

Leica Geosystems AG

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- when it has to be **right**



GNSS Processing Report - Summary

Report created: 19/10/2025 12:05:46

Project Details

General		Customer Details		Master Coordinate System	
Project Name:	20251013 SJC	Customer Name:	-	Coordinate System Name:	MAGNA SIRGAS
Owner:	-	Contact Person:	-	Transformation Type:	-
Lead Surveyor:	-	Number:	-	Residual Distribution:	None
Date Created:	19/10/2025 10:11:34	Email:	-	Ellipsoid:	GRS 1980
Last Accessed:	19/10/2025 10:11:35	Skype:	-	Projection Type:	Transverse Mercator
Application Software:	Infinity 4.2.0	Website:	-	Geoid Model:	-
				CSCS Model:	-
Path:	D:\ADOLFO\TRABAJOS 2025\HIDOLFO ROJAS\07-05-25 GNSS\20251013\PROYECTO LEICA\20251013 SJC\20251013 SJC.iprj				
Size:	256.0 MB				
Comments:	-				

Baseline SINC - HG18

Processing Parameters (13/10/2025 12:37:53 - 13/10/2025 16:34:17)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	Automatic	L1/L2/L5	
Sampling Rate:	Use All	15.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS	
Ephemeris Type:	Broadcast	Broadcast	
Antenna Calibration Set:	NGS 20 Absolute	NGS 20 Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Code
Solution Optimisation:	Automatic	None
Frequency to use in Ionospheric Minimised:	Automatic	Automatic
Tropospheric Model:	Automatic	Computed
Ionospheric Model:	Automatic	Computed
Allow Widelane Fix:	Automatic	Automatic

General Settings

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

Time Settings

Time Format: HH:mm:ss
 Time System: Local Time
 Leap Seconds: 18

Results Baseline: SINC - HG18**Acquisition**

Start Time - End Time: 13/10/2025 12:37:57 - 13/10/2025 16:34:12
 Duration: 03:56:15

Antennas

	Reference - SINC	Rover - HG18
Receiver Name / SN:	TRIMBLE NETR9 / 5146K79739	EFIX F7 / 3496834
Antenna Name / SN:	TRM59800.00 / 5138354308	EFIXF7 / 3496834
Carrier Offset:	-	0.0000 m
Height Reading:	0.1750 m	2.0000 m
Antenna Height:	0.1750 m	2.0000 m

Phase Center Offset

	Reference - TRM59800.00		Rover - Unknown	
GPS	L1	L2	L1	L2
East	0.0014 m	0.0000 m	-	-
North	0.0007 m	-0.0002 m	-	-
Up	0.0894 m	0.1178 m	-	-

GLONASS	L1	L2	L1	L2
East	0.0015 m	-0.0002 m	-	-
North	0.0010 m	-0.0002 m	-	-
Up	0.0869 m	0.1145 m	-	-

Coordinates

	Reference - SINC	Rover - HG18		Reference - SINC	Rover - HG18
Point Role:	Control	Code PP			
WGS84 Latitude:	9° 18' 56.13" N	9° 49' 52.57" N	Easting:	4,737,824.2113 m	4,767,826.4346 m
WGS84 Longitude:	75° 23' 15.66" W	75° 07' 03.96" W	Northing:	2,588,265.6567 m	2,645,104.6980 m
WGS84 Ellip. Height:	201.2406 m	240.6815 m	Ortho. Height:	-	-
WGS84 Cartesian X:	1,588,028.3592 m	1,614,279.3735 m			
WGS84 Cartesian Y:	-6,091,166.2737 m	-6,074,487.2837 m			
WGS84 Cartesian Z:	1,025,655.1834 m	1,081,905.6238 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 30' 56.44"	SD ΔLatitude:	0.0127 m
ΔLongitude:	0° 16' 11.70"	SD ΔLongitude:	0.0172 m
ΔHeight:	39.4409 m	SD ΔHeight:	0.0398 m
ΔX:	26,251.0143 m	SD ΔX:	0.0212 m
ΔY:	16,678.9900 m	SD ΔY:	0.0368 m
ΔZ:	56,250.4403 m	SD ΔZ:	0.0155 m
Slope Dist.:	64,276.0958 m	SD Slope Dist.:	0.0141 m
M0:	0.7489 m	CQ 1D:	0.0398 m

Q11:	0.00014653	CQ 2D:	0.0214 m
Q12:	-0.00014050	CQ 3D:	0.0452 m
Q22:	0.00044332		
Q13:	0.00003981		
Q23:	-0.00010507		
Q33:	0.00007853		

Frequency:	L1/L2/L5	GDOP:	2.5 - 5.1	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.8 - 3.4	GLONASS SVs:	5/5
Solution Type:	Code	HDOP:	0.8 - 1.7	Beidou SVs:	-
		VDOP:	1.5 - 3.1	Galileo SVs:	-
				QZSS SVs:	-

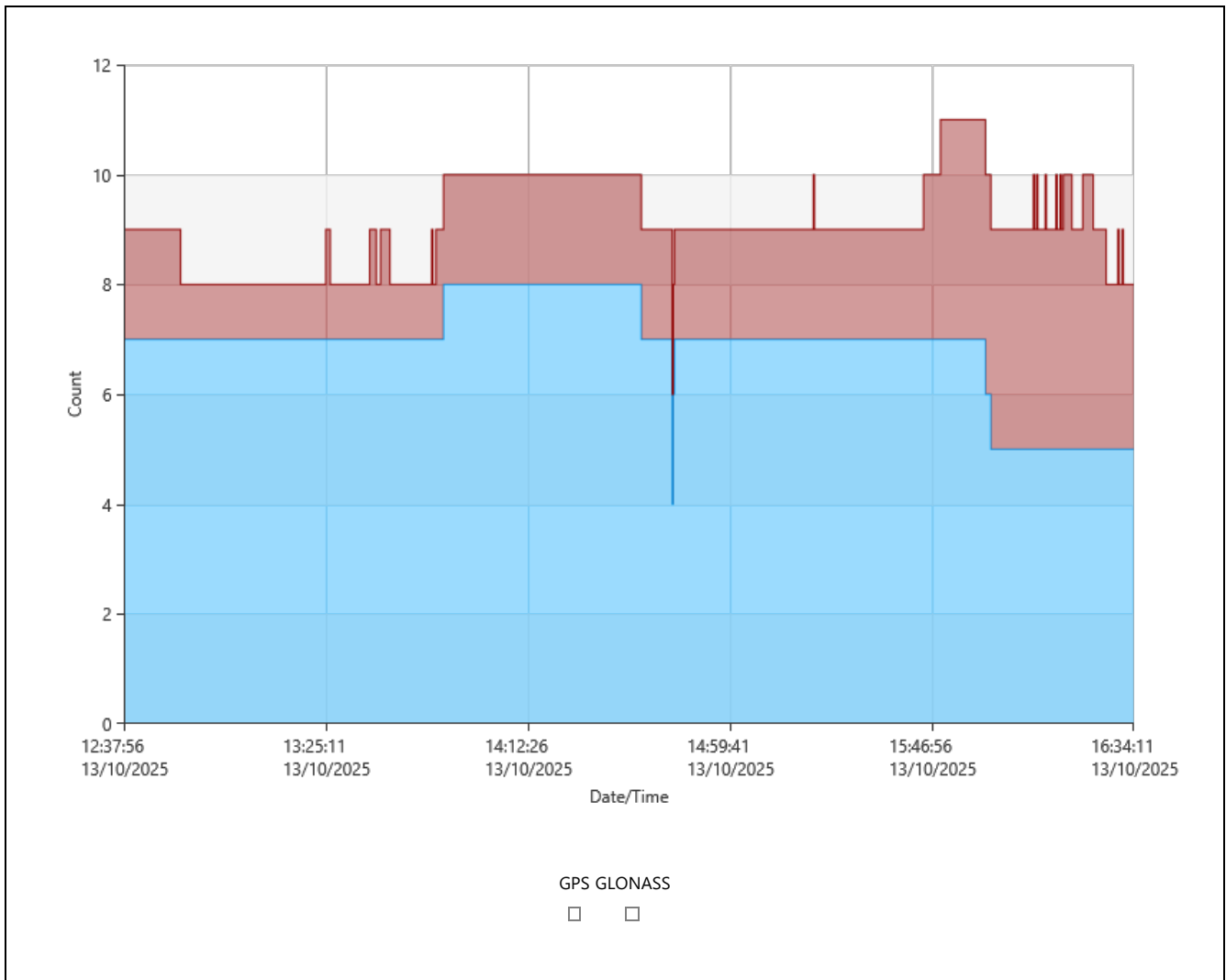
Ephemeris Type:

GPS	Broadcast
GLONASS	Broadcast

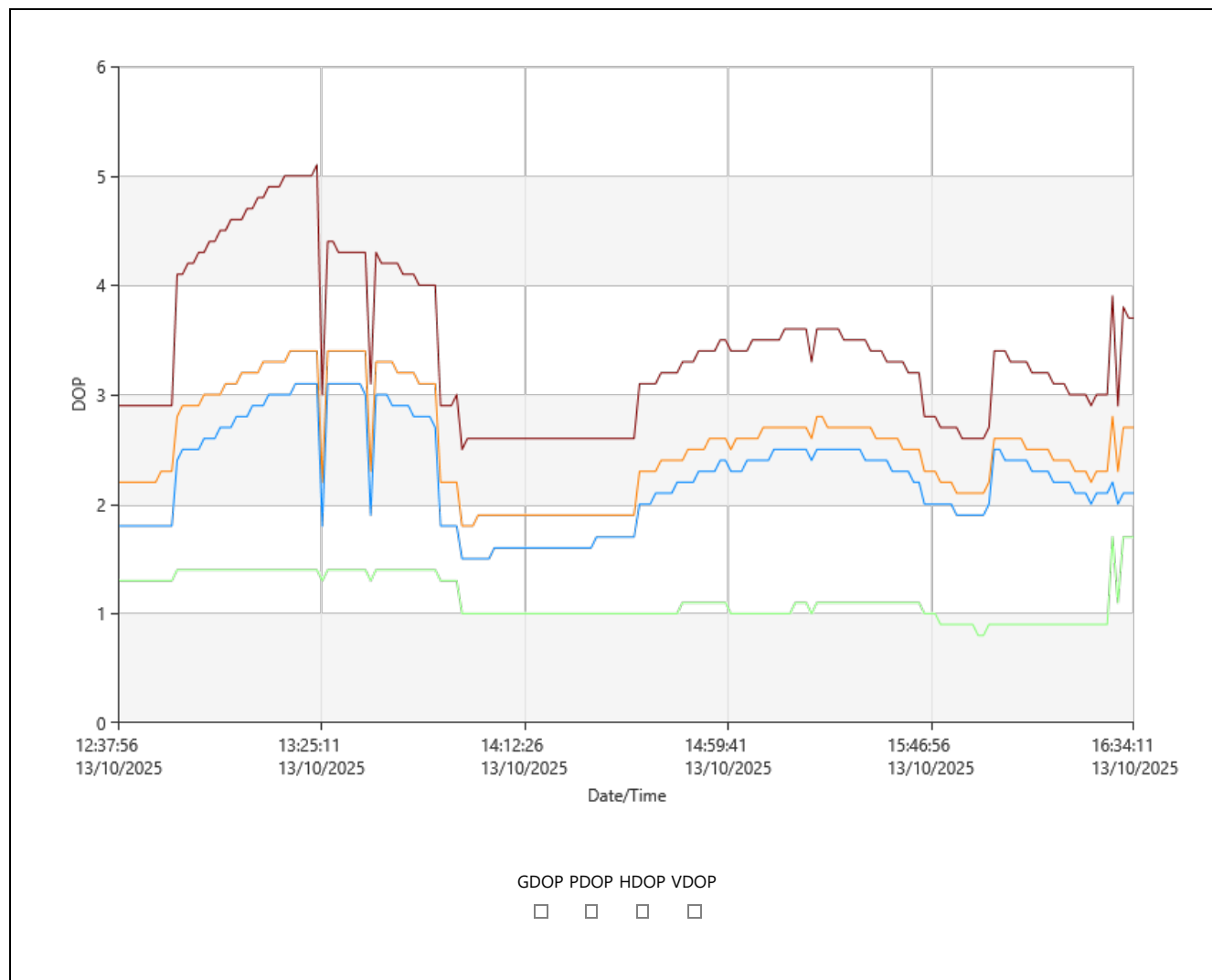
Processing Info (13/10/2025 12:37:53 - 13/10/2025 16:34:17)

Processed Date/Time: 19/10/2025 11:58:34

SVs Tracked



DOP



Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Galileo
Fixed	22	6	0
Total	58	169	0
Independently fixed	37	4	0
Possible independently fixed	394	394	394

Average time between independent fixes: 00:03:30

% of Epochs	GPS			GLONASS	
	L1 [%]	L2 [%]	L5 [%]	L1 [%]	L2 [%]
Fixed	42.34	36.05	31.18	33.72	36.16
Not fixed	33.66	39.55	38.61	65.65	63.26
Not fixed - contradiction	23.91	24.29	30.21	0.00	0.00
Not fixed - missing phase	0.10	0.11	0.00	0.63	0.58

Status	From Epoch	To Epoch	Duration
Not fixed	13/10/2025 12:37:57	13/10/2025 16:34:12	03:56:15

Baseline ZBNO - HG18

Processing Parameters (13/10/2025 12:37:53 - 13/10/2025 16:34:17)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	Automatic	L1/L2/L5	
Sampling Rate:	Use All	15.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS	
Ephemeris Type:	Broadcast	Broadcast	
Antenna Calibration Set:	NGS 20 Absolute	NGS 20 Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Code
Solution Optimisation:	Automatic	None
Frequency to use in Iono Minimised:	Automatic	Automatic
Tropospheric Model:	Automatic	Computed
Ionospheric Model:	Automatic	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

Time Settings

Time Format:	HH:mm:ss
Time System:	Local Time
Leap Seconds:	18

Results Baseline: ZBNO - HG18

Acquisition

Start Time - End Time:	13/10/2025 12:37:57 - 13/10/2025 16:34:12
Duration:	03:56:15

Antennas

	Reference - ZBNO	Rover - HG18
Receiver Name / SN:	TRIMBLE ALLOY / 6048R40179	EFIX F7 / 3496834
Antenna Name / SN:	TRM159900.00 SCIS / 5051338463	EFIXF7 / 3496834
Carrier Offset:	-	0.0000 m
Height Reading:	0.0350 m	2.0000 m
Antenna Height:	0.0350 m	2.0000 m

Phase Center Offset

	Reference - TRM159900.00 SCIS		Rover - Unknown	
GPS	L1	L2	L1	L2
East	0.0000 m	0.0004 m	-	-

North	0.0008 m	0.0004 m	-	-
Up	0.1118 m	0.1245 m	-	-

GLONASS	L1	L2	L1	L2
East	0.0000 m	0.0004 m	-	-
North	0.0008 m	0.0004 m	-	-
Up	0.1118 m	0.1245 m	-	-

Coordinates

	Reference - ZBNO	Rover - HG18		Reference - ZBNO	Rover - HG18
Point Role:	Control	Code PP			
WGS84 Latitude:	9° 44' 07.14" N	9° 49' 52.55" N	Easting:	4,798,773.2586 m	4,767,826.0417 m
WGS84 Longitude:	74° 50' 06.21" W	75° 07' 03.97" W	Northing:	2,634,312.3260 m	2,645,104.1015 m
WGS84 Ellip. Height:	16.4526 m	237.8645 m	Ortho. Height:	-	-
WGS84 Cartesian X:	1,644,646.3085 m	1,614,278.3107 m			
WGS84 Cartesian Y:	-6,067,975.5400 m	-6,074,484.7999 m			
WGS84 Cartesian Z:	1,071,408.6390 m	1,081,904.5524 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 05' 45.41"	SD ΔLatitude:	0.0101 m
ΔLongitude:	-0° 16' 57.76"	SD ΔLongitude:	0.0128 m
ΔHeight:	221.4118 m	SD ΔHeight:	0.0314 m
ΔX:	-30,367.9977 m	SD ΔX:	0.0158 m
ΔY:	-6,509.2599 m	SD ΔY:	0.0292 m
ΔZ:	10,495.9135 m	SD ΔZ:	0.0122 m
Slope Dist.:	32,783.3792 m	SD Slope Dist.:	0.0124 m

M0:	1.4003 m	CQ 1D:	0.0314 m
Q11:	0.00012737	CQ 2D:	0.0163 m
Q12:	-0.00012979	CQ 3D:	0.0354 m
Q22:	0.00043564		
Q13:	0.00003630		
Q23:	-0.00010168		
Q33:	0.00007640		

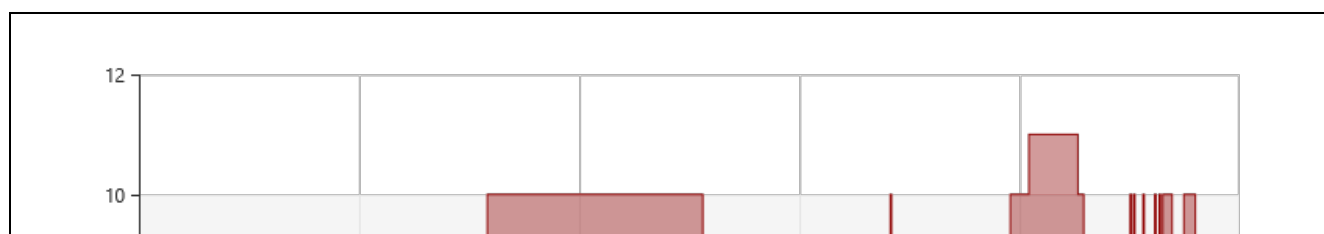
Frequency:	L1/L2/L5	GDOP:	2.5 - 5.1	GPS SVs:	8/8
Solution Optimisation:	None	PDOP:	1.8 - 3.4	GLONASS SVs:	5/5
Solution Type:	Code	HDOP:	0.8 - 1.4	Beidou SVs:	-
		VDOP:	1.5 - 3.1	Galileo SVs:	-
				QZSS SVs:	-

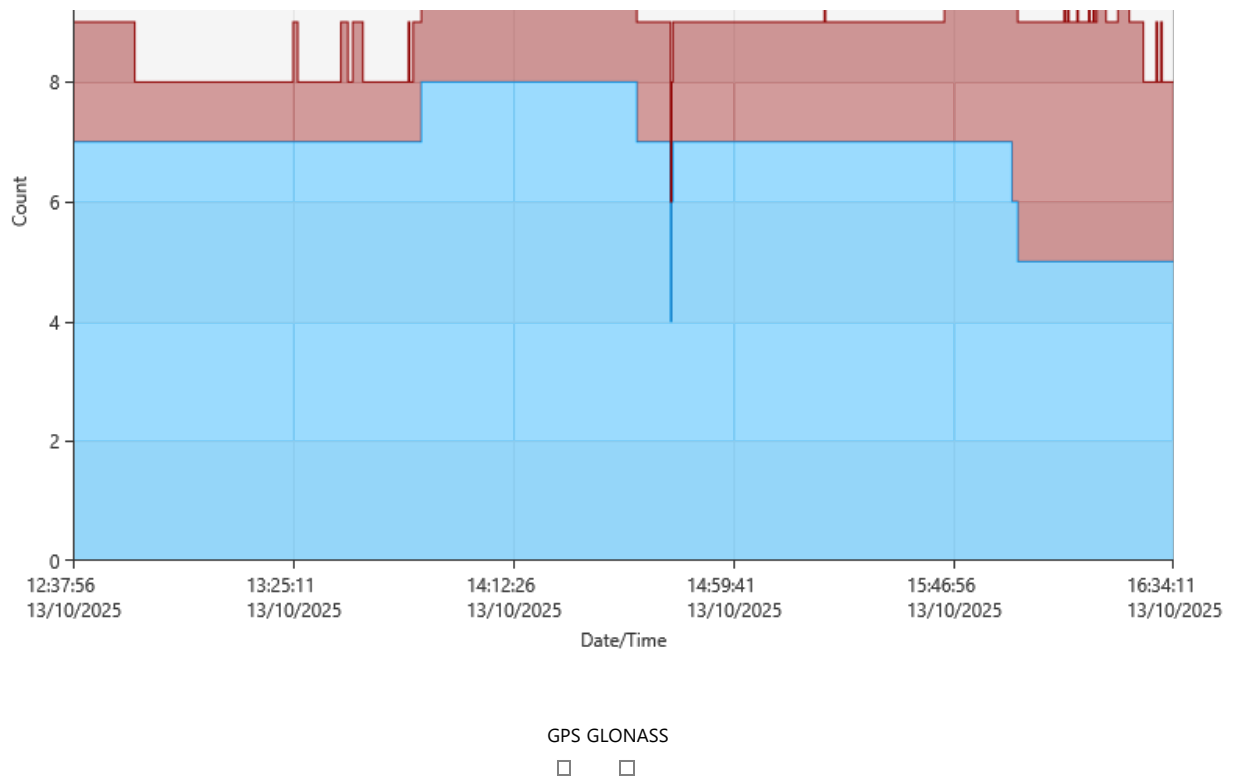
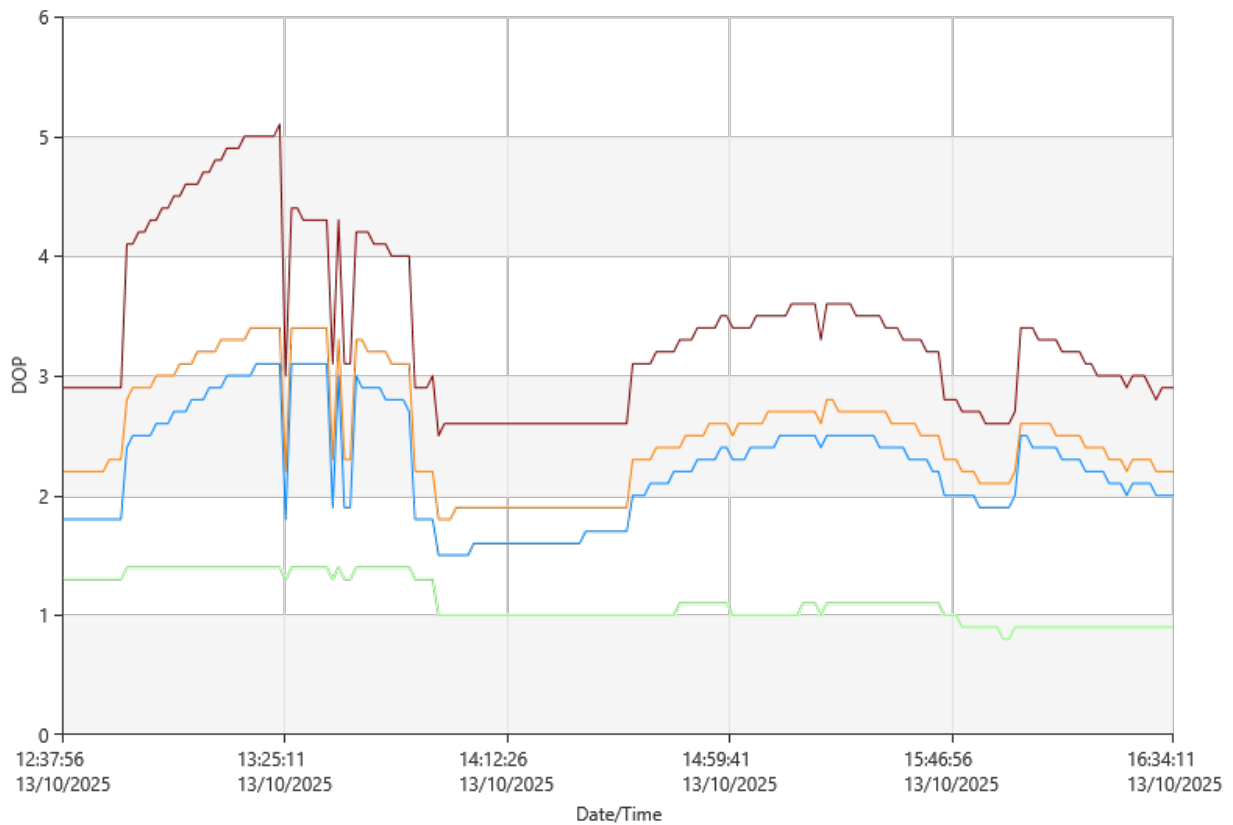
Ephemeris Type:	
GPS	Broadcast
GLONASS	Broadcast

Processing Info (13/10/2025 12:37:53 - 13/10/2025 16:34:17)

Processed Date/Time: 19/10/2025 11:58:34

SVs Tracked



**DOP**

GDOP PDOP HDOP VDOP			
☐	☐	☐	☐

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Galileo
Fixed	12	6	0
Total	36	171	0
Independently fixed	82	12	0
Possible independently fixed	394	394	394

Average time between independent fixes: 00:03:30

% of Epochs	GPS			GLONASS	
	L1 [%]	L2 [%]	L5 [%]	L1 [%]	L2 [%]
Fixed	22.99	30.71	41.84	33.47	35.91
Not fixed	17.00	22.98	23.26	65.69	63.36
Not fixed - contradiction	59.92	46.19	34.89	0.00	0.00
Not fixed - missing phase	0.10	0.11	0.00	0.84	0.73

Status	From Epoch	To Epoch	Duration
Not fixed	13/10/2025 12:37:57	13/10/2025 16:34:12	03:56:15

Baseline SINC - HG19

Processing Parameters (13/10/2025 12:50:22 - 13/10/2025 16:33:22)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	Automatic	L1/L2/L5	
Sampling Rate:	Use All	30.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS	
Ephemeris Type:	Broadcast	Broadcast	
Antenna Calibration Set:	NGS 20 Absolute	NGS 20 Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Code
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	Automatic	Computed
Ionospheric Model:	Automatic	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

Time Settings

Time Format: HH:mm:ss
 Time System: Local Time
 Leap Seconds: 18

Results Baseline: SINC - HG19

Acquisition

Start Time - End Time: 13/10/2025 12:50:42 - 13/10/2025 16:33:12
 Duration: 03:42:30

Antennas

	Reference - SINC	Rover - HG19
Receiver Name / SN:	TRIMBLE NETR9 / 5146K79739	EFIX eBASE / 3595717
Antenna Name / SN:	TRM59800.00 / 5138354308	EFIXeBASE / 3595717
Carrier Offset:	-	0.0000 m
Height Reading:	0.1750 m	1.7700 m
Antenna Height:	0.1750 m	1.7700 m

Phase Center Offset

	Reference - TRM59800.00		Rover - Unknown	
GPS	L1	L2	L1	L2
East	0.0014 m	0.0000 m	-	-
North	0.0007 m	-0.0002 m	-	-
Up	0.0894 m	0.1178 m	-	-

GLONASS	L1	L2	L1	L2
East	0.0015 m	-0.0002 m	-	-
North	0.0010 m	-0.0002 m	-	-
Up	0.0869 m	0.1145 m	-	-

Coordinates

	Reference - SINC	Rover - HG19		Reference - SINC	Rover - HG19
Point Role:	Control	Code PP			
WGS84 Latitude:	9° 18' 56.13" N	9° 49' 55.93" N	Easting:	4,737,824.2113 m	4,767,722.0600 m
WGS84 Longitude:	75° 23' 15.66" W	75° 07' 07.40" W	Northing:	2,588,265.6567 m	2,645,208.5285 m
WGS84 Ellip. Height:	201.2406 m	244.1483 m	Ortho. Height:	-	-
WGS84 Cartesian X:	1,588,028.3592 m	1,614,174.2028 m			
WGS84 Cartesian Y:	-6,091,166.2737 m	-6,074,500.5347 m			
WGS84 Cartesian Z:	1,025,655.1834 m	1,082,007.8870 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 30' 59.80"	SD ΔLatitude:	0.0165 m
ΔLongitude:	0° 16' 08.25"	SD ΔLongitude:	0.0236 m
ΔHeight:	42.9076 m	SD ΔHeight:	0.0533 m
ΔX:	26,145.8436 m	SD ΔX:	0.0278 m
ΔY:	16,665.7389 m	SD ΔY:	0.0502 m
ΔZ:	56,352.7036 m	SD ΔZ:	0.0196 m
Slope Dist.:	64,319.3532 m	SD Slope Dist.:	0.0189 m

M0:	1.7852 m	CQ 1D:	0.0533 m
Q11:	0.00024174	CQ 2D:	0.0288 m
Q12:	-0.00020753	CQ 3D:	0.0606 m

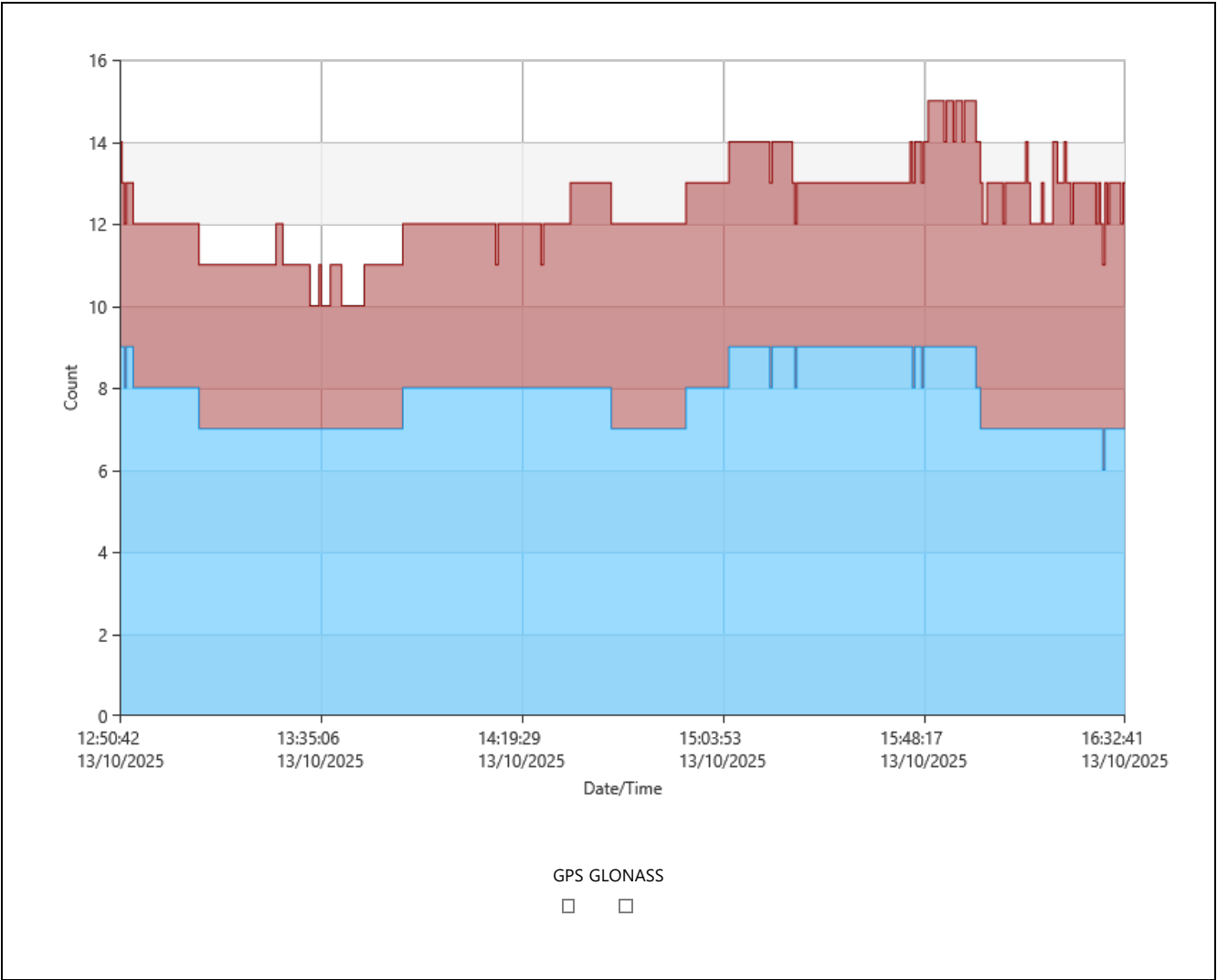
Q22: 0.00078971
Q13: 0.00005969
Q23: -0.00015879
Q33: 0.00012061

Frequency:	L1/L2/L5	GDOP:	1.9 - 4.9	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.5 - 3.3	GLONASS SVs:	6/7
Solution Type:	Code	HDOP:	0.7 - 1.4	Beidou SVs:	-
		VDOP:	1.3 - 3.0	Galileo SVs:	-
				QZSS SVs:	-
Ephemeris Type:					
GPS	Broadcast				
GLONASS	Broadcast				

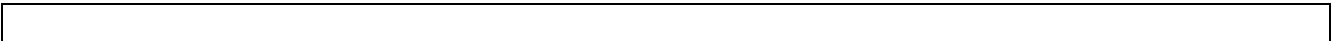
Processing Info (13/10/2025 12:50:22 - 13/10/2025 16:33:22)

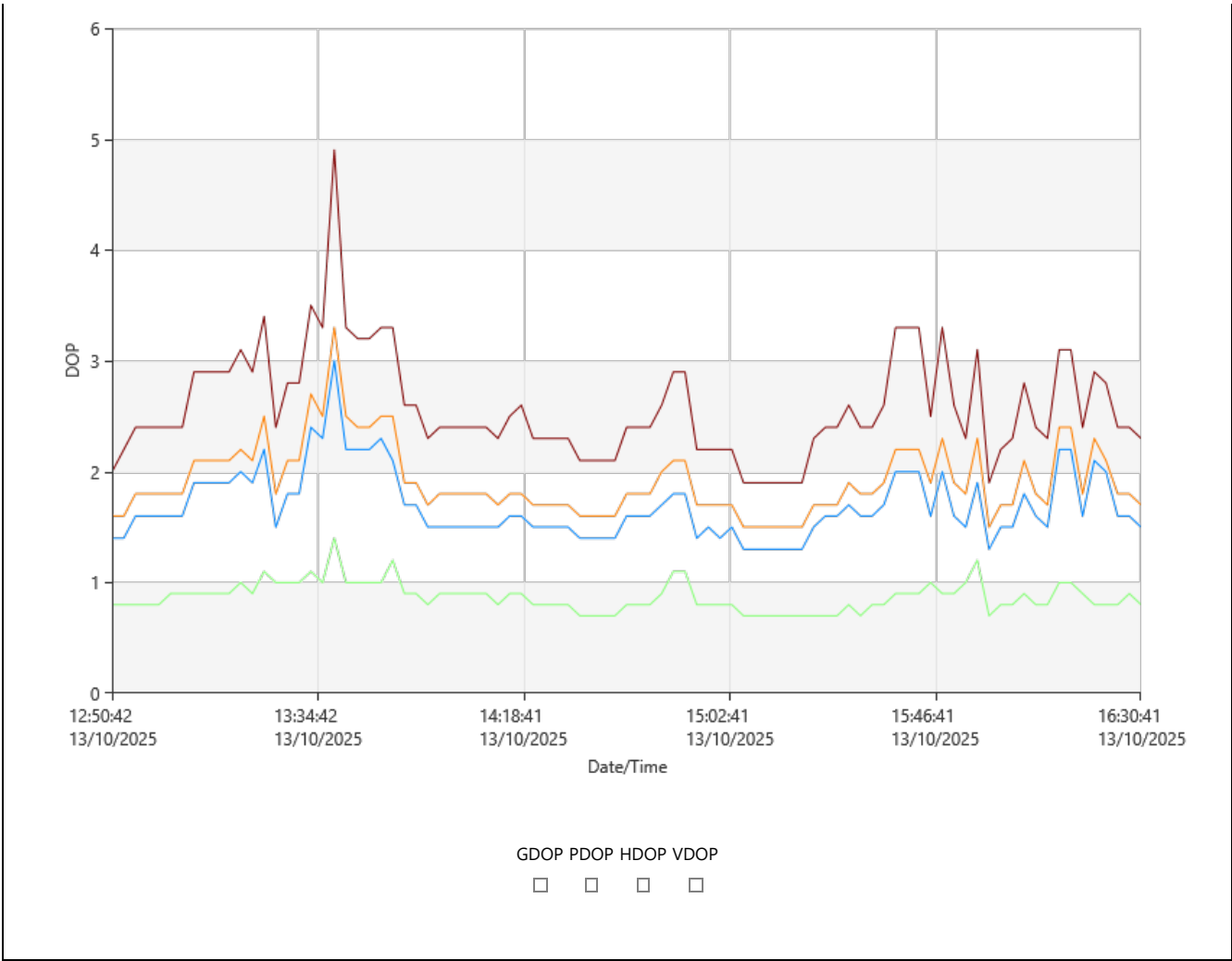
Processed Date/Time: 19/10/2025 11:58:34

SVs Tracked



DOP





Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Galileo
Fixed	18	2	0
Total	92	249	0
Independently fixed	24	6	0
Possible independently fixed	344	344	344

Average time between independent fixes: 00:04:00

% of Epochs	GPS			GLONASS	
	L1 [%]	L2 [%]	L5 [%]	L1 [%]	L2 [%]
Fixed	23.15	12.40	7.64	0.00	2.96
Not fixed	71.15	71.85	71.92	91.75	97.04
Not fixed - contradiction	5.61	15.63	20.44	8.25	0.00
Not fixed - missing phase	0.09	0.12	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Not fixed	13/10/2025 12:50:42	13/10/2025 16:33:12	03:42:30

Baseline ZBNO - HG19

Processing Parameters (13/10/2025 12:50:22 - 13/10/2025 16:33:22)

Data	Selected	Used	Comments
Cut-Off Angle:	10°	10°	
Frequency:	Automatic	L1/L2/L5	
Sampling Rate:	Use All	30.00 sec	
Satellite System:	GPS/GLONASS/Galileo/Beidou	GPS/GLONASS	
Ephemeris Type:	Broadcast	Broadcast	
Antenna Calibration Set:	NGS 20 Absolute	NGS 20 Absolute	

Processing Strategy

Solution Type:	Phase Fixed	Code
Solution Optimisation:	Automatic	None
Frequency to use in Ionosphere Minimised:	Automatic	Automatic
Tropospheric Model:	Automatic	Computed
Ionospheric Model:	Automatic	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

Time Settings

Time Format:	HH:mm:ss
Time System:	Local Time
Leap Seconds:	18

Results Baseline: ZBNO - HG19

Acquisition

Start Time - End Time:	13/10/2025 12:50:42 - 13/10/2025 16:33:12
Duration:	03:42:30

Antennas

	Reference - ZBNO	Rover - HG19
Receiver Name / SN:	TRIMBLE ALLOY / 6048R40179	EFIX eBASE / 3595717
Antenna Name / SN:	TRM159900.00 SCIS / 5051338463	EFIXeBASE / 3595717
Carrier Offset:	-	0.0000 m
Height Reading:	0.0350 m	1.7700 m
Antenna Height:	0.0350 m	1.7700 m

Phase Center Offset

	Reference - TRM159900.00 SCIS		Rover - Unknown	
GPS	L1	L2	L1	L2
East	0.0000 m	0.0004 m	-	-

North	0.0008 m	0.0004 m	-	-
Up	0.1118 m	0.1245 m	-	-

GLONASS	L1	L2	L1	L2
East	0.0000 m	0.0004 m	-	-
North	0.0008 m	0.0004 m	-	-
Up	0.1118 m	0.1245 m	-	-

Coordinates

	Reference - ZBNO	Rover - HG19		Reference - ZBNO	Rover - HG19
Point Role:	Control	Code PP			
WGS84 Latitude:	9° 44' 07.14" N	9° 49' 55.90" N	Easting:	4,798,773.2586 m	4,767,721.7056 m
WGS84 Longitude:	74° 50' 06.21" W	75° 07' 07.42" W	Northing:	2,634,312.3260 m	2,645,207.7734 m
WGS84 Ellip. Height:	16.4526 m	241.2788 m	Ortho. Height:	-	-
WGS84 Cartesian X:	1,644,646.3085 m	1,614,173.1720 m			
WGS84 Cartesian Y:	-6,067,975.5400 m	-6,074,498.0170 m			
WGS84 Cartesian Z:	1,071,408.6390 m	1,082,006.6507 m			

Baseline Vector and Quality - WGS84

ΔLatitude:	0° 05' 48.76"	SD ΔLatitude:	0.0132 m
ΔLongitude:	-0° 17' 01.21"	SD ΔLongitude:	0.0182 m
ΔHeight:	224.8261 m	SD ΔHeight:	0.0426 m
ΔX:	-30,473.1364 m	SD ΔX:	0.0214 m
ΔY:	-6,522.4770 m	SD ΔY:	0.0402 m
ΔZ:	10,598.0118 m	SD ΔZ:	0.0156 m
Slope Dist.:	32,916.1450 m	SD Slope Dist.:	0.0175 m

M0:	1.4387 m	CQ 1D:	0.0426 m
Q11:	0.00022227	CQ 2D:	0.0225 m
Q12:	-0.00019868	CQ 3D:	0.0482 m
Q22:	0.00078255		
Q13:	0.00005539		
Q23:	-0.00015518		
Q33:	0.00011795		

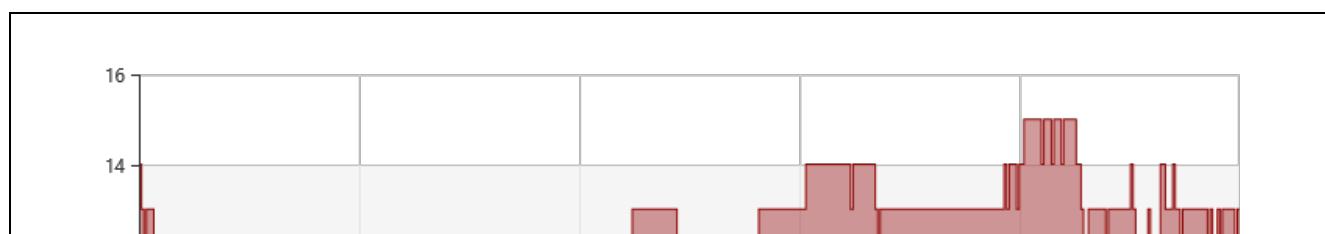
Frequency:	L1/L2/L5	GDOP:	1.9 - 3.5	GPS SVs:	9/9
Solution Optimisation:	None	PDOP:	1.5 - 2.7	GLONASS SVs:	6/7
Solution Type:	Code	HDOP:	0.7 - 1.2	Beidou SVs:	-
		VDOP:	1.3 - 2.4	Galileo SVs:	-
				QZSS SVs:	-

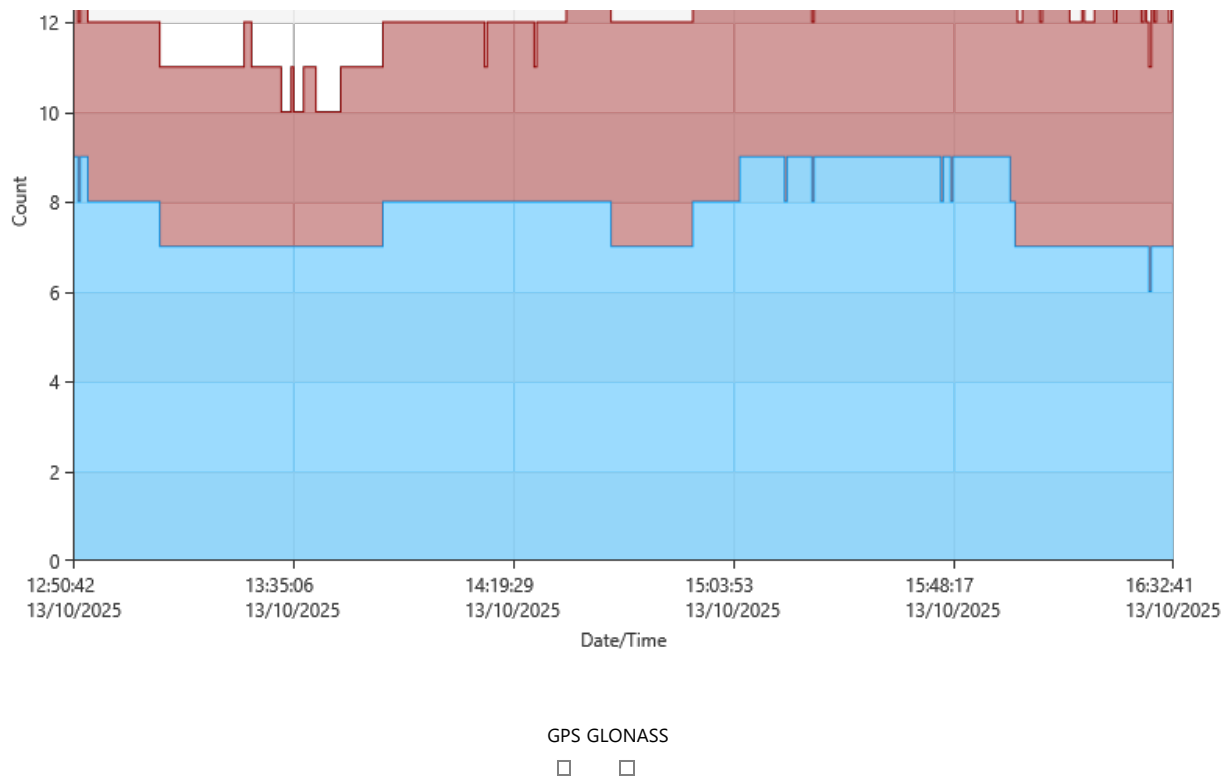
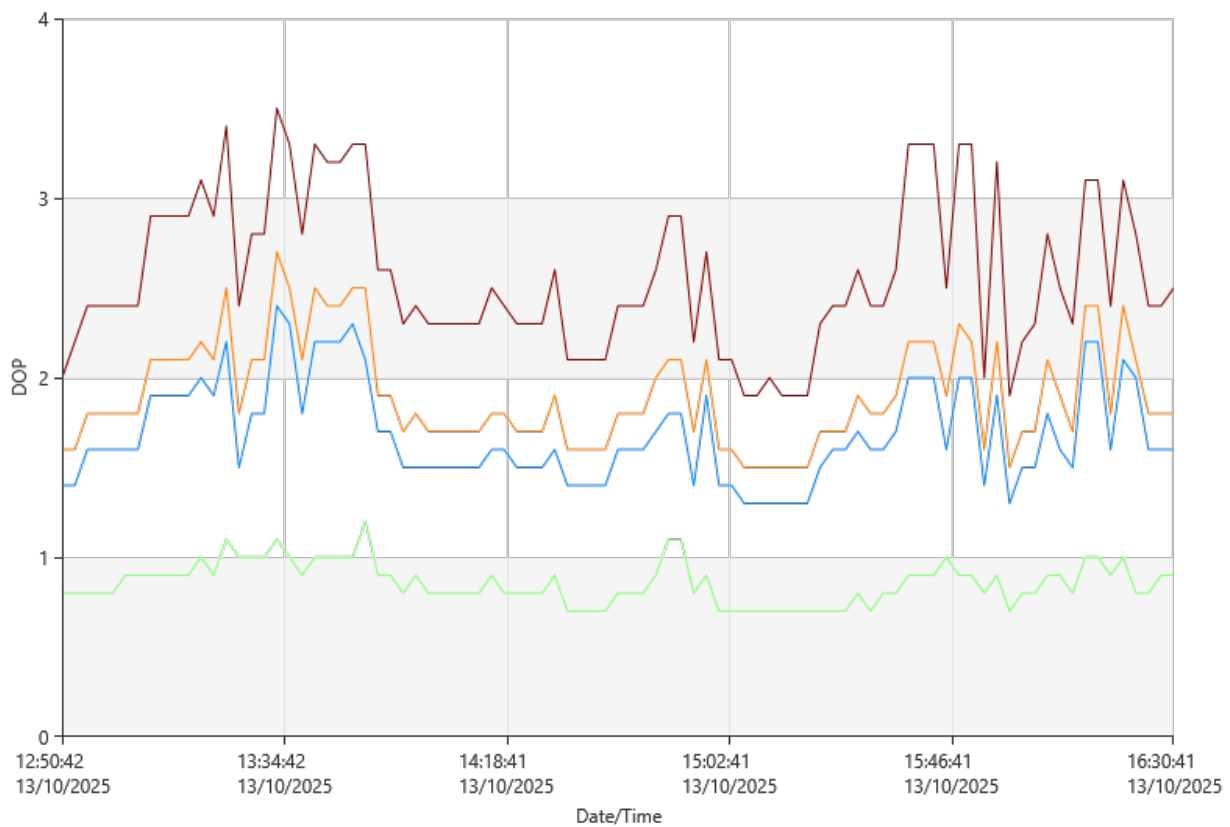
Ephemeris Type:	
GPS	Broadcast
GLONASS	Broadcast

Processing Info (13/10/2025 12:50:22 - 13/10/2025 16:33:22)

Processed Date/Time: 19/10/2025 11:58:34

SVs Tracked



**DOP**

GDOP PDOP HDOP VDOP			
☐	☐	☐	☐

Ambiguity Statistics

Number of Ambiguities	GPS	GLONASS	Galileo
Fixed	20	7	0
Total	102	257	0
Independently fixed	64	14	0
Possible independently fixed	351	351	351

Average time between independent fixes: 00:03:30

% of Epochs	GPS			GLONASS	
	L1 [%]	L2 [%]	L5 [%]	L1 [%]	L2 [%]
Fixed	34.79	35.04	41.53	21.86	10.62
Not fixed	48.27	49.21	50.83	68.11	88.58
Not fixed - contradiction	16.84	15.63	7.64	10.03	0.81
Not fixed - missing phase	0.09	0.12	0.00	0.00	0.00

Status	From Epoch	To Epoch	Duration
Not fixed	13/10/2025 12:50:42	13/10/2025 16:33:12	03:42:30