



LiDAR Mapping Report: AZ_NavajoNation_D22

LiDAR Collection, Processing, and QA/QC

140G0222F0169: AZ_NavajoNation_D22

QL2 LiDAR

Prepared For:

US Geological Survey

Prepared By:

Digital Aerial Solutions, LLC

4027 Crescent Park Drive

Riverview, FL

33578

Phone: (813) 628-0788

Contract: 140G0221D0017 Contractor: Digital Aerial Solutions

Task Order: 140G0222F0169: AZ_NavajoNation_D22

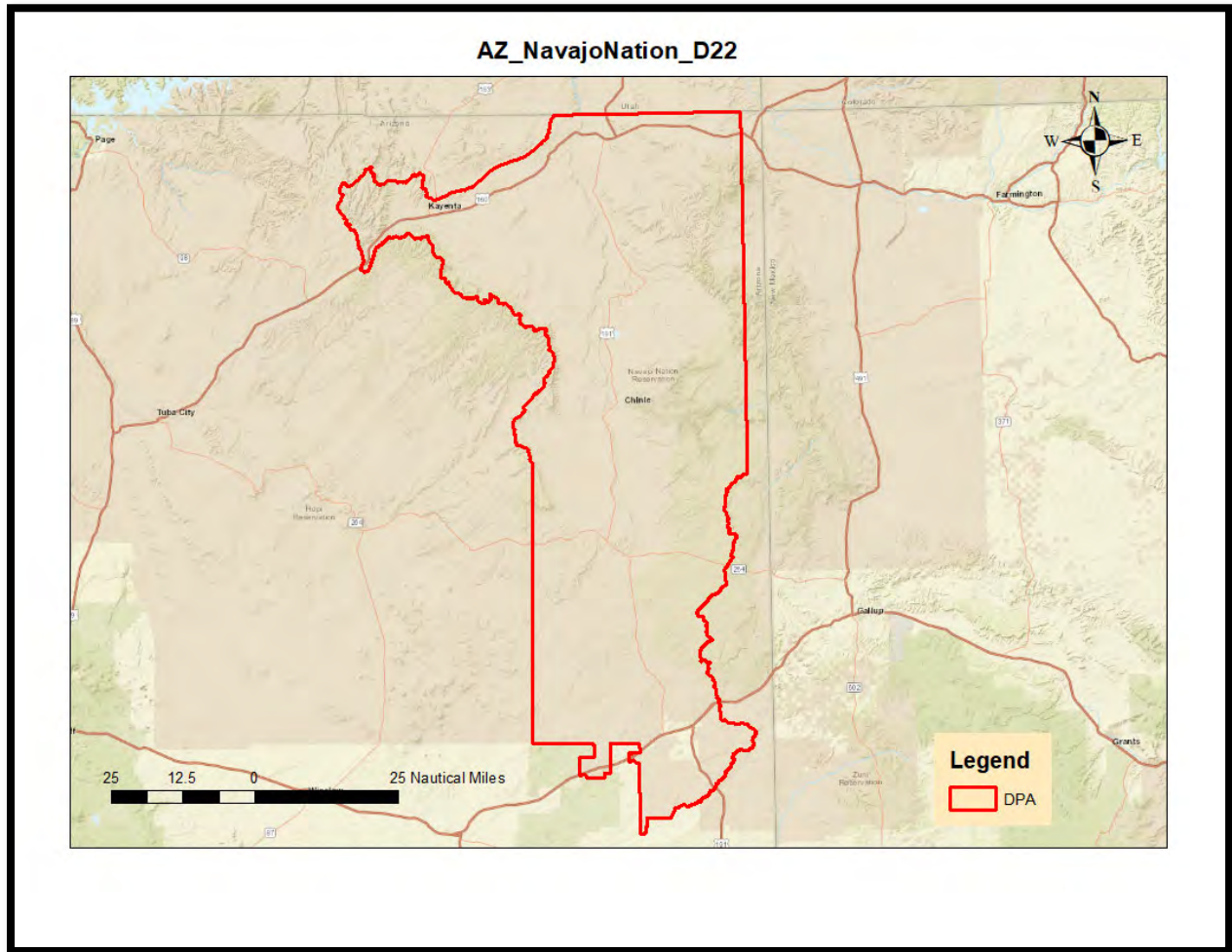


Figure 1 Define Project Area (DPA)

Table of Contents

1 DATA ACQUISITION AND PROCESSING	4
1.1 INTRODUCTION	4
1.2 MISSION ACQUISITION	5
1.3 ACQUISITION PARAMETERS	6
1.4 MISSION CONDITIONS	7
2 ABGNSS-INERTIAL PROCESSING	7
2.1 AIRBORNE GPS/IMU	7
2.2 SMOOTH BEST ESTIMATE OF TRAJECTORY (SBET)	8
2.3 POINT CLOUD CREATION	8
2.4 GEOMETRIC CALIBRATION	14
3. GEOMETRIC QUALITY	17
3.1 POINT CLOUD	17
3.2 ACCURACY ASSESSMENT	18
4. PRODUCTION.....	19
4.1 POINT CLOUD CLASSIFICATION	19
4.2 BREAKLINE COLLECTION	19
4.3 DEM GENERATION	19
APPENDIX A. FLIGHT LOGS	21
APPENDIX B. BASE STATION GPS SESSION FORMS.....	58
APPENDIX C. VERTICAL ACCURACY CALCULATIONS	144
APPENDIX D. INERTIAL EXPLORER	443
APPENDIX E. VERTICAL ACCURACY FLIGHT LINE & SCAN DIRECTION.....	837

1 Data Acquisition and Processing

1.1 Introduction

Digital Aerial Solutions, LLC (DAS) was tasked with planning, acquiring, processing and deriving elevation products for Light Detection and Ranging (LiDAR) for the **140G0221D0017 AZ_NavajoNation_D22**. The task order required an acquisition period of annual minimal water level in the summer window through September 30, 2022. LiDAR survey to be collected at an aggregate nominal pulse spacing (ANPS) < 0.71 meters (QL2) including overlap, with up to 2 discrete returns per pulse along with intensity values of each return. Aerial LiDAR was collected over approximately 6,054 square miles of Navajo and Apache counties in the state of Arizona using the Leica Terrain Mapper as shown in Figure 1's Defined Project Area (DPA) for delivery.

LiDAR dataset were post processed to generate elevation point cloud swaths for each flight lines. Deliverables include tiled point cloud classified by land cover type, breaklines to support hydro-flattening of digital elevations models (DEM), intensity image and bare-earth DEM. Swath separation raster and Maximum Surface Height Raster (MSHR) are also delivered as ancillary data.

The point cloud deliverables are stored in the LAS Version 1.4-point data record format 6. The tiling scheme for the tiled deliverables is a **1,500 x 1,500 meters** grid. Tile naming convection is based on the US National Grid (USNG) format. All deliverables were generated in compliance with the U.S Geological Survey National Geospatial Program Guidelines and Base Specifications, Version 2022 Revision A. The spatial reference of the data is as follows;

Horizontal Spatial Reference

- Coordinates: UTM, Zone 12 North Meters (to 2 decimal places)
- Datum: North American Datum 1983 (2011), Meters (to 2 decimal places)

Vertical Spatial Reference

All datasets are available with orthometric elevation; point cloud datasets are also available with ellipsoid heights.

- Datum: North American Vertical Datum of 1988 (GEOID18)

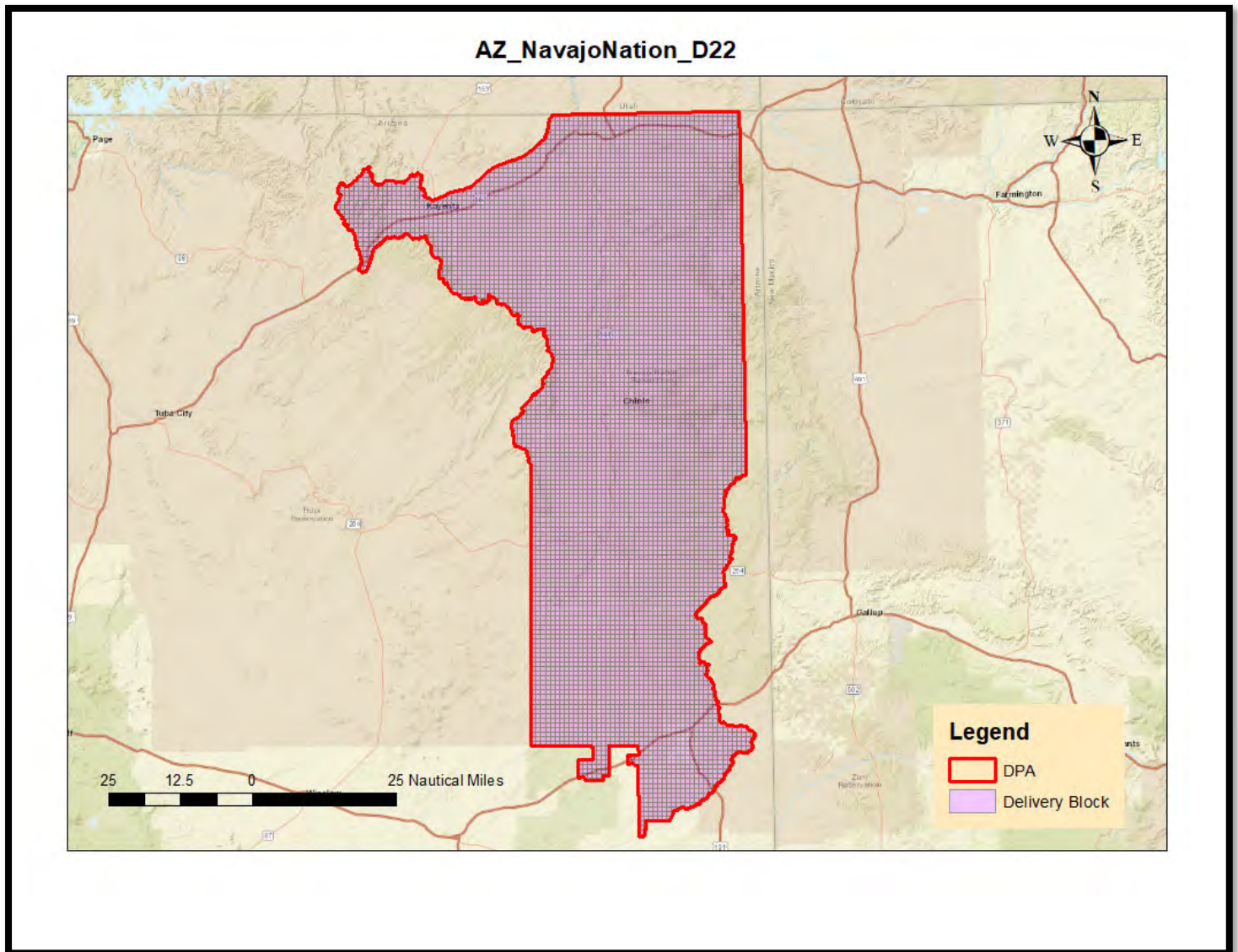


Figure 2 AZ_NavajoNation_D22 Delivery Blocks

1.2 Mission Acquisition

Mission acquisition for **140G0221D0017 AZ_NavajoNation_D22** survey was done using Gallup Municipal (KGUP) and Blanding Municipal (KBDG), as base airports. A Leica Terrain Mapper (TM) was used for data collection. Ground GPS base stations were established to collect data at half (0.5) second epoch in support of all airborne acquisitions. All acquisition was completed in 35 missions between January 13, 2022 – January 23, 2022. There was a total of 397 planned flightlines covering the entire Delivery Block, approximately 6054 square miles of Navajo and Apache counties in the state of Arizona. All mission flight logs and GPS Session forms can be found in Appendix A and B.

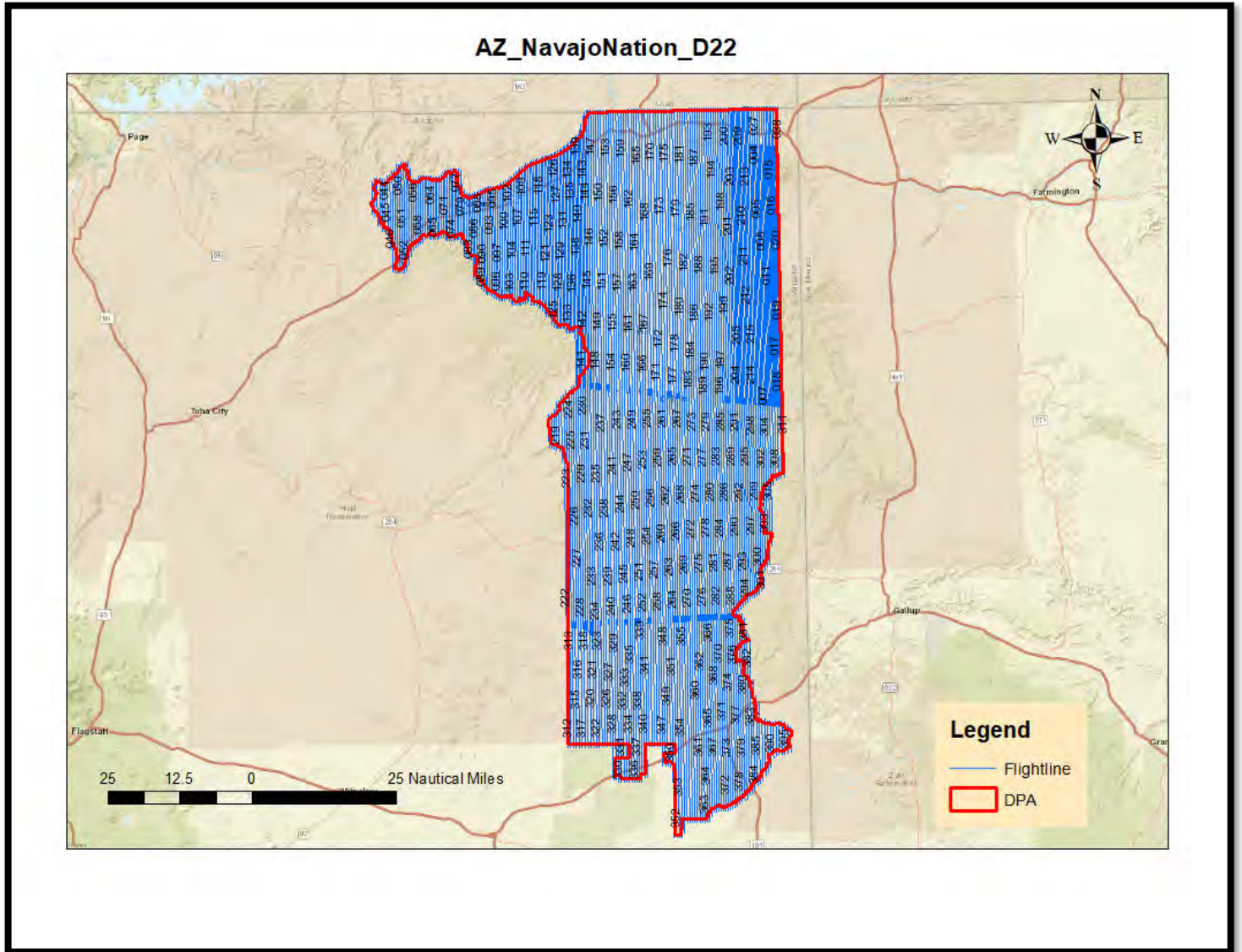


Figure 3 AZ_NavajoNation_D22 Flightlines

1.3 Acquisition Parameters

Acquisition parameters are designed to meet the project task order requirements. The sensor configuration and the flight plan characteristics are selected based on a number of project specific criteria. These include data accuracy, land cover types within the project area and the required nominal pulse spacing. Aggregate Nominal Pulse Density (ANPD) for QL2 is no less than 2ppm. Table 1 summarizes the project parameters for AZ_NavajoNation_D22.

IMU Misalignment estimation was performed for the Terrain Mapper sensor to correct angular offset in roll, pitch and heading between IMU measurement frame and mapping sensor measurement frame. Flight line design for measurement estimation includes, double cross lines at 200 meters, AGL (4 total strips) flown twice in opposite directions. The misalignment estimation steps include; Trajectory processing (smooth best estimate of trajectory) in Inertial Explorer software, followed by misalignment estimation in HxMap (Leica Propriety) software for roll, pitch and heading. Quality control report is created and analyzed to ensure the new calibration parameters computed is accurate to implement into LiDAR workflow.

Parameter (QL2)	Terrain Mapper (SN90524)
Flying Height Above Ground Level:	6500 feet
Nominal Sidelap:	30 %
Nominal Speed Over Ground:	155 Knots
Field of View:	40°
Laser Rate:	650.00 kHz
Scan Rate:	150.00 Hz
Average Point Spacing:	0.389 meters

Table 1 Flight Parameters

1.4 Mission Conditions

The acquisition mission for **140G0221D0017 AZ_NavajoNation_D22** survey was conducted under optimal collection conditions.

2 ABGNSS-inertial Processing

2.1 Airborne GPS/IMU

Aircraft	Sensor	GPS Lever Arm (m)	IMU Lever Arm (m)
C441_N207SS	TM_90524	X: -0.050, Y: 0.188, Z: -1.100	X: 0.124, Y: -0.025, Z: 0.014

Table 2 Aircraft and Lever Arms

GPS Base Station Coordinates: North American Datum 1983 (2011), Vertical Ellipsoid, Meters

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)
Gallup Municipal Airport -KGUP	35°30' 50.90026"	108° 46' 56.88777"	1949.606
Blanding Municipal Airport -KBDG	37°34' 51.96410"	109° 28' 57.39199"	1748.967
Chinle Municipal Airport-E91	36°6' 33.53022"	109° 34' 36.38046"	1667.619

Table 3 Base station Locations

2.2 SMOOTH BEST ESTIMATE OF TRAJECTORY (SBET)

Inertial Explorer 8.90 software was used to compute inertial solution file (*.sol) for each mission using ground GPS base station (KGUP, KBDG & E91) and OPUS position coordinate in table 3 above. The resulting solution was checked to ensure a minimum accuracy of +/- 0.10m, combined separation, for horizontal and vertical positions respectively. Inertial Explorer methodology integrates Inertial Navigation Solution by processing the GPS data and Inertial Measurement Unit (IMU). The software applies the reference lever arms for the GPS and IMU, in table 2, during the process to determine the trajectory (position and orientation) of the LiDAR sensor during the acquisition mission. Inertial Explorer generated graphical results were reviewed to ensure that the IMU data was healthy. Graphical results for all lifts can be found in Appendix D.

2.3 Point Cloud Creation

Raw LiDAR sensor ranging data and the final solution sensor trajectory (*.sol), from Inertial Explorer, were processed in Leica’s HxMap software to produce LiDAR point cloud swath for each flight line in LAS version 1.4 file format. Quality control of the swath point cloud was performed to validate proper functioning of the sensor system, full coverage of the project area and point density of the LiDAR data. Swath point clouds were assigned unique file source identification. The data was found to be complete and consistent with the sensor calibration parameters.

Point Cloud statistics analyses to determine Nominal Point Spacing (NPS) and Point Density for the AZ_NavajoNation_D22 dataset was performed using LP360 (Advanced 64-bit) v2021.1.47.0 software. A total of ninety three (93) point cloud tiles, carefully selected and well distributed in the defined project area (DPA) were used to determine the point cloud statistics for the project. LP360 “Point Cloud Statistics Extractor” point cloud task (module) enables a summary statistic for a point cloud to be exported for all active dataset loaded into the software.

The procedure involved;

- 1) Adding all selected Point Cloud data into the software
- 2) Open the point cloud task command

- 3) Select the “Point Cloud Statistics Extractor” task
- 4) Define the point cloud statistics to report for each active point cloud
- 5) Apply and execute command to export an ASCII text report.

For the AZ_NavajoNation_D22 point cloud, the computed average NPS is 0.389 (target ≤ 0.71) and the average point density is 7.008 (target ≥ 2 ppm). Detailed summary report is shown in the table below.

Number of Sample Tiles	Average Point Density	Average Point Density Class 1	Average Point Density Class 2	Average NPS
93	7.008	2.568	4.439	0.389

Tile	Total Point Count	Point Count Class_1	Point Count Class_2	Point Density	Point Density Class_1	Point Density Class_2	NPS
12SWF546049.las	9252475	2774684	6477791	4.112	1.233	2.879	0.49
12SWF549053.las	14125215	7535315	6589900	6.278	3.349	2.929	0.40
12SWF554059.las	10007656	2417035	7590621	4.448	1.074	3.374	0.47
12SWF581053.las	9743929	1642349	8101580	4.331	0.730	3.601	0.48
12SWF581065.las	9894220	1934556	7959664	4.397	0.860	3.538	0.48
12SWF584047.las	9682853	2403177	7279676	4.304	1.068	3.235	0.48
12SWF585068.las	11405922	2784937	8620985	5.069	1.238	3.832	0.44
12SWF588041.las	11950586	3005885	8944701	5.311	1.336	3.975	0.43
12SWF593071.las	19388266	5905327	13482939	8.617	2.625	5.993	0.34
12SXD642894.las	16164549	9211006	6945447	7.184	4.094	3.087	0.37
12SXD651888.las	15236139	6548588	8687551	6.772	2.911	3.861	0.38
12SXD651899.las	16383697	8432398	7951299	7.282	3.748	3.534	0.37
12SXD653885.las	16212972	7313209	8899763	7.206	3.250	3.955	0.37
12SXD653888.las	15852334	7375093	8477241	7.045	3.278	3.768	0.38
12SXD657887.las	14898188	7254397	7643791	6.621	3.224	3.397	0.39
12SXE600992.las	15075310	4216844	10858466	6.700	1.874	4.826	0.39
12SXE603932.las	20786114	7868123	12917991	9.238	3.497	5.741	0.33
12SXE605926.las	13047954	2043842	11004112	5.799	0.908	4.891	0.42

12SXE606924.las	11486537	1665347	9821190	5.105	0.740	4.365	0.44
12SXE608980.las	13797995	2525613	11272382	6.133	1.123	5.010	0.40
12SXE609938.las	14464407	5283616	9180791	6.429	2.348	4.080	0.39
12SXE611974.las	12598677	3091383	9507294	5.599	1.374	4.226	0.42
12SXE611992.las	12654906	3334438	9320468	5.624	1.482	4.142	0.42
12SXE612924.las	11525940	1081373	10444567	5.123	0.481	4.642	0.44
12SXE617947.las	13627897	3424422	10203475	6.057	1.522	4.535	0.41
12SXE618926.las	13418653	2791122	10627531	5.964	1.240	4.723	0.41
12SXE618993.las	13239964	3071854	10168110	5.884	1.365	4.519	0.41
12SXE621906.las	13918778	6105630	7708417	6.186	2.714	3.426	0.40
12SXE623956.las	13854467	3125262	10729205	6.158	1.389	4.769	0.40
12SXE624945.las	15862040	5019381	10842659	7.050	2.231	4.819	0.38
12SXE624957.las	15073666	4140339	10933327	6.699	1.840	4.859	0.39
12SXE624963.las	14211979	3755953	10456026	6.316	1.669	4.647	0.40
12SXE624975.las	13974141	2973366	11000775	6.211	1.321	4.889	0.40
12SXE626909.las	13148087	6763380	6384707	5.844	3.006	2.838	0.41
12SXE626963.las	14501979	3166883	11335096	6.445	1.408	5.038	0.39
12SXE626969.las	14225689	2376368	11849321	6.323	1.056	5.266	0.40
12SXE627912.las	13609640	6127069	7482571	6.049	2.723	3.326	0.41
12SXE633926.las	15594682	6605186	8989496	6.931	2.936	3.995	0.38
12SXE633930.las	16769176	7479501	9284554	7.453	3.324	4.126	0.37
12SXE633978.las	14492569	3324310	11168259	6.441	1.477	4.964	0.39
12SXE635921.las	14672411	7335093	7337318	6.521	3.260	3.261	0.39
12SXE636920.las	16049410	8385800	7662853	7.133	3.727	3.406	0.37
12SXE638914.las	14906729	7231661	7675068	6.625	3.214	3.411	0.39
12SXE638974.las	14871919	3847231	11024688	6.610	1.710	4.900	0.39

12SXE639930.las	16865110	6848894	10016216	7.496	3.044	4.452	0.37
12SXE639953.las	14640983	4317038	10323945	6.507	1.919	4.588	0.39
12SXE642902.las	15103782	7275980	7827802	6.713	3.234	3.479	0.39
12SXE642909.las	14572289	7499861	7072428	6.477	3.333	3.143	0.39
12SXE642992.las	16069919	6837869	9232050	7.142	3.039	4.103	0.37
12SXE644932.las	31145197	17800108	13345089	13.842	7.911	5.931	0.27
12SXE645960.las	17984520	8163462	9821058	7.993	3.628	4.365	0.35
12SXE647954.las	19471810	10562206	8909604	8.654	4.694	3.960	0.34
12SXE647989.las	17256305	7478956	9777349	7.669	3.324	4.345	0.36
12SXE650908.las	17531675	8979054	8552621	7.792	3.991	3.801	0.36
12SXE650986.las	19966424	10813708	9152716	8.874	4.806	4.068	0.34
12SXE651963.las	23986203	15777564	8208639	10.661	7.012	3.648	0.31
12SXE653966.las	24703578	15950626	8752952	10.980	7.089	3.890	0.30
12SXE656951.las	23656795	13870627	9786168	10.514	6.165	4.349	0.31
12SXF608029.las	11657070	2857110	8799960	5.181	1.270	3.911	0.44
12SXF609038.las	10514547	1941929	8572618	4.673	0.863	3.810	0.46
12SXF609044.las	9548485	1616706	7931779	4.244	0.719	3.525	0.49
12SXF614028.las	10750646	2128598	8622048	4.778	0.946	3.832	0.46
12SXF614056.las	12864290	2808921	10055369	5.718	1.248	4.469	0.42
12SXF614064.las	13130486	2682113	10448373	5.836	1.192	4.644	0.41
12SXF615007.las	26698383	9894436	16803947	11.866	4.398	7.468	0.29
12SXF615013.las	14682803	3940290	10742513	6.526	1.751	4.775	0.39
12SXF615088.las	14177586	3676837	10500749	6.301	1.634	4.667	0.40
12SXF617052.las	13810254	3355565	10454689	6.138	1.491	4.647	0.40
12SXF618005.las	23892715	8072543	15820172	10.619	3.588	7.031	0.31
12SXF620071.las	13230117	3432255	9797862	5.880	1.525	4.355	0.41

12SXF620073.las	13285696	3397415	9888281	5.905	1.510	4.395	0.41
12SXF621025.las	13022358	4252144	8770214	5.788	1.890	3.898	0.42
12SXF621065.las	13710139	4677792	9032347	6.093	2.079	4.014	0.41
12SXF621080.las	12965784	2741528	10224256	5.763	1.218	4.544	0.42
12SXF623086.las	12198414	3275275	8923139	5.422	1.456	3.966	0.43
12SXF624019.las	13362331	3931455	9430876	5.939	1.747	4.192	0.41
12SXF630089.las	12994898	3190241	9804657	5.776	1.418	4.358	0.42
12SXF633004.las	26242024	12479216	13762808	11.663	5.546	6.117	0.29
12SXF638040.las	13980975	3794348	10186627	6.214	1.686	4.527	0.40
12SXF639005.las	21898378	8986299	12912079	9.733	3.994	5.739	0.32
12SXF642049.las	15231127	3693919	11537208	6.769	1.642	5.128	0.38
12SXF645011.las	16457294	6638362	9818932	7.314	2.950	4.364	0.37
12SXF645035.las	14982369	3053084	11929285	6.659	1.357	5.302	0.39
12SXF645052.las	15199924	3051259	12148665	6.756	1.356	5.399	0.38
12SXF645053.las	15045018	2865142	12179876	6.687	1.273	5.413	0.39
12SXF645091.las	15642370	3319168	12323202	6.952	1.475	5.477	0.38
12SXF648055.las	16158688	5588214	10570474	7.182	2.484	4.698	0.37
12SXF651032.las	17408985	4942225	12466760	7.737	2.197	5.541	0.36
12SXF654016.las	34919501	21330375	13589126	15.520	9.480	6.040	0.25
12SXF656089.las	23068109	7887737	15180372	10.253	3.506	6.747	0.31
12SXF657025.las	24789649	10638932	14150717	11.018	4.728	6.289	0.30
12SXF660019.las	30806038	18251600	12554438	13.692	8.112	5.580	0.27
12SXF665088.las	9428812	2028046	7400766	4.191	0.901	3.289	0.49

Table 4 Point Density Statistics

2.4 Geometric Calibration

LiDAR data calibration was done using Leica HxMap v3.6.0 software. HxMap is the common workflow platform for Leica airborne sensors. The processing workflow involves; Ingest, Block Creation, LiDAR Matching, Quality Assurance (QA) and Product Generation. LiDAR is processed in HxMap by generating point clouds from raw sensor data during the Ingest step. Noise filtering, sensor installation calibration and atmospheric condition parameters are also applied during the ingest process. Once all data is processed through ingest, they are assembled into a block for LiDAR Matching. The LiDAR Matching step resolves LiDAR registration errors which remain in the point clouds after sensor and installation calibration parameters are applied in the ingest step.

After LiDAR Matching is complete, QA tool is run on the Block to verify quality of results. QA Tool measurements are 2D patches with vertical statistics computed, therefore patches are only found on open terrain with moderate slope. Patches are not expected in areas of forest or crop, or on mountainous slopes. The QA results are reviewed to ensure that, 95% of patches < 5cm for Vertical Scan Direction and Vertical Line Separation. Ground control points are also included to assess absolute accuracy for the point cloud data. HxMap's detailed QA results can be found in Appendix E.

LiDAR products are finally generated in the Product Generation step as LAS swaths (LAS 1.4). Vertical (Z) shift (calculated from QA step) is also applied during the product generation. The exported LAS 1.4 swath data from HxMap is imported into GeoCue Group's product workflow management software, GeoCue v2017. The full point cloud is tiled into a manageable size for processing in TerraScan. The final geometrically calibrated swath point cloud was compared to the bare-earth profile survey data. The data fit the profile surveys within the vertical accuracy tolerance specified for the project. Full documentation of the vertical accuracy checks maybe found in section 3.2

For **140G0222F0169 AZ_NavajoNation_D22** QL2 LiDAR project, the control points listed below were used in data adjustment.

Point ID	Easting	Northing	Ortho.Height
GS0001	621434.462	4024930.936	1679.955
GS0005	624521.389	4019839.494	1627.750
GS0012	609138.076	4038924.350	1778.801
GS0020	608342.962	4030096.388	1795.490
GS0023	584091.755	4048319.846	1706.969
GS0027	588340.083	4041833.714	1818.347
GS0028	588349.167	4041807.246	1818.014
GS0029	588361.437	4041793.880	1818.662
GS0030	588320.391	4041836.367	1817.378
GS0038	547243.989	4048566.449	1985.745
GS0041	554584.303	4059435.962	1839.919
GS0045	585792.309	4069100.562	1603.166
GS0049	580884.778	4065845.100	1682.841
GS0056	623325.263	4087432.782	1511.925
GS0060	616272.760	4088864.096	1480.754
GS0067	656197.829	4089569.888	1632.663
GS0071	664808.755	4088833.815	1585.844

GS0078	620329.933	4072531.251	1565.679
GS0082	621918.639	4081391.545	1614.417
GS0083	621943.725	4081376.129	1613.175
GS0084	621929.850	4081356.973	1613.230
GS0085	621937.794	4081405.642	1613.396
GS0089	614055.210	4056562.989	1668.610
GS0093	616569.452	4052178.980	1621.040
GS0100	645668.958	4052973.255	1771.786
GS0107	642987.852	4048905.769	1767.679
GS0111	645614.881	4035538.702	1802.345
GS0115	637780.142	4040598.425	1658.339
GS0122	660097.670	4019942.160	2149.629
GS0126	657190.057	4025974.463	2022.860
GS0133	640178.995	4005497.268	1969.418
GS0137	633124.559	4003939.019	1782.532
GS0144	606126.055	3925333.281	1819.007
GS0147	619323.338	3925950.796	1950.083
GS0150	613460.572	3924479.945	1897.550
GS0151	613430.685	3924482.432	1897.446
GS0152	604171.294	3932319.771	1805.913
GS0155	604739.488	3926544.334	1795.368
GS0160	617593.411	3946652.717	1871.952
GS0163	624679.156	3945558.442	1991.267
GS0168	651207.185	3964355.752	2222.789
GS0171	653815.475	3967205.521	2332.707
GS0177	647575.159	3954041.899	2182.734
GS0179	655898.704	3951668.080	2283.214
GS0184	625479.851	3963383.952	1910.105
GS0187	624229.190	3957672.514	1937.604
GS0194	611856.819	3974626.969	1863.517
GS0196	607991.422	3980265.579	1874.057
GS0202	653838.233	3885147.586	1848.129
GS0206	658364.664	3887238.433	1889.309
GS0214	642655.442	3895058.349	1754.234
GS0219	651396.637	3898539.356	1794.800
GS0226	642572.187	3909384.527	1912.761
GS0230	649676.747	3907968.813	1962.115
GS0238	621490.181	3906541.446	1786.731
GS0242	626391.492	3910437.268	1803.555
GS0250	634737.408	3921525.153	1935.466
GS0254	637179.731	3919603.695	1946.807
GS0262	639473.668	3931106.623	2054.145
GS0266	644213.609	3932002.275	2174.094
GS0274	633970.134	3978391.321	1800.700
GS0278	638818.551	3974906.894	1914.122

GS0281	615568.850	4007722.852	1826.818
GS0286	615037.999	4013213.211	1714.534
GS0294	611054.310	3992499.668	1794.490
GS0299	601362.894	3992164.456	1848.299
GS0308	647623.780	3989713.666	2082.398
GS0313	650196.108	3986323.523	2142.503

Table 5 Ground Control Points

3. Geometric Quality

3.1 Point Cloud

Geometric calibration quality control validates that the positional accuracy requirements of the project are met, and includes relative accuracy assessments for intra-swath (within) and inter-swath (between) accuracy, along with absolute accuracy assessments against project ground control.

Figure 3 below, shows the swath-to-swath calibration assessment depicted by an intensity ortho created by using all returns, and colored by elevation difference between the swaths. The source deltas are an image type used for visualizing the elevation mismatch between overlapping swaths of LAS data. The granularity is controlled by the interval's selection. The interval size specifies the Z threshold at which the color bands apply. The interval used to create the difference elevation image is 0.040m. Colors shown as green indicates swath separation $< 0.040\text{m}$, yellow indicates separation $> 0.040\text{m}$ and $< 0.080\text{m}$, red indicates separation $> 0.080\text{m}$. All red areas depicted in the image have been reviewed and represent locations of high vegetation.

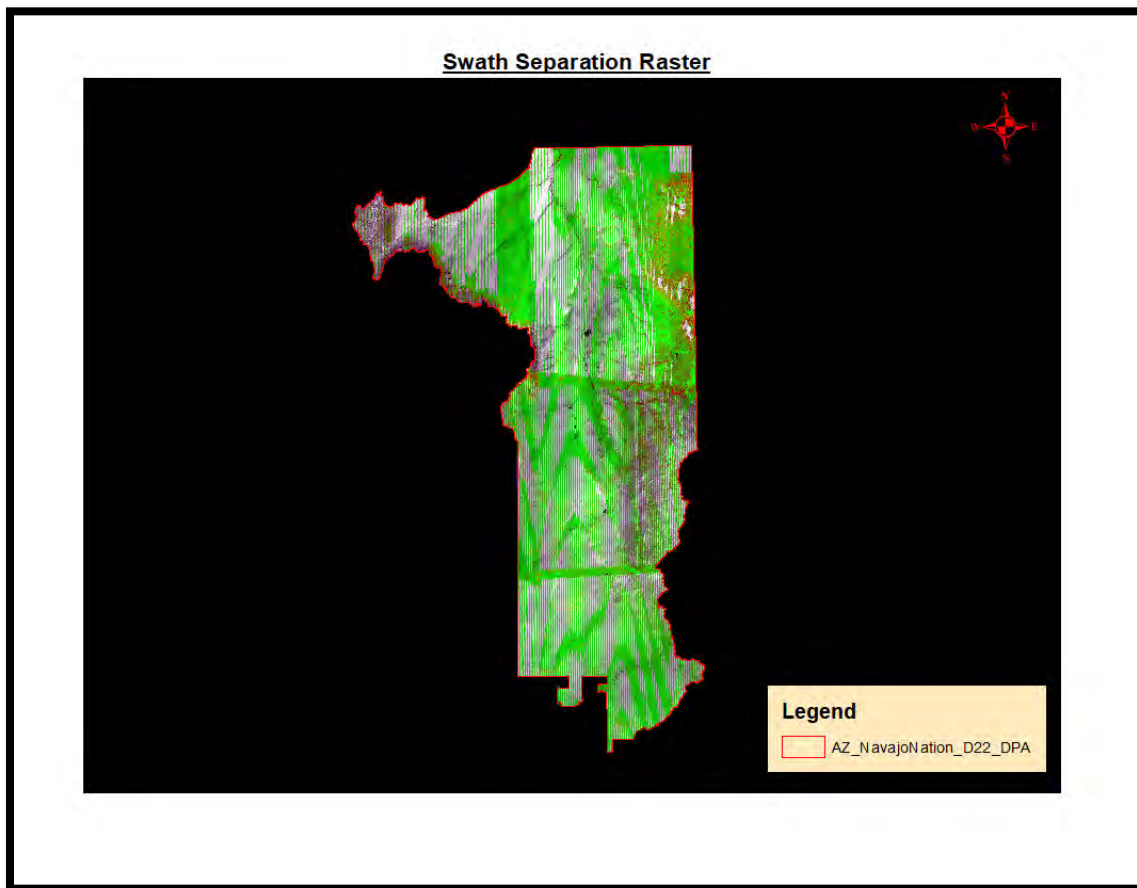


Figure 5 Swath Separation Raster

3.2 Accuracy Assessment

This data set was produced to meet ASPRS “Positional Accuracy Standards for Digital Geospatial Data” (2014) for a 36.0 (cm) RMSE_x / RMSE_y Horizontal Accuracy Class which equates to Positional Horizontal Accuracy = +/- 71.0 cm at a 95%

The absolute vertical accuracy of the point cloud data is assessed against ground check point data. For the **140G0222F0169 AZ_NavajoNation_D22** project, ground check point data were surveyed using RTK- GPS techniques.

Local TIN models of the elevation points are built around each ground check points. The tin model elevation is sampled at the horizontal position of the ground check point. The TIN model elevation and ground check point survey elevation values were used to calculate the Non-vegetated Vertical Accuracy (NVA) of the swath point clouds. Calculations were produced to meet ASPRS “Positional Accuracy Standards for Digital Geospatial Data” (2014).

The tiled point cloud products were reviewed for full coverage of the AOI and proper classification. As part of the QC process, TINs are built in the Terramodeler software for each tile using the ground class and the hydro-flattening breaklines. The TINs are reviewed for non-ground features, and edited where necessary to remove any remaining non-ground features. Points were also reviewed for absolute elevation, and points falling below the selected orthometric elevation for water were removed from the ground class.

Tested Accuracy	RMSE _z	NVA	VVA
Classified LiDAR	0.070	143	108
Digital Elevation Model	0.071	143	108

Table 6 Tested RMSE_z of NVA and VVA of LiDAR Point Cloud and Digital Elevation Model

Total #	# NVA	# VVA
251	143	108

Table 7 Number of Survey Points used to calculate accuracy of data.

4. Production

4.1 Point Cloud Classification

Georeferenced information was applied to the swath point cloud LAS files. Geometrically calibrated swath point cloud was cut into **1,500-meter x 1,500-meter** LAS 1.4 format tiles for point cloud classification. Tiled point cloud data was processed in Terrasolid's TerraScan software to assign initial classification values. The TerraScan software provides a number of automated routines to algorithmically detect and assign points to their appropriate classes. Points left unclassified by the algorithmic routine remain as Class 1– Processed, but unclassified. Automated classification routines assigned points to one of the following classes:

Class 1- Processed, but unclassified

Class 2- Bare-earth ground

Class 7- Low Noise (low, manually identified, if necessary)

Class 9-Water

Class 17- Bridge Decks

Class 18- High Noise (high, manually identified, if necessary)

Class 20- Ignored Ground (Breakline Proximity)

Class 21- Snow (if present and identifiable)

Class 22- Temporal exclusion (typically non-favored data in intertidal, use as necessary)

Automated classification results were reviewed for each tiled point cloud, and manual edits were made where necessary to correct for misclassified points.

4.2 Breakline Collection

Hydrographic breakline features were compiled in ArcGIS Desktop v10.7.0, using LiDAR intensity ortho and surface terrain model of the entire project area. The 2D features were checked to ensure they had no geometric or topological errors. Three-dimensional (3D) breakline conflation was done using a fully automated elevation conflation method in GeoCue LP360 v.2021.1.47.0 software. QA/QC procedure was done in ArcGIS Desktop using python scripts to check for monotonicity and vertical variance, to ensure that the 3D breakline features met 3DEP requirements.

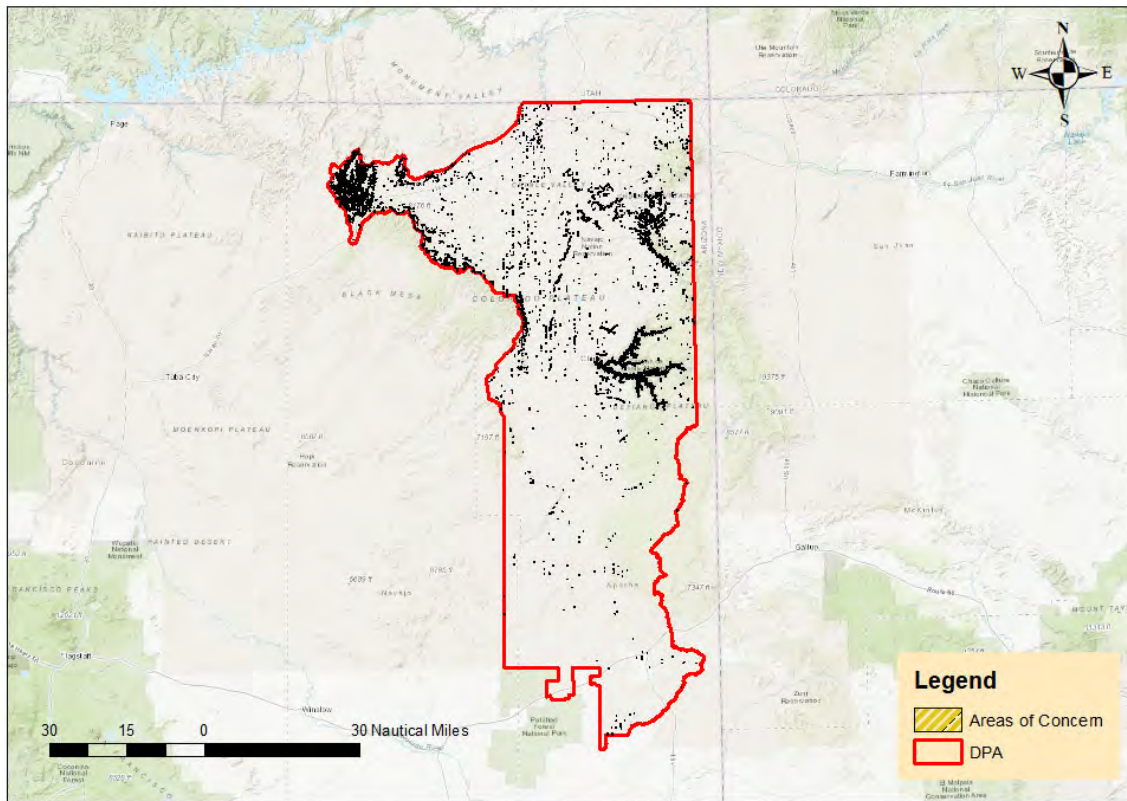
4.3 DEM Generation

Bare earth Digital Elevation Model (DEM) was created using LP360 v.2021.1.47.0 software. Input data for DEM creation include classified LAS point cloud (bare earth, class2), 3D hydrographic breaklines, and project tile index. The breakline features were used to classify water (class 9) and ignored ground (class 20) in the point cloud. These points (classes 9 & 20) are excluded in the DEM generation. Raster (DEM) production methodology include, hydro breakline enforcement and bilinear interpolation resample. Final DEM are exported in GEOTIFF format and tiled to USNG tile extent. GDAL V2.4.2 was used to write final header information for all DEM products.

Vertical Cliff Face Terrain Classification

Large portions of the AZ_NavajoNation_D22 AOI have steep vertical cliff surfaces and canyons which posed a challenge to classification of bare earth ground class from the LiDAR point cloud. Initial automated ground classification algorithm left probable ground points in class 1 (unclassified class) in areas with very steep vertical cliff faces. Detailed manual classification efforts were put in to bring these points back to the ground class 2 to resolve these issues across the project area. There is evidence of lidar shadowing effects, caused by steep cliff features and canyon in these areas (in accordance with C.1.b.(xiv)(c) of task order document) The resulting classified point cloud (class 2) adequately models the terrain in the DEM generation. The map below depicts notable areas in the AOI that required extra attention in classification.

AZ_NavajoNation_D22



Appendix A. Flight Logs



Digital Aerial Solutions Flight Log

Project/Flight Plan:		Navajo Chinle AZ		Lift	Temp °C Before		Temp °C After		Pressure (kPa)		Sensor Operator		
				33	8		18		102.30		Chuck Harris		
Date/Julian:		10/11/2022		Disk Drive			Sensor					Pilot	
Hobbs End		217.9		TM MM30 (103, 104)			TM_90524					Mike Wasielewski	
Hobbs ST		213.1		TARGET MSL		Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		4.8		12,000		155	BDG01				1.500	C441-N207SS	Blanding (KBDG)
∠	Flight Line	Mission Line	UTC time:		Direction	GPS Altitude	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:	
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP		
	91	91 S	14:04	14:11	170°	11866	155	3144	18	1.3	0.7	Abnormal Reflection	
	90	90 N	14:15	14:22	350°	11897	160	3141	18	1.2	0.7	Abnormal Reflection	
	89	89 S	14:26	14:33	171°	11902	159	3137	17	1.3	0.7	Abnormal Reflection	
	88	88 N	14:36	14:43	350°	11905	154	3131	18	1.1	0.6	Abnormal Reflection	
	87	87 S	14:47	14:54	170°	11924	158	3127	18	1.1	0.6	Abnormal Reflection	
	86	86 N	14:58	15:04	351°	11924	157	3126	18	1.1	0.6	Abnormal Reflection	
	85	85 S	15:07	15:13	170°	11951	158	3122	18	1.1	0.6	Abnormal Reflection	
	84	84 N	15:18	15:22	351°	11956	159	3119	19	1.1	0.6	Abnormal Reflection	
	83	83 S	15:26	15:31	172°	11955	154	3116	19	1.1	0.6	Abnormal Reflection	
	82	82 N	15:34	15:39	350°	12014	157	3114	17	1.2	0.7	Abnormal Reflection	
	81	81 S	15:43	15:47	170°	12014	156	3111	16	1.3	0.7	Abnormal Reflection	
	80	80 N	15:51	15:55	350°	12011	156	3109	16	1.3	0.7	Abnormal Reflection	
	79	79 S	15:59	16:04	171°	11886	155	3106	16	1.2	0.7	Abnormal Reflection	
	78	78 N	16:08	16:13	350°	11884	154	3102	16	1.2	0.7	Abnormal Reflection	
	77	77 S	16:16	16:22	170°	11859	155	3097	17	1.7	0.6	Abnormal Reflection	
	76	76 N	16:25	16:30	350°	11866	153	3095	17	1.1	0.7	Abnormal Reflection	
	75	75 S	16:34	16:39	170°	11850	155	3091	15	1.2	0.7	Abnormal Reflection	
	74	74 N	16:43	16:47	351°	11868	155	3087	15	1.2	0.7	Abnormal Reflection	
	73	73 S	16:51	16:56	170°	11945	158	3084	14	1.4	0.7	Abnormal Reflection	
	72	72 N	17:00	17:05	350°	11948	155	3080	14	1.4	0.7	Abnormal Reflection	
	71	71 S	17:08	17:13	170°	11945	152	3077	15	1.4	0.8	AbR. Gimbal data	
	70	70 N	17:17	17:21	350°	12179	151	3073	15	1.3	0.8	Abnormal Reflection	
	69	69 S	17:25	17:29	170°	12235	152	3069	16	1.3	0.7	Abnormal Reflection	
	68	68 N	17:33	17:37	350°	12233	150	3066	16	1.3	0.7	Abnormal Reflection	
	67	67 S	17:41	17:45	170°	12025	155	3062	16	1.3	0.7	Abnormal Reflection	
	66	66 N	17:49	17:53	350°	12011	154	3061	17	1.2	0.7	Abnormal Reflection	
	65	65 S	17:57	18:01	171°	11997	154	3057	18	1.2	0.6	Abnormal Reflection	
	64	64 n	18:05	18:09	350°	12058	155	3054	18	1.2	0.6	AbR. Gimbal data	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		Navajo Chinle AZ			Lift	Temp °C Before		Temp °C After		Pressure (kPa)		Sensor Operator	
					34	7		22		102.64		Chuck Harris	
Date/Julian:		10/12/2022		Disk Drive			Sensor					Pilot	
Hobbs End		223.2		TM MM30 (103, 104)			TM_90524					Mike Wasielewski	
Hobbs ST		217.9		TARGET MSL		Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		5.3		12,000		155	BDG01				1.500	C441-N207SS	Blanding (KBDG)
∠	Flight Line	Mission Line	UTC time:		Direction	GPS Altitude	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:	
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP		
	63	63 S	14:04	14:08	170°	12129	154	3050	18	1.3	0.7	Abnormal Reflection	
	62	62 N	14:12	14:16	351°	12317	155	3046	18	1.3	0.7	Abnormal Reflection	
	61	61 S	14:20	14:24	170°	12365	159	3043	17	1.5	0.8	Abnormal Reflection	
	60	60 N	14:28	14:33	351°	12271	158	3041	16	1.4	0.8	Abnormal Reflection	
	59	59 S	14:36	14:41	170°	12277	157	3036	17	1.3	0.7	Abnormal Reflection	
	58	58 N	14:44	14:49	351°	12400	153	3031	17	1.2	0.7	Abnormal Reflection	
	57	57 S	14:53	14:57	170°	12425	158	3028	17	1.2	0.7	AbR. Gimbal data	
	56	56 N	15:01	15:06	350°	12506	157	3023	18	1.1	0.7	Abnormal Reflection	
	55	55 S	15:10	15:16	170°	12480	154	3021	18	1.1	0.7	Abnormal Reflection	
	54	54 N	15:20	15:27	351°	12572	153	3017	18	1.2	0.6	Abnormal Reflection	
	53	53 S	15:31	15:38	170°	12601	154	3008	18	1.1	0.6	Abnormal Reflection	
	52	52 N	15:41	15:48	350°	12599	157	3004	17	1.2	0.7	Abnormal Reflection	
	51	51 S	15:52	16:00	170°	12620	156	3001	17	1.1	0.7	Abnormal Reflection	
	50	50 N	16:03	16:11	350°	12430	154	2997	17	1.1	0.7	Abnormal Reflection	
	49	49 S	16:14	16:22	170°	12356	155	2992	18	1.1	0.6	Abnormal Reflection	
	48	48 N	16:26	16:33	350°	12355	157	2985	15	1.2	0.7	Abnormal Reflection	
	47	47 S	16:37	16:43	170°	12396	156	2978	15	1.2	0.7	Abnormal Reflection	
	46	46 N	16:48	16:53	350°	12399	155	2976	15	1.2	0.7	Abnormal Reflection	
	45	45 S	16:57	17:01	170°	12448	154	2974	14	1.4	0.8	Abnormal Reflection	
	44	44 N	17:06	17:09	350°	12521	156	2971	13	1.8	0.8	Abnormal Reflection	
	43	43 S	17:13	17:17	170°	12843	153	2967	15	1.5	0.8	Abnormal Reflection	
	42	42 N	17:21	17:25	351°	12940	155	2966	15	1.3	0.7	Abnormal Reflection	
	41	41 S	17:28	17:32	170°	13023	154	2963	15	1.4	0.7	Abnormal Reflection	
	40	40 N	17:36	17:39	350°	13058	158	2961	15	1.4	0.7	Abnormal Reflection	
	39	39 S	17:43	17:45	170°	13223	158	2959	15	1.4	0.7	Abnormal Reflection	
	23	23 N	18:09	18:10	351°	11939	156	2956	16	1.3	0.7		

Appendix B. Base Station GPS Session Forms

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 9/27/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation K 513			Exact Stamping (include photo in survey report) K 513 1983		
Monument No./PID GP0401		Collection Type (circle one) ABGPS STATIC RTK		File Name (receiver generated) 6674_0927_110538.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/27/2022		Start Time (UTC) 16:06		Approx. Lat. (if available) 36° 43' 33.28633 N	
End Date (UTC) 9/28/2022		End Time (UTC) 24:20		Approx. Long. (if available) 110° 15' 25.23318 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 9/28/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP04			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_0928_102129.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/28/2022		Start Time (UTC) 15:21		Approx. Lat. (if available) 36° 45' 49.66585 N	
End Date (UTC) 9/29/2022		End Time (UTC) 2:05		Approx. Long. (if available) 110° 02' 19.89200 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 9/29/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP01			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_0929_103100.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/29/2022		Start Time (UTC) 15:31		Approx. Lat. (if available) 36° 55' 30.28678 N	
End Date (UTC) 9/29/2022		End Time (UTC) 21:06		Approx. Long. (if available) 109° 36' 54.97674 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 9/30/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP05			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_0930_102316.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/30/2022		Start Time (UTC) 15:23		Approx. Lat. (if available) 36° 47' 27.93876 N	
End Date (UTC) 10/1/2022		End Time (UTC) 1:04		Approx. Long. (if available) 109° 39' 04.05571 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/1/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP11			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 0182_1001_143629.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/1/2022		Start Time (UTC) 19:36		Approx. Lat. (if available) 36° 21' 42.53494 N	
End Date (UTC) 10/2/2022		End Time (UTC) 1:05		Approx. Long. (if available) 109° 38' 47.77092 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/2/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP08			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1002_100844.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/2/2022		Start Time (UTC) 15:08		Approx. Lat. (if available) 36° 06' 40.11487 N	
End Date (UTC) 10/2/2022		End Time (UTC) 21:50		Approx. Long. (if available) 109° 22' 15.64914 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/3/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation M 503			Exact Stamping (include photo in survey report) M 503 1983		
Monument No./PID FP0392		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1003_102322.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/3/2022		Start Time (UTC) 15:23		Approx. Lat. (if available) 35° 12' 32.97589 N	
End Date (UTC) 10/3/2022		End Time (UTC) 22:14		Approx. Long. (if available) 109° 20' 52.34280 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/4/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP26			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1004_135926.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/4/2022		Start Time (UTC) 18:59		Approx. Lat. (if available) 35° 25' 40.91545 N	
End Date (UTC) 10/4/2022		End Time (UTC) 23:08		Approx. Long. (if available) 109° 30' 56.40931 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/4/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation M 503			Exact Stamping (include photo in survey report) M 503 1983		
Monument No./PID FP0392		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1004_100256.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/4/2022		Start Time (UTC) 15:03		Approx. Lat. (if available) 35° 12' 32.97589 N	
End Date (UTC) 10/4/2022		End Time (UTC) 18:27		Approx. Long. (if available) 109° 20' 52.34280 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/5/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP23			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1005_164346.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/5/2022		Start Time (UTC) 21:43		Approx. Lat. (if available) 35° 31' 44.82321 N	
End Date (UTC) 10/5/2022		End Time (UTC) 22:53		Approx. Long. (if available) 109° 51' 03.49814 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/5/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP26			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC RTK		File Name (receiver generated) 6674_1005_095634.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/5/2022		Start Time (UTC) 14:56		Approx. Lat. (if available) 35° 25' 40.91545 N	
End Date (UTC) 10/5/2022		End Time (UTC) 20:46		Approx. Long. (if available) 109° 30' 56.40931 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/6/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP19			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1006_122614.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/6/2022		Start Time (UTC) 17:26		Approx. Lat. (if available) 35° 48' 23.93173 N	
End Date (UTC) 10/6/2022		End Time (UTC) 21:58		Approx. Long. (if available) 109° 36' 40.10767 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/6/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP23			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1006_094847.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/6/2022		Start Time (UTC) 14:48		Approx. Lat. (if available) 35° 31' 44.82321 N	
End Date (UTC) 10/6/2022		End Time (UTC) 16:48		Approx. Long. (if available) 109° 51' 03.49814 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/7/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP22			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1007_142034.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/7/2022		Start Time (UTC) 19:21		Approx. Lat. (if available) 35° 40' 09.95026 N	
End Date (UTC) 10/7/2022		End Time (UTC) 23:31		Approx. Long. (if available) 109° 22' 06.41313 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/7/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP23			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1007_093931.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/7/2022		Start Time (UTC) 14:39		Approx. Lat. (if available) 35° 31' 44.82321 N	
End Date (UTC) 10/7/2022		End Time (UTC) 18:33		Approx. Long. (if available) 109° 51' 03.49814 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/8/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP19			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1008_120745.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/8/2022		Start Time (UTC) 17:07		Approx. Lat. (if available) 35° 48' 23.93173 N	
End Date (UTC) 10/8/2022		End Time (UTC) 22:30		Approx. Long. (if available) 109° 36' 40.10767 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/8/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP28			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC RTK		File Name (receiver generated) 6674_1008_094957.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/8/2022		Start Time (UTC) 14:49		Approx. Lat. (if available) 35° 19' 02.70171 N	
End Date (UTC) 10/8/2022		End Time (UTC) 15:20		Approx. Long. (if available) 109° 25' 53.79556 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/9/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP10			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1009_094003.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/9/2022		Start Time (UTC) 14:41		Approx. Lat. (if available) 36° 27' 14.82277 N	
End Date (UTC) 10/9/2022		End Time (UTC) 20:36		Approx. Long. (if available) 109° 22' 30.13017 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/9/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation GCP12			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 6674_1009_155957.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1516674	
Antenna Part No. 6194452		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/9/2022		Start Time (UTC) 21:00		Approx. Lat. (if available) 36°18' 40.53829 N	
End Date (UTC) 10/9/2022		End Time (UTC) 0:48		Approx. Long. (if available) 109° 13' 00.26230 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/10/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base01			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1010_141734.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/10/2022		Start Time (UTC) 21:46		Approx. Lat. (if available) 36° 55' 30.28678 N	
End Date (UTC) 10/10/2022		End Time (UTC) 22:38		Approx. Long. (if available) 109° 36' 54.97674 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/10/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base02			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1010_154635.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/10/2022		Start Time (UTC) 22:17		Approx. Lat. (if available) 36° 56' 21.14249 N	
End Date (UTC) 10/10/2022		End Time (UTC) 23:17		Approx. Long. (if available) 109° 14' 45.25292 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/10/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base05			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1010_124616.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/10/2022		Start Time (UTC) 20:46		Approx. Lat. (if available) 36° 45' 49.66585 N	
End Date (UTC) 10/10/2022		End Time (UTC) 21:38		Approx. Long. (if available) 110° 02' 19.89200 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/10/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base06			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1010_091842.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/10/2022		Start Time (UTC) 17:16		Approx. Lat. (if available) 36° 34' 35.51488 N	
End Date (UTC) 10/10/2022		End Time (UTC) 18:20		Approx. Long. (if available) 110° 03' 36.09213 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		


GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/10/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase03			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1010_091842.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/10/2022		Start Time (UTC) 18:57		Approx. Lat. (if available) 36° 37' 55.45544 N	
End Date (UTC) 10/10/2022		End Time (UTC) 20:13		Approx. Long. (if available) 110° 27' 00.50544 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/10/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation NewBase09			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1010_074821.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/10/2022		Start Time (UTC) 15:48		Approx. Lat. (if available) 36° 29' 21.88275 N	
End Date (UTC) 10/10/2022		End Time (UTC) 16:46		Approx. Long. (if available) 109° 46' 53.34820 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		
					

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/10/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation NewBase11			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1010_060012.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/10/2022		Start Time (UTC) 14:00		Approx. Lat. (if available) 36° 21' 42.53494 N	
End Date (UTC) 10/10/2022		End Time (UTC) 15:11		Approx. Long. (if available) 109° 38' 47.77092 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/11/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base05			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC RTK		File Name (receiver generated) 6684_1011_065803.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/11/2022		Start Time (UTC) 14:58		Approx. Lat. (if available) 36° 47' 27.93876 N	
End Date (UTC) 10/11/2022		End Time (UTC) 15:11		Approx. Long. (if available) 109° 39' 04.05571 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/11/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base10			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1011_131441.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/11/2022		Start Time (UTC) 21:14		Approx. Lat. (if available) 36° 27' 14.71743 N	
End Date (UTC) 10/11/2022		End Time (UTC) 22:10		Approx. Long. (if available) 109° 22' 30.04216 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/11/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base12			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1011_144120.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/11/2022		Start Time (UTC) 22:41		Approx. Lat. (if available) 36° 18' 40.51485 N	
End Date (UTC) 10/11/2022		End Time (UTC) 23:53		Approx. Long. (if available) 109° 13' 00.06028 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		


GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/11/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base14			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1011_162015.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/11/2022		Start Time (UTC) 0:20		Approx. Lat. (if available) 36° 11' 02.33970 N	
End Date (UTC) 10/12/2022		End Time (UTC) 1:13		Approx. Long. (if available) 109°26' 28.67876 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/11/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase07b			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1011_085308.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/11/2022		Start Time (UTC) 15:53		Approx. Lat. (if available) 36° 38' 52.56288 N	
End Date (UTC) 10/11/2022		End Time (UTC) 18:06		Approx. Long. (if available) 109° 43' 26.06258 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		
					

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/11/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase08			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1011_111219.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/11/2022		Start Time (UTC) 19:12		Approx. Lat. (if available) 36° 06' 40.11487 N	
End Date (UTC) 10/11/2022		End Time (UTC) 20:43		Approx. Long. (if available) 109° 22' 15.64914 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/12/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base17			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1012_154924.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/12/2022		Start Time (UTC) 23:49		Approx. Lat. (if available) 35° 54' 34.26164 N	
End Date (UTC) 10/12/2022		End Time (UTC) 0:49		Approx. Long. (if available) 109° 45' 38.48503 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/12/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base20			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1012_115225.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/12/2022		Start Time (UTC) 19:52		Approx. Lat. (if available) 35° 48' 41.53669 N	
End Date (UTC) 10/12/2022		End Time (UTC) 20:46		Approx. Long. (if available) 109° 19' 35.23227 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/12/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base21			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1012_101534.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/12/2022		Start Time (UTC) 18:15		Approx. Lat. (if available) 35° 33' 24.35642 N	
End Date (UTC) 10/12/2022		End Time (UTC) 19:00		Approx. Long. (if available) 109° 42' 04.24586 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/12/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base22			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1013_165328.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/12/2022		Start Time (UTC) 21:16		Approx. Lat. (if available) 35° 40' 09.95026 N	
End Date (UTC) 10/12/2022		End Time (UTC) 22:01		Approx. Long. (if available) 109° 22' 06.41313 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/12/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase19			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1012_143158.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/12/2022		Start Time (UTC) 22:16		Approx. Lat. (if available) 35° 48' 23.93173 N	
End Date (UTC) 10/12/2022		End Time (UTC) 23:21		Approx. Long. (if available) 109° 36' 40.10767 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/12/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase23			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1012_084727.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/12/2022		Start Time (UTC) 16:47		Approx. Lat. (if available) 35° 31' 44.82321 N	
End Date (UTC) 10/12/2022		End Time (UTC) 17:51		Approx. Long. (if available) 109° 51' 03.49814 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/12/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase25			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1012_072133.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/12/2022		Start Time (UTC) 15:21		Approx. Lat. (if available) 35° 27' 26.64594 N	
End Date (UTC) 10/12/2022		End Time (UTC) 16:22		Approx. Long. (if available) 109° 44' 59.58865 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/14/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base15			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1014_093501.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/14/2022		Start Time (UTC) 17:35		Approx. Lat. (if available) 36° 04' 14.51663 N	
End Date (UTC) 10/14/2022		End Time (UTC) 18:31		Approx. Long. (if available) 109° 45' 59.76039 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			80		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/13/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base24			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1013_144723.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/13/2022		Start Time (UTC) 22:47		Approx. Lat. (if available) 35° 30' 49.06117 N	
End Date (UTC) 10/13/2022		End Time (UTC) 23:47		Approx. Long. (if available) 109° 27' 43.48383 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		


GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/13/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base26			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1013_132541.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/13/2022		Start Time (UTC) 21:25		Approx. Lat. (if available) 35° 25' 40.91545 N	
End Date (UTC) 10/13/2022		End Time (UTC) 22:21		Approx. Long. (if available) 109° 30' 56.40931 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/13/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base28			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1013_093432.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/13/2022		Start Time (UTC) 17:34		Approx. Lat. (if available) 35° 19' 02.70171 N	
End Date (UTC) 10/13/2022		End Time (UTC) 18:28		Approx. Long. (if available) 109° 25' 53.79556 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		
					

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/13/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base29			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1013_082758.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/13/2022		Start Time (UTC) 15:28		Approx. Lat. (if available) 35° 11' 18.5880 N	
End Date (UTC) 10/13/2022		End Time (UTC) 16:15		Approx. Long. (if available) 109° 25' 59.43628 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/14/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase16			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1014_112523.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/14/2022		Start Time (UTC) 19:25		Approx. Lat. (if available) 36° 02' 27.08921 N	
End Date (UTC) 10/14/2022		End Time (UTC) 20:25		Approx. Long. (if available) 109°21' 40.24135 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			80		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/13/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase27			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1013_113709.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/13/2022		Start Time (UTC) 19:27		Approx. Lat. (if available) 35° 17' 40.29287 N	
End Date (UTC) 10/13/2022		End Time (UTC) 20:49		Approx. Long. (if available) 109° 39' 49.91478 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			80		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/13/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Newbase30			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1013_070319.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/13/2022		Start Time (UTC) 14:03		Approx. Lat. (if available) 35° 05' 51.04681 N	
End Date (UTC) 10/13/2022		End Time (UTC) 14:59		Approx. Long. (if available) 109° 18' 44.3439 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/14/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation Base13			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1014_072730.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/14/2022		Start Time (UTC) 15:28		Approx. Lat. (if available) 36° 12' 26.91673 N	
End Date (UTC) 10/14/2022		End Time (UTC) 16:28		Approx. Long. (if available) 109° 42' 51.92760 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			80		

GPS SESSION FORM



Contract # / TO # 140G0221D0017		Client / Project Name UGSS AZ_NavajoNation_D22		Date 10/13/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Cynthia Williams	
Monument Name/Designation NewBase18			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) ABGPS STATIC <u>RTK</u>		File Name (receiver generated) 6684_1013_165328.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1506684	
Antenna Part No. 4255298		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <u>ARP</u>	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/14/2022		Start Time (UTC) 0:53		Approx. Lat. (if available) 35° 56' 26.47910 N	
End Date (UTC) 10/14/2022		End Time (UTC) 1:41		Approx. Long. (if available) 109° 30' 53.13362 W	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/14/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0914_095535.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/14/2022		Start Time (UTC) 13:56		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/14/2022		End Time (UTC) 21:41		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/15/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0915_093744.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/15/2022		Start Time (UTC) 13:38		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/15/2022		End Time (UTC) 16:41		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/15/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0915_211446.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/16/2022		Start Time (UTC) 1:15		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/16/2022		End Time (UTC) 6:04		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/16/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0916_093940.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/16/2022		Start Time (UTC) 13:40		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/16/2022		End Time (UTC) 16:58		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/16/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0916_183545.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/16/2022		Start Time (UTC) 22:36		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/17/2022		End Time (UTC) 4:38		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/17/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0917_093852.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/17/2022		Start Time (UTC) 13:39		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/17/2022		End Time (UTC) 18:31		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/17/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0917_193430.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/17/2022		Start Time (UTC) 23:35		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/18/2022		End Time (UTC) 4:28		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/18/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0918_094117.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/18/2022		Start Time (UTC) 13:42		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/18/2022		End Time (UTC) 17:13		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS Navajo Chinle, AZ AZ_NavajoNation_D22		Date 9/18/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0918_193922.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/18/2022		Start Time (UTC) 23:39		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/19/2022		End Time (UTC) 4:49		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/19/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0919_094636.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/19/2022		Start Time (UTC) 13:47		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/19/2022		End Time (UTC) 19:18		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/19/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0919_201937.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/20/2022		Start Time (UTC) 0:20		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/20/2022		End Time (UTC) 4:17		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/20/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0920_095958.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/20/2022		Start Time (UTC) 14:00		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/20/2022		End Time (UTC) 15:40		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/23/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0923_095112.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/23/2022		Start Time (UTC) 13:51		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/23/2022		End Time (UTC) 19:30		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/23/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0923_195356.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/23/2022		Start Time (UTC) 23:54		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/24/2022		End Time (UTC) 3:59		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/24/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0924_095152.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/24/2022		Start Time (UTC) 13:52		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/24/2022		End Time (UTC) 19:01		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/24/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0924_200247.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/25/2022		Start Time (UTC) 0:03		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/25/2022		End Time (UTC) 4:15		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/25/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0925_094523.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/25/2022		Start Time (UTC) 13:45		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/25/2022		End Time (UTC) 18:57		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/25/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0925_195531.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/25/2022		Start Time (UTC) 23:56		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/26/2022		End Time (UTC) 4:30		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/26/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0926_095611.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/26/2022		Start Time (UTC) 13:56		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/26/2022		End Time (UTC) 18:42		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/26/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0926_195951.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/27/2022		Start Time (UTC) 0:00		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/27/2022		End Time (UTC) 4:46		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/27/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0927_100209.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/27/2022		Start Time (UTC) 8:02		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/27/2022		End Time (UTC) 13:15		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/28/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0928_091701.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/28/2022		Start Time (UTC) 13:17		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/28/2022		End Time (UTC) 18:09		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/28/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0928_195446.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/28/2022		Start Time (UTC) 23:55		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/29/2022		End Time (UTC) 4:22		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/29/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0929_100729.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/29/2022		Start Time (UTC) 14:08		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/29/2022		End Time (UTC) 18:20		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/29/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0929_195619.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/29/2022		Start Time (UTC) 23:56		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/30/2022		End Time (UTC) 5:09		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS Navajo Chinle, AZ USGS		Date 9/30/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0930_095712.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/30/2022		Start Time (UTC) 13:57		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 9/30/2022		End Time (UTC) 18:55		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 9/30/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_0930_195519.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 9/30/2022		Start Time (UTC) 23:55		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 10/1/2022		End Time (UTC) 2:47		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/1/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1001_100640.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/1/2022		Start Time (UTC) 14:07		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 10/1/2022		End Time (UTC) 18:52		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/5/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1005_094222.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/5/2022		Start Time (UTC) 13:43		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 10/5/2022		End Time (UTC) 19:31		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/7/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1007_093257.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/7/2022		Start Time (UTC) 13:33		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 10/7/2022		End Time (UTC) 18:32		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/8/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1008_093908.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/8/2022		Start Time (UTC) 13:43		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 10/8/2022		End Time (UTC) 17:46		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/9/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation GALLUPAIR			Exact Stamping (include photo in survey report) GALLUPAIR AZ MK		
Monument No./PID FP0714		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1009_092735.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/9/2022		Start Time (UTC) 13:28		Approx. Lat. (if available) N 35 30 50.91419	
End Date (UTC) 10/9/2022		End Time (UTC) 18:39		Approx. Long. (if available) W 108 46 56.93974	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/10/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation BDG01			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1010_092816.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/10/2022		Start Time (UTC) 13:28		Approx. Lat. (if available) N 37 34 51.97883	
End Date (UTC) 10/10/2022		End Time (UTC) 18:44		Approx. Long. (if available) W 109 28 57.44662	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/11/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation BDG01			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1011_090551.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/11/2022		Start Time (UTC) 13:06		Approx. Lat. (if available) N 37 34 51.97883	
End Date (UTC) 10/11/2022		End Time (UTC) 18:45		Approx. Long. (if available) W 109 28 57.44662	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/12/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation BDG01			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1012_090306.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/12/2022		Start Time (UTC) 13:03		Approx. Lat. (if available) N 37 34 51.97883	
End Date (UTC) 10/12/2022		End Time (UTC) 19:13		Approx. Long. (if available) W 109 28 57.44662	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0169		Client / Project Name USGS AZ_NavajoNation_D22		Date 10/13/2022	
DAS Project No. 22006		Survey Firm DAS		Operator Name Chuckquan Harris	
Monument Name/Designation BDG01			Exact Stamping (include photo in survey report)		
Monument No./PID		Collection Type (circle one) <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name (receiver generated) 1514_1013_091134.m00	
Receiver Manufacturer N/A		Receiver Model N/A		Receiver Serial No. N/A	
Data Collector Manufacturer Leica		Data Collector Model GS15		Data Collector Serial No. 1501514	
Antenna Part No. 3725413		Antenna Model N/A		Antenna Serial No. N/A	
Starting Antenna Height in Feet 1 2 3 AVG		Starting Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Ending Antenna Height in Feet 1 2 3 AVG		Ending Antenna Height in Meters 1 2 3 AVG 1.5		Type of Measurement (circle one) TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point (include and reference a dimensional diagram in Survey Report) (e.g., bottom edge of notch in ground plane, Page 5, Figure 2)					
Start Date (UTC) 10/13/2022		Start Time (UTC) 13:12		Approx. Lat. (if available) N 37 34 51.97883	
End Date (UTC) 10/13/2022		End Time (UTC) 17:50		Approx. Long. (if available) W 109 28 57.44662	
Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration.			Site Diagram/Setup-Photo		

Appendix C. Vertical Accuracy Calculations



Project Information

Prepared By: RY
Project Name: AZ_NavajoNation_D22
Sensor Info: TM
Required Nominal Pulse Spacing: 0.71
Vendor Name: DAS
Units: Meters
Percent of Extent Tolerance: Extents Not Checked
Date of Aquisition: Start: 9/15/2022 Finish: 10/13/2022

Metadata Information

Tile Index:
Filename: ARIZONA_NAVAJO_NATION_DPA_MTI.shp
Number of Polys: 0
Intensity:
Tile Index Attribute: Not Specified
Data Filename: Not Specified

DEM:
Tile Index Attribute: NAME
Data Filename: DEM

LAS:
Tile Index Attribute: NAME
Data Filename: LAS

LiDAR Accuracy Assessment Summary

LC Type	# Points	NVA	VVA	RMSE Z
LAS		95% Confidence	95 Percentile	
Bare Earth	123	0.132		0.067
High Vegetation	8		0.055	0.031
Low Vegetation	80		0.180	0.087
Medium Vegetation	20		0.157	0.094
Urban Terrain	20	0.162		0.083
NVA Total:	143	0.137		0.070
VVA Total:	108		0.164	0.086
Total:	251			0.077
DEM		95% Confidence	95 Percentile	
Bare Earth	123	0.137		0.070
High Vegetation	8		0.073	0.040
Low Vegetation	80		0.174	0.089
Medium Vegetation	20		0.160	0.093
Urban Terrain	20	0.152		0.077
NVA Total:	143	0.139		0.071
VVA Total:	108		0.170	0.087
Total:	251			0.077
			Units:	Meters

Coordinates and Offsets of Analyzed Locations

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
1)	<input checked="" type="checkbox"/>	GS0002					
		621410.154	4024941.86	1678.979	1678.996	1678.984	
				Bare Earth	0.017	0.005	
2)	<input checked="" type="checkbox"/>	GS0007					
		624565.471	4019866.154	1627.431	1627.463	1627.462	
				Bare Earth	0.032	0.031	
3)	<input checked="" type="checkbox"/>	GS0008					
		624529.422	4019879.145	1627.63	1627.693	1627.693	
				Bare Earth	0.063	0.063	
4)	<input checked="" type="checkbox"/>	GS0010					
		614515.923	4027598.299	1720.054	1720.073	1720.061	
				Bare Earth	0.019	0.007	
5)	<input checked="" type="checkbox"/>	GS0013					
		609117.531	4038936.88	1778.744	1778.77	1778.768	
				Bare Earth	0.026	0.024	
6)	<input checked="" type="checkbox"/>	GS0014					
		609146.763	4038958.358	1778.359	1778.344	1778.345	
				Bare Earth	-0.015	-0.014	
7)	<input checked="" type="checkbox"/>	GS0015					
		609153.543	4038900.766	1779.47	1779.449	1779.437	
				Bare Earth	-0.021	-0.033	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
8)	<input checked="" type="checkbox"/>	GS0018					
		609808.56	4045213.658	1709.512	1709.478	1709.459	
				Bare Earth	-0.034	-0.053	
9)	<input checked="" type="checkbox"/>	GS0021					
		608340.812	4030070.551	1795.427	1795.407	1795.397	
				Bare Earth	-0.02	-0.03	
10)	<input checked="" type="checkbox"/>	GS0026					
		584099.752	4048338.369	1706.588	1706.577	1706.573	
				Bare Earth	-0.011	-0.015	
11)	<input checked="" type="checkbox"/>	GS0031					
		581096.094	4054044.425	1770.378	1770.326	1770.329	
				Bare Earth	-0.052	-0.049	
12)	<input checked="" type="checkbox"/>	GS0039					
		547254.849	4048546.306	1986.199	1986.189	1986.207	
				Bare Earth	-0.01	0.008	
13)	<input checked="" type="checkbox"/>	GS0043					
		554602.12	4059389.046	1842.82	1842.777	1842.783	
				Bare Earth	-0.043	-0.037	
14)	<input checked="" type="checkbox"/>	GS0044					
		554603.652	4059370.973	1843.233	1843.223	1843.209	
				Bare Earth	-0.01	-0.024	

Coordinates and Offsets of Analyzed Locations (Continued)

		ID				
		Survey X	Survey Y	Z1	Z DEM	Z LAS
				LC Type	ΔZ DEM	ΔZ LAS
15)	<input checked="" type="checkbox"/>	GS0047				
		585828.534	4069135.716	1603.293	1603.315	1603.323
				Bare Earth	0.022	0.03
16)	<input checked="" type="checkbox"/>	GS0048				
		585774.713	4069102.822	1603.281	1603.248	1603.242
				Bare Earth	-0.033	-0.039
17)	<input checked="" type="checkbox"/>	GS0052				
		580841.651	4065862.773	1682.739	1682.715	1682.729
				Bare Earth	-0.024	-0.01
18)	<input checked="" type="checkbox"/>	GS0054				
		593869.457	4072173.122	1571.132	1571.076	1571.082
				Bare Earth	-0.056	-0.05
19)	<input checked="" type="checkbox"/>	GS0055				
		593837.853	4072152.371	1570.857	1570.85	1570.84
				Bare Earth	-0.007	-0.017
20)	<input checked="" type="checkbox"/>	GS0057				
		623304.018	4087427.119	1511.843	1511.932	1511.906
				Bare Earth	0.089	0.063
21)	<input checked="" type="checkbox"/>	GS0059				
		623283.492	4087384.023	1513.001	1513.095	1513.102
				Bare Earth	0.094	0.101

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
22)	<input checked="" type="checkbox"/>	GS0061					
		616273.625	4088839.9	1480.721	1480.637	1480.675	
				Bare Earth	-0.084	-0.046	
23)	<input checked="" type="checkbox"/>	GS0062					
		616269.72	4088816.143	1480.459	1480.374	1480.404	
				Bare Earth	-0.085	-0.055	
24)	<input checked="" type="checkbox"/>	GS0063					
		616259.625	4088794.389	1480.584	1480.5	1480.5	
				Bare Earth	-0.084	-0.084	
25)	<input checked="" type="checkbox"/>	GS0065					
		630373.453	4089664.762	1623.446	1623.526	1623.521	
				Bare Earth	0.08	0.075	
26)	<input checked="" type="checkbox"/>	GS0068					
		656210.34	4089605.608	1631.819	1631.743	1631.744	
				Bare Earth	-0.076	-0.075	
27)	<input checked="" type="checkbox"/>	GS0074					
		664791.647	4088850.112	1585.59	1585.573	1585.585	
				Bare Earth	-0.017	-0.005	
28)	<input checked="" type="checkbox"/>	GS0077					
		646298.561	4091715.432	1651.613	1651.561	1651.566	
				Bare Earth	-0.052	-0.047	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
29)	<input checked="" type="checkbox"/>	GS0079					
		620368.13	4072533.426	1566.718	1566.689	1566.679	
				Bare Earth	-0.029	-0.039	
30)	<input checked="" type="checkbox"/>	GS0080					
		620330.583	4072499.925	1565.301	1565.348	1565.359	
				Bare Earth	0.047	0.058	
31)	<input checked="" type="checkbox"/>	GS0081					
		620353.595	4072566.146	1566.448	1566.38	1566.387	
				Bare Earth	-0.068	-0.061	
32)	<input checked="" type="checkbox"/>	GS0091					
		614096.34	4056577.233	1669.53	1669.592	1669.593	
				Bare Earth	0.062	0.063	
33)	<input checked="" type="checkbox"/>	GS0094					
		616586.493	4052194.227	1620.481	1620.449	1620.455	
				Bare Earth	-0.032	-0.026	
34)	<input checked="" type="checkbox"/>	GS0097					
		614659.949	4063961.543	1632.026	1632.04	1632.05	
				Bare Earth	0.014	0.024	
35)	<input checked="" type="checkbox"/>	GS0098					
		614683.509	4063947.773	1632.618	1632.701	1632.692	
				Bare Earth	0.083	0.074	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
36)	<input checked="" type="checkbox"/>	GS0099					
		614684.168	4063984.04	1631.733	1631.754	1631.77	
				Bare Earth	0.021	0.037	
37)	<input checked="" type="checkbox"/>	GS0103					
		645710.42	4053001.701	1771.381	1771.337	1771.339	
				Bare Earth	-0.044	-0.042	
38)	<input checked="" type="checkbox"/>	GS0105					
		648750.979	4055706.205	1772.151	1772.148	1772.151	
				Bare Earth	-0.003	0	
39)	<input checked="" type="checkbox"/>	GS0108					
		643003.057	4048887.742	1767.617	1767.469	1767.461	
				Bare Earth	-0.148	-0.156	
40)	<input checked="" type="checkbox"/>	GS0109					
		643014.474	4048864.185	1767.943	1767.795	1767.798	
				Bare Earth	-0.148	-0.145	
41)	<input checked="" type="checkbox"/>	GS0112					
		645596.056	4035529.669	1802.062	1802.04	1802.016	
				Bare Earth	-0.022	-0.047	
42)	<input checked="" type="checkbox"/>	GS0113					
		645596.08	4035500.591	1802.662	1802.6	1802.596	
				Bare Earth	-0.062	-0.066	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
43)	<input checked="" type="checkbox"/>	GS0116					
		637755.205	4040584.631	1659.418	1659.234	1659.254	
				Bare Earth	-0.184	-0.164	
44)	<input checked="" type="checkbox"/>	GS0117					
		637747.143	4040608.965	1658.719	1658.468	1658.477	
				Bare Earth	-0.251	-0.242	
45)	<input checked="" type="checkbox"/>	GS0119					
		651324.666	4032974	1864.745	1864.799	1864.805	
				Bare Earth	0.054	0.06	
46)	<input checked="" type="checkbox"/>	GS0121					
		651347.833	4033012.144	1865.811	1865.856	1865.841	
				Bare Earth	0.045	0.03	
47)	<input checked="" type="checkbox"/>	GS0125					
		660108.742	4019909.194	2148.936	2148.97	2148.973	
				Bare Earth	0.034	0.037	
48)	<input checked="" type="checkbox"/>	GS0127					
		657199.685	4025953.863	2022.876	2022.895	2022.882	
				Bare Earth	0.019	0.006	
49)	<input checked="" type="checkbox"/>	GS0131					
		655096.045	4015795.543	2174.252	2174.188	2174.206	
				Bare Earth	-0.064	-0.046	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
50)	<input checked="" type="checkbox"/>	GS0134					
		640167.167	4005473.944	1969.31	1969.224	1969.204	
				Bare Earth	-0.086	-0.106	
51)	<input checked="" type="checkbox"/>	GS0140					
		633160.131	4003976.88	1782.559	1782.695	1782.656	
				Bare Earth	0.136	0.097	
52)	<input checked="" type="checkbox"/>	GS0141					
		645581.892	4011085.675	2077.927	2077.823	2077.851	
				Bare Earth	-0.104	-0.076	
53)	<input checked="" type="checkbox"/>	GS0143					
		645603.691	4011093.785	2078.228	2078.18	2078.196	
				Bare Earth	-0.048	-0.032	
54)	<input checked="" type="checkbox"/>	GS0146					
		606160.502	3925346.921	1819.077	1819.074	1819.088	
				Bare Earth	-0.003	0.011	
55)	<input checked="" type="checkbox"/>	GS0149					
		619309.981	3925917.757	1949.659	1949.593	1949.595	
				Bare Earth	-0.066	-0.064	
56)	<input checked="" type="checkbox"/>	GS0154					
		604145.173	3932309.522	1805.994	1805.961	1805.98	
				Bare Earth	-0.033	-0.014	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
57)	<input checked="" type="checkbox"/>	GS0156					
		604760.598	3926533.182	1795.359	1795.344	1795.34	
				Bare Earth	-0.015	-0.019	
58)	<input checked="" type="checkbox"/>	GS0157					
		604730.321	3926576.377	1794.842	1794.83	1794.828	
				Bare Earth	-0.012	-0.014	
59)	<input checked="" type="checkbox"/>	GS0158					
		609487.36	3938132.412	1829.412	1829.397	1829.385	
				Bare Earth	-0.015	-0.027	
60)	<input checked="" type="checkbox"/>	GS0161					
		617569.318	3946667.016	1871.456	1871.384	1871.391	
				Bare Earth	-0.072	-0.065	
61)	<input checked="" type="checkbox"/>	GS0162					
		617543.735	3946673.576	1871.476	1871.427	1871.433	
				Bare Earth	-0.049	-0.043	
62)	<input checked="" type="checkbox"/>	GS0165					
		624691.189	3945575.517	1990.82	1990.888	1990.887	
				Bare Earth	0.068	0.067	
63)	<input checked="" type="checkbox"/>	GS0166					
		622877.746	3955832.625	1940.743	1940.716	1940.702	
				Bare Earth	-0.027	-0.041	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
64)	<input checked="" type="checkbox"/>	GS0173					
		646438.827	3960597.163	2162.402	2162.363	2162.362	
				Bare Earth	-0.039	-0.04	
65)	<input checked="" type="checkbox"/>	GS0174					
		646452.331	3960616.645	2162.57	2162.508	2162.507	
				Bare Earth	-0.062	-0.063	
66)	<input checked="" type="checkbox"/>	GS0175					
		646425.6	3960613.818	2162.386	2162.316	2162.317	
				Bare Earth	-0.07	-0.069	
67)	<input checked="" type="checkbox"/>	GS0178					
		647549.912	3954047.118	2182.609	2182.525	2182.52	
				Bare Earth	-0.084	-0.089	
68)	<input checked="" type="checkbox"/>	GS0180					
		655913.827	3951655.019	2283.014	2282.973	2282.967	
				Bare Earth	-0.041	-0.047	
69)	<input checked="" type="checkbox"/>	GS0182					
		640095.648	3953645.809	2049.216	2049.206	2049.201	
				Bare Earth	-0.01	-0.015	
70)	<input checked="" type="checkbox"/>	GS0183					
		640086.078	3953625.88	2049.14	2049.128	2049.112	
				Bare Earth	-0.012	-0.028	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
71)	<input checked="" type="checkbox"/>	GS0185					
		625502.584	3963382.462	1910.415	1910.502	1910.504	
				Bare Earth	0.087	0.089	
72)	<input checked="" type="checkbox"/>	GS0186					
		625497.054	3963367.632	1910.957	1911.04	1911.036	
				Bare Earth	0.083	0.079	
73)	<input checked="" type="checkbox"/>	GS0189					
		624188.083	3957710.353	1935.782	1935.821	1935.81	
				Bare Earth	0.039	0.028	
74)	<input checked="" type="checkbox"/>	GS0190					
		626620.984	3970374.43	1949.339	1949.38	1949.373	
				Bare Earth	0.041	0.034	
75)	<input checked="" type="checkbox"/>	GS0192					
		626634.964	3970331.238	1950.081	1950.106	1950.109	
				Bare Earth	0.025	0.028	
76)	<input checked="" type="checkbox"/>	GS0195					
		611813.291	3974637.318	1864.251	1864.167	1864.171	
				Bare Earth	-0.084	-0.08	
77)	<input checked="" type="checkbox"/>	GS0197					
		608007.443	3980241.148	1873.868	1873.922	1873.911	
				Bare Earth	0.054	0.043	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS
		Survey X	Survey Y			
			LC Type			
78)	<input checked="" type="checkbox"/>	GS0198				
		608021.37	3980220.26	1873.649	1873.698	1873.701
				Bare Earth	0.049	0.052
79)	<input checked="" type="checkbox"/>	GS0200				
		625401.55	3975829.499	1859.06	1859.106	1859.108
				Bare Earth	0.046	0.048
80)	<input checked="" type="checkbox"/>	GS0201				
		625377.844	3975838.324	1859.271	1859.313	1859.322
				Bare Earth	0.042	0.051
81)	<input checked="" type="checkbox"/>	GS0203				
		653853.475	3885170.444	1848.347	1848.457	1848.459
				Bare Earth	0.11	0.112
82)	<input checked="" type="checkbox"/>	GS0212				
		652482.988	3888138.92	1888.615	1888.68	1888.691
				Bare Earth	0.065	0.076
83)	<input checked="" type="checkbox"/>	GS0213				
		652468.063	3888129.221	1888.457	1888.536	1888.541
				Bare Earth	0.079	0.084
84)	<input checked="" type="checkbox"/>	GS0216				
		642656.198	3895086.918	1754.308	1754.457	1754.454
				Bare Earth	0.149	0.146

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
85)	<input checked="" type="checkbox"/>	GS0217					
		642652.704	3895115.483	1754.558	1754.695	1754.686	
				Bare Earth	0.137	0.128	
86)	<input checked="" type="checkbox"/>	GS0220					
		651414.046	3898527.205	1794.818	1794.924	1794.929	
				Bare Earth	0.106	0.111	
87)	<input checked="" type="checkbox"/>	GS0225					
		642138.668	3902721.316	1866.923	1867.082	1867.065	
				Bare Earth	0.159	0.142	
88)	<input checked="" type="checkbox"/>	GS0232					
		649656.005	3907965.088	1961.937	1961.995	1961.993	
				Bare Earth	0.058	0.056	
89)	<input checked="" type="checkbox"/>	GS0233					
		649633.674	3907961.909	1962.082	1962.131	1962.138	
				Bare Earth	0.049	0.056	
90)	<input checked="" type="checkbox"/>	GS0234					
		638891.779	3914464.203	1924.374	1924.479	1924.49	
				Bare Earth	0.105	0.116	
91)	<input checked="" type="checkbox"/>	GS0237					
		638886.729	3914482.112	1924.588	1924.74	1924.725	
				Bare Earth	0.152	0.137	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
				LC Type	ΔZ DEM	ΔZ LAS	
92)	<input checked="" type="checkbox"/>	GS0240					
		621479.421	3906581.731	1787.071	1786.983	1786.969	
				Bare Earth	-0.088	-0.102	
93)	<input checked="" type="checkbox"/>	GS0241					
		621474.183	3906533.833	1786.53	1786.431	1786.415	
				Bare Earth	-0.099	-0.115	
94)	<input checked="" type="checkbox"/>	GS0243					
		626385.546	3910450.318	1804.566	1804.558	1804.551	
				Bare Earth	-0.008	-0.015	
95)	<input checked="" type="checkbox"/>	GS0245					
		626418.36	3910454.556	1803.604	1803.507	1803.513	
				Bare Earth	-0.097	-0.091	
96)	<input checked="" type="checkbox"/>	GS0246					
		628202.021	3912044.574	1816.337	1816.307	1816.291	
				Bare Earth	-0.03	-0.046	
97)	<input checked="" type="checkbox"/>	GS0247					
		628217.704	3912063.637	1816.6	1816.548	1816.555	
				Bare Earth	-0.052	-0.045	
98)	<input checked="" type="checkbox"/>	GS0256					
		637152.404	3919592.568	1946.467	1946.499	1946.5	
				Bare Earth	0.032	0.033	

Coordinates and Offsets of Analyzed Locations (Continued)

		ID				
		Survey X	Survey Y	Z1	Z DEM	Z LAS
				LC Type	ΔZ DEM	ΔZ LAS
99)	<input checked="" type="checkbox"/>	GS0257				
		637132.292	3919583.291	1945.779	1945.828	1945.812
				Bare Earth	0.049	0.033
100)	<input checked="" type="checkbox"/>	GS0260				
		633407.143	3926382.959	1998.016	1998.029	1998.03
				Bare Earth	0.013	0.014
101)	<input checked="" type="checkbox"/>	GS0263				
		639489.433	3931116.756	2054.815	2054.861	2054.865
				Bare Earth	0.046	0.05
102)	<input checked="" type="checkbox"/>	GS0265				
		639514.424	3931133.161	2056.223	2056.285	2056.278
				Bare Earth	0.062	0.055
103)	<input checked="" type="checkbox"/>	GS0267				
		644233.297	3932011.819	2174.616	2174.615	2174.638
				Bare Earth	-0.001	0.022
104)	<input checked="" type="checkbox"/>	GS0270				
		634026.532	3930198.465	1958.387	1958.411	1958.41
				Bare Earth	0.024	0.023
105)	<input checked="" type="checkbox"/>	GS0271				
		634047.251	3930201.649	1957.969	1957.978	1957.986
				Bare Earth	0.009	0.017

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS
		Survey X	Survey Y			
			LC Type			
106)	<input checked="" type="checkbox"/>	GS0275				
		633979.041	3978415.927	1799.809	1799.897	1799.895
				Bare Earth	0.088	0.086
107)	<input checked="" type="checkbox"/>	GS0276				
		633996.581	3978430.182	1798.567	1798.647	1798.645
				Bare Earth	0.08	0.078
108)	<input checked="" type="checkbox"/>	GS0277				
		634003.703	3978449.974	1798.284	1798.38	1798.378
				Bare Earth	0.096	0.093
109)	<input checked="" type="checkbox"/>	GS0282				
		615556.17	4007704.071	1826.755	1826.812	1826.81
				Bare Earth	0.057	0.055
110)	<input checked="" type="checkbox"/>	GS0283				
		615543.801	4007686.679	1826.762	1826.81	1826.819
				Bare Earth	0.048	0.057
111)	<input checked="" type="checkbox"/>	GS0287				
		615027.656	4013192.993	1714.691	1714.706	1714.704
				Bare Earth	0.015	0.013
112)	<input checked="" type="checkbox"/>	GS0288				
		615015.968	4013172.615	1714.744	1714.748	1714.752
				Bare Earth	0.004	0.008

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
113)	<input checked="" type="checkbox"/>	GS0290					
		619050.031	4006367.934	1732.867	1732.877	1732.883	
				Bare Earth	0.01	0.016	
114)	<input checked="" type="checkbox"/>	GS0291					
		619026.081	4006360.225	1733.128	1733.123	1733.128	
				Bare Earth	-0.005	0	
115)	<input checked="" type="checkbox"/>	GS0295					
		611024.202	3992504.389	1795.602	1795.595	1795.598	
				Bare Earth	-0.007	-0.004	
116)	<input checked="" type="checkbox"/>	GS0296					
		611023.118	3992527.145	1795.548	1795.532	1795.546	
				Bare Earth	-0.016	-0.002	
117)	<input checked="" type="checkbox"/>	GS0300					
		601380.278	3992161.075	1848.234	1848.286	1848.299	
				Bare Earth	0.052	0.065	
118)	<input checked="" type="checkbox"/>	GS0301					
		601404.801	3992153.023	1848.42	1848.475	1848.471	
				Bare Earth	0.055	0.051	
119)	<input checked="" type="checkbox"/>	GS0304					
		618611.889	3994051.111	1724.811	1724.808	1724.798	
				Bare Earth	-0.003	-0.013	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
120)	<input checked="" type="checkbox"/>	GS0307					
		618606.235	3994071.425	1724.711	1724.819	1724.783	
				Bare Earth	0.108	0.072	
121)	<input checked="" type="checkbox"/>	GS0309					
		647649.863	3989716.425	2082.714	2082.651	2082.653	
				Bare Earth	-0.063	-0.062	
122)	<input checked="" type="checkbox"/>	GS0310					
		647672.508	3989717.419	2082.871	2082.804	2082.801	
				Bare Earth	-0.067	-0.07	
123)	<input checked="" type="checkbox"/>	GS0314					
		650200.963	3986348.181	2142.115	2142.115	2142.13	
				Bare Earth	0	0.015	
124)	<input checked="" type="checkbox"/>	GS0004					
		621456.931	4024973.385	1680.426	1680.323	1680.256	
				Urban Terrain	-0.103	-0.17	
125)	<input checked="" type="checkbox"/>	GS0009					
		614495.395	4027608.876	1720.358	1720.351	1720.375	
				Urban Terrain	-0.007	0.017	
126)	<input checked="" type="checkbox"/>	GS0032					
		581070.079	4054051.805	1770.207	1770.157	1770.135	
				Urban Terrain	-0.05	-0.072	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
127)	<input checked="" type="checkbox"/>	GS0040					
		547278.881	4048555.759	1986.758	1986.725	1986.738	
				Urban Terrain	-0.033	-0.021	
128)	<input checked="" type="checkbox"/>	GS0050					
		580860.526	4065868.76	1682.435	1682.406	1682.401	
				Urban Terrain	-0.029	-0.034	
129)	<input checked="" type="checkbox"/>	GS0053					
		593855.588	4072163.186	1570.972	1570.876	1570.879	
				Urban Terrain	-0.096	-0.093	
130)	<input checked="" type="checkbox"/>	GS0072					
		664809.674	4088863.119	1584.931	1584.867	1584.881	
				Urban Terrain	-0.064	-0.05	
131)	<input checked="" type="checkbox"/>	GS0075					
		646299.989	4091748.434	1651.627	1651.569	1651.589	
				Urban Terrain	-0.058	-0.038	
132)	<input checked="" type="checkbox"/>	GS0118					
		651344.097	4032963.753	1865.04	1865.06	1865.061	
				Urban Terrain	0.02	0.021	
133)	<input checked="" type="checkbox"/>	GS0124					
		660088.238	4019898.939	2149.119	2149.105	2149.134	
				Urban Terrain	-0.014	0.015	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
134)	<input checked="" type="checkbox"/>	GS0130					
		655100.214	4015828.637	2173.55	2173.525	2173.527	
				Urban Terrain	-0.025	-0.023	
135)	<input checked="" type="checkbox"/>	GS0188					
		624211.218	3957696.328	1937.174	1937.219	1937.22	
				Urban Terrain	0.045	0.046	
136)	<input checked="" type="checkbox"/>	GS0205					
		653893.883	3885182.586	1849.266	1849.334	1849.339	
				Urban Terrain	0.068	0.073	
137)	<input checked="" type="checkbox"/>	GS0209					
		658390.984	3887239.954	1889.594	1889.604	1889.597	
				Urban Terrain	0.01	0.003	
138)	<input checked="" type="checkbox"/>	GS0221					
		651439.326	3898517.895	1794.559	1794.672	1794.674	
				Urban Terrain	0.113	0.115	
139)	<input checked="" type="checkbox"/>	GS0222					
		642102.698	3902674.318	1869.448	1869.56	1869.553	
				Urban Terrain	0.112	0.105	
140)	<input checked="" type="checkbox"/>	GS0227					
		642547.829	3909383.642	1912.416	1912.463	1912.468	
				Urban Terrain	0.047	0.052	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
141)	<input checked="" type="checkbox"/>	GS0258					
		633396.811	3926358.24	1996.744	1996.76	1996.769	
				Urban Terrain	0.016	0.025	
142)	<input checked="" type="checkbox"/>	GS0317					
		643348.841	3992961.588	2039.166	2038.994	2039	
				Urban Terrain	-0.172	-0.166	
143)	<input checked="" type="checkbox"/>	GS0318					
		643336.602	3992942.316	2038.805	2038.654	2038.649	
				Urban Terrain	-0.151	-0.156	
144)	<input checked="" type="checkbox"/>	GS0003					
		621457.103	4024952.866	1680.074	1680.021	1680.014	
				Low Vegetation	-0.053	-0.06	
145)	<input checked="" type="checkbox"/>	GS0011					
		614471.161	4027626.699	1719.478	1719.551	1719.54	
				Low Vegetation	0.073	0.062	
146)	<input checked="" type="checkbox"/>	GS0016					
		609815.206	4045267.177	1707.218	1707.225	1707.245	
				Low Vegetation	0.007	0.027	
147)	<input checked="" type="checkbox"/>	GS0017					
		609821.301	4045232.788	1707.852	1707.905	1707.883	
				Low Vegetation	0.053	0.031	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
148)	<input checked="" type="checkbox"/>	GS0019					
		609796.394	4045176.457	1710.578	1710.586	1710.58	
				Low Vegetation	0.008	0.002	
149)	<input checked="" type="checkbox"/>	GS0022					
		608345.176	4030050.611	1794.906	1794.946	1794.889	
				Low Vegetation	0.04	-0.017	
150)	<input checked="" type="checkbox"/>	GS0024					
		584088.969	4048282.924	1706.764	1706.891	1706.813	
				Low Vegetation	0.127	0.049	
151)	<input checked="" type="checkbox"/>	GS0025					
		584088.831	4048258.293	1706.917	1706.996	1707.003	
				Low Vegetation	0.079	0.086	
152)	<input checked="" type="checkbox"/>	GS0033					
		581083.448	4054075.212	1769.876	1769.935	1769.95	
				Low Vegetation	0.059	0.074	
153)	<input checked="" type="checkbox"/>	GS0035					
		549168.223	4054212.505	1903.921	1903.983	1903.987	
				Low Vegetation	0.062	0.066	
154)	<input checked="" type="checkbox"/>	GS0036					
		549182.987	4054229.385	1902.953	1903.04	1903.045	
				Low Vegetation	0.087	0.092	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
155)	<input checked="" type="checkbox"/>	GS0037					
		549192.536	4054242.072	1902.469	1902.56	1902.558	
				Low Vegetation	0.091	0.089	
156)	<input checked="" type="checkbox"/>	GS0042					
		554602.696	4059411.184	1841.933	1841.918	1841.948	
				Low Vegetation	-0.015	0.014	
157)	<input checked="" type="checkbox"/>	GS0046					
		585814.65	4069118.926	1603.226	1603.163	1603.166	
				Low Vegetation	-0.063	-0.06	
158)	<input checked="" type="checkbox"/>	GS0051					
		580876.18	4065886.971	1682.082	1682.139	1682.14	
				Low Vegetation	0.057	0.058	
159)	<input checked="" type="checkbox"/>	GS0058					
		623295.906	4087402.475	1512.367	1512.433	1512.456	
				Low Vegetation	0.066	0.089	
160)	<input checked="" type="checkbox"/>	GS0064					
		630398.356	4089673.159	1624.186	1624.274	1624.207	
				Low Vegetation	0.088	0.021	
161)	<input checked="" type="checkbox"/>	GS0066					
		630421.96	4089690.91	1625.095	1625.121	1625.141	
				Low Vegetation	0.026	0.046	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
162)	<input checked="" type="checkbox"/>	GS0069					
		656192.056	4089609.318	1632.256	1632.279	1632.247	
				Low Vegetation	0.023	-0.009	
163)	<input checked="" type="checkbox"/>	GS0070					
		656224.542	4089580.635	1632.382	1632.409	1632.414	
				Low Vegetation	0.027	0.032	
164)	<input checked="" type="checkbox"/>	GS0073					
		664831.172	4088853.965	1585.067	1585.115	1585.09	
				Low Vegetation	0.048	0.023	
165)	<input checked="" type="checkbox"/>	GS0076					
		646284.093	4091732.394	1651.273	1651.281	1651.27	
				Low Vegetation	0.008	-0.003	
166)	<input checked="" type="checkbox"/>	GS0086					
		622293.142	4065399.9	1524.19	1524.28	1524.286	
				Low Vegetation	0.09	0.096	
167)	<input checked="" type="checkbox"/>	GS0087					
		622301.226	4065373.933	1524.27	1524.44	1524.425	
				Low Vegetation	0.17	0.155	
168)	<input checked="" type="checkbox"/>	GS0088					
		622314.492	4065344.132	1524.328	1524.469	1524.467	
				Low Vegetation	0.141	0.139	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
169)	<input checked="" type="checkbox"/>	GS0090					
		614078.809	4056556.297	1668.898	1669.046	1669.023	
				Low Vegetation	0.148	0.125	
170)	<input checked="" type="checkbox"/>	GS0092					
		614074.111	4056589.824	1669.289	1669.336	1669.362	
				Low Vegetation	0.047	0.073	
171)	<input checked="" type="checkbox"/>	GS0095					
		616584.586	4052215.461	1620.9	1620.914	1620.914	
				Low Vegetation	0.014	0.014	
172)	<input checked="" type="checkbox"/>	GS0096					
		616555.107	4052218.711	1621.223	1621.237	1621.231	
				Low Vegetation	0.014	0.008	
173)	<input checked="" type="checkbox"/>	GS0101					
		645697.639	4052952.685	1773.51	1773.485	1773.481	
				Low Vegetation	-0.025	-0.029	
174)	<input checked="" type="checkbox"/>	GS0102					
		645718.897	4052972.935	1773.7	1773.708	1773.723	
				Low Vegetation	0.008	0.022	
175)	<input checked="" type="checkbox"/>	GS0104					
		648759.776	4055687.92	1773.523	1773.579	1773.59	
				Low Vegetation	0.056	0.067	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
176)	<input checked="" type="checkbox"/>	GS0106					
		648746.395	4055664.862	1772.318	1772.377	1772.378	
				Low Vegetation	0.059	0.06	
177)	<input checked="" type="checkbox"/>	GS0110					
		643033.693	4048863.387	1769.264	1769.122	1769.128	
				Low Vegetation	-0.142	-0.136	
178)	<input checked="" type="checkbox"/>	GS0114					
		645620.827	4035502.858	1803.153	1803.126	1803.146	
				Low Vegetation	-0.027	-0.007	
179)	<input checked="" type="checkbox"/>	GS0120					
		651329.3	4032996.807	1864.878	1865.006	1864.982	
				Low Vegetation	0.128	0.103	
180)	<input checked="" type="checkbox"/>	GS0123					
		660085.737	4019921.09	2149.007	2149.053	2149.038	
				Low Vegetation	0.046	0.031	
181)	<input checked="" type="checkbox"/>	GS0129					
		657229.317	4025943.751	2025.381	2025.401	2025.397	
				Low Vegetation	0.02	0.016	
182)	<input checked="" type="checkbox"/>	GS0139					
		633142.878	4003964.465	1782.057	1782.261	1782.253	
				Low Vegetation	0.204	0.196	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
183)	<input checked="" type="checkbox"/>	GS0142					
		645591.962	4011110.215	2078.565	2078.542	2078.54	
				Low Vegetation	-0.023	-0.025	
184)	<input checked="" type="checkbox"/>	GS0145					
		606146.667	3925328.191	1819.395	1819.461	1819.467	
				Low Vegetation	0.066	0.072	
185)	<input checked="" type="checkbox"/>	GS0148					
		619302.099	3925939.736	1949.501	1949.52	1949.517	
				Low Vegetation	0.019	0.016	
186)	<input checked="" type="checkbox"/>	GS0153					
		604193.263	3932321.038	1805.509	1805.543	1805.511	
				Low Vegetation	0.034	0.002	
187)	<input checked="" type="checkbox"/>	GS0159					
		609518.455	3938145.565	1829.199	1829.243	1829.254	
				Low Vegetation	0.044	0.055	
188)	<input checked="" type="checkbox"/>	GS0167					
		622888.419	3955853.322	1940.275	1940.285	1940.286	
				Low Vegetation	0.01	0.011	
189)	<input checked="" type="checkbox"/>	GS0181					
		655875.651	3951666.449	2282.435	2282.436	2282.431	
				Low Vegetation	0.001	-0.004	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
190)	<input checked="" type="checkbox"/>	GS0191					
		626633.235	3970353.814	1949.959	1950.022	1950.004	
				Low Vegetation	0.063	0.045	
191)	<input checked="" type="checkbox"/>	GS0193					
		611834.131	3974615.852	1864.45	1864.395	1864.39	
				Low Vegetation	-0.055	-0.06	
192)	<input checked="" type="checkbox"/>	GS0199					
		625405.888	3975852.48	1858.665	1858.776	1858.746	
				Low Vegetation	0.111	0.081	
193)	<input checked="" type="checkbox"/>	GS0204					
		653880.102	3885161.732	1848.316	1848.49	1848.497	
				Low Vegetation	0.174	0.181	
194)	<input checked="" type="checkbox"/>	GS0207					
		658340.495	3887233.308	1888.525	1888.654	1888.656	
				Low Vegetation	0.129	0.131	
195)	<input checked="" type="checkbox"/>	GS0208					
		658321.378	3887227.569	1888.306	1888.375	1888.392	
				Low Vegetation	0.069	0.086	
196)	<input checked="" type="checkbox"/>	GS0210					
		652497.914	3888117.663	1888.259	1888.408	1888.405	
				Low Vegetation	0.149	0.146	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
197)	<input checked="" type="checkbox"/>	GS0211					
		652506.86	3888098.053	1887.78	1887.969	1887.96	
				Low Vegetation	0.189	0.18	
198)	<input checked="" type="checkbox"/>	GS0215					
		642677.996	3895075.666	1754.232	1754.457	1754.474	
				Low Vegetation	0.225	0.242	
199)	<input checked="" type="checkbox"/>	GS0218					
		651375.627	3898550.045	1795.19	1795.306	1795.321	
				Low Vegetation	0.116	0.131	
200)	<input checked="" type="checkbox"/>	GS0223					
		642124.829	3902681.697	1868.127	1868.288	1868.31	
				Low Vegetation	0.161	0.183	
201)	<input checked="" type="checkbox"/>	GS0224					
		642128.241	3902703.618	1867.44	1867.593	1867.604	
				Low Vegetation	0.153	0.164	
202)	<input checked="" type="checkbox"/>	GS0228					
		642557.179	3909401.688	1911.86	1912.039	1912.02	
				Low Vegetation	0.179	0.16	
203)	<input checked="" type="checkbox"/>	GS0229					
		642557.638	3909420.249	1911.987	1912.125	1912.122	
				Low Vegetation	0.138	0.135	

Coordinates and Offsets of Analyzed Locations (Continued)

		ID				
		Survey X	Survey Y	Z1	Z DEM	Z LAS
				LC Type	ΔZ DEM	ΔZ LAS
204)	<input checked="" type="checkbox"/>	GS0244				
		626412.43	3910435.68	1803.955	1804.005	1803.992
				Low Vegetation	0.05	0.037
205)	<input checked="" type="checkbox"/>	GS0248				
		628230.55	3912054.798	1815.986	1815.955	1815.962
				Low Vegetation	-0.031	-0.024
206)	<input checked="" type="checkbox"/>	GS0249				
		628237.933	3912070.436	1816.56	1816.567	1816.555
				Low Vegetation	0.007	-0.005
207)	<input checked="" type="checkbox"/>	GS0253				
		634763.44	3921545.415	1935.722	1935.79	1935.798
				Low Vegetation	0.068	0.076
208)	<input checked="" type="checkbox"/>	GS0261				
		633404.476	3926415.045	1999.107	1999.21	1999.163
				Low Vegetation	0.103	0.056
209)	<input checked="" type="checkbox"/>	GS0272				
		634053.274	3930187.994	1957.489	1957.525	1957.567
				Low Vegetation	0.036	0.078
210)	<input checked="" type="checkbox"/>	GS0273				
		634037.819	3930170.924	1957.277	1957.322	1957.344
				Low Vegetation	0.045	0.067

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
211)	<input checked="" type="checkbox"/>	GS0284					
		615563.612	4007673.132	1828.345	1828.4	1828.406	
				Low Vegetation	0.055	0.061	
212)	<input checked="" type="checkbox"/>	GS0285					
		615575.528	4007686.951	1828.446	1828.485	1828.495	
				Low Vegetation	0.039	0.049	
213)	<input checked="" type="checkbox"/>	GS0289					
		615022.33	4013148.958	1714.707	1714.732	1714.732	
				Low Vegetation	0.025	0.025	
214)	<input checked="" type="checkbox"/>	GS0292					
		619036.414	4006333.833	1733.766	1733.84	1733.839	
				Low Vegetation	0.074	0.073	
215)	<input checked="" type="checkbox"/>	GS0293					
		619063.276	4006342.885	1733.322	1733.378	1733.388	
				Low Vegetation	0.056	0.066	
216)	<input checked="" type="checkbox"/>	GS0297					
		611005.128	3992539.98	1795.468	1795.522	1795.531	
				Low Vegetation	0.054	0.063	
217)	<input checked="" type="checkbox"/>	GS0298					
		610997.535	3992513.037	1795.233	1795.261	1795.249	
				Low Vegetation	0.028	0.016	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
218)	<input checked="" type="checkbox"/>	GS0302					
		601436.188	3992156.982	1847.775	1847.849	1847.852	
				Low Vegetation	0.074	0.077	
219)	<input checked="" type="checkbox"/>	GS0303					
		601428.315	3992173.262	1847.966	1848.069	1848.036	
				Low Vegetation	0.103	0.07	
220)	<input checked="" type="checkbox"/>	GS0305					
		618637.63	3994050.67	1724.683	1724.772	1724.771	
				Low Vegetation	0.089	0.088	
221)	<input checked="" type="checkbox"/>	GS0306					
		618643.162	3994069.856	1724.634	1724.722	1724.721	
				Low Vegetation	0.088	0.087	
222)	<input checked="" type="checkbox"/>	GS0315					
		650218.225	3986359.288	2141.962	2142.021	2142.036	
				Low Vegetation	0.059	0.074	
223)	<input checked="" type="checkbox"/>	GS0316					
		650214.089	3986340.169	2142.272	2142.359	2142.315	
				Low Vegetation	0.087	0.043	
224)	<input checked="" type="checkbox"/>	GS0006					
		624574.335	4019839.252	1627.333	1627.493	1627.474	
				Medium Vegetation	0.16	0.141	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
				LC Type	ΔZ DEM	ΔZ LAS	
225)	<input checked="" type="checkbox"/>	GS0034					
		549158.683	4054193.433	1905.762	1905.737	1905.734	
				Medium Vegetation	-0.025	-0.028	
226)	<input checked="" type="checkbox"/>	GS0135					
		640157.321	4005446.509	1969.125	1969.087	1969.061	
				Medium Vegetation	-0.038	-0.064	
227)	<input checked="" type="checkbox"/>	GS0136					
		640166.141	4005513.127	1969.807	1969.659	1969.662	
				Medium Vegetation	-0.148	-0.145	
228)	<input checked="" type="checkbox"/>	GS0138					
		633119.687	4003915.287	1782.986	1783.104	1783.114	
				Medium Vegetation	0.118	0.128	
229)	<input checked="" type="checkbox"/>	GS0164					
		624658.588	3945566.916	1990.764	1990.931	1990.927	
				Medium Vegetation	0.167	0.163	
230)	<input checked="" type="checkbox"/>	GS0231					
		649679.464	3907984.503	1962.626	1962.746	1962.751	
				Medium Vegetation	0.12	0.125	
231)	<input checked="" type="checkbox"/>	GS0235					
		638880.862	3914447.451	1923.99	1924.12	1924.147	
				Medium Vegetation	0.13	0.157	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS
		Survey X	Survey Y			
			LC Type			
232)	<input checked="" type="checkbox"/>	GS0236				
		638863.966	3914448.129	1922.858	1922.946	1922.965
				Medium Vegetation	0.088	0.107
233)	<input checked="" type="checkbox"/>	GS0239				
		621479.47	3906561.566	1786.851	1786.769	1786.776
				Medium Vegetation	-0.082	-0.075
234)	<input checked="" type="checkbox"/>	GS0251				
		634734.223	3921546.997	1936.115	1936.185	1936.177
				Medium Vegetation	0.07	0.062
235)	<input checked="" type="checkbox"/>	GS0252				
		634751.753	3921560.346	1935.982	1936.029	1936.024
				Medium Vegetation	0.047	0.042
236)	<input checked="" type="checkbox"/>	GS0255				
		637173.833	3919584.085	1946.201	1946.263	1946.239
				Medium Vegetation	0.062	0.038
237)	<input checked="" type="checkbox"/>	GS0259				
		633404.727	3926334.415	1995.904	1995.983	1995.99
				Medium Vegetation	0.079	0.086
238)	<input checked="" type="checkbox"/>	GS0264				
		639508.895	3931114.297	2055.582	2055.626	2055.639
				Medium Vegetation	0.044	0.057

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
239)	<input checked="" type="checkbox"/>	GS0279					
		638827.879	3974930.763	1914.488	1914.505	1914.515	
				Medium Vegetation	0.017	0.027	
240)	<input checked="" type="checkbox"/>	GS0280					
		638843.177	3974937.694	1915.307	1915.37	1915.362	
				Medium Vegetation	0.063	0.055	
241)	<input checked="" type="checkbox"/>	GS0311					
		647671.323	3989683.787	2081.774	2081.787	2081.775	
				Medium Vegetation	0.013	0.001	
242)	<input checked="" type="checkbox"/>	GS0312					
		647621.358	3989689.356	2081.658	2081.651	2081.648	
				Medium Vegetation	-0.007	-0.01	
243)	<input checked="" type="checkbox"/>	GS0319					
		643318.755	3992958.647	2038.579	2038.471	2038.481	
				Medium Vegetation	-0.108	-0.098	
244)	<input checked="" type="checkbox"/>	GS0128					
		657216.833	4025965.577	2023.609	2023.596	2023.621	
				High Vegetation	-0.013	0.012	
245)	<input checked="" type="checkbox"/>	GS0132					
		655093.34	4015772.494	2175.163	2175.12	2175.147	
				High Vegetation	-0.043	-0.016	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
246)	<input checked="" type="checkbox"/>	GS0169					
		651229.126	3964355.428	2222.701	2222.705	2222.709	
				High Vegetation	0.004	0.008	
247)	<input checked="" type="checkbox"/>	GS0170					
		651235.032	3964388.127	2223.771	2223.79	2223.765	
				High Vegetation	0.019	-0.006	
248)	<input checked="" type="checkbox"/>	GS0172					
		653818.595	3967180.031	2330.316	2330.314	2330.279	
				High Vegetation	-0.002	-0.037	
249)	<input checked="" type="checkbox"/>	GS0176					
		647606.534	3954044.613	2182.8	2182.727	2182.745	
				High Vegetation	-0.073	-0.055	
250)	<input checked="" type="checkbox"/>	GS0268					
		644239.793	3931998.154	2173.653	2173.705	2173.686	
				High Vegetation	0.052	0.033	
251)	<input checked="" type="checkbox"/>	GS0269					
		644257.35	3932005.037	2173.732	2173.782	2173.773	
				High Vegetation	0.05	0.041	

LAS

Nonvegetated Vertical Accuracy

LandCover Type: Bare Earth, Urban Terrain

Minimum DZ: -0.242

Maximum DZ: 0.146

Mean DZ: -0.001

Mean Magnitude DZ: 0.236

Number Observations: 143

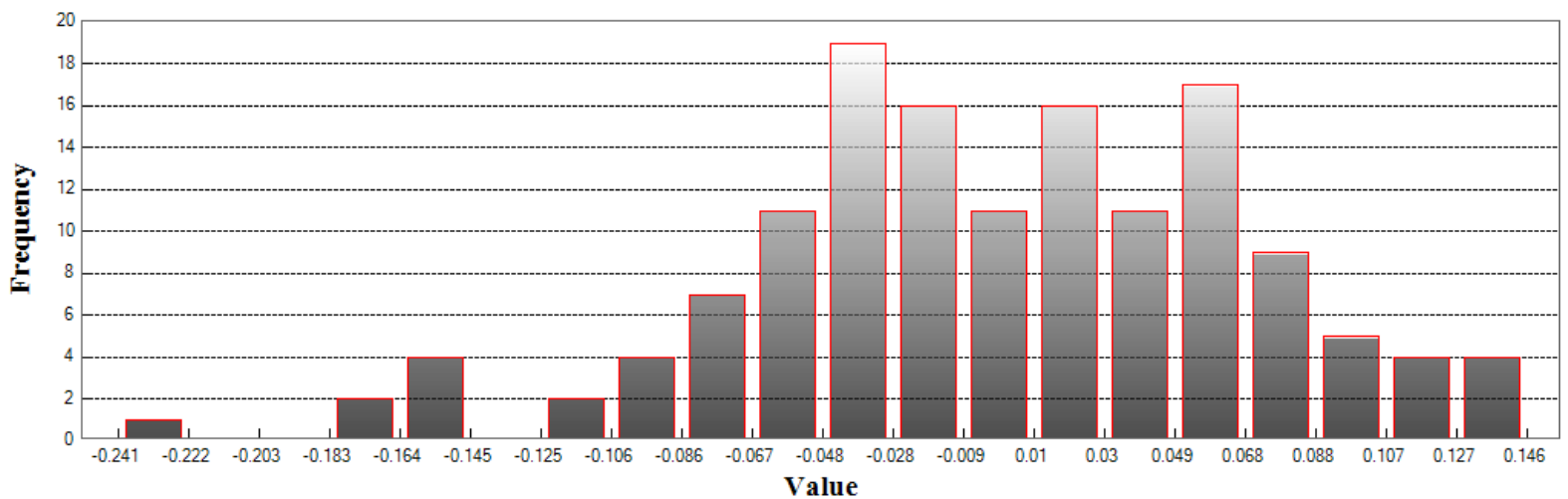
Standard Deviation DZ: 0.07

RMSE Z: 0.07

95% Confidence Level Z: 0.137

Units: Meters

Histogram



Min: -0.242

Max: 0.146

Number Of Bins: 20

Bin Interval: 0.019

LAS (Continued)

Vegetated Vertical Accuracy

LandCover Type: High Vegetation

Minimum DZ: -0.055

Maximum DZ: 0.041

Mean DZ: -0.002

Mean Magnitude DZ: 0.161

Number Observations: 8

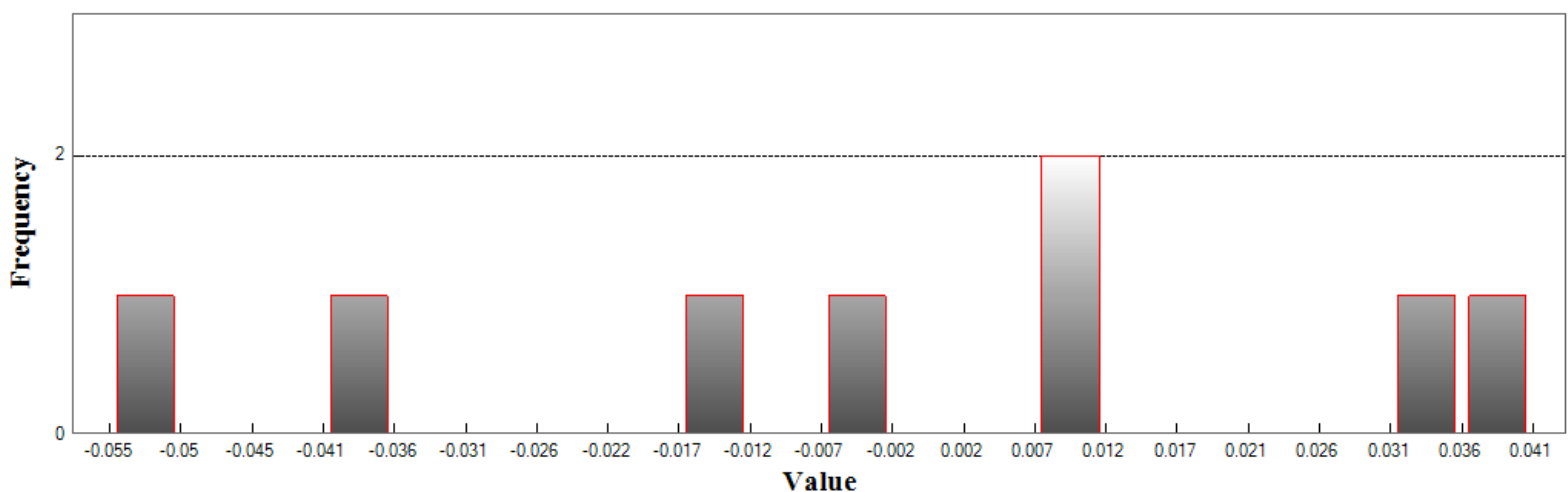
Standard Deviation DZ: 0.033

RMSE Z: 0.031

95th Percentile: 0.055

Units: Meters

Histogram



Min: -0.055

Max: 0.041

Number Of Bins: 20

Bin Interval: 0.005

LAS (Continued)

Vegetated Vertical Accuracy

LandCover Type: Low Vegetation

Minimum DZ: -0.136

Maximum DZ: 0.242

Mean DZ: 0.058

Mean Magnitude DZ: 0.263

Number Observations: 80

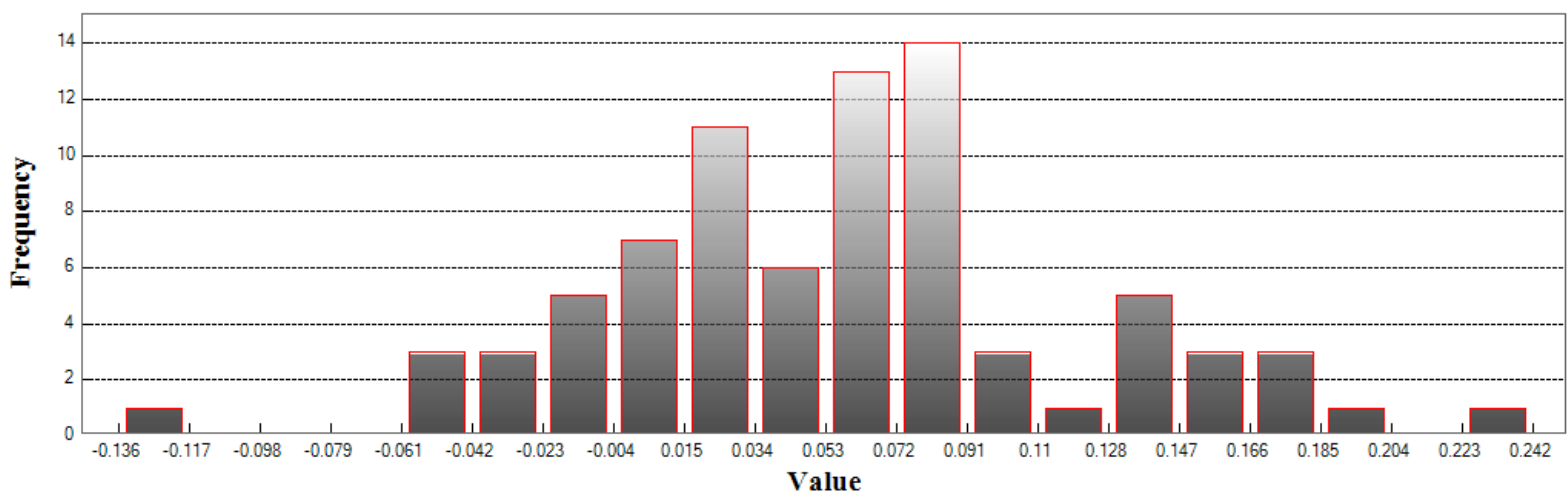
Standard Deviation DZ: 0.065

RMSE Z: 0.087

95th Percentile: 0.18

Units: Meters

Histogram



Min: -0.136

Max: 0.242

Number Of Bins: 20

Bin Interval: 0.019

LAS (Continued)

Vegetated Vertical Accuracy

LandCover Type: Medium Vegetation

Minimum DZ: -0.145

Maximum DZ: 0.163

Mean DZ: 0.038

Mean Magnitude DZ: 0.284

Number Observations: 20

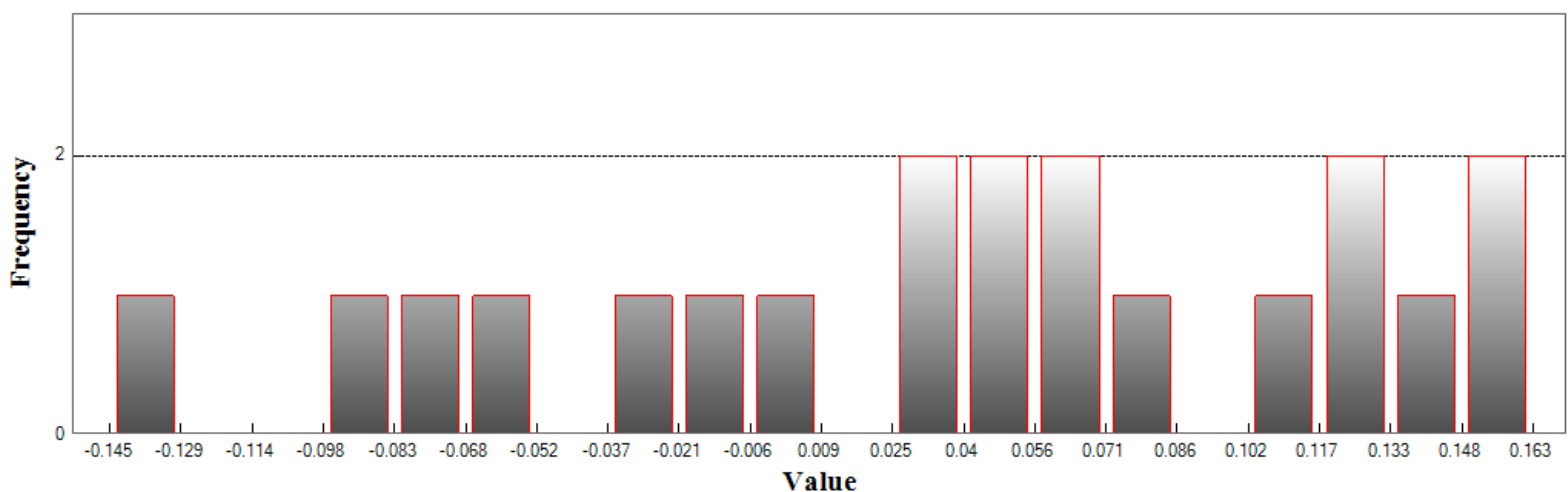
Standard Deviation DZ: 0.088

RMSE Z: 0.094

95th Percentile: 0.157

Units: Meters

Histogram



Min: -0.145

Max: 0.163

Number Of Bins: 20

Bin Interval: 0.015

DEM

Nonvegetated Vertical Accuracy

LandCover Type: Bare Earth, Urban Terrain

Minimum DZ: -0.251

Maximum DZ: 0.159

Mean DZ: -0.001

Mean Magnitude DZ: 0.237

Number Observations: 143

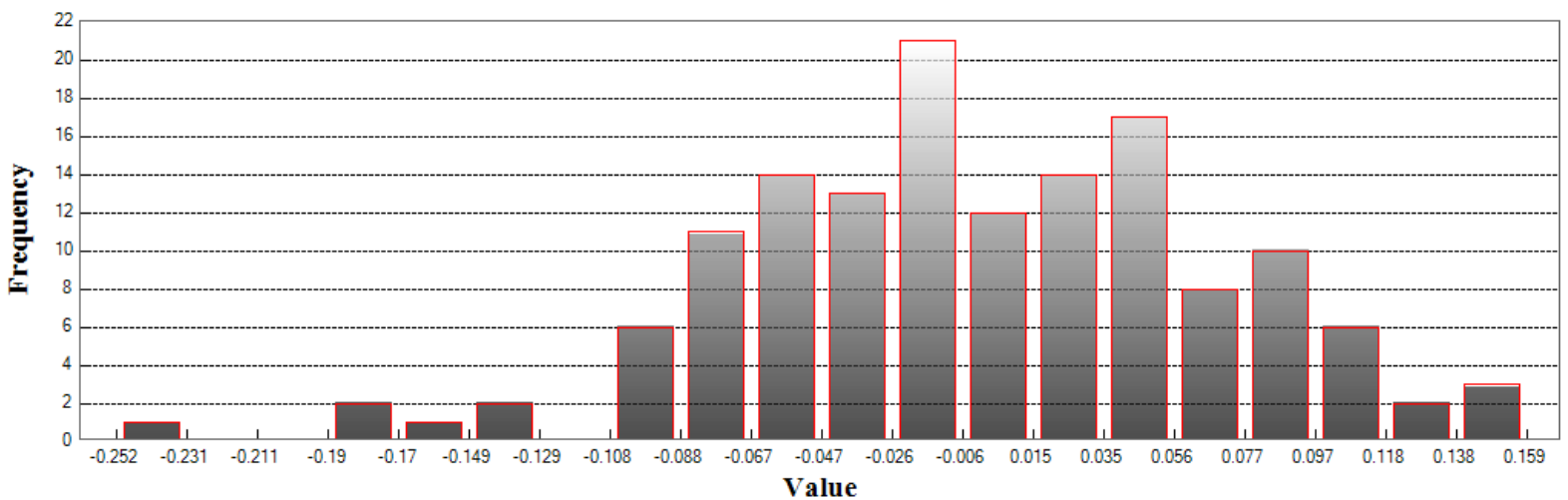
Standard Deviation DZ: 0.071

RMSE Z: 0.071

95% Confidence Level Z: 0.139

Units: Meters

Histogram



Min: -0.251
 Max: 0.159
 Number Of Bins: 20
 Bin Interval: 0.021

DEM (Continued)

Vegetated Vertical Accuracy

LandCover Type: High Vegetation

Minimum DZ: -0.073

Maximum DZ: 0.052

Mean DZ: -0.001

Mean Magnitude DZ: 0.178

Number Observations: 8

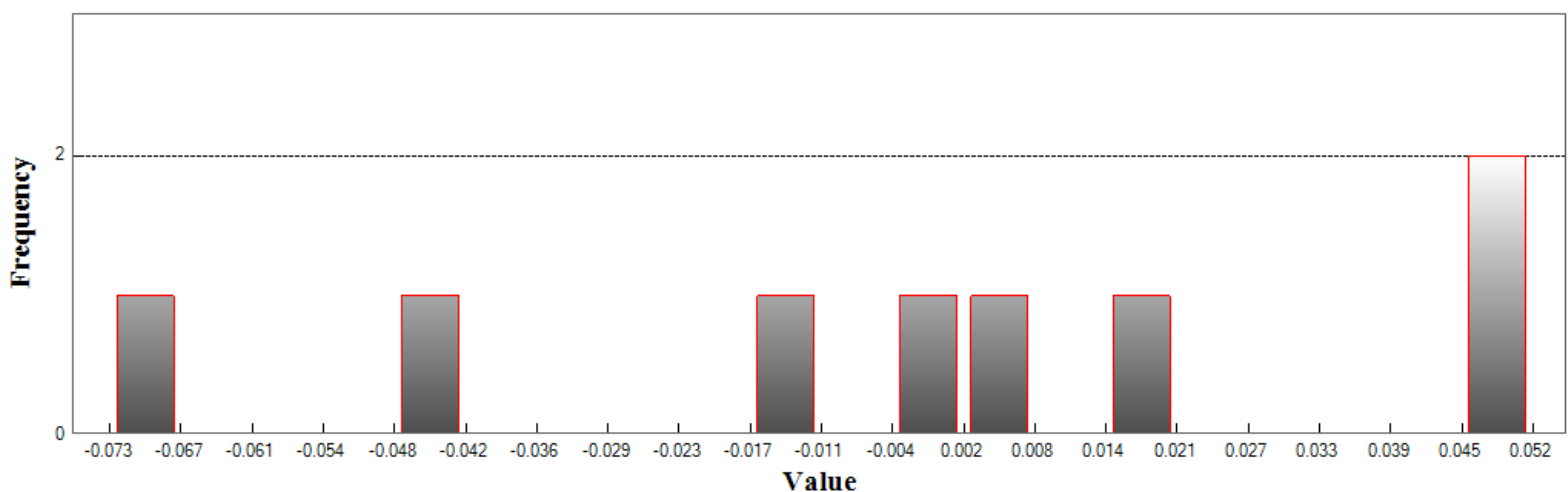
Standard Deviation DZ: 0.043

RMSE Z: 0.04

95th Percentile: 0.073

Units: Meters

Histogram



Min: -0.073

Max: 0.052

Number Of Bins: 20

Bin Interval: 0.006

DEM (Continued)

Vegetated Vertical Accuracy

LandCover Type: Low Vegetation

Minimum DZ: -0.142

Maximum DZ: 0.225

Mean DZ: 0.061

Mean Magnitude DZ: 0.269

Number Observations: 80

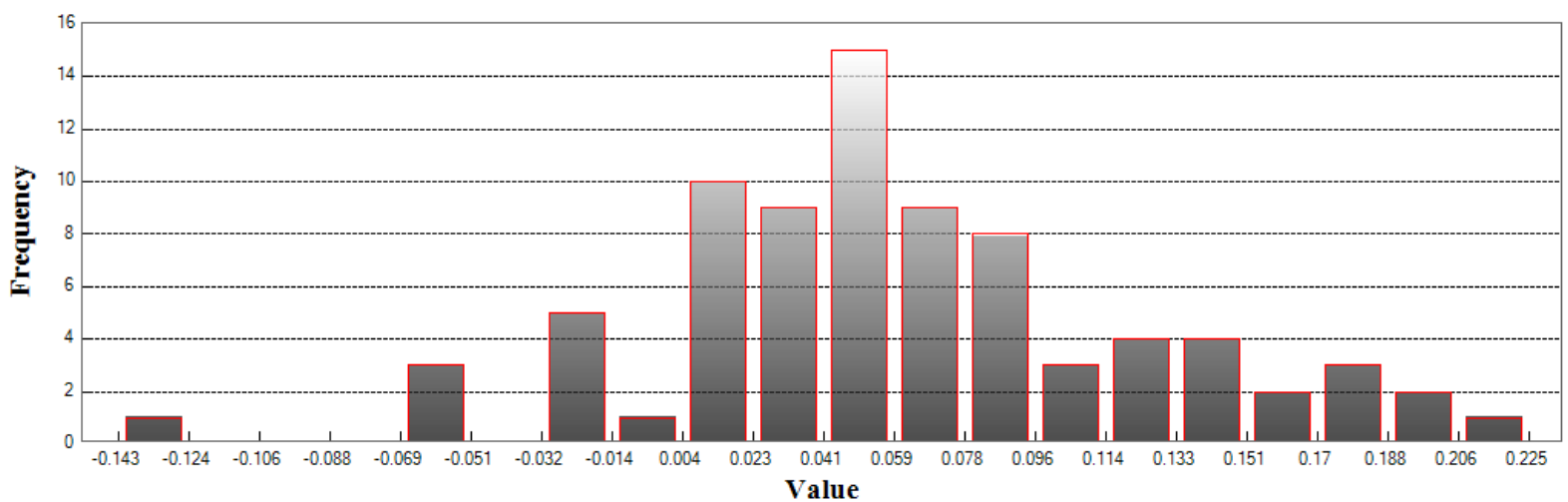
Standard Deviation DZ: 0.065

RMSE Z: 0.089

95th Percentile: 0.174

Units: Meters

Histogram



Min: -0.142

Max: 0.225

Number Of Bins: 20

Bin Interval: 0.018

DEM (Continued)

Vegetated Vertical Accuracy

LandCover Type: Medium Vegetation

Minimum DZ: -0.148

Maximum DZ: 0.167

Mean DZ: 0.038

Mean Magnitude DZ: 0.281

Number Observations: 20

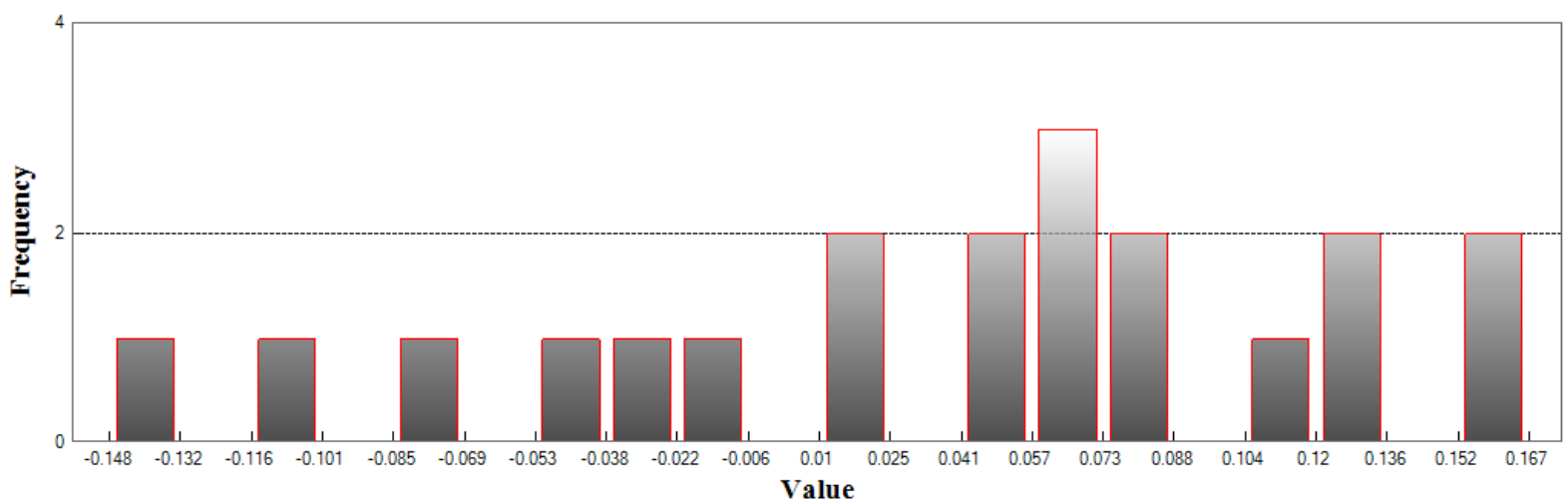
Standard Deviation DZ: 0.087

RMSE Z: 0.093

95th Percentile: 0.16

Units: Meters

Histogram



Min: -0.148

Max: 0.167

Number Of Bins: 20

Bin Interval: 0.016

Point: GS0002

Survey X: 621410.15, Survey Y: 4024941.86, Z1: 1678.98, Z DEM: 1679, Z LAS: 1678.98, ΔZ DEM: 0.02, ΔZ LAS: 0



North



South



East



West

Point: GS0007

Survey X: 624565.47, Survey Y: 4019866.15, Z1: 1627.43, Z DEM: 1627.46, Z LAS: 1627.46, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0008

Survey X: 624529.42, Survey Y: 4019879.15, Z1: 1627.63, Z DEM: 1627.69, Z LAS: 1627.69, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: GS0010

Survey X: 614515.92, Survey Y: 4027598.3, Z1: 1720.05, Z DEM: 1720.07, Z LAS: 1720.06, ΔZ DEM: 0.02, ΔZ LAS: 0.01



North



South



East



West

Point: GS0013

Survey X: 609117.53, Survey Y: 4038936.88, Z1: 1778.74, Z DEM: 1778.77, Z LAS: 1778.77, ΔZ DEM: 0.03, ΔZ LAS: 0.02



North



South



East



West

Point: GS0014

Survey X: 609146.76, Survey Y: 4038958.36, Z1: 1778.36, Z DEM: 1778.34, Z LAS: 1778.34, ΔZ DEM: -0.02, ΔZ LAS: -0.01



North



South



East



West

Point: GS0015

Survey X: 609153.54, Survey Y: 4038900.77, Z1: 1779.47, Z DEM: 1779.45, Z LAS: 1779.44, ΔZ DEM: -0.02, ΔZ LAS: -0.03



North



South



East



West

Point: GS0018

Survey X: 609808.56, Survey Y: 4045213.66, Z1: 1709.51, Z DEM: 1709.48, Z LAS: 1709.46, ΔZ DEM: -0.03, ΔZ LAS: -0.05



North



South



East



West

Point: GS0021

Survey X: 608340.81, Survey Y: 4030070.55, Z1: 1795.43, Z DEM: 1795.41, Z LAS: 1795.4, ΔZ DEM: -0.02, ΔZ LAS: -0.03



North



South



East



West

Point: GS0026

Survey X: 584099.75, Survey Y: 4048338.37, Z1: 1706.59, Z DEM: 1706.58, Z LAS: 1706.57, ΔZ DEM: -0.01, ΔZ LAS: -0.02



North



South



East



West

Point: GS0031

Survey X: 581096.09, Survey Y: 4054044.43, Z1: 1770.38, Z DEM: 1770.33, Z LAS: 1770.33, ΔZ DEM: -0.05, ΔZ LAS: -0.05



North



South



East



West

Point: GS0039

Survey X: 547254.85, Survey Y: 4048546.31, Z1: 1986.2, Z DEM: 1986.19, Z LAS: 1986.21, ΔZ DEM: -0.01, ΔZ LAS: 0.01



North



South



East



West

Point: GS0043

Survey X: 554602.12, Survey Y: 4059389.05, Z1: 1842.82, Z DEM: 1842.78, Z LAS: 1842.78, ΔZ DEM: -0.04, ΔZ LAS: -0.04



North



South



East



West

Point: GS0044

Survey X: 554603.65, Survey Y: 4059370.97, Z1: 1843.23, Z DEM: 1843.22, Z LAS: 1843.21, ΔZ DEM: -0.01, ΔZ LAS: -0.02



North



South



East



West

Point: GS0047

Survey X: 585828.53, Survey Y: 4069135.72, Z1: 1603.29, Z DEM: 1603.32, Z LAS: 1603.32, ΔZ DEM: 0.02, ΔZ LAS: 0.03



North



South



East



West

Point: GS0048

Survey X: 585774.71, Survey Y: 4069102.82, Z1: 1603.28, Z DEM: 1603.25, Z LAS: 1603.24, ΔZ DEM: -0.03, ΔZ LAS: -0.04



North



South



East



West

Point: GS0052

Survey X: 580841.65, Survey Y: 4065862.77, Z1: 1682.74, Z DEM: 1682.72, Z LAS: 1682.73, ΔZ DEM: -0.02, ΔZ LAS: -0.01



North



South



East



West

Point: GS0054

Survey X: 593869.46, Survey Y: 4072173.12, Z1: 1571.13, Z DEM: 1571.08, Z LAS: 1571.08, ΔZ DEM: -0.06, ΔZ LAS: -0.05



North



South



East



West

Point: GS0055

Survey X: 593837.85, Survey Y: 4072152.37, Z1: 1570.86, Z DEM: 1570.85, Z LAS: 1570.84, ΔZ DEM: -0.01, ΔZ LAS: -0.02



North



South



East



West

Point: GS0057

Survey X: 623304.02, Survey Y: 4087427.12, Z1: 1511.84, Z DEM: 1511.93, Z LAS: 1511.91, ΔZ DEM: 0.09, ΔZ LAS: 0.06



North



South



East



West

Point: GS0059

Survey X: 623283.49, Survey Y: 4087384.02, Z1: 1513, Z DEM: 1513.09, Z LAS: 1513.1, ΔZ DEM: 0.09, ΔZ LAS: 0.1



North



South



East



West

Point: GS0061

Survey X: 616273.63, Survey Y: 4088839.9, Z1: 1480.72, Z DEM: 1480.64, Z LAS: 1480.68, ΔZ DEM: -0.08, ΔZ LAS: -0.05



North



South



East



West

Point: GS0062

Survey X: 616269.72, Survey Y: 4088816.14, Z1: 1480.46, Z DEM: 1480.37, Z LAS: 1480.4, ΔZ DEM: -0.09, ΔZ LAS: -0.06



North



South



East



West

Point: GS0063

Survey X: 616259.63, Survey Y: 4088794.39, Z1: 1480.58, Z DEM: 1480.5, Z LAS: 1480.5, ΔZ DEM: -0.08, ΔZ LAS: -0.08



North



South



East



West

Point: GS0065

Survey X: 630373.45, Survey Y: 4089664.76, Z1: 1623.45, Z DEM: 1623.53, Z LAS: 1623.52, ΔZ DEM: 0.08, ΔZ LAS: 0.07



North



South



East



West

Point: GS0068

Survey X: 656210.34, Survey Y: 4089605.61, Z1: 1631.82, Z DEM: 1631.74, Z LAS: 1631.74, ΔZ DEM: -0.08, ΔZ LAS: -0.07



North



South



East



West

Point: GS0074

Survey X: 664791.65, Survey Y: 4088850.11, Z1: 1585.59, Z DEM: 1585.57, Z LAS: 1585.59, ΔZ DEM: -0.02, ΔZ LAS: 0



North



South



East



West

Point: GS0077

Survey X: 646298.56, Survey Y: 4091715.43, Z1: 1651.61, Z DEM: 1651.56, Z LAS: 1651.57, ΔZ DEM: -0.05, ΔZ LAS: -0.05



North



South



East



West

Point: GS0079

Survey X: 620368.13, Survey Y: 4072533.43, Z1: 1566.72, Z DEM: 1566.69, Z LAS: 1566.68, ΔZ DEM: -0.03, ΔZ LAS: -0.04



North



South



East



West

Point: GS0080

Survey X: 620330.58, Survey Y: 4072499.93, Z1: 1565.3, Z DEM: 1565.35, Z LAS: 1565.36, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: GS0081

Survey X: 620353.6, Survey Y: 4072566.15, Z1: 1566.45, Z DEM: 1566.38, Z LAS: 1566.39, ΔZ DEM: -0.07, ΔZ LAS: -0.06



North



South



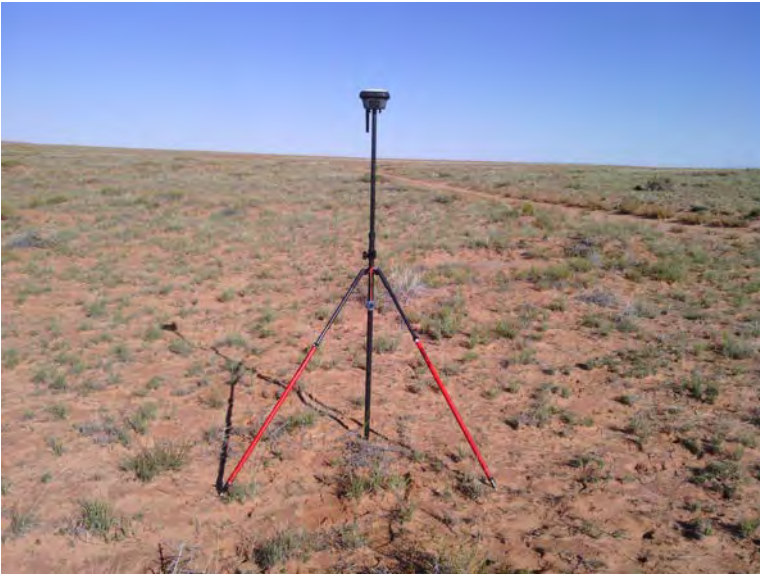
East



West

Point: GS0091

Survey X: 614096.34, Survey Y: 4056577.23, Z1: 1669.53, Z DEM: 1669.59, Z LAS: 1669.59, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: GS0094

Survey X: 616586.49, Survey Y: 4052194.23, Z1: 1620.48, Z DEM: 1620.45, Z LAS: 1620.45, ΔZ DEM: -0.03, ΔZ LAS: -0.03



North



South



East



West

Point: GS0097

Survey X: 614659.95, Survey Y: 4063961.54, Z1: 1632.03, Z DEM: 1632.04, Z LAS: 1632.05, ΔZ DEM: 0.01, ΔZ LAS: 0.02



North



South



East



West

Point: GS0098

Survey X: 614683.51, Survey Y: 4063947.77, Z1: 1632.62, Z DEM: 1632.7, Z LAS: 1632.69, ΔZ DEM: 0.08, ΔZ LAS: 0.07



North



South



East



West

Point: GS0099

Survey X: 614684.17, Survey Y: 4063984.04, Z1: 1631.73, Z DEM: 1631.75, Z LAS: 1631.77, ΔZ DEM: 0.02, ΔZ LAS: 0.04



North



South



East



West

Point: GS0103

Survey X: 645710.42, Survey Y: 4053001.7, Z1: 1771.38, Z DEM: 1771.34, Z LAS: 1771.34, ΔZ DEM: -0.04, ΔZ LAS: -0.04



North



South



East



West

Point: GS0105

Survey X: 648750.98, Survey Y: 4055706.21, Z1: 1772.15, Z DEM: 1772.15, Z LAS: 1772.15, ΔZ DEM: 0, ΔZ LAS: 0



North



South



East



West

Point: GS0108

Survey X: 643003.06, Survey Y: 4048887.74, Z1: 1767.62, Z DEM: 1767.47, Z LAS: 1767.46, ΔZ DEM: -0.15, ΔZ LAS: -0.16



North



South



East



West

Point: GS0109

Survey X: 643014.47, Survey Y: 4048864.19, Z1: 1767.94, Z DEM: 1767.8, Z LAS: 1767.8, ΔZ DEM: -0.15, ΔZ LAS: -0.15



North



South



East



West

Point: GS0112

Survey X: 645596.06, Survey Y: 4035529.67, Z1: 1802.06, Z DEM: 1802.04, Z LAS: 1802.02, ΔZ DEM: -0.02, ΔZ LAS: -0.05



North



South



East



West

Point: GS0113

Survey X: 645596.08, Survey Y: 4035500.59, Z1: 1802.66, Z DEM: 1802.6, Z LAS: 1802.6, ΔZ DEM: -0.06, ΔZ LAS: -0.07



North



South



East



West

Point: GS0116

Survey X: 637755.2, Survey Y: 4040584.63, Z1: 1659.42, Z DEM: 1659.23, Z LAS: 1659.25, ΔZ DEM: -0.18, ΔZ LAS: -0.16



North



South



East



West

Point: GS0117

Survey X: 637747.14, Survey Y: 4040608.97, Z1: 1658.72, Z DEM: 1658.47, Z LAS: 1658.48, ΔZ DEM: -0.25, ΔZ LAS: -0.24



North



South



East



West

Point: GS0119

Survey X: 651324.67, Survey Y: 4032974, Z1: 1864.75, Z DEM: 1864.8, Z LAS: 1864.81, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: GS0121

Survey X: 651347.83, Survey Y: 4033012.14, Z1: 1865.81, Z DEM: 1865.86, Z LAS: 1865.84, ΔZ DEM: 0.05, ΔZ LAS: 0.03



North



South



East



West

Point: GS0125

Survey X: 660108.74, Survey Y: 4019909.19, Z1: 2148.94, Z DEM: 2148.97, Z LAS: 2148.97, ΔZ DEM: 0.03, ΔZ LAS: 0.04



North



South



East



West

Point: GS0127

Survey X: 657199.69, Survey Y: 4025953.86, Z1: 2022.88, Z DEM: 2022.89, Z LAS: 2022.88, ΔZ DEM: 0.02, ΔZ LAS: 0.01



North



South



East



West

Point: GS0131

Survey X: 655096.05, Survey Y: 4015795.54, Z1: 2174.25, Z DEM: 2174.19, Z LAS: 2174.21, ΔZ DEM: -0.06, ΔZ LAS: -0.05



North



South



East



West

Point: GS0134

Survey X: 640167.17, Survey Y: 4005473.94, Z1: 1969.31, Z DEM: 1969.22, Z LAS: 1969.2, ΔZ DEM: -0.09, ΔZ LAS: -0.11



North



South



East



West

Point: GS0140

Survey X: 633160.13, Survey Y: 4003976.88, Z1: 1782.56, Z DEM: 1782.69, Z LAS: 1782.66, ΔZ DEM: 0.14, ΔZ LAS: 0.1



North



South



East



West

Point: GS0141

Survey X: 645581.89, Survey Y: 4011085.68, Z1: 2077.93, Z DEM: 2077.82, Z LAS: 2077.85, ΔZ DEM: -0.1, ΔZ LAS: -0.08



North



South



East



West

Point: GS0143

Survey X: 645603.69, Survey Y: 4011093.79, Z1: 2078.23, Z DEM: 2078.18, Z LAS: 2078.2, ΔZ DEM: -0.05, ΔZ LAS: -0.03



North



South



East



West

Point: GS0146

Survey X: 606160.5, Survey Y: 3925346.92, Z1: 1819.08, Z DEM: 1819.07, Z LAS: 1819.09, ΔZ DEM: 0, ΔZ LAS: 0.01



North



South



East



West

Point: GS0149

Survey X: 619309.98, Survey Y: 3925917.76, Z1: 1949.66, Z DEM: 1949.59, Z LAS: 1949.6, ΔZ DEM: -0.07, ΔZ LAS: -0.06



North



South



East



West

Point: GS0154

Survey X: 604145.17, Survey Y: 3932309.52, Z1: 1805.99, Z DEM: 1805.96, Z LAS: 1805.98, ΔZ DEM: -0.03, ΔZ LAS: -0.01



North



South



East



West

Point: GS0156

Survey X: 604760.6, Survey Y: 3926533.18, Z1: 1795.36, Z DEM: 1795.34, Z LAS: 1795.34, ΔZ DEM: -0.01, ΔZ LAS: -0.02



North



South



East



West

Point: GS0157

Survey X: 604730.32, Survey Y: 3926576.38, Z1: 1794.84, Z DEM: 1794.83, Z LAS: 1794.83, ΔZ DEM: -0.01, ΔZ LAS: -0.01



North



South



East



West

Point: GS0158

Survey X: 609487.36, Survey Y: 3938132.41, Z1: 1829.41, Z DEM: 1829.4, Z LAS: 1829.39, ΔZ DEM: -0.02, ΔZ LAS: -0.03



North



South



East



West

Point: GS0161

Survey X: 617569.32, Survey Y: 3946667.02, Z1: 1871.46, Z DEM: 1871.38, Z LAS: 1871.39, ΔZ DEM: -0.07, ΔZ LAS: -0.06



North



South



East



West

Point: GS0162

Survey X: 617543.74, Survey Y: 3946673.58, Z1: 1871.48, Z DEM: 1871.43, Z LAS: 1871.43, ΔZ DEM: -0.05, ΔZ LAS: -0.04



North



South



East



West

Point: GS0165

Survey X: 624691.19, Survey Y: 3945575.52, Z1: 1990.82, Z DEM: 1990.89, Z LAS: 1990.89, ΔZ DEM: 0.07, ΔZ LAS: 0.07



North



South



East



West

Point: GS0166

Survey X: 622877.75, Survey Y: 3955832.63, Z1: 1940.74, Z DEM: 1940.72, Z LAS: 1940.7, ΔZ DEM: -0.03, ΔZ LAS: -0.04



North



South



East



West

Point: GS0173

Survey X: 646438.83, Survey Y: 3960597.16, Z1: 2162.4, Z DEM: 2162.36, Z LAS: 2162.36, ΔZ DEM: -0.04, ΔZ LAS: -0.04



North



South



East



West

Point: GS0174

Survey X: 646452.33, Survey Y: 3960616.65, Z1: 2162.57, Z DEM: 2162.51, Z LAS: 2162.51, ΔZ DEM: -0.06, ΔZ LAS: -0.06



North



South



East



West

Point: GS0175

Survey X: 646425.6, Survey Y: 3960613.82, Z1: 2162.39, Z DEM: 2162.32, Z LAS: 2162.32, ΔZ DEM: -0.07, ΔZ LAS: -0.07



North



South



East



West

Point: GS0178

Survey X: 647549.91, Survey Y: 3954047.12, Z1: 2182.61, Z DEM: 2182.52, Z LAS: 2182.52, ΔZ DEM: -0.08, ΔZ LAS: -0.09



North



South



East



West

Point: GS0180

Survey X: 655913.83, Survey Y: 3951655.02, Z1: 2283.01, Z DEM: 2282.97, Z LAS: 2282.97, ΔZ DEM: -0.04, ΔZ LAS: -0.05



North



South



East



West

Point: GS0182

Survey X: 640095.65, Survey Y: 3953645.81, Z1: 2049.22, Z DEM: 2049.21, Z LAS: 2049.2, ΔZ DEM: -0.01, ΔZ LAS: -0.02



North



South



East



West

Point: GS0183

Survey X: 640086.08, Survey Y: 3953625.88, Z1: 2049.14, Z DEM: 2049.13, Z LAS: 2049.11, ΔZ DEM: -0.01, ΔZ LAS: -0.03



North



South



East



West

Point: GS0185

Survey X: 625502.58, Survey Y: 3963382.46, Z1: 1910.42, Z DEM: 1910.5, Z LAS: 1910.5, ΔZ DEM: 0.09, ΔZ LAS: 0.09



North



South



East



West

Point: GS0186

Survey X: 625497.05, Survey Y: 3963367.63, Z1: 1910.96, Z DEM: 1911.04, Z LAS: 1911.04, ΔZ DEM: 0.08, ΔZ LAS: 0.08



North



South



East



West

Point: GS0189

Survey X: 624188.08, Survey Y: 3957710.35, Z1: 1935.78, Z DEM: 1935.82, Z LAS: 1935.81, ΔZ DEM: 0.04, ΔZ LAS: 0.03



North



South



East



West

Point: GS0190

Survey X: 626620.98, Survey Y: 3970374.43, Z1: 1949.34, Z DEM: 1949.38, Z LAS: 1949.37, ΔZ DEM: 0.04, ΔZ LAS: 0.03



North



South



East



West

Point: GS0192

Survey X: 626634.96, Survey Y: 3970331.24, Z1: 1950.08, Z DEM: 1950.11, Z LAS: 1950.11, ΔZ DEM: 0.02, ΔZ LAS: 0.03



North



South



East



West

Point: GS0195

Survey X: 611813.29, Survey Y: 3974637.32, Z1: 1864.25, Z DEM: 1864.17, Z LAS: 1864.17, ΔZ DEM: -0.08, ΔZ LAS: -0.08



North



South



East



West

Point: GS0197

Survey X: 608007.44, Survey Y: 3980241.15, Z1: 1873.87, Z DEM: 1873.92, Z LAS: 1873.91, ΔZ DEM: 0.05, ΔZ LAS: 0.04



North



South



East



West

Point: GS0198

Survey X: 608021.37, Survey Y: 3980220.26, Z1: 1873.65, Z DEM: 1873.7, Z LAS: 1873.7, ΔZ DEM: 0.05, ΔZ LAS: 0.05



North



South



East



West

Point: GS0200

Survey X: 625401.55, Survey Y: 3975829.5, Z1: 1859.06, Z DEM: 1859.11, Z LAS: 1859.11, ΔZ DEM: 0.05, ΔZ LAS: 0.05



North



South



East



West

Point: GS0201

Survey X: 625377.84, Survey Y: 3975838.32, Z1: 1859.27, Z DEM: 1859.31, Z LAS: 1859.32, ΔZ DEM: 0.04, ΔZ LAS: 0.05



North



South



East



West

Point: GS0203

Survey X: 653853.48, Survey Y: 3885170.44, Z1: 1848.35, Z DEM: 1848.46, Z LAS: 1848.46, ΔZ DEM: 0.11, ΔZ LAS: 0.11



North



South



East



West

Point: GS0212

Survey X: 652482.99, Survey Y: 3888138.92, Z1: 1888.62, Z DEM: 1888.68, Z LAS: 1888.69, ΔZ DEM: 0.06, ΔZ LAS: 0.08



North



South



East



West

Point: GS0213

Survey X: 652468.06, Survey Y: 3888129.22, Z1: 1888.46, Z DEM: 1888.54, Z LAS: 1888.54, ΔZ DEM: 0.08, ΔZ LAS: 0.08



North



South



East



West

Point: GS0216

Survey X: 642656.2, Survey Y: 3895086.92, Z1: 1754.31, Z DEM: 1754.46, Z LAS: 1754.45, ΔZ DEM: 0.15, ΔZ LAS: 0.15



North



South



East



West

Point: GS0217

Survey X: 642652.7, Survey Y: 3895115.48, Z1: 1754.56, Z DEM: 1754.69, Z LAS: 1754.69, ΔZ DEM: 0.14, ΔZ LAS: 0.13



North



South



East



West

Point: GS0220

Survey X: 651414.05, Survey Y: 3898527.21, Z1: 1794.82, Z DEM: 1794.92, Z LAS: 1794.93, ΔZ DEM: 0.11, ΔZ LAS: 0.11



North



South



East



West

Point: GS0225

Survey X: 642138.67, Survey Y: 3902721.32, Z1: 1866.92, Z DEM: 1867.08, Z LAS: 1867.07, ΔZ DEM: 0.16, ΔZ LAS: 0.14



North



South



East



West

Point: GS0232

Survey X: 649656.01, Survey Y: 3907965.09, Z1: 1961.94, Z DEM: 1962, Z LAS: 1961.99, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: GS0233

Survey X: 649633.67, Survey Y: 3907961.91, Z1: 1962.08, Z DEM: 1962.13, Z LAS: 1962.14, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: GS0234

Survey X: 638891.78, Survey Y: 3914464.2, Z1: 1924.37, Z DEM: 1924.48, Z LAS: 1924.49, ΔZ DEM: 0.11, ΔZ LAS: 0.12



North



South



East



West

Point: GS0237

Survey X: 638886.73, Survey Y: 3914482.11, Z1: 1924.59, Z DEM: 1924.74, Z LAS: 1924.72, ΔZ DEM: 0.15, ΔZ LAS: 0.14



North



South



East



West

Point: GS0240

Survey X: 621479.42, Survey Y: 3906581.73, Z1: 1787.07, Z DEM: 1786.98, Z LAS: 1786.97, ΔZ DEM: -0.09, ΔZ LAS: -0.1



North



South



East



West

Point: GS0241

Survey X: 621474.18, Survey Y: 3906533.83, Z1: 1786.53, Z DEM: 1786.43, Z LAS: 1786.41, ΔZ DEM: -0.1, ΔZ LAS: -0.12



North



South



East



West

Point: GS0243

Survey X: 626385.55, Survey Y: 3910450.32, Z1: 1804.57, Z DEM: 1804.56, Z LAS: 1804.55, ΔZ DEM: -0.01, ΔZ LAS: -0.02



North



South



East



West

Point: GS0245

Survey X: 626418.36, Survey Y: 3910454.56, Z1: 1803.6, Z DEM: 1803.51, Z LAS: 1803.51, ΔZ DEM: -0.1, ΔZ LAS: -0.09



North



South



East



West

Point: GS0246

Survey X: 628202.02, Survey Y: 3912044.57, Z1: 1816.34, Z DEM: 1816.31, Z LAS: 1816.29, ΔZ DEM: -0.03, ΔZ LAS: -0.05



North



South



East



West

Point: GS0247

Survey X: 628217.7, Survey Y: 3912063.64, Z1: 1816.6, Z DEM: 1816.55, Z LAS: 1816.56, ΔZ DEM: -0.05, ΔZ LAS: -0.04



North



South



East



West

Point: GS0256

Survey X: 637152.4, Survey Y: 3919592.57, Z1: 1946.47, Z DEM: 1946.5, Z LAS: 1946.5, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0257

Survey X: 637132.29, Survey Y: 3919583.29, Z1: 1945.78, Z DEM: 1945.83, Z LAS: 1945.81, ΔZ DEM: 0.05, ΔZ LAS: 0.03



North



South



East



West

Point: GS0260

Survey X: 633407.14, Survey Y: 3926382.96, Z1: 1998.02, Z DEM: 1998.03, Z LAS: 1998.03, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: GS0263

Survey X: 639489.43, Survey Y: 3931116.76, Z1: 2054.82, Z DEM: 2054.86, Z LAS: 2054.87, ΔZ DEM: 0.05, ΔZ LAS: 0.05



North



South



East



West

Point: GS0265

Survey X: 639514.42, Survey Y: 3931133.16, Z1: 2056.22, Z DEM: 2056.28, Z LAS: 2056.28, ΔZ DEM: 0.06, ΔZ LAS: 0.05



North



South



East



West

Point: GS0267

Survey X: 644233.3, Survey Y: 3932011.82, Z1: 2174.62, Z DEM: 2174.62, Z LAS: 2174.64, ΔZ DEM: 0, ΔZ LAS: 0.02



North



South



East



West

Point: GS0270

Survey X: 634026.53, Survey Y: 3930198.47, Z1: 1958.39, Z DEM: 1958.41, Z LAS: 1958.41, ΔZ DEM: 0.02, ΔZ LAS: 0.02



North



South



East



West

Point: GS0271

Survey X: 634047.25, Survey Y: 3930201.65, Z1: 1957.97, Z DEM: 1957.98, Z LAS: 1957.99, ΔZ DEM: 0.01, ΔZ LAS: 0.02



North



South



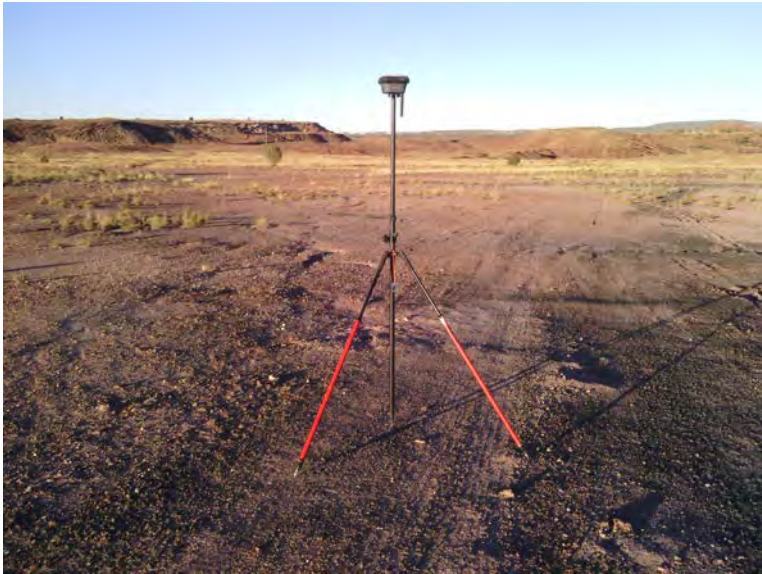
East



West

Point: GS0275

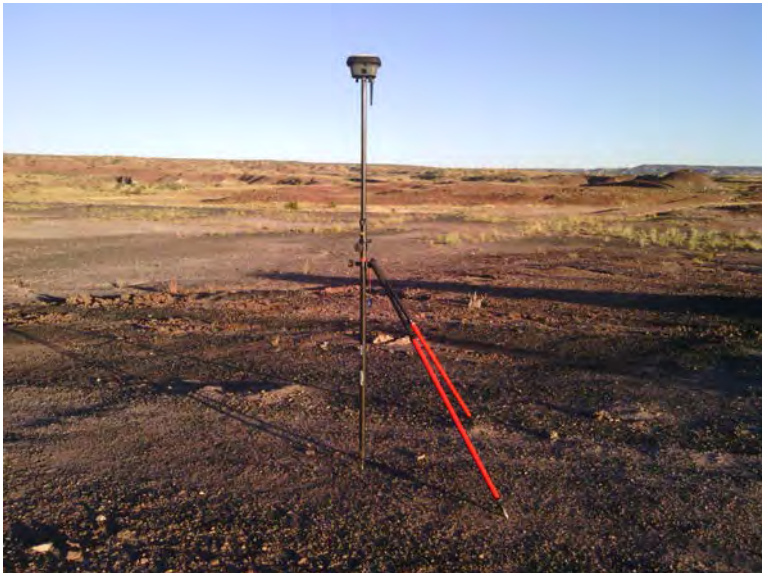
Survey X: 633979.04, Survey Y: 3978415.93, Z1: 1799.81, Z DEM: 1799.9, Z LAS: 1799.9, ΔZ DEM: 0.09, ΔZ LAS: 0.09



North



South



East



West

Point: GS0276

Survey X: 633996.58, Survey Y: 3978430.18, Z1: 1798.57, Z DEM: 1798.65, Z LAS: 1798.64, ΔZ DEM: 0.08, ΔZ LAS: 0.08



North



South



East



West

Point: GS0277

Survey X: 634003.7, Survey Y: 3978449.97, Z1: 1798.28, Z DEM: 1798.38, Z LAS: 1798.38, ΔZ DEM: 0.1, ΔZ LAS: 0.09



North



South



East



West

Point: GS0282

Survey X: 615556.17, Survey Y: 4007704.07, Z1: 1826.76, Z DEM: 1826.81, Z LAS: 1826.81, Δ Z DEM: 0.06, Δ Z LAS: 0.05



North



South



East



West

Point: GS0283

Survey X: 615543.8, Survey Y: 4007686.68, Z1: 1826.76, Z DEM: 1826.81, Z LAS: 1826.82, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: GS0287

Survey X: 615027.66, Survey Y: 4013192.99, Z1: 1714.69, Z DEM: 1714.71, Z LAS: 1714.7, ΔZ DEM: 0.02, ΔZ LAS: 0.01



North



South



East



West

Point: GS0288

Survey X: 615015.97, Survey Y: 4013172.62, Z1: 1714.74, Z DEM: 1714.75, Z LAS: 1714.75, ΔZ DEM: 0, ΔZ LAS: 0.01



North



South



East



West

Point: GS0290

Survey X: 619050.03, Survey Y: 4006367.93, Z1: 1732.87, Z DEM: 1732.88, Z LAS: 1732.88, ΔZ DEM: 0.01, ΔZ LAS: 0.02



North



South



East



West

Point: GS0291

Survey X: 619026.08, Survey Y: 4006360.23, Z1: 1733.13, Z DEM: 1733.12, Z LAS: 1733.13, ΔZ DEM: 0, ΔZ LAS: 0



North



South



East



West

Point: GS0295

Survey X: 611024.2, Survey Y: 3992504.39, Z1: 1795.6, Z DEM: 1795.59, Z LAS: 1795.6, ΔZ DEM: -0.01, ΔZ LAS: 0



North



South



East



West

Point: GS0296

Survey X: 611023.12, Survey Y: 3992527.15, Z1: 1795.55, Z DEM: 1795.53, Z LAS: 1795.55, ΔZ DEM: -0.02, ΔZ LAS: 0



North



South



East



West

Point: GS0300

Survey X: 601380.28, Survey Y: 3992161.08, Z1: 1848.23, Z DEM: 1848.29, Z LAS: 1848.3, ΔZ DEM: 0.05, ΔZ LAS: 0.07



North



South



East



West

Point: GS0301

Survey X: 601404.8, Survey Y: 3992153.02, Z1: 1848.42, Z DEM: 1848.47, Z LAS: 1848.47, ΔZ DEM: 0.05, ΔZ LAS: 0.05



North



South



East



West

Point: GS0304

Survey X: 618611.89, Survey Y: 3994051.11, Z1: 1724.81, Z DEM: 1724.81, Z LAS: 1724.8, ΔZ DEM: 0, ΔZ LAS: -0.01



North



South



East



West

Point: GS0307

Survey X: 618606.24, Survey Y: 3994071.43, Z1: 1724.71, Z DEM: 1724.82, Z LAS: 1724.78, ΔZ DEM: 0.11, ΔZ LAS: 0.07



North



South



East



West

Point: GS0309

Survey X: 647649.86, Survey Y: 3989716.43, Z1: 2082.71, Z DEM: 2082.65, Z LAS: 2082.65, ΔZ DEM: -0.06, ΔZ LAS: -0.06



North



South



East



West

Point: GS0310

Survey X: 647672.51, Survey Y: 3989717.42, Z1: 2082.87, Z DEM: 2082.8, Z LAS: 2082.8, ΔZ DEM: -0.07, ΔZ LAS: -0.07



North



South



East



West

Point: GS0314

Survey X: 650200.96, Survey Y: 3986348.18, Z1: 2142.11, Z DEM: 2142.12, Z LAS: 2142.13, ΔZ DEM: 0, ΔZ LAS: 0.02



North



South



East



West

Point: GS0004

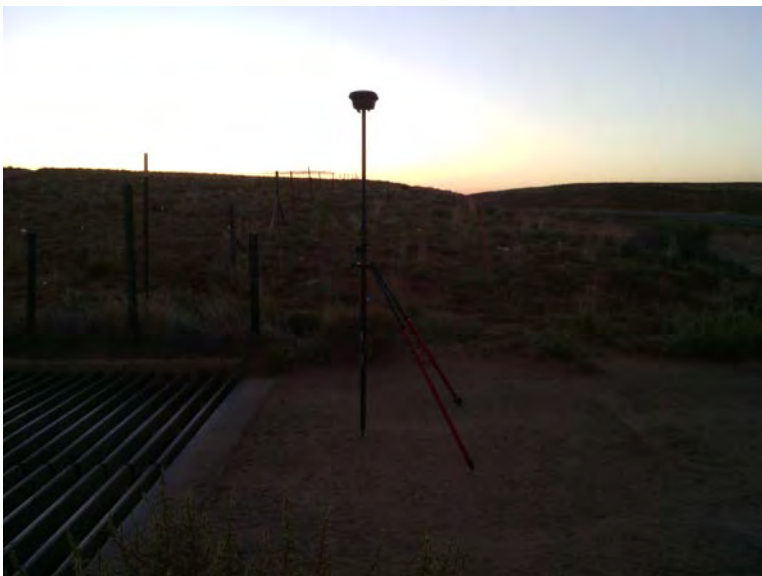
Survey X: 621456.93, Survey Y: 4024973.39, Z1: 1680.43, Z DEM: 1680.32, Z LAS: 1680.26, ΔZ DEM: -0.1, ΔZ LAS: -0.17



North



South



East



West

Point: GS0009

Survey X: 614495.4, Survey Y: 4027608.88, Z1: 1720.36, Z DEM: 1720.35, Z LAS: 1720.38, ΔZ DEM: -0.01, ΔZ LAS: 0.02



North



South



East



West

Point: GS0032

Survey X: 581070.08, Survey Y: 4054051.81, Z1: 1770.21, Z DEM: 1770.16, Z LAS: 1770.14, ΔZ DEM: -0.05, ΔZ LAS: -0.07



North



South



East



West

Point: GS0040

Survey X: 547278.88, Survey Y: 4048555.76, Z1: 1986.76, Z DEM: 1986.72, Z LAS: 1986.74, ΔZ DEM: -0.03, ΔZ LAS: -0.02



North



South



East



West

Point: GS0050

Survey X: 580860.53, Survey Y: 4065868.76, Z1: 1682.44, Z DEM: 1682.41, Z LAS: 1682.4, ΔZ DEM: -0.03, ΔZ LAS: -0.03



North



South



East



West

Point: GS0053

Survey X: 593855.59, Survey Y: 4072163.19, Z1: 1570.97, Z DEM: 1570.88, Z LAS: 1570.88, ΔZ DEM: -0.1, ΔZ LAS: -0.09



North



South



East



West

Point: GS0072

Survey X: 664809.67, Survey Y: 4088863.12, Z1: 1584.93, Z DEM: 1584.87, Z LAS: 1584.88, ΔZ DEM: -0.06, ΔZ LAS: -0.05



North



South



East



West

Point: GS0075

Survey X: 646299.99, Survey Y: 4091748.43, Z1: 1651.63, Z DEM: 1651.57, Z LAS: 1651.59, ΔZ DEM: -0.06, ΔZ LAS: -0.04



North



South



East



West

Point: GS0118

Survey X: 651344.1, Survey Y: 4032963.75, Z1: 1865.04, Z DEM: 1865.06, Z LAS: 1865.06, ΔZ DEM: 0.02, ΔZ LAS: 0.02



North



South



East



West

Point: GS0124

Survey X: 660088.24, Survey Y: 4019898.94, Z1: 2149.12, Z DEM: 2149.11, Z LAS: 2149.13, ΔZ DEM: -0.01, ΔZ LAS: 0.02



North



South



East



West

Point: GS0130

Survey X: 655100.21, Survey Y: 4015828.64, Z1: 2173.55, Z DEM: 2173.53, Z LAS: 2173.53, ΔZ DEM: -0.02, ΔZ LAS: -0.02



North



South



East



West

Point: GS0188

Survey X: 624211.22, Survey Y: 3957696.33, Z1: 1937.17, Z DEM: 1937.22, Z LAS: 1937.22, ΔZ DEM: 0.04, ΔZ LAS: 0.05



North



South



East



West

Point: GS0205

Survey X: 653893.88, Survey Y: 3885182.59, Z1: 1849.27, Z DEM: 1849.33, Z LAS: 1849.34, ΔZ DEM: 0.07, ΔZ LAS: 0.07



North



South



East



West

Point: GS0209

Survey X: 658390.98, Survey Y: 3887239.95, Z1: 1889.59, Z DEM: 1889.6, Z LAS: 1889.6, ΔZ DEM: 0.01, ΔZ LAS: 0



North



South



East



West

Point: GS0221

Survey X: 651439.33, Survey Y: 3898517.9, Z1: 1794.56, Z DEM: 1794.67, Z LAS: 1794.67, ΔZ DEM: 0.11, ΔZ LAS: 0.11



North



South



East



West

Point: GS0222

Survey X: 642102.7, Survey Y: 3902674.32, Z1: 1869.45, Z DEM: 1869.56, Z LAS: 1869.55, ΔZ DEM: 0.11, ΔZ LAS: 0.11



North



South



East



West

Point: GS0227

Survey X: 642547.83, Survey Y: 3909383.64, Z1: 1912.42, Z DEM: 1912.46, Z LAS: 1912.47, ΔZ DEM: 0.05, ΔZ LAS: 0.05



North



South



East



West

Point: GS0258

Survey X: 633396.81, Survey Y: 3926358.24, Z1: 1996.74, Z DEM: 1996.76, Z LAS: 1996.77, ΔZ DEM: 0.02, ΔZ LAS: 0.02



North



South



East



West

Point: GS0317

Survey X: 643348.84, Survey Y: 3992961.59, Z1: 2039.17, Z DEM: 2038.99, Z LAS: 2039, ΔZ DEM: -0.17, ΔZ LAS: -0.17



North



South



East



West

Point: GS0318

Survey X: 643336.6, Survey Y: 3992942.32, Z1: 2038.81, Z DEM: 2038.65, Z LAS: 2038.65, ΔZ DEM: -0.15, ΔZ LAS: -0.16



North



South



East



West

Point: GS0003

Survey X: 621457.1, Survey Y: 4024952.87, Z1: 1680.07, Z DEM: 1680.02, Z LAS: 1680.01, ΔZ DEM: -0.05, ΔZ LAS: -0.06



North



South



East



West

Point: GS0011

Survey X: 614471.16, Survey Y: 4027626.7, Z1: 1719.48, Z DEM: 1719.55, Z LAS: 1719.54, ΔZ DEM: 0.07, ΔZ LAS: 0.06



North



South



East



West

Point: GS0016

Survey X: 609815.21, Survey Y: 4045267.18, Z1: 1707.22, Z DEM: 1707.23, Z LAS: 1707.25, ΔZ DEM: 0.01, ΔZ LAS: 0.03



North



South



East



West

Point: GS0017

Survey X: 609821.3, Survey Y: 4045232.79, Z1: 1707.85, Z DEM: 1707.9, Z LAS: 1707.88, ΔZ DEM: 0.05, ΔZ LAS: 0.03



North



South



East



West

Point: GS0019

Survey X: 609796.39, Survey Y: 4045176.46, Z1: 1710.58, Z DEM: 1710.59, Z LAS: 1710.58, ΔZ DEM: 0.01, ΔZ LAS: 0



North



South



East



West

Point: GS0022

Survey X: 608345.18, Survey Y: 4030050.61, Z1: 1794.91, Z DEM: 1794.95, Z LAS: 1794.89, ΔZ DEM: 0.04, ΔZ LAS: -0.02



North



South



East



West

Point: GS0024

Survey X: 584088.97, Survey Y: 4048282.92, Z1: 1706.76, Z DEM: 1706.89, Z LAS: 1706.81, ΔZ DEM: 0.13, ΔZ LAS: 0.05



North



South



East



West

Point: GS0025

Survey X: 584088.83, Survey Y: 4048258.29, Z1: 1706.92, Z DEM: 1707, Z LAS: 1707, ΔZ DEM: 0.08, ΔZ LAS: 0.09



North



South



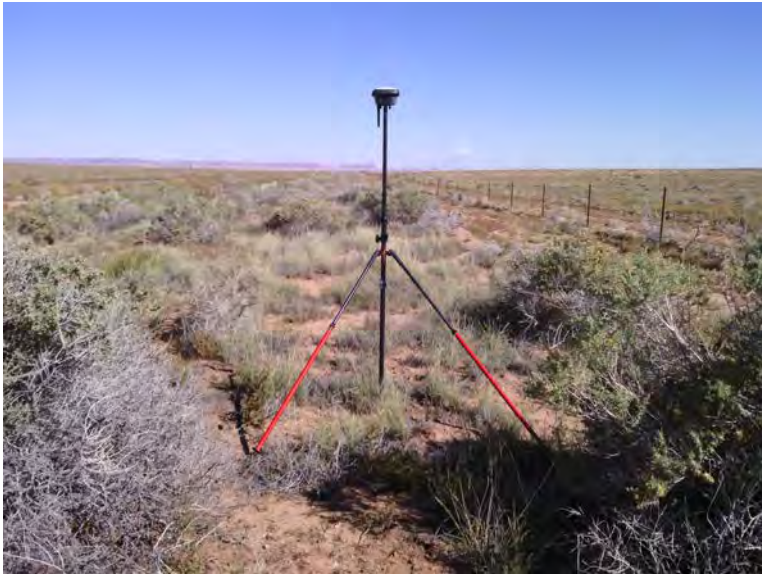
East



West

Point: GS0033

Survey X: 581083.45, Survey Y: 4054075.21, Z1: 1769.88, Z DEM: 1769.93, Z LAS: 1769.95, ΔZ DEM: 0.06, ΔZ LAS: 0.07



North



South



East



West

Point: GS0035

Survey X: 549168.22, Survey Y: 4054212.51, Z1: 1903.92, Z DEM: 1903.98, Z LAS: 1903.99, ΔZ DEM: 0.06, ΔZ LAS: 0.07



North



South



East



West

Point: GS0036

Survey X: 549182.99, Survey Y: 4054229.39, Z1: 1902.95, Z DEM: 1903.04, Z LAS: 1903.05, ΔZ DEM: 0.09, ΔZ LAS: 0.09



North



South



East



West

Point: GS0037

Survey X: 549192.54, Survey Y: 4054242.07, Z1: 1902.47, Z DEM: 1902.56, Z LAS: 1902.56, ΔZ DEM: 0.09, ΔZ LAS: 0.09



North



South



East



West

Point: GS0042

Survey X: 554602.7, Survey Y: 4059411.18, Z1: 1841.93, Z DEM: 1841.92, Z LAS: 1841.95, ΔZ DEM: -0.02, ΔZ LAS: 0.01



North



South



East



West

Point: GS0046

Survey X: 585814.65, Survey Y: 4069118.93, Z1: 1603.23, Z DEM: 1603.16, Z LAS: 1603.17, ΔZ DEM: -0.06, ΔZ LAS: -0.06



North



South



East



West

Point: GS0051

Survey X: 580876.18, Survey Y: 4065886.97, Z1: 1682.08, Z DEM: 1682.14, Z LAS: 1682.14, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: GS0058

Survey X: 623295.91, Survey Y: 4087402.48, Z1: 1512.37, Z DEM: 1512.43, Z LAS: 1512.46, ΔZ DEM: 0.07, ΔZ LAS: 0.09



North



South



East



West

Point: GS0064

Survey X: 630398.36, Survey Y: 4089673.16, Z1: 1624.19, Z DEM: 1624.27, Z LAS: 1624.21, ΔZ DEM: 0.09, ΔZ LAS: 0.02



North



South



East



West

Point: GS0066

Survey X: 630421.96, Survey Y: 4089690.91, Z1: 1625.1, Z DEM: 1625.12, Z LAS: 1625.14, ΔZ DEM: 0.03, ΔZ LAS: 0.05



North



South



East



West

Point: GS0069

Survey X: 656192.06, Survey Y: 4089609.32, Z1: 1632.26, Z DEM: 1632.28, Z LAS: 1632.25, ΔZ DEM: 0.02, ΔZ LAS: -0.01



North



South



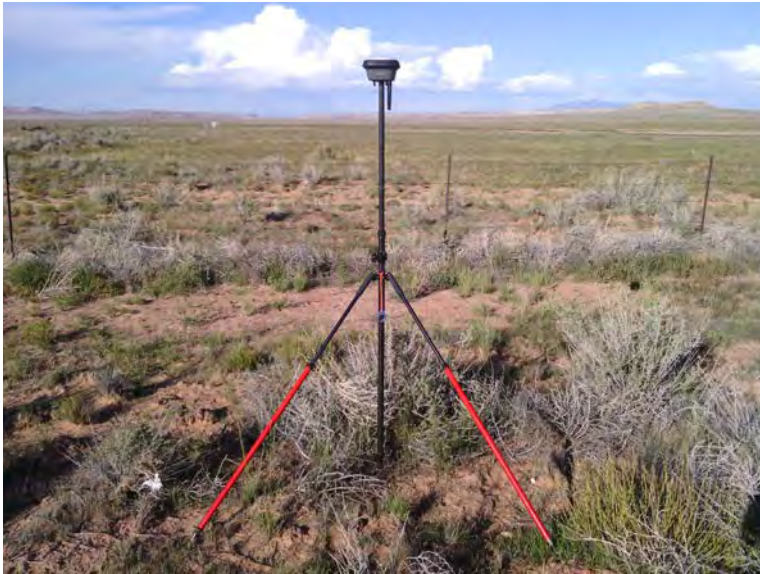
East



West

Point: GS0070

Survey X: 656224.54, Survey Y: 4089580.64, Z1: 1632.38, Z DEM: 1632.41, Z LAS: 1632.41, ΔZ DEM: 0.03, ΔZ LAS: 0.03



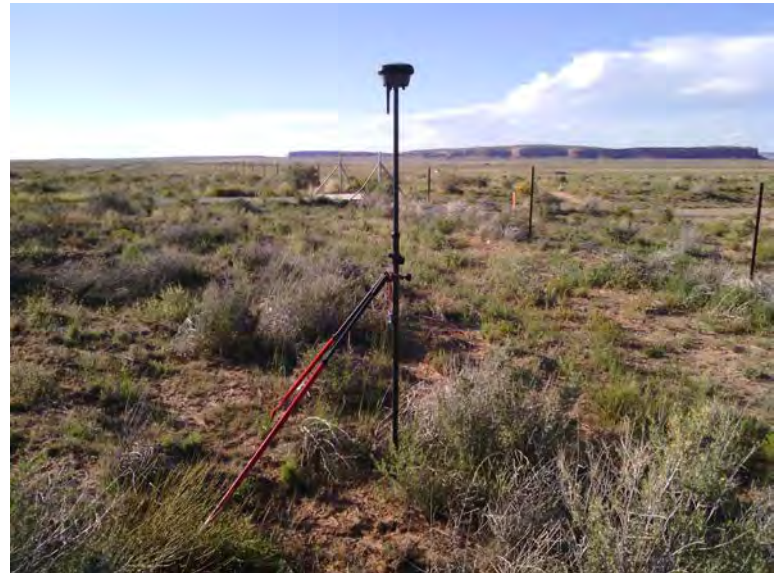
North



South



East



West

Point: GS0073

Survey X: 664831.17, Survey Y: 4088853.97, Z1: 1585.07, Z DEM: 1585.12, Z LAS: 1585.09, ΔZ DEM: 0.05, ΔZ LAS: 0.02



North



South



East



West

Point: GS0076

Survey X: 646284.09, Survey Y: 4091732.39, Z1: 1651.27, Z DEM: 1651.28, Z LAS: 1651.27, ΔZ DEM: 0.01, ΔZ LAS: 0



North



South



East



West

Point: GS0086

Survey X: 622293.14, Survey Y: 4065399.9, Z1: 1524.19, Z DEM: 1524.28, Z LAS: 1524.29, ΔZ DEM: 0.09, ΔZ LAS: 0.1



North



South



East



West

Point: GS0087

Survey X: 622301.23, Survey Y: 4065373.93, Z1: 1524.27, Z DEM: 1524.44, Z LAS: 1524.43, ΔZ DEM: 0.17, ΔZ LAS: 0.16



North



South



East



West

Point: GS0088

Survey X: 622314.49, Survey Y: 4065344.13, Z1: 1524.33, Z DEM: 1524.47, Z LAS: 1524.47, ΔZ DEM: 0.14, ΔZ LAS: 0.14



North



South



East



West

Point: GS0090

Survey X: 614078.81, Survey Y: 4056556.3, Z1: 1668.9, Z DEM: 1669.05, Z LAS: 1669.02, ΔZ DEM: 0.15, ΔZ LAS: 0.12



North



South



East



West

Point: GS0092

Survey X: 614074.11, Survey Y: 4056589.82, Z1: 1669.29, Z DEM: 1669.34, Z LAS: 1669.36, ΔZ DEM: 0.05, ΔZ LAS: 0.07



North



South



East



West

Point: GS0095

Survey X: 616584.59, Survey Y: 4052215.46, Z1: 1620.9, Z DEM: 1620.91, Z LAS: 1620.91, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: GS0096

Survey X: 616555.11, Survey Y: 4052218.71, Z1: 1621.22, Z DEM: 1621.24, Z LAS: 1621.23, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: GS0101

Survey X: 645697.64, Survey Y: 4052952.69, Z1: 1773.51, Z DEM: 1773.48, Z LAS: 1773.48, ΔZ DEM: -0.03, ΔZ LAS: -0.03



North



South



East



West

Point: GS0102

Survey X: 645718.9, Survey Y: 4052972.94, Z1: 1773.7, Z DEM: 1773.71, Z LAS: 1773.72, ΔZ DEM: 0.01, ΔZ LAS: 0.02



North



South



East



West

Point: GS0104

Survey X: 648759.78, Survey Y: 4055687.92, Z1: 1773.52, Z DEM: 1773.58, Z LAS: 1773.59, ΔZ DEM: 0.06, ΔZ LAS: 0.07



North



South



East



West

Point: GS0106

Survey X: 648746.4, Survey Y: 4055664.86, Z1: 1772.32, Z DEM: 1772.38, Z LAS: 1772.38, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: GS0110

Survey X: 643033.69, Survey Y: 4048863.39, Z1: 1769.26, Z DEM: 1769.12, Z LAS: 1769.13, ΔZ DEM: -0.14, ΔZ LAS: -0.14



North



South



East



West

Point: GS0114

Survey X: 645620.83, Survey Y: 4035502.86, Z1: 1803.15, Z DEM: 1803.13, Z LAS: 1803.15, ΔZ DEM: -0.03, ΔZ LAS: -0.01



North



South



East



West

Point: GS0120

Survey X: 651329.3, Survey Y: 4032996.81, Z1: 1864.88, Z DEM: 1865.01, Z LAS: 1864.98, ΔZ DEM: 0.13, ΔZ LAS: 0.1



North



South



East



West

Point: GS0123

Survey X: 660085.74, Survey Y: 4019921.09, Z1: 2149.01, Z DEM: 2149.05, Z LAS: 2149.04, ΔZ DEM: 0.05, ΔZ LAS: 0.03



North



South



East



West

Point: GS0129

Survey X: 657229.32, Survey Y: 4025943.75, Z1: 2025.38, Z DEM: 2025.4, Z LAS: 2025.4, ΔZ DEM: 0.02, ΔZ LAS: 0.02



North



South



East



West

Point: GS0139

Survey X: 633142.88, Survey Y: 4003964.47, Z1: 1782.06, Z DEM: 1782.26, Z LAS: 1782.25, ΔZ DEM: 0.2, ΔZ LAS: 0.2



North



South



East



West

Point: GS0142

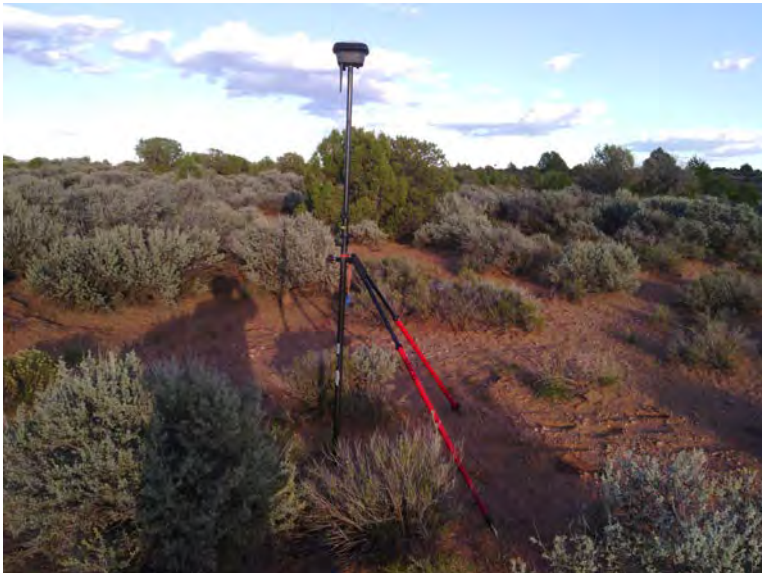
Survey X: 645591.96, Survey Y: 4011110.22, Z1: 2078.57, Z DEM: 2078.54, Z LAS: 2078.54, ΔZ DEM: -0.02, ΔZ LAS: -0.03



North



South



East



West

Point: GS0145

Survey X: 606146.67, Survey Y: 3925328.19, Z1: 1819.4, Z DEM: 1819.46, Z LAS: 1819.47, ΔZ DEM: 0.07, ΔZ LAS: 0.07



North



South



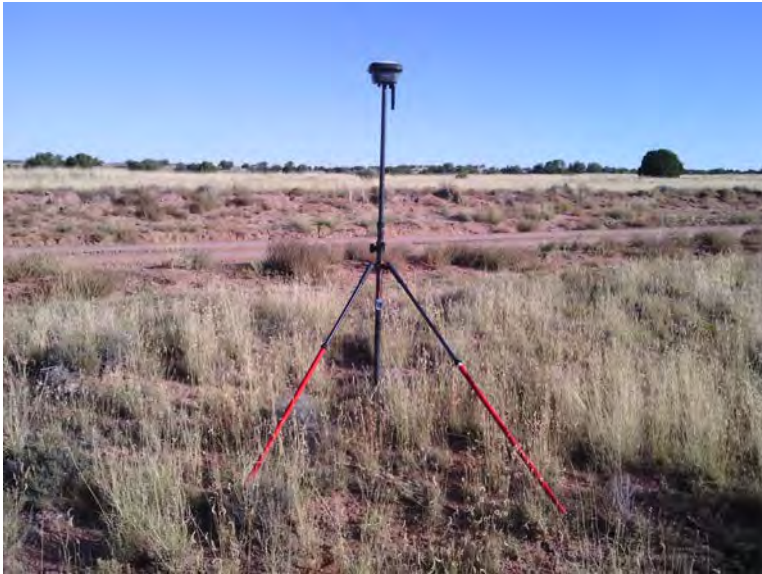
East



West

Point: GS0148

Survey X: 619302.1, Survey Y: 3925939.74, Z1: 1949.5, Z DEM: 1949.52, Z LAS: 1949.52, ΔZ DEM: 0.02, ΔZ LAS: 0.02



North



South



East



West

Point: GS0153

Survey X: 604193.26, Survey Y: 3932321.04, Z1: 1805.51, Z DEM: 1805.54, Z LAS: 1805.51, ΔZ DEM: 0.03, ΔZ LAS: 0



North



South



East



West

Point: GS0159

Survey X: 609518.45, Survey Y: 3938145.57, Z1: 1829.2, Z DEM: 1829.24, Z LAS: 1829.25, ΔZ DEM: 0.04, ΔZ LAS: 0.05



North



South



East



West

Point: GS0167

Survey X: 622888.42, Survey Y: 3955853.32, Z1: 1940.28, Z DEM: 1940.28, Z LAS: 1940.29, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: GS0181

Survey X: 655875.65, Survey Y: 3951666.45, Z1: 2282.44, Z DEM: 2282.44, Z LAS: 2282.43, ΔZ DEM: 0, ΔZ LAS: 0



North



South



East



West

Point: GS0191

Survey X: 626633.24, Survey Y: 3970353.81, Z1: 1949.96, Z DEM: 1950.02, Z LAS: 1950, ΔZ DEM: 0.06, ΔZ LAS: 0.05



North



South



East



West

Point: GS0193

Survey X: 611834.13, Survey Y: 3974615.85, Z1: 1864.45, Z DEM: 1864.39, Z LAS: 1864.39, ΔZ DEM: -0.06, ΔZ LAS: -0.06



North



South



East



West

Point: GS0199

Survey X: 625405.89, Survey Y: 3975852.48, Z1: 1858.67, Z DEM: 1858.78, Z LAS: 1858.75, ΔZ DEM: 0.11, ΔZ LAS: 0.08



North



South



East



West

Point: GS0204

Survey X: 653880.1, Survey Y: 3885161.73, Z1: 1848.32, Z DEM: 1848.49, Z LAS: 1848.5, ΔZ DEM: 0.17, ΔZ LAS: 0.18



North



South



East



West

Point: GS0207

Survey X: 658340.5, Survey Y: 3887233.31, Z1: 1888.53, Z DEM: 1888.65, Z LAS: 1888.66, ΔZ DEM: 0.13, ΔZ LAS: 0.13



North



South



East



West

Point: GS0208

Survey X: 658321.38, Survey Y: 3887227.57, Z1: 1888.31, Z DEM: 1888.37, Z LAS: 1888.39, ΔZ DEM: 0.07, ΔZ LAS: 0.09



North



South



East



West

Point: GS0210

Survey X: 652497.91, Survey Y: 3888117.66, Z1: 1888.26, Z DEM: 1888.41, Z LAS: 1888.41, ΔZ DEM: 0.15, ΔZ LAS: 0.15



North



South



East



West

Point: GS0211

Survey X: 652506.86, Survey Y: 3888098.05, Z1: 1887.78, Z DEM: 1887.97, Z LAS: 1887.96, ΔZ DEM: 0.19, ΔZ LAS: 0.18



North



South



East



West

Point: GS0215

Survey X: 642678, Survey Y: 3895075.67, Z1: 1754.23, Z DEM: 1754.46, Z LAS: 1754.47, ΔZ DEM: 0.22, ΔZ LAS: 0.24



North



South



East



West

Point: GS0218

Survey X: 651375.63, Survey Y: 3898550.05, Z1: 1795.19, Z DEM: 1795.31, Z LAS: 1795.32, ΔZ DEM: 0.12, ΔZ LAS: 0.13



North



South



East



West

Point: GS0223

Survey X: 642124.83, Survey Y: 3902681.7, Z1: 1868.13, Z DEM: 1868.29, Z LAS: 1868.31, ΔZ DEM: 0.16, ΔZ LAS: 0.18



North



South



East



West

Point: GS0224

Survey X: 642128.24, Survey Y: 3902703.62, Z1: 1867.44, Z DEM: 1867.59, Z LAS: 1867.6, ΔZ DEM: 0.15, ΔZ LAS: 0.16



North



South



East



West

Point: GS0228

Survey X: 642557.18, Survey Y: 3909401.69, Z1: 1911.86, Z DEM: 1912.04, Z LAS: 1912.02, ΔZ DEM: 0.18, ΔZ LAS: 0.16



North



South



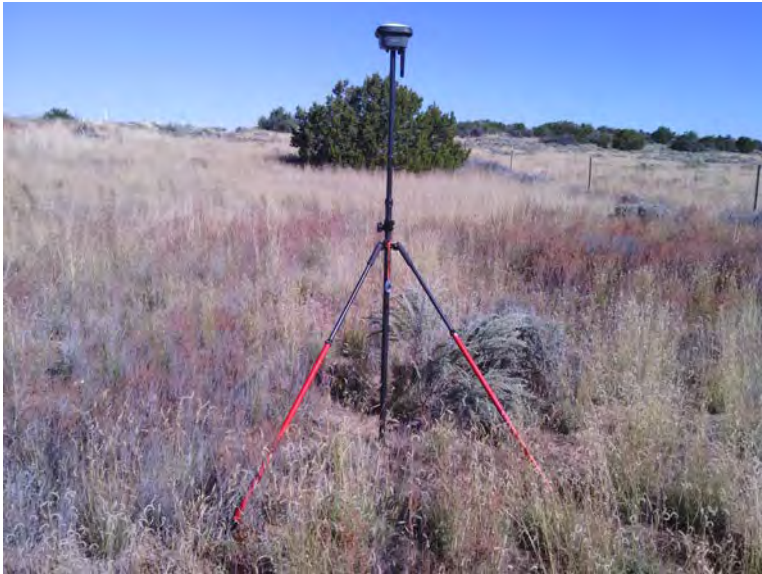
East



West

Point: GS0229

Survey X: 642557.64, Survey Y: 3909420.25, Z1: 1911.99, Z DEM: 1912.12, Z LAS: 1912.12, ΔZ DEM: 0.14, ΔZ LAS: 0.13



North



South



East



West

Point: GS0244

Survey X: 626412.43, Survey Y: 3910435.68, Z1: 1803.96, Z DEM: 1804, Z LAS: 1803.99, ΔZ DEM: 0.05, ΔZ LAS: 0.04



North



South



East



West

Point: GS0248

Survey X: 628230.55, Survey Y: 3912054.8, Z1: 1815.99, Z DEM: 1815.96, Z LAS: 1815.96, ΔZ DEM: -0.03, ΔZ LAS: -0.02



North



South



East



West

Point: GS0249

Survey X: 628237.93, Survey Y: 3912070.44, Z1: 1816.56, Z DEM: 1816.57, Z LAS: 1816.55, ΔZ DEM: 0.01, ΔZ LAS: -0.01



North



South



East



West

Point: GS0253

Survey X: 634763.44, Survey Y: 3921545.42, Z1: 1935.72, Z DEM: 1935.79, Z LAS: 1935.8, ΔZ DEM: 0.07, ΔZ LAS: 0.08



North



South



East



West

Point: GS0261

Survey X: 633404.48, Survey Y: 3926415.05, Z1: 1999.11, Z DEM: 1999.21, Z LAS: 1999.16, ΔZ DEM: 0.1, ΔZ LAS: 0.06



North



South



East



West

Point: GS0272

Survey X: 634053.27, Survey Y: 3930187.99, Z1: 1957.49, Z DEM: 1957.52, Z LAS: 1957.57, ΔZ DEM: 0.04, ΔZ LAS: 0.08



North

South (No image)



East



West

Point: GS0273

Survey X: 634037.82, Survey Y: 3930170.92, Z1: 1957.28, Z DEM: 1957.32, Z LAS: 1957.34, ΔZ DEM: 0.04, ΔZ LAS: 0.07



North



South



East



West

Point: GS0284

Survey X: 615563.61, Survey Y: 4007673.13, Z1: 1828.35, Z DEM: 1828.4, Z LAS: 1828.41, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: GS0285

Survey X: 615575.53, Survey Y: 4007686.95, Z1: 1828.45, Z DEM: 1828.48, Z LAS: 1828.5, ΔZ DEM: 0.04, ΔZ LAS: 0.05



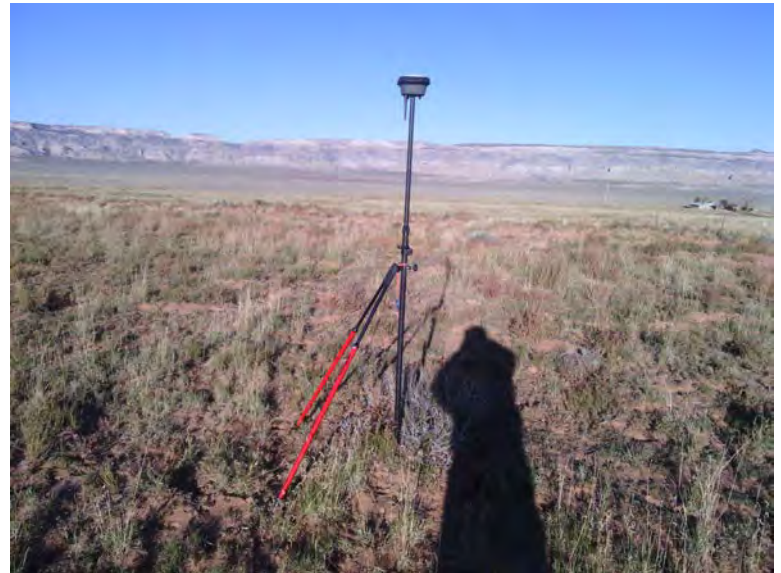
North



South



East



West

Point: GS0289

Survey X: 615022.33, Survey Y: 4013148.96, Z1: 1714.71, Z DEM: 1714.73, Z LAS: 1714.73, ΔZ DEM: 0.03, ΔZ LAS: 0.02



North



South



East



West

Point: GS0292

Survey X: 619036.41, Survey Y: 4006333.83, Z1: 1733.77, Z DEM: 1733.84, Z LAS: 1733.84, ΔZ DEM: 0.07, ΔZ LAS: 0.07



North



South



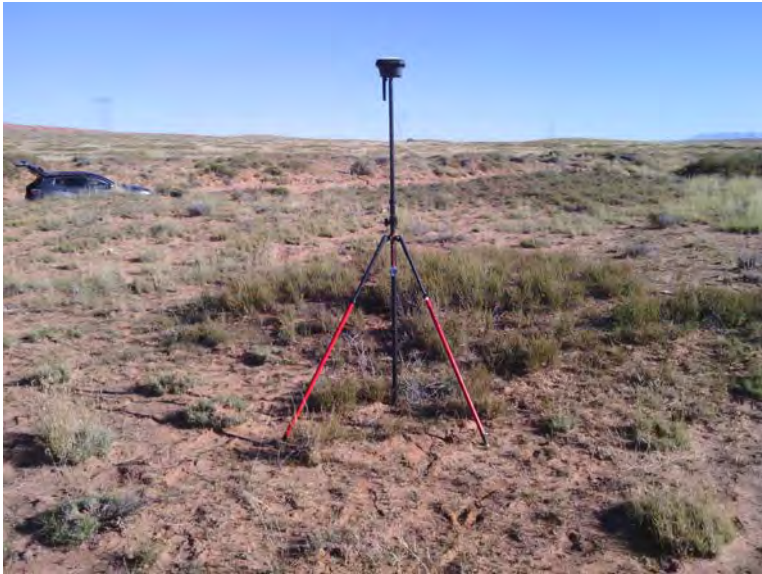
East



West

Point: GS0293

Survey X: 619063.28, Survey Y: 4006342.89, Z1: 1733.32, Z DEM: 1733.38, Z LAS: 1733.39, ΔZ DEM: 0.06, ΔZ LAS: 0.07



North



South



East



West

Point: GS0297

Survey X: 611005.13, Survey Y: 3992539.98, Z1: 1795.47, Z DEM: 1795.52, Z LAS: 1795.53, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: GS0298

Survey X: 610997.54, Survey Y: 3992513.04, Z1: 1795.23, Z DEM: 1795.26, Z LAS: 1795.25, ΔZ DEM: 0.03, ΔZ LAS: 0.02



North



South



East



West

Point: GS0302

Survey X: 601436.19, Survey Y: 3992156.98, Z1: 1847.78, Z DEM: 1847.85, Z LAS: 1847.85, ΔZ DEM: 0.07, ΔZ LAS: 0.08



North



South



East



West

Point: GS0303

Survey X: 601428.31, Survey Y: 3992173.26, Z1: 1847.97, Z DEM: 1848.07, Z LAS: 1848.04, ΔZ DEM: 0.1, ΔZ LAS: 0.07



North



South



East



West

Point: GS0305

Survey X: 618637.63, Survey Y: 3994050.67, Z1: 1724.68, Z DEM: 1724.77, Z LAS: 1724.77, ΔZ DEM: 0.09, ΔZ LAS: 0.09



North



South



East



West

Point: GS0306

Survey X: 618643.16, Survey Y: 3994069.86, Z1: 1724.63, Z DEM: 1724.72, Z LAS: 1724.72, ΔZ DEM: 0.09, ΔZ LAS: 0.09



North



South



East



West

Point: GS0315

Survey X: 650218.23, Survey Y: 3986359.29, Z1: 2141.96, Z DEM: 2142.02, Z LAS: 2142.04, ΔZ DEM: 0.06, ΔZ LAS: 0.07



North

South (No image)



East



West

Point: GS0316

Survey X: 650214.09, Survey Y: 3986340.17, Z1: 2142.27, Z DEM: 2142.36, Z LAS: 2142.32, ΔZ DEM: 0.09, ΔZ LAS: 0.04



North



South



East



West

Point: GS0006

Survey X: 624574.34, Survey Y: 4019839.25, Z1: 1627.33, Z DEM: 1627.49, Z LAS: 1627.47, ΔZ DEM: 0.16, ΔZ LAS: 0.14



North



South



East



West

Point: GS0034

Survey X: 549158.68, Survey Y: 4054193.43, Z1: 1905.76, Z DEM: 1905.74, Z LAS: 1905.73, ΔZ DEM: -0.03, ΔZ LAS: -0.03



North



South



East



West

Point: GS0135

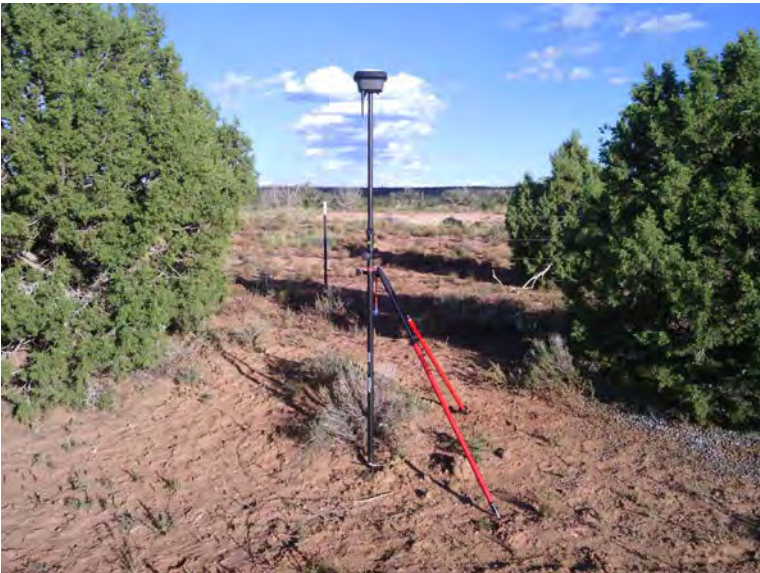
Survey X: 640157.32, Survey Y: 4005446.51, Z1: 1969.13, Z DEM: 1969.09, Z LAS: 1969.06, ΔZ DEM: -0.04, ΔZ LAS: -0.06



North



South



East



West

Point: GS0136

Survey X: 640166.14, Survey Y: 4005513.13, Z1: 1969.81, Z DEM: 1969.66, Z LAS: 1969.66, ΔZ DEM: -0.15, ΔZ LAS: -0.14



North



South



East



West

Point: GS0138

Survey X: 633119.69, Survey Y: 4003915.29, Z1: 1782.99, Z DEM: 1783.1, Z LAS: 1783.11, Δ Z DEM: 0.12, Δ Z LAS: 0.13



North



South



East



West

Point: GS0164

Survey X: 624658.59, Survey Y: 3945566.92, Z1: 1990.76, Z DEM: 1990.93, Z LAS: 1990.93, ΔZ DEM: 0.17, ΔZ LAS: 0.16



North



South



East



West

Point: GS0231

Survey X: 649679.46, Survey Y: 3907984.5, Z1: 1962.63, Z DEM: 1962.75, Z LAS: 1962.75, ΔZ DEM: 0.12, ΔZ LAS: 0.12



North



South



East



West

Point: GS0235

Survey X: 638880.86, Survey Y: 3914447.45, Z1: 1923.99, Z DEM: 1924.12, Z LAS: 1924.15, ΔZ DEM: 0.13, ΔZ LAS: 0.16



North



South



East



West

Point: GS0236

Survey X: 638863.97, Survey Y: 3914448.13, Z1: 1922.86, Z DEM: 1922.95, Z LAS: 1922.97, ΔZ DEM: 0.09, ΔZ LAS: 0.11



North



South



East



West

Point: GS0239

Survey X: 621479.47, Survey Y: 3906561.57, Z1: 1786.85, Z DEM: 1786.77, Z LAS: 1786.78, ΔZ DEM: -0.08, ΔZ LAS: -0.08



North



South



East



West

Point: GS0251

Survey X: 634734.22, Survey Y: 3921547, Z1: 1936.12, Z DEM: 1936.18, Z LAS: 1936.18, ΔZ DEM: 0.07, ΔZ LAS: 0.06



North



South



East



West

Point: GS0252

Survey X: 634751.75, Survey Y: 3921560.35, Z1: 1935.98, Z DEM: 1936.03, Z LAS: 1936.02, ΔZ DEM: 0.05, ΔZ LAS: 0.04



North



South



East



West

Point: GS0255

Survey X: 637173.83, Survey Y: 3919584.09, Z1: 1946.2, Z DEM: 1946.26, Z LAS: 1946.24, ΔZ DEM: 0.06, ΔZ LAS: 0.04



North



South



East



West

Point: GS0259

Survey X: 633404.73, Survey Y: 3926334.42, Z1: 1995.9, Z DEM: 1995.98, Z LAS: 1995.99, ΔZ DEM: 0.08, ΔZ LAS: 0.09



North



South



East



West

Point: GS0264

Survey X: 639508.9, Survey Y: 3931114.3, Z1: 2055.58, Z DEM: 2055.63, Z LAS: 2055.64, ΔZ DEM: 0.04, ΔZ LAS: 0.06



North



South



East



West

Point: GS0279

Survey X: 638827.88, Survey Y: 3974930.76, Z1: 1914.49, Z DEM: 1914.5, Z LAS: 1914.51, ΔZ DEM: 0.02, ΔZ LAS: 0.03



North



South



East



West

Point: GS0280

Survey X: 638843.18, Survey Y: 3974937.69, Z1: 1915.31, Z DEM: 1915.37, Z LAS: 1915.36, ΔZ DEM: 0.06, ΔZ LAS: 0.05



North



South



East



West

Point: GS0311

Survey X: 647671.32, Survey Y: 3989683.79, Z1: 2081.77, Z DEM: 2081.79, Z LAS: 2081.77, ΔZ DEM: 0.01, ΔZ LAS: 0



North



South



East



West

Point: GS0312

Survey X: 647621.36, Survey Y: 3989689.36, Z1: 2081.66, Z DEM: 2081.65, Z LAS: 2081.65, ΔZ DEM: -0.01, ΔZ LAS: -0.01



North



South



East



West

Point: GS0319

Survey X: 643318.76, Survey Y: 3992958.65, Z1: 2038.58, Z DEM: 2038.47, Z LAS: 2038.48, ΔZ DEM: -0.11, ΔZ LAS: -0.1



North



South



East



West

Point: GS0128

Survey X: 657216.83, Survey Y: 4025965.58, Z1: 2023.61, Z DEM: 2023.6, Z LAS: 2023.62, ΔZ DEM: -0.01, ΔZ LAS: 0.01



North



South



East



West

Point: GS0132

Survey X: 655093.34, Survey Y: 4015772.49, Z1: 2175.16, Z DEM: 2175.12, Z LAS: 2175.15, ΔZ DEM: -0.04, ΔZ LAS: -0.02



North



South



East



West

Point: GS0169

Survey X: 651229.13, Survey Y: 3964355.43, Z1: 2222.7, Z DEM: 2222.7, Z LAS: 2222.71, ΔZ DEM: 0, ΔZ LAS: 0.01



North



South



East



West

Point: GS0170

Survey X: 651235.03, Survey Y: 3964388.13, Z1: 2223.77, Z DEM: 2223.79, Z LAS: 2223.77, ΔZ DEM: 0.02, ΔZ LAS: -0.01



North



South



East



West

Point: GS0172

Survey X: 653818.6, Survey Y: 3967180.03, Z1: 2330.32, Z DEM: 2330.31, Z LAS: 2330.28, ΔZ DEM: 0, ΔZ LAS: -0.04



North



South



East



West

Point: GS0176

Survey X: 647606.53, Survey Y: 3954044.61, Z1: 2182.8, Z DEM: 2182.73, Z LAS: 2182.75, ΔZ DEM: -0.07, ΔZ LAS: -0.05



North



South



East



West

Point: GS0268

Survey X: 644239.79, Survey Y: 3931998.15, Z1: 2173.65, Z DEM: 2173.7, Z LAS: 2173.69, ΔZ DEM: 0.05, ΔZ LAS: 0.03



North



South



East



West

Point: GS0269

Survey X: 644257.35, Survey Y: 3932005.04, Z1: 2173.73, Z DEM: 2173.78, Z LAS: 2173.77, ΔZ DEM: 0.05, ΔZ LAS: 0.04



North



South



East



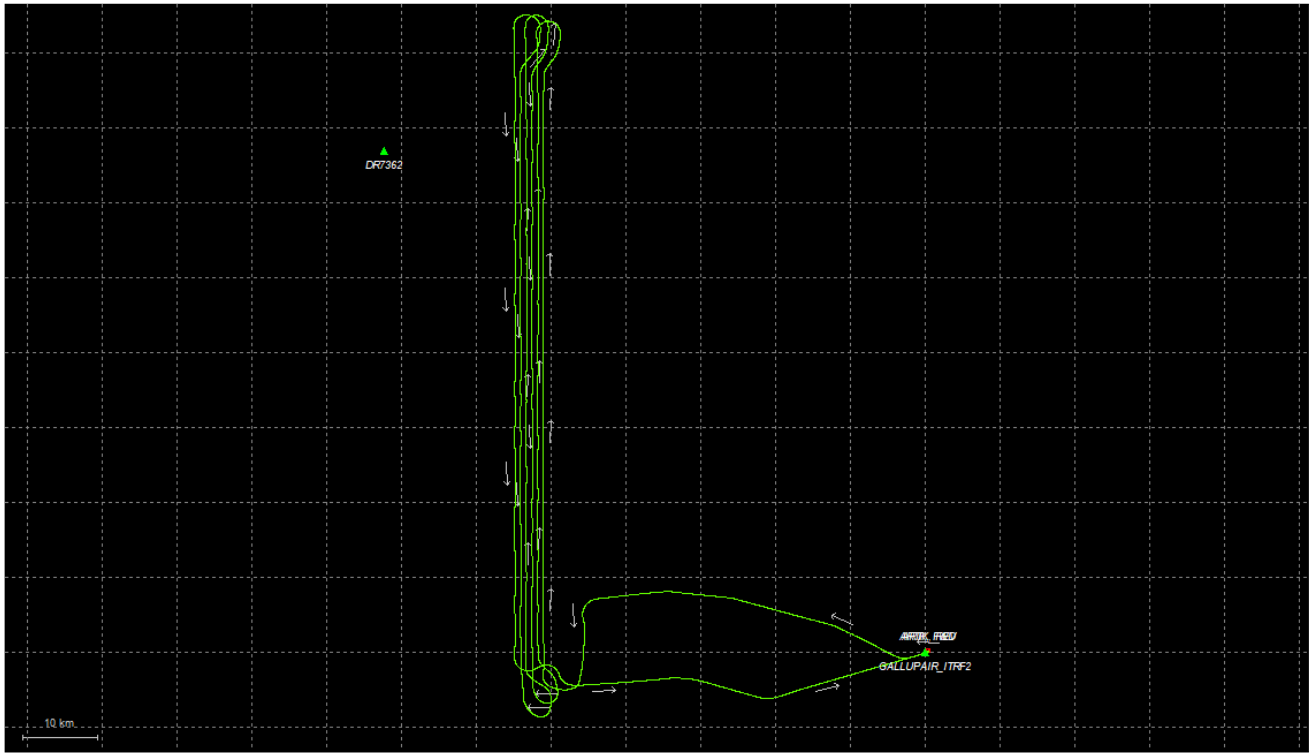
West

Appendix D. Inertial Explorer

Output Results for 20220915140034_1

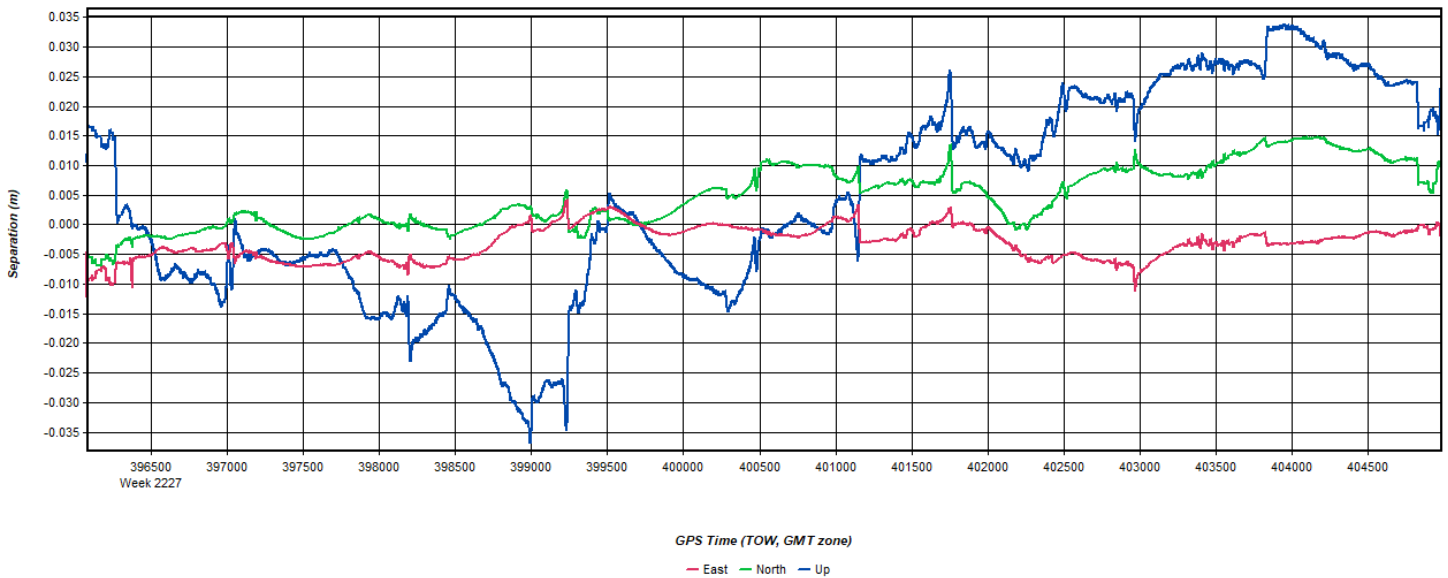
Inertial Explorer Version 8.90.2124
09/19/2022

Figure 1: Smoothed TC Combined - Map



Process	20220915140034_1	by Unknown	on 9/19/2022	at 15:41:38
---------	------------------	------------	--------------	-------------

Figure 2: 20220915140034_1 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220915140034_1	by Unknown	on 9/19/2022	at 15:41:38
---------	------------------	------------	--------------	-------------

Figure 3: 20220915140034_1 [Smoothed TC Combined] - Float or Fixed Ambiguity

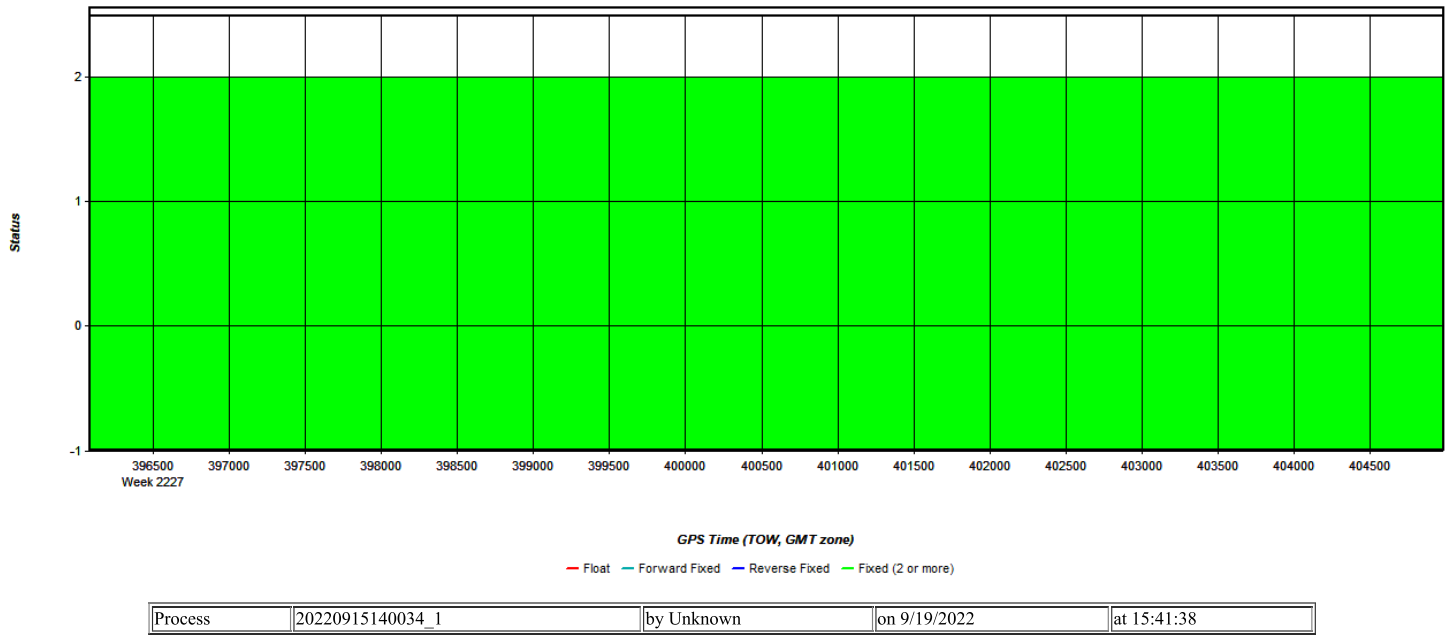


Figure 4: 20220915140034_1 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

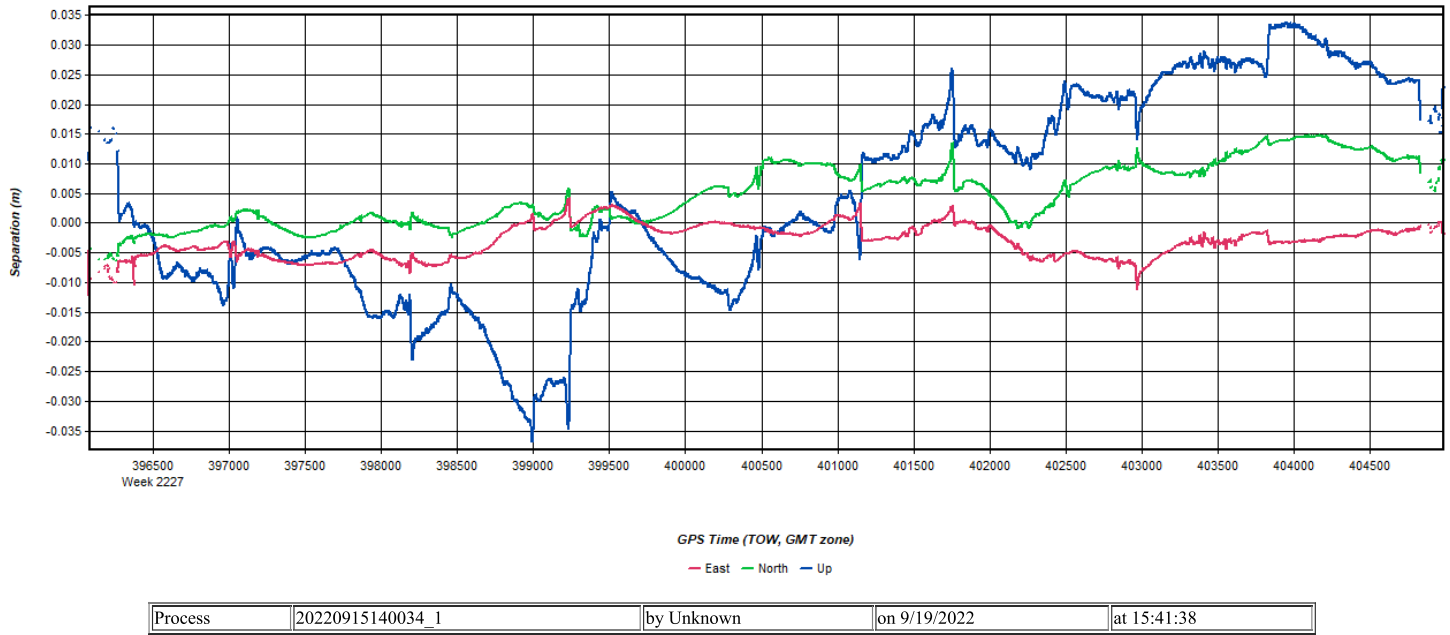
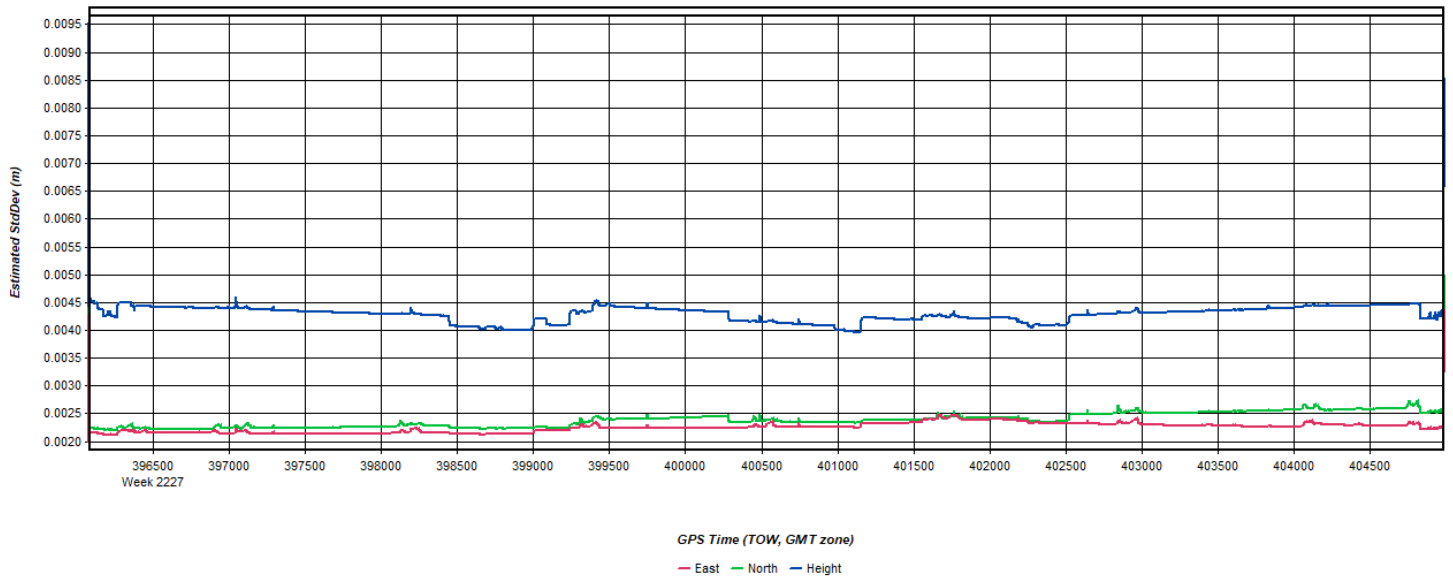
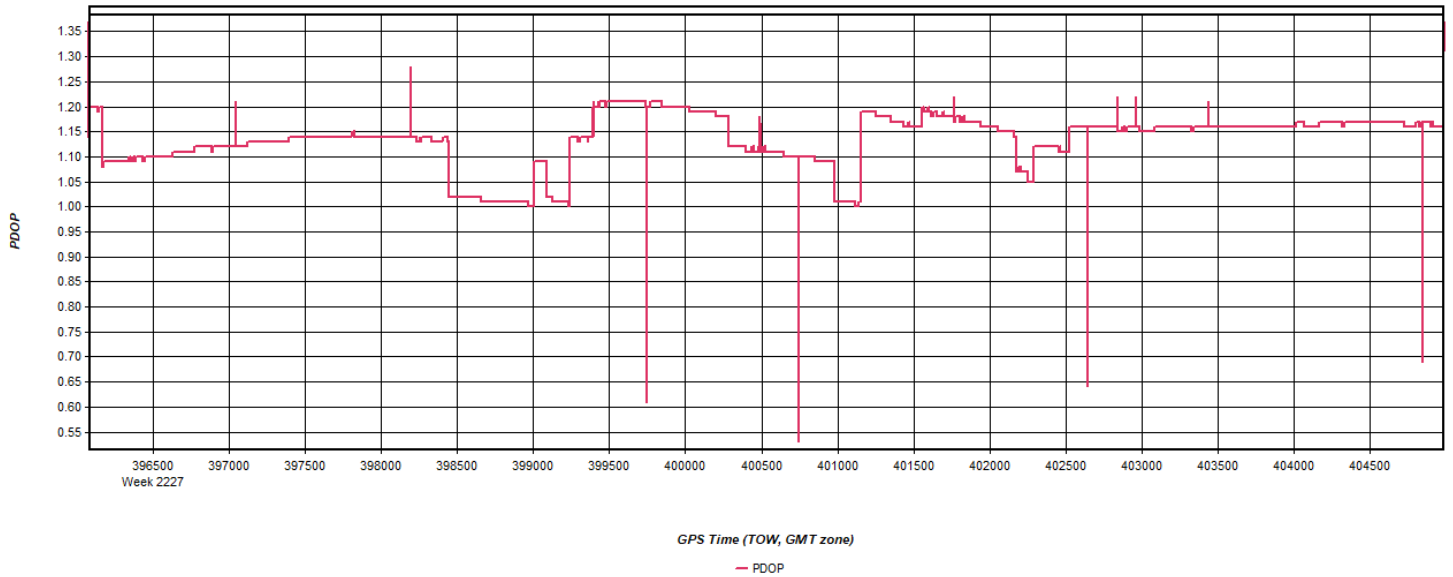


Figure 5: 20220915140034_1 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20220915140034_1	by Unknown	on 9/19/2022	at 15:41:38
---------	------------------	------------	--------------	-------------

Figure 6: 20220915140034_1 [Smoothed TC Combined] - PDOP Plot



Process	20220915140034_1	by Unknown	on 9/19/2022	at 15:41:38
---------	------------------	------------	--------------	-------------

Figure 7: 20220915140034_1 [Smoothed TC Combined] - Number of Satellites Line Plot

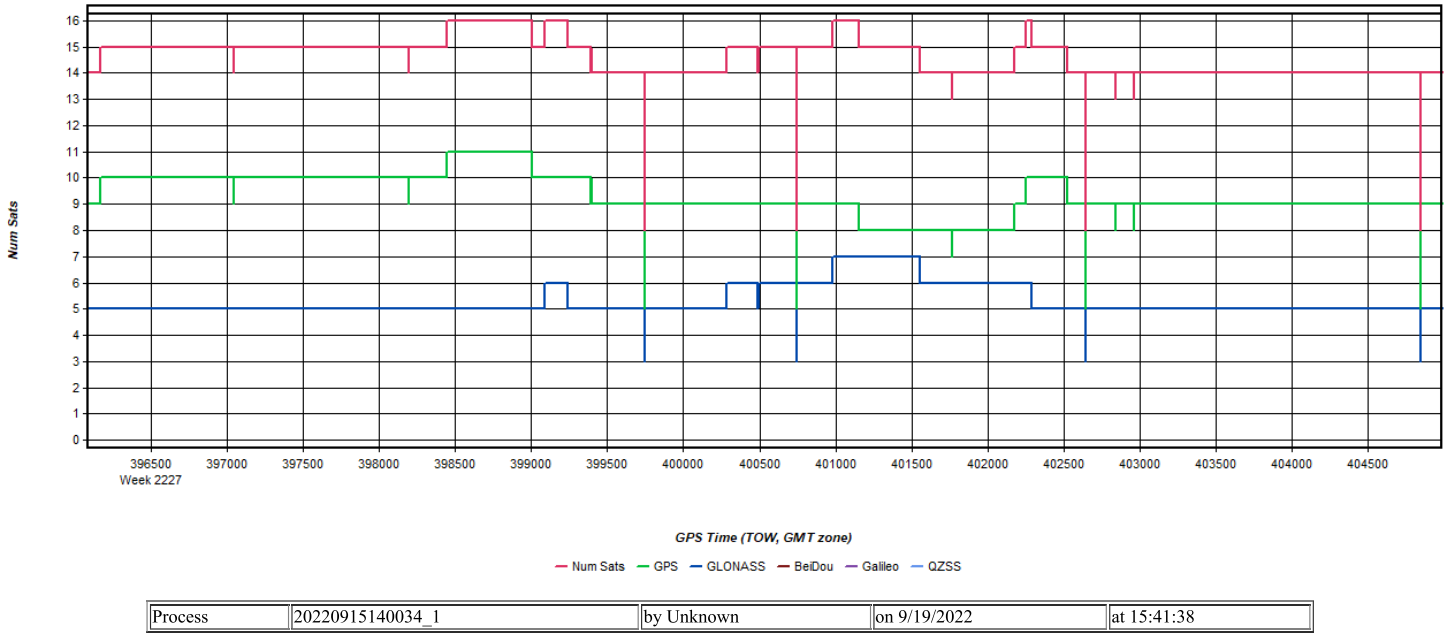


Figure 8: 20220915140034_1 [Smoothed TC Combined] - Status flag for IMU processing

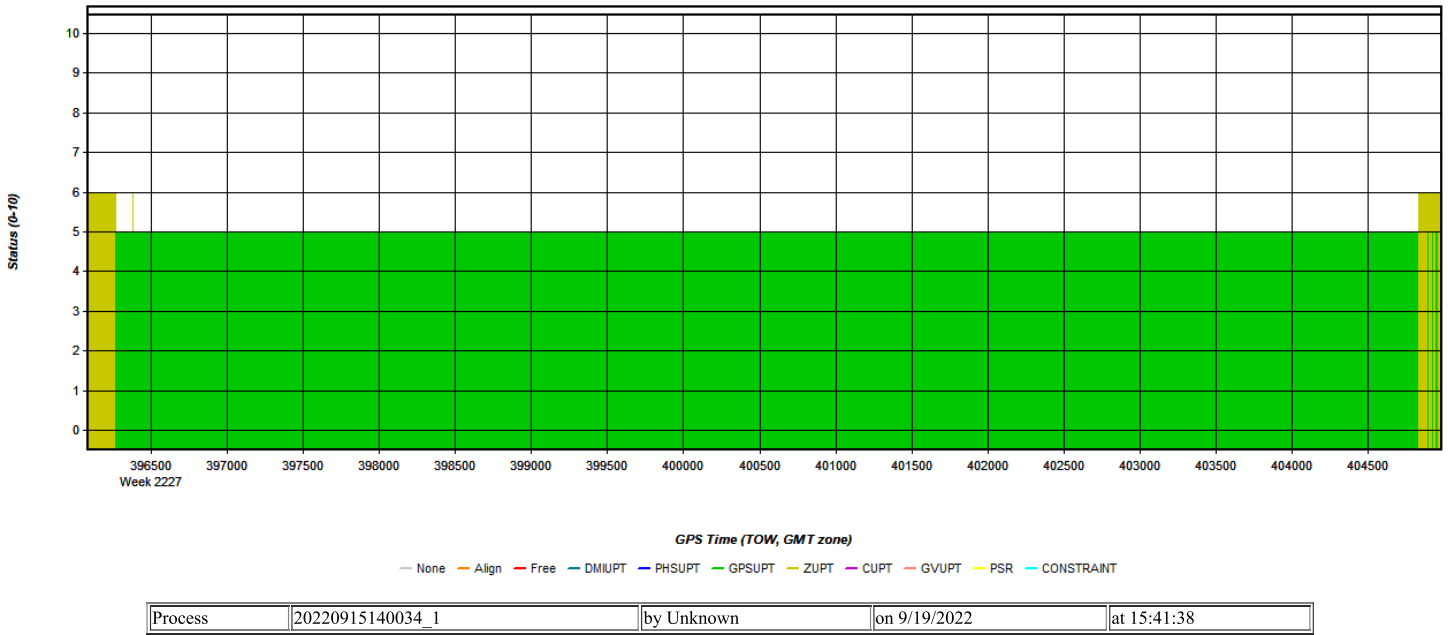
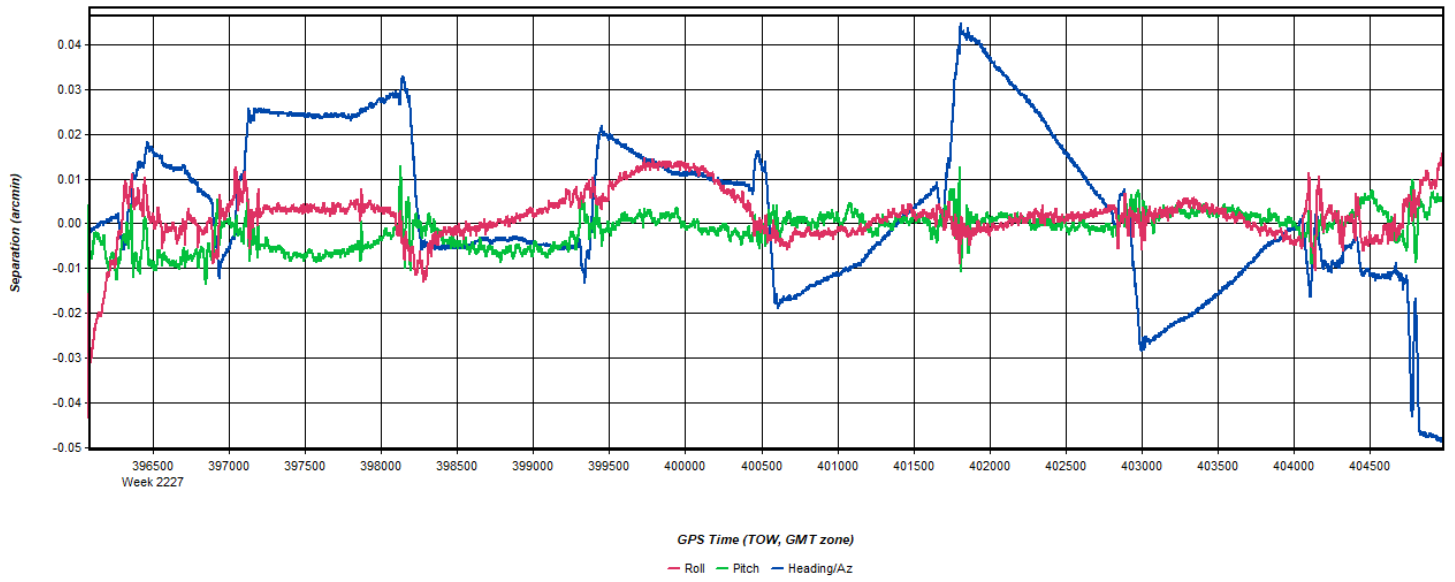
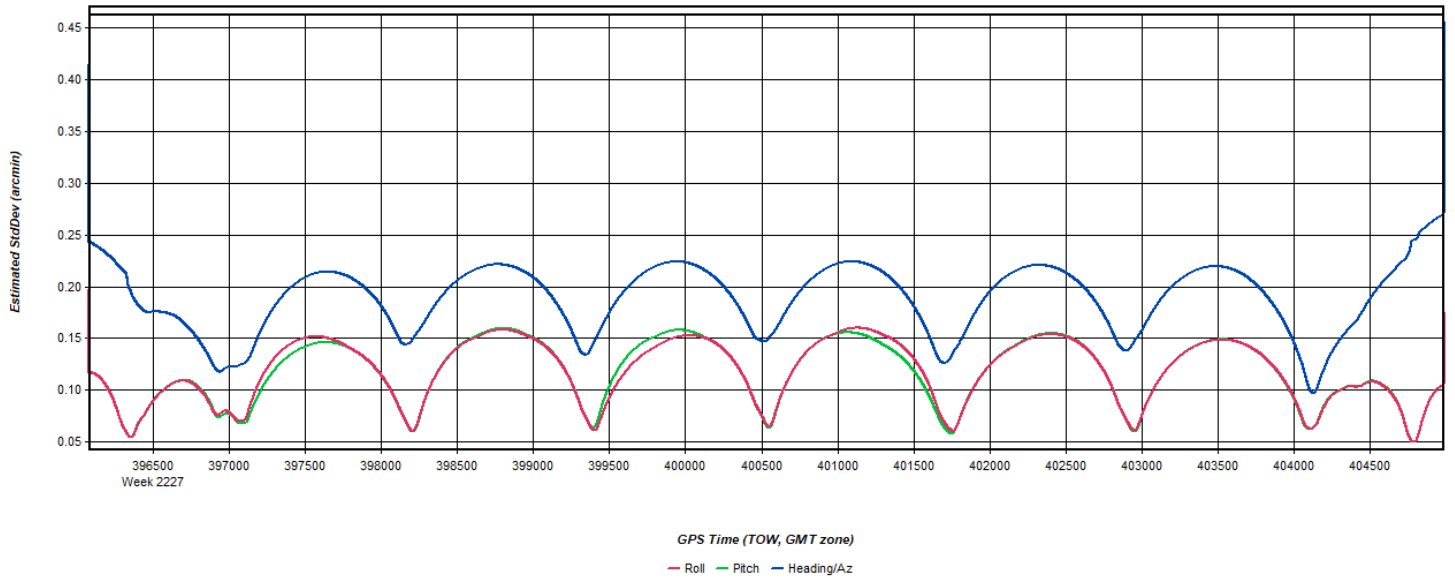


Figure 9: 20220915140034_1 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



Process	20220915140034_1	by Unknown	on 9/19/2022	at 15:41:38
---------	------------------	------------	--------------	-------------

Figure 10: 20220915140034_1 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



Process	20220915140034_1	by Unknown	on 9/19/2022	at 15:41:38
---------	------------------	------------	--------------	-------------

Figure 11: 20220915140034_1 [Smoothed TC Combined] - Azimuth Plot

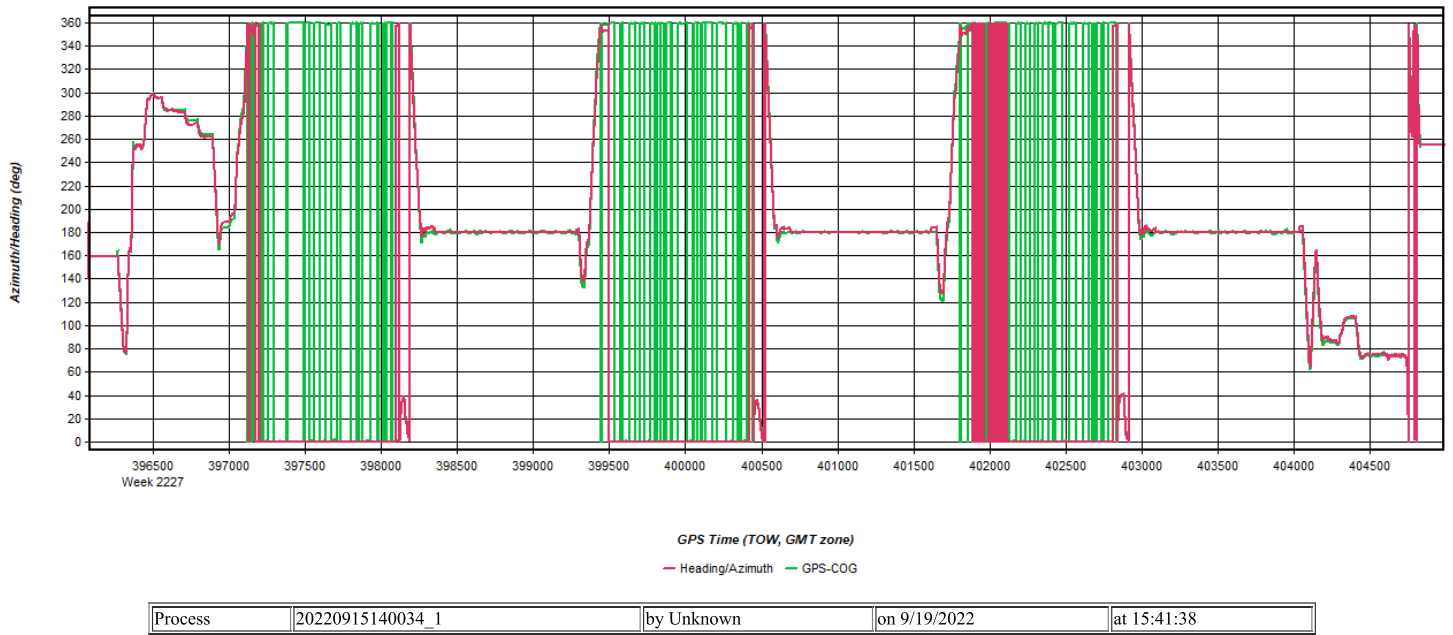


Figure 12: 20220915140034_1 [Smoothed TC Combined] - Roll & Pitch Plot

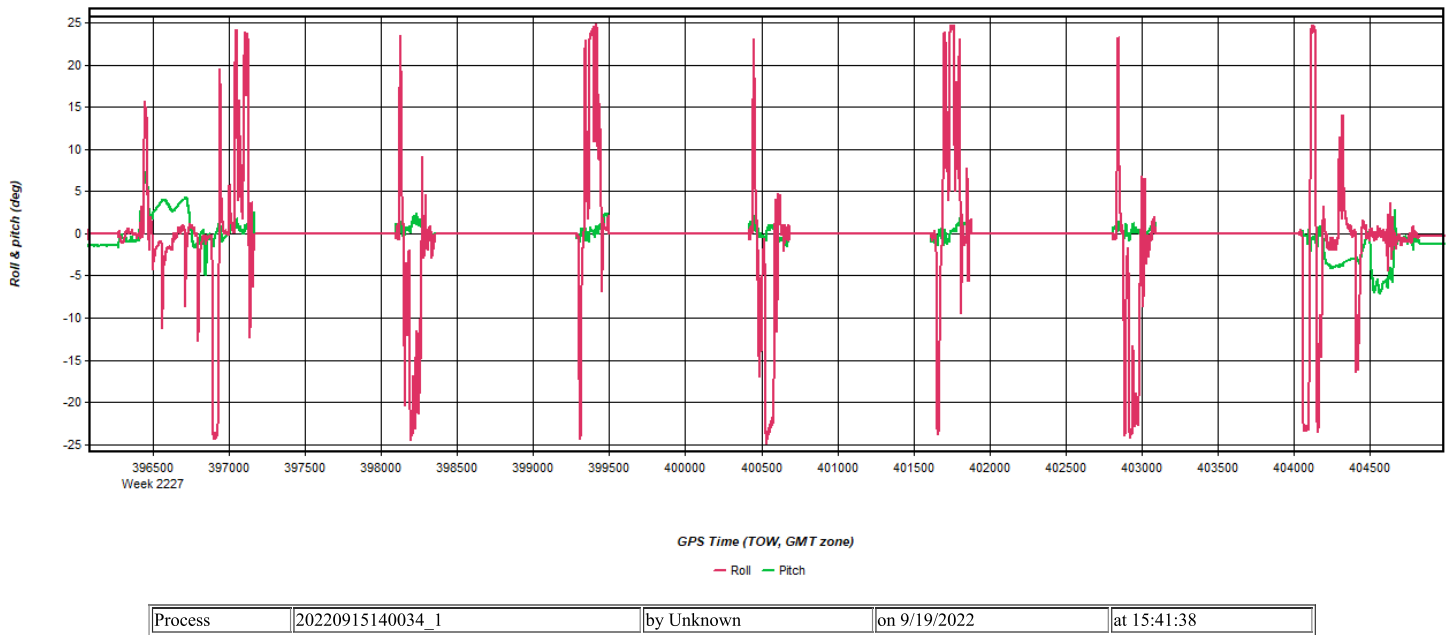


Figure 13: 20220915140034_1 [Smoothed TC Combined] - Velocity Profile Plot

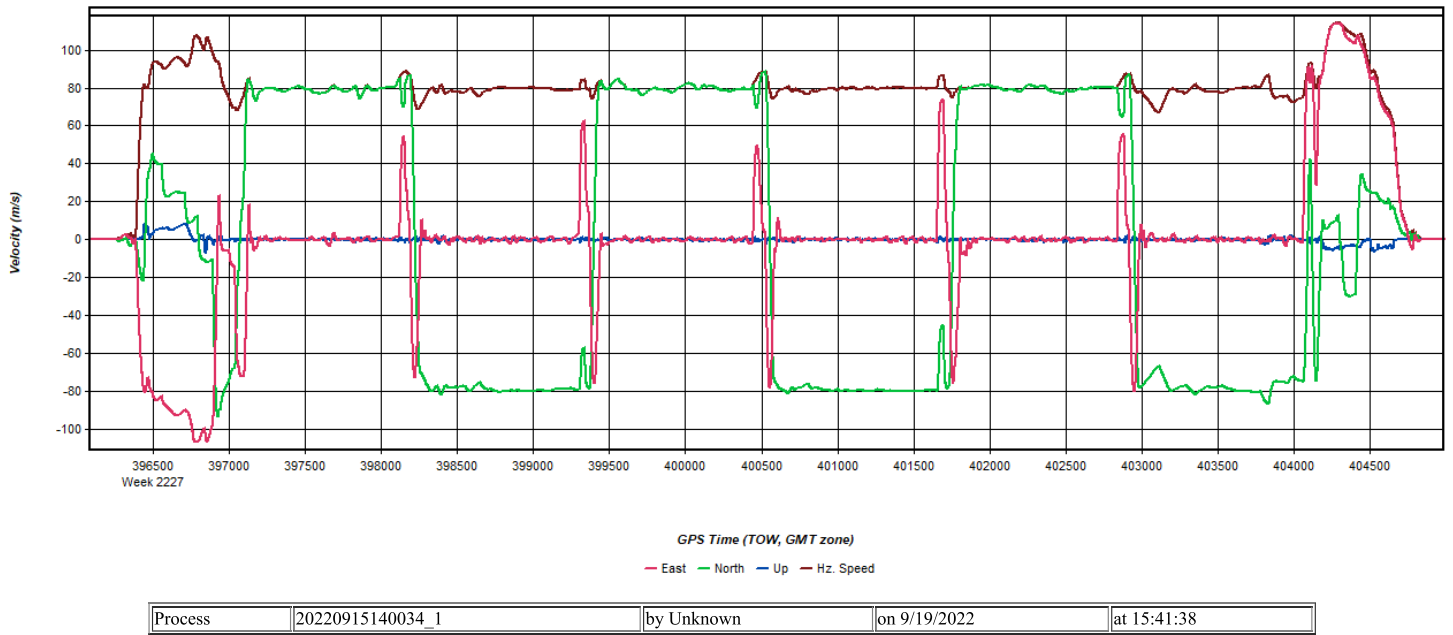


Figure 14: 20220915140034_1 [Smoothed TC Combined] - Body Frame Velocity Plot

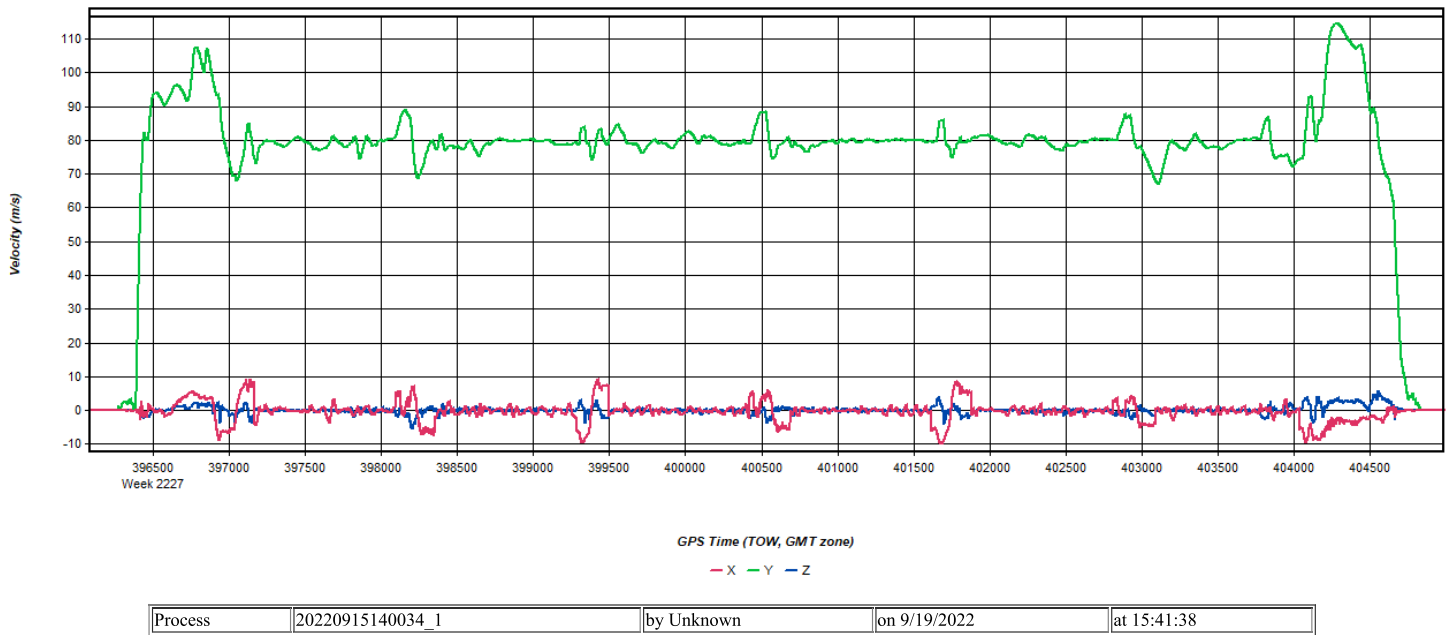


Figure 15: 20220915140034_1 [Smoothed TC Combined] - Height Profile Plot

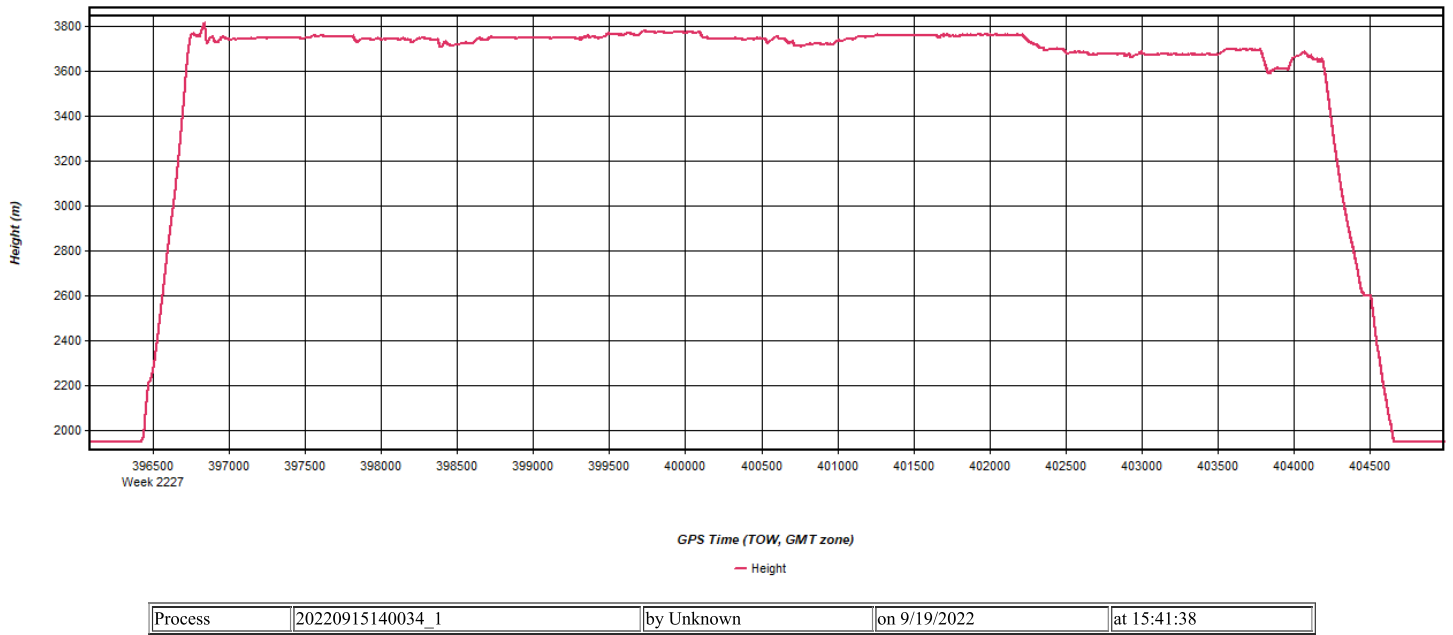


Figure 16: 20220915140034_1 [Smoothed TC Combined] - C/A Code Residual RMS Plot

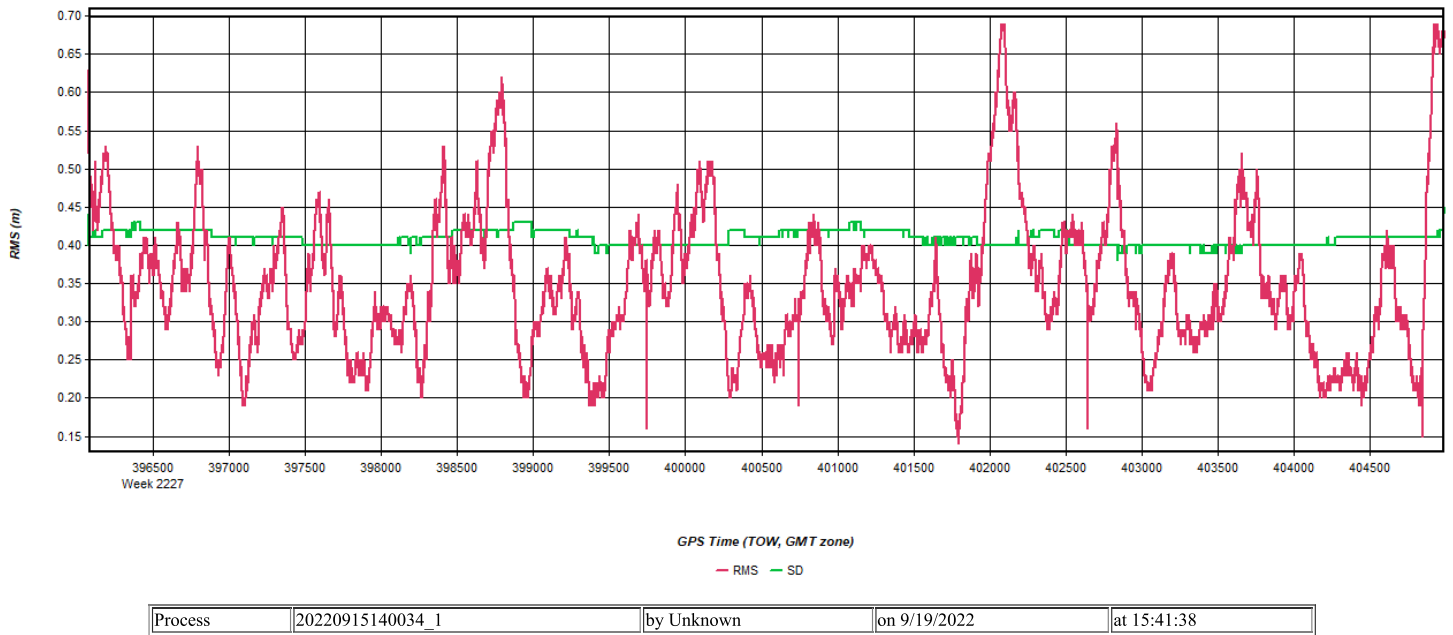


Figure 17: 20220915140034_1 [Smoothed TC Combined] - Carrier Residual RMS Plot

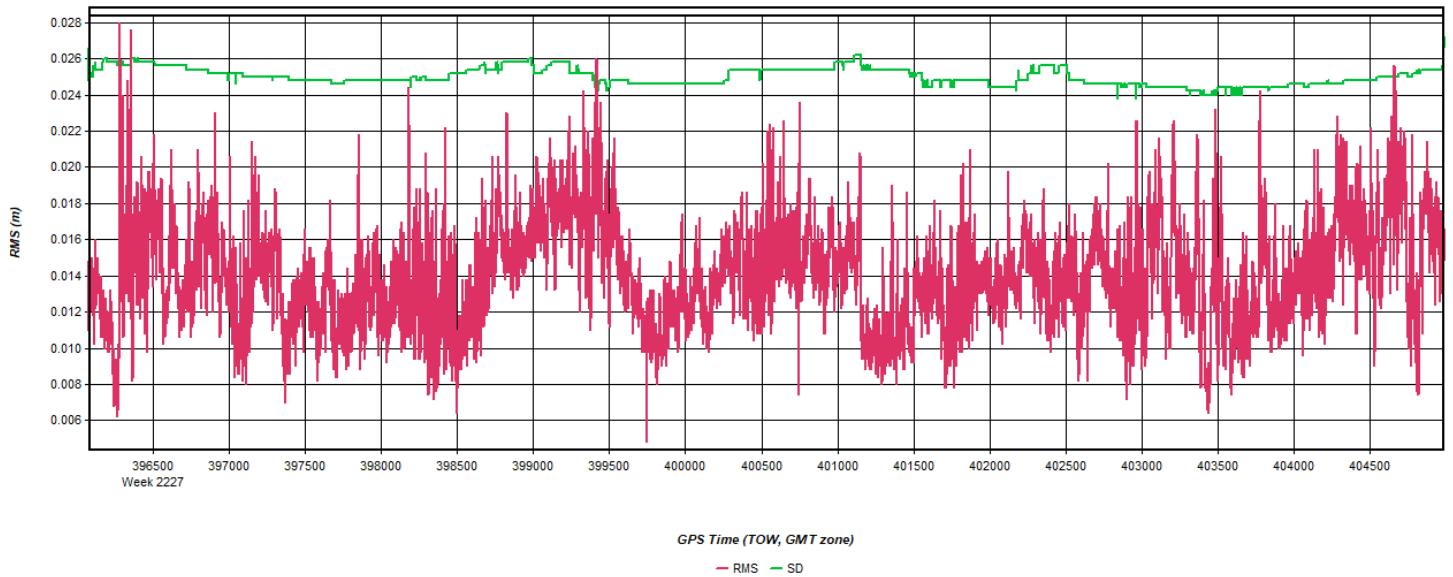


Figure 18: 20220915140034_1 [Smoothed TC Combined] - Doppler Residual RMS Plot

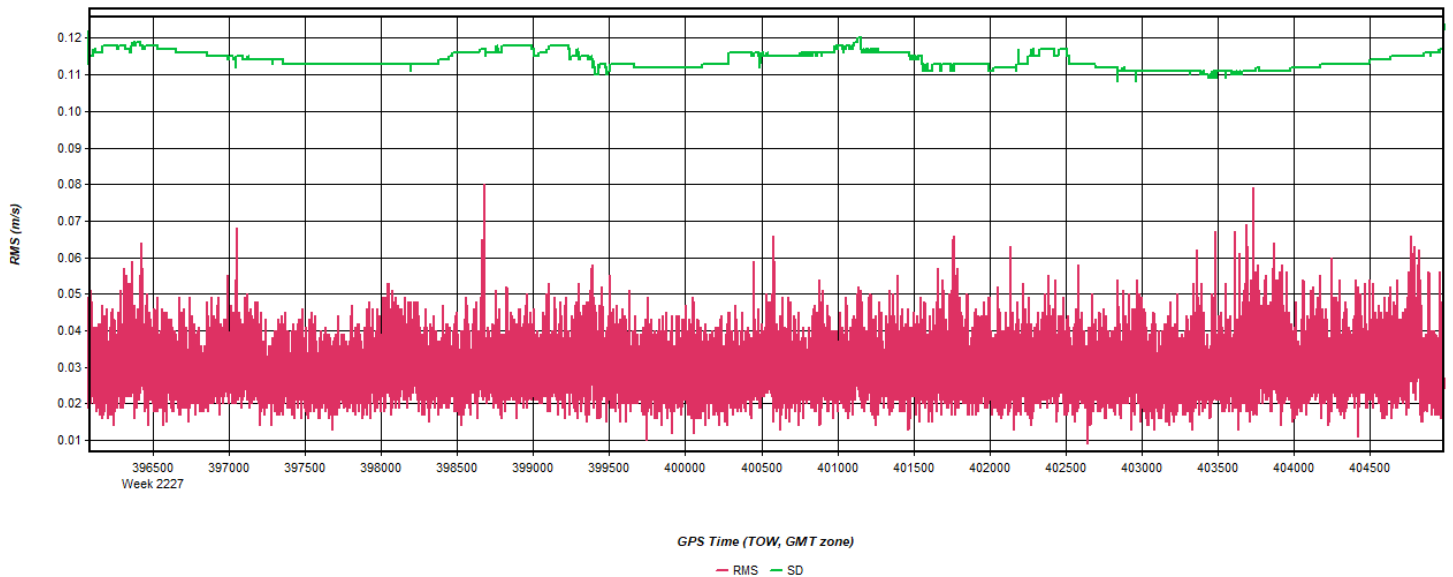
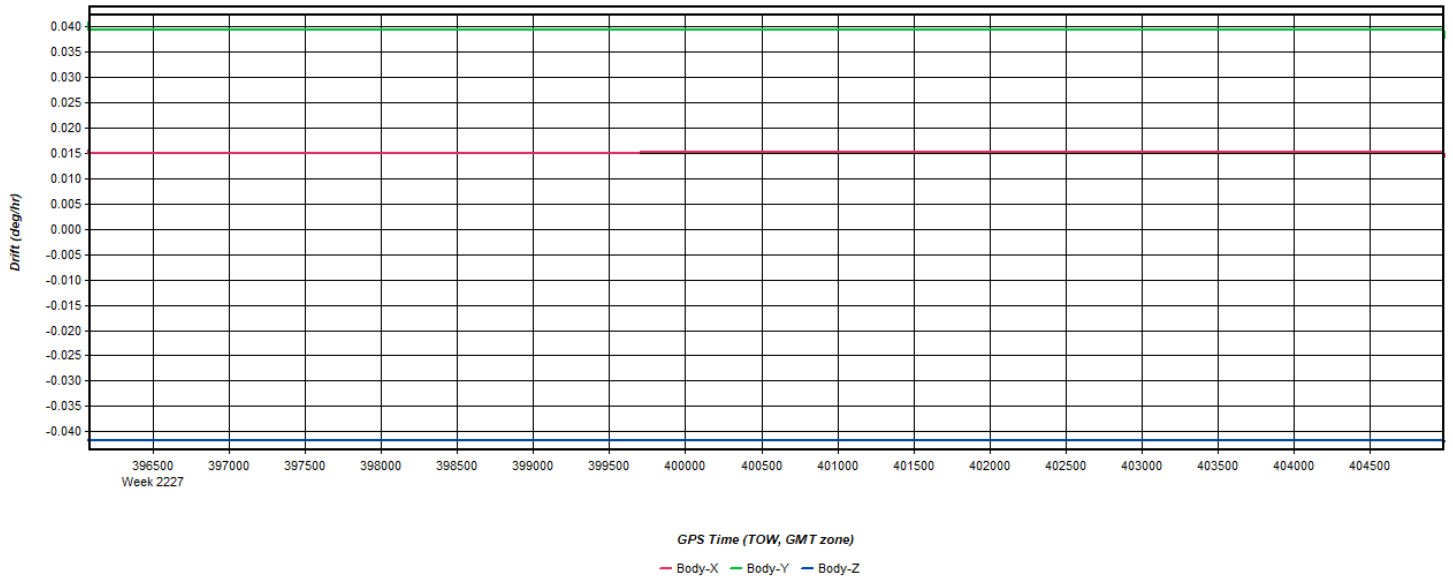


Figure 19: 20220915140034_1 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220915140034_1	by Unknown	on 9/19/2022	at 15:41:38
---------	------------------	------------	--------------	-------------

Figure 20: 20220915140034_1 [Smoothed TC Combined] - Gyro Drift Plot

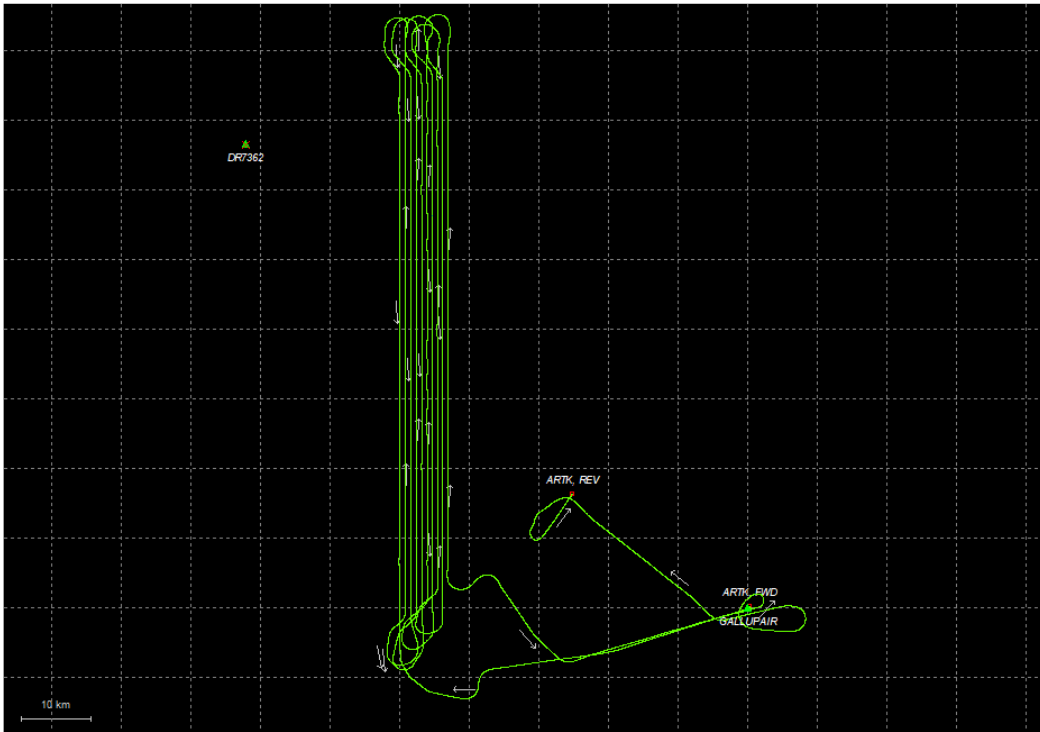


Process	20220915140034_1	by Unknown	on 9/19/2022	at 15:41:38
---------	------------------	------------	--------------	-------------

Output Results for 20220916012851_2

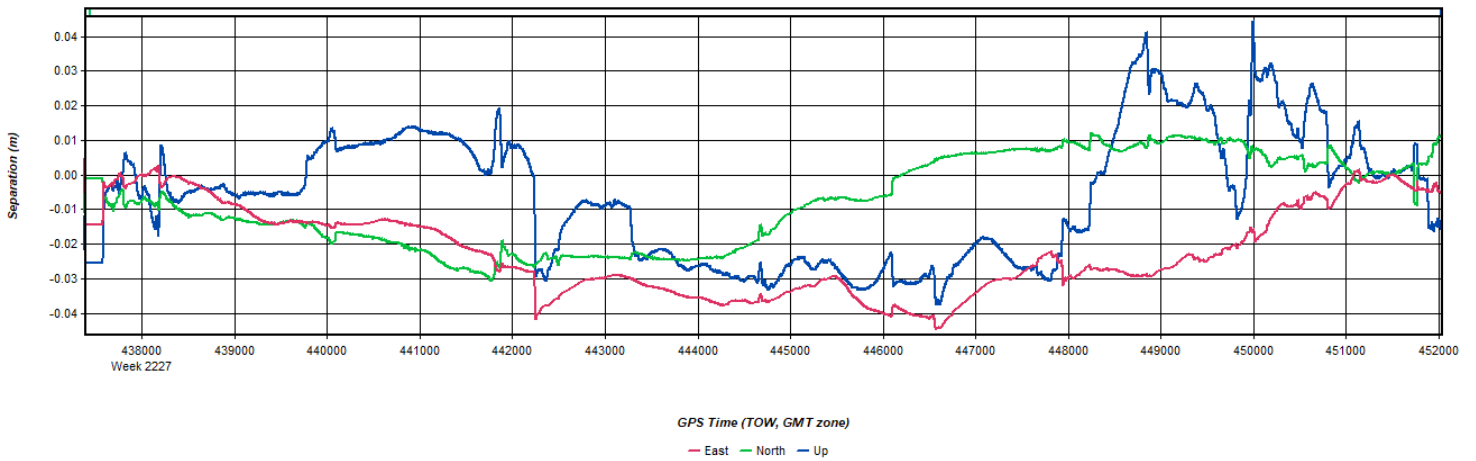
Inertial Explorer Version 8.90.2124
01/12/2023

Figure 1: Smoothed TC Combined - Map



Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 2: 20220916012851_2 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 3: 20220916012851_2 [Smoothed TC Combined] - Float or Fixed Ambiguity

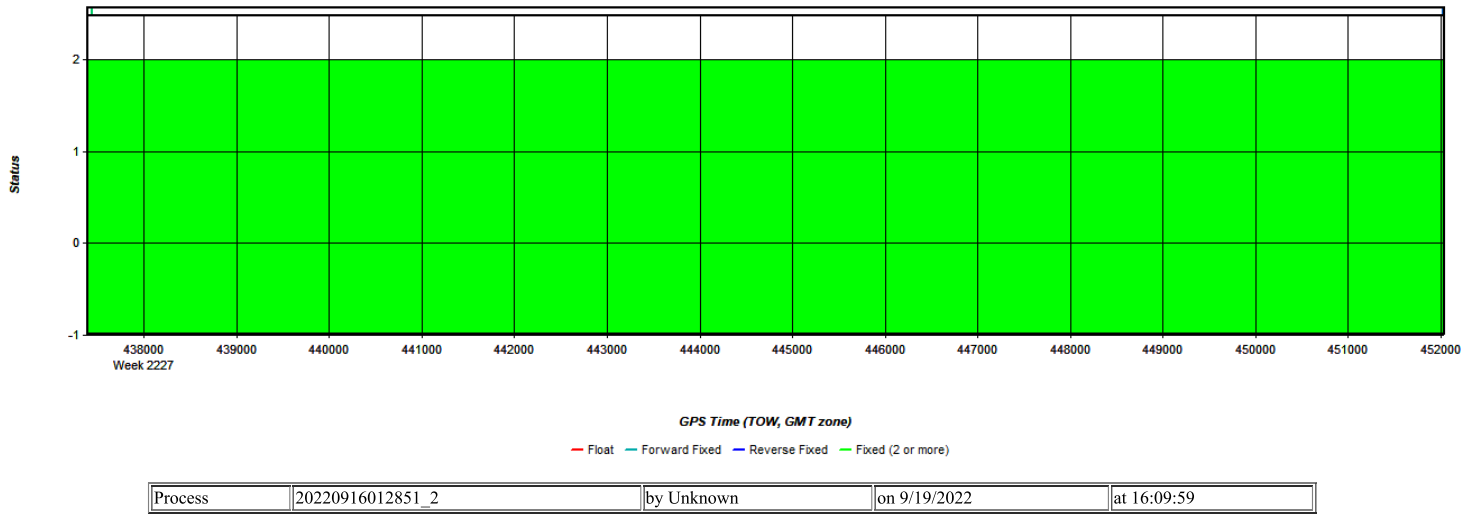


Figure 4: 20220916012851_2 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

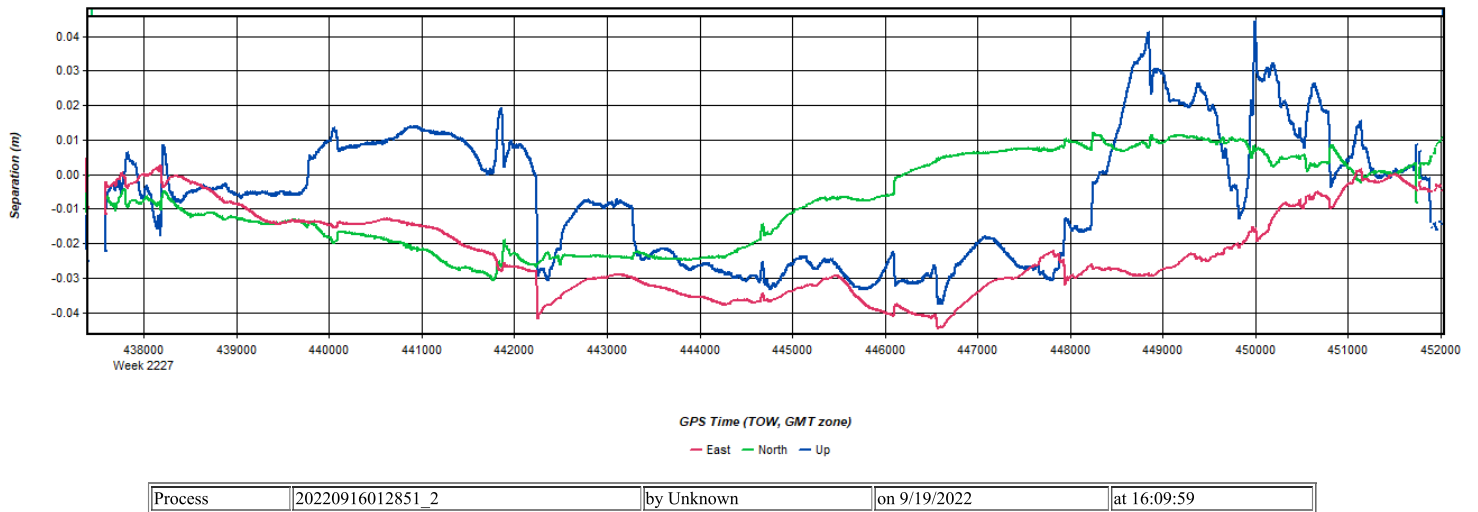


Figure 5: 20220916012851_2 [Smoothed TC Combined] - Estimated Position Accuracy Plot

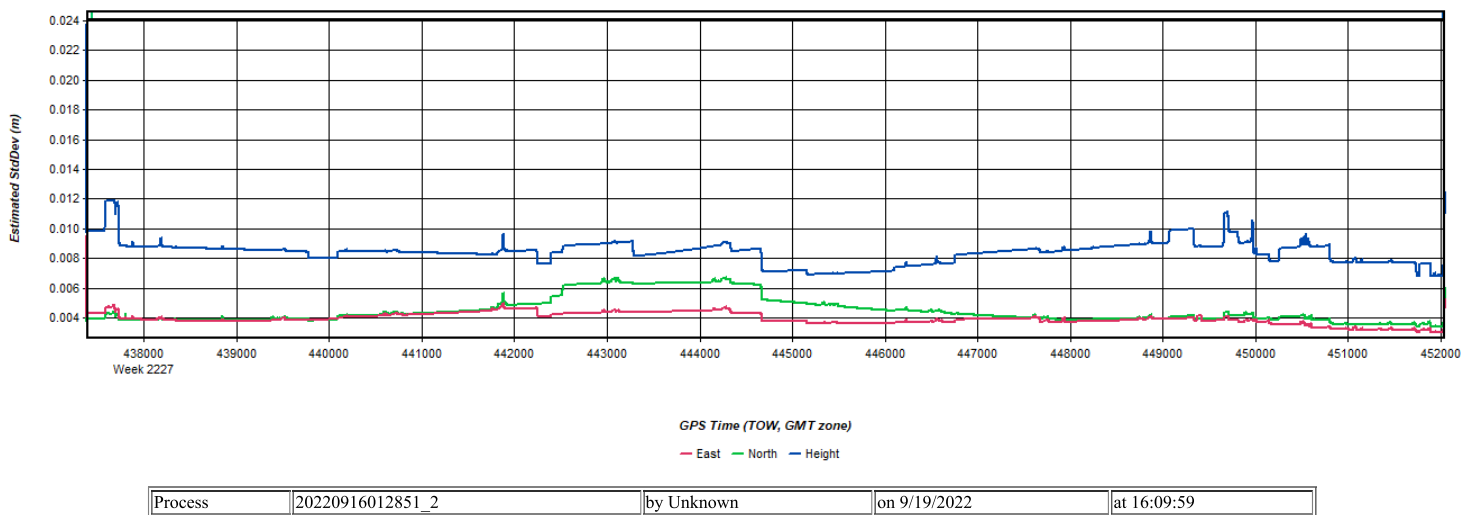


Figure 6: 20220916012851_2 [Smoothed TC Combined] - PDOP Plot

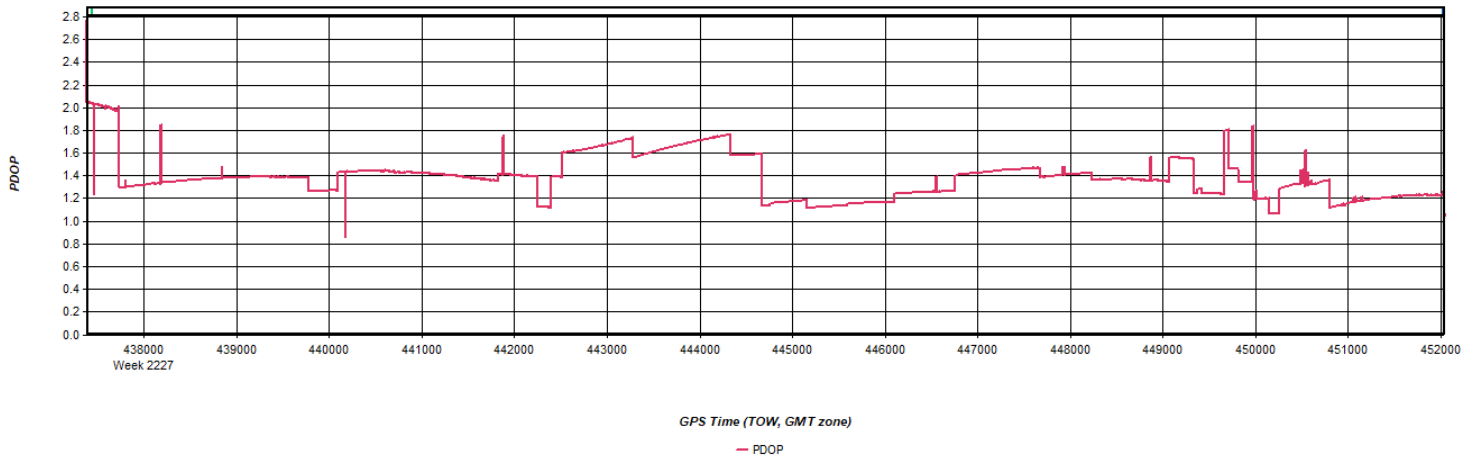


Figure 7: 20220916012851_2 [Smoothed TC Combined] - Number of Satellites Line Plot

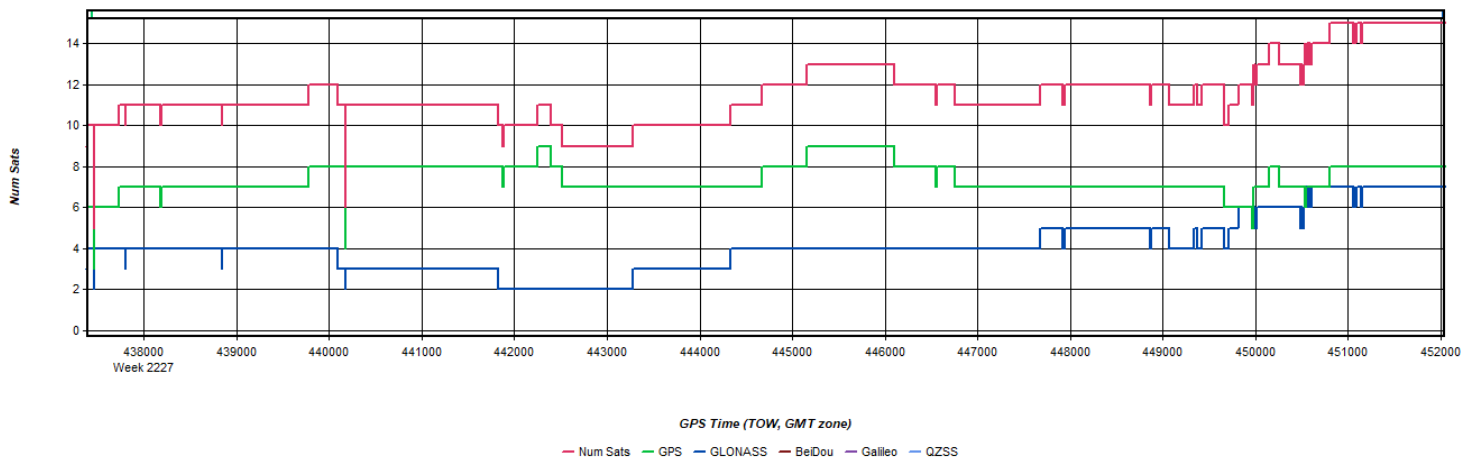


Figure 8: 20220916012851_2 [Smoothed TC Combined] - Status flag for IMU processing

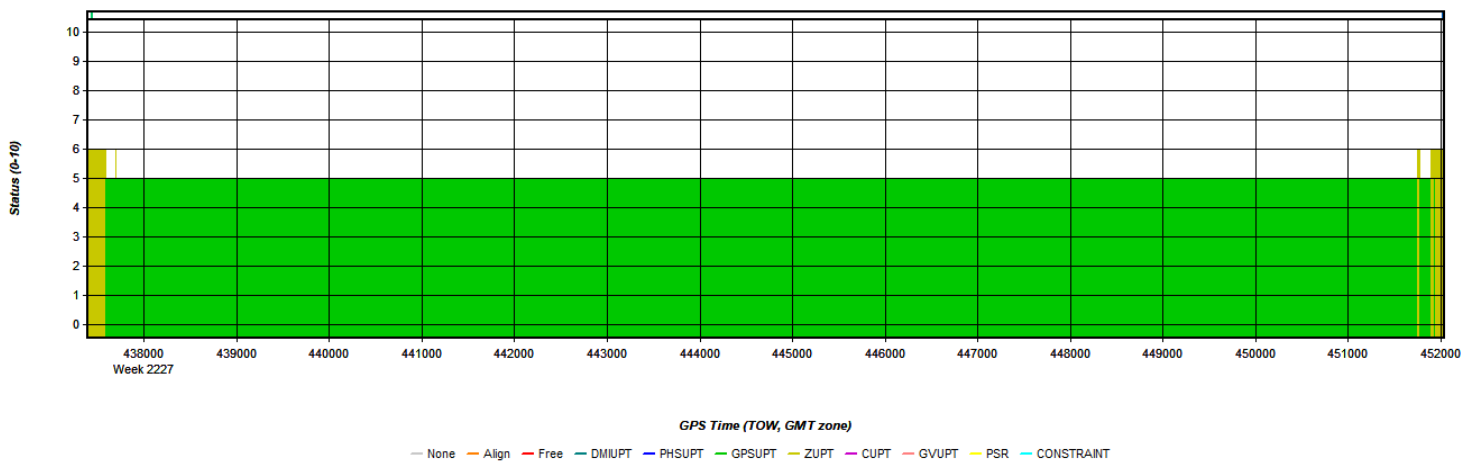
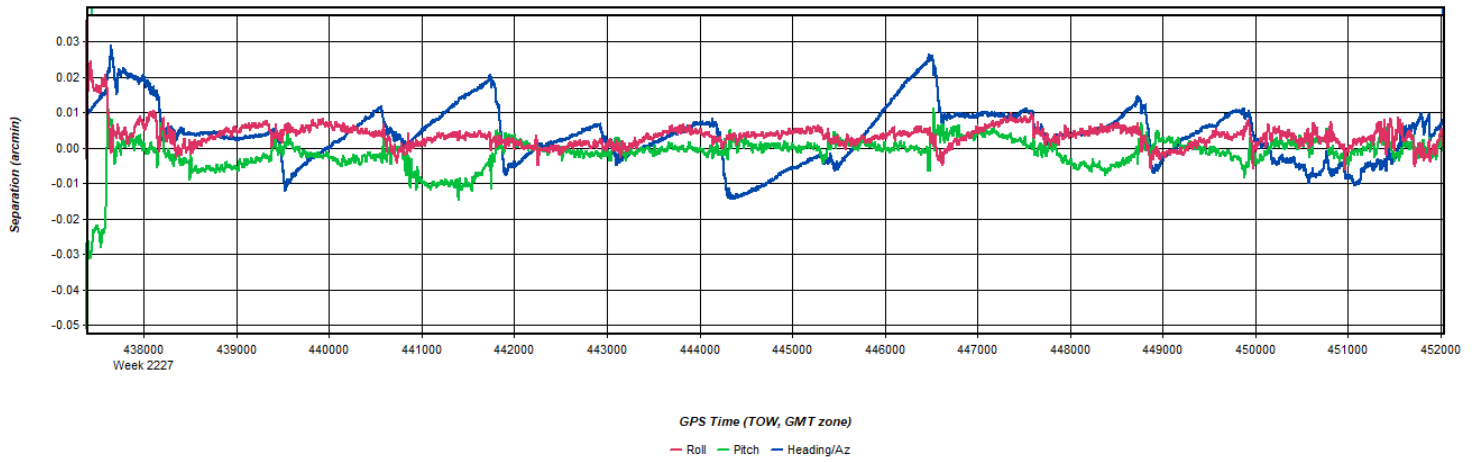
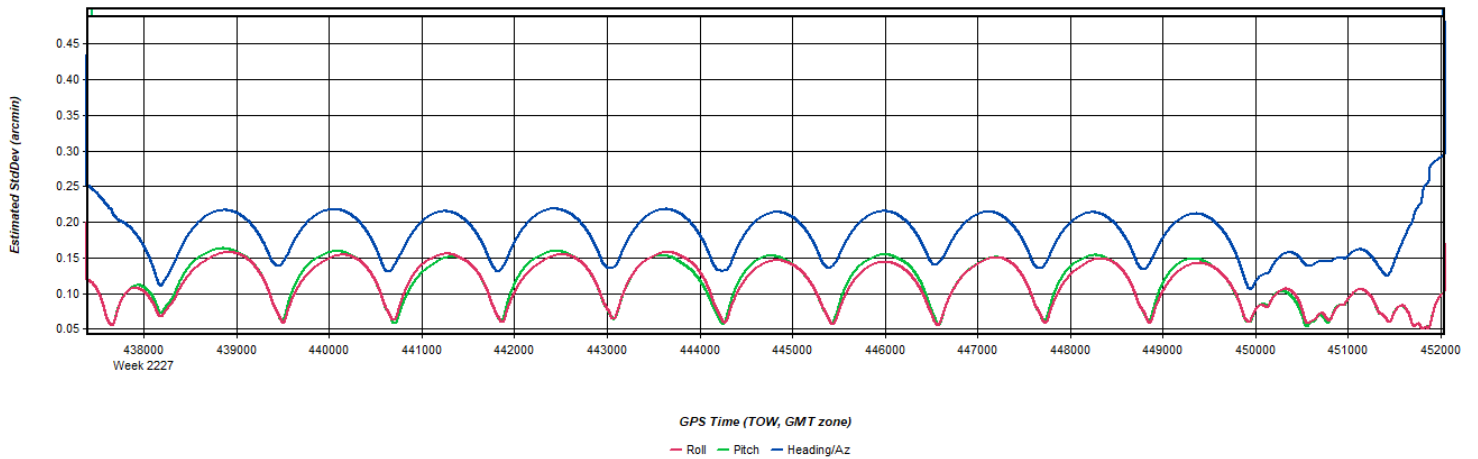


Figure 9: 20220916012851_2 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



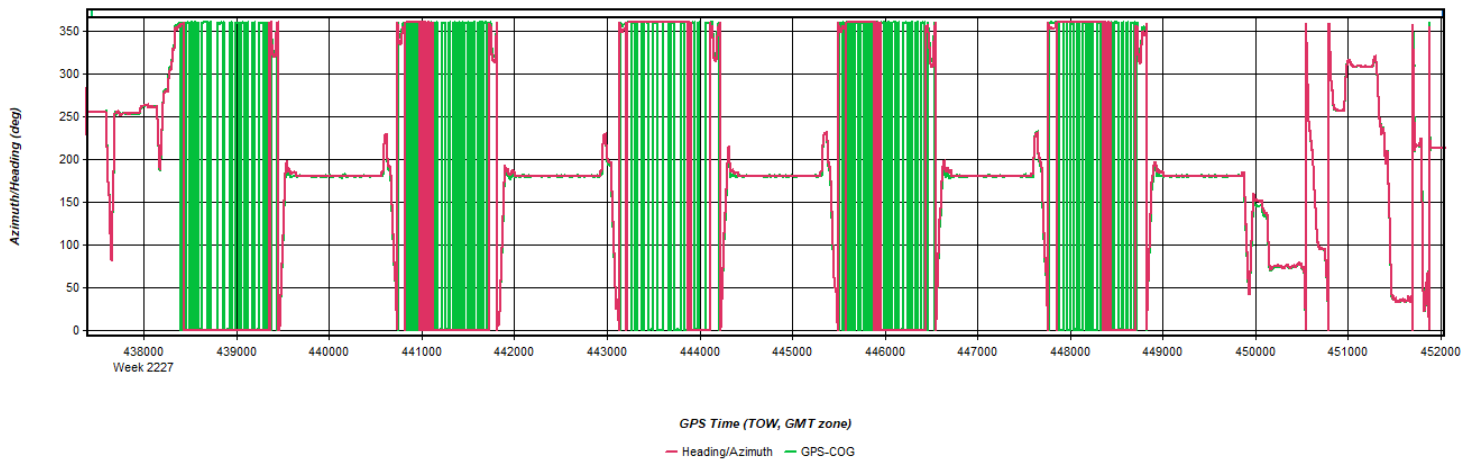
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 10: 20220916012851_2 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



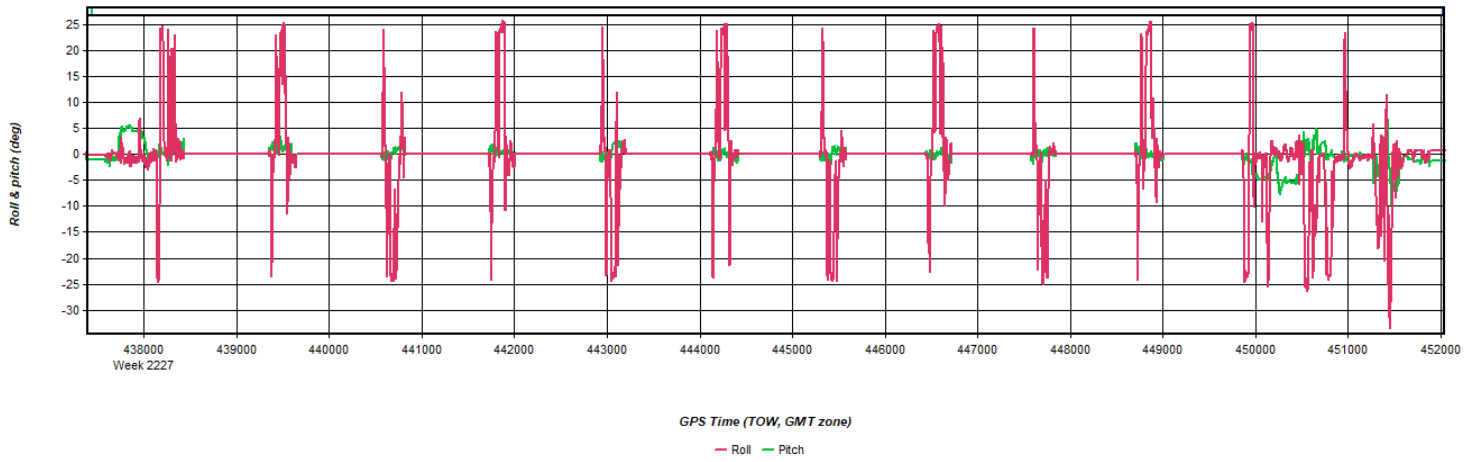
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 11: 20220916012851_2 [Smoothed TC Combined] - Azimuth Plot



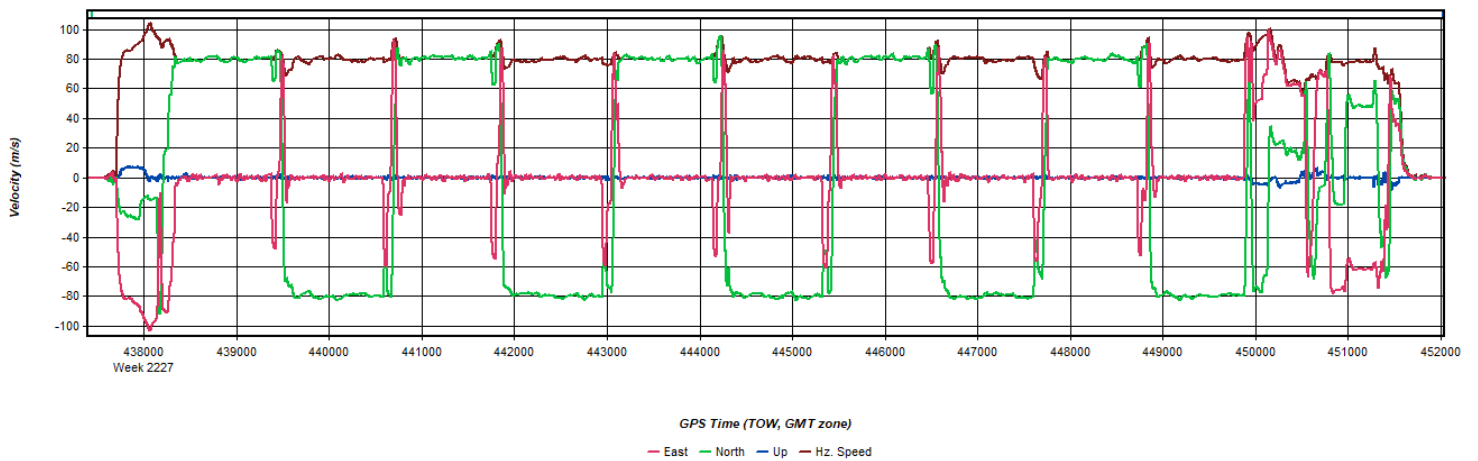
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 12: 20220916012851_2 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 13: 20220916012851_2 [Smoothed TC Combined] - Velocity Profile Plot



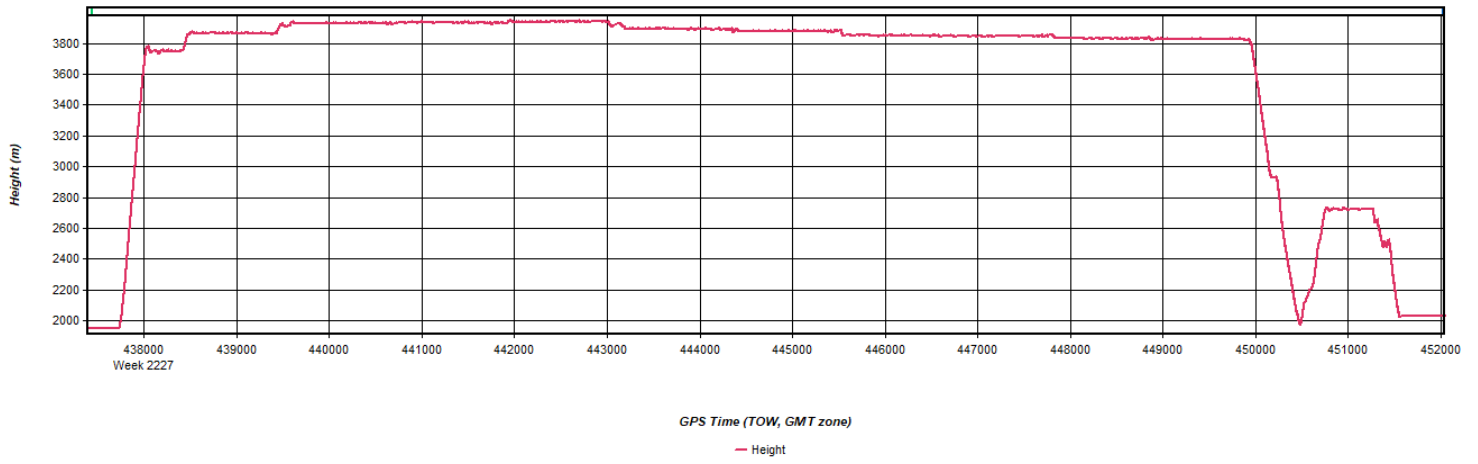
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 14: 20220916012851_2 [Smoothed TC Combined] - Body Frame Velocity Plot



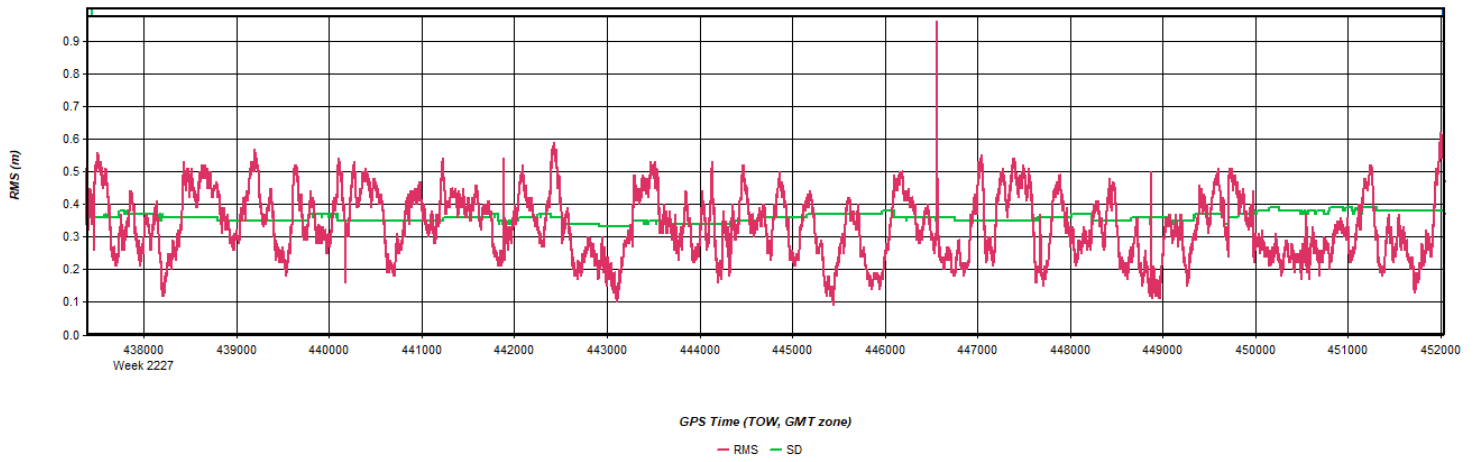
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 15: 20220916012851_2 [Smoothed TC Combined] - Height Profile Plot



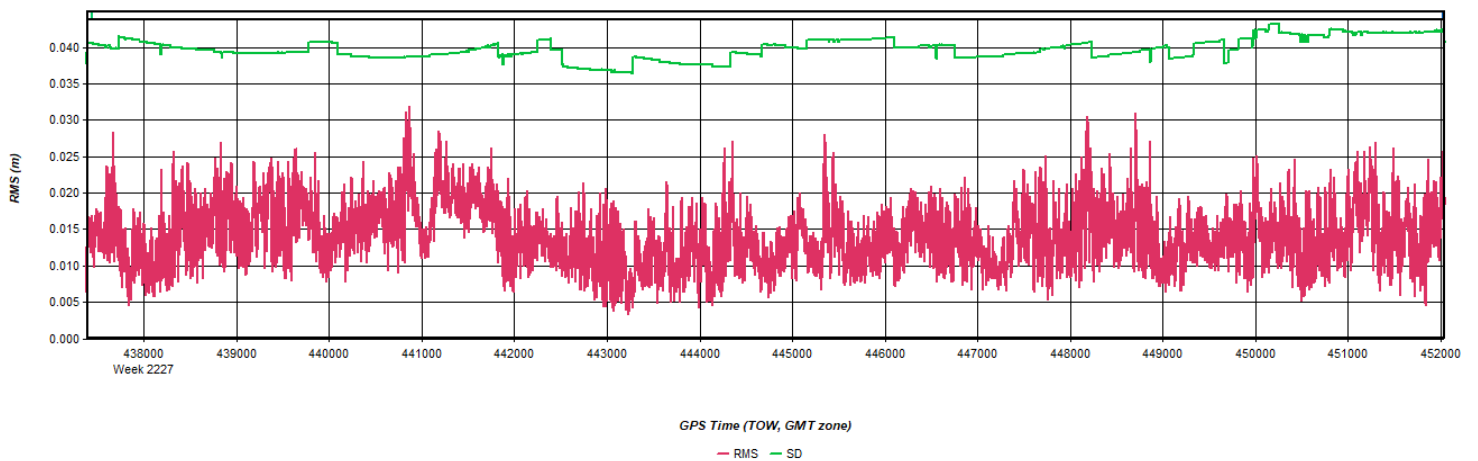
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 16: 20220916012851_2 [Smoothed TC Combined] - C/A Code Residual RMS Plot



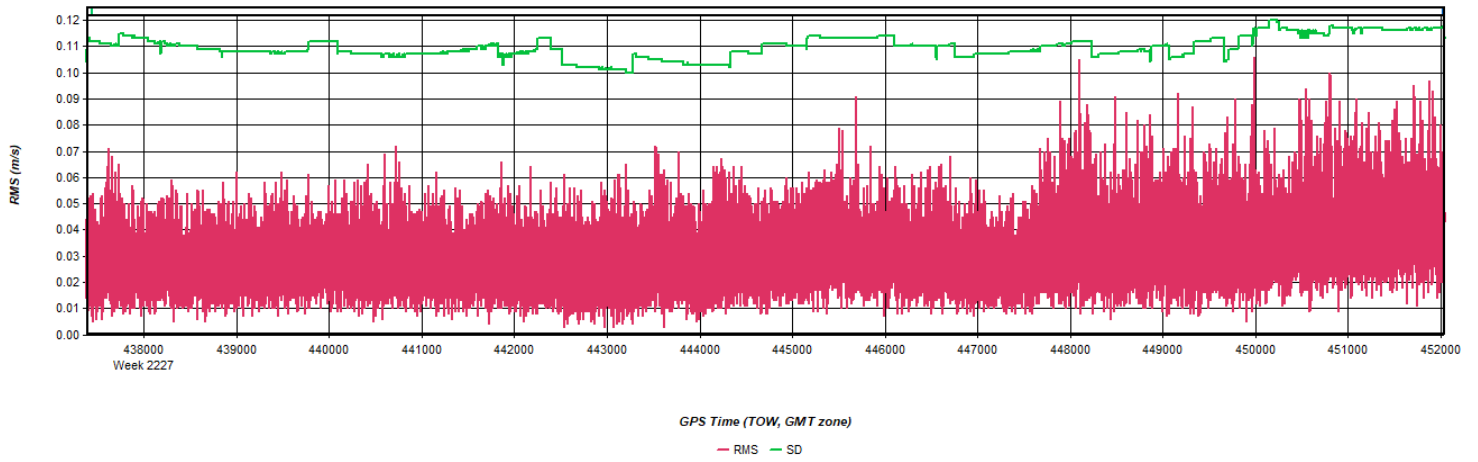
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 17: 20220916012851_2 [Smoothed TC Combined] - Carrier Residual RMS Plot



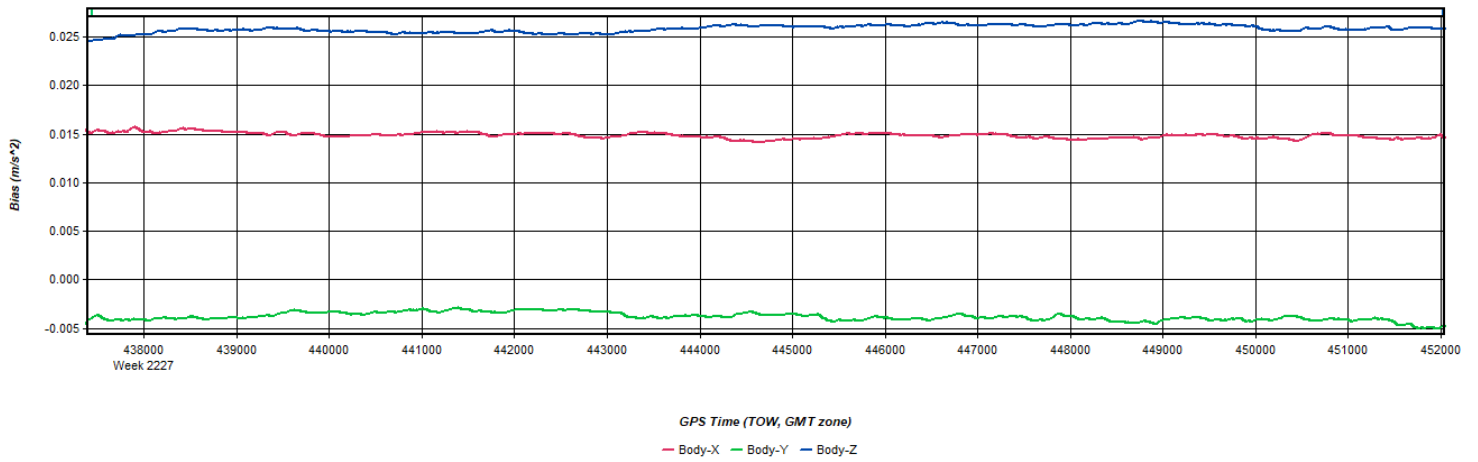
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 18: 20220916012851_2 [Smoothed TC Combined] - Doppler Residual RMS Plot



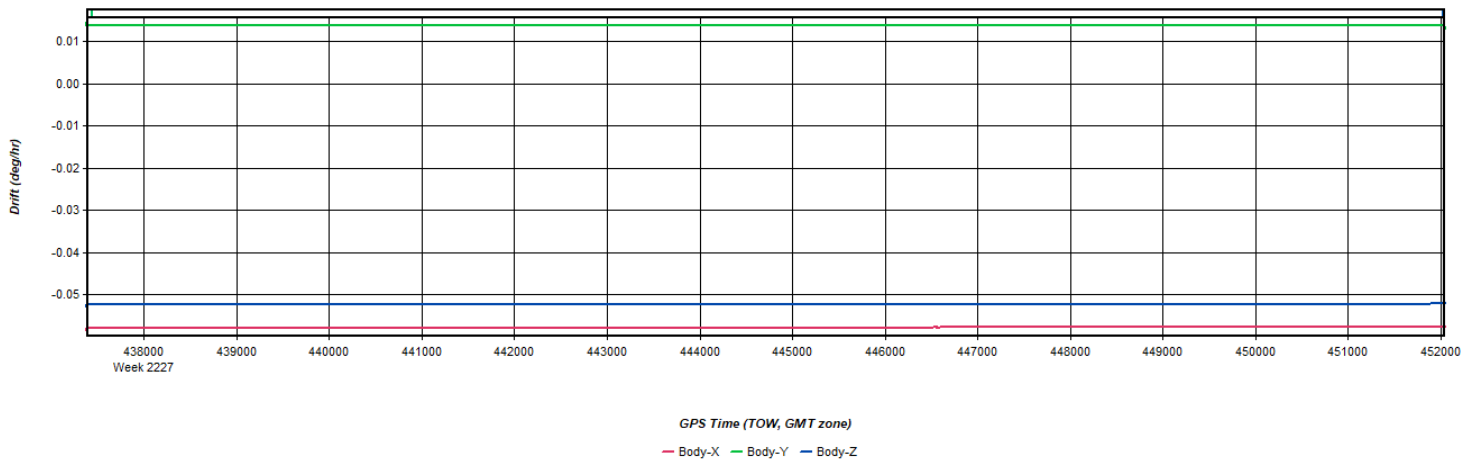
Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 19: 20220916012851_2 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Figure 20: 20220916012851_2 [Smoothed TC Combined] - Gyro Drift Plot

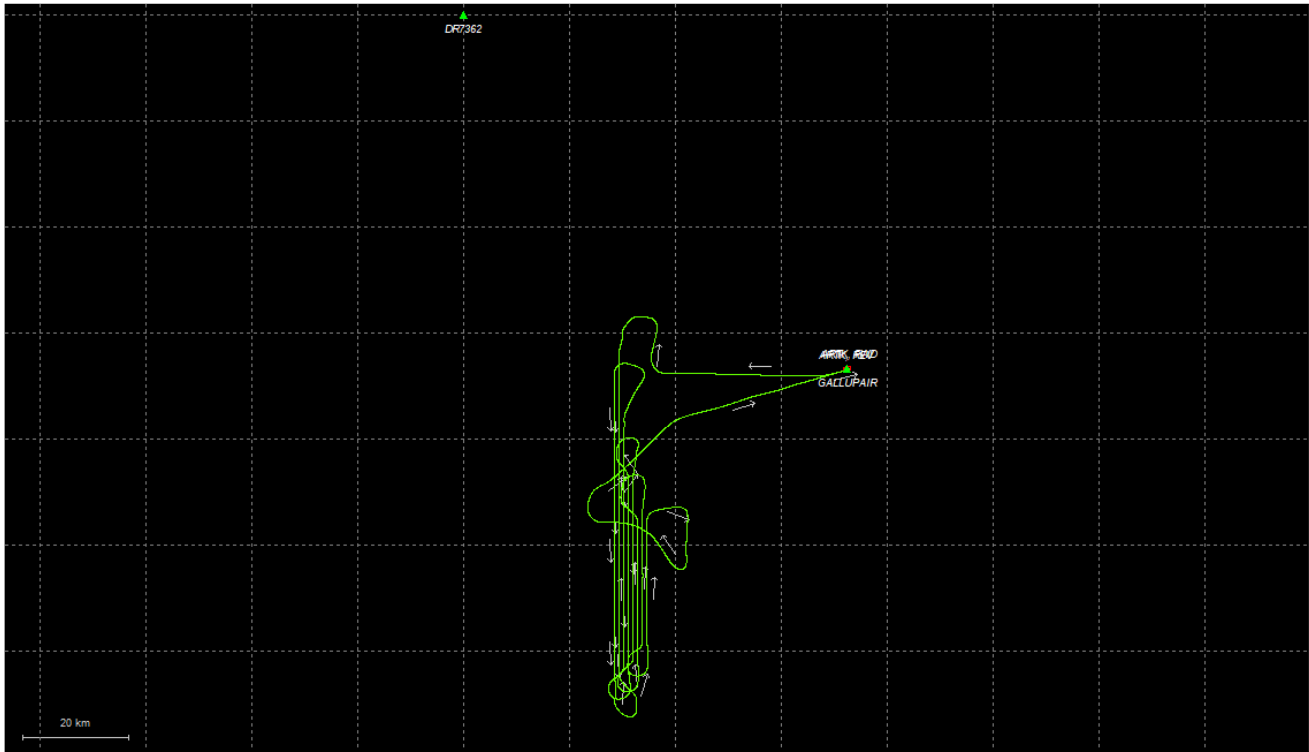


Process	20220916012851_2	by Unknown	on 9/19/2022	at 16:09:59
---------	------------------	------------	--------------	-------------

Output Results for 20220916144026_3

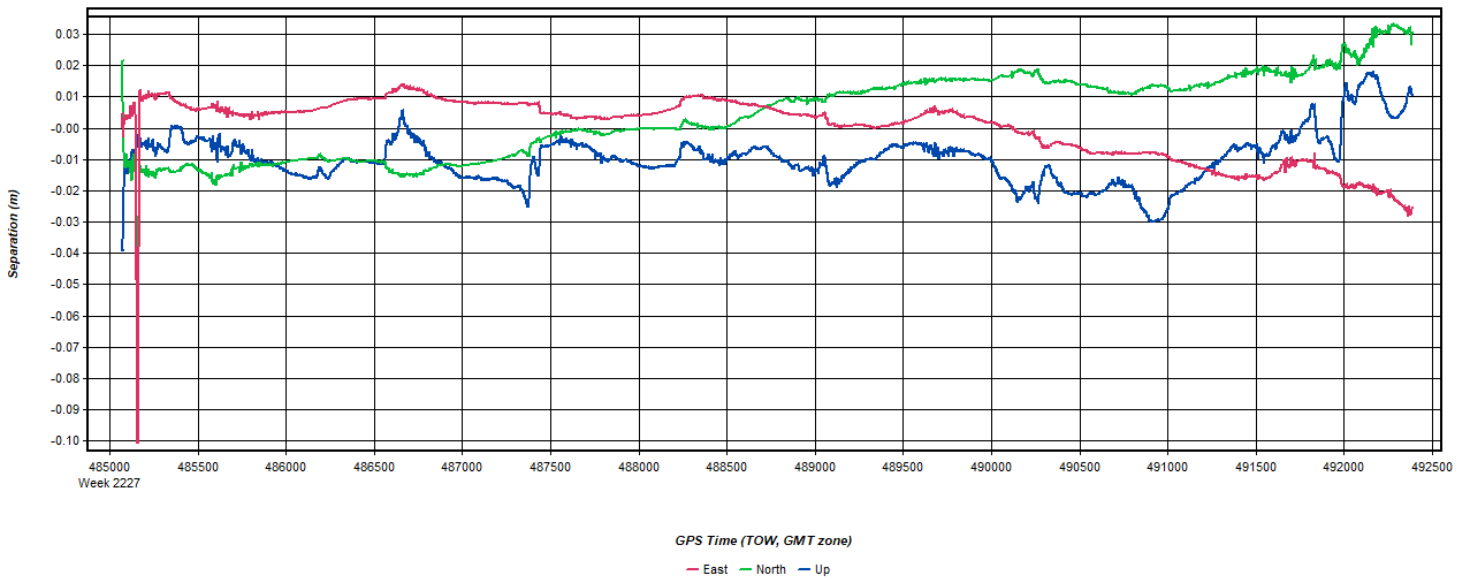
Inertial Explorer Version 8.90.2124
09/21/2022

Figure 1: Smoothed TC Combined - Map



Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 2: 20220916144026_3 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 3: 20220916144026_3 [Smoothed TC Combined] - Float or Fixed Ambiguity

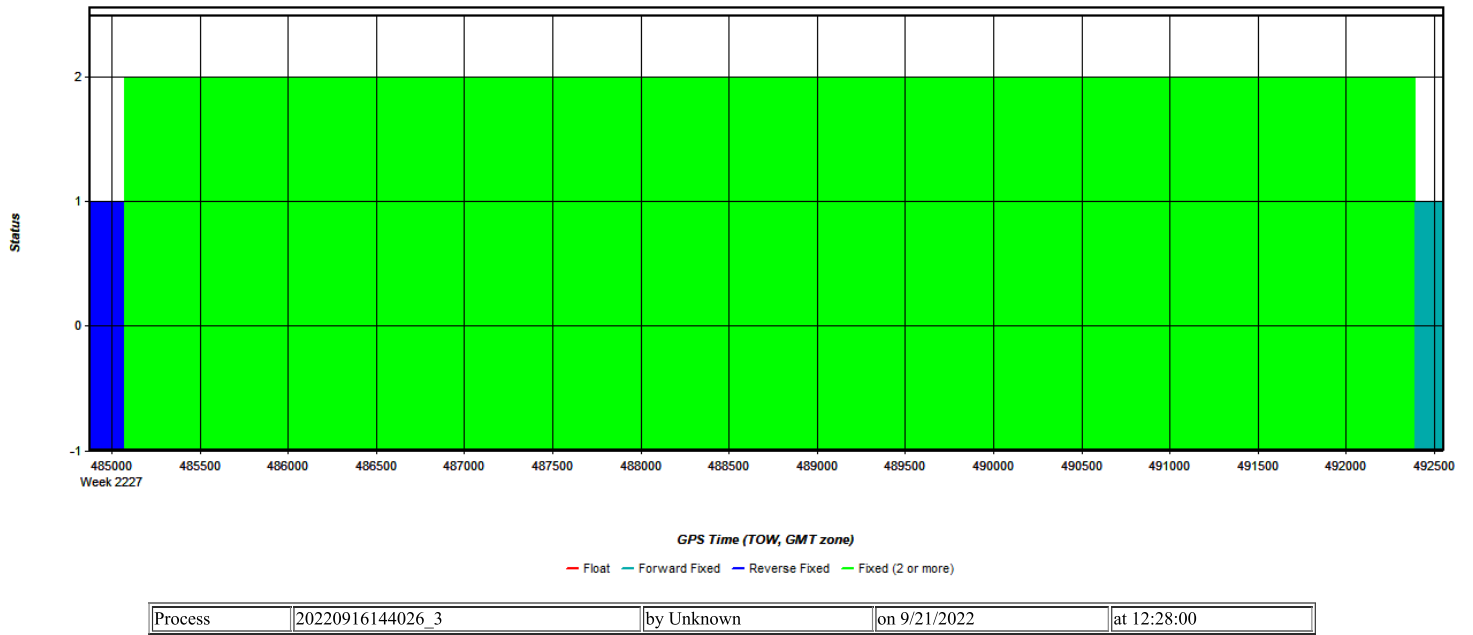


Figure 4: 20220916144026_3 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

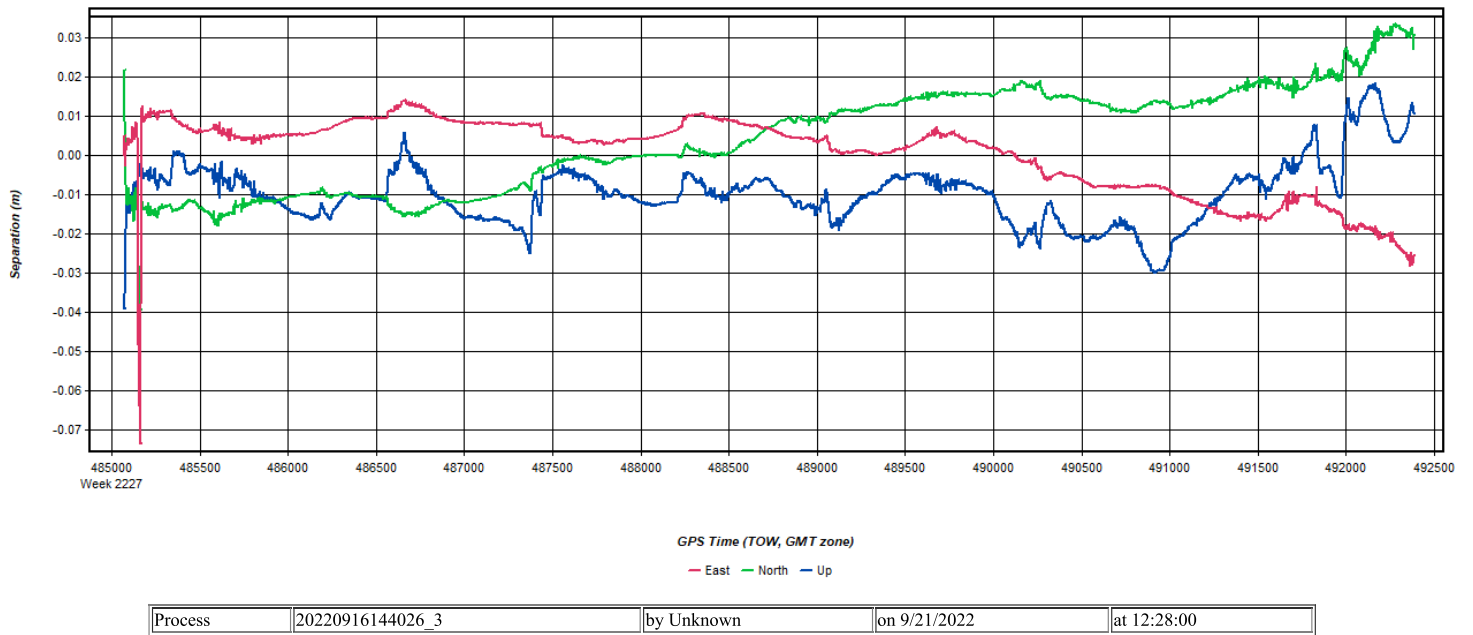
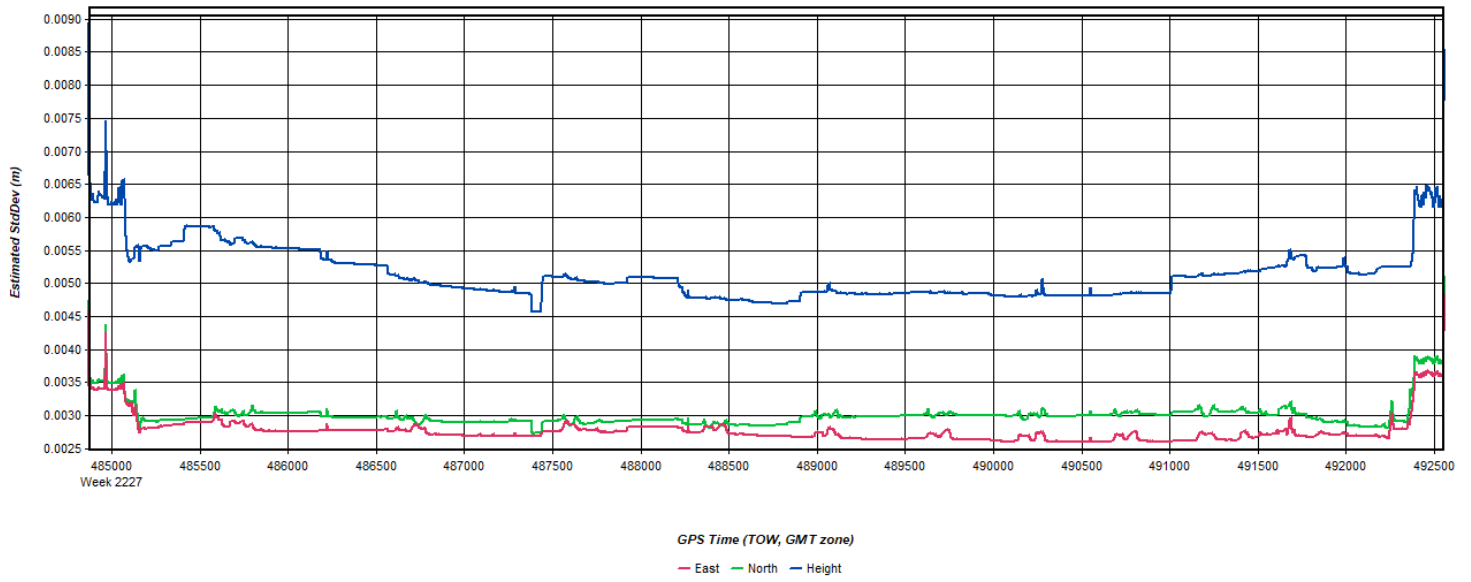


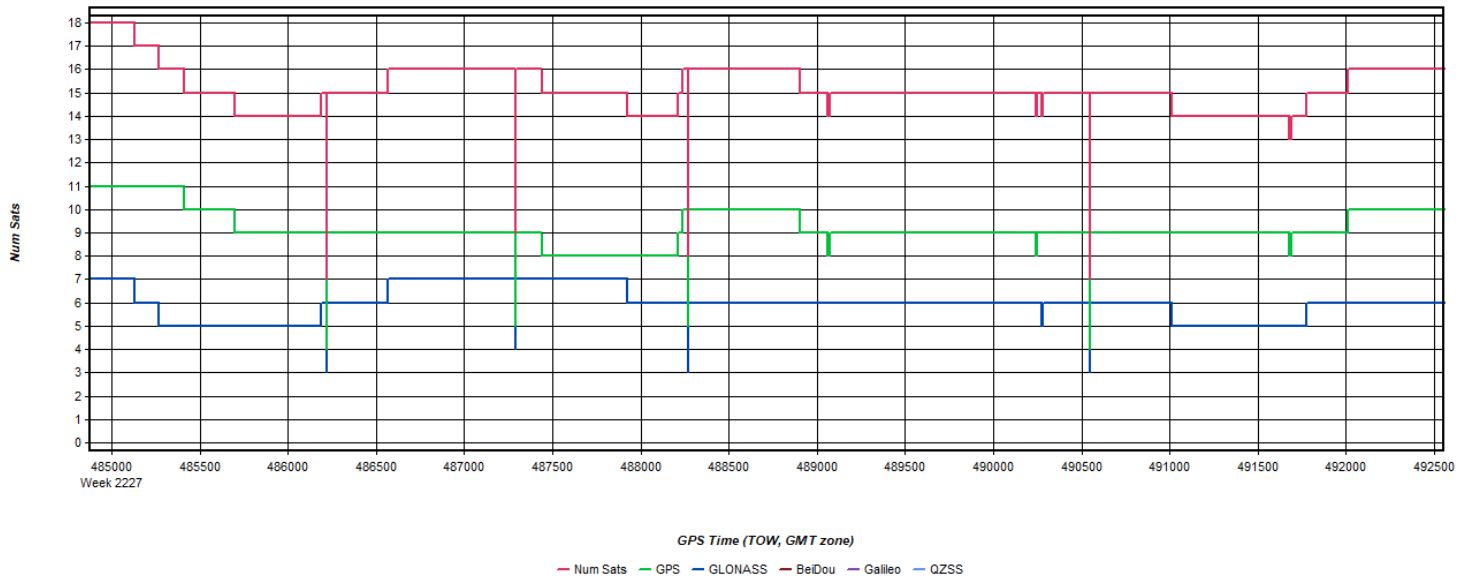
Figure 5: 20220916144026_3 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Object 20220916144026_3 [Smoothed TC Combined] - PDOP Plot failed--NULL bitmap handle

Figure 6: 20220916144026_3 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 7: 20220916144026_3 [Smoothed TC Combined] - Status flag for IMU processing

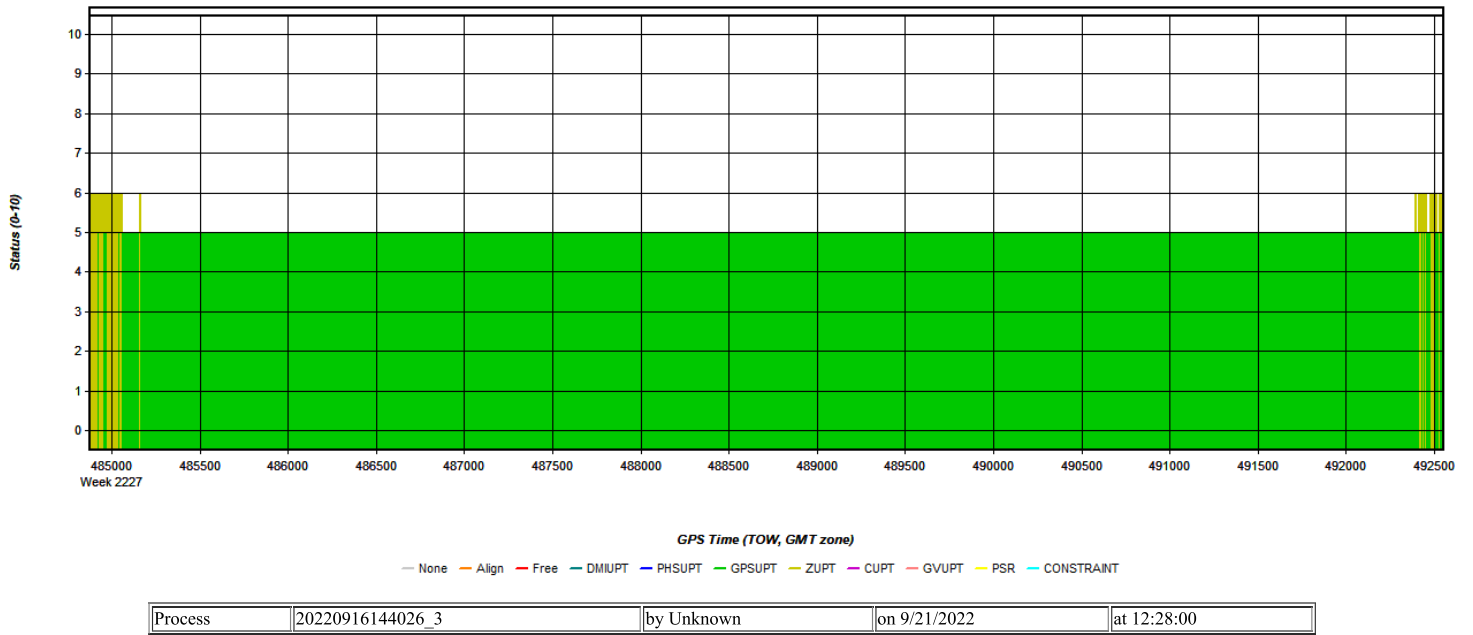


Figure 8: 20220916144026_3 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

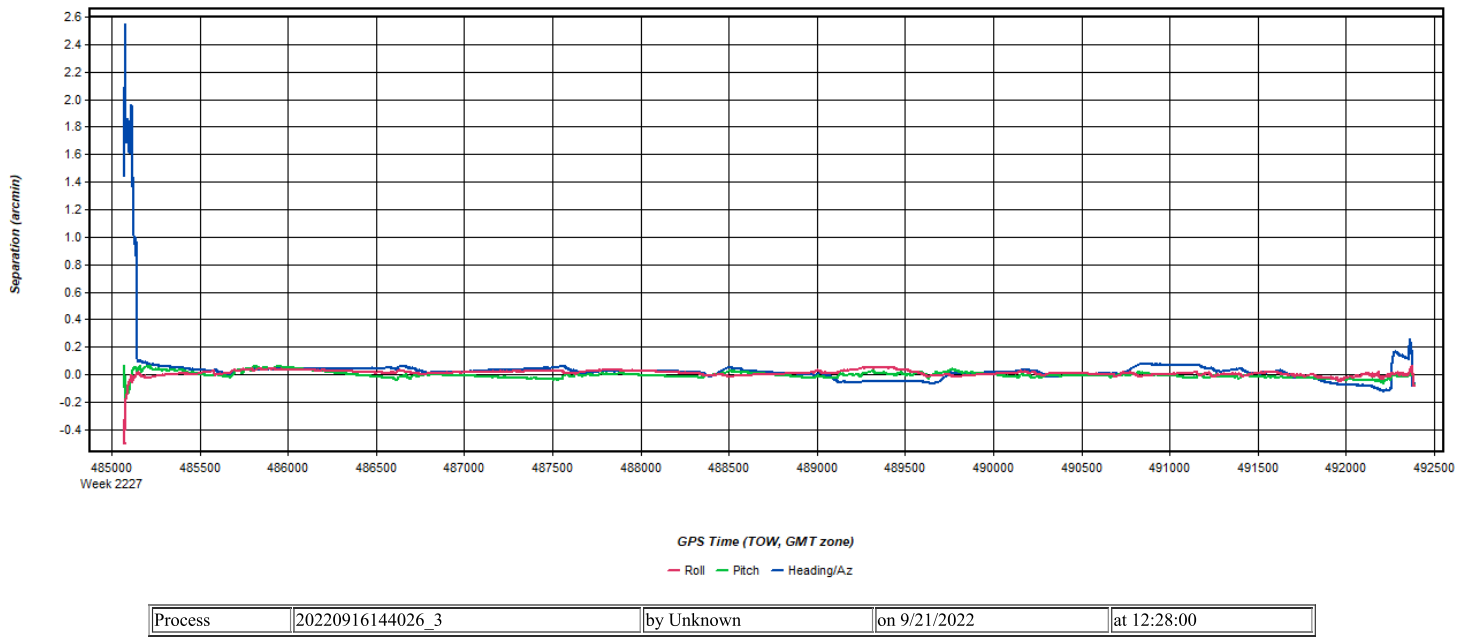
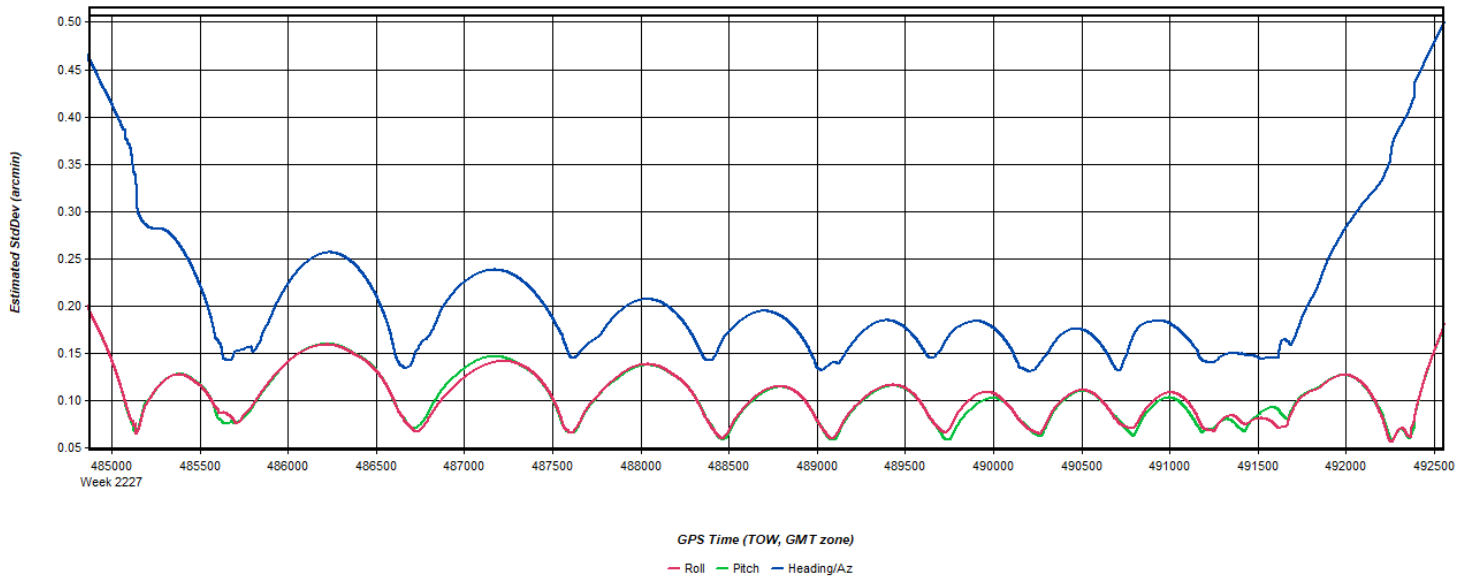
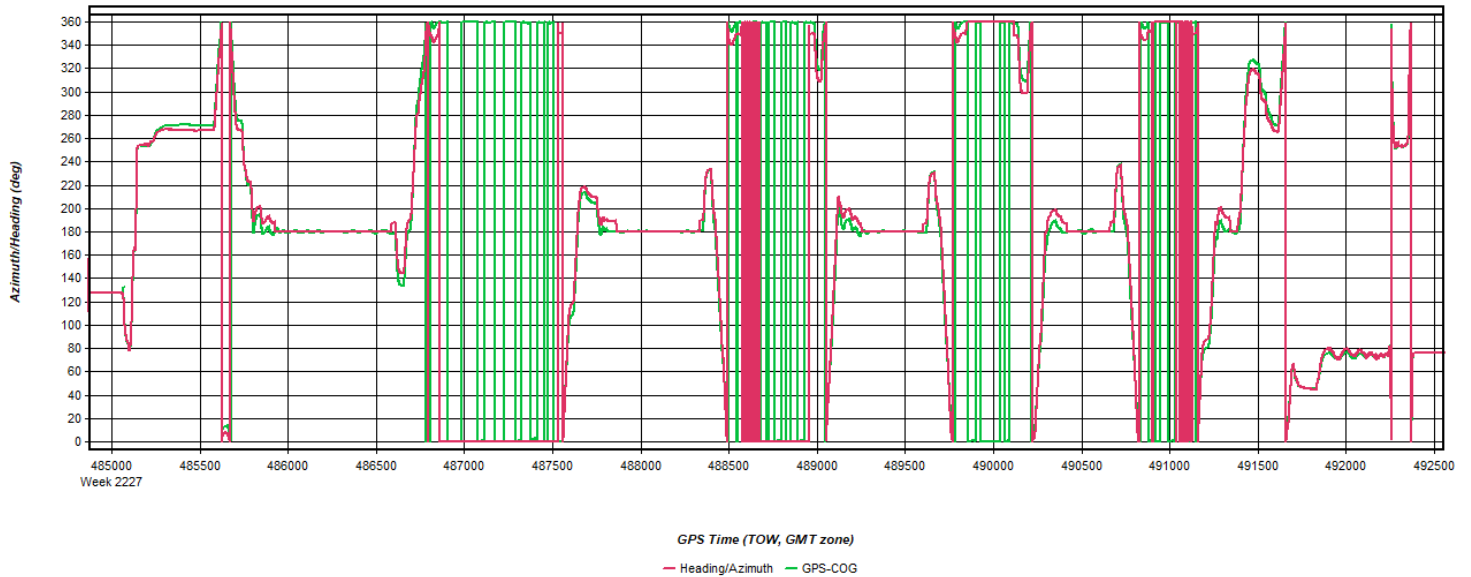


Figure 9: 20220916144026_3 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



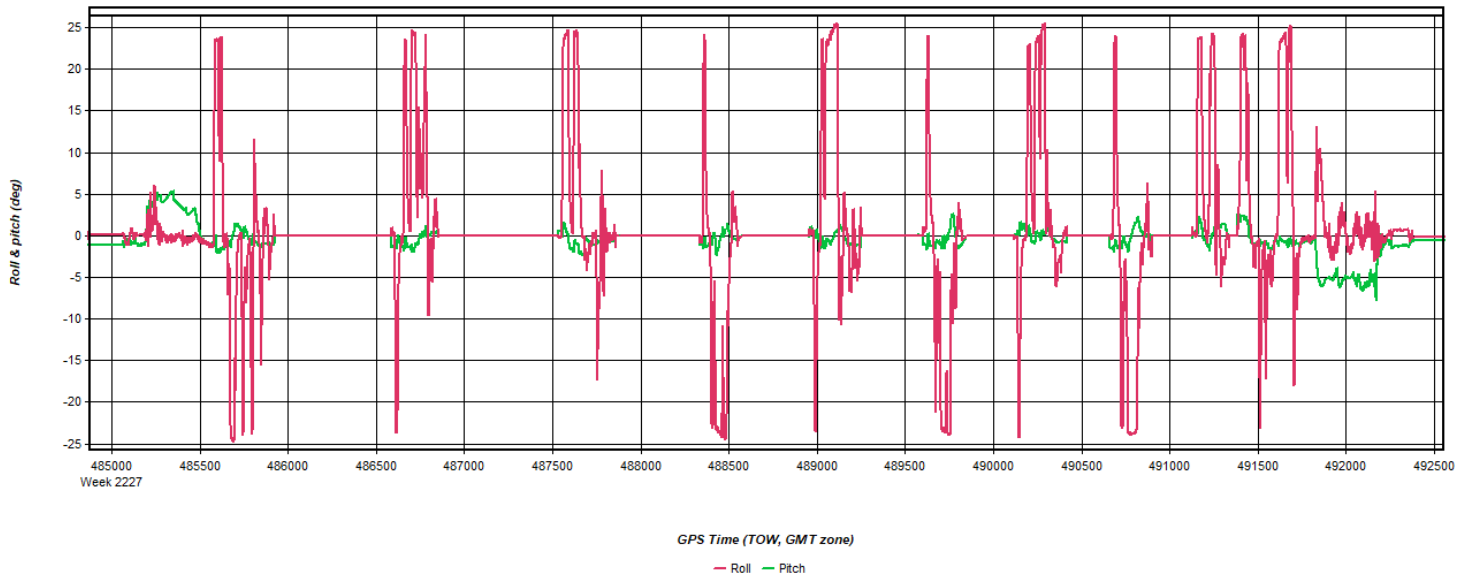
Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 10: 20220916144026_3 [Smoothed TC Combined] - Azimuth Plot



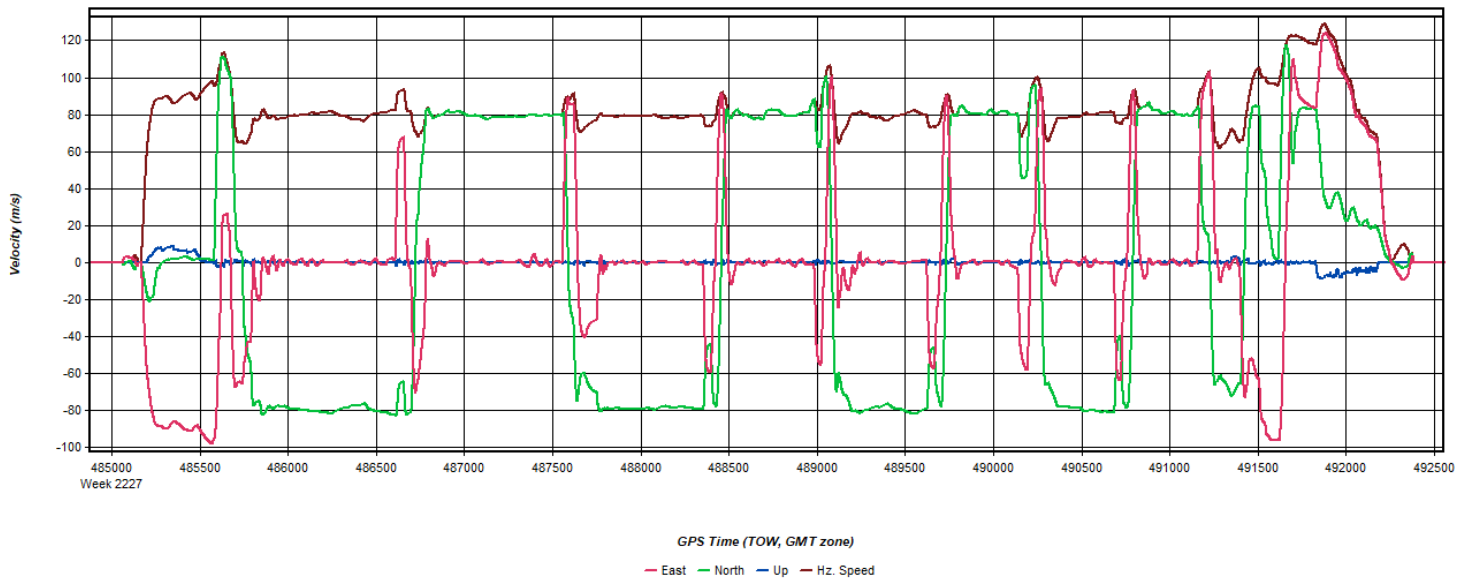
Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 11: 20220916144026_3 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 12: 20220916144026_3 [Smoothed TC Combined] - Velocity Profile Plot



Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 13: 20220916144026_3 [Smoothed TC Combined] - Body Frame Velocity Plot

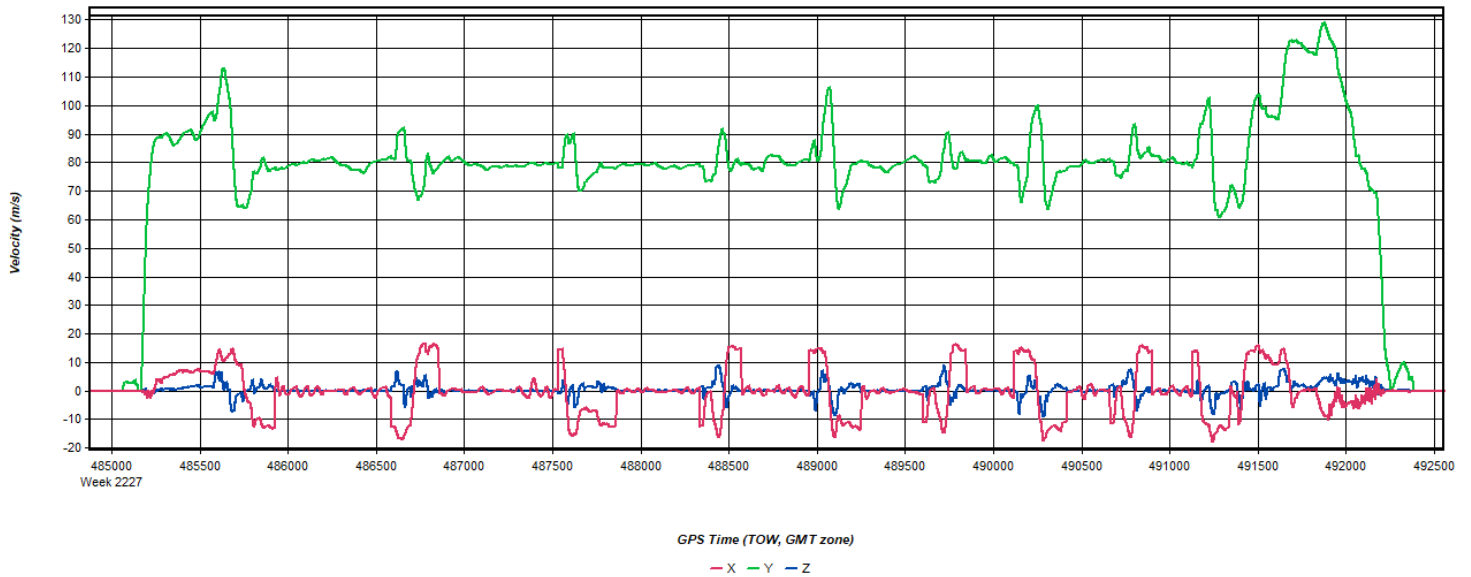


Figure 14: 20220916144026_3 [Smoothed TC Combined] - Height Profile Plot

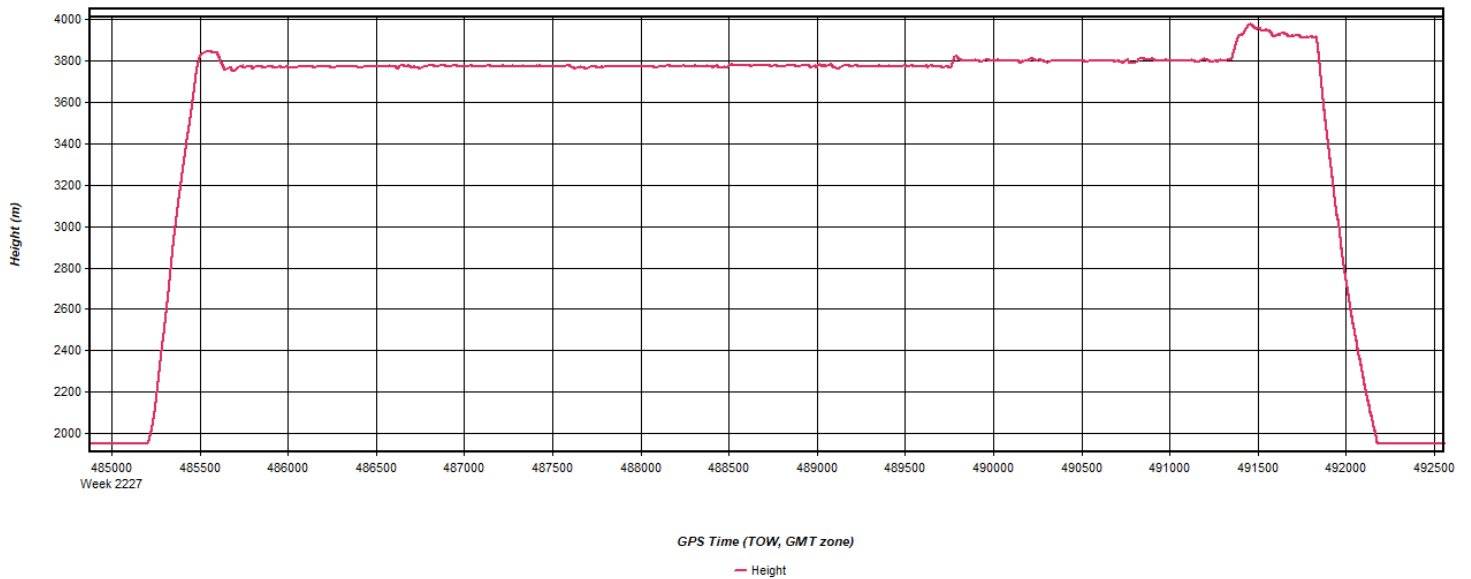
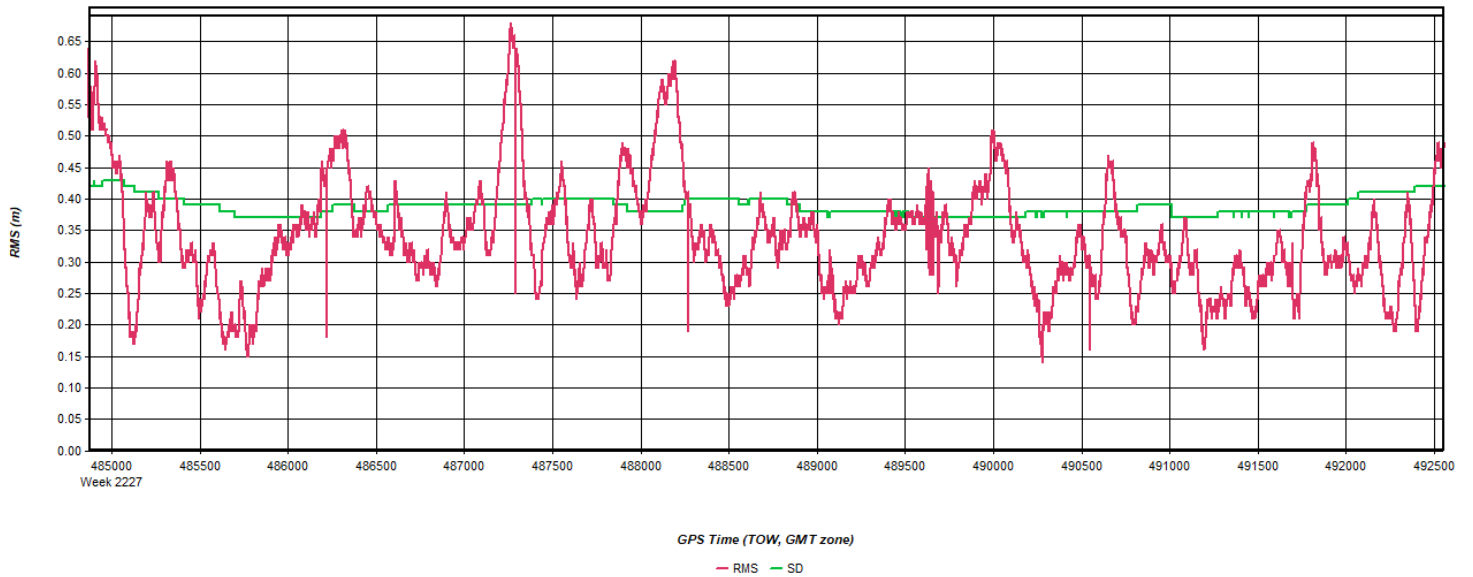


Figure 15: 20220916144026_3 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 16: 20220916144026_3 [Smoothed TC Combined] - Carrier Residual RMS Plot



Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Figure 17: 20220916144026_3 [Smoothed TC Combined] - Doppler Residual RMS Plot

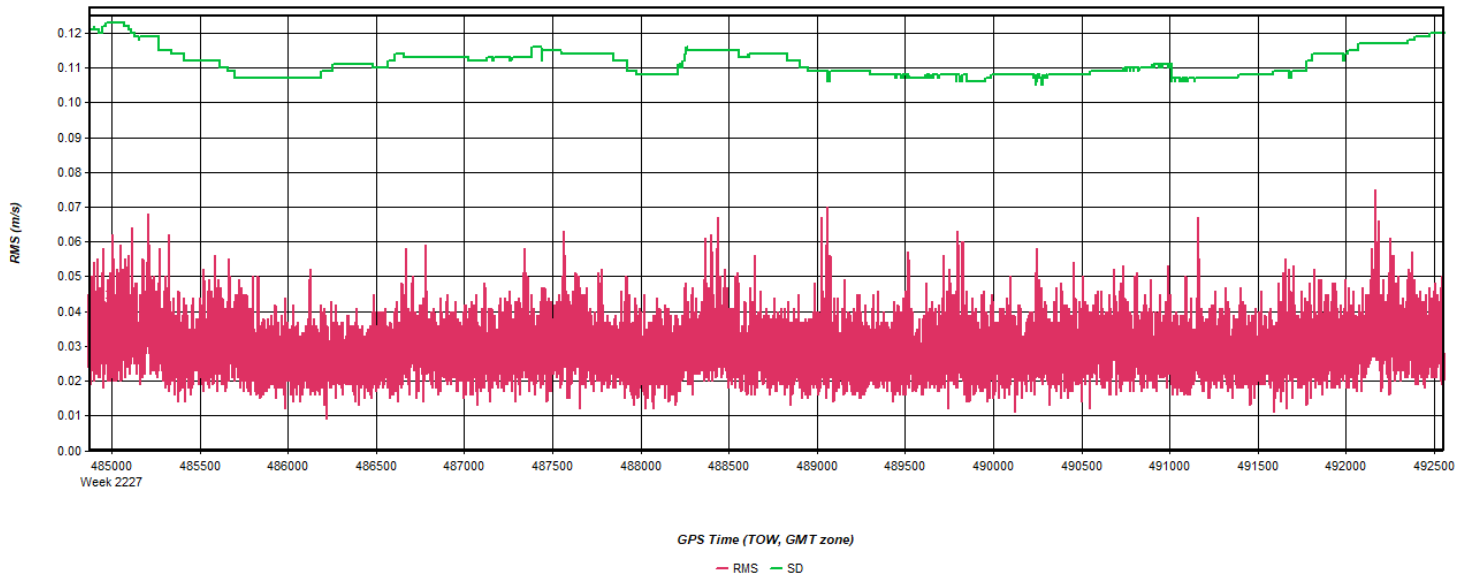


Figure 18: 20220916144026_3 [Smoothed TC Combined] - Accelerometer Bias Plot

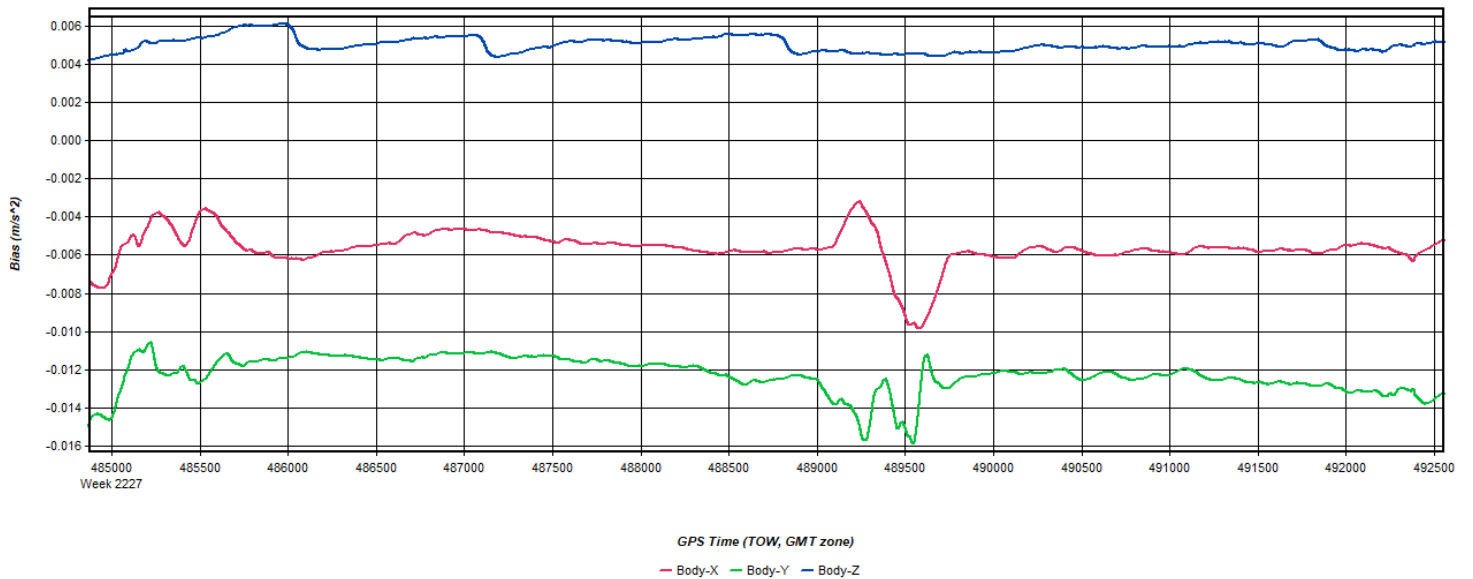
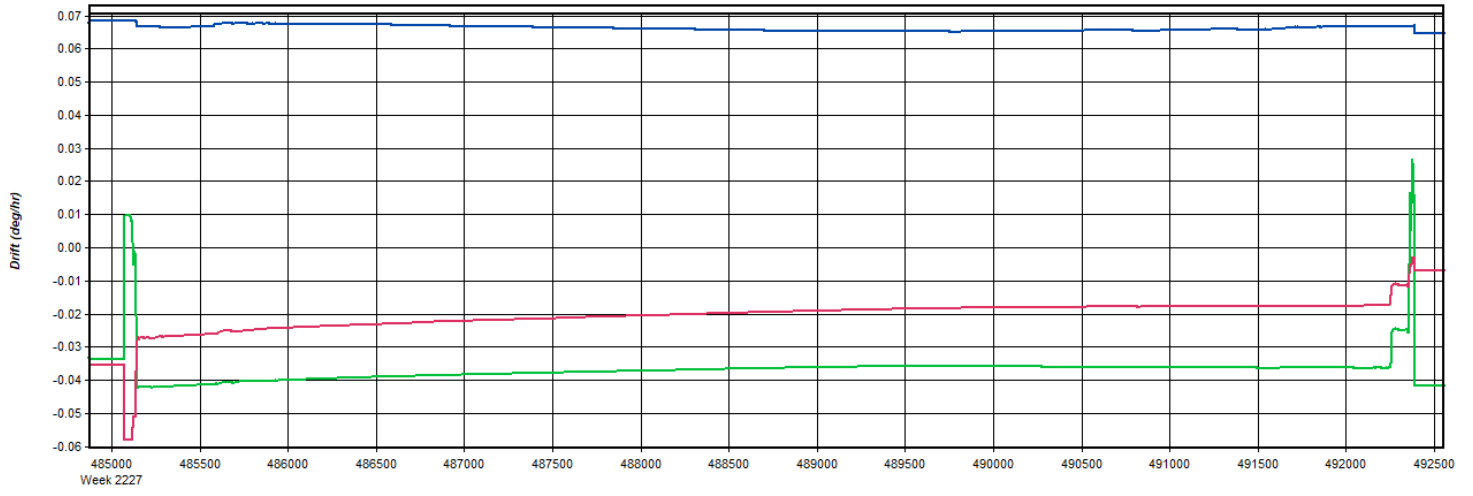


Figure 19: 20220916144026_3 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

— Body-X — Body-Y — Body-Z

Process	20220916144026_3	by Unknown	on 9/21/2022	at 12:28:00
---------	------------------	------------	--------------	-------------

Output Results for 20220916234534_4

Inertial Explorer Version 8.90.2124
09/21/2022

Figure 1: Smoothed TC Combined - Map



Process	20220916234534_4	by Unknown	on 9/21/2022	at 13:51:24
---------	------------------	------------	--------------	-------------

Figure 2: 20220916234534_4 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220916234534_4	by Unknown	on 9/21/2022	at 13:51:24
---------	------------------	------------	--------------	-------------

Figure 3: 20220916234534_4 [Smoothed TC Combined] - Float or Fixed Ambiguity

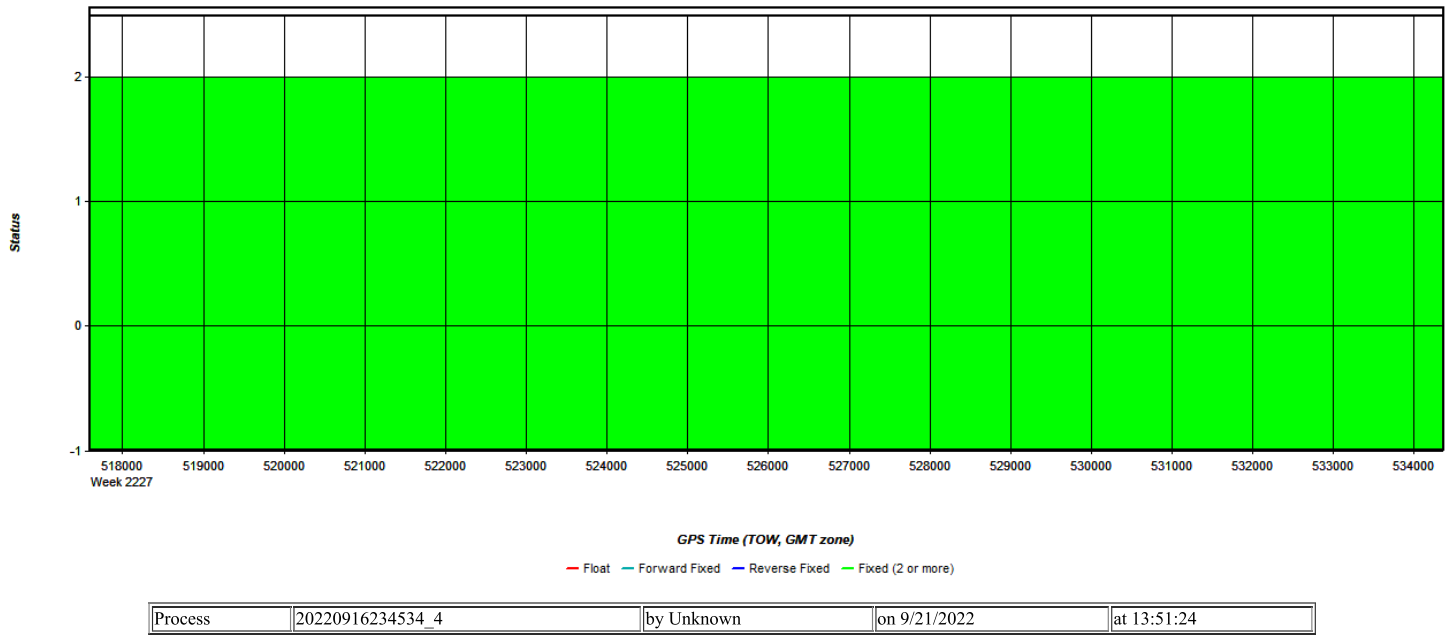


Figure 4: 20220916234534_4 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Figure 5: 20220916234534_4 [Smoothed TC Combined] - Estimated Position Accuracy Plot

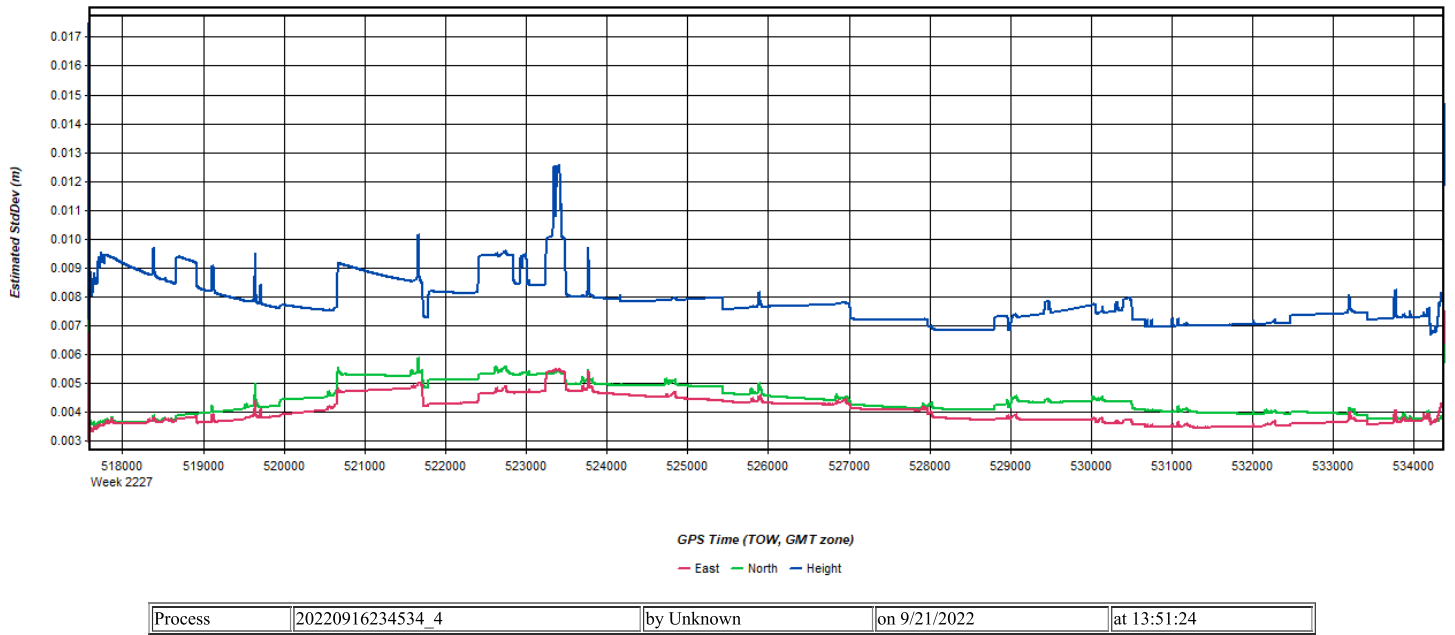


Figure 6: 20220916234534_4 [Smoothed TC Combined] - PDOP Plot

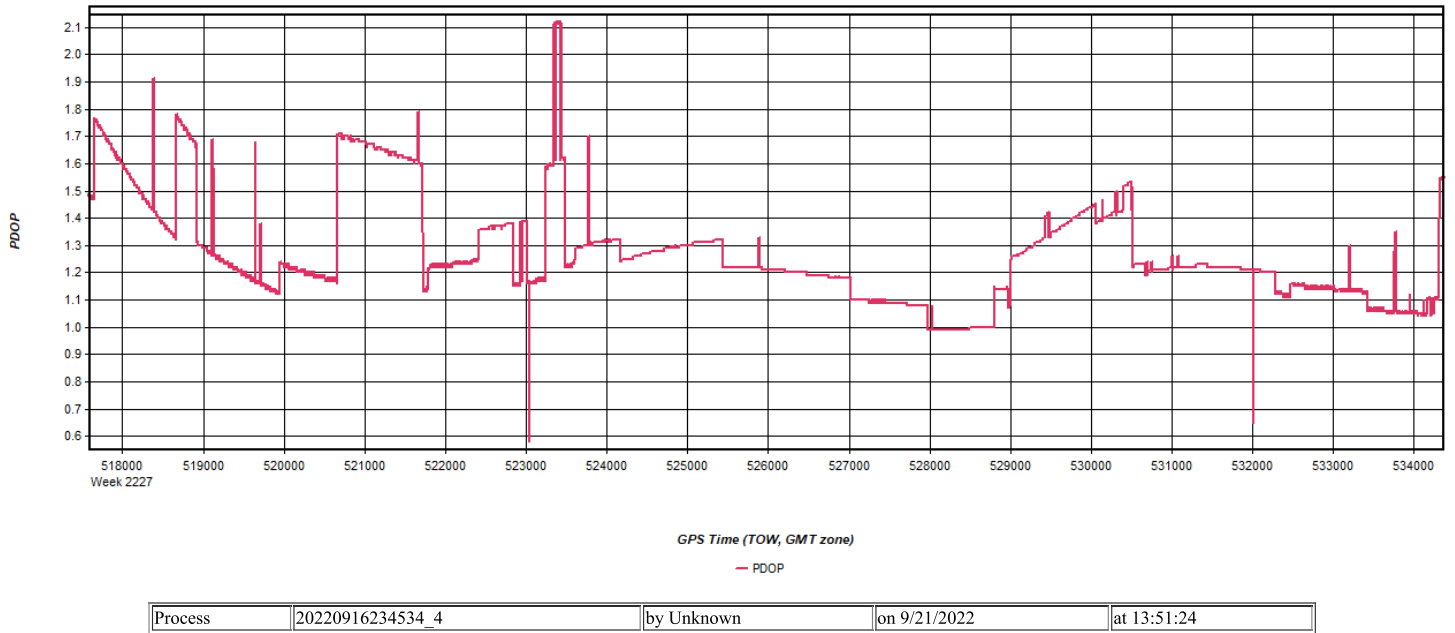


Figure 7: 20220916234534_4 [Smoothed TC Combined] - Number of Satellites Line Plot

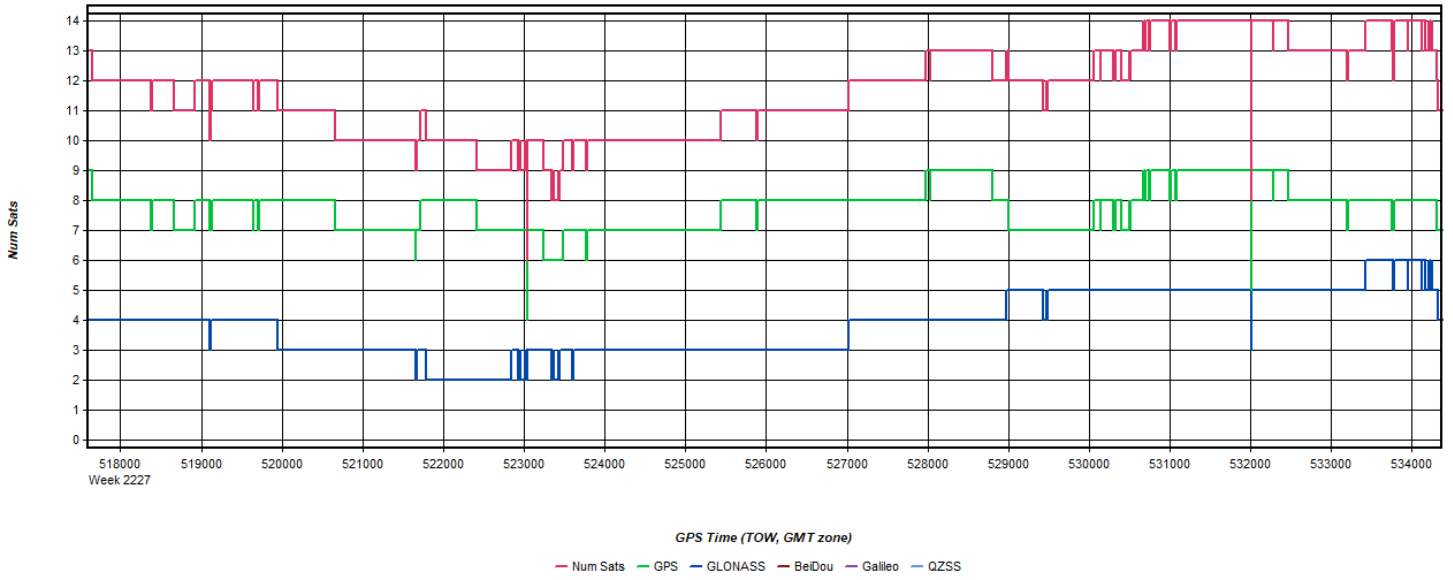


Figure 8: 20220916234534_4 [Smoothed TC Combined] - Status flag for IMU processing

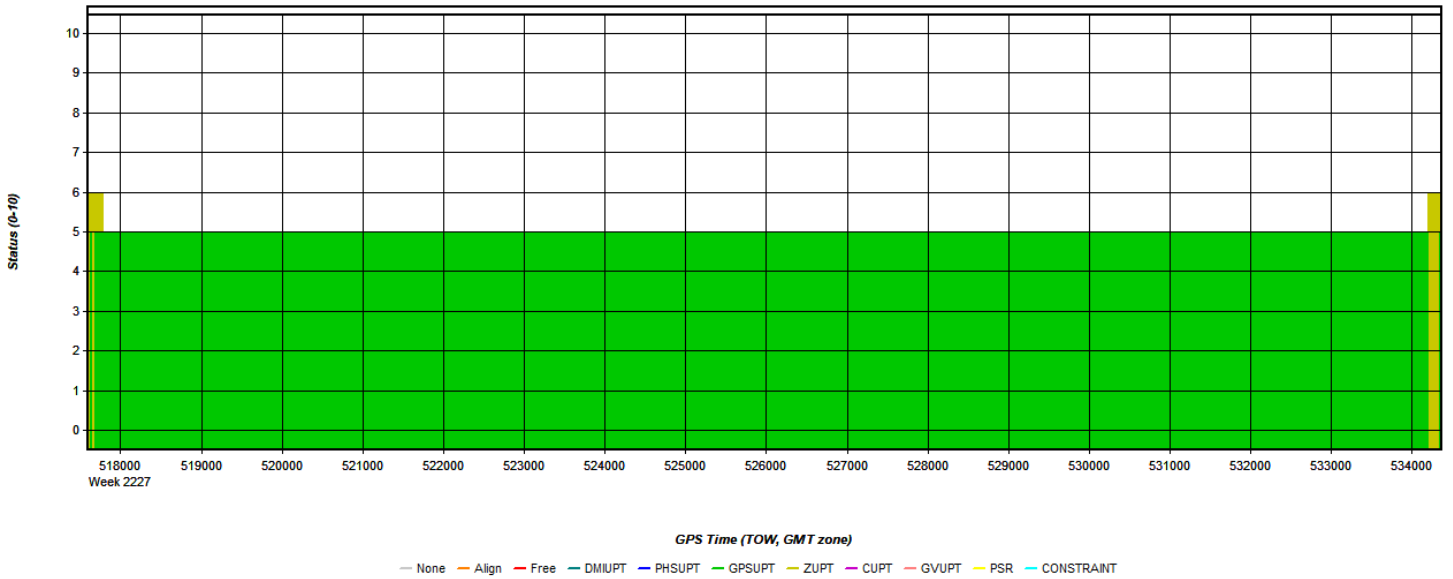
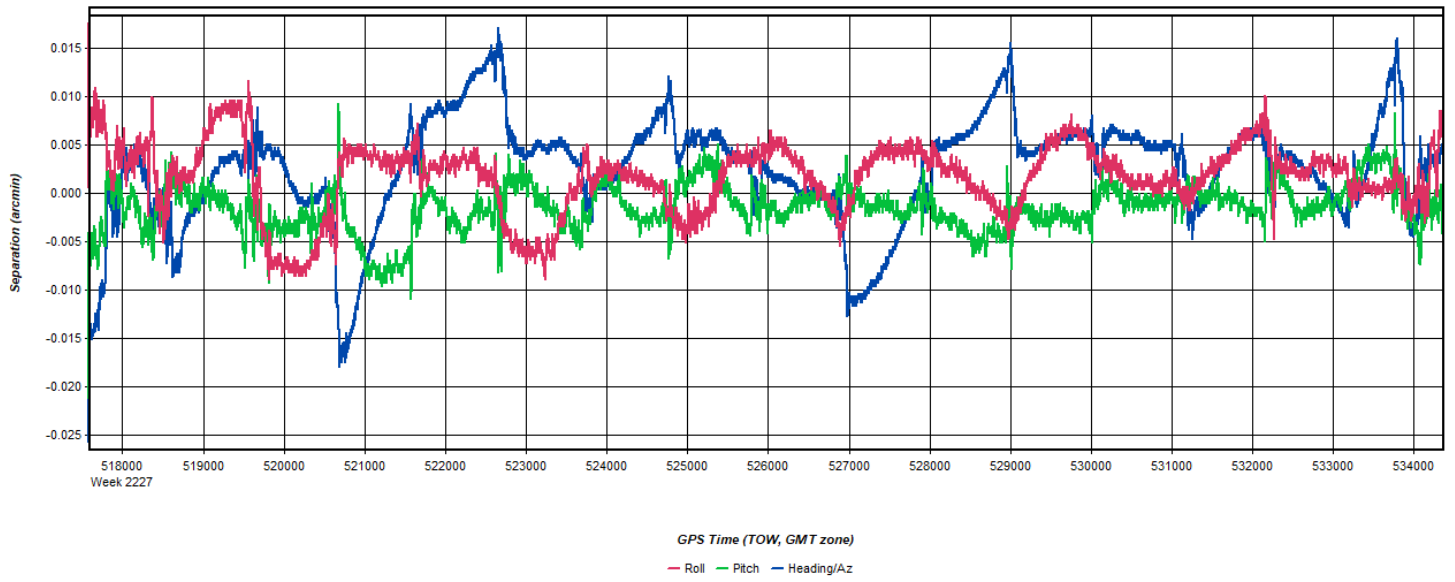
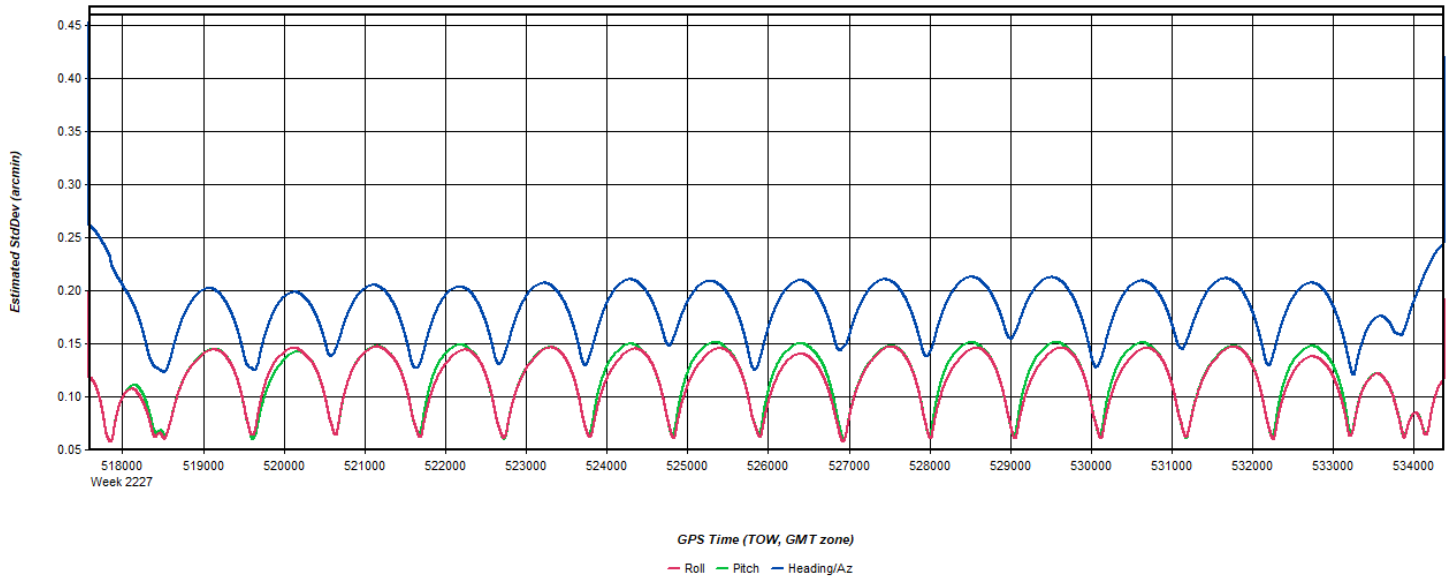


Figure 9: 20220916234534_4 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



Process	20220916234534_4	by Unknown	on 9/21/2022	at 13:51:24
---------	------------------	------------	--------------	-------------

Figure 10: 20220916234534_4 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



Process	20220916234534_4	by Unknown	on 9/21/2022	at 13:51:24
---------	------------------	------------	--------------	-------------

Figure 11: 20220916234534_4 [Smoothed TC Combined] - Azimuth Plot

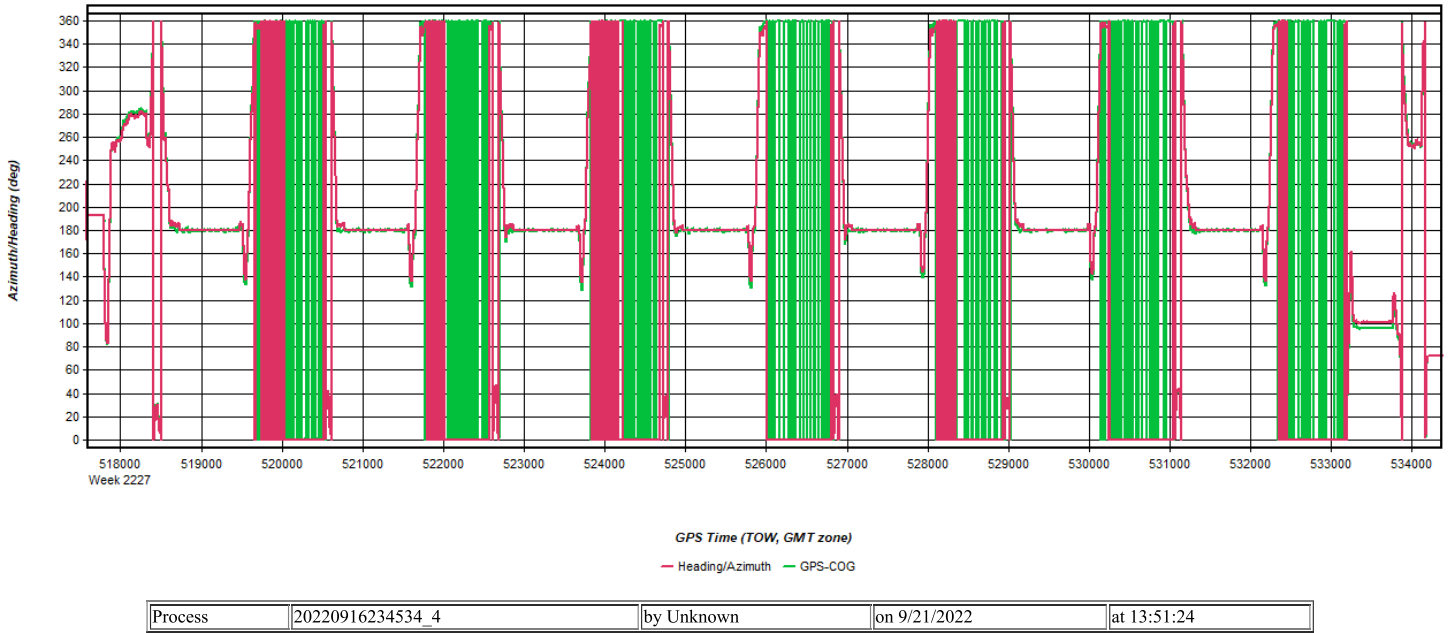


Figure 12: 20220916234534_4 [Smoothed TC Combined] - Roll & Pitch Plot

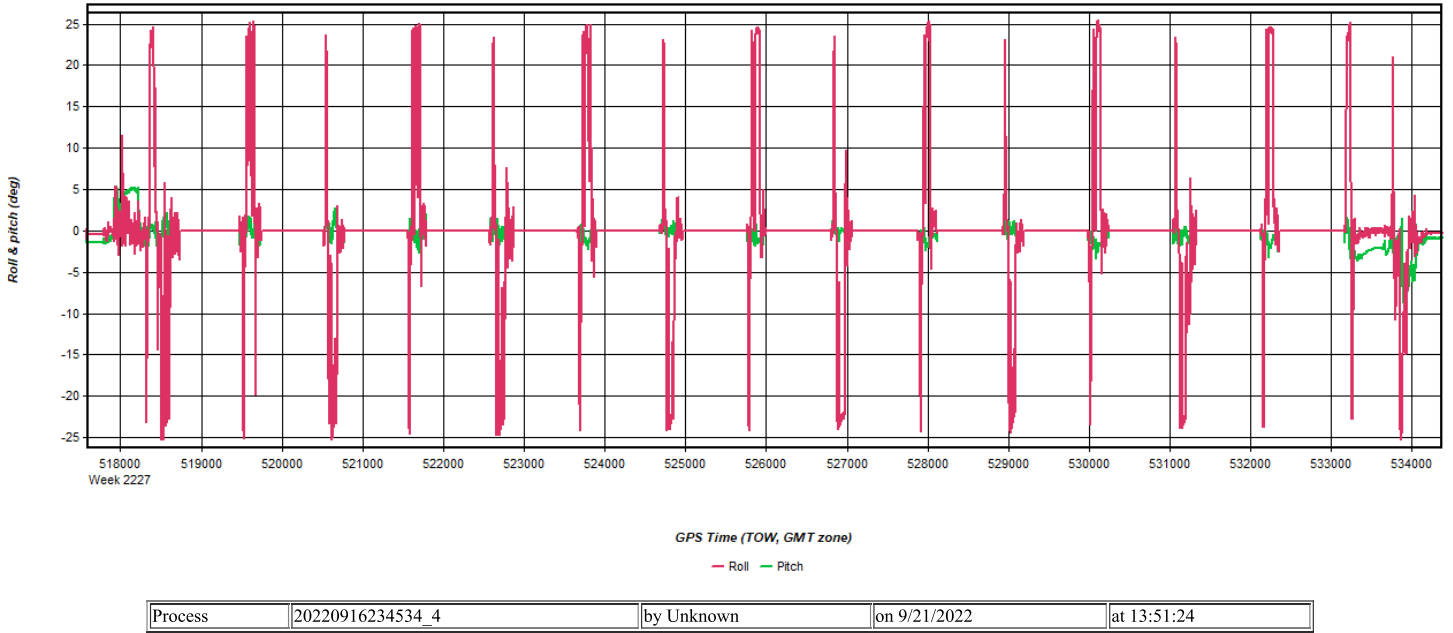


Figure 13: 20220916234534_4 [Smoothed TC Combined] - Velocity Profile Plot

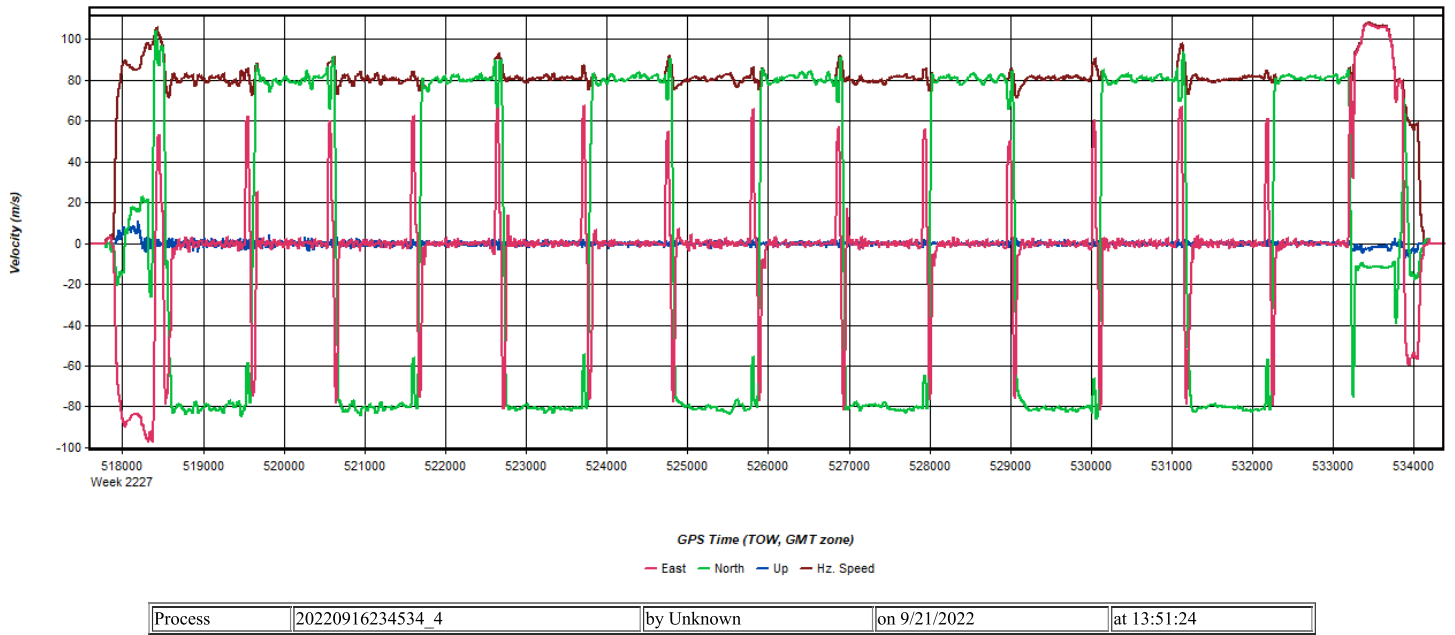


Figure 14: 20220916234534_4 [Smoothed TC Combined] - Body Frame Velocity Plot

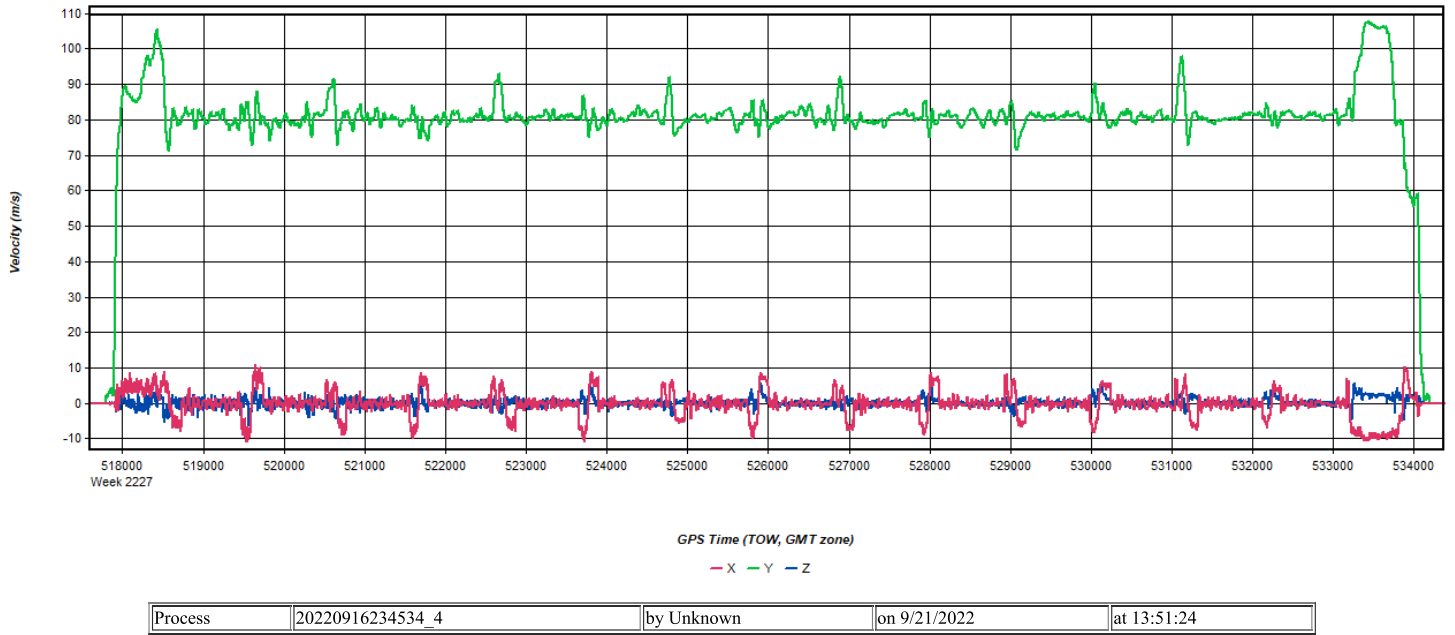


Figure 15: 20220916234534_4 [Smoothed TC Combined] - Height Profile Plot

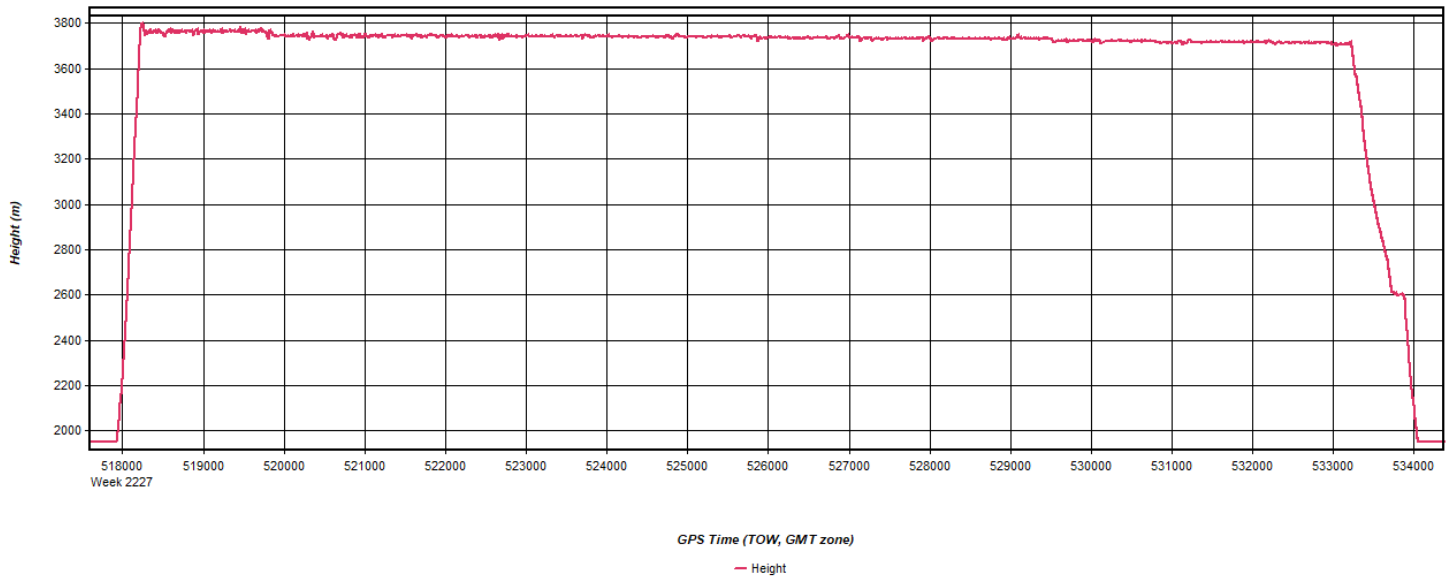


Figure 16: 20220916234534_4 [Smoothed TC Combined] - C/A Code Residual RMS Plot

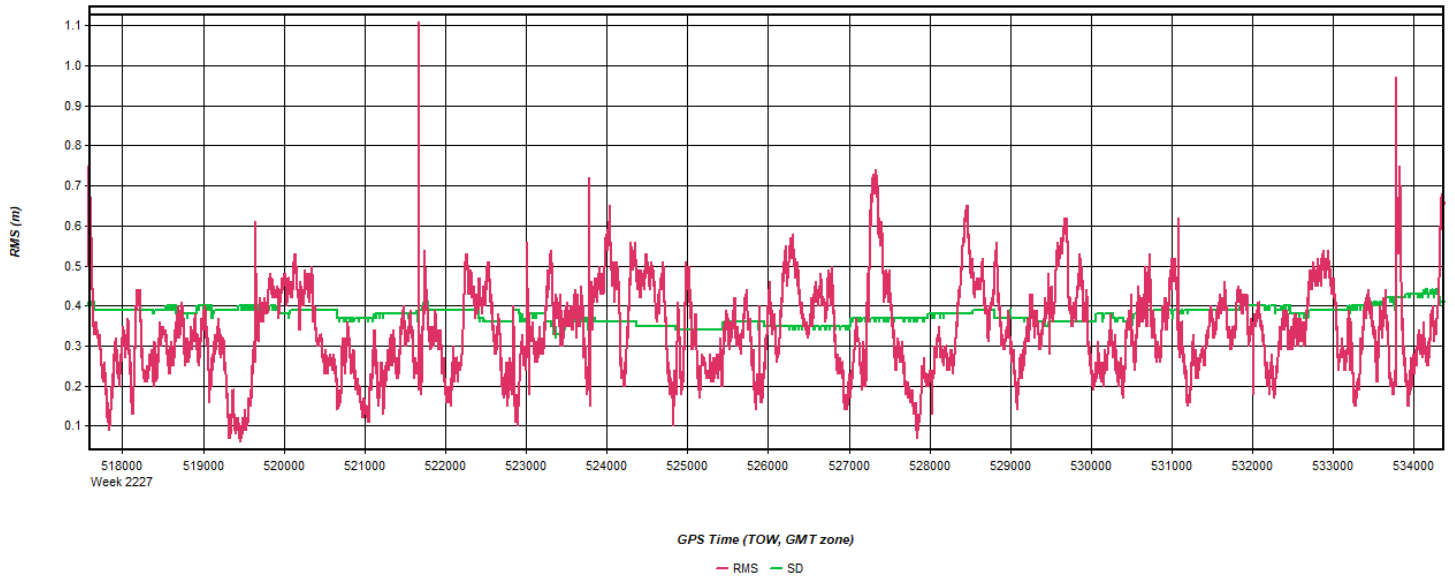


Figure 17: 20220916234534_4 [Smoothed TC Combined] - Carrier Residual RMS Plot

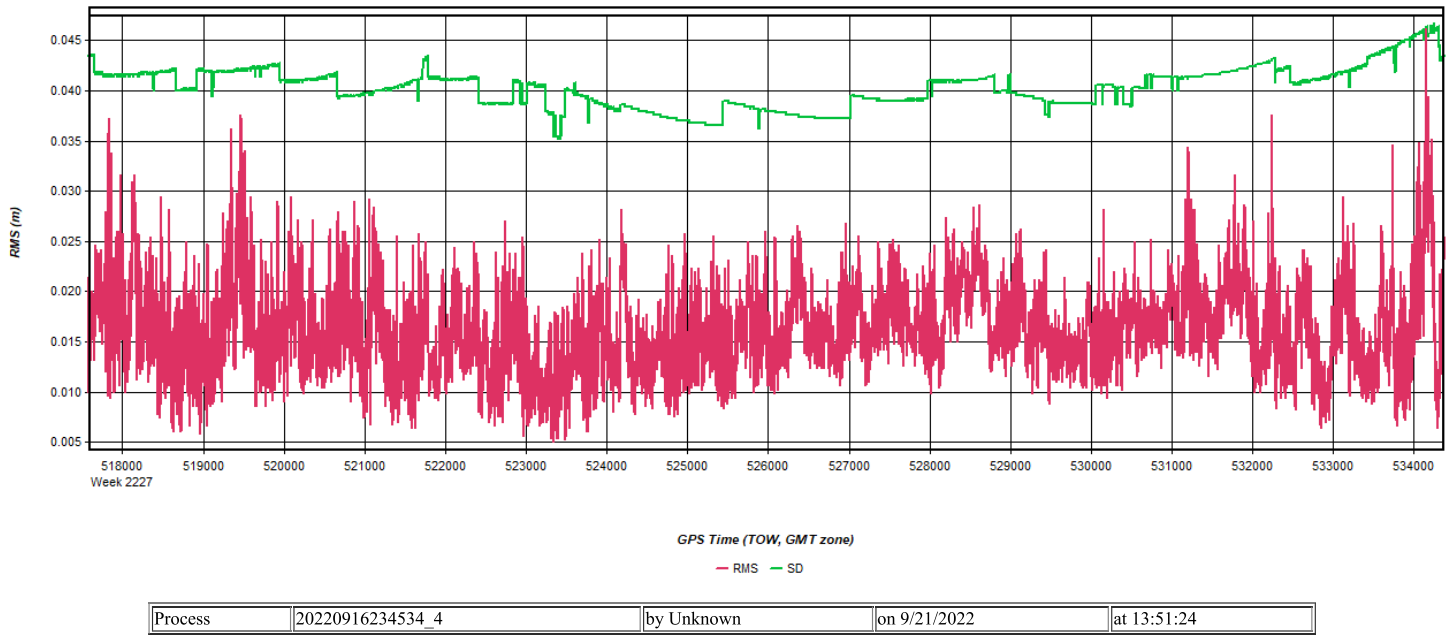
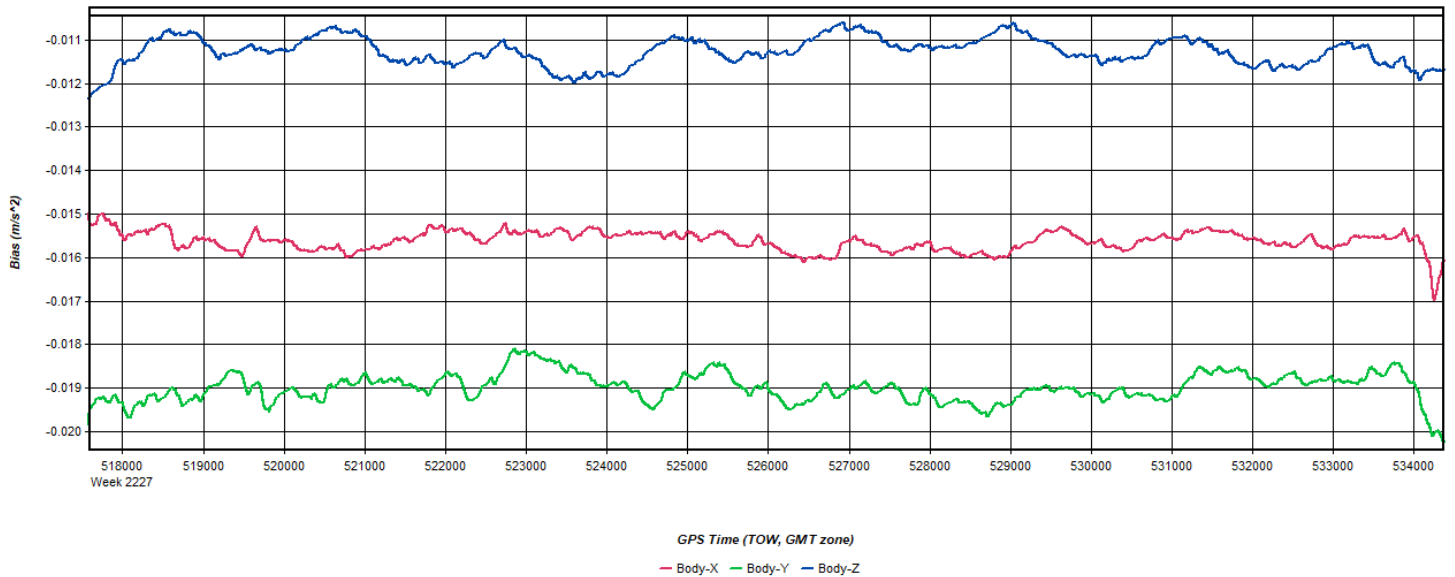


Figure 18: 20220916234534_4 [Smoothed TC Combined] - Doppler Residual RMS Plot

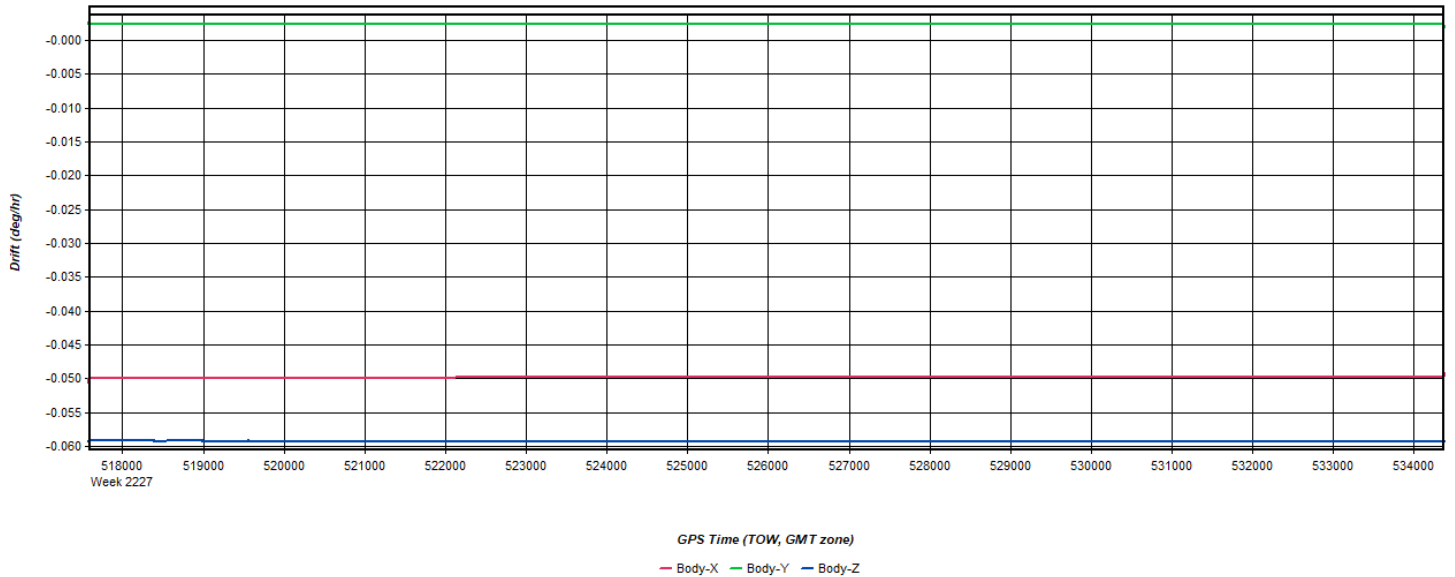


Figure 19: 20220916234534_4 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220916234534_4	by Unknown	on 9/21/2022	at 13:51:24
---------	------------------	------------	--------------	-------------

Figure 20: 20220916234534_4 [Smoothed TC Combined] - Gyro Drift Plot

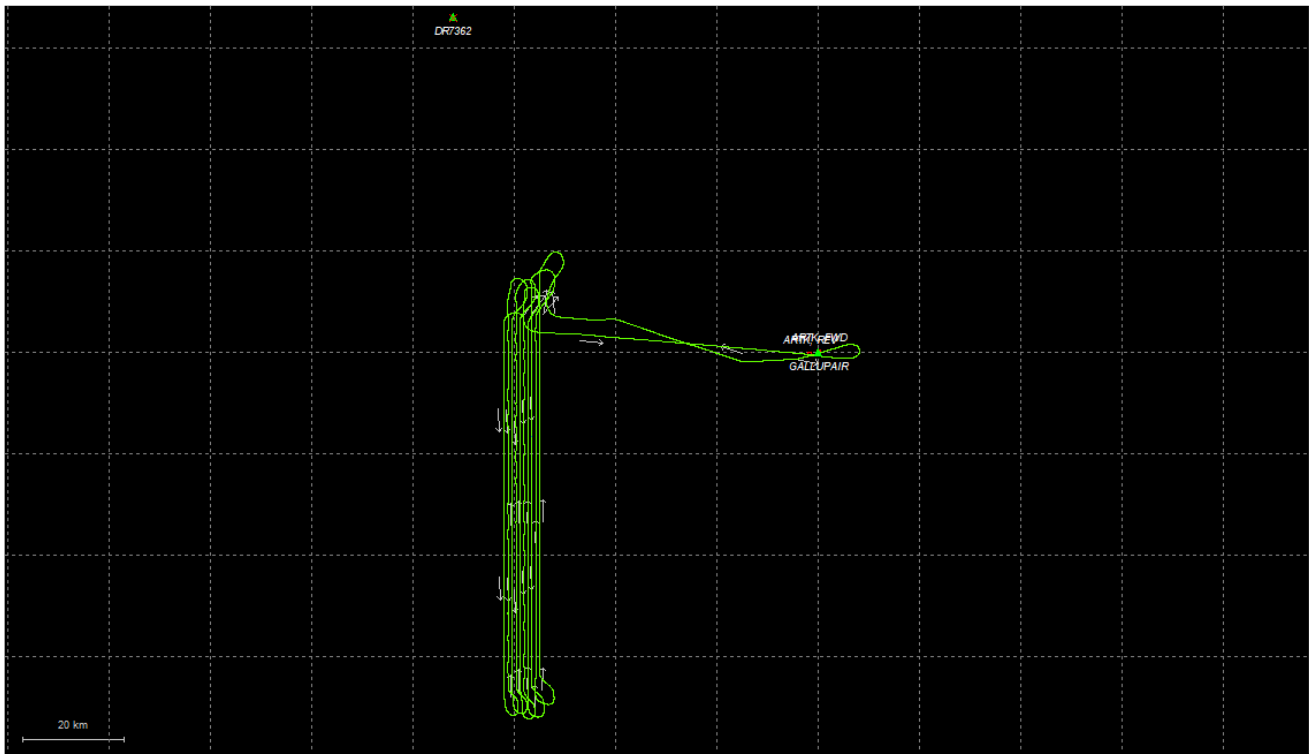


Process	20220916234534_4	by Unknown	on 9/21/2022	at 13:51:24
---------	------------------	------------	--------------	-------------

Output Results for 20220917143805_5

Inertial Explorer Version 8.90.2124
09/21/2022

Figure 1: Smoothed TC Combined - Map



Process	20220917143805_5	by Unknown	on 9/21/2022	at 16:40:34
---------	------------------	------------	--------------	-------------

Figure 2: 20220917143805_5 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220917143805_5	by Unknown	on 9/21/2022	at 16:40:34
---------	------------------	------------	--------------	-------------

Figure 3: 20220917143805_5 [Smoothed TC Combined] - Float or Fixed Ambiguity

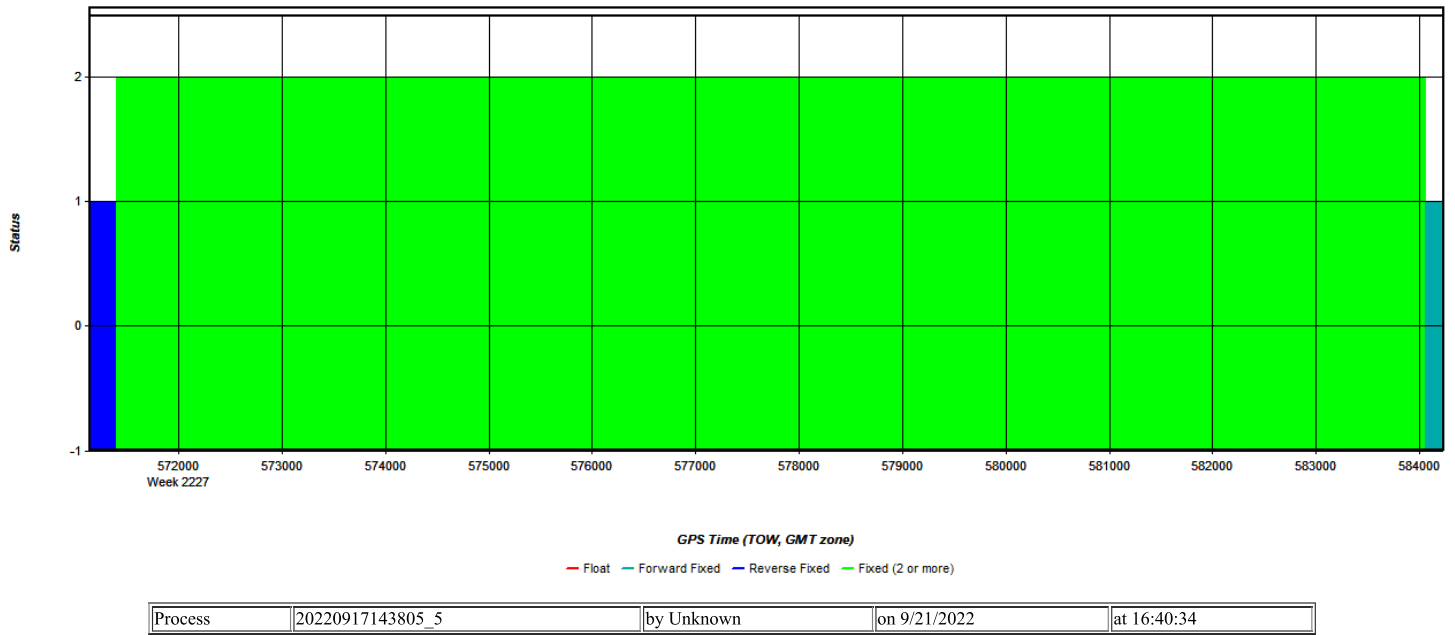


Figure 4: 20220917143805_5 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

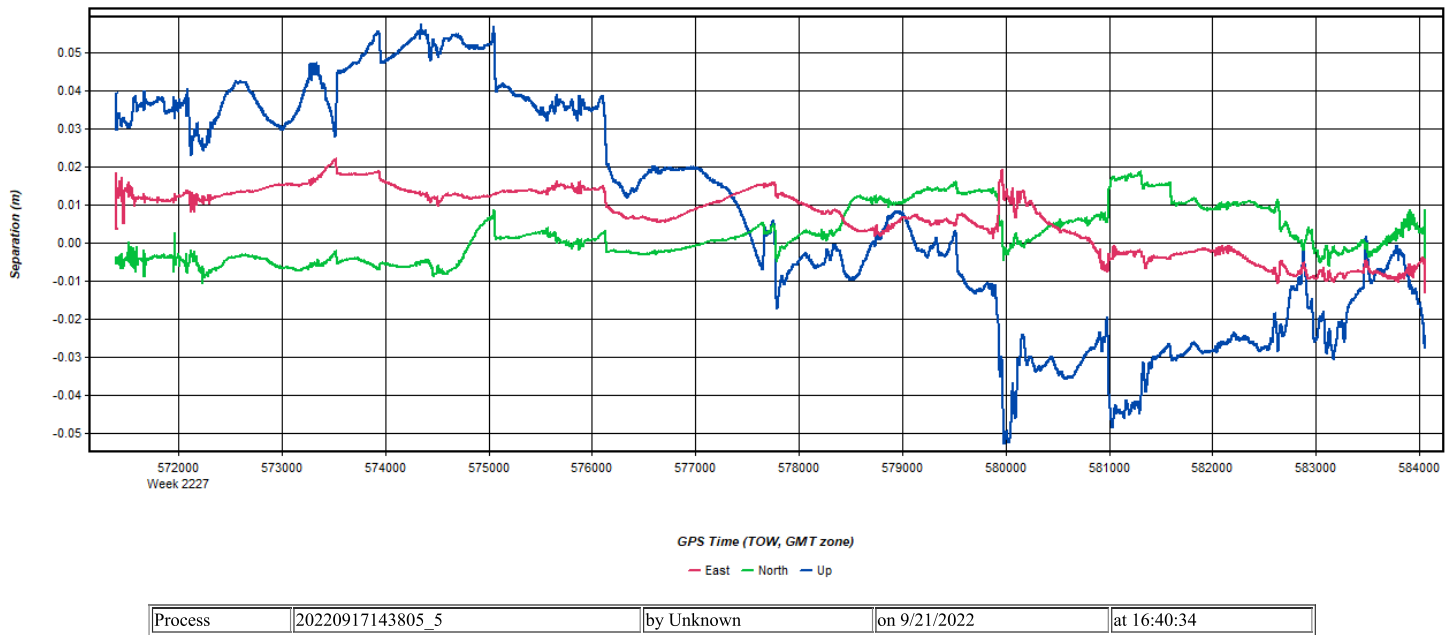


Figure 5: 20220917143805_5 [Smoothed TC Combined] - Estimated Position Accuracy Plot

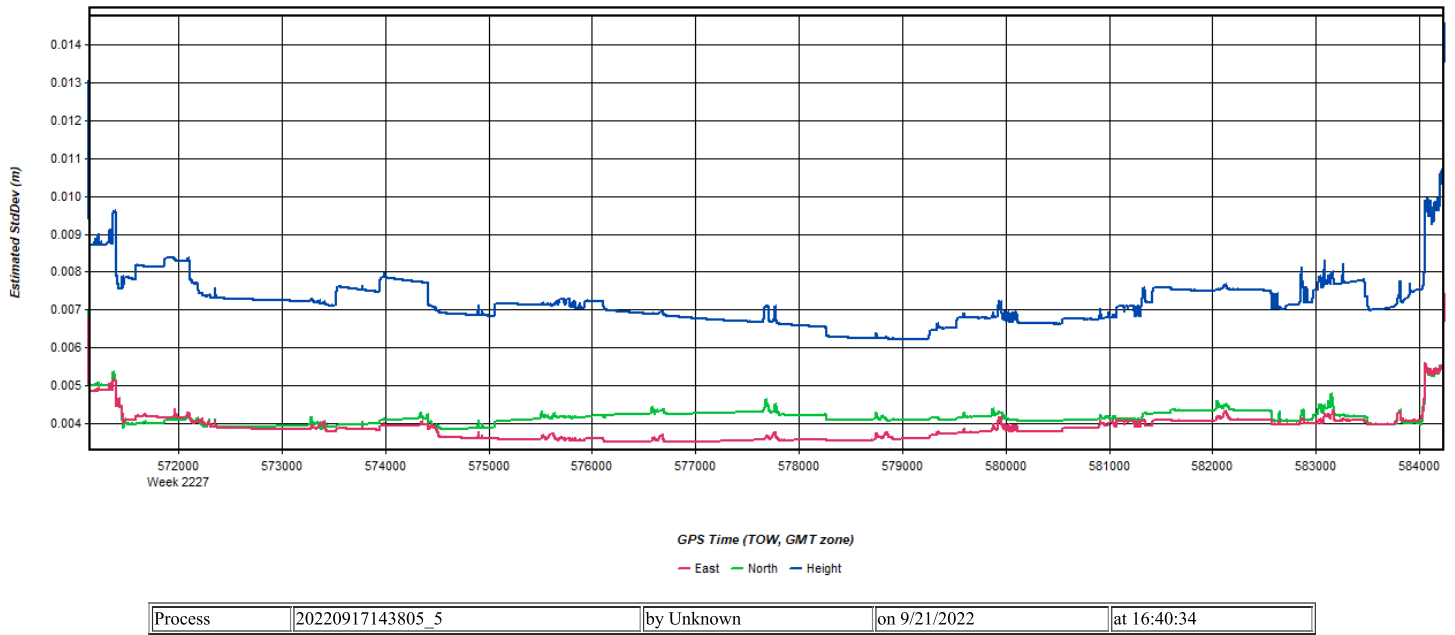


Figure 6: 20220917143805_5 [Smoothed TC Combined] - PDOP Plot

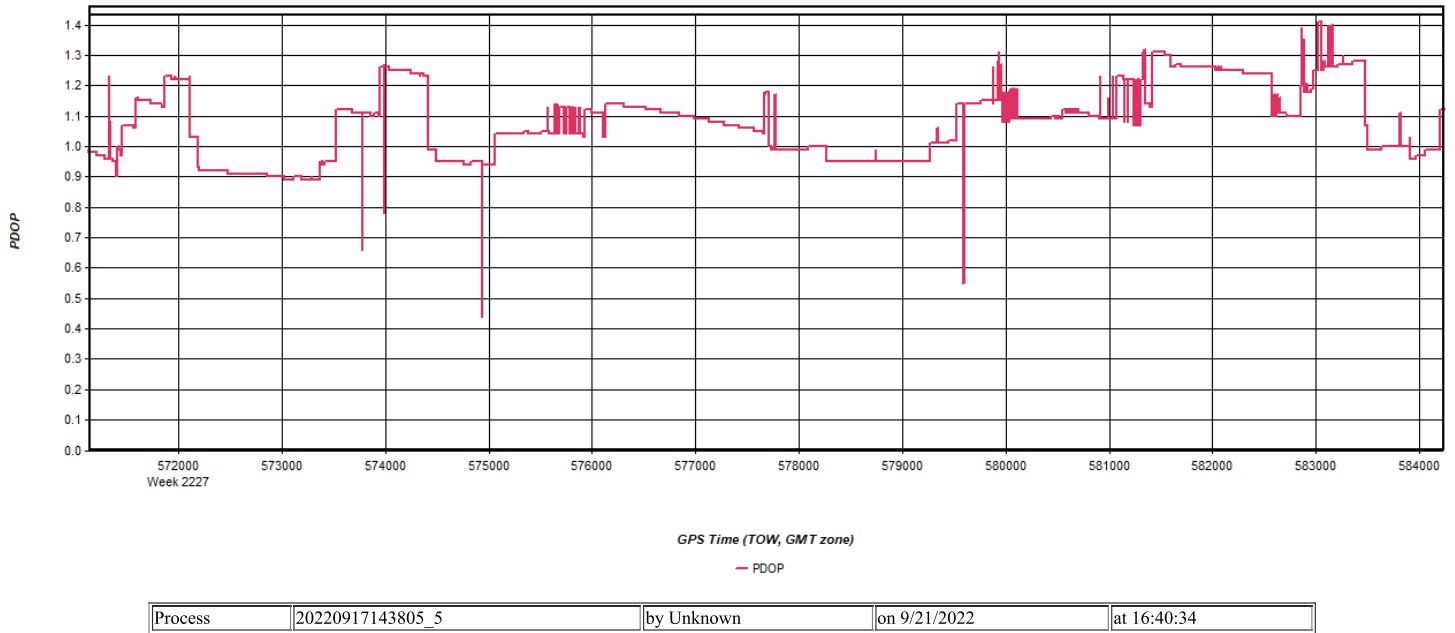


Figure 7: 20220917143805_5 [Smoothed TC Combined] - Number of Satellites Line Plot

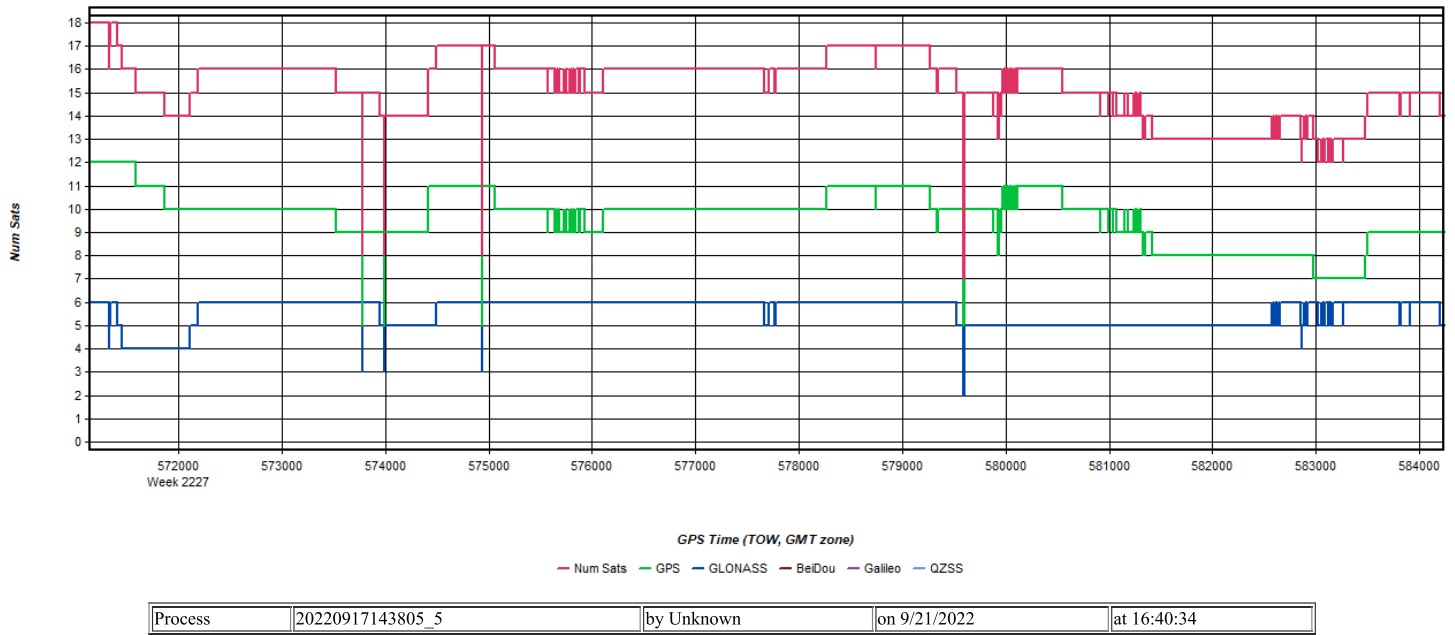


Figure 8: 20220917143805_5 [Smoothed TC Combined] - Status flag for IMU processing

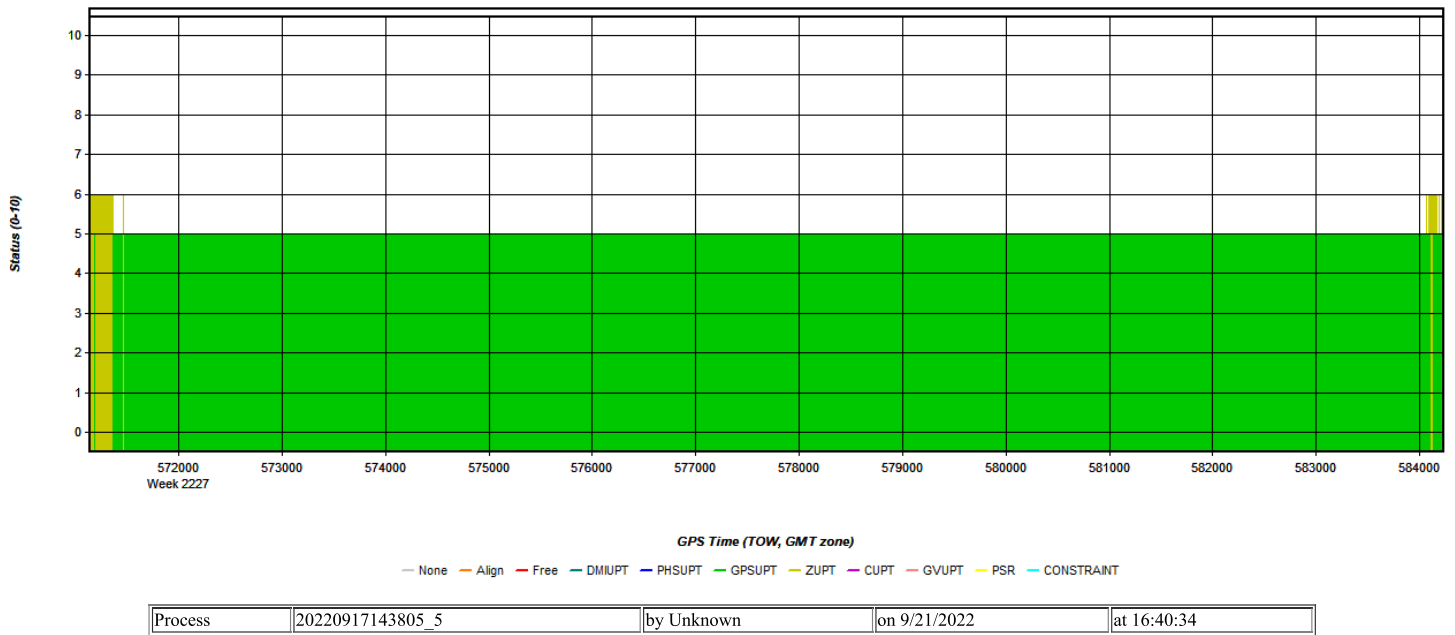


Figure 9: 20220917143805_5 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

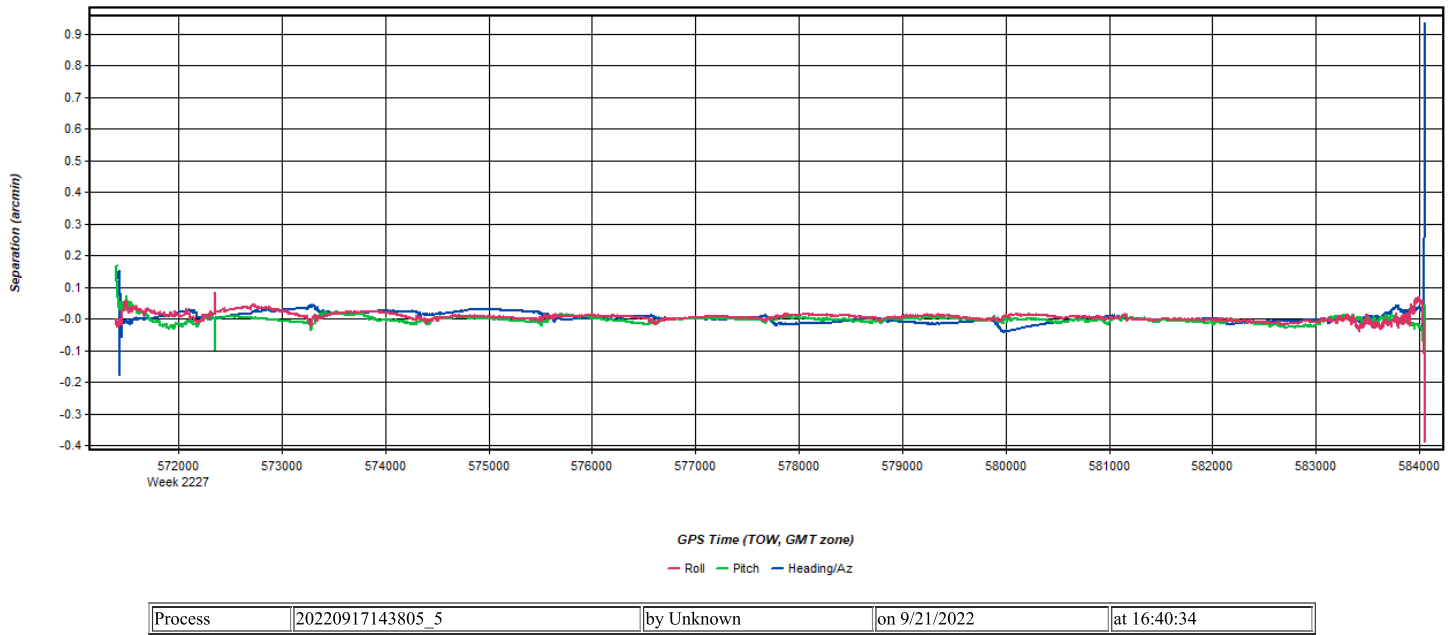


Figure 10: 20220917143805_5 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

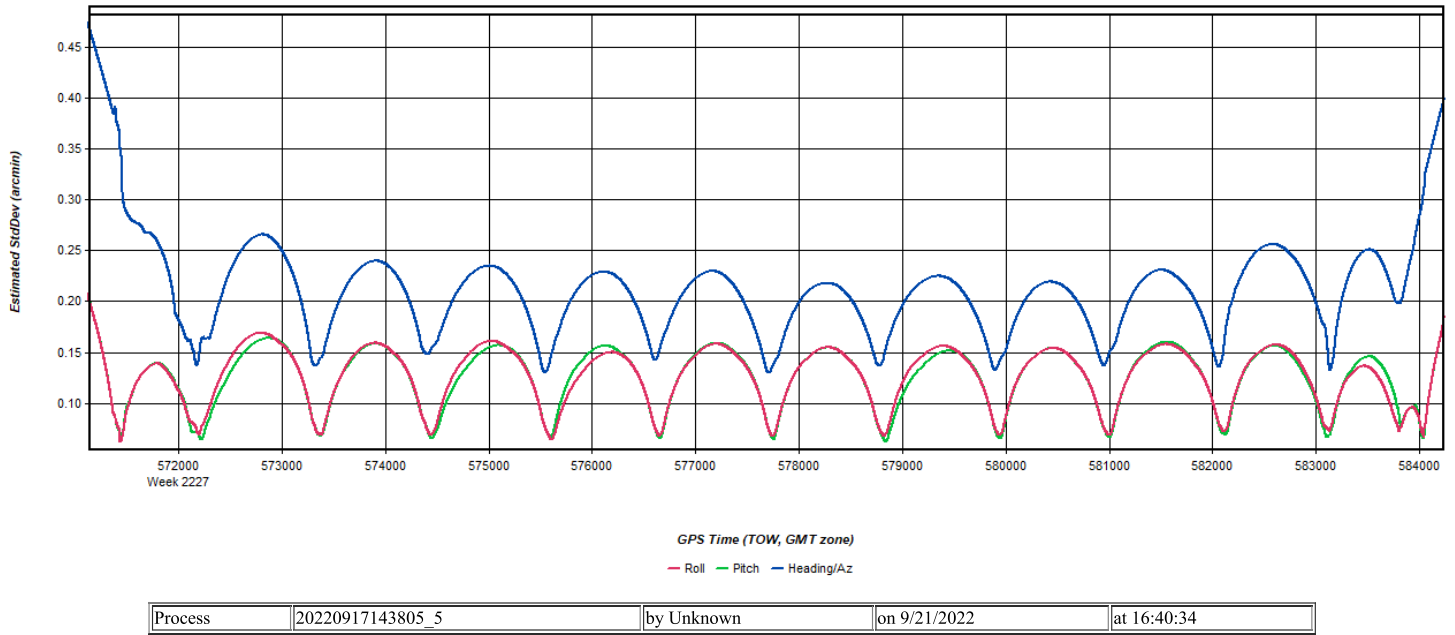


Figure 11: 20220917143805_5 [Smoothed TC Combined] - Azimuth Plot

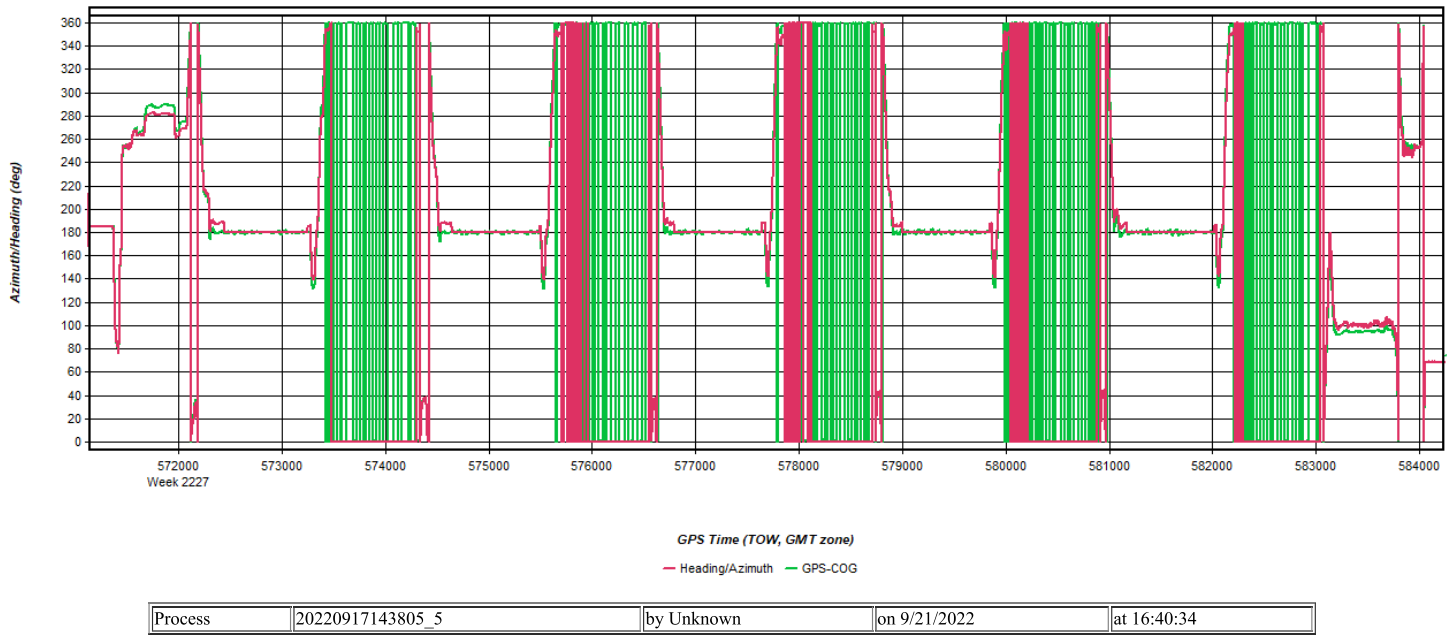


Figure 12: 20220917143805_5 [Smoothed TC Combined] - Roll & Pitch Plot

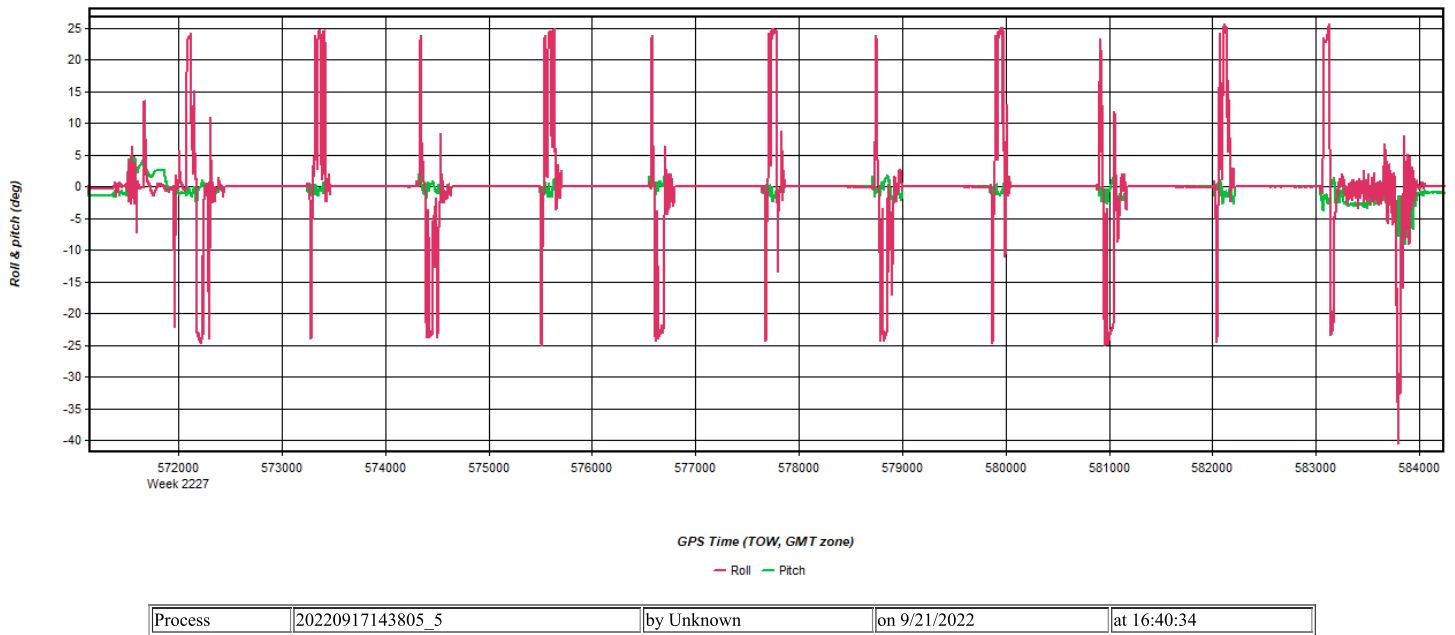


Figure 13: 20220917143805_5 [Smoothed TC Combined] - Velocity Profile Plot

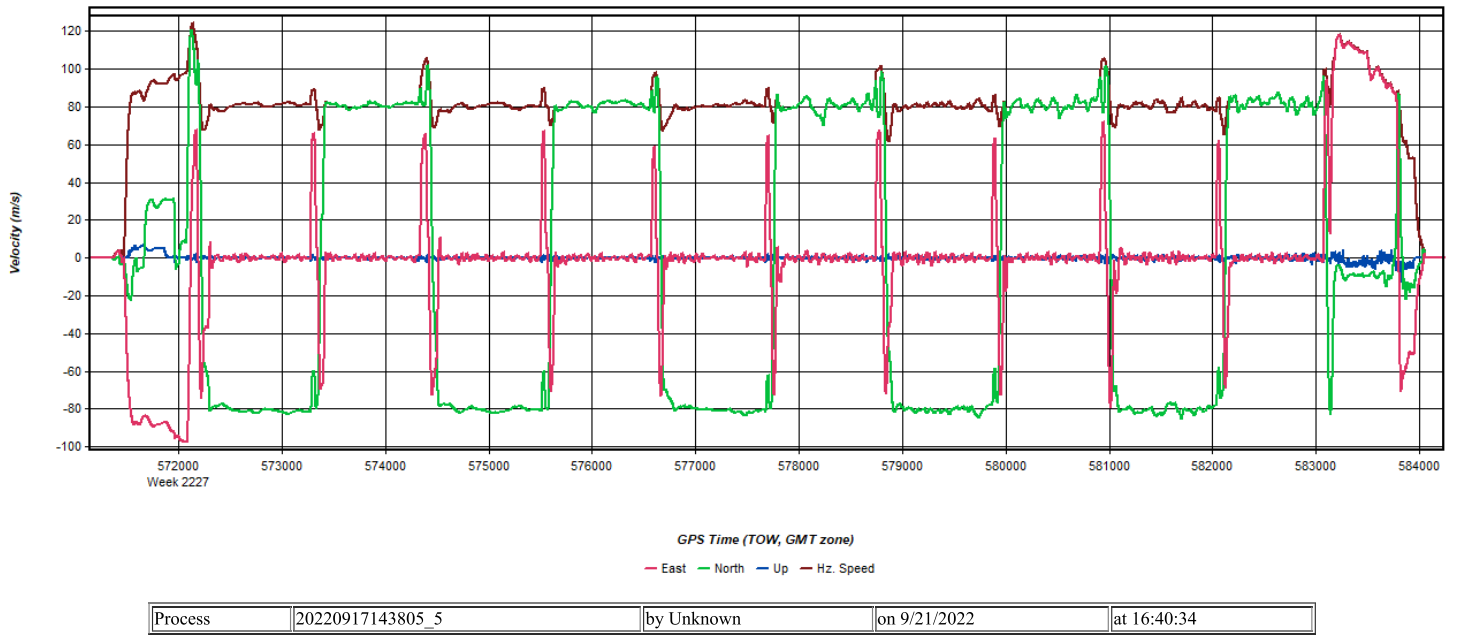
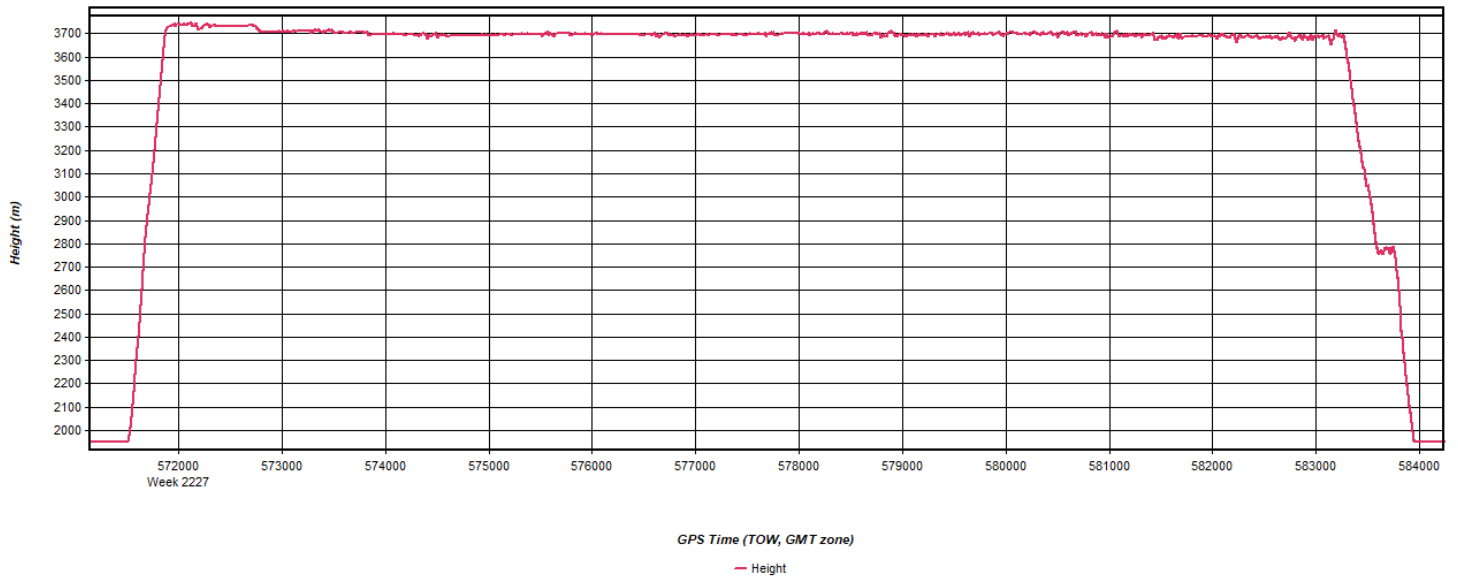


Figure 14: 20220917143805_5 [Smoothed TC Combined] - Body Frame Velocity Plot

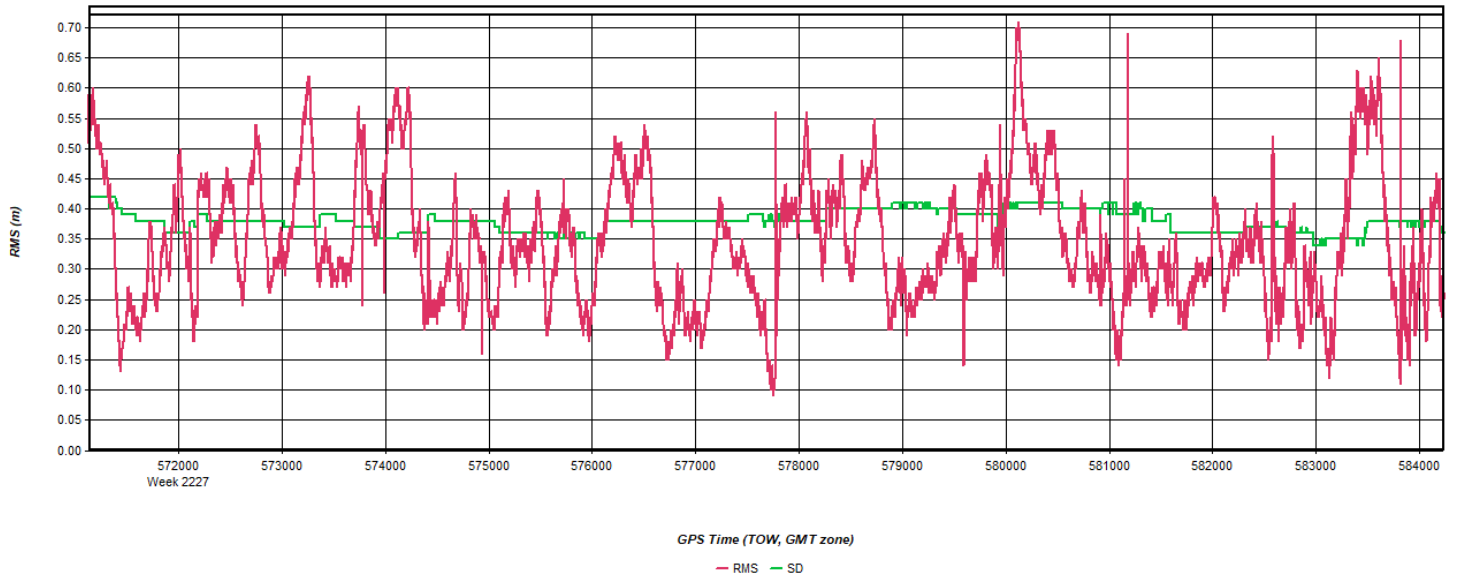


Figure 15: 20220917143805_5 [Smoothed TC Combined] - Height Profile Plot



Process	20220917143805_5	by Unknown	on 9/21/2022	at 16:40:34
---------	------------------	------------	--------------	-------------

Figure 16: 20220917143805_5 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20220917143805_5	by Unknown	on 9/21/2022	at 16:40:34
---------	------------------	------------	--------------	-------------

Figure 17: 20220917143805_5 [Smoothed TC Combined] - Carrier Residual RMS Plot

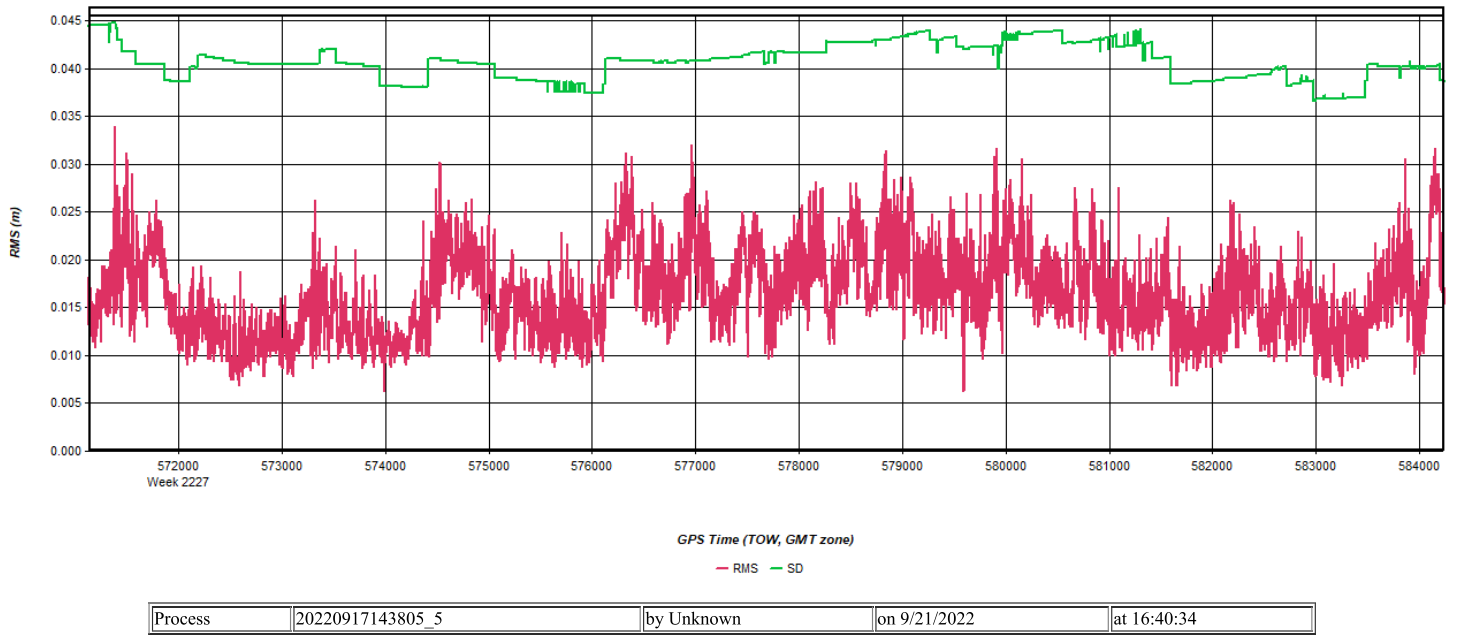


Figure 18: 20220917143805_5 [Smoothed TC Combined] - Doppler Residual RMS Plot

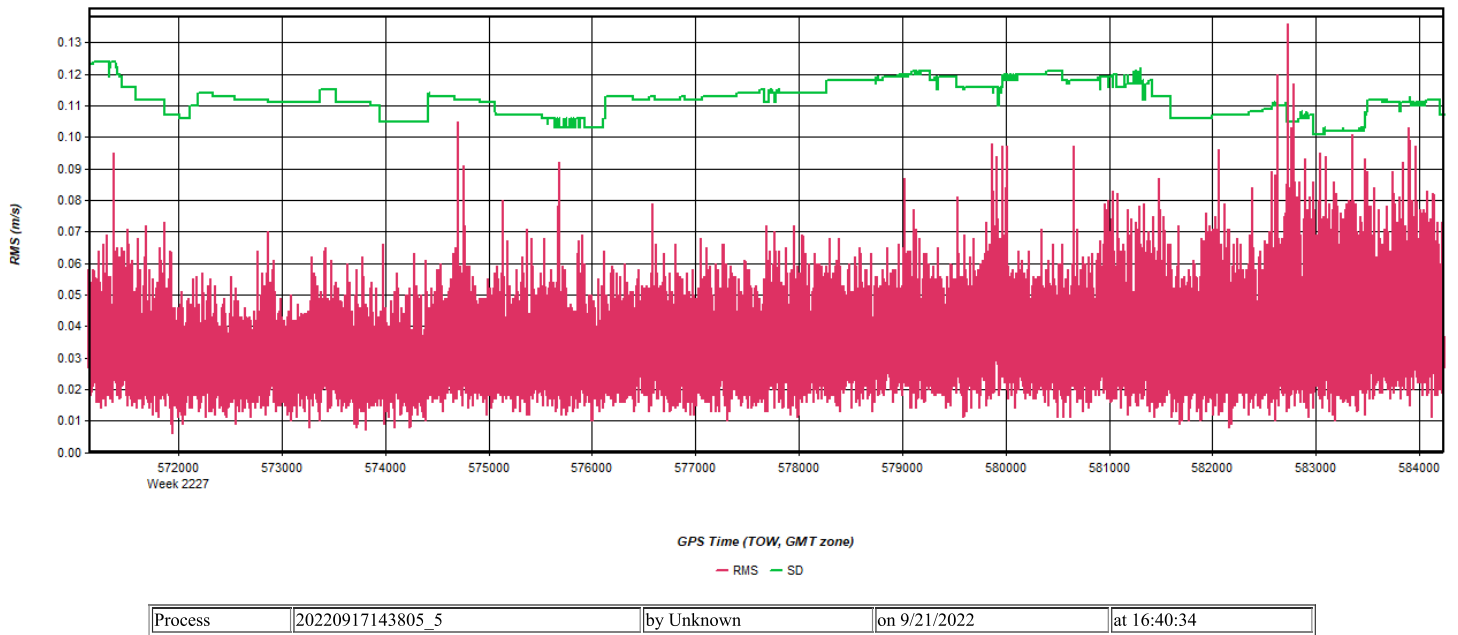


Figure 19: 20220917143805_5 [Smoothed TC Combined] - Accelerometer Bias Plot

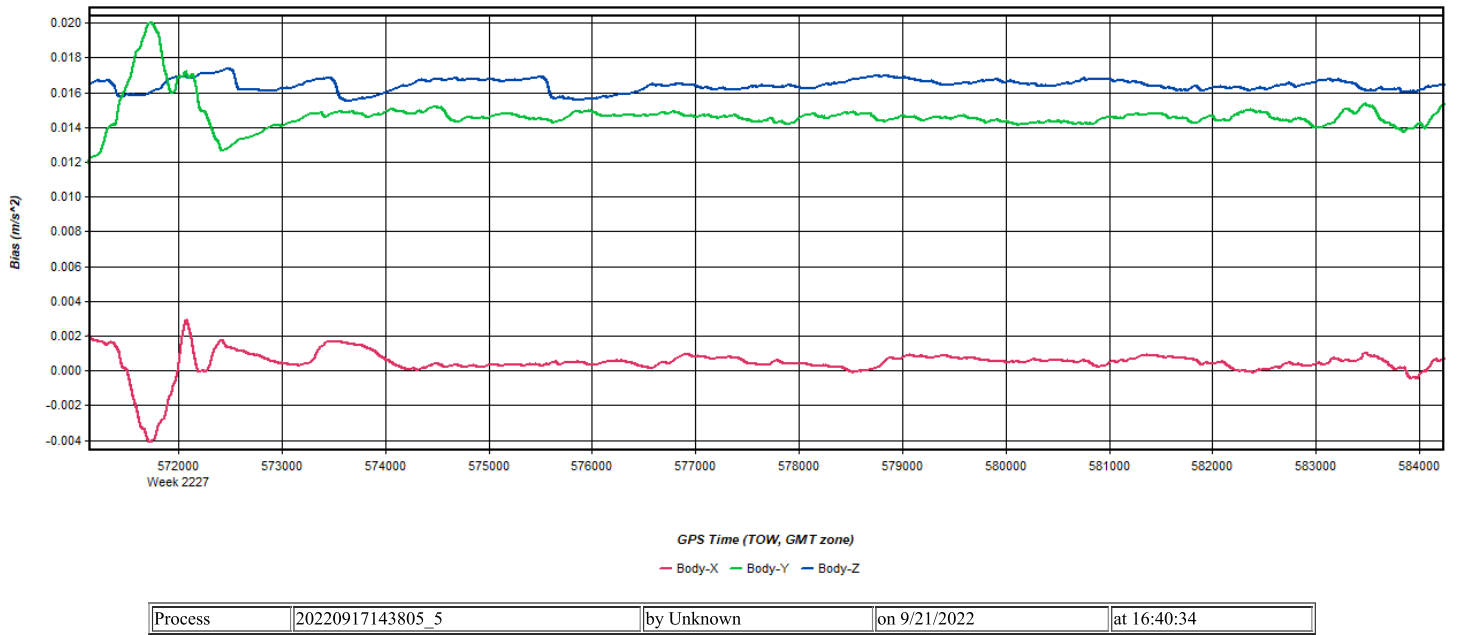
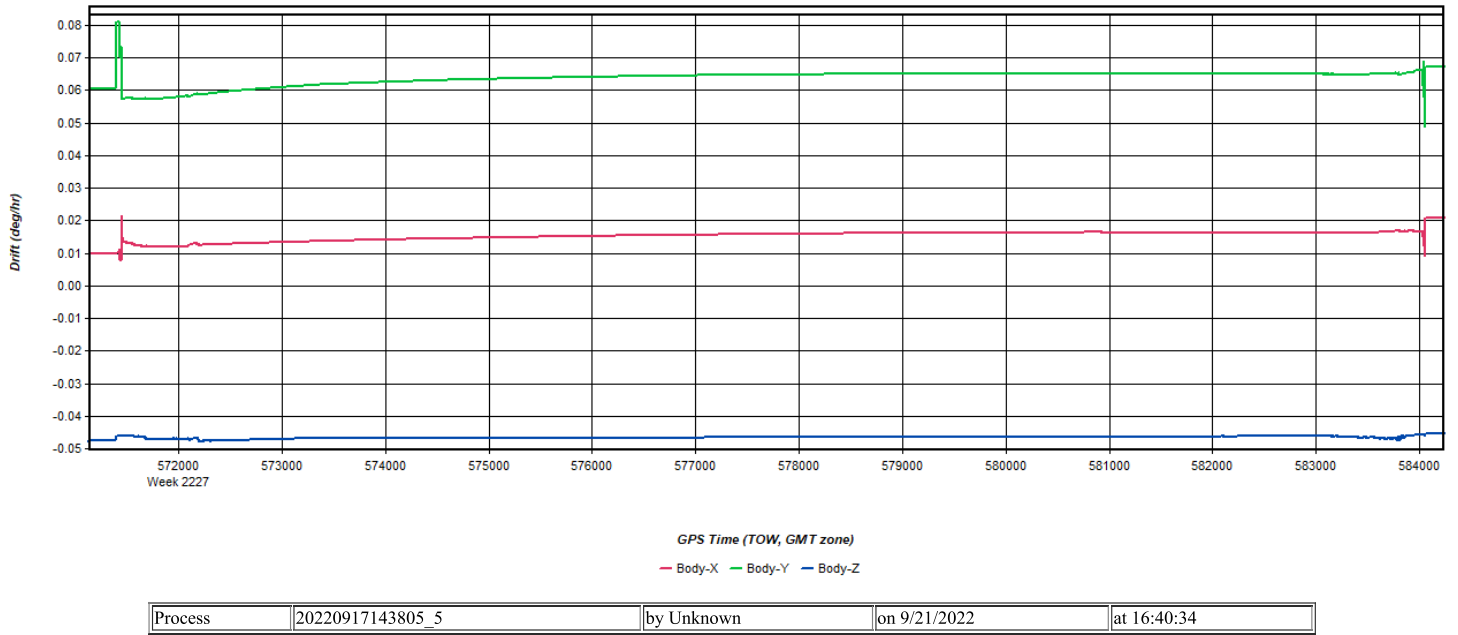


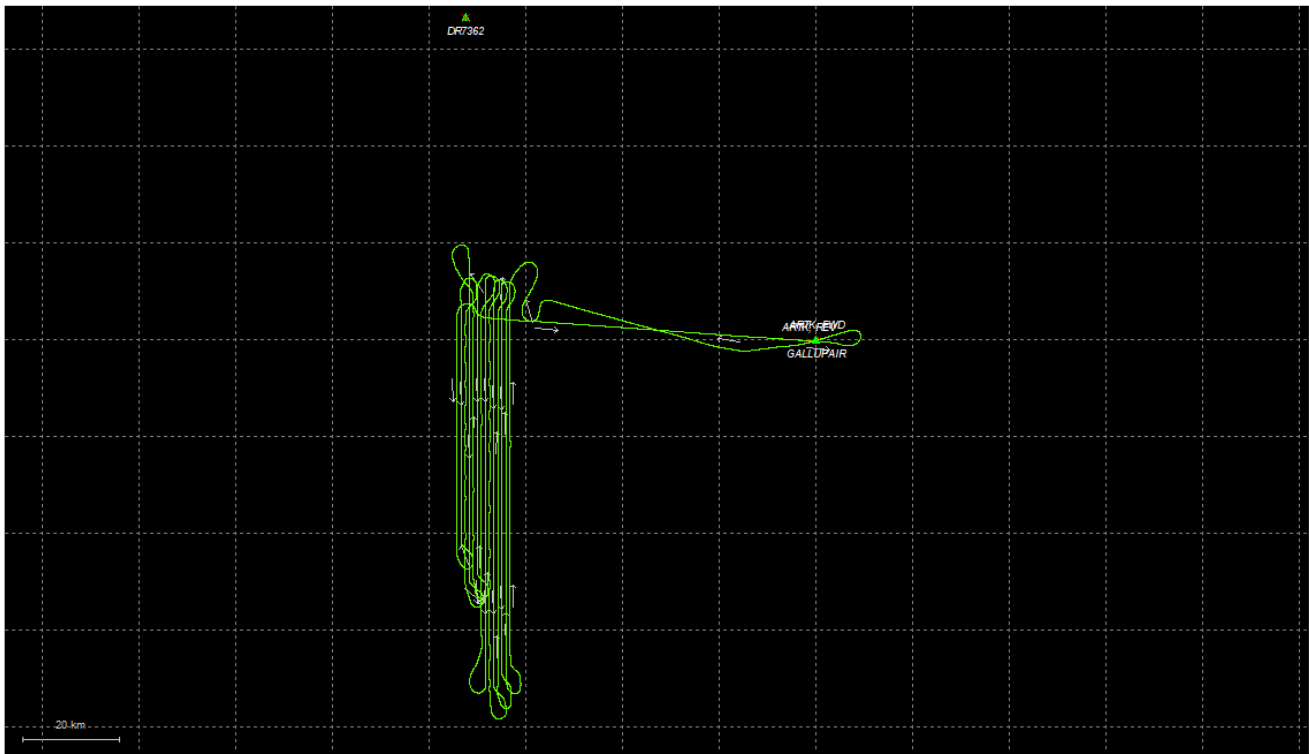
Figure 20: 20220917143805_5 [Smoothed TC Combined] - Gyro Drift Plot



Output Results for 20220917234411_6

Inertial Explorer Version 8.90.2124
09/22/2022

Figure 1: Smoothed TC Combined - Map



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 2: 20220917234411_6 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 3: 20220917234411_6 [Smoothed TC Combined] - Float or Fixed Ambiguity

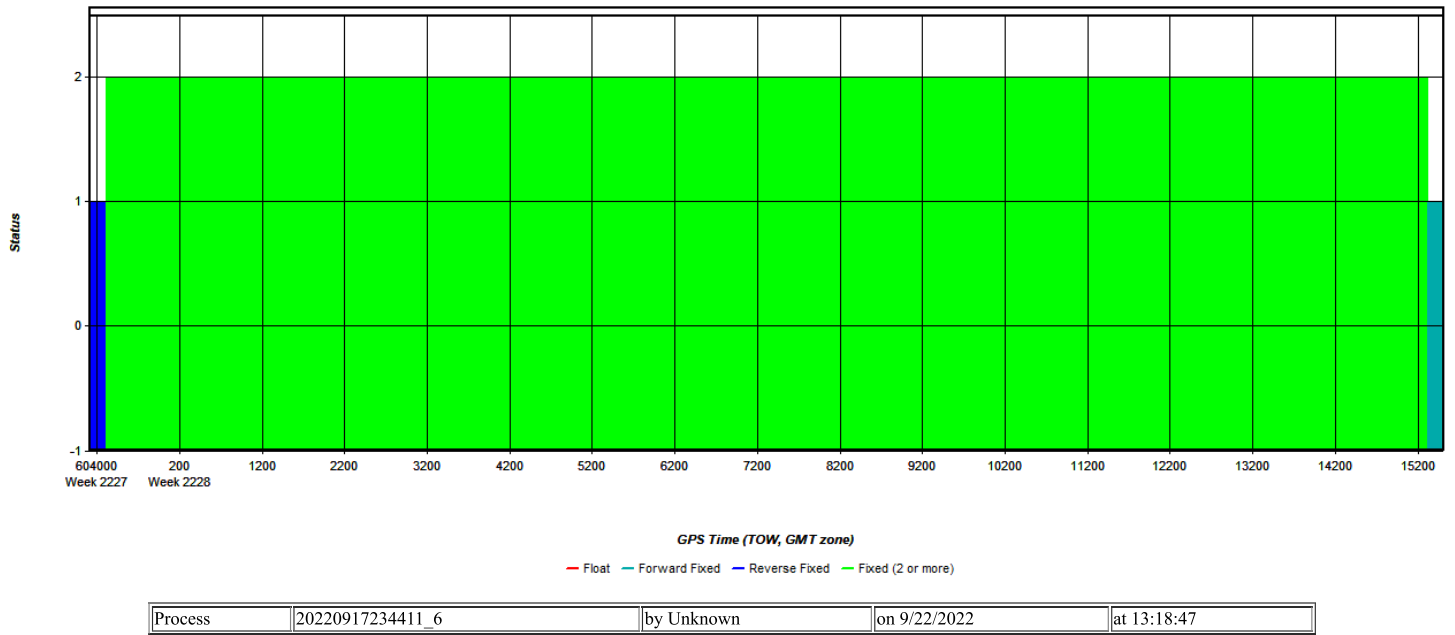


Figure 4: 20220917234411_6 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

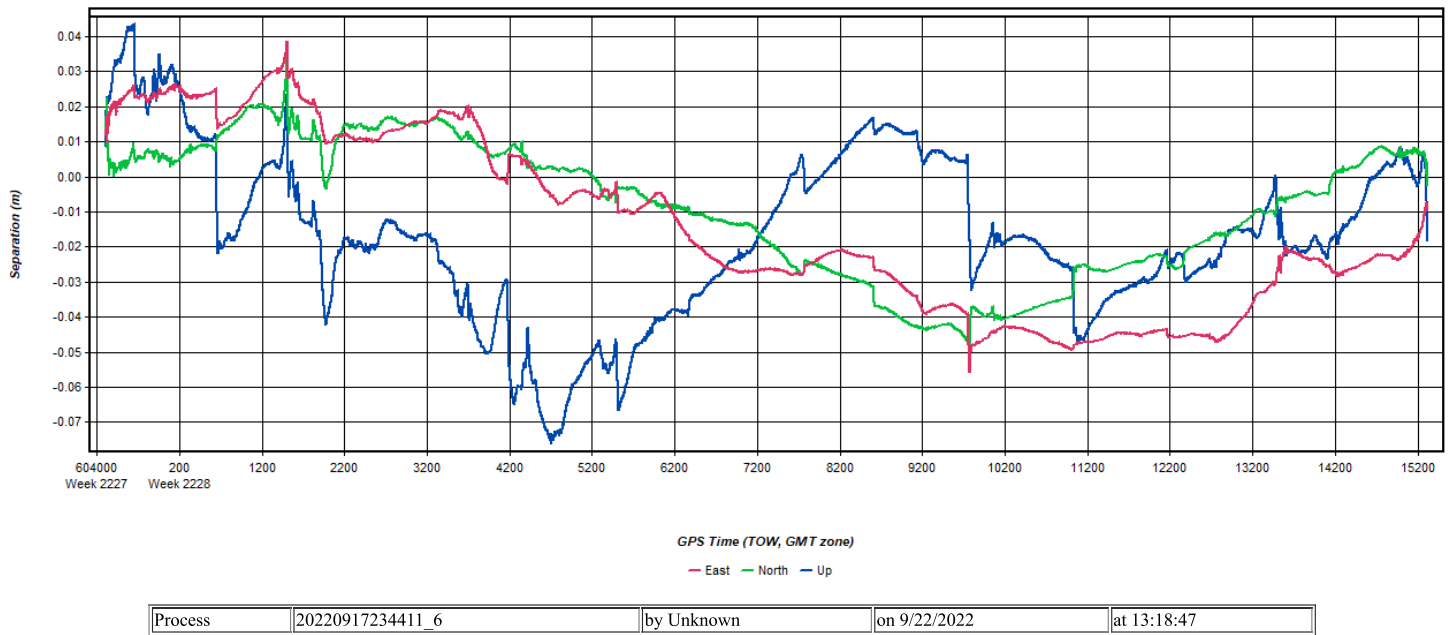
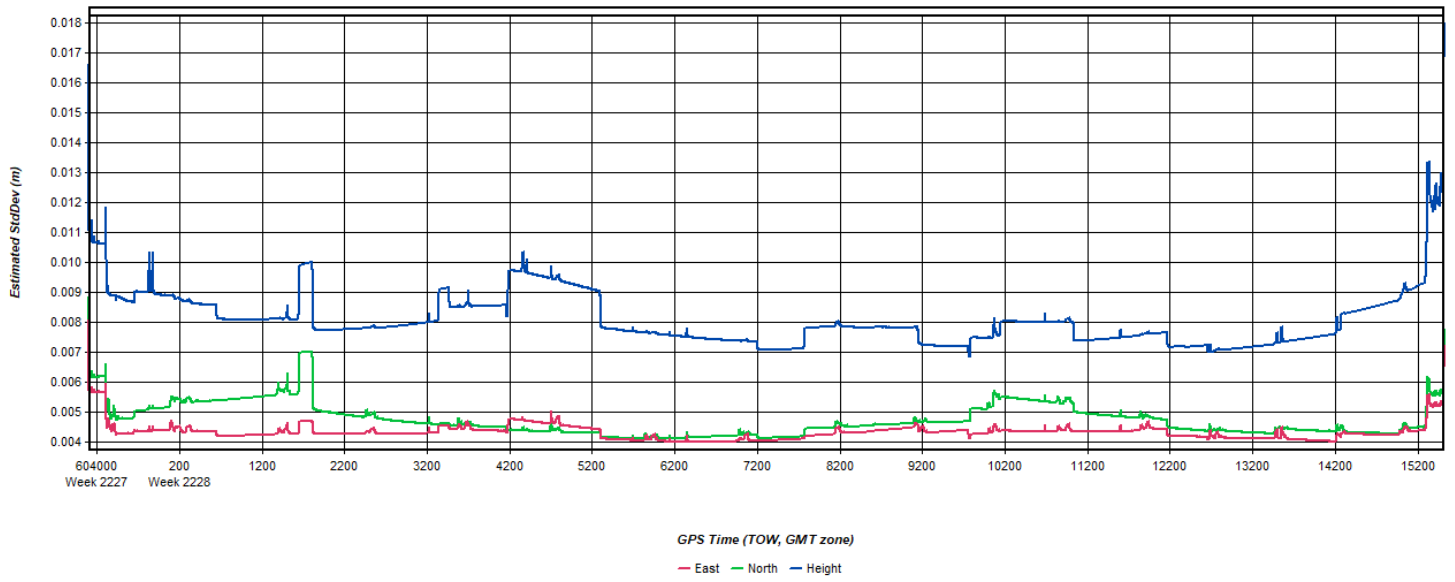
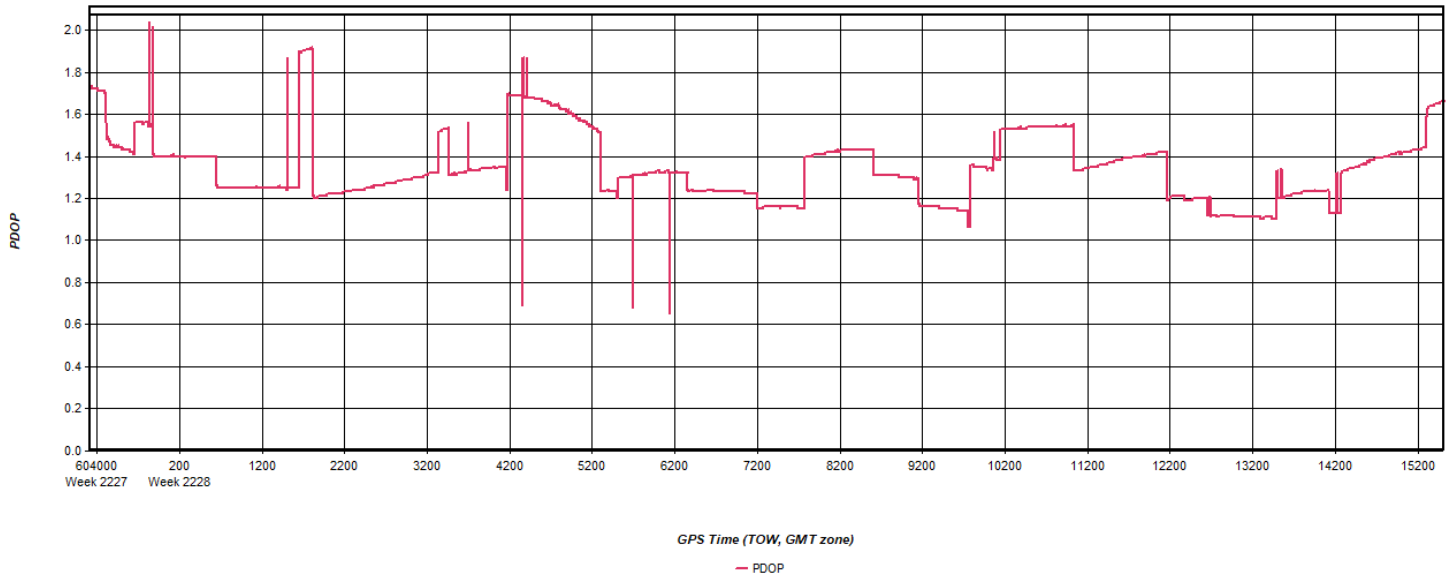


Figure 5: 20220917234411_6 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 6: 20220917234411_6 [Smoothed TC Combined] - PDOP Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 7: 20220917234411_6 [Smoothed TC Combined] - Number of Satellites Line Plot

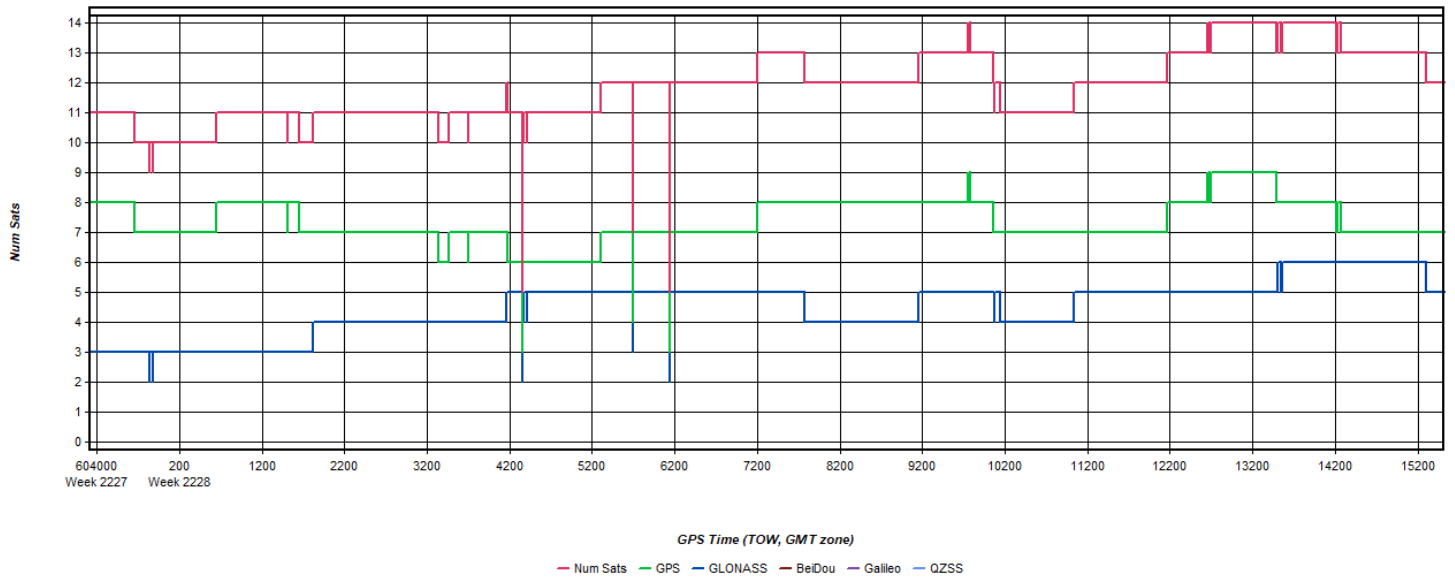


Figure 8: 20220917234411_6 [Smoothed TC Combined] - Status flag for IMU processing

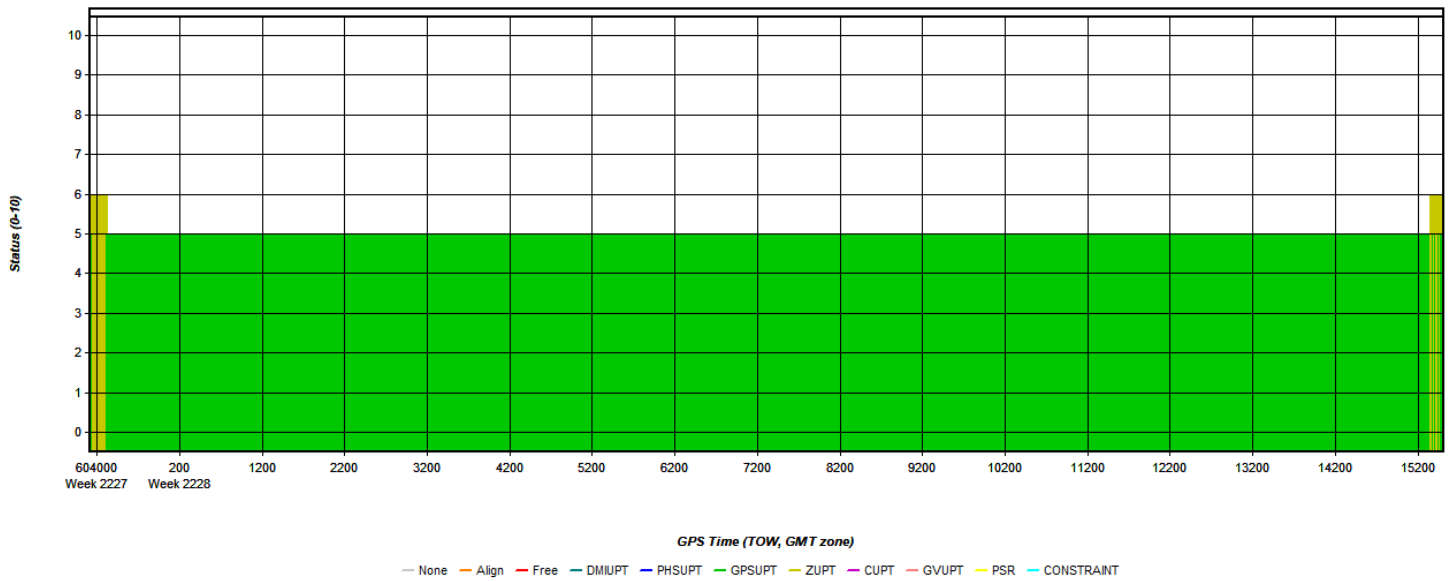
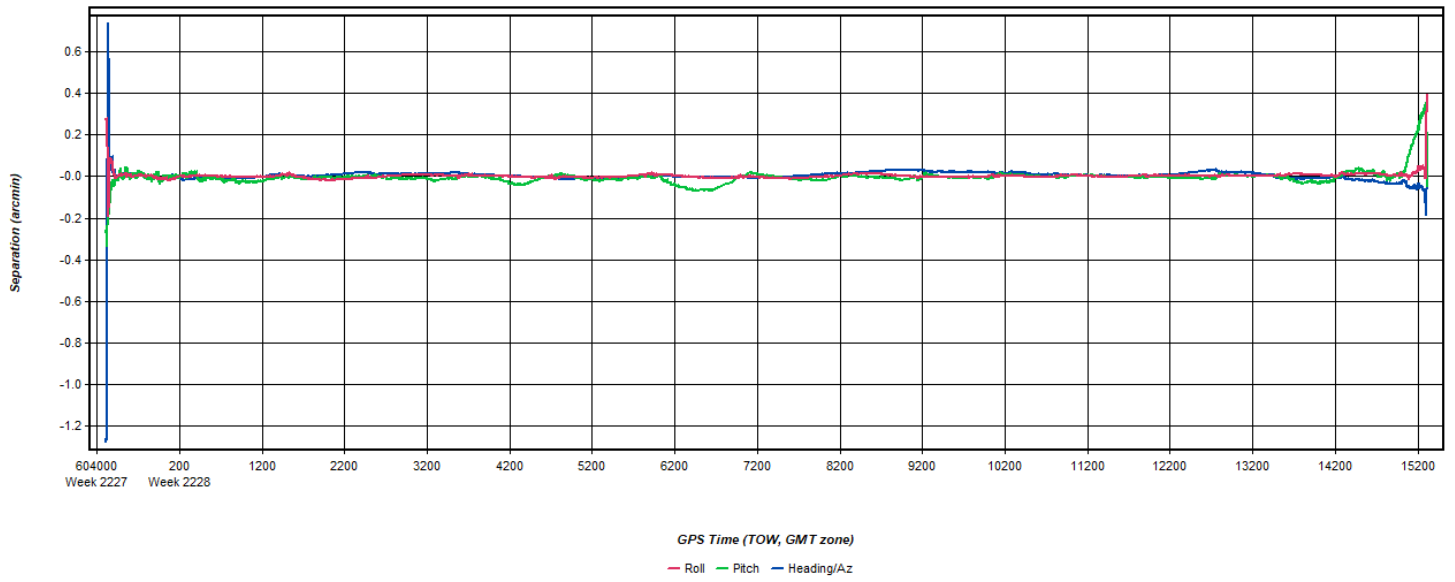
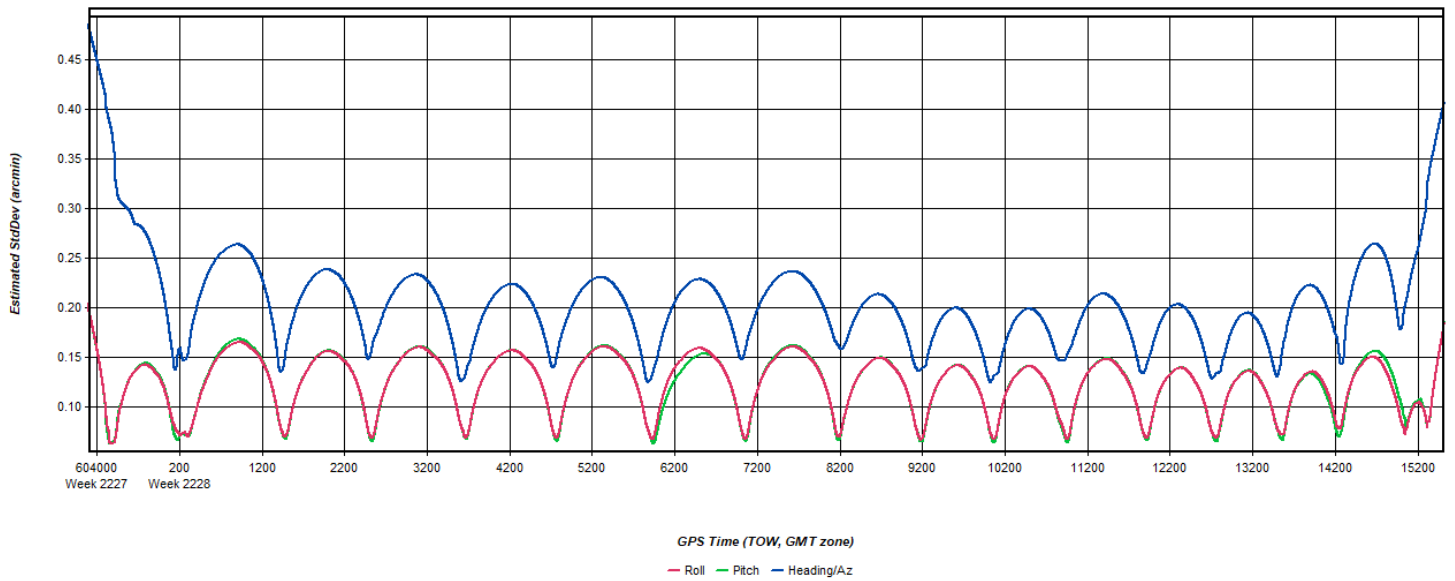


Figure 9: 20220917234411_6 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 10: 20220917234411_6 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 11: 20220917234411_6 [Smoothed TC Combined] - Azimuth Plot

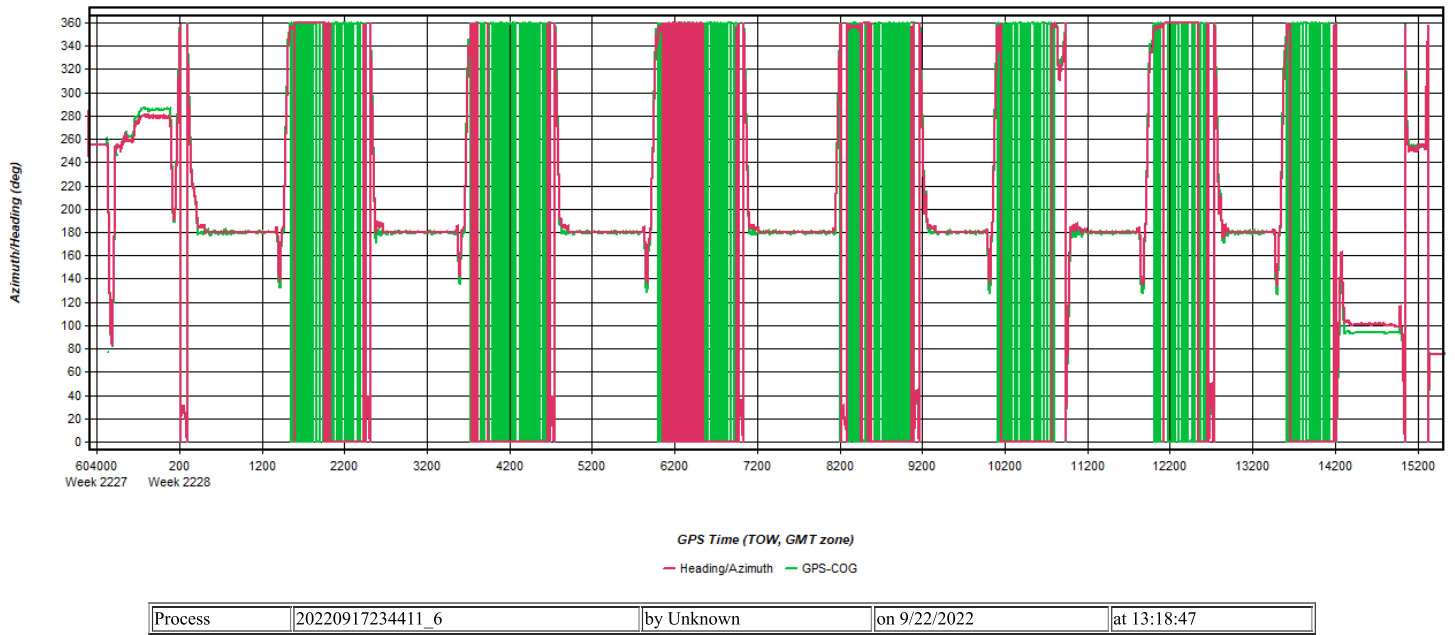


Figure 12: 20220917234411_6 [Smoothed TC Combined] - Roll & Pitch Plot

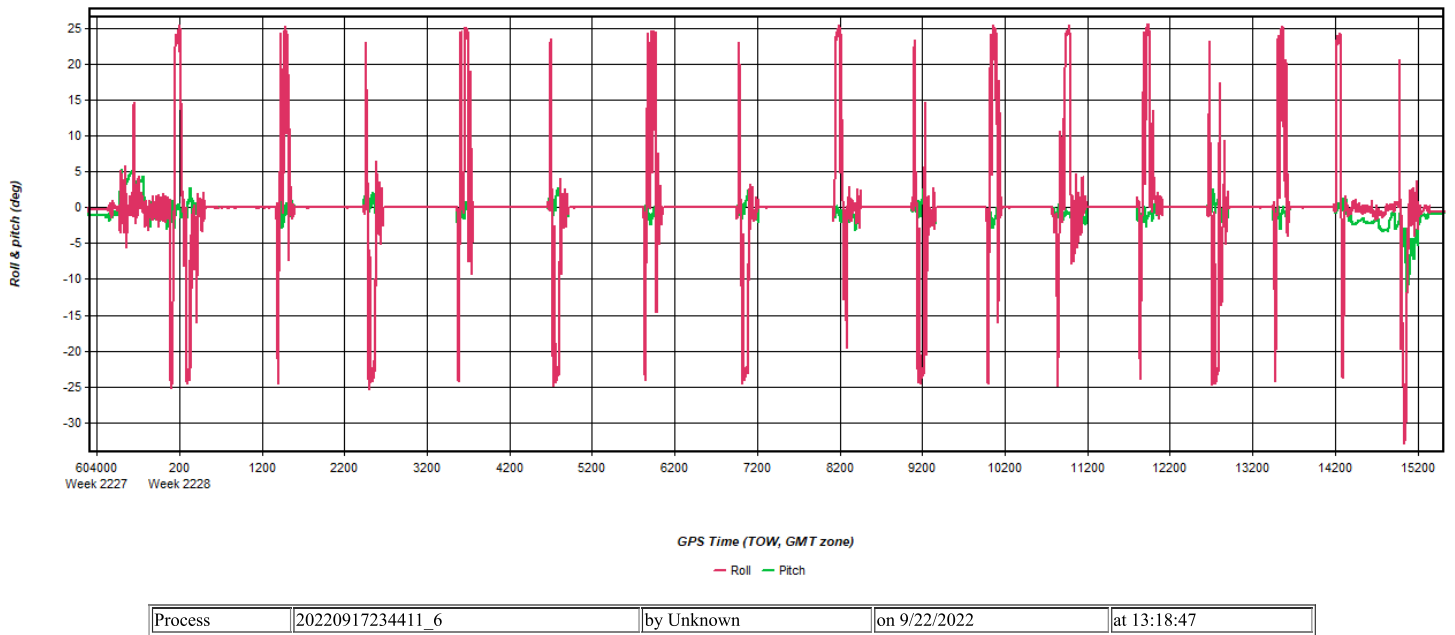


Figure 13: 20220917234411_6 [Smoothed TC Combined] - Velocity Profile Plot

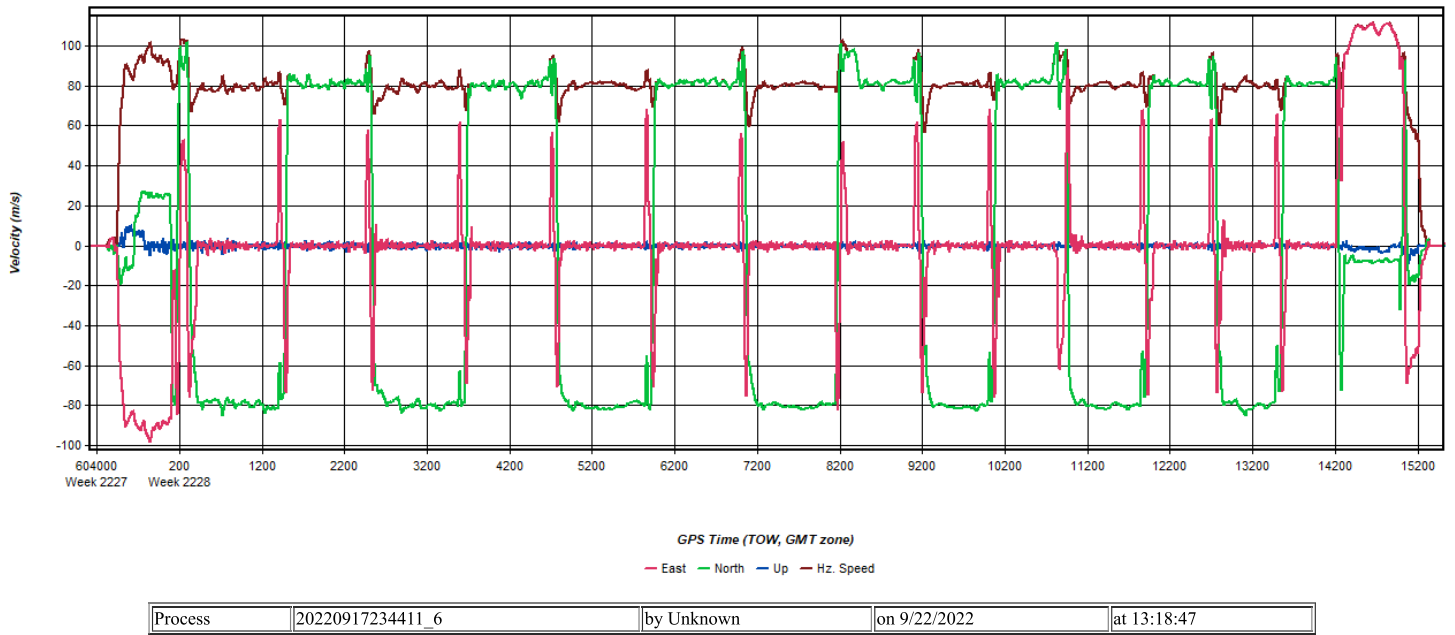


Figure 14: 20220917234411_6 [Smoothed TC Combined] - Body Frame Velocity Plot

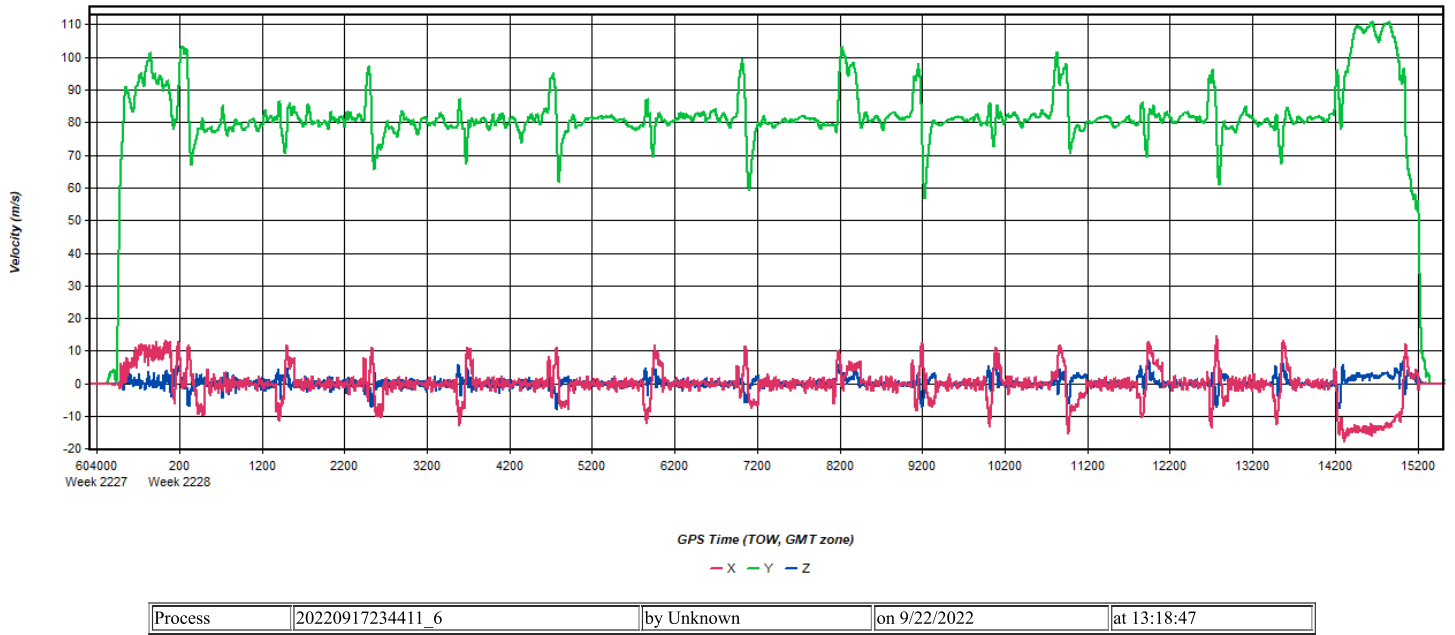
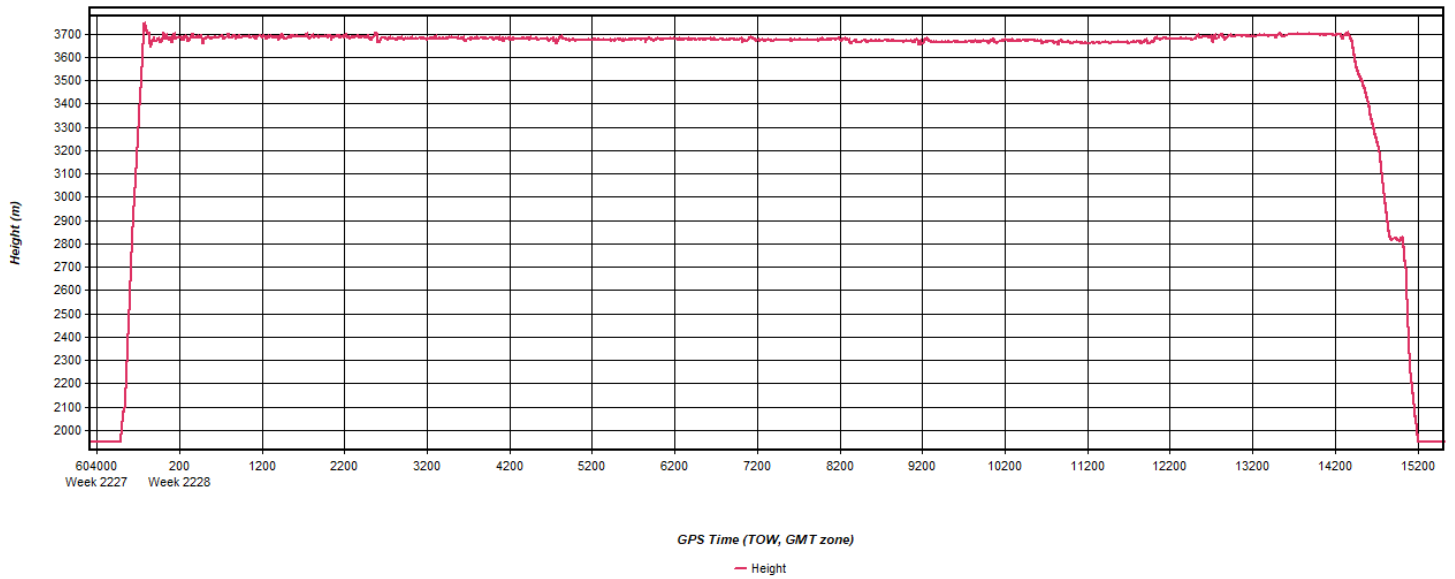
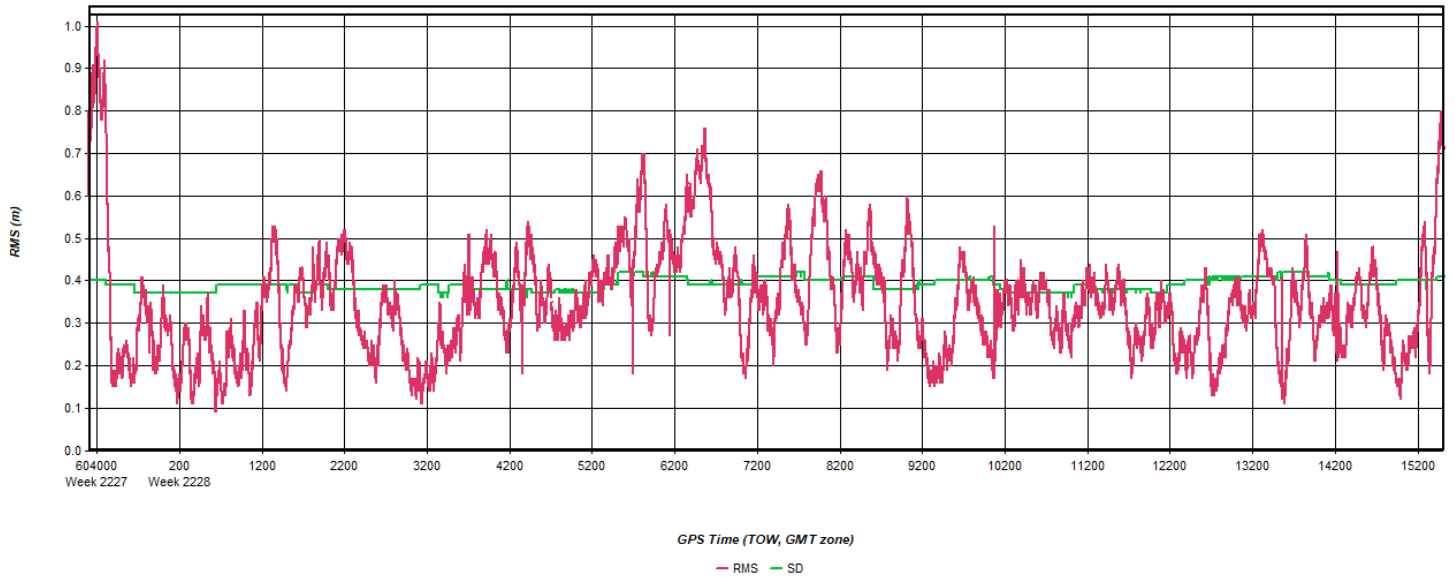


Figure 15: 20220917234411_6 [Smoothed TC Combined] - Height Profile Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 16: 20220917234411_6 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 17: 20220917234411_6 [Smoothed TC Combined] - Carrier Residual RMS Plot



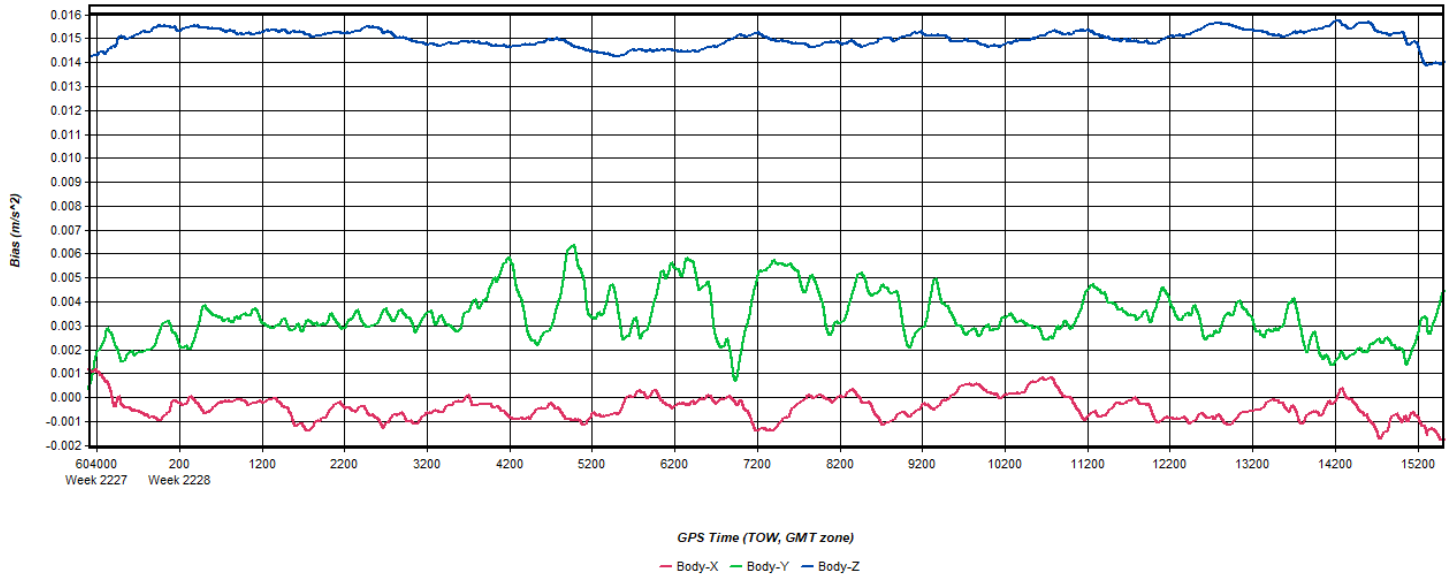
Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 18: 20220917234411_6 [Smoothed TC Combined] - Doppler Residual RMS Plot



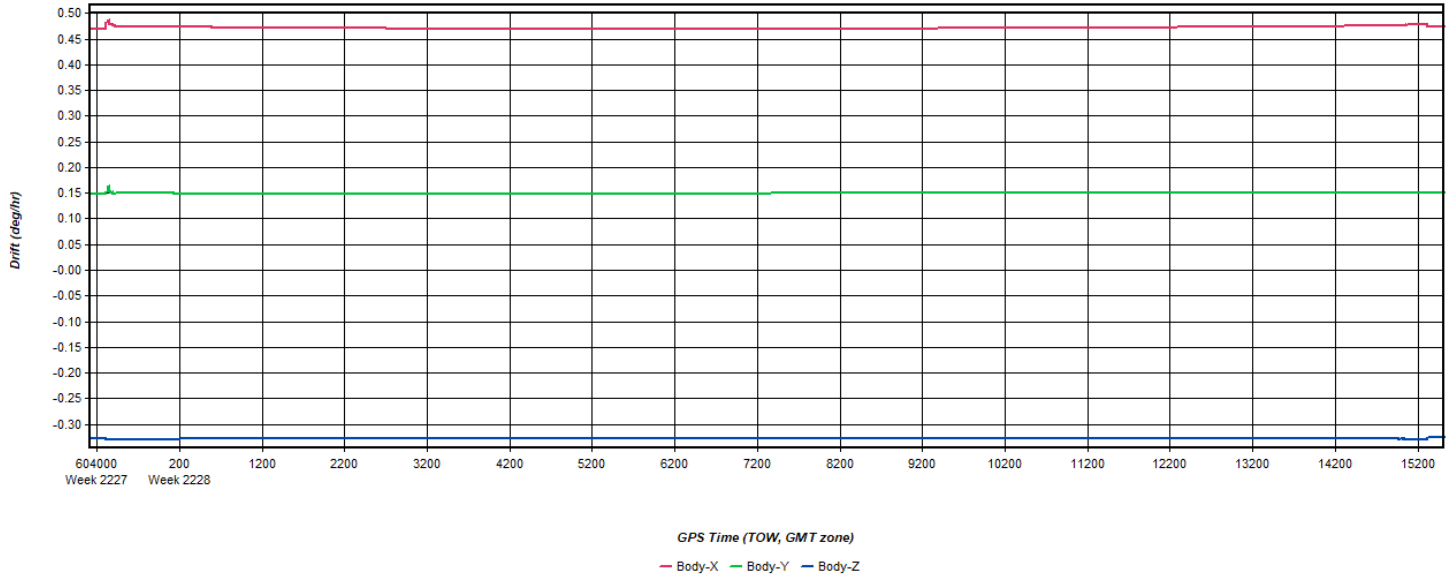
Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 19: 20220917234411_6 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Figure 20: 20220917234411_6 [Smoothed TC Combined] - Gyro Drift Plot



Process	20220917234411_6	by Unknown	on 9/22/2022	at 13:18:47
---------	------------------	------------	--------------	-------------

Output Results for 20220918142734_7

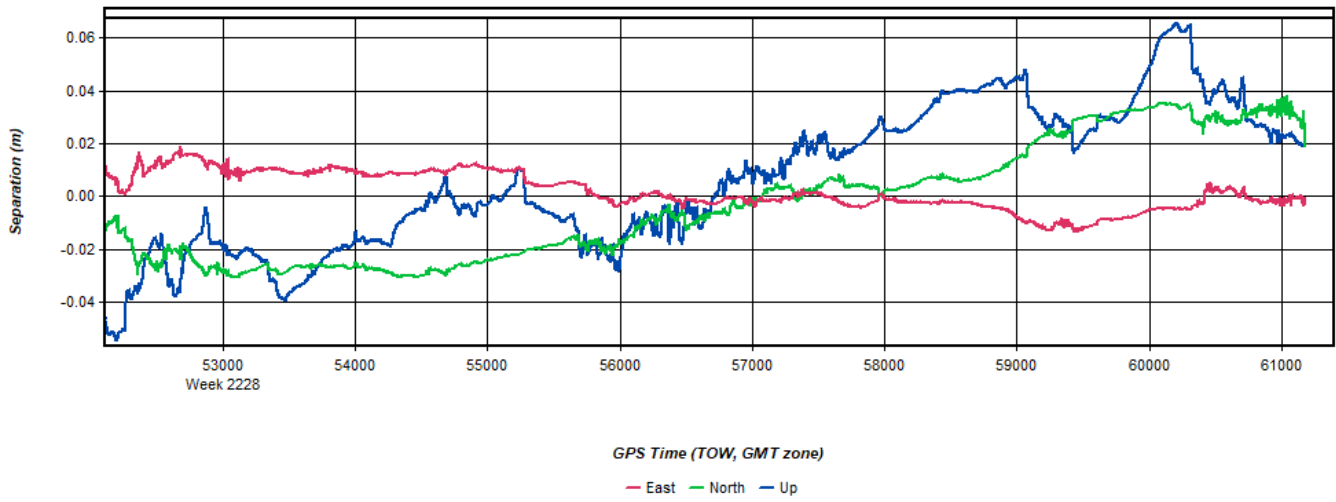
Inertial Explorer Version 8.90.2124
02/27/2023

Figure 1: Smoothed TC Combined - Map



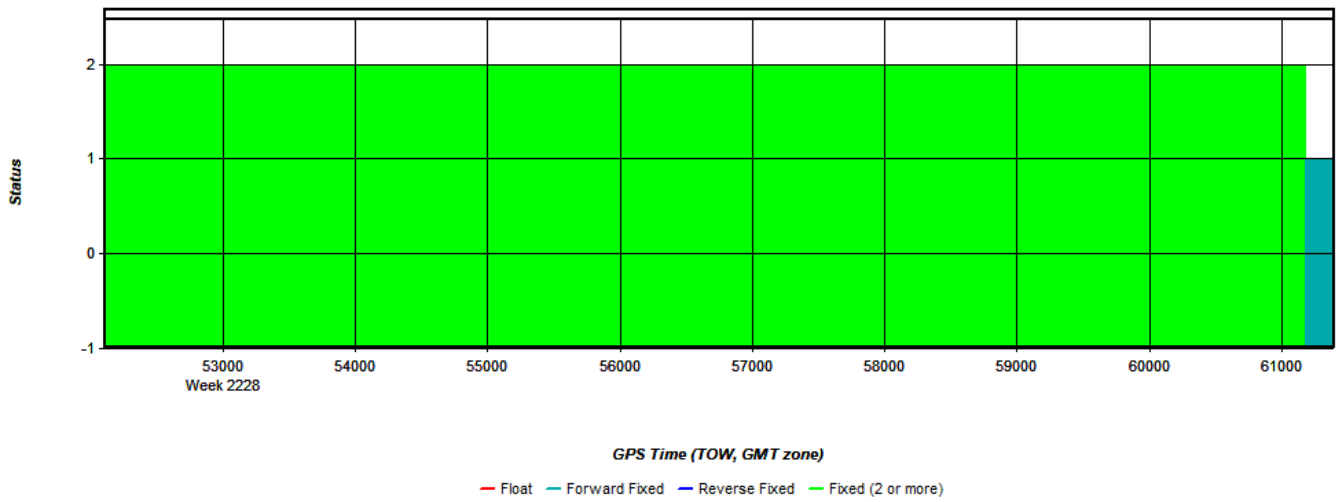
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 2: 20220918142734_7 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



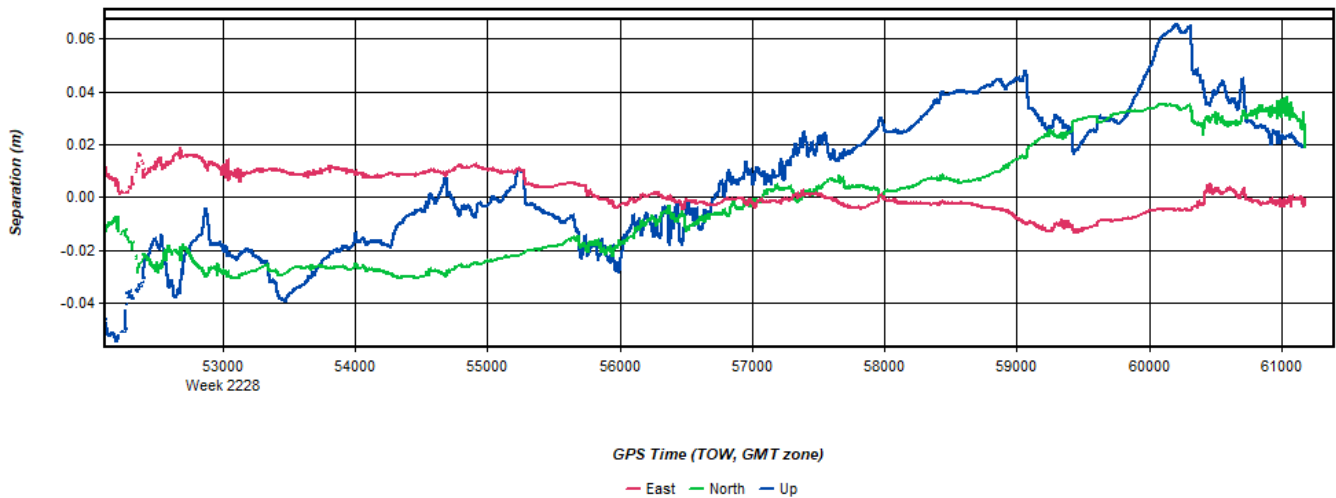
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 3: 20220918142734_7 [Smoothed TC Combined] - Float or Fixed Ambiguity



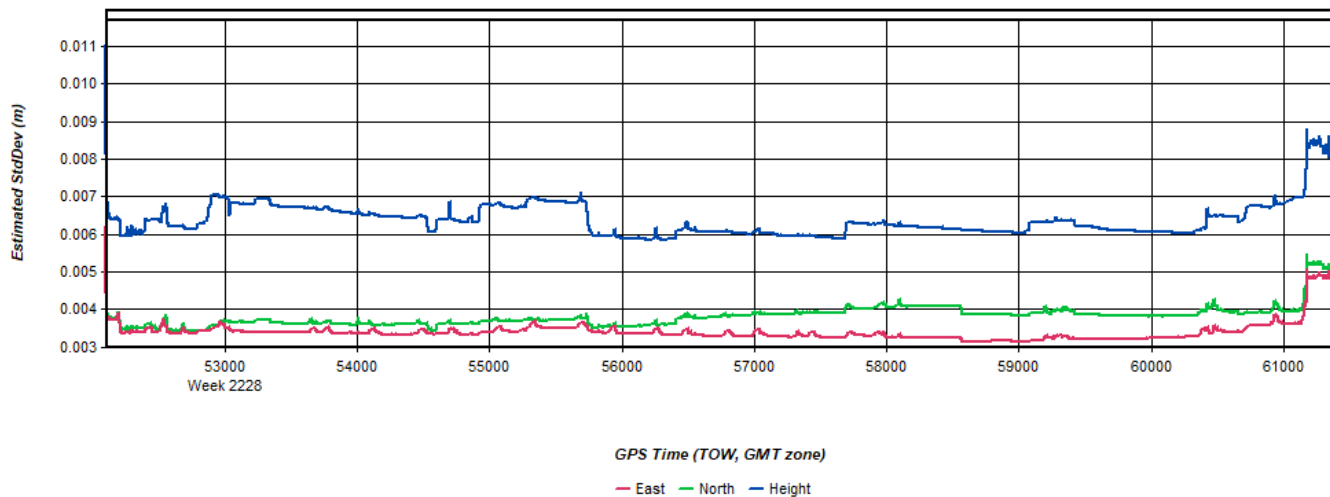
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 4: 20220918142734_7 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



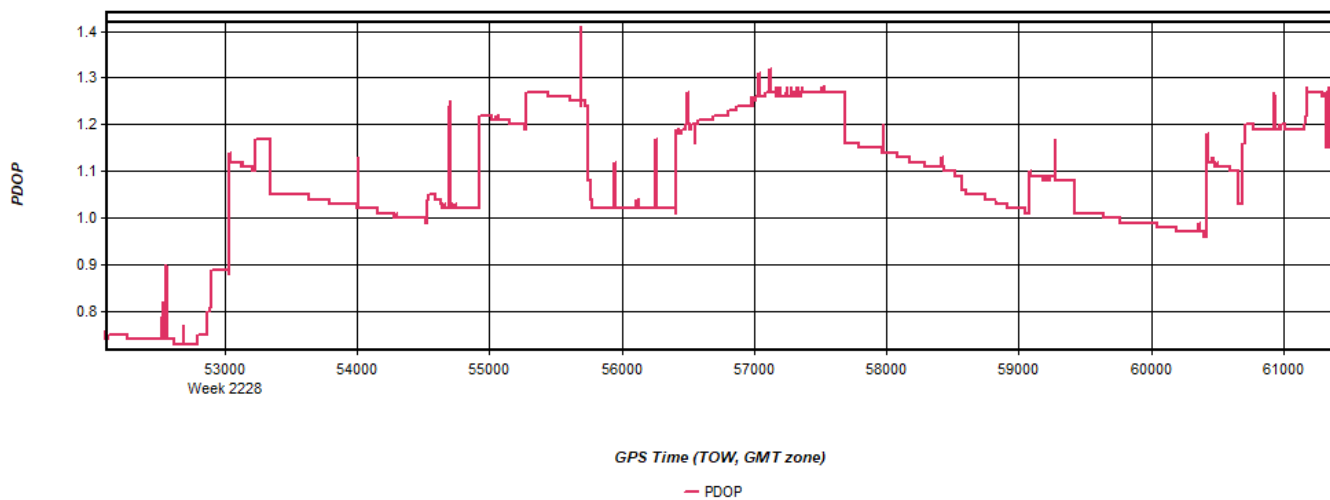
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 5: 20220918142734_7 [Smoothed TC Combined] - Estimated Position Accuracy Plot



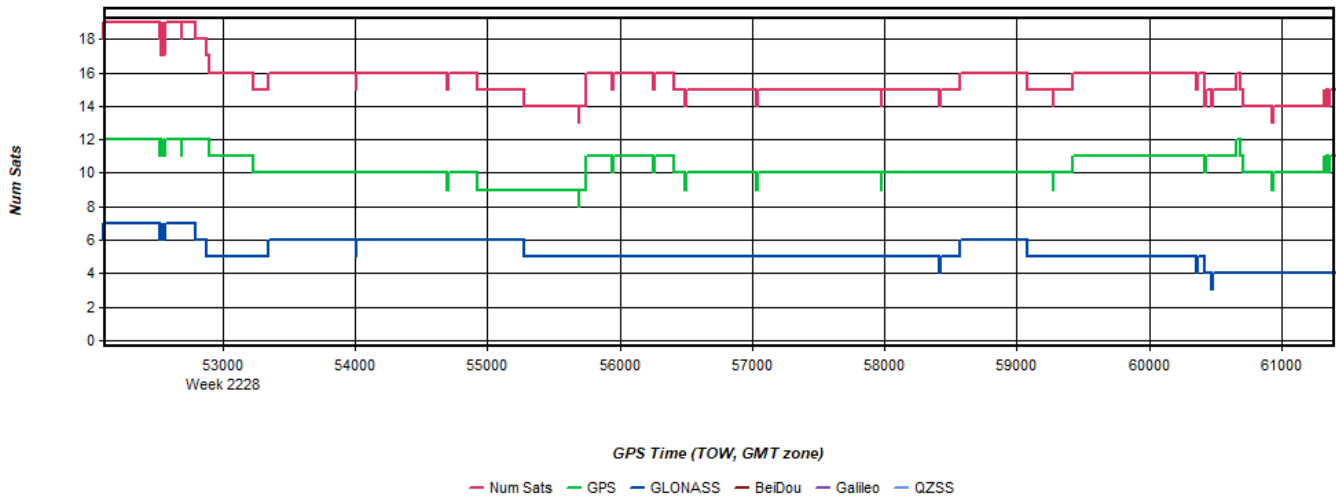
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 6: 20220918142734_7 [Smoothed TC Combined] - PDOP Plot



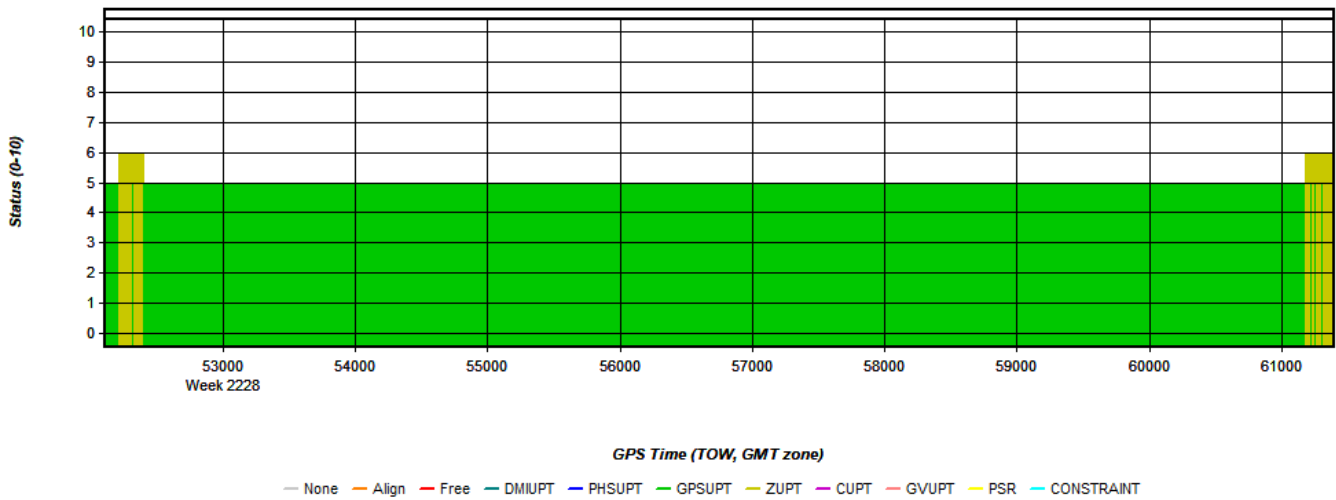
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 7: 20220918142734_7 [Smoothed TC Combined] - Number of Satellites Line Plot



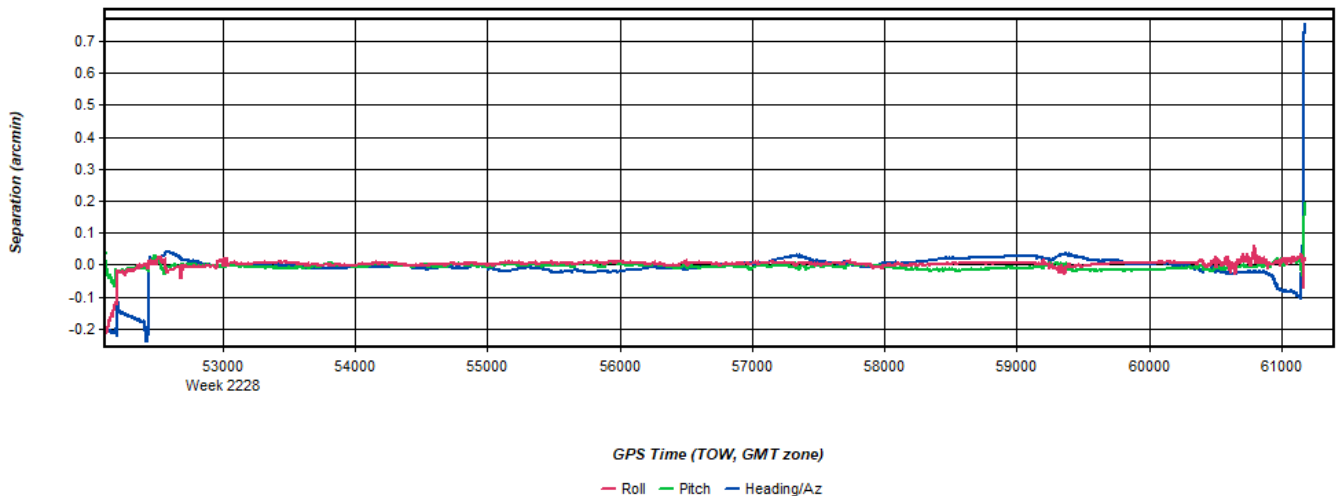
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 8: 20220918142734_7 [Smoothed TC Combined] - Status flag for IMU processing



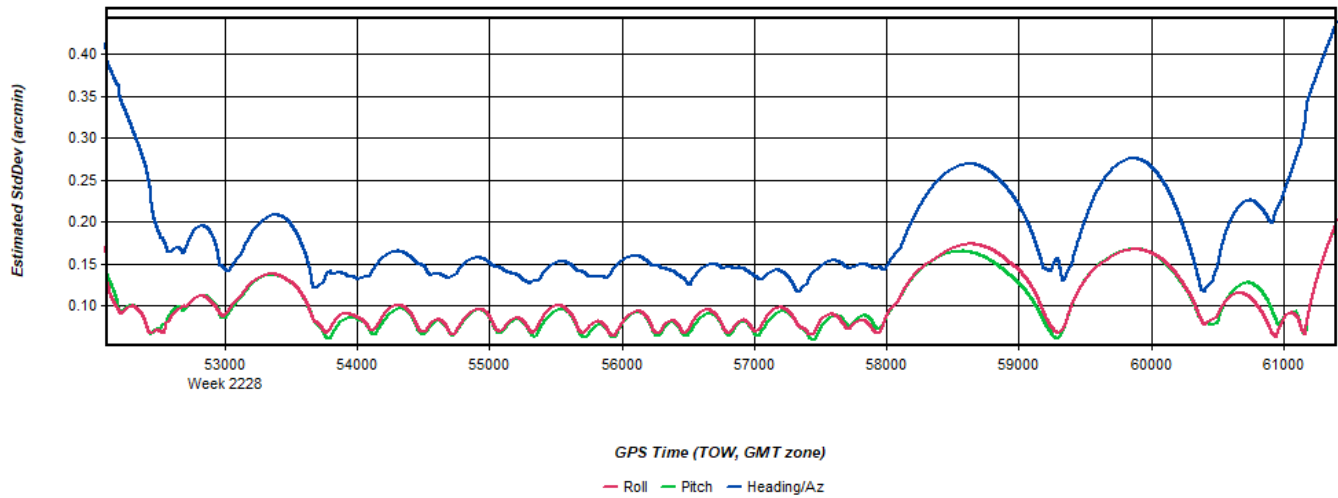
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 9: 20220918142734_7 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



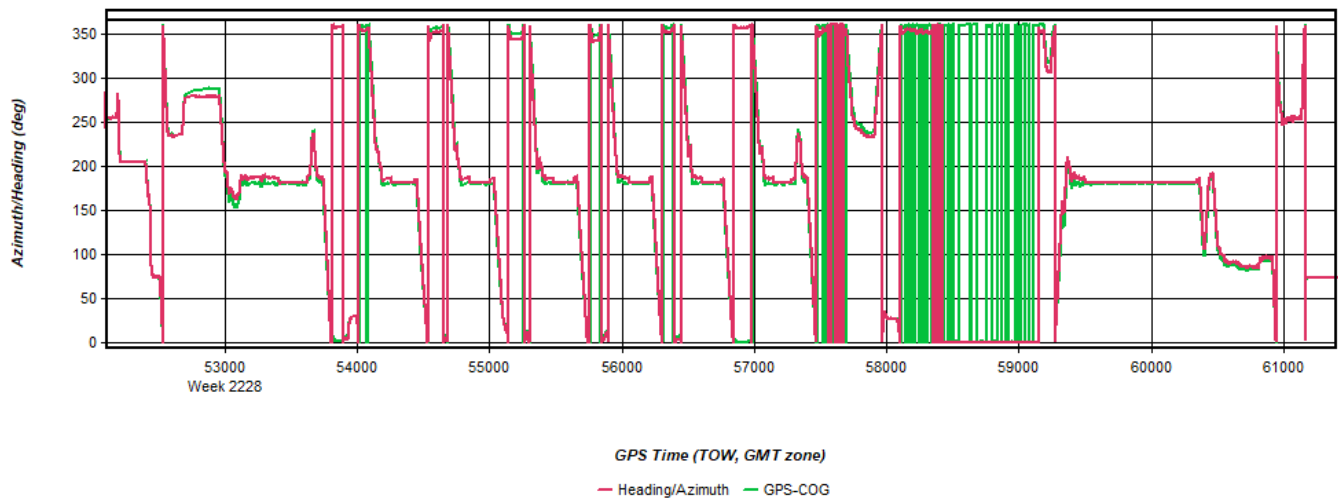
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 10: 20220918142734_7 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



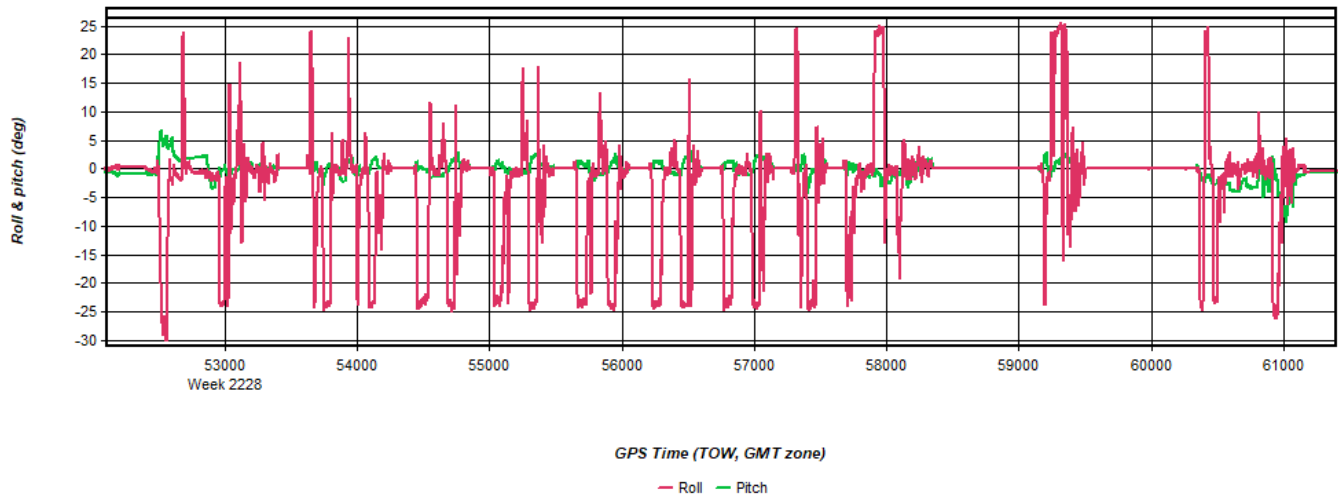
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 11: 20220918142734_7 [Smoothed TC Combined] - Azimuth Plot



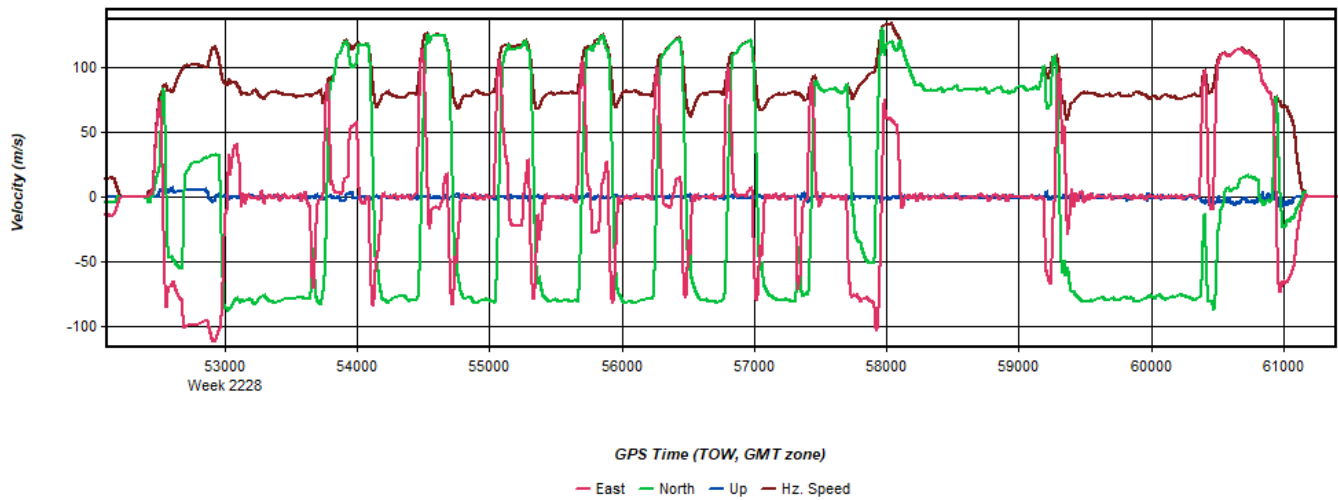
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 12: 20220918142734_7 [Smoothed TC Combined] - Roll & Pitch Plot



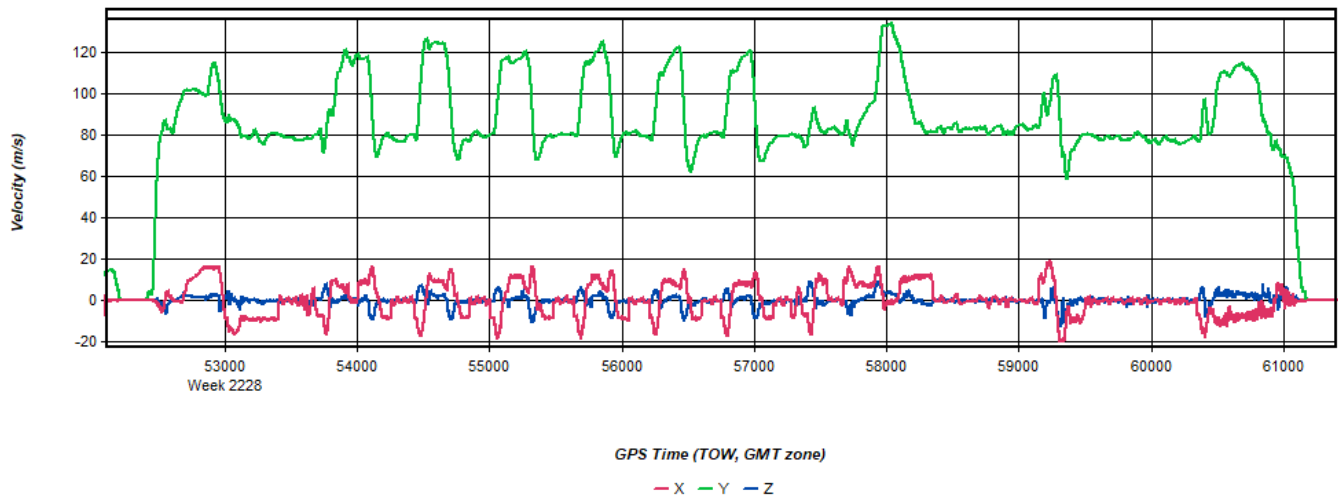
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 13: 20220918142734_7 [Smoothed TC Combined] - Velocity Profile Plot



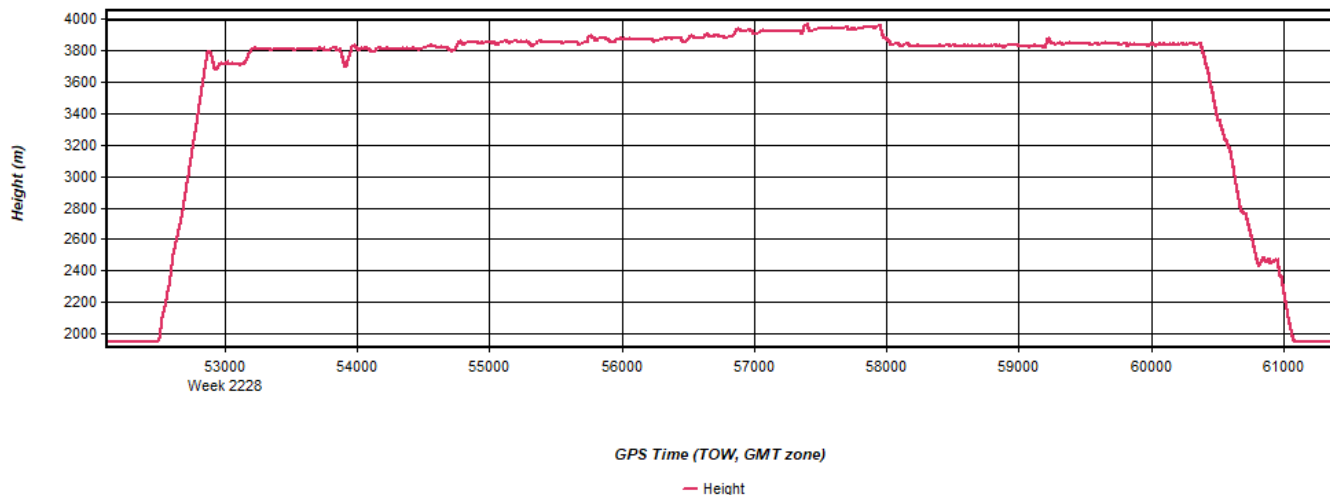
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 14: 20220918142734_7 [Smoothed TC Combined] - Body Frame Velocity Plot



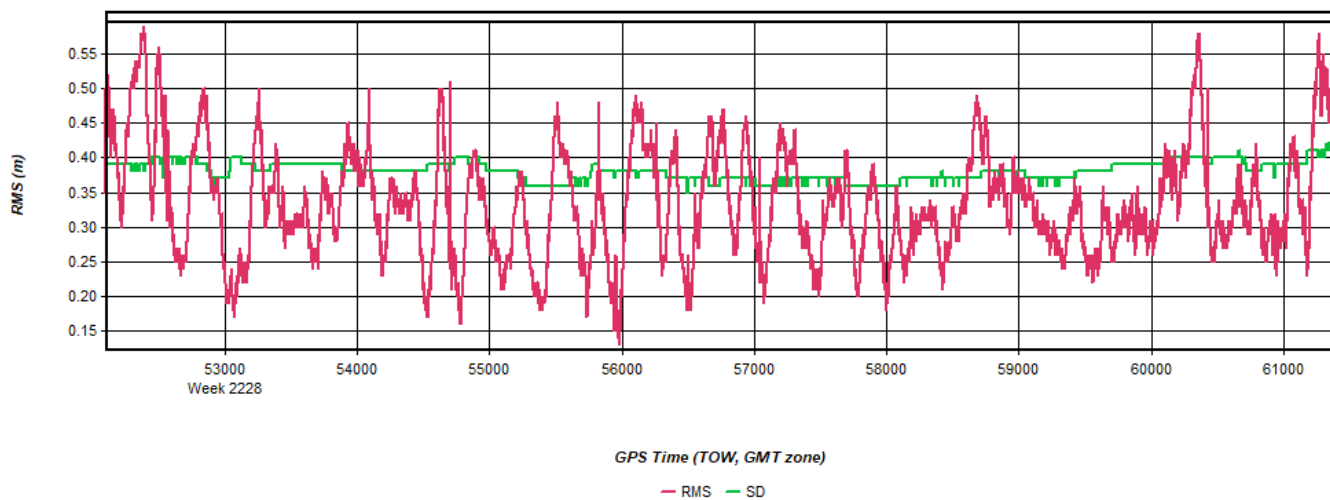
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 15: 20220918142734_7 [Smoothed TC Combined] - Height Profile Plot



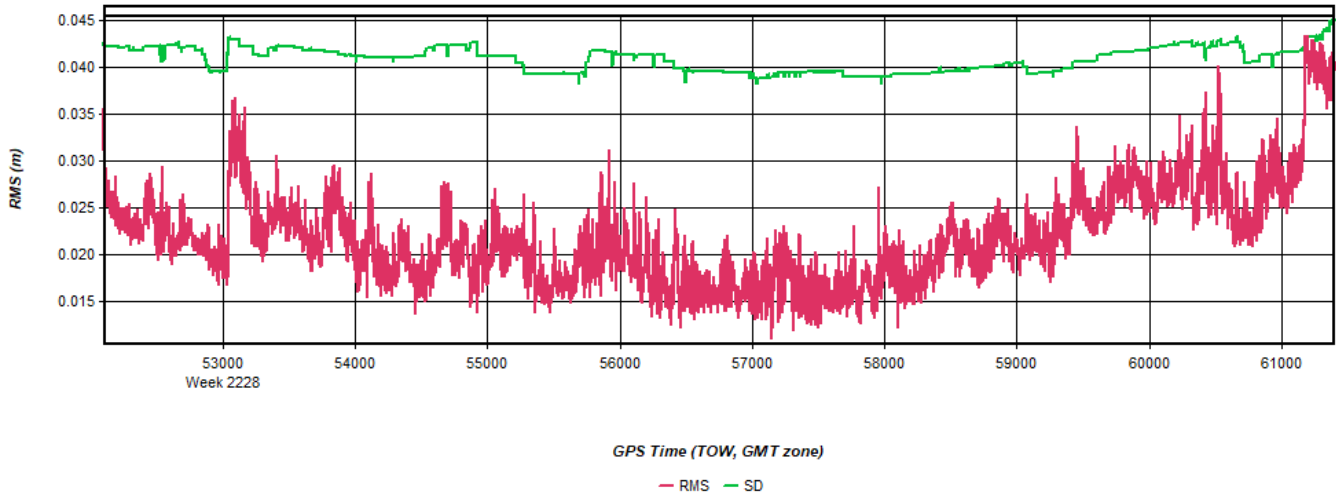
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 16: 20220918142734_7 [Smoothed TC Combined] - C/A Code Residual RMS Plot



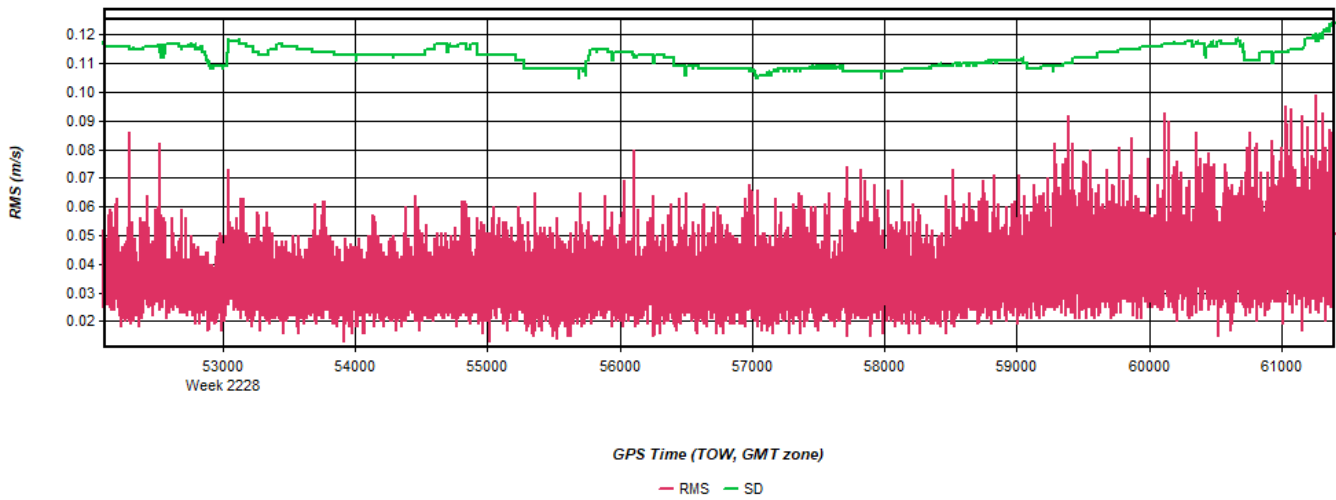
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 17: 20220918142734_7 [Smoothed TC Combined] - Carrier Residual RMS Plot



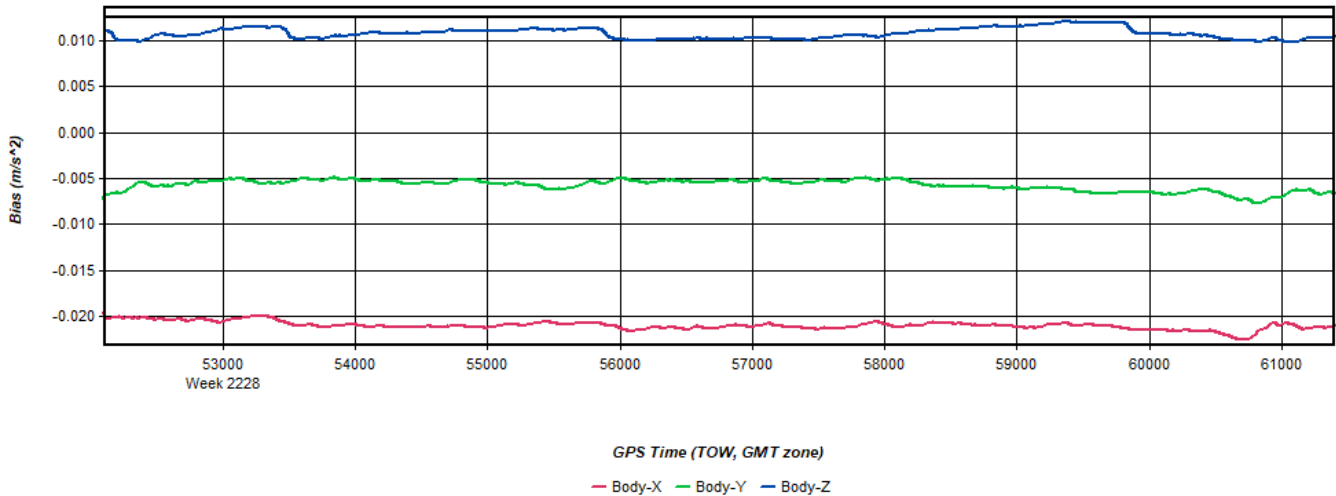
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 18: 20220918142734_7 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



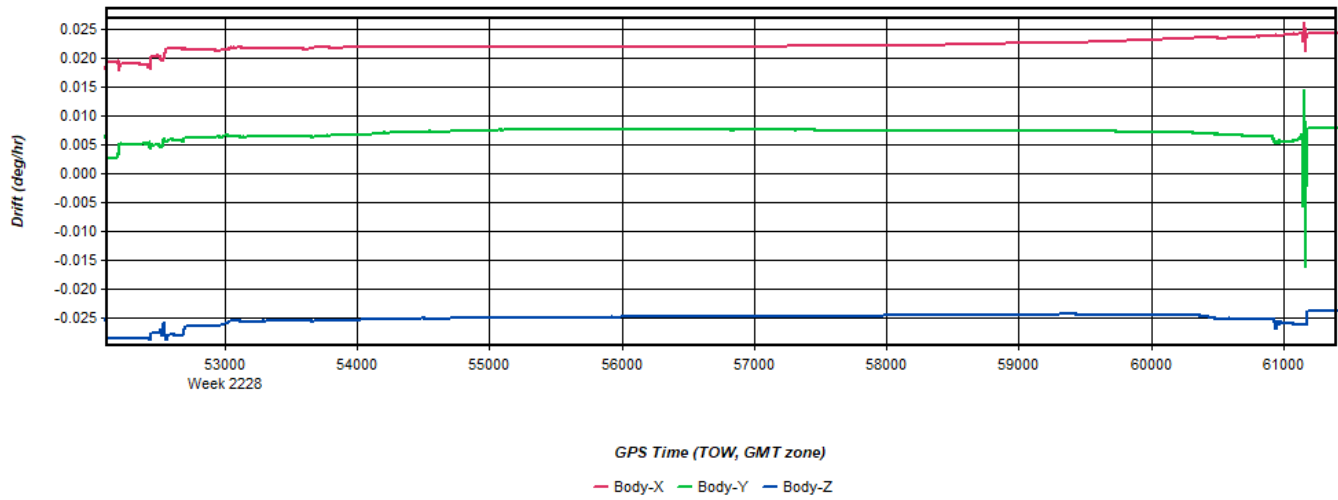
Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 19: 20220918142734_7 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Figure 20: 20220918142734_7 [Smoothed TC Combined] - Gyro Drift Plot



Process	20220918142734_7	by Unknown	on 9/23/2022	at 09:02:02
---------	------------------	------------	--------------	-------------

Output Results for 20220918235011_8

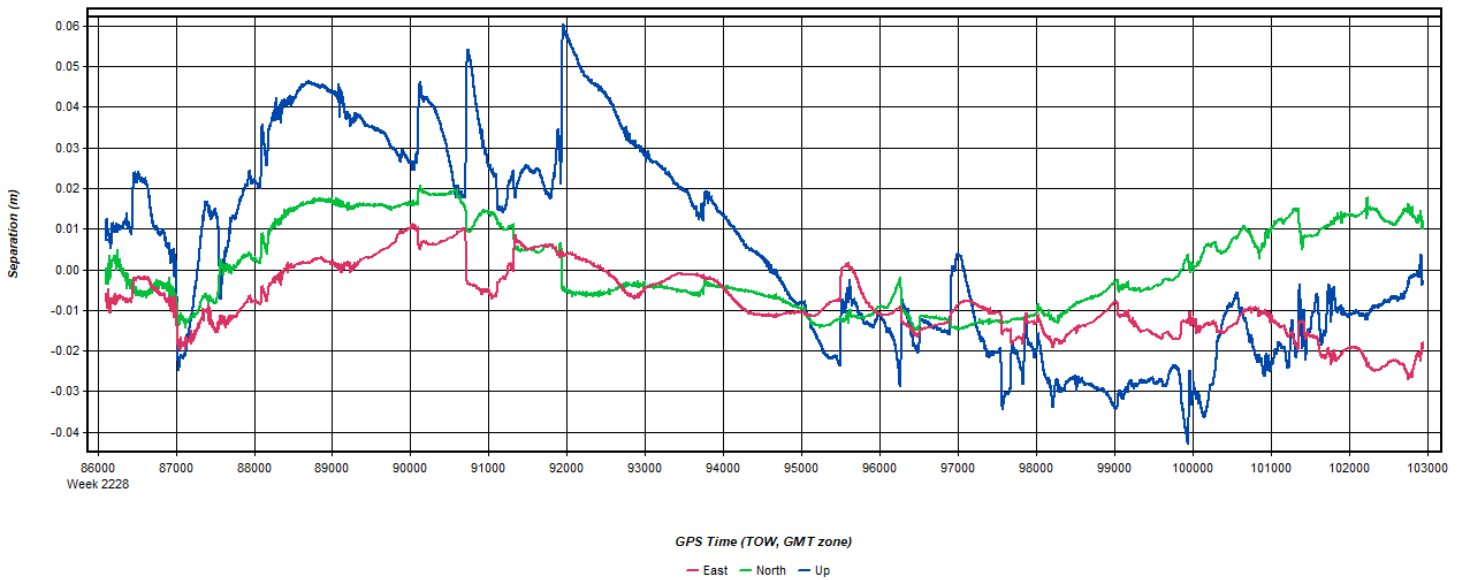
Inertial Explorer Version 8.90.2124
09/23/2022

Figure 1: Smoothed TC Combined - Map



Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 2: 20220918235011_8 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 3: 20220918235011_8 [Smoothed TC Combined] - Float or Fixed Ambiguity

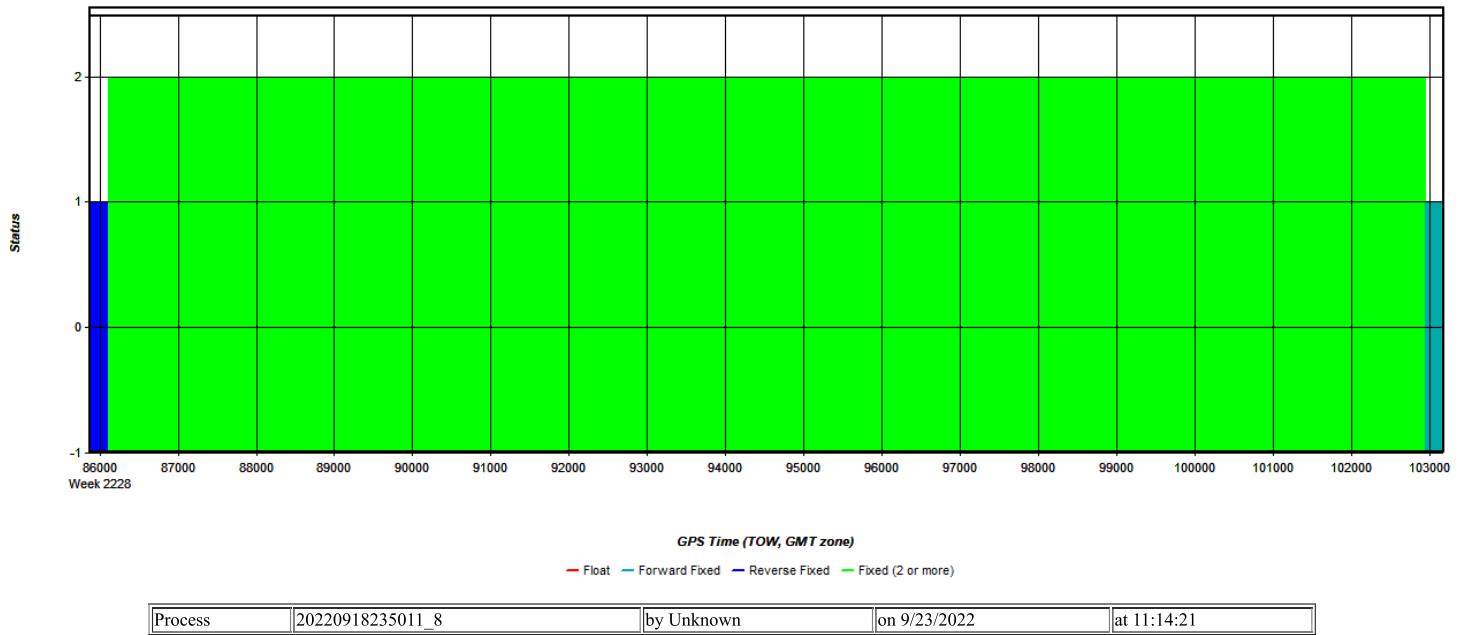


Figure 4: 20220918235011_8 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

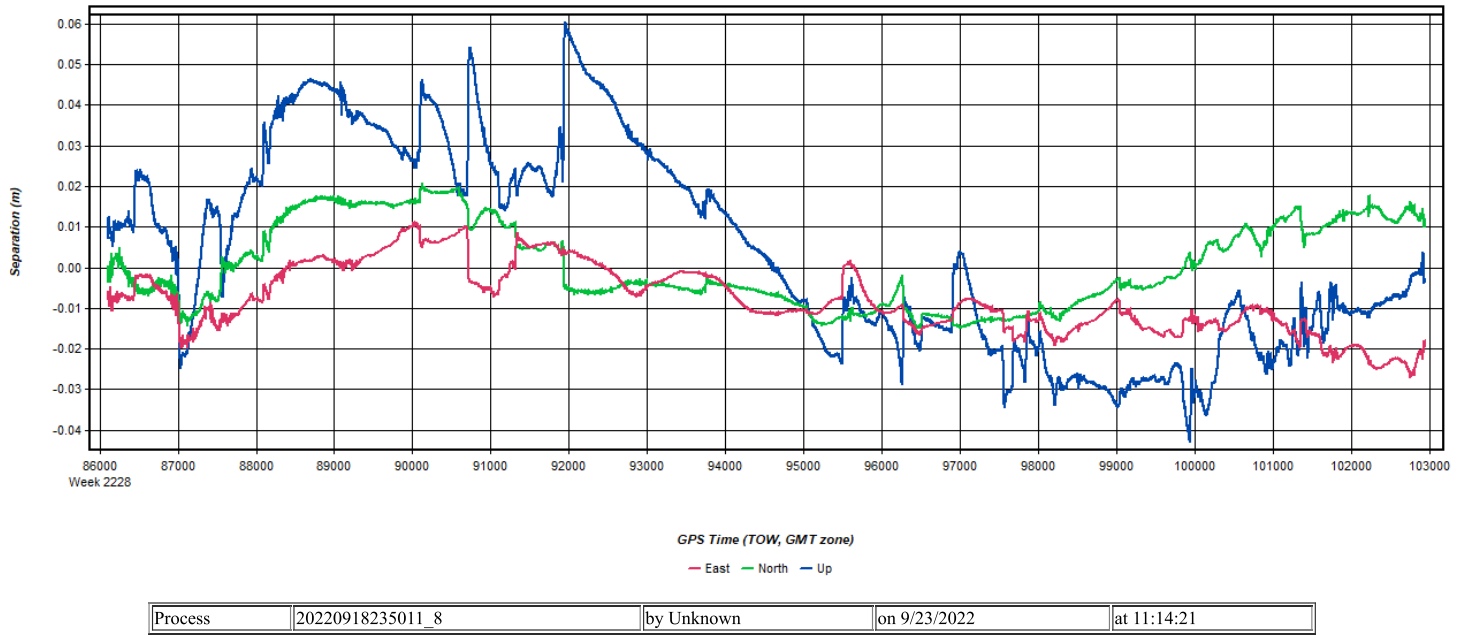
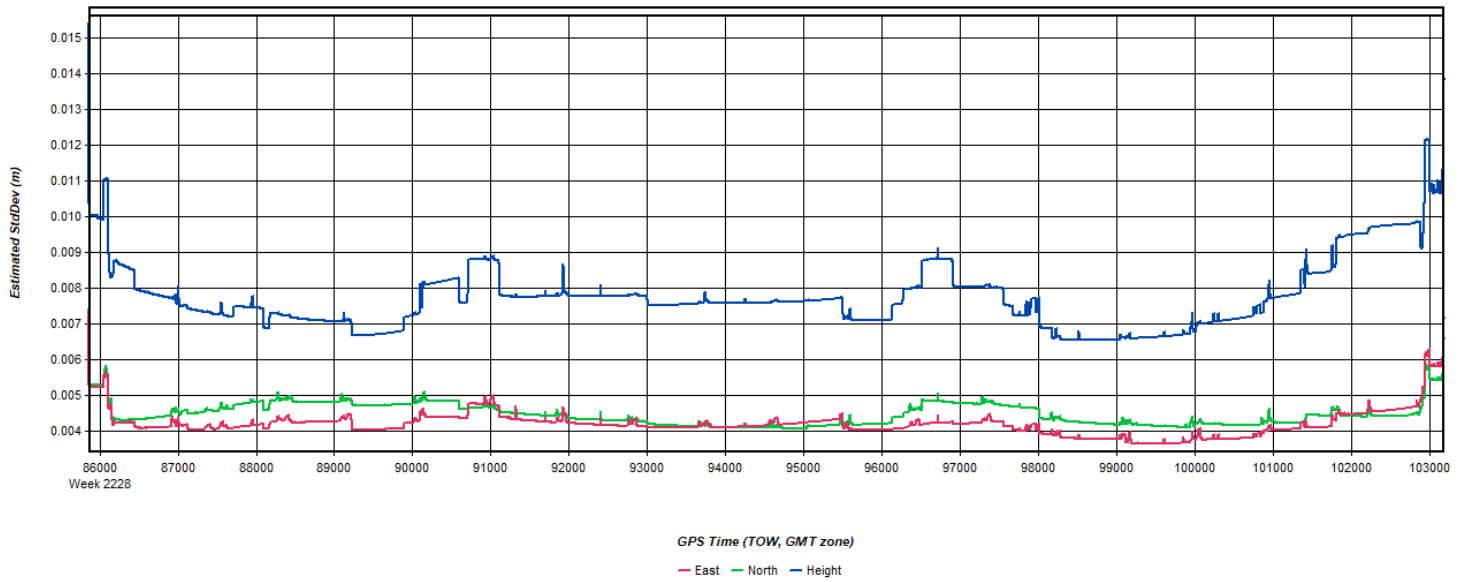
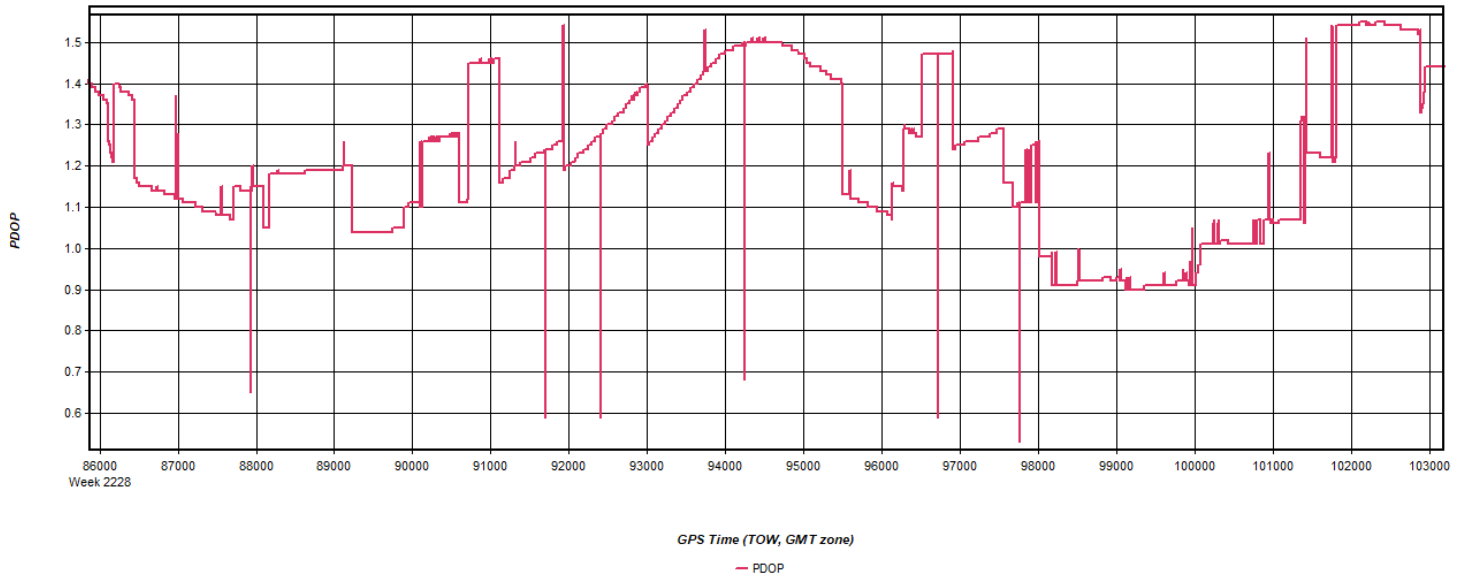


Figure 5: 20220918235011_8 [Smoothed TC Combined] - Estimated Position Accuracy Plot



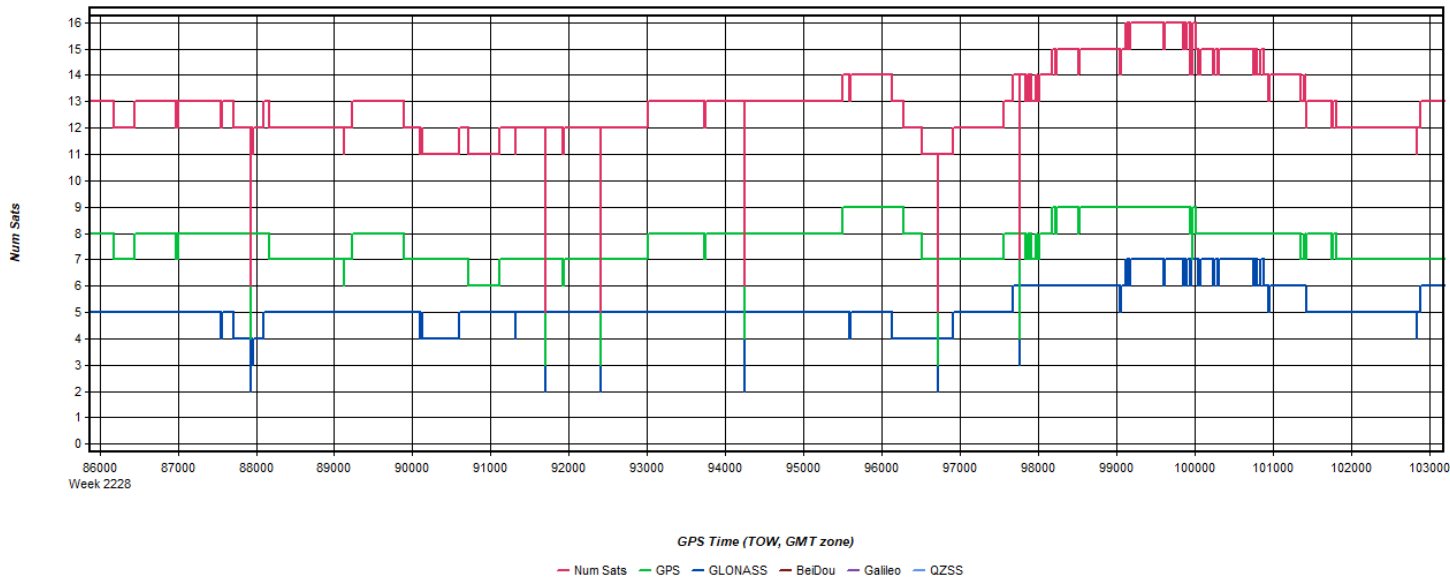
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 6: 20220918235011_8 [Smoothed TC Combined] - PDOP Plot



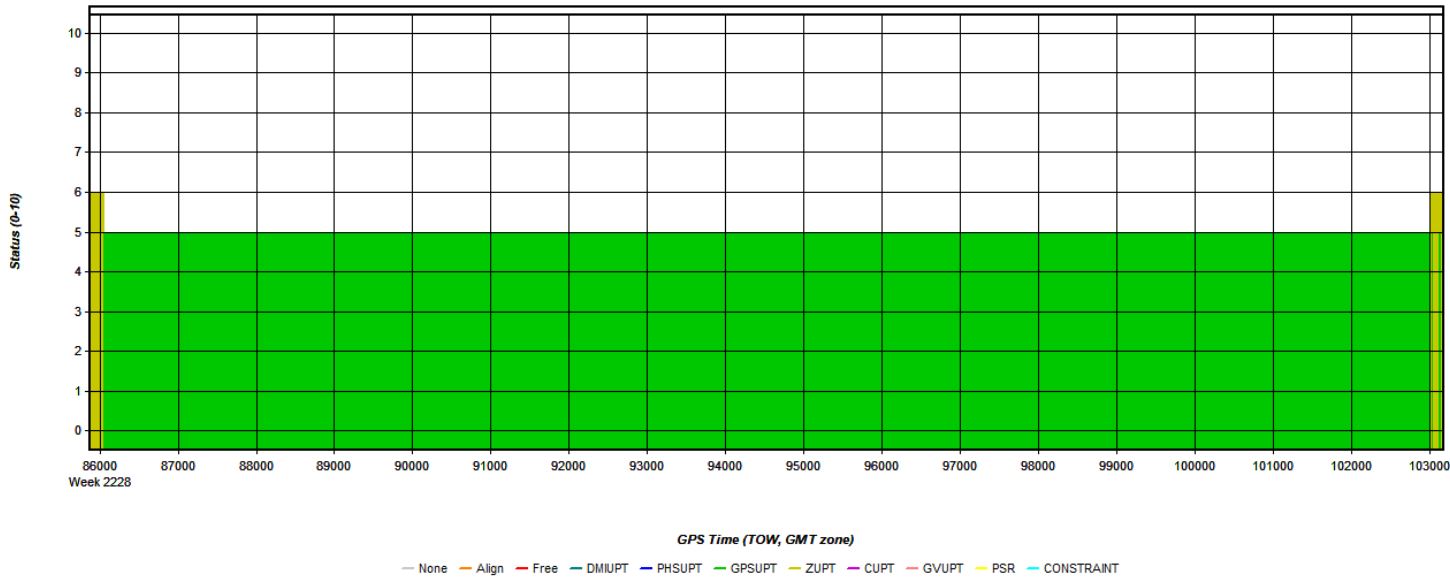
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 7: 20220918235011_8 [Smoothed TC Combined] - Number of Satellites Line Plot



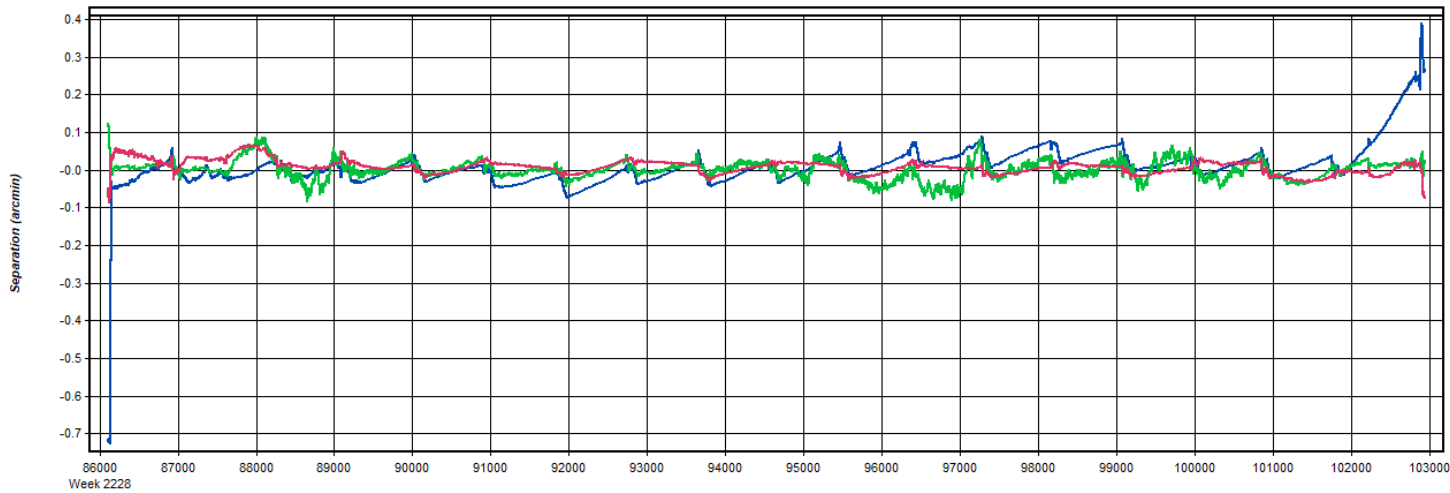
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 8: 20220918235011_8 [Smoothed TC Combined] - Status flag for IMU processing



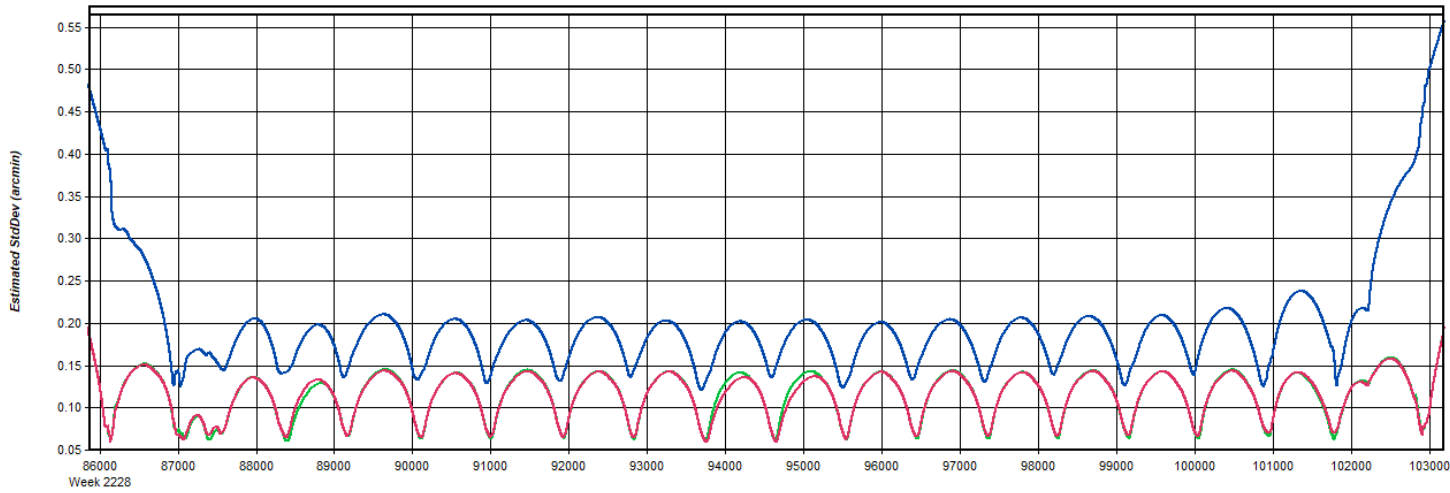
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 9: 20220918235011_8 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



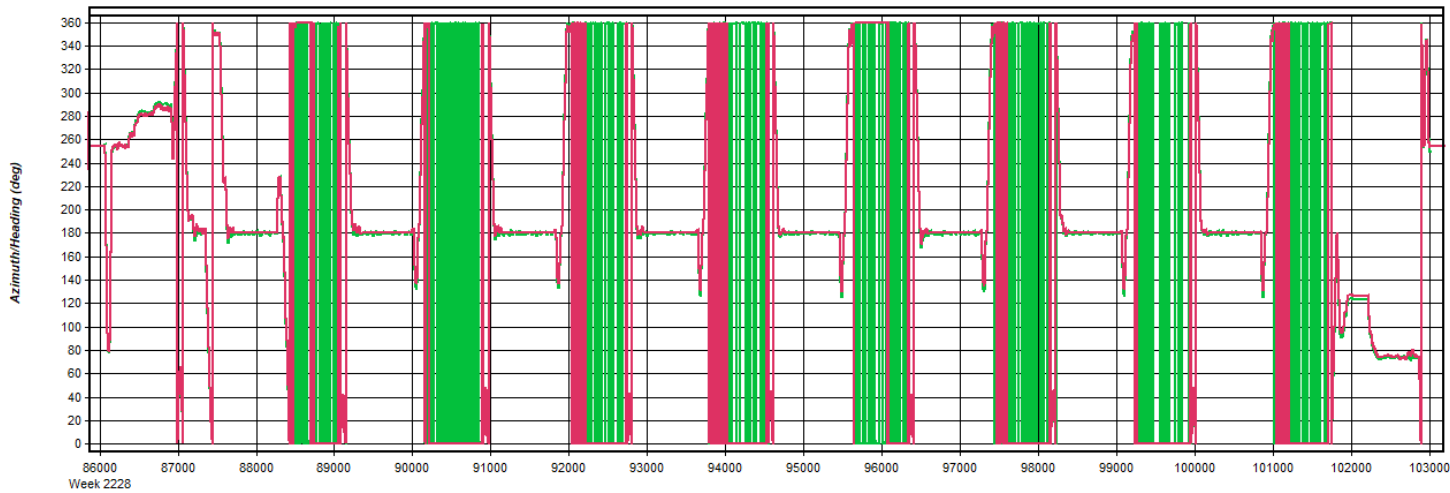
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 10: 20220918235011_8 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 11: 20220918235011_8 [Smoothed TC Combined] - Azimuth Plot

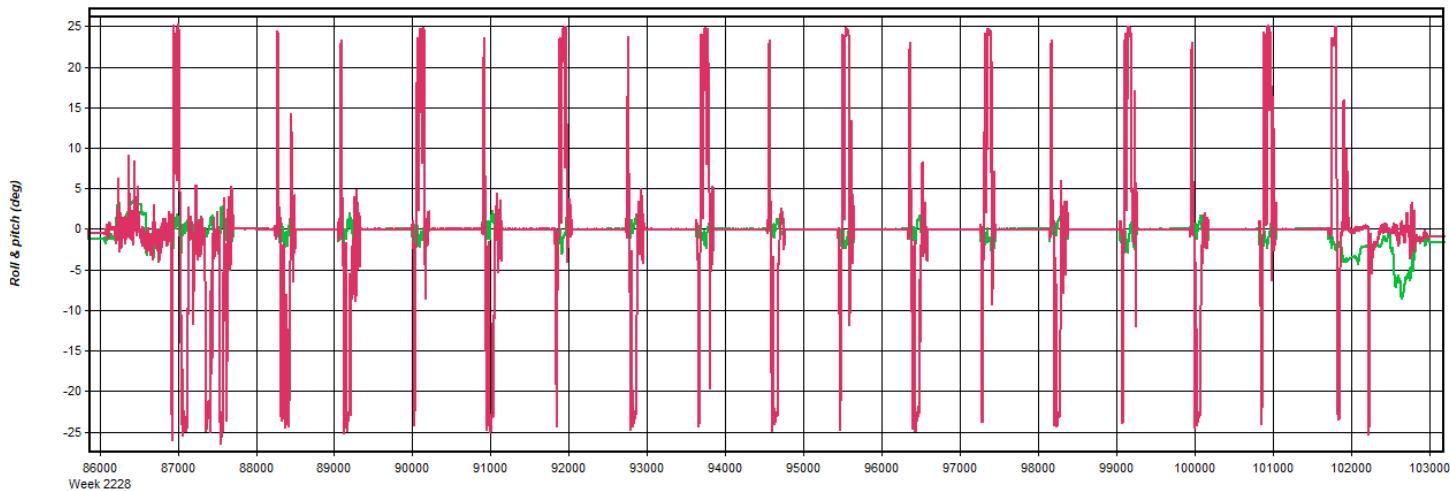


GPS Time (TOW, GMT zone)

— Heading/Azimuth — GPS-COG

Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 12: 20220918235011_8 [Smoothed TC Combined] - Roll & Pitch Plot

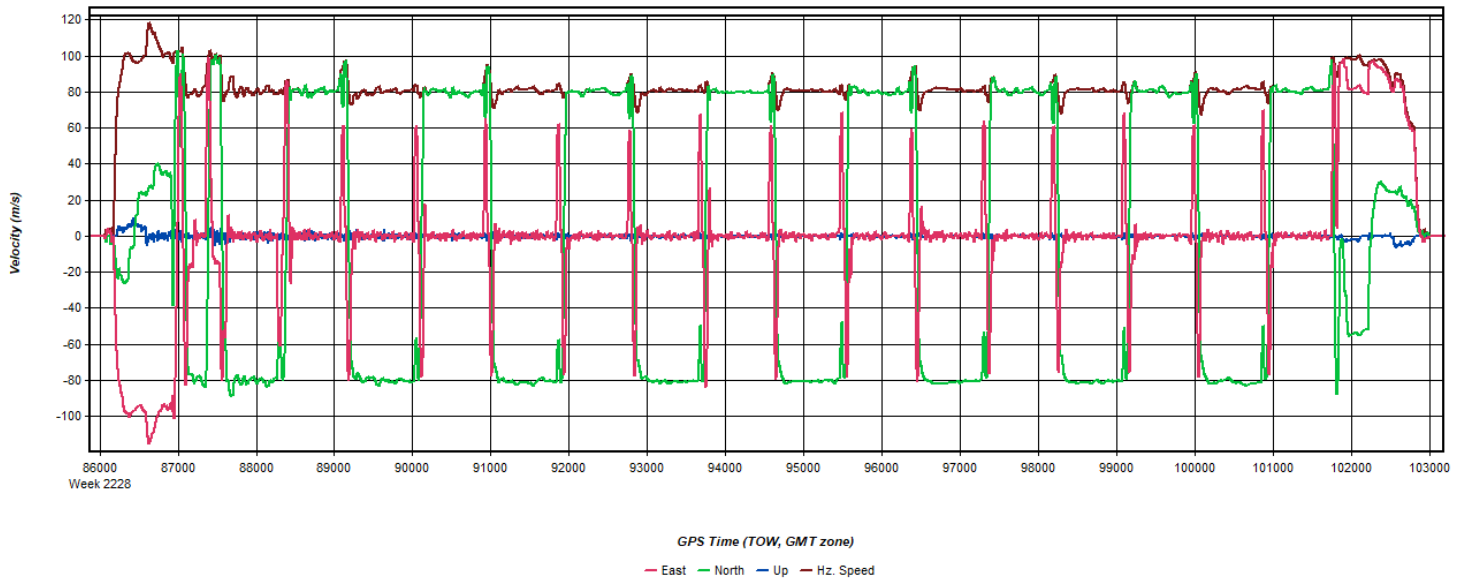


GPS Time (TOW, GMT zone)

— Roll — Pitch

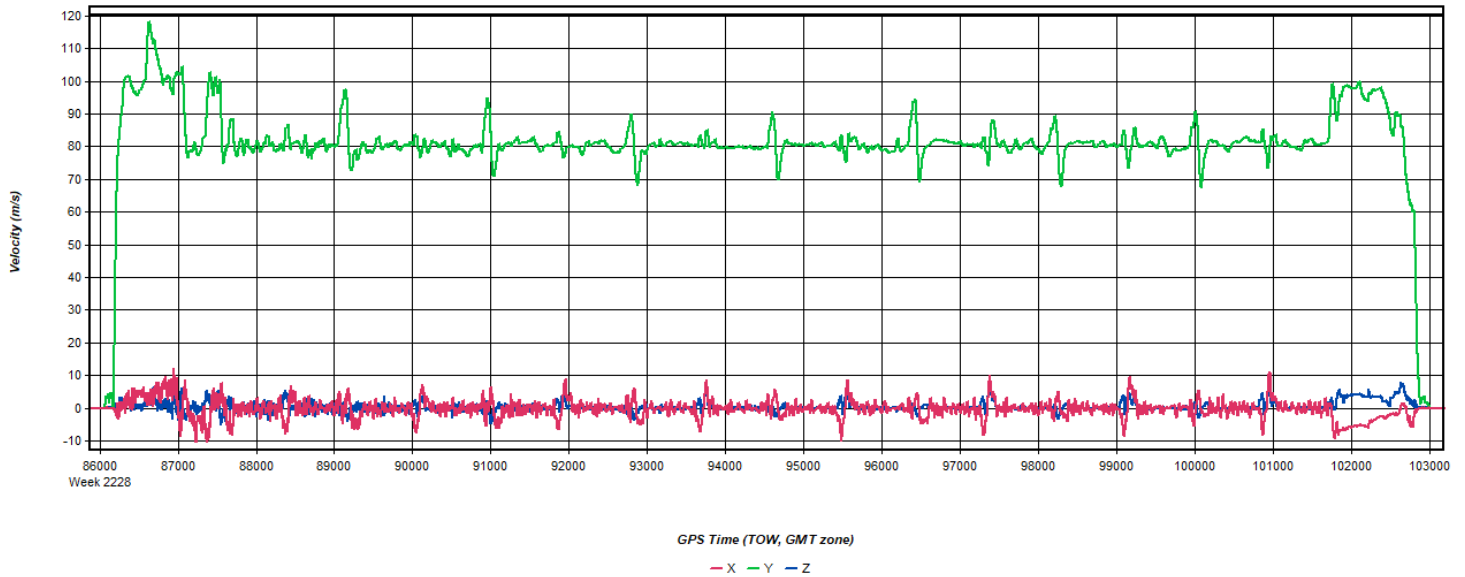
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 13: 20220918235011_8 [Smoothed TC Combined] - Velocity Profile Plot



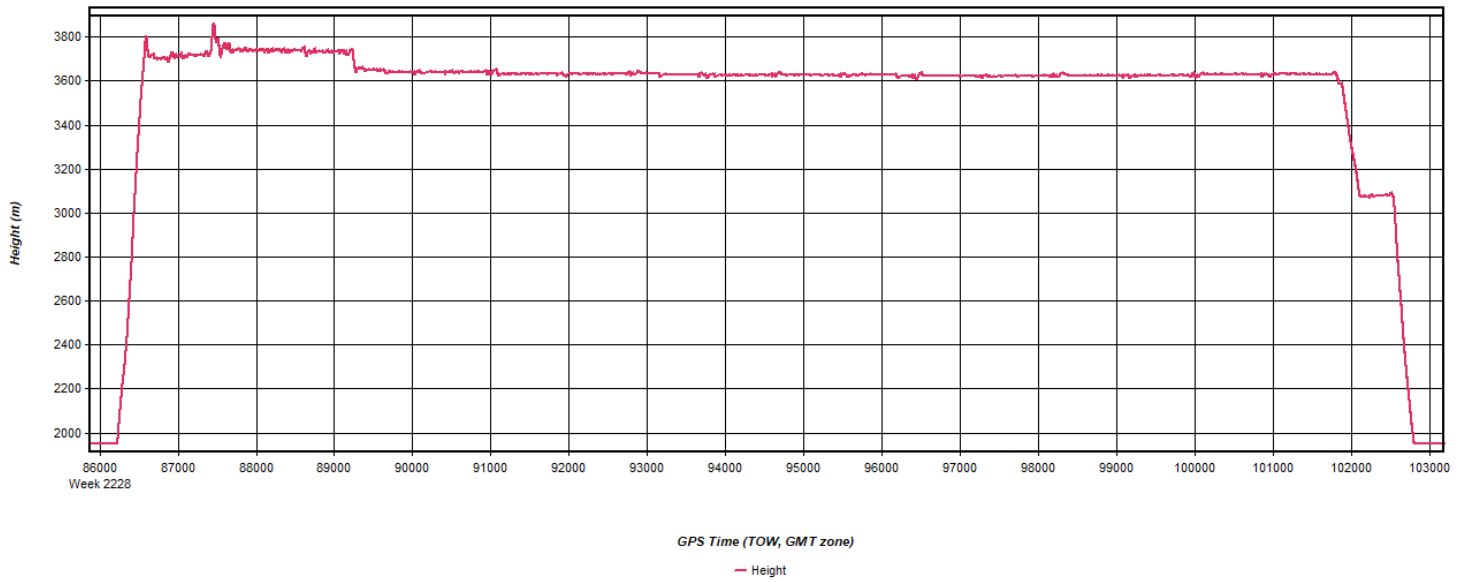
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 14: 20220918235011_8 [Smoothed TC Combined] - Body Frame Velocity Plot



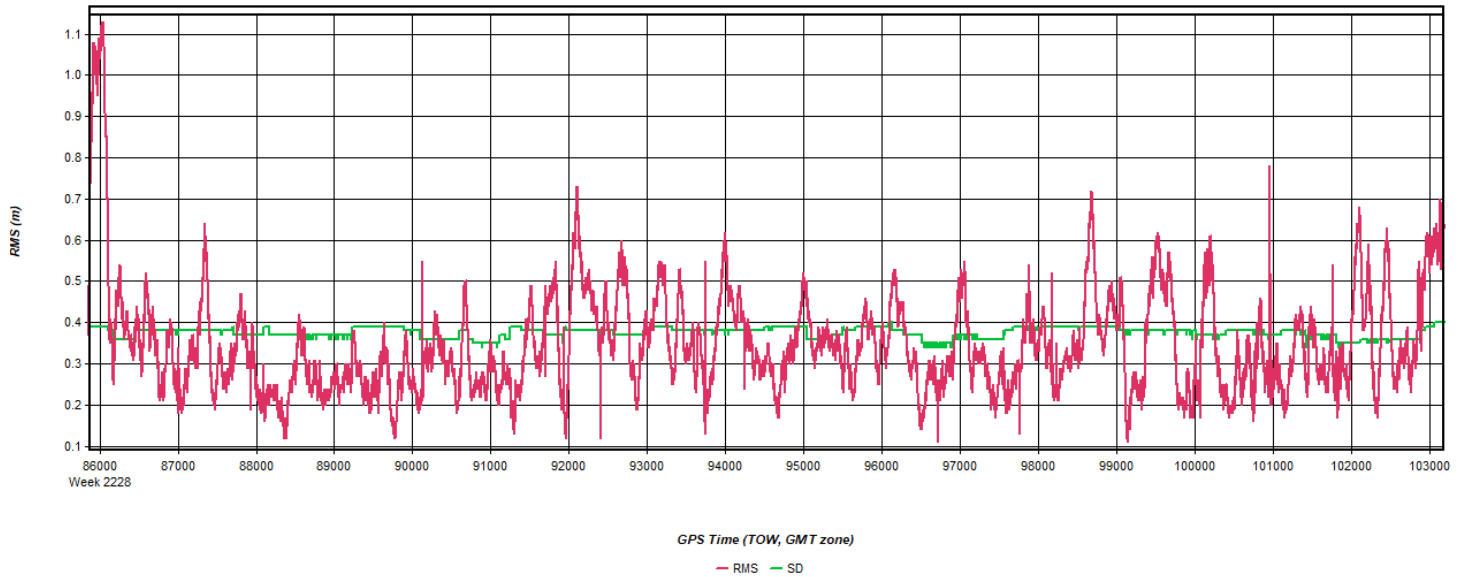
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 15: 20220918235011_8 [Smoothed TC Combined] - Height Profile Plot



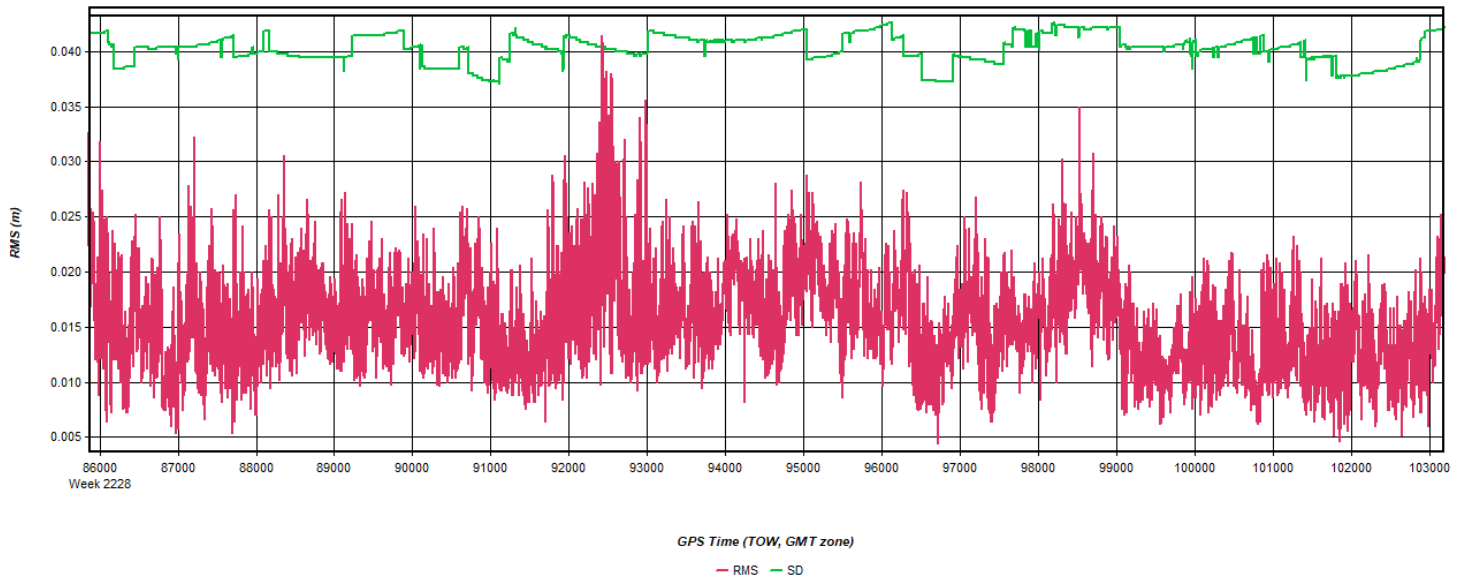
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 16: 20220918235011_8 [Smoothed TC Combined] - C/A Code Residual RMS Plot



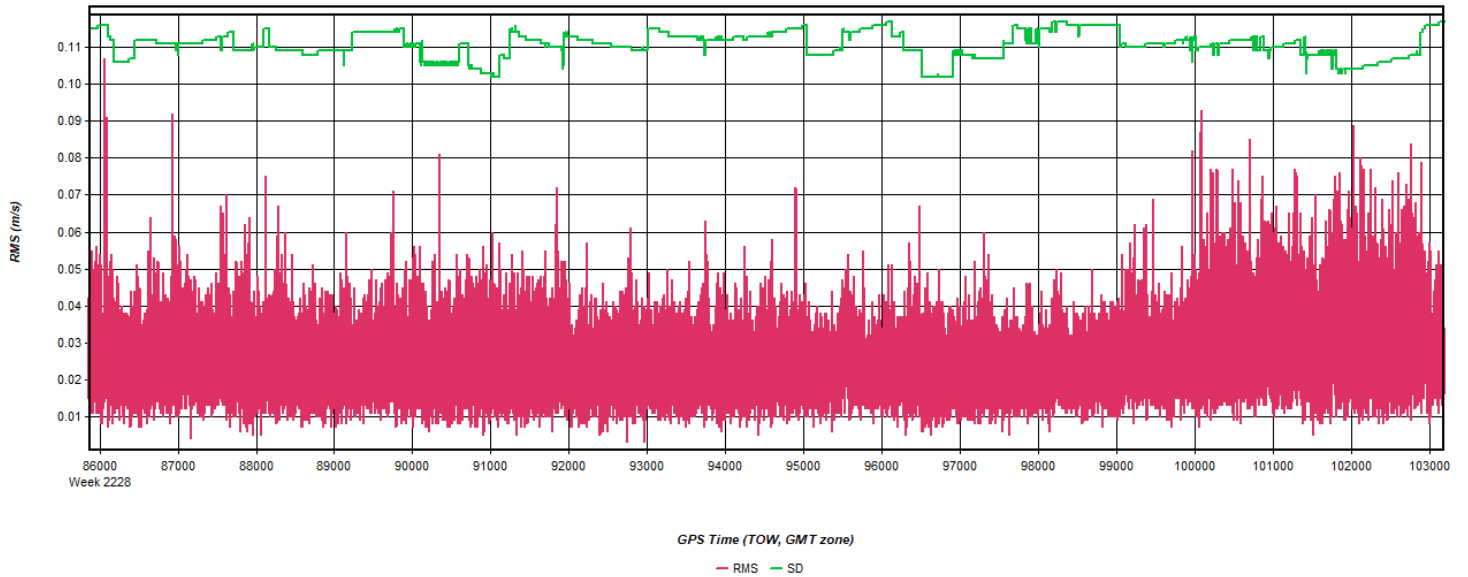
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 17: 20220918235011_8 [Smoothed TC Combined] - Carrier Residual RMS Plot



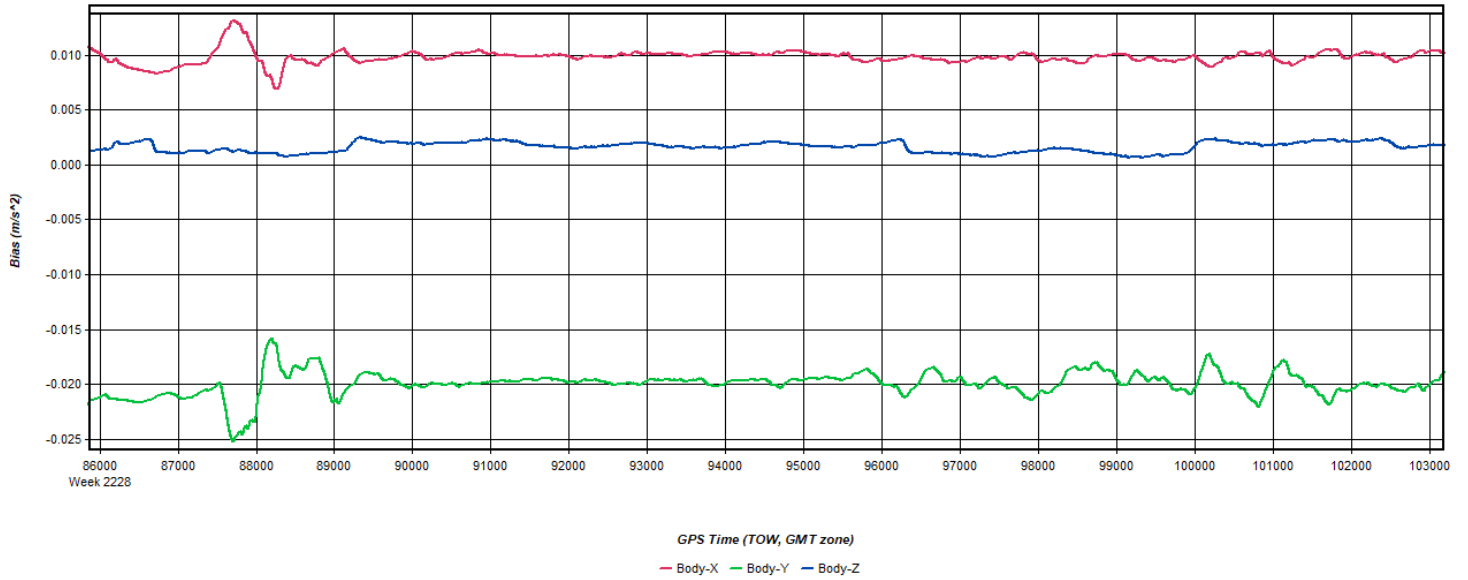
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 18: 20220918235011_8 [Smoothed TC Combined] - Doppler Residual RMS Plot



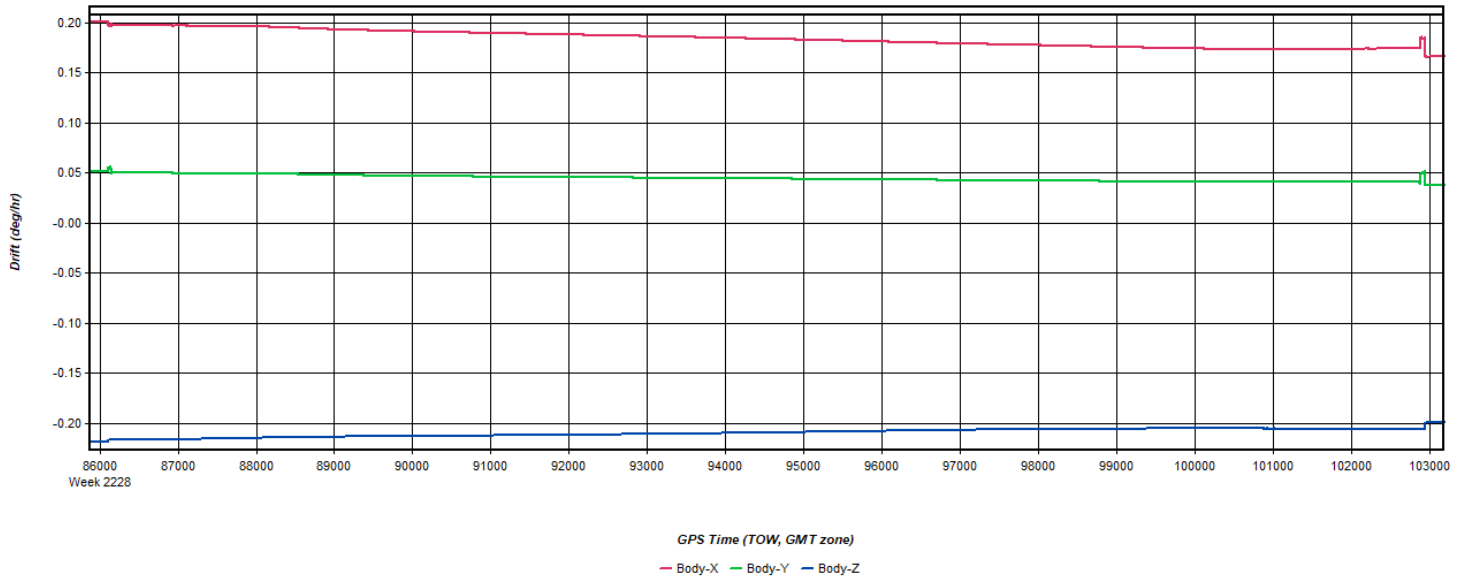
Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 19: 20220918235011_8 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Figure 20: 20220918235011_8 [Smoothed TC Combined] - Gyro Drift Plot

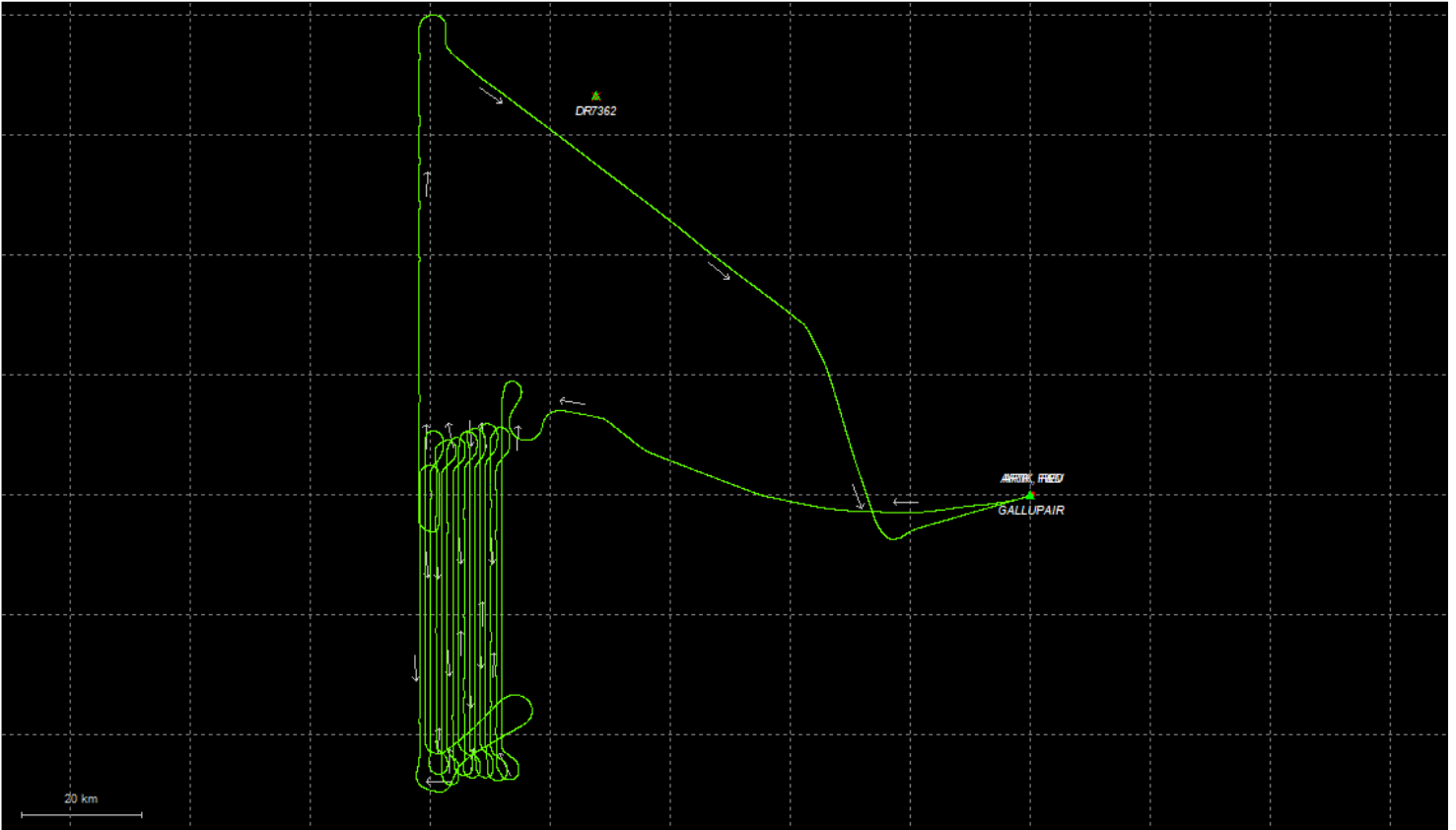


Process	20220918235011_8	by Unknown	on 9/23/2022	at 11:14:21
---------	------------------	------------	--------------	-------------

Output Results for 20220919142502_9

Inertial Explorer Version 8.90.2124
09/23/2022

Figure 1: Smoothed TC Combined - Map



Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 2: 20220919142502_9 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot

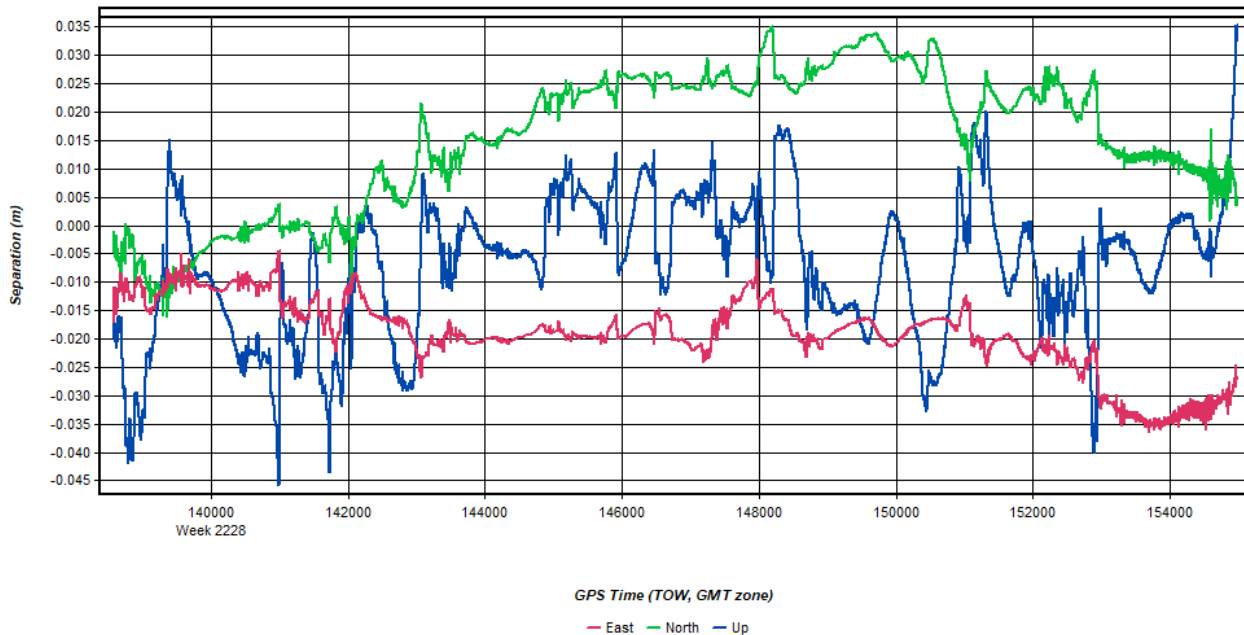


Figure 3: 20220919142502_9 [Smoothed TC Combined] - Float or Fixed Ambiguity

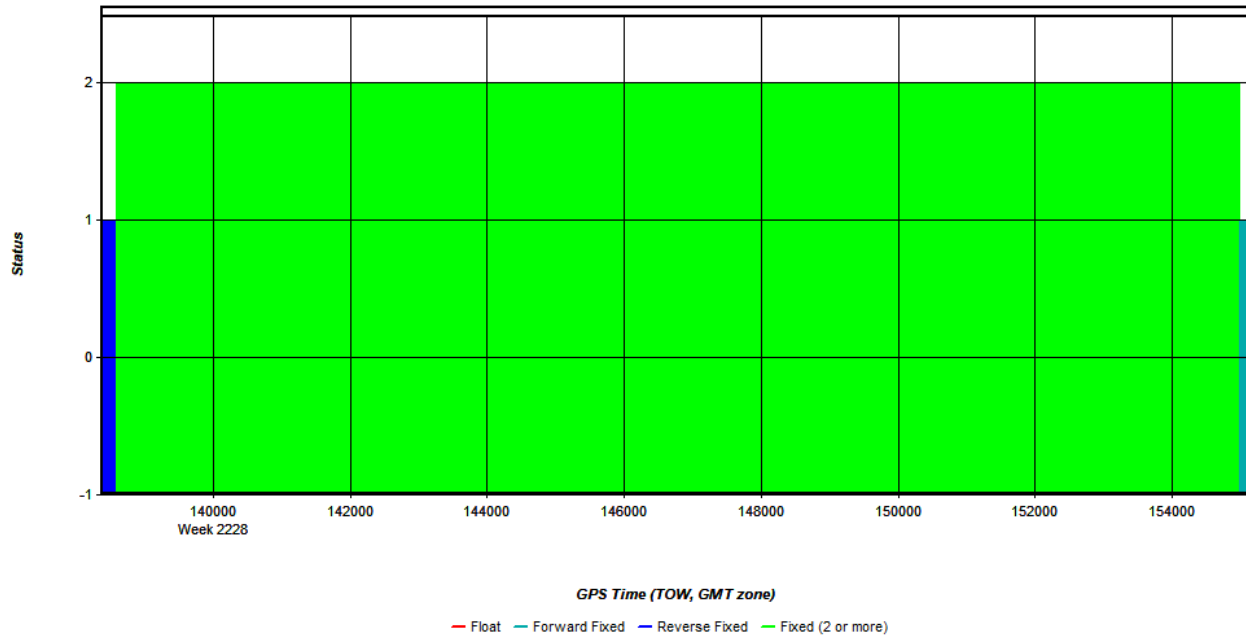


Figure 4: 20220919142502_9 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

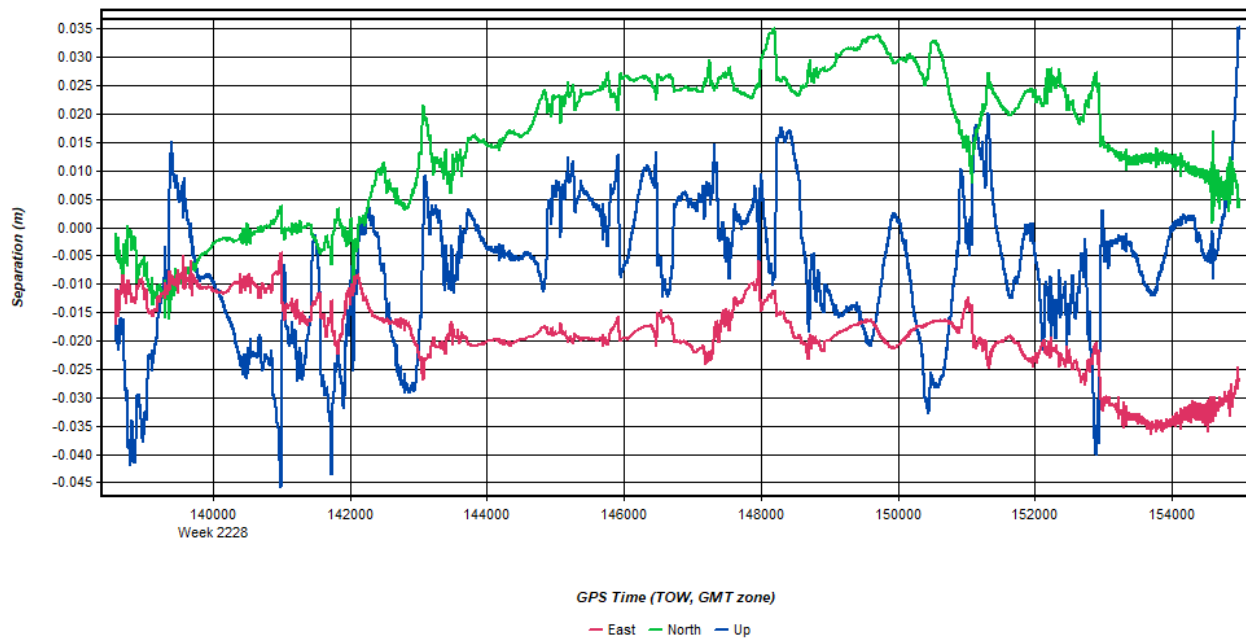
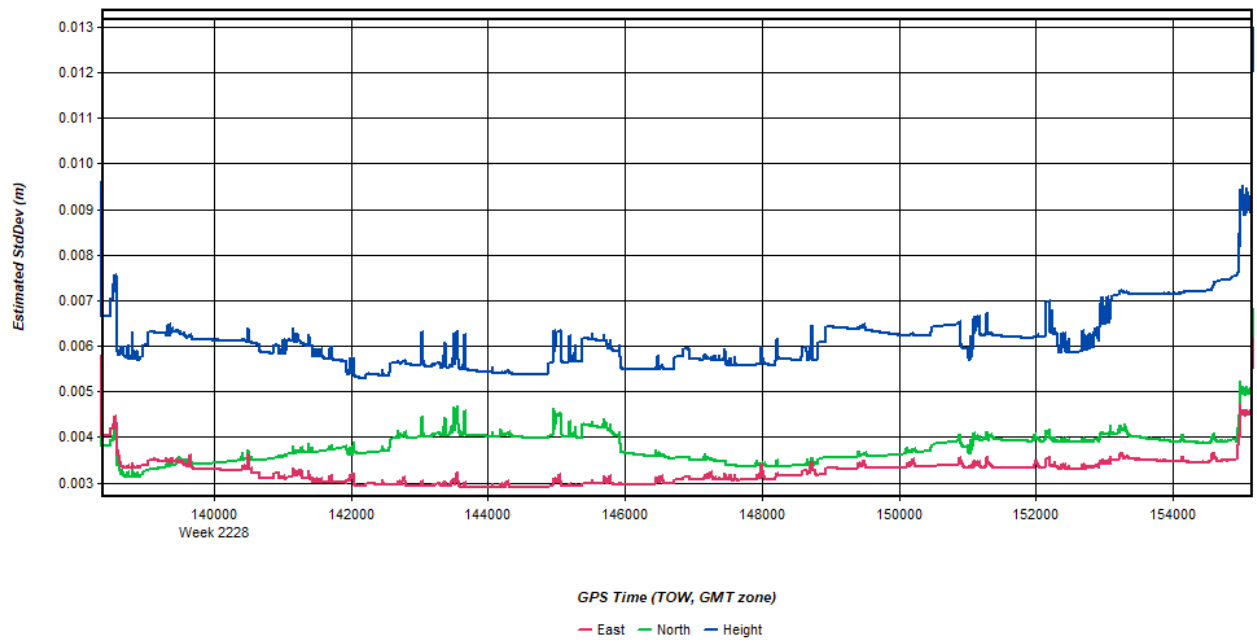
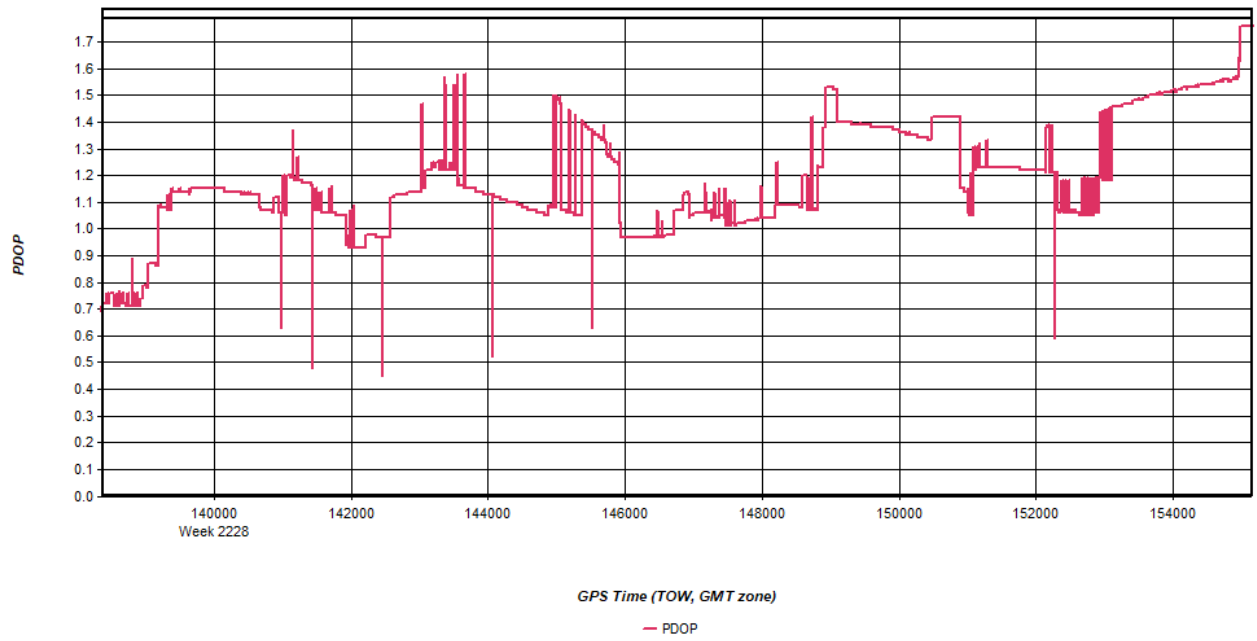


Figure 5: 20220919142502_9 [Smoothed TC Combined] - Estimated Position Accuracy Plot



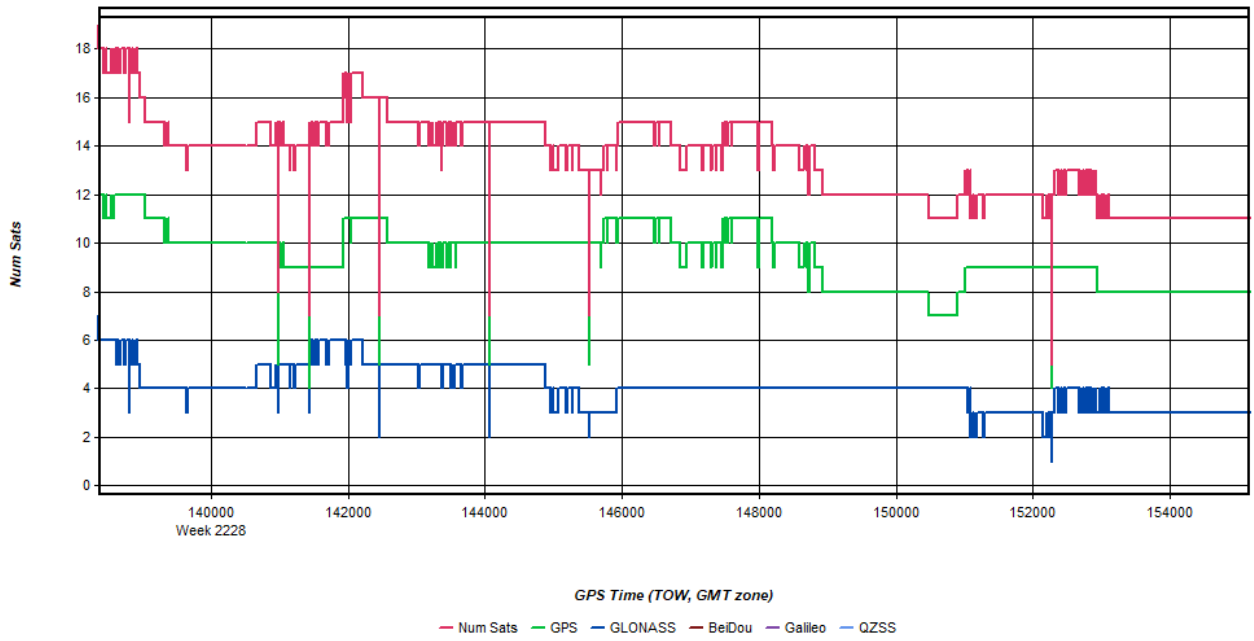
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 6: 20220919142502_9 [Smoothed TC Combined] - PDOP Plot



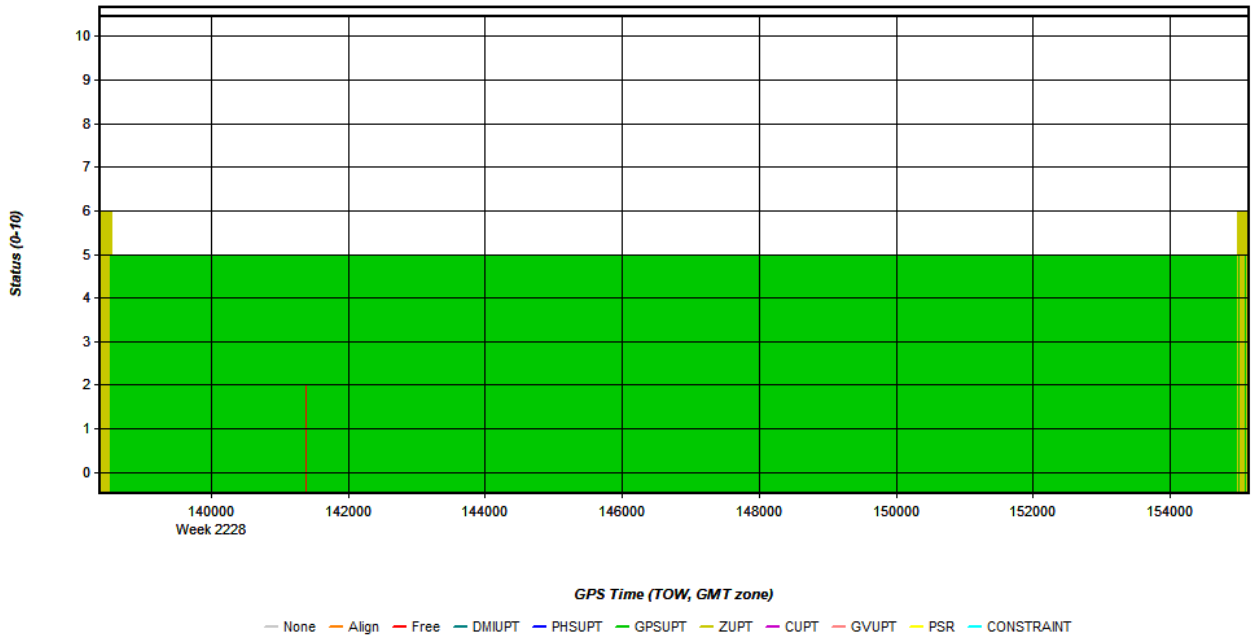
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 7: 20220919142502_9 [Smoothed TC Combined] - Number of Satellites Line Plot



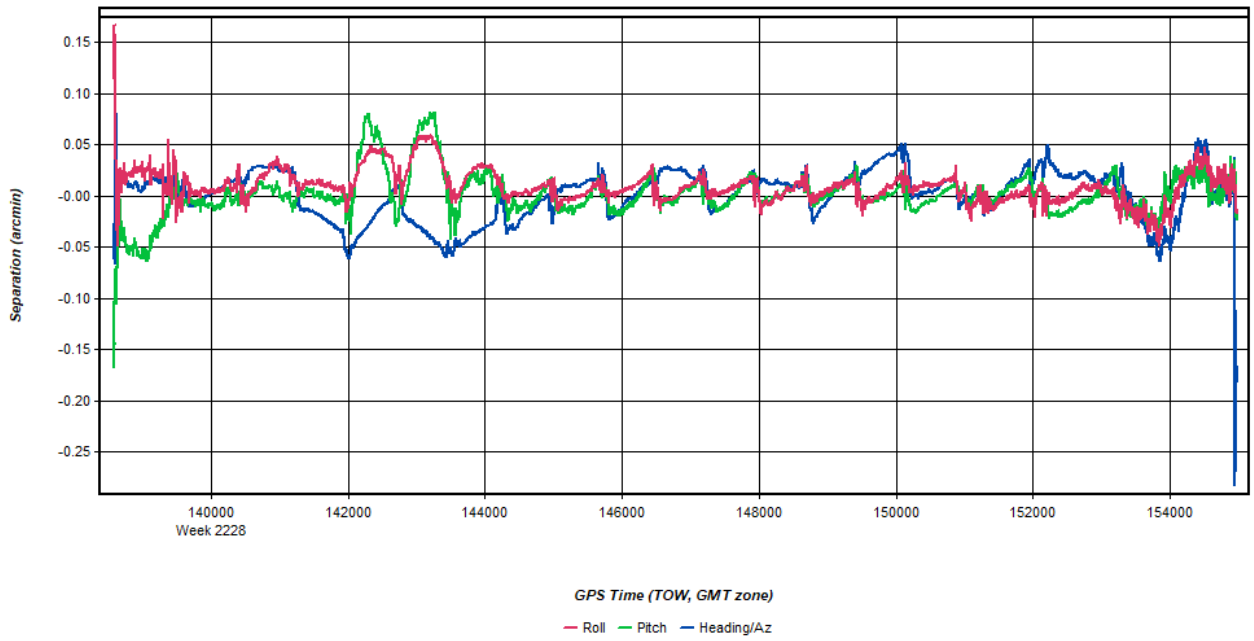
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 8: 20220919142502_9 [Smoothed TC Combined] - Status flag for IMU processing



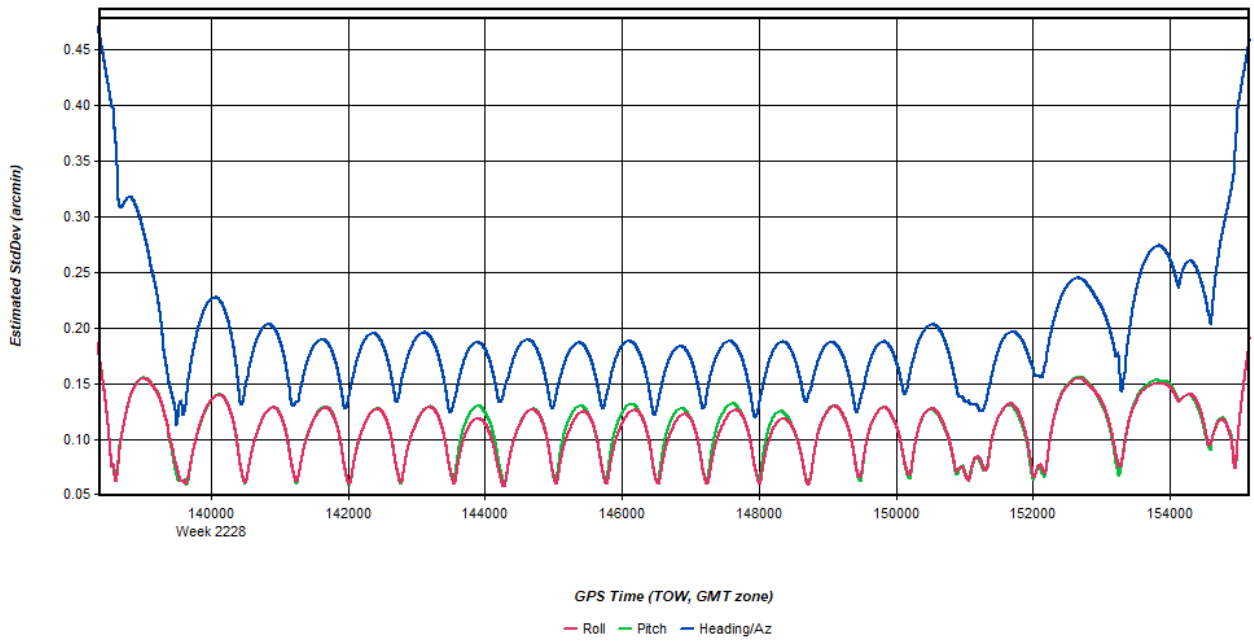
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 9: 20220919142502_9 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



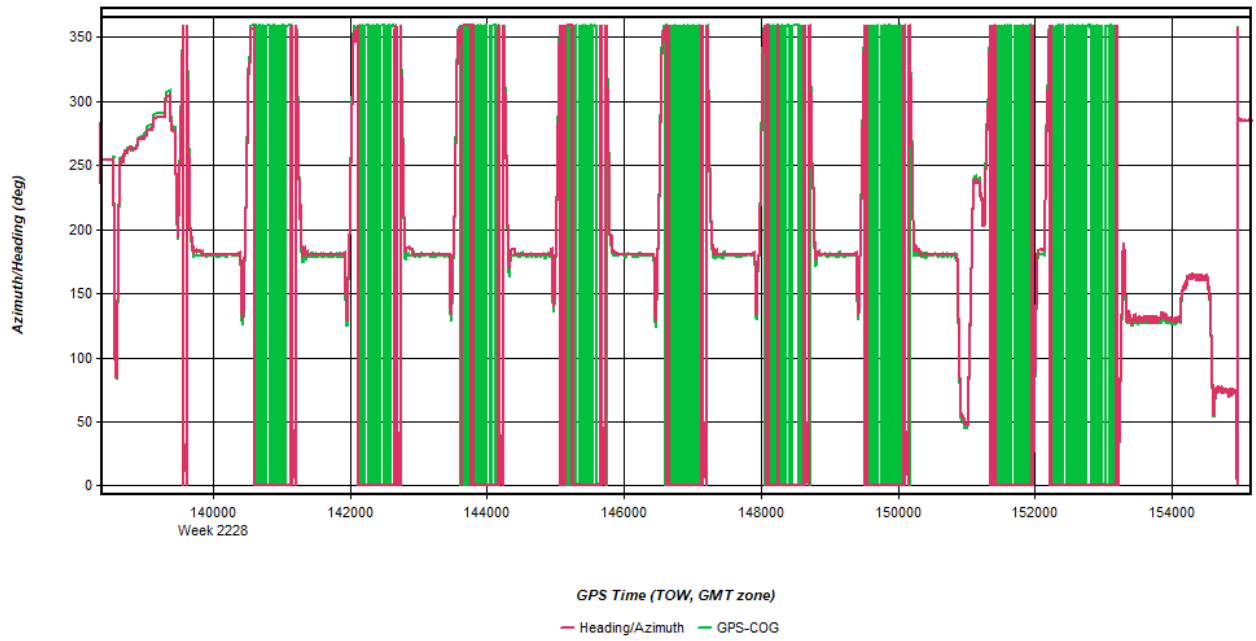
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 10: 20220919142502_9 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



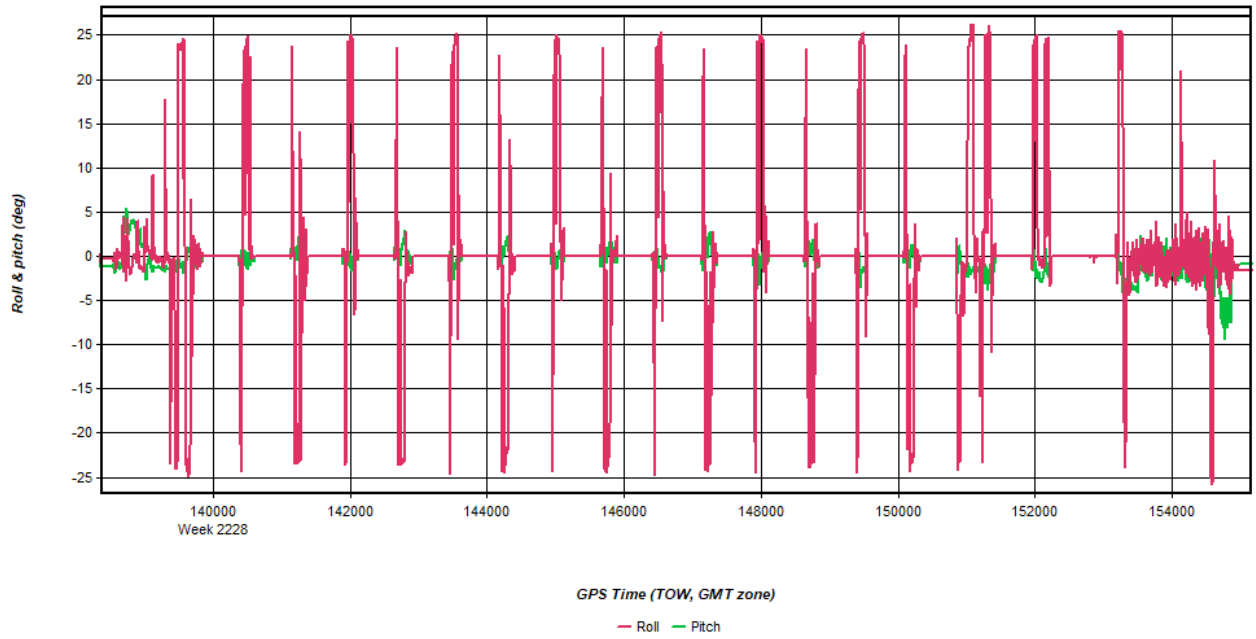
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 11: 20220919142502_9 [Smoothed TC Combined] - Azimuth Plot



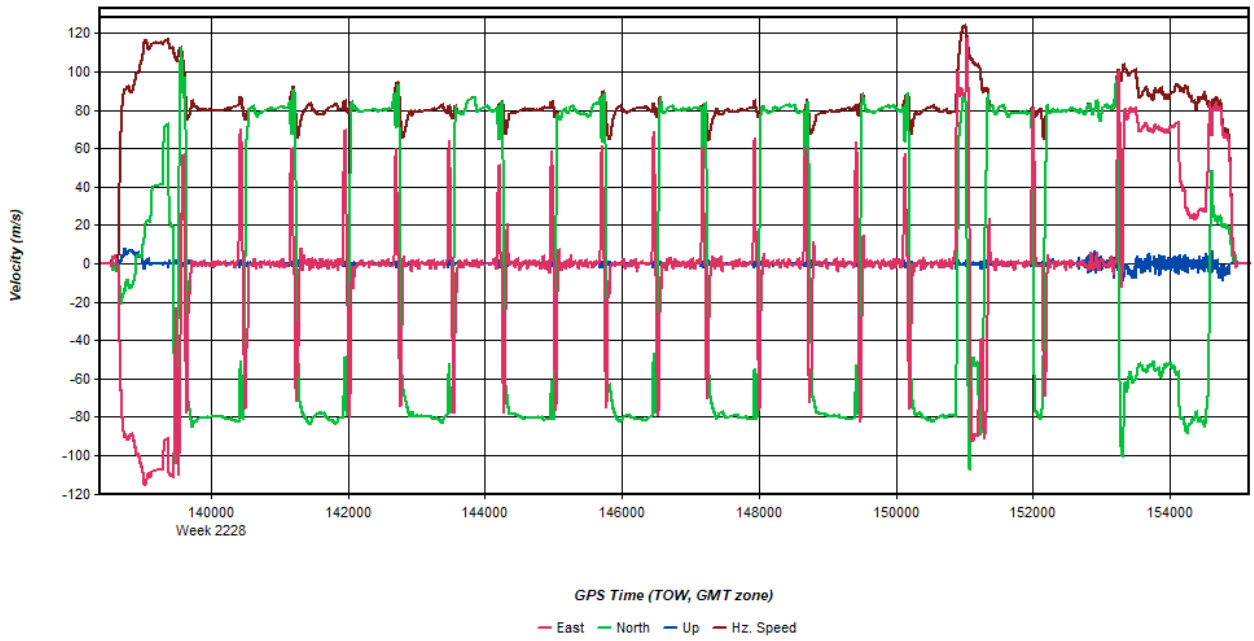
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 12: 20220919142502_9 [Smoothed TC Combined] - Roll & Pitch Plot



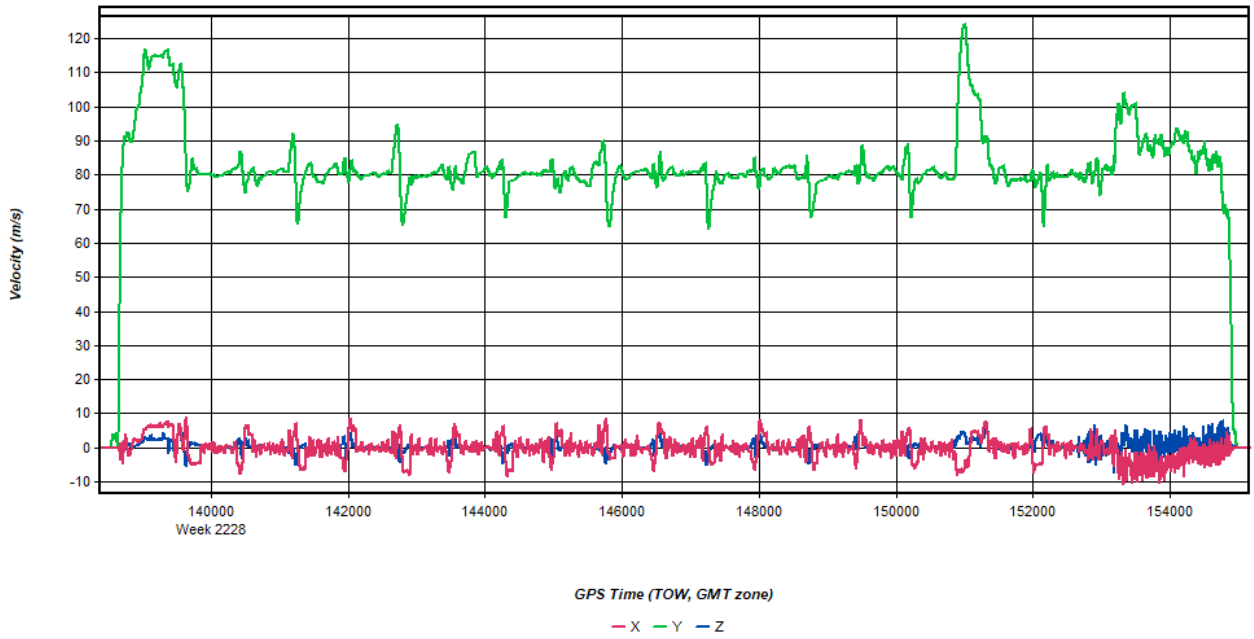
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 13: 20220919142502_9 [Smoothed TC Combined] - Velocity Profile Plot



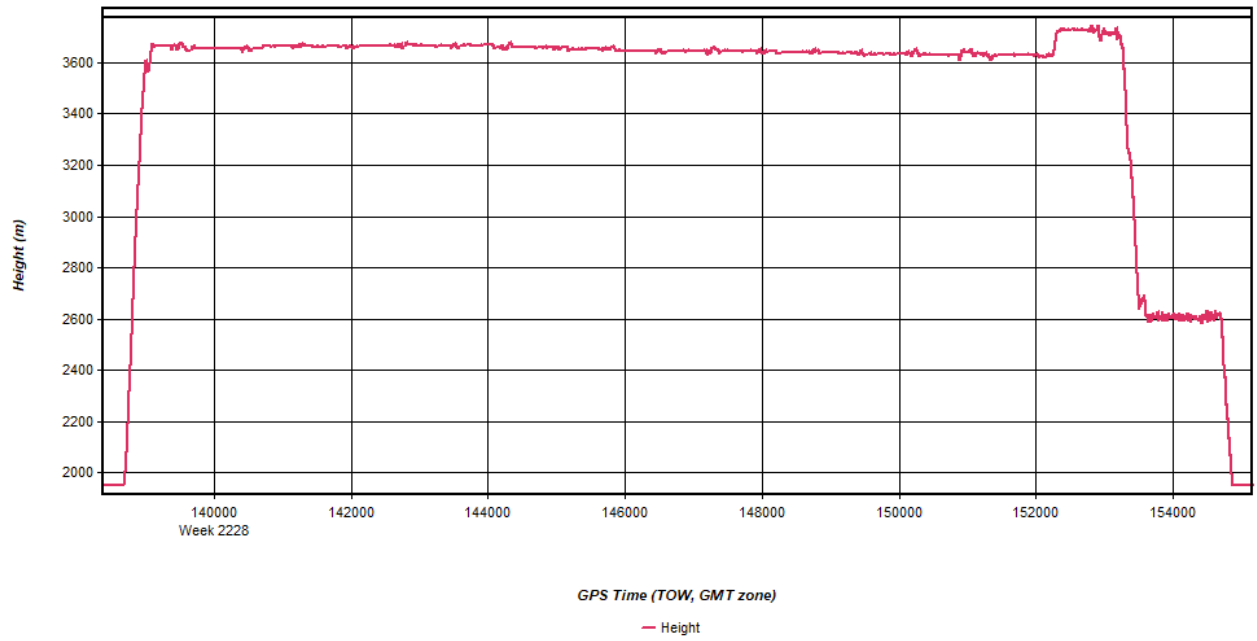
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 14: 20220919142502_9 [Smoothed TC Combined] - Body Frame Velocity Plot



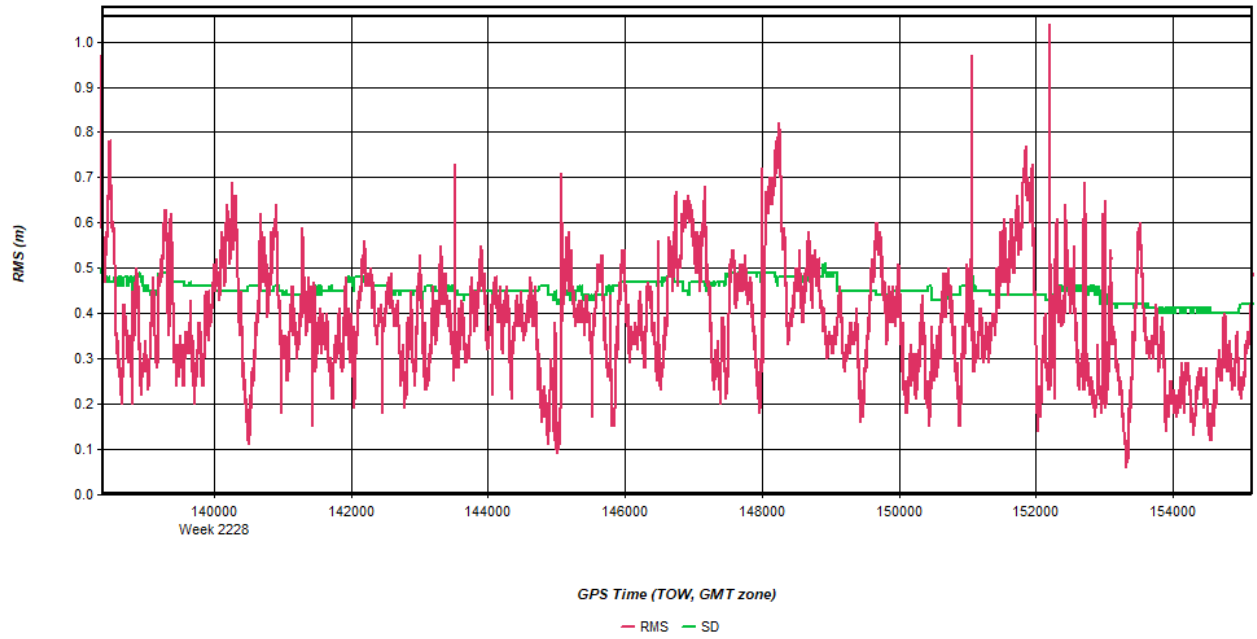
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 15: 20220919142502_9 [Smoothed TC Combined] - Height Profile Plot



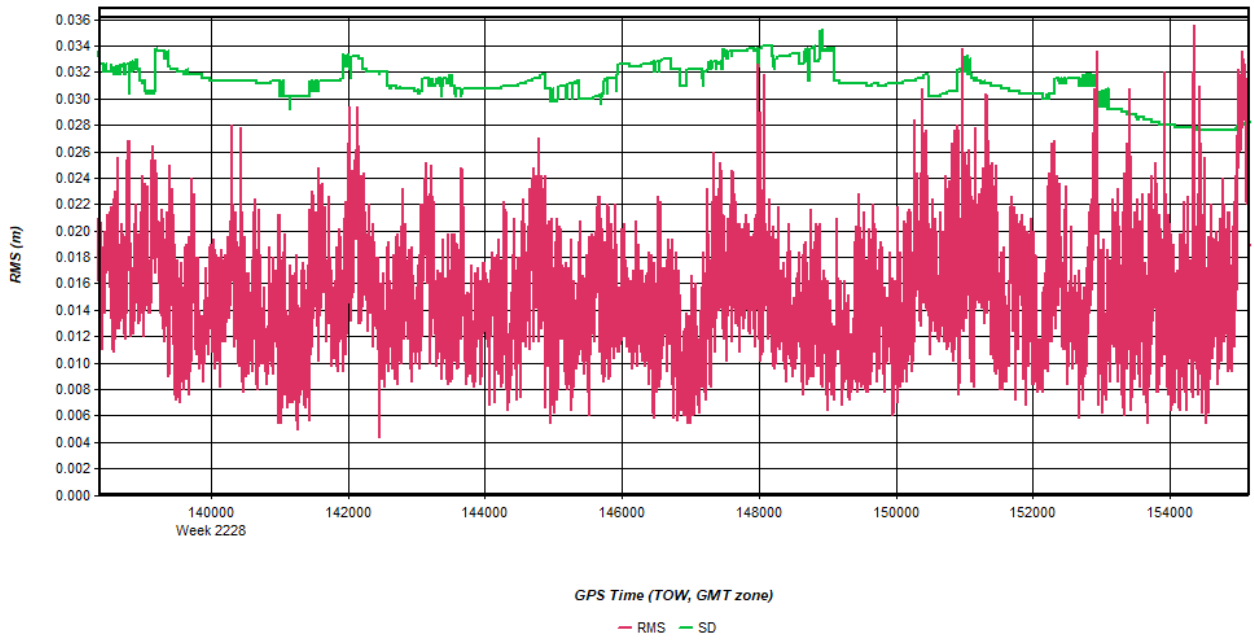
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 16: 20220919142502_9 [Smoothed TC Combined] - C/A Code Residual RMS Plot



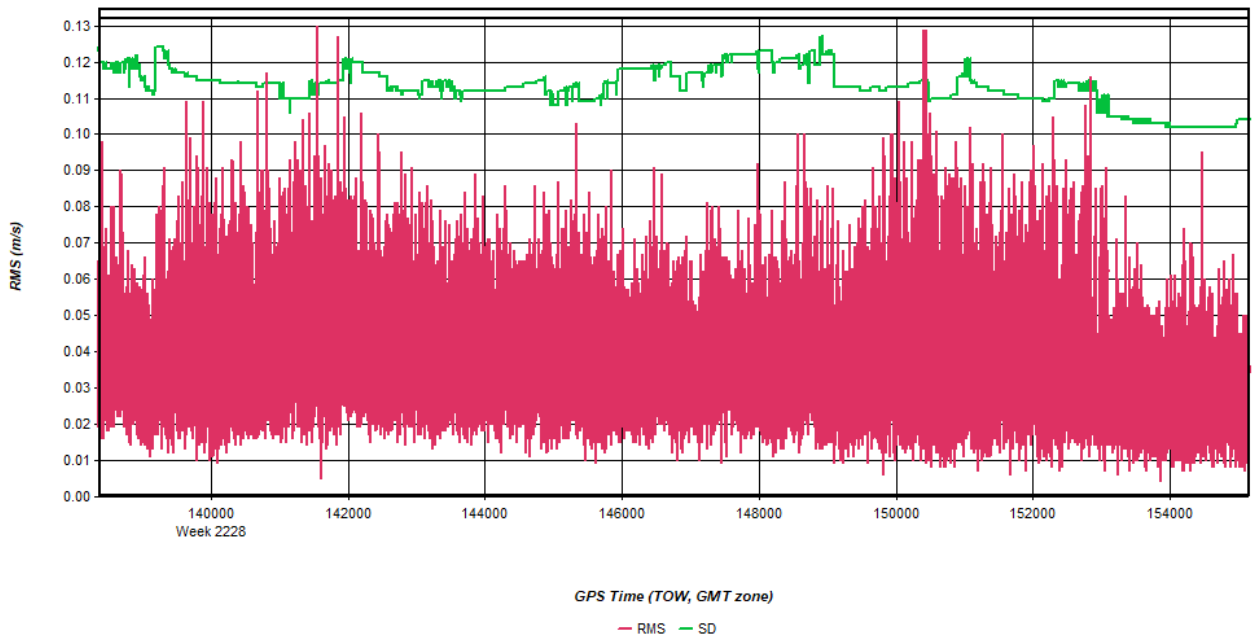
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 17: 20220919142502_9 [Smoothed TC Combined] - Carrier Residual RMS Plot



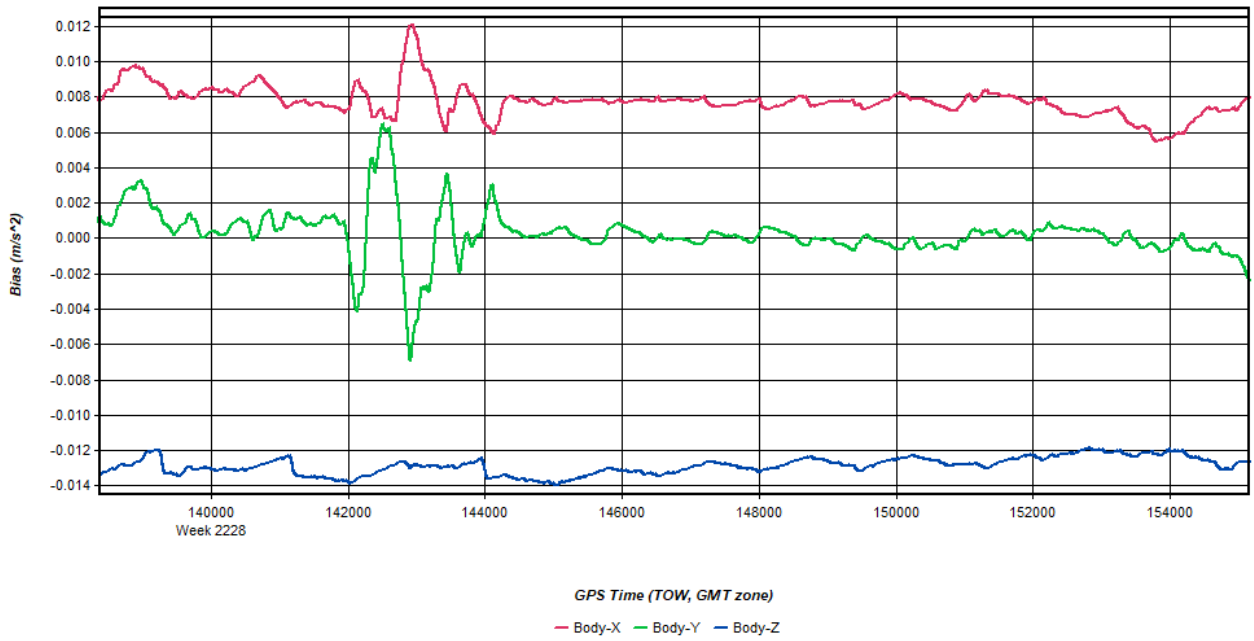
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 18: 20220919142502_9 [Smoothed TC Combined] - Doppler Residual RMS Plot



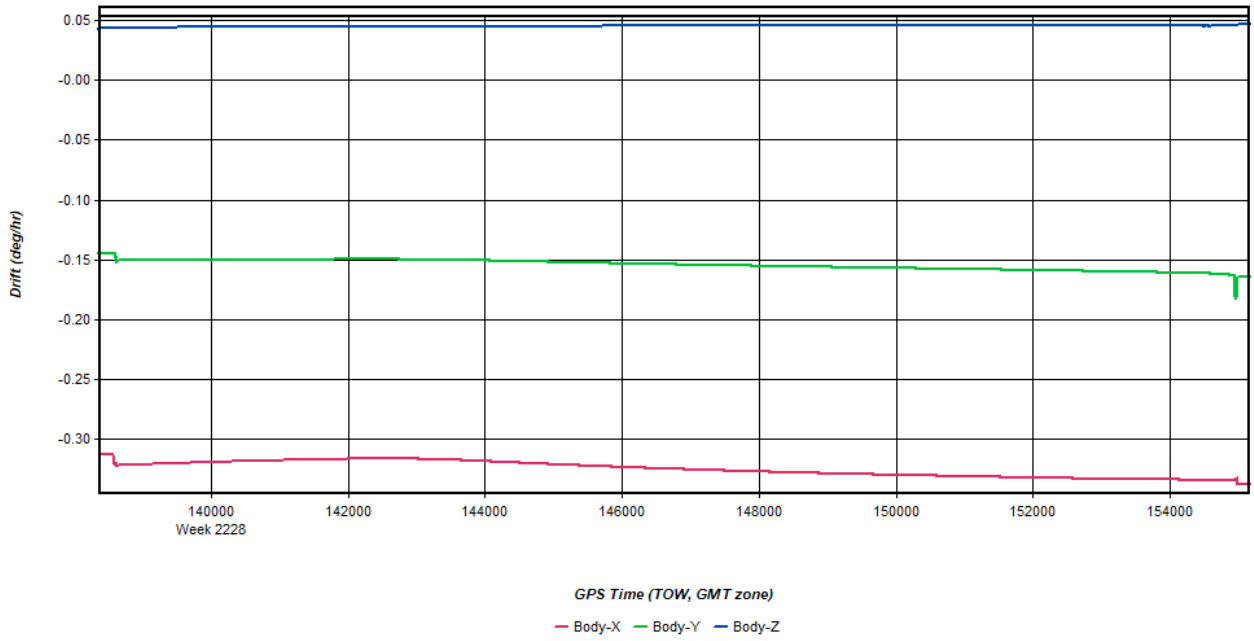
Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 19: 20220919142502_9 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Figure 20: 20220919142502_9 [Smoothed TC Combined] - Gyro Drift Plot

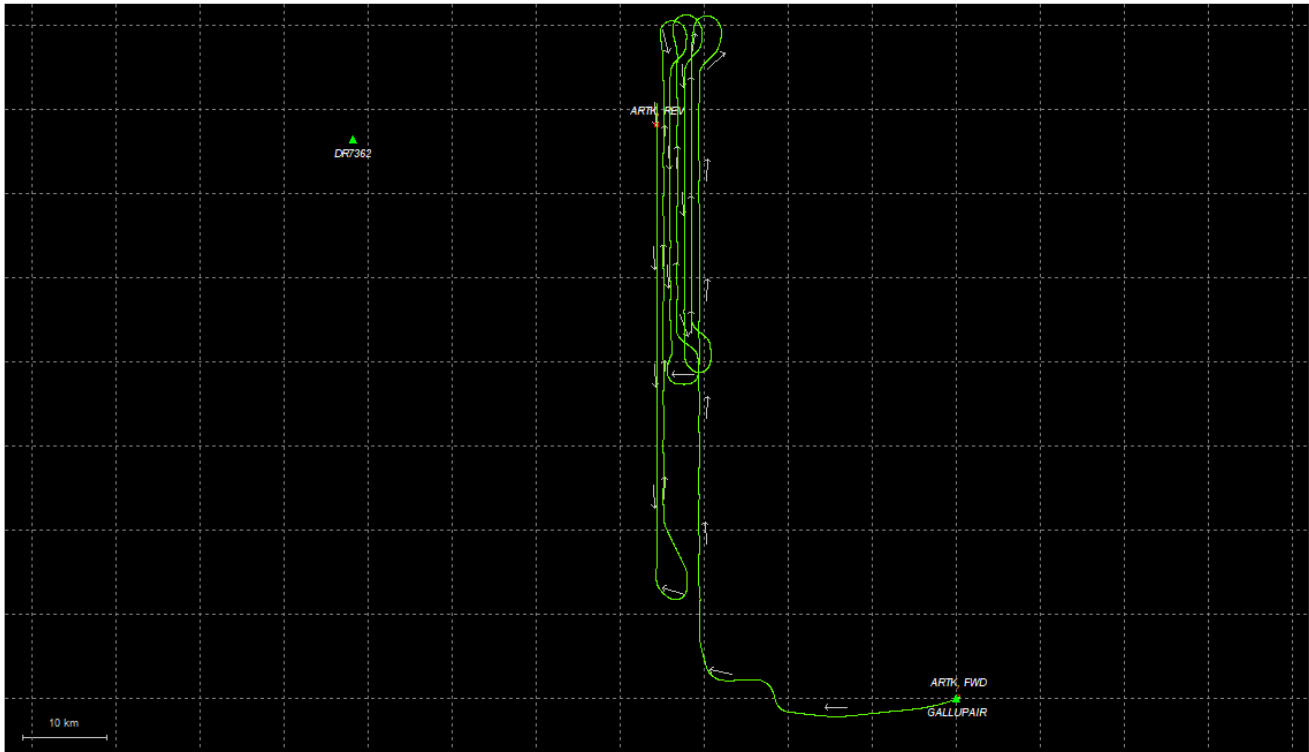


Process	20220919142502_9	by Unknown	on 9/23/2022	at 12:21:58
---------	------------------	------------	--------------	-------------

Output Results for 20220920003424_10

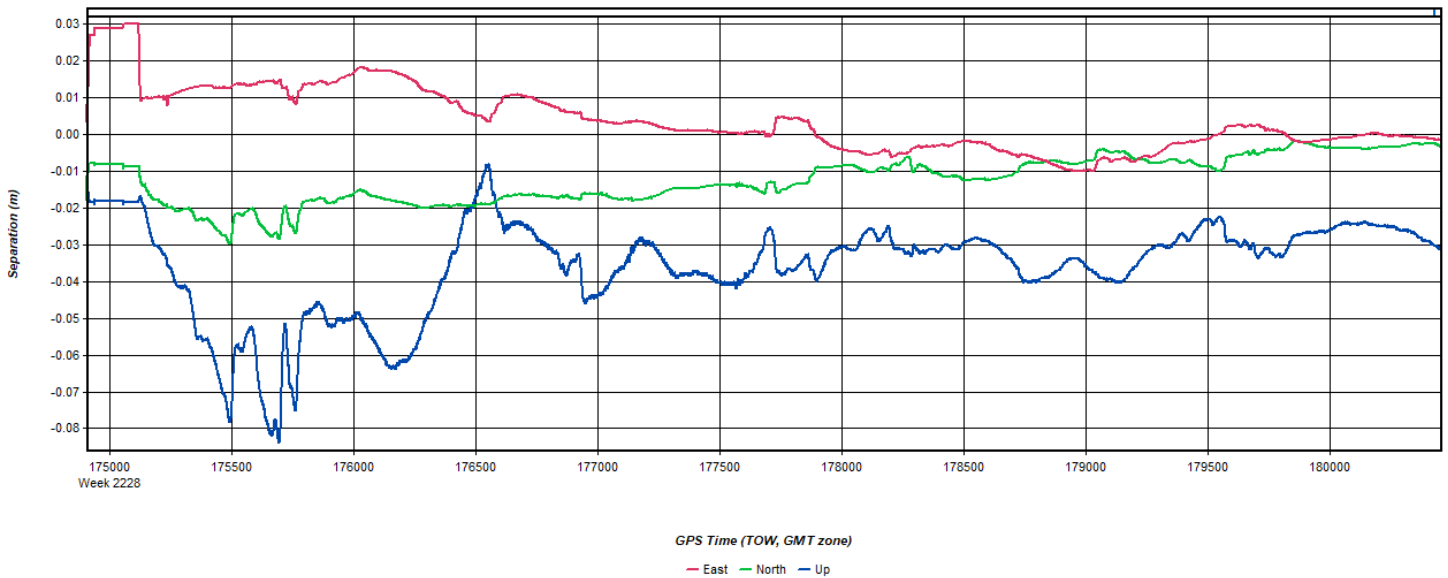
Inertial Explorer Version 8.90.2124
09/22/2022

Figure 1: Smoothed TC Combined - Map



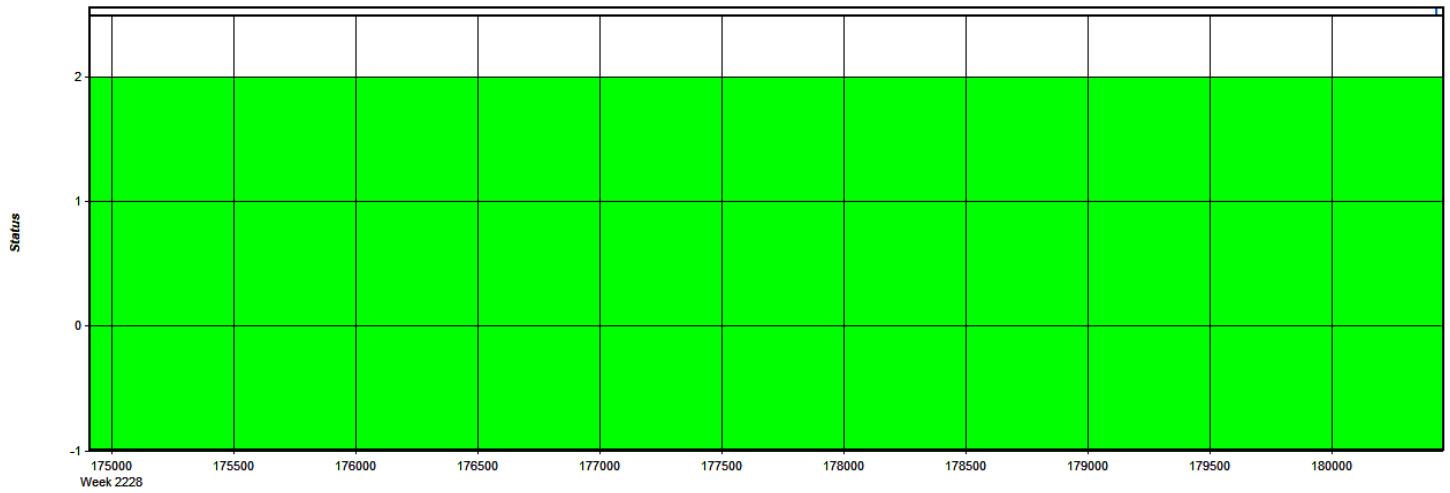
Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 2: 20220920003424_10 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



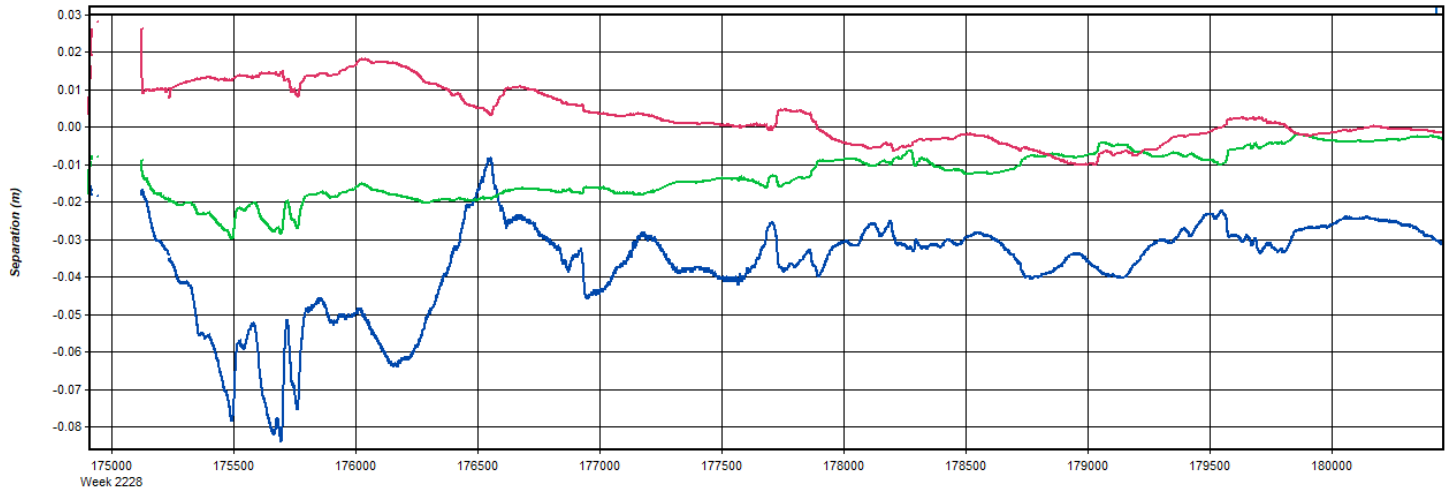
Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 3: 20220920003424_10 [Smoothed TC Combined] - Float or Fixed Ambiguity



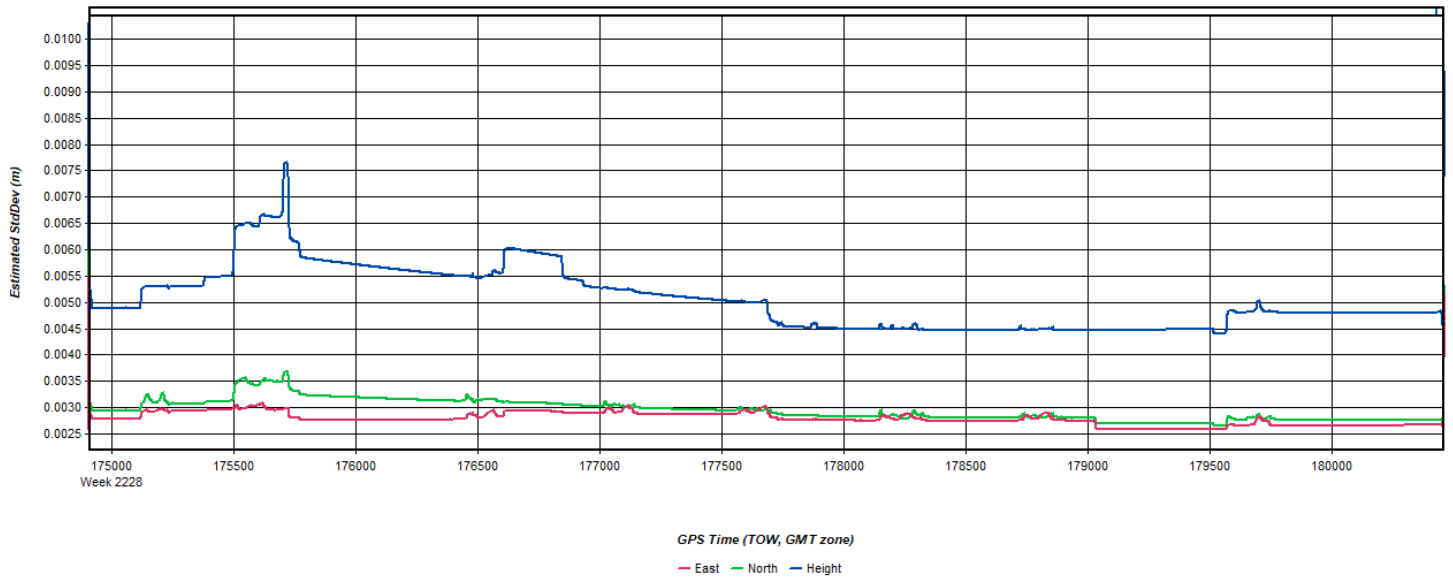
Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 4: 20220920003424_10 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



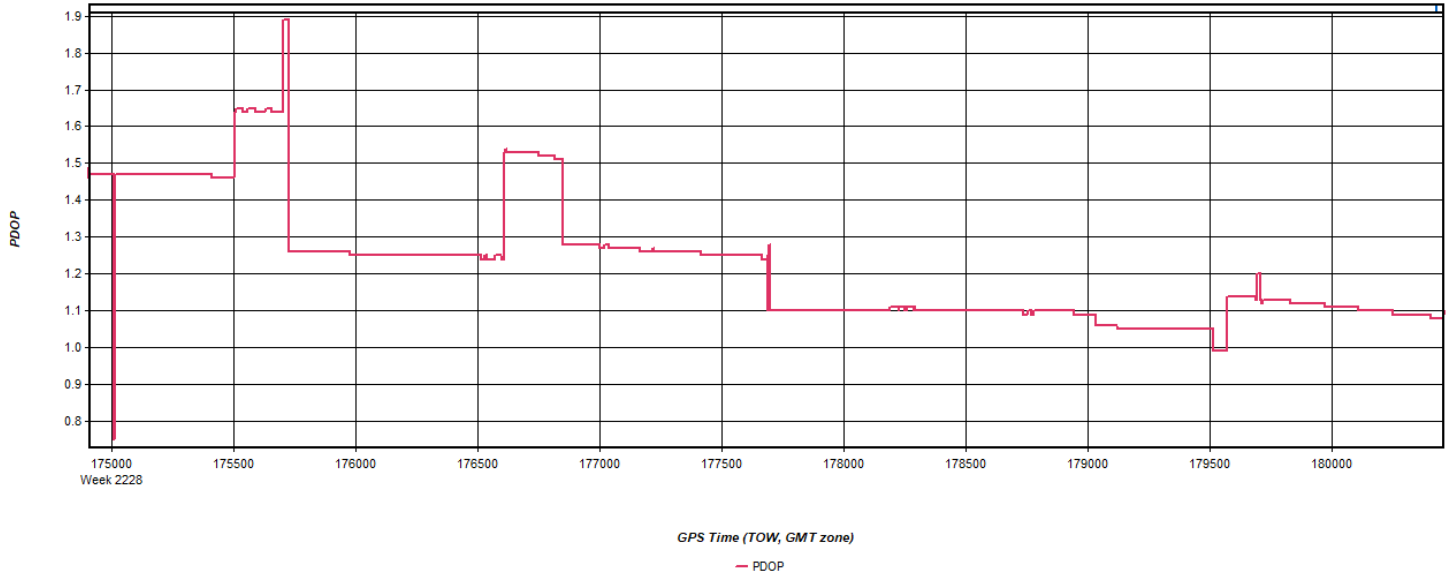
Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 5: 20220920003424_10 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 6: 20220920003424_10 [Smoothed TC Combined] - PDOP Plot



Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 7: 20220920003424_10 [Smoothed TC Combined] - Number of Satellites Line Plot

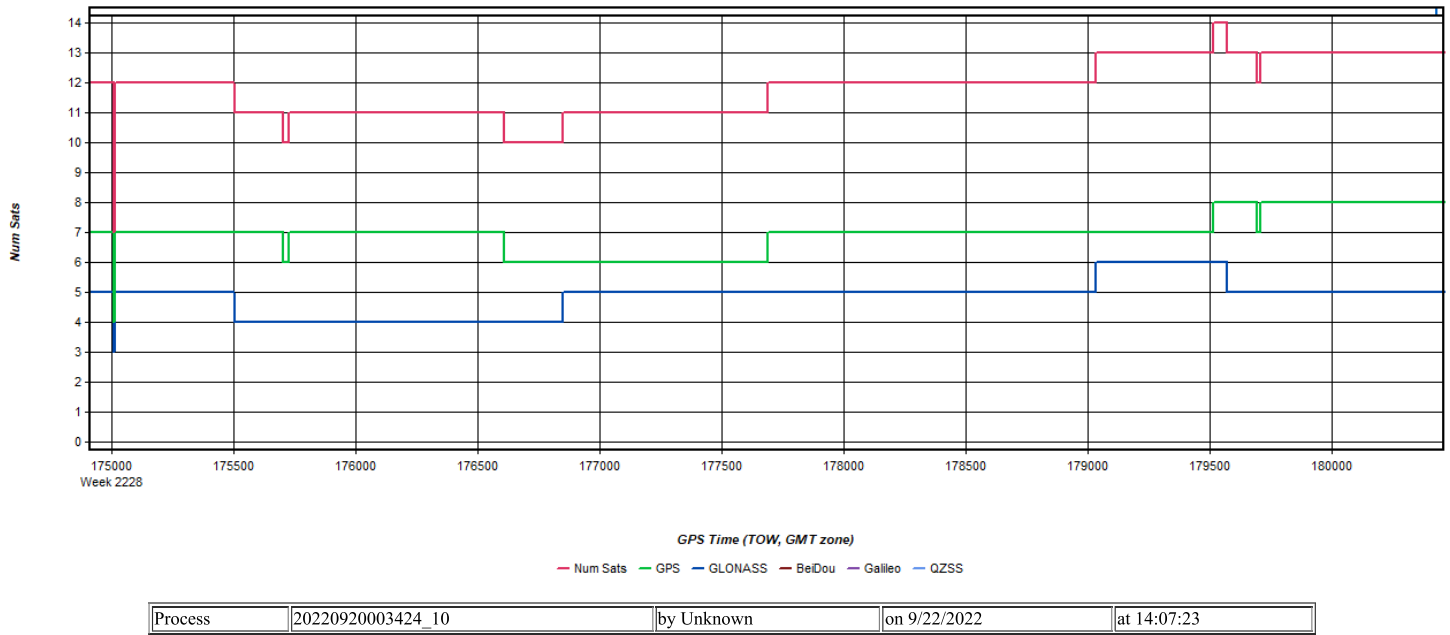


Figure 8: 20220920003424_10 [Smoothed TC Combined] - Status flag for IMU processing

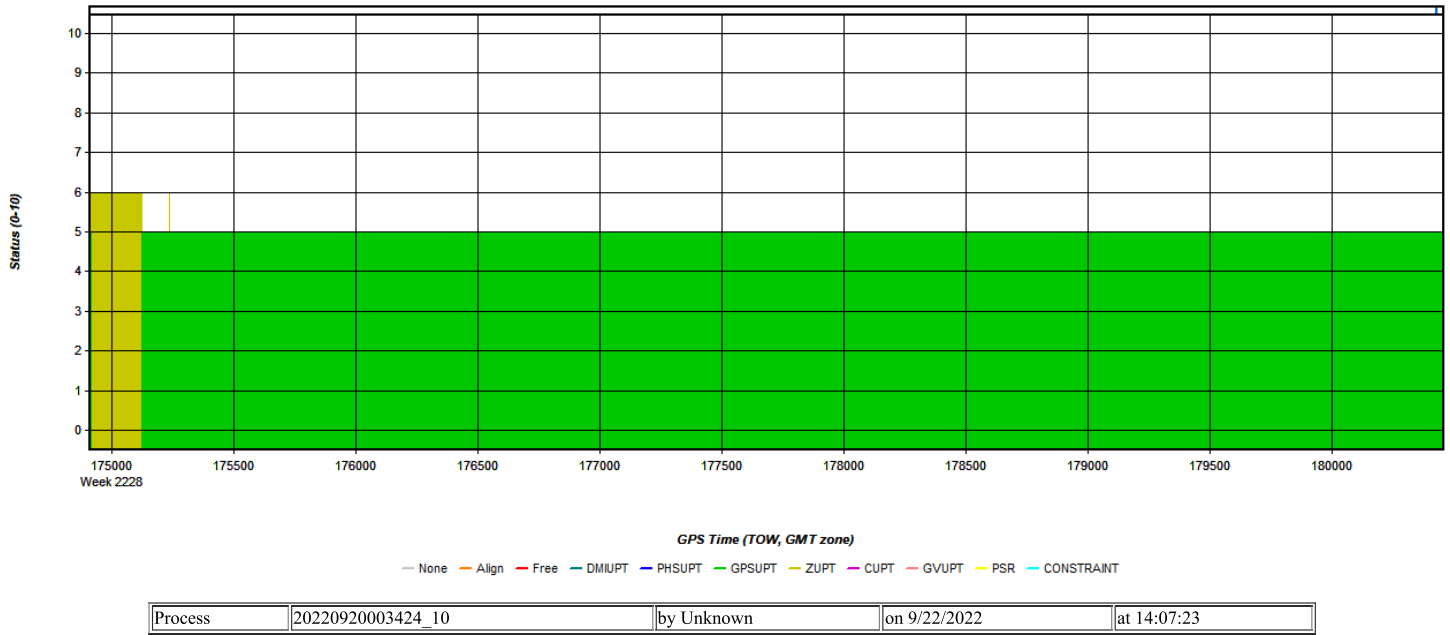
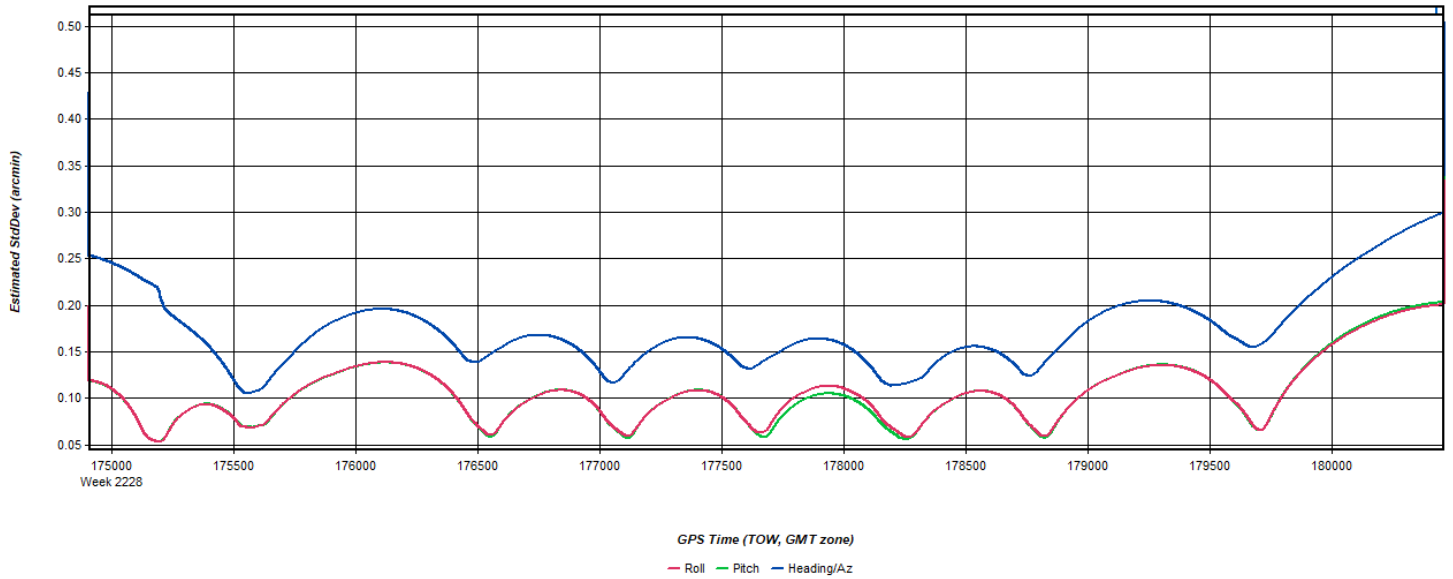


Figure 9: 20220920003424_10 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 10: 20220920003424_10 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 11: 20220920003424_10 [Smoothed TC Combined] - Azimuth Plot

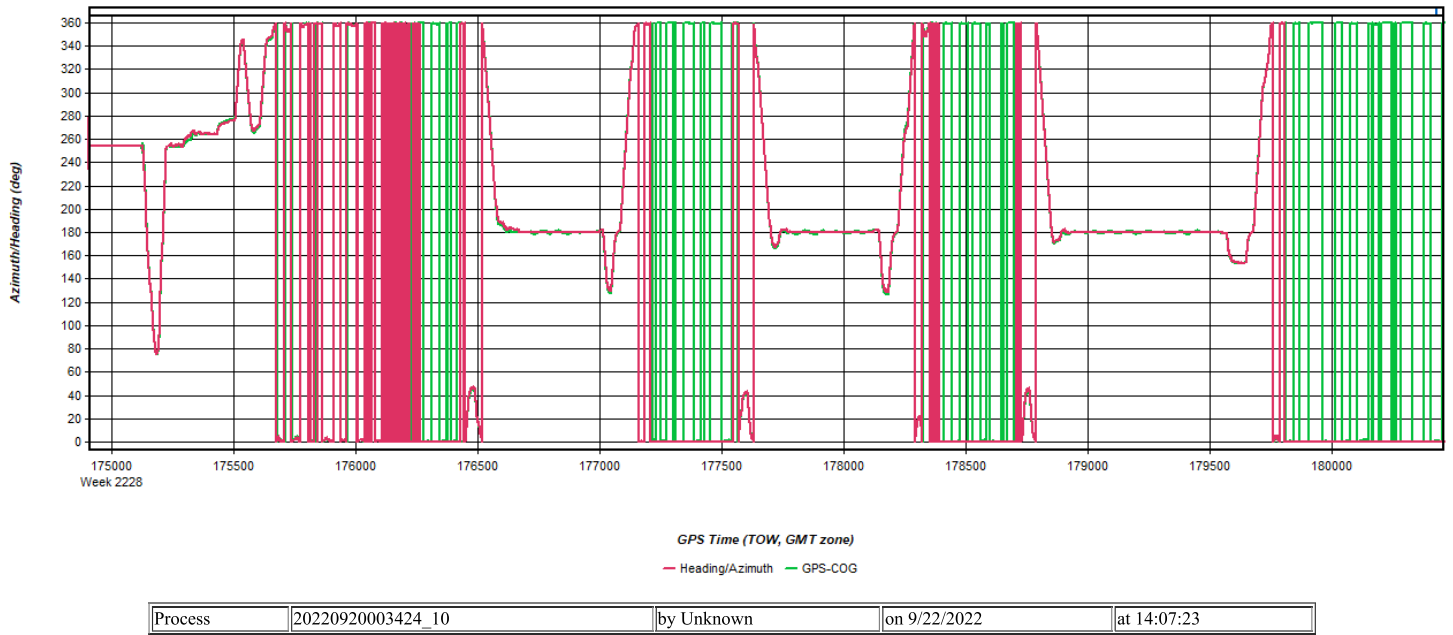


Figure 12: 20220920003424_10 [Smoothed TC Combined] - Roll & Pitch Plot

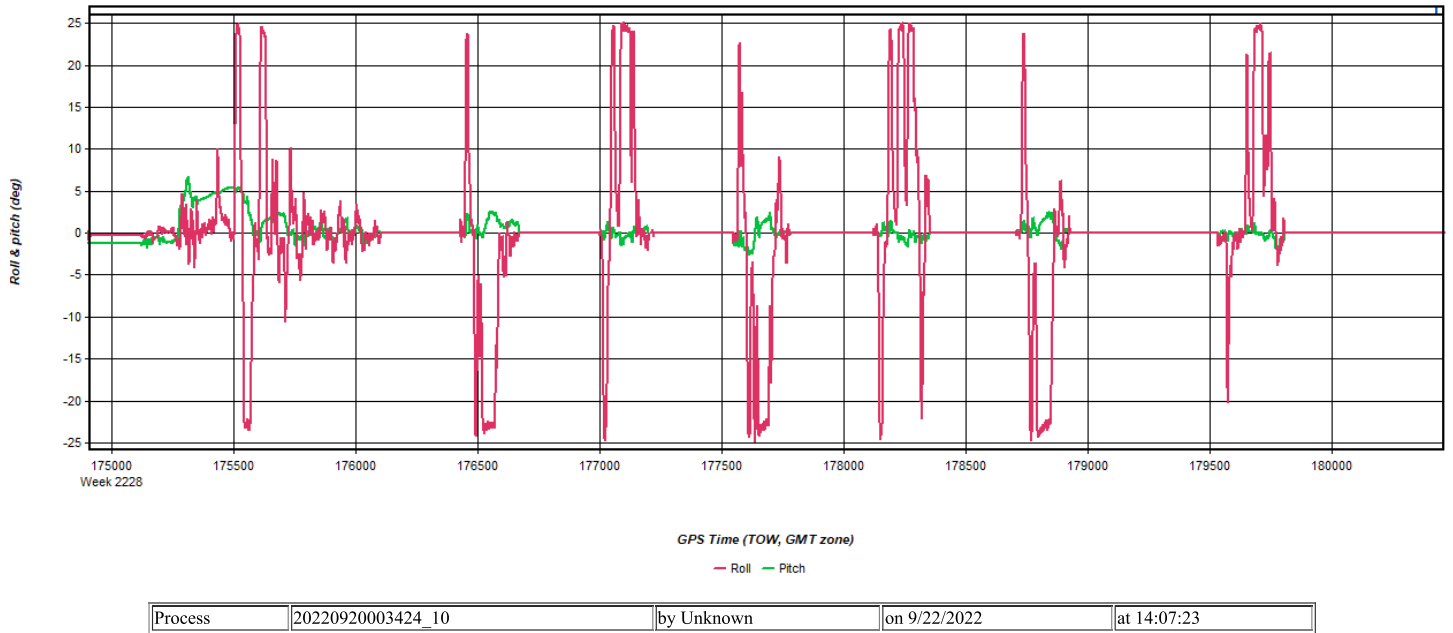


Figure 13: 20220920003424_10 [Smoothed TC Combined] - Velocity Profile Plot

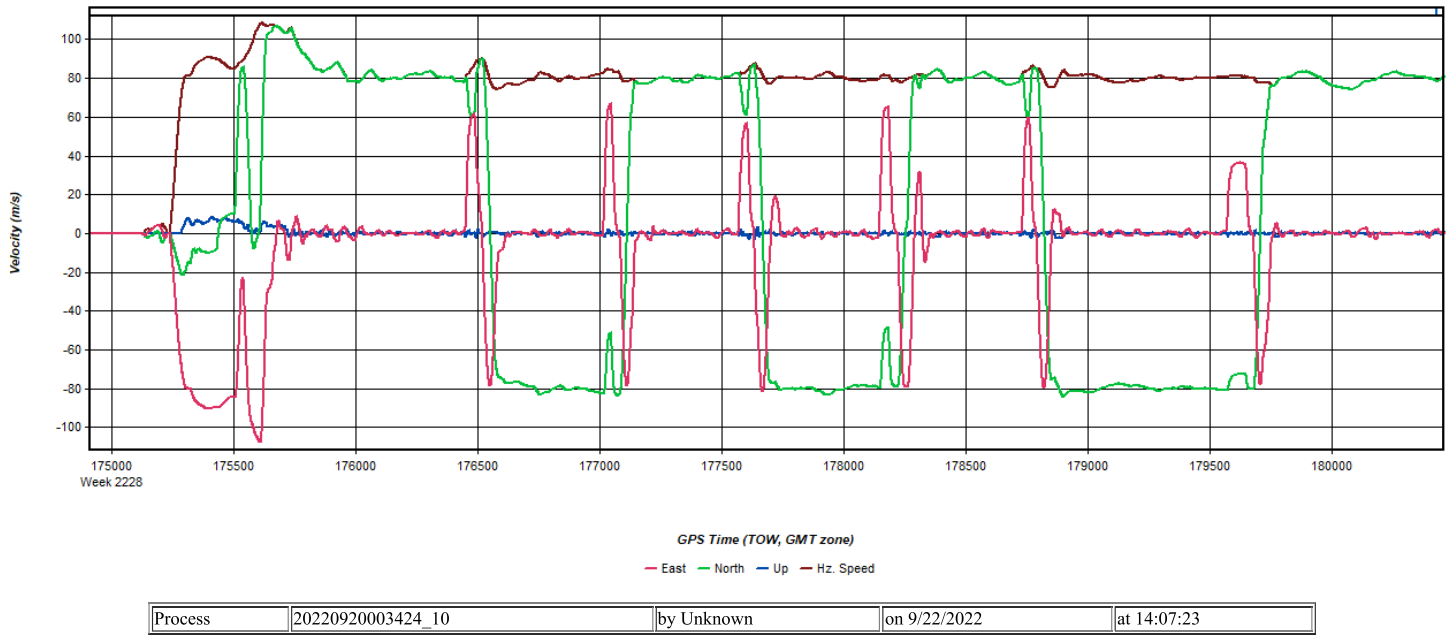


Figure 14: 20220920003424_10 [Smoothed TC Combined] - Body Frame Velocity Plot

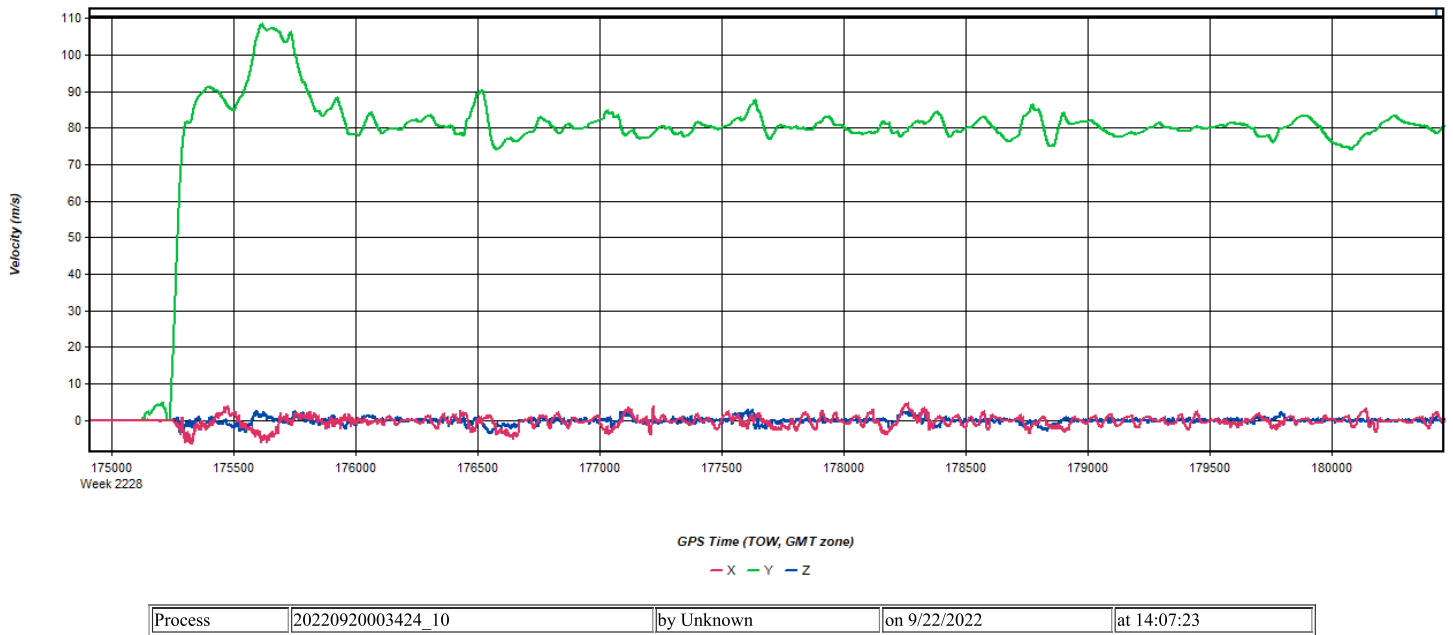


Figure 15: 20220920003424_10 [Smoothed TC Combined] - Height Profile Plot

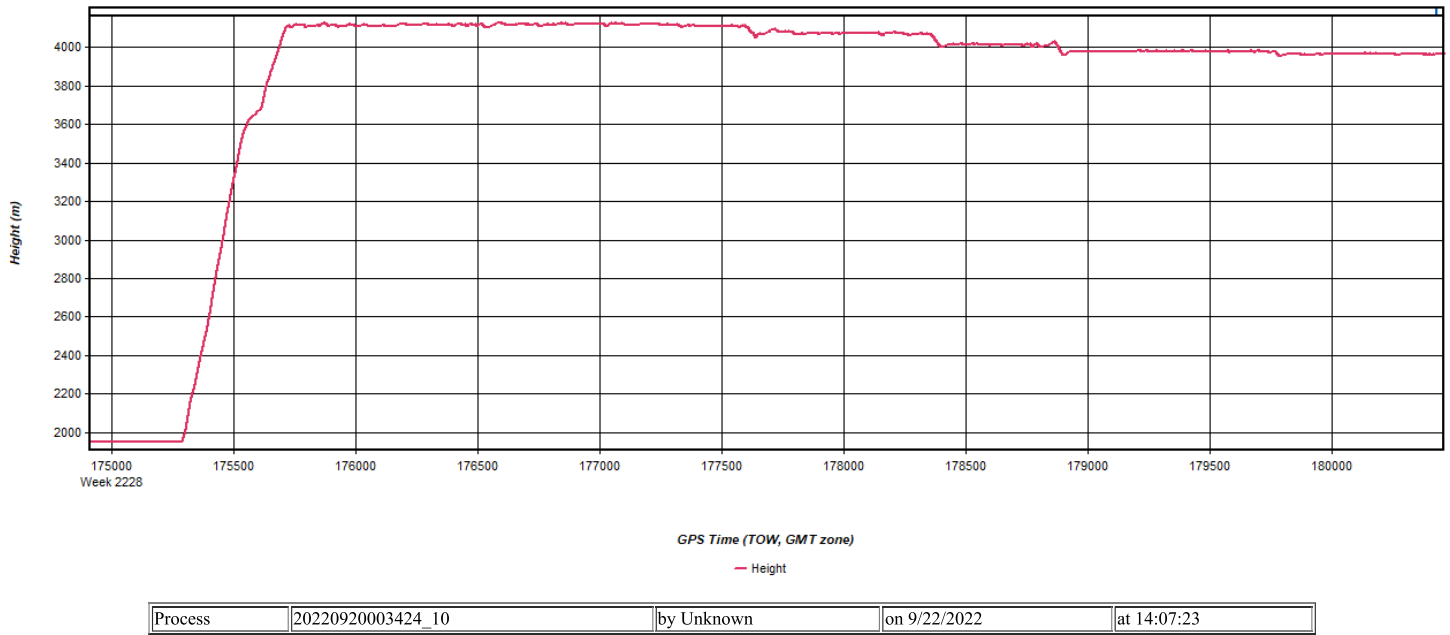


Figure 16: 20220920003424_10 [Smoothed TC Combined] - C/A Code Residual RMS Plot

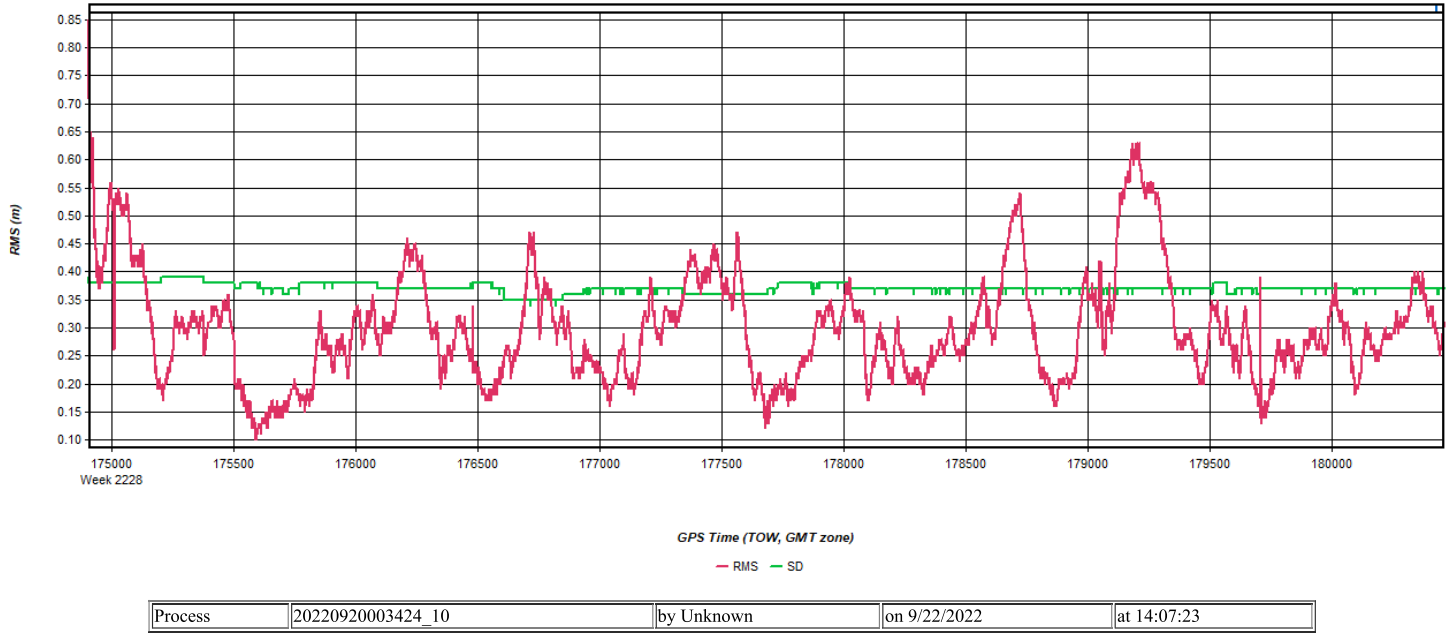
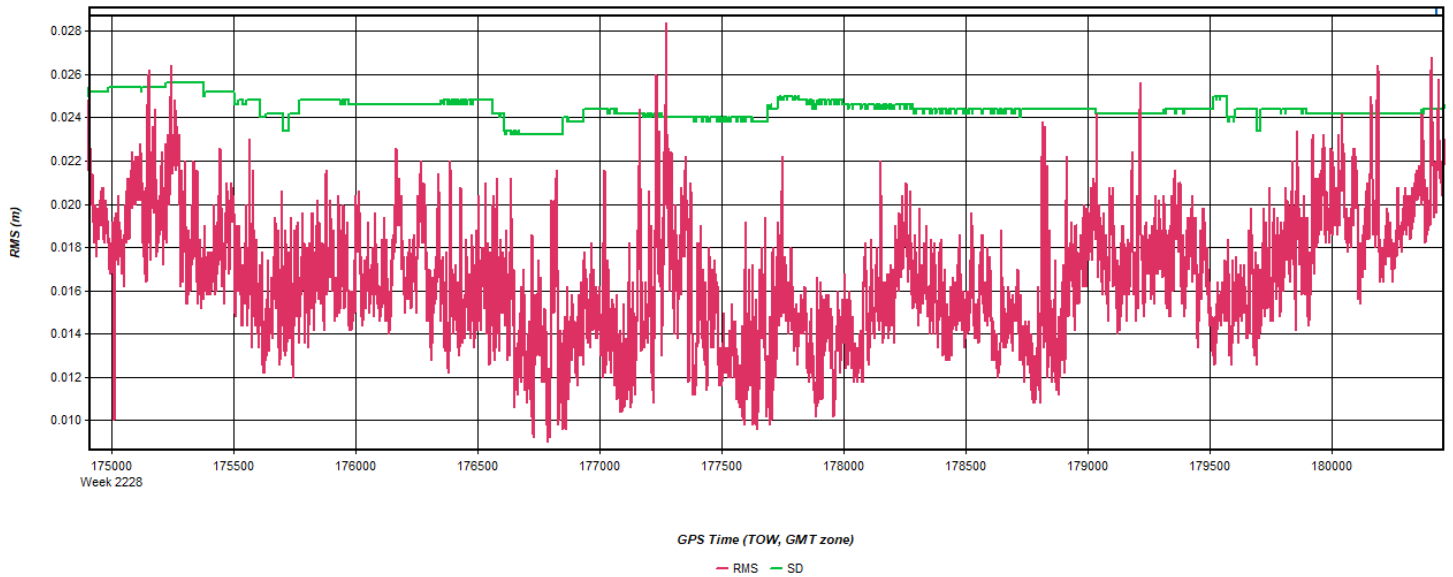
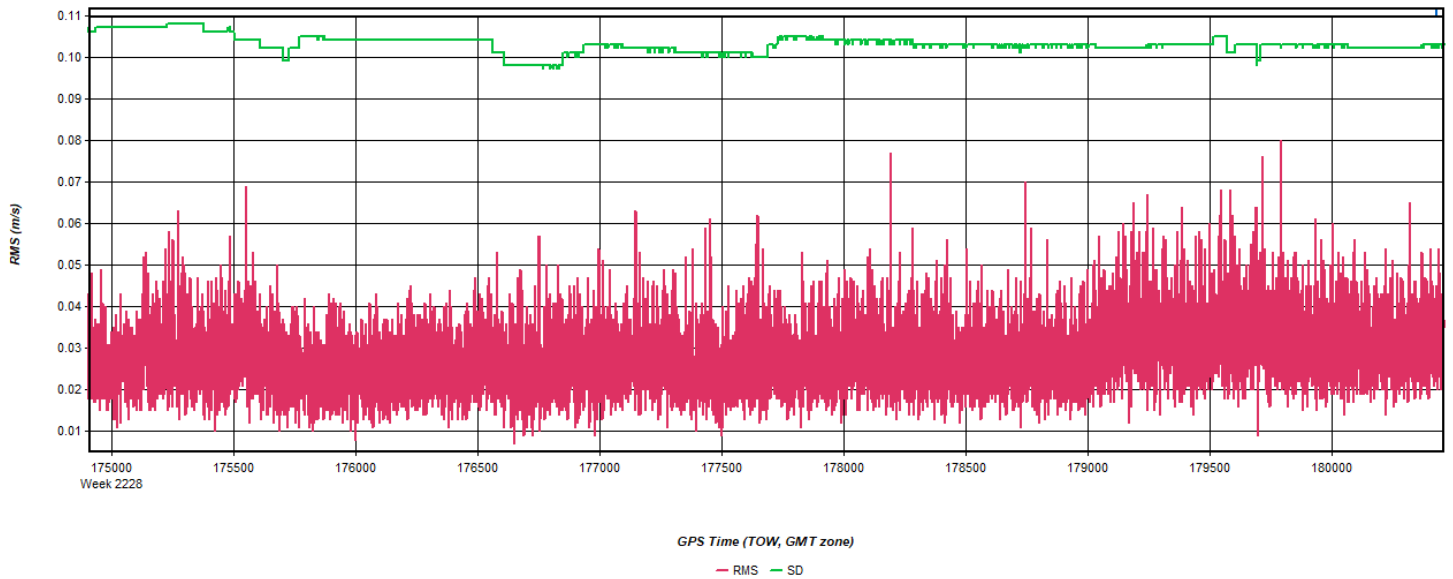


Figure 17: 20220920003424_10 [Smoothed TC Combined] - Carrier Residual RMS Plot



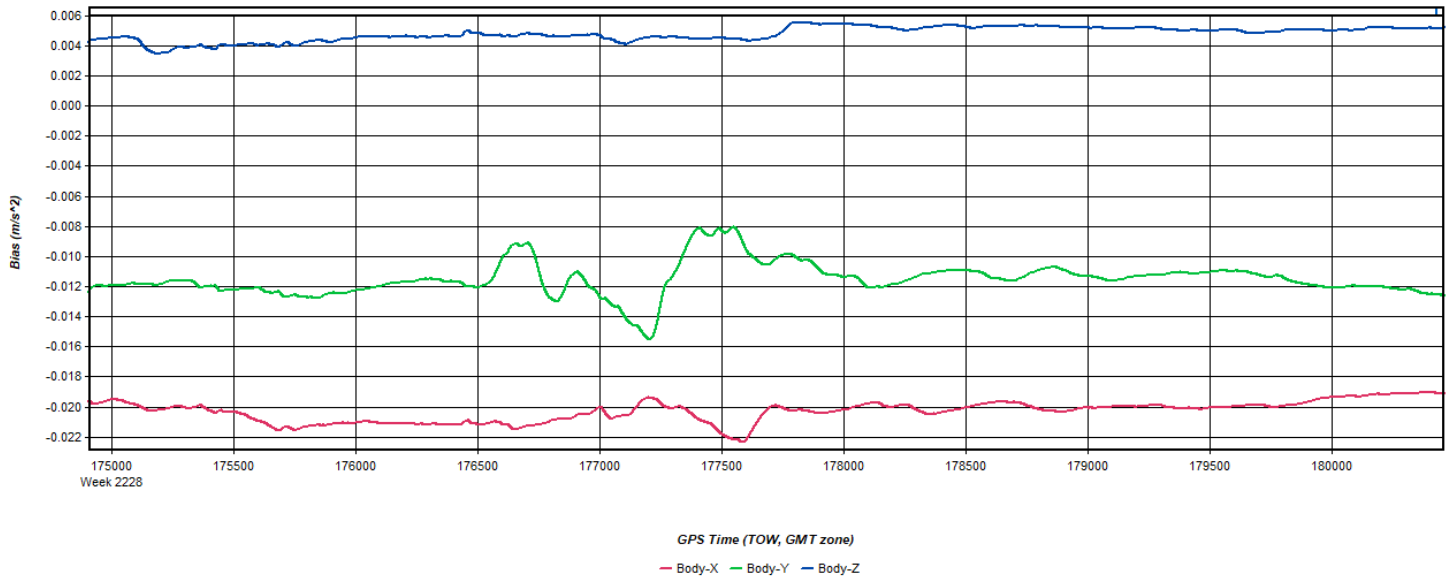
Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 18: 20220920003424_10 [Smoothed TC Combined] - Doppler Residual RMS Plot



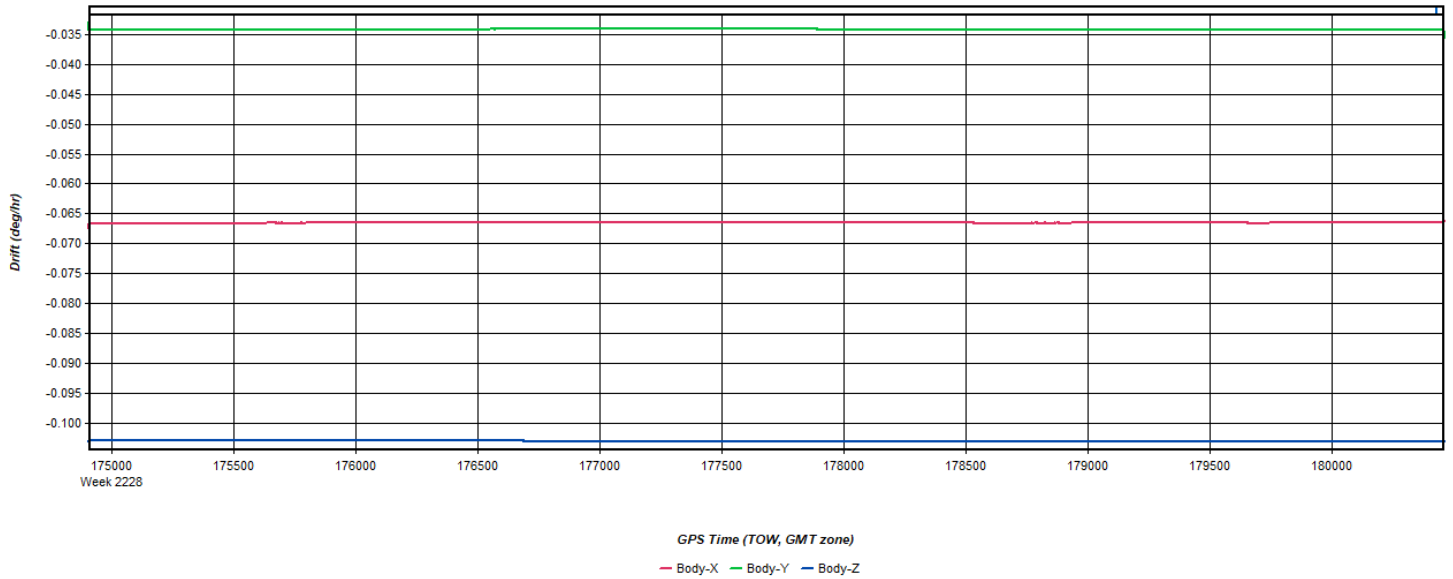
Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 19: 20220920003424_10 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Figure 20: 20220920003424_10 [Smoothed TC Combined] - Gyro Drift Plot

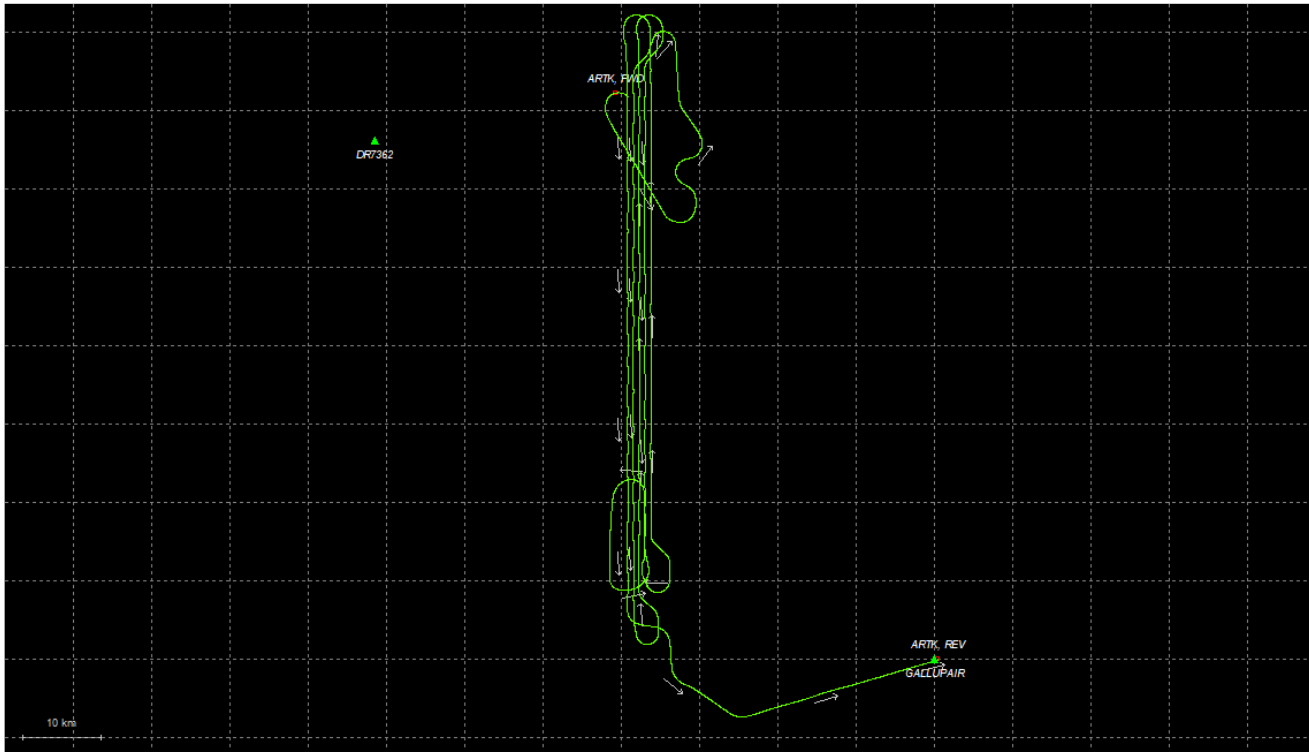


Process	20220920003424_10	by Unknown	on 9/22/2022	at 14:07:23
---------	-------------------	------------	--------------	-------------

Output Results for 20220920021322_10b

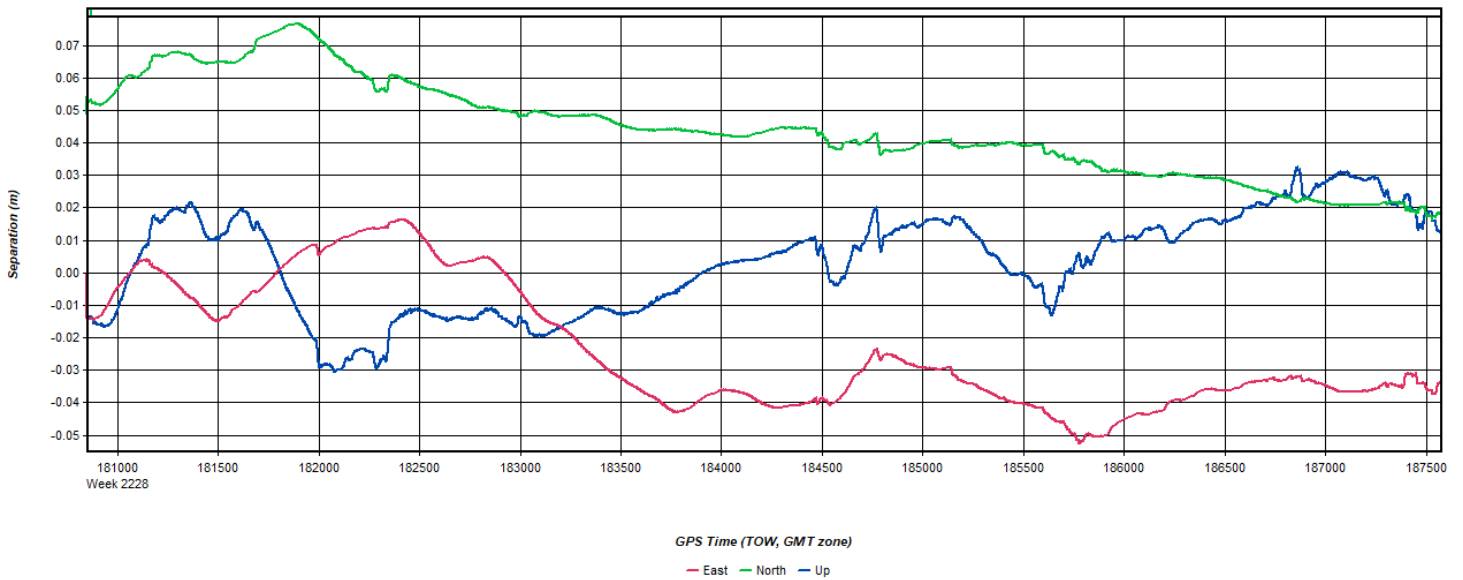
Inertial Explorer Version 8.90.2124
09/22/2022

Figure 1: Smoothed TC Combined - Map



Process	20220920021322_10b	by Unknown	on 9/22/2022	at 14:20:26
---------	--------------------	------------	--------------	-------------

Figure 2: 20220920021322_10b [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220920021322_10b	by Unknown	on 9/22/2022	at 14:20:26
---------	--------------------	------------	--------------	-------------

Figure 3: 20220920021322_10b [Smoothed TC Combined] - Float or Fixed Ambiguity

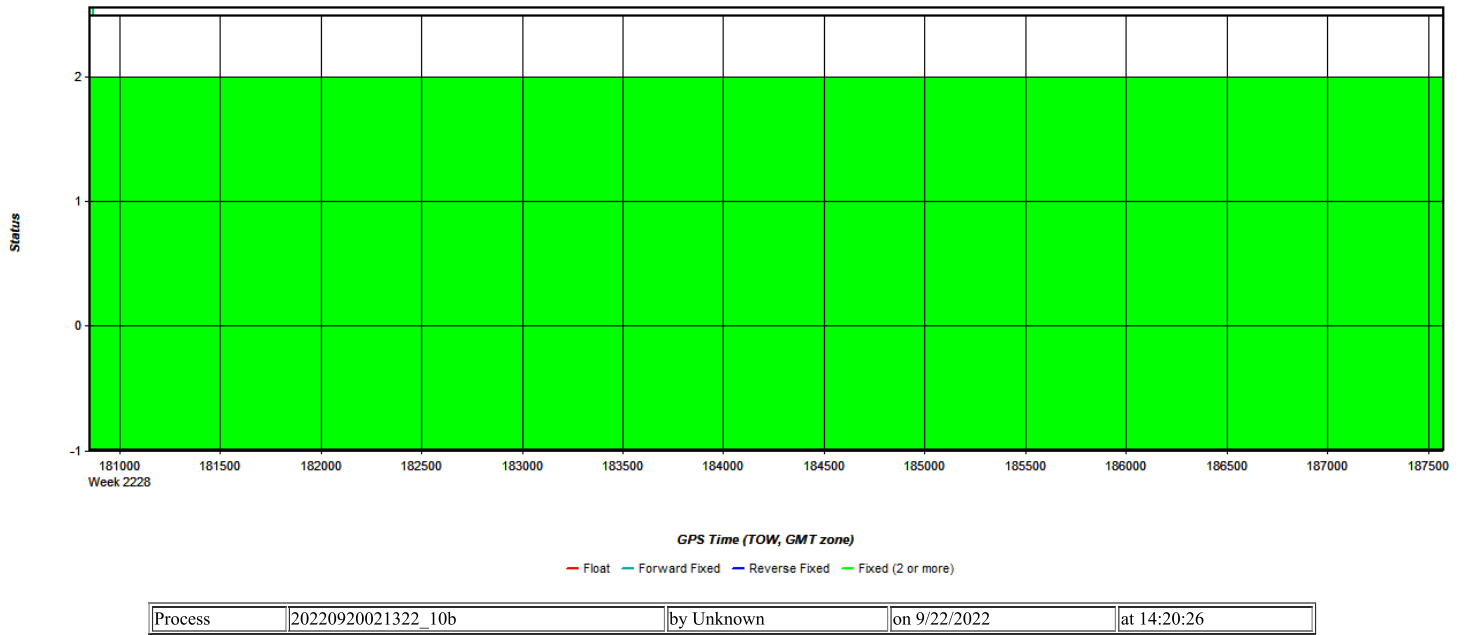


Figure 4: 20220920021322_10b [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

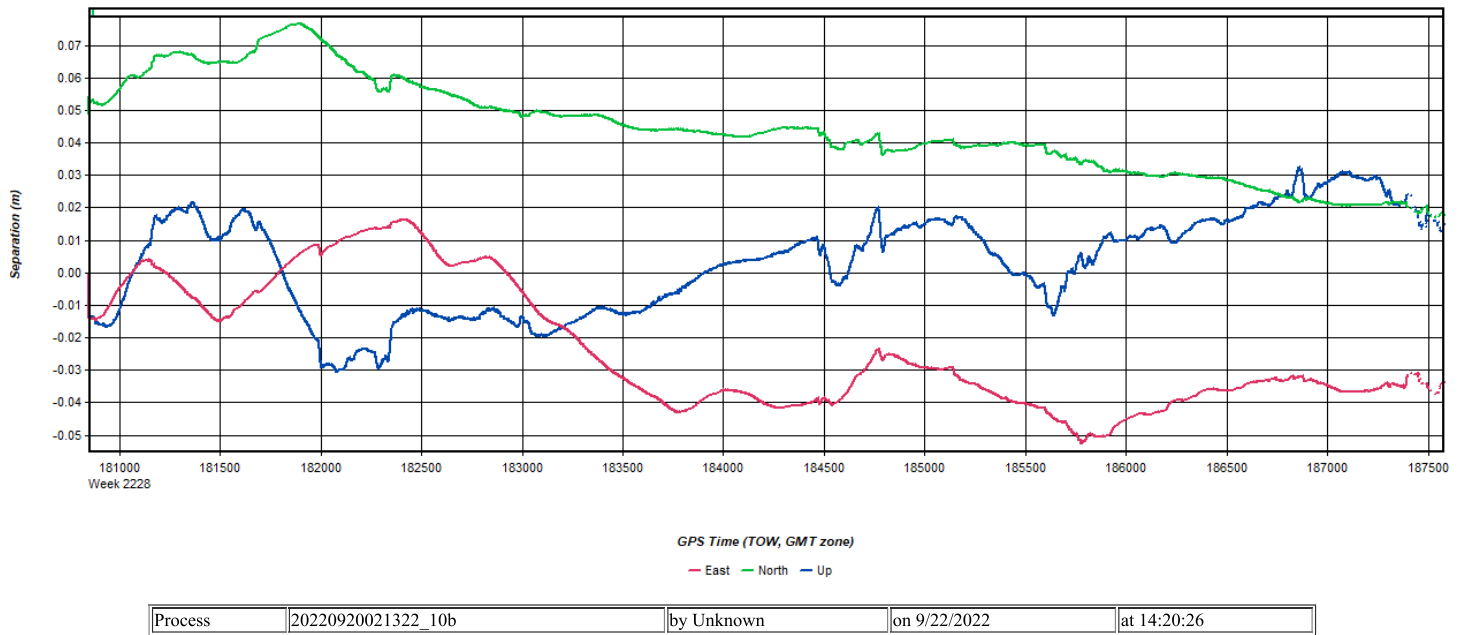


Figure 5: 20220920021322_10b [Smoothed TC Combined] - Estimated Position Accuracy Plot

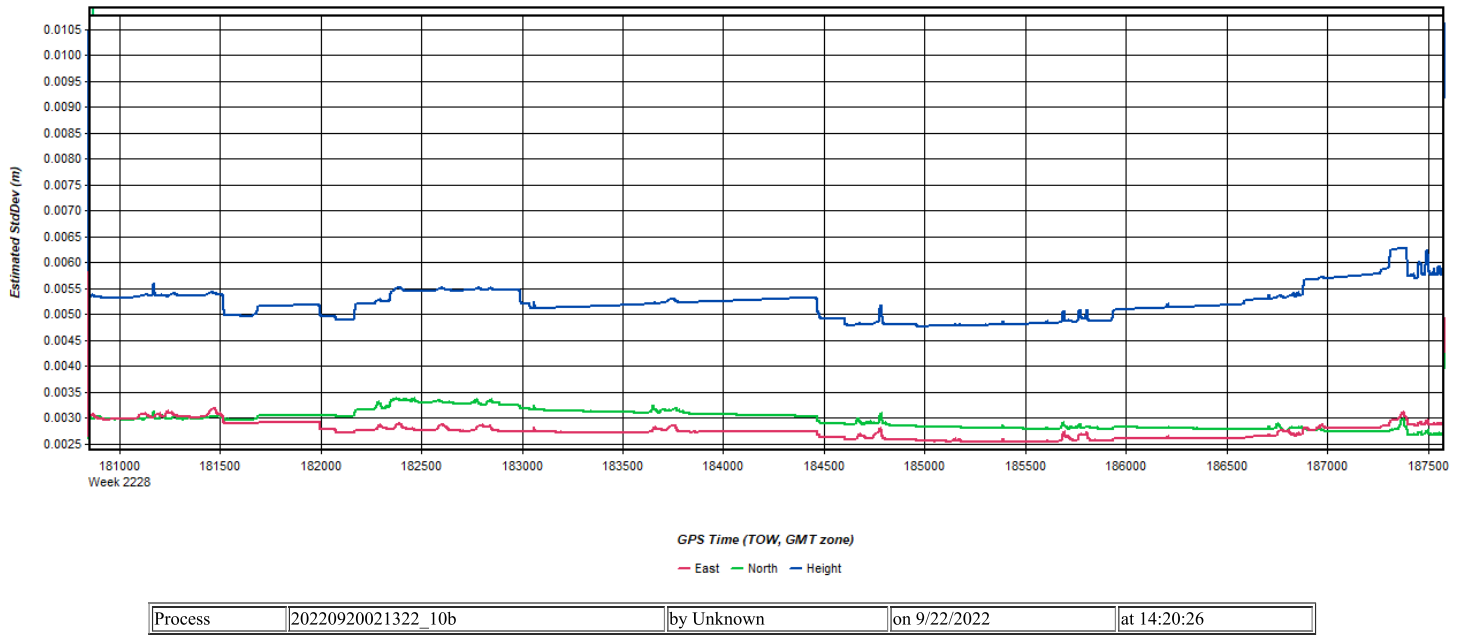


Figure 6: 20220920021322_10b [Smoothed TC Combined] - PDOP Plot

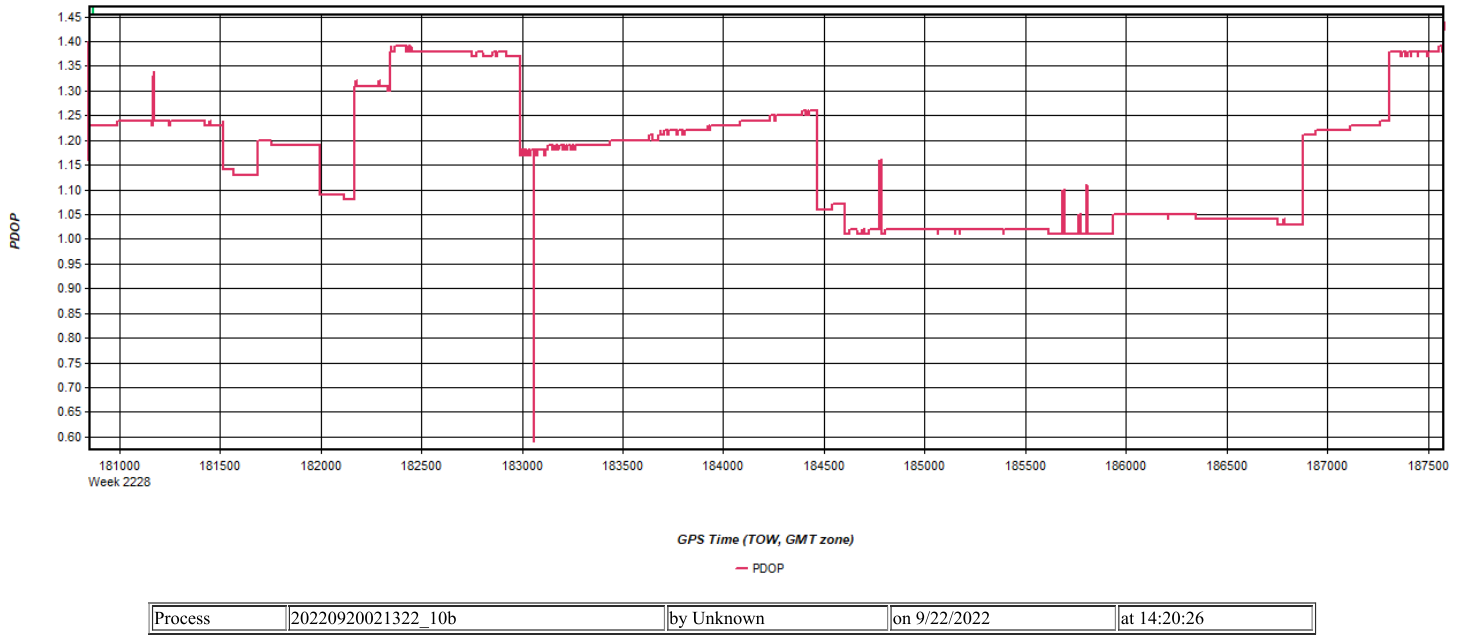


Figure 7: 20220920021322_10b [Smoothed TC Combined] - Number of Satellites Line Plot

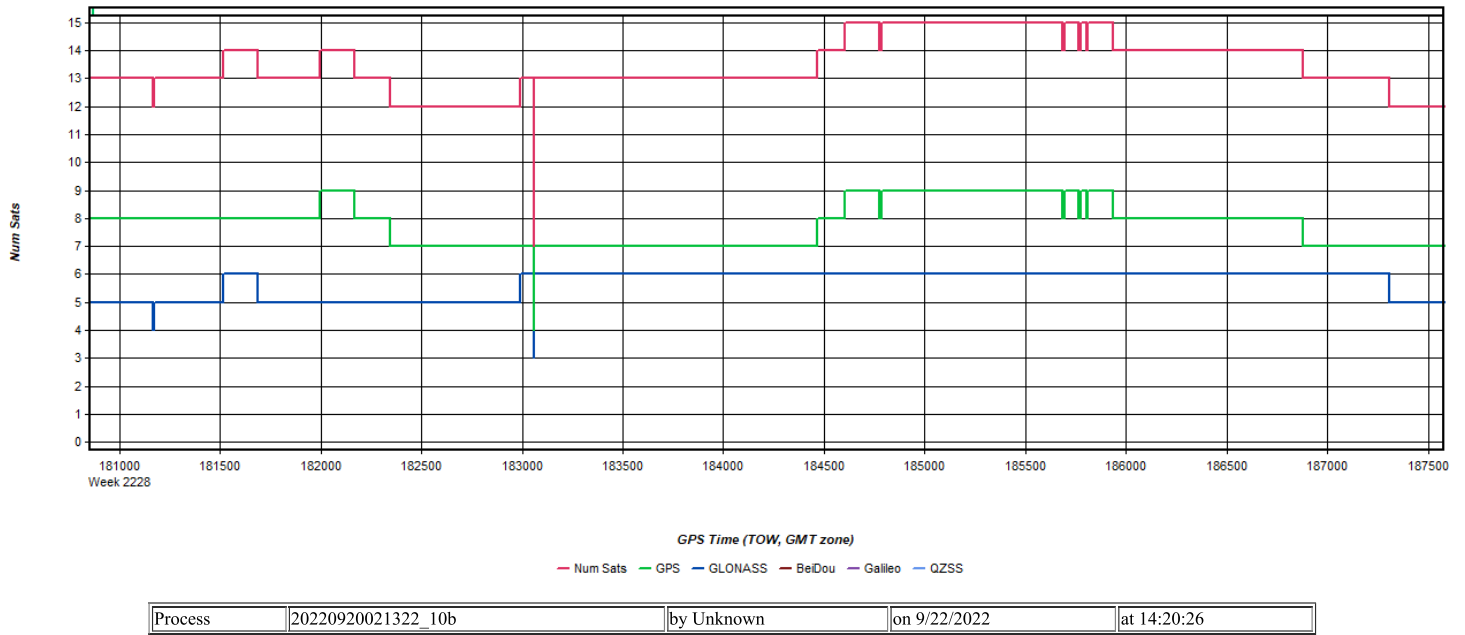


Figure 8: 20220920021322_10b [Smoothed TC Combined] - Status flag for IMU processing

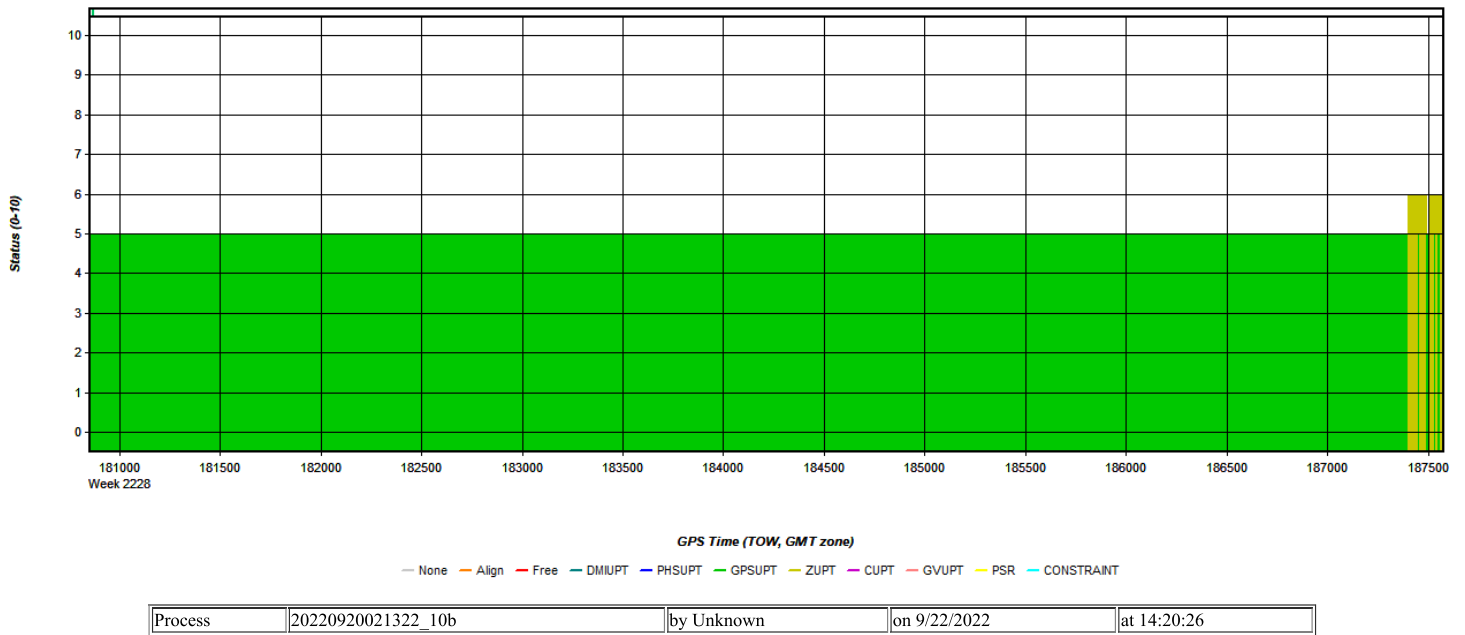


Figure 9: 20220920021322_10b [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

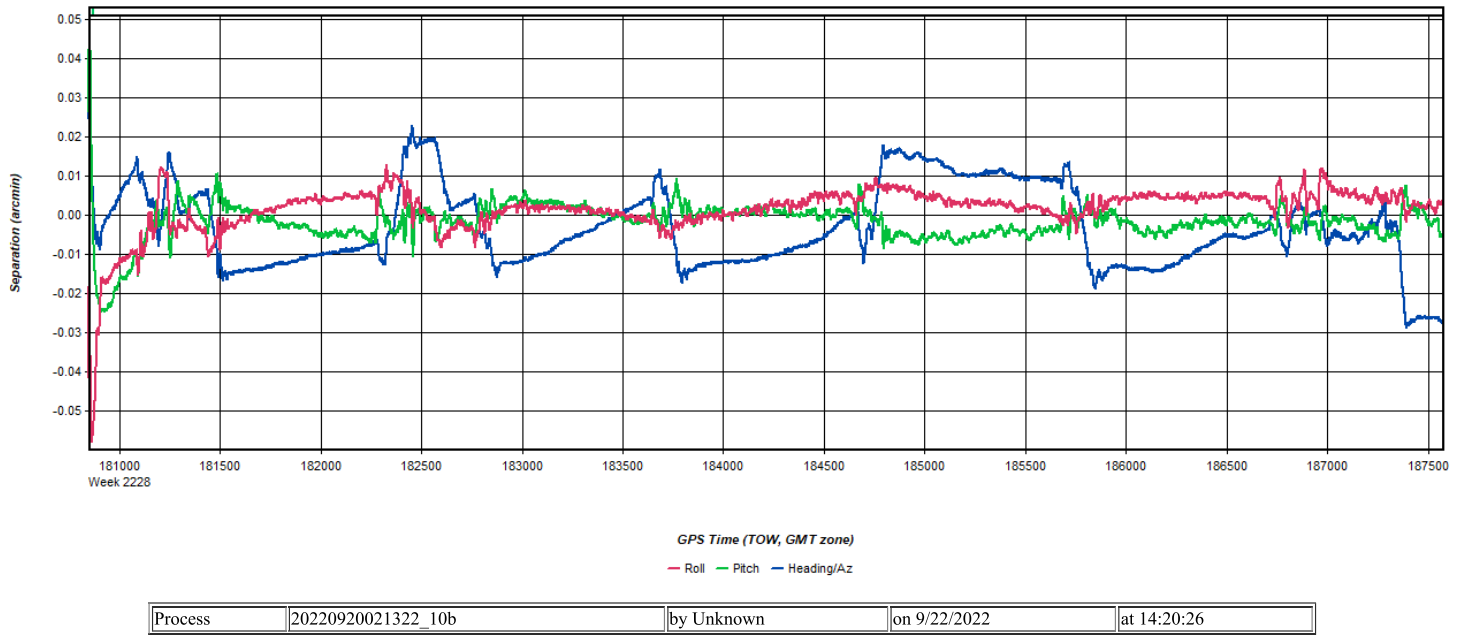


Figure 10: 20220920021322_10b [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

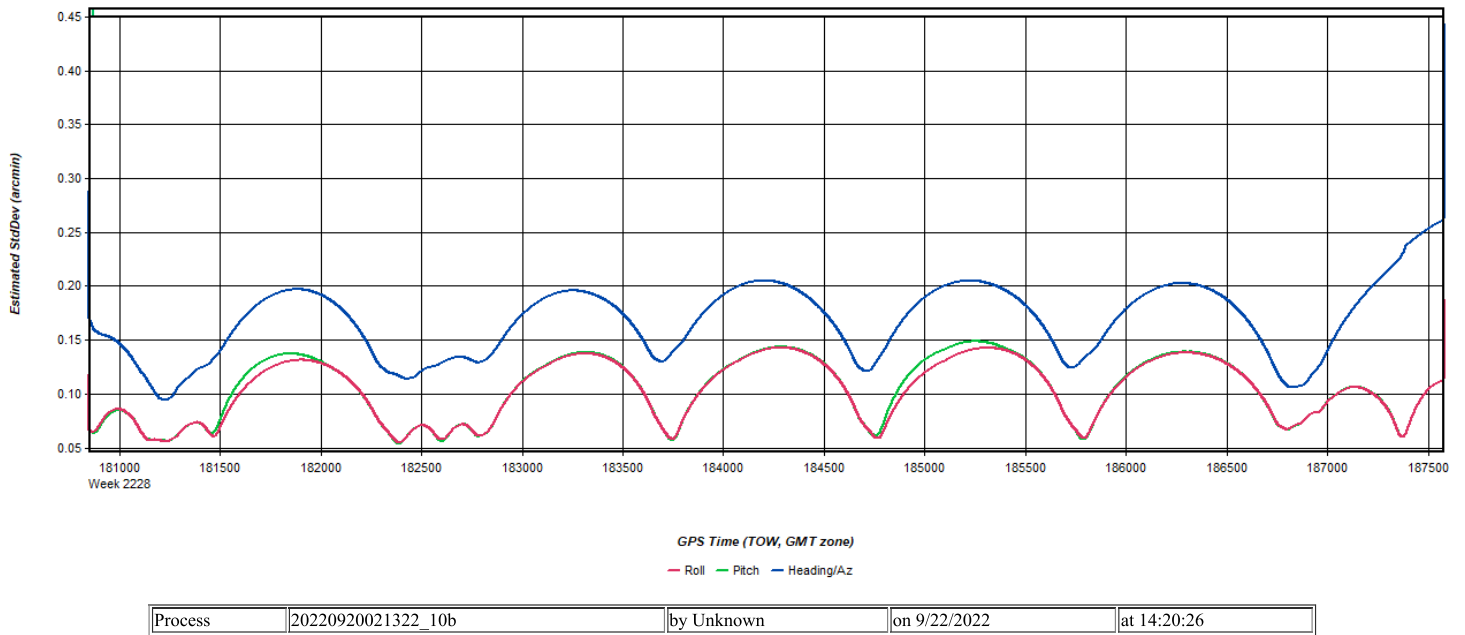


Figure 11: 20220920021322_10b [Smoothed TC Combined] - Azimuth Plot

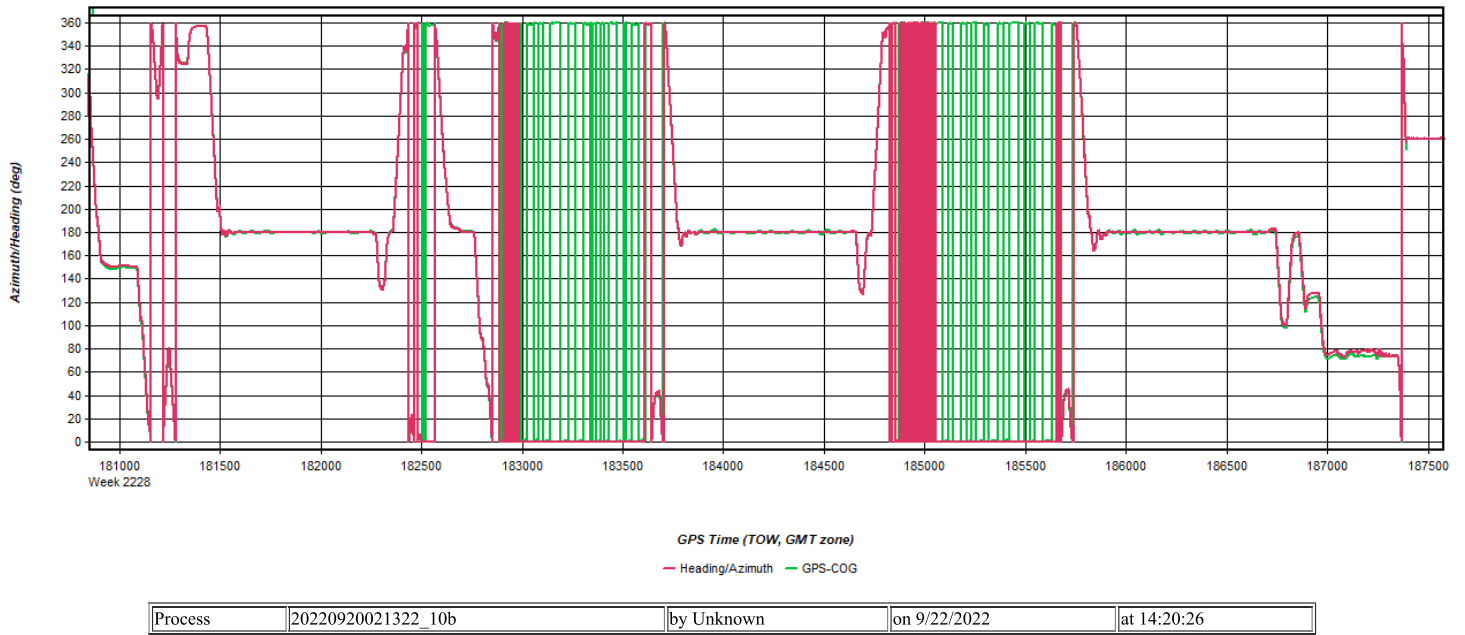


Figure 12: 20220920021322_10b [Smoothed TC Combined] - Roll & Pitch Plot

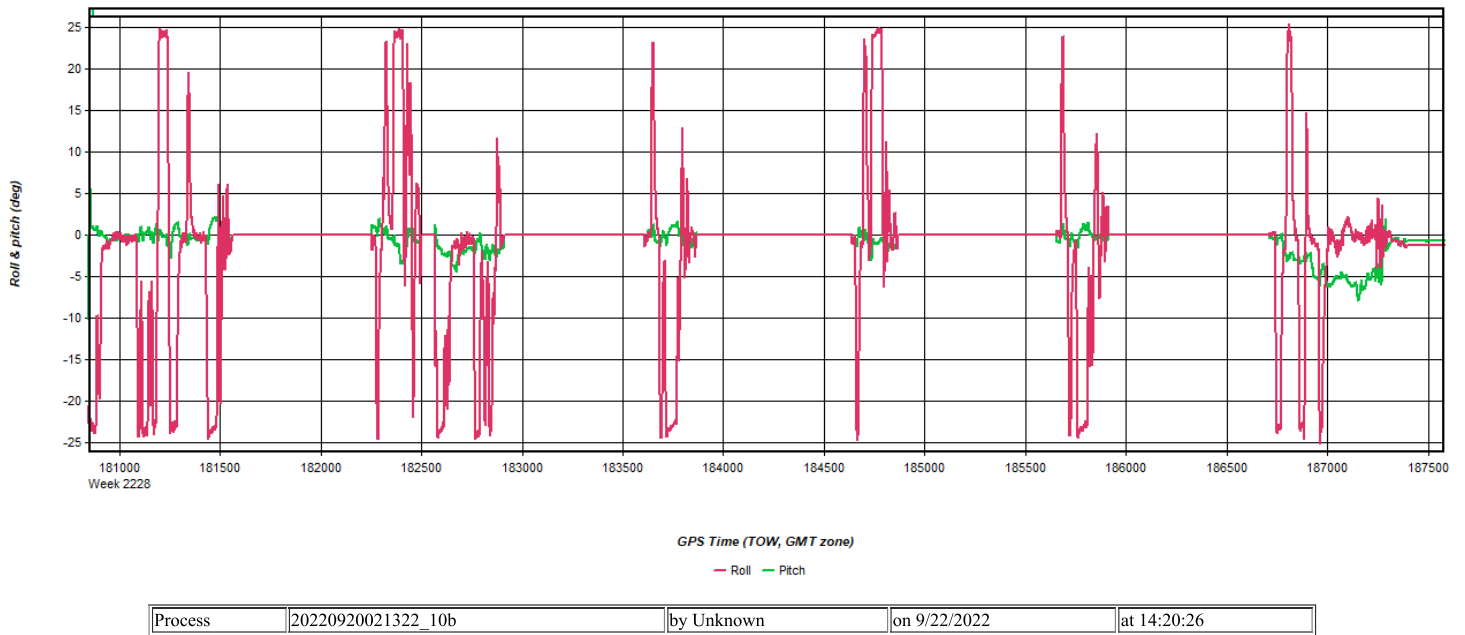
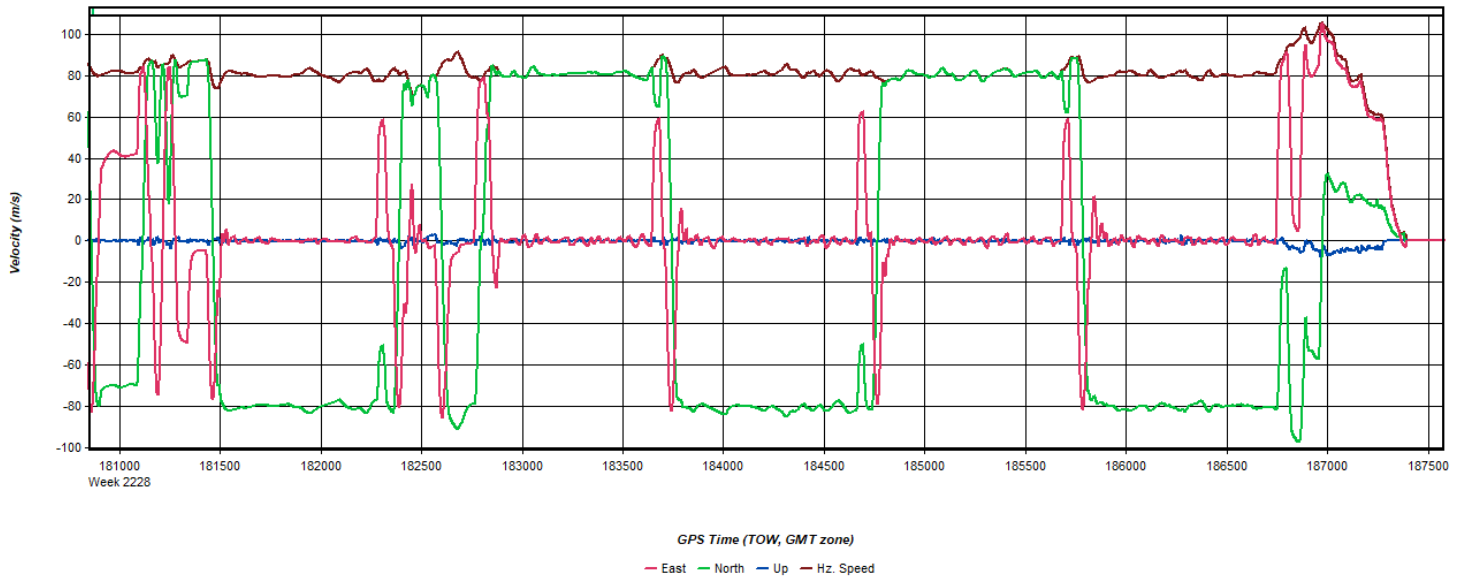
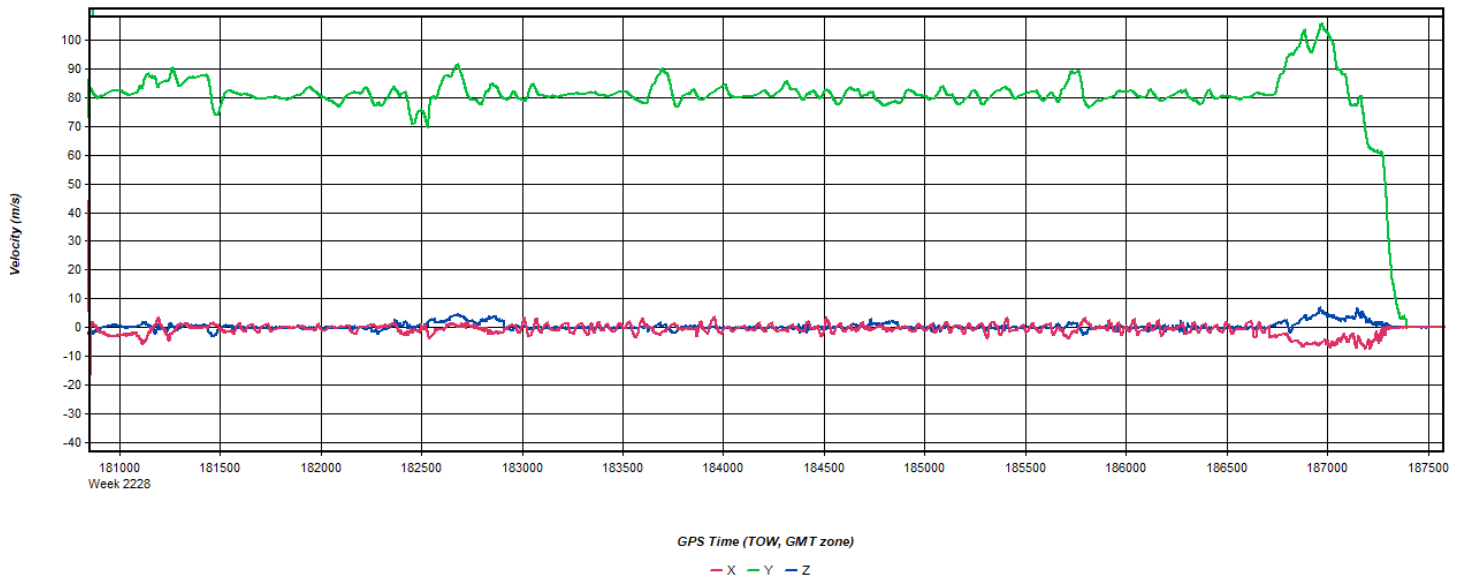


Figure 13: 20220920021322_10b [Smoothed TC Combined] - Velocity Profile Plot



Process	20220920021322_10b	by Unknown	on 9/22/2022	at 14:20:26
---------	--------------------	------------	--------------	-------------

Figure 14: 20220920021322_10b [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20220920021322_10b	by Unknown	on 9/22/2022	at 14:20:26
---------	--------------------	------------	--------------	-------------

Figure 15: 20220920021322_10b [Smoothed TC Combined] - Height Profile Plot

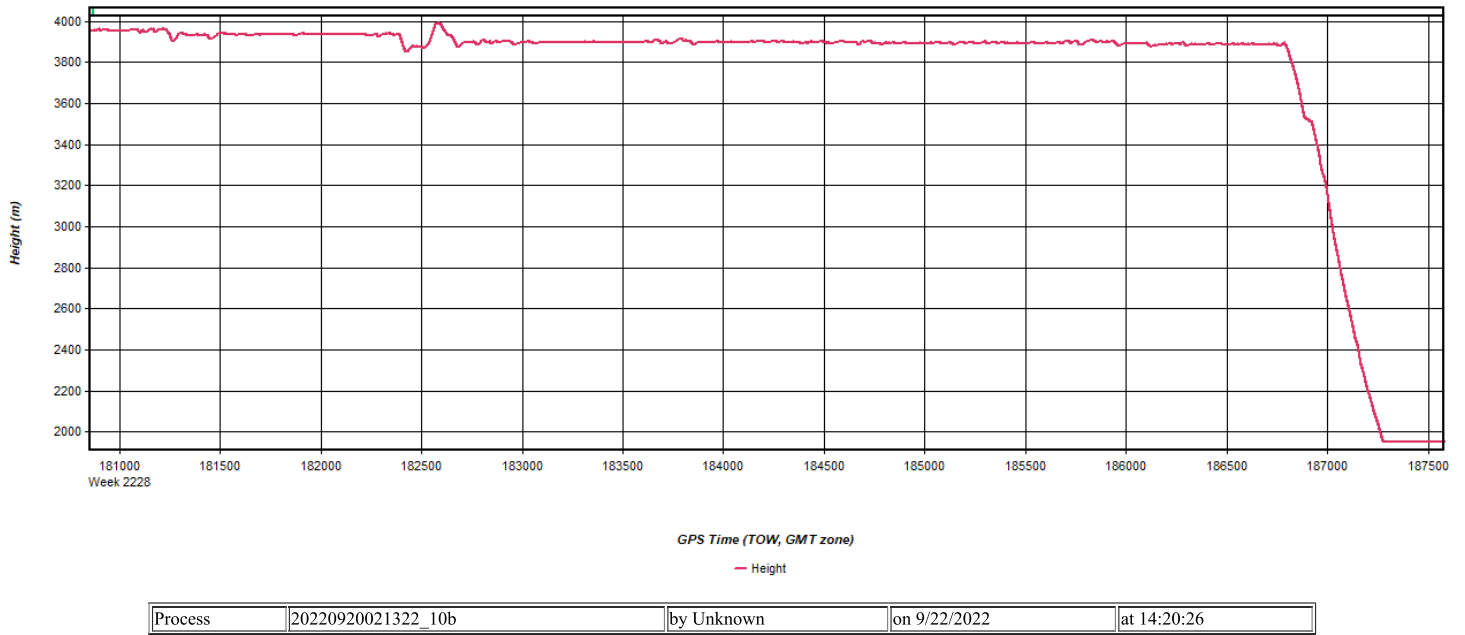


Figure 16: 20220920021322_10b [Smoothed TC Combined] - C/A Code Residual RMS Plot

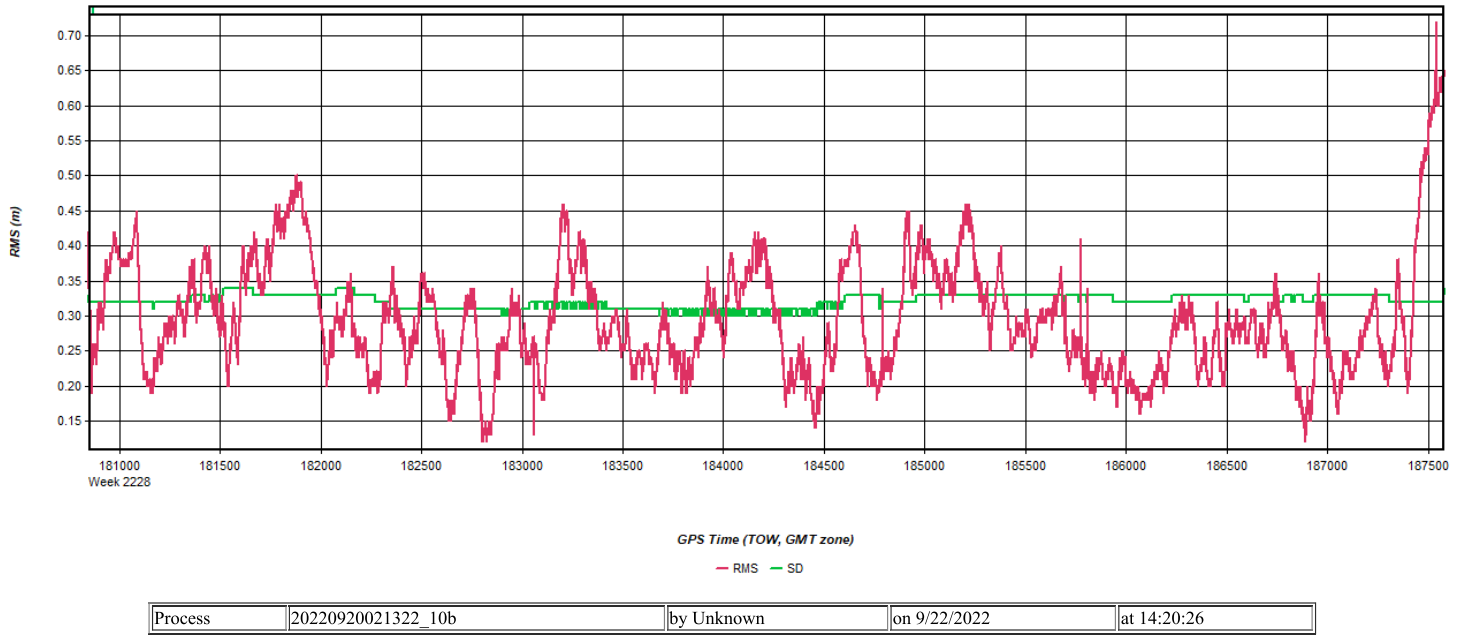
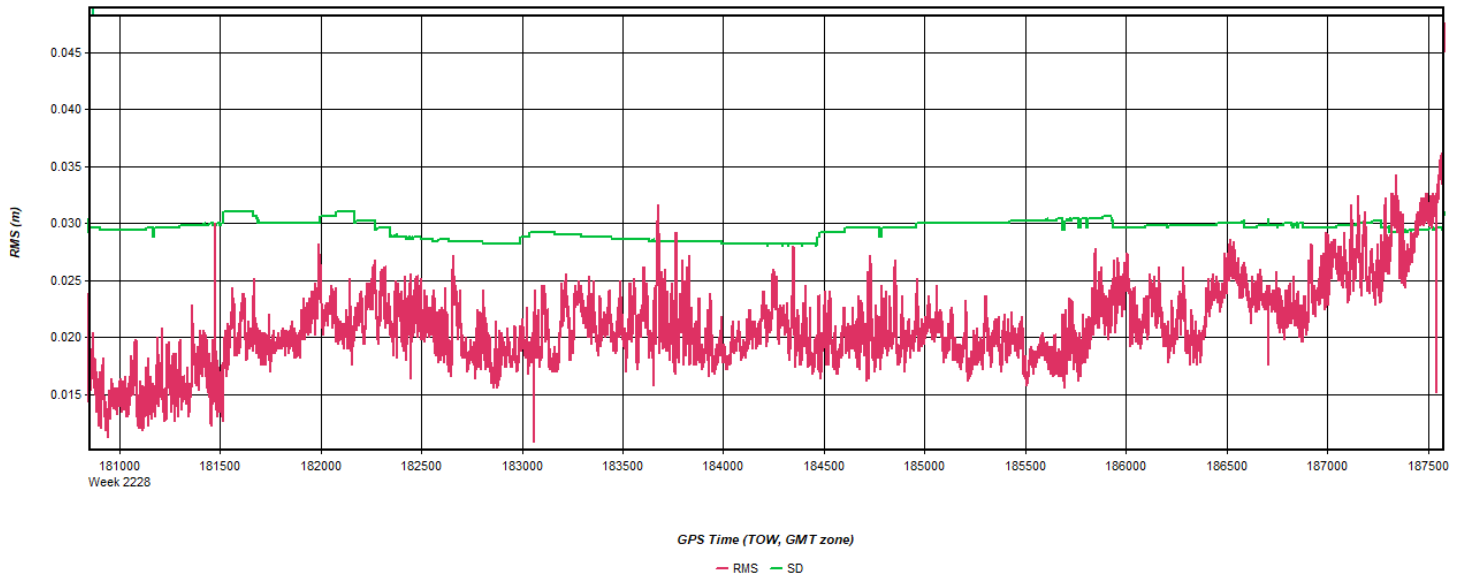
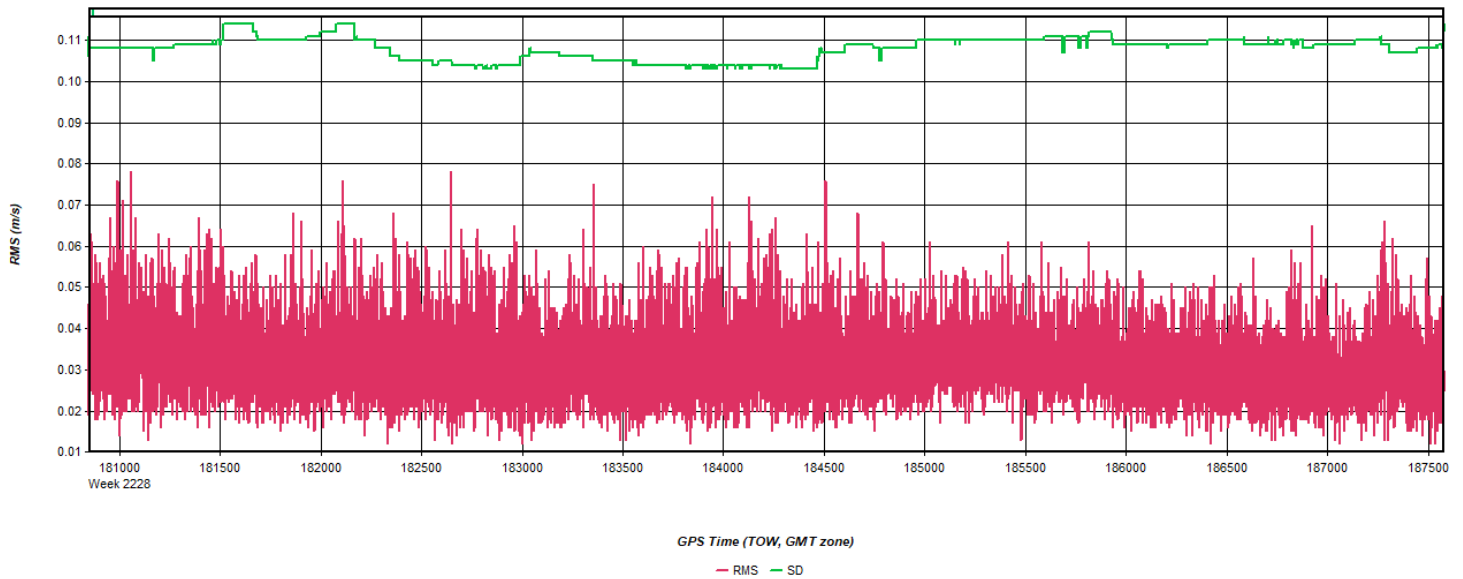


Figure 17: 20220920021322_10b [Smoothed TC Combined] - Carrier Residual RMS Plot



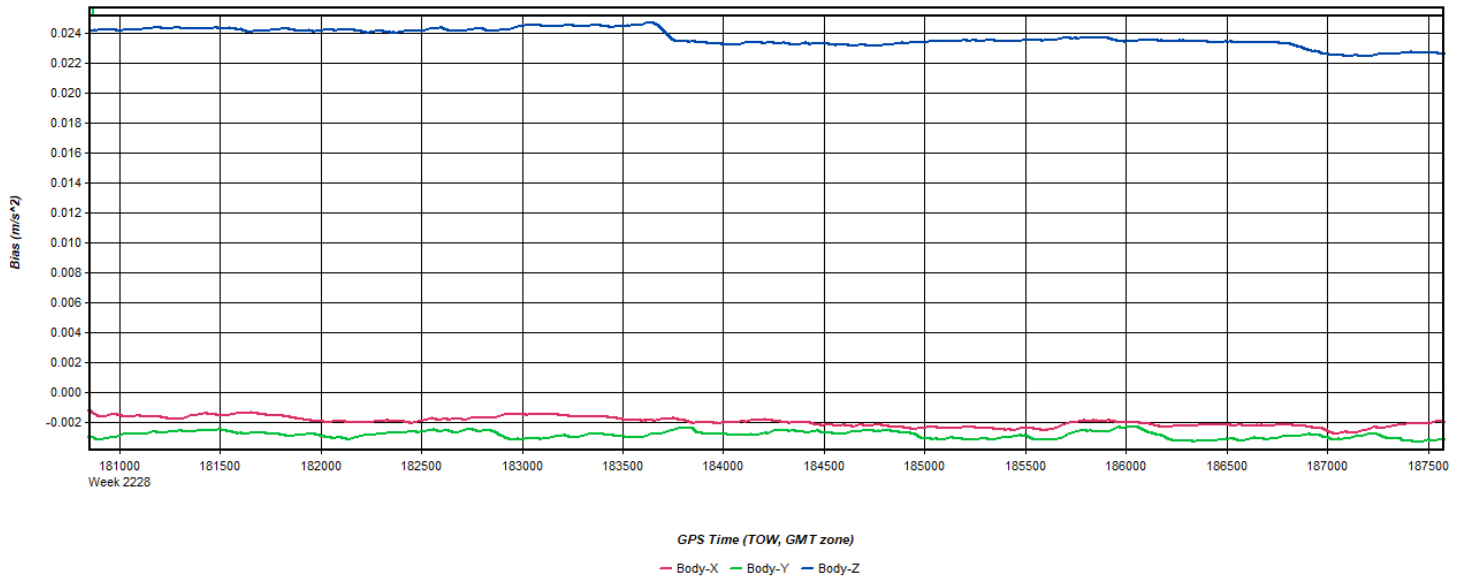
Process	20220920021322_10b	by Unknown	on 9/22/2022	at 14:20:26
---------	--------------------	------------	--------------	-------------

Figure 18: 20220920021322_10b [Smoothed TC Combined] - Doppler Residual RMS Plot



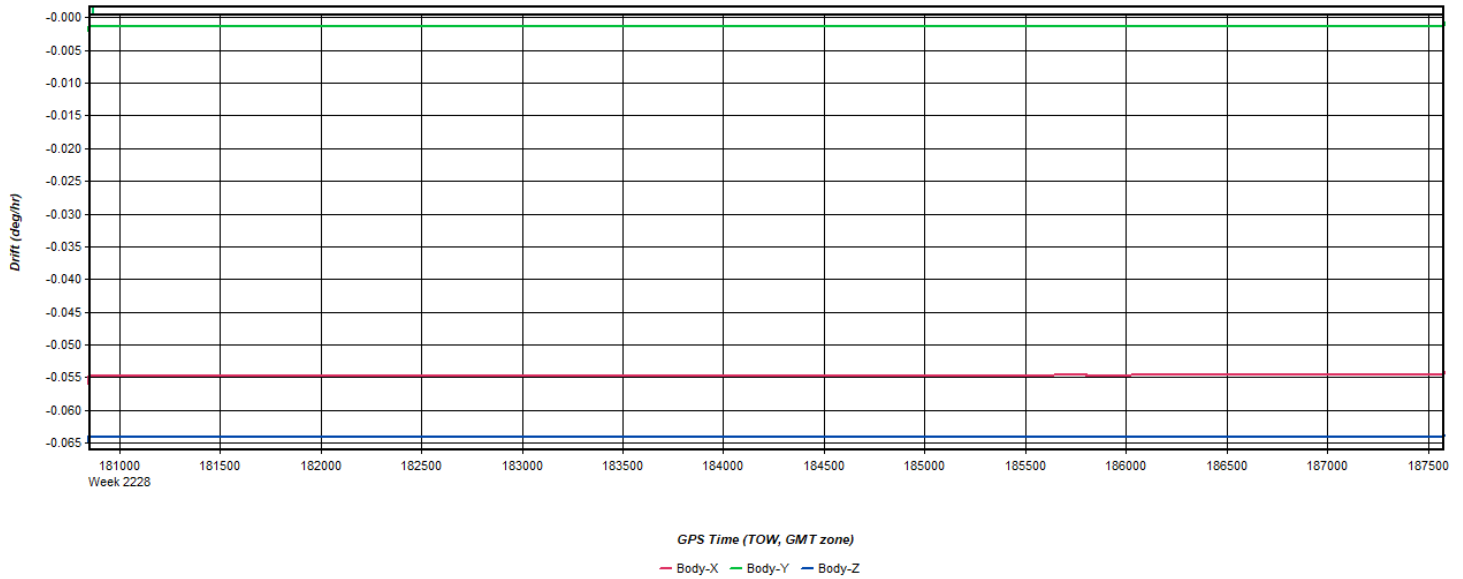
Process	20220920021322_10b	by Unknown	on 9/22/2022	at 14:20:26
---------	--------------------	------------	--------------	-------------

Figure 19: 20220920021322_10b [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220920021322_10b	by Unknown	on 9/22/2022	at 14:20:26
---------	--------------------	------------	--------------	-------------

Figure 20: 20220920021322_10b [Smoothed TC Combined] - Gyro Drift Plot

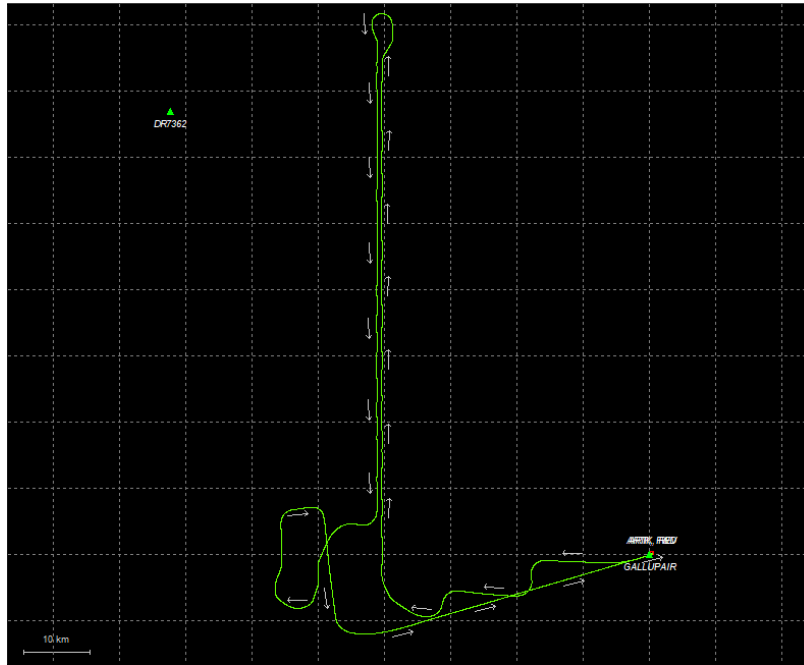


Process	20220920021322_10b	by Unknown	on 9/22/2022	at 14:20:26
---------	--------------------	------------	--------------	-------------

Output Results for 20220920141855_11

Inertial Explorer Version 8.90.2124
10/08/2022

Figure 1: Smoothed TC Combined - Map



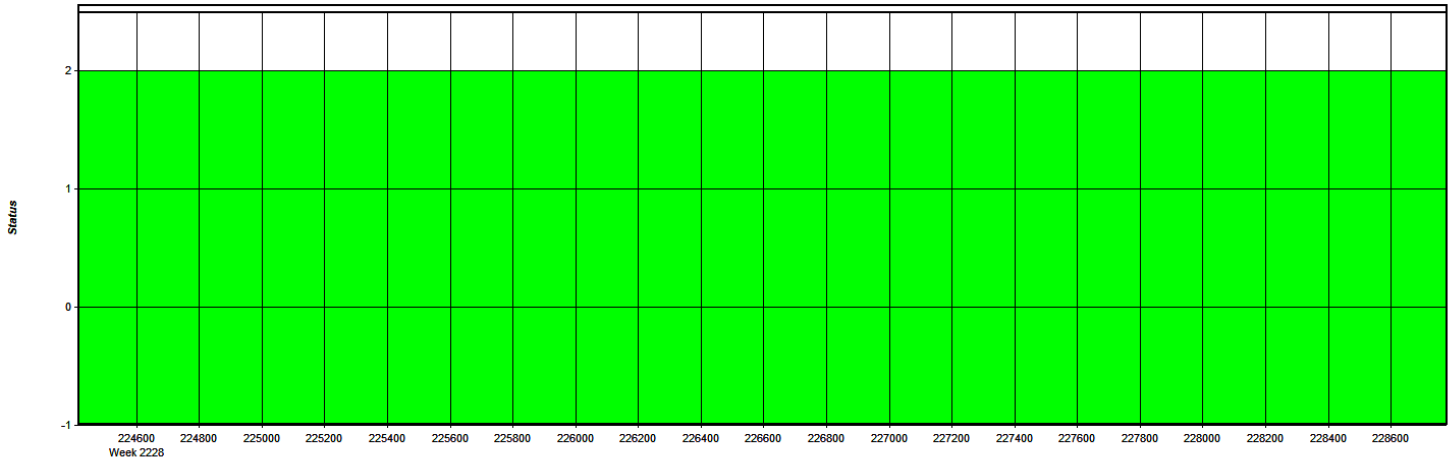
Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 2: 20220920141855_11 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 3: 20220920141855_11 [Smoothed TC Combined] - Float or Fixed Ambiguity

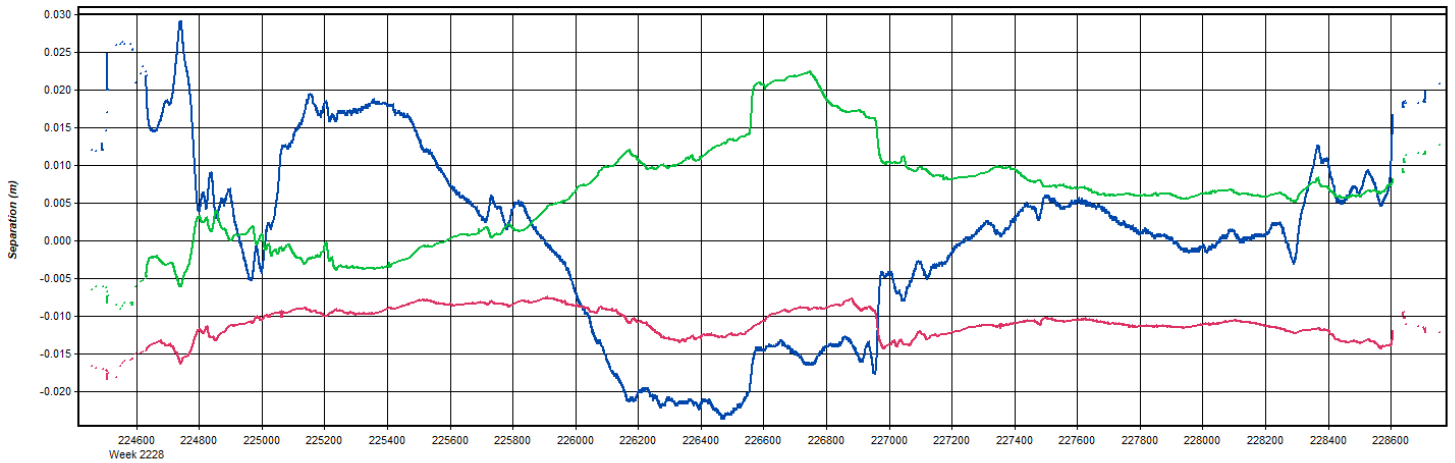


GPS Time (TOW, GMT zone)

— Float — Forward Fixed — Reverse Fixed — Fixed (2 or more)

Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 4: 20220920141855_11 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

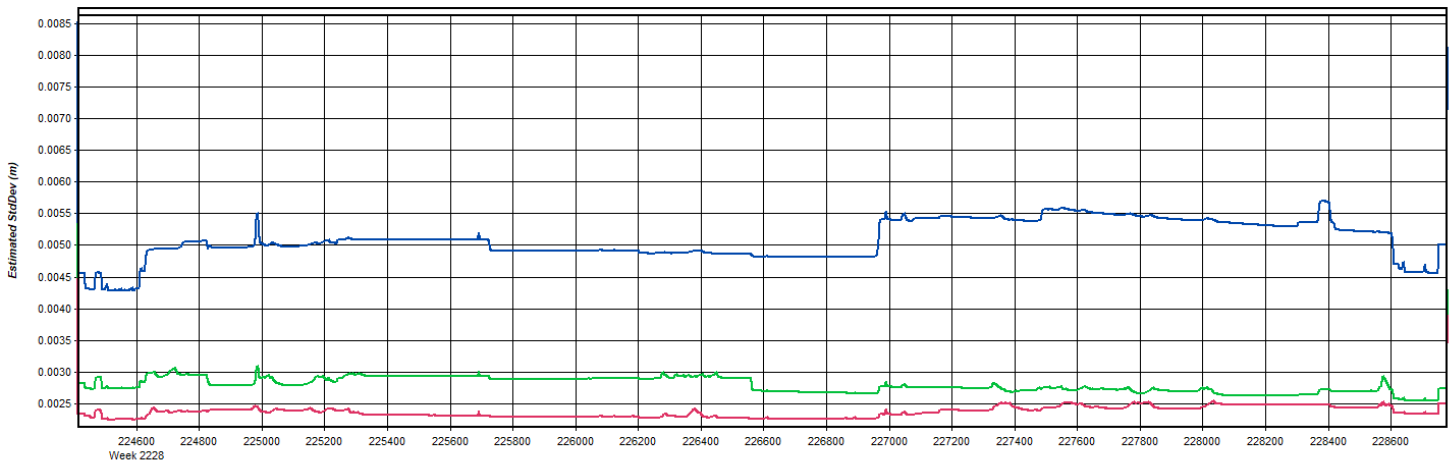


GPS Time (TOW, GMT zone)

— East — North — Up

Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 5: 20220920141855_11 [Smoothed TC Combined] - Estimated Position Accuracy Plot



GPS Time (TOW, GMT zone)

— East — North — Height

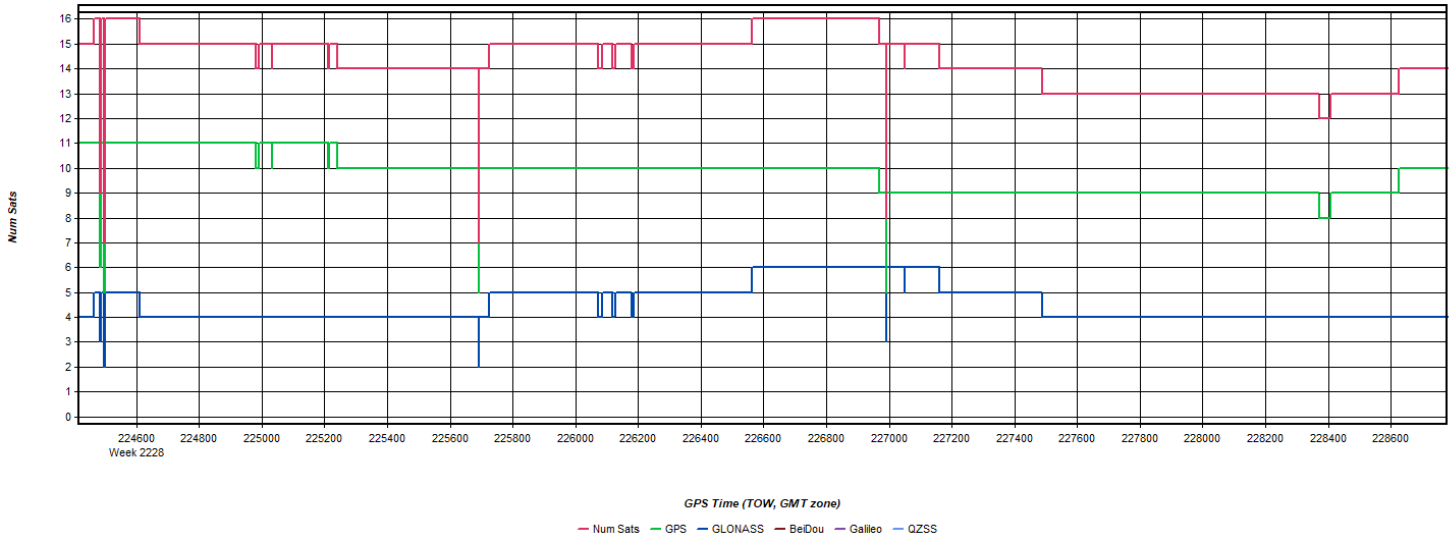
Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 6: 20220920141855_11 [Smoothed TC Combined] - PDOP Plot



Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 7: 20220920141855_11 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 8: 20220920141855_11 [Smoothed TC Combined] - Status flag for IMU processing

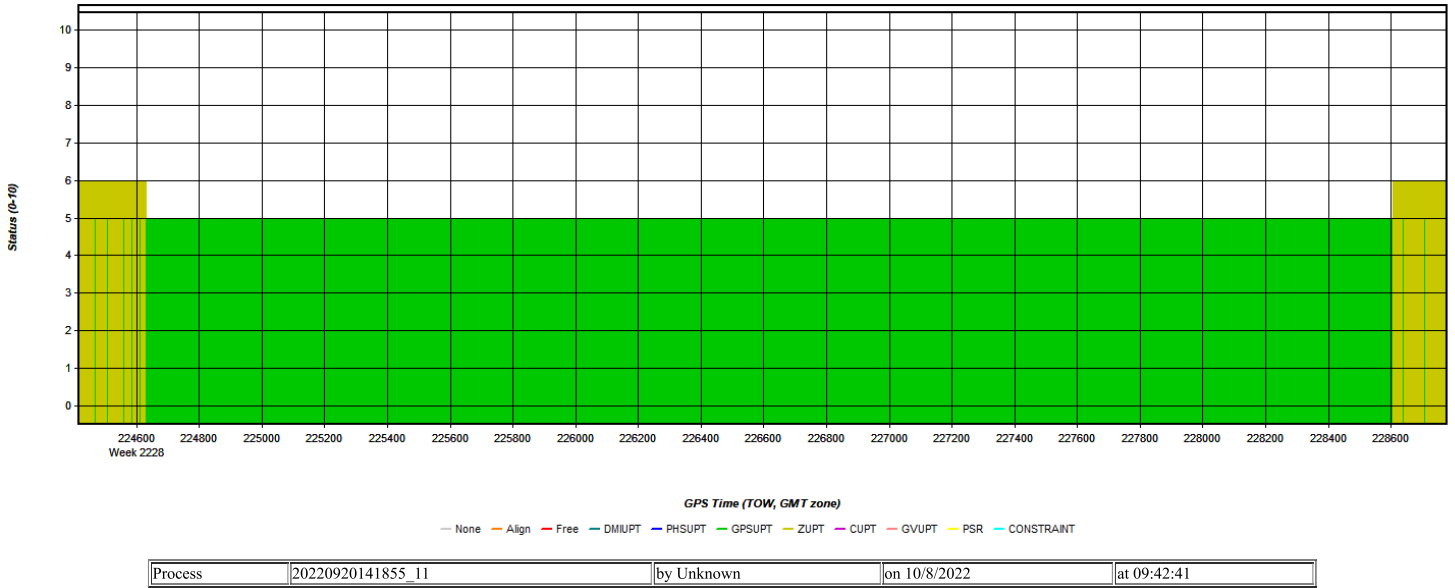


Figure 9: 20220920141855_11 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

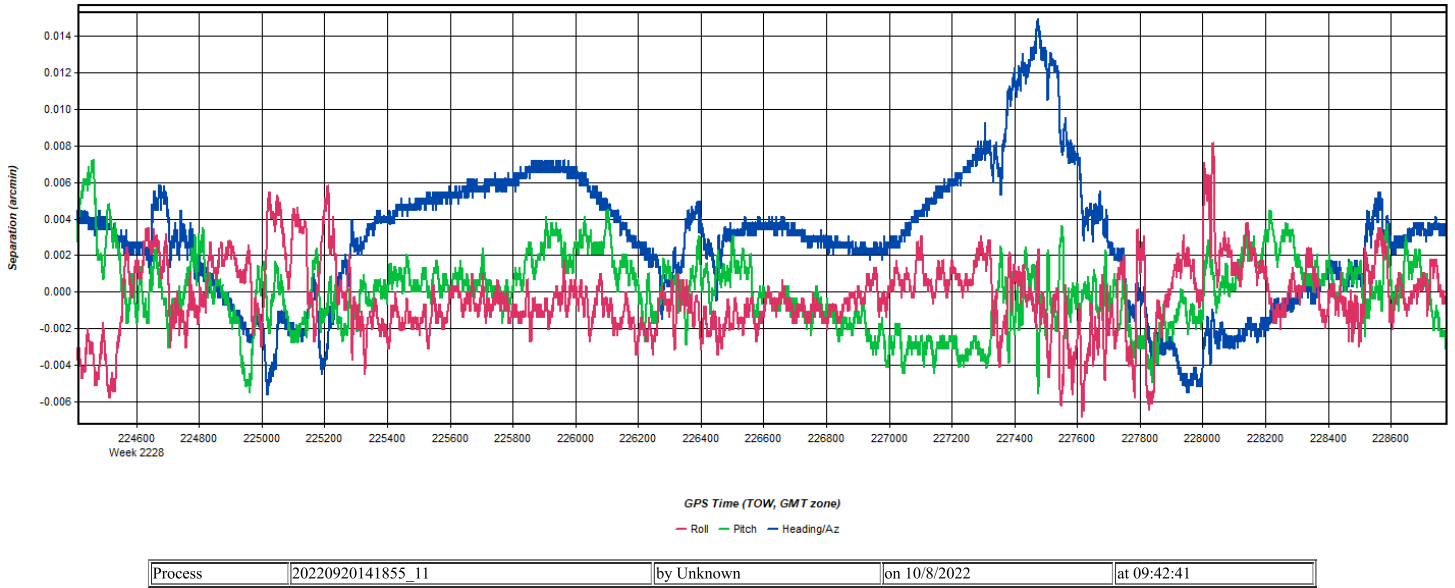


Figure 10: 20220920141855_11 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

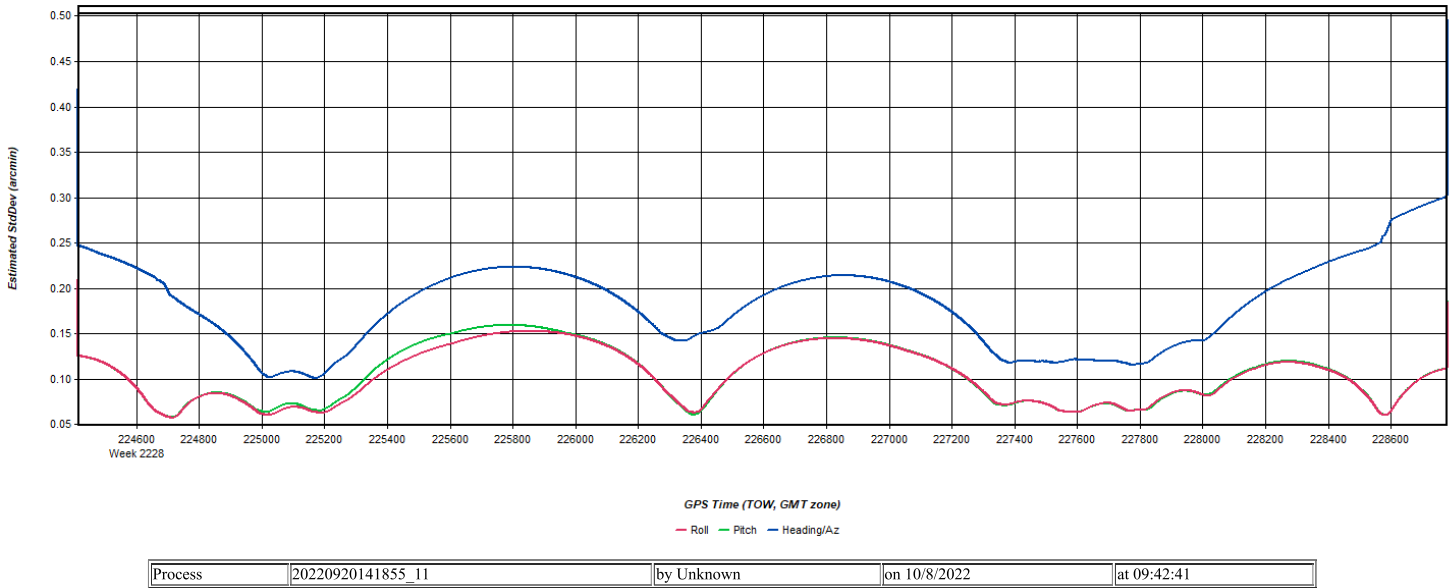
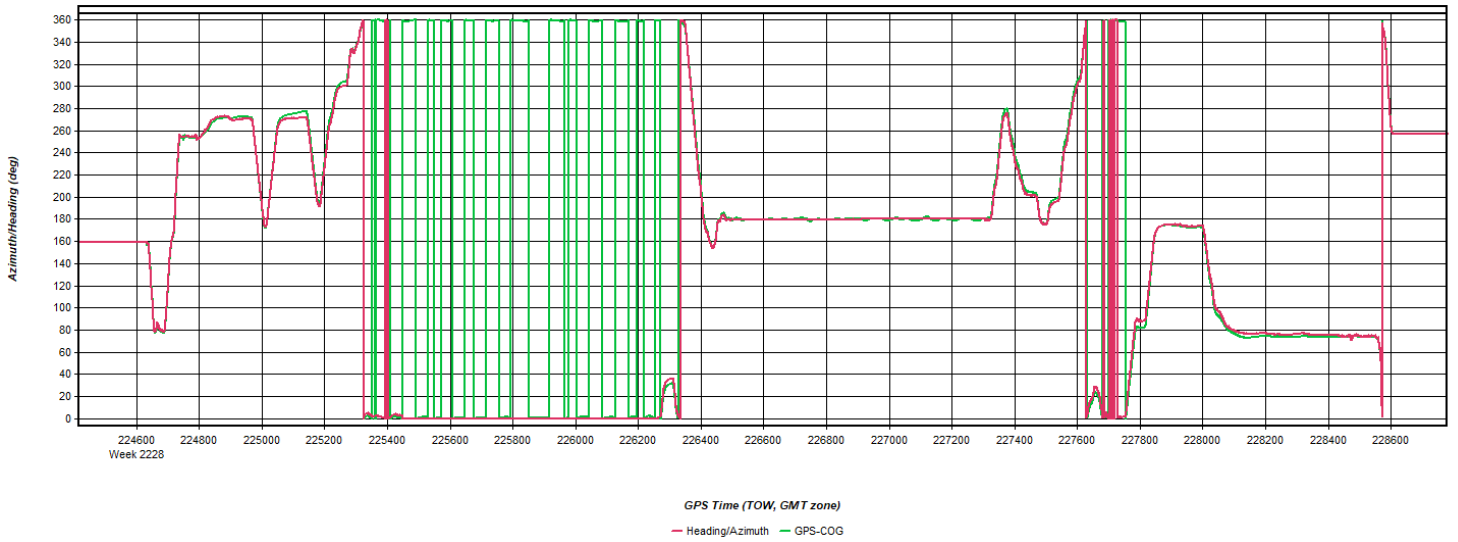
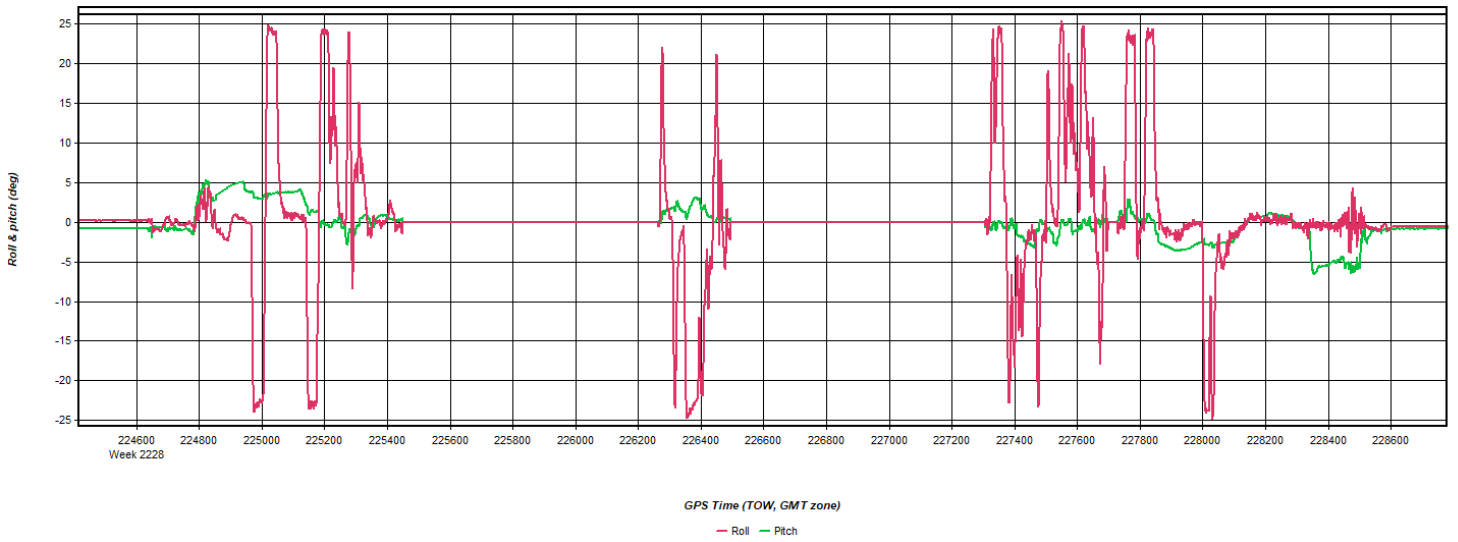


Figure 11: 20220920141855_11 [Smoothed TC Combined] - Azimuth Plot



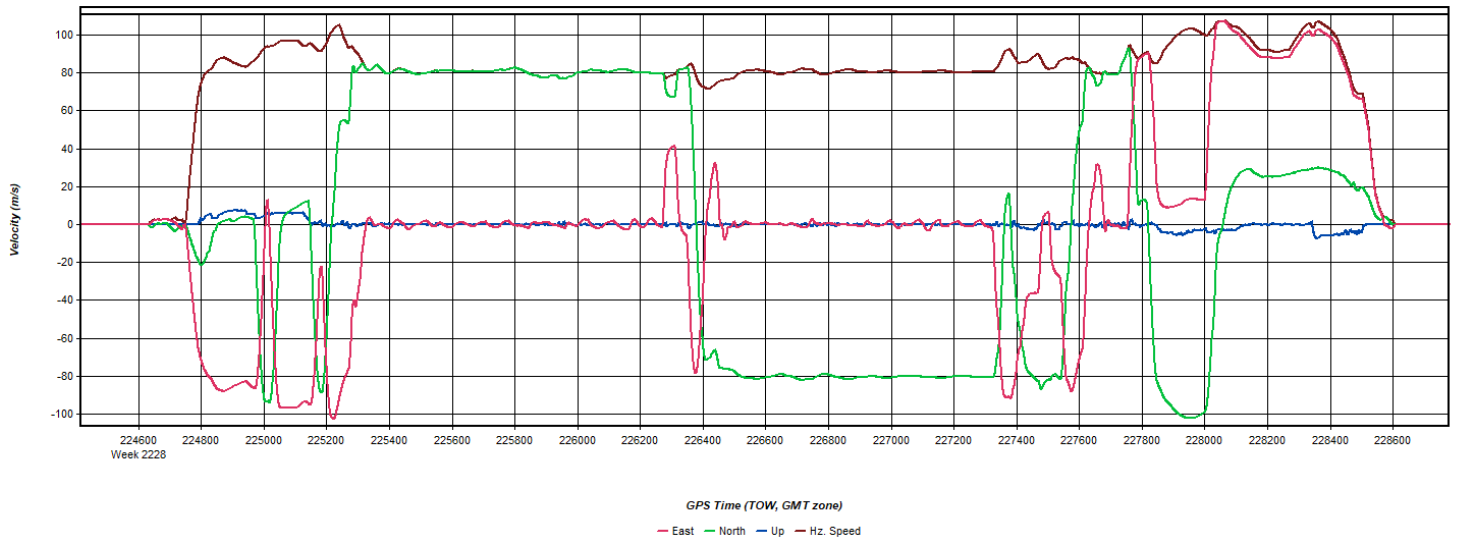
Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 12: 20220920141855_11 [Smoothed TC Combined] - Roll & Pitch Plot



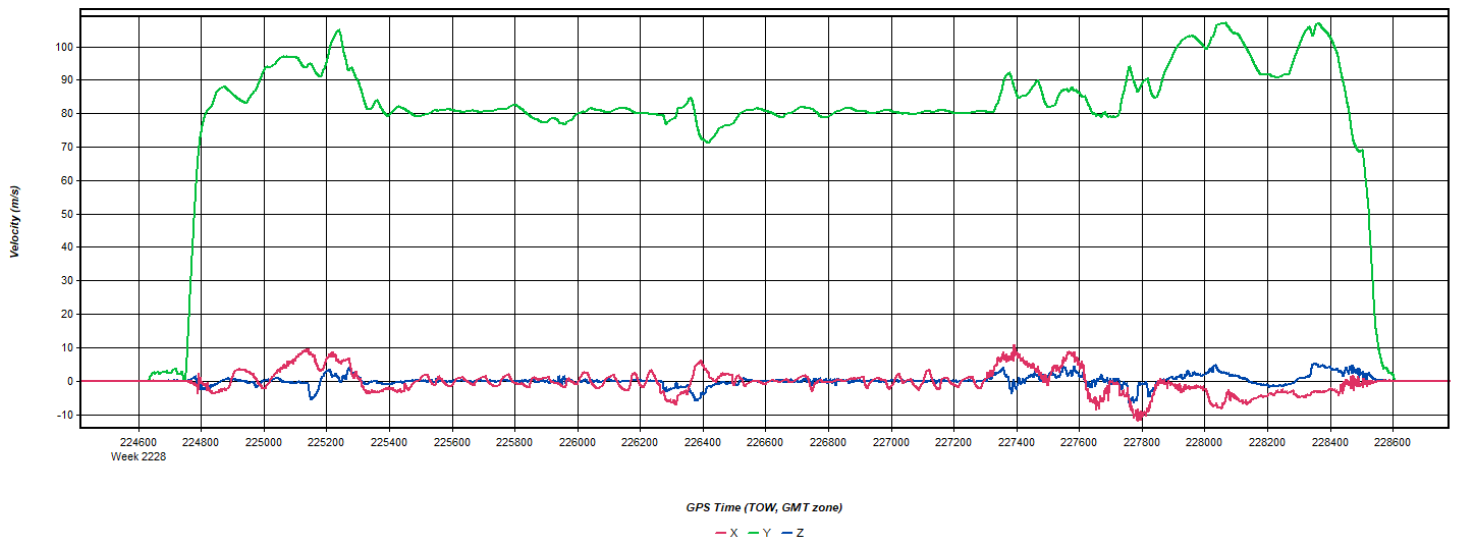
Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 13: 20220920141855_11 [Smoothed TC Combined] - Velocity Profile Plot



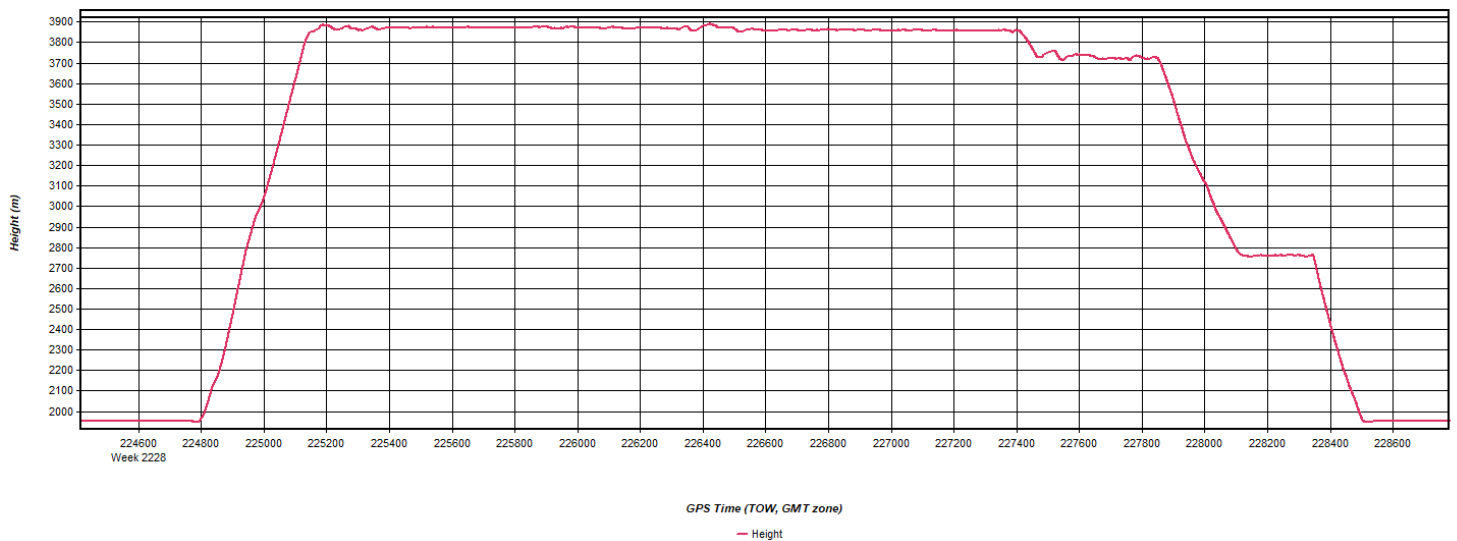
Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 14: 20220920141855_11 [Smoothed TC Combined] - Body Frame Velocity Plot



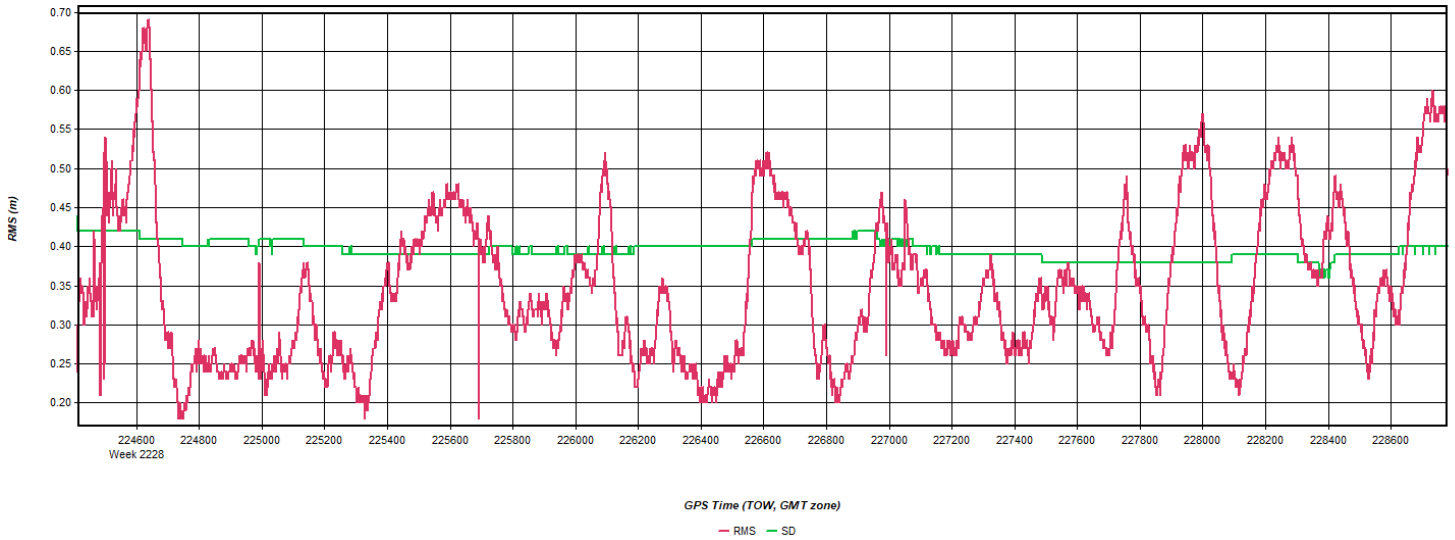
Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 15: 20220920141855_11 [Smoothed TC Combined] - Height Profile Plot



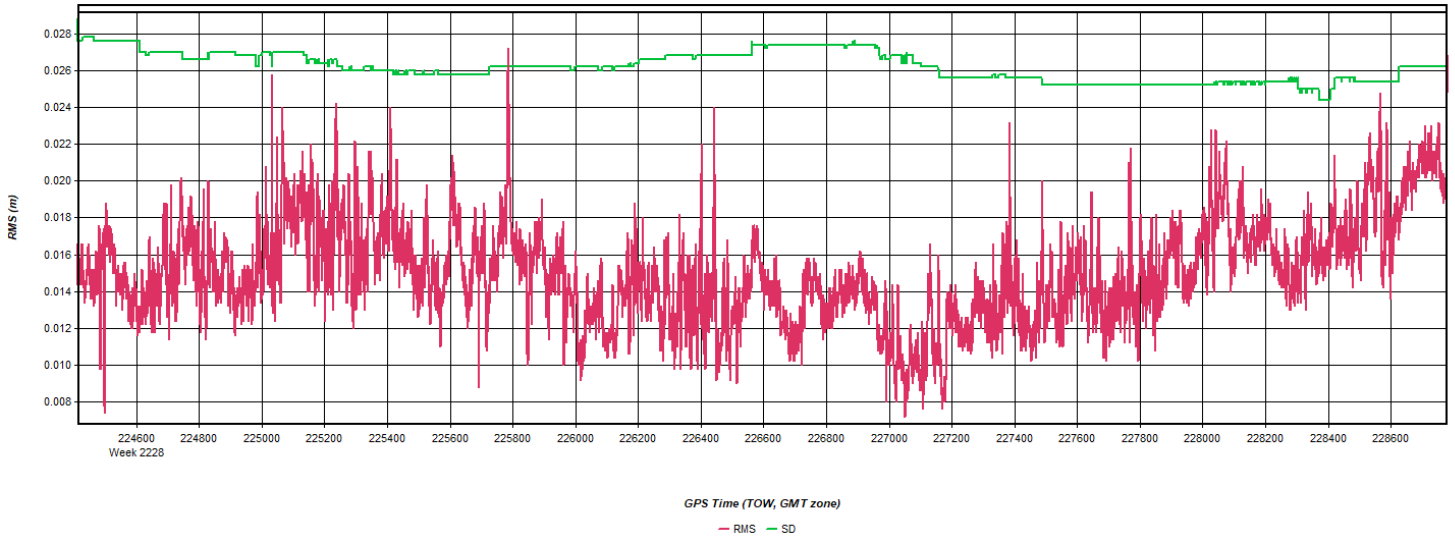
Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 16: 20220920141855_11 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 17: 20220920141855_11 [Smoothed TC Combined] - Carrier Residual RMS Plot



Process	20220920141855_11	by Unknown	on 10/8/2022	at 09:42:41
---------	-------------------	------------	--------------	-------------

Figure 18: 20220920141855_11 [Smoothed TC Combined] - Doppler Residual RMS Plot

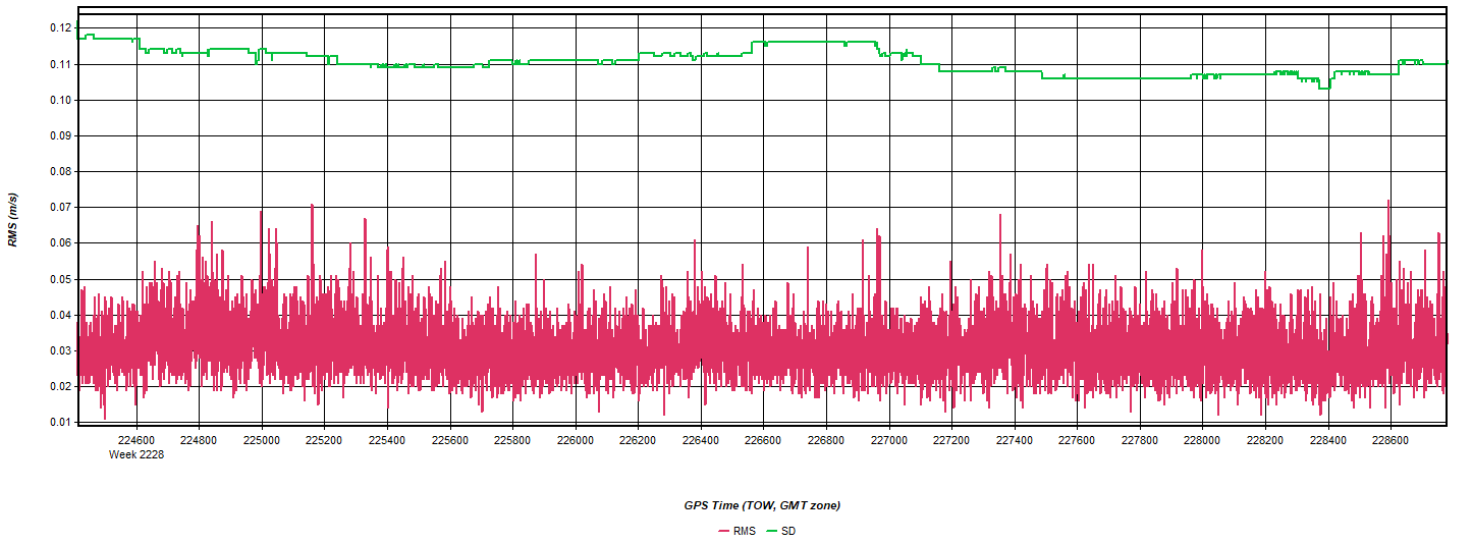


Figure 19: 20220920141855_11 [Smoothed TC Combined] - Accelerometer Bias Plot

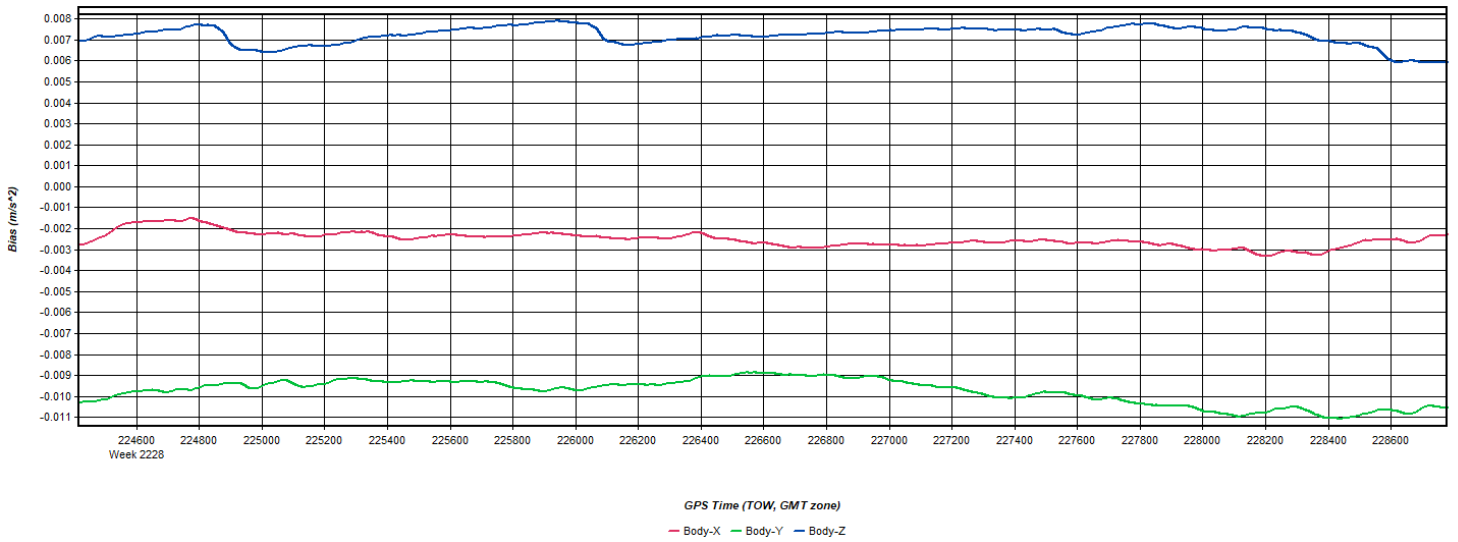
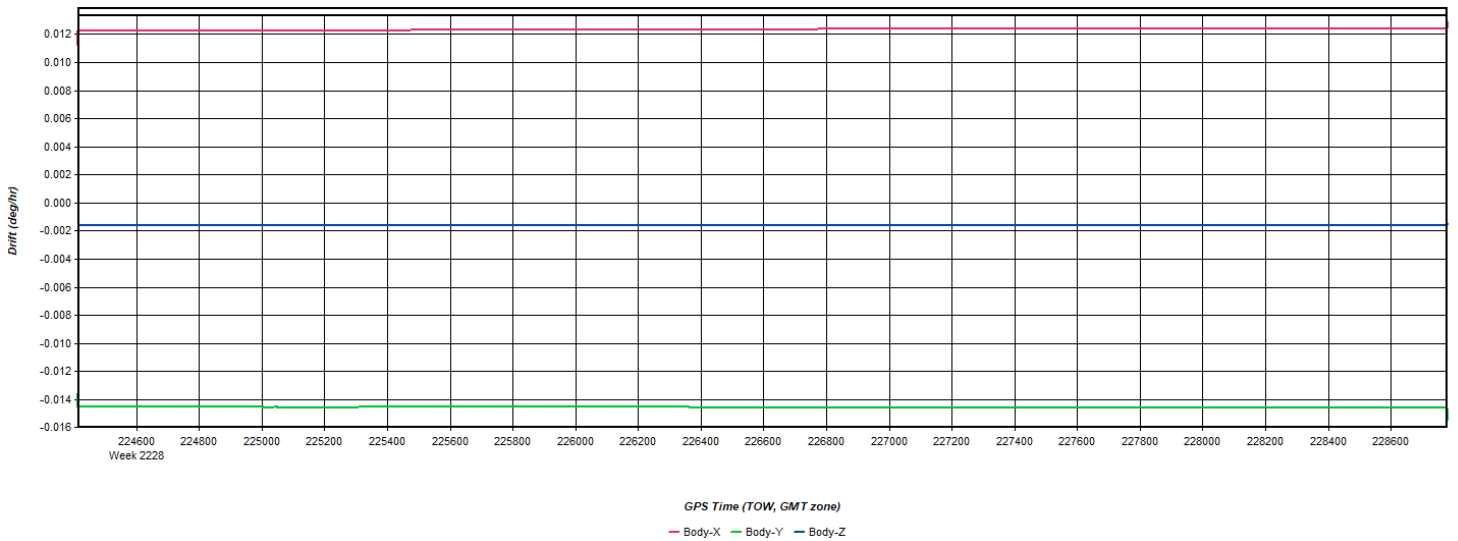


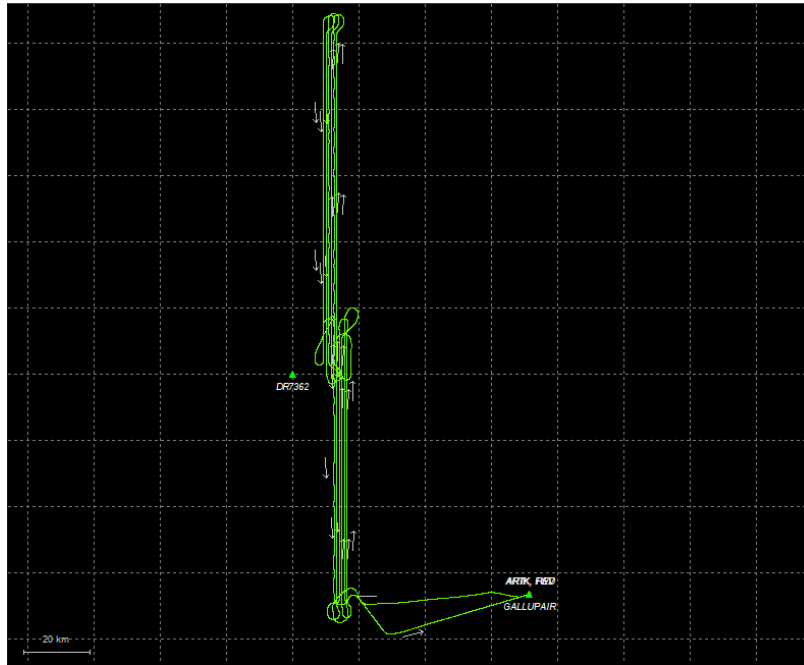
Figure 20: 20220920141855_11 [Smoothed TC Combined] - Gyro Drift Plot



Output Results for 20220923142424_12

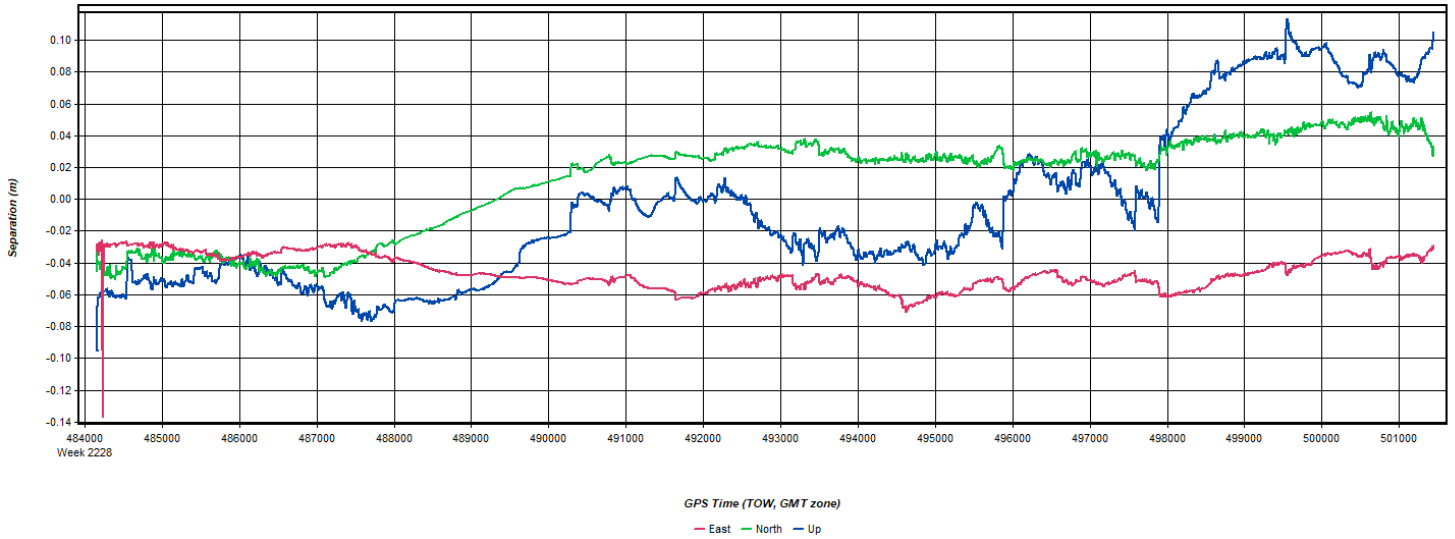
Inertial Explorer Version 8.90.2124
10/08/2022

Figure 1: Smoothed TC Combined - Map



Process	20220923142424_12	by Unknown	on 10/8/2022	at 17:14:48
---------	-------------------	------------	--------------	-------------

Figure 2: 20220923142424_12 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220923142424_12	by Unknown	on 10/8/2022	at 17:14:48
---------	-------------------	------------	--------------	-------------

Figure 3: 20220923142424_12 [Smoothed TC Combined] - Float or Fixed Ambiguity

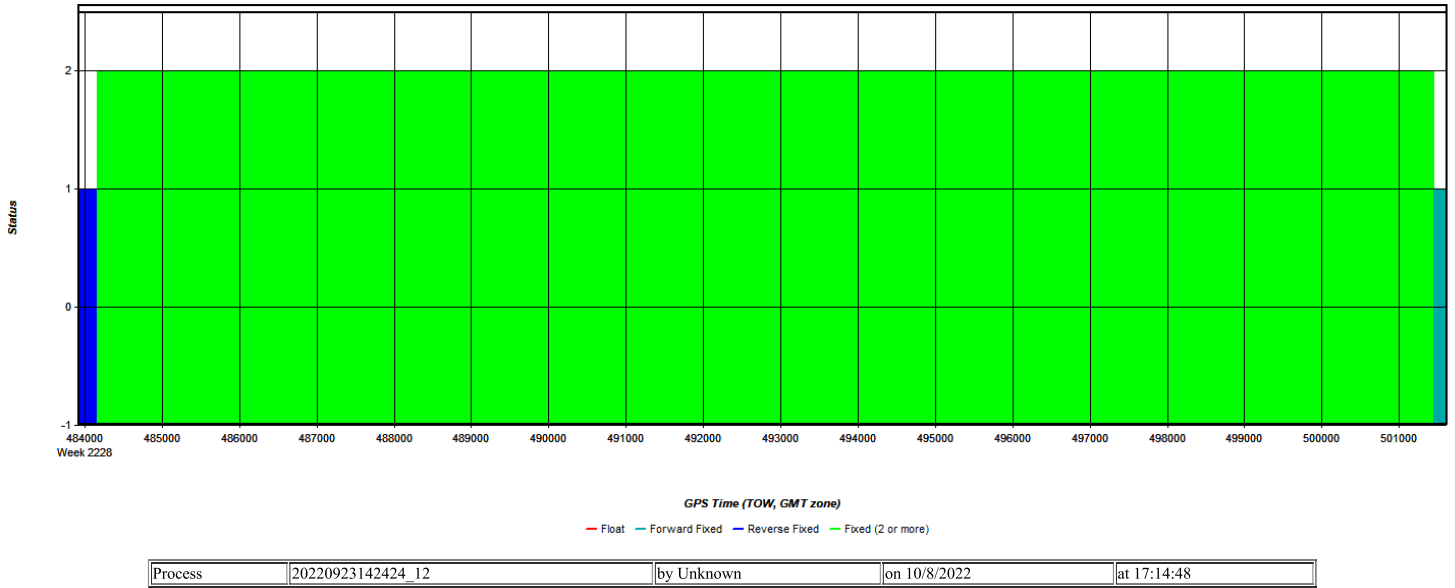


Figure 4: 20220923142424_12 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

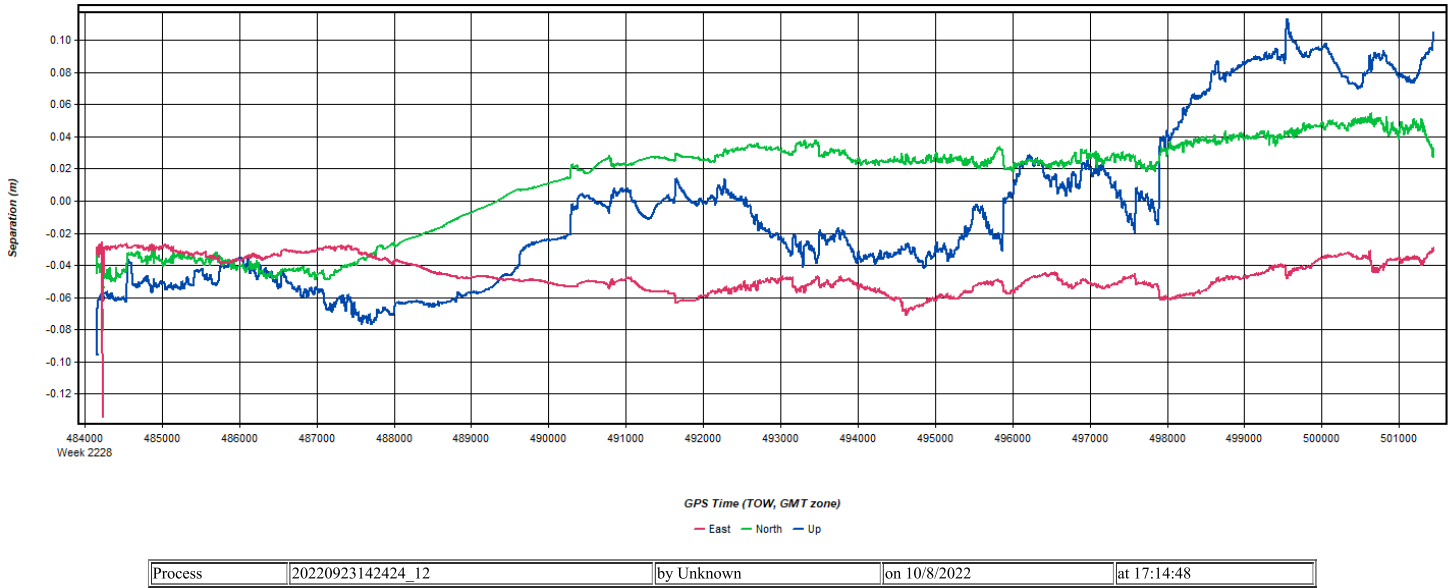


Figure 5: 20220923142424_12 [Smoothed TC Combined] - Estimated Position Accuracy Plot

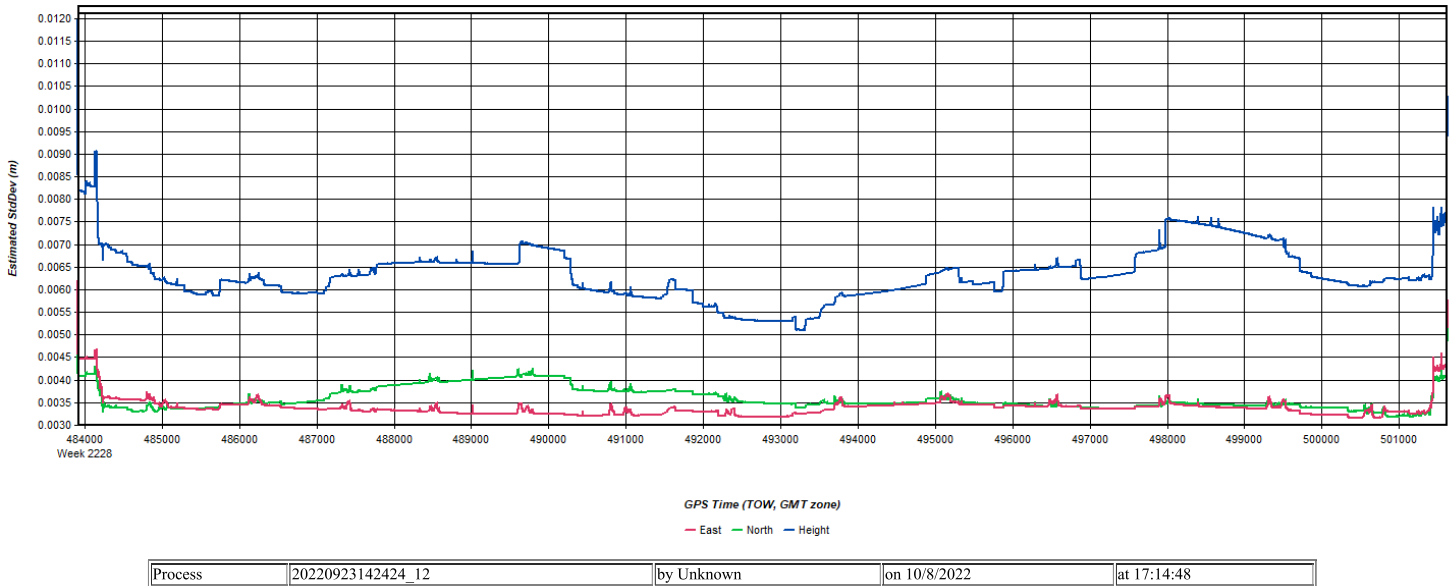


Figure 6: 20220923142424_12 [Smoothed TC Combined] - PDOP Plot

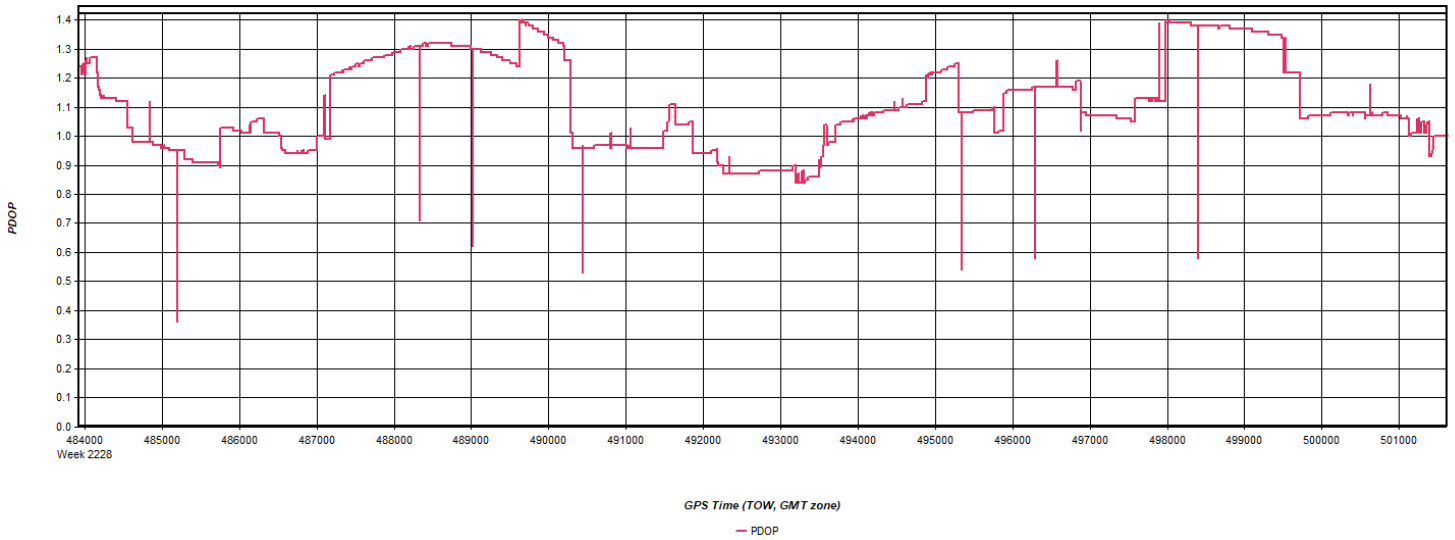


Figure 7: 20220923142424_12 [Smoothed TC Combined] - Number of Satellites Line Plot

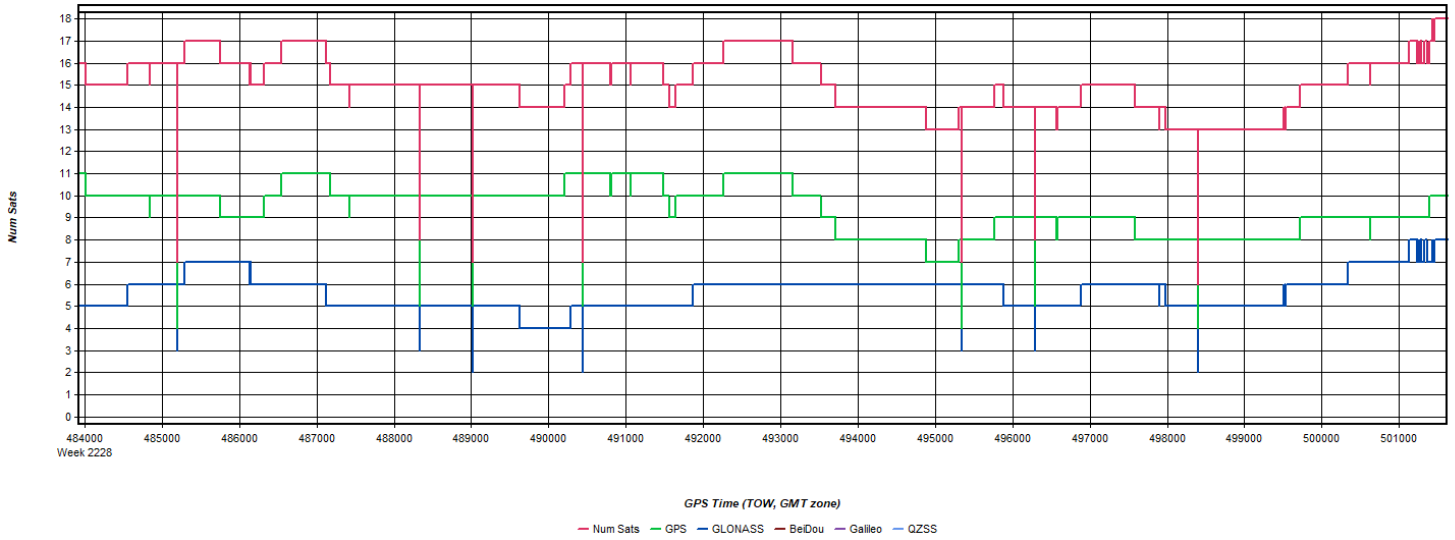


Figure 8: 20220923142424_12 [Smoothed TC Combined] - Status flag for IMU processing

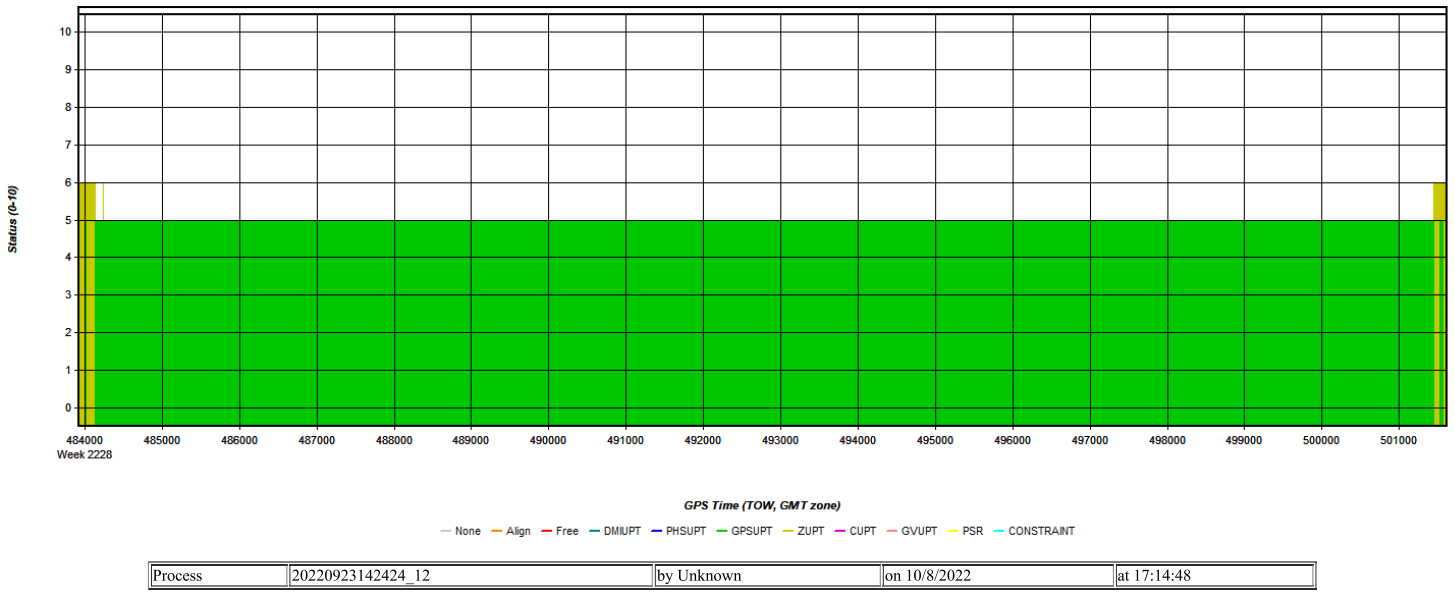


Figure 9: 20220923142424_12 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

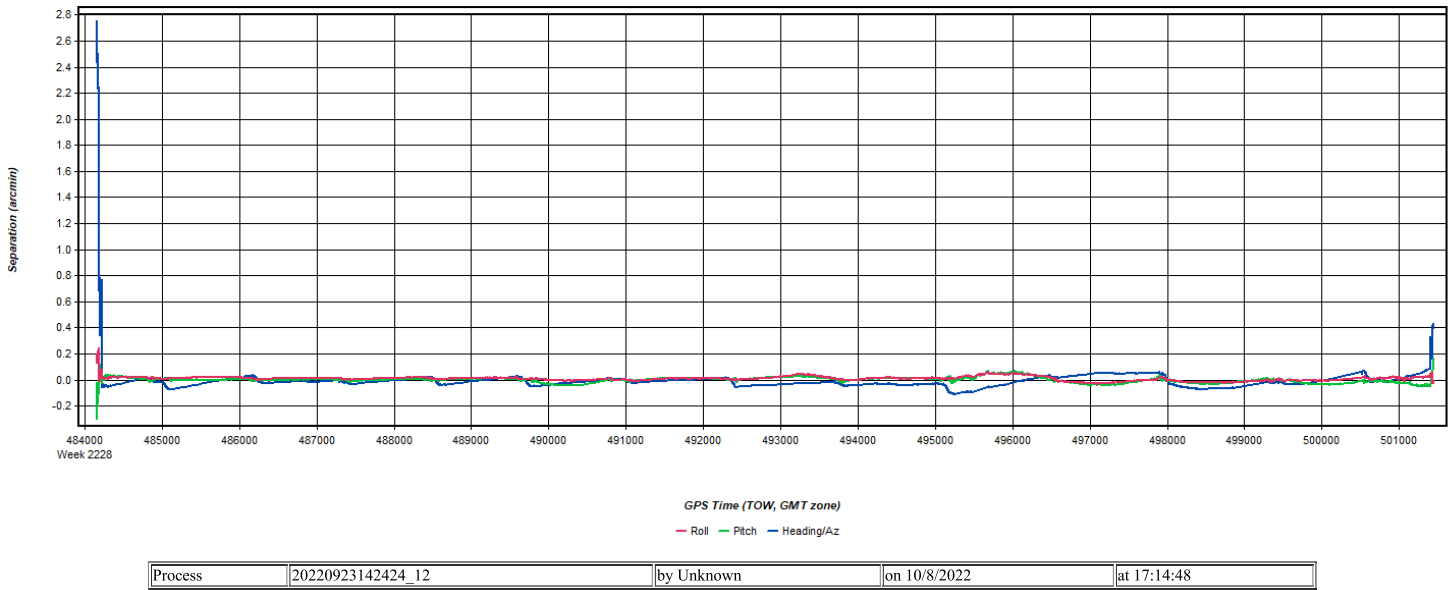


Figure 10: 20220923142424_12 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

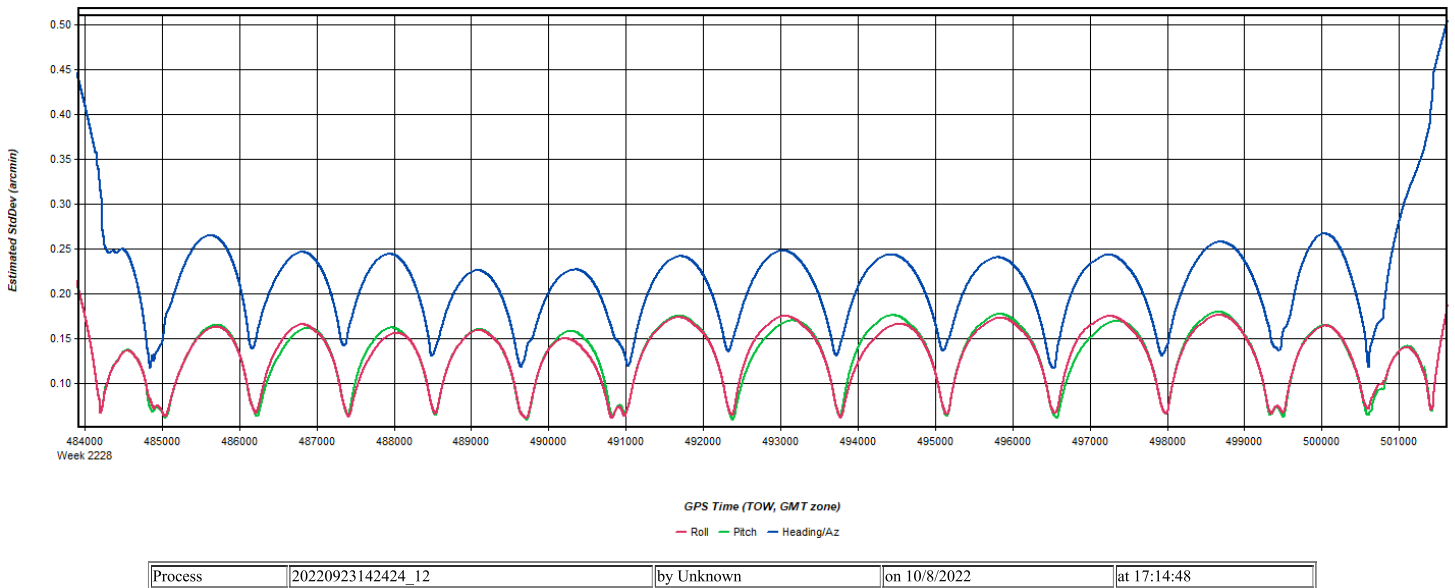
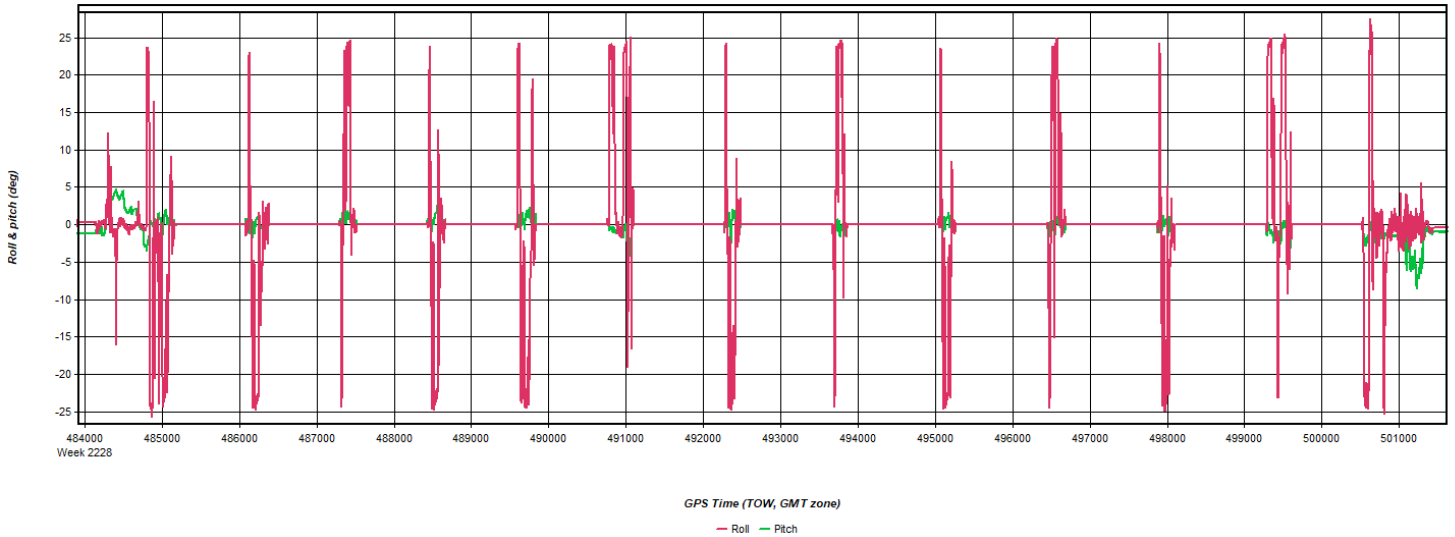


Figure 11: 20220923142424_12 [Smoothed TC Combined] - Azimuth Plot



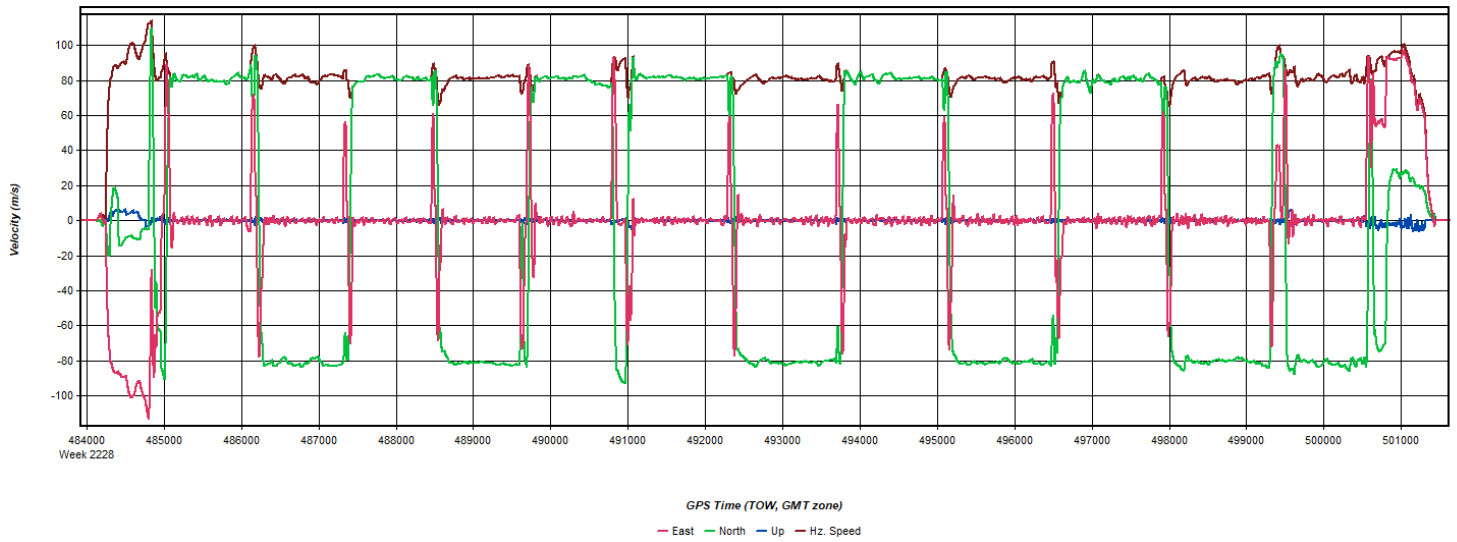
Process	20220923142424_12	by Unknown	on 10/8/2022	at 17:14:48
---------	-------------------	------------	--------------	-------------

Figure 12: 20220923142424_12 [Smoothed TC Combined] - Roll & Pitch Plot



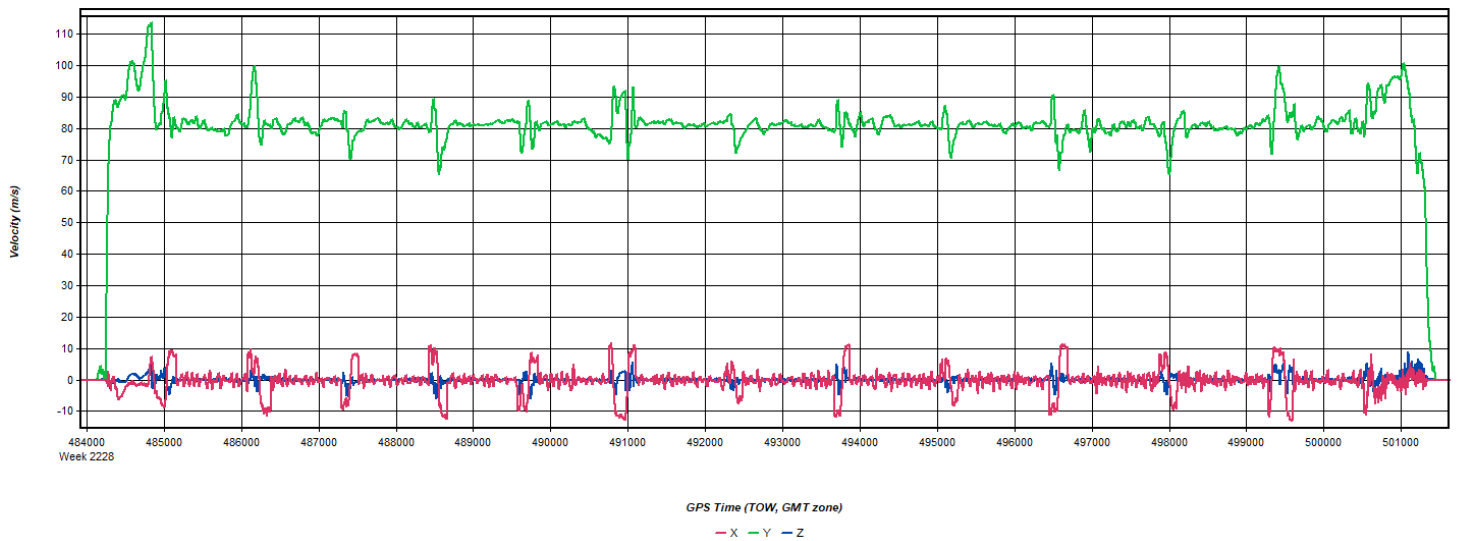
Process	20220923142424_12	by Unknown	on 10/8/2022	at 17:14:48
---------	-------------------	------------	--------------	-------------

Figure 13: 20220923142424_12 [Smoothed TC Combined] - Velocity Profile Plot



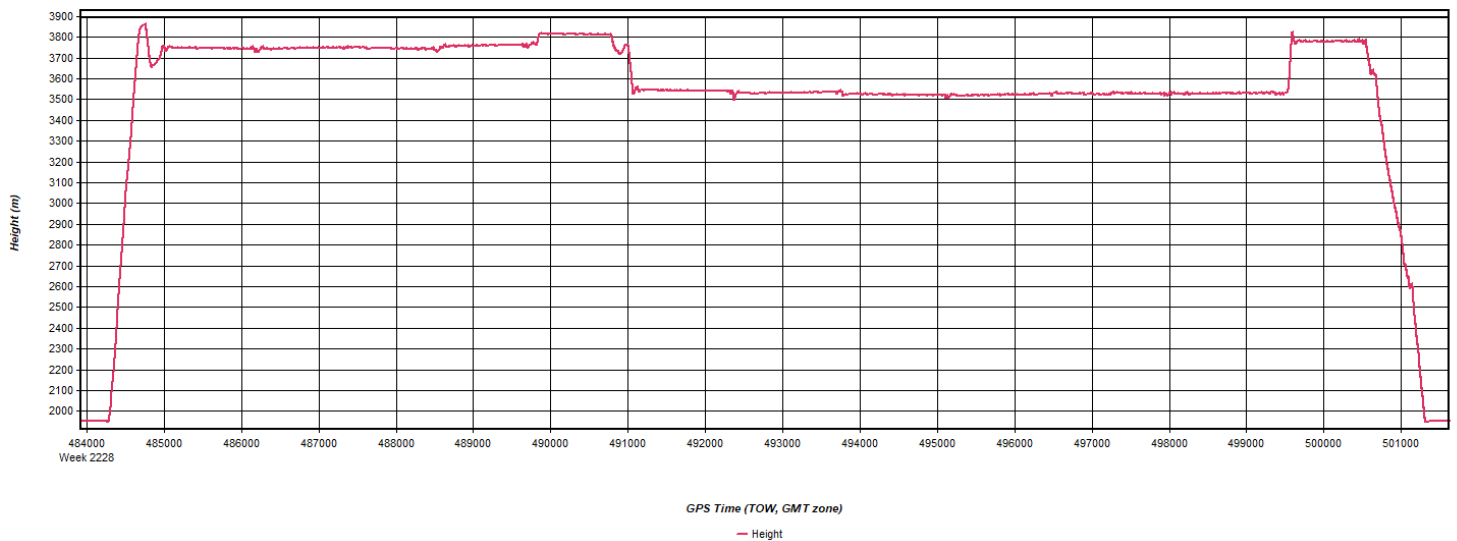
Process	20220923142424_12	by Unknown	on 10/8/2022	at 17:14:48
---------	-------------------	------------	--------------	-------------

Figure 14: 20220923142424_12 [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20220923142424_12	by Unknown	on 10/8/2022	at 17:14:48
---------	-------------------	------------	--------------	-------------

Figure 15: 20220923142424_12 [Smoothed TC Combined] - Height Profile Plot



Process	20220923142424_12	by Unknown	on 10/8/2022	at 17:14:48
---------	-------------------	------------	--------------	-------------

Figure 16: 20220923142424_12 [Smoothed TC Combined] - C/A Code Residual RMS Plot

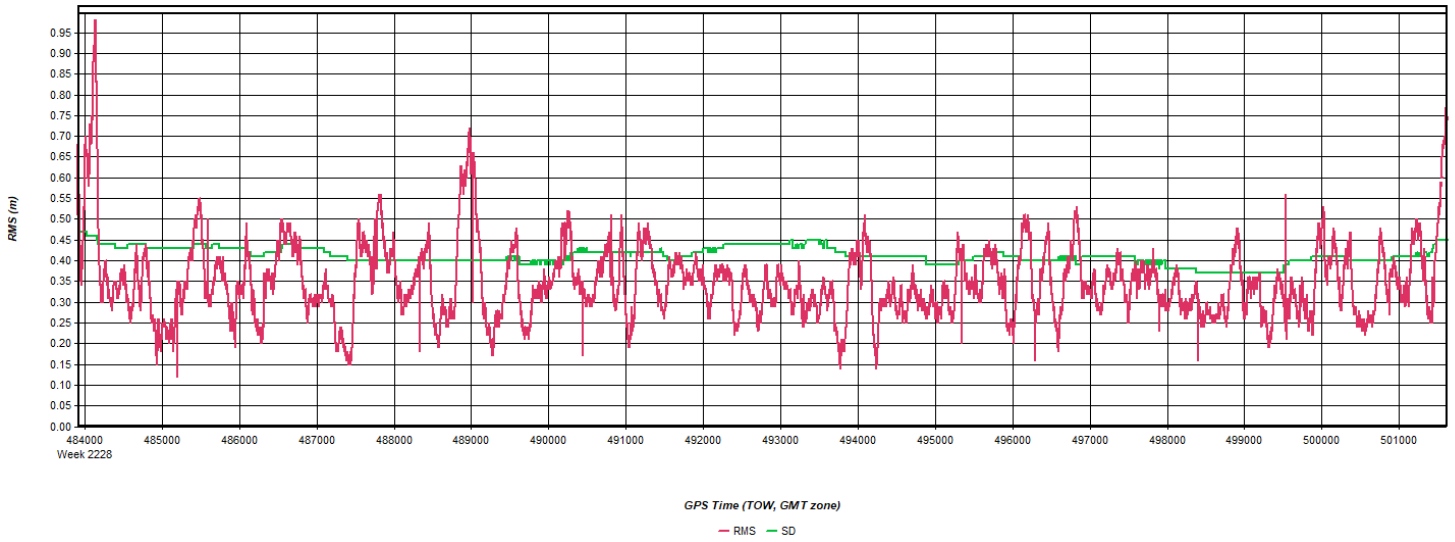


Figure 17: 20220923142424_12 [Smoothed TC Combined] - Carrier Residual RMS Plot

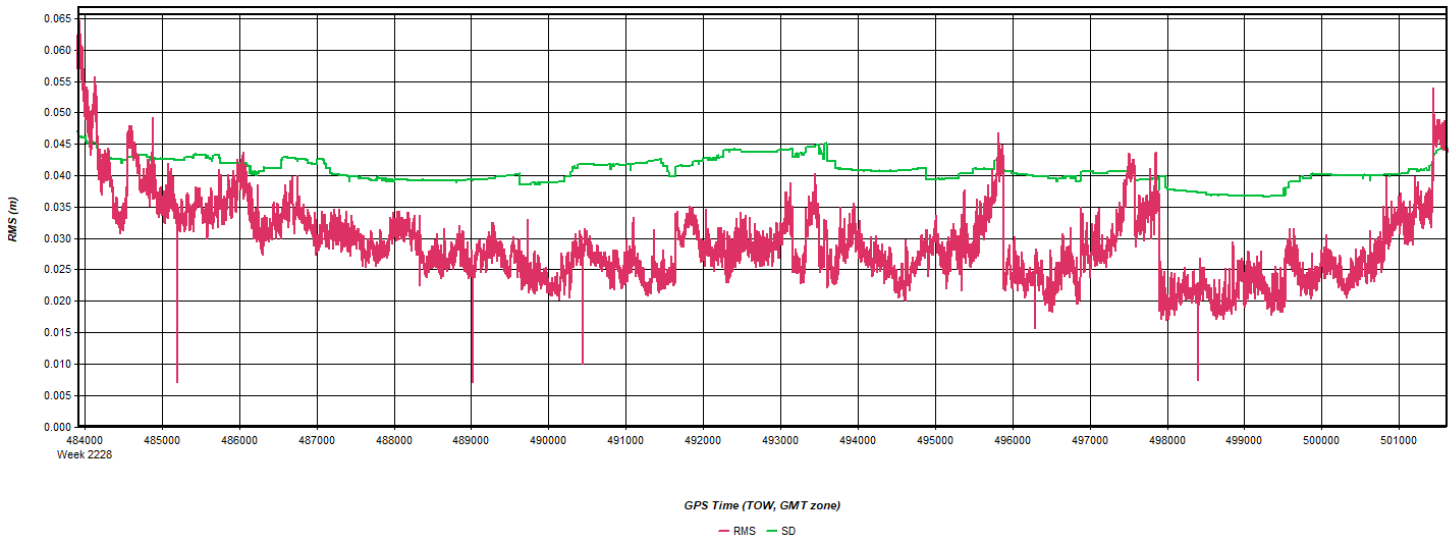


Figure 18: 20220923142424_12 [Smoothed TC Combined] - Doppler Residual RMS Plot

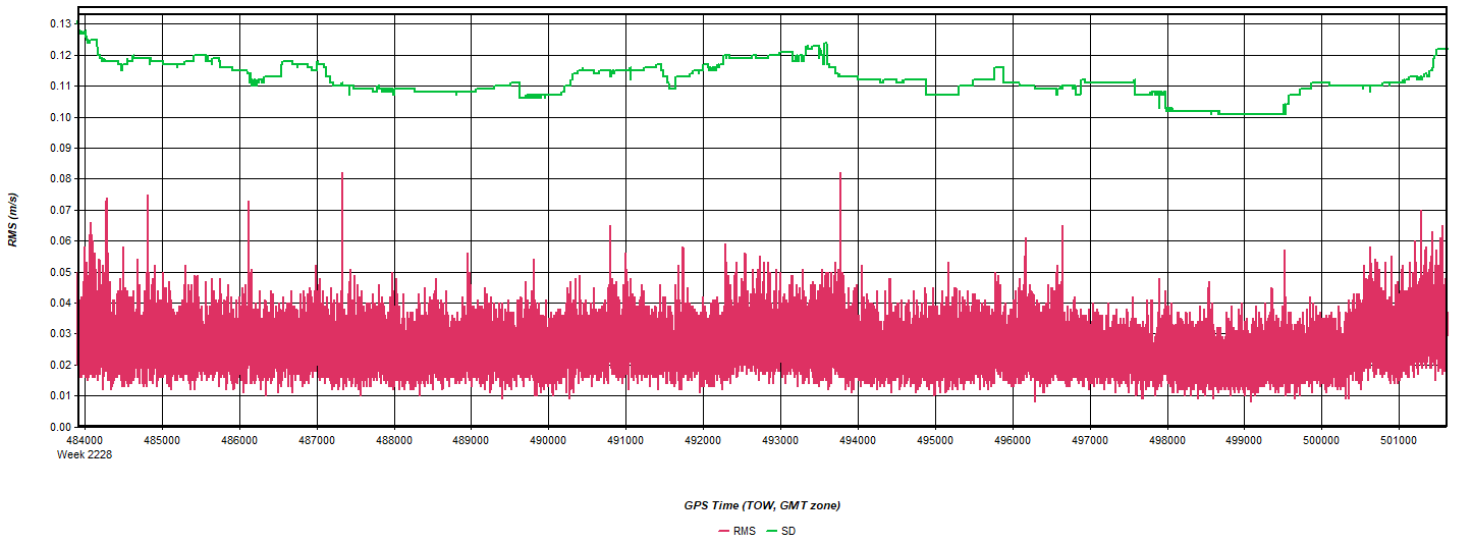


Figure 19: 20220923142424_12 [Smoothed TC Combined] - Accelerometer Bias Plot

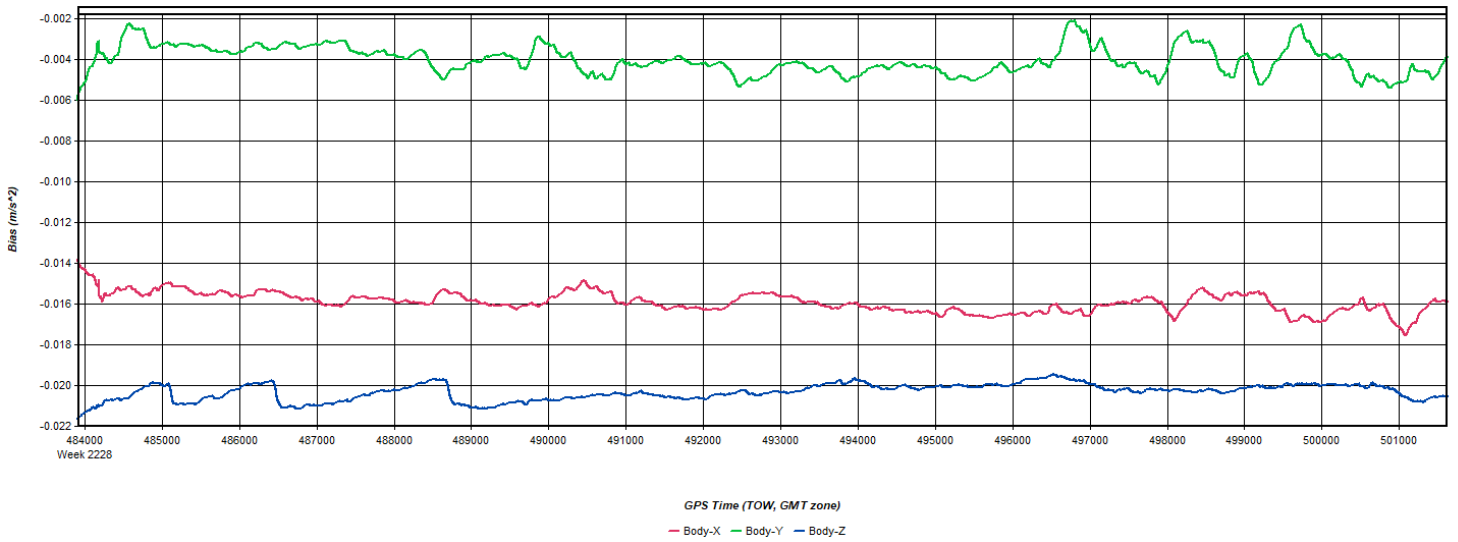
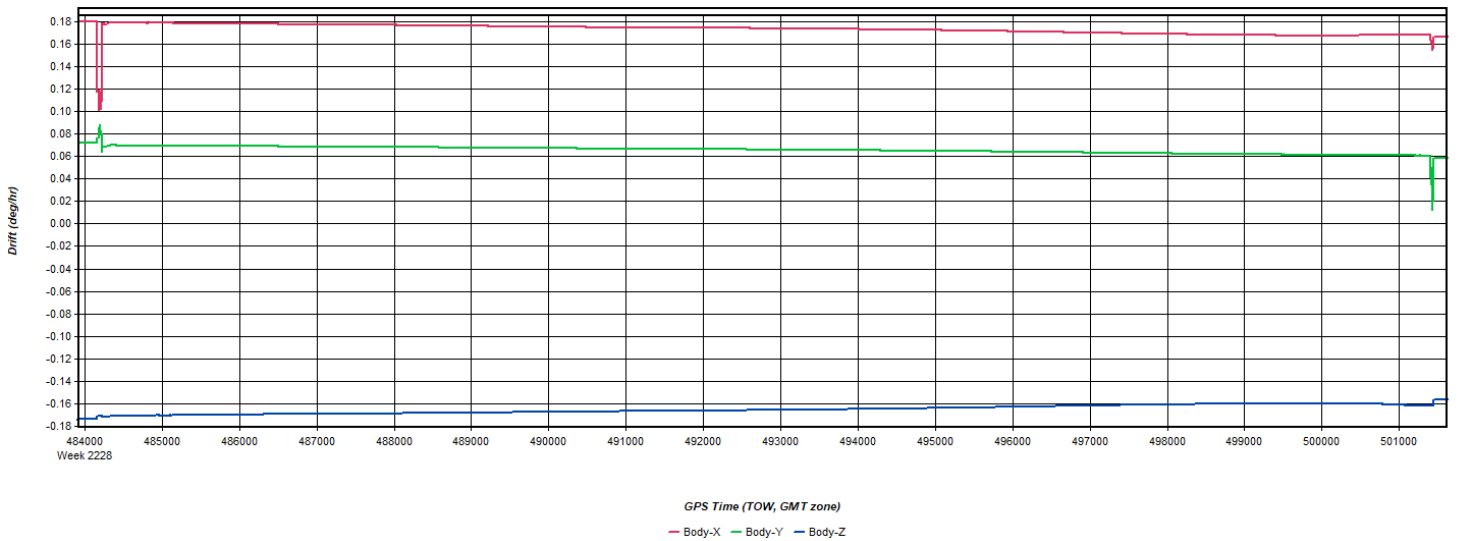


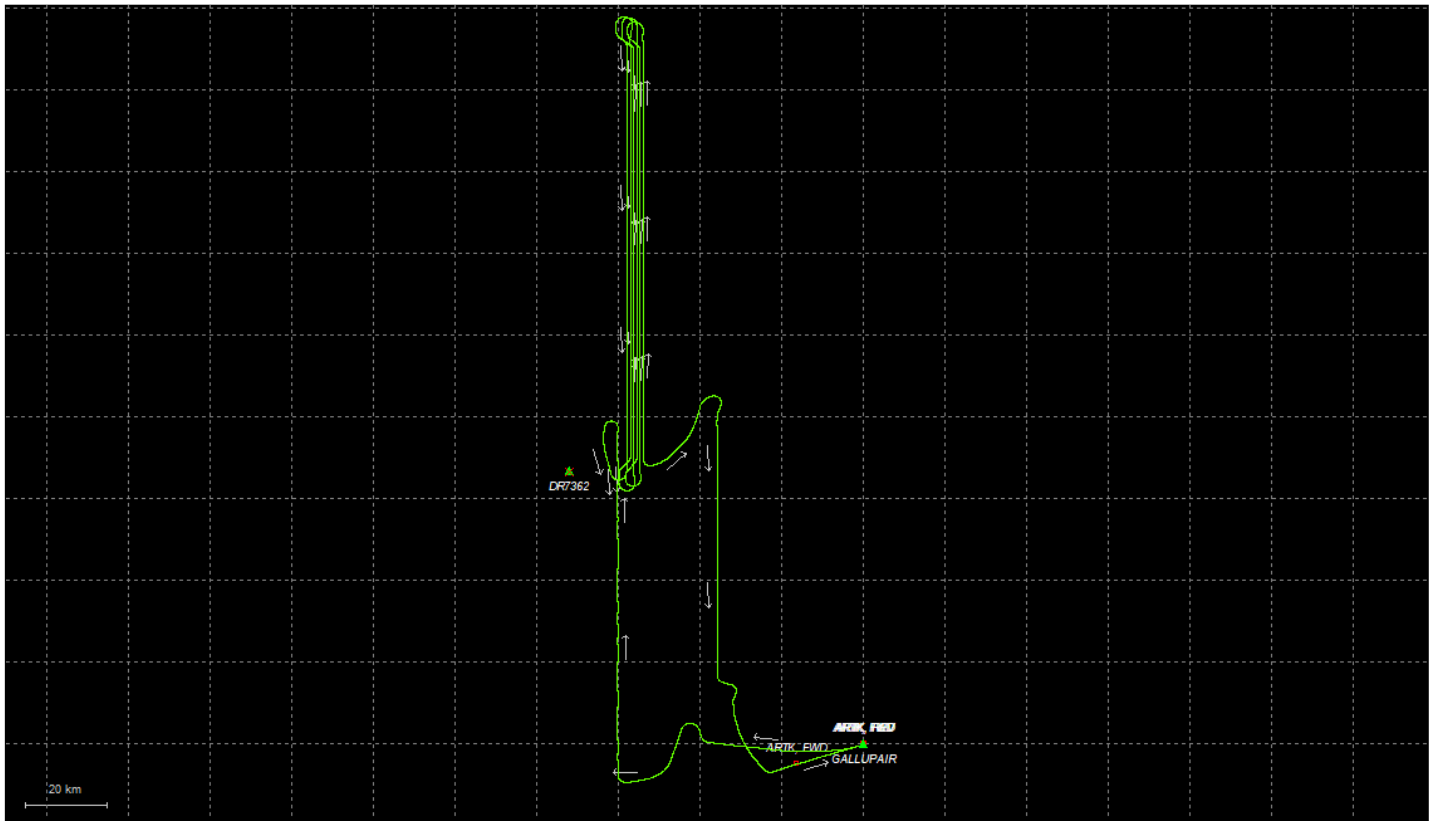
Figure 20: 20220923142424_12 [Smoothed TC Combined] - Gyro Drift Plot



Output Results for 20220924000959_13

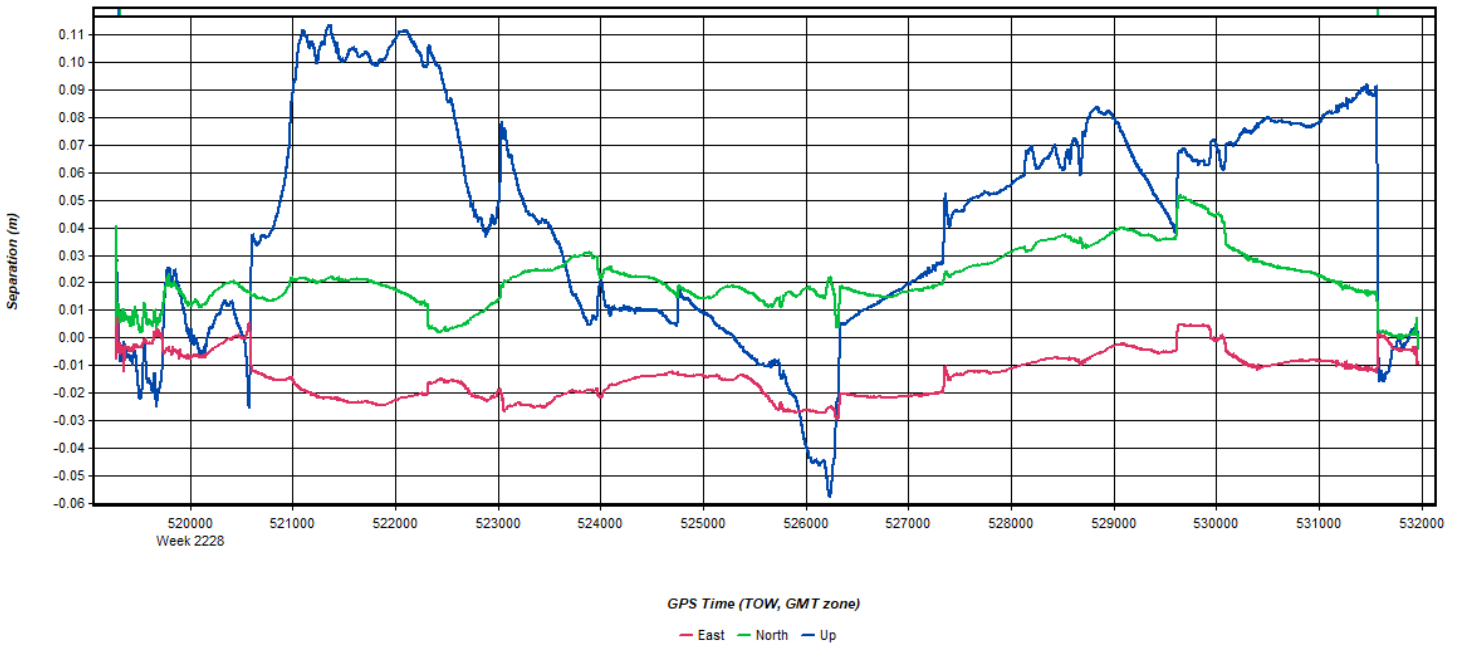
Inertial Explorer Version 8.90.2124
10/04/2022

Figure 1: Smoothed TC Combined - Map



Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 2: 20220924000959_13 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 3: 20220924000959_13 [Smoothed TC Combined] - Float or Fixed Ambiguity

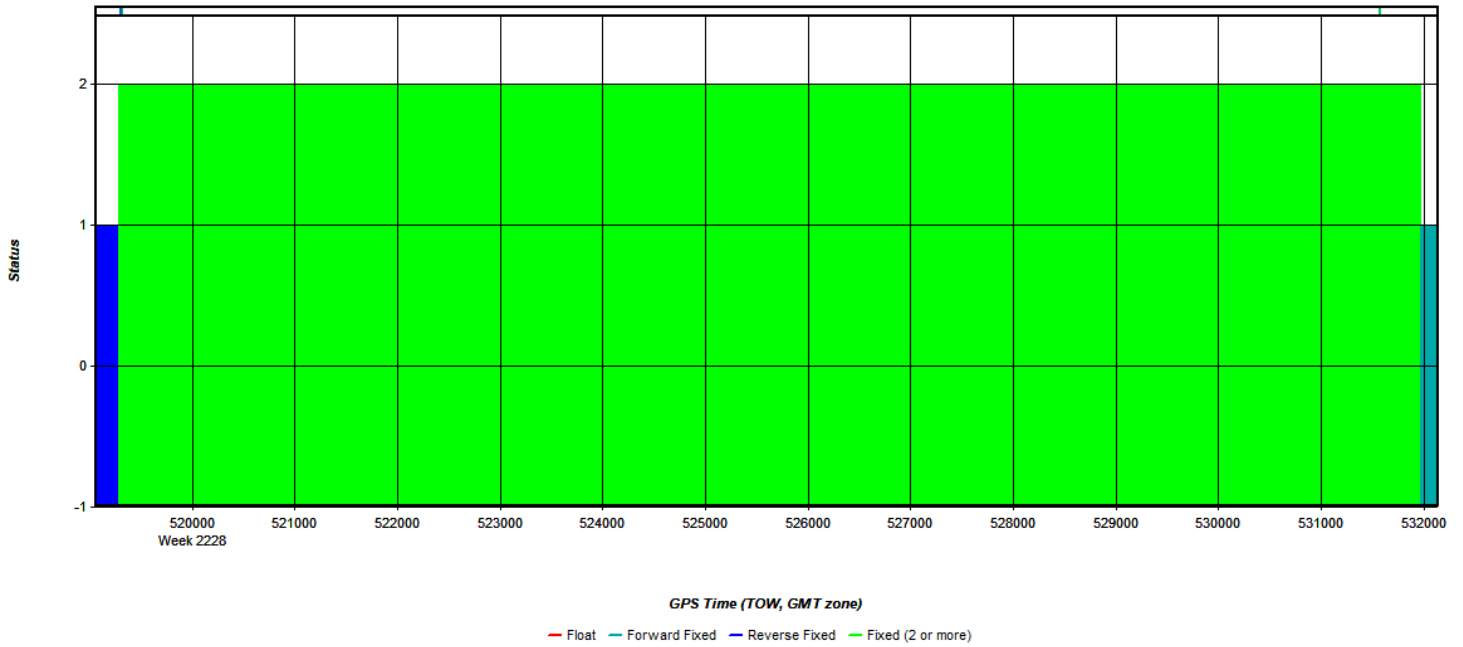


Figure 4: 20220924000959_13 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

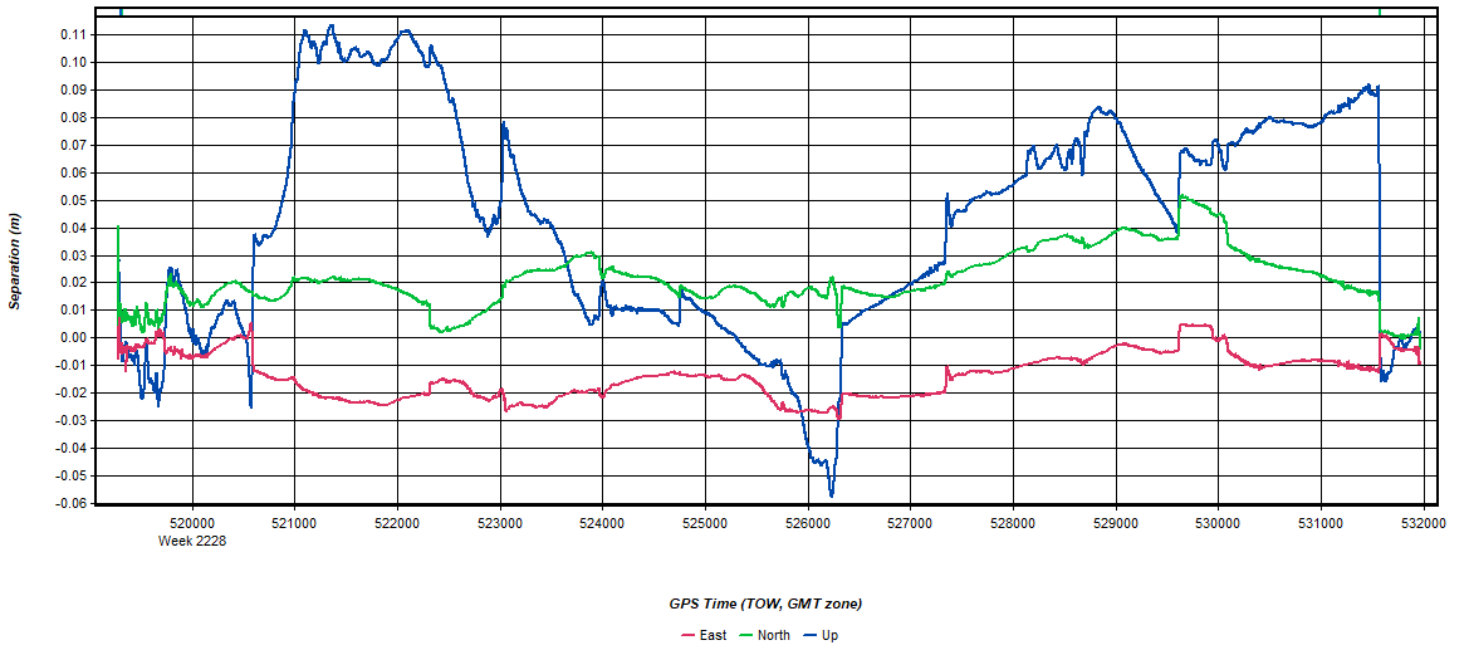
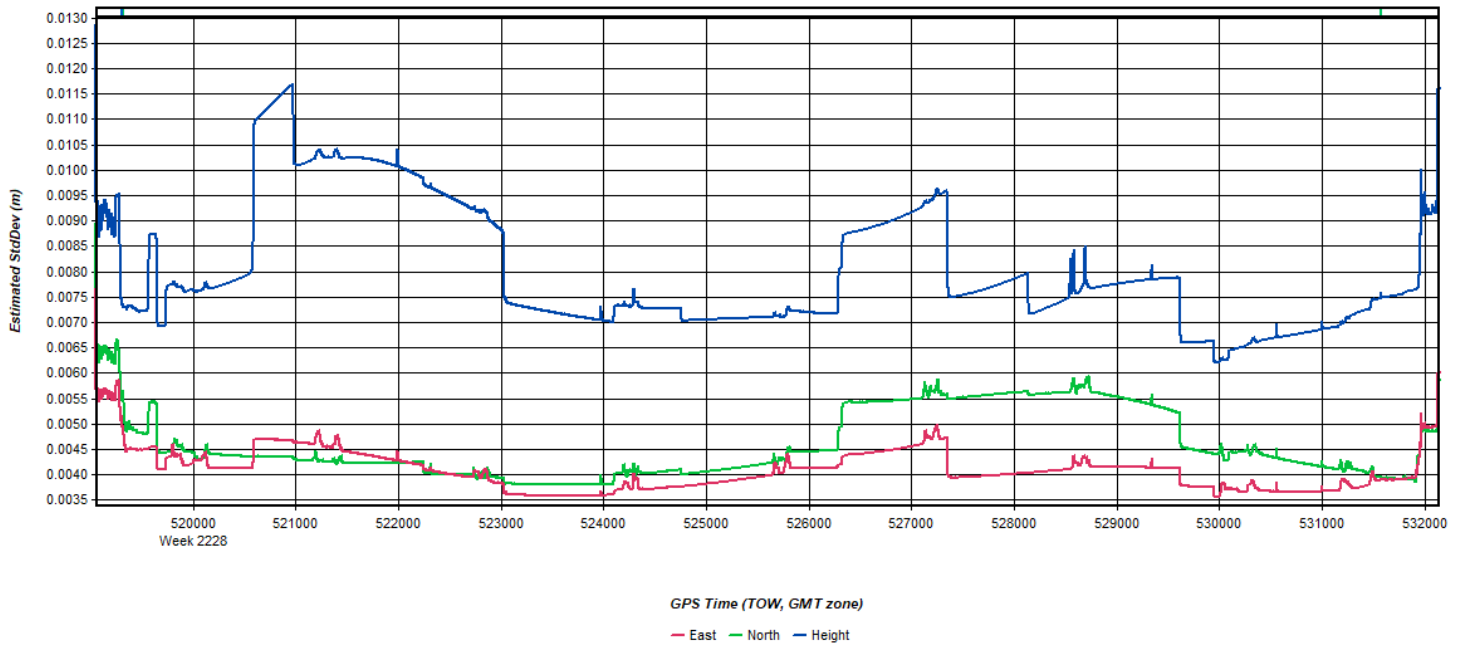
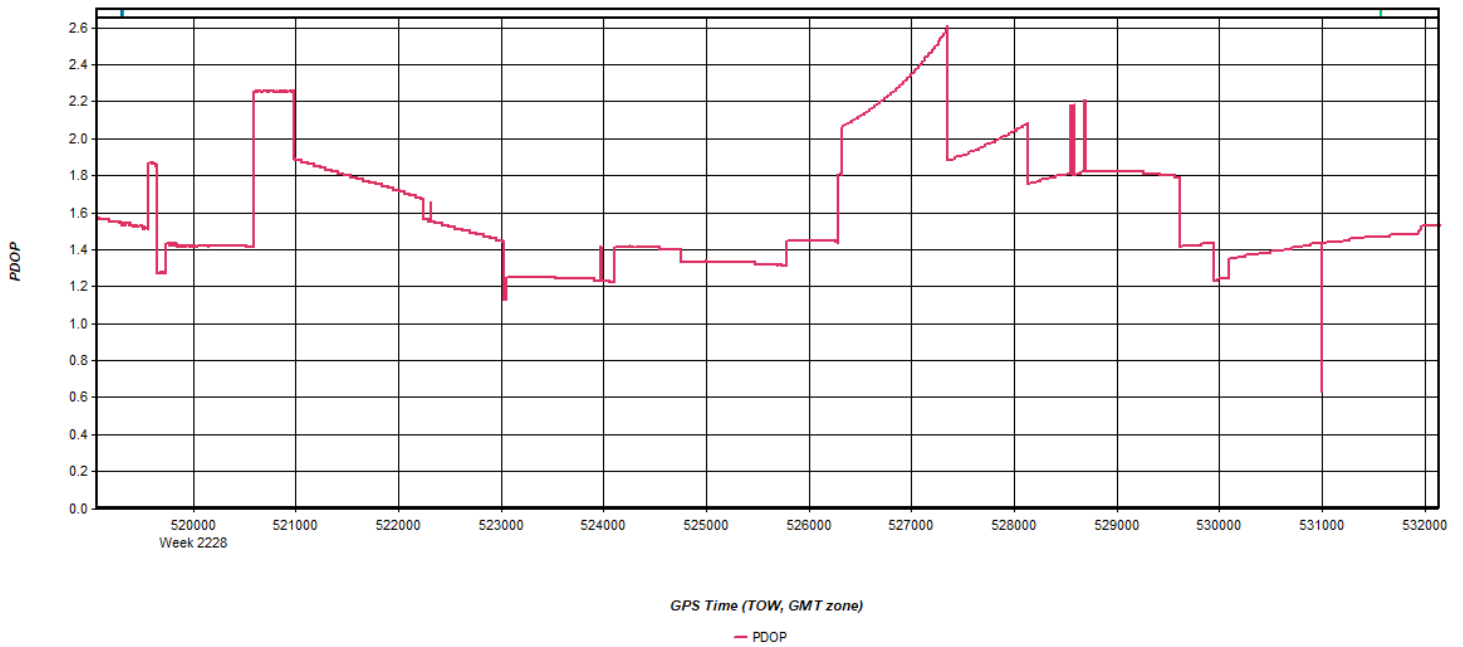


Figure 5: 20220924000959_13 [Smoothed TC Combined] - Estimated Position Accuracy Plot



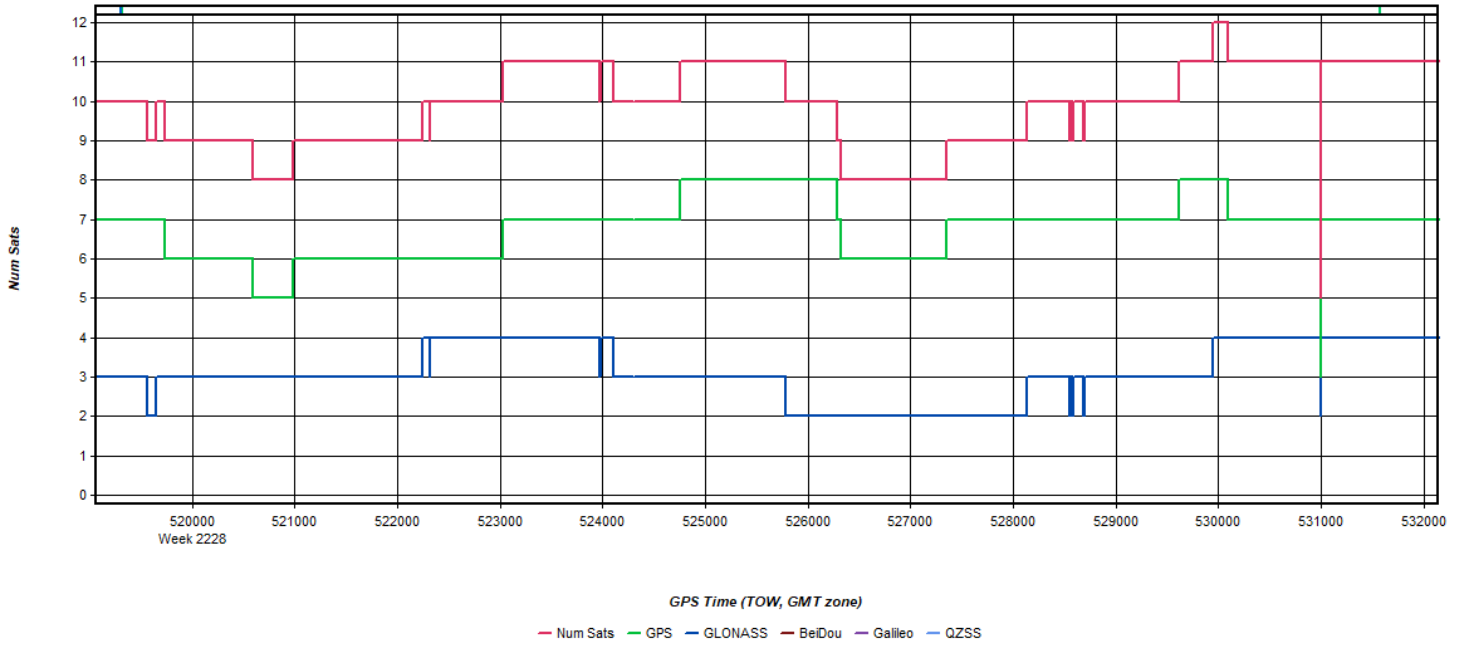
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 6: 20220924000959_13 [Smoothed TC Combined] - PDOP Plot



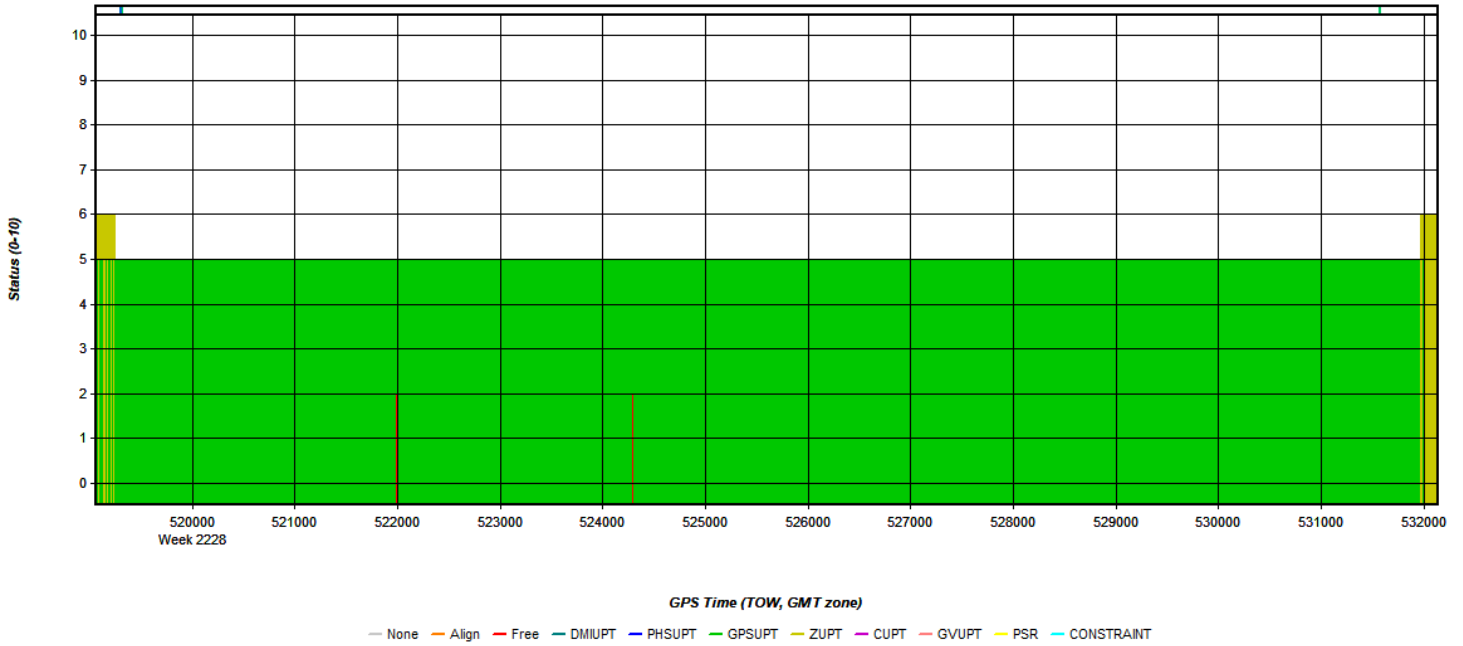
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 7: 20220924000959_13 [Smoothed TC Combined] - Number of Satellites Line Plot



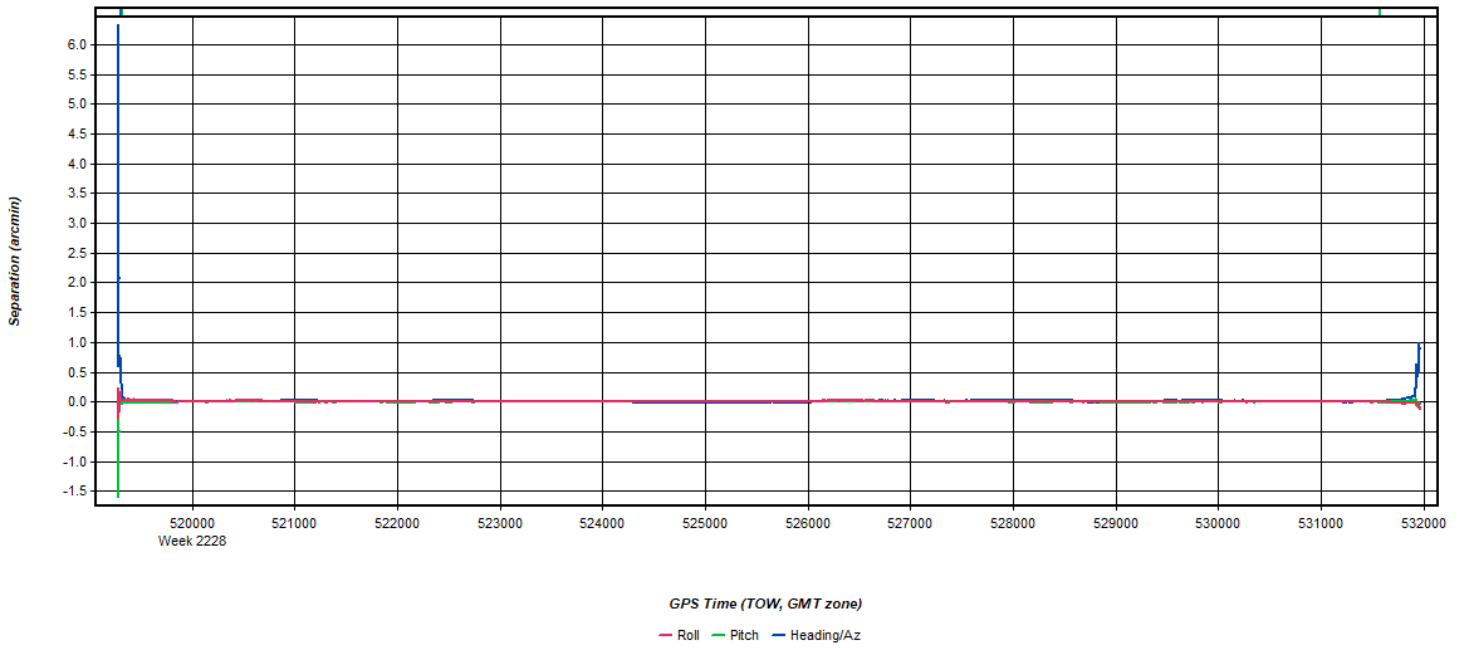
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 8: 20220924000959_13 [Smoothed TC Combined] - Status flag for IMU processing



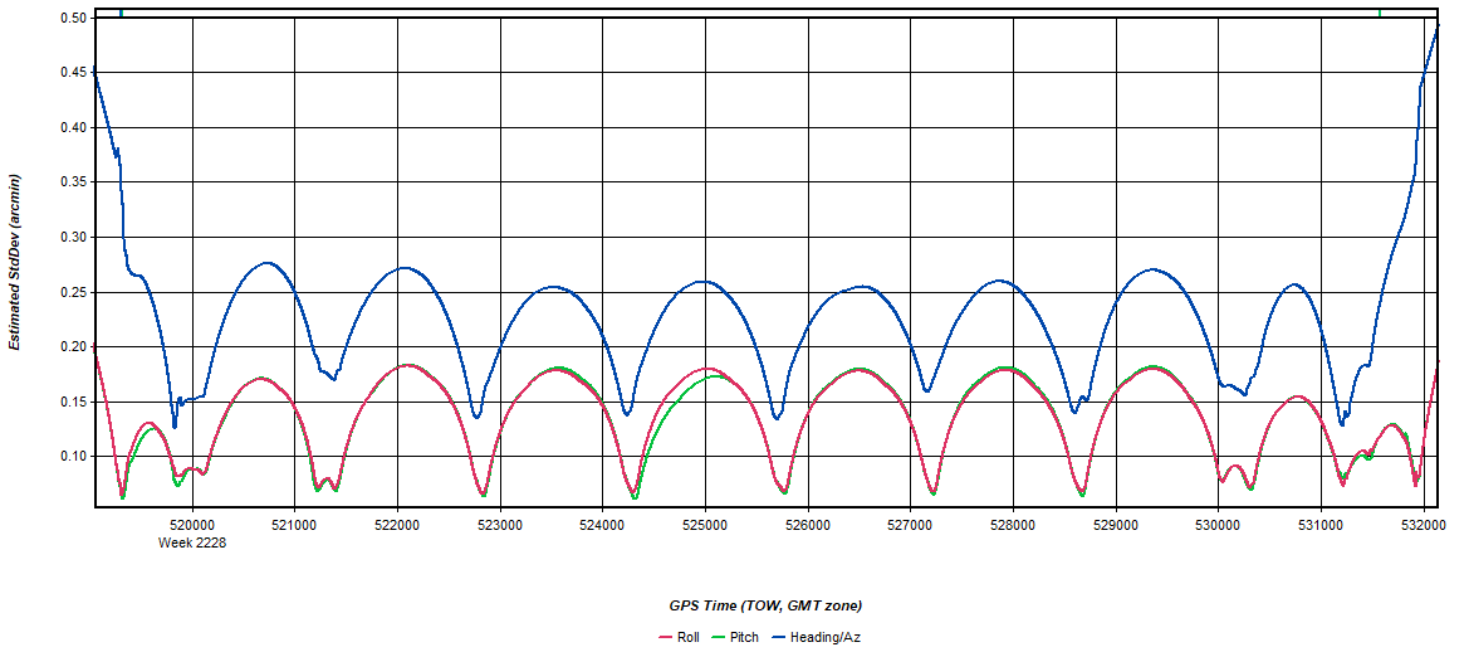
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 9: 20220924000959_13 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



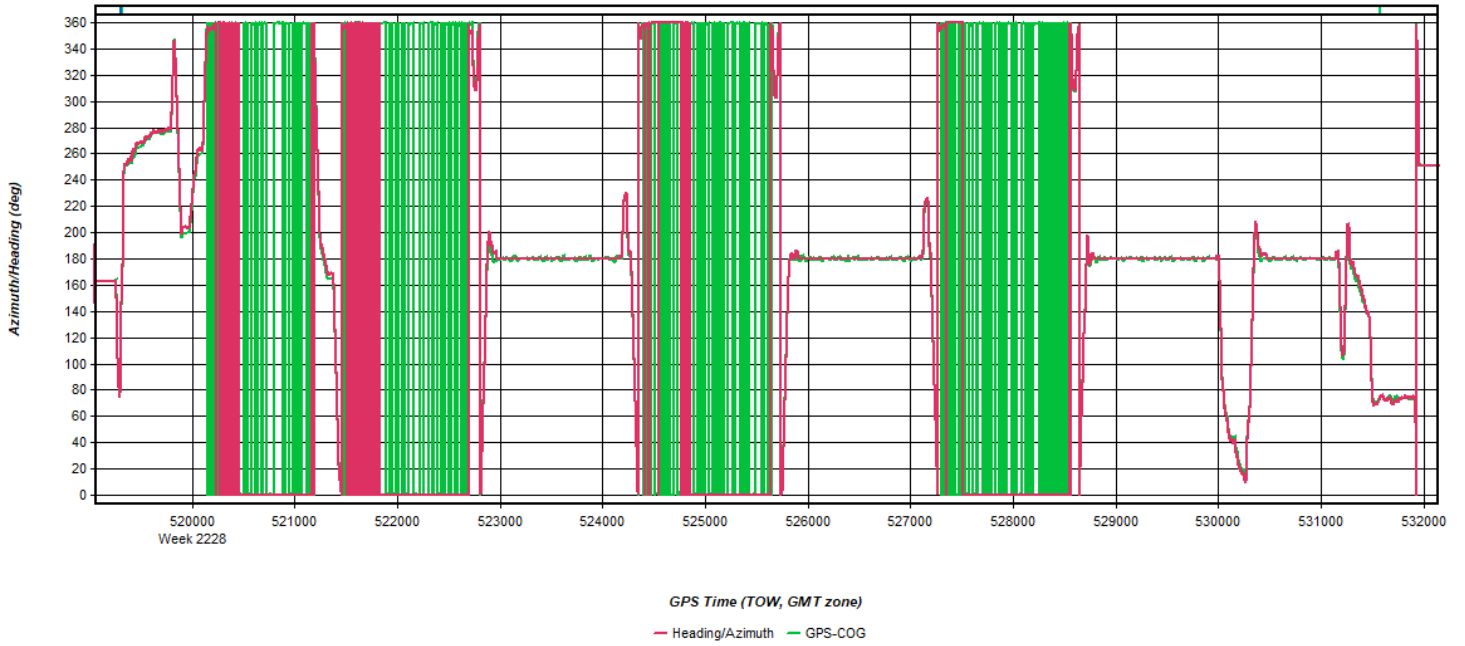
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 10: 20220924000959_13 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



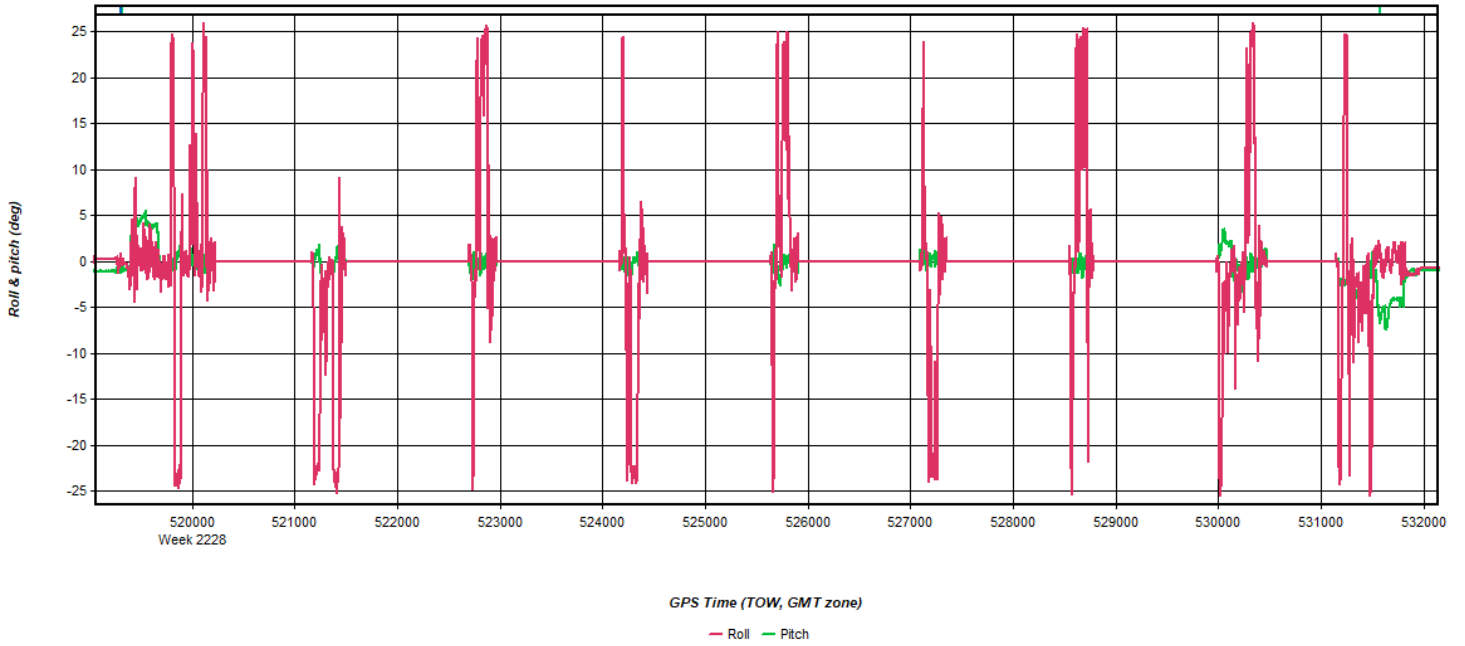
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 11: 20220924000959_13 [Smoothed TC Combined] - Azimuth Plot



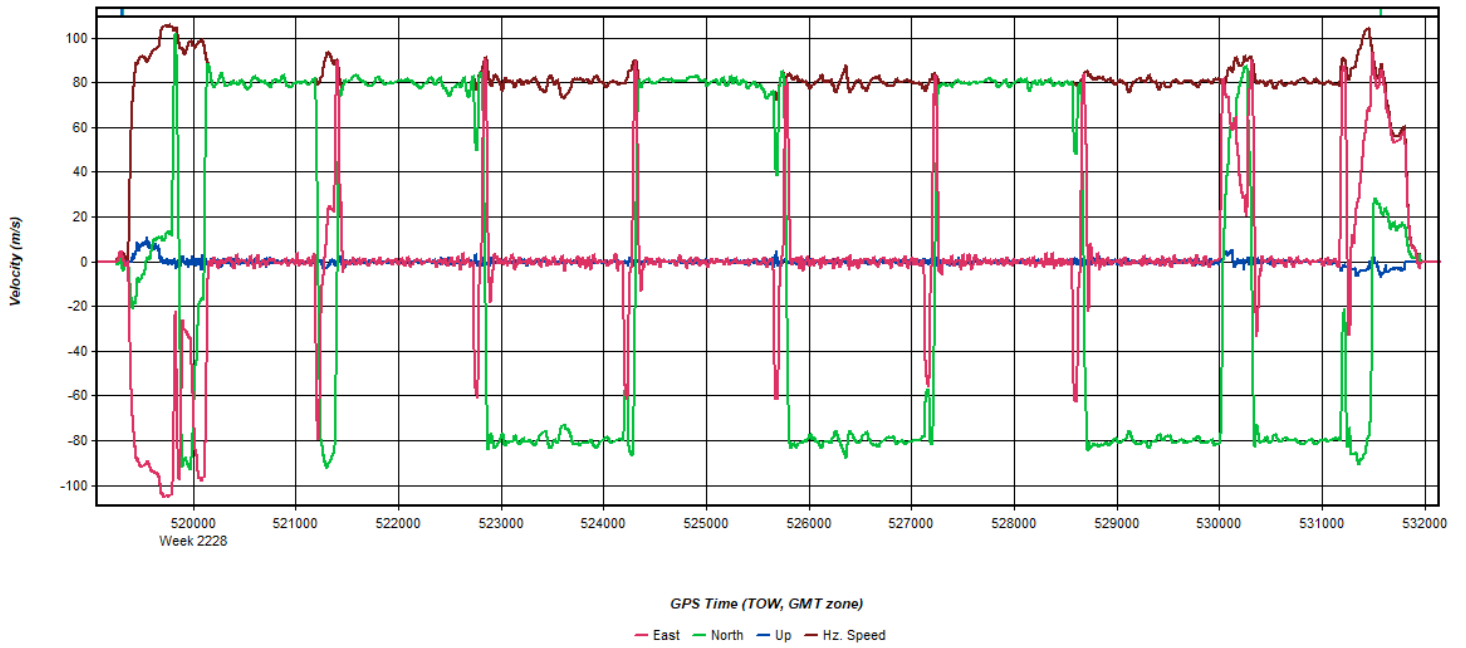
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 12: 20220924000959_13 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 13: 20220924000959_13 [Smoothed TC Combined] - Velocity Profile Plot



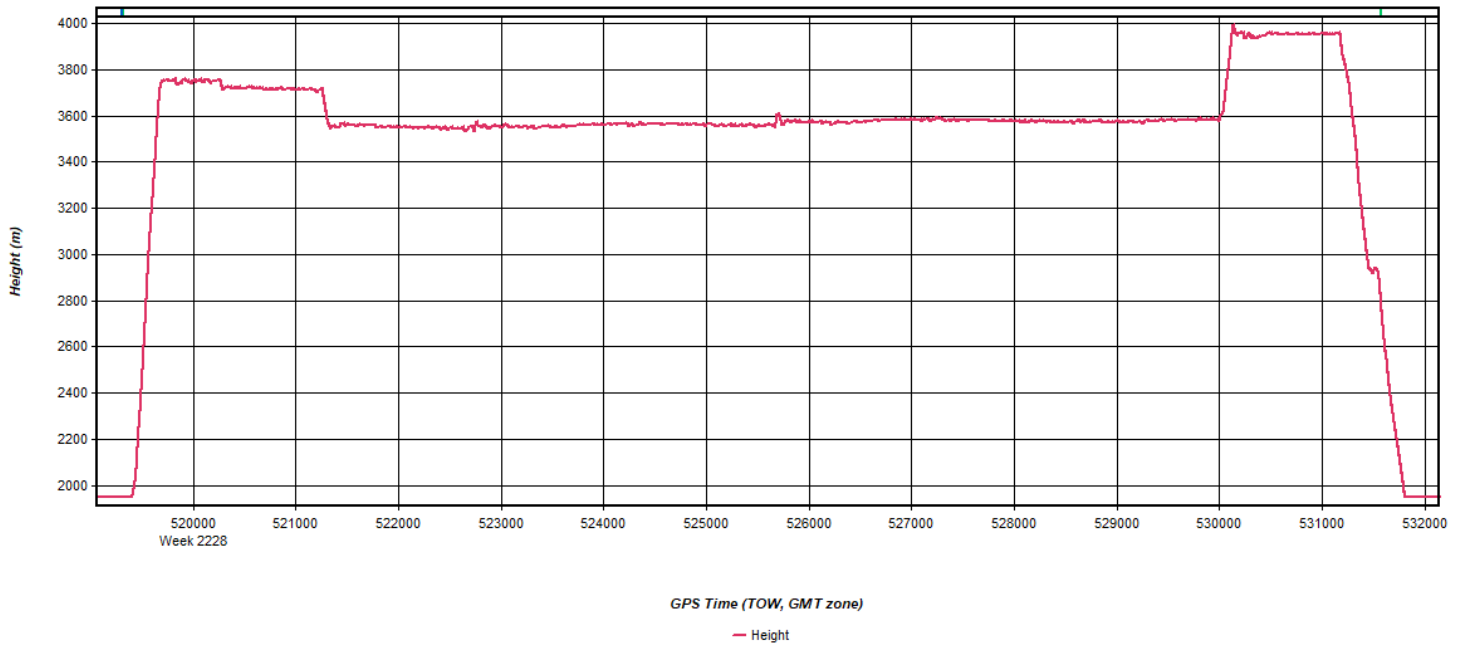
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 14: 20220924000959_13 [Smoothed TC Combined] - Body Frame Velocity Plot



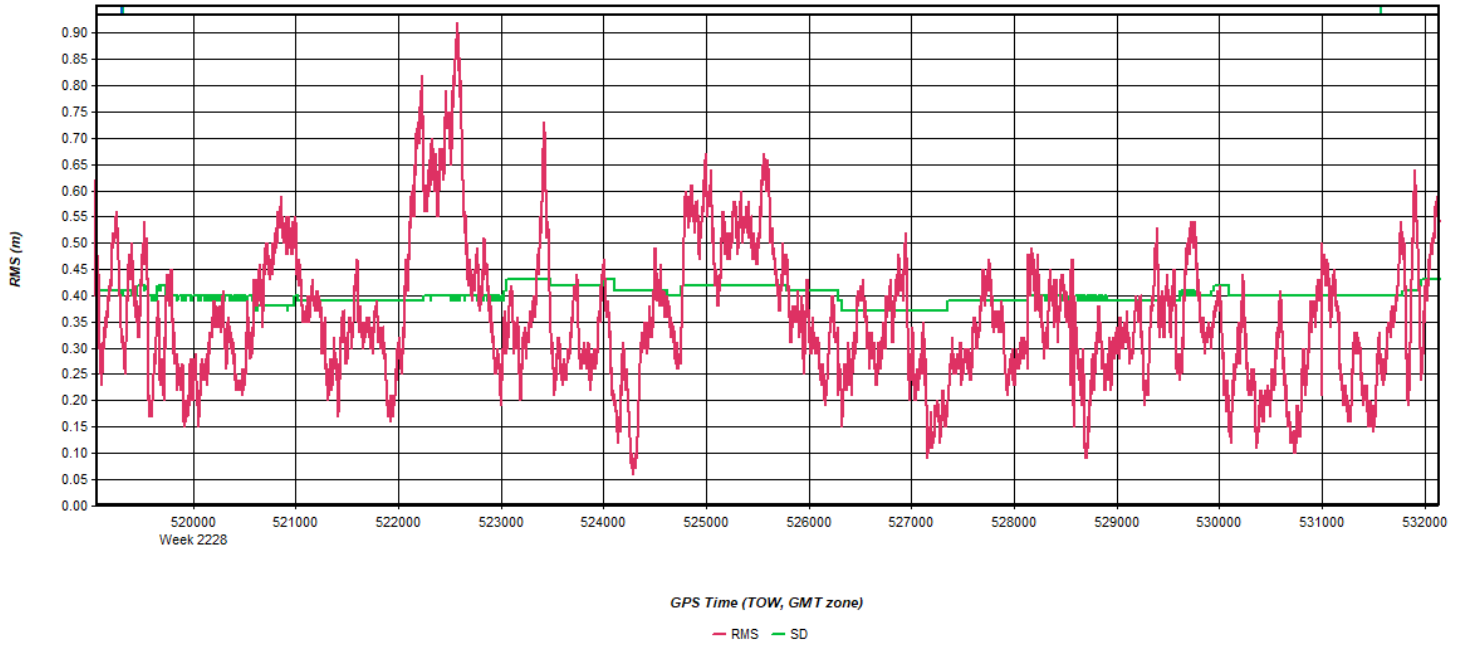
Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 15: 20220924000959_13 [Smoothed TC Combined] - Height Profile Plot



Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 16: 20220924000959_13 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 17: 20220924000959_13 [Smoothed TC Combined] - Carrier Residual RMS Plot



Figure 18: 20220924000959_13 [Smoothed TC Combined] - Doppler Residual RMS Plot

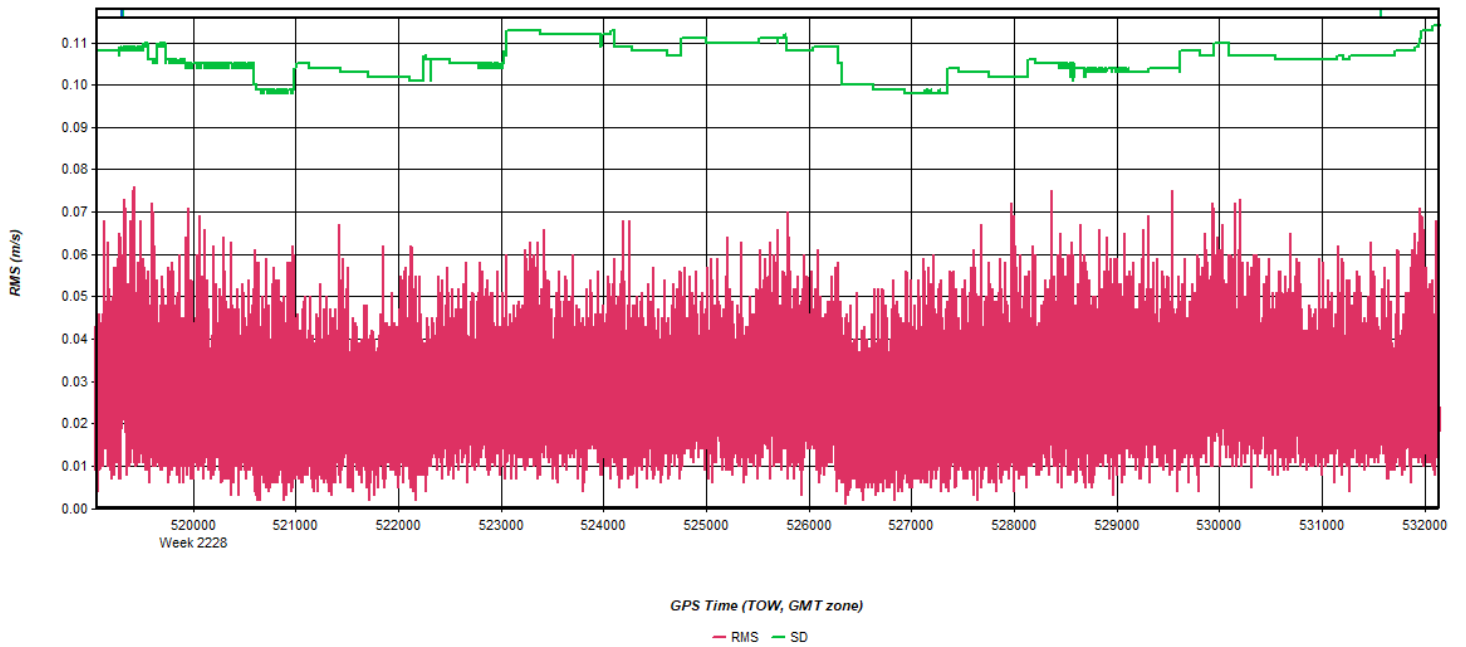
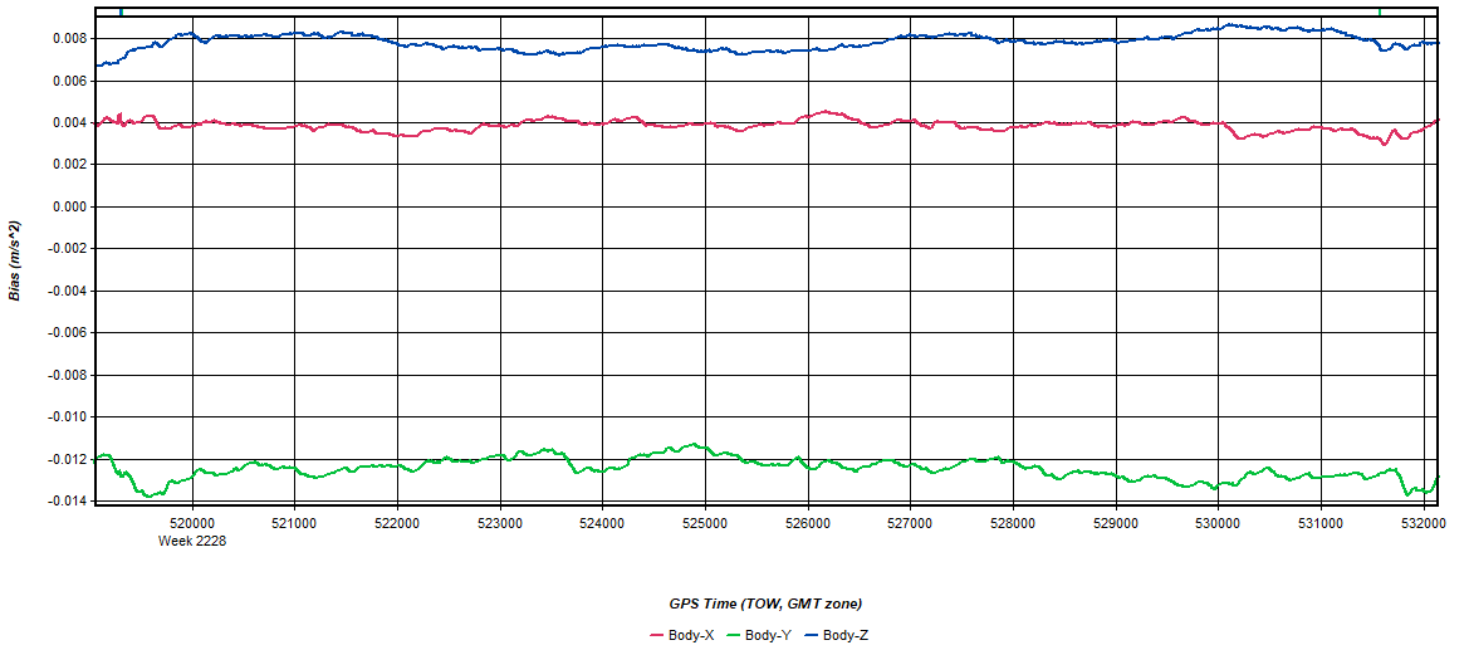
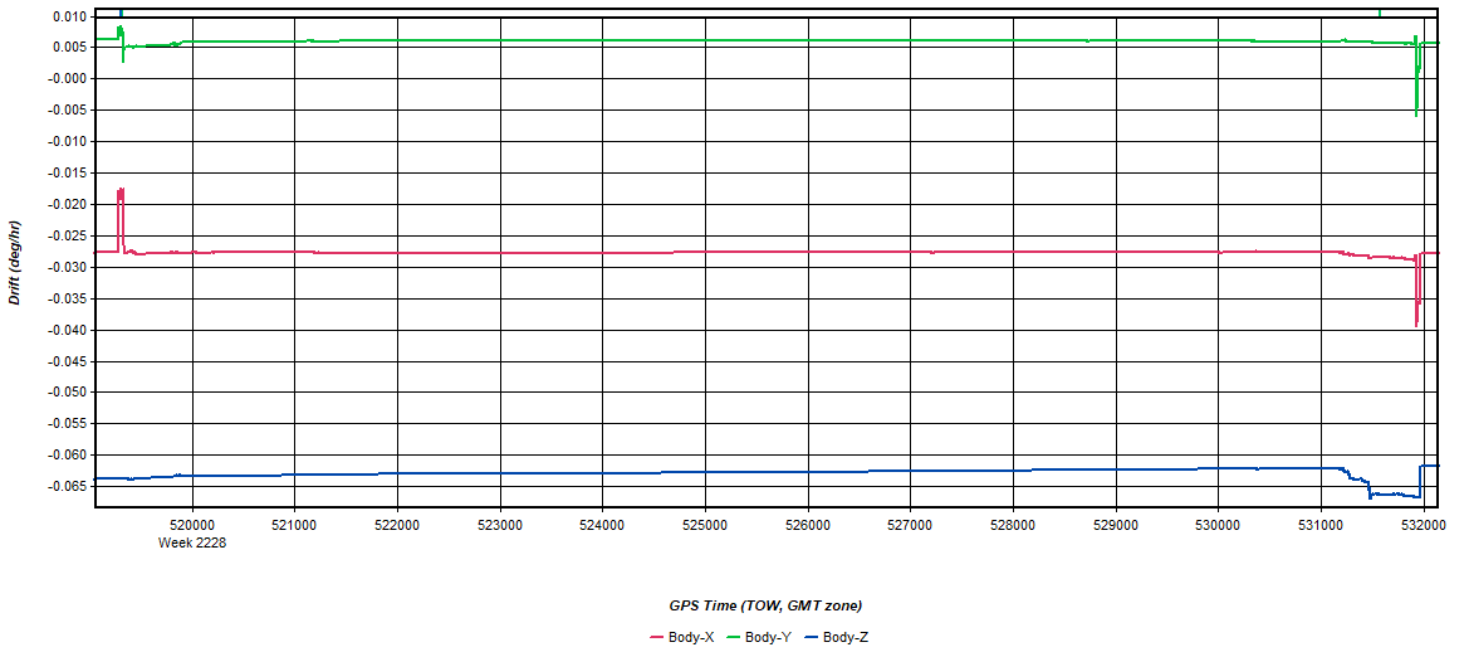


Figure 19: 20220924000959_13 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Figure 20: 20220924000959_13 [Smoothed TC Combined] - Gyro Drift Plot

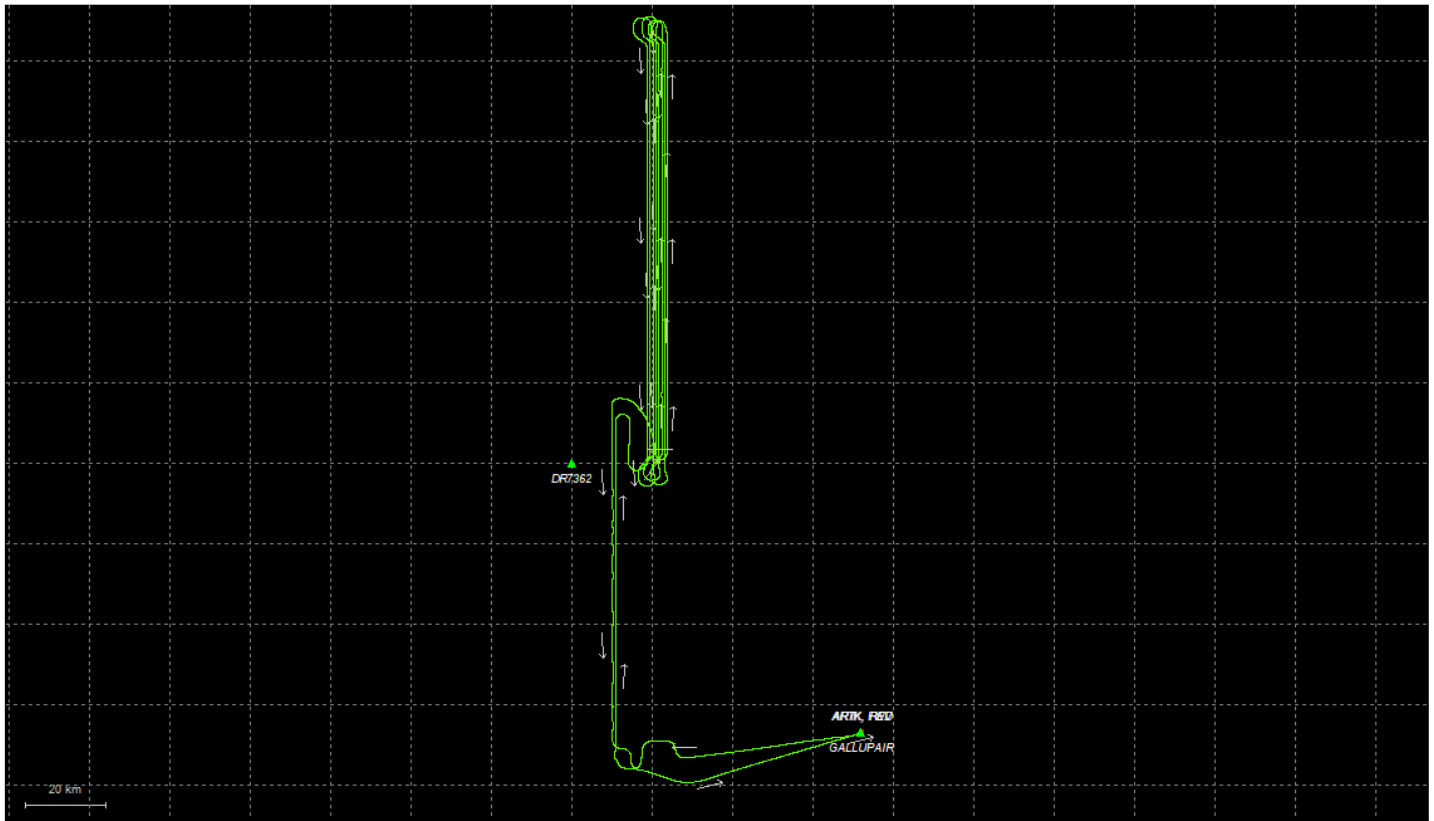


Process	20220924000959_13	by Unknown	on 10/4/2022	at 12:02:10
---------	-------------------	------------	--------------	-------------

Output Results for 20220924141342_14

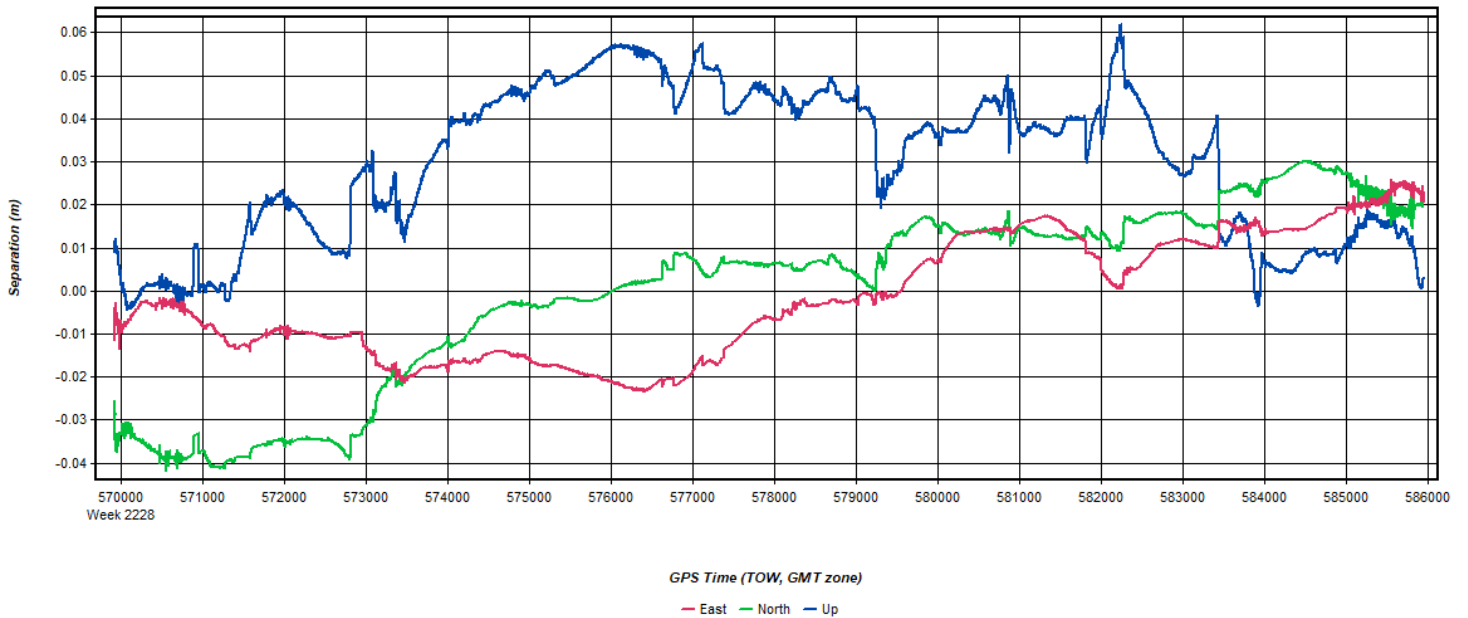
Inertial Explorer Version 8.90.2124
10/03/2022

Figure 1: Smoothed TC Combined - Map



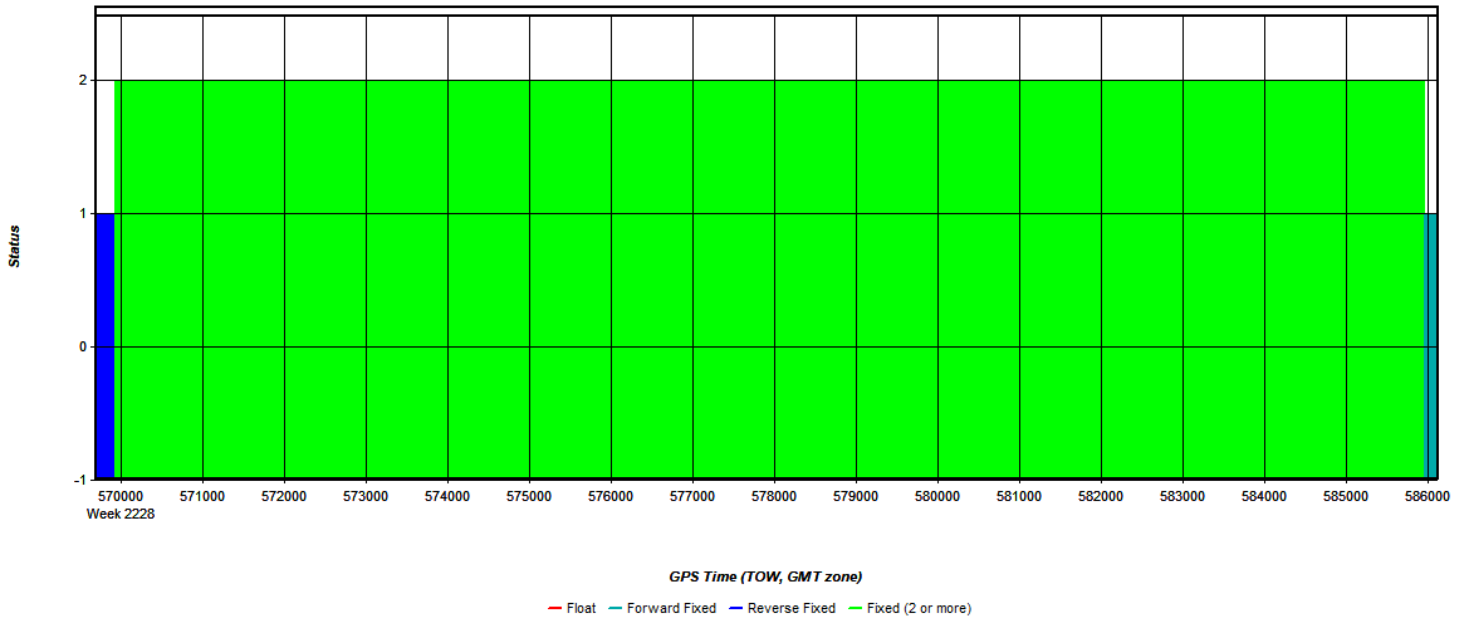
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 2: 20220924141342_14 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 3: 20220924141342_14 [Smoothed TC Combined] - Float or Fixed Ambiguity



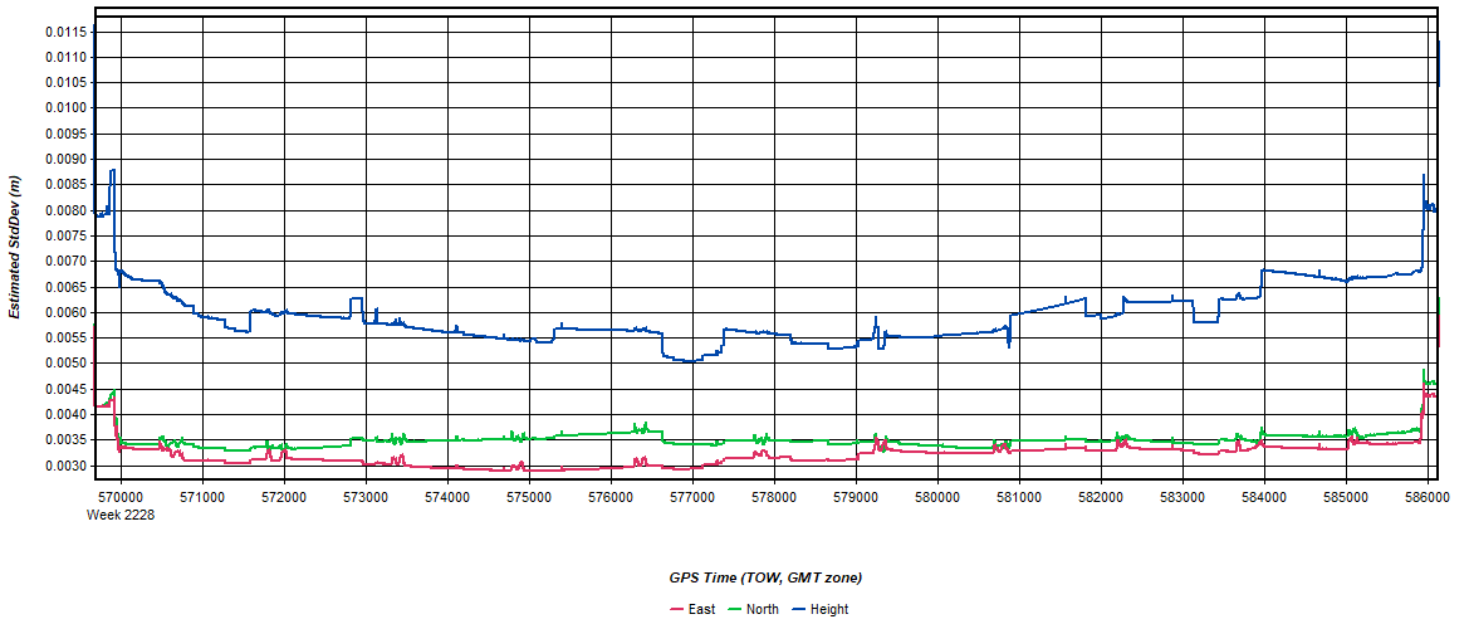
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 4: 20220924141342_14 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



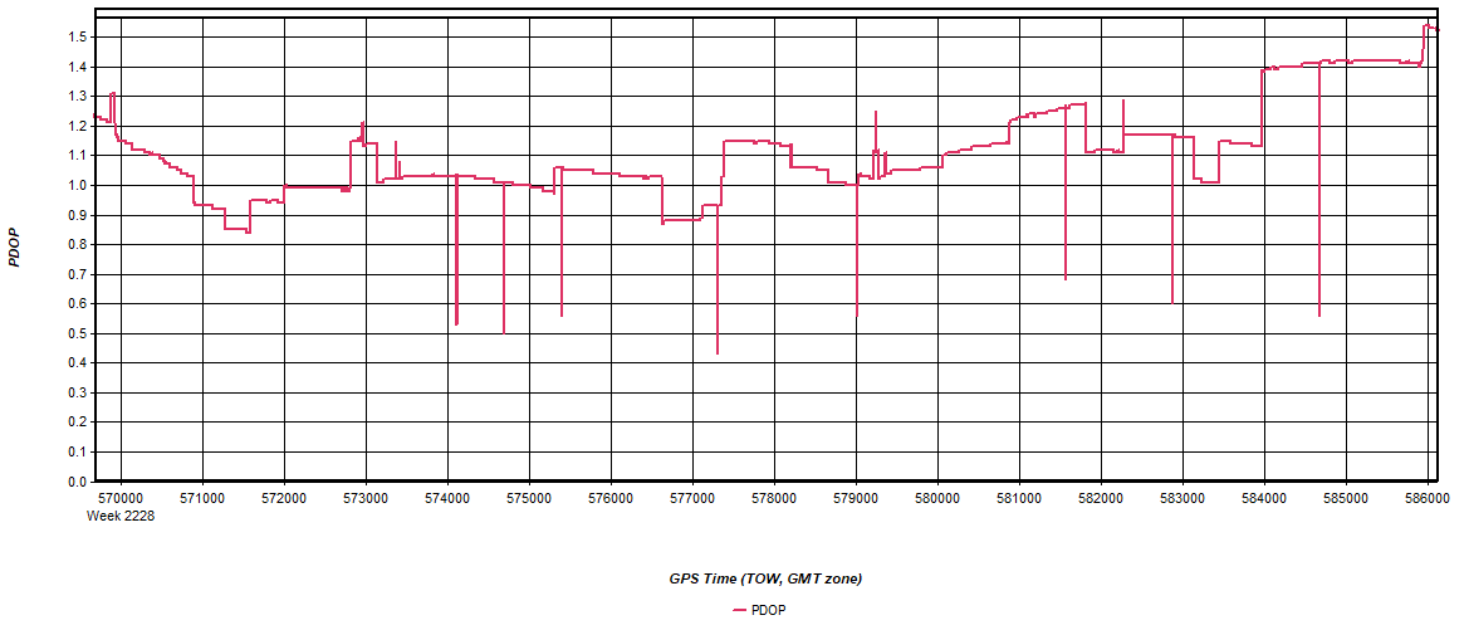
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 5: 20220924141342_14 [Smoothed TC Combined] - Estimated Position Accuracy Plot



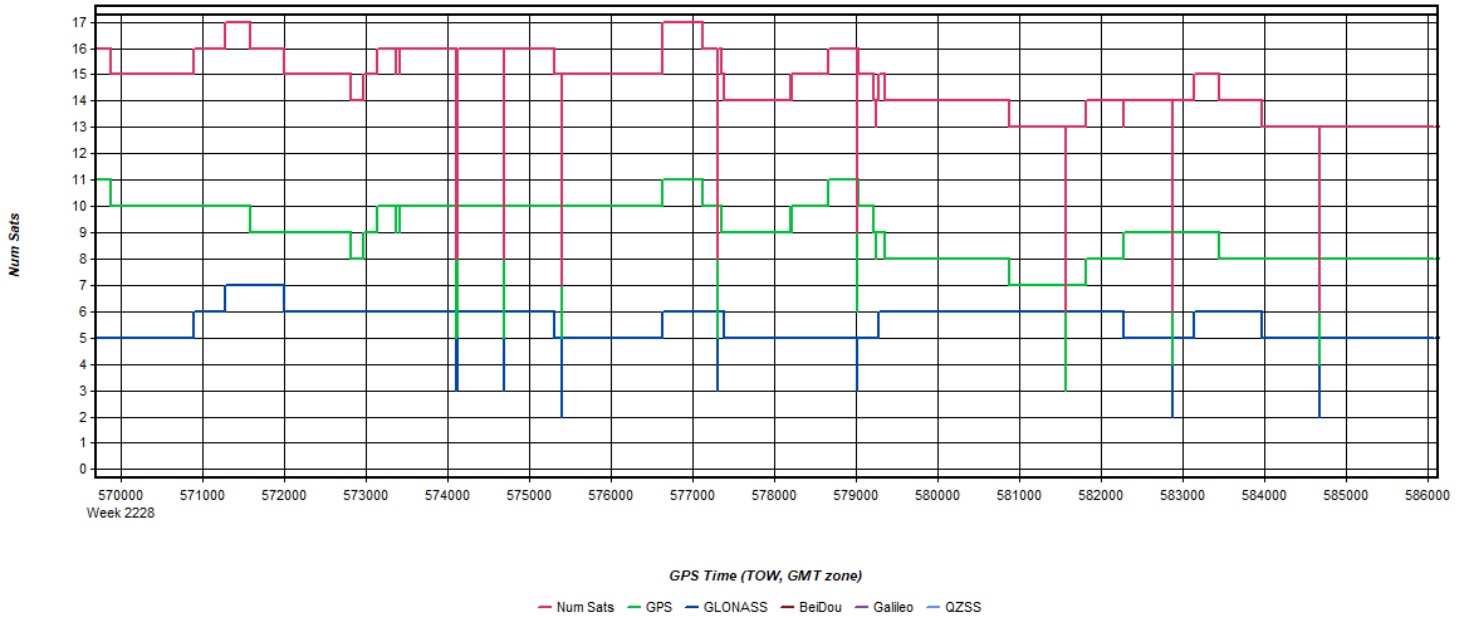
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 6: 20220924141342_14 [Smoothed TC Combined] - PDOP Plot



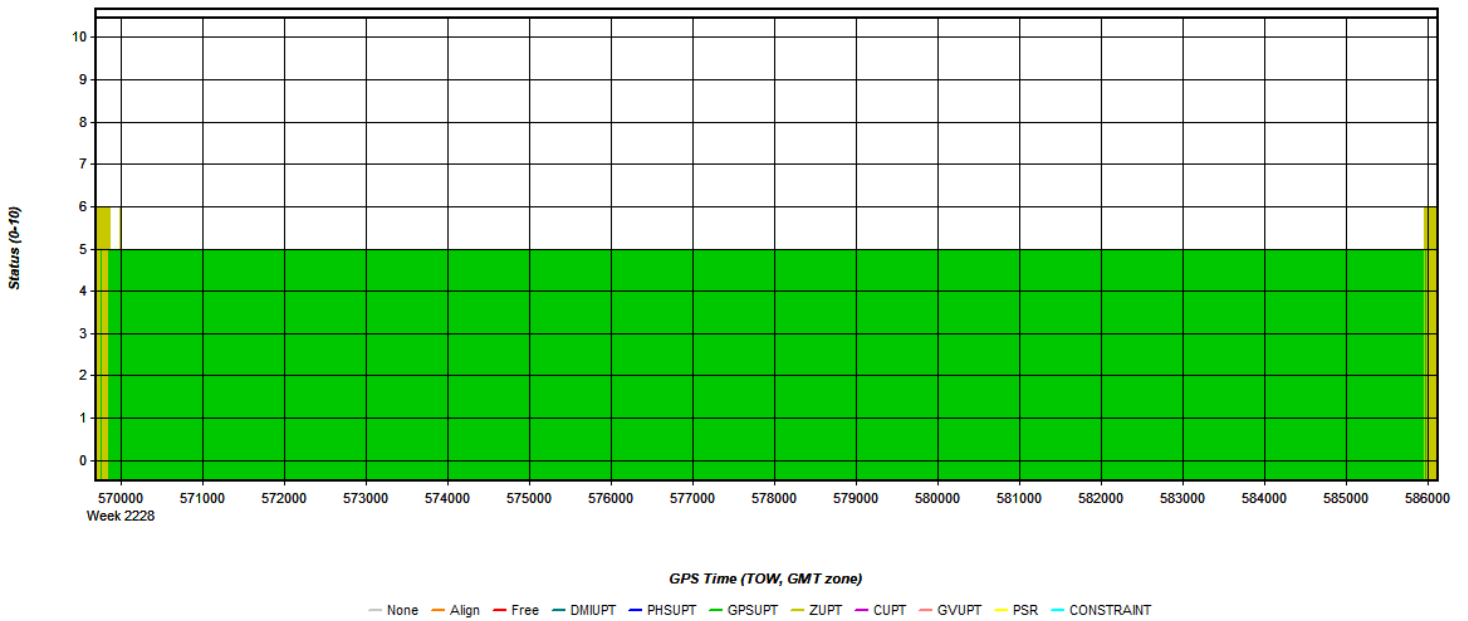
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 7: 20220924141342_14 [Smoothed TC Combined] - Number of Satellites Line Plot



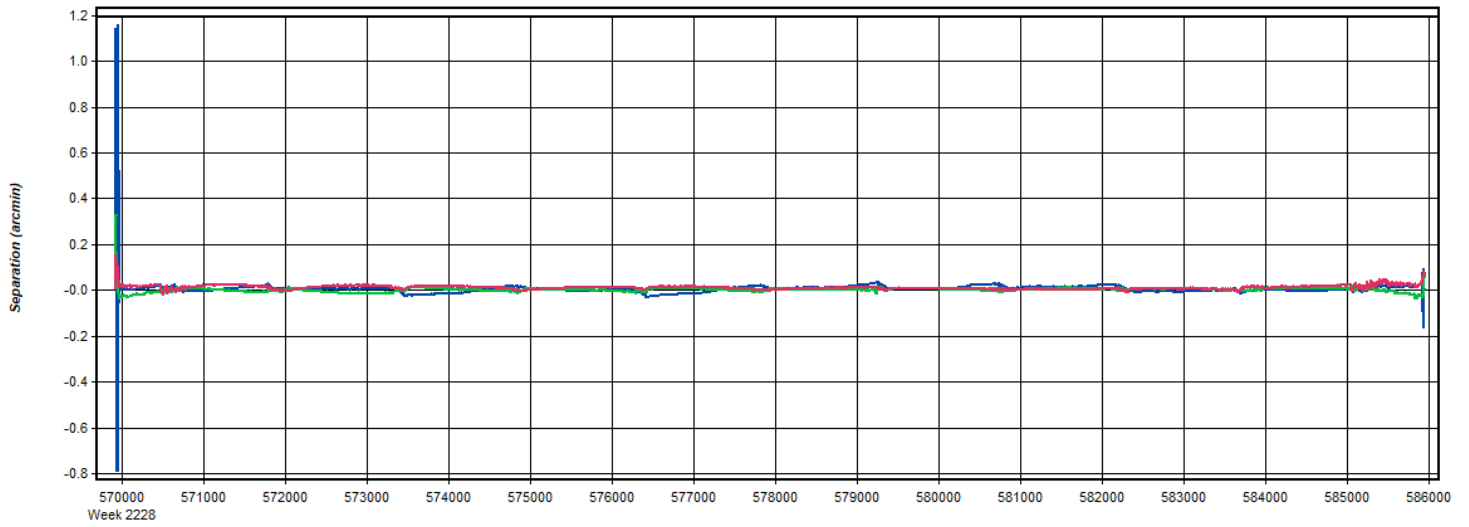
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 8: 20220924141342_14 [Smoothed TC Combined] - Status flag for IMU processing



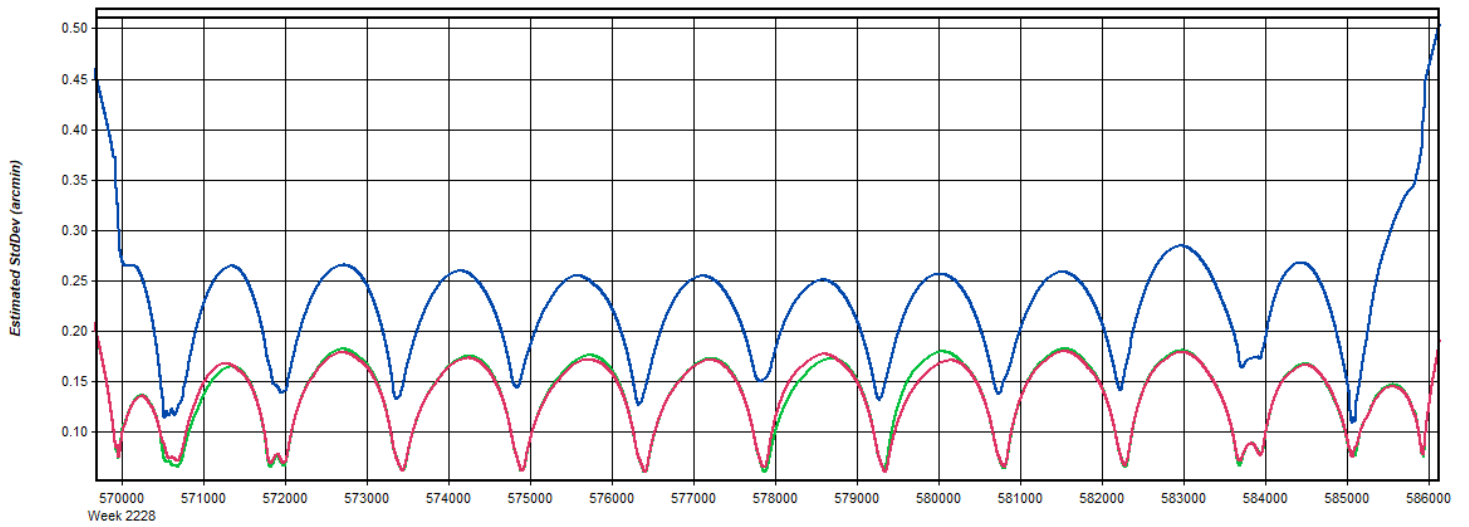
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 9: 20220924141342_14 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



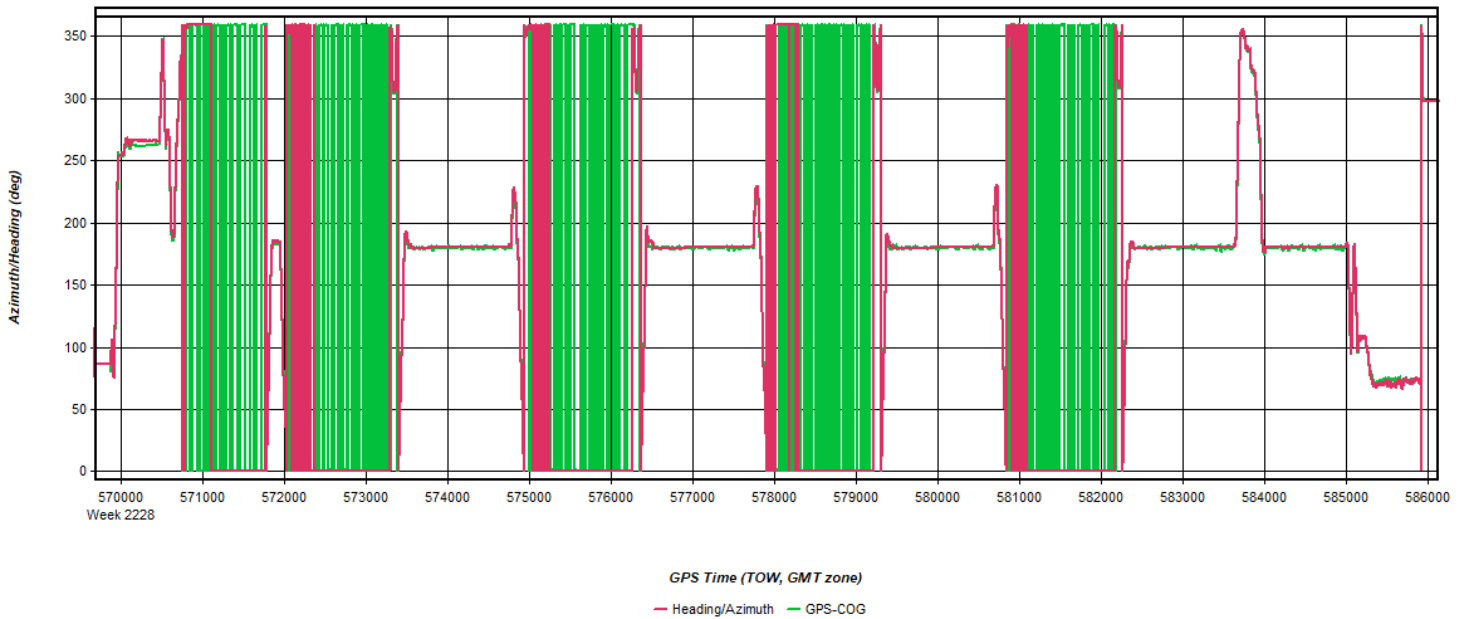
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 10: 20220924141342_14 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



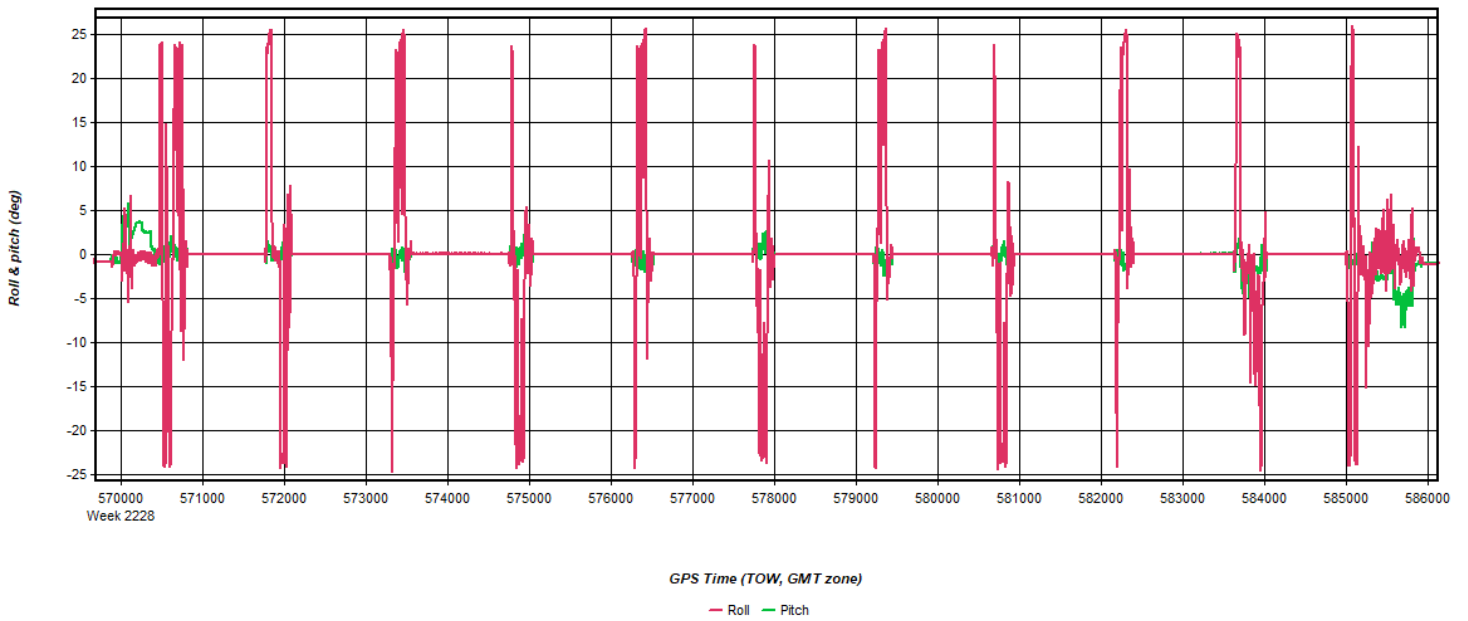
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 11: 20220924141342_14 [Smoothed TC Combined] - Azimuth Plot



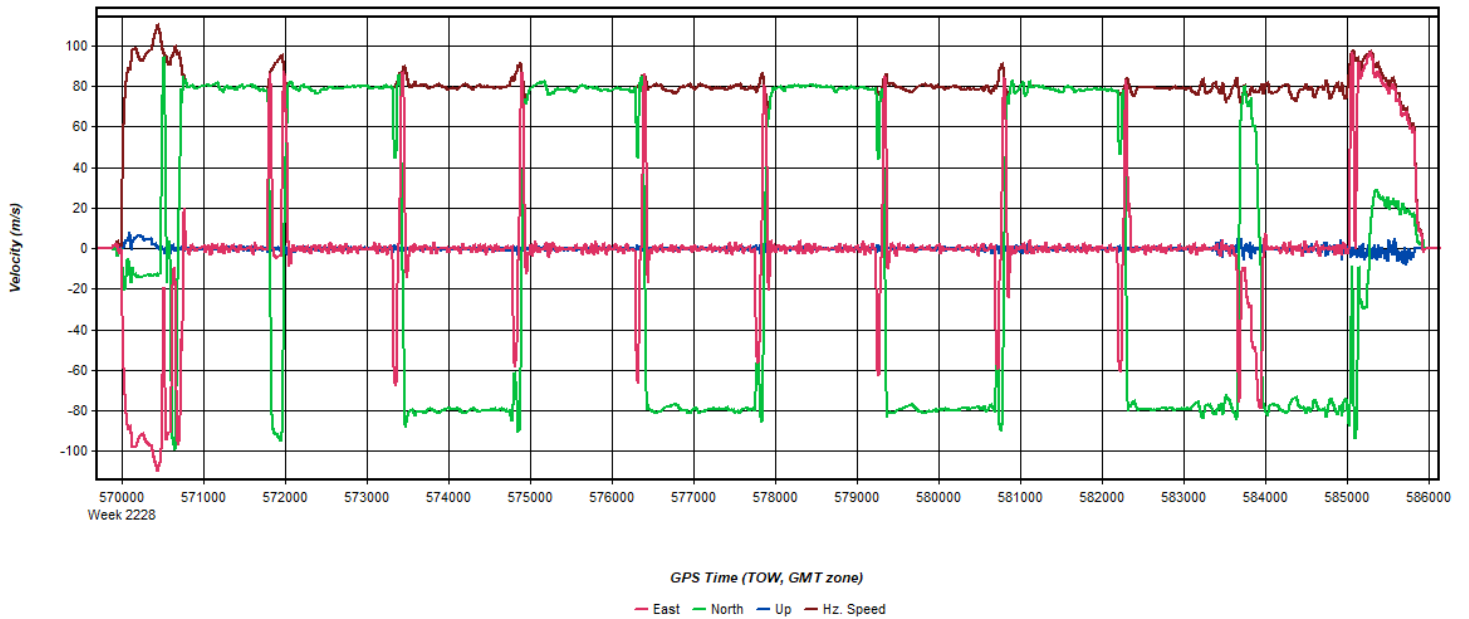
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 12: 20220924141342_14 [Smoothed TC Combined] - Roll & Pitch Plot



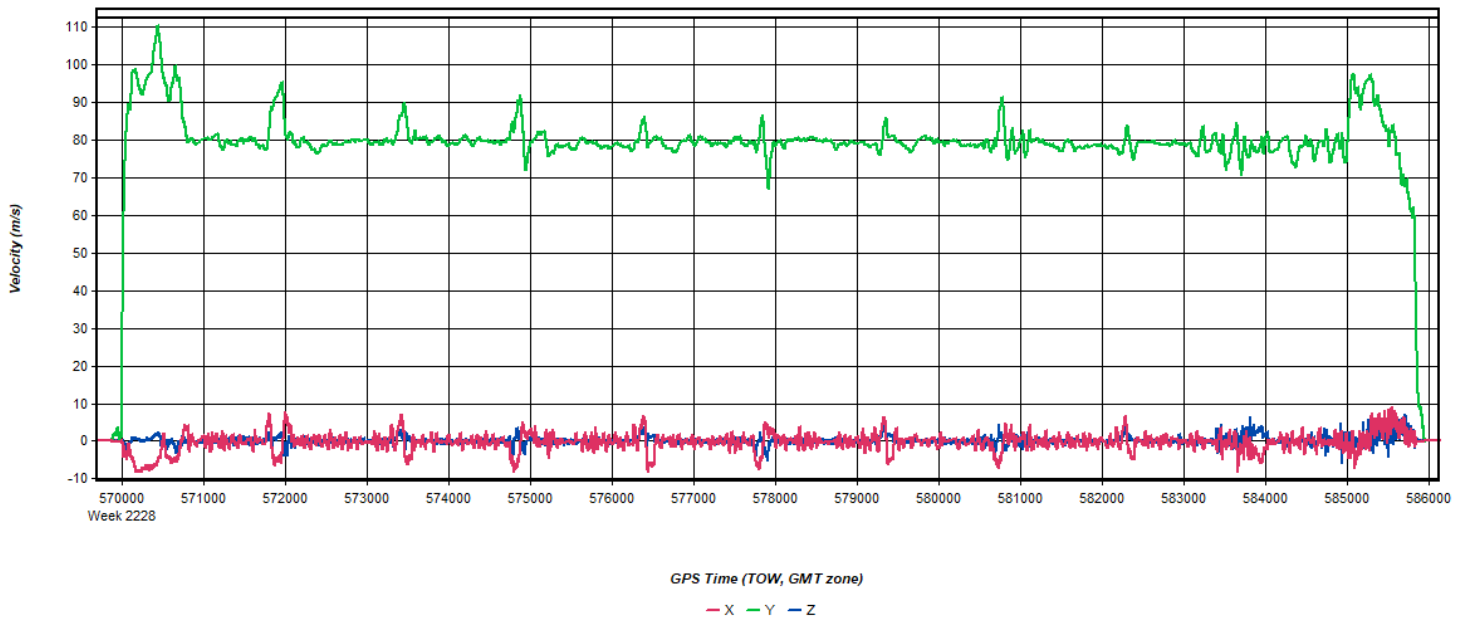
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 13: 20220924141342_14 [Smoothed TC Combined] - Velocity Profile Plot



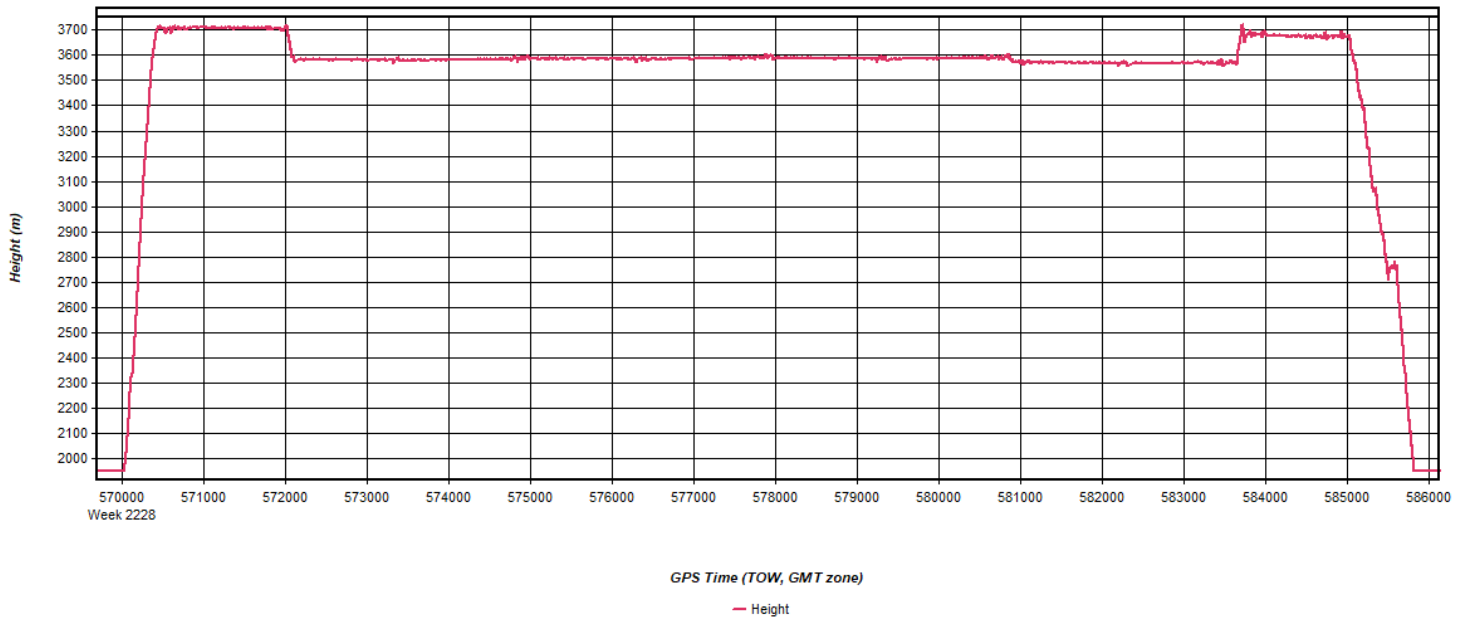
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 14: 20220924141342_14 [Smoothed TC Combined] - Body Frame Velocity Plot



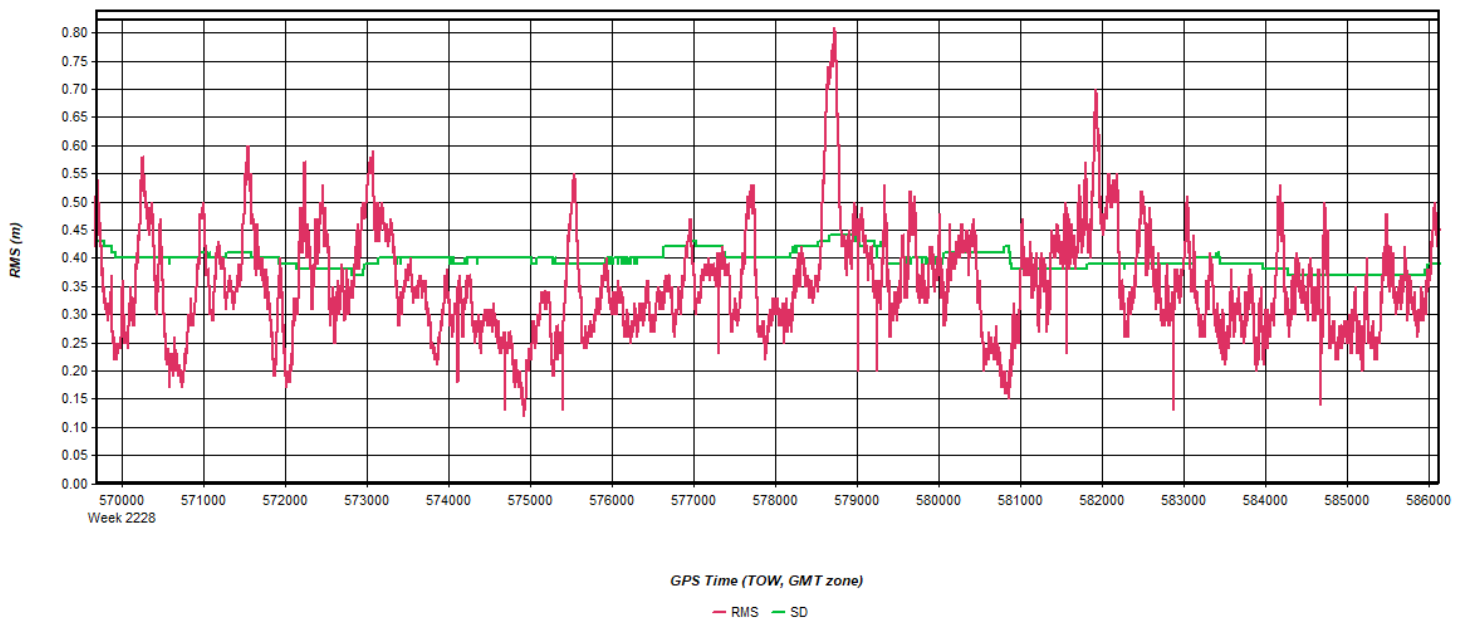
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 15: 20220924141342_14 [Smoothed TC Combined] - Height Profile Plot



Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 16: 20220924141342_14 [Smoothed TC Combined] - C/A Code Residual RMS Plot



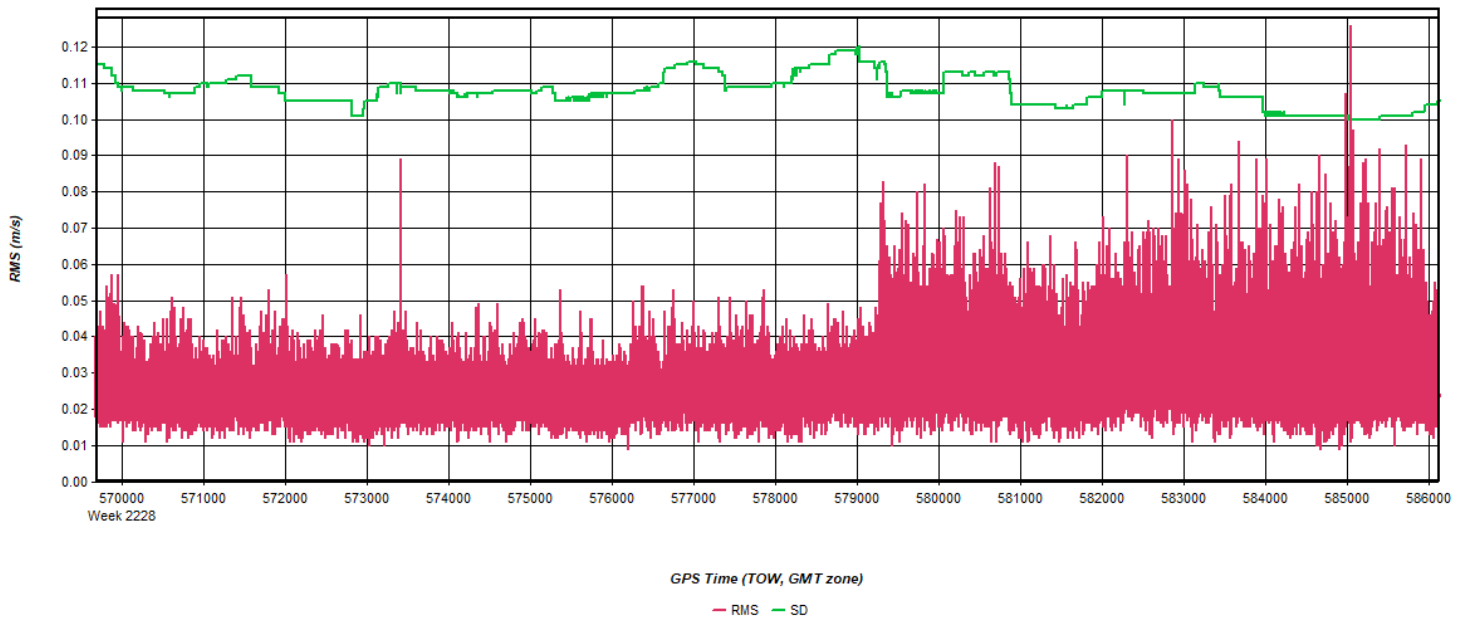
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 17: 20220924141342_14 [Smoothed TC Combined] - Carrier Residual RMS Plot



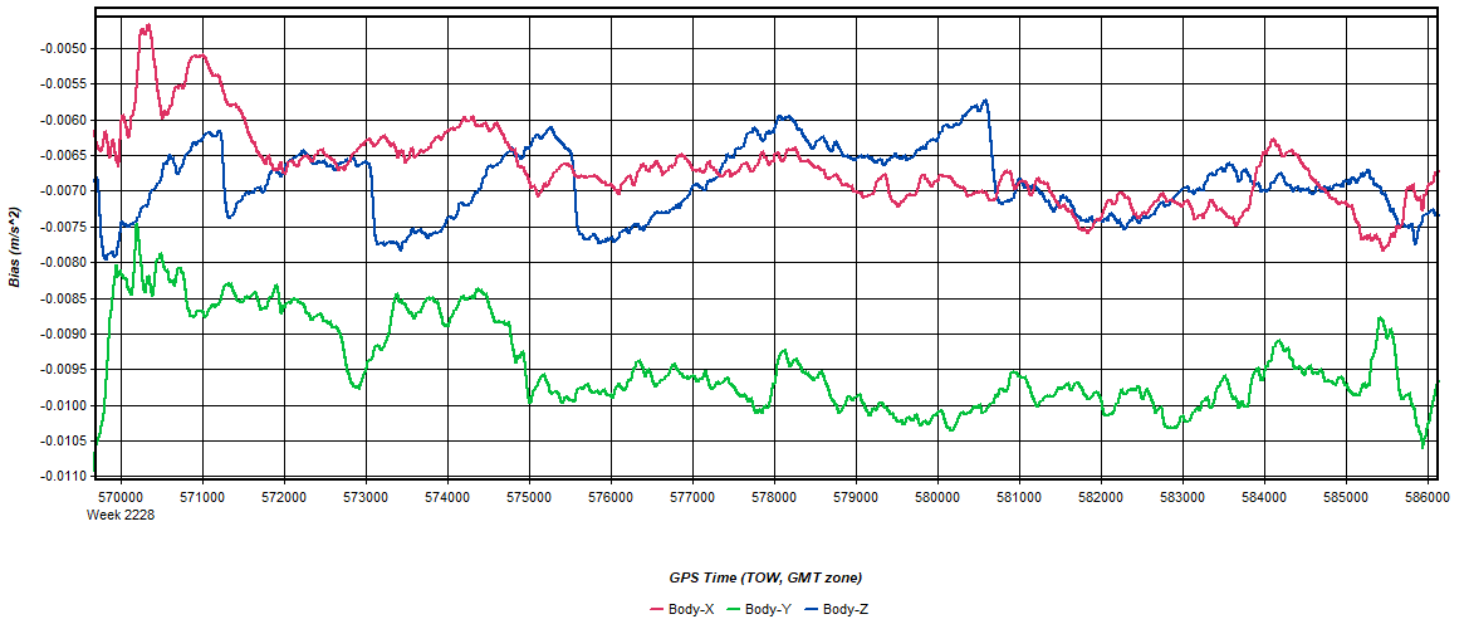
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 18: 20220924141342_14 [Smoothed TC Combined] - Doppler Residual RMS Plot



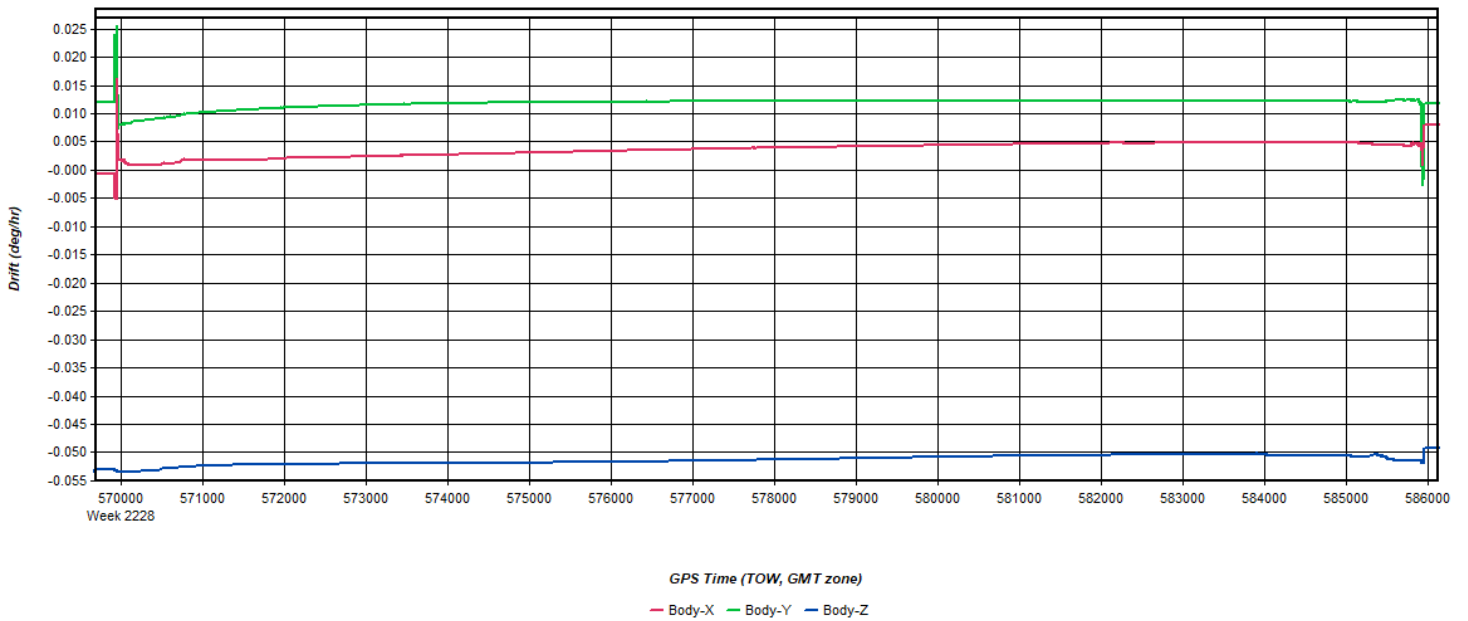
Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 19: 20220924141342_14 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Figure 20: 20220924141342_14 [Smoothed TC Combined] - Gyro Drift Plot

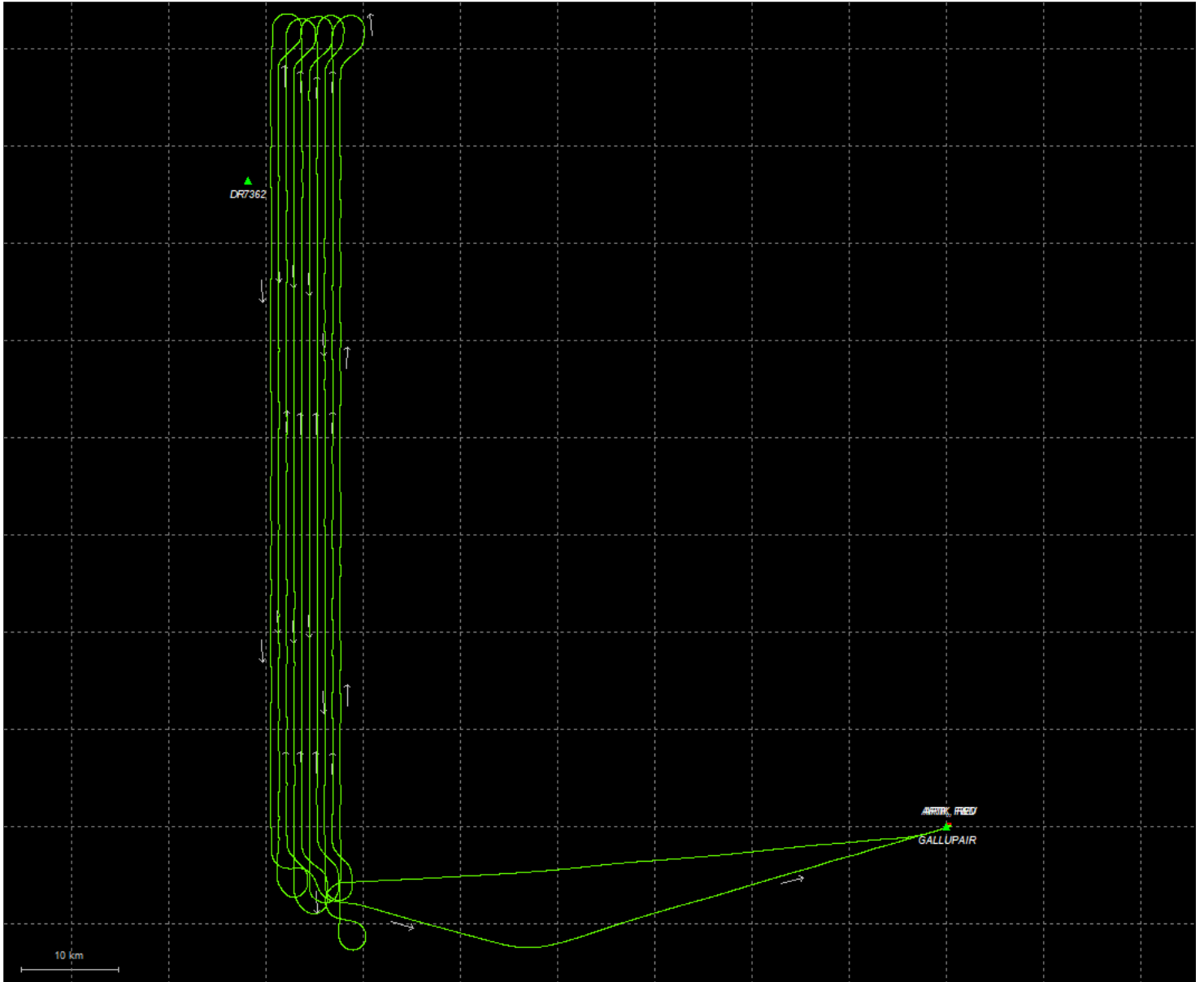


Process	20220924141342_14	by Unknown	on 10/3/2022	at 20:17:32
---------	-------------------	------------	--------------	-------------

Output Results for 20220925001359_15

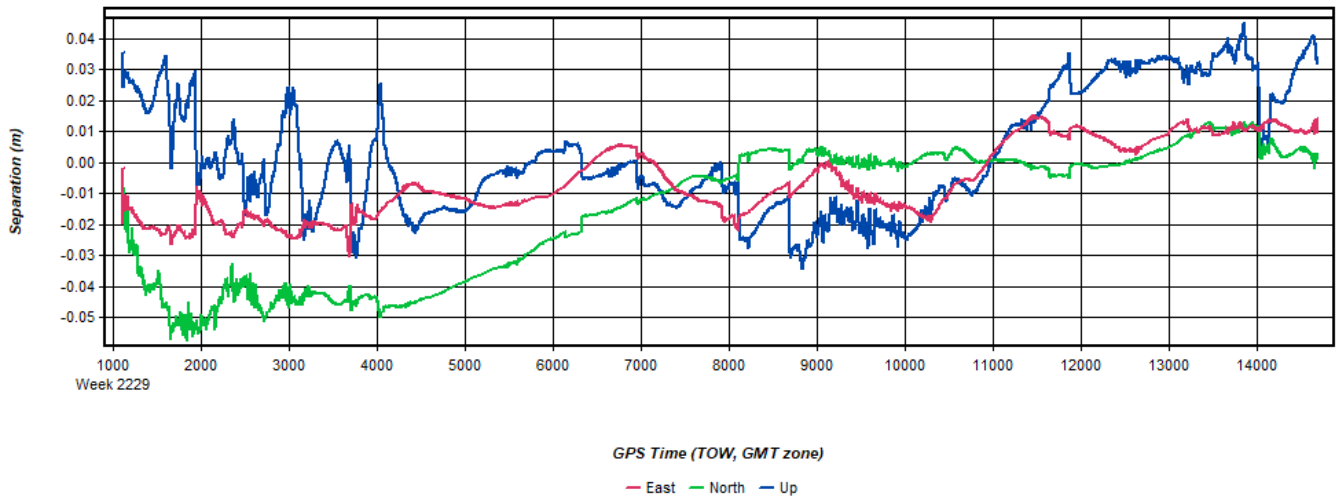
Inertial Explorer Version 8.90.2124
02/27/2023

Figure 1: Smoothed TC Combined - Map



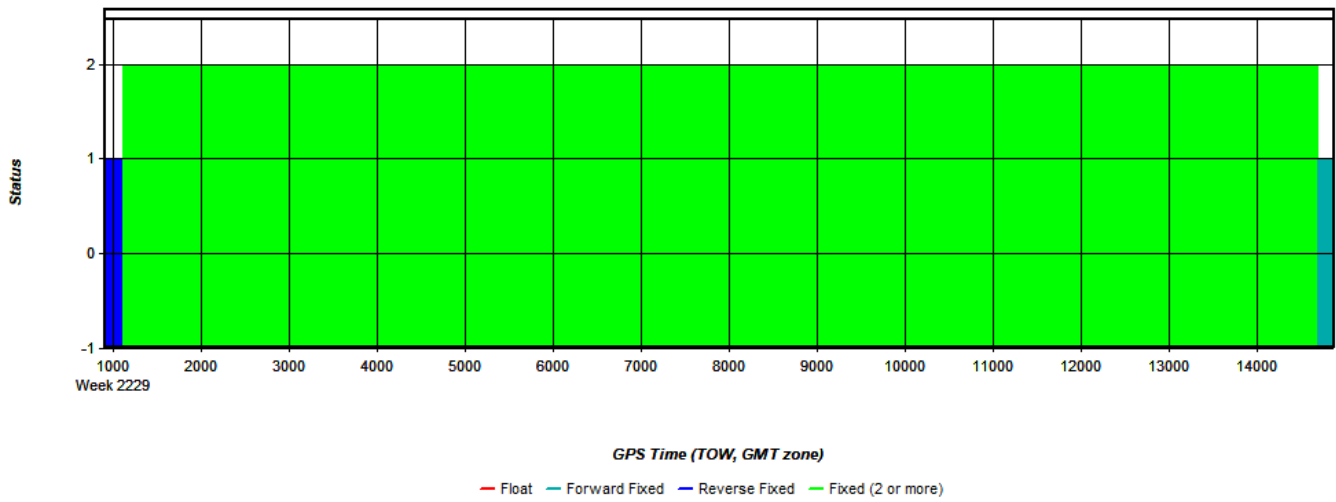
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 2: 20220925001359_15 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



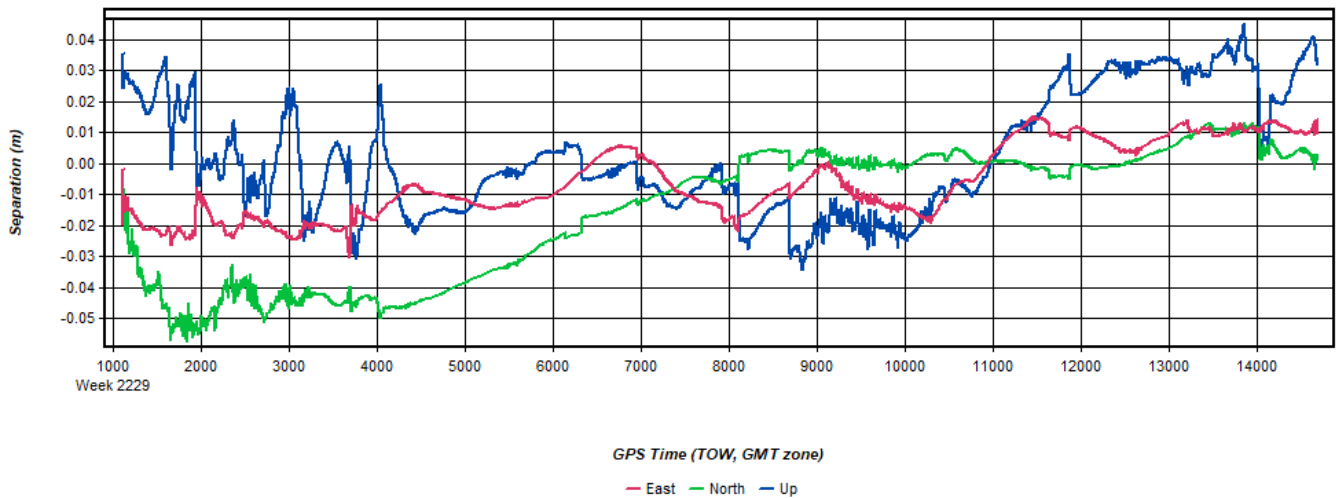
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 3: 20220925001359_15 [Smoothed TC Combined] - Float or Fixed Ambiguity



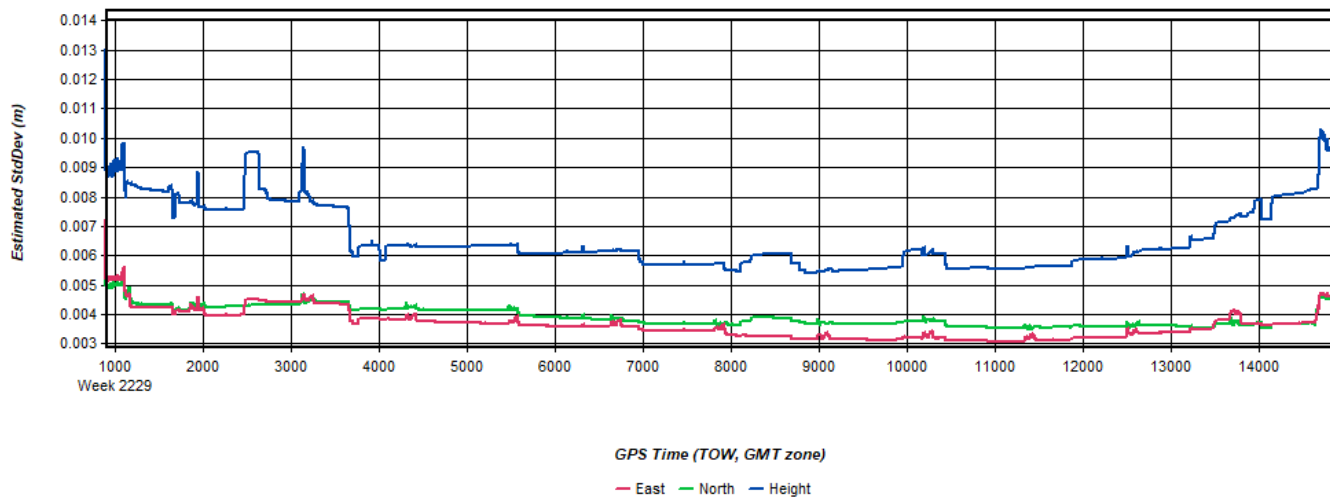
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 4: 20220925001359_15 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



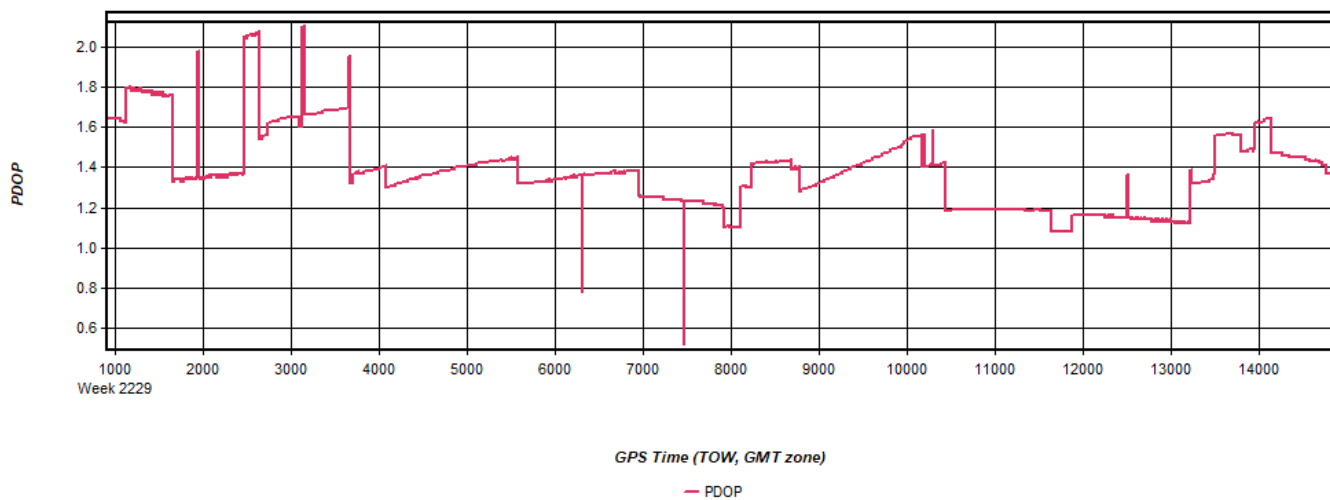
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 5: 20220925001359_15 [Smoothed TC Combined] - Estimated Position Accuracy Plot



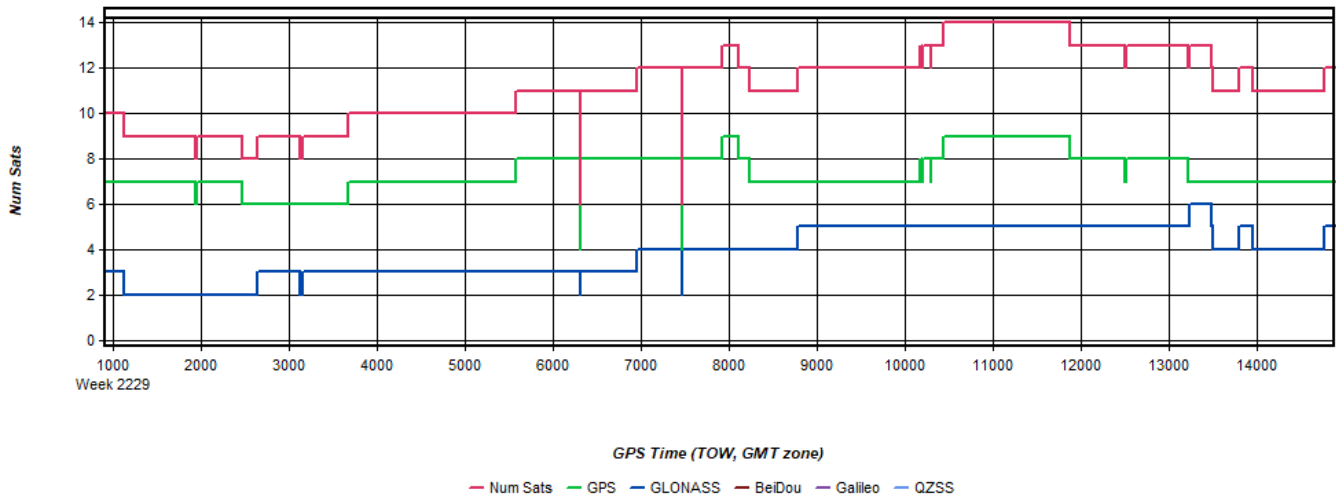
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 6: 20220925001359_15 [Smoothed TC Combined] - PDOP Plot



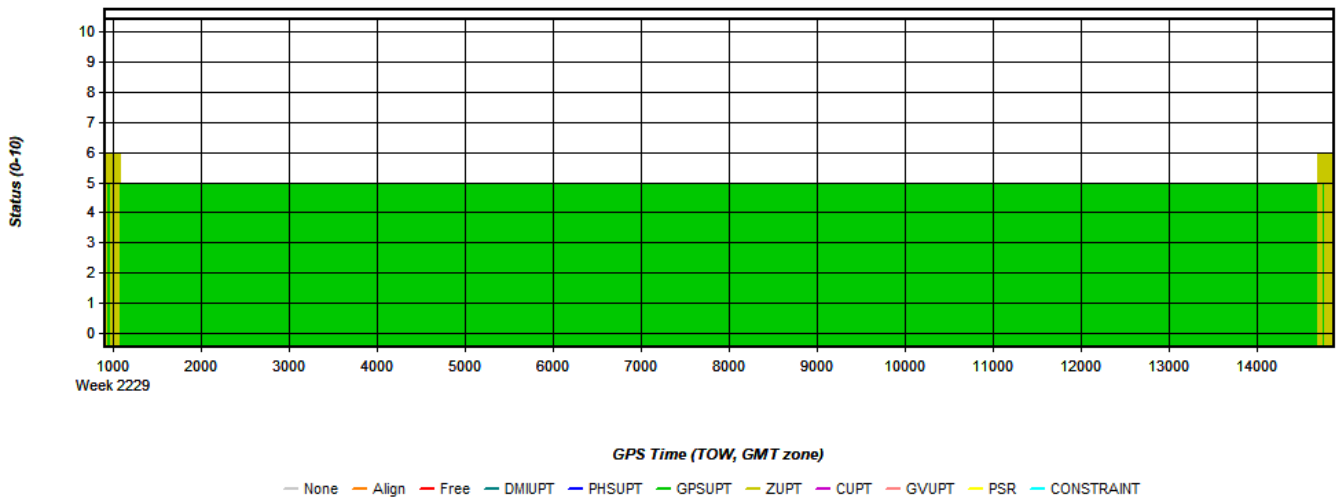
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 7: 20220925001359_15 [Smoothed TC Combined] - Number of Satellites Line Plot



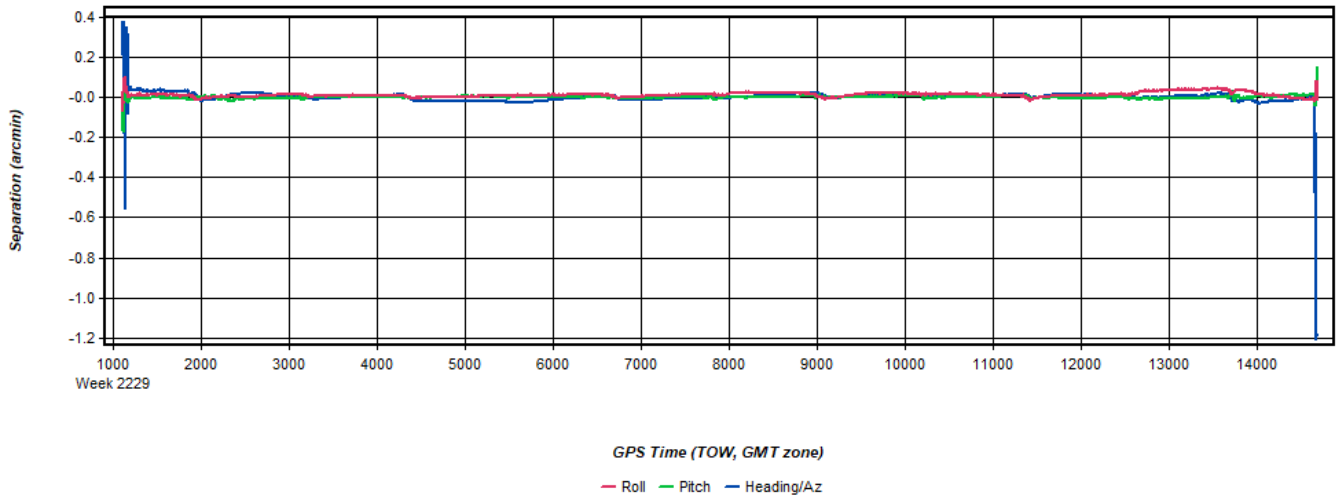
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 8: 20220925001359_15 [Smoothed TC Combined] - Status flag for IMU processing



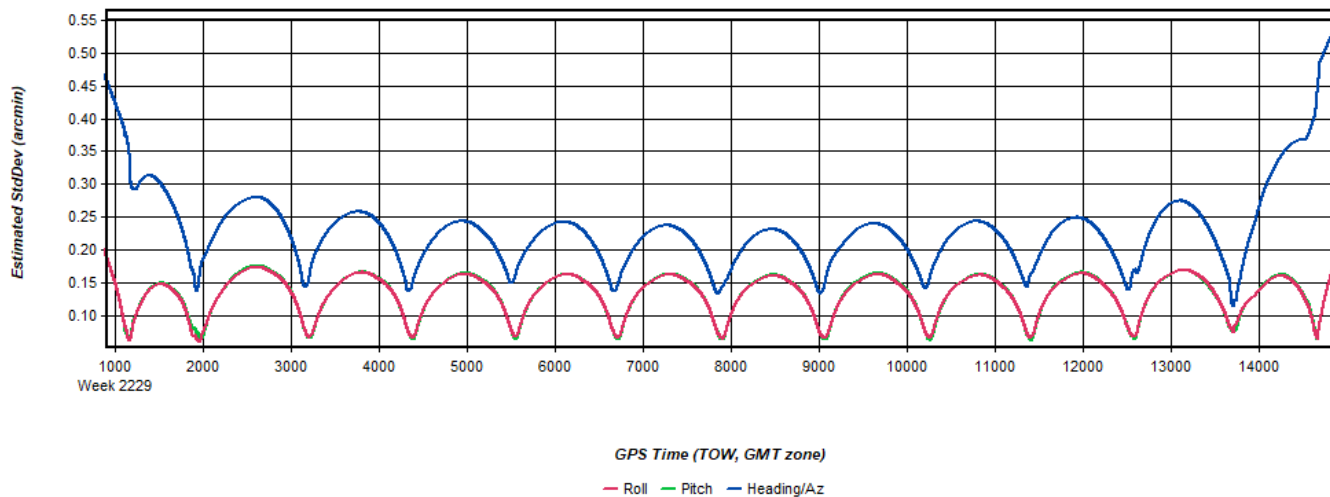
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 9: 20220925001359_15 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



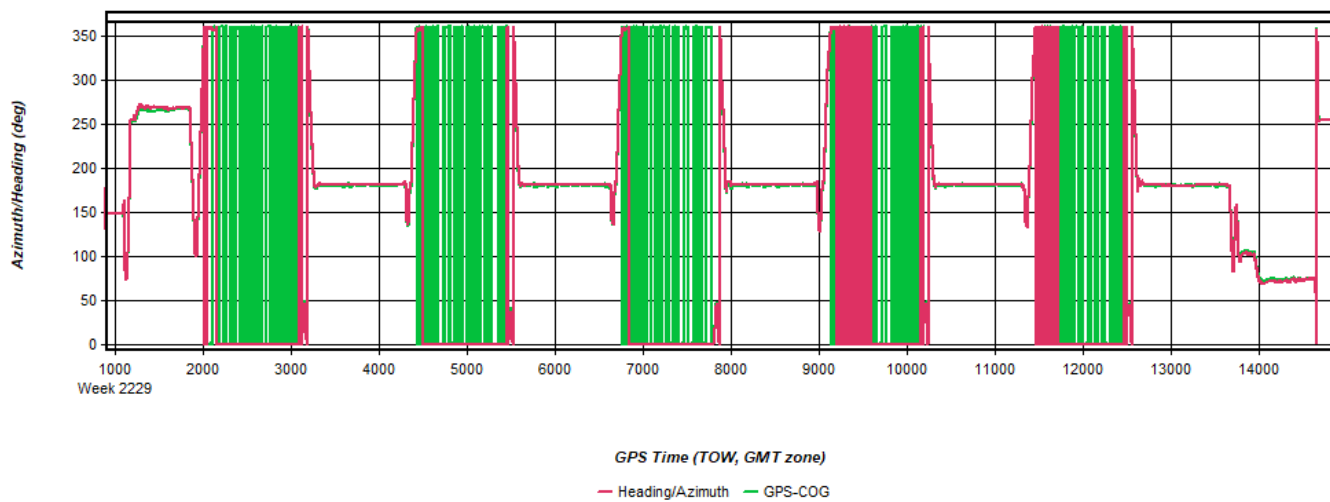
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 10: 20220925001359_15 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



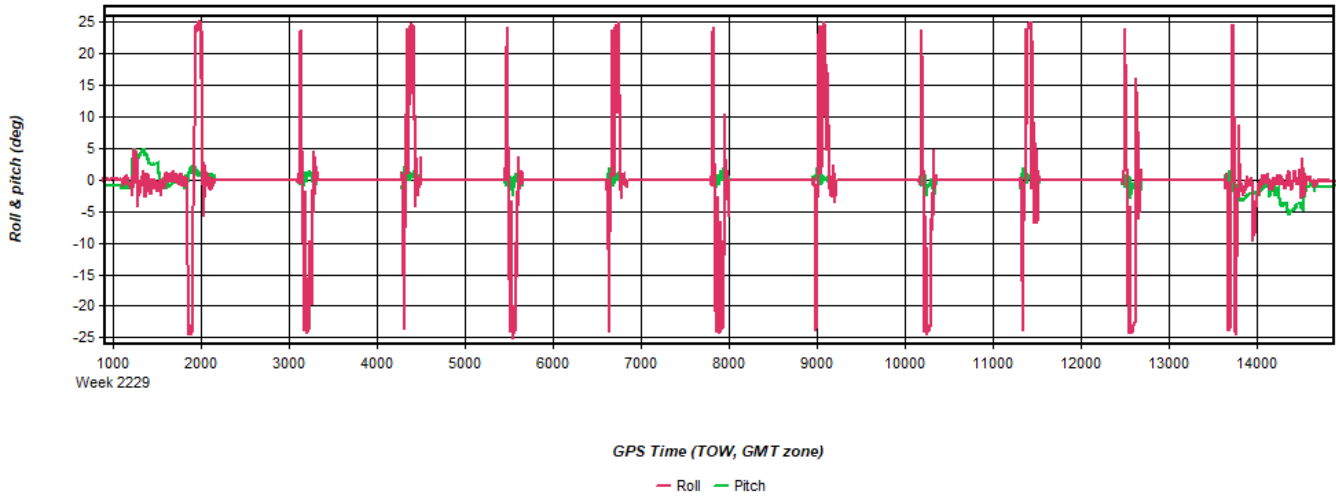
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 11: 20220925001359_15 [Smoothed TC Combined] - Azimuth Plot



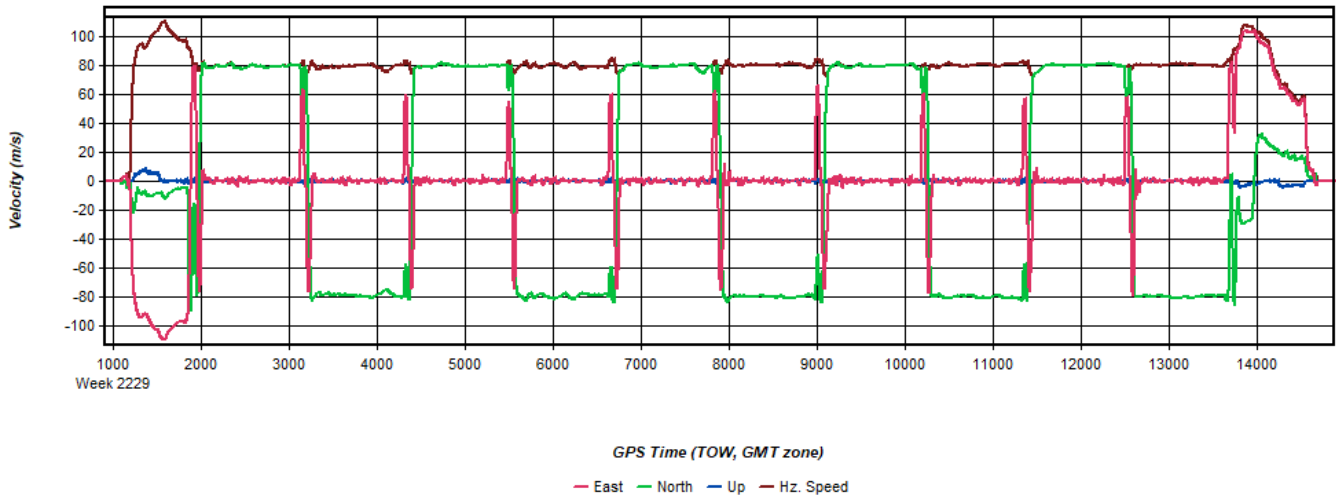
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 12: 20220925001359_15 [Smoothed TC Combined] - Roll & Pitch Plot



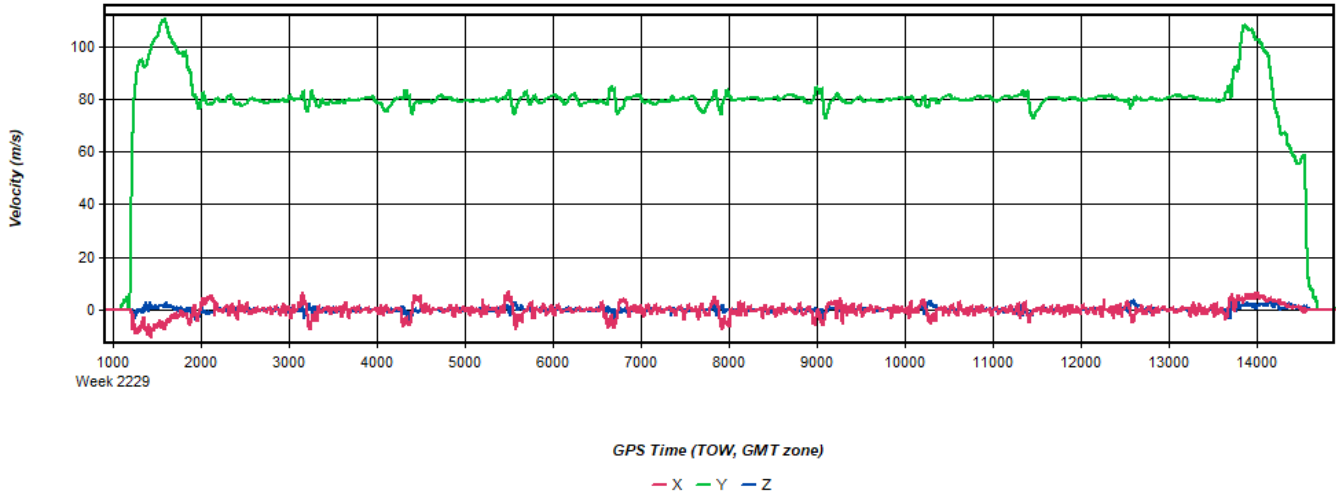
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 13: 20220925001359_15 [Smoothed TC Combined] - Velocity Profile Plot



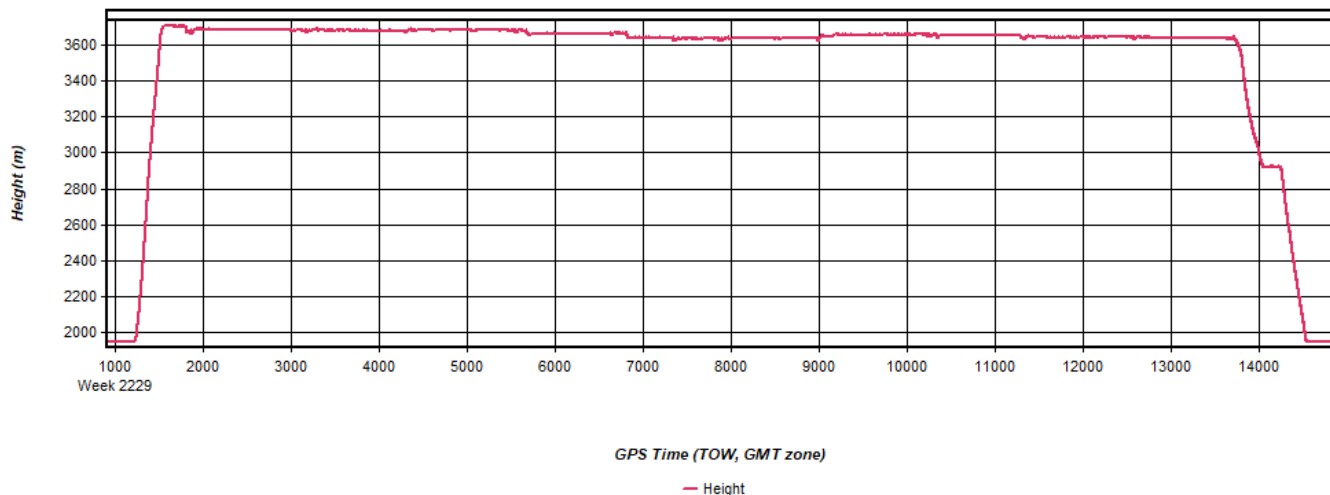
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 14: 20220925001359_15 [Smoothed TC Combined] - Body Frame Velocity Plot



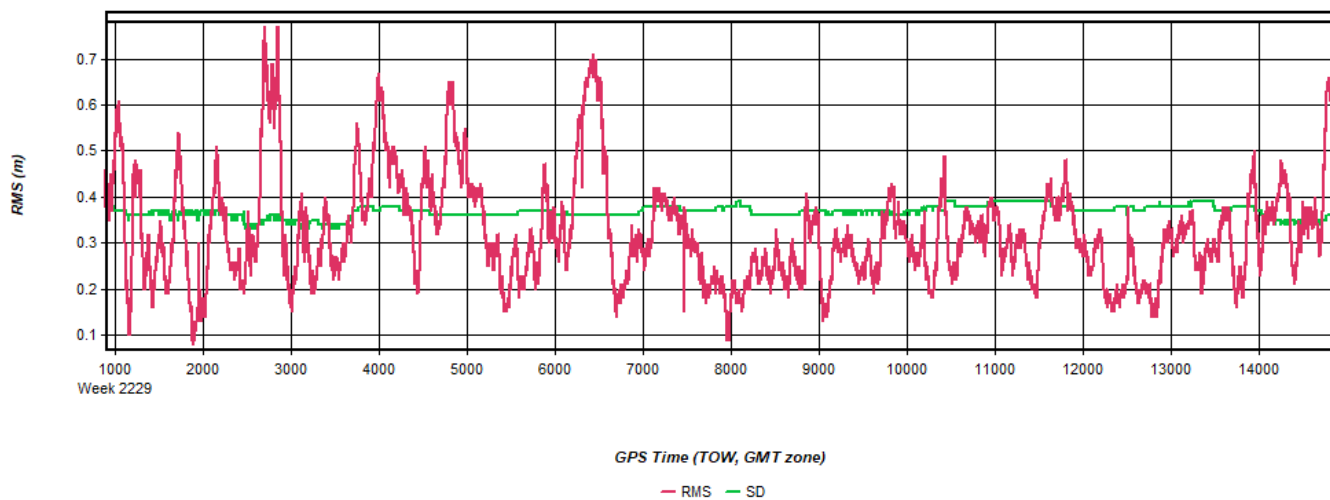
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 15: 20220925001359_15 [Smoothed TC Combined] - Height Profile Plot



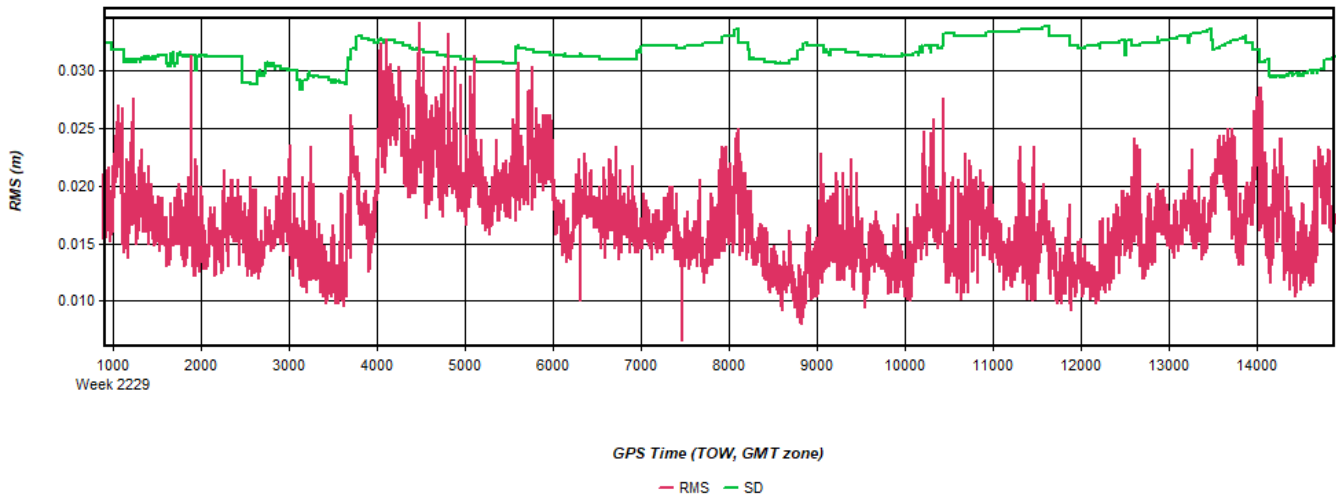
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 16: 20220925001359_15 [Smoothed TC Combined] - C/A Code Residual RMS Plot



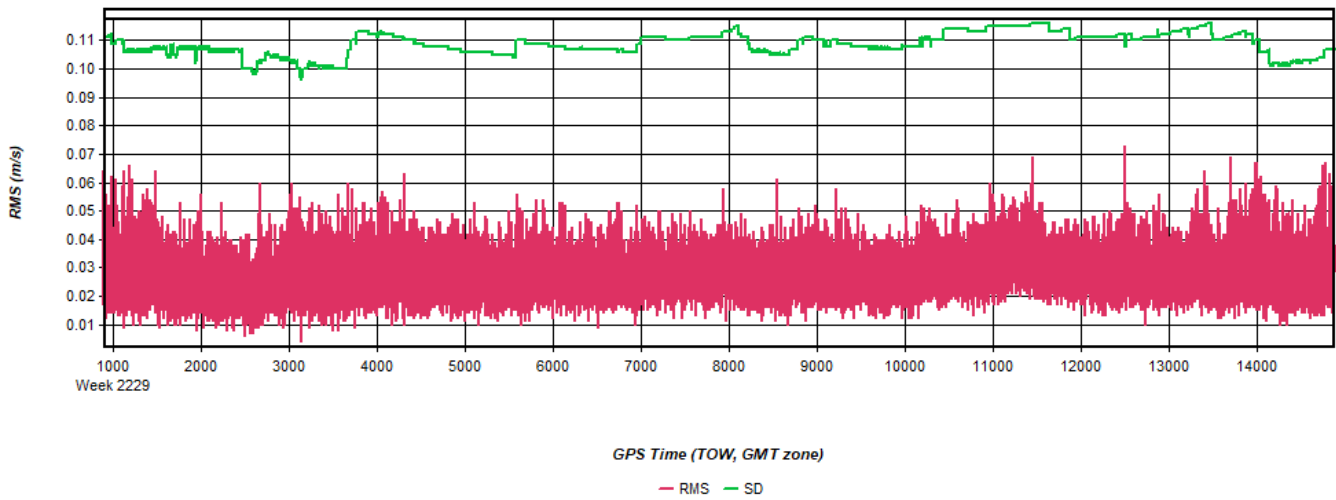
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 17: 20220925001359_15 [Smoothed TC Combined] - Carrier Residual RMS Plot



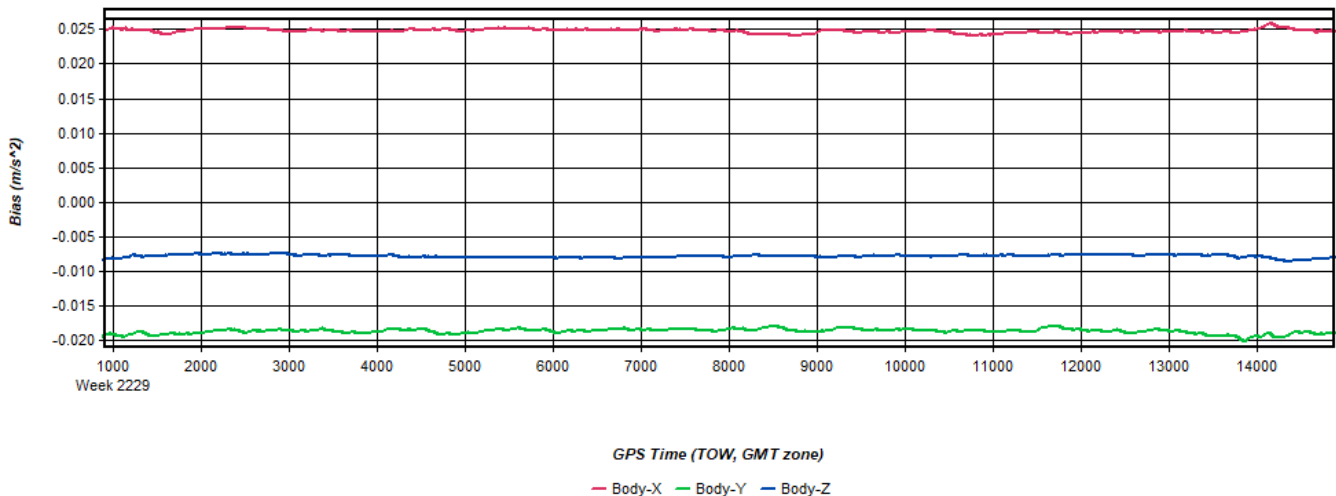
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 18: 20220925001359_15 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



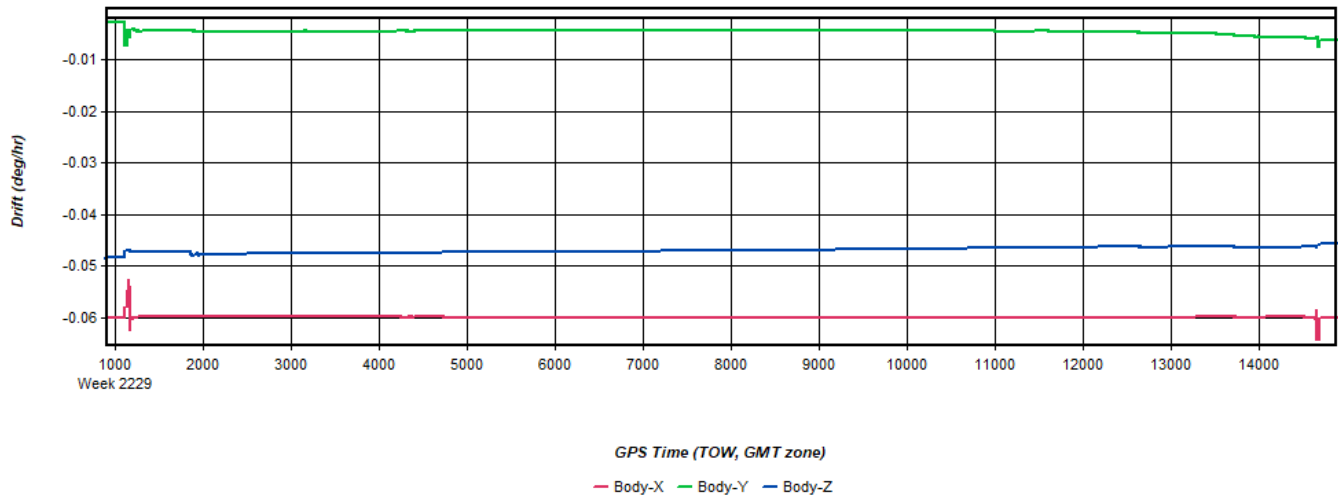
Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 19: 20220925001359_15 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Figure 20: 20220925001359_15 [Smoothed TC Combined] - Gyro Drift Plot



Process	20220925001359_15	by Unknown	on 10/3/2022	at 13:58:17
---------	-------------------	------------	--------------	-------------

Output Results for 20220925142114_16

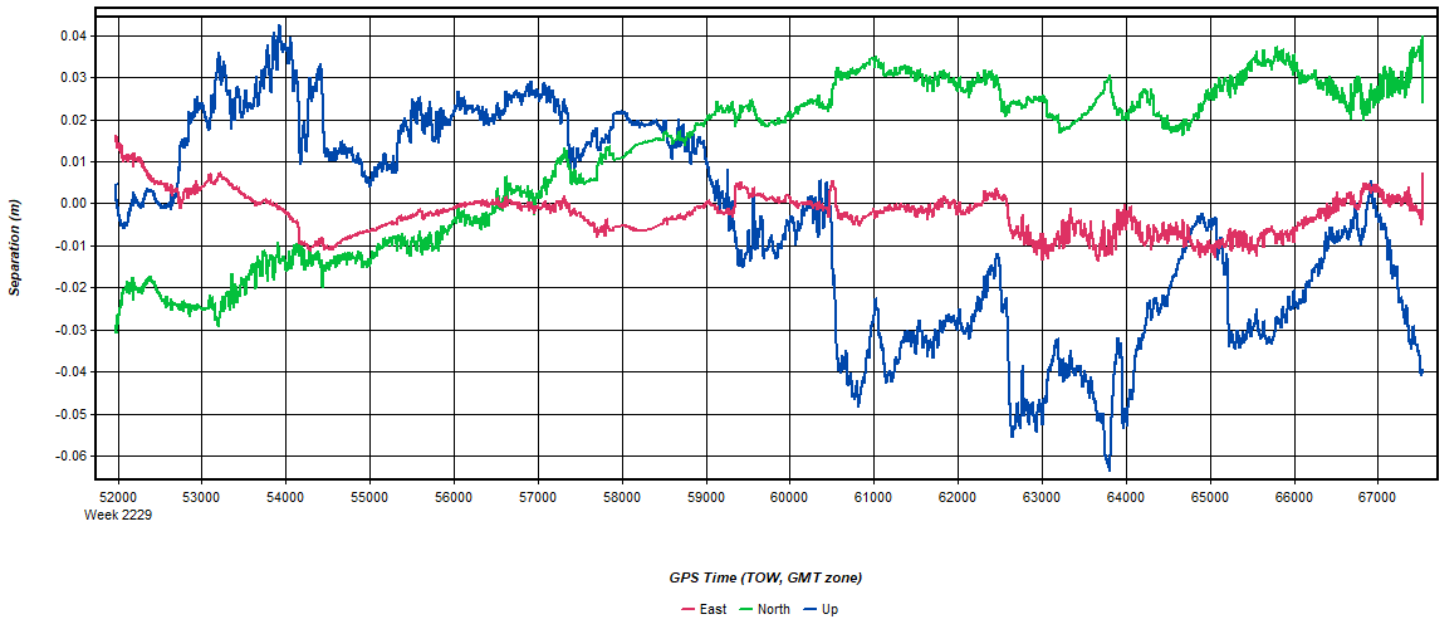
Inertial Explorer Version 8.90.2124
10/03/2022

Figure 1: Smoothed TC Combined - Map



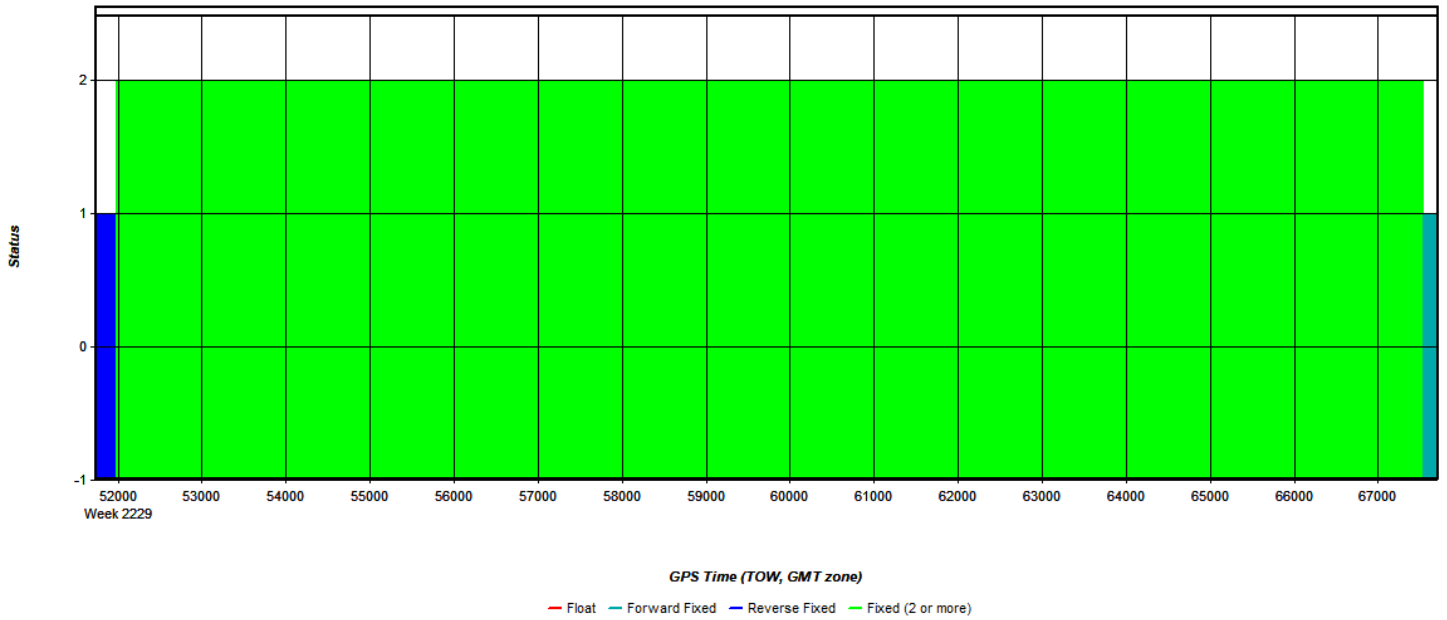
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 2: 20220925142114_16 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 3: 20220925142114_16 [Smoothed TC Combined] - Float or Fixed Ambiguity



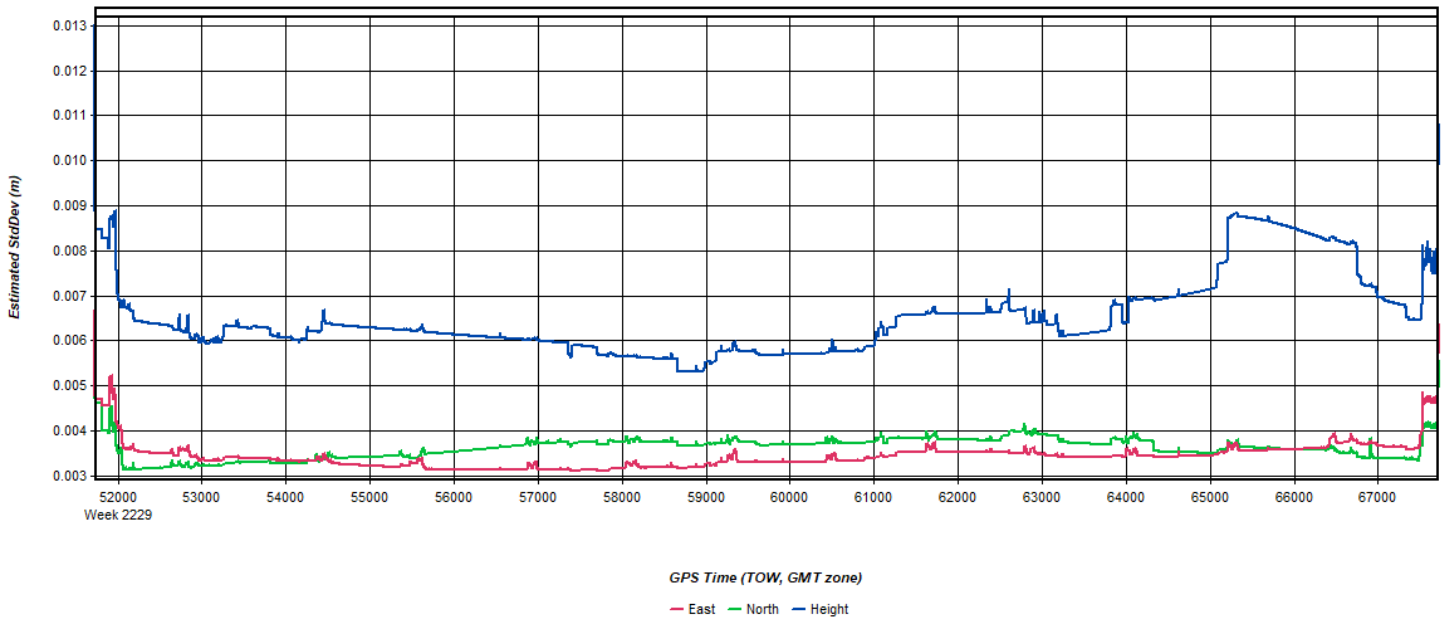
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 4: 20220925142114_16 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



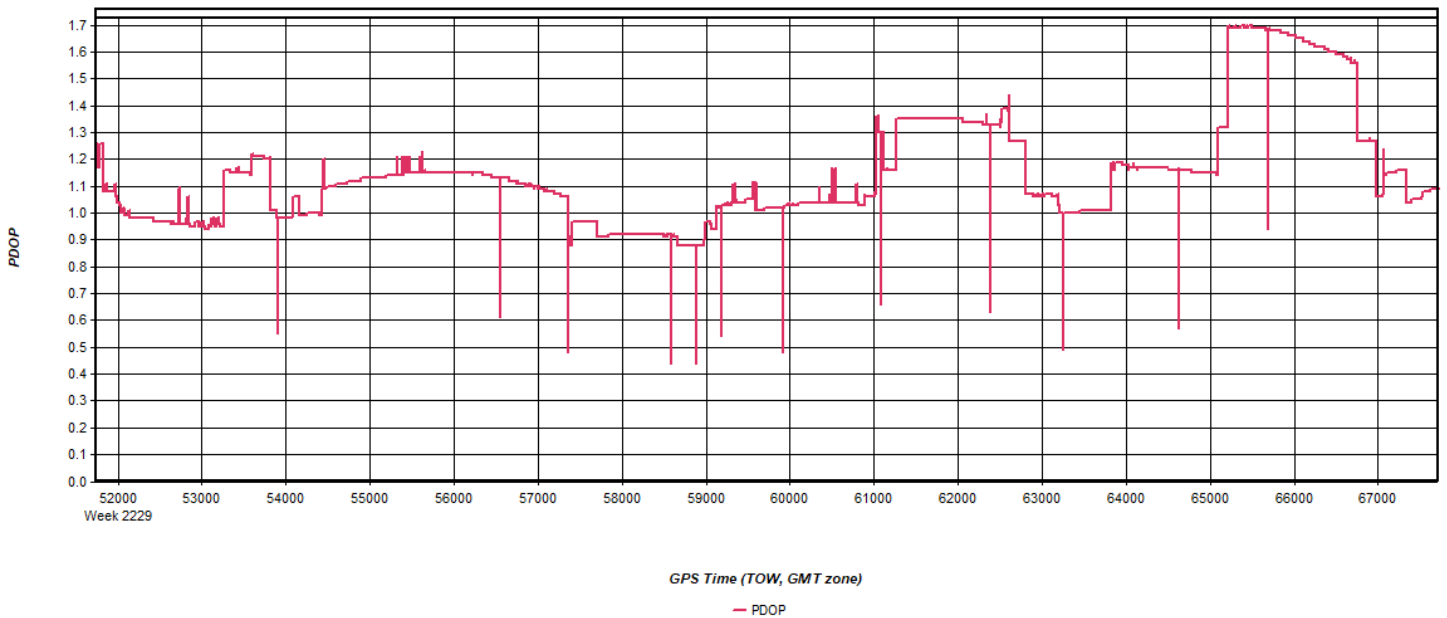
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 5: 20220925142114_16 [Smoothed TC Combined] - Estimated Position Accuracy Plot



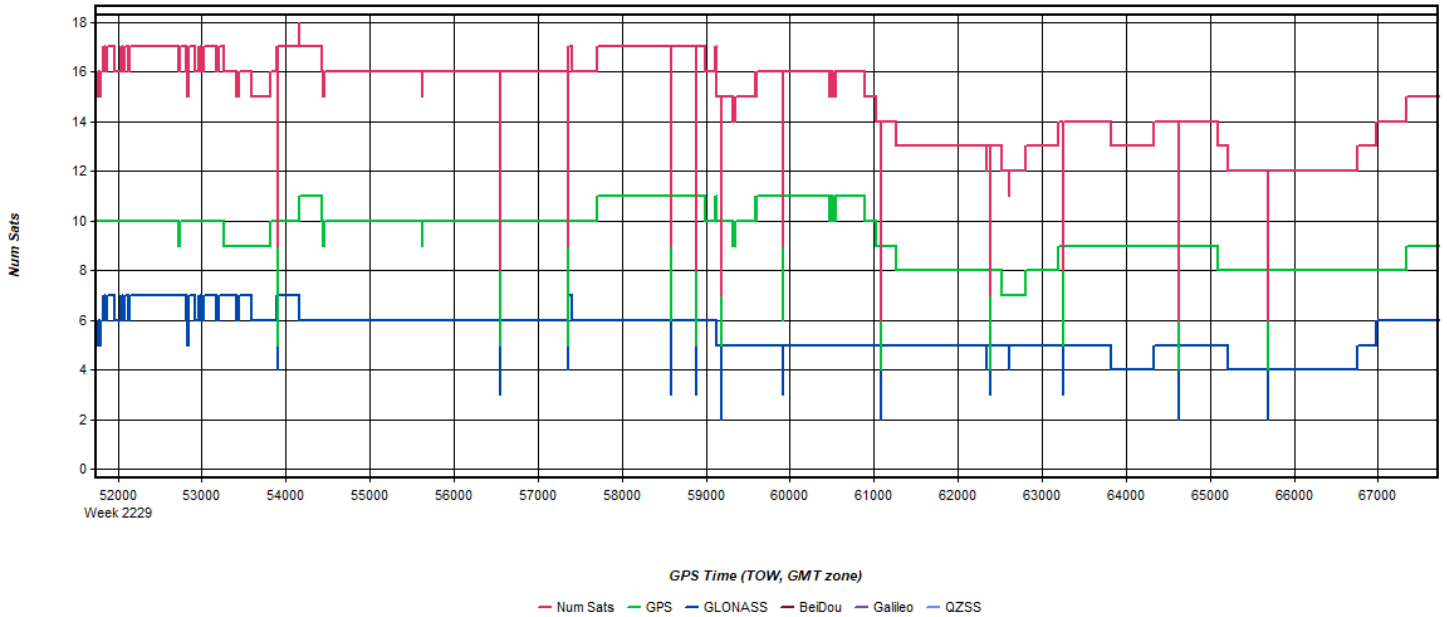
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 6: 20220925142114_16 [Smoothed TC Combined] - PDOP Plot



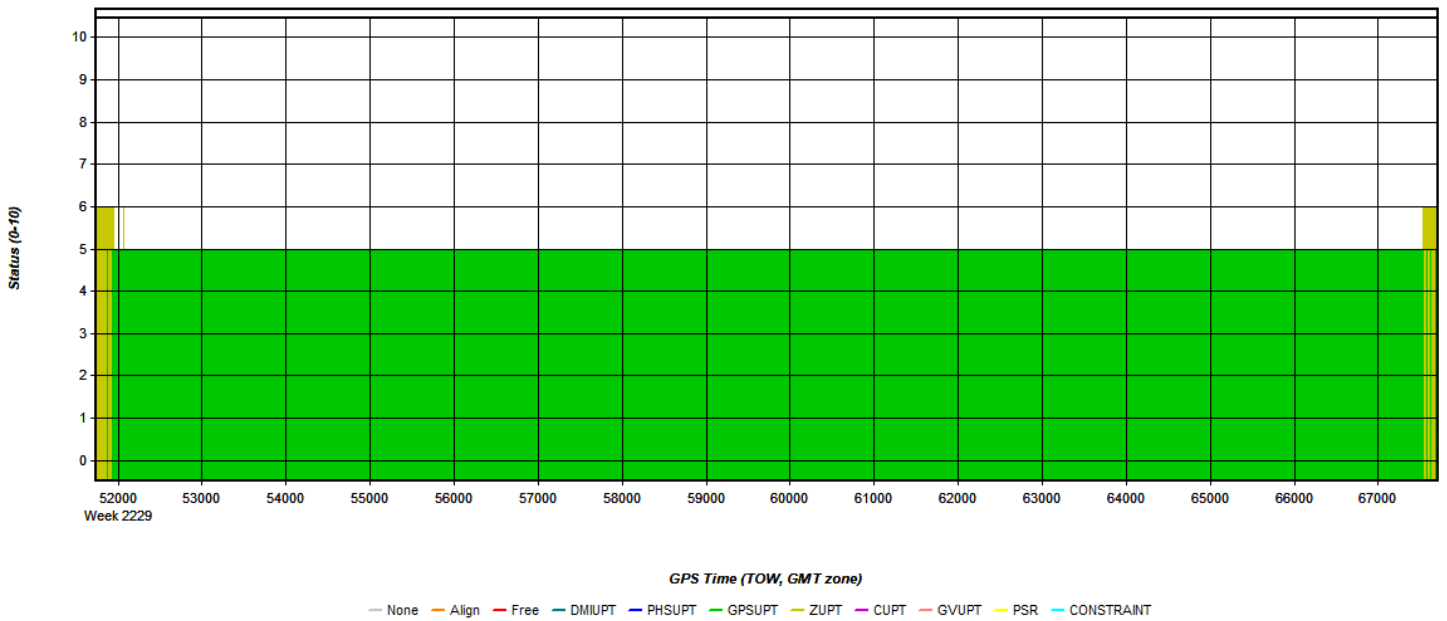
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 7: 20220925142114_16 [Smoothed TC Combined] - Number of Satellites Line Plot



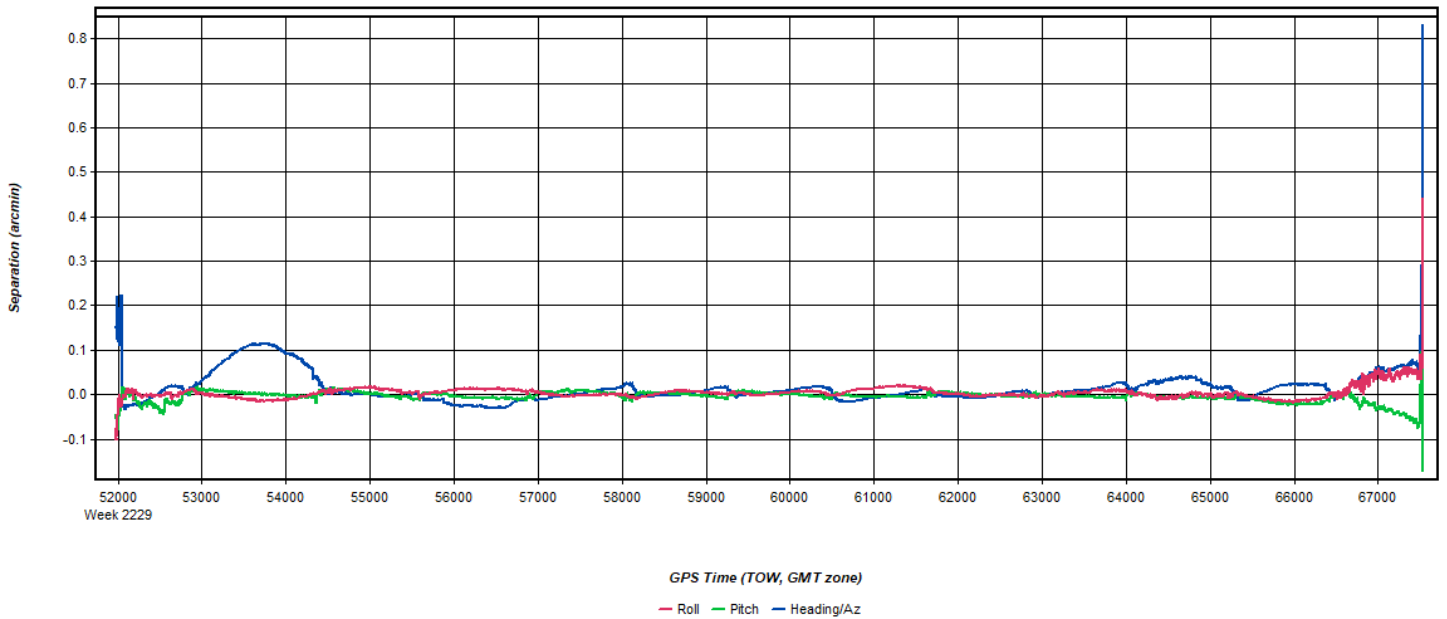
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 8: 20220925142114_16 [Smoothed TC Combined] - Status flag for IMU processing



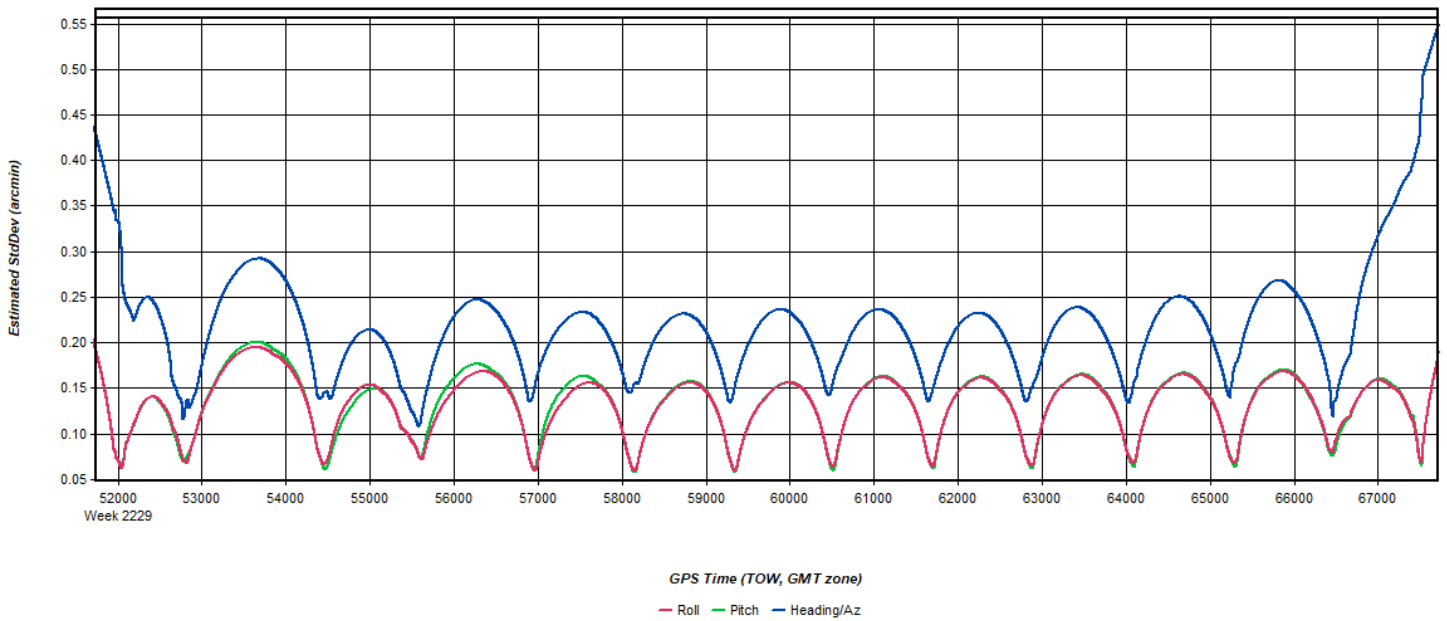
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 9: 20220925142114_16 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



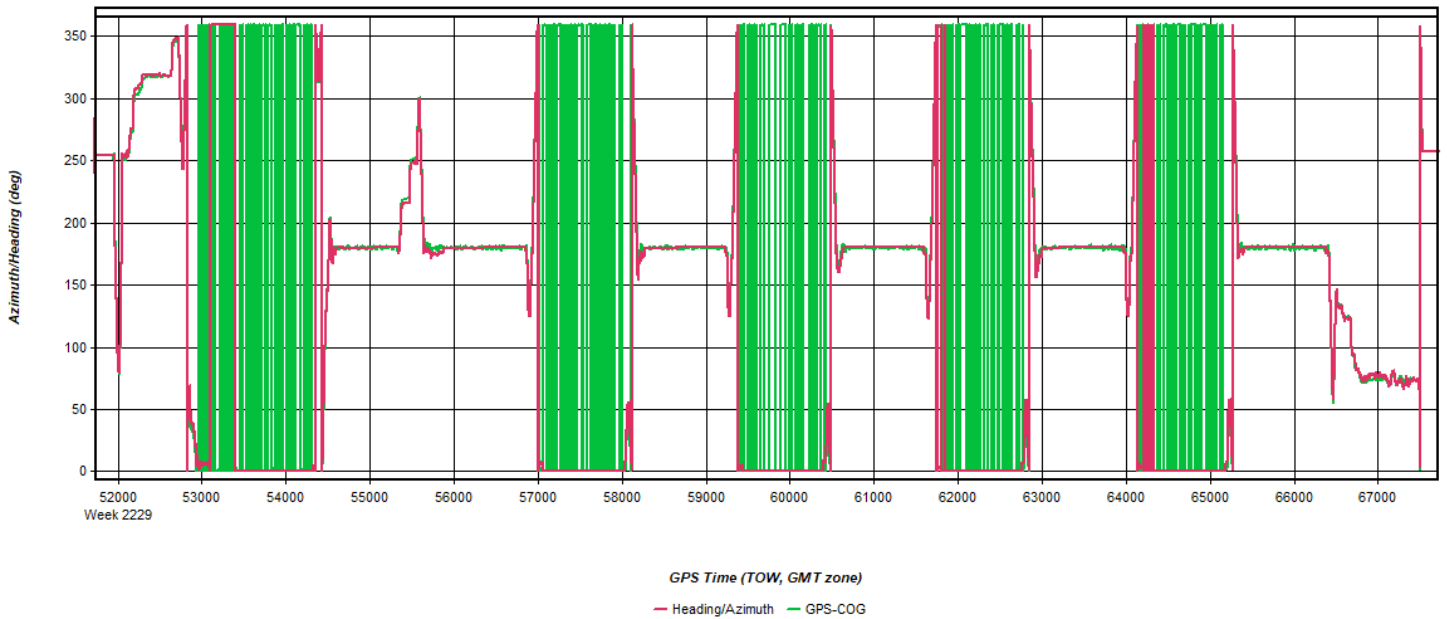
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 10: 20220925142114_16 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



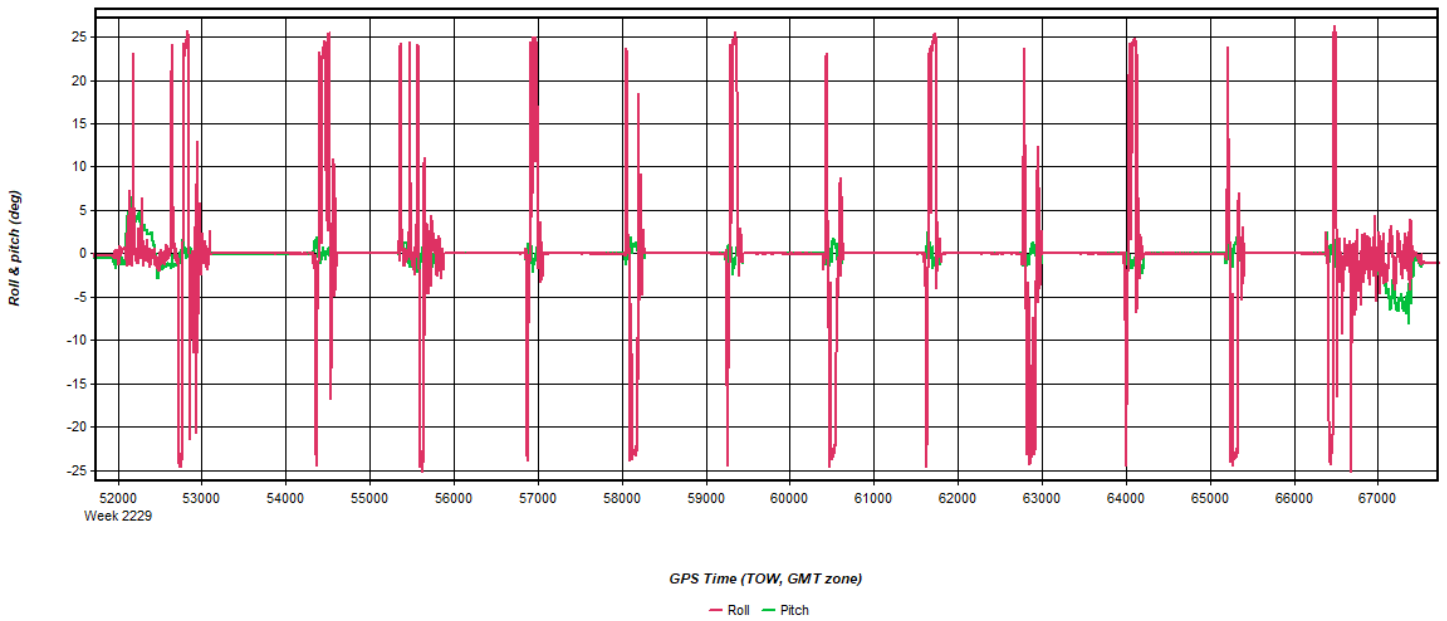
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 11: 20220925142114_16 [Smoothed TC Combined] - Azimuth Plot



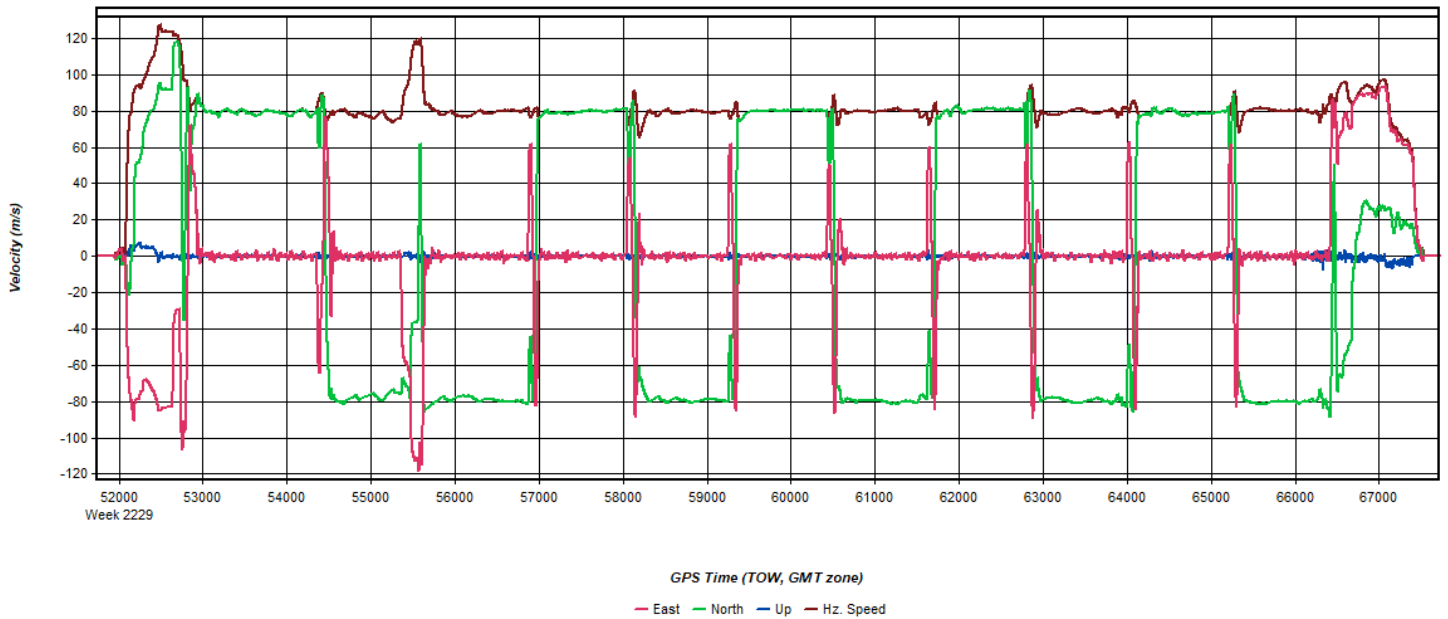
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 12: 20220925142114_16 [Smoothed TC Combined] - Roll & Pitch Plot



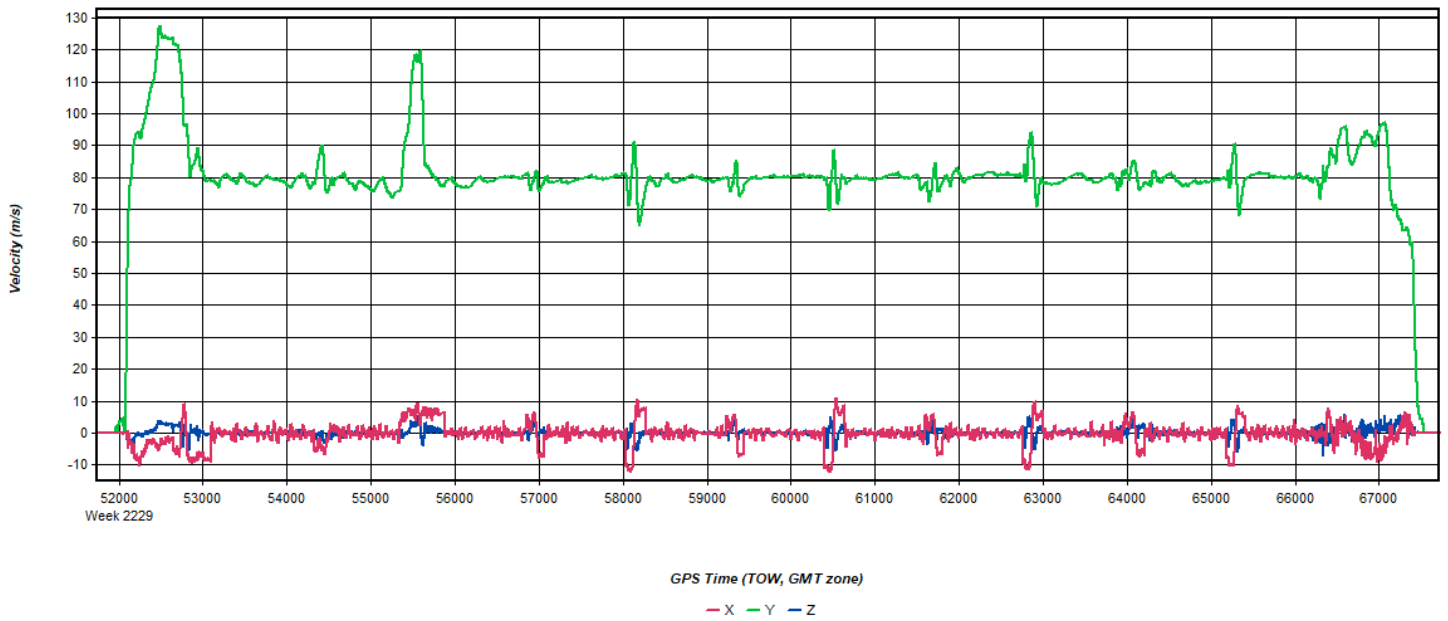
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 13: 20220925142114_16 [Smoothed TC Combined] - Velocity Profile Plot



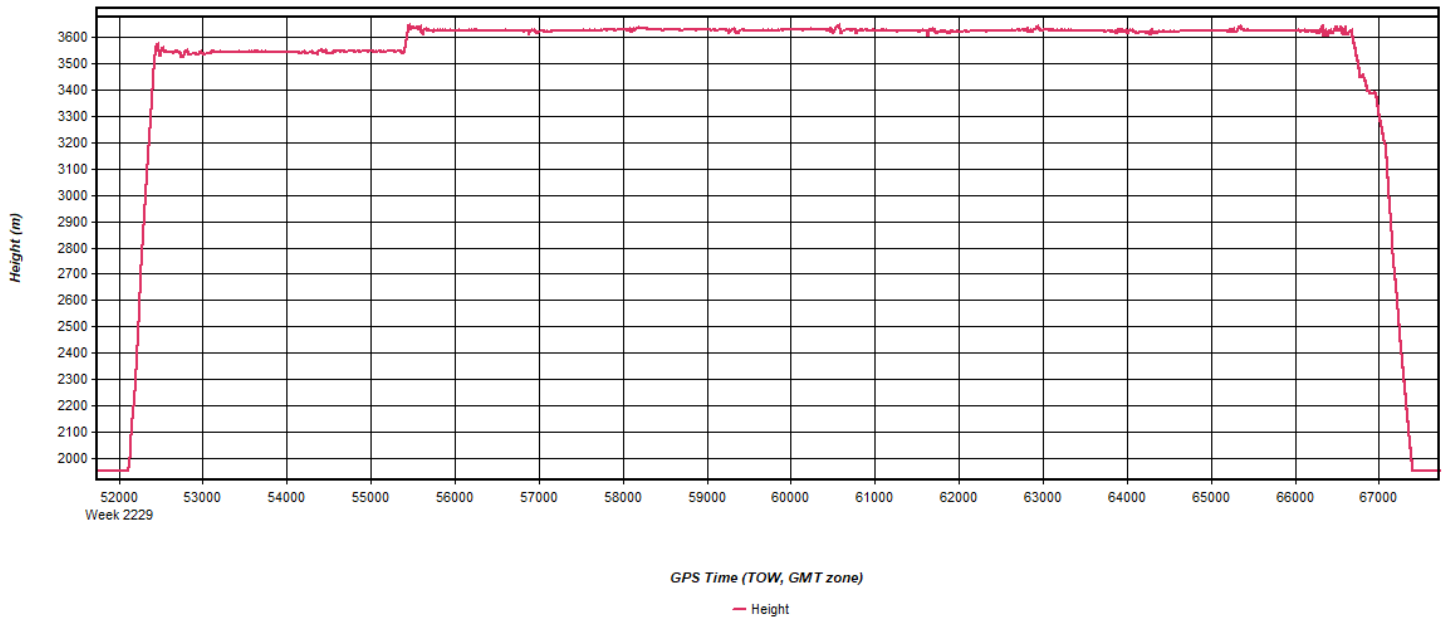
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 14: 20220925142114_16 [Smoothed TC Combined] - Body Frame Velocity Plot



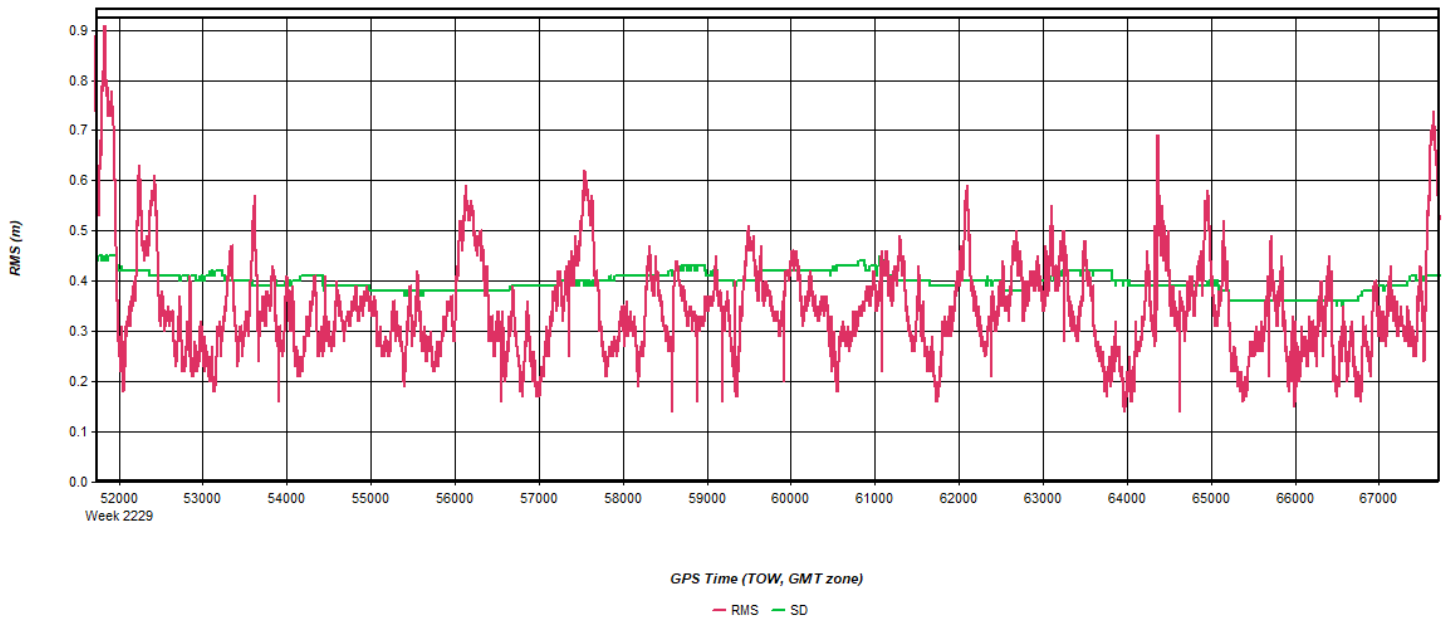
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 15: 20220925142114_16 [Smoothed TC Combined] - Height Profile Plot



Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 16: 20220925142114_16 [Smoothed TC Combined] - C/A Code Residual RMS Plot



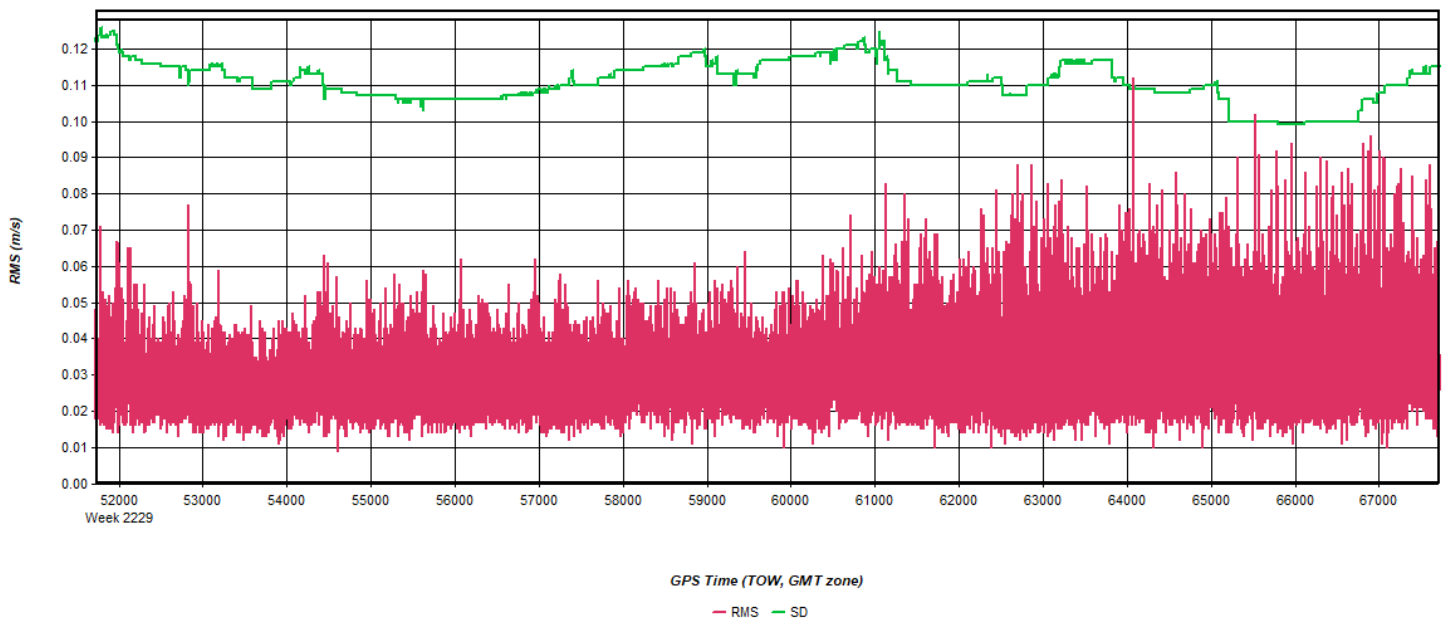
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 17: 20220925142114_16 [Smoothed TC Combined] - Carrier Residual RMS Plot



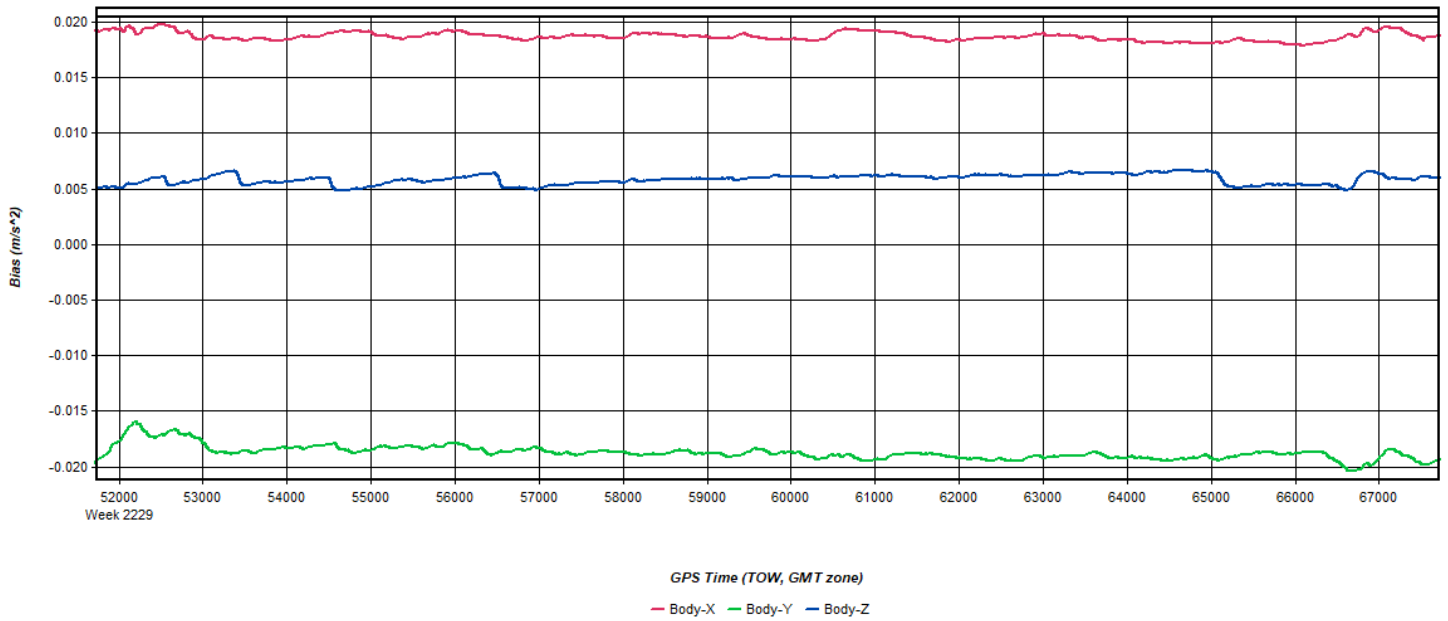
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 18: 20220925142114_16 [Smoothed TC Combined] - Doppler Residual RMS Plot



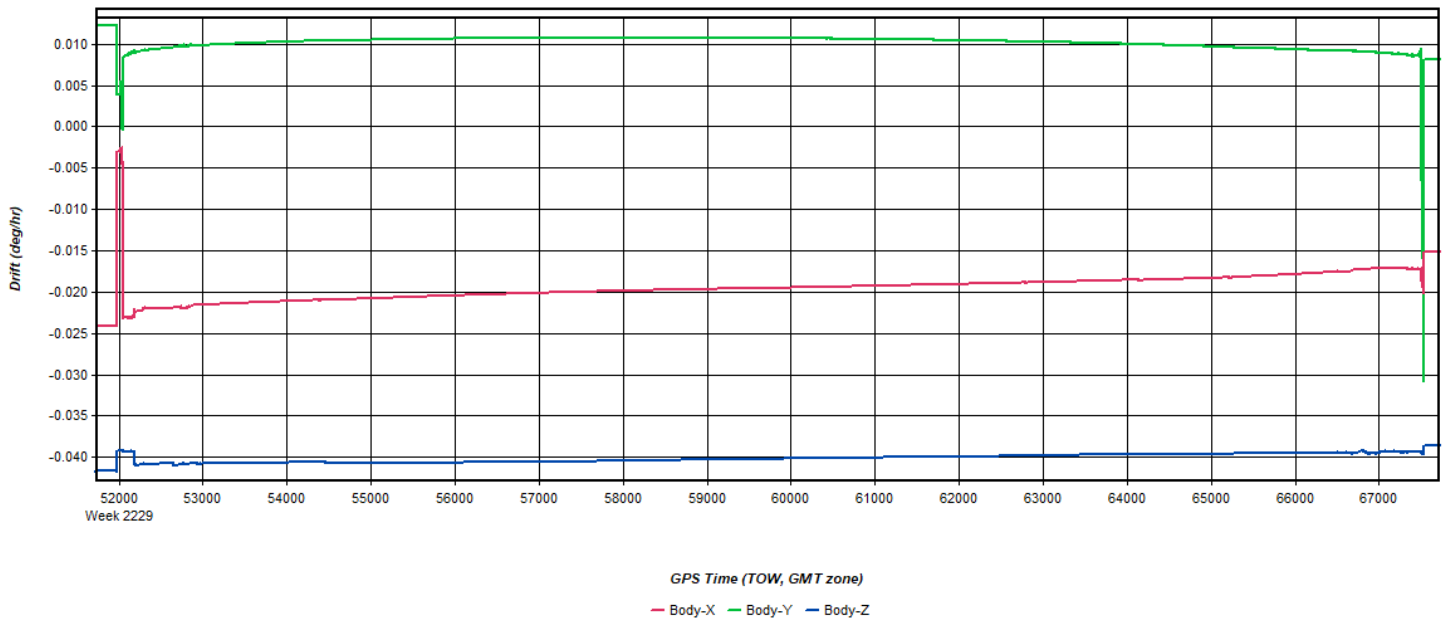
Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 19: 20220925142114_16 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Figure 20: 20220925142114_16 [Smoothed TC Combined] - Gyro Drift Plot



Process	20220925142114_16	by Unknown	on 10/3/2022	at 13:37:23
---------	-------------------	------------	--------------	-------------

Output Results for 20220926000650_17

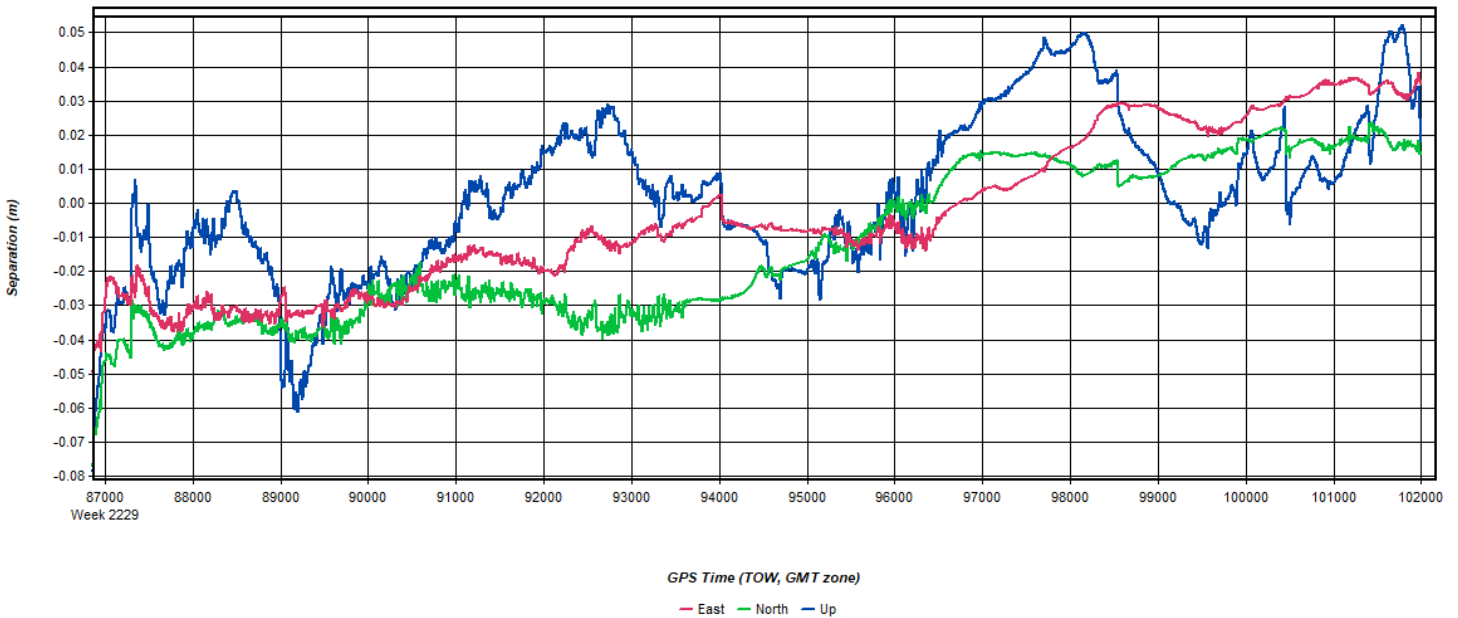
Inertial Explorer Version 8.90.2124
10/03/2022

Figure 1: Smoothed TC Combined - Map



Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 2: 20220926000650_17 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 3: 20220926000650_17 [Smoothed TC Combined] - Float or Fixed Ambiguity

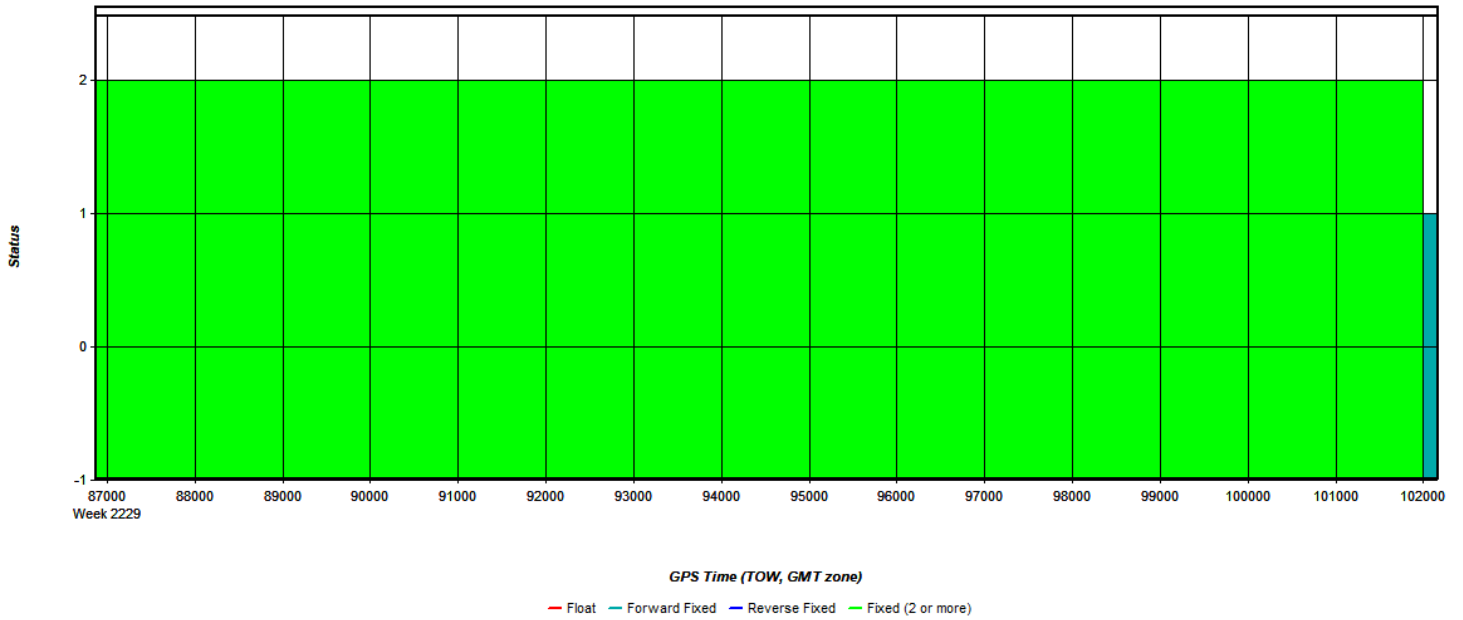


Figure 4: 20220926000650_17 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

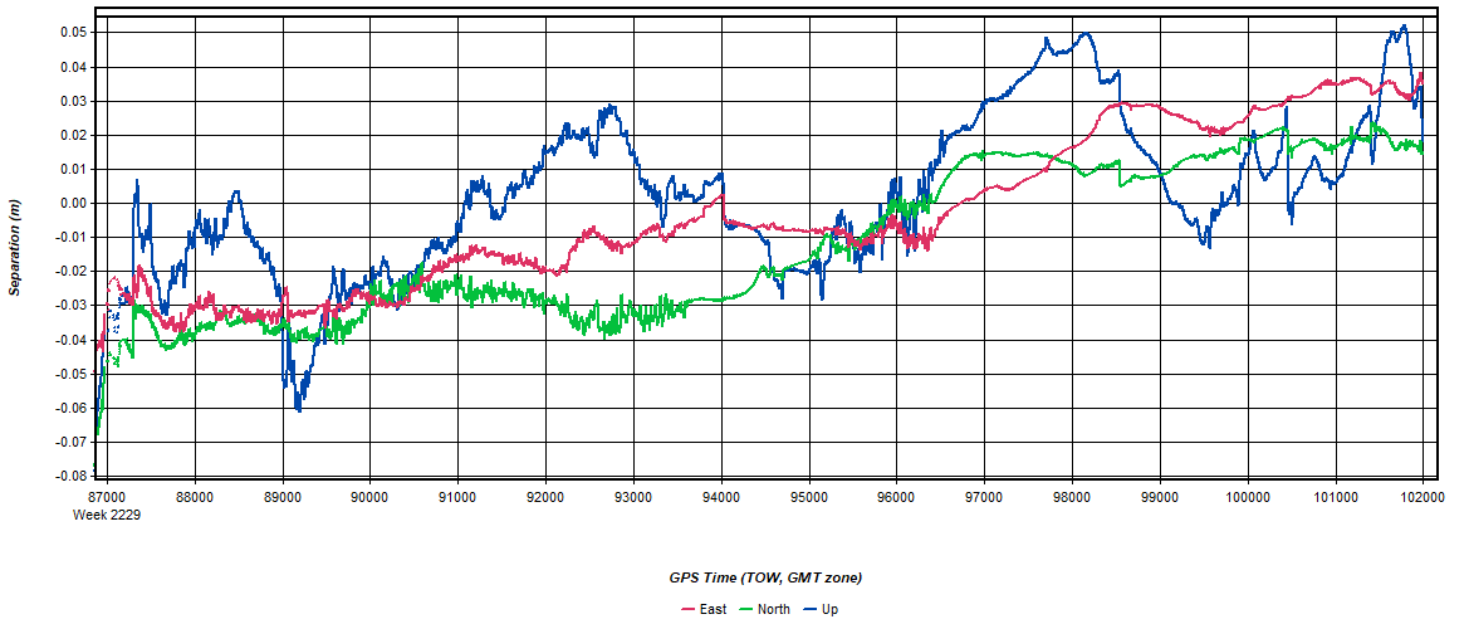
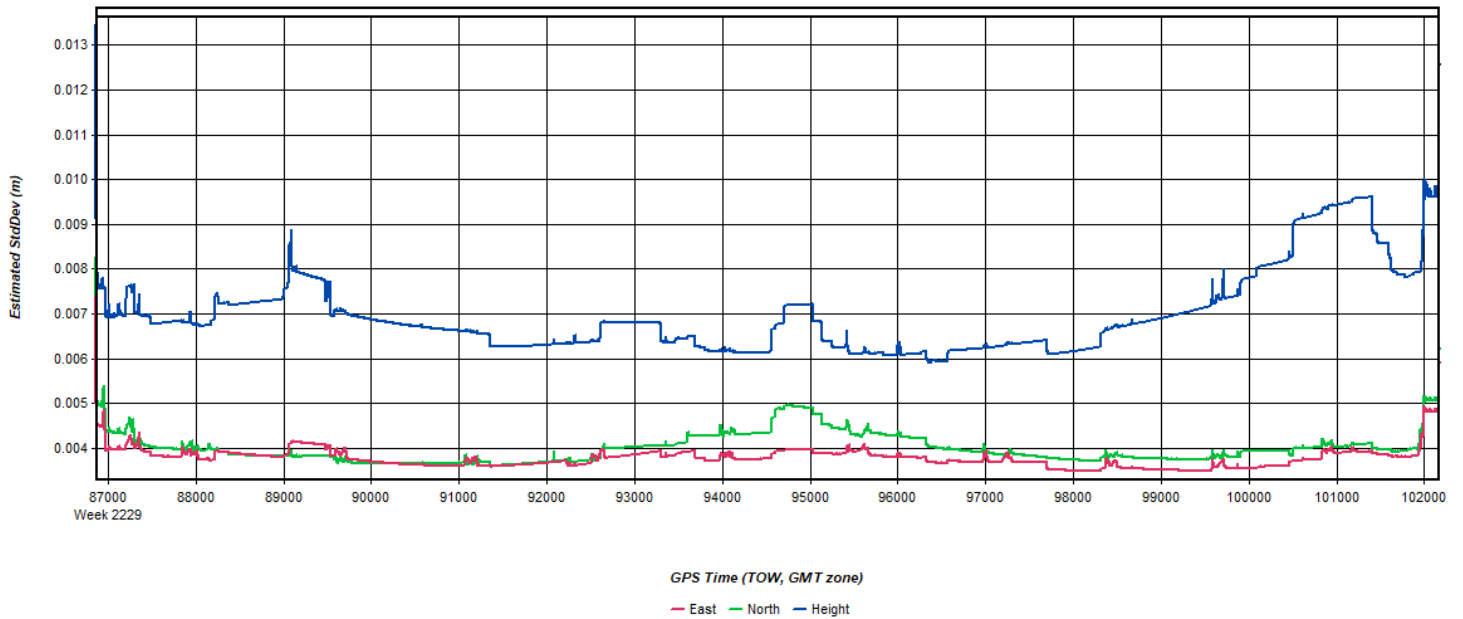
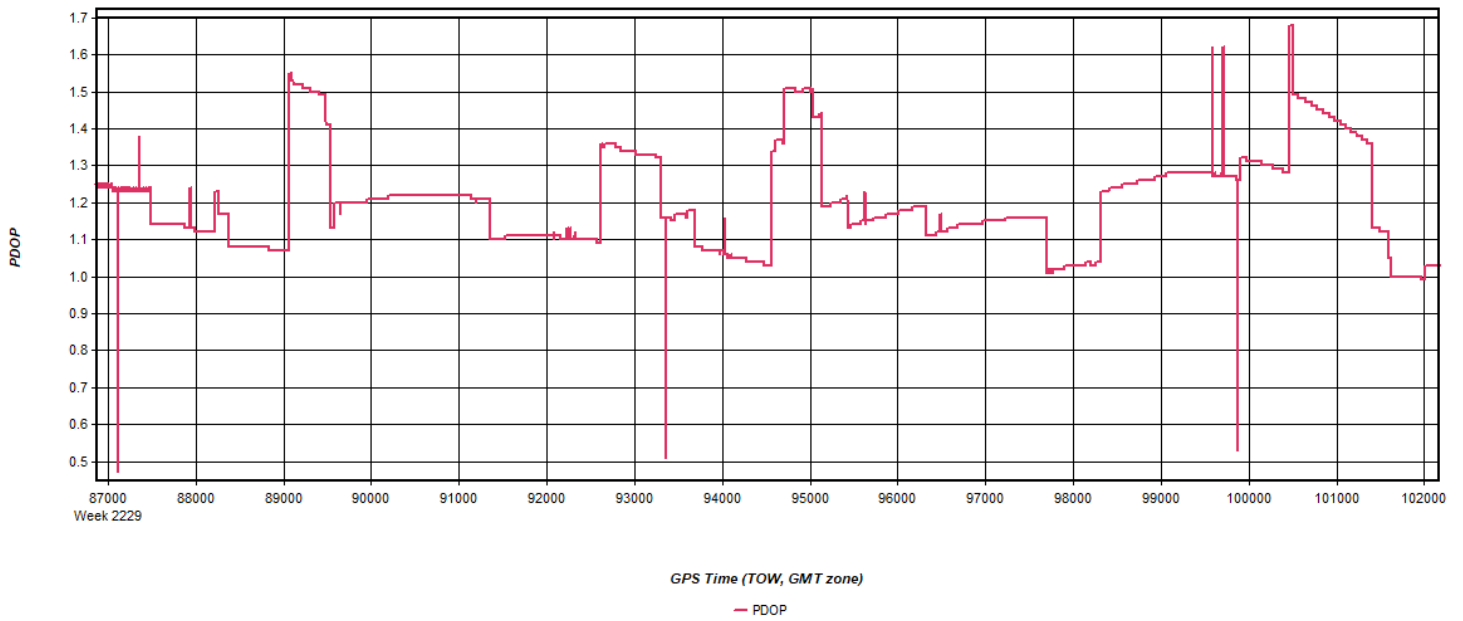


Figure 5: 20220926000650_17 [Smoothed TC Combined] - Estimated Position Accuracy Plot



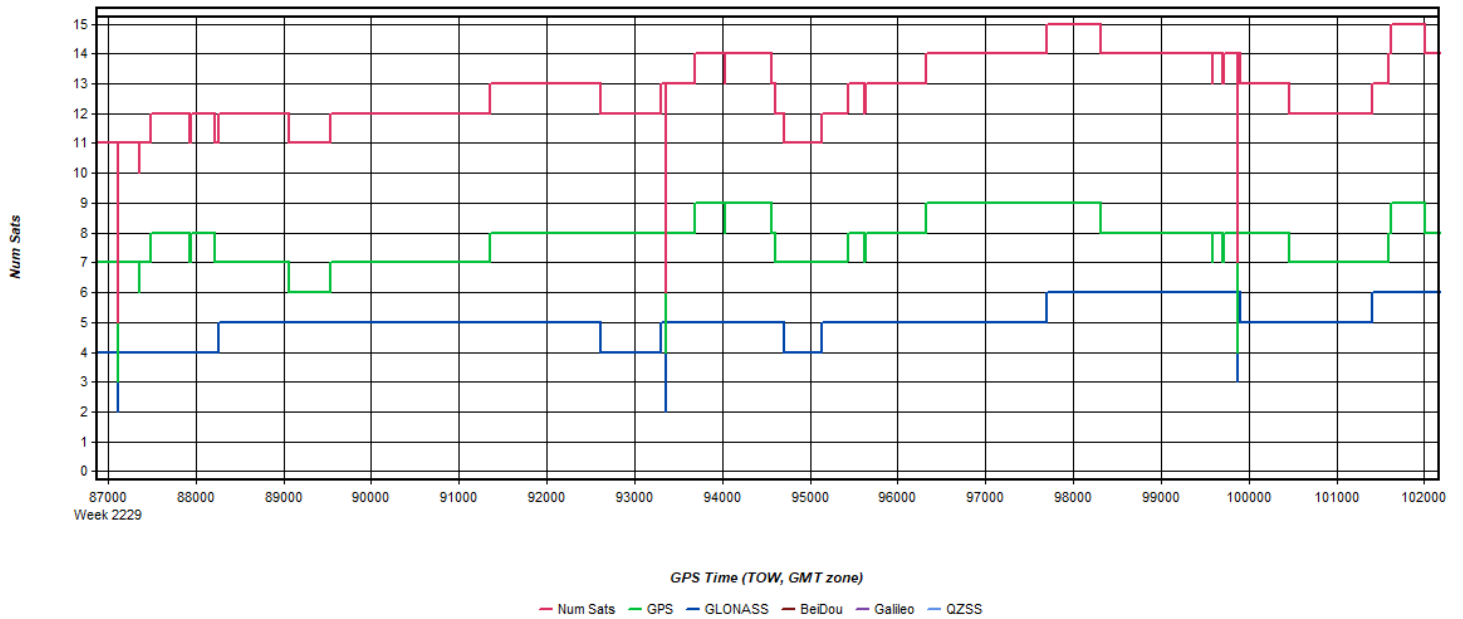
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 6: 20220926000650_17 [Smoothed TC Combined] - PDOP Plot



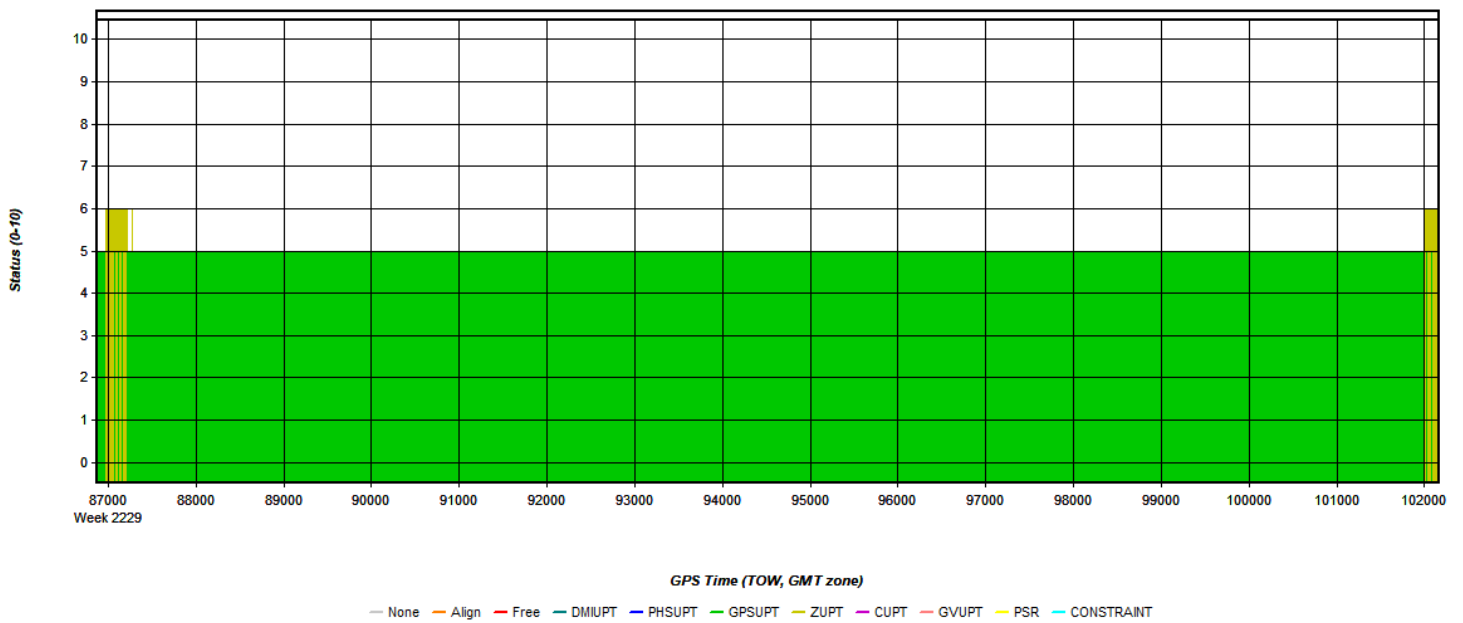
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 7: 20220926000650_17 [Smoothed TC Combined] - Number of Satellites Line Plot



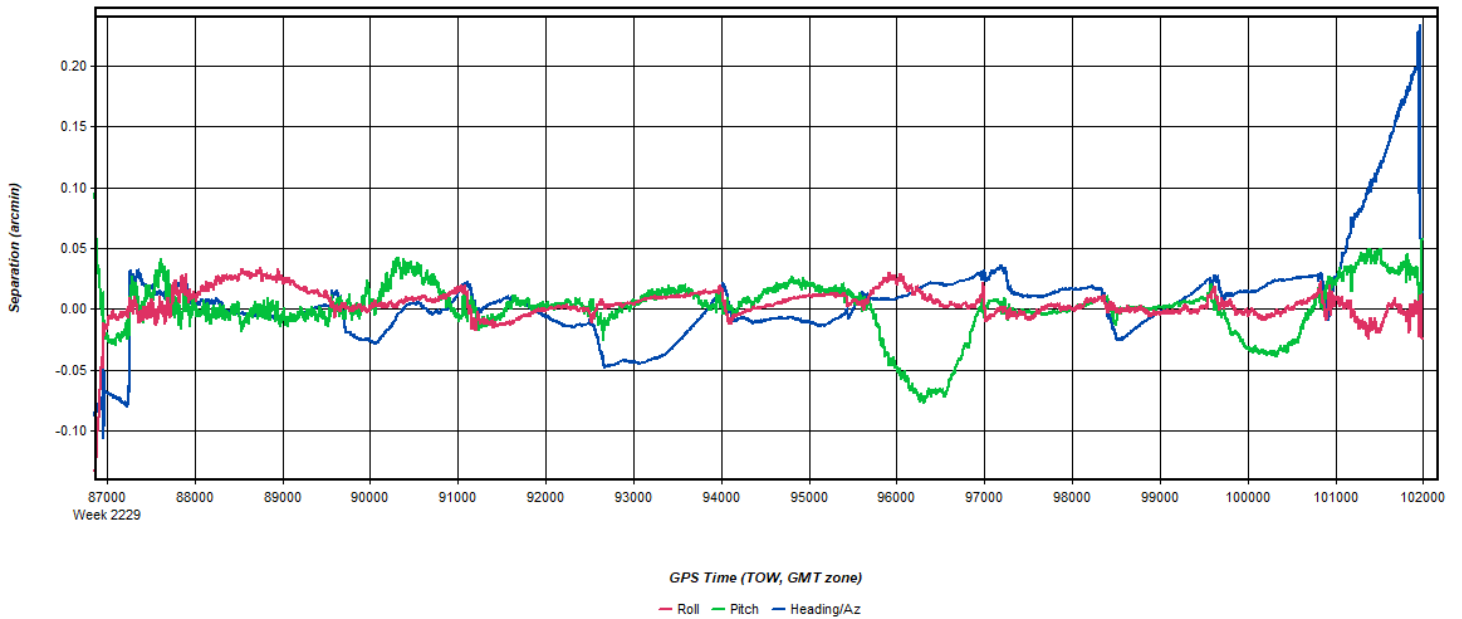
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 8: 20220926000650_17 [Smoothed TC Combined] - Status flag for IMU processing



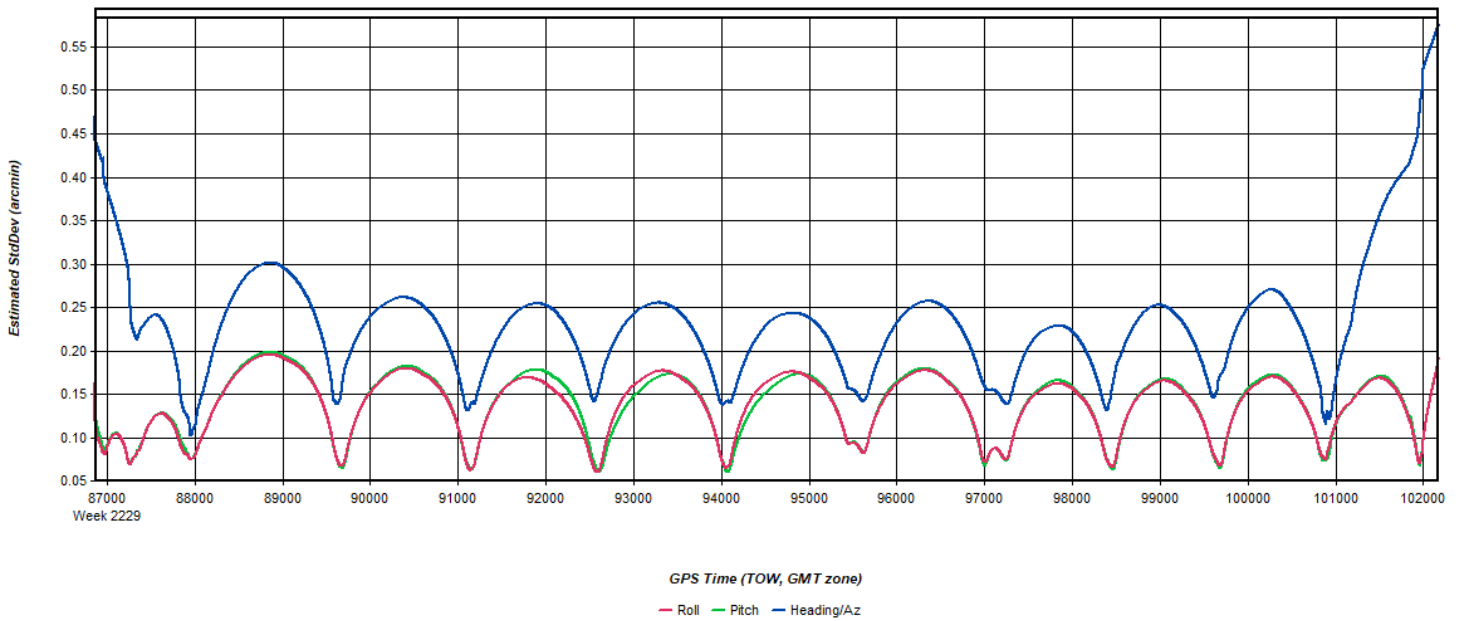
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 9: 20220926000650_17 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



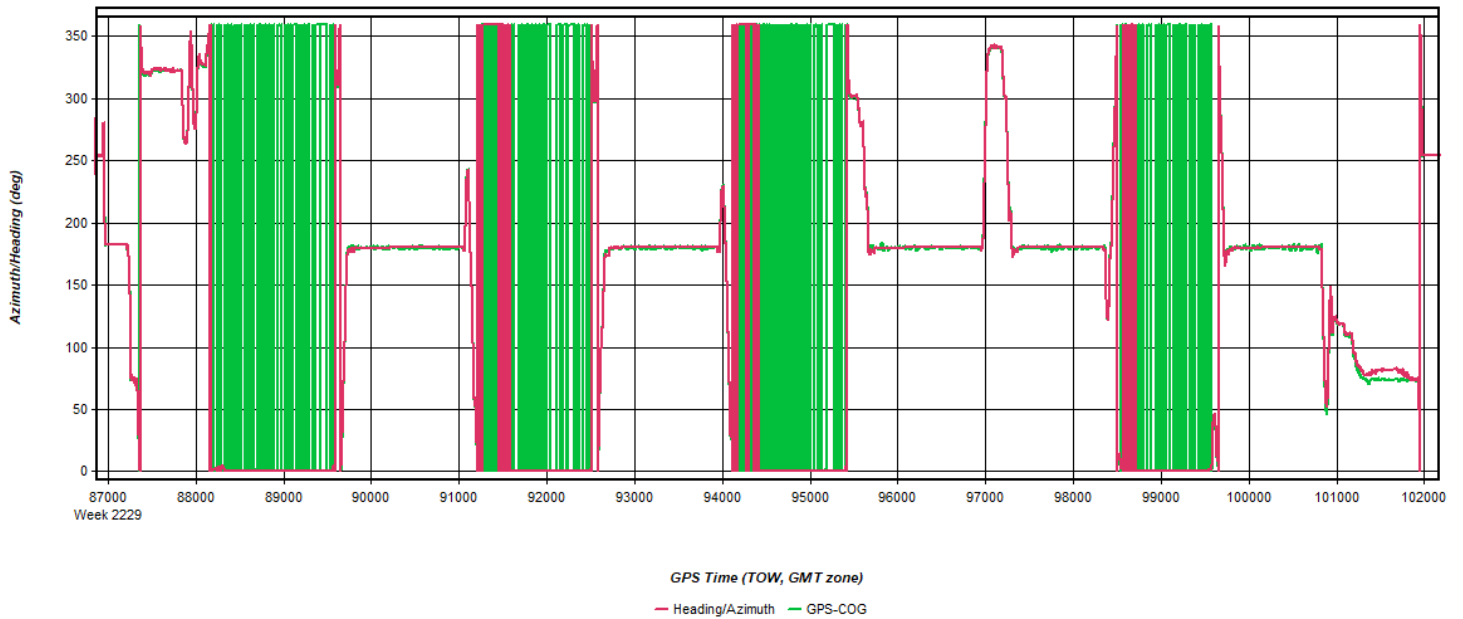
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 10: 20220926000650_17 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



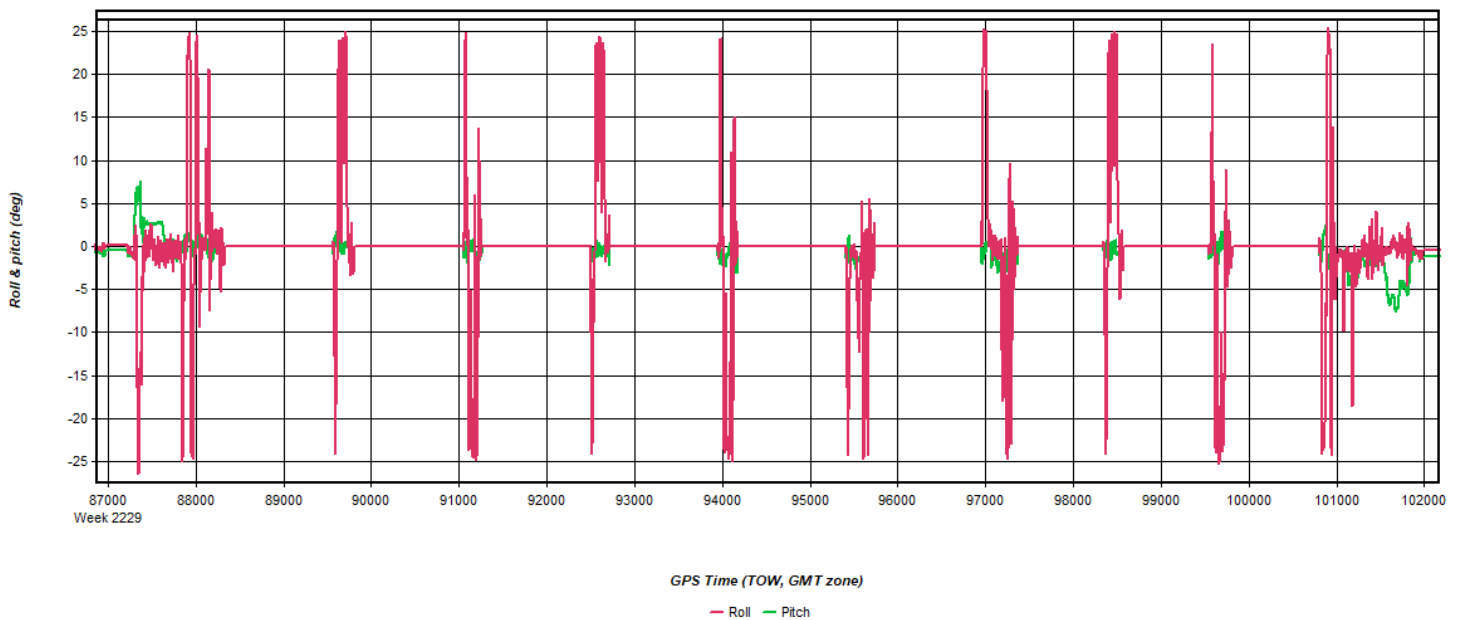
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 11: 20220926000650_17 [Smoothed TC Combined] - Azimuth Plot



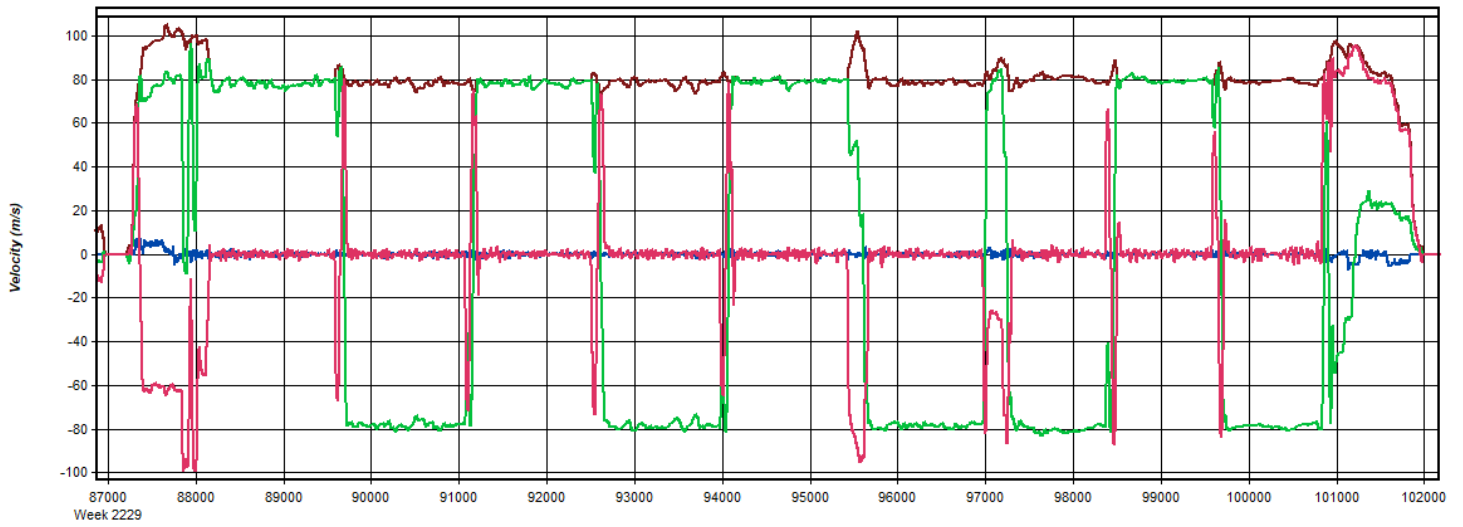
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 12: 20220926000650_17 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 13: 20220926000650_17 [Smoothed TC Combined] - Velocity Profile Plot



GPS Time (TOW, GMT zone)

— East — North — Up — Hz. Speed

Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 14: 20220926000650_17 [Smoothed TC Combined] - Body Frame Velocity Plot



GPS Time (TOW, GMT zone)

— X — Y — Z

Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 15: 20220926000650_17 [Smoothed TC Combined] - Height Profile Plot

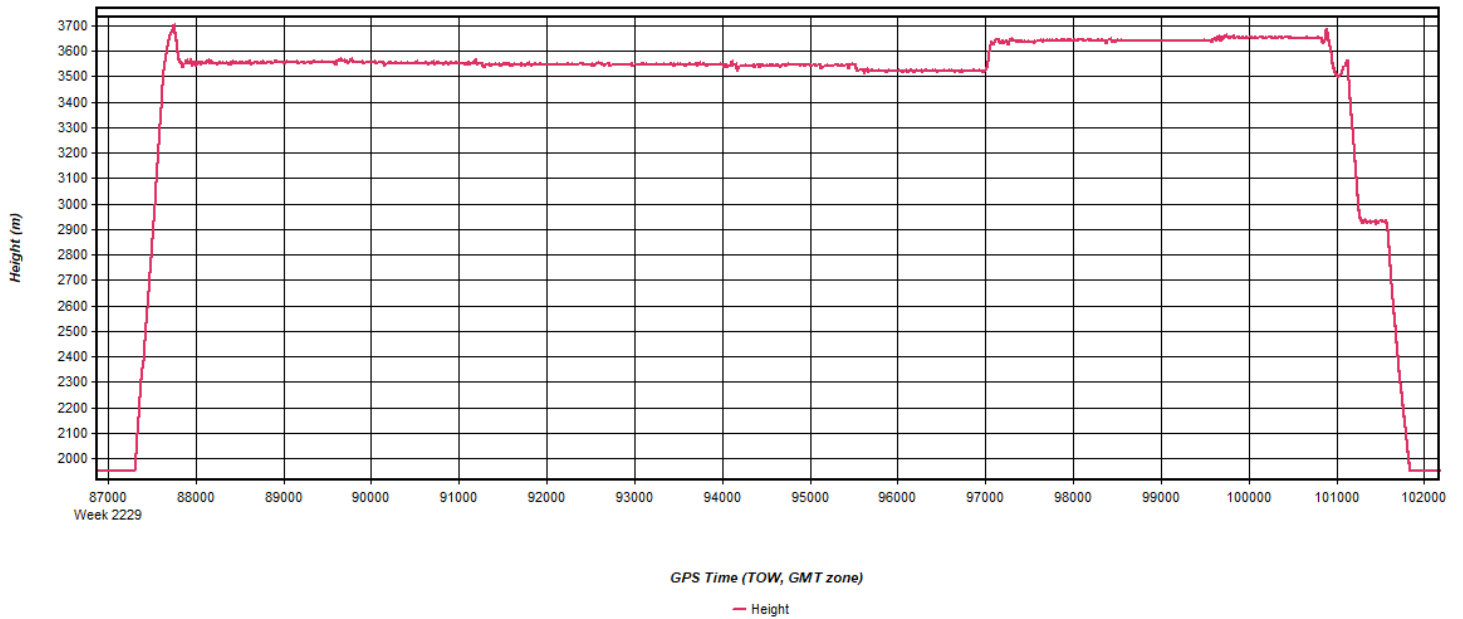


Figure 16: 20220926000650_17 [Smoothed TC Combined] - C/A Code Residual RMS Plot

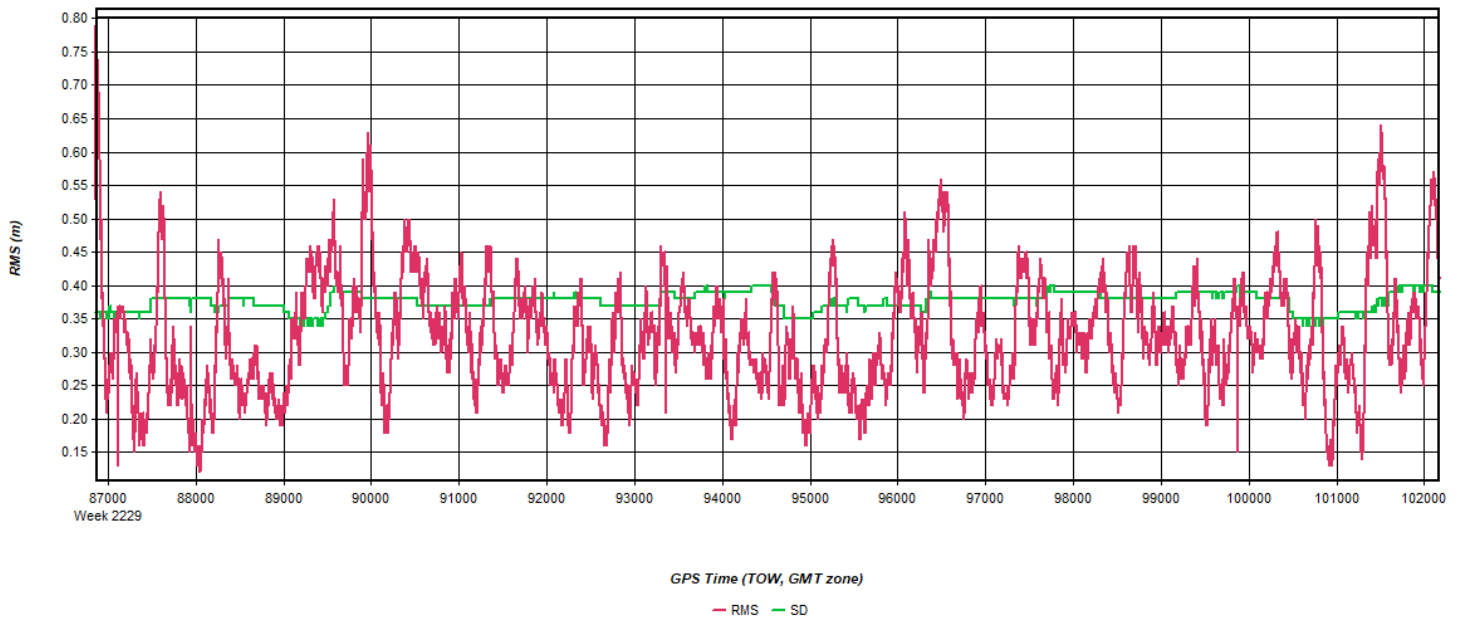


Figure 17: 20220926000650_17 [Smoothed TC Combined] - Carrier Residual RMS Plot



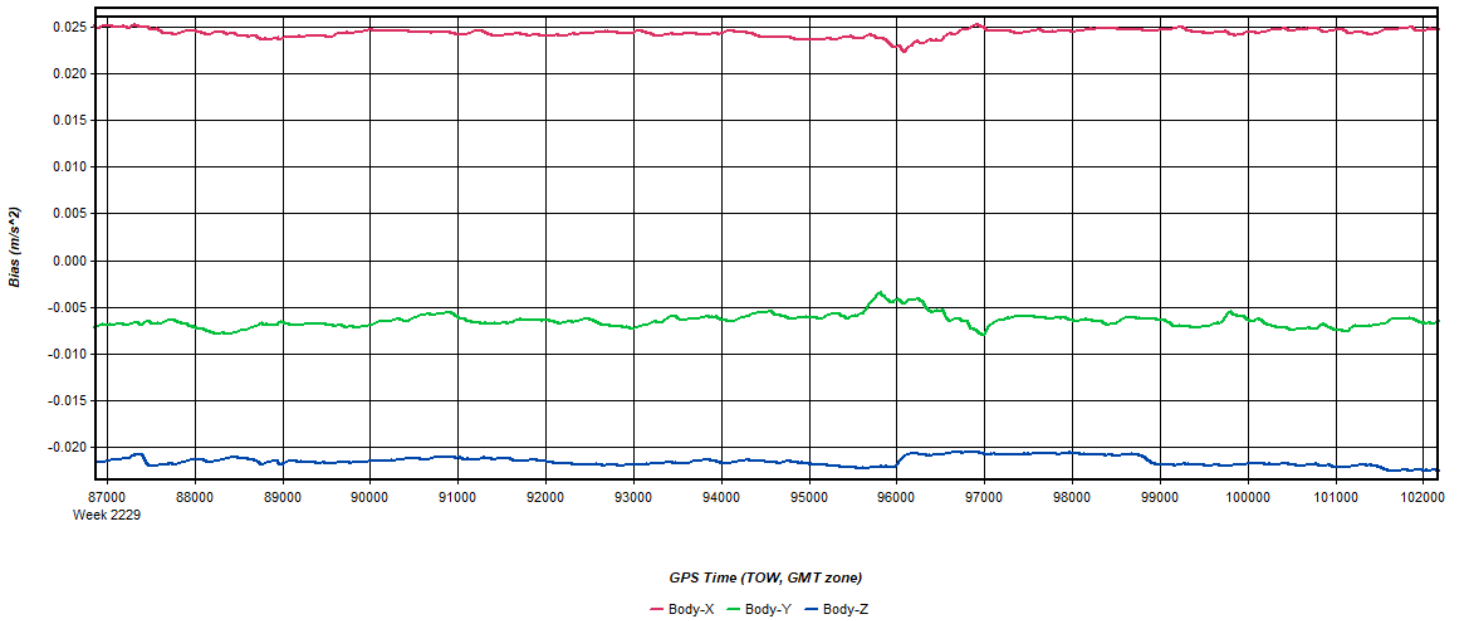
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 18: 20220926000650_17 [Smoothed TC Combined] - Doppler Residual RMS Plot



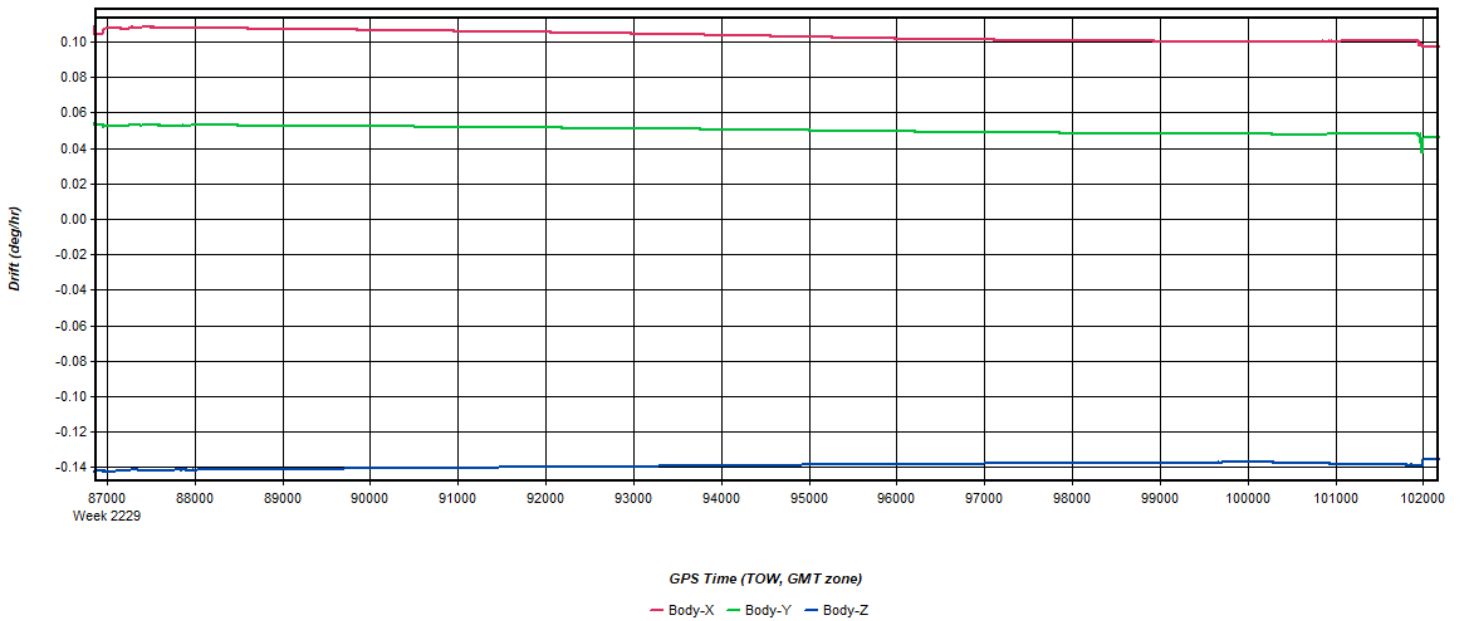
Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 19: 20220926000650_17 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Figure 20: 20220926000650_17 [Smoothed TC Combined] - Gyro Drift Plot

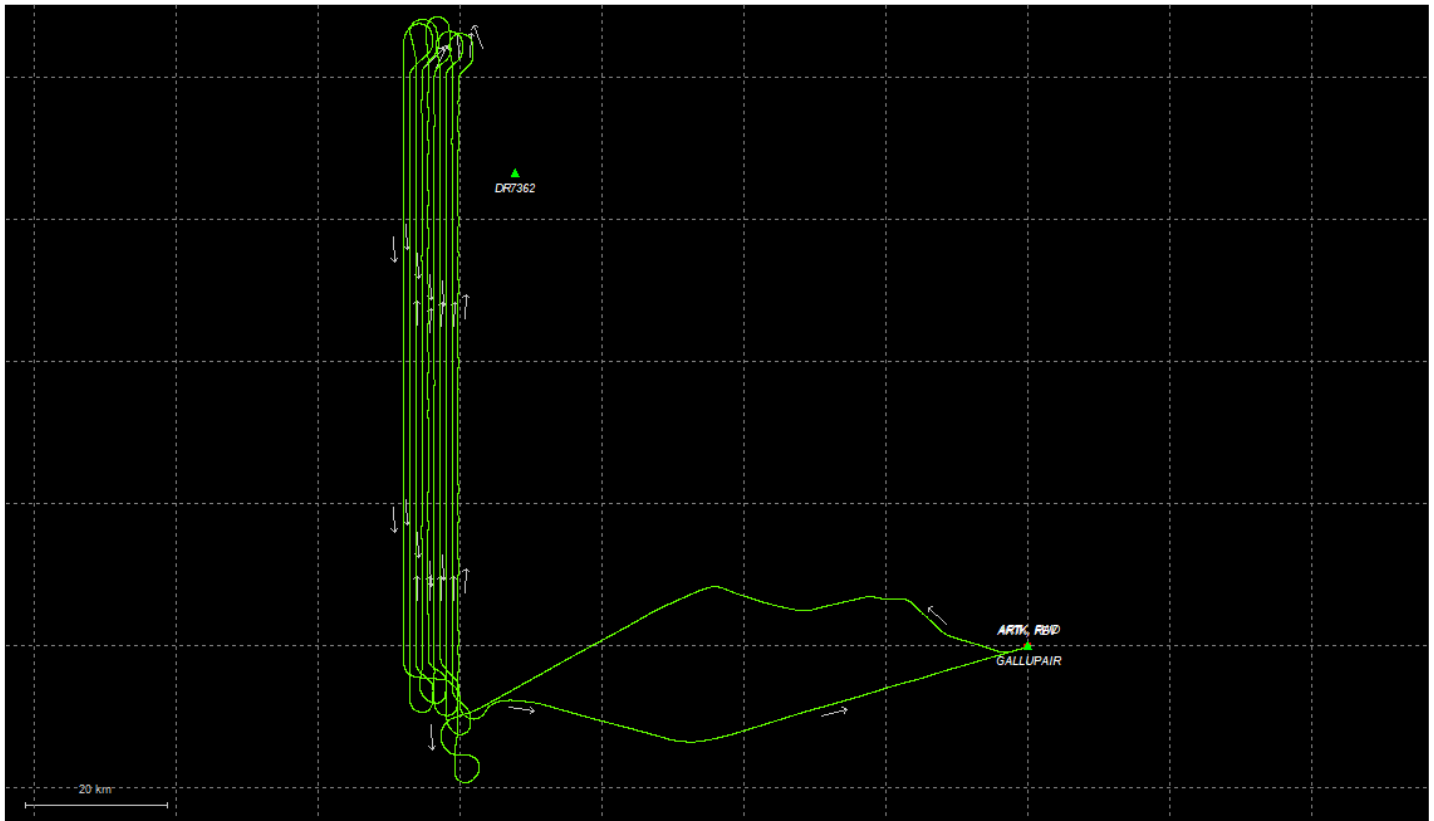


Process	20220926000650_17	by Unknown	on 10/3/2022	at 12:10:23
---------	-------------------	------------	--------------	-------------

Output Results for 20220926141842_18

Inertial Explorer Version 8.90.2124
10/04/2022

Figure 1: Smoothed TC Combined - Map



Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 2: 20220926141842_18 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 3: 20220926141842_18 [Smoothed TC Combined] - Float or Fixed Ambiguity

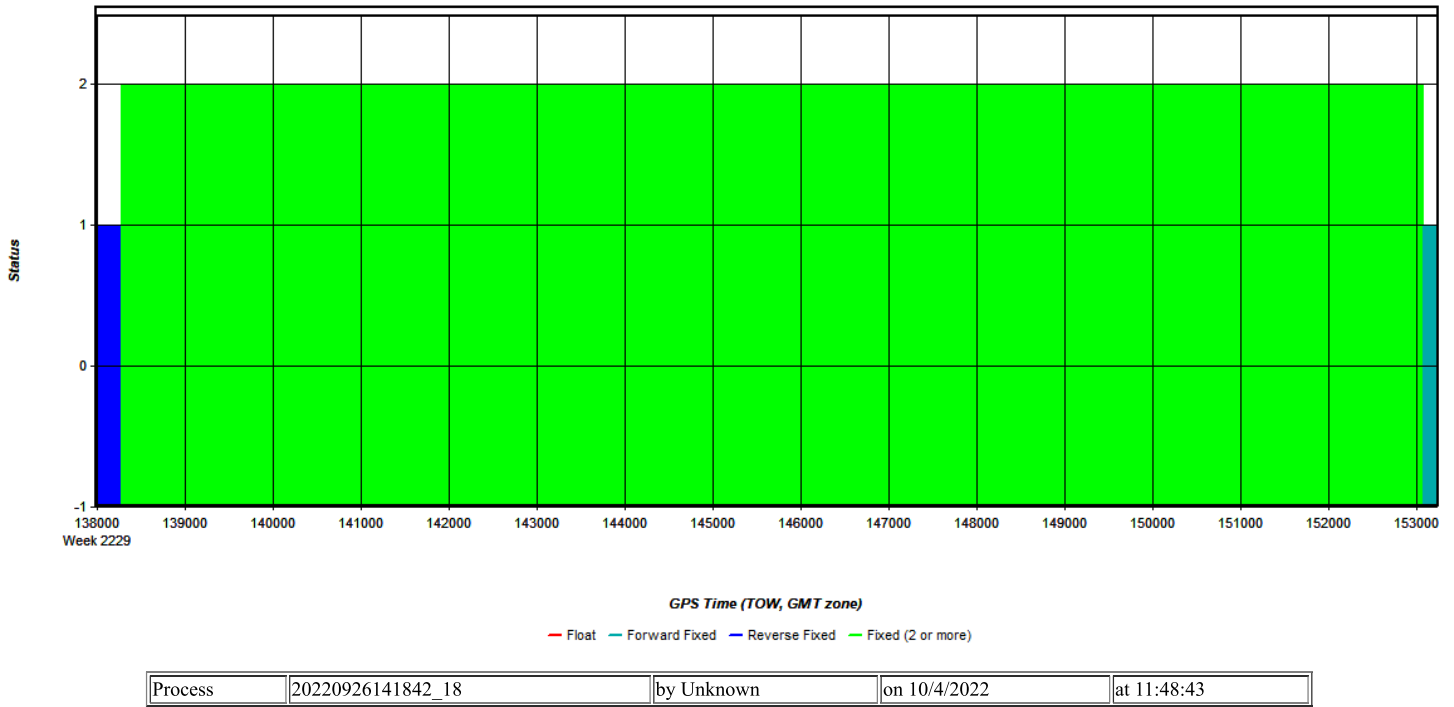
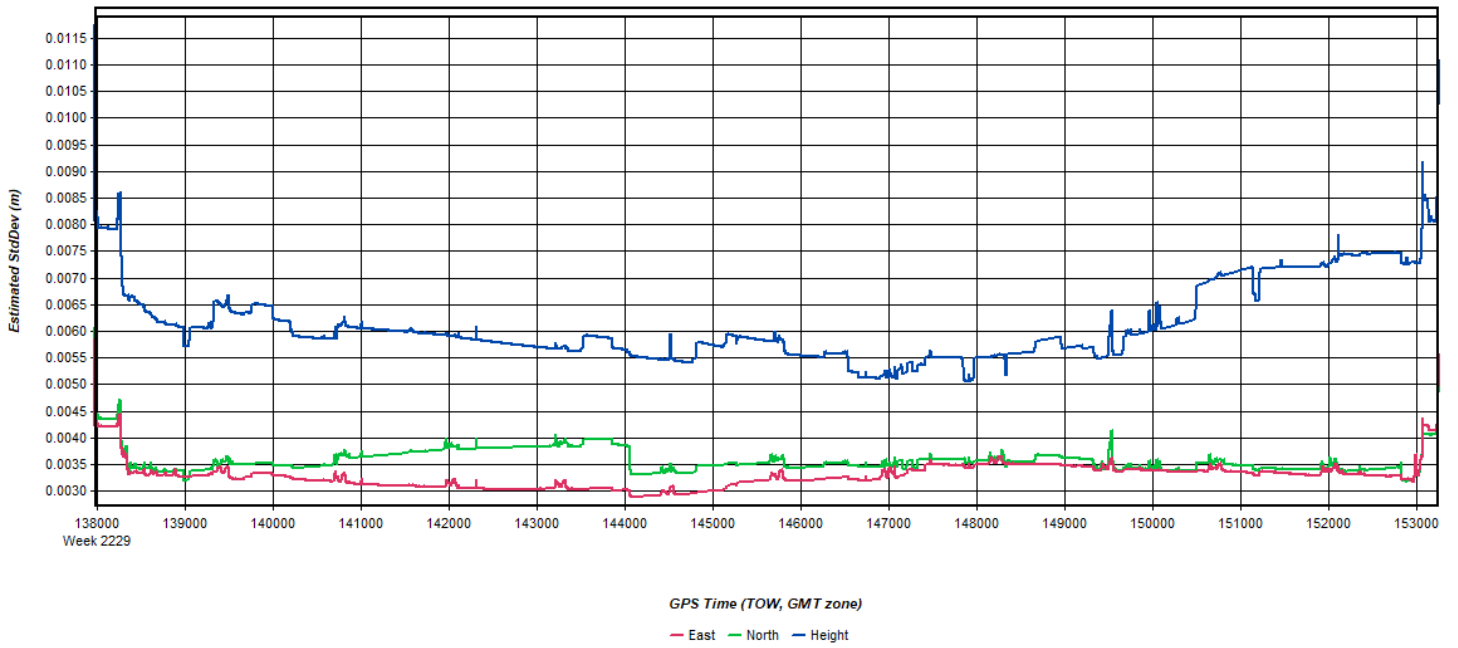


Figure 4: 20220926141842_18 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

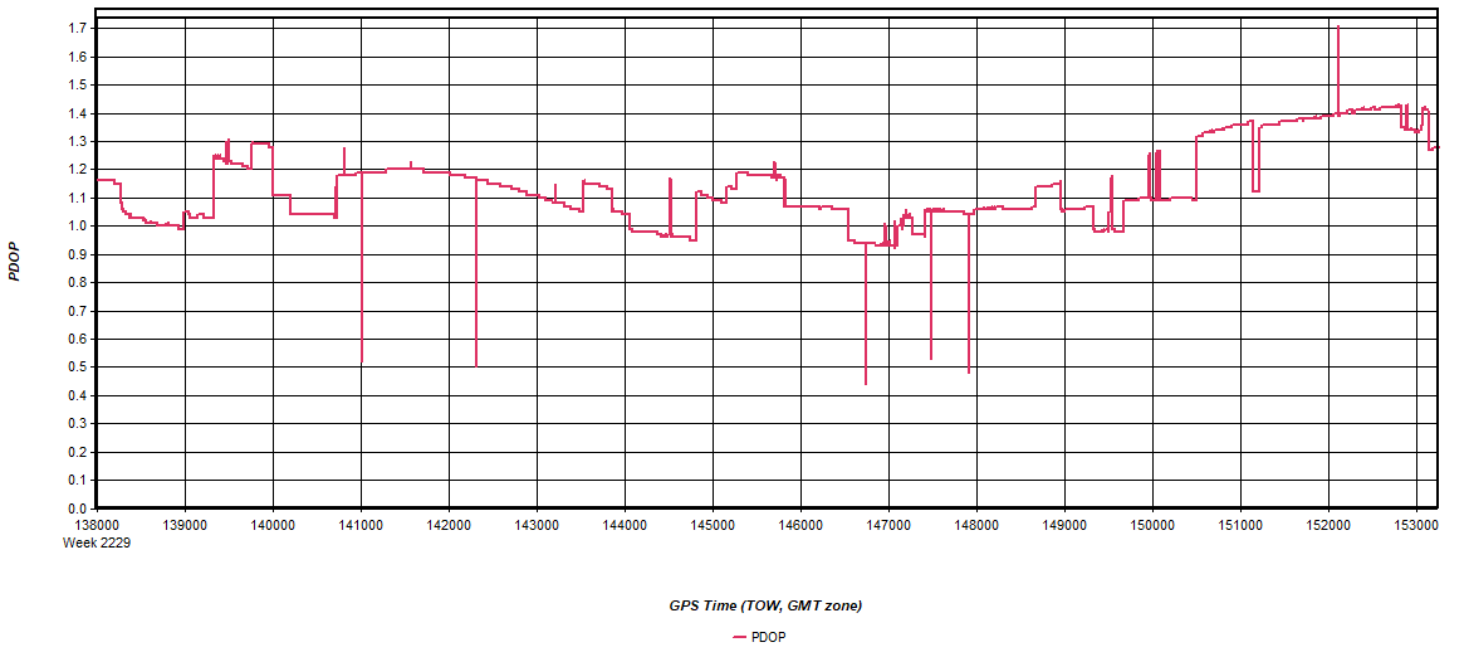


Figure 5: 20220926141842_18 [Smoothed TC Combined] - Estimated Position Accuracy Plot



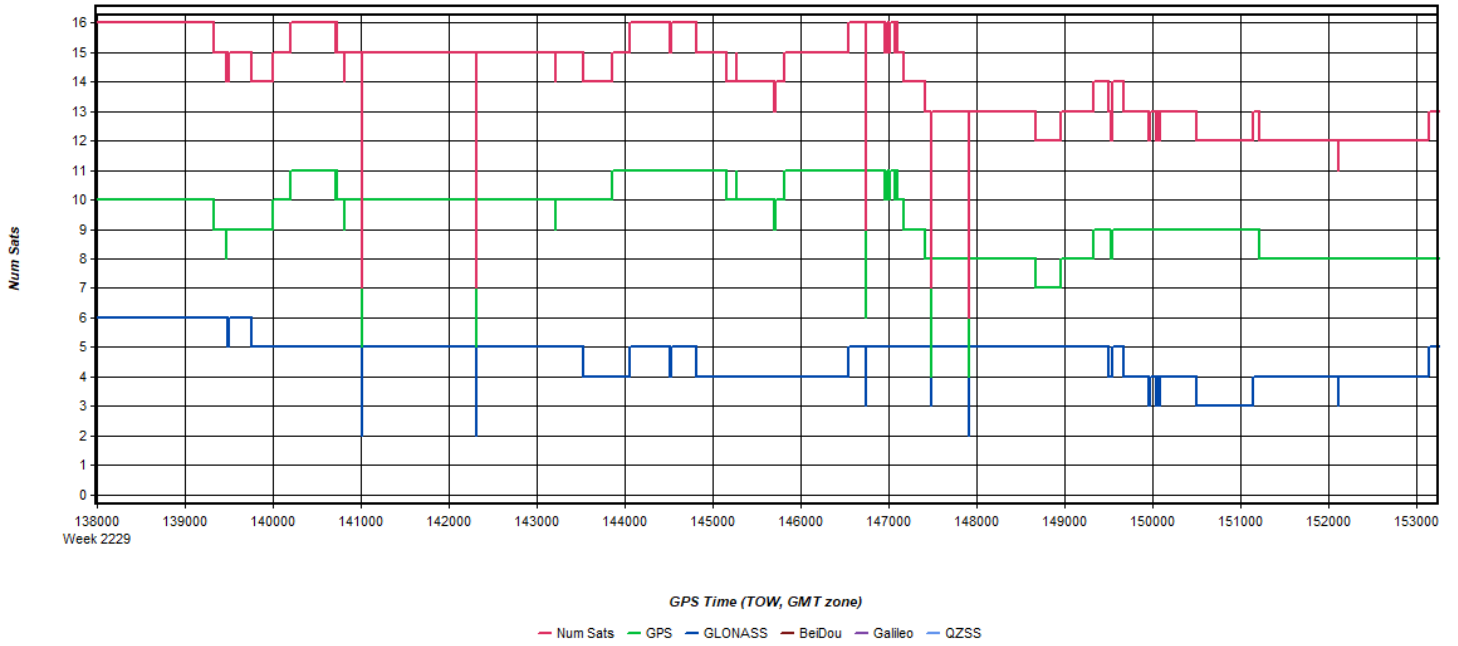
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 6: 20220926141842_18 [Smoothed TC Combined] - PDOP Plot



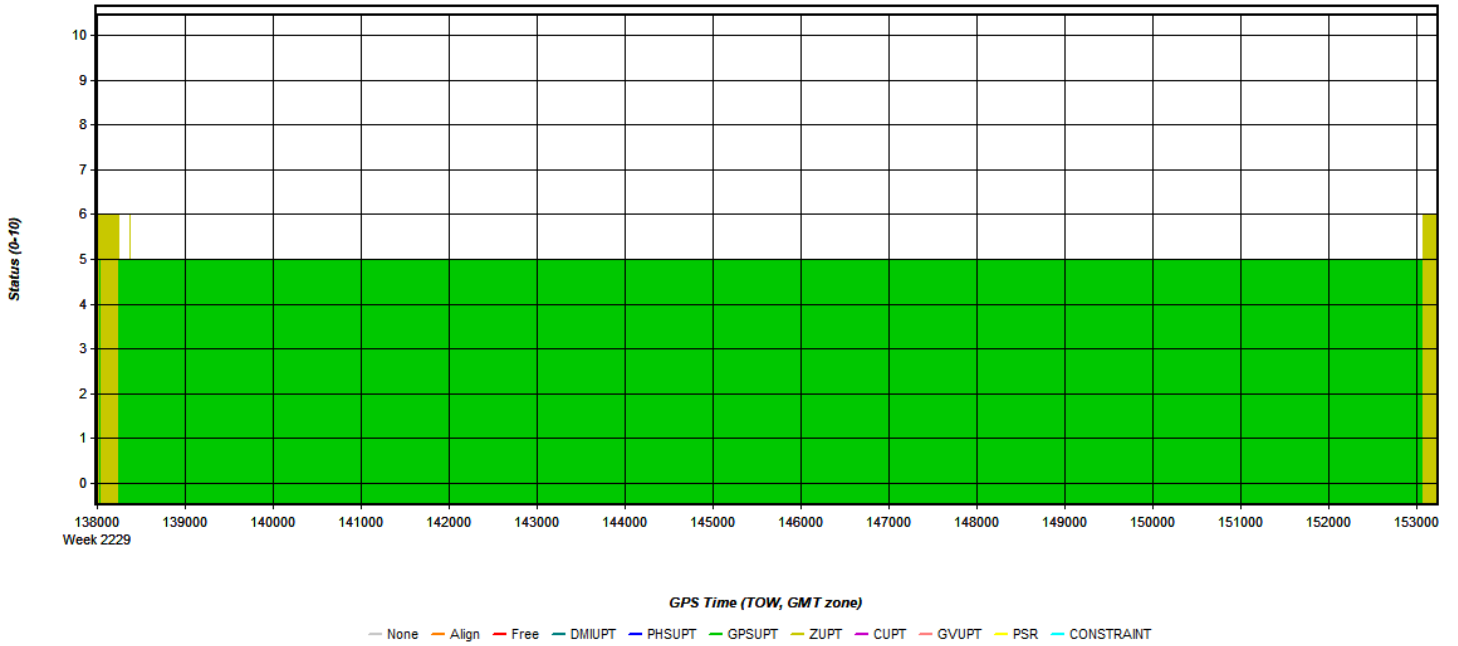
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 7: 20220926141842_18 [Smoothed TC Combined] - Number of Satellites Line Plot



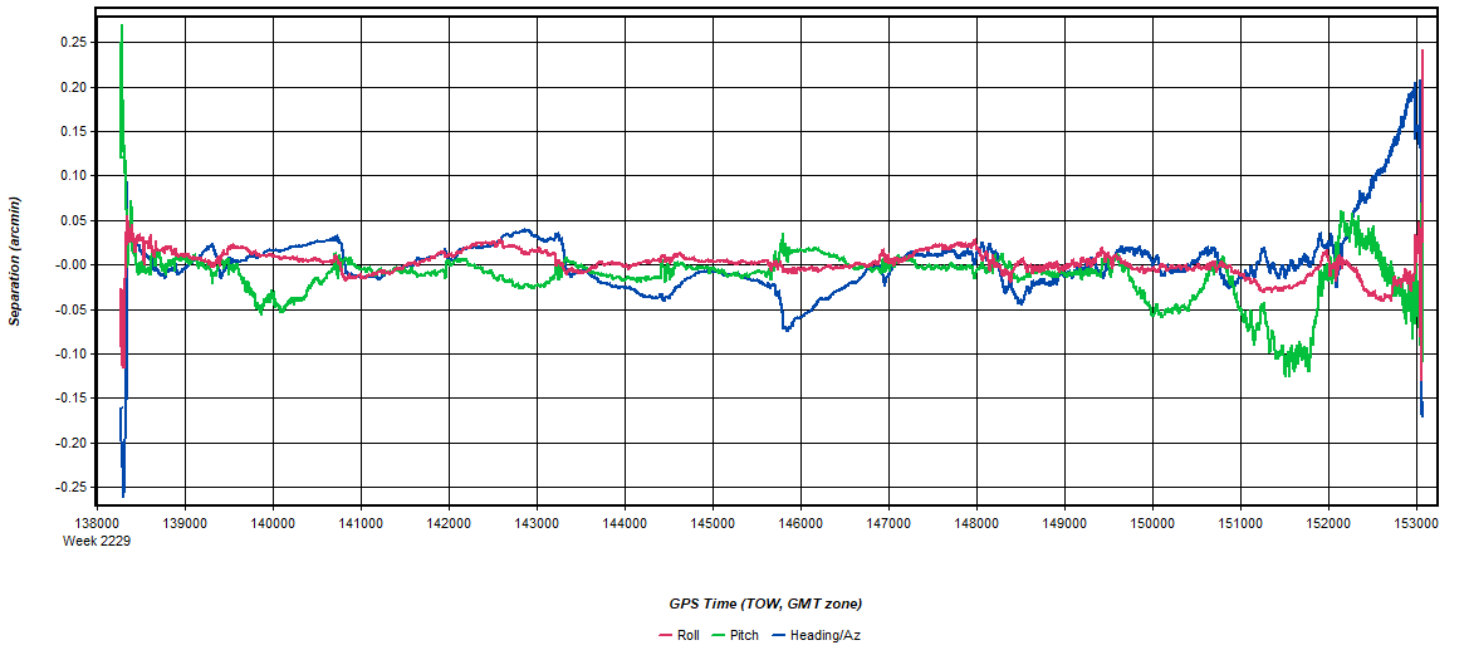
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 8: 20220926141842_18 [Smoothed TC Combined] - Status flag for IMU processing



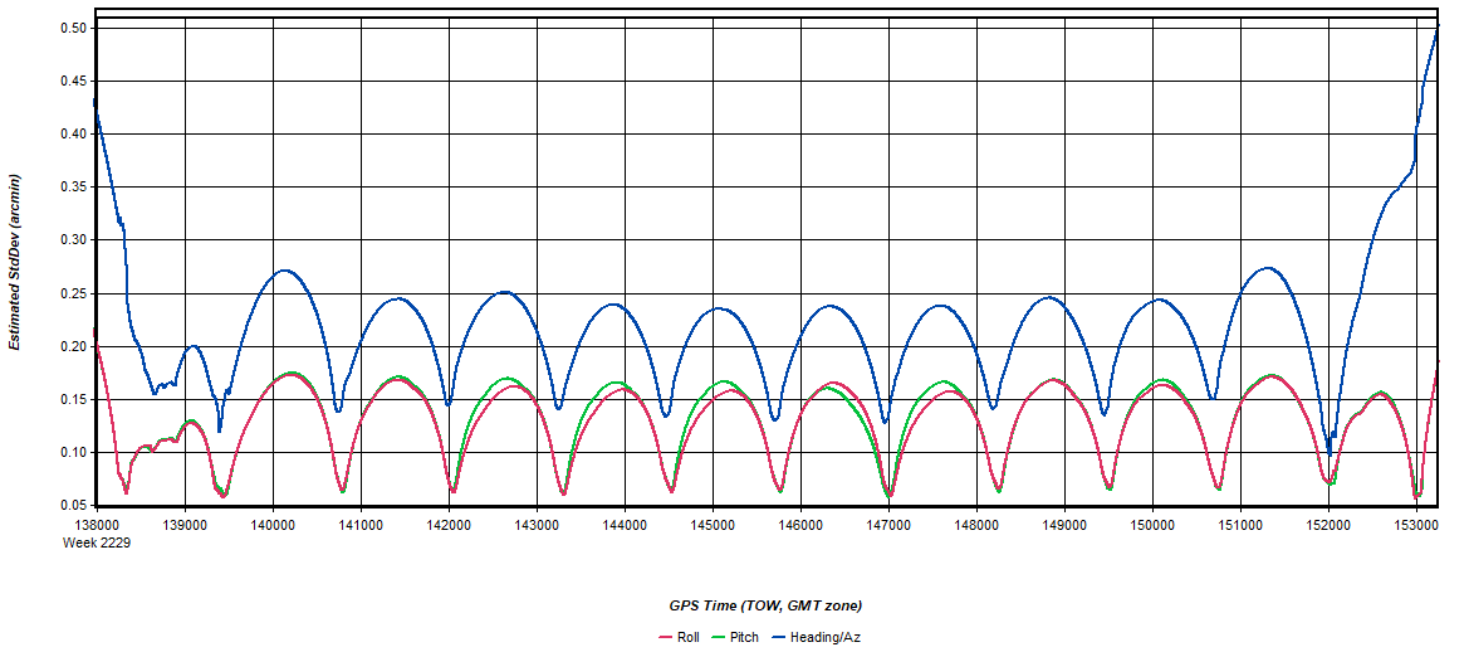
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 9: 20220926141842_18 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



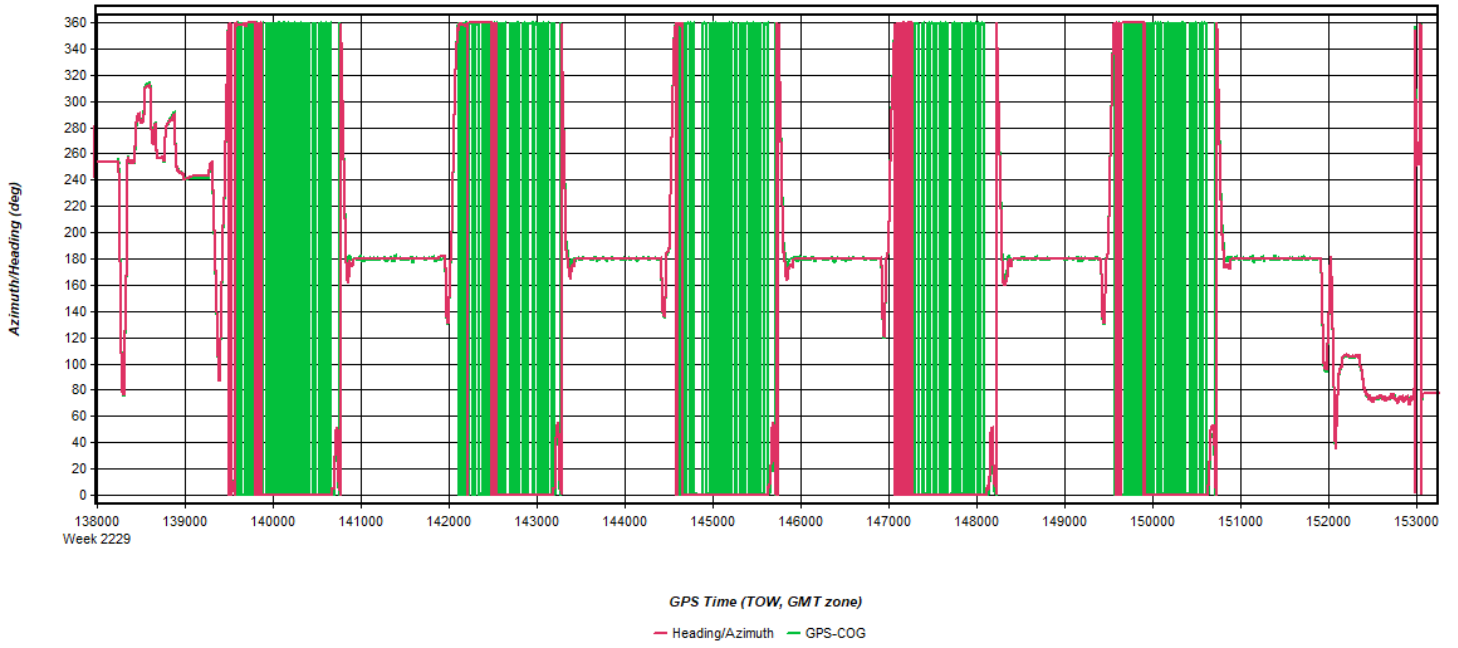
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 10: 20220926141842_18 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



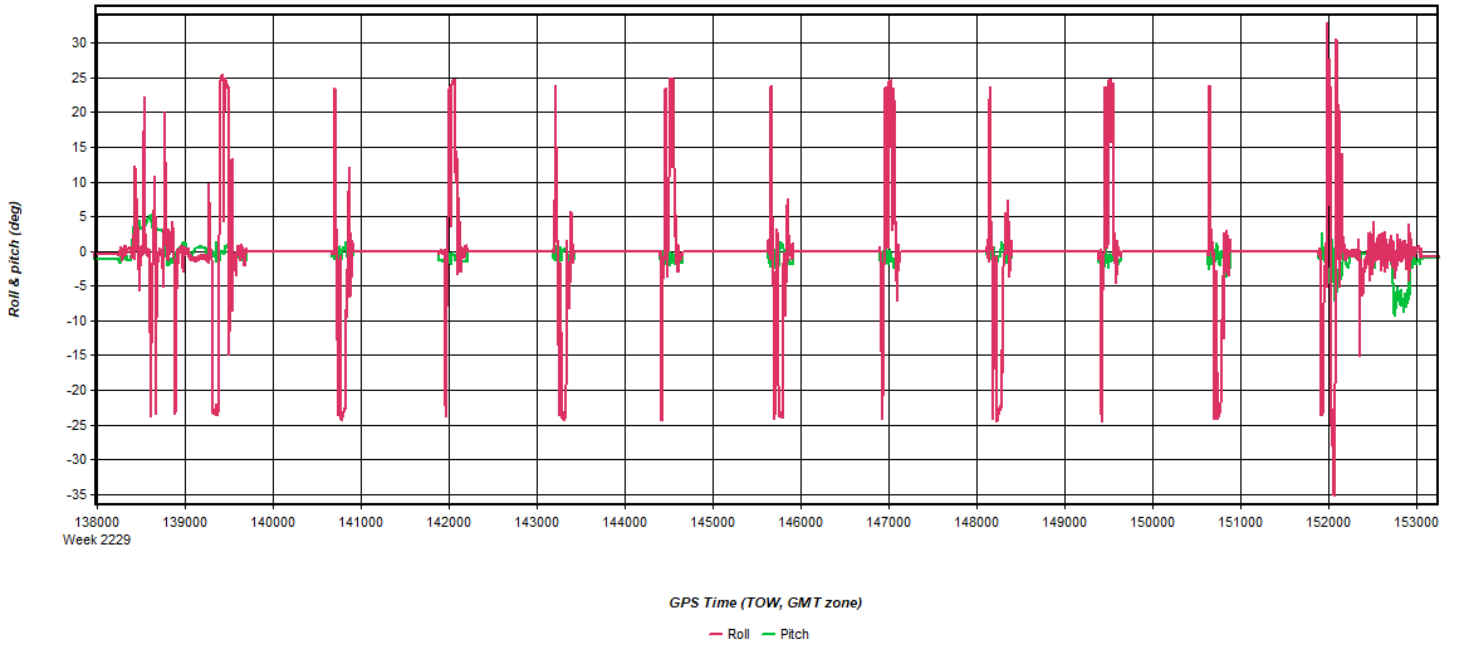
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 11: 20220926141842_18 [Smoothed TC Combined] - Azimuth Plot



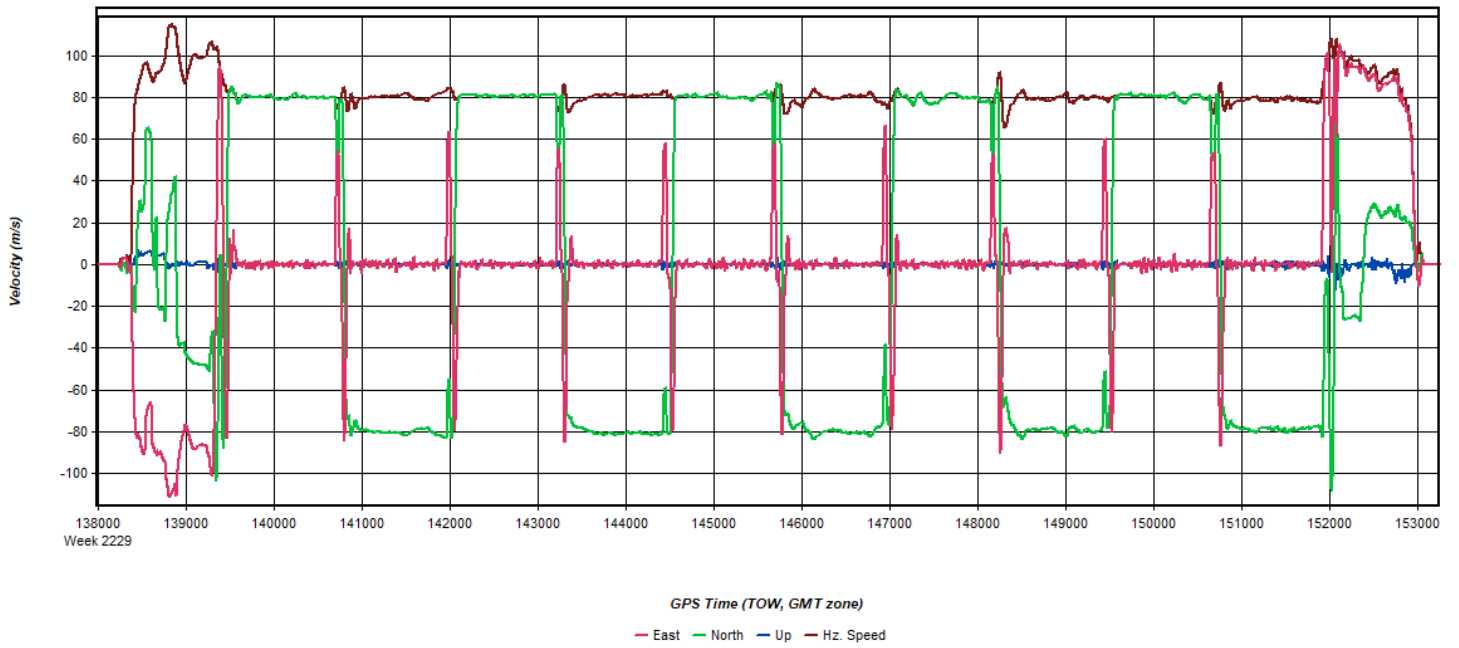
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 12: 20220926141842_18 [Smoothed TC Combined] - Roll & Pitch Plot



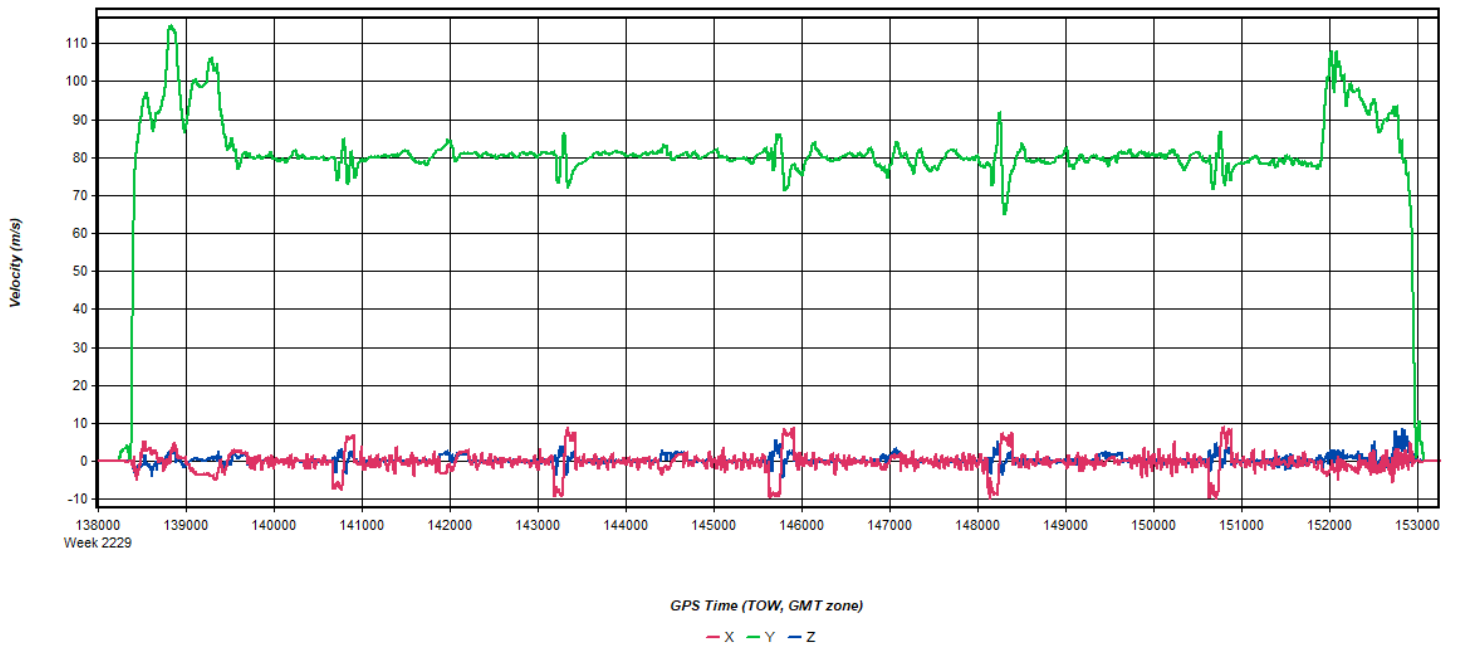
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 13: 20220926141842_18 [Smoothed TC Combined] - Velocity Profile Plot



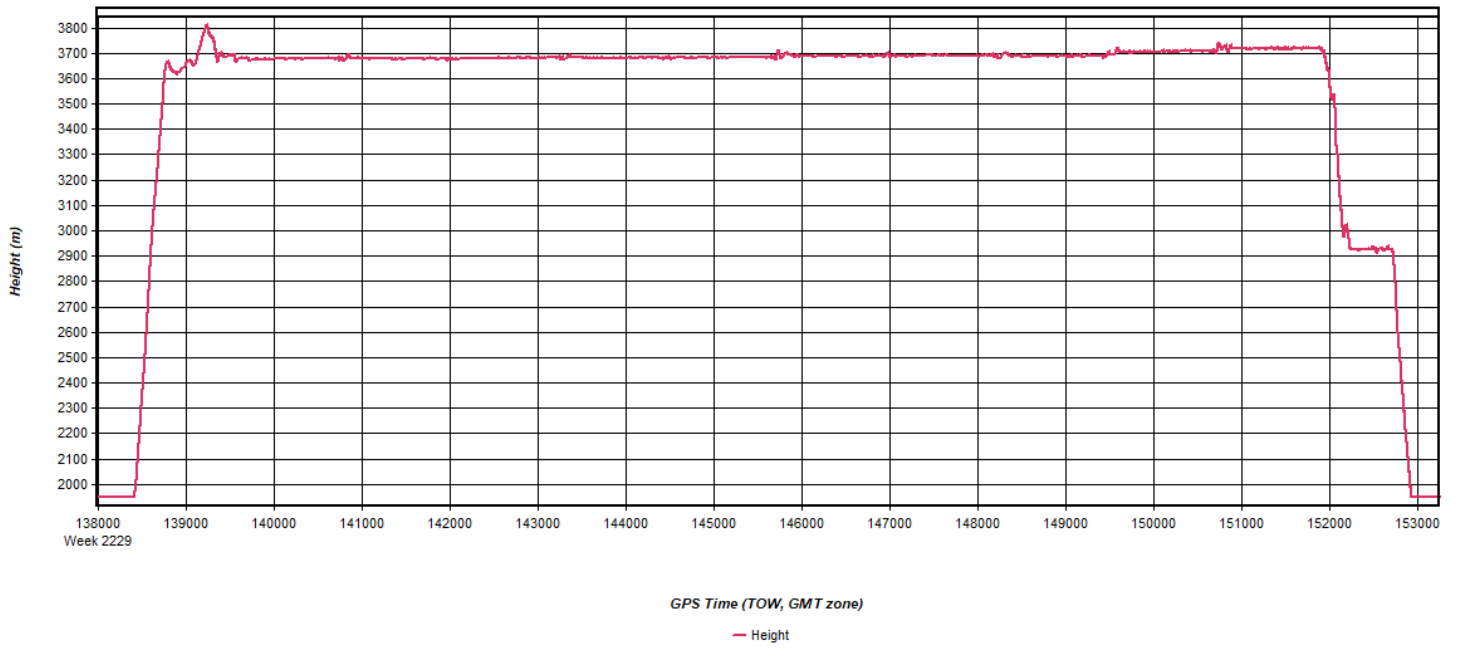
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 14: 20220926141842_18 [Smoothed TC Combined] - Body Frame Velocity Plot



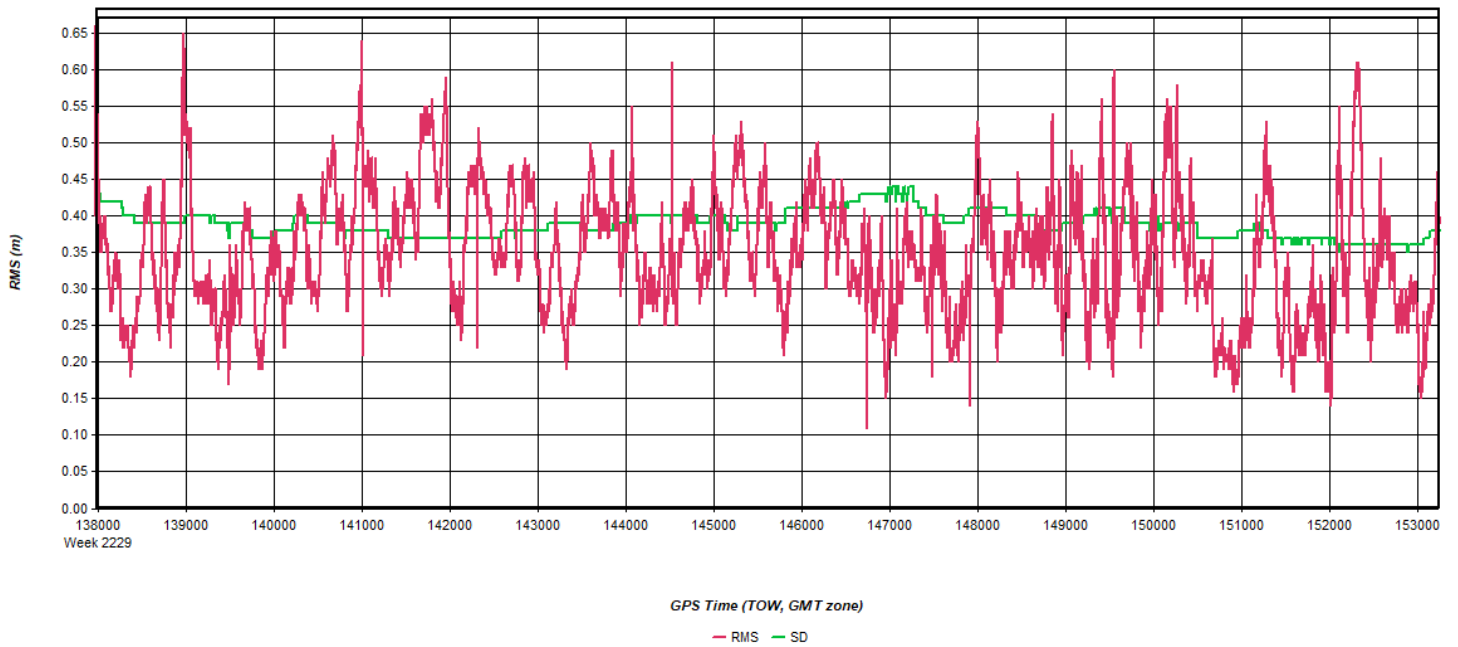
Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 15: 20220926141842_18 [Smoothed TC Combined] - Height Profile Plot



Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 16: 20220926141842_18 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 17: 20220926141842_18 [Smoothed TC Combined] - Carrier Residual RMS Plot

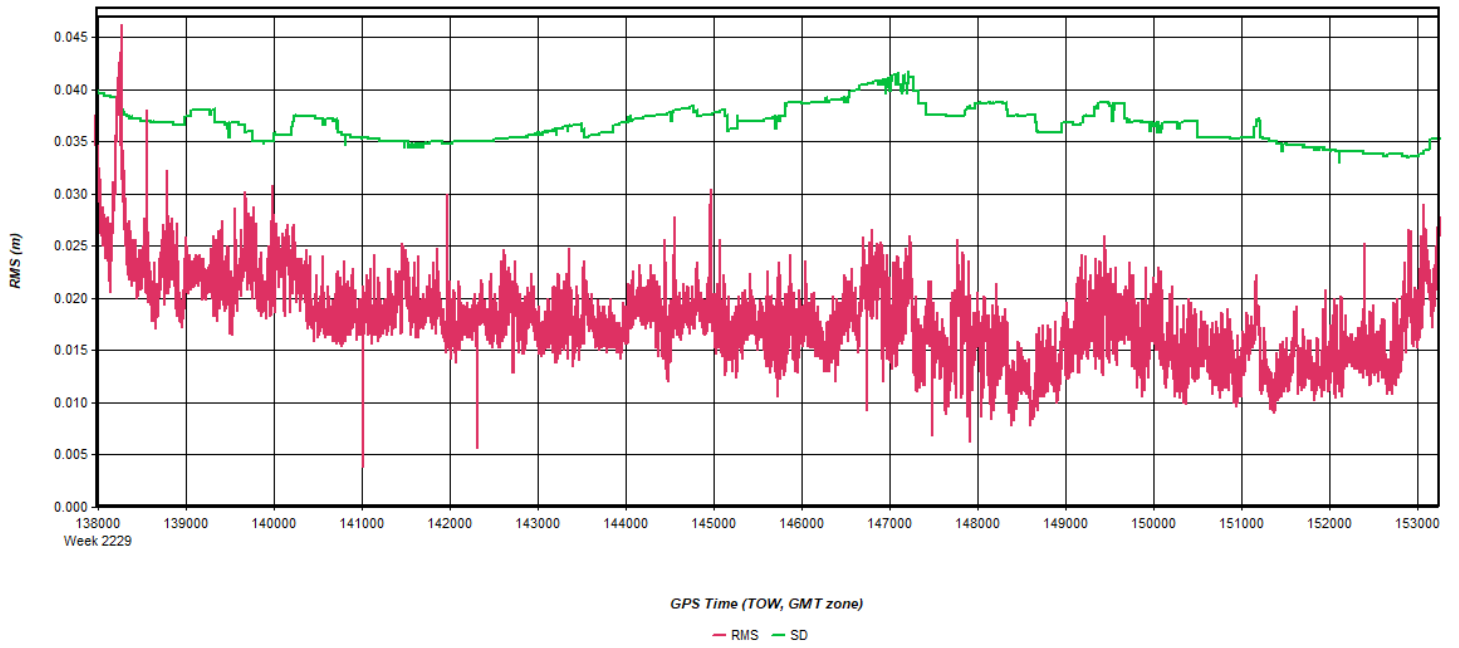


Figure 18: 20220926141842_18 [Smoothed TC Combined] - Doppler Residual RMS Plot

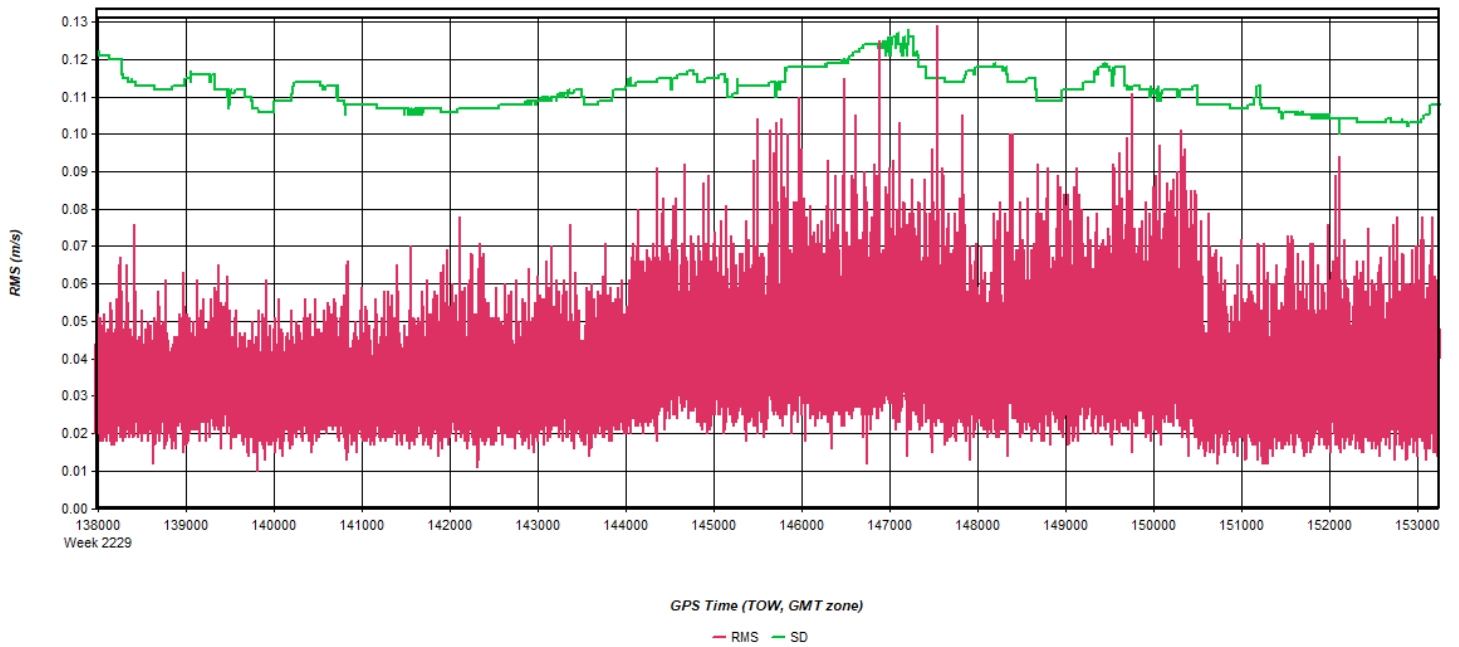
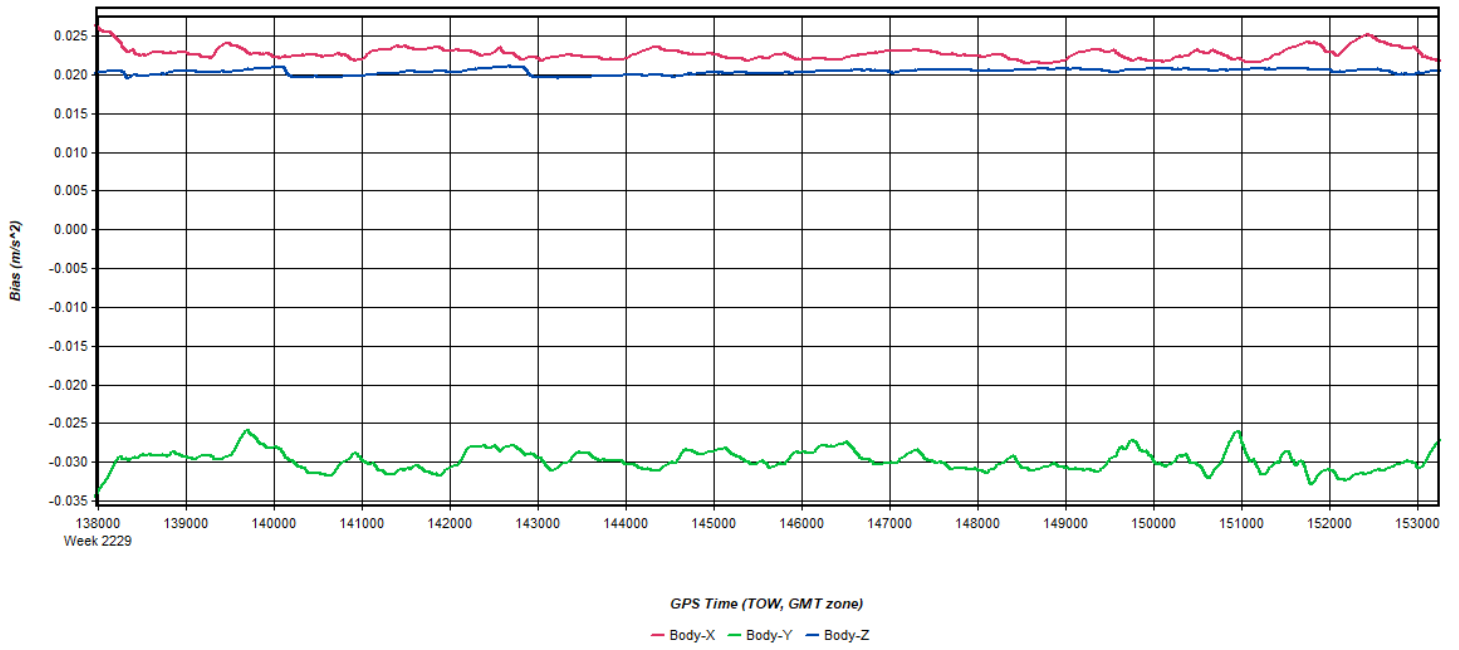
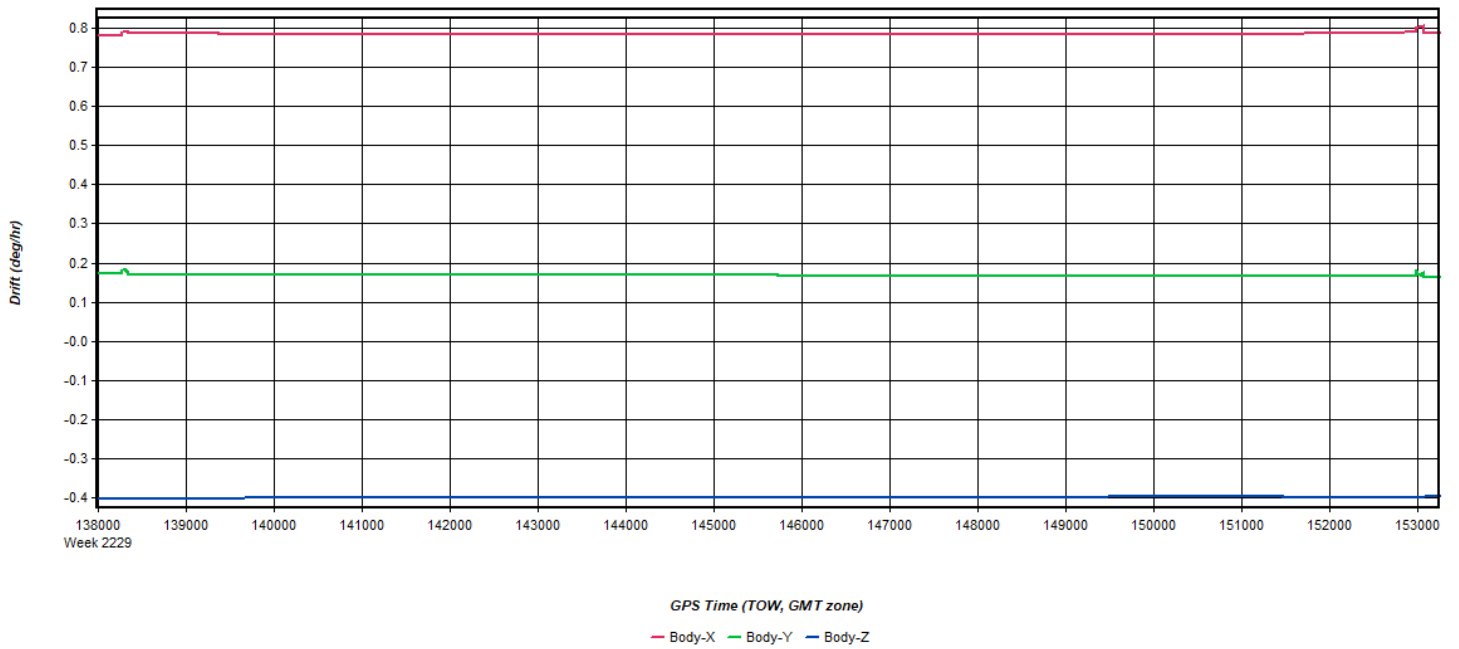


Figure 19: 20220926141842_18 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Figure 20: 20220926141842_18 [Smoothed TC Combined] - Gyro Drift Plot

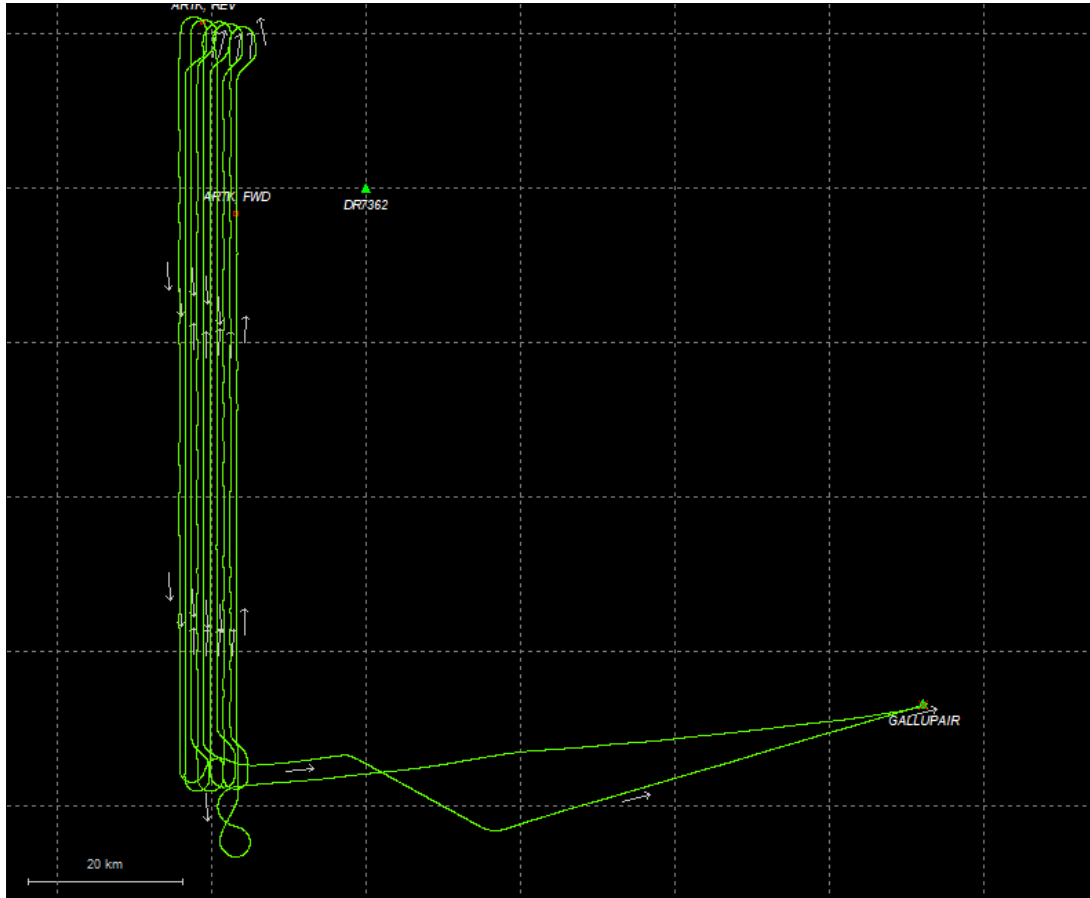


Process	20220926141842_18	by Unknown	on 10/4/2022	at 11:48:43
---------	-------------------	------------	--------------	-------------

Output Results for 20220927001329_19

Inertial Explorer Version 8.90.2124
10/31/2022

Figure 1: Smoothed TC Combined - Map



Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 2: 20220927001329_19 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot

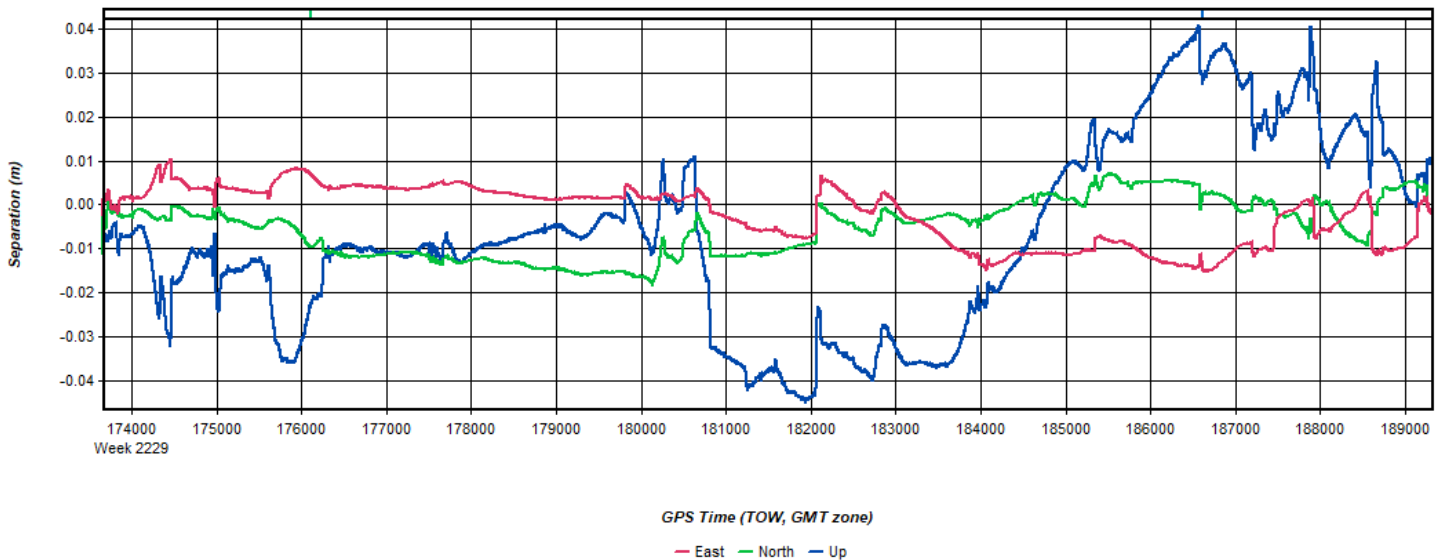


Figure 3: 20220927001329_19 [Smoothed TC Combined] - Float or Fixed Ambiguity

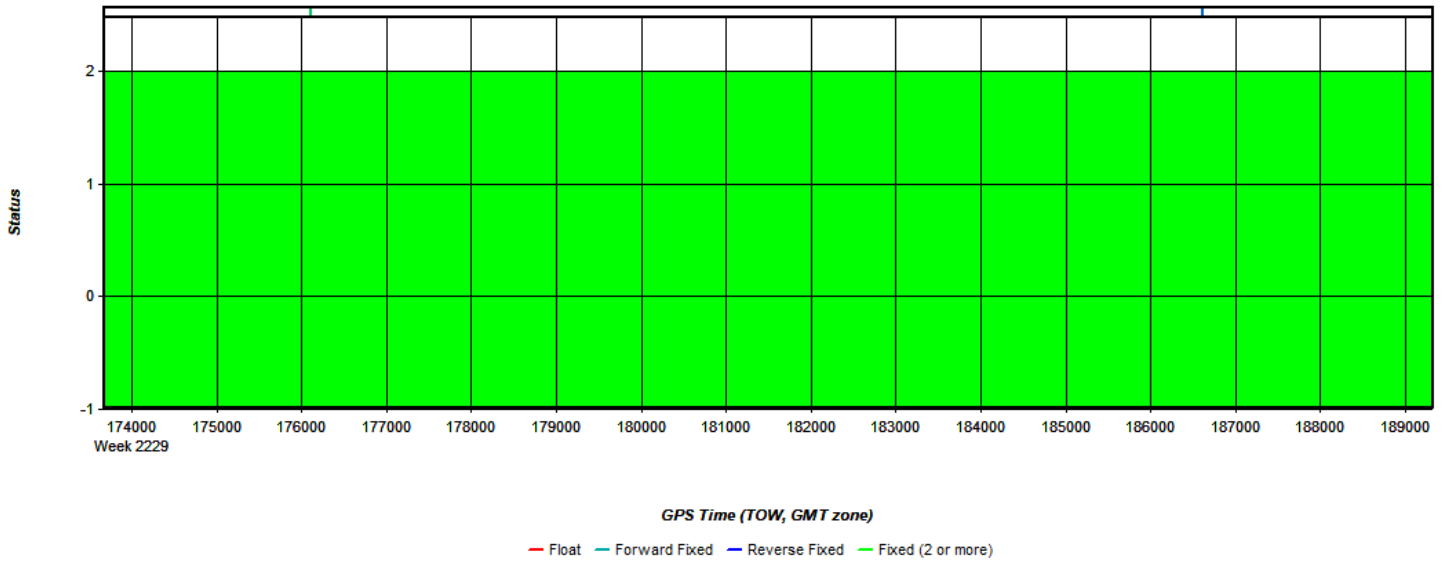


Figure 4: 20220927001329_19 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

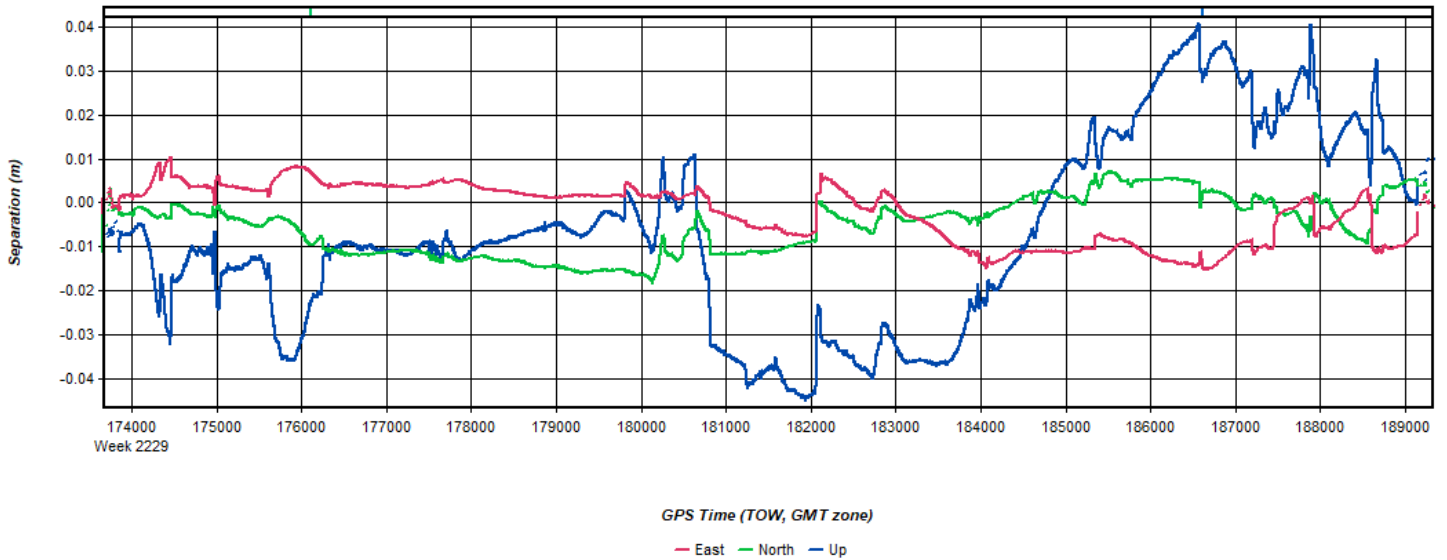
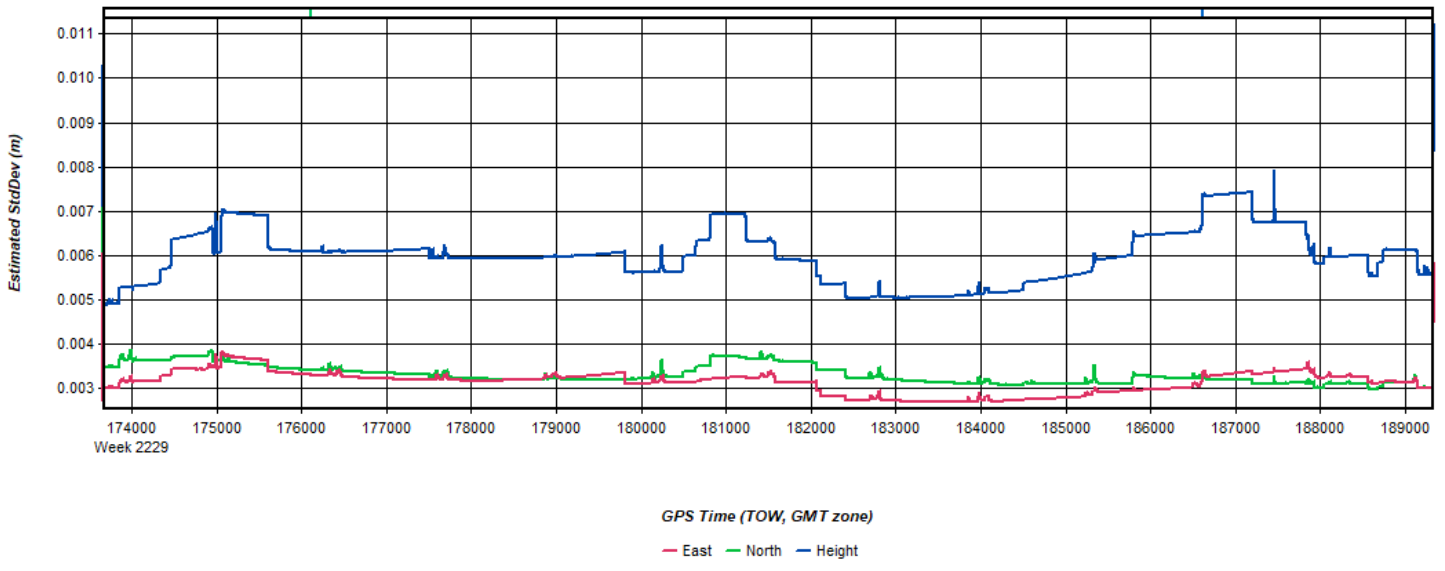
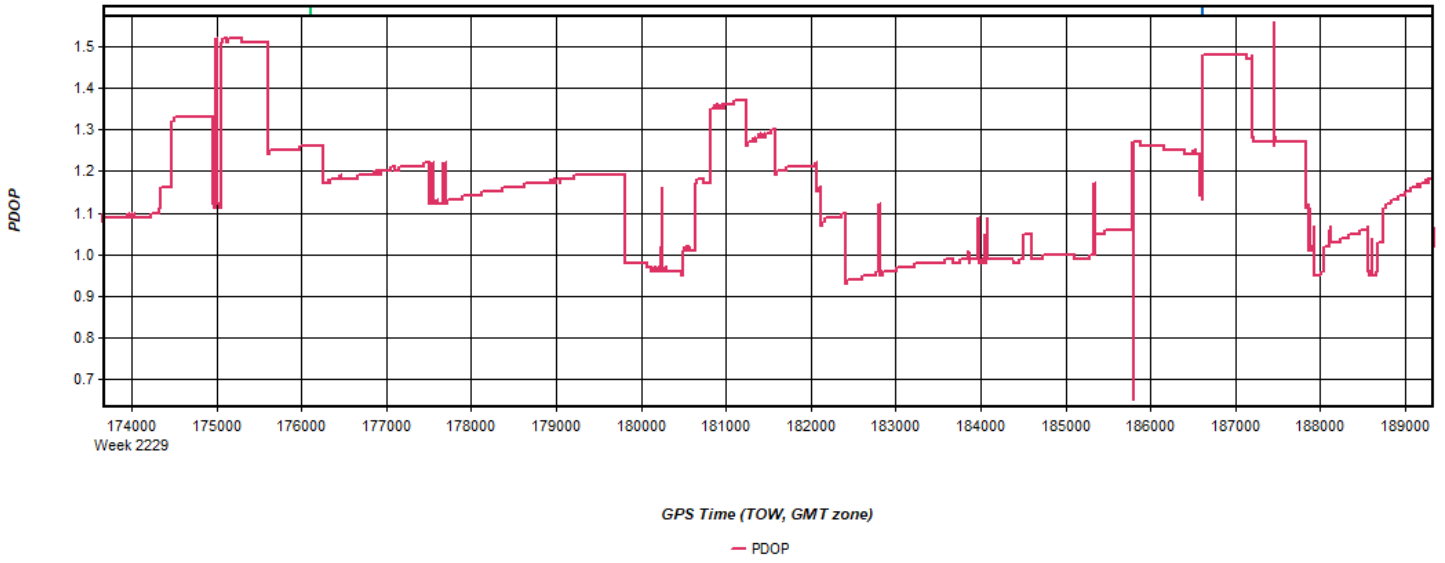


Figure 5: 20220927001329_19 [Smoothed TC Combined] - Estimated Position Accuracy Plot



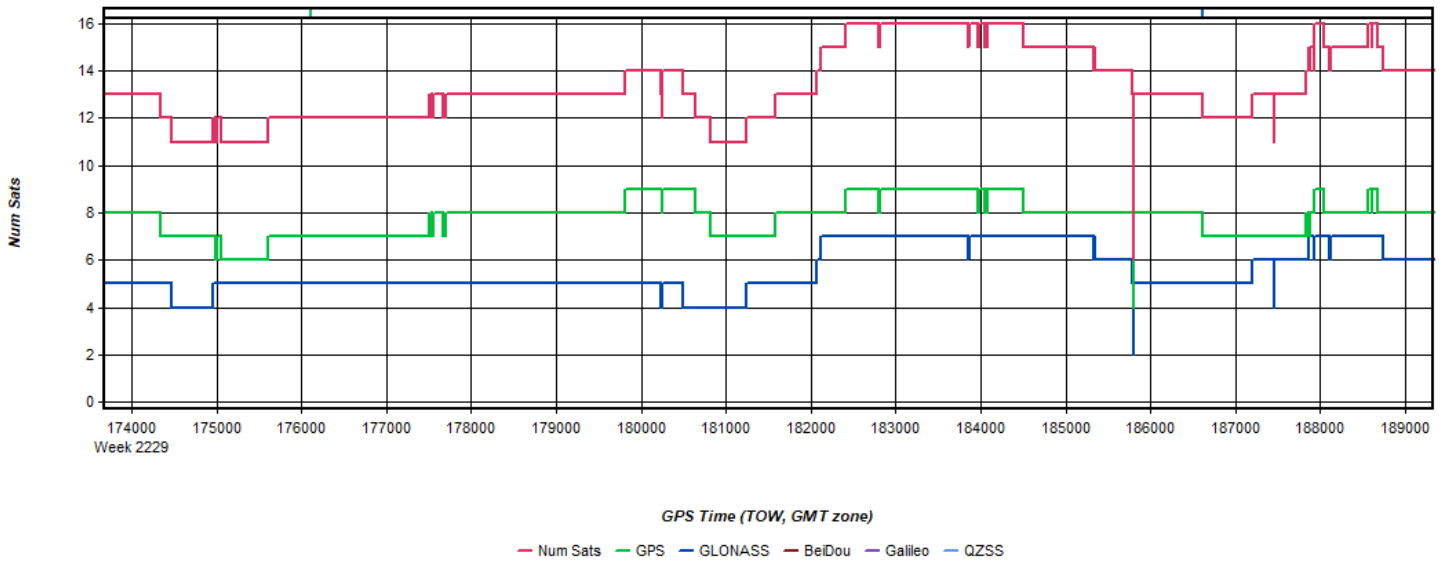
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 6: 20220927001329_19 [Smoothed TC Combined] - PDOP Plot



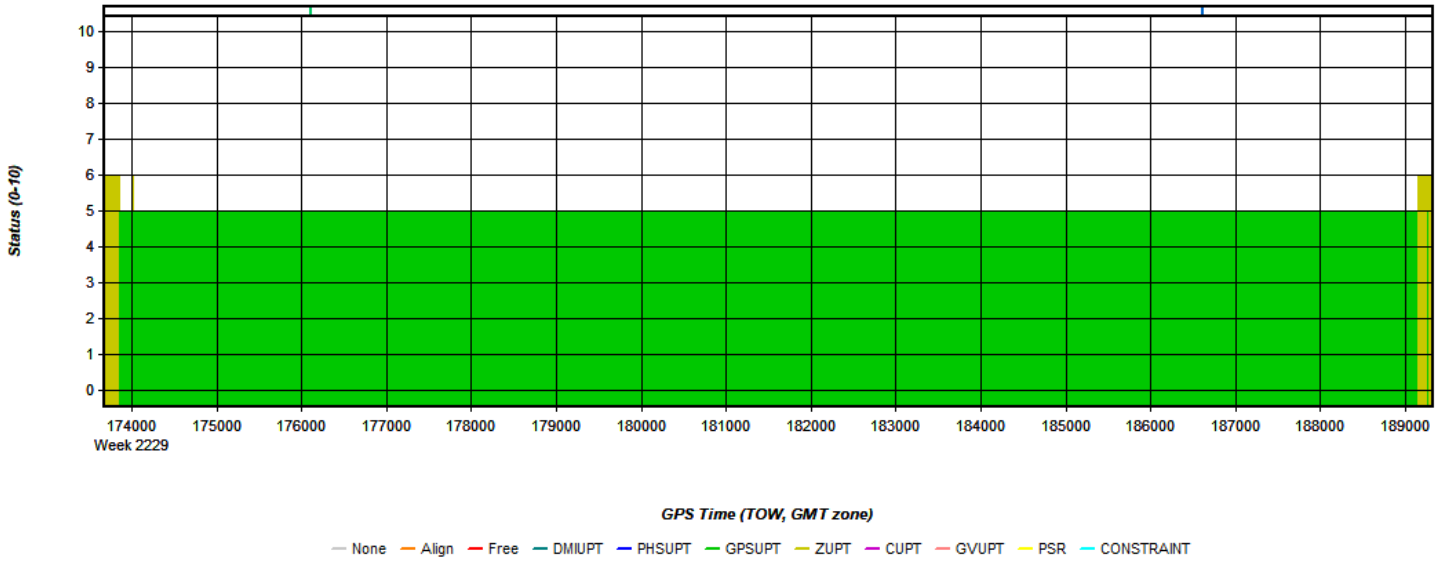
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 7: 20220927001329_19 [Smoothed TC Combined] - Number of Satellites Line Plot



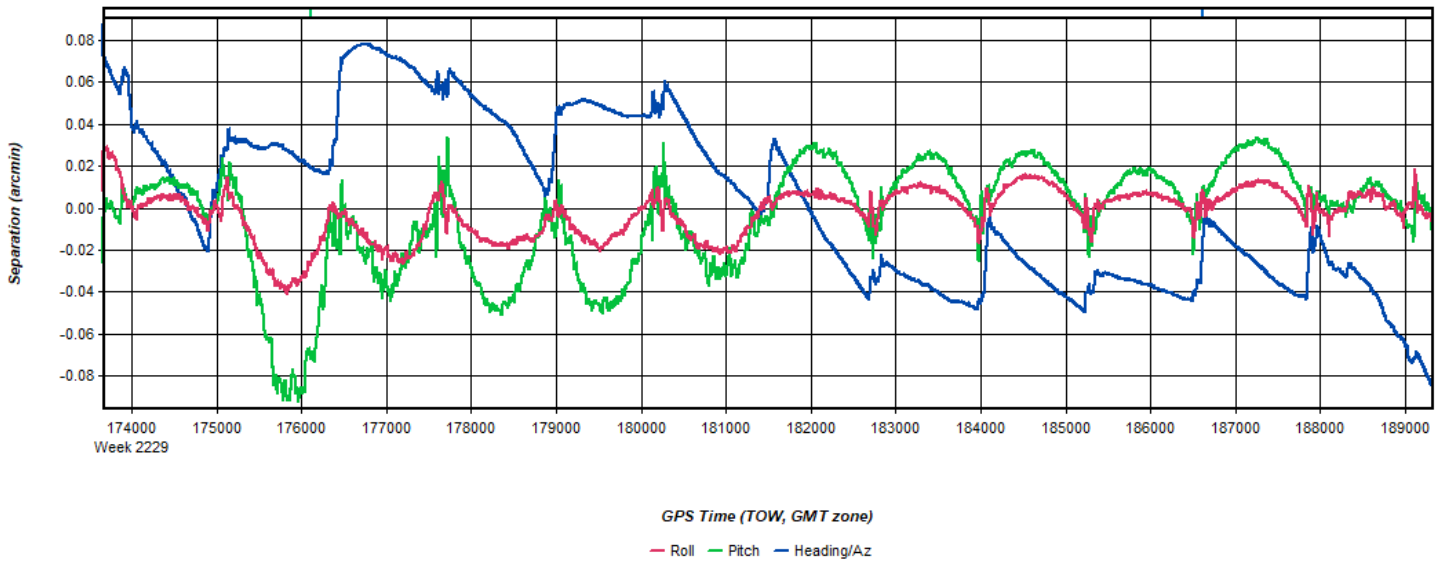
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 8: 20220927001329_19 [Smoothed TC Combined] - Status flag for IMU processing



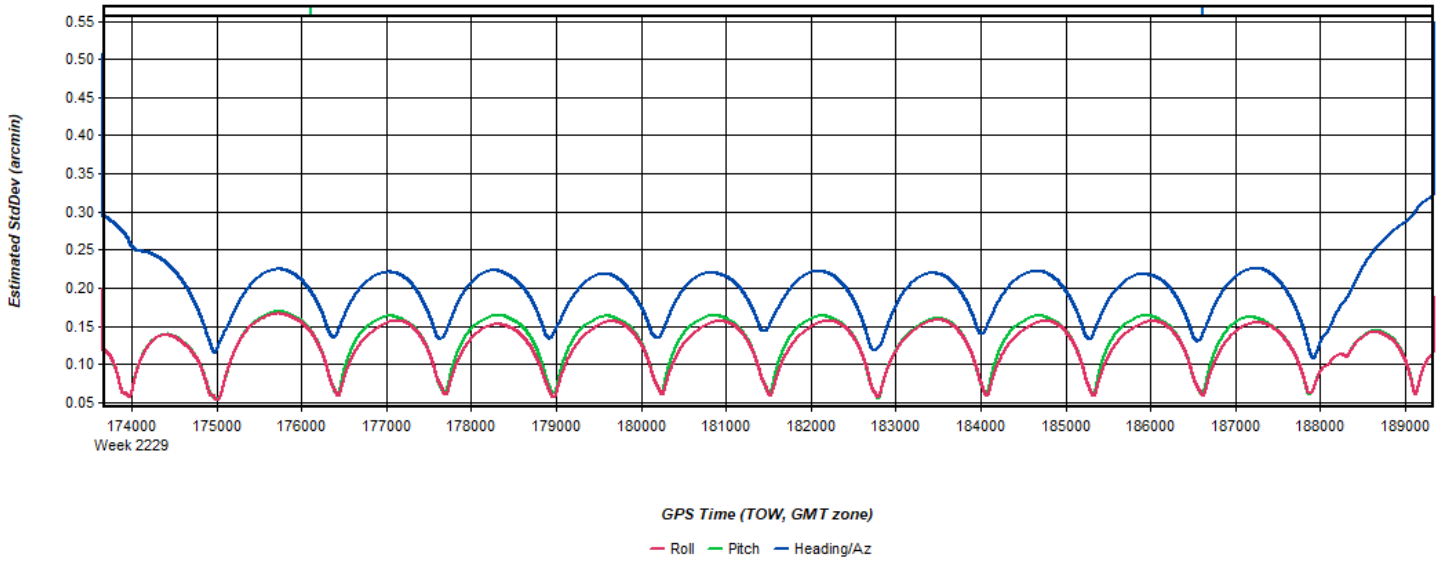
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 9: 20220927001329_19 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



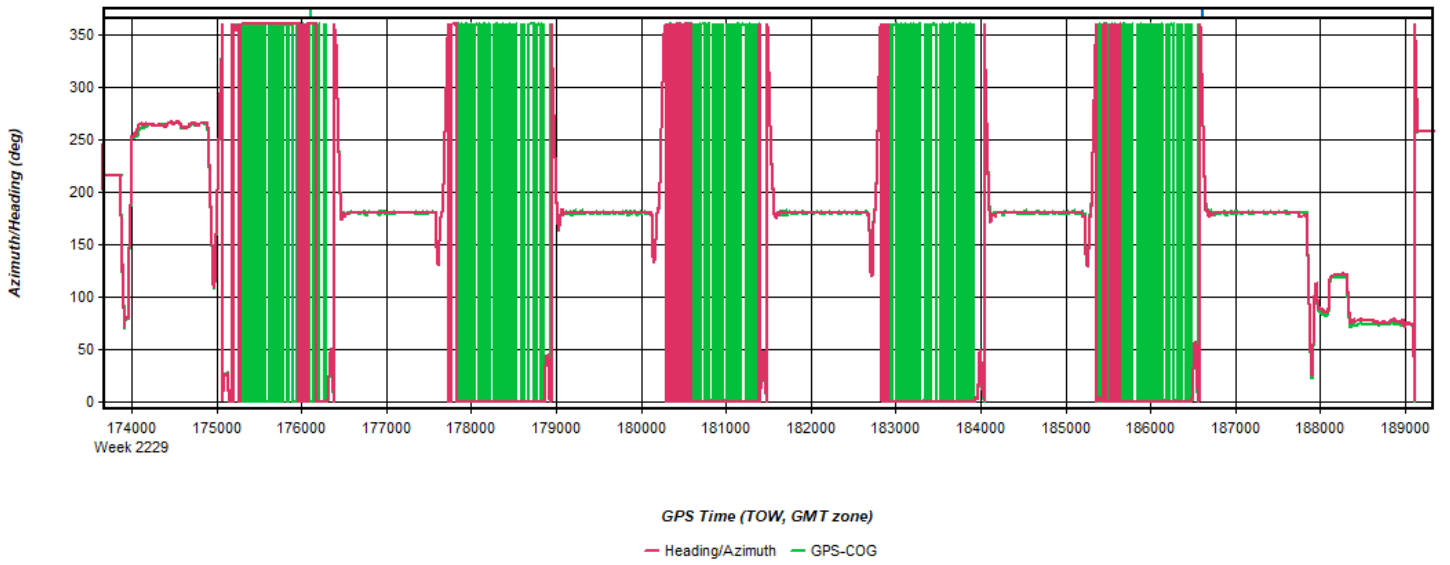
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 10: 20220927001329_19 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



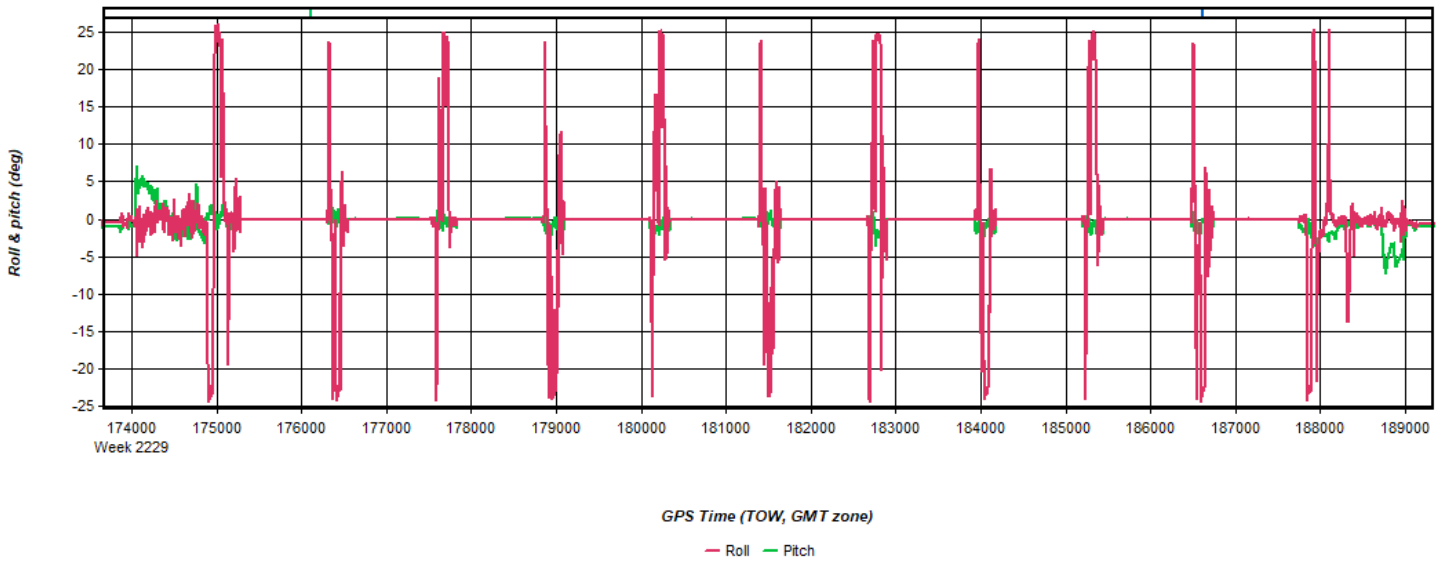
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 11: 20220927001329_19 [Smoothed TC Combined] - Azimuth Plot



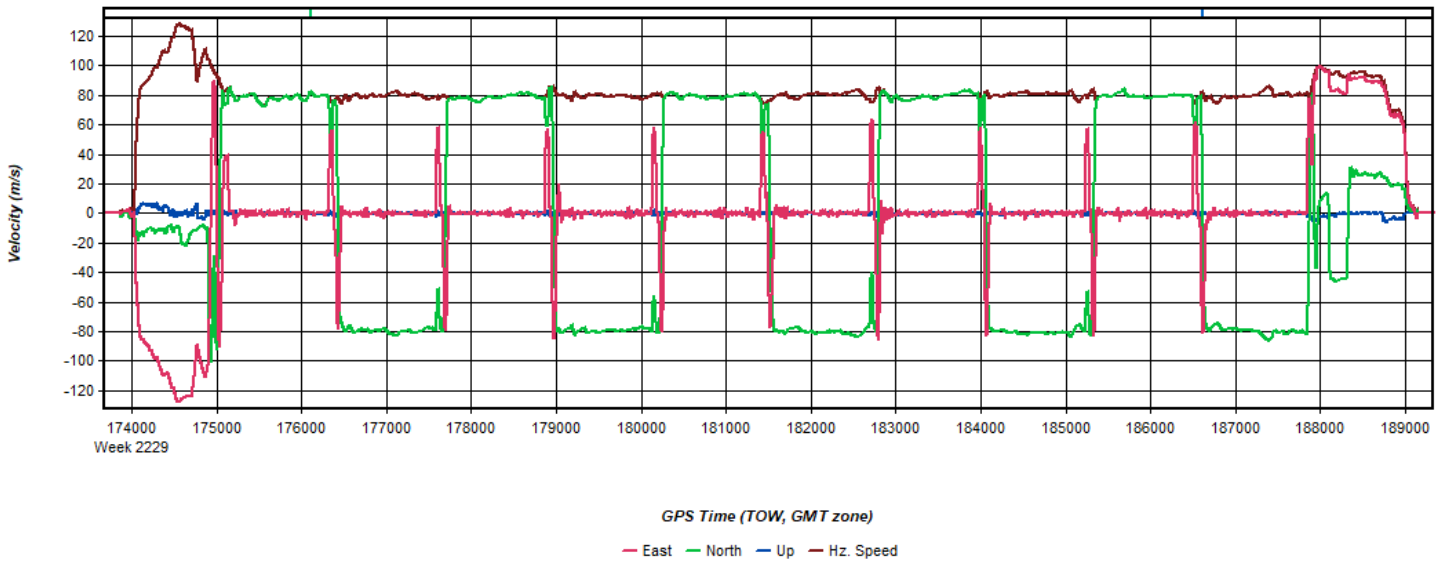
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 12: 20220927001329_19 [Smoothed TC Combined] - Roll & Pitch Plot



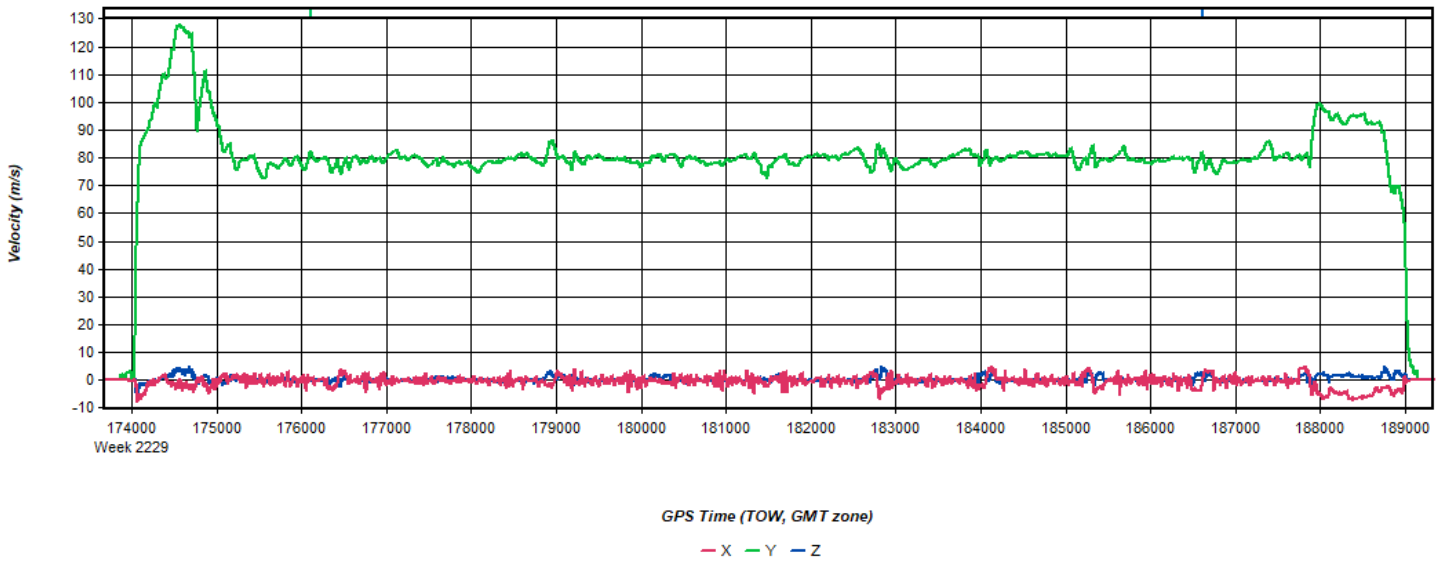
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 13: 20220927001329_19 [Smoothed TC Combined] - Velocity Profile Plot



Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 14: 20220927001329_19 [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 15: 20220927001329_19 [Smoothed TC Combined] - Height Profile Plot

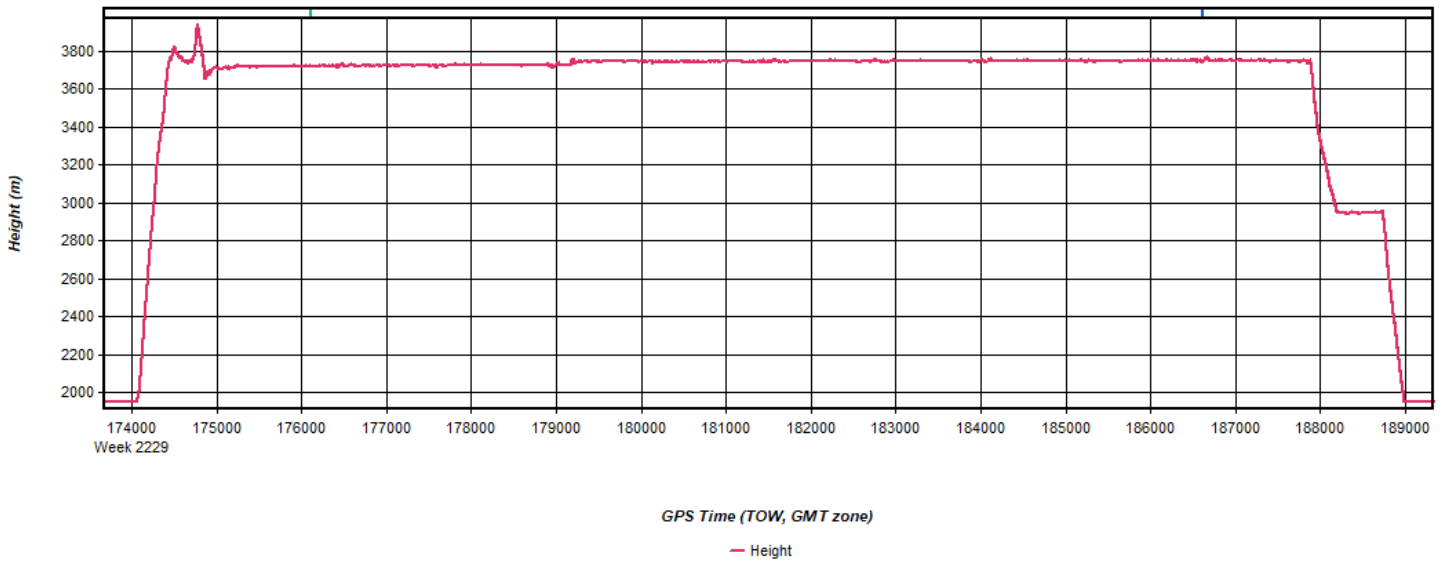


Figure 16: 20220927001329_19 [Smoothed TC Combined] - C/A Code Residual RMS Plot

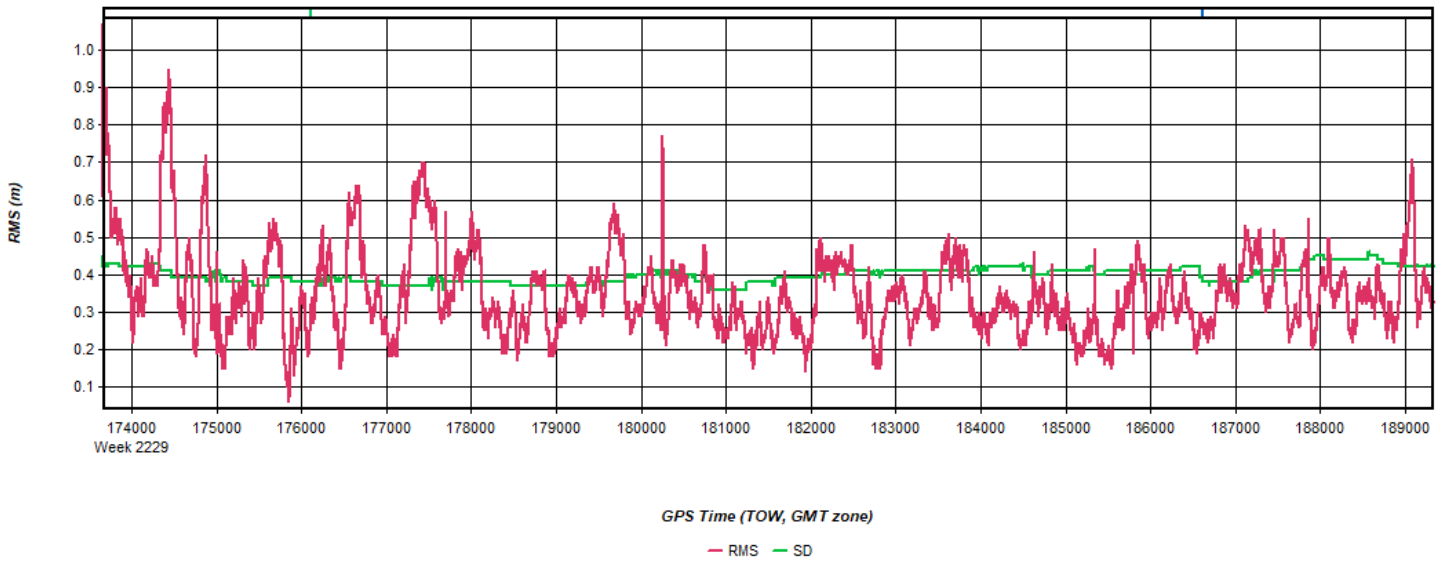
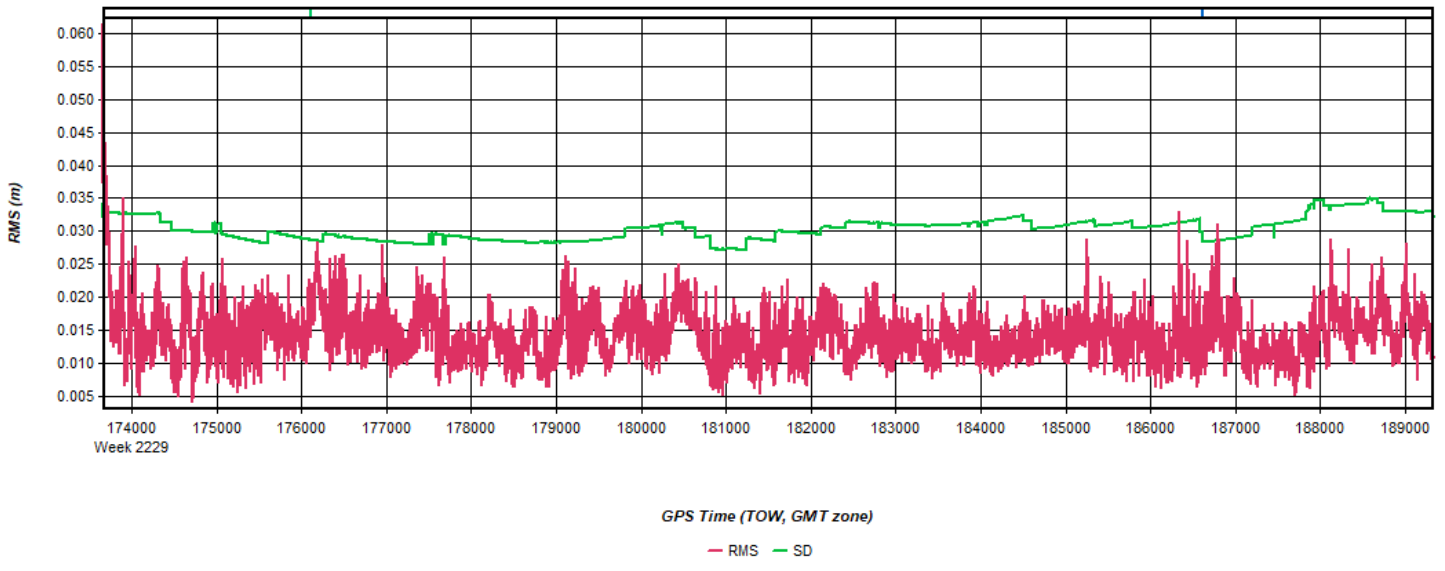
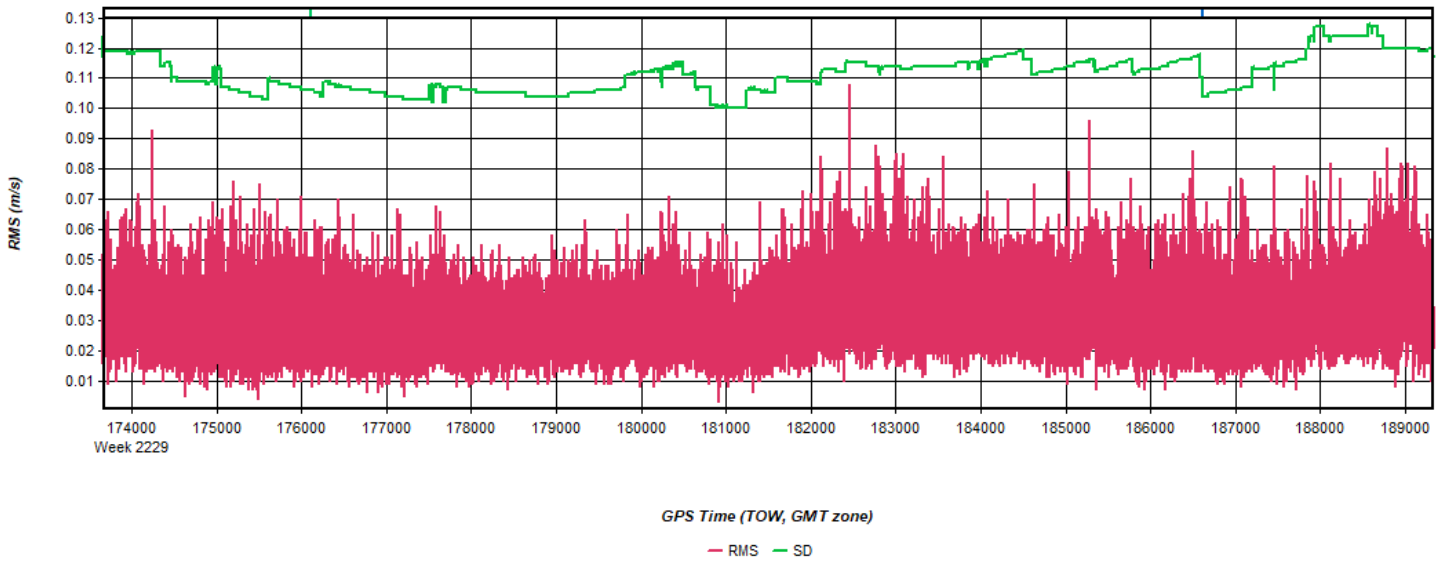


Figure 17: 20220927001329_19 [Smoothed TC Combined] - Carrier Residual RMS Plot



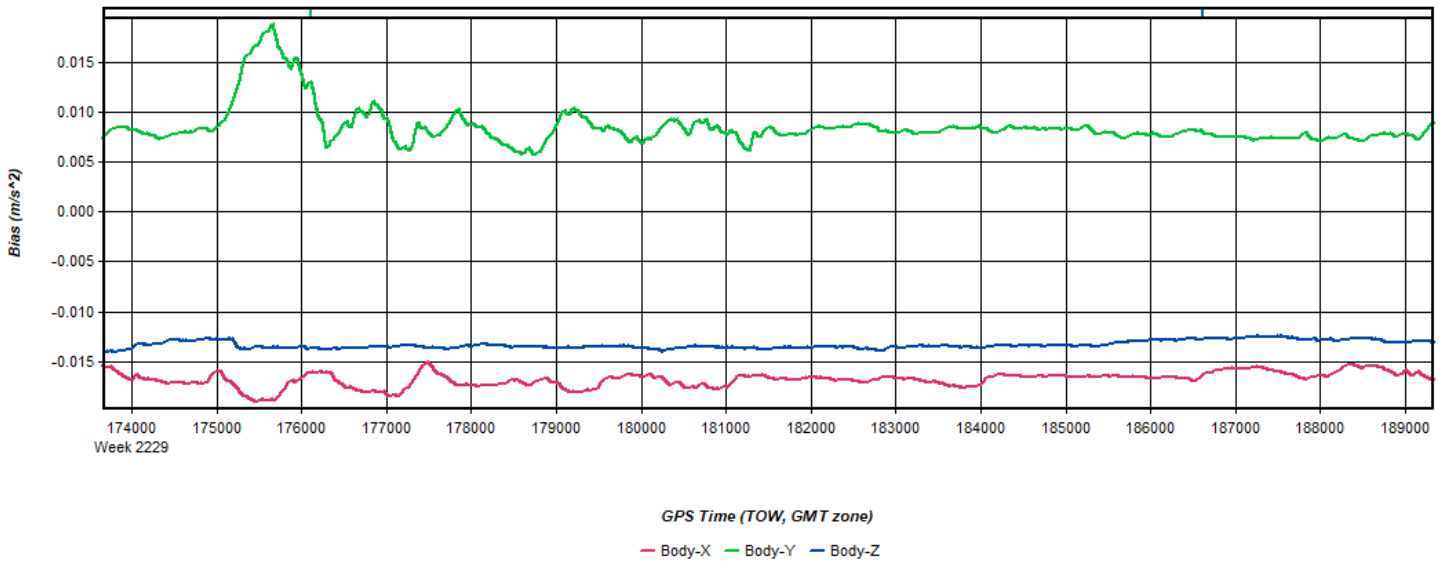
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 18: 20220927001329_19 [Smoothed TC Combined] - Doppler Residual RMS Plot



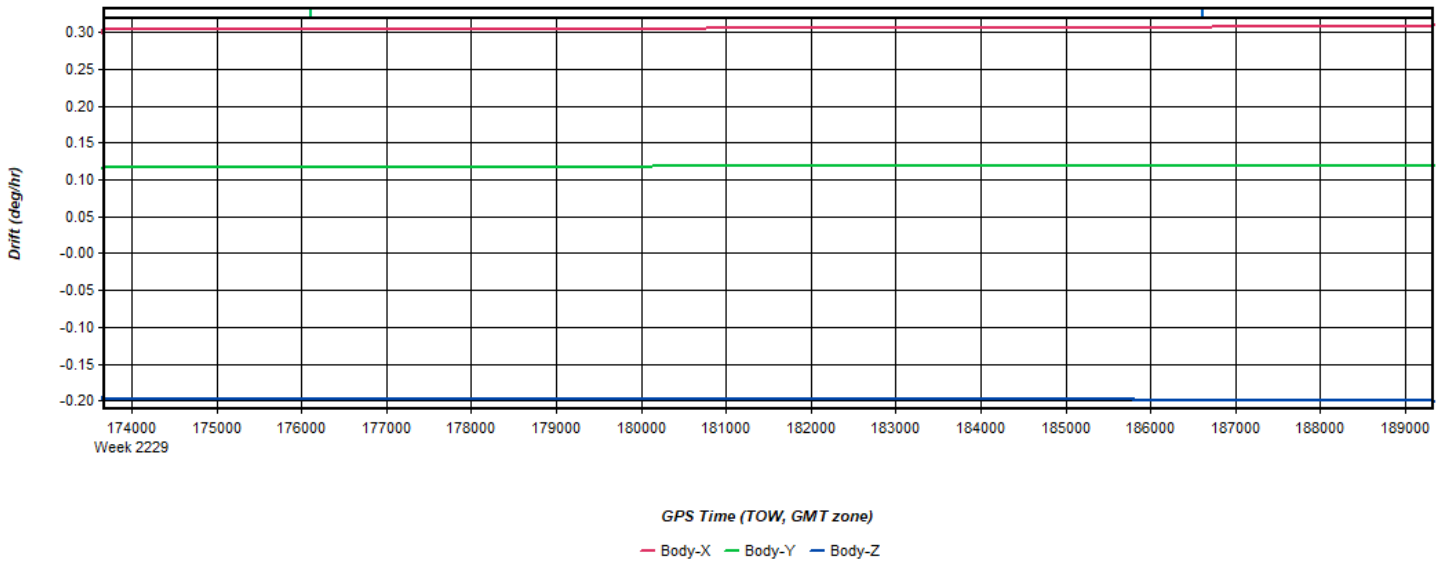
Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 19: 20220927001329_19 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Figure 20: 20220927001329_19 [Smoothed TC Combined] - Gyro Drift Plot



Process	20220927001329_19	by Unknown	on 10/31/2022	at 13:21:22
---------	-------------------	------------	---------------	-------------

Output Results for 20220927143141_20

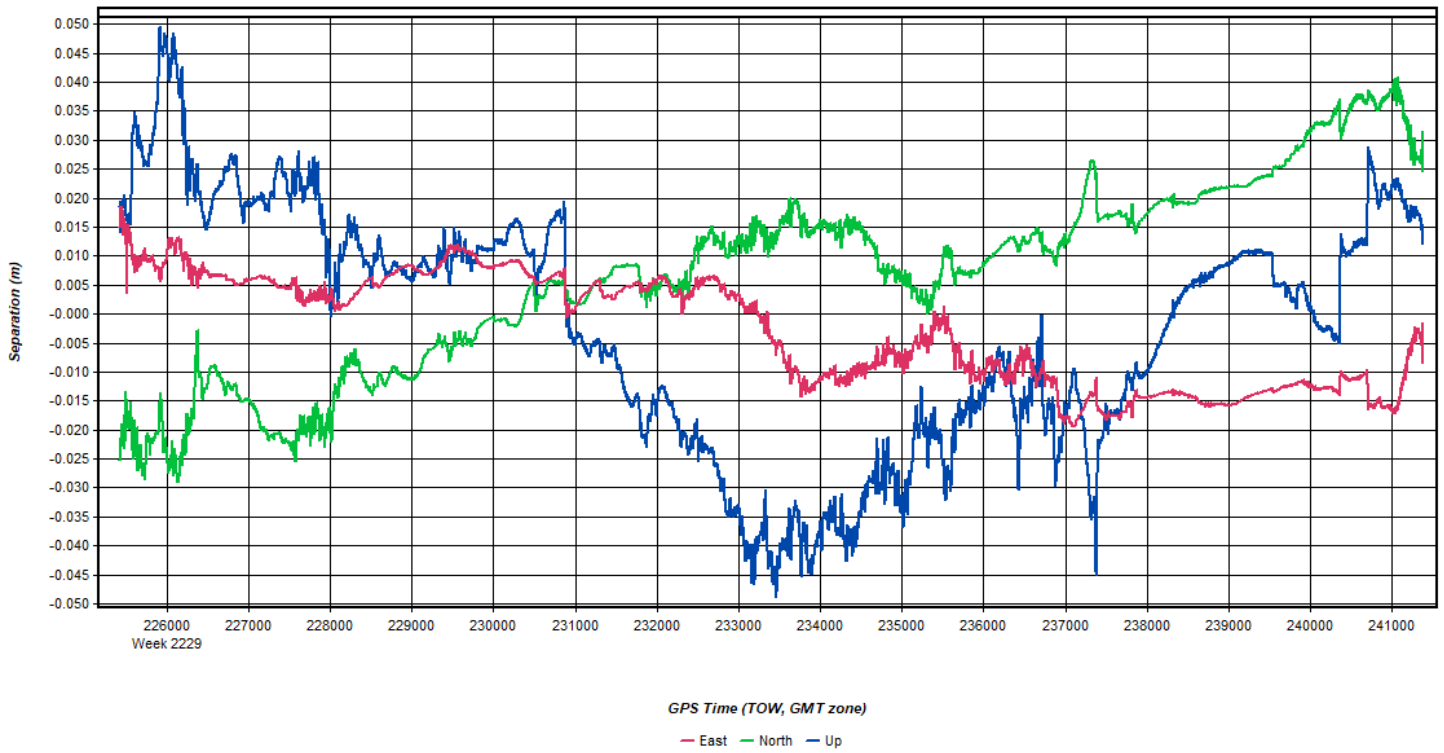
Inertial Explorer Version 8.90.2124
10/04/2022

Figure 1: Smoothed TC Combined - Map



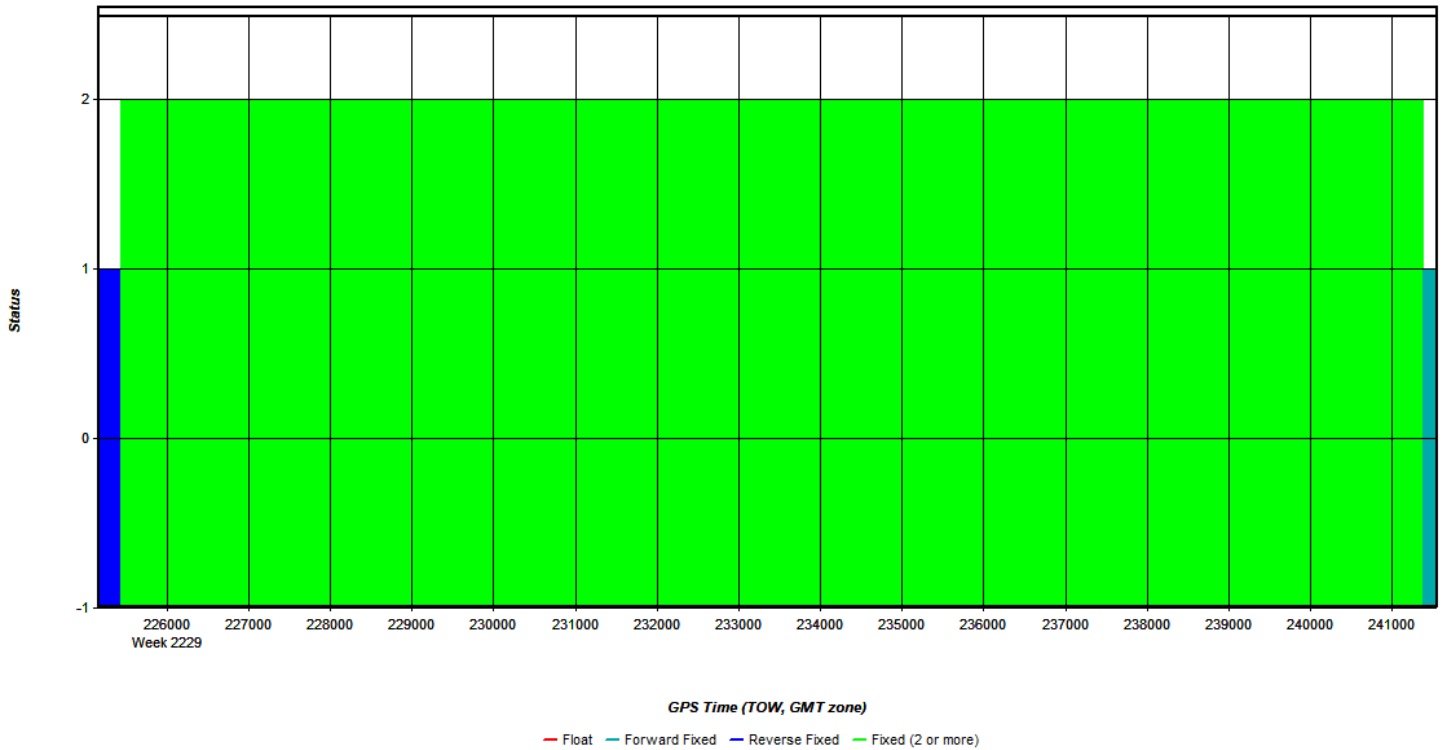
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 2: 20220927143141_20 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



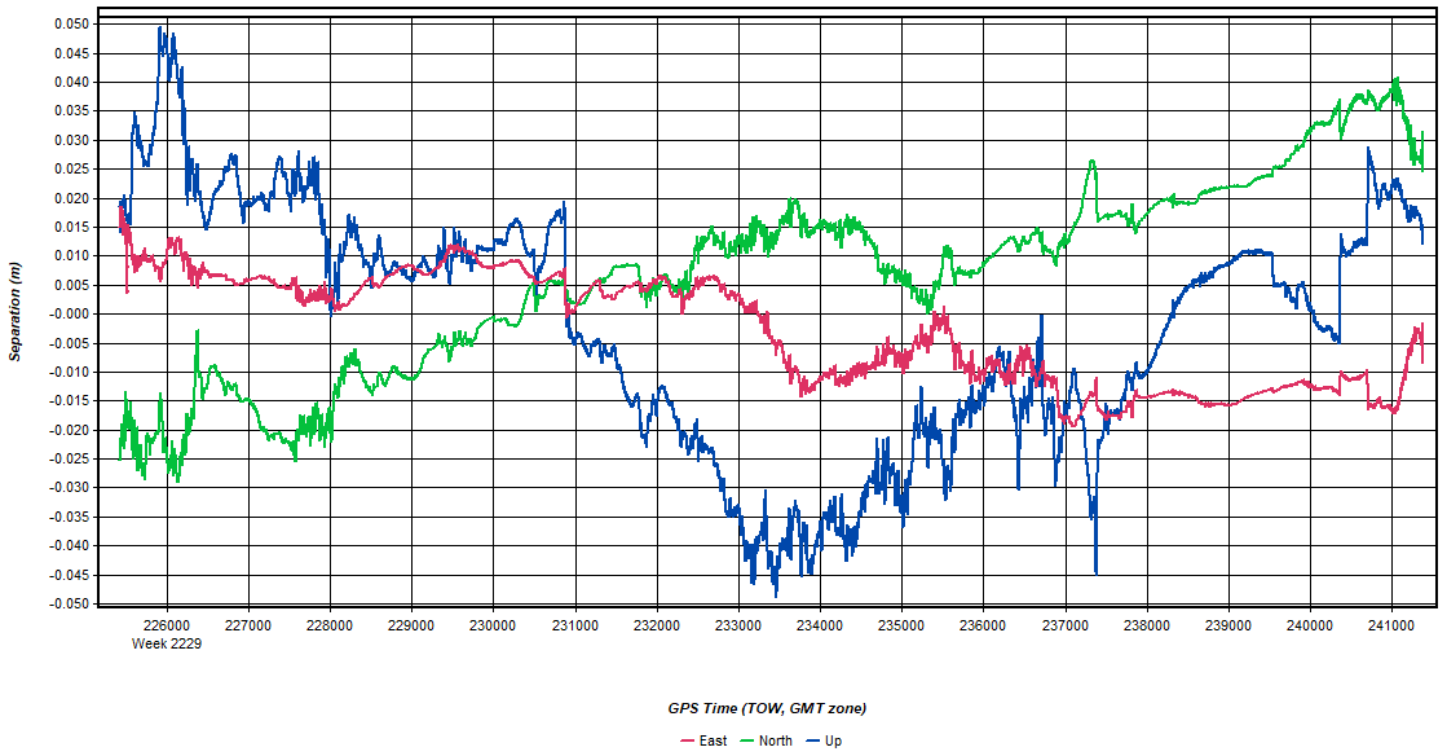
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 3: 20220927143141_20 [Smoothed TC Combined] - Float or Fixed Ambiguity



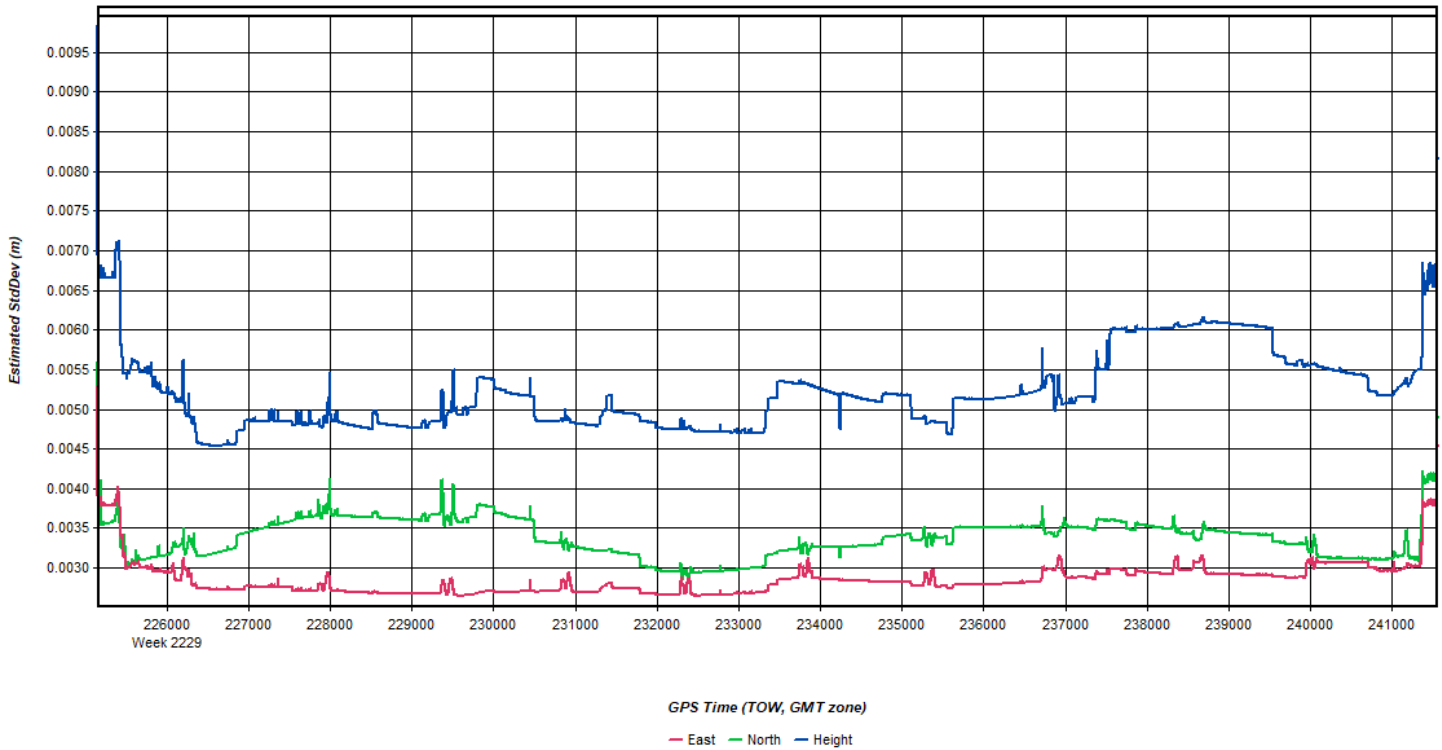
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 4: 20220927143141_20 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 5: 20220927143141_20 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 6: 20220927143141_20 [Smoothed TC Combined] - PDOP Plot

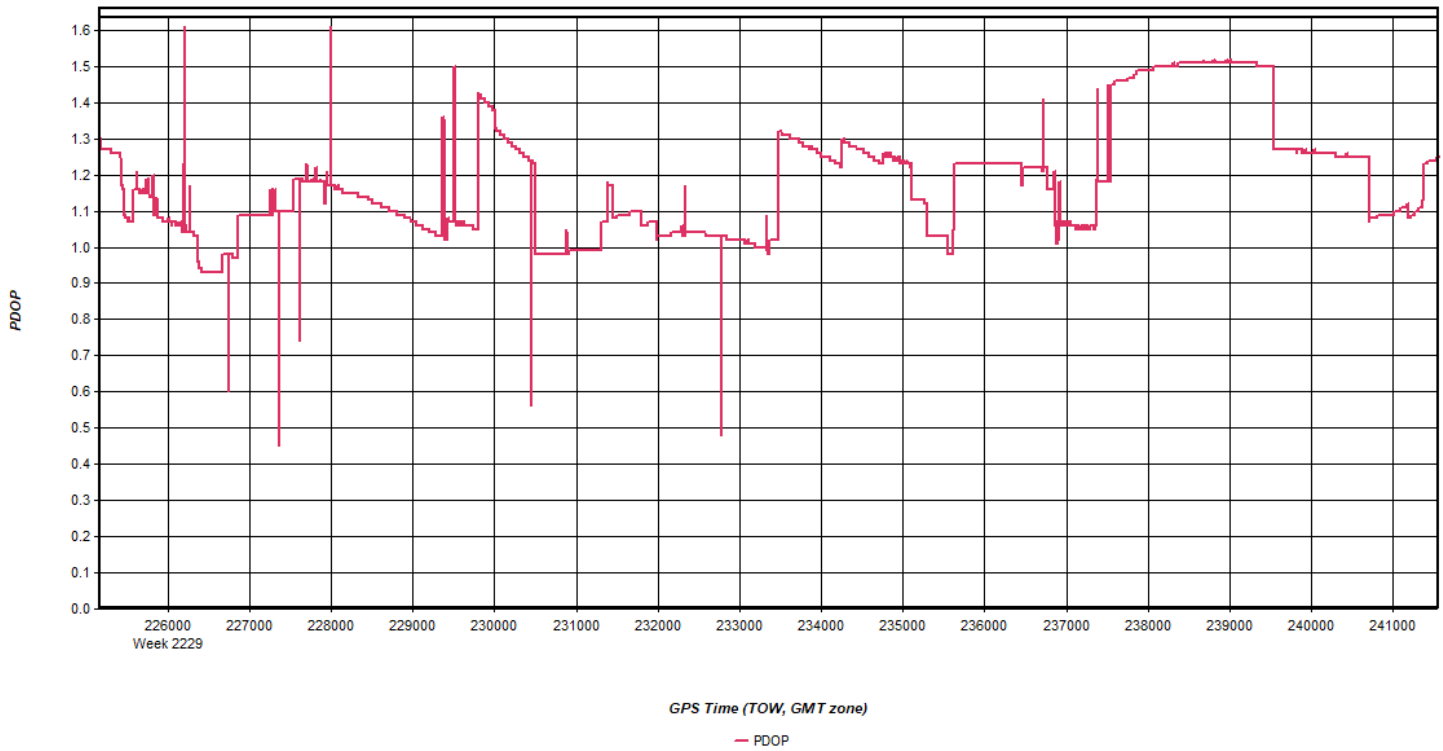


Figure 7: 20220927143141_20 [Smoothed TC Combined] - Number of Satellites Line Plot

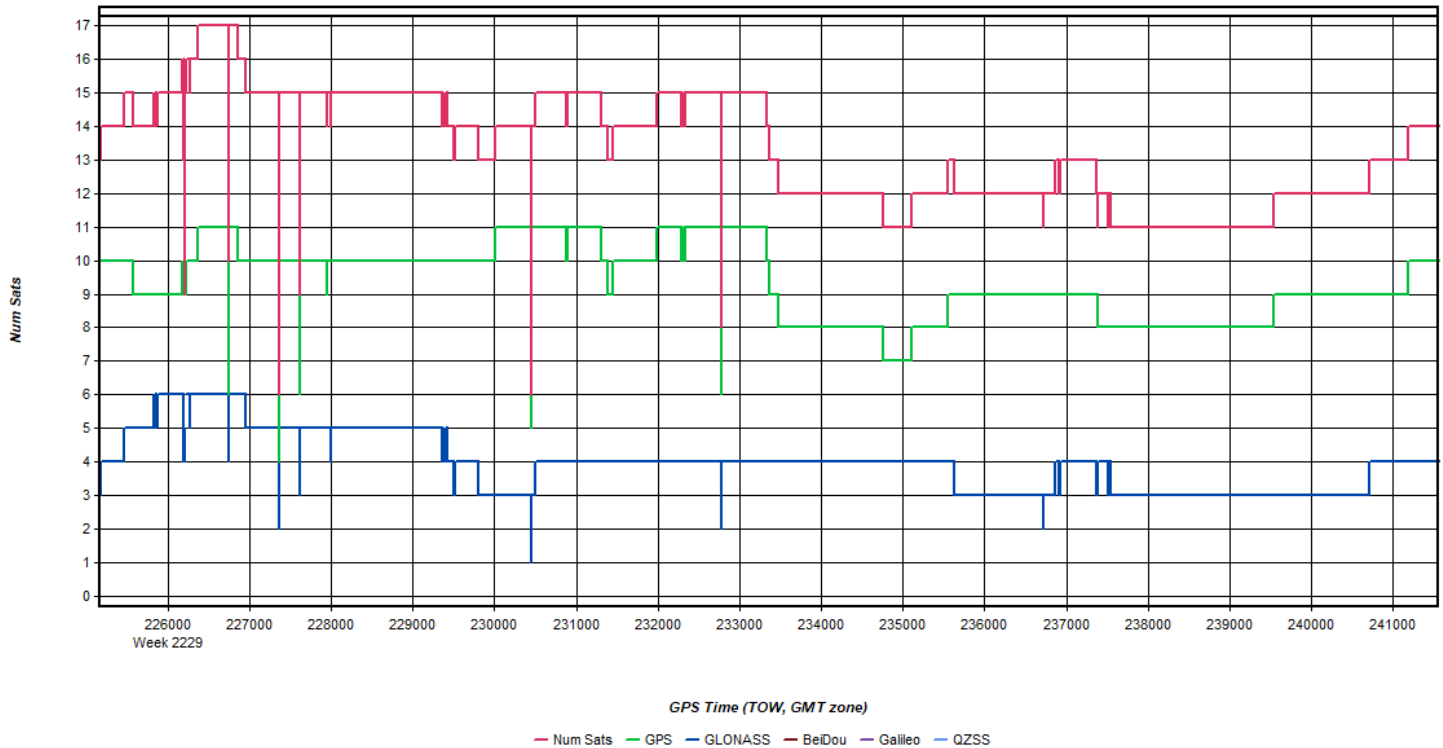
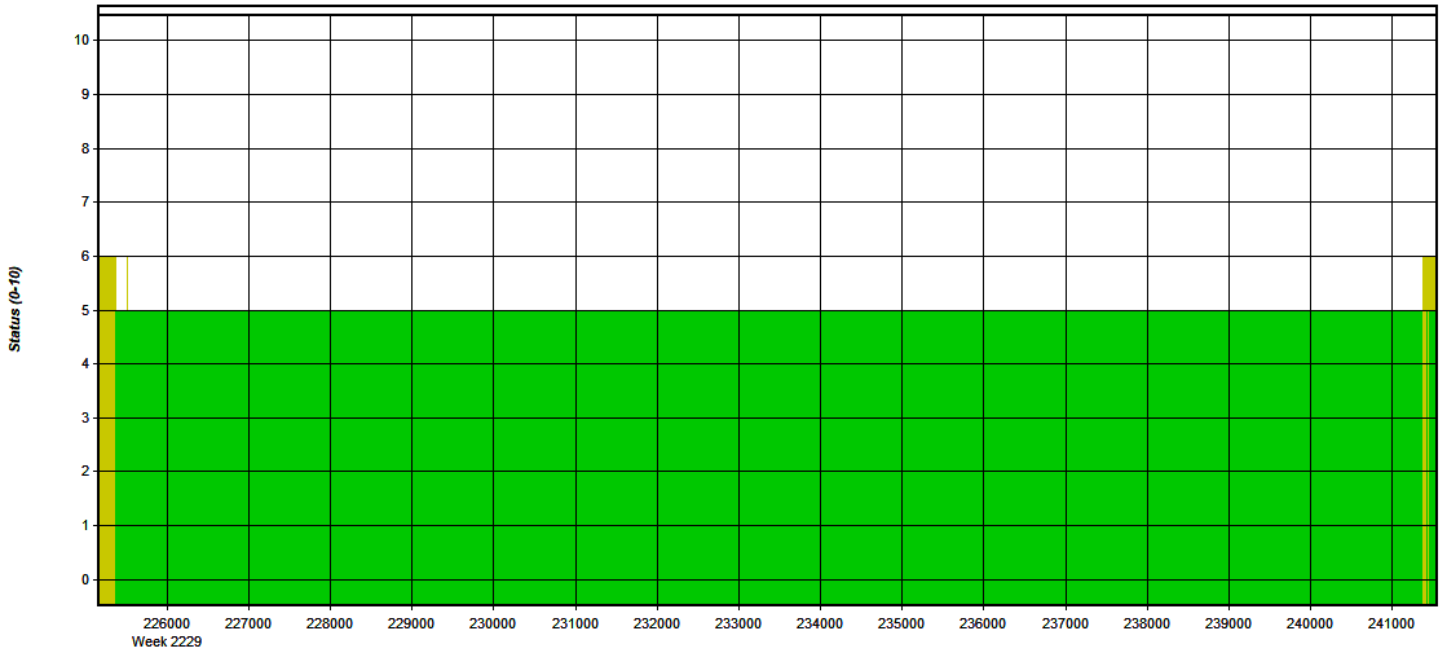


Figure 8: 20220927143141_20 [Smoothed TC Combined] - Status flag for IMU processing

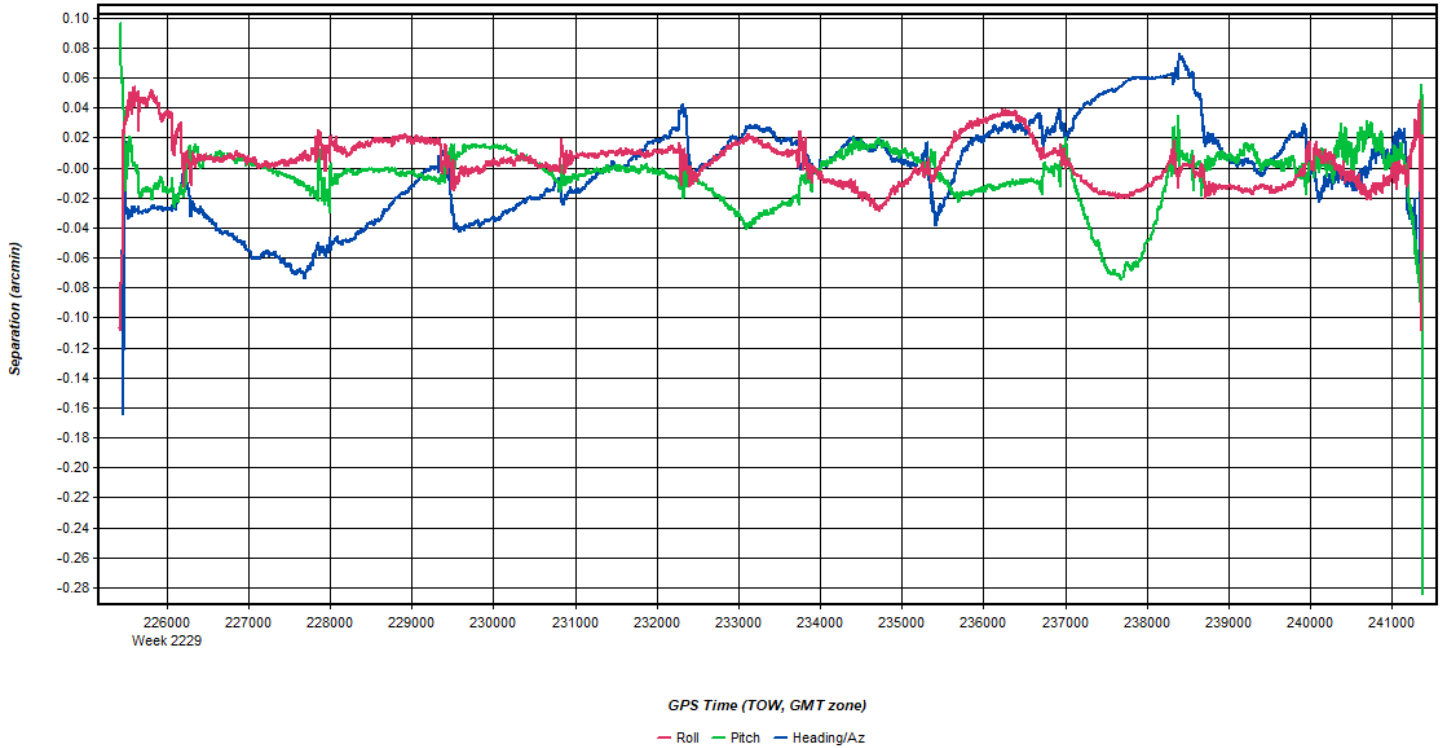


GPS Time (TOW, GMT zone)

— None
 — Align
 — Free
 — DMIUPT
 — PHSUPT
 — GPSUPT
 — ZUPT
 — CUPT
 — GVUPT
 — PSR
 — CONSTRAINT

Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 9: 20220927143141_20 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

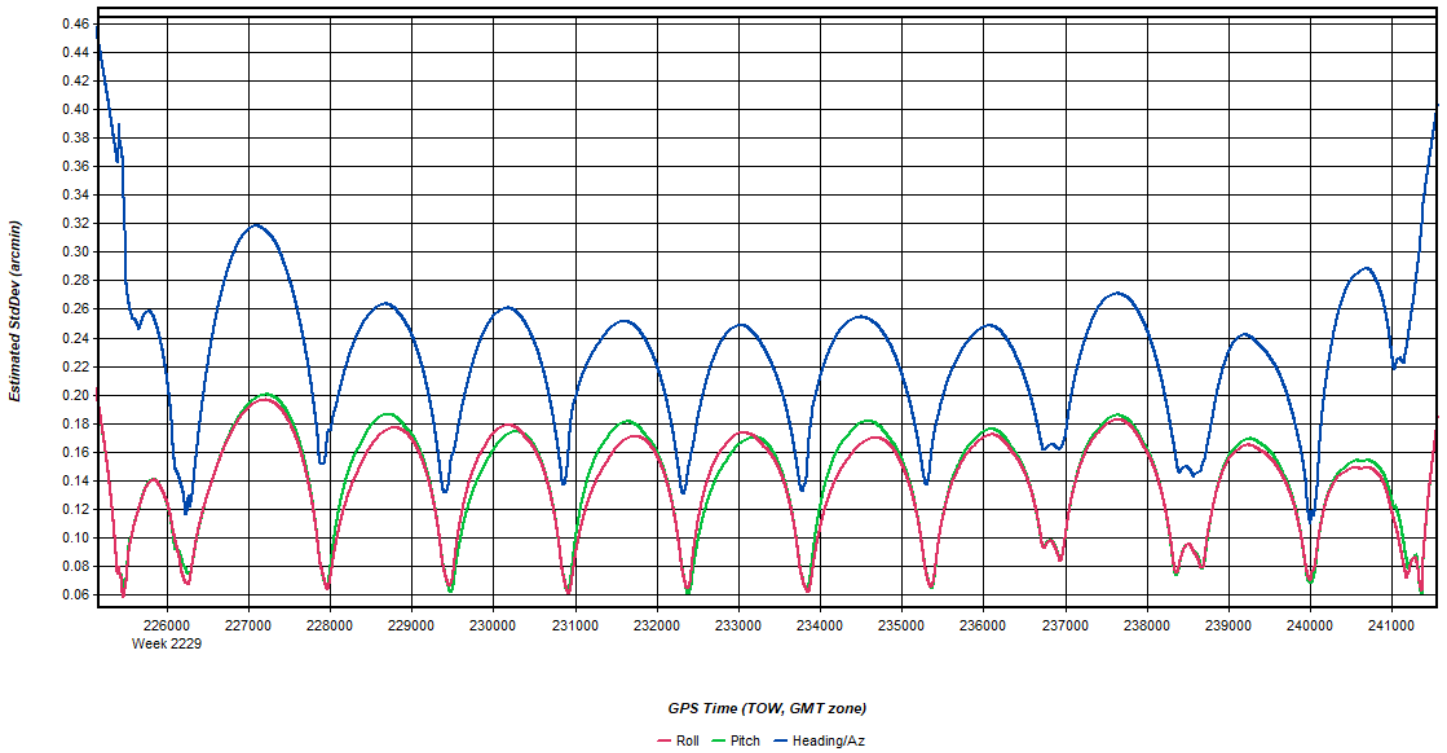


GPS Time (TOW, GMT zone)

— Roll
 — Pitch
 — Heading/Az

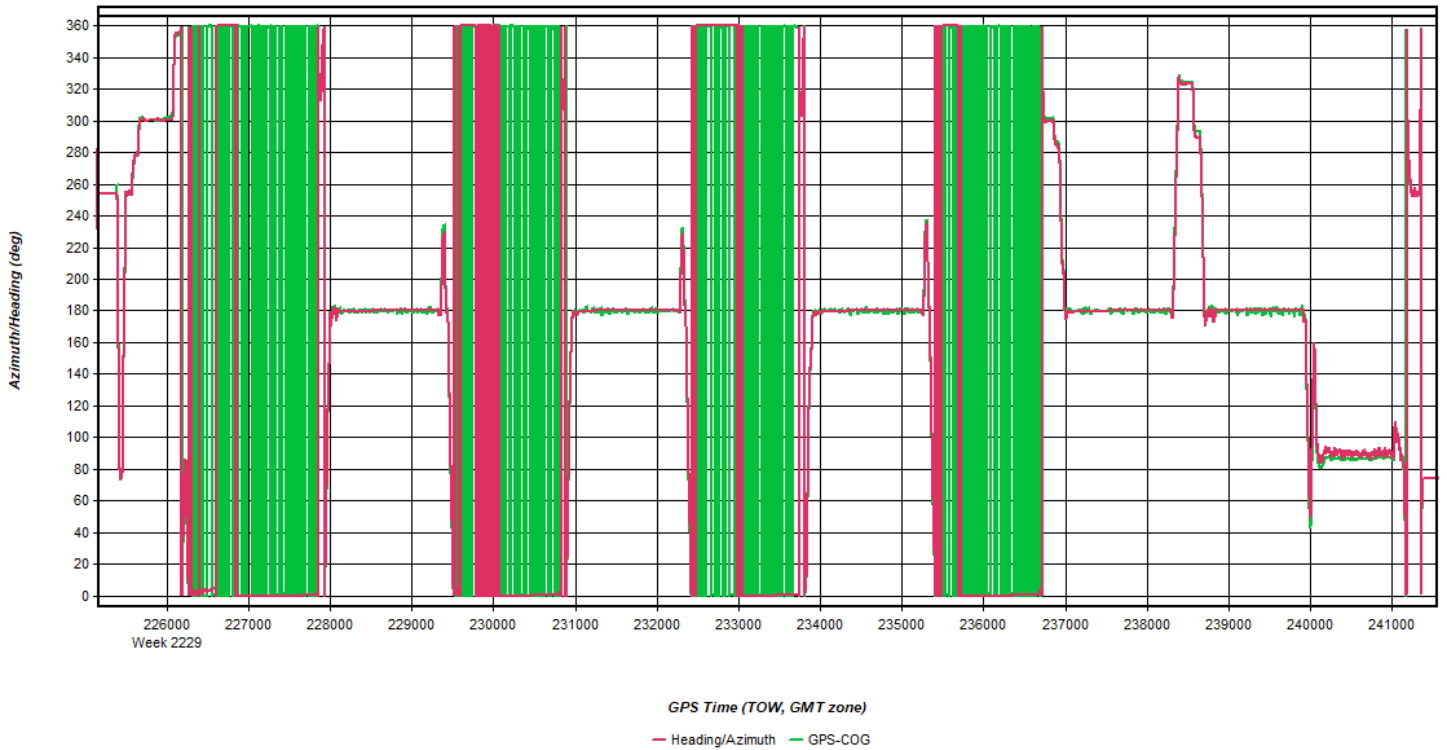
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 10: 20220927143141_20 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



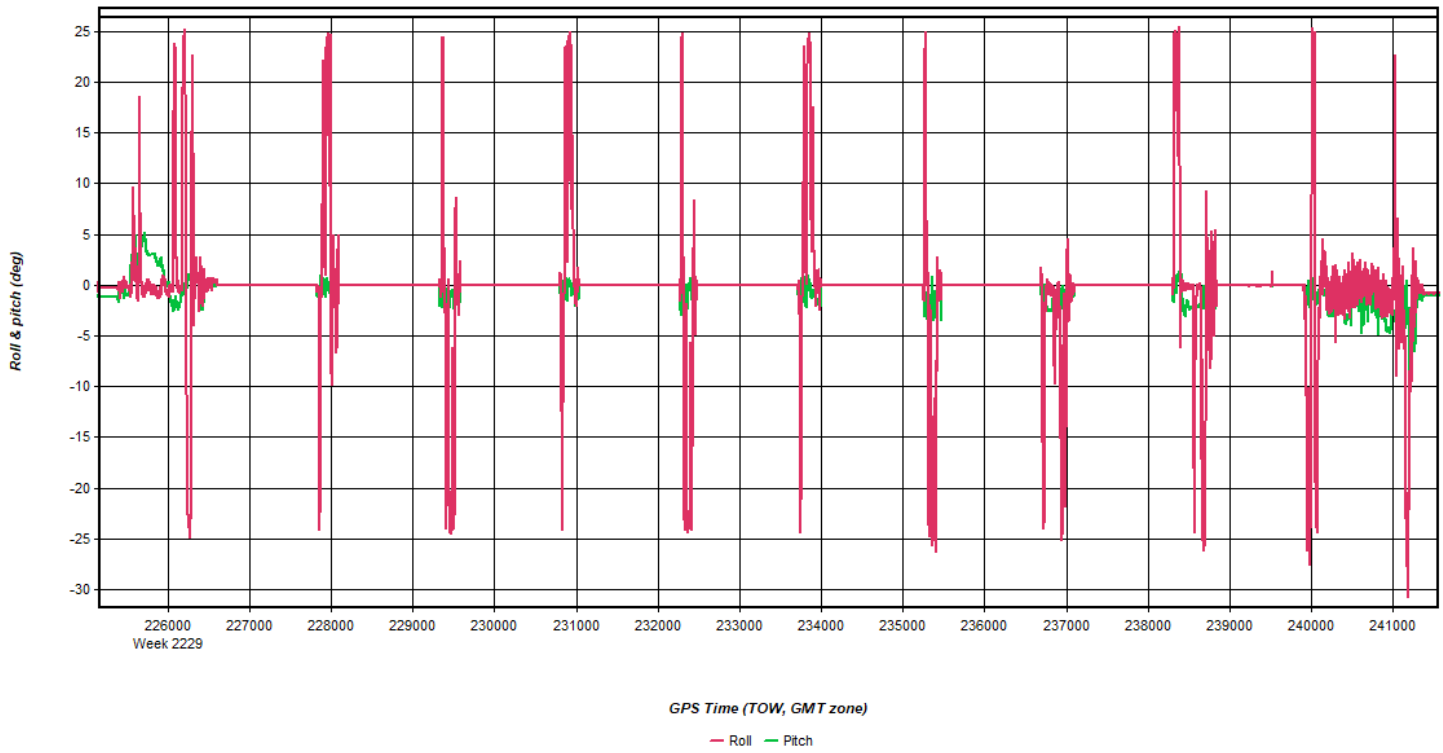
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 11: 20220927143141_20 [Smoothed TC Combined] - Azimuth Plot



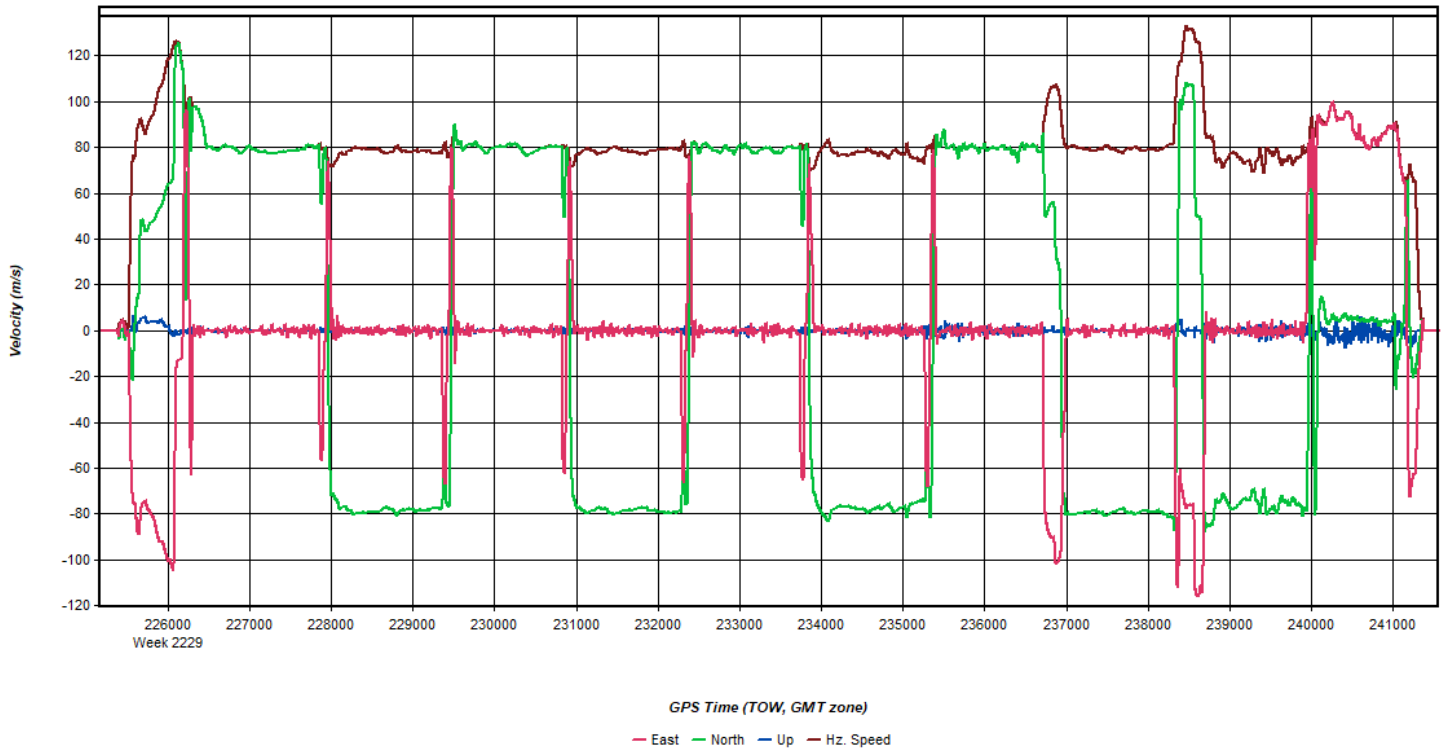
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 12: 20220927143141_20 [Smoothed TC Combined] - Roll & Pitch Plot



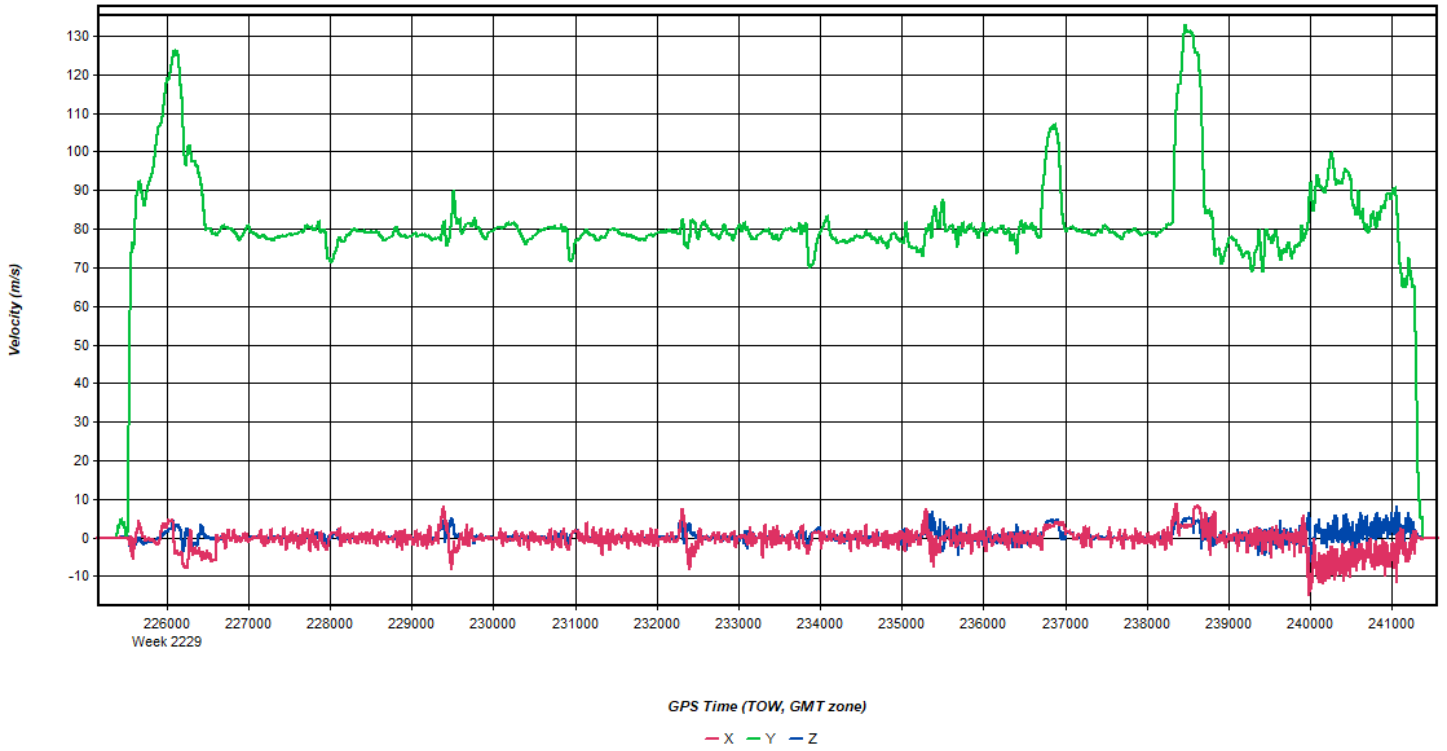
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 13: 20220927143141_20 [Smoothed TC Combined] - Velocity Profile Plot



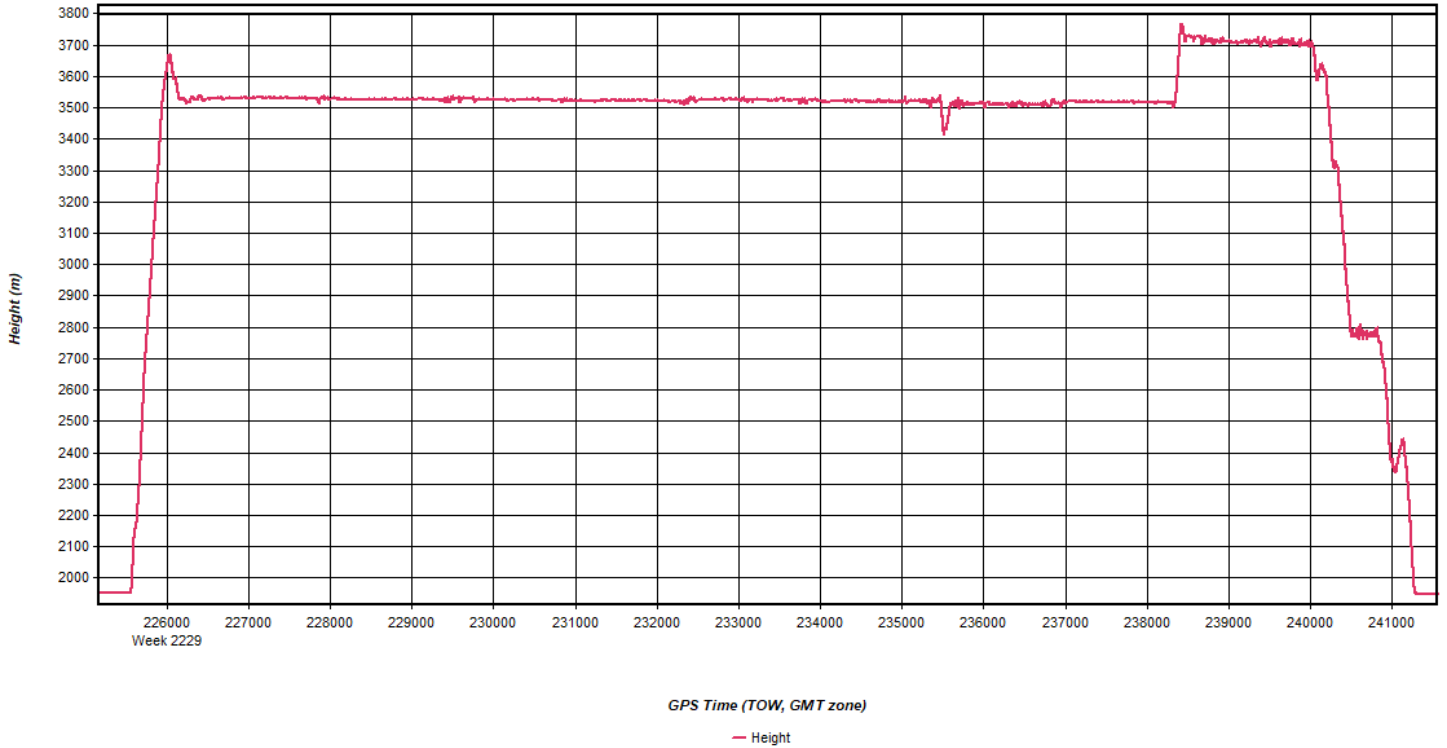
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 14: 20220927143141_20 [Smoothed TC Combined] - Body Frame Velocity Plot



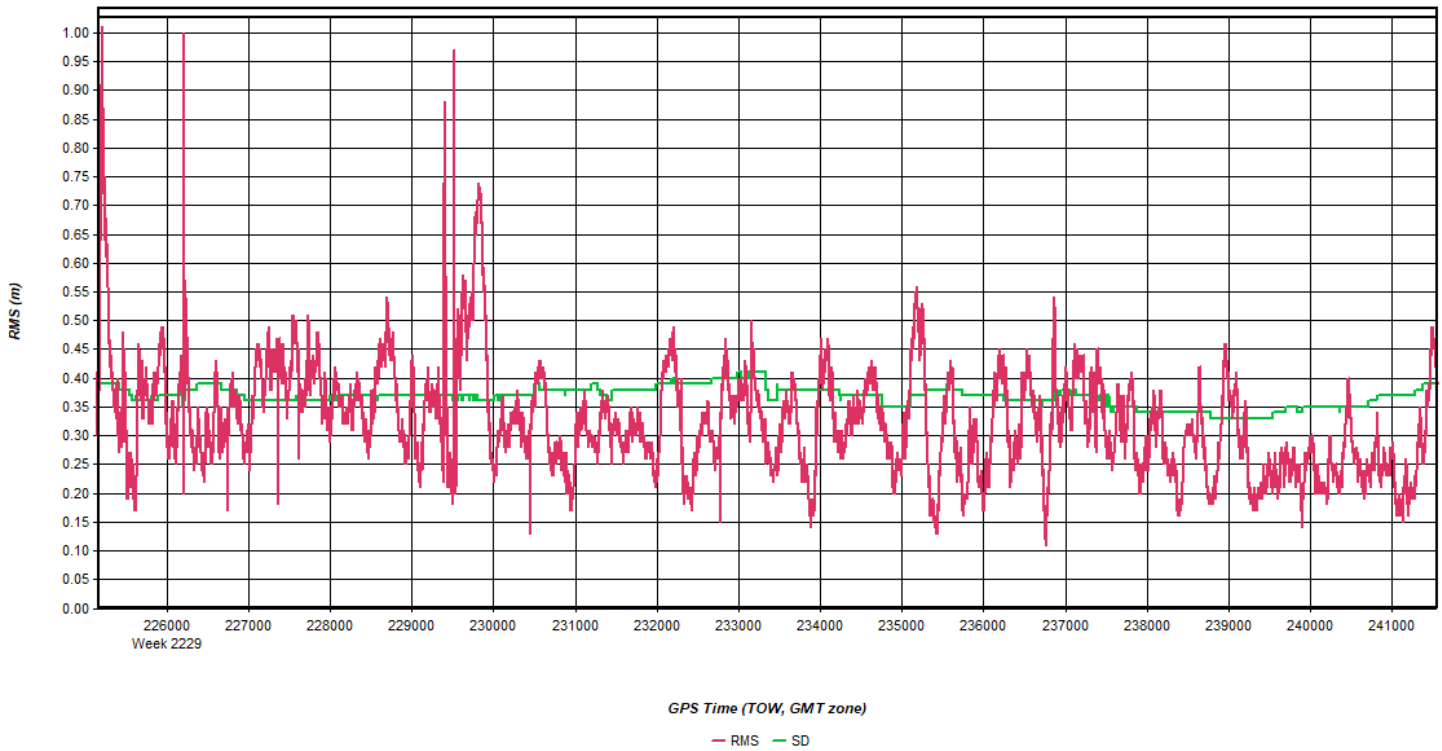
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 15: 20220927143141_20 [Smoothed TC Combined] - Height Profile Plot



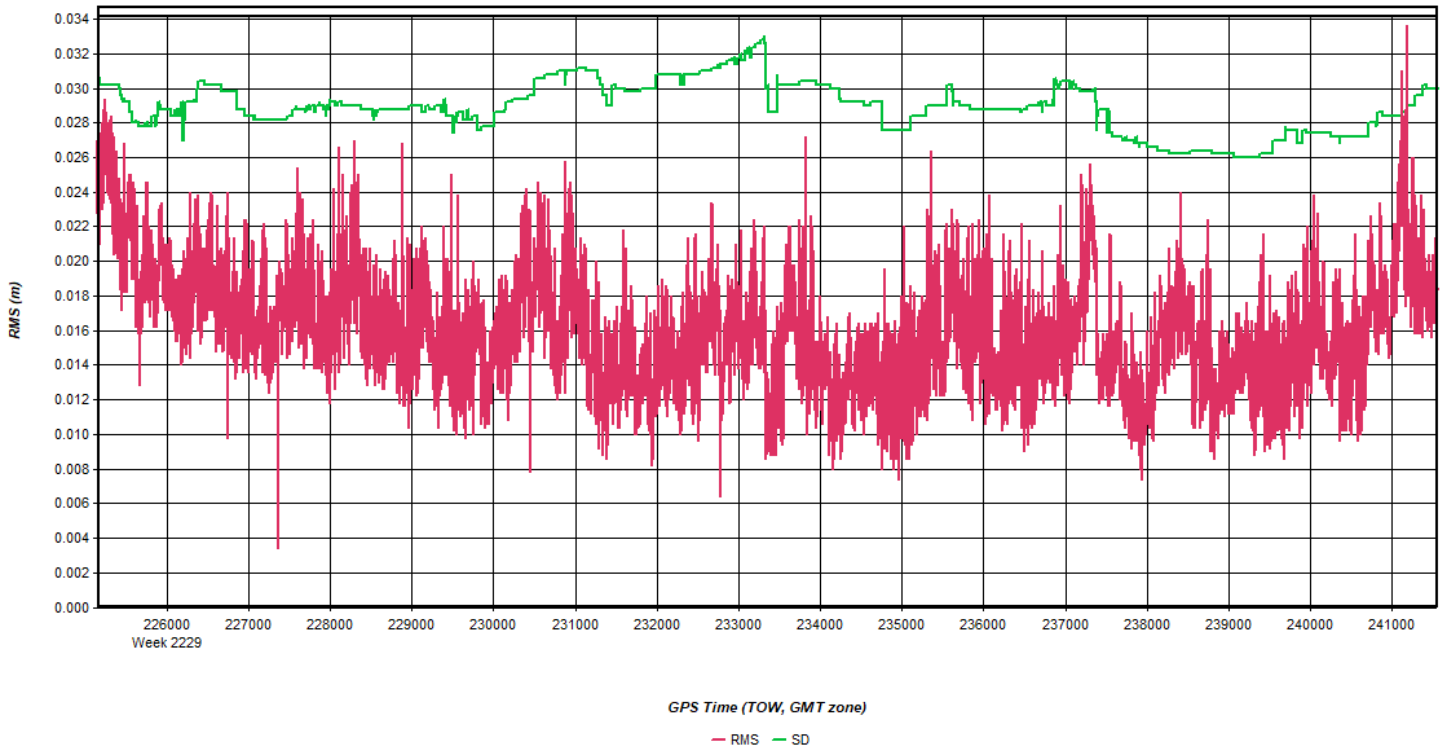
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 16: 20220927143141_20 [Smoothed TC Combined] - C/A Code Residual RMS Plot



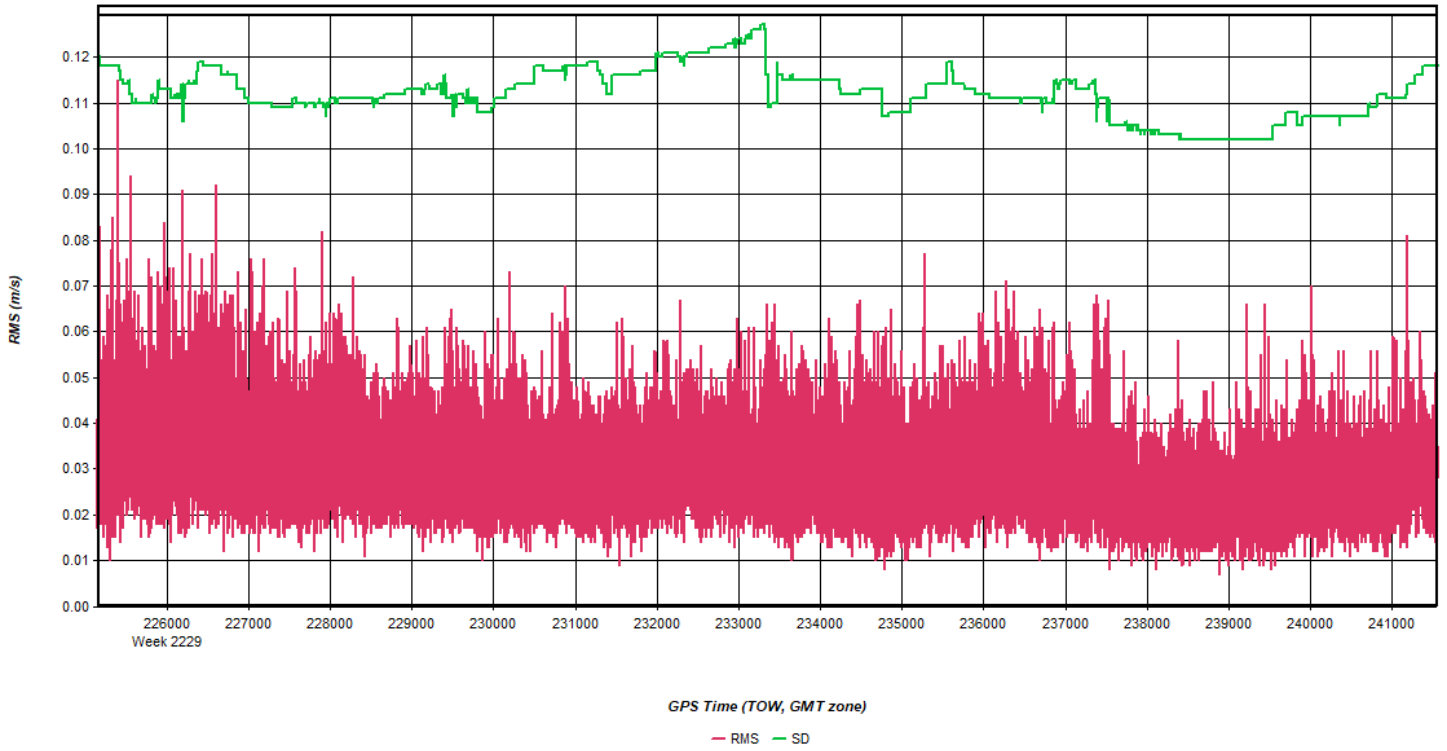
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 17: 20220927143141_20 [Smoothed TC Combined] - Carrier Residual RMS Plot



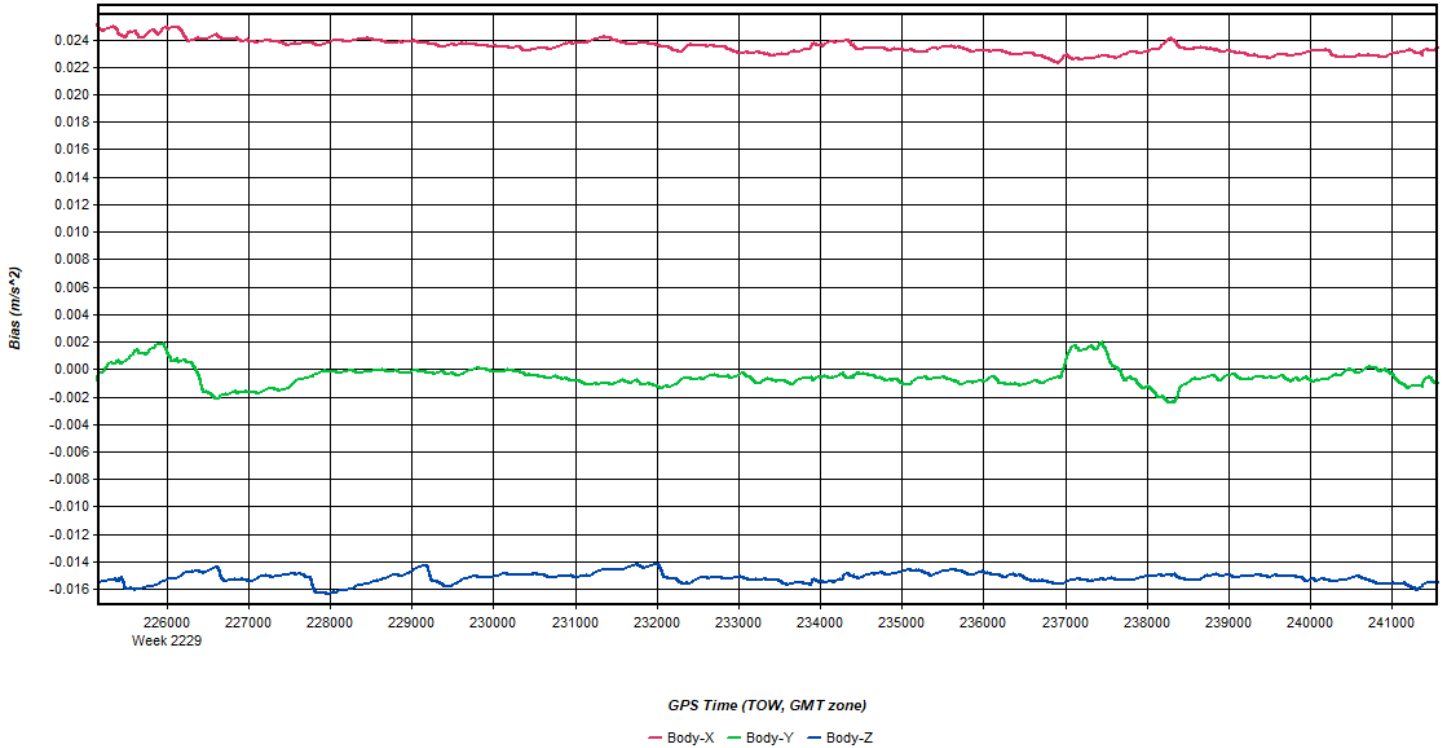
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 18: 20220927143141_20 [Smoothed TC Combined] - Doppler Residual RMS Plot



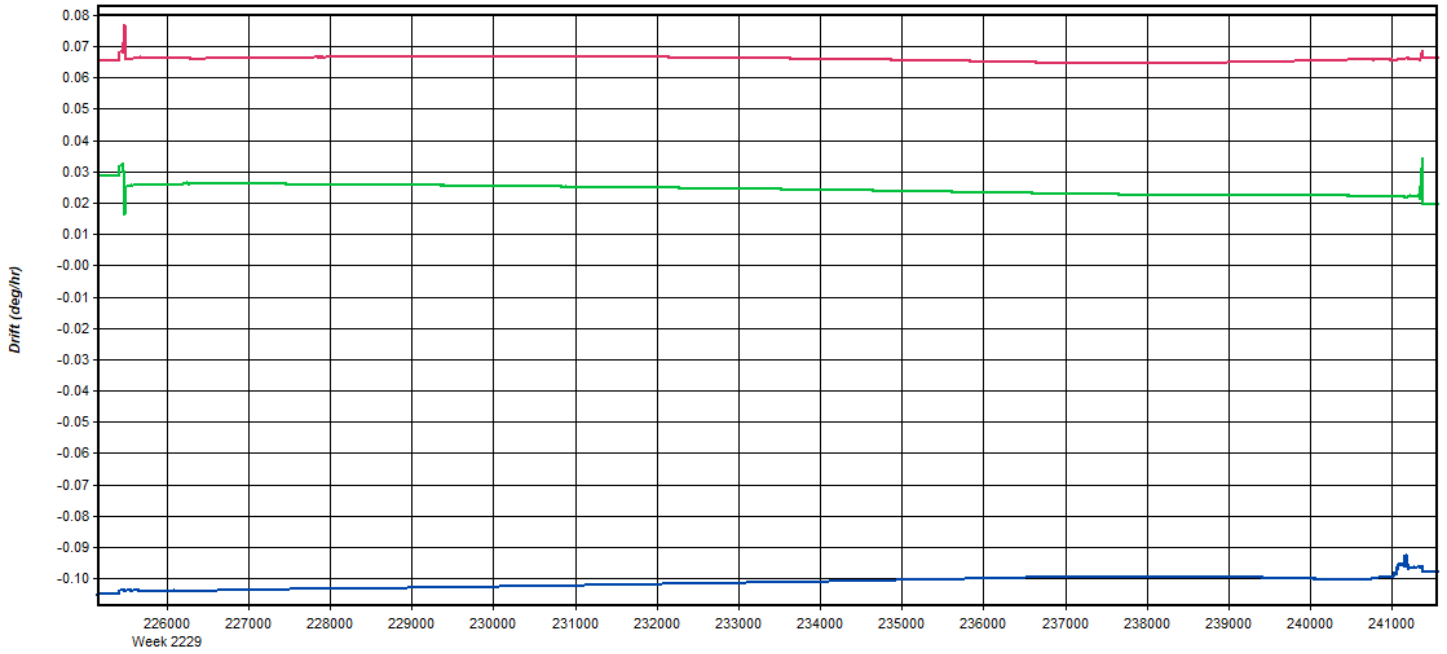
Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 19: 20220927143141_20 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Figure 20: 20220927143141_20 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

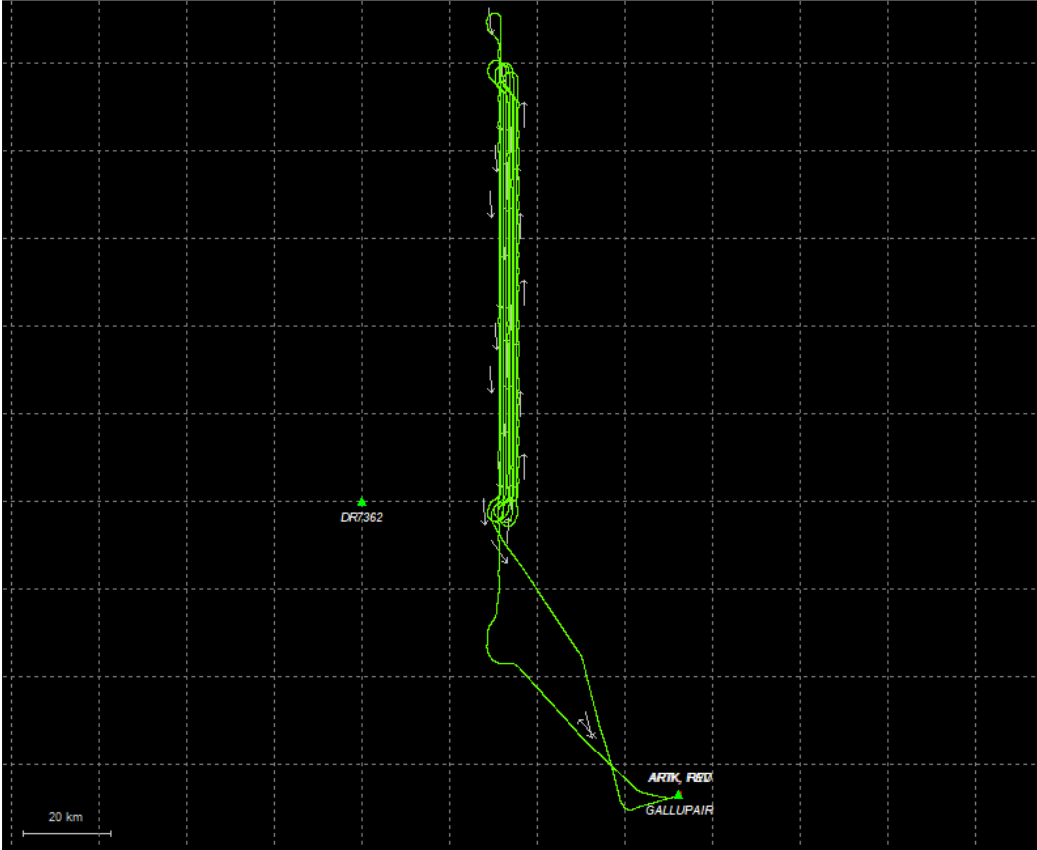
— Body-X — Body-Y — Body-Z

Process	20220927143141_20	by Unknown	on 10/4/2022	at 14:05:22
---------	-------------------	------------	--------------	-------------

Output Results for 20220928133259_21

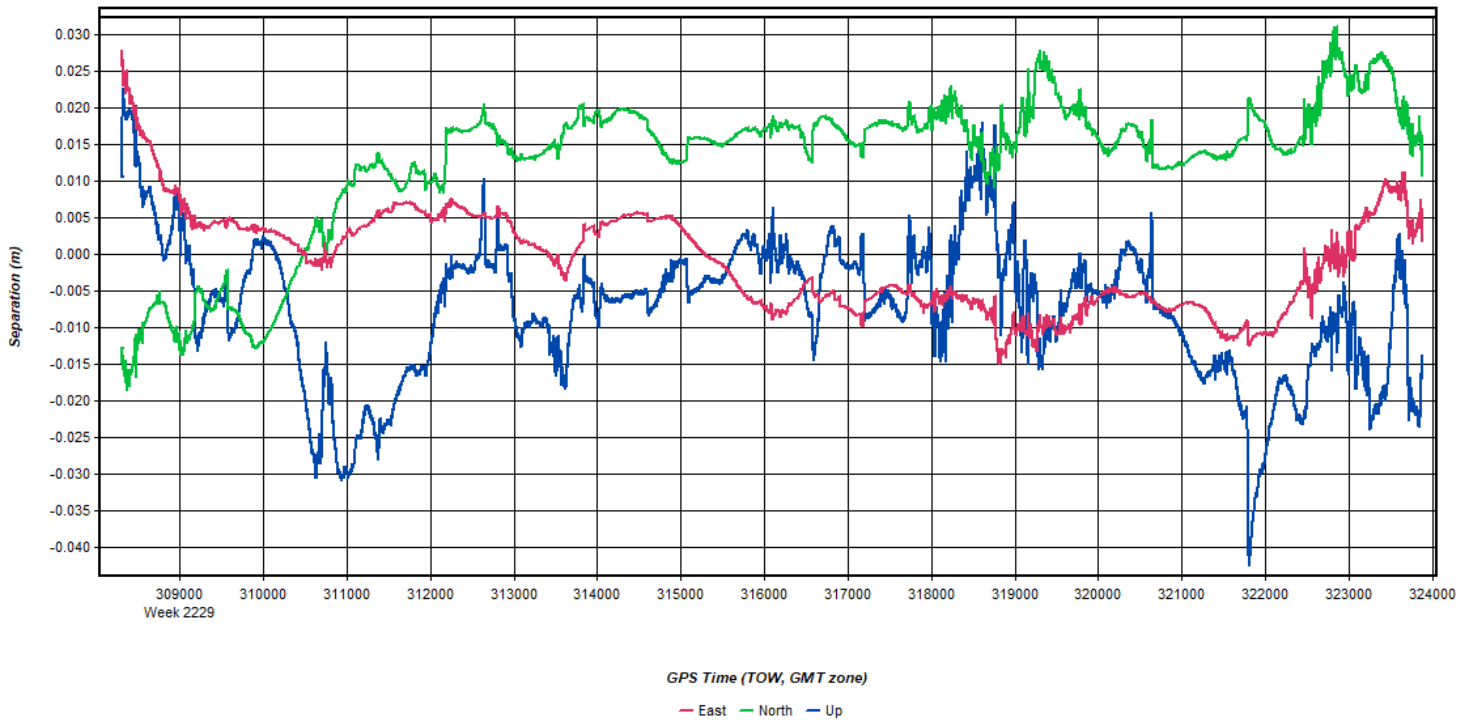
Inertial Explorer Version 8.90.2124
10/04/2022

Figure 1: Smoothed TC Combined - Map



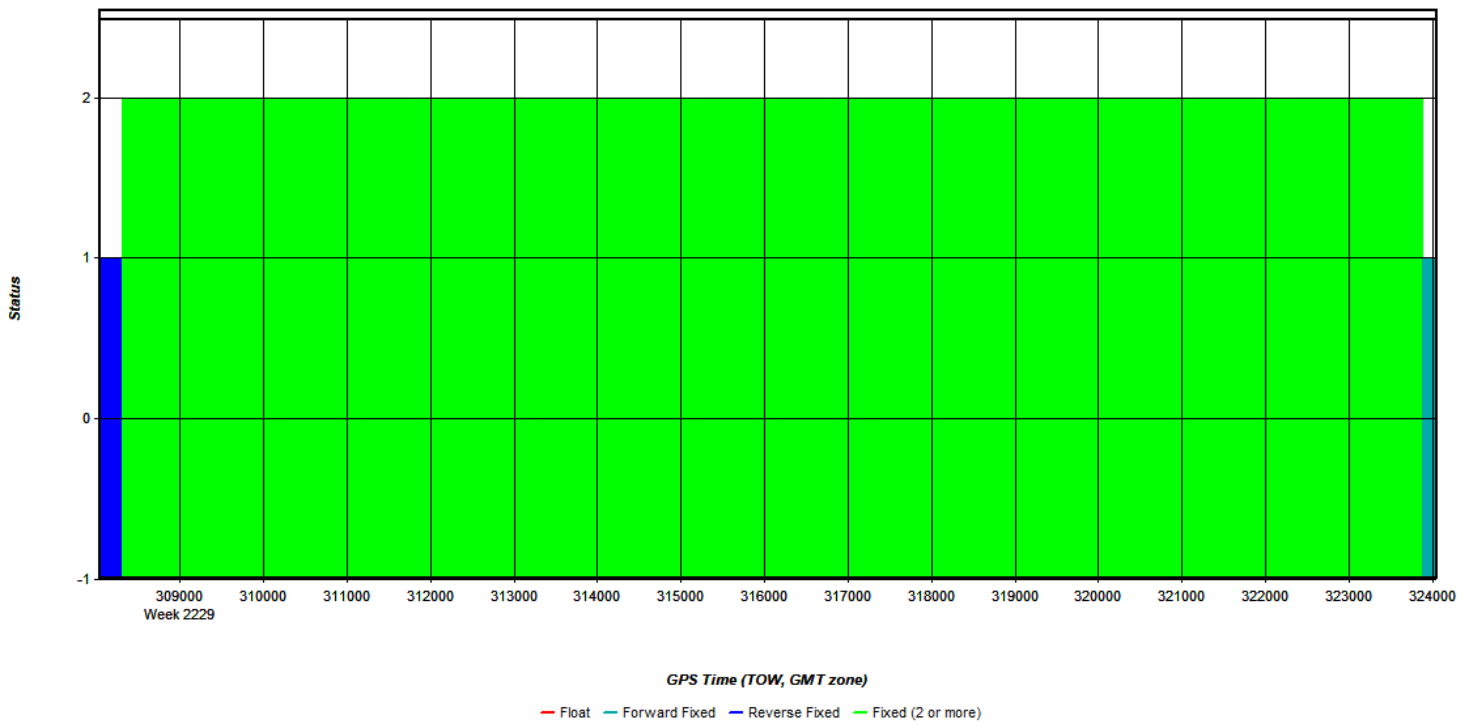
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 2: 20220928133259_21 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



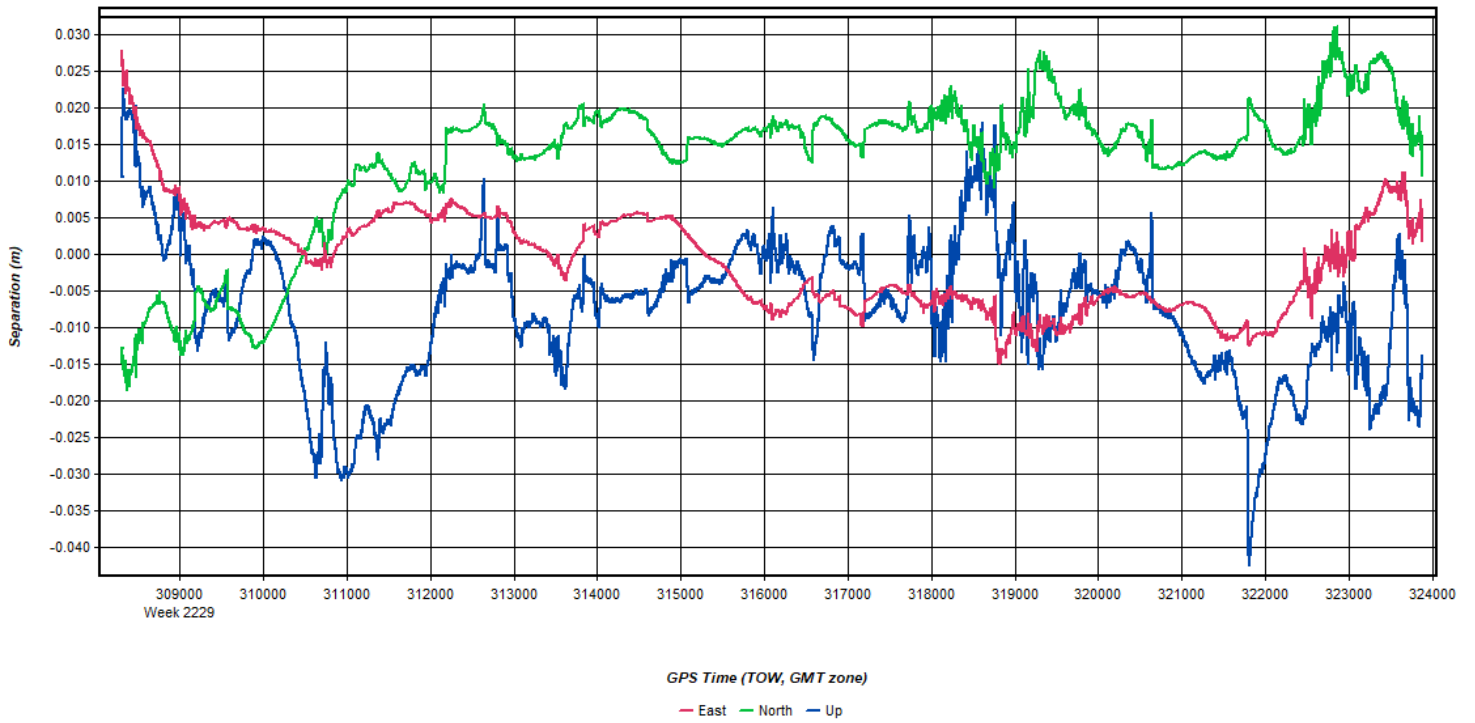
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 3: 20220928133259_21 [Smoothed TC Combined] - Float or Fixed Ambiguity



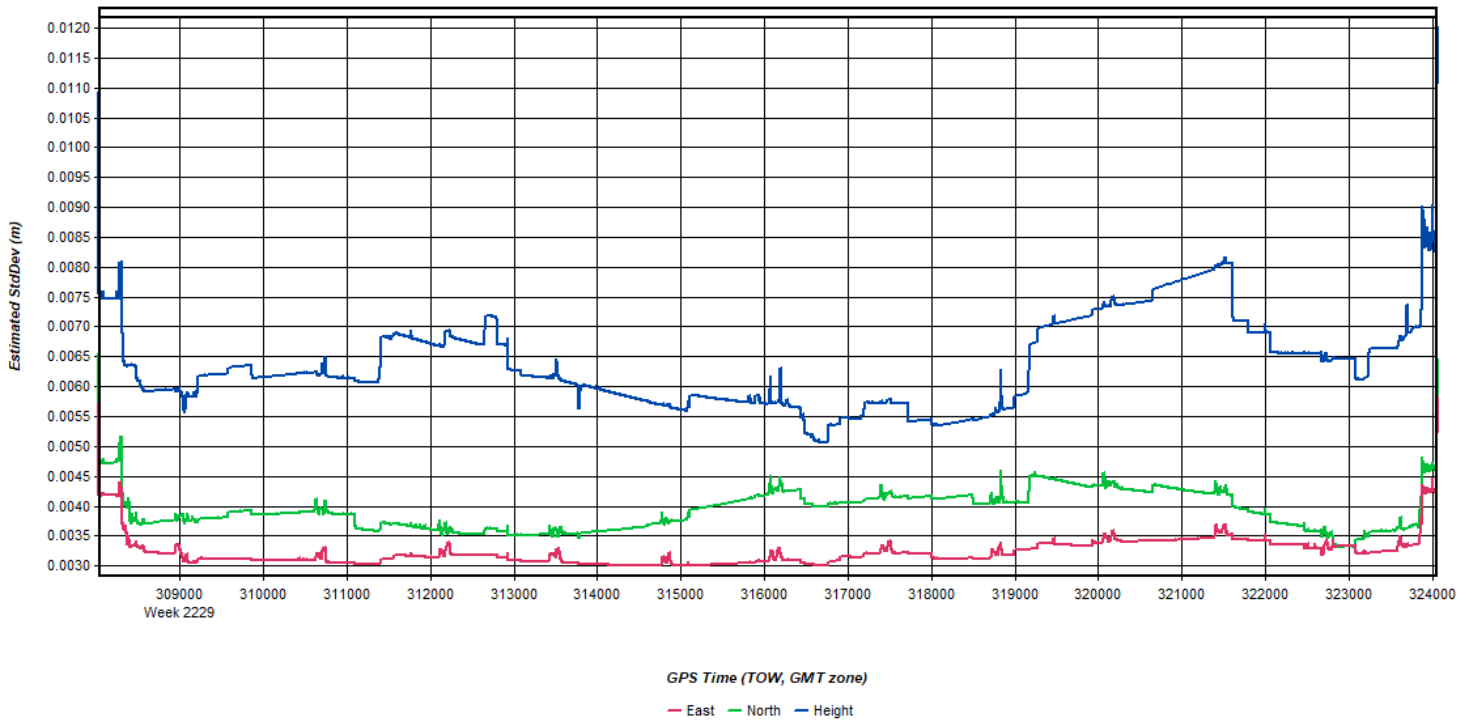
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 4: 20220928133259_21 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 5: 20220928133259_21 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 6: 20220928133259_21 [Smoothed TC Combined] - PDOP Plot

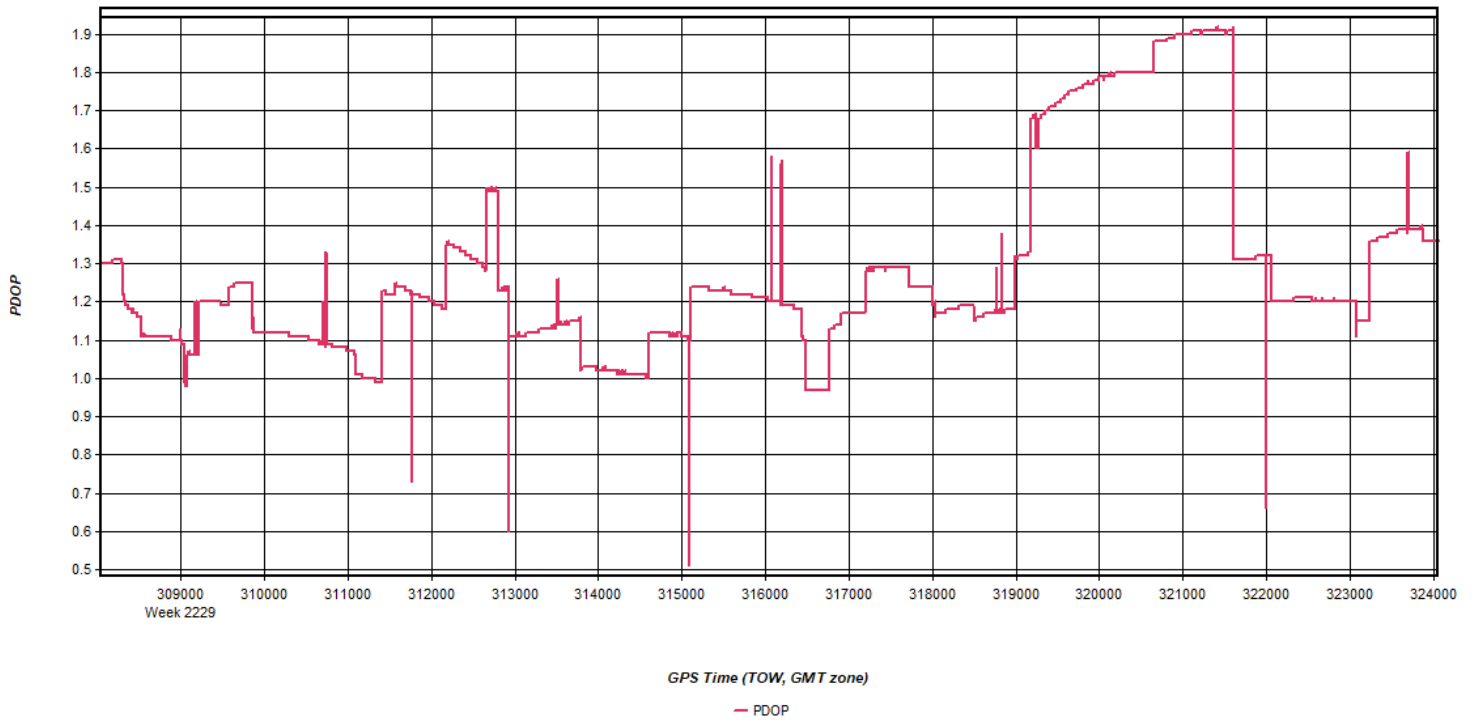


Figure 7: 20220928133259_21 [Smoothed TC Combined] - Number of Satellites Line Plot

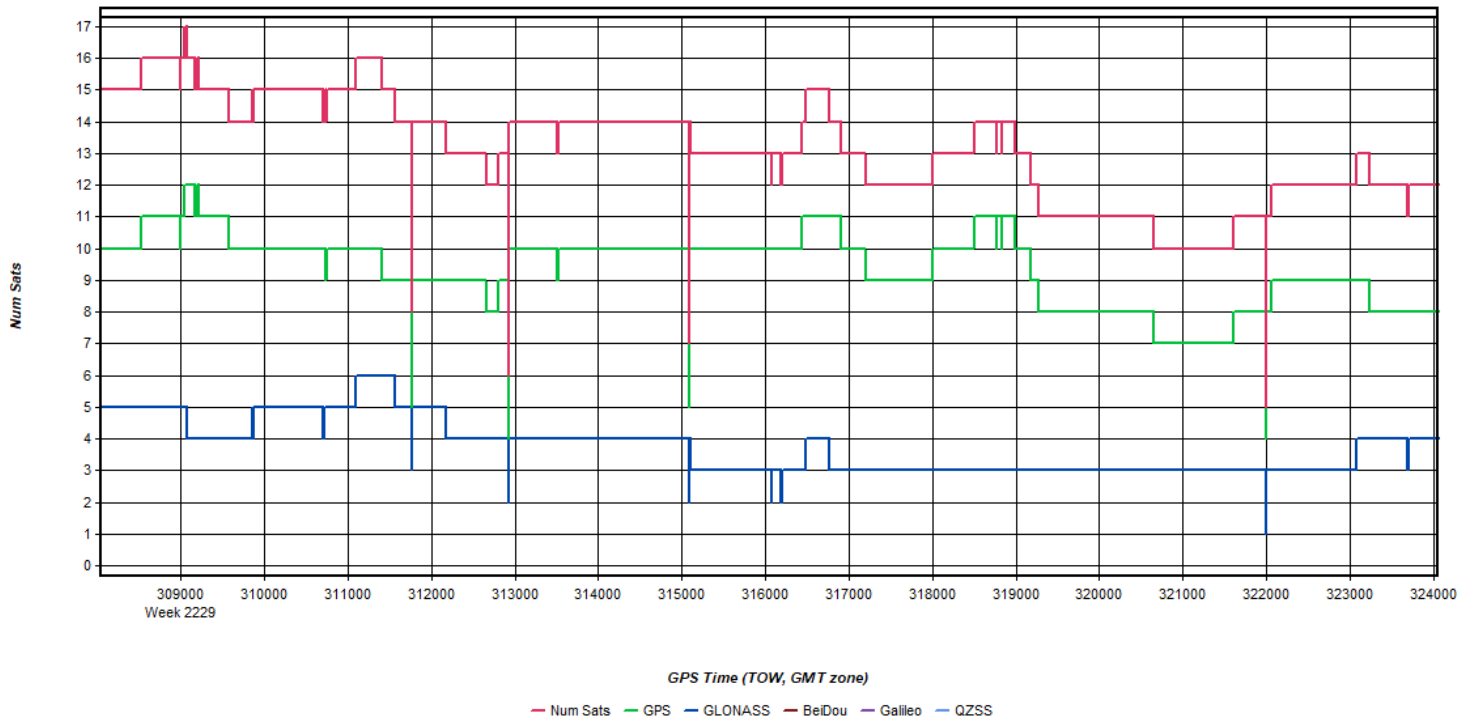
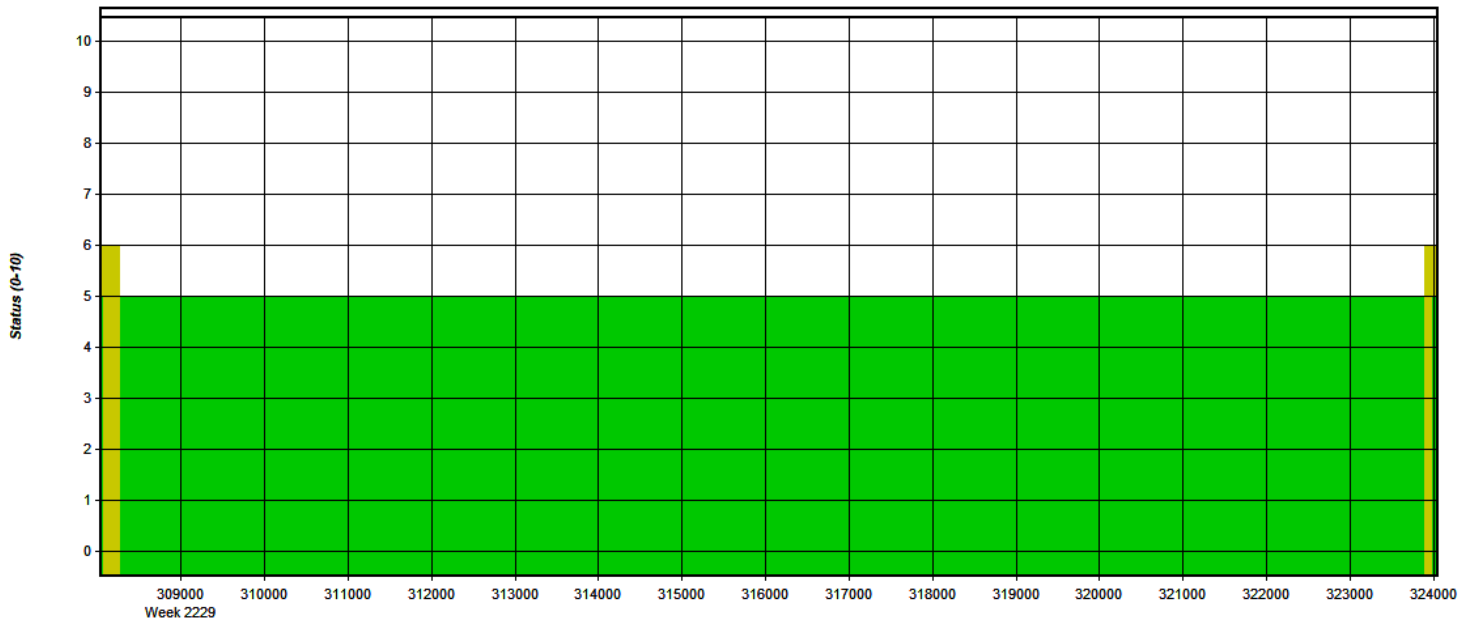


Figure 8: 20220928133259_21 [Smoothed TC Combined] - Status flag for IMU processing

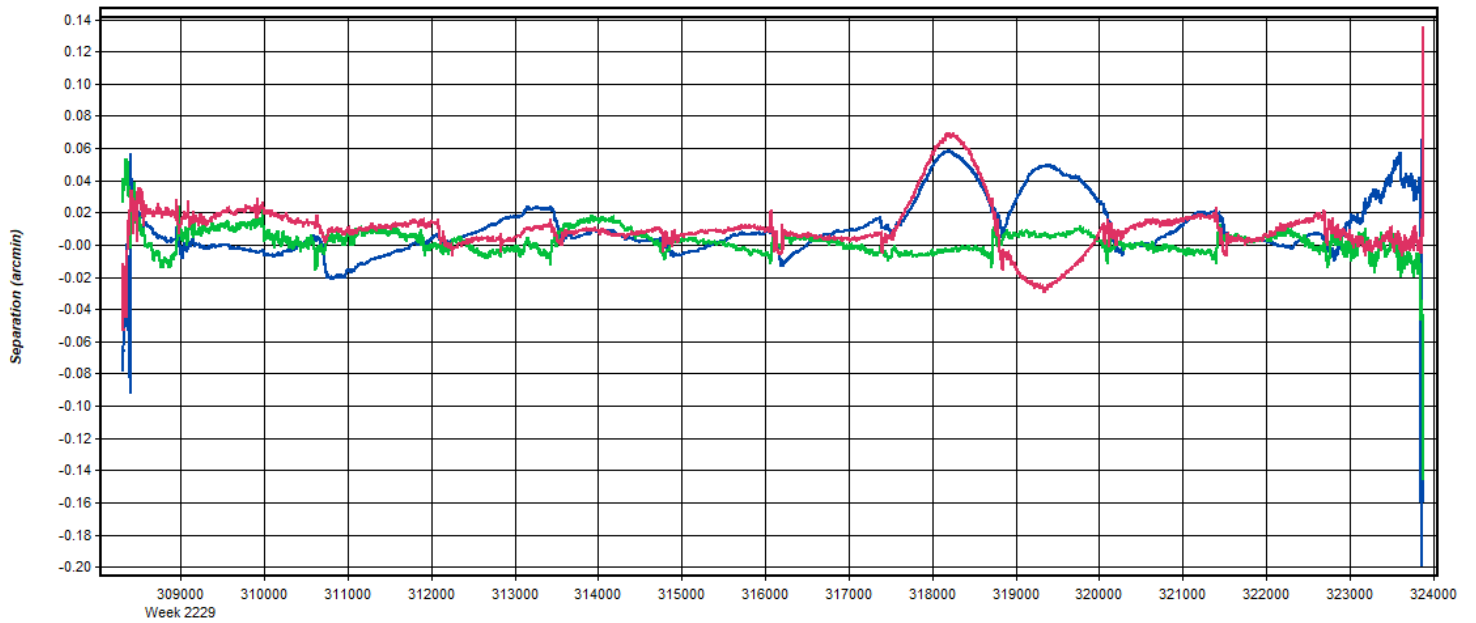


GPS Time (TOW, GMT zone)

— None — Align — Free — DMIUPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 9: 20220928133259_21 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

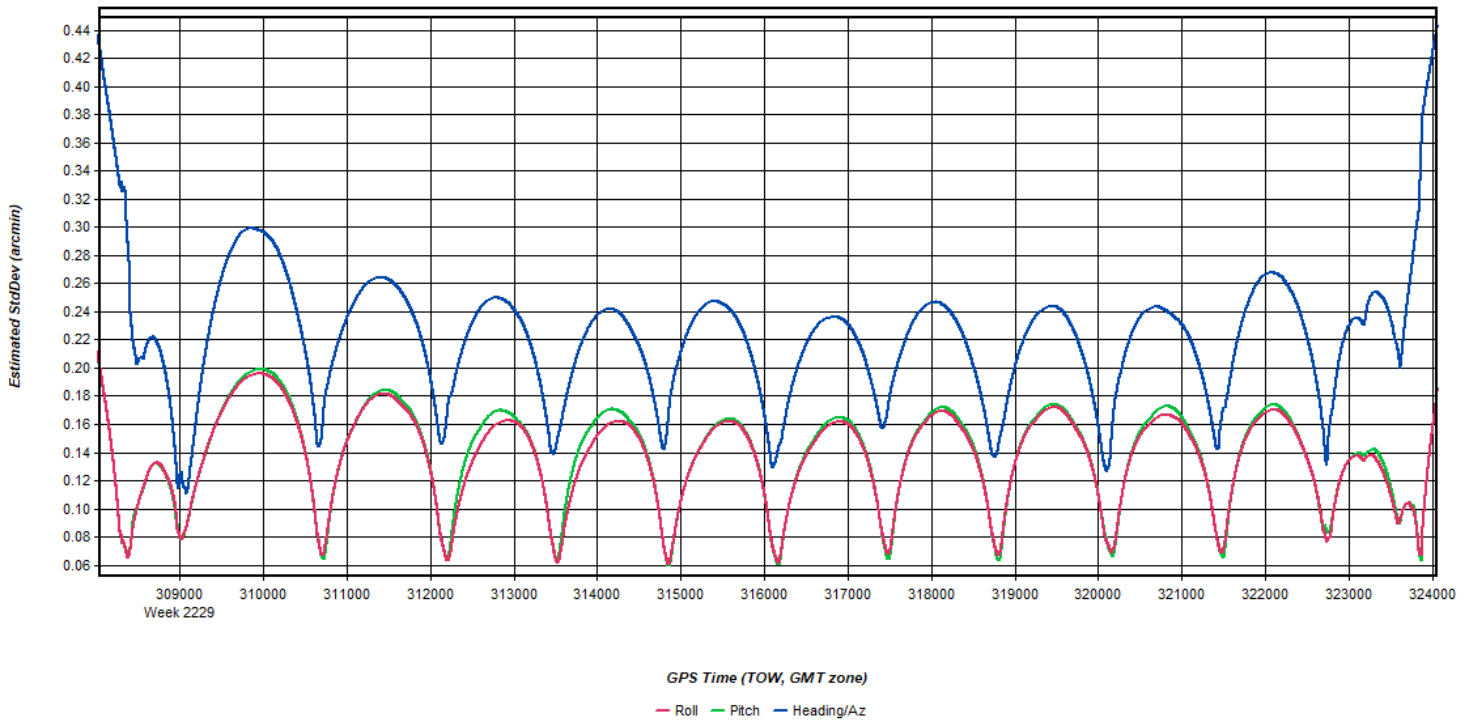


GPS Time (TOW, GMT zone)

— Roll — Pitch — Heading/Az

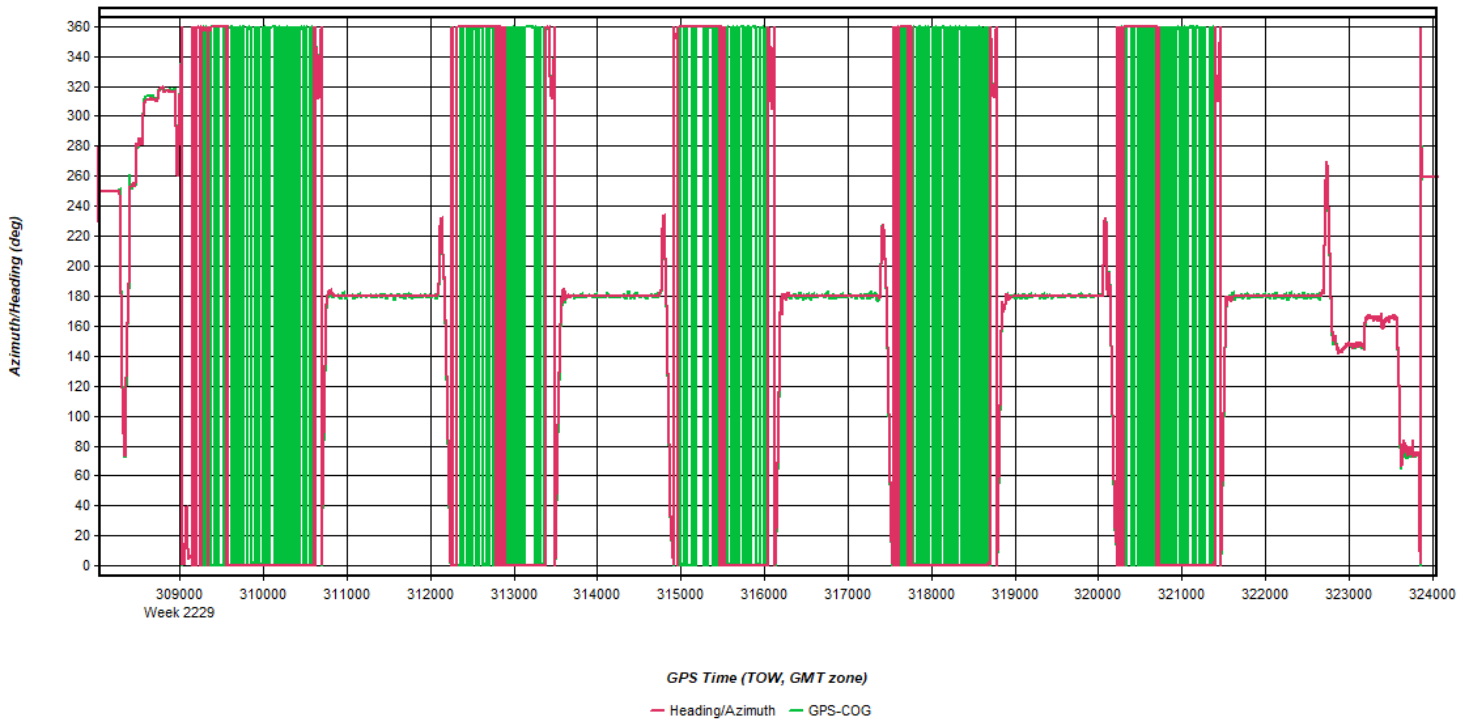
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 10: 20220928133259_21 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



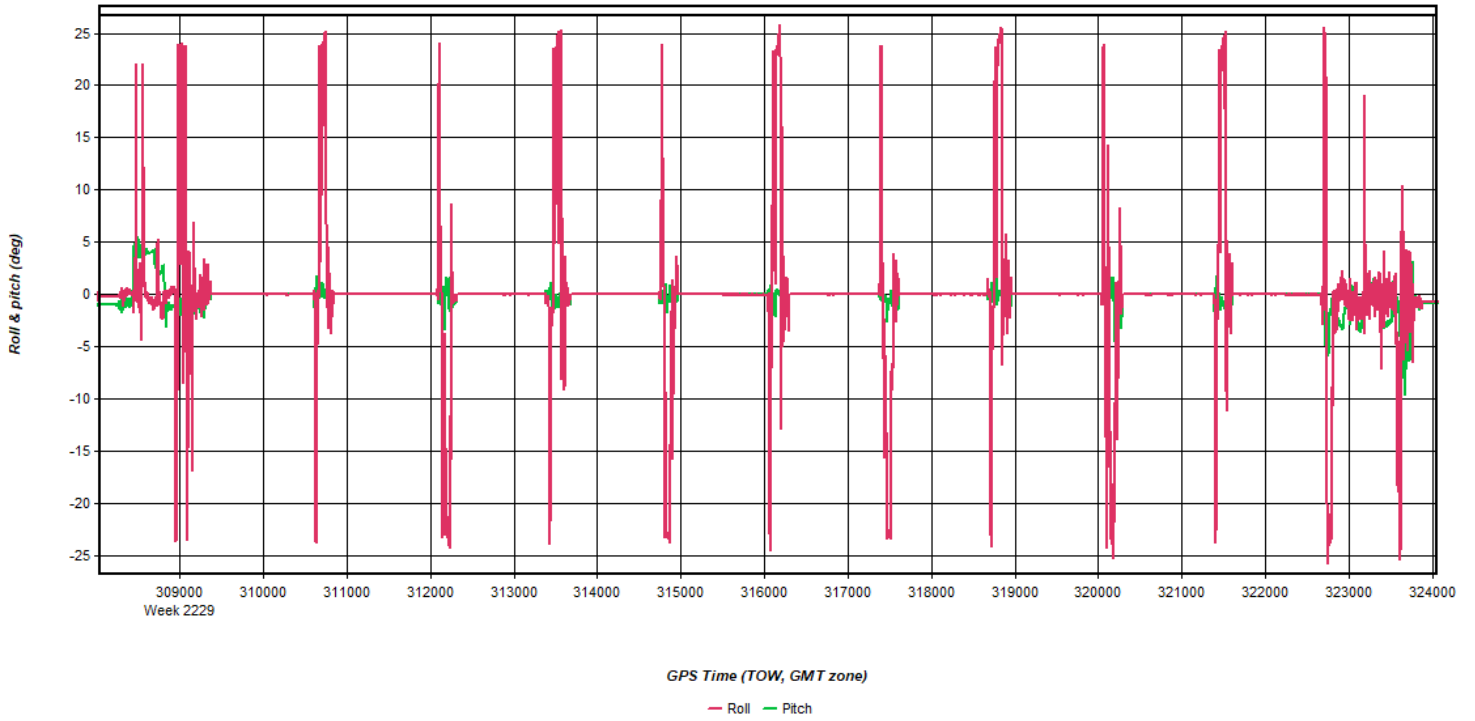
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 11: 20220928133259_21 [Smoothed TC Combined] - Azimuth Plot



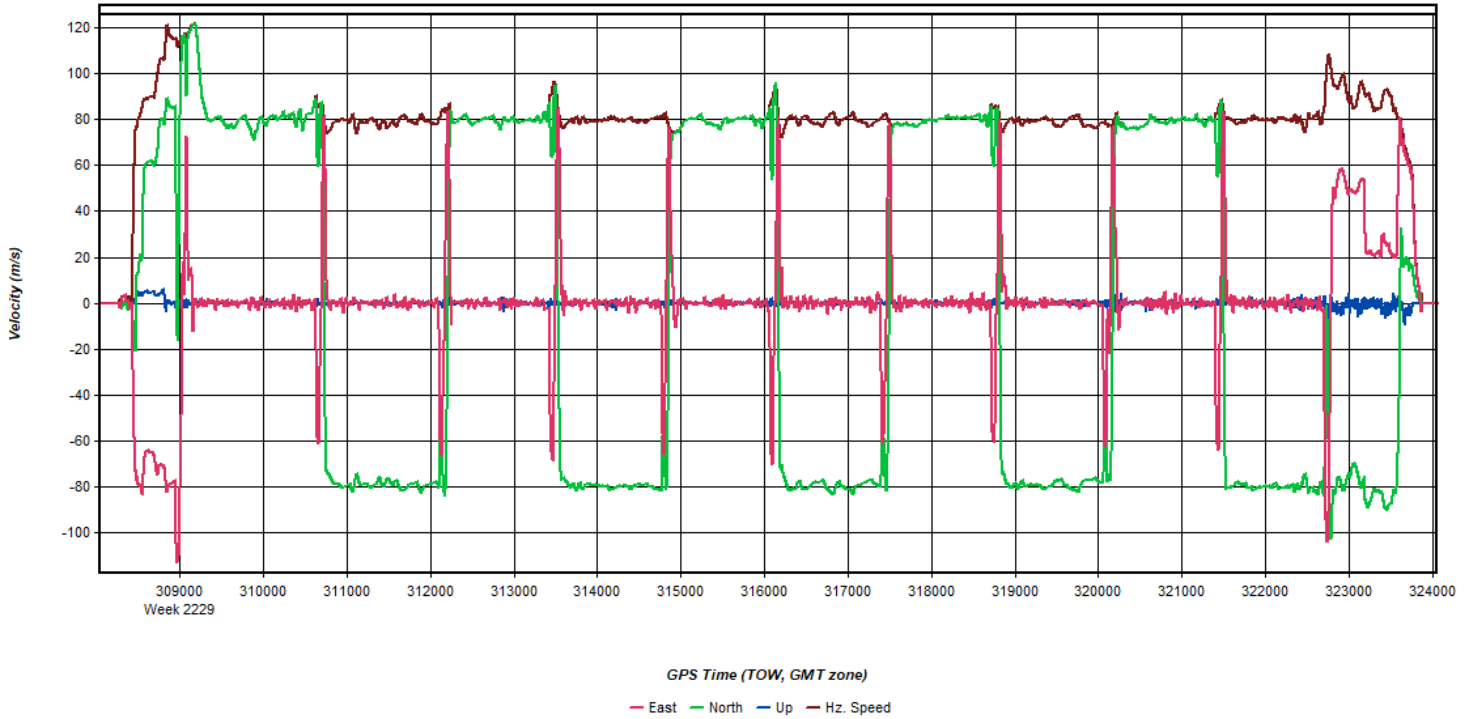
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 12: 20220928133259_21 [Smoothed TC Combined] - Roll & Pitch Plot



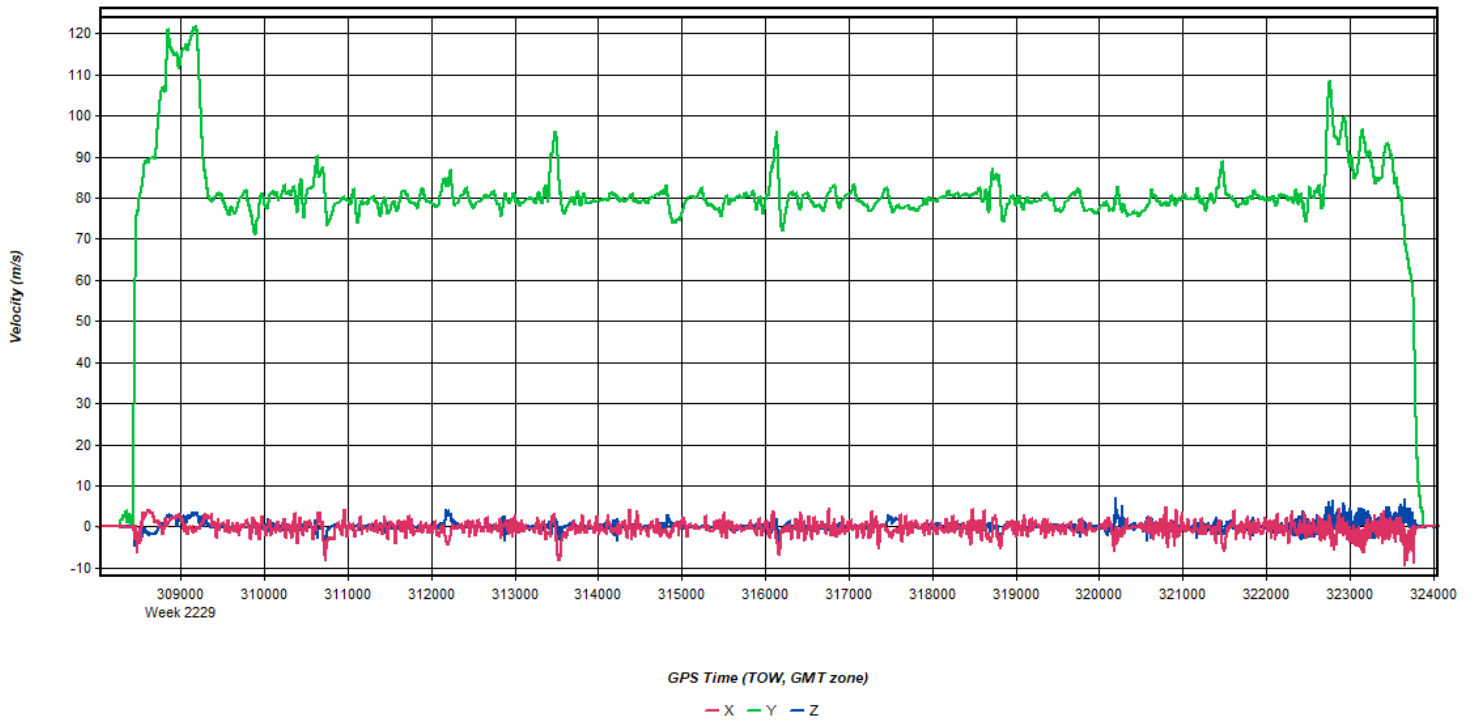
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 13: 20220928133259_21 [Smoothed TC Combined] - Velocity Profile Plot



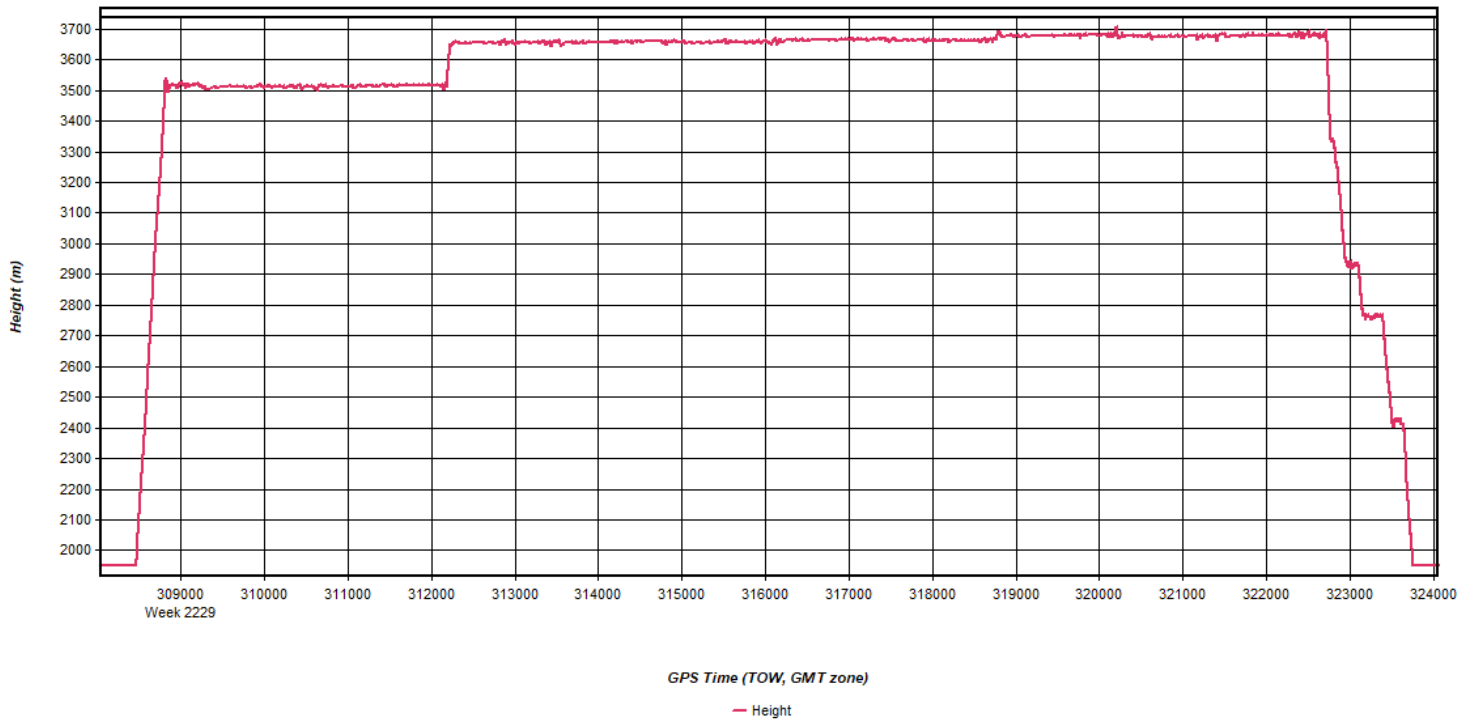
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 14: 20220928133259_21 [Smoothed TC Combined] - Body Frame Velocity Plot



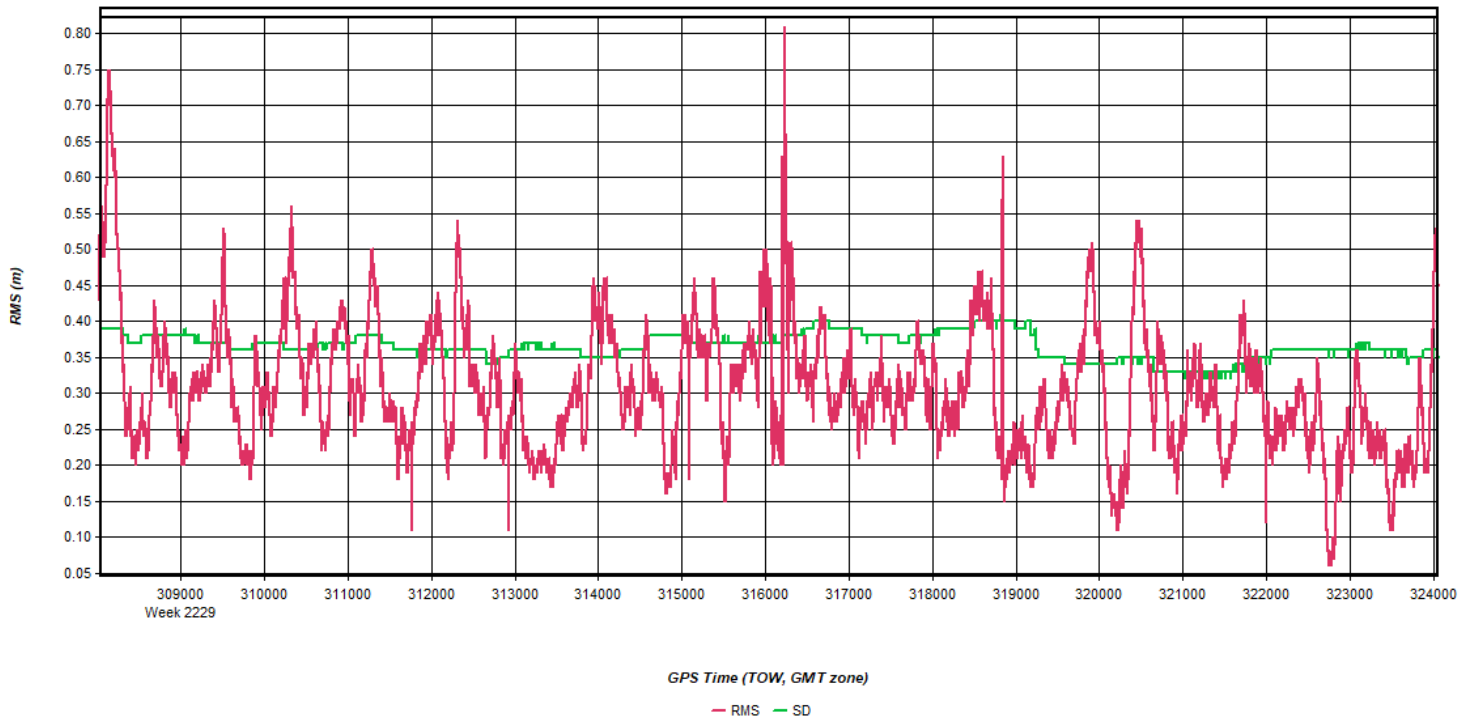
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 15: 20220928133259_21 [Smoothed TC Combined] - Height Profile Plot



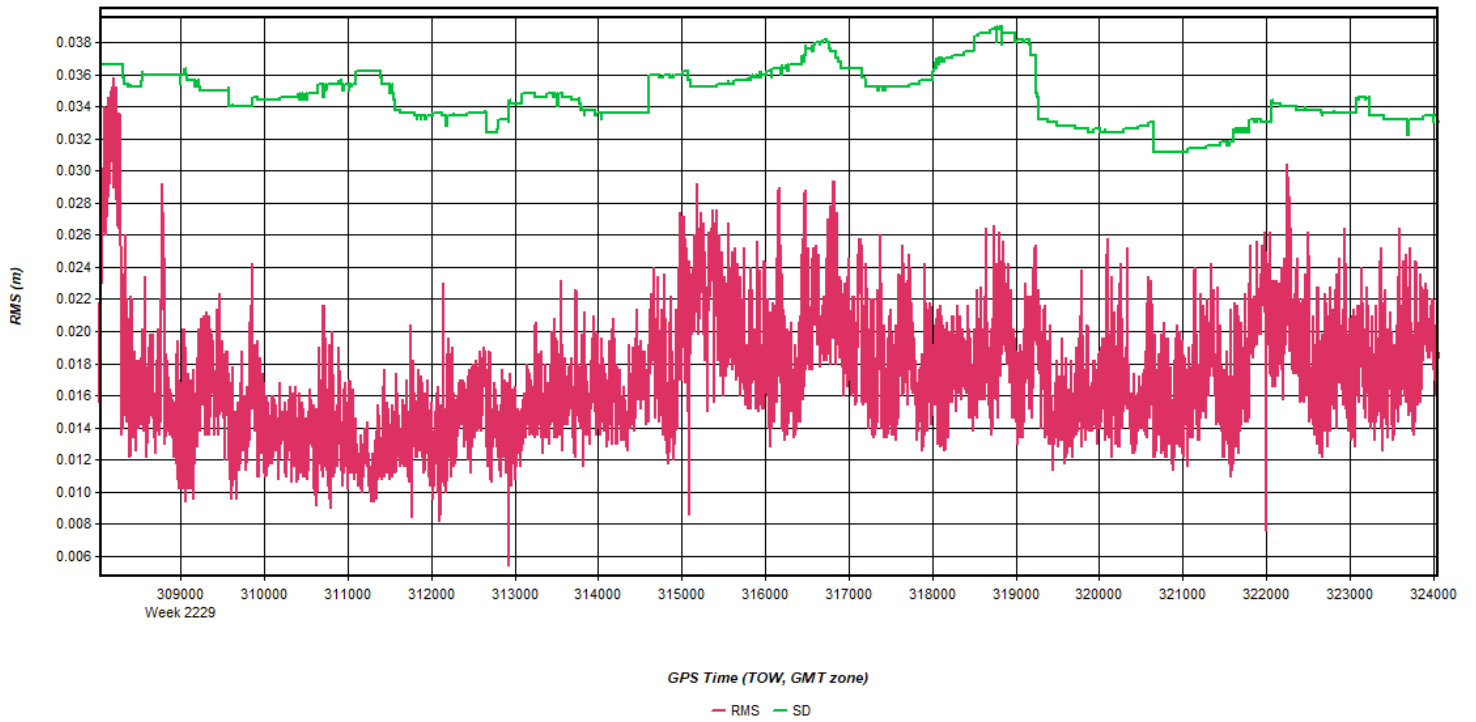
Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 16: 20220928133259_21 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 17: 20220928133259_21 [Smoothed TC Combined] - Carrier Residual RMS Plot



Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Figure 18: 20220928133259_21 [Smoothed TC Combined] - Doppler Residual RMS Plot

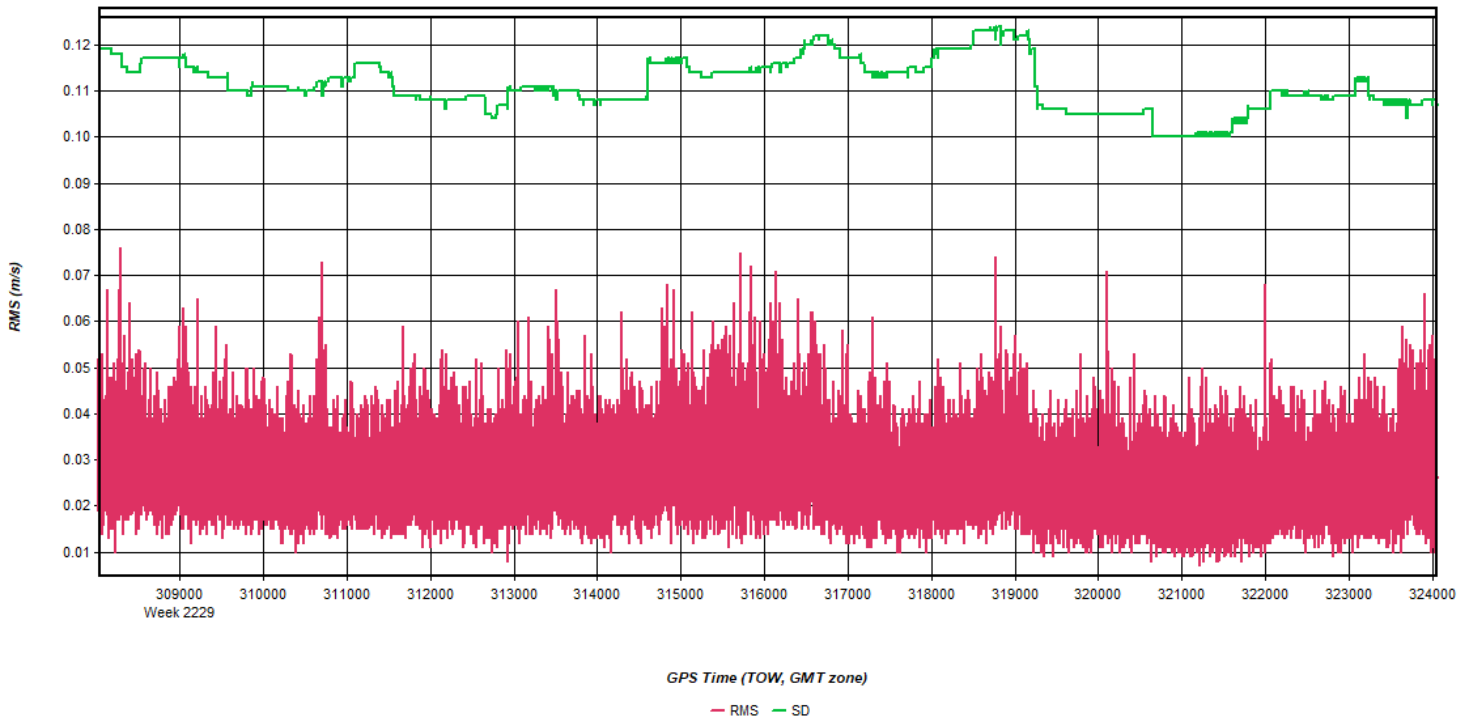


Figure 19: 20220928133259_21 [Smoothed TC Combined] - Accelerometer Bias Plot

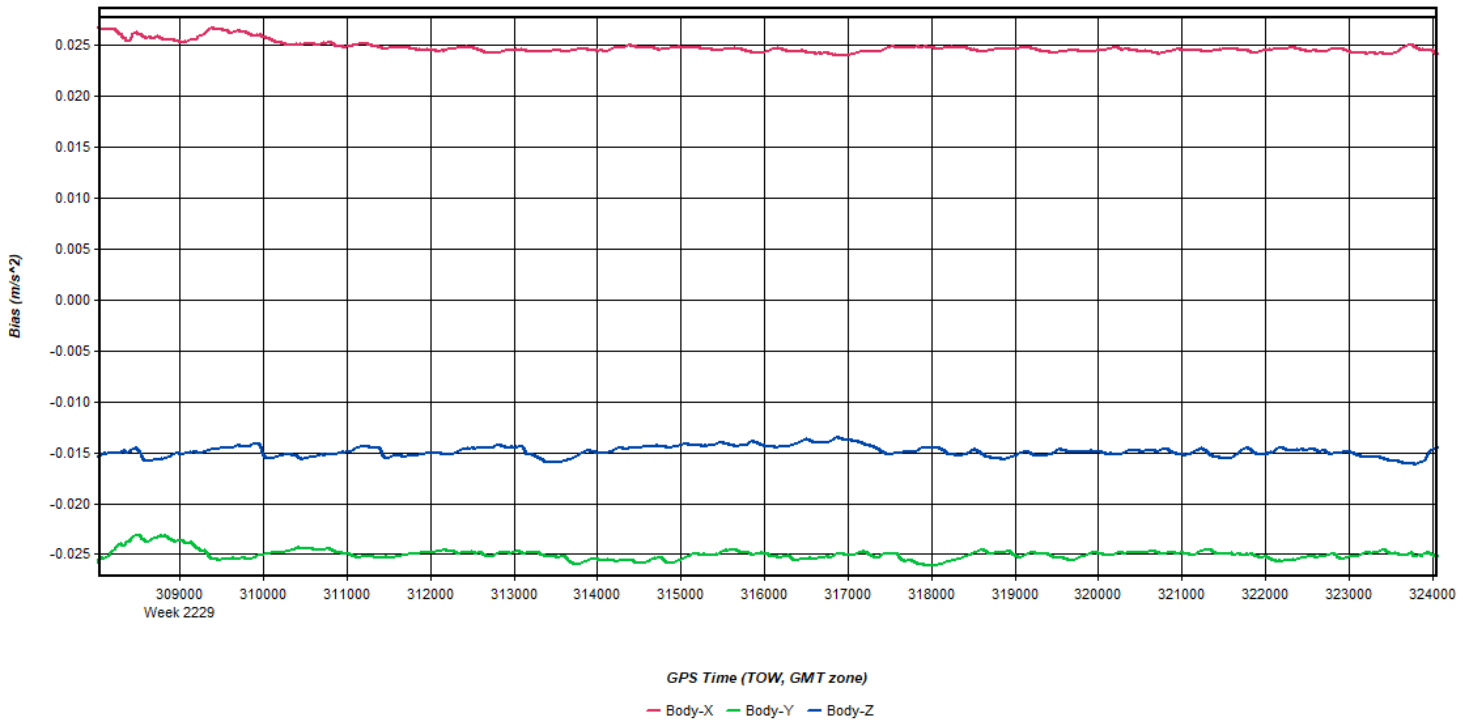
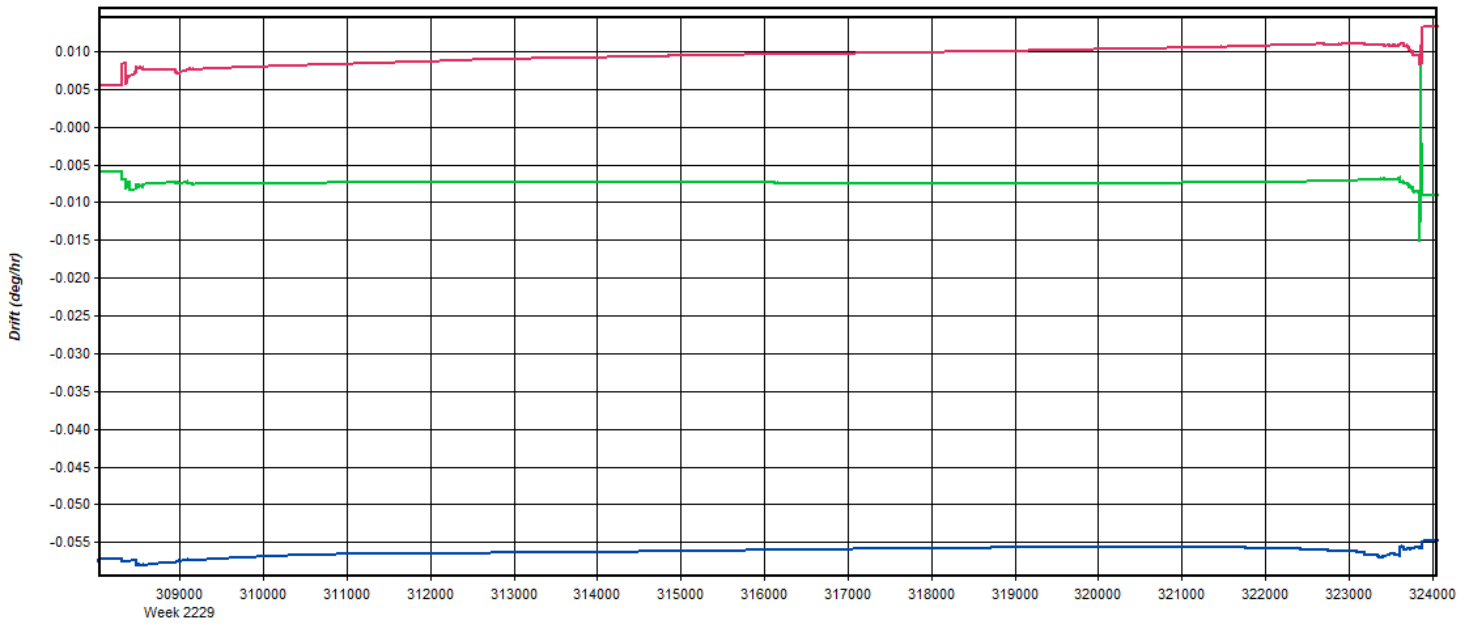


Figure 20: 20220928133259_21 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

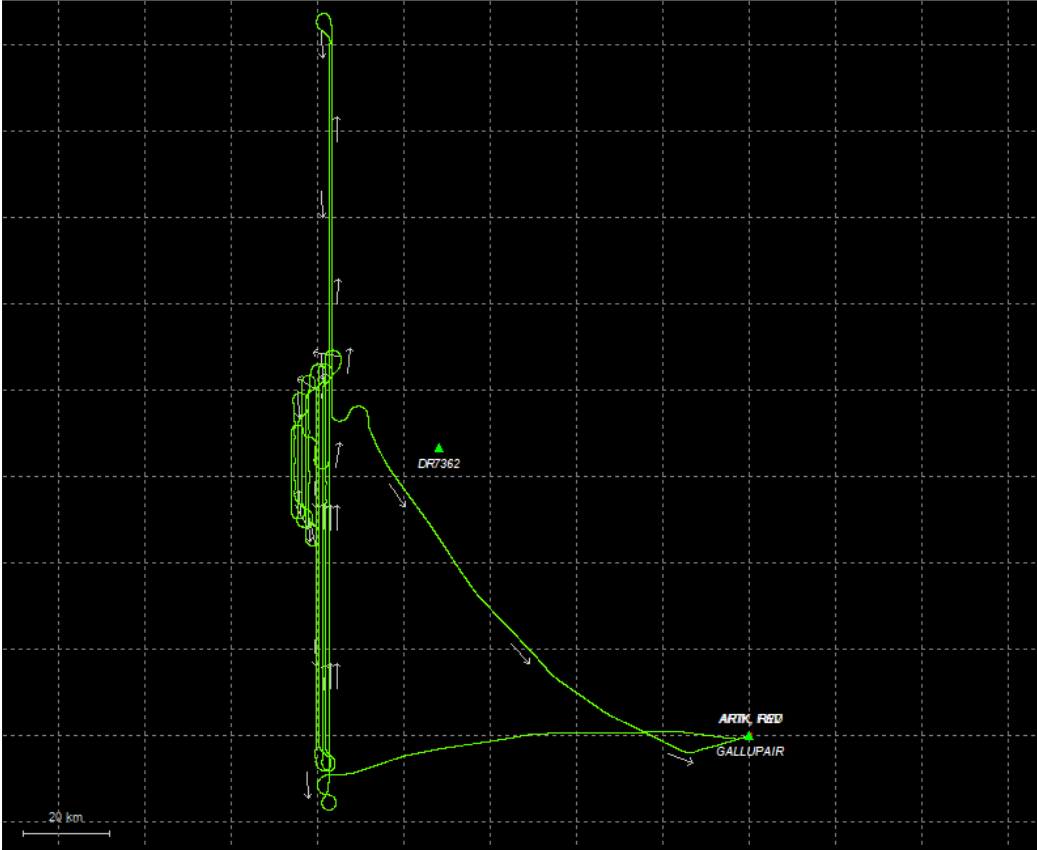
— Body-X — Body-Y — Body-Z

Process	20220928133259_21	by Unknown	on 10/4/2022	at 14:54:04
---------	-------------------	------------	--------------	-------------

Output Results for 20220929000533_22

Inertial Explorer Version 8.90.2124
10/04/2022

Figure 1: Smoothed TC Combined - Map



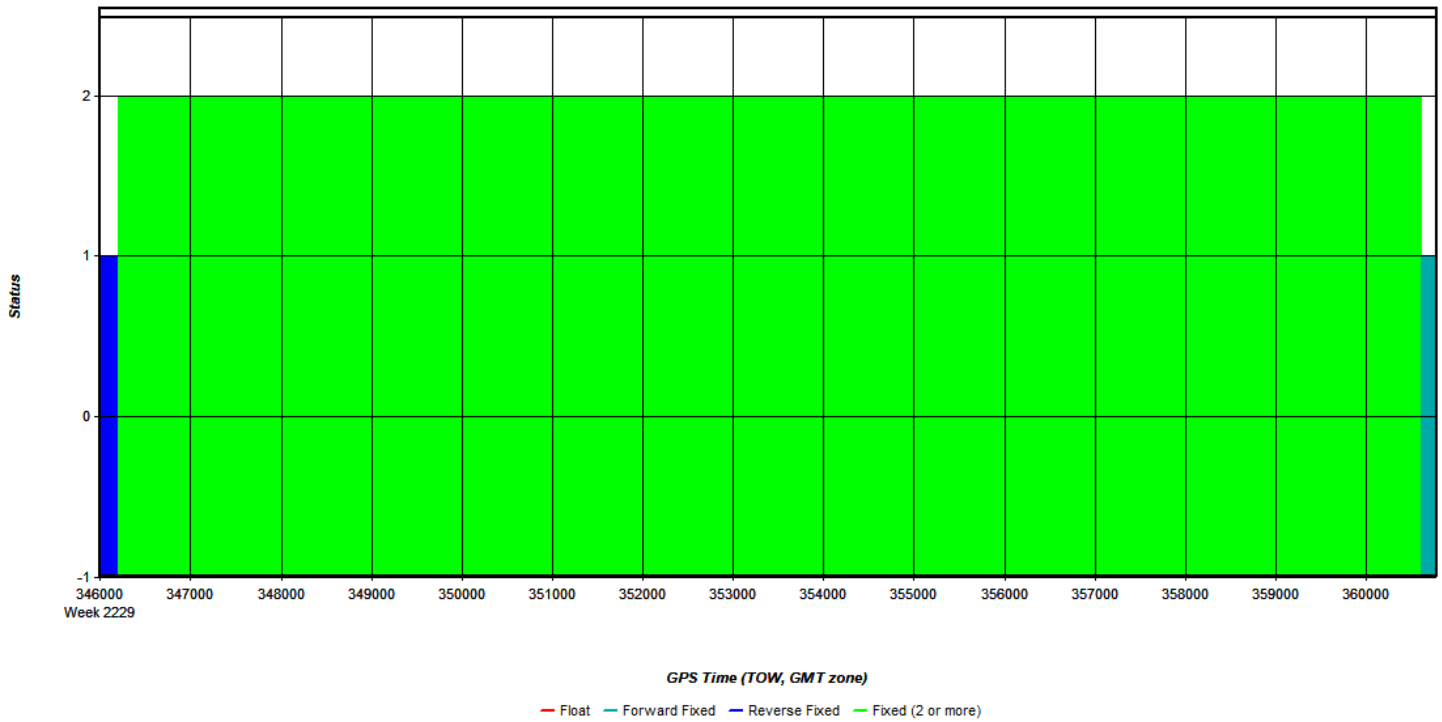
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 2: 20220929000533_22 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 3: 20220929000533_22 [Smoothed TC Combined] - Float or Fixed Ambiguity



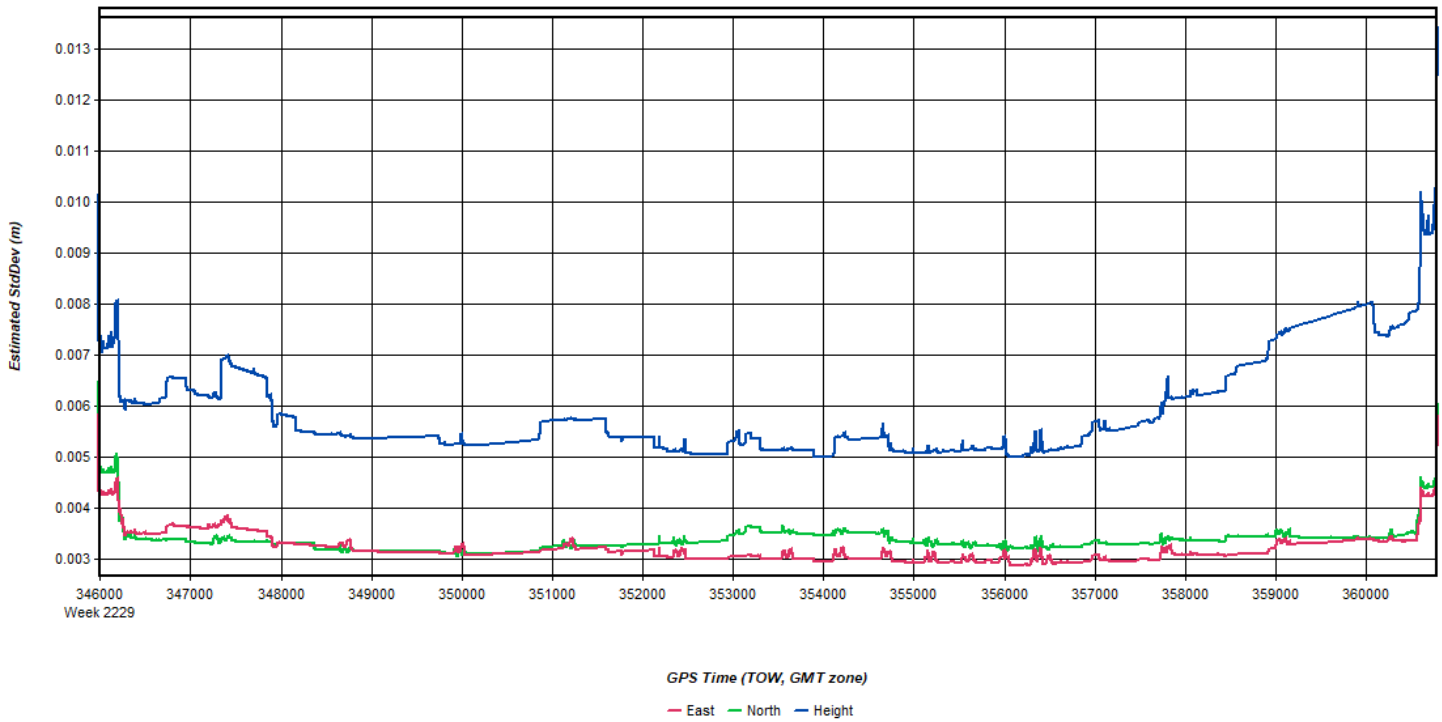
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 4: 20220929000533_22 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 5: 20220929000533_22 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 6: 20220929000533_22 [Smoothed TC Combined] - PDOP Plot

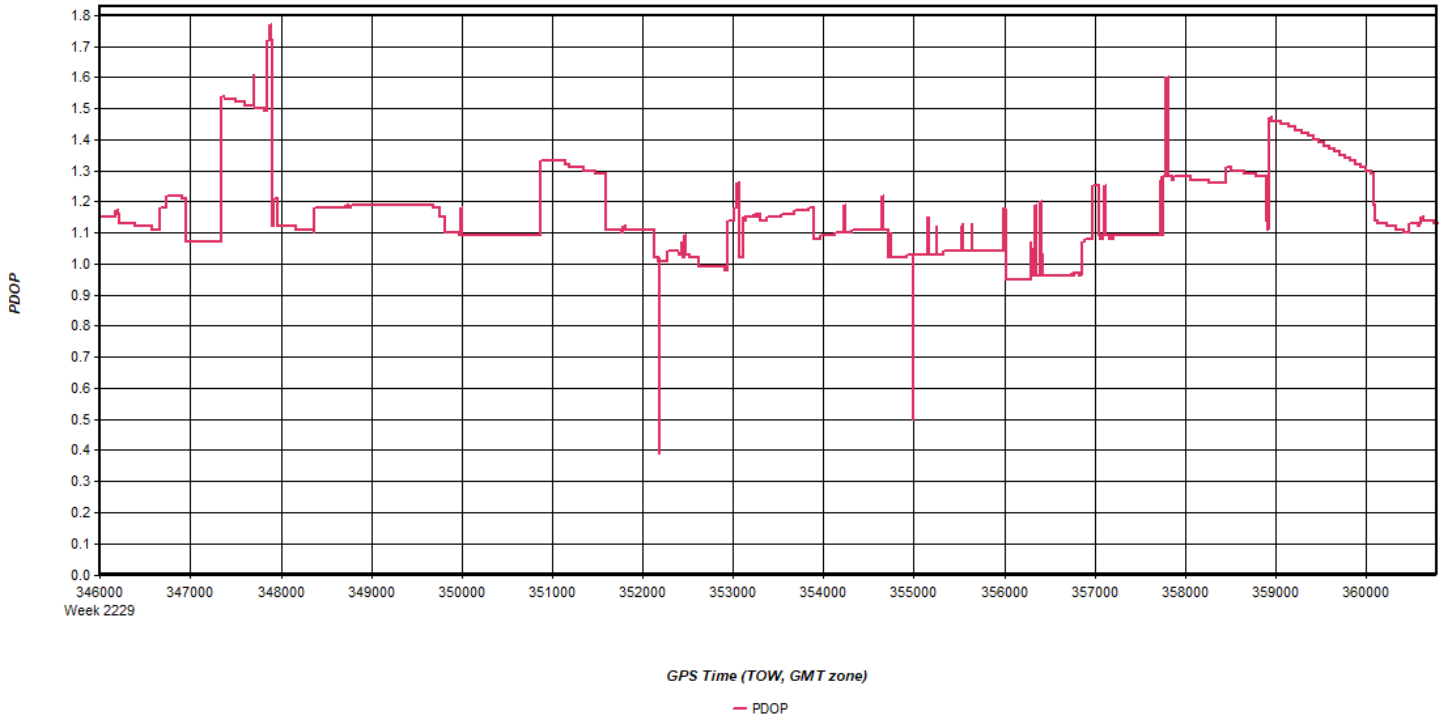


Figure 7: 20220929000533_22 [Smoothed TC Combined] - Number of Satellites Line Plot

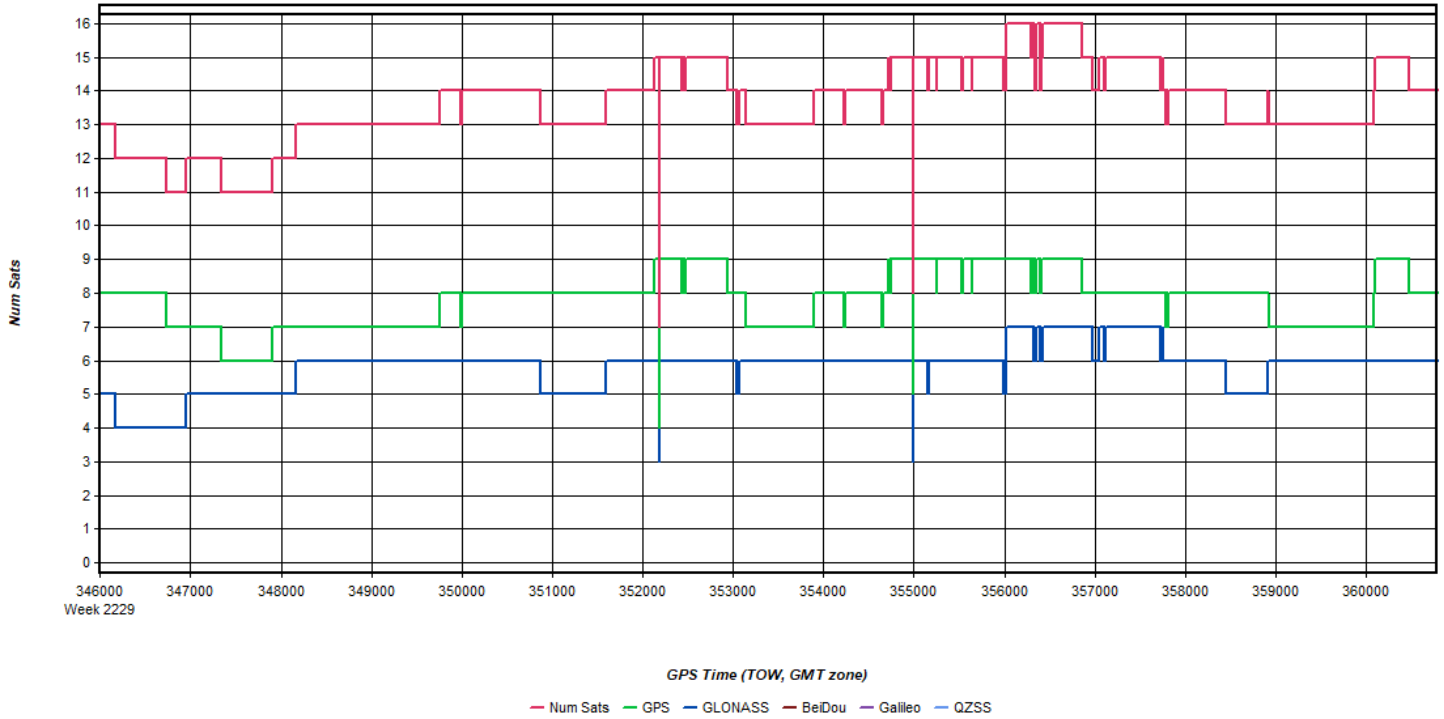
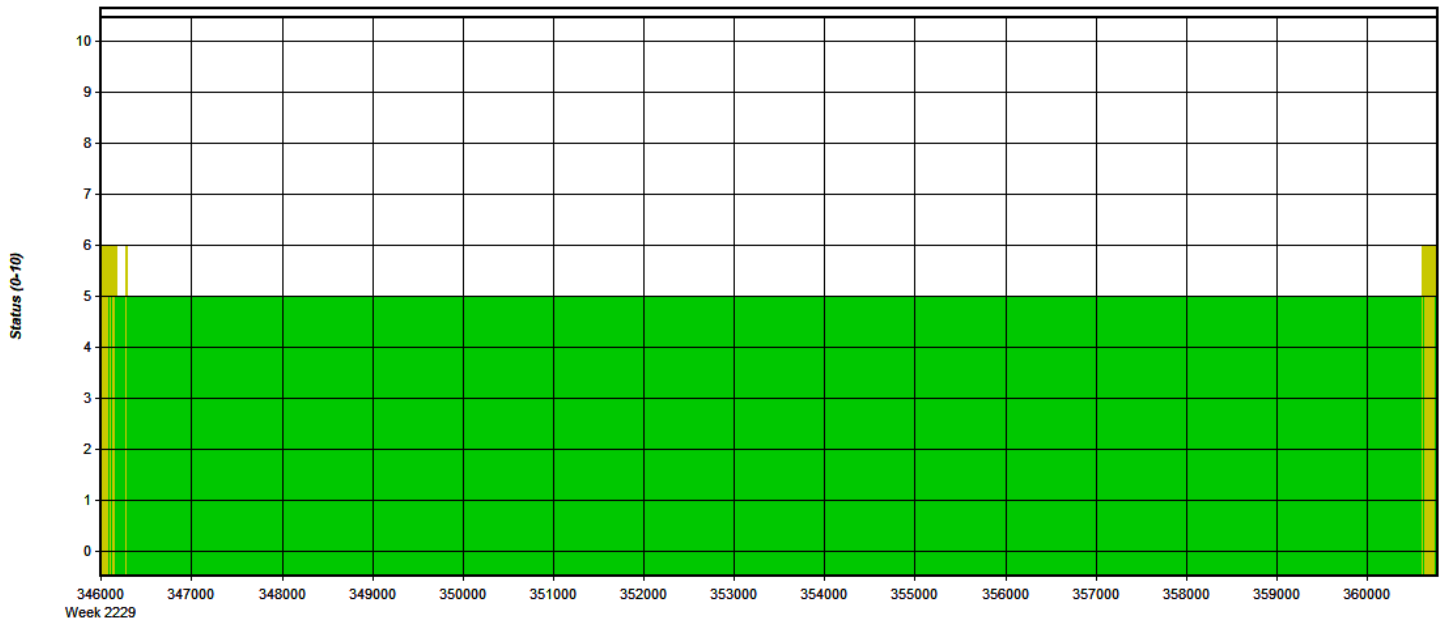
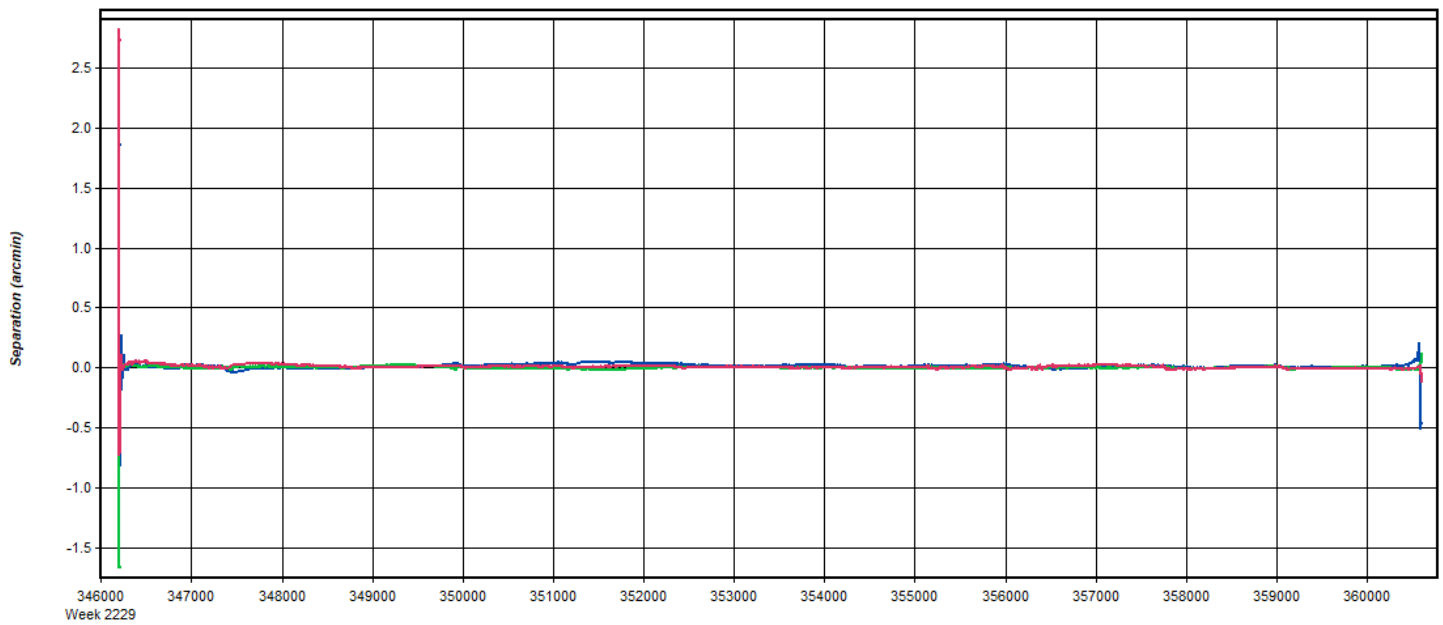


Figure 8: 20220929000533_22 [Smoothed TC Combined] - Status flag for IMU processing



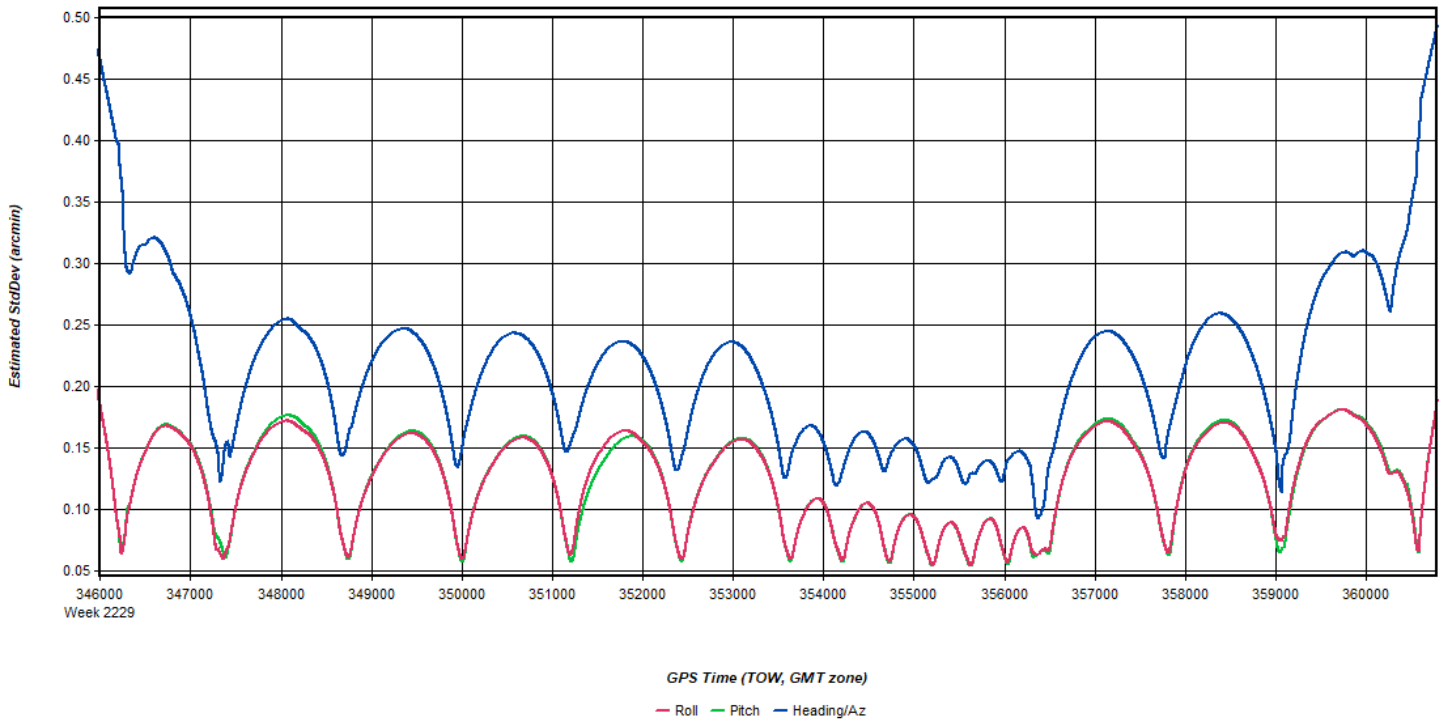
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 9: 20220929000533_22 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



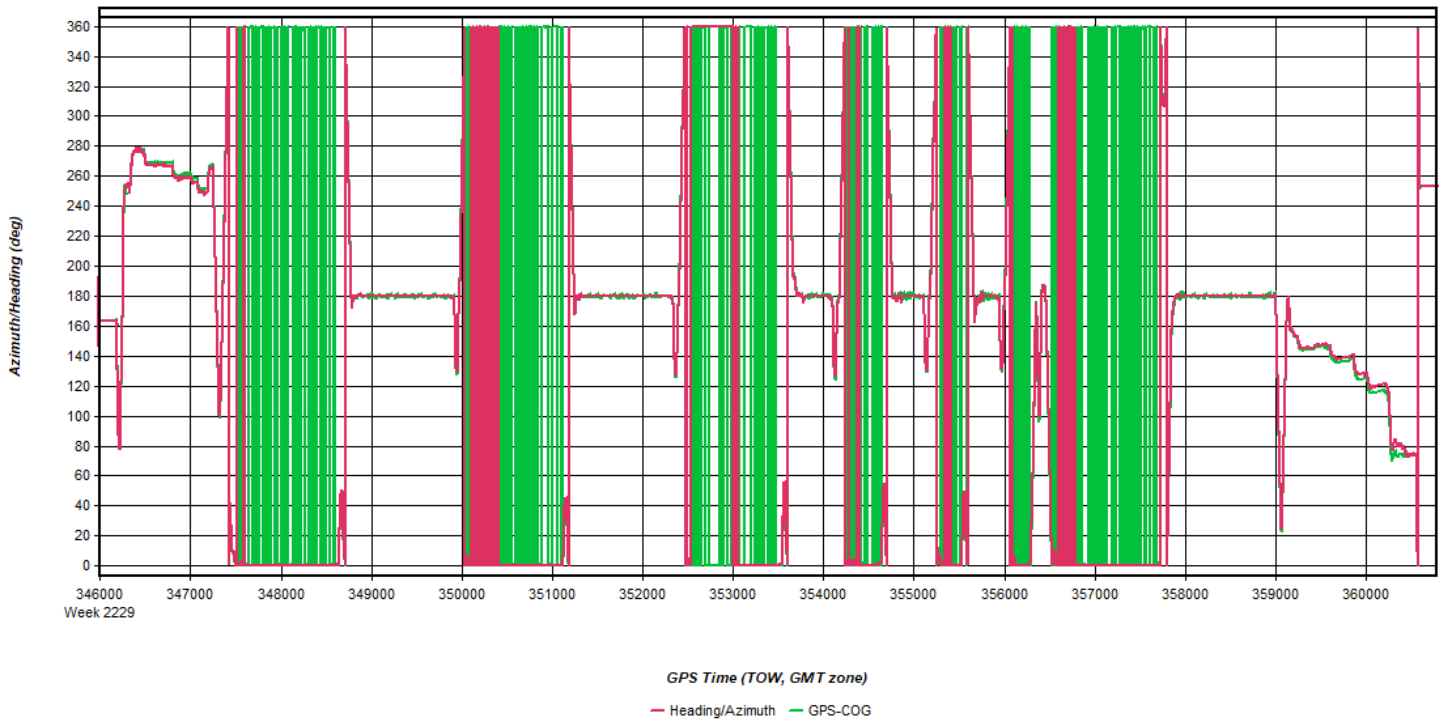
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 10: 20220929000533_22 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



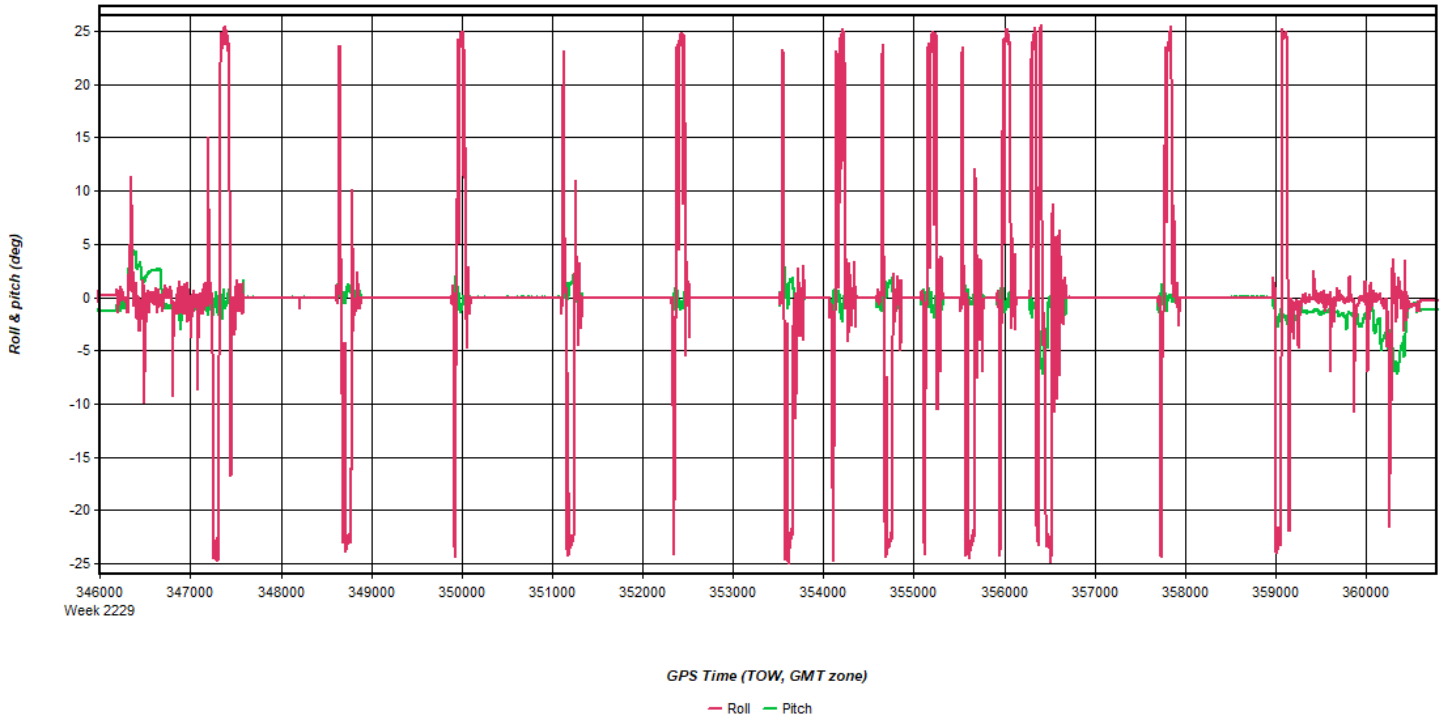
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 11: 20220929000533_22 [Smoothed TC Combined] - Azimuth Plot



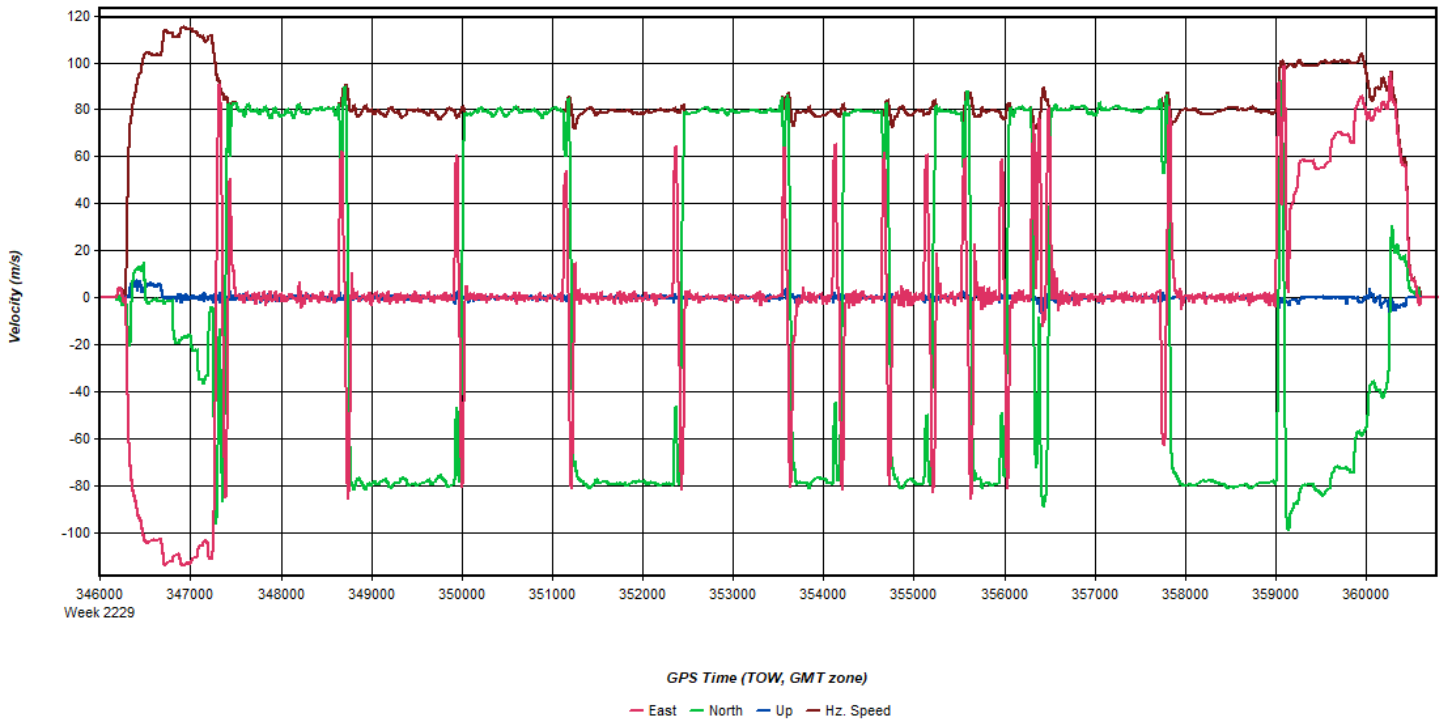
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 12: 20220929000533_22 [Smoothed TC Combined] - Roll & Pitch Plot



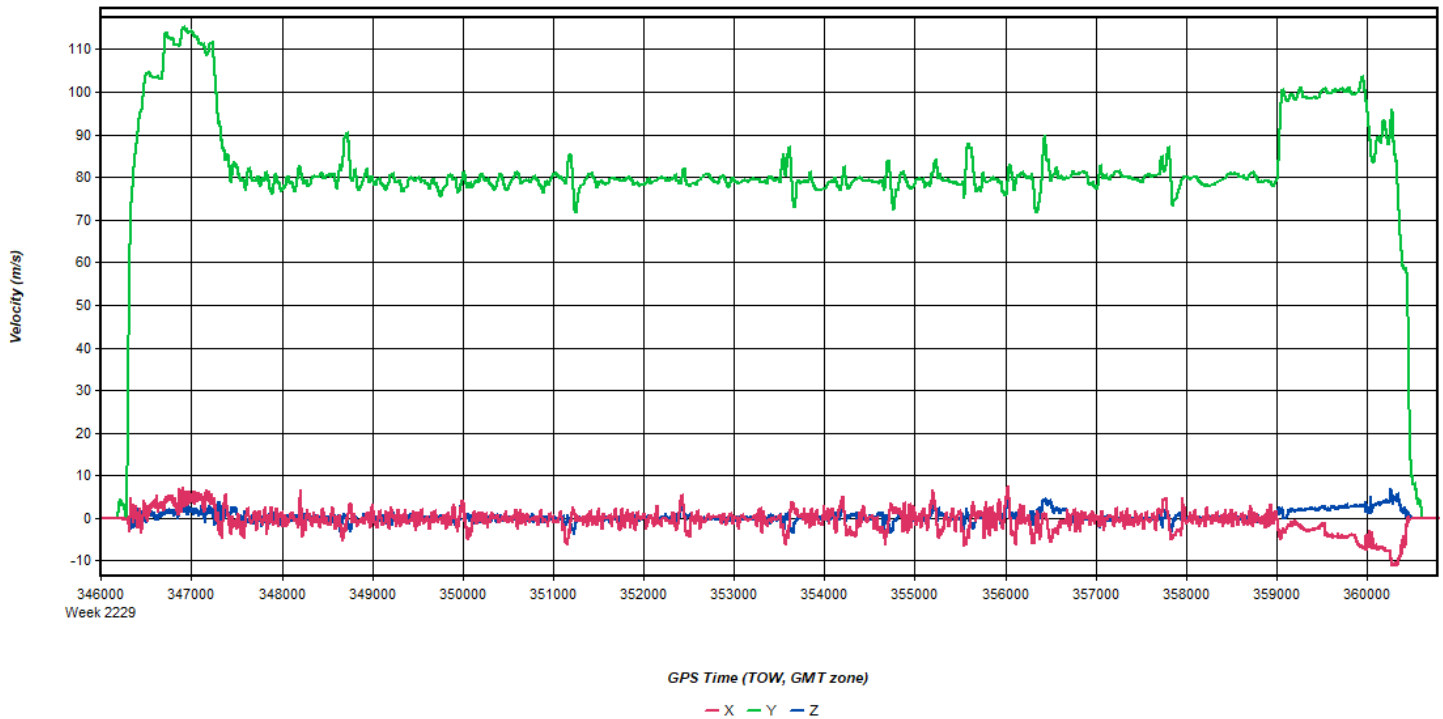
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 13: 20220929000533_22 [Smoothed TC Combined] - Velocity Profile Plot



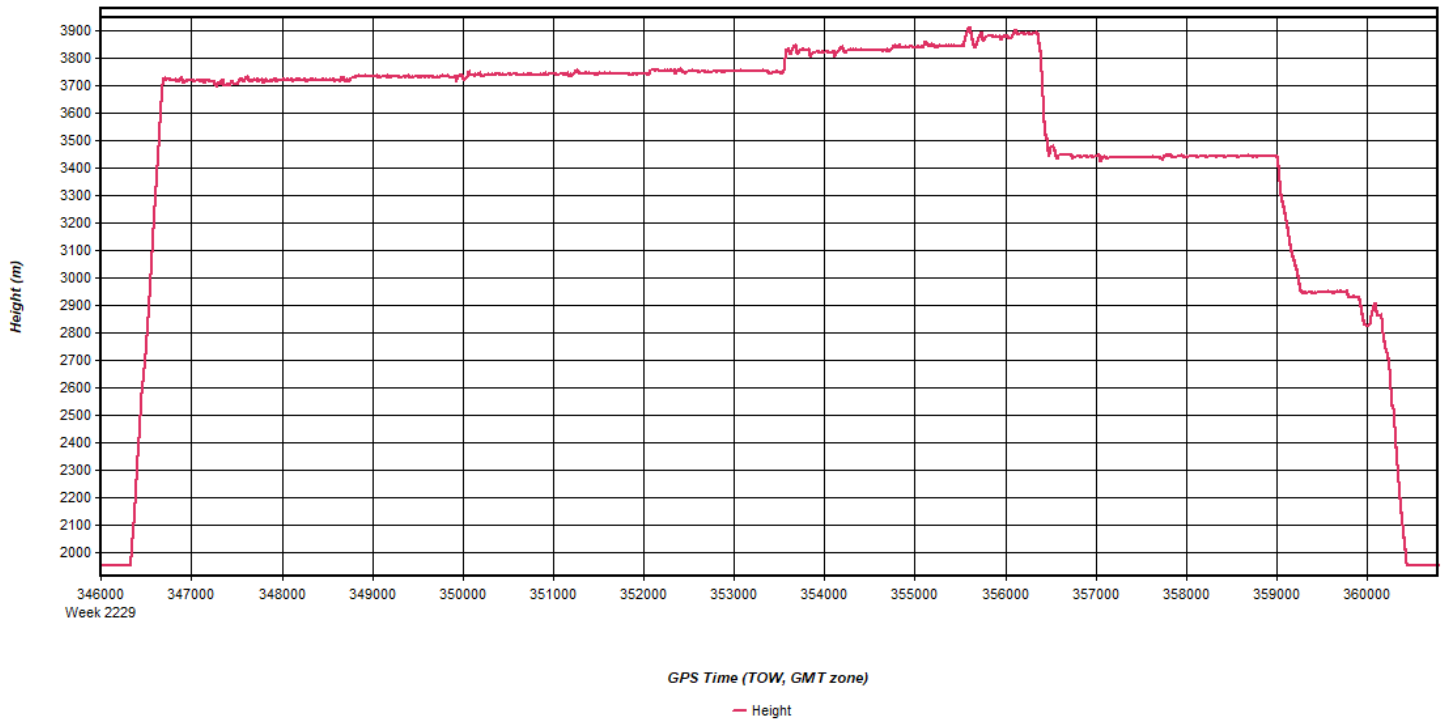
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 14: 20220929000533_22 [Smoothed TC Combined] - Body Frame Velocity Plot



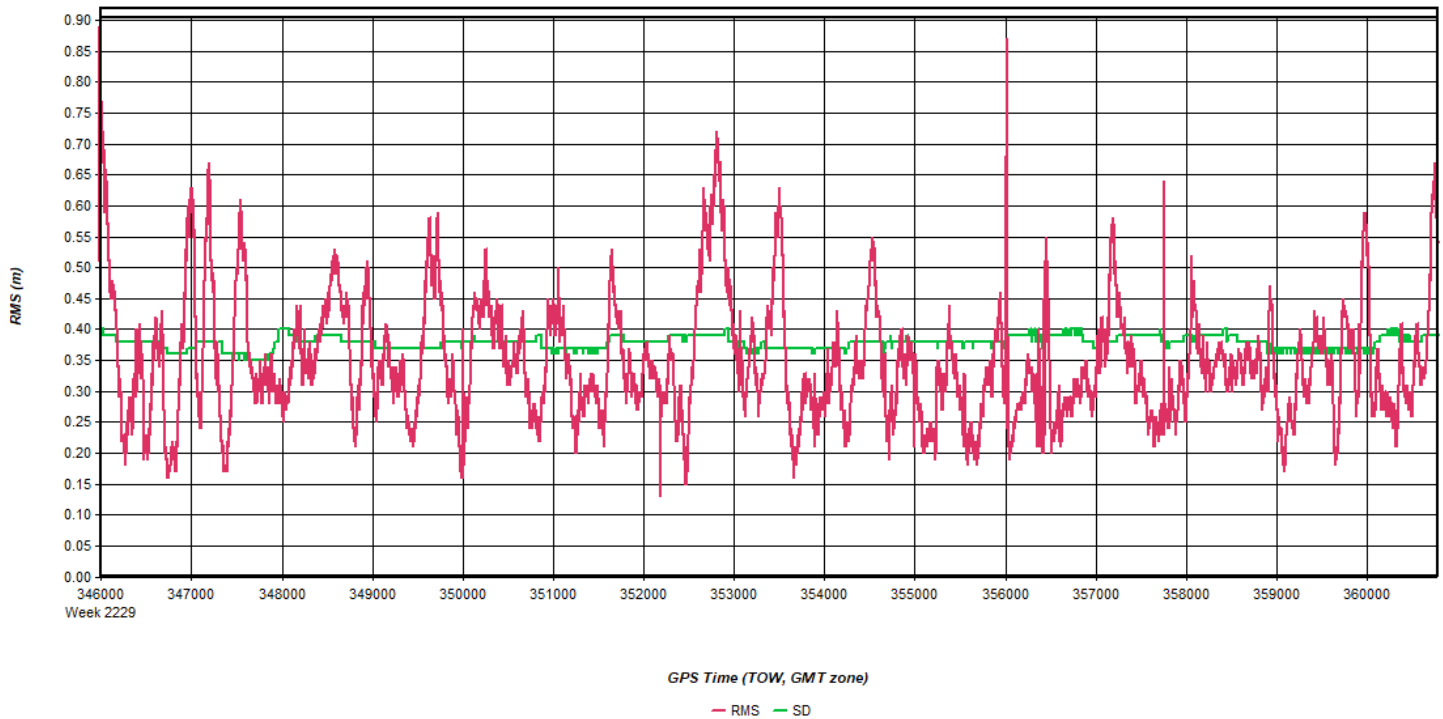
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 15: 20220929000533_22 [Smoothed TC Combined] - Height Profile Plot



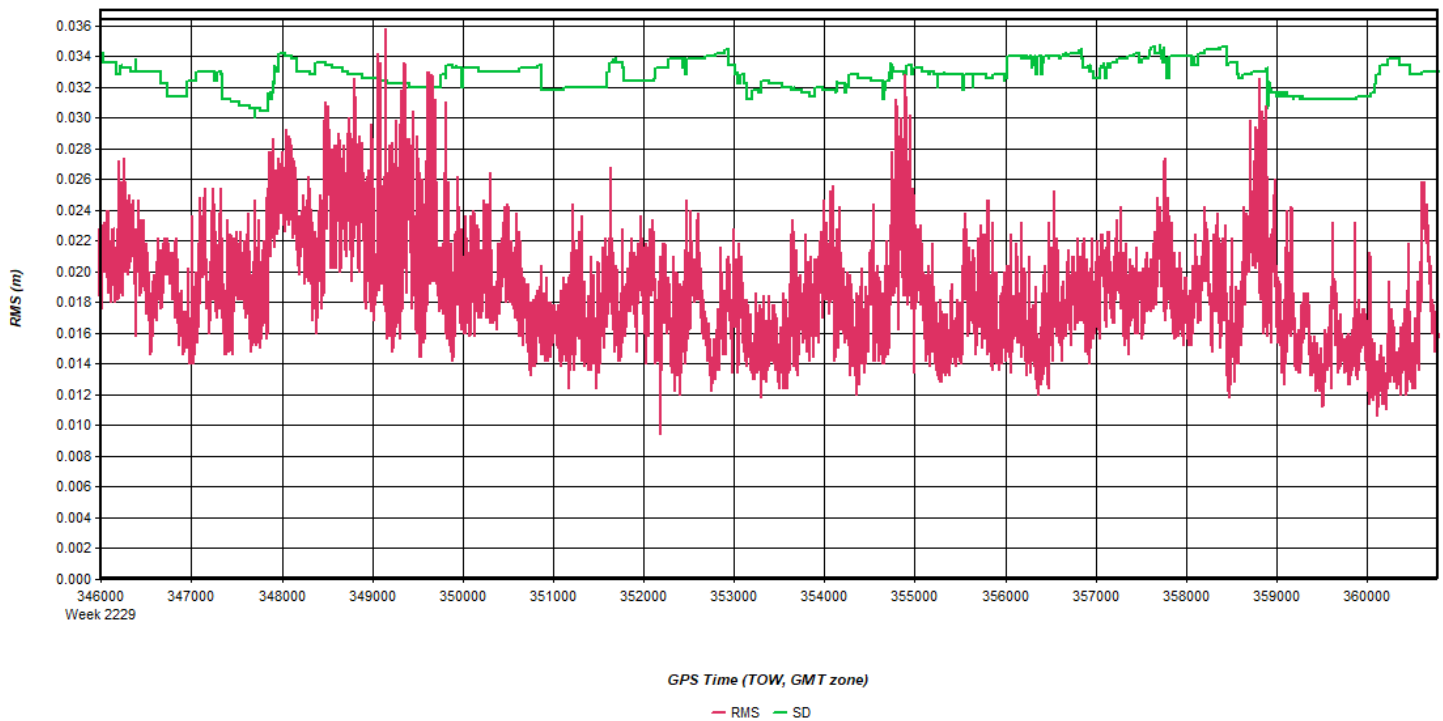
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 16: 20220929000533_22 [Smoothed TC Combined] - C/A Code Residual RMS Plot



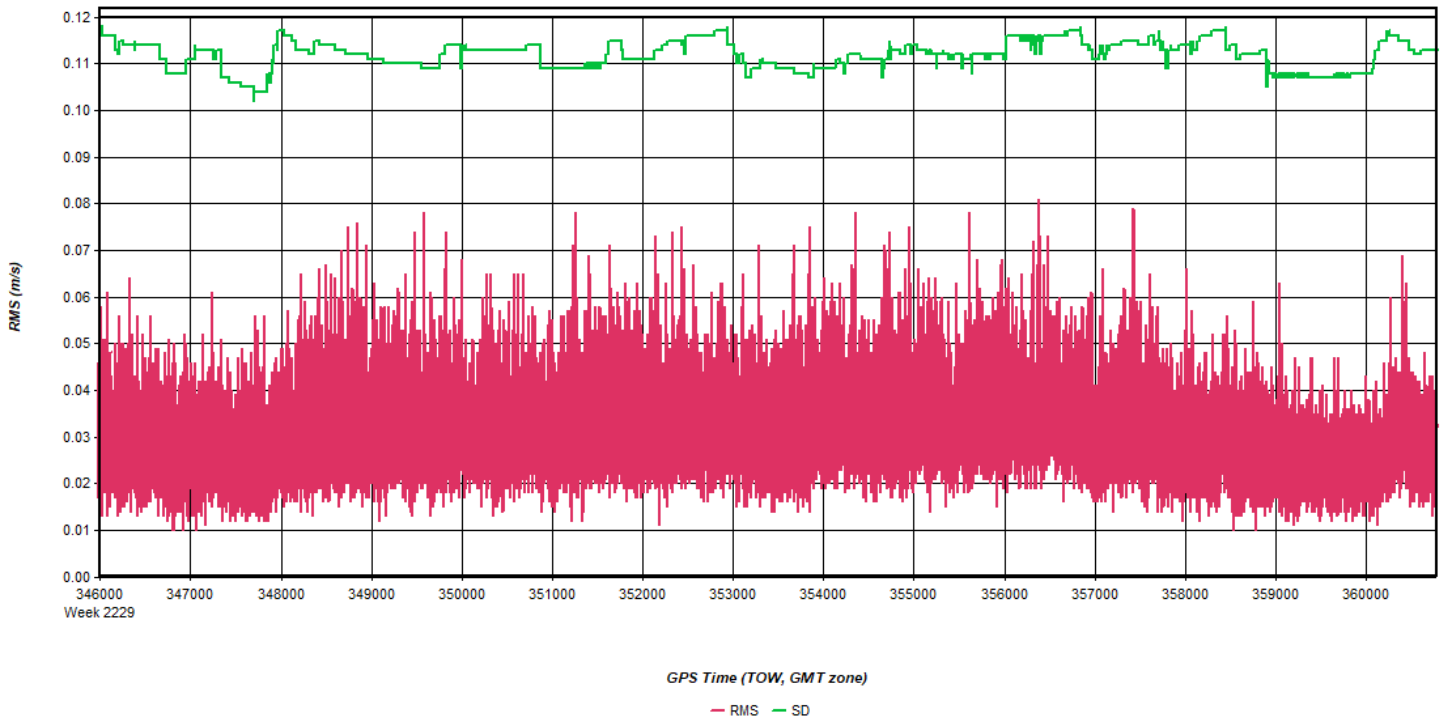
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 17: 20220929000533_22 [Smoothed TC Combined] - Carrier Residual RMS Plot



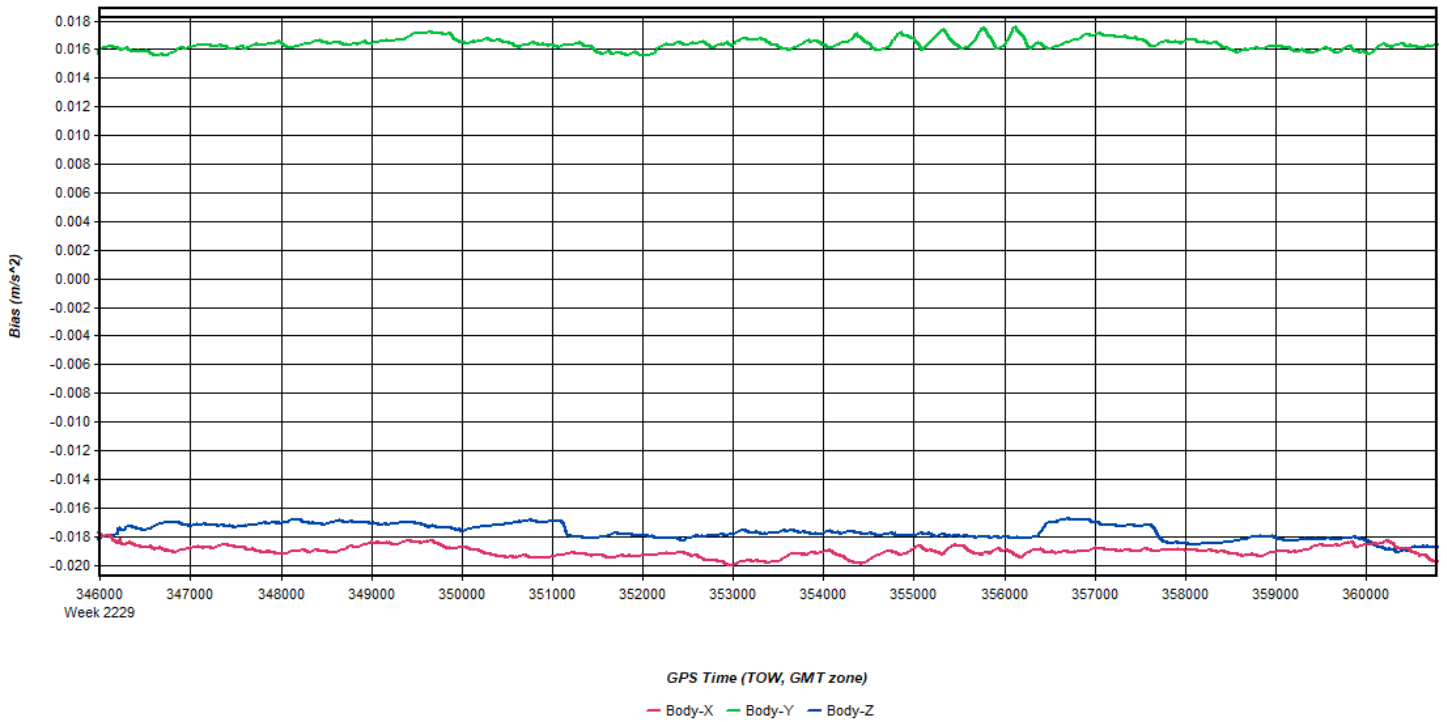
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 18: 20220929000533_22 [Smoothed TC Combined] - Doppler Residual RMS Plot



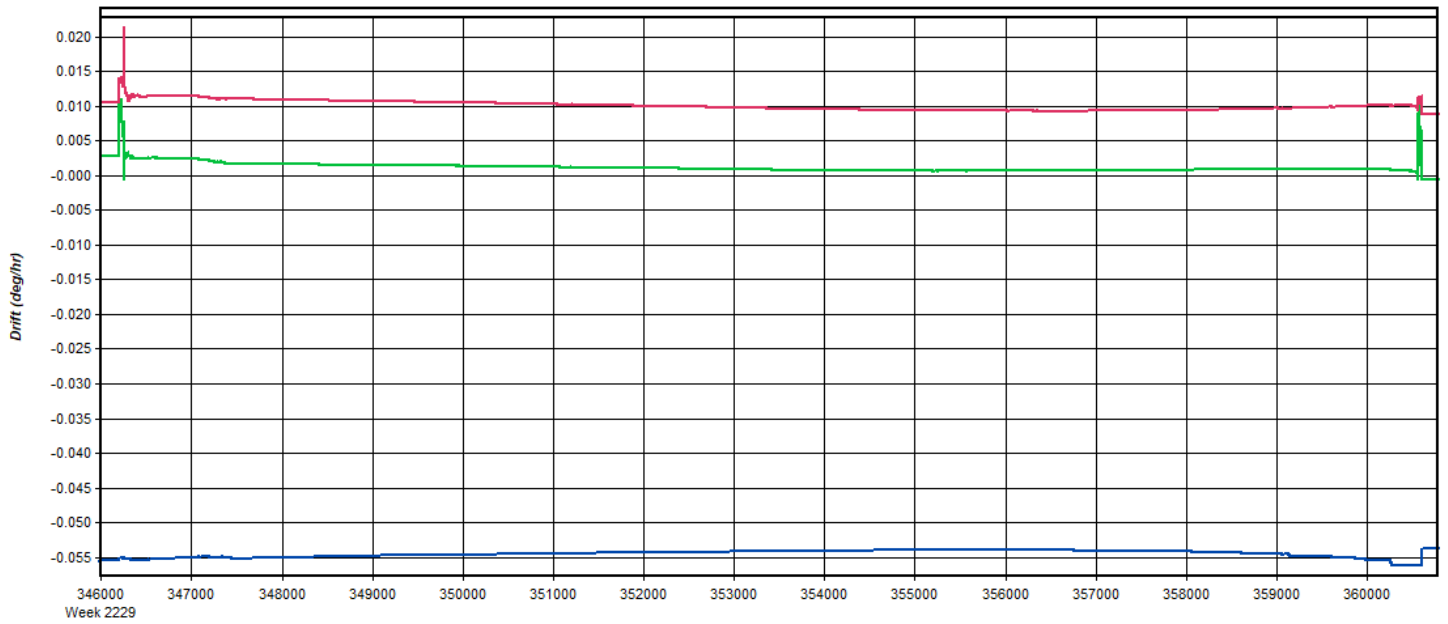
Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 19: 20220929000533_22 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Figure 20: 20220929000533_22 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

— Body-X — Body-Y — Body-Z

Process	20220929000533_22	by Unknown	on 10/4/2022	at 15:14:48
---------	-------------------	------------	--------------	-------------

Output Results for 20220929143126_23

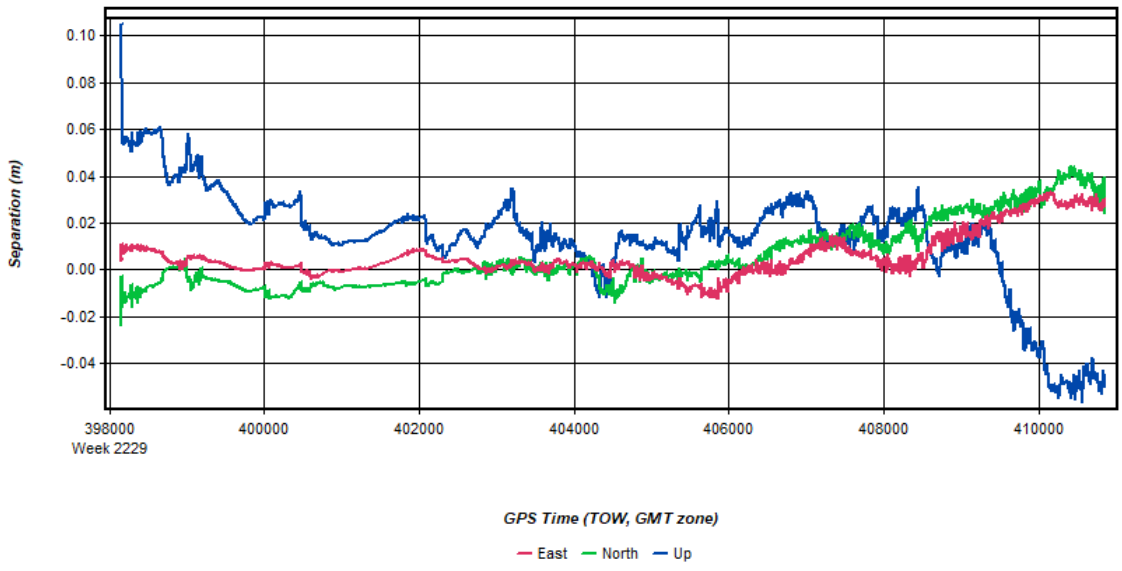
Inertial Explorer Version 8.90.2124
10/05/2022

Figure 1: Smoothed TC Combined - Map



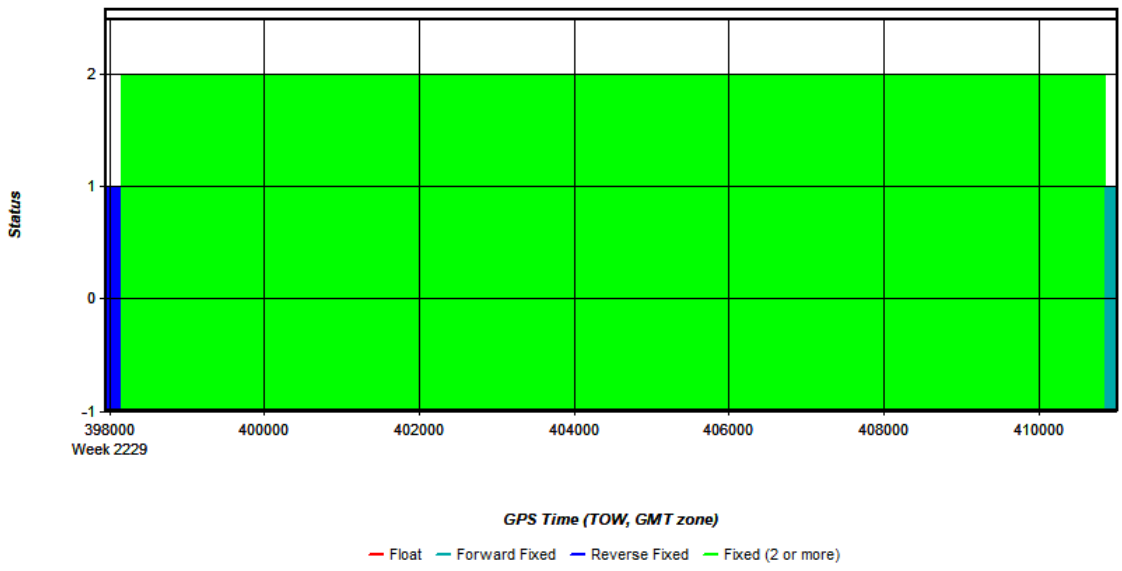
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 2: 20220929143126_23 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



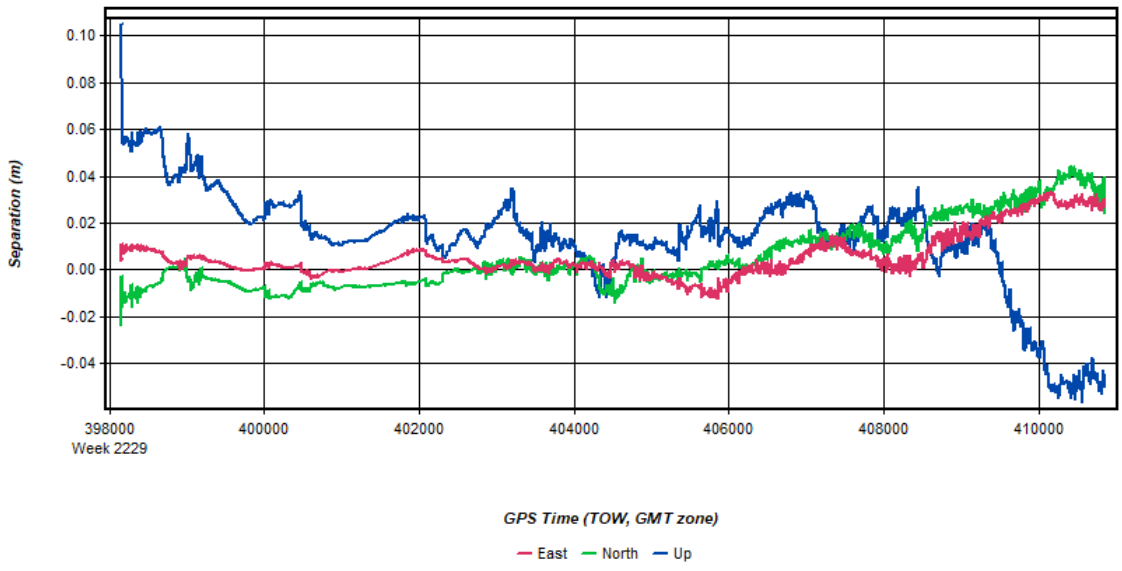
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 3: 20220929143126_23 [Smoothed TC Combined] - Float or Fixed Ambiguity



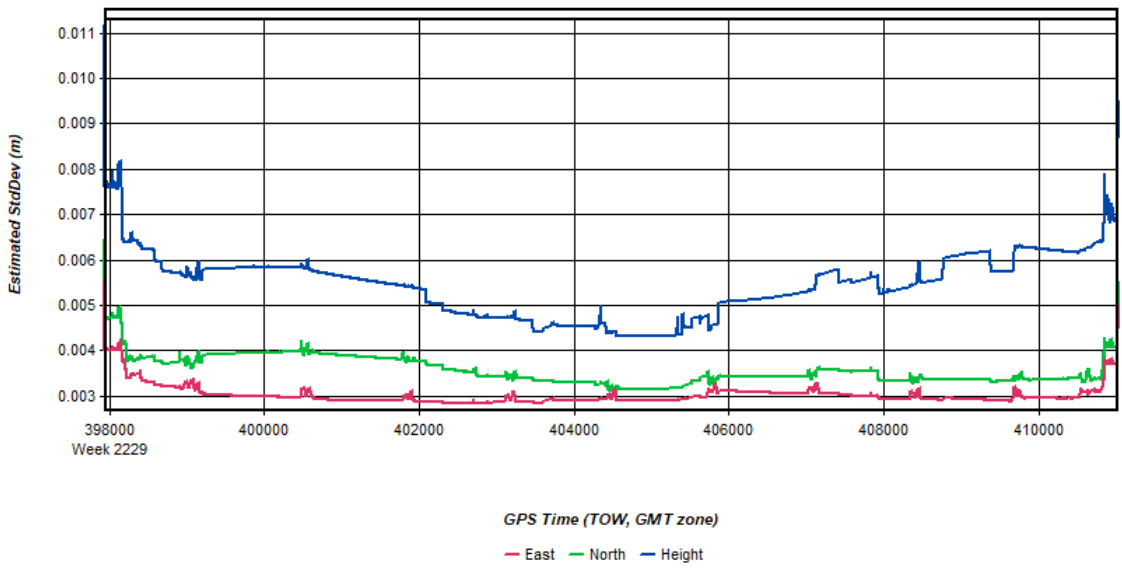
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 4: 20220929143126_23 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 5: 20220929143126_23 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 6: 20220929143126_23 [Smoothed TC Combined] - PDOP Plot

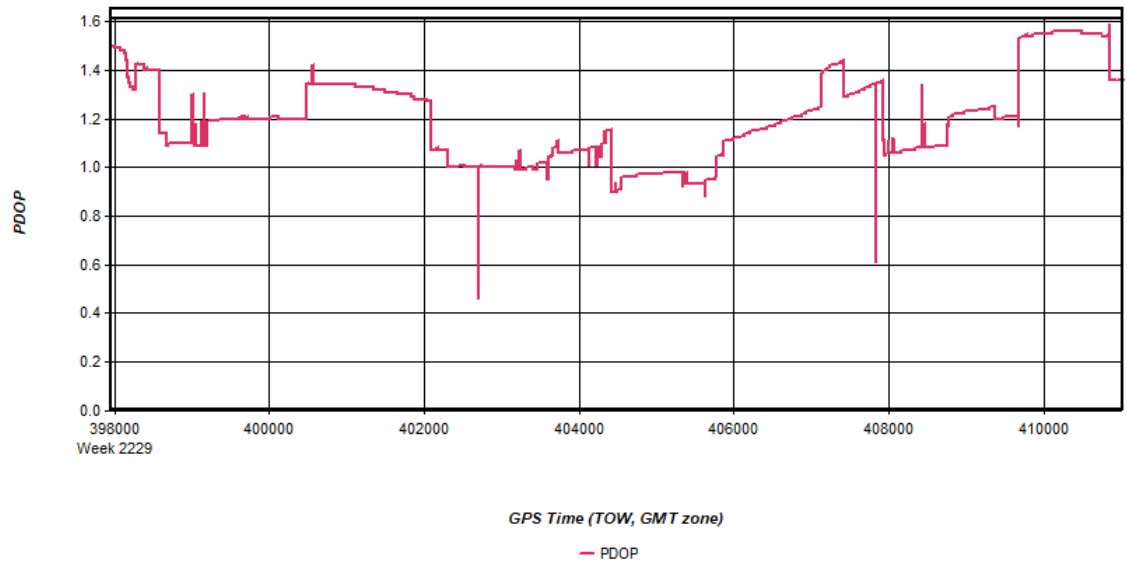


Figure 7: 20220929143126_23 [Smoothed TC Combined] - Number of Satellites Line Plot

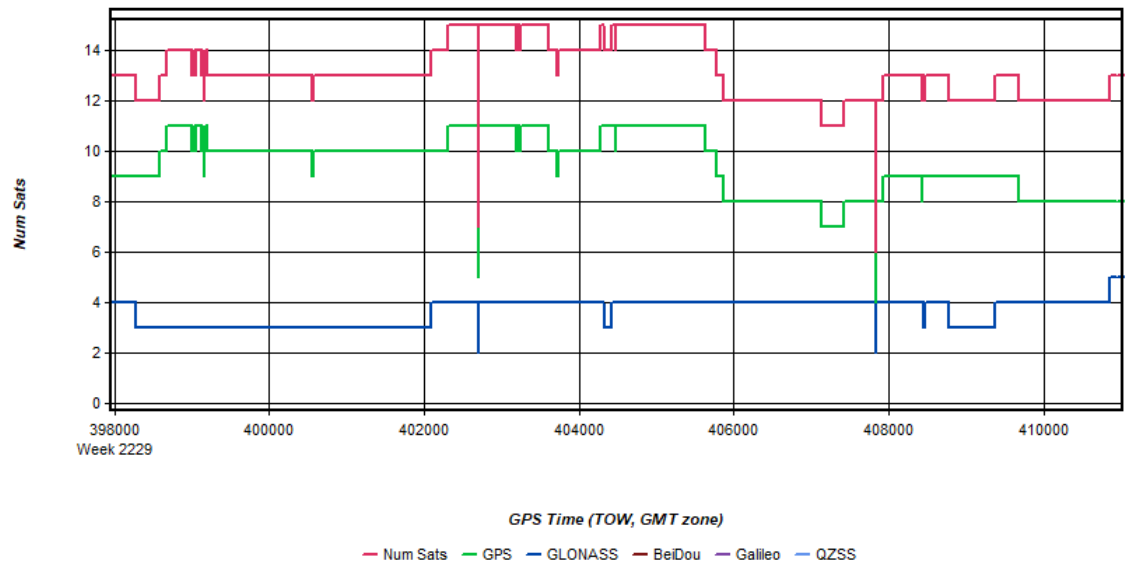
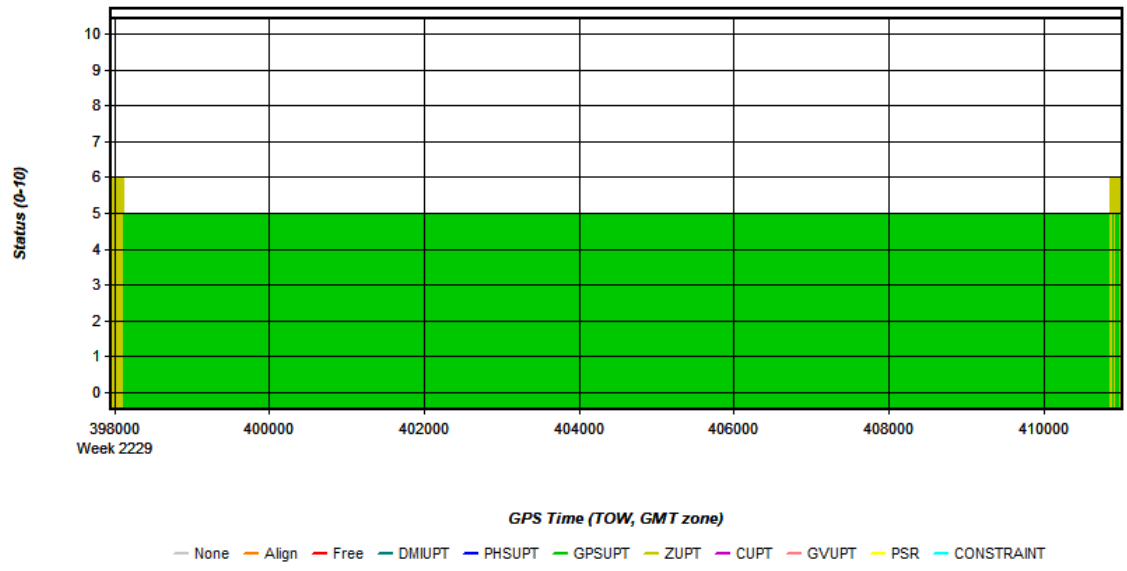
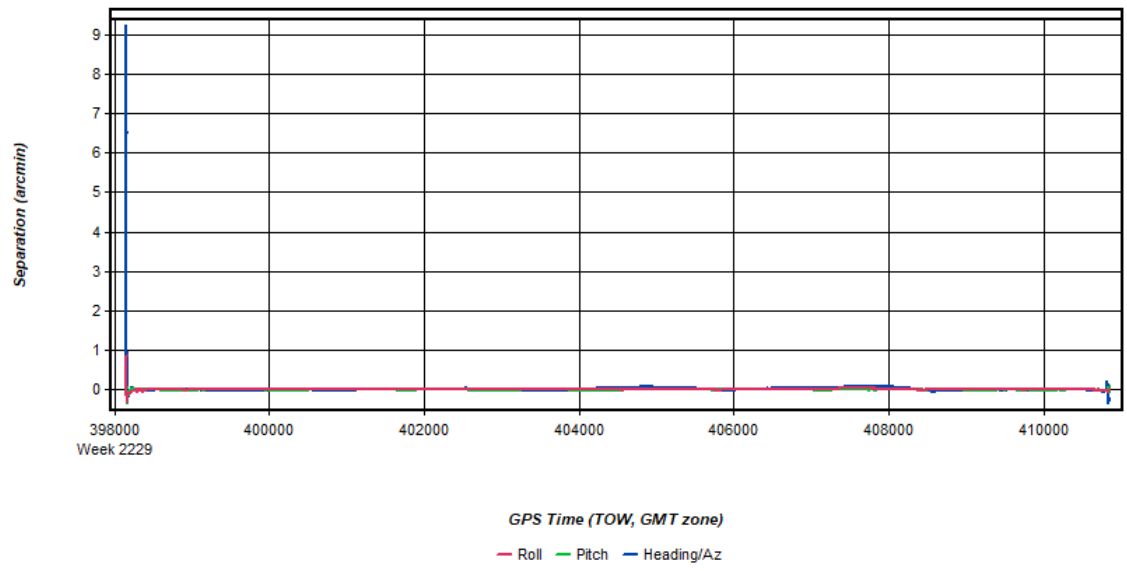


Figure 8: 20220929143126_23 [Smoothed TC Combined] - Status flag for IMU processing



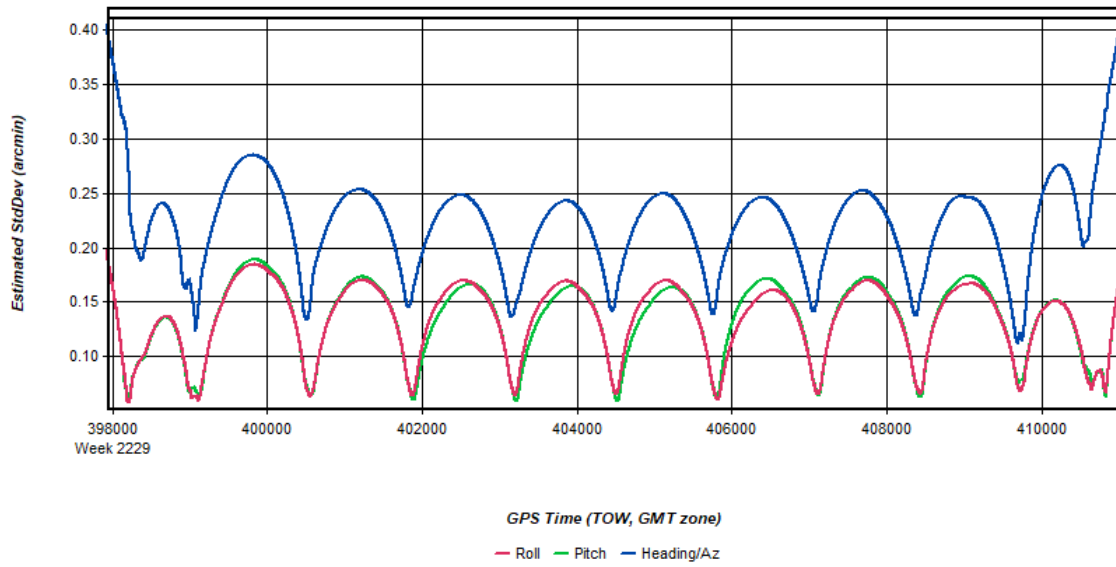
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 9: 20220929143126_23 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



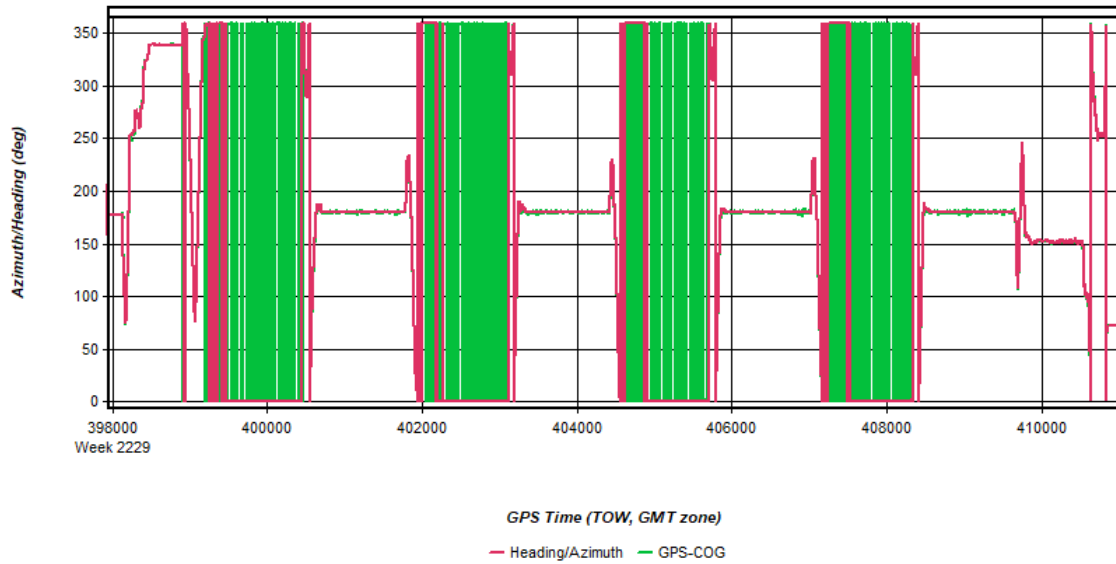
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 10: 20220929143126_23 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



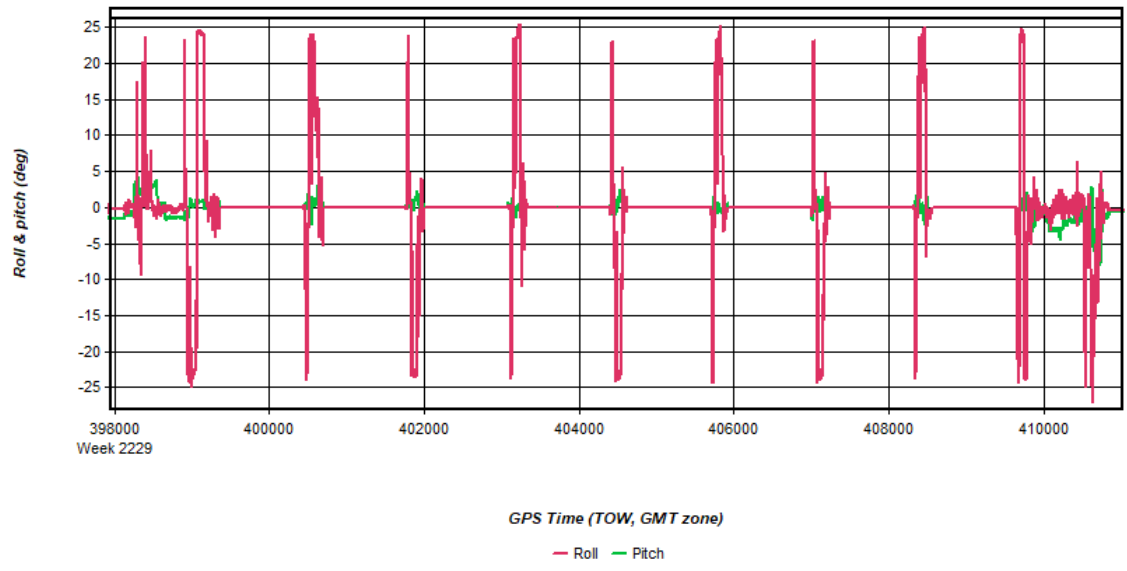
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 11: 20220929143126_23 [Smoothed TC Combined] - Azimuth Plot



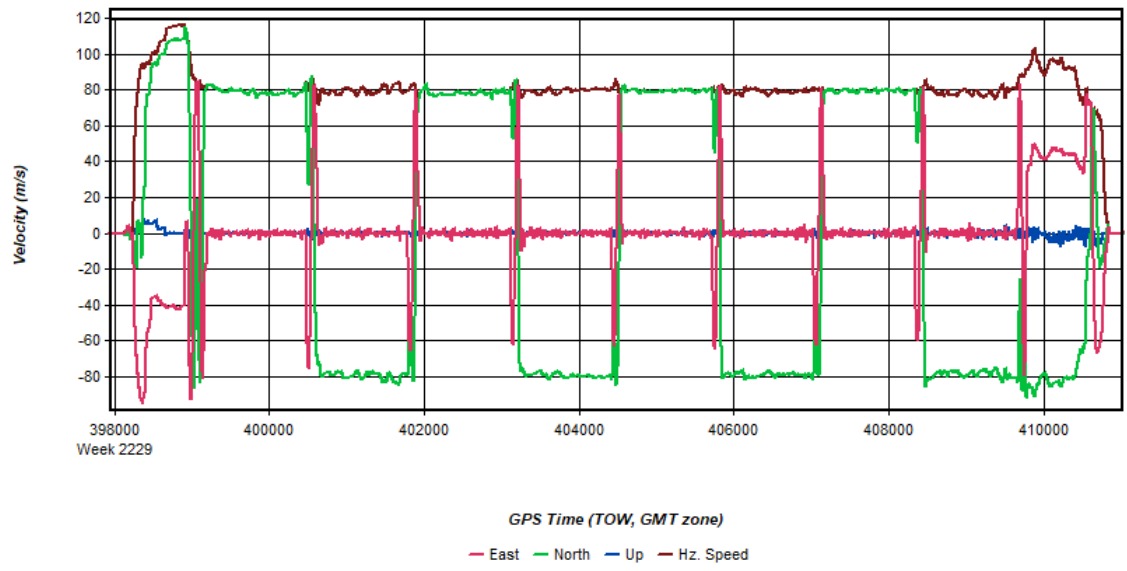
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 12: 20220929143126_23 [Smoothed TC Combined] - Roll & Pitch Plot



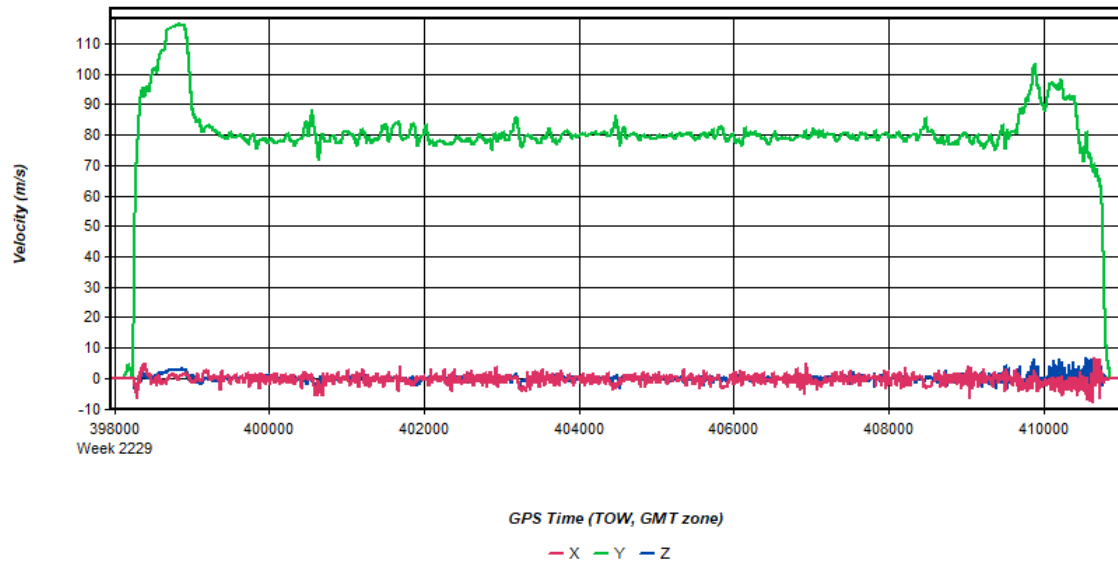
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 13: 20220929143126_23 [Smoothed TC Combined] - Velocity Profile Plot



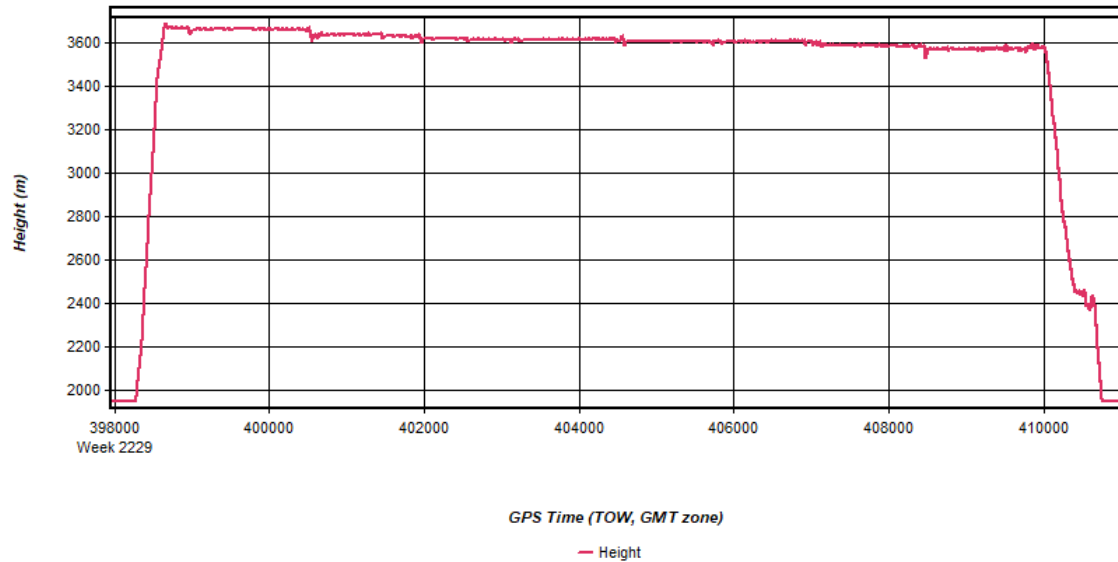
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 14: 20220929143126_23 [Smoothed TC Combined] - Body Frame Velocity Plot



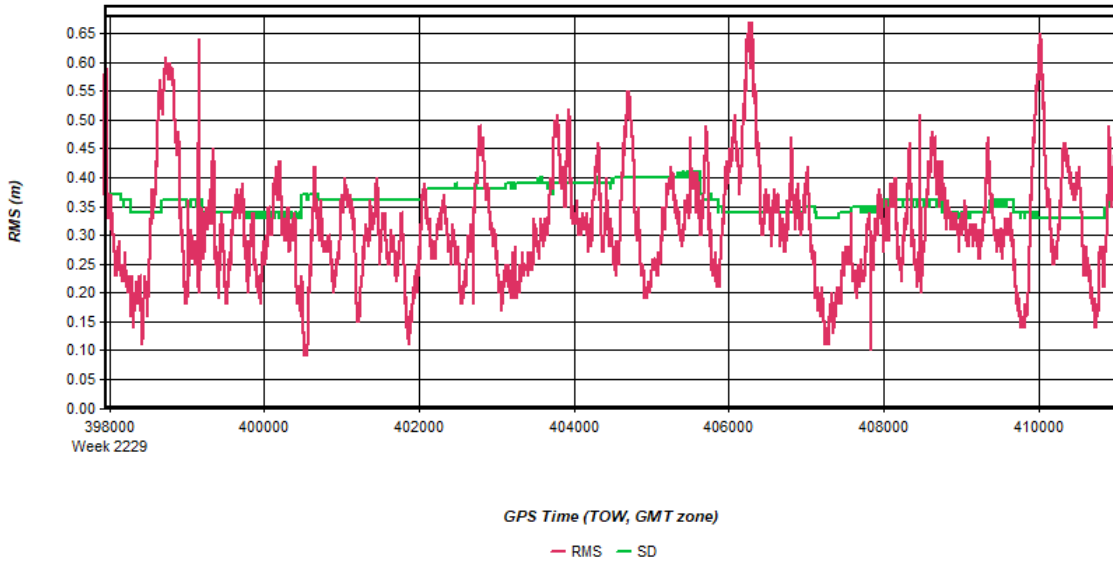
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 15: 20220929143126_23 [Smoothed TC Combined] - Height Profile Plot



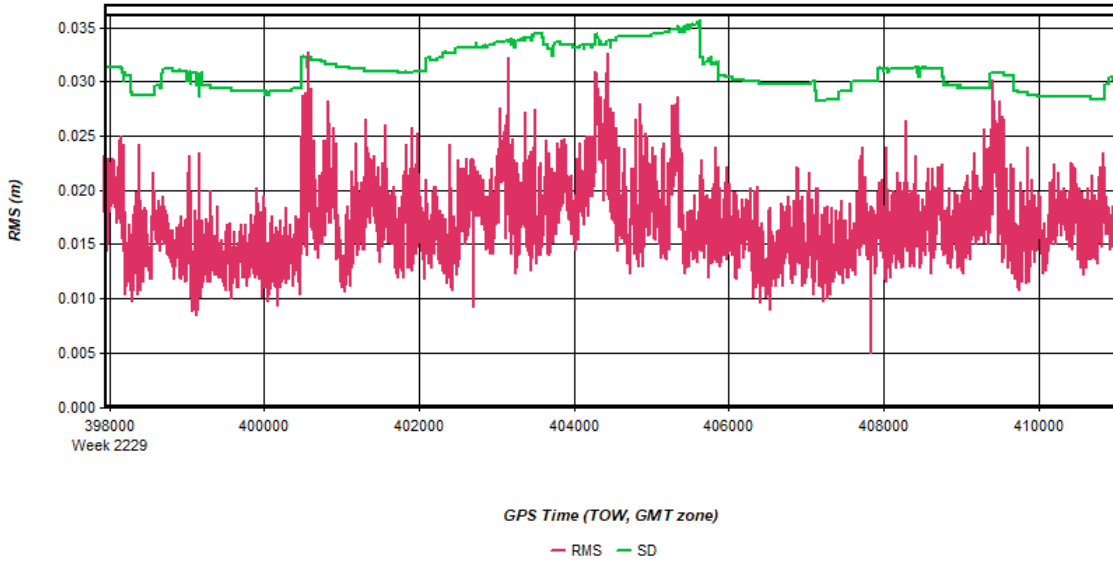
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 16: 20220929143126_23 [Smoothed TC Combined] - C/A Code Residual RMS Plot



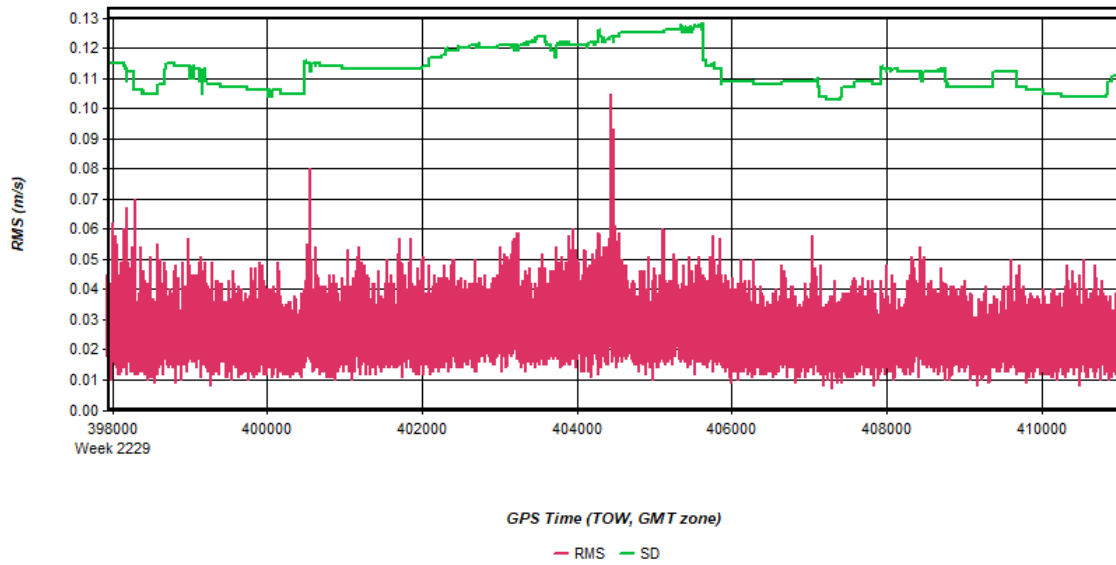
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 17: 20220929143126_23 [Smoothed TC Combined] - Carrier Residual RMS Plot



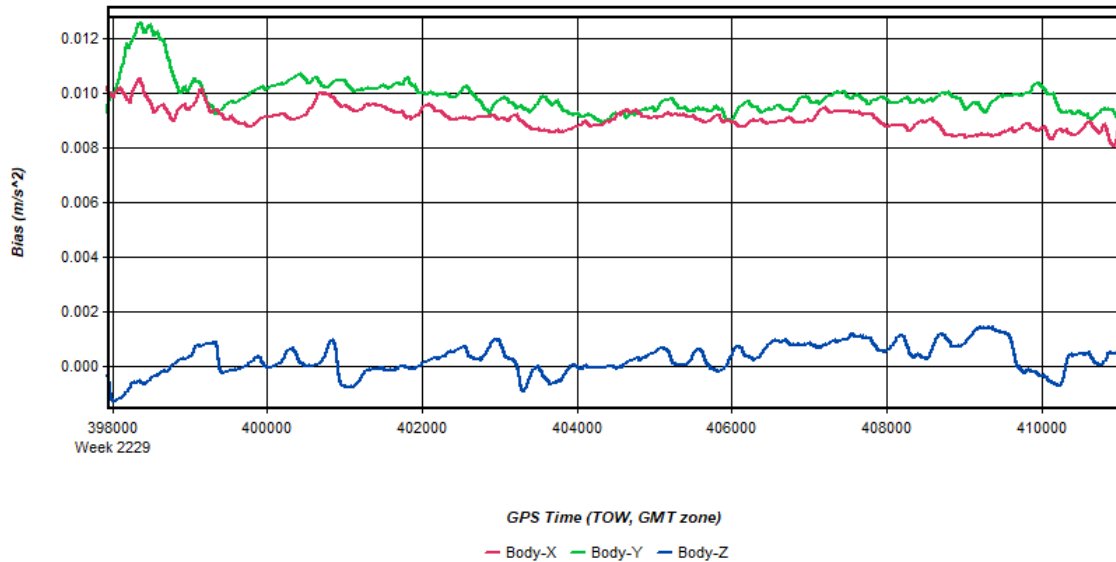
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 18: 20220929143126_23 [Smoothed TC Combined] - Doppler Residual RMS Plot



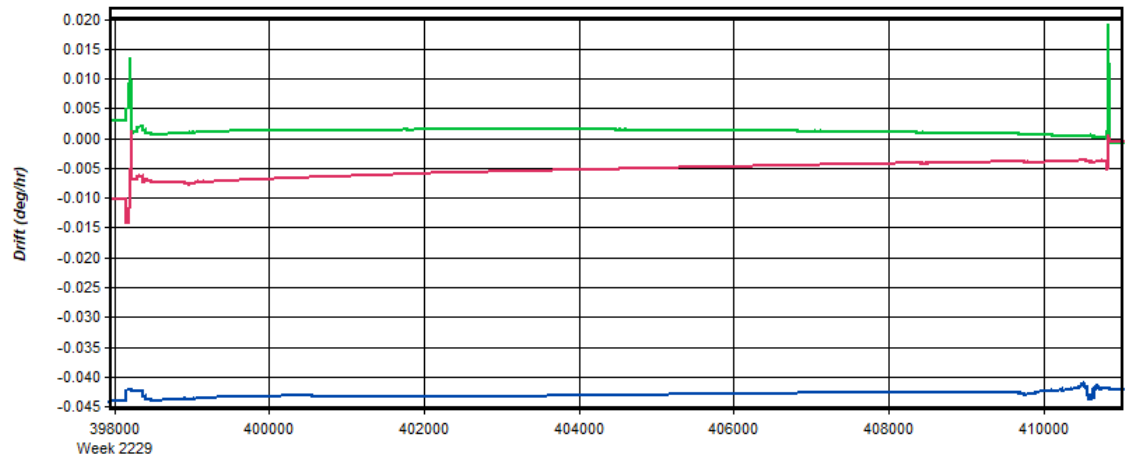
Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 19: 20220929143126_23 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Figure 20: 20220929143126_23 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

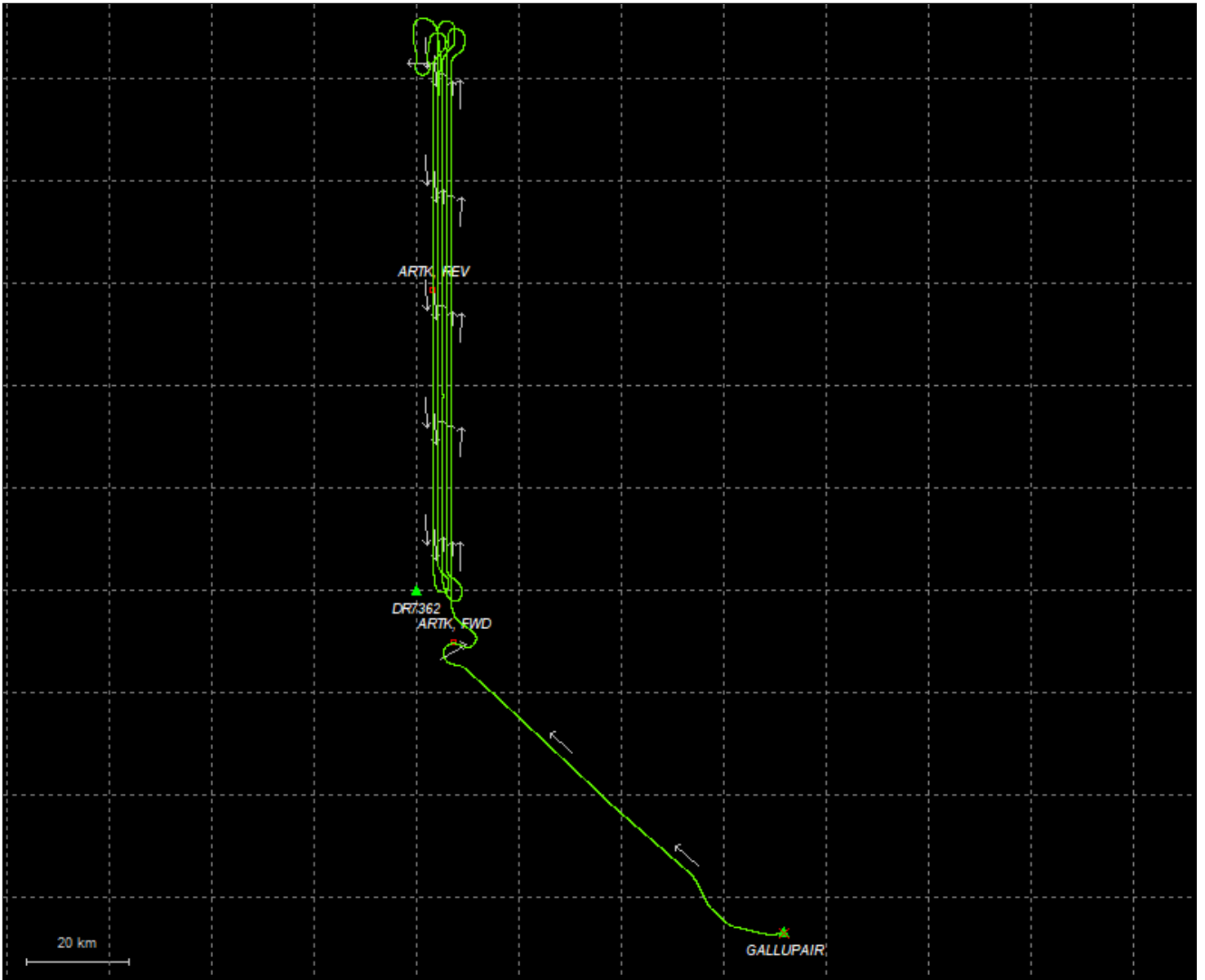
— Body-X — Body-Y — Body-Z

Process	20220929143126_23	by Unknown	on 10/5/2022	at 10:27:41
---------	-------------------	------------	--------------	-------------

Output Results for 20220930000645_24

Inertial Explorer Version 8.90.2124
10/05/2022

Figure 1: Smoothed TC Combined - Map



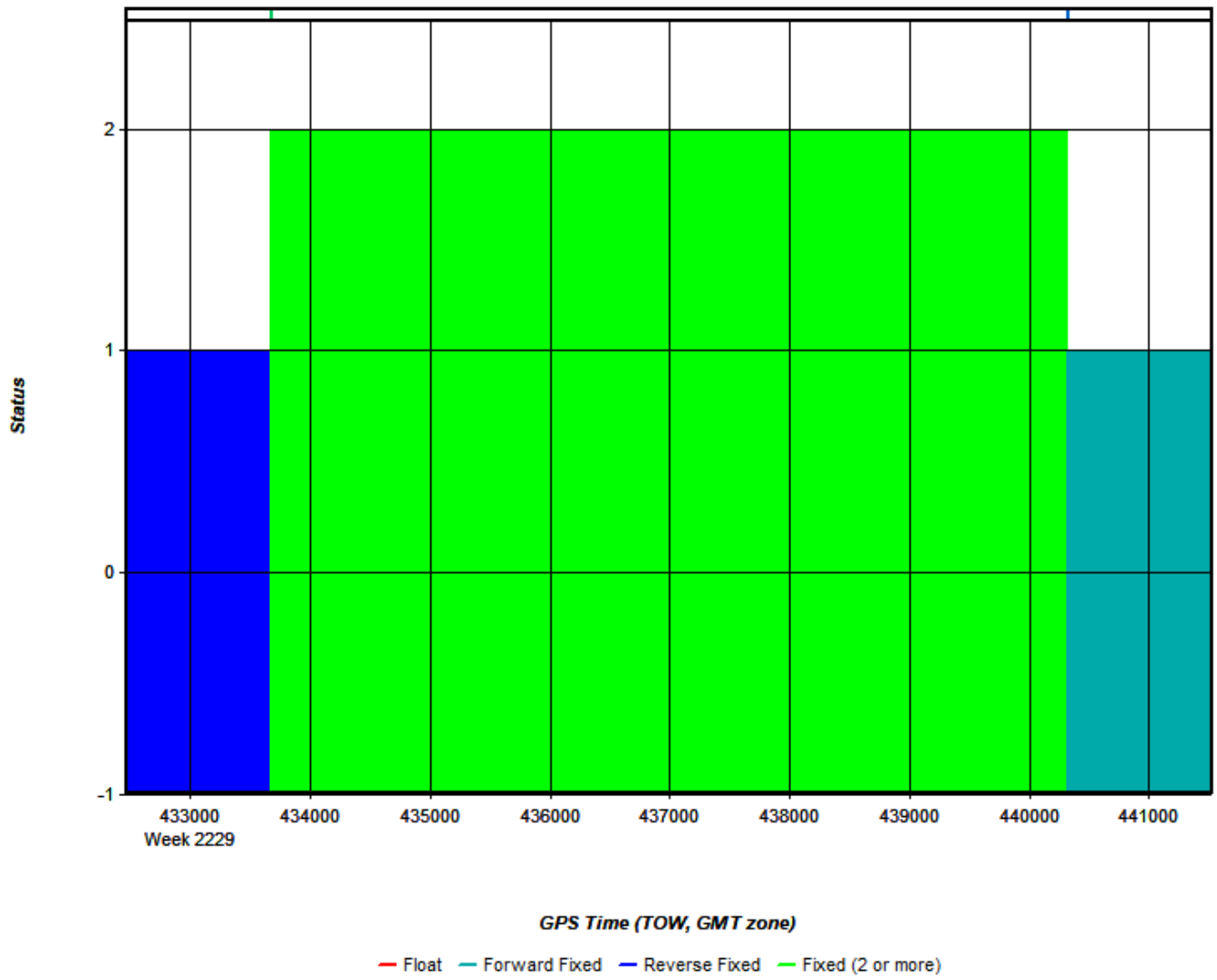
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 2: 20220930000645_24 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



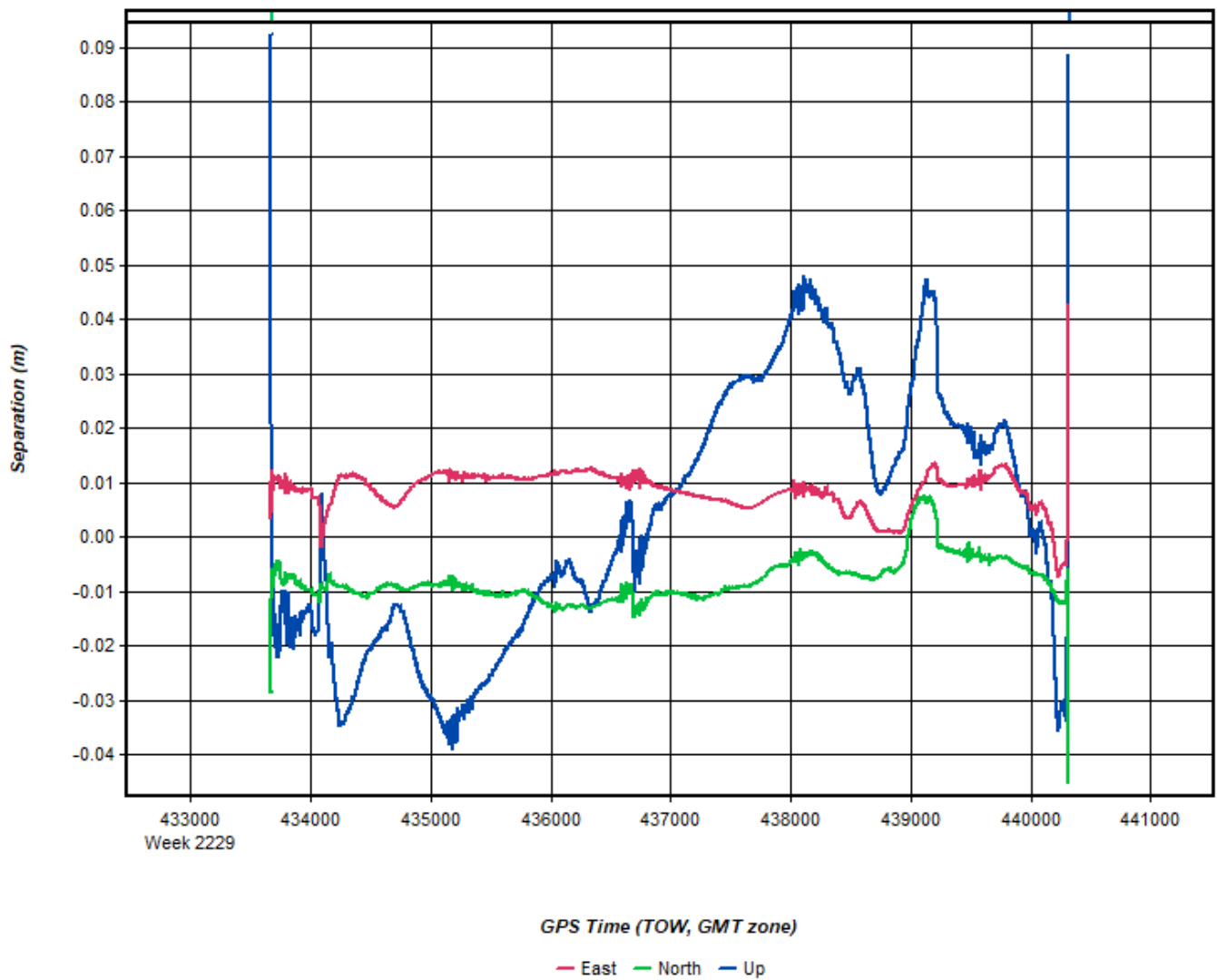
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 3: 20220930000645_24 [Smoothed TC Combined] - Float or Fixed Ambiguity



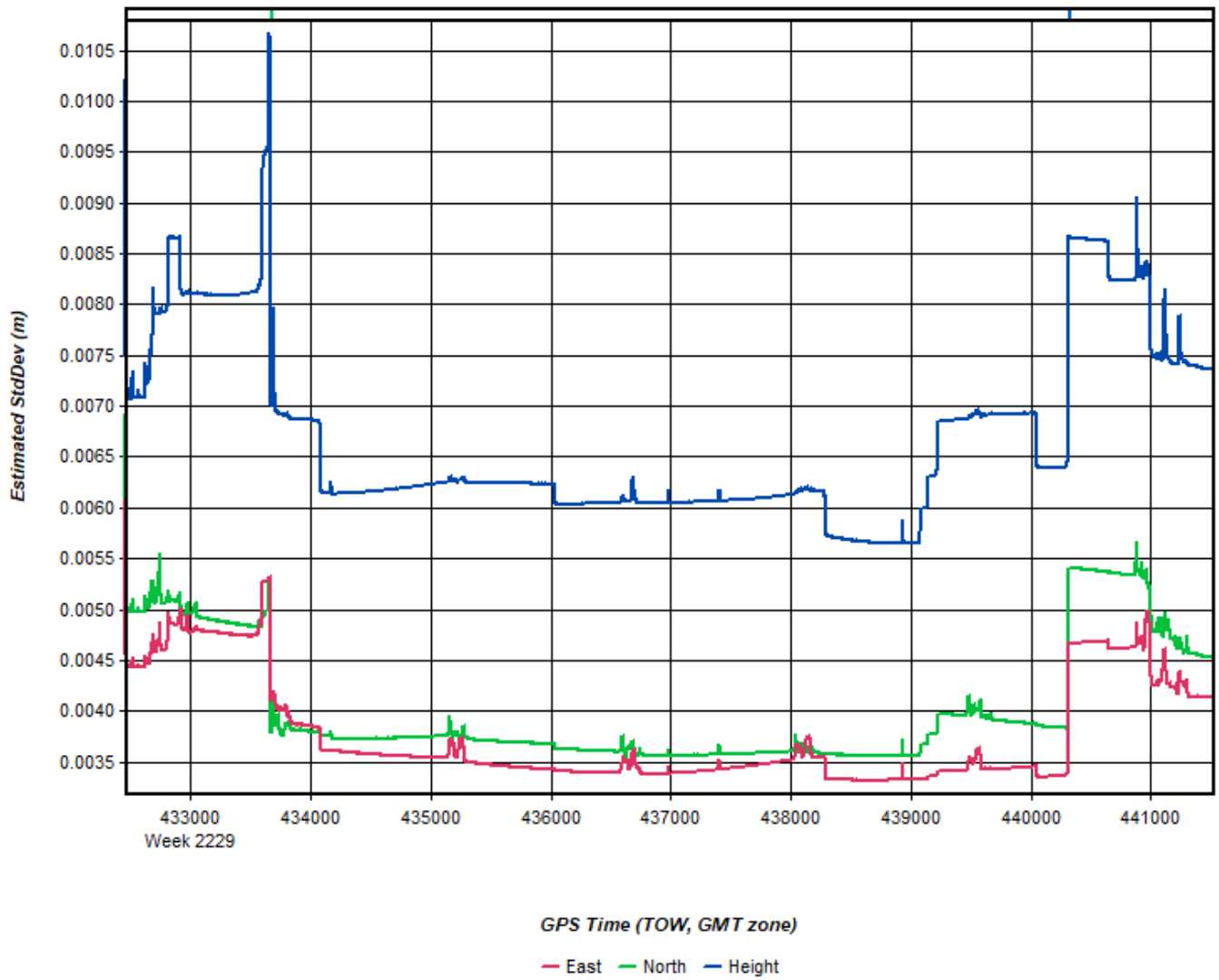
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 4: 20220930000645_24 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



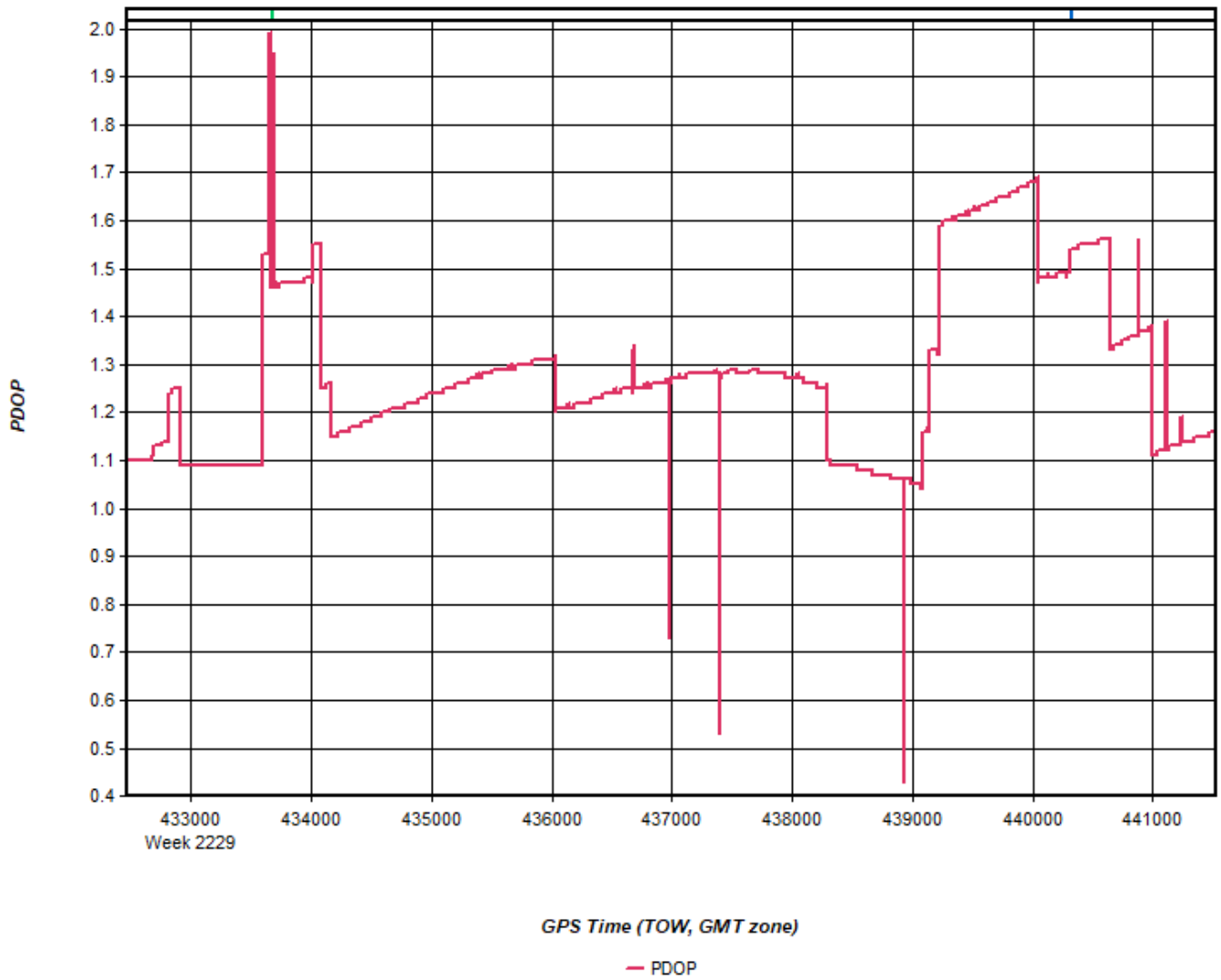
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 5: 20220930000645_24 [Smoothed TC Combined] - Estimated Position Accuracy Plot



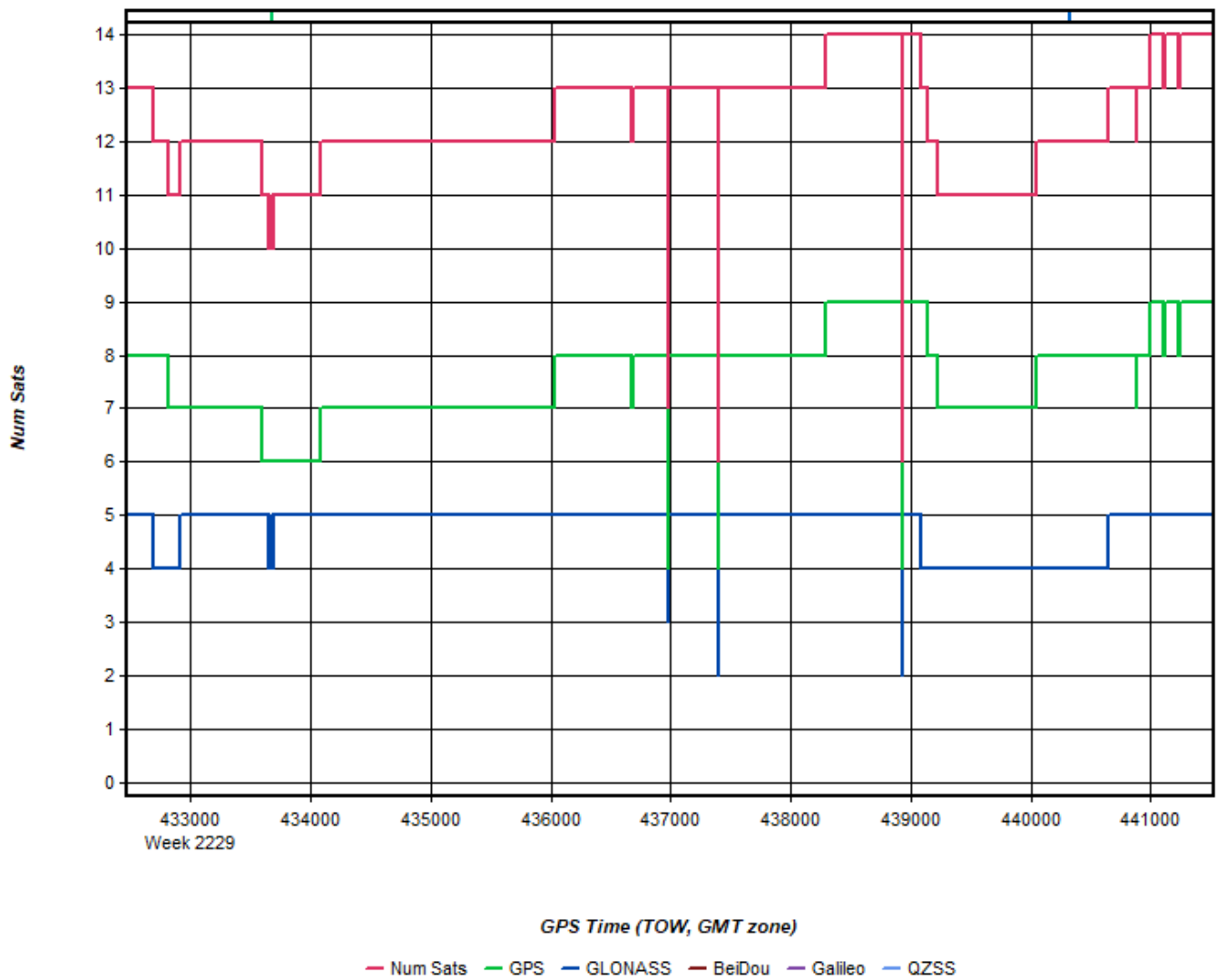
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 6: 20220930000645_24 [Smoothed TC Combined] - PDOP Plot



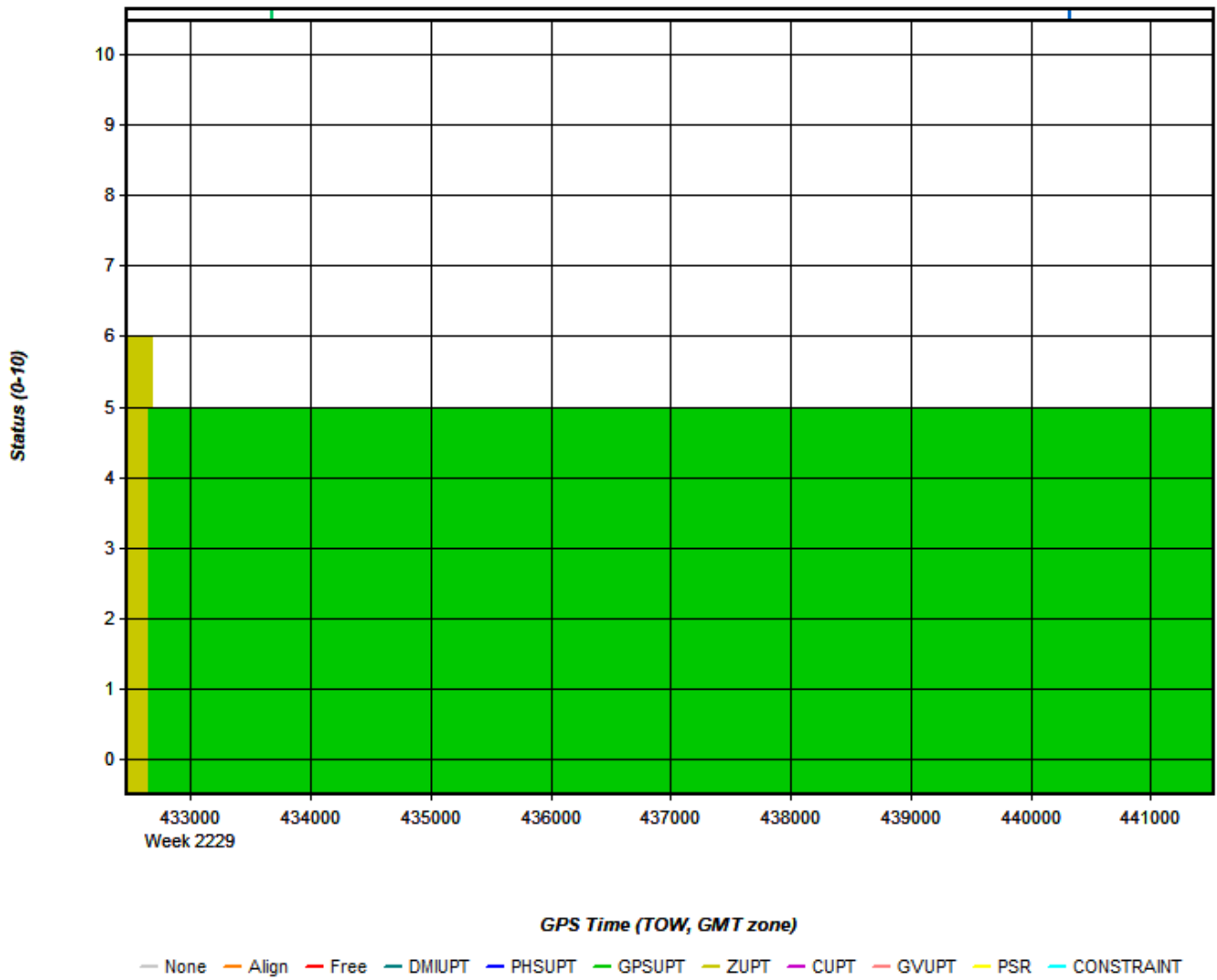
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 7: 20220930000645_24 [Smoothed TC Combined] - Number of Satellites Line Plot



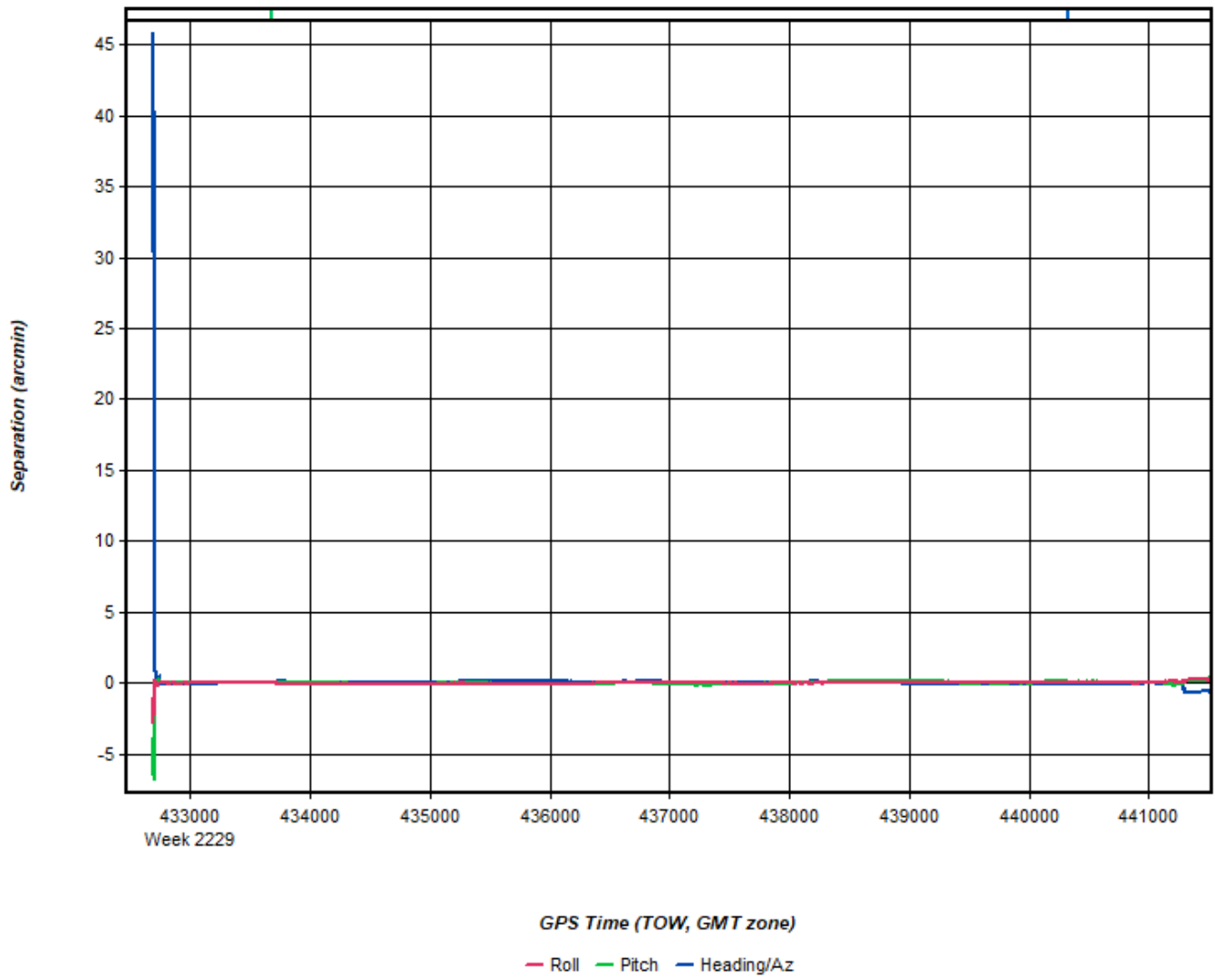
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 8: 20220930000645_24 [Smoothed TC Combined] - Status flag for IMU processing



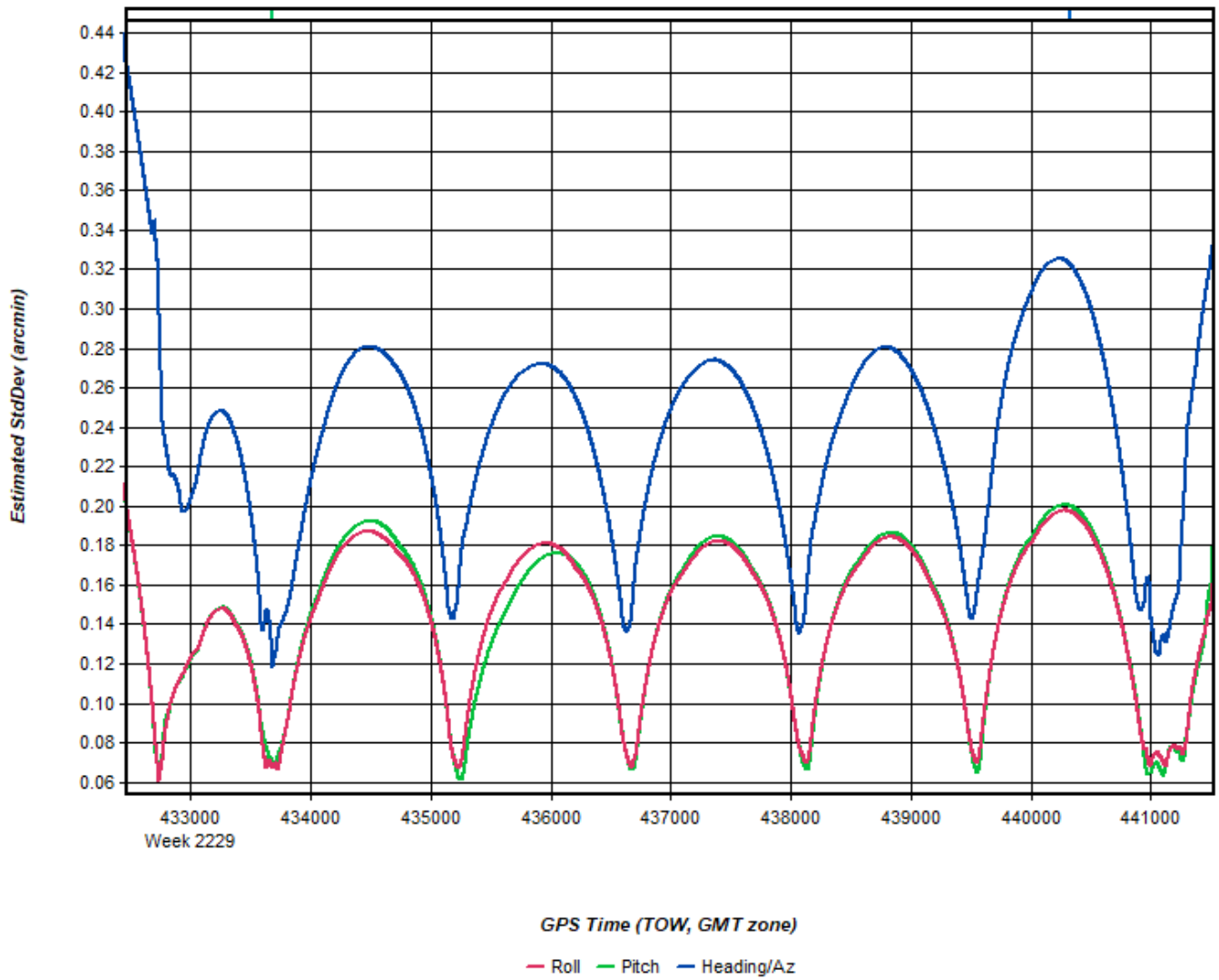
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 9: 20220930000645_24 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



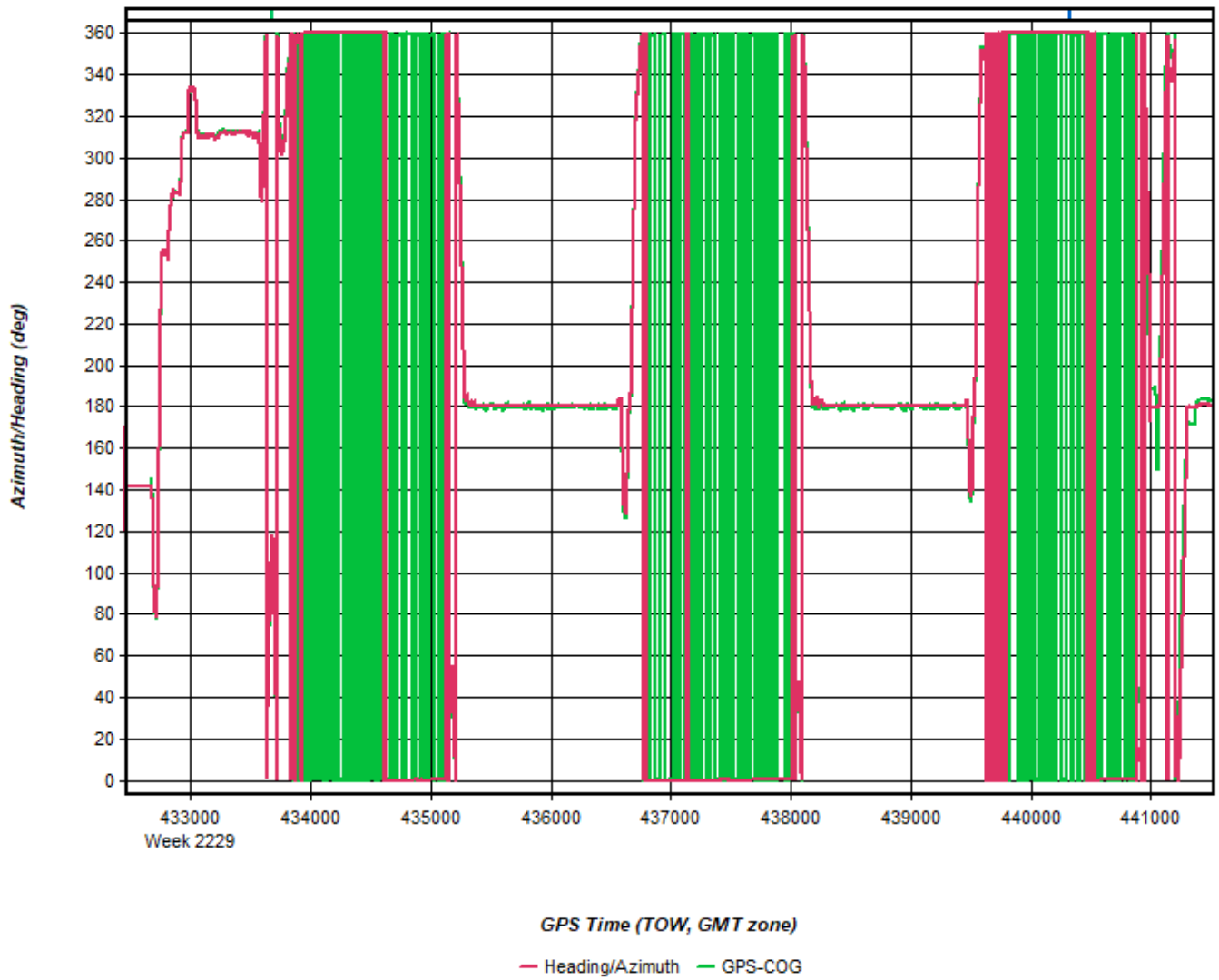
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 10: 20220930000645_24 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



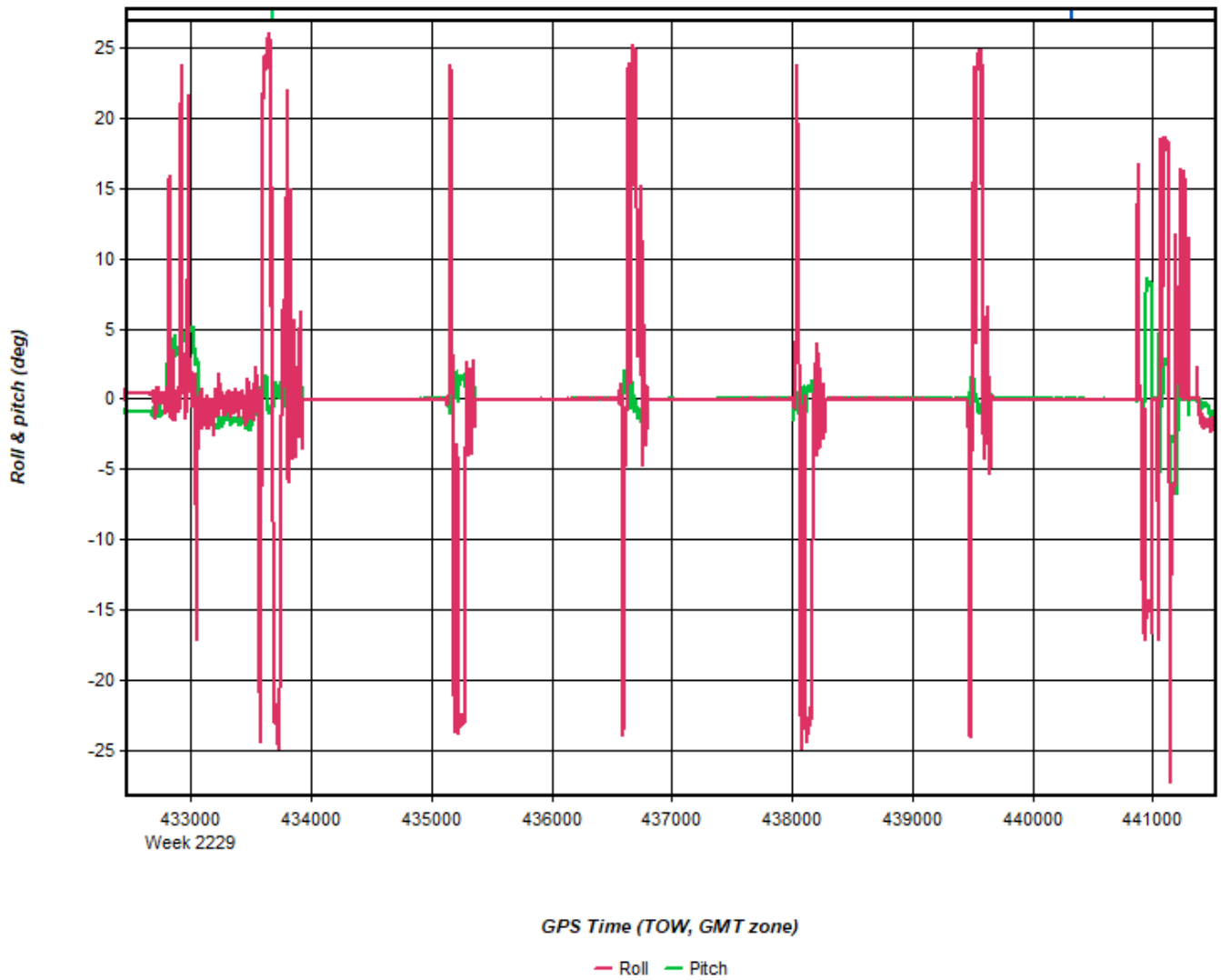
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 11: 20220930000645_24 [Smoothed TC Combined] - Azimuth Plot



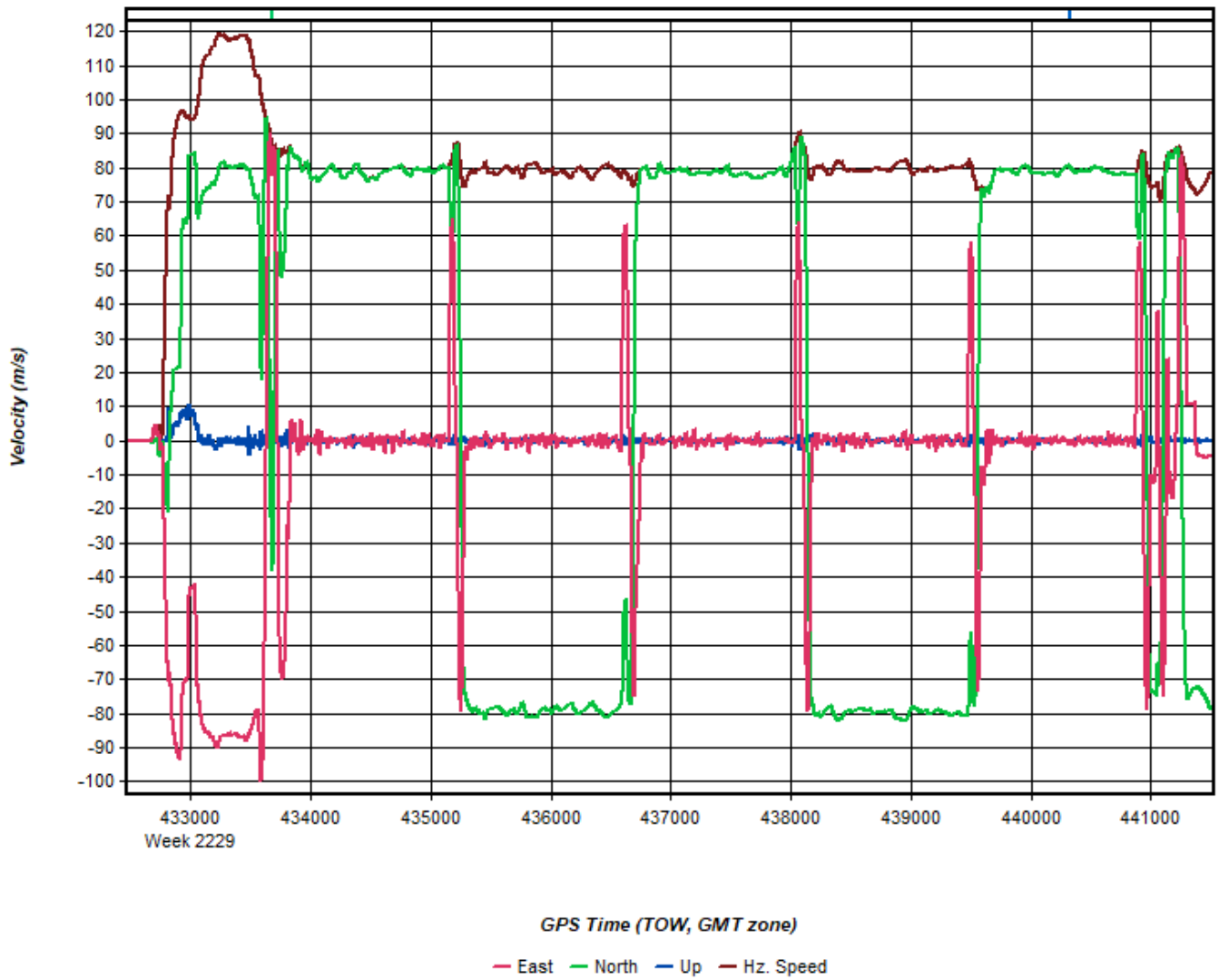
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 12: 20220930000645_24 [Smoothed TC Combined] - Roll & Pitch Plot



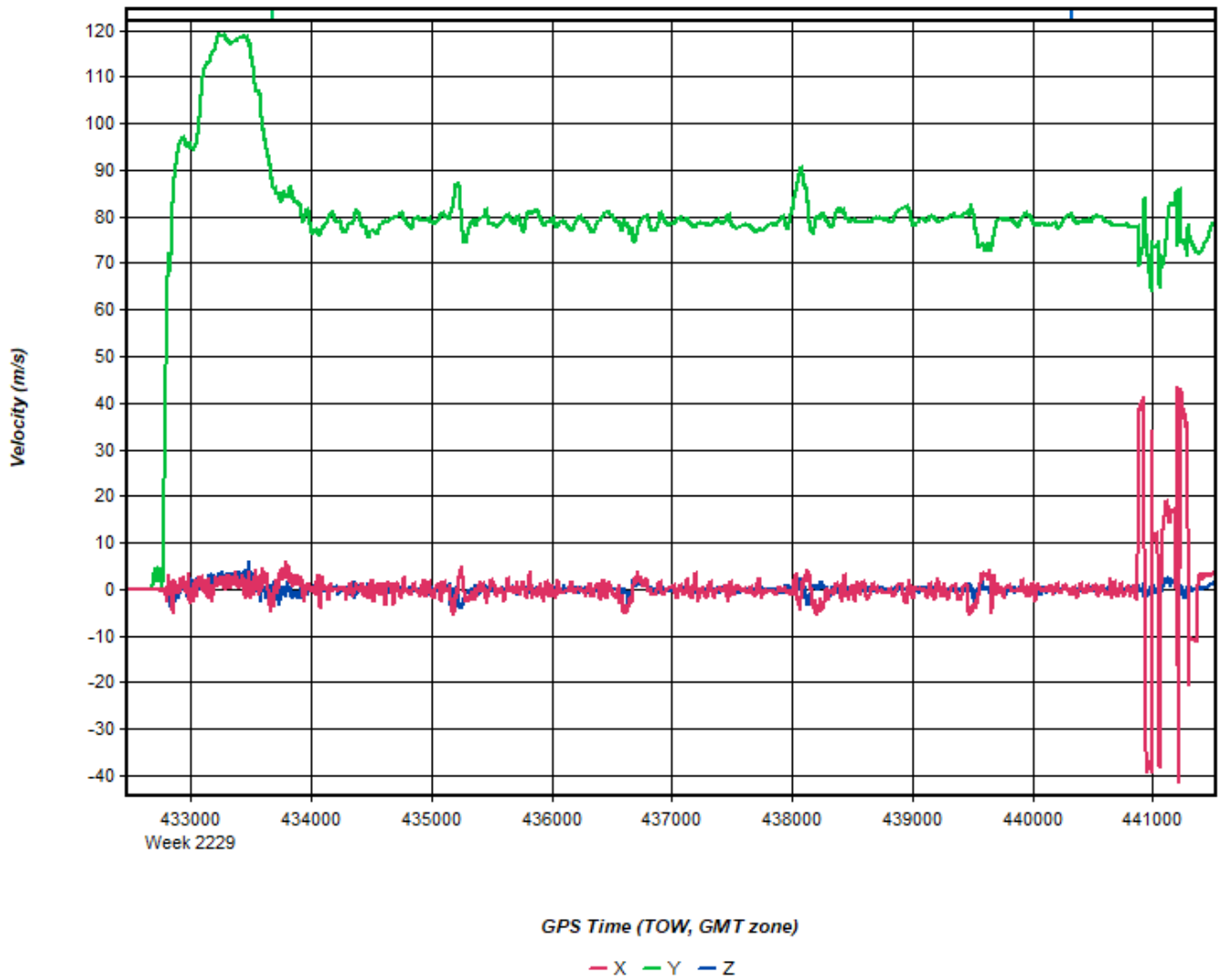
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 13: 20220930000645_24 [Smoothed TC Combined] - Velocity Profile Plot



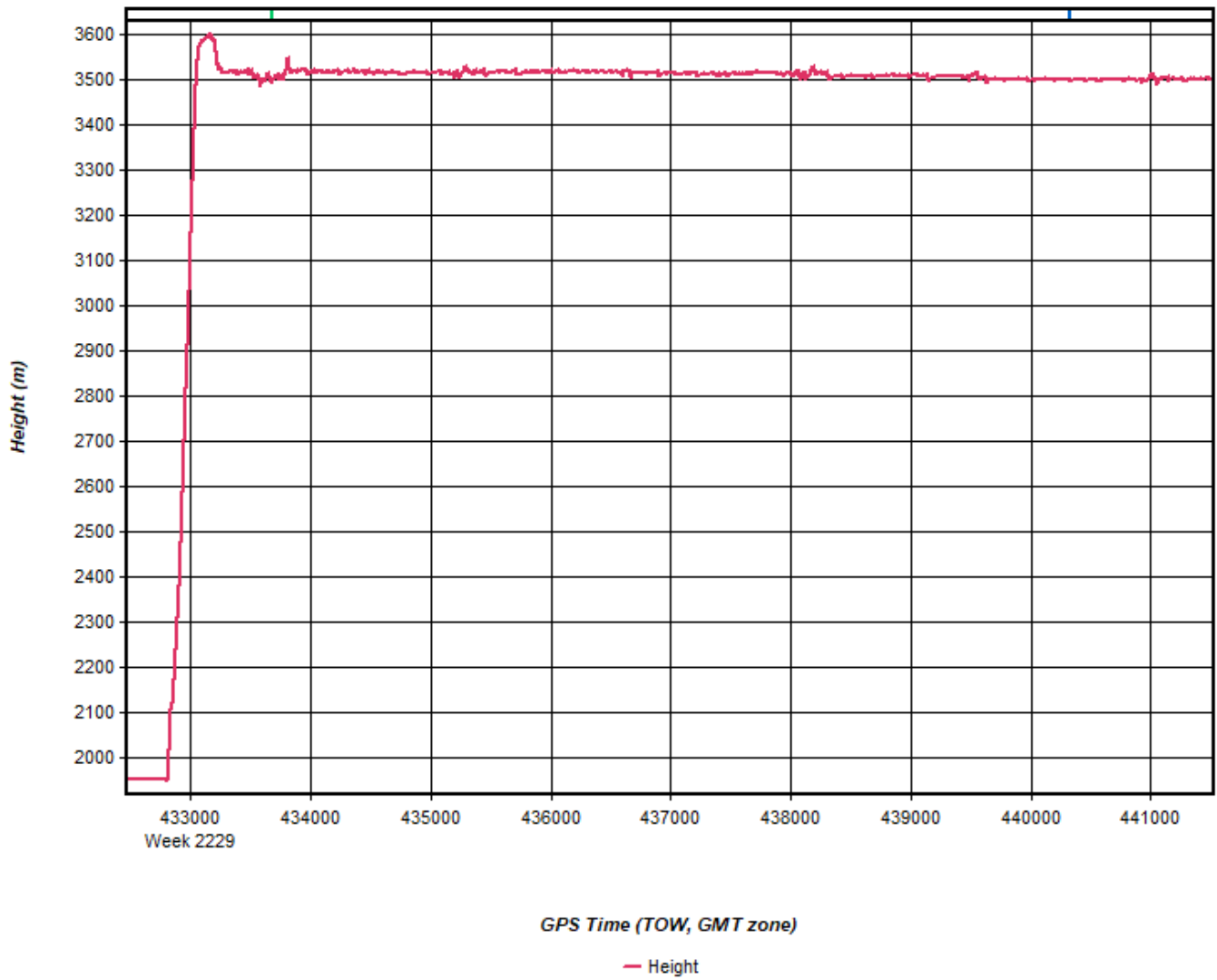
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 14: 20220930000645_24 [Smoothed TC Combined] - Body Frame Velocity Plot



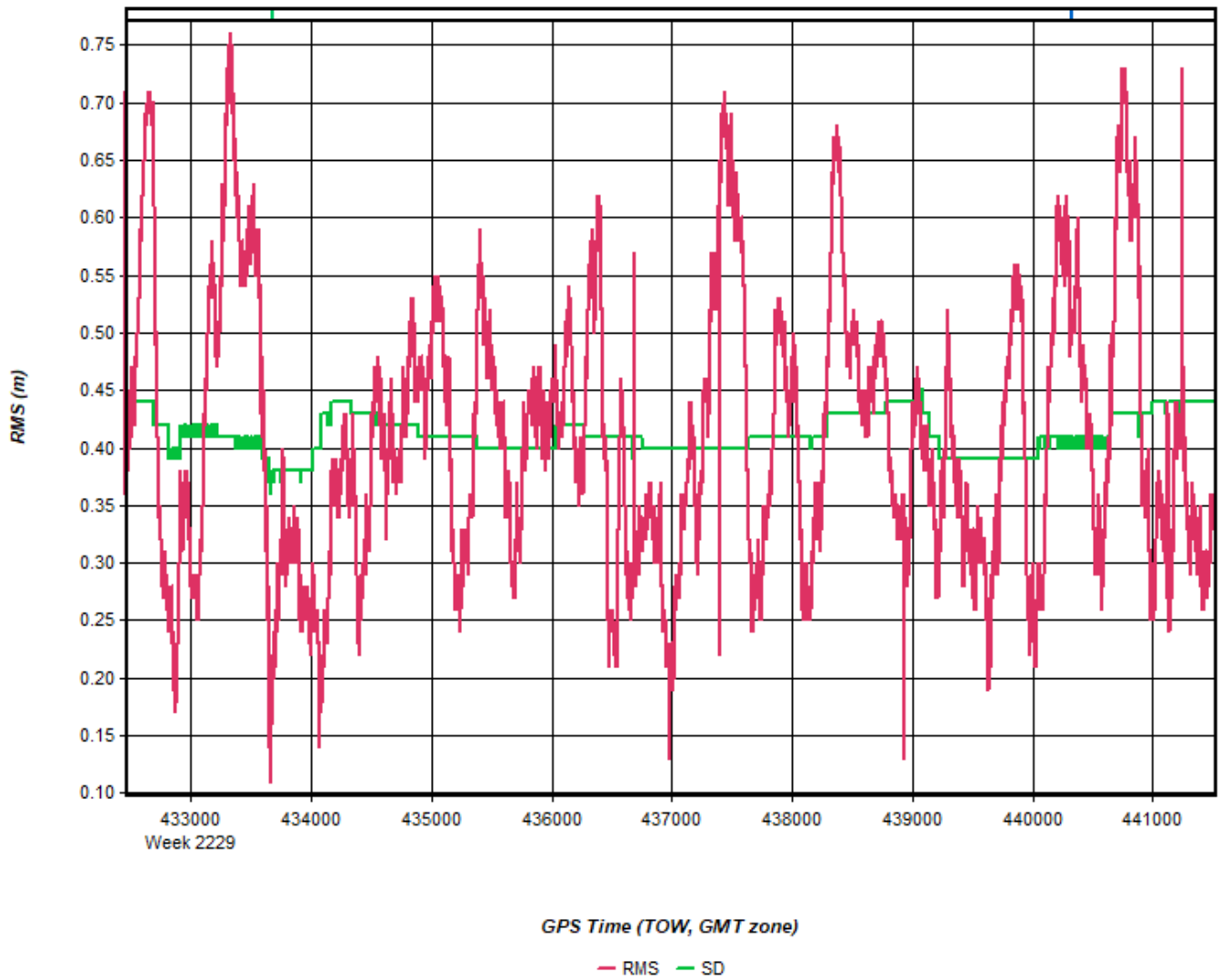
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 15: 20220930000645_24 [Smoothed TC Combined] - Height Profile Plot



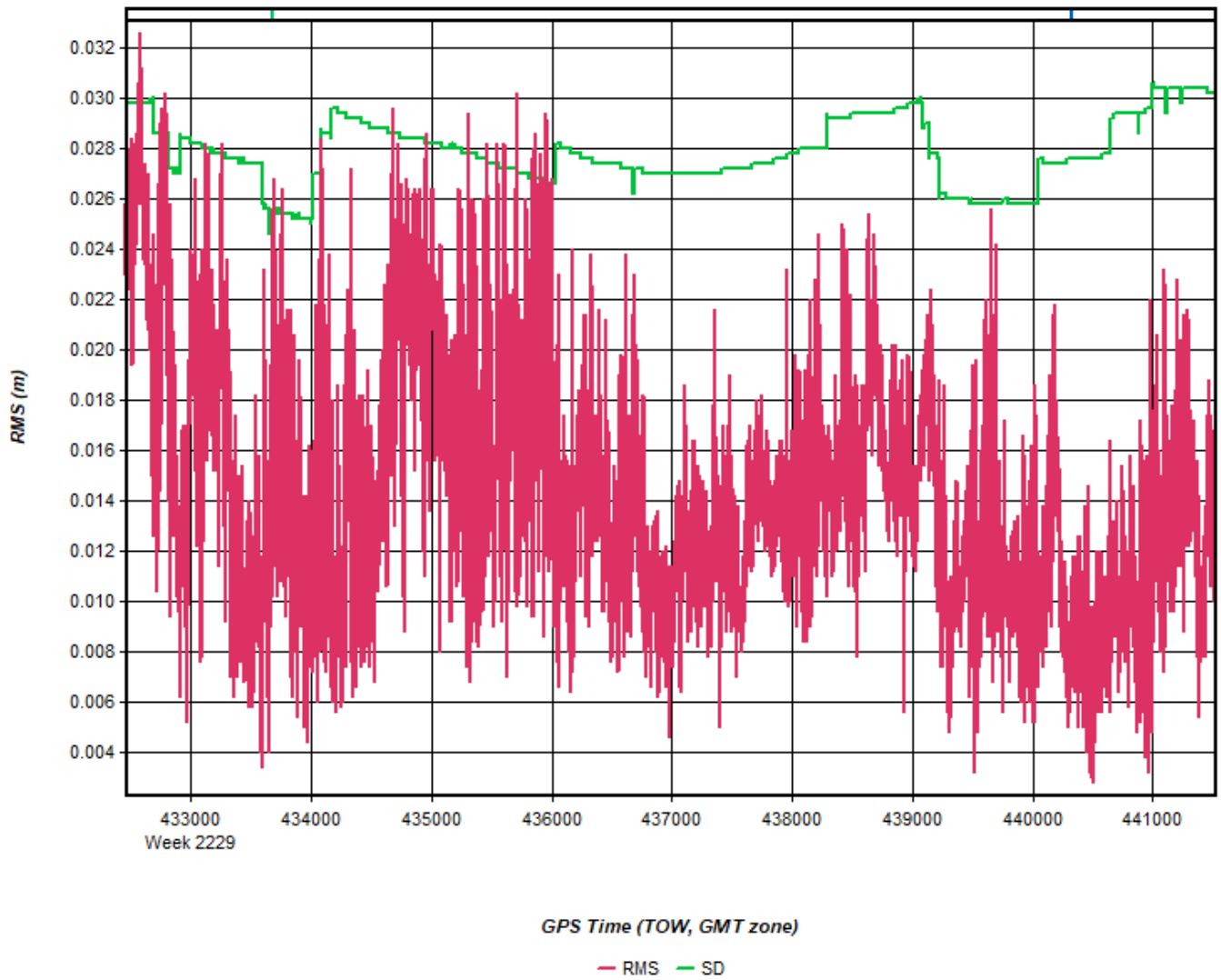
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 16: 20220930000645_24 [Smoothed TC Combined] - C/A Code Residual RMS Plot



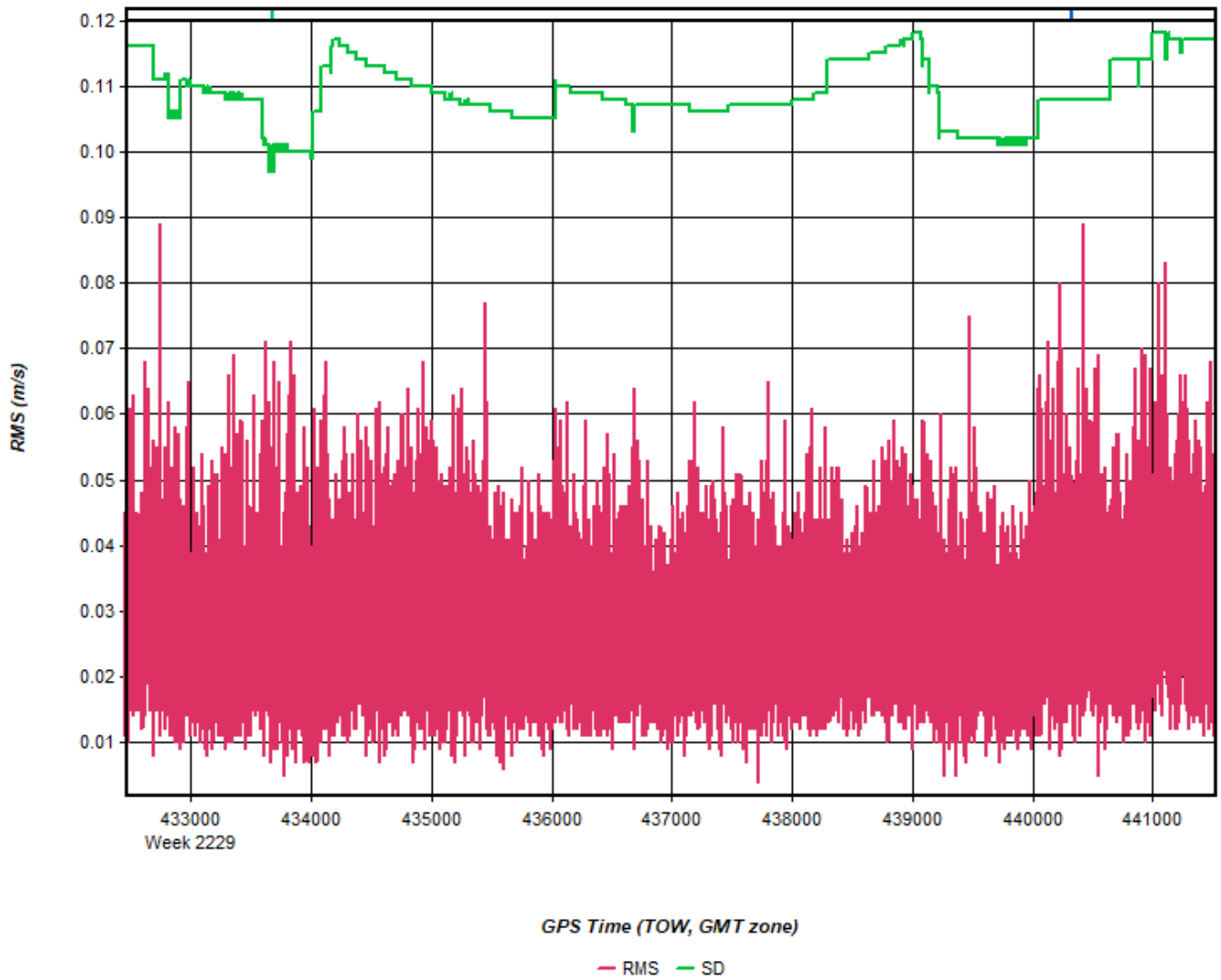
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 17: 20220930000645_24 [Smoothed TC Combined] - Carrier Residual RMS Plot



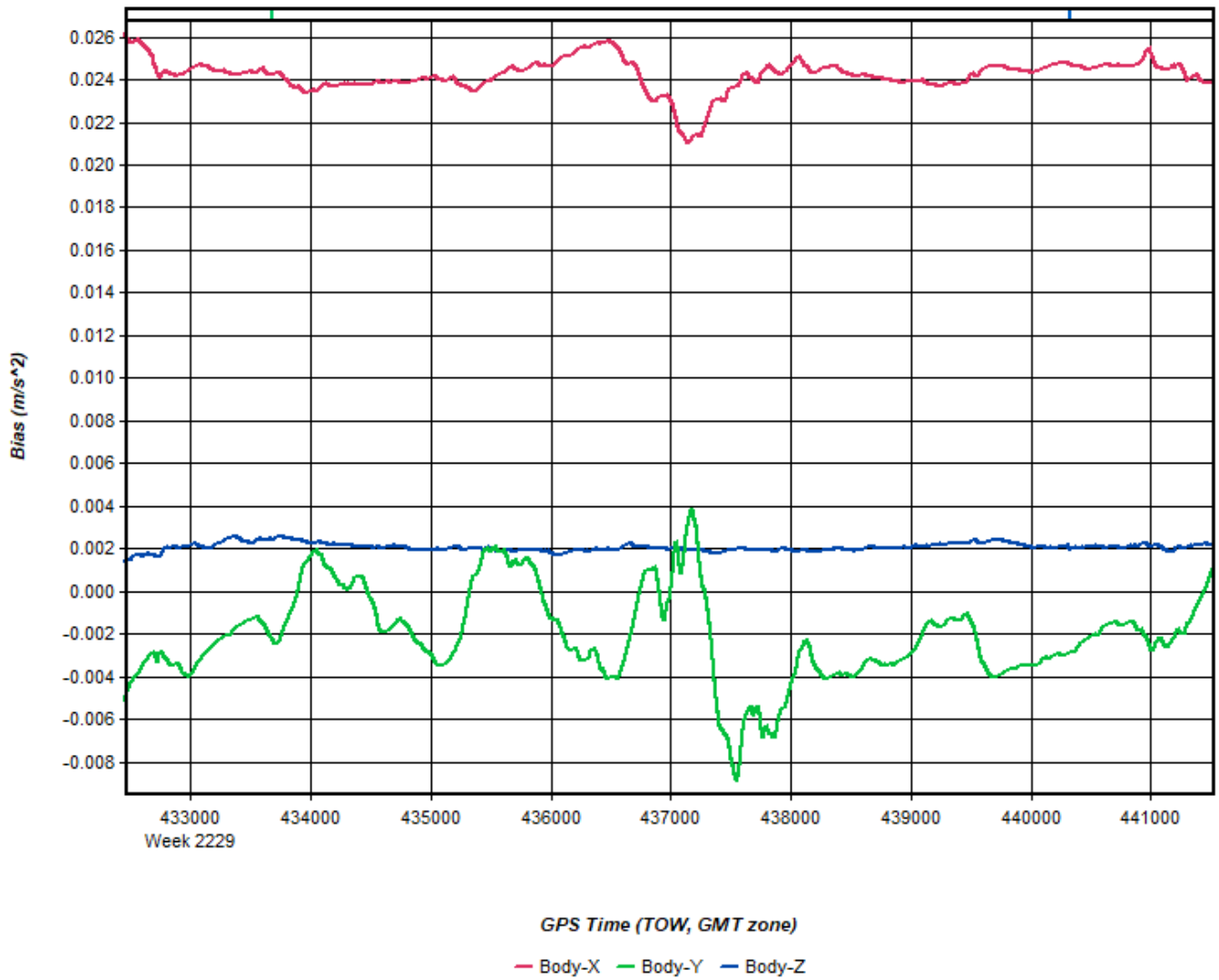
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 18: 20220930000645_24 [Smoothed TC Combined] - Doppler Residual RMS Plot



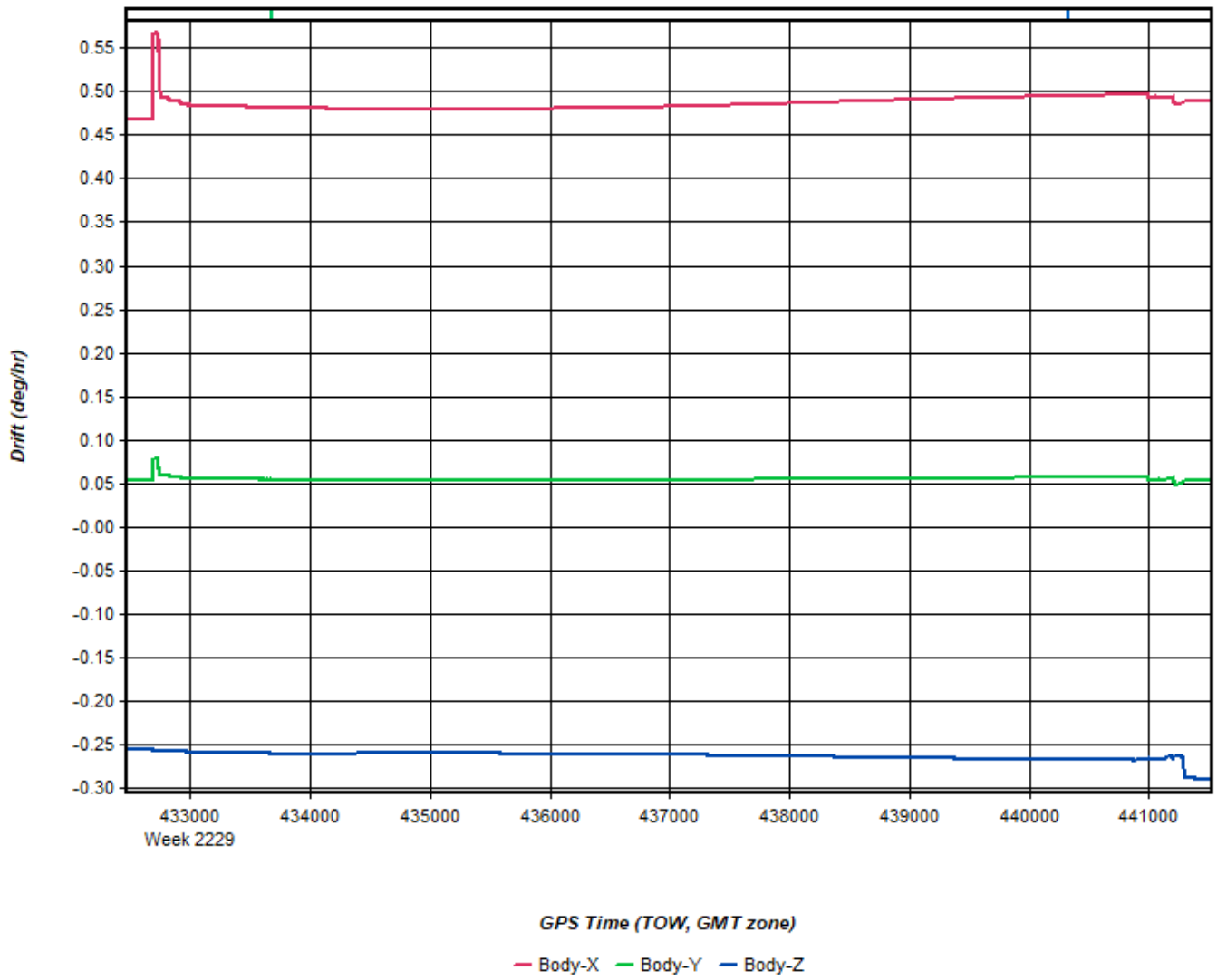
Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 19: 20220930000645_24 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Figure 20: 20220930000645_24 [Smoothed TC Combined] - Gyro Drift Plot



Process	20220930000645_24	by Unknown	on 10/5/2022	at 10:57:29
---------	-------------------	------------	--------------	-------------

Output Results for 20220930024126_24b_REV

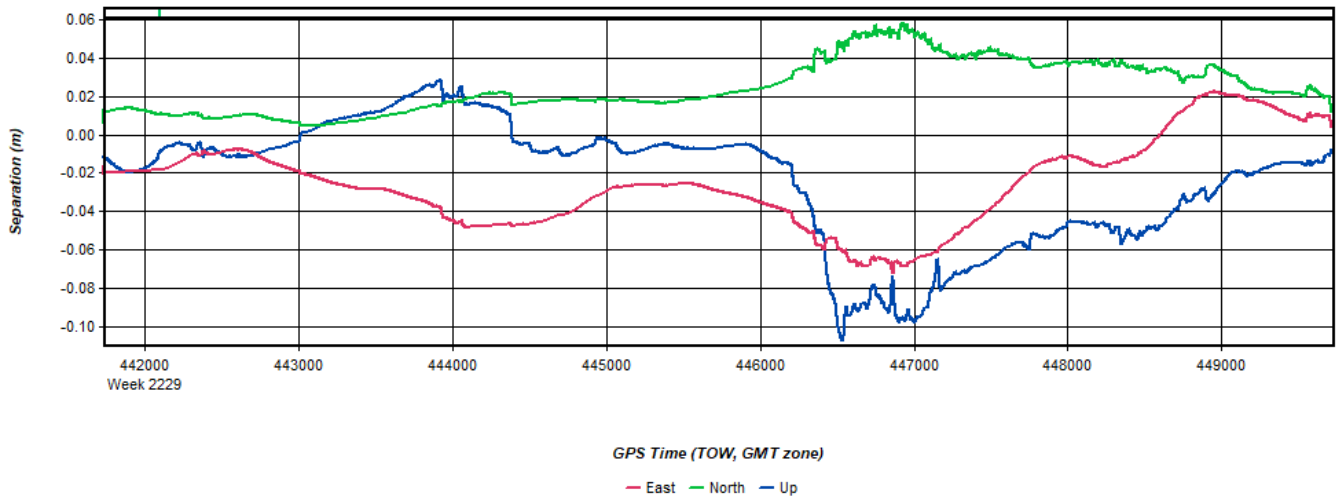
Inertial Explorer Version 8.90.2124
02/27/2023

Figure 1: Smoothed TC Combined - Map



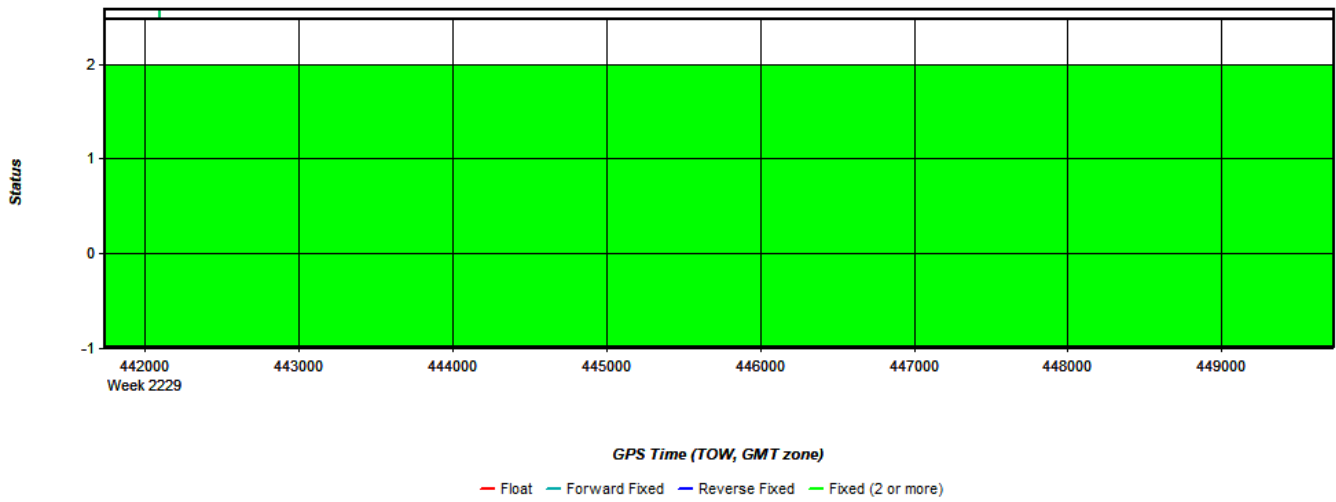
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 2: 20220930024126_24b_REV [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



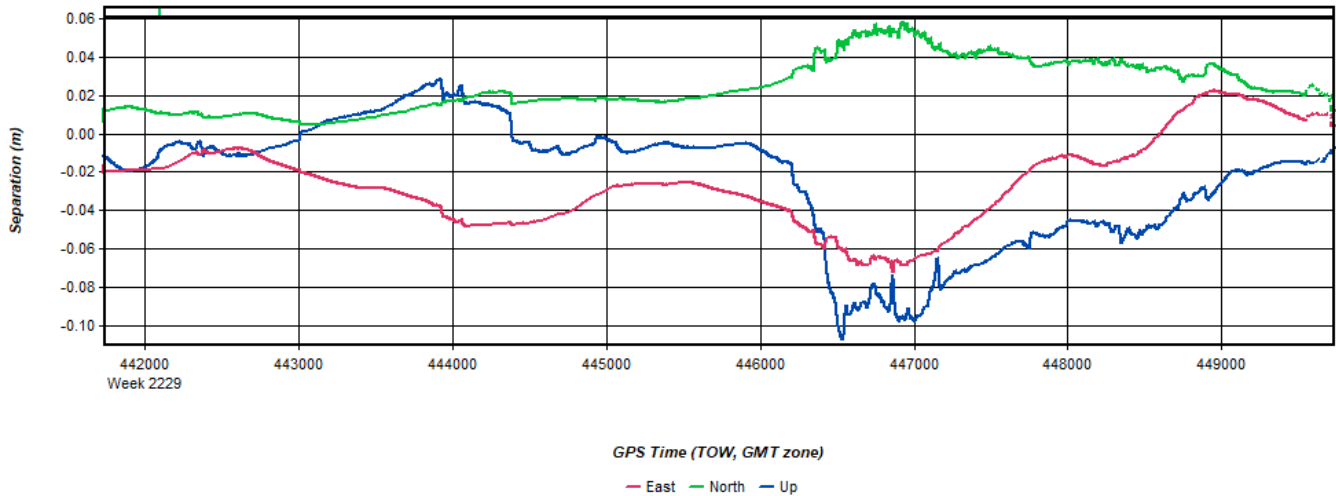
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 3: 20220930024126_24b_REV [Smoothed TC Combined] - Float or Fixed Ambiguity



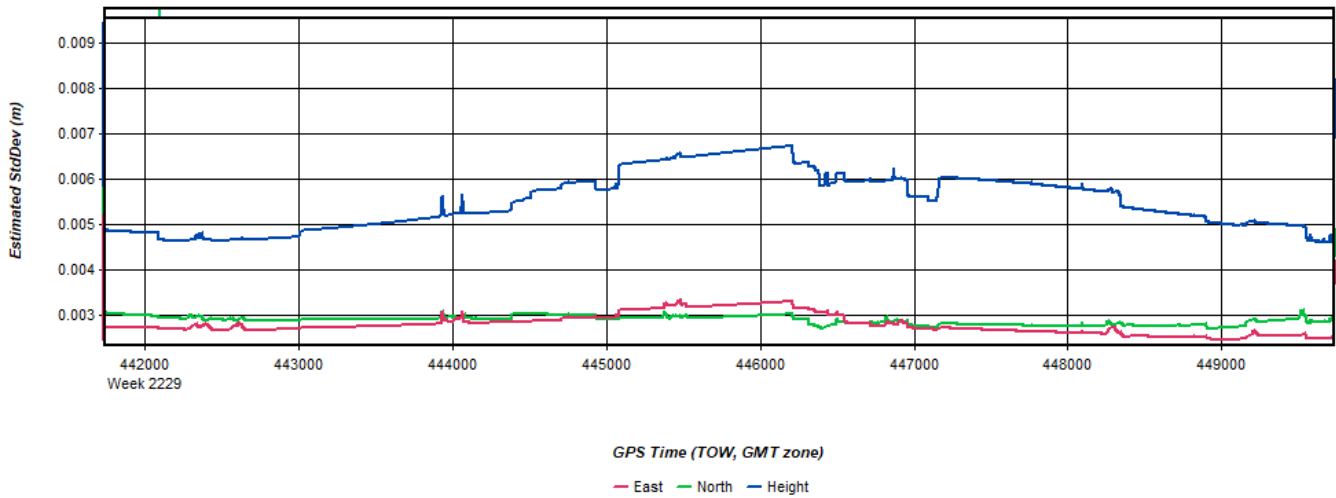
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 4: 20220930024126_24b_REV [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



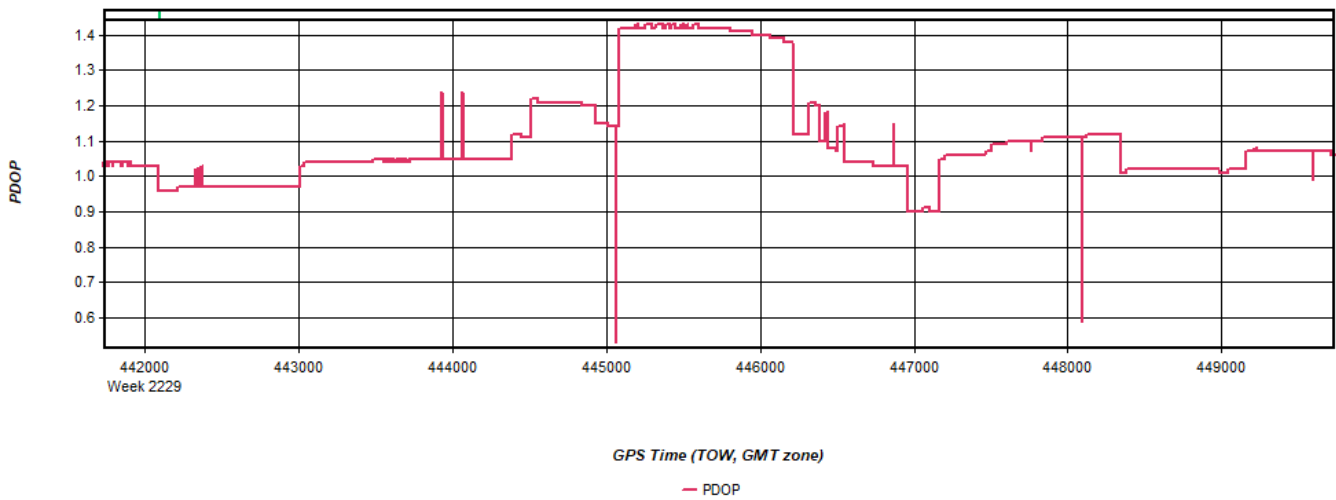
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 5: 20220930024126_24b_REV [Smoothed TC Combined] - Estimated Position Accuracy Plot



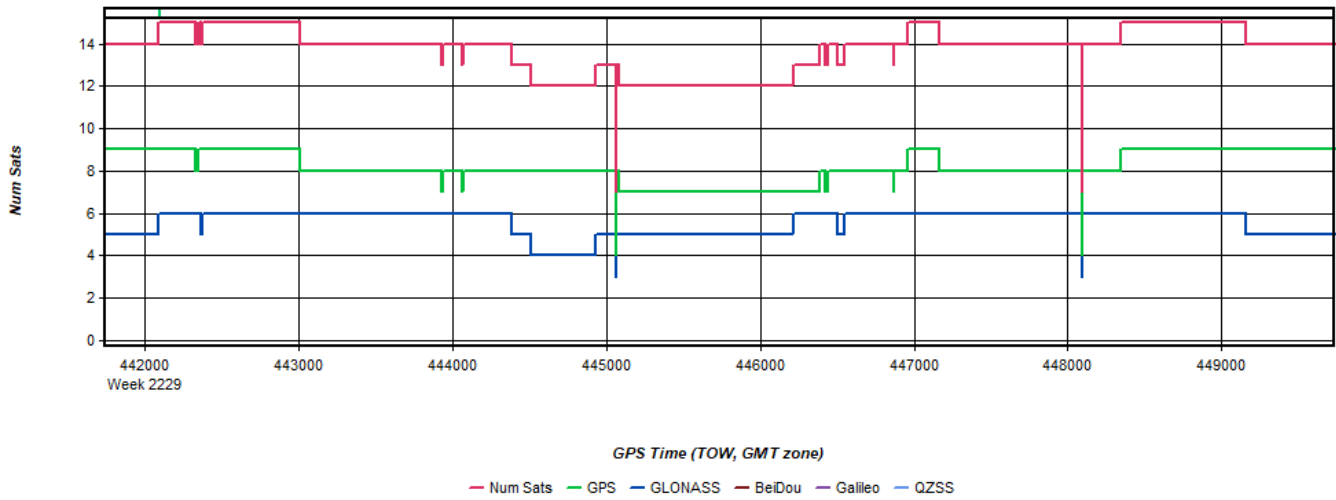
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 6: 20220930024126_24b_REV [Smoothed TC Combined] - PDOP Plot



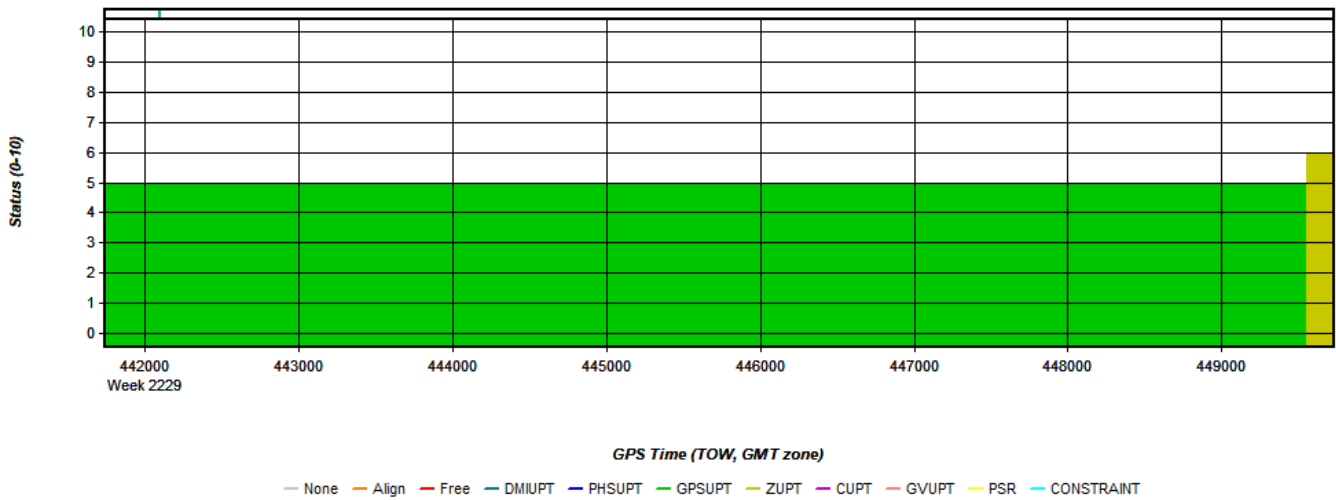
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 7: 20220930024126_24b_REV [Smoothed TC Combined] - Number of Satellites Line Plot



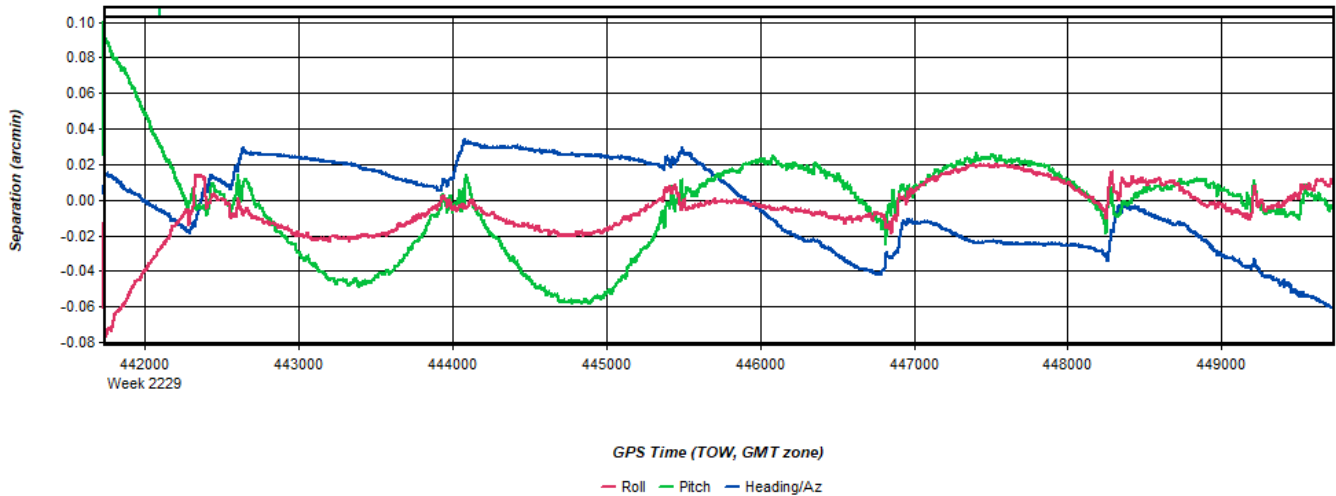
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 8: 20220930024126_24b_REV [Smoothed TC Combined] - Status flag for IMU processing



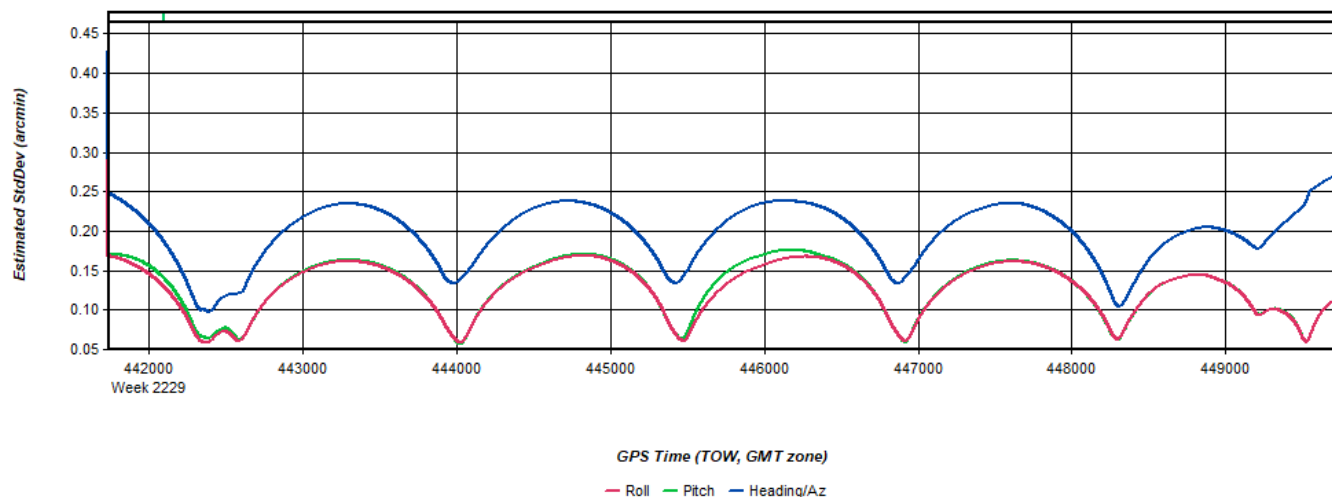
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 9: 20220930024126_24b_REV [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



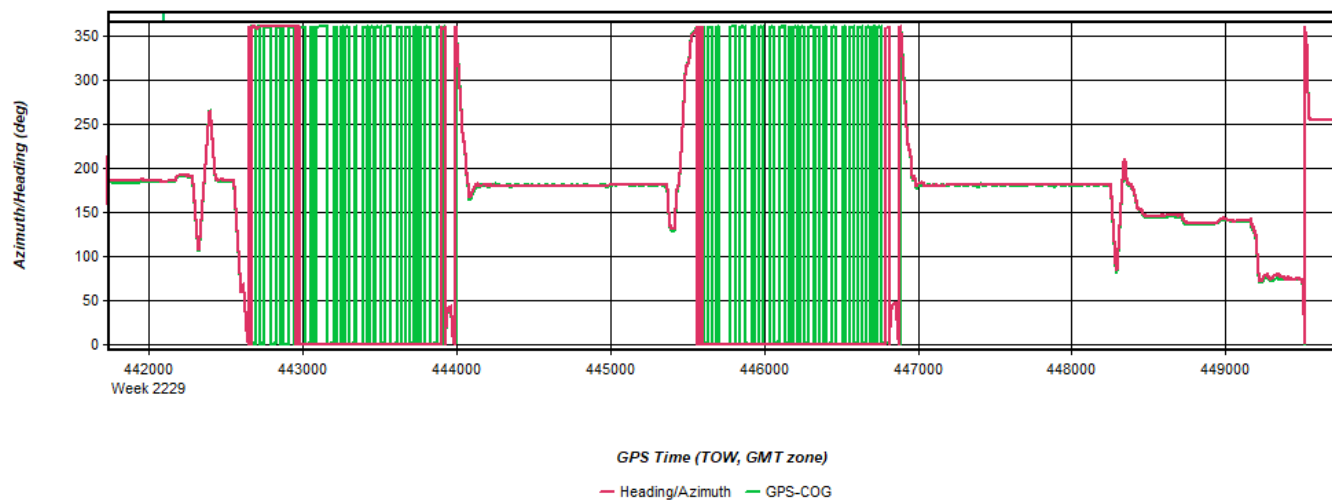
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 10: 20220930024126_24b_REV [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



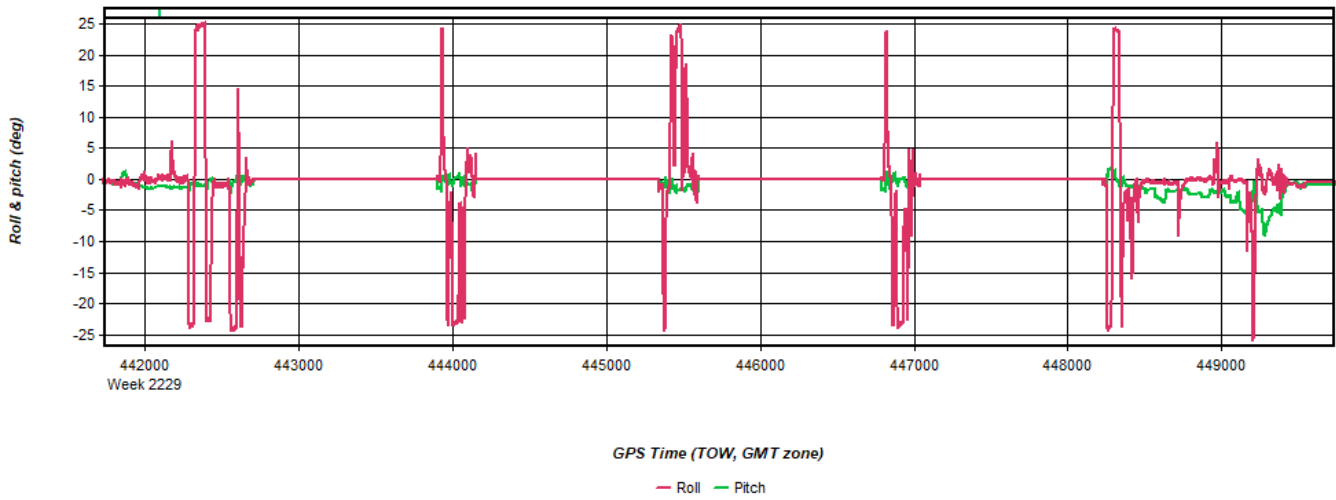
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 11: 20220930024126_24b_REV [Smoothed TC Combined] - Azimuth Plot



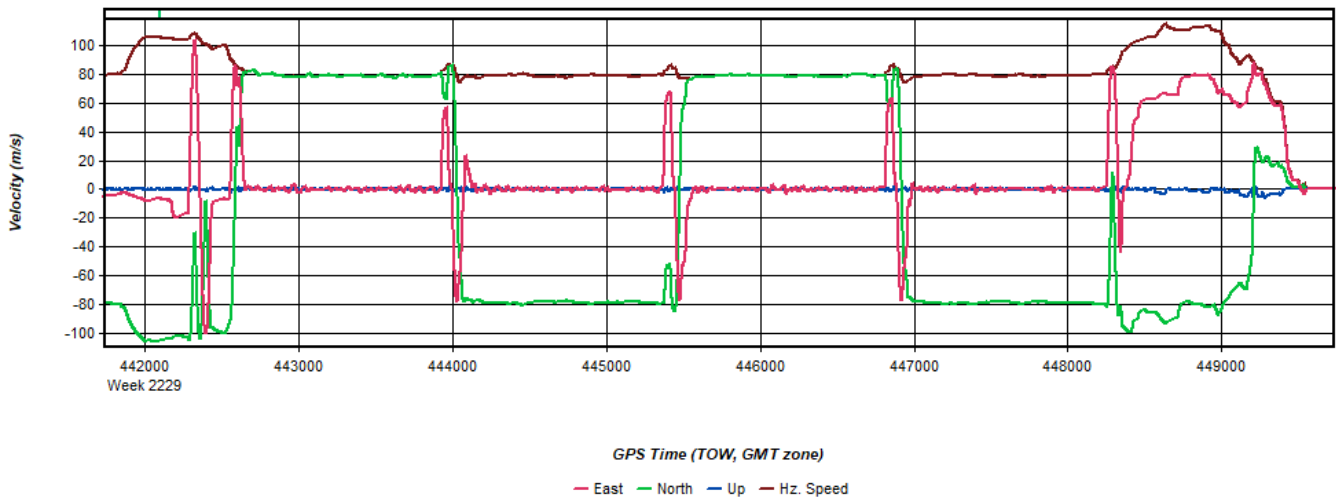
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 12: 20220930024126_24b_REV [Smoothed TC Combined] - Roll & Pitch Plot



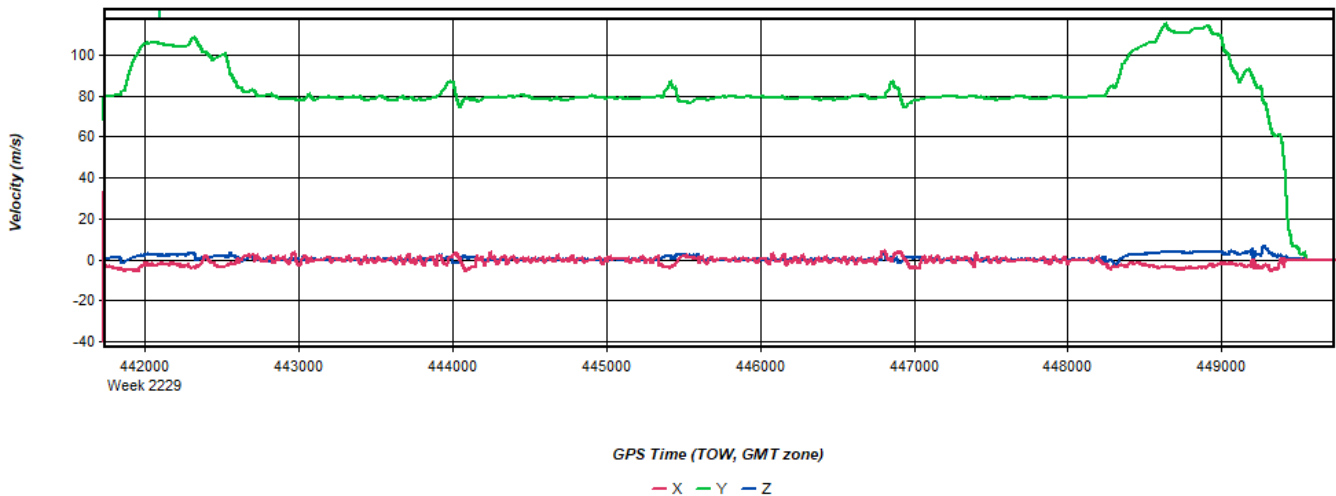
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 13: 20220930024126_24b_REV [Smoothed TC Combined] - Velocity Profile Plot



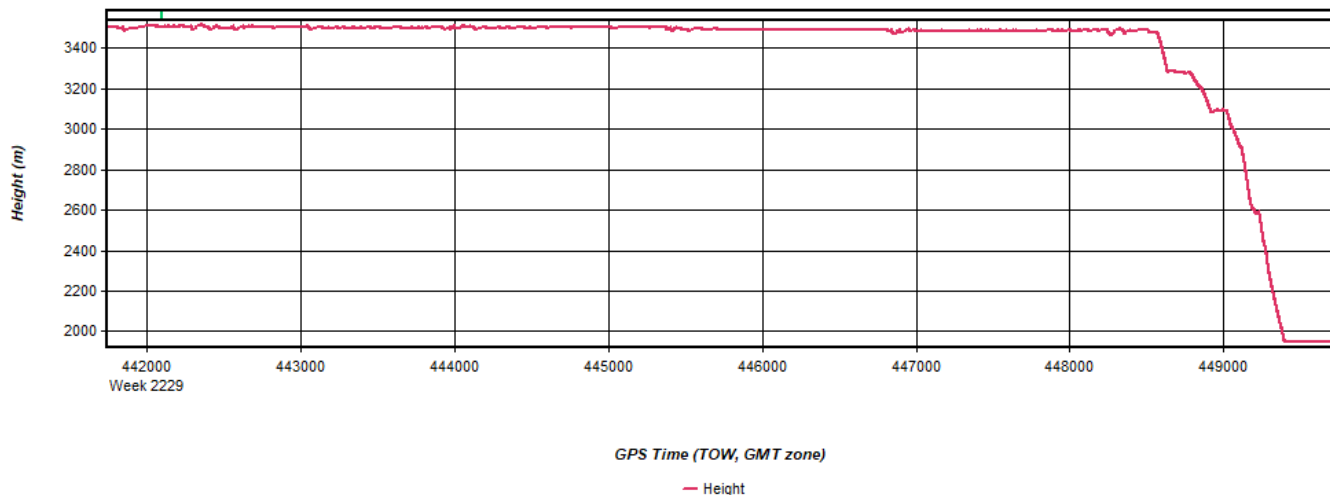
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 14: 20220930024126_24b_REV [Smoothed TC Combined] - Body Frame Velocity Plot



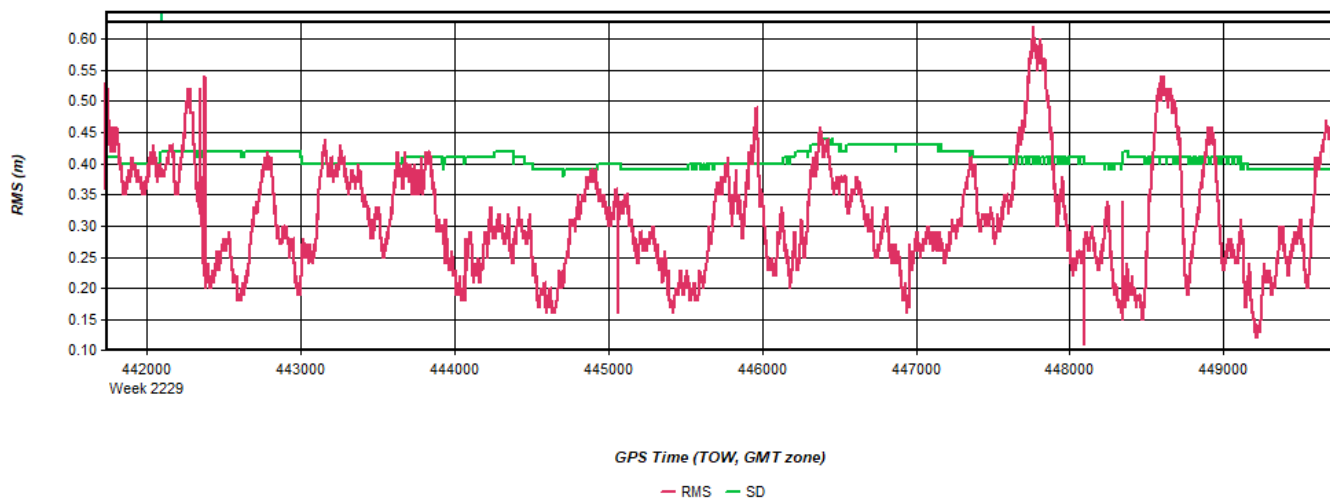
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 15: 20220930024126_24b_REV [Smoothed TC Combined] - Height Profile Plot



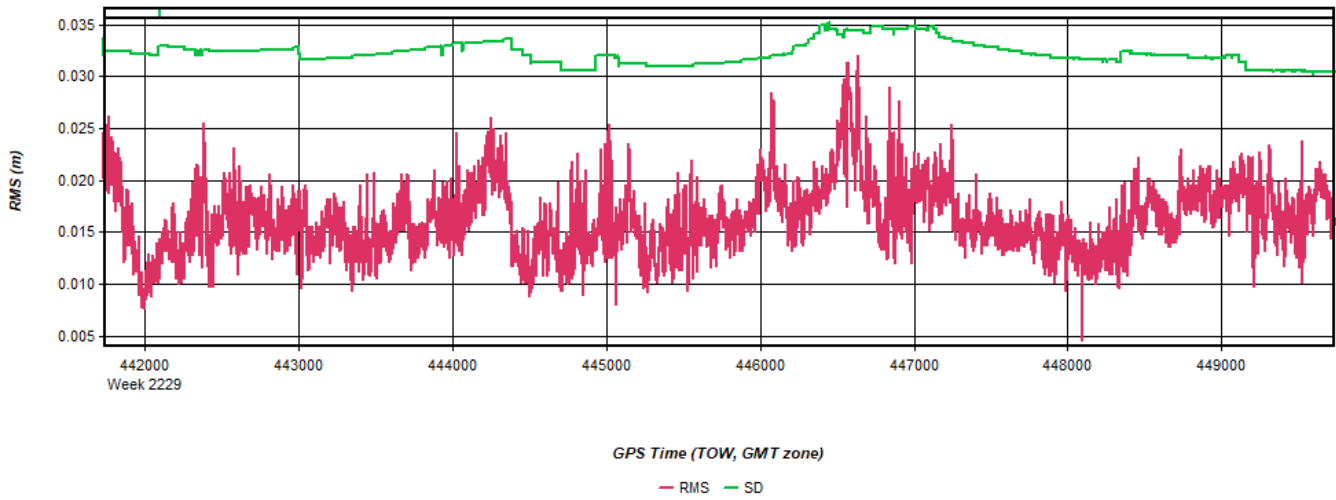
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 16: 20220930024126_24b_REV [Smoothed TC Combined] - C/A Code Residual RMS Plot



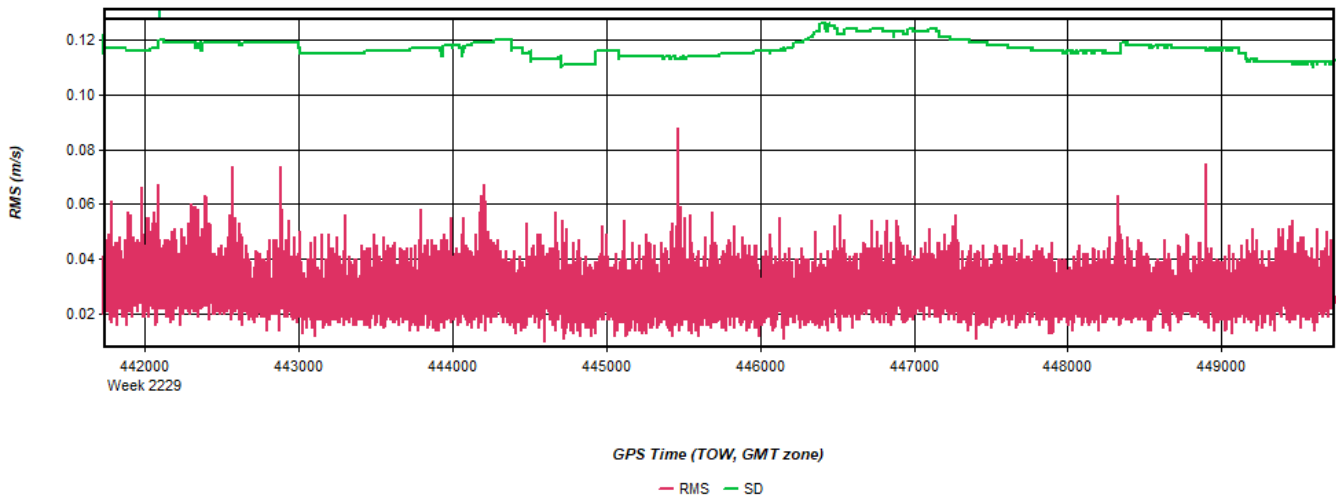
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 17: 20220930024126_24b_REV [Smoothed TC Combined] - Carrier Residual RMS Plot



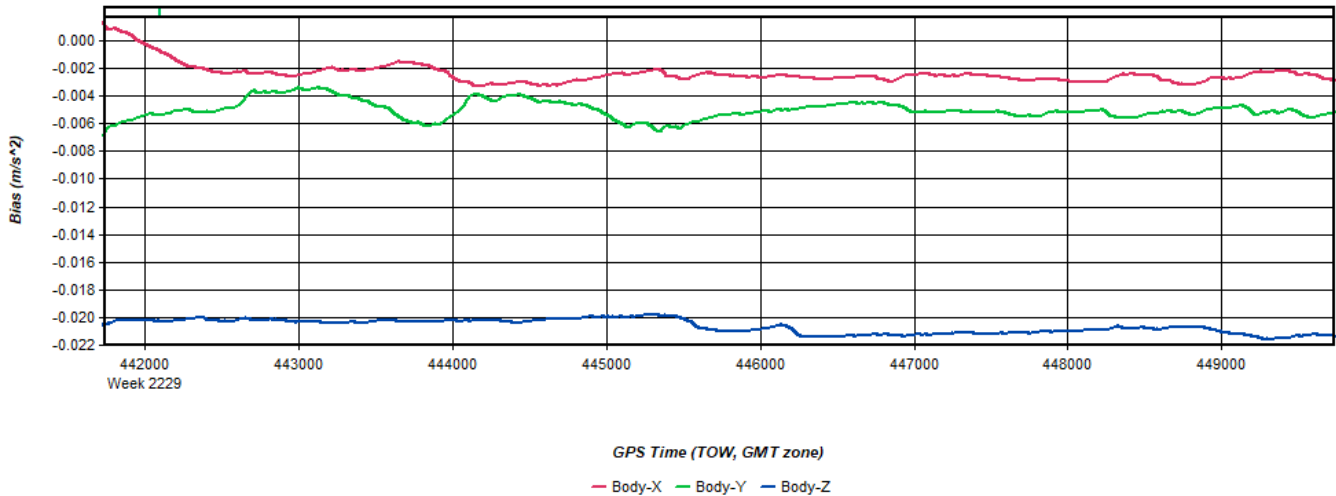
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 18: 20220930024126_24b_REV [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



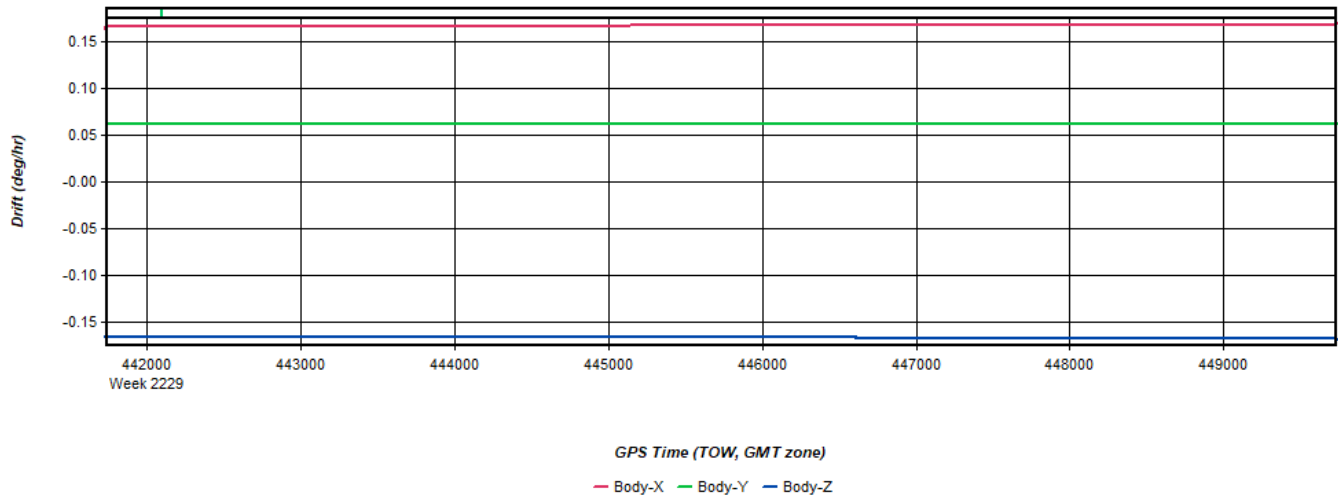
Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 19: 20220930024126_24b_REV [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Figure 20: 20220930024126_24b_REV [Smoothed TC Combined] - Gyro Drift Plot

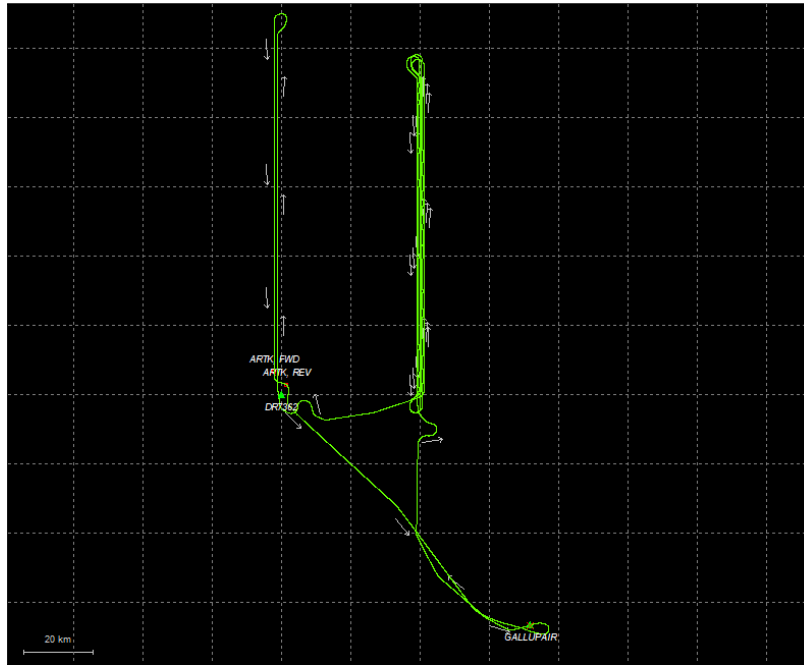


Process	20220930024126_24b_REV	by Unknown	on 10/7/2022	at 13:52:12
---------	------------------------	------------	--------------	-------------

Output Results for 20220930145118_25

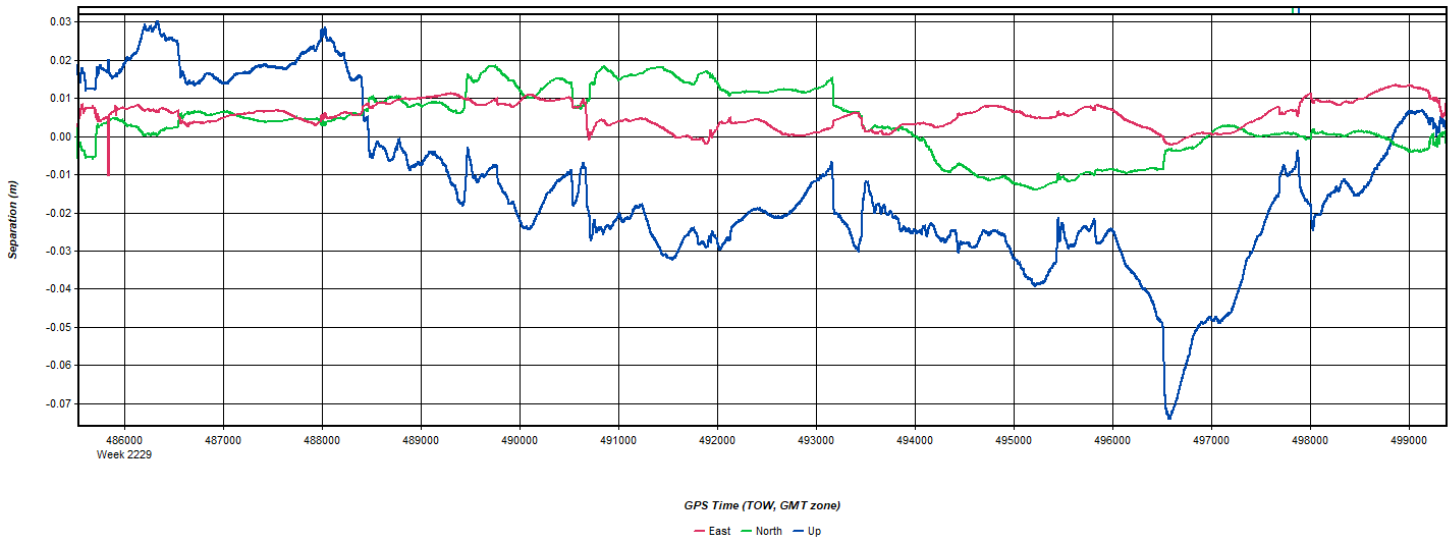
Inertial Explorer Version 8.90.2124
10/05/2022

Figure 1: Smoothed TC Combined - Map



Process	20220930145118_25	by Unknown	on 10/5/2022	at 15:01:04
---------	-------------------	------------	--------------	-------------

Figure 2: 20220930145118_25 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20220930145118_25	by Unknown	on 10/5/2022	at 15:01:04
---------	-------------------	------------	--------------	-------------

Figure 3: 20220930145118_25 [Smoothed TC Combined] - Float or Fixed Ambiguity

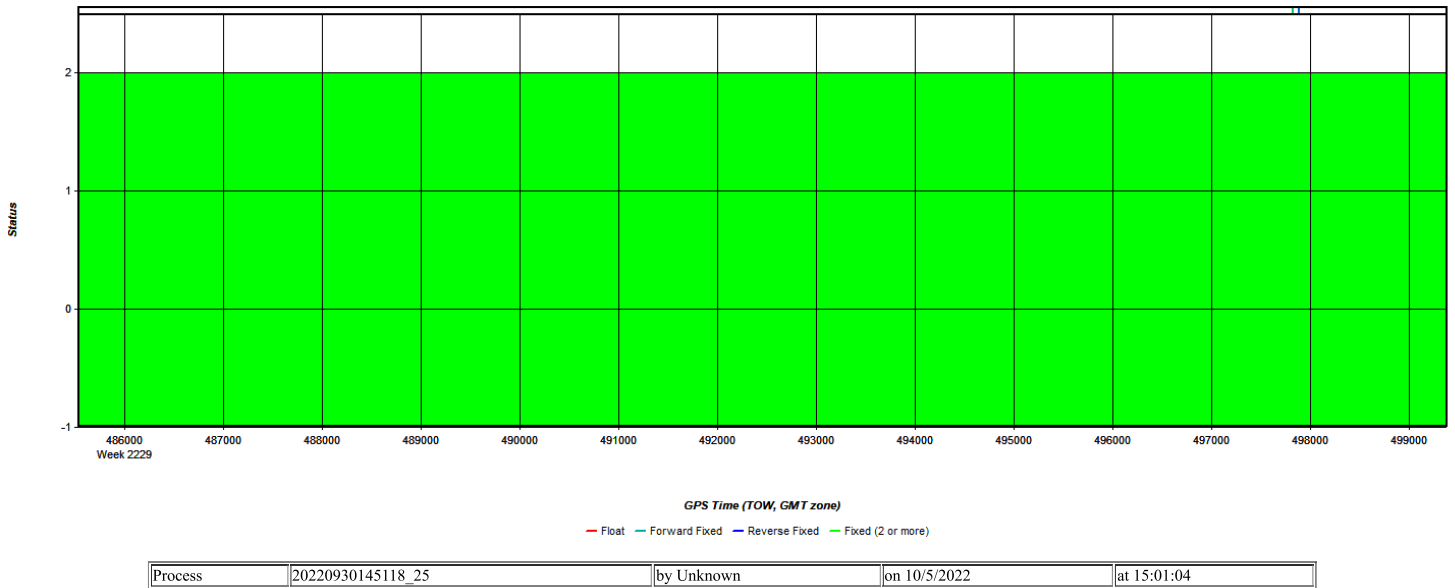


Figure 4: 20220930145118_25 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

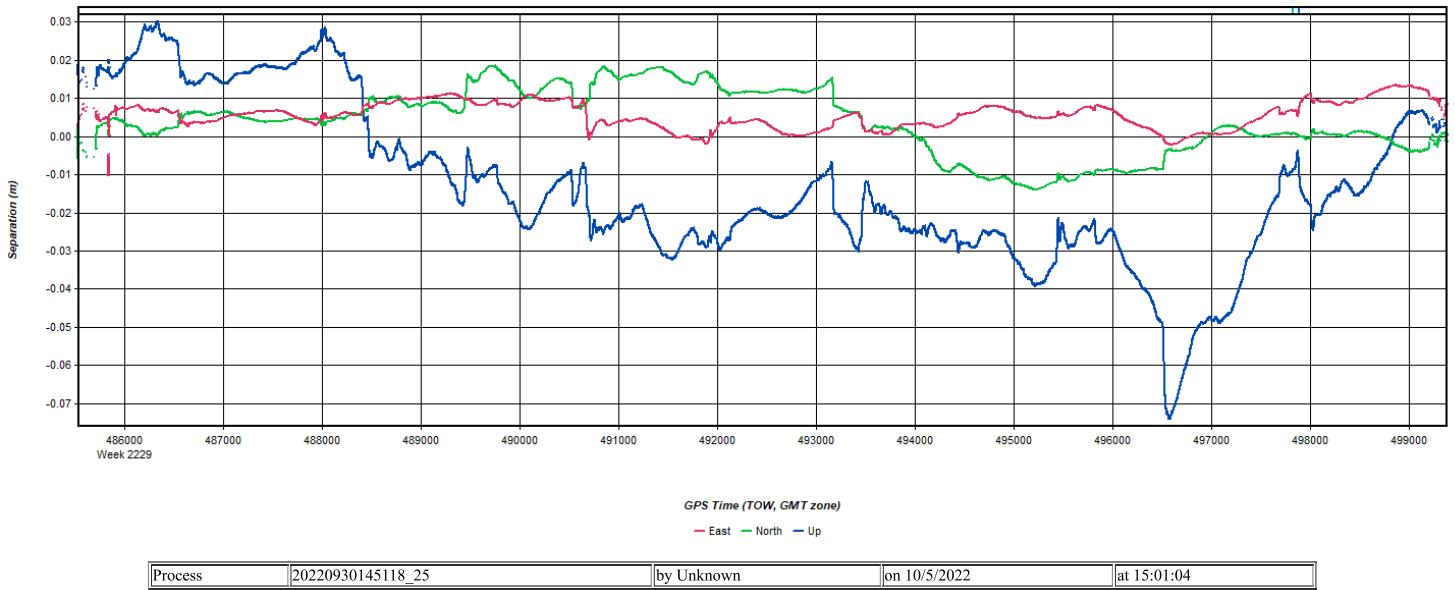


Figure 5: 20220930145118_25 [Smoothed TC Combined] - Estimated Position Accuracy Plot

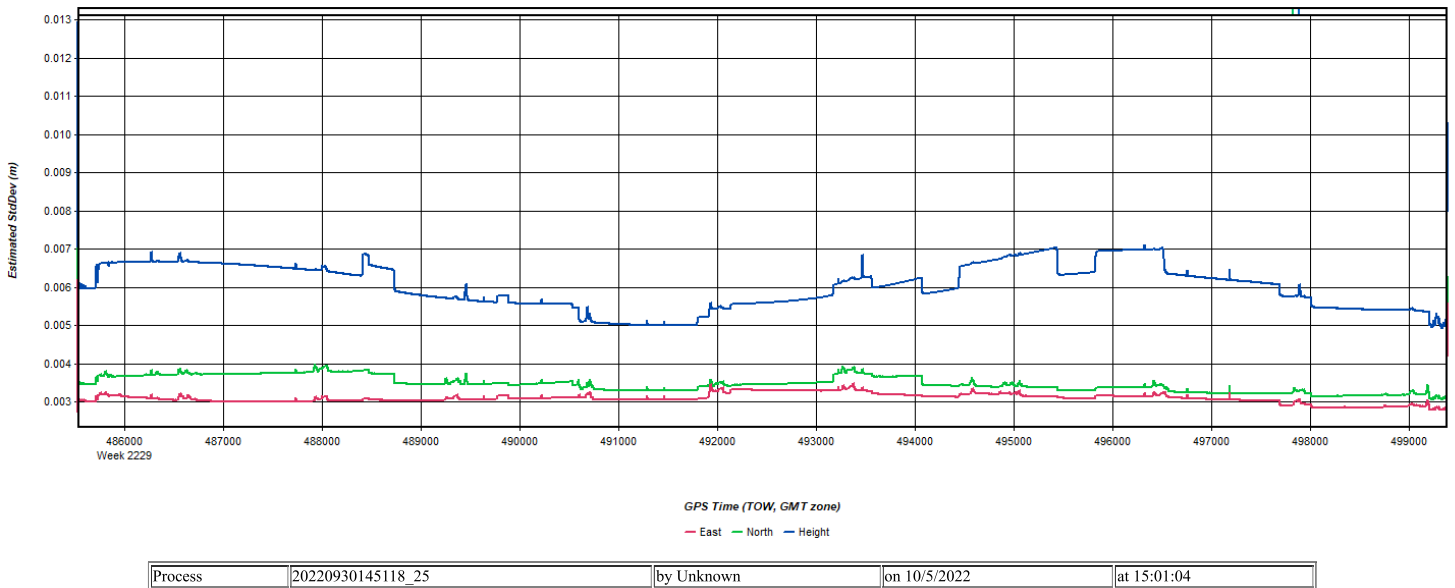
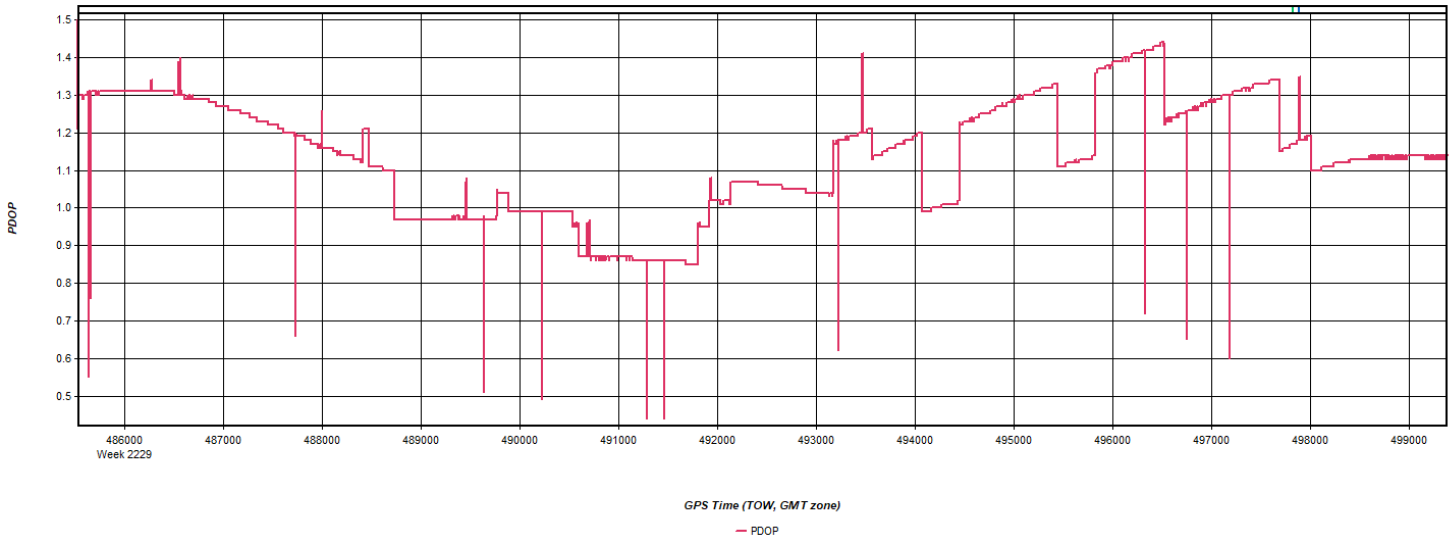
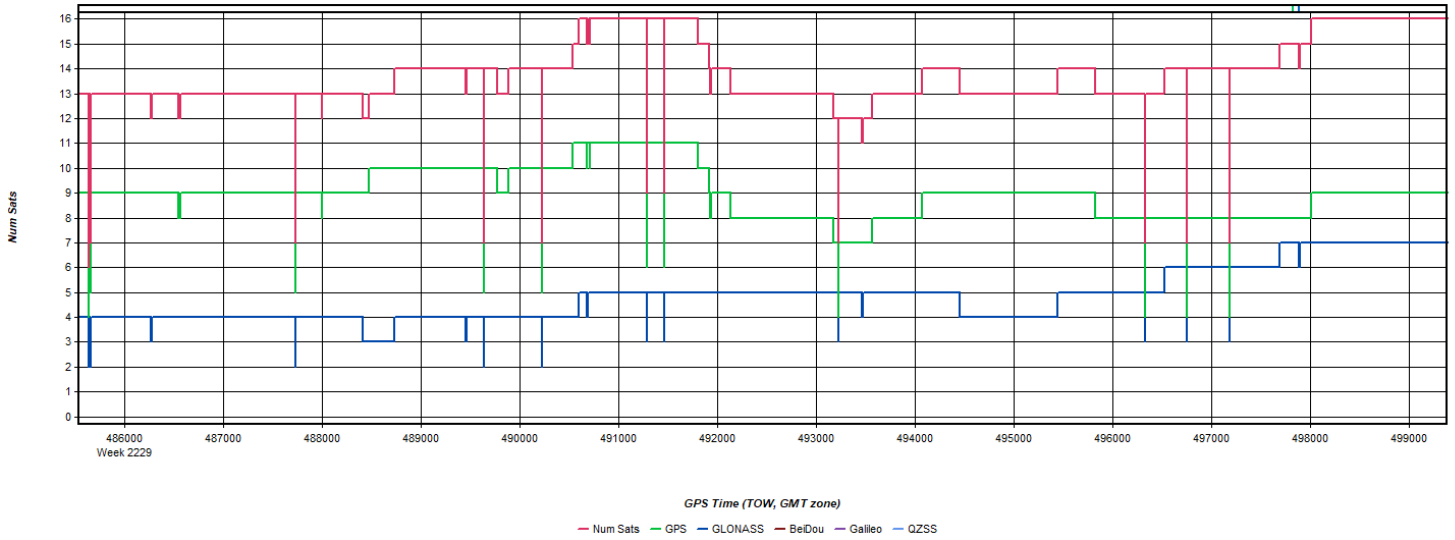


Figure 6: 20220930145118_25 [Smoothed TC Combined] - PDOP Plot



Process	20220930145118_25	by Unknown	on 10/5/2022	at 15:01:04
---------	-------------------	------------	--------------	-------------

Figure 7: 20220930145118_25 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20220930145118_25	by Unknown	on 10/5/2022	at 15:01:04
---------	-------------------	------------	--------------	-------------

Figure 8: 20220930145118_25 [Smoothed TC Combined] - Status flag for IMU processing

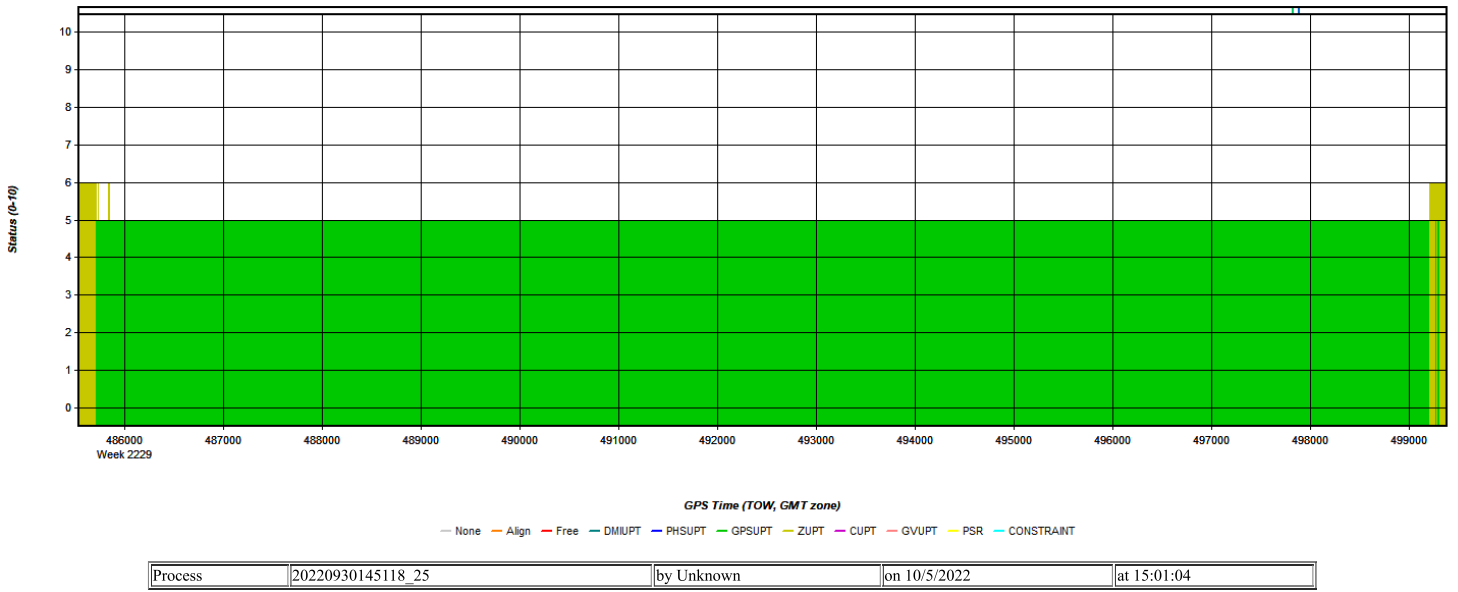


Figure 9: 20220930145118_25 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

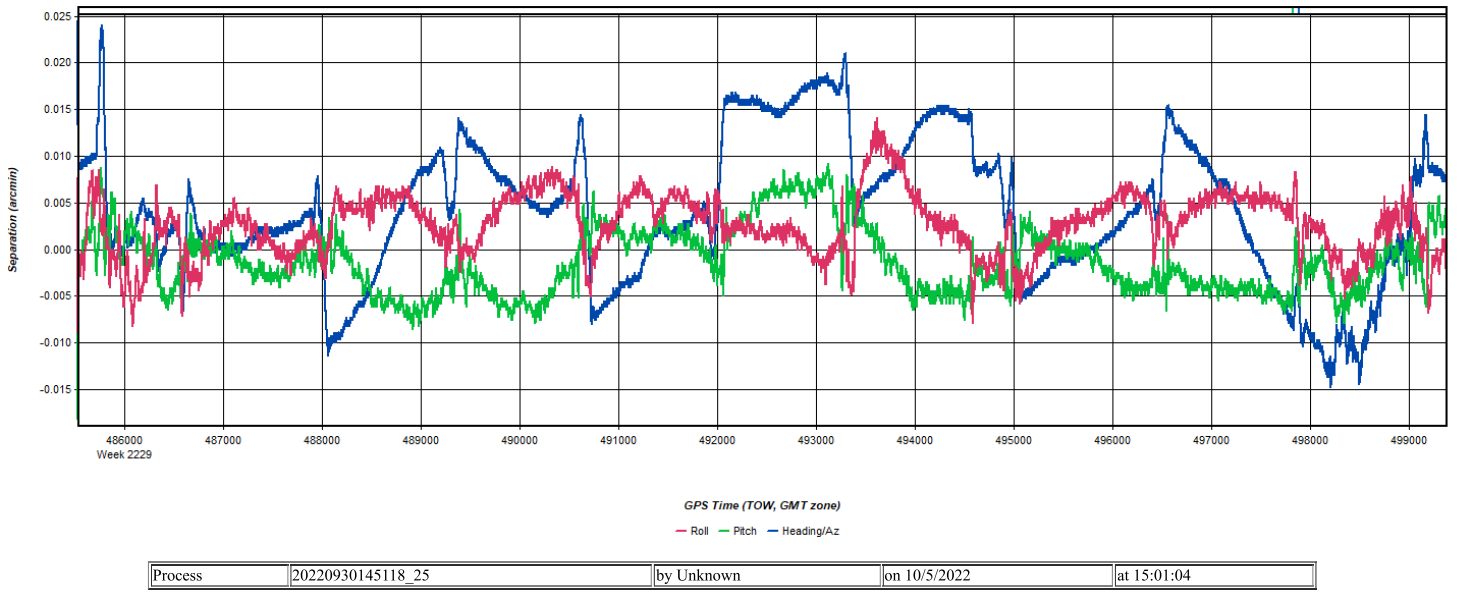


Figure 10: 20220930145118_25 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

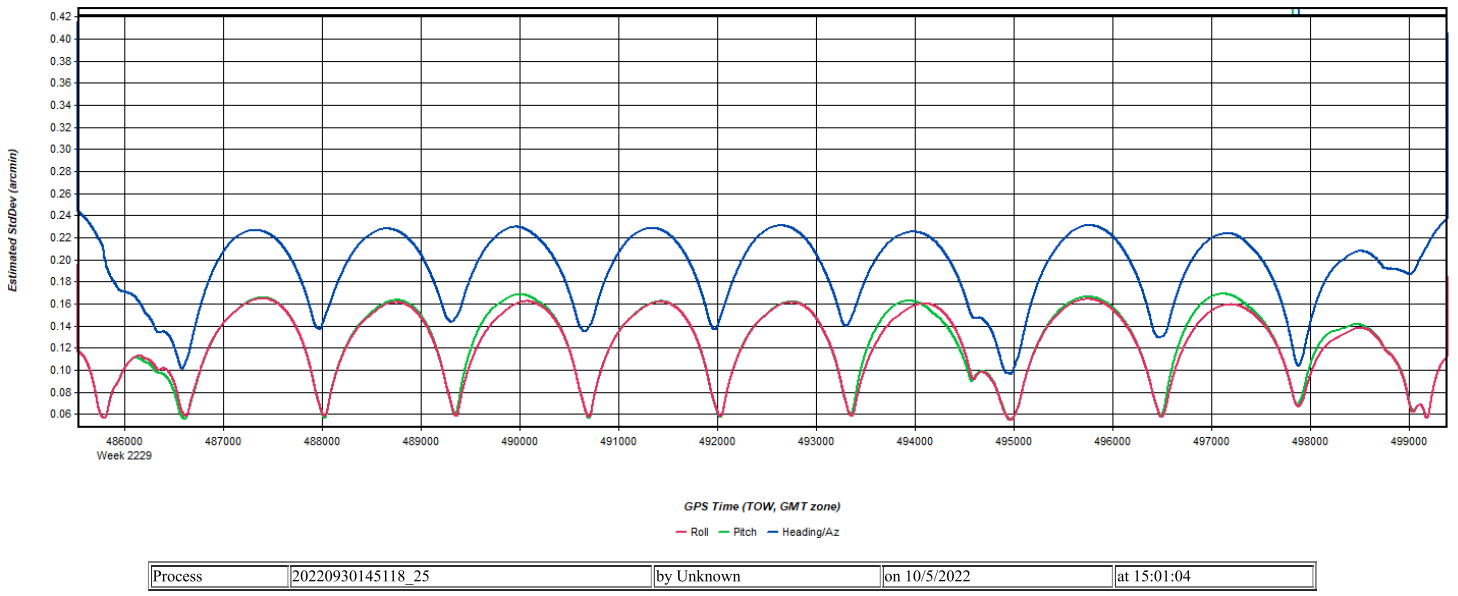


Figure 11: 20220930145118_25 [Smoothed TC Combined] - Azimuth Plot

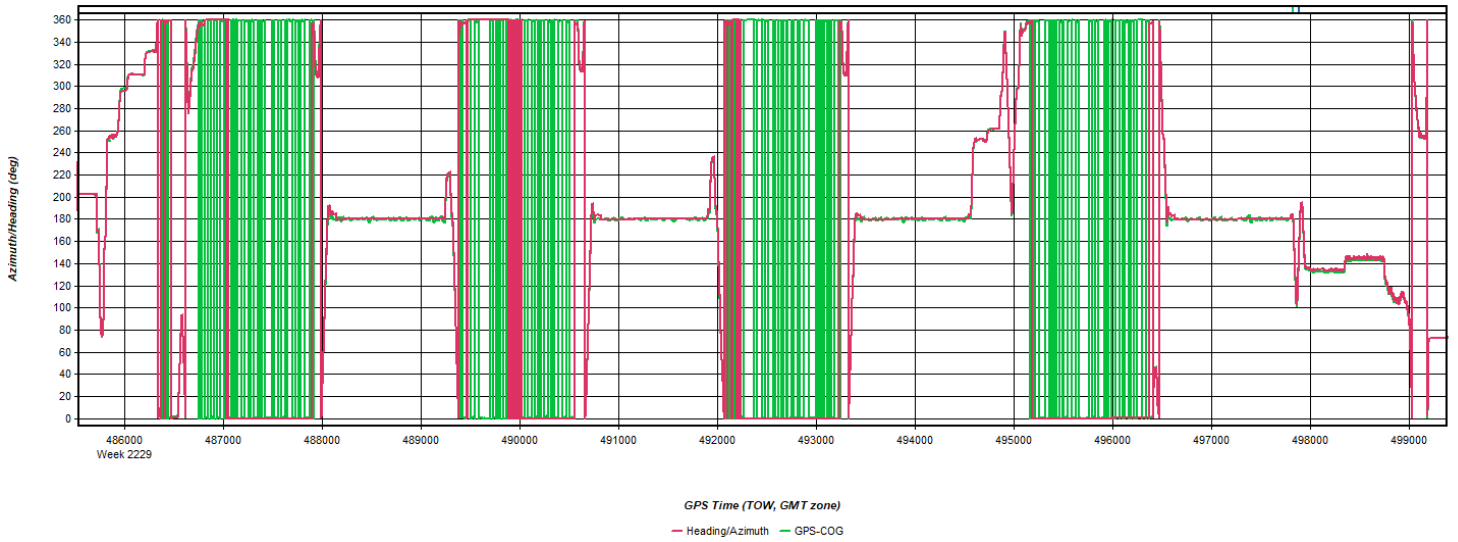


Figure 12: 20220930145118_25 [Smoothed TC Combined] - Roll & Pitch Plot

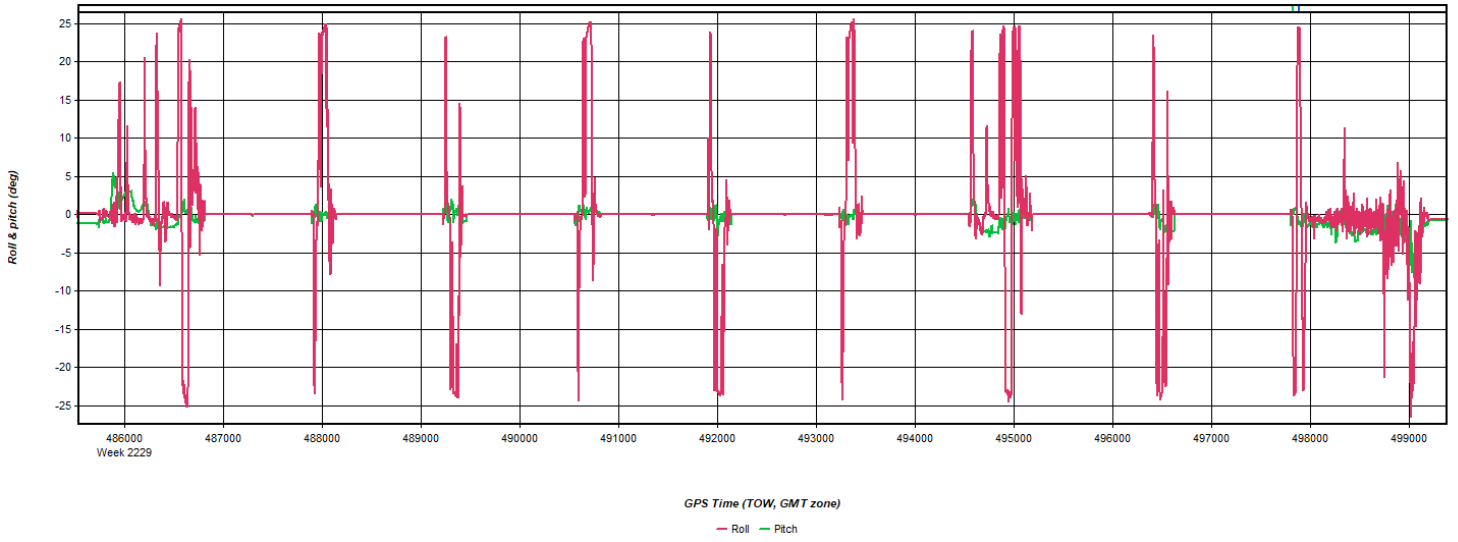


Figure 13: 20220930145118_25 [Smoothed TC Combined] - Velocity Profile Plot

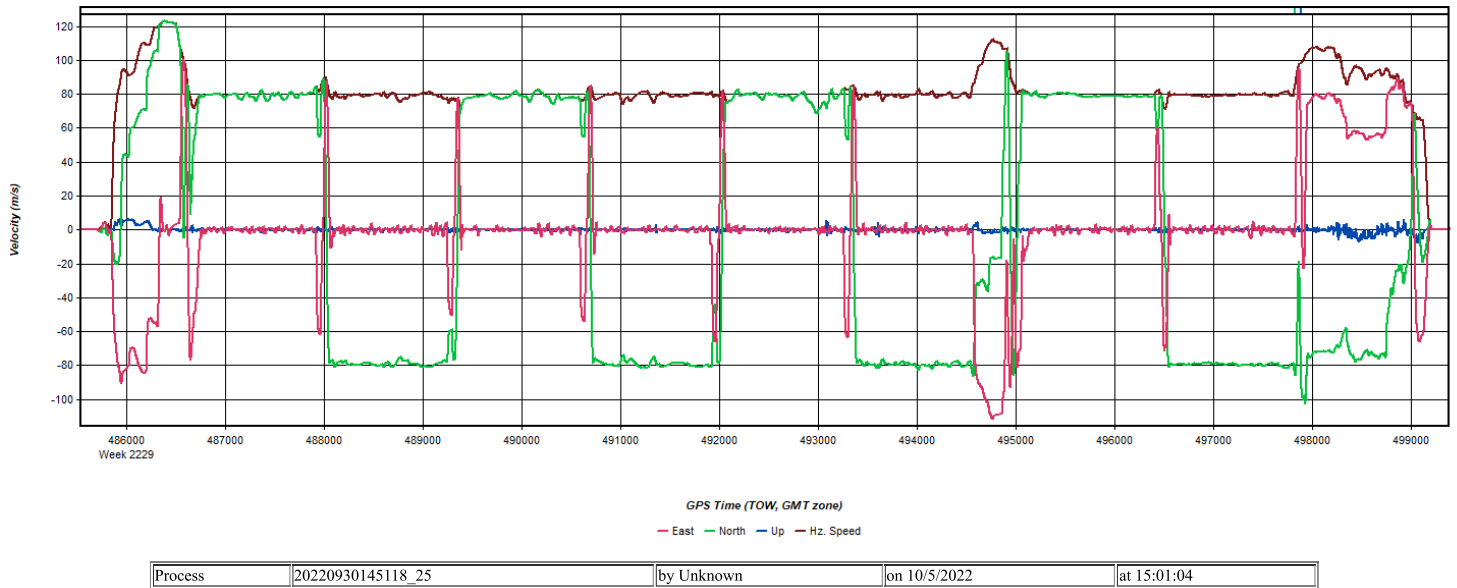


Figure 14: 20220930145118_25 [Smoothed TC Combined] - Body Frame Velocity Plot

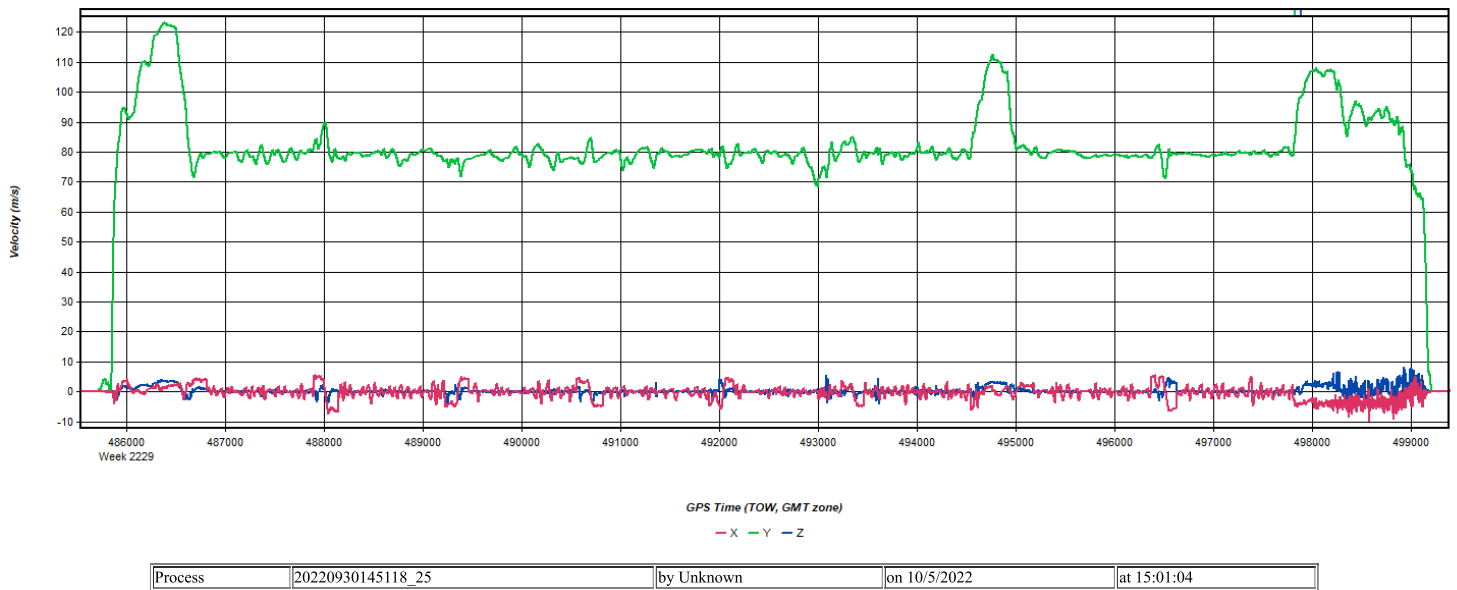


Figure 15: 20220930145118_25 [Smoothed TC Combined] - Height Profile Plot

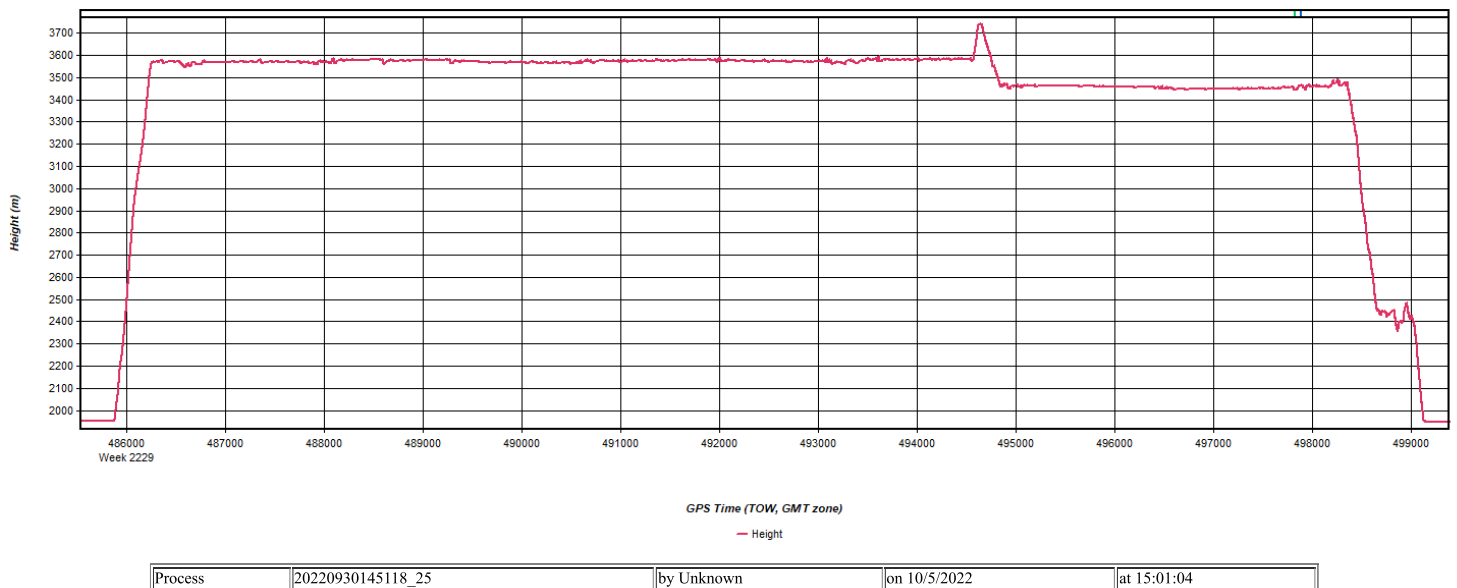


Figure 16: 20220930145118_25 [Smoothed TC Combined] - C/A Code Residual RMS Plot

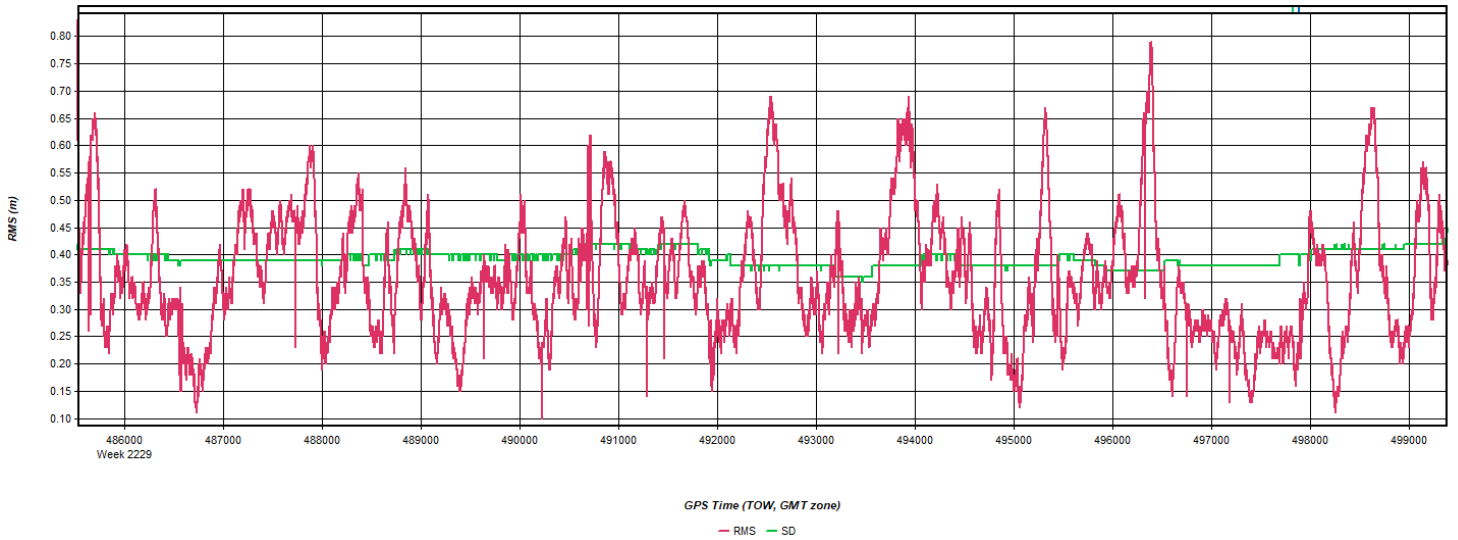


Figure 17: 20220930145118_25 [Smoothed TC Combined] - Carrier Residual RMS Plot

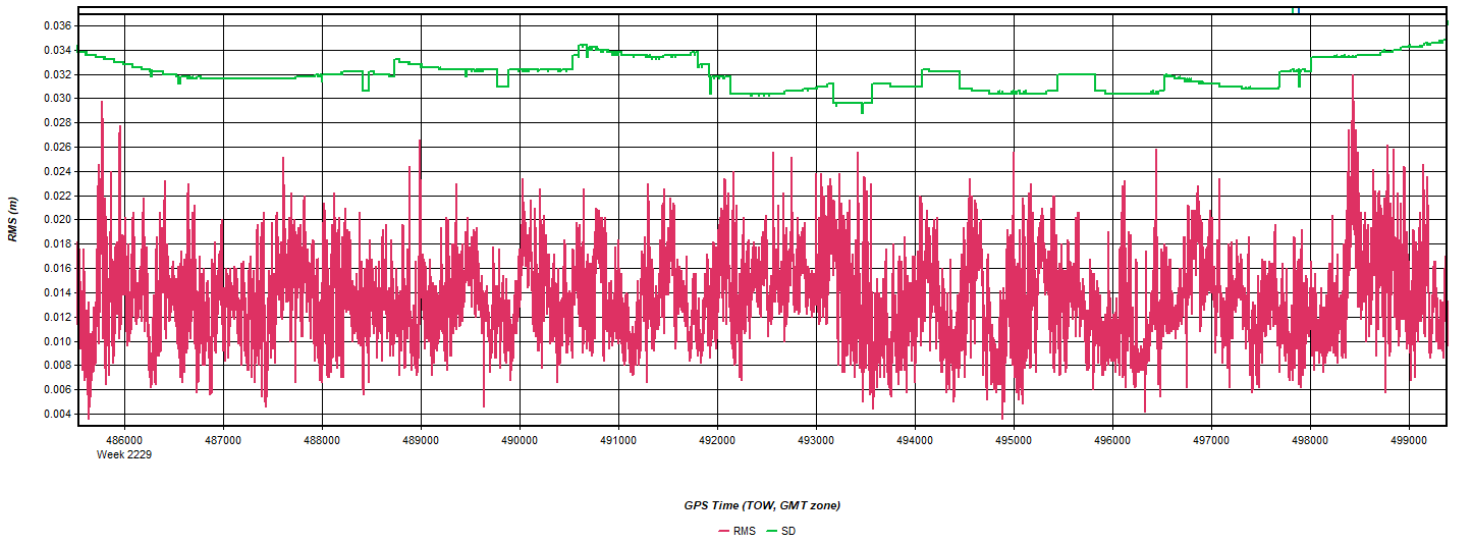
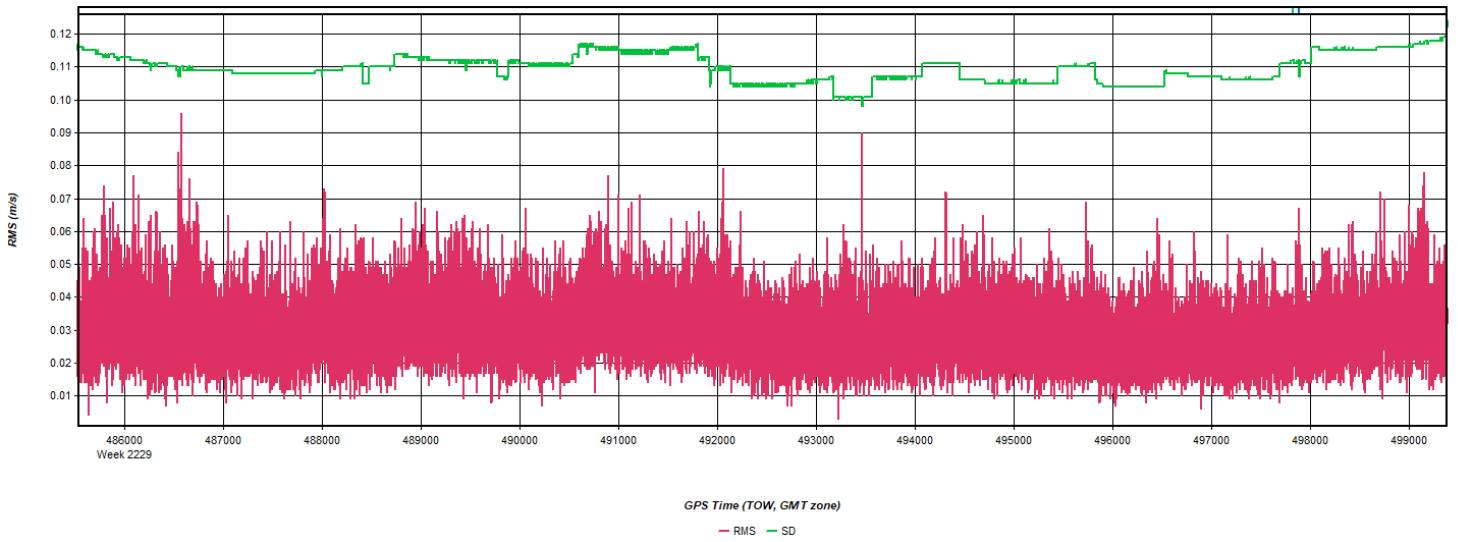
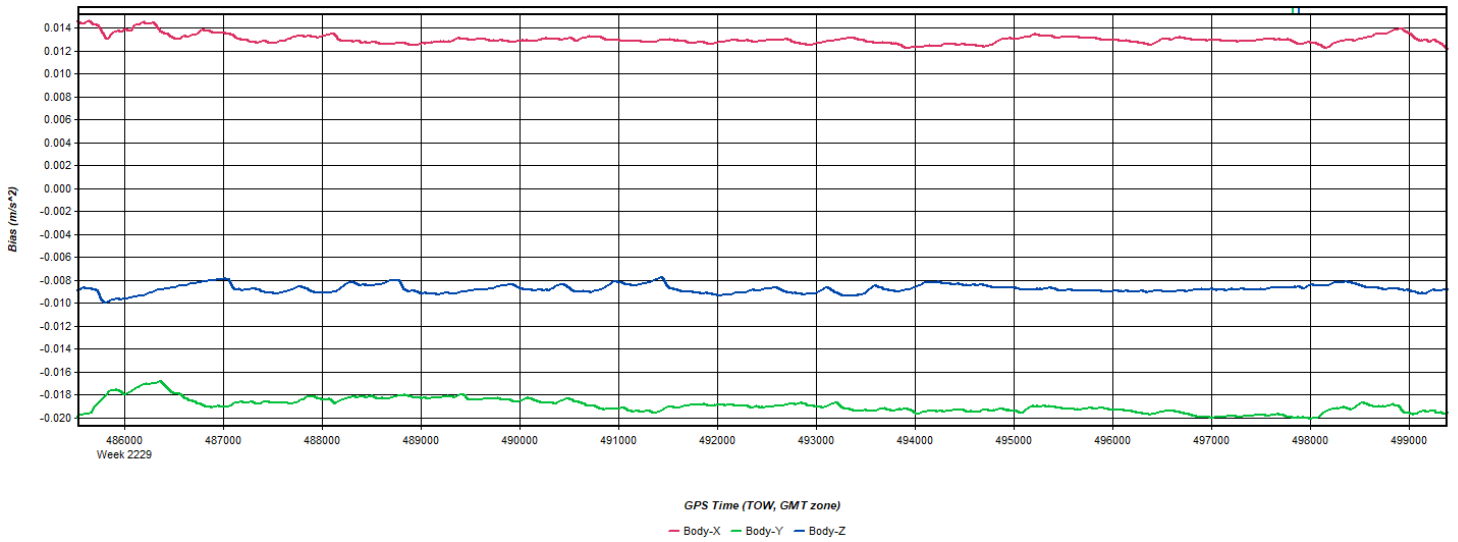


Figure 18: 20220930145118_25 [Smoothed TC Combined] - Doppler Residual RMS Plot



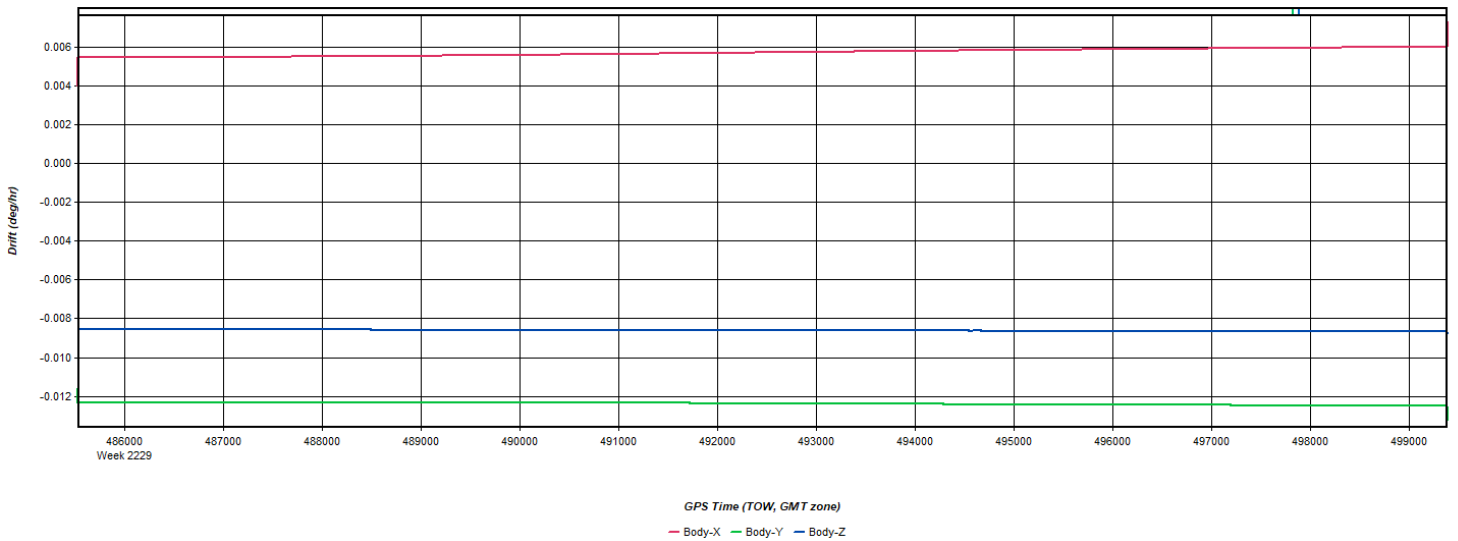
Process	20220930145118_25	by Unknown	on 10/5/2022	at 15:01:04
---------	-------------------	------------	--------------	-------------

Figure 19: 20220930145118_25 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20220930145118_25	by Unknown	on 10/5/2022	at 15:01:04
---------	-------------------	------------	--------------	-------------

Figure 20: 20220930145118_25 [Smoothed TC Combined] - Gyro Drift Plot

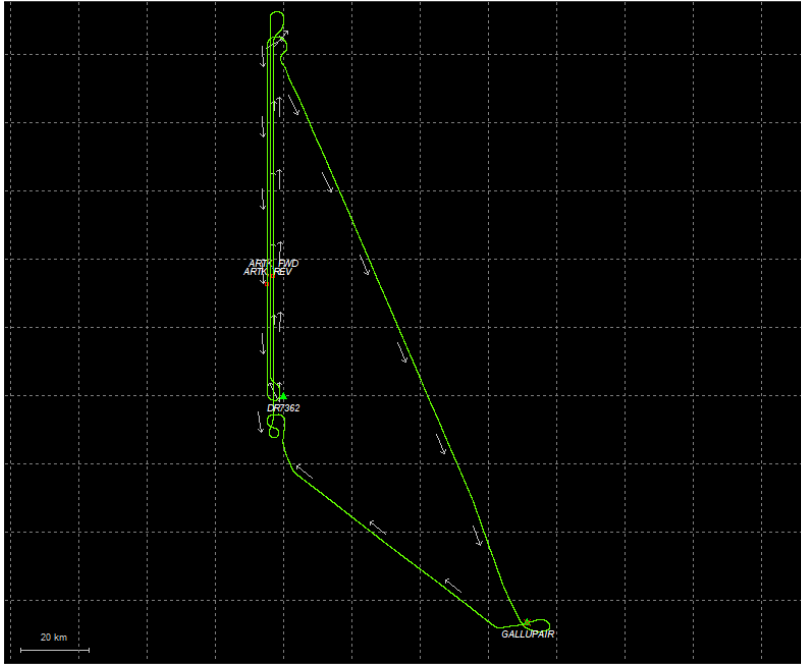


Process	20220930145118_25	by Unknown	on 10/5/2022	at 15:01:04
---------	-------------------	------------	--------------	-------------

Output Results for 20221001000538_26

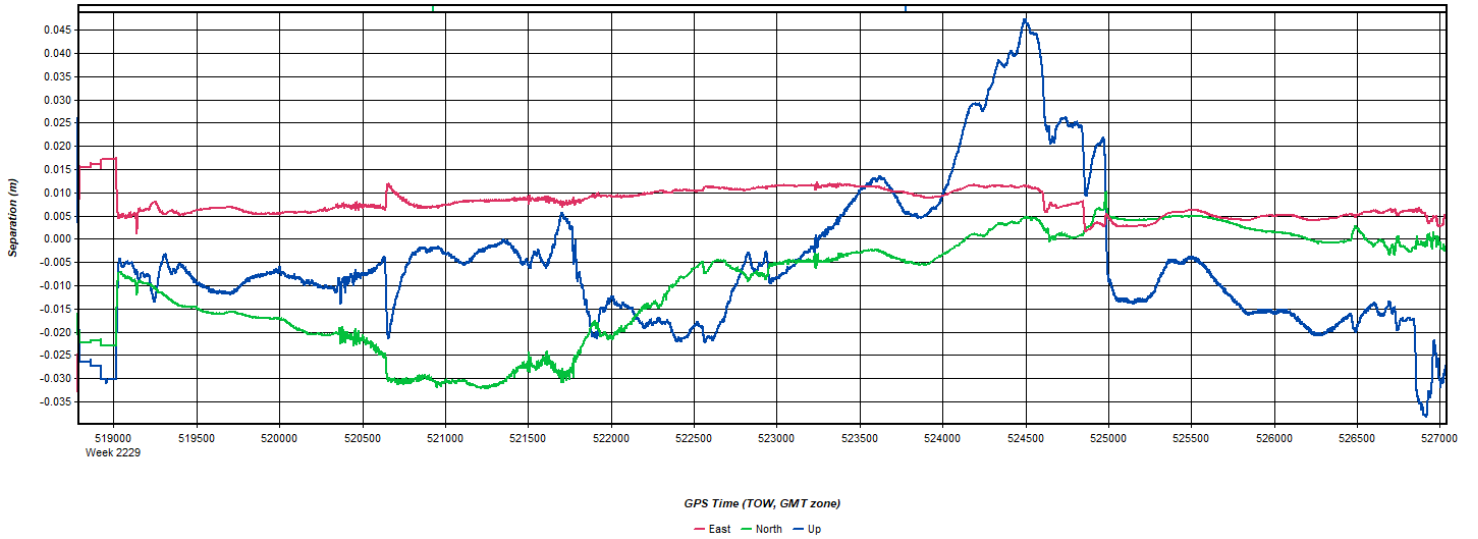
Inertial Explorer Version 8.90.2124
10/05/2022

Figure 1: Smoothed TC Combined - Map



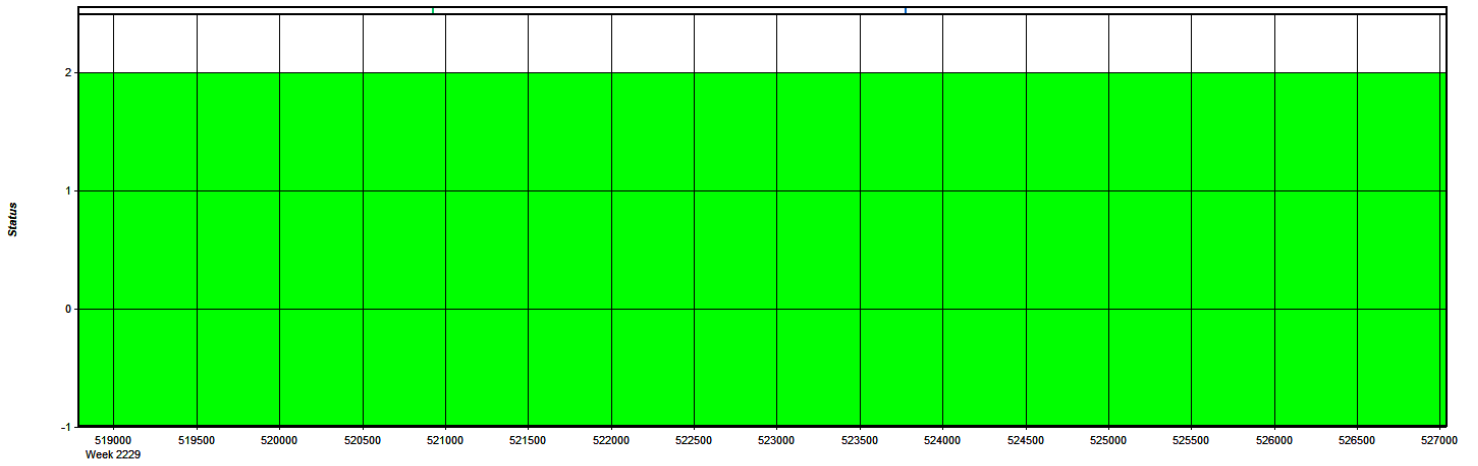
Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Figure 2: 20221001000538_26 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



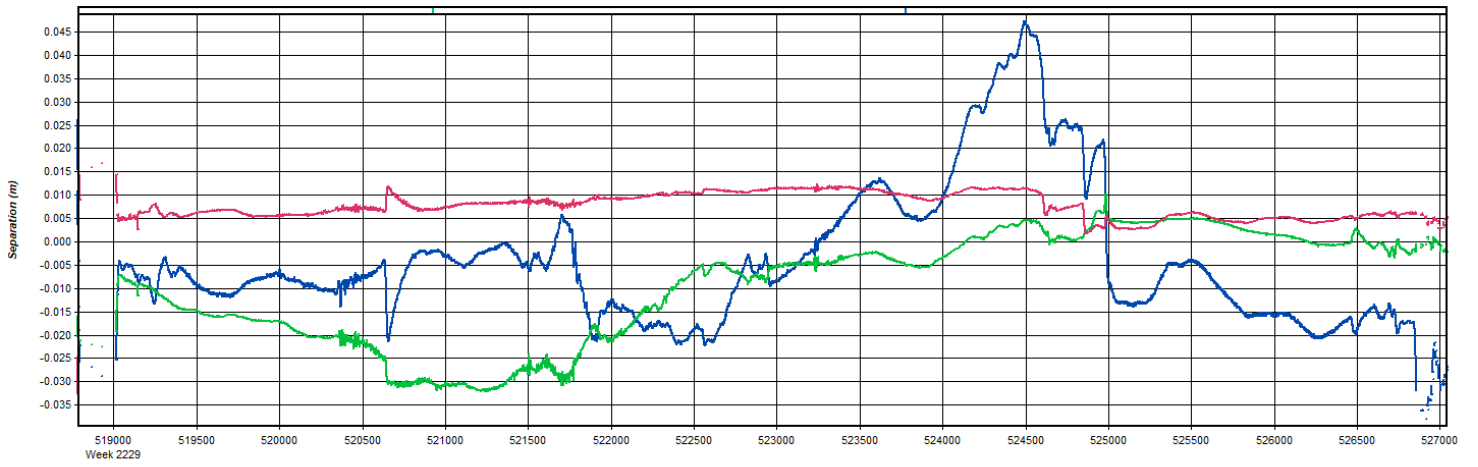
Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Figure 3: 20221001000538_26 [Smoothed TC Combined] - Float or Fixed Ambiguity



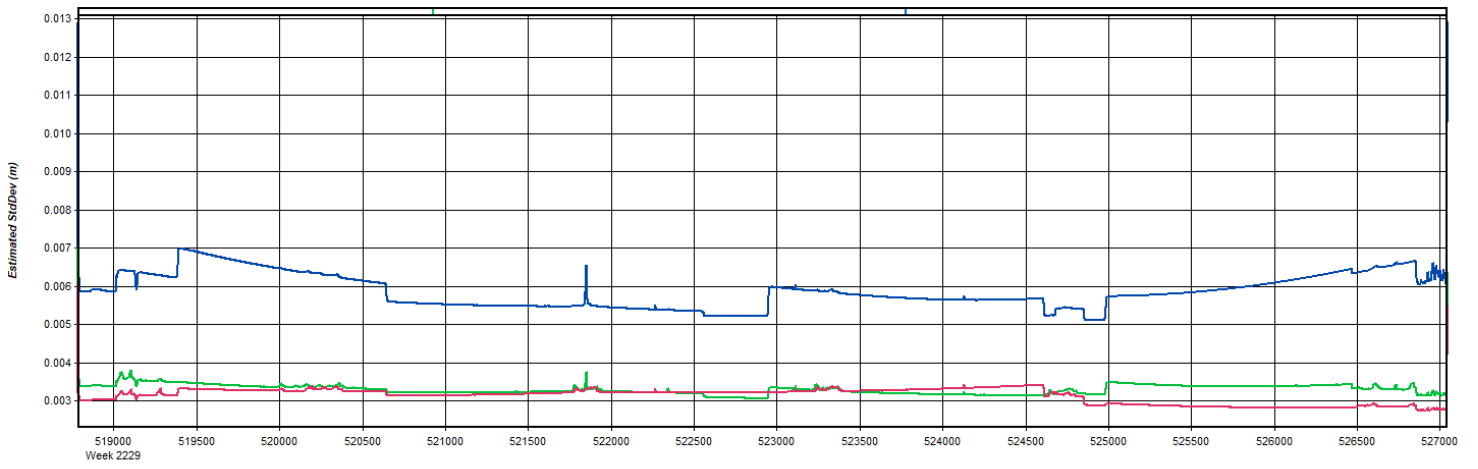
Process: 20221001000538_26 by Unknown on 10/5/2022 at 15:32:03

Figure 4: 20221001000538_26 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



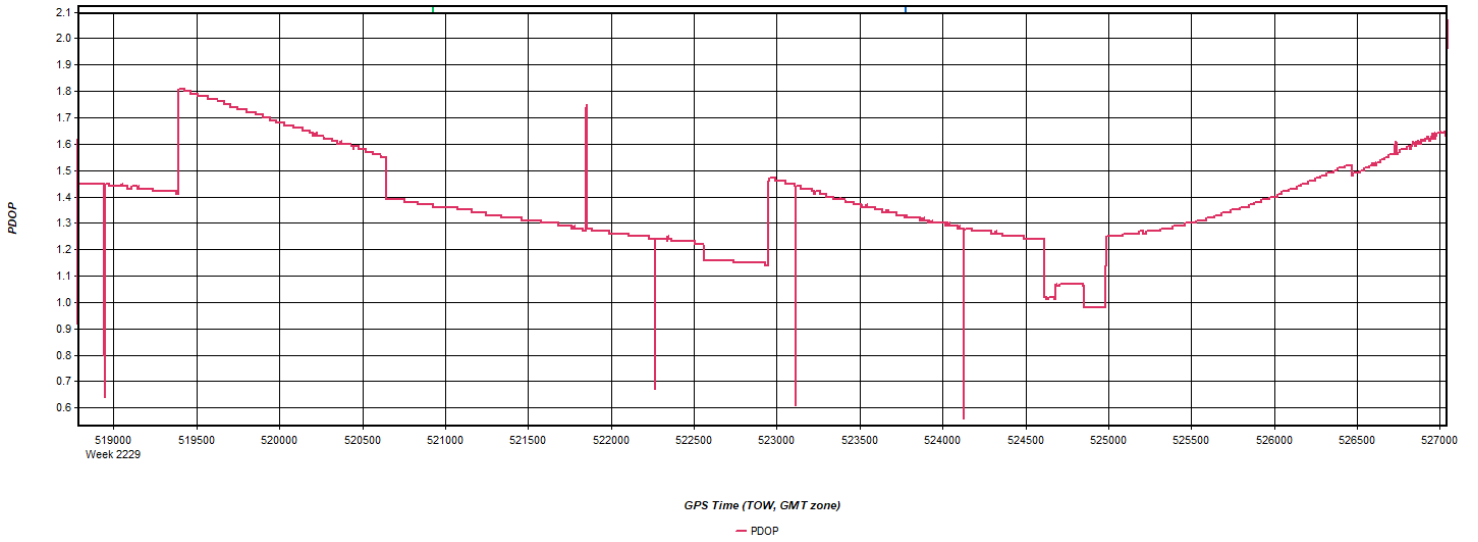
Process: 20221001000538_26 by Unknown on 10/5/2022 at 15:32:03

Figure 5: 20221001000538_26 [Smoothed TC Combined] - Estimated Position Accuracy Plot



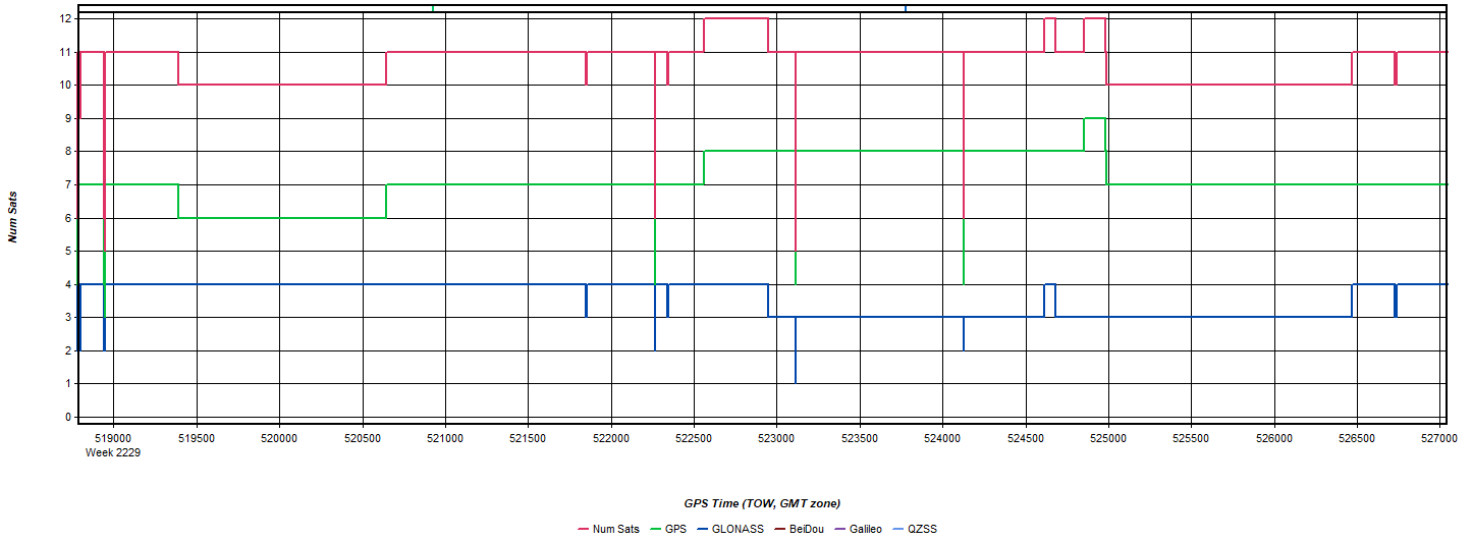
Process: 20221001000538_26 by Unknown on 10/5/2022 at 15:32:03

Figure 6: 20221001000538_26 [Smoothed TC Combined] - PDOP Plot



Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Figure 7: 20221001000538_26 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Figure 8: 20221001000538_26 [Smoothed TC Combined] - Status flag for IMU processing

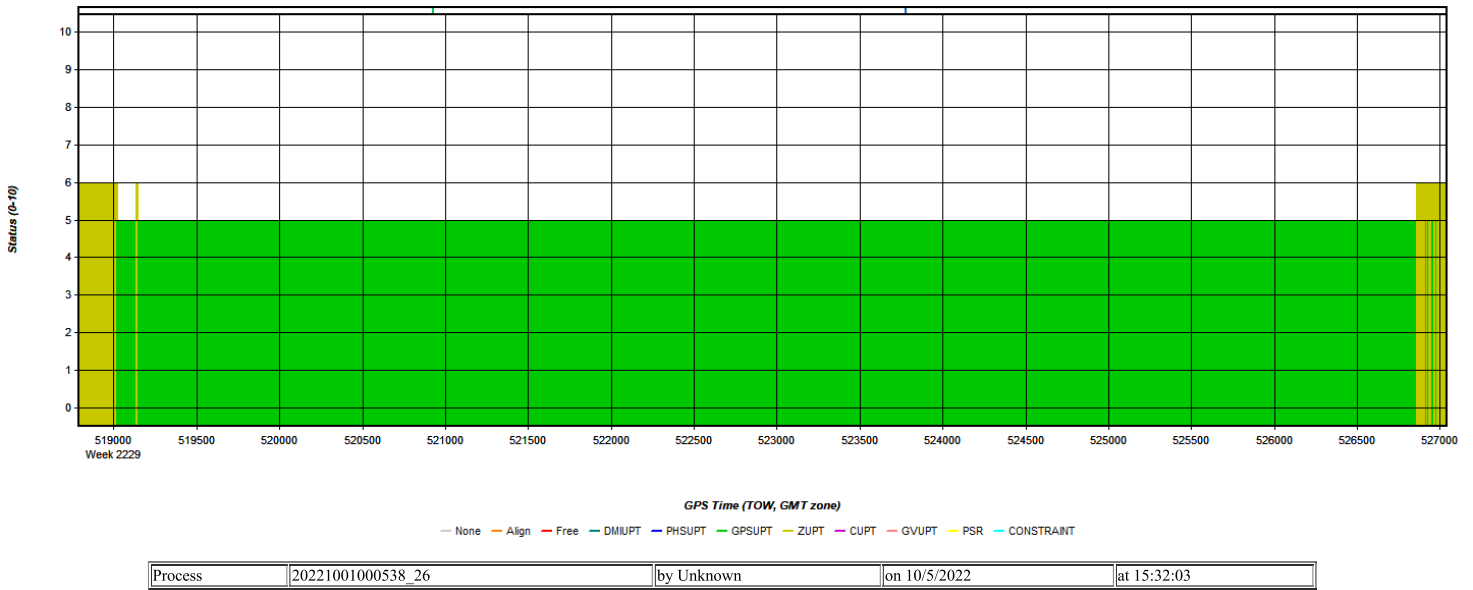


Figure 9: 20221001000538_26 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

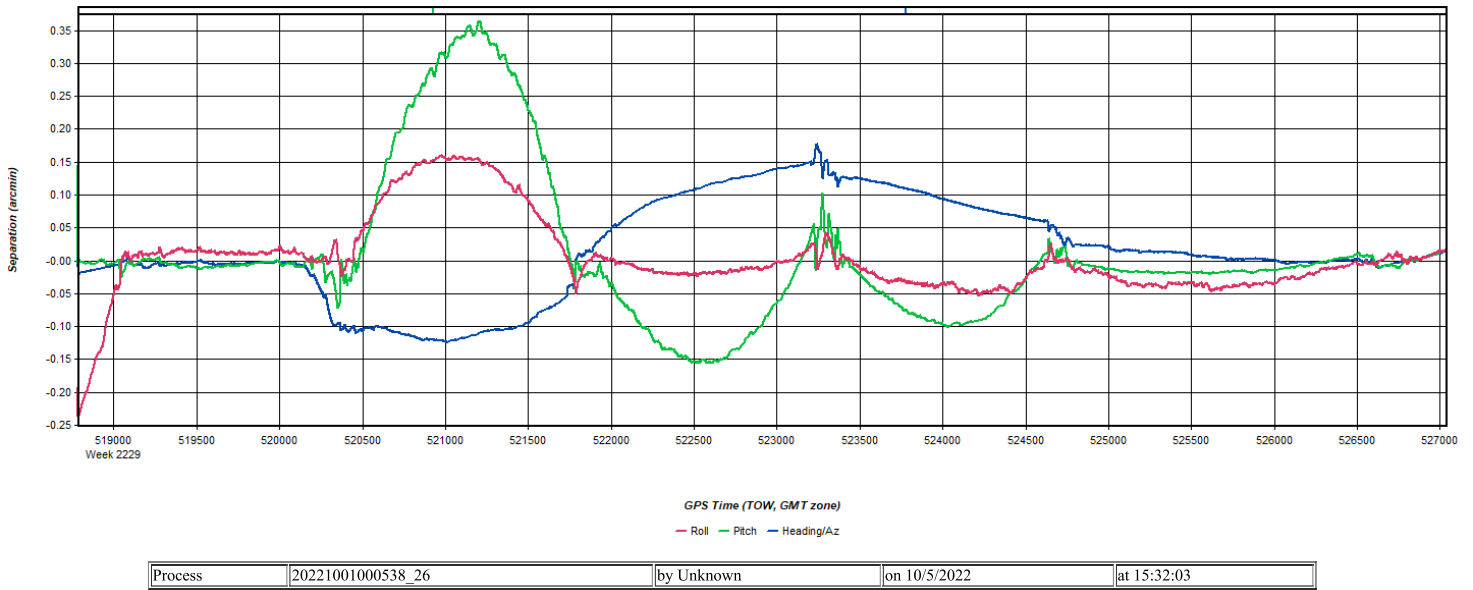


Figure 10: 20221001000538_26 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

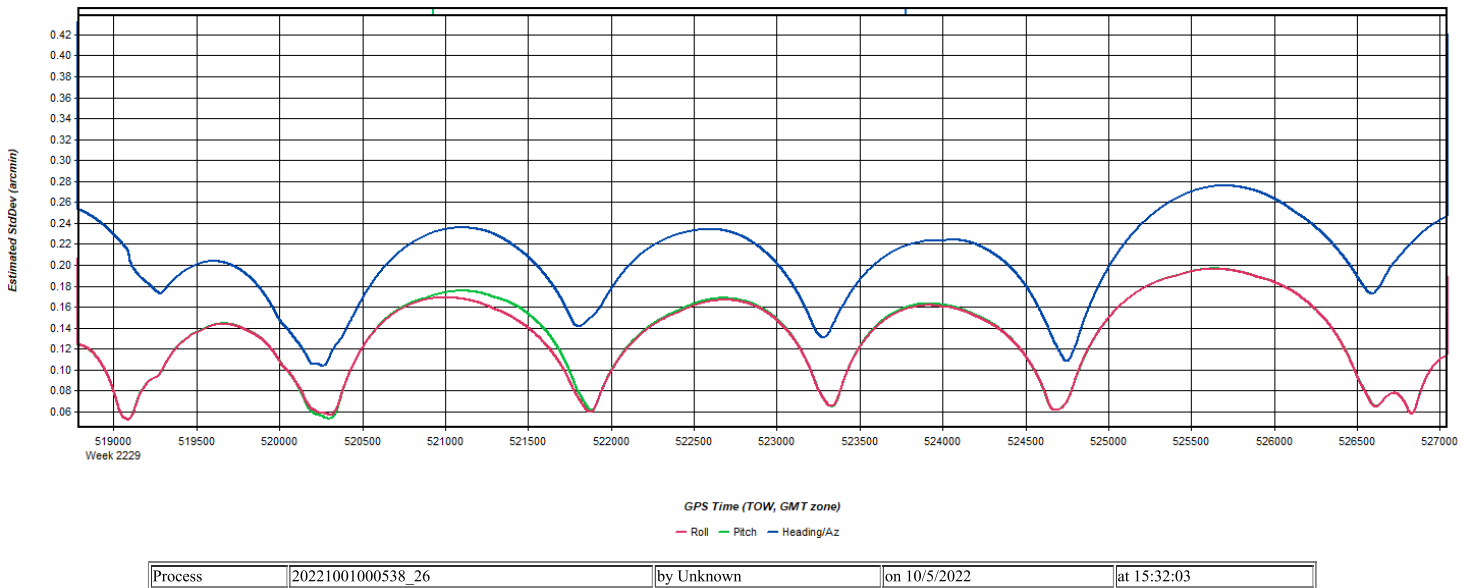
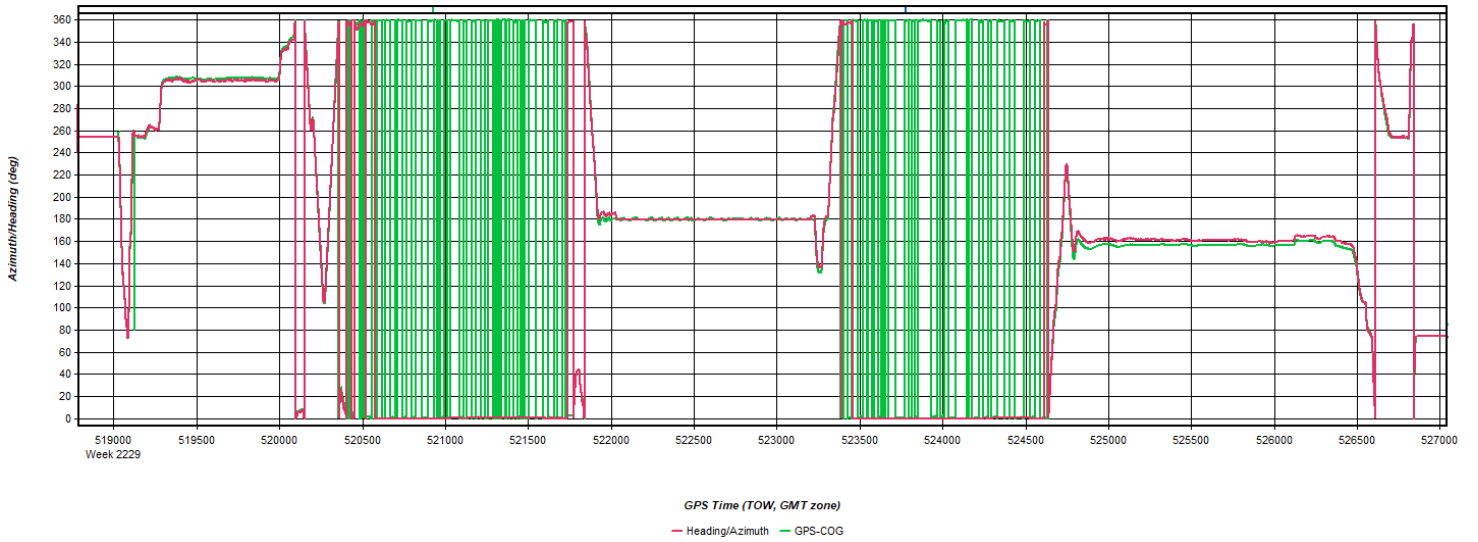
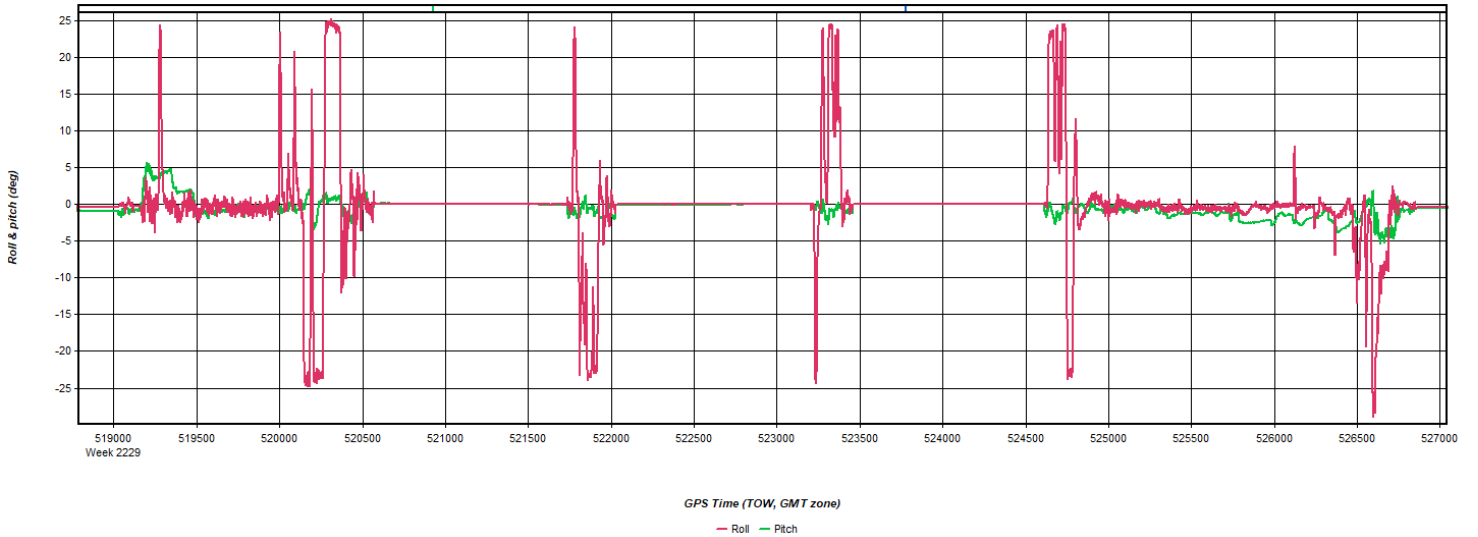


Figure 11: 20221001000538_26 [Smoothed TC Combined] - Azimuth Plot



Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Figure 12: 20221001000538_26 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Figure 13: 20221001000538_26 [Smoothed TC Combined] - Velocity Profile Plot

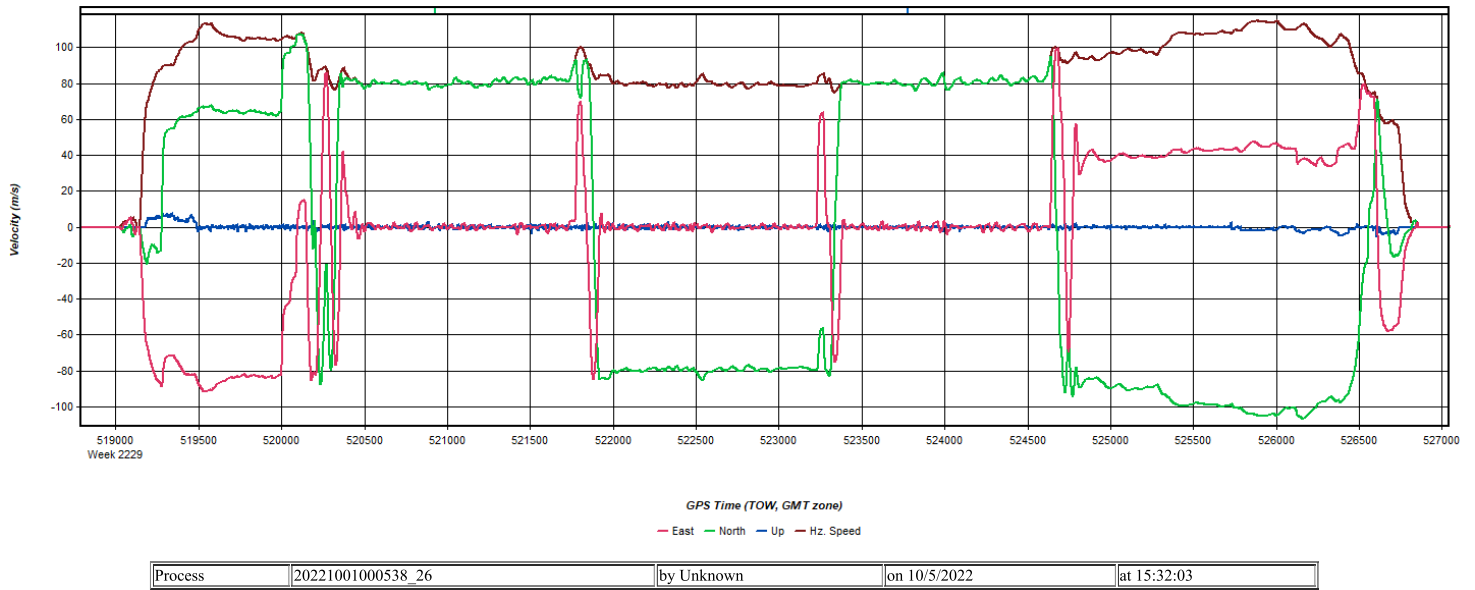


Figure 14: 20221001000538_26 [Smoothed TC Combined] - Body Frame Velocity Plot



Figure 15: 20221001000538_26 [Smoothed TC Combined] - Height Profile Plot

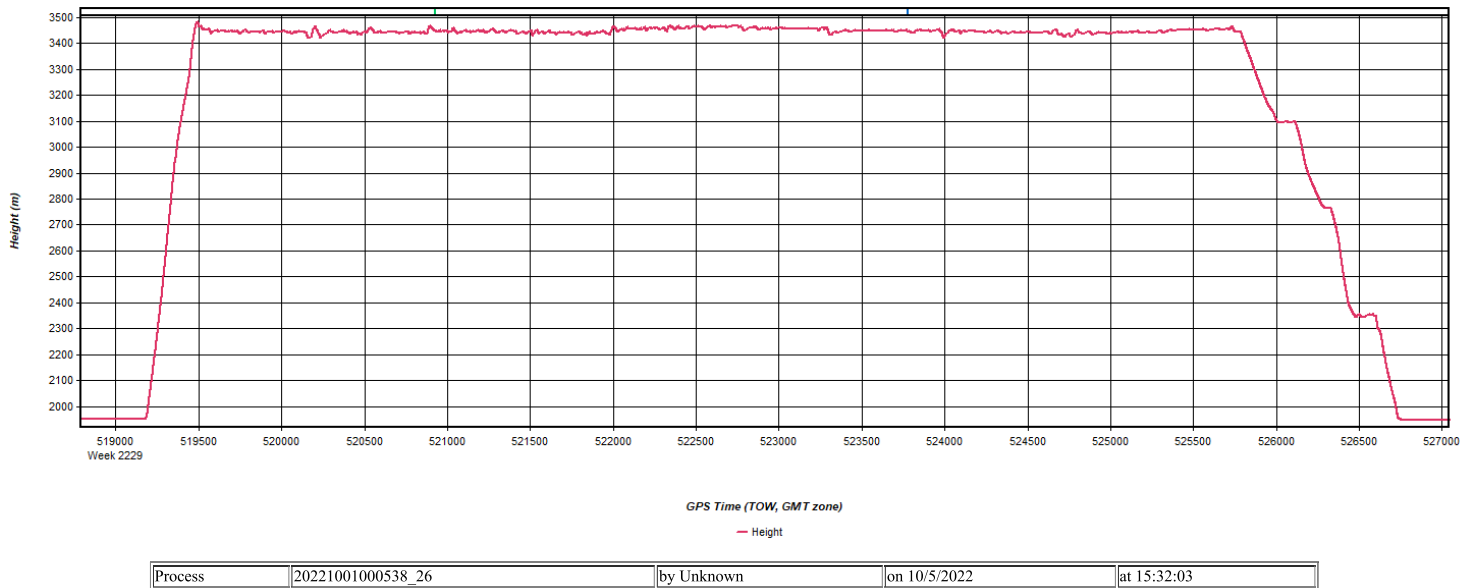


Figure 16: 20221001000538_26 [Smoothed TC Combined] - C/A Code Residual RMS Plot

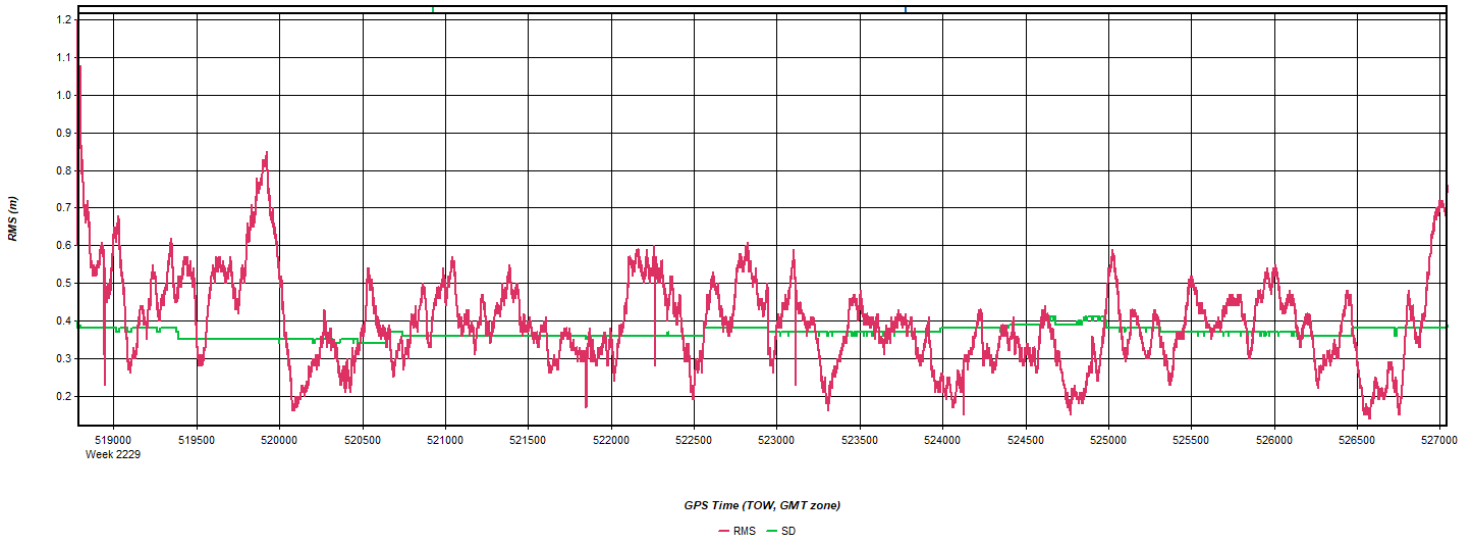


Figure 17: 20221001000538_26 [Smoothed TC Combined] - Carrier Residual RMS Plot

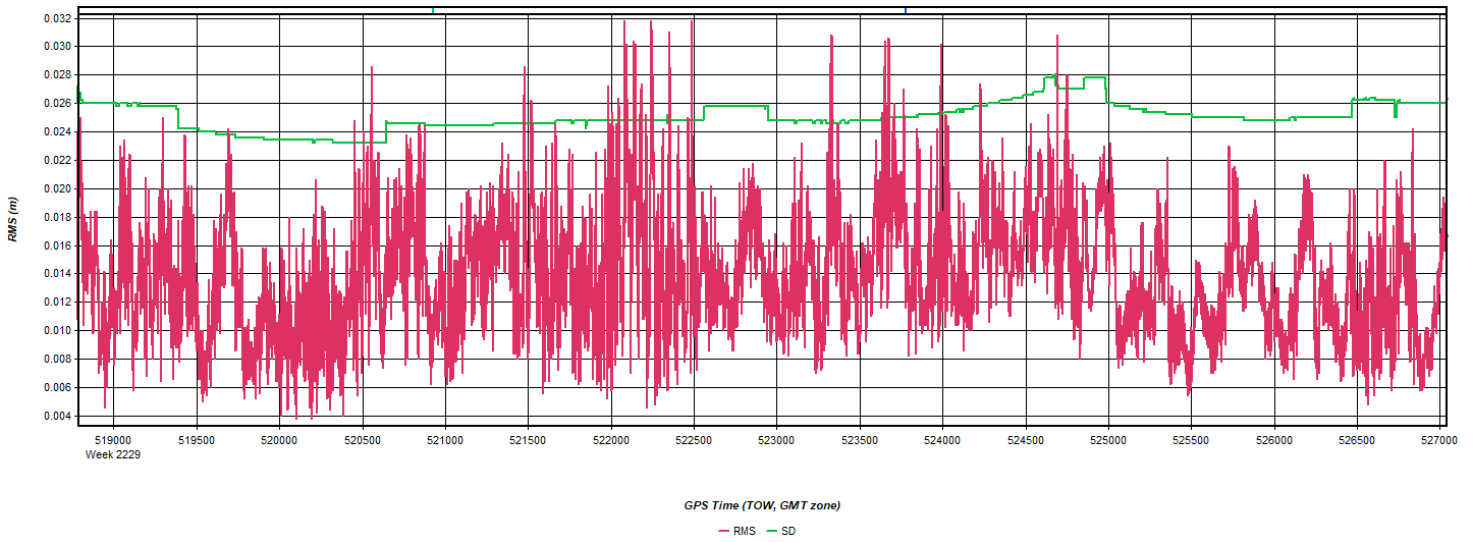
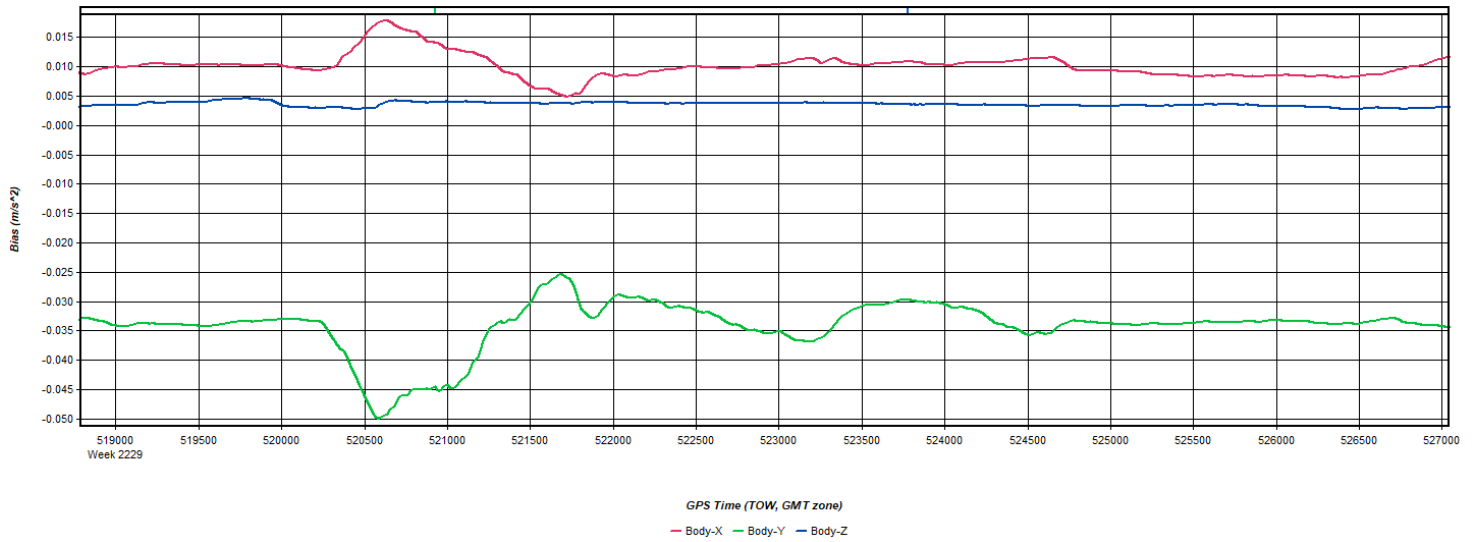


Figure 18: 20221001000538_26 [Smoothed TC Combined] - Doppler Residual RMS Plot



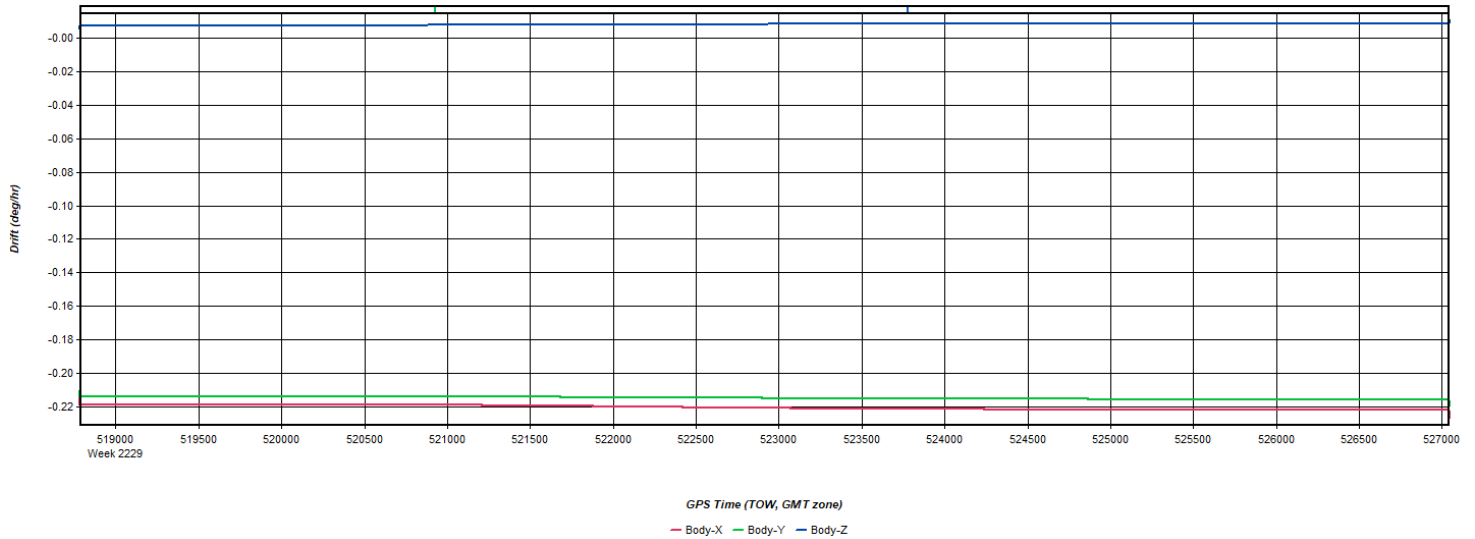
Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Figure 19: 20221001000538_26 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Figure 20: 20221001000538_26 [Smoothed TC Combined] - Gyro Drift Plot

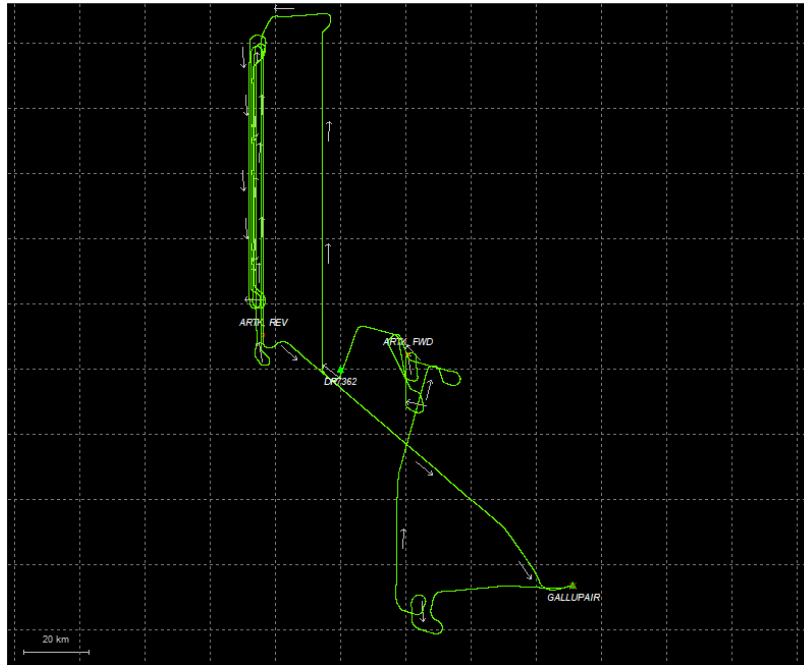


Process	20221001000538_26	by Unknown	on 10/5/2022	at 15:32:03
---------	-------------------	------------	--------------	-------------

Output Results for 20221001142736_27

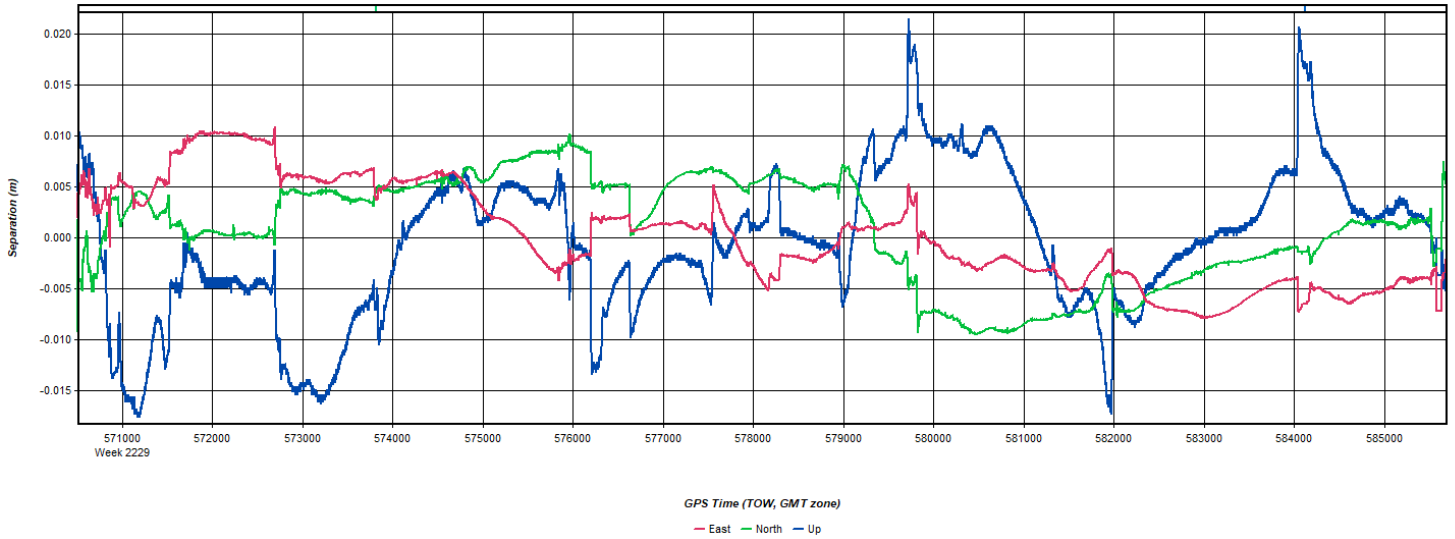
Inertial Explorer Version 8.90.2124
10/05/2022

Figure 1: Smoothed TC Combined - Map



Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 2: 20221001142736_27 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 3: 20221001142736_27 [Smoothed TC Combined] - Float or Fixed Ambiguity

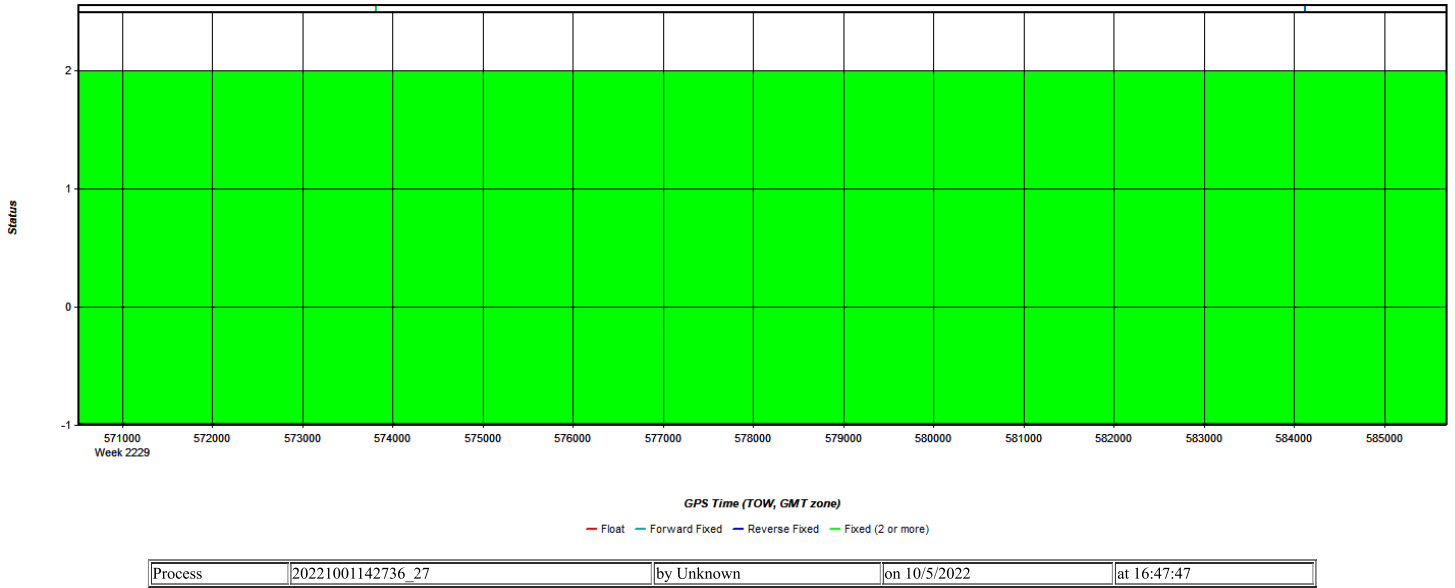


Figure 4: 20221001142736_27 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

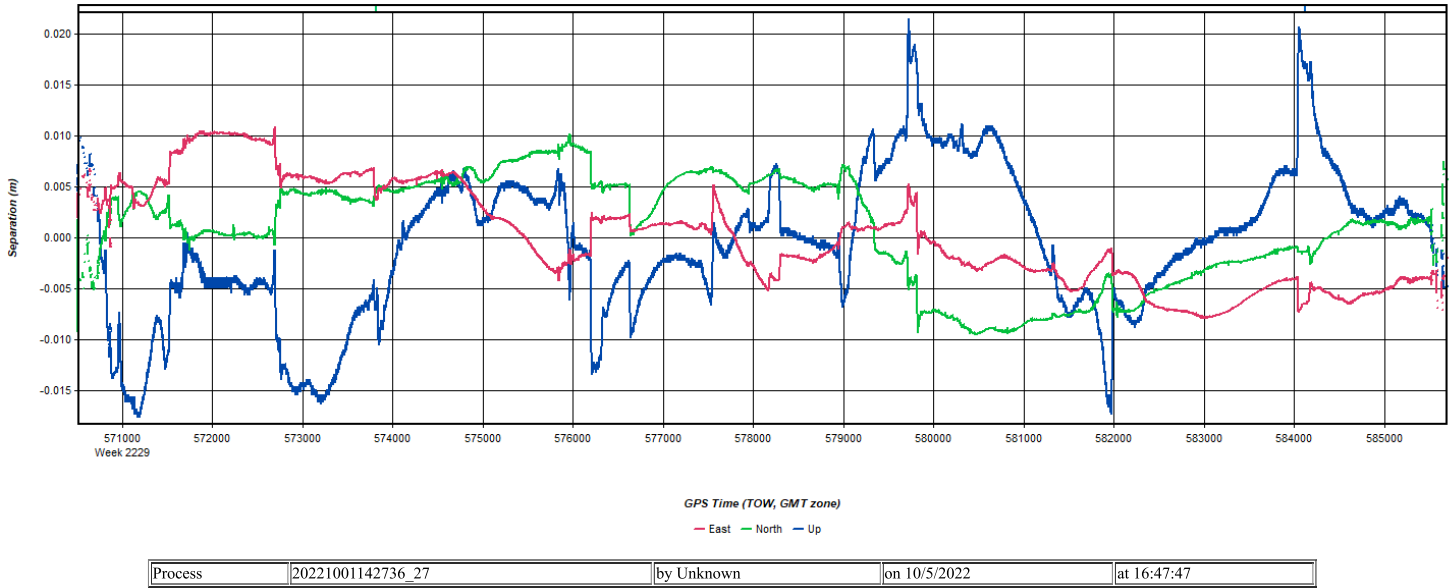


Figure 5: 20221001142736_27 [Smoothed TC Combined] - Estimated Position Accuracy Plot

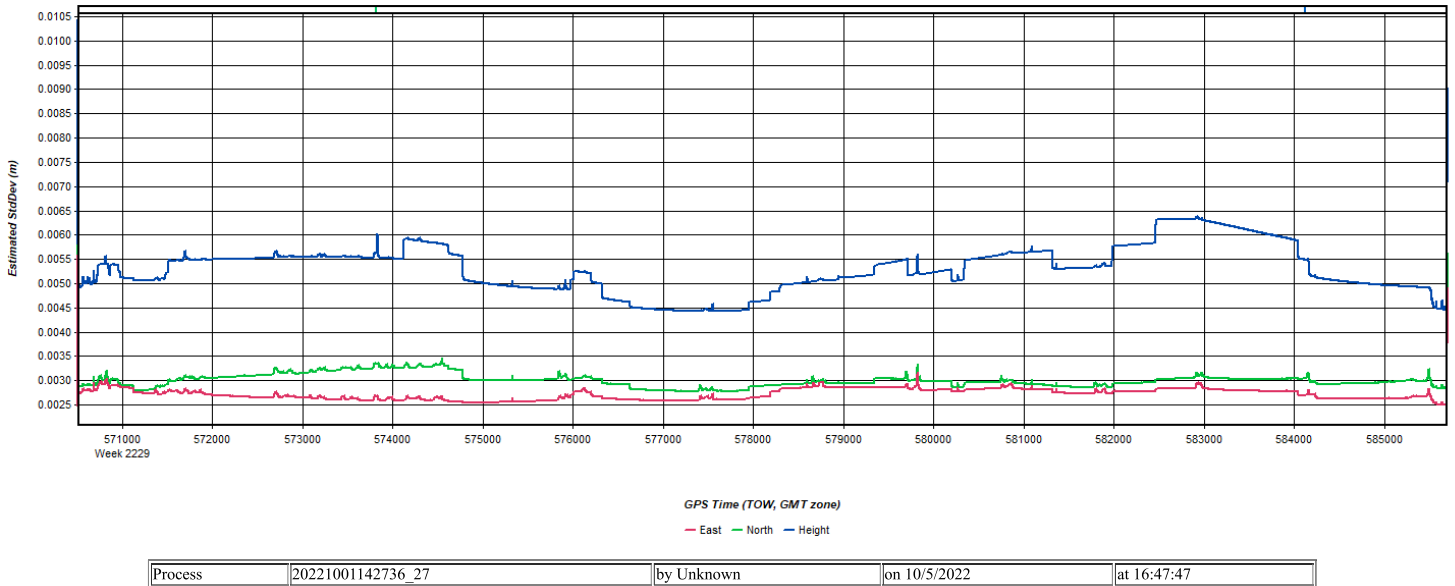
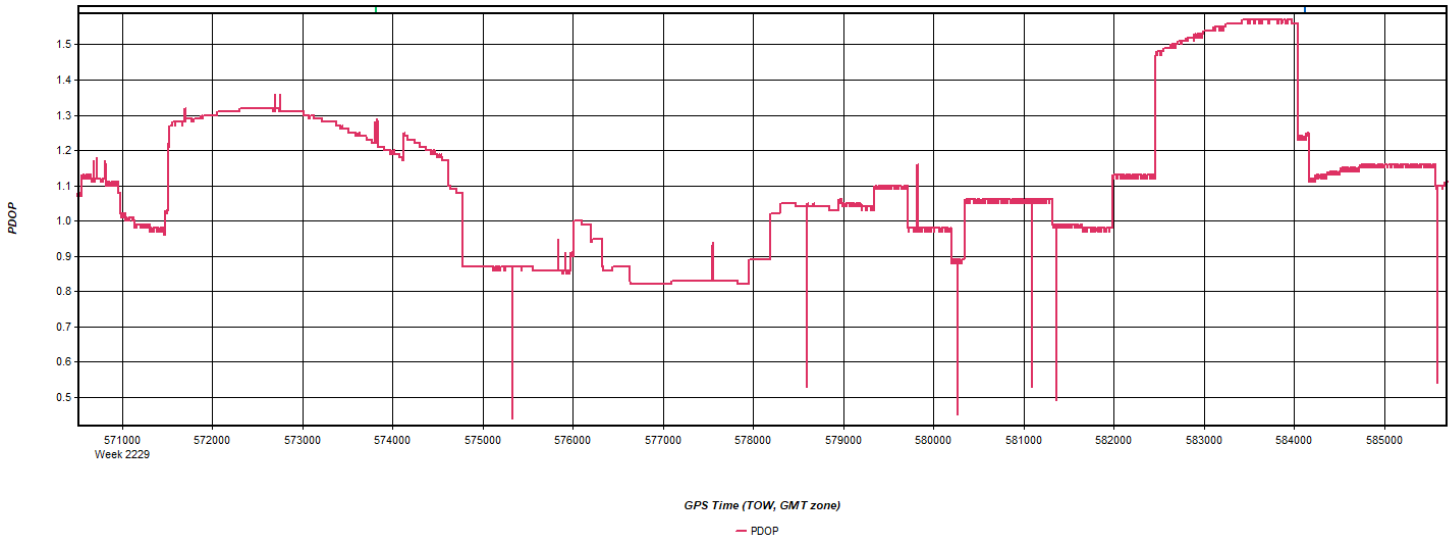
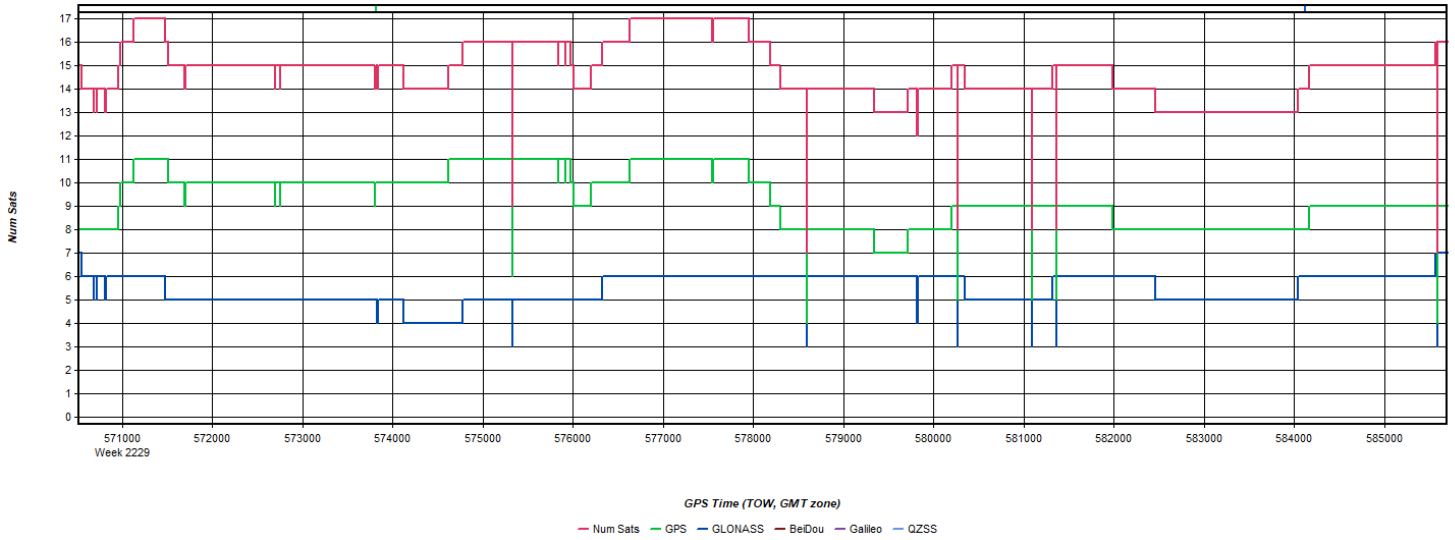


Figure 6: 20221001142736_27 [Smoothed TC Combined] - PDOP Plot



Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 7: 20221001142736_27 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 8: 20221001142736_27 [Smoothed TC Combined] - Status flag for IMU processing

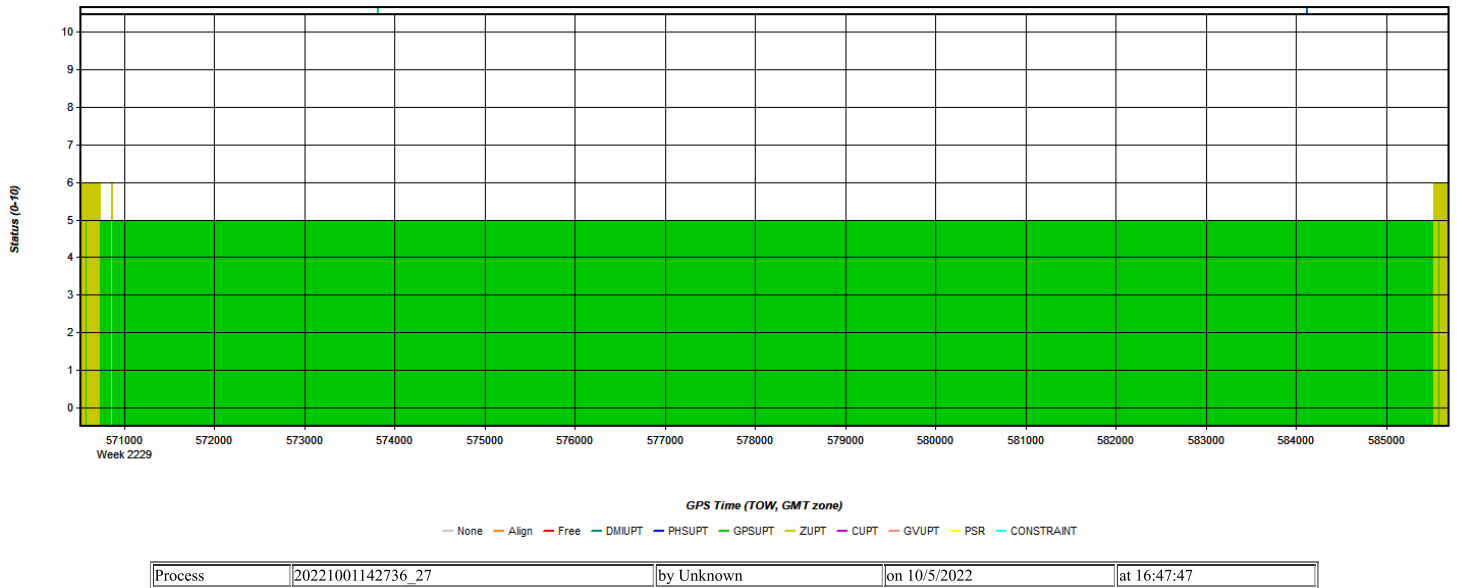


Figure 9: 20221001142736_27 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

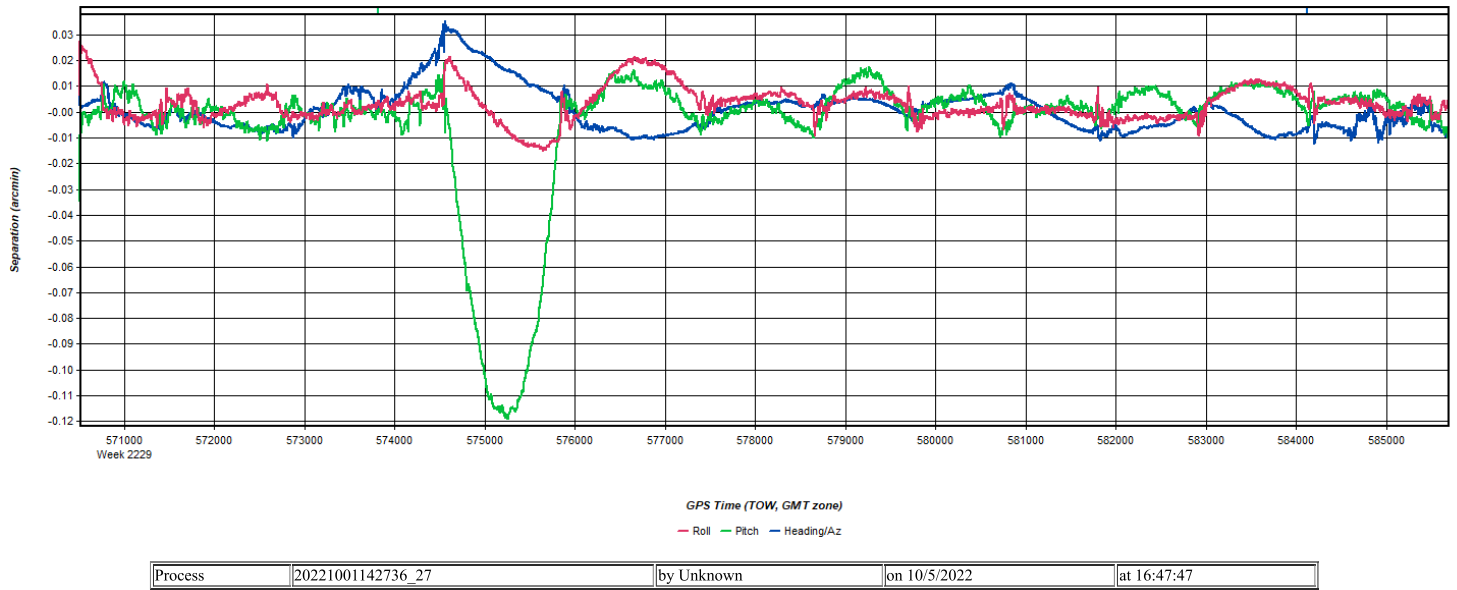


Figure 10: 20221001142736_27 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

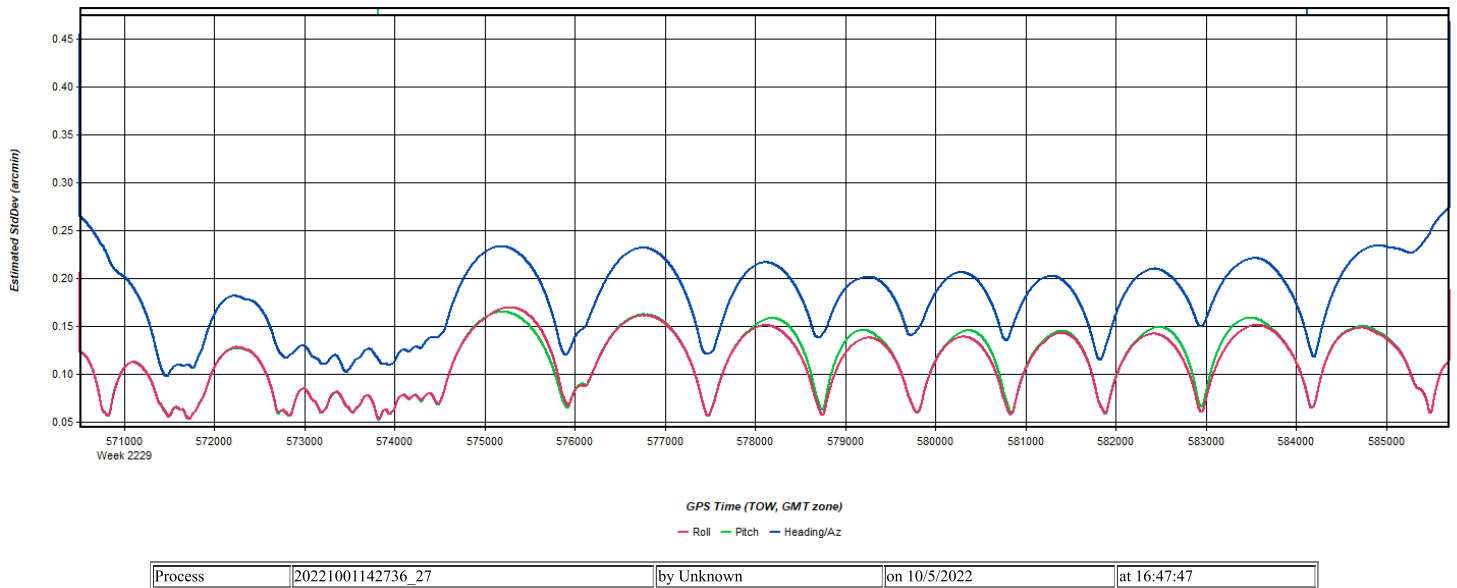
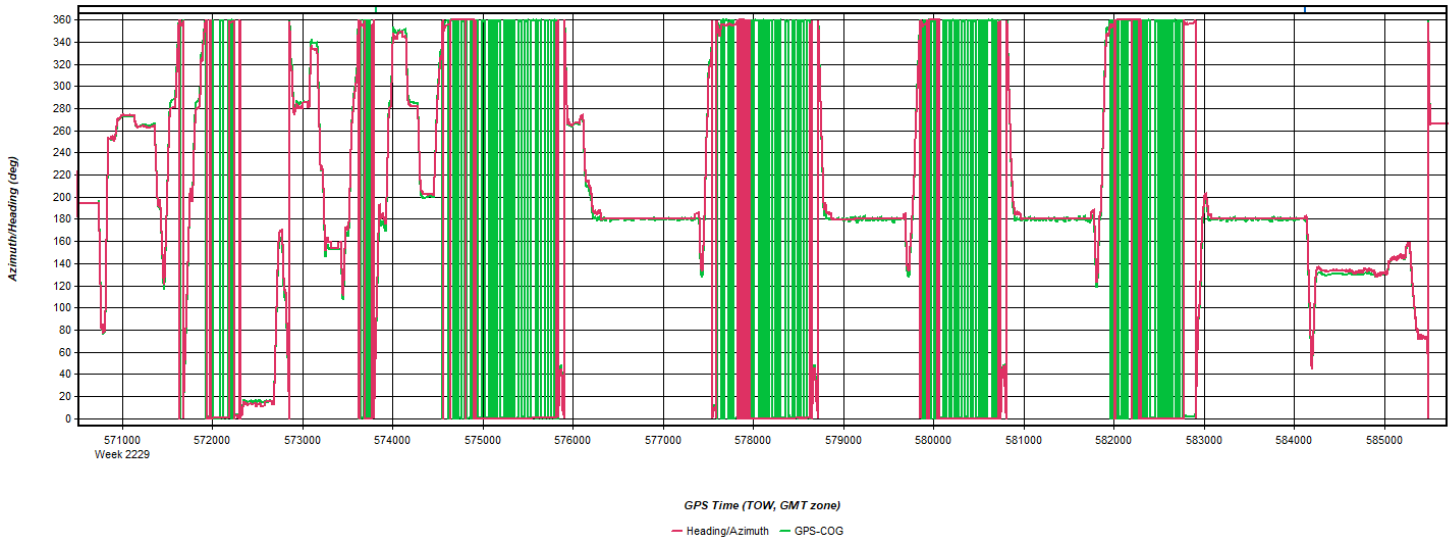
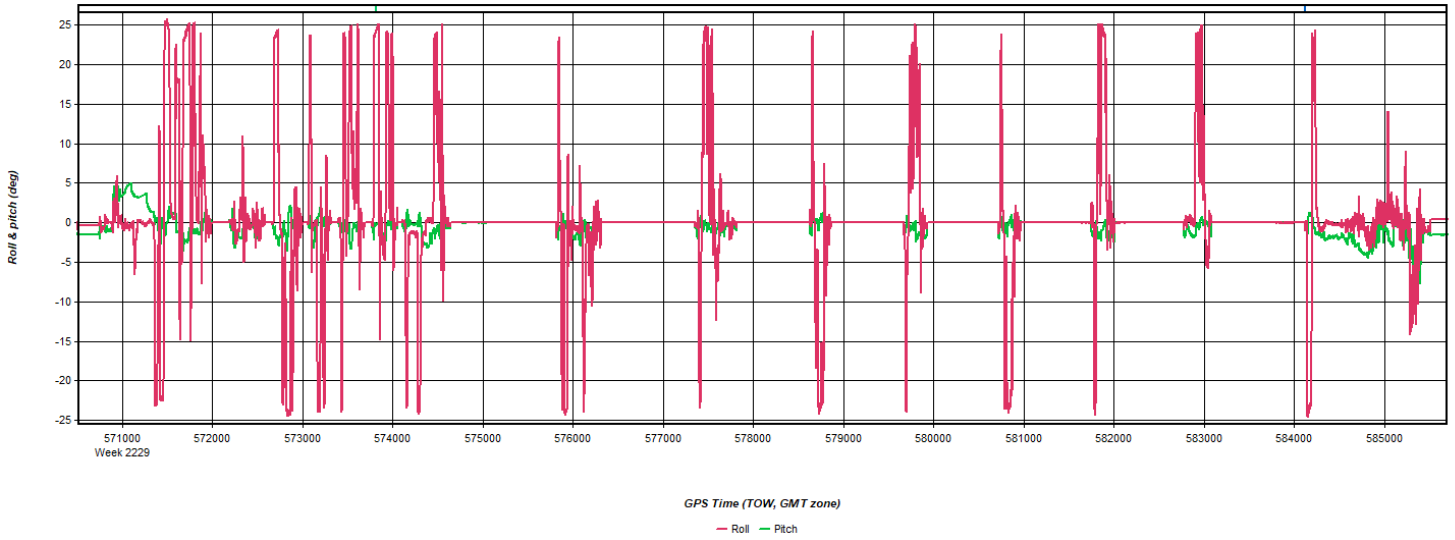


Figure 11: 20221001142736_27 [Smoothed TC Combined] - Azimuth Plot



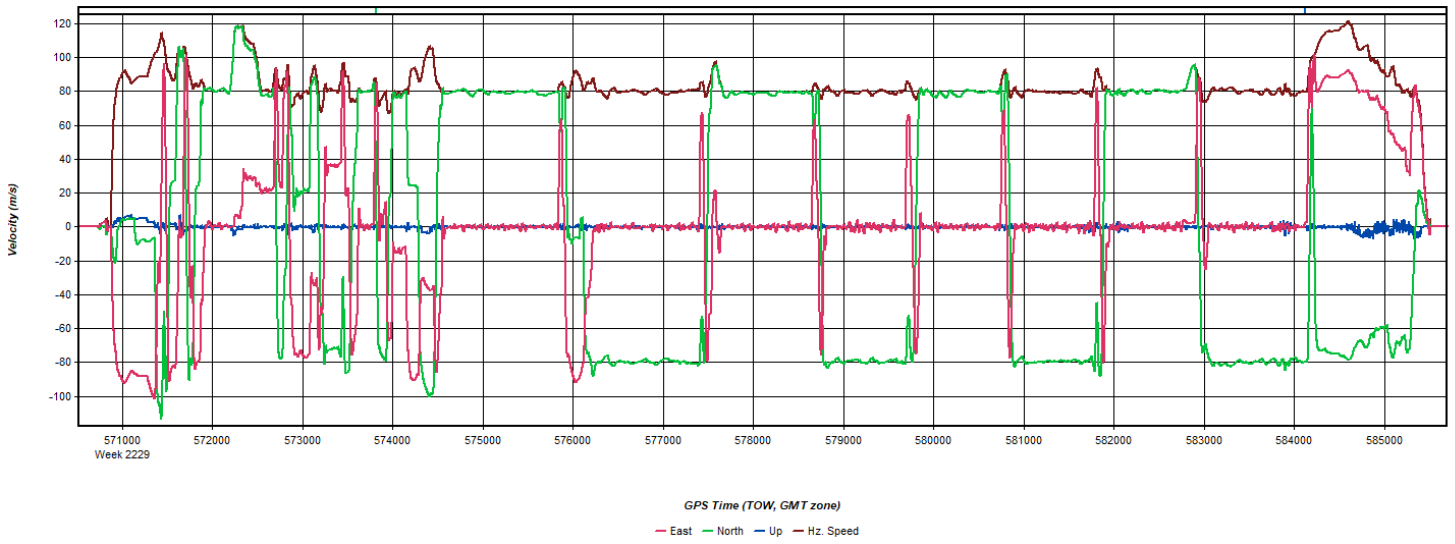
Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 12: 20221001142736_27 [Smoothed TC Combined] - Roll & Pitch Plot



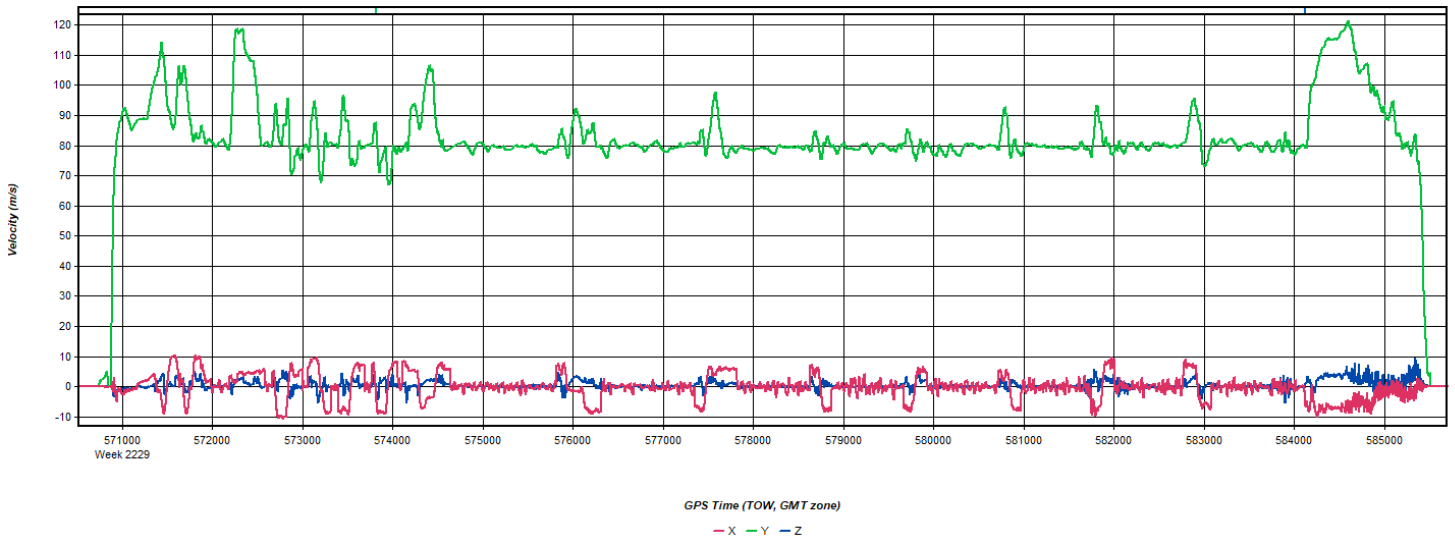
Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 13: 20221001142736_27 [Smoothed TC Combined] - Velocity Profile Plot



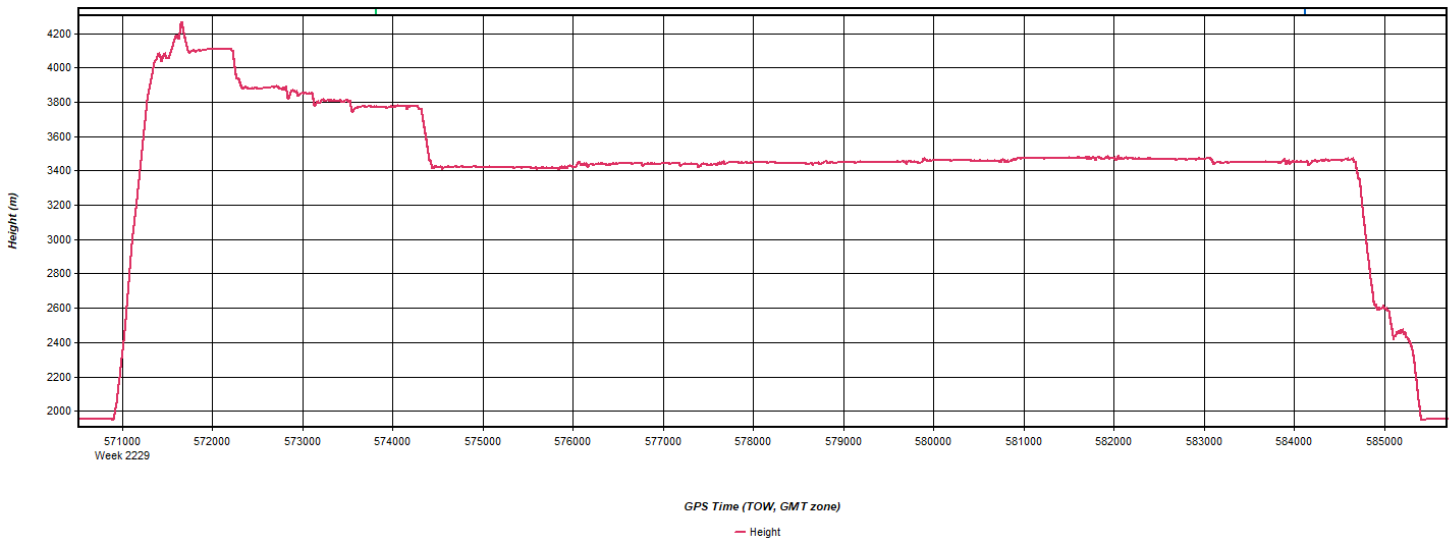
Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 14: 20221001142736_27 [Smoothed TC Combined] - Body Frame Velocity Plot



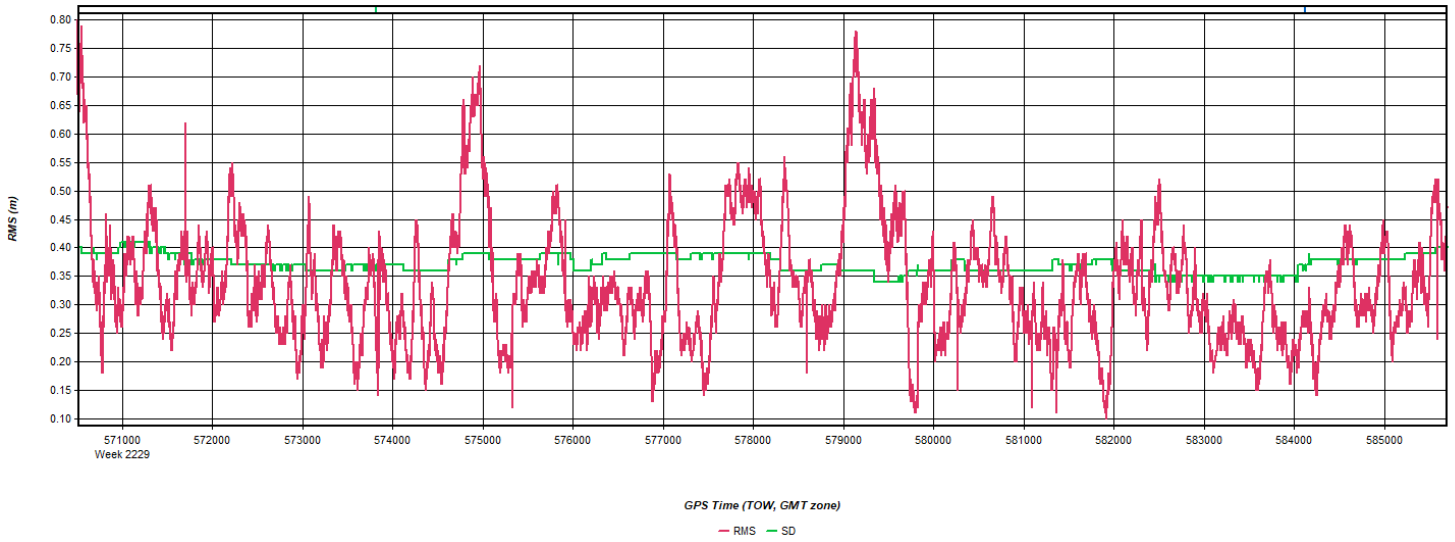
Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 15: 20221001142736_27 [Smoothed TC Combined] - Height Profile Plot



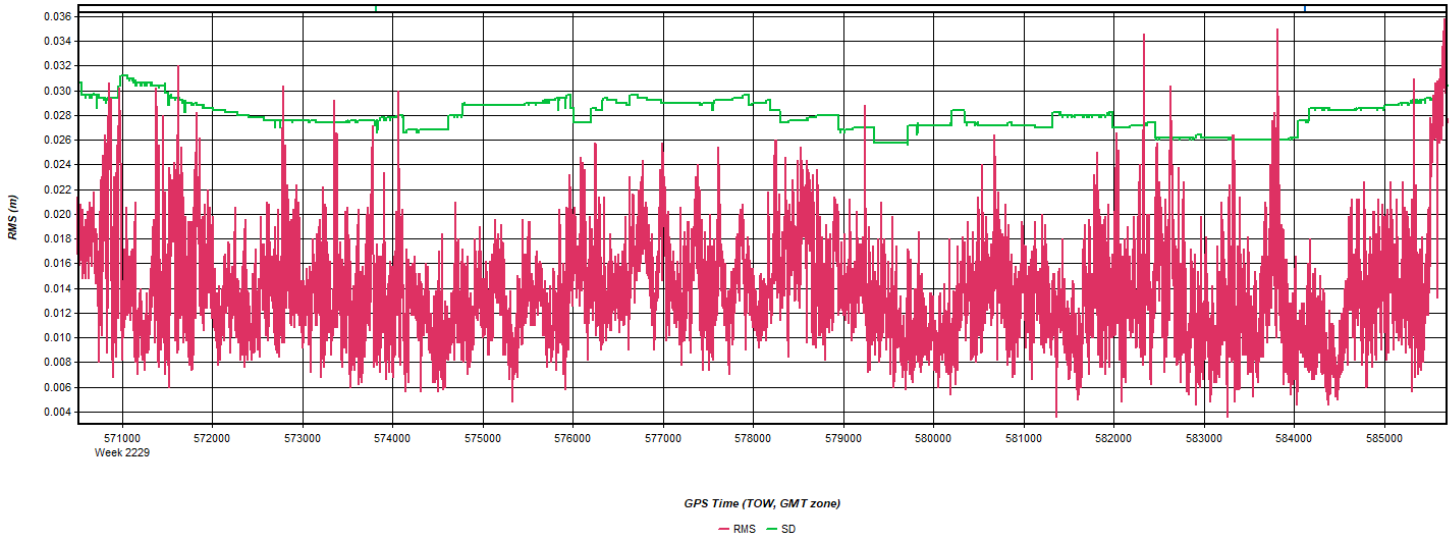
Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 16: 20221001142736_27 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 17: 20221001142736_27 [Smoothed TC Combined] - Carrier Residual RMS Plot



Process	20221001142736_27	by Unknown	on 10/5/2022	at 16:47:47
---------	-------------------	------------	--------------	-------------

Figure 18: 20221001142736_27 [Smoothed TC Combined] - Doppler Residual RMS Plot

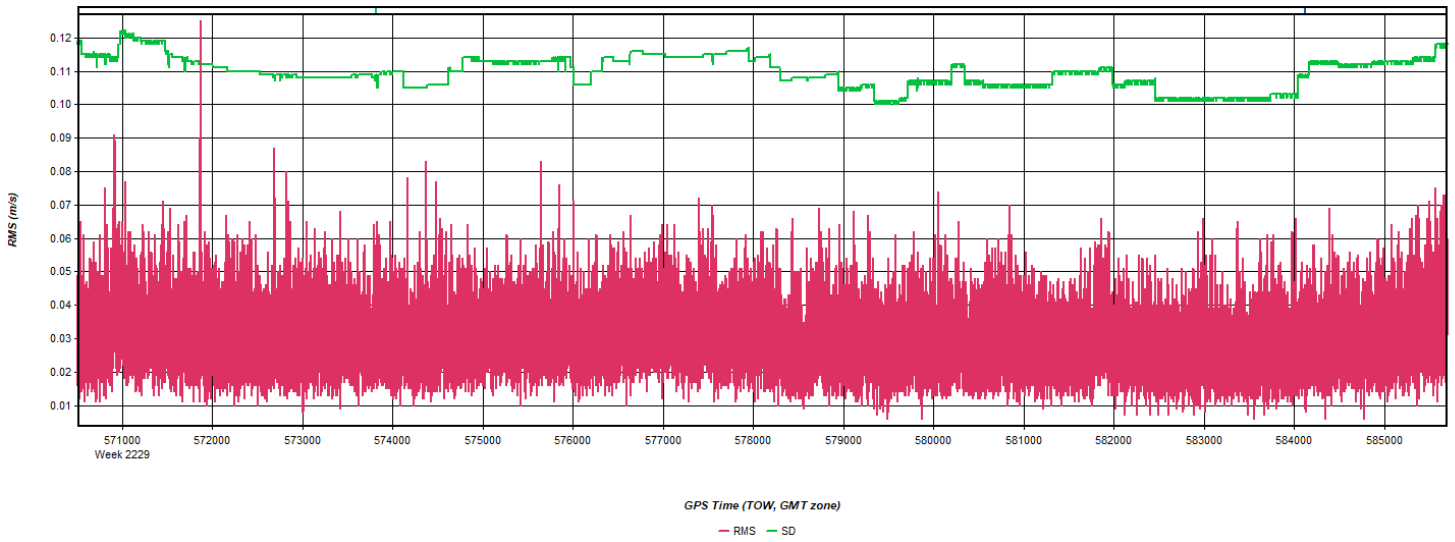


Figure 19: 20221001142736_27 [Smoothed TC Combined] - Accelerometer Bias Plot

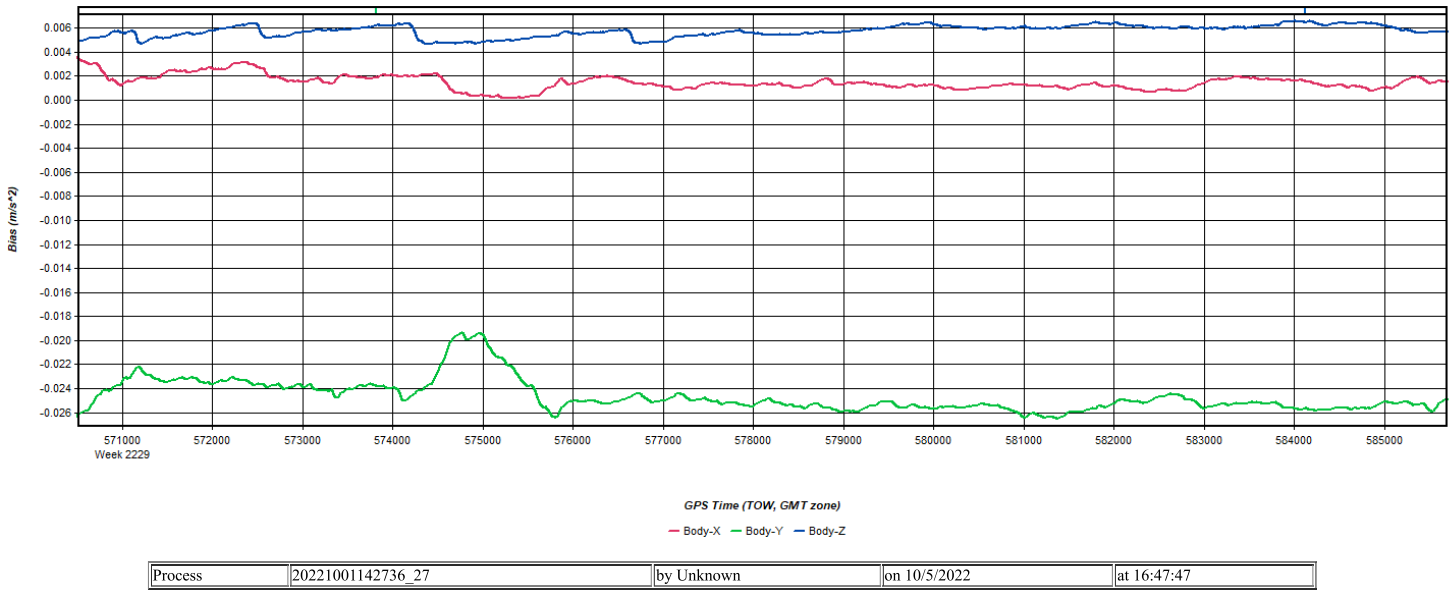
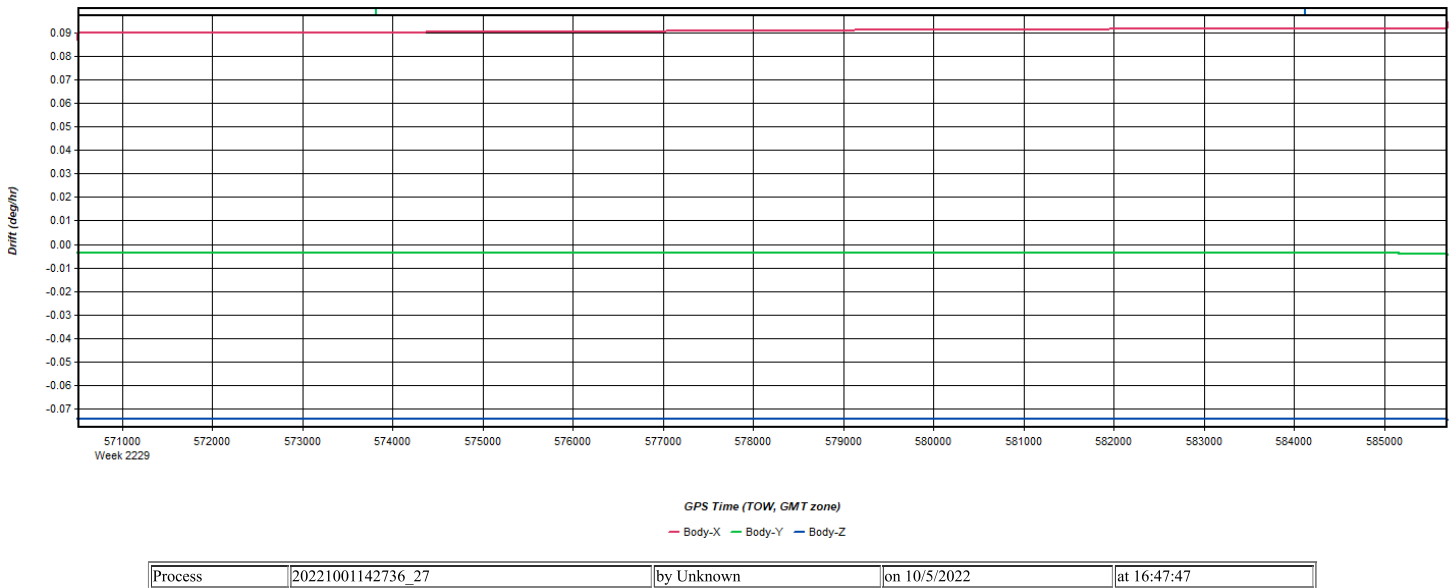


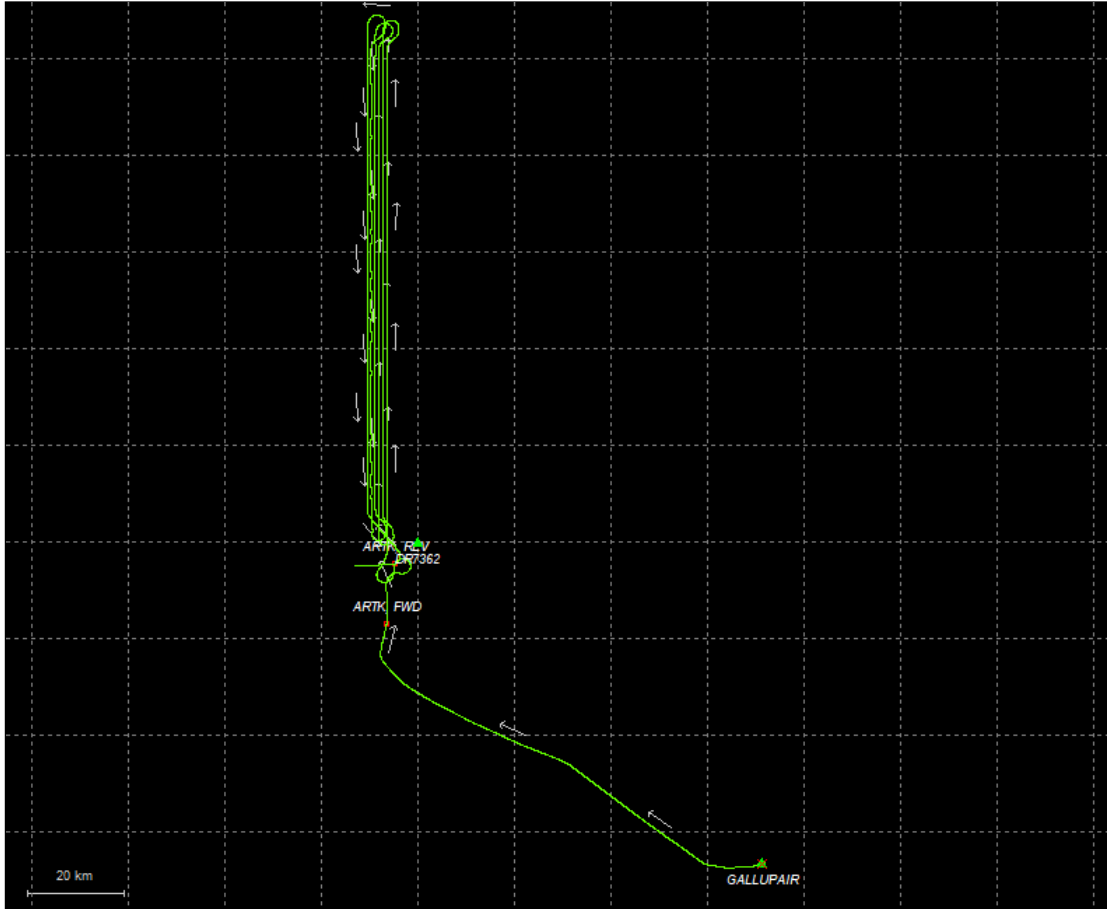
Figure 20: 20221001142736_27 [Smoothed TC Combined] - Gyro Drift Plot



Output Results for 20221005142434_28

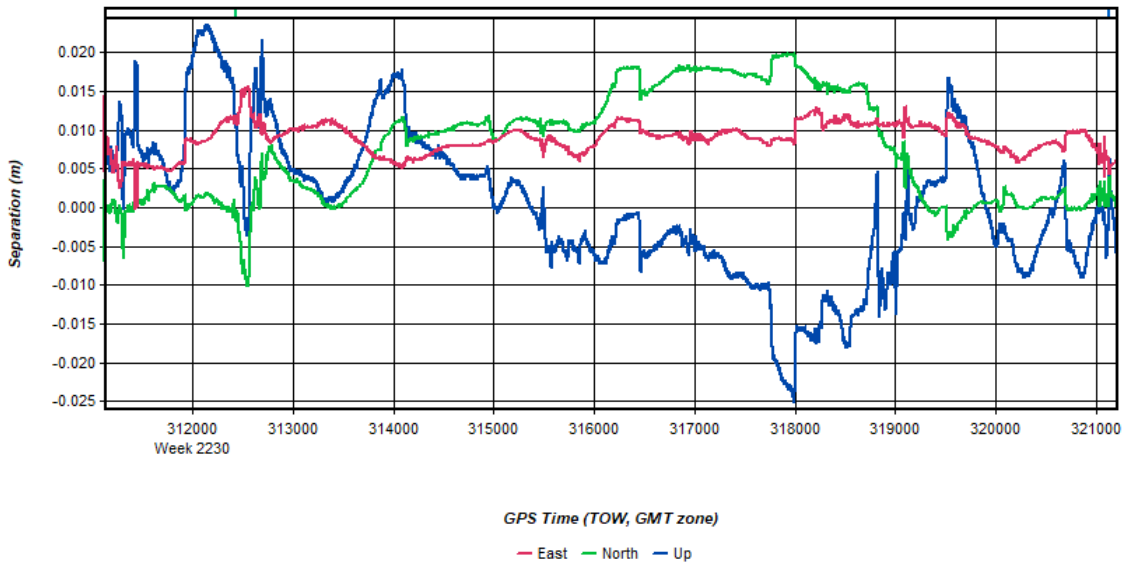
Inertial Explorer Version 8.90.2124
10/12/2022

Figure 1: Smoothed TC Combined - Map



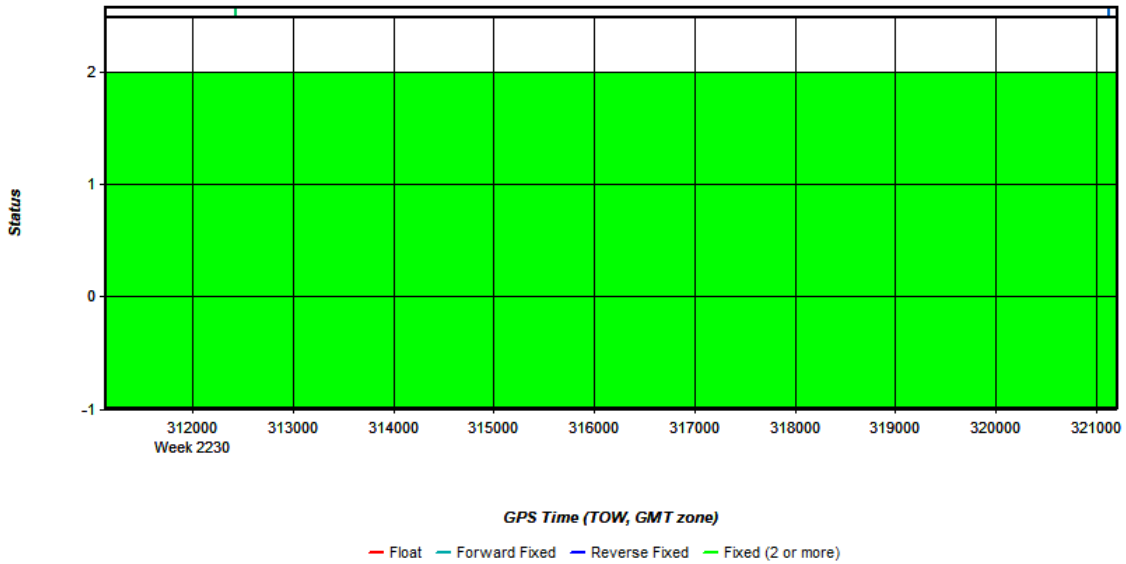
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 2: 20221005142434_28 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



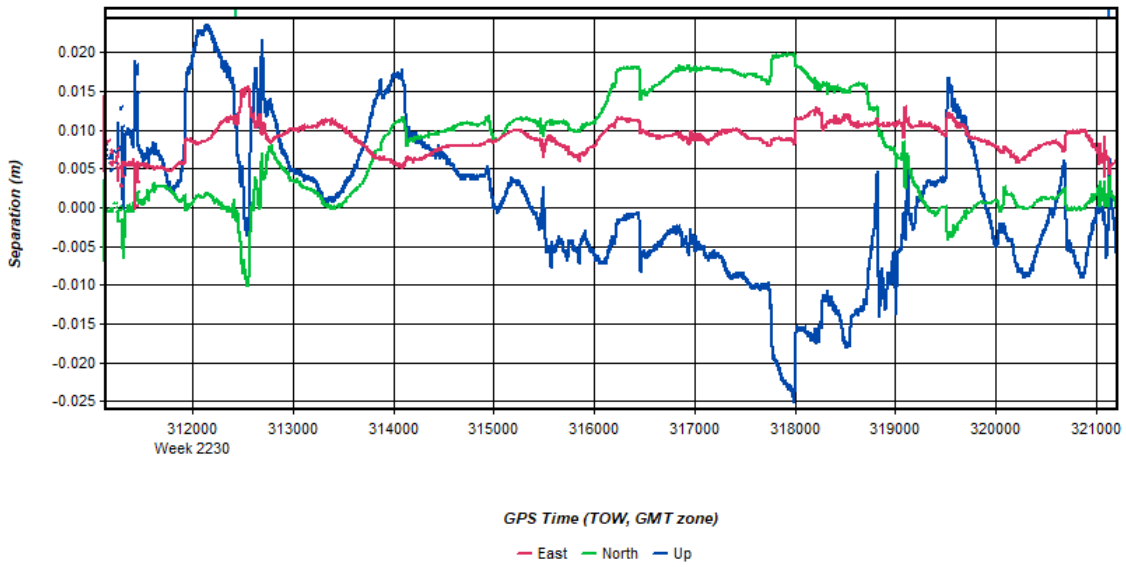
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 3: 20221005142434_28 [Smoothed TC Combined] - Float or Fixed Ambiguity



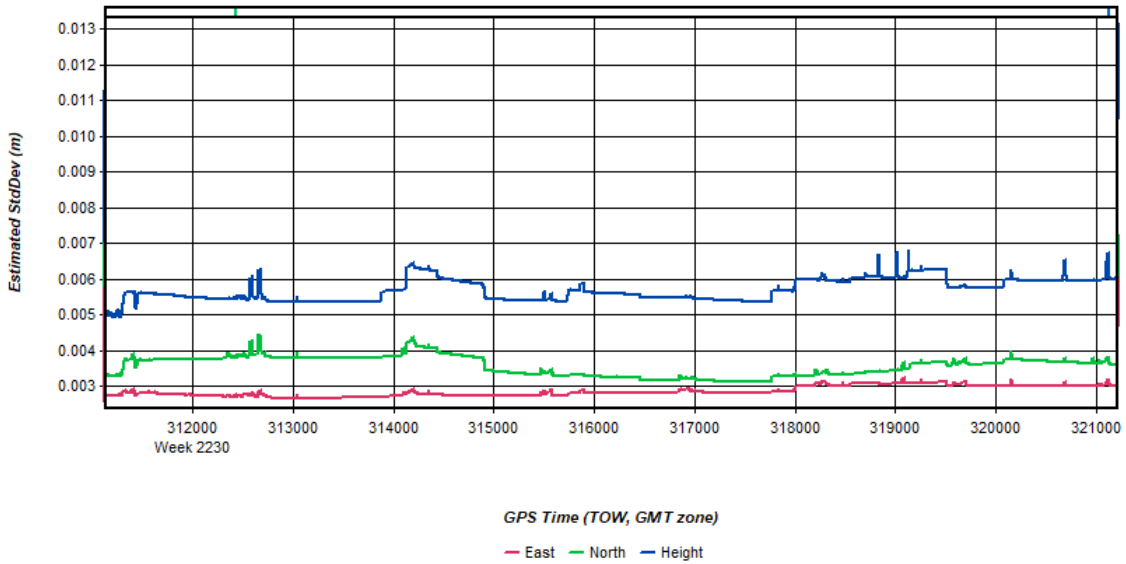
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 4: 20221005142434_28 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 5: 20221005142434_28 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 6: 20221005142434_28 [Smoothed TC Combined] - PDOP Plot

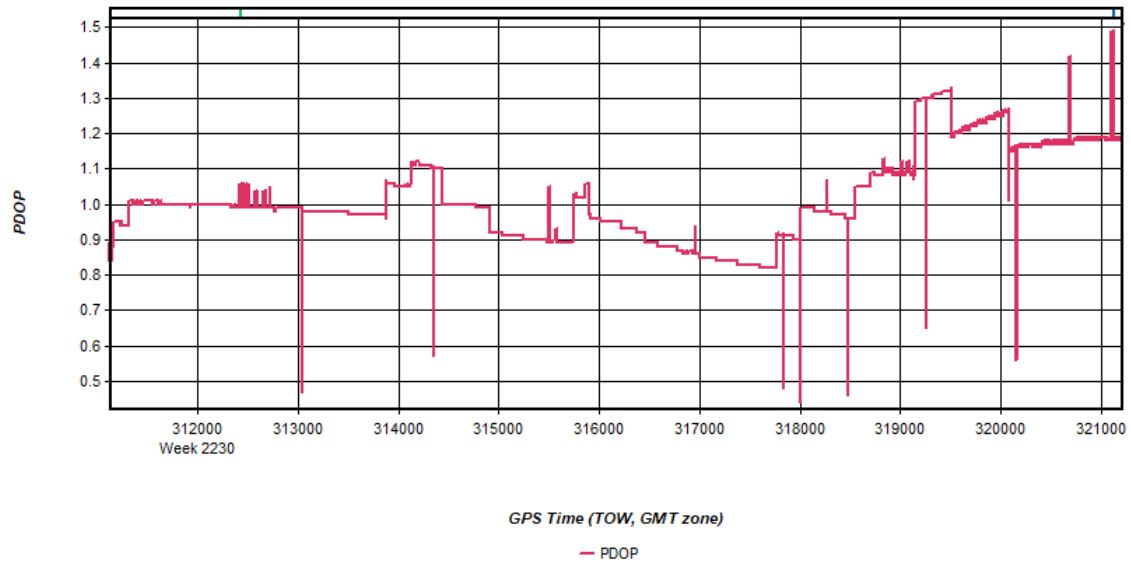


Figure 7: 20221005142434_28 [Smoothed TC Combined] - Number of Satellites Line Plot

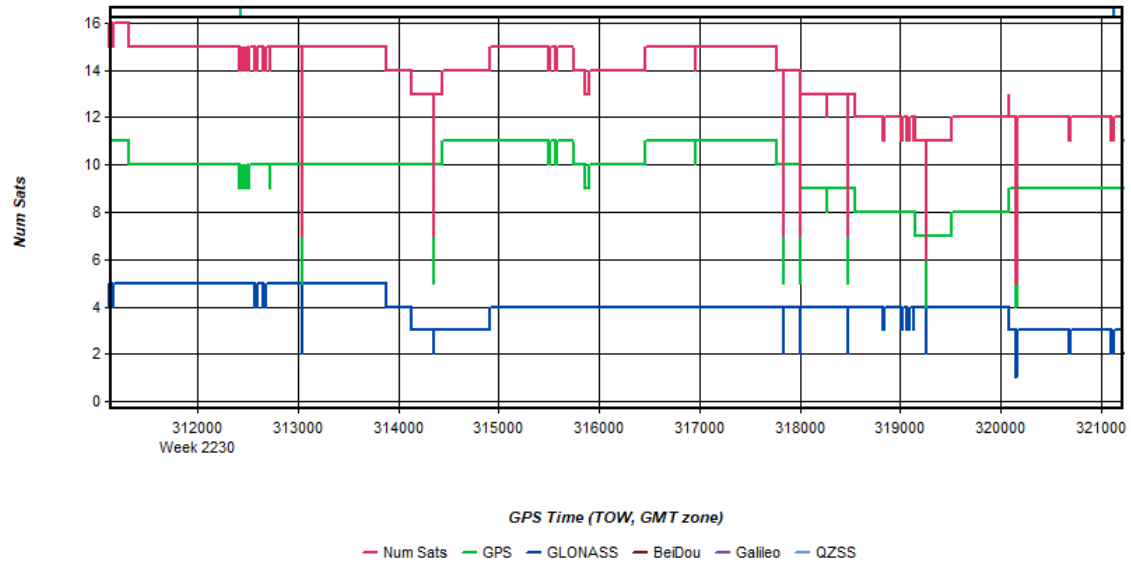
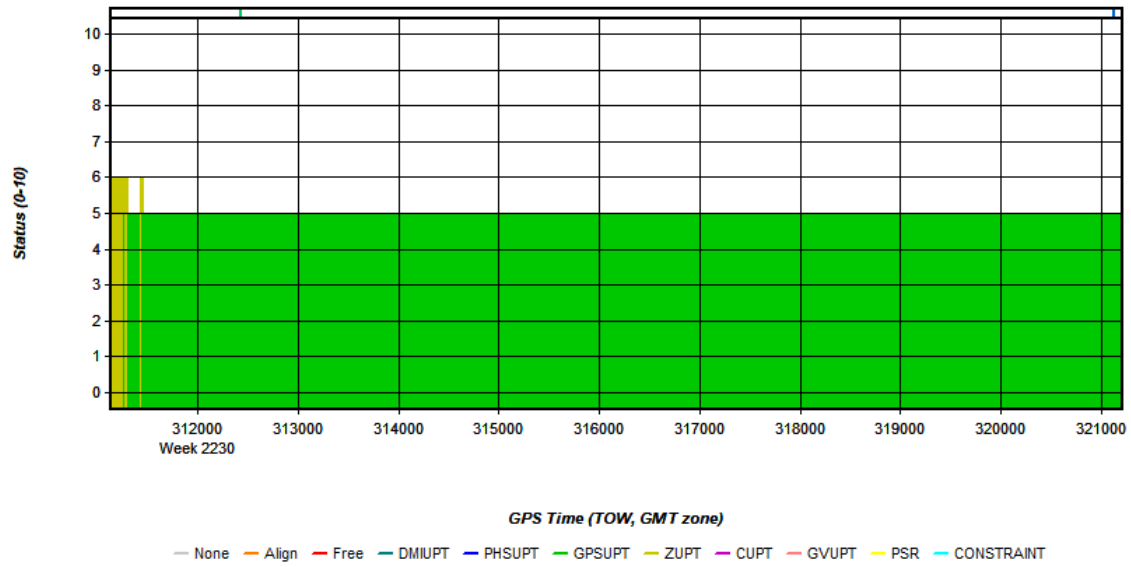
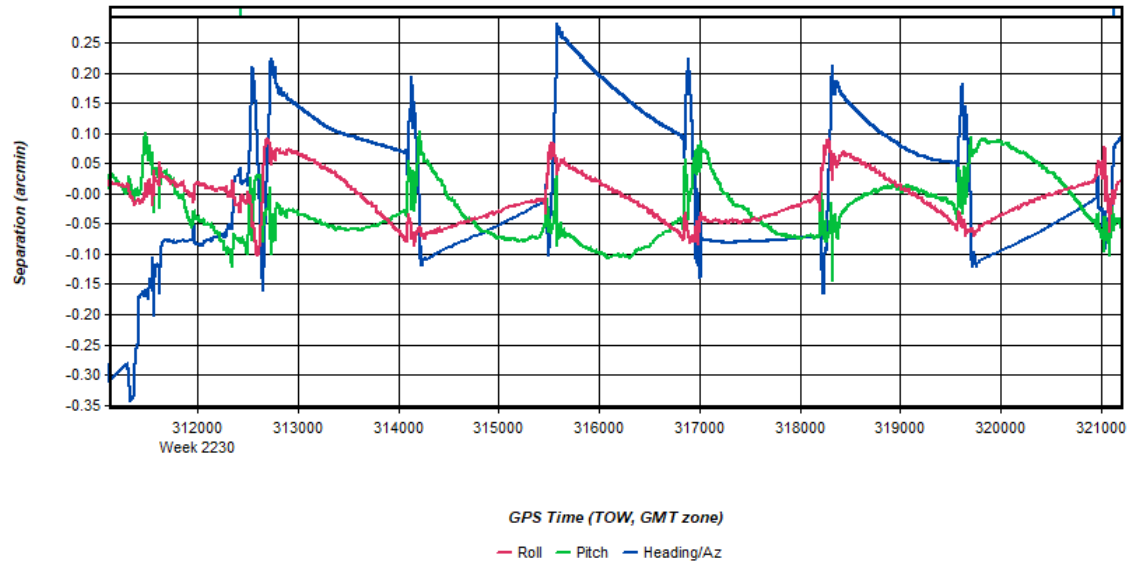


Figure 8: 20221005142434_28 [Smoothed TC Combined] - Status flag for IMU processing



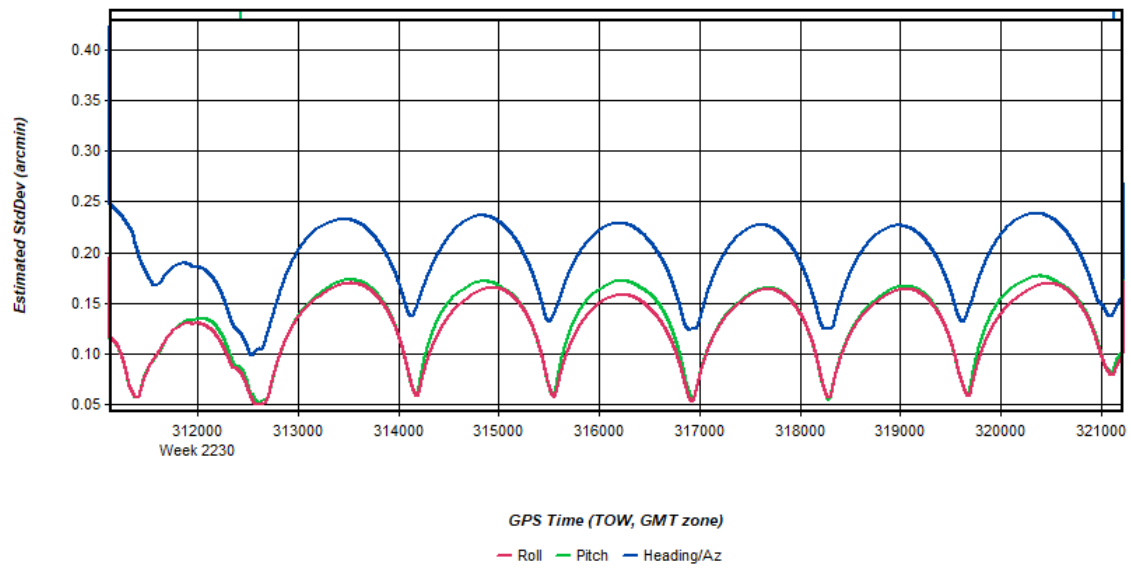
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 9: 20221005142434_28 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



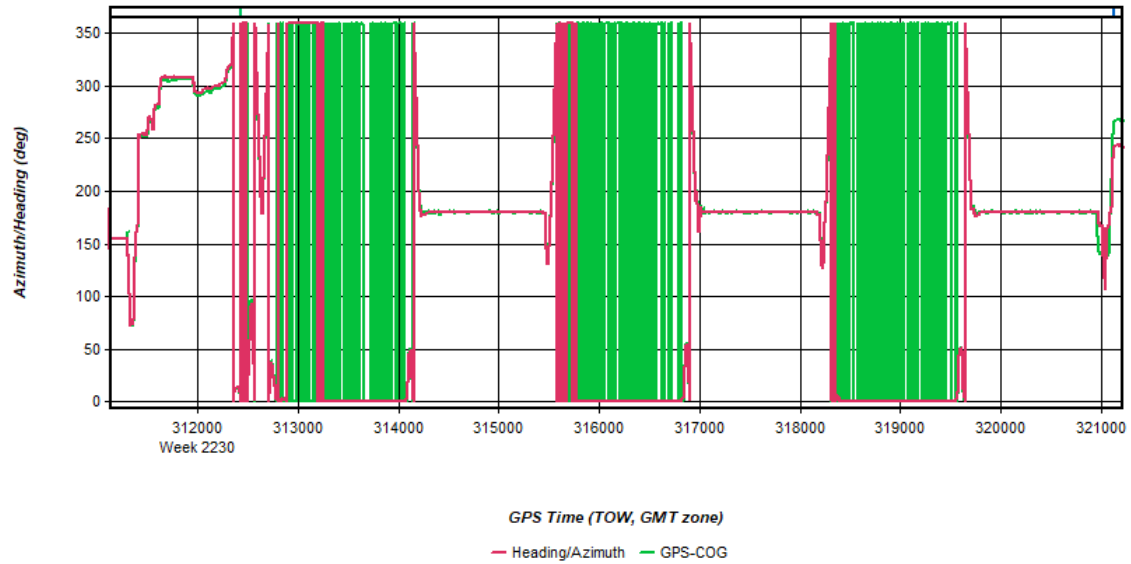
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 10: 20221005142434_28 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



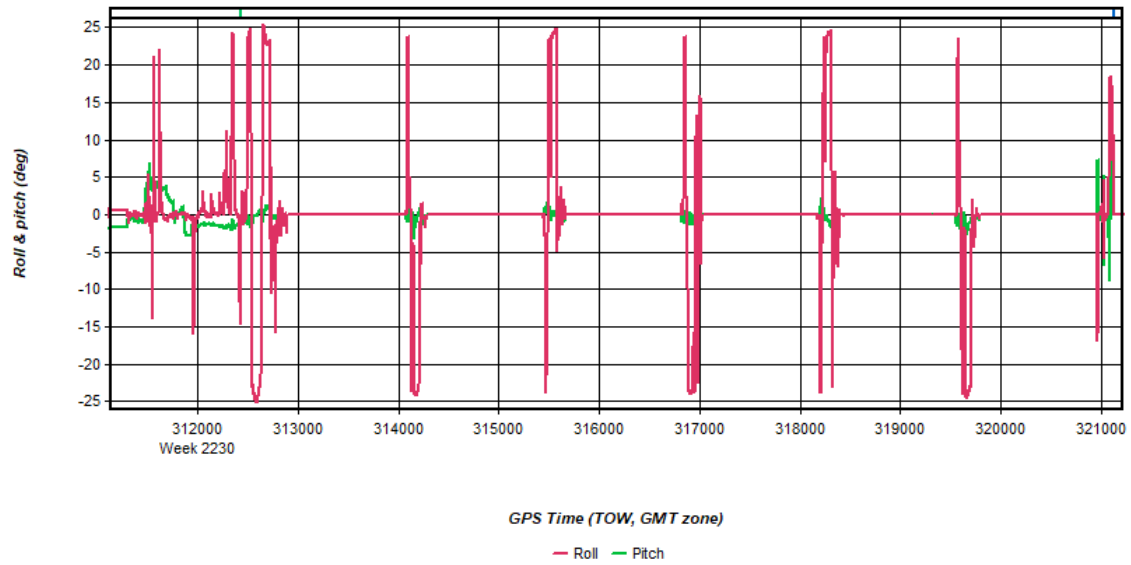
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 11: 20221005142434_28 [Smoothed TC Combined] - Azimuth Plot



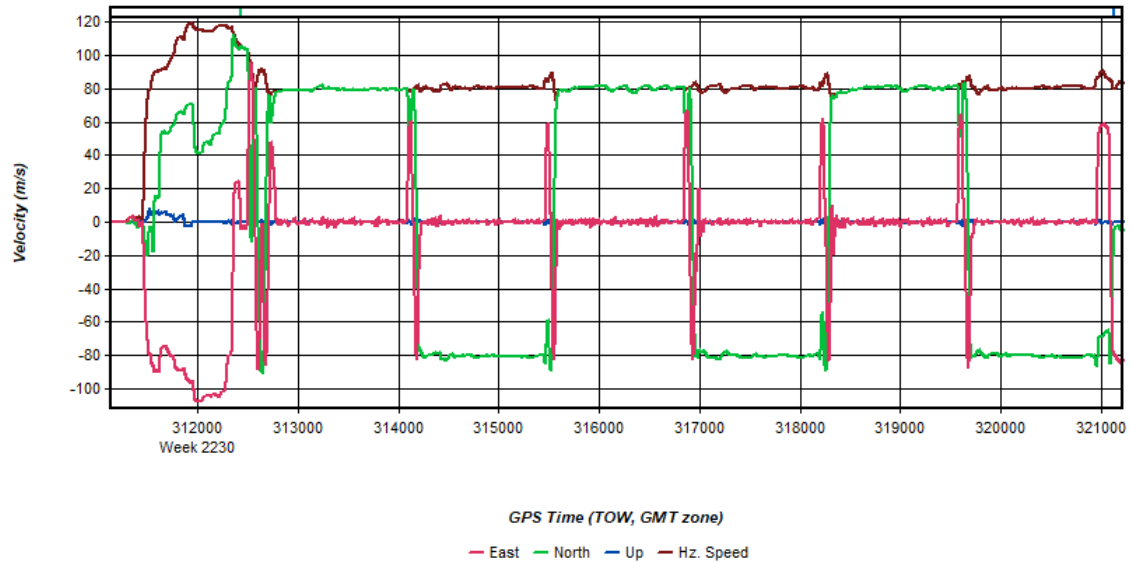
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 12: 20221005142434_28 [Smoothed TC Combined] - Roll & Pitch Plot



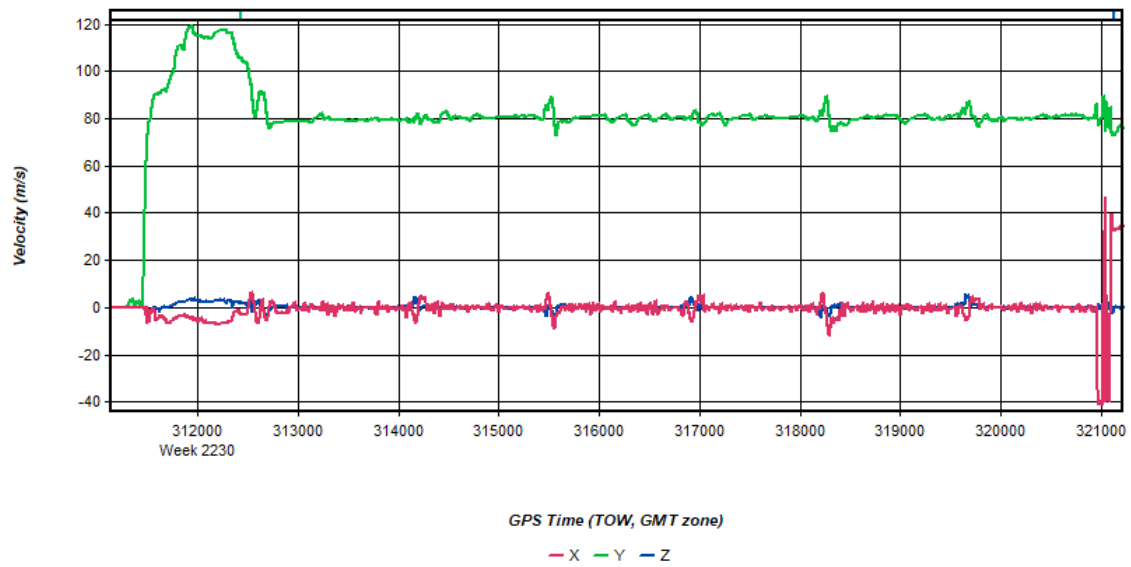
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 13: 20221005142434_28 [Smoothed TC Combined] - Velocity Profile Plot



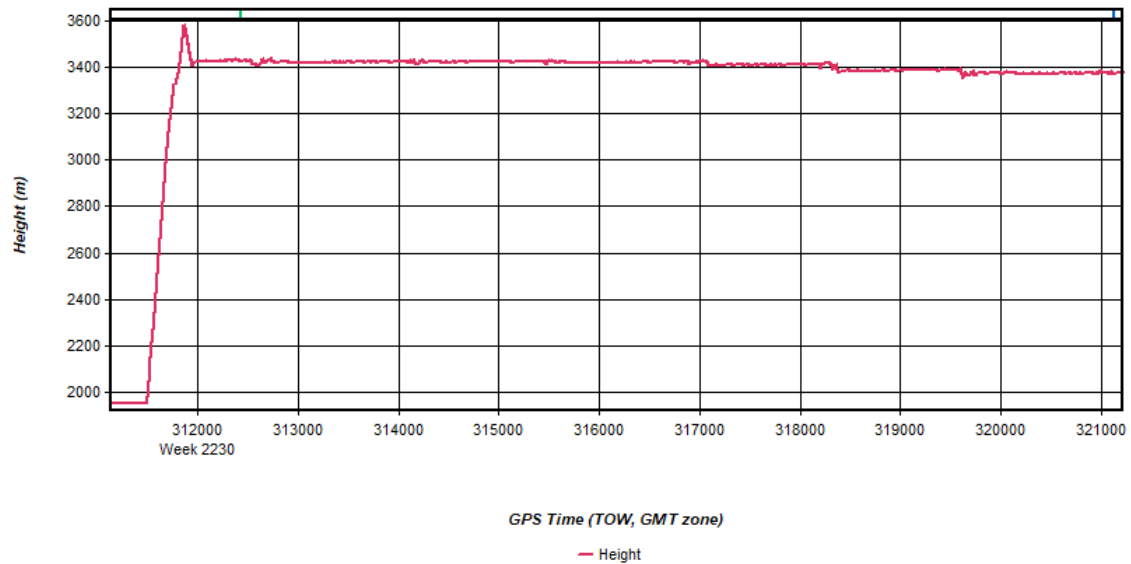
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 14: 20221005142434_28 [Smoothed TC Combined] - Body Frame Velocity Plot



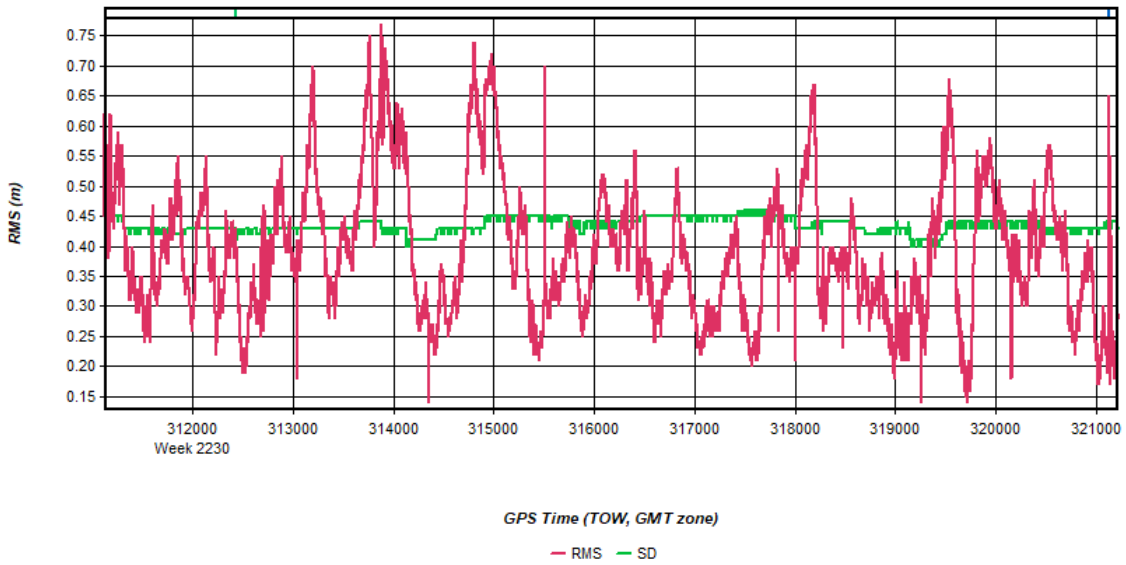
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 15: 20221005142434_28 [Smoothed TC Combined] - Height Profile Plot



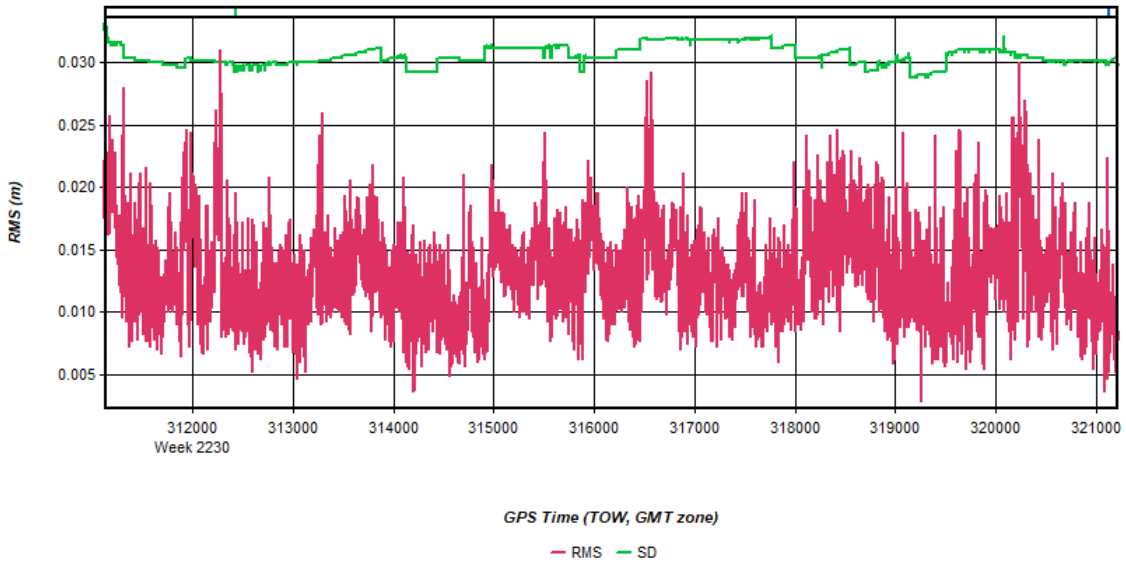
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 16: 20221005142434_28 [Smoothed TC Combined] - C/A Code Residual RMS Plot



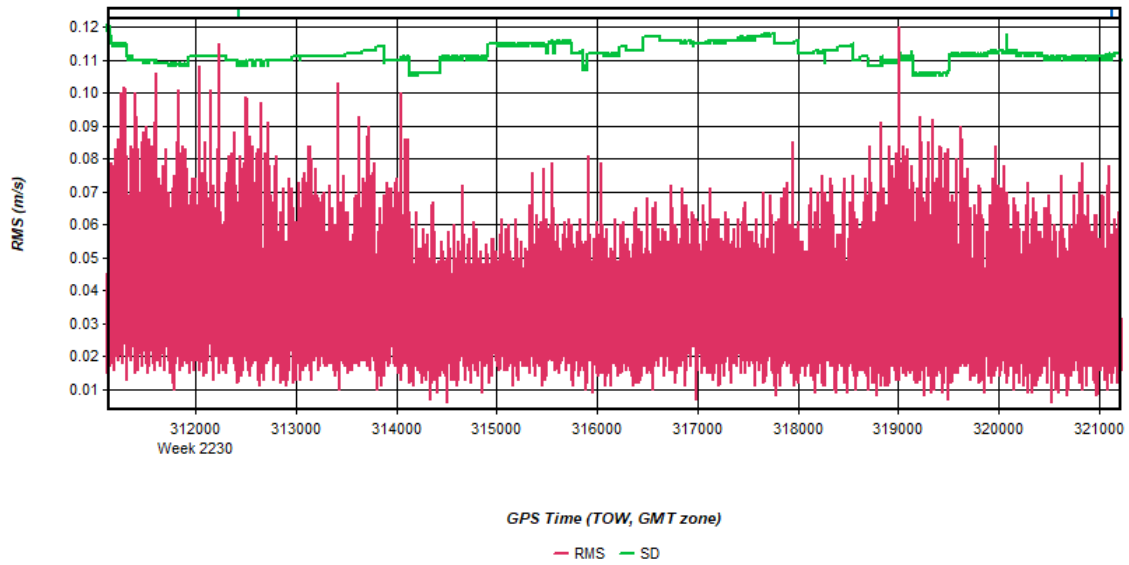
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 17: 20221005142434_28 [Smoothed TC Combined] - Carrier Residual RMS Plot



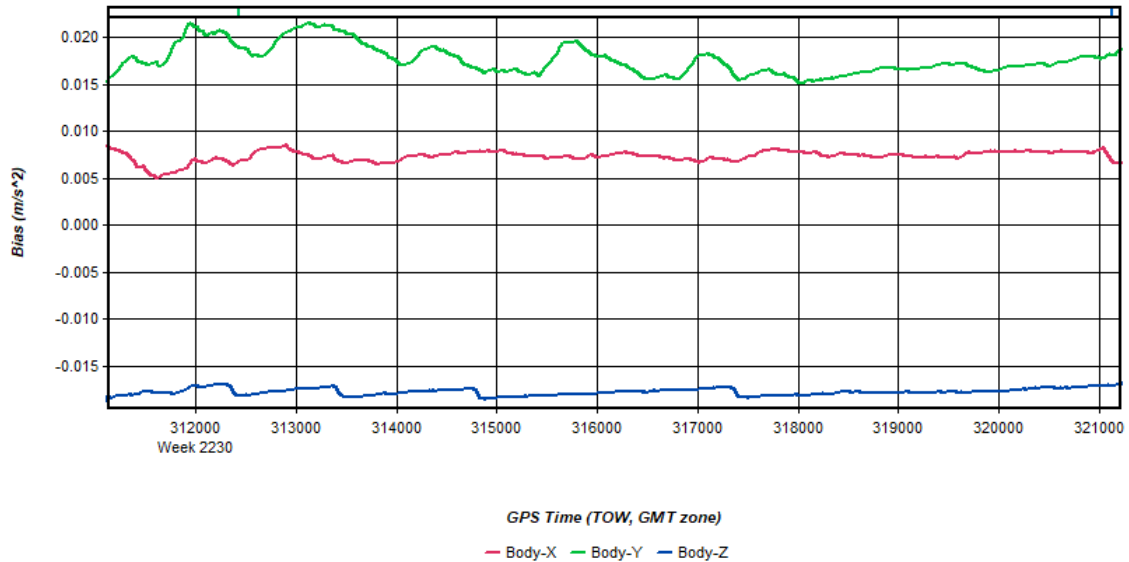
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 18: 20221005142434_28 [Smoothed TC Combined] - Doppler Residual RMS Plot



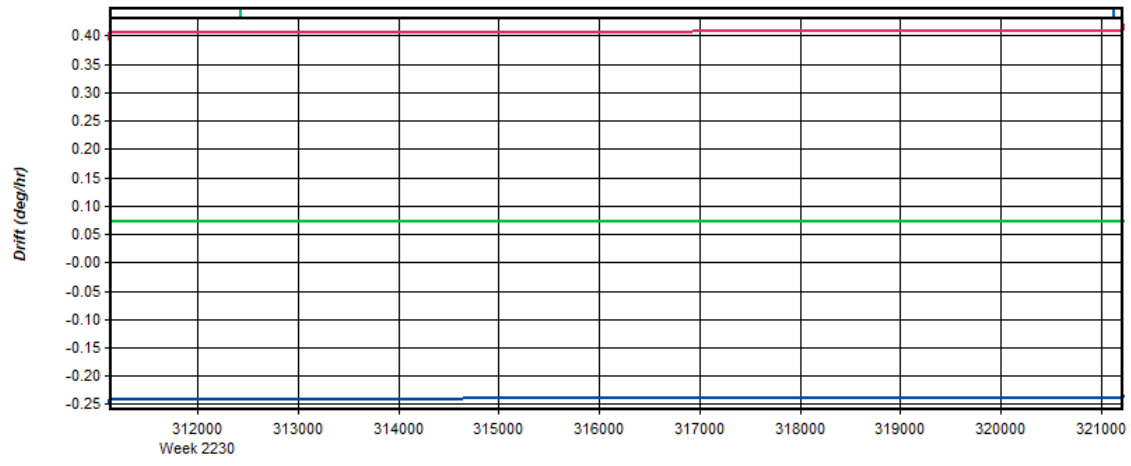
Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 19: 20221005142434_28 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Figure 20: 20221005142434_28 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

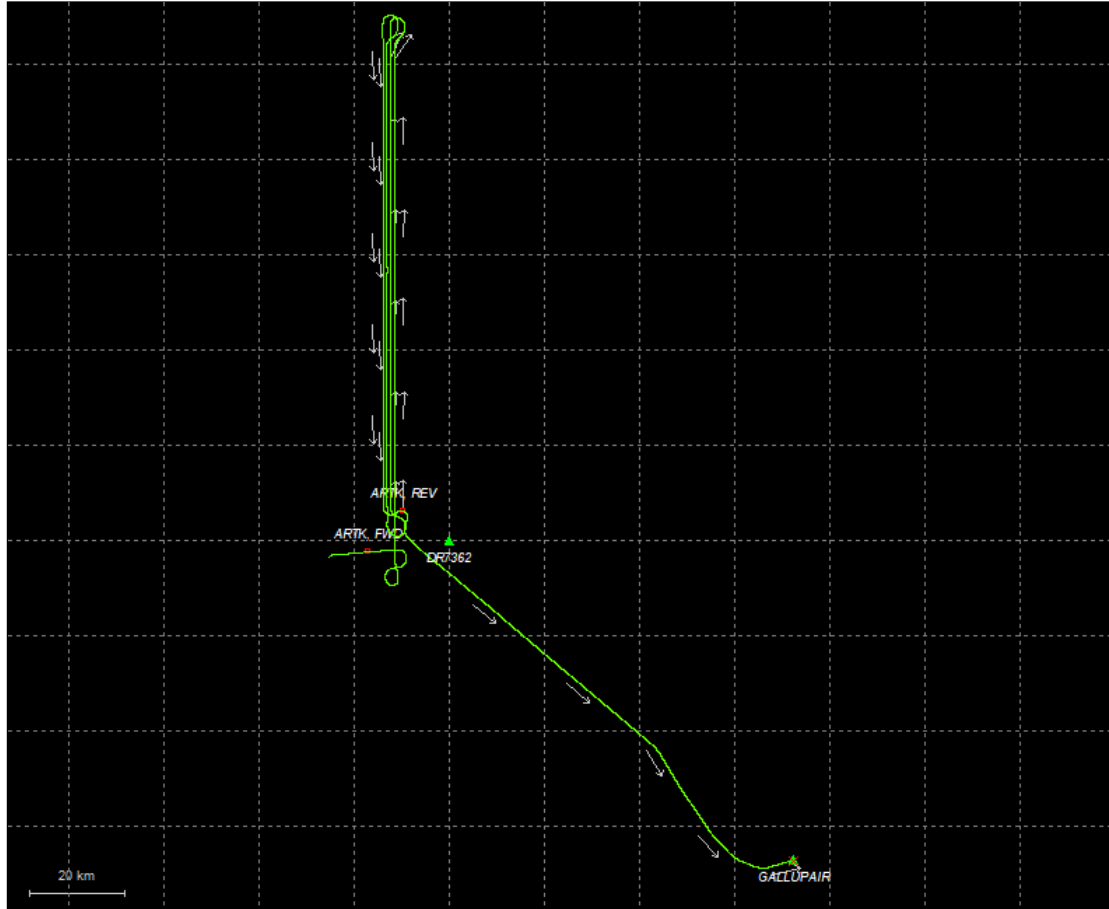
— Body-X — Body-Y — Body-Z

Process	20221005142434_28	by Unknown	on 10/12/2022	at 20:23:22
---------	-------------------	------------	---------------	-------------

Output Results for 20221005171556_28b

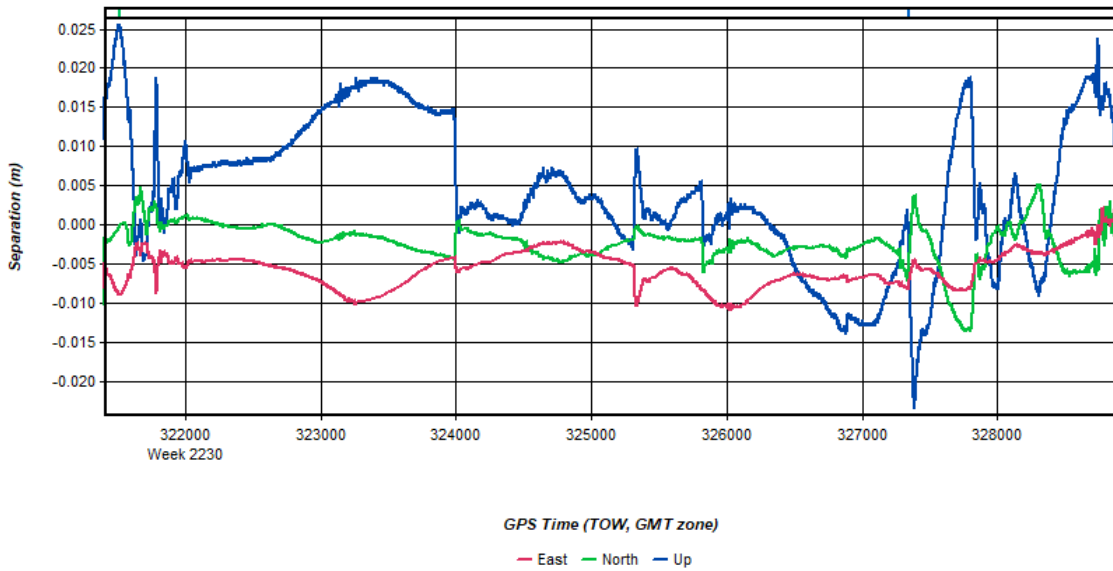
Inertial Explorer Version 8.90.2124
10/12/2022

Figure 1: Smoothed TC Combined - Map



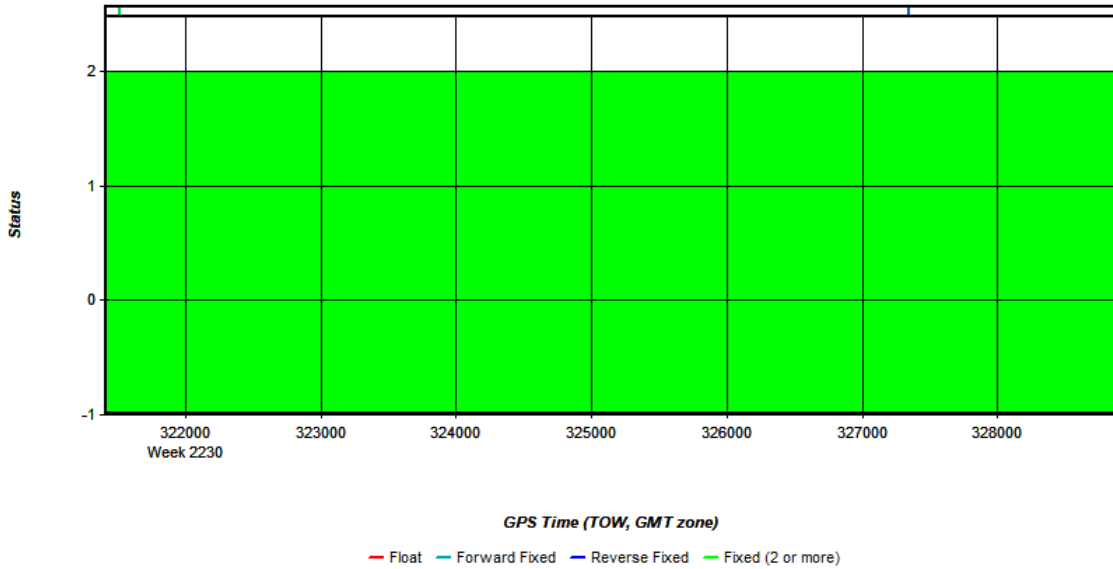
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 2: 20221005171556_28b [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



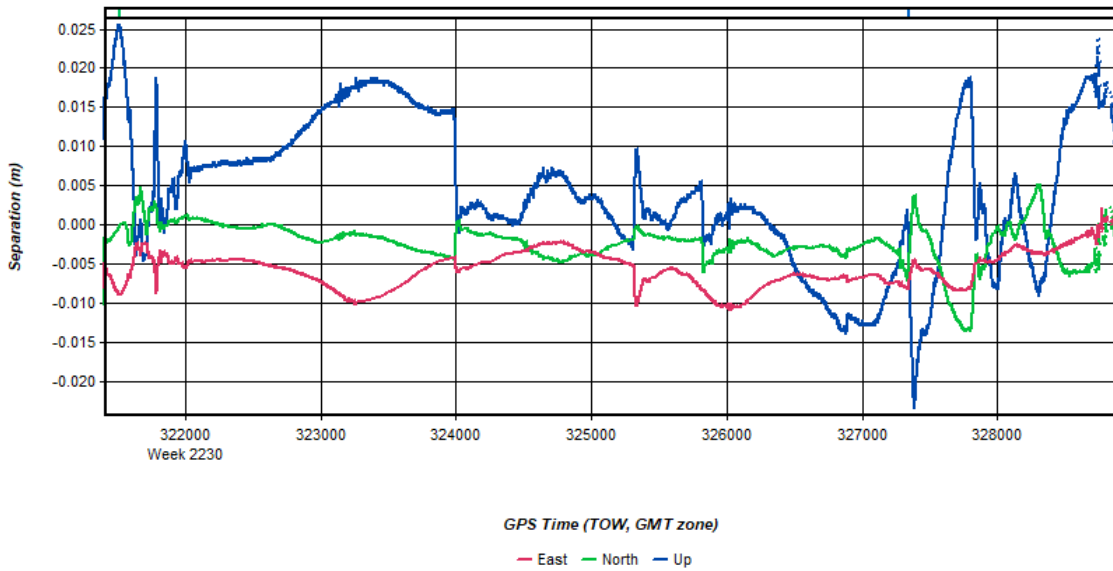
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 3: 20221005171556_28b [Smoothed TC Combined] - Float or Fixed Ambiguity



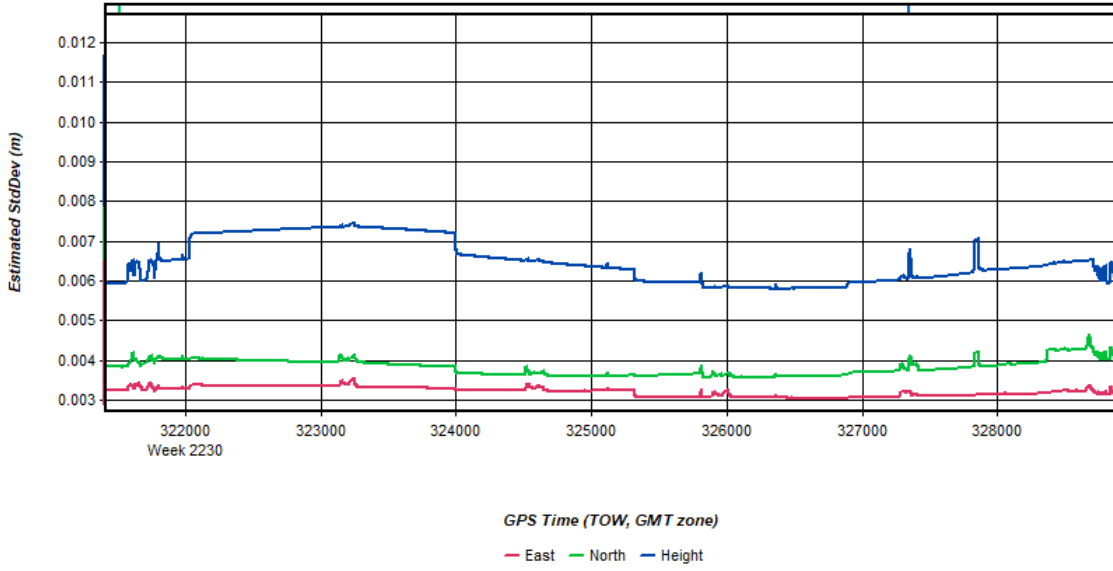
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 4: 20221005171556_28b [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 5: 20221005171556_28b [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 6: 20221005171556_28b [Smoothed TC Combined] - PDOP Plot

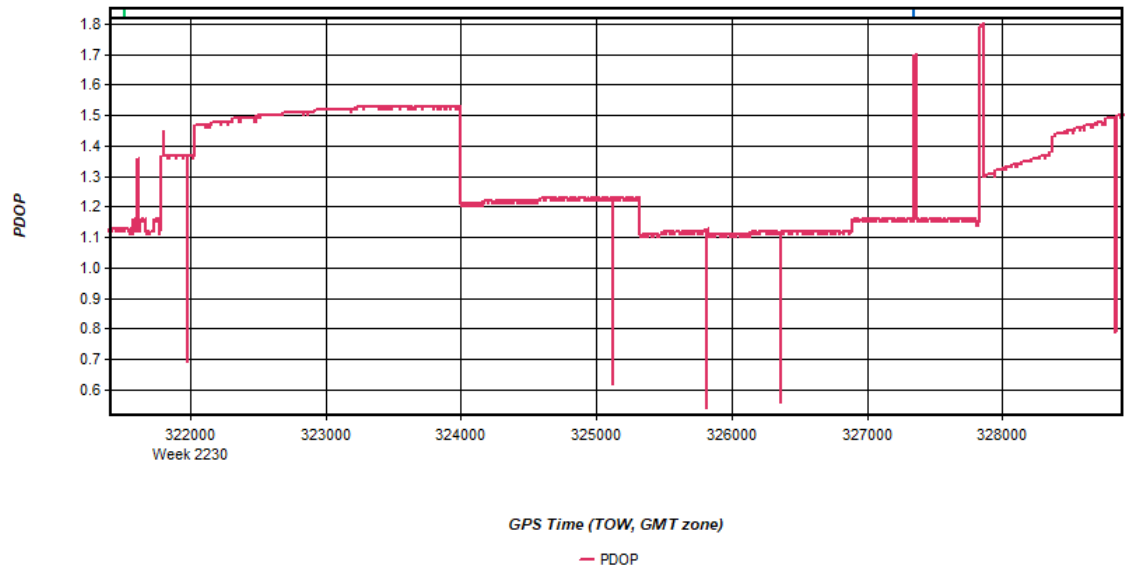


Figure 7: 20221005171556_28b [Smoothed TC Combined] - Number of Satellites Line Plot

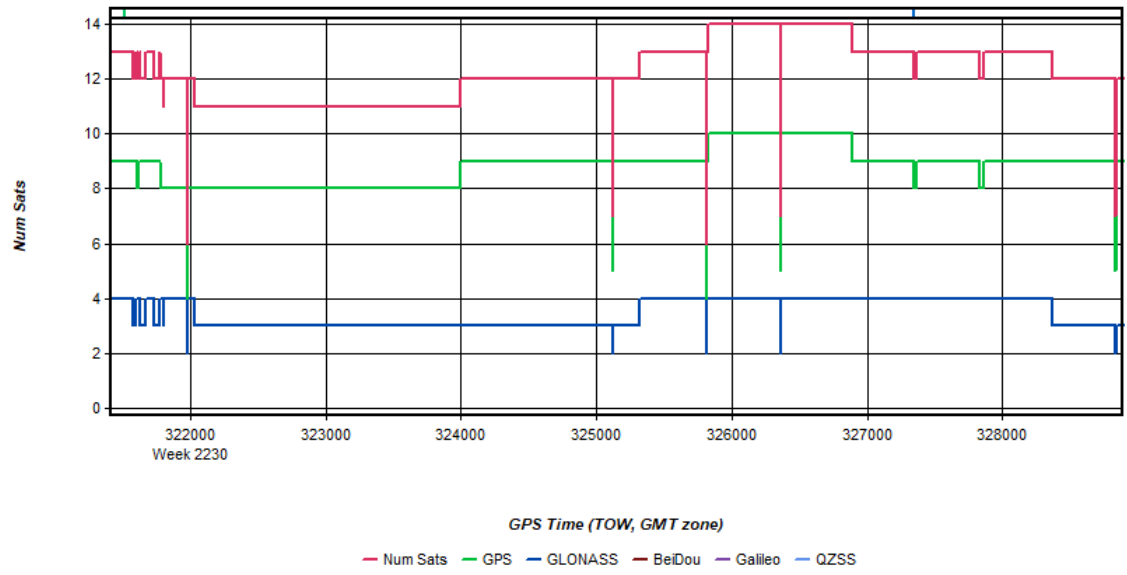


Figure 8: 20221005171556_28b [Smoothed TC Combined] - Status flag for IMU processing

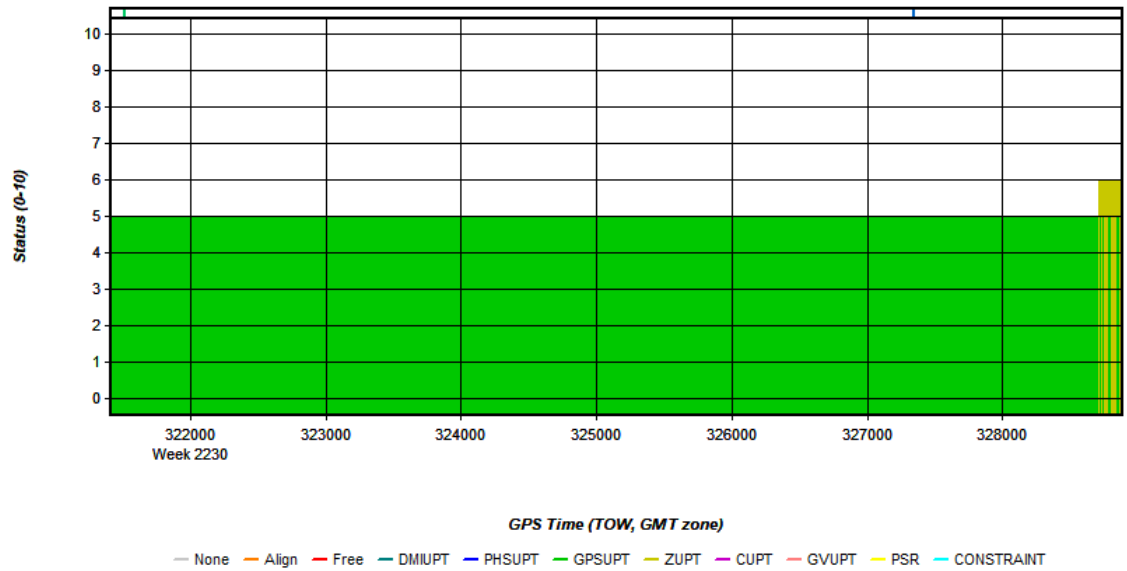


Figure 9: 20221005171556_28b [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

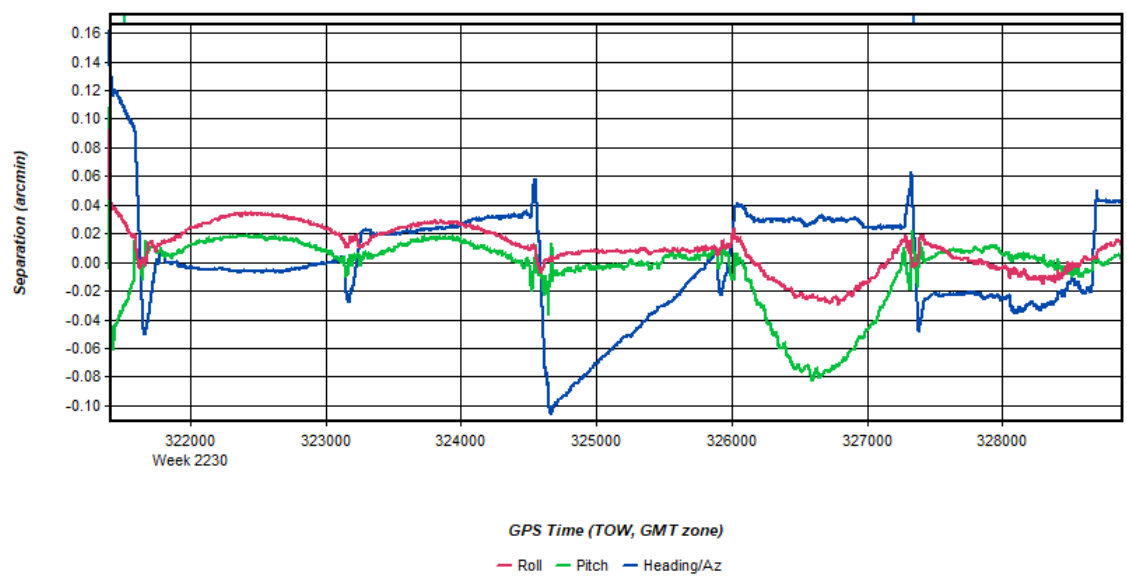
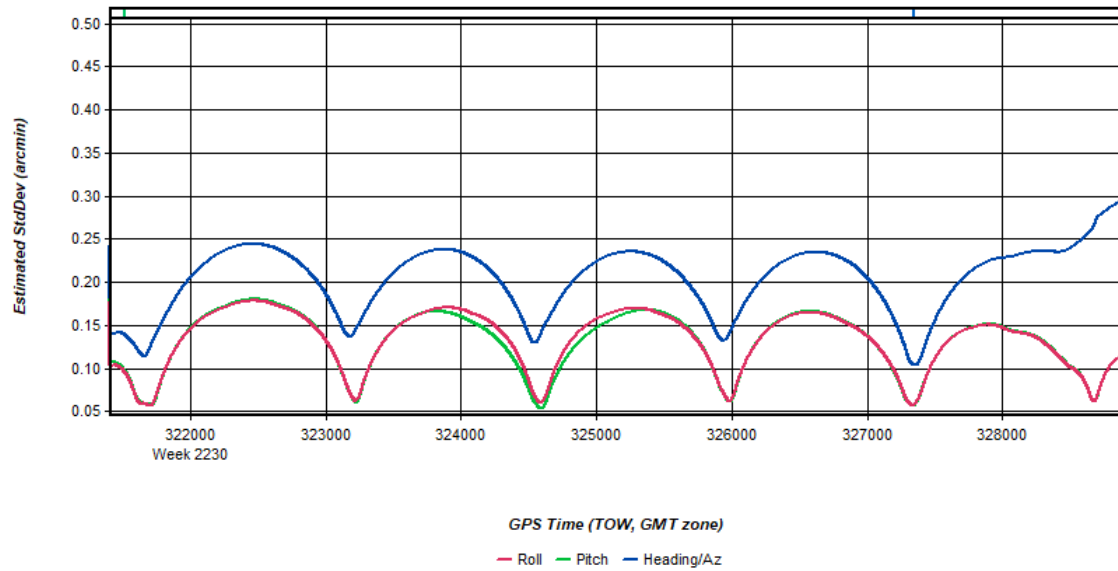
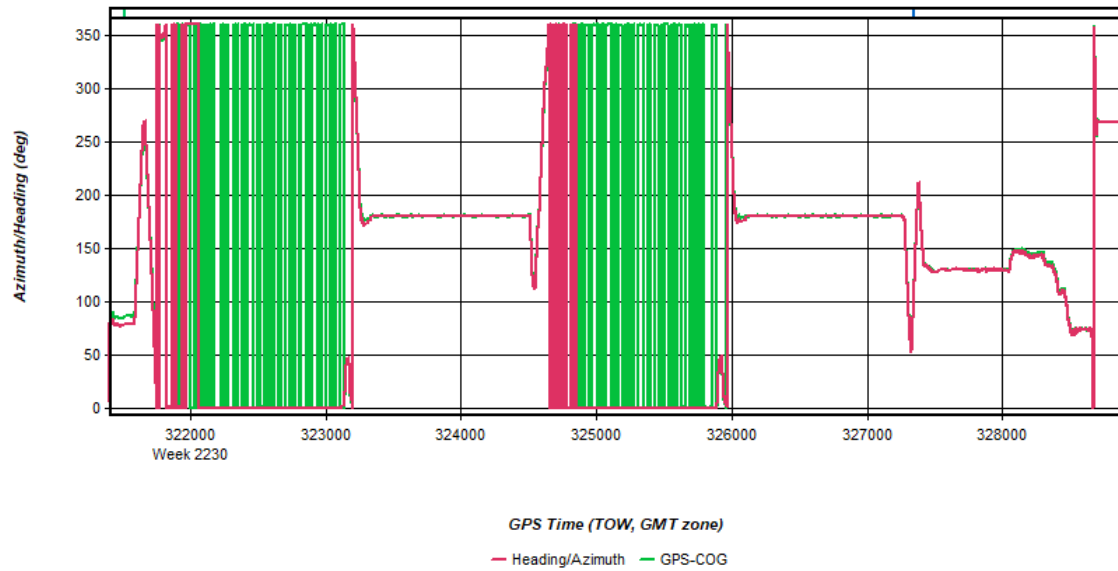


Figure 10: 20221005171556_28b [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



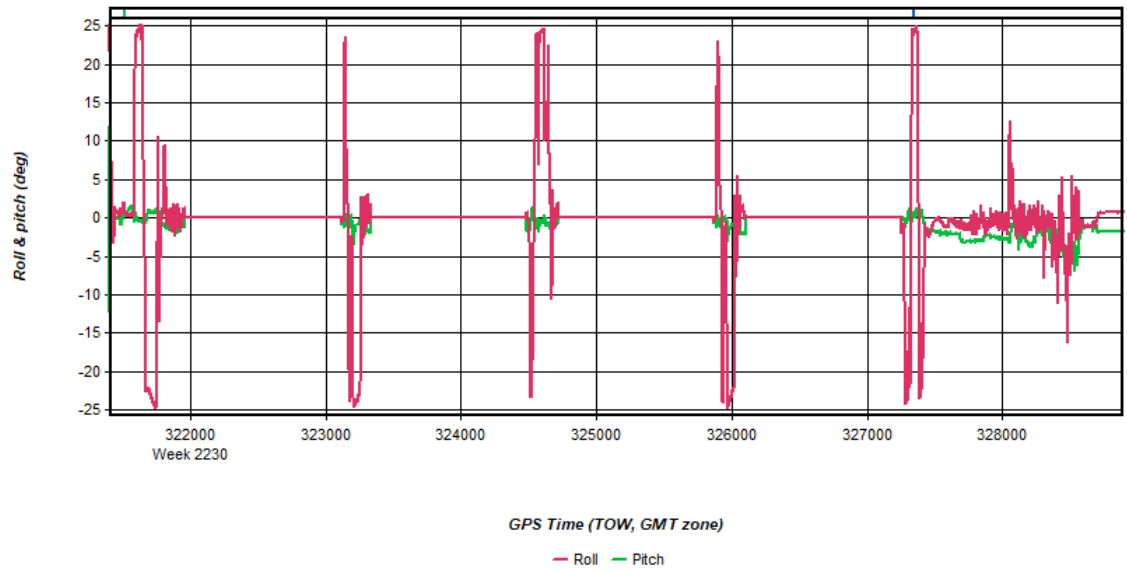
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 11: 20221005171556_28b [Smoothed TC Combined] - Azimuth Plot



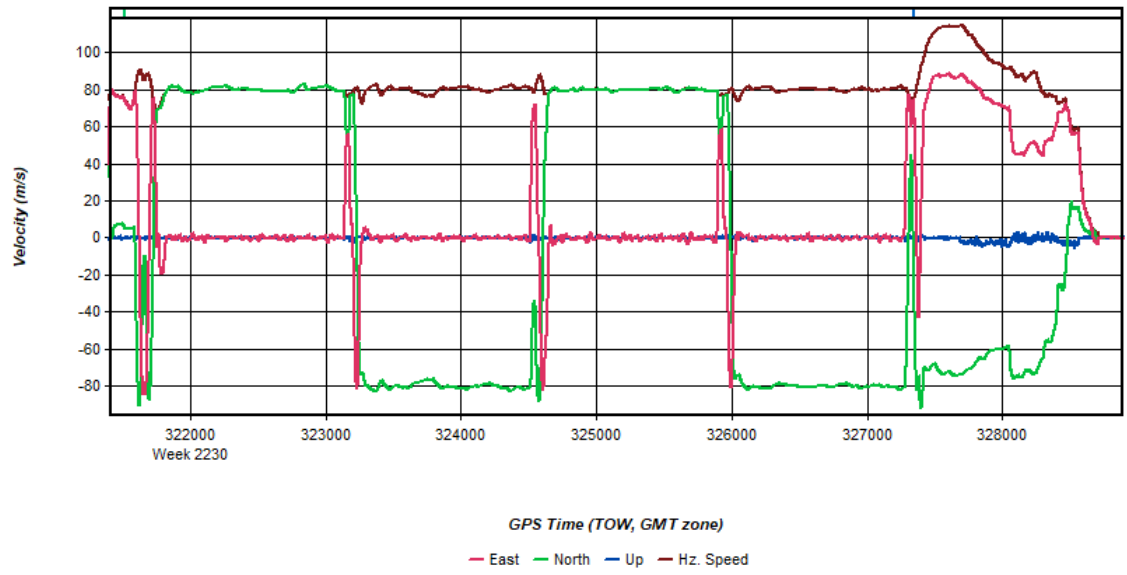
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 12: 20221005171556_28b [Smoothed TC Combined] - Roll & Pitch Plot



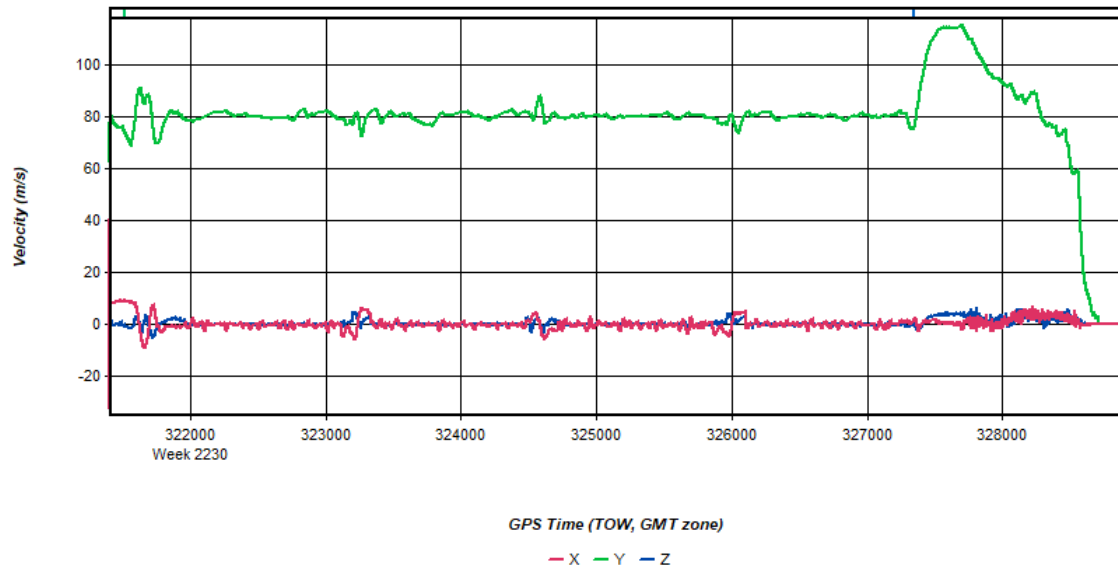
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 13: 20221005171556_28b [Smoothed TC Combined] - Velocity Profile Plot



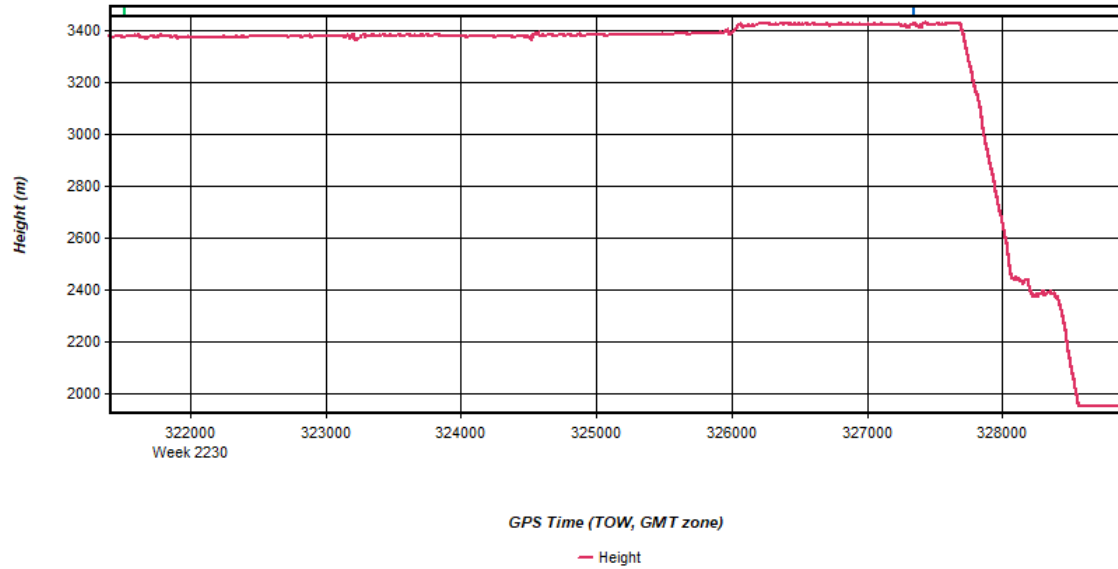
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 14: 20221005171556_28b [Smoothed TC Combined] - Body Frame Velocity Plot



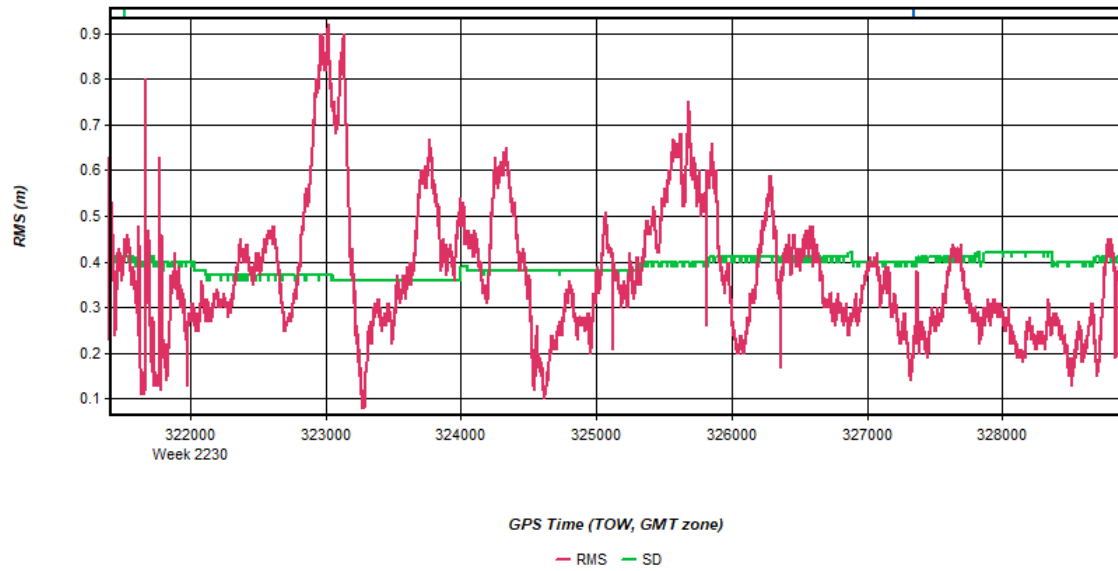
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 15: 20221005171556_28b [Smoothed TC Combined] - Height Profile Plot



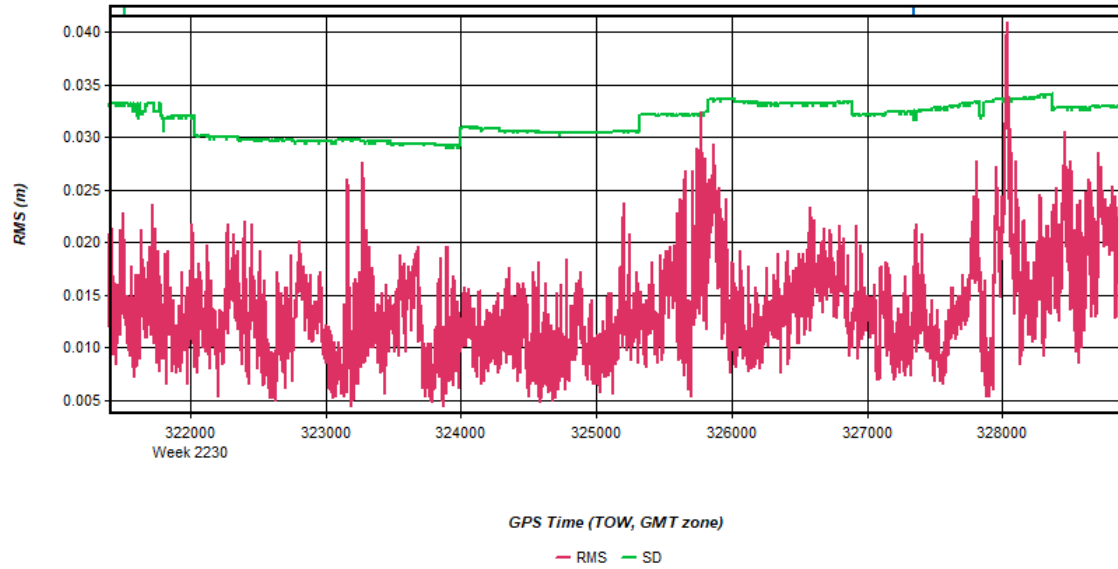
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 16: 20221005171556_28b [Smoothed TC Combined] - C/A Code Residual RMS Plot



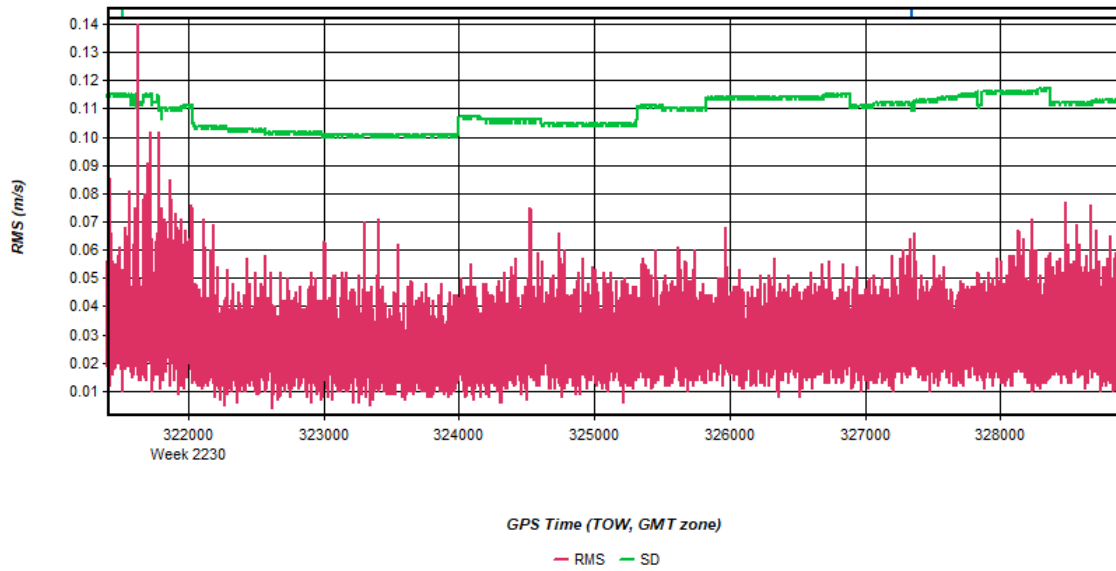
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 17: 20221005171556_28b [Smoothed TC Combined] - Carrier Residual RMS Plot



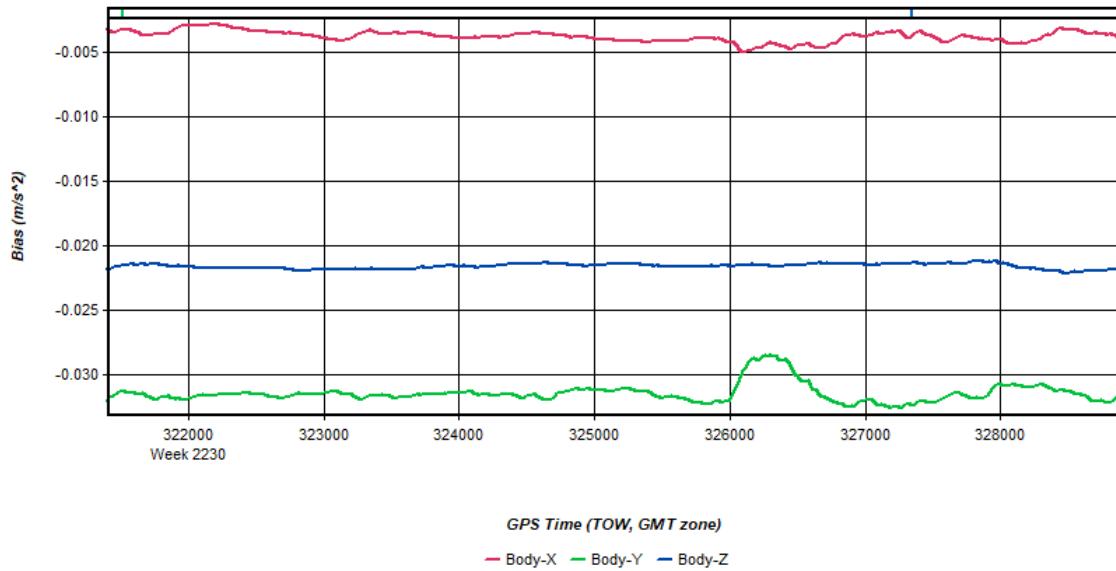
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 18: 20221005171556_28b [Smoothed TC Combined] - Doppler Residual RMS Plot



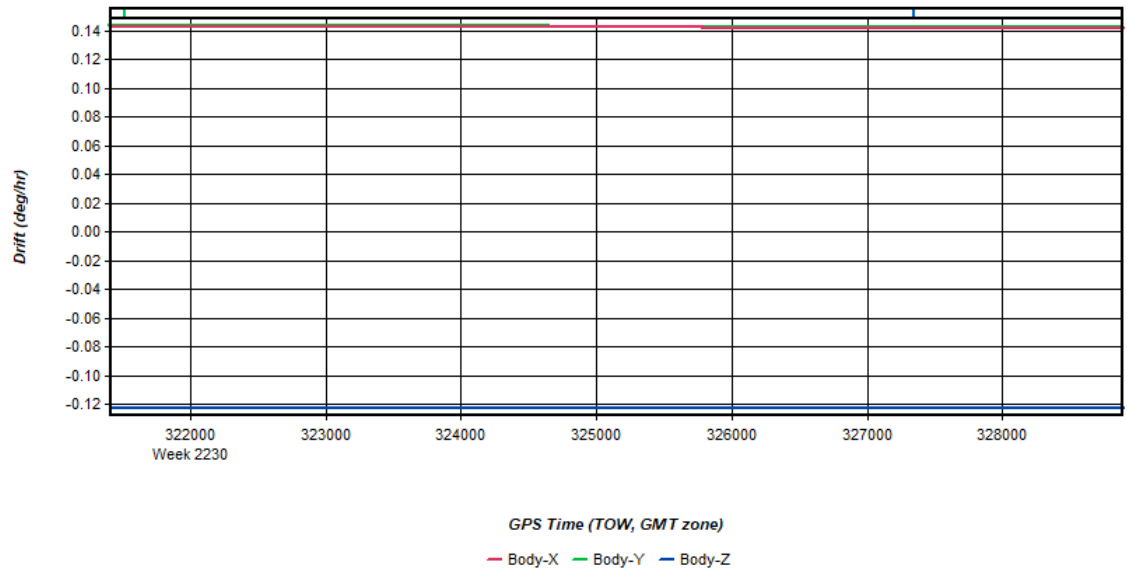
Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 19: 20221005171556_28b [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Figure 20: 20221005171556_28b [Smoothed TC Combined] - Gyro Drift Plot

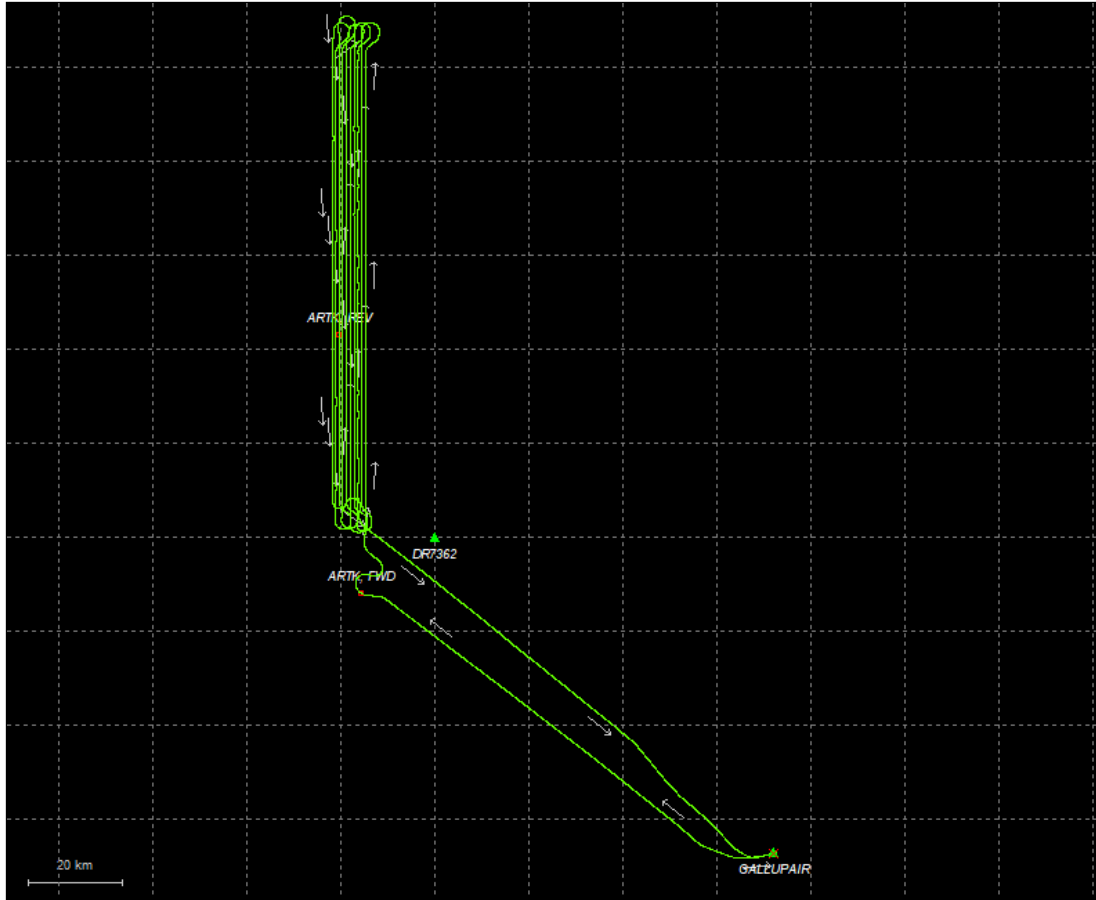


Process	20221005171556_28b	by Unknown	on 10/12/2022	at 21:21:30
---------	--------------------	------------	---------------	-------------

Output Results for 20221007134738_29

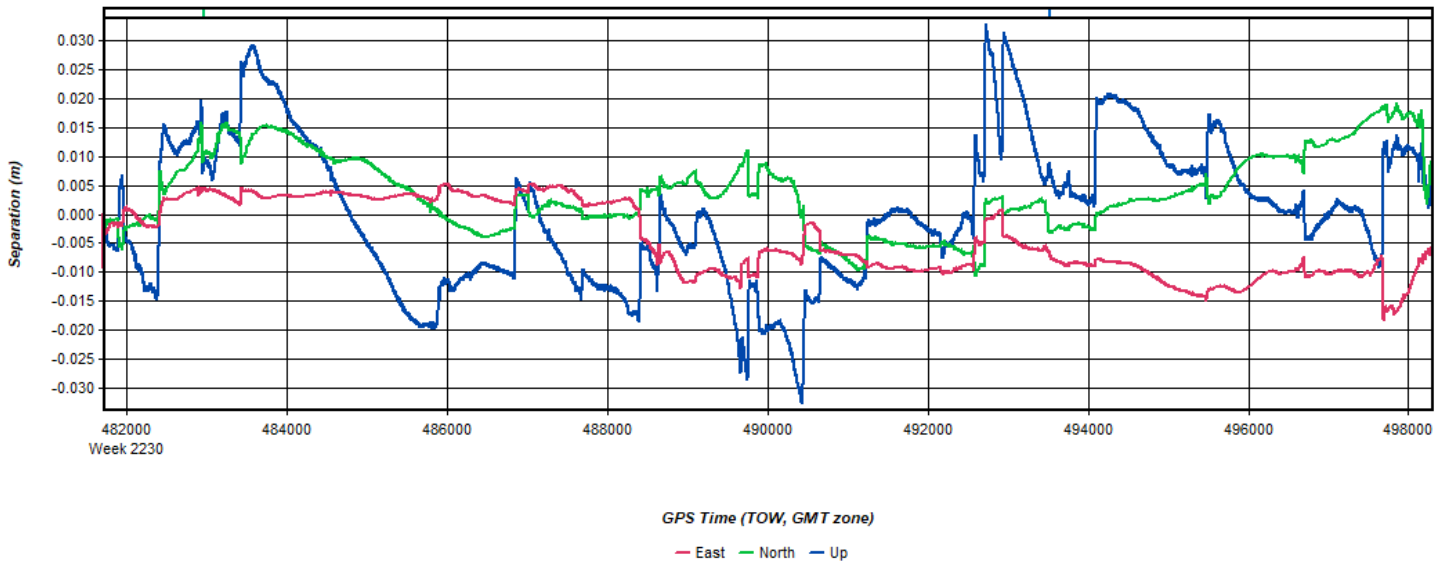
Inertial Explorer Version 8.90.2124
10/13/2022

Figure 1: Smoothed TC Combined - Map



Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

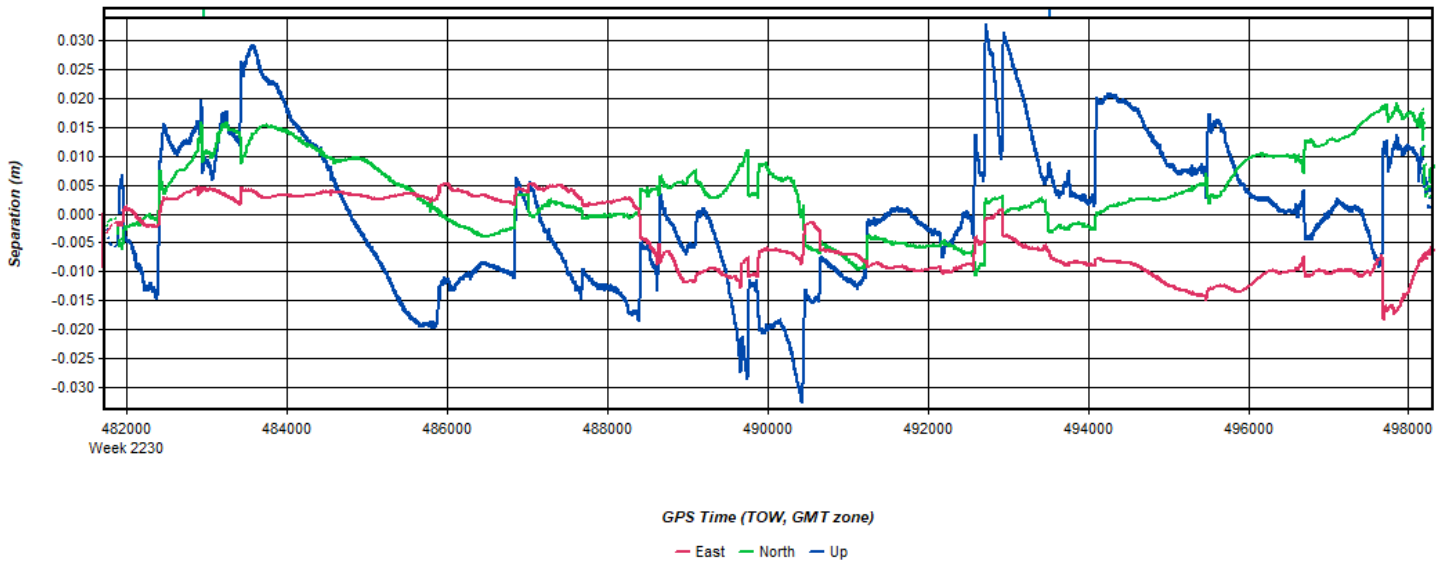
Figure 2: 20221007134738_29 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

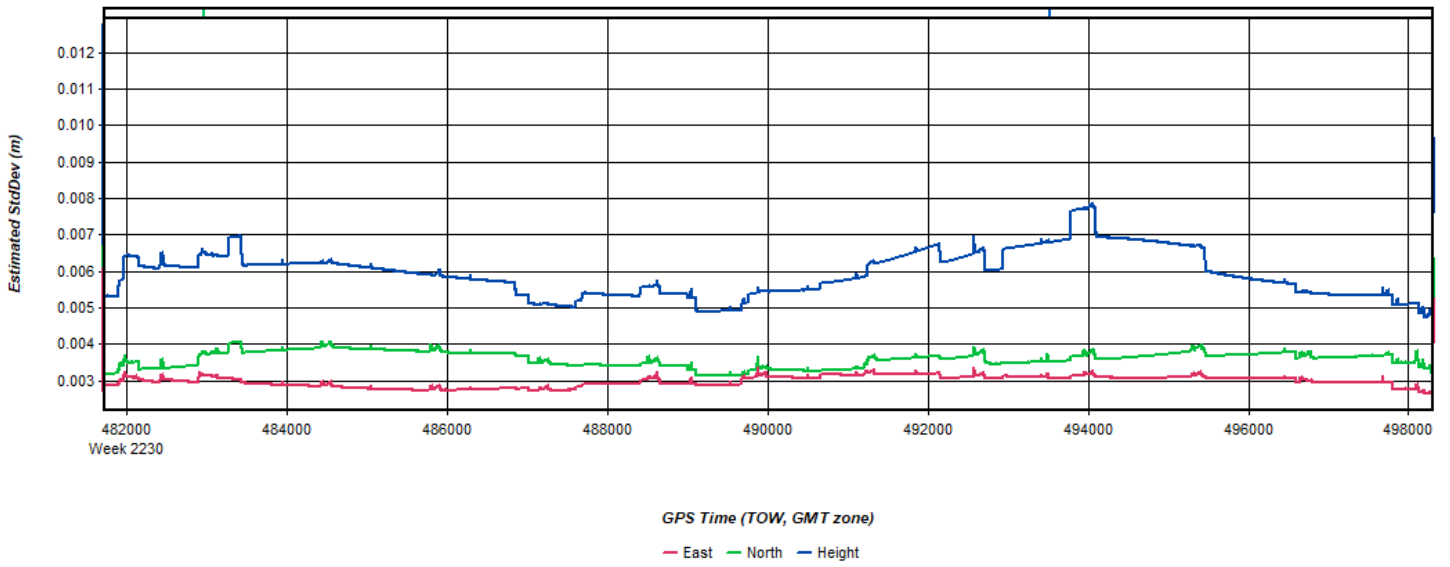
Object 20221007134738_29 [Smoothed TC Combined] - Float or Fixed Ambiguity failed--NULL bitmap handle

Figure 3: 20221007134738_29 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



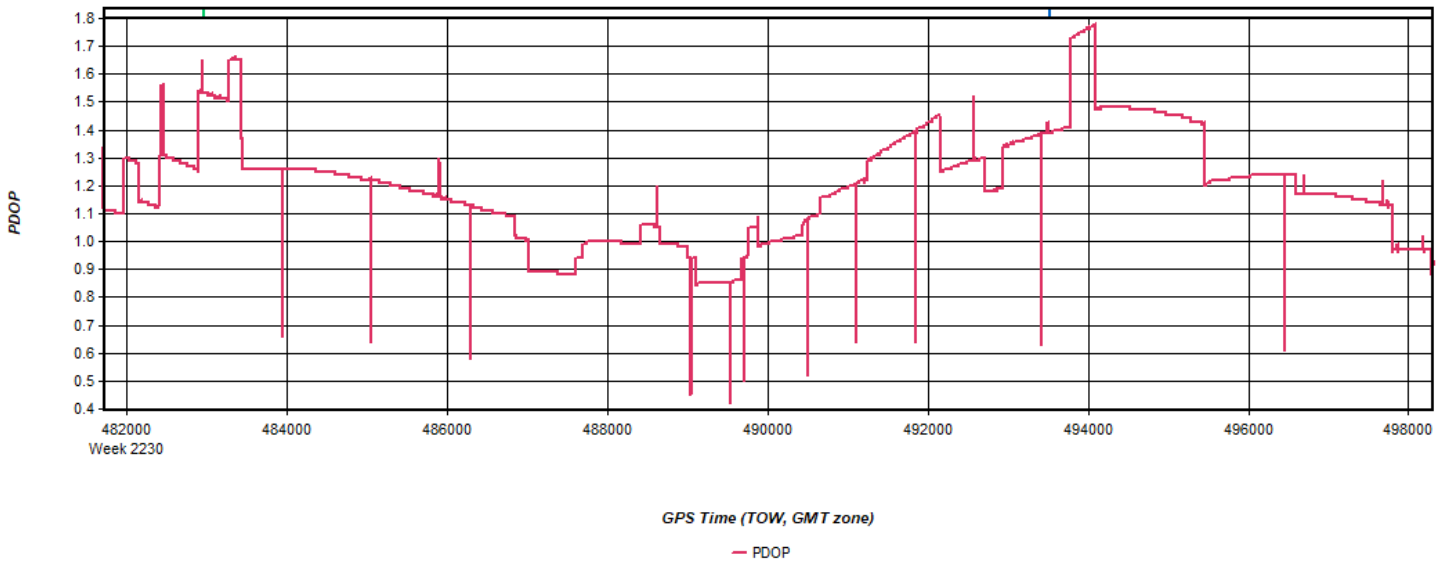
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 4: 20221007134738_29 [Smoothed TC Combined] - Estimated Position Accuracy Plot



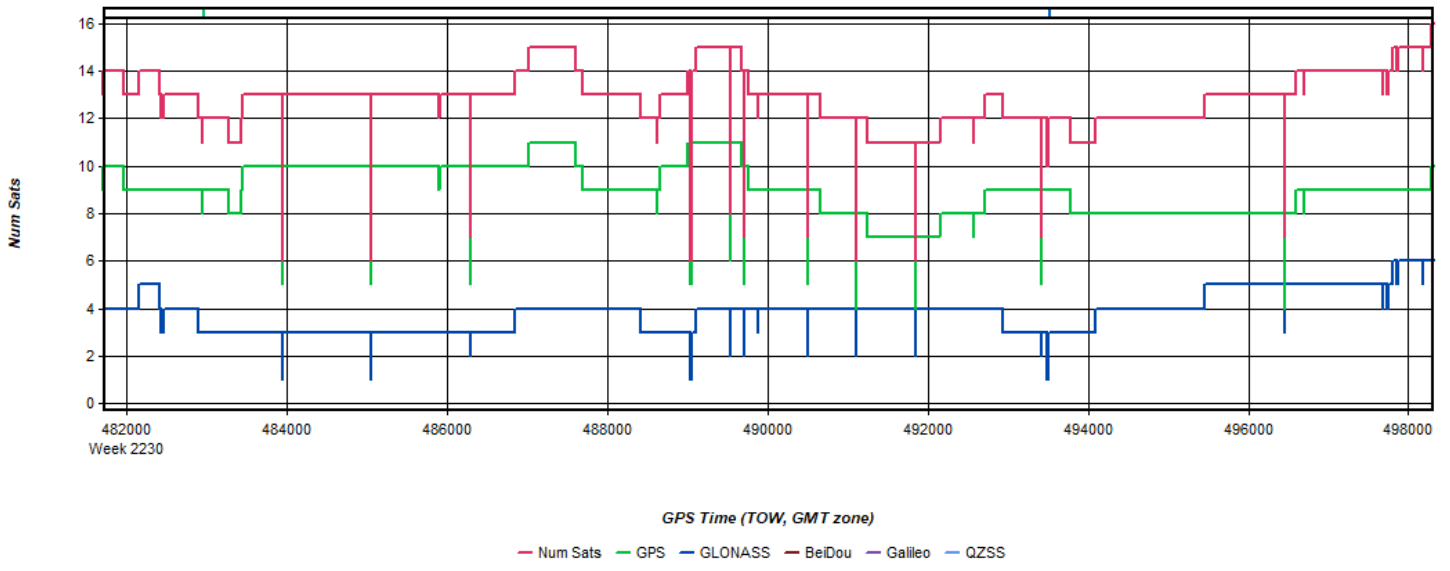
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 5: 20221007134738_29 [Smoothed TC Combined] - PDOP Plot



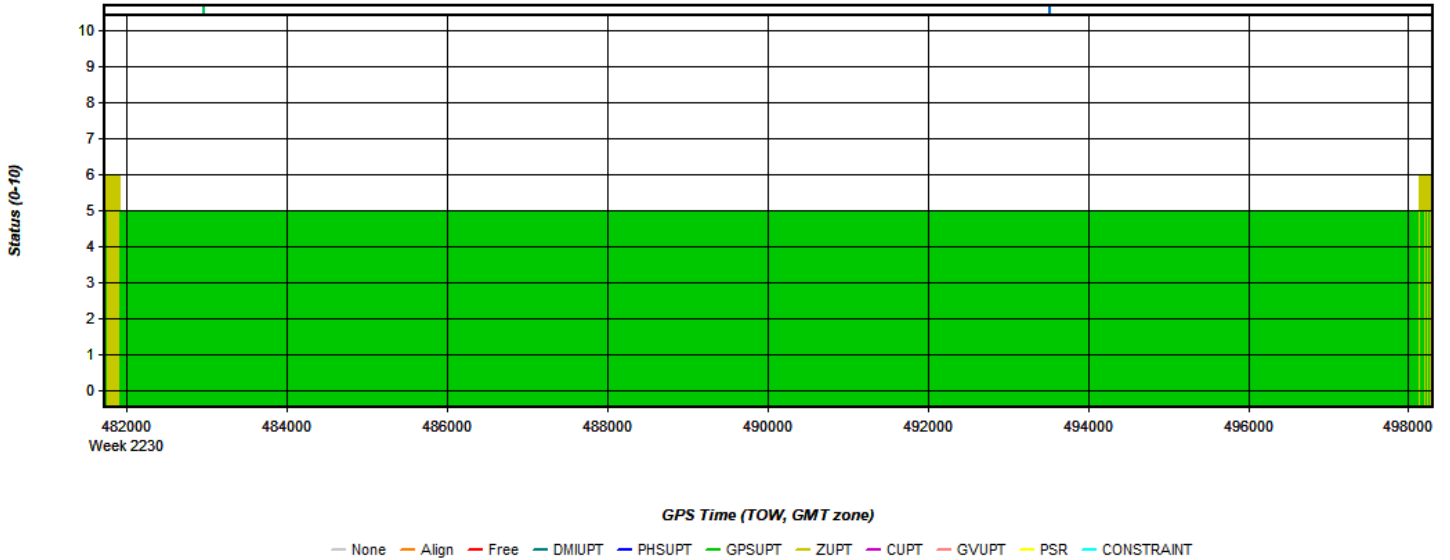
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 6: 20221007134738_29 [Smoothed TC Combined] - Number of Satellites Line Plot



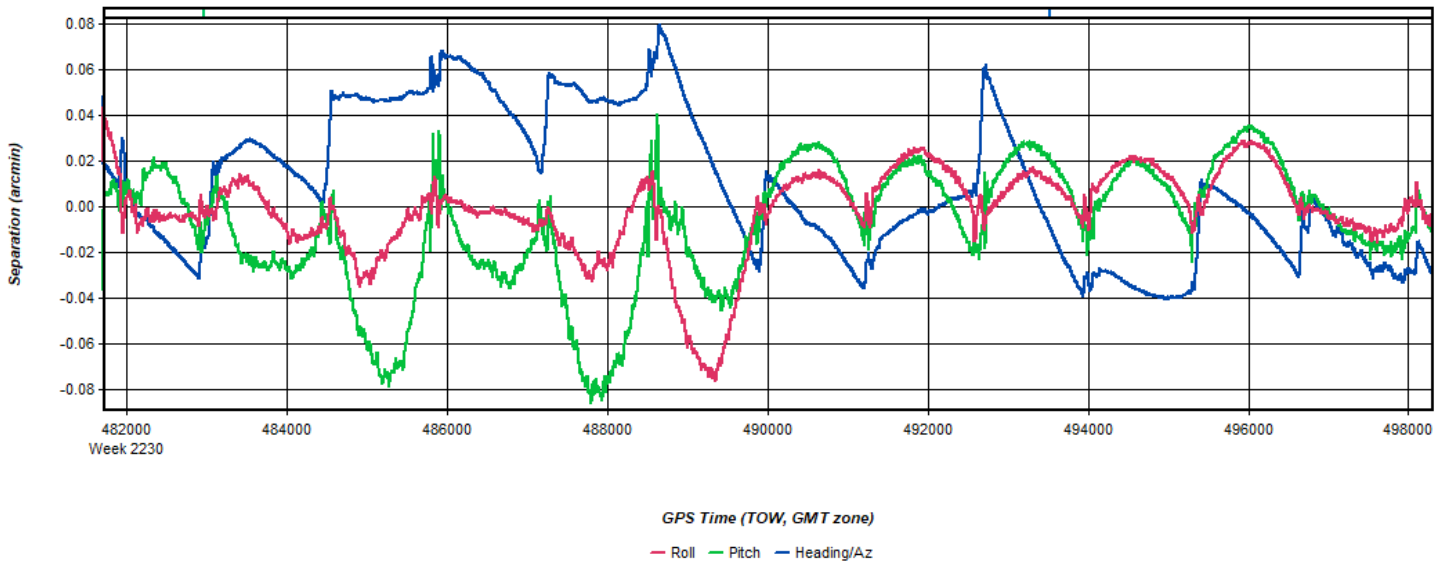
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 7: 20221007134738_29 [Smoothed TC Combined] - Status flag for IMU processing



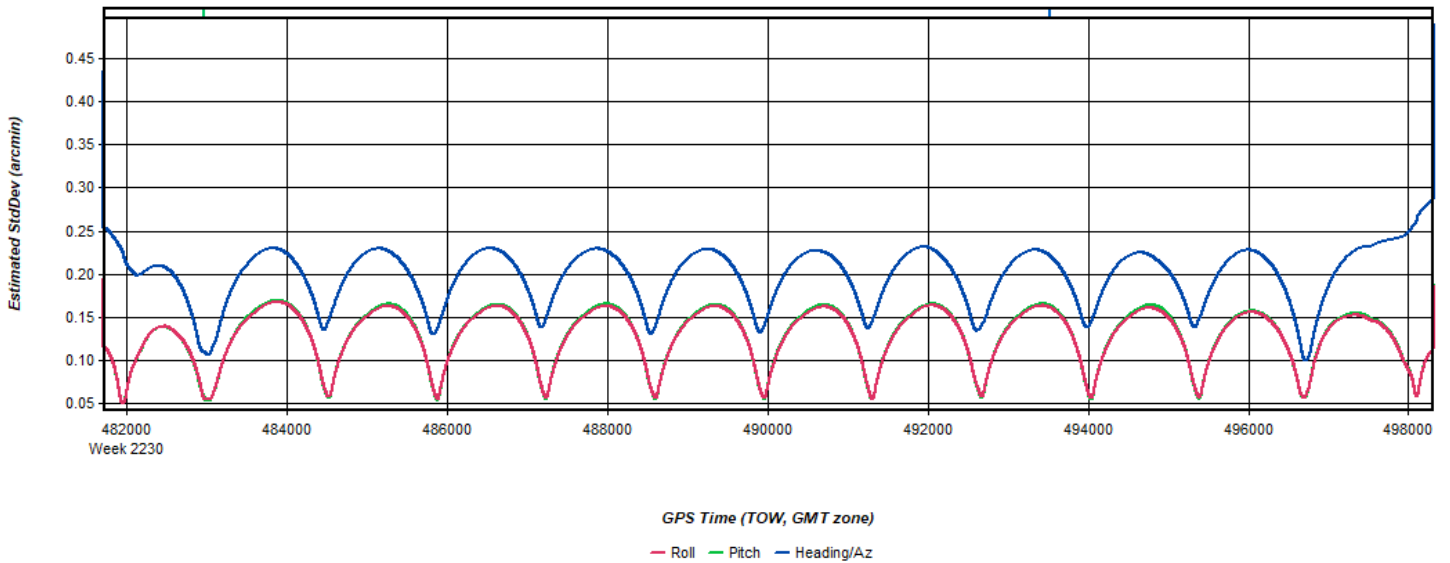
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 8: 20221007134738_29 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



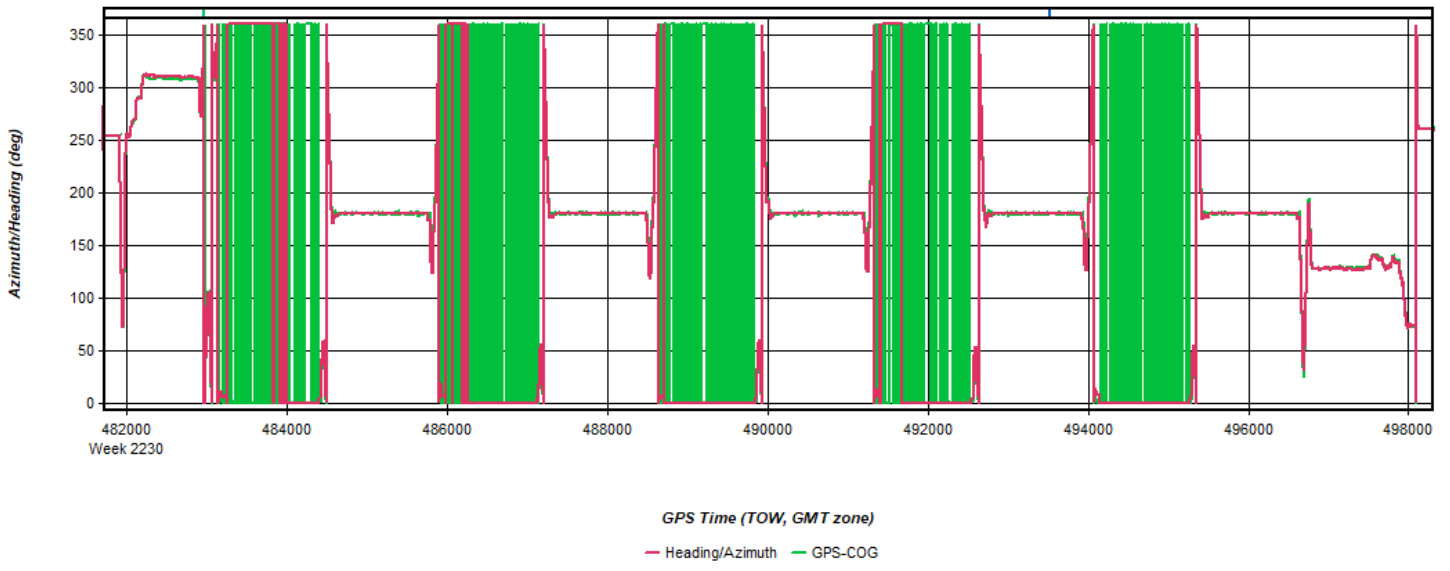
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 9: 20221007134738_29 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



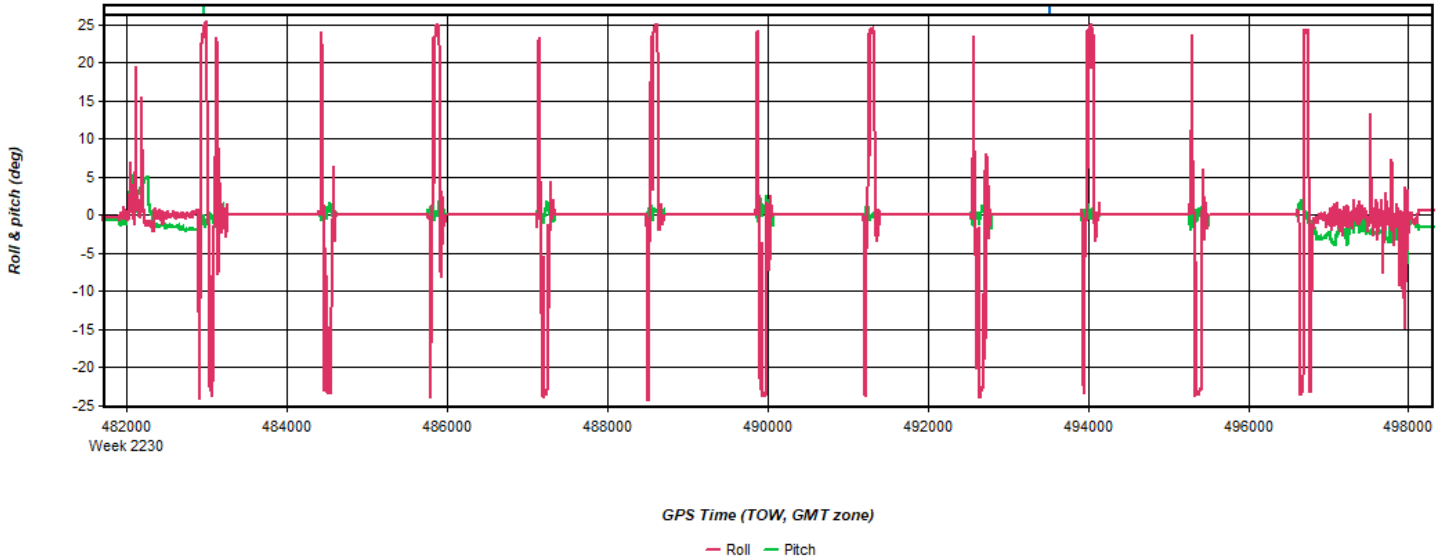
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 10: 20221007134738_29 [Smoothed TC Combined] - Azimuth Plot



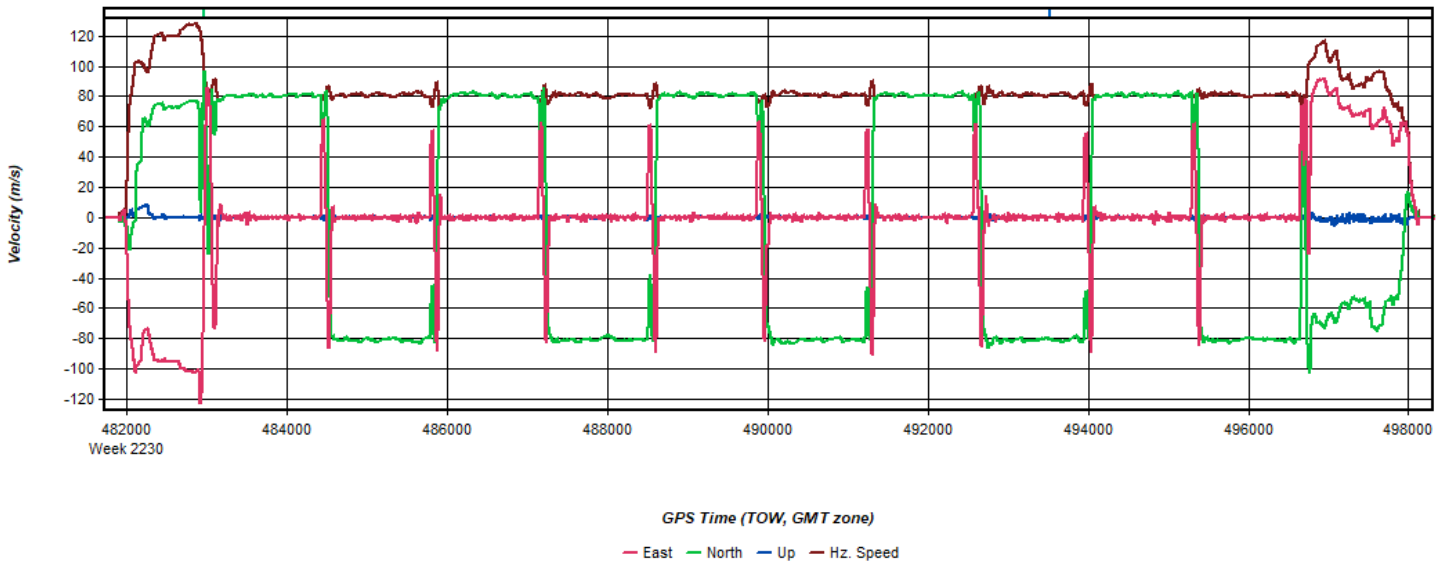
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 11: 20221007134738_29 [Smoothed TC Combined] - Roll & Pitch Plot



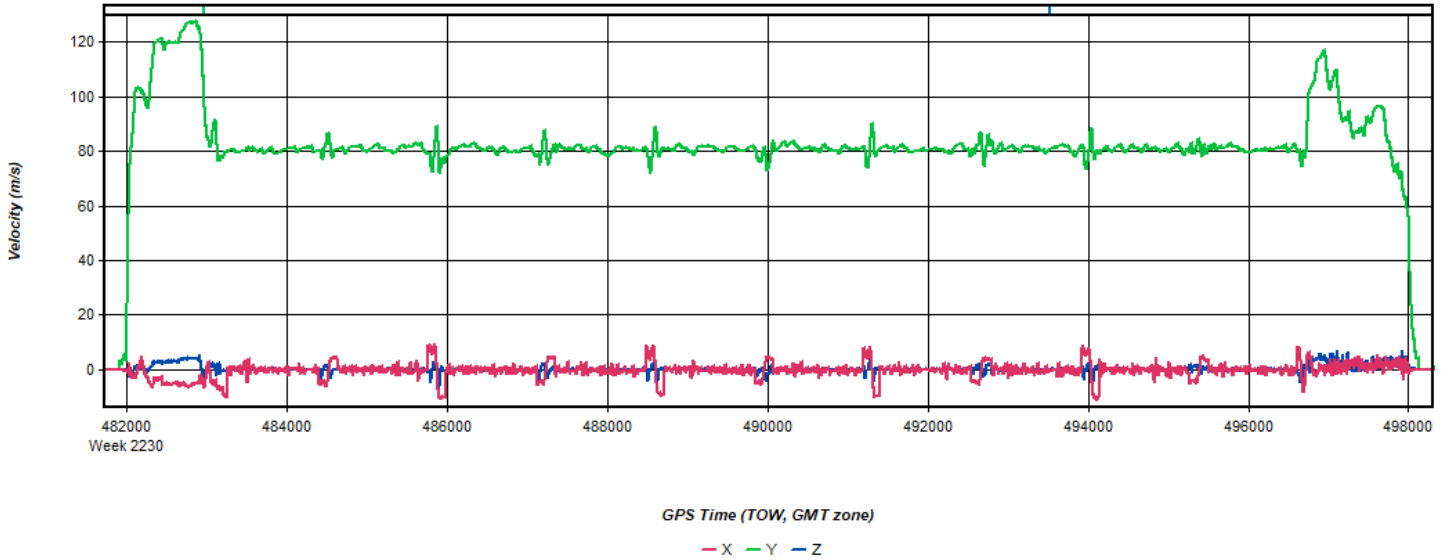
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 12: 20221007134738_29 [Smoothed TC Combined] - Velocity Profile Plot



Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 13: 20221007134738_29 [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 14: 20221007134738_29 [Smoothed TC Combined] - Height Profile Plot

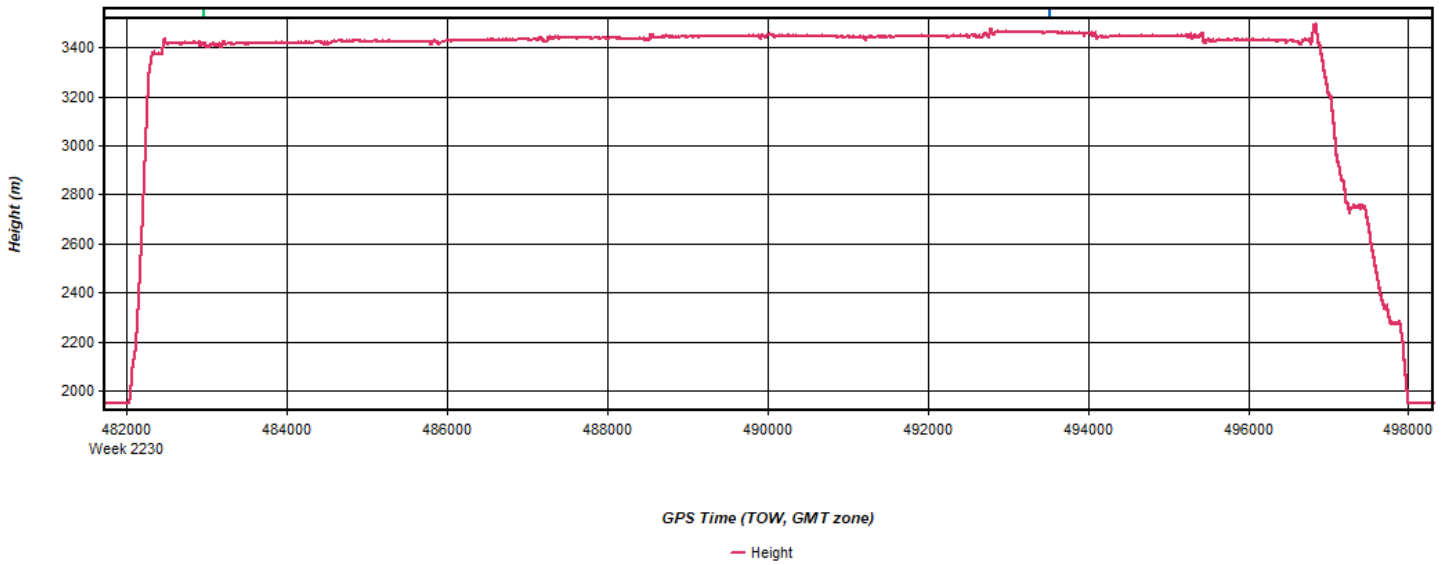


Figure 15: 20221007134738_29 [Smoothed TC Combined] - C/A Code Residual RMS Plot

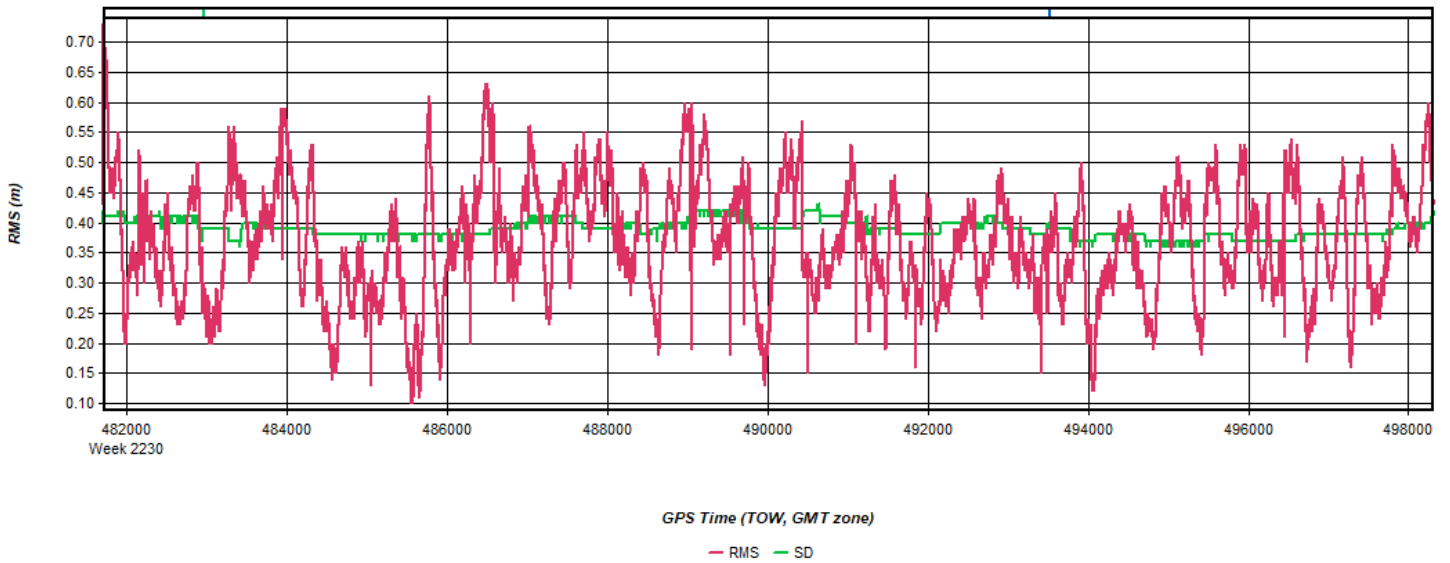
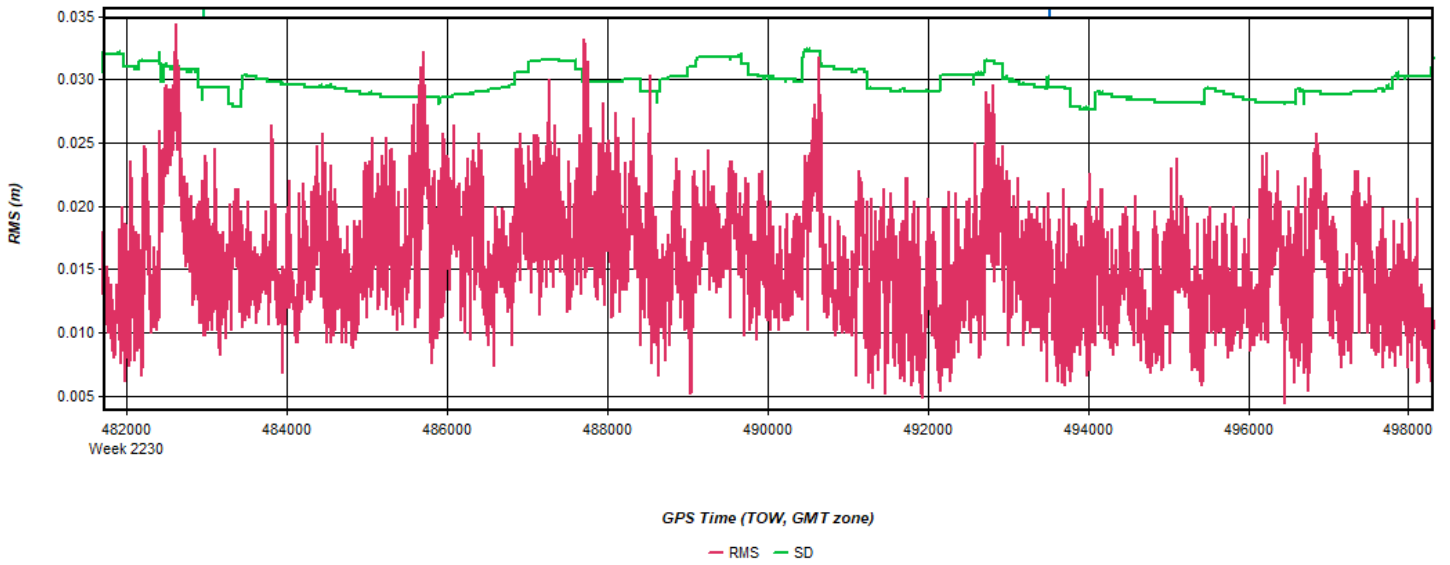
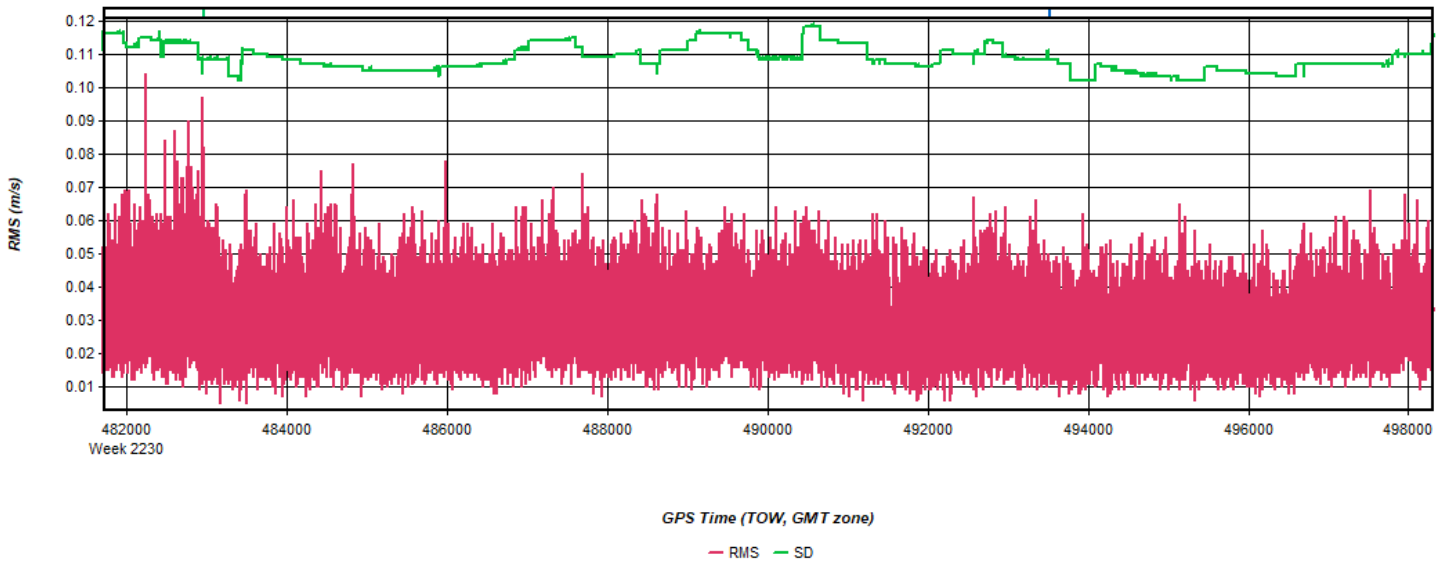


Figure 16: 20221007134738_29 [Smoothed TC Combined] - Carrier Residual RMS Plot



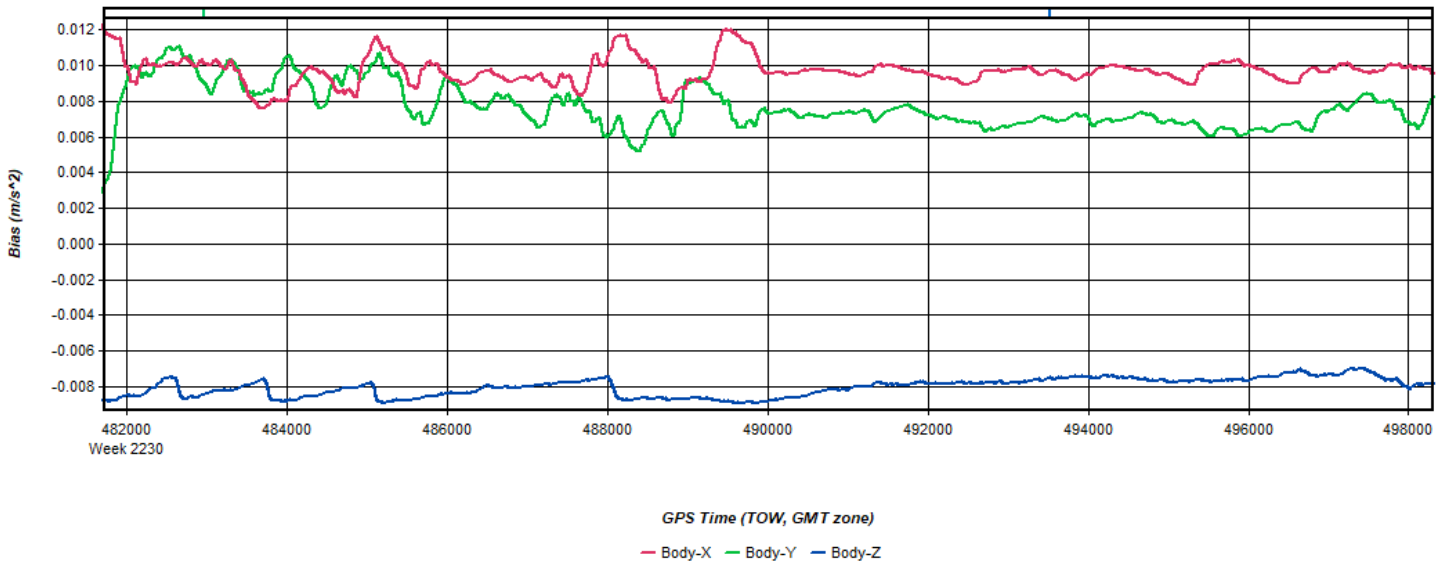
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 17: 20221007134738_29 [Smoothed TC Combined] - Doppler Residual RMS Plot



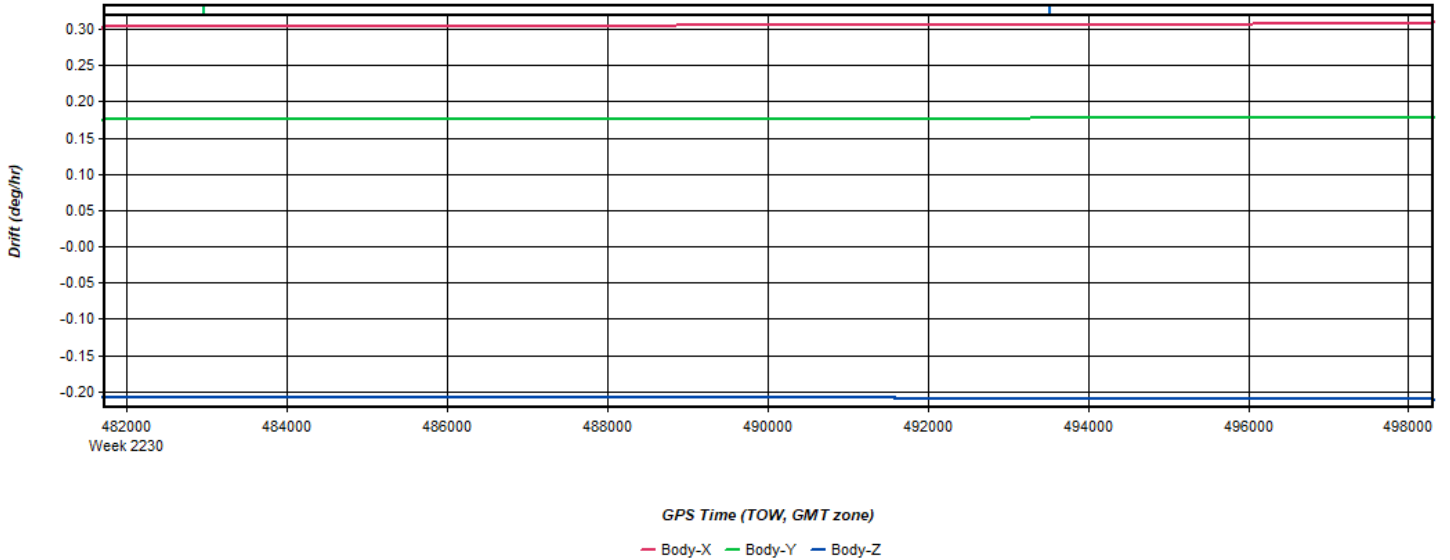
Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 18: 20221007134738_29 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Figure 19: 20221007134738_29 [Smoothed TC Combined] - Gyro Drift Plot



Process	20221007134738_29	by Unknown	on 10/13/2022	at 15:41:11
---------	-------------------	------------	---------------	-------------

Output Results for 20221008140103_30

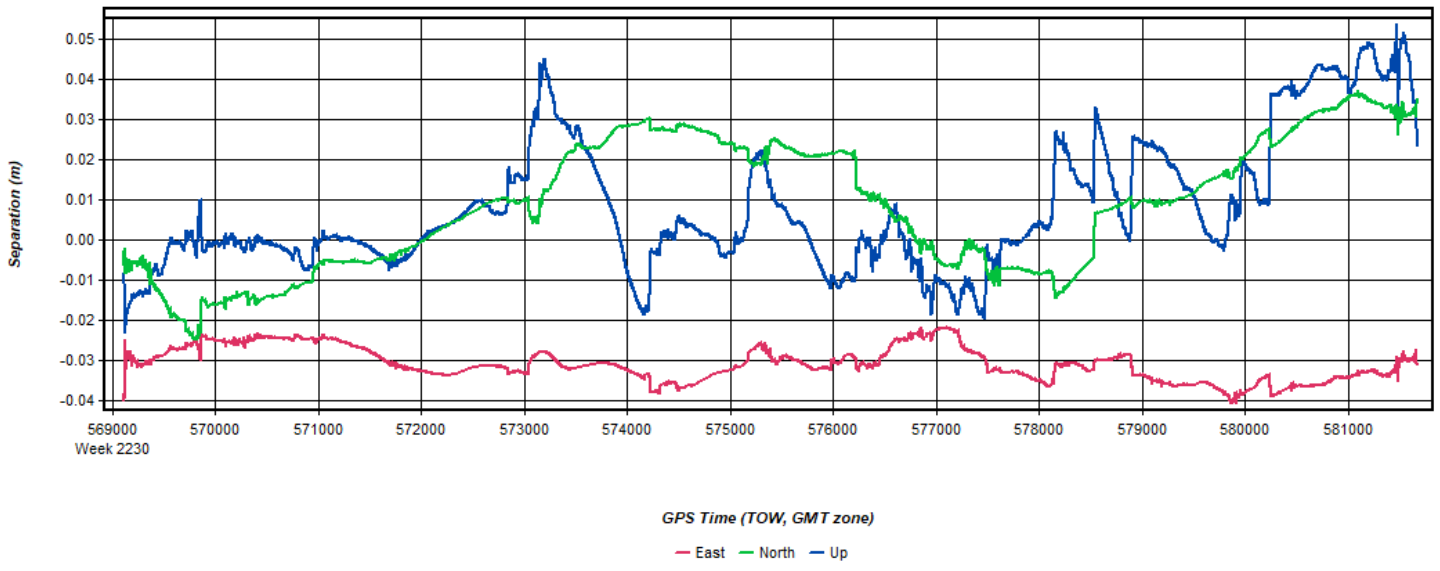
Inertial Explorer Version 8.90.2124
10/13/2022

Figure 1: Smoothed TC Combined - Map



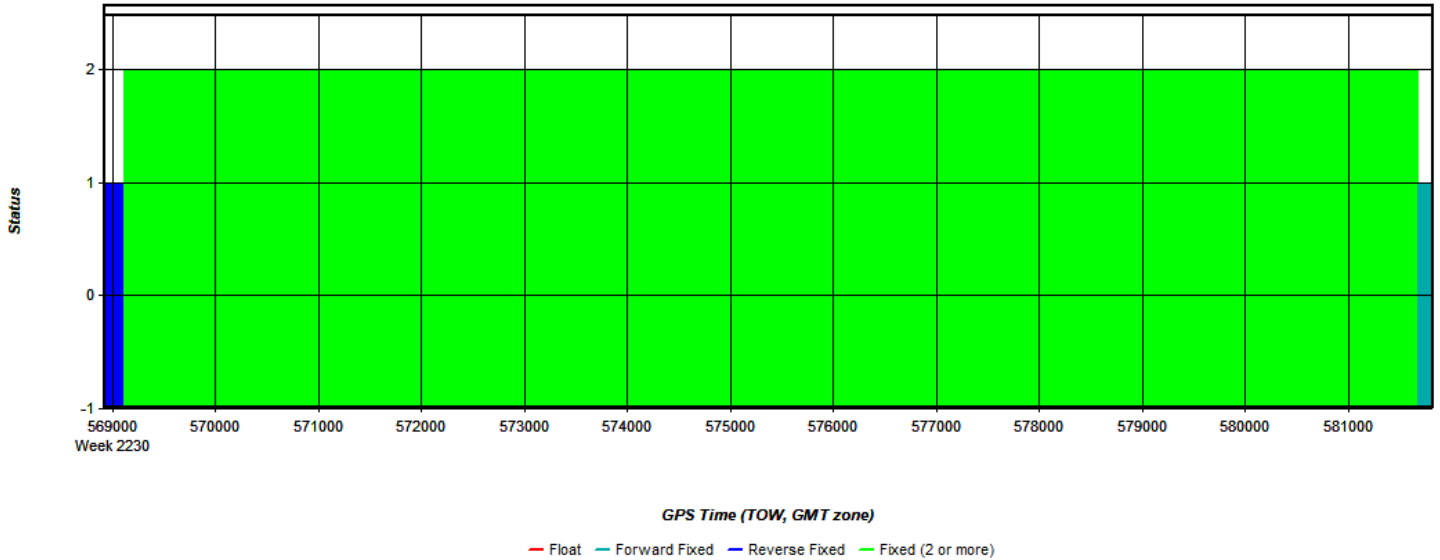
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 2: 20221008140103_30 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



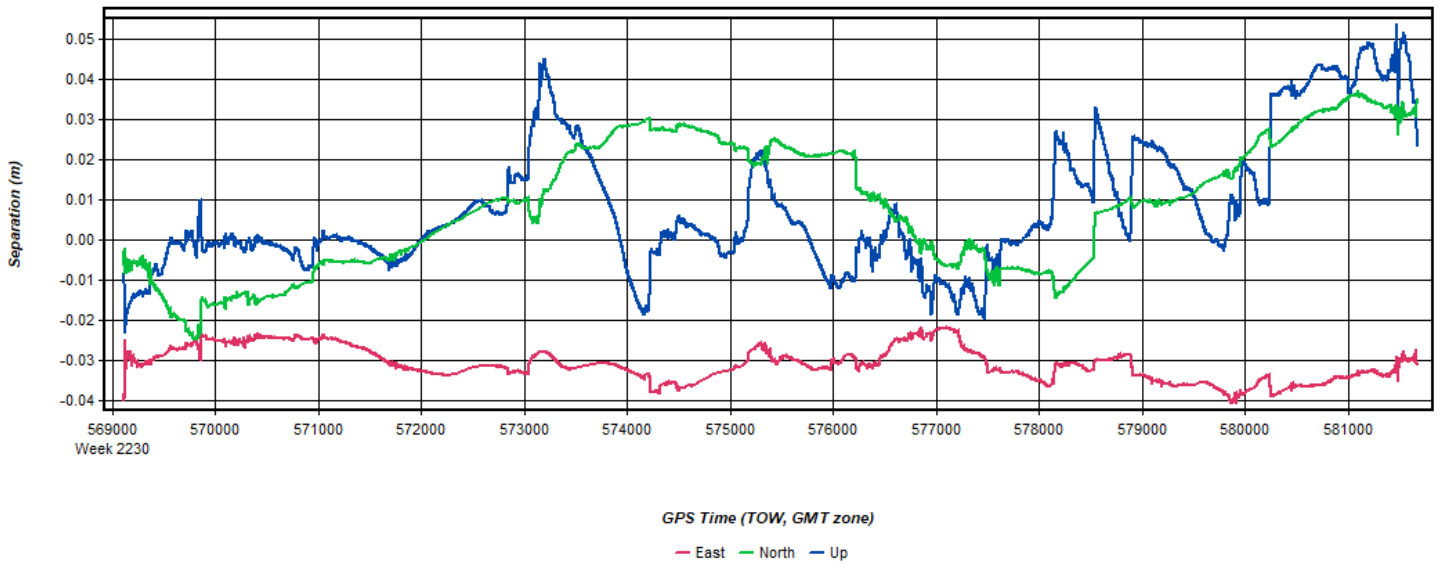
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 3: 20221008140103_30 [Smoothed TC Combined] - Float or Fixed Ambiguity



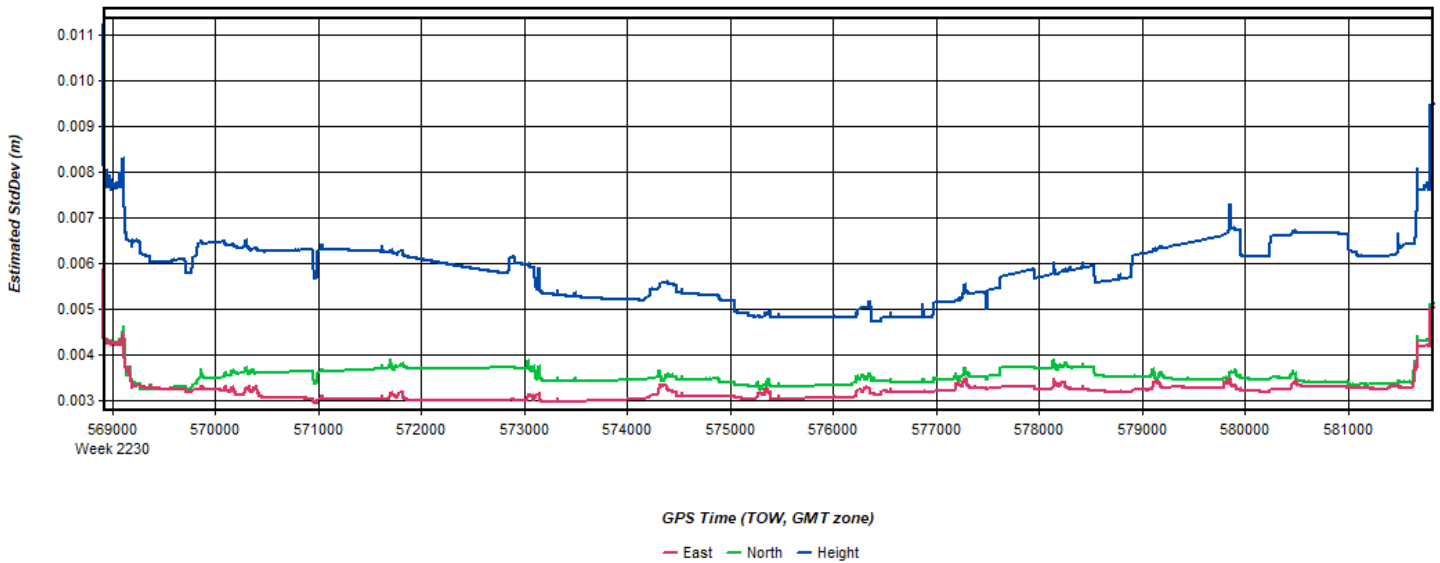
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 4: 20221008140103_30 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



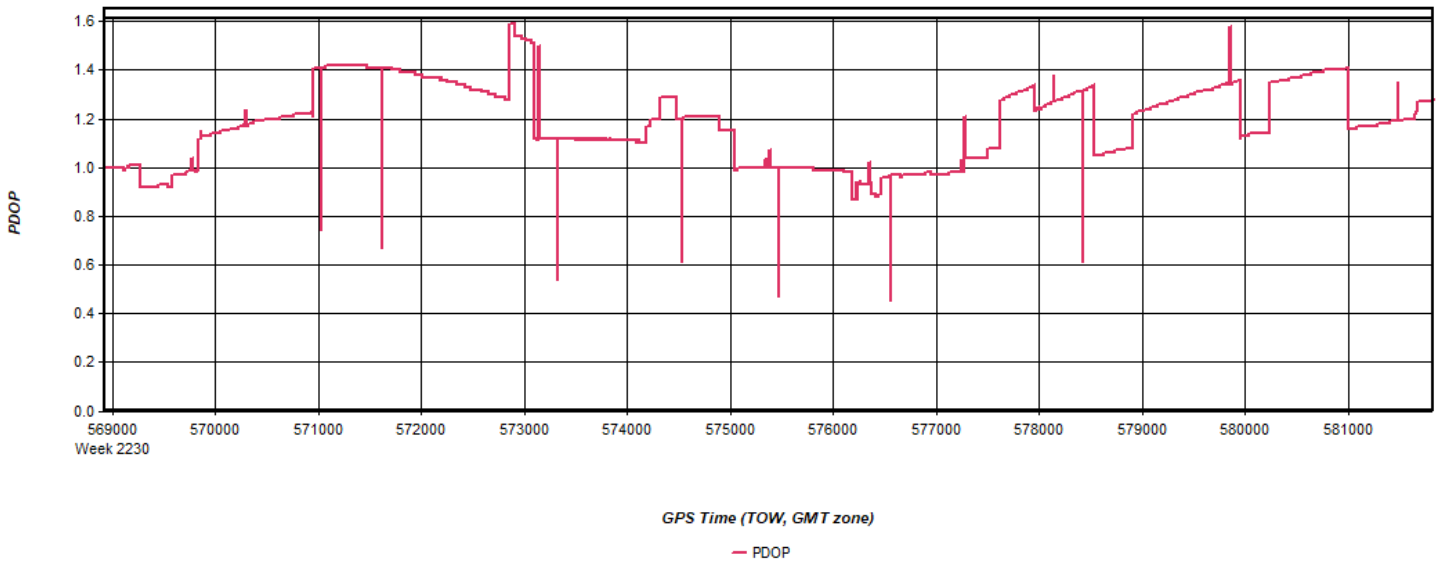
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 5: 20221008140103_30 [Smoothed TC Combined] - Estimated Position Accuracy Plot



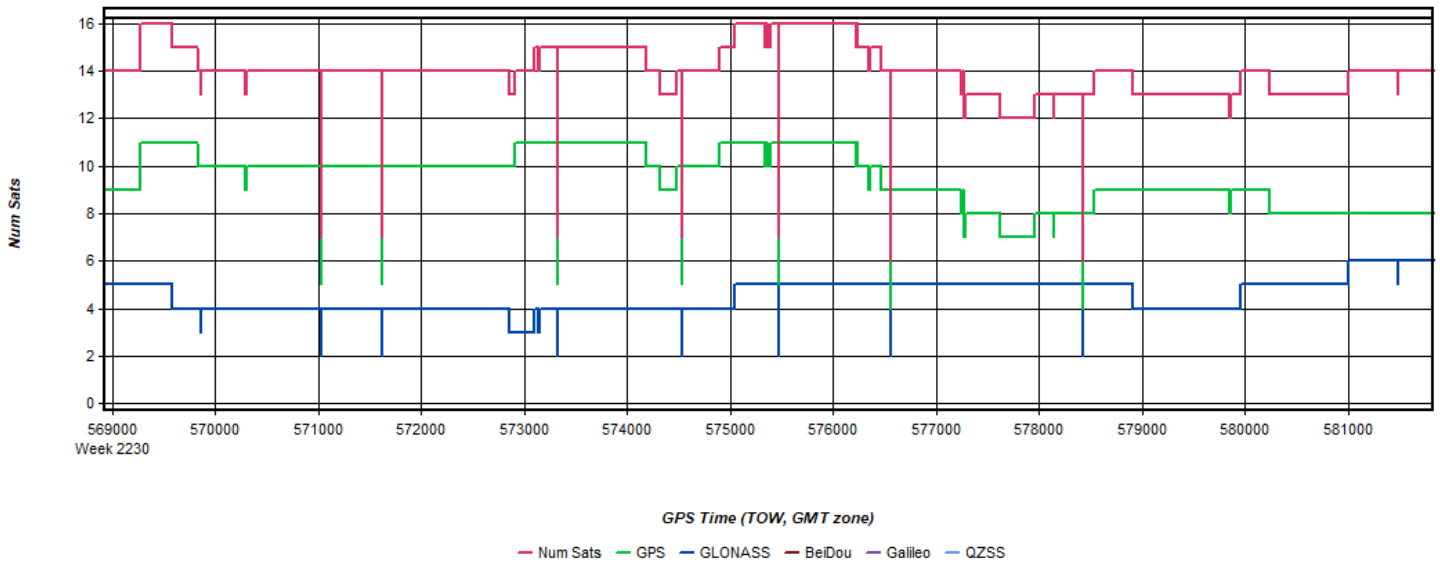
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 6: 20221008140103_30 [Smoothed TC Combined] - PDOP Plot



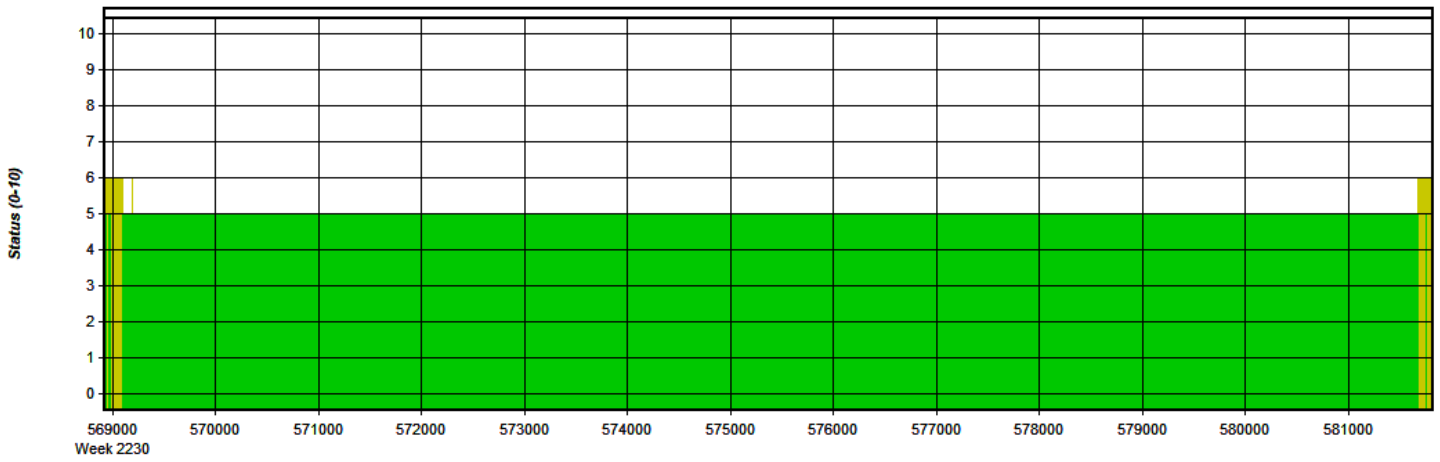
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 7: 20221008140103_30 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 8: 20221008140103_30 [Smoothed TC Combined] - Status flag for IMU processing

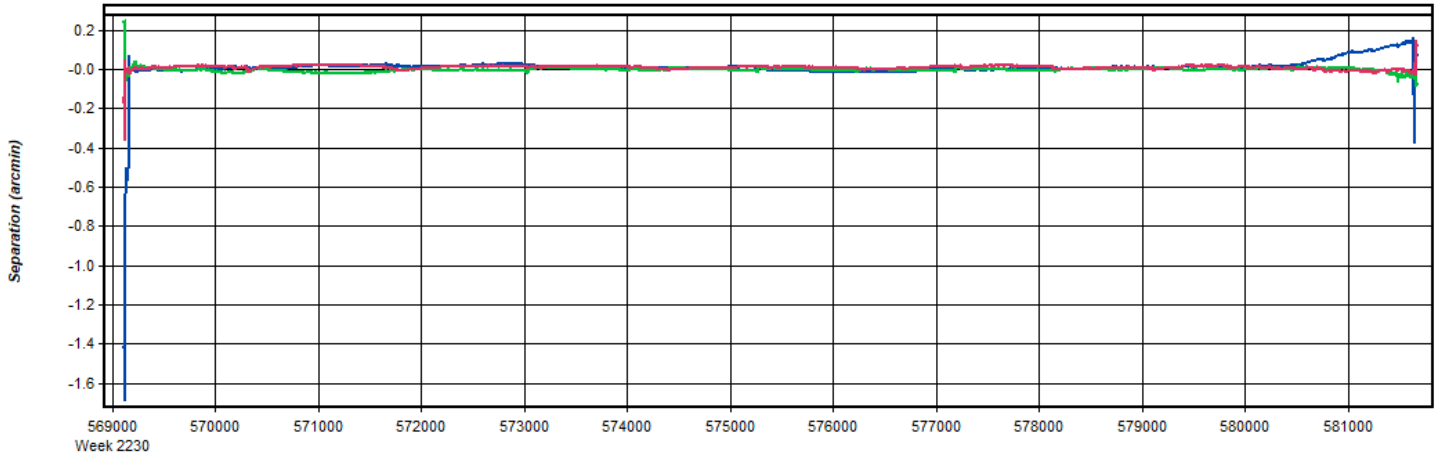


GPS Time (TOW, GMT zone)

— None — Align — Free — DMIUPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 9: 20221008140103_30 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

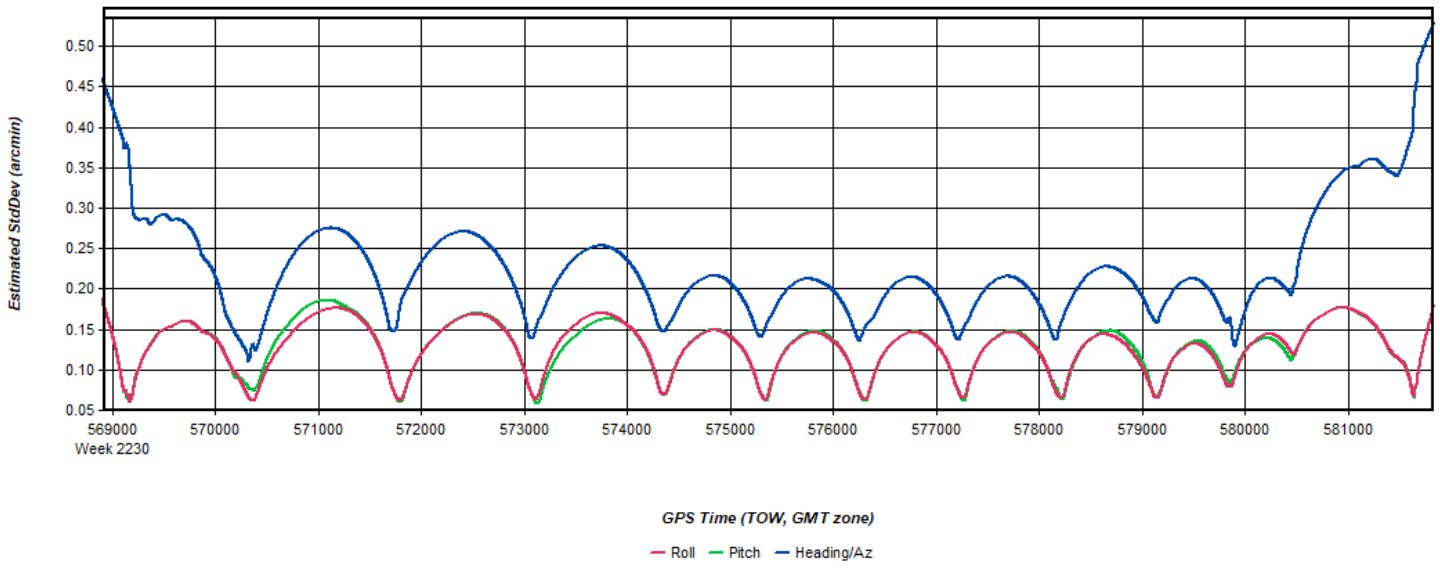


GPS Time (TOW, GMT zone)

— Roll — Pitch — Heading/Az

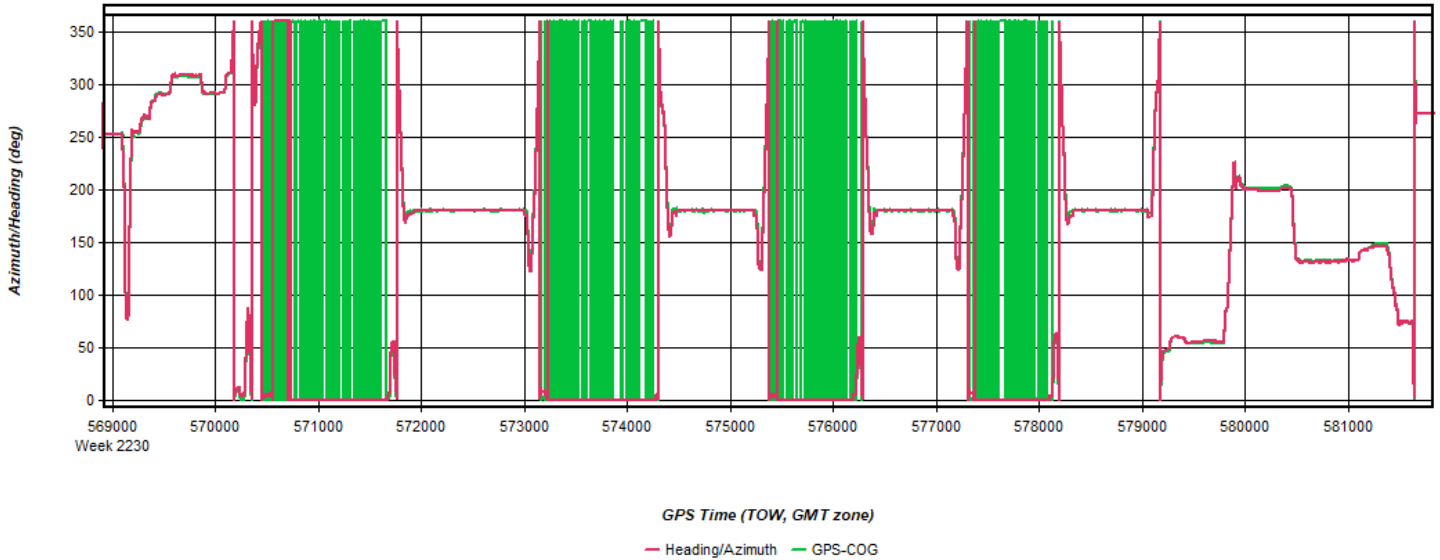
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 10: 20221008140103_30 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



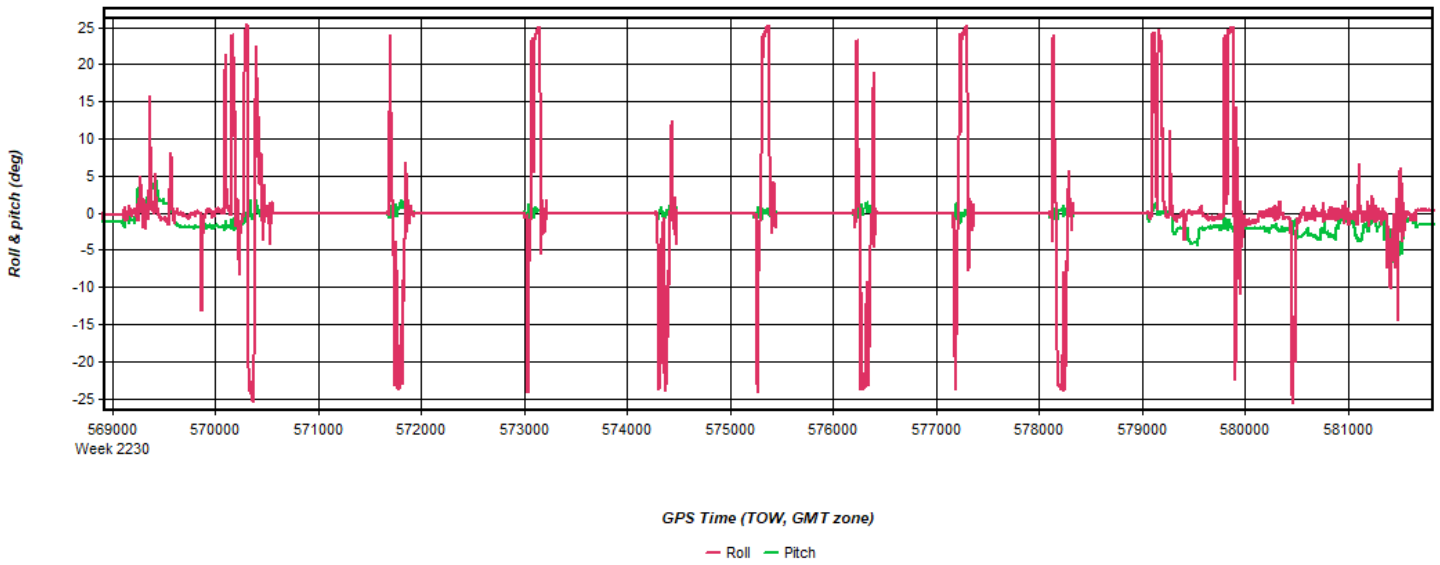
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 11: 20221008140103_30 [Smoothed TC Combined] - Azimuth Plot



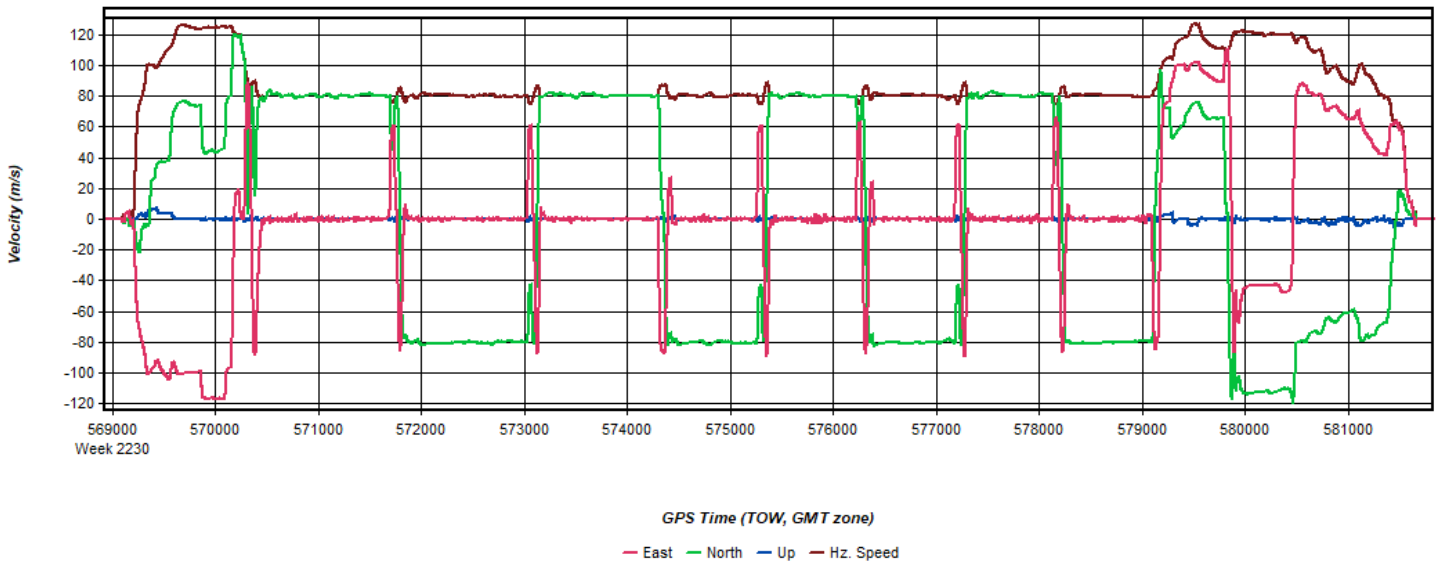
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 12: 20221008140103_30 [Smoothed TC Combined] - Roll & Pitch Plot



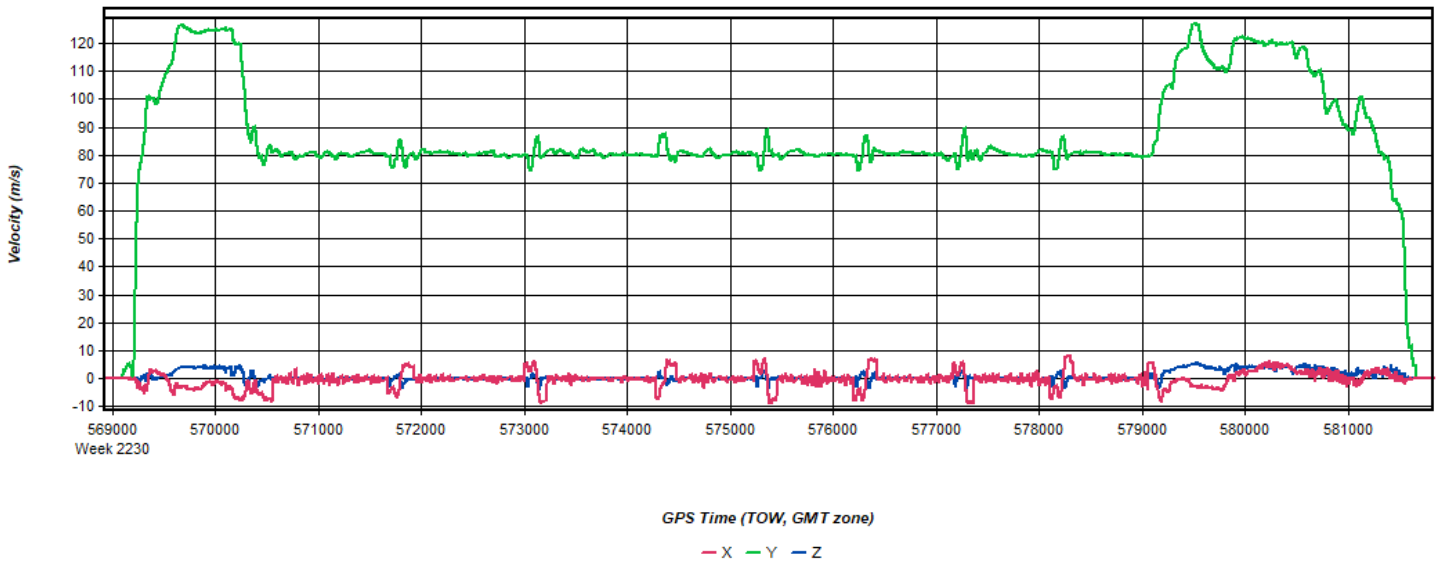
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 13: 20221008140103_30 [Smoothed TC Combined] - Velocity Profile Plot



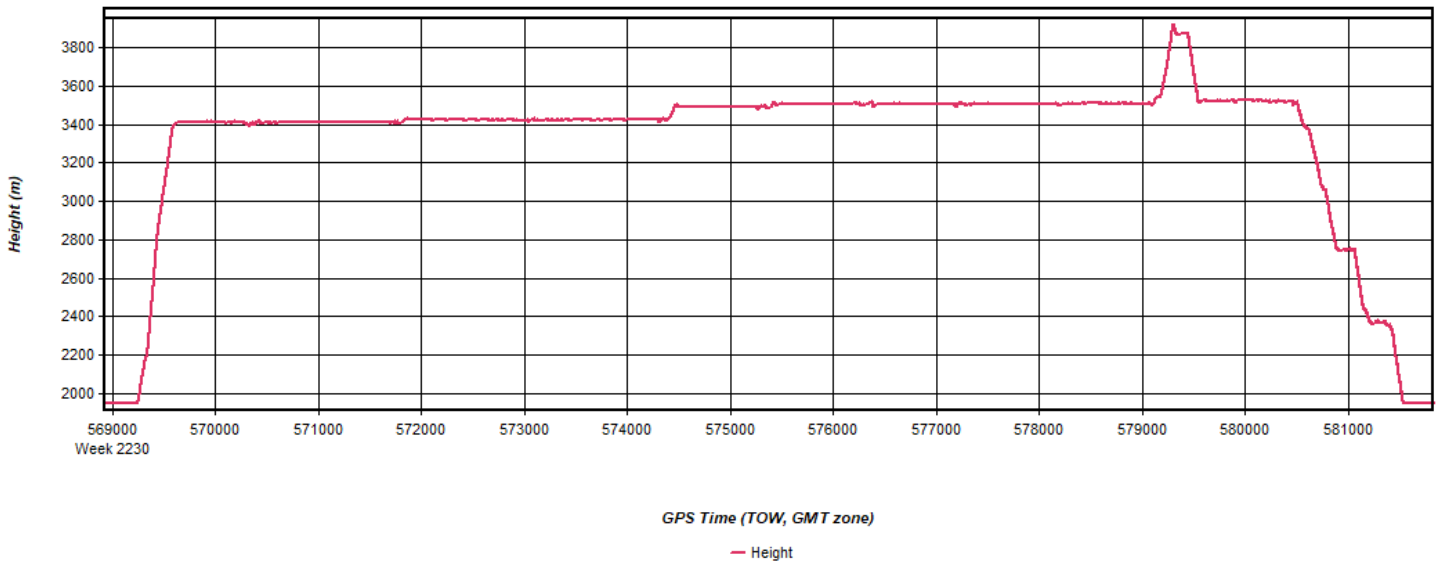
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 14: 20221008140103_30 [Smoothed TC Combined] - Body Frame Velocity Plot



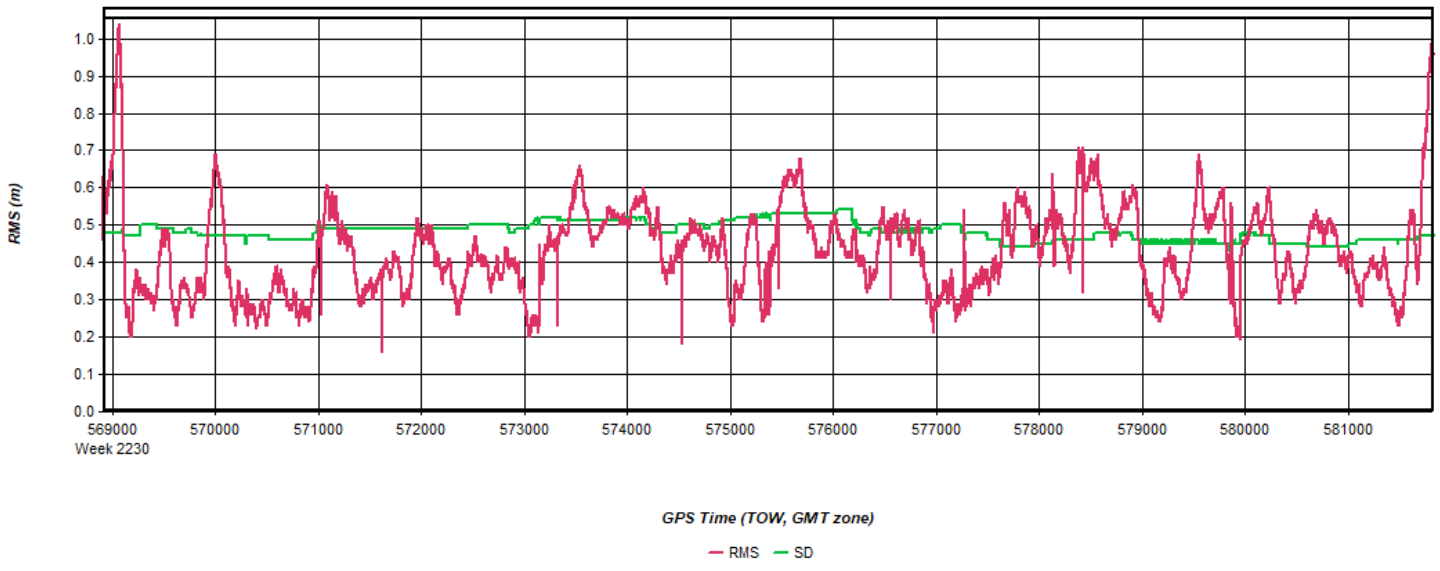
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 15: 20221008140103_30 [Smoothed TC Combined] - Height Profile Plot



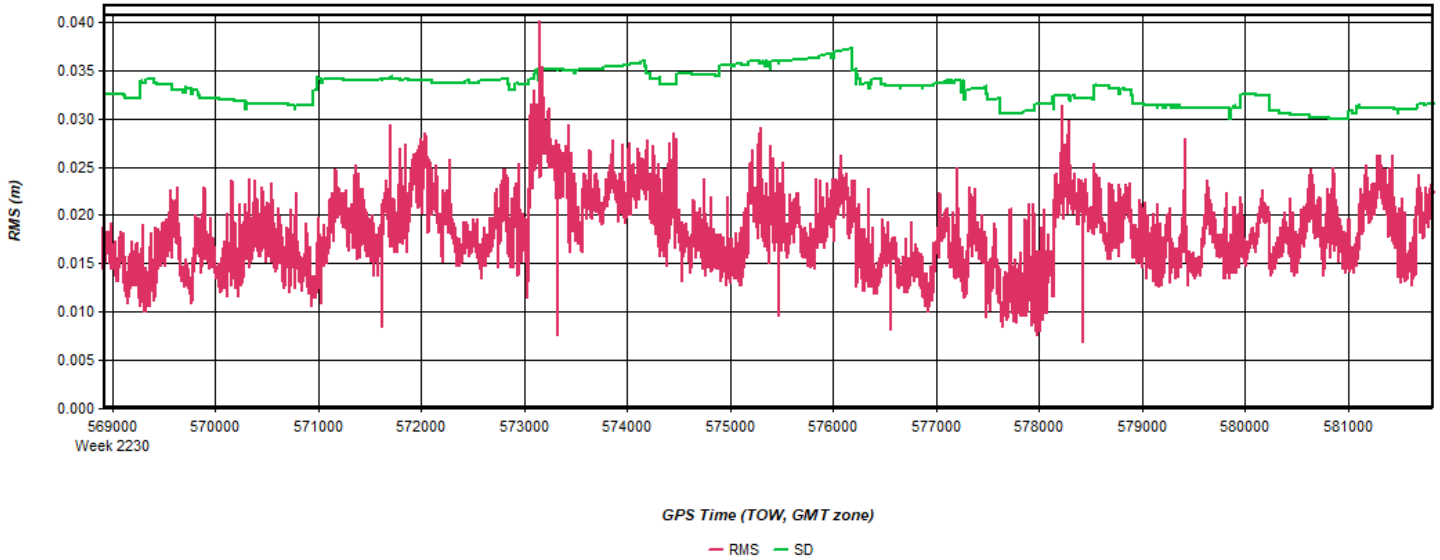
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 16: 20221008140103_30 [Smoothed TC Combined] - C/A Code Residual RMS Plot



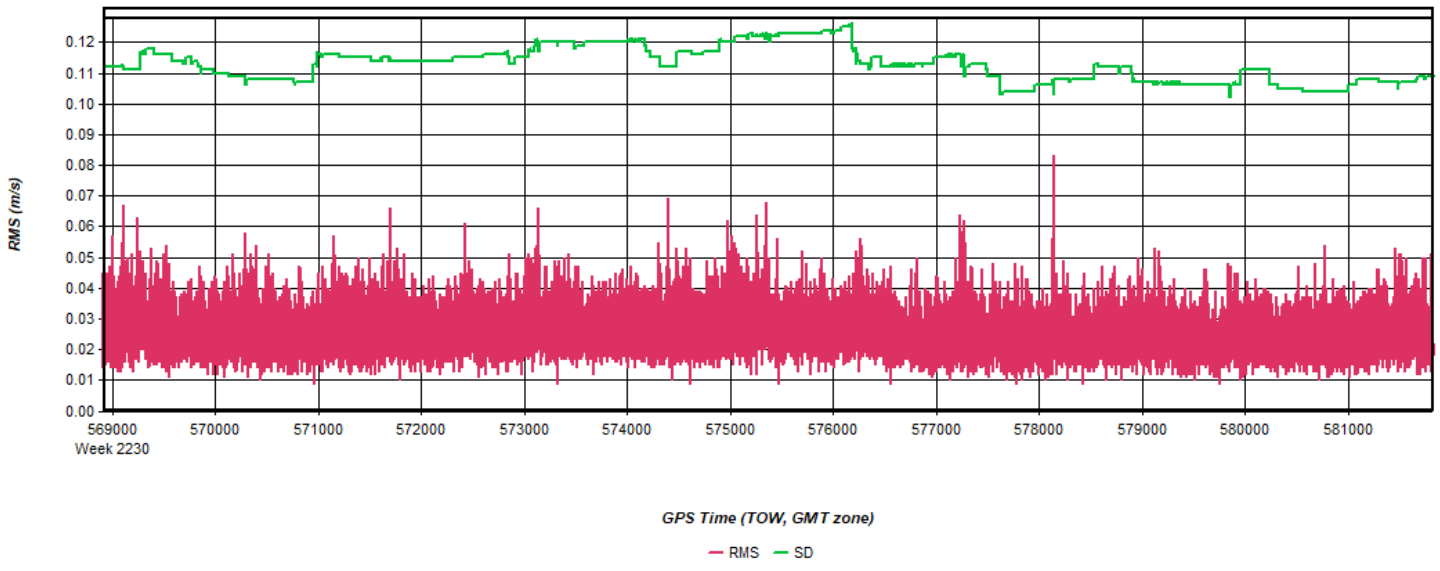
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 17: 20221008140103_30 [Smoothed TC Combined] - Carrier Residual RMS Plot



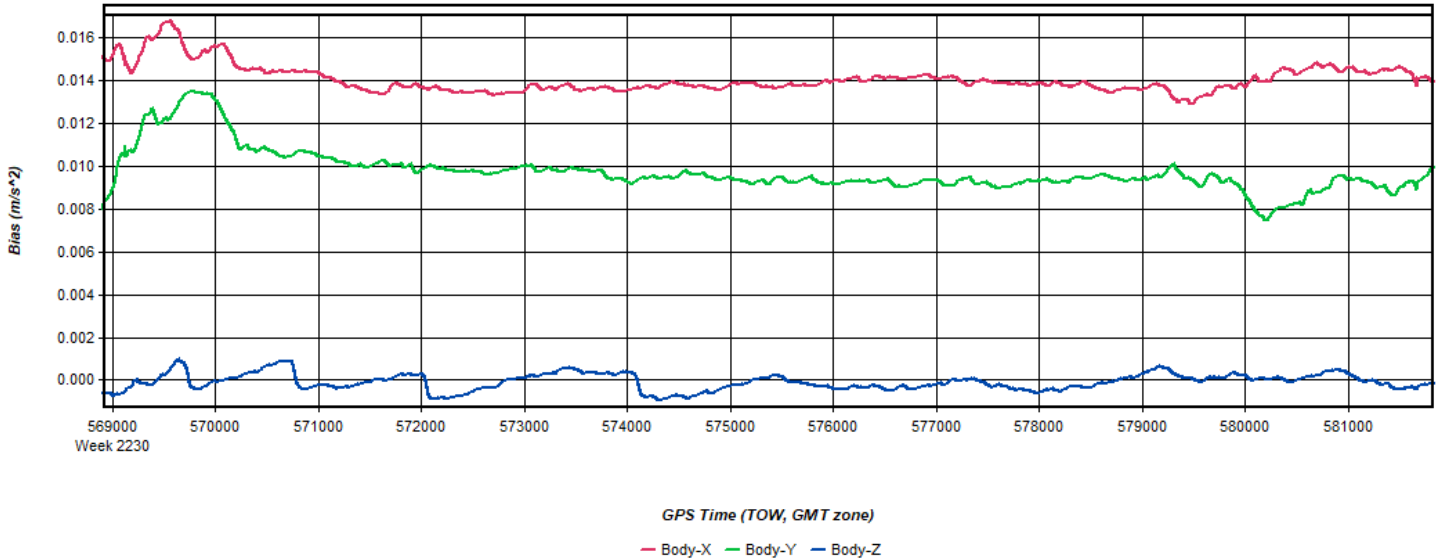
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 18: 20221008140103_30 [Smoothed TC Combined] - Doppler Residual RMS Plot



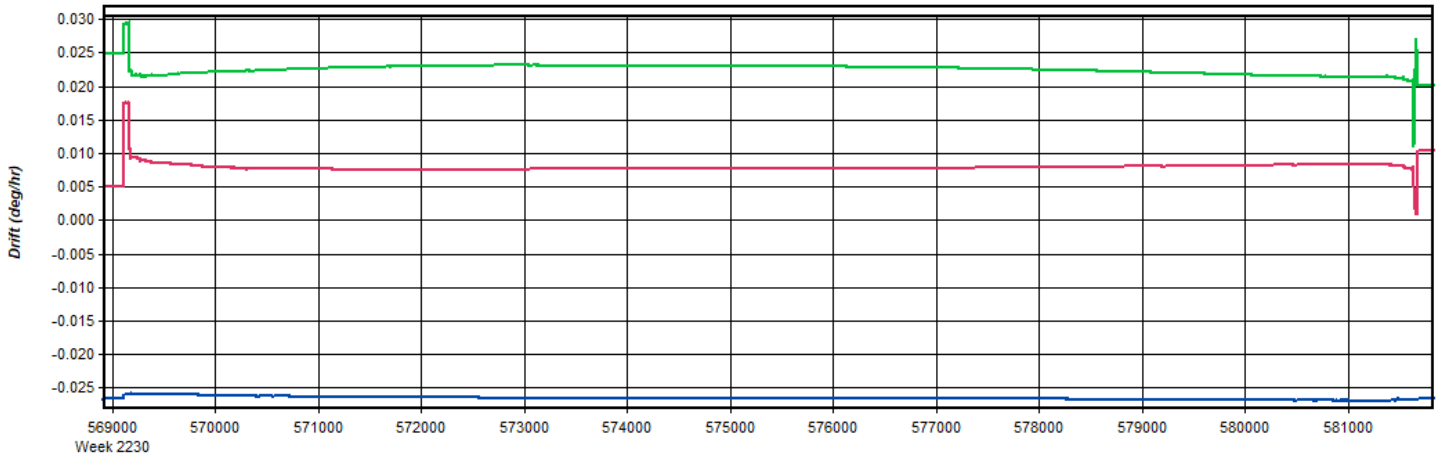
Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 19: 20221008140103_30 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Figure 20: 20221008140103_30 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

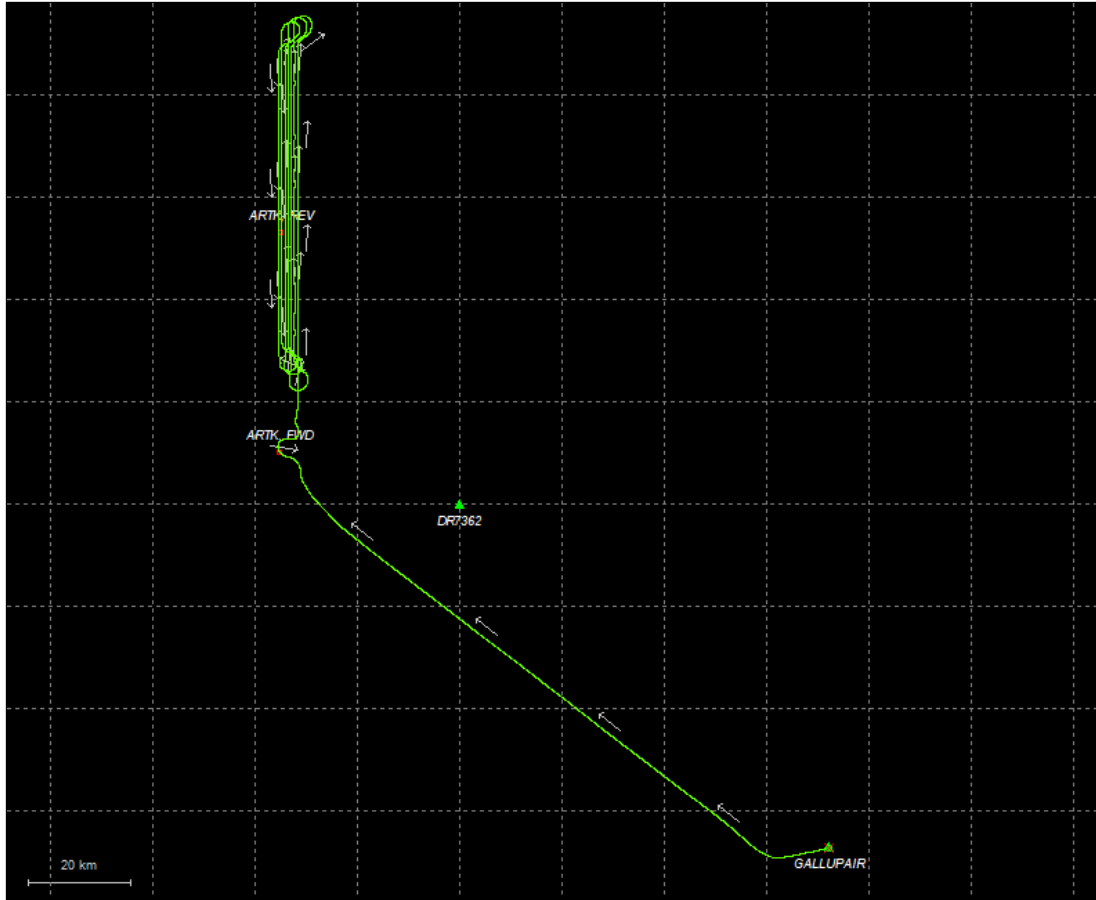
— Body-X — Body-Y — Body-Z

Process	20221008140103_30	by Unknown	on 10/13/2022	at 17:31:01
---------	-------------------	------------	---------------	-------------

Output Results for 20221009134144_31

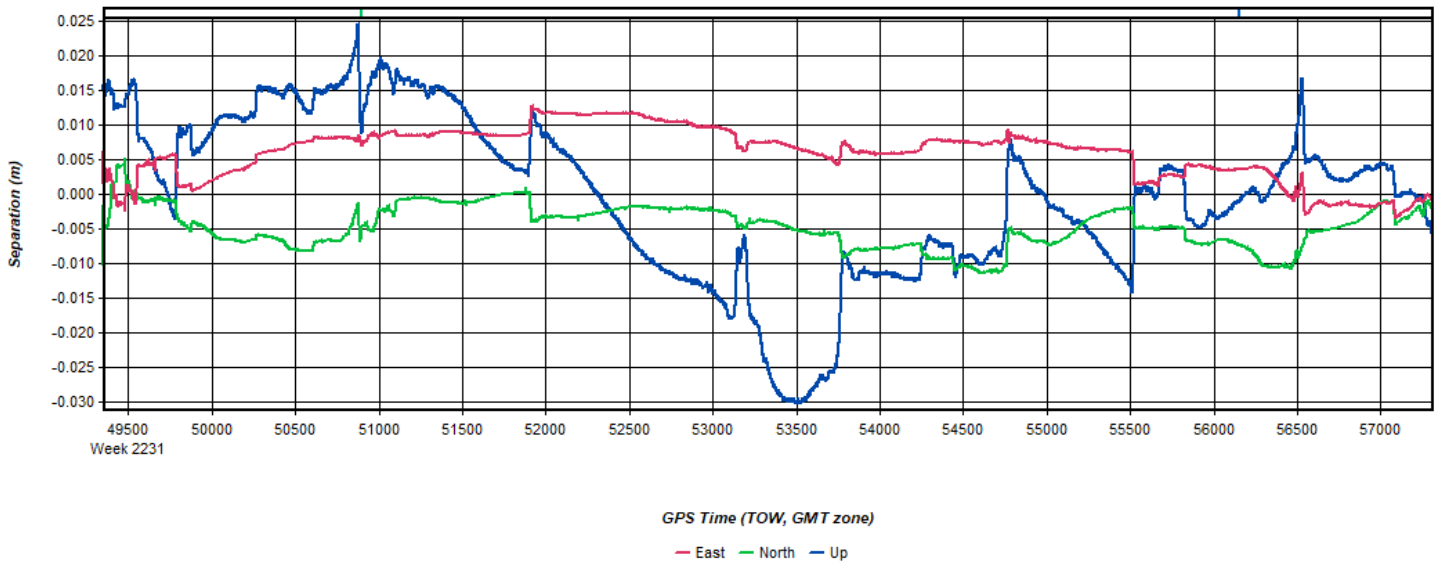
Inertial Explorer Version 8.90.2124
10/13/2022

Figure 1: Smoothed TC Combined - Map



Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

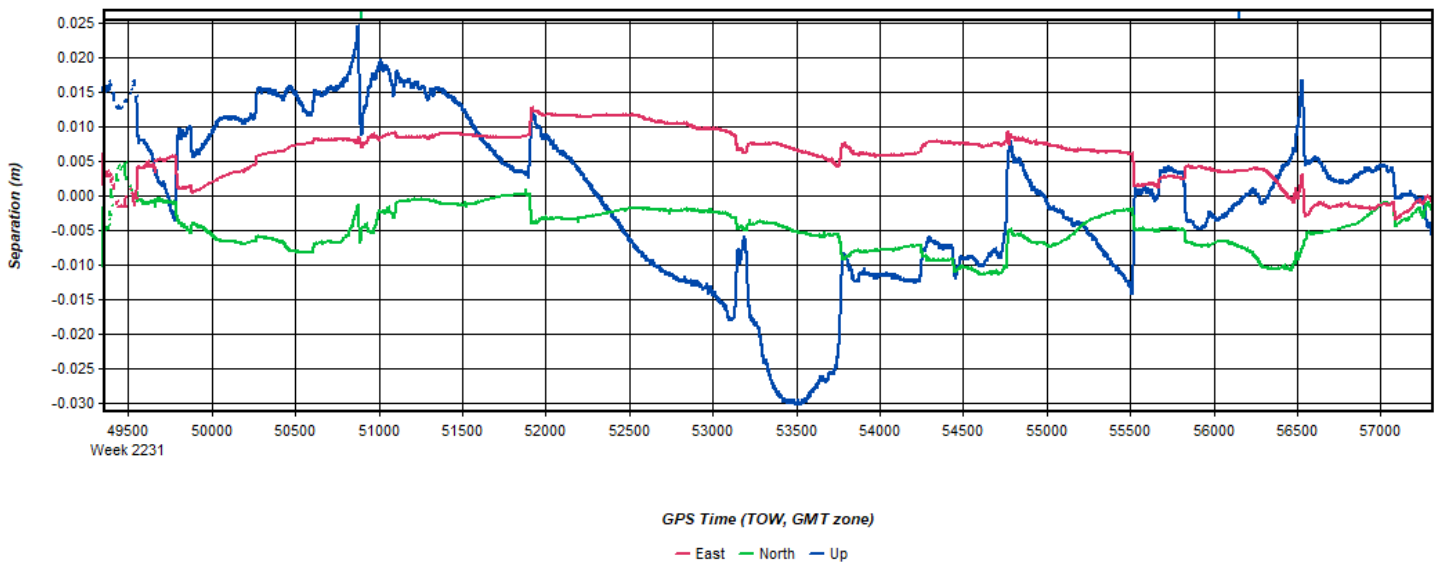
Figure 2: 20221009134144_31 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

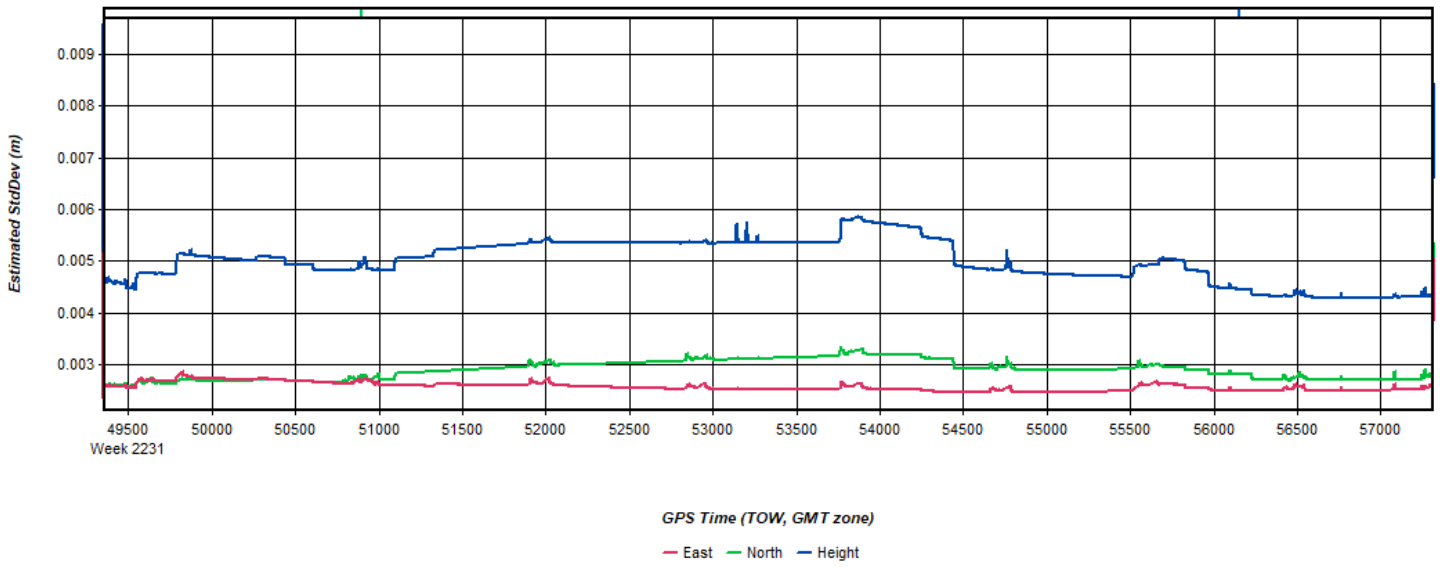
Object 20221009134144_31 [Smoothed TC Combined] - Float or Fixed Ambiguity failed--NULL bitmap handle

Figure 3: 20221009134144_31 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



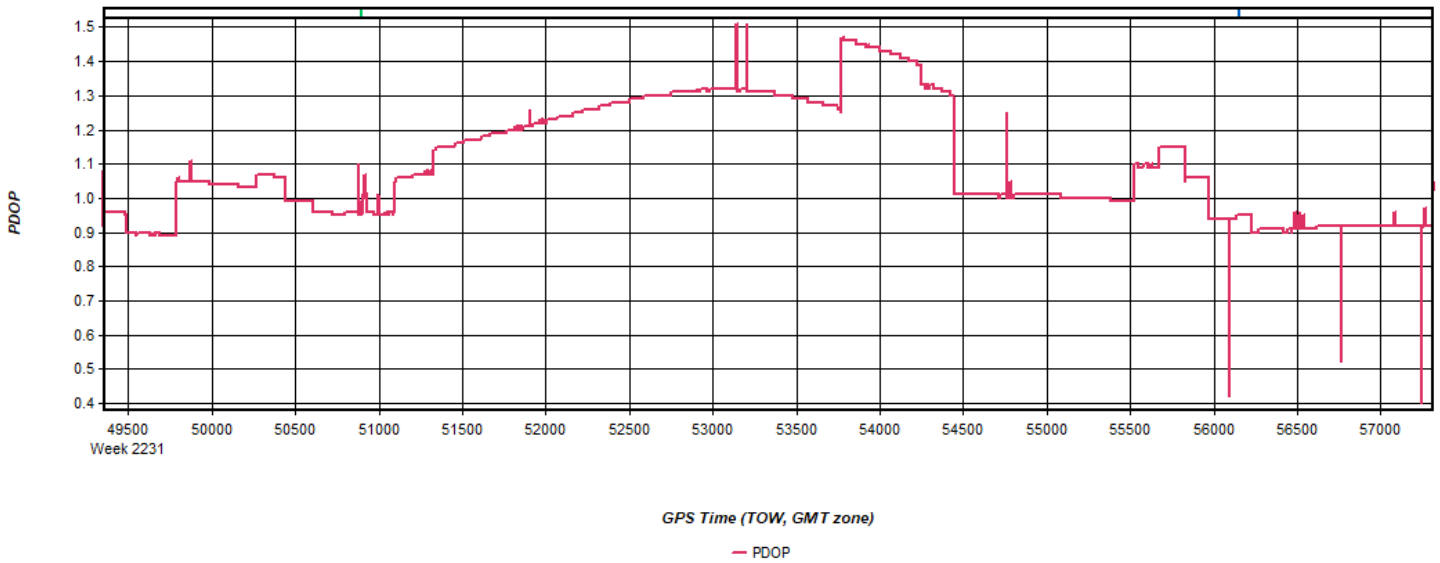
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 4: 20221009134144_31 [Smoothed TC Combined] - Estimated Position Accuracy Plot



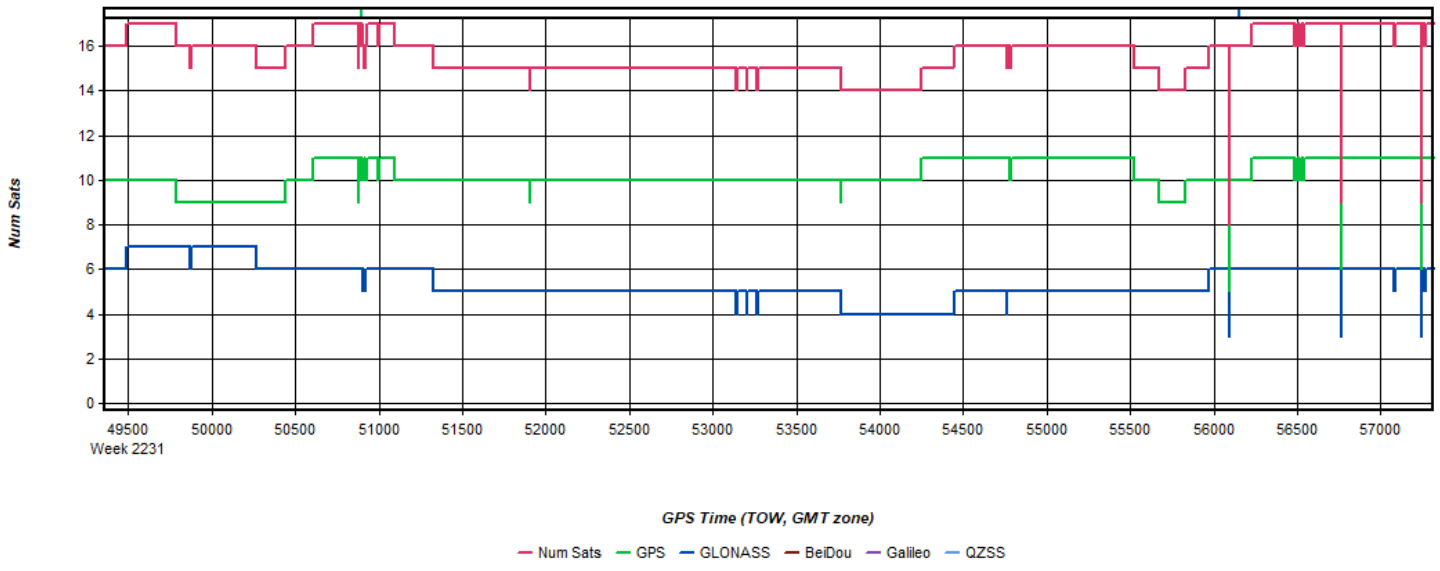
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 5: 20221009134144_31 [Smoothed TC Combined] - PDOP Plot



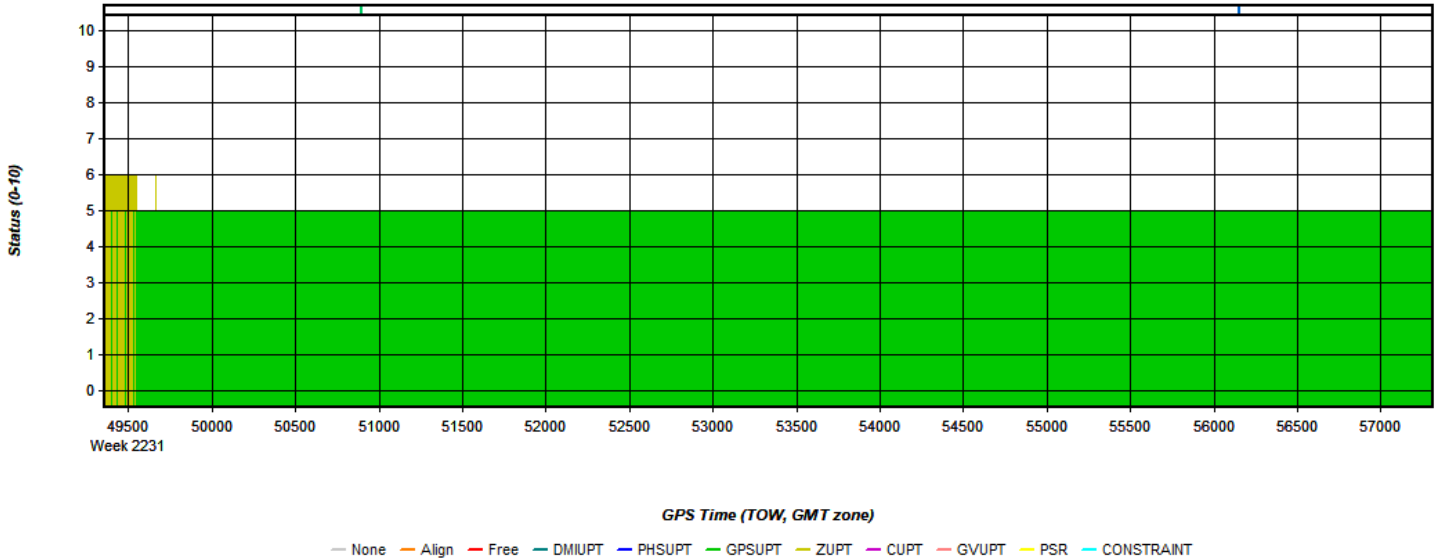
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 6: 20221009134144_31 [Smoothed TC Combined] - Number of Satellites Line Plot



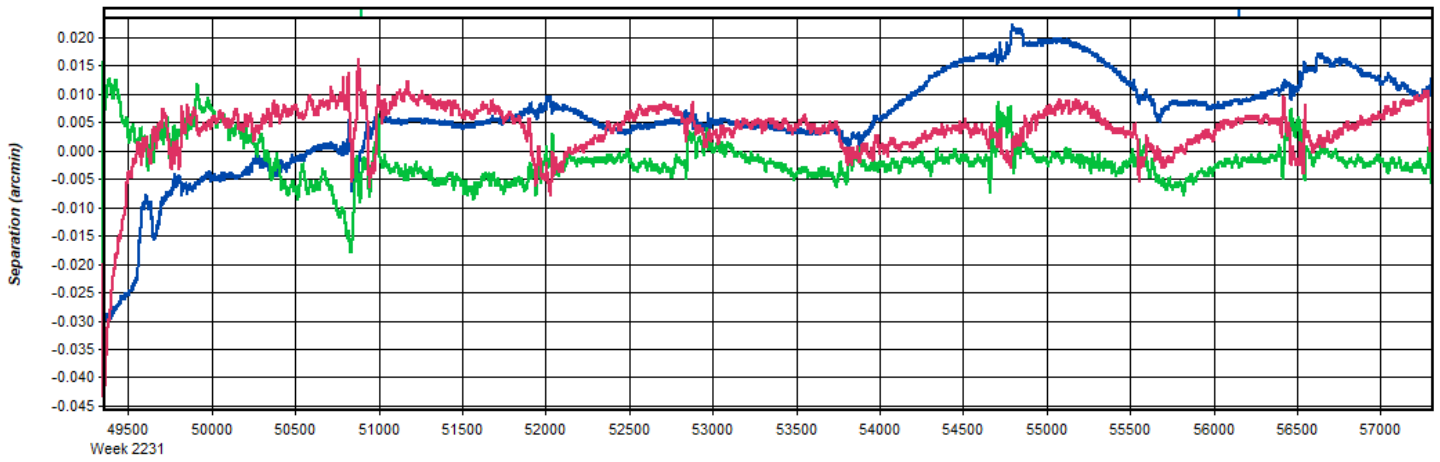
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 7: 20221009134144_31 [Smoothed TC Combined] - Status flag for IMU processing



Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 8: 20221009134144_31 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

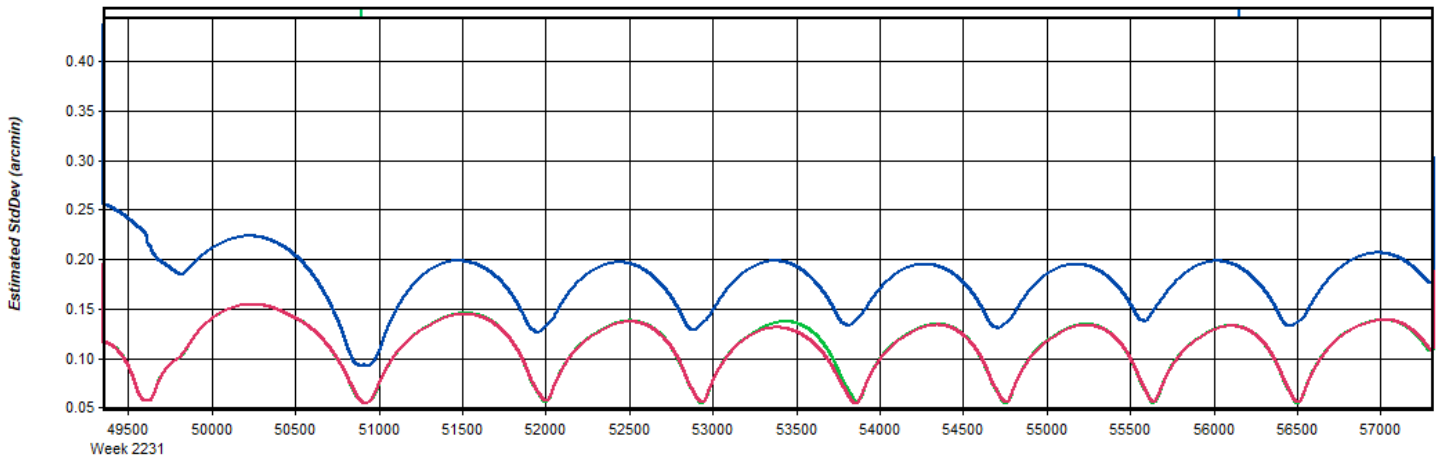


GPS Time (TOW, GMT zone)

Roll Pitch Heading/Az

Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 9: 20221009134144_31 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

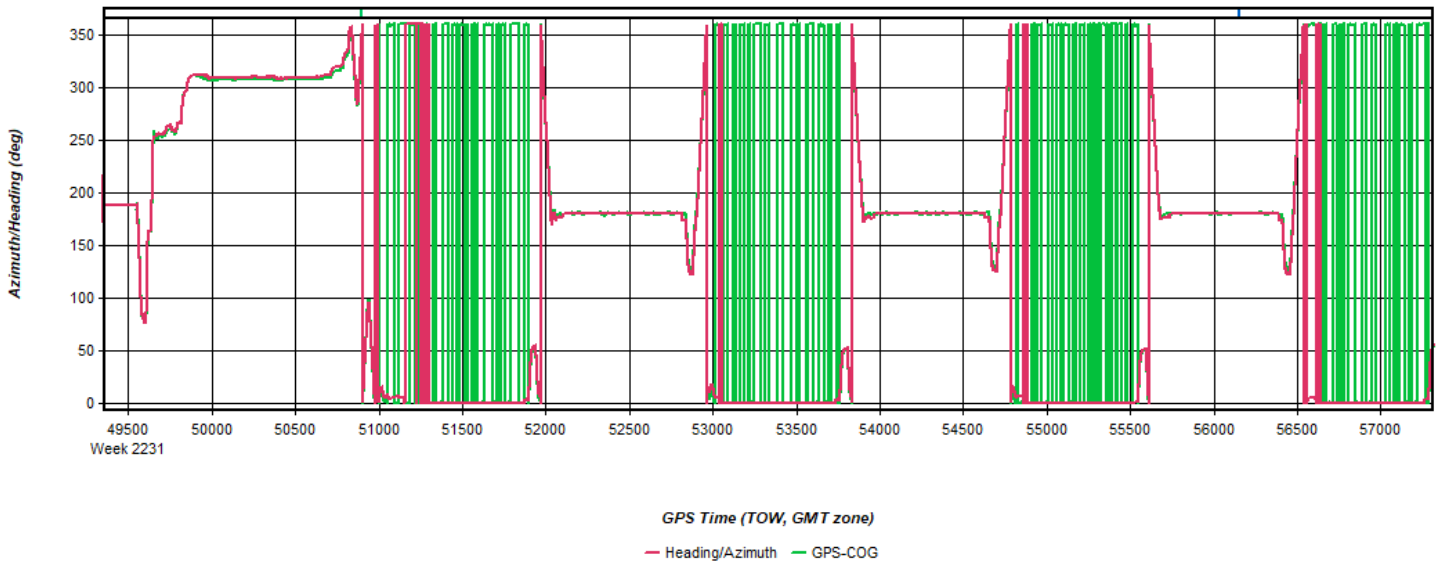


GPS Time (TOW, GMT zone)

Roll Pitch Heading/Az

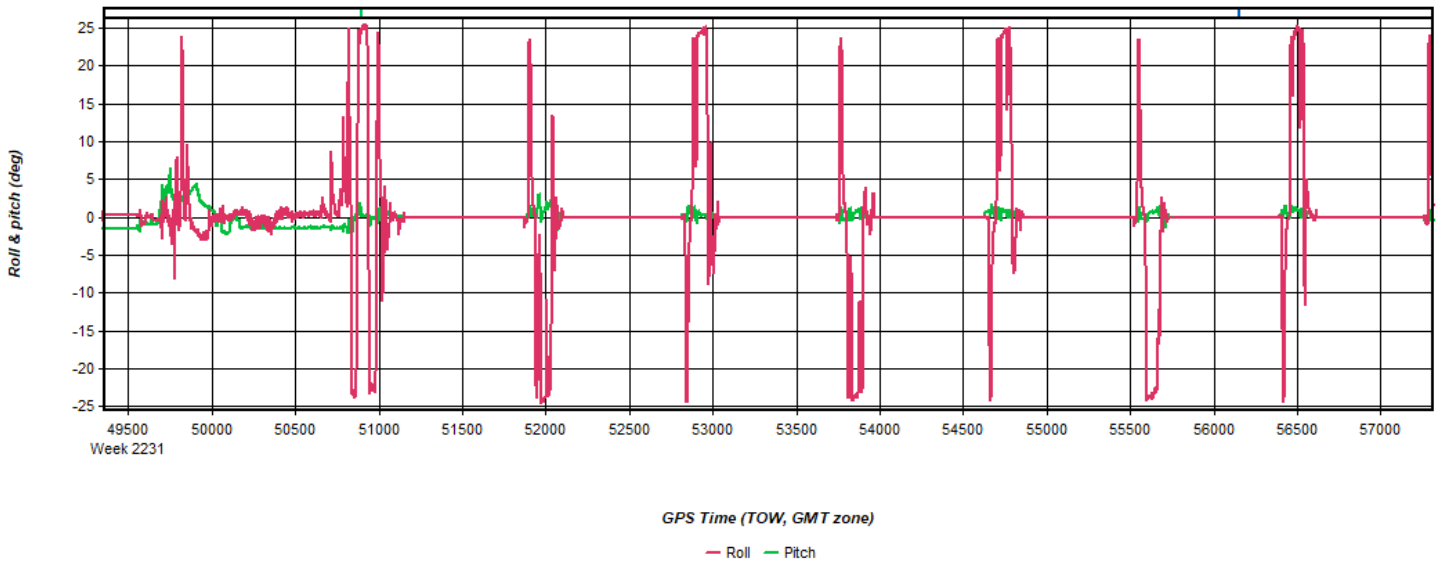
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 10: 20221009134144_31 [Smoothed TC Combined] - Azimuth Plot



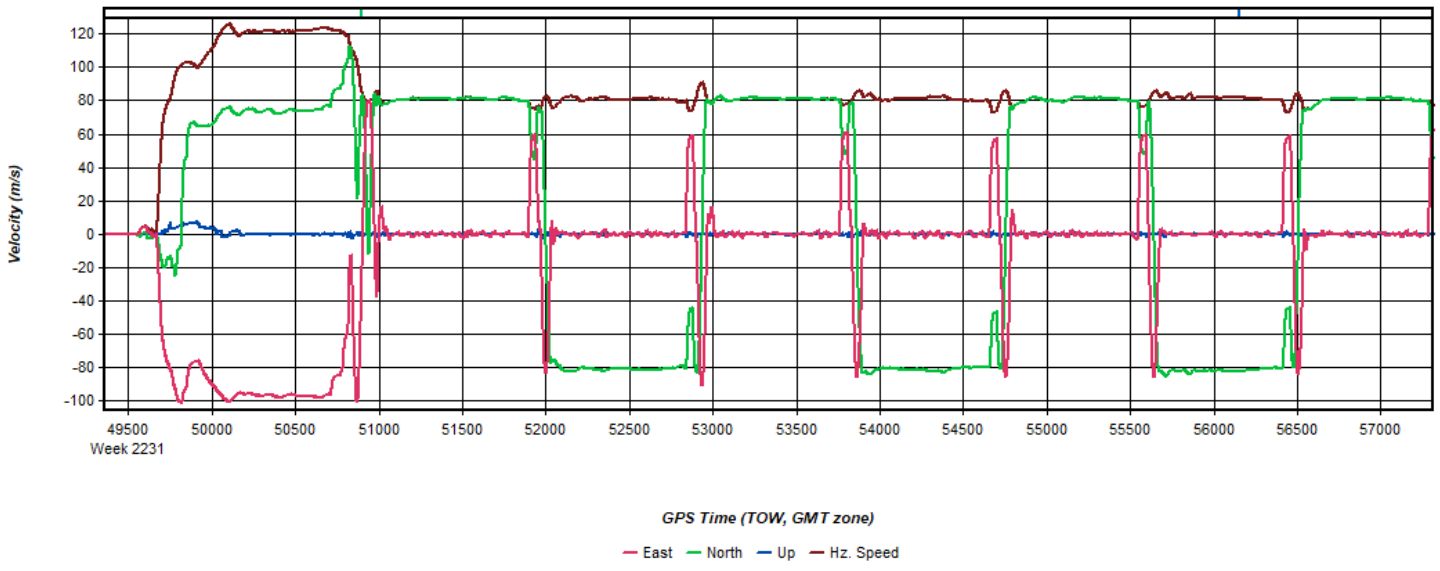
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 11: 20221009134144_31 [Smoothed TC Combined] - Roll & Pitch Plot



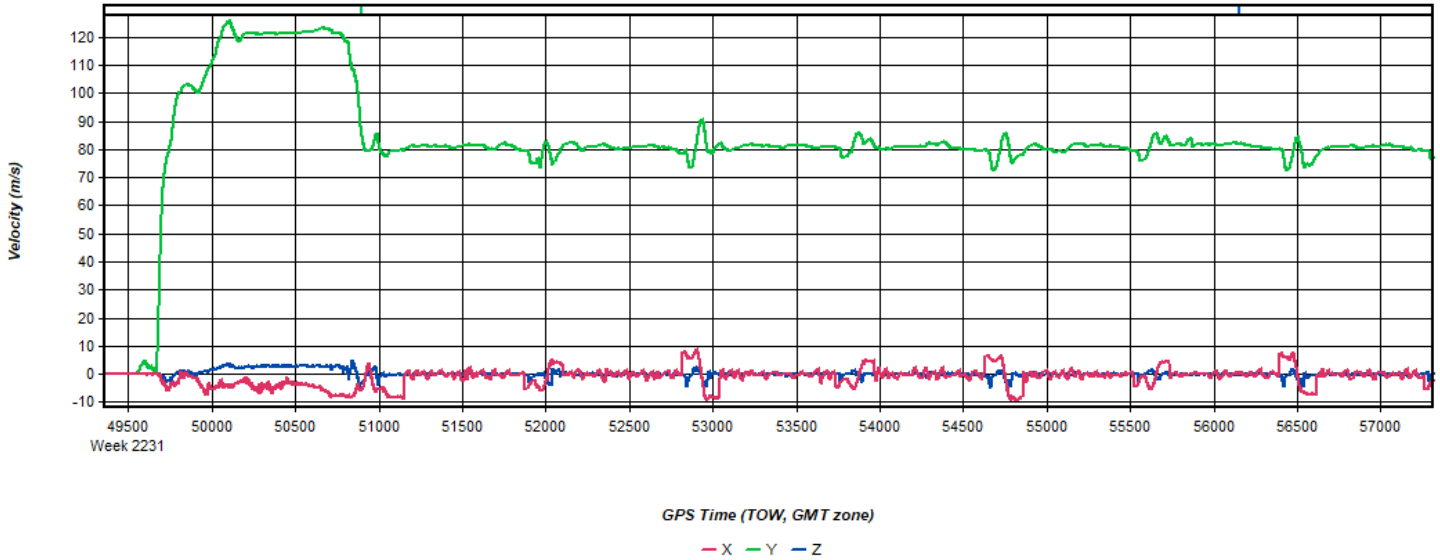
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 12: 20221009134144_31 [Smoothed TC Combined] - Velocity Profile Plot



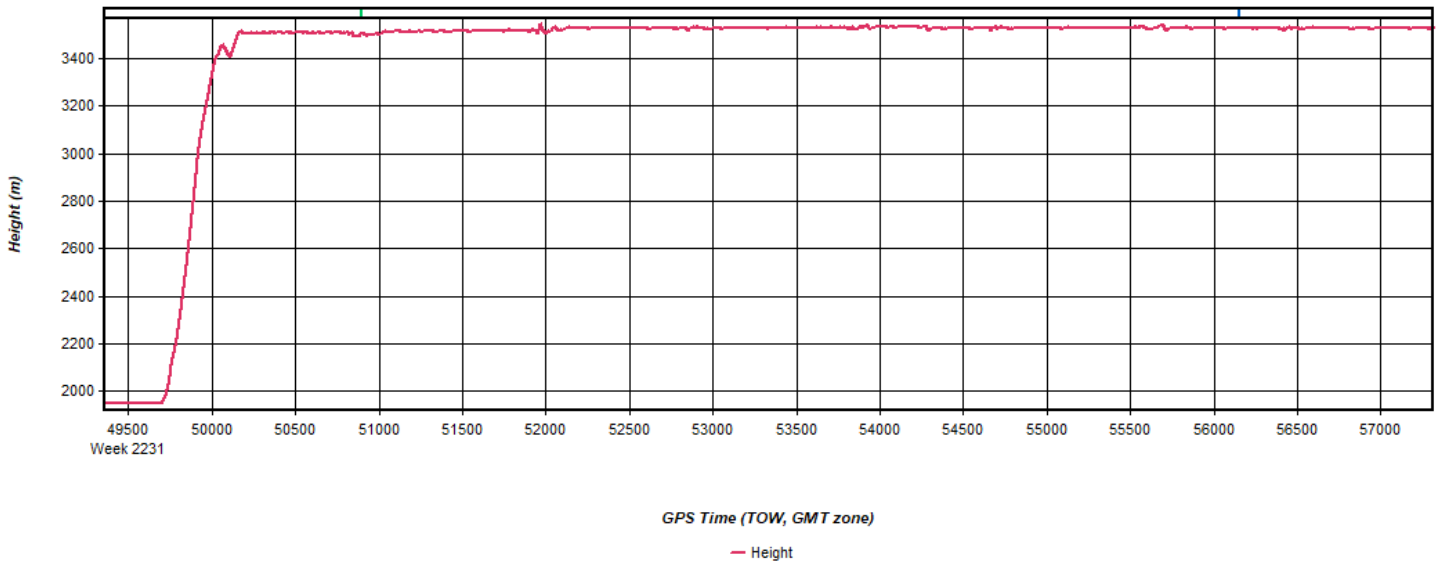
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 13: 20221009134144_31 [Smoothed TC Combined] - Body Frame Velocity Plot



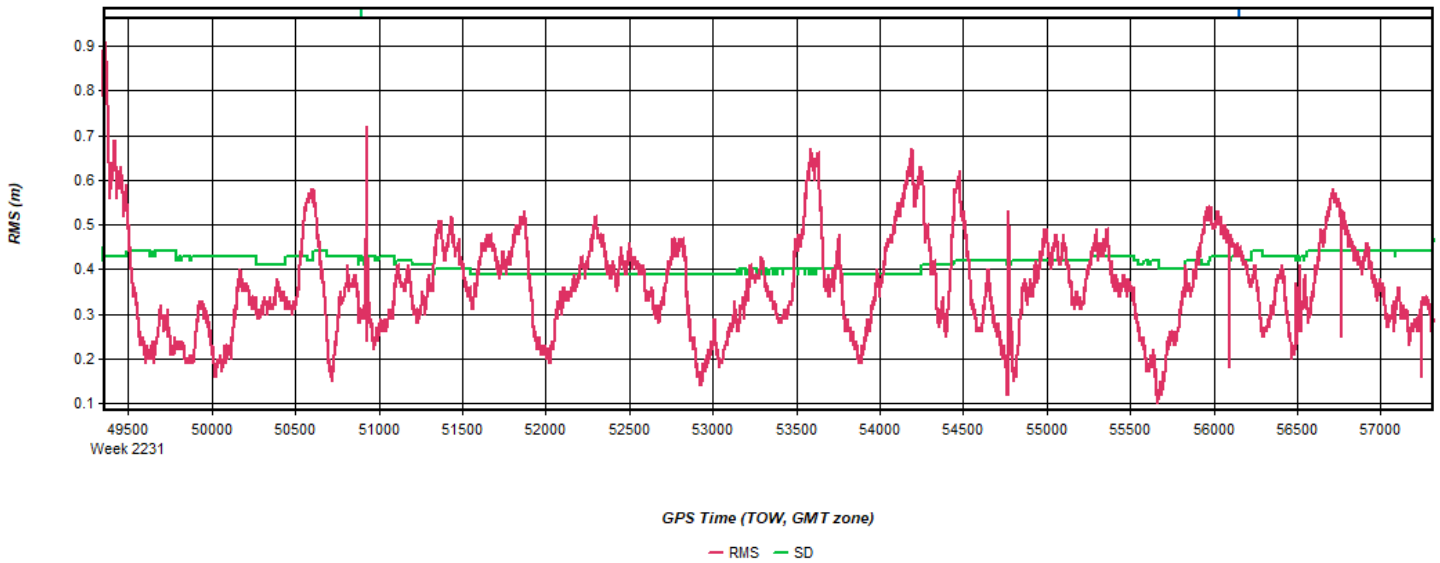
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 14: 20221009134144_31 [Smoothed TC Combined] - Height Profile Plot



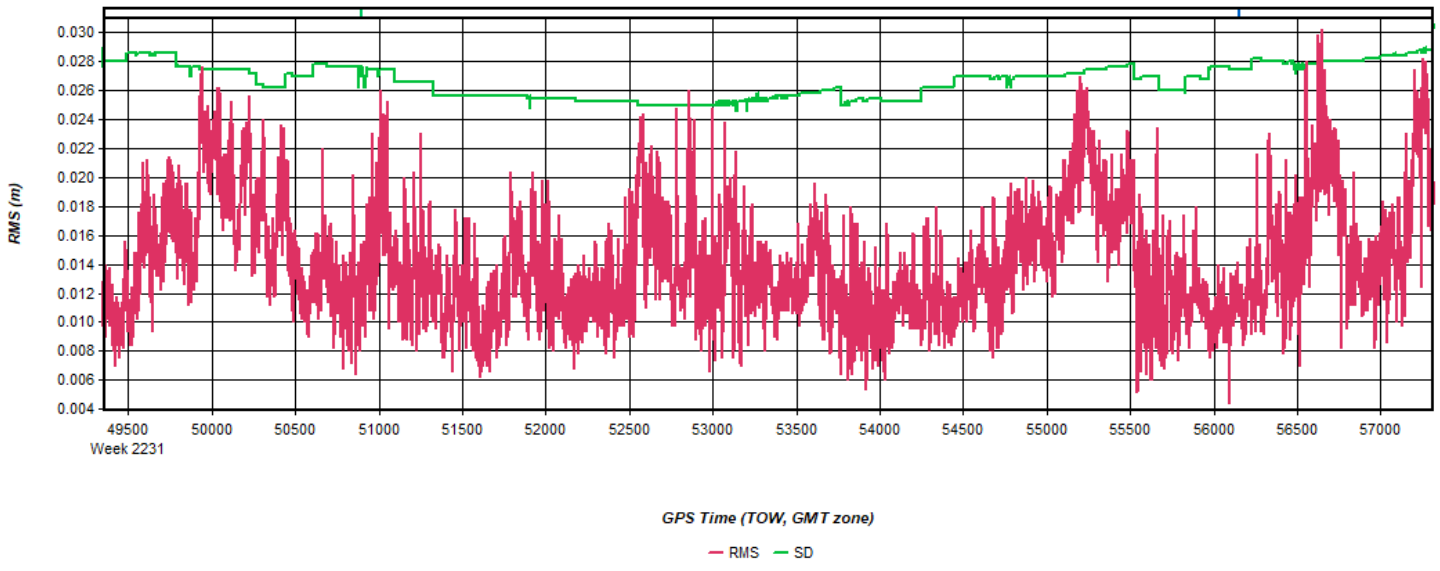
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 15: 20221009134144_31 [Smoothed TC Combined] - C/A Code Residual RMS Plot



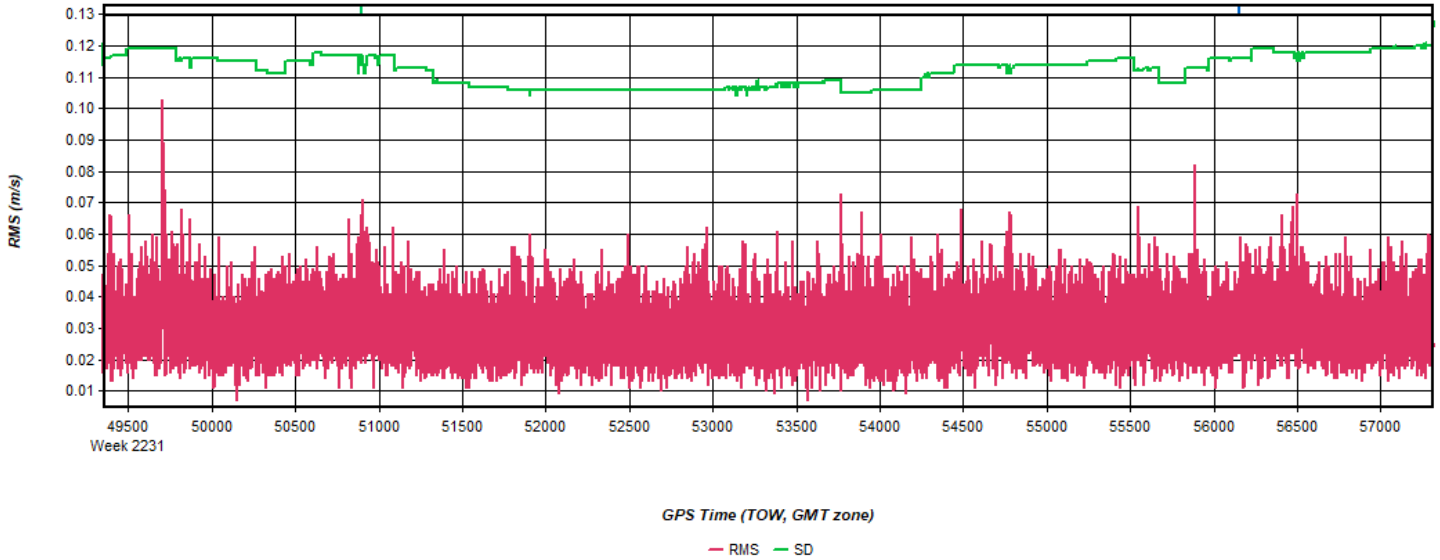
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 16: 20221009134144_31 [Smoothed TC Combined] - Carrier Residual RMS Plot



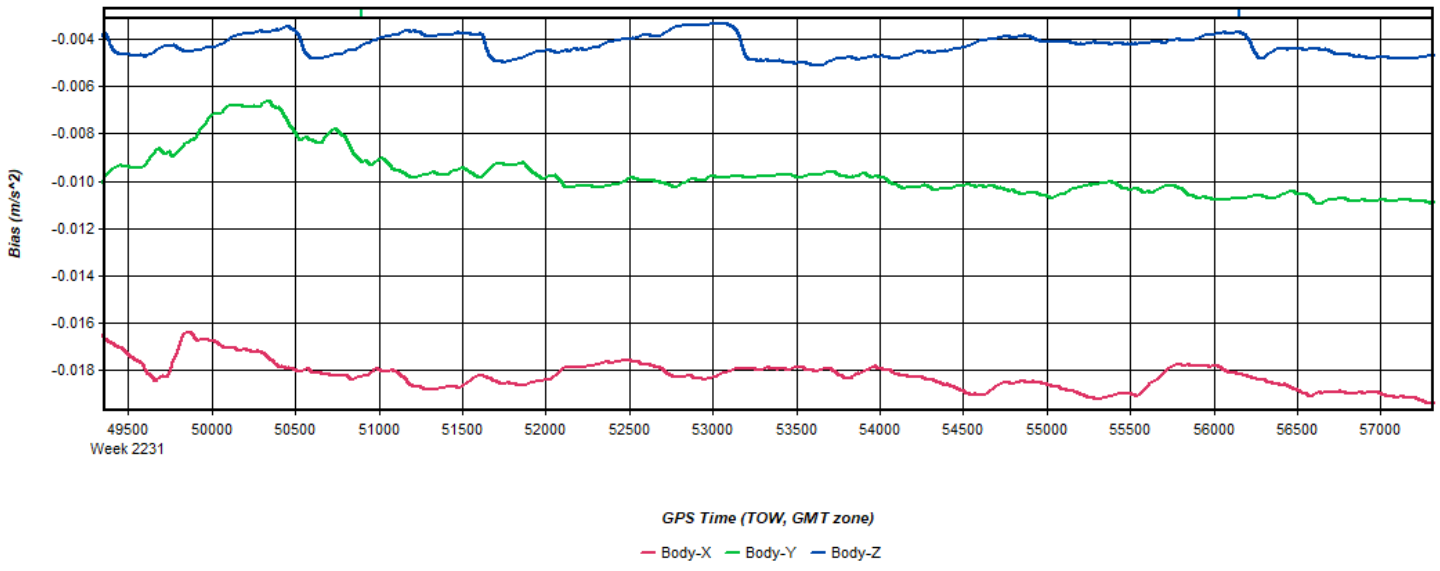
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 17: 20221009134144_31 [Smoothed TC Combined] - Doppler Residual RMS Plot



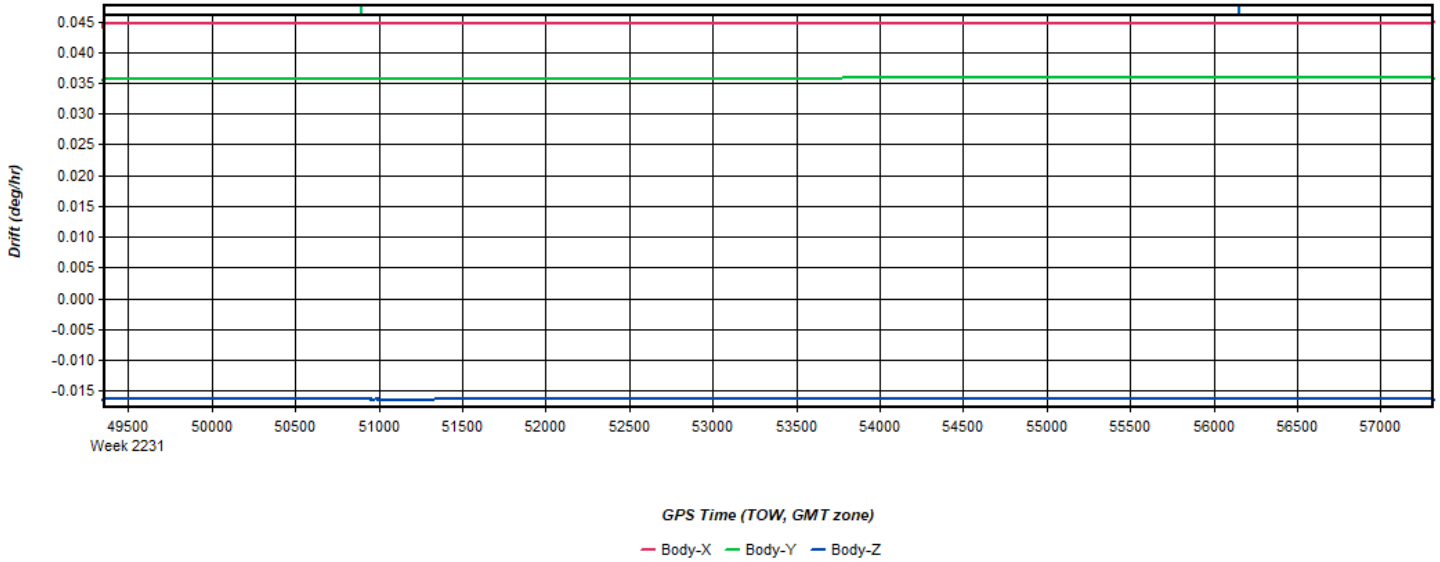
Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 18: 20221009134144_31 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Figure 19: 20221009134144_31 [Smoothed TC Combined] - Gyro Drift Plot

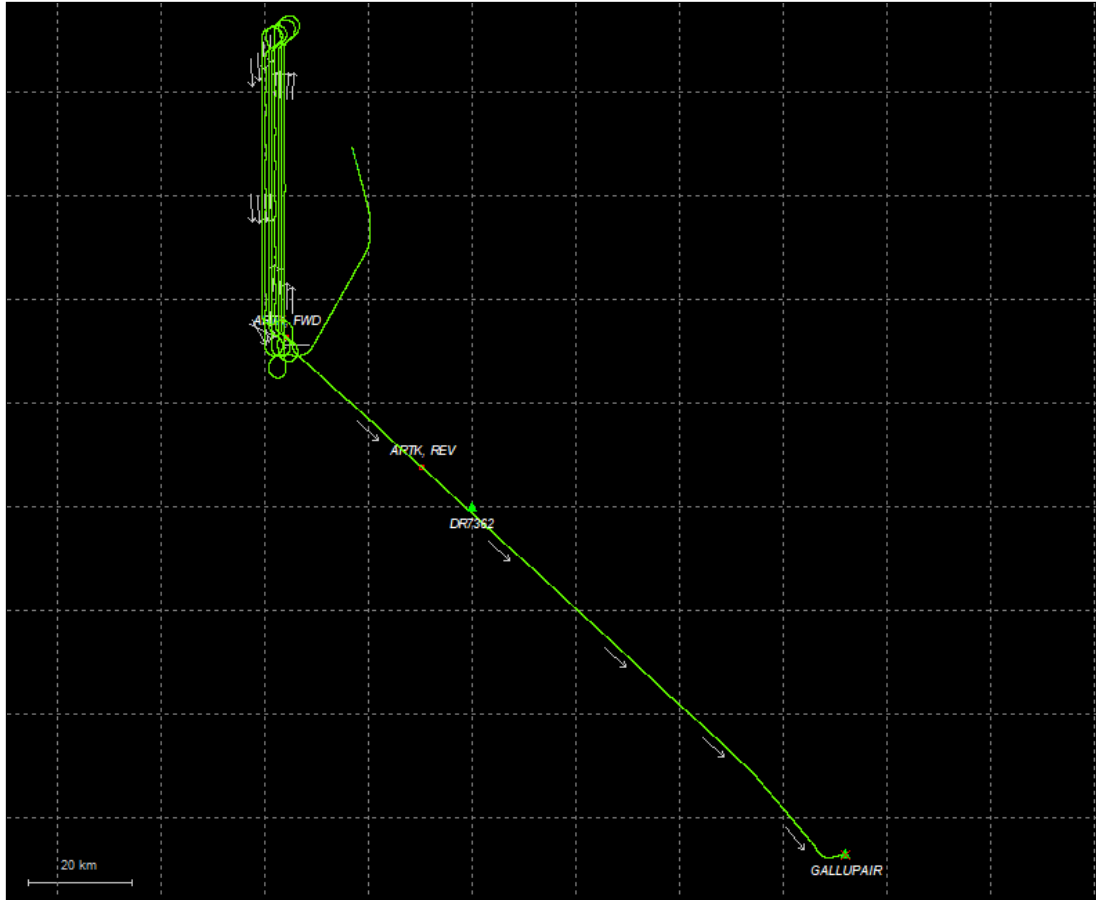


Process	20221009134144_31	by Unknown	on 10/13/2022	at 12:50:21
---------	-------------------	------------	---------------	-------------

Output Results for 20221009160034_31b

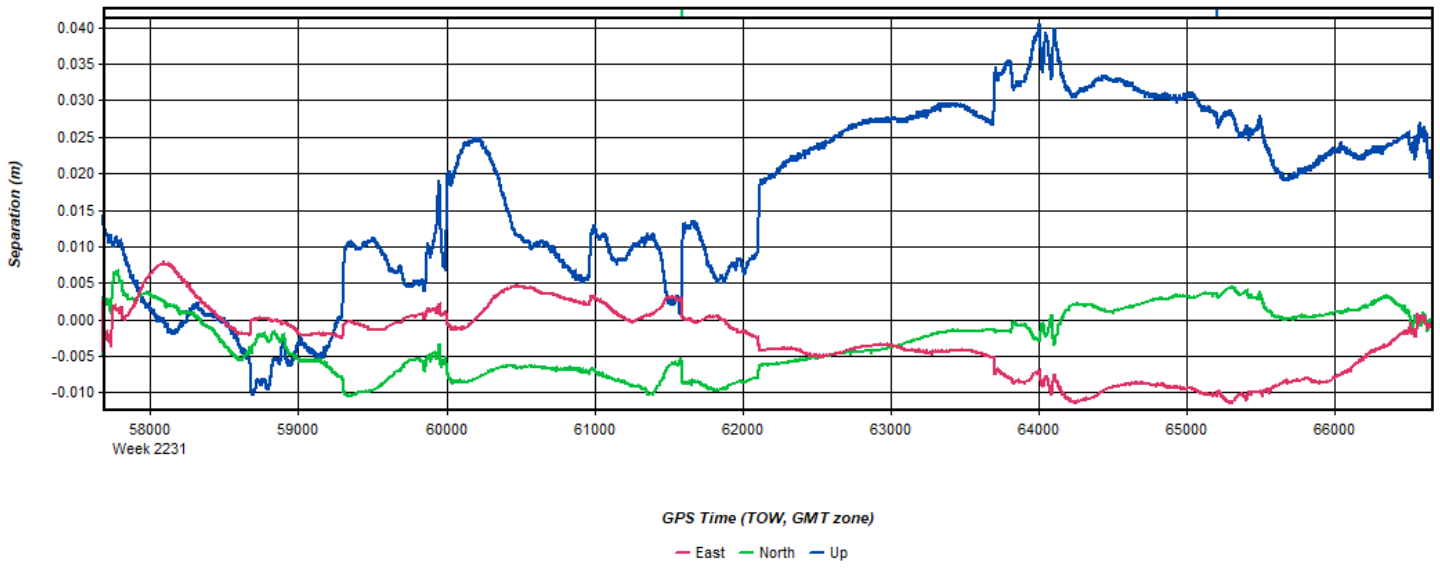
Inertial Explorer Version 8.90.2124
10/13/2022

Figure 1: Smoothed TC Combined - Map



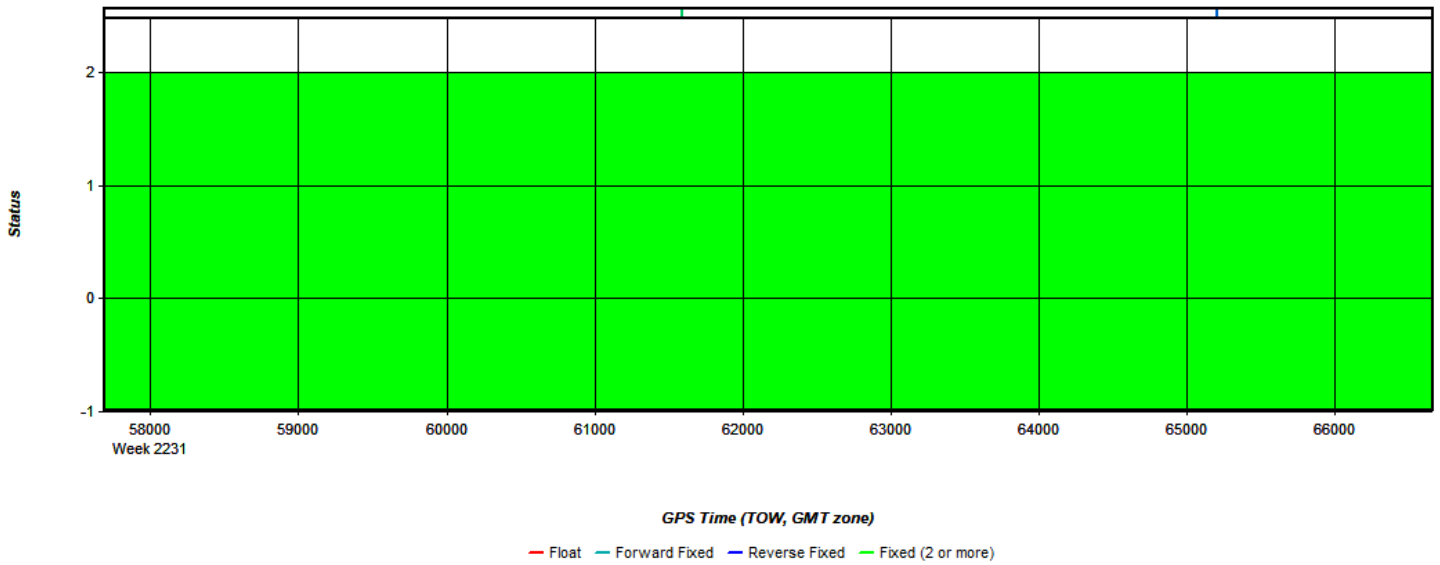
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 2: 20221009160034_31b [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



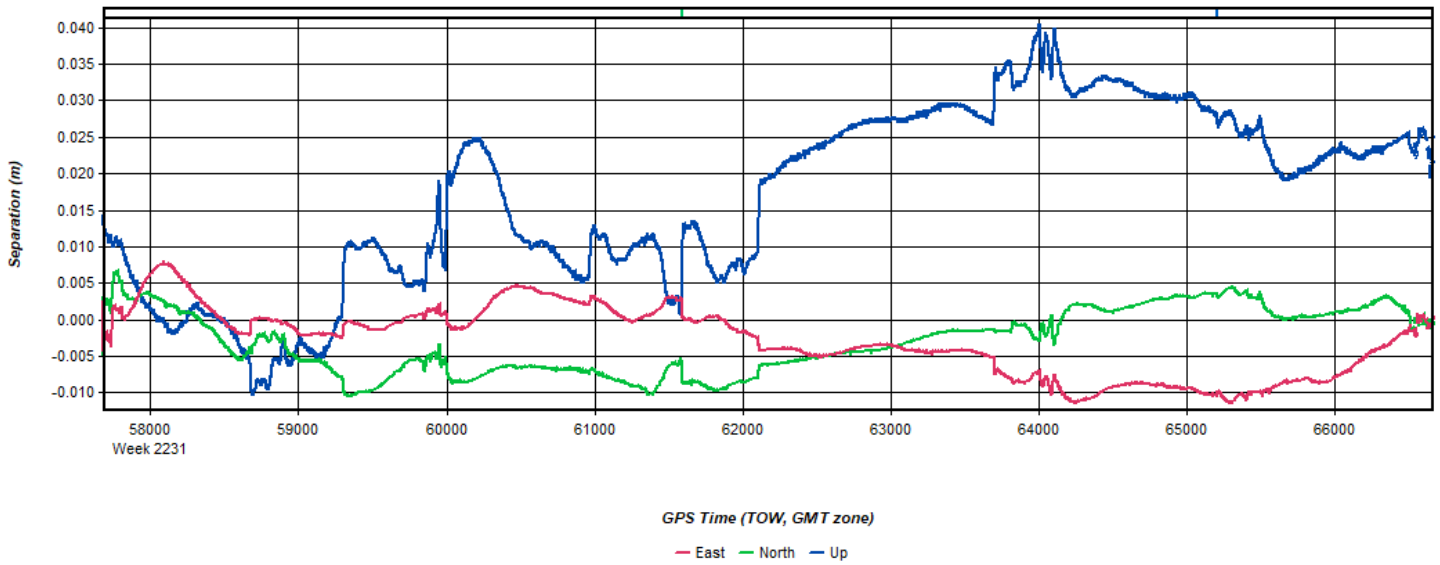
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 3: 20221009160034_31b [Smoothed TC Combined] - Float or Fixed Ambiguity



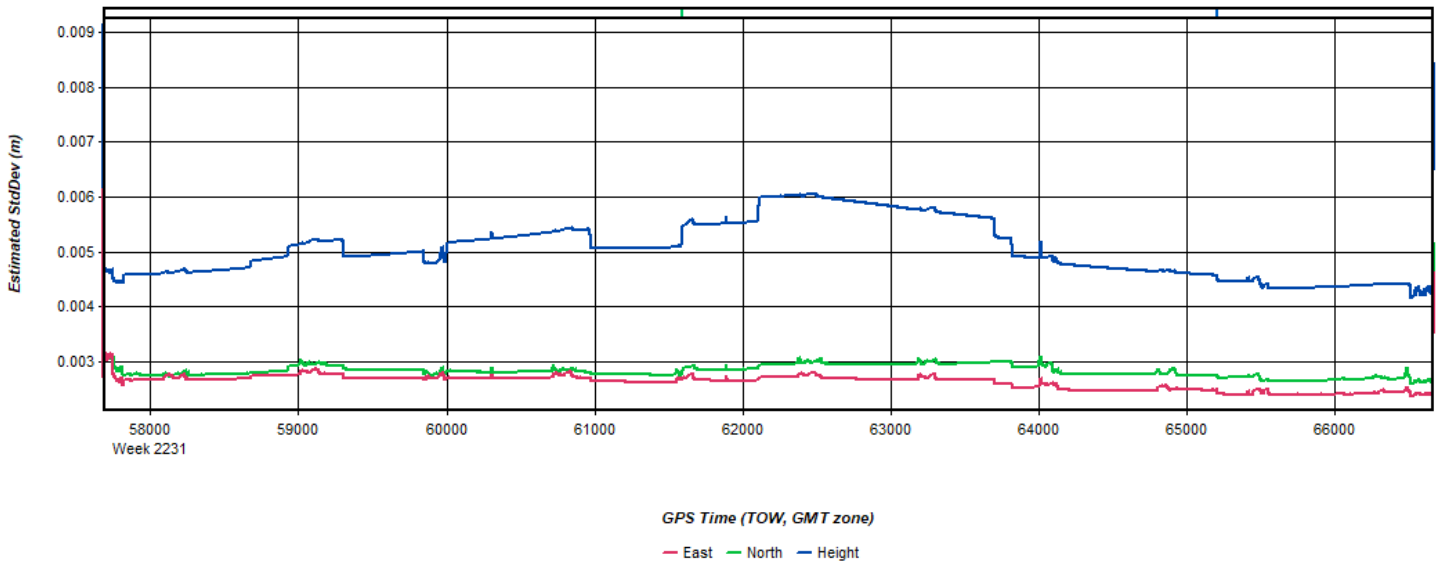
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 4: 20221009160034_31b [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 5: 20221009160034_31b [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 6: 20221009160034_31b [Smoothed TC Combined] - PDOP Plot

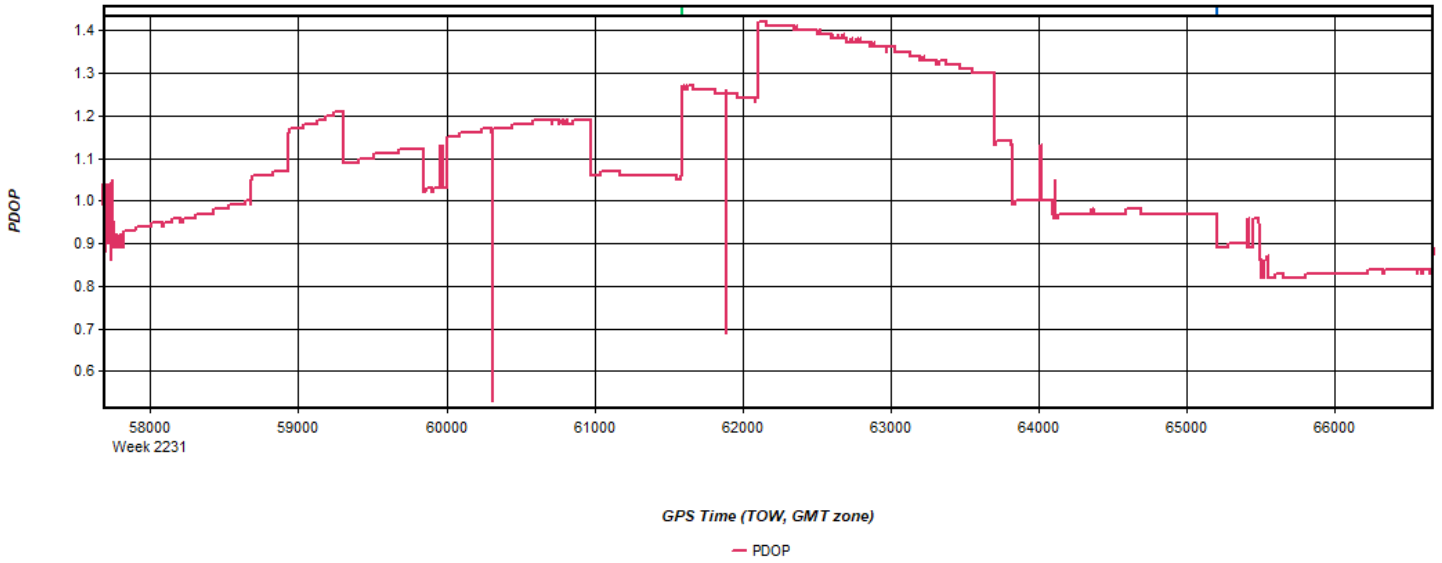


Figure 7: 20221009160034_31b [Smoothed TC Combined] - Number of Satellites Line Plot

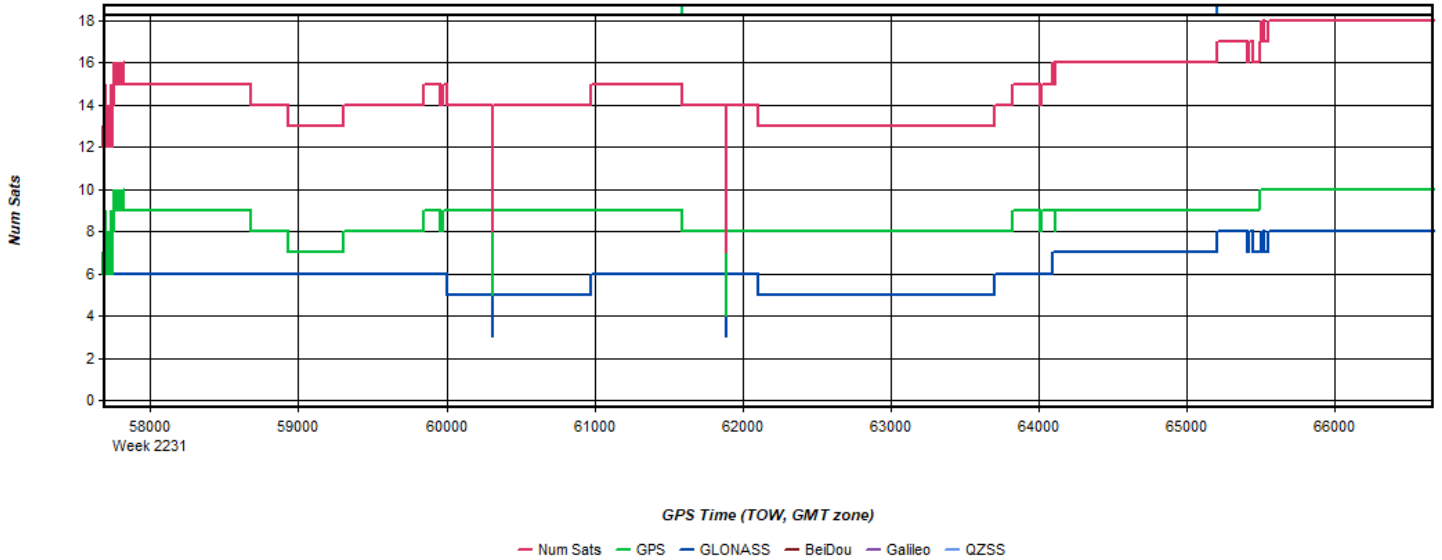
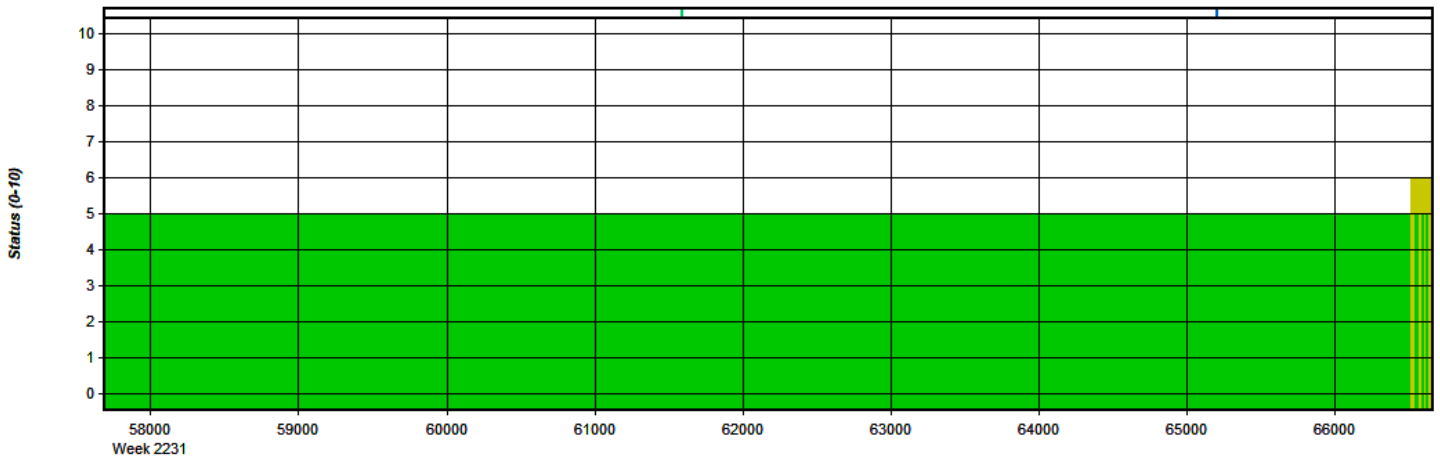


Figure 8: 20221009160034_31b [Smoothed TC Combined] - Status flag for IMU processing

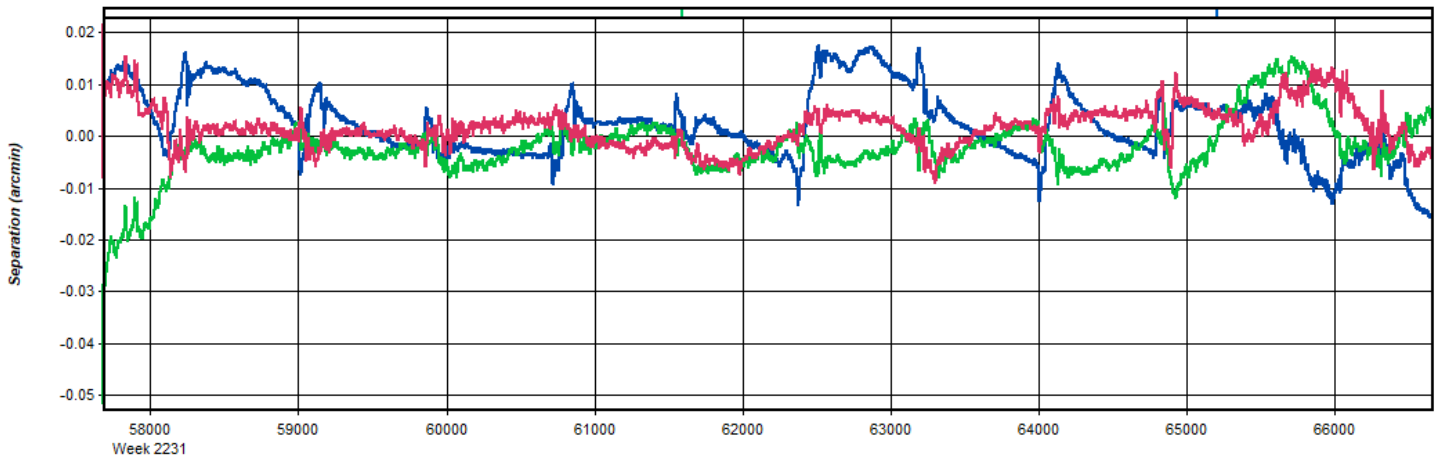


GPS Time (TOW, GMT zone)

— None — Align — Free — DMIUPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 9: 20221009160034_31b [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

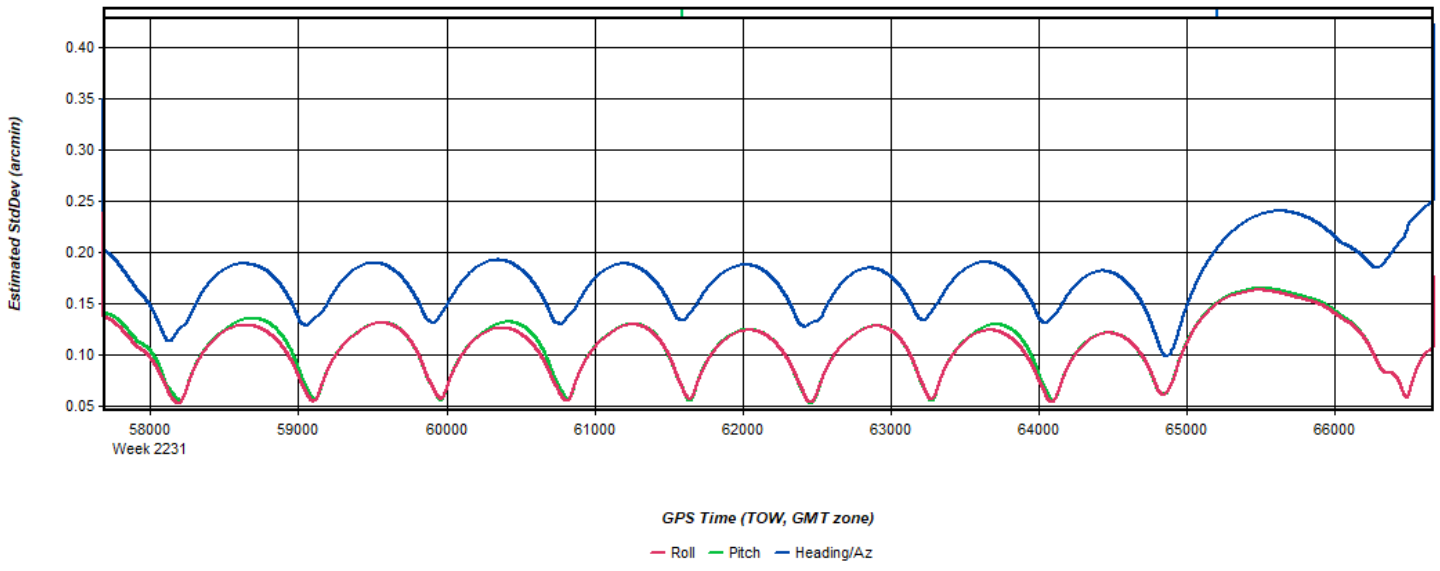


GPS Time (TOW, GMT zone)

— Roll — Pitch — Heading/Az

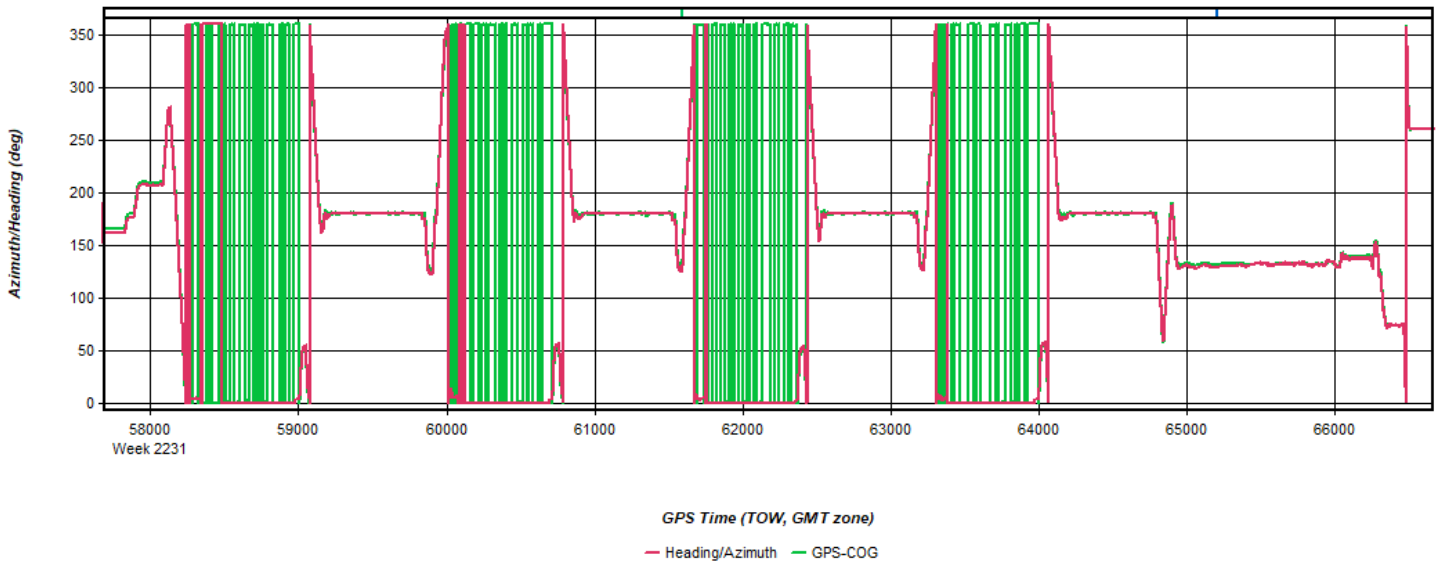
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 10: 20221009160034_31b [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



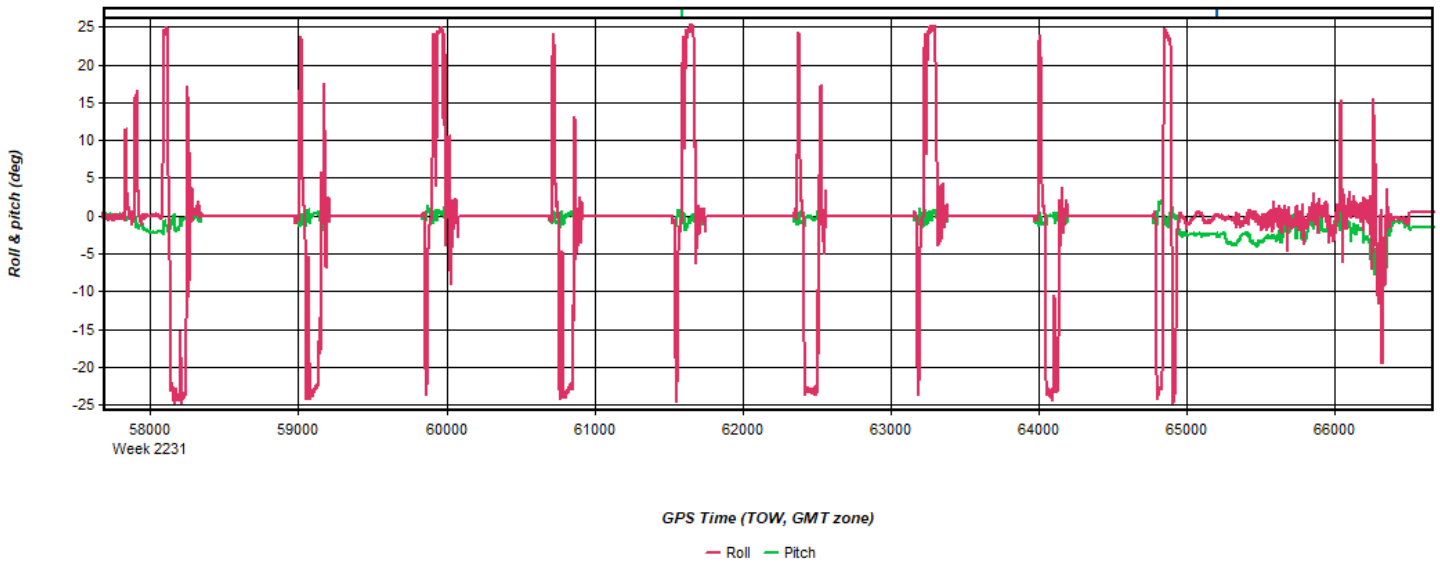
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 11: 20221009160034_31b [Smoothed TC Combined] - Azimuth Plot



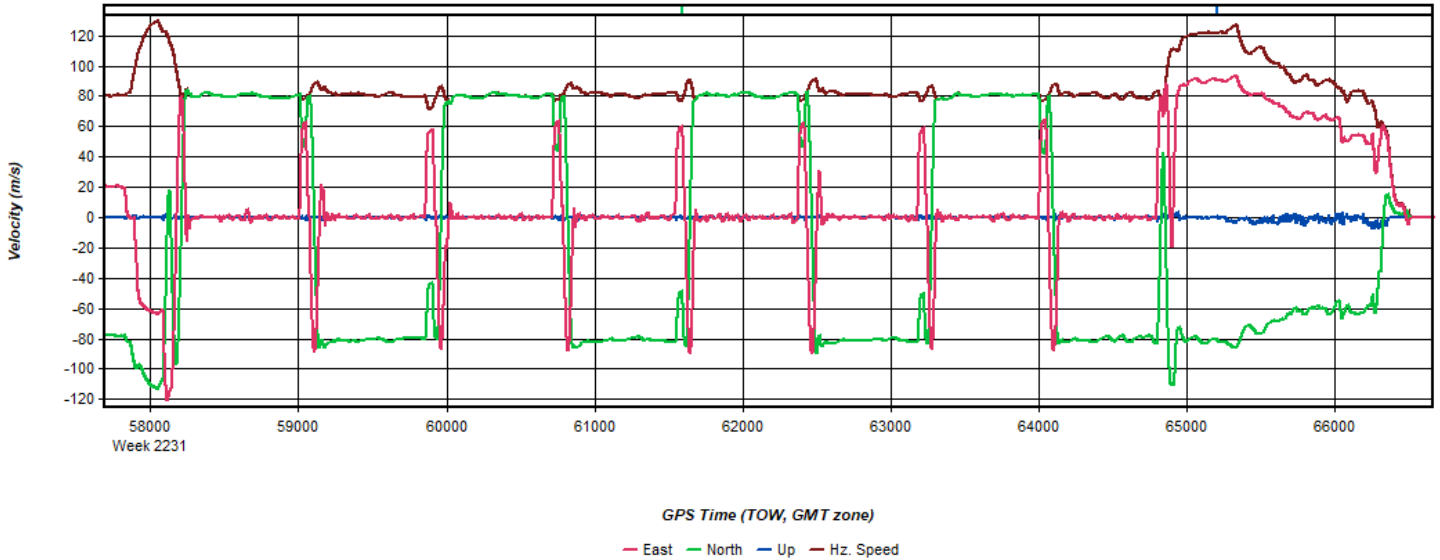
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 12: 20221009160034_31b [Smoothed TC Combined] - Roll & Pitch Plot



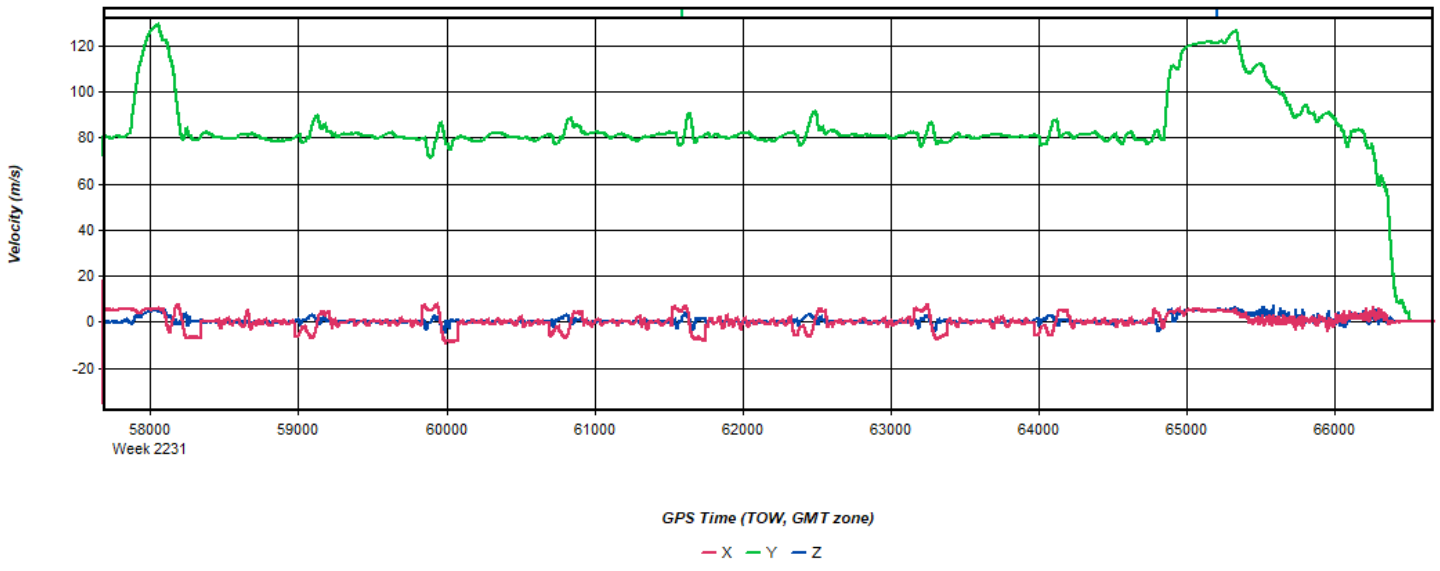
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 13: 20221009160034_31b [Smoothed TC Combined] - Velocity Profile Plot



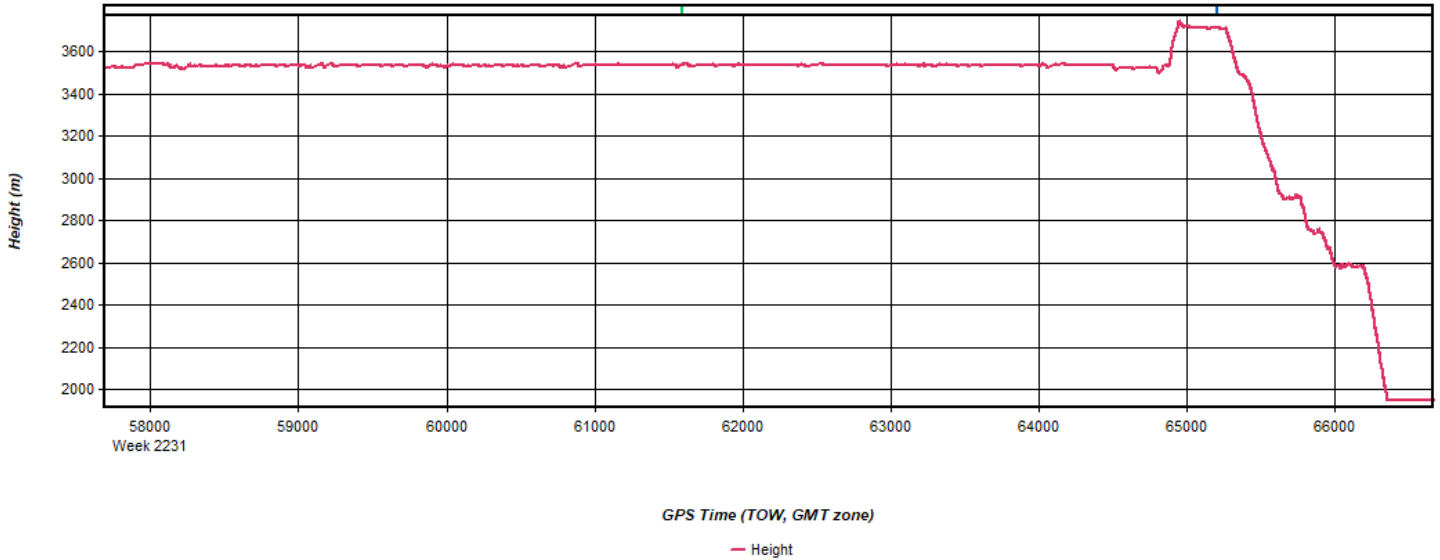
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 14: 20221009160034_31b [Smoothed TC Combined] - Body Frame Velocity Plot



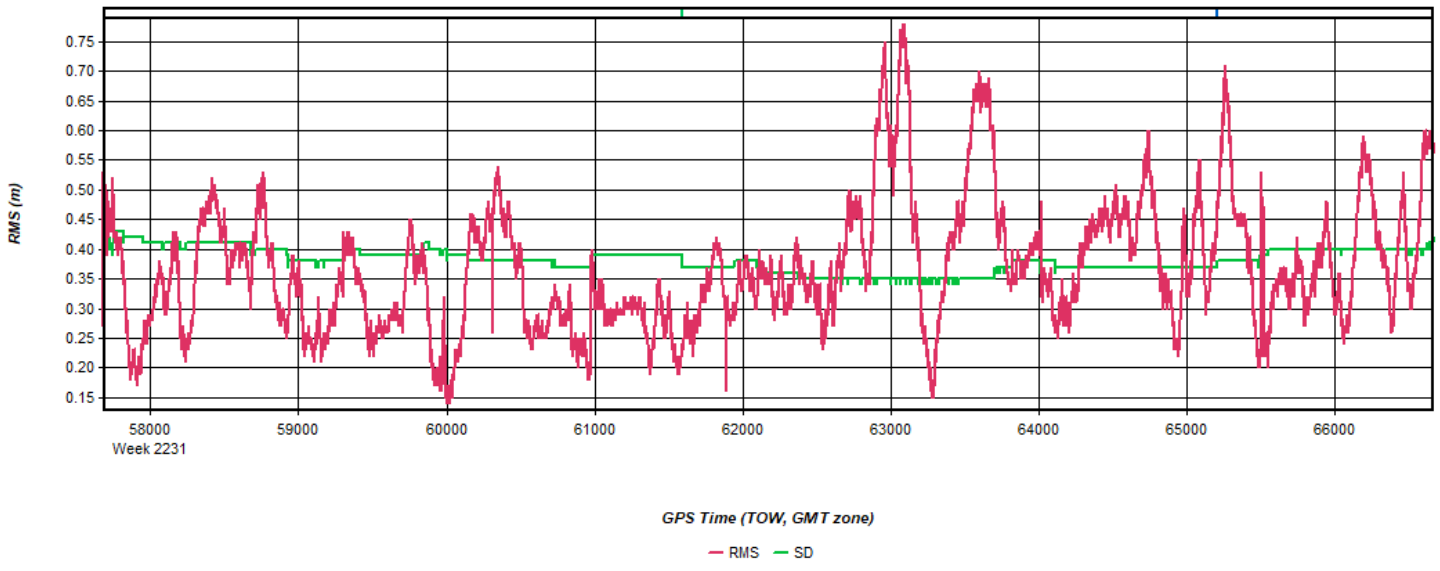
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 15: 20221009160034_31b [Smoothed TC Combined] - Height Profile Plot



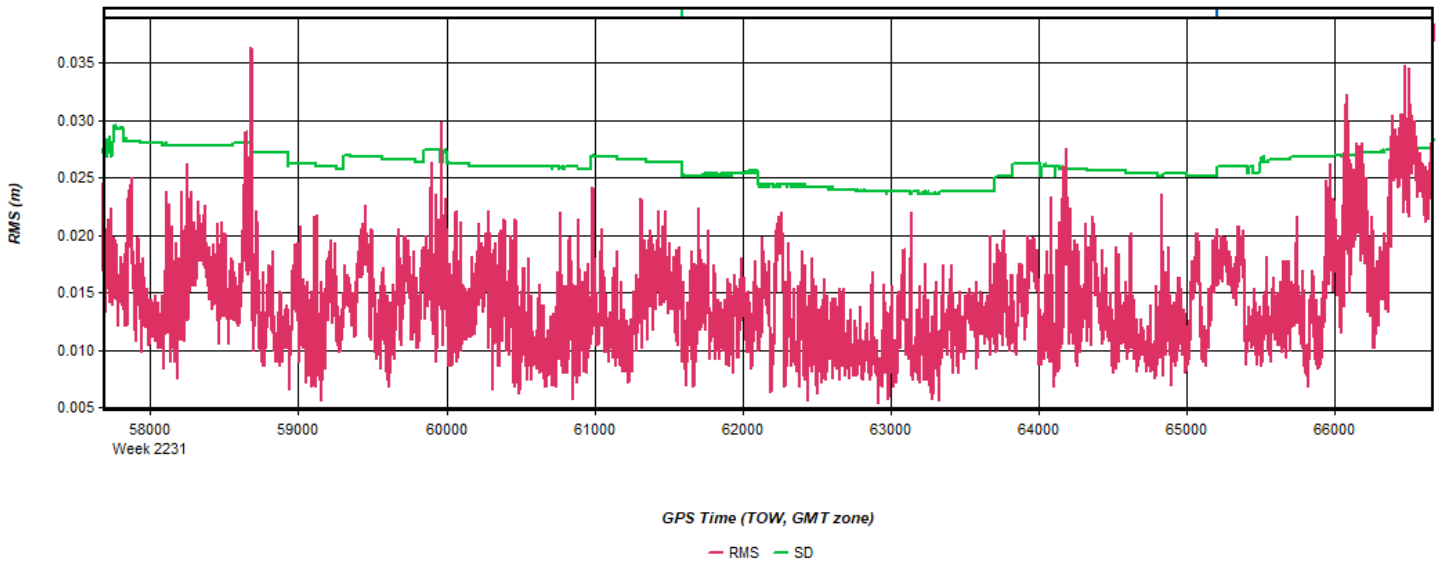
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 16: 20221009160034_31b [Smoothed TC Combined] - C/A Code Residual RMS Plot



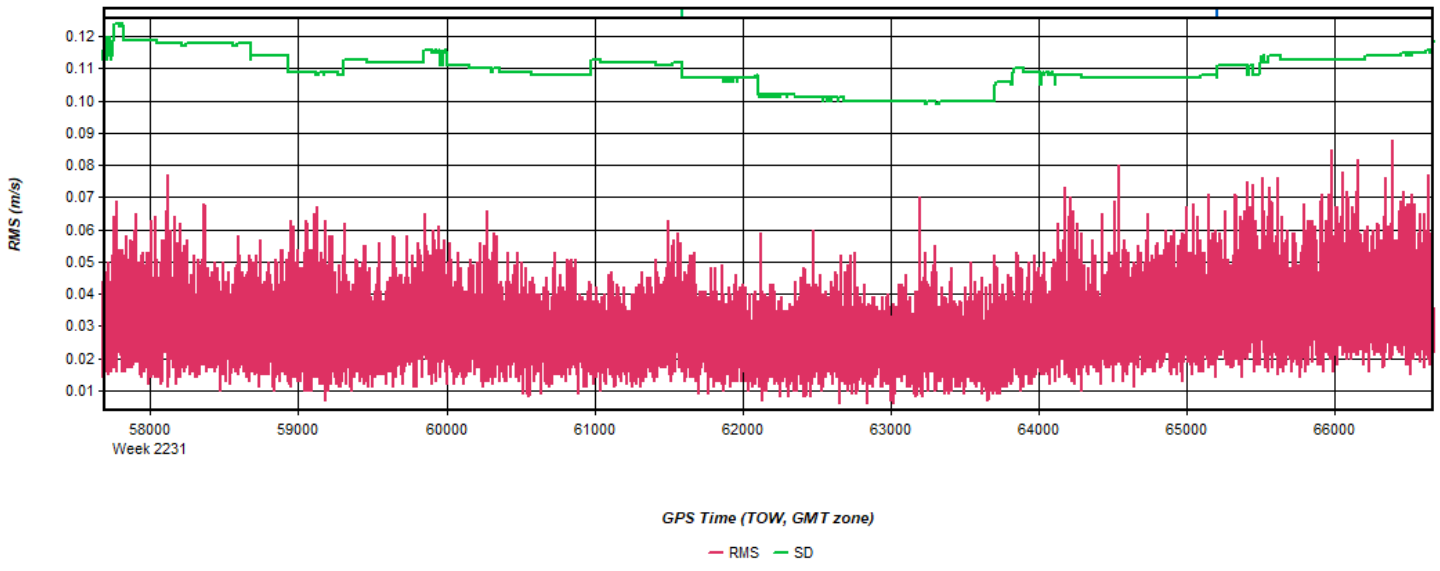
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 17: 20221009160034_31b [Smoothed TC Combined] - Carrier Residual RMS Plot



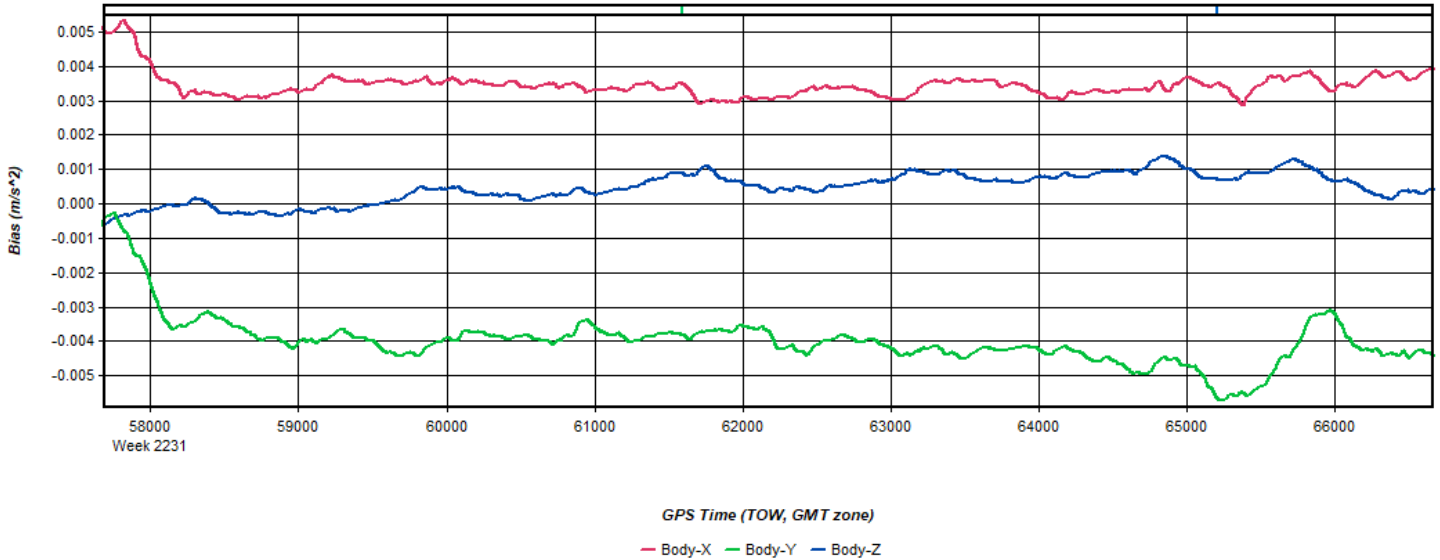
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 18: 20221009160034_31b [Smoothed TC Combined] - Doppler Residual RMS Plot



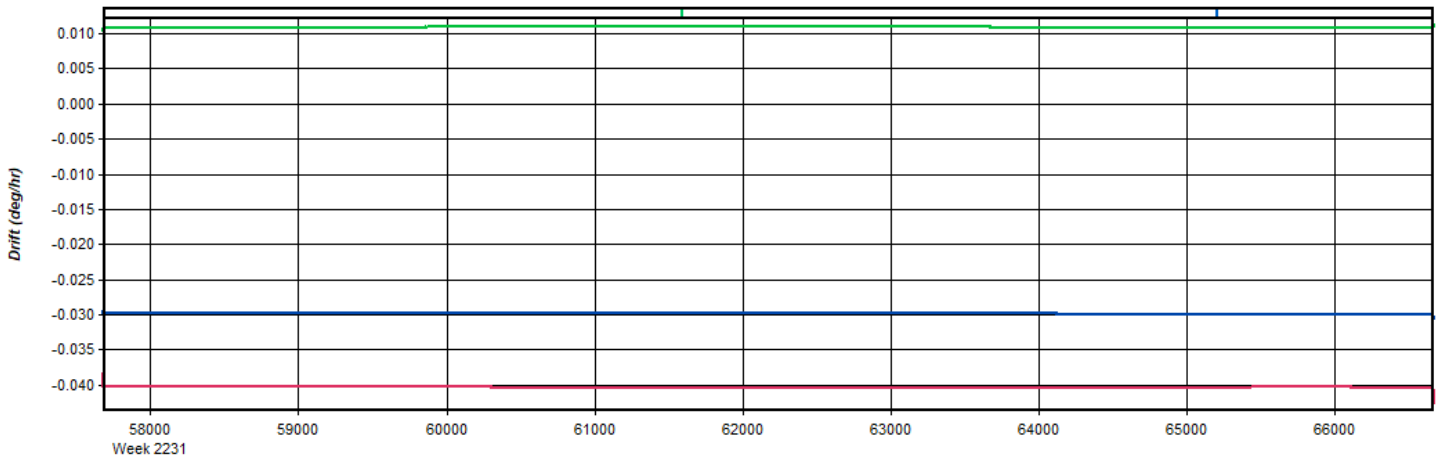
Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 19: 20221009160034_31b [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Figure 20: 20221009160034_31b [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

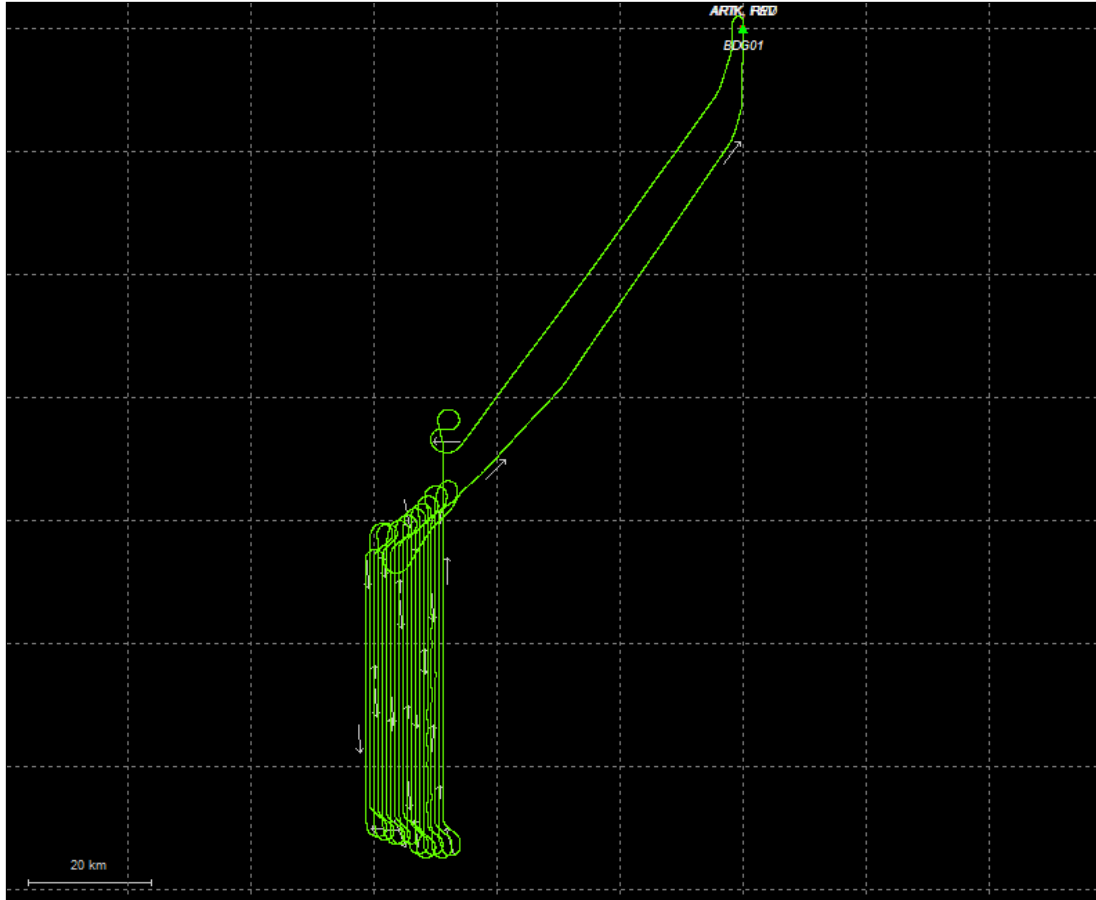
— Body-X — Body-Y — Body-Z

Process	20221009160034_31b	by Unknown	on 10/13/2022	at 14:41:18
---------	--------------------	------------	---------------	-------------

Output Results for 20221010134220_32

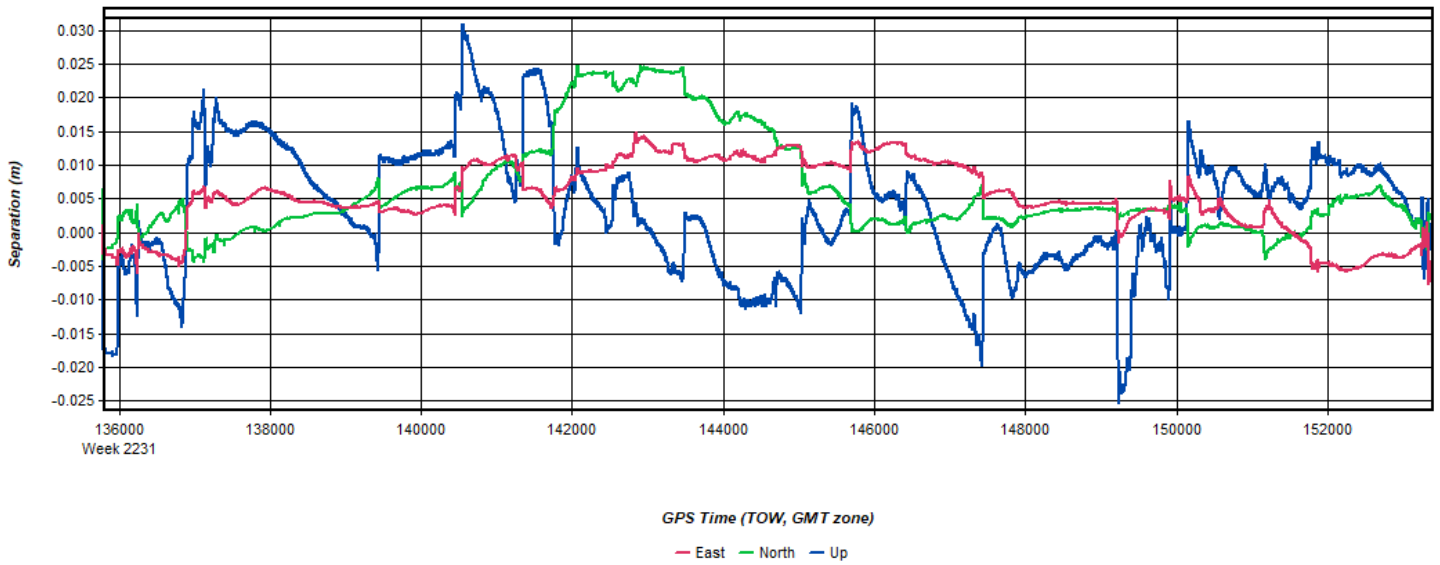
Inertial Explorer Version 8.90.2124
10/14/2022

Figure 1: Smoothed TC Combined - Map



Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

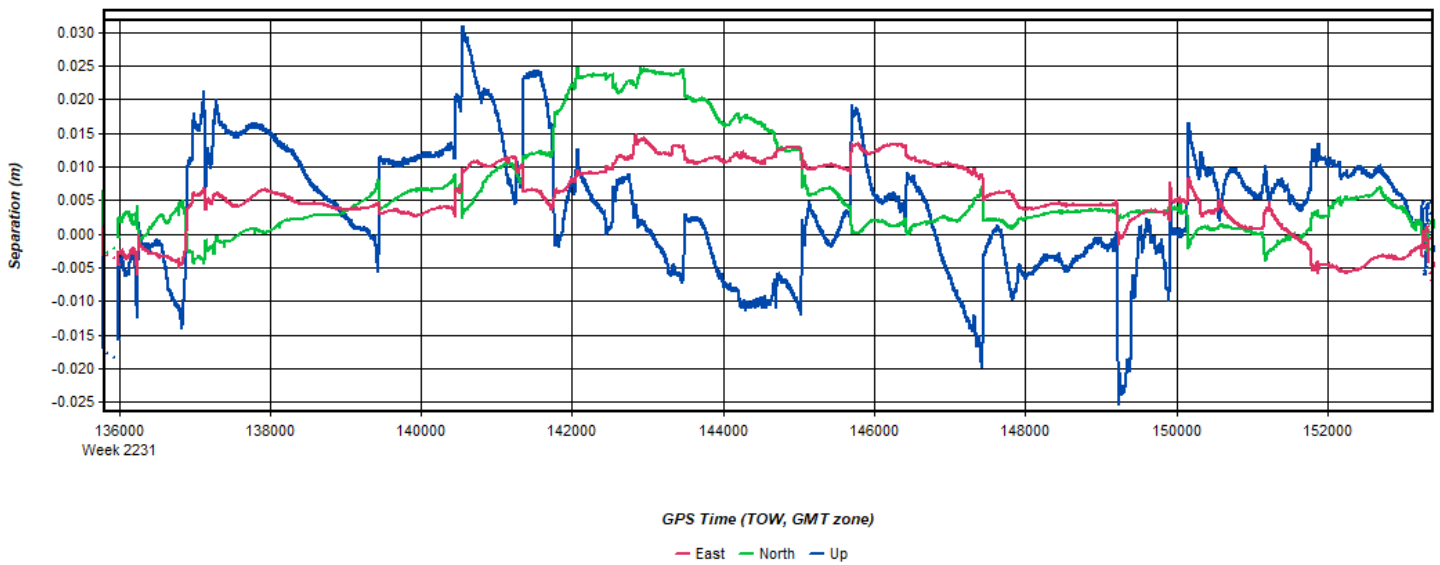
Figure 2: 20221010134220_32 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

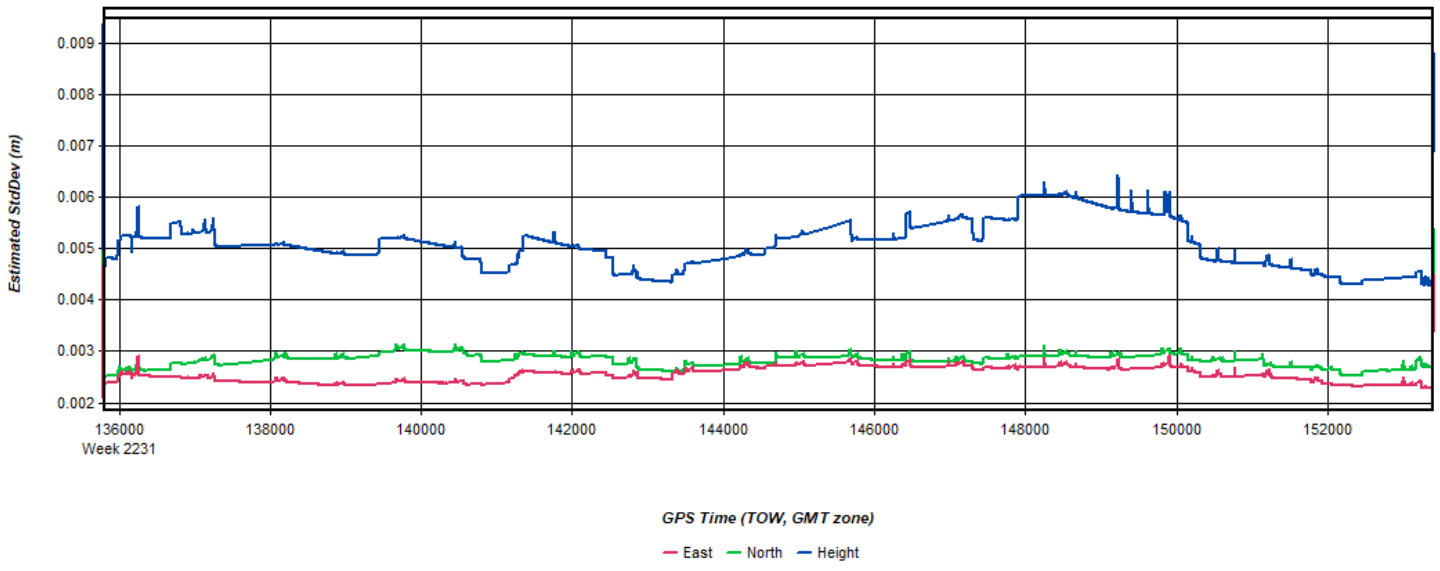
Object 20221010134220_32 [Smoothed TC Combined] - Float or Fixed Ambiguity failed--NULL bitmap handle

Figure 3: 20221010134220_32 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



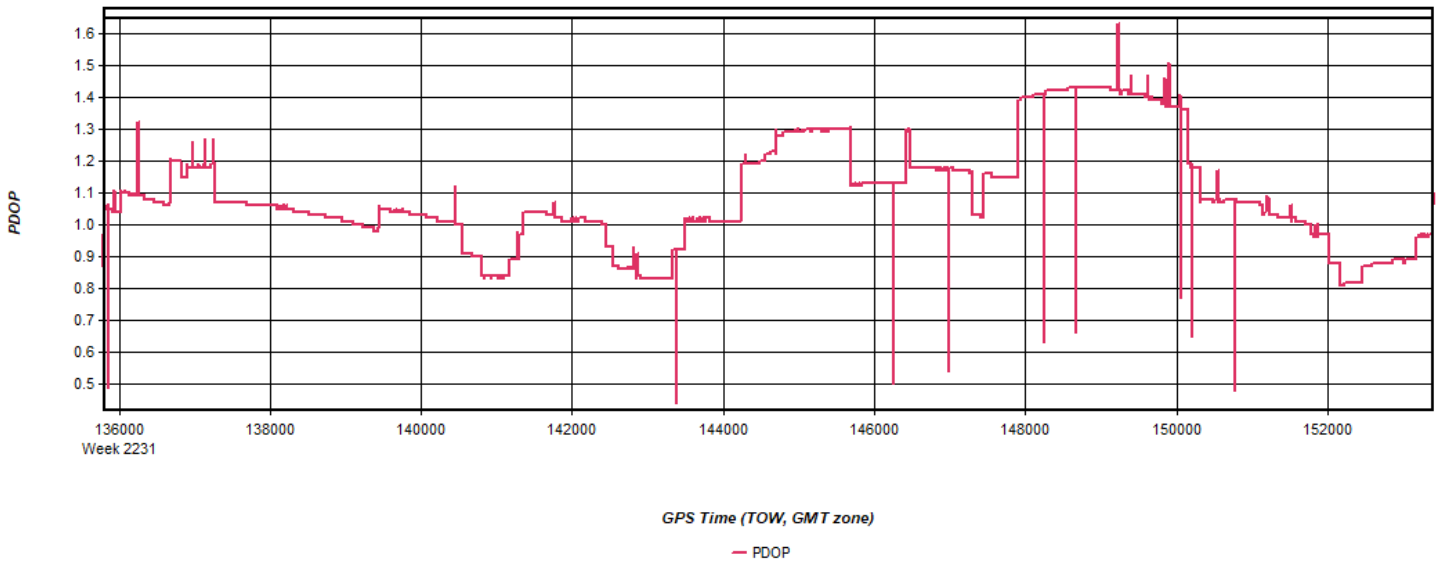
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 4: 20221010134220_32 [Smoothed TC Combined] - Estimated Position Accuracy Plot



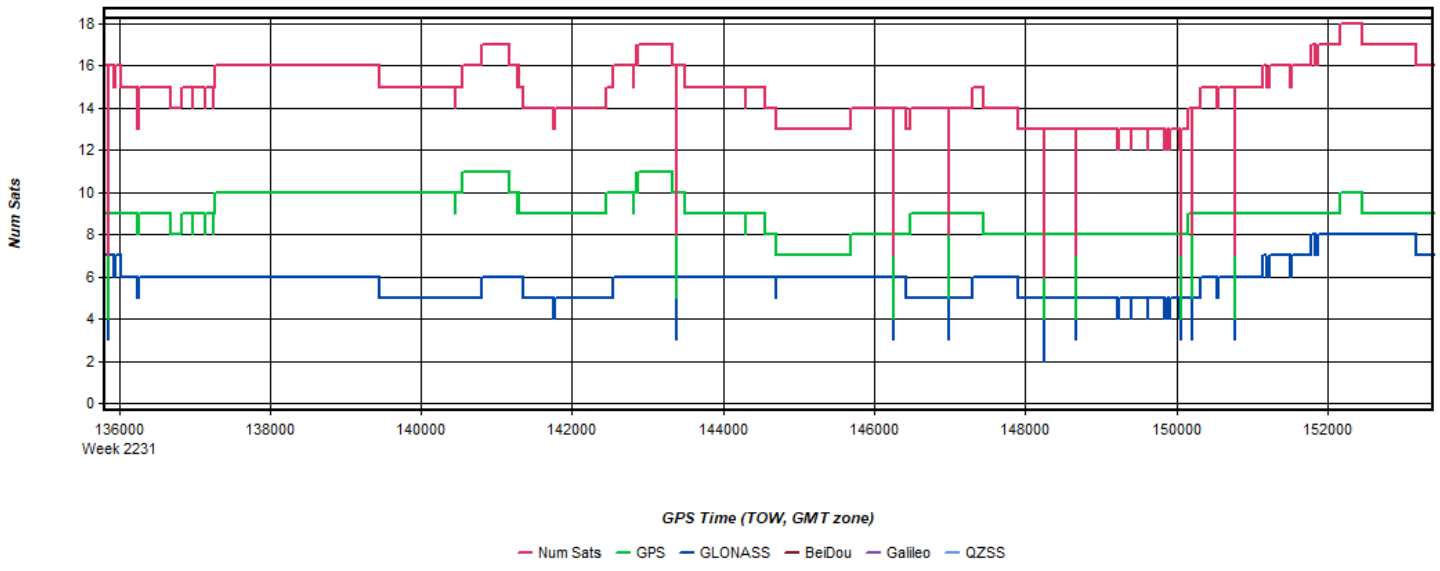
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 5: 20221010134220_32 [Smoothed TC Combined] - PDOP Plot



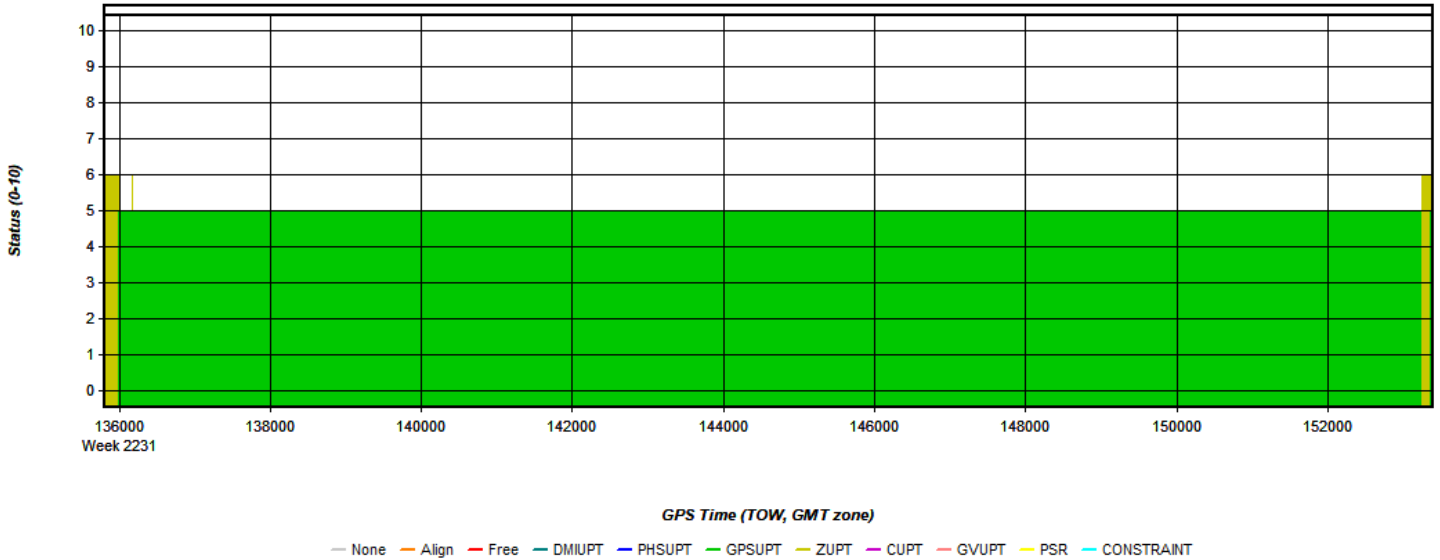
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 6: 20221010134220_32 [Smoothed TC Combined] - Number of Satellites Line Plot



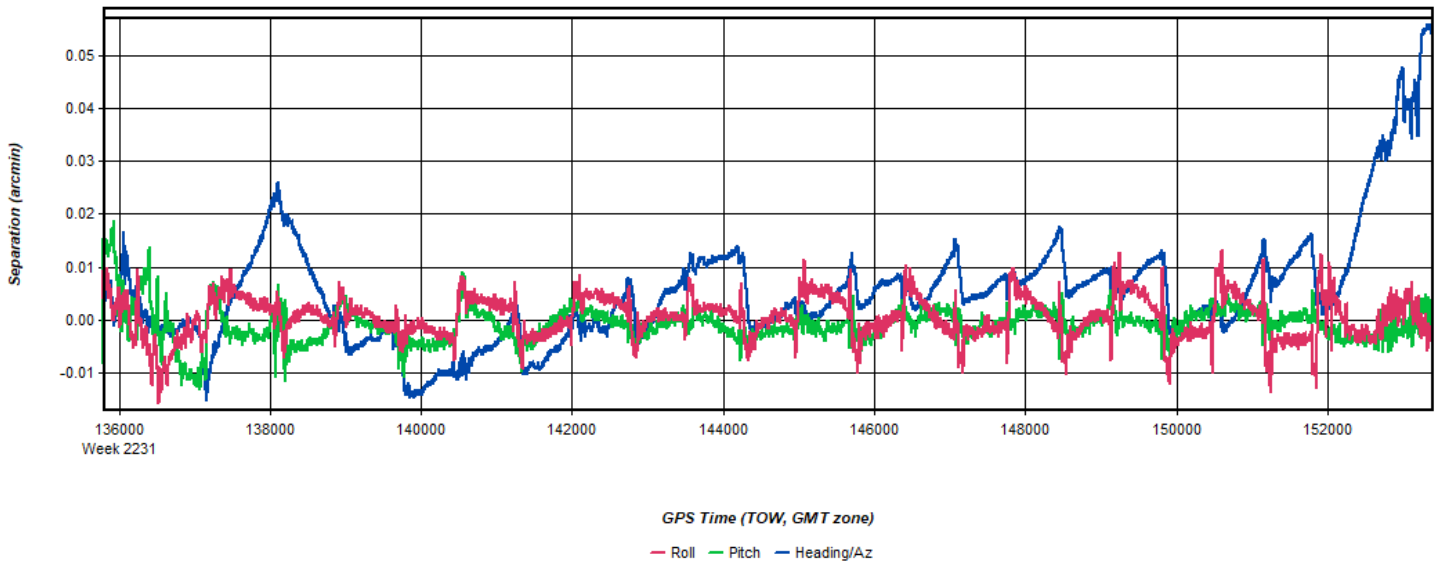
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 7: 20221010134220_32 [Smoothed TC Combined] - Status flag for IMU processing



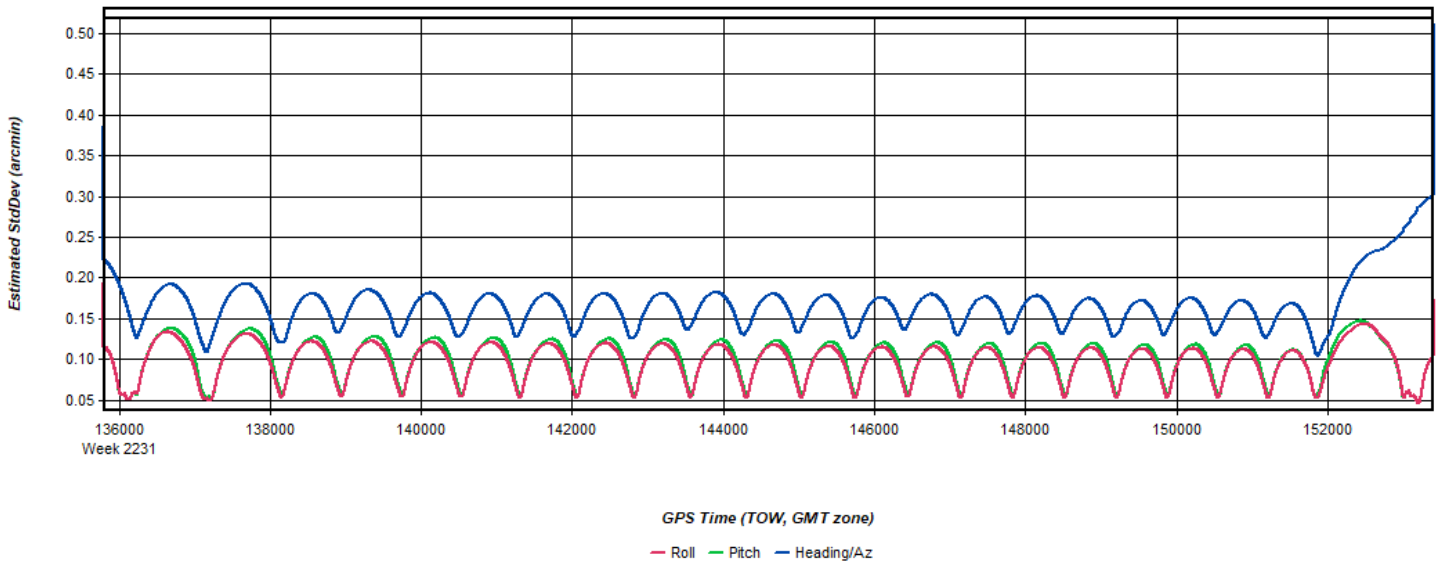
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 8: 20221010134220_32 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



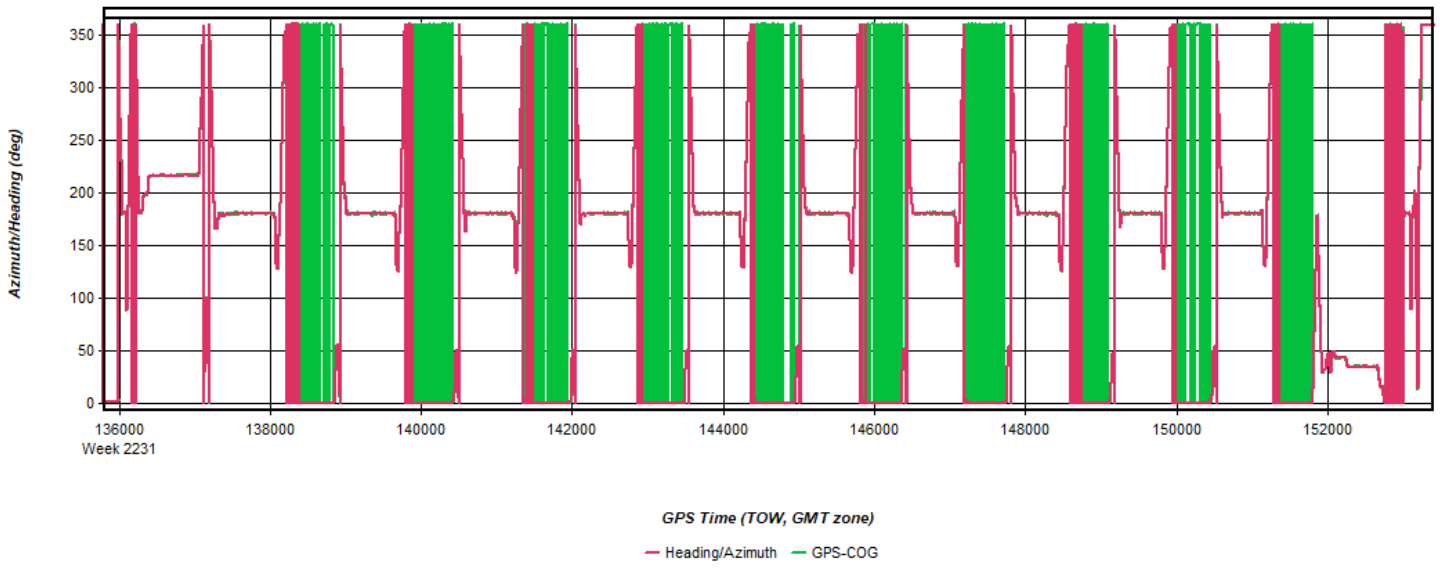
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 9: 20221010134220_32 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



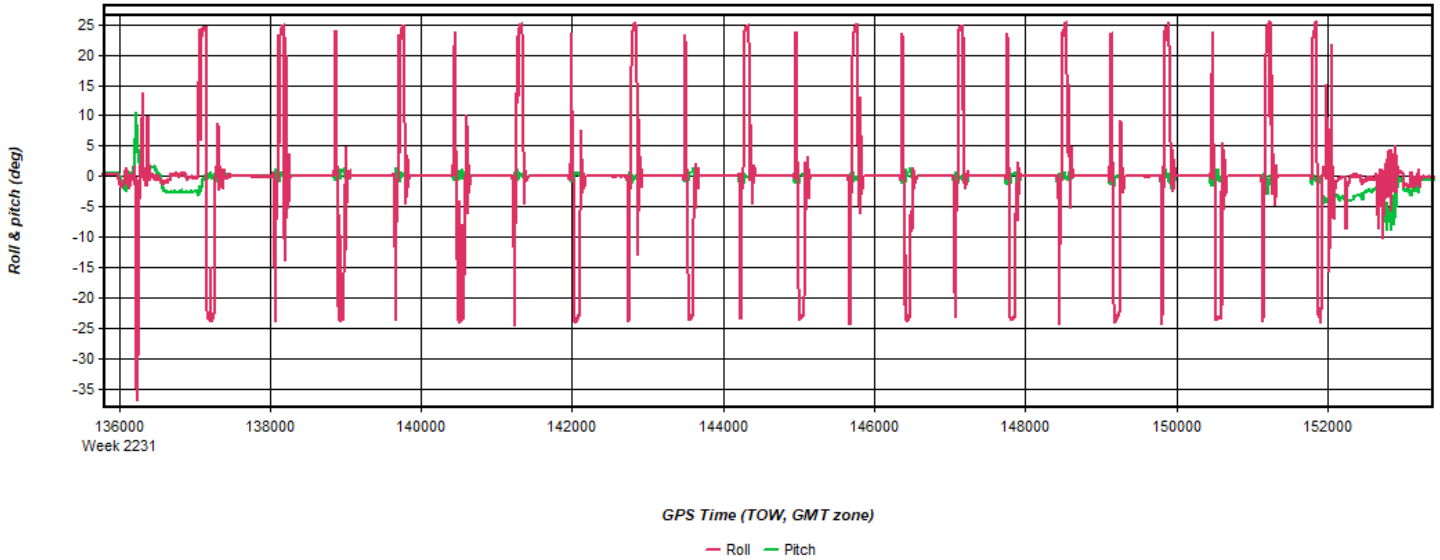
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 10: 20221010134220_32 [Smoothed TC Combined] - Azimuth Plot



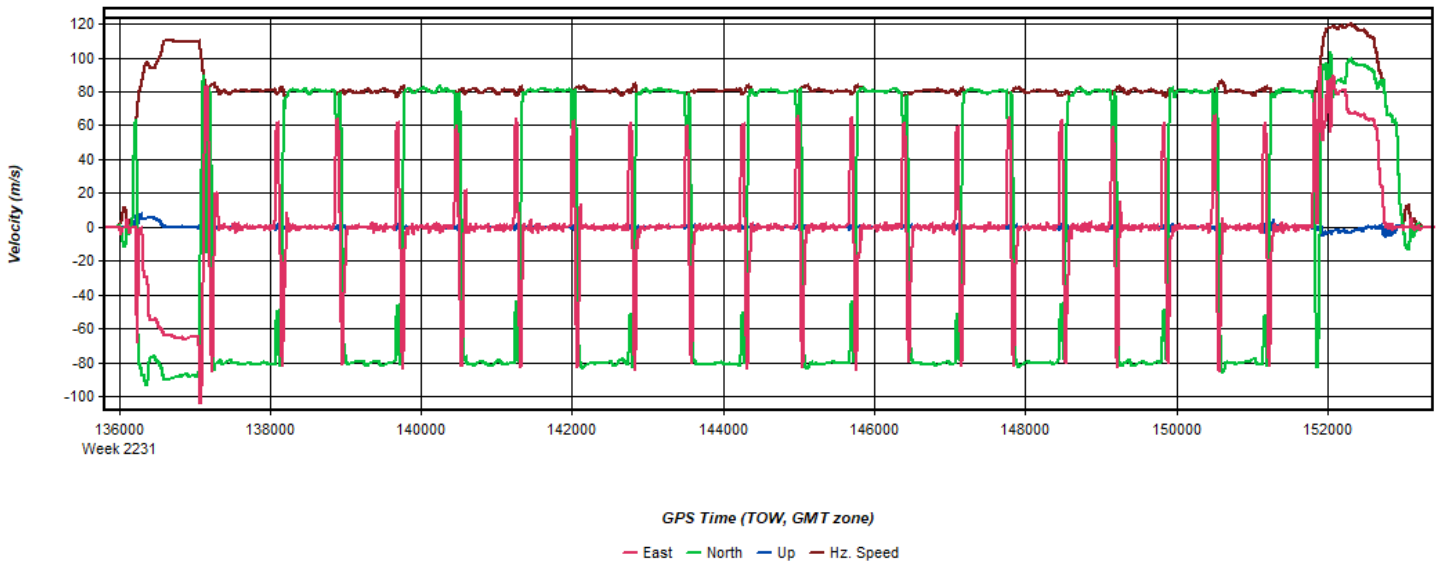
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 11: 20221010134220_32 [Smoothed TC Combined] - Roll & Pitch Plot



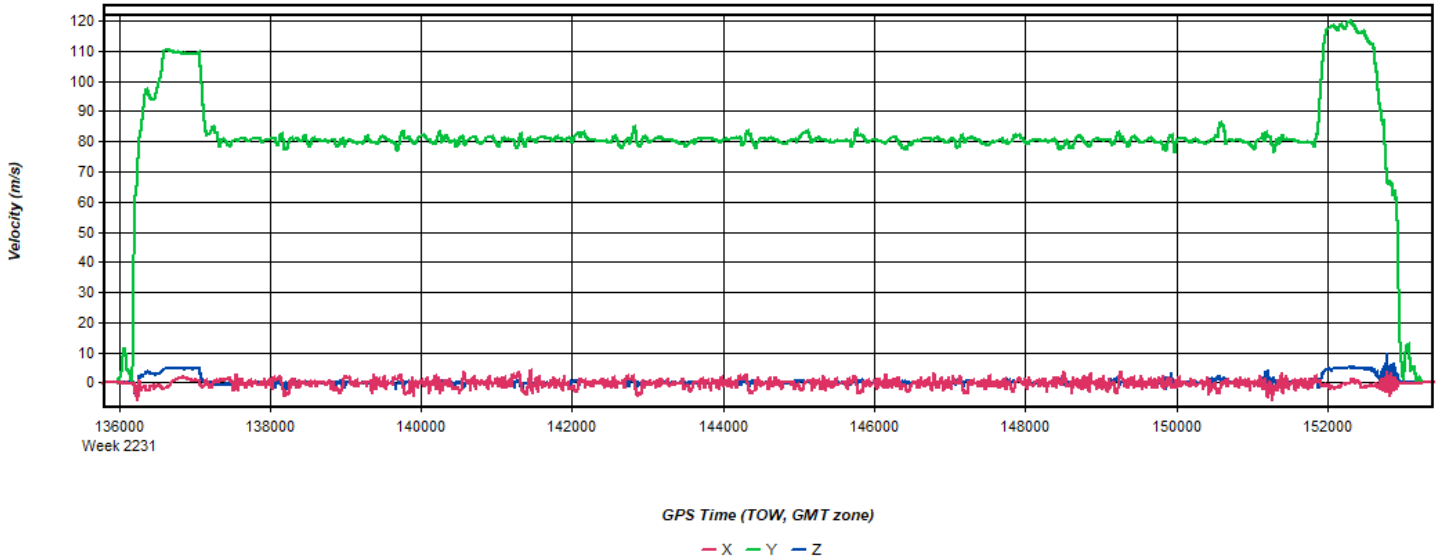
Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 12: 20221010134220_32 [Smoothed TC Combined] - Velocity Profile Plot



Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 13: 20221010134220_32 [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 14: 20221010134220_32 [Smoothed TC Combined] - Height Profile Plot

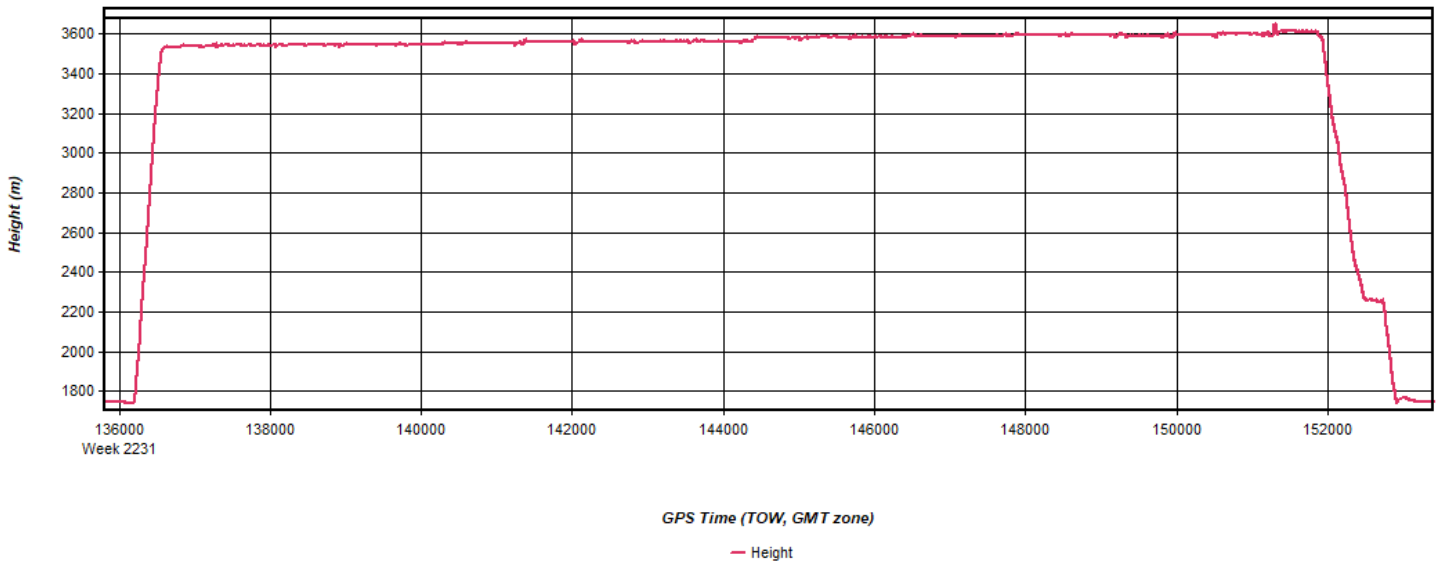


Figure 15: 20221010134220_32 [Smoothed TC Combined] - C/A Code Residual RMS Plot

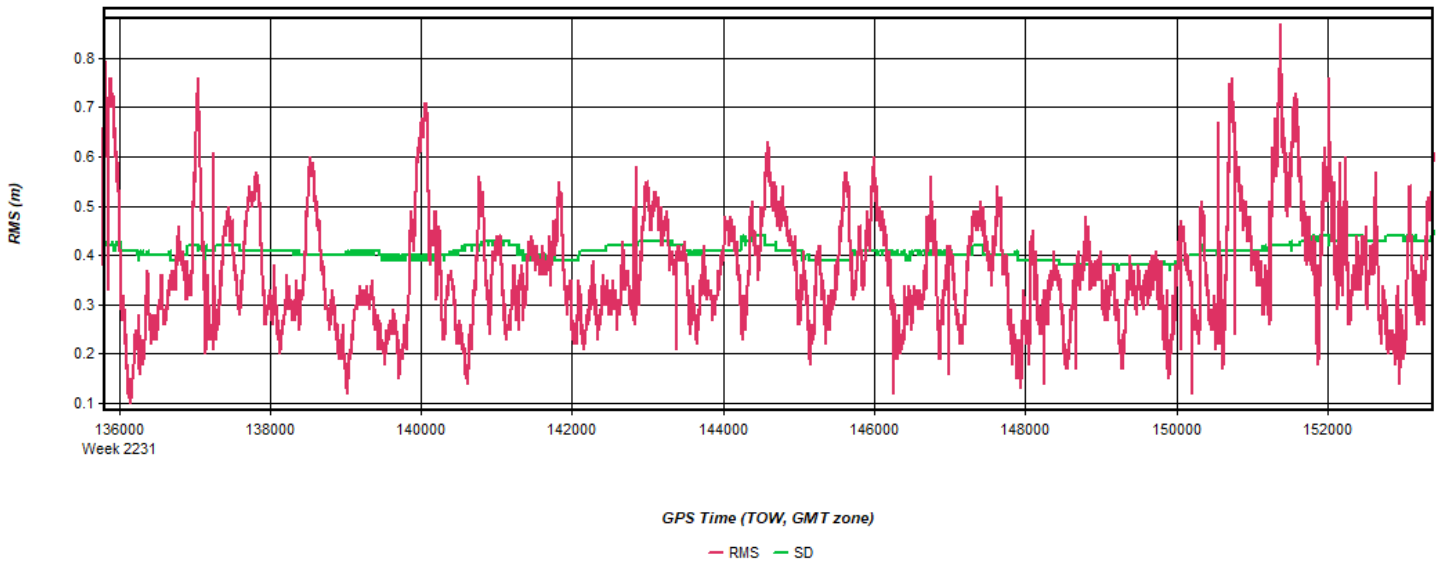


Figure 16: 20221010134220_32 [Smoothed TC Combined] - Carrier Residual RMS Plot

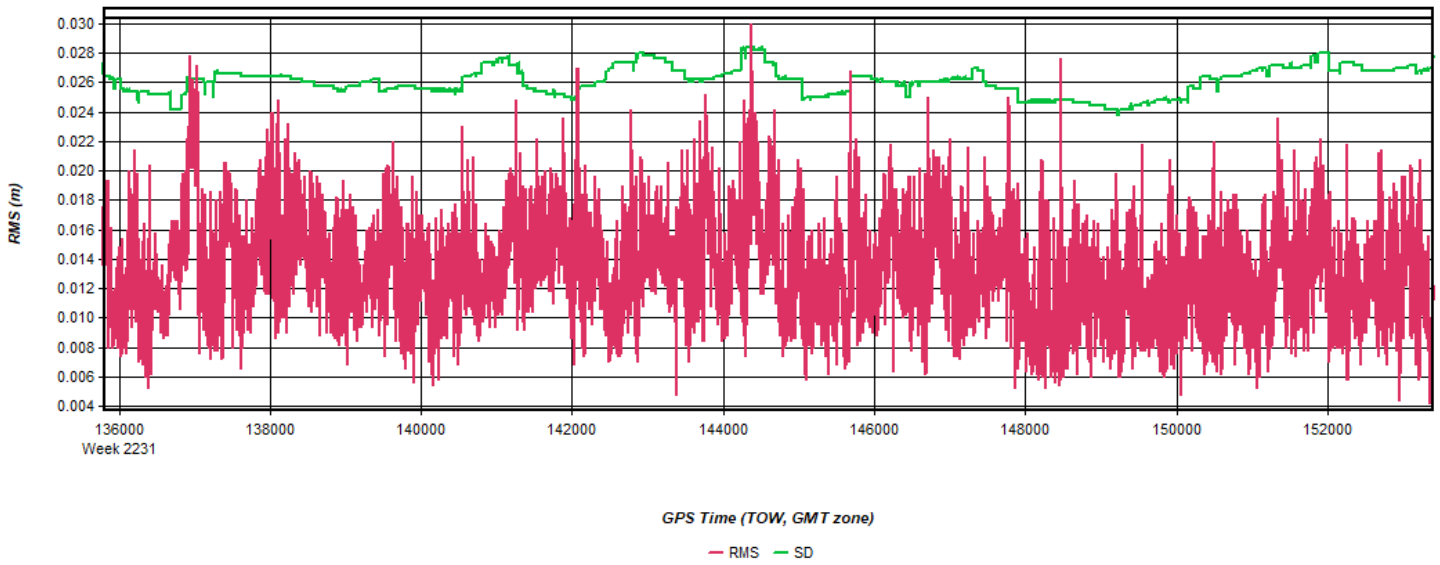


Figure 17: 20221010134220_32 [Smoothed TC Combined] - Doppler Residual RMS Plot

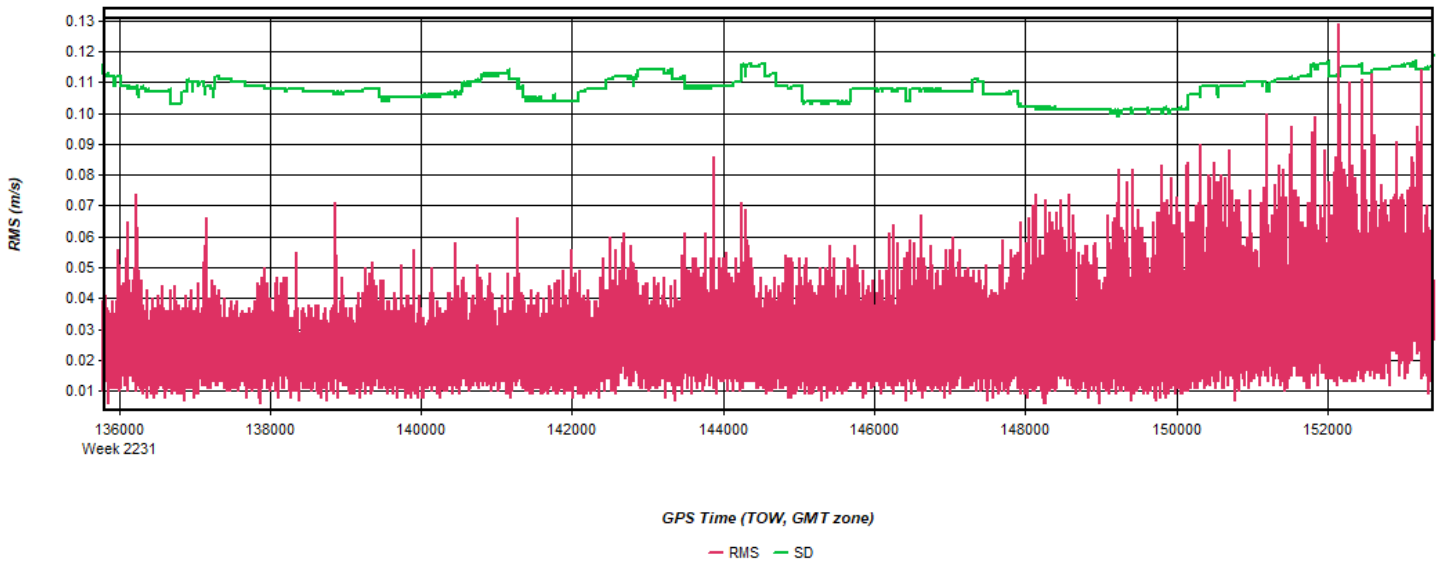
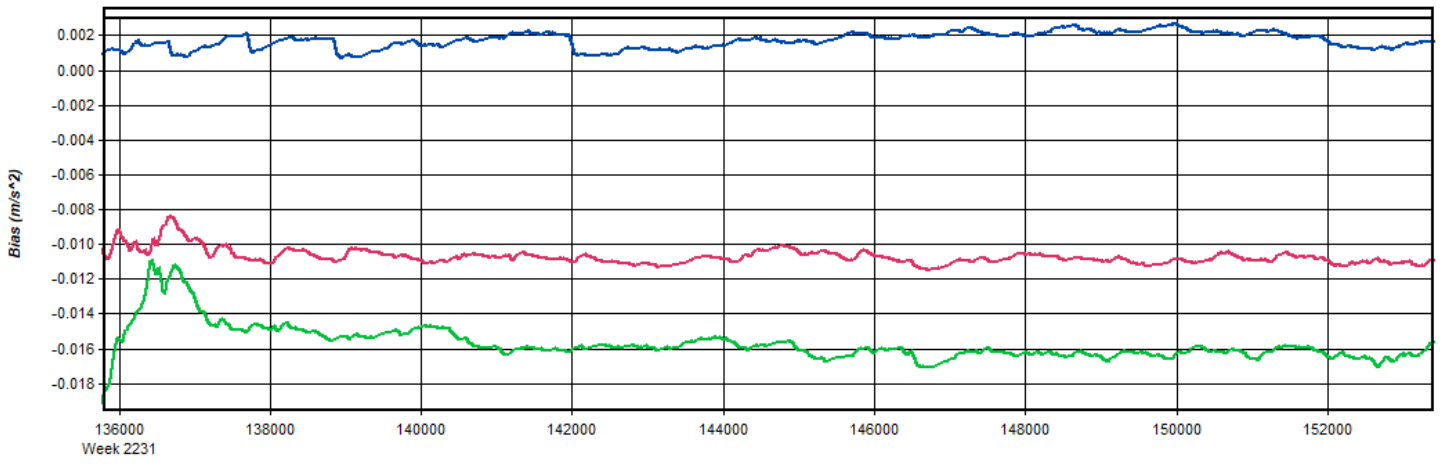
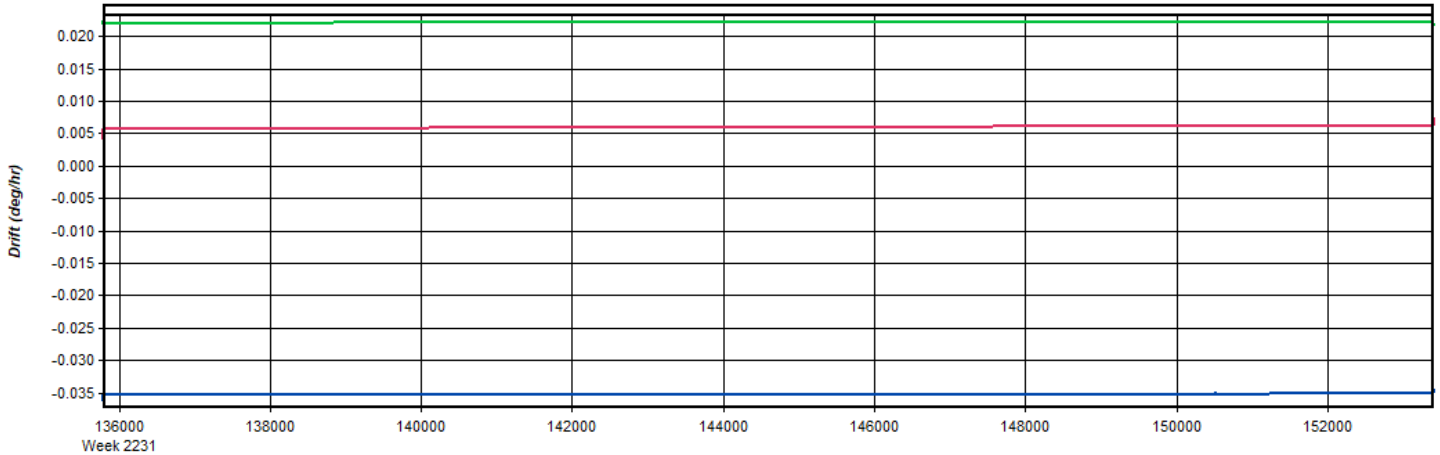


Figure 18: 20221010134220_32 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Figure 19: 20221010134220_32 [Smoothed TC Combined] - Gyro Drift Plot

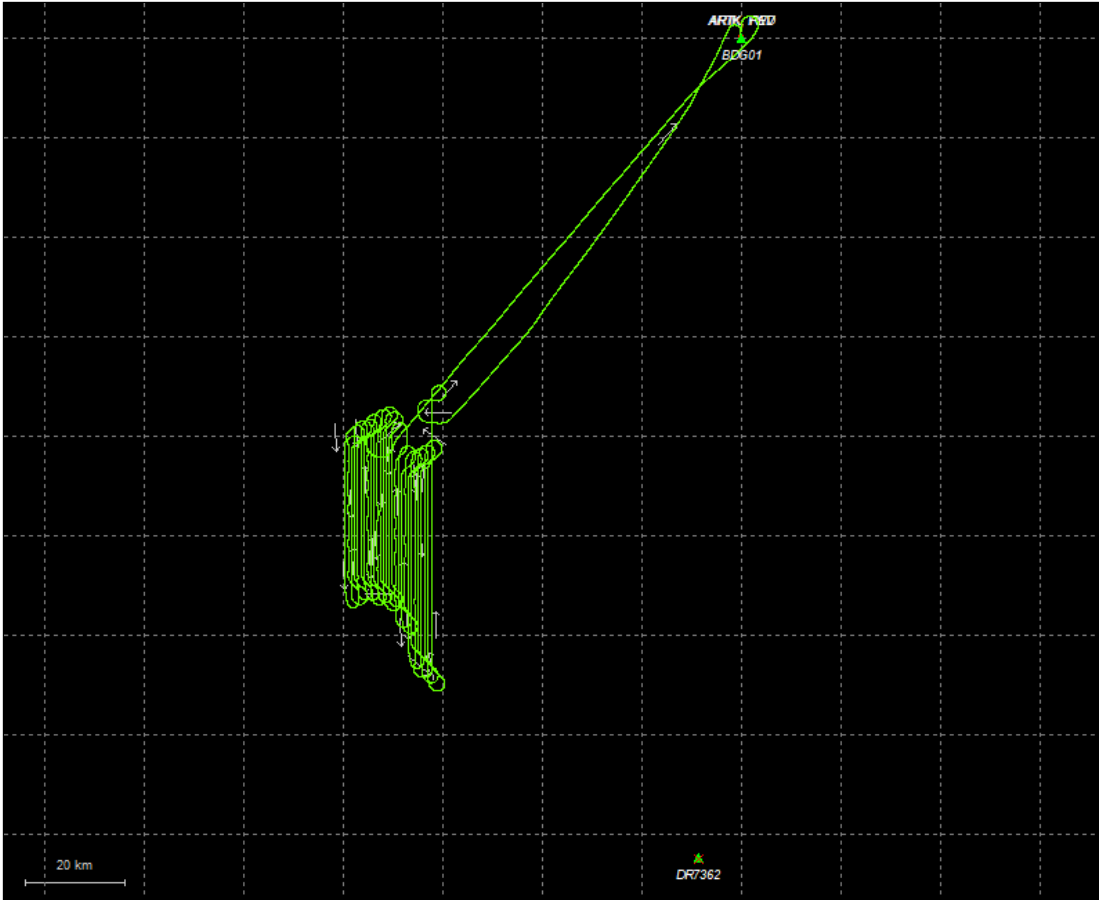


Process	20221010134220_32	by Unknown	on 10/14/2022	at 18:52:20
---------	-------------------	------------	---------------	-------------

Output Results for 20221011133407_33

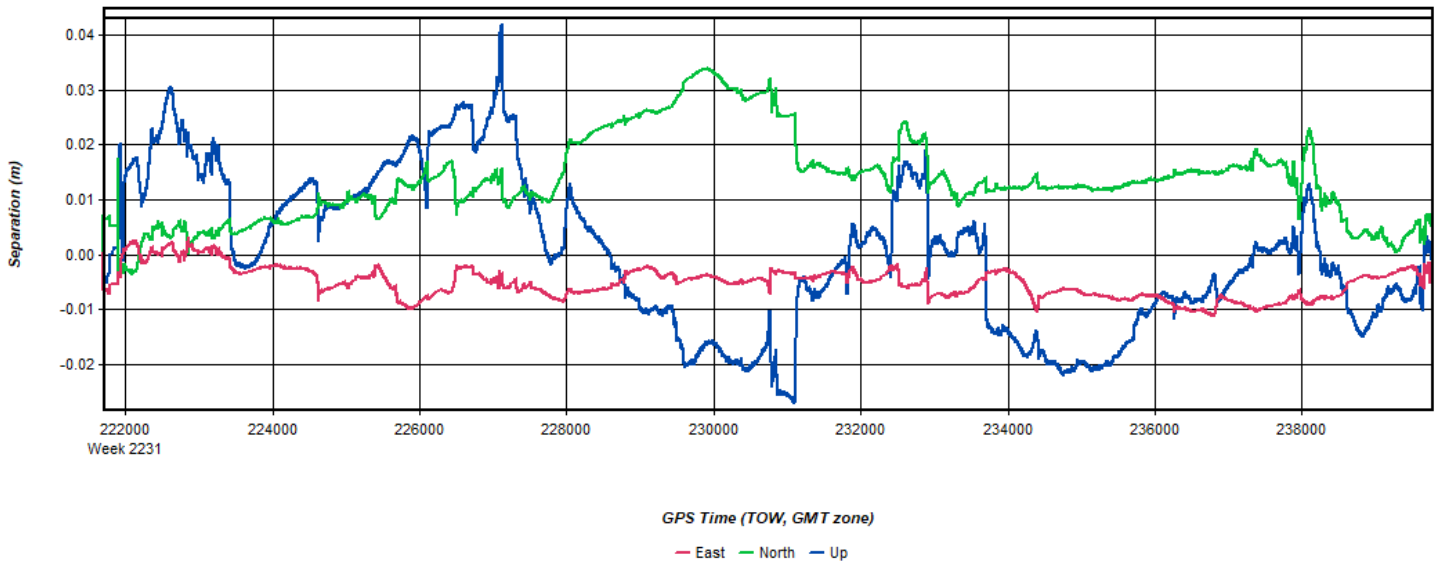
Inertial Explorer Version 8.90.2124
10/15/2022

Figure 1: Smoothed TC Combined - Map



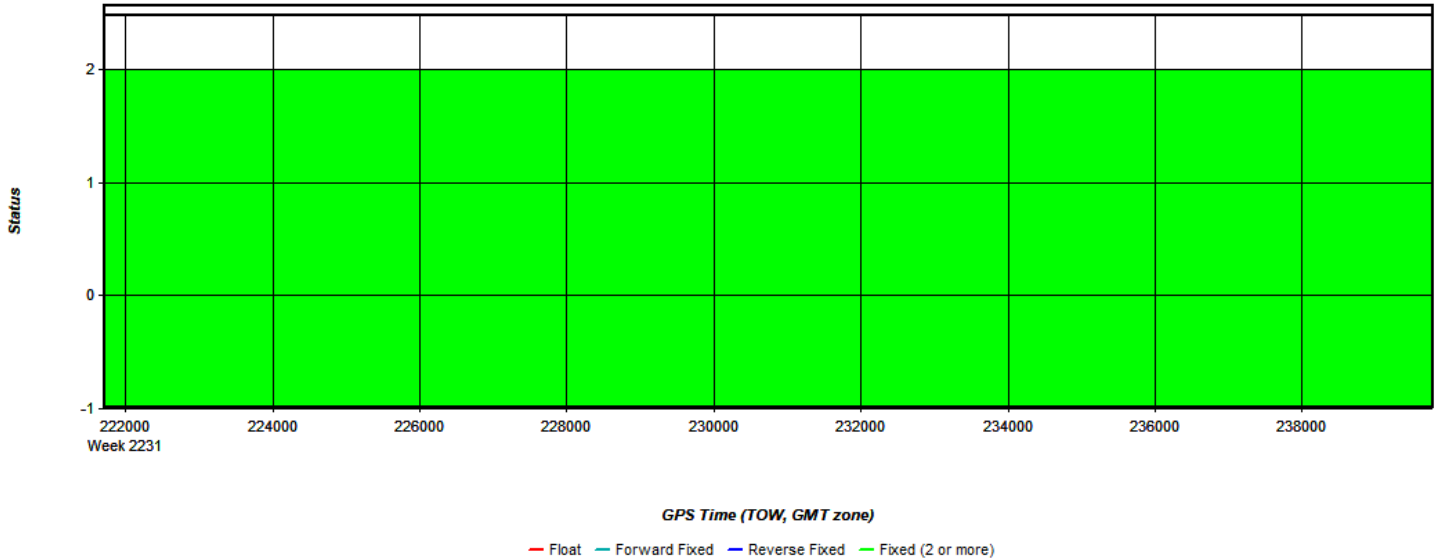
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 2: 20221011133407_33 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



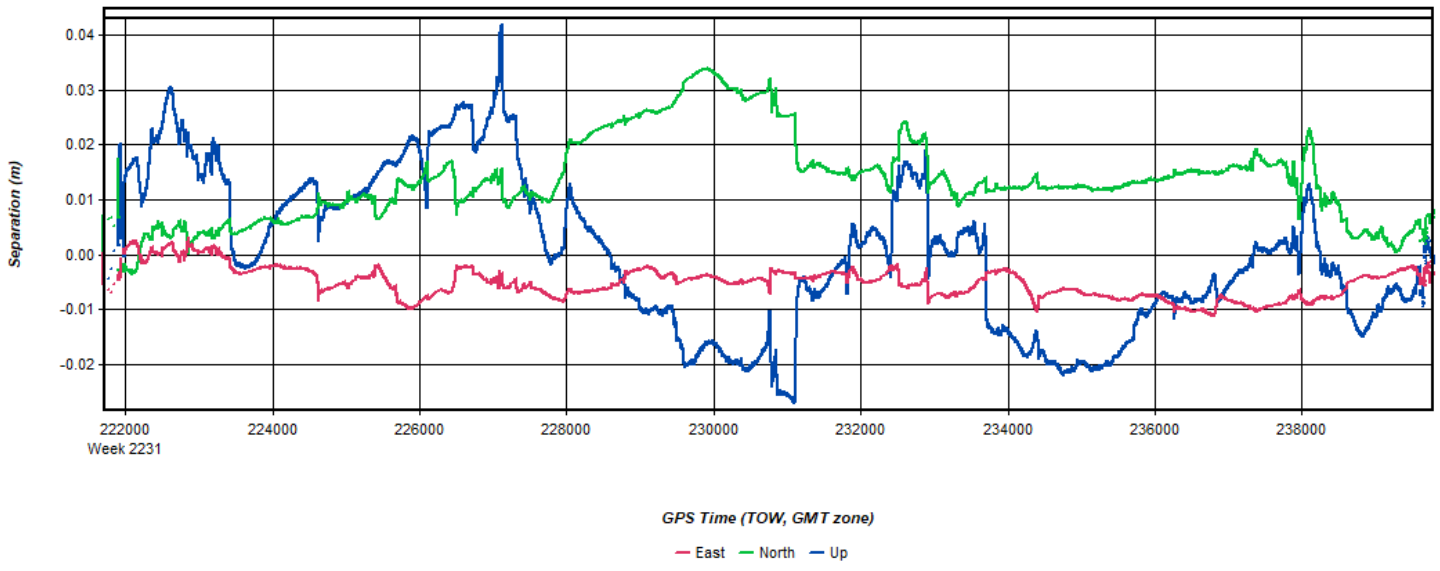
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 3: 20221011133407_33 [Smoothed TC Combined] - Float or Fixed Ambiguity



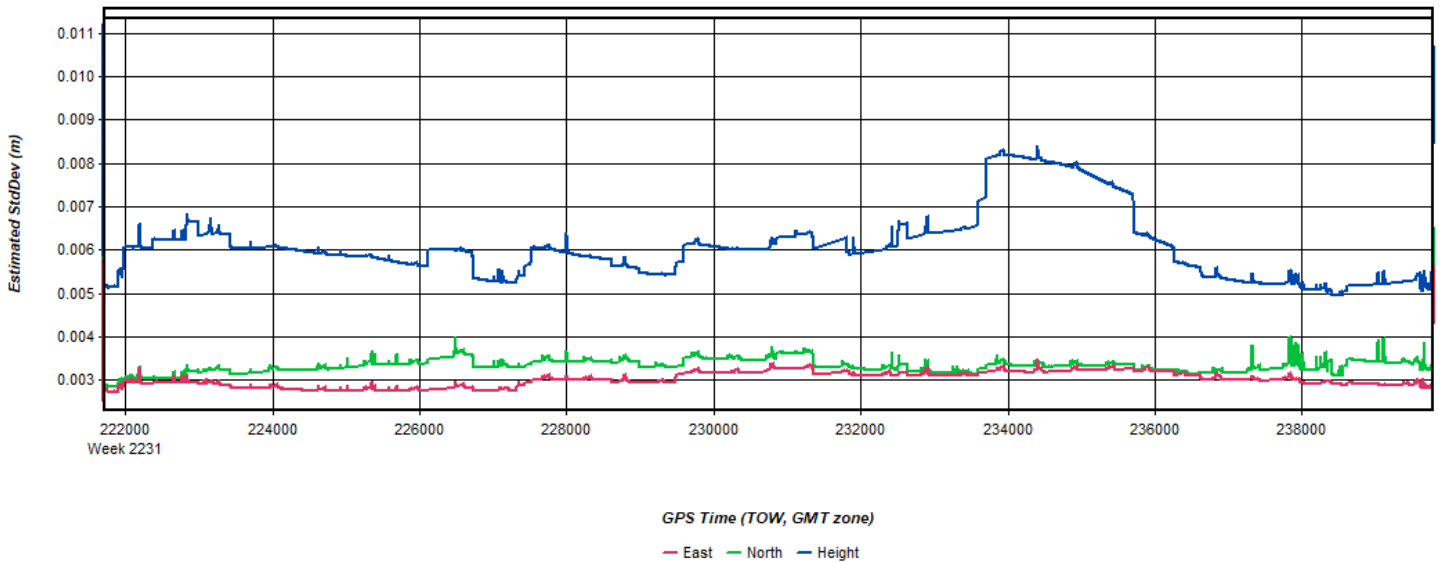
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 4: 20221011133407_33 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 5: 20221011133407_33 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 6: 20221011133407_33 [Smoothed TC Combined] - PDOP Plot

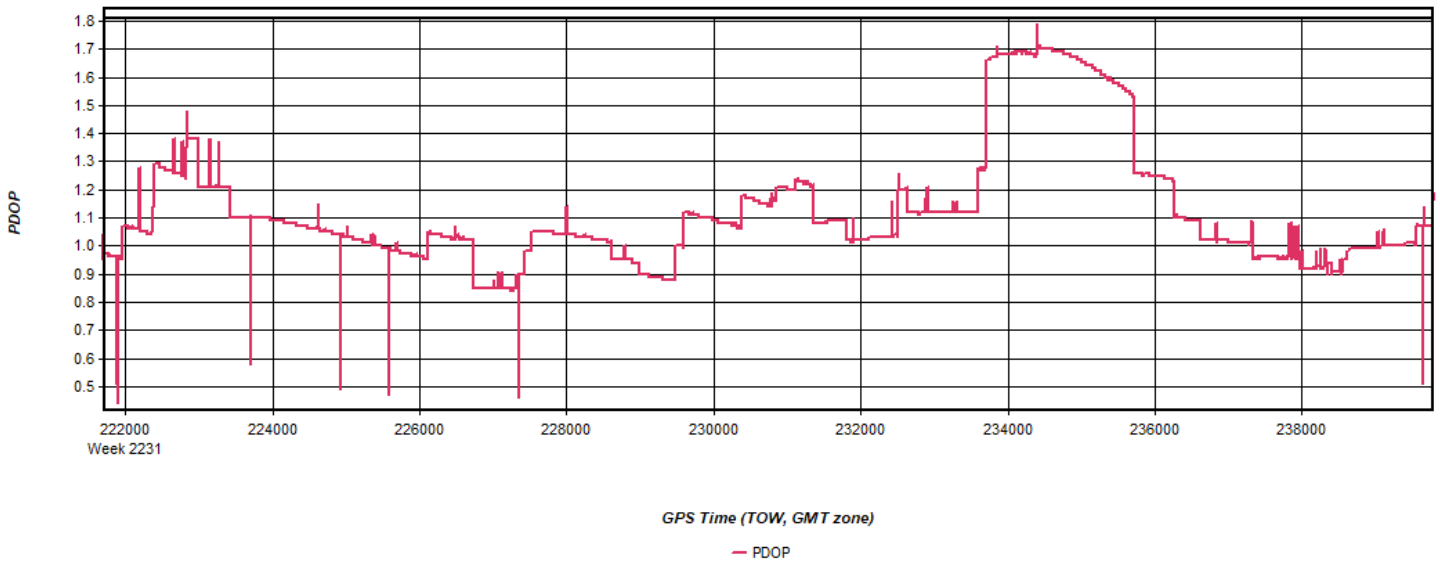


Figure 7: 20221011133407_33 [Smoothed TC Combined] - Number of Satellites Line Plot

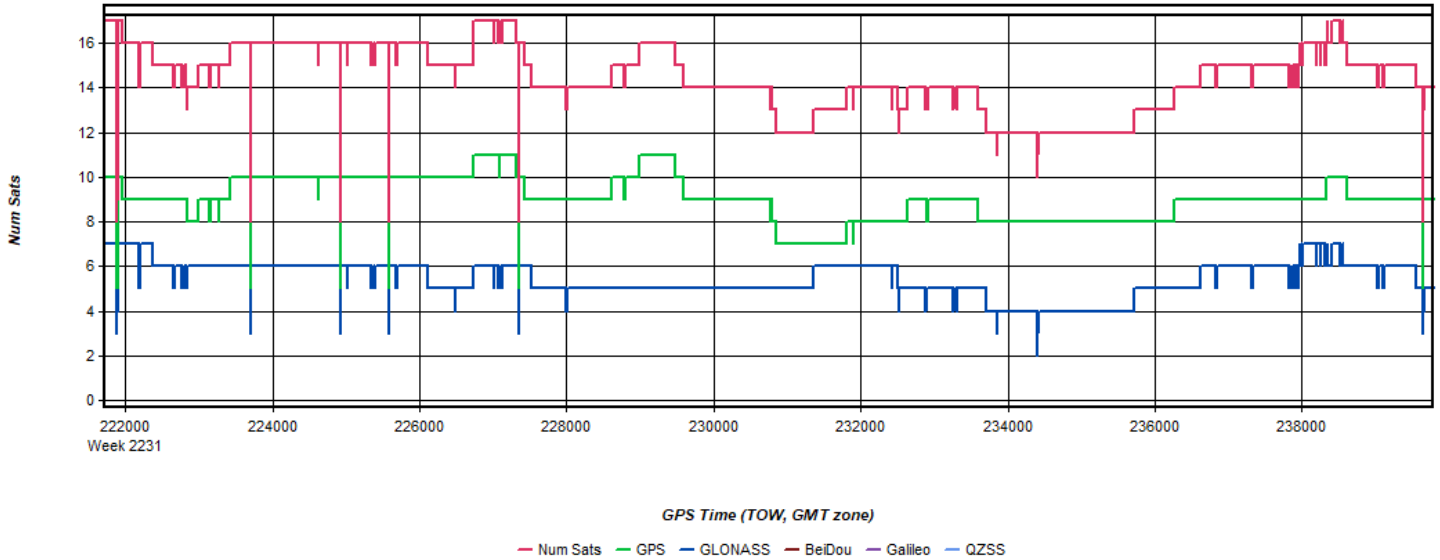
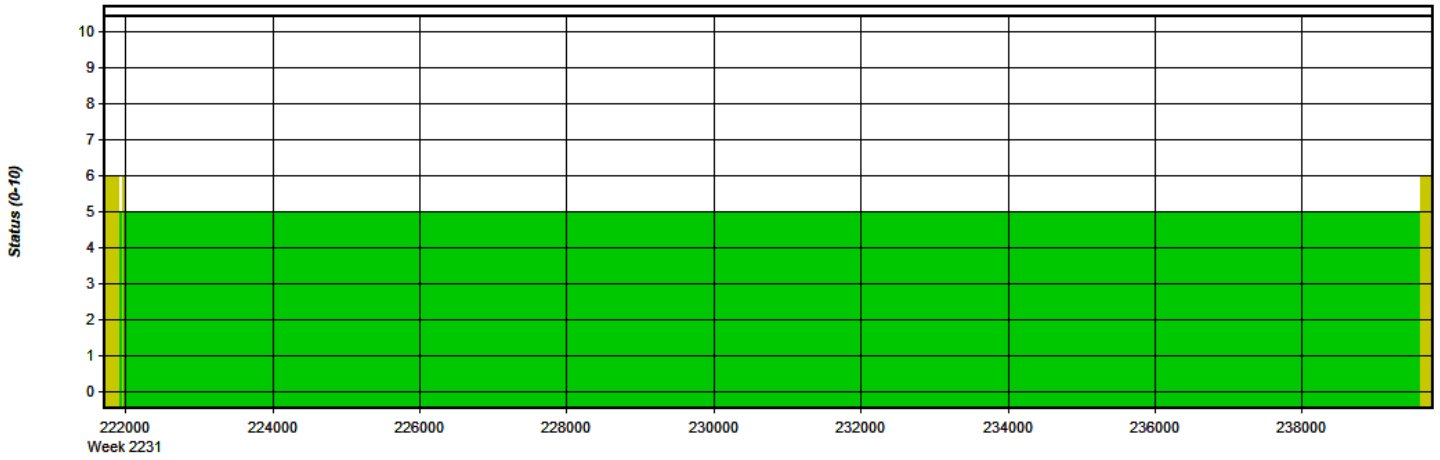


Figure 8: 20221011133407_33 [Smoothed TC Combined] - Status flag for IMU processing

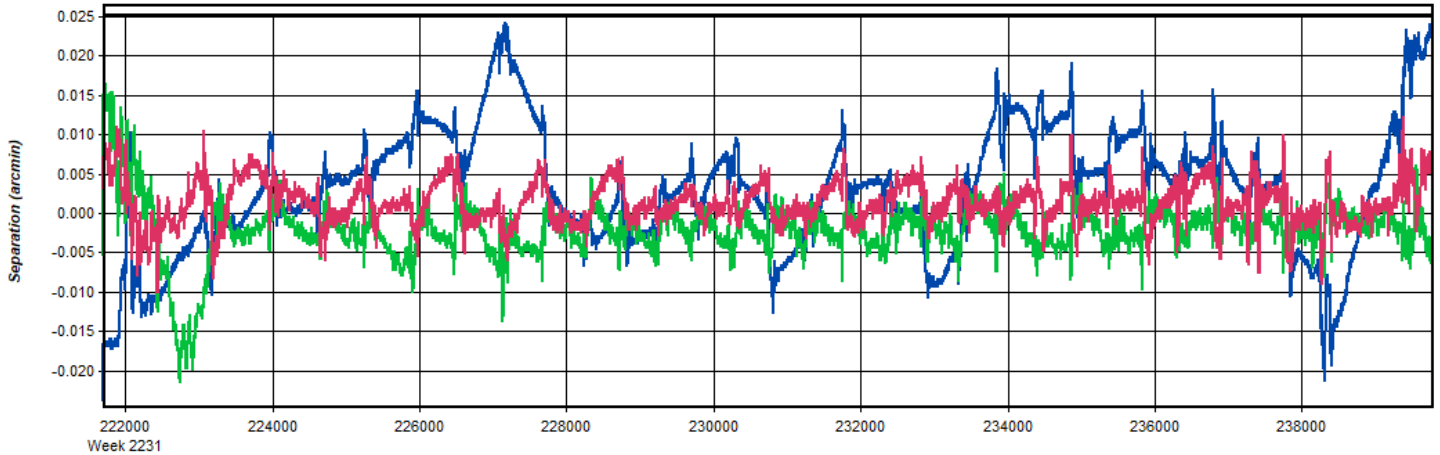


GPS Time (TOW, GMT zone)

— None — Align — Free — DMIUPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 9: 20221011133407_33 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

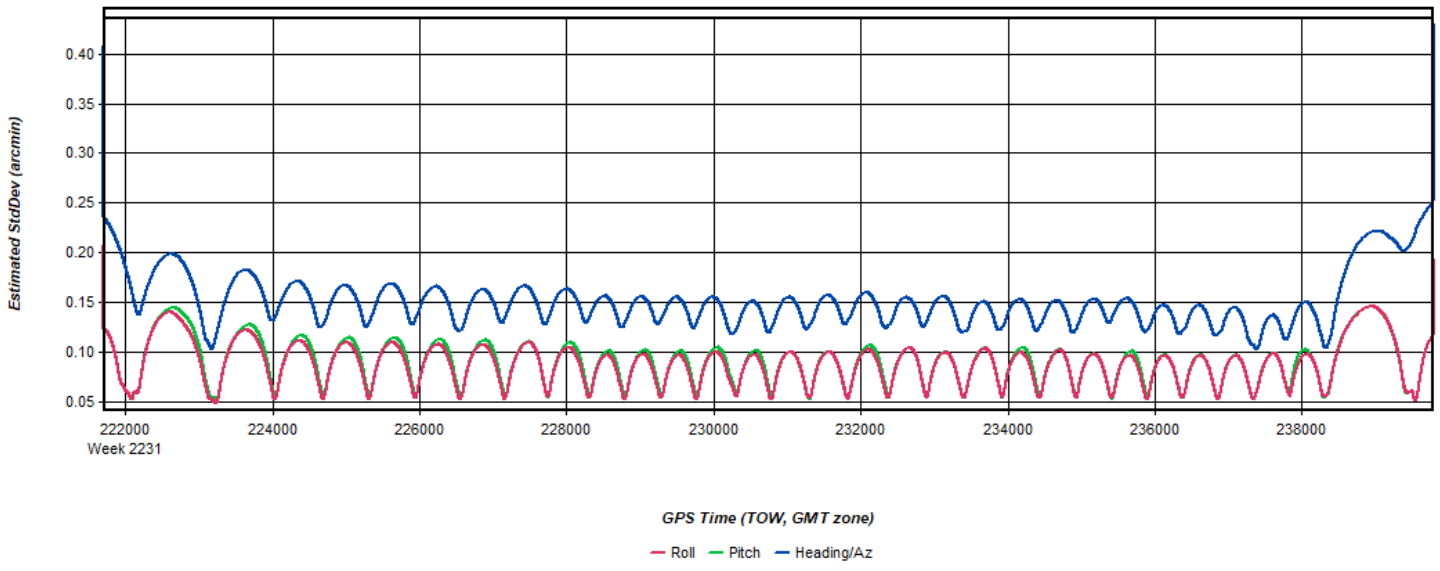


GPS Time (TOW, GMT zone)

— Roll — Pitch — Heading/Az

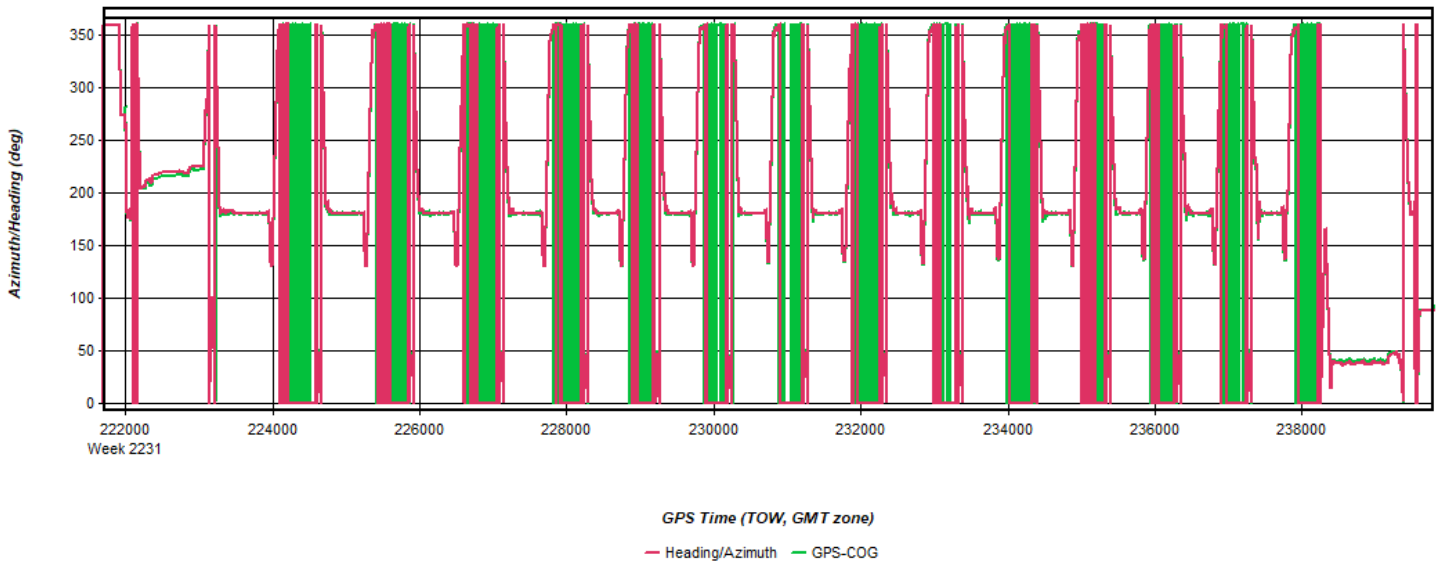
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 10: 20221011133407_33 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



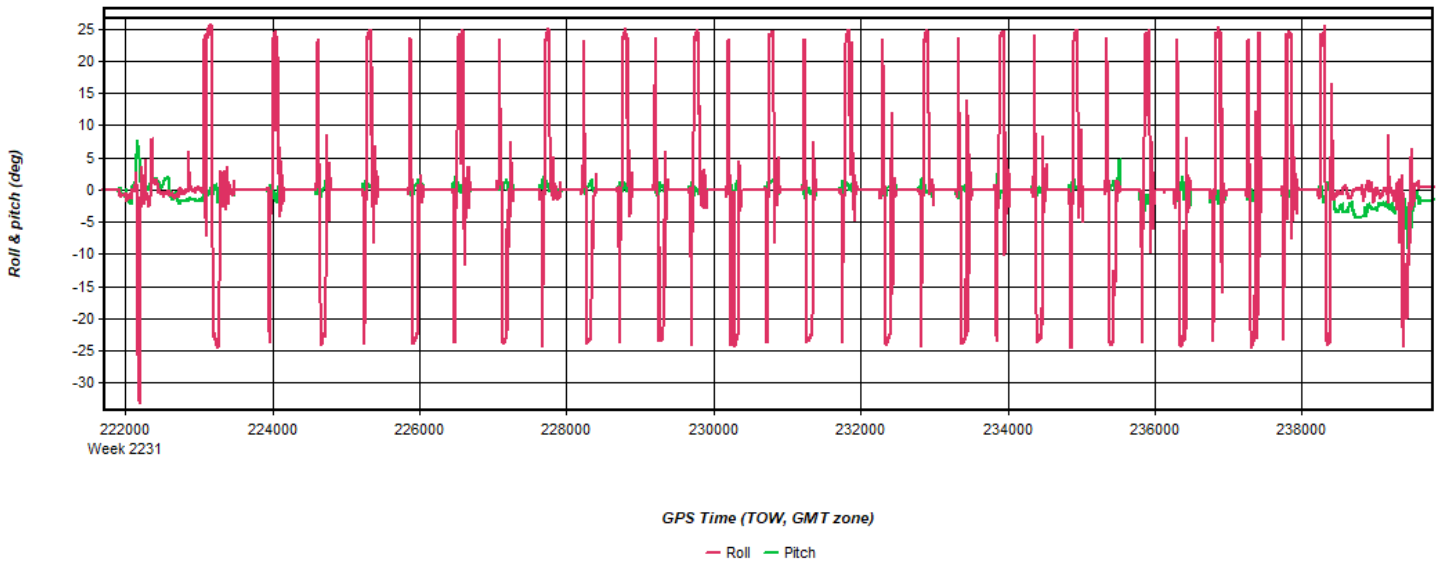
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 11: 20221011133407_33 [Smoothed TC Combined] - Azimuth Plot



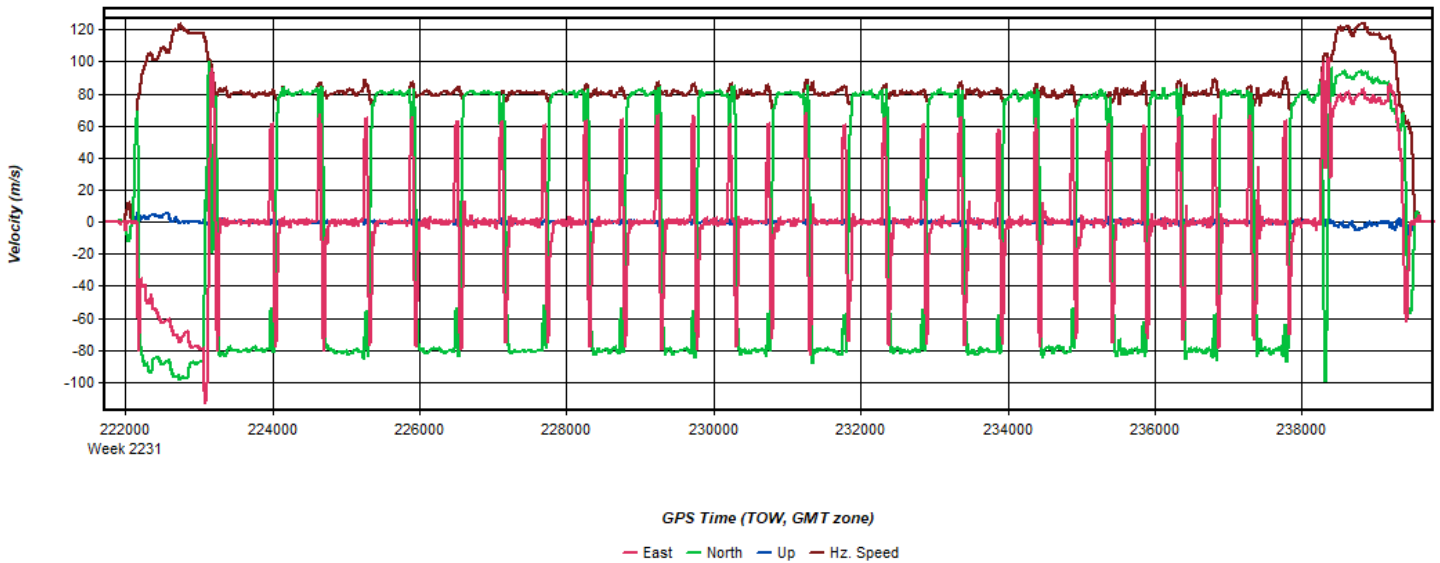
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 12: 20221011133407_33 [Smoothed TC Combined] - Roll & Pitch Plot



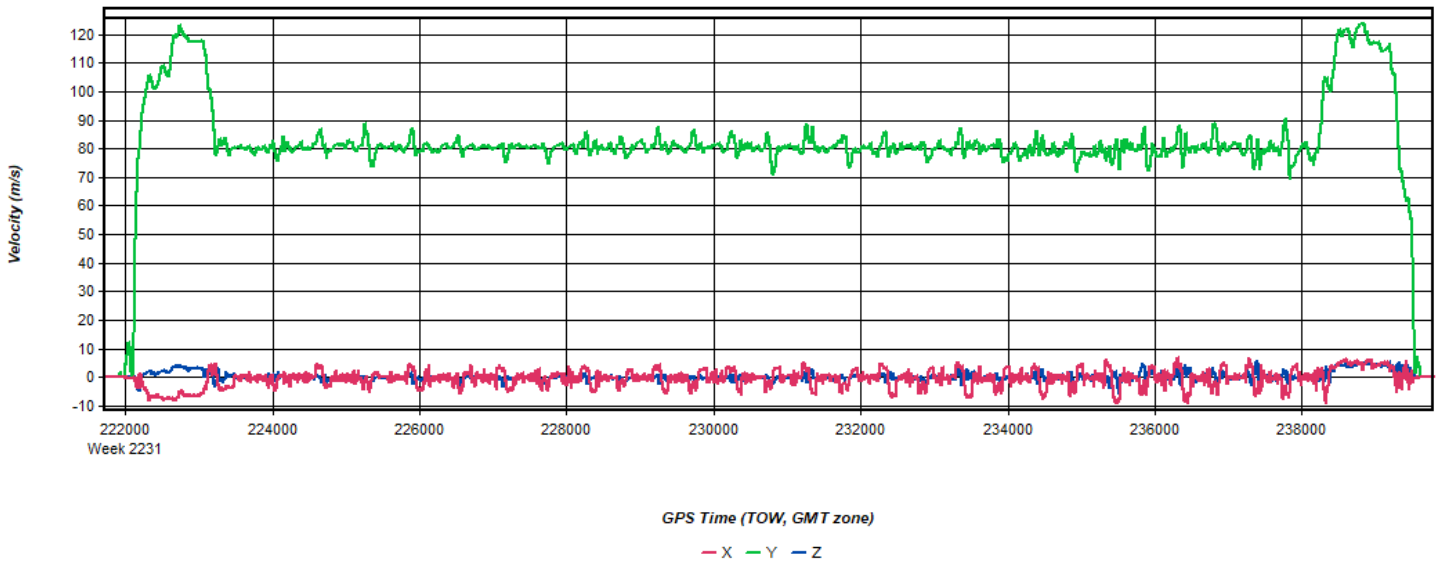
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 13: 20221011133407_33 [Smoothed TC Combined] - Velocity Profile Plot



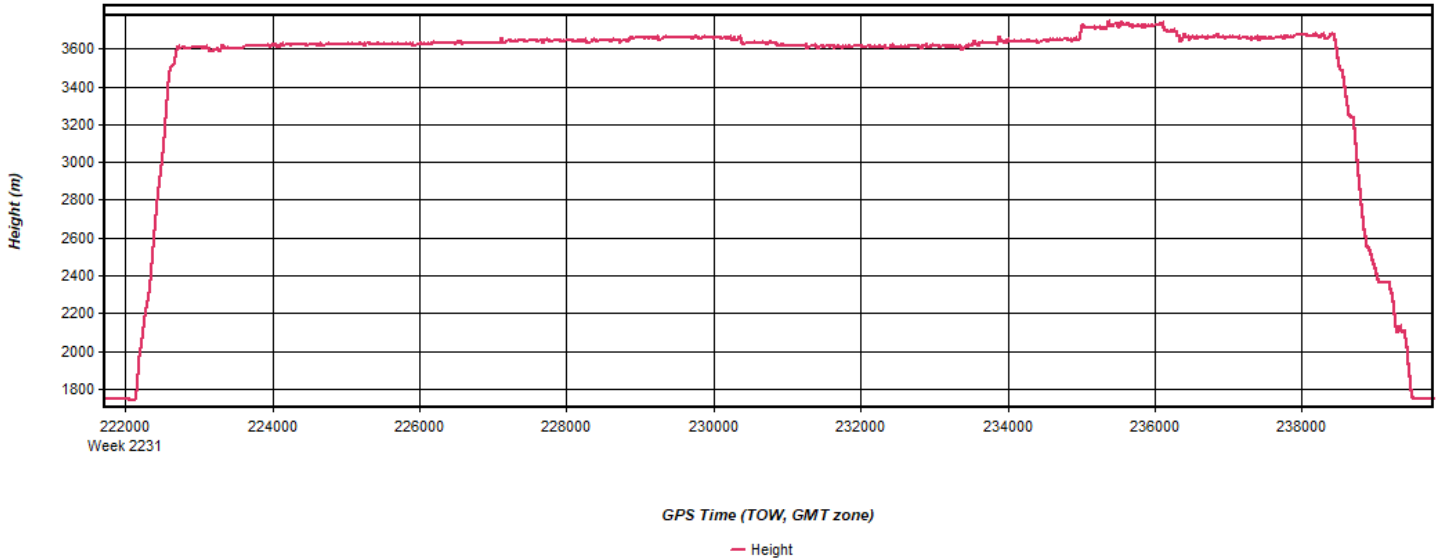
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 14: 20221011133407_33 [Smoothed TC Combined] - Body Frame Velocity Plot



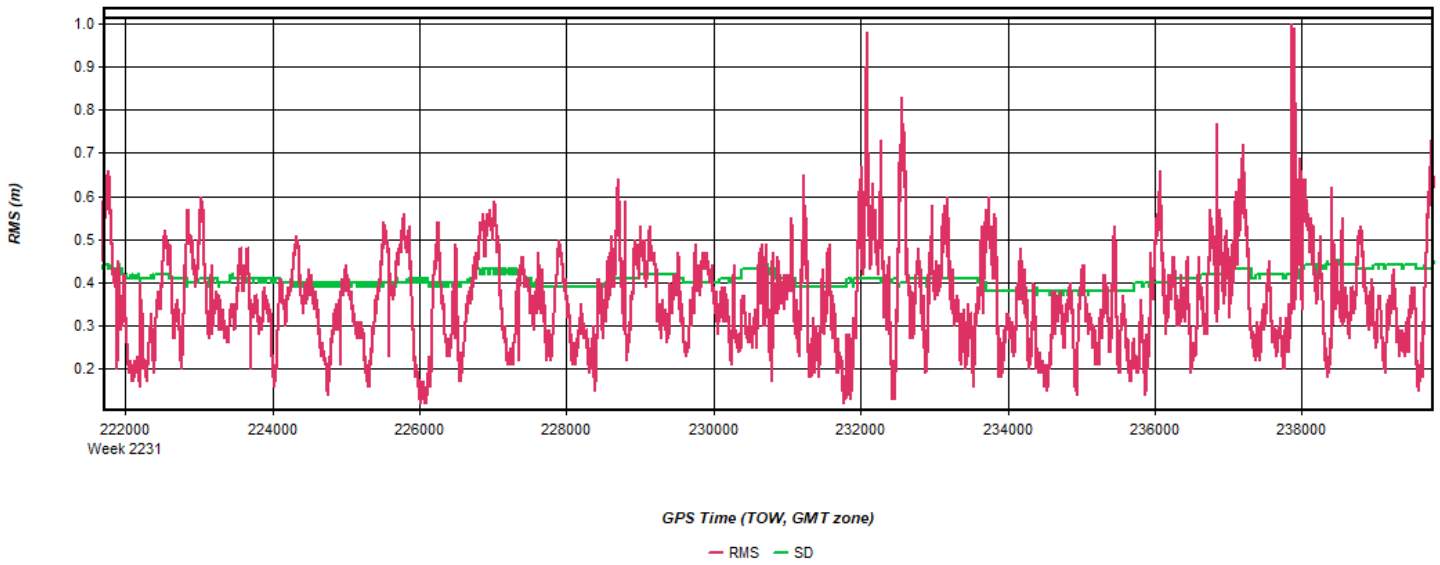
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 15: 20221011133407_33 [Smoothed TC Combined] - Height Profile Plot



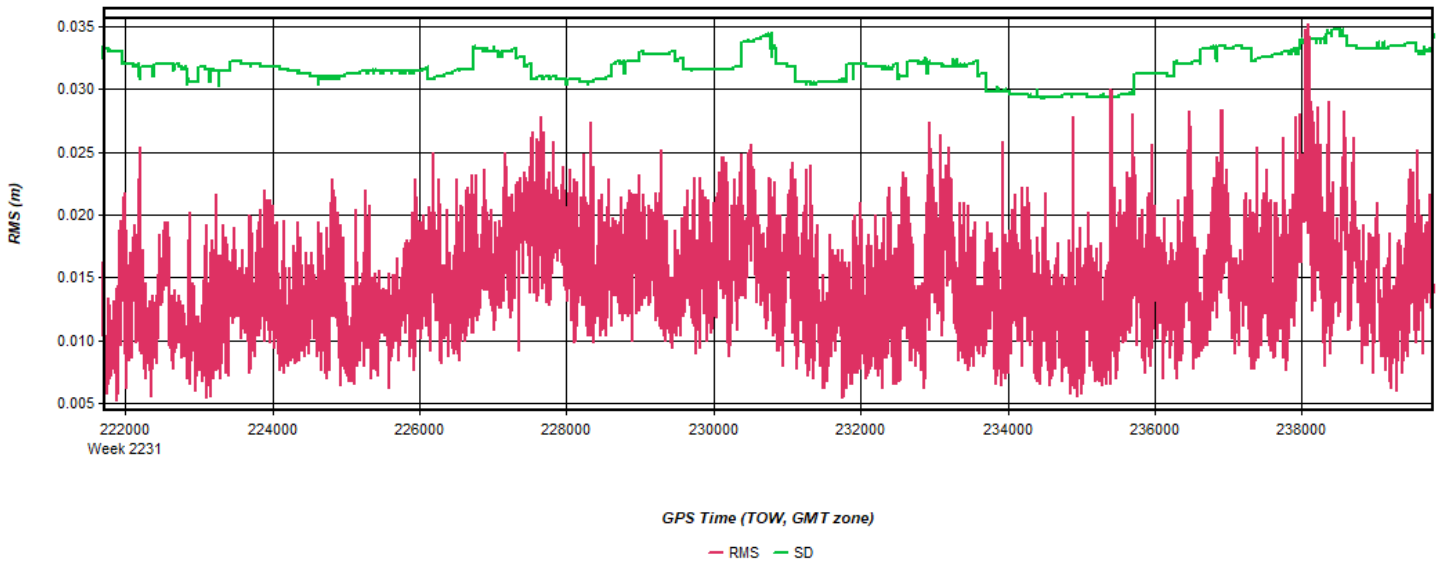
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 16: 20221011133407_33 [Smoothed TC Combined] - C/A Code Residual RMS Plot



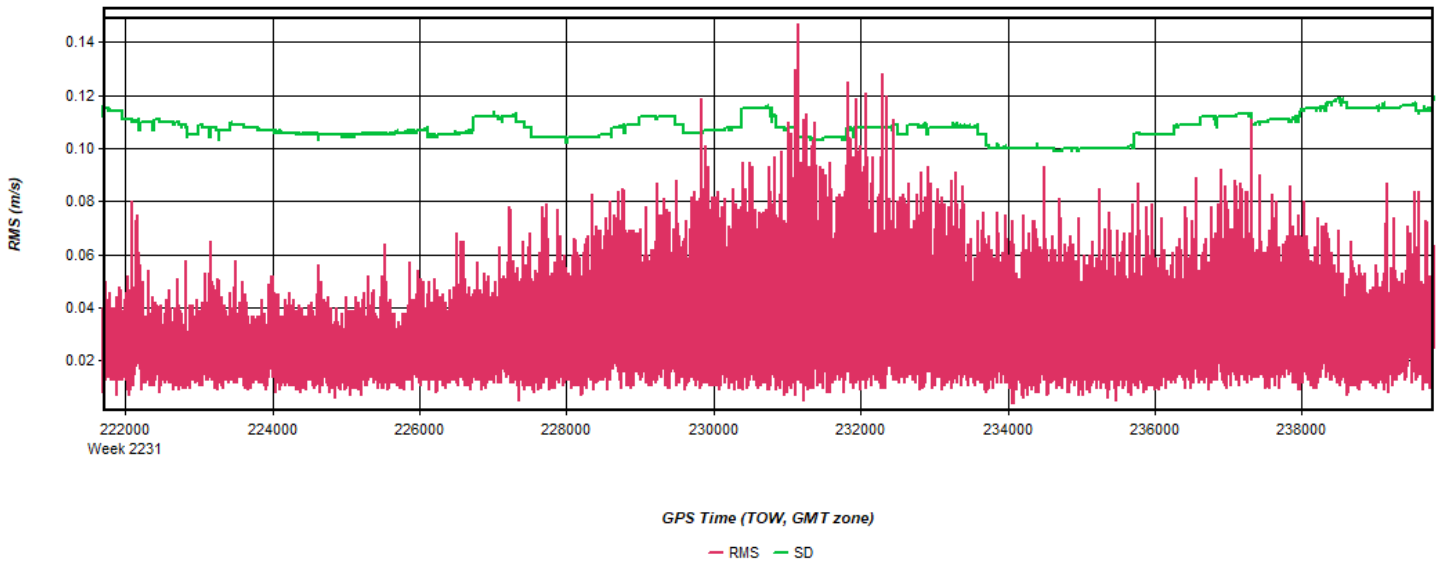
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 17: 20221011133407_33 [Smoothed TC Combined] - Carrier Residual RMS Plot



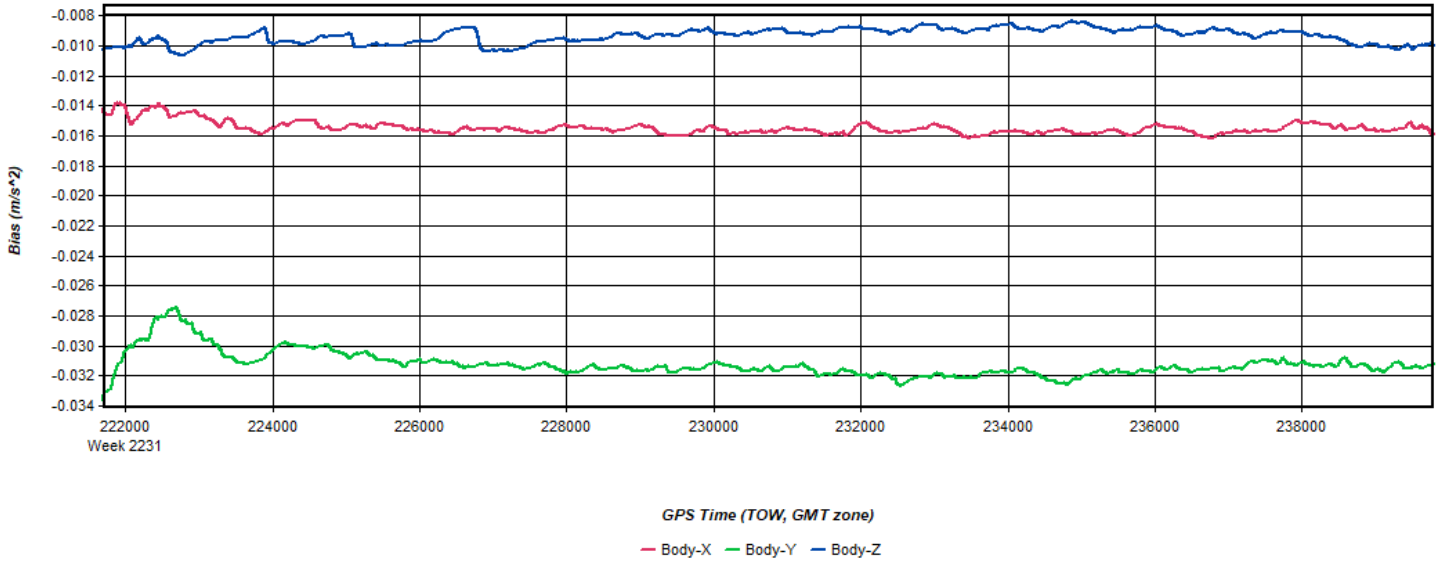
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 18: 20221011133407_33 [Smoothed TC Combined] - Doppler Residual RMS Plot



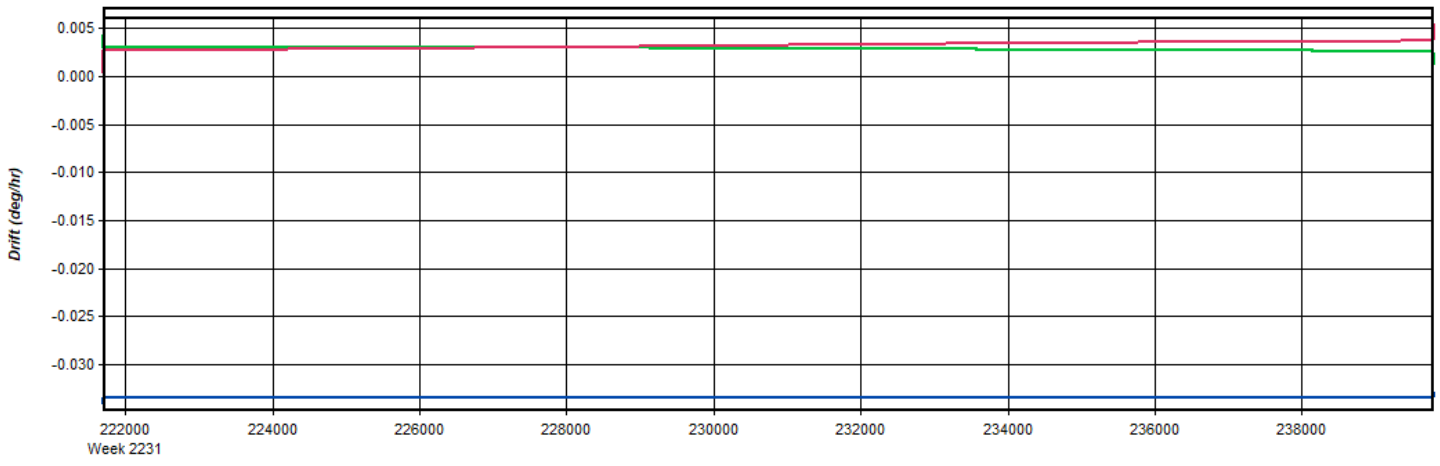
Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 19: 20221011133407_33 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Figure 20: 20221011133407_33 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

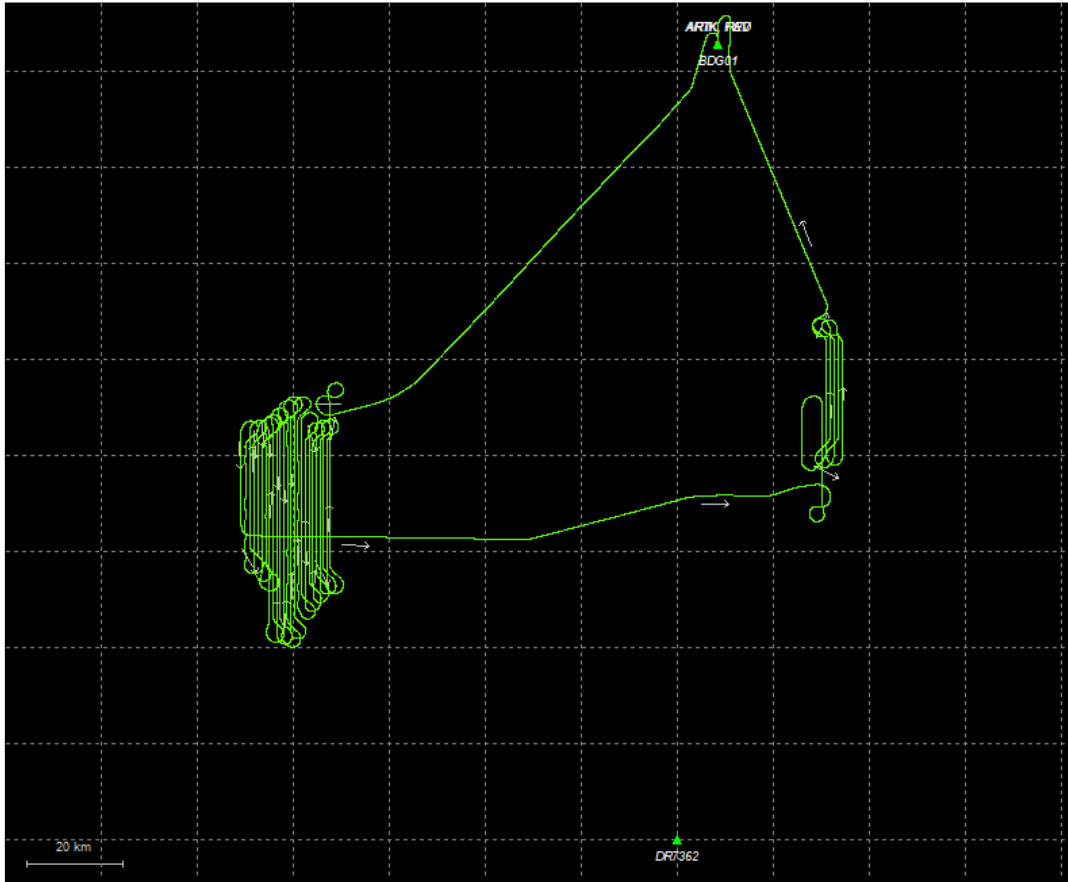
— Body-X — Body-Y — Body-Z

Process	20221011133407_33	by Unknown	on 10/15/2022	at 12:38:43
---------	-------------------	------------	---------------	-------------

Output Results for 20221012133346_34

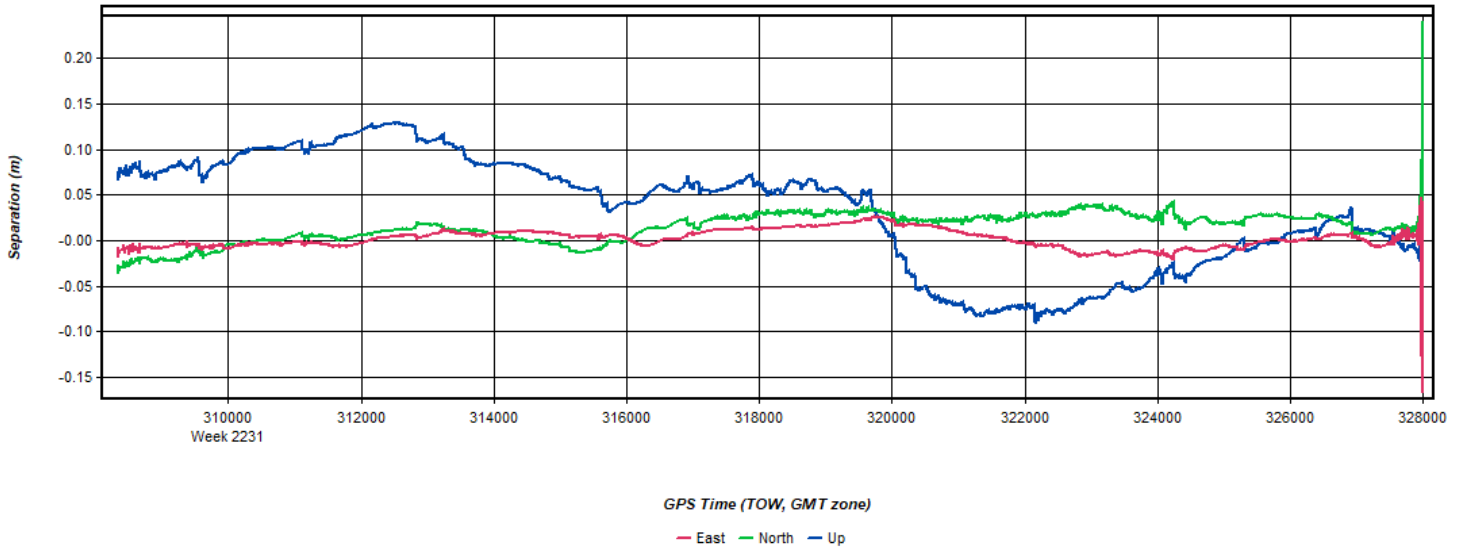
Inertial Explorer Version 8.90.2124
10/15/2022

Figure 1: Smoothed TC Combined - Map



Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 2: 20221012133346_34 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 3: 20221012133346_34 [Smoothed TC Combined] - Float or Fixed Ambiguity

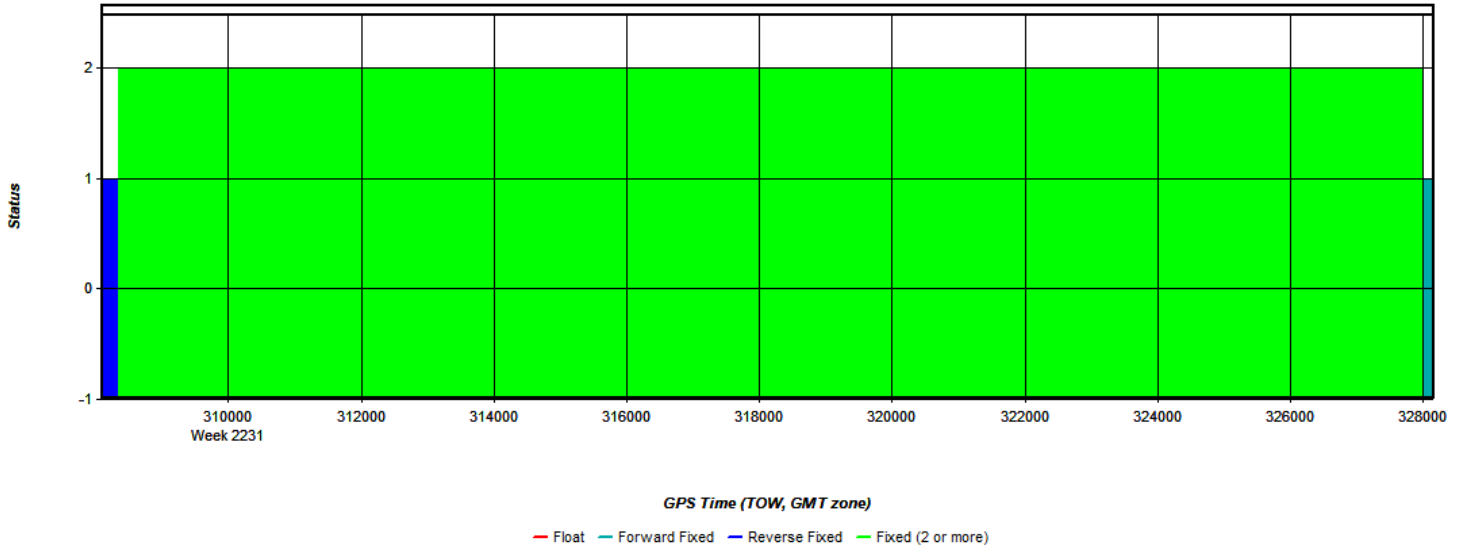


Figure 4: 20221012133346_34 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

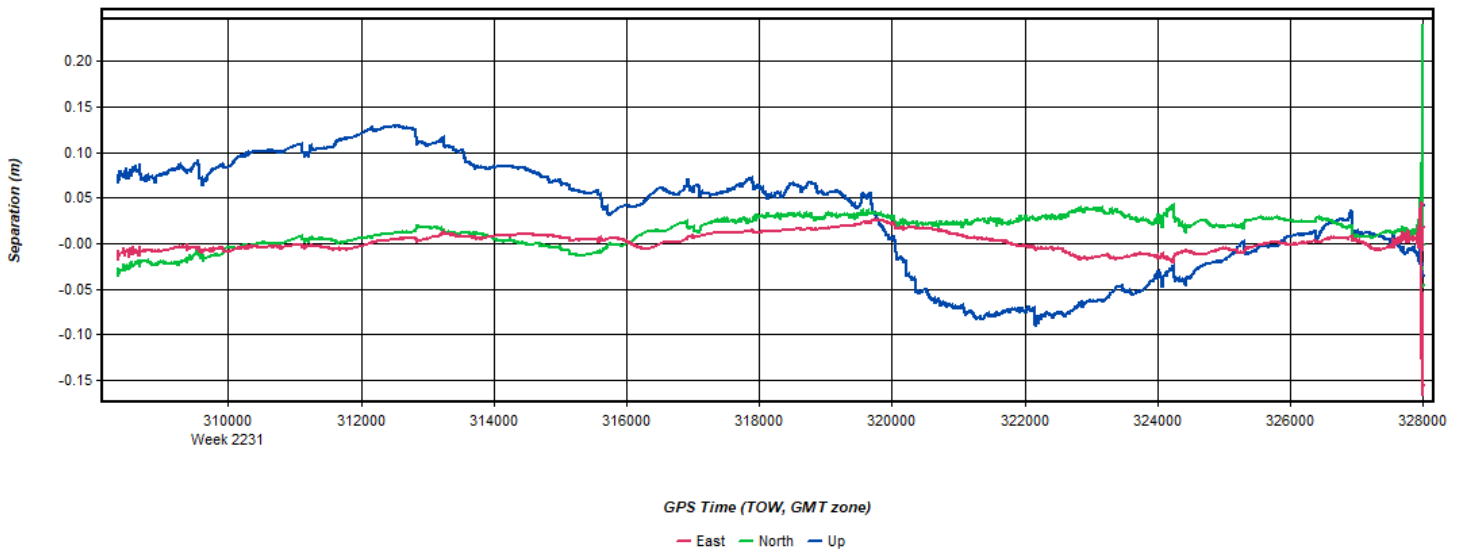
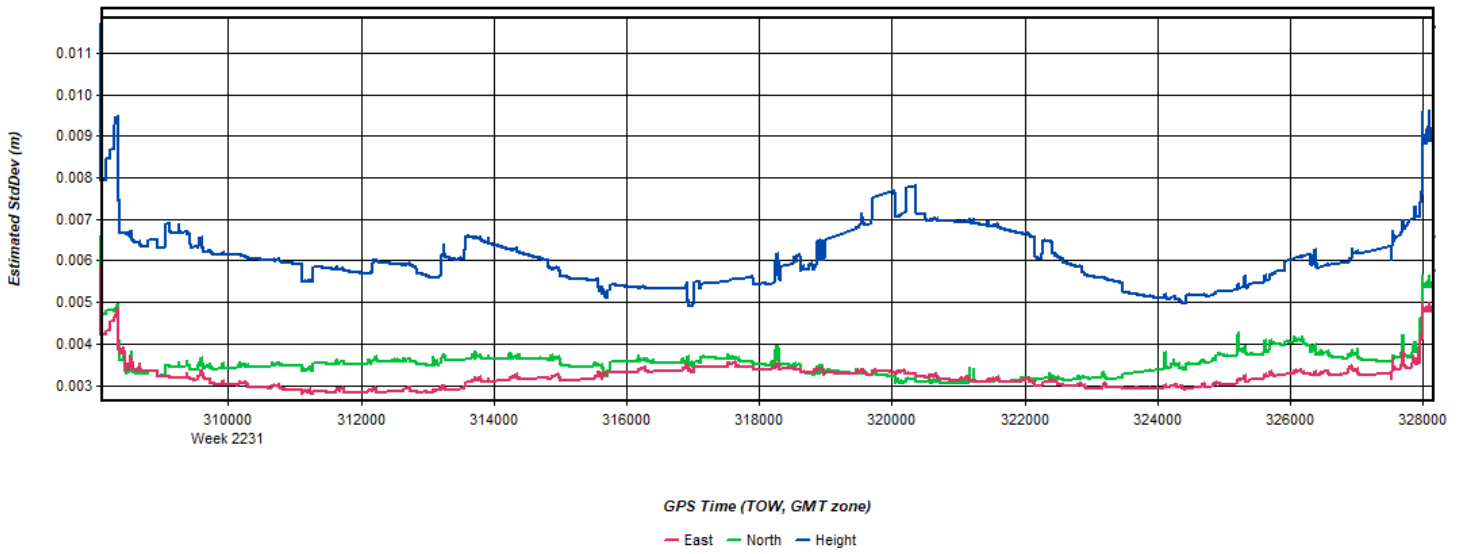
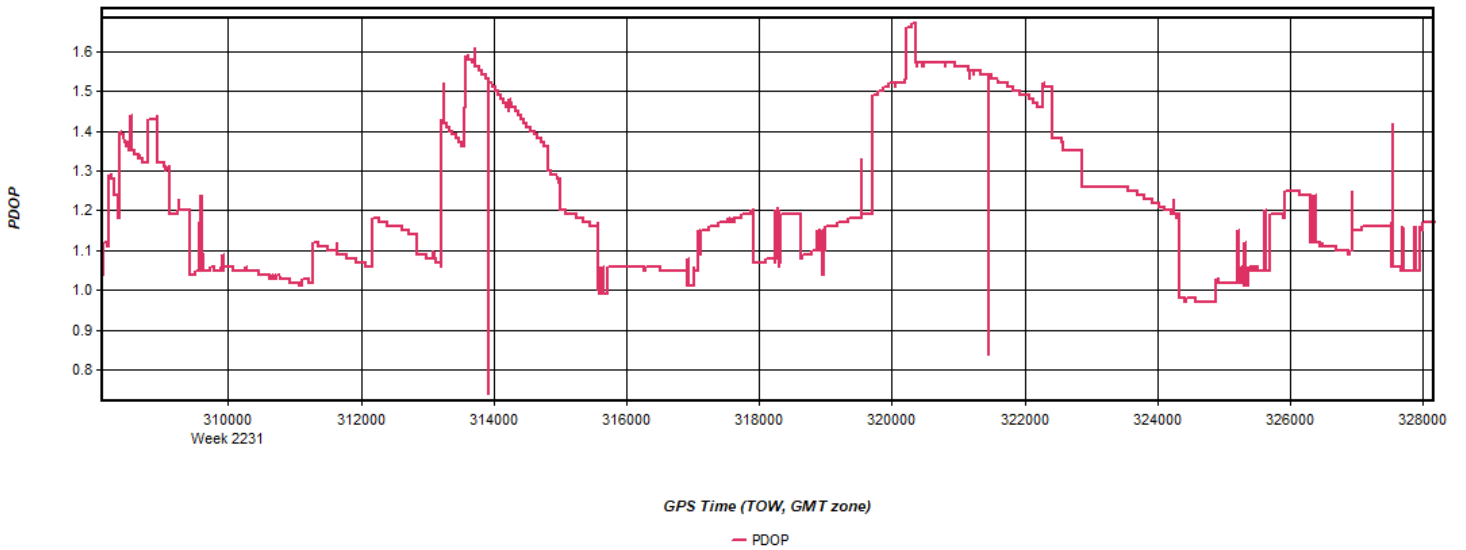


Figure 5: 20221012133346_34 [Smoothed TC Combined] - Estimated Position Accuracy Plot



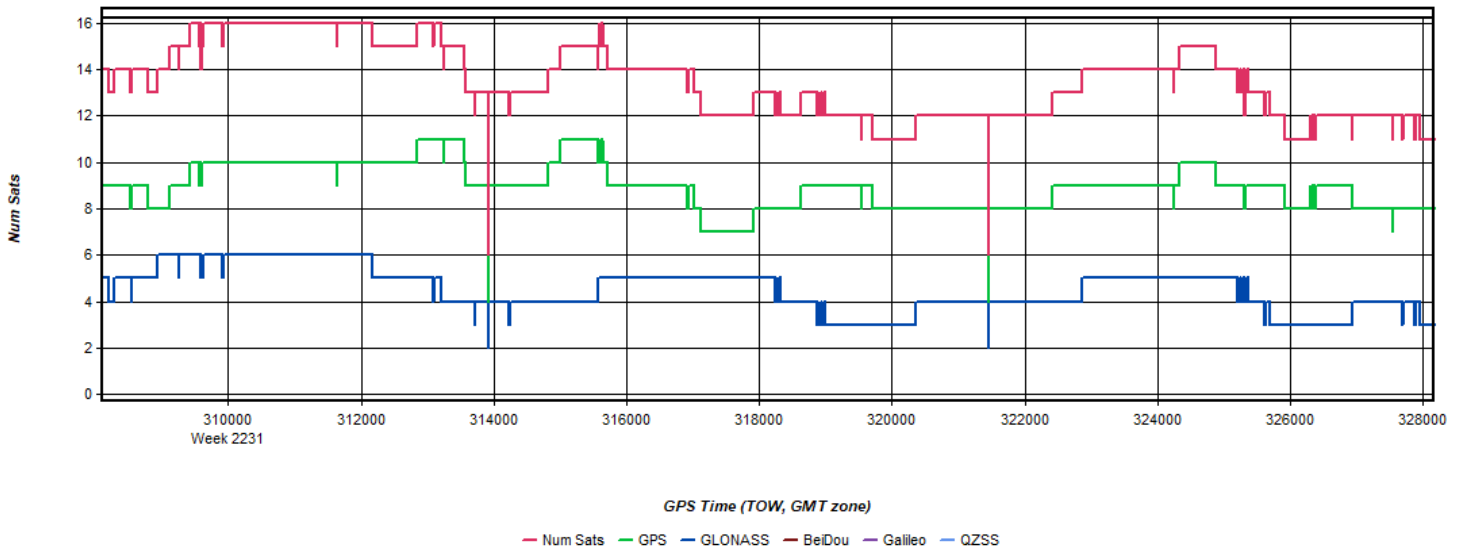
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 6: 20221012133346_34 [Smoothed TC Combined] - PDOP Plot



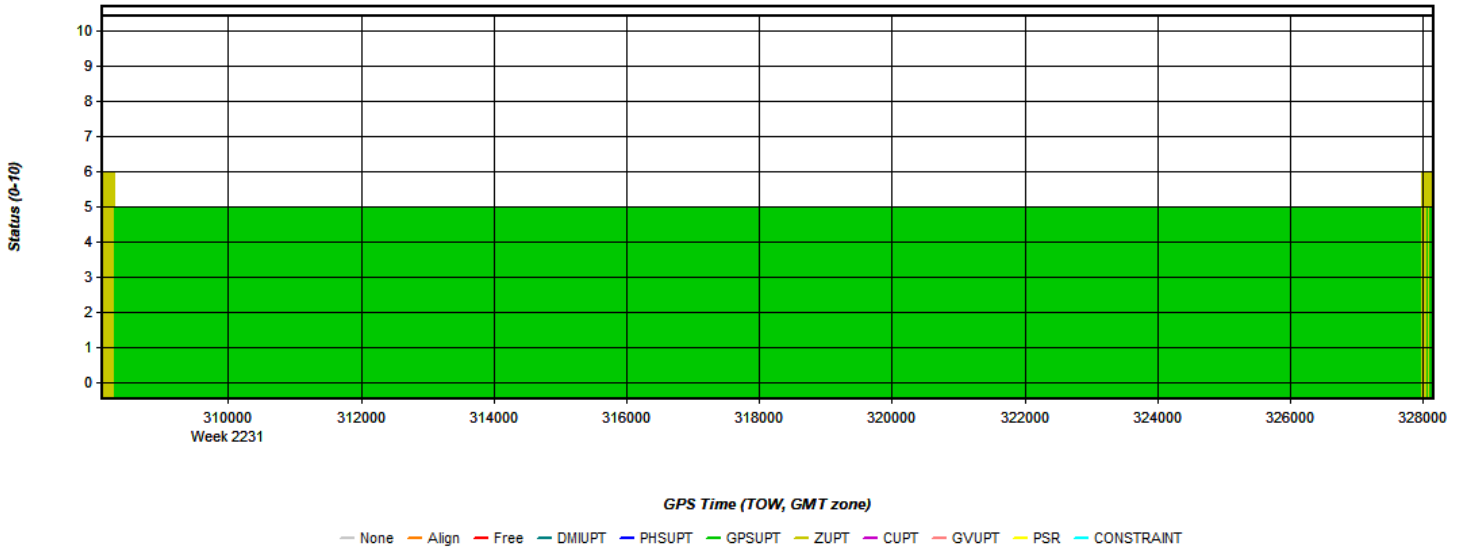
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 7: 20221012133346_34 [Smoothed TC Combined] - Number of Satellites Line Plot



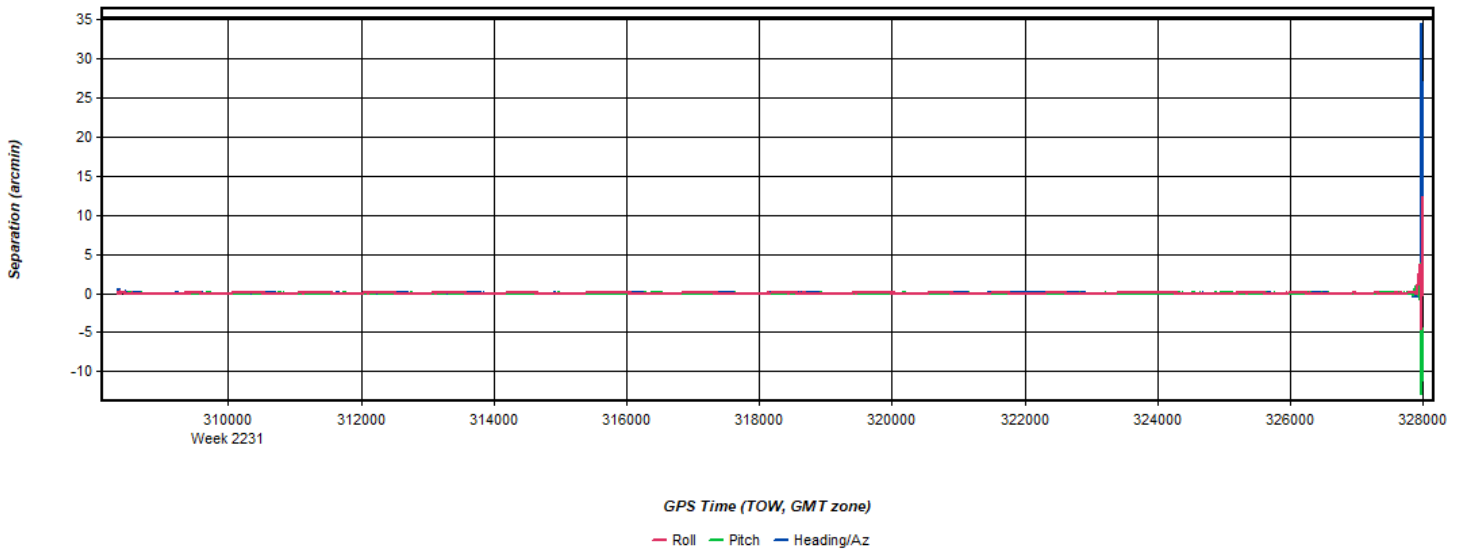
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 8: 20221012133346_34 [Smoothed TC Combined] - Status flag for IMU processing



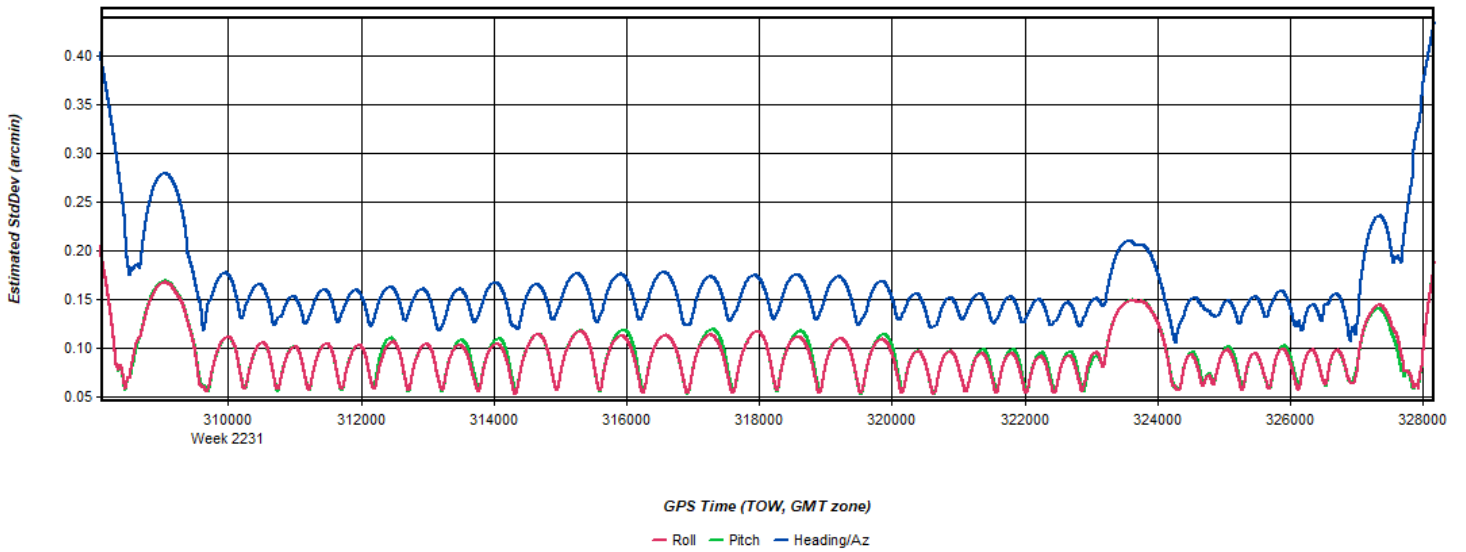
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 9: 20221012133346_34 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



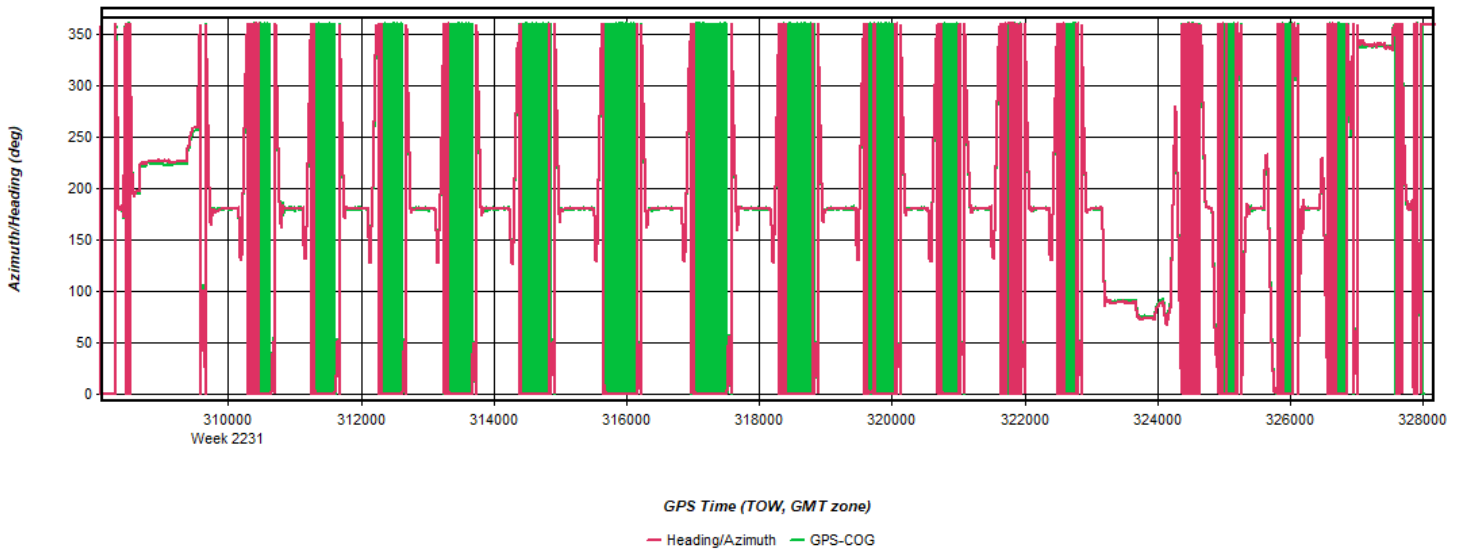
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 10: 20221012133346_34 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



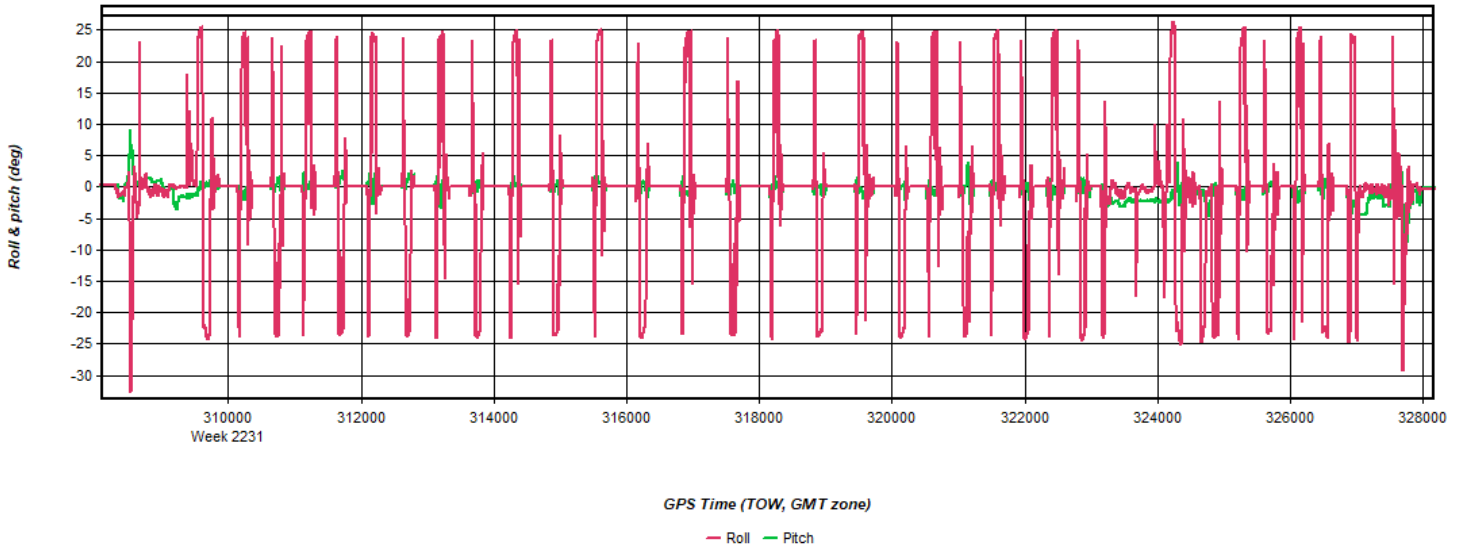
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 11: 20221012133346_34 [Smoothed TC Combined] - Azimuth Plot



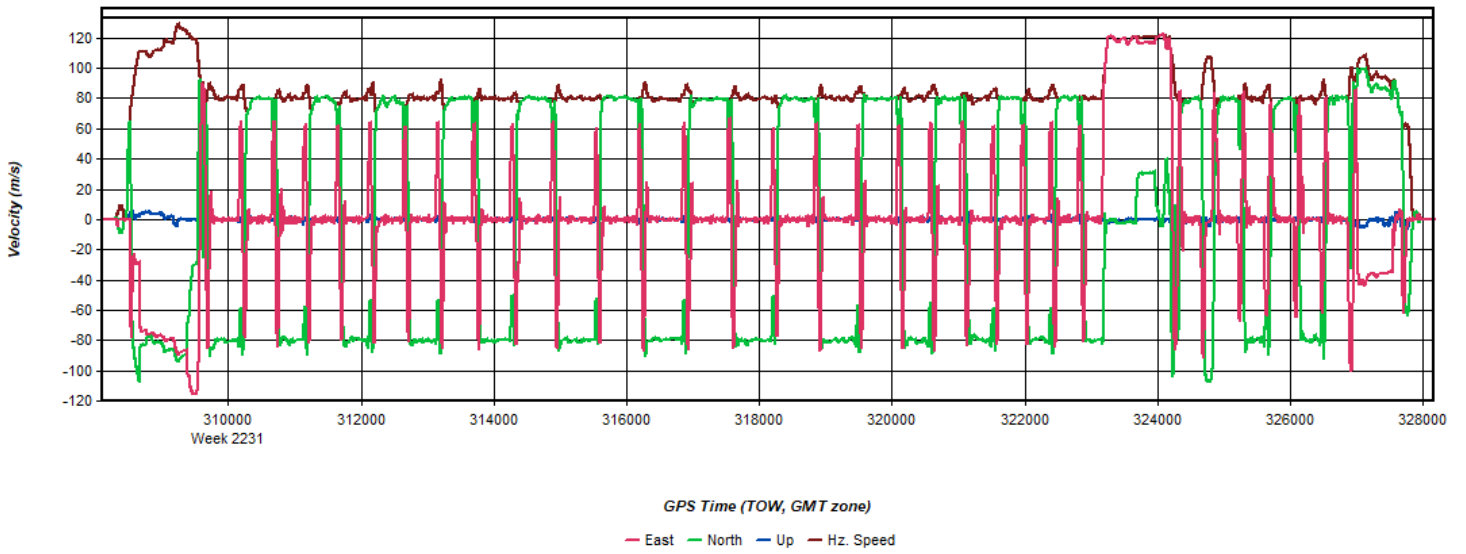
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 12: 20221012133346_34 [Smoothed TC Combined] - Roll & Pitch Plot



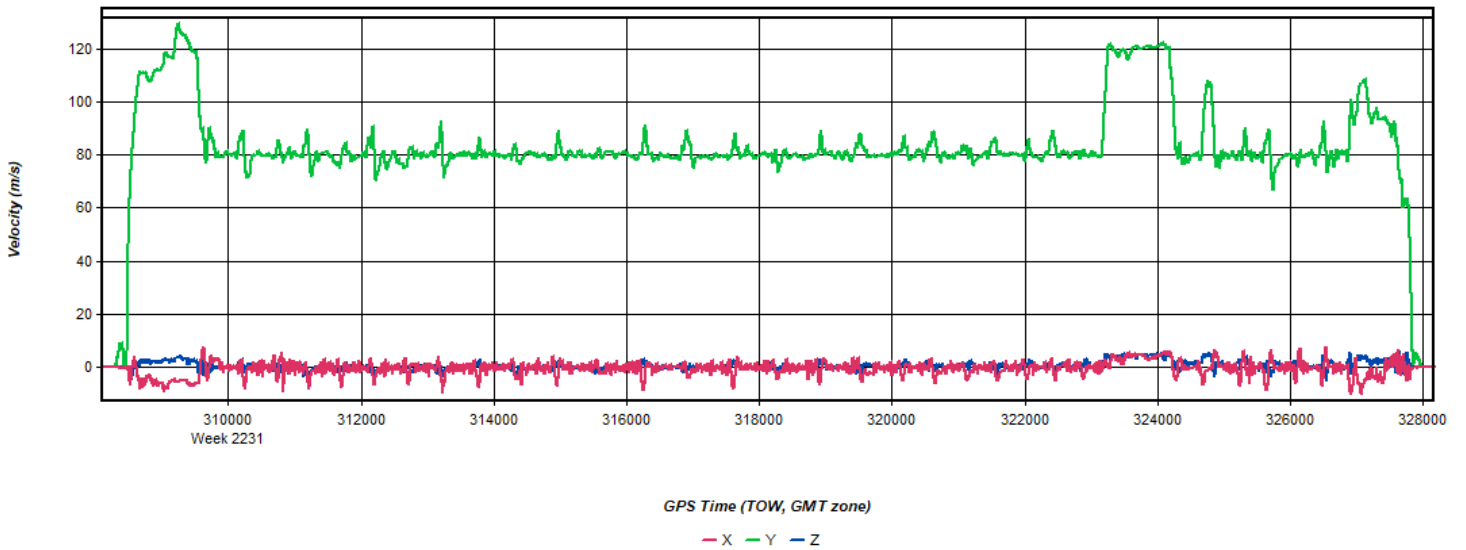
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 13: 20221012133346_34 [Smoothed TC Combined] - Velocity Profile Plot



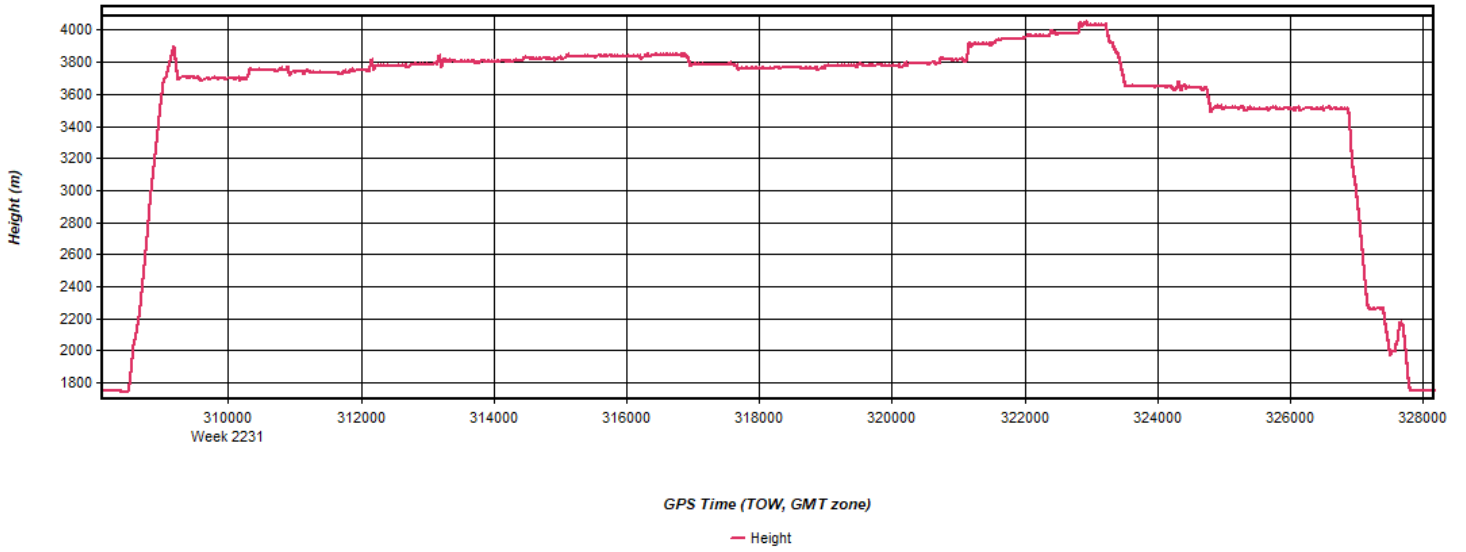
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 14: 20221012133346_34 [Smoothed TC Combined] - Body Frame Velocity Plot



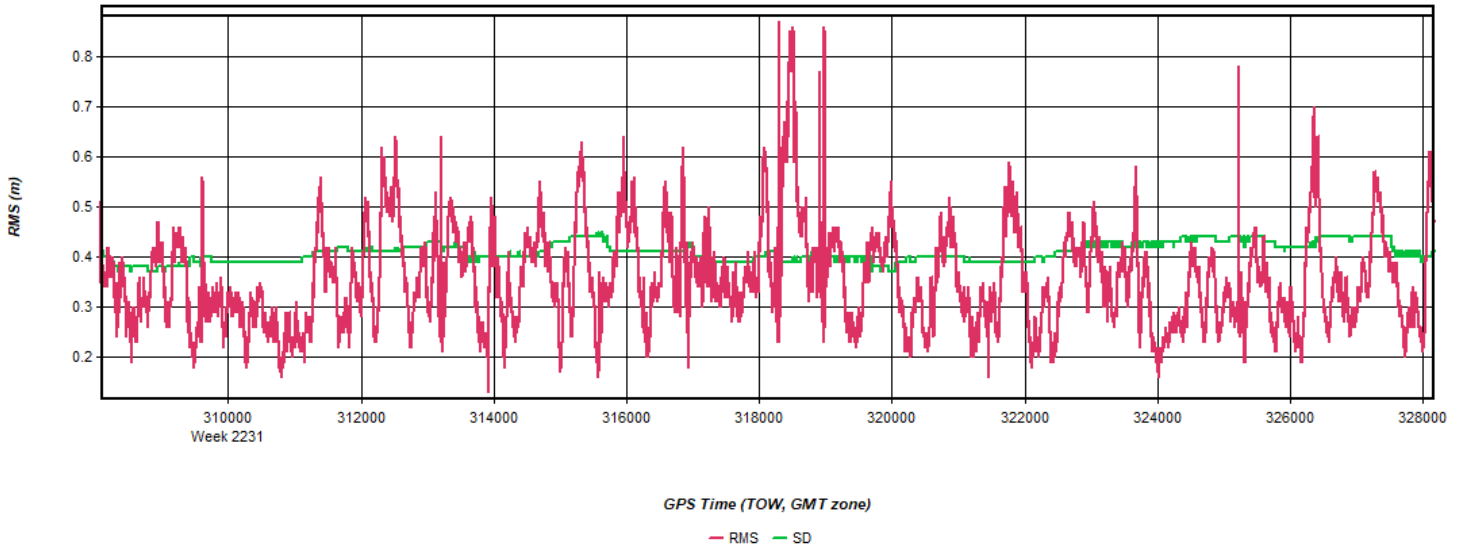
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 15: 20221012133346_34 [Smoothed TC Combined] - Height Profile Plot



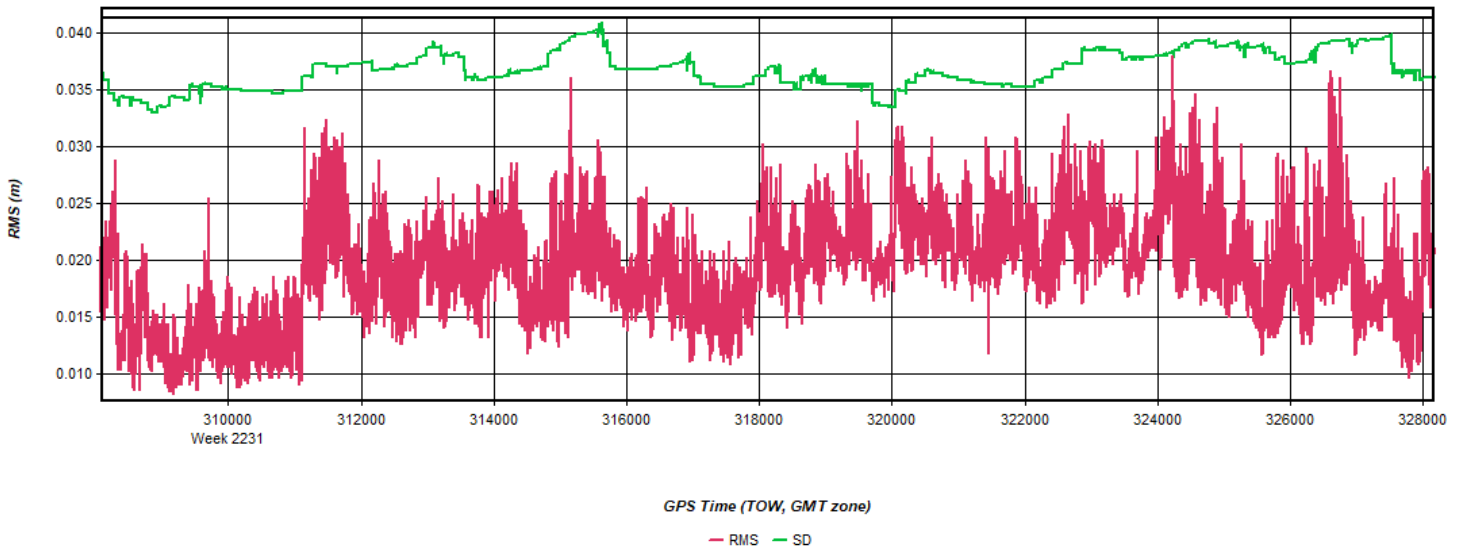
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 16: 20221012133346_34 [Smoothed TC Combined] - C/A Code Residual RMS Plot



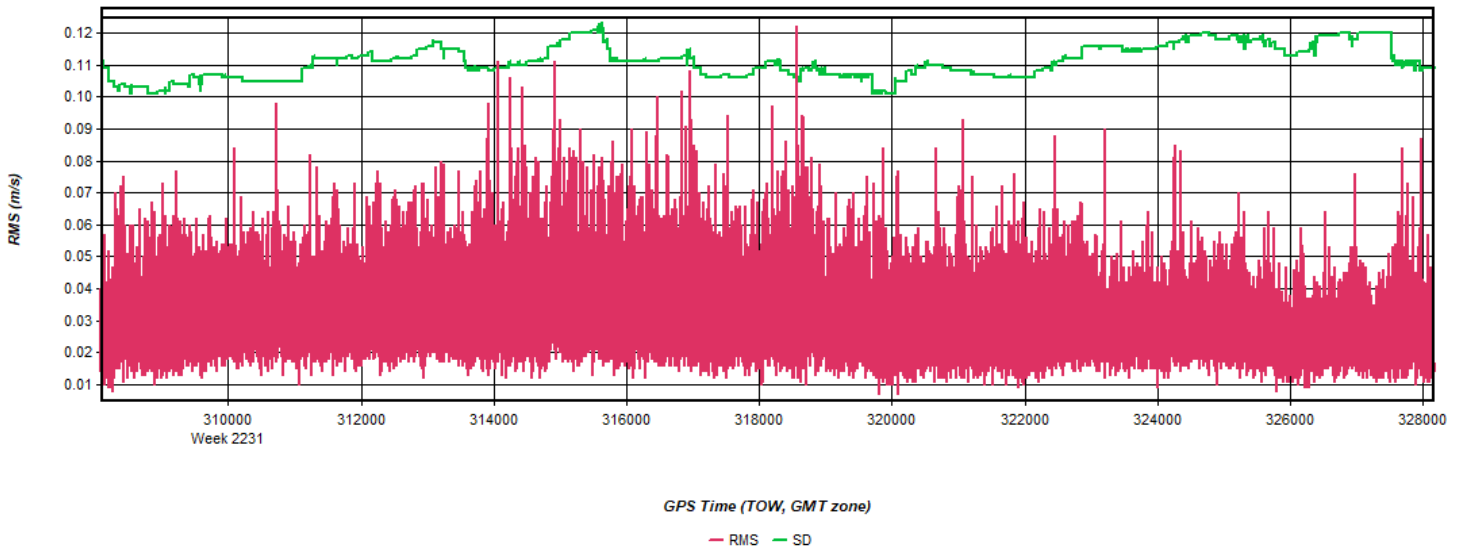
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 17: 20221012133346_34 [Smoothed TC Combined] - Carrier Residual RMS Plot



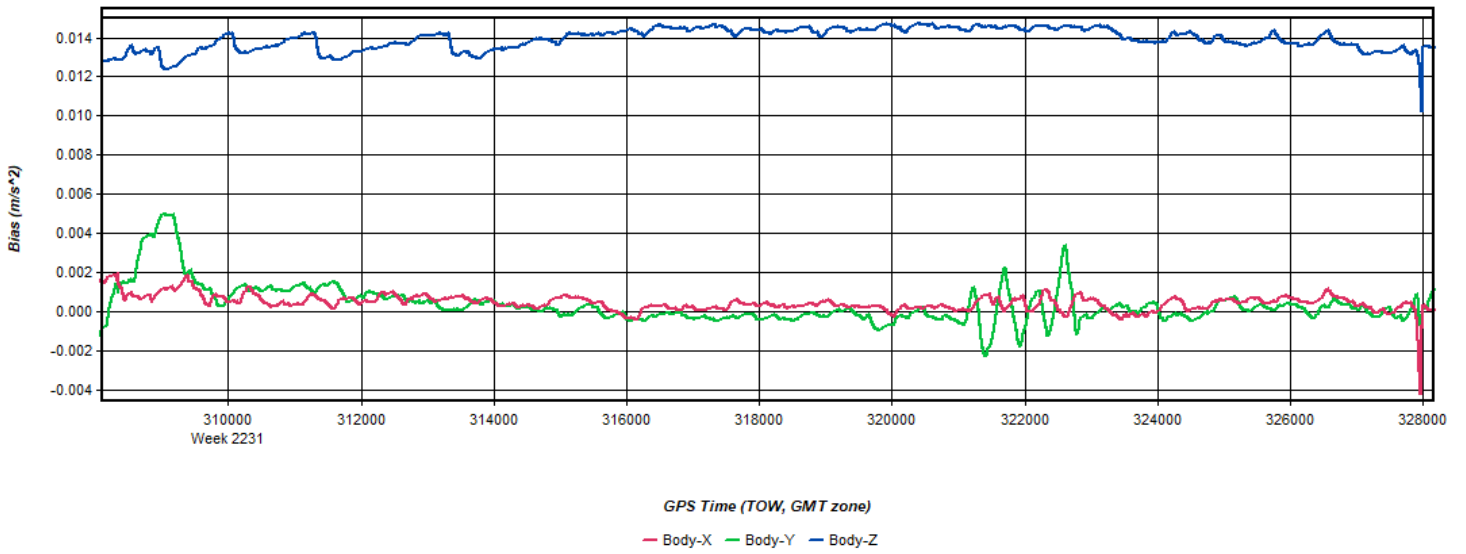
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 18: 20221012133346_34 [Smoothed TC Combined] - Doppler Residual RMS Plot



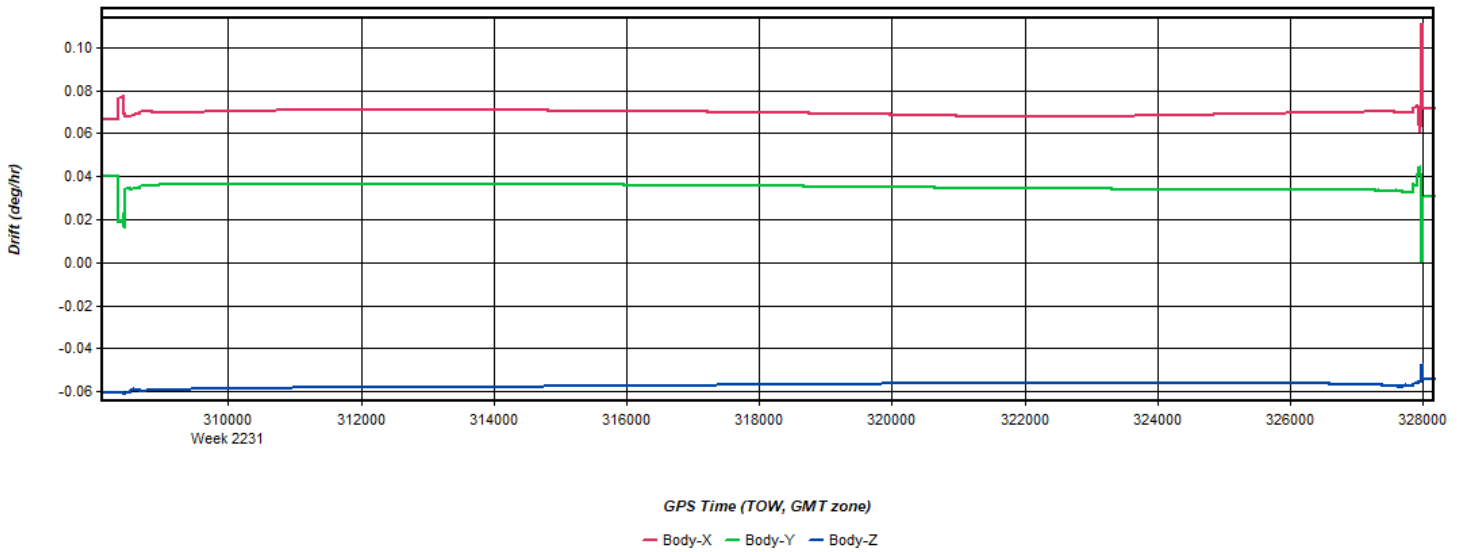
Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 19: 20221012133346_34 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Figure 20: 20221012133346_34 [Smoothed TC Combined] - Gyro Drift Plot



Process	20221012133346_34	by Unknown	on 10/15/2022	at 13:55:15
---------	-------------------	------------	---------------	-------------

Output Results for 20221013135840_35

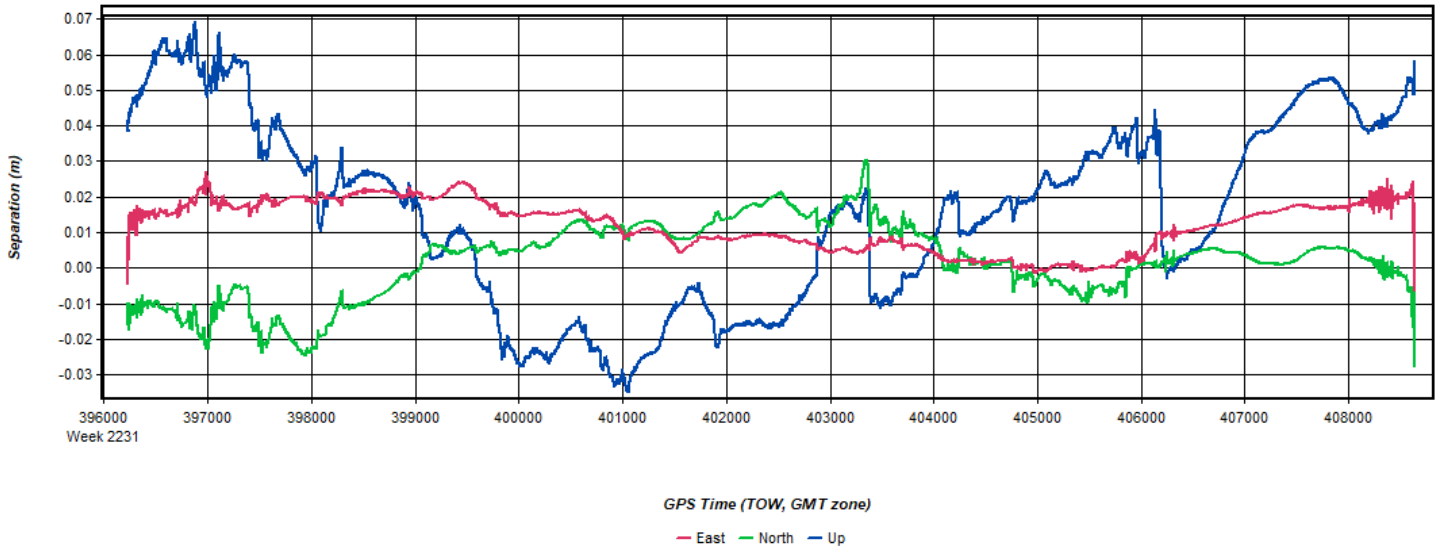
Inertial Explorer Version 8.90.2124
10/17/2022

Figure 1: Smoothed TC Combined - Map



Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 2: 20221013135840_35 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 3: 20221013135840_35 [Smoothed TC Combined] - Float or Fixed Ambiguity

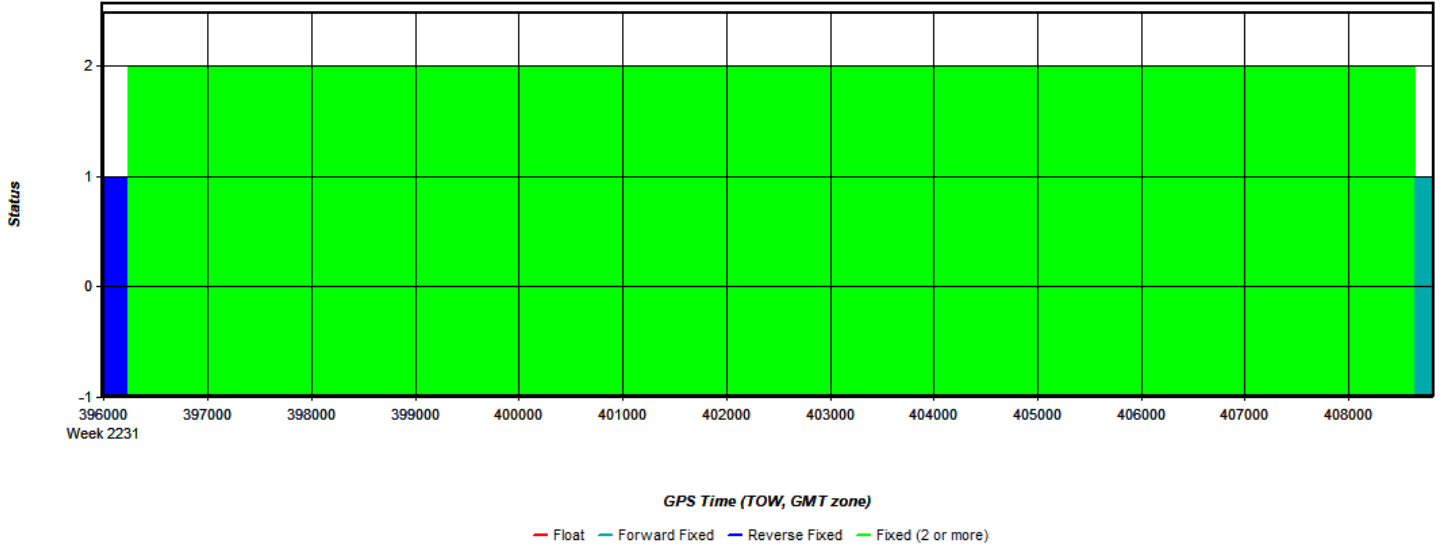


Figure 4: 20221013135840_35 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

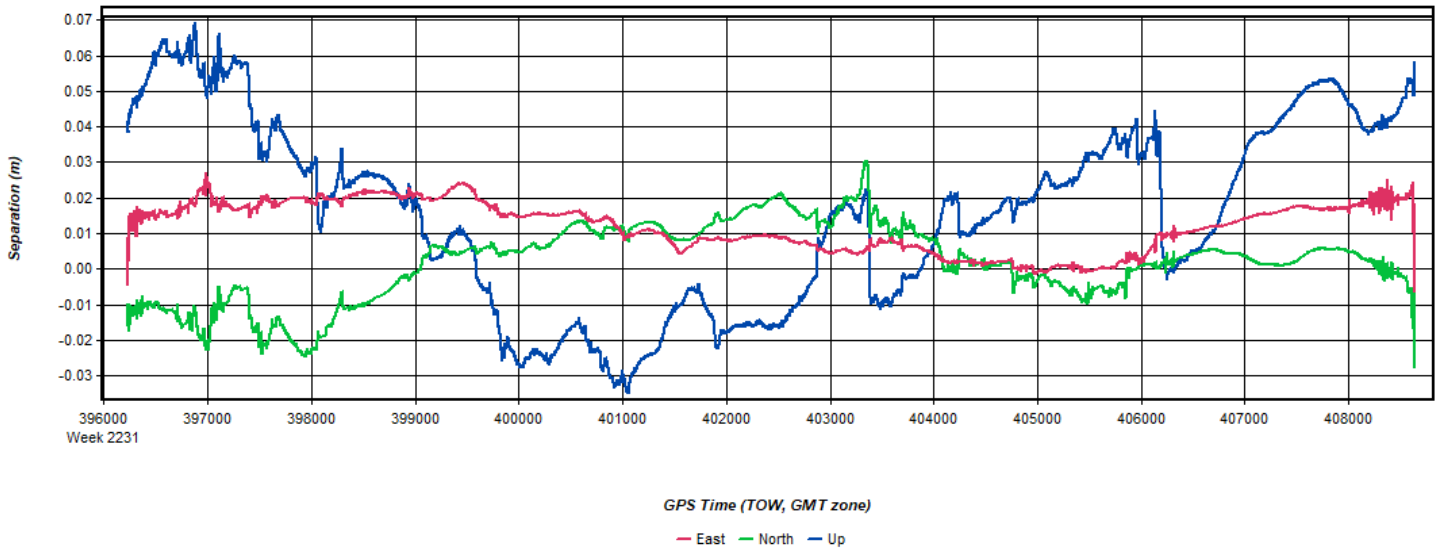
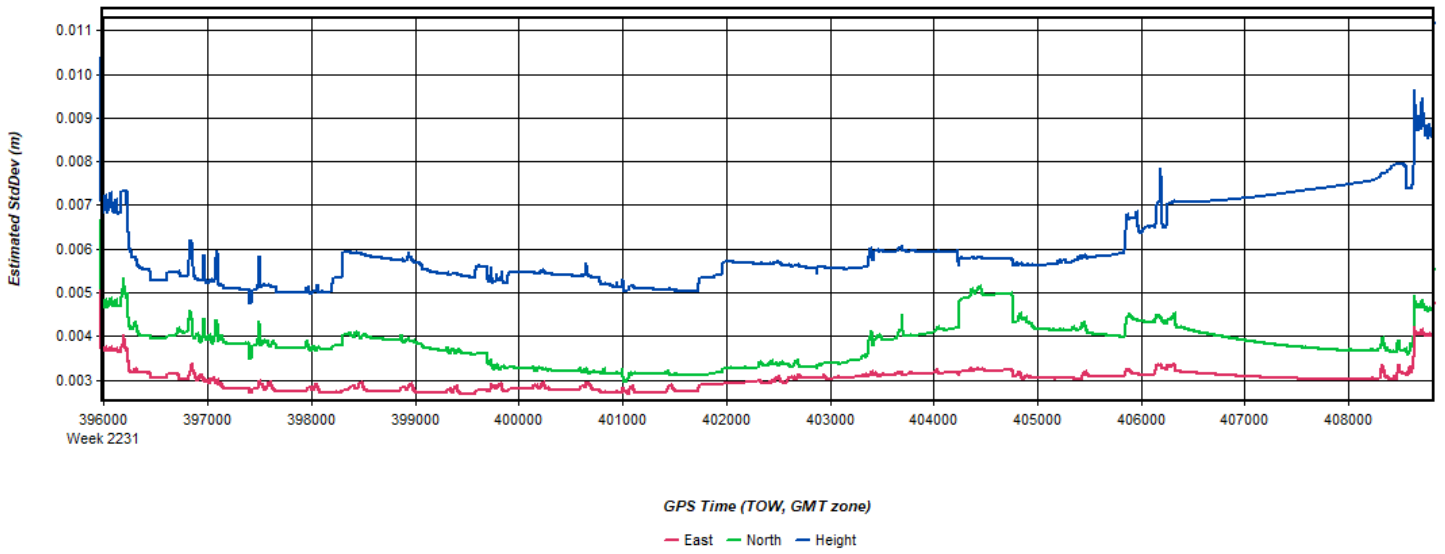
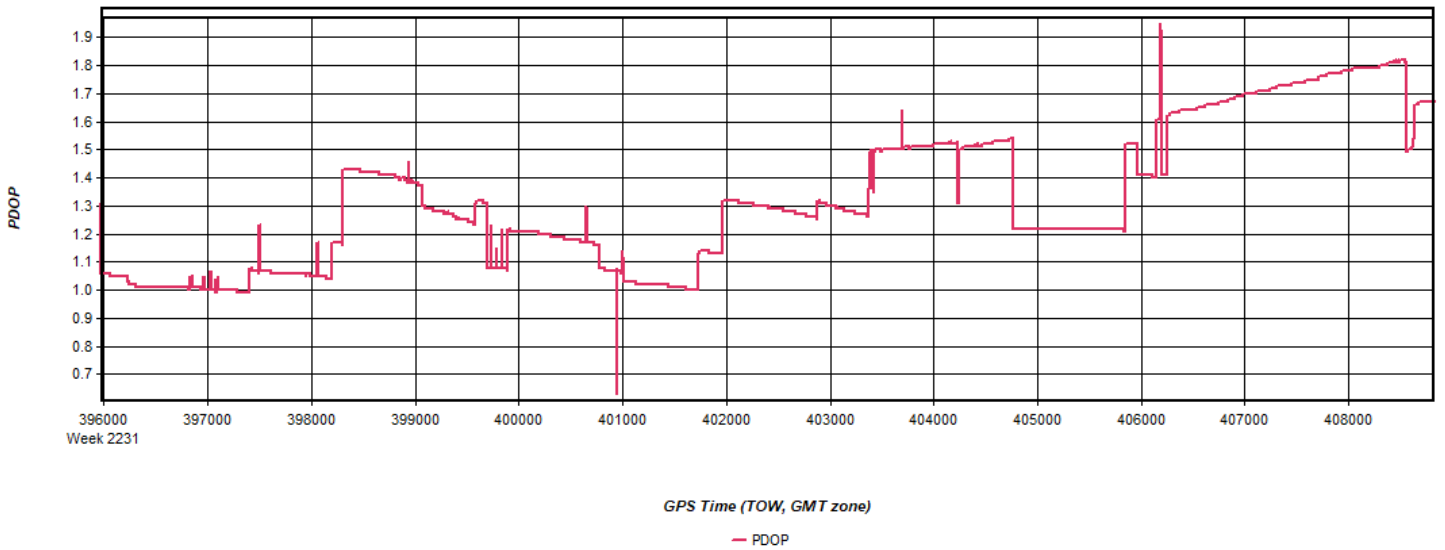


Figure 5: 20221013135840_35 [Smoothed TC Combined] - Estimated Position Accuracy Plot



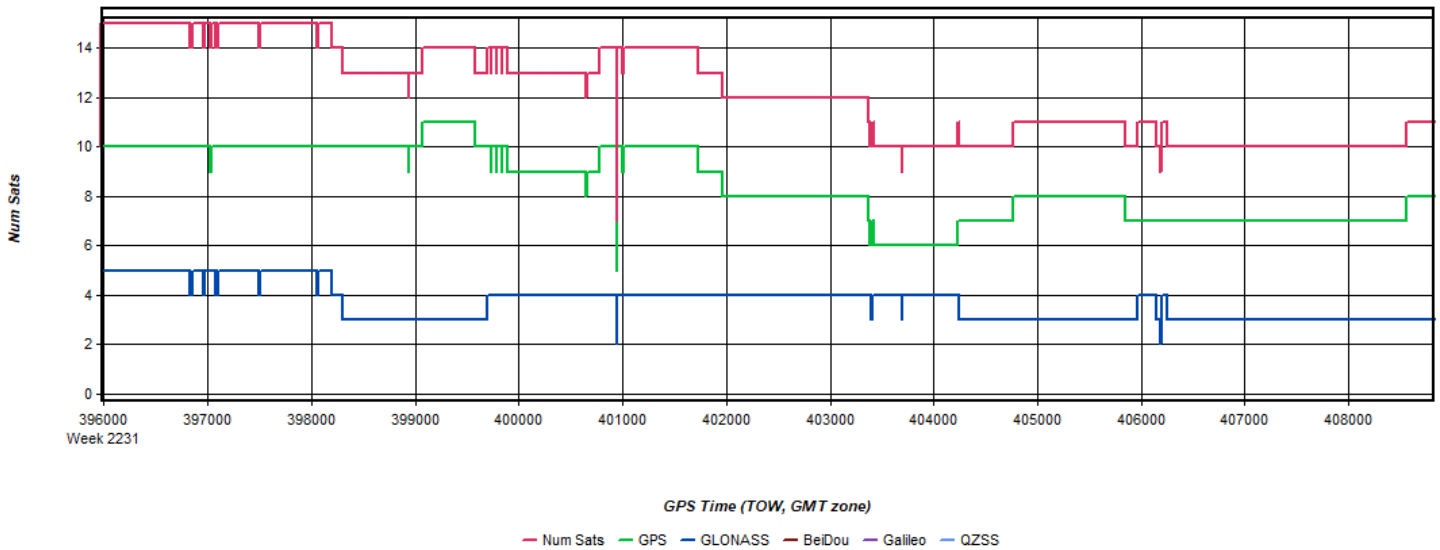
Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 6: 20221013135840_35 [Smoothed TC Combined] - PDOP Plot



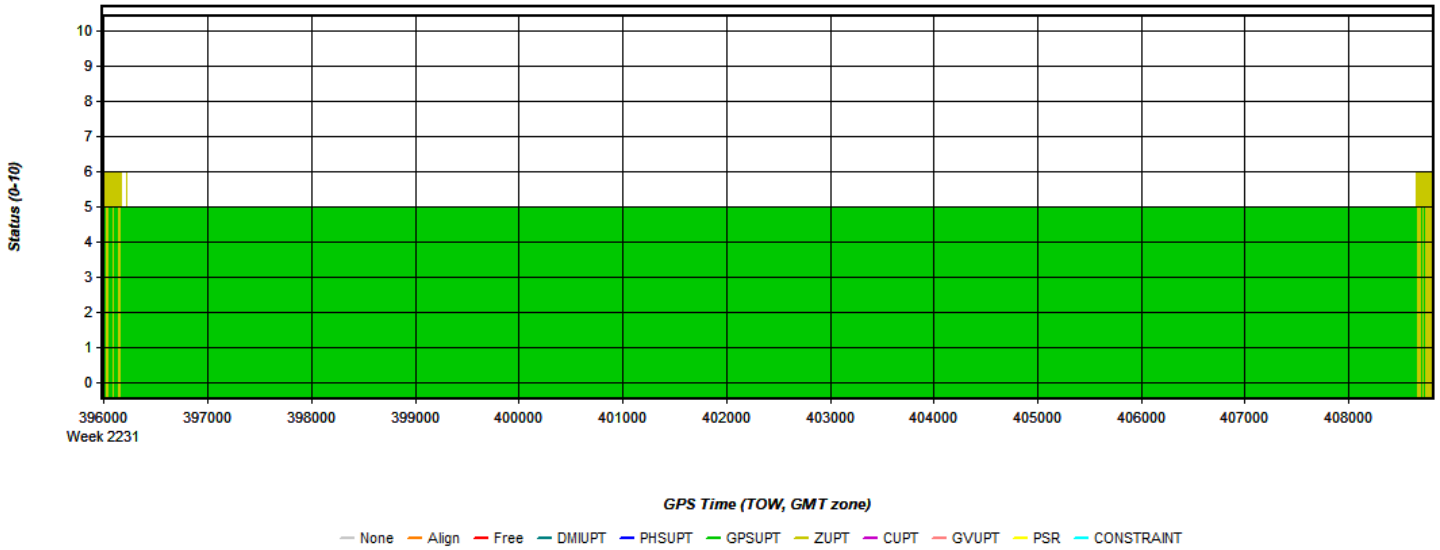
Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 7: 20221013135840_35 [Smoothed TC Combined] - Number of Satellites Line Plot



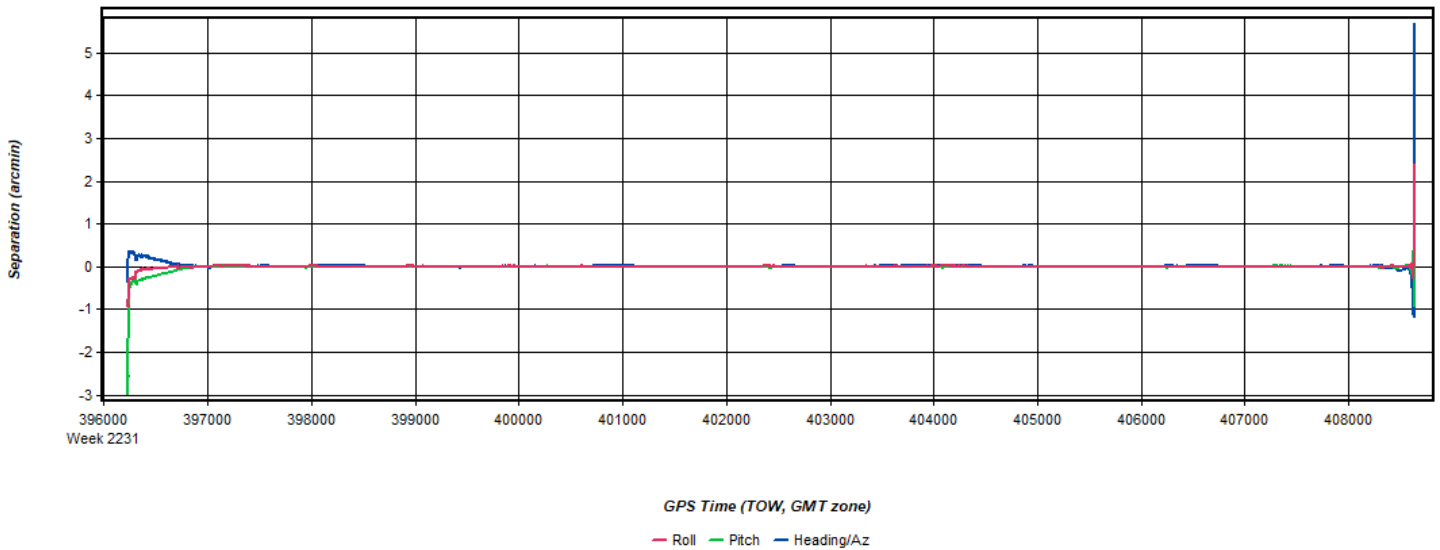
Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 8: 20221013135840_35 [Smoothed TC Combined] - Status flag for IMU processing



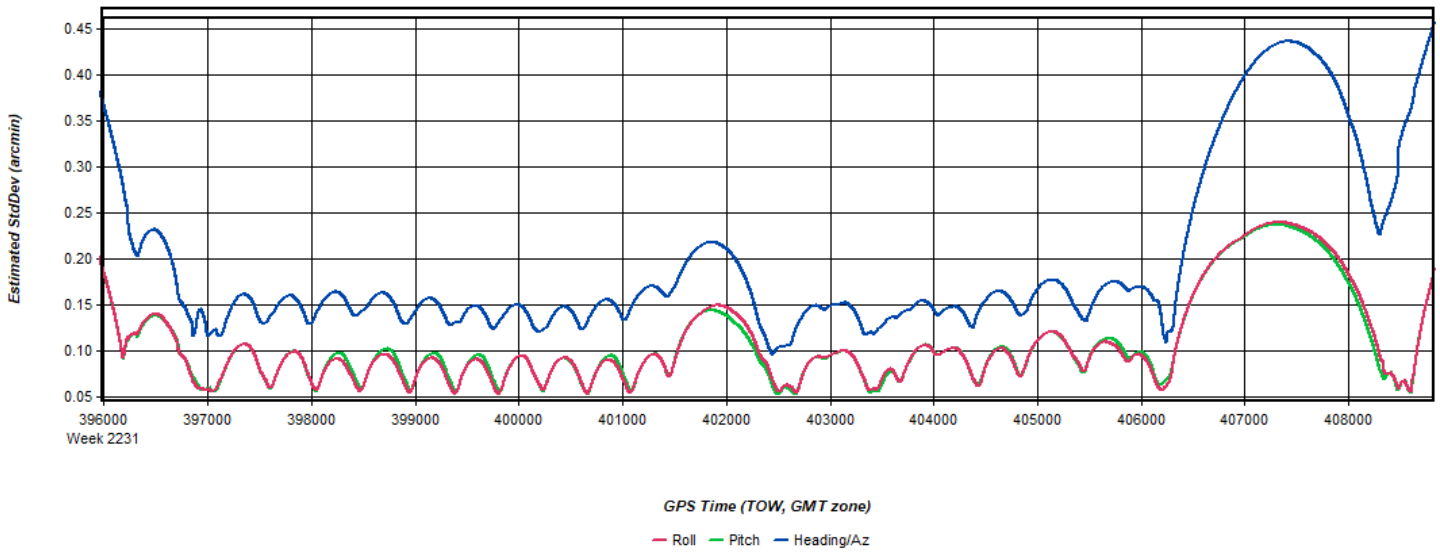
Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 9: 20221013135840_35 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



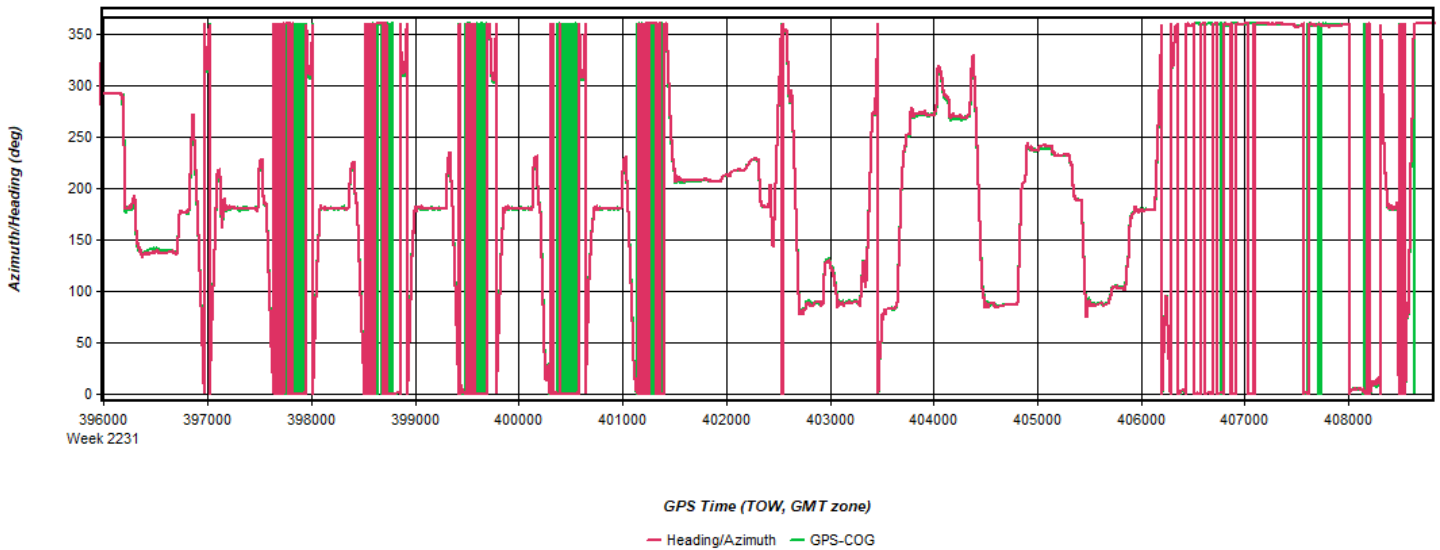
Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 10: 20221013135840_35 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



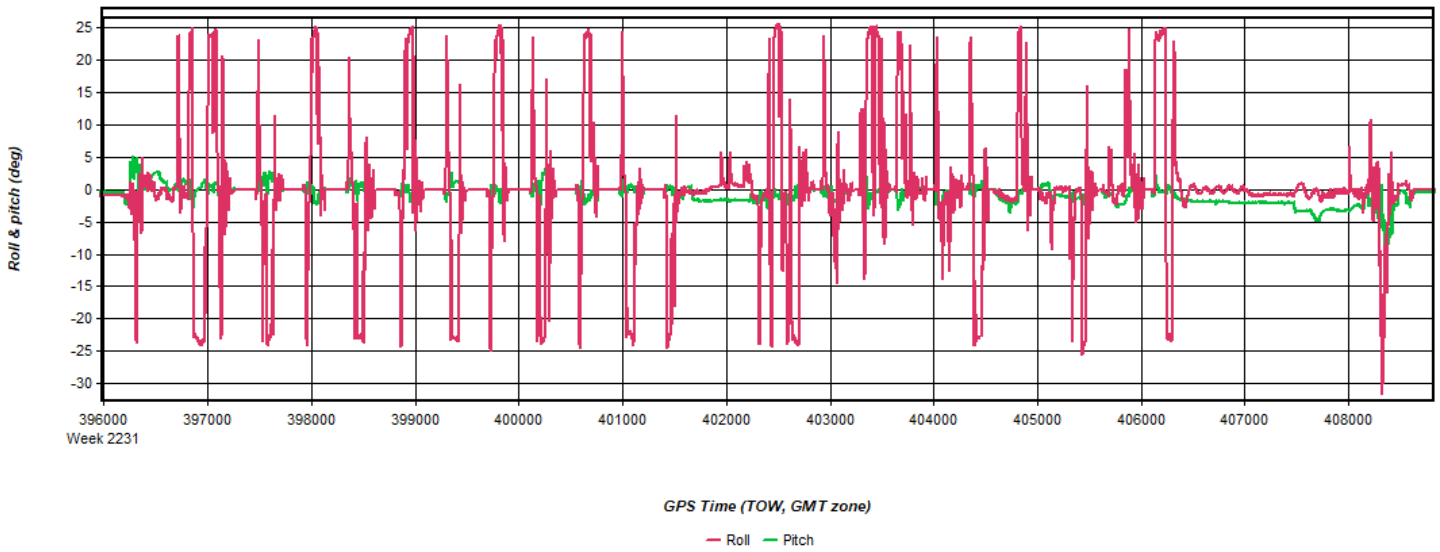
Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 11: 20221013135840_35 [Smoothed TC Combined] - Azimuth Plot



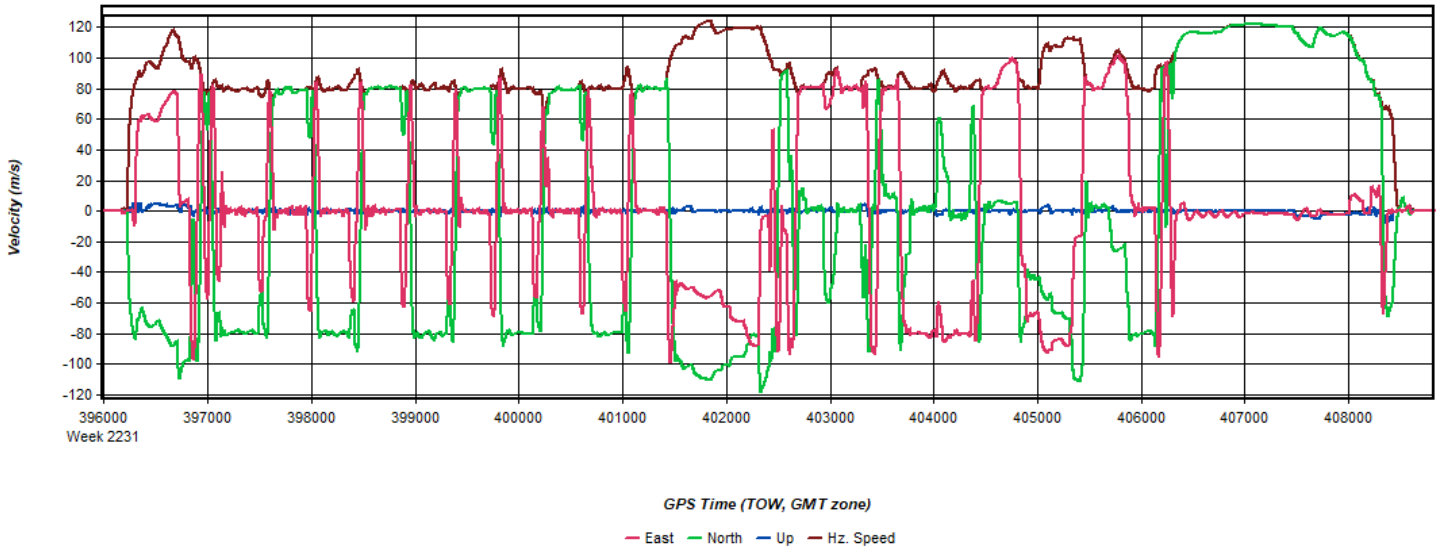
Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 12: 20221013135840_35 [Smoothed TC Combined] - Roll & Pitch Plot



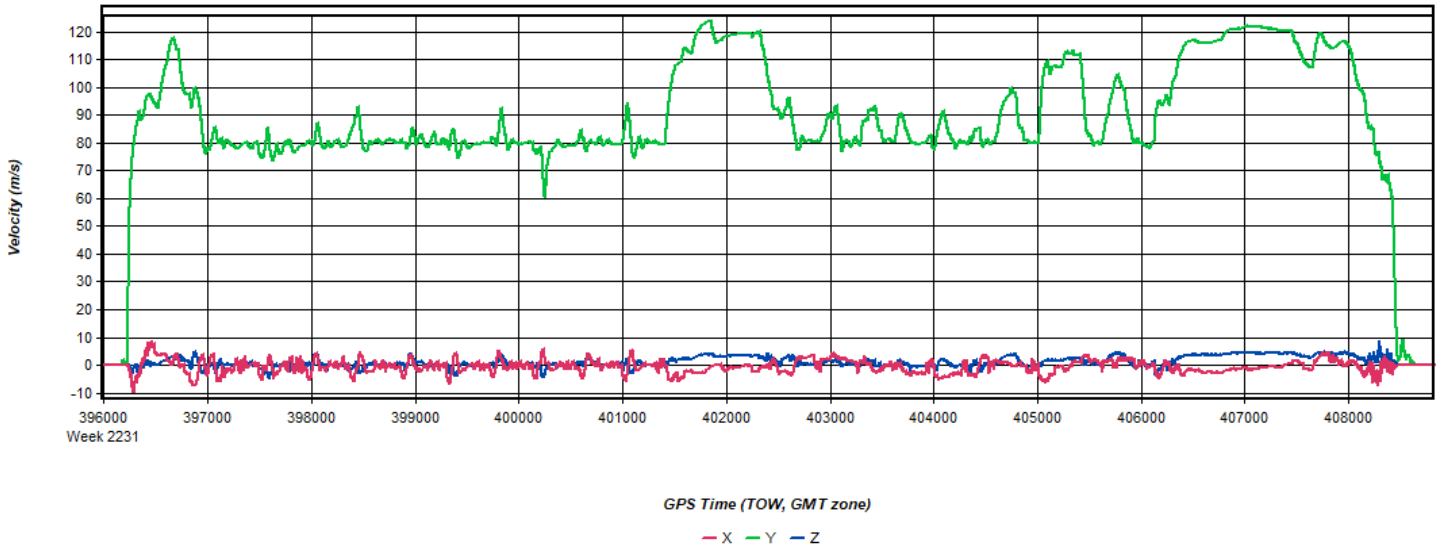
Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 13: 20221013135840_35 [Smoothed TC Combined] - Velocity Profile Plot



Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 14: 20221013135840_35 [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 15: 20221013135840_35 [Smoothed TC Combined] - Height Profile Plot

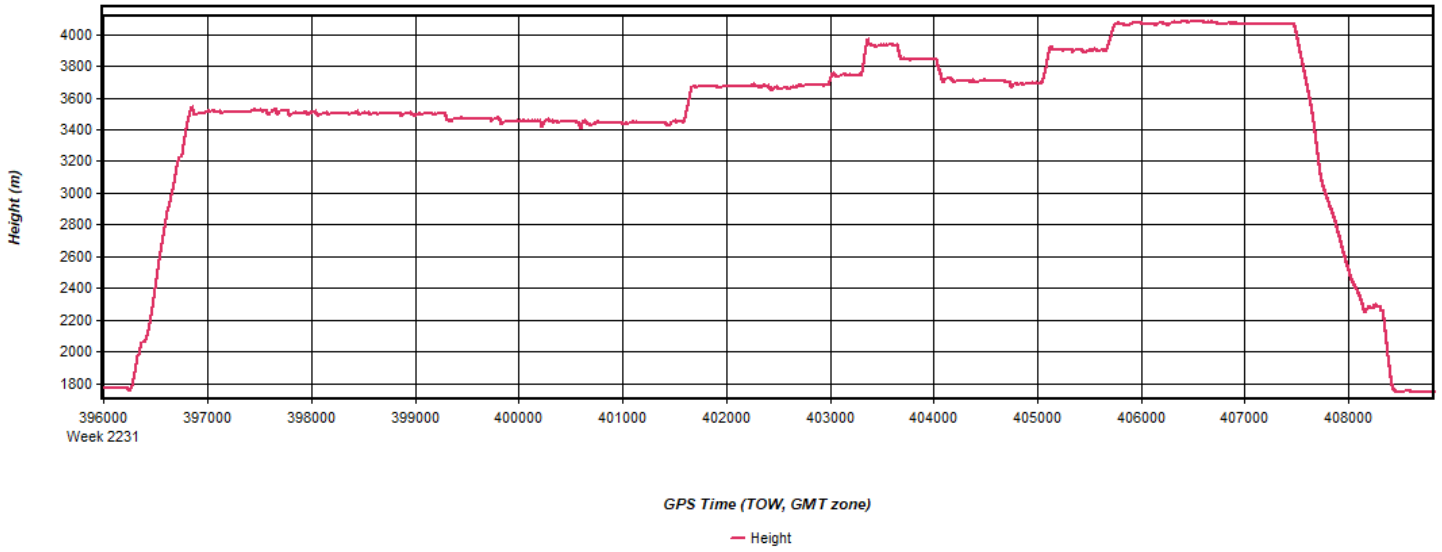


Figure 16: 20221013135840_35 [Smoothed TC Combined] - C/A Code Residual RMS Plot

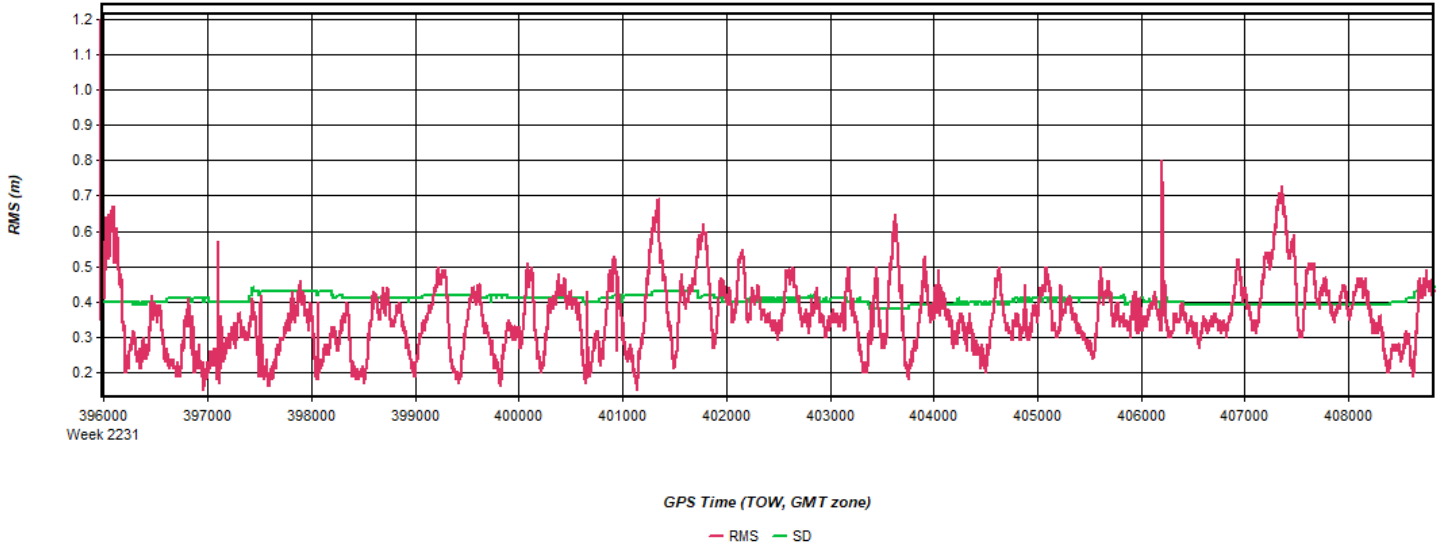


Figure 17: 20221013135840_35 [Smoothed TC Combined] - Carrier Residual RMS Plot

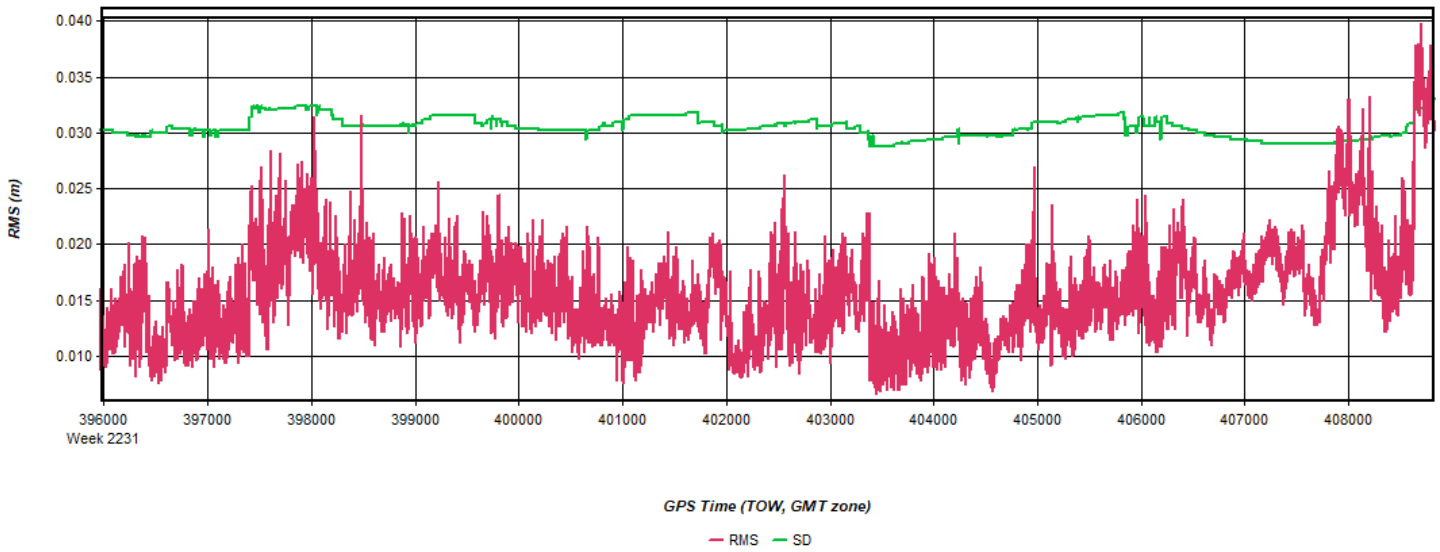


Figure 18: 20221013135840_35 [Smoothed TC Combined] - Doppler Residual RMS Plot

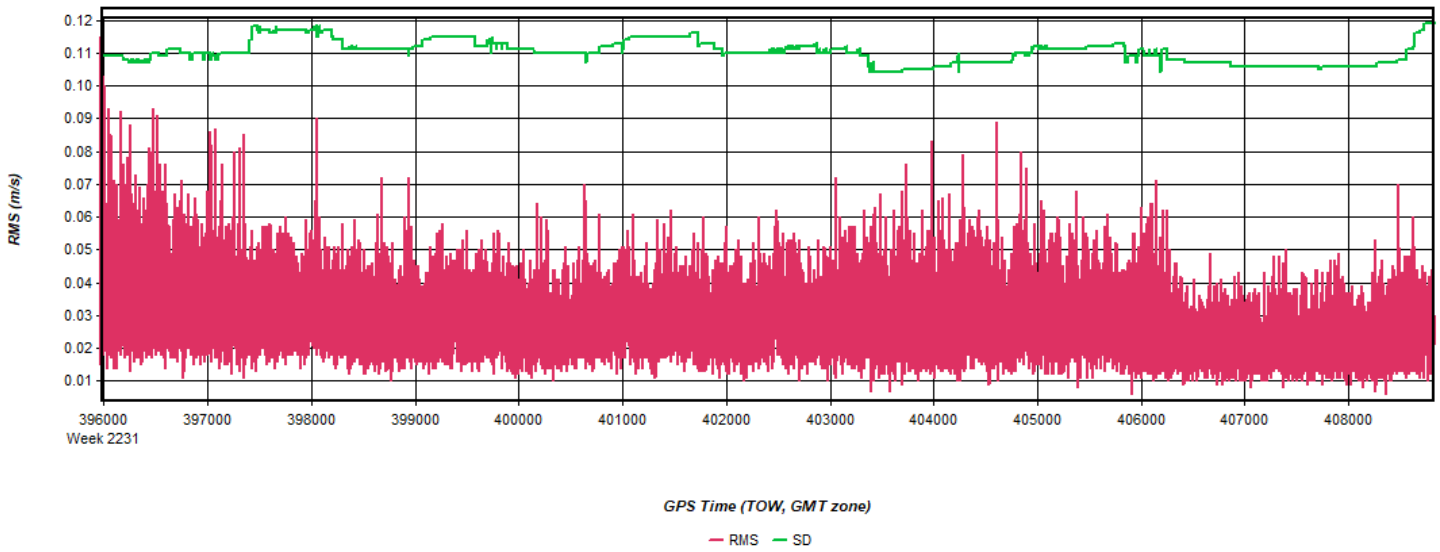
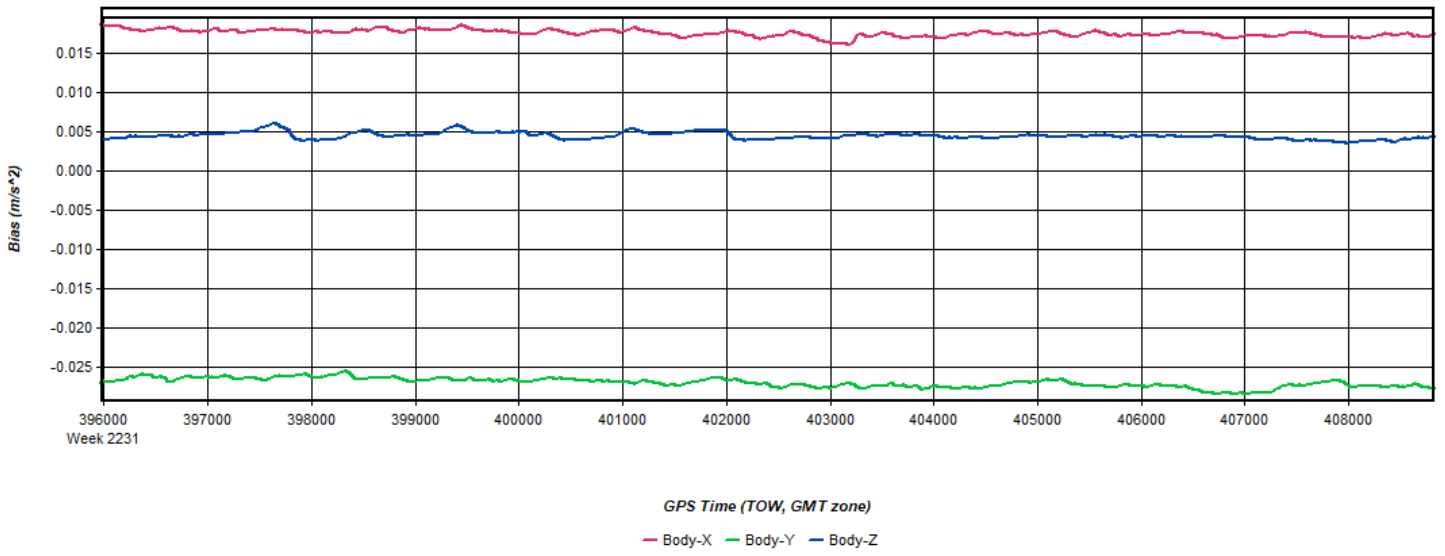
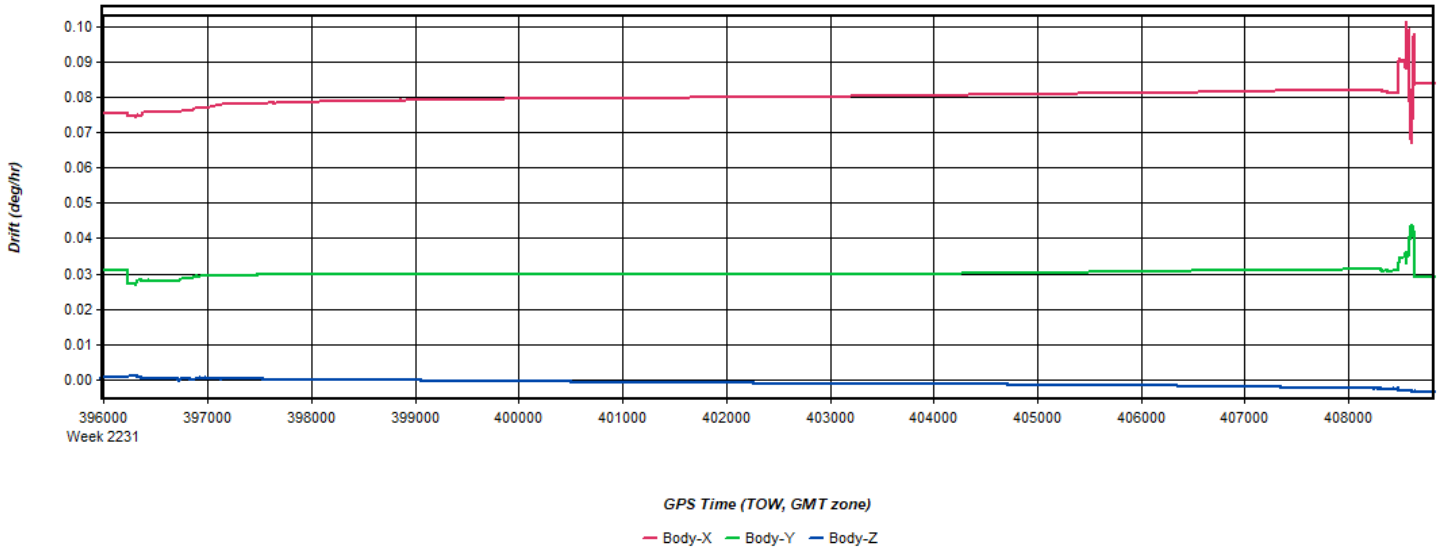


Figure 19: 20221013135840_35 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

Figure 20: 20221013135840_35 [Smoothed TC Combined] - Gyro Drift Plot



Process	20221013135840_35	by Unknown	on 10/15/2022	at 14:33:42
---------	-------------------	------------	---------------	-------------

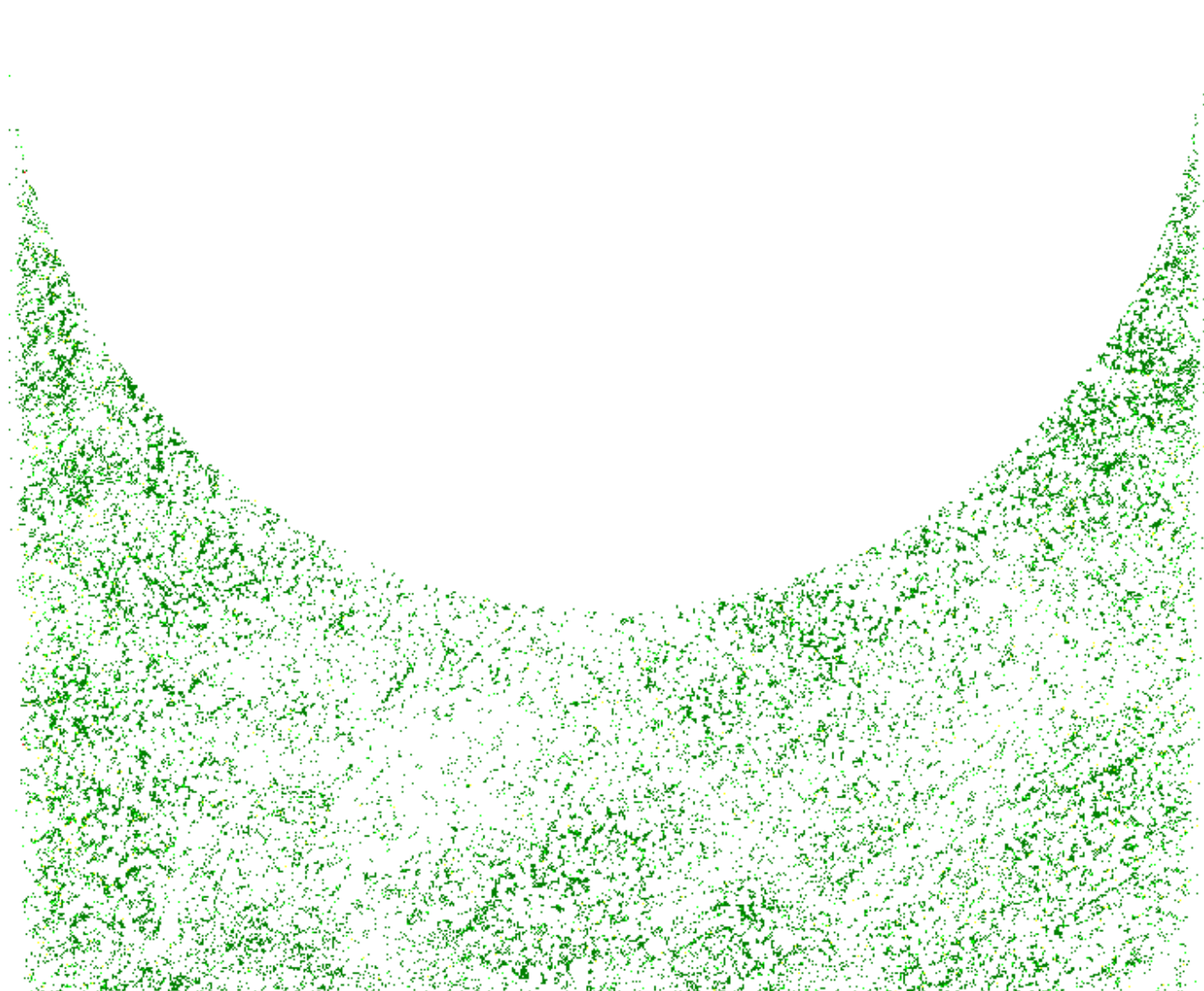
Appendix E. Vertical Accuracy Flight Line & Scan Direction

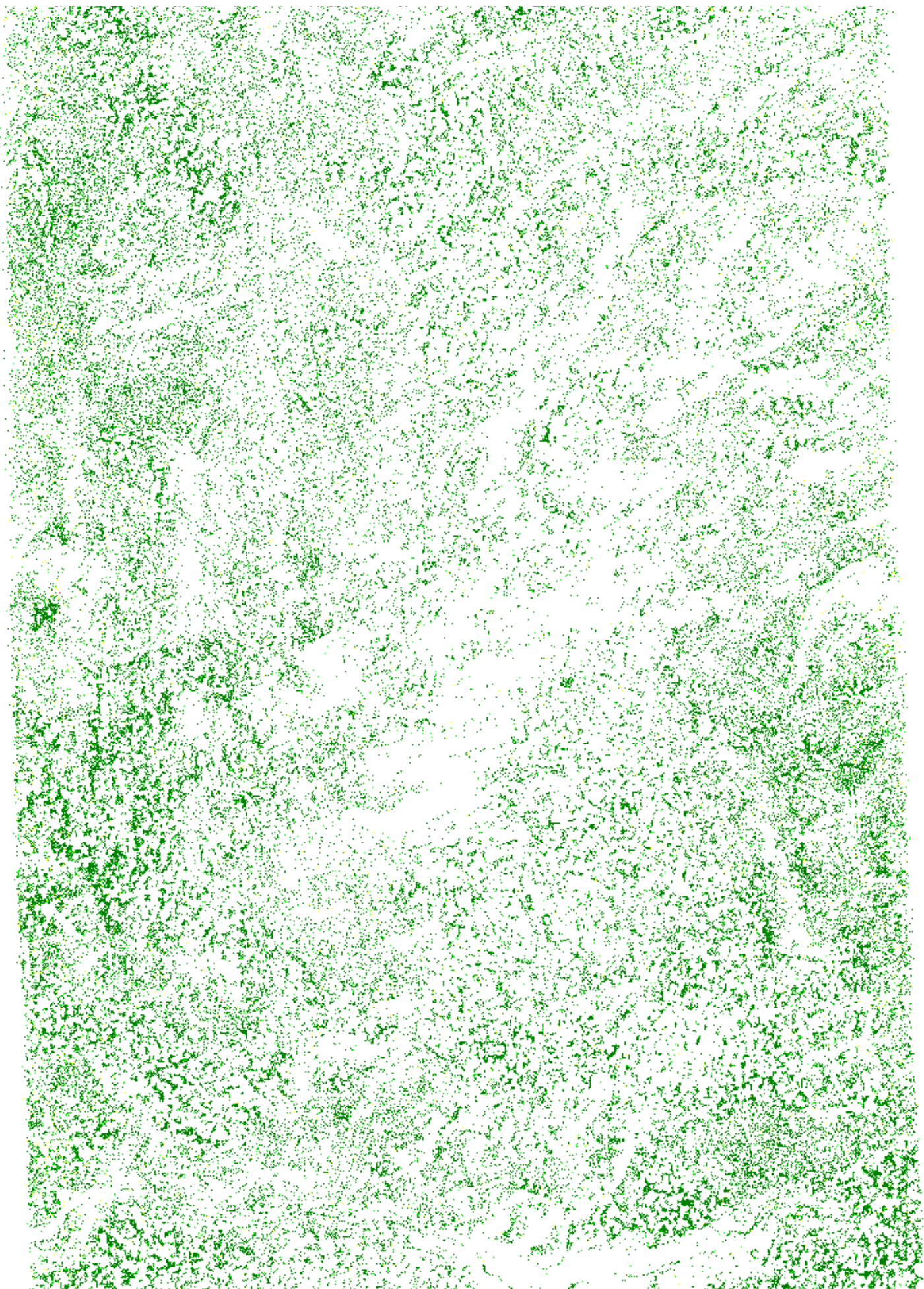
Vertical Accuracy Scan Direction Comparison-20230308_162054

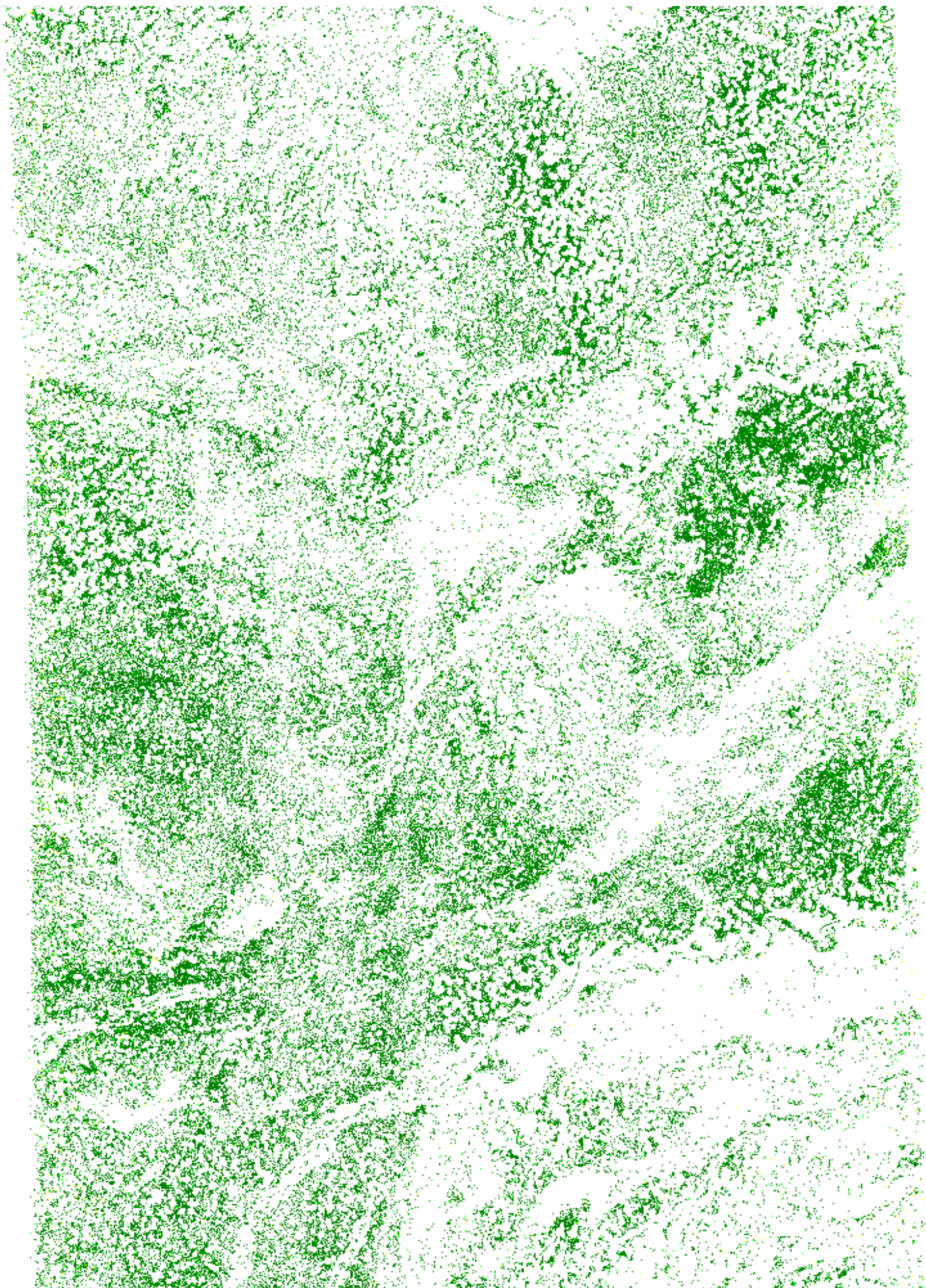
394_153343

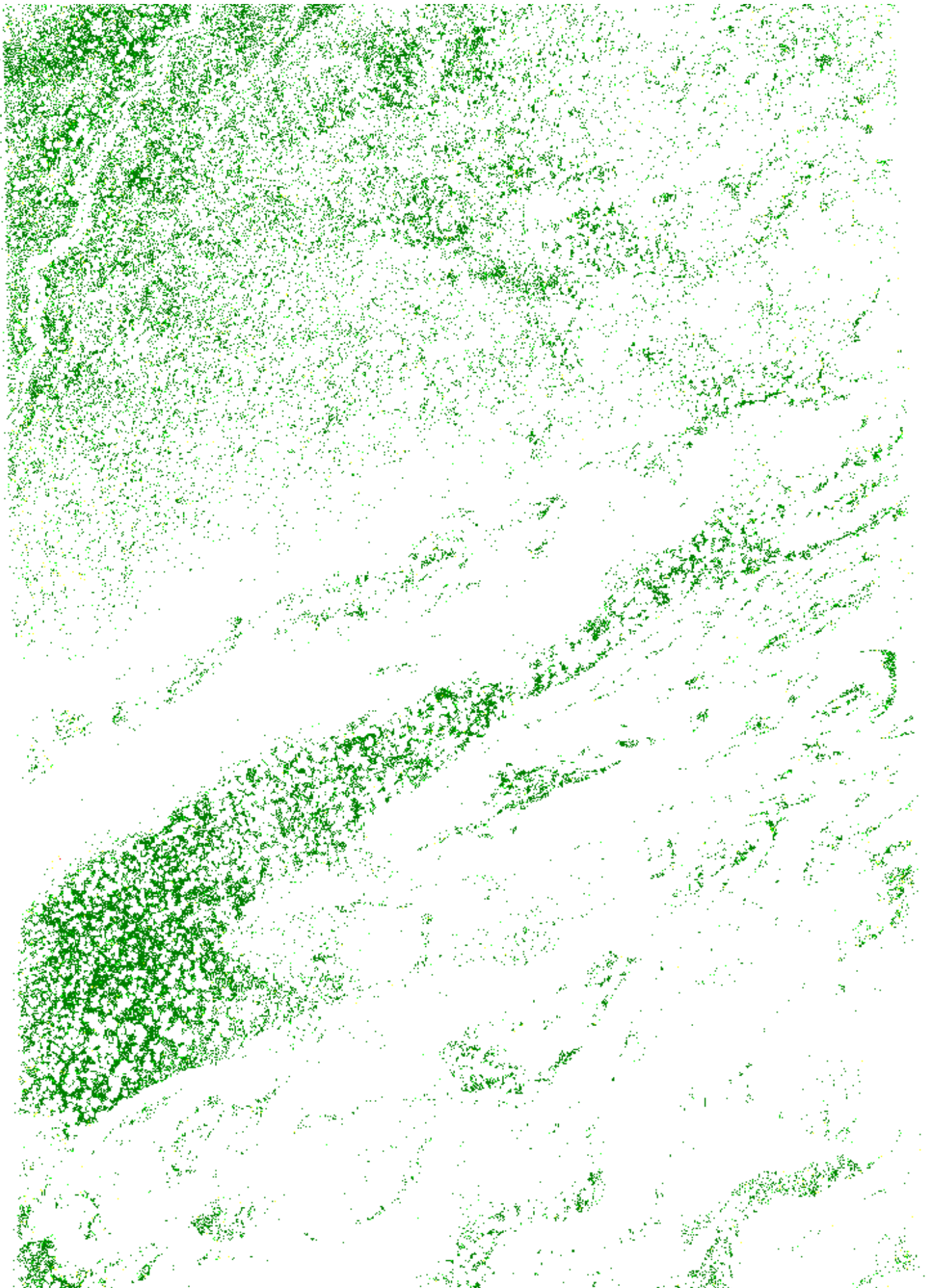
618634 valid patches with size of 2 m found. Only patches with standard deviation < 0.05 m and minimum of 5 points are included.

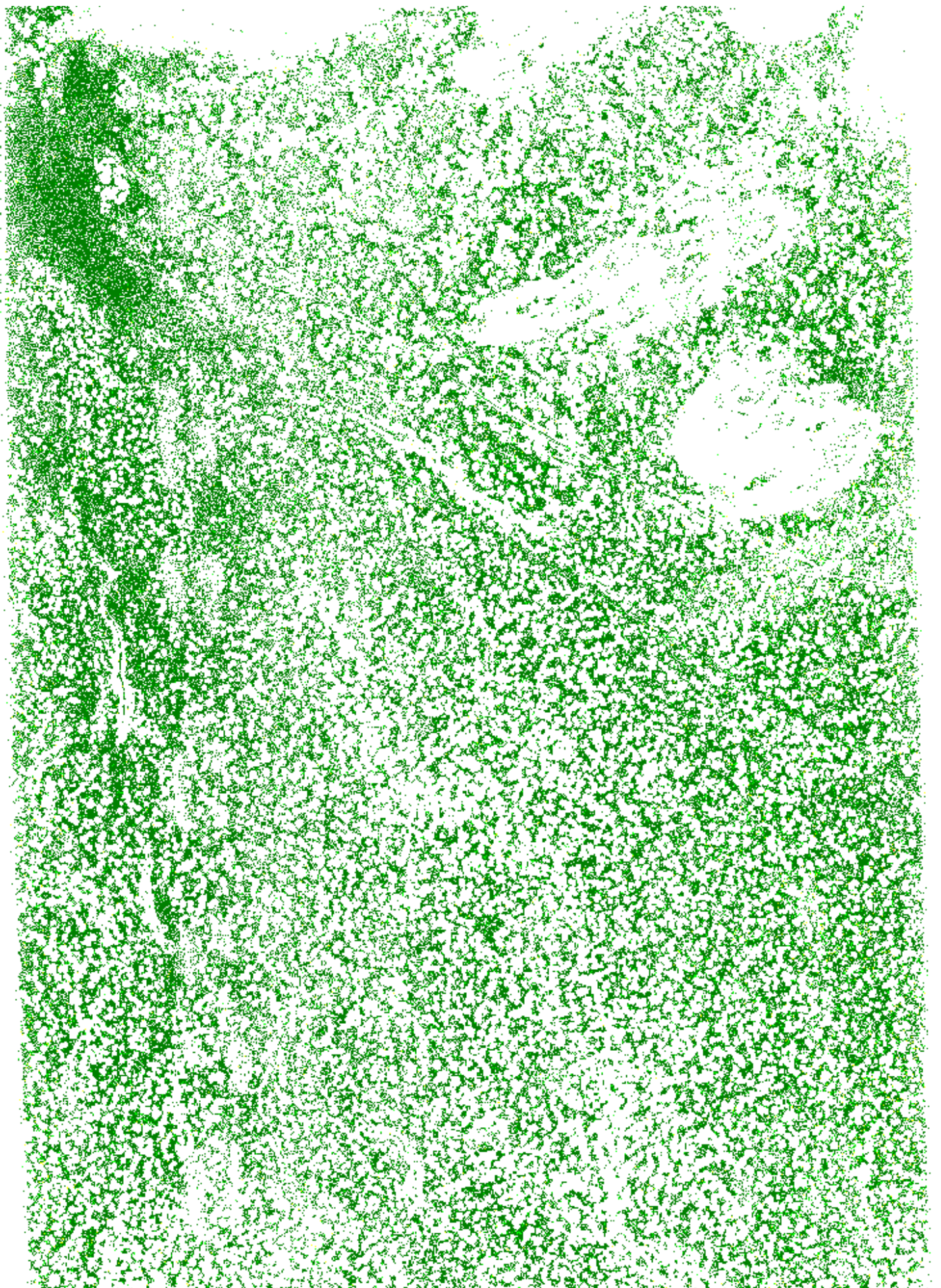
Color	Limits [m]	Number of patches	Proportion of total number of patches [%]
Dark Green	<=0.03	559347	90.42
Bright Green	0.03-0.05	51129	8.26
Yellow	0.05-0.1	8121	1.31
Red	>0.1	37	0.01

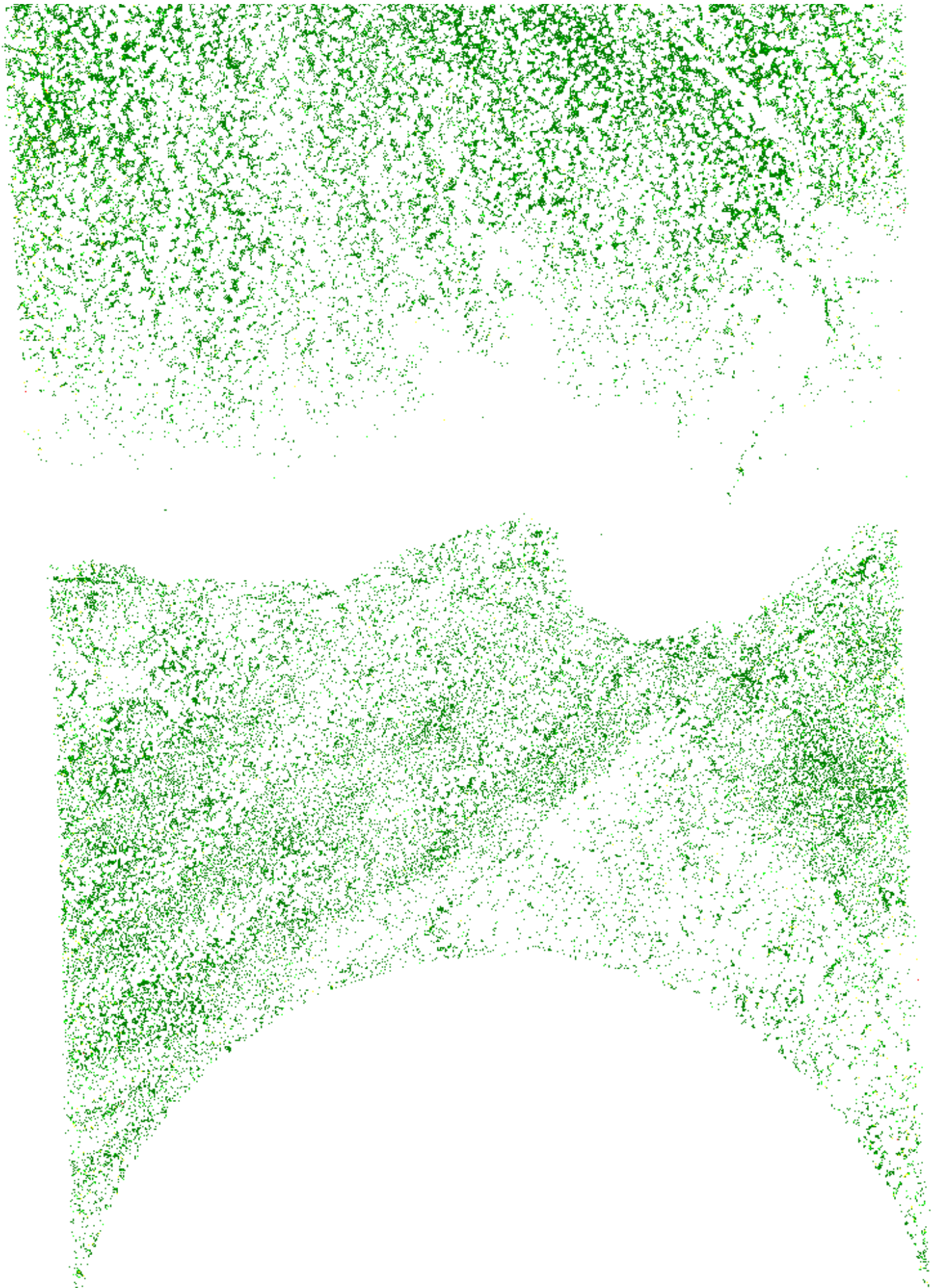










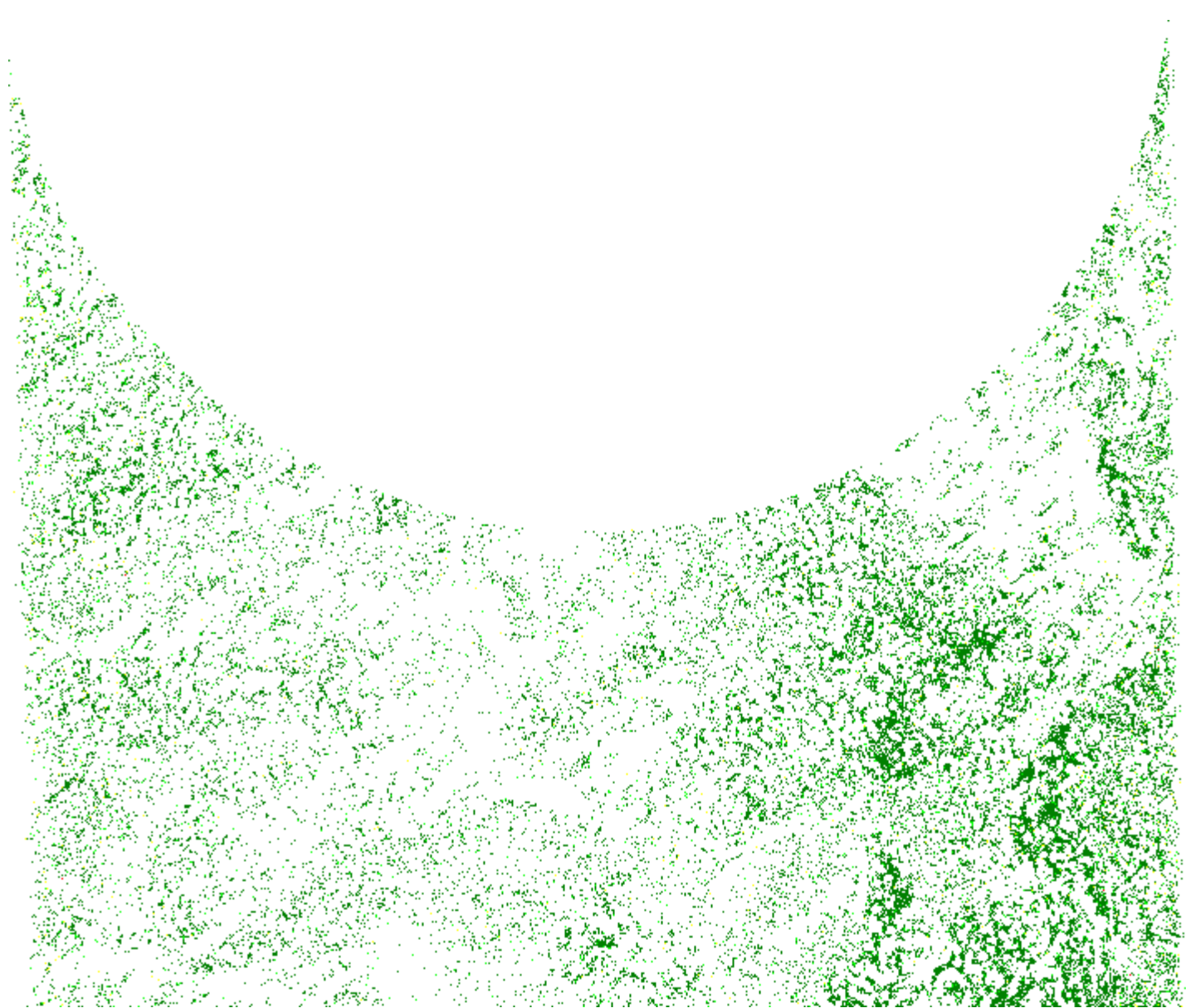


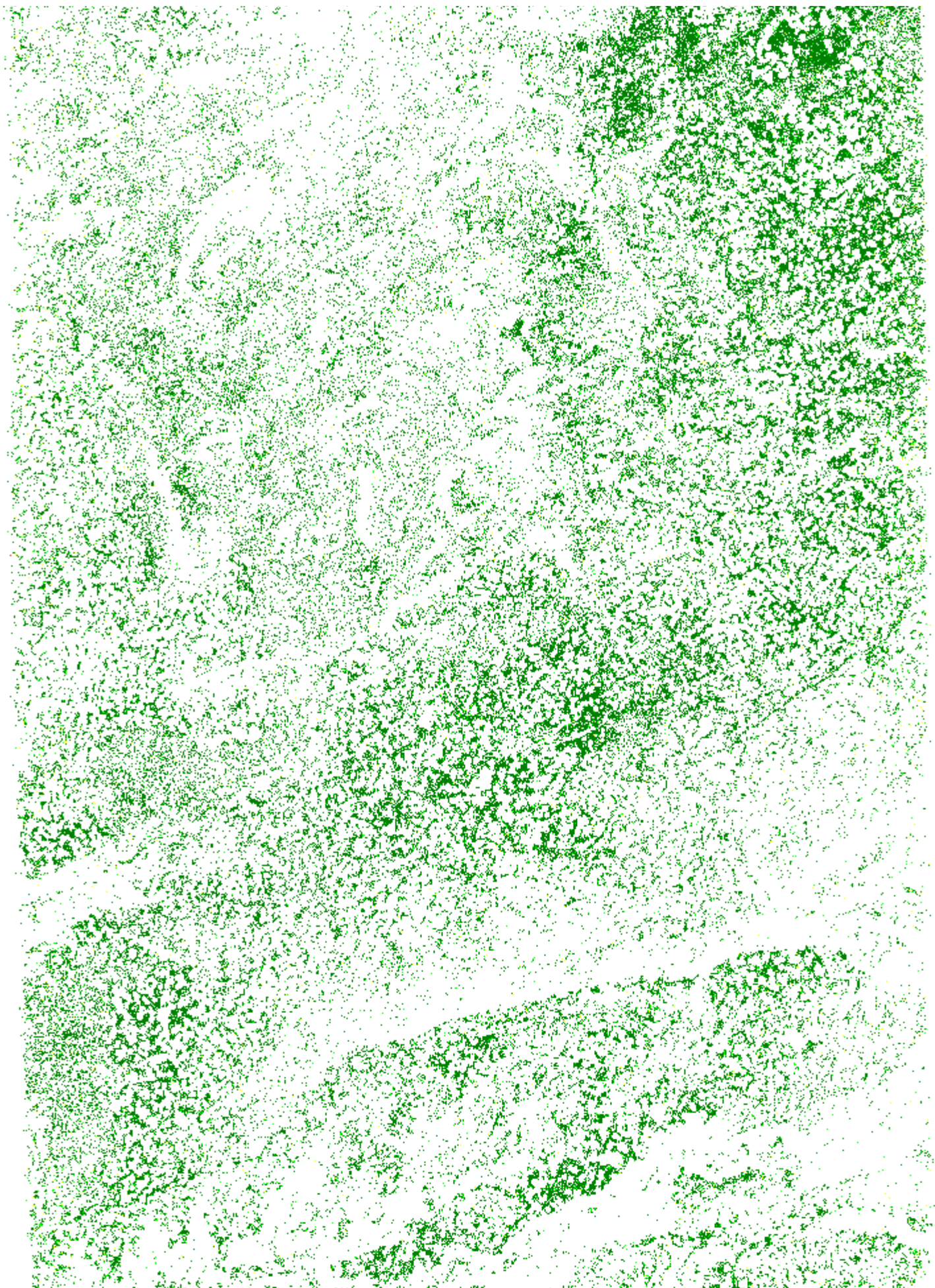
Vertical difference

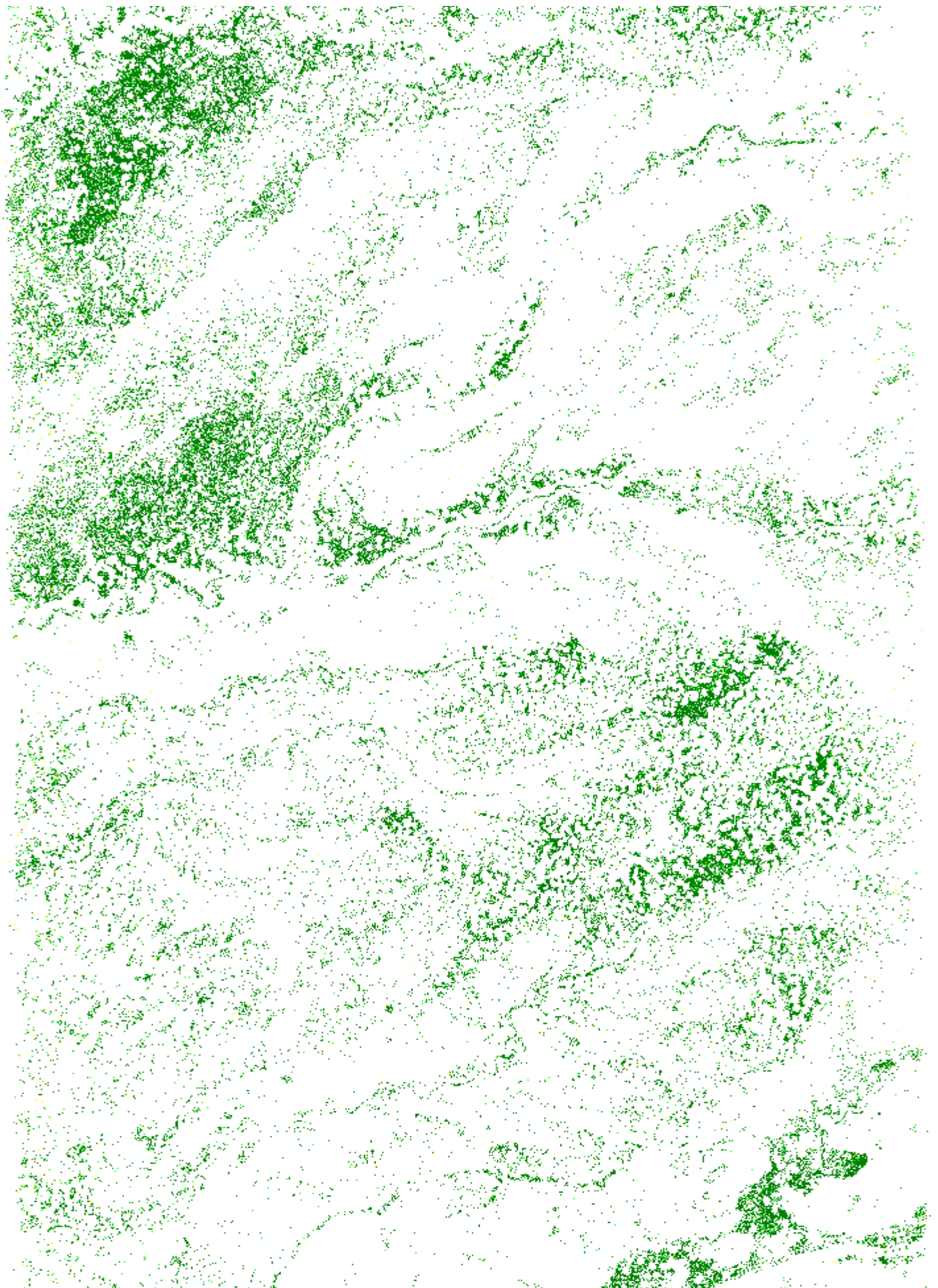
395_154254

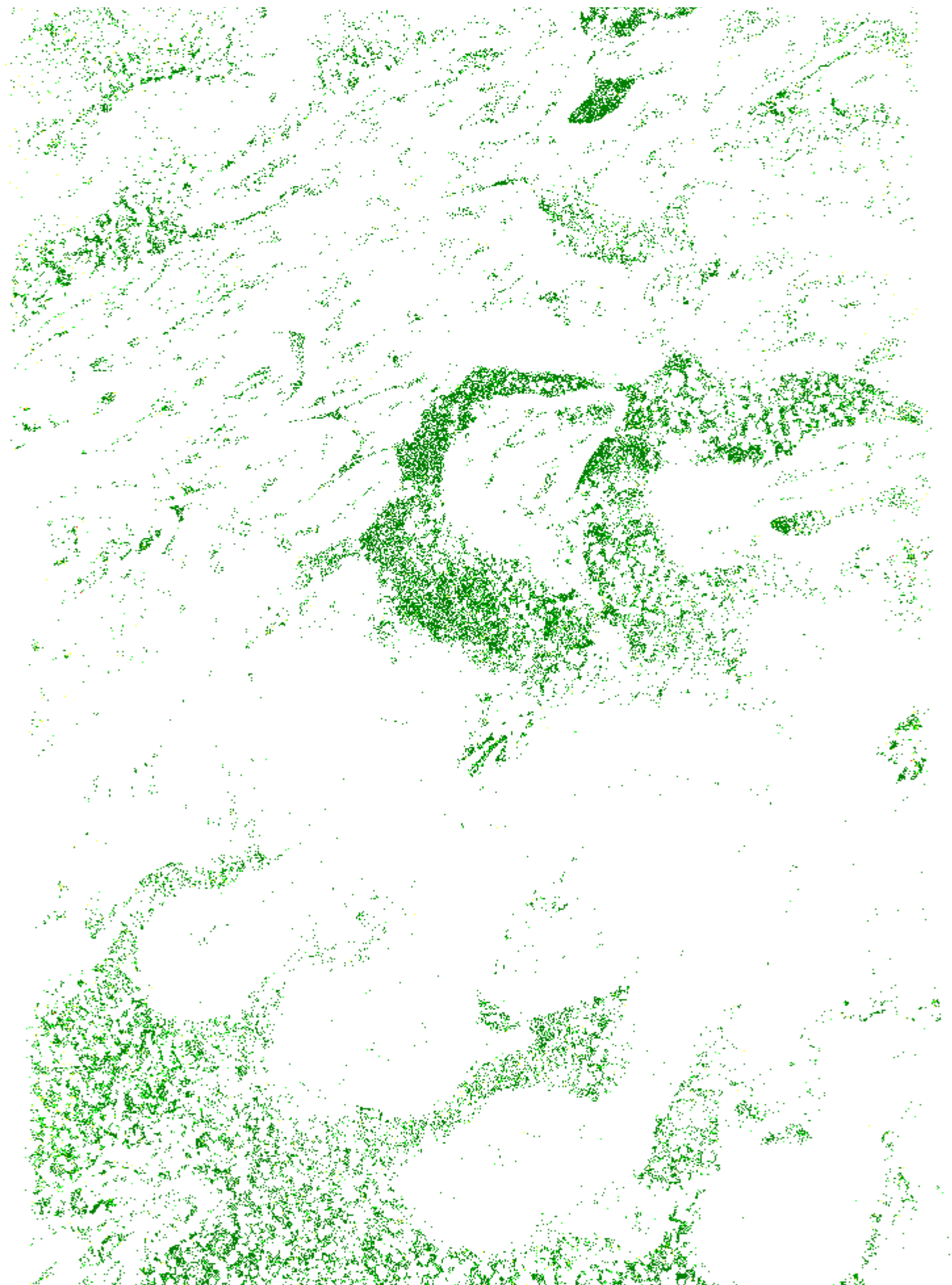
444552 valid patches with size of 2 m found. Only patches with standard deviation < 0.05 m and minimum of 5 points are included.

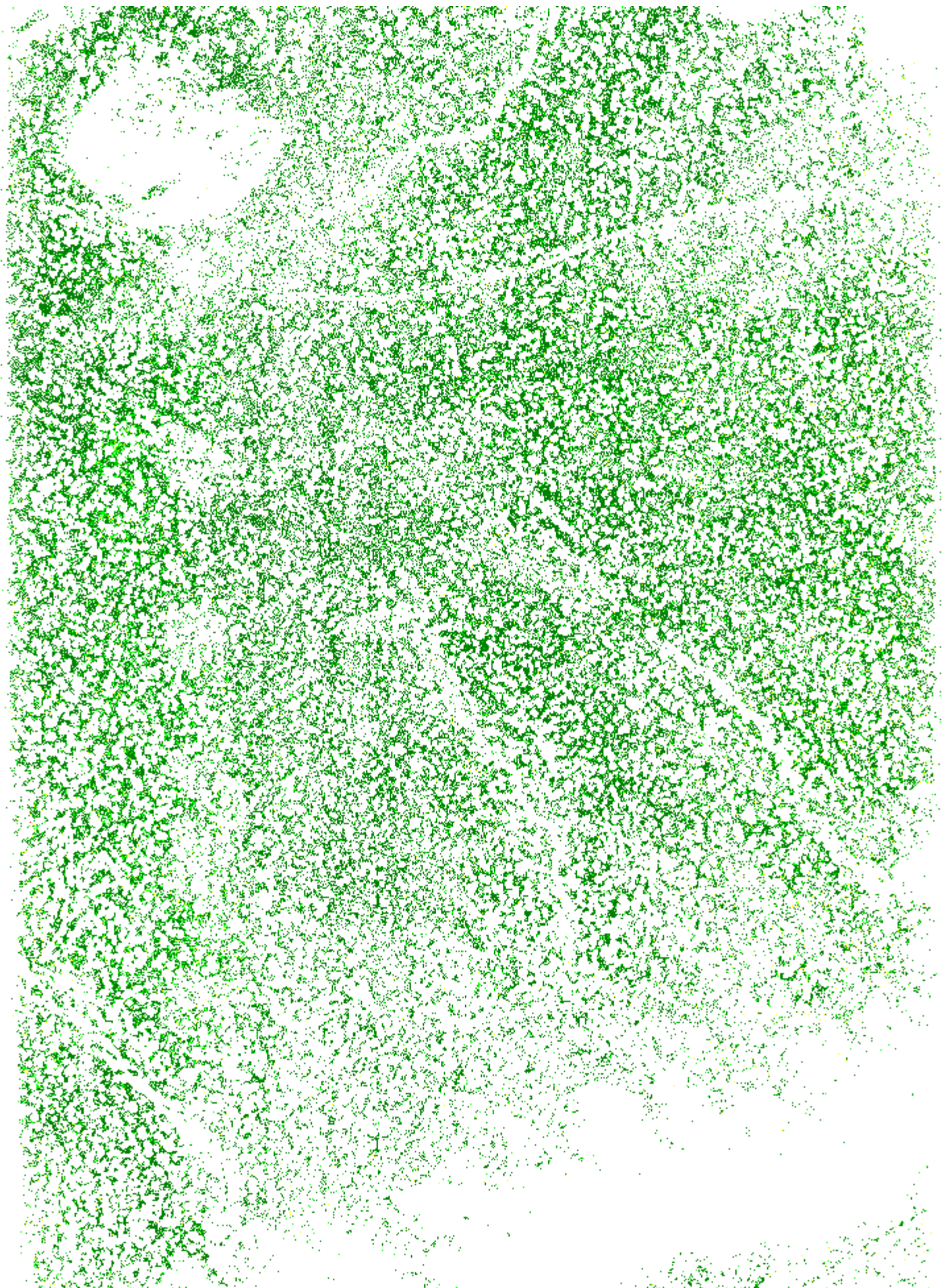
Color	Limits [m]	Number of patches	Proportion of total number of patches [%]
Dark Green	<=0.03	389062	87.52
Bright Green	0.03-0.05	47887	10.77
Yellow	0.05-0.1	7564	1.70
Red	>0.1	39	0.01

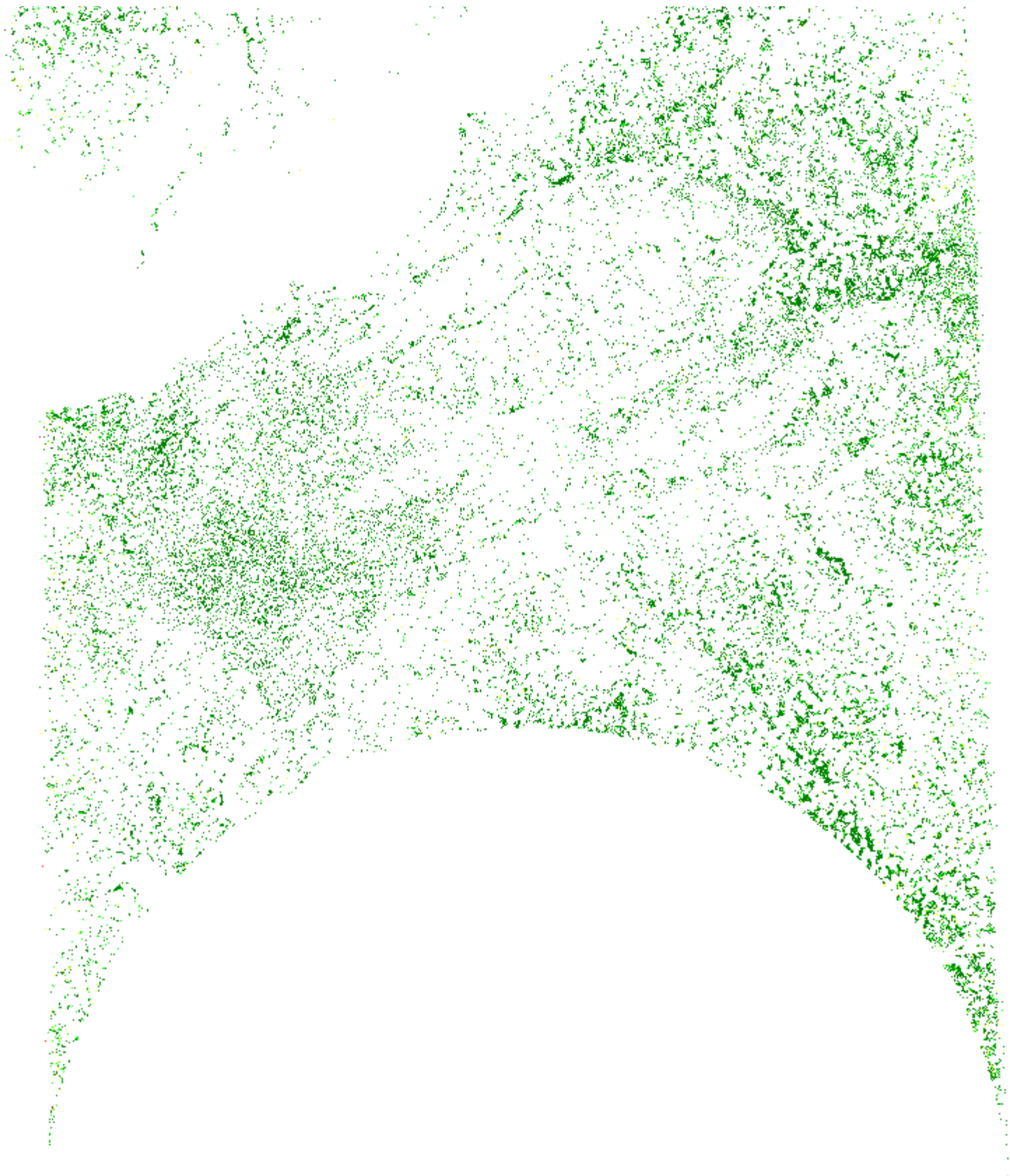










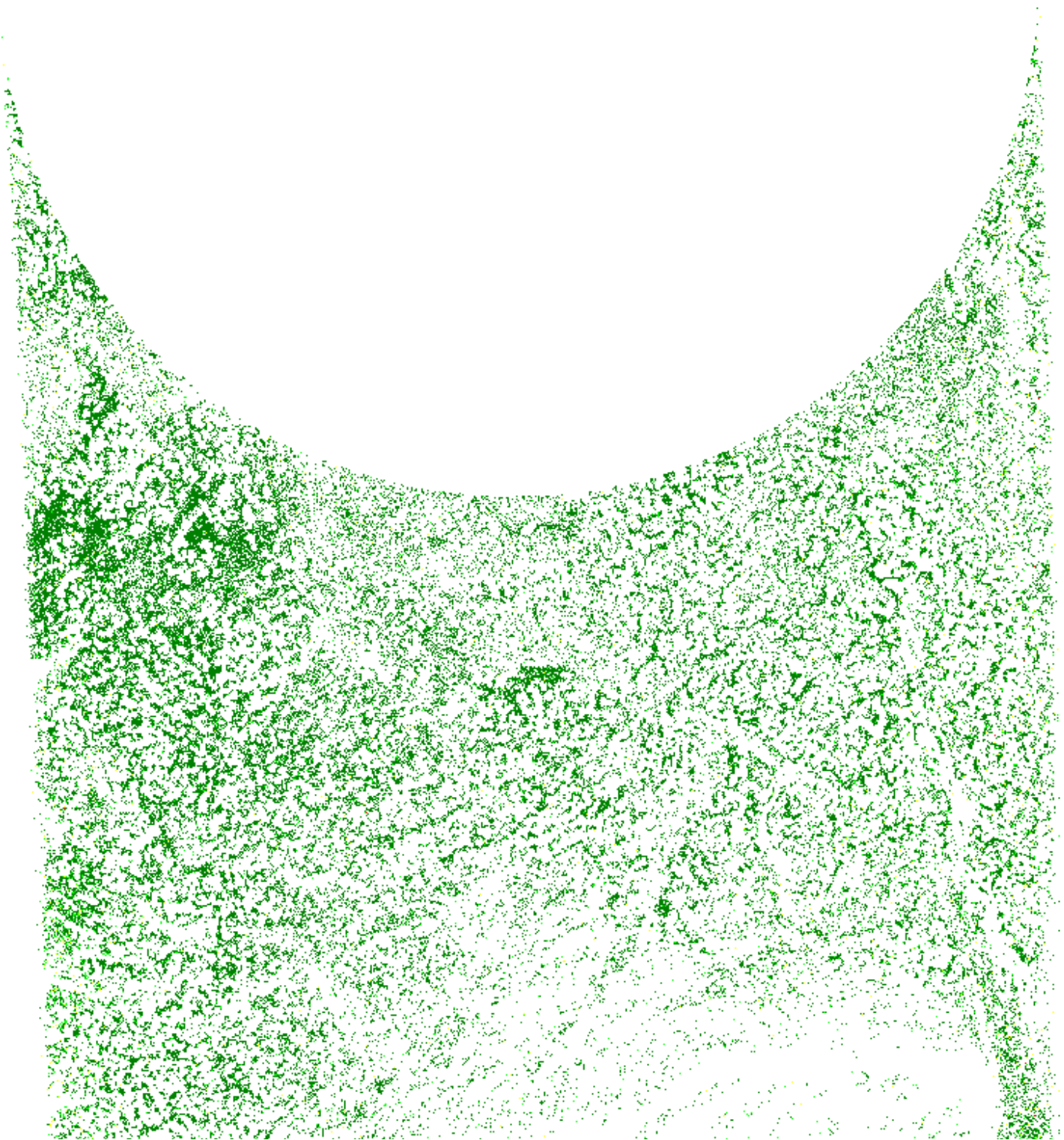


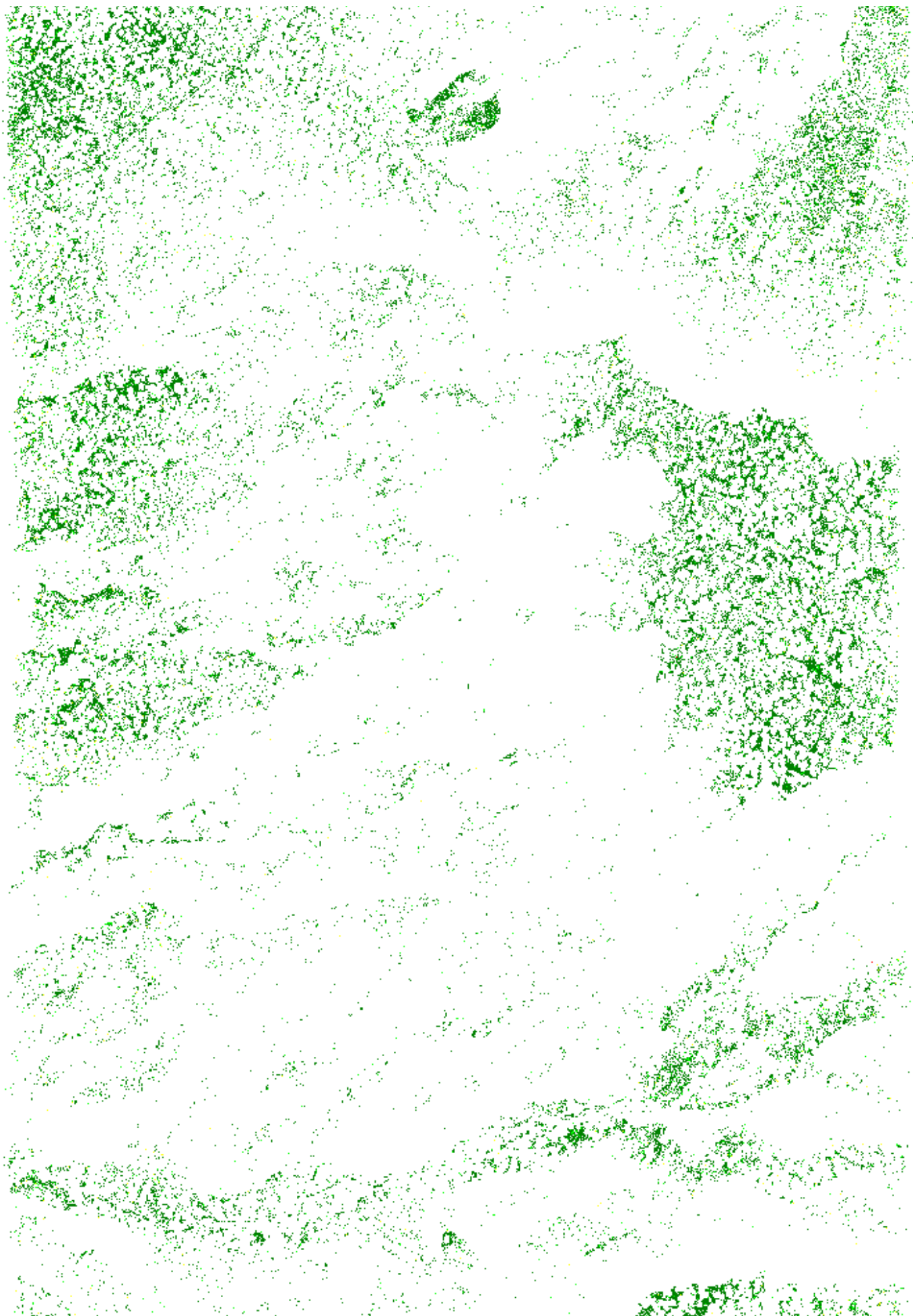
Vertical difference

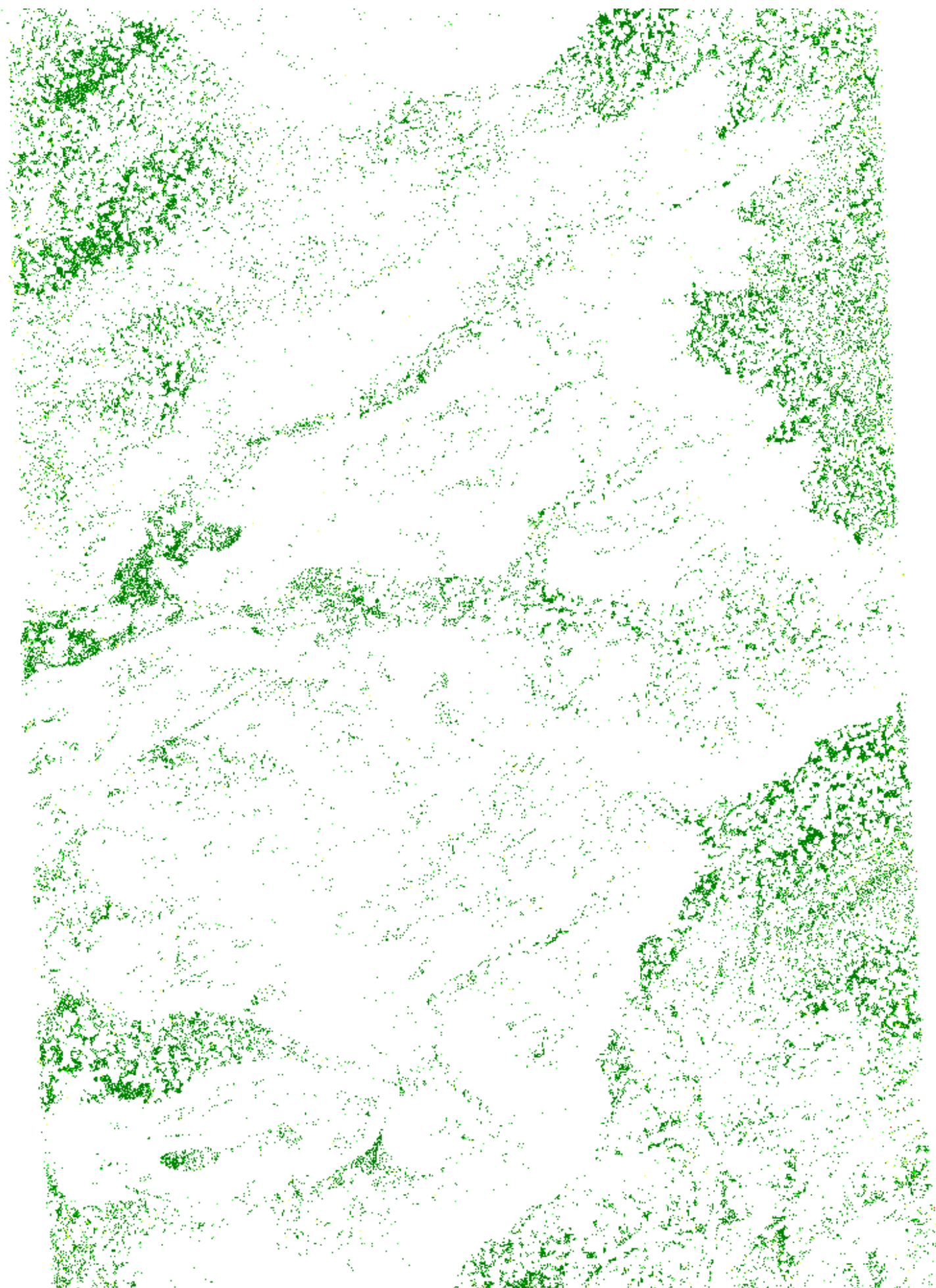
396_155156

338031 valid patches with size of 2 m found. Only patches with standard deviation < 0.05 m and minimum of 5 points are included.

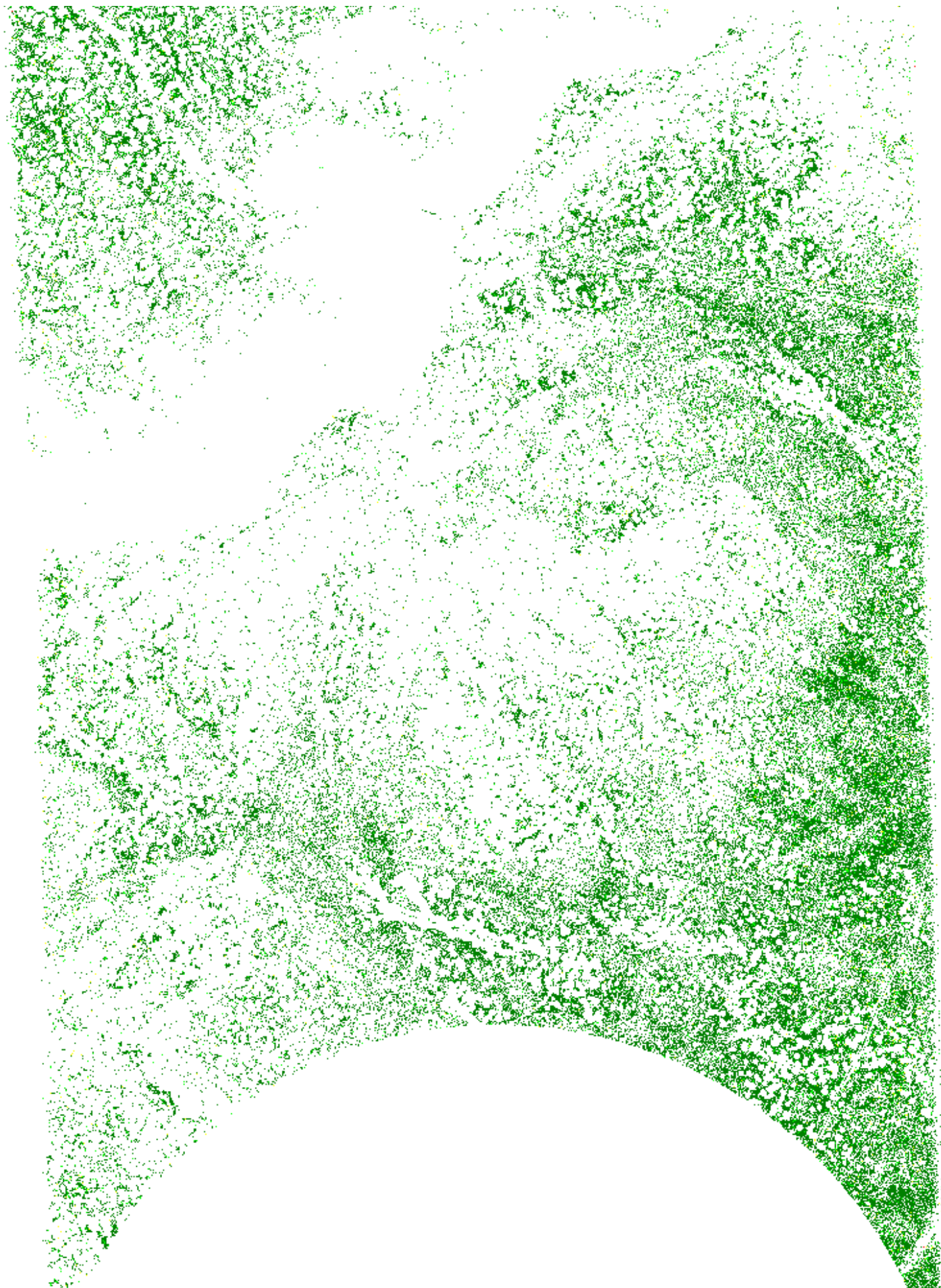
Color	Limits [m]	Number of patches	Proportion of total number of patches [%]
Dark Green	≤ 0.03	299486	88.60
Bright Green	0.03-0.05	32874	9.73
Yellow	0.05-0.1	5637	1.67
Red	> 0.1	34	0.01











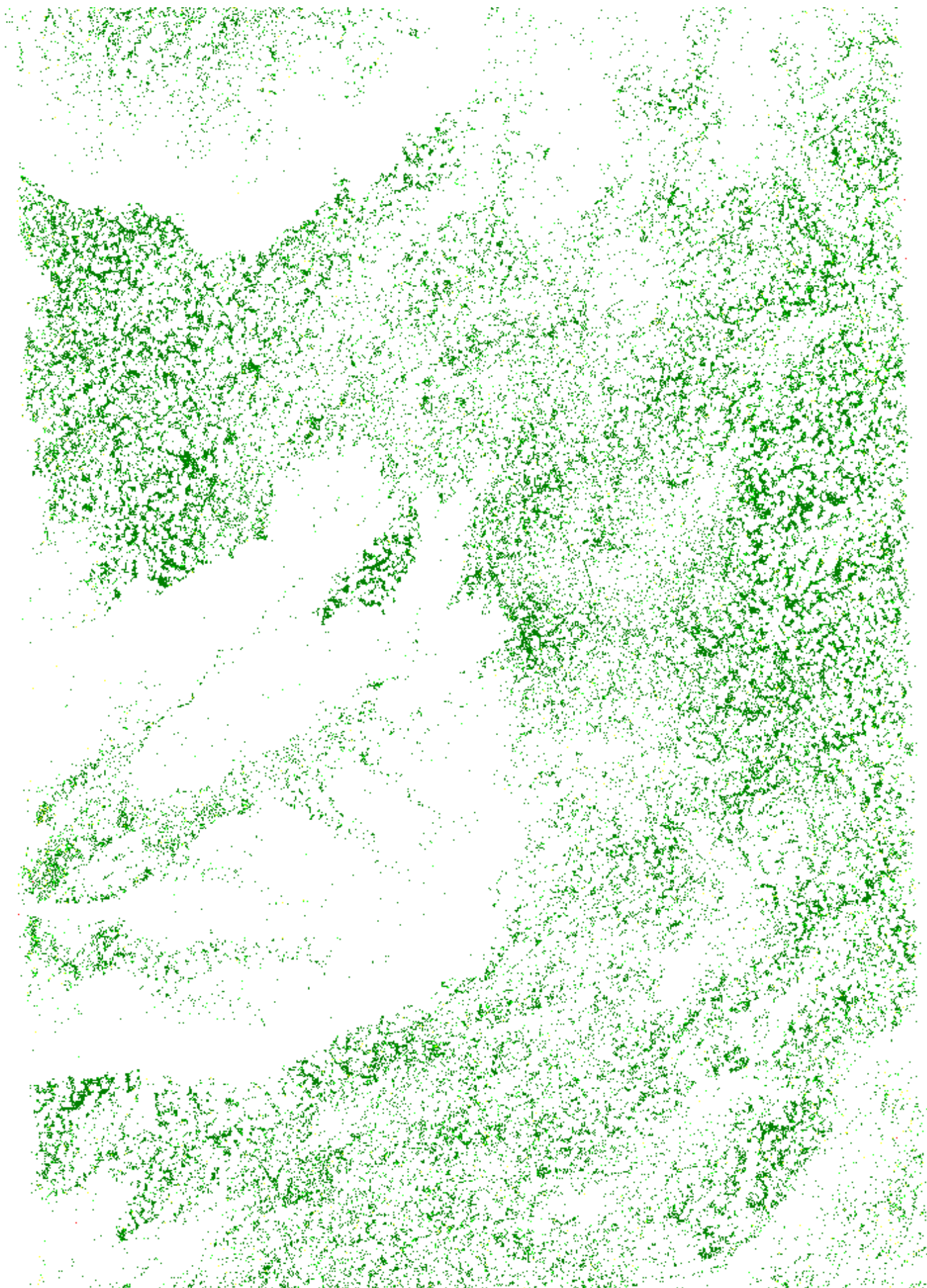
Vertical difference

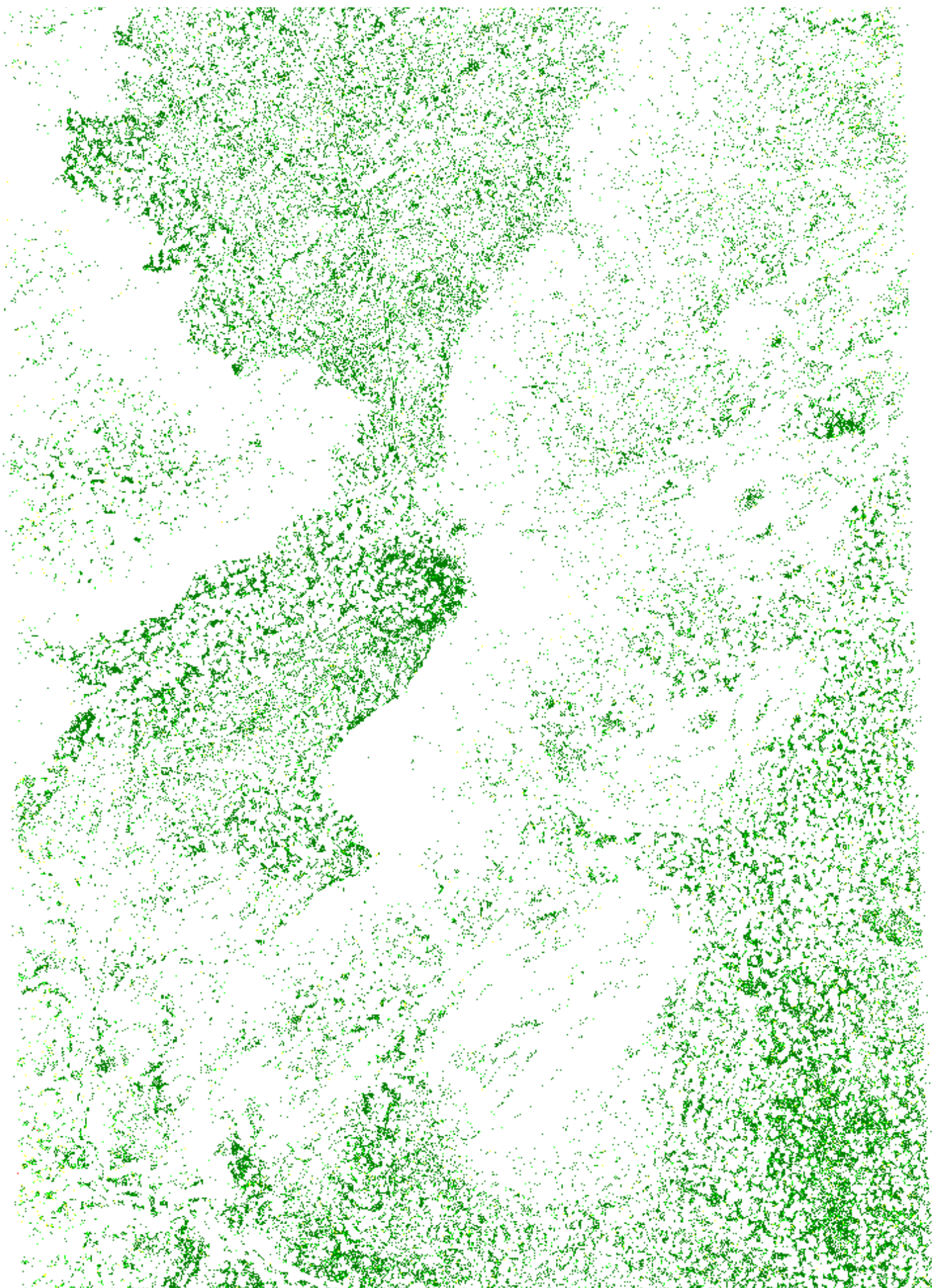
397_155845

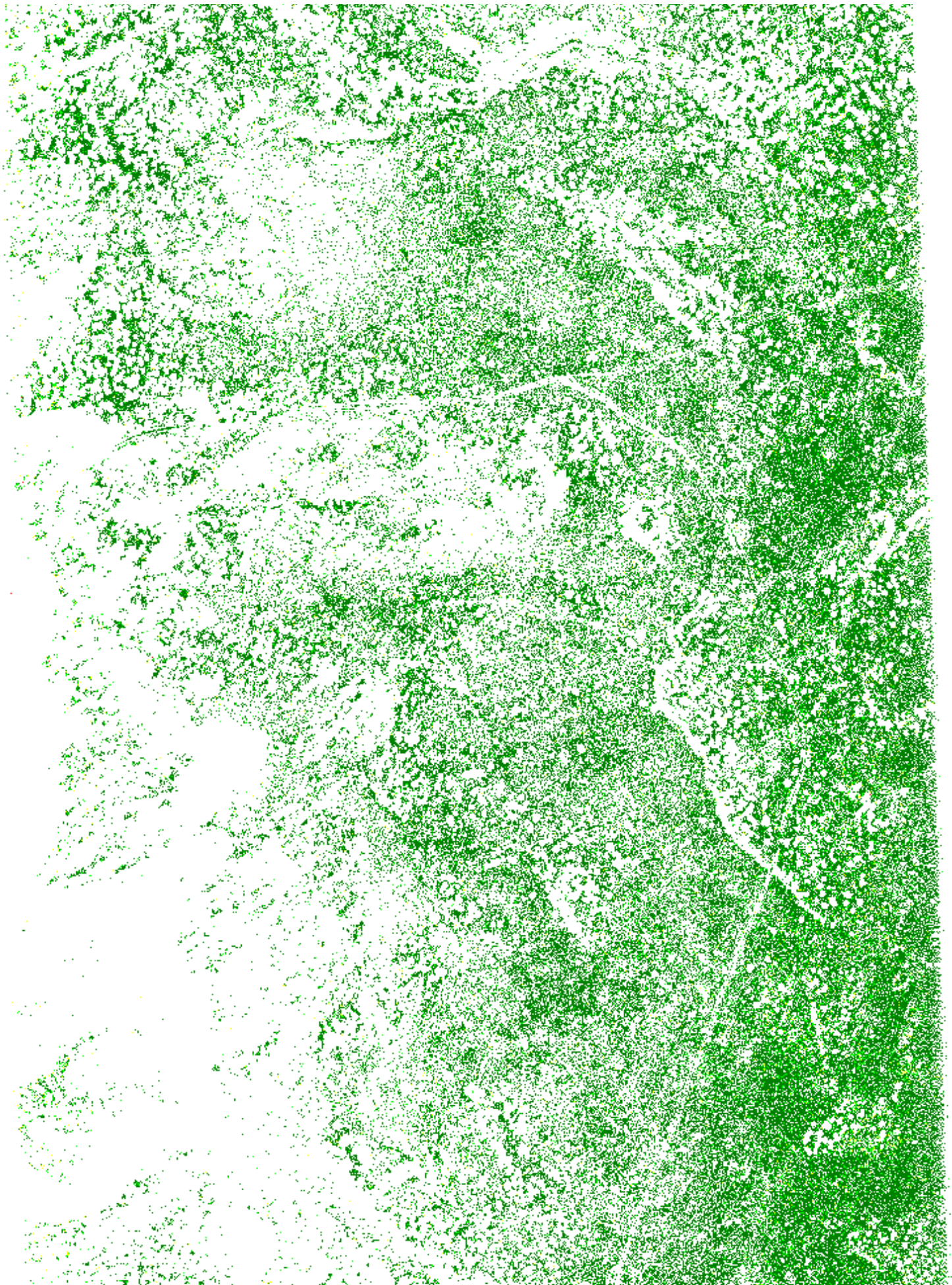
509726 valid patches with size of 2 m found. Only patches with standard deviation < 0.05 m and minimum of 5 points are included.

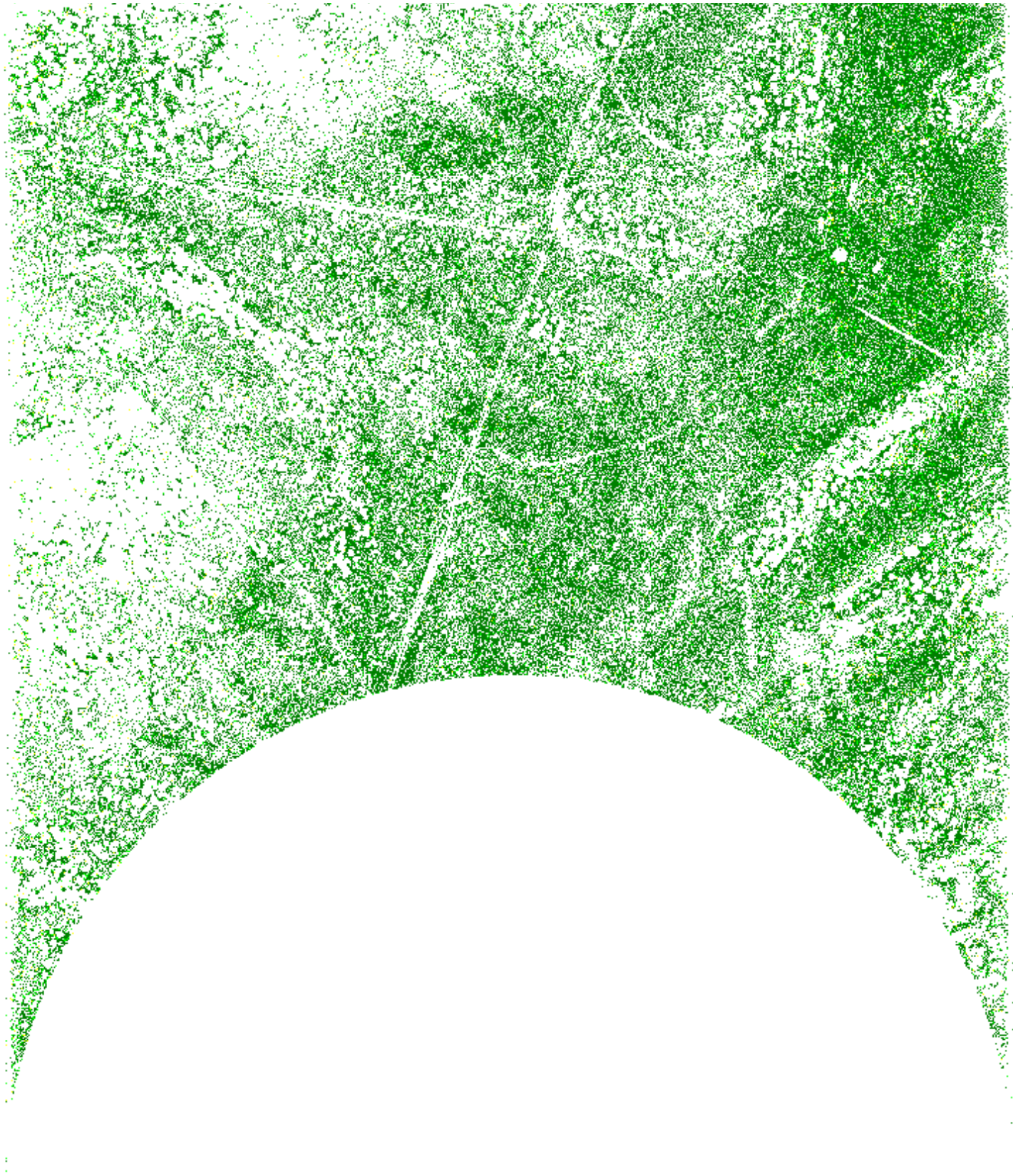
Color	Limits [m]	Number of patches	Proportion of total number of patches [%]
Dark Green	<=0.03	446668	87.63
Bright Green	0.03-0.05	54550	10.70
Yellow	0.05-0.1	8476	1.66
Red	>0.1	32	0.01











Vertical difference