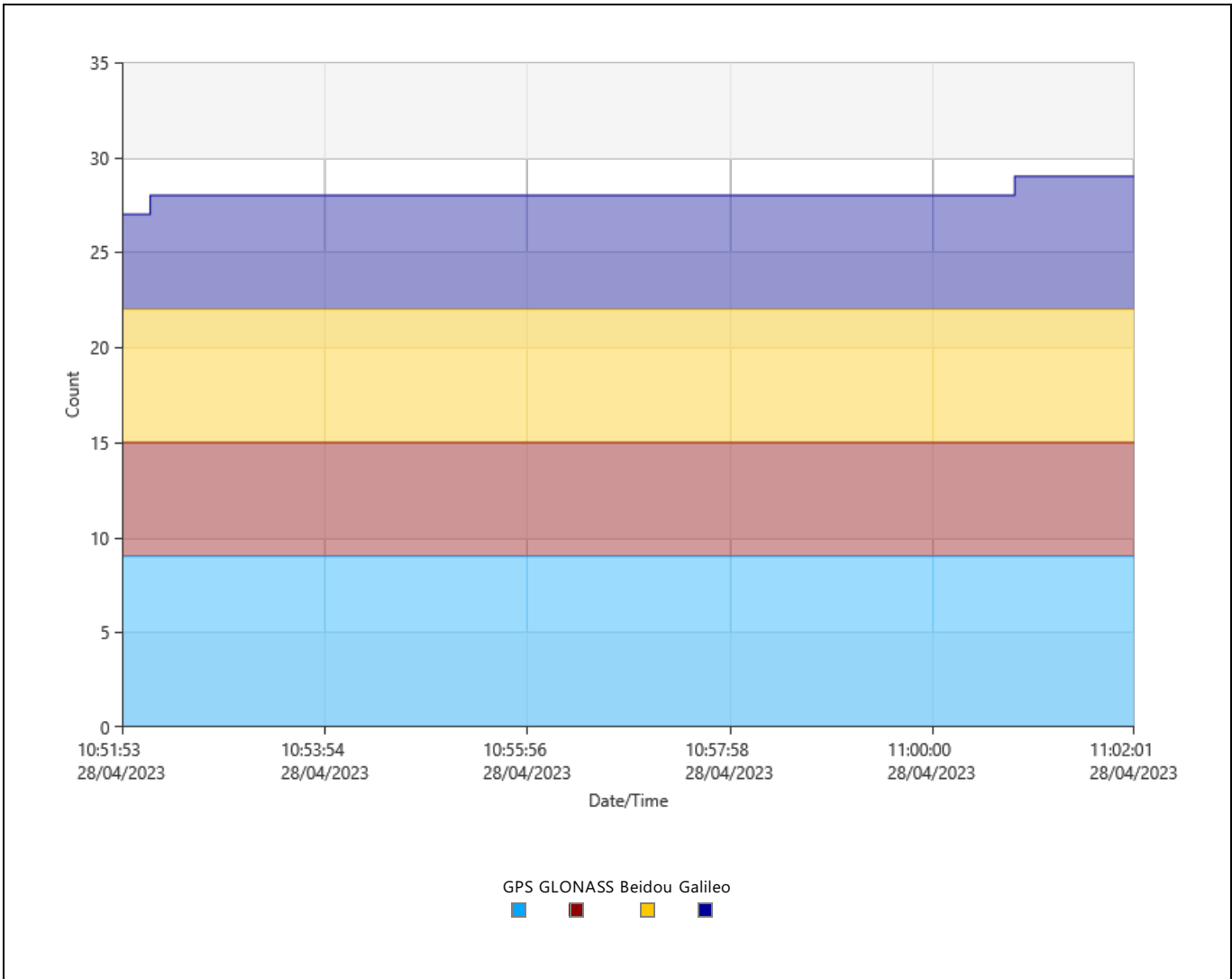
Processing Info (28/04/2023 10:51:53 - 28/04/2023 11:02:02)

Processed Date/Time: 10/05/2023 10:49:26

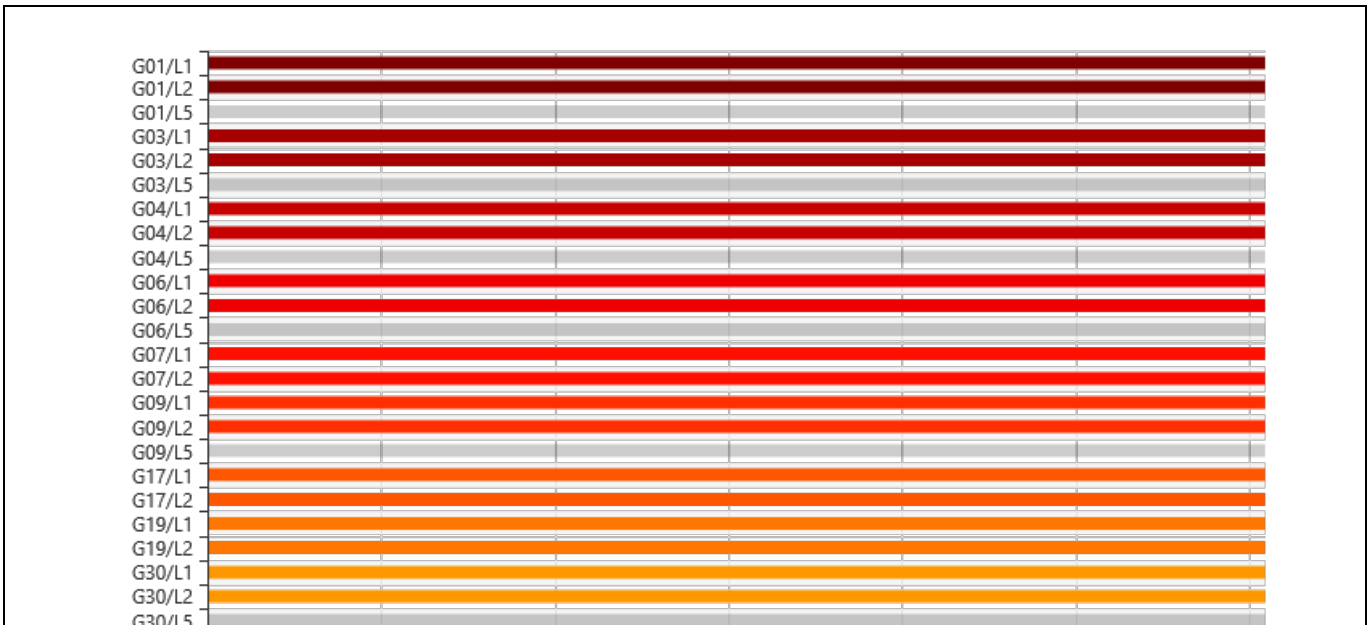
Satellites

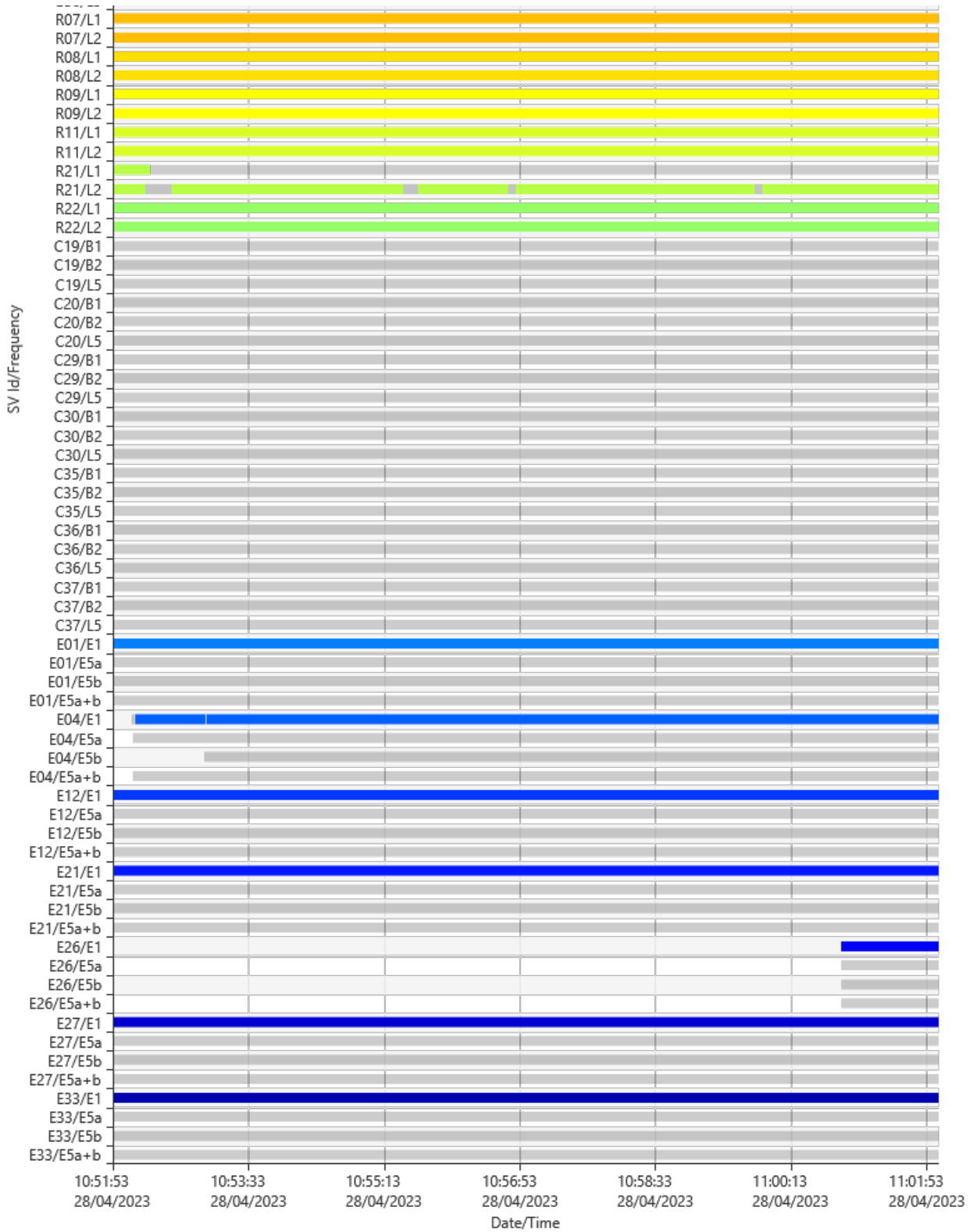
Satellite System	Used	Manually Disabled
GPS	G01 G03 G04 G06 G07 G09 G17 G19 G30	-
GLONASS	R07 R08 R09 R11 R21 R22	-
Galileo	E01 E04 E12 E21 E26 E27 E33	-

SVs Tracked

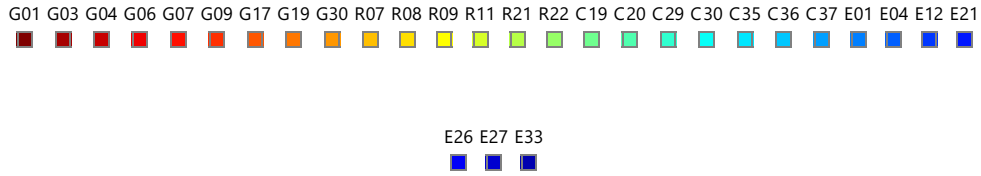
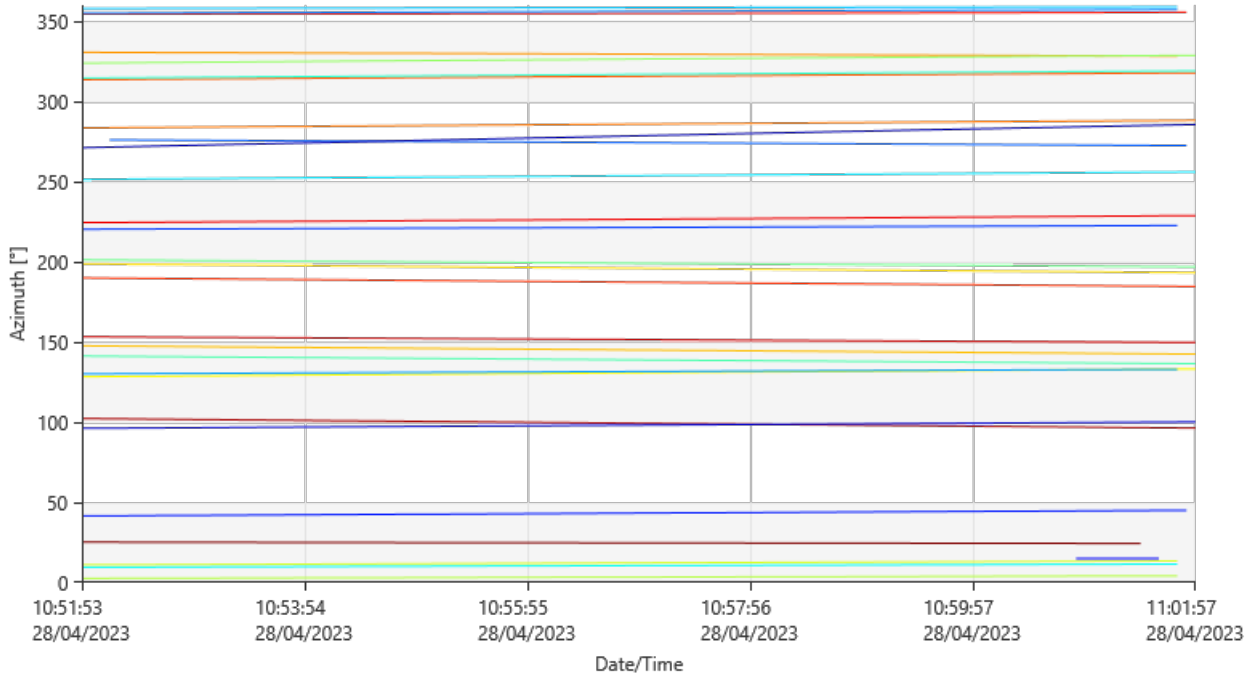


Signals Tracked

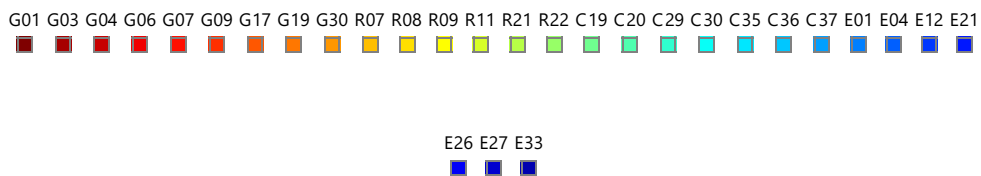
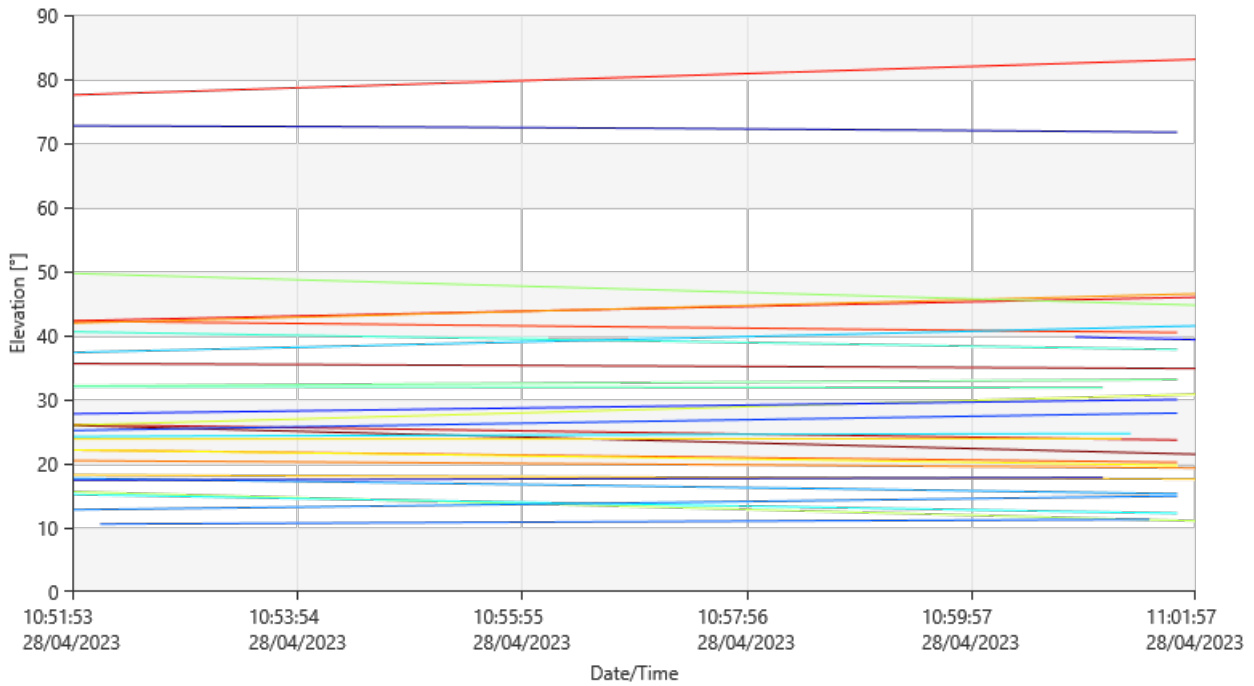




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	28/04/2023 10:51:53	28/04/2023 11:02:02	00:10:09

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 28/04/2023 10:34:54
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 28/04/2023 14:44:42
 Origin Date/Time: 28/04/2023 10:34:54

Deg. Latitude	Deg. Time	Value	RMS
0	0	5.3920298485	0.0166935042
0	1	1.1198429529	0.0167684704
0	2	-0.2087480594	0.0064309100
1	0	-0.0991651377	0.0094423662
1	1	0.0868143339	0.0067264249

Residuals

Tracking Status

G01

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

G03

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

R07

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used

R09

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used

R21

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 10:52:21	Used
	28/04/2023 10:52:21	28/04/2023 11:02:02	Rejected
L2	28/04/2023 10:51:53	28/04/2023 10:52:17	Used
	28/04/2023 10:52:17	28/04/2023 10:52:36	Rejected
	28/04/2023 10:52:36	28/04/2023 10:55:27	Used
	28/04/2023 10:55:27	28/04/2023 10:55:38	Rejected
	28/04/2023 10:55:38	28/04/2023 10:56:45	Used
	28/04/2023 10:56:45	28/04/2023 10:56:50	Rejected
	28/04/2023 10:56:50	28/04/2023 10:59:46	Used
	28/04/2023 10:59:46	28/04/2023 10:59:52	Rejected
	28/04/2023 10:59:52	28/04/2023 11:02:02	Used

R22

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
L2	28/04/2023 10:51:53	28/04/2023 11:02:02	Used

E01

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
E5a	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5a+b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

E04

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 10:51:53	28/04/2023 10:52:07	No Data
	28/04/2023 10:52:07	28/04/2023 10:52:10	Rejected
	28/04/2023 10:52:10	28/04/2023 10:53:01	Used
	28/04/2023 10:53:01	28/04/2023 10:53:02	Rejected

	28/04/2023 10:53:02	28/04/2023 11:02:02	Used
E5a	28/04/2023 10:51:53	28/04/2023 10:52:08	No Data
	28/04/2023 10:52:08	28/04/2023 11:02:02	Rejected
E5b	28/04/2023 10:51:53	28/04/2023 10:53:00	No Data
	28/04/2023 10:53:00	28/04/2023 11:02:02	Rejected
E5a+b	28/04/2023 10:51:53	28/04/2023 10:52:08	No Data
	28/04/2023 10:52:08	28/04/2023 11:02:02	Rejected

E12

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
E5a	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5a+b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
E5a	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5a+b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 10:51:53	28/04/2023 11:00:50	No Data
	28/04/2023 11:00:50	28/04/2023 11:02:02	Used
E5a	28/04/2023 10:51:53	28/04/2023 11:00:50	No Data
	28/04/2023 11:00:50	28/04/2023 11:02:02	Rejected
E5b	28/04/2023 10:51:53	28/04/2023 11:00:50	No Data
	28/04/2023 11:00:50	28/04/2023 11:02:02	Rejected
E5a+b	28/04/2023 10:51:53	28/04/2023 11:00:50	No Data
	28/04/2023 11:00:50	28/04/2023 11:02:02	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
E5a	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5a+b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

E33

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 10:51:53	28/04/2023 11:02:02	Used
E5a	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
E5a+b	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
B2	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
B2	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
B2	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

C30

Frequency	From Epoch	To Epoch	Status

B1	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
B2	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

C35

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
B2	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
B2	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
B2	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected
L5	28/04/2023 10:51:53	28/04/2023 11:02:02	Rejected

Cycle Slips

Slip Count: 2

SV	Frequency	Epoch	Slip Value	Flag
E04	E1	28/04/2023 10:52:10	-	RIA
		28/04/2023 10:53:02	-	Flagged

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-10

Processing Parameters (28/04/2023 11:35:38 - 28/04/2023 11:46:06)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km

Min. Duration for Float 00:05:00
Solution (static):

Results Baseline: C02 - PAF-COR-10

Acquisition

Start Time - End Time: 28/04/2023 11:35:39 - 28/04/2023 11:46:06
Duration: 00:10:27

Antennas

	Reference - C02	Rover - PAF-COR-10
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.3350 m	2.0000 m
Antenna Height:	1.3350 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-10	Reference - C02	Rover - PAF-COR-10	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 48.61865" S	Easting:	438,215.5500 m	439,304.5074 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 31.59197" W	Northing:	8,609,405.6600 m	8,609,226.2862 m
WGS84 Ellip. Height:	4,889.3308 m	4,731.4780 m	Ortho. Height:	4,853.4775 m	4,695.6305 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,833.5190 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,755.7504 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,381,143.2111 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	-0° 00' 05.91517"	SD ΔLatitude:	0.0001 m
ΔLongitude:	0° 00' 36.07653"	SD ΔLongitude:	0.0001 m
ΔHeight:	-157.8527 m	SD ΔHeight:	0.0002 m
ΔX:	1,007.0826 m	SD ΔX:	0.0001 m
ΔY:	459.2501 m	SD ΔY:	0.0002 m
ΔZ:	-143.1637 m	SD ΔZ:	0.0001 m
Slope Dist.:	1,116.0743 m	SD Slope Dist.:	0.0001 m

M0:	0.3308 m	CQ 1D:	0.0002 m
Q11:	0.00000014	CQ 2D:	0.0001 m
Q12:	-0.00000012	CQ 3D:	0.0002 m
Q22:	0.00000029		
Q13:	-0.00000002		
Q23:	0.00000005		
Q33:	0.00000007		

Frequency:	L1/E1/L2	GDOP:	1.5 - 1.9	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.1 - 1.3	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.7	Beidou SVs:	0/5
		VDOP:	0.9 - 1.0	Galileo SVs:	7/7
				QZSS SVs:	-

Ephemeris Type:

GPS Precise
GLONASS Precise

Beidou Broadcast
Galileo Precise

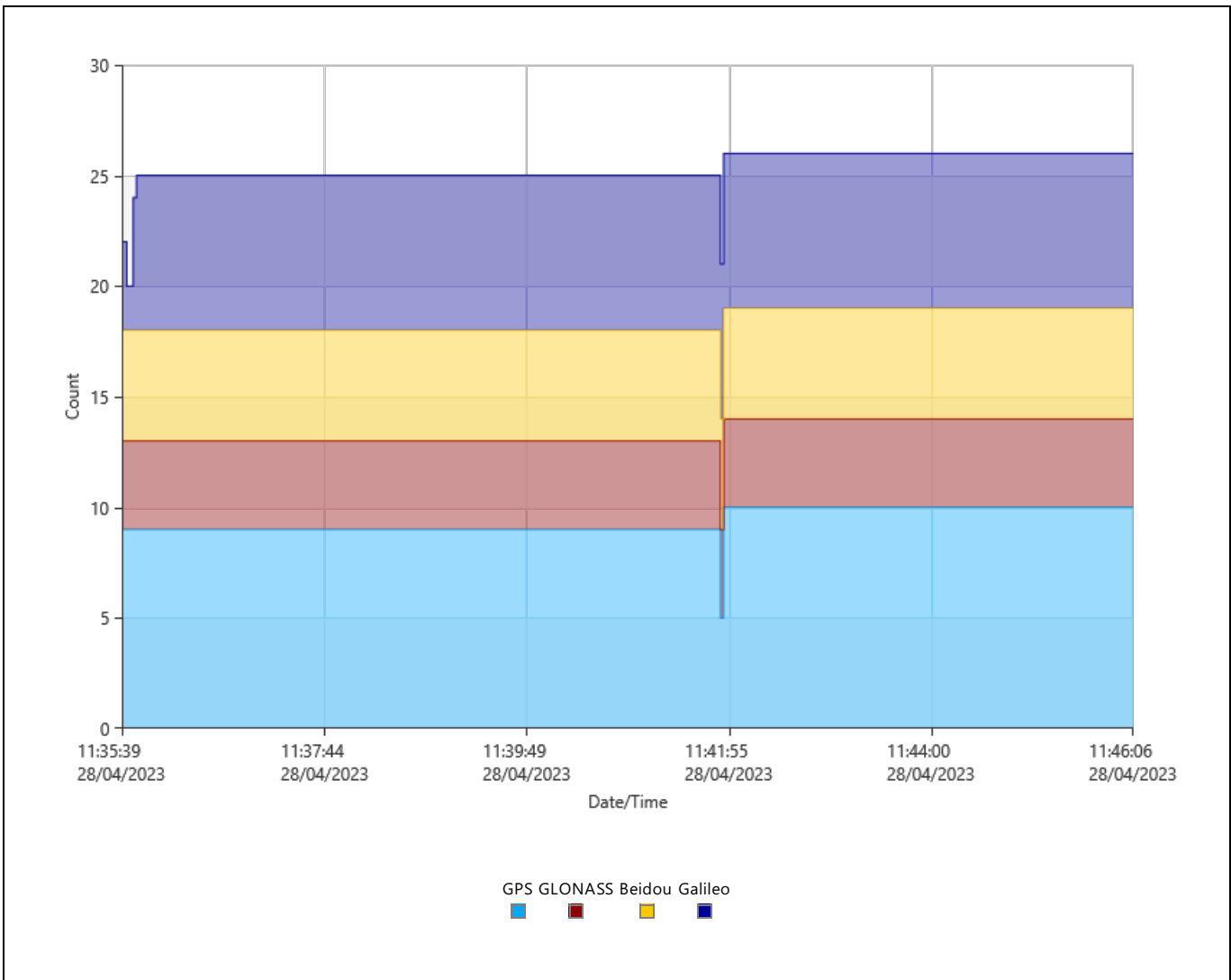
Processing Info (28/04/2023 11:35:38 - 28/04/2023 11:46:06)

Processed Date/Time: 10/05/2023 10:49:26

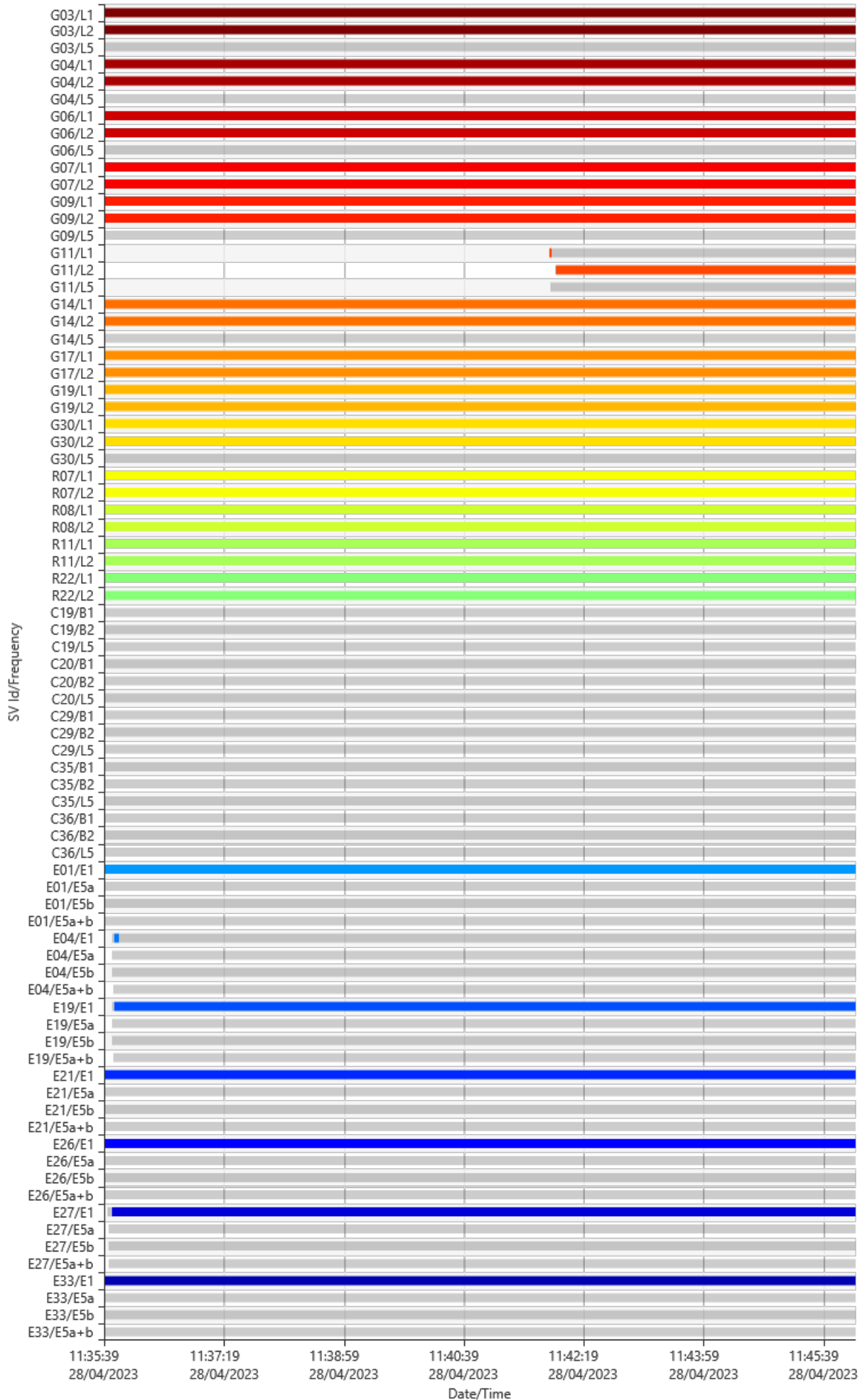
Satellites

Satellite System	Used	Manually Disabled
GPS	G03 G04 G06 G07 G09 G11 G14 G17 G19 G30	-
GLONASS	R07 R08 R11 R22	-
Galileo	E01 E04 E19 E21 E26 E27 E33	-

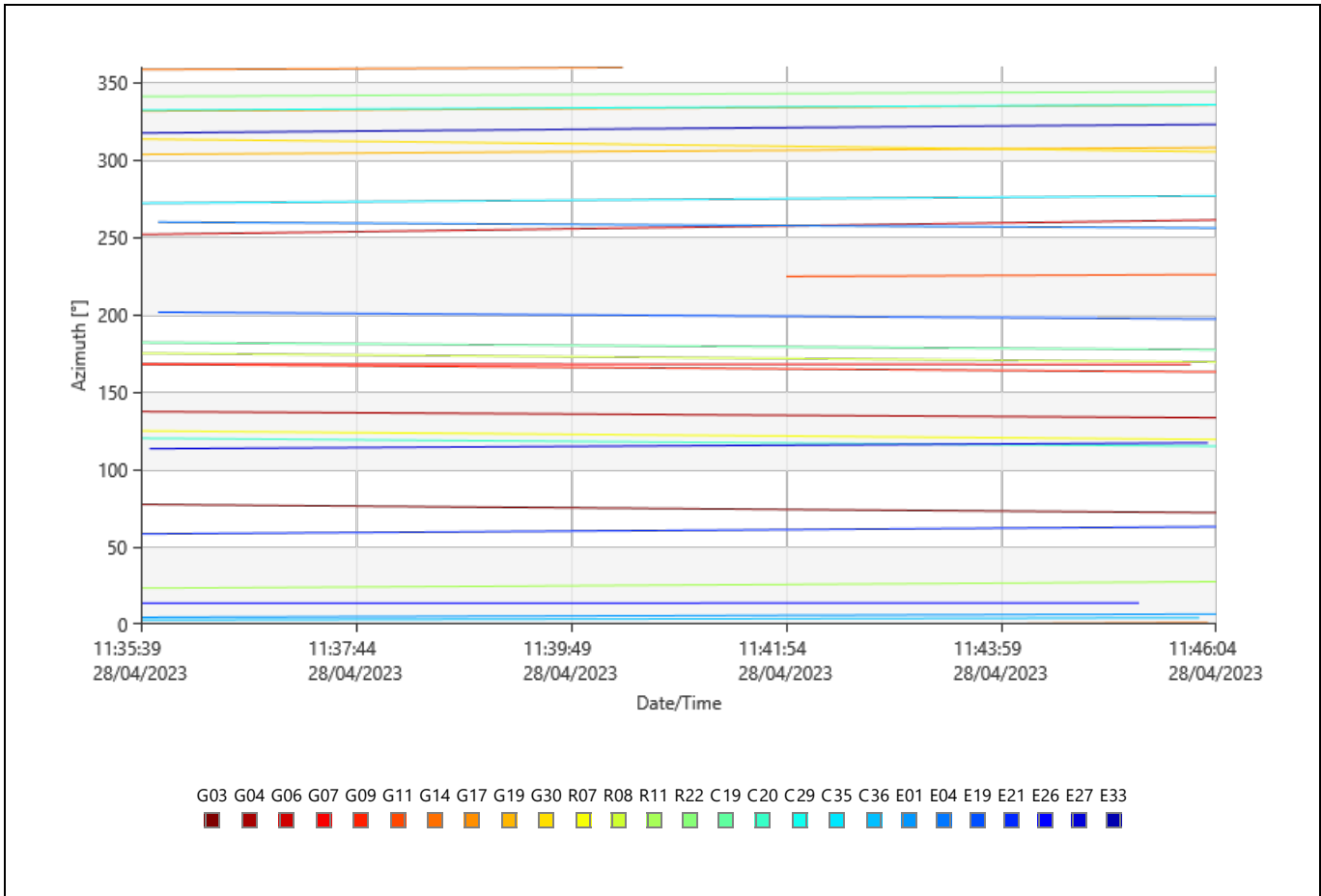
SVs Tracked



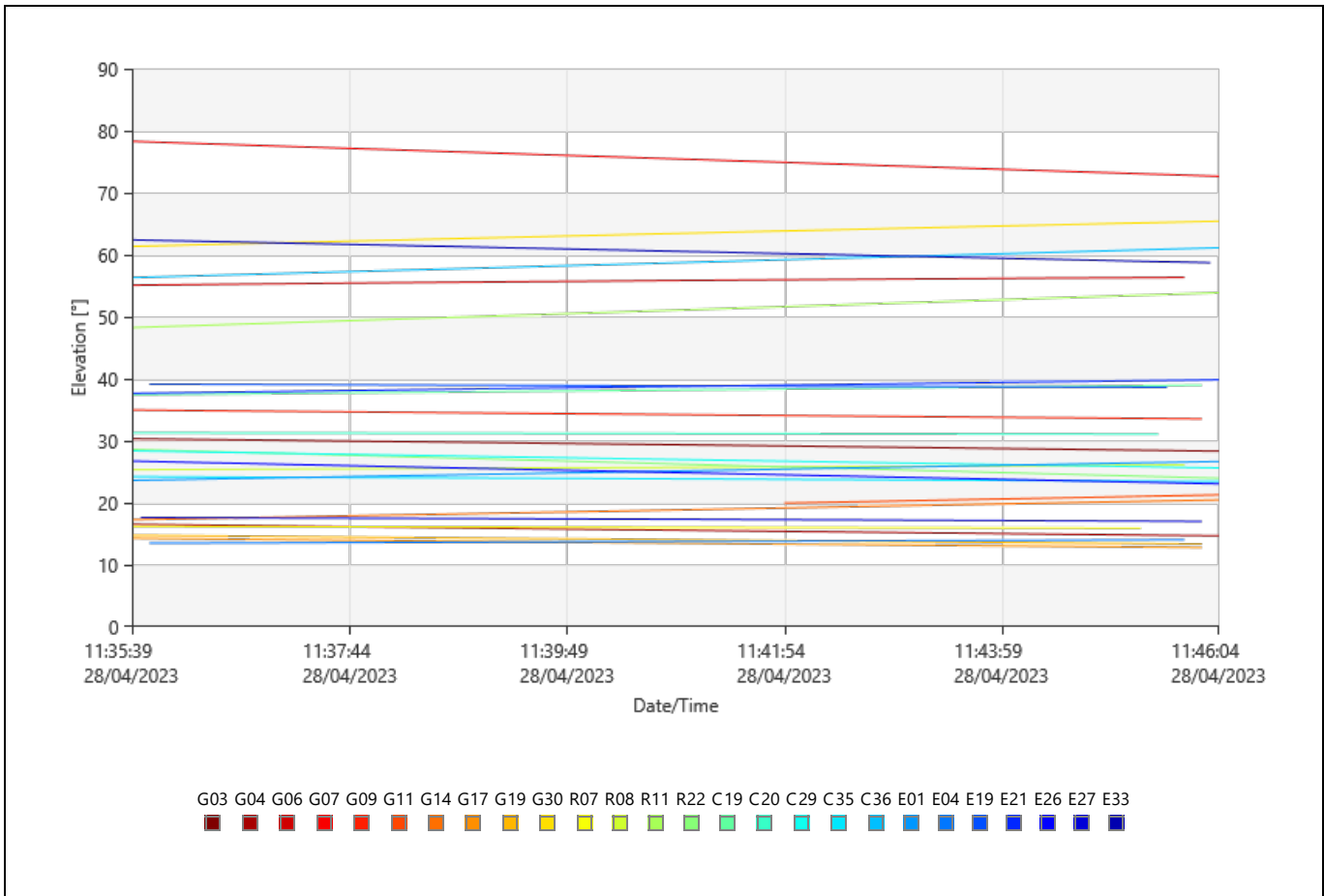
Signals Tracked



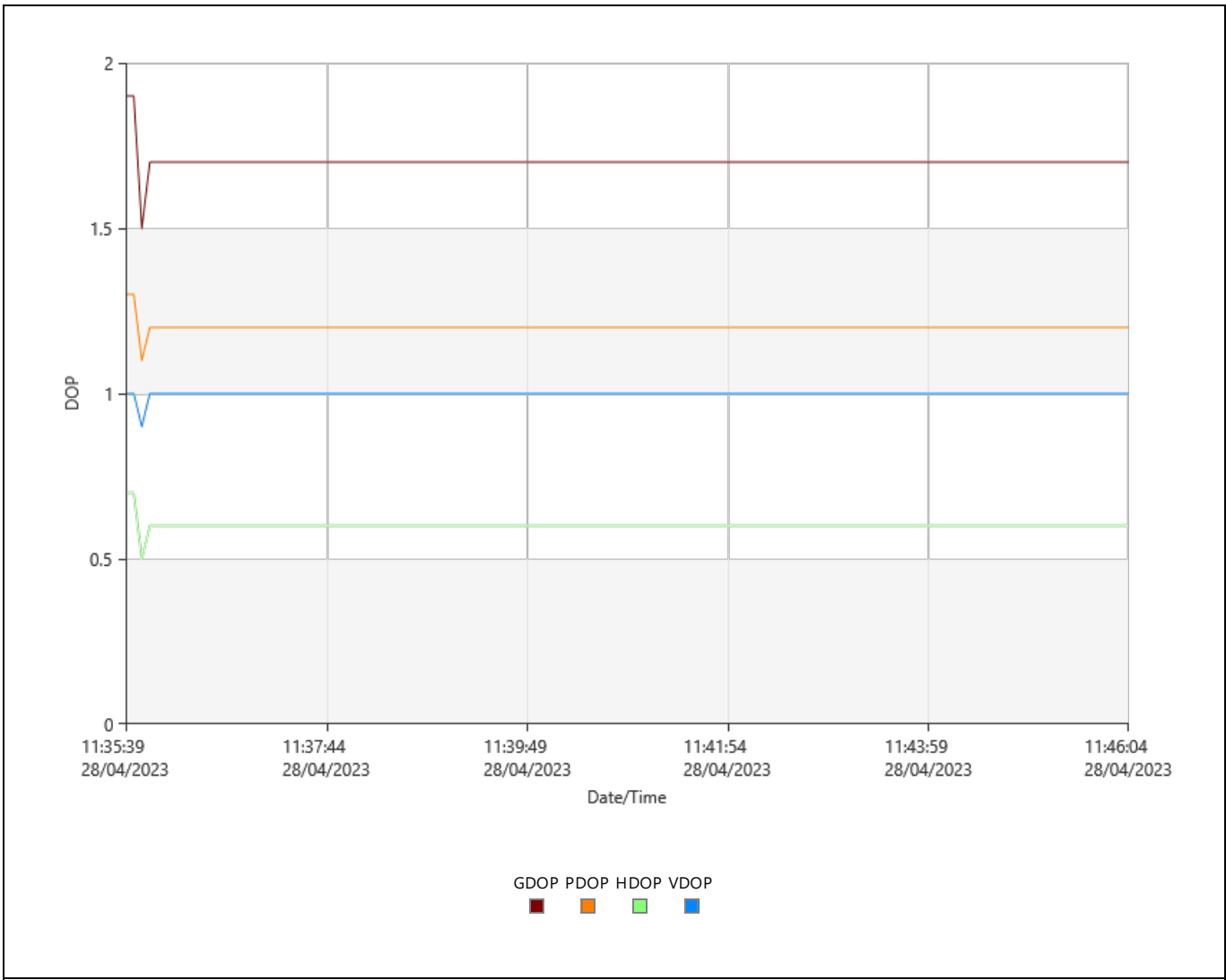
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 628

GPS Observations

Frequency	Used	Rejected
L1	5,654	255
L2	5,903	1
L5	0	4,024

GLONASS Observations

Frequency	Used	Rejected
L1	2,512	0
L2	2,512	0

Beidou Observations

Frequency	Used	Rejected
B1	0	3,140
B2	0	3,140
L5	0	3,140

Galileo Observations

Frequency	Used	Rejected
E1	3,755	624
E5a	0	4,378
E5b	0	4,378
E5a+b	0	4,376

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	20	8	0	7
Total	20	8	10	10
Independently fixed	78	78	0	78
Possible independently fixed	78	78	78	78

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	0.00	0.00	99.82
Not fixed	0.00	0.00	0.00	0.00	100.00	100.00	0.18
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	28/04/2023 11:35:39	28/04/2023 11:46:06	00:10:27

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 28/04/2023 10:34:54
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 28/04/2023 14:44:42
Origin Date/Time: 28/04/2023 10:34:54

Deg. Latitude	Deg. Time	Value	RMS
0	0	5.3920298485	0.0166935042
0	1	1.1198429529	0.0167684704
0	2	-0.2087480594	0.0064309100
1	0	-0.0991651377	0.0094423662
1	1	0.0868143339	0.0067264249

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:41:50	No Data
	28/04/2023 11:41:50	28/04/2023 11:41:52	Used
	28/04/2023 11:41:52	28/04/2023 11:46:06	Rejected
L2	28/04/2023 11:35:39	28/04/2023 11:41:55	No Data
	28/04/2023 11:41:55	28/04/2023 11:41:56	Rejected
	28/04/2023 11:41:56	28/04/2023 11:46:06	Used
L5	28/04/2023 11:35:39	28/04/2023 11:41:51	No Data
	28/04/2023 11:41:51	28/04/2023 11:46:06	Rejected

G14

Frequency	From Epoch	To Epoch	Status
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Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

R07

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used

R22

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
L2	28/04/2023 11:35:39	28/04/2023 11:46:06	Used

E01

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
E5a	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
E5b	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
E5a+b	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

E04

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 11:35:39	28/04/2023 11:35:46	No Data
	28/04/2023 11:35:46	28/04/2023 11:35:48	Rejected
	28/04/2023 11:35:48	28/04/2023 11:35:51	Used
E5a	28/04/2023 11:35:51	28/04/2023 11:46:06	Rejected
	28/04/2023 11:35:39	28/04/2023 11:35:46	No Data
E5b	28/04/2023 11:35:46	28/04/2023 11:46:06	Rejected
	28/04/2023 11:35:39	28/04/2023 11:35:46	No Data
E5a+b	28/04/2023 11:35:46	28/04/2023 11:46:06	Rejected
	28/04/2023 11:35:39	28/04/2023 11:35:47	No Data
	28/04/2023 11:35:47	28/04/2023 11:46:06	Rejected

E19

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 11:35:39	28/04/2023 11:35:46	No Data
	28/04/2023 11:35:46	28/04/2023 11:35:48	Rejected
	28/04/2023 11:35:48	28/04/2023 11:46:06	Used
E5a	28/04/2023 11:35:39	28/04/2023 11:35:46	No Data

	28/04/2023 11:35:46	28/04/2023 11:46:06	Rejected
E5b	28/04/2023 11:35:39	28/04/2023 11:35:46	No Data
	28/04/2023 11:35:46	28/04/2023 11:46:06	Rejected
E5a+b	28/04/2023 11:35:39	28/04/2023 11:35:47	No Data
	28/04/2023 11:35:47	28/04/2023 11:46:06	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
E5a	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
E5b	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
E5a+b	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
E5a	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
E5b	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
E5a+b	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 11:35:39	28/04/2023 11:35:42	No Data
	28/04/2023 11:35:42	28/04/2023 11:35:46	Rejected
	28/04/2023 11:35:46	28/04/2023 11:46:06	Used
E5a	28/04/2023 11:35:39	28/04/2023 11:35:43	No Data
	28/04/2023 11:35:43	28/04/2023 11:46:06	Rejected
E5b	28/04/2023 11:35:39	28/04/2023 11:35:43	No Data
	28/04/2023 11:35:43	28/04/2023 11:46:06	Rejected
E5a+b	28/04/2023 11:35:39	28/04/2023 11:35:43	No Data
	28/04/2023 11:35:43	28/04/2023 11:46:06	Rejected

E33

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 11:35:39	28/04/2023 11:46:06	Used
E5a	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
E5b	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
E5a+b	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
B2	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
B2	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
B2	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

C35

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
B2	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
B2	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected

L5	28/04/2023 11:35:39	28/04/2023 11:46:06	Rejected
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Cycle Slips

Slip Count: 3

SV	Frequency	Epoch	Slip Value	Flag
E04	E1	28/04/2023 11:35:48	-	RIA
E19	E1	28/04/2023 11:35:48	-	RIA
E27	E1	28/04/2023 11:35:46	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-11

Processing Parameters (28/04/2023 13:34:12 - 28/04/2023 13:44:51)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - PAF-COR-11

Acquisition

Start Time - End Time: 28/04/2023 13:34:12 - 28/04/2023 13:44:51
Duration: 00:10:39

Antennas

	Reference - C02	Rover - PAF-COR-11
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.3350 m	2.0000 m
Antenna Height:	1.3350 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-11	Reference - C02	Rover - PAF-COR-11	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 41.46476" S	Easting:	438,215.5500 m	438,920.3326 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 44.30849" W	Northing:	8,609,405.6600 m	8,609,445.2272 m
WGS84 Ellip. Height:	4,889.3308 m	4,755.3157 m	Ortho. Height:	4,853.4775 m	4,719.4744 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,479.2732 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,920.4664 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,933.6822 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 01.23872"	SD ΔLatitude:	0.0001 m
ΔLongitude:	0° 00' 23.36001"	SD ΔLongitude:	0.0001 m
ΔHeight:	-134.0150 m	SD ΔHeight:	0.0004 m
ΔX:	652.8369 m	SD ΔX:	0.0002 m
ΔY:	294.5340 m	SD ΔY:	0.0004 m
ΔZ:	66.3652 m	SD ΔZ:	0.0002 m
Slope Dist.:	719.2709 m	SD Slope Dist.:	0.0002 m

M0:	0.6123 m	CQ 1D:	0.0004 m
Q11:	0.00000007	CQ 2D:	0.0002 m
Q12:	-0.00000006	CQ 3D:	0.0004 m
Q22:	0.00000035		
Q13:	-0.00000001		
Q23:	0.00000009		
Q33:	0.00000007		

Frequency:	L1/E1/B1/L2/B2	GDOP:	2.0 - 2.2	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.2 - 1.3	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	4/4
		VDOP:	1.0 - 1.2	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

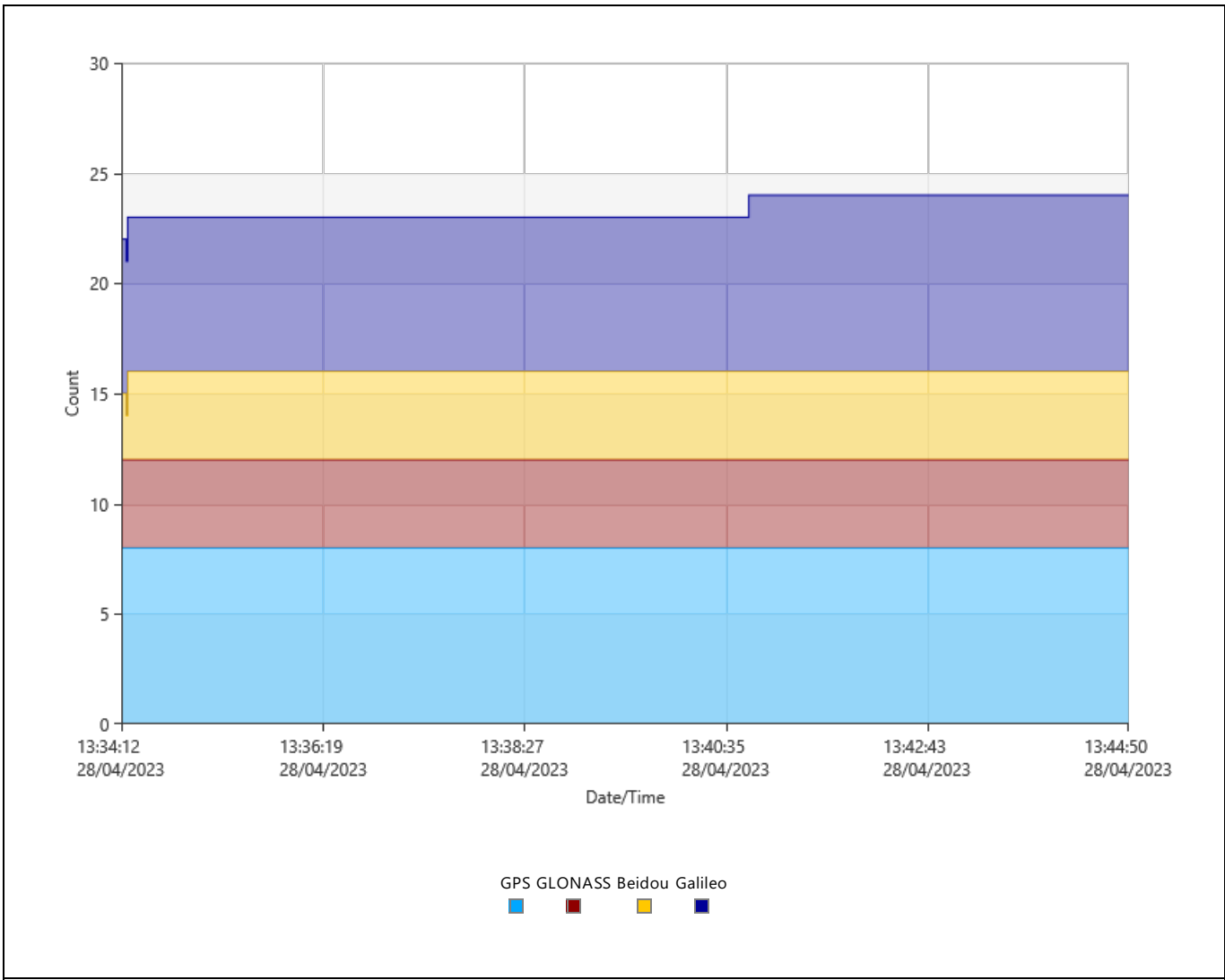
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Processed Date/Time: 10/05/2023 10:49:26

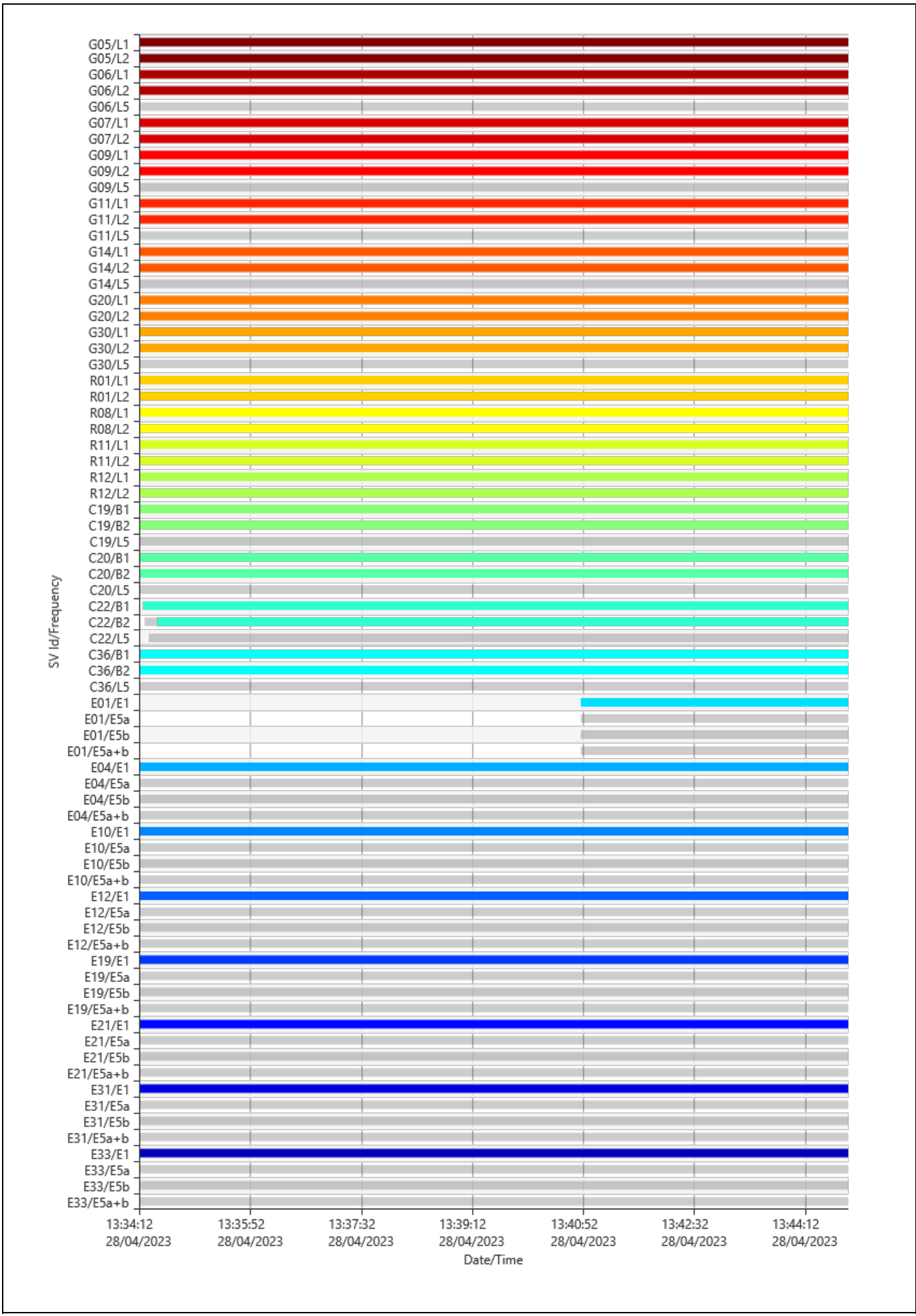
Satellites

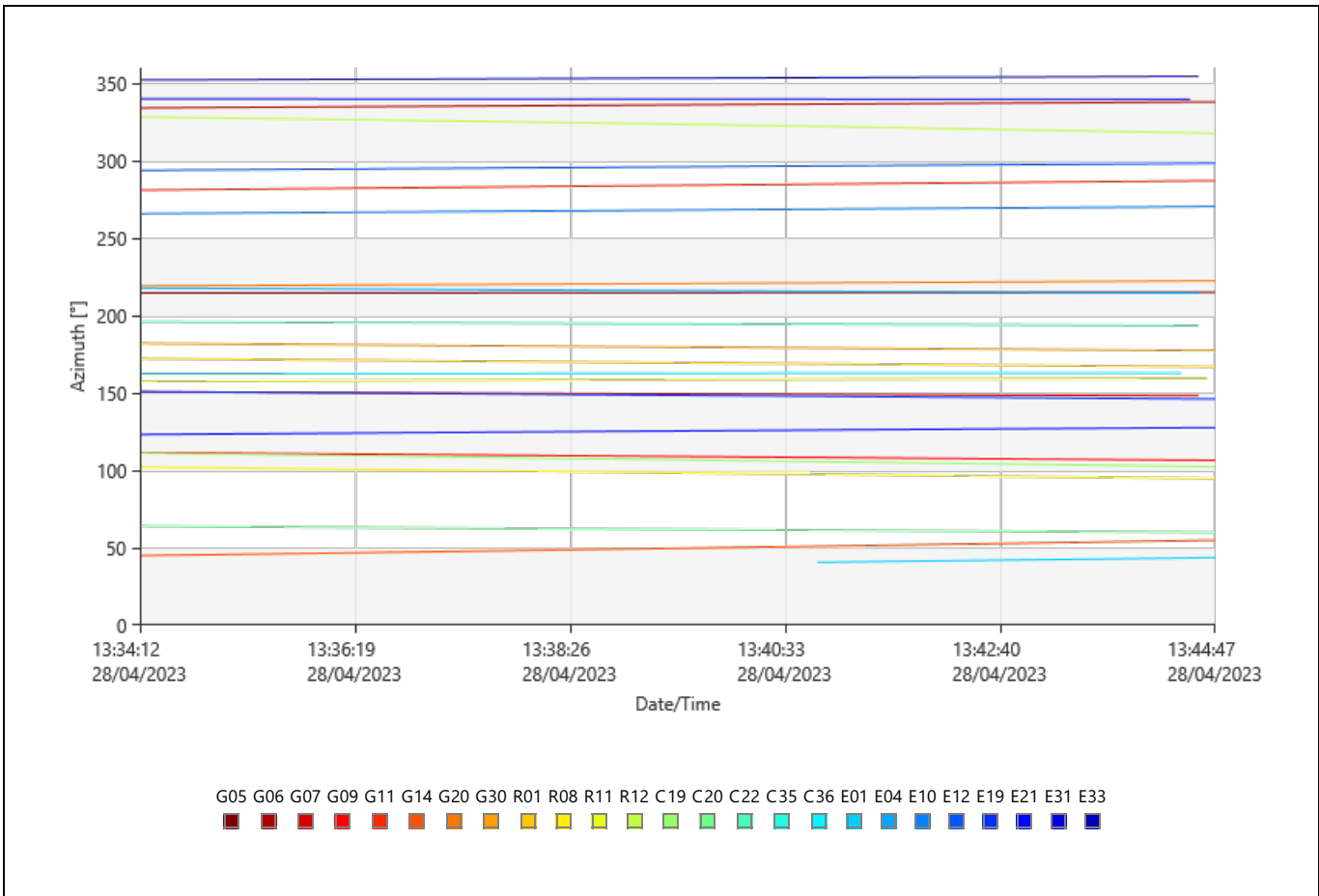
Satellite System	Used	Manually Disabled
GPS	G05 G06 G07 G09 G11 G14 G20 G30	-
GLONASS	R01 R08 R11 R12	-
Beidou	C19 C20 C22 C36	-
Galileo	E01 E04 E10 E12 E19 E21 E31 E33	-

SVs Tracked

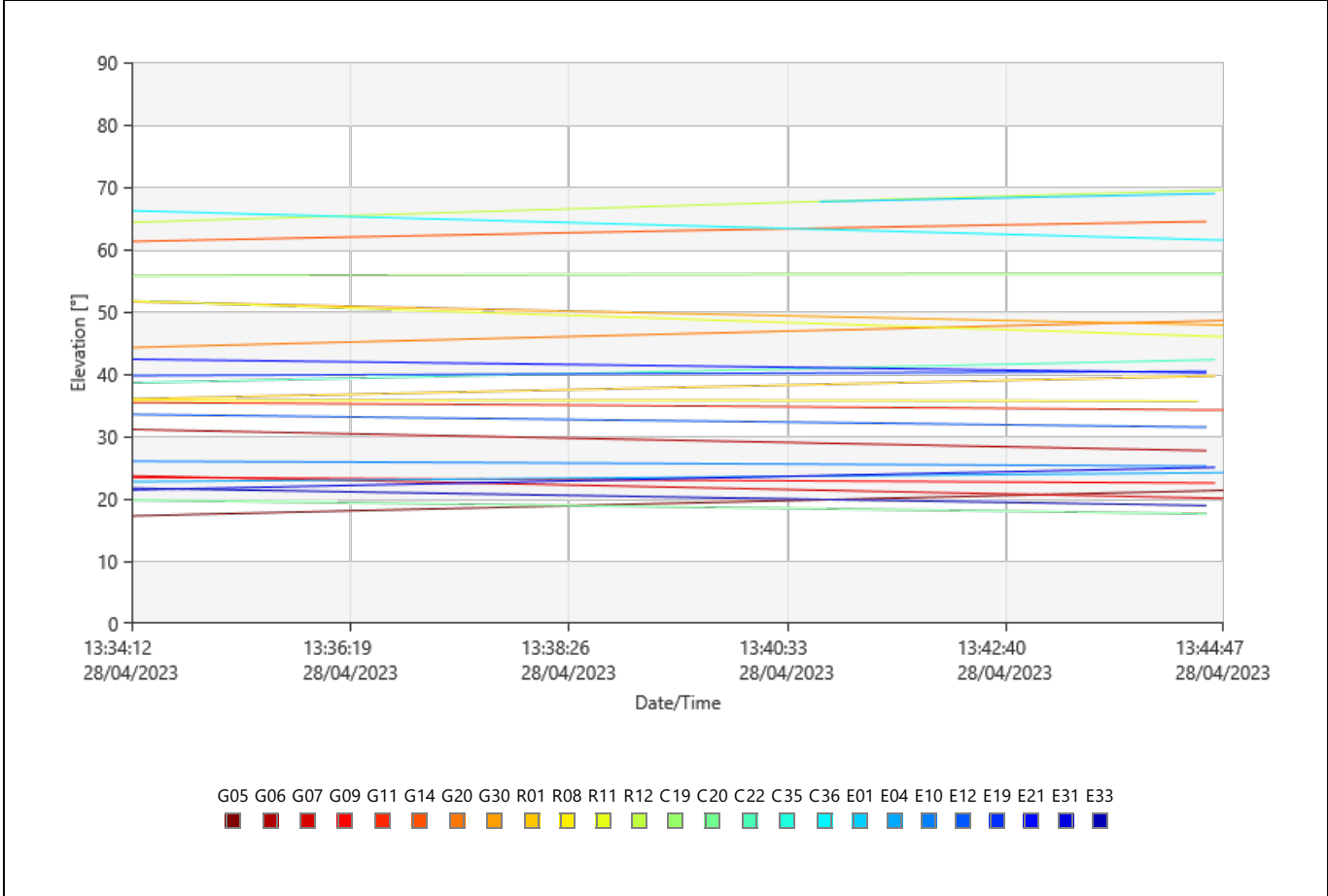


Signals Tracked

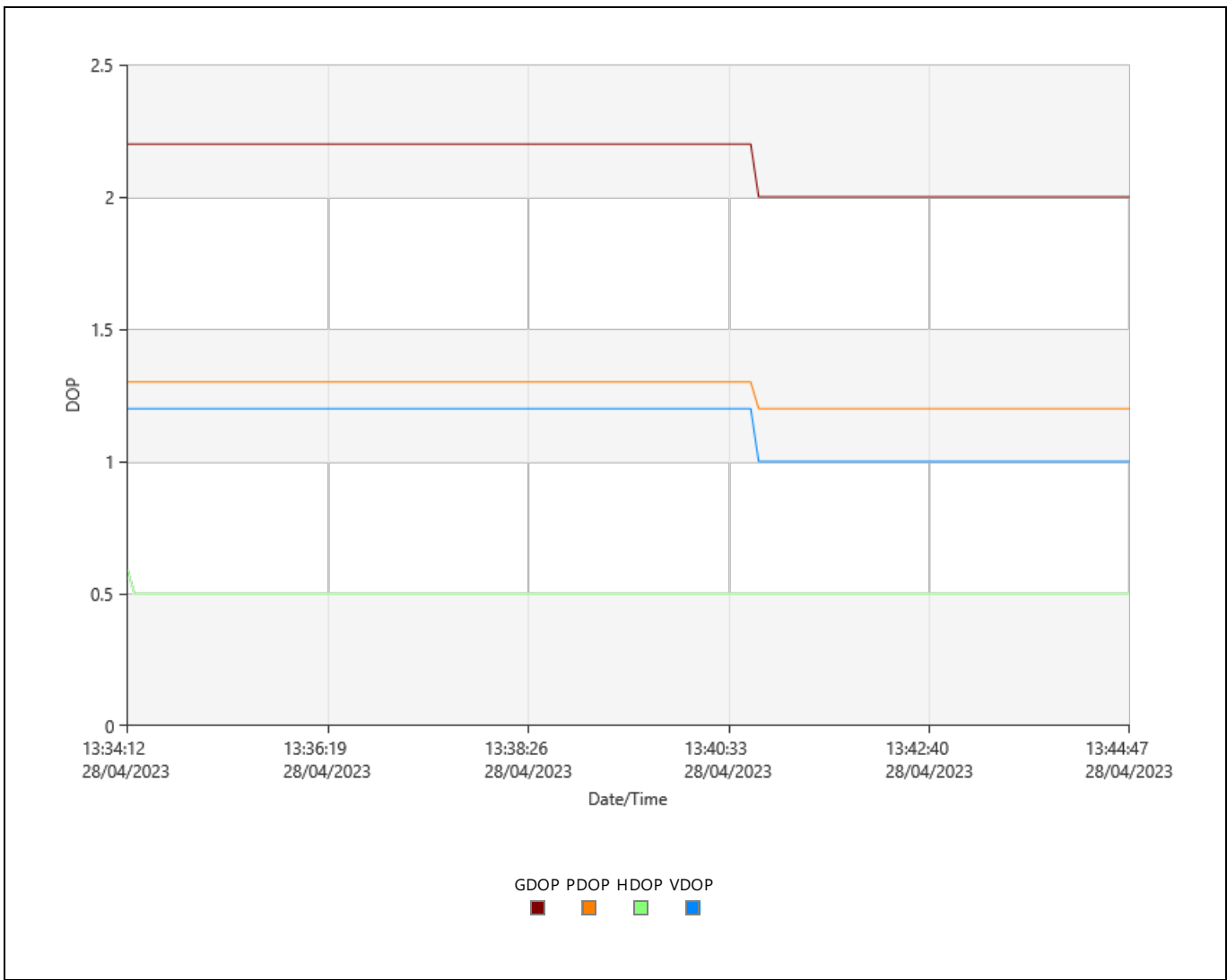




Elevation



DOP



Observation Statistics

Common Epochs: 640

GPS Observations

Frequency	Used	Rejected
L1	5,120	0
L2	5,120	0
L5	0	3,200

GLONASS Observations

Frequency	Used	Rejected
L1	2,560	0
L2	2,560	0

Beidou Observations

Frequency	Used	Rejected
B1	2,556	1
B2	2,544	11
L5	0	2,551

Galileo Observations

Frequency	Used	Rejected
E1	4,722	0
E5a	0	4,722
E5b	0	4,722
E5a+b	0	4,722

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	16	8	8	8
Total	16	8	8	8
Independently fixed	80	80	80	80
Possible independently fixed	80	80	80	80

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Not fixed	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	28/04/2023 13:34:12	28/04/2023 13:44:51	00:10:39

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 28/04/2023 10:34:54
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 28/04/2023 14:44:42
Origin Date/Time: 28/04/2023 10:34:54

Deg. Latitude	Deg. Time	Value	RMS
0	0	5.3920298485	0.0166935042
0	1	1.1198429529	0.0167684704
0	2	-0.2087480594	0.0064309100
1	0	-0.0991651377	0.0094423662
1	1	0.0868143339	0.0067264249

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used

G06

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used

G30

Frequency	From Epoch	To Epoch	Status
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Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

R01

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used

E01

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 13:34:12	28/04/2023 13:40:50	No Data
	28/04/2023 13:40:50	28/04/2023 13:44:51	Used
E5a	28/04/2023 13:34:12	28/04/2023 13:40:50	No Data
	28/04/2023 13:40:50	28/04/2023 13:44:51	Rejected
E5b	28/04/2023 13:34:12	28/04/2023 13:40:50	No Data
	28/04/2023 13:40:50	28/04/2023 13:44:51	Rejected
E5a+b	28/04/2023 13:34:12	28/04/2023 13:40:50	No Data
	28/04/2023 13:40:50	28/04/2023 13:44:51	Rejected

E04

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
E5a	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5a+b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

E10

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
E5a	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5a+b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

E12

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
E5a	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5a+b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

E19

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
E5a	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5a+b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used

E5a	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5a+b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

E31

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
E5a	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5a+b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

E33

Frequency	From Epoch	To Epoch	Status
E1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
E5a	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected
E5a+b	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
B2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
B2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 13:34:12	28/04/2023 13:34:15	No Data
	28/04/2023 13:34:15	28/04/2023 13:34:16	Rejected
	28/04/2023 13:34:16	28/04/2023 13:44:51	Used
B2	28/04/2023 13:34:12	28/04/2023 13:34:17	No Data
	28/04/2023 13:34:17	28/04/2023 13:34:28	Rejected
	28/04/2023 13:34:28	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:34:21	No Data
	28/04/2023 13:34:21	28/04/2023 13:44:51	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
B2	28/04/2023 13:34:12	28/04/2023 13:44:51	Used
L5	28/04/2023 13:34:12	28/04/2023 13:44:51	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-12

Processing Parameters (30/04/2023 11:12:06 - 30/04/2023 11:22:06)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	

Sampling Rate: Use All 1.00 sec
 Satellite System: GPS/GLONASS/Galileo/Beidou GPS/GLONASS/Galileo
 Ephemeris Type: Precise Precise No Beidou precise ephemeris available, switched to broadcast ephemeris.
 Antenna Calibration Set: NGS Absolute NGS Absolute

Processing Strategy

Solution Type: Phase Fixed Phase Fixed
 Solution Optimisation: Automatic None
 Frequency to use in Ionospheric Model: Automatic Automatic
 Tropospheric Model: VMF with GPT2 model VMF with GPT2 model
 Ionospheric Model: Computed Computed
 Allow Widelane Fix: Automatic Automatic

General Settings

Min. Distance for Ionospheric Model: 15 km
 Possible Ambiguities Fix up to: 300 km
 Min. Duration for Float Solution (static): 00:05:00

Results Baseline: C02 - PAF-COR-12

Acquisition

Start Time - End Time: 30/04/2023 11:12:06 - 30/04/2023 11:22:06
 Duration: 00:10:00

Antennas

	Reference - C02	Rover - PAF-COR-12
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4850 m	2.0000 m
Antenna Height:	1.4850 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-12	Reference - C02	Rover - PAF-COR-12
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 27.67716" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 06.73095" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,847.4634 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,552,868.7570 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,265.8143 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,539.9098 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 15.02632"	SD ΔLatitude:	0.0001 m
ΔLongitude:	0° 00' 00.93755"	SD ΔLongitude:	0.0001 m
ΔHeight:	-41.8674 m	SD ΔHeight:	0.0003 m
ΔX:	42.3207 m	SD ΔX:	0.0001 m
ΔY:	-50.8139 m	SD ΔY:	0.0003 m
ΔZ:	460.1376 m	SD ΔZ:	0.0001 m

Slope Dist.: 464.8653 m SD Slope Dist.: 0.0001 m

M0: 0.4400 m CQ 1D: 0.0003 m
Q11: 0.00000008 CQ 2D: 0.0002 m
Q12: -0.00000007 CQ 3D: 0.0003 m
Q22: 0.00000033
Q13: -0.00000001
Q23: 0.00000006
Q33: 0.00000007

Frequency:	L1/E1/L2	GDOP:	1.6 - 1.8	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.1 - 1.2	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	0/7
		VDOP:	1.0	Galileo SVs:	7/7
				QZSS SVs:	-

Ephemeris Type:
GPS: Precise
GLONASS: Precise
Beidou: Broadcast
Galileo: Precise

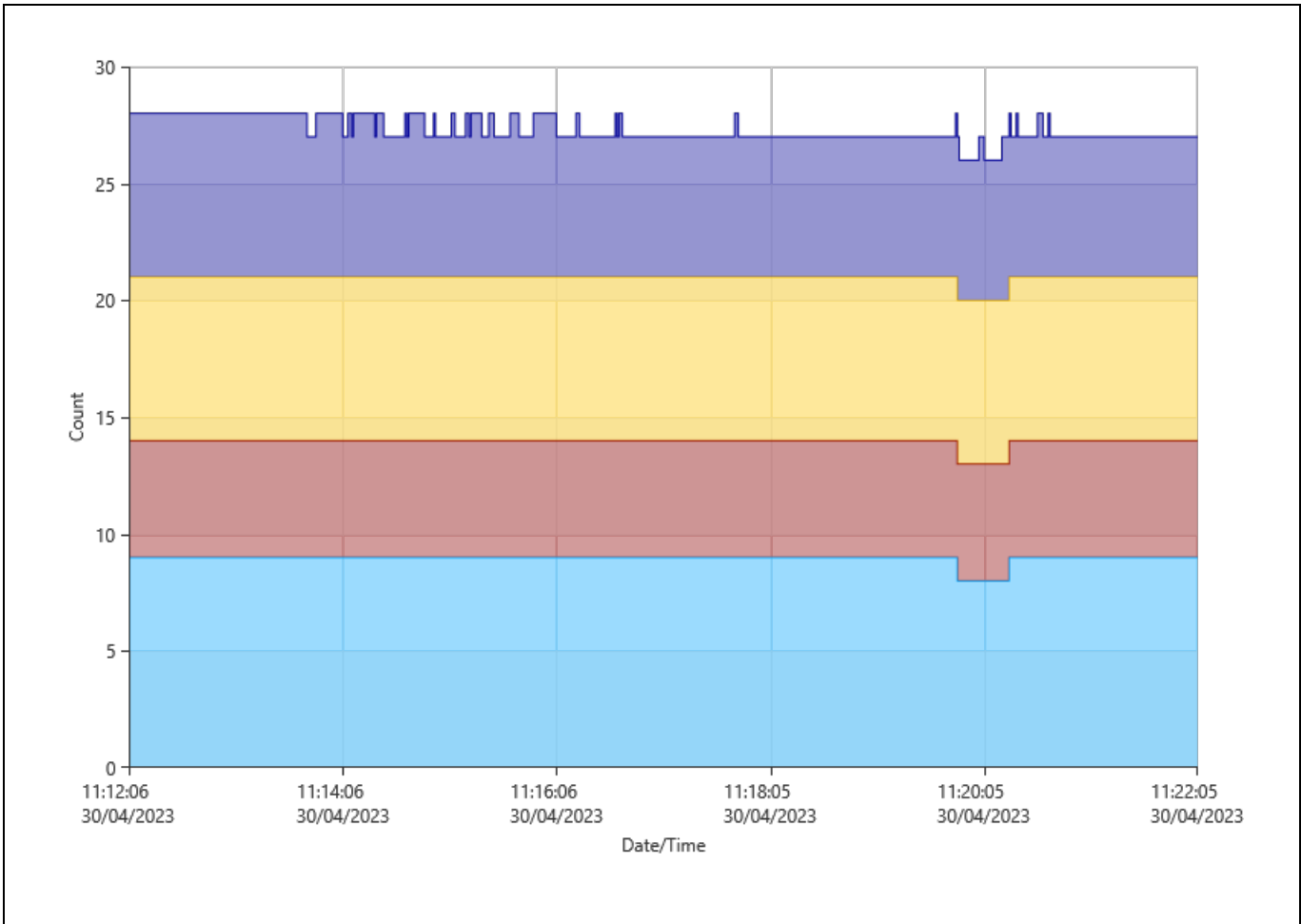
Processing Info (30/04/2023 11:12:06 - 30/04/2023 11:22:06)

Processed Date/Time: 10/05/2023 10:49:26

Satellites

Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14 G17 G19 G30	-
GLONASS	R02 R12 R13 R17 R24	-
Galileo	E03 E05 E09 E24 E25 E34 E36	-

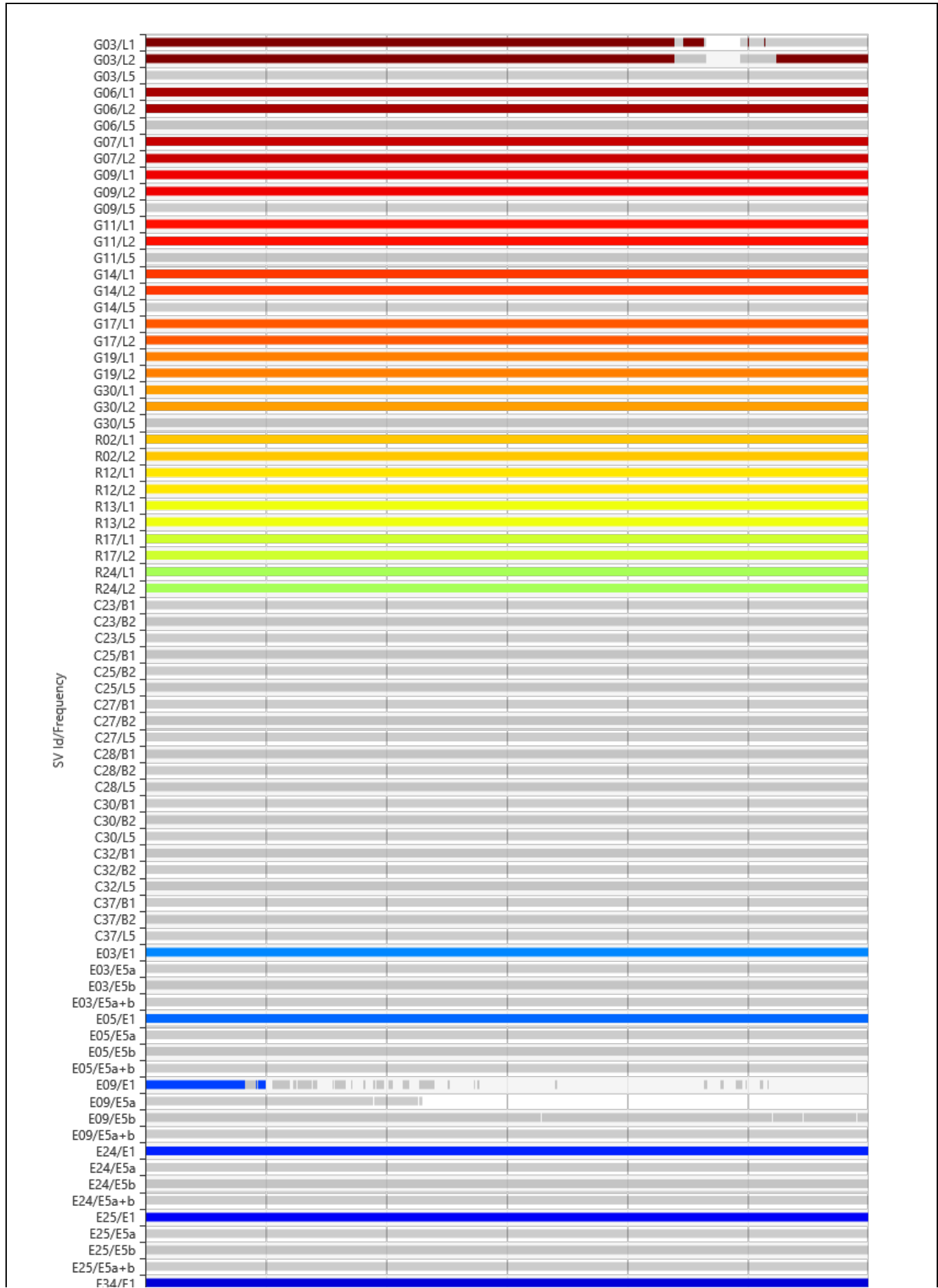
SVs Tracked

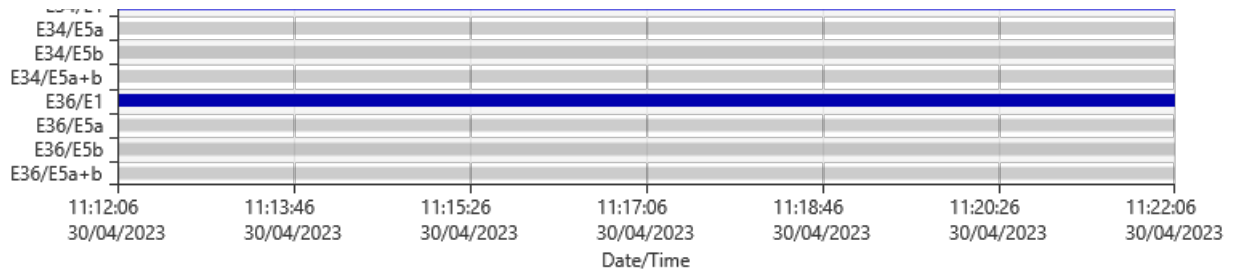


GPS GLONASS Beidou Galileo

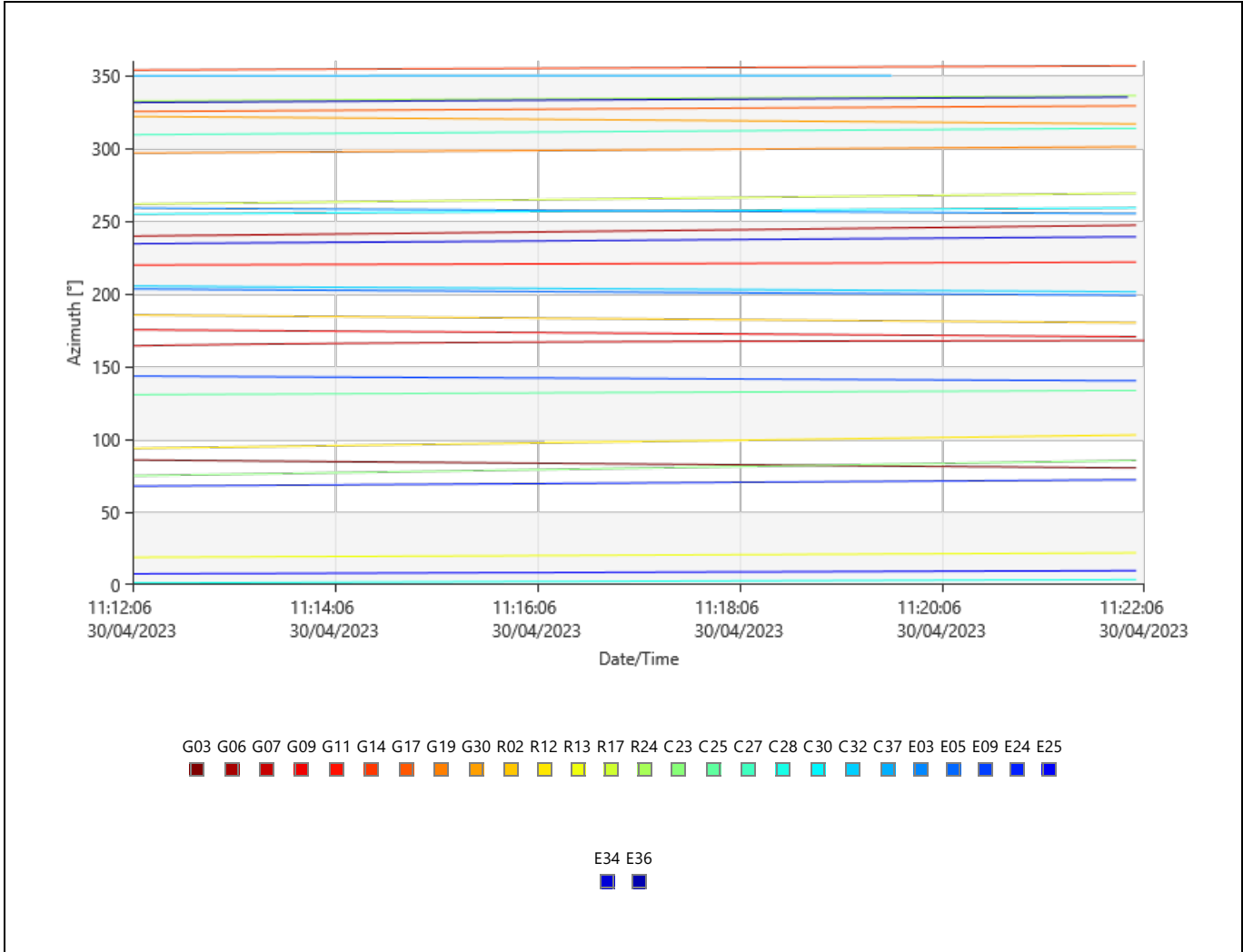


Signals Tracked

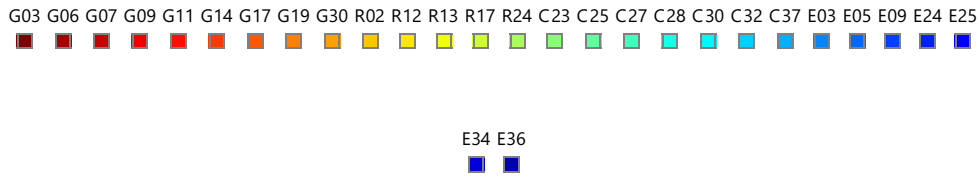
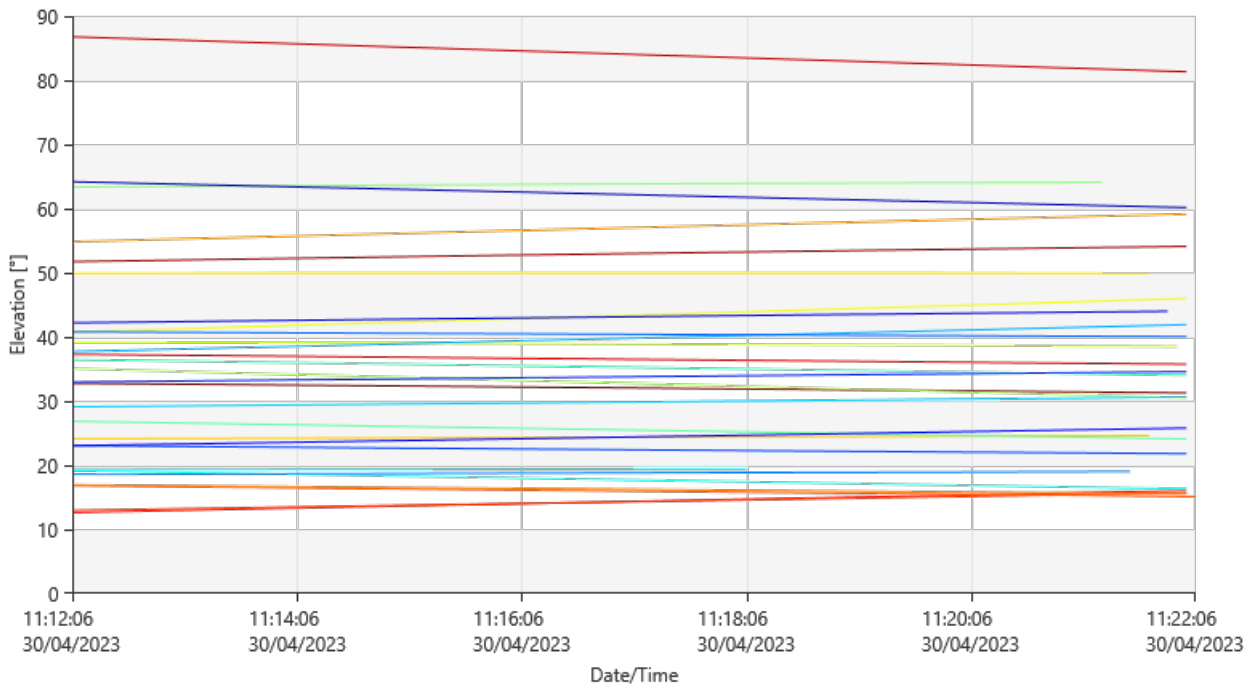




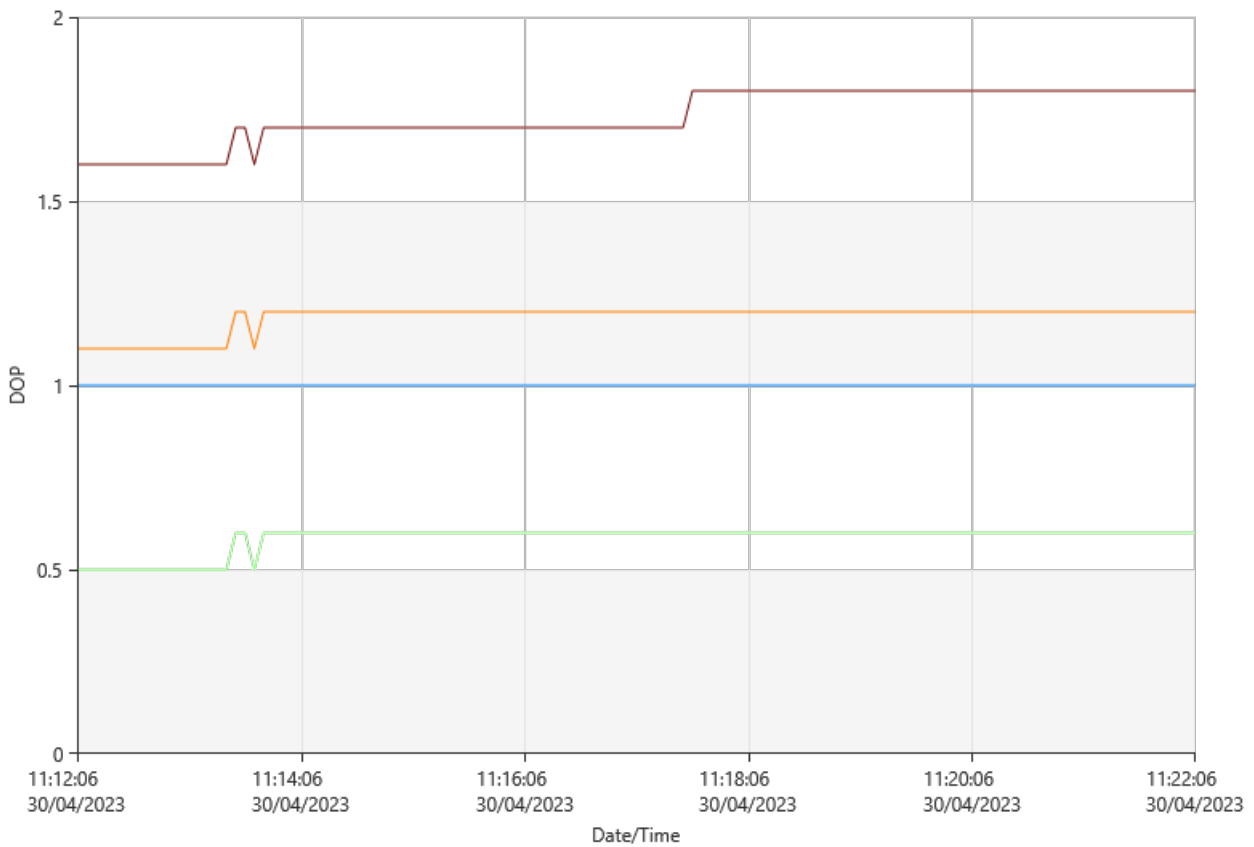
Azimuth



Elevation



DOP



GDOP PDOP HDOP VDOP



Observation Statistics

Common Epochs: 601

GPS Observations

Frequency	Used	Rejected
L1	5,267	113
L2	5,324	56
L5	0	3,606

GLONASS Observations

Frequency	Used	Rejected
L1	3,005	0
L2	3,005	0

Beidou Observations

Frequency	Used	Rejected
B1	0	4,207
B2	0	4,207
L5	0	4,207

Galileo Observations

Frequency	Used	Rejected
E1	3,696	107
E5a	0	3,834
E5b	0	4,203
E5a+b	0	4,207

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	22	10	0	8
Total	29	10	14	26
Independently fixed	75	75	0	75
Possible independently fixed	75	75	75	75

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	99.89	99.51	100.00	100.00	0.00	0.00	97.47
Not fixed	0.11	0.49	0.00	0.00	100.00	100.00	2.53
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	30/04/2023 11:12:06	30/04/2023 11:22:06	00:10:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 30/04/2023 10:58:10
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 30/04/2023 14:08:57
 Origin Date/Time: 30/04/2023 10:58:10

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.9625560527	0.0130188212
0	1	1.0496806961	0.0165596751
0	2	-0.4448412954	0.0091762052
1	0	0.1798377864	0.0066440780
1	1	-0.1126936073	0.0087304419

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
	30/04/2023 11:12:06	30/04/2023 11:19:25	Used
	30/04/2023 11:19:25	30/04/2023 11:19:32	Rejected
	30/04/2023 11:19:32	30/04/2023 11:19:50	Used

L1	30/04/2023 11:19:50	30/04/2023 11:19:51	Rejected
	30/04/2023 11:19:51	30/04/2023 11:20:20	No Data
	30/04/2023 11:20:20	30/04/2023 11:20:26	Rejected
	30/04/2023 11:20:26	30/04/2023 11:20:27	Used
	30/04/2023 11:20:27	30/04/2023 11:20:40	Rejected
	30/04/2023 11:20:40	30/04/2023 11:20:41	Used
	30/04/2023 11:20:41	30/04/2023 11:22:06	Rejected
L2	30/04/2023 11:12:06	30/04/2023 11:19:25	Used
	30/04/2023 11:12:06	30/04/2023 11:19:48	No Data
	30/04/2023 11:19:25	30/04/2023 11:19:48	Rejected
	30/04/2023 11:19:48	30/04/2023 11:19:49	No Data
	30/04/2023 11:19:48	30/04/2023 11:19:49	Rejected
	30/04/2023 11:19:49	30/04/2023 11:19:51	Rejected
	30/04/2023 11:19:49	30/04/2023 11:20:20	No Data
	30/04/2023 11:19:51	30/04/2023 11:20:23	No Data
	30/04/2023 11:20:20	30/04/2023 11:20:23	Rejected
	30/04/2023 11:20:23	30/04/2023 11:20:26	No Data
	30/04/2023 11:20:23	30/04/2023 11:20:26	Rejected
	30/04/2023 11:20:26	30/04/2023 11:20:27	No Data
	30/04/2023 11:20:26	30/04/2023 11:20:27	Rejected
	30/04/2023 11:20:27	30/04/2023 11:20:28	No Data
	30/04/2023 11:20:27	30/04/2023 11:20:28	Rejected
	30/04/2023 11:20:28	30/04/2023 11:20:30	No Data
	30/04/2023 11:20:28	30/04/2023 11:20:30	Rejected
	30/04/2023 11:20:30	30/04/2023 11:20:32	No Data
	30/04/2023 11:20:30	30/04/2023 11:20:32	Rejected
	30/04/2023 11:20:32	30/04/2023 11:20:35	No Data
	30/04/2023 11:20:32	30/04/2023 11:20:35	Rejected
	30/04/2023 11:20:35	30/04/2023 11:20:36	No Data
	30/04/2023 11:20:35	30/04/2023 11:20:36	Rejected
	30/04/2023 11:20:36	30/04/2023 11:20:37	No Data
	30/04/2023 11:20:36	30/04/2023 11:20:37	Rejected
	30/04/2023 11:20:37	30/04/2023 11:20:42	No Data
	30/04/2023 11:20:37	30/04/2023 11:20:42	Rejected
	30/04/2023 11:20:42	30/04/2023 11:20:44	No Data
	30/04/2023 11:20:42	30/04/2023 11:20:44	Rejected
	30/04/2023 11:20:44	30/04/2023 11:20:46	No Data
30/04/2023 11:20:44	30/04/2023 11:20:46	Rejected	
30/04/2023 11:20:46	30/04/2023 11:20:49	No Data	
30/04/2023 11:20:46	30/04/2023 11:20:49	Rejected	
30/04/2023 11:20:49	30/04/2023 11:20:50	Rejected	
30/04/2023 11:20:50	30/04/2023 11:22:06	Used	
30/04/2023 11:20:49	30/04/2023 11:22:06	No Data	
L5	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L5	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L5	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L5	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

G14

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Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L5	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L5	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
L2	30/04/2023 11:12:06	30/04/2023 11:22:06	Used

E03

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
E5a	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected
E5b	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected
E5a+b	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

E05

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
E5a	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected
E5b	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected
E5a+b	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

E09

Frequency	From Epoch	To Epoch	Status
	30/04/2023 11:12:06	30/04/2023 11:13:29	Used
	30/04/2023 11:13:29	30/04/2023 11:13:38	Rejected
	30/04/2023 11:13:38	30/04/2023 11:13:39	Used
	30/04/2023 11:13:39	30/04/2023 11:13:40	Rejected

	30/04/2023 11:13:40	30/04/2023 11:13:46	Used
	30/04/2023 11:13:46	30/04/2023 11:13:51	No Data
	30/04/2023 11:13:51	30/04/2023 11:14:06	Rejected
	30/04/2023 11:14:06	30/04/2023 11:14:09	No Data
	30/04/2023 11:14:09	30/04/2023 11:14:11	Rejected
	30/04/2023 11:14:11	30/04/2023 11:14:12	No Data
	30/04/2023 11:14:12	30/04/2023 11:14:24	Rejected
	30/04/2023 11:14:24	30/04/2023 11:14:25	No Data
	30/04/2023 11:14:25	30/04/2023 11:14:29	Rejected
	30/04/2023 11:14:29	30/04/2023 11:14:41	No Data
	30/04/2023 11:14:41	30/04/2023 11:14:42	Rejected
	30/04/2023 11:14:42	30/04/2023 11:14:43	No Data
	30/04/2023 11:14:43	30/04/2023 11:14:52	Rejected
	30/04/2023 11:14:52	30/04/2023 11:14:57	No Data
	30/04/2023 11:14:57	30/04/2023 11:14:58	Rejected
	30/04/2023 11:14:58	30/04/2023 11:15:07	No Data
	30/04/2023 11:15:07	30/04/2023 11:15:09	Rejected
	30/04/2023 11:15:09	30/04/2023 11:15:15	No Data
	30/04/2023 11:15:15	30/04/2023 11:15:17	Rejected
	30/04/2023 11:15:17	30/04/2023 11:15:18	No Data
	30/04/2023 11:15:18	30/04/2023 11:15:24	Rejected
E1	30/04/2023 11:15:24	30/04/2023 11:15:28	No Data
	30/04/2023 11:15:28	30/04/2023 11:15:31	Rejected
	30/04/2023 11:15:31	30/04/2023 11:15:40	No Data
	30/04/2023 11:15:40	30/04/2023 11:15:45	Rejected
	30/04/2023 11:15:45	30/04/2023 11:15:53	No Data
	30/04/2023 11:15:53	30/04/2023 11:16:06	Rejected
	30/04/2023 11:16:06	30/04/2023 11:16:17	No Data
	30/04/2023 11:16:17	30/04/2023 11:16:19	Rejected
	30/04/2023 11:16:19	30/04/2023 11:16:39	No Data
	30/04/2023 11:16:39	30/04/2023 11:16:40	Rejected
	30/04/2023 11:16:40	30/04/2023 11:16:41	No Data
	30/04/2023 11:16:41	30/04/2023 11:16:43	Rejected
	30/04/2023 11:16:43	30/04/2023 11:17:46	No Data
	30/04/2023 11:17:46	30/04/2023 11:17:48	Rejected
	30/04/2023 11:17:48	30/04/2023 11:19:50	No Data
	30/04/2023 11:19:50	30/04/2023 11:19:52	Rejected
	30/04/2023 11:19:52	30/04/2023 11:20:03	No Data
	30/04/2023 11:20:03	30/04/2023 11:20:06	Rejected
	30/04/2023 11:20:06	30/04/2023 11:20:16	No Data
	30/04/2023 11:20:16	30/04/2023 11:20:21	Rejected
	30/04/2023 11:20:21	30/04/2023 11:20:24	No Data
	30/04/2023 11:20:24	30/04/2023 11:20:25	Rejected
	30/04/2023 11:20:25	30/04/2023 11:20:36	No Data
	30/04/2023 11:20:36	30/04/2023 11:20:39	Rejected
	30/04/2023 11:20:39	30/04/2023 11:20:42	No Data
	30/04/2023 11:20:42	30/04/2023 11:20:43	Rejected
	30/04/2023 11:20:43	30/04/2023 11:22:06	No Data
E5a	30/04/2023 11:12:06	30/04/2023 11:15:15	Rejected
	30/04/2023 11:15:15	30/04/2023 11:15:16	No Data
	30/04/2023 11:15:16	30/04/2023 11:15:52	Rejected
	30/04/2023 11:15:52	30/04/2023 11:15:53	No Data
	30/04/2023 11:15:53	30/04/2023 11:15:56	Rejected
	30/04/2023 11:15:56	30/04/2023 11:22:06	No Data
E5b	30/04/2023 11:12:06	30/04/2023 11:17:34	Rejected
	30/04/2023 11:17:34	30/04/2023 11:17:35	No Data
	30/04/2023 11:17:35	30/04/2023 11:20:46	Rejected
	30/04/2023 11:20:46	30/04/2023 11:20:47	No Data
	30/04/2023 11:20:47	30/04/2023 11:21:11	Rejected
	30/04/2023 11:21:11	30/04/2023 11:21:12	No Data
	30/04/2023 11:21:12	30/04/2023 11:21:56	Rejected
	30/04/2023 11:21:56	30/04/2023 11:21:57	No Data
	30/04/2023 11:21:57	30/04/2023 11:22:06	Rejected
E5a+b	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

E24

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 11:12:06	30/04/2023 11:22:06	Used
E5a	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected
E5b	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected
E5a+b	30/04/2023 11:12:06	30/04/2023 11:22:06	Rejected

SV	Frequency	Epoch	Slip Value	Flag	
G03	L1	30/04/2023 11:19:50	-	RIA	
		30/04/2023 11:20:40	-	RIA	
C25	L2	30/04/2023 11:20:40	-	RIA	
		B1	30/04/2023 11:21:26	-	RIA
			30/04/2023 11:21:44	-	RIA
E09	E1	30/04/2023 11:21:58	-	RIA	
		30/04/2023 11:13:28	-	RIA	
		30/04/2023 11:13:38	-	Flagged	
		30/04/2023 11:13:40	-1.0000000000	Flagged	
		30/04/2023 11:13:58	-	RIA	
		30/04/2023 11:14:16	-	RIA	
		30/04/2023 11:15:18	-	RIA	
		30/04/2023 11:15:20	-	RIA	
		30/04/2023 11:15:42	-	RIA	
		30/04/2023 11:15:44	-	RIA	
		30/04/2023 11:15:58	-	RIA	
		30/04/2023 11:16:00	-	RIA	
		30/04/2023 11:20:38	-	RIA	

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-13

Processing Parameters (30/04/2023 11:29:17 - 30/04/2023 11:39:17)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - PAF-COR-13

Acquisition

Start Time - End Time:	30/04/2023 11:29:17 - 30/04/2023 11:39:17
Duration:	00:10:00

Antennas

	Reference - C02	Rover - PAF-COR-13
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4850 m	2.0000 m
Antenna Height:	1.4850 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-13	Reference - C02	Rover - PAF-COR-13
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 22.29295" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 07.80713" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,857.0432 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,552,848.5868 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,317.8802 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,380.3844 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 20.41054"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 00.13863"	SD ΔLongitude:	0.0001 m
ΔHeight:	-32.2875 m	SD ΔHeight:	0.0002 m
ΔX:	22.1504 m	SD ΔX:	0.0001 m
ΔY:	-102.8798 m	SD ΔY:	0.0002 m
ΔZ:	619.6630 m	SD ΔZ:	0.0001 m
Slope Dist.:	628.5357 m	SD Slope Dist.:	0.0001 m

M0:	0.3286 m	CQ 1D:	0.0002 m
Q11:	0.00000008	CQ 2D:	0.0001 m
Q12:	-0.00000007	CQ 3D:	0.0002 m
Q22:	0.00000025		
Q13:	-0.00000001		
Q23:	0.00000005		
Q33:	0.00000007		

Frequency:	L1/E1/L2	GDOP:	1.5 - 1.6	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.0 - 1.1	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/7
		VDOP:	0.9	Galileo SVs:	7/7
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

Processing Info (30/04/2023 11:29:17 - 30/04/2023 11:39:17)

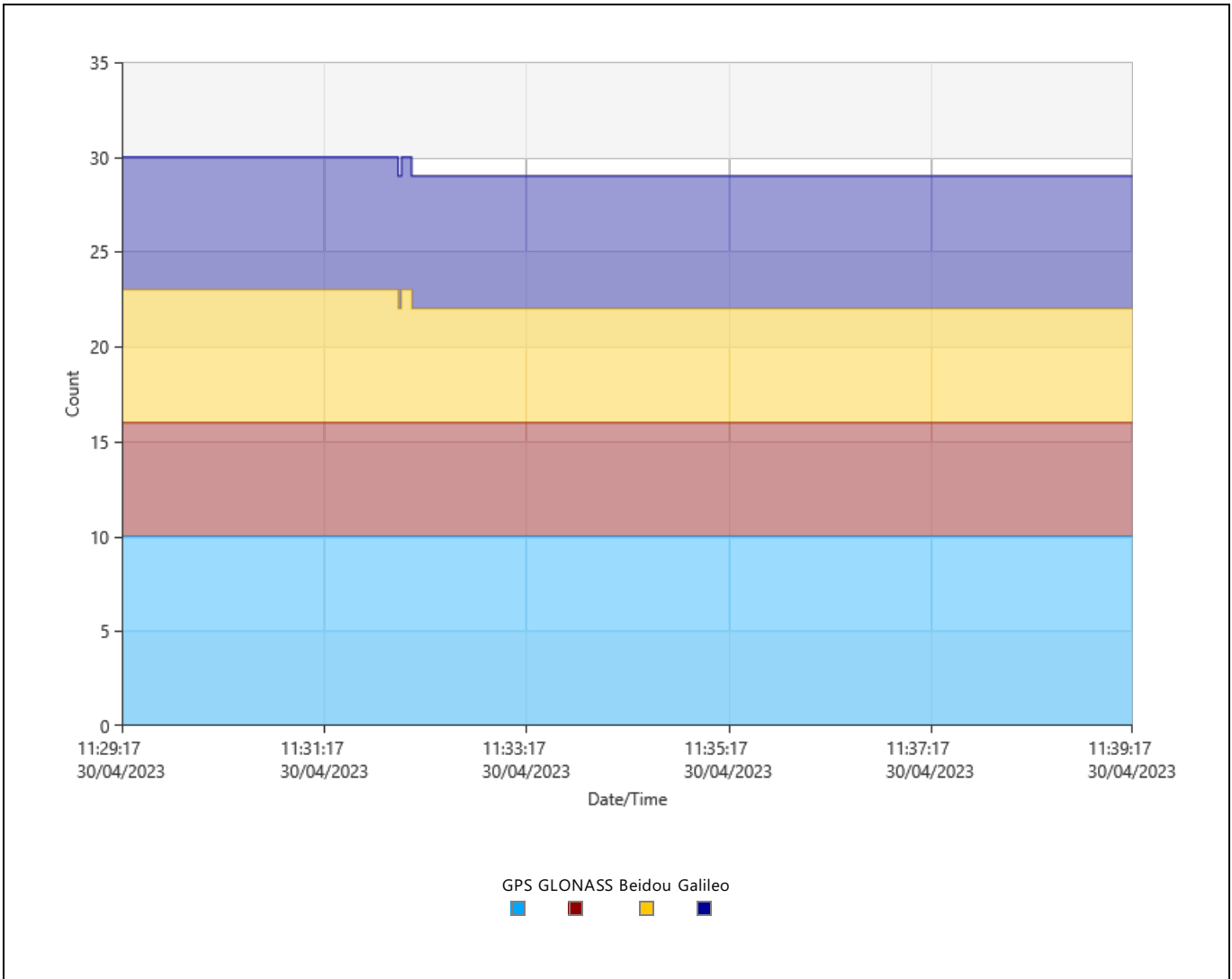
Processed Date/Time: 10/05/2023 10:49:26

Satellites

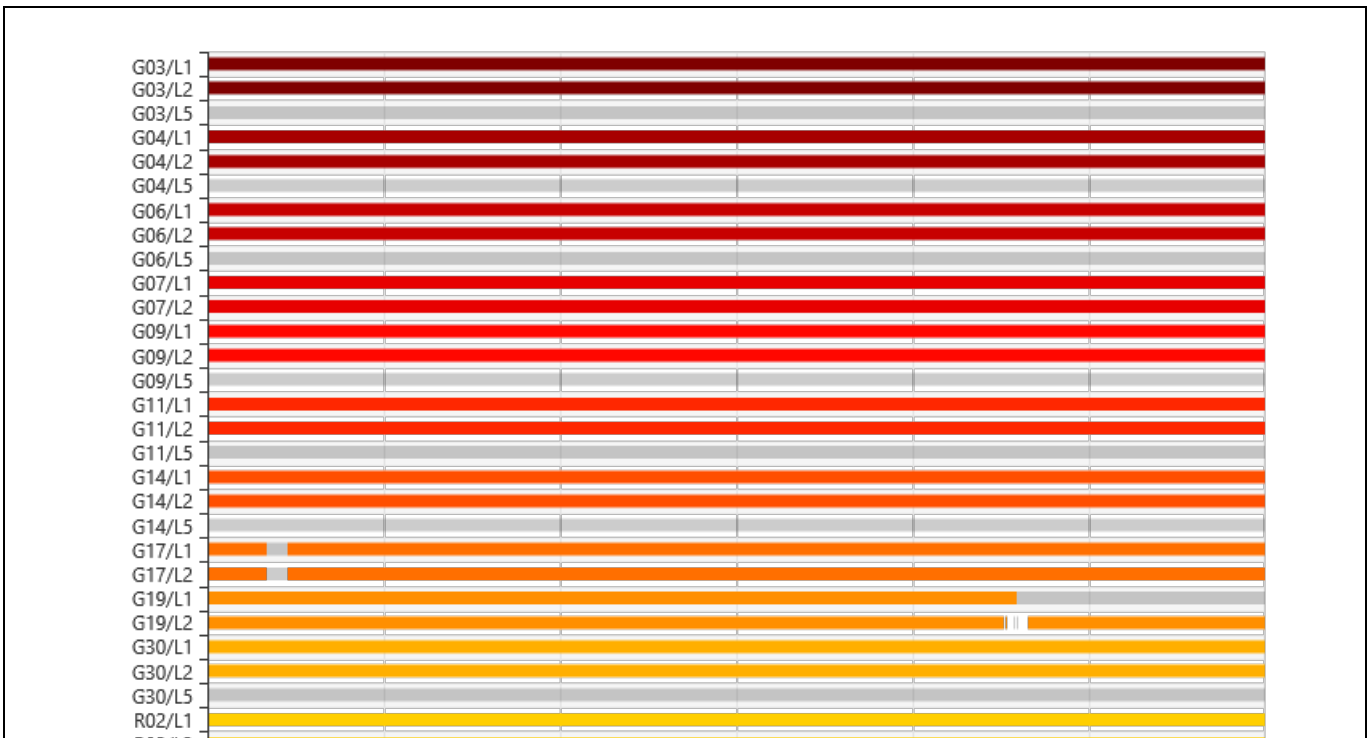
Satellite System	Used	Manually Disabled
GPS	G03 G04 G06 G07 G09 G11	-

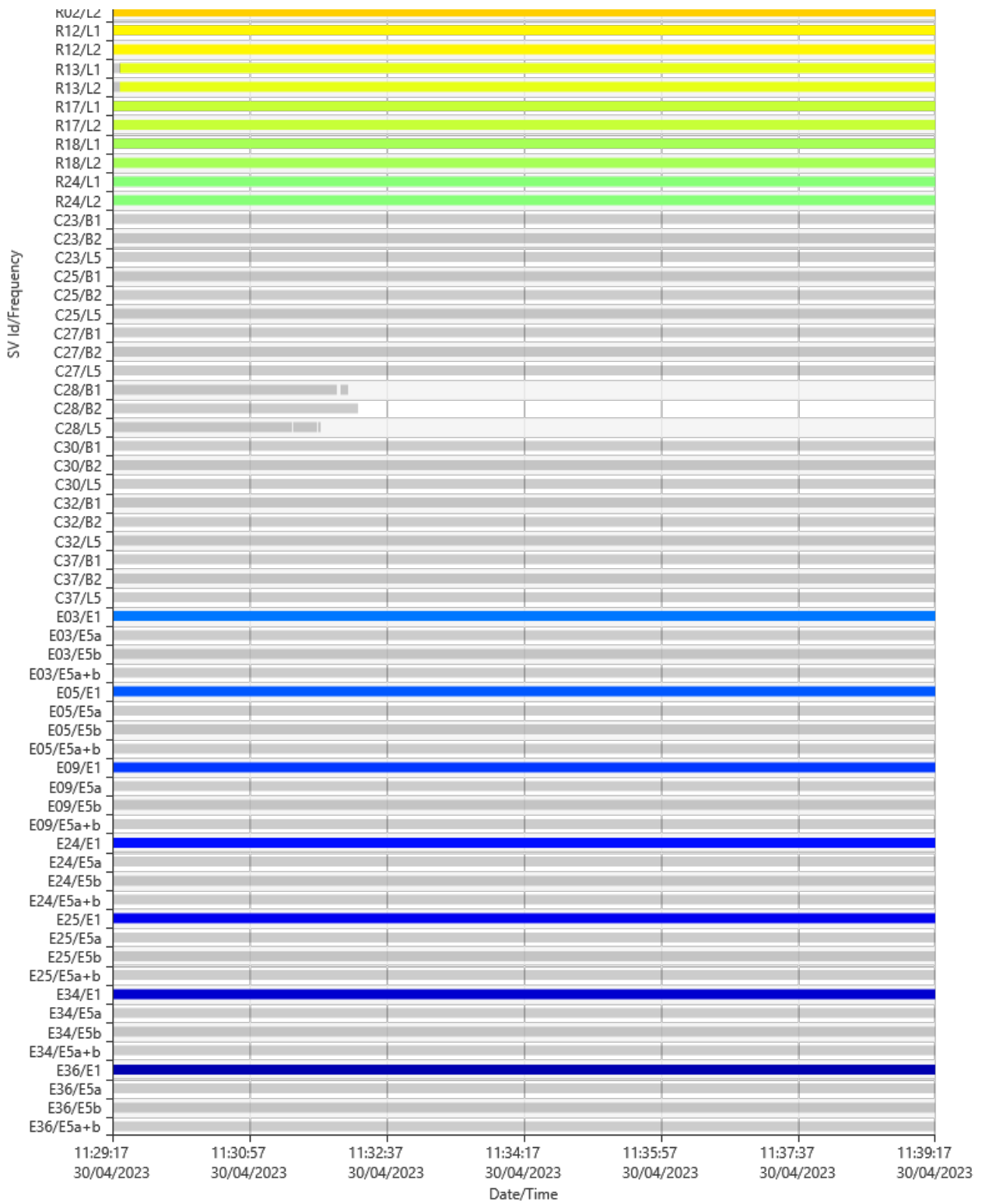
GLONASS G14 G17 G19 G30
 Galileo R02 R12 R13 R17 R18 R24 -
 E03 E05 E09 E24 E25 E34 -
 E36

SVs Tracked

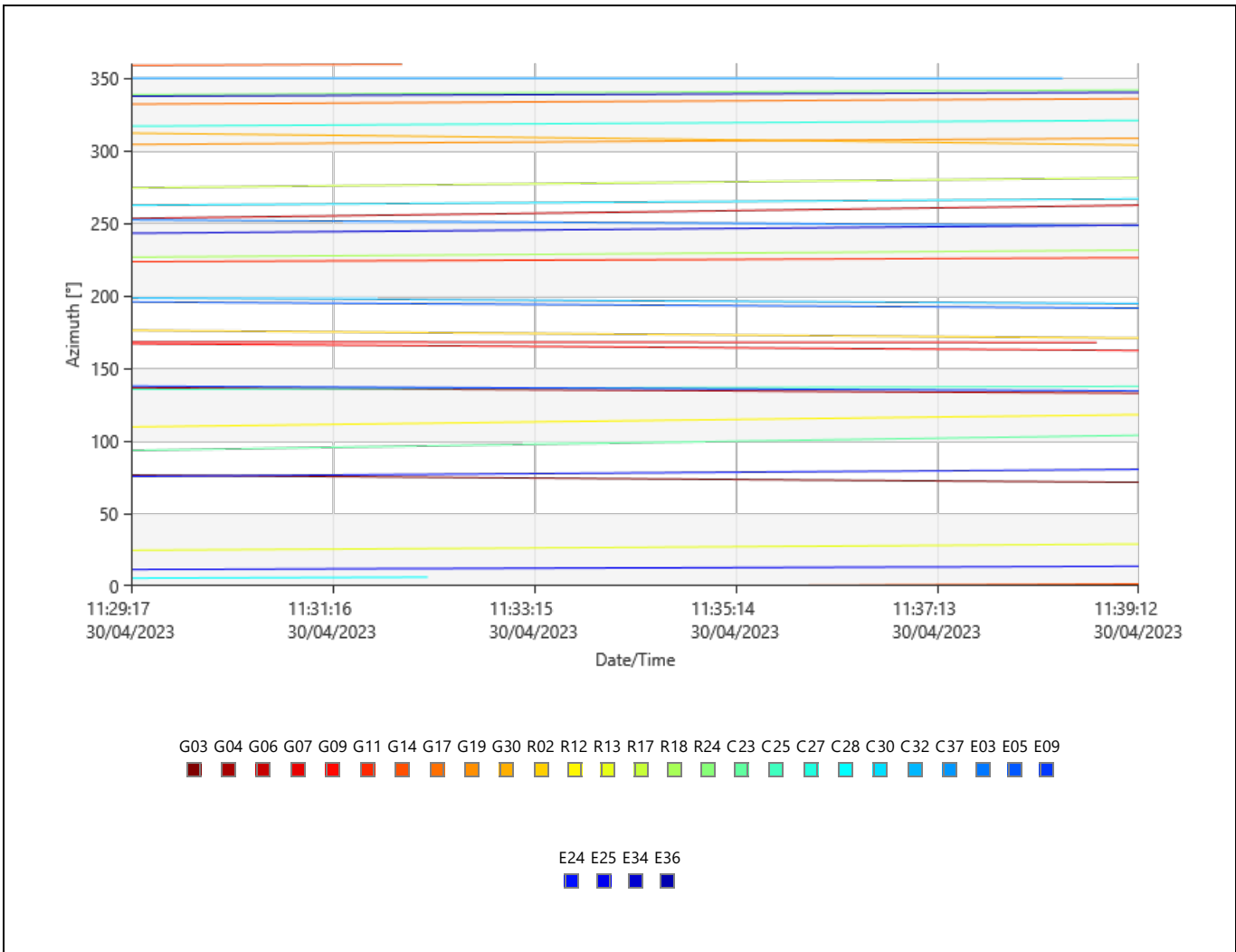


Signals Tracked

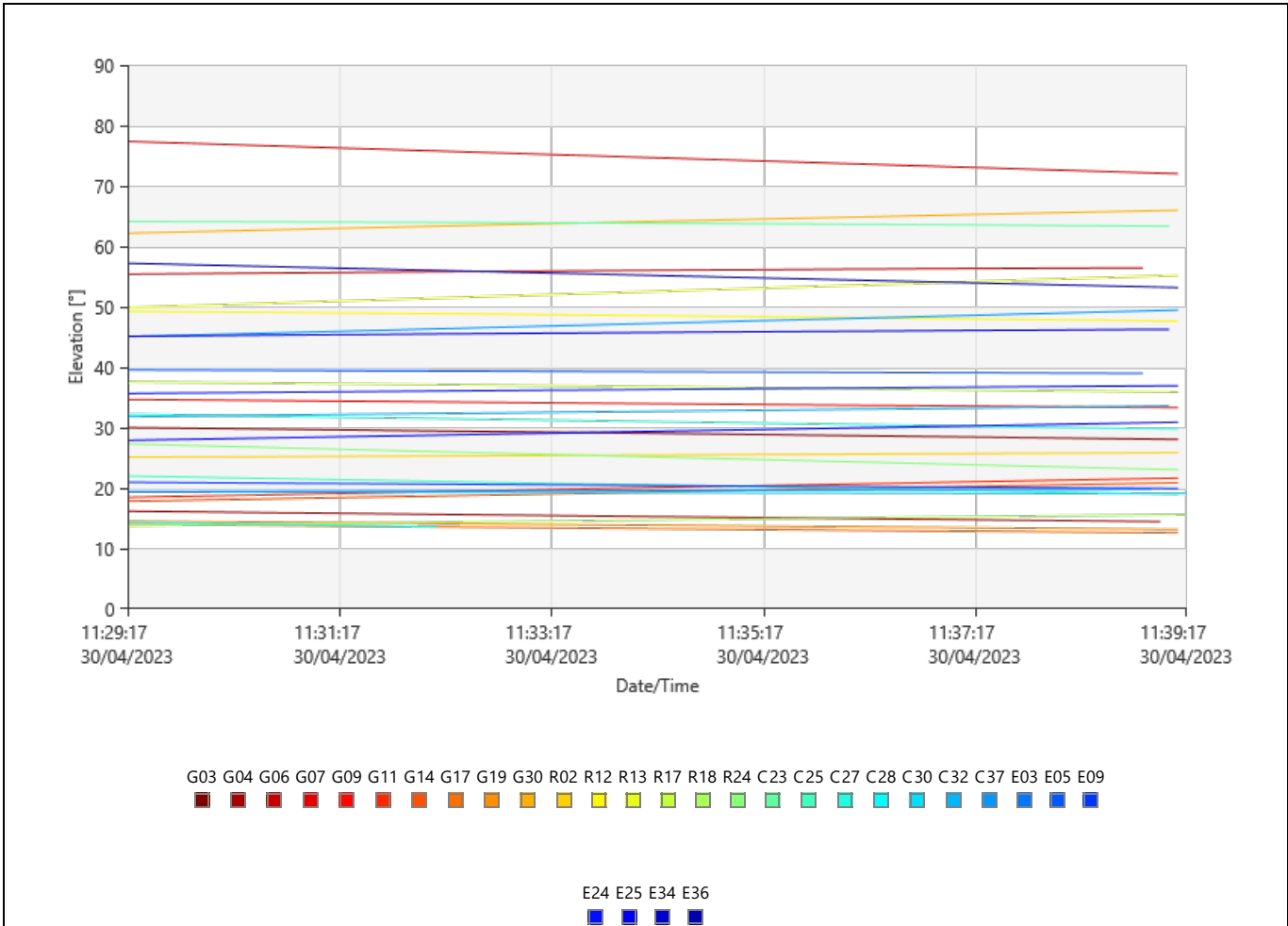




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	30/04/2023 11:29:17	30/04/2023 11:39:17	00:10:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 30/04/2023 10:58:10
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 30/04/2023 14:08:57
 Origin Date/Time: 30/04/2023 10:58:10

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.9625560527	0.0130188212
0	1	1.0496806961	0.0165596751
0	2	-0.4448412954	0.0091762052
1	0	0.1798377864	0.0066440780
1	1	-0.1126936073	0.0087304419

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

G14

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Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:29:51	Used
	30/04/2023 11:29:51	30/04/2023 11:30:02	Rejected
	30/04/2023 11:30:02	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:29:51	Used
	30/04/2023 11:29:51	30/04/2023 11:30:02	Rejected
	30/04/2023 11:30:02	30/04/2023 11:39:17	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:36:56	Used
	30/04/2023 11:36:56	30/04/2023 11:39:17	Rejected
L2	30/04/2023 11:29:17	30/04/2023 11:36:49	Used
	30/04/2023 11:36:49	30/04/2023 11:36:50	No Data
	30/04/2023 11:36:50	30/04/2023 11:36:51	Used
	30/04/2023 11:36:51	30/04/2023 11:36:54	No Data
	30/04/2023 11:36:54	30/04/2023 11:36:55	Rejected
	30/04/2023 11:36:55	30/04/2023 11:36:56	No Data
	30/04/2023 11:36:56	30/04/2023 11:36:57	Rejected
	30/04/2023 11:36:57	30/04/2023 11:37:02	No Data
30/04/2023 11:37:02	30/04/2023 11:39:17	Used	

G30

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:29:22	Rejected
	30/04/2023 11:29:22	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:29:18	No Data
	30/04/2023 11:29:18	30/04/2023 11:29:22	Rejected
	30/04/2023 11:29:22	30/04/2023 11:39:17	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used

R18

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 11:29:17	30/04/2023 11:39:17	Used
L2	30/04/2023 11:29:17	30/04/2023 11:39:17	Used

E03

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 11:29:17	30/04/2023 11:32:01	Rejected
	30/04/2023 11:32:01	30/04/2023 11:32:03	No Data
	30/04/2023 11:32:03	30/04/2023 11:32:09	Rejected
	30/04/2023 11:32:09	30/04/2023 11:39:17	No Data
B2	30/04/2023 11:29:17	30/04/2023 11:32:16	Rejected
	30/04/2023 11:32:16	30/04/2023 11:39:17	No Data
L5	30/04/2023 11:29:17	30/04/2023 11:31:28	Rejected
	30/04/2023 11:31:28	30/04/2023 11:31:29	No Data
	30/04/2023 11:31:29	30/04/2023 11:31:46	Rejected
	30/04/2023 11:31:46	30/04/2023 11:31:47	No Data
	30/04/2023 11:31:47	30/04/2023 11:31:49	Rejected
	30/04/2023 11:31:49	30/04/2023 11:39:17	No Data

C30

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected
B2	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected
B2	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected
B2	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected
L5	30/04/2023 11:29:17	30/04/2023 11:39:17	Rejected

Cycle Slips

Slip Count: 5

SV	Frequency	Epoch	Slip Value	Flag
G19	L1	30/04/2023 11:36:50	-	Flagged
		30/04/2023 11:36:54	-	RIA
	L2	30/04/2023 11:36:50	7.0000000000	Flagged
C28	B1	30/04/2023 11:31:32	-	RIA
	B2	30/04/2023 11:31:34	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-14

Processing Parameters (30/04/2023 13:16:20 - 30/04/2023 13:26:21)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None

Frequency to use in Iono Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Iono Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - PAF-COR-14

Acquisition

Start Time - End Time:	30/04/2023 13:16:21 - 30/04/2023 13:26:21
Duration:	00:10:00

Antennas

	Reference - C02	Rover - PAF-COR-14
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4850 m	2.0000 m
Antenna Height:	1.4850 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-14	Reference - C02	Rover - PAF-COR-14
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 28.56268" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 17.59562" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,812.2274 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,552,540.8629 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,308.5530 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,558.8177 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 14.14081"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 09.92712"	SD ΔLongitude:	0.0001 m
ΔHeight:	-77.1034 m	SD ΔHeight:	0.0002 m
ΔX:	-285.5734 m	SD ΔX:	0.0001 m
ΔY:	-93.5526 m	SD ΔY:	0.0002 m
ΔZ:	441.2297 m	SD ΔZ:	0.0001 m
Slope Dist.:	533.8426 m	SD Slope Dist.:	0.0001 m

M0:	0.3029 m	CQ 1D:	0.0002 m
Q11:	0.00000007	CQ 2D:	0.0001 m
Q12:	-0.00000006	CQ 3D:	0.0002 m
Q22:	0.00000041		
Q13:	-0.00000001		
Q23:	0.00000012		

Q33: 0.00000008

Frequency:	L1/E1/L2	GDOP:	1.5 - 1.7	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.1 - 1.2	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	0/5
		VDOP:	0.9 - 1.0	Galileo SVs:	8/9
				QZSS SVs:	-

Ephemeris Type:
GPS: Precise
GLONASS: Precise
Beidou: Broadcast
Galileo: Precise

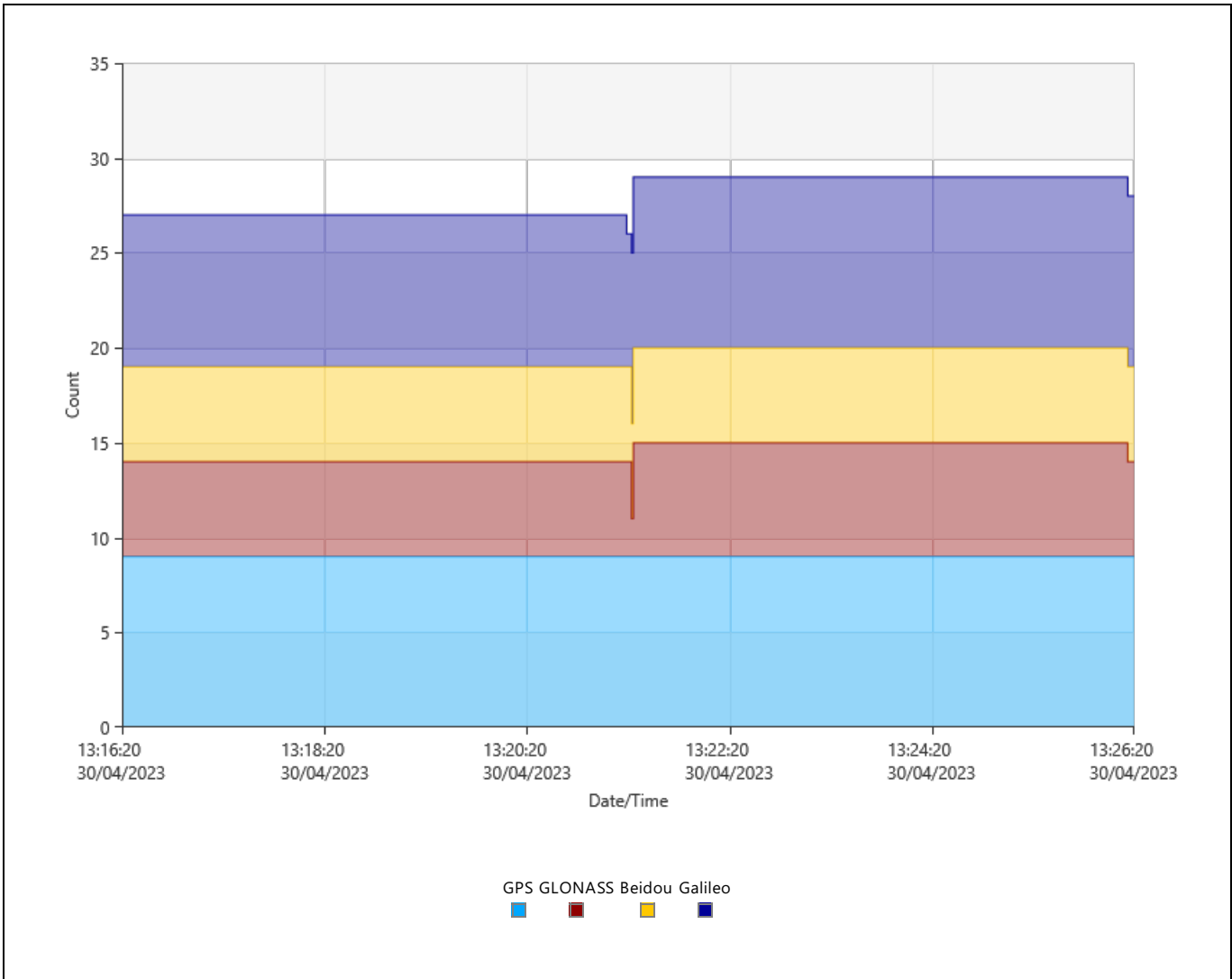
Processing Info (30/04/2023 13:16:20 - 30/04/2023 13:26:21)

Processed Date/Time: 10/05/2023 10:49:26

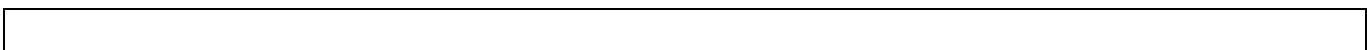
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G06 G07 G09 G11 G13 G14 G20 G30	-
GLONASS	R02 R03 R13 R14 R15 R18	-
Galileo	E02 E03 E05 E09 E15 E24 E25 E34 E36	-

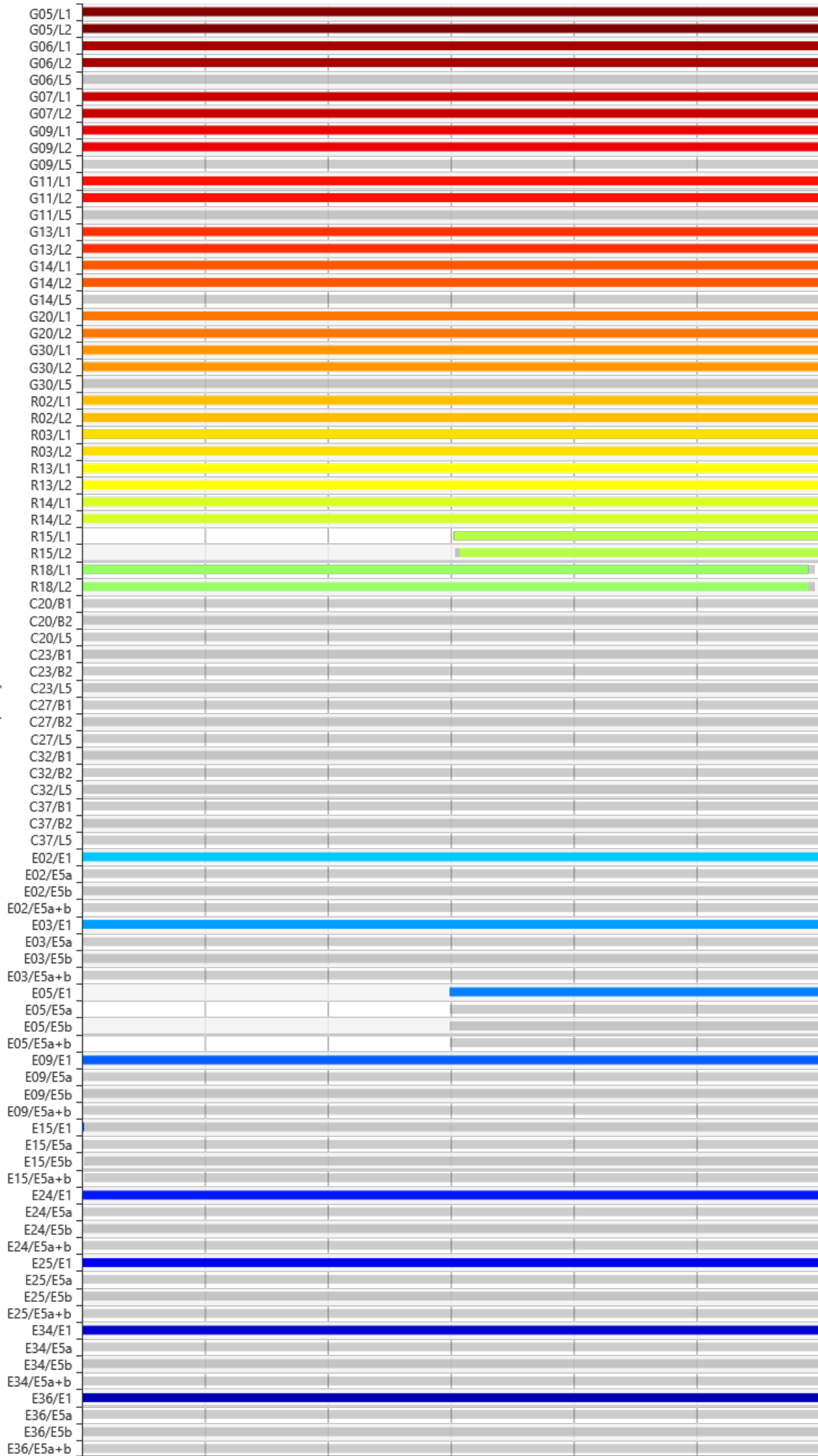
SVs Tracked



Signals Tracked



SV Id/Frequency



13:16:21
30/04/2023

13:18:01
30/04/2023

13:19:41
30/04/2023

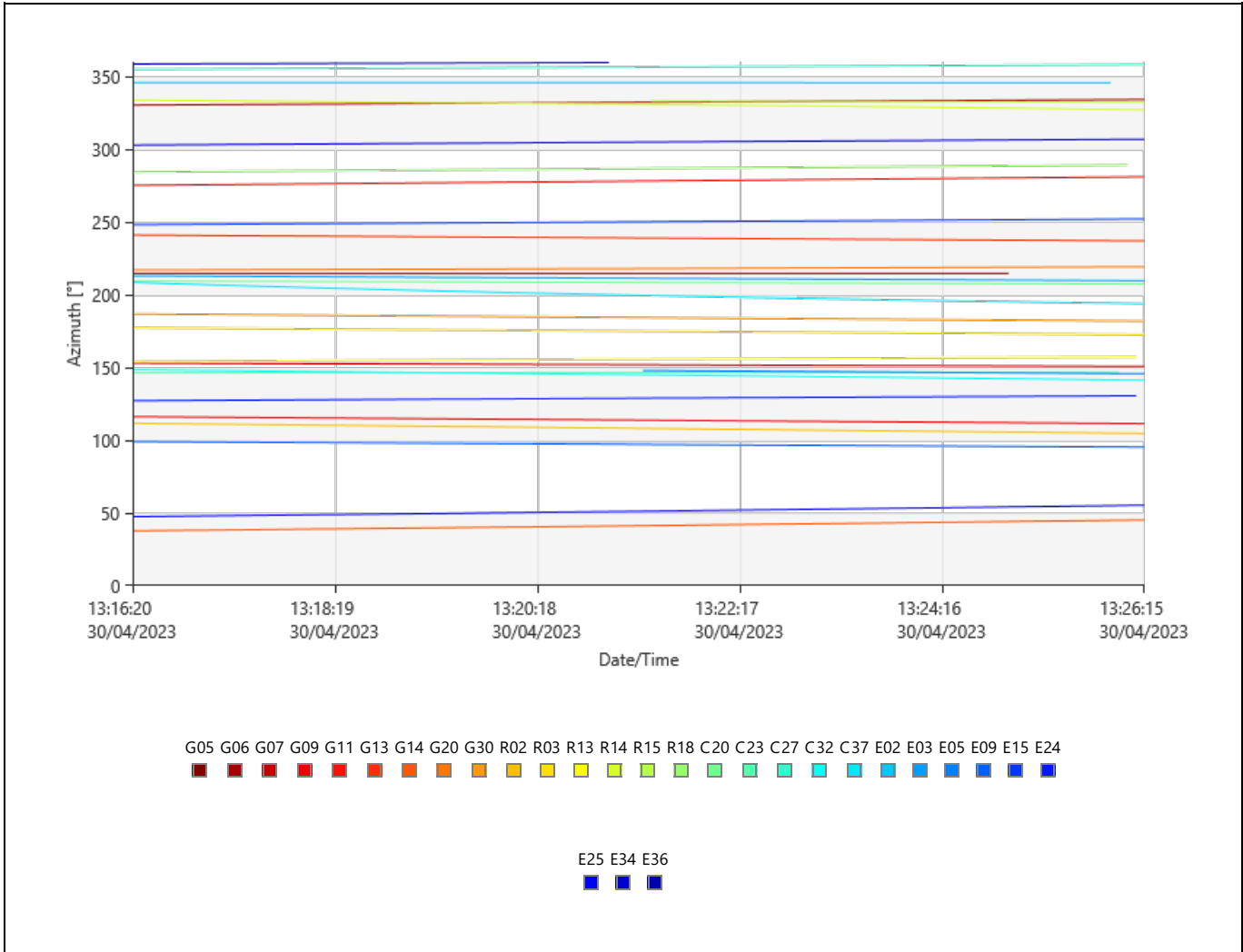
13:21:21
30/04/2023
Date/Time

13:23:01
30/04/2023

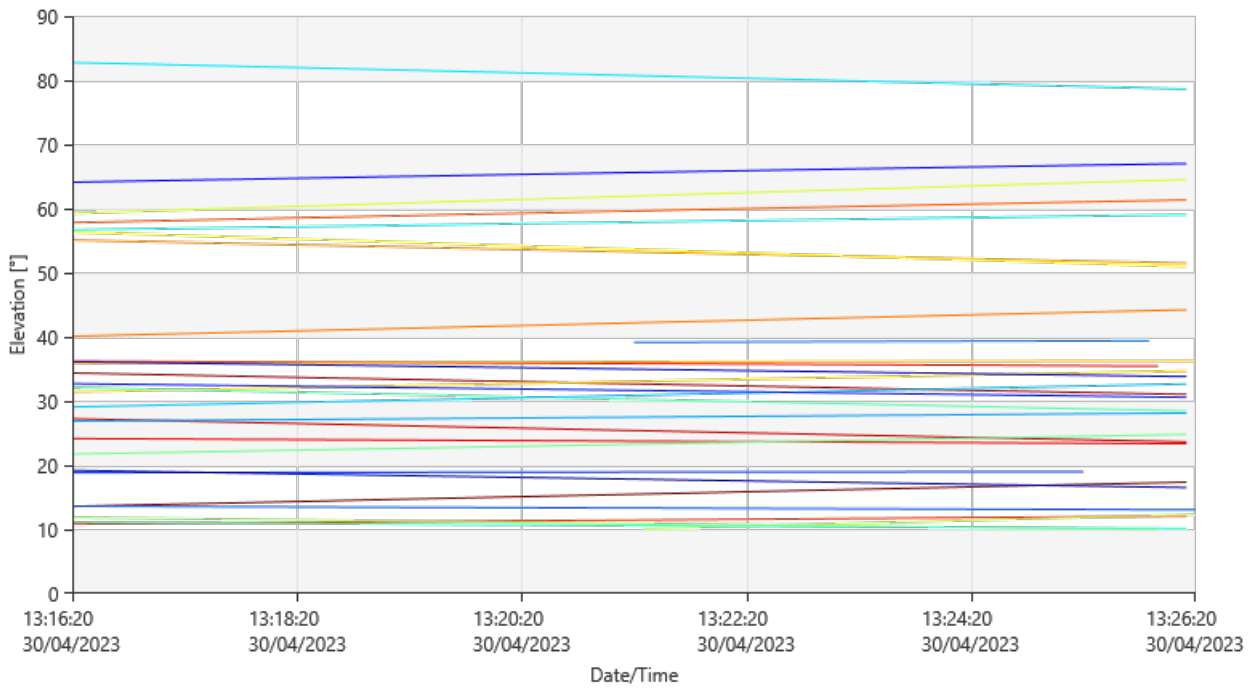
13:24:41
30/04/2023

13:26:21
30/04/2023

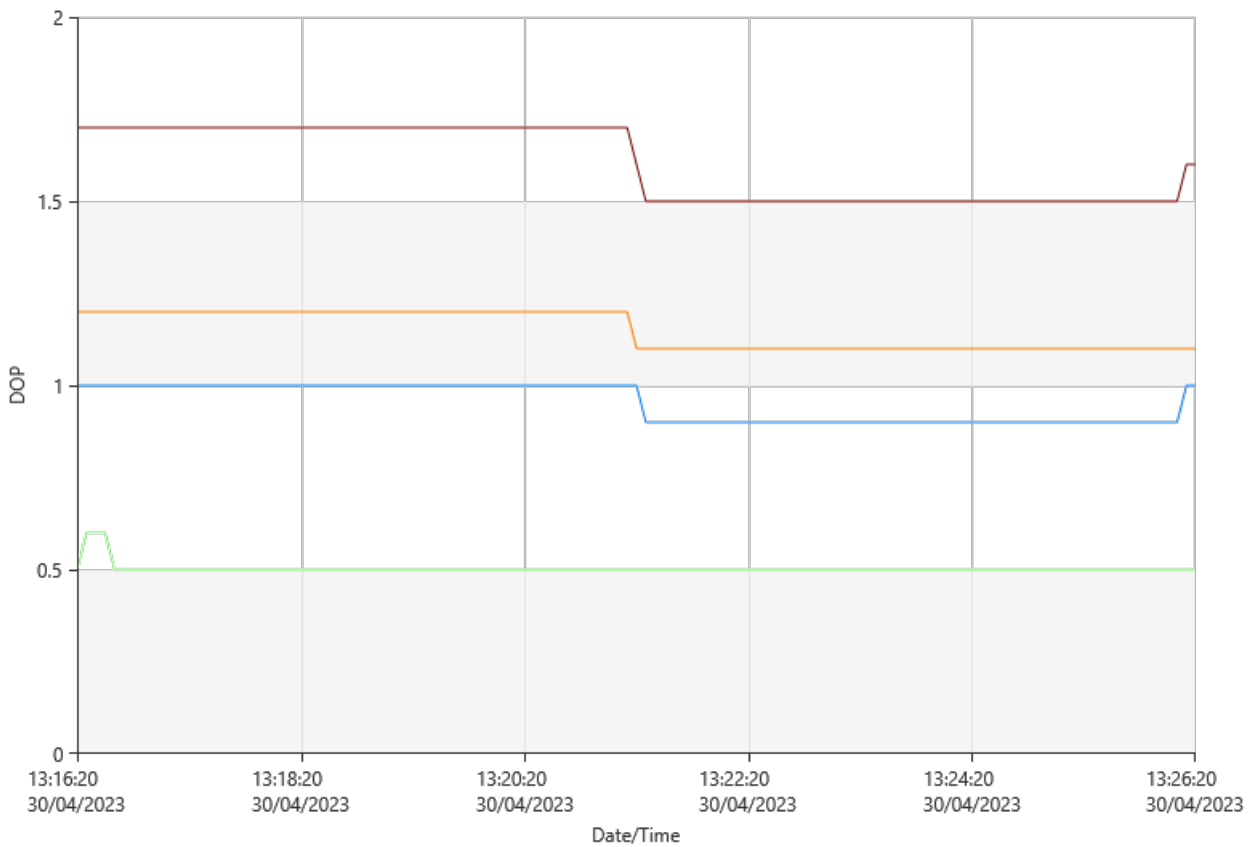
Azimuth



Elevation



DOP



GDOP PDOP HDOP VDOP



Observation Statistics

Common Epochs: 601

GPS Observations

Frequency	Used	Rejected
L1	5,409	0
L2	5,409	0
L5	0	3,005

GLONASS Observations

Frequency	Used	Rejected
L1	3,293	6
L2	3,289	8

Beidou Observations

Frequency	Used	Rejected
B1	0	3,005
B2	0	3,005
L5	0	3,005

Galileo Observations

Frequency	Used	Rejected
E1	4,511	599
E5a	0	5,109
E5b	0	5,108
E5a+b	0	5,108

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	18	12	0	9
Total	18	12	10	9
Independently fixed	75	75	0	75
Possible independently fixed	75	75	75	75

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	0.00	0.00	100.00
Not fixed	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	30/04/2023 13:16:21	30/04/2023 13:26:21	00:10:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 30/04/2023 10:58:10
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 30/04/2023 14:08:57
 Origin Date/Time: 30/04/2023 10:58:10

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.9625560527	0.0130188212
0	1	1.0496806961	0.0165596751
0	2	-0.4448412954	0.0091762052
1	0	0.1798377864	0.0066440780
1	1	-0.1126936073	0.0087304419

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used

G06

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:26:21	Used

R15

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:21:23	No Data
	30/04/2023 13:21:23	30/04/2023 13:21:24	Rejected
	30/04/2023 13:21:24	30/04/2023 13:26:21	Used
L2	30/04/2023 13:16:21	30/04/2023 13:21:25	No Data
	30/04/2023 13:21:25	30/04/2023 13:21:28	Rejected
	30/04/2023 13:21:28	30/04/2023 13:26:21	Used

R18

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:16:21	30/04/2023 13:26:12	Used
	30/04/2023 13:26:12	30/04/2023 13:26:17	Rejected
	30/04/2023 13:26:17	30/04/2023 13:26:21	No Data
L2	30/04/2023 13:16:21	30/04/2023 13:26:12	Used
	30/04/2023 13:26:12	30/04/2023 13:26:17	Rejected
	30/04/2023 13:26:17	30/04/2023 13:26:21	No Data

E02

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
E5a	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

E03

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
E5a	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

E05

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:21:20	No Data
	30/04/2023 13:21:20	30/04/2023 13:26:21	Used
E5a	30/04/2023 13:16:21	30/04/2023 13:21:20	No Data
	30/04/2023 13:21:20	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:21:20	No Data
	30/04/2023 13:21:20	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:21:20	No Data
	30/04/2023 13:21:20	30/04/2023 13:26:21	Rejected

E09

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
E5a	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

E15

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:16:23	Used
	30/04/2023 13:16:23	30/04/2023 13:26:21	Rejected
E5a	30/04/2023 13:16:21	30/04/2023 13:16:22	No Data
	30/04/2023 13:16:22	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:16:23	No Data
	30/04/2023 13:16:23	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:16:23	No Data
	30/04/2023 13:16:23	30/04/2023 13:26:21	Rejected

E24

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
E5a	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

E25

Frequency	From Epoch	To Epoch	Status

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
E5a	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

E34

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
E5a	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

E36

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:16:21	30/04/2023 13:26:21	Used
E5a	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
E5a+b	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
B2	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

C23

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
B2	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

C27

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
B2	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
B2	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
B2	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected
L5	30/04/2023 13:16:21	30/04/2023 13:26:21	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - PAF-COR-15

Processing Parameters (30/04/2023 13:32:37 - 30/04/2023 13:42:37)

Data Selected Used Comments

Cut-Off Angle: 10° 10°
 Frequency: L1/E1/B1/L2/B2 L1/E1/B1/L2/B2
 Sampling Rate: Use All 1.00 sec
 Satellite System: GPS/GLONASS/Galileo/Beidou GPS/GLONASS/Galileo/Beidou
 Ephemeris Type: Precise Precise No Beidou precise ephemeris available, switched to broadcast ephemeris.
 Antenna Calibration Set: NGS Absolute NGS Absolute

Processing Strategy

Solution Type: Phase Fixed Phase Fixed
 Solution Optimisation: Automatic None
 Frequency to use in Ionosphere Minimised: Automatic Automatic
 Tropospheric Model: VMF with GPT2 model VMF with GPT2 model
 Ionospheric Model: Computed Computed
 Allow Widelane Fix: Automatic Automatic

General Settings

Min. Distance for Ionosphere Minimised: 15 km
 Possible Ambiguities Fix up to: 300 km
 Min. Duration for Float Solution (static): 00:05:00

Results Baseline: C02 - PAF-COR-15

Acquisition

Start Time - End Time: 30/04/2023 13:32:37 - 30/04/2023 13:42:37
 Duration: 00:10:00

Antennas

	Reference - C02	Rover - PAF-COR-15
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4850 m	2.0000 m
Antenna Height:	1.4850 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1	L2	L1	L2
	East	-0.0003 m	0.0024 m	-0.0003 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - PAF-COR-15	Reference - C02	Rover - PAF-COR-15
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 22.64755" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 15.89498" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,817.3375 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,552,601.7259 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,338.9342 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,382.3848 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 20.05593"	SD ΔLatitude:	0.0002 m
ΔLongitude:	-0° 00' 08.22648"	SD ΔLongitude:	0.0002 m
ΔHeight:	-71.9933 m	SD ΔHeight:	0.0006 m

ΔX:	-224.7104 m	SD ΔX:	0.0002 m
ΔY:	-123.9337 m	SD ΔY:	0.0005 m
ΔZ:	617.6627 m	SD ΔZ:	0.0003 m
Slope Dist.:	668.8509 m	SD Slope Dist.:	0.0002 m

M0:	0.9288 m	CQ 1D:	0.0006 m
Q11:	0.00000007	CQ 2D:	0.0003 m
Q12:	-0.00000003	CQ 3D:	0.0006 m
Q22:	0.00000033		
Q13:	0.00000000		
Q23:	0.00000009		
Q33:	0.00000008		

Frequency:	L1/E1/B1/L2/B2	GDOP:	1.8 - 1.9	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.0 - 1.2	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	4/4
		VDOP:	0.9 - 1.0	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

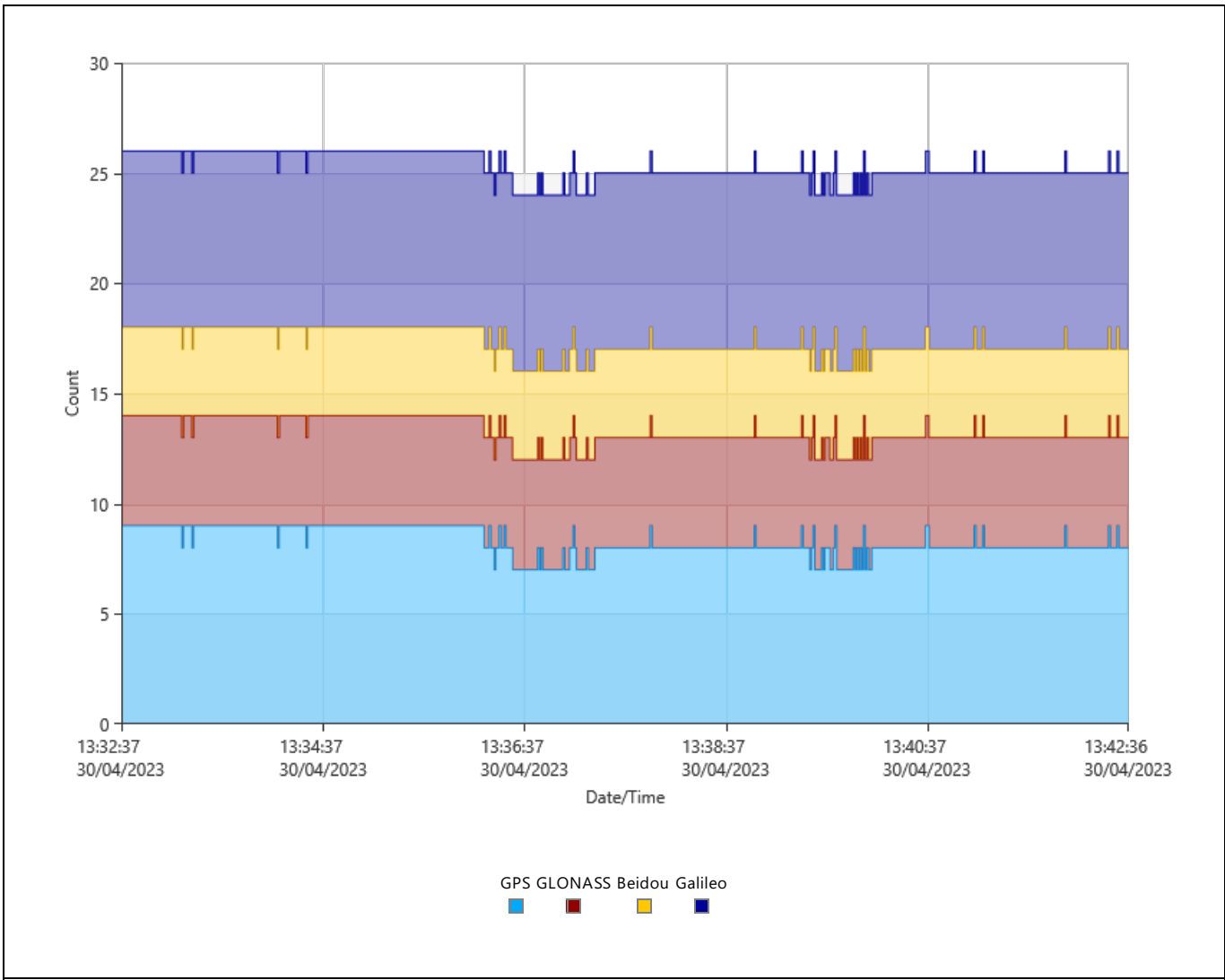
Processing Info (30/04/2023 13:32:37 - 30/04/2023 13:42:37)

Processed Date/Time: 10/05/2023 10:49:26

Satellites

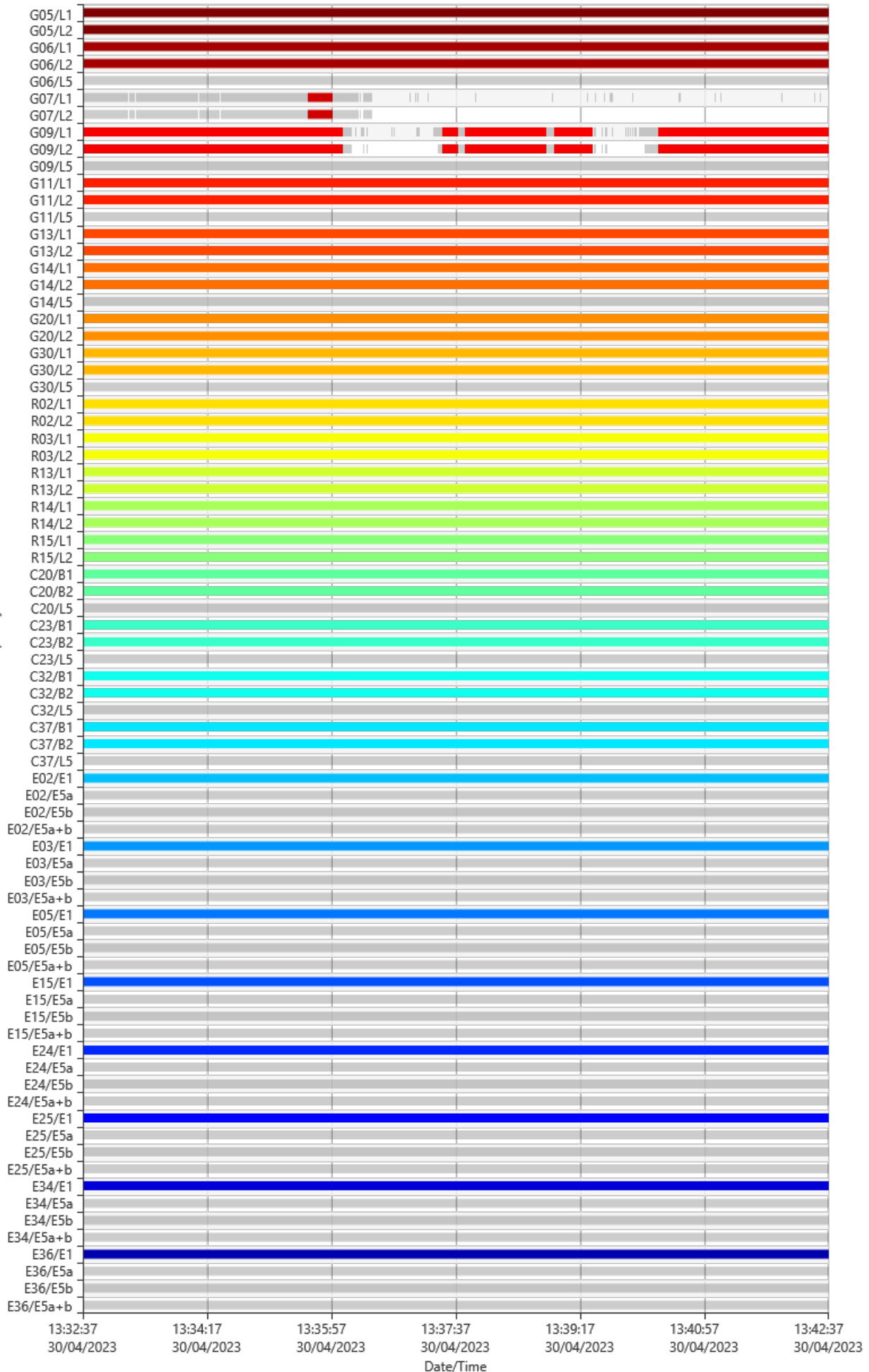
Satellite System	Used	Manually Disabled
GPS	G05 G06 G07 G09 G11 G13 G14 G20 G30	-
GLONASS	R02 R03 R13 R14 R15	-
Beidou	C20 C23 C32 C37	-
Galileo	E02 E03 E05 E15 E24 E25 E34 E36	-

SVs Tracked

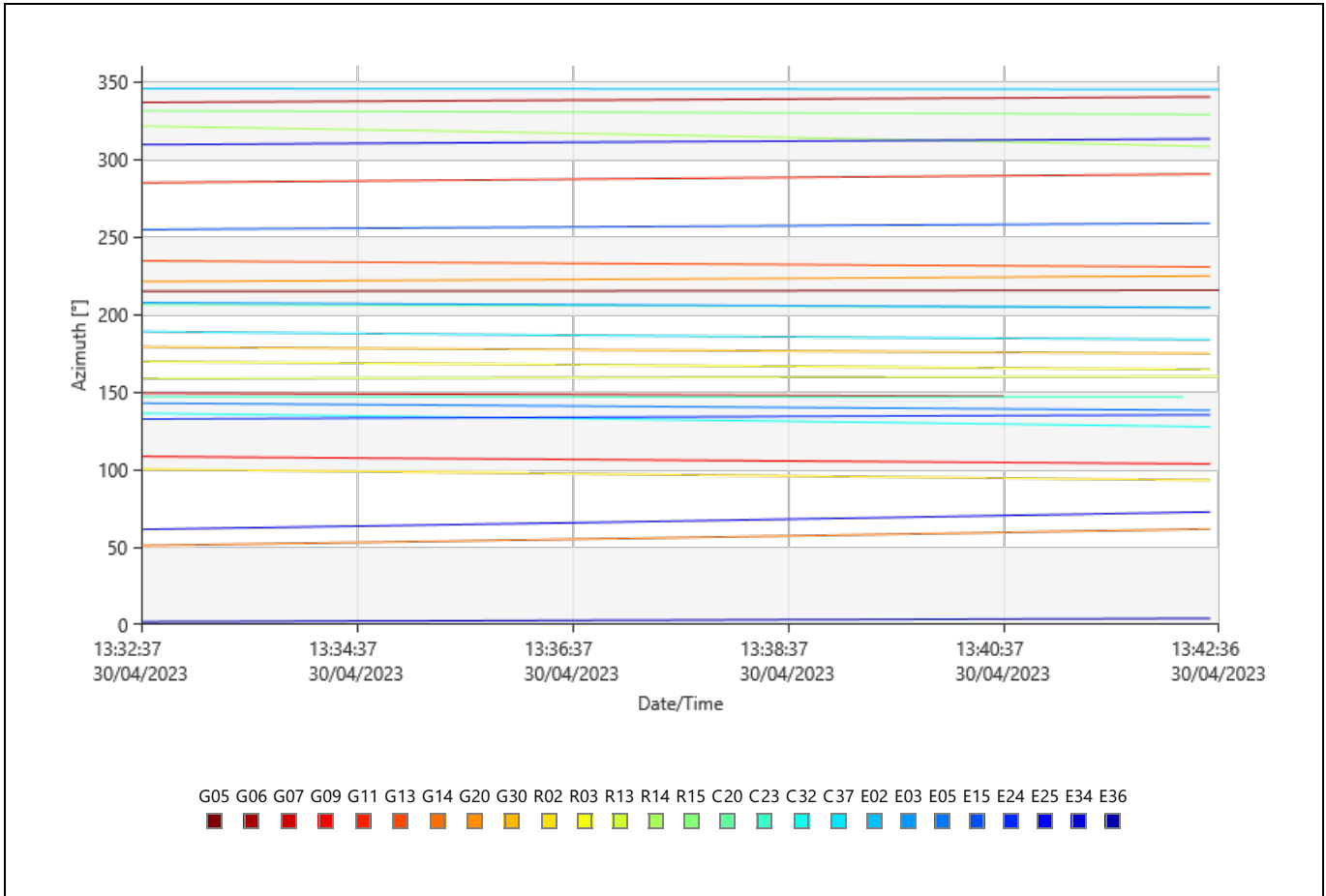


Signals Tracked

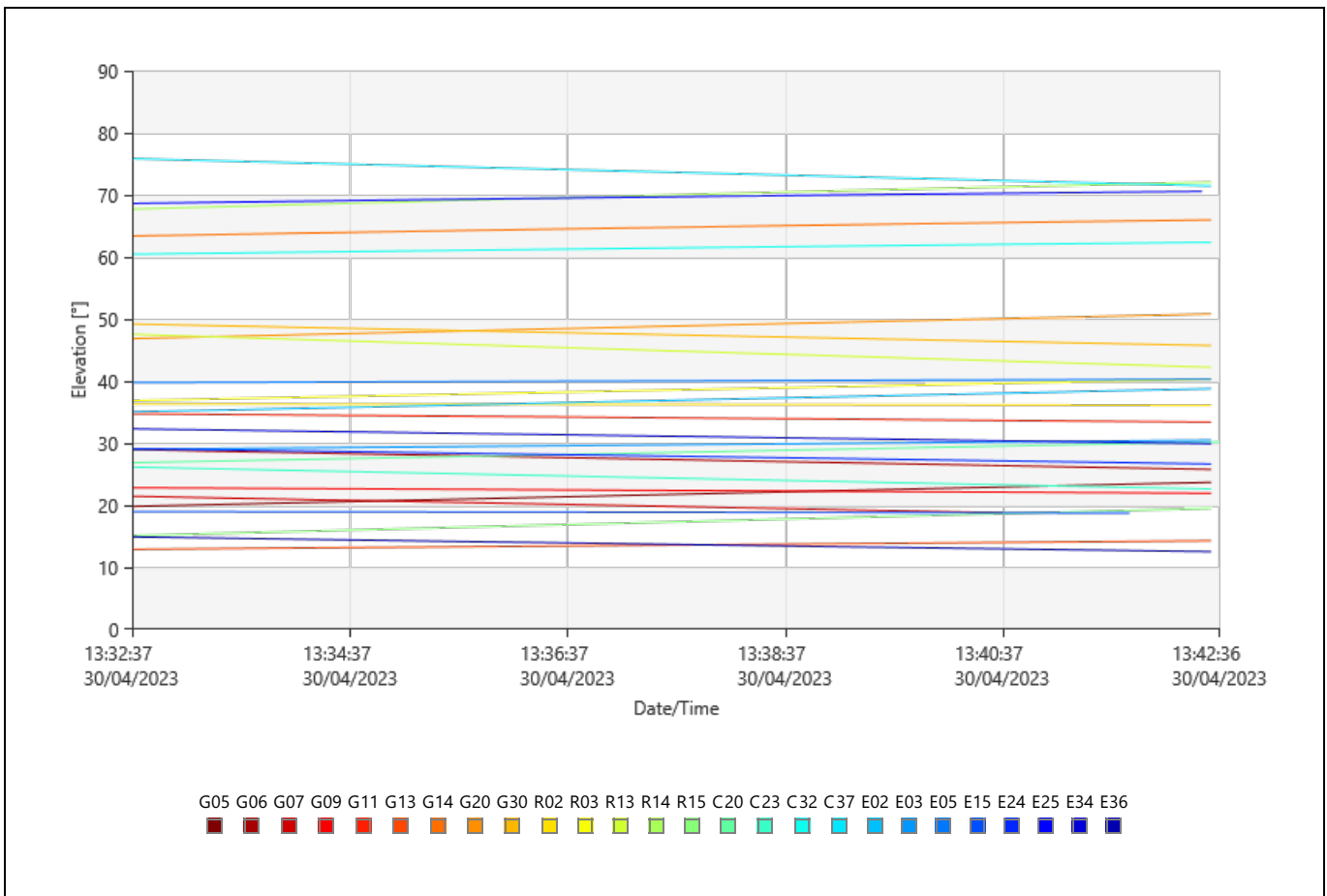
SV Id/Frequency



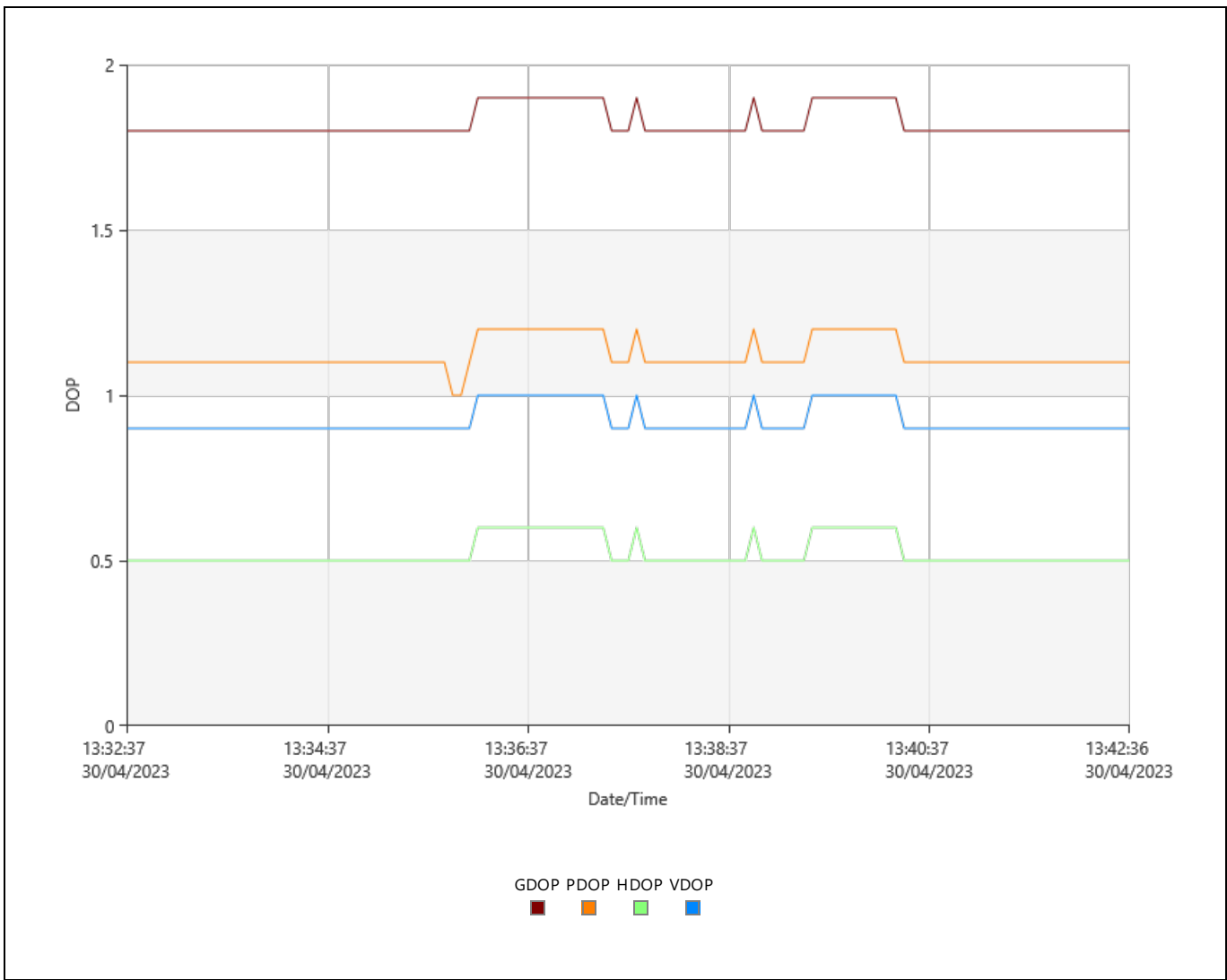
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 601

GPS Observations

Frequency	Used	Rejected
L1	4,684	287
L2	4,684	247
L5	0	3,005

GLONASS Observations

Frequency	Used	Rejected
L1	3,005	0
L2	3,005	0

Beidou Observations

Frequency	Used	Rejected
B1	2,404	0
B2	2,404	0
L5	0	2,404

Galileo Observations

Frequency	Used	Rejected
E1	4,808	0
E5a	0	4,808
E5b	0	4,808
E5a+b	0	4,808

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	28	10	8	8
Total	60	10	8	8
Independently fixed	75	75	70	70
Possible independently fixed	75	75	75	75

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	97.93	97.97	100.00	100.00	100.00	100.00	100.00
Not fixed	2.07	2.03	0.00	0.00	0.00	0.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	30/04/2023 13:32:37	30/04/2023 13:42:37	00:10:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 30/04/2023 10:58:10
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 30/04/2023 14:08:57
 Origin Date/Time: 30/04/2023 10:58:10

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.9625560527	0.0130188212
0	1	1.0496806961	0.0165596751
0	2	-0.4448412954	0.0091762052
1	0	0.1798377864	0.0066440780
1	1	-0.1126936073	0.0087304419

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used

G06

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:33:13	Rejected
	30/04/2023 13:33:13	30/04/2023 13:33:14	No Data
	30/04/2023 13:33:14	30/04/2023 13:33:19	Rejected
	30/04/2023 13:33:19	30/04/2023 13:33:20	No Data
	30/04/2023 13:33:20	30/04/2023 13:34:10	Rejected
	30/04/2023 13:34:10	30/04/2023 13:34:11	No Data
	30/04/2023 13:34:11	30/04/2023 13:34:27	Rejected
	30/04/2023 13:34:27	30/04/2023 13:34:28	No Data
	30/04/2023 13:34:28	30/04/2023 13:35:38	Rejected
	30/04/2023 13:35:38	30/04/2023 13:35:58	Used
	30/04/2023 13:35:58	30/04/2023 13:36:19	Rejected
	30/04/2023 13:36:19	30/04/2023 13:36:20	No Data
	30/04/2023 13:36:20	30/04/2023 13:36:21	Rejected
	30/04/2023 13:36:21	30/04/2023 13:36:22	No Data
	30/04/2023 13:36:22	30/04/2023 13:36:30	Rejected
	30/04/2023 13:36:30	30/04/2023 13:37:00	No Data
	30/04/2023 13:37:00	30/04/2023 13:37:01	Rejected
	30/04/2023 13:37:01	30/04/2023 13:37:04	No Data
	30/04/2023 13:37:04	30/04/2023 13:37:05	Rejected
	30/04/2023 13:37:05	30/04/2023 13:37:06	No Data
	30/04/2023 13:37:06	30/04/2023 13:37:07	Rejected
	30/04/2023 13:37:07	30/04/2023 13:37:14	No Data
	30/04/2023 13:37:14	30/04/2023 13:37:15	Rejected
	30/04/2023 13:37:15	30/04/2023 13:37:52	No Data
	30/04/2023 13:37:52	30/04/2023 13:37:53	Rejected
	30/04/2023 13:37:53	30/04/2023 13:38:54	No Data
	30/04/2023 13:38:54	30/04/2023 13:38:55	Rejected
	30/04/2023 13:38:55	30/04/2023 13:39:22	No Data
	30/04/2023 13:39:22	30/04/2023 13:39:23	Rejected
	30/04/2023 13:39:23	30/04/2023 13:39:29	No Data

	30/04/2023 13:39:29	30/04/2023 13:39:30	Rejected
	30/04/2023 13:39:30	30/04/2023 13:39:36	No Data
	30/04/2023 13:39:36	30/04/2023 13:39:37	Rejected
	30/04/2023 13:39:37	30/04/2023 13:39:41	No Data
	30/04/2023 13:39:41	30/04/2023 13:39:43	Rejected
	30/04/2023 13:39:43	30/04/2023 13:39:59	No Data
	30/04/2023 13:39:59	30/04/2023 13:40:00	Rejected
	30/04/2023 13:40:00	30/04/2023 13:40:36	No Data
	30/04/2023 13:40:36	30/04/2023 13:40:38	Rejected
	30/04/2023 13:40:38	30/04/2023 13:41:05	No Data
	30/04/2023 13:41:05	30/04/2023 13:41:06	Rejected
	30/04/2023 13:41:06	30/04/2023 13:41:10	No Data
	30/04/2023 13:41:10	30/04/2023 13:41:11	Rejected
	30/04/2023 13:41:11	30/04/2023 13:41:59	No Data
	30/04/2023 13:41:59	30/04/2023 13:42:00	Rejected
	30/04/2023 13:42:00	30/04/2023 13:42:25	No Data
	30/04/2023 13:42:25	30/04/2023 13:42:26	Rejected
	30/04/2023 13:42:26	30/04/2023 13:42:30	No Data
	30/04/2023 13:42:30	30/04/2023 13:42:31	Rejected
	30/04/2023 13:42:31	30/04/2023 13:42:37	No Data
L2	30/04/2023 13:32:37	30/04/2023 13:33:13	Rejected
	30/04/2023 13:33:13	30/04/2023 13:33:14	No Data
	30/04/2023 13:33:14	30/04/2023 13:33:19	Rejected
	30/04/2023 13:33:19	30/04/2023 13:33:20	No Data
	30/04/2023 13:33:20	30/04/2023 13:34:10	Rejected
	30/04/2023 13:34:10	30/04/2023 13:34:11	No Data
	30/04/2023 13:34:11	30/04/2023 13:34:27	Rejected
	30/04/2023 13:34:27	30/04/2023 13:34:28	No Data
	30/04/2023 13:34:28	30/04/2023 13:35:38	Rejected
	30/04/2023 13:35:38	30/04/2023 13:35:58	Used
	30/04/2023 13:35:58	30/04/2023 13:36:19	Rejected
	30/04/2023 13:36:19	30/04/2023 13:36:20	No Data
	30/04/2023 13:36:20	30/04/2023 13:36:21	Rejected
	30/04/2023 13:36:21	30/04/2023 13:36:22	No Data
	30/04/2023 13:36:22	30/04/2023 13:36:30	Rejected
	30/04/2023 13:36:30	30/04/2023 13:42:37	No Data

G09

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:36:06	Used
	30/04/2023 13:36:06	30/04/2023 13:36:13	Rejected
	30/04/2023 13:36:13	30/04/2023 13:36:16	No Data
	30/04/2023 13:36:16	30/04/2023 13:36:17	Rejected
	30/04/2023 13:36:17	30/04/2023 13:36:21	No Data
	30/04/2023 13:36:21	30/04/2023 13:36:23	Rejected
	30/04/2023 13:36:23	30/04/2023 13:36:25	No Data
	30/04/2023 13:36:25	30/04/2023 13:36:26	Rejected
	30/04/2023 13:36:26	30/04/2023 13:36:45	No Data
	30/04/2023 13:36:45	30/04/2023 13:36:46	Rejected
	30/04/2023 13:36:46	30/04/2023 13:36:47	No Data
	30/04/2023 13:36:47	30/04/2023 13:36:48	Rejected
	30/04/2023 13:36:48	30/04/2023 13:37:05	No Data
	30/04/2023 13:37:05	30/04/2023 13:37:08	Rejected
	30/04/2023 13:37:08	30/04/2023 13:37:19	No Data
	30/04/2023 13:37:19	30/04/2023 13:37:26	Rejected
	30/04/2023 13:37:26	30/04/2023 13:37:39	Used
	30/04/2023 13:37:39	30/04/2023 13:37:44	Rejected
	30/04/2023 13:37:44	30/04/2023 13:38:50	Used
	30/04/2023 13:38:50	30/04/2023 13:38:56	Rejected
	30/04/2023 13:38:56	30/04/2023 13:39:27	Used
	30/04/2023 13:39:27	30/04/2023 13:39:28	No Data
	30/04/2023 13:39:28	30/04/2023 13:39:30	Rejected
	30/04/2023 13:39:30	30/04/2023 13:39:34	No Data
	30/04/2023 13:39:34	30/04/2023 13:39:35	Rejected
	30/04/2023 13:39:35	30/04/2023 13:39:37	No Data
	30/04/2023 13:39:37	30/04/2023 13:39:39	Rejected
	30/04/2023 13:39:39	30/04/2023 13:39:42	No Data
	30/04/2023 13:39:42	30/04/2023 13:39:43	Rejected
	30/04/2023 13:39:43	30/04/2023 13:39:53	No Data
	30/04/2023 13:39:53	30/04/2023 13:39:54	Rejected
	30/04/2023 13:39:54	30/04/2023 13:39:55	No Data
30/04/2023 13:39:55	30/04/2023 13:39:56	Rejected	

	30/04/2023 13:39:56	30/04/2023 13:39:57	No Data
	30/04/2023 13:39:57	30/04/2023 13:39:58	Rejected
	30/04/2023 13:39:58	30/04/2023 13:39:59	No Data
	30/04/2023 13:39:59	30/04/2023 13:40:00	Rejected
	30/04/2023 13:40:00	30/04/2023 13:40:01	No Data
	30/04/2023 13:40:01	30/04/2023 13:40:02	Rejected
	30/04/2023 13:40:02	30/04/2023 13:40:04	No Data
	30/04/2023 13:40:04	30/04/2023 13:40:20	Rejected
	30/04/2023 13:40:20	30/04/2023 13:42:37	Used
L2	30/04/2023 13:32:37	30/04/2023 13:36:06	Used
	30/04/2023 13:36:06	30/04/2023 13:36:13	Rejected
	30/04/2023 13:36:13	30/04/2023 13:36:22	No Data
	30/04/2023 13:36:22	30/04/2023 13:36:23	Rejected
	30/04/2023 13:36:23	30/04/2023 13:36:25	No Data
	30/04/2023 13:36:25	30/04/2023 13:36:26	Rejected
	30/04/2023 13:32:37	30/04/2023 13:37:22	No Data
	30/04/2023 13:36:26	30/04/2023 13:37:24	No Data
	30/04/2023 13:37:22	30/04/2023 13:37:24	Rejected
	30/04/2023 13:37:24	30/04/2023 13:37:26	Rejected
	30/04/2023 13:37:26	30/04/2023 13:37:39	Used
	30/04/2023 13:37:39	30/04/2023 13:37:44	Rejected
	30/04/2023 13:37:44	30/04/2023 13:38:50	Used
	30/04/2023 13:38:50	30/04/2023 13:38:56	Rejected
	30/04/2023 13:38:56	30/04/2023 13:39:27	Used
	30/04/2023 13:39:27	30/04/2023 13:39:28	No Data
	30/04/2023 13:39:28	30/04/2023 13:39:30	Rejected
	30/04/2023 13:39:30	30/04/2023 13:39:34	No Data
	30/04/2023 13:39:34	30/04/2023 13:39:35	Rejected
	30/04/2023 13:37:24	30/04/2023 13:39:37	No Data
	30/04/2023 13:39:35	30/04/2023 13:39:38	No Data
	30/04/2023 13:39:37	30/04/2023 13:39:38	Rejected
	30/04/2023 13:39:38	30/04/2023 13:39:39	Rejected
30/04/2023 13:39:39	30/04/2023 13:40:09	No Data	
30/04/2023 13:40:09	30/04/2023 13:40:20	Rejected	
30/04/2023 13:40:20	30/04/2023 13:42:37	Used	
30/04/2023 13:39:38	30/04/2023 13:42:37	No Data	
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used

E1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
E5a	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected
E5b	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected
E5a+b	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

E36

Frequency	From Epoch	To Epoch	Status
E1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
E5a	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected
E5b	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected
E5a+b	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
B2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

C23

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
B2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
B2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
B2	30/04/2023 13:32:37	30/04/2023 13:42:37	Used
L5	30/04/2023 13:32:37	30/04/2023 13:42:37	Rejected

Cycle Slips

Slip Count: 6

SV	Frequency	Epoch	Slip Value	Flag
G07	L1	30/04/2023 13:33:58	-	RIA
	L2	30/04/2023 13:33:58	-	RIA
G09	L1	30/04/2023 13:35:08	-	RIA
		30/04/2023 13:40:20	-	RIA
	L2	30/04/2023 13:35:08	-	RIA
		30/04/2023 13:40:20	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

No Beidou precise ephemeris available, switched to broadcast ephemeris.

RSPG-006-2023-ITEGI

Zona 1 y 2

Puntos adicionales con DGPS

Código de Estudio: ITE-2023-032

Leica Geosystems AG

Heinrich Wild Strasse
CH-9435 Heerbrugg
St. Gallen, Switzerland

Phone: + 41 71 727 3131
Fax: + 41 71 727 4674

- when it has to be **right**



GNSS Processing Report

Report created: 18/05/2023 18:55:28

Project Details

General

Project Name: CORIHUARMI
Owner: -
Lead Surveyor: -
Date Created: 28/04/2023 05:49:14
Last Accessed: 17/05/2023 00:42:02
Application Software: Infinity 3.2

Customer Details

Customer Name: -
Contact Person: -
Number: -
Email: -
Skype: -
Website: -

Master Coordinate System

Coordinate System Name: UTM WGS84 18S
Transformation Type: Classical 3D
Residual Distribution: None
Ellipsoid: WGS 1984
Projection Type: UTM
Geoid Model: PER EGM08
CSCS Model: -

Path: C:\Users\Rodrigo\Documents\Leica Geosystems\Infinity\Projects\CORIHUARMI\CORIHUARMI.iprj
Size: 505.4 MB
Comments: -

Baseline C02 - L1-1

Processing Parameters (29/04/2023 11:38:49 - 29/04/2023 11:43:49)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised: 15 km
Possible Ambiguities Fix up to: 300 km
Min. Duration for Float Solution (static): 00:05:00

Results Baseline: C02 - L1-1

Acquisition

Start Time - End Time: 29/04/2023 11:38:49 - 29/04/2023 11:43:49
Duration: 00:05:00

Antennas

	Reference - C02	Rover - L1-1
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811

Antenna Name / SN: LEIGS18 / - LEIGS18 / -
Carrier Offset: 0.0000 m 0.0000 m
Height Reading: 1.4100 m 2.0000 m
Antenna Height: 1.4100 m 2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L1-1		Reference - C02	Rover - L1-1
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 42.55953" S	Easting:	438,215.5500 m	437,144.1315 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 43.04192" W	Northing:	8,609,405.6600 m	8,611,250.8840 m
WGS84 Ellip. Height:	4,889.3308 m	4,735.6289 m	Ortho. Height:	4,853.4775 m	4,699.8711 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,854.4656 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,725.7793 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,161.3230 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 01' 00.14395"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 35.37342"	SD ΔLongitude:	0.0001 m
ΔHeight:	-153.7019 m	SD ΔHeight:	0.0002 m
ΔX:	-971.9708 m	SD ΔX:	0.0001 m
ΔY:	-510.7788 m	SD ΔY:	0.0002 m
ΔZ:	1,838.7244 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,141.6185 m	SD Slope Dist.:	0.0001 m

M0:	0.3058 m	CQ 1D:	0.0002 m
Q11:	0.00000018	CQ 2D:	0.0002 m
Q12:	-0.00000016	CQ 3D:	0.0003 m
Q22:	0.00000052		
Q13:	-0.00000003		
Q23:	0.00000011		
Q33:	0.00000015		

Frequency:	L1/E1/L2	GDOP:	1.4	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.0	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/6
		VDOP:	0.8	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:
GPS: Precise
GLONASS: Precise
Beidou: Broadcast
Galileo: Precise

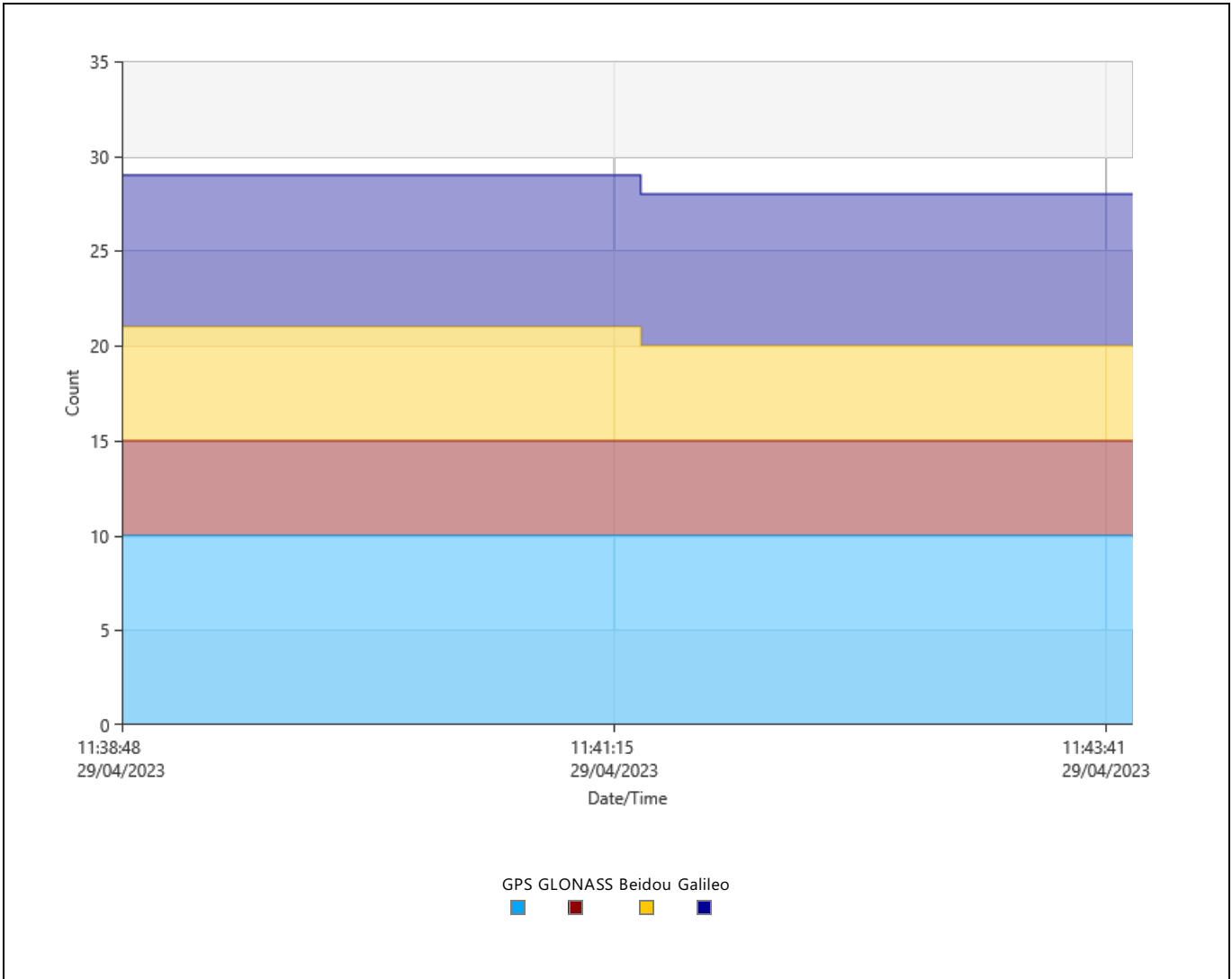
Processing Info (29/04/2023 11:38:49 - 29/04/2023 11:43:49)

Processed Date/Time: 10/05/2023 10:49:26

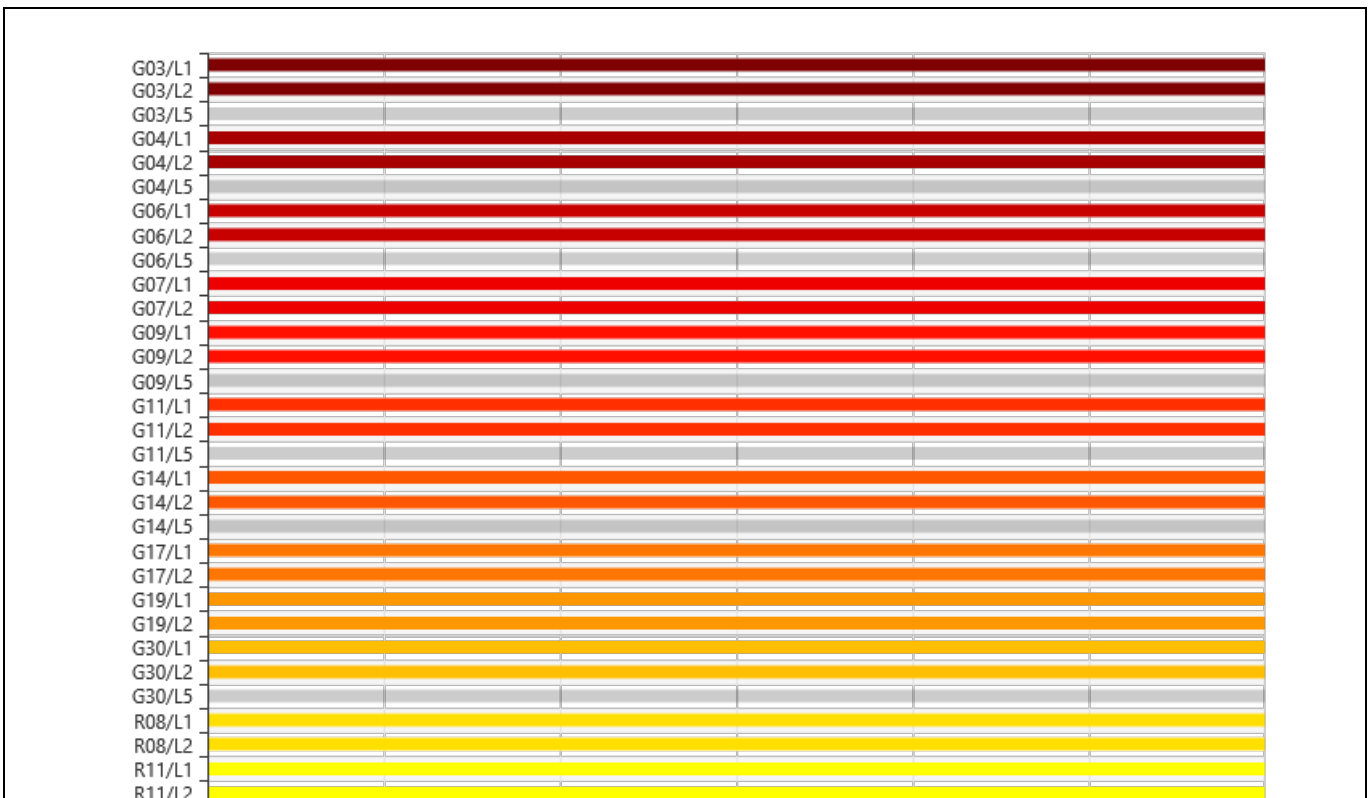
Satellites

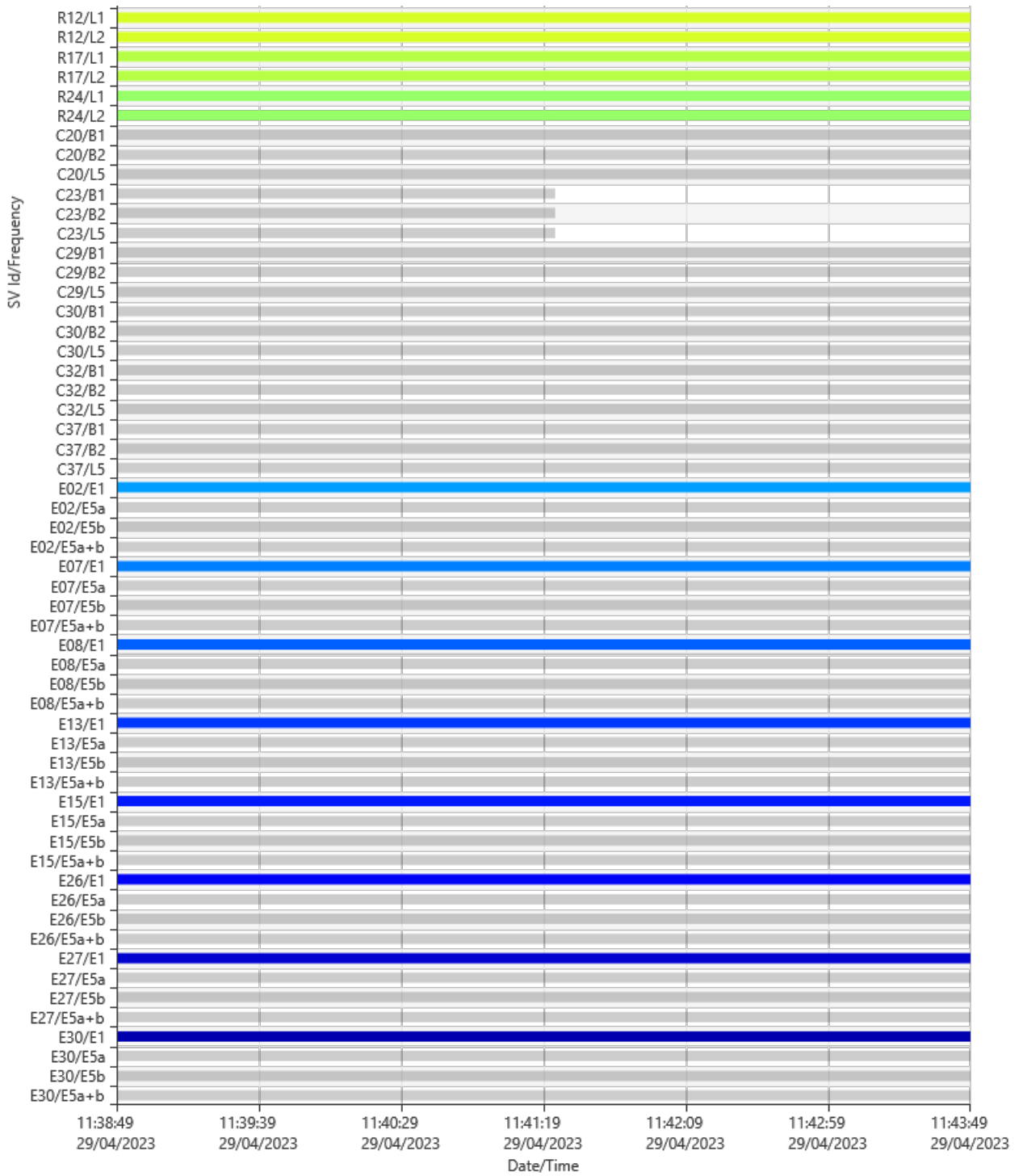
Satellite System	Used	Manually Disabled
GPS	G03 G04 G06 G07 G09 G11 - G14 G17 G19 G30	
GLONASS	R08 R11 R12 R17 R24	-

SVs Tracked

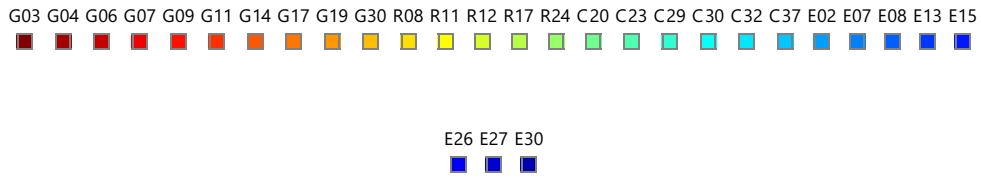
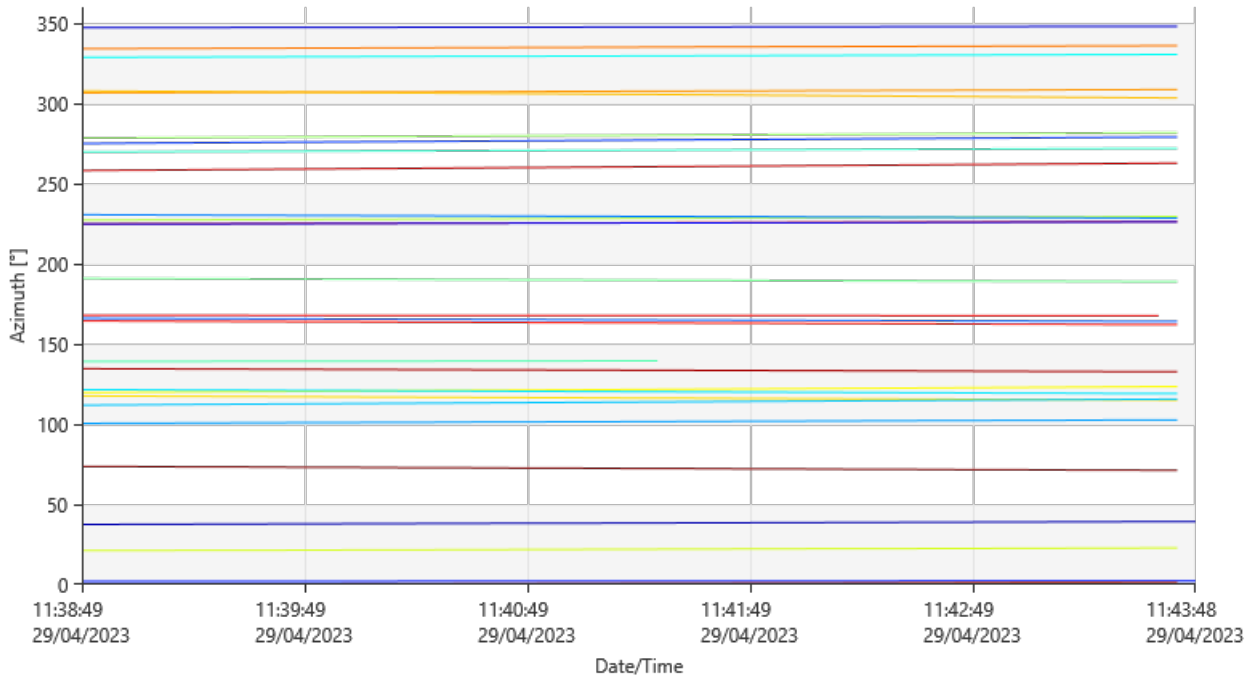


Signals Tracked

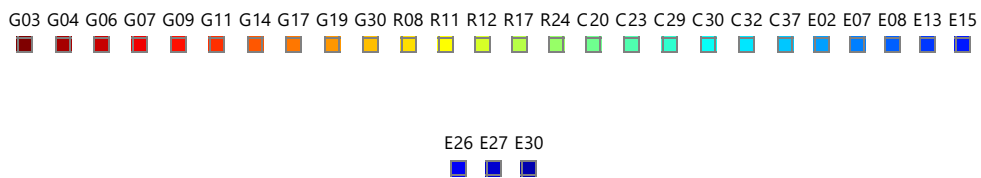
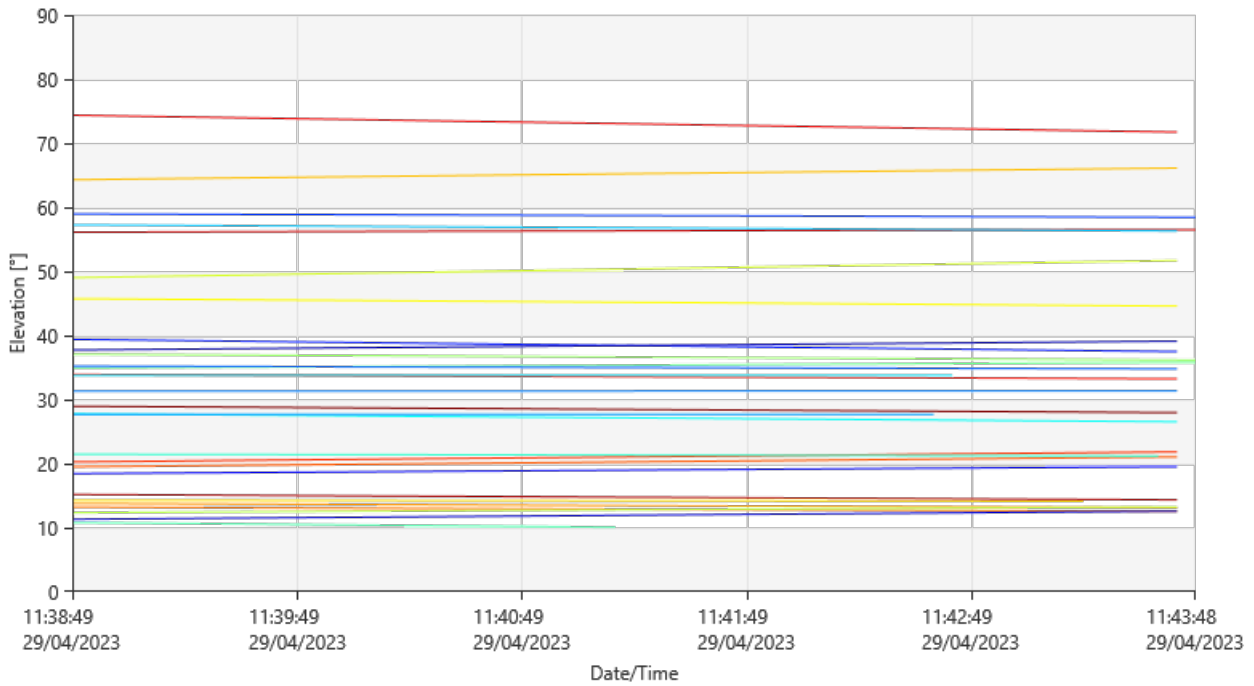




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 11:38:49	29/04/2023 11:43:49	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L5	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L5	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L5	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L5	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L5	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

G14

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Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L5	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L5	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

R08

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
L2	29/04/2023 11:38:49	29/04/2023 11:43:49	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
E5a	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected
E5b	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected
E5a+b	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
E5a	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected
E5b	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected
E5a+b	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:38:49	29/04/2023 11:43:49	Used
E5a	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected
E5b	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected
E5a+b	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected
B2	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected
L5	29/04/2023 11:38:49	29/04/2023 11:43:49	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R10.
 Missing orbits for satellite R23.
 No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L1-2

Processing Parameters (29/04/2023 10:58:10 - 29/04/2023 11:04:03)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L1-2

Acquisition

Start Time - End Time: 29/04/2023 10:58:11 - 29/04/2023 11:04:03
 Duration: 00:05:52

Antennas

	Reference - C02	Rover - L1-2
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

	Reference - LEIGS18	Rover - LEIGS18

GPS	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L1-2		Reference - C02	Rover - L1-2
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 46.09691" S	Easting:	438,215.5500 m	437,115.6592 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 43.99338" W	Northing:	8,609,405.6600 m	8,611,142.1569 m
WGS84 Ellip. Height:	4,889.3308 m	4,732.8205 m	Ortho. Height:	4,853.4775 m	4,697.0563 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,820.0533 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,707.3677 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,266.8916 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 56.60657"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 36.32488"	SD ΔLongitude:	0.0001 m
ΔHeight:	-156.5103 m	SD ΔHeight:	0.0003 m
ΔX:	-1,006.3830 m	SD ΔX:	0.0001 m
ΔY:	-492.3673 m	SD ΔY:	0.0003 m
ΔZ:	1,733.1559 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,063.7494 m	SD Slope Dist.:	0.0001 m

M0:	0.3679 m	CQ 1D:	0.0003 m
Q11:	0.00000015	CQ 2D:	0.0002 m
Q12:	-0.00000015	CQ 3D:	0.0003 m
Q22:	0.00000055		
Q13:	-0.00000004		
Q23:	0.00000011		
Q33:	0.00000011		

Frequency:	L1/E1/L2	GDOP:	1.7 - 2.0	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.2 - 1.3	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	0/7
		VDOP:	1.1 - 1.2	Galileo SVs:	7/7
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

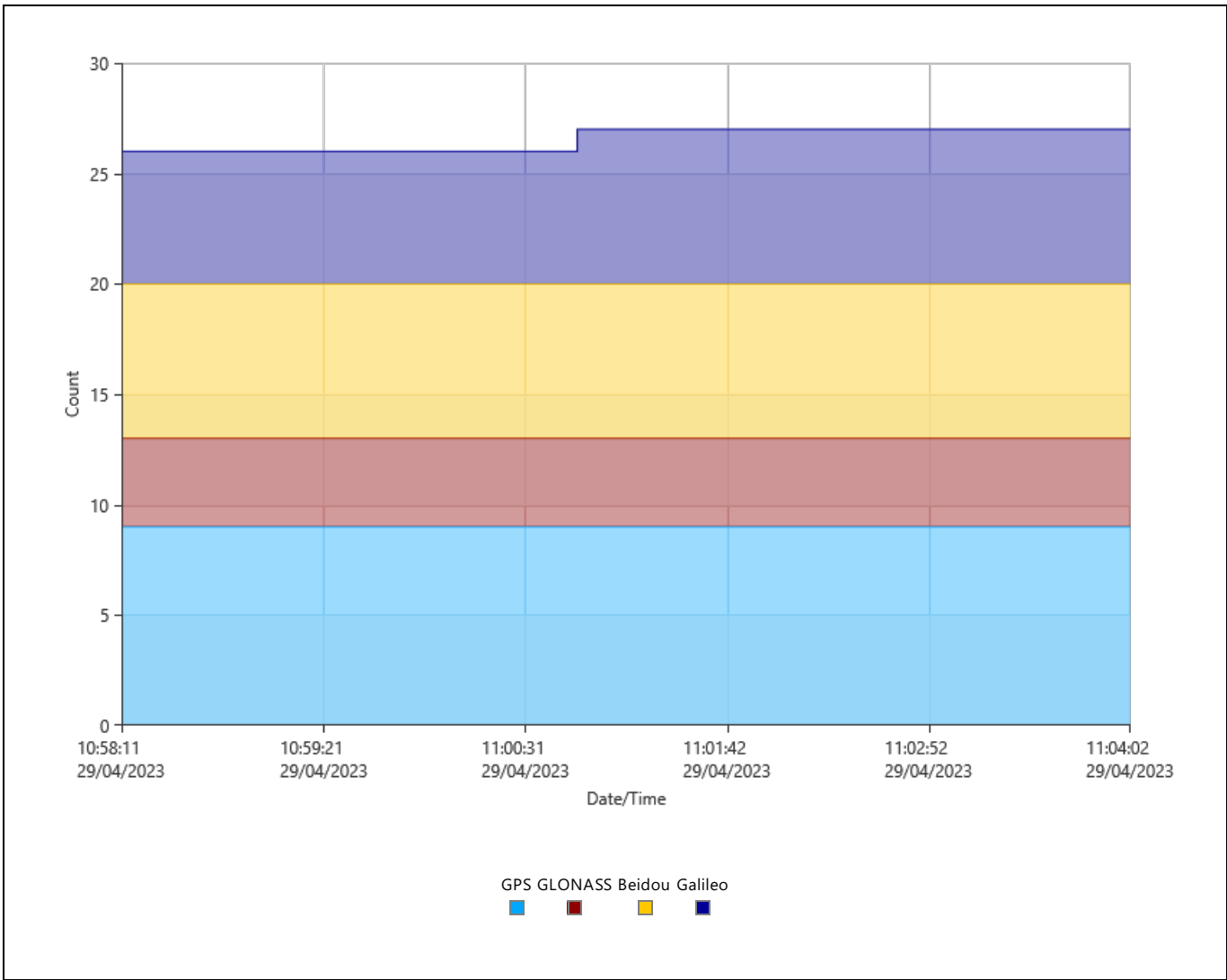
Processing Info (29/04/2023 10:58:10 - 29/04/2023 11:04:03)

Processed Date/Time: 10/05/2023 10:49:26

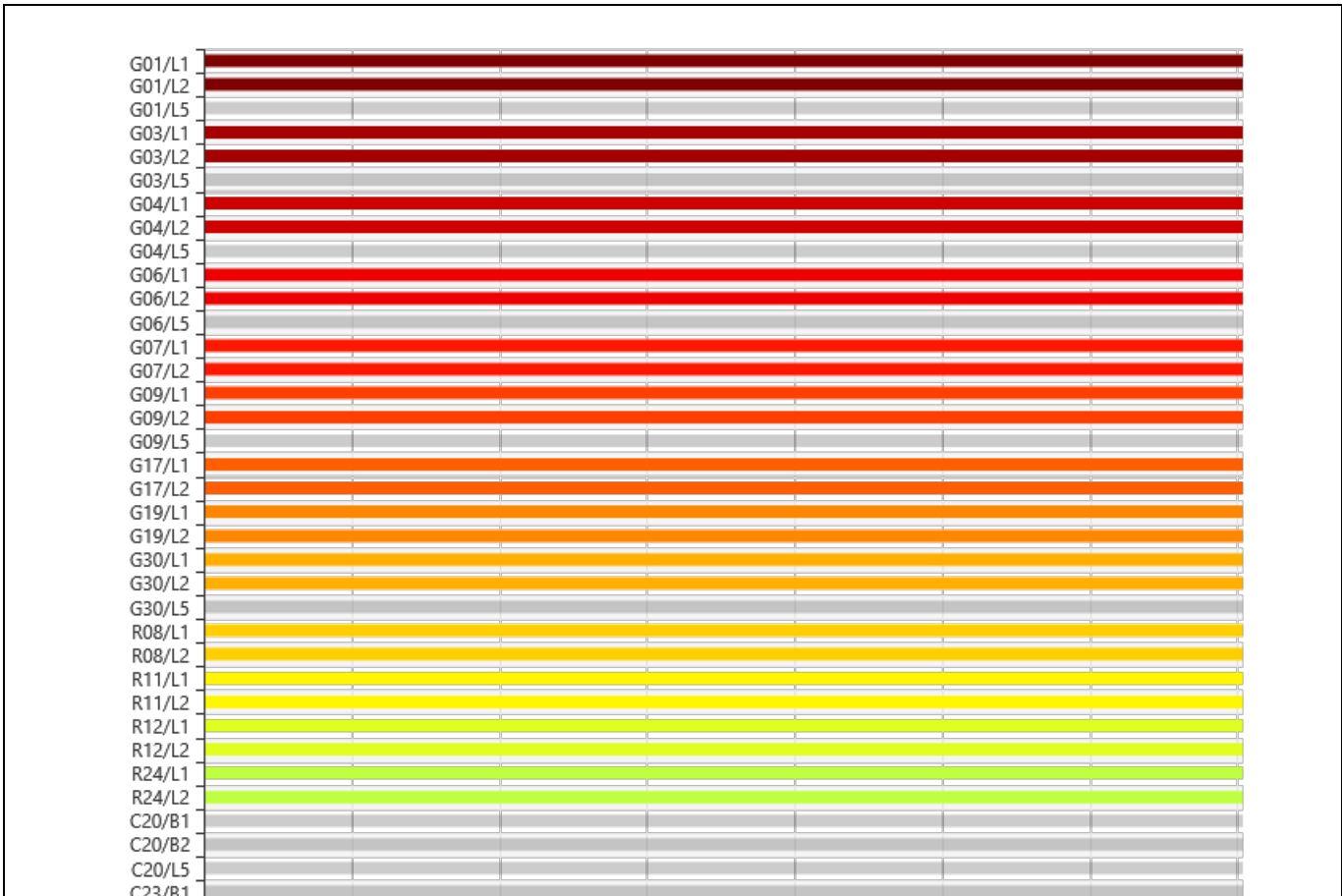
Satellites

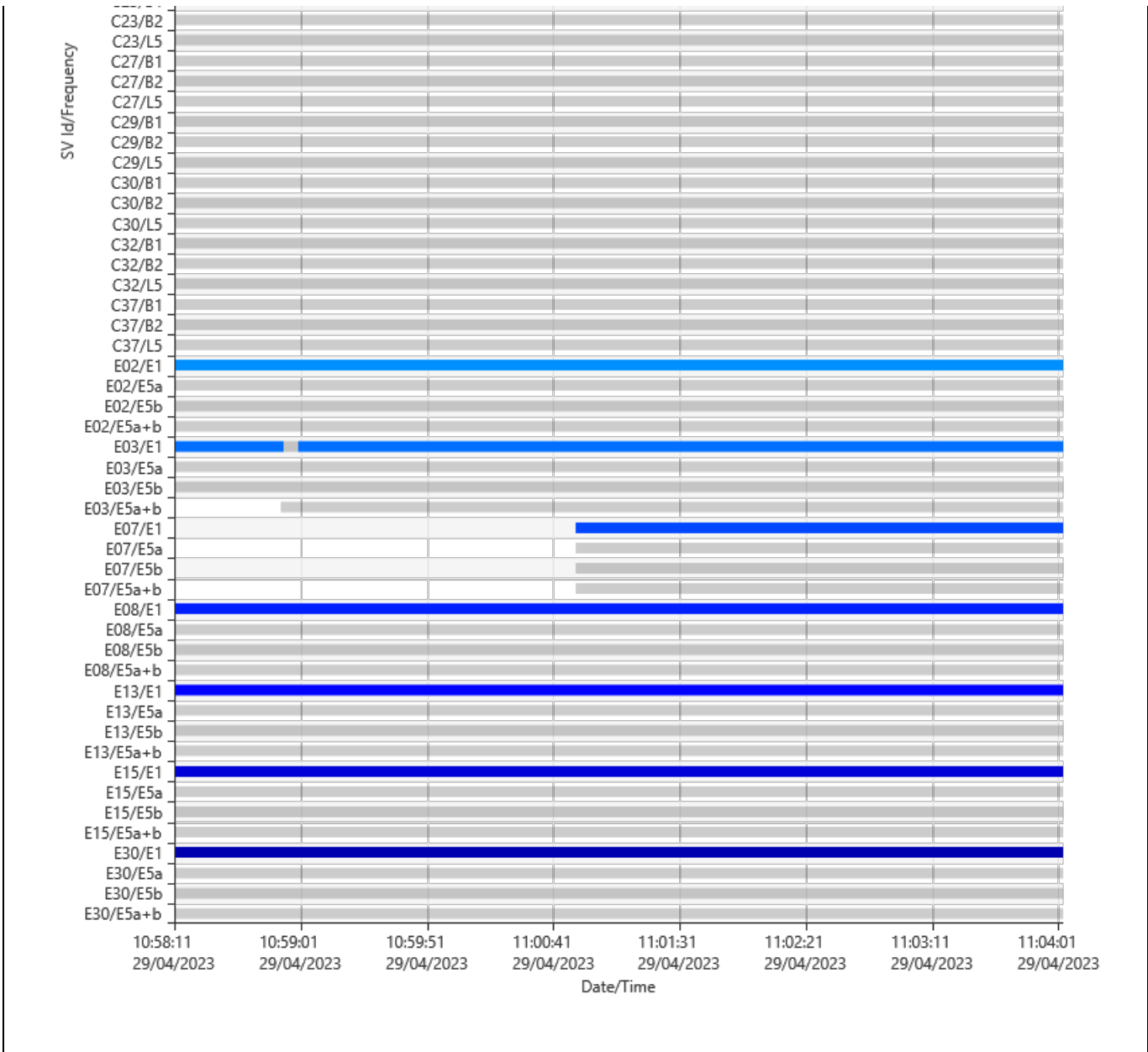
Satellite System	Used	Manually Disabled
GPS	G01 G03 G04 G06 G07 G09 G17 G19 G30	-
GLONASS	R08 R11 R12 R24	-
Galileo	E02 E03 E07 E08 E13 E15 E30	-

SVs Tracked

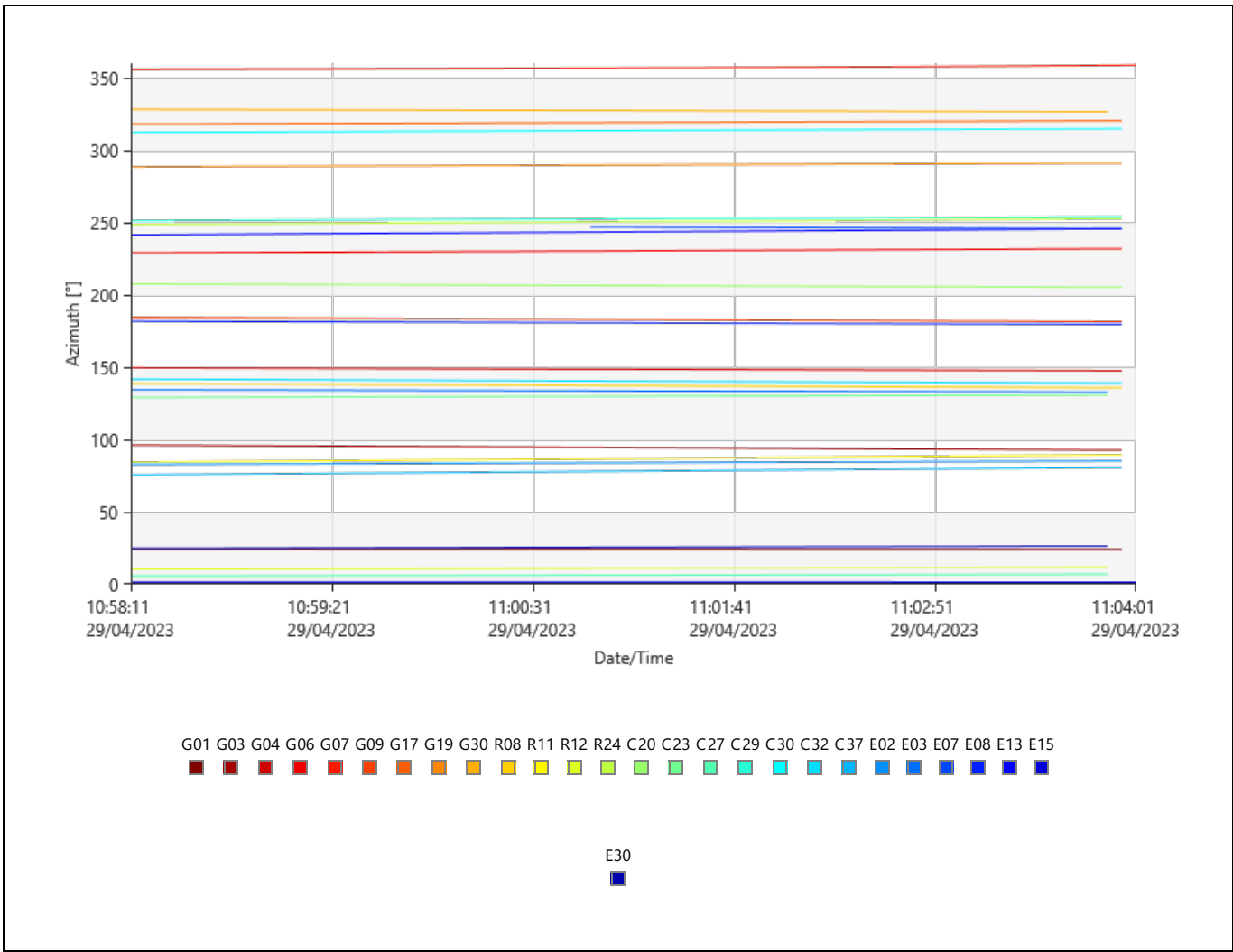


Signals Tracked

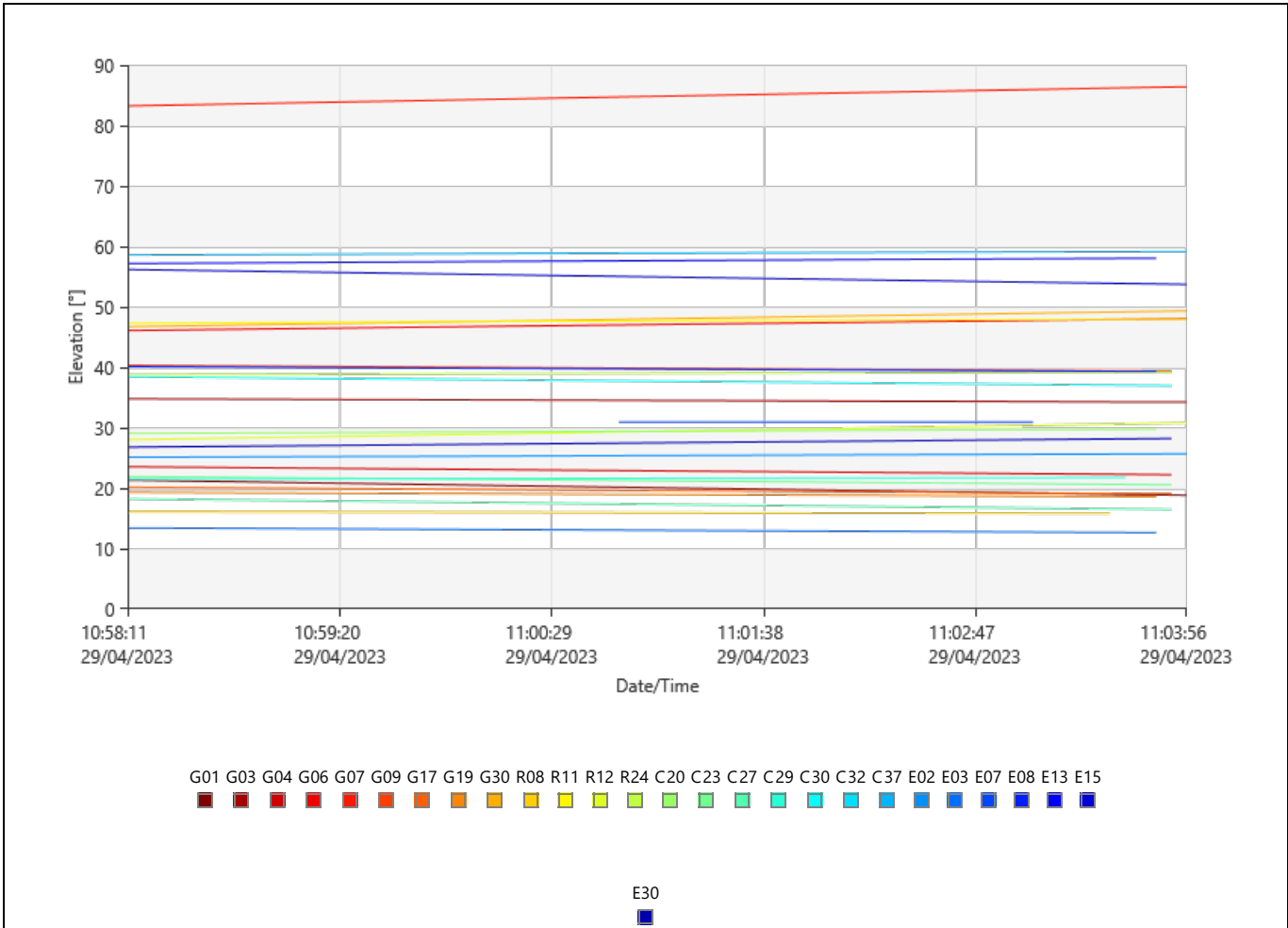




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 10:58:11	29/04/2023 11:04:03	00:05:52

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G01

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L5	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L5	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L5	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L5	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L5	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected

G17

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Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L5	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected

R08

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
L2	29/04/2023 10:58:11	29/04/2023 11:04:03	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
E5a	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected
E5b	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected
E5a+b	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected

E03

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 10:58:11	29/04/2023 10:58:54	Used
	29/04/2023 10:58:54	29/04/2023 10:59:00	Rejected
	29/04/2023 10:59:00	29/04/2023 11:04:03	Used
E5a	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected
E5b	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected
E5a+b	29/04/2023 10:58:11	29/04/2023 10:58:53	No Data
	29/04/2023 10:58:53	29/04/2023 11:04:03	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 10:58:11	29/04/2023 11:00:50	No Data
	29/04/2023 11:00:50	29/04/2023 11:04:03	Used
E5a	29/04/2023 10:58:11	29/04/2023 11:00:50	No Data
	29/04/2023 11:00:50	29/04/2023 11:04:03	Rejected
E5b	29/04/2023 10:58:11	29/04/2023 11:00:50	No Data
	29/04/2023 11:00:50	29/04/2023 11:04:03	Rejected
E5a+b	29/04/2023 10:58:11	29/04/2023 11:00:50	No Data
	29/04/2023 11:00:50	29/04/2023 11:04:03	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 10:58:11	29/04/2023 11:04:03	Used
E5a	29/04/2023 10:58:11	29/04/2023 11:04:03	Rejected

Cycle Slips

Slip Count: 1

SV	Frequency	Epoch	Slip Value	Flag
E03	E1	29/04/2023 10:59:00	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L2-1

Processing Parameters (29/04/2023 11:33:01 - 29/04/2023 11:38:01)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L2-1

Acquisition

Start Time - End Time:	29/04/2023 11:33:01 - 29/04/2023 11:38:01
Duration:	00:05:00

Antennas

	Reference - C02	Rover - L2-1
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m

Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m
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GLONASS	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L2-1		Reference - C02	Rover - L2-1
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 42.67510" S	Easting:	438,215.5500 m	437,156.6123 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 42.62858" W	Northing:	8,609,405.6600 m	8,611,247.3611 m
WGS84 Ellip. Height:	4,889.3308 m	4,736.1620 m	Ortho. Height:	4,853.4775 m	4,700.4041 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,866.4958 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,722.4248 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,164.9080 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 01' 00.02838"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 34.96008"	SD ΔLongitude:	0.0001 m
ΔHeight:	-153.1687 m	SD ΔHeight:	0.0003 m
ΔX:	-959.9405 m	SD ΔX:	0.0001 m
ΔY:	-507.4244 m	SD ΔY:	0.0003 m
ΔZ:	1,835.1394 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,132.2997 m	SD Slope Dist.:	0.0001 m

M0:	0.3499 m	CQ 1D:	0.0003 m
Q11:	0.00000018	CQ 2D:	0.0002 m
Q12:	-0.00000017	CQ 3D:	0.0003 m
Q22:	0.00000054		
Q13:	-0.00000003		
Q23:	0.00000011		
Q33:	0.00000015		

Frequency:	L1/E1/L2	GDOP:	1.4 - 1.6	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.0 - 1.1	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/6
		VDOP:	0.8 - 0.9	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

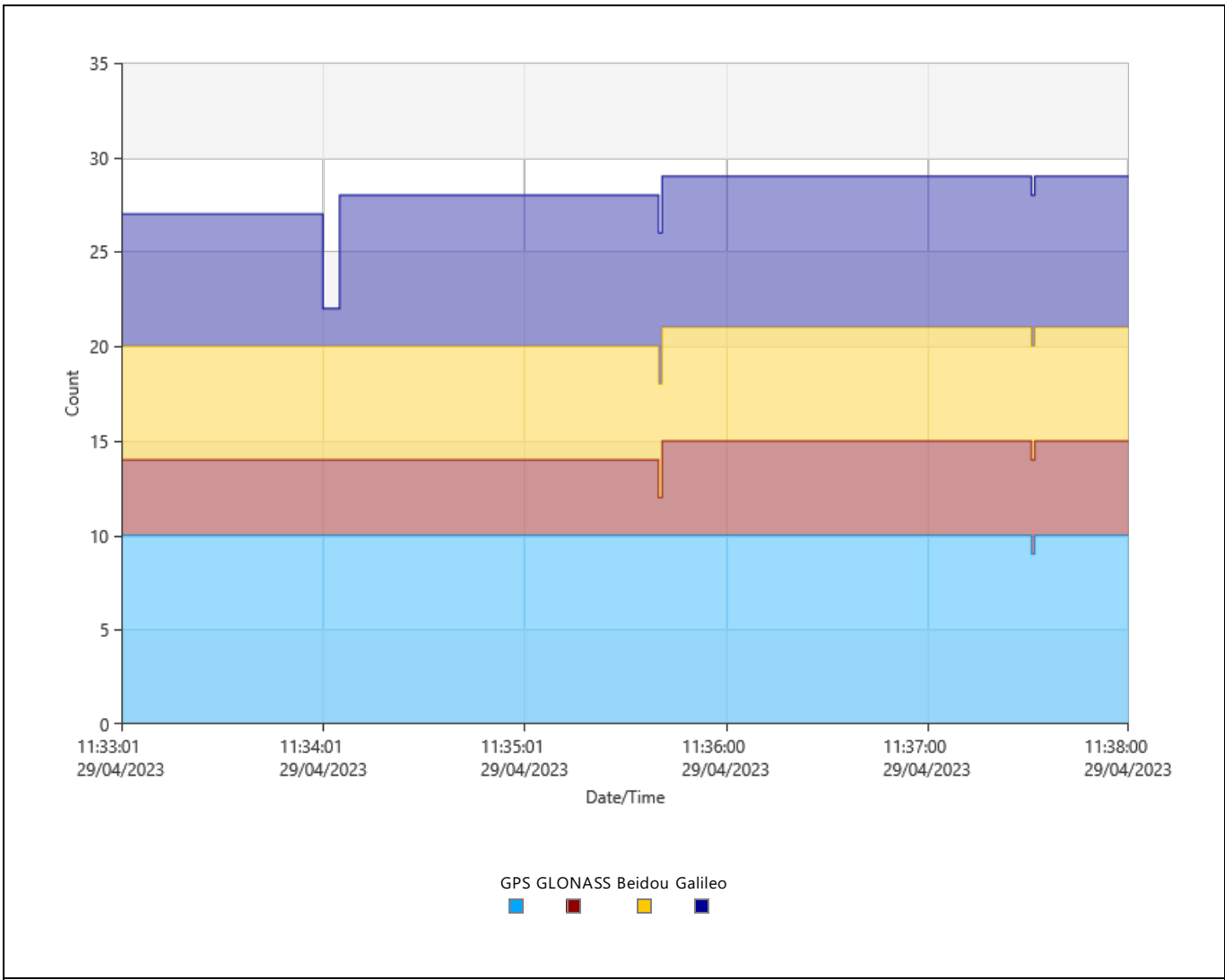
Processing Info (29/04/2023 11:33:01 - 29/04/2023 11:38:01)

Processed Date/Time: 10/05/2023 10:49:26

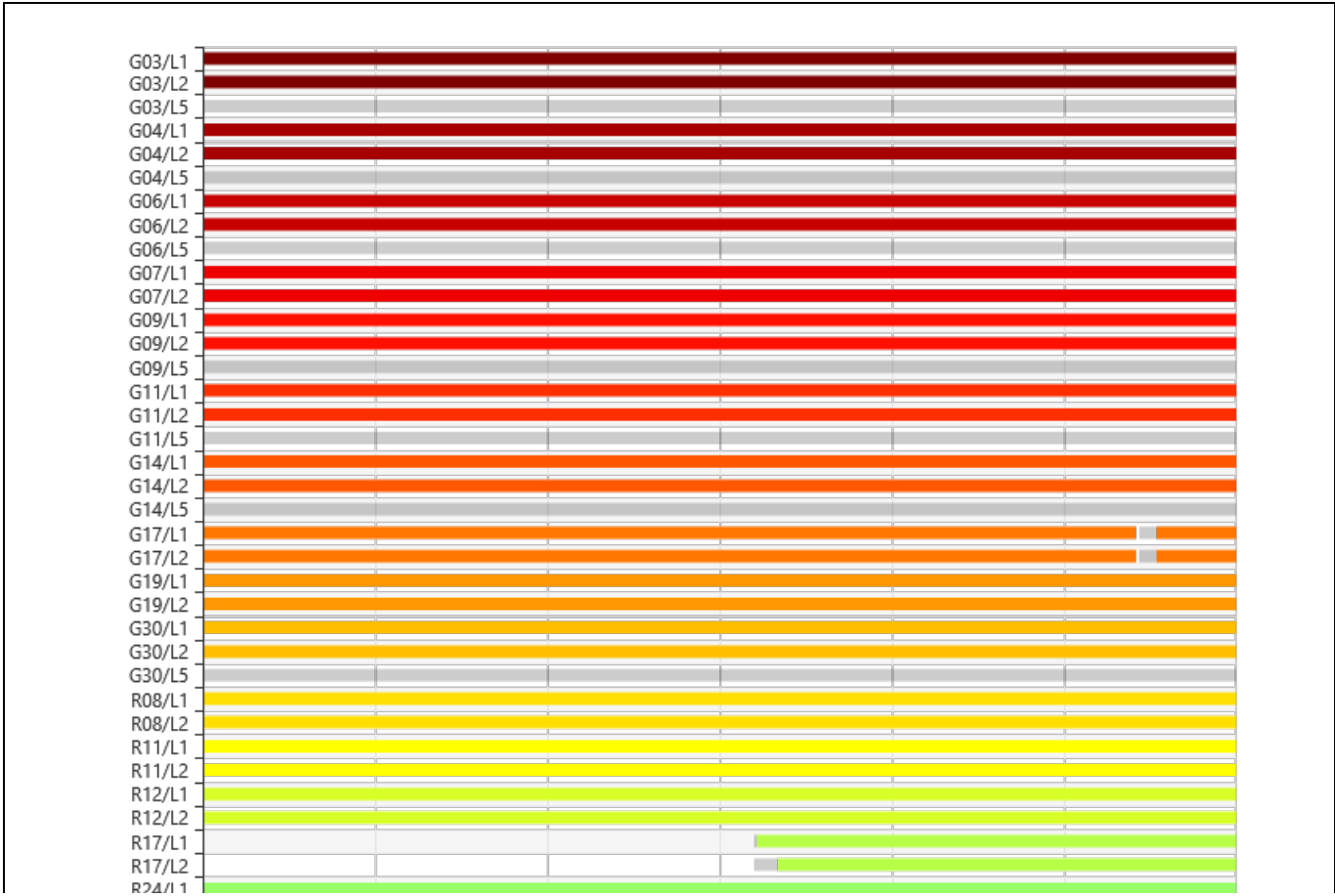
Satellites

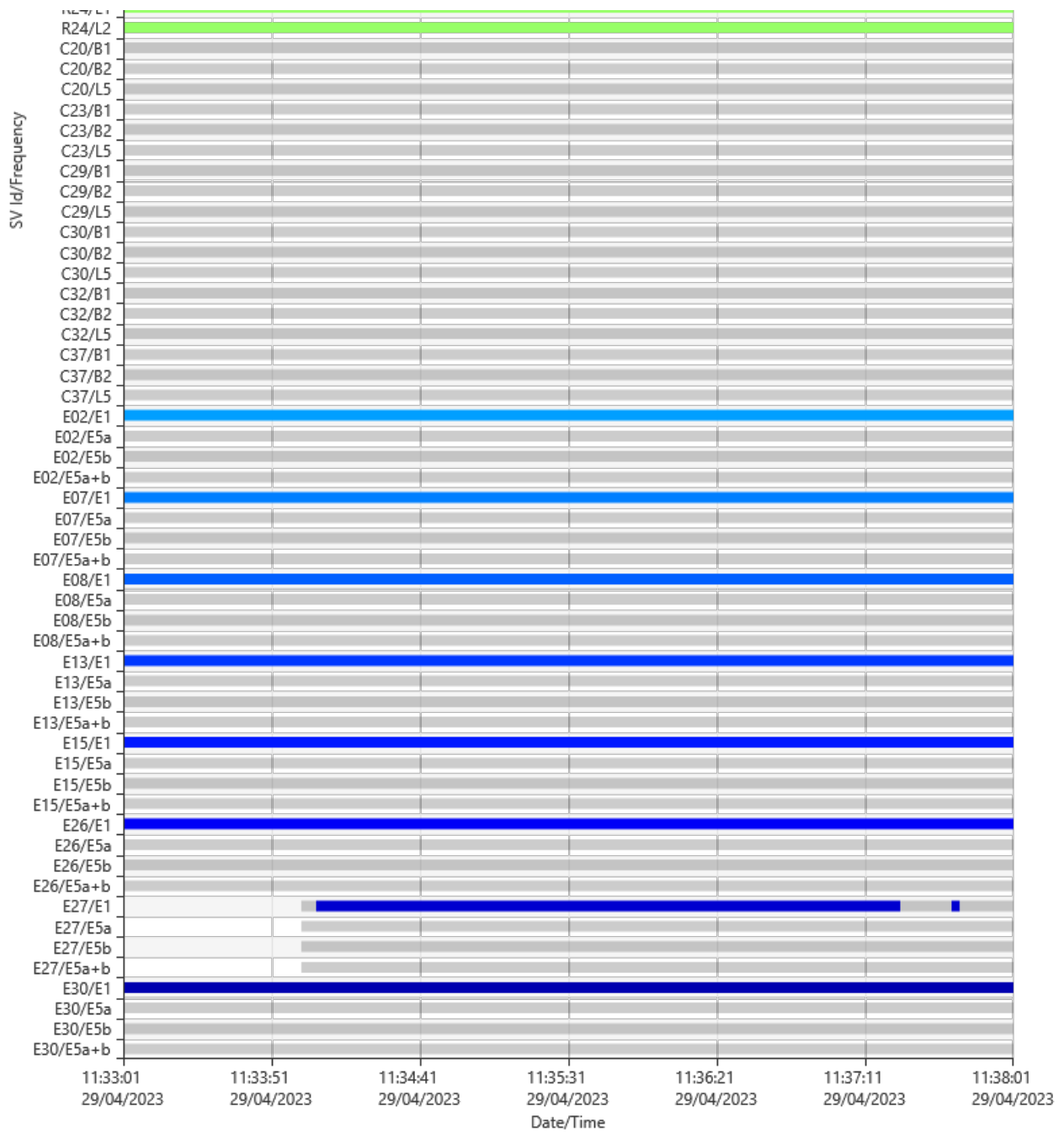
Satellite System	Used	Manually Disabled
GPS	G03 G04 G06 G07 G09 G11 G14 G17 G19 G30	-
GLONASS	R08 R11 R12 R17 R24	-
Galileo	E02 E07 E08 E13 E15 E26 E27 E30	-

SVs Tracked

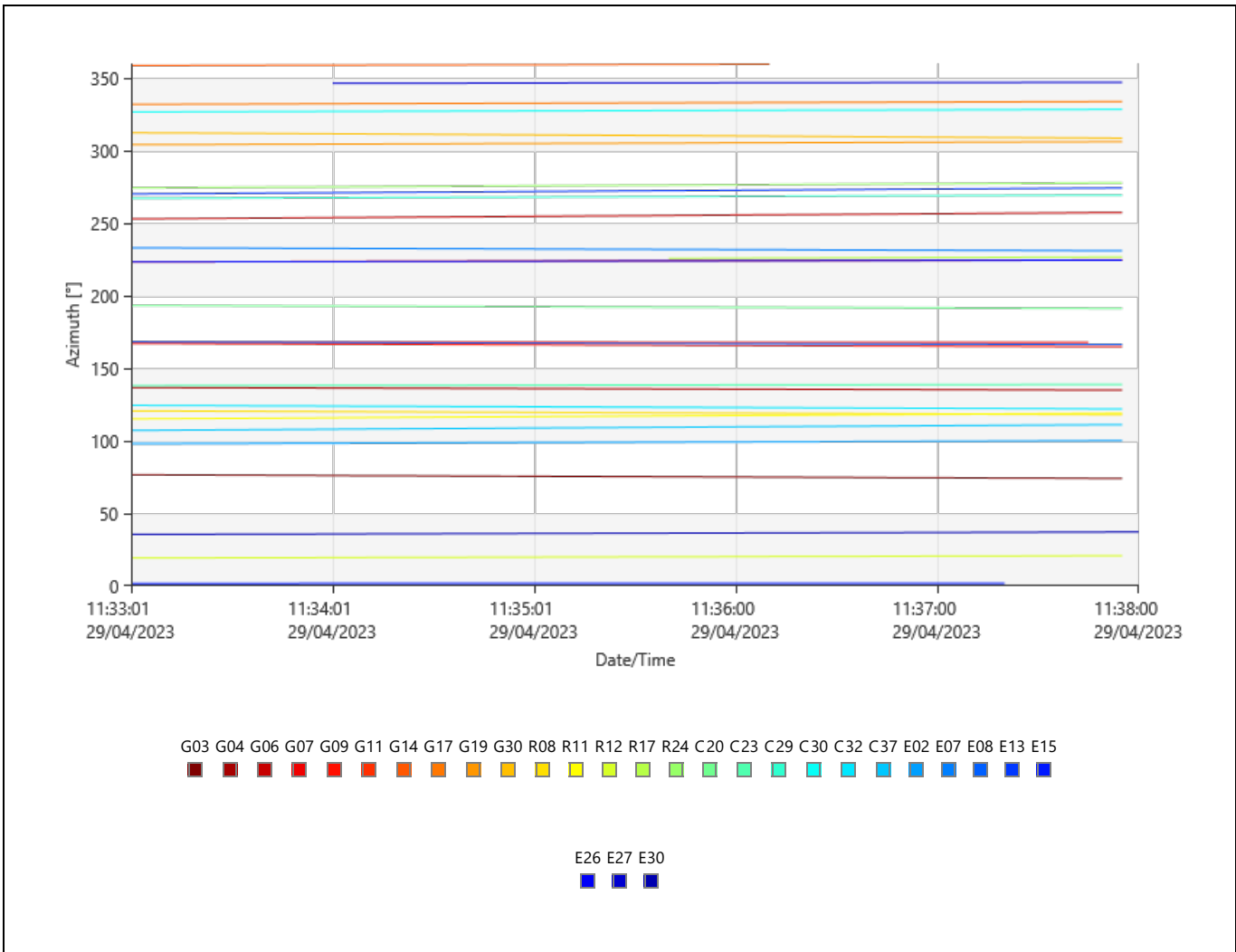


Signals Tracked

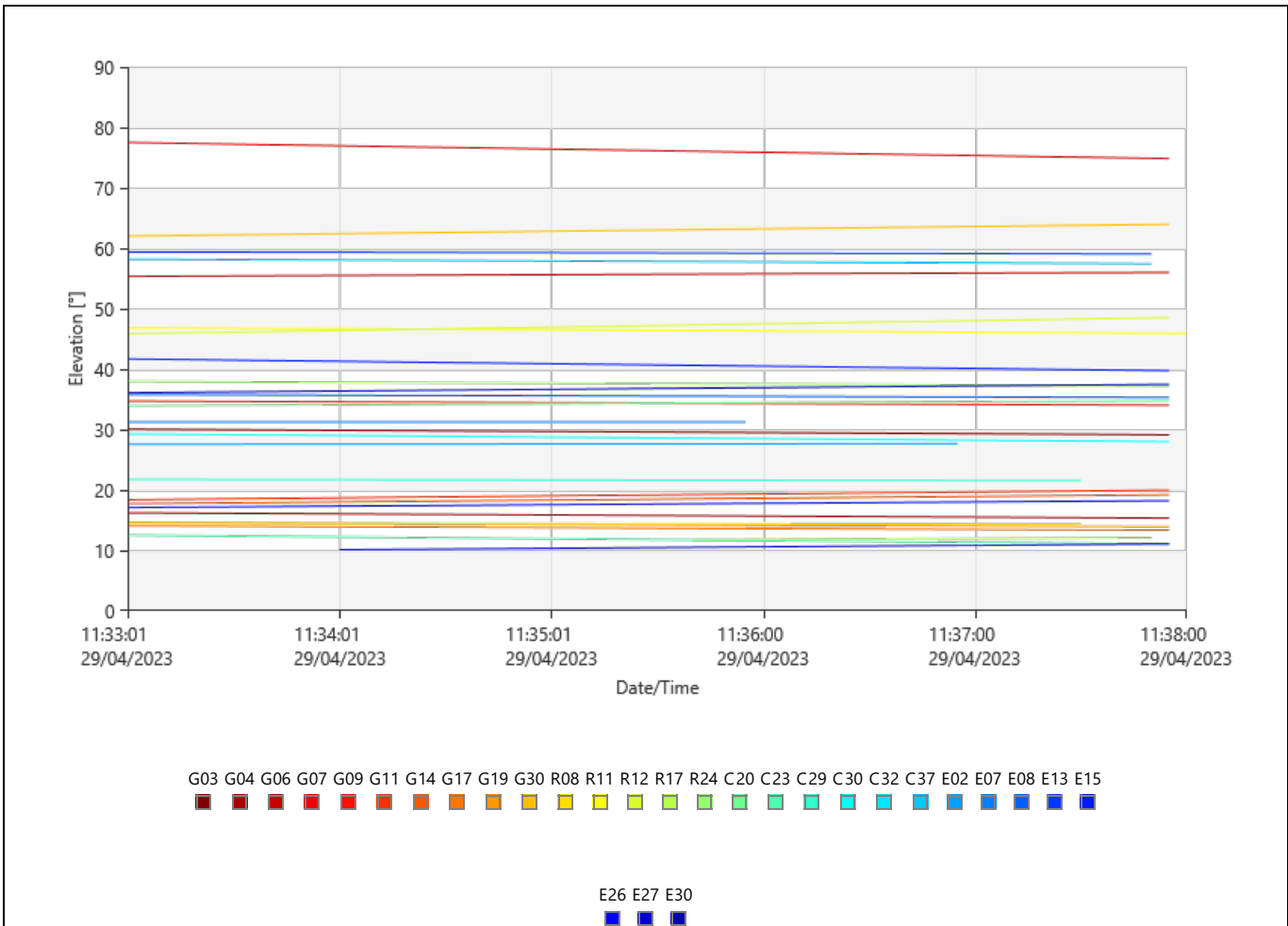




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 11:33:01	29/04/2023 11:38:01	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

G14

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Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:37:32	Used
	29/04/2023 11:37:32	29/04/2023 11:37:33	No Data
	29/04/2023 11:37:33	29/04/2023 11:37:38	Rejected
	29/04/2023 11:37:38	29/04/2023 11:38:01	Used
	29/04/2023 11:38:01	29/04/2023 11:38:01	No Data
L2	29/04/2023 11:33:01	29/04/2023 11:37:32	Used
	29/04/2023 11:37:32	29/04/2023 11:37:33	No Data
	29/04/2023 11:37:33	29/04/2023 11:37:38	Rejected
	29/04/2023 11:37:38	29/04/2023 11:38:01	Used
	29/04/2023 11:38:01	29/04/2023 11:38:01	No Data

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

R08

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:35:41	No Data
	29/04/2023 11:35:41	29/04/2023 11:35:42	Rejected
	29/04/2023 11:35:42	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:35:41	No Data
	29/04/2023 11:35:41	29/04/2023 11:35:48	Rejected
	29/04/2023 11:35:48	29/04/2023 11:38:01	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
L2	29/04/2023 11:33:01	29/04/2023 11:38:01	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
E5a	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5a+b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

E07

Frequency	From Epoch	To Epoch	Status
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E1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
E5a	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5a+b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
E5a	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5a+b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

E13

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
E5a	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5a+b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

E15

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
E5a	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5a+b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
E5a	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5a+b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:33:01	29/04/2023 11:34:01	No Data
	29/04/2023 11:34:01	29/04/2023 11:34:06	Rejected
	29/04/2023 11:34:06	29/04/2023 11:37:23	Used
	29/04/2023 11:37:23	29/04/2023 11:37:40	Rejected
	29/04/2023 11:37:40	29/04/2023 11:37:43	Used
E5a	29/04/2023 11:37:43	29/04/2023 11:38:01	Rejected
	29/04/2023 11:33:01	29/04/2023 11:34:01	No Data
E5b	29/04/2023 11:34:01	29/04/2023 11:38:01	Rejected
	29/04/2023 11:33:01	29/04/2023 11:34:01	No Data
E5a+b	29/04/2023 11:34:01	29/04/2023 11:38:01	Rejected
	29/04/2023 11:33:01	29/04/2023 11:34:01	No Data

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:33:01	29/04/2023 11:38:01	Used
E5a	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
E5a+b	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
B2	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

C23

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
B2	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
B2	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
B2	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
B2	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
B2	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected
L5	29/04/2023 11:33:01	29/04/2023 11:38:01	Rejected

Cycle Slips

Slip Count: 6

SV	Frequency	Epoch	Slip Value	Flag
G17	L1	29/04/2023 11:37:04	-	Flagged
	L2	29/04/2023 11:37:04	-	Flagged
E27	E1	29/04/2023 11:34:04	-	RIA
		29/04/2023 11:34:06	-	RIA
		29/04/2023 11:36:48	-	Flagged
		29/04/2023 11:37:24	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L2-2

Processing Parameters (29/04/2023 11:04:52 - 29/04/2023 11:10:41)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Wideline Fix:	Automatic	Automatic

General Settings

Min. Distance for Lono Minimised: 15 km
Possible Ambiguities Fix up to: 300 km
Min. Duration for Float Solution (static): 00:05:00

Results Baseline: C02 - L2-2

Acquisition

Start Time - End Time: 29/04/2023 11:04:52 - 29/04/2023 11:10:40
Duration: 00:05:48

Antennas

	Reference - C02	Rover - L2-2
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L2-2	Reference - C02	Rover - L2-2
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 46.21008" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 43.77388" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,733.2496 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,826.3910 m		4,697.4853 m
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,705.3888 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,270.3820 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 56.49340"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 36.10538"	SD ΔLongitude:	0.0001 m
ΔHeight:	-156.0812 m	SD ΔHeight:	0.0003 m
ΔX:	-1,000.0454 m	SD ΔX:	0.0001 m
ΔY:	-490.3884 m	SD ΔY:	0.0003 m
ΔZ:	1,729.6654 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,057.2589 m	SD Slope Dist.:	0.0001 m

M0:	0.3766 m	CQ 1D:	0.0003 m
Q11:	0.00000015	CQ 2D:	0.0002 m
Q12:	-0.00000015	CQ 3D:	0.0003 m
Q22:	0.00000053		
Q13:	-0.00000003		
Q23:	0.00000010		
Q33:	0.00000012		

Frequency:	L1/E1/L2	GDOP:	1.6 - 1.7	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.1 - 1.2	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/7
		VDOP:	1.0	Galileo SVs:	7/7

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

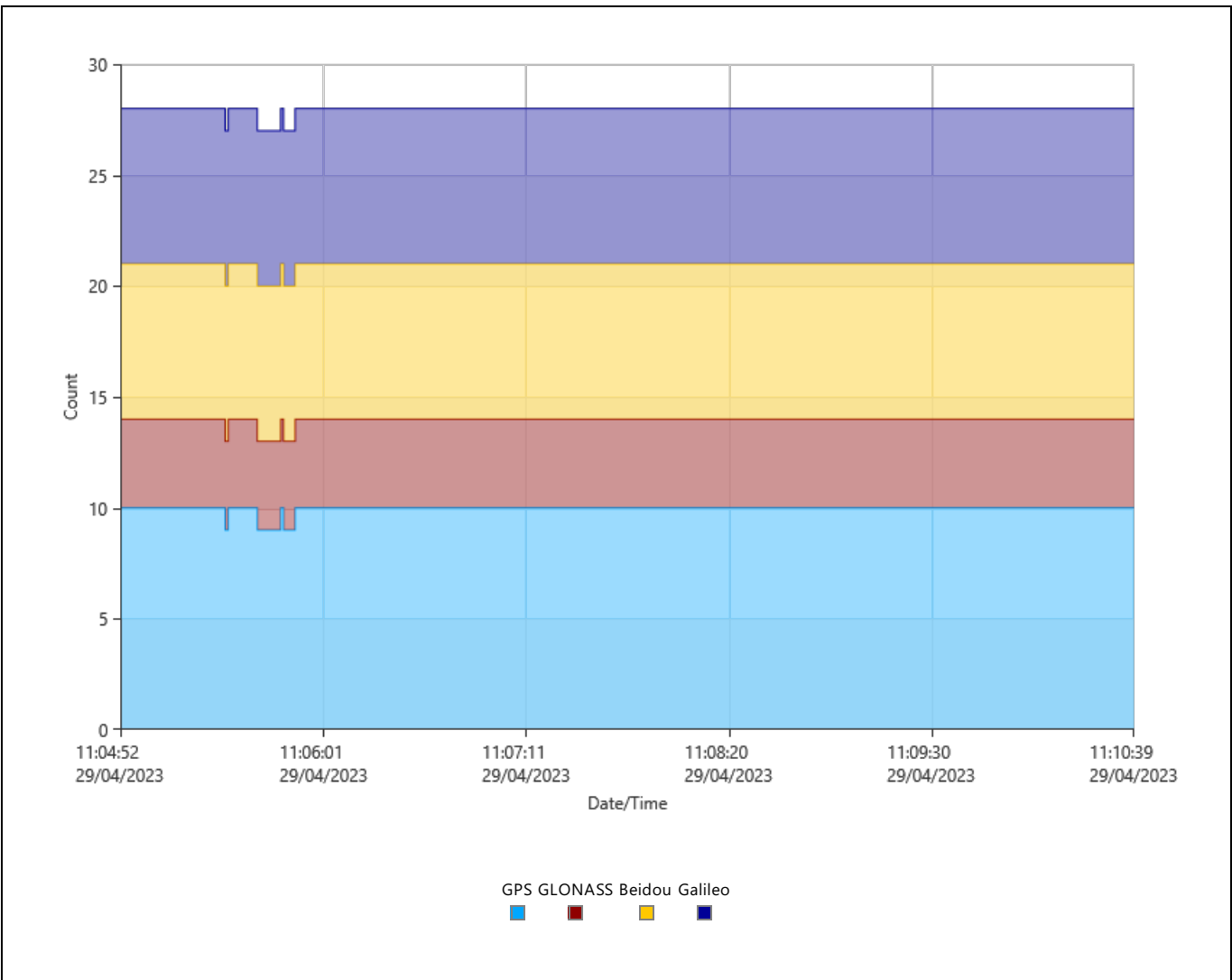
Processing Info (29/04/2023 11:04:52 - 29/04/2023 11:10:41)

Processed Date/Time: 10/05/2023 10:49:26

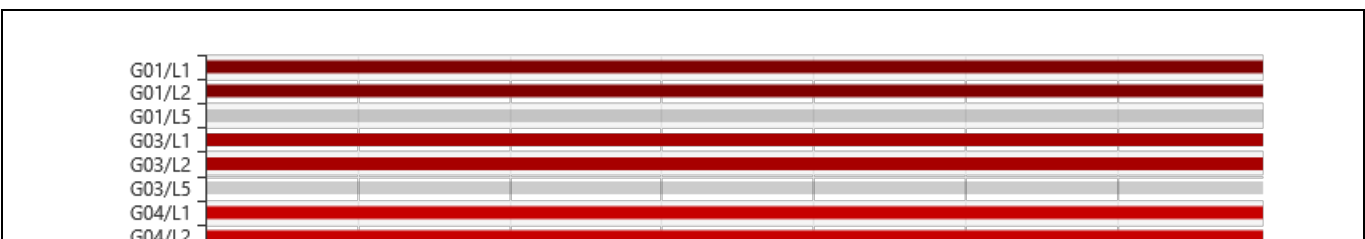
Satellites

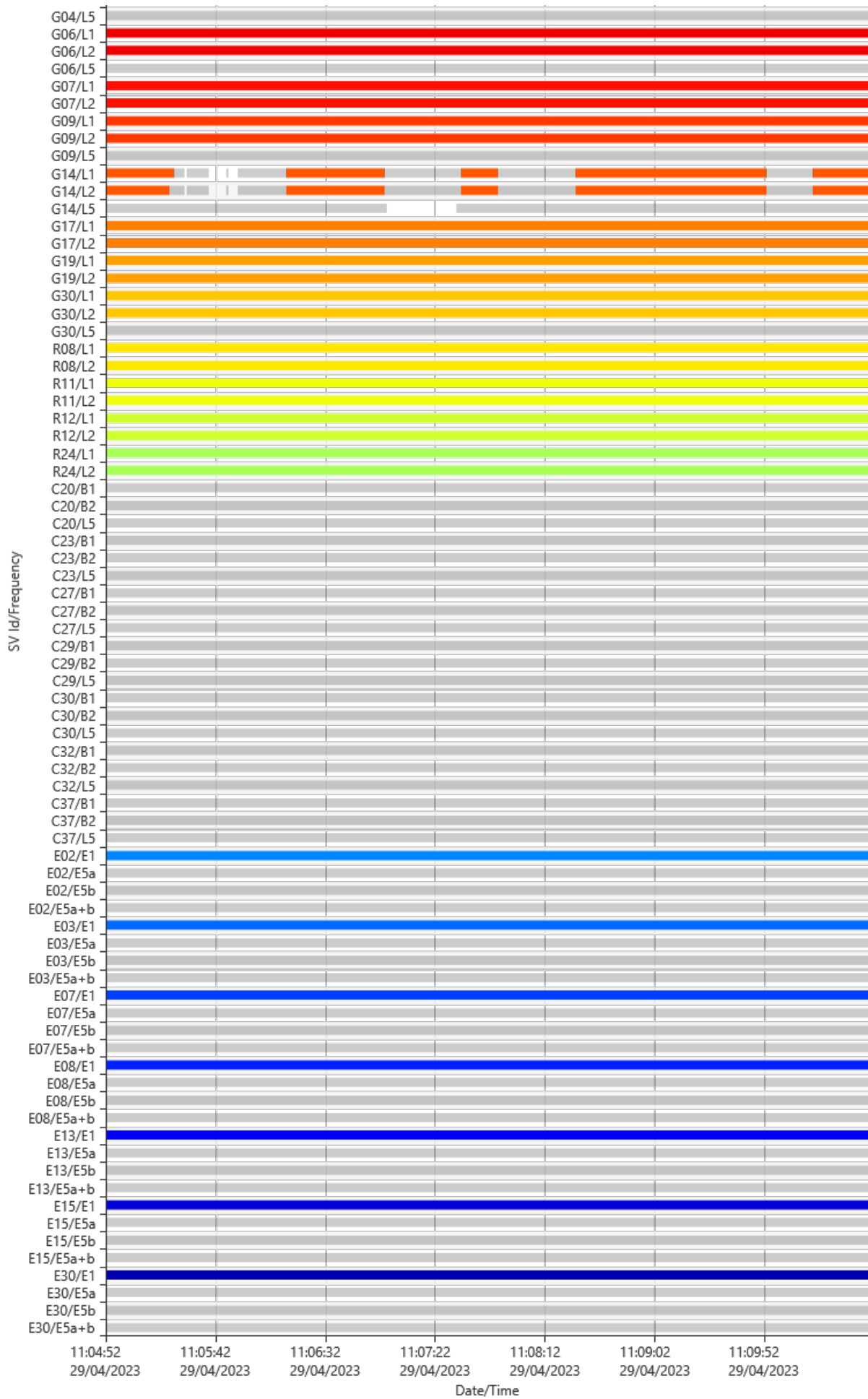
Satellite System	Used	Manually Disabled
GPS	G01 G03 G04 G06 G07 G09 G14 G17 G19 G30	-
GLONASS	R08 R11 R12 R24	-
Galileo	E02 E03 E07 E08 E13 E15 E30	-

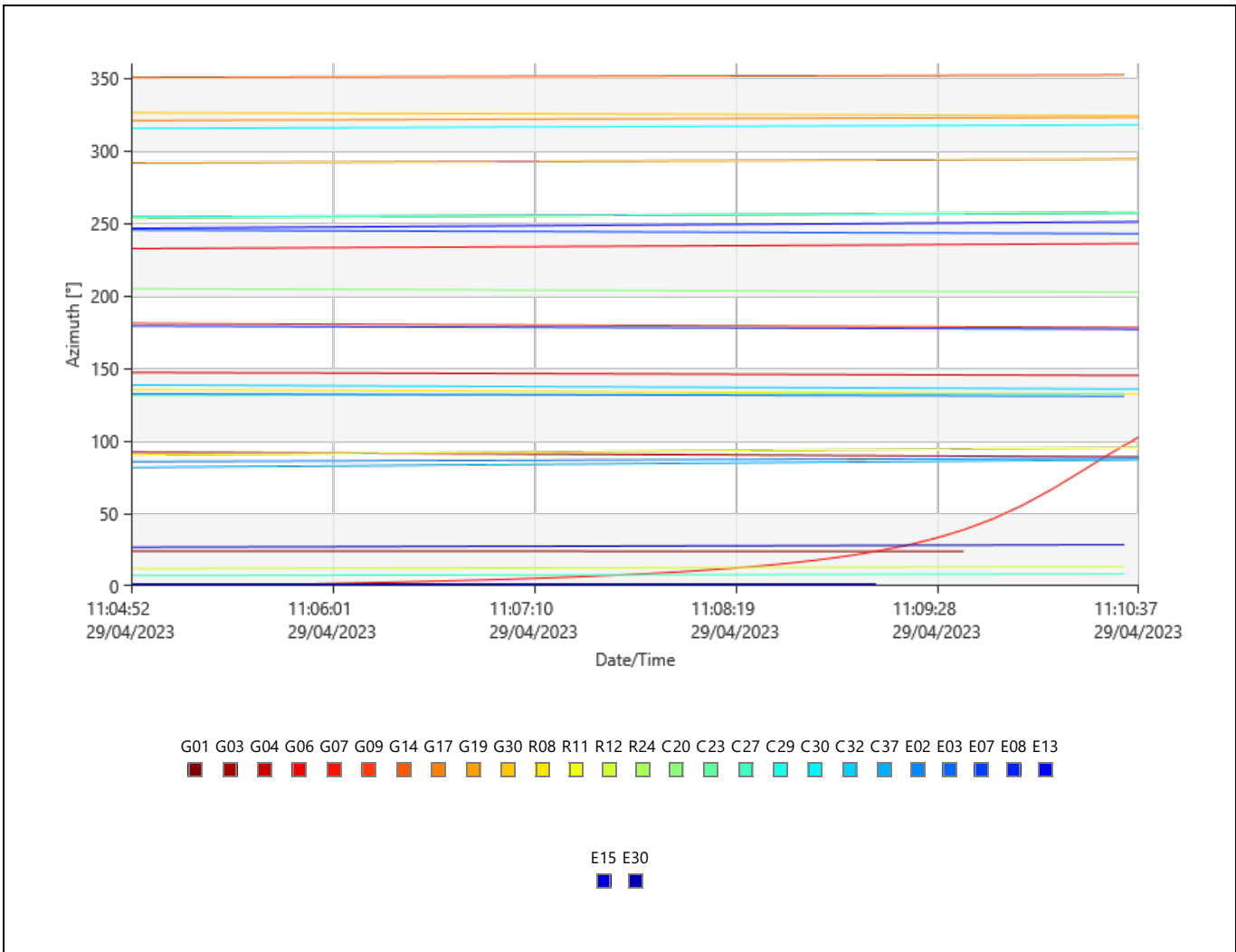
SVs Tracked



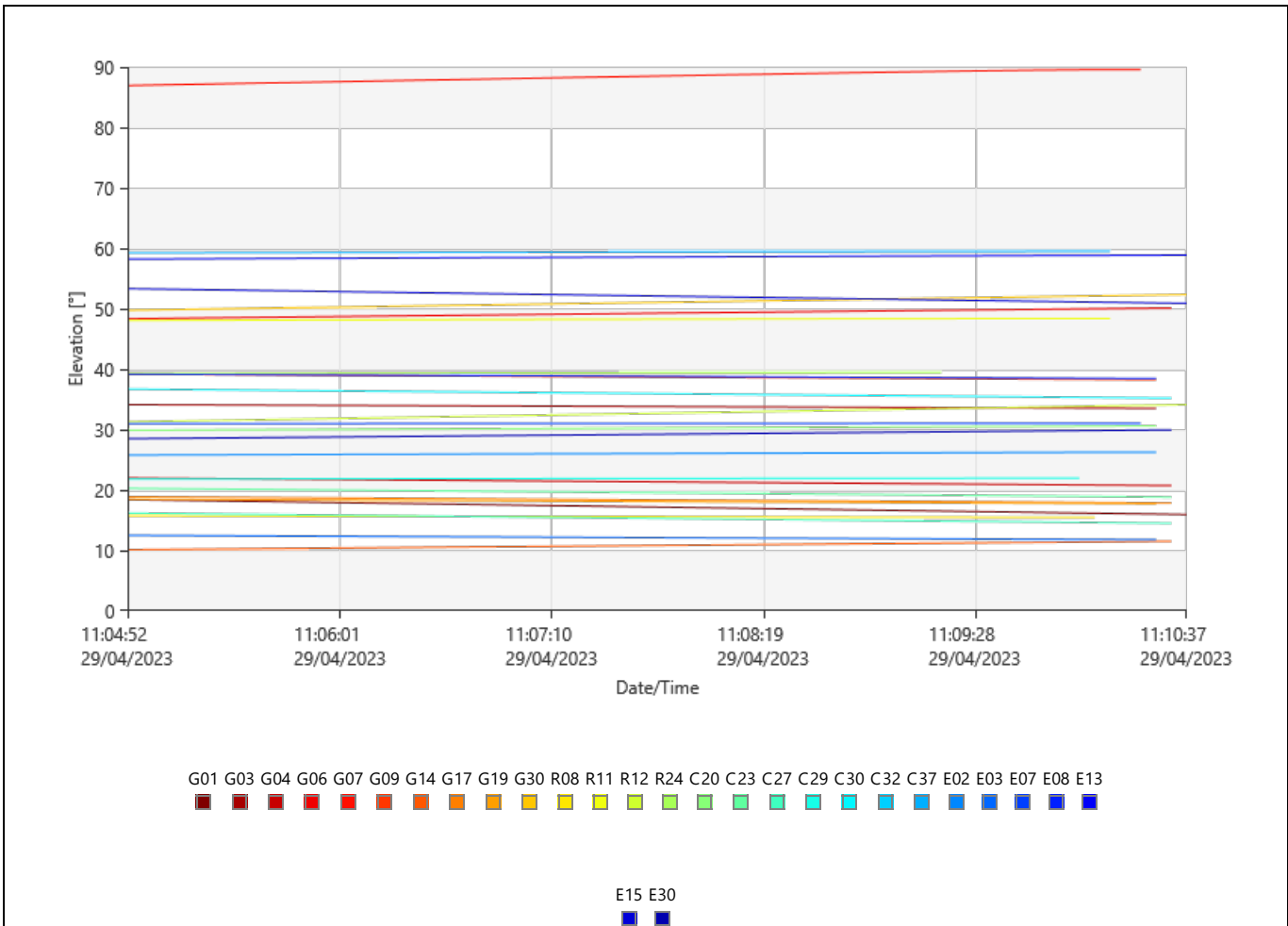
Signals Tracked







Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 11:04:52	29/04/2023 11:10:40	00:05:48

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G01

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L2	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L2	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L2	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L2	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L2	29/04/2023 11:04:52	29/04/2023 11:10:40	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L2	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:05:23	Used
	29/04/2023 11:05:23	29/04/2023 11:05:28	Rejected
	29/04/2023 11:05:28	29/04/2023 11:05:29	No Data
	29/04/2023 11:05:29	29/04/2023 11:05:39	Rejected
	29/04/2023 11:05:39	29/04/2023 11:05:47	No Data
	29/04/2023 11:05:47	29/04/2023 11:05:48	Rejected
	29/04/2023 11:05:48	29/04/2023 11:05:52	No Data
	29/04/2023 11:05:52	29/04/2023 11:06:14	Rejected
	29/04/2023 11:06:14	29/04/2023 11:06:59	Used
	29/04/2023 11:06:59	29/04/2023 11:07:34	Rejected
	29/04/2023 11:07:34	29/04/2023 11:07:51	Used
	29/04/2023 11:07:51	29/04/2023 11:08:26	Rejected
	29/04/2023 11:08:26	29/04/2023 11:09:53	Used
	29/04/2023 11:09:53	29/04/2023 11:10:14	Rejected
L2	29/04/2023 11:10:14	29/04/2023 11:10:40	Used
	29/04/2023 11:04:52	29/04/2023 11:05:21	No Data
	29/04/2023 11:04:52	29/04/2023 11:05:21	Used
	29/04/2023 11:05:21	29/04/2023 11:05:23	No Data
	29/04/2023 11:05:21	29/04/2023 11:05:23	Rejected
	29/04/2023 11:05:23	29/04/2023 11:05:25	No Data
	29/04/2023 11:05:23	29/04/2023 11:05:25	Rejected
	29/04/2023 11:05:25	29/04/2023 11:05:28	Rejected
	29/04/2023 11:05:28	29/04/2023 11:05:29	No Data
	29/04/2023 11:05:25	29/04/2023 11:05:33	No Data
	29/04/2023 11:05:29	29/04/2023 11:05:33	Rejected
	29/04/2023 11:05:33	29/04/2023 11:05:35	No Data
	29/04/2023 11:05:33	29/04/2023 11:05:35	Rejected
	29/04/2023 11:05:35	29/04/2023 11:05:36	No Data
	29/04/2023 11:05:35	29/04/2023 11:05:36	Rejected
	29/04/2023 11:05:36	29/04/2023 11:05:39	Rejected
	29/04/2023 11:05:39	29/04/2023 11:05:47	No Data
	29/04/2023 11:05:47	29/04/2023 11:05:48	Rejected
	29/04/2023 11:05:48	29/04/2023 11:05:52	No Data
	29/04/2023 11:05:36	29/04/2023 11:05:53	No Data
	29/04/2023 11:05:52	29/04/2023 11:05:53	Rejected
	29/04/2023 11:05:53	29/04/2023 11:05:54	No Data
	29/04/2023 11:05:53	29/04/2023 11:05:54	Rejected
	29/04/2023 11:05:54	29/04/2023 11:05:55	No Data
	29/04/2023 11:05:54	29/04/2023 11:05:55	Rejected
	29/04/2023 11:05:55	29/04/2023 11:05:56	No Data
	29/04/2023 11:05:55	29/04/2023 11:05:56	Rejected
	29/04/2023 11:05:56	29/04/2023 11:06:04	No Data
	29/04/2023 11:05:56	29/04/2023 11:06:04	Rejected
	29/04/2023 11:06:04	29/04/2023 11:06:05	No Data
29/04/2023 11:06:04	29/04/2023 11:06:05	Rejected	
29/04/2023 11:06:05	29/04/2023 11:06:14	Rejected	
29/04/2023 11:06:14	29/04/2023 11:06:59	Used	
29/04/2023 11:06:59	29/04/2023 11:07:34	Rejected	
29/04/2023 11:07:34	29/04/2023 11:07:51	Used	
29/04/2023 11:07:51	29/04/2023 11:08:26	Rejected	
29/04/2023 11:08:26	29/04/2023 11:09:53	Used	
29/04/2023 11:09:53	29/04/2023 11:10:14	Rejected	
29/04/2023 11:10:14	29/04/2023 11:10:40	Used	
29/04/2023 11:06:05	29/04/2023 11:10:40	No Data	
L5	29/04/2023 11:04:52	29/04/2023 11:07:00	Rejected
	29/04/2023 11:07:00	29/04/2023 11:07:32	No Data
	29/04/2023 11:07:32	29/04/2023 11:10:40	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L2	29/04/2023 11:04:52	29/04/2023 11:10:40	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
L2	29/04/2023 11:04:52	29/04/2023 11:10:40	Used

G30

Frequency	From Epoch	To Epoch	Status
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Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:04:52	29/04/2023 11:10:40	Used
E5a	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
E5b	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
E5a+b	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
B2	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

C23

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
B2	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

C27

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
B2	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
B2	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
B2	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
B2	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
B2	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected
L5	29/04/2023 11:04:52	29/04/2023 11:10:40	Rejected

Cycle Slips

Slip Count: 12

SV	Frequency	Epoch	Slip Value	Flag
G14	L1	29/04/2023 11:05:58	-	RIA
		29/04/2023 11:06:56	-	Flagged
		29/04/2023 11:06:58	-	Flagged
		29/04/2023 11:07:34	-	RIA
		29/04/2023 11:09:52	-	Flagged
	L2	29/04/2023 11:05:32	-	RIA
		29/04/2023 11:05:58	-	RIA
		29/04/2023 11:06:56	-	Flagged
		29/04/2023 11:06:58	-	Flagged
		29/04/2023 11:07:34	-	RIA
C27	B2	29/04/2023 11:09:52	-	Flagged
		29/04/2023 11:09:58	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L3-1

Processing Parameters (29/04/2023 11:26:44 - 29/04/2023 11:31:45)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L3-1

Acquisition

Start Time - End Time:	29/04/2023 11:26:45 - 29/04/2023 11:31:45
Duration:	00:05:00

Antennas

	Reference - C02	Rover - L3-1
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L3-1		Reference - C02	Rover - L3-1
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 42.74530" S	Eastings:	438,215.5500 m	437,165.4174 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 42.33694" W	Northings:	8,609,405.6600 m	8,611,245.2241 m
WGS84 Ellip. Height:	4,889.3308 m	4,736.0202 m	Ortho. Height:	4,853.4775 m	4,700.2622 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,874.8769 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,719.6418 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,166.9842 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 59.95818"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 34.66845"	SD ΔLongitude:	0.0001 m
ΔHeight:	-153.3106 m	SD ΔHeight:	0.0002 m
ΔX:	-951.5594 m	SD ΔX:	0.0001 m
ΔY:	-504.6414 m	SD ΔY:	0.0002 m
ΔZ:	1,833.0632 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,126.0877 m	SD Slope Dist.:	0.0001 m

M0:	0.3067 m	CQ 1D:	0.0002 m
Q11:	0.00000018	CQ 2D:	0.0002 m
Q12:	-0.00000017	CQ 3D:	0.0003 m
Q22:	0.00000056		
Q13:	-0.00000003		
Q23:	0.00000012		
Q33:	0.00000016		

Frequency:	L1/E1/L2	GDOP:	1.6	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.1	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/7
		VDOP:	0.9	Galileo SVs:	7/7
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

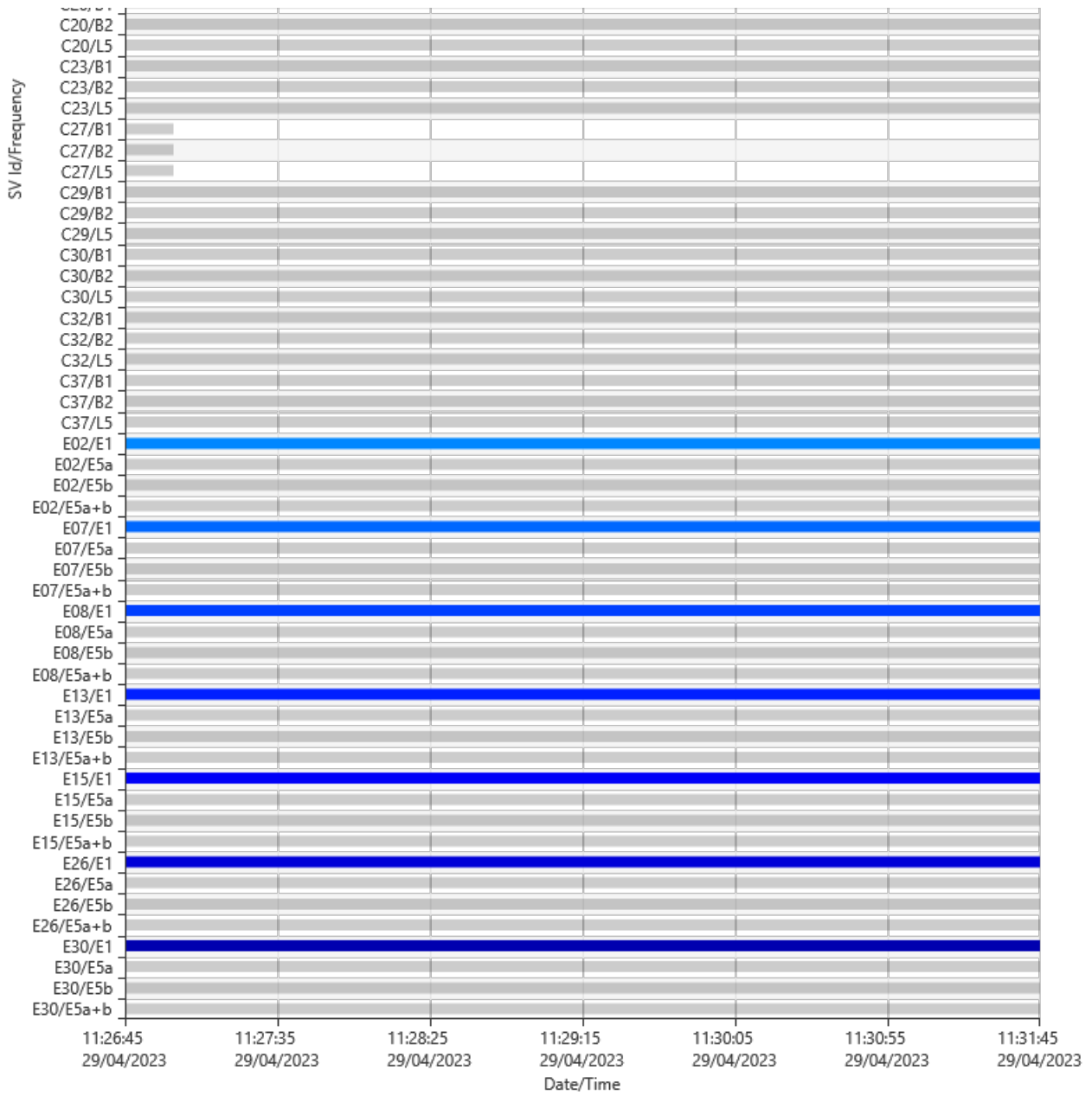
Processing Info (29/04/2023 11:26:44 - 29/04/2023 11:31:45)

Processed Date/Time: 10/05/2023 10:49:26

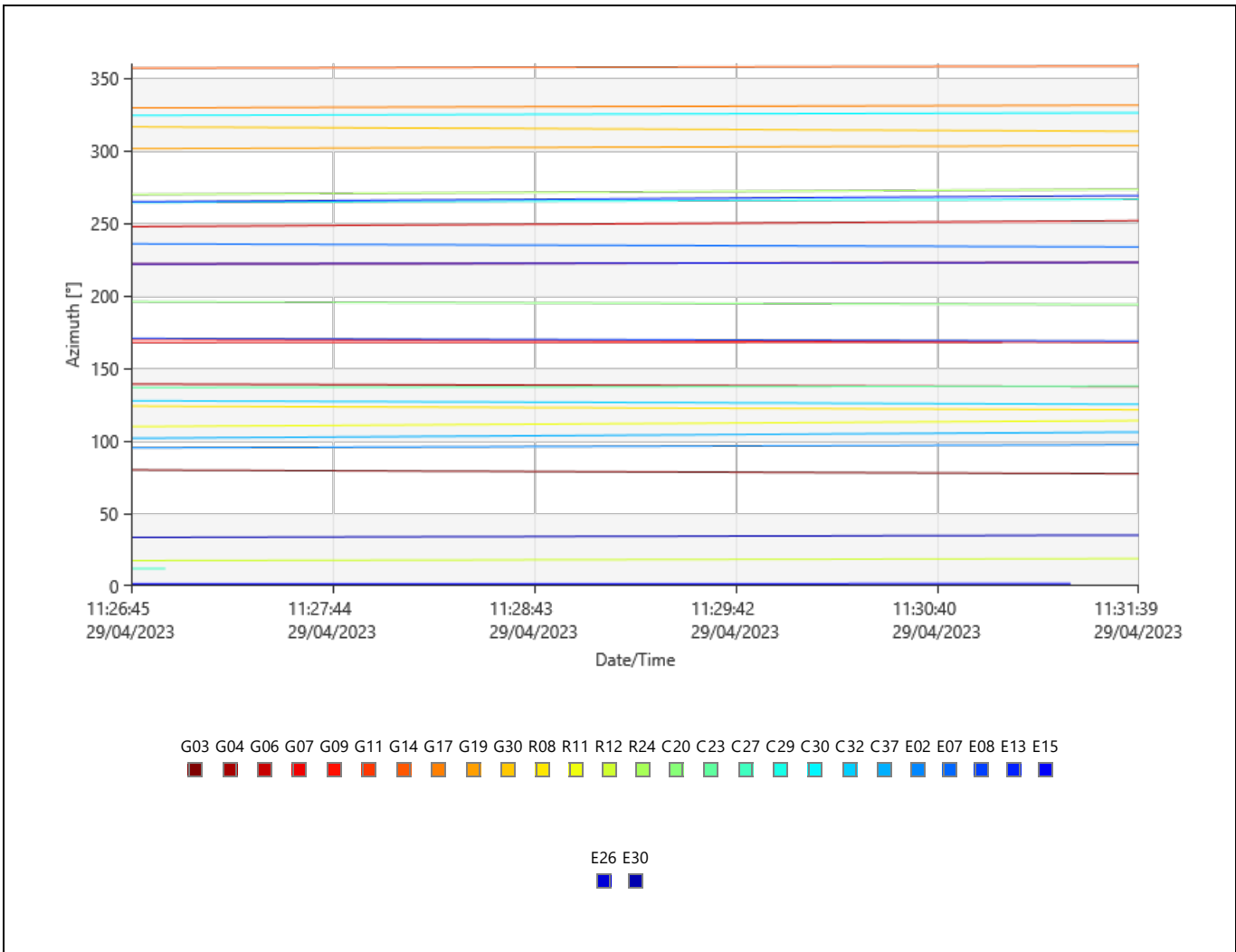
Satellites

Satellite System	Used	Manually Disabled
GPS	G03 G04 G06 G07 G09 G11 G14 G17 G19 G30	-
GLONASS	R08 R11 R12 R24	-
Galileo	E02 E07 E08 E13 E15 E26 E30	-

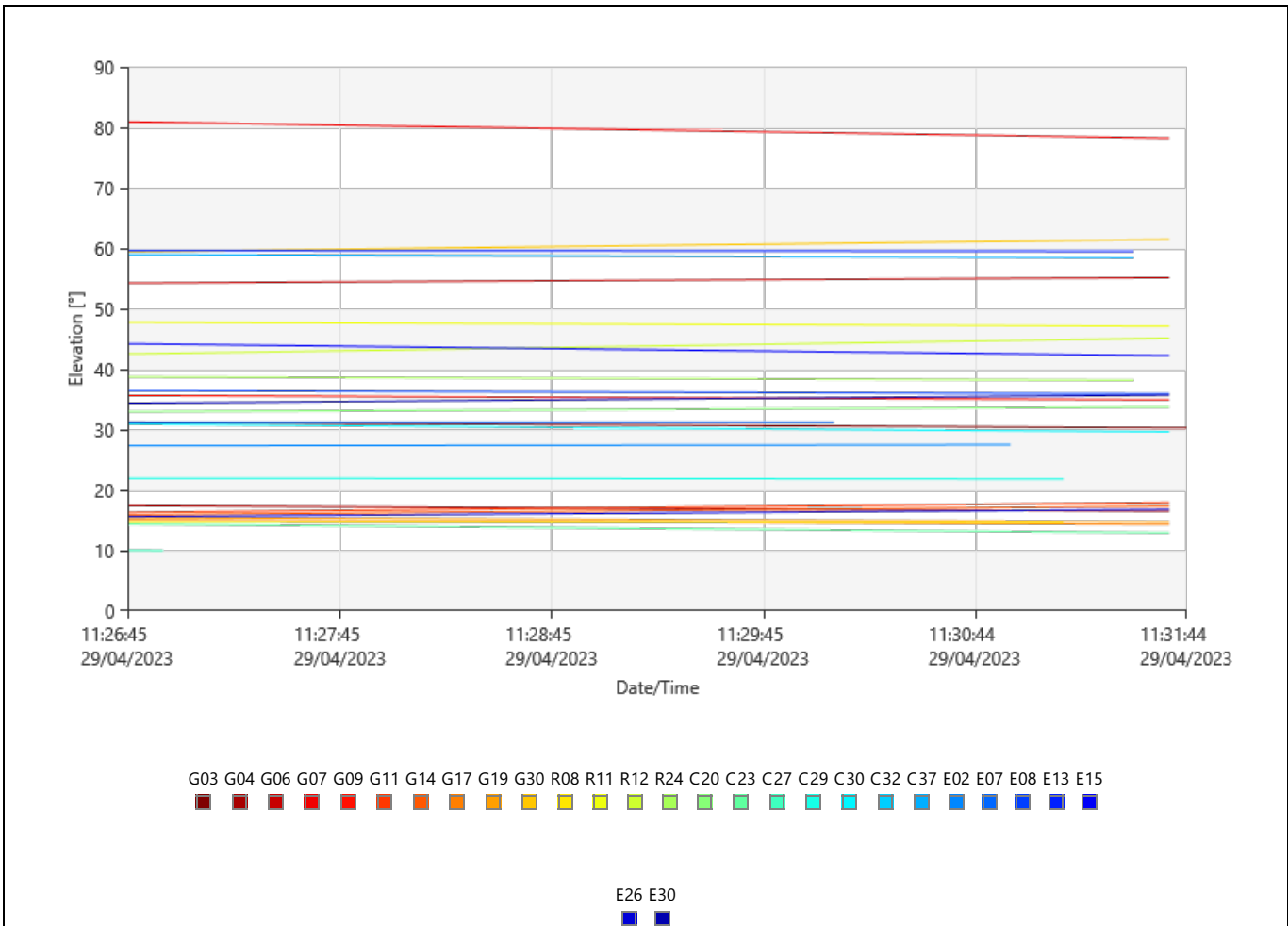
SVs Tracked



Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 11:26:45	29/04/2023 11:31:45	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

G14

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Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

R08

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
L2	29/04/2023 11:26:45	29/04/2023 11:31:45	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
E5a	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5a+b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
E5a	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5a+b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
E5a	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5a+b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

E13

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
E5a	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

E5b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5a+b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

E15

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
E5a	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5a+b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
E5a	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5a+b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:26:45	29/04/2023 11:31:45	Used
E5a	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
E5a+b	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
B2	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

C23

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
B2	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

C27

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:26:45	29/04/2023 11:27:01	Rejected
	29/04/2023 11:27:01	29/04/2023 11:31:45	No Data
B2	29/04/2023 11:26:45	29/04/2023 11:27:01	Rejected
	29/04/2023 11:27:01	29/04/2023 11:31:45	No Data
L5	29/04/2023 11:26:45	29/04/2023 11:27:01	Rejected
	29/04/2023 11:27:01	29/04/2023 11:31:45	No Data

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
B2	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
B2	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
B2	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
L5	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected
B2	29/04/2023 11:26:45	29/04/2023 11:31:45	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R10.
 Missing orbits for satellite R23.
 No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L3-2

Processing Parameters (29/04/2023 11:13:08 - 29/04/2023 11:18:08)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L3-2

Acquisition

Start Time - End Time: 29/04/2023 11:13:08 - 29/04/2023 11:18:08
 Duration: 00:05:00

Antennas

	Reference - C02	Rover - L3-2
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

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GLONASS	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L3-2		Reference - C02	Rover - L3-2
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 46.26053" S	Easting:	438,215.5500 m	437,128.9299 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 43.55396" W	Northing:	8,609,405.6600 m	8,611,137.1599 m
WGS84 Ellip. Height:	4,889.3308 m	4,733.3565 m	Ortho. Height:	4,853.4775 m	4,697.5921 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,832.7671 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,703.5086 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,271.9193 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 56.44296"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 35.88547"	SD ΔLongitude:	0.0001 m
ΔHeight:	-155.9743 m	SD ΔHeight:	0.0003 m
ΔX:	-993.6693 m	SD ΔX:	0.0001 m
ΔY:	-488.5081 m	SD ΔY:	0.0003 m
ΔZ:	1,728.1281 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,052.4243 m	SD Slope Dist.:	0.0001 m

M0:	0.3496 m	CQ 1D:	0.0003 m
Q11:	0.00000018	CQ 2D:	0.0002 m
Q12:	-0.00000019	CQ 3D:	0.0003 m
Q22:	0.00000062		
Q13:	-0.00000003		
Q23:	0.00000011		
Q33:	0.00000014		

Frequency:	L1/E1/L2	GDOP:	1.5 - 1.8	GPS SVs:	10/11
Solution Optimisation:	None	PDOP:	1.1 - 1.2	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.5 - 0.6	Beidou SVs:	0/7
		VDOP:	0.9 - 1.0	Galileo SVs:	7/8
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

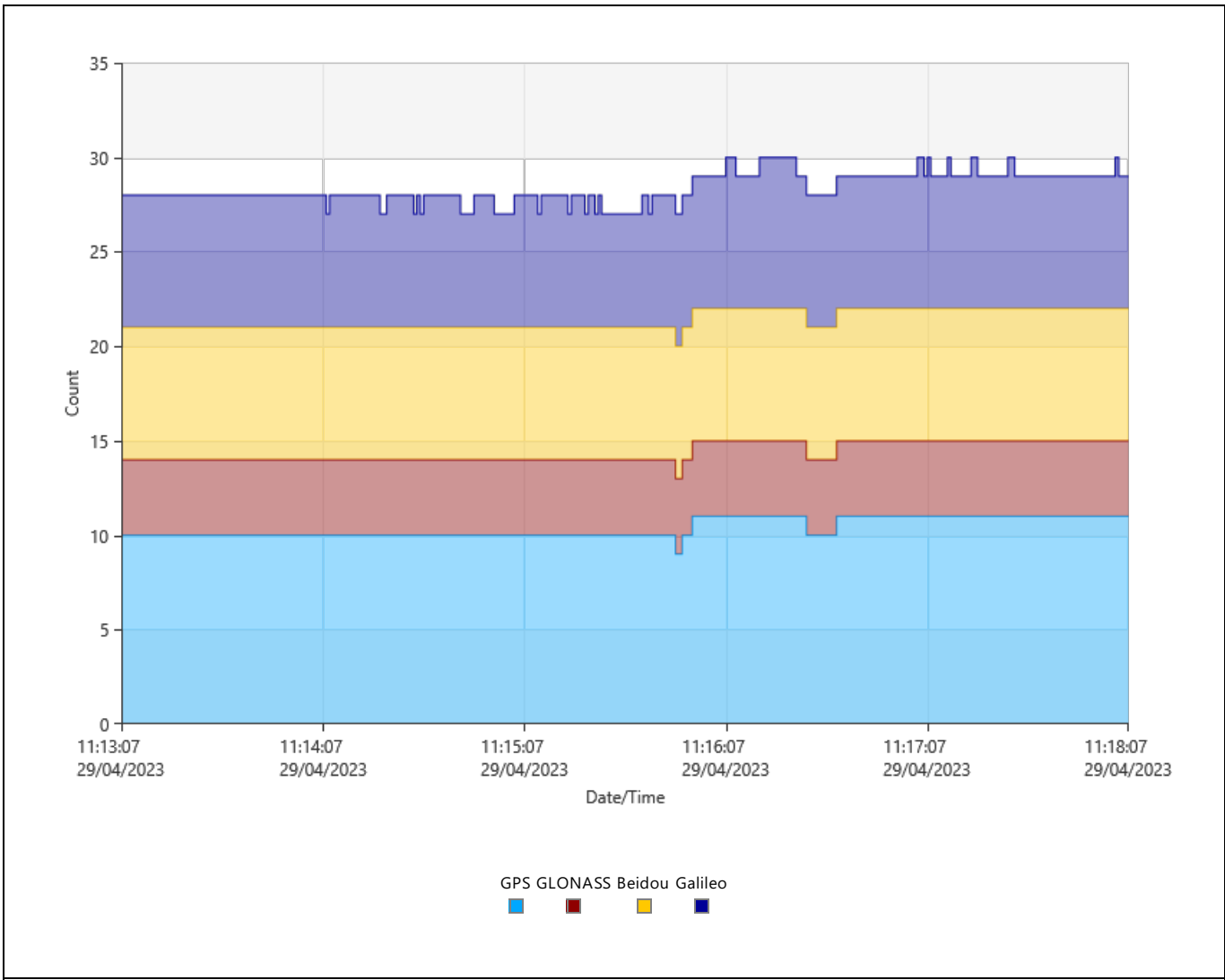
Processing Info (29/04/2023 11:13:08 - 29/04/2023 11:18:08)

Processed Date/Time: 10/05/2023 10:49:26

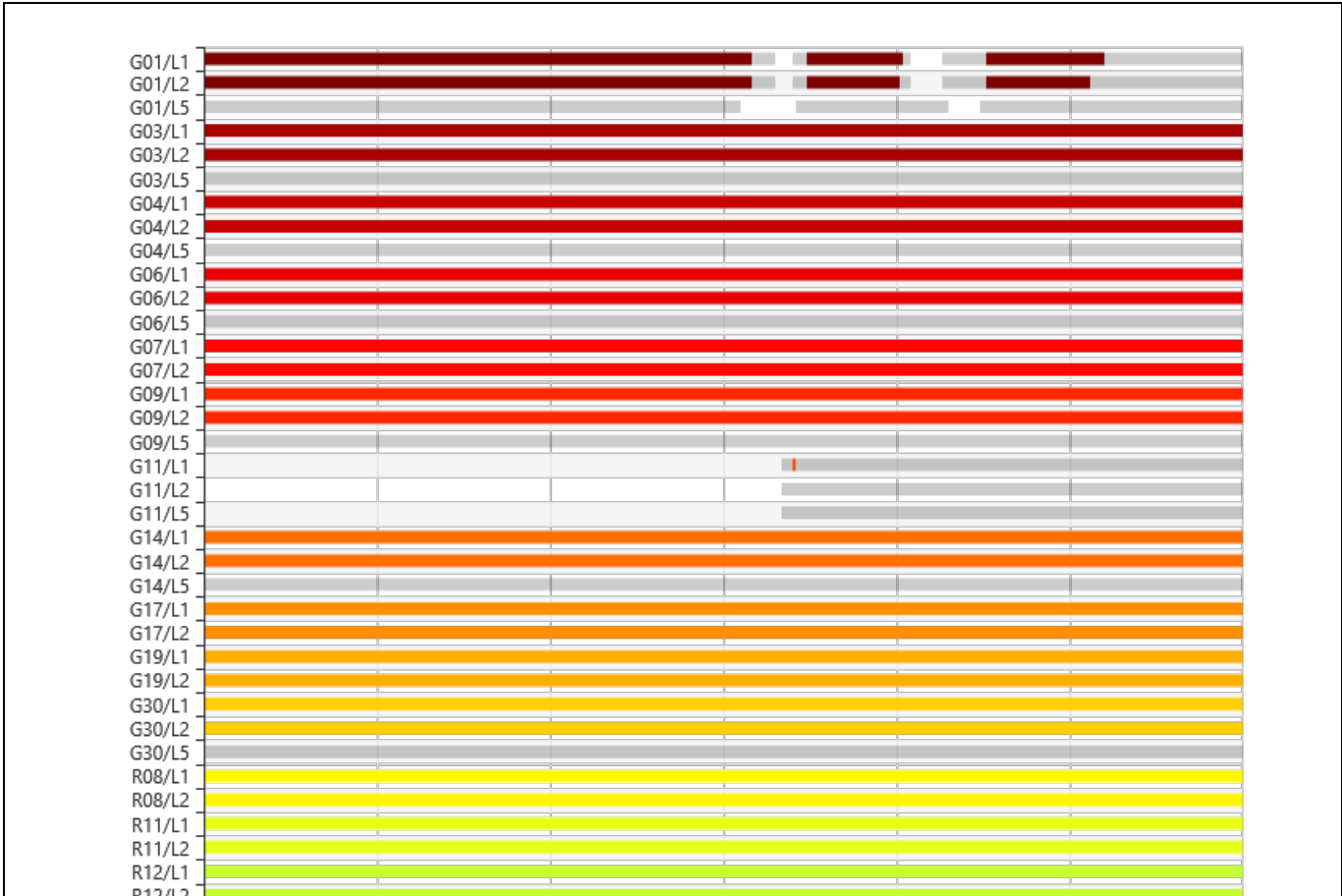
Satellites

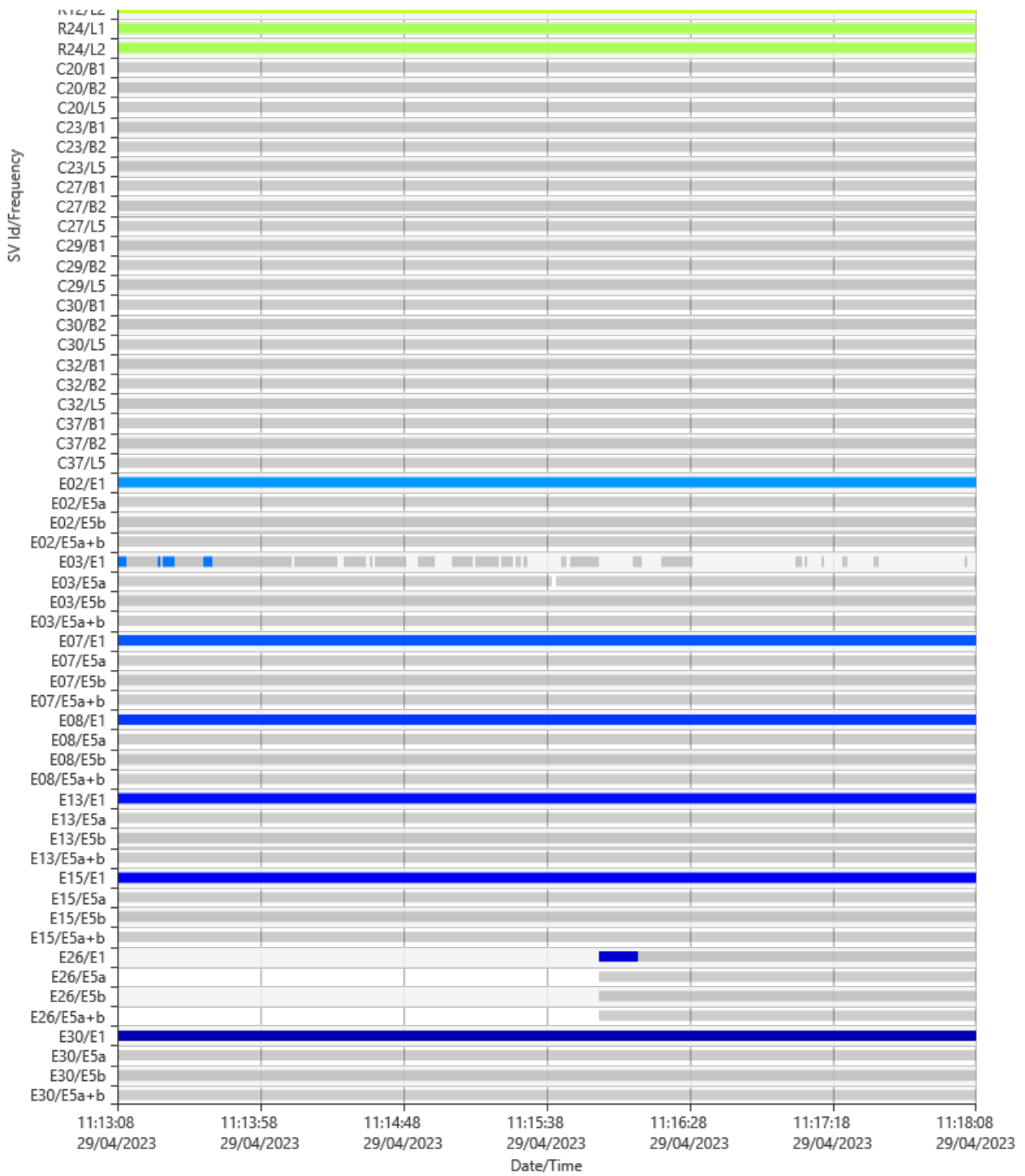
Satellite System	Used	Manually Disabled
GPS	G01 G03 G04 G06 G07 G09 G11 G14 G17 G19 G30	-
GLONASS	R08 R11 R12 R24	-
Galileo	E02 E03 E07 E08 E13 E15 E26 E30	-

SVs Tracked

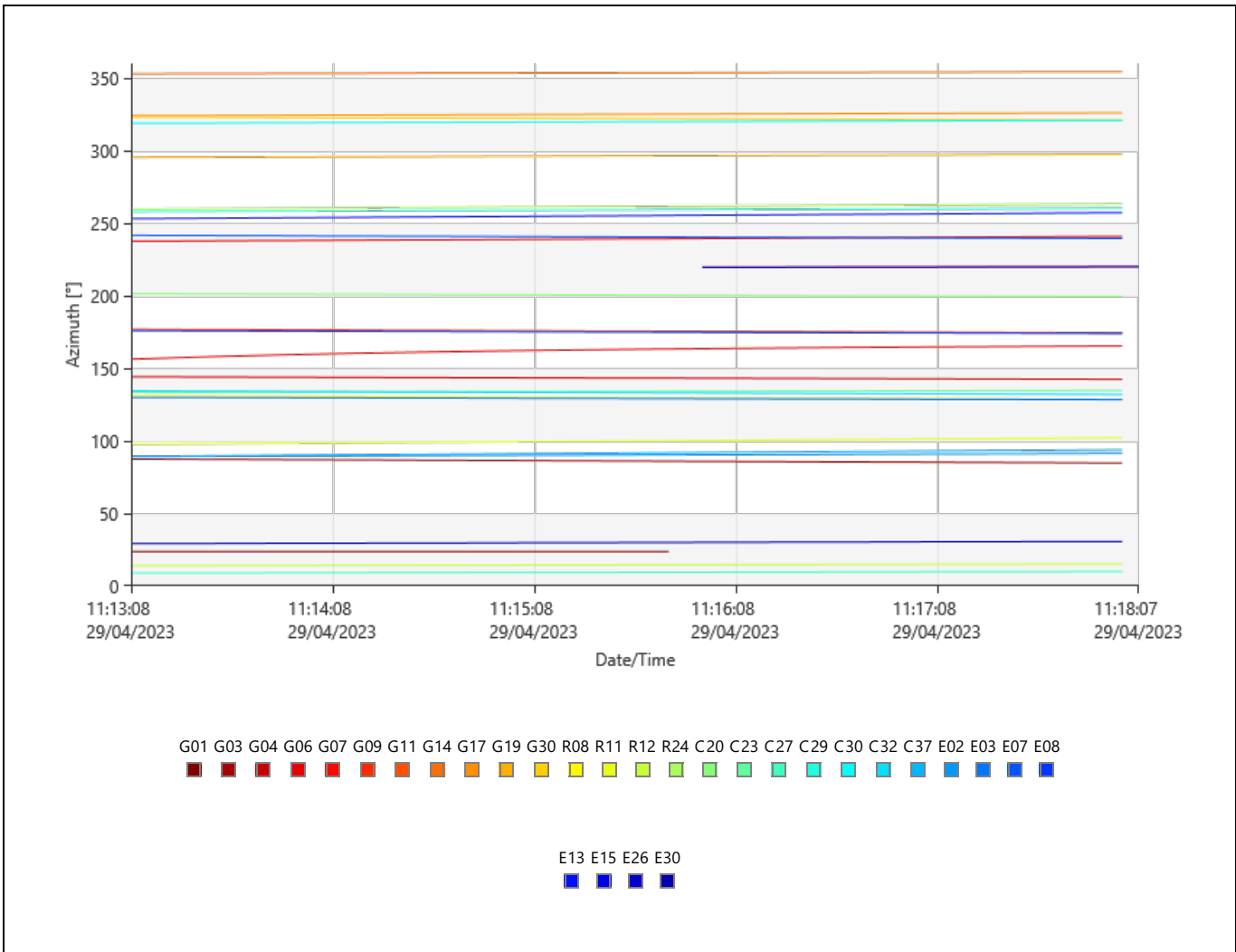


Signals Tracked

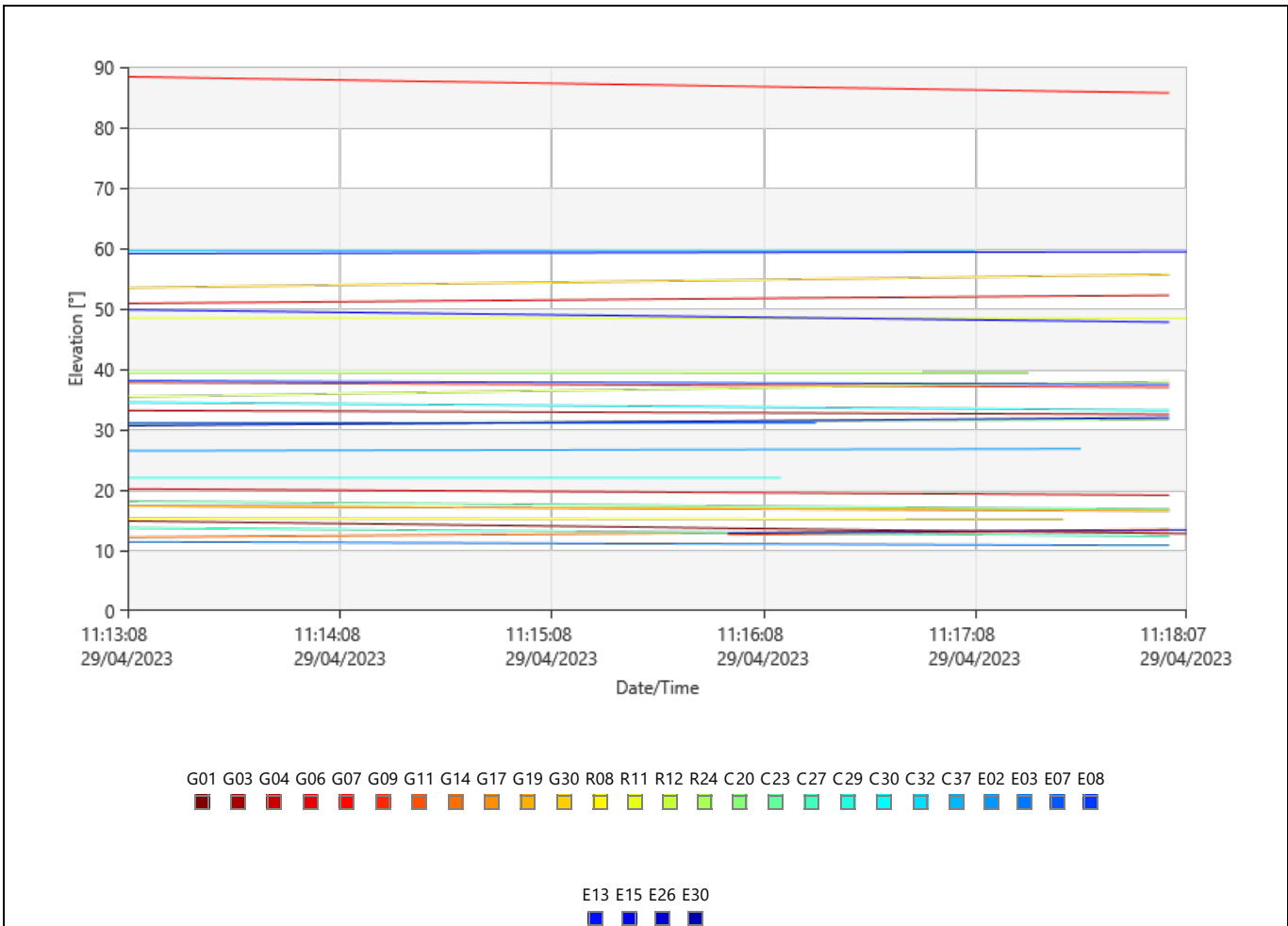




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 11:13:08	29/04/2023 11:18:08	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G01

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:15:46	Used
	29/04/2023 11:15:46	29/04/2023 11:15:53	Rejected
	29/04/2023 11:15:53	29/04/2023 11:15:58	No Data
	29/04/2023 11:15:58	29/04/2023 11:16:02	Rejected
	29/04/2023 11:16:02	29/04/2023 11:16:30	Used
	29/04/2023 11:16:30	29/04/2023 11:16:32	Rejected
	29/04/2023 11:16:32	29/04/2023 11:16:41	No Data
	29/04/2023 11:16:41	29/04/2023 11:16:54	Rejected
L2	29/04/2023 11:16:54	29/04/2023 11:17:28	Used
	29/04/2023 11:17:28	29/04/2023 11:18:08	Rejected
	29/04/2023 11:13:08	29/04/2023 11:15:46	Used
	29/04/2023 11:15:46	29/04/2023 11:15:53	Rejected
	29/04/2023 11:15:53	29/04/2023 11:15:58	No Data
	29/04/2023 11:15:58	29/04/2023 11:16:02	Rejected
	29/04/2023 11:13:08	29/04/2023 11:16:29	No Data
	29/04/2023 11:16:02	29/04/2023 11:16:29	Used
	29/04/2023 11:16:29	29/04/2023 11:16:30	No Data
	29/04/2023 11:16:29	29/04/2023 11:16:30	Rejected
	29/04/2023 11:16:30	29/04/2023 11:16:32	Rejected
	29/04/2023 11:16:32	29/04/2023 11:16:41	No Data
29/04/2023 11:16:41	29/04/2023 11:16:54	Rejected	
L5	29/04/2023 11:16:54	29/04/2023 11:17:24	Used
	29/04/2023 11:16:30	29/04/2023 11:17:27	No Data
	29/04/2023 11:17:24	29/04/2023 11:17:27	Rejected
	29/04/2023 11:17:27	29/04/2023 11:17:28	No Data
	29/04/2023 11:17:27	29/04/2023 11:17:28	Rejected
	29/04/2023 11:17:27	29/04/2023 11:17:28	Rejected
	29/04/2023 11:17:28	29/04/2023 11:18:08	Rejected
	29/04/2023 11:17:28	29/04/2023 11:18:08	No Data
L5	29/04/2023 11:13:08	29/04/2023 11:15:43	Rejected
	29/04/2023 11:15:43	29/04/2023 11:15:59	No Data
	29/04/2023 11:15:59	29/04/2023 11:16:43	Rejected
	29/04/2023 11:16:43	29/04/2023 11:16:52	No Data
	29/04/2023 11:16:52	29/04/2023 11:18:08	Rejected

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used

L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:15:55	No Data
	29/04/2023 11:15:55	29/04/2023 11:15:58	Rejected
	29/04/2023 11:15:58	29/04/2023 11:15:59	Used
	29/04/2023 11:15:59	29/04/2023 11:18:08	Rejected
L2	29/04/2023 11:13:08	29/04/2023 11:15:55	No Data
	29/04/2023 11:15:55	29/04/2023 11:18:08	Rejected
L5	29/04/2023 11:13:08	29/04/2023 11:15:55	No Data
	29/04/2023 11:15:55	29/04/2023 11:18:08	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

R08

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used

R11

Frequency	From Epoch	To Epoch	Status

L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
L2	29/04/2023 11:13:08	29/04/2023 11:18:08	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
E5a	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5a+b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

E03

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:13:08	29/04/2023 11:13:11	Used
	29/04/2023 11:13:11	29/04/2023 11:13:22	Rejected
	29/04/2023 11:13:22	29/04/2023 11:13:23	Used
	29/04/2023 11:13:23	29/04/2023 11:13:24	Rejected
	29/04/2023 11:13:24	29/04/2023 11:13:28	Used
	29/04/2023 11:13:28	29/04/2023 11:13:38	Rejected
	29/04/2023 11:13:38	29/04/2023 11:13:41	Used
	29/04/2023 11:13:41	29/04/2023 11:14:09	Rejected
	29/04/2023 11:14:09	29/04/2023 11:14:10	No Data
	29/04/2023 11:14:10	29/04/2023 11:14:25	Rejected
	29/04/2023 11:14:25	29/04/2023 11:14:27	No Data
	29/04/2023 11:14:27	29/04/2023 11:14:35	Rejected
	29/04/2023 11:14:35	29/04/2023 11:14:36	No Data
	29/04/2023 11:14:36	29/04/2023 11:14:37	Rejected
	29/04/2023 11:14:37	29/04/2023 11:14:38	No Data
	29/04/2023 11:14:38	29/04/2023 11:14:49	Rejected
	29/04/2023 11:14:49	29/04/2023 11:14:53	No Data
	29/04/2023 11:14:53	29/04/2023 11:14:59	Rejected
	29/04/2023 11:14:59	29/04/2023 11:15:05	No Data
	29/04/2023 11:15:05	29/04/2023 11:15:12	Rejected
	29/04/2023 11:15:12	29/04/2023 11:15:13	No Data
	29/04/2023 11:15:13	29/04/2023 11:15:21	Rejected
	29/04/2023 11:15:21	29/04/2023 11:15:22	No Data
	29/04/2023 11:15:22	29/04/2023 11:15:26	Rejected
	29/04/2023 11:15:26	29/04/2023 11:15:27	No Data
	29/04/2023 11:15:27	29/04/2023 11:15:29	Rejected
	29/04/2023 11:15:29	29/04/2023 11:15:30	No Data
	29/04/2023 11:15:30	29/04/2023 11:15:31	Rejected
	29/04/2023 11:15:31	29/04/2023 11:15:43	No Data
	29/04/2023 11:15:43	29/04/2023 11:15:45	Rejected
	29/04/2023 11:15:45	29/04/2023 11:15:46	No Data
	29/04/2023 11:15:46	29/04/2023 11:15:56	Rejected
	29/04/2023 11:15:56	29/04/2023 11:16:08	No Data
	29/04/2023 11:16:08	29/04/2023 11:16:11	Rejected
	29/04/2023 11:16:11	29/04/2023 11:16:18	No Data
	29/04/2023 11:16:18	29/04/2023 11:16:29	Rejected
	29/04/2023 11:16:29	29/04/2023 11:17:05	No Data
	29/04/2023 11:17:05	29/04/2023 11:17:07	Rejected
	29/04/2023 11:17:07	29/04/2023 11:17:08	No Data
	29/04/2023 11:17:08	29/04/2023 11:17:09	Rejected
29/04/2023 11:17:09	29/04/2023 11:17:14	No Data	
29/04/2023 11:17:14	29/04/2023 11:17:15	Rejected	
29/04/2023 11:17:15	29/04/2023 11:17:21	No Data	
29/04/2023 11:17:21	29/04/2023 11:17:23	Rejected	
29/04/2023 11:17:23	29/04/2023 11:17:32	No Data	
29/04/2023 11:17:32	29/04/2023 11:17:34	Rejected	
29/04/2023 11:17:34	29/04/2023 11:18:04	No Data	
29/04/2023 11:18:04	29/04/2023 11:18:05	Rejected	

	29/04/2023 11:18:05	29/04/2023 11:18:08	No Data
E5a	29/04/2023 11:13:08	29/04/2023 11:15:40	Rejected
	29/04/2023 11:15:40	29/04/2023 11:15:41	No Data
	29/04/2023 11:15:41	29/04/2023 11:18:08	Rejected
E5b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5a+b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
E5a	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5a+b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
E5a	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5a+b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

E13

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
E5a	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5a+b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

E15

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
E5a	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5a+b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:13:08	29/04/2023 11:15:56	No Data
	29/04/2023 11:15:56	29/04/2023 11:16:10	Used
	29/04/2023 11:16:10	29/04/2023 11:18:08	Rejected
E5a	29/04/2023 11:13:08	29/04/2023 11:15:56	No Data
	29/04/2023 11:15:56	29/04/2023 11:18:08	Rejected
E5b	29/04/2023 11:13:08	29/04/2023 11:15:56	No Data
	29/04/2023 11:15:56	29/04/2023 11:18:08	Rejected
E5a+b	29/04/2023 11:13:08	29/04/2023 11:15:56	No Data
	29/04/2023 11:15:56	29/04/2023 11:18:08	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:13:08	29/04/2023 11:18:08	Used
E5a	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
E5a+b	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
B2	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

C23

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
B2	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

C27

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Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
B2	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
B2	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
B2	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
B2	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
B2	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected
L5	29/04/2023 11:13:08	29/04/2023 11:18:08	Rejected

Cycle Slips

Slip Count: 31

SV	Frequency	Epoch	Slip Value	Flag
G01	L1	29/04/2023 11:16:30	-	RIA
		29/04/2023 11:16:54	-	RIA
		29/04/2023 11:17:24	-	RIA
	L2	29/04/2023 11:16:30	-	RIA
		29/04/2023 11:16:54	-	RIA
		29/04/2023 11:17:24	-	RIA
G11	L1	29/04/2023 11:15:58	-	RIA
C27	B1	29/04/2023 11:15:48	-	RIA
		29/04/2023 11:13:40	-	RIA
	B2	29/04/2023 11:15:48	-	RIA
E03	E1	29/04/2023 11:13:22	1.0000000000	Flagged
		29/04/2023 11:13:24	-	RIA
		29/04/2023 11:13:38	-	Flagged
		29/04/2023 11:13:42	-	RIA
		29/04/2023 11:13:48	-	RIA
		29/04/2023 11:13:56	-	RIA
		29/04/2023 11:13:58	-	RIA
		29/04/2023 11:14:06	-	RIA
		29/04/2023 11:14:12	-	RIA
		29/04/2023 11:14:14	-	RIA
		29/04/2023 11:14:20	-	RIA
		29/04/2023 11:14:22	-	RIA
		29/04/2023 11:14:36	-	RIA
		29/04/2023 11:14:38	-	RIA
		29/04/2023 11:14:48	-2.0000000000	Flagged
		29/04/2023 11:15:16	-	RIA
		29/04/2023 11:15:18	-	RIA
		29/04/2023 11:15:50	-	RIA
29/04/2023 11:16:20	-	RIA		
29/04/2023 11:16:28	-	RIA		
29/04/2023 11:17:08	-	RIA		

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L4-2

Processing Parameters (29/04/2023 15:58:17 - 29/04/2023 16:03:17)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L4-2

Acquisition

Start Time - End Time:	29/04/2023 15:58:17 - 29/04/2023 16:03:17
Duration:	00:05:00

Antennas

	Reference - C02	Rover - L4-2
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L4-2	Reference - C02	Rover - L4-2
Point Role:	Control	Fixed PP		

WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 50.33745" S	Easting:	438,215.5500 m	437,150.6282 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 42.84402" W	Northing:	8,609,405.6600 m	8,611,011.9686 m
WGS84 Ellip. Height:	4,889.3308 m	4,733.4856 m	Ortho. Height:	4,853.4775 m	4,697.7140 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,846.7772 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,671.8768 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,394.3216 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 52.36603"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 35.17552"	SD ΔLongitude:	0.0001 m
ΔHeight:	-155.8452 m	SD ΔHeight:	0.0004 m
ΔX:	-979.6591 m	SD ΔX:	0.0002 m
ΔY:	-456.8763 m	SD ΔY:	0.0004 m
ΔZ:	1,605.7259 m	SD ΔZ:	0.0002 m
Slope Dist.:	1,935.6713 m	SD Slope Dist.:	0.0001 m

M0:	0.4604 m	CQ 1D:	0.0004 m
Q11:	0.00000018	CQ 2D:	0.0002 m
Q12:	-0.00000023	CQ 3D:	0.0005 m
Q22:	0.00000080		
Q13:	-0.00000006		
Q23:	0.00000020		
Q33:	0.00000014		

Frequency:	L1/E1/L2	GDOP:	1.5 - 1.7	GPS SVs:	11/11
Solution Optimisation:	None	PDOP:	1.0 - 1.1	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/6
		VDOP:	0.9	Galileo SVs:	5/5
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

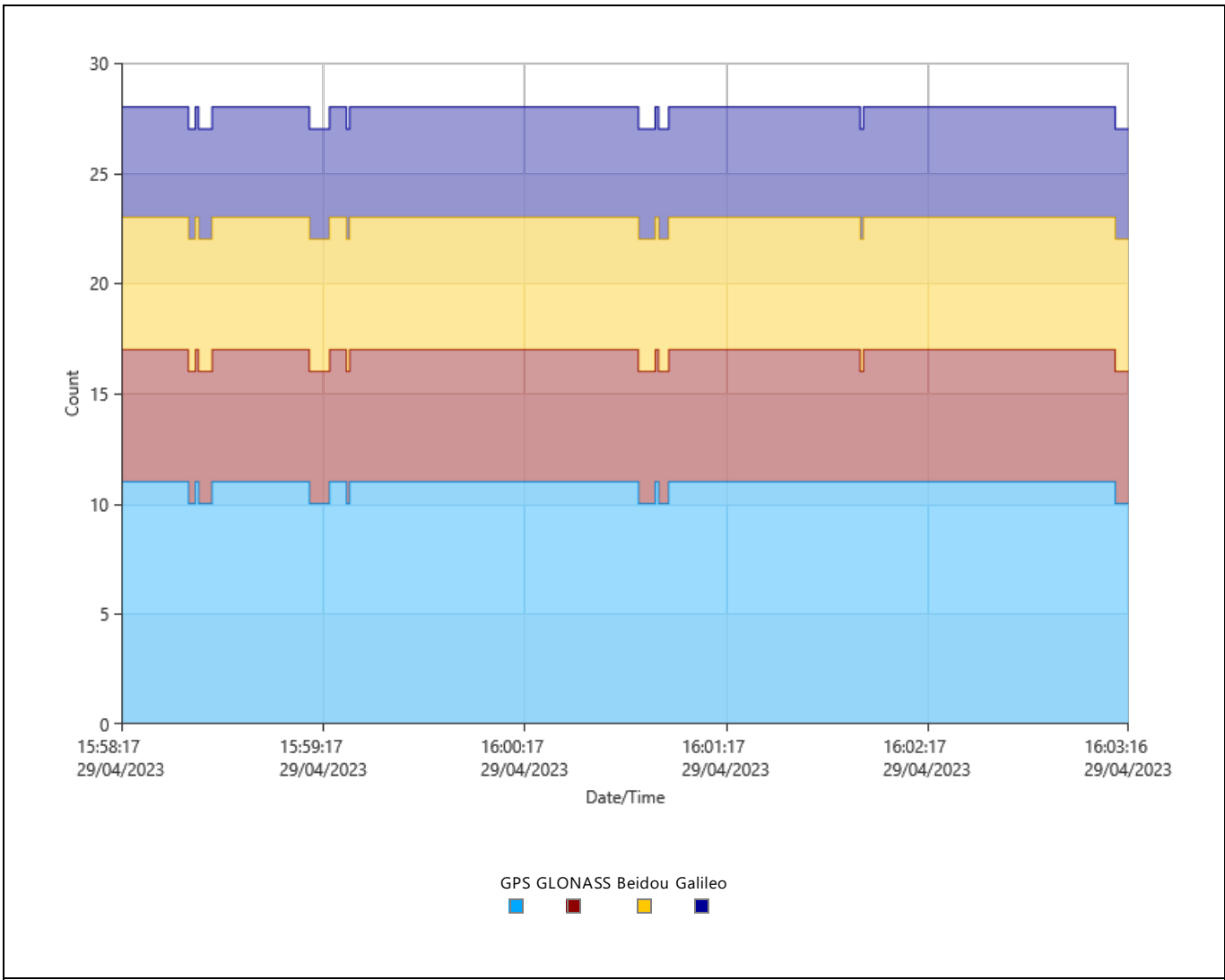
Processing Info (29/04/2023 15:58:17 - 29/04/2023 16:03:17)

Processed Date/Time: 10/05/2023 10:49:26

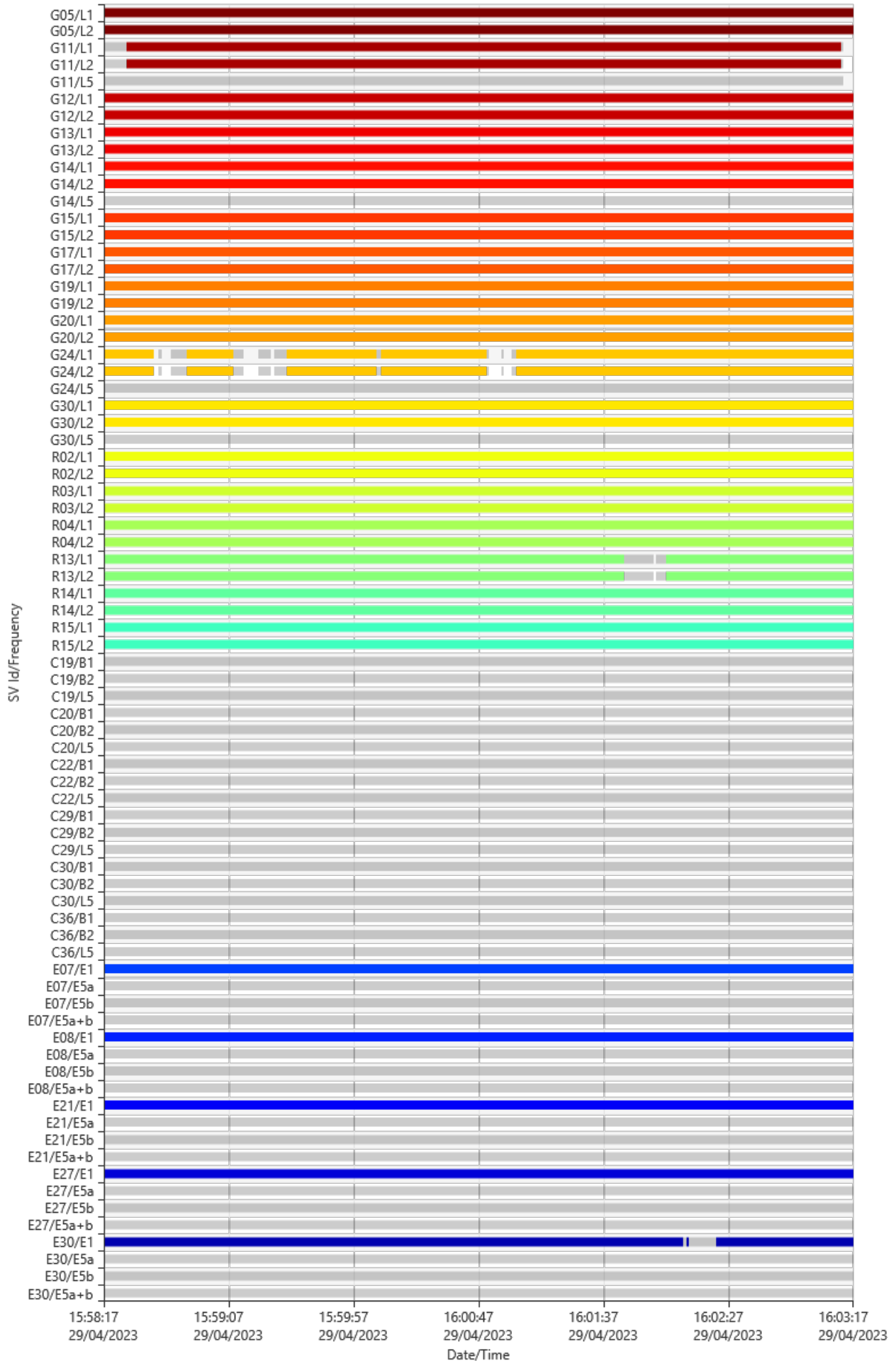
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G11 G12 G13 G14 G15 G17 G19 G20 G24 G30	-
GLONASS	R02 R03 R04 R13 R14 R15	-
Galileo	E07 E08 E21 E27 E30	-

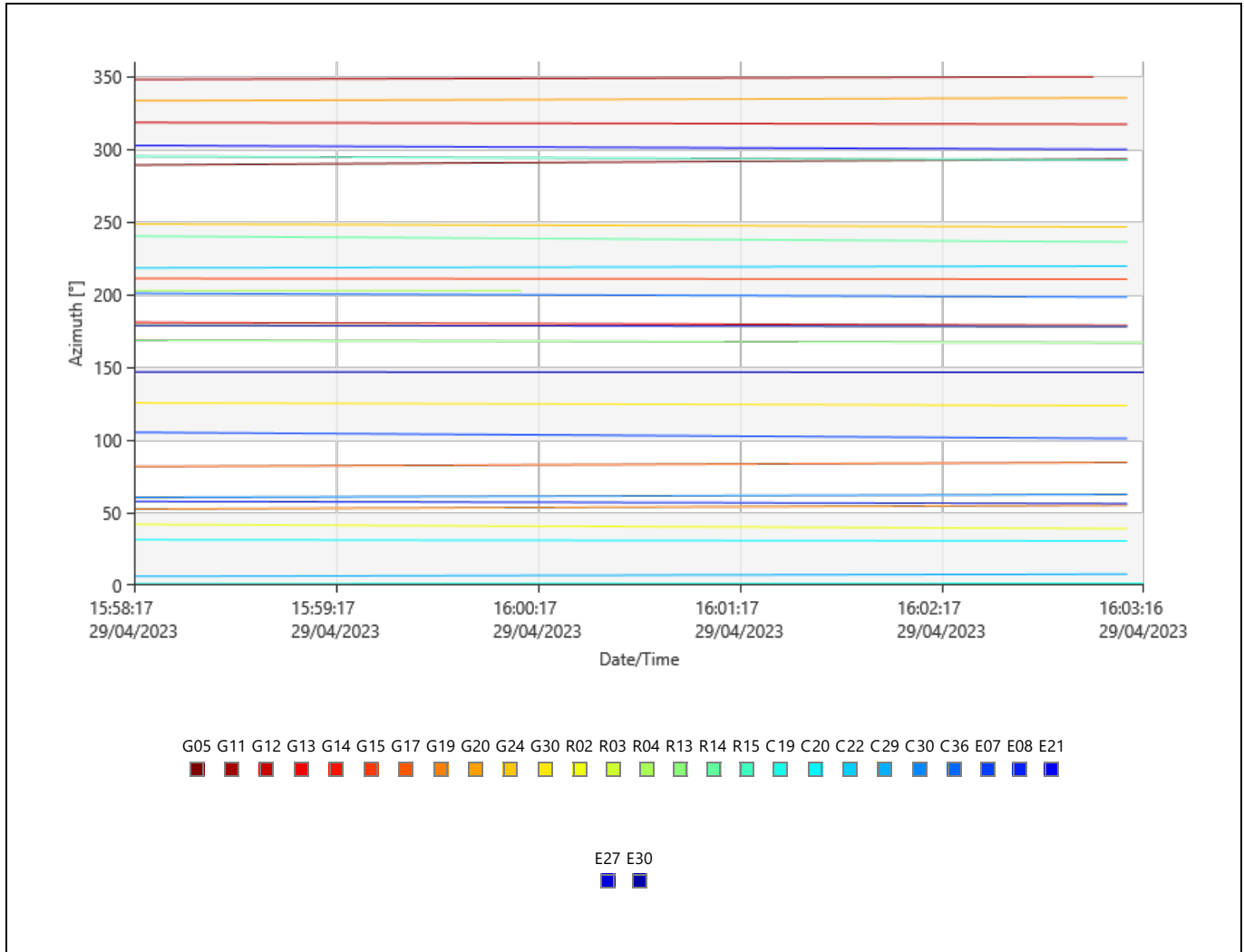
SVs Tracked



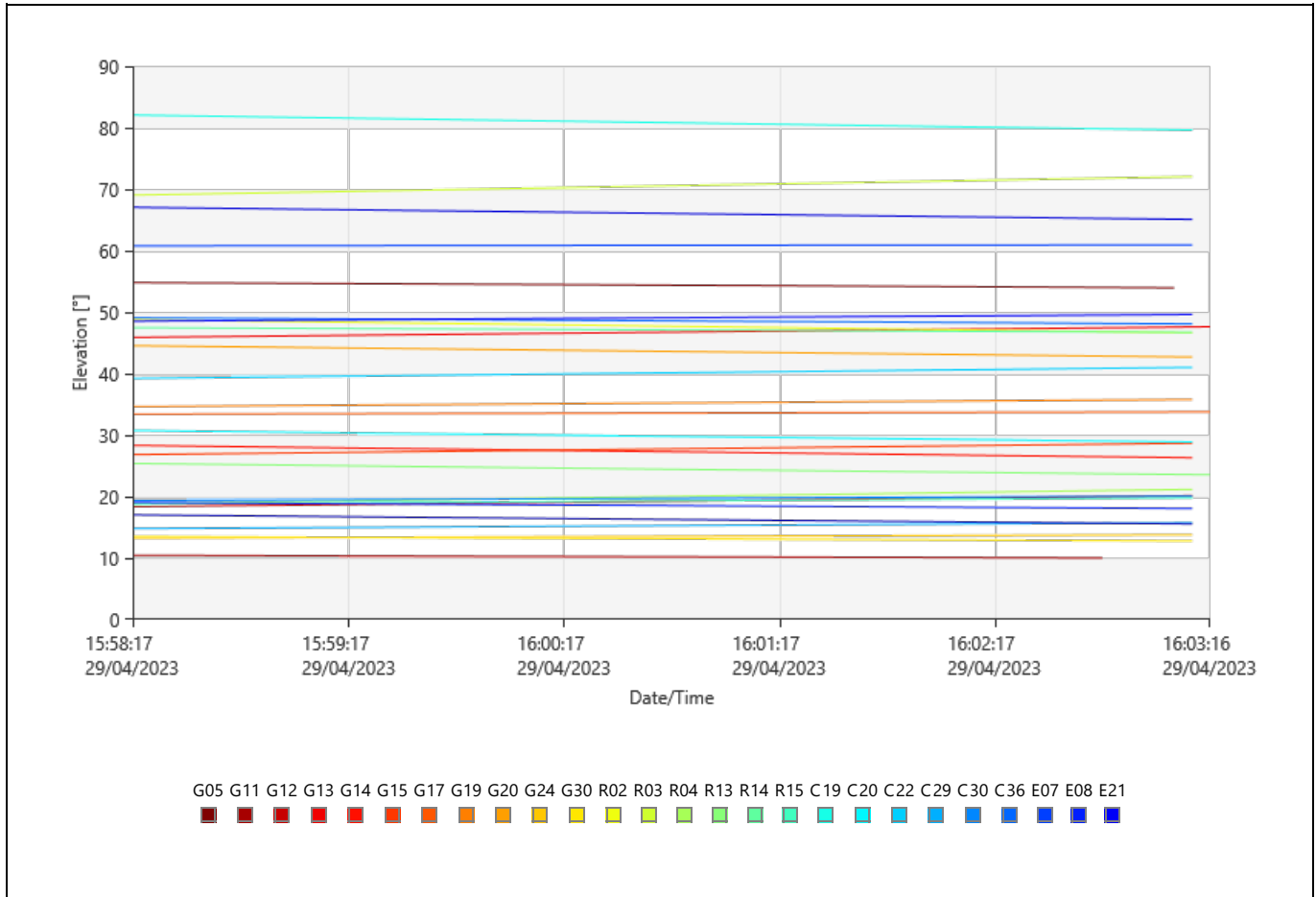
Signals Tracked



Azimuth

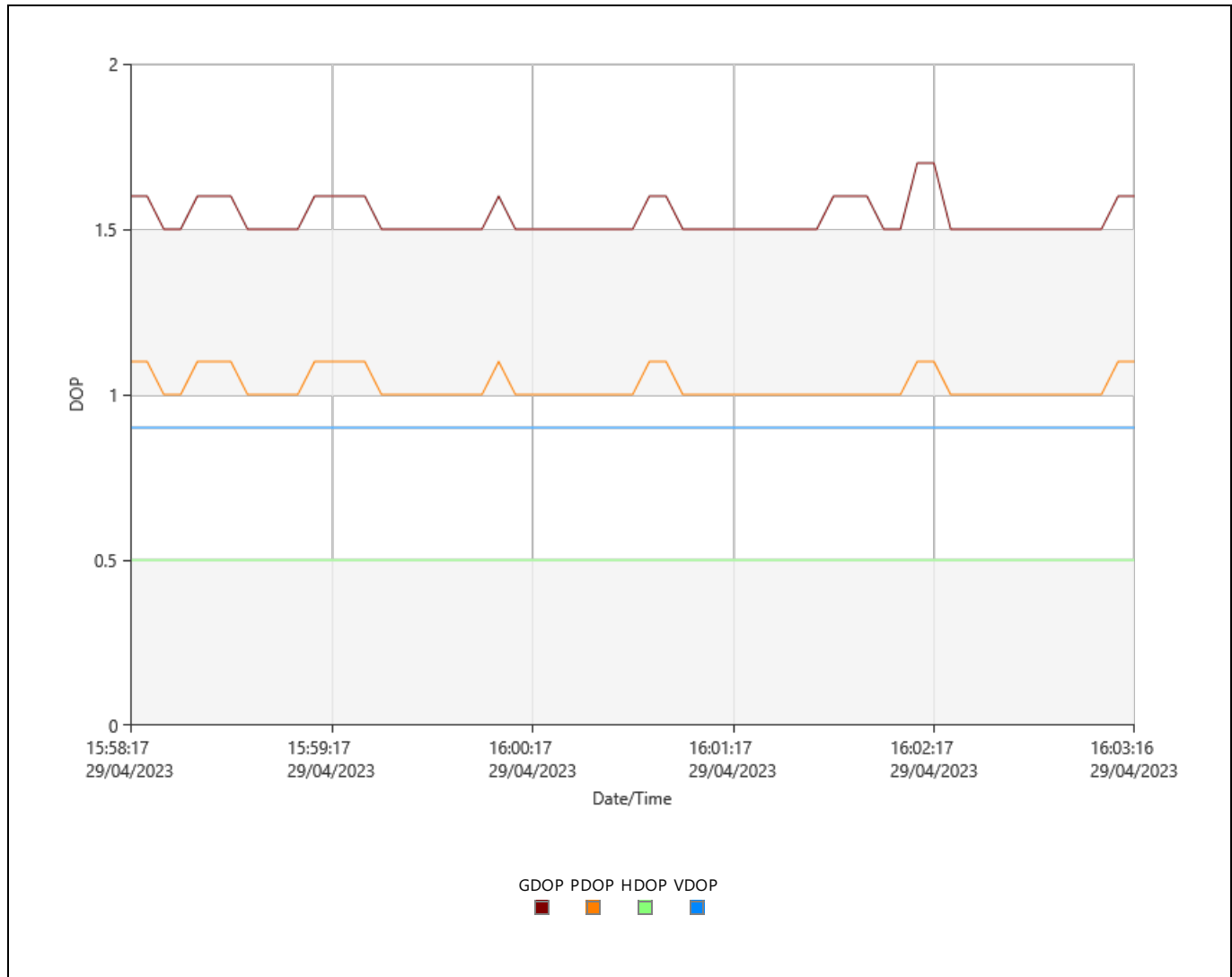


Elevation





DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	3,248	37
L2	3,248	37
L5	0	1,199

GLONASS Observations

Frequency	Used	Rejected
L1	1,789	16
L2	1,789	16

Beidou Observations

Frequency	Used	Rejected
B1	0	1,806
B2	0	1,806
L5	0	1,806

Galileo Observations

Frequency	Used	Rejected
E1	1,493	12
E5a	0	1,505
E5b	0	1,505
E5a+b	0	1,505

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	30	14	0	6
Total	33	16	12	6
Independently fixed	37	37	0	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	99.88	99.88	99.55	99.55	0.00	0.00	100.00
Not fixed	0.12	0.12	0.45	0.45	100.00	100.00	0.00

Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 15:58:17	29/04/2023 16:03:17	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 15:58:26	Rejected
	29/04/2023 15:58:26	29/04/2023 16:03:12	Used
	29/04/2023 16:03:12	29/04/2023 16:03:13	Rejected
	29/04/2023 16:03:13	29/04/2023 16:03:17	No Data
L2	29/04/2023 15:58:17	29/04/2023 15:58:26	Rejected
	29/04/2023 15:58:26	29/04/2023 16:03:12	Used
	29/04/2023 16:03:12	29/04/2023 16:03:13	Rejected
	29/04/2023 16:03:13	29/04/2023 16:03:17	No Data
L5	29/04/2023 15:58:17	29/04/2023 16:03:13	Rejected
	29/04/2023 16:03:13	29/04/2023 16:03:17	No Data

G12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

G15

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

G24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 15:58:37	Used
	29/04/2023 15:58:37	29/04/2023 15:58:39	No Data
	29/04/2023 15:58:39	29/04/2023 15:58:40	Rejected
	29/04/2023 15:58:40	29/04/2023 15:58:44	No Data
	29/04/2023 15:58:44	29/04/2023 15:58:50	Rejected
	29/04/2023 15:58:50	29/04/2023 15:59:09	Used
	29/04/2023 15:59:09	29/04/2023 15:59:13	Rejected
	29/04/2023 15:59:13	29/04/2023 15:59:19	No Data
	29/04/2023 15:59:19	29/04/2023 15:59:24	Rejected
	29/04/2023 15:59:24	29/04/2023 15:59:25	No Data
	29/04/2023 15:59:25	29/04/2023 15:59:30	Rejected
	29/04/2023 15:59:30	29/04/2023 16:00:06	Used
	29/04/2023 16:00:06	29/04/2023 16:00:08	Rejected
	29/04/2023 16:00:08	29/04/2023 16:00:50	Used
	29/04/2023 16:00:50	29/04/2023 16:00:51	Rejected
	29/04/2023 16:00:51	29/04/2023 16:00:56	No Data
	29/04/2023 16:00:56	29/04/2023 16:00:57	Rejected
29/04/2023 16:00:57	29/04/2023 16:01:00	No Data	
29/04/2023 16:01:00	29/04/2023 16:01:02	Rejected	
29/04/2023 16:01:02	29/04/2023 16:03:17	Used	
L2	29/04/2023 15:58:17	29/04/2023 15:58:37	Used
	29/04/2023 15:58:17	29/04/2023 15:58:39	No Data
	29/04/2023 15:58:39	29/04/2023 15:58:40	Rejected
	29/04/2023 15:58:37	29/04/2023 15:58:44	No Data
	29/04/2023 15:58:44	29/04/2023 15:58:50	Rejected
	29/04/2023 15:58:50	29/04/2023 15:59:09	Used
	29/04/2023 15:59:09	29/04/2023 15:59:13	Rejected
	29/04/2023 15:58:40	29/04/2023 15:59:19	No Data
	29/04/2023 15:59:13	29/04/2023 15:59:20	No Data
	29/04/2023 15:59:19	29/04/2023 15:59:20	Rejected
	29/04/2023 15:59:20	29/04/2023 15:59:22	No Data
	29/04/2023 15:59:20	29/04/2023 15:59:22	Rejected
	29/04/2023 15:59:22	29/04/2023 15:59:24	Rejected
	29/04/2023 15:59:22	29/04/2023 15:59:25	No Data
	29/04/2023 15:59:24	29/04/2023 15:59:28	No Data
	29/04/2023 15:59:25	29/04/2023 15:59:28	Rejected
	29/04/2023 15:59:28	29/04/2023 15:59:29	No Data
	29/04/2023 15:59:28	29/04/2023 15:59:29	Rejected
	29/04/2023 15:59:29	29/04/2023 15:59:30	Rejected
	29/04/2023 15:59:30	29/04/2023 16:00:06	Used
	29/04/2023 16:00:06	29/04/2023 16:00:08	Rejected
	29/04/2023 16:00:08	29/04/2023 16:00:50	Used
	29/04/2023 16:00:50	29/04/2023 16:00:51	Rejected
	29/04/2023 16:00:51	29/04/2023 16:00:56	No Data
	29/04/2023 16:00:56	29/04/2023 16:00:57	Rejected
	29/04/2023 16:00:57	29/04/2023 16:01:00	No Data
	29/04/2023 16:01:00	29/04/2023 16:01:02	Rejected
29/04/2023 16:01:02	29/04/2023 16:03:17	Used	
29/04/2023 15:59:29	29/04/2023 16:03:17	No Data	

L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
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G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

R04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:01:45	Used
	29/04/2023 16:01:45	29/04/2023 16:01:57	Rejected
	29/04/2023 16:01:57	29/04/2023 16:01:58	No Data
	29/04/2023 16:01:58	29/04/2023 16:02:02	Rejected
L2	29/04/2023 16:02:02	29/04/2023 16:03:17	Used
	29/04/2023 15:58:17	29/04/2023 16:01:45	Used
	29/04/2023 16:01:45	29/04/2023 16:01:57	Rejected
	29/04/2023 16:01:57	29/04/2023 16:01:58	No Data
	29/04/2023 16:01:58	29/04/2023 16:02:02	Rejected
	29/04/2023 16:02:02	29/04/2023 16:03:17	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

R15

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
L2	29/04/2023 15:58:17	29/04/2023 16:03:17	Used

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
E5a	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5a+b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
E5a	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5a+b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
E5a	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5a+b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:58:17	29/04/2023 16:03:17	Used
E5a	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5a+b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:58:17	29/04/2023 16:02:09	Used
	29/04/2023 16:02:09	29/04/2023 16:02:10	Rejected
	29/04/2023 16:02:10	29/04/2023 16:02:11	Used
	29/04/2023 16:02:11	29/04/2023 16:02:22	Rejected
E5a	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
E5a+b	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
B2	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
B2	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
B2	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
B2	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
B2	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
B2	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected
L5	29/04/2023 15:58:17	29/04/2023 16:03:17	Rejected

Cycle Slips

Slip Count: 4

SV	Frequency	Epoch	Slip Value	Flag
G24	L1	29/04/2023 15:59:30	-	RIA
G11	L2	29/04/2023 15:58:26	-	RIA
E30	E1	29/04/2023 16:02:10	-	RIA
		29/04/2023 16:02:22	-	Flagged

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L4-1

Processing Parameters (29/04/2023 15:49:52 - 29/04/2023 15:54:52)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L4-1

Acquisition

Start Time - End Time:	29/04/2023 15:49:52 - 29/04/2023 15:54:52
Duration:	00:05:00

Antennas

	Reference - C02	Rover - L4-1
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L4-1	Reference - C02	Rover - L4-1
Point Role:	Control	Fixed PP		

WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 46.86952" S	Easting:	438,215.5500 m	437,122.2446 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 43.77687" W	Northing:	8,609,405.6600 m	8,611,118.4375 m
WGS84 Ellip. Height:	4,889.3308 m	4,733.1782 m	Ortho. Height:	4,853.4775 m	4,697.4127 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,825.1876 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,701.0718 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,290.1604 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 55.83396"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 36.10837"	SD ΔLongitude:	0.0001 m
ΔHeight:	-156.1525 m	SD ΔHeight:	0.0004 m
ΔX:	-1,001.2487 m	SD ΔX:	0.0002 m
ΔY:	-486.0714 m	SD ΔY:	0.0003 m
ΔZ:	1,709.8871 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,040.2152 m	SD Slope Dist.:	0.0001 m

M0:	0.3615 m	CQ 1D:	0.0004 m
Q11:	0.00000019	CQ 2D:	0.0002 m
Q12:	-0.00000026	CQ 3D:	0.0004 m
Q22:	0.00000080		
Q13:	-0.00000007		
Q23:	0.00000021		
Q33:	0.00000015		

Frequency:	L1/E1/L2	GDOP:	1.5 - 1.6	GPS SVs:	11/11
Solution Optimisation:	None	PDOP:	1.0 - 1.1	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/6
		VDOP:	0.9	Galileo SVs:	5/5
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

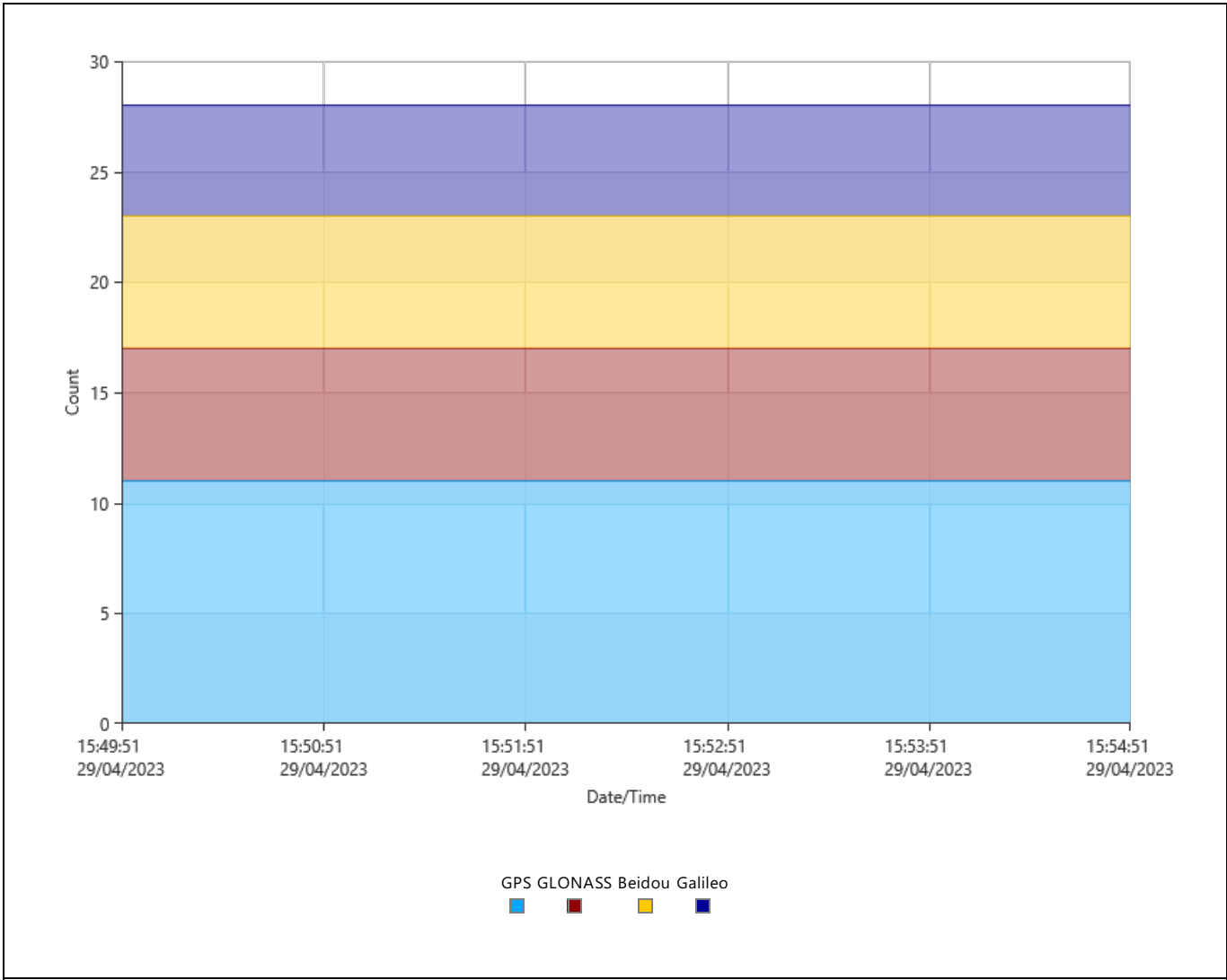
Processing Info (29/04/2023 15:49:52 - 29/04/2023 15:54:52)

Processed Date/Time: 10/05/2023 10:49:26

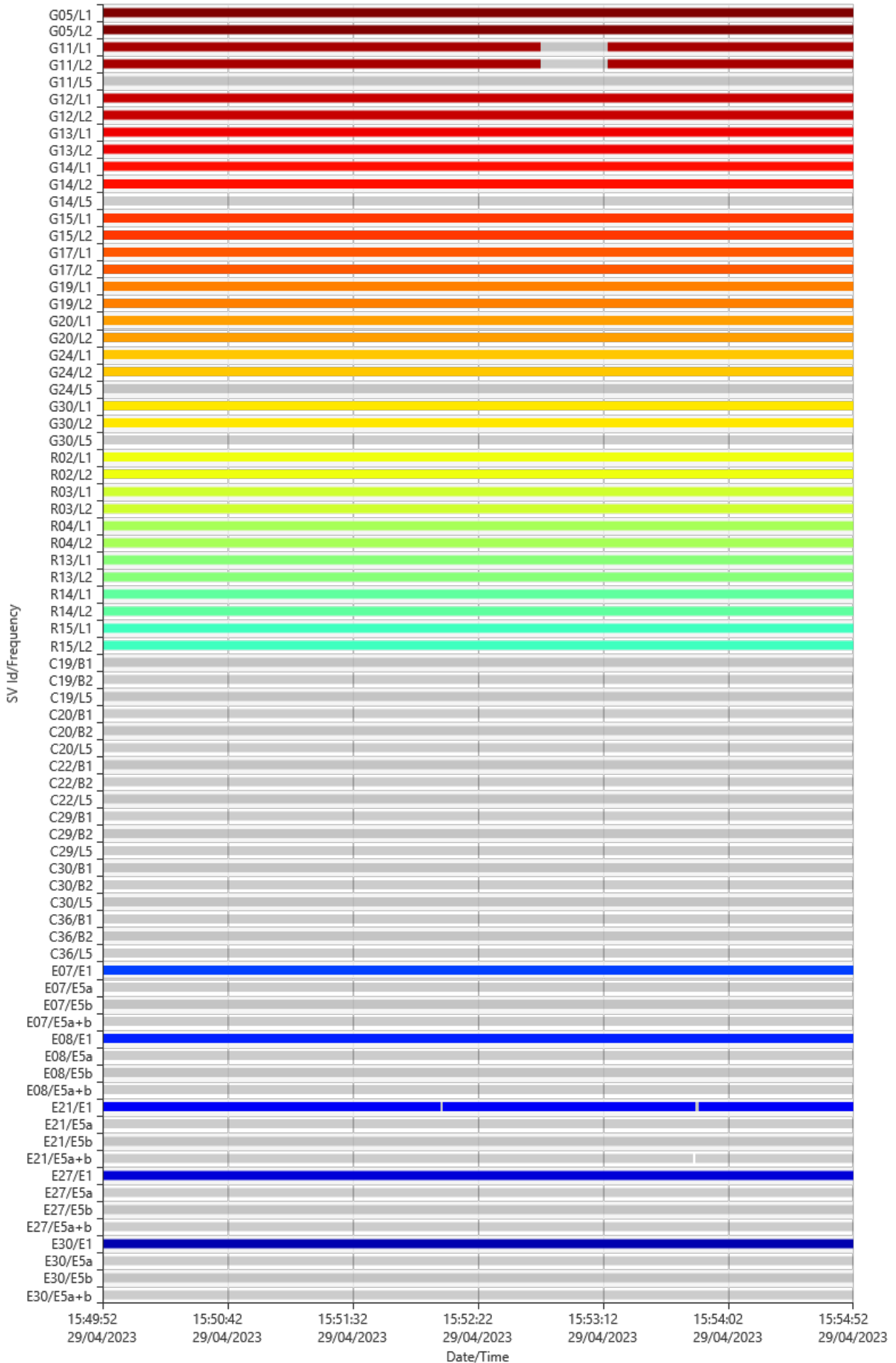
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G11 G12 G13 G14 G15 G17 G19 G20 G24 G30	-
GLONASS	R02 R03 R04 R13 R14 R15	-
Galileo	E07 E08 E21 E27 E30	-

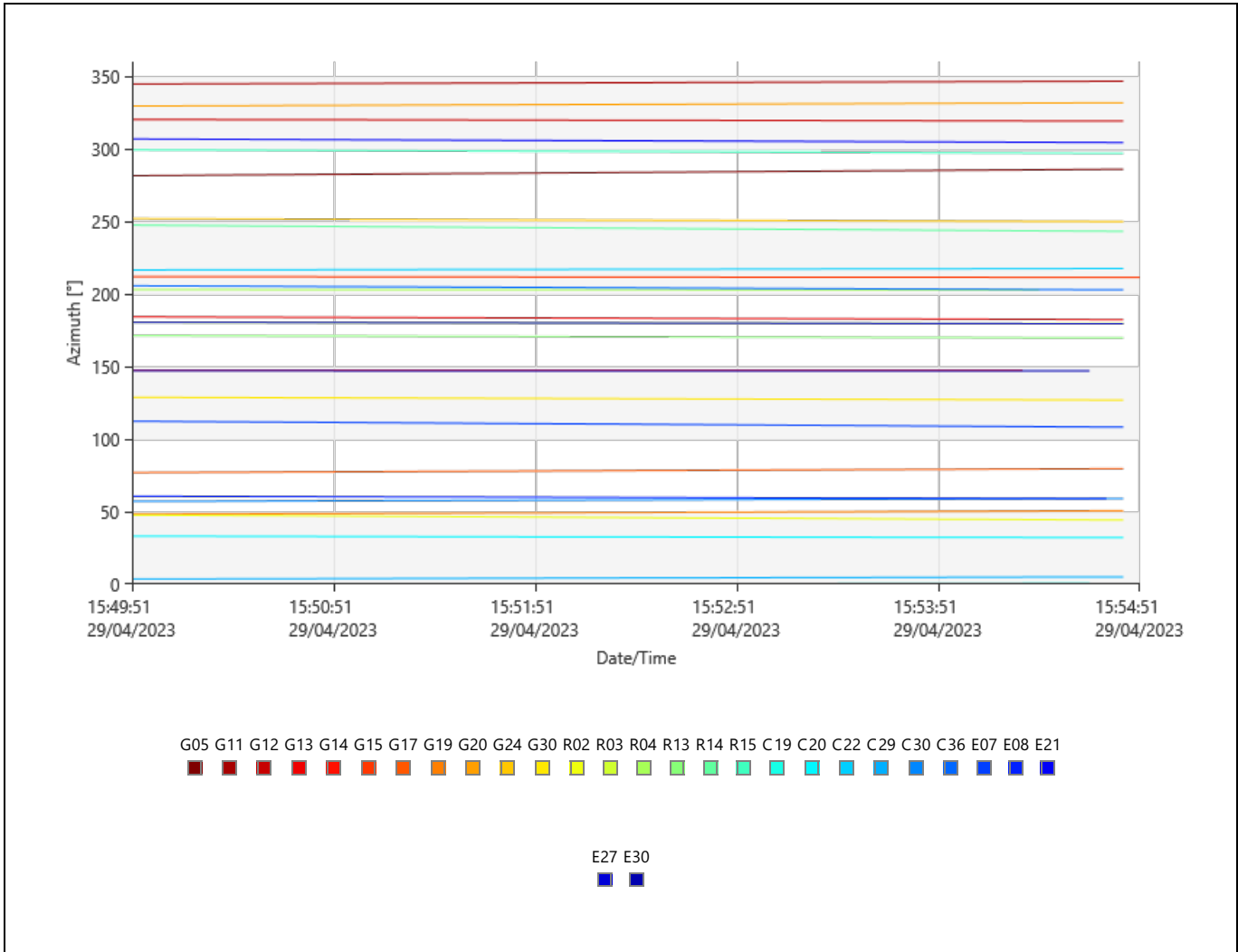
SVs Tracked



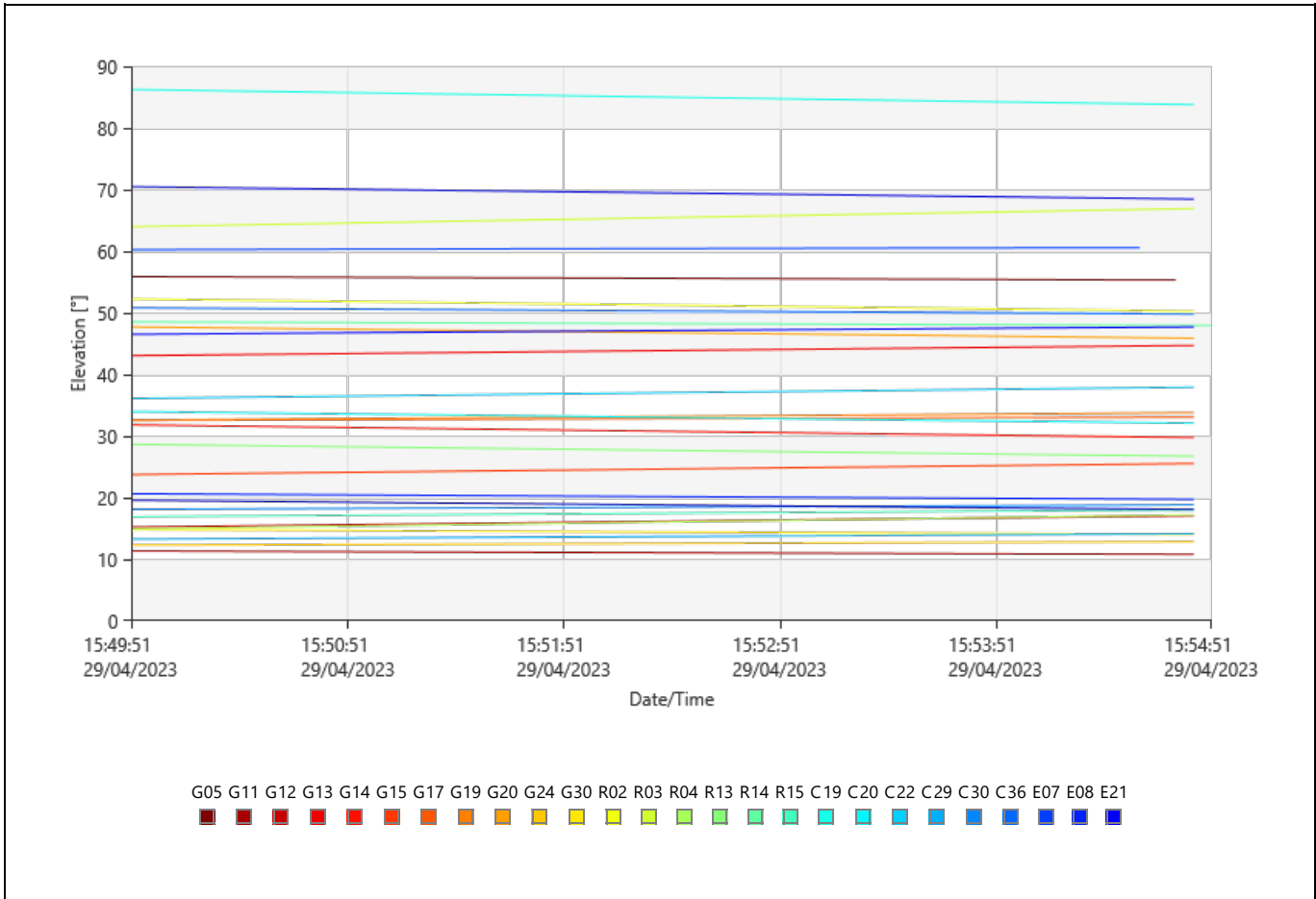
Signals Tracked



Azimuth



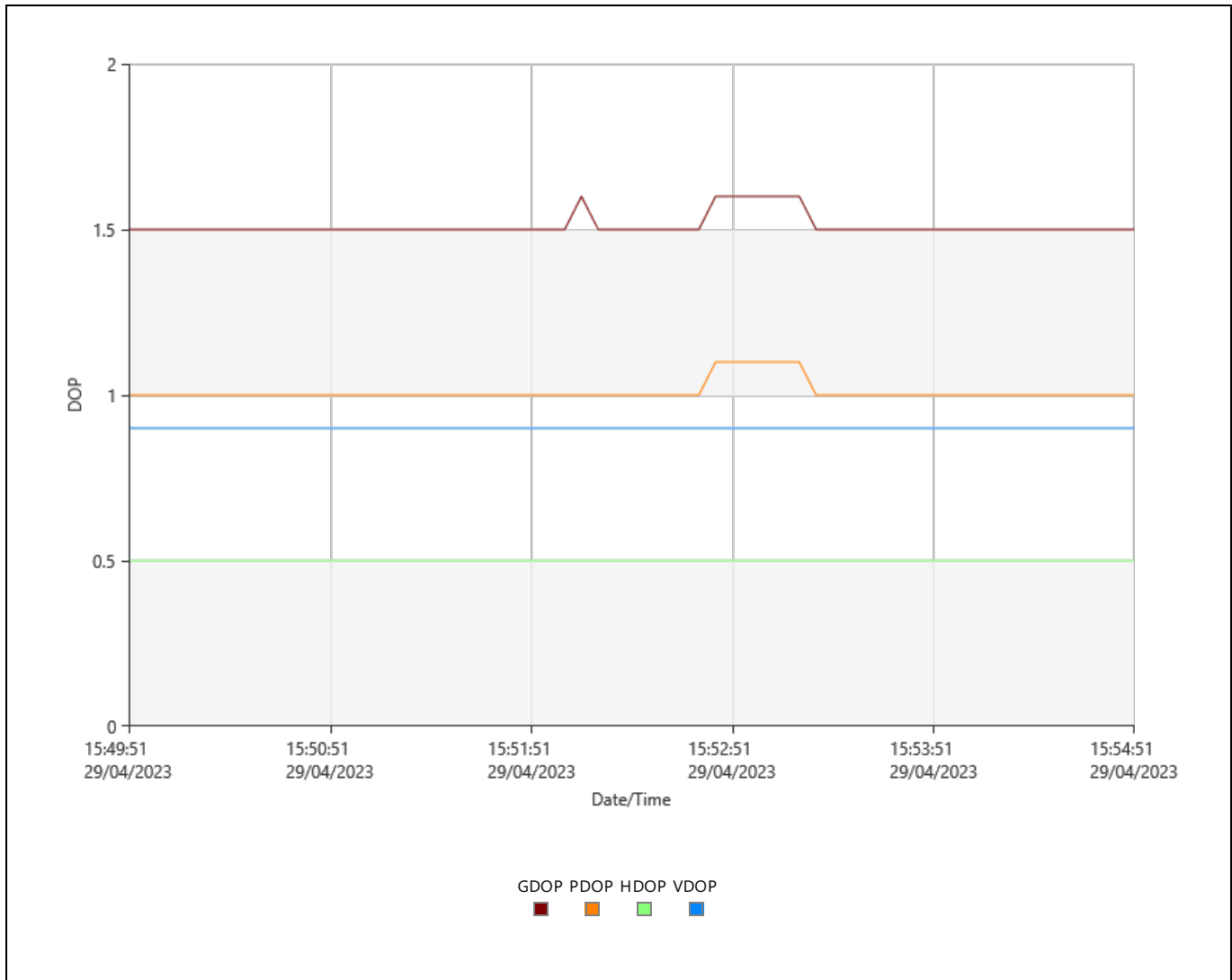
Elevation



E27 E30



DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	3,284	27
L2	3,284	27
L5	0	1,204

GLONASS Observations

Frequency	Used	Rejected
L1	1,806	0
L2	1,806	0

Beidou Observations

Frequency	Used	Rejected
B1	0	1,806
B2	0	1,806
L5	0	1,806

Galileo Observations

Frequency	Used	Rejected
E1	1,503	2
E5a	0	1,505
E5b	0	1,505
E5a+b	0	1,504

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	24	12	0	6
Total	25	12	12	6
Independently fixed	37	37	0	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	99.94	100.00	100.00	0.00	0.00	100.00
Not fixed	0.00	0.06	0.00	0.00	100.00	100.00	0.00

Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 15:49:52	29/04/2023 15:54:52	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:52:47	Used
	29/04/2023 15:52:47	29/04/2023 15:53:14	Rejected
	29/04/2023 15:53:14	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:52:47	Used
	29/04/2023 15:52:47	29/04/2023 15:53:14	Rejected
	29/04/2023 15:53:14	29/04/2023 15:54:52	Used
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

G12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

G15

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
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G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

G24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

R04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

R15

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
L2	29/04/2023 15:49:52	29/04/2023 15:54:52	Used

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
E5a	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5a+b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
E5a	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5a+b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:49:52	29/04/2023 15:52:07	Used
	29/04/2023 15:52:07	29/04/2023 15:52:08	Rejected
	29/04/2023 15:52:08	29/04/2023 15:53:49	Used
	29/04/2023 15:53:49	29/04/2023 15:53:50	Rejected
	29/04/2023 15:53:50	29/04/2023 15:54:52	Used
E5a	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5a+b	29/04/2023 15:49:52	29/04/2023 15:53:48	Rejected
	29/04/2023 15:53:48	29/04/2023 15:53:49	No Data
	29/04/2023 15:53:49	29/04/2023 15:54:52	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
E5a	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5a+b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:49:52	29/04/2023 15:54:52	Used
E5a	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
E5a+b	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
B2	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
B2	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
B2	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
B2	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
B2	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

B2	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected
L5	29/04/2023 15:49:52	29/04/2023 15:54:52	Rejected

Cycle Slips

Slip Count: 3

SV	Frequency	Epoch	Slip Value	Flag
E21	E1	29/04/2023 15:50:28	-	Flagged
		29/04/2023 15:52:08	-	RIA
		29/04/2023 15:53:50	-	Flagged

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L5-1

Processing Parameters (29/04/2023 11:46:46 - 29/04/2023 11:51:47)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L5-1

Acquisition

Start Time - End Time: 29/04/2023 11:46:47 - 29/04/2023 11:51:47
Duration: 00:05:00

Antennas

	Reference - C02	Rover - L5-1
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1		L2	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L5-1	Reference - C02	Rover - L5-1
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 47.35409" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 44.55896" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,732.2493 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,801.2728 m		4,696.4828 m
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,702.9385 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,304.5034 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 55.34939"	SD ΔLatitude:	0.0002 m
ΔLongitude:	-0° 00' 36.89047"	SD ΔLongitude:	0.0002 m
ΔHeight:	-157.0815 m	SD ΔHeight:	0.0005 m
ΔX:	-1,025.1635 m	SD ΔX:	0.0003 m
ΔY:	-487.9380 m	SD ΔY:	0.0005 m
ΔZ:	1,695.5441 m	SD ΔZ:	0.0002 m
Slope Dist.:	2,040.5669 m	SD Slope Dist.:	0.0002 m

M0:	0.7180 m	CQ 1D:	0.0005 m
Q11:	0.00000014	CQ 2D:	0.0003 m
Q12:	-0.00000012	CQ 3D:	0.0006 m
Q22:	0.00000047		
Q13:	-0.00000001		
Q23:	0.00000008		
Q33:	0.00000012		

Frequency:	L1/E1/B1/L2/B2	GDOP:	1.5	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	0.9	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.4	Beidou SVs:	5/6
		VDOP:	0.8	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

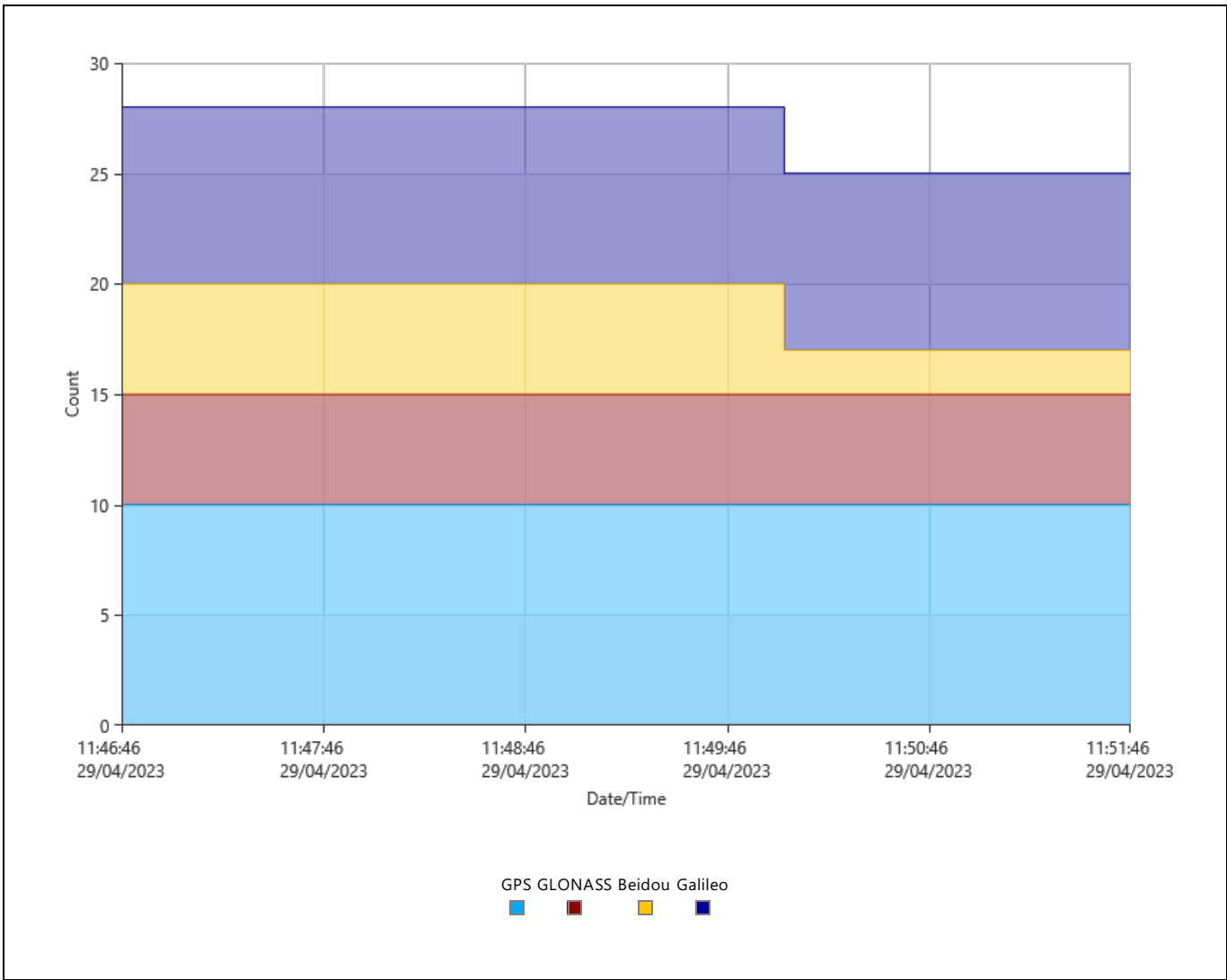
Processing Info (29/04/2023 11:46:46 - 29/04/2023 11:51:47)

Processed Date/Time: 10/05/2023 10:49:26

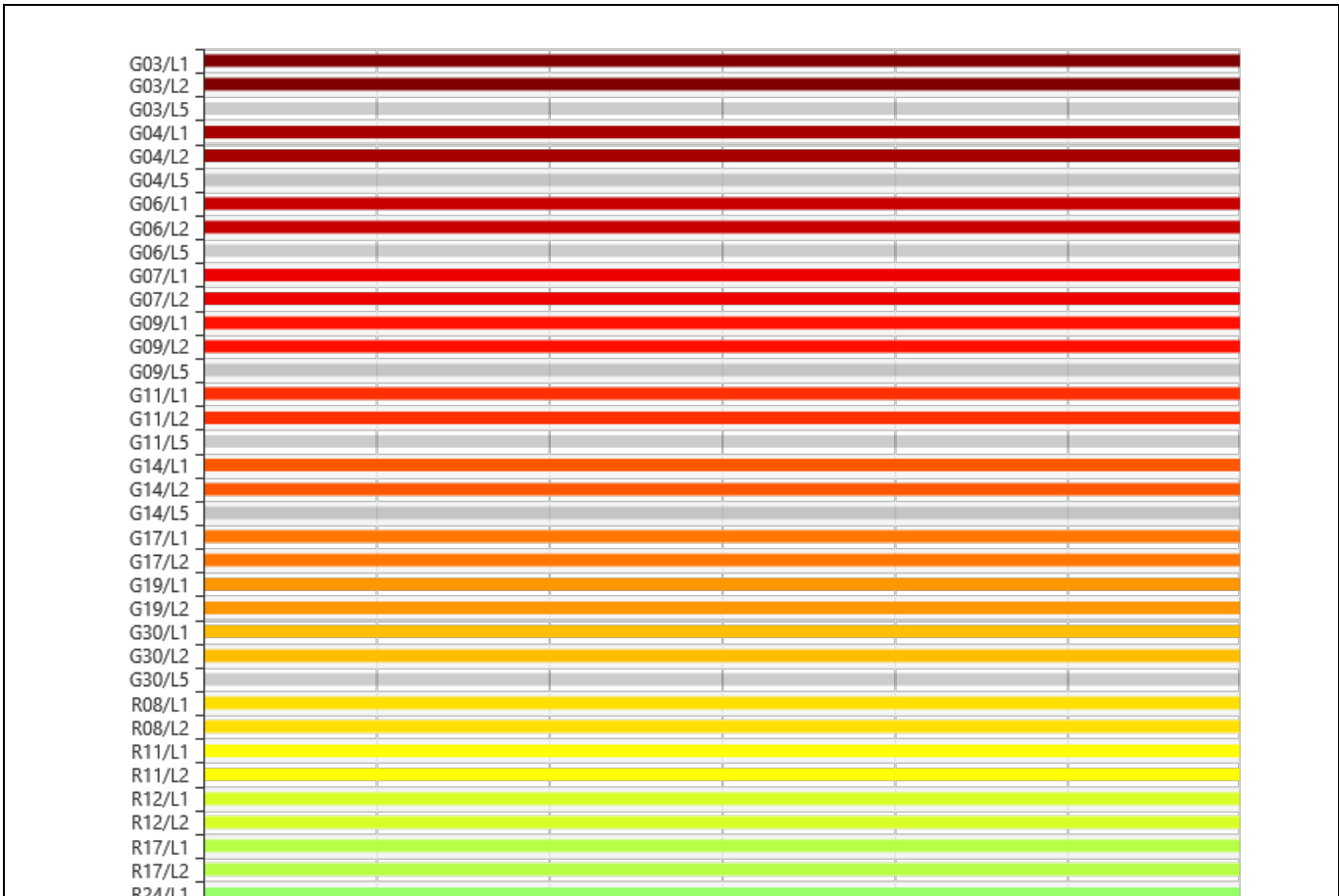
Satellites

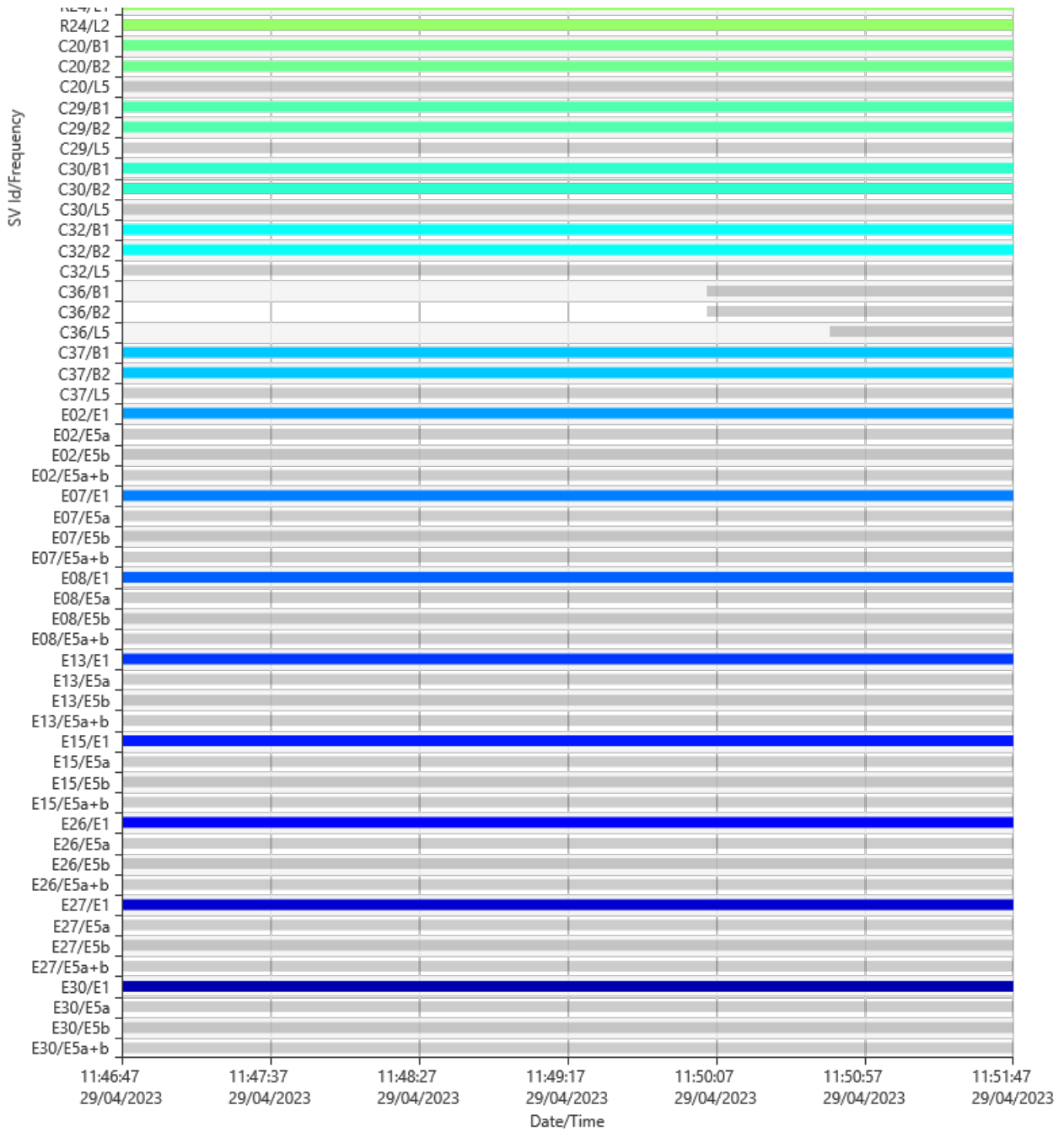
Satellite System	Used	Manually Disabled
GPS	G03 G04 G06 G07 G09 G11 G14 G17 G19 G30	-
GLONASS	R08 R11 R12 R17 R24	-
Beidou	C20 C29 C30 C32 C37	-
Galileo	E02 E07 E08 E13 E15 E26 E27 E30	-

SVs Tracked

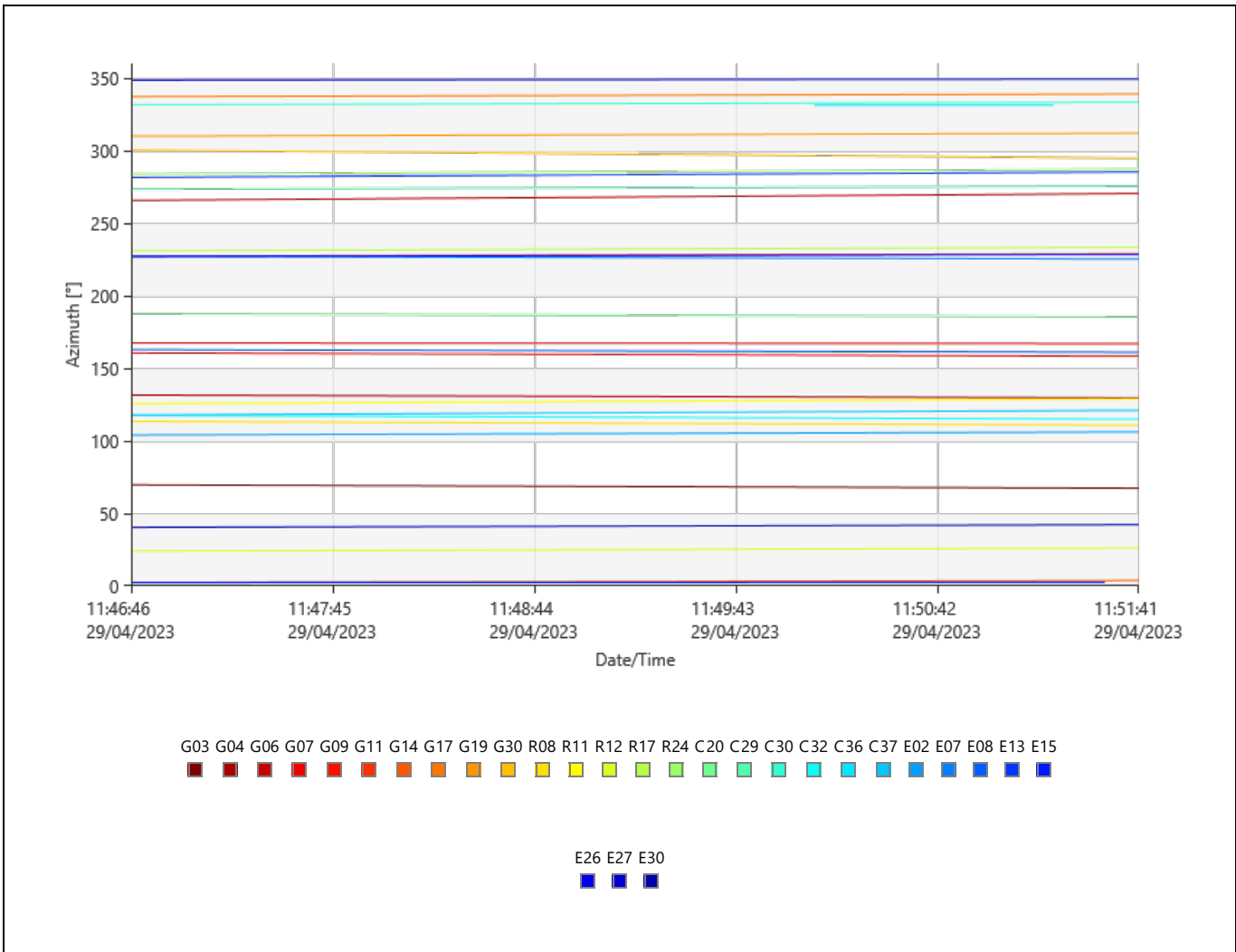


Signals Tracked

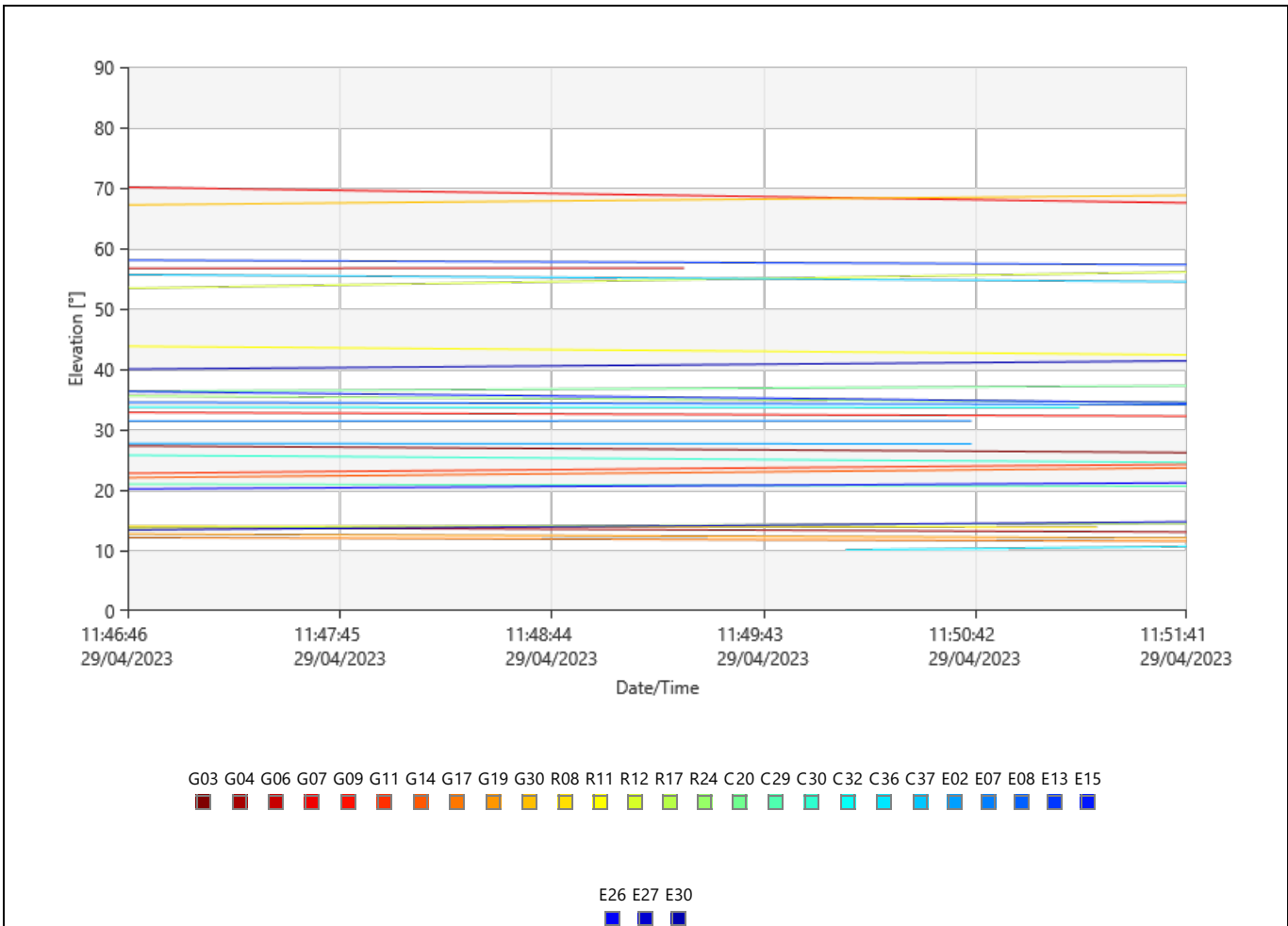




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 11:46:47	29/04/2023 11:51:47	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L5	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L5	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L5	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L5	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L5	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

G14

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Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L5	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L5	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

R08

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
E5a	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected
E5b	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected
E5a+b	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
E5a	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected
E5b	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected
E5a+b	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
E5a	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected
E5b	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected
E5a+b	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
B2	29/04/2023 11:46:47	29/04/2023 11:51:47	Used
L5	29/04/2023 11:46:47	29/04/2023 11:51:47	Rejected

Cycle Slips

Slip Count: 2

SV	Frequency	Epoch	Slip Value	Flag
C36	B1	29/04/2023 11:50:48	-	RIA
	B2	29/04/2023 11:50:48	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L5-2

Processing Parameters (29/04/2023 12:41:26 - 29/04/2023 12:46:27)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L5-2

Acquisition

Start Time - End Time: 29/04/2023 12:41:27 - 29/04/2023 12:46:27
Duration: 00:05:00

Antennas

	Reference - C02	Rover - L5-2
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -

Carrier Offset: 0.0000 m 0.0000 m
 Height Reading: 1.4100 m 2.0000 m
 Antenna Height: 1.4100 m 2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1		L2	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L5-2		Reference - C02	Rover - L5-2
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 51.09934" S	Easting:	438,215.5500 m	437,102.7886 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 44.43109" W	Northing:	8,609,405.6600 m	8,610,988.4592 m
WGS84 Ellip. Height:	4,889.3308 m	4,730.4624 m	Ortho. Height:	4,853.4775 m	4,694.6891 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,798.3402 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,676.0230 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,416.5327 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 51.60415"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 36.76259"	SD ΔLongitude:	0.0001 m
ΔHeight:	-158.8684 m	SD ΔHeight:	0.0003 m
ΔX:	-1,028.0962 m	SD ΔX:	0.0001 m
ΔY:	-461.0226 m	SD ΔY:	0.0003 m
ΔZ:	1,583.5147 m	SD ΔZ:	0.0001 m
Slope Dist.:	1,943.4614 m	SD Slope Dist.:	0.0001 m

M0:	0.3477 m	CQ 1D:	0.0003 m
Q11:	0.00000016	CQ 2D:	0.0002 m
Q12:	-0.00000014	CQ 3D:	0.0004 m
Q22:	0.00000073		
Q13:	-0.00000003		
Q23:	0.00000020		
Q33:	0.00000014		

Frequency:	L1/E1/L2	GDOP:	1.6 - 1.9	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.1 - 1.3	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/7
		VDOP:	1.0 - 1.2	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

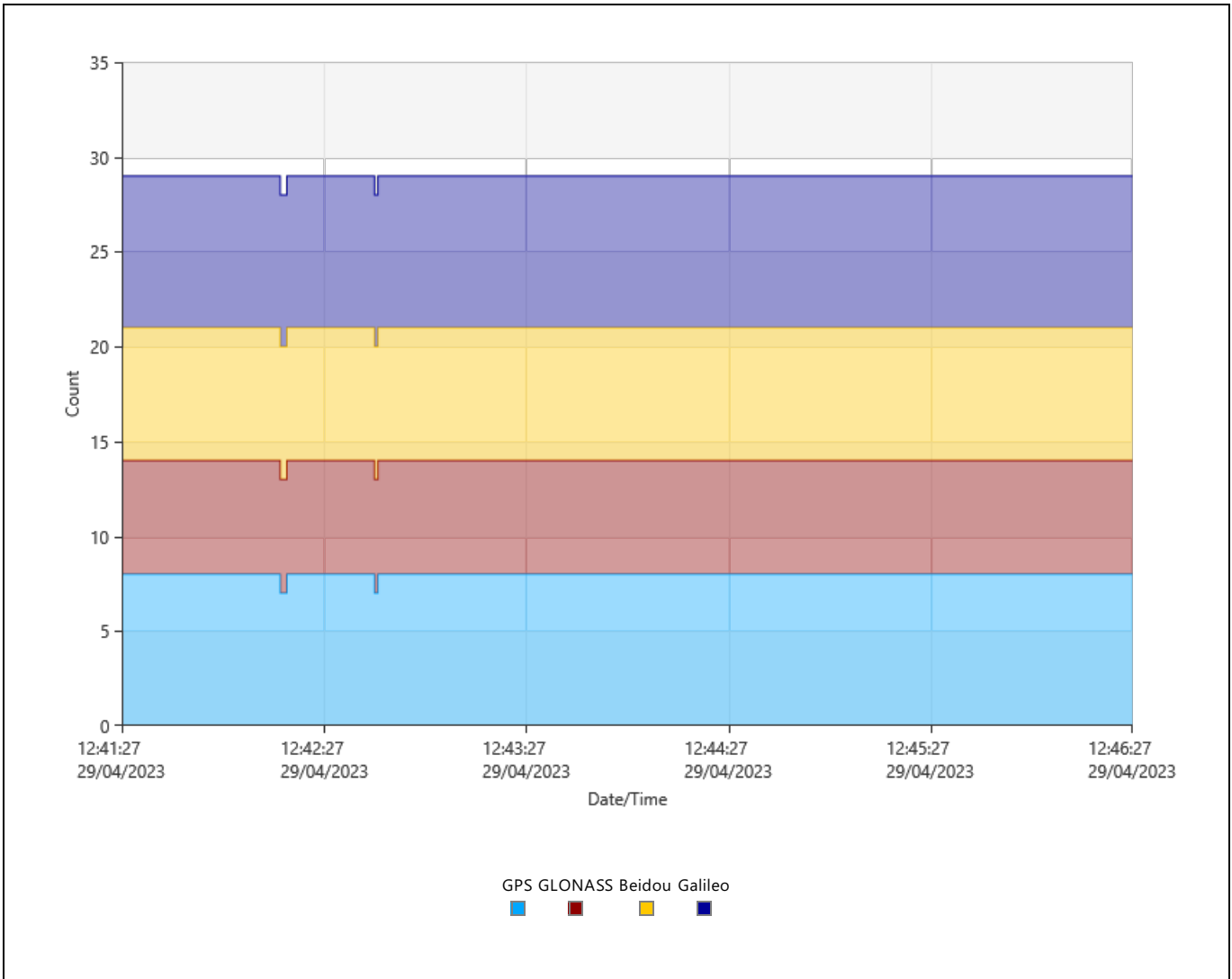
Processing Info (29/04/2023 12:41:26 - 29/04/2023 12:46:27)

Processed Date/Time: 10/05/2023 10:49:26

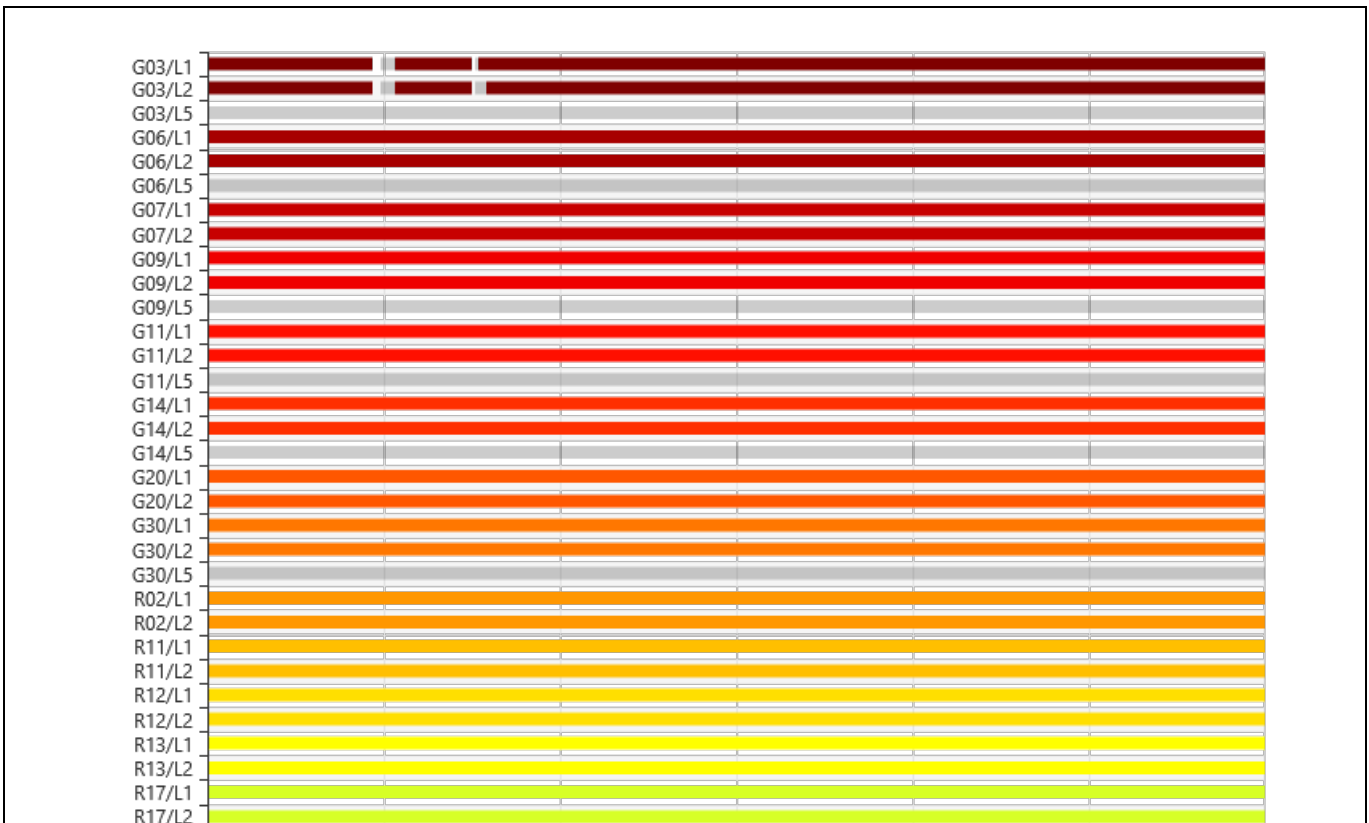
Satellites

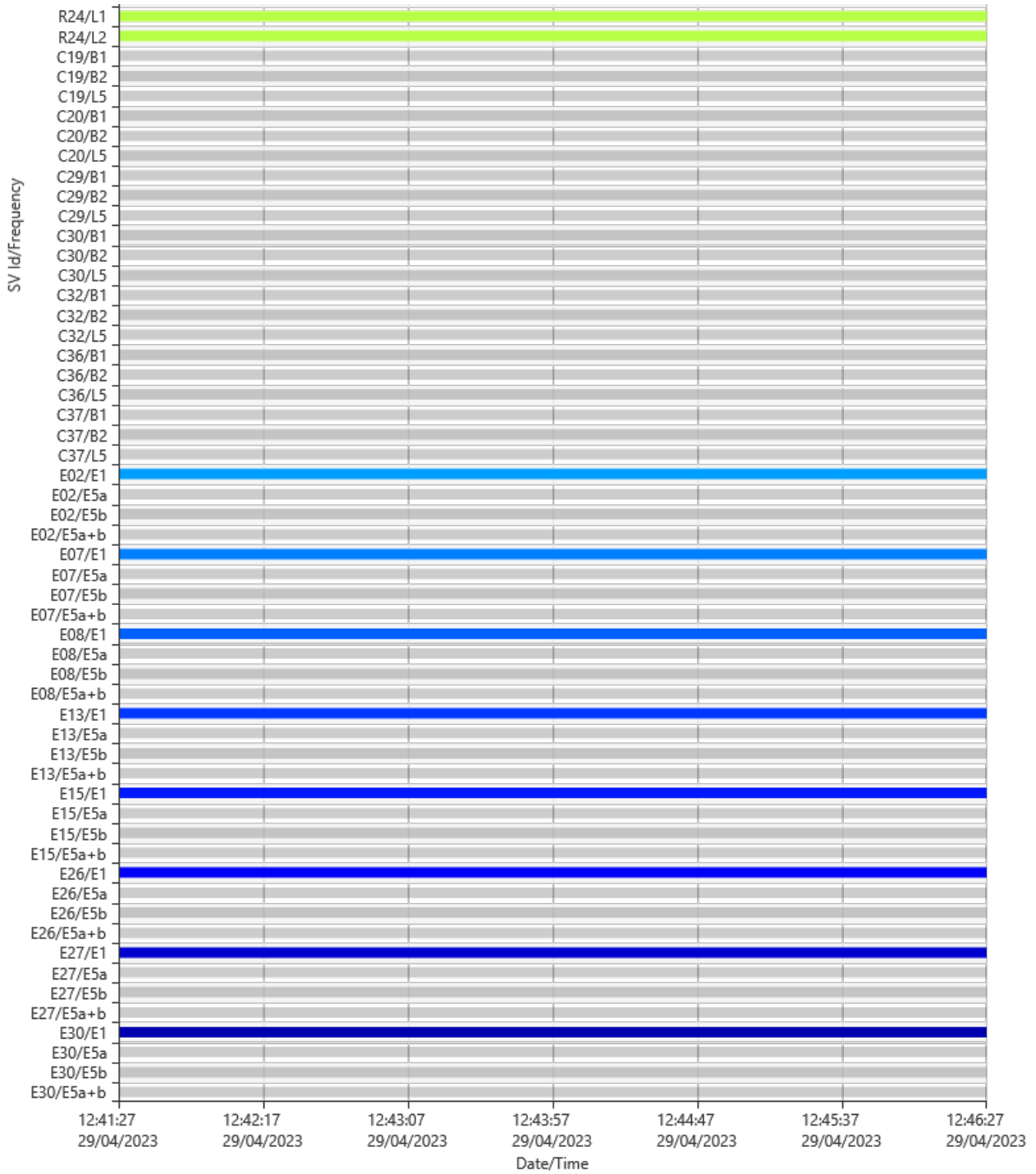
Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14 - G20 G30	
GLONASS	R02 R11 R12 R13 R17 R24 -	
Galileo	E02 E07 E08 E13 E15 E26 -	

SVs Tracked

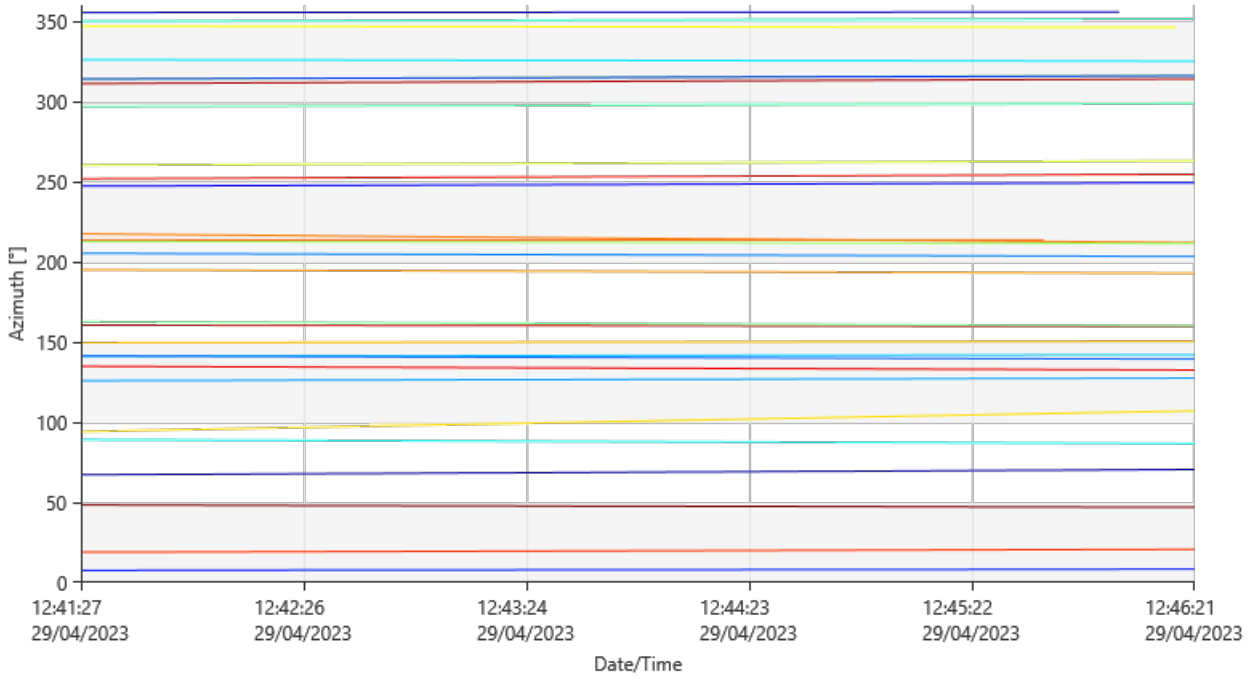


Signals Tracked

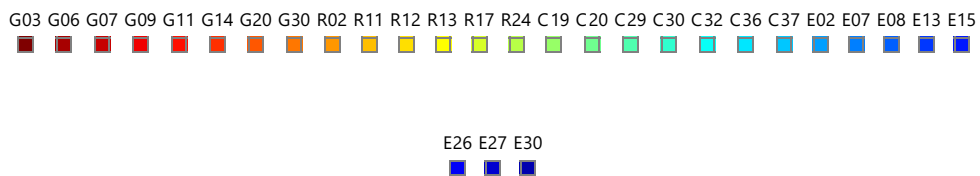
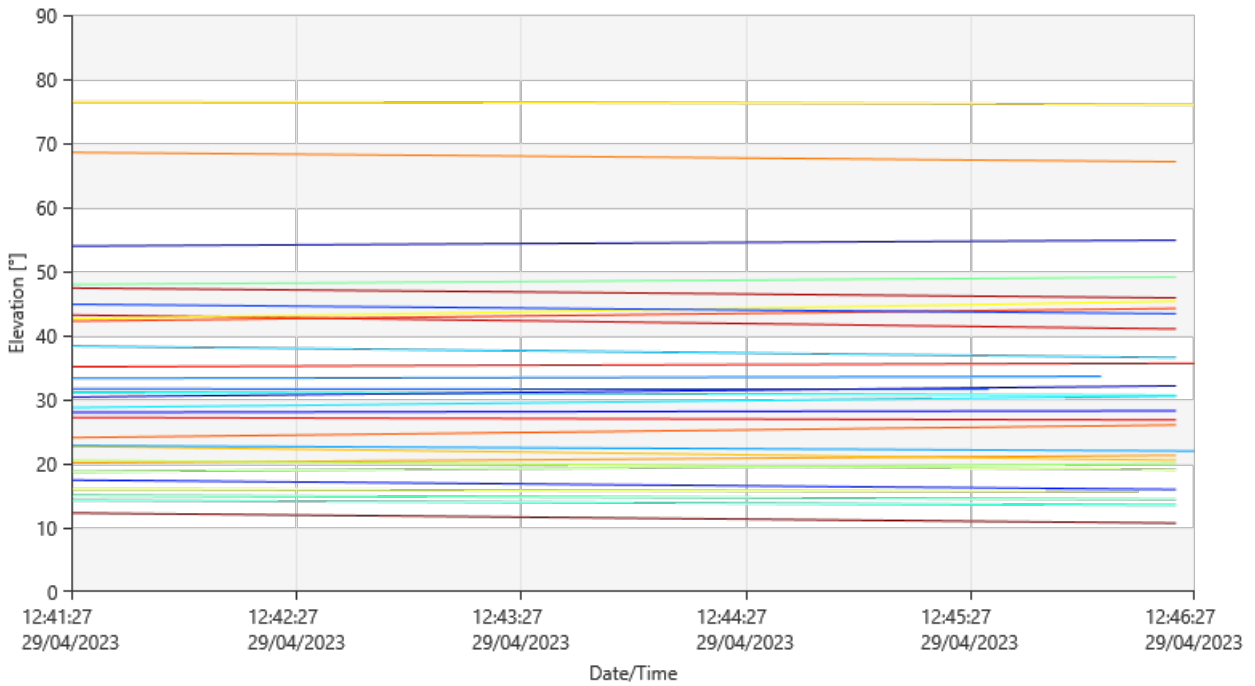




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 12:41:27	29/04/2023 12:46:27	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:42:14	Used
	29/04/2023 12:42:14	29/04/2023 12:42:16	No Data
	29/04/2023 12:42:16	29/04/2023 12:42:20	Rejected
	29/04/2023 12:42:20	29/04/2023 12:42:42	Used
	29/04/2023 12:42:42	29/04/2023 12:42:43	No Data
	29/04/2023 12:42:43	29/04/2023 12:42:44	Rejected
L2	29/04/2023 12:42:44	29/04/2023 12:46:27	Used
	29/04/2023 12:41:27	29/04/2023 12:42:14	Used
	29/04/2023 12:41:27	29/04/2023 12:42:16	No Data
	29/04/2023 12:42:14	29/04/2023 12:42:17	No Data
	29/04/2023 12:42:16	29/04/2023 12:42:17	Rejected
	29/04/2023 12:42:17	29/04/2023 12:42:20	Rejected
	29/04/2023 12:42:20	29/04/2023 12:42:42	Used
	29/04/2023 12:42:42	29/04/2023 12:42:43	No Data
29/04/2023 12:42:43	29/04/2023 12:42:46	Rejected	
L5	29/04/2023 12:42:46	29/04/2023 12:46:27	Used
	29/04/2023 12:42:17	29/04/2023 12:46:27	No Data
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
L2	29/04/2023 12:41:27	29/04/2023 12:46:27	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
E5a	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
E5b	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
E5a+b	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:41:27	29/04/2023 12:46:27	Used
E5a	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
E5b	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
B2	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
B2	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
B2	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected
L5	29/04/2023 12:41:27	29/04/2023 12:46:27	Rejected

Cycle Slips

Slip Count: 1

SV	Frequency	Epoch	Slip Value	Flag
G03	L2	29/04/2023 12:42:46	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.**RIA:** Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.**Flagged:** The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L6-1

Processing Parameters (29/04/2023 11:52:55 - 29/04/2023 11:57:55)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L6-1

Acquisition

Start Time - End Time: 29/04/2023 11:52:55 - 29/04/2023 11:57:55
Duration: 00:05:00

Antennas

	Reference - C02	Rover - L6-1
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L6-1	Reference - C02	Rover - L6-1	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 47.63904" S	Easting:	438,215.5500 m	437,054.9017 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 46.01028" W	Northing:	8,609,405.6600 m	8,611,094.6508 m
WGS84 Ellip. Height:	4,889.3308 m	4,730.1863 m	Ortho. Height:	4,853.4775 m	4,694.4190 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,757.8354 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,710.0610 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,312.6075 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 55.06445"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 38.34178"	SD ΔLongitude:	0.0001 m
ΔHeight:	-159.1444 m	SD ΔHeight:	0.0003 m
ΔX:	-1,068.6009 m	SD ΔX:	0.0002 m
ΔY:	-495.0605 m	SD ΔY:	0.0003 m
ΔZ:	1,687.4399 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,057.7770 m	SD Slope Dist.:	0.0001 m

M0:	0.3984 m	CQ 1D:	0.0003 m
Q11:	0.00000018	CQ 2D:	0.0002 m
Q12:	-0.00000016	CQ 3D:	0.0004 m
Q22:	0.00000052		
Q13:	-0.00000002		
Q23:	0.00000010		
Q33:	0.00000014		

Frequency:	L1/E1/L2	GDOP:	1.4 - 1.5	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	1.0	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/6
		VDOP:	0.8 - 0.9	Galileo SVs:	8/8
				QZSS SVs:	-

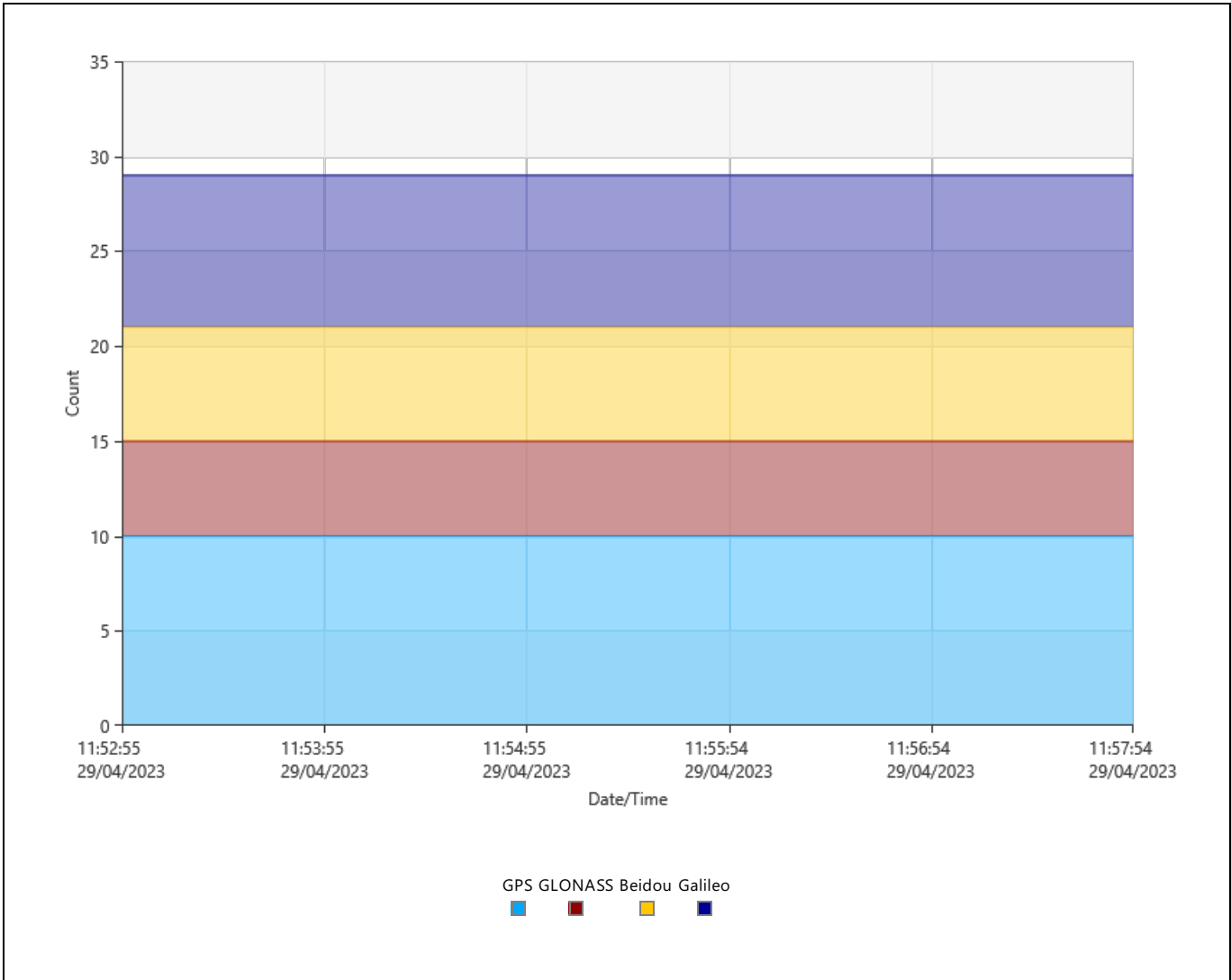
Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

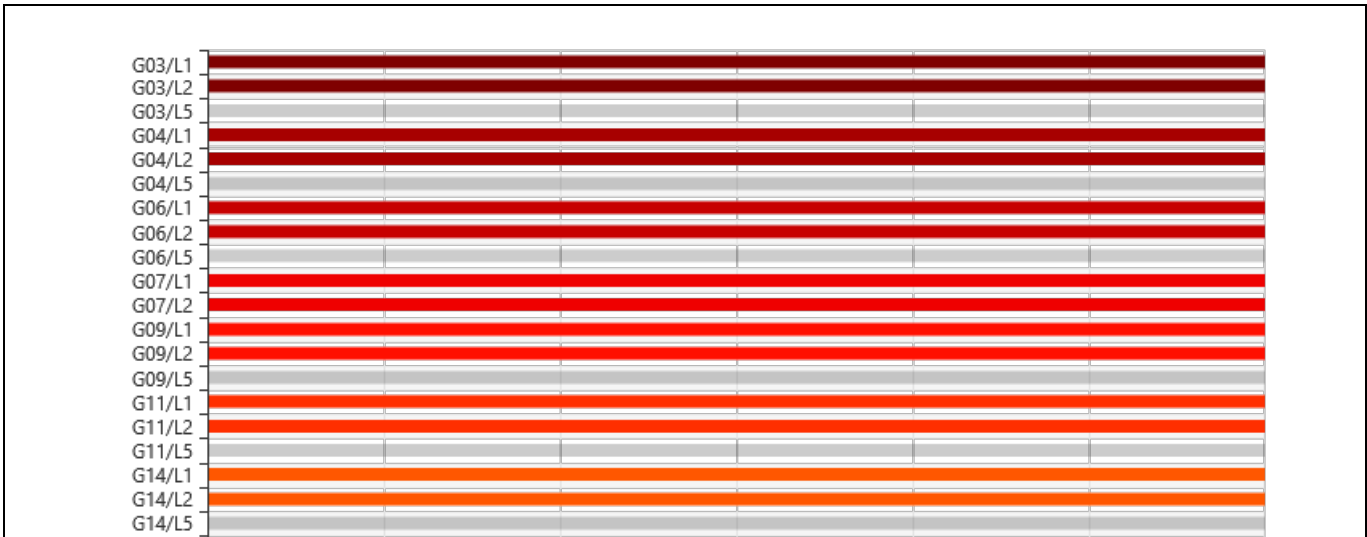
Satellites

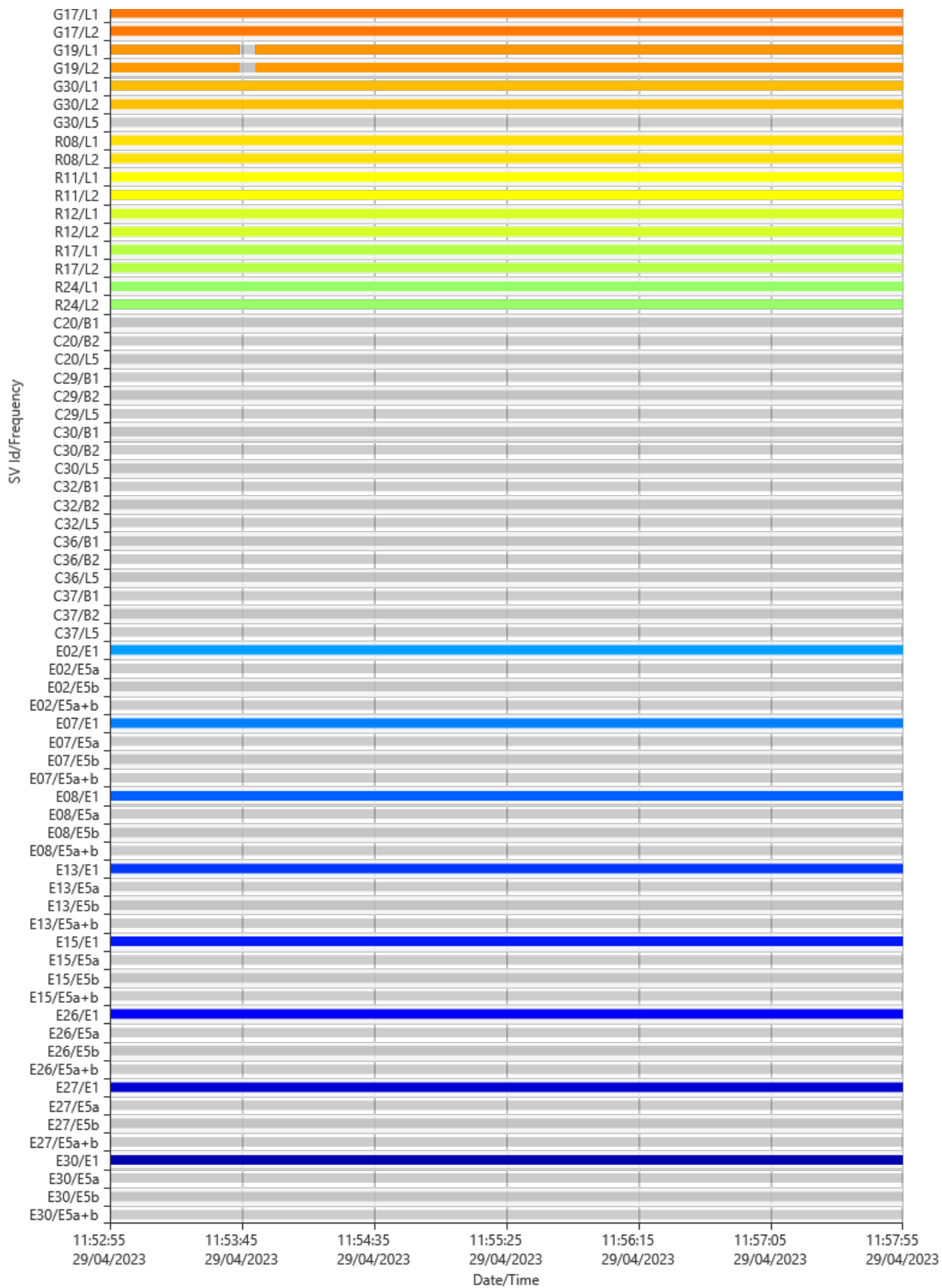
Satellite System	Used	Manually Disabled
GPS	G03 G04 G06 G07 G09 G11 G14 G17 G19 G30	-
GLONASS	R08 R11 R12 R17 R24	-
Galileo	E02 E07 E08 E13 E15 E26 E27 E30	-

SVs Tracked

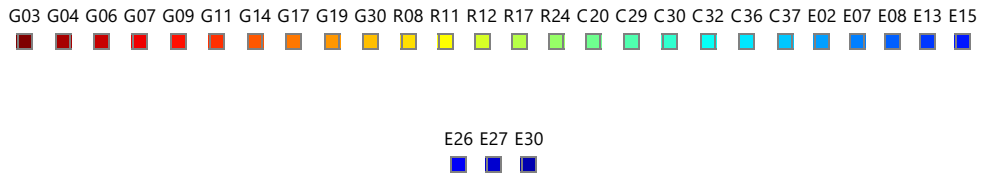
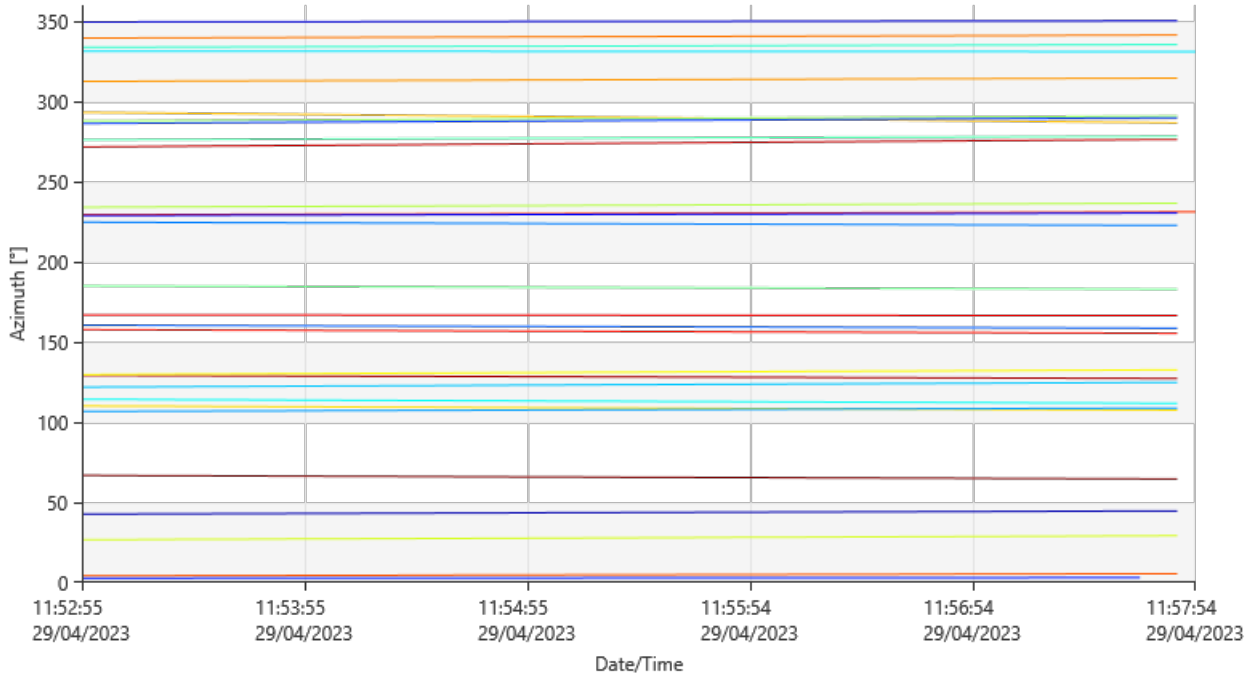


Signals Tracked

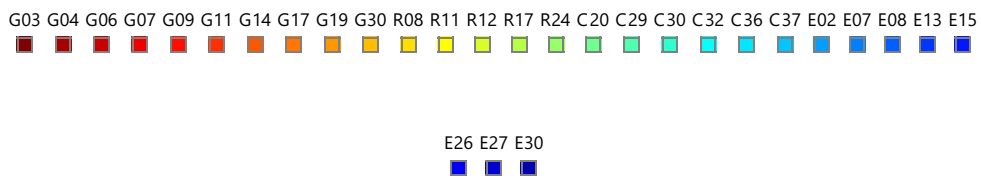
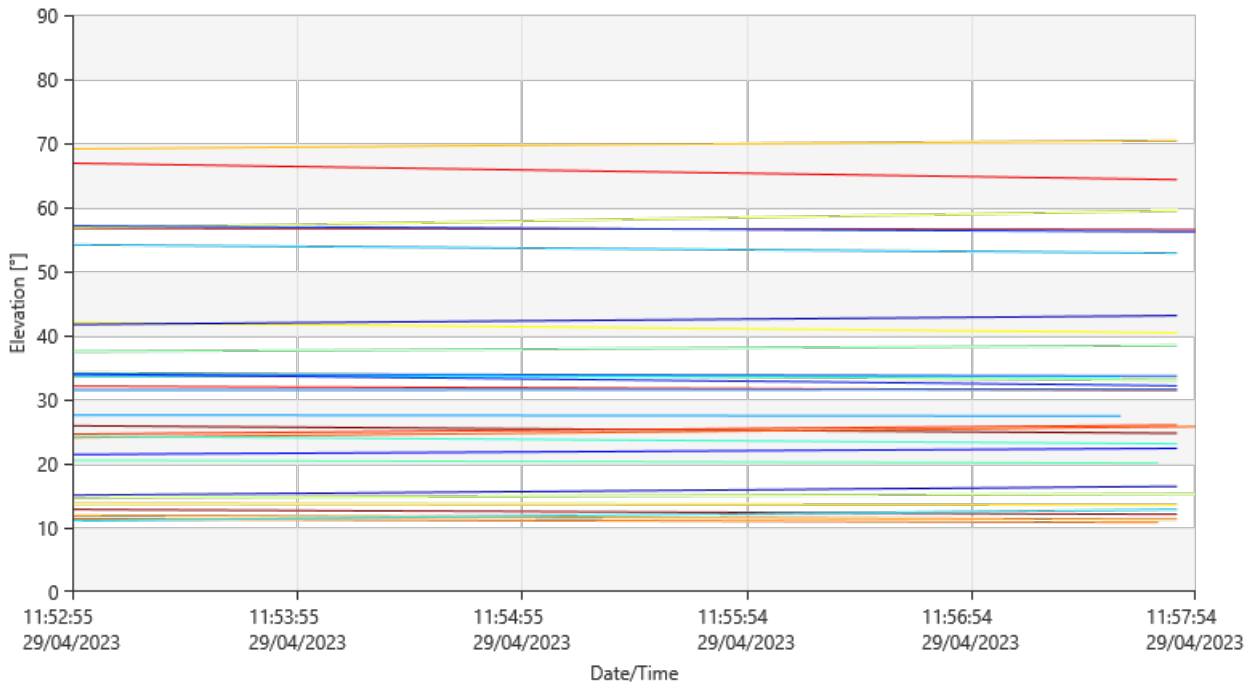




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 11:52:55	29/04/2023 11:57:55	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

G14

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Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:53:44	Used
	29/04/2023 11:53:44	29/04/2023 11:53:50	Rejected
	29/04/2023 11:53:50	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:53:44	Used
	29/04/2023 11:53:44	29/04/2023 11:53:50	Rejected
	29/04/2023 11:53:50	29/04/2023 11:57:55	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

R08

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
L2	29/04/2023 11:52:55	29/04/2023 11:57:55	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
E5a	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected
E5b	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected
E5a+b	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 11:52:55	29/04/2023 11:57:55	Used
E5a	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected
E5b	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected
E5a+b	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

E08

Frequency	From Epoch	To Epoch	Status

B2	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected
B2	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected
L5	29/04/2023 11:52:55	29/04/2023 11:57:55	Rejected

Cycle Slips

Slip Count: 4

SV	Frequency	Epoch	Slip Value	Flag
C36	B1	29/04/2023 11:52:56	-	RIA
		29/04/2023 11:53:12	-	RIA
	B2	29/04/2023 11:52:56	-	RIA
		29/04/2023 11:53:12	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L6-2

Processing Parameters (29/04/2023 12:01:47 - 29/04/2023 12:06:48)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Wideline Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L6-2

Acquisition

Start Time - End Time:	29/04/2023 12:01:48 - 29/04/2023 12:06:48
Duration:	00:05:00

Antennas

	Reference - C02	Rover - L6-2
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L6-2	Reference - C02	Rover - L6-2	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 51.33675" S	Easting:	438,215.5500 m	437,052.6610 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 46.09281" W	Northing:	8,609,405.6600 m	8,610,981.0558 m
WGS84 Ellip. Height:	4,889.3308 m	4,728.4788 m	Ortho. Height:	4,853.4775 m	4,692.7049 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,748.8455 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,685.1113 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,423.2276 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 51.36673"	SD ΔLatitude:	0.0002 m
ΔLongitude:	-0° 00' 38.42432"	SD ΔLongitude:	0.0002 m
ΔHeight:	-160.8519 m	SD ΔHeight:	0.0005 m
ΔX:	-1,077.5908 m	SD ΔX:	0.0003 m
ΔY:	-470.1108 m	SD ΔY:	0.0005 m
ΔZ:	1,576.8199 m	SD ΔZ:	0.0002 m
Slope Dist.:	1,966.8673 m	SD Slope Dist.:	0.0002 m

M0:	0.6602 m	CQ 1D:	0.0005 m
Q11:	0.00000015	CQ 2D:	0.0003 m
Q12:	-0.00000013	CQ 3D:	0.0006 m
Q22:	0.00000051		
Q13:	-0.00000001		
Q23:	0.00000008		
Q33:	0.00000011		

Frequency:	L1/E1/B1/L2/B2	GDOP:	1.5 - 1.6	GPS SVs:	10/10
Solution Optimisation:	None	PDOP:	0.9 - 1.0	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.4	Beidou SVs:	6/6
		VDOP:	0.8 - 0.9	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

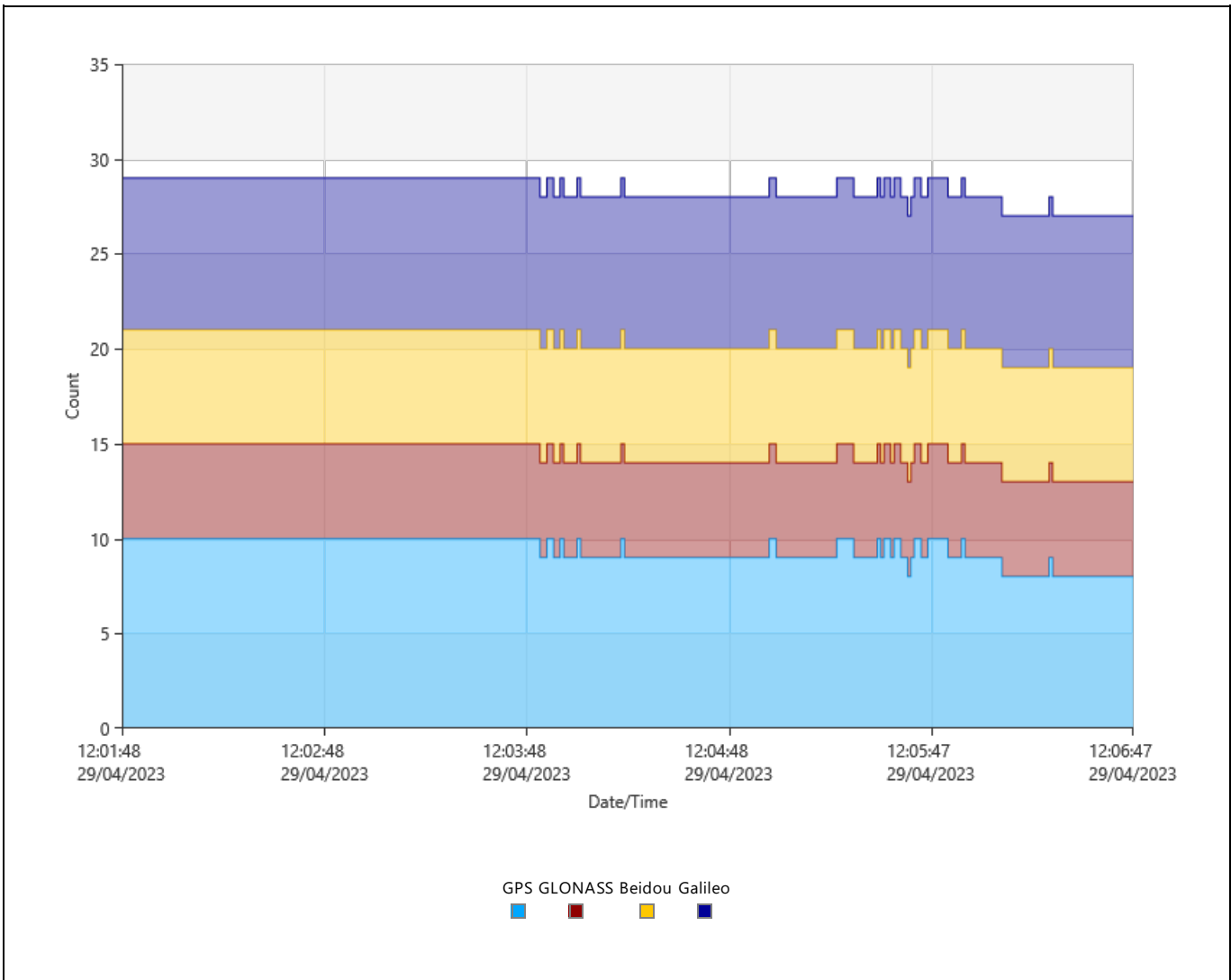
Processing Info (29/04/2023 12:01:47 - 29/04/2023 12:06:48)

Processed Date/Time: 10/05/2023 10:49:26

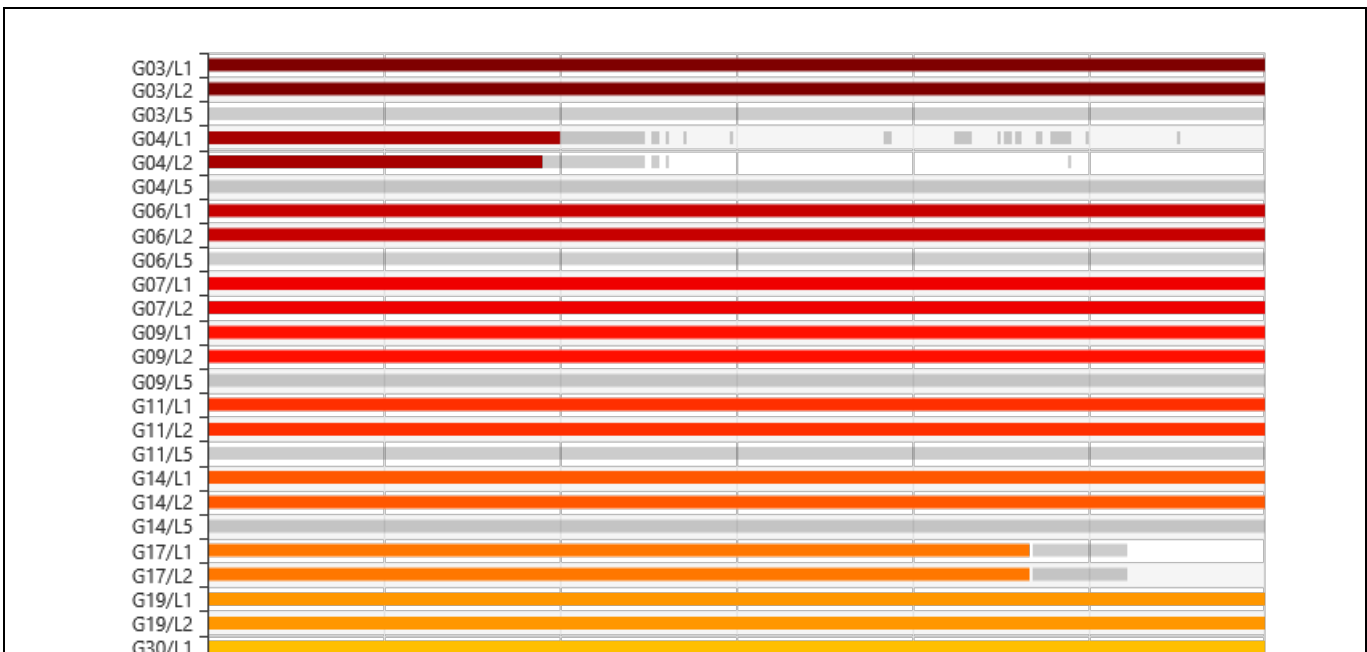
Satellites

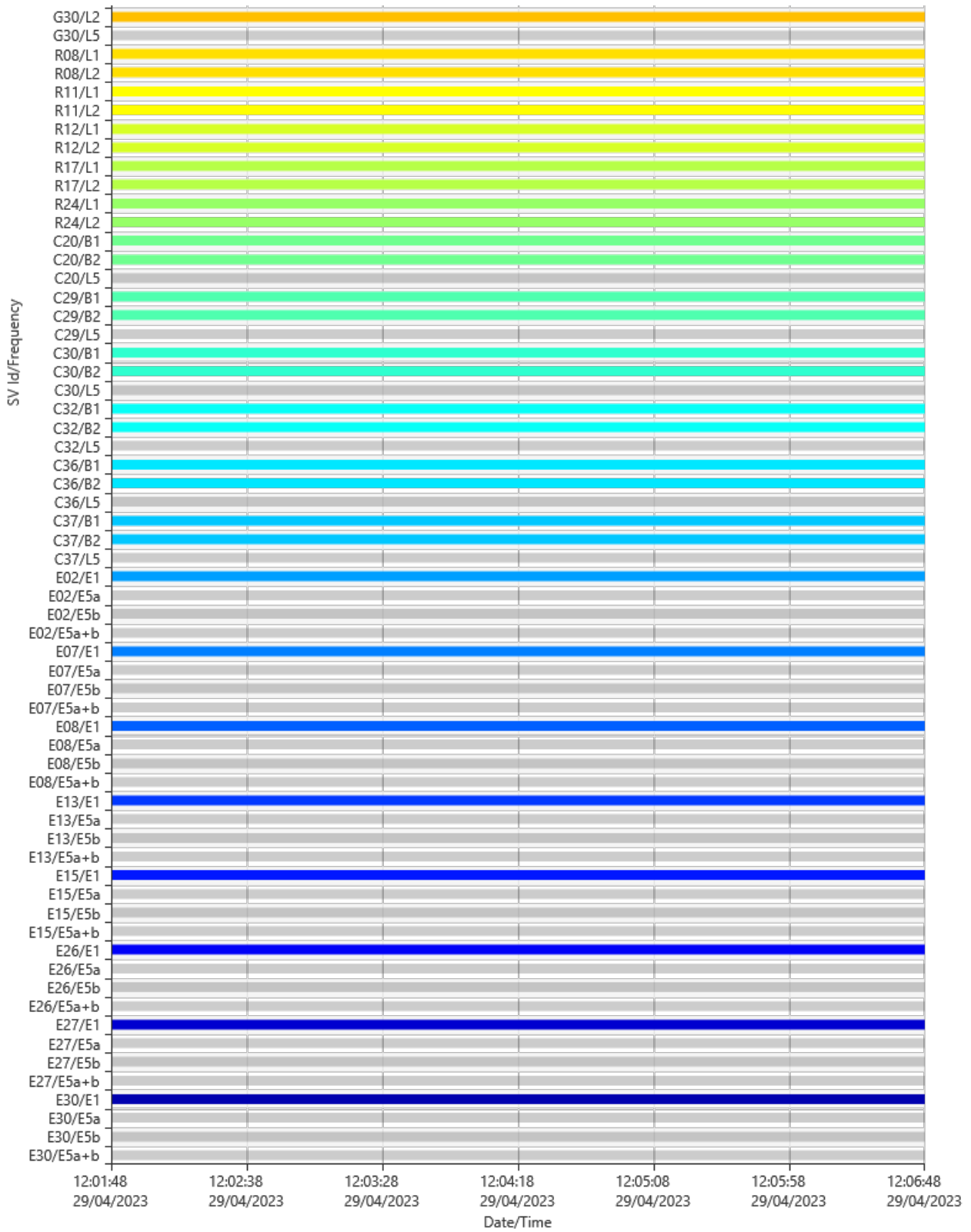
Satellite System	Used	Manually Disabled
GPS	G03 G04 G06 G07 G09 G11 G14 G17 G19 G30	-
GLONASS	R08 R11 R12 R17 R24	-
Beidou	C20 C29 C30 C32 C36 C37	-
Galileo	E02 E07 E08 E13 E15 E26 E27 E30	-

SVs Tracked

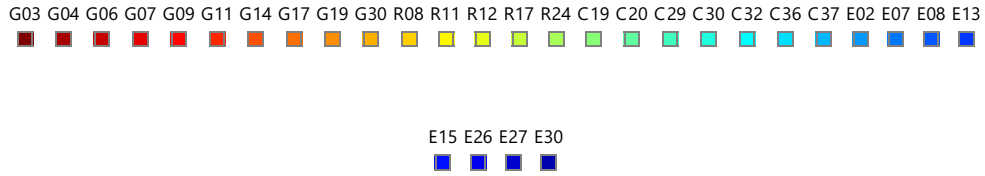
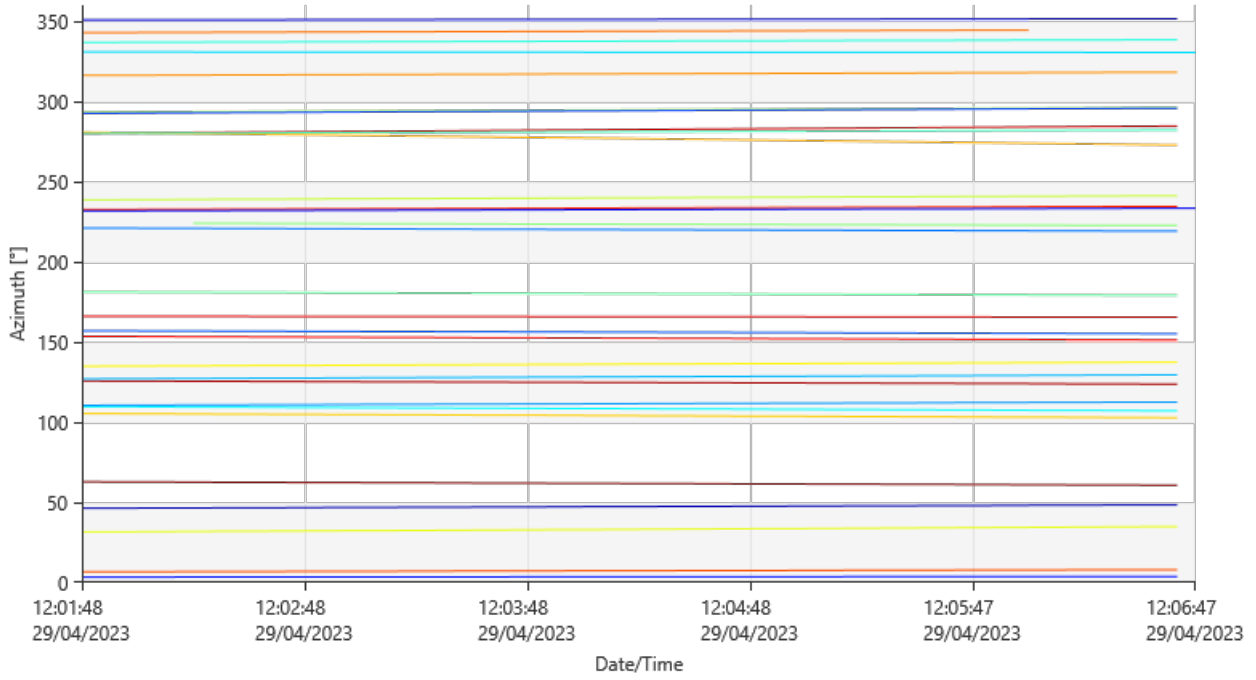


Signals Tracked

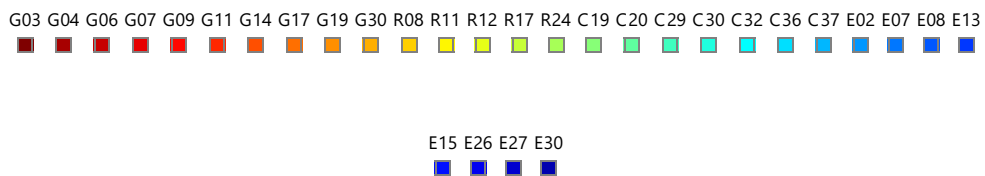
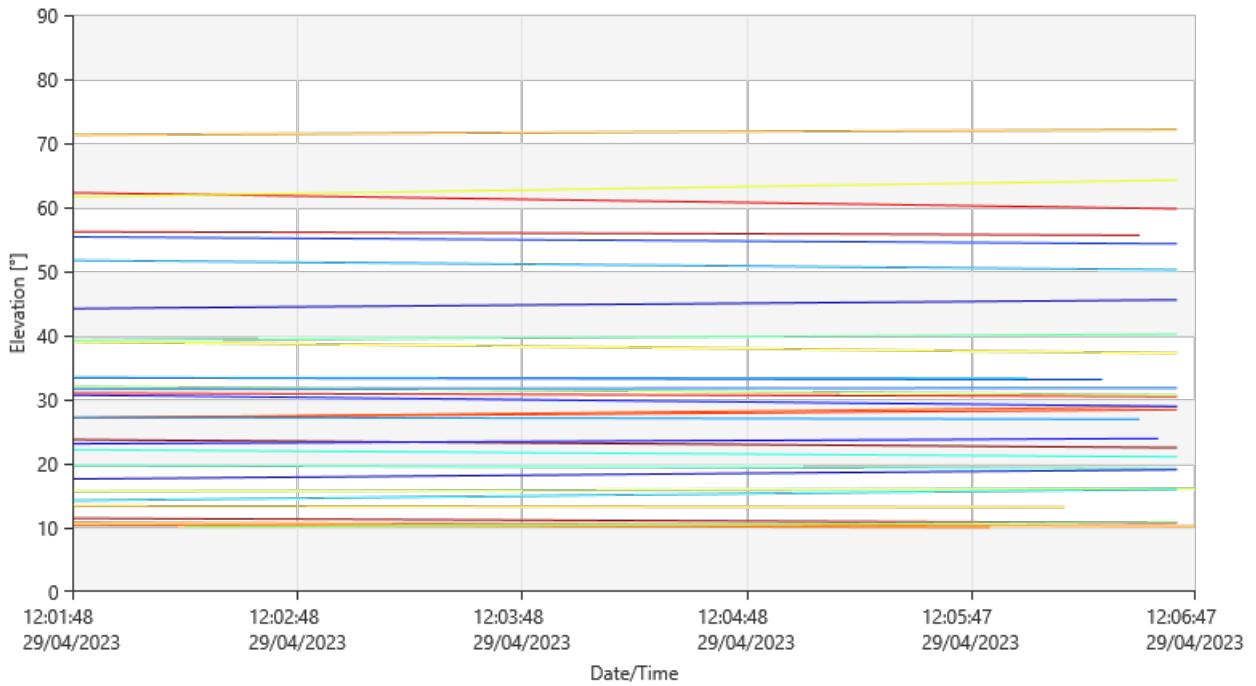




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 12:01:48	29/04/2023 12:06:48	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

G04

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:03:28	Used
	29/04/2023 12:03:28	29/04/2023 12:03:52	Rejected
	29/04/2023 12:03:52	29/04/2023 12:03:54	No Data
	29/04/2023 12:03:54	29/04/2023 12:03:56	Rejected
	29/04/2023 12:03:56	29/04/2023 12:03:58	No Data
	29/04/2023 12:03:58	29/04/2023 12:03:59	Rejected
	29/04/2023 12:03:59	29/04/2023 12:04:03	No Data
	29/04/2023 12:04:03	29/04/2023 12:04:04	Rejected
	29/04/2023 12:04:04	29/04/2023 12:04:16	No Data
	29/04/2023 12:04:16	29/04/2023 12:04:17	Rejected
	29/04/2023 12:04:17	29/04/2023 12:05:00	No Data
	29/04/2023 12:05:00	29/04/2023 12:05:02	Rejected
	29/04/2023 12:05:02	29/04/2023 12:05:20	No Data
	29/04/2023 12:05:20	29/04/2023 12:05:25	Rejected
	29/04/2023 12:05:25	29/04/2023 12:05:32	No Data
	29/04/2023 12:05:32	29/04/2023 12:05:33	Rejected
	29/04/2023 12:05:33	29/04/2023 12:05:34	No Data
	29/04/2023 12:05:34	29/04/2023 12:05:36	Rejected
	29/04/2023 12:05:36	29/04/2023 12:05:37	No Data
	29/04/2023 12:05:37	29/04/2023 12:05:39	Rejected
	29/04/2023 12:05:39	29/04/2023 12:05:43	No Data
	29/04/2023 12:05:43	29/04/2023 12:05:45	Rejected
	29/04/2023 12:05:45	29/04/2023 12:05:47	No Data
	29/04/2023 12:05:47	29/04/2023 12:05:53	Rejected
	29/04/2023 12:05:53	29/04/2023 12:05:57	No Data
	29/04/2023 12:05:57	29/04/2023 12:05:58	Rejected
	29/04/2023 12:05:58	29/04/2023 12:06:23	No Data
	29/04/2023 12:06:23	29/04/2023 12:06:24	Rejected
	29/04/2023 12:06:24	29/04/2023 12:06:48	No Data
	29/04/2023 12:01:48	29/04/2023 12:03:23	No Data
	29/04/2023 12:01:48	29/04/2023 12:03:23	Used

L2	29/04/2023 12:03:23	29/04/2023 12:03:27	No Data
	29/04/2023 12:03:23	29/04/2023 12:03:27	Rejected
	29/04/2023 12:03:27	29/04/2023 12:03:30	No Data
	29/04/2023 12:03:27	29/04/2023 12:03:30	Rejected
	29/04/2023 12:03:30	29/04/2023 12:03:41	No Data
	29/04/2023 12:03:30	29/04/2023 12:03:41	Rejected
	29/04/2023 12:03:41	29/04/2023 12:03:42	No Data
	29/04/2023 12:03:41	29/04/2023 12:03:42	Rejected
	29/04/2023 12:03:42	29/04/2023 12:03:52	Rejected
	29/04/2023 12:03:52	29/04/2023 12:03:54	No Data
	29/04/2023 12:03:54	29/04/2023 12:03:56	Rejected
	29/04/2023 12:03:56	29/04/2023 12:03:58	No Data
	29/04/2023 12:03:58	29/04/2023 12:03:59	Rejected
	29/04/2023 12:03:42	29/04/2023 12:05:52	No Data
	29/04/2023 12:05:52	29/04/2023 12:05:53	Rejected
	29/04/2023 12:05:53	29/04/2023 12:06:48	No Data
29/04/2023 12:03:59	29/04/2023 12:06:48	No Data	
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:05:41	Used
	29/04/2023 12:05:41	29/04/2023 12:05:42	No Data
	29/04/2023 12:05:42	29/04/2023 12:06:09	Rejected
	29/04/2023 12:06:09	29/04/2023 12:06:48	No Data
L2	29/04/2023 12:01:48	29/04/2023 12:05:41	Used
	29/04/2023 12:05:41	29/04/2023 12:05:42	No Data
	29/04/2023 12:05:42	29/04/2023 12:06:09	Rejected
	29/04/2023 12:06:09	29/04/2023 12:06:48	No Data

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used

E5b	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected
E5a+b	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
E5a	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected
E5b	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected
E5a+b	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
E5a	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected
E5b	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected
E5a+b	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
B2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
B2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
B2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
B2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
B2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
B2	29/04/2023 12:01:48	29/04/2023 12:06:48	Used
L5	29/04/2023 12:01:48	29/04/2023 12:06:48	Rejected

Cycle Slips

Slip Count: 2

SV	Frequency	Epoch	Slip Value	Flag
G04	L2	29/04/2023 12:03:42	-	RIA
		29/04/2023 12:03:50	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L7-1

Processing Parameters (29/04/2023 12:31:59 - 29/04/2023 12:37:00)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L7-1

Acquisition

Start Time - End Time:	29/04/2023 12:32:00 - 29/04/2023 12:37:00
Duration:	00:05:00

Antennas

	Reference - C02	Rover - L7-1
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L7-1		Reference - C02	Rover - L7-1
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 47.31836" S	Easting:	438,215.5500 m	436,985.9431 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 48.29478" W	Northing:	8,609,405.6600 m	8,611,104.3499 m

WGS84 Ellip. Height:	4,889.3308 m	4,717.6648 m	Ortho. Height:	4,853.4775 m	4,681.8978 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,688.4879 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,717.4881 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,300.2583 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 55.38512"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 40.62629"	SD ΔLongitude:	0.0001 m
ΔHeight:	-171.6660 m	SD ΔHeight:	0.0003 m
ΔX:	-1,137.9484 m	SD ΔX:	0.0001 m
ΔY:	-502.4876 m	SD ΔY:	0.0003 m
ΔZ:	1,699.7891 m	SD ΔZ:	0.0001 m
Slope Dist.:	2,106.3483 m	SD Slope Dist.:	0.0001 m

M0:	0.3475 m	CQ 1D:	0.0003 m
Q11:	0.00000017	CQ 2D:	0.0002 m
Q12:	-0.00000014	CQ 3D:	0.0003 m
Q22:	0.00000066		
Q13:	-0.00000003		
Q23:	0.00000016		
Q33:	0.00000013		

Frequency:	L1/E1/L2	GDOP:	1.7	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.2	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/7
		VDOP:	1.0	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

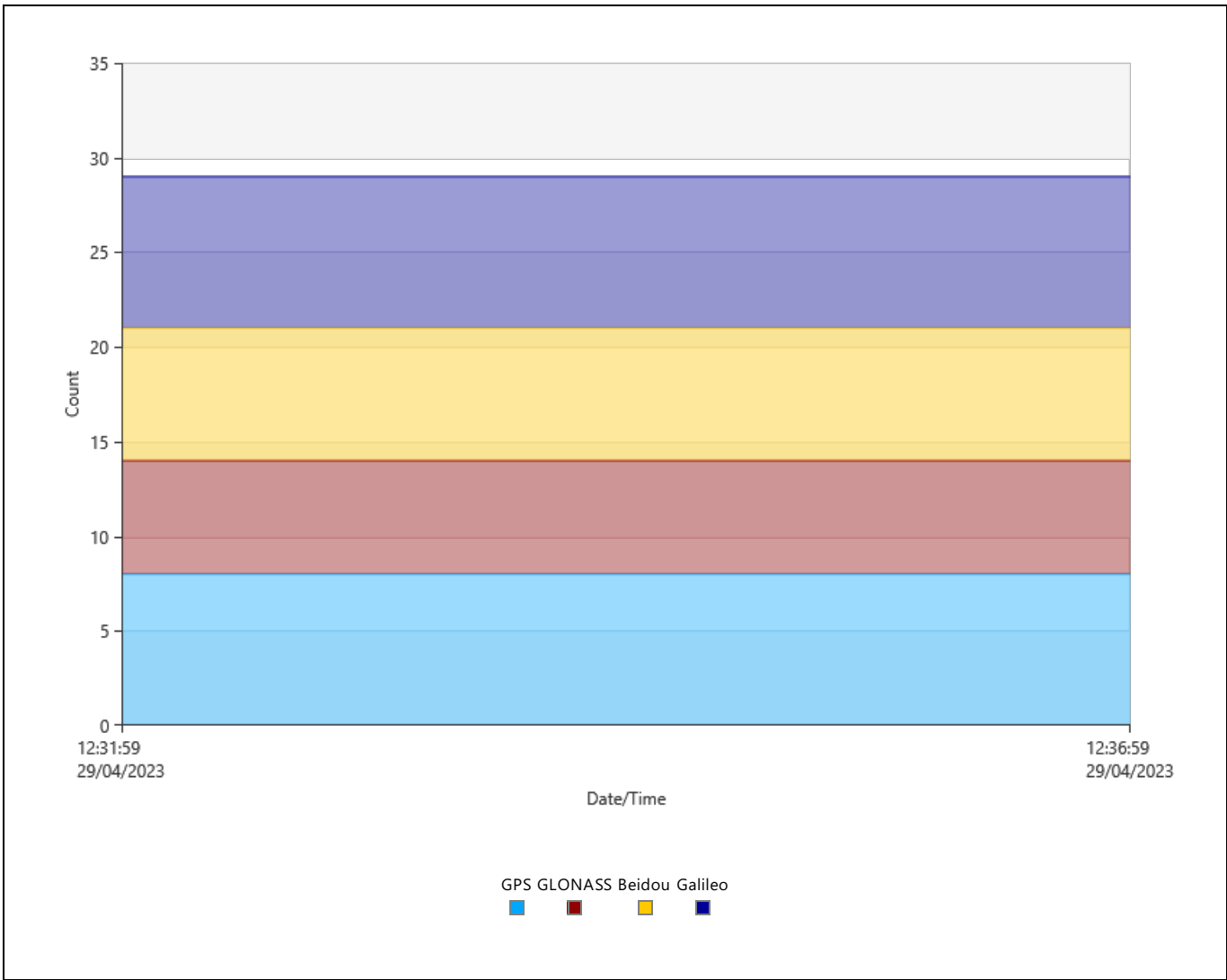
Processing Info (29/04/2023 12:31:59 - 29/04/2023 12:37:00)

Processed Date/Time: 10/05/2023 10:49:26

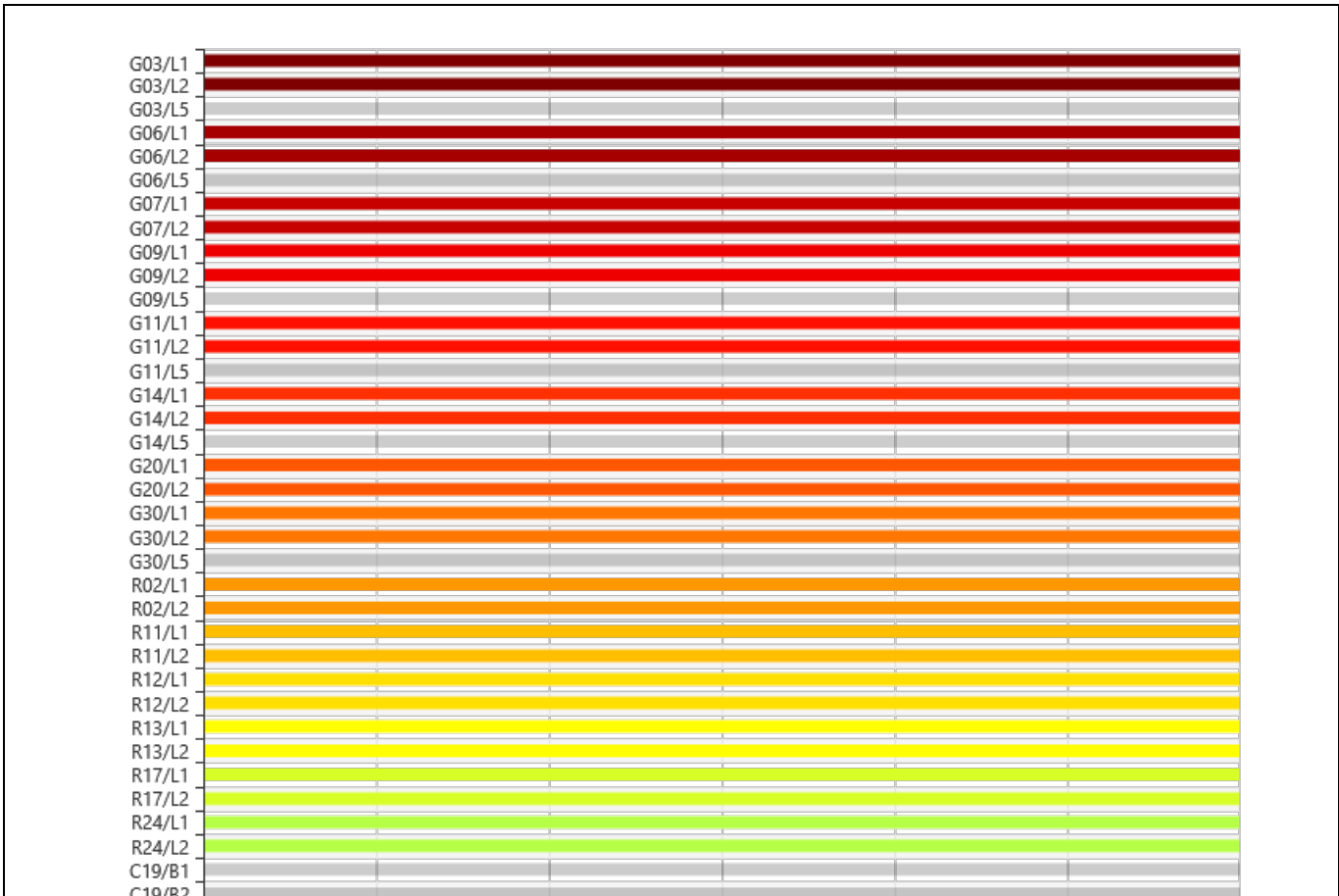
Satellites

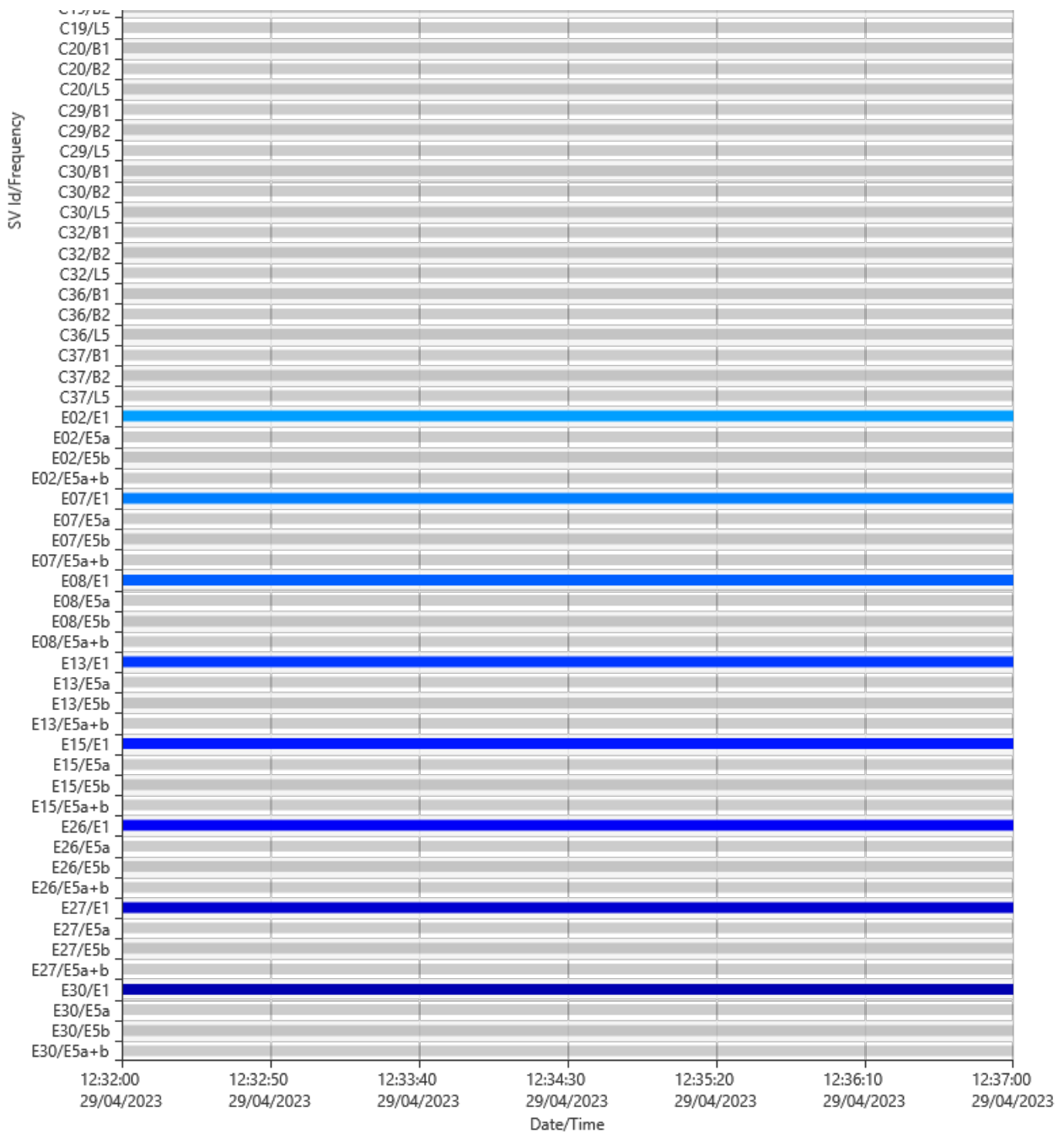
Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14 G20 G30	-
GLONASS	R02 R11 R12 R13 R17 R24	-
Galileo	E02 E07 E08 E13 E15 E26 E27 E30	-

SVs Tracked

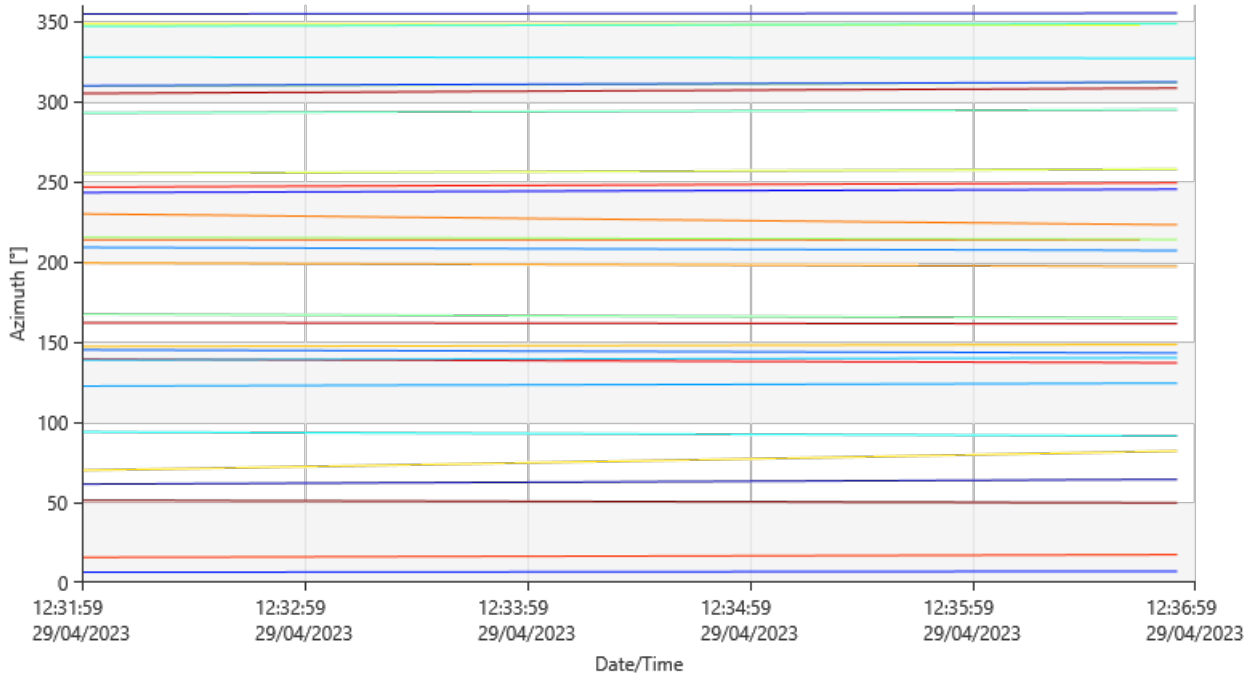


Signals Tracked

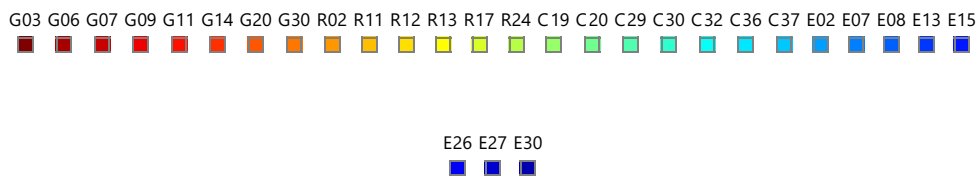
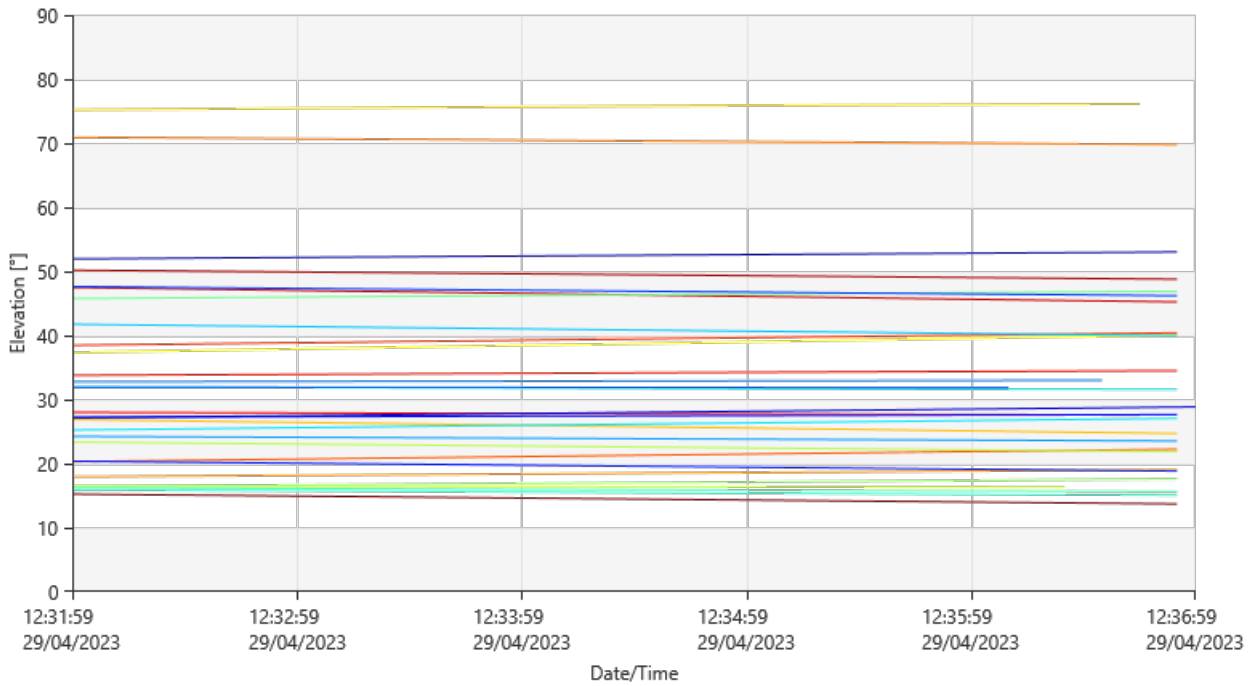




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 12:32:00	29/04/2023 12:37:00	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L5	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L5	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L5	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L5	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L5	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L5	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L5	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
L2	29/04/2023 12:32:00	29/04/2023 12:37:00	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
E5a	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
E5b	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
E5a+b	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
E5a	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
E5b	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
E5a+b	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
E5a	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
E5b	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
E5a+b	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

E13

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:32:00	29/04/2023 12:37:00	Used
E5a	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
E5b	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
B2	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected
L5	29/04/2023 12:32:00	29/04/2023 12:37:00	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L7-2

Processing Parameters (29/04/2023 12:10:57 - 29/04/2023 12:15:57)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L7-2

Acquisition

Start Time - End Time: 29/04/2023 12:10:57 - 29/04/2023 12:15:57
Duration: 00:05:00

Antennas

	Reference - C02	Rover - L7-2
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m

North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L7-2		Reference - C02	Rover - L7-2
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 51.02014" S	Easting:	438,215.5500 m	436,991.9571 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 48.10378" W	Northing:	8,609,405.6600 m	8,610,990.6482 m
WGS84 Ellip. Height:	4,889.3308 m	4,719.8506 m	Ortho. Height:	4,853.4775 m	4,684.0768 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,688.4407 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,694.1348 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,411.8471 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 51.68334"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 40.43529"	SD ΔLongitude:	0.0002 m
ΔHeight:	-169.4802 m	SD ΔHeight:	0.0004 m
ΔX:	-1,137.9957 m	SD ΔX:	0.0002 m
ΔY:	-479.1343 m	SD ΔY:	0.0003 m
ΔZ:	1,588.2003 m	SD ΔZ:	0.0002 m
Slope Dist.:	2,011.7117 m	SD Slope Dist.:	0.0001 m

M0:	0.4688 m	CQ 1D:	0.0004 m
Q11:	0.00000014	CQ 2D:	0.0002 m
Q12:	-0.00000012	CQ 3D:	0.0004 m
Q22:	0.00000054		
Q13:	-0.00000001		
Q23:	0.00000009		
Q33:	0.00000011		

Frequency:	L1/E1/B1/L2/B2	GDOP:	1.6 - 1.8	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.0 - 1.1	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.4 - 0.5	Beidou SVs:	7/7
		VDOP:	0.9 - 1.0	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

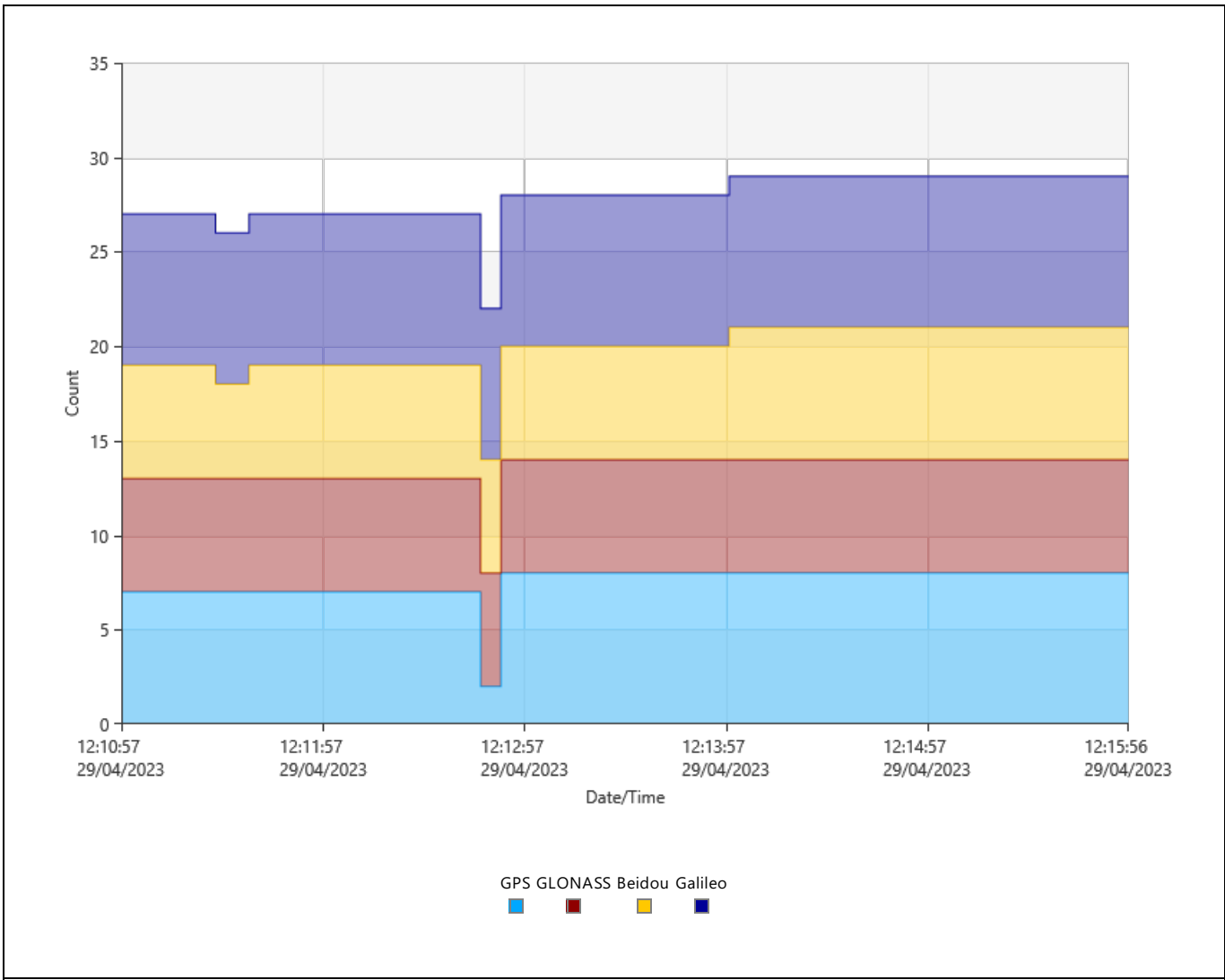
Processing Info (29/04/2023 12:10:57 - 29/04/2023 12:15:57)

Processed Date/Time: 10/05/2023 10:49:26

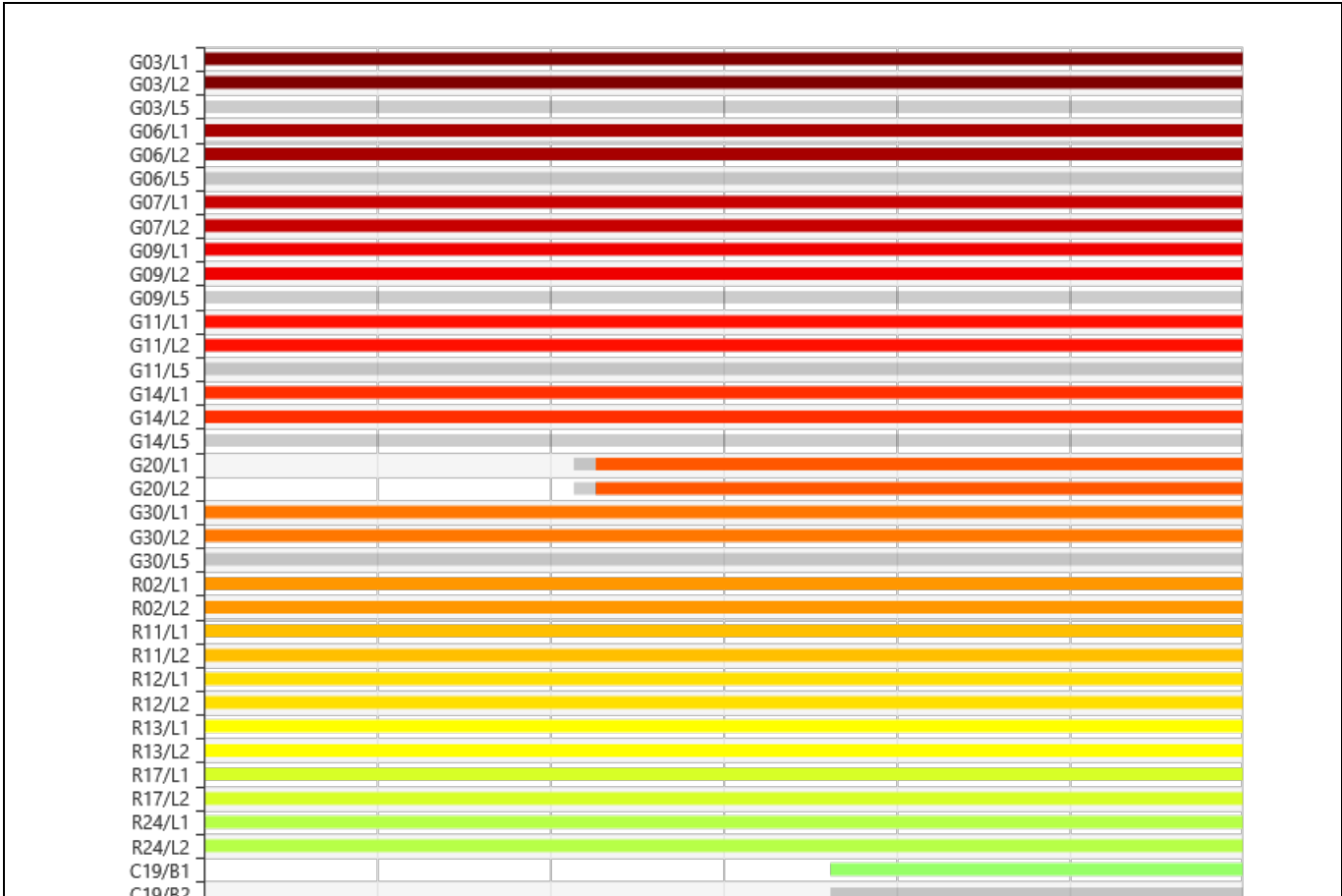
Satellites

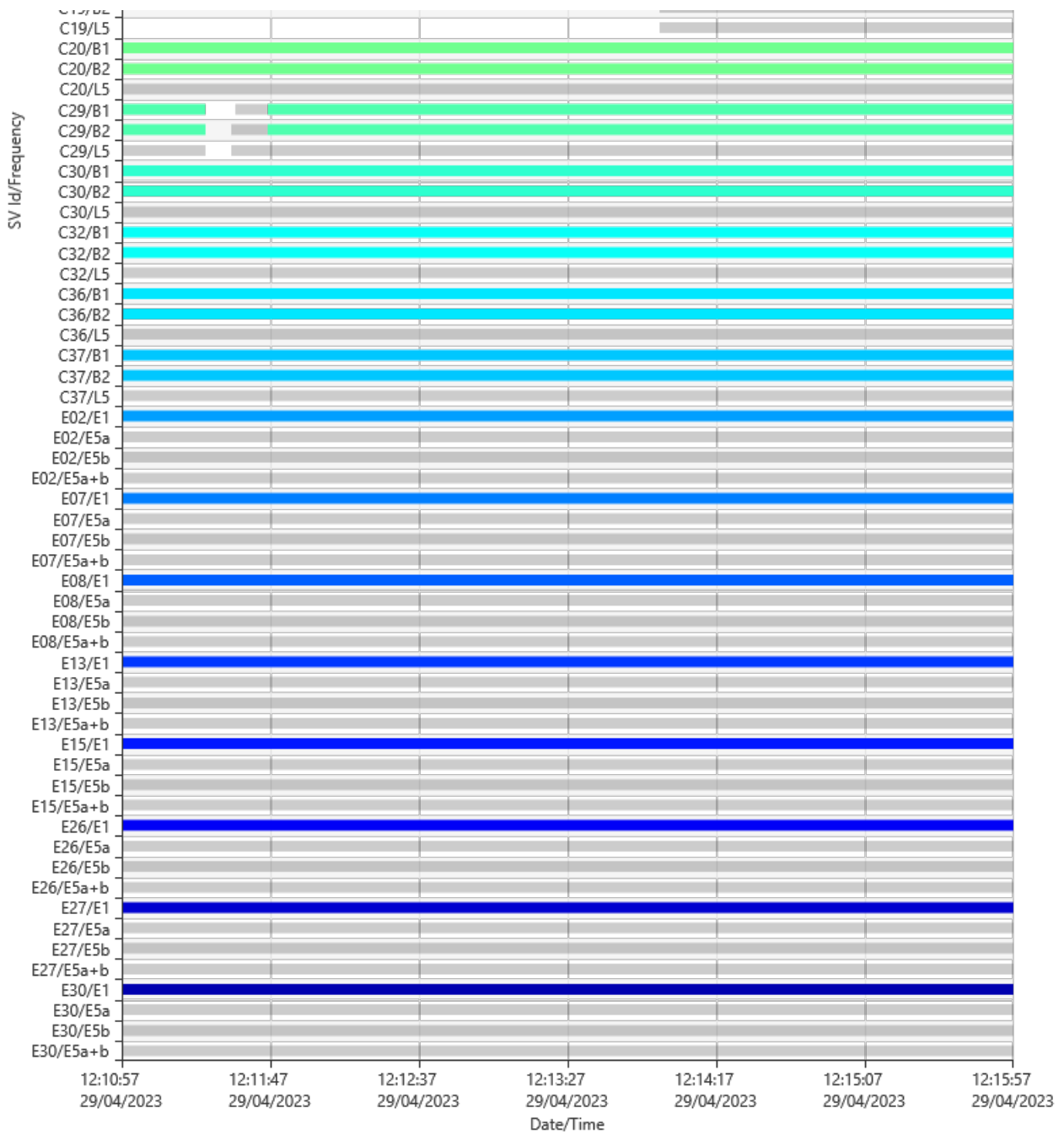
Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14 G20 G30	-
GLONASS	R02 R11 R12 R13 R17 R24	-
Beidou	C19 C20 C29 C30 C32 C36 C37	-
Galileo	E02 E07 E08 E13 E15 E26 E27 E30	-

SVs Tracked

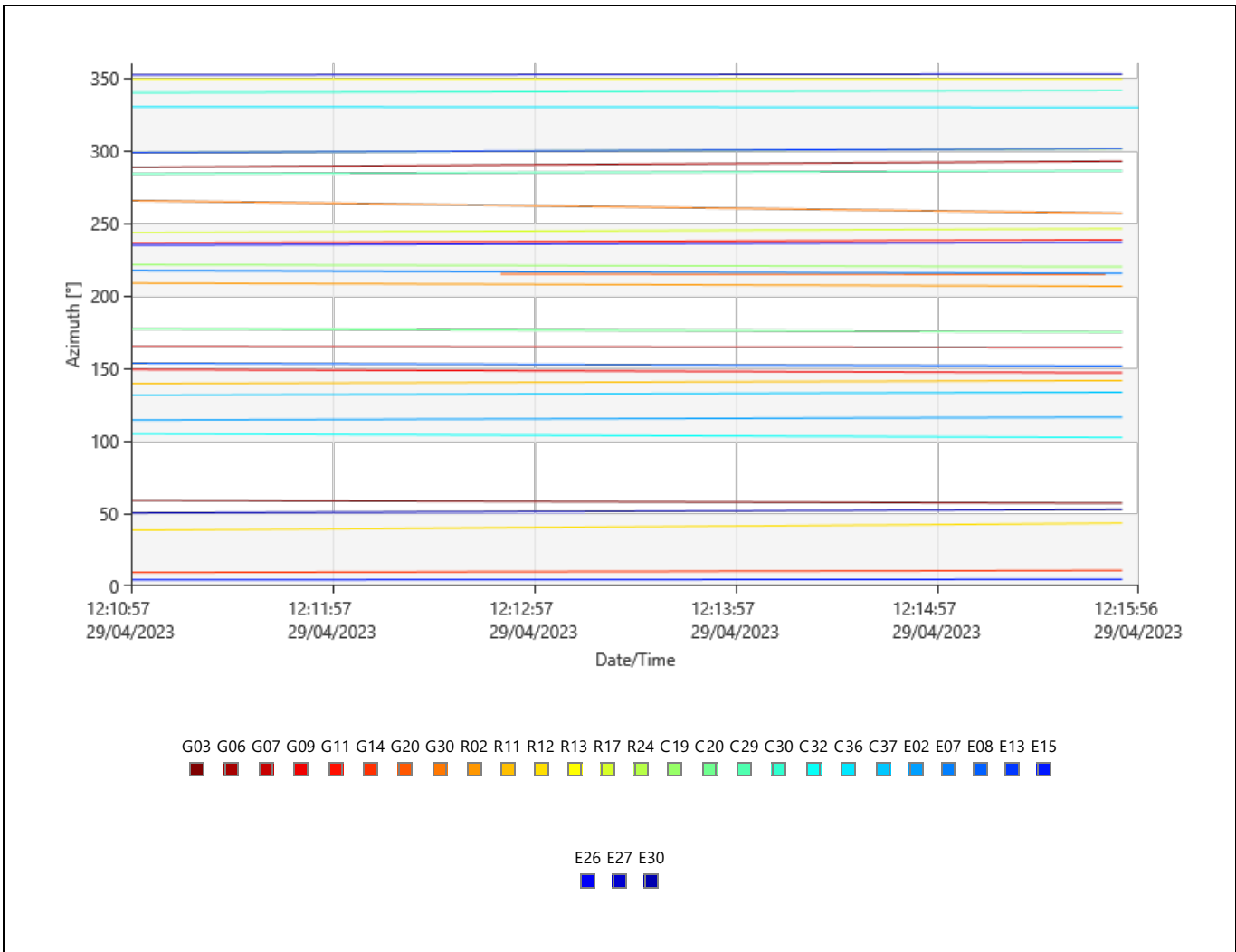


Signals Tracked

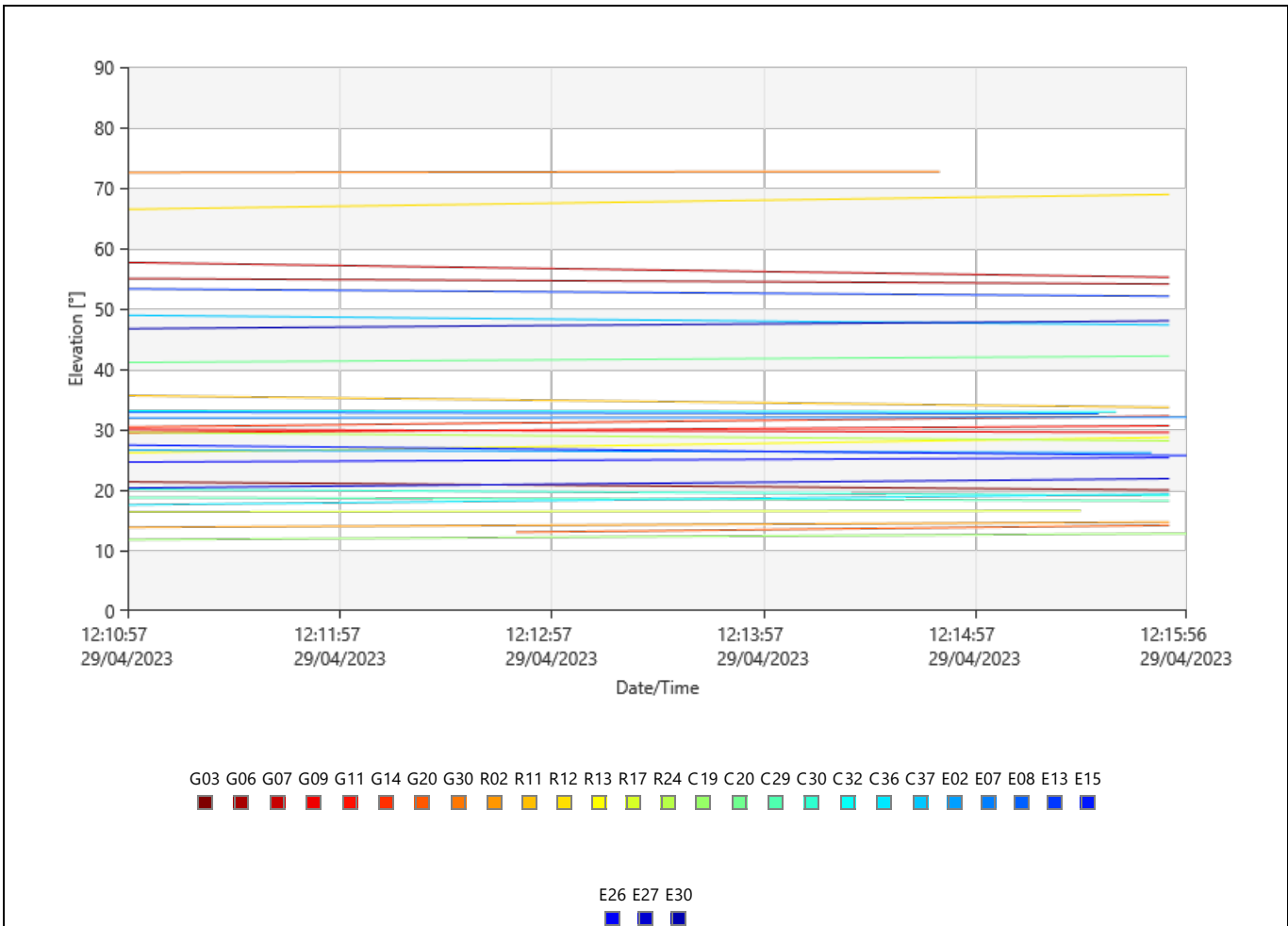




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 12:10:57	29/04/2023 12:15:57	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:12:44	No Data
	29/04/2023 12:12:44	29/04/2023 12:12:50	Rejected
	29/04/2023 12:12:50	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:12:44	No Data
	29/04/2023 12:12:44	29/04/2023 12:12:50	Rejected
	29/04/2023 12:12:50	29/04/2023 12:15:57	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
E5a	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5a+b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
E5a	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5a+b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
E5a	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5a+b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

E13

Frequency	From Epoch	To Epoch	Status

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
E5a	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5a+b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

E15

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
E5a	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5a+b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
E5a	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5a+b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
E5a	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5a+b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
E5a	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected
E5a+b	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:10:57	29/04/2023 12:13:58	No Data
	29/04/2023 12:13:58	29/04/2023 12:15:57	Used
B2	29/04/2023 12:10:57	29/04/2023 12:13:58	No Data
	29/04/2023 12:13:58	29/04/2023 12:15:57	Rejected
L5	29/04/2023 12:10:57	29/04/2023 12:13:58	No Data
	29/04/2023 12:13:58	29/04/2023 12:15:57	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
B2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:10:57	29/04/2023 12:11:25	Used
	29/04/2023 12:11:25	29/04/2023 12:11:35	No Data
	29/04/2023 12:11:35	29/04/2023 12:11:46	Rejected
	29/04/2023 12:11:46	29/04/2023 12:15:57	Used
B2	29/04/2023 12:10:57	29/04/2023 12:11:25	Used
	29/04/2023 12:11:25	29/04/2023 12:11:34	No Data
	29/04/2023 12:11:34	29/04/2023 12:11:46	Rejected
	29/04/2023 12:11:46	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:11:25	Rejected
	29/04/2023 12:11:25	29/04/2023 12:11:34	No Data
	29/04/2023 12:11:34	29/04/2023 12:15:57	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
B2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
B2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
B2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
B2	29/04/2023 12:10:57	29/04/2023 12:15:57	Used
L5	29/04/2023 12:10:57	29/04/2023 12:15:57	Rejected

Cycle Slips

Slip Count: 1

SV	Frequency	Epoch	Slip Value	Flag
C29	B2	29/04/2023 12:11:46	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L8-1

Processing Parameters (29/04/2023 12:25:44 - 29/04/2023 12:30:45)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - L8-1

Acquisition

Start Time - End Time: 29/04/2023 12:25:45 - 29/04/2023 12:30:45
Duration: 00:05:00

Antennas

	Reference - C02	Rover - L8-1
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L8-1	Reference - C02	Rover - L8-1	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 46.96749" S	Easting:	438,215.5500 m	436,950.9493 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 49.45366" W	Northing:	8,609,405.6600 m	8,611,115.0510 m
WGS84 Ellip. Height:	4,889.3308 m	4,710.8501 m	Ortho. Height:	4,853.4775 m	4,675.0835 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,653.5106 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,722.0369 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,288.2444 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 55.73599"	SD ΔLatitude:	0.0001 m
ΔLongitude:	-0° 00' 41.78516"	SD ΔLongitude:	0.0002 m
ΔHeight:	-178.4807 m	SD ΔHeight:	0.0003 m
ΔX:	-1,172.9258 m	SD ΔX:	0.0002 m
ΔY:	-507.0365 m	SD ΔY:	0.0003 m
ΔZ:	1,711.8030 m	SD ΔZ:	0.0002 m
Slope Dist.:	2,136.1438 m	SD Slope Dist.:	0.0001 m

M0:	0.4154 m	CQ 1D:	0.0003 m
Q11:	0.00000017	CQ 2D:	0.0002 m
Q12:	-0.00000014	CQ 3D:	0.0004 m
Q22:	0.00000062		
Q13:	-0.00000003		
Q23:	0.00000015		
Q33:	0.00000013		

Frequency:	L1/E1/L2	GDOP:	1.6 - 1.9	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.1 - 1.3	GLONASS SVs:	7/7
Solution Type:	Phase Fixed	HDOP:	0.5	Beidou SVs:	0/7
		VDOP:	1.0 - 1.2	Galileo SVs:	8/8
				QZSS SVs:	-

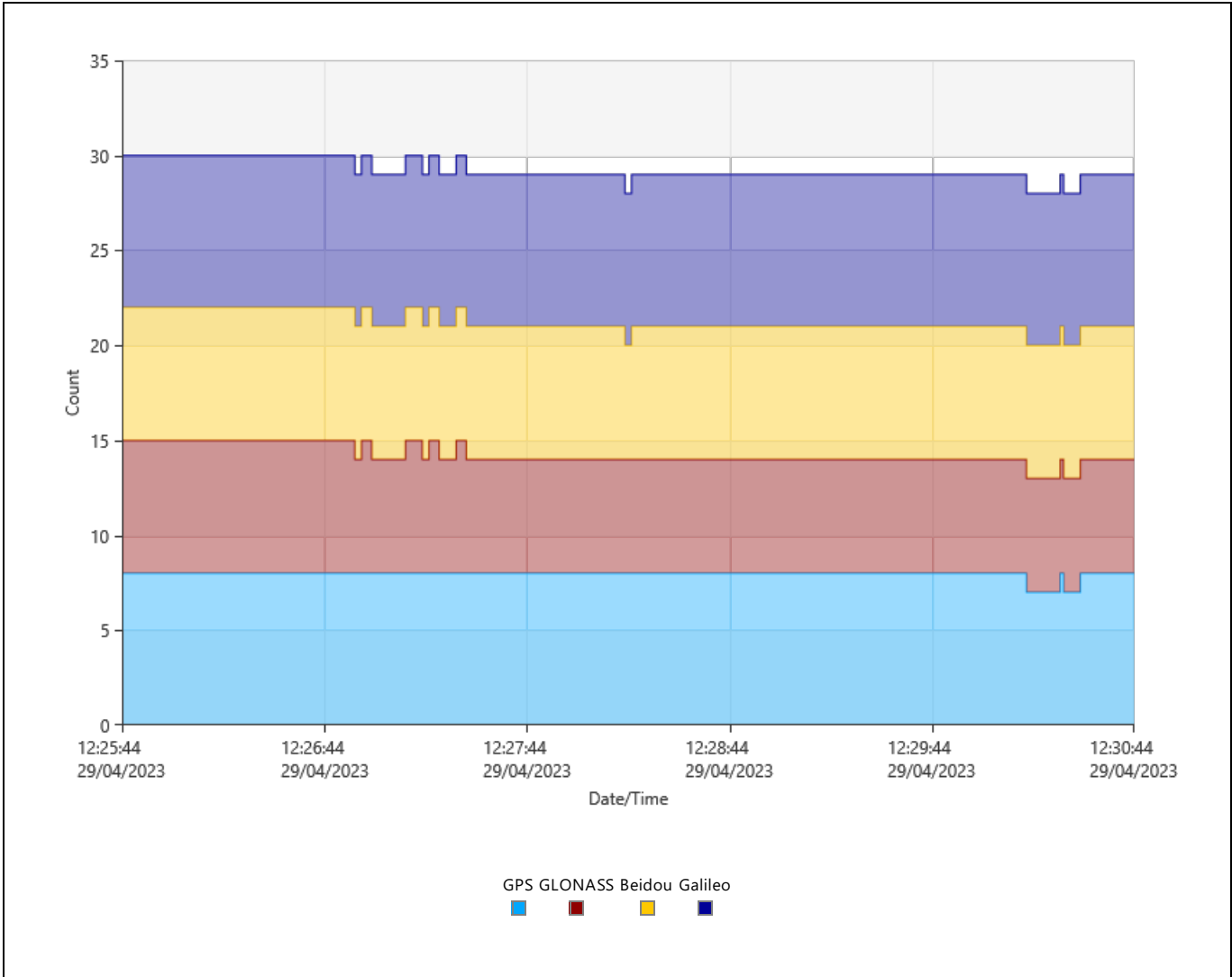
Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

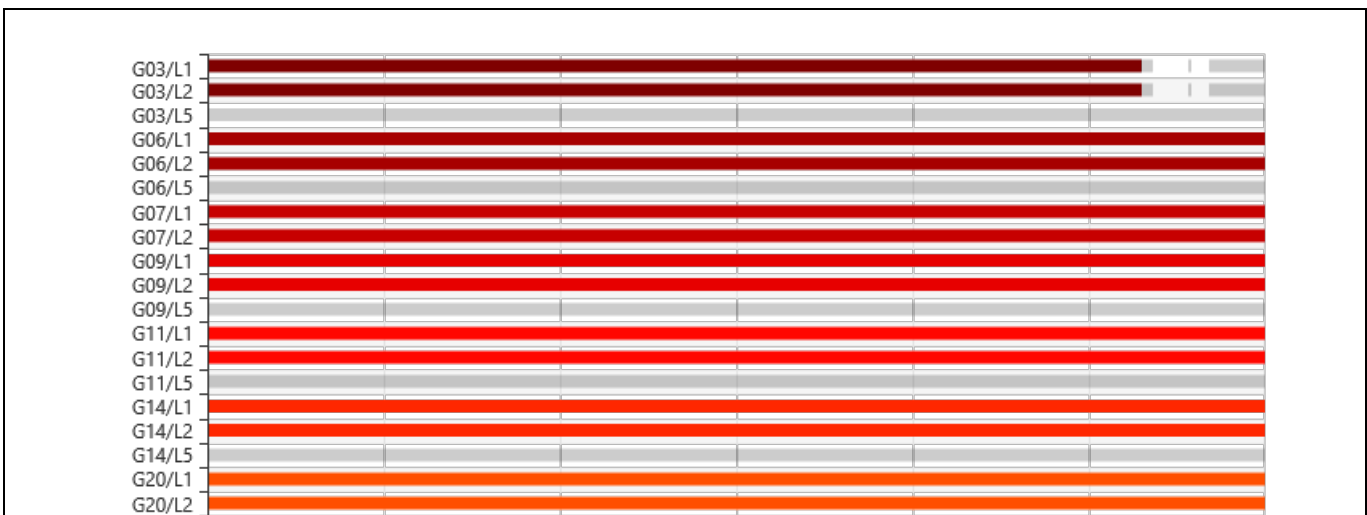
Satellites

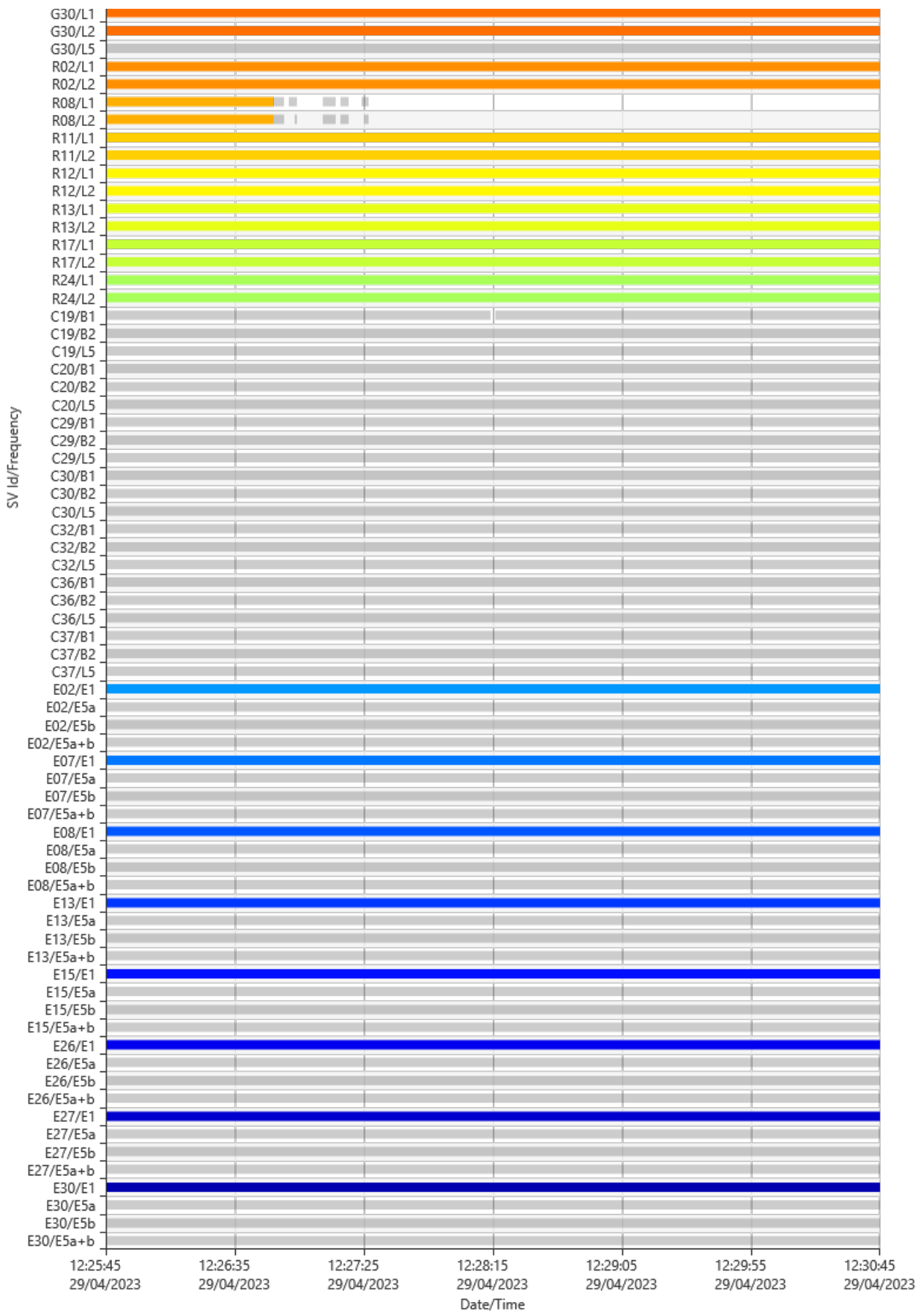
Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14 G20 G30	-
GLONASS	R02 R08 R11 R12 R13 R17 R24	-
Galileo	E02 E07 E08 E13 E15 E26 E27 E30	-

SVs Tracked

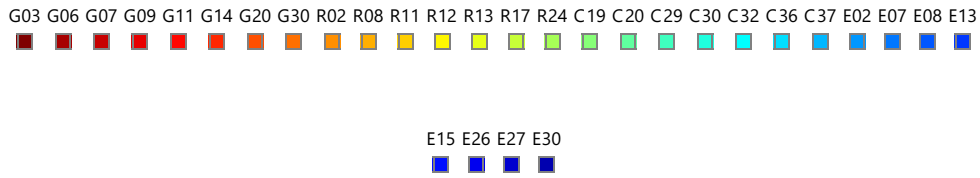
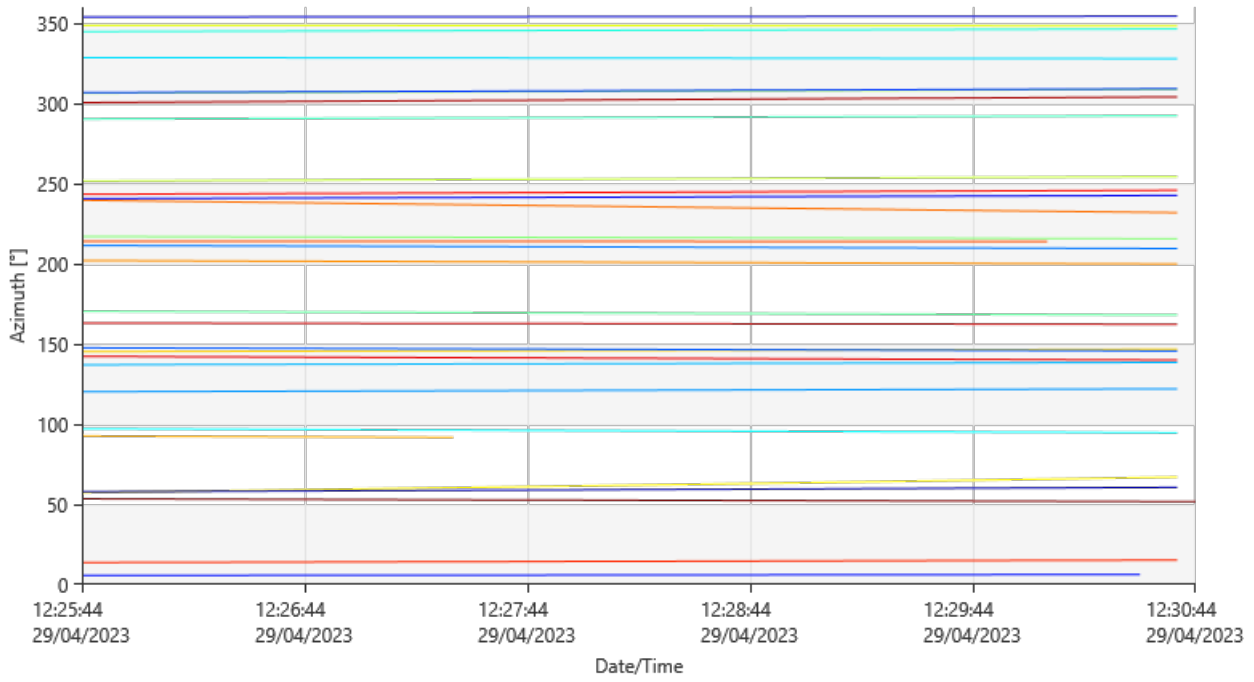


Signals Tracked

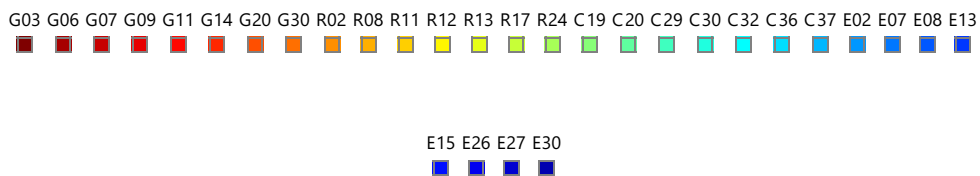
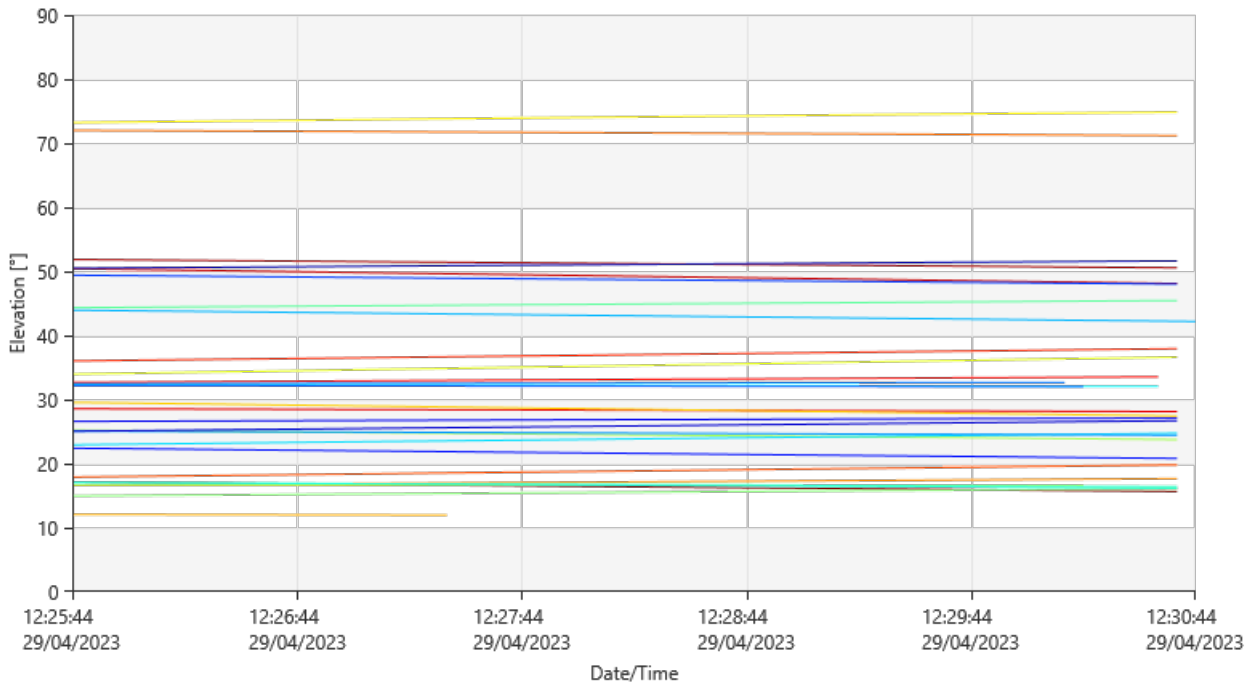




Azimuth



Elevation



Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 12:25:45	29/04/2023 12:30:45	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:10	Used
	29/04/2023 12:30:10	29/04/2023 12:30:13	Rejected
	29/04/2023 12:30:13	29/04/2023 12:30:23	No Data
	29/04/2023 12:30:23	29/04/2023 12:30:24	Rejected
	29/04/2023 12:30:24	29/04/2023 12:30:29	No Data
	29/04/2023 12:30:29	29/04/2023 12:30:45	Rejected
L2	29/04/2023 12:25:45	29/04/2023 12:30:10	Used
	29/04/2023 12:30:10	29/04/2023 12:30:13	Rejected
	29/04/2023 12:30:13	29/04/2023 12:30:23	No Data
	29/04/2023 12:30:23	29/04/2023 12:30:24	Rejected
	29/04/2023 12:25:45	29/04/2023 12:30:29	No Data
	29/04/2023 12:30:24	29/04/2023 12:30:30	No Data
	29/04/2023 12:30:29	29/04/2023 12:30:30	Rejected
	29/04/2023 12:30:30	29/04/2023 12:30:45	Rejected
29/04/2023 12:30:30	29/04/2023 12:30:45	No Data	
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

G11

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Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used

R08

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:26:50	Used
	29/04/2023 12:26:50	29/04/2023 12:26:54	Rejected
	29/04/2023 12:26:54	29/04/2023 12:26:56	No Data
	29/04/2023 12:26:56	29/04/2023 12:26:59	Rejected
	29/04/2023 12:26:59	29/04/2023 12:27:09	No Data
	29/04/2023 12:27:09	29/04/2023 12:27:14	Rejected
	29/04/2023 12:27:14	29/04/2023 12:27:16	No Data
	29/04/2023 12:27:16	29/04/2023 12:27:19	Rejected
	29/04/2023 12:27:19	29/04/2023 12:27:24	No Data
	29/04/2023 12:27:24	29/04/2023 12:27:27	Rejected
L2	29/04/2023 12:25:45	29/04/2023 12:26:50	Used
	29/04/2023 12:26:50	29/04/2023 12:26:54	Rejected
	29/04/2023 12:26:54	29/04/2023 12:26:58	No Data
	29/04/2023 12:26:58	29/04/2023 12:26:59	Rejected
	29/04/2023 12:26:59	29/04/2023 12:27:09	No Data
	29/04/2023 12:27:09	29/04/2023 12:27:14	Rejected
	29/04/2023 12:27:14	29/04/2023 12:27:16	No Data
	29/04/2023 12:27:16	29/04/2023 12:27:19	Rejected
	29/04/2023 12:27:19	29/04/2023 12:27:25	No Data
	29/04/2023 12:27:25	29/04/2023 12:27:27	Rejected
	29/04/2023 12:27:27	29/04/2023 12:30:45	No Data

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:25:45	29/04/2023 12:30:45	Used
L2	29/04/2023 12:25:45	29/04/2023 12:30:45	Used

R17

B1	29/04/2023 12:25:45	29/04/2023 12:28:14	Rejected
	29/04/2023 12:28:14	29/04/2023 12:28:16	No Data
	29/04/2023 12:28:16	29/04/2023 12:30:45	Rejected
B2	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
B2	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

C29

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
B2	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

C30

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
B2	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

C32

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
B2	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
B2	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

C37

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
B2	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected
L5	29/04/2023 12:25:45	29/04/2023 12:30:45	Rejected

Cycle Slips

Slip Count: 1

SV	Frequency	Epoch	Slip Value	Flag
C19	B2	29/04/2023 12:28:28	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - L8-2

Processing Parameters (29/04/2023 12:17:09 - 29/04/2023 12:22:09)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	

Frequency: L1/E1/B1/L2/B2 L1/E1/B1/L2/B2
 Sampling Rate: Use All 1.00 sec
 Satellite System: GPS/GLONASS/Galileo/Beidou GPS/GLONASS/Galileo/Beidou
 Ephemeris Type: Precise Precise No Beidou precise ephemeris available, switched to broadcast ephemeris.
 Antenna Calibration Set: NGS Absolute NGS Absolute

Processing Strategy

Solution Type: Phase Fixed Phase Fixed
 Solution Optimisation: Automatic None
 Frequency to use in Ionospheric Model: Automatic Automatic
 Tropospheric Model: VMF with GPT2 model VMF with GPT2 model
 Ionospheric Model: Computed Computed
 Allow Widelane Fix: Automatic Automatic

General Settings

Min. Distance for Ionospheric Model Minimised: 15 km
 Possible Ambiguities Fix up to: 300 km
 Min. Duration for Float Solution (static): 00:05:00

Results Baseline: C02 - L8-2

Acquisition

Start Time - End Time: 29/04/2023 12:17:09 - 29/04/2023 12:22:09
 Duration: 00:05:00

Antennas

	Reference - C02	Rover - L8-2
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - L8-2	Reference - C02	Rover - L8-2
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 33' 50.68402" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 34' 49.41877" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,710.0964 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,551,648.1572 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,034,696.9840 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,379,399.6362 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 52.01947"	SD ΔLatitude:	0.0002 m
ΔLongitude:	-0° 00' 41.75028"	SD ΔLongitude:	0.0002 m
ΔHeight:	-179.2344 m	SD ΔHeight:	0.0004 m
ΔX:	-1,178.2792 m	SD ΔX:	0.0002 m

ΔY:	-481.9836 m	SD ΔY:	0.0004 m
ΔZ:	1,600.4112 m	SD ΔZ:	0.0002 m
Slope Dist.:	2,044.9856 m	SD Slope Dist.:	0.0002 m

M0:	0.5353 m	CQ 1D:	0.0004 m
Q11:	0.00000014	CQ 2D:	0.0002 m
Q12:	-0.00000011	CQ 3D:	0.0005 m
Q22:	0.00000054		
Q13:	-0.00000001		
Q23:	0.00000010		
Q33:	0.00000010		

Frequency:	L1/E1/B1/L2/B2	GDOP:	1.6	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.0	GLONASS SVs:	6/6
Solution Type:	Phase Fixed	HDOP:	0.4	Beidou SVs:	7/7
		VDOP:	0.9	Galileo SVs:	8/8
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

Processing Info (29/04/2023 12:17:09 - 29/04/2023 12:22:09)

Processed Date/Time: 10/05/2023 10:49:26

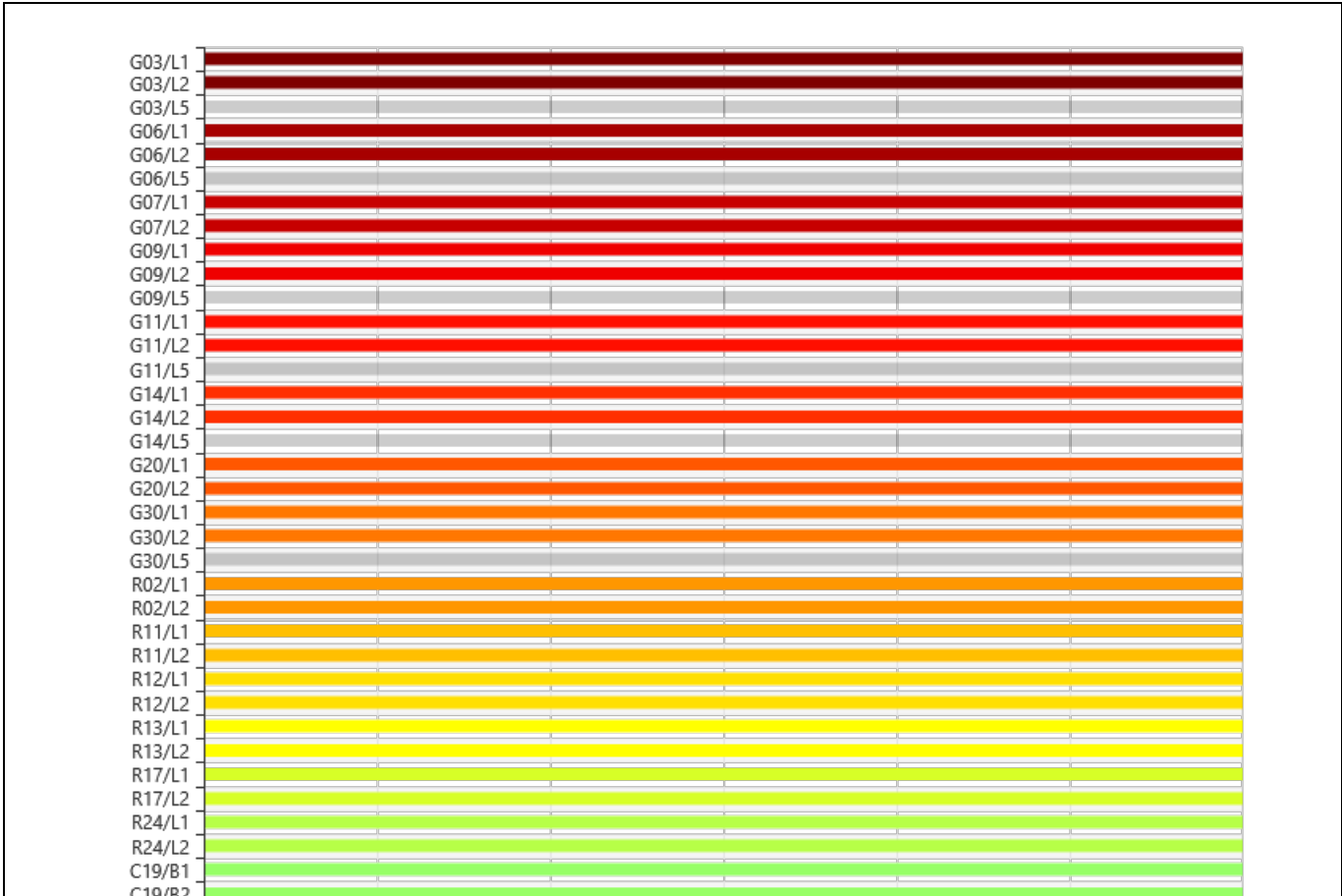
Satellites

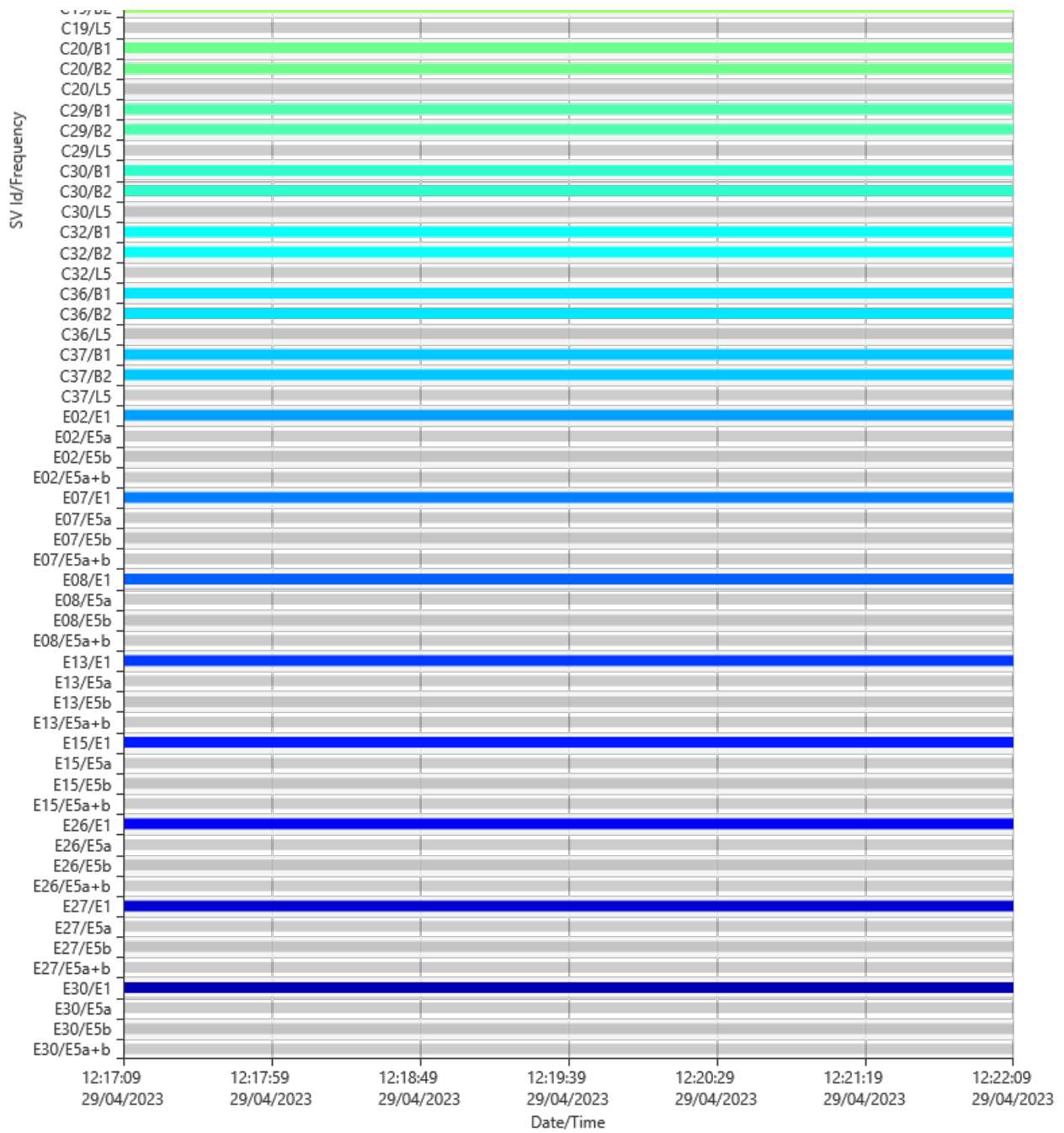
Satellite System	Used	Manually Disabled
GPS	G03 G06 G07 G09 G11 G14 G20 G30	-
GLONASS	R02 R11 R12 R13 R17 R24	-
Beidou	C19 C20 C29 C30 C32 C36 C37	-
Galileo	E02 E07 E08 E13 E15 E26 E27 E30	-

SVs Tracked



Signals Tracked





Azimuth

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 12:17:09	29/04/2023 12:22:09	00:05:00

Computed Ionospheric Model

Models: 1
 Sampling Rate: 30 sec
 Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
 Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
 Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L5	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

G06

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L5	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

G07

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L5	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L5	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L5	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L5	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L5	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used

R11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used

R17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used

R24

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used

E02

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
E5a	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected
E5b	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected
E5a+b	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
E5a	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected
E5b	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected
E5a+b	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
E5a	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected
E5b	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected
E5a+b	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

E13

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
E5a	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected
E5b	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
B2	29/04/2023 12:17:09	29/04/2023 12:22:09	Used
L5	29/04/2023 12:17:09	29/04/2023 12:22:09	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - TSS-01-I

Processing Parameters (29/04/2023 14:52:34 - 29/04/2023 14:57:34)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - TSS-01-I

Acquisition

Start Time - End Time: 29/04/2023 14:52:34 - 29/04/2023 14:57:34
Duration: 00:05:00

Antennas

	Reference - C02	Rover - TSS-01-I
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m

North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - TSS-01-I		Reference - C02	Rover - TSS-01-I
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 32.73546" S	Easting:	438,215.5500 m	439,170.4006 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 36.00204" W	Northing:	8,609,405.6600 m	8,609,713.9150 m
WGS84 Ellip. Height:	4,889.3308 m	4,740.0775 m	Ortho. Height:	4,853.4775 m	4,704.2540 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,733.1309 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,900.1075 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,668.3559 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 09.96802"	SD ΔLatitude:	0.0002 m
ΔLongitude:	0° 00' 31.66646"	SD ΔLongitude:	0.0002 m
ΔHeight:	-149.2533 m	SD ΔHeight:	0.0004 m
ΔX:	906.6945 m	SD ΔX:	0.0002 m
ΔY:	314.8930 m	SD ΔY:	0.0004 m
ΔZ:	331.6915 m	SD ΔZ:	0.0002 m
Slope Dist.:	1,015.5156 m	SD Slope Dist.:	0.0002 m

M0:	0.4009 m	CQ 1D:	0.0004 m
Q11:	0.00000018	CQ 2D:	0.0002 m
Q12:	-0.00000015	CQ 3D:	0.0004 m
Q22:	0.00000077		
Q13:	-0.00000001		
Q23:	0.00000022		
Q33:	0.00000023		

Frequency:	L1/E1/B1/L2/B2	GDOP:	2.0 - 2.3	GPS SVs:	7/7
Solution Optimisation:	None	PDOP:	1.2 - 1.3	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.6 - 0.7	Beidou SVs:	4/4
		VDOP:	0.9 - 1.1	Galileo SVs:	6/6
				QZSS SVs:	-
Ephemeris Type:					
GPS	Precise				
GLONASS	Precise				
Beidou	Broadcast				
Galileo	Precise				

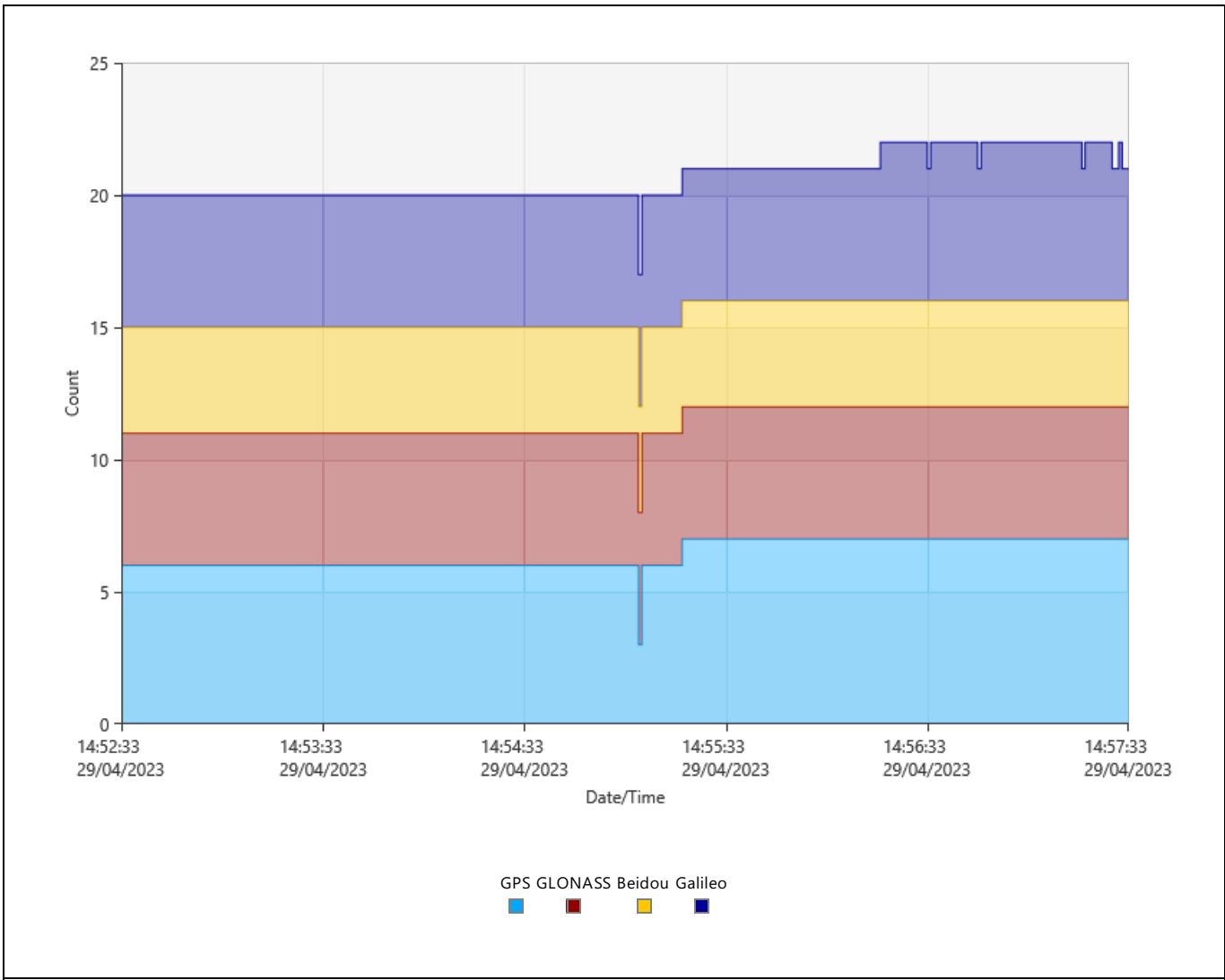
Processing Info (29/04/2023 14:52:34 - 29/04/2023 14:57:34)

Processed Date/Time: 10/05/2023 10:49:26

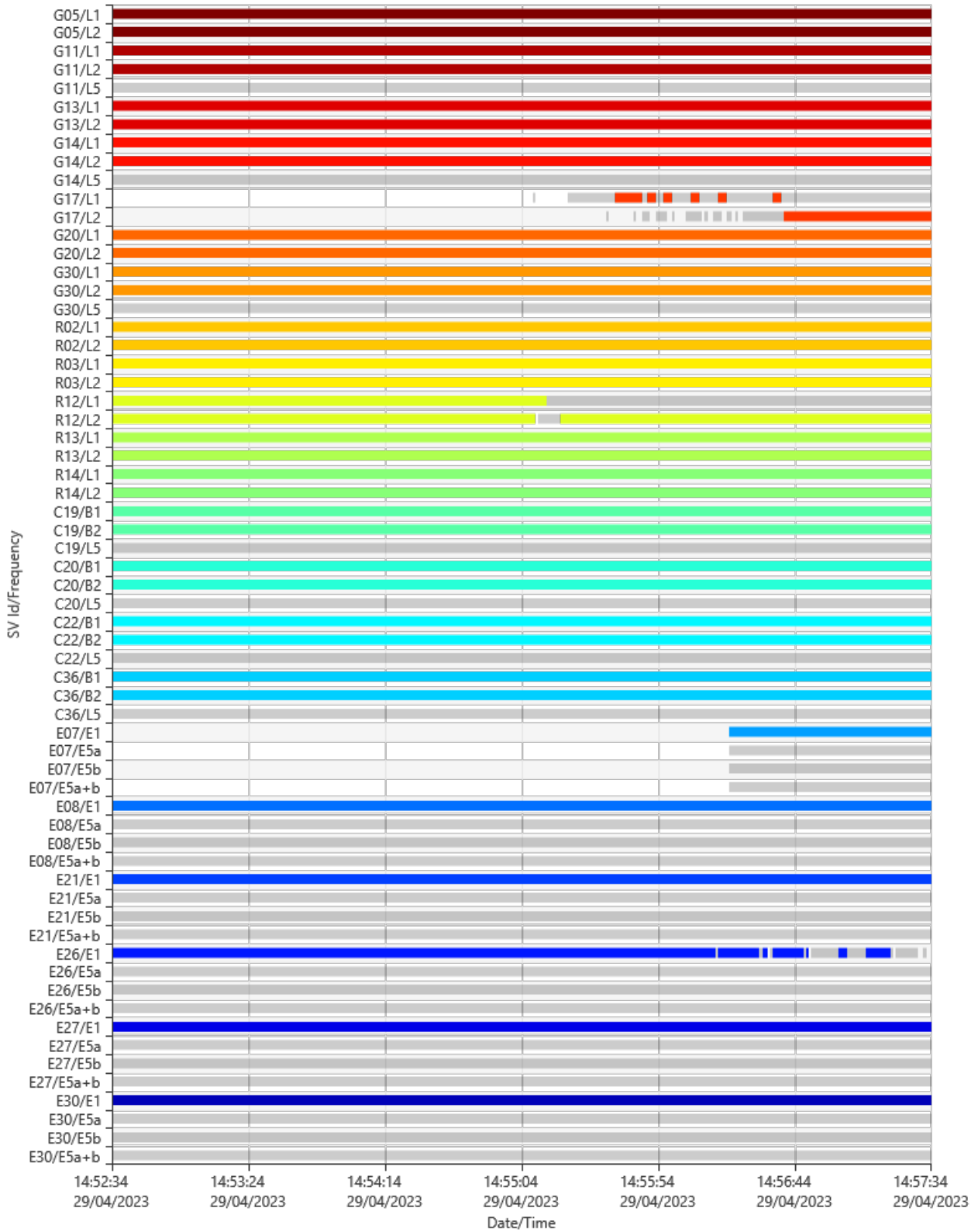
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G11 G13 G14 G17 G20 G30	-
GLONASS	R02 R03 R12 R13 R14	-
Beidou	C19 C20 C22 C36	-
Galileo	E07 E08 E21 E26 E27 E30	-

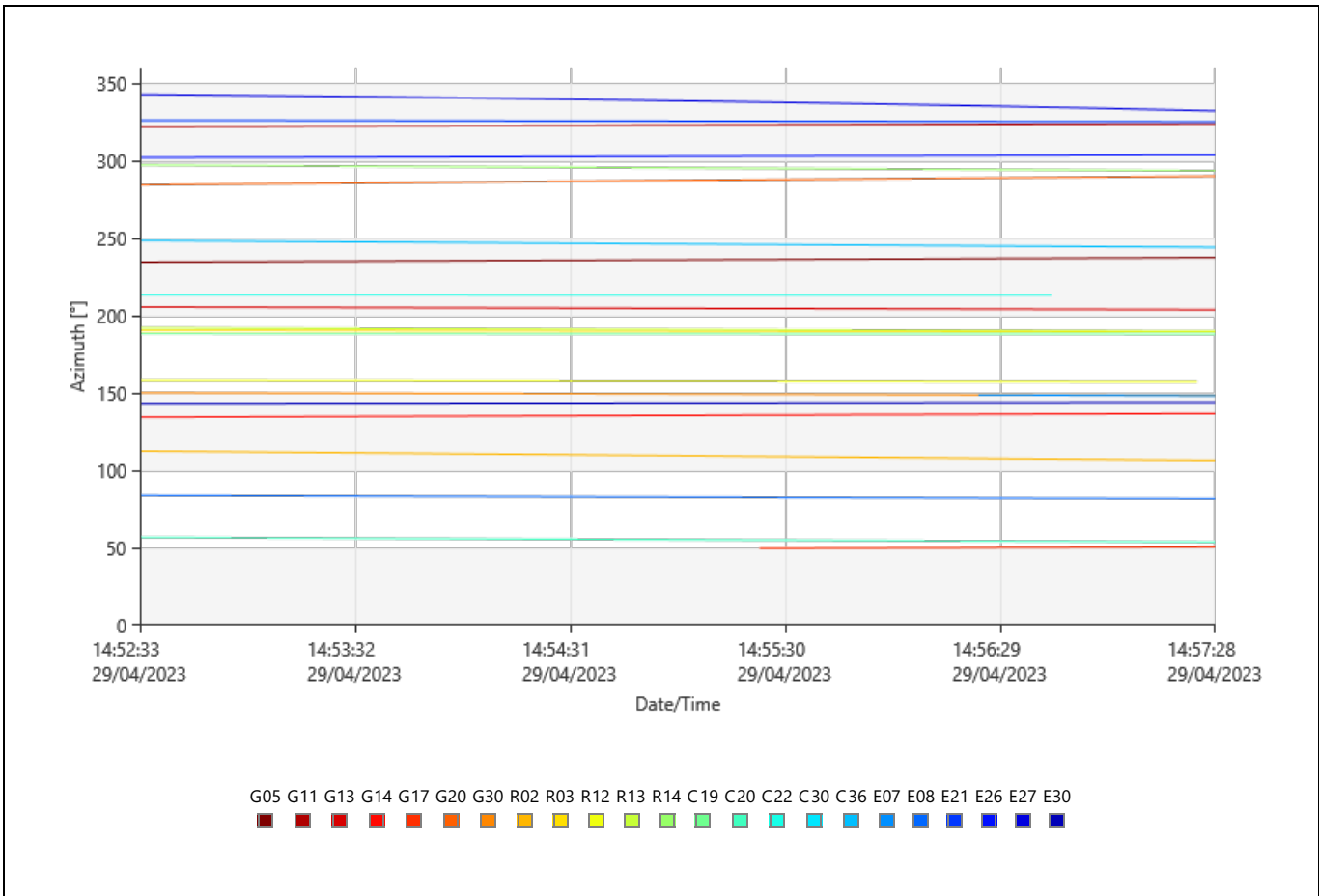
SVs Tracked



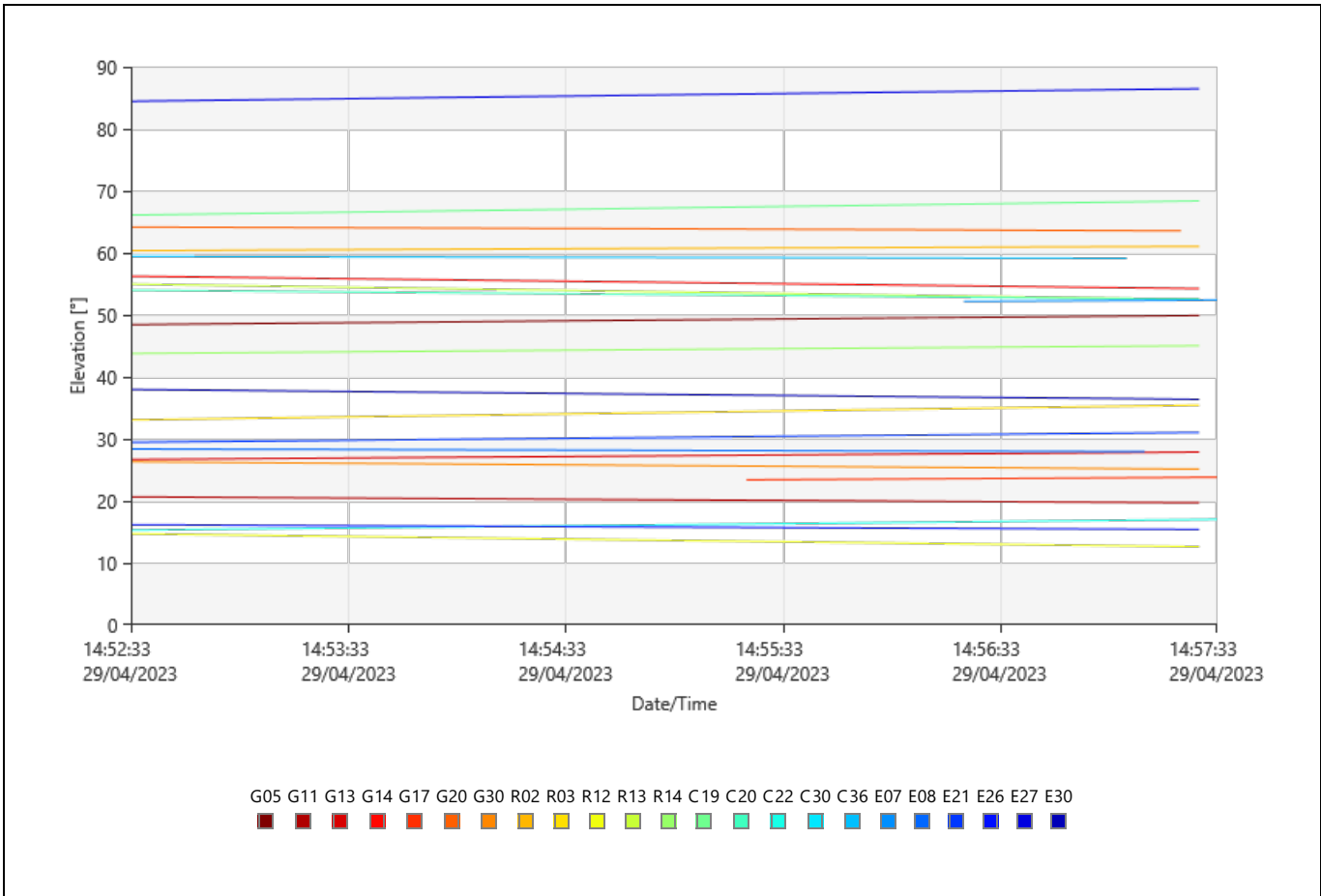
Signals Tracked



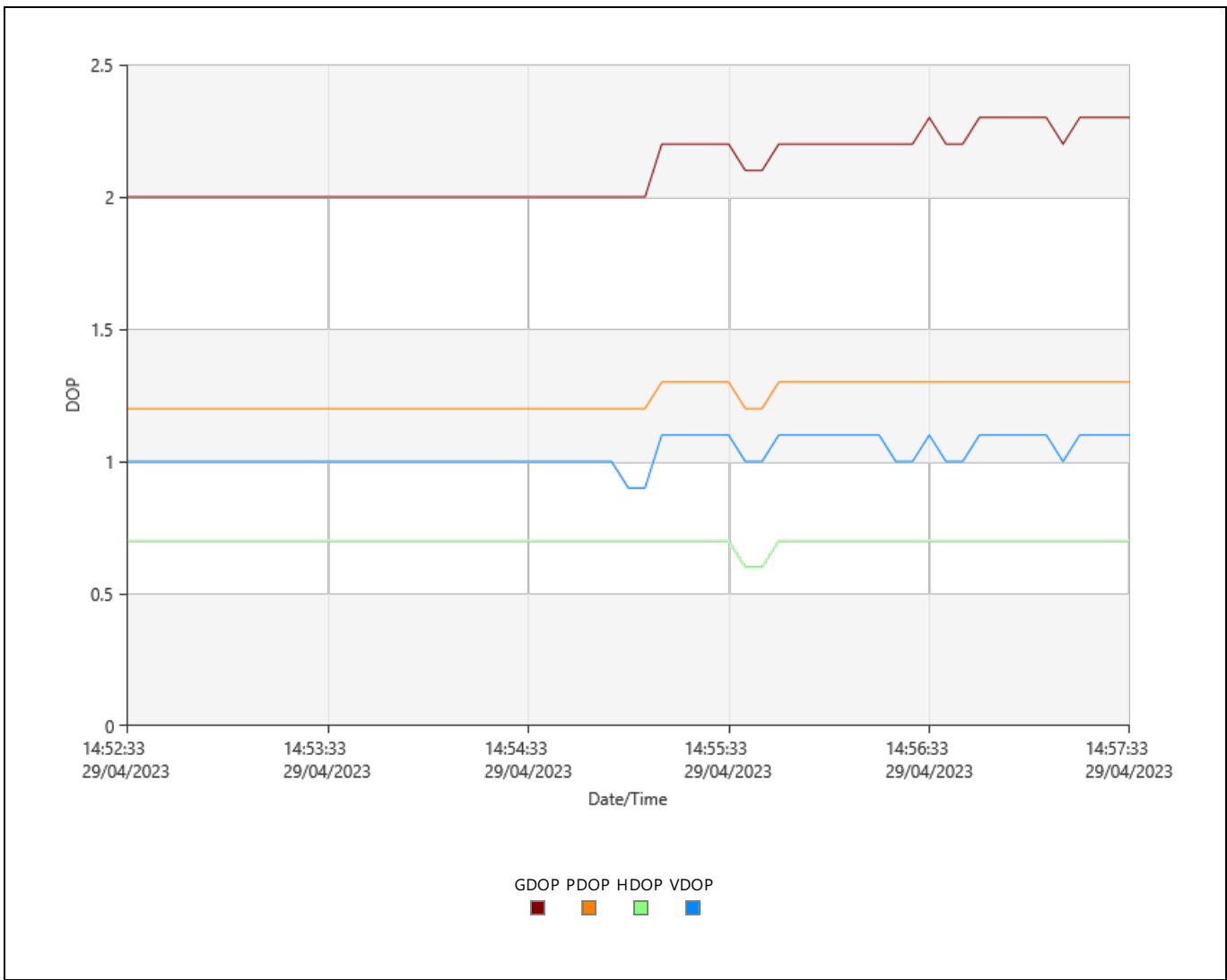
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	1,831	110
L2	1,861	38
L5	0	903

GLONASS Observations

Frequency	Used	Rejected
L1	1,363	142
L2	1,496	8

Beidou Observations

Frequency	Used	Rejected
B1	1,204	0
B2	1,204	0
L5	0	1,204

Galileo Observations

Frequency	Used	Rejected
E1	1,541	31
E5a	0	1,580
E5b	0	1,580
E5a+b	0	1,580

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	16	11	8	8
Total	26	11	8	10
Independently fixed	37	37	37	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	98.55	98.30	100.00	100.00	100.00	100.00	98.85
Not fixed	1.45	1.70	0.00	0.00	0.00	0.00	1.15
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 14:52:34	29/04/2023 14:57:34	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L5	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L5	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:55:08	No Data
	29/04/2023 14:55:08	29/04/2023 14:55:09	Rejected
	29/04/2023 14:55:09	29/04/2023 14:55:21	No Data
	29/04/2023 14:55:21	29/04/2023 14:55:38	Rejected
	29/04/2023 14:55:38	29/04/2023 14:55:48	Used
	29/04/2023 14:55:48	29/04/2023 14:55:50	Rejected
	29/04/2023 14:55:50	29/04/2023 14:55:53	Used
	29/04/2023 14:55:53	29/04/2023 14:55:56	Rejected
	29/04/2023 14:55:56	29/04/2023 14:55:59	Used
	29/04/2023 14:55:59	29/04/2023 14:56:06	Rejected
	29/04/2023 14:56:06	29/04/2023 14:56:09	Used
	29/04/2023 14:56:09	29/04/2023 14:56:16	Rejected
	29/04/2023 14:56:16	29/04/2023 14:56:19	Used
	29/04/2023 14:56:19	29/04/2023 14:56:36	Rejected
	29/04/2023 14:56:36	29/04/2023 14:56:39	Used
	29/04/2023 14:56:39	29/04/2023 14:57:34	Rejected
29/04/2023 14:52:34	29/04/2023 14:55:35	No Data	
29/04/2023 14:55:35	29/04/2023 14:55:36	Rejected	

L2	29/04/2023 14:55:36	29/04/2023 14:55:45	No Data
	29/04/2023 14:55:45	29/04/2023 14:55:46	Rejected
	29/04/2023 14:55:46	29/04/2023 14:55:48	No Data
	29/04/2023 14:55:48	29/04/2023 14:55:51	Rejected
	29/04/2023 14:55:51	29/04/2023 14:55:53	No Data
	29/04/2023 14:55:53	29/04/2023 14:55:57	Rejected
	29/04/2023 14:55:57	29/04/2023 14:55:59	No Data
	29/04/2023 14:55:59	29/04/2023 14:56:00	Rejected
	29/04/2023 14:56:00	29/04/2023 14:56:04	No Data
	29/04/2023 14:56:04	29/04/2023 14:56:10	Rejected
	29/04/2023 14:56:10	29/04/2023 14:56:11	No Data
	29/04/2023 14:56:11	29/04/2023 14:56:12	Rejected
	29/04/2023 14:56:12	29/04/2023 14:56:14	No Data
	29/04/2023 14:56:14	29/04/2023 14:56:17	Rejected
	29/04/2023 14:56:17	29/04/2023 14:56:19	No Data
	29/04/2023 14:56:19	29/04/2023 14:56:21	Rejected
	29/04/2023 14:56:21	29/04/2023 14:56:22	No Data
	29/04/2023 14:56:22	29/04/2023 14:56:23	Rejected
	29/04/2023 14:56:23	29/04/2023 14:56:25	No Data
	29/04/2023 14:52:34	29/04/2023 14:56:28	No Data
	29/04/2023 14:56:25	29/04/2023 14:56:28	Rejected
	29/04/2023 14:56:28	29/04/2023 14:56:29	No Data
	29/04/2023 14:56:28	29/04/2023 14:56:29	Rejected
	29/04/2023 14:56:29	29/04/2023 14:56:37	No Data
	29/04/2023 14:56:29	29/04/2023 14:56:37	Rejected
	29/04/2023 14:56:37	29/04/2023 14:56:39	No Data
	29/04/2023 14:56:37	29/04/2023 14:56:39	Rejected
	29/04/2023 14:56:39	29/04/2023 14:56:40	Rejected
29/04/2023 14:56:40	29/04/2023 14:57:34	Used	
29/04/2023 14:56:39	29/04/2023 14:57:34	No Data	

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L5	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:55:13	Used
	29/04/2023 14:55:13	29/04/2023 14:57:34	Rejected
L2	29/04/2023 14:52:34	29/04/2023 14:55:09	Used
	29/04/2023 14:55:09	29/04/2023 14:55:10	No Data
	29/04/2023 14:55:10	29/04/2023 14:55:18	Rejected
	29/04/2023 14:55:18	29/04/2023 14:57:34	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used

R14

Frequency	From Epoch	To Epoch	Status

L1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:52:34	29/04/2023 14:56:20	No Data
	29/04/2023 14:56:20	29/04/2023 14:57:34	Used
E5a	29/04/2023 14:52:34	29/04/2023 14:56:20	No Data
	29/04/2023 14:56:20	29/04/2023 14:57:34	Rejected
E5b	29/04/2023 14:52:34	29/04/2023 14:56:20	No Data
	29/04/2023 14:56:20	29/04/2023 14:57:34	Rejected
E5a+b	29/04/2023 14:52:34	29/04/2023 14:56:20	No Data
	29/04/2023 14:56:20	29/04/2023 14:57:34	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
E5a	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5a+b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
E5a	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5a+b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:52:34	29/04/2023 14:56:15	Used
	29/04/2023 14:56:15	29/04/2023 14:56:16	Rejected
	29/04/2023 14:56:16	29/04/2023 14:56:31	Used
	29/04/2023 14:56:31	29/04/2023 14:56:32	Rejected
	29/04/2023 14:56:32	29/04/2023 14:56:34	Used
	29/04/2023 14:56:34	29/04/2023 14:56:35	No Data
	29/04/2023 14:56:35	29/04/2023 14:56:36	Rejected
	29/04/2023 14:56:36	29/04/2023 14:56:47	Used
	29/04/2023 14:56:47	29/04/2023 14:56:48	Rejected
	29/04/2023 14:56:48	29/04/2023 14:56:49	Used
	29/04/2023 14:56:49	29/04/2023 14:56:50	No Data
	29/04/2023 14:56:50	29/04/2023 14:57:00	Rejected
	29/04/2023 14:57:00	29/04/2023 14:57:03	Used
	29/04/2023 14:57:03	29/04/2023 14:57:10	Rejected
	29/04/2023 14:57:10	29/04/2023 14:57:19	Used
	29/04/2023 14:57:19	29/04/2023 14:57:20	Rejected
	29/04/2023 14:57:20	29/04/2023 14:57:21	No Data
	29/04/2023 14:57:21	29/04/2023 14:57:29	Rejected
	29/04/2023 14:57:29	29/04/2023 14:57:31	No Data
	29/04/2023 14:57:31	29/04/2023 14:57:32	Rejected
29/04/2023 14:57:32	29/04/2023 14:57:34	No Data	
E5a	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5a+b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
E5a	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5a+b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
E5a	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected
E5a+b	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
B2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L5	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
B2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L5	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
B2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L5	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
B2	29/04/2023 14:52:34	29/04/2023 14:57:34	Used
L5	29/04/2023 14:52:34	29/04/2023 14:57:34	Rejected

Cycle Slips

Slip Count: 20

SV	Frequency	Epoch	Slip Value	Flag
G17	L1	29/04/2023 14:55:50	-	Flagged
		29/04/2023 14:55:54	-	RIA
		29/04/2023 14:55:56	-	RIA
		29/04/2023 14:56:06	-	Flagged
		29/04/2023 14:56:08	-	Flagged
		29/04/2023 14:56:16	-	Flagged
		29/04/2023 14:56:20	-	RIA
		29/04/2023 14:56:26	-	RIA
		29/04/2023 14:56:34	-	RIA
	29/04/2023 14:56:36	-	RIA	
	L2	29/04/2023 14:55:56	-	RIA
		29/04/2023 14:56:34	-	RIA
		29/04/2023 14:56:36	-	RIA
E26	E1	29/04/2023 14:56:16	2.0000000000	Flagged
		29/04/2023 14:56:32	1.0000000000	Flagged
		29/04/2023 14:56:48	-	Flagged
		29/04/2023 14:56:50	-	RIA
		29/04/2023 14:57:00	-	RIA
		29/04/2023 14:57:10	-	Flagged
		29/04/2023 14:57:24	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - TSS-02-F

Processing Parameters (29/04/2023 14:36:32 - 29/04/2023 14:41:33)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	

Frequency: L1/E1/B1/L2/B2 L1/E1/L2
 Sampling Rate: Use All 1.00 sec
 Satellite System: GPS/GLONASS/Galileo/Beidou GPS/GLONASS/Galileo
 Ephemeris Type: Precise Precise No Beidou precise ephemeris available, switched to broadcast ephemeris.
 Antenna Calibration Set: NGS Absolute NGS Absolute

Processing Strategy

Solution Type: Phase Fixed Phase Fixed
 Solution Optimisation: Automatic None
 Frequency to use in Ionospheric Model: Automatic Automatic
 Tropospheric Model: VMF with GPT2 model VMF with GPT2 model
 Ionospheric Model: Computed Computed
 Allow Widelane Fix: Automatic Automatic

General Settings

Min. Distance for Ionospheric Model: 15 km
 Possible Ambiguities Fix up to: 300 km
 Min. Duration for Float Solution (static): 00:05:00

Results Baseline: C02 - TSS-02-F

Acquisition

Start Time - End Time: 29/04/2023 14:36:33 - 29/04/2023 14:41:33
 Duration: 00:05:00

Antennas

	Reference - C02	Rover - TSS-02-F
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - TSS-02-F	Reference - C02	Rover - TSS-02-F
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 34.77471" S	Easting: 438,215.5500 m	439,264.5567 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 32.88604" W	Northing: 8,609,405.6600 m	8,609,651.4717 m
WGS84 Ellip. Height:	4,889.3308 m	4,733.5806 m	Ortho. Height: 4,853.4775 m	4,697.7551 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,819.2970 m		
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,857.2709 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,728.1491 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 07.92877"	SD ΔLatitude:	0.0002 m
ΔLongitude:	0° 00' 34.78246"	SD ΔLongitude:	0.0002 m
ΔHeight:	-155.7502 m	SD ΔHeight:	0.0003 m
ΔX:	992.8606 m	SD ΔX:	0.0002 m
ΔY:	357.7296 m	SD ΔY:	0.0003 m

ΔZ:	271.8983 m	SD ΔZ:	0.0002 m
Slope Dist.:	1,089.8034 m	SD Slope Dist.:	0.0002 m
M0:	0.3607 m	CQ 1D:	0.0003 m
Q11:	0.00000019	CQ 2D:	0.0002 m
Q12:	-0.00000010	CQ 3D:	0.0004 m
Q22:	0.00000069		
Q13:	0.00000004		
Q23:	0.00000019		
Q33:	0.00000027		

Frequency:	L1/E1/L2	GDOP:	1.8 - 2.2	GPS SVs:	7/7
Solution Optimisation:	None	PDOP:	1.2 - 1.5	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.7 - 0.9	Beidou SVs:	0/3
		VDOP:	1.0 - 1.2	Galileo SVs:	5/5
				QZSS SVs:	-

Ephemeris Type:

GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

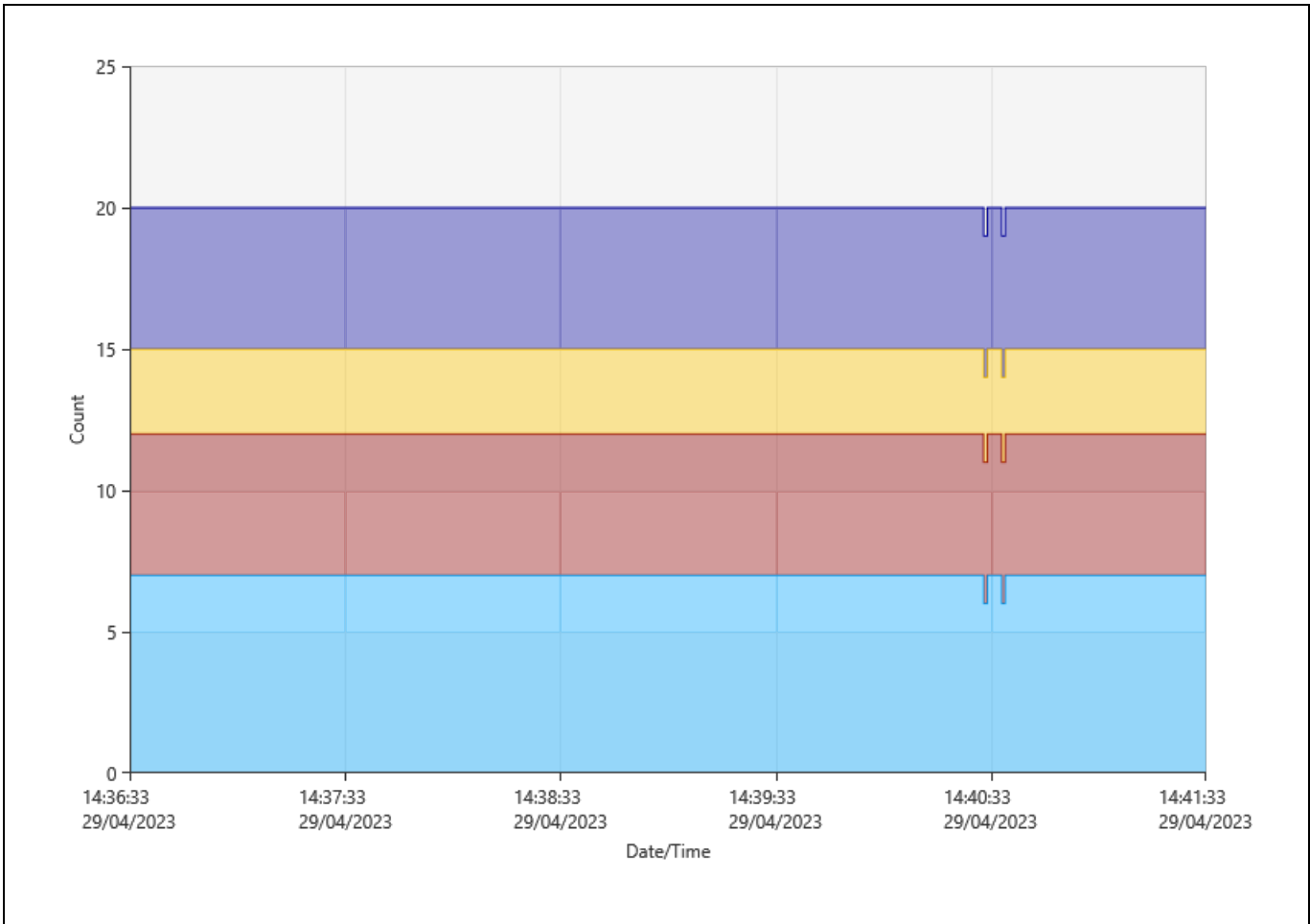
Processing Info (29/04/2023 14:36:32 - 29/04/2023 14:41:33)

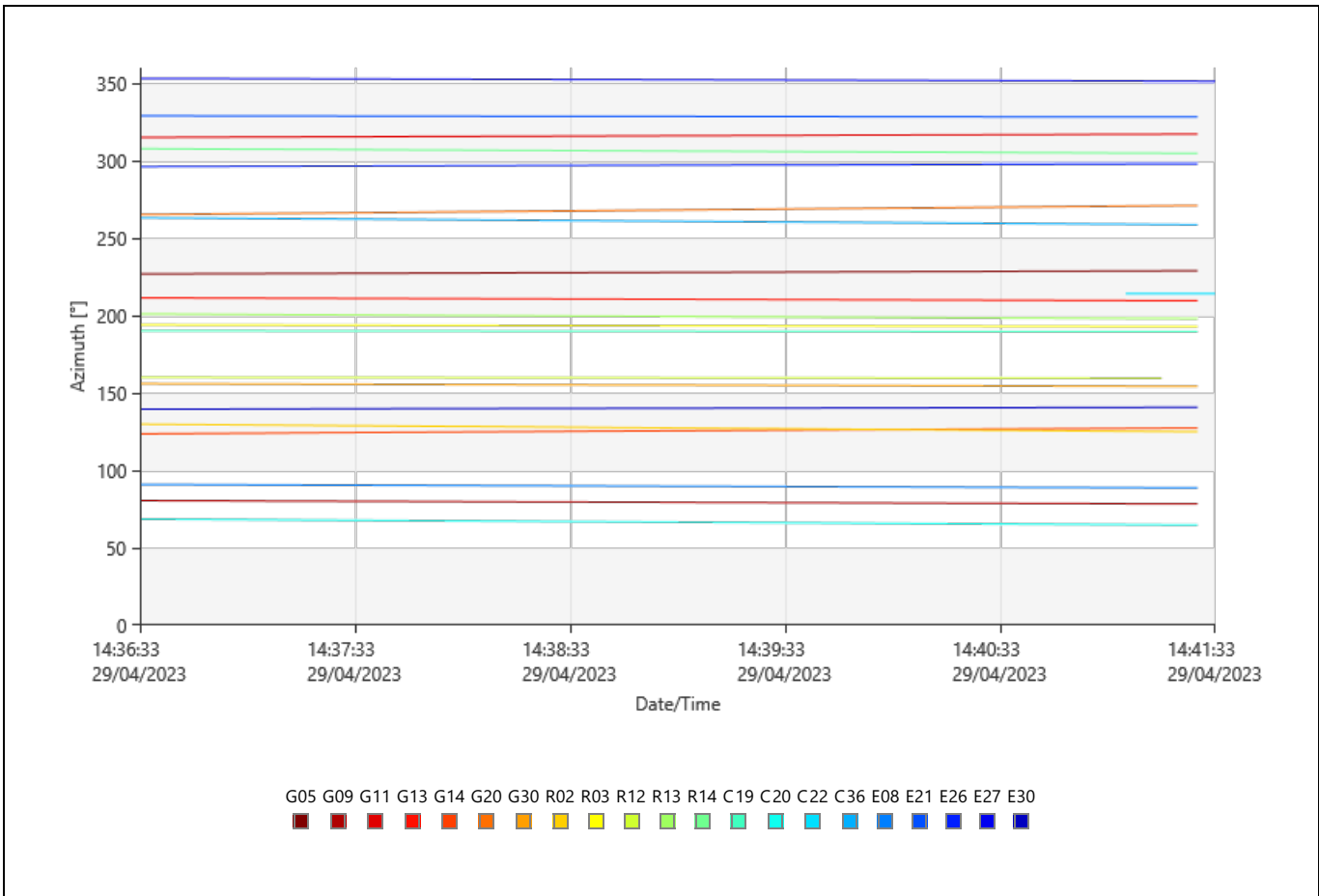
Processed Date/Time: 10/05/2023 10:49:26

Satellites

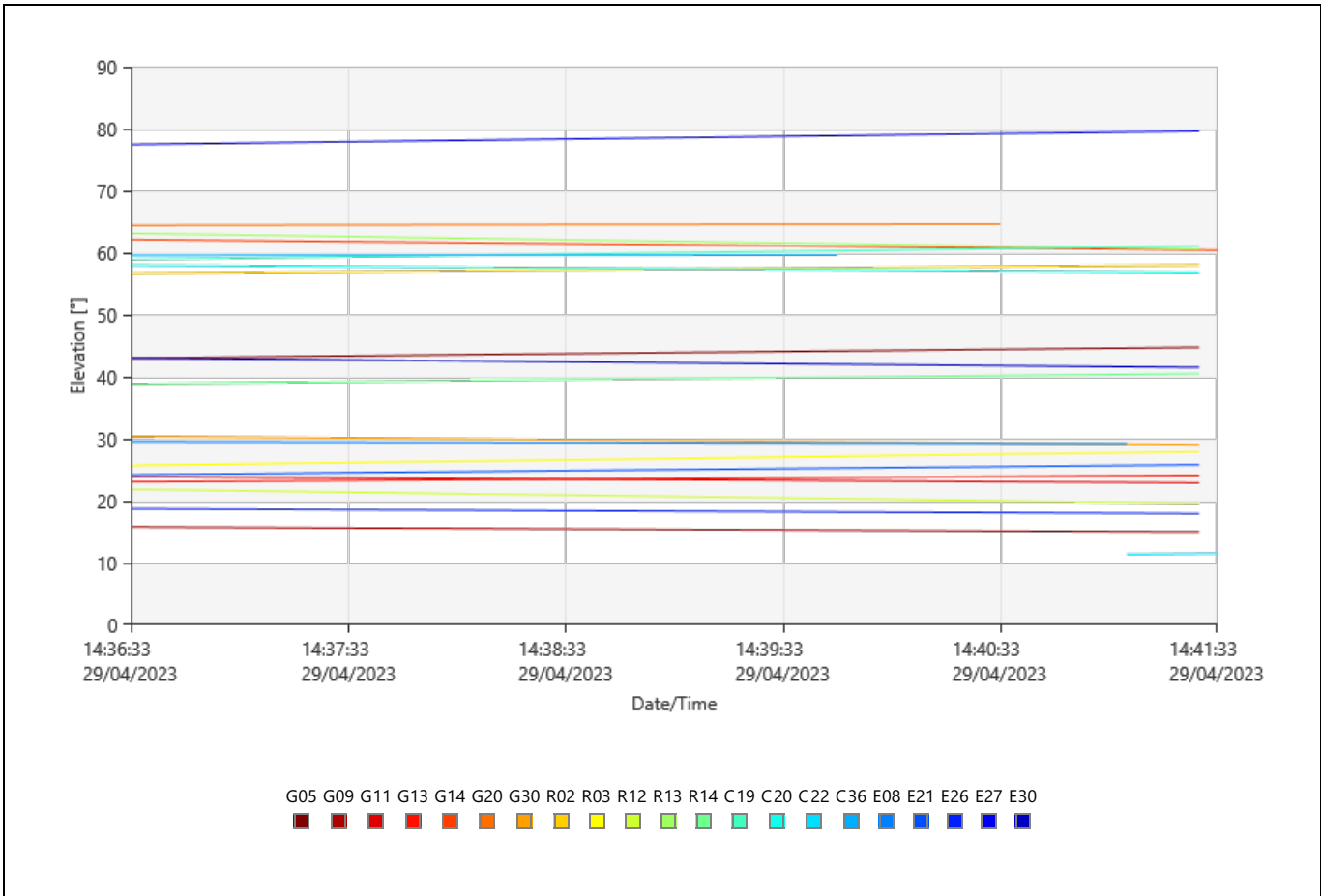
Satellite System	Used	Manually Disabled
GPS	G05 G09 G11 G13 G14 G20 G30	-
GLONASS	R02 R03 R12 R13 R14	-
Galileo	E08 E21 E26 E27 E30	-

SVs Tracked

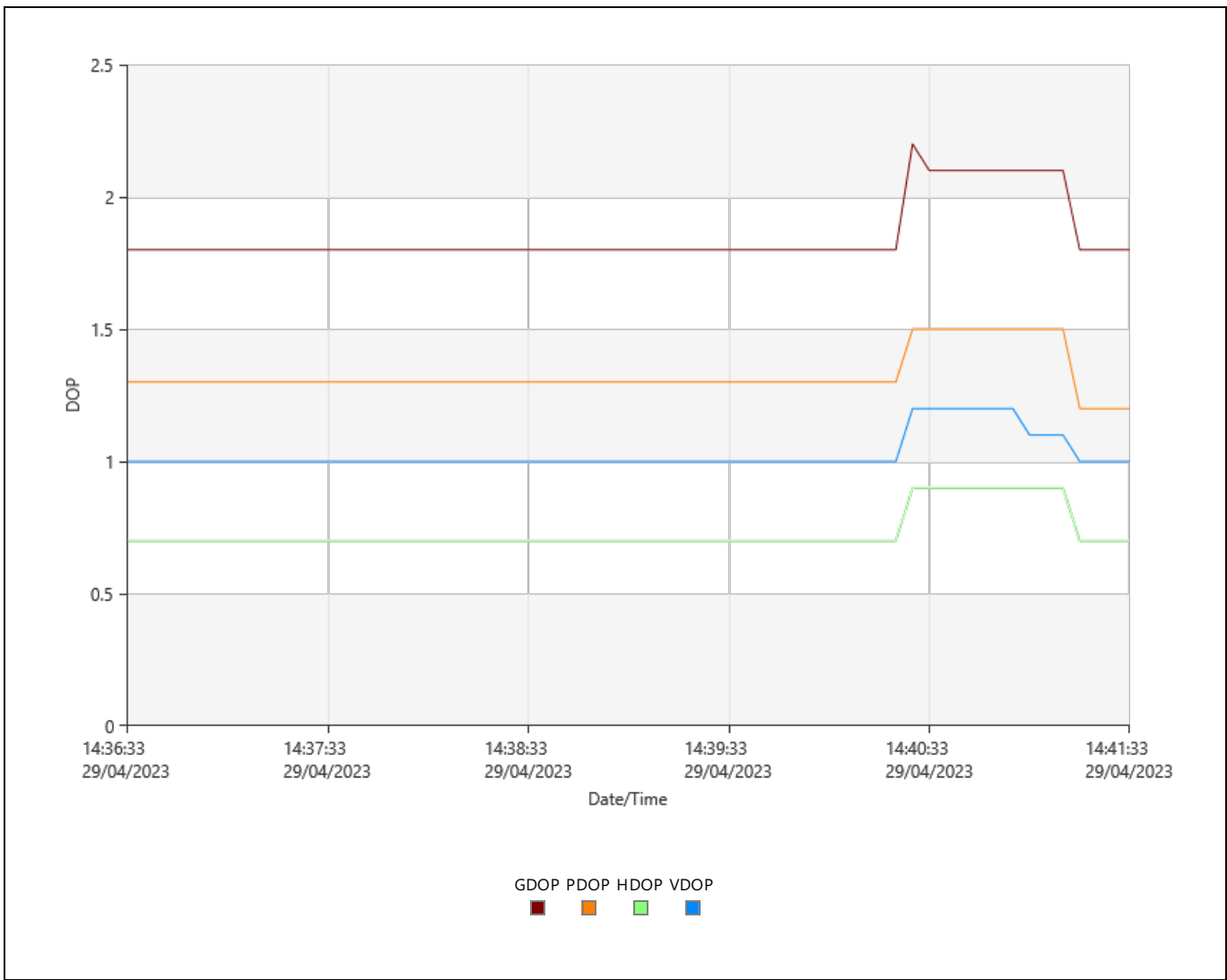




Elevation



DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	2,059	46
L2	2,059	46
L5	0	1,204

GLONASS Observations

Frequency	Used	Rejected
L1	1,505	0
L2	1,505	0

Beidou Observations

Frequency	Used	Rejected
B1	0	903
B2	0	903
L5	0	903

Galileo Observations

Frequency	Used	Rejected
E1	1,505	0
E5a	0	1,505
E5b	0	1,505
E5a+b	0	1,505

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	16	10	0	5
Total	22	10	6	5
Independently fixed	37	37	0	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	99.61	99.61	100.00	100.00	0.00	0.00	100.00
Not fixed	0.39	0.39	0.00	0.00	100.00	100.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 14:36:33	29/04/2023 14:41:33	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:40:28	Used
	29/04/2023 14:40:28	29/04/2023 14:40:31	Rejected
	29/04/2023 14:40:31	29/04/2023 14:40:32	No Data
	29/04/2023 14:40:32	29/04/2023 14:40:36	Rejected
	29/04/2023 14:40:36	29/04/2023 14:40:37	No Data
	29/04/2023 14:40:37	29/04/2023 14:41:16	Rejected
	29/04/2023 14:41:16	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:40:28	Used
	29/04/2023 14:40:28	29/04/2023 14:40:31	Rejected
	29/04/2023 14:40:31	29/04/2023 14:40:32	No Data
	29/04/2023 14:40:32	29/04/2023 14:40:36	Rejected
	29/04/2023 14:40:36	29/04/2023 14:40:37	No Data
	29/04/2023 14:40:37	29/04/2023 14:41:16	Rejected
	29/04/2023 14:41:16	29/04/2023 14:41:33	Used
L5	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L5	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L5	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

G20

Frequency	From Epoch	To Epoch	Status
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Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L5	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
L2	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
E5a	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5a+b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
E5a	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5a+b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
E5a	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5a+b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used
E5a	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5a+b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:36:33	29/04/2023 14:41:33	Used

E5a	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
E5a+b	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
B2	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
L5	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
B2	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
L5	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
B2	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected
L5	29/04/2023 14:36:33	29/04/2023 14:41:33	Rejected

Cycle Slips

Slip Count: 2

SV	Frequency	Epoch	Slip Value	Flag
G09	L1	29/04/2023 14:41:16	-	RIA
	L2	29/04/2023 14:41:16	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - TSS-02-I

Processing Parameters (29/04/2023 14:59:43 - 29/04/2023 15:04:43)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model:	15 km
Possible Ambiguities Fix	300 km

up to:
Min. Duration for Float 00:05:00
Solution (static):

Results Baseline: C02 - TSS-02-I

Acquisition

Start Time - End Time: 29/04/2023 14:59:43 - 29/04/2023 15:04:43
Duration: 00:05:00

Antennas

	Reference - C02	Rover - TSS-02-I
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - TSS-02-I	Reference - C02	Rover - TSS-02-I	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 33.31259" S	Easting:	438,215.5500 m	439,160.6740 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 36.32563" W	Northing:	8,609,405.6600 m	8,609,696.1656 m
WGS84 Ellip. Height:	4,889.3308 m	4,739.9587 m	Ortho. Height:	4,853.4775 m	4,704.1341 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,722.6721 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,898.6904 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,685.6525 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 09.39089"	SD ΔLatitude:	0.0001 m
ΔLongitude:	0° 00' 31.34286"	SD ΔLongitude:	0.0001 m
ΔHeight:	-149.3721 m	SD ΔHeight:	0.0003 m
ΔX:	896.2357 m	SD ΔX:	0.0002 m
ΔY:	316.3100 m	SD ΔY:	0.0003 m
ΔZ:	314.3949 m	SD ΔZ:	0.0002 m
Slope Dist.:	1,001.0668 m	SD Slope Dist.:	0.0001 m

M0:	0.3852 m	CQ 1D:	0.0003 m
Q11:	0.00000019	CQ 2D:	0.0002 m
Q12:	-0.00000021	CQ 3D:	0.0004 m
Q22:	0.00000071		
Q13:	-0.00000005		
Q23:	0.00000016		
Q33:	0.00000017		

Frequency:	L1/E1/B1/L2/B2	GDOP:	2.0 - 2.2	GPS SVs:	7/7
Solution Optimisation:	None	PDOP:	1.1 - 1.3	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.6	Beidou SVs:	4/4
		VDOP:	1.0 - 1.1	Galileo SVs:	5/5
				QZSS SVs:	-

Ephemeris Type:
GPS Precise

GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

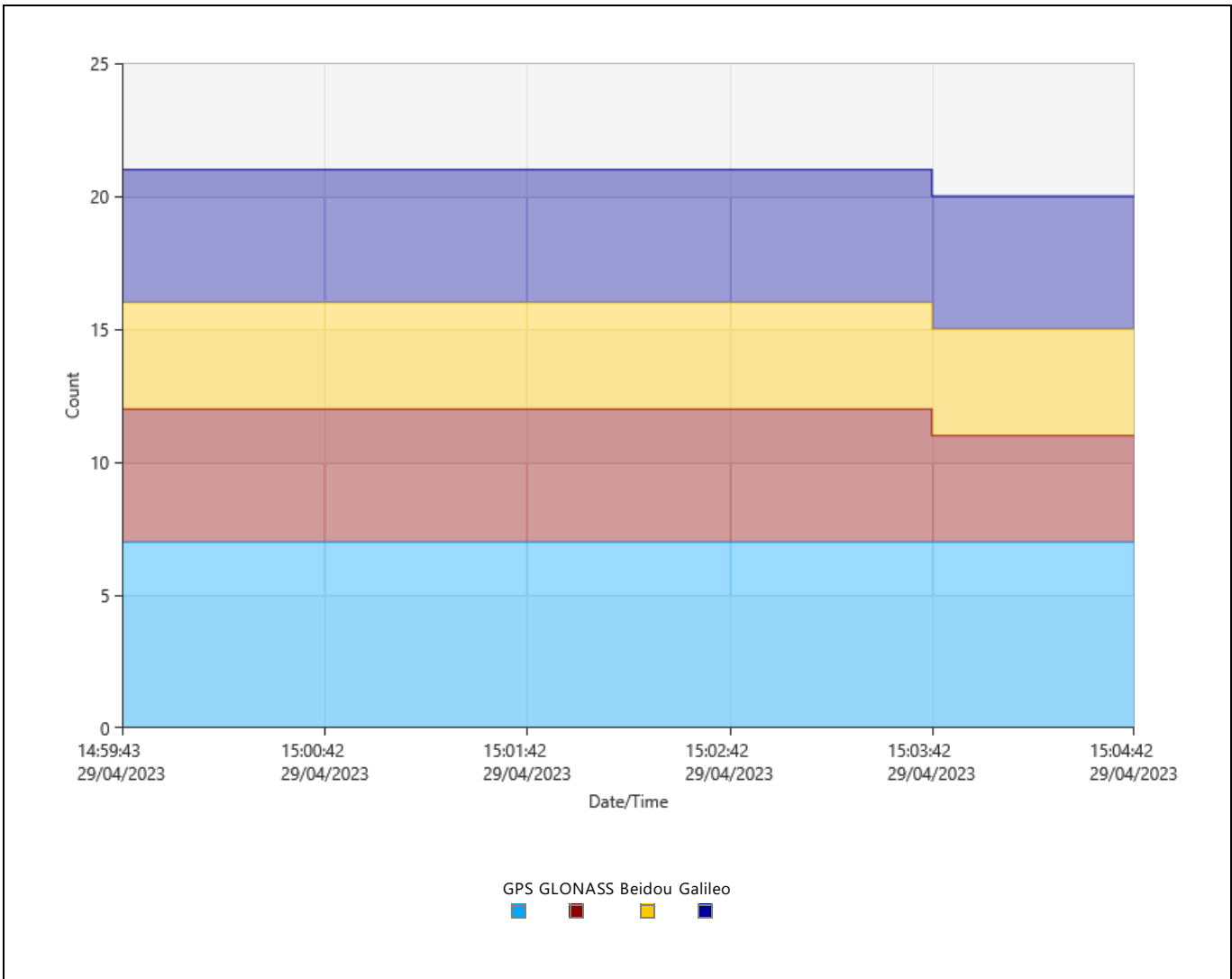
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Processed Date/Time: 10/05/2023 10:49:26

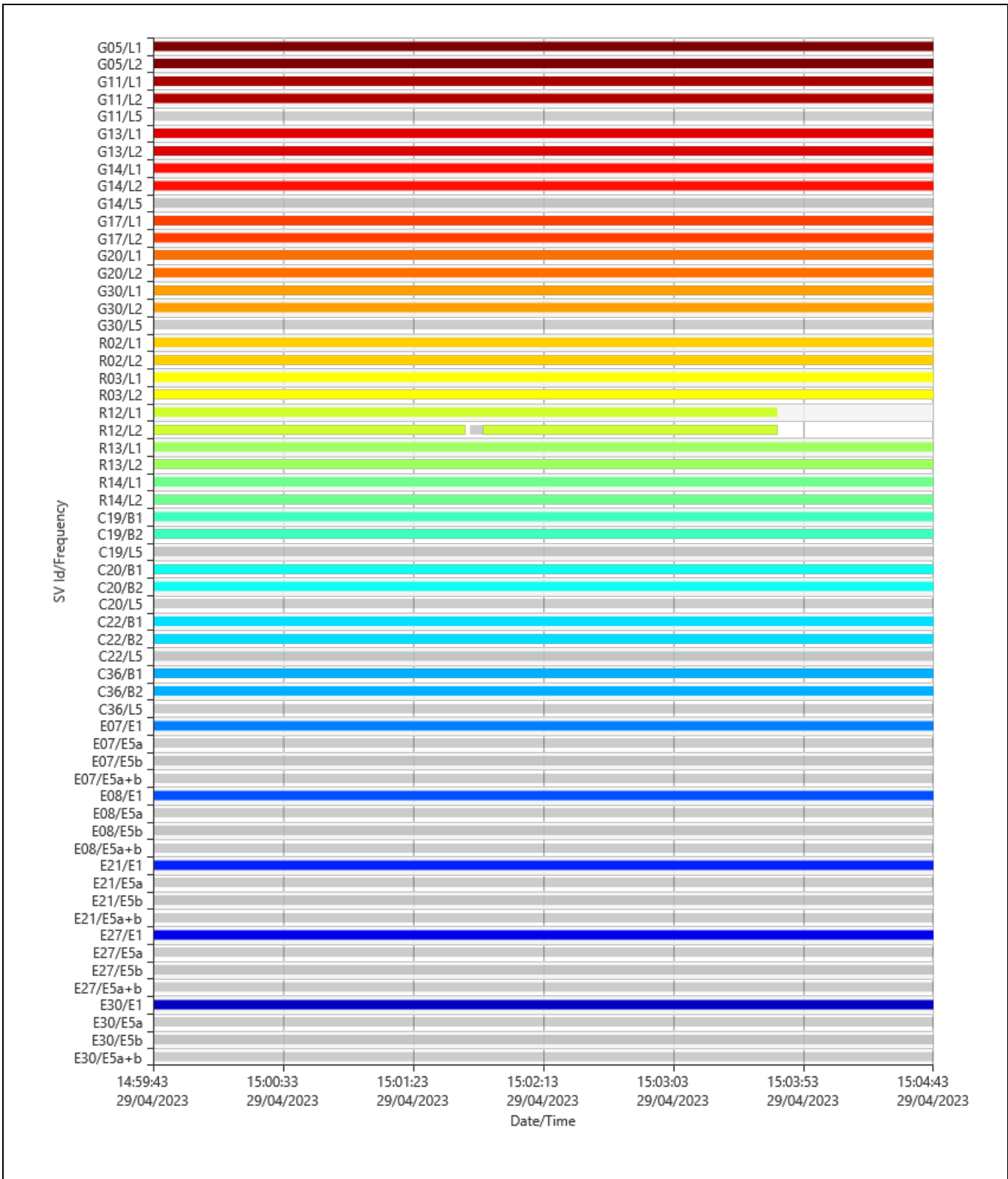
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G11 G13 G14 G17 G20 G30	-
GLONASS	R02 R03 R12 R13 R14	-
Beidou	C19 C20 C22 C36	-
Galileo	E07 E08 E21 E27 E30	-

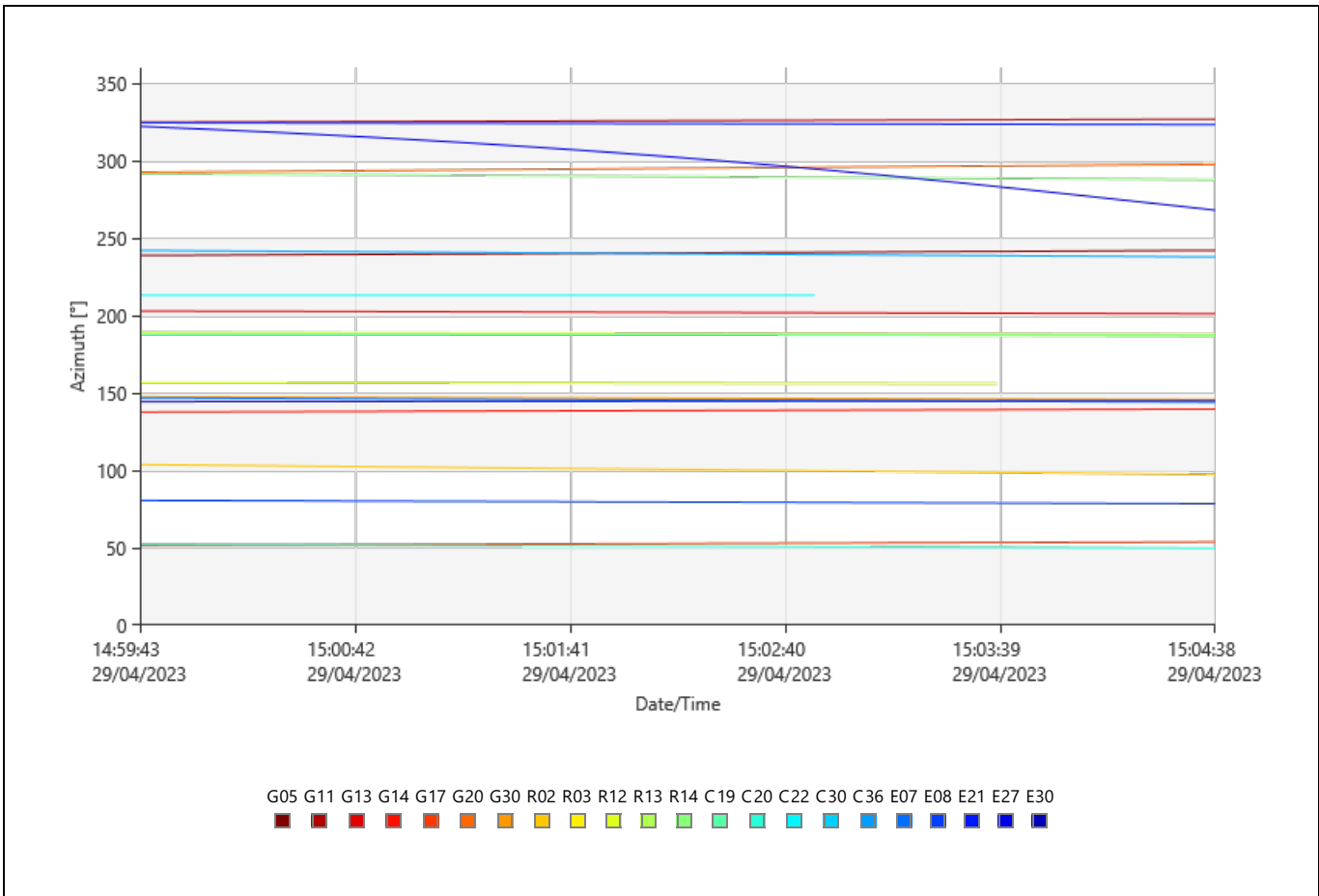
SVs Tracked



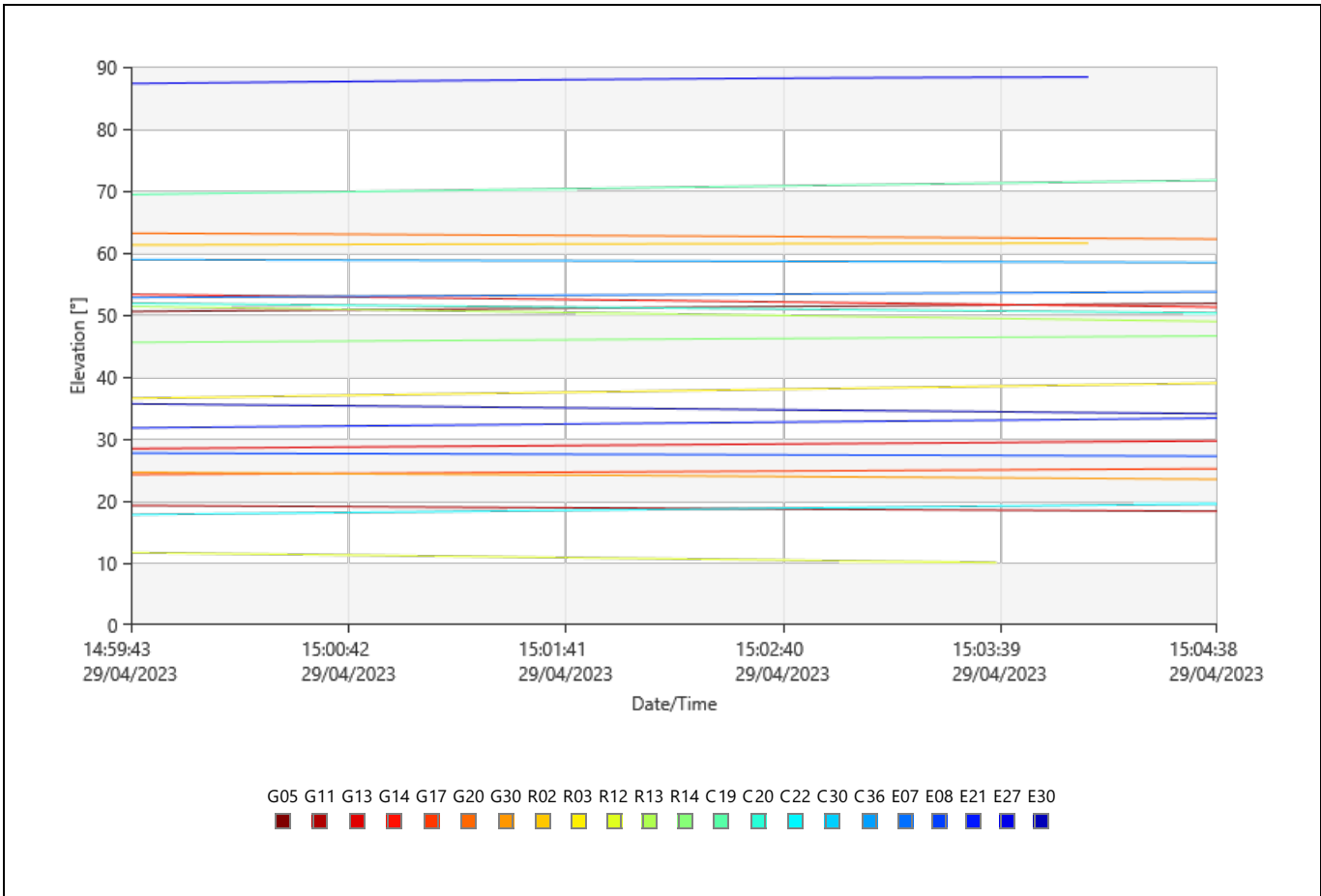
Signals Tracked



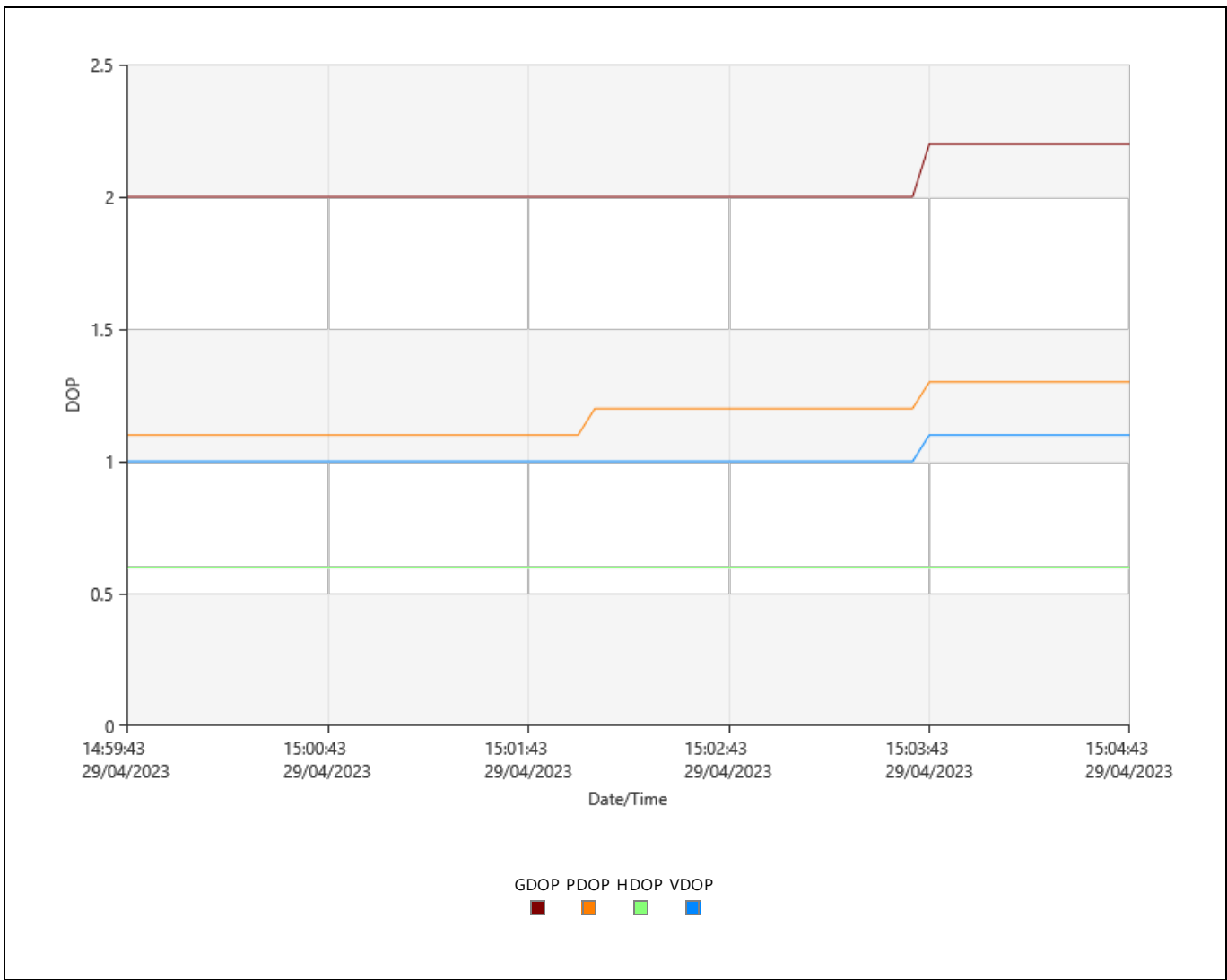
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	2,107	0
L2	2,107	0
L5	0	903

GLONASS Observations

Frequency	Used	Rejected
L1	1,444	0
L2	1,437	5

Beidou Observations

Frequency	Used	Rejected
B1	1,204	0
B2	1,204	0
L5	0	1,204

Galileo Observations

Frequency	Used	Rejected
E1	1,505	0
E5a	0	1,505
E5b	0	1,505
E5a+b	0	1,505

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	14	11	8	5
Total	14	11	8	5
Independently fixed	37	37	37	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Not fixed	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 14:59:43	29/04/2023 15:04:43	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L5	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L5	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L5	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

R02

Frequency	From Epoch	To Epoch	Status
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L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:03:43	Used
	29/04/2023 15:03:43	29/04/2023 15:04:43	No Data
L2	29/04/2023 14:59:43	29/04/2023 15:01:43	Used
	29/04/2023 15:01:43	29/04/2023 15:01:45	No Data
	29/04/2023 15:01:45	29/04/2023 15:01:50	Rejected
	29/04/2023 15:01:50	29/04/2023 15:03:43	Used
	29/04/2023 15:03:43	29/04/2023 15:04:43	No Data

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
E5a	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5a+b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
E5a	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5a+b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
E5a	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5a+b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
E5a	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5a+b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
E5a	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
E5a+b	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
B2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used

L5	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected
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C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
B2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L5	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
B2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L5	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
B2	29/04/2023 14:59:43	29/04/2023 15:04:43	Used
L5	29/04/2023 14:59:43	29/04/2023 15:04:43	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - TSS-03-F

Processing Parameters (29/04/2023 14:45:02 - 29/04/2023 14:50:03)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Wideline Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - TSS-03-F

Acquisition

Start Time - End Time: 29/04/2023 14:45:03 - 29/04/2023 14:50:03

Duration: 00:05:00

Antennas

	Reference - C02	Rover - TSS-03-F
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - TSS-03-F	Reference - C02	Rover - TSS-03-F	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 32.99912" S	Easting:	438,215.5500 m	439,222.1574 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 34.28734" W	Northing:	8,609,405.6600 m	8,609,705.9258 m
WGS84 Ellip. Height:	4,889.3308 m	4,740.7403 m	Ortho. Height:	4,853.4775 m	4,704.9171 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,783.0121 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,886.1078 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,676.4139 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 09.70436"	SD ΔLatitude:	0.0002 m
ΔLongitude:	0° 00' 33.38115"	SD ΔLongitude:	0.0002 m
ΔHeight:	-148.5905 m	SD ΔHeight:	0.0003 m
ΔX:	956.5757 m	SD ΔX:	0.0002 m
ΔY:	328.8927 m	SD ΔY:	0.0003 m
ΔZ:	323.6335 m	SD ΔZ:	0.0002 m
Slope Dist.:	1,062.0481 m	SD Slope Dist.:	0.0002 m

M0:	0.3372 m	CQ 1D:	0.0003 m
Q11:	0.00000022	CQ 2D:	0.0002 m
Q12:	-0.00000009	CQ 3D:	0.0004 m
Q22:	0.00000085		
Q13:	0.00000006		
Q23:	0.00000029		
Q33:	0.00000034		

Frequency:	L1/E1/L2	GDOP:	2.0 - 2.1	GPS SVs:	6/6
Solution Optimisation:	None	PDOP:	1.4	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.8 - 0.9	Beidou SVs:	0/4
		VDOP:	1.1	Galileo SVs:	5/5
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

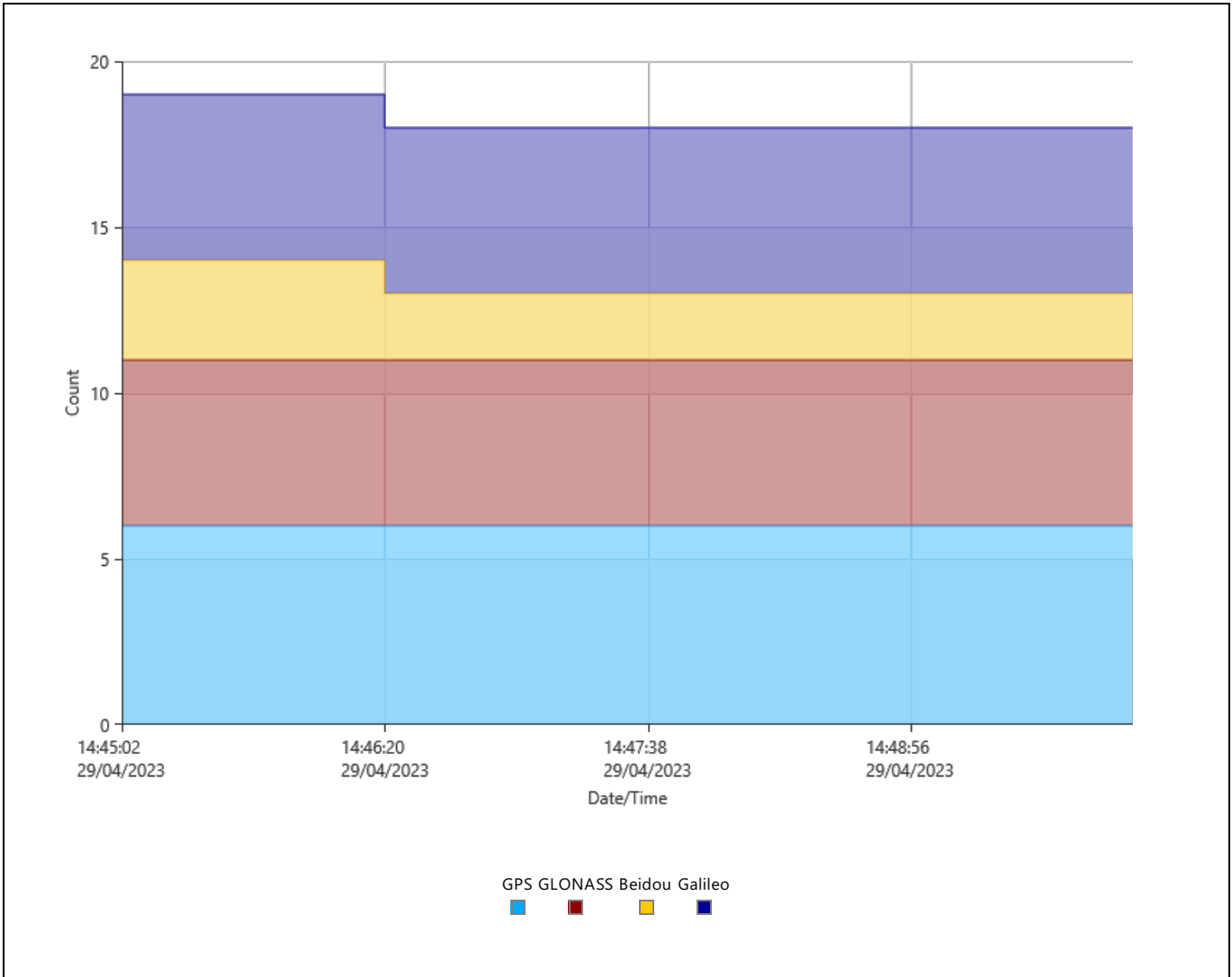
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Processed Date/Time: 10/05/2023 10:49:26

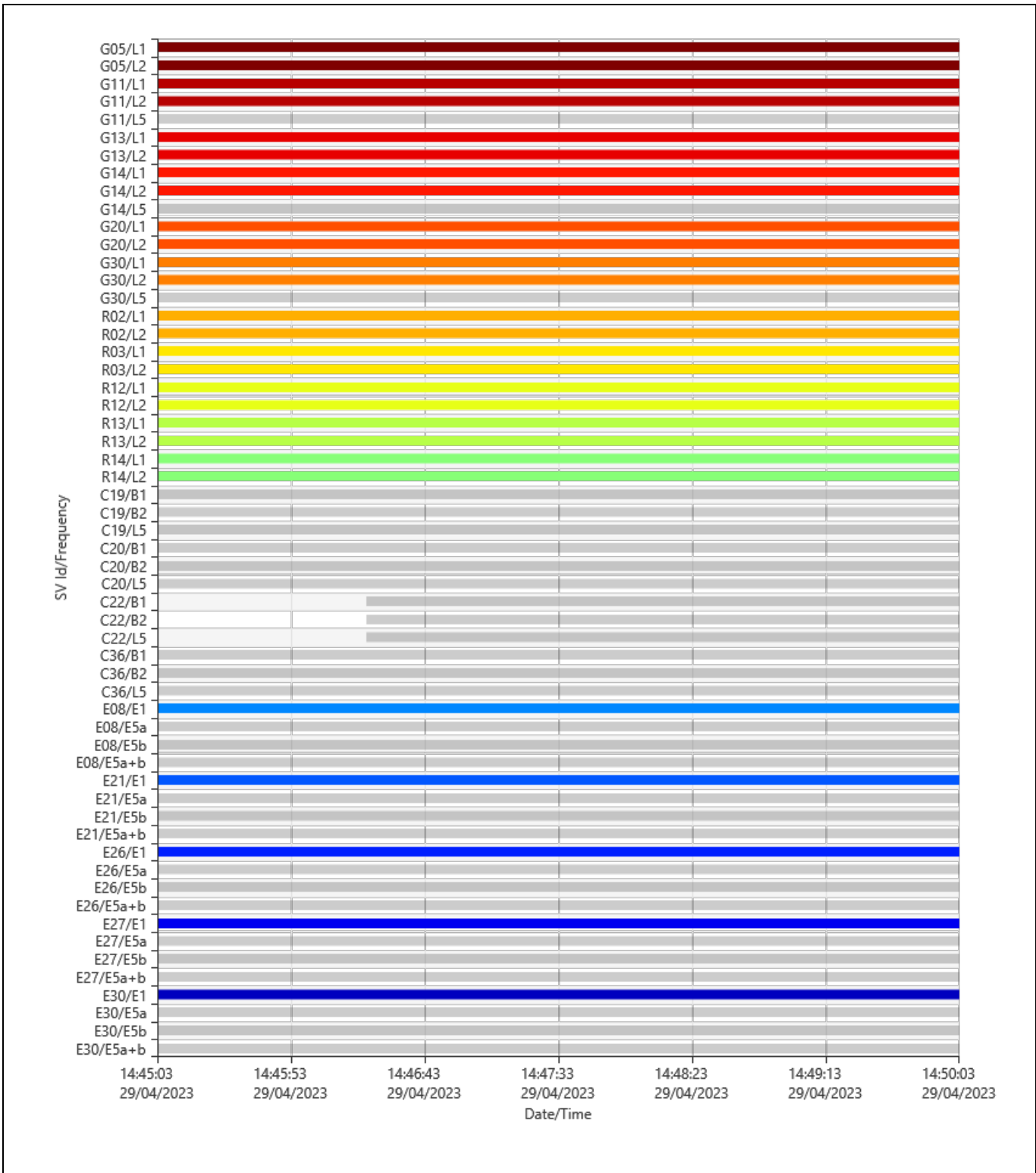
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G11 G13 G14 G20 G30	-
GLONASS	R02 R03 R12 R13 R14	-
Galileo	E08 E21 E26 E27 E30	-

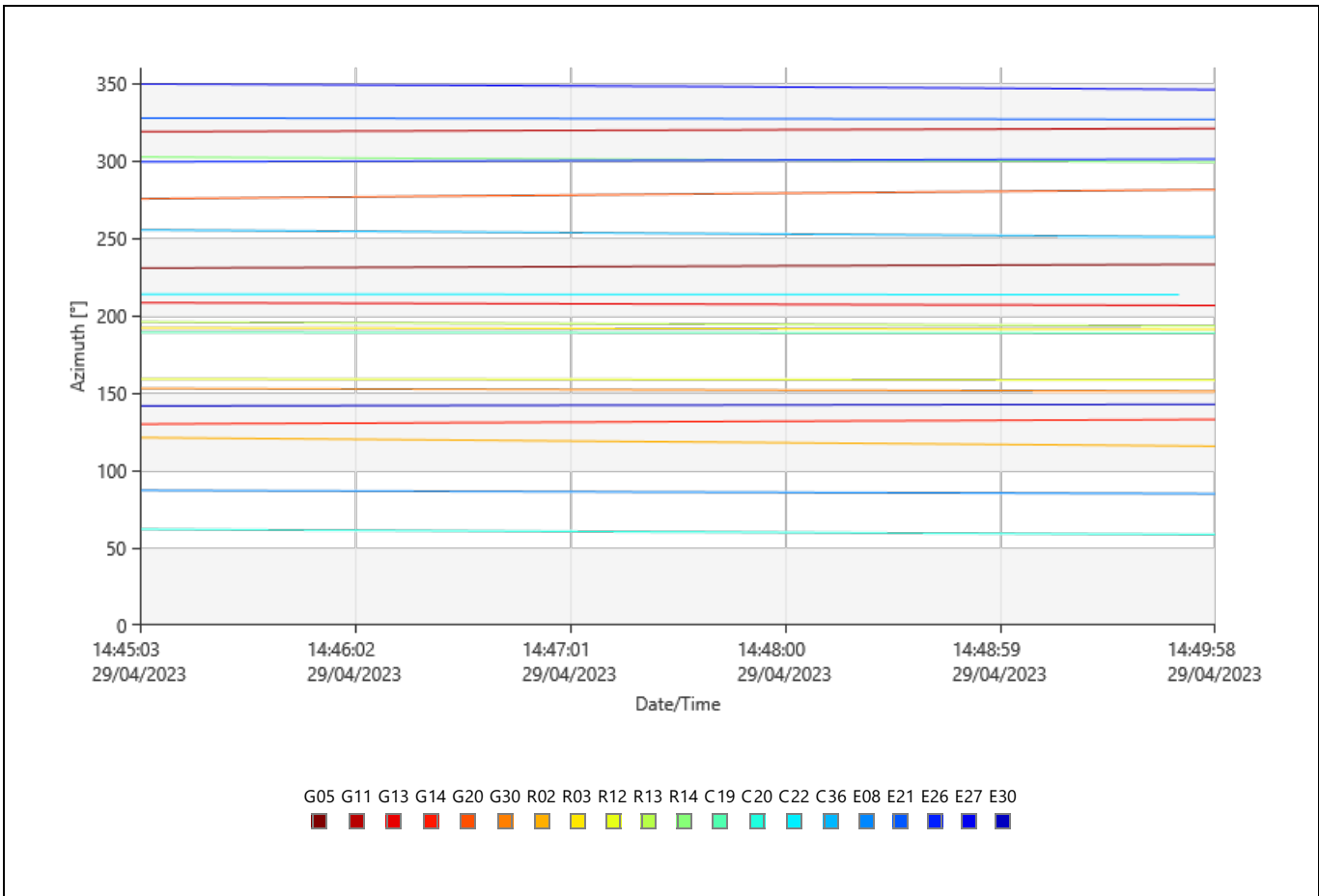
SVs Tracked



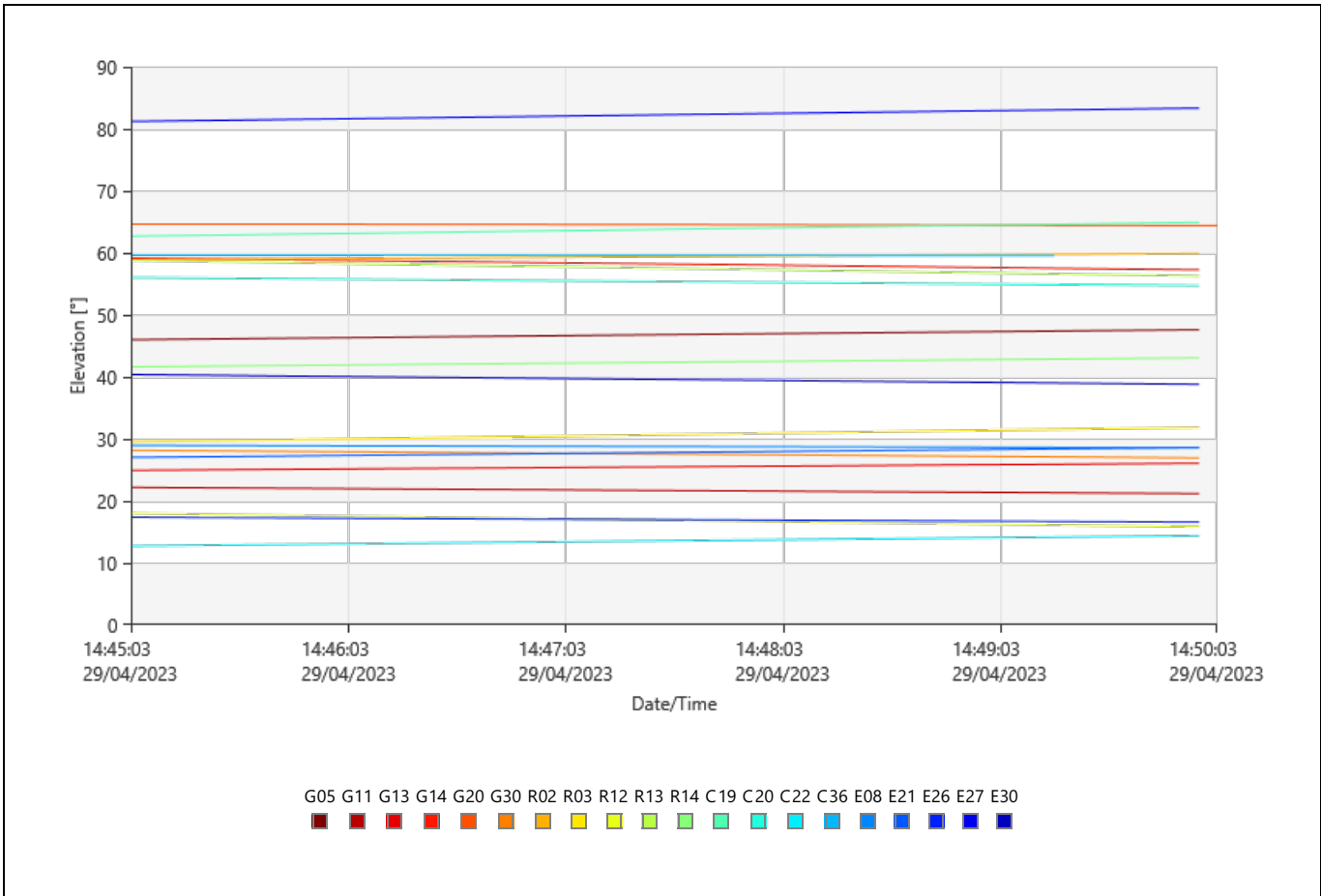
Signals Tracked



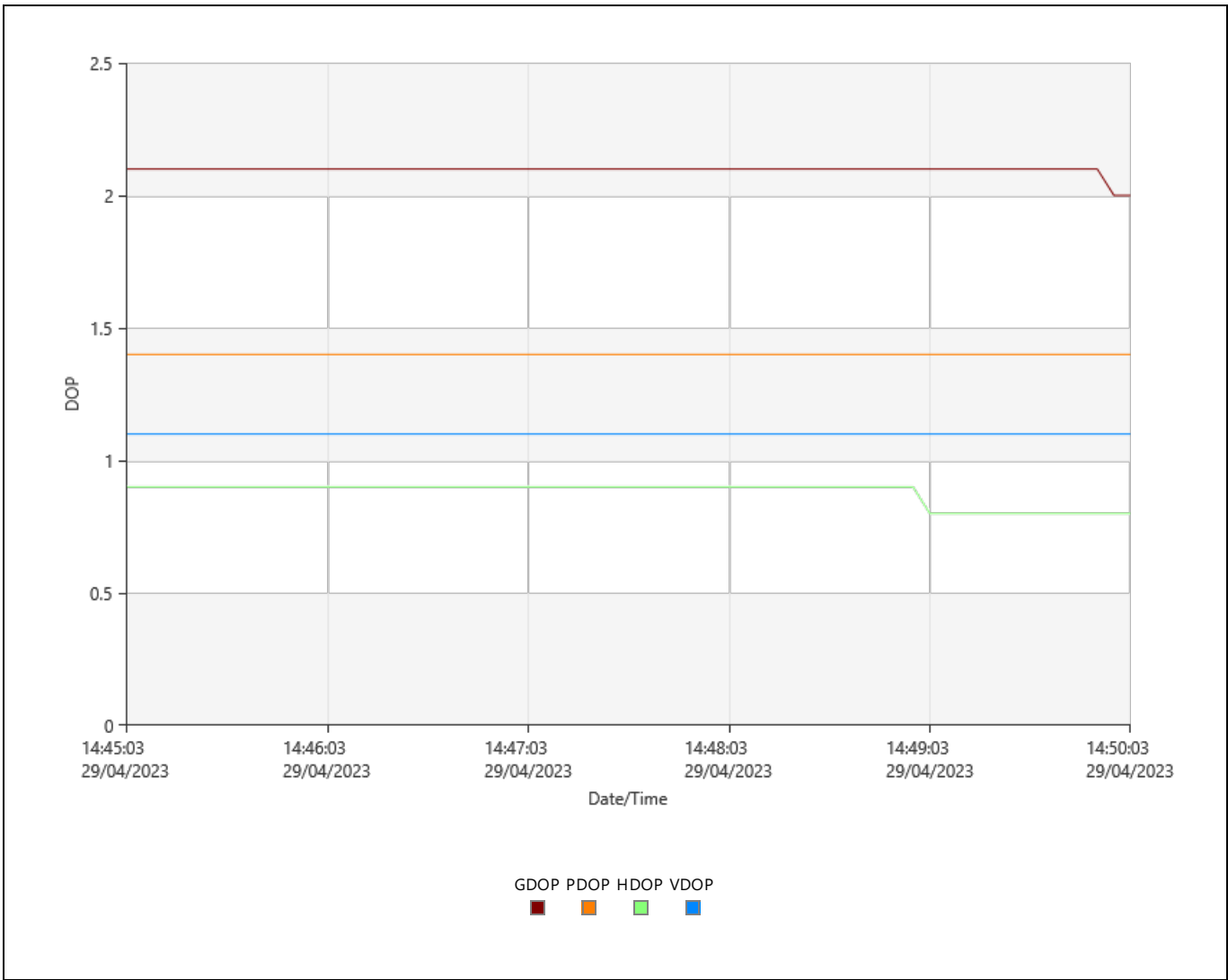
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	1,806	0
L2	1,806	0
L5	0	903

GLONASS Observations

Frequency	Used	Rejected
L1	1,505	0
L2	1,505	0

Beidou Observations

Frequency	Used	Rejected
B1	0	1,126
B2	0	1,126
L5	0	1,126

Galileo Observations

Frequency	Used	Rejected
E1	1,505	0
E5a	0	1,505
E5b	0	1,505
E5a+b	0	1,505

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	12	10	0	5
Total	12	10	8	5
Independently fixed	37	37	0	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	0.00	0.00	100.00
Not fixed	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 14:45:03	29/04/2023 14:50:03	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L5	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L5	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L5	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used

R03

Frequency	From Epoch	To Epoch	Status
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L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
L2	29/04/2023 14:45:03	29/04/2023 14:50:03	Used

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
E5a	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5a+b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
E5a	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5a+b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
E5a	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5a+b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
E5a	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5a+b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:45:03	29/04/2023 14:50:03	Used
E5a	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
E5a+b	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
B2	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
L5	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
B2	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
L5	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

C22

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Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:45:03	29/04/2023 14:46:21	No Data
	29/04/2023 14:46:21	29/04/2023 14:50:03	Rejected
B2	29/04/2023 14:45:03	29/04/2023 14:46:21	No Data
	29/04/2023 14:46:21	29/04/2023 14:50:03	Rejected
L5	29/04/2023 14:45:03	29/04/2023 14:46:21	No Data
	29/04/2023 14:46:21	29/04/2023 14:50:03	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
B2	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected
L5	29/04/2023 14:45:03	29/04/2023 14:50:03	Rejected

Cycle Slips

Slip Count: 1

SV	Frequency	Epoch	Slip Value	Flag
C22	B1	29/04/2023 14:46:24	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - TSS-03-I

Processing Parameters (29/04/2023 15:08:57 - 29/04/2023 15:13:57)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Wideline Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - TSS-03-I

Acquisition

Start Time - End Time: 29/04/2023 15:08:57 - 29/04/2023 15:13:57

Duration: 00:05:00

Antennas

	Reference - C02	Rover - TSS-03-I
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - TSS-03-I	Reference - C02	Rover - TSS-03-I
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 33.83146" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 37.91325" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,737.4875 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,674.7615 m		4,701.6612 m
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,904.9489 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,700.6882 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 08.87202"	SD ΔLatitude:	0.0002 m
ΔLongitude:	0° 00' 29.75525"	SD ΔLongitude:	0.0002 m
ΔHeight:	-151.8433 m	SD ΔHeight:	0.0005 m
ΔX:	848.3252 m	SD ΔX:	0.0002 m
ΔY:	310.0515 m	SD ΔY:	0.0005 m
ΔZ:	299.3593 m	SD ΔZ:	0.0002 m
Slope Dist.:	951.5269 m	SD Slope Dist.:	0.0002 m

M0:	0.4669 m	CQ 1D:	0.0005 m
Q11:	0.00000025	CQ 2D:	0.0002 m
Q12:	-0.00000033	CQ 3D:	0.0006 m
Q22:	0.00000095		
Q13:	-0.00000011		
Q23:	0.00000029		
Q33:	0.00000023		

Frequency:	L1/E1/B1/L2/B2	GDOP:	2.5 - 2.6	GPS SVs:	6/6
Solution Optimisation:	None	PDOP:	1.4 - 1.5	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.7	Beidou SVs:	4/4
		VDOP:	1.2 - 1.3	Galileo SVs:	5/5
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

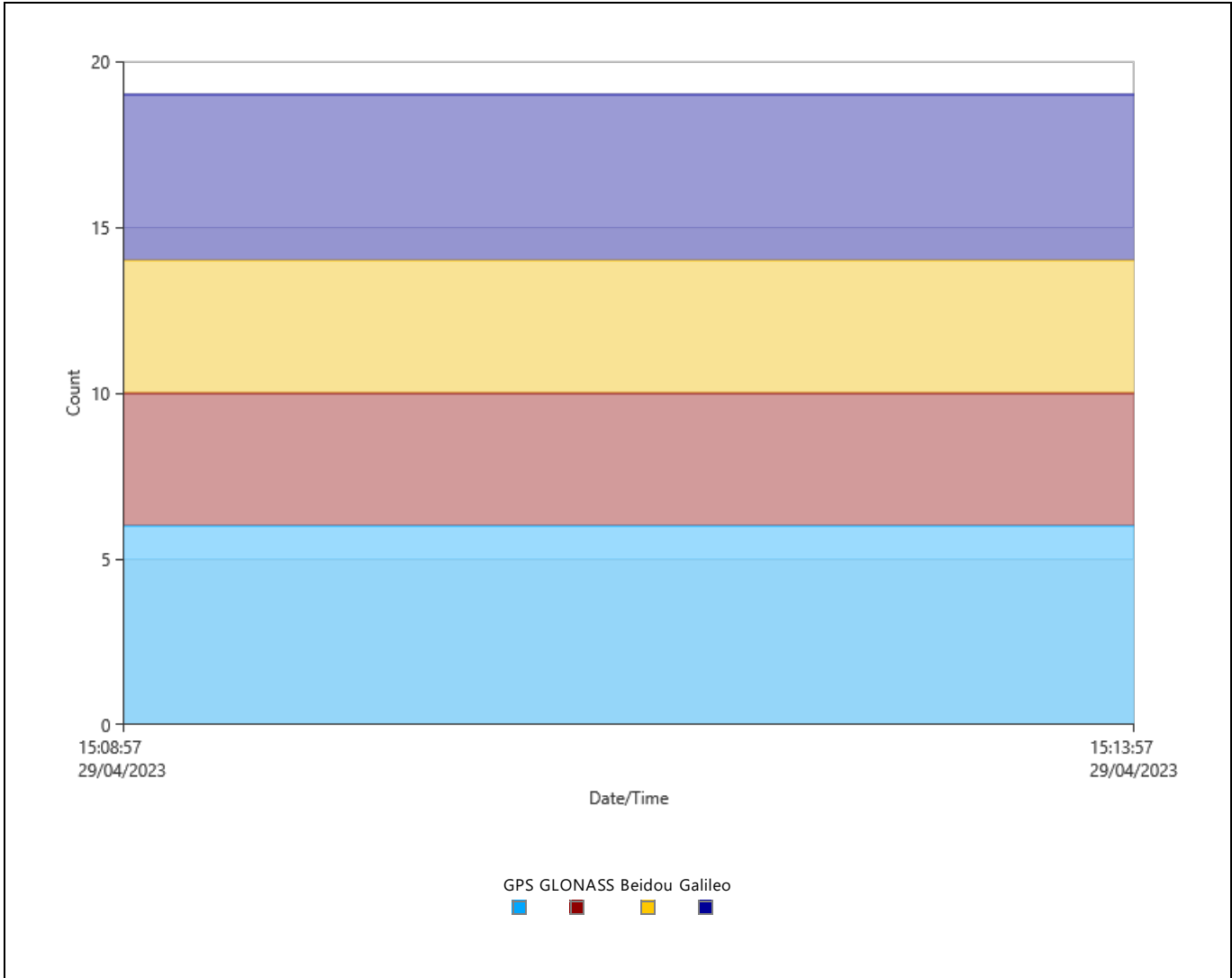
Processing Info (29/04/2023 15:08:57 - 29/04/2023 15:13:57)

Processed Date/Time: 10/05/2023 10:49:26

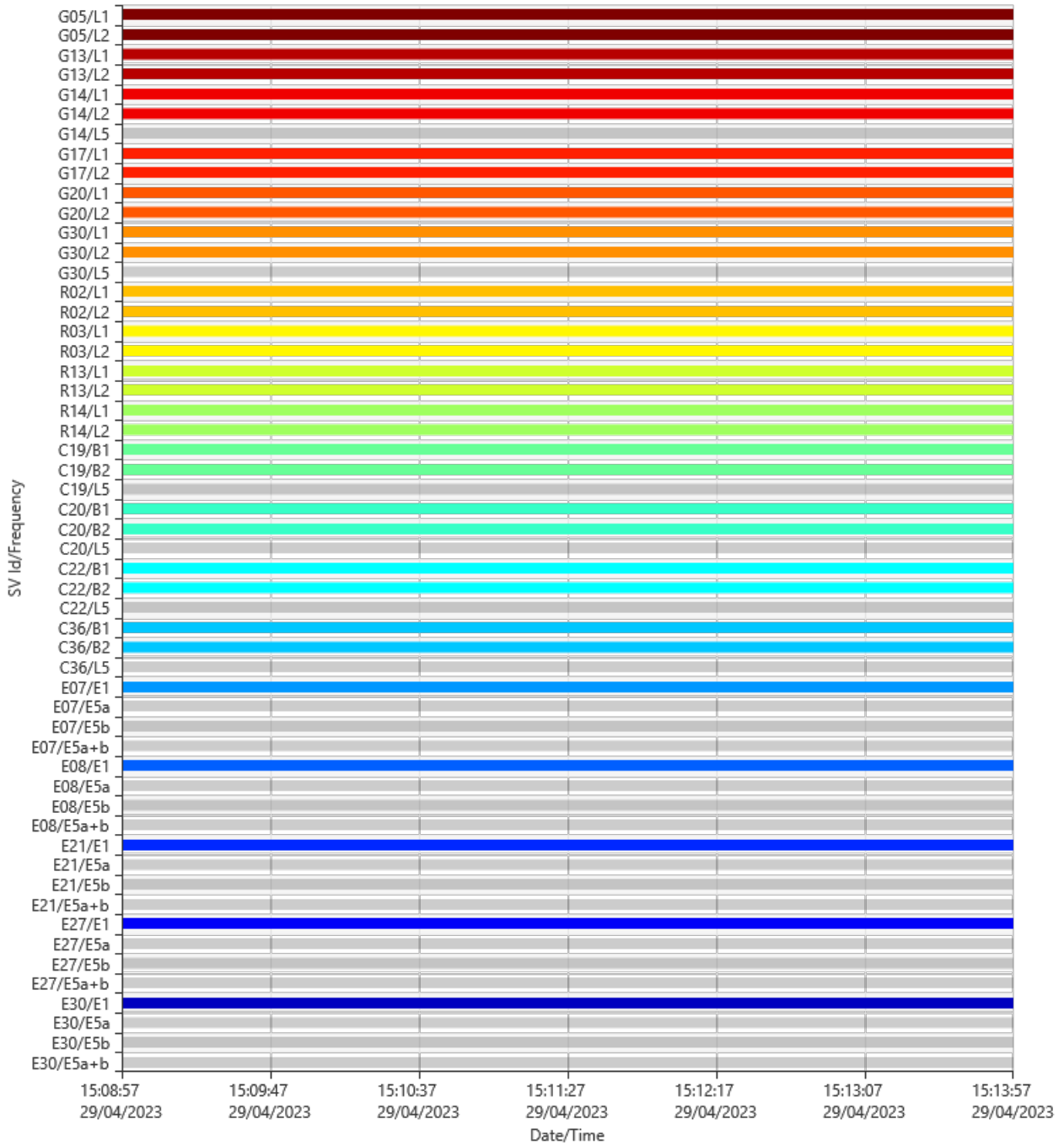
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G13 G14 G17 G20 G30	-
GLONASS	R02 R03 R13 R14	-
Beidou	C19 C20 C22 C36	-
Galileo	E07 E08 E21 E27 E30	-

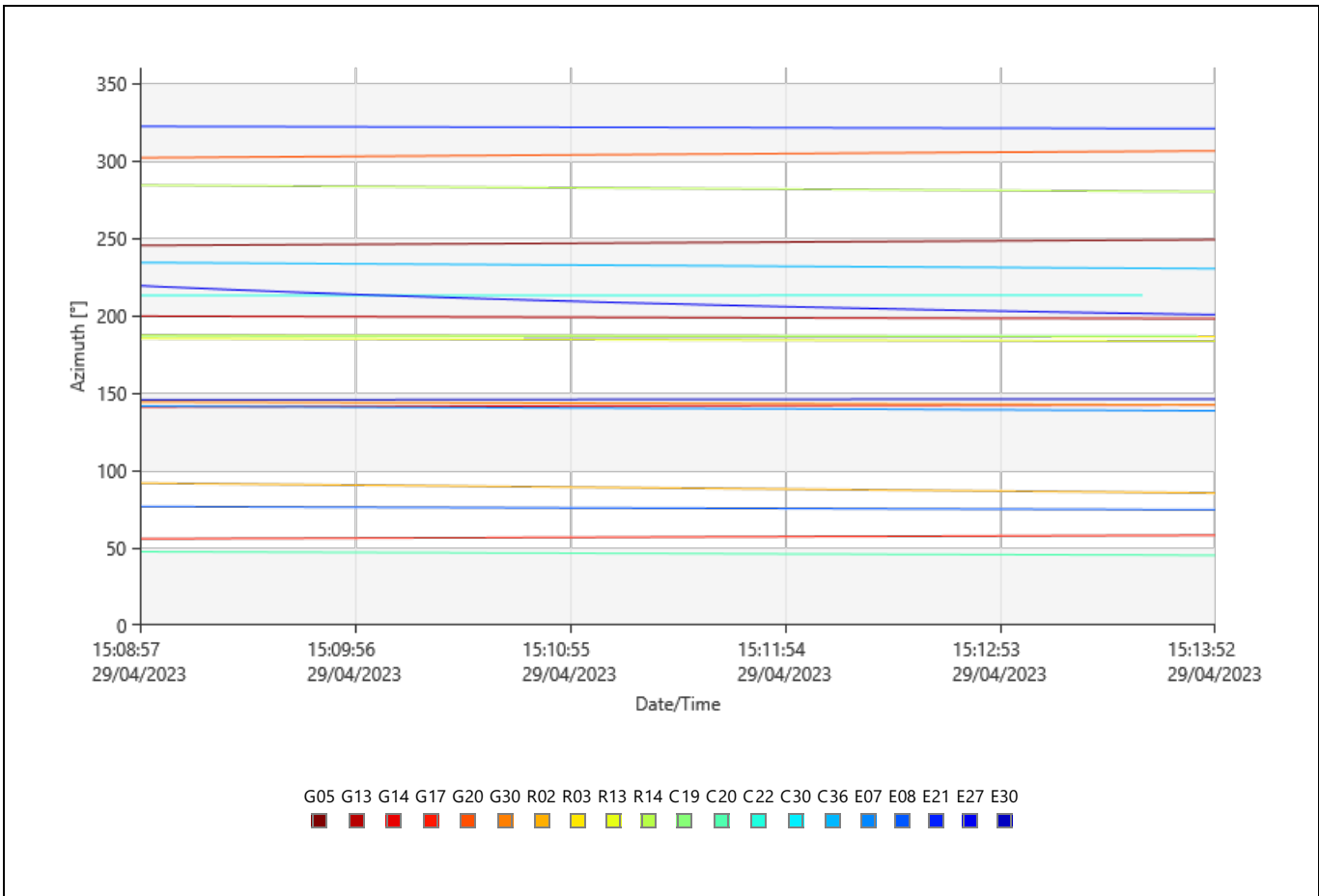
SVs Tracked



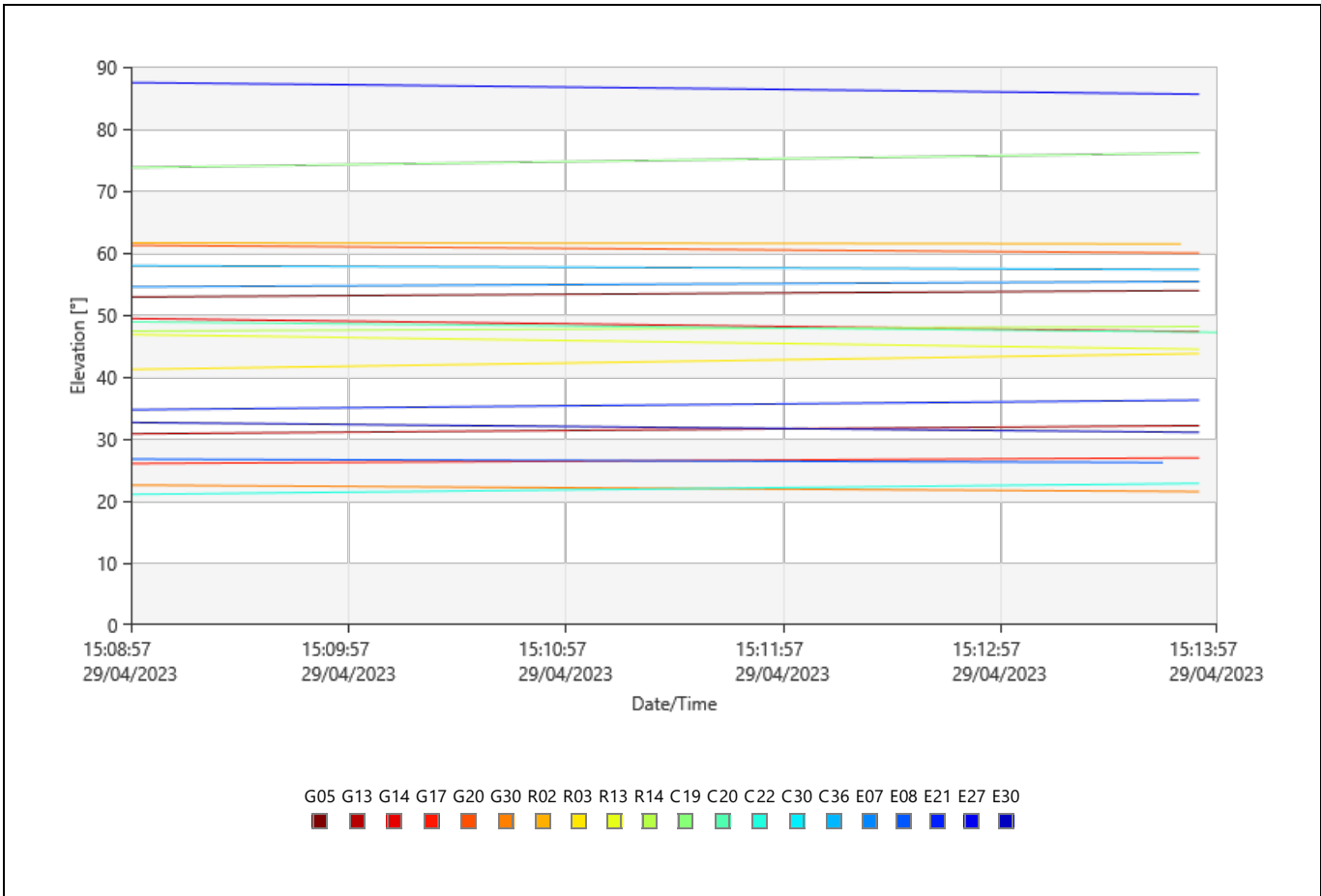
Signals Tracked



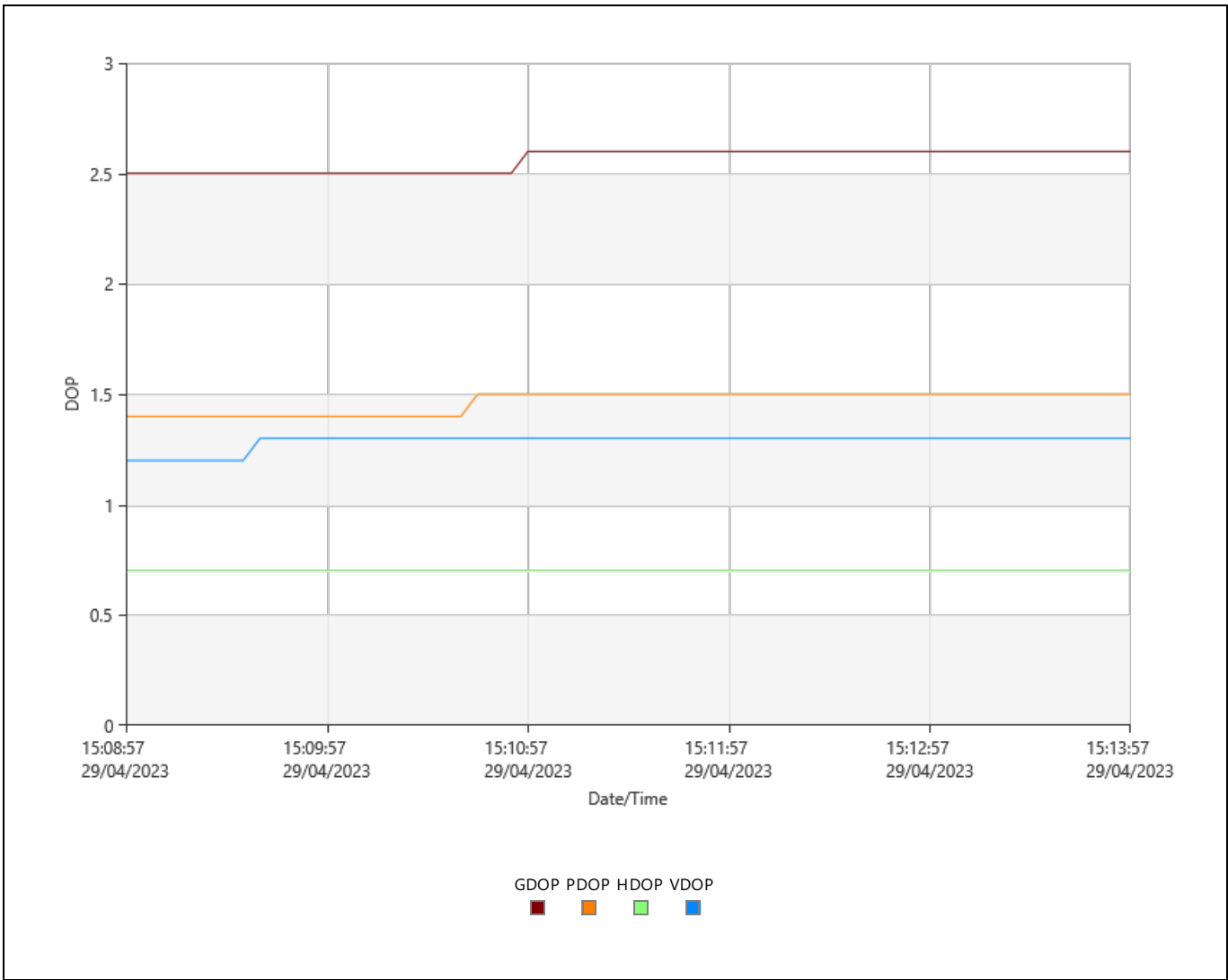
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	1,806	0
L2	1,806	0
L5	0	602

GLONASS Observations

Frequency	Used	Rejected
L1	1,204	0
L2	1,204	0

Beidou Observations

Frequency	Used	Rejected
B1	1,204	0
B2	1,204	0
L5	0	1,204

Galileo Observations

Frequency	Used	Rejected
E1	1,505	0
E5a	0	1,505
E5b	0	1,505
E5a+b	0	1,505

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	12	8	8	5
Total	12	8	8	5
Independently fixed	37	37	37	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Not fixed	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 15:08:57	29/04/2023 15:13:57	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L5	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L5	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used

L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
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R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
E5a	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5a+b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
E5a	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5a+b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
E5a	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5a+b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
E5a	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5a+b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
E5a	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected
E5a+b	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
B2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L5	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
B2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L5	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
B2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L5	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

C36

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Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
B2	29/04/2023 15:08:57	29/04/2023 15:13:57	Used
L5	29/04/2023 15:08:57	29/04/2023 15:13:57	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - TSS-04-F

Processing Parameters (29/04/2023 15:23:57 - 29/04/2023 15:28:58)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - TSS-04-F

Acquisition

Start Time - End Time: 29/04/2023 15:23:58 - 29/04/2023 15:28:58
Duration: 00:05:00

Antennas

	Reference - C02	Rover - TSS-04-F
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m

North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - TSS-04-F		Reference - C02	Rover - TSS-04-F
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 35.22988" S	Easting:	438,215.5500 m	439,254.3841 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 33.22415" W	Northing:	8,609,405.6600 m	8,609,637.4680 m
WGS84 Ellip. Height:	4,889.3308 m	4,728.9335 m	Ortho. Height:	4,853.4775 m	4,693.1071 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,807.5151 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,852.4740 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,740.7989 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 07.47361"	SD ΔLatitude:	0.0002 m
ΔLongitude:	0° 00' 34.44435"	SD ΔLongitude:	0.0002 m
ΔHeight:	-160.3973 m	SD ΔHeight:	0.0006 m
ΔX:	981.0787 m	SD ΔX:	0.0003 m
ΔY:	362.5264 m	SD ΔY:	0.0006 m
ΔZ:	259.2485 m	SD ΔZ:	0.0003 m
Slope Dist.:	1,077.5670 m	SD Slope Dist.:	0.0002 m

M0:	0.6100 m	CQ 1D:	0.0006 m
Q11:	0.00000026	CQ 2D:	0.0003 m
Q12:	-0.00000035	CQ 3D:	0.0007 m
Q22:	0.00000087		
Q13:	-0.00000013		
Q23:	0.00000026		
Q33:	0.00000018		

Frequency:	L1/E1/B1/L2/B2	GDOP:	2.4	GPS SVs:	8/9
Solution Optimisation:	None	PDOP:	1.4	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.6	Beidou SVs:	4/4
		VDOP:	1.2	Galileo SVs:	5/5
				QZSS SVs:	-
Ephemeris Type:					
GPS	Precise				
GLONASS	Precise				
Beidou	Broadcast				
Galileo	Precise				

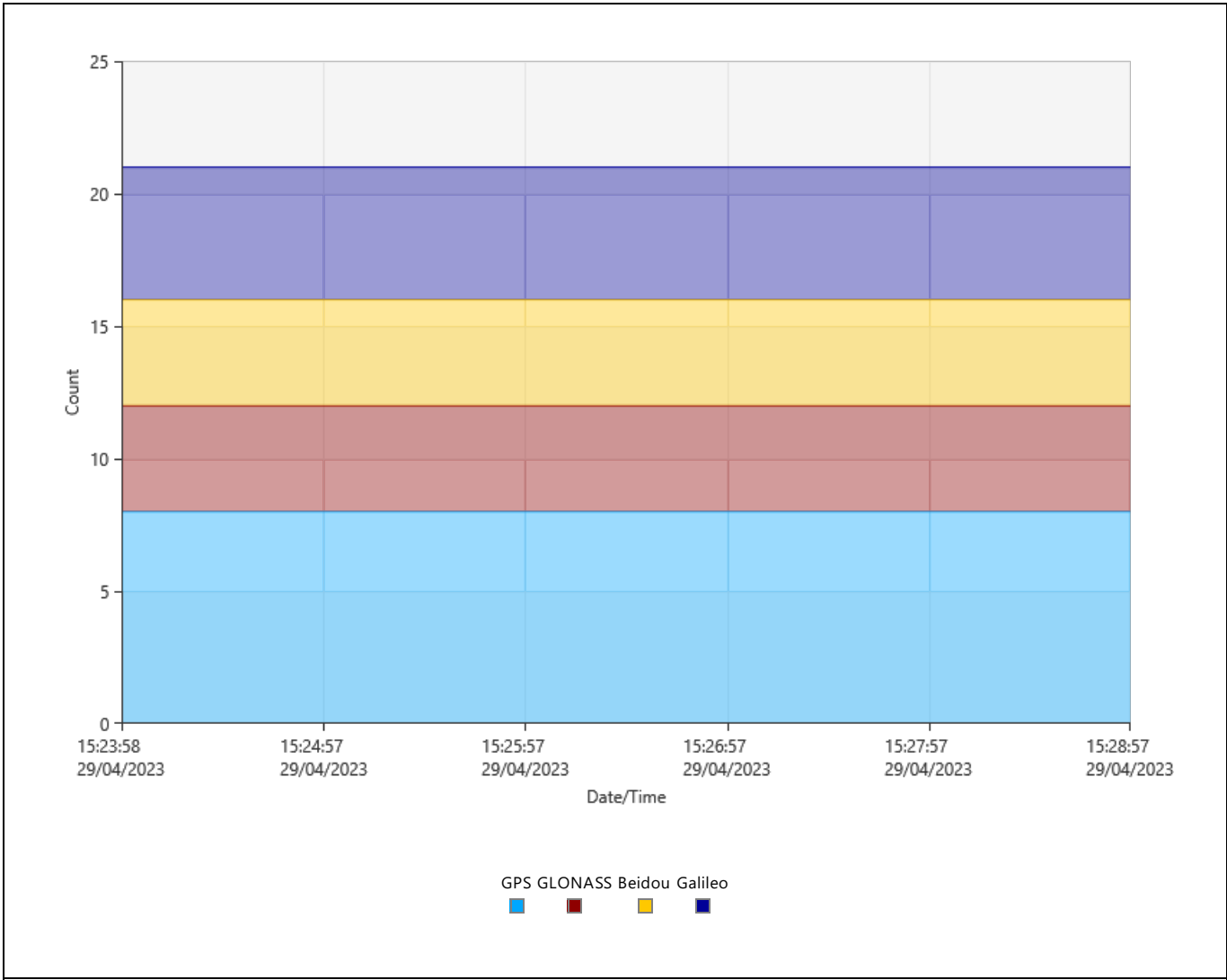
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Processed Date/Time: 10/05/2023 10:49:26

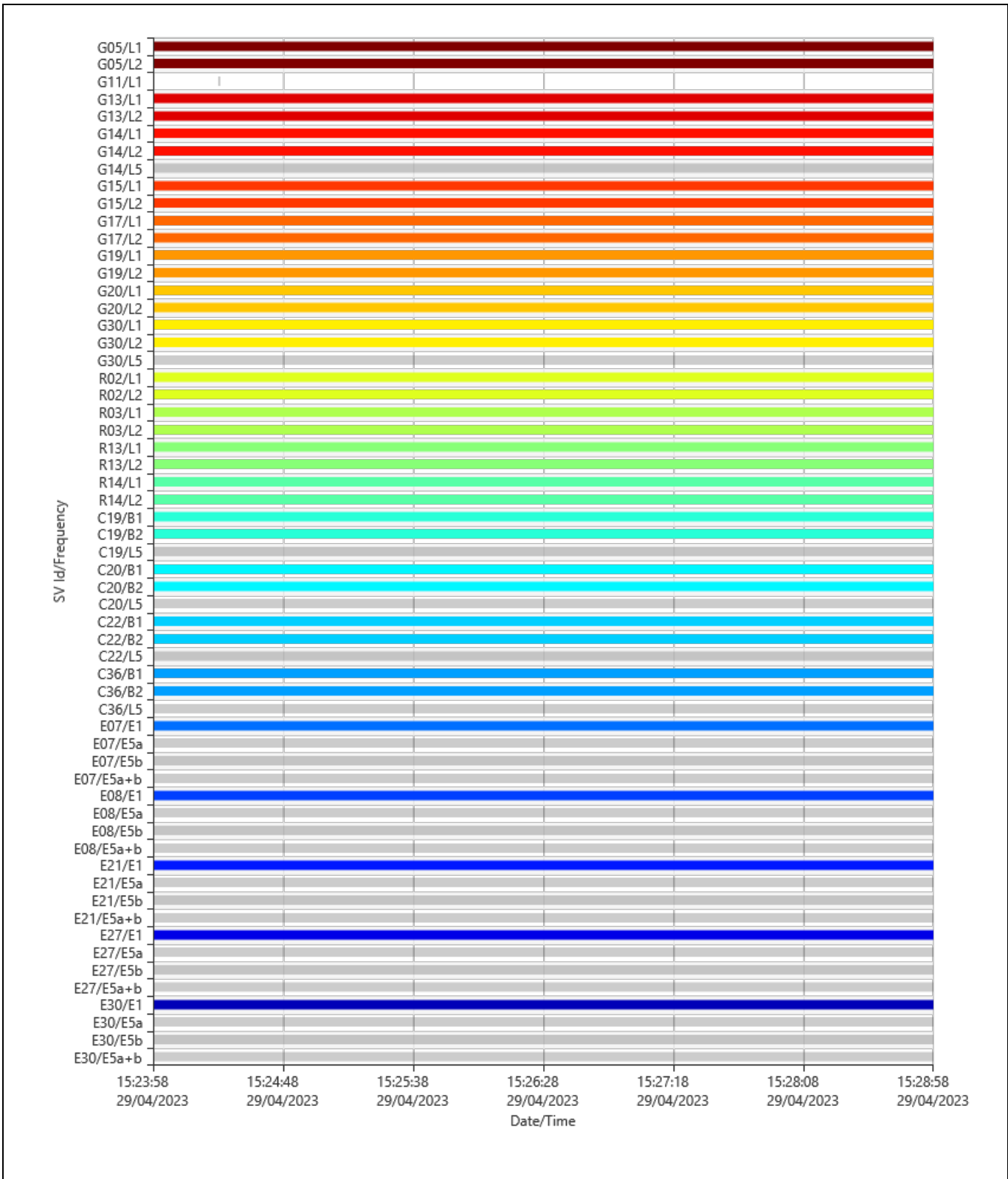
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G13 G14 G15 G17 G19 G20 G30	-
GLONASS	R02 R03 R13 R14	-
Beidou	C19 C20 C22 C36	-
Galileo	E07 E08 E21 E27 E30	-

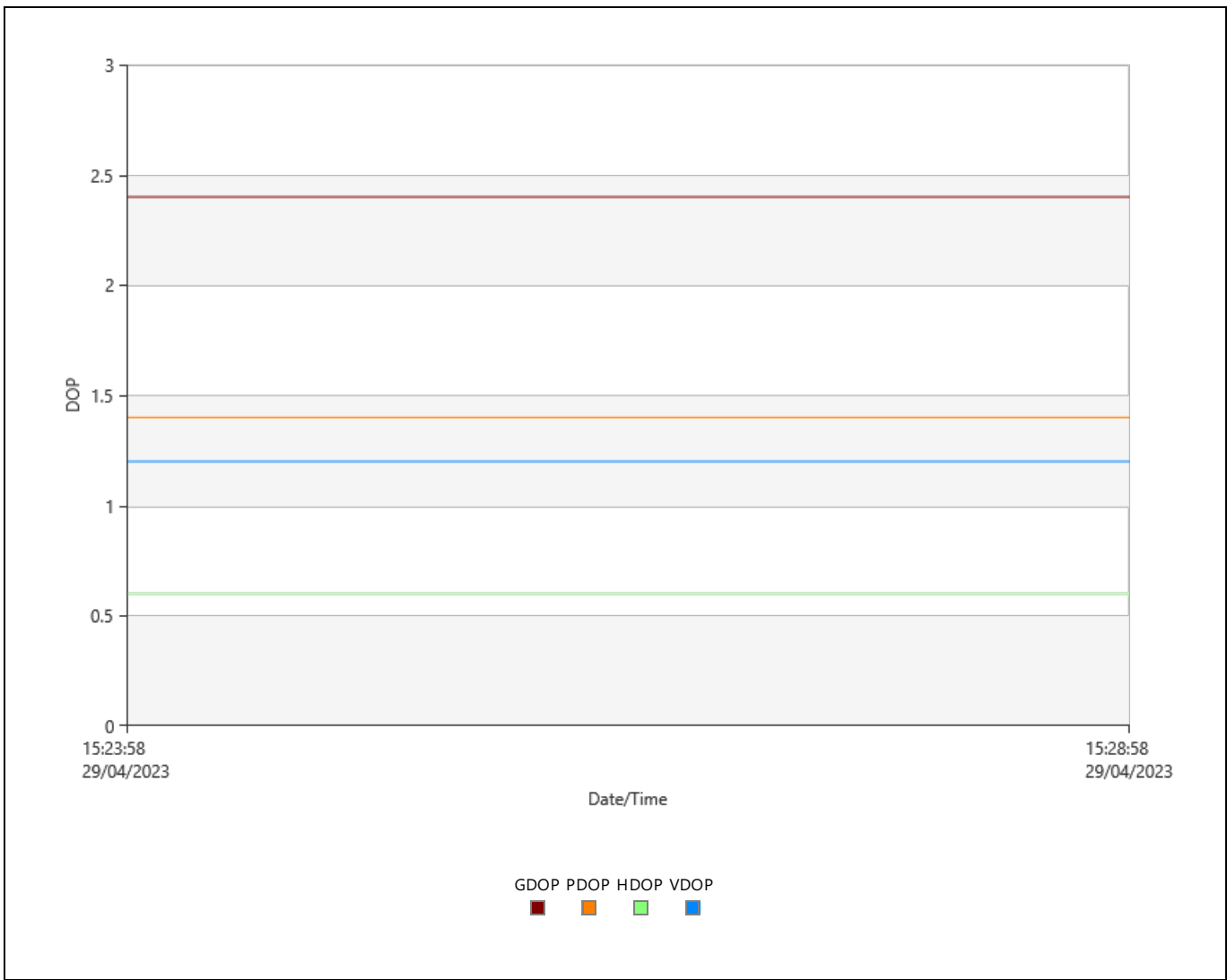
SVs Tracked



Signals Tracked



Azimuth



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	2,408	1
L2	2,408	0
L5	0	602

GLONASS Observations

Frequency	Used	Rejected
L1	1,204	0
L2	1,204	0

Beidou Observations

Frequency	Used	Rejected
B1	1,204	0
B2	1,204	0
L5	0	1,204

Galileo Observations

Frequency	Used	Rejected
E1	1,505	0
E5a	0	1,505
E5b	0	1,505
E5a+b	0	1,505

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	16	8	8	5
Total	16	8	8	5
Independently fixed	37	37	37	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Not fixed	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 15:23:58	29/04/2023 15:28:58	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:24:23	No Data
	29/04/2023 15:24:23	29/04/2023 15:24:24	Rejected
	29/04/2023 15:24:24	29/04/2023 15:28:58	No Data

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L5	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

G15

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

G19

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
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G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L5	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

E07

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
E5a	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5a+b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
E5a	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5a+b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
E5a	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5a+b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
E5a	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5a+b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
E5a	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected
E5a+b	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used

B2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L5	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
B2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L5	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
B2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L5	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
B2	29/04/2023 15:23:58	29/04/2023 15:28:58	Used
L5	29/04/2023 15:23:58	29/04/2023 15:28:58	Rejected

Cycle Slips

Slip Count: 0

Processing Messages

Warning

Missing orbits for satellite R10.
Missing orbits for satellite R23.
No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - TSS-04-I

Processing Parameters (29/04/2023 15:15:50 - 29/04/2023 15:20:51)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/B1/L2/B2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo/Beidou	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Model:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionospheric Model:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - TSS-04-I

Acquisition

Start Time - End Time: 29/04/2023 15:15:51 - 29/04/2023 15:20:51
Duration: 00:05:00

Antennas

	Reference - C02	Rover - TSS-04-I
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - TSS-04-I	Reference - C02	Rover - TSS-04-I
Point Role:	Control	Fixed PP		
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 33.75392" S	Easting:	438,215.5500 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 36.67494" W	Northing:	8,609,405.6600 m
WGS84 Ellip. Height:	4,889.3308 m	4,733.4723 m	Ortho. Height:	4,853.4775 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,710.1381 m		4,697.6468 m
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,892.3291 m		
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,697.4866 m		

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 08.94956"	SD ΔLatitude:	0.0004 m
ΔLongitude:	0° 00' 30.99355"	SD ΔLongitude:	0.0004 m
ΔHeight:	-155.8585 m	SD ΔHeight:	0.0011 m
ΔX:	883.7018 m	SD ΔX:	0.0005 m
ΔY:	322.6713 m	SD ΔY:	0.0010 m
ΔZ:	302.5609 m	SD ΔZ:	0.0005 m
Slope Dist.:	988.2250 m	SD Slope Dist.:	0.0003 m

M0:	1.0094 m	CQ 1D:	0.0011 m
Q11:	0.00000027	CQ 2D:	0.0005 m
Q12:	-0.00000038	CQ 3D:	0.0012 m
Q22:	0.00000102		
Q13:	-0.00000013		
Q23:	0.00000032		
Q33:	0.00000023		

Frequency:	L1/E1/B1/L2/B2	GDOP:	2.4 - 2.7	GPS SVs:	7/7
Solution Optimisation:	None	PDOP:	1.4 - 1.5	GLONASS SVs:	4/4
Solution Type:	Phase Fixed	HDOP:	0.7	Beidou SVs:	4/4
		VDOP:	1.2 - 1.3	Galileo SVs:	5/5
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

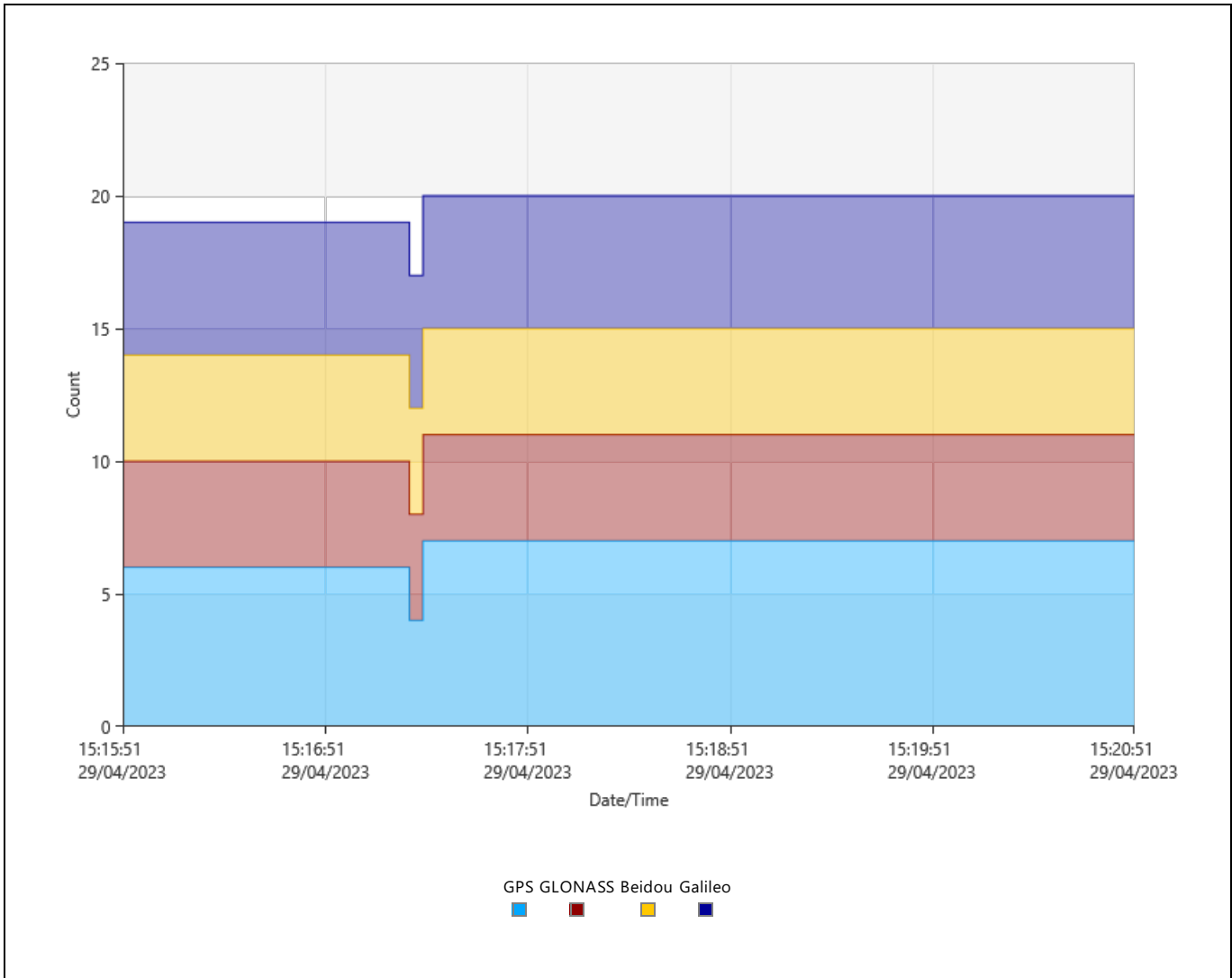
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Processed Date/Time: 10/05/2023 10:49:26

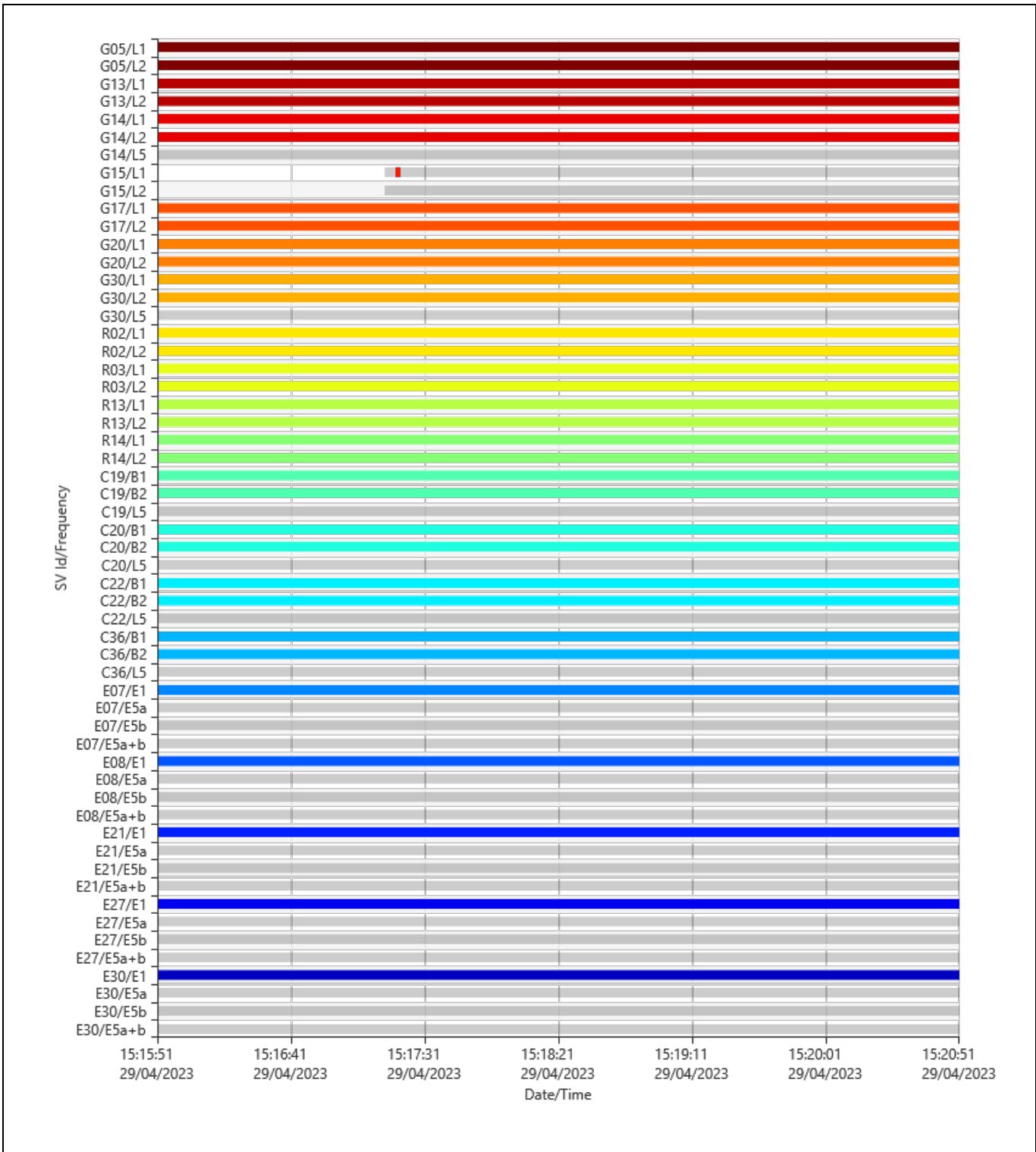
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G13 G14 G15 G17 G20 G30	-
GLONASS	R02 R03 R13 R14	-
Beidou	C19 C20 C22 C36	-
Galileo	E07 E08 E21 E27 E30	-

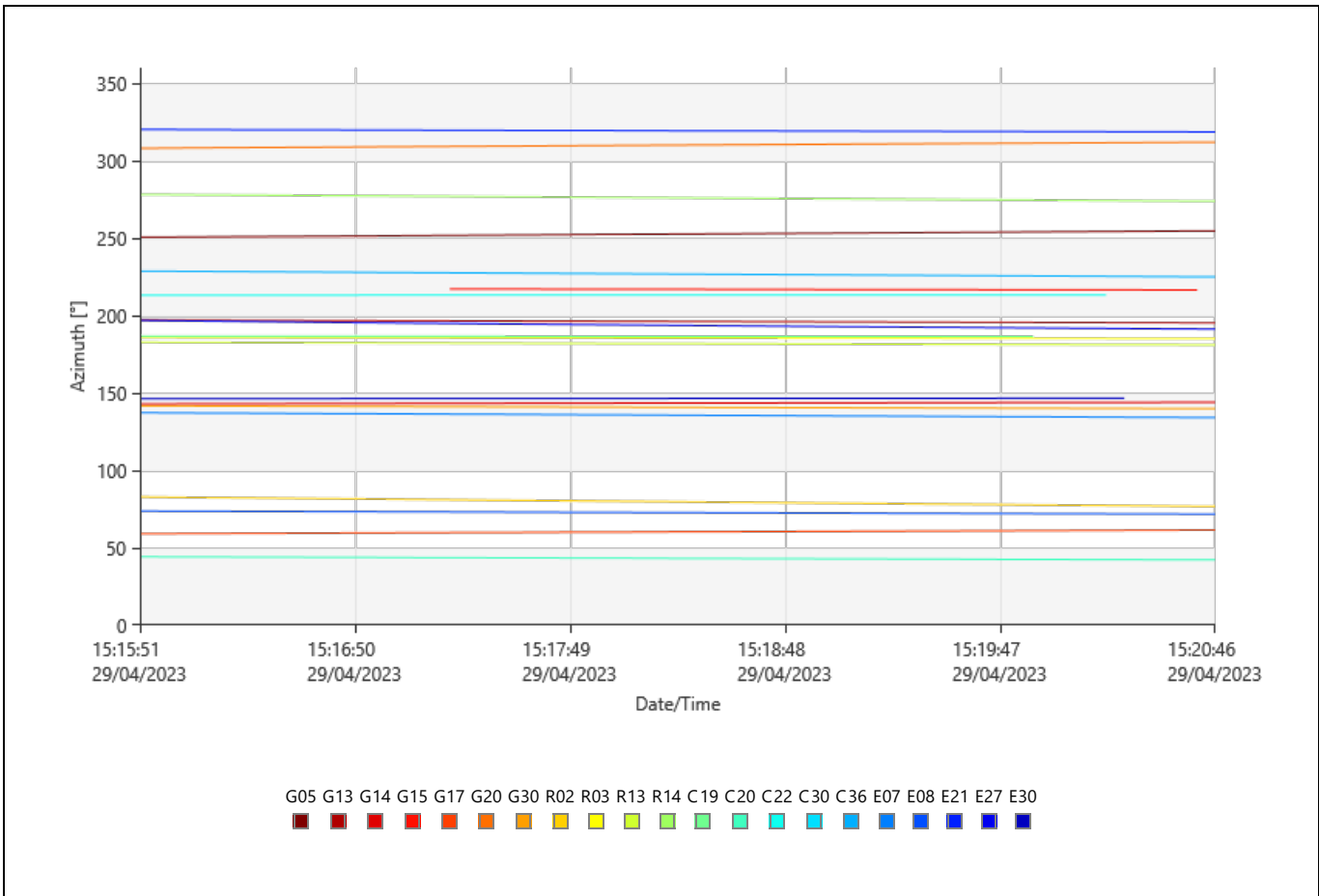
SVs Tracked



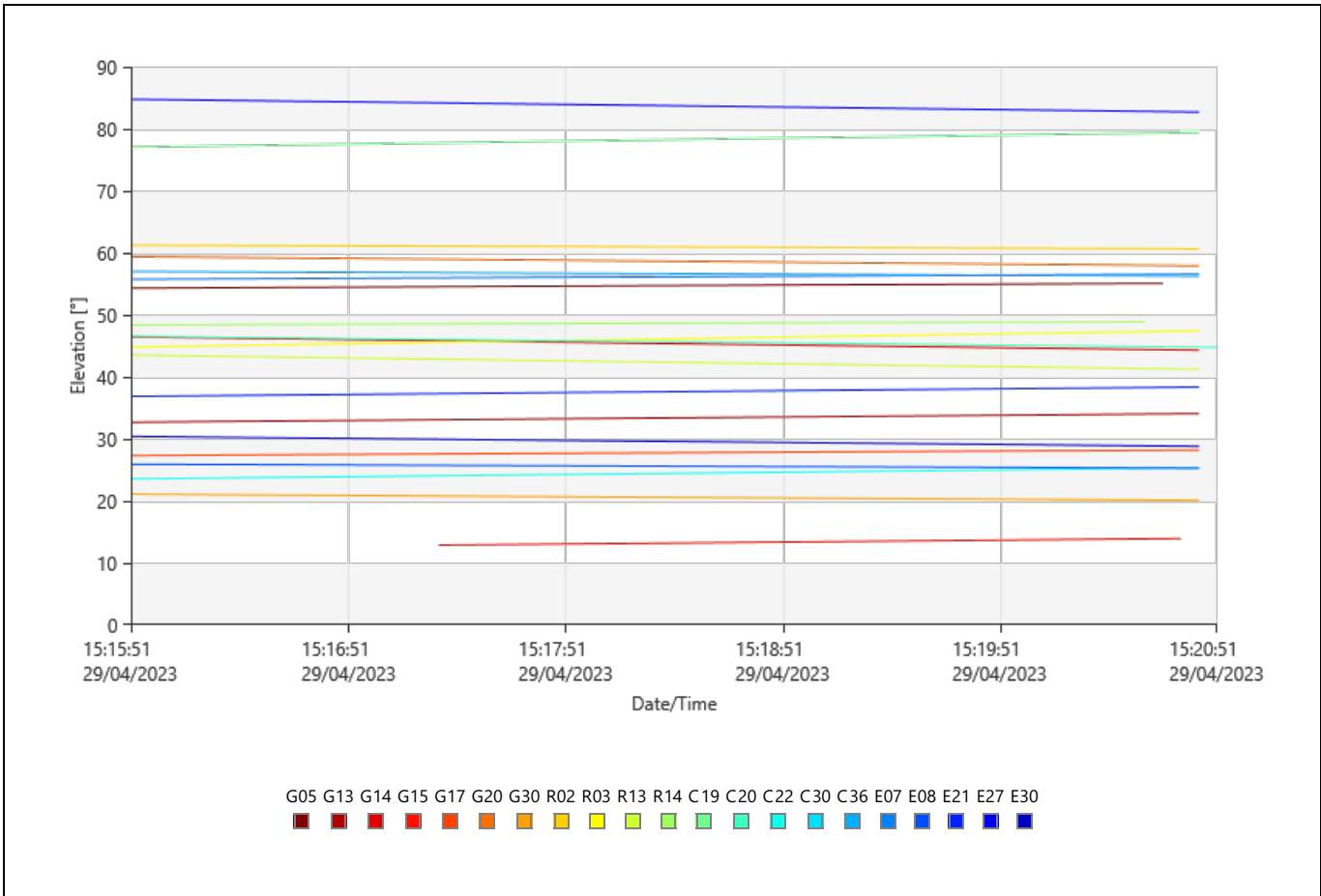
Signals Tracked



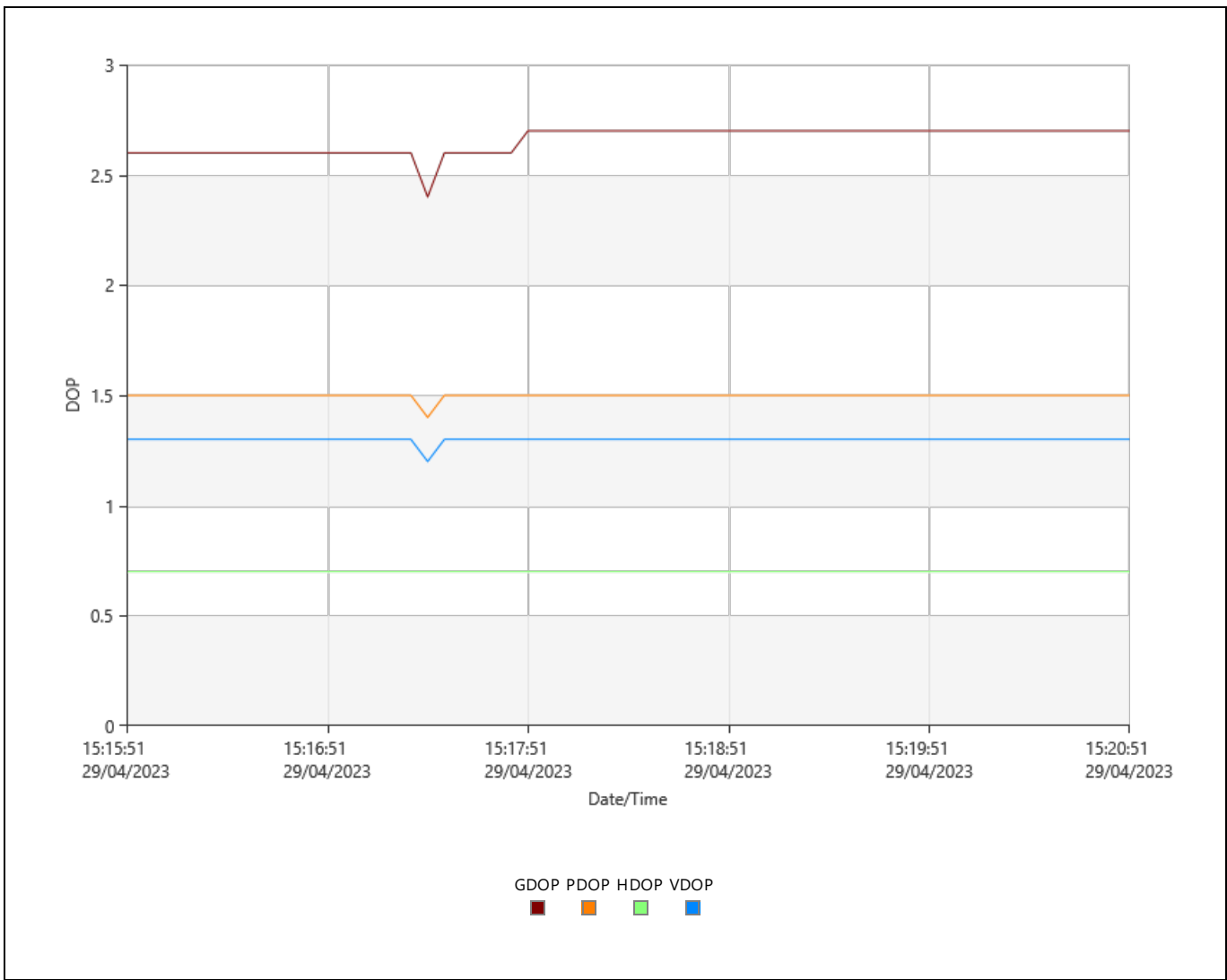
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	1,808	214
L2	1,806	216
L5	0	602

GLONASS Observations

Frequency	Used	Rejected
L1	1,204	0
L2	1,204	0

Beidou Observations

Frequency	Used	Rejected
B1	1,204	0
B2	1,204	0
L5	0	1,204

Galileo Observations

Frequency	Used	Rejected
E1	1,505	0
E5a	0	1,505
E5b	0	1,505
E5a+b	0	1,505

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	14	8	8	5
Total	15	8	8	5
Independently fixed	37	37	17	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	99.90	100.00	100.00	100.00	100.00	100.00
Not fixed	0.00	0.10	0.00	0.00	0.00	0.00	0.00
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 15:15:51	29/04/2023 15:20:51	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L2	29/04/2023 15:15:51	29/04/2023 15:20:51	Used

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L2	29/04/2023 15:15:51	29/04/2023 15:20:51	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L2	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L5	29/04/2023 15:15:51	29/04/2023 15:20:51	Rejected

G15

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:15:51	29/04/2023 15:17:16	No Data
	29/04/2023 15:17:16	29/04/2023 15:17:20	Rejected
	29/04/2023 15:17:20	29/04/2023 15:17:22	Used
	29/04/2023 15:17:22	29/04/2023 15:20:51	Rejected
L2	29/04/2023 15:15:51	29/04/2023 15:17:16	No Data
	29/04/2023 15:17:16	29/04/2023 15:20:51	Rejected

G17

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L2	29/04/2023 15:15:51	29/04/2023 15:20:51	Used

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L2	29/04/2023 15:15:51	29/04/2023 15:20:51	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L2	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L5	29/04/2023 15:15:51	29/04/2023 15:20:51	Rejected

C22

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
B2	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L5	29/04/2023 15:15:51	29/04/2023 15:20:51	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
B2	29/04/2023 15:15:51	29/04/2023 15:20:51	Used
L5	29/04/2023 15:15:51	29/04/2023 15:20:51	Rejected

Cycle Slips

Slip Count: 1

SV	Frequency	Epoch	Slip Value	Flag
G15	L2	29/04/2023 15:17:20	-	RIA

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Baseline C02 - TSS-01-F

Processing Parameters (29/04/2023 14:20:12 - 29/04/2023 14:25:12)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	L1/E1/B1/L2/B2	L1/E1/L2	
Sampling Rate:	Use All	1.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS/Galileo	
Ephemeris Type:	Precise	Precise	No Beidou precise ephemeris available, switched to broadcast ephemeris.
Antenna Calibration Set:	NGS Absolute	NGS Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Phase Fixed
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	VMF with GPT2 model	VMF with GPT2 model
Ionospheric Model:	Computed	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

Min. Distance for Ionosphere Minimised:	15 km
Possible Ambiguities Fix up to:	300 km
Min. Duration for Float Solution (static):	00:05:00

Results Baseline: C02 - TSS-01-F

Acquisition

Start Time - End Time:	29/04/2023 14:20:12 - 29/04/2023 14:25:12
Duration:	00:05:00

Antennas

	Reference - C02	Rover - TSS-01-F
Receiver Name / SN:	LEICA GS18 / 3607058	LEICA GS18 / 3607811
Antenna Name / SN:	LEIGS18 / -	LEIGS18 / -
Carrier Offset:	0.0000 m	0.0000 m
Height Reading:	1.4100 m	2.0000 m
Antenna Height:	1.4100 m	2.0000 m

Phase Center Offset

GPS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

GLONASS	Reference - LEIGS18		Rover - LEIGS18	
	L1	L2	L1	L2
East	-0.0003 m	0.0024 m	-0.0003 m	0.0024 m
North	-0.0010 m	-0.0005 m	-0.0010 m	-0.0005 m
Up	0.0999 m	0.1074 m	0.0999 m	0.1074 m

Coordinates

	Reference - C02	Rover - TSS-01-F	Reference - C02	Rover - TSS-01-F	
Point Role:	Control	Fixed PP			
WGS84 Latitude:	12° 34' 42.70348" S	12° 34' 33.93945" S	Easting:	438,215.5500 m	439,278.5386 m
WGS84 Longitude:	75° 34' 07.66850" W	75° 33' 32.42086" W	Northing:	8,609,405.6600 m	8,609,677.1597 m
WGS84 Ellip. Height:	4,889.3308 m	4,739.1557 m	Ortho. Height:	4,853.4775 m	4,703.3319 m
WGS84 Cartesian X:	1,552,826.4364 m	1,553,835.6567 m			
WGS84 Cartesian Y:	-6,034,215.0005 m	-6,033,864.4523 m			
WGS84 Cartesian Z:	-1,381,000.0474 m	-1,380,704.2928 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 00' 08.76403"	SD ΔLatitude:	0.0002 m
ΔLongitude:	0° 00' 35.24764"	SD ΔLongitude:	0.0002 m
ΔHeight:	-150.1750 m	SD ΔHeight:	0.0003 m
ΔX:	1,009.2203 m	SD ΔX:	0.0002 m
ΔY:	350.5482 m	SD ΔY:	0.0003 m
ΔZ:	295.7546 m	SD ΔZ:	0.0002 m
Slope Dist.:	1,108.5488 m	SD Slope Dist.:	0.0002 m

M0:	0.3722 m	CQ 1D:	0.0003 m
Q11:	0.00000018	CQ 2D:	0.0002 m
Q12:	-0.00000009	CQ 3D:	0.0004 m
Q22:	0.00000069		
Q13:	0.00000003		
Q23:	0.00000019		
Q33:	0.00000027		

Frequency:	L1/E1/L2	GDOP:	2.0 - 2.4	GPS SVs:	7/7
Solution Optimisation:	None	PDOP:	1.3 - 1.6	GLONASS SVs:	5/5
Solution Type:	Phase Fixed	HDOP:	0.7 - 0.9	Beidou SVs:	0/3
		VDOP:	1.1 - 1.3	Galileo SVs:	5/5
				QZSS SVs:	-

Ephemeris Type:	
GPS	Precise
GLONASS	Precise
Beidou	Broadcast
Galileo	Precise

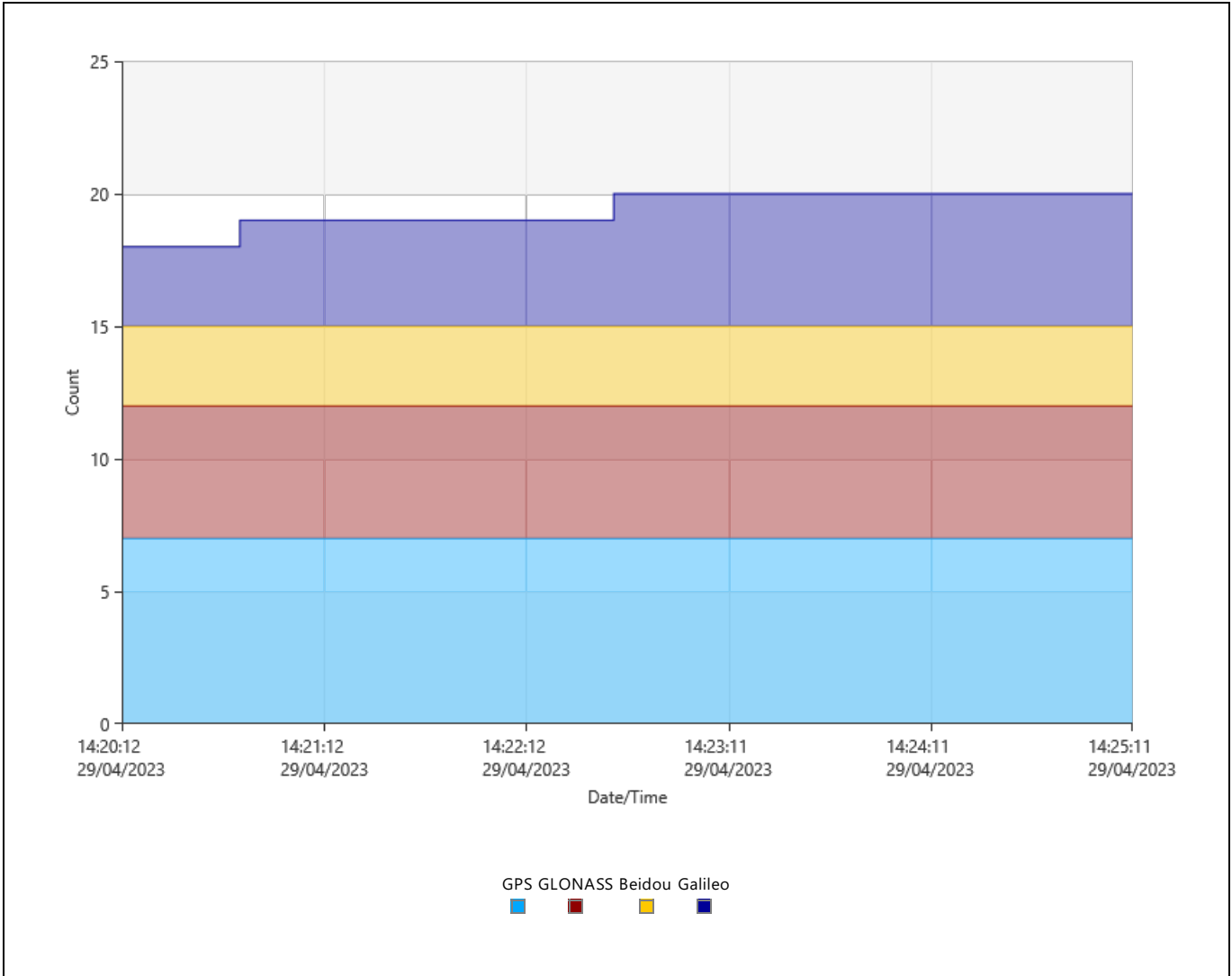
Processing Info (29/04/2023 14:20:12 - 29/04/2023 14:25:12)

Processed Date/Time: 10/05/2023 10:49:26

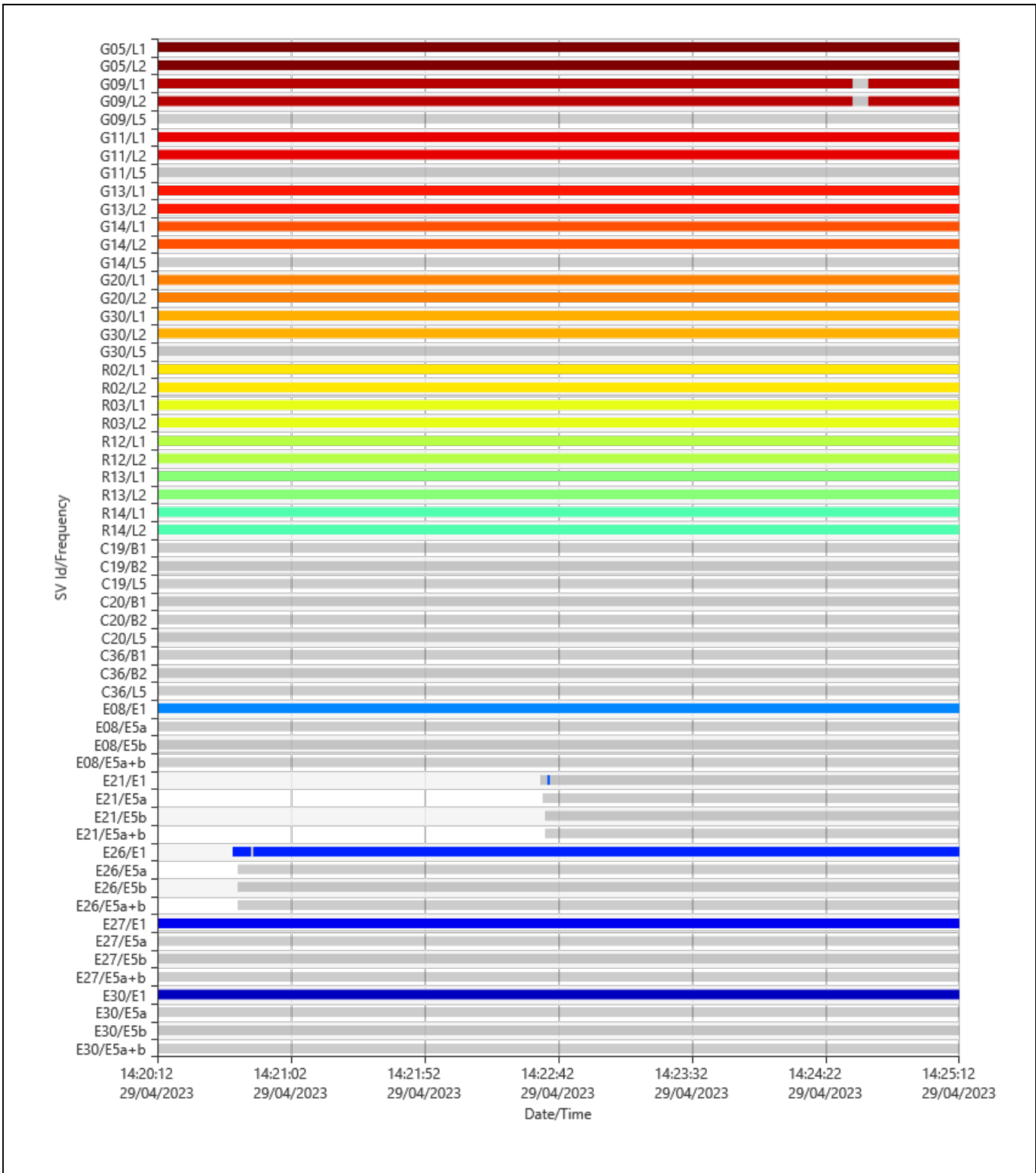
Satellites

Satellite System	Used	Manually Disabled
GPS	G05 G09 G11 G13 G14 G20 G30	-
GLONASS	R02 R03 R12 R13 R14	-
Galileo	E08 E21 E26 E27 E30	-

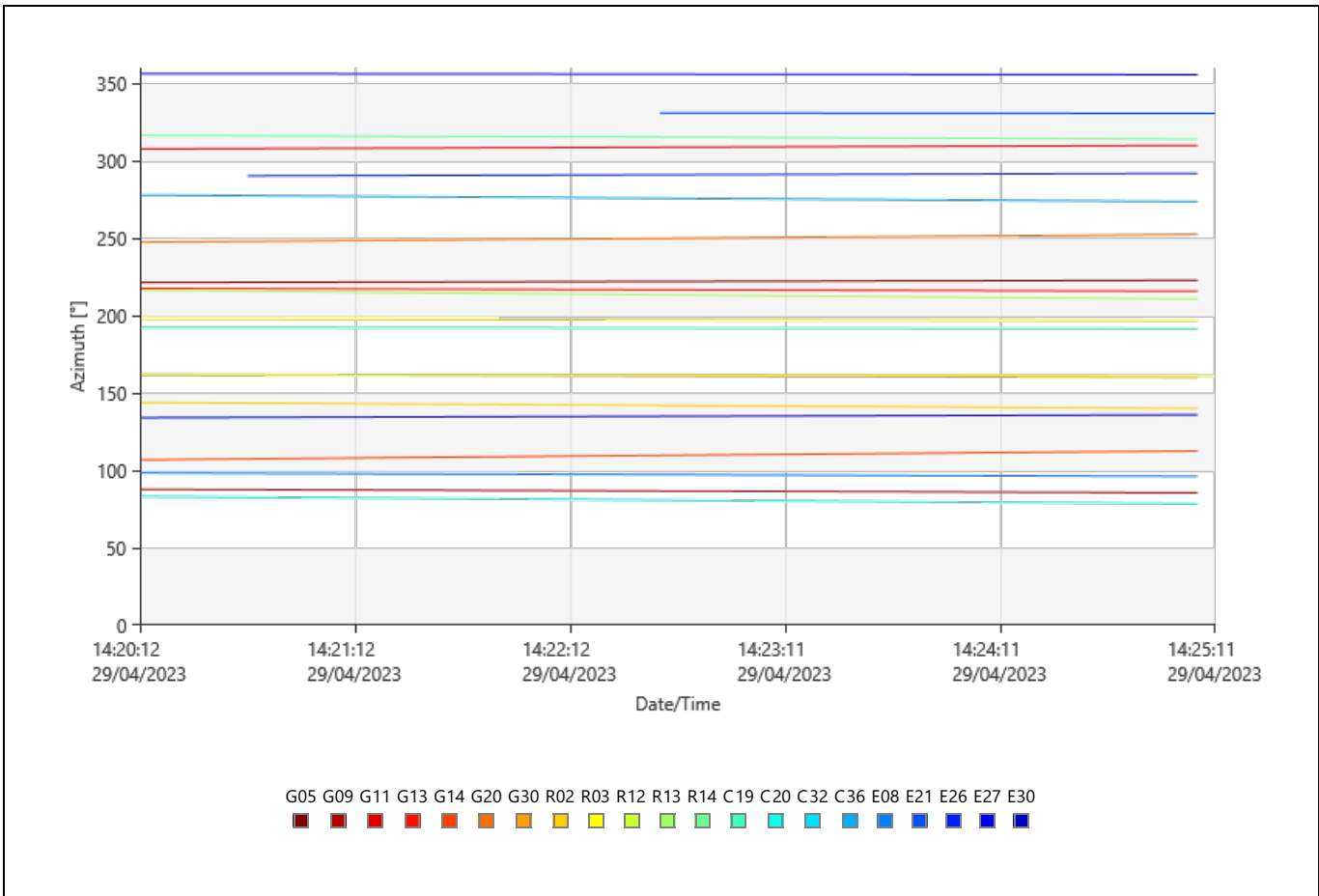
SVs Tracked



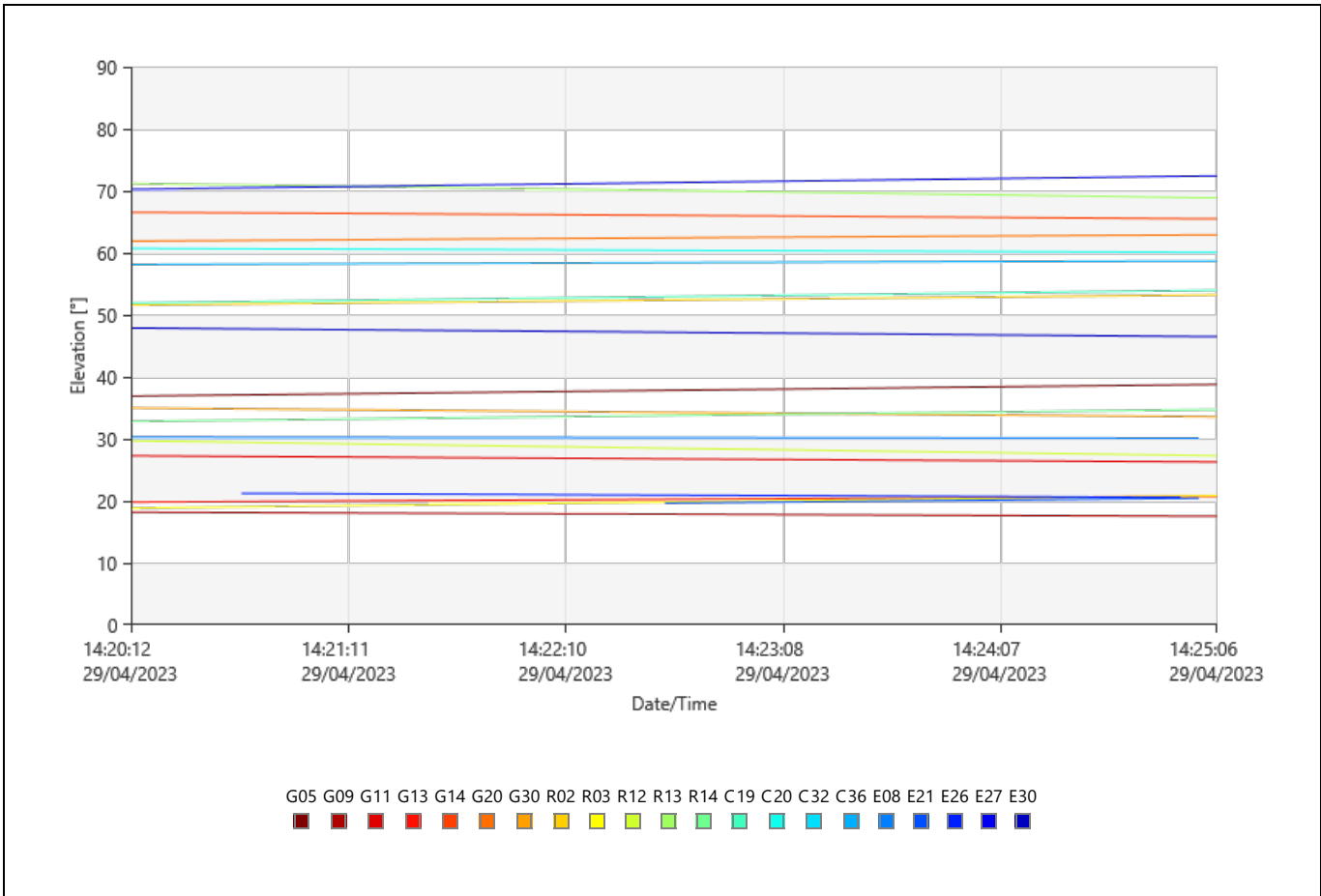
Signals Tracked



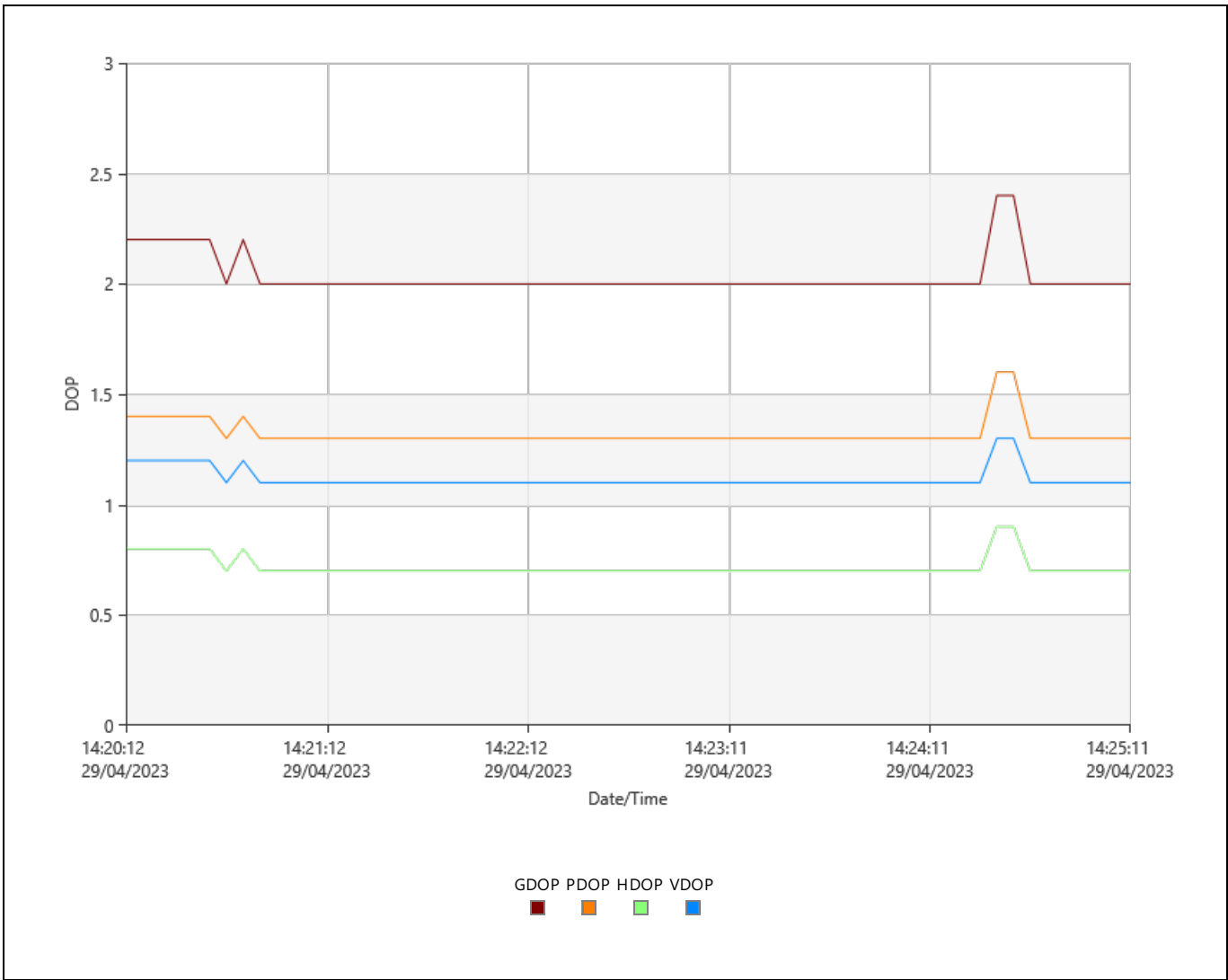
Azimuth



Elevation



DOP



Observation Statistics

Common Epochs: 301

GPS Observations

Frequency	Used	Rejected
L1	2,101	6
L2	2,101	6
L5	0	1,204

GLONASS Observations

Frequency	Used	Rejected
L1	1,505	0
L2	1,505	0

Beidou Observations

Frequency	Used	Rejected
B1	0	903
B2	0	903
L5	0	903

Galileo Observations

Frequency	Used	Rejected
E1	1,176	158
E5a	0	1,331
E5b	0	1,330
E5a+b	0	1,330

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Beidou	Galileo
Fixed	16	10	0	5
Total	16	10	6	6
Independently fixed	37	37	0	37
Possible independently fixed	37	37	37	37

Average time between independent fixes: 00:00:06

% of Epochs	GPS		GLONASS		Beidou		Galileo
	L1 [%]	L2 [%]	L1 [%]	L2 [%]	B1 [%]	B2 [%]	E1 [%]
Fixed	100.00	100.00	100.00	100.00	0.00	0.00	99.85
Not fixed	0.00	0.00	0.00	0.00	100.00	100.00	0.15
Not fixed - contradiction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not fixed - missing phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Fixed	29/04/2023 14:20:12	29/04/2023 14:25:12	00:05:00

Computed Ionospheric Model

Models: 1
Sampling Rate: 30 sec
Height of Single Layer: 350 km

Model 1

Origin Latitude: 12° 34' 42.70348" S Valid from Epoch: 29/04/2023 10:20:43
Origin Longitude: 75° 34' 07.66850" W Valid until Epoch: 29/04/2023 16:23:12
Origin Date/Time: 29/04/2023 10:20:43

Deg. Latitude	Deg. Time	Value	RMS
0	0	4.1671398673	0.0146328649
0	1	1.5529358702	0.0136129134
0	2	-0.3563510954	0.0038722468
1	0	0.2623461216	0.0070458497
1	1	-0.0425440560	0.0040052869

Residuals

Tracking Status

G05

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

G09

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:24:32	Used
	29/04/2023 14:24:32	29/04/2023 14:24:38	Rejected
	29/04/2023 14:24:38	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:24:32	Used
	29/04/2023 14:24:32	29/04/2023 14:24:38	Rejected
	29/04/2023 14:24:38	29/04/2023 14:25:12	Used
L5	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

G11

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L5	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

G13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

G14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L5	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

G20

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

G30

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

L5	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
----	---------------------	---------------------	----------

R02

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

R03

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

R12

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

R13

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

R14

Frequency	From Epoch	To Epoch	Status
L1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
L2	29/04/2023 14:20:12	29/04/2023 14:25:12	Used

E08

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
E5a	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
E5b	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
E5a+b	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

E21

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:20:12	29/04/2023 14:22:35	No Data
	29/04/2023 14:22:35	29/04/2023 14:22:38	Rejected
	29/04/2023 14:22:38	29/04/2023 14:22:39	Used
	29/04/2023 14:22:39	29/04/2023 14:25:12	Rejected
E5a	29/04/2023 14:20:12	29/04/2023 14:22:36	No Data
	29/04/2023 14:22:36	29/04/2023 14:25:12	Rejected
E5b	29/04/2023 14:20:12	29/04/2023 14:22:37	No Data
	29/04/2023 14:22:37	29/04/2023 14:25:12	Rejected
E5a+b	29/04/2023 14:20:12	29/04/2023 14:22:37	No Data
	29/04/2023 14:22:37	29/04/2023 14:25:12	Rejected

E26

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:20:12	29/04/2023 14:20:40	No Data
	29/04/2023 14:20:40	29/04/2023 14:20:47	Used
	29/04/2023 14:20:47	29/04/2023 14:20:48	Rejected
	29/04/2023 14:20:48	29/04/2023 14:25:12	Used
E5a	29/04/2023 14:20:12	29/04/2023 14:20:42	No Data
	29/04/2023 14:20:42	29/04/2023 14:25:12	Rejected
E5b	29/04/2023 14:20:12	29/04/2023 14:20:42	No Data
	29/04/2023 14:20:42	29/04/2023 14:25:12	Rejected
E5a+b	29/04/2023 14:20:12	29/04/2023 14:20:42	No Data
	29/04/2023 14:20:42	29/04/2023 14:25:12	Rejected

E27

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
E5a	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
E5b	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
E5a+b	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

E30

Frequency	From Epoch	To Epoch	Status
E1	29/04/2023 14:20:12	29/04/2023 14:25:12	Used
E5a	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
E5b	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
E5a+b	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

C19

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
B2	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
L5	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

C20

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
B2	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
L5	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

C36

Frequency	From Epoch	To Epoch	Status
B1	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
B2	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected
L5	29/04/2023 14:20:12	29/04/2023 14:25:12	Rejected

Cycle Slips

Slip Count: 2

SV	Frequency	Epoch	Slip Value	Flag
E21	E1	29/04/2023 14:22:38	-	RIA
E26	E1	29/04/2023 14:20:48	-	Flagged

UCS: Unflagged cycle slip. The cycle slip was not flagged in the data but was found by Infinity.

RIA: Re-initialised ambiguity. The cycle slip could not be fixed and the ambiguity search was re-initialised afterwards.

Flagged: The cycle slip was flagged in the data.

Processing Messages

Warning

Missing orbits for satellite R10.

Missing orbits for satellite R23.

No Beidou precise ephemeris available, switched to broadcast ephemeris.

Anexo A.2.3

Plano general de ubicación del punto geodésico con código C02



Minera IRL S.A.



Oefa

Junio de 2023

2023-E01-478317

20/06/2023 16:33:04

Recepcion:
DCHUNG

CARTA N° 040-2023-MIRL-AA-OEFA

**Director de la Dirección de Supervisión Ambiental en Energía y Minería
Organismo de Evaluación y Fiscalización Ambiental (OEFA)**

Presente.-

Asunto: Presenta Requerimiento de Información

Referencia: Carta N° 00188-2023-OEFA/DEAM

Expediente N° 0006-2023-DSEM-CMIN

MINERA IRL S.A., identificada con RUC N° **20505174896**, con domicilio en Av. Santa Cruz N° 830, Oficina 401, Miraflores, Lima, debidamente representada por su Gerente General el Señor Diego Benavides Norlander, identificado con DNI N° 07271705, con poder inscrito en el asiento A00001 de la Partida Registral N° 11409657 del Registro de Personas Jurídicas de Lima; a usted atentamente decimos:

Que, mediante Carta N° 00188-2023-OEFA/DEAM de fecha 13 de junio de 2023, el OEFA requiere la empresa la siguiente información:

- *Plano general de ubicación de puntos geodésicos en el que se encuentre el punto geodésico código C02.*

Minera IRL S.A., mediante el presente escrito cumple con presentar la información requerida dentro del plazo otorgado.

POR TANTO

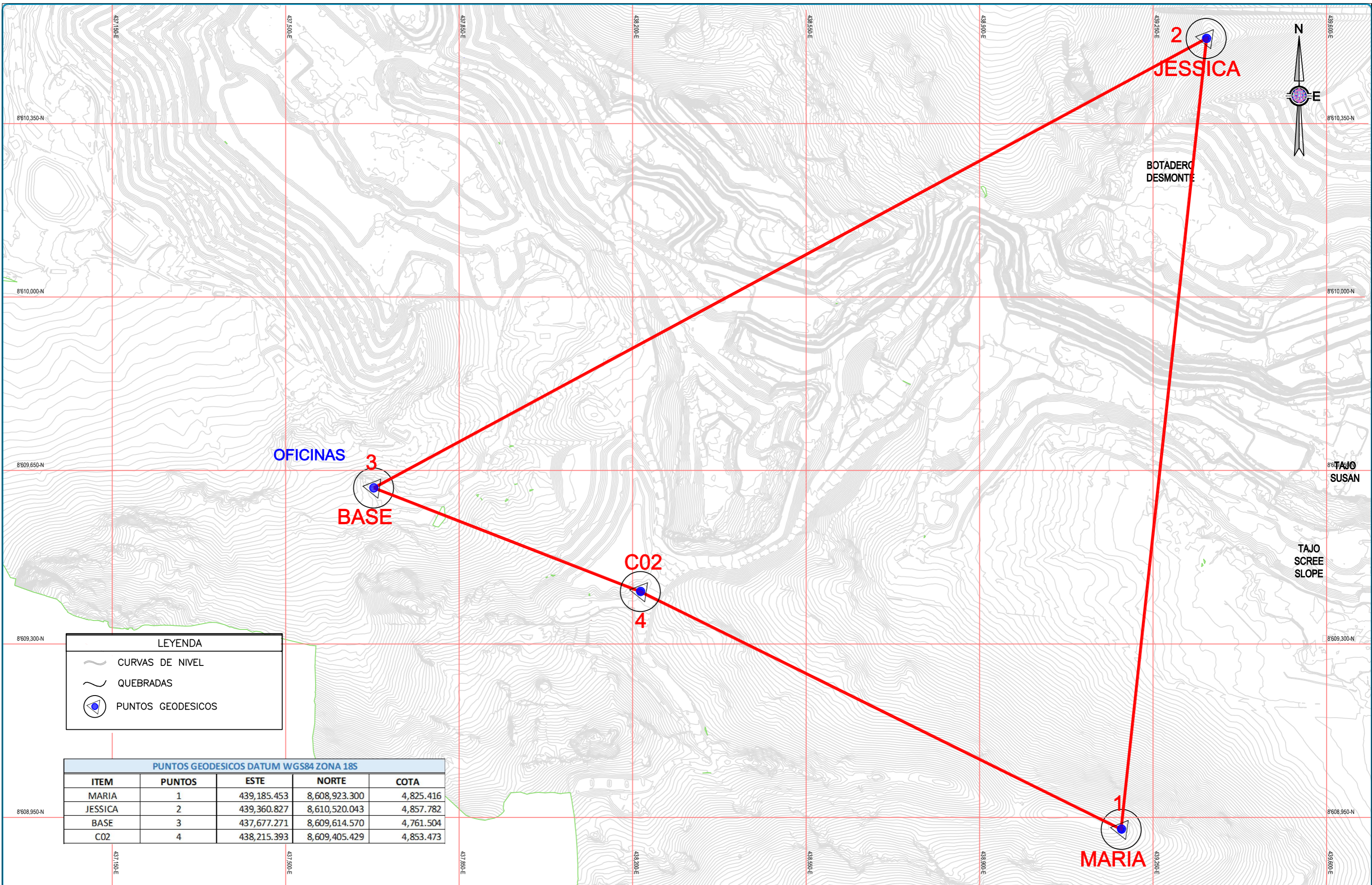
Agradeciendo la gentil atención a la presente, quedo a su disposición.

Atentamente,

Diego Benavides Norlander

Gerente General

Minera IRL S.A.



LEYENDA	
	CURVAS DE NIVEL
	QUEBRADAS
	PUNTOS GEODESICOS

PUNTOS GEODESICOS DATUM WGS84 ZONA 18S				
ITEM	PUNTOS	ESTE	NORTE	COTA
MARIA	1	439,185.453	8,608,923.300	4,825.416
JESSICA	2	439,360.827	8,610,520.043	4,857.782
BASE	3	437,677.271	8,609,614.570	4,761.504
C02	4	438,215.393	8,609,405.429	4,853.473

PLANO N°	PLANOS DE REFERENCIA	REV.	FECHA	DESCRIPCION DE LA REVISION	DIS.	REV.	APR.
0		15/06/2022			R. H.	O. B.	MIRL

CONFIDENCIALIDAD Y RESPONSABILIDAD LEGAL
 Este plano y la información contenida son propiedad de Minera IRL. Su uso sin previa autorización está prohibida, cualquier adaptación o modificación de la información o del plano será a solo riesgo y sin ninguna obligación o responsabilidad legal por M.I.R.L.



DISEÑADO:	R. HERRERA	16/06/2023
DIBUJADO:	R. HERRERA	16/06/2023
REVISADO:	O. BENITO	16/06/2023
APROBADO:	L. AMES	16/06/2023
APRB. CLIENT:		16/06/2023

MINERA IRL S.A. - CORIHUARMI		
PLANO GENERAL DE PUNTOS GEODESICOS C02		
ESCALA:	1/700	NÚMERO DE PLANO: MIRL-PGG-C02
REV:	A	

Anexo A.3

Ortomosaico RGB



PERÚ

Ministerio
del Ambiente

Organismo de Evaluación y
Fiscalización Ambiental - OEFA

STEC: Subdirección Técnica
Científica

Decenio de la Igualdad de Oportunidades para Mujeres y Hombres
"Año de la unidad, la paz y el desarrollo"

Ortomosaico RGB

**Zona 1 - UF Corihuarmi
(a precisión centimétrica)**



**Zona 2 - UF Corihuarmi
(a precisión centimétrica)**





PERÚ

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Decenio de la Igualdad de Oportunidades para Mujeres y Hombres
"Año de la unidad, la paz y el desarrollo"

**Zona 3 - UF Corihuarmi
(a precisión centimétrica)**



Anexo A.4

Modelos de elevación digital



PERÚ

Ministerio
del Ambiente

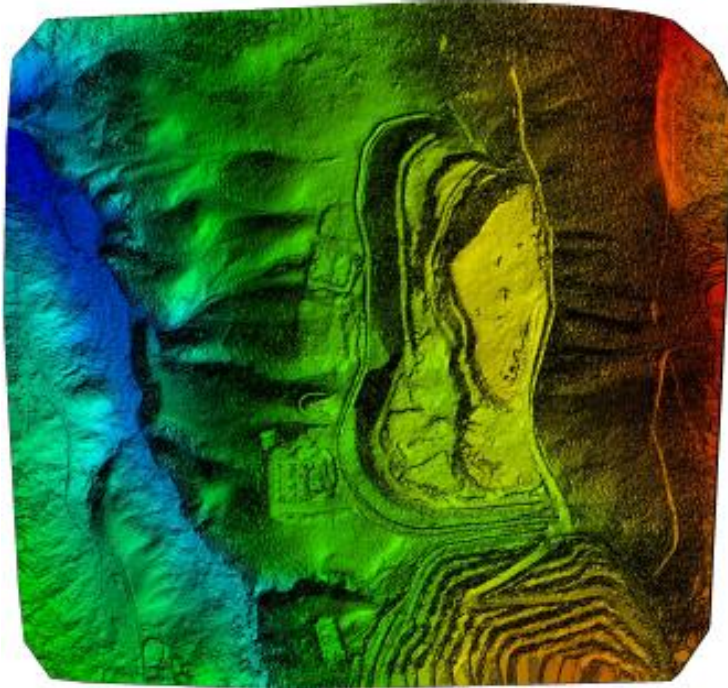
Organismo de Evaluación y
Fiscalización Ambiental - OEFA

STEC: Subdirección Técnica
Científica

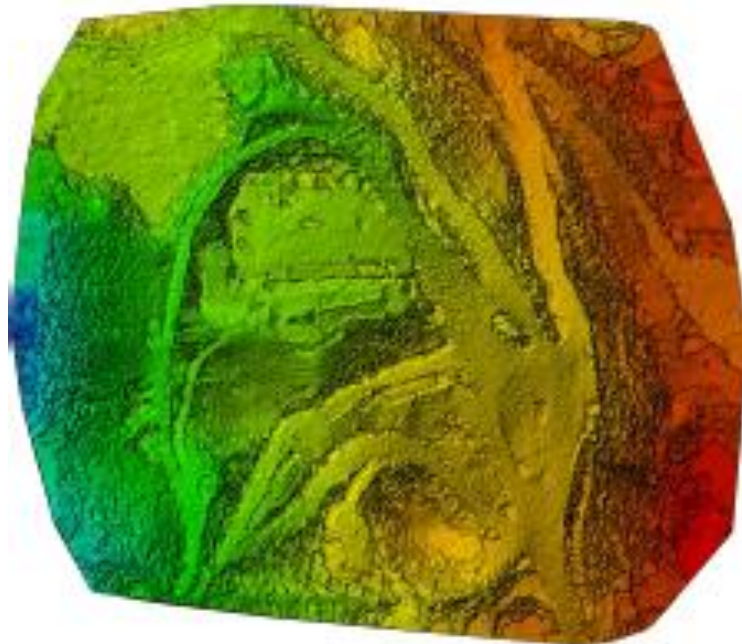
Decenio de la Igualdad de Oportunidades para Mujeres y Hombres
"Año de la unidad, la paz y el desarrollo"

Modelo de elevación digital

**Zona 1 - UF Corihuarmi
(a precisión centimétrica)**



**Zona 2 - UF Corihuarmi
(a precisión centimétrica)**





PERÚ

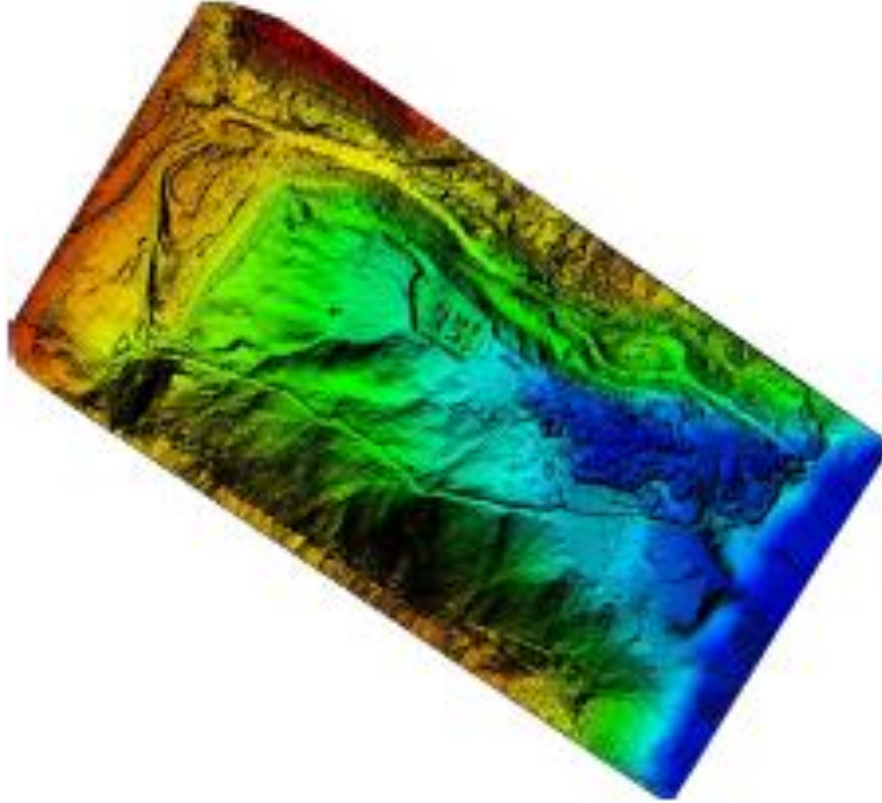
Ministerio
del Ambiente

Organismo de Evaluación y
Fiscalización Ambiental - OEFA

STEC: Subdirección Técnica
Científica

Decenio de la Igualdad de Oportunidades para Mujeres y Hombres
"Año de la unidad, la paz y el desarrollo"

**Zona 3 - UF Corihuarmi
(a precisión centimétrica)**



Anexo A.5

Metodología del levantamiento fotogramétrico



Título : Metodología del levantamiento fotogramétrico con RPAS y DGPS en la unidad fiscalizable Corihuarmi

Fecha de ejecución : Del 25 de abril al 03 de mayo de 2023

Ámbito de estudio : Zona 1, Zona 2 y Zona 3 de la unidad fiscalizable Corihuarmi, ubicada en los distritos Chongos Alto y Huantán, provincias Huancayo y Yauyos, departamento Junín y Lima, en abril y mayo de 2023.

Unidad Fiscalizable : Corihuarmi

1. METODOLOGÍA

Para el levantamiento fotogramétrico con RPAS y DGPS se utilizaron los siguientes documentos:

- La Guía Metodológica para la «Obtención de Productos Cartográficos Generados a partir de Imágenes RPAS a escala 1:1000 elaborado por el Instituto Geográfico Nacional - IGN» (Ver tabla 1.1).
- El protocolo para operaciones de los RPAS, elaborado por el Centro Nacional de Estimación, Prevención y Reducción del Riesgo de Desastres – CENEPRED (Ver tabla 1.1).

Se siguió una secuencia de pasos por cada etapa, que se resumen en el siguiente esquema metodológico:

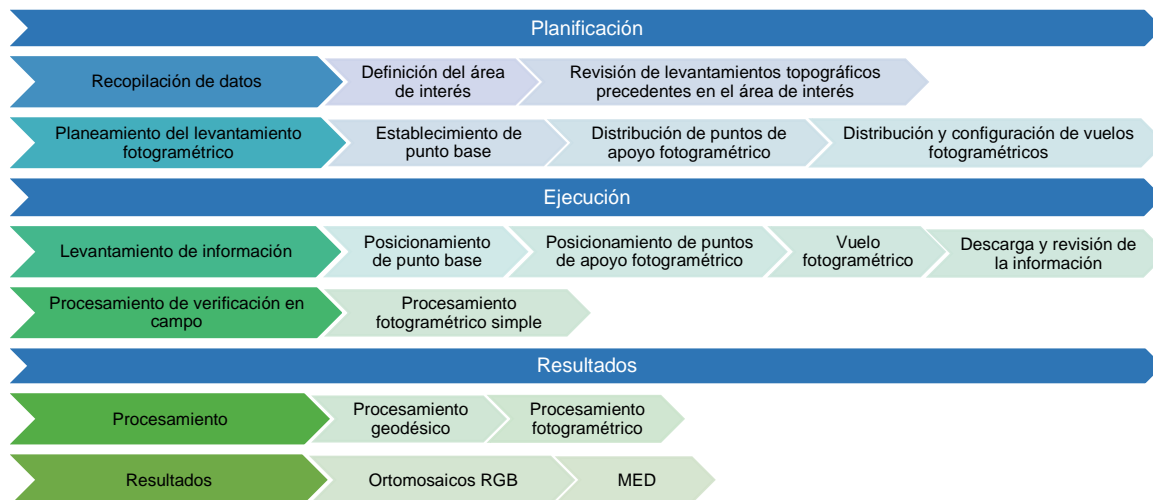


Figura 1.1. Esquema metodológico para el levantamiento fotogramétrico con RPAS y DGPS



i. Planificación:

- **Recopilación de datos:** Se definió las áreas de interés, el cual permitió reconocer a grandes rasgos las características del terreno con apoyo del programa *Google Earth*¹.
- **Planeamiento del levantamiento fotogramétrico:** Se estableció un punto base y se distribuyeron puntos de apoyo fotogramétrico (en adelante, PAF). Posteriormente, se establecieron los planes de vuelo que cubren el área de interés, en base a un GSD² proyectado y con el uso de la aplicación *Dronedeploy*³ con seguimiento al terreno, donde se configuraron parámetros fundamentales, tales como: Estilo de vuelo, altura de vuelo, solapamiento entre las ortofotos, ángulo de la cámara y velocidad de barrido; asimismo, se revisaron los pronósticos meteorológicos y campo magnético mediante las aplicaciones *UAV Forecast*⁴ y *Magnetology*⁵, respectivamente.

ii. Ejecución:

- **Levantamiento de información:** En campo previo a un reconocimiento de zonas accesibles y seguras se procedió al «*establecimiento del punto de estación base*» y «*distribuyeron puntos de apoyo fotogramétrico*», mediante el uso de equipos DGPS (marca Leica) y marcas terrestres fotoidentificables (dianas), para el ajuste en el postproceso del levantamiento en la Zona 1, Zona 2 y Zona 3 de la unidad fiscalizable Corihuarmi (en adelante, UF Corihuarmi). Se realizó un reconocimiento del área de trabajo con la finalidad de tener un vuelo seguro, por lo que se corroboraron las condiciones meteorológicas del lugar, también se consideraron los diferentes obstáculos como torres de alta tensión, antenas u otros factores que puedan bloquear la comunicación entre el operador y el RPA⁶. Se mantuvo la opción de «los planeamientos de vuelo», y se seleccionó el tipo de misión procediendo con la ejecución de los vuelos.

Se capturó una secuencia ortofotos mediante once (11) misiones de vuelo para cubrir la Zona 1, Zona 2 y Zona 3 de la UF Corihuarmi teniendo en cuenta la altura de vuelo que fue de 130 y 160 m. Se consideró un solapamiento de 75% frontal y 65% lateral en todos los casos para evitar la ocurrencia de vacíos en el ortomosaico final.

- **Procesamiento de validación en campo:** Una vez culminada las misiones de vuelo por día, se procedió a realizar el procesamiento simple de la información, con el objetivo de identificar si se realizó una captura correcta, es decir sin vacíos mediante la verificación de las ortofotos tomadas y al mismo tiempo esta información sirvió de insumo para la verificación de áreas en la evaluación y elaboración de acta de cierre. Posteriormente se realizó el procesamiento en calidad alta en gabinete.

1 Plataforma virtual del globo terráqueo.

2 Del inglés Ground Sample Distance – distancia de muestra en el terreno.

3 Aplicativo móvil libre solo para Android.

4 Aplicativo móvil libre.

5 Aplicativo móvil libre.

6 Del inglés Remotely Piloted Aircraft (RPA). Aeronave pilotada por un "piloto remoto". Resolución Directoral N.º 501-2015-MTC/12: Norma Técnica Complementaria: «Requisitos para las operaciones de Sistemas de Aeronaves Pilotadas a Distancia».

**iii. Resultados:**

- **Procesamiento:** El procesamiento geodésico se realizó mediante el *software Leica Infinity*⁷ (Anexo A.2.2), mientras que el procesamiento fotogramétrico se realizó mediante el *software PIX4Dmapper*⁸ (Anexo A.1.2).
- **Resultados:** Los resultados finales son el MED y el ortomosaico RGB a precisión centimétrica para la Zona 1, Zona 2 y Zona 3 de la UF Corihuarmi.

1.1. Guías o referencias utilizadas para el estudio

Las guías o referencias utilizadas para el levantamiento fotogramétrico con RPAS y DGPS se detallan en la Tabla 1.1.

Tabla 1.1 Referencias empleadas para el levantamiento fotogramétrico

Matriz	Nombre	Sección	Dispositivo Legal	Entidad	País	
Superficie terrestre	Especificaciones técnicas para posicionamiento geodésico estático relativo con receptores del Sistema Satelital de Navegación Global	Todas las secciones	Resolución Jefatural N° 139-2015-IGN/UCCN	Instituto Geográfico Nacional (IGN)	Perú	
	Norma Técnica Complementaria: «Requisitos para las operaciones de Sistemas de Aeronaves Pilotadas a Distancia»	Todas las secciones	Resolución Directoral N.º 501-2015-MTC/12	Dirección General de Aeronáutica Civil – Ministerio de Transportes y Comunicaciones	Perú	
	Protocolo para la operación de los sistemas de aeronaves pilotadas a distancia (RPAS)	Anteproyecto de vuelo de RPAS (Pre-vuelo) / Trabajo de campo (Pre-vuelo) / Vuelo de RPAS (campo)		Resolución Jefatural N.º 051-2017-CENEPRED/J	Centro Nacional de Estimación, Prevención y Reducción del Riesgo de Desastres - CENEPRED	Perú
	Obtención de Productos Cartográficos generados a partir de Imágenes RPAS Escala 1:1000	Todas las secciones		Resolución Directoral N.º 148-2018/IGN/DC/DCE	Instituto Geográfico Nacional (IGN)	Perú
	Leica Infinity Help, Versión 3.1.1	Todas las secciones		No aplica	No aplica	-
	Pix4Dmapper 4.1 User Manual	Todas las secciones		No aplica	Pix4D	Suiza

1.2. LEVANTAMIENTO DE INFORMACIÓN GEODÉSICO

El levantamiento de información geodésico consistió en la instalación de una (1) estación Base en un punto con nueva coordenada llamado C02-COR-01, el cual permaneció

⁷ Software con licencia institucional

⁸ Software con licencia institucional



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aproximadamente de 3 a 5 horas para la colecta de datos GNSS⁹ continua con el método estático. Posteriormente se colectaron datos en quince (15) puntos de apoyo fotogramétrico (en adelante, PAF) en la Zona 1, Zona 2 y Zona 3 de la UF Corihuarmi, con la estación móvil por un tiempo de 10 minutos aproximadamente por cada PAF con la finalidad de obtener un correcto proceso de grabación de los datos GNSS. Cabe mencionar que, se colectaron datos de veinticuatro (24) puntos adicionales con el equipo DGPS a pedido del área usuaria, pero estos no se consideraron en el procesamiento fotogramétrico.

La medición de los puntos se realizó mediante el método estático, este tipo de medición se utilizó puesto que se requería obtener coordenadas de un punto de manera precisa y confiable (Pachas, 2009)¹⁰. Al finalizar el tiempo de medición de cada estación usada como Rover, se apagó el equipo DGPS y se procedió a iniciar la toma de datos en los otros puntos. Asimismo, el apagado de equipo DGPS base se realizó al finalizar la jornada laboral. Se descargaron los datos de los equipos en formato RINEX para su post procesamiento.

La medición de los datos geodésicos se realizó en las ubicaciones definidas de los PAF para la colocación de las marcas terrestres fotoidentificables (dianas), con la finalidad que en el sobrevuelo sean capturadas y apoye en el ajuste fotogramétrico de las ortofotos para obtener una precisión centimétrica, tal como se muestra en las figuras 1.2. 1.3. y 1.4.

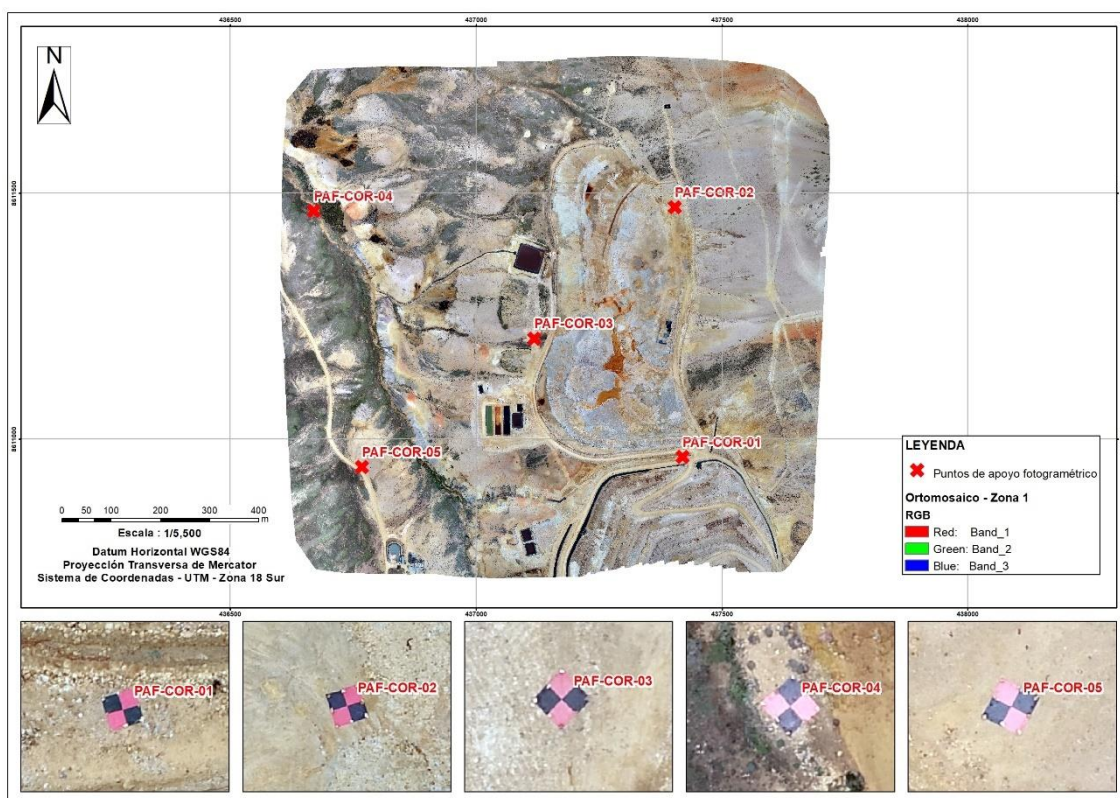


Figura 1.2. Ubicación de los PAF en la Zona 1 de la UF Corihuarmi

⁹ Del inglés Global Navigation Satellite System - sistema global de navegación por satélite
¹⁰ Pachas, R. (2009). El levantamiento topográfico: uso del GPS y estación total. Academia.



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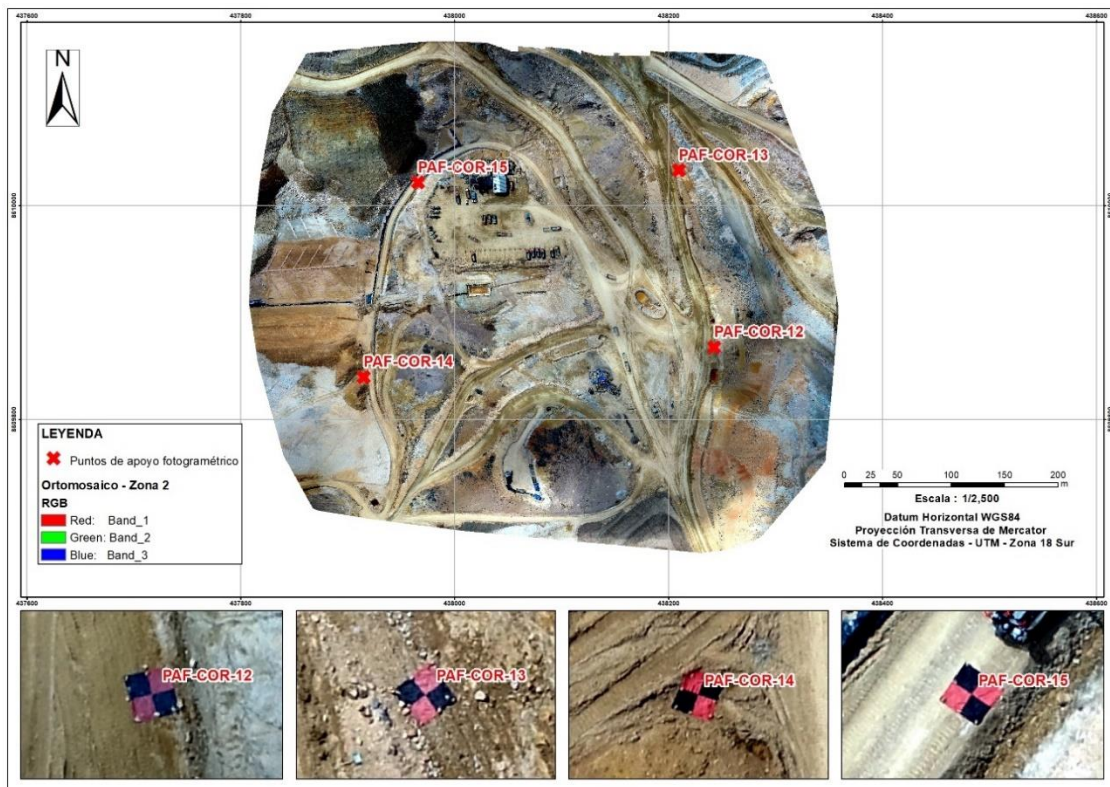


Figura 1.3. Ubicación de los PAF en la Zona 2 de la UF Corihuarmi

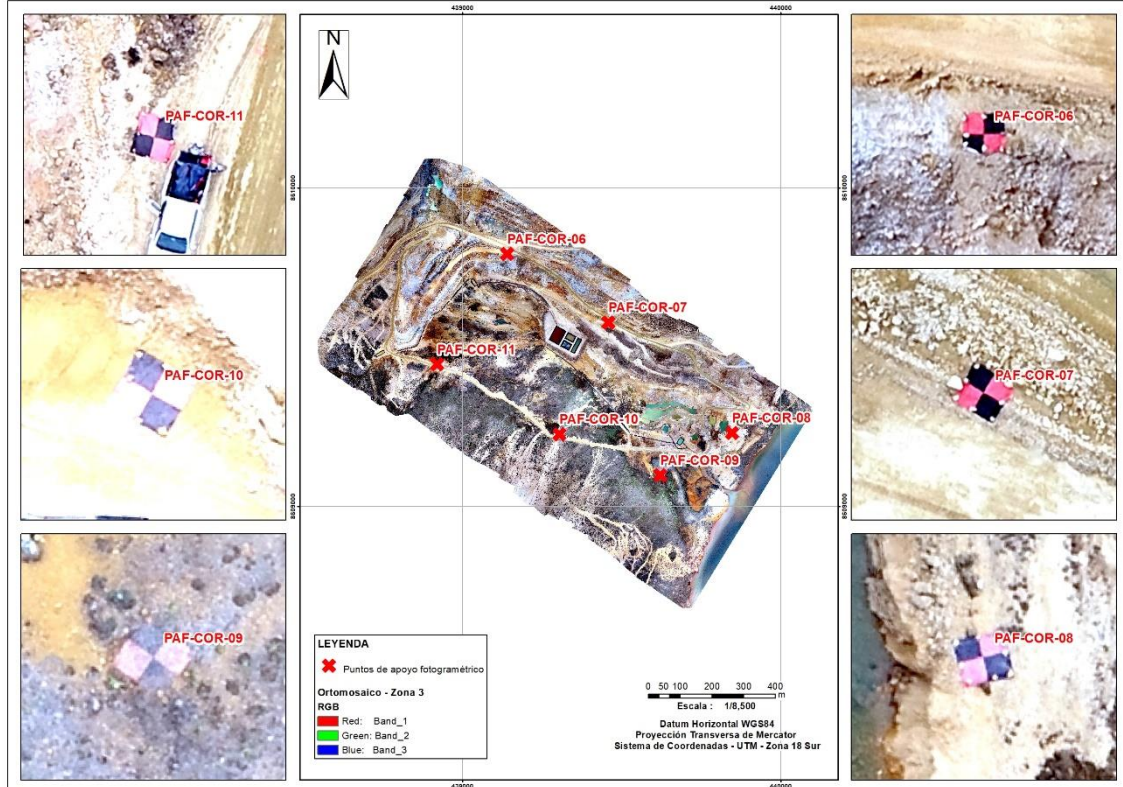


Figura 1.4. Ubicación de los PAF en la Zona 3 de la UF Corihuarmi



1.3. PROCESAMIENTO DE DATOS GEODÉSICOS

Para el procesamiento de datos geodésicos se utilizó el punto geodésico código C02, al cual se le denominó «C02-COR-01», cuyas coordenadas fueron indicadas por el administrado de la UF Corihuarmi¹¹.



Figura 1.5. Ubicación del Punto Base C02-COR-01

En el procesamiento de datos GNSS se utilizó el *software* *Leica Infinity* el cual cuenta con funciones necesarias para ejecutar proyectos completos y generar reportes. Concluida la captura de datos, se descargan los datos crudos en formato RINEX guardados en la tarjeta microSD, posteriormente se siguen los siguientes pasos:

- Creación de la carpeta "trabajo"
- Configuración de sistema de coordenadas WGS84 UTM Zona 18 Sur y modelo matemático de geoide EGM 2008¹²
- Importación de archivos de mediciones GNSS y depuración de datos
- Edición de parámetros de antena y configuración de procesamiento GNSS
- Definición de puntos de control y procesamiento GNSS
- Generación de reportes del procesamiento GNSS

¹¹ Coordenadas remitidas por el administrado mediante Carta N.º 040-2023-MIRL-AA-OEFA (HT 2023-E01-478317)

¹² EGM 2008 - Modelo matemático de geoide a escala global desarrollado por la National Geospatial Intelligence Agency (NGA) de los Estados Unidos de América en el año 2008. Se trata de un modelo establecido para la transformación entre alturas. – IGN (2015).



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En la Tabla 1.2 se listan las coordenadas PAF precisas.

Tabla 1.2 Coordenadas PAF precisas

N.º	Sector / Zona	N.º Reporte de software de procesamiento geodésico	Código	Coordenadas UTM WGS 84		Altura ortométrica (m)	Método	Precisión 3D (m)	Precisión 2D (m)	Precisión 1D (m)
				Zona 18 Sur						
				Este (m)	Norte (m)					
1	ZONA 1	RSPG-005-2023-ITEGI	PAF-COR-01	437420,31	8610963,07	4705,78	Estático	0,0002	0,0001	0,0002
2			PAF-COR-02	437404,09	8611471,11	4734,93	Estático	0,0003	0,0001	0,0002
3			PAF-COR-03	437118,01	8611203,77	4696,28	Estático	0,0003	0,0001	0,0003
4			PAF-COR-04	436670,42	8611463,18	4640,17	Estático	0,0003	0,0001	0,0003
5			PAF-COR-05	436768,14	8610942,24	4665,84	Estático	0,0003	0,0001	0,0002
6	ZONA 3		PAF-COR-06	439140,30	8609792,40	4741,88	Estático	0,0003	0,0001	0,0003
7			PAF-COR-07	439458,56	8609577,24	4708,72	Estático	0,0003	0,0001	0,0002
8			PAF-COR-08	439846,59	8609230,43	4677,12	Estático	0,0002	0,0001	0,0002
9			PAF-COR-09	439621,31	8609097,48	4682,84	Estático	0,0002	0,0001	0,0002
10			PAF-COR-10	439304,51	8609226,29	4695,63	Estático	0,0002	0,0001	0,0002
11			PAF-COR-11	438920,33	8609445,23	4719,47	Estático	0,0004	0,0002	0,0004
12	ZONA 2		PAF-COR-12	438242,84	8609867,31	4811,64	Estático	0,0003	0,0002	0,0003
13			PAF-COR-13	438210,01	8610032,64	4821,22	Estático	0,0002	0,0001	0,0002
14			PAF-COR-14	437915,07	8609839,40	4776,39	Estático	0,0002	0,0001	0,0002
15			PAF-COR-15	437965,99	8610021,22	4781,52	Estático	0,0006	0,0003	0,0006
16	ZONA 1	RSPG-006-2023-ITEGI ^(*)	L1-1	437144,13	8611250,88	4699,87	Estático	0,0003	0,0002	0,0002
17			L1-2	437115,66	8611142,16	4697,06	Estático	0,0003	0,0002	0,0003
18			L2-1	437156,61	8611247,36	4700,40	Estático	0,0003	0,0002	0,0003
19			L2-2	437122,29	8611138,69	4697,49	Estático	0,0003	0,0002	0,0003
20			L3-1	437165,42	8611245,22	4700,26	Estático	0,0003	0,0002	0,0002
21			L3-2	437128,93	8611137,16	4697,59	Estático	0,0003	0,0002	0,0003
22			L4-2	437150,63	8611011,97	4697,71	Estático	0,0005	0,0002	0,0004
23			L4-1	437122,24	8611118,44	4697,41	Estático	0,0004	0,0002	0,0004
24			L5-1	437098,68	8611103,50	4696,48	Estático	0,0006	0,0003	0,0005
25			L5-2	437102,79	8610988,46	4694,69	Estático	0,0004	0,0002	0,0003
26			L6-1	437054,90	8611094,65	4694,42	Estático	0,0004	0,0002	0,0003
27			L6-2	437052,66	8610981,06	4,692,70	Estático	0,0006	0,0003	0,0005
28			L7-1	436985,94	8611104,35	4681,90	Estático	0,0003	0,0002	0,0003
29			L7-2	436991,96	8610990,65	4684,08	Estático	0,0004	0,0002	0,0004
30			L8-1	436950,95	8611115,05	4675,08	Estático	0,0004	0,0002	0,0003
31			L8-2	436952,25	8611000,89	4674,32	Estático	0,0005	0,0002	0,0004
32			ZONA 3	TSS-01-I	439170,40	8609713,92	4704,25	Estático	0,0004	0,0002
33	TSS-01-F	439278,54		8609677,16	4703,33	Estático	0,0004	0,0002	0,0003	



N.º	Sector / Zona	N.º Reporte de software de procesamiento geodésico	Código	Coordenadas UTM WGS 84 Zona 18 Sur		Altura ortométrica (m)	Método	Precisión 3D (m)	Precisión 2D (m)	Precisión 1D (m)
				Este (m)	Norte (m)					
34			TSS-02-I	439160,67	8609696,17	4704,13	Estático	0,0004	0,0002	0,0003
35			TSS-02-F	439264,56	8609651,47	4697,76	Estático	0,0004	0,0002	0,0003
36			TSS-03-I	439112,80	8609680,12	4701,66	Estático	0,0006	0,0002	0,0005
37			TSS-03-F	439222,16	8609705,93	4704,92	Estático	0,0004	0,0002	0,0003
38			TSS-04-I	439150,16	8609682,59	4697,65	Estático	0,0012	0,0005	0,0011
39			TSS-04-F	439254,38	8609637,47	4693,11	Estático	0,0007	0,0003	0,0006

(*) Puntos adicionales colectados con el DGPS

1.4. PROCESAMIENTO DE LA INFORMACIÓN FOTOGRAMÉTRICA

En el procesamiento fotogramétrico se utilizó el *software PIX4Dmapper*, el cual conllevó la ejecución de las siguientes actividades:

a. Importación de ortofotos al proyecto

Se creó un nuevo proyecto en el software PIX4Dmapper donde se realizó un filtro de ortofotos que no calibraron correctamente, es decir aquellas ortofotos que no aportan detalles estructurales y de terreno como parte del aseguramiento de la calidad. Posteriormente se definirá el sistema de coordenadas horizontal de Datum WGS 84 proyección UTM Zona 18 Sur y sistema de coordenadas verticales EGM2008. Finalmente se deberá elegir una plantilla de procesamiento «*Mapas 3D*».

b. Proceso inicial

El proceso inicial en el software PIX4Dmapper consiste en la orientación de las ortofotos y una nube de puntos inicial.

Para realizar el procesamiento inicial nos dirigimos a la zona de procesos y seleccionamos «*1. Procesamiento Inicial*», luego en las opciones de proceso se configura la calidad de producto, donde en la escala de imagen para puntos clave se eligió «*Rápida*»

a. Importación e Identificación de PAF

Con el objetivo de añadir los PAF, en la barra de herramientas, se seleccionó el espacio de proceso «*Gestor GCP/MTP*» *importando* el archivo Excel (*.csv) delimitado por comas, el cual debe contener solo información de código de puntos, Este, Norte y Altitud ortométrica. Una vez importados los PAF, fueron validados con cada Ortofoto con la finalidad de identificar, ajustar y marcar su correcto posicionamiento.

Después de tener todos los PAF ubicados en las ortofotos se realizó el proceso de optimización del modelo, en donde el modelo se va a ajustar a los PAF.

c. Generación de nubes de puntos densa

Se continuó con la selección de la opción «*Procesamiento*» y se seleccionó «*Nube puntos y malla*». En las opciones de procesamiento «*Image Scale*» se seleccionó



«*multiscale 1/2*», y en «*Point Density*» se seleccionó «*Low*». Ya definidas todas las opciones se procede a generar la nube de puntos densa.

d. Generación del Modelo de Elevación Digital – MED y Ortomosaico en RGB

Para la generación del MED y ortomosaico RGB se continuó con la selección de la opción «*Procesamiento*» y se seleccionó «*MDS, ortomosaico e índices*», se utilizó como insumo la nube puntos densa, tanto los puntos de superficie como los del terreno, y en las opciones de procesamiento «*Filtros para el MDS*» se seleccionó «*Usar filtro de ruido*», y en «*Metodo*» se seleccionó «*Ponderación de distancia inversa*», y se selecciona los formatos de salida de ortomosaico y MDS «*Geotif*» (Anexo 5).

1.5. VERIFICACIÓN DEL AJUSTE DEL MODELO FOTOGRAMÉTRICO

Posterior al procesamiento fotogramétrico se revisaron los PAF con la finalidad de verificar la calidad del ajuste del modelo fotogramétrico de la Zona 1 de la UF Corihuarmi, obteniendo el siguiente resultado en precisión en el eje este en promedio de 0,046 m, en el eje norte en promedio de 0,068 m y en la altitud en promedio de 0,026 m (Tabla 1.3).

Tabla 1.3. Verificación de ajuste de modelo fotogramétrico de la Zona 1 de la UF Corihuarmi

CÓDIGO DEL PUNTO	Coordenada geodésica			Modelo fotogramétrico			Diferencias		
	Este (m)	Norte (m)	Altura ortométrica (m)	Este (m)	Norte (m)	Altura ortométrica (m)	X (m)	Y (m)	Z (m)
PAF-COR-01	437420,312	8610963,073	4705,775	437420,242	8610963,229	4705,718	0,070	-0,156	0,057
PAF-COR-02	437404,086	8611471,115	4734,933	437404,084	8611471,116	4734,905	0,002	-0,001	0,028
PAF-COR-03	437118,012	8611203,767	4696,280	437118,096	8611203,714	4696,269	-0,084	0,053	0,011
PAF-COR-04	436670,422	8611463,175	4640,173	436670,399	8611463,197	4640,168	0,023	-0,022	0,005
PAF-COR-05	436768,136	8610942,241	4665,838	436768,117	8610942,245	4665,841	0,019	-0,004	-0,003
						RMS	0,046	0,068	0,026

Respecto a la verificación de la calidad del ajuste del modelo fotogramétrico de la Zona 2 de la UF Corihuarmi, se obtuvo el siguiente resultado en precisión en el eje este en promedio de 0,008 m, en el eje norte en promedio de 0,005 m y en la altitud en promedio de 0,033 m (Tabla 1.4).

Tabla 1.4. Verificación de ajuste de modelo fotogramétrico de la Zona 2 de la UF Corihuarmi

CÓDIGO DEL PUNTO	Coordenada geodésica			Modelo fotogramétrico			Diferencias		
	Este (m)	Norte (m)	Altura ortométrica (m)	Este (m)	Norte (m)	Altura ortométrica (m)	X (m)	Y (m)	Z (m)
PAF-COR-12	438242,842	8609867,312	4811,636	438242,835	8609867,317	4811,692	0,007	-0,005	-0,056
PAF-COR-13	438210,012	8610032,638	4821,224	438210,014	8610032,637	4821,224	-0,003	0,001	0,000
PAF-COR-14	437915,066	8609839,400	4776,395	437915,057	8609839,399	4776,336	0,009	0,000	0,058
PAF-COR-15	437965,987	8610021,217	4781,516	437965,972	8610021,227	4781,517	0,015	-0,011	-0,001
PAF-COR-12	438242,842	8609867,312	4811,636	438242,835	8609867,317	4811,692	0,007	-0,005	-0,056
						RMS	0,008	0,005	0,033



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Respecto a la verificación de la calidad del ajuste del modelo fotogramétrico de la Zona 3 de la UF Corihuarmi, se obtuvo el siguiente resultado en precisión en el eje este en promedio de 0,081 m, en el eje norte en promedio de 0,025 m y en la altitud en promedio de 0,101 m (Tabla 1.5).







































Tabla 1.5. Verificación de ajuste de modelo fotogramétrico de la Zona 3 de la UF Corihuarmi

CÓDIGO DEL PUNTO	Coordenada geodésica			Modelo fotogramétrico			Diferencias		
	Este (m)	Norte (m)	Altura ortométrica (m)	Este (m)	Norte (m)	Altura ortométrica (m)	X (m)	Y (m)	Z (m)
PAF-COR-06	439140,295	8609792,397	4741,877	439140,097	8609792,457	4741,994	0,198	-0,060	-0,116
PAF-COR-07	439458,559	8609577,242	4708,718	439458,546	8609577,236	4708,780	0,013	0,006	-0,063
PAF-COR-08	439846,589	8609230,432	4677,117	439846,581	8609230,430	4677,038	0,008	0,002	0,079
PAF-COR-09	439621,305	8609097,483	4682,837	439621,310	8609097,484	4682,803	-0,005	-0,001	0,034
PAF-COR-10	439304,507	8609226,286	4695,631	439304,498	8609226,293	4695,693	0,009	-0,007	-0,062
PAF-COR-11	438920,333	8609445,227	4719,474	438920,331	8609445,226	4719,653	0,002	0,001	-0,179
						RMS	0,081	0,025	0,101

Anexo B

Ficha de almacenamiento de productos procesados

Reporte de resultados del levantamiento fotogramétrico con RPAS y DGPS en el ámbito de la unidad fiscalizable Corihuarmi de Minera IRL SA, ubicada en los distritos Chongos Alto y Huantán, provincias Huancayo y Yauyos, departamento Junín y Lima, en abril y mayo de 2023

Producto 1													
Resultados de los procesamientos de levantamiento fotogramétrico	Compartido conmigo > ... > RPAS > ORTOMOSAICO ▾ 												
Formato: TIFF	<input type="button" value="Tipo de archivo"/> <input type="button" value="Personas"/> <input type="button" value="Última modificación"/> (Enviar comentarios a Google)												
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