



LiDAR Mapping Report: AL_SWCentral_B22

LiDAR Collection, Processing, and QA/QC

140G0222F0140: AL_SWCentral_B22

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: 140G0222F0140: AL_SWCentral_B22

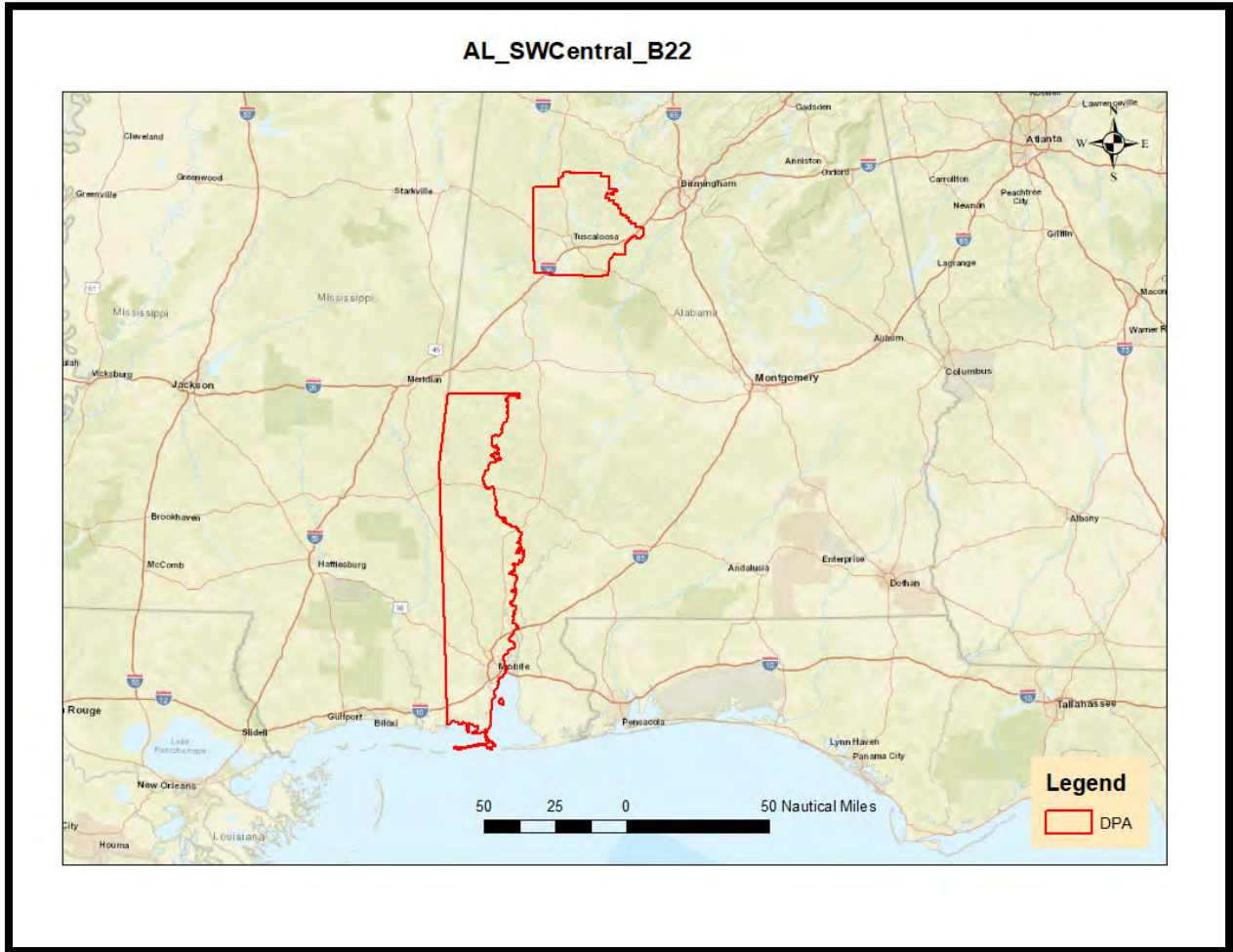


Figure 1 Define Project Area (DPA)

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	12
3. GEOMETRIC QUALITY	14
3.1 POINT CLOUD	14
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	48
APPENDIX C. VERTICAL ACCURACY CALCULATIONS	81
APPENDIX D. INERTIAL EXPLORER	339
APPENDIX E. GEOMETRIC QUALITY & SMOOTH SURFACE PRECISION	655

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 **140G0222F0140 AL_SWCentral_B22**. The task order required an acquisition period of annual minimal water level in the fall leaf-off window, 2022, running through 31 March 2023. LiDAR survey was 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 4,685 square miles of Choctaw, Mobile, Tuscaloosa and Washington counties in the state of Alabama using the Leica Terrain Mapper as shown in Figure 1's Defined Project Area (DPA) for delivery.

LiDAR dataset was 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 convention 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 16 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)

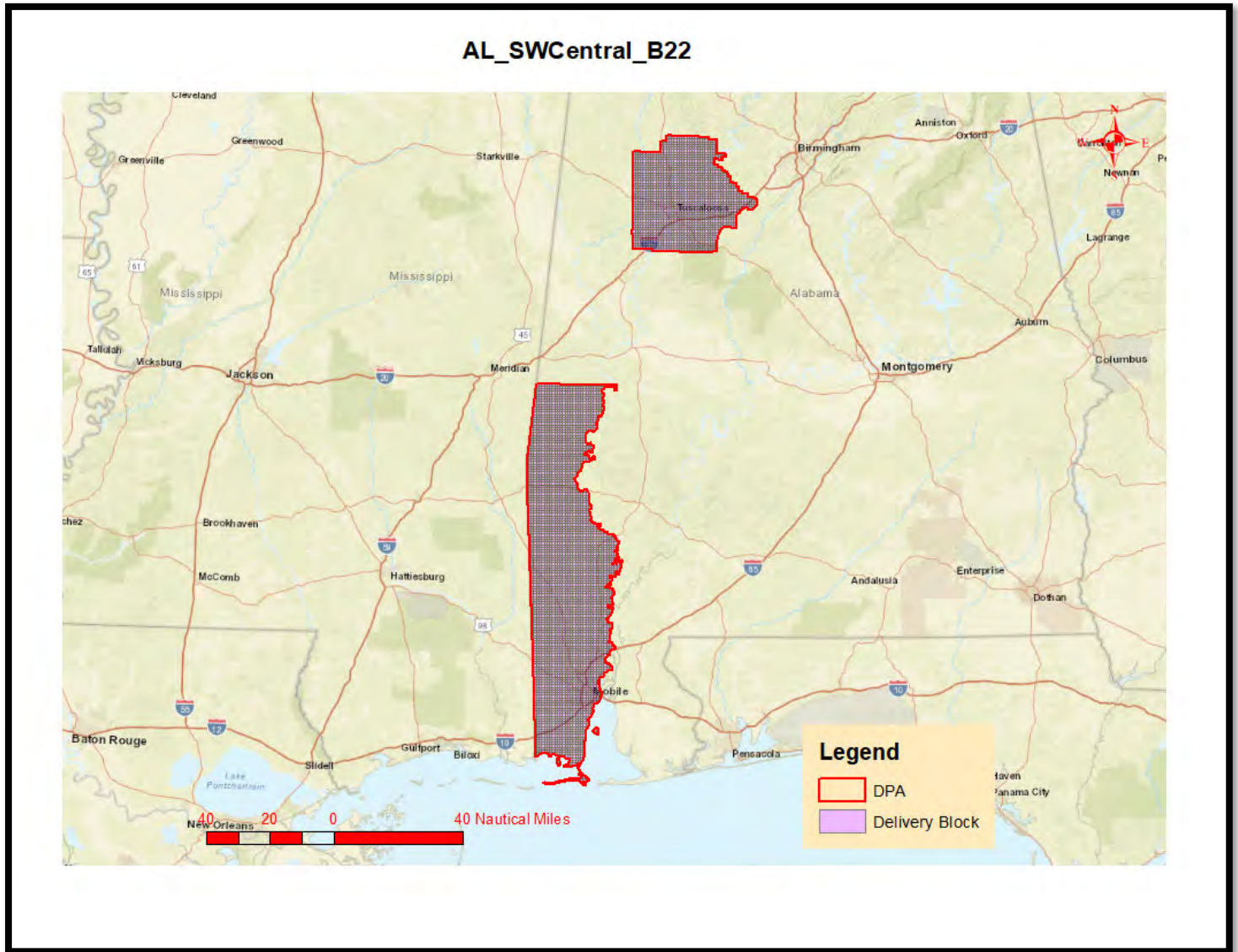


Figure 2 AL_SWCentral_B22 Delivery Blocks

1.2 Mission Acquisition

Mission acquisition for **140G0222F0140 AL_SWCentral_B22** survey was done using H.L Sonny Callahan Airport (KCQF), Bay Minette Municipal Airport (1R8) and Bessemer Airport (KEKY), 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 30 missions between 09 January 2023 – 05 March, 2023. There was a total of 247 planned flightlines covering the entire Delivery Block, approximately 4685 square miles of Choctaw, Mobile, Tuscaloosa and Washington counties in the state of Alabama. All mission flight logs and GPS session forms can be found in Appendix A and B.

AL_SWCentral_B22

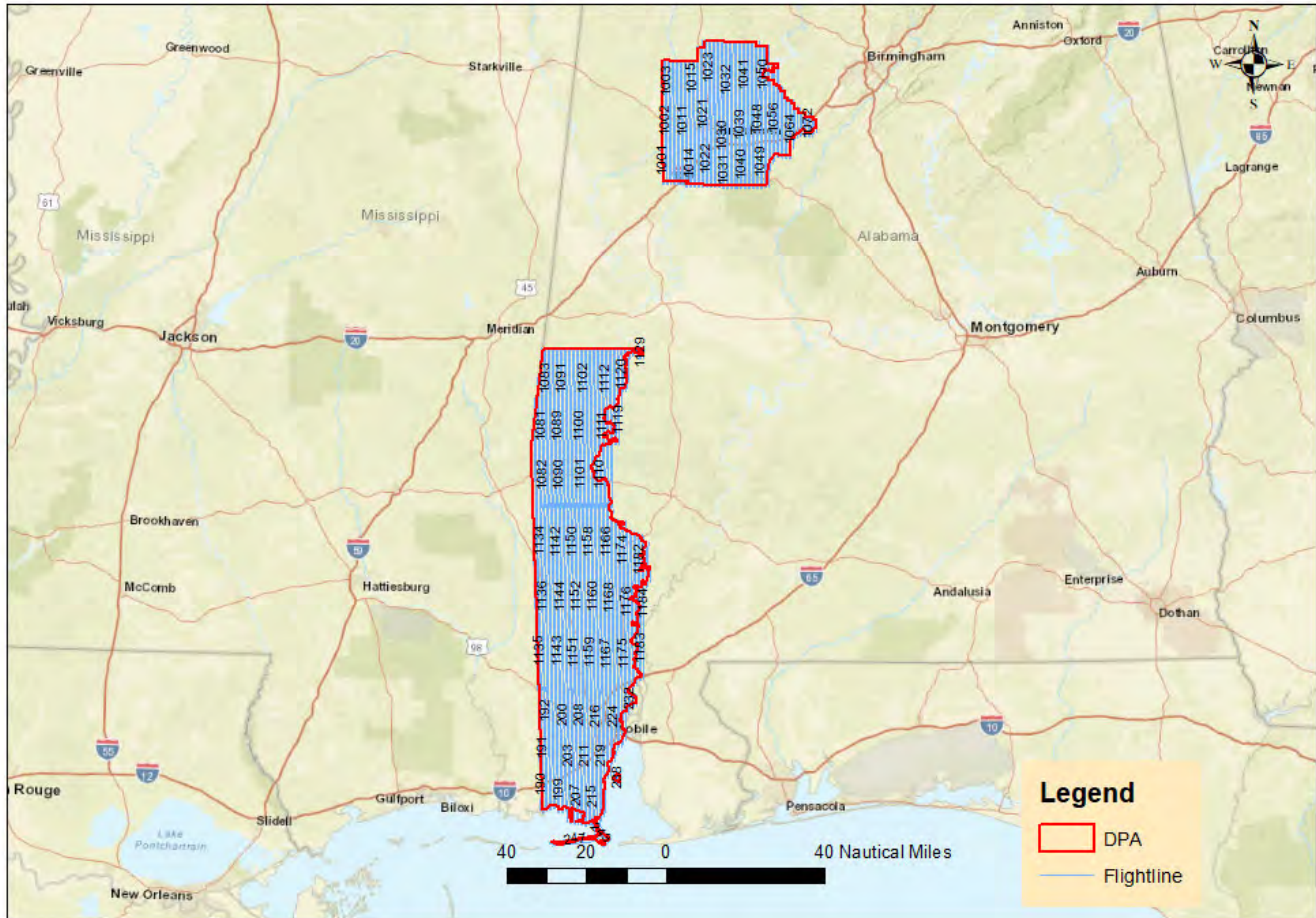


Figure 3 AL_SWCentral_B22 Flightlines

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 planned project parameters for AL_SWCentral_B22.

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:	0.321 meters

Table 1 Flight Parameters

1.4 Mission Conditions

The acquisition mission for **140G0222F0140 AL_SWCentral_B22** 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: GCS North American Datum 1983 (2011), Vertical Ellipsoid, Meters

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)
H.L Sonny Callahan Airport -KCQF	30°28' 04.03396"	087° 52' 41.90765"	-1.076
Bay Minette Municipal Airport – 1R8	32°27' 39.34706"	087° 57' 16.12483"	4.096
Bessemer Airport-KEY	33°18' 35.47156"	086° 55' 40.55405"	180.897

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 AL_SWCentral_B22 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 AL_SWCentral_B22 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 NPS
93	3.240	0.321

Tile	Total Point Count	Point Count Class_1	Point Count Class_2	Point Density	NPS
16RCA742516.las	29496110	24954119	4540726	13.110	0.276
16RCA742527.las	32279239	27151877	5125735	14.347	0.264
16RCA742533.las	34069429	28615271	5454158	15.142	0.257
16RCA772509.las	27830176	23335748	4494226	12.369	0.284
16RCA787537.las	28967068	23934732	5031133	12.874	0.279
16RCA817501.las	45162113	40020533	5140845	20.072	0.223
16RCA832536.las	28248108	23639295	4605514	12.555	0.282
16RCA907501.las	36915122	31189725	5722330	16.407	0.247
16RCU712374.las	24070909	20308941	3758456	10.698	0.306
16RCU712381.las	16812145	12120104	4688682	7.472	0.366
16RCU727390.las	22089312	17599163	4490149	9.818	0.319
16RCU742398.las	20562920	16052008	4510327	9.139	0.331
16RCU787384.las	25248084	20516810	4731274	11.222	0.299
16RCU802378.las	17226912	12358862	4868050	7.657	0.361
16RCU802384.las	14144340	9328134	4816206	6.286	0.399
16RCU832368.las	20067004	15190130	4876874	8.919	0.335
16RCU847347.las	2078621	1104218	778185	1.918	0.722
16RCU877383.las	18794246	14224005	4549674	8.353	0.346
16RCU877384.las	16012667	11754105	4258562	7.117	0.375
16RCU892360.las	18498541	14359614	4102476	8.222	0.349
16RCU922347.las	18779994	14722683	4032951	8.347	0.346
16RCU937347.las	16958983	14035125	2913737	7.537	0.364
16RCV757458.las	23569806	18939022	4628438	10.476	0.309
16RCV772413.las	20603380	15643431	4959949	9.157	0.330
16RCV772419.las	15344893	9547837	5783280	6.820	0.383
16RCV787404.las	18872882	14277892	4594748	8.388	0.345
16RCV802446.las	30445950	26725804	3715331	13.532	0.272
16RCV802482.las	22917373	18906717	4010656	10.186	0.313
16RCV817429.las	26092859	21826635	4265546	11.597	0.294
16RCV817438.las	22538050	18252217	4257951	10.017	0.316
16RCV817470.las	26065456	21255376	4795285	11.585	0.294
16RCV832470.las	20475278	16309487	4156054	9.100	0.331
16RCV847422.las	28604246	24517447	4086362	12.713	0.280
16RCV862491.las	19961245	15487650	4473595	8.872	0.336
16RCV877480.las	25459914	20497792	4961577	11.316	0.297
16RCV892498.las	23828194	19604607	4223587	10.590	0.307
16RCV922408.las	27922517	24105161	3809526	12.410	0.284

16RCV922423.las	20620444	15673116	4947328	9.165	0.330
16RCV982402.las	14895516	11138893	3701144	6.620	0.389
16RCV982410.las	21552540	17151631	4372454	9.579	0.323
16RCV997489.las	24092987	19794902	4298085	10.708	0.306
16RDV012419.las	22415432	17991315	4424117	9.963	0.317
16RDV012459.las	25236644	21253588	3982584	11.216	0.299
16RDV012467.las	24284505	20078474	4196173	10.793	0.304
16RDV012471.las	21150043	16394858	4755185	9.400	0.326
16RDV012479.las	27713031	23395594	4317437	12.317	0.285
16RDV027426.las	22298814	17615121	4680555	9.911	0.318
16RDV027479.las	19666285	16020702	3645583	8.741	0.338
16RDV057485.las	14252279	8928825	5323454	6.334	0.397
16SCA697546.las	30131130	24635084	5493150	13.392	0.273
16SCA712551.las	28357768	23644683	4713085	12.604	0.282
16SCA742561.las	30467420	26116022	4350323	13.541	0.272
16SCA772560.las	26684706	20908822	5767356	11.860	0.290
16SCA817555.las	23040493	18781596	4258199	10.240	0.312
16SCA847551.las	21949270	16200648	5744349	9.755	0.320
16SCA892551.las	20654839	16390800	4262738	9.180	0.330
16SCA907569.las	27642208	23620949	4021259	12.286	0.285
16SCA982555.las	27181322	23494381	3686833	12.081	0.288
16SDA012563.las	26223892	22128658	4088188	11.655	0.293
16SDB267683.las	29284060	23564620	5718182	13.015	0.277
16SDB312698.las	24424691	19292040	5129043	10.855	0.304
16SDB342693.las	24961254	19514571	5445786	11.094	0.300
16SDB357678.las	20310824	15428794	4881210	9.027	0.333
16SDB432677.las	13319593	8307996	5005965	5.920	0.411
16SDB447669.las	24189913	20465808	3718382	10.751	0.305
16SDB462677.las	14519767	10159420	4360347	6.453	0.394
16SDB462686.las	19520321	14632478	4887843	8.676	0.340
16SDB492665.las	18295222	13210392	5084830	8.131	0.351
16SDB507668.las	16889361	11969230	4920131	7.506	0.365
16SDB507680.las	20088182	14851548	5236634	8.928	0.335
16SDB522680.las	21362736	15780634	5575226	9.495	0.325
16SDB537674.las	16659995	12127175	4532820	7.405	0.367
16SDB537699.las	24115861	18510831	5603527	10.718	0.305
16SDB567674.las	22864925	17183854	5681071	10.162	0.314
16SDB582659.las	24404404	19754694	4647046	10.846	0.304
16SDB582672.las	20831824	15610808	5221016	9.259	0.329
16SDB582684.las	26183705	20771617	5412088	11.637	0.293
16SDB657656.las	23630414	18798714	4827693	10.503	0.309
16SDB657680.las	23131933	18115402	4995406	10.281	0.312
16SDB687654.las	26963915	22008048	4948109	11.984	0.289
16SDB687671.las	21441231	16539449	4899916	9.530	0.324
16SDB687680.las	22807358	18013616	4790793	10.137	0.314
16SDB702692.las	24737813	19839424	4809655	10.995	0.302
16SDB717684.las	20619862	14829667	5789474	9.165	0.330
16SDB762672.las	16240428	11154895	5075331	7.218	0.372

16SDB912681.las	19608112	13462048	6141750	8.715	0.339
16SDC327702.las	29102507	23423221	5679286	12.935	0.278
16SDC372701.las	30575333	25874975	4700358	13.589	0.271
16SDC402707.las	29728221	23916055	5811294	13.213	0.275
16SDC417704.las	21921831	16405604	5511985	9.743	0.320
16SDC432704.las	18306989	12752250	5550280	8.137	0.351
16SDC537705.las	24912889	20109343	4797355	11.073	0.301
16SDC567710.las	27927992	22629321	5297724	12.413	0.284

Table 4 Point Density Statistics

AL_SWCentral_B22

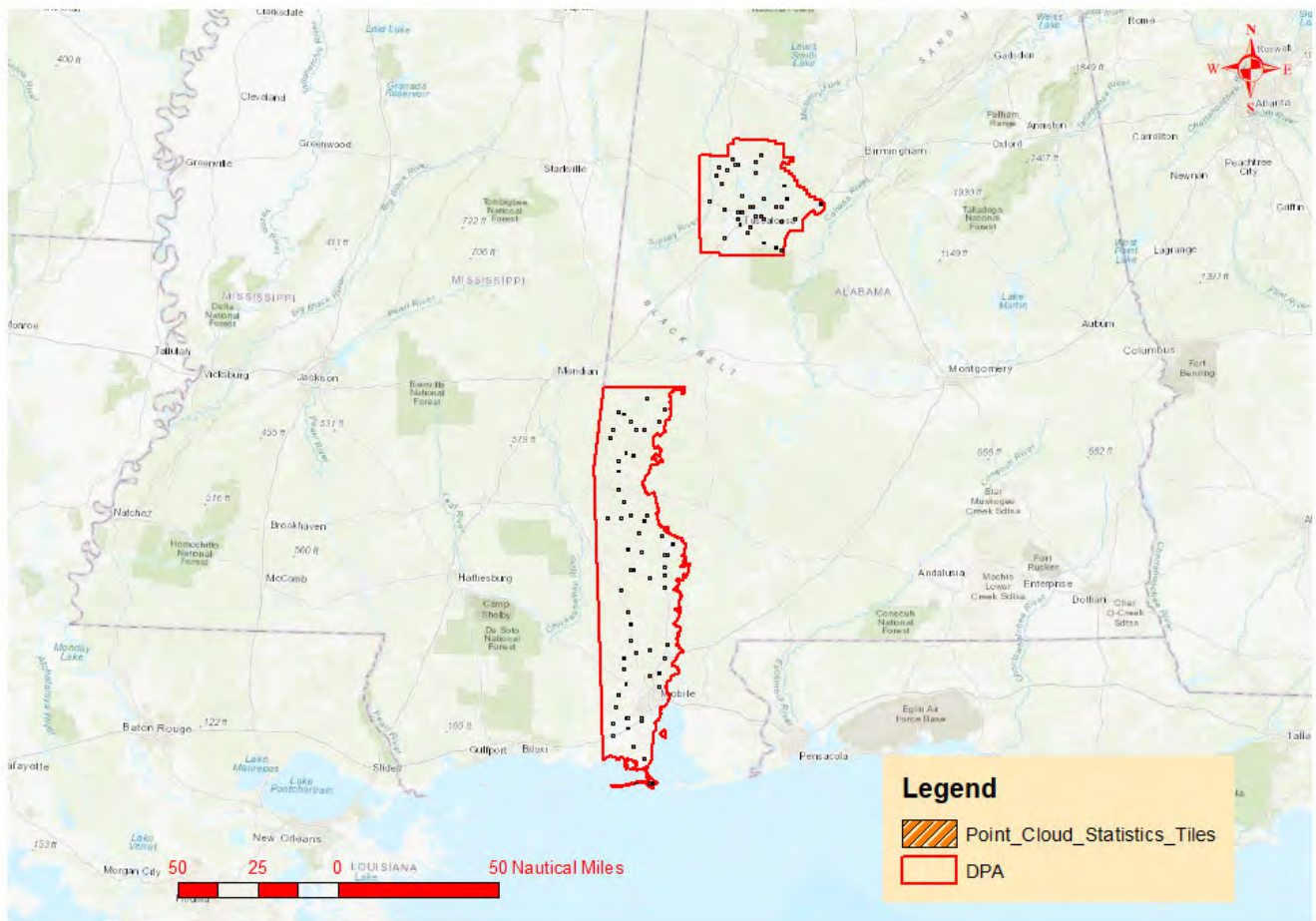


Figure 4 AL_SWCentral_B22 Point Cloud Sample Statistics

2.4 Geometric Calibration

LiDAR data calibration was done using Leica HxMap v4.2.0 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 **140G0222F0140 AL_SWCentral_B22** QL2 LiDAR project, the control points listed below were used in data adjustment.

Point ID	Easting	Northing	Ortho_Height
GS0050	402101.250	3426544.996	12.160
GS0072	382105.943	3438165.617	97.920
GS0087	383317.128	3469616.091	64.161
GS0091	401878.882	3460057.294	17.576
GS0096	402168.184	3478825.721	20.424
GS0123	368559.050	3500477.525	87.984
GS0130	374373.284	3517126.674	51.303
GS0138	383127.428	3535613.309	93.718
GS0158	373824.407	3561723.424	67.068
GS0172	400626.527	3562623.219	25.368
TS0017	458185.146	3658676.143	61.502
TS0033	440070.056	3707782.066	108.275
TS0040	457010.038	3710467.672	159.588
TS0045	453526.139	3699152.416	167.099
TS0054	469503.578	3691937.831	194.084
TS0076	435891.450	3661936.009	45.702
TS0082	469396.523	3671375.197	153.081
GS0004	385363.335	3346952.969	0.918
GS0010	382902.658	3367926.389	25.800
GS0018	371165.647	3382242.385	37.281
GS0023	388001.605	3385296.260	23.213
GS0032	374405.527	3398571.026	50.817
GS0038	377855.254	3419541.203	87.187
GS0046	392597.325	3423320.493	85.734
GS0059	392389.712	3408080.050	29.752
GS0069	381850.419	3429775.001	44.789

GS0080	375709.207	3458350.263	75.942
GS0109	380898.607	3482339.330	49.481
GS0115	389422.347	3498278.325	31.682
GS0134	374940.081	3527664.859	38.551
GS0149	369531.149	3547070.739	135.065
GS0164	384732.702	3550981.630	52.789
TS0026	430709.166	3698323.638	99.014
TS0063	458949.243	3684331.715	143.527
TS0070	436494.820	3679123.340	63.468

Table 5 Ground Control Points

3. Geometric Quality

3.1 Point Cloud

This refers to the internal geometric quality of the lidar dataset without regard to surveyed ground control. Two primary factors are considered in the lidar data vertical accuracy; Intrawath Precision (Smooth Surface Precision) & Interswath (Overlap) consistency, along with absolute accuracy assessments against project ground control.

Swath Separation Images (SSI) depicts interswath accuracy using color coding to illustrate differences in elevation (z) values where swaths overlap. The semi-coded images are semi-transparent and overlay the lidar intensity image. The SSI are ancillary metadata used as visual aids to identify regions more easily within point cloud dataset that may have suspect interswath alignment or other geometric issues. For this project, the SSI creation involved using; all returns lidar point cloud, excluding noise classes (7 & 18). The images are derived from TINs and consist of 50 percent transparent RGB layer overlaying the lidar intensity images. The image uses three color levels (0-8cm: GREEN, 8-16cm: YELLOW, >16cm: RED) within a pixel, where two or more swaths overlap. The SSI are shown in figures below and are also delivered as GeoTIFF images at cell size equal to 2.5m.

Intrawath Precision (Smooth Surface Precision): Digital Aerial Solutions utilizes a Terrain Mapper LiDAR sensor that is calibrated to meet the relative vertical accuracy standards listed in the Lidar base specification. Smooth Surface Precision results was generated using Leica HxMap software v4.20, in accordance the criteria listed below for determining Intrawath precision, over a calibration site at Lakeland Regional Airport, in Florida. The result is shown in Appendix E.

$Precision = Range - (Slope \times CellSize \times 1.414)$ where:

Precision, Range, and Slope are rasters (square cells assumed);

- *Range* is the difference between the highest and lowest lidar points in each pixel;
- *Slope* is the maximum slope of the cell to its 8 neighbors, expressed as a decimal value, calculated from the minimum elevation in each cell; and
- *CellSize* is the edge dimension of the cell. 1.414 is the factor to compute the diagonal dimension of the pixel.
- *CellSize* is set to the ANPS, rounded up to the next integer, and then doubled:
- $CellSize = CEILING(ANPS) \times 2$

- where:
 - *CEILING* is a function to round *ANPS* up to the next integer
- Assessment of precision will be made on hard surfaced areas (for example, parking lots or large rooftops) containing only single return lidar points.
- Sample areas for assessment of precision will be approximately 100 pixels.
- To the degree allowed by the data and the project environment, multiple sample areas representing the full width of the swath(s) (left, center, and right) will be examined.
- Multiple single swaths from a single lift may be used if needed to sample the full swath width.
- At a minimum, precision shall be assessed against for each lift of each aircraft/instrument combination used on the project. Additional areas may be checked at the discretion of the USGS–NGP.
- Each test area will be evaluated using a signed difference raster with a cell size equal to the ANPS, rounded up to the next integer, then doubled ($CellSize = CEILING(ANPS) \times 2$).
- The difference rasters will be statistically summarized to verify that root mean square difference in the z - direction ($RMSD_z$) values do not exceed the limits set forth in [table 2](#) for the QL of information that is being collected.
- Precision shall be reported by way of a polygon shapefile delineating the sample areas checked and, using the cells within each polygon as sample values, attributed with:
 - minimum slope-corrected range (numeric),
 - maximum slope-corrected range (numeric), and
 - $RMSD_z$ of the slope-corrected range (numeric)

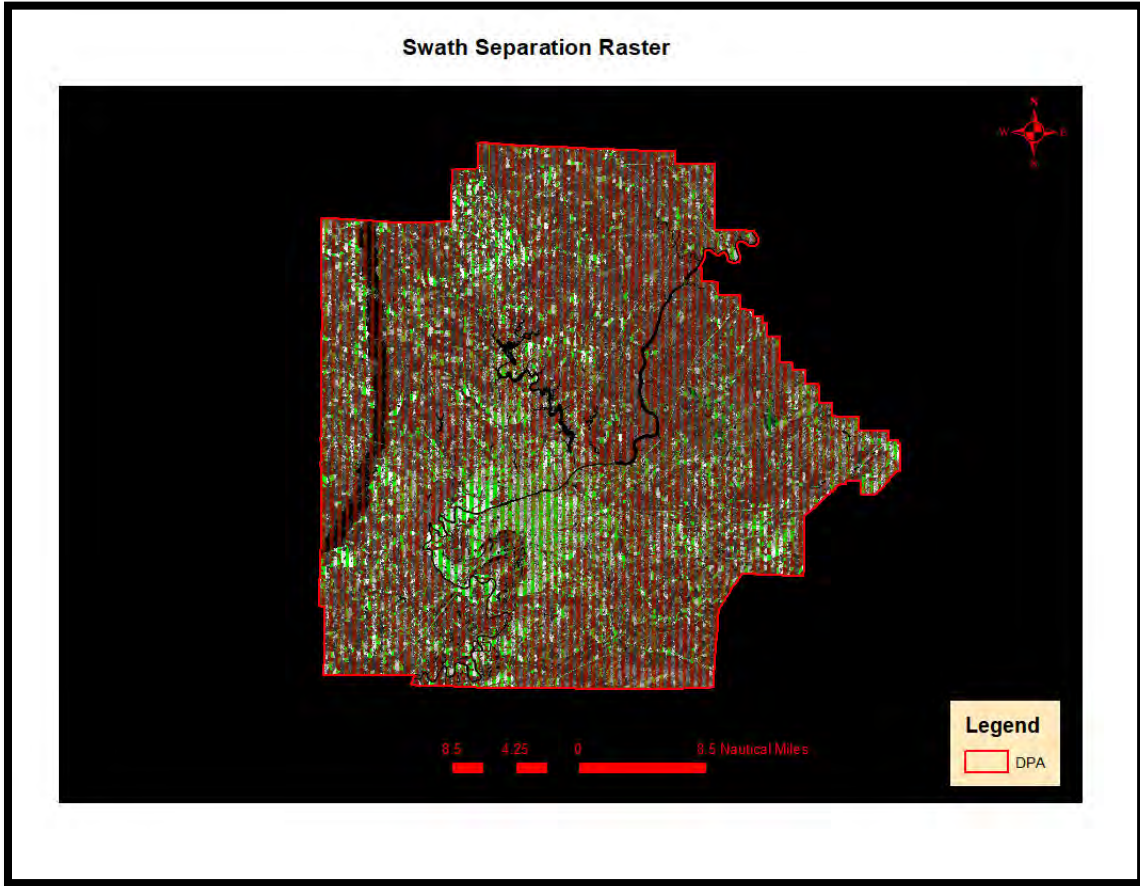


Figure 5A Swath Separation Raster

Swath Separation Raster

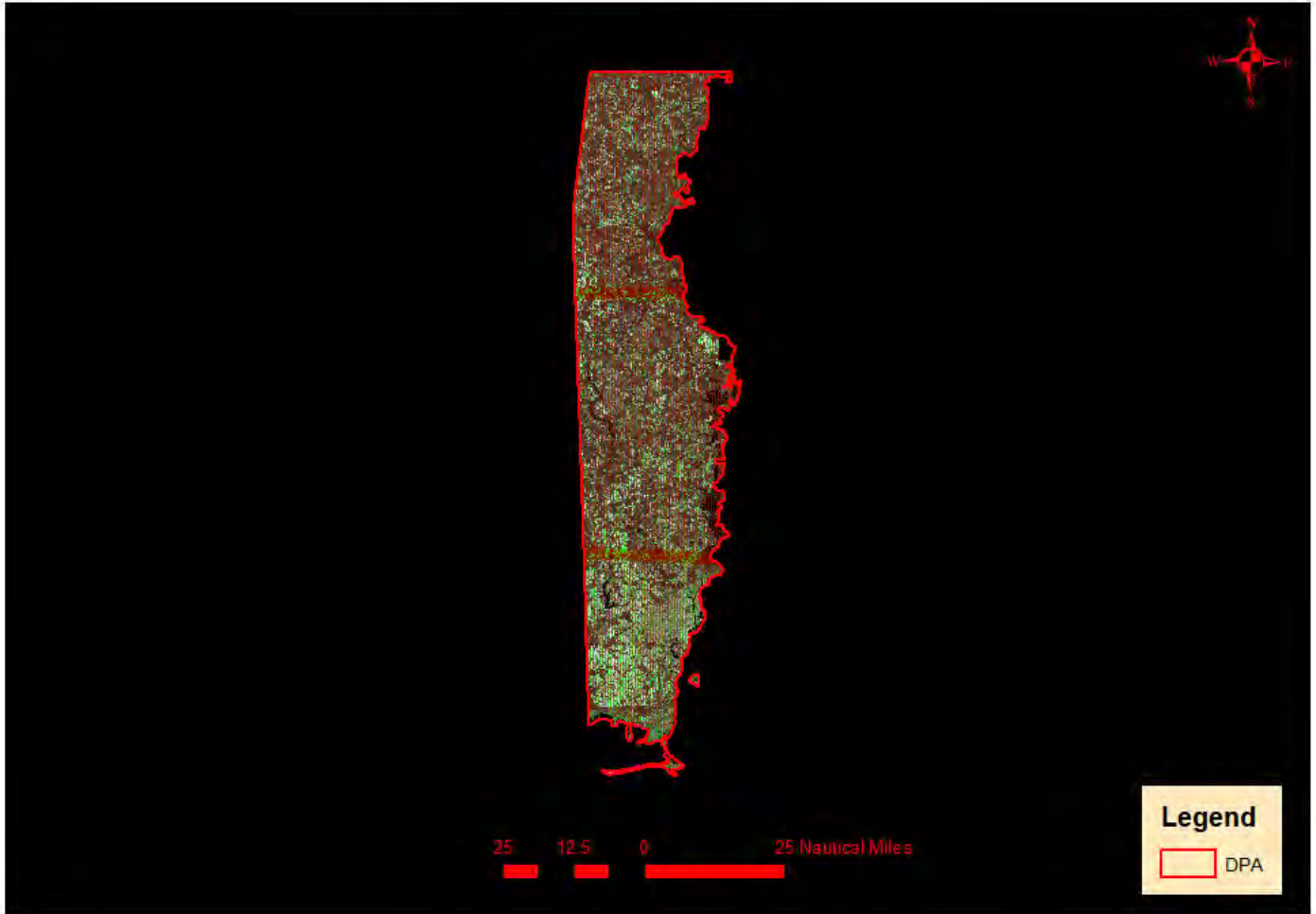


Figure 5B Swath Separation Raster

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 140G0222F0140 AL_SWCentral_B22 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	0.072	126	89
Digital Elevation Model	0.073	126	89

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

Total #	# NVA	# VVA
215	126	89

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 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.

Temporal Polygon: Temporal issue resulting from overlapping swaths, flown at different times in LAS tile (16RDV027494) was addressed by classification to class 22. A temporal polygon for the area affected is also provided as a deliverable feature polygon.

Low Confidence Areas: Flood inundations were identified in low lying areas within the project DPA. The inundation conditions in these areas resulted in poor returns in ground classification, and thinning in bare earth digital elevation models (DEM) generated for these areas. Low confidence polygons were delineated and submitted as deliverables to help in data QC. Sample low confidence polygon is shown in figure 6 below.

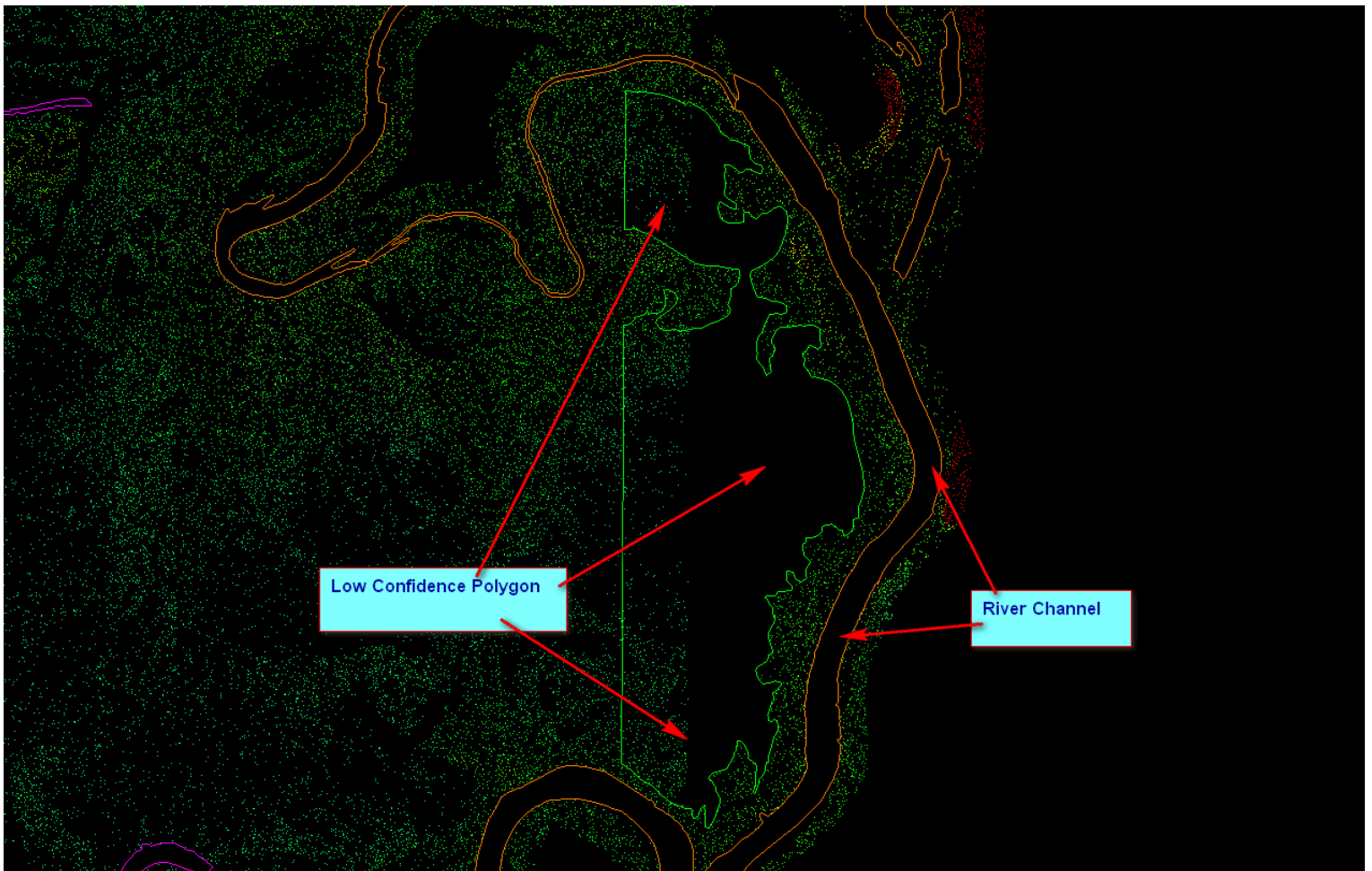


Figure 6: Low Confidence Area

Appendix A. Flight Logs



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral				Lift	Temp °C Before	Temp °C After	Pressure (kPa)	Sensor Operator			
Date/Julian:		1/9/2023		Disk Drive			Sensor			Pilot			
Hobbs End		37.5		MM30 (107,108)			TM_90524			Jim Crouch			
Hobbs ST		33.3		TARGET	MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		4.2		6,500		155	CQF1		CQF2		1.500	C421_N811A	Callahan (KCQF)
∠	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
	218	218 N	17:19	17:33	2°	6472	155	6831	14	1.5	0.8	over water first 5mi. Abnormal reflection	
	217	217 S	17:37	17:51	183°	6466	155	6822	15	1.3	0.7	Gimbal data missing @start. Abn reflection	
	216	216 N	17:55	18:08	2°	6464	154	6813	18	1.0	0.6	Abnormal reflection	
	215	215 S	18:13	18:26	182°	6450	155	6803	18	1.1	0.6	" "	
	214	214 N	18:31	18:44	2°	6454	154	6794	18	1.2	0.6	" " roll limit	
	213	213 S	18:48	19:02	182°	6448	154	6784	16	1.3	0.7	" " gimbal data missing	
	212	212 N	19:06	19:19	3°	6441	158	6775	16	1.3	0.7	" "	
	211	211 S	19:23	19:37	182°	6432	155	6765	17	1.1	0.7	" " roll limit	
	210	210 N	19:41	19:54	1°	6426	158	6756	17	1.1	0.7	" " roll limit	
	209	209 S	19:59	20:13	184°	6417	160	6744	17	1.2	0.7	" " roll limit. Gimbal data	
	208	208 N	20:17	20:31	3°	6422	152	6734	18	1.3	0.6	" "	
	207	207 S	20:35	20:48	182°	6425	156	6726	19	1.3	0.6	" "	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		A.L_SWCont			Lift	Temp °C Before	Temp °C After	Pressure (kPa)		Sensor Operator		
					2	15	7	102.17		Geoffrey McCall		
Date/Julian:		1/9/2023		Disk Drive			Sensor			Pilot		
Hobbs End		41.8		MM30 (103,104)			TM_90524			Mike Wasielewski		
Hobbs ST		37.5		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		4.3		6,463		155	CQF1		CQF02	1.500	C421_N811NA	KCQF
∠	Flight Line	Mission Line	UTC time:		GPS Altitude	Direction	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP	
1	206	206N	2259	2312	6403	0°	154	7153	16	1.2	0.7	Abnormal Reflections
2	205	205S	2316	2329	6424	184°	155	7143	15	1.5	0.8	" +Gimbal Data Missing
3	204	204N	2333	2346	6433	1°	152	7134	16	1.3	0.7	"
4	203	203S	2350	0003	6435	182°	151	7124	16	1.3	0.7	" +Gimbal Data
5	202	202N	0009	0022	6450	2°	156	7115	16	1.2	0.7	"
6	201	201S	0026	0038	6441	183°	154	7106	16	1.2	0.7	"
7	200	200N	0042	0054	6458	1°	152	7097	17	1.1	0.7	"
8	199	199S	0058	0111	6444	181°	159	7087	15	1.2	0.7	"
9	198	198N	0115	0127	6462	3°	148	7078	15	1.3	0.7	"
10	197	197S	0131	0143	6454	181°	156	7069	14	1.4	0.8	"
11	196	196N	0147	0159	6454	2°	152	7060	15	1.3	0.7	"
12	195	195S	0203	0215	6448	182°	158	7051	16	1.1	0.7	"



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator		
					3	9	17	102.24			Chuck Harris		
Date/Julian:		1/9/2023		Disk Drive			Sensor				Pilot		
Hobbs End		45.9		MM30 (107,108)			TM_90524				Jim Crouch		
Hobbs ST		41.8		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time		4.1		6,500		155	CQF1		CQF02		1.500	C421_N811A	Callahan (KCQF)
∠	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		
	194	194 N	14:55	15:08	3°	6446	157	6716	17	1.4	0.7	Abnormal Reflection	
	193	193 S	15:11	15:23	182°	6466	156	6708	16	1.3	0.7	" " Gimbal data	
	192	192 N	15:27	15:40	2°	6442	155	6698	17	1.2	0.6	" "	
	191	191 S	15:43	15:56	181°	6436	155	6689	15	1.3	0.7	" "	
	190	190 N	16:00	16:12	3°	6440	156	6679	16	1.1	0.7	" "	
	189	189 S	16:17	16:25	183°	6446	155	6671	15	1.2	0.7	" "	
	219	219 N	16:37	16:50	2°	6457	156	6664	15	1.2	0.8	" "	
	220	220 S	16:54	17:06	183°	6442	155	6653	14	1.3	0.8	" "	
	221	221 N	17:11	17:23	3°	6390	159	6640	14	1.3	0.8	" "	
	222	222 S	17:27	17:36	183°	6390	159	6637	15	1.3	0.7	" "	
	223	223 N	17:39	17:48	2°	6387	156	6630	16	1.2	0.7	" "	
	224	224 N	17:53	18:00	183°	6431	157	6625	17	1.1	0.6	" "	
	225	225 N	18:04	18:11	3°	6426	153	6620	17	1.1	0.6	" "	
	226	226 S	18:15	18:22	182°	6425	155	6613	18	1.2	0.6	" "	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)		Sensor Operator		
					4	10	9	30.03		Ben Johnson		
Date/Julian:	1/25/2023		Disk Drive			Sensor				Pilot		
Hobbs End	53.1		MM30 (107,108)			TM_90524				Mike Wasielewski		
Hobbs ST	52.3		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time	0.8		6,500	155	CQF1		CQF2		1.500	C421_N811NA	CQF	
	Flight Line	Mission Line	UTC time:		GPS Altitude	Direction	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP	
	236	236N	:50	:51	6471	3°	145	6609	17	1.1	0.6	Cloud gimbal data
	237	237N	:57	:59	6469	183°	151	6609	17	1.1	0.7	Abnormal reflection



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator	
					5	9	12	30.30			Ben Johnson	
Date/Julian:		1/26/2023		Disk Drive			Sensor				Pilot	
Hobbs End		57.1		MM30 (107,108)			TM_90524				Jim Crouch	
Hobbs ST		53.3		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		3.8		6,500	155	CQF1		CQF2		1.500	C421_N811NA	CQF
	Flight Line	Mission Line	UTC time:		GPS Altitude	Direction	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP	
	239	239N	17:22	17:23	6477	2°	156	6608	17	1.2	0.7	Abnormal Reflections
	227	227N	17:25	17:31	6467	1°	154	6608	17	1.2	0.7	Abnormal Reflections
	228	228S	17:37	17:43	6449	182°	156	6604	16	1.3	0.7	Abnormal Reflections
	229	229N	17:47	17:53	6470	2°	157	6601	17	1.2	0.7	Abnormal Reflections
	230	230S	17:57	18:02	6470	183°	151	6596	17	1.2	0.7	Abnormal Reflections
	231	231N	18:09	18:12	6464	2°	152	6593	17	1.1	0.6	Abnormal Reflections
	232	232S	18:16	18:18	6463	183°	151	6590	18	1.1	0.6	Abnormal Reflections
	233	233N	18:22	18:24	6450	2°	153	6589	17	1.2	0.7	Abnormal Reflections
	234	234S	18:29	18:30	6459	182°	154	6587	15	1.8	0.8	Abnormal Reflections
	235	235N	18:35	18:36	6449	3°	153	6586	16	1.2	0.7	Abnormal Reflections
	1184	1184N	18:41	18:55	6427	2°	153	6584	16	1.2	0.7	Changed Flight Plan + Abnormal Reflections
	1183	1183S	19:00	19:14	6427	182°	153	6575	18	1.2	0.6	Abnormal Reflections
	1182	1182N	19:19	19:33	6433	2°	154	6563	18	1.3	0.6	Abnormal Reflections
	1181	1181S	19:38	19:53	6429	183°	153	6554	18	1.3	0.6	Abnormal Reflections
	1180	1180N	19:57	20:12	6442	4°	153	6542	18	1.3	0.6	Abnormal Reflections
	1179	1179S	20:16	20:32	6408	181°	150	6532	18	1.3	0.6	Abnormal Reflections



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before		Temp °C After		Pressure (kPa)		Sensor Operator		
					6	12		8		102.44		Chuck Harris		
Date/Julian:		1/26/2023		Disk Drive			Sensor					Pilot		
Hobbs End		60.1		TM MM30 (103, 104)			TM_90524					Jim Crouch		
Hobbs ST		57.1		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:		
Flight Time		3		6,500		155	CQF1		CQF2		1.500	C421_N811A	Callahan (KCQF)	
∠	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			
	178	1178 N	21:54	22:10	2°	6432	150	7041	15	1.3	0.8	Abnormal Reflection		
	177	1177 S	22:14	22:31	181°	6433	151	7028	14	1.4	0.8	Abnormal Reflection. Gimbal Data		
	176	1176 N	22:35	22:52	3°	6440	153	7016	15	1.4	0.7	Abnormal Reflection		
	175	1175 S	22:58	23:15	182°	6437	154	7004	17	1.1	0.6	Abnormal Reflection		
	174	1174 N	23:21	23:38	3°	6460	153	6998	16	1.2	0.7	Abnormal Reflection		
	173	1173 S	23:42	23:59	183°	6439	159	6977	17	1.0	0.7	Abnormal Reflection		



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral				Lift	Temp °C Before	Temp °C After	Pressure (kPa)	Sensor Operator				
						7	8	8	102.95	Ben Johnson				
Date/Julian:		2/3/2023		Disk Drive			Sensor						Pilot	
Hobbs End		69.3		TM MM30 (103, 104)			TM_90524						Jim Crouch	
Hobbs ST		65.4		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:		
Flight Time		3.9		6,500		155	EKY1	EKY2		1.500	C421_N811NA	EKY		
	Flight Line	Mission Line	UTC time:		GPS Altitude	Direction	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:		
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP			
38	1053	1053N	19:07	19:22	6723	4°	143	6963	18	1.3	0.6	Abnormal Reflections + Gimbal Data		
36	1052	1052S	19:26	19:40	6734	184°	155	6952	19	1.2	0.6	Abnormal Reflections		
35	1051	1051N	19:45	20:00	6735	3°	159	6940	19	1.3	0.6	Abnormal Reflections		
32	1050	1050S	20:04	20:19	6754	183°	153	6929	18	1.2	0.6	Abnormal Reflections		
30	1049	1049N	20:23	20:37	6648	3°	147	6917	17	1.4	0.7	Abnormal Reflections		
28	1048	1048S	20:42	20:56	6670	183°	151	6906	18	1.2	0.7	Abnormal Reflections		
25	1047	1047N	21:00	21:16	6658	3°	149	6894	15	1.4	0.8	Abnormal Reflections		
21	1046	1046S	21:20	21:34	6693	183°	155	6882	15	1.4	0.8	Abnormal Reflections		
19	1045	1045N	21:39	21:54	6673	3°	148	6871	13	1.6	0.9	Abnormal Reflections		
15	1044	1044S	21:58	22:12	6685	183°	159	6860	15	1.4	0.8	Abnormal Reflections		



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral		Lift	Temp °C Before	Temp °C After	Pressure (kPa)		Sensor Operator			
				8	3	2	103.25		Chuck Harris			
Date/Julian:		2/3/2023		Disk Drive		Sensor				Pilot		
Hobbs End		72.2		TM MM30 (107, 108)		TM_90524				Jim Crouch		
Hobbs ST		69.5		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		2.7		6,500	155	EKY1		EKY2		1.500	C421_N811NA	Callahan (KCQF)
∠	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	
	1043	1043 N	2:02	2:17	4°	6606	145	6521	19	1.1	0.6	Abnormal Ref
	1042	1042 S	2:21	2:36	184°	6630	152	6510	18	1.4	0.6	Abnormal Ref
	1041	1041 N	2:41	2:56	4°	6621	142	6499	18	1.2	0.6	Abnormal Ref
	1040	1040 S	3:00	3:14	183°	6638	154	6487	20	1.1	0.6	Abnormal Ref
	1039	1039 N	3:20	3:35	3°	6470	146	6475	18	1.4	0.9	Abnormal Ref
	1038	1038 S	3:39	3:54	183°	6557	154	6464	19	1.2	0.7	Abnormal Ref



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator	
					9	12	12	102.98			Ben Johnson	
Date/Julian:		2/4/2023		Disk Drive			Sensor					Pilot
Hobbs End		76.4		TM MM30 (103, 104)			TM_90524					Jim Crouch
Hobbs ST		72.5		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		3.9		6,500	155	EKY1		EKY2		1.500	C421_N811NA	EKY
	Flight Line	Mission Line	UTC time:		GPS Altitude	Direction	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP	
36	1037	1037N	19:42	19:56	6606	2°	151	6846	20	1.1	0.6	Abnormal Reflections
33	1036	1036S	20:00	20:14	6594	184°	155	6835	19	1.1	0.6	Abnormal Reflections
31	1035	1305N	20:18	20:33	6599	3°	153	6823	17	1.4	0.7	Abnormal Reflections
28	1034	1034S	20:37	20:51	6595	183°	155	6812	18	1.2	0.7	Abnormal Reflections
26	1033	1033N	20:56	21:10	6603	3°	152	6800	16	1.3	0.8	Abnormal Reflections
23	1032	1032S	21:14	21:28	6590	182°	155	6790	15	1.4	0.8	Abnormal Reflections
20	1031	1031N	21:32	21:47	6612	2°	153	6778	15	1.4	0.8	Abnormal Reflections
17	1030	1030S	21:51	22:05	6600	183°	156	6768	16	1.3	0.7	Abnormal Reflections
14	1029	1029N	22:09	22:23	6616	3°	150	6756	17	1.3	0.7	Abnormal Reflections
10	1028	1028S	22:27	22:42	6594	183°	154	6745	16	1.3	0.7	Abnormal Reflections



Digital Aerial Solutions Flight Log

Project/Flight Plan:			AL_SWCentral				Lift	Temp °C Before	Temp °C After	Pressure (kPa)	Sensor Operator		
Date/Julian:			2/4/2023		Disk Drive			Sensor			Pilot		
Hobbs End			80.2		TM MM30 (107, 108)			TM_90524			Jim Crouch		
Hobbs ST			76.5		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time			3.7		6,500		155	EKY1	EKY2		1.500	C421_N811NA	Bessemer, AL (EKY)
∠	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		
	1027	1027 N	24:04	24:19	4°	6518	154	6452	15	1.2	0.7	Abnormal Ref	
	1026	1026 S	24:23	24:38	185°	6506	151	6441	17	1.1	0.6	Abnormal Ref	
	1025	1025 N	24:42	24:57	4°	6528	158	6431	17	1.3	0.6	Abnormal Ref	
	1024	1024 S	1:02	1:17	183°	6503	151	6420	16	1.4	0.6	Abnormal Ref	
	1023	1023 N	1:20	1:35	4°	6521	157	6408	17	1.3	0.7	Abnormal Ref	
	1022	1022 S	1:39	1:54	183°	6504	154	6398	20	1.1	0.6	Abnormal Ref	
	1021	1021 N	1:59	2:13	3°	6527	155	6387	19	1.2	0.7	Abnormal Ref	
	1054	1054 S	2:23	2:34	184°	664	154	6377	18	1.3	0.8	Abnormal Ref	
	1055	1055 N	2:38	2:48	4°	6690	156	6369	19	1.3	0.6	Abnormal Ref	
	1056	1056 S	2:52	3:02	182°	6653	155	6361	19	1.2	0.6	Abnormal Ref	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral				Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator
						11	13	13	102.57			Ben Johnson
Date/Julian:	2/5/2023		Disk Drive			Sensor						Pilot
Hobbs End	81.3		TM MM30 (101, 102)			TM_90524						Jim Crouch
Hobbs ST	80.3 <th>TARGET MSL</th> <th>Target AIRSPD</th> <th>Base Name</th> <th>PID</th> <th>Base Name</th> <th>PID</th> <th>Base Height</th> <th>Aircraft</th> <th>Airport Identification:</th>		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time	1		6,500	155	EKY1		EKY2		1.500	C421_N811NA	EKY	
Flight Line	Mission Line	UTC time:		GPS Altitude	Direction	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:	
		Begin:	End:				MM Space		AVG PDOP	AVG HDOP		
1076	1076N	17:08	17:09	6555	2°	155	5852	17	1.2	0.7	Clouds + Abnormal Reflections	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral		Lift	Temp °C Before	Temp °C After	Pressure (kPa)		Sensor Operator			
				12	14	9	102.17		Ben Johnson			
Date/Julian:		2/5/2023		Disk Drive		Sensor				Pilot		
Hobbs End		85.5		MM30 (103,104)		TM_90524				Jim Crouch		
Hobbs ST		81.3		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		4.2		6,500		155	EKY1	EKY2		1.500	C421_N811NA	EKY
	Flight Line	Mission Line	UTC time:		GPS Altitude	Direction	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP	
0	1075	1075N	23:47	23:49	6816	3°	155	6734	15	1.5	0.8	Abnormal Reflections
0	1074	1074S	23:54	23:56	6953	183°	151	6732	16	1.2	0.7	Abnormal Reflections
0	1073	1073N	:1	:3	6954	3°	150	6730	15	1.3	0.7	Abnormal Reflections
0	1072	1072S	:14	:17	6992	183°	159	6728	16	1.2	0.7	Abnormal Reflections
0	1071	1071N	:21	:23	6988	3°	155	6727	17	1.2	0.7	Abnormal Reflections
0	1070	1070S	:27	:29	6999	183°	156	6726	17	1.2	0.7	Abnormal Reflections
0	1069	1069N	:34	:36	7005	4°	155	6725	17	1.3	0.7	Abnormal Reflections + Roll Limit
0	1068	1068S	:40	:43	7009	183°	157	6725	17	1.3	0.7	Abnormal Reflections
0	1067	1067N	:47	:51	7008	3°	154	6723	17	1.3	0.7	Abnormal Reflections
0	1066	1066S	:55	:59	7001	183°	156	6720	17	1.3	0.7	Abnormal Reflections
0	1065	1065N	1:05	1:10	6834	3°	153	6718	17	1.3	0.7	Abnormal Reflections
0	1064	1064S	1:14	1:20	6848	183°	155	6713	17	1.3	0.7	Abnormal Reflections
0	1063	1063N	1:24	1:30	6843	3°	153	6709	18	1.2	0.6	Abnormal Reflections
0	1062	1062S	1:34	1:40	6850	183°	154	6704	18	1.1	0.6	Abnormal Reflections
0	1061	1061N	1:44	1:50	6852	4°	150	6699	19	1.1	0.6	Abnormal Reflections
0	1060	1060S	1:55	2:02	6855	183°	156	6694	19	1.1	0.6	Abnormal Reflections
0	1059	1059N	2:06	2:13	6849	3°	151	6690	18	1.3	0.6	Abnormal Reflections
0	1058	1058S	2:20	2:29	6858	183°	150	6683	19	1.2	0.6	Abnormal Reflections
0	1057	1057N	2:33	2:42	6713	3°	157	6676	19	1.2	0.6	Abnormal Reflections
0	1020	1020S	2:54	3:08	6495	184°	153	6669	18	1.3	0.7	Abnormal Reflections



Digital Aerial Solutions Flight Log

Project/Flight Plan:			AL_SWCentral			Lift	Temp °C Before		Temp °C After		Pressure (kPa)		Sensor Operator	
			13			11		18		30.25		Ben Johnson		
Date/Julian:		2/6/2023		Disk Drive			Sensor					Pilot		
Hobbs End		89.5		TM MM30 (103, 104)			TM_90524					Mike Wasielewski		
Hobbs ST		85.5		TARGET MSL		Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time		4		6,500		155	EKY1		EKY2		1.500	C421_N811NA	EKY	
∠	Flight Line	Mission Line	UTC time:		GPS Altitude	Direction	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:		
			Begin:	End:				MM Space		AVG PDOP	AVG HDOP			
28	1019	1019N	15:22	15:36	6510	3°	156	6656	13	1.3	0.8	Abnormal Reflections		
30	1018	1018S	15:40	15:53	6523	184°	154	6645	14	1.3	0.8	Abnormal Reflections		
33	1017	1017N	15:57	16:11	6522	3°	157	6634	17	1.1	0.6	Abnormal Reflections		
35	1016	1016S	16:16	16:28	6531	183°	152	6623	17	1.2	0.6	Abnormal Reflections		
36	1015	1015N	16:32	16:45	6526	3°	157	6614	17	1.3	0.6	Abnormal Reflections		
38	1014	1014S	16:48	17:01	6530	183°	156	6603	16	1.4	0.7	Abnormal Reflections		
39	1013	1013N	17:05	17:17	6519	3°	158	6593	16	1.4	0.7	Abnormal Reflections		
40	1012	1012S	17:21	17:33	6510	184°	156	6583	18	1.3	0.7	Abnormal Reflections		
41	1011	1011N	17:37	17:49	6517	2°	157	6575	16	1.8	1	Abnormal Reflections		
41	1010	1010S	17:53	18:05	6518	183°	157	6564	16	1.7	0.9	Abnormal Reflections		
42	1009	1009N	18:10	18:22	6586	3°	157	6553	17	1.3	0.7	Abnormal Reflections		



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral				Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator
						14	19	16	102.17			Chuck Harris
Date/Julian:	2/6/2023	Disk Drive				Sensor						Pilot
Hobbs End	92.6	TM MM30 (107, 108)				TM_90524						Jim Crouch
Hobbs ST	89.5	TARGET MSL		Target AIRSPD	Base Name	PID	Base Name	PID	Base Height		Aircraft	Airport Identification:
Flight Time	3.1	6,500		155	EKY1		EKY2		1.500		C421_N811NA	Bessemer, AL (EKY)
∠	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	
	1008	1005 S	21:00	21:12	183°	6565	158	6354	13	1.6	0.8	Abnormal Ref
	1007	1007 N	21:16	21:28	3°	6579	159	6344	15	1.3	0.7	Abnormal Ref
	1006	1006 S	21:31	21:44	183°	6574	153	6335	15	1.4	0.8	Abnormal Ref
	1005	1005 N	21:48	22:00	3°	6577	161	6325	16	1.4	0.8	Abnormal Ref
	1004	1004 S	22:04	22:16	183°	6580	151	6315	17	1.1	0.7	Abnormal Ref
	1003	1003 N	22:20	22:32	3°	6590	157	6306	16	1.2	0.7	Abnormal Ref
	1002	1002 S	22:36	22:48	183°	6587	152	235	17	1.1	0.7	Abnormal Ref
	1001	1001 N	22:52	23:05	3°	6594	156	6296	16	1.2	0.7	Abnormal Ref
	1076	1076 S	23:21	23:23	183°	6888	154	6277	14	1.4	0.8	Abnormal Ref. Refly



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral				Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator
						16	8	20	102.03			Ben Johnson
Date/Julian:	2/13/2023		Disk Drive			Sensor						Pilot
Hobbs End	107.7		TM MM30 (107, 108)			TM_90524						Jim Crouch
Hobbs ST	103.4		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time	4.3		6,500	155	DYA01		DYA02		1.500	C421_N811NA	KDYA	
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		
25	1111	1111S	15:15	15:31	181°	6473	154	6172	15	1.2	0.7	Abnormal Reflections
32	1110	1110N	15:35	15:50	2°	6507	151	6160	16	1.1	0.6	Abnormal Reflections
34	1109	1109S	15:54	16:10	183°	6485	159	6148	16	1.2	0.7	Abnormal Reflections
37	1108	1108N	16:14	16:30	2°	6514	150	6136	16	1.2	0.7	Abnormal Reflections
39	1107	1107S	16:34	16:50	183°	6490	154	6124	17	1.2	0.7	Abnormal Reflections
42	1106	1106N	16:54	17:09	2°	6518	154	6112	17	1.2	0.7	Abnormal + PAV did not lock, Airstart
42	1105	1105S	17:44	17:59	182°	6475	155	6101	15	1.4	0.8	Abnormal Reflections
45	1104	1104N	18:03	18:19	2°	6481	154	6089	18	1.3	0.6	Abnormal Reflections
44	1124	1124S	18:25	18:26	182°	6450	153	6075	19	1.2	0.6	Abnormal Reflections
44	1125	1125N	18:31	18:32	2°	6461	154	6075	18	1.3	0.6	Abnormal Reflections
44	1126	1126S	18:36	18:37	182°	6439	157	6074	19	1.2	0.6	Abnormal Reflections
44	1127	1127N	18:41	18:42	3°	6453	155	6074	19	1.2	0.6	Abnormal Reflections



Digital Aerial Solutions Flight Log

Project/Flight Plan:			AL_SWCentral		Lift	Temp °C Before	Temp °C After	Pressure (kPa)	Sensor Operator				
Date/Julian:			2/13/2023		17	21	15	101.55	Ben Johnson				
Hobbs End			111.7		Disk Drive		Sensor				Pilot		
Hobbs ST			107.7		TM MM30 (107, 108)		TM_90524				Jim Crouch		
Flight Time			4		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
			6,500		155	DYA01		DYA02		1.500	C421_N811NA	KDYA	
∠	Flight Line	Mission Line	UTC time:		Direction	GPS Altitude	Speed	Available	S/Vs	Position Acc.		Comments and Conditions:	
			MM Space	AVG PDOP				AVG HDOP					
30	1103	1103S	20:47	21:03	183°	6520	156	6073	15	1.3	0.8	Abnormal Reflections	
28	1102	1102N	21:07	21:24	2°	6513	146	6060	16	1.3	0.8	Abnormal Reflections	
24	1101	1101S	21:28	21:44	182°	6541	159	6048	17	1.1	0.6	Abnormal Reflections	
21	1100	1100N	21:49	22:05	2°	6560	150	6034	16	1.2	0.7	Abnormal Reflections	
17	1099	1099S	22:09	22:25	182°	6521	153	6023	16	1.2	0.7	Abnormal + Smoke 3 miles	
14	1098	1098N	22:29	22:45	2°	6559	155	6009	16	1.3	0.7	Abnormal, PAV Did not lock, Airstart	
7	1128	1128S	23:00	23:02	183°	6540	160	5998	15	1.3	0.7	Abnormal Reflections	
4	1129	1129N	23:06	23:07	2°	6529	149	5997	15	1.3	0.7	Abnormal Reflections	
4	1130	1130S	23:11	23:12	182°	6531	157	5996	15	1.3	0.7	Abnormal Reflections	
2	1097	1097S	23:24	23:39	182°	6542	156	5996	16	1.2	0.7	Abnormal Reflections + Light Smoke	
0	1096	1096S	23:45	:1	2°	6565	152	5984	16	1.2	0.7	Abnormal Reflections + Light Smoke	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral				Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator	
						18	12	22	101.49			Ben Johnson	
Date/Julian:		2/14/2023		Disk Drive			Sensor					Pilot	
Hobbs End		115.7		TM MM30 (107, 108)			TM_90524					Jim Crouch	
Hobbs ST		111.7		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time		4		6,500		155	DYA01		DYA02		1.500	C421_N811NA	KDYA
∠	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		
31	1095	1095S	15:08	15:26	182°	6471	131	5970	15	1.2	0.7	Abnormal Reflections	
32	1094	1094N	15:30	15:46	2°	6510	162	5956	16	1.2	0.7	Gimbal + Abnormal	
34	1093	1093S	15:50	16:09	182°	6476	131	5943	17	1.2	0.6	Abnormal Reflections	
37	1092	1092N	16:12	16:28	2°	6515	159	5923	16	1.4	0.7	Gimbal + Abnormal	
39	1091	1091S	16:33	16:52	182°	6466	131	5916	17	1.3	0.7	Abnormal Reflections	
40	1090	1090N	16:56	17:11	2°	6532	160	5900	17	1.3	0.7	Abnormal + PAV did not lock, Airstart	
44	1089	1089S	17:35	17:55	182°	6462	121	5888	17	1.3	0.7	Abnormal Reflections	
45	1088	1088N	17:58	18:13	2°	6498	145	5871	17	1.4	0.7	Abnormal Reflections	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator	
					19	1	8	103.32			Ben Johnson	
Date/Julian:	2/18/2023	Disk Drive			Sensor						Pilot	
Hobbs End	25.4	TM MM30 (103, 104)			TM_90524						Jim Crouch	
Hobbs ST	22.1	TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:		
Flight Time	3.3	6,500	155	MEI01		MEI02		1.500	C421_N811A			
∠	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	
26	1087	1087S	14:51	15:07	180°	6619	152	6541	16	1.1	0.6	Gimbal Data + Abnormal Reflections
30	1086	1086	15:11	15:26	3°	6624	159	6528	18	1.0	0.6	Abormal
32	1085	1085	15:31	15:46	182°	6630	158	6515	16	1.2	0.7	Abormal
36	1084	1084	15:51	16:06	2°	6582	159	6504	16	1.3	0.7	Abormal
38	1083	1083	16:11	16:26	182°	6595	156	6490	16	1.3	0.7	Abormal
41	1082	1082	16:30	16:46	3°	6589	163	6478	16	1.3	0.7	Abormal
43	1081	1081	16:50	17:05	181°	6573	162	6466	17	1.5	0.9	Abormal
45	1080	1080	17:09	17:24	2°	6584	162	6453	18	1.1	0.6	Abormal



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral		Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator		
				20	9	13	103.12			Ben Johnson		
Date/Julian:	2/18/2023	Disk Drive			Sensor				Pilot			
Hobbs End	27.3	TM MM30 (103, 104)			TM_90524				Jim Crouch			
Hobbs ST	25.4	TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:		
Flight Time	1.9	6,500	155	MEI01		MEI02		1.500	C421_N811A	KMEI		
	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	
45	1079	1079S	19:20	19:33	182°	6665	158	6440	17	1.4	0.7	Abnormal
42	1078	1078N	19:36	19:47	2°	6685	160	6429	18	1.3	0.7	Abnormal
40	1077	1077S	19:53	20:01	182°	6682	155	6421	18	1.2	0.7	Abnormal



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before		Temp °C After		Pressure (kPa)		Sensor Operator		
					21	9		18		102.71		Ben Johnson		
Date/Julian:	2/19/2023			Disk Drive			Sensor					Pilot		
Hobbs End	32.2			TM MM30 (103, 104)			TM_90524					Jim Crouch		
Hobbs ST	28.3			TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:		
Flight Time	3.9			6,500		155	1R801		1R802		1.500	C421_N811A	1R8	
	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			
24	1138	1138N	14:42	15:00	2°	6494	161	6413	15	1.2	0.7	Abnormal		
30	1137	1137S	15:04	15:22	182°	6477	153	6397	17	1.0	0.6	Abnormal		
33	1136	1136N	15:26	15:44	3°	6498	157	6383	17	1.2	0.7	Abnormal		
36	1135	1135S	15:48	16:06	183°	6490	151	6370	16	1.3	0.7	Abnormal		
39	1134	1134N	16:10	16:28	3°	6517	158	6355	17	1.2	0.7	Abnormal		
41	1133	1133S	16:32	16:47	183°	6494	155	6342	17	1.1	0.6	Abnormal		
44	1132	1132N	16:53	17:04	2°	6511	158	6330	15	1.5	0.8	Abnormal		
45	1131	1131S	17:07	17:14	183°	6484	158	6322	17	1.2	0.7	Abnormal		
46	1142	1142S	17:26	17:46	182°	6475	156	6317	18	1.2	0.6	Abnormal		



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral				Lift	Temp °C Before	Temp °C After	Pressure (kPa)	Sensor Operator		
						22	18	19	102.40	Chuck Harris		
Date/Julian:	2/19/2023		Disk Drive			Sensor <th>Pilot</th>						Pilot
Hobbs End	36.3		TM MM30 (101, 102)			TM_90524						Jim Crouch
Hobbs ST	32.2		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time	4.1		6,500	155	1R801		1R802		1.500	C421_N811A	Bay Minette (K1R8)	
	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	
	1139	1139 N	19:03	19:21	2°	6571	155	5850	17	1.5	0.7	Abnormal Reflection
	1140	1140 S	19:25	19:44	183°	6557	151	5836	18	1.3	0.7	Abnormal Reflection
	1141	1141 N	19:48	20:06	2°	6579	152	5821	18	1.2	0.7	Abnormal Reflection
	1143	1143 S	2:01	20:29	183°	6545	154	5807	16	1.2	0.7	Abnormal Reflection
	1144	1144 N	20:33	20:52	3°	6562	160	5792	15	1.4	0.8	Abnormal Reflection
	1145	1145 S	20:56	21:15	183°	6533	159	5778	16	1.3	0.7	Abnormal Reflection. Smoke last 3 mi
	1146	1146 N	21:19	21:37	3°	6556	151	5763	17	1.1	0.6	Abnormal Reflection
	1185	1185 S	21:47	21:52	182°	6557	157	5750	16	1.1	0.7	Abnormal Reflection. Light smoke
	1186	1186 N	21:56	22:01	2°	6509	162	5746	16	1.1	0.7	Abnormal Reflection. Light smoke
	1187	1187 S	22:06	22:08	183°	6458	161	5744	16	1.1	0.7	Abnormal Reflection. Light smoke



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)				Sensor Operator	
					23	26	22	100.14				Everett Meyer	
Date/Julian:		2/19/2023	Disk Drive			Sensor						Pilot	
Hobbs End		149.6	TM MM30 (107, 108)			TM_90524						Jim Crouch	
Hobbs ST		147.4	TARGET MSL		Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time		2.2	6,500		155	1R801		1R802		1.500	C421_N811A	Bay Minette (K1R8)	
∟	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		
	1172	1172 N	22:33	22:50	3°	3442	158	5857	17	1.1	0.6	Gimbal Data Missing	
	1157	1157 S	22:57	23:16	182°	6531	145	5845	17	1.3	0.6	Smoke	
	1155	1155 N	23:20	23:39	3°	6544	155	5832	17	1.4	0.6	Light Smoke	
	1154	1154 S	23:43	24:02	182°	6514	160	5816	19	1.1	0.6	Light Smoke	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)		Sensor Operator				
					24	15	23	101.35		Everett Meyer				
Date/Julian:		3/4/2023			Disk Drive		Sensor					Pilot		
Hobbs End		153.4			TM MM30 (107, 108)		TM_90524					Jim Crouch		
Hobbs ST		149.6			TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time		3.8			6,500		155	1R801		1R802		1.500	C421_N811A	Bay Minette (K1R8)
∠	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			
	1171	1171 N	14:51	15:08	2°	6534	157	5799	16	1.3	0.7			
	1170	1170 S	15:12	15:30	184°	6526	158	5786	16	1.3	0.7			
	1169	1169 N	15:34	15:52	2°	6509	158	5772	17	1.2	0.7			
	1168	1168 S	15:57	16:15	183°	6479	155	5758	15	1.4	0.8			
	238	238 S	16:23	16:24	183°	6509	154	5745	18	1.1	0.6	Abnormal Reflection		
	245	245 NW	16:35	16:39	321°	6522	142	5744	18	1.2	0.6	Abnormal Reflection		
	244	244 SE	16:42	16:46	140°	6452	161	5743	19	1.3	0.6	Abnormal Reflection, Gimbal Data Missing		
	243	243 NW	16:49	16:53	320°	6452	142	5741	19	1.2	0.6	Abnormal Reflection		
	242	242 SE	16:57	16:59	140°	6466	155	5739	19	1.2	0.6	Abnormal Reflection		
	241	241 NW	17:03	17:05	320°	6459	144	5738	19	1.2	0.6	Abnormal Reflection		
	240	240 SE	17:09	17:11	141°	6459	159	5736	19	1.2	0.6	Abnormal Reflection		
	248	248 W	17:16	17:21	266°	6454	143	5735	19	1.2	0.6	Abnormal Reflection		
	247	247 E	17:25	17:30	87°	6469	160	5731	19	1.2	0.6	Abnormal Reflection		
	246	246 W	17:34	17:39	266°	6445	148	5730	18	1.3	0.6	Abnormal Reflection		



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before		Temp °C After		Pressure (kPa)		Sensor Operator	
					25	23		25		101.32		Chuck Harris	
Date/Julian:		3/4/2023		Disk Drive			Sensor					Pilot	
Hobbs End		156.4		TM MM30 (107, 108)			TM_90524					Jim Crouch	
Hobbs ST		153.4		TARGET MSL		Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:
Flight Time		3		6,500		155	1R801		1R802		1.500	C421_N811A	Bay Minette (K1R8)
∠	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		
	1147	1147 N	19:13	19:32	3°	6489	156	5728	15	1.4	0.8	Abnormal Ref. Hazy	
	1148	1148 S	19:35	19:54	182°	6524	156	5714	15	1.4	0.8	Abnormal Ref. Hazy. Gimbal Data	
	1149	1149 N	19:58	20:16	2°	6501	163	5698	16	1.4	0.7	Abnormal Ref. Hazy. Fires	
	1150	1150 S	20:20	20:39	183°	6511	140	5678	16	1.2	0.7	Abnormal Ref. Hazy. Fires	
	1151	1151 N	20:43	21:02	3°	6515	154	5669	16	1.2	0.7	Abnormal Ref. Hazy. Fires	
	1167	1167 S	21:07	21:27	183°	6522	155	5655	16	1.1	0.7	Abnormal Ref. Hazy. Fires	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator		
					26	15	24	102.00			Everett Meyer		
Date/Julian:		3/5/2023		Disk Drive			Sensor					Pilot	
Hobbs End		160.1		TM MM30 (107, 108)			TM_90524					Jim Crouch	
Hobbs ST		156.4		TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:	
Flight Time		3.7		6,500		155	1R801		1R802		1.500	C421_N811A	Bay Minette (K1R8)
∠	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		
	1152	1152 N	14:04	14:22	2°	6503	157	5640	16	1.2	0.7	Abnormal Reflection	
	1153	1153 S	14:26	14:45	183°	6503	155	5527	15	1.3	0.7	Abnormal Reflection	
	1156	1156 N	14:47	15:06	3°	6519	158	5612	16	1.3	0.7	Light Smoke, Anormal Reflection	
	1158	1158 S	15:10	15:28	183°	6517	155	5598	15	1.4	0.7	Light Smoke, Anormal Reflection	
	1159	1159 N	15:32	15:50	3°	6540	157	5584	15	1.3	0.7	Light Smoke, Anormal Reflection	
	1160	1160 S	15:54	16:13	183°	6531	157	5570	14	1.5	0.8	Light Smoke, Anormal Reflection	
	1161	1161 N	16:17	16:35	30°	6532	160	5556	17	1.2	0.6	Light Smoke, Anormal Reflection	
	1162	1162 S	16:39	16:57	183°	6522	156	5541	18	1.3	0.6	Light Smoke, Anormal Reflection	



Digital Aerial Solutions Flight Log

Project/Flight Plan:		AL_SWCentral			Lift	Temp °C Before	Temp °C After	Pressure (kPa)			Sensor Operator	
					27	24	27	102.00			Chuck Harris	
Date/Julian:	3/4/2023	Disk Drive				Sensor						Pilot
Hobbs End	162.9	TM MM30 (103, 104)				TM_90524						Jim Crouch
Hobbs ST	160.1	TARGET MSL	Target AIRSPD	Base Name	PID	Base Name	PID	Base Height	Aircraft	Airport Identification:		
Flight Time	2.8	6,500	155	1R801		1R802		1.500	C421_N811A	Bay Minette (K1R8)		
∠	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	
	1166	1166 N	18:05	18:24	3°	6476	158	6302	17	1.5	0.7	Abnormal Ref. haze/smoke
	1165	1165 S	18:28	18:46	183°	6469	150	6286	18	1.4	0.7	Abnormal Ref. haze/smoke
	1164	1164 N	18:51	19:09	3°	6467	161	6272	18	1.2	6	Abnormal Ref. haze/smoke
	1109	1109 N	19:16	19:31	3°	6471	155	6257	15	1.4	0.8	Abnormal Ref. haze/smoke. Gimbal Data
	1163	1163 S	19:49	20:08	183°	6447	156	6243	16	1.3	0.7	Abnormal Ref. haze/smoke.

Appendix B. Base Station GPS Session Forms


GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/19/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation 1R801			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) 6684_0219_060305.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 <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) 2/19/2023		Start Time (UTC) 14:03		Approx. Lat. (if available) 30 52 19.79958 N	
End Date (UTC) 2/19/2023		End Time (UTC) 22:39		Approx. Long. (if available) 87 49 12.61697 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 3/3/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Everett Meyer	
Monument Name/Designation 1R801			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) 6684_0303_120814.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 <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) 3/3/2023		Start Time (UTC) 20:09		Approx. Lat. (if available) 30 52 19.79958 N	
End Date (UTC) 3/4/2023		End Time (UTC) 0:29		Approx. Long. (if available) 87 49 12.61697 W	
			Site Diagram/Setup-Photo		
					

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 3/4/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Everett Meyer	
Monument Name/Designation 1R801			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) 6684_0304_052431.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 <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) 3/4/2023		Start Time (UTC) 13:24		Approx. Lat. (if available) 30 52 19.79958 N	
End Date (UTC) 3/4/2023		End Time (UTC) 21:50		Approx. Long. (if available) 87 49 12.61697 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 3/5/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Everett Meyer	
Monument Name/Designation 1R801			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) 6684_0305_052050.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 <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) 3/5/2023		Start Time (UTC) 13:21		Approx. Lat. (if available) 30 52 19.79958 N	
End Date (UTC) 3/5/2023		End Time (UTC) 20:28		Approx. Long. (if available) 87 49 12.61697 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/19/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation 1R802			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_0219_085925.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) 2/19/2023		Start Time (UTC) 14:00		Approx. Lat. (if available) 30 52 19.84465 N	
End Date (UTC) 2/19/2023		End Time (UTC) 22:40		Approx. Long. (if available) 87 49 11.99388 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 3/3/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Everett Meyer	
Monument Name/Designation 1R802			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_0303_151908.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) 3/3/2023		Start Time (UTC) 20:19		Approx. Lat. (if available) 30 52 19.84465 N	
End Date (UTC) 3/4/2023		End Time (UTC) 0:30		Approx. Long. (if available) 87 49 11.99388 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 3/4/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Everett Meyer	
Monument Name/Designation 1R802			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_0304_082641.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) 3/4/2023		Start Time (UTC) 13:27		Approx. Lat. (if available) 30 52 19.84465 N	
End Date (UTC) 3/4/2023		End Time (UTC) 21:50		Approx. Long. (if available) 87 49 11.99388 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 3/5/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Everett Meyer	
Monument Name/Designation 1R802			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_0305_082136.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) 3/5/2023		Start Time (UTC) 13:22		Approx. Lat. (if available) 30 52 19.84465 N	
End Date (UTC) 3/5/2023		End Time (UTC) 20:24		Approx. Long. (if available) 87 49 11.99388 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 1/9/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Chuck Harris	
Monument Name/Designation CQF1			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) 6684_0109_083535.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 <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) 1/9/2023		Start Time (UTC) 16:36		Approx. Lat. (if available) 30 28 4.05419 N	
End Date (UTC) 1/10/2023		End Time (UTC) 2:40		Approx. Long. (if available) 87 52 41.93882 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 1/10/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Chuck Harris	
Monument Name/Designation CQF1			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) 6684_0110_060356.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 <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) 1/10/2023		Start Time (UTC) 14:04		Approx. Lat. (if available) 30 28 4.05419 N	
End Date (UTC) 1/10/2023		End Time (UTC) 20:09		Approx. Long. (if available) 87 52 41.93882 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 1/25/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation CQF1			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_0125_184714.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) 1/25/2023		Start Time (UTC) 23:47		Approx. Lat. (if available) 30 28 4.05419 N	
End Date (UTC) 1/26/2023		End Time (UTC) 1:43		Approx. Long. (if available) 87 52 41.93882 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 1/26/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation CQF1			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_0126_114053.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) 1/25/2023		Start Time (UTC) 16:41		Approx. Lat. (if available) 30 28 4.05419 N	
End Date (UTC) 1/26/2023		End Time (UTC) 0:32		Approx. Long. (if available) 87 52 41.93882 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 1/9/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Chuck Harris	
Monument Name/Designation CQF2			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_0109_113528.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) 1/9/2023		Start Time (UTC) 16:37		Approx. Lat. (if available) 30 28 4.47762 N	
End Date (UTC) 1/10/2023		End Time (UTC) 2:42		Approx. Long. (if available) 87 52 41.80084 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 1/10/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Chuck Harris	
Monument Name/Designation CQF2			Exact Stamping <i>(include photo in survey report)</i>		
Monument No./PID		Collection Type <i>(circle one)</i> <input checked="" type="radio"/> ABGPS <input type="radio"/> STATIC <input type="radio"/> RTK		File Name <i>(receiver generated)</i> 1514_0110_090414.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 <i>(circle one)</i> 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 <i>(circle one)</i> TRUE VERTICAL <input checked="" type="radio"/> ARP	
Antenna Reference Point <i>(include and reference a dimensional diagram in Survey Report)</i> <i>(e.g., bottom edge of notch in ground plane, Page 5, Figure 2)</i>					
Start Date (UTC) 1/10/2023		Start Time (UTC) 14:05		Approx. Lat. <i>(if available)</i> 30 28 4.47762 N	
End Date (UTC) 1/10/2023		End Time (UTC) 20:11		Approx. Long. <i>(if available)</i> 87 52 41.80084 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 1/25/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation CQF2			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_0125_190048.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) 1/26/2023		Start Time (UTC) 0:03		Approx. Lat. (if available) 30 28 4.47762 N	
End Date (UTC) 1/26/2023		End Time (UTC) 1:46		Approx. Long. (if available) 87 52 41.80084 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 1/26/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation CQF2			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_0126_114822.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) 1/26/2023		Start Time (UTC) 16:49		Approx. Lat. (if available) 30 28 4.47762 N	
End Date (UTC) 1/27/2023		End Time (UTC) 0:32		Approx. Long. (if available) 87 52 41.80084 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/12/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation DYA01			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_0212_160320.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) 2/12/2023		Start Time (UTC) 21:55		Approx. Lat. (if available) 32 27 39.36910	
End Date (UTC) 2/13/2023		End Time (UTC) 1:02		Approx. Long. (if available) 87 57 16.15716	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/13/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation DYA01			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_0212_160320.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) 2/13/2023		Start Time (UTC) 15:15		Approx. Lat. (if available) 32 27 39.36910	
End Date (UTC) 2/14/2023		End Time (UTC) 0:01		Approx. Long. (if available) 87 57 16.15716	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/14/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation DYA01			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_0213_085535.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) 2/14/2023		Start Time (UTC) 15:08		Approx. Lat. (if available) 32 27 39.36892	
End Date (UTC) 2/14/2023		End Time (UTC) 18:13		Approx. Long. (if available) 87 57 16.15684	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/12/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation DYA02			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_0212_160751.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) 2/12/2023		Start Time (UTC) 21:55		Approx. Lat. (if available) 32 27 39.88890	
End Date (UTC) 2/13/2023		End Time (UTC) 1:02		Approx. Long. (if available) 87 57 15.63044	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/13/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation DYA02			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_0213_090028.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) 2/13/2023		Start Time (UTC) 15:15		Approx. Lat. (if available) 32 27 39.88897	
End Date (UTC) 2/14/2023		End Time (UTC) 0:01		Approx. Long. (if available) 87 57 15.63016	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/14/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation DYA02			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_0213_090028.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) 2/14/2023		Start Time (UTC) 15:08		Approx. Lat. (if available) 32 27 39.88897	
End Date (UTC) 2/14/2023		End Time (UTC) 18:13		Approx. Long. (if available) 87 57 15.63016	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/3/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation EKY1			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_0203_130732.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) 2/3/2023		Start Time (UTC) 18:08		Approx. Lat. (if available) 33 18 35.49474	
End Date (UTC) 2/4/2023		End Time (UTC) 4:32		Approx. Long. (if available) 86 55 40.58558	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/4/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation EKY1			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_0204_134344.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) 2/4/2023		Start Time (UTC) 18:44		Approx. Lat. (if available) 33 18 35.49474	
End Date (UTC) 2/5/2023		End Time (UTC) 3:34		Approx. Long. (if available) 86 55 40.58558	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/5/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation EKY1			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_0205_110254.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) 2/5/2023		Start Time (UTC) 16:03		Approx. Lat. (if available) 33 18 35.49474	
End Date (UTC) 2/6/2023		End Time (UTC) 3:43		Approx. Long. (if available) 86 55 40.58558	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/6/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Chuck Harris	
Monument Name/Designation EKY1			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_0206_092802.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) 2/6/2023		Start Time (UTC) 14:28		Approx. Lat. (if available) 33 18 35.49474	
End Date (UTC) 2/6/2023		End Time (UTC) 23:47		Approx. Long. (if available) 86 55 40.58558	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/3/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation EKY2			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_0203_131653.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) 2/3/2023		Start Time (UTC) 18:18		Approx. Lat. (if available) 33 18 35.06566	
End Date (UTC) 2/4/2023		End Time (UTC) 4:32		Approx. Long. (if available) 86 55 40.13137	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/4/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation EKY2			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_0204_135407.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) 2/4/2023		Start Time (UTC) 18:57		Approx. Lat. (if available) 33 18 35.06566	
End Date (UTC) 2/5/2023		End Time (UTC) 3:34		Approx. Long. (if available) 86 55 40.13137	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/5/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation EKY2			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_0205_110431.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) 2/5/2023		Start Time (UTC) 16:05		Approx. Lat. (if available) 33 18 35.06566	
End Date (UTC) 2/6/2023		End Time (UTC) 3:43		Approx. Long. (if available) 86 55 40.13137	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/6/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Chuck Harris	
Monument Name/Designation EKY2			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_0206_093055.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) 2/6/2023		Start Time (UTC) 14:31		Approx. Lat. (if available) 33 18 35.06566	
End Date (UTC) 2/6/2023		End Time (UTC) 23:47		Approx. Long. (if available) 86 55 40.13137	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/18/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation MEI01			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) 6684_0218_055553.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 <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) 2/18/2023		Start Time (UTC) 13:56		Approx. Lat. (if available) 32 20 16.26799 N	
End Date (UTC) 2/18/2023		End Time (UTC) 20:58		Approx. Long. (if available) 88 44 36.38782 W	
			Site Diagram/Setup-Photo		

GPS SESSION FORM



Contract # / TO # 140G0222F0140		Client / Project Name USGS AL_SWCentral_B22		Date 2/18/2023	
DAS Project No. 23001		Survey Firm DAS		Operator Name Ben Johnson	
Monument Name/Designation MEI02			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_0218_085139.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) 2/18/2023		Start Time (UTC) 13:52		Approx. Lat. (if available) 32 20 16.77192 N	
End Date (UTC) 2/18/2023		End Time (UTC) 21:01		Approx. Long. (if available) 88 44 36.03890 W	
			Site Diagram/Setup-Photo		

Appendix C. Vertical Accuracy Calculations



Project Information

Prepared By: R.Y
Project Name: AL_SWCentral_B22
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: 1/9/2023 Finish: 3/5/2023

Metadata Information

Tile Index:
Filename: AL_SWCentral_B22_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	79	0.139		0.071
High Vegetation	35		0.152	0.071
Low Vegetation	21		0.202	0.113
Medium Vegetation	33		0.176	0.099
Urban Terrain	47	0.145		0.074
NVA Total:	126	0.141		0.072
VVA Total:	89		0.185	0.093
Total:	215			0.081
DEM		95% Confidence	95 Percentile	
Bare Earth	79	0.141		0.072
High Vegetation	35		0.160	0.072
Low Vegetation	21		0.192	0.110
Medium Vegetation	33		0.152	0.093
Urban Terrain	47	0.146		0.075
NVA Total:	126	0.143		0.073
VVA Total:	89		0.175	0.090
Total:	215			0.081
			Units:	Meters

Coordinates and Offsets of Analyzed Locations

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
				LC Type	ΔZ DEM	ΔZ LAS	
1)	<input checked="" type="checkbox"/>	GS0002					
		385326.081	3347006.662	1.557	1.552	1.55	
				Bare Earth	-0.005	-0.007	
2)	<input checked="" type="checkbox"/>	GS0003					
		385330.883	3347030.851	1.426	1.449	1.443	
				Bare Earth	0.023	0.017	
3)	<input checked="" type="checkbox"/>	GS0011					
		382880.066	3367925.528	26.275	26.201	26.213	
				Bare Earth	-0.074	-0.063	
4)	<input checked="" type="checkbox"/>	GS0014					
		380769.176	3379388.708	40.084	39.977	39.989	
				Bare Earth	-0.107	-0.095	
5)	<input checked="" type="checkbox"/>	GS0016					
		371929.323	3374876.464	24.512	24.586	24.584	
				Bare Earth	0.074	0.072	
6)	<input checked="" type="checkbox"/>	GS0017					
		371929.499	3374823.997	24.841	24.941	24.927	
				Bare Earth	0.1	0.086	
7)	<input checked="" type="checkbox"/>	GS0021					
		387728.811	3383440.158	22.688	22.647	22.666	
				Bare Earth	-0.041	-0.022	

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"/>	GS0026					
		379507.589	3384772.601	52.283	52.318	52.319	
				Bare Earth	0.035	0.036	
9)	<input checked="" type="checkbox"/>	GS0027					
		371178.581	3382389.063	37.861	37.913	37.912	
				Bare Earth	0.052	0.051	
10)	<input checked="" type="checkbox"/>	GS0037					
		377479.188	3413691.099	78.003	78.033	78.031	
				Bare Earth	0.03	0.028	
11)	<input checked="" type="checkbox"/>	GS0041					
		377859.638	3419484.415	86.796	86.863	86.864	
				Bare Earth	0.067	0.068	
12)	<input checked="" type="checkbox"/>	GS0044					
		385374.251	3421562.279	34.049	33.989	33.997	
				Bare Earth	-0.06	-0.052	
13)	<input checked="" type="checkbox"/>	GS0045					
		385399.046	3421556.363	33.554	33.583	33.585	
				Bare Earth	0.029	0.031	
14)	<input checked="" type="checkbox"/>	GS0048					
		392599.334	3423369.695	85.616	85.516	85.52	
				Bare Earth	-0.1	-0.096	

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"/>	GS0057					
		397580.313	3410917.547	4.798	4.81	4.81	
				Bare Earth	0.012	0.012	
16)	<input checked="" type="checkbox"/>	GS0063					
		392365.544	3408056.565	28.635	28.666	28.668	
				Bare Earth	0.031	0.033	
17)	<input checked="" type="checkbox"/>	GS0070					
		381851.862	3429747.859	44.2	44.108	44.14	
				Bare Earth	-0.092	-0.06	
18)	<input checked="" type="checkbox"/>	GS0081					
		375695.561	3458373.297	76.893	76.774	76.766	
				Bare Earth	-0.119	-0.127	
19)	<input checked="" type="checkbox"/>	GS0083					
		375684.668	3458422.209	77.376	77.253	77.258	
				Bare Earth	-0.123	-0.118	
20)	<input checked="" type="checkbox"/>	GS0088					
		391891.672	3465846.359	39.264	39.196	39.196	
				Bare Earth	-0.068	-0.068	
21)	<input checked="" type="checkbox"/>	GS0090					
		401665.54	3467038.896	14.446	14.454	14.441	
				Bare Earth	0.008	-0.005	

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"/>	GS0092				
		401862.727	3460046.202	17.459	17.463	17.464
				Bare Earth	0.004	0.005
23)	<input checked="" type="checkbox"/>	GS0094				
		401667.98	3471283.584	19.877	19.775	19.769
				Bare Earth	-0.102	-0.108
24)	<input checked="" type="checkbox"/>	GS0095				
		401672.577	3471261.117	19.667	19.603	19.602
				Bare Earth	-0.064	-0.065
25)	<input checked="" type="checkbox"/>	GS0098				
		402127.388	3478864.232	20.733	20.748	20.75
				Bare Earth	0.015	0.017
26)	<input checked="" type="checkbox"/>	GS0100				
		406192.203	3485111.978	45.683	45.649	45.653
				Bare Earth	-0.034	-0.03
27)	<input checked="" type="checkbox"/>	GS0105				
		401937.811	3479227.799	19.994	19.942	19.954
				Bare Earth	-0.052	-0.04
28)	<input checked="" type="checkbox"/>	GS0110				
		380903.549	3482368.286	49.464	49.437	49.443
				Bare Earth	-0.027	-0.021

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"/>	GS0112				
		386469.237	3491290.037	57.081	56.967	56.935
				Bare Earth	-0.114	-0.146
30)	<input checked="" type="checkbox"/>	GS0113				
		386466.287	3491267.896	56.315	56.2	56.218
				Bare Earth	-0.115	-0.097
31)	<input checked="" type="checkbox"/>	GS0114				
		386459.216	3491245.056	55.686	55.562	55.55
				Bare Earth	-0.124	-0.136
32)	<input checked="" type="checkbox"/>	GS0117				
		389399.897	3498289.943	32.258	32.183	32.191
				Bare Earth	-0.075	-0.067
33)	<input checked="" type="checkbox"/>	GS0119				
		375421.241	3500692.356	36.448	36.288	36.295
				Bare Earth	-0.16	-0.153
34)	<input checked="" type="checkbox"/>	GS0121				
		375417.728	3500668.6	36.151	36.014	36.021
				Bare Earth	-0.137	-0.13
35)	<input checked="" type="checkbox"/>	GS0127				
		377120.237	3509447.225	71.519	71.518	71.52
				Bare Earth	-0.001	0.001

Coordinates and Offsets of Analyzed Locations (Continued)

		ID				
		Survey X	Survey Y	Z1	Z DEM	Z LAS
				LC Type	ΔZ DEM	ΔZ LAS
36)	<input checked="" type="checkbox"/>	GS0128				
		377141.181	3509441.645	71.197	71.221	71.222
				Bare Earth	0.024	0.025
37)	<input checked="" type="checkbox"/>	GS0136				
		378403.195	3538050.4	92.015	92.104	92.106
				Bare Earth	0.089	0.091
38)	<input checked="" type="checkbox"/>	GS0139				
		383126.537	3535634.123	93.669	93.72	93.728
				Bare Earth	0.051	0.059
39)	<input checked="" type="checkbox"/>	GS0140				
		383131.151	3535589.79	93.809	93.835	93.843
				Bare Earth	0.026	0.034
40)	<input checked="" type="checkbox"/>	GS0141				
		390821.674	3501567.657	48.738	48.681	48.674
				Bare Earth	-0.057	-0.064
41)	<input checked="" type="checkbox"/>	GS0144				
		399920.803	3489895.353	70.608	70.579	70.573
				Bare Earth	-0.029	-0.035
42)	<input checked="" type="checkbox"/>	GS0146				
		373628.123	3532558.799	65.86	65.943	65.945
				Bare Earth	0.083	0.085

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"/>	GS0147					
		373649.559	3532562.072	66.05	66.089	66.09	
				Bare Earth	0.039	0.04	
44)	<input checked="" type="checkbox"/>	GS0148					
		373671.114	3532564.166	65.997	66.004	66.002	
				Bare Earth	0.007	0.005	
45)	<input checked="" type="checkbox"/>	GS0150					
		369533.72	3547048.794	137.538	137.615	137.603	
				Bare Earth	0.077	0.065	
46)	<input checked="" type="checkbox"/>	GS0153					
		371095.845	3550783.196	145.917	145.948	145.983	
				Bare Earth	0.031	0.066	
47)	<input checked="" type="checkbox"/>	GS0154					
		371084.514	3550803.635	145.532	145.597	145.598	
				Bare Earth	0.065	0.066	
48)	<input checked="" type="checkbox"/>	GS0160					
		373806.417	3561720.018	66.754	66.778	66.767	
				Bare Earth	0.024	0.013	
49)	<input checked="" type="checkbox"/>	GS0163					
		381178.716	3555533.415	64.005	64.104	64.105	
				Bare Earth	0.099	0.1	

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"/>	GS0168					
		389748.07	3551711.665	56.514	56.527	56.532	
				Bare Earth	0.013	0.018	
51)	<input checked="" type="checkbox"/>	GS0169					
		389769.136	3551715.731	56.644	56.5	56.509	
				Bare Earth	-0.144	-0.135	
52)	<input checked="" type="checkbox"/>	GS0173					
		400586.763	3563361.662	30.131	30.285	30.281	
				Bare Earth	0.154	0.15	
53)	<input checked="" type="checkbox"/>	GS0174					
		400587.544	3563393.881	30.57	30.726	30.726	
				Bare Earth	0.156	0.156	
54)	<input checked="" type="checkbox"/>	GS0175					
		400586.649	3563433.576	30.637	30.771	30.772	
				Bare Earth	0.134	0.135	
55)	<input checked="" type="checkbox"/>	GS0176					
		390079.735	3569658.676	67.892	67.95	67.956	
				Bare Earth	0.058	0.064	
56)	<input checked="" type="checkbox"/>	GS0177					
		390084.007	3569686.557	67.562	67.65	67.625	
				Bare Earth	0.088	0.063	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
57)	<input checked="" type="checkbox"/>	GS0178					
		390079.484	3569707.252	67.531	67.532	67.538	
				Bare Earth	0.001	0.007	
58)	<input checked="" type="checkbox"/>	TS0016					
		458193.789	3658648.984	61.207	61.151	61.146	
				Bare Earth	-0.056	-0.061	
59)	<input checked="" type="checkbox"/>	TS0018					
		458172.831	3658691.532	61.506	61.488	61.495	
				Bare Earth	-0.018	-0.011	
60)	<input checked="" type="checkbox"/>	TS0019					
		465924.714	3655960.233	79.64	79.594	79.606	
				Bare Earth	-0.046	-0.034	
61)	<input checked="" type="checkbox"/>	TS0023					
		456470.591	3673713.999	99.12	99.124	99.13	
				Bare Earth	0.004	0.01	
62)	<input checked="" type="checkbox"/>	TS0024					
		434633.492	3693872.967	130	129.995	129.996	
				Bare Earth	-0.005	-0.004	
63)	<input checked="" type="checkbox"/>	TS0028					
		432819.488	3702283.651	134.913	134.983	134.991	
				Bare Earth	0.07	0.078	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
64)	<input checked="" type="checkbox"/>	TS0035					
		440067.807	3707766.617	107.515	107.466	107.482	
				Bare Earth	-0.049	-0.033	
65)	<input checked="" type="checkbox"/>	TS0036					
		443871.847	3704402.084	111.466	111.474	111.468	
				Bare Earth	0.008	0.002	
66)	<input checked="" type="checkbox"/>	TS0041					
		457012.265	3710446.007	159.243	159.259	159.247	
				Bare Earth	0.016	0.004	
67)	<input checked="" type="checkbox"/>	TS0042					
		456992.378	3710453.967	159.119	159.127	159.131	
				Bare Earth	0.008	0.012	
68)	<input checked="" type="checkbox"/>	TS0043					
		453747.249	3705711.334	123.868	123.982	123.976	
				Bare Earth	0.114	0.108	
69)	<input checked="" type="checkbox"/>	TS0046					
		453521.444	3699127.014	166.827	166.844	166.836	
				Bare Earth	0.017	0.009	
70)	<input checked="" type="checkbox"/>	TS0047					
		453546.923	3699118.156	166.888	166.934	166.911	
				Bare Earth	0.046	0.023	

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"/>	TS0050					
		465287.973	3679937.621	143.099	143.156	143.154	
				Bare Earth	0.057	0.055	
72)	<input checked="" type="checkbox"/>	TS0052					
		472209.398	3685279.263	215.939	216.02	216.017	
				Bare Earth	0.081	0.078	
73)	<input checked="" type="checkbox"/>	TS0058					
		456457.266	3673705.619	99.046	99.062	99.059	
				Bare Earth	0.016	0.013	
74)	<input checked="" type="checkbox"/>	TS0069					
		443426.684	3677777.164	52.047	52.107	52.103	
				Bare Earth	0.06	0.056	
75)	<input checked="" type="checkbox"/>	TS0072					
		436453.562	3679136.756	63.888	63.957	63.978	
				Bare Earth	0.069	0.09	
76)	<input checked="" type="checkbox"/>	TS0074					
		427440.375	3682519.531	81.08	81.138	81.137	
				Bare Earth	0.058	0.057	
77)	<input checked="" type="checkbox"/>	TS0077					
		435905.839	3661952.741	45.8	45.782	45.783	
				Bare Earth	-0.018	-0.017	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
78)	<input checked="" type="checkbox"/>	TS0089					
		449910.852	3664984.621	80.743	80.791	80.781	
				Bare Earth	0.048	0.038	
79)	<input checked="" type="checkbox"/>	TS0090					
		449909.721	3665004.696	81.537	81.571	81.568	
				Bare Earth	0.034	0.031	
80)	<input checked="" type="checkbox"/>	GS0006					
		392997.243	3347724.833	1.657	1.597	1.597	
				Urban Terrain	-0.06	-0.06	
81)	<input checked="" type="checkbox"/>	GS0008					
		388990.732	3360807.816	2.215	2.169	2.172	
				Urban Terrain	-0.046	-0.043	
82)	<input checked="" type="checkbox"/>	GS0012					
		382866.547	3367949.377	26.4	26.312	26.301	
				Urban Terrain	-0.088	-0.099	
83)	<input checked="" type="checkbox"/>	GS0013					
		380784.182	3379371.952	39.453	39.357	39.363	
				Urban Terrain	-0.096	-0.09	
84)	<input checked="" type="checkbox"/>	GS0015					
		380750.428	3379372.445	40.132	40.028	40.023	
				Urban Terrain	-0.104	-0.109	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
85)	<input checked="" type="checkbox"/>	GS0022					
		387988.99	3385271.736	23.012	22.988	22.992	
				Urban Terrain	-0.024	-0.02	
86)	<input checked="" type="checkbox"/>	GS0024					
		388020.56	3385268.154	23.075	23.052	23.059	
				Urban Terrain	-0.023	-0.016	
87)	<input checked="" type="checkbox"/>	GS0025					
		379497.955	3384745.536	52.393	52.375	52.376	
				Urban Terrain	-0.018	-0.017	
88)	<input checked="" type="checkbox"/>	GS0029					
		373277.126	3391015.973	44.316	44.268	44.31	
				Urban Terrain	-0.048	-0.006	
89)	<input checked="" type="checkbox"/>	GS0030					
		373251.459	3390999.279	45.386	45.386	45.379	
				Urban Terrain	0	-0.007	
90)	<input checked="" type="checkbox"/>	GS0034					
		374409.331	3398551.789	51.014	51.066	51.064	
				Urban Terrain	0.052	0.05	
91)	<input checked="" type="checkbox"/>	GS0035					
		379404.161	3404941.974	74.529	74.538	74.545	
				Urban Terrain	0.009	0.016	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
92)	<input checked="" type="checkbox"/>	GS0039					
		377843.375	3419532.544	87.183	87.254	87.241	
				Urban Terrain	0.071	0.058	
93)	<input checked="" type="checkbox"/>	GS0043					
		385367.631	3421587.326	34.192	34.105	34.098	
				Urban Terrain	-0.087	-0.094	
94)	<input checked="" type="checkbox"/>	GS0047					
		392599.484	3423345.528	85.65	85.583	85.583	
				Urban Terrain	-0.067	-0.067	
95)	<input checked="" type="checkbox"/>	GS0049					
		392594.167	3423287.833	85.771	85.668	85.676	
				Urban Terrain	-0.103	-0.095	
96)	<input checked="" type="checkbox"/>	GS0053					
		400890.106	3419624.983	11.406	11.353	11.349	
				Urban Terrain	-0.053	-0.057	
97)	<input checked="" type="checkbox"/>	GS0054					
		400865.523	3419617.755	11.467	11.389	11.383	
				Urban Terrain	-0.078	-0.084	
98)	<input checked="" type="checkbox"/>	GS0058					
		397601.297	3410900.857	3.624	3.605	3.61	
				Urban Terrain	-0.019	-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	
99)	<input checked="" type="checkbox"/>	GS0062					
		392402.848	3408024.324	30.433	30.396	30.409	
				Urban Terrain	-0.037	-0.024	
100)	<input checked="" type="checkbox"/>	GS0076					
		380059.412	3446190.096	66.654	66.496	66.493	
				Urban Terrain	-0.158	-0.162	
101)	<input checked="" type="checkbox"/>	GS0077					
		380086.871	3446154.303	66.537	66.407	66.41	
				Urban Terrain	-0.13	-0.127	
102)	<input checked="" type="checkbox"/>	GS0078					
		380116.22	3446156.028	66.234	66.26	66.265	
				Urban Terrain	0.026	0.031	
103)	<input checked="" type="checkbox"/>	GS0079					
		380114.573	3446178.9	66.427	66.477	66.469	
				Urban Terrain	0.05	0.042	
104)	<input checked="" type="checkbox"/>	GS0086					
		381199.074	3470407.537	69.241	69.13	69.134	
				Urban Terrain	-0.111	-0.107	
105)	<input checked="" type="checkbox"/>	GS0089					
		401668.555	3467058.448	13.94	13.889	13.892	
				Urban Terrain	-0.051	-0.048	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
106)	<input checked="" type="checkbox"/>	GS0093					
		401654.66	3471303.333	20.032	19.927	19.933	
				Urban Terrain	-0.105	-0.099	
107)	<input checked="" type="checkbox"/>	GS0103					
		401919.77	3479237.292	20.412	20.325	20.328	
				Urban Terrain	-0.087	-0.084	
108)	<input checked="" type="checkbox"/>	GS0118					
		381948.653	3501123.932	25.33	25.324	25.306	
				Urban Terrain	-0.006	-0.024	
109)	<input checked="" type="checkbox"/>	GS0120					
		375436.165	3500712.5	36.751	36.634	36.626	
				Urban Terrain	-0.117	-0.125	
110)	<input checked="" type="checkbox"/>	GS0129					
		377162.283	3509444.808	71.395	71.418	71.421	
				Urban Terrain	0.023	0.026	
111)	<input checked="" type="checkbox"/>	GS0137					
		378406.756	3538014.812	91.971	92.069	92.058	
				Urban Terrain	0.098	0.087	
112)	<input checked="" type="checkbox"/>	GS0142					
		390842.316	3501579.112	48.269	48.171	48.175	
				Urban Terrain	-0.098	-0.094	

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"/>	GS0151					
		369545.815	3547067.877	135.877	135.887	135.895	
				Urban Terrain	0.01	0.018	
114)	<input checked="" type="checkbox"/>	GS0152					
		369564.875	3547064.674	136.919	136.93	136.945	
				Urban Terrain	0.011	0.026	
115)	<input checked="" type="checkbox"/>	GS0161					
		381155.115	3555531.669	63.89	64.005	64.003	
				Urban Terrain	0.115	0.113	
116)	<input checked="" type="checkbox"/>	GS0170					
		398045.751	3555493.486	22.936	23.066	23.058	
				Urban Terrain	0.13	0.122	
117)	<input checked="" type="checkbox"/>	GS0171					
		398049.666	3555536.604	23.145	23.284	23.298	
				Urban Terrain	0.139	0.153	
118)	<input checked="" type="checkbox"/>	TS0027					
		430686.609	3698329.564	98.924	98.839	98.839	
				Urban Terrain	-0.085	-0.085	
119)	<input checked="" type="checkbox"/>	TS0030					
		437974.637	3701822.357	103.662	103.653	103.653	
				Urban Terrain	-0.009	-0.009	

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"/>	TS0038				
		453774.051	3705421.034	127.9	127.851	127.883
				Urban Terrain	-0.049	-0.017
121)	<input checked="" type="checkbox"/>	TS0049				
		446367.868	3686705.027	109.148	109.191	109.2
				Urban Terrain	0.043	0.052
122)	<input checked="" type="checkbox"/>	TS0057				
		469176.835	3679517.958	179.001	178.979	179
				Urban Terrain	-0.022	-0.001
123)	<input checked="" type="checkbox"/>	TS0064				
		458973.745	3684335.204	144.346	144.325	144.326
				Urban Terrain	-0.021	-0.02
124)	<input checked="" type="checkbox"/>	TS0079				
		444537.926	3669070.02	40.557	40.609	40.618
				Urban Terrain	0.052	0.061
125)	<input checked="" type="checkbox"/>	TS0081				
		444577.703	3669101.569	40.481	40.561	40.559
				Urban Terrain	0.08	0.078
126)	<input checked="" type="checkbox"/>	TS0087				
		468361.431	3655378.137	99.73	99.743	99.743
				Urban Terrain	0.013	0.013

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
127)	<input checked="" type="checkbox"/>	GS0005					
		392498.482	3347425.293	1.378	1.345	1.343	
				High Vegetation	-0.033	-0.035	
128)	<input checked="" type="checkbox"/>	GS0007					
		393001.493	3347758.095	1.685	1.676	1.67	
				High Vegetation	-0.009	-0.015	
129)	<input checked="" type="checkbox"/>	GS0009					
		388980.062	3360780.63	2.095	2.082	2.081	
				High Vegetation	-0.013	-0.014	
130)	<input checked="" type="checkbox"/>	GS0028					
		371132.976	3382293.857	37.422	37.262	37.27	
				High Vegetation	-0.16	-0.152	
131)	<input checked="" type="checkbox"/>	GS0033					
		374382.917	3398570.627	50.106	50.169	50.176	
				High Vegetation	0.063	0.07	
132)	<input checked="" type="checkbox"/>	GS0036					
		379389.162	3404957.15	74.907	74.859	74.866	
				High Vegetation	-0.048	-0.041	
133)	<input checked="" type="checkbox"/>	GS0042					
		385391.832	3421591.086	34.024	33.929	33.911	
				High Vegetation	-0.095	-0.113	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
134)	<input checked="" type="checkbox"/>	GS0051					
		402123.31	3426551.785	12.356	12.285	12.29	
				High Vegetation	-0.071	-0.066	
135)	<input checked="" type="checkbox"/>	GS0052					
		402121.213	3426528.701	12.087	12.111	12.124	
				High Vegetation	0.024	0.037	
136)	<input checked="" type="checkbox"/>	GS0056					
		397583.273	3410949.49	5.802	5.783	5.788	
				High Vegetation	-0.019	-0.014	
137)	<input checked="" type="checkbox"/>	GS0066					
		397661.821	3402124.047	9.629	9.646	9.656	
				High Vegetation	0.017	0.027	
138)	<input checked="" type="checkbox"/>	GS0071					
		381836.022	3429726.081	44.628	44.555	44.553	
				High Vegetation	-0.073	-0.075	
139)	<input checked="" type="checkbox"/>	GS0097					
		402131.767	3478843.067	20.73	20.732	20.729	
				High Vegetation	0.002	-0.001	
140)	<input checked="" type="checkbox"/>	GS0099					
		402124.184	3478882.096	20.38	20.367	20.37	
				High Vegetation	-0.013	-0.01	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
141)	<input checked="" type="checkbox"/>	GS0101					
		406212.099	3485126.264	44.509	44.389	44.393	
				High Vegetation	-0.12	-0.116	
142)	<input checked="" type="checkbox"/>	GS0104					
		401931.109	3479250.457	20.157	20.152	20.147	
				High Vegetation	-0.005	-0.01	
143)	<input checked="" type="checkbox"/>	GS0106					
		388444.935	3480254.904	26.064	26.055	26.055	
				High Vegetation	-0.009	-0.009	
144)	<input checked="" type="checkbox"/>	GS0107					
		388430.682	3480272.408	26.091	25.976	26.003	
				High Vegetation	-0.115	-0.089	
145)	<input checked="" type="checkbox"/>	GS0108					
		388415.986	3480285.678	26.137	26.062	26.06	
				High Vegetation	-0.075	-0.077	
146)	<input checked="" type="checkbox"/>	GS0159					
		373842.982	3561717.438	67.046	67.098	67.098	
				High Vegetation	0.052	0.052	
147)	<input checked="" type="checkbox"/>	TS0010					
		443961.861	3672600.171	48.811	48.878	48.885	
				High Vegetation	0.067	0.074	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
148)	<input checked="" type="checkbox"/>	TS0011					
		443985.677	3672597.677	48.933	48.965	48.962	
				High Vegetation	0.032	0.029	
149)	<input checked="" type="checkbox"/>	TS0025					
		434616.517	3693884.585	129.445	129.486	129.488	
				High Vegetation	0.041	0.043	
150)	<input checked="" type="checkbox"/>	TS0032					
		441173.623	3704876.623	108.131	108.218	108.224	
				High Vegetation	0.087	0.093	
151)	<input checked="" type="checkbox"/>	TS0034					
		440050.666	3707800.43	107.807	107.784	107.784	
				High Vegetation	-0.023	-0.023	
152)	<input checked="" type="checkbox"/>	TS0044					
		453730.072	3705759.446	123.309	123.336	123.325	
				High Vegetation	0.027	0.016	
153)	<input checked="" type="checkbox"/>	TS0051					
		465287.459	3679964.573	142.981	143.005	143	
				High Vegetation	0.024	0.019	
154)	<input checked="" type="checkbox"/>	TS0055					
		469518.193	3691954.481	194.135	194.146	194.135	
				High Vegetation	0.011	0	

Coordinates and Offsets of Analyzed Locations (Continued)

		ID				
		Survey X	Survey Y	Z1	Z DEM	Z LAS
				LC Type	ΔZ DEM	ΔZ LAS
155)	<input checked="" type="checkbox"/>	TS0061				
		452040.774	3680573.638	94.29	94.455	94.453
				High Vegetation	0.165	0.163
156)	<input checked="" type="checkbox"/>	TS0062				
		452032.914	3680592.772	94.391	94.566	94.563
				High Vegetation	0.175	0.171
157)	<input checked="" type="checkbox"/>	TS0065				
		450168.194	3680128.5	104.437	104.499	104.51
				High Vegetation	0.062	0.073
158)	<input checked="" type="checkbox"/>	TS0067				
		450174.678	3680169.469	106.029	106.079	106.093
				High Vegetation	0.05	0.064
159)	<input checked="" type="checkbox"/>	TS0085				
		468353.878	3655408.983	99.905	99.885	99.887
				High Vegetation	-0.02	-0.018
160)	<input checked="" type="checkbox"/>	TS0086				
		468336.964	3655404.035	99.554	99.513	99.538
				High Vegetation	-0.041	-0.016
161)	<input checked="" type="checkbox"/>	TS0088				
		449889.713	3664959.58	80.233	80.323	80.317
				High Vegetation	0.09	0.084

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS	
		Survey X	Survey Y				
			LC Type				ΔZ DEM
162)	<input checked="" type="checkbox"/>	GS0040					
		377852.764	3419504.282	86.785	86.908	86.893	
				Low Vegetation	0.123	0.108	
163)	<input checked="" type="checkbox"/>	GS0064					
		397609.274	3402120.449	9.505	9.544	9.548	
				Low Vegetation	0.039	0.043	
164)	<input checked="" type="checkbox"/>	GS0065					
		397630.025	3402123.722	9.545	9.642	9.633	
				Low Vegetation	0.097	0.088	
165)	<input checked="" type="checkbox"/>	GS0082					
		375693.067	3458405.077	78.213	78.097	78.103	
				Low Vegetation	-0.116	-0.11	
166)	<input checked="" type="checkbox"/>	GS0084					
		381219.116	3470395.256	69.153	69.135	69.15	
				Low Vegetation	-0.018	-0.003	
167)	<input checked="" type="checkbox"/>	GS0085					
		381245.405	3470380.313	69.478	69.48	69.48	
				Low Vegetation	0.002	0.002	
168)	<input checked="" type="checkbox"/>	GS0111					
		380908.005	3482392.626	49.467	49.525	49.52	
				Low Vegetation	0.058	0.053	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID			Z1	Z DEM	Z LAS
		Survey X	Survey Y			
			LC Type			
169)	<input checked="" type="checkbox"/>	GS0131				
		374365.584	3517107.958	50.864	51.008	51.03
				Low Vegetation	0.144	0.166
170)	<input checked="" type="checkbox"/>	GS0132				
		374385.119	3517108.722	50.529	50.731	50.738
				Low Vegetation	0.202	0.209
171)	<input checked="" type="checkbox"/>	GS0133				
		374405.387	3517107.722	50.259	50.441	50.444
				Low Vegetation	0.182	0.185
172)	<input checked="" type="checkbox"/>	GS0162				
		381172.435	3555512.791	63.192	63.372	63.387
				Low Vegetation	0.18	0.195
173)	<input checked="" type="checkbox"/>	TS0003				
		491505.523	3682229.172	180.713	180.596	180.575
				Low Vegetation	-0.117	-0.138
174)	<input checked="" type="checkbox"/>	TS0006				
		458338.886	3672400.662	93.991	94.023	94.021
				Low Vegetation	0.032	0.03
175)	<input checked="" type="checkbox"/>	TS0007				
		458359.939	3672397.173	93.299	93.339	93.318
				Low Vegetation	0.04	0.018

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"/>	TS0029					
		432857.431	3702296.977	135.544	135.622	135.65	
				Low Vegetation	0.078	0.106	
177)	<input checked="" type="checkbox"/>	TS0053					
		472249.876	3685271.8	215.339	215.469	215.507	
				Low Vegetation	0.13	0.168	
178)	<input checked="" type="checkbox"/>	TS0068					
		443446.821	3677785.544	52.235	52.312	52.311	
				Low Vegetation	0.077	0.076	
179)	<input checked="" type="checkbox"/>	TS0073					
		427480.839	3682523.445	78.741	78.85	78.826	
				Low Vegetation	0.109	0.085	
180)	<input checked="" type="checkbox"/>	TS0080					
		444561.062	3669079.749	40.34	40.5	40.467	
				Low Vegetation	0.16	0.127	
181)	<input checked="" type="checkbox"/>	TS0083					
		469417.097	3671380.693	151.474	151.492	151.484	
				Low Vegetation	0.018	0.01	
182)	<input checked="" type="checkbox"/>	TS0084					
		469403.696	3671356.242	154.317	154.29	154.344	
				Low Vegetation	-0.027	0.027	

Coordinates and Offsets of Analyzed Locations (Continued)

	ID						
		Survey X	Survey Y	Z1	Z DEM	Z LAS	
				LC Type	ΔZ DEM	ΔZ LAS	
183)	<input checked="" type="checkbox"/>	GS0031					
		373304.452	3390976.023	45.363	45.516	45.55	
				Medium Vegetation	0.153	0.187	
184)	<input checked="" type="checkbox"/>	GS0055					
		397596.664	3410927.755	4.814	4.852	4.856	
				Medium Vegetation	0.038	0.042	
185)	<input checked="" type="checkbox"/>	GS0060					
		392384.105	3408057.729	29.673	29.726	29.709	
				Medium Vegetation	0.053	0.036	
186)	<input checked="" type="checkbox"/>	GS0061					
		392385.881	3408036.303	29.556	29.586	29.611	
				Medium Vegetation	0.03	0.055	
187)	<input checked="" type="checkbox"/>	GS0073					
		382131.313	3438176.769	99.075	99	99.001	
				Medium Vegetation	-0.075	-0.074	
188)	<input checked="" type="checkbox"/>	GS0074					
		382129.815	3438141.208	99.218	99.096	99.115	
				Medium Vegetation	-0.122	-0.103	
189)	<input checked="" type="checkbox"/>	GS0075					
		382129.283	3438104.671	99.435	99.308	99.31	
				Medium Vegetation	-0.127	-0.125	

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"/>	GS0122					
		375413.914	3500637.84	35.229	35.124	35.133	
				Medium Vegetation	-0.105	-0.096	
191)	<input checked="" type="checkbox"/>	GS0124					
		368555.842	3500450.009	87.814	87.729	87.71	
				Medium Vegetation	-0.085	-0.104	
192)	<input checked="" type="checkbox"/>	GS0125					
		368555.474	3500433.45	87.44	87.335	87.333	
				Medium Vegetation	-0.105	-0.107	
193)	<input checked="" type="checkbox"/>	GS0126					
		368554.657	3500413.994	86.47	86.569	86.583	
				Medium Vegetation	0.099	0.113	
194)	<input checked="" type="checkbox"/>	GS0135					
		374959.548	3527644.457	38.468	38.595	38.593	
				Medium Vegetation	0.127	0.125	
195)	<input checked="" type="checkbox"/>	GS0143					
		399913.088	3489909.231	70.636	70.549	70.538	
				Medium Vegetation	-0.087	-0.099	
196)	<input checked="" type="checkbox"/>	GS0155					
		377873.424	3559987.039	49.839	49.892	49.896	
				Medium Vegetation	0.053	0.057	

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"/>	GS0156					
		377868.685	3560007.315	50.088	50.131	50.131	
				Medium Vegetation	0.043	0.043	
198)	<input checked="" type="checkbox"/>	GS0157					
		377875.282	3560026.737	50.314	50.377	50.378	
				Medium Vegetation	0.063	0.064	
199)	<input checked="" type="checkbox"/>	GS0165					
		384728.257	3550960.629	52.164	52.306	52.31	
				Medium Vegetation	0.142	0.146	
200)	<input checked="" type="checkbox"/>	GS0166					
		384664.445	3550957.956	51.065	51.217	51.241	
				Medium Vegetation	0.152	0.176	
201)	<input checked="" type="checkbox"/>	GS0167					
		384665.739	3551024.882	53.1	53.344	53.367	
				Medium Vegetation	0.244	0.267	
202)	<input checked="" type="checkbox"/>	TS0002					
		491498.331	3682246.355	181.112	181.033	181.028	
				Medium Vegetation	-0.079	-0.084	
203)	<input checked="" type="checkbox"/>	TS0004					
		476688.206	3672837.689	164.707	164.748	164.743	
				Medium Vegetation	0.041	0.036	

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"/>	TS0005					
		476659.467	3672816.084	164.976	165.021	165.031	
				Medium Vegetation	0.045	0.055	
205)	<input checked="" type="checkbox"/>	TS0008					
		453096.992	3674395.603	98.376	98.412	98.412	
				Medium Vegetation	0.036	0.036	
206)	<input checked="" type="checkbox"/>	TS0009					
		453093.341	3674375.538	99.004	99.054	99.047	
				Medium Vegetation	0.05	0.043	
207)	<input checked="" type="checkbox"/>	TS0012					
		445852.293	3676612.56	67.847	67.958	67.963	
				Medium Vegetation	0.111	0.116	
208)	<input checked="" type="checkbox"/>	TS0013					
		445841.904	3676634.631	68.022	68.131	68.128	
				Medium Vegetation	0.109	0.106	
209)	<input checked="" type="checkbox"/>	TS0014					
		451071.998	3668154.297	85.165	85.196	85.188	
				Medium Vegetation	0.031	0.023	
210)	<input checked="" type="checkbox"/>	TS0015					
		451069.37	3668180.196	85.154	85.163	85.173	
				Medium Vegetation	0.009	0.019	

Coordinates and Offsets of Analyzed Locations (Continued)

		ID				
		Survey X	Survey Y	Z1	Z DEM	Z LAS
				LC Type	ΔZ DEM	ΔZ LAS
211)	<input checked="" type="checkbox"/>	TS0037				
		443898.731	3704408.585	112.288	112.291	112.296
				Medium Vegetation	0.003	0.008
212)	<input checked="" type="checkbox"/>	TS0039				
		453753.643	3705449.658	127.759	127.77	127.773
				Medium Vegetation	0.011	0.014
213)	<input checked="" type="checkbox"/>	TS0048				
		446350.155	3686677.432	109.355	109.416	109.426
				Medium Vegetation	0.061	0.071
214)	<input checked="" type="checkbox"/>	TS0056				
		469508.466	3691834.833	196.038	196.044	196.045
				Medium Vegetation	0.006	0.007
215)	<input checked="" type="checkbox"/>	TS0078				
		435922.117	3661973.738	45.582	45.627	45.636
				Medium Vegetation	0.045	0.054

LAS

Nonvegetated Vertical Accuracy

LandCover Type: Bare Earth, Urban Terrain

Minimum DZ: -0.162

Maximum DZ: 0.156

Mean DZ: -0.006

Mean Magnitude DZ: 0.241

Number Observations: 126

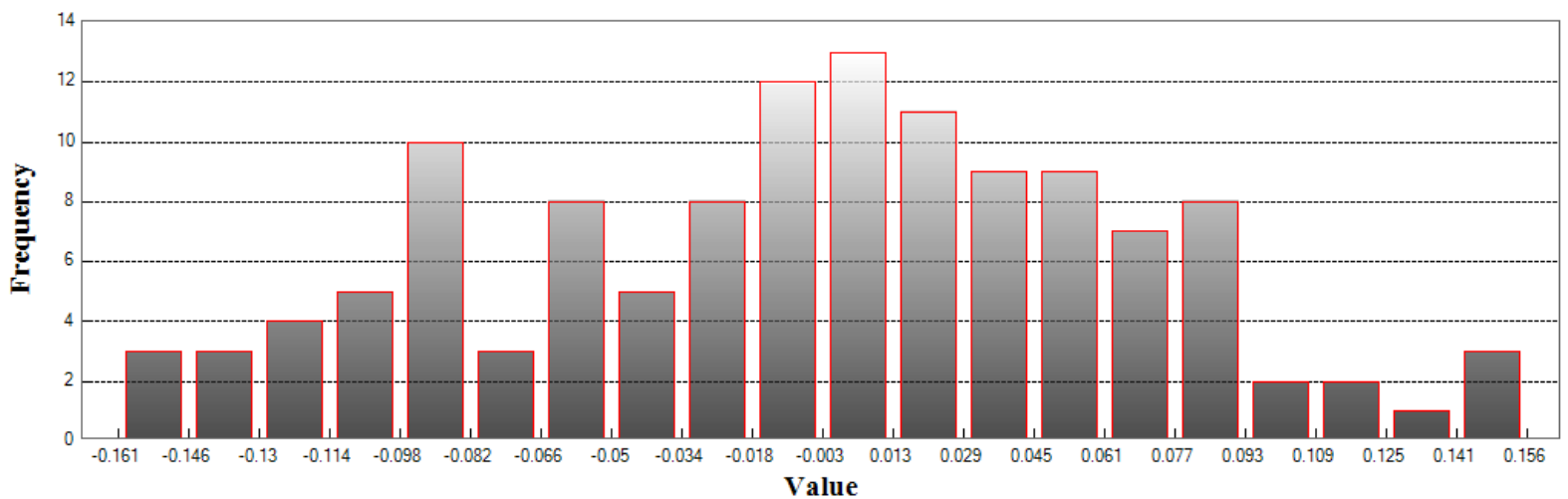
Standard Deviation DZ: 0.072

RMSE Z: 0.072

95% Confidence Level Z: 0.141

Units: Meters

Histogram



Min: -0.162

Max: 0.156

Number Of Bins: 20

Bin Interval: 0.016

LAS (Continued)

Vegetated Vertical Accuracy

LandCover Type: High Vegetation

Minimum DZ: -0.152

Maximum DZ: 0.171

Mean DZ: 0.003

Mean Magnitude DZ: 0.234

Number Observations: 35

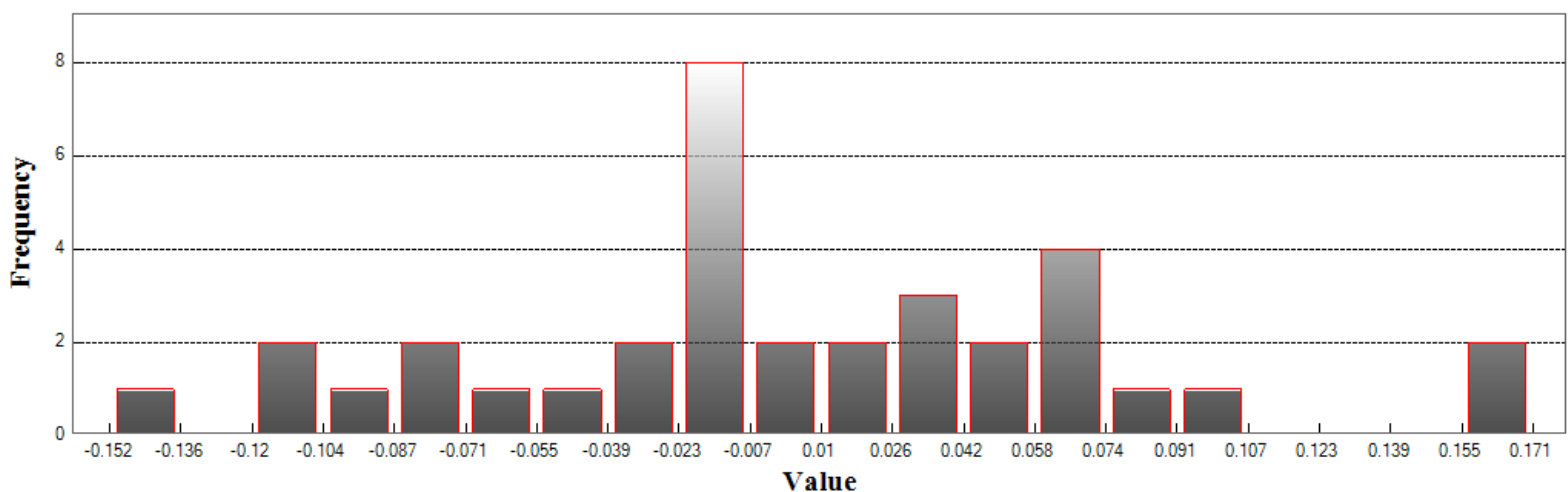
Standard Deviation DZ: 0.072

RMSE Z: 0.071

95th Percentile: 0.152

Units: Meters

Histogram



Min: -0.152

Max: 0.171

Number Of Bins: 20

Bin Interval: 0.016

LAS (Continued)

Vegetated Vertical Accuracy

LandCover Type: Low Vegetation

Minimum DZ: -0.138

Maximum DZ: 0.209

Mean DZ: 0.069

Mean Magnitude DZ: 0.305

Number Observations: 21

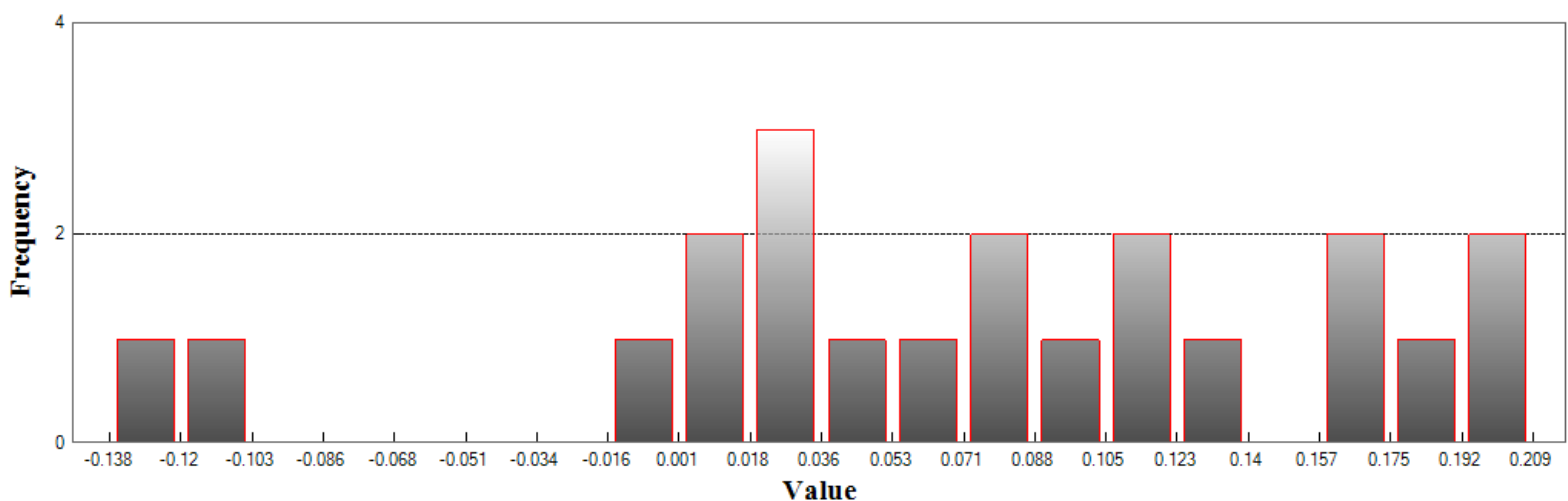
Standard Deviation DZ: 0.092

RMSE Z: 0.113

95th Percentile: 0.202

Units: Meters

Histogram



Min: -0.138

Max: 0.209

Number Of Bins: 20

Bin Interval: 0.017

LAS (Continued)

Vegetated Vertical Accuracy

LandCover Type: Medium Vegetation

Minimum DZ: -0.125

Maximum DZ: 0.267

Mean DZ: 0.034

Mean Magnitude DZ: 0.285

Number Observations: 33

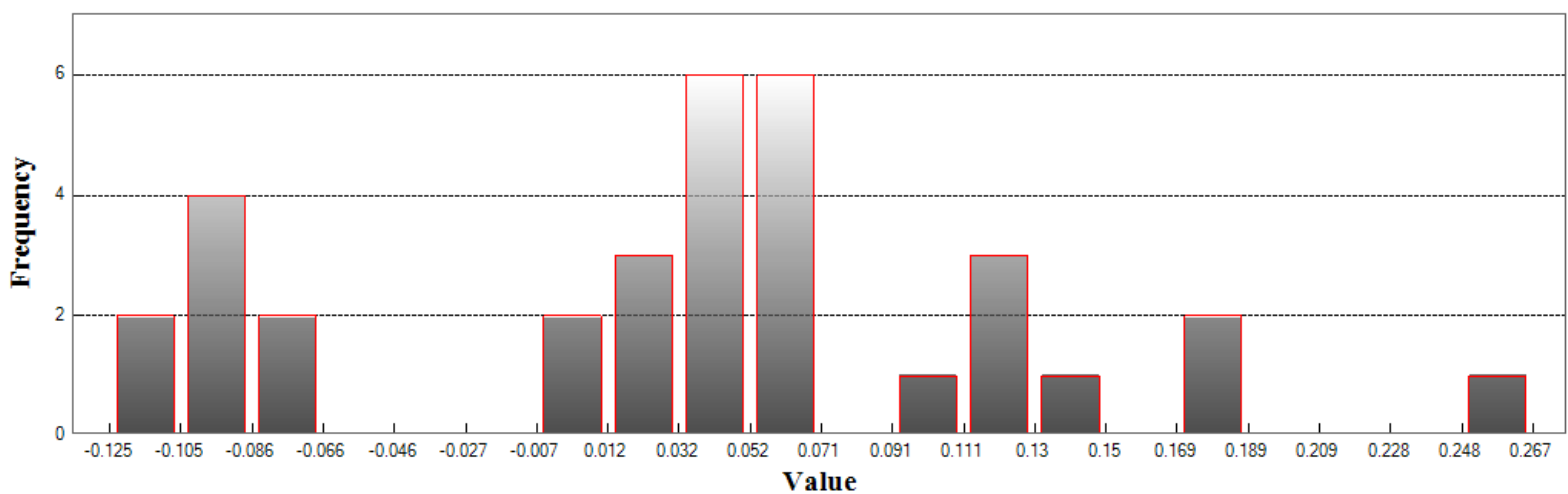
Standard Deviation DZ: 0.095

RMSE Z: 0.099

95th Percentile: 0.176

Units: Meters

Histogram



Min: -0.125

Max: 0.267

Number Of Bins: 20

Bin Interval: 0.02

DEM

Nonvegetated Vertical Accuracy

LandCover Type: Bare Earth, Urban Terrain

Minimum DZ: -0.16

Maximum DZ: 0.156

Mean DZ: -0.007

Mean Magnitude DZ: 0.245

Number Observations: 126

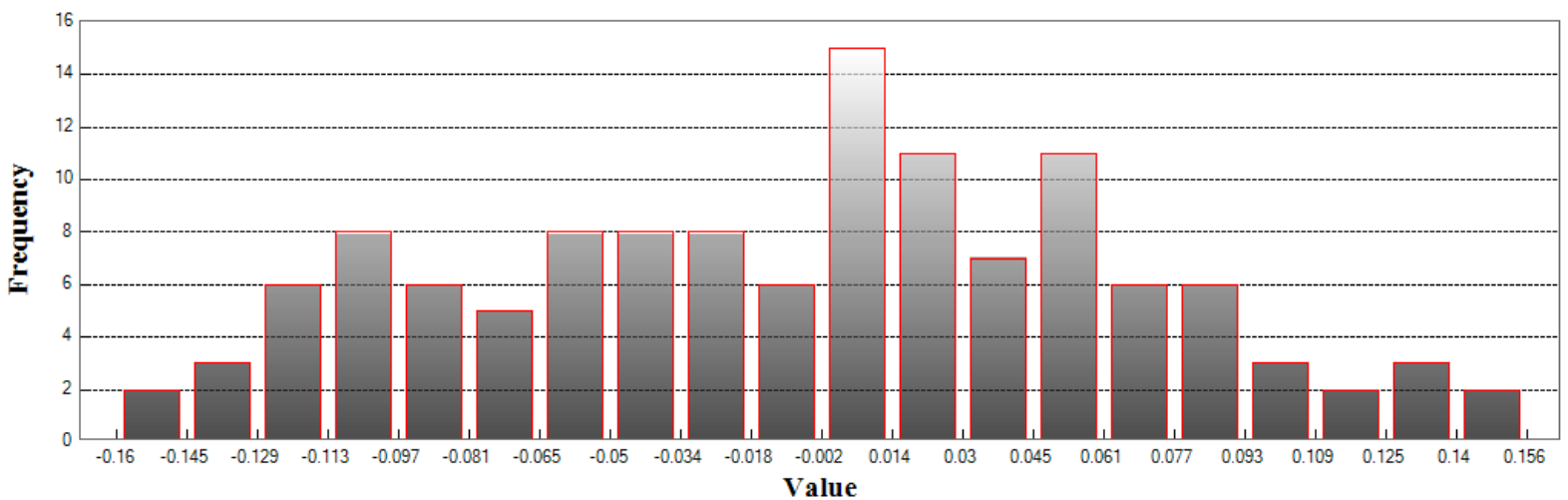
Standard Deviation DZ: 0.073

RMSE Z: 0.073

95% Confidence Level Z: 0.143

Units: Meters

Histogram



Min: -0.16
 Max: 0.156
 Number Of Bins: 20
 Bin Interval: 0.016

DEM (Continued)

Vegetated Vertical Accuracy

LandCover Type: High Vegetation

Minimum DZ: -0.16

Maximum DZ: 0.175

Mean DZ: 0.001

Mean Magnitude DZ: 0.235

Number Observations: 35

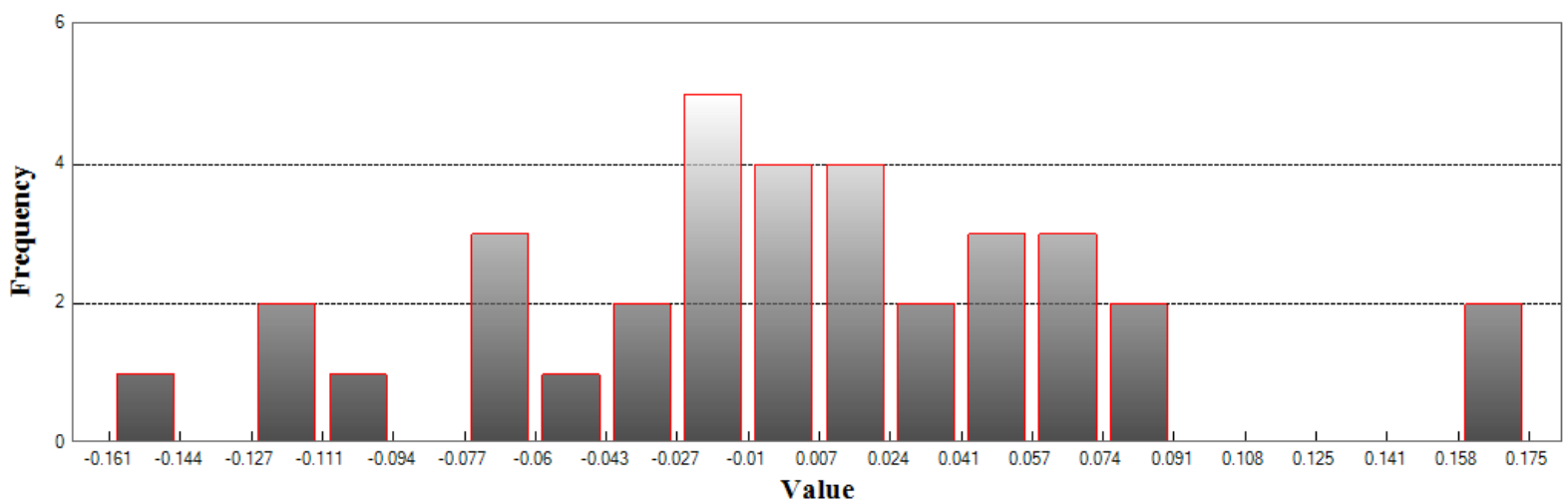
Standard Deviation DZ: 0.073

RMSE Z: 0.072

95th Percentile: 0.16

Units: Meters

Histogram



Min: -0.16

Max: 0.175

Number Of Bins: 20

Bin Interval: 0.017

DEM (Continued)

Vegetated Vertical Accuracy

LandCover Type: Low Vegetation

Minimum DZ: -0.117

Maximum DZ: 0.202

Mean DZ: 0.066

Mean Magnitude DZ: 0.305

Number Observations: 21

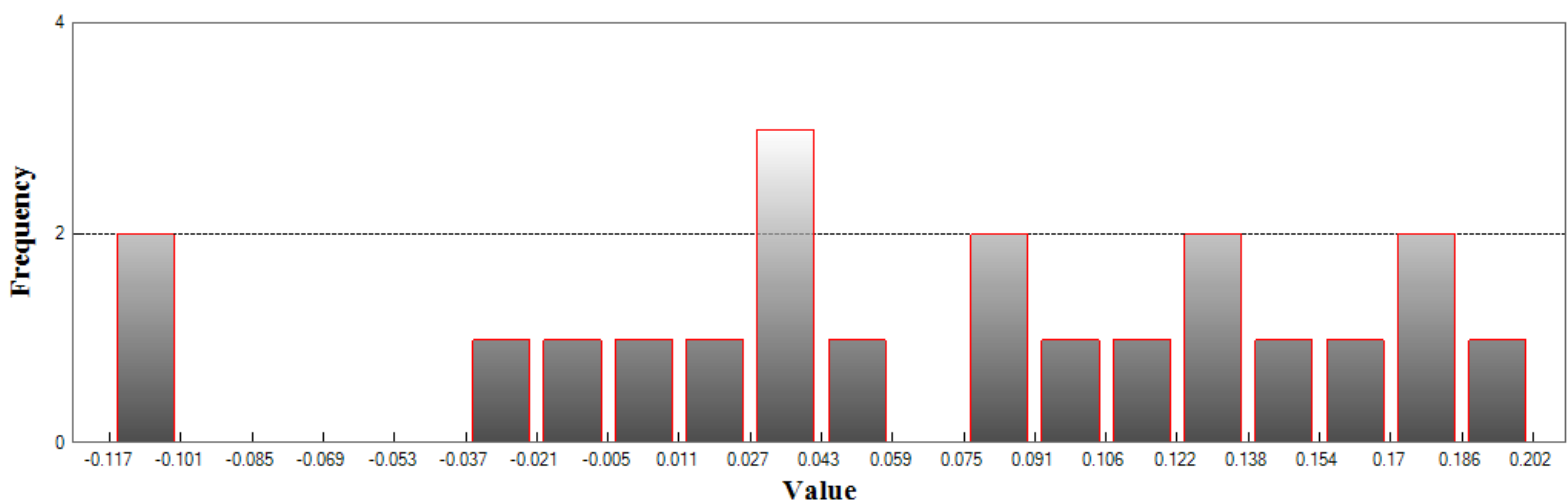
Standard Deviation DZ: 0.09

RMSE Z: 0.11

95th Percentile: 0.192

Units: Meters

Histogram



Min: -0.117

Max: 0.202

Number Of Bins: 20

Bin Interval: 0.016

DEM (Continued)

Vegetated Vertical Accuracy

LandCover Type: Medium Vegetation

Minimum DZ: -0.127

Maximum DZ: 0.244

Mean DZ: 0.029

Mean Magnitude DZ: 0.277

Number Observations: 33

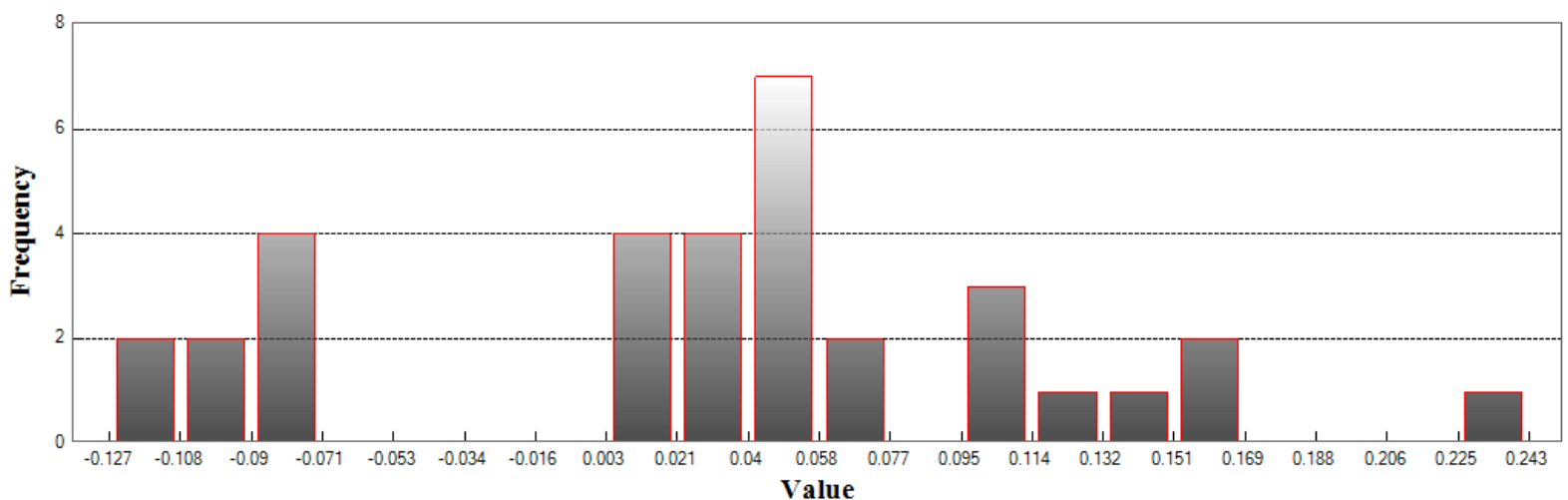
Standard Deviation DZ: 0.089

RMSE Z: 0.093

95th Percentile: 0.152

Units: Meters

Histogram



Min: -0.127

Max: 0.244

Number Of Bins: 20

Bin Interval: 0.019

Point: GS0002

Survey X: 385326.08, Survey Y: 3347006.66, Z1: 1.56, Z DEM: 1.55, Z LAS: 1.55, ΔZ DEM: 0, ΔZ LAS: -0.01



North



South



East



West

Point: GS0003

Survey X: 385330.88, Survey Y: 3347030.85, Z1: 1.43, Z DEM: 1.45, Z LAS: 1.44, ΔZ DEM: 0.02, ΔZ LAS: 0.02



North



South



East



West

Point: GS0011

Survey X: 382880.07, Survey Y: 3367925.53, Z1: 26.28, Z DEM: 26.2, Z LAS: 26.21, ΔZ DEM: -0.07, ΔZ LAS: -0.06



North



South



East



West

Point: GS0014

Survey X: 380769.18, Survey Y: 3379388.71, Z1: 40.08, Z DEM: 39.98, Z LAS: 39.99, ΔZ DEM: -0.11, ΔZ LAS: -0.1



North



South



East



West

Point: GS0016

Survey X: 371929.32, Survey Y: 3374876.46, Z1: 24.51, Z DEM: 24.59, Z LAS: 24.58, ΔZ DEM: 0.07, ΔZ LAS: 0.07



North



South



East



West

Point: GS0017

Survey X: 371929.5, Survey Y: 3374824, Z1: 24.84, Z DEM: 24.94, Z LAS: 24.93, ΔZ DEM: 0.1, ΔZ LAS: 0.09



North



South



East



West

Point: GS0021

Survey X: 387728.81, Survey Y: 3383440.16, Z1: 22.69, Z DEM: 22.65, Z LAS: 22.67, ΔZ DEM: -0.04, ΔZ LAS: -0.02



North



South



East



West

Point: GS0026

Survey X: 379507.59, Survey Y: 3384772.6, Z1: 52.28, Z DEM: 52.32, Z LAS: 52.32, ΔZ DEM: 0.04, ΔZ LAS: 0.04



North



South



East



West

Point: GS0027

Survey X: 371178.58, Survey Y: 3382389.06, Z1: 37.86, Z DEM: 37.91, Z LAS: 37.91, ΔZ DEM: 0.05, ΔZ LAS: 0.05



North



South



East



West

Point: GS0037

Survey X: 377479.19, Survey Y: 3413691.1, Z1: 78, Z DEM: 78.03, Z LAS: 78.03, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0041

Survey X: 377859.64, Survey Y: 3419484.42, Z1: 86.8, Z DEM: 86.86, Z LAS: 86.86, ΔZ DEM: 0.07, ΔZ LAS: 0.07



North



South



East



West

Point: GS0044

Survey X: 385374.25, Survey Y: 3421562.28, Z1: 34.05, Z DEM: 33.99, Z LAS: 34, ΔZ DEM: -0.06, ΔZ LAS: -0.05



North



South



East



West

Point: GS0045

Survey X: 385399.05, Survey Y: 3421556.36, Z1: 33.55, Z DEM: 33.58, Z LAS: 33.59, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0048

Survey X: 392599.33, Survey Y: 3423369.7, Z1: 85.62, Z DEM: 85.52, Z LAS: 85.52, ΔZ DEM: -0.1, ΔZ LAS: -0.1



North



South



East



West

Point: GS0057

Survey X: 397580.31, Survey Y: 3410917.55, Z1: 4.8, Z DEM: 4.81, Z LAS: 4.81, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: GS0063

Survey X: 392365.54, Survey Y: 3408056.57, Z1: 28.64, Z DEM: 28.67, Z LAS: 28.67, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0070

Survey X: 381851.86, Survey Y: 3429747.86, Z1: 44.2, Z DEM: 44.11, Z LAS: 44.14, ΔZ DEM: -0.09, ΔZ LAS: -0.06



North



South



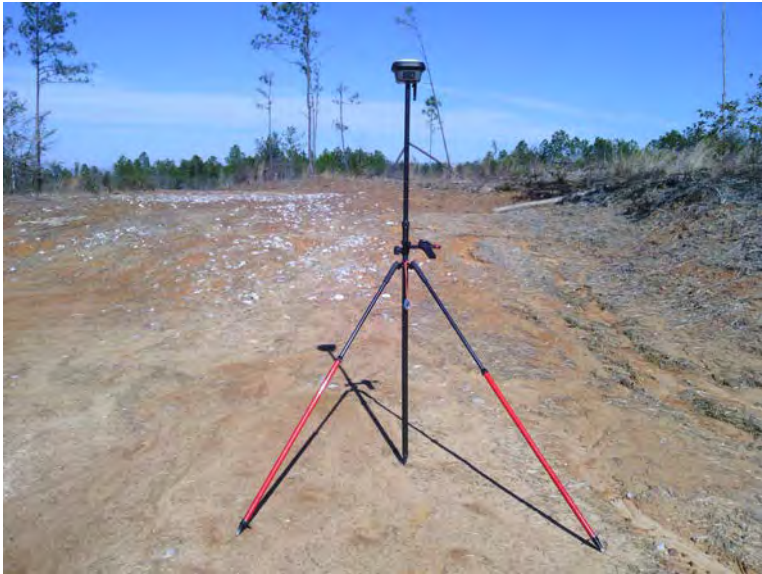
East



West

Point: GS0081

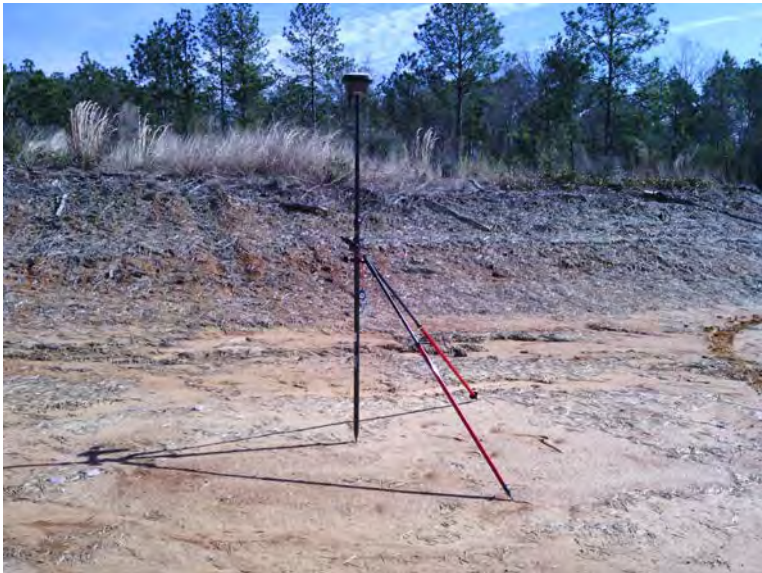
Survey X: 375695.56, Survey Y: 3458373.3, Z1: 76.89, Z DEM: 76.77, Z LAS: 76.77, ΔZ DEM: -0.12, ΔZ LAS: -0.13



North



South



East



West

Point: GS0083

Survey X: 375684.67, Survey Y: 3458422.21, Z1: 77.38, Z DEM: 77.25, Z LAS: 77.26, ΔZ DEM: -0.12, ΔZ LAS: -0.12



North



South



East



West

Point: GS0088

Survey X: 391891.67, Survey Y: 3465846.36, Z1: 39.26, Z DEM: 39.2, Z LAS: 39.2, ΔZ DEM: -0.07, ΔZ LAS: -0.07



North



South



East



West

Point: GS0090

Survey X: 401665.54, Survey Y: 3467038.9, Z1: 14.45, Z DEM: 14.45, Z LAS: 14.44, ΔZ DEM: 0.01, ΔZ LAS: -0.01



North



South



East



West

Point: GS0092

Survey X: 401862.73, Survey Y: 3460046.2, Z1: 17.46, Z DEM: 17.46, Z LAS: 17.46, ΔZ DEM: 0, ΔZ LAS: 0



North



South



East



West

Point: GS0094

Survey X: 401667.98, Survey Y: 3471283.58, Z1: 19.88, Z DEM: 19.78, Z LAS: 19.77, ΔZ DEM: -0.1, ΔZ LAS: -0.11



North



South



East



West

Point: GS0095

Survey X: 401672.58, Survey Y: 3471261.12, Z1: 19.67, Z DEM: 19.6, Z LAS: 19.6, ΔZ DEM: -0.06, ΔZ LAS: -0.07



North



South



East



West

Point: GS0098

Survey X: 402127.39, Survey Y: 3478864.23, Z1: 20.73, Z DEM: 20.75, Z LAS: 20.75, ΔZ DEM: 0.02, ΔZ LAS: 0.02



North



South



East



West

Point: GS0100

Survey X: 406192.2, Survey Y: 3485111.98, Z1: 45.68, Z DEM: 45.65, Z LAS: 45.65, ΔZ DEM: -0.03, ΔZ LAS: -0.03



North



South



East



West

Point: GS0105

Survey X: 401937.81, Survey Y: 3479227.8, Z1: 19.99, Z DEM: 19.94, Z LAS: 19.95, ΔZ DEM: -0.05, ΔZ LAS: -0.04



North



South



East



West

Point: GS0110

Survey X: 380903.55, Survey Y: 3482368.29, Z1: 49.46, Z DEM: 49.44, Z LAS: 49.44, ΔZ DEM: -0.03, ΔZ LAS: -0.02



North



South



East



West

Point: GS0112

Survey X: 386469.24, Survey Y: 3491290.04, Z1: 57.08, Z DEM: 56.97, Z LAS: 56.94, ΔZ DEM: -0.11, ΔZ LAS: -0.15



North



South



East



West

Point: GS0113

Survey X: 386466.29, Survey Y: 3491267.9, Z1: 56.32, Z DEM: 56.2, Z LAS: 56.22, ΔZ DEM: -0.11, ΔZ LAS: -0.1



North



South



East



West

Point: GS0114

Survey X: 386459.22, Survey Y: 3491245.06, Z1: 55.69, Z DEM: 55.56, Z LAS: 55.55, ΔZ DEM: -0.12, ΔZ LAS: -0.14



North



South



East



West

Point: GS0117

Survey X: 389399.9, Survey Y: 3498289.94, Z1: 32.26, Z DEM: 32.18, Z LAS: 32.19, ΔZ DEM: -0.07, ΔZ LAS: -0.07



North



South



East



West

Point: GS0119

Survey X: 375421.24, Survey Y: 3500692.36, Z1: 36.45, Z DEM: 36.29, Z LAS: 36.3, ΔZ DEM: -0.16, ΔZ LAS: -0.15



North



South



East



West

Point: GS0121

Survey X: 375417.73, Survey Y: 3500668.6, Z1: 36.15, Z DEM: 36.01, Z LAS: 36.02, ΔZ DEM: -0.14, ΔZ LAS: -0.13



North



South



East



West

Point: GS0127

Survey X: 377120.24, Survey Y: 3509447.23, Z1: 71.52, Z DEM: 71.52, Z LAS: 71.52, ΔZ DEM: 0, ΔZ LAS: 0



North



South



East



West

Point: GS0128

Survey X: 377141.18, Survey Y: 3509441.65, Z1: 71.2, Z DEM: 71.22, Z LAS: 71.22, ΔZ DEM: 0.02, ΔZ LAS: 0.03



North



South



East



West

Point: GS0136

Survey X: 378403.2, Survey Y: 3538050.4, Z1: 92.02, Z DEM: 92.1, Z LAS: 92.11, ΔZ DEM: 0.09, ΔZ LAS: 0.09



North



South



East



West

Point: GS0139

Survey X: 383126.54, Survey Y: 3535634.12, Z1: 93.67, Z DEM: 93.72, Z LAS: 93.73, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: GS0140

Survey X: 383131.15, Survey Y: 3535589.79, Z1: 93.81, Z DEM: 93.83, Z LAS: 93.84, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0141

Survey X: 390821.67, Survey Y: 3501567.66, Z1: 48.74, Z DEM: 48.68, Z LAS: 48.67, ΔZ DEM: -0.06, ΔZ LAS: -0.06



North



South



East



West

Point: GS0144

Survey X: 399920.8, Survey Y: 3489895.35, Z1: 70.61, Z DEM: 70.58, Z LAS: 70.57, ΔZ DEM: -0.03, ΔZ LAS: -0.03



North



South



East



West

Point: GS0146

Survey X: 373628.12, Survey Y: 3532558.8, Z1: 65.86, Z DEM: 65.94, Z LAS: 65.94, ΔZ DEM: 0.08, ΔZ LAS: 0.09



North



South



East



West

Point: GS0147

Survey X: 373649.56, Survey Y: 3532562.07, Z1: 66.05, Z DEM: 66.09, Z LAS: 66.09, ΔZ DEM: 0.04, ΔZ LAS: 0.04



North



South



East



West

Point: GS0148

Survey X: 373671.11, Survey Y: 3532564.17, Z1: 66, Z DEM: 66, Z LAS: 66, ΔZ DEM: 0.01, ΔZ LAS: 0



North



South



East



West

Point: GS0150

Survey X: 369533.72, Survey Y: 3547048.79, Z1: 137.54, Z DEM: 137.62, Z LAS: 137.6, ΔZ DEM: 0.08, ΔZ LAS: 0.06



North



South



East



West

Point: GS0153

Survey X: 371095.85, Survey Y: 3550783.2, Z1: 145.92, Z DEM: 145.95, Z LAS: 145.98, ΔZ DEM: 0.03, ΔZ LAS: 0.07



North



South



East



West

Point: GS0154

Survey X: 371084.51, Survey Y: 3550803.64, Z1: 145.53, Z DEM: 145.6, Z LAS: 145.6, ΔZ DEM: 0.07, ΔZ LAS: 0.07



North



South



East



West

Point: GS0160

Survey X: 373806.42, Survey Y: 3561720.02, Z1: 66.75, Z DEM: 66.78, Z LAS: 66.77, ΔZ DEM: 0.02, ΔZ LAS: 0.01



North



South



East



West

Point: GS0163

Survey X: 381178.72, Survey Y: 3555533.42, Z1: 64.01, Z DEM: 64.1, Z LAS: 64.11, ΔZ DEM: 0.1, ΔZ LAS: 0.1



North



South



East



West

Point: GS0168

Survey X: 389748.07, Survey Y: 3551711.67, Z1: 56.51, Z DEM: 56.53, Z LAS: 56.53, ΔZ DEM: 0.01, ΔZ LAS: 0.02



North



South



East



West

Point: GS0169

Survey X: 389769.14, Survey Y: 3551715.73, Z1: 56.64, Z DEM: 56.5, Z LAS: 56.51, ΔZ DEM: -0.14, ΔZ LAS: -0.14



North



South



East



West

Point: GS0173

Survey X: 400586.76, Survey Y: 3563361.66, Z1: 30.13, Z DEM: 30.28, Z LAS: 30.28, ΔZ DEM: 0.15, ΔZ LAS: 0.15



North



South



East



West

Point: GS0174

Survey X: 400587.54, Survey Y: 3563393.88, Z1: 30.57, Z DEM: 30.73, Z LAS: 30.73, ΔZ DEM: 0.16, ΔZ LAS: 0.16



North



South



East



West

Point: GS0175

Survey X: 400586.65, Survey Y: 3563433.58, Z1: 30.64, Z DEM: 30.77, Z LAS: 30.77, ΔZ DEM: 0.13, ΔZ LAS: 0.14



North



South



East



West

Point: GS0176

Survey X: 390079.74, Survey Y: 3569658.68, Z1: 67.89, Z DEM: 67.95, Z LAS: 67.96, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: GS0177

Survey X: 390084.01, Survey Y: 3569686.56, Z1: 67.56, Z DEM: 67.65, Z LAS: 67.63, ΔZ DEM: 0.09, ΔZ LAS: 0.06



North



South



East



West

Point: GS0178

Survey X: 390079.48, Survey Y: 3569707.25, Z1: 67.53, Z DEM: 67.53, Z LAS: 67.54, ΔZ DEM: 0, ΔZ LAS: 0.01



North



South



East



West

Point: TS0016

Survey X: 458193.79, Survey Y: 3658648.98, Z1: 61.21, Z DEM: 61.15, Z LAS: 61.15, ΔZ DEM: -0.06, ΔZ LAS: -0.06



North



South



East



West

Point: TS0018

Survey X: 458172.83, Survey Y: 3658691.53, Z1: 61.51, Z DEM: 61.49, Z LAS: 61.5, ΔZ DEM: -0.02, ΔZ LAS: -0.01



North



South



East



West

Point: TS0019

Survey X: 465924.71, Survey Y: 3655960.23, Z1: 79.64, Z DEM: 79.59, Z LAS: 79.61, ΔZ DEM: -0.05, ΔZ LAS: -0.03



North



South



East



West

Point: TS0023

Survey X: 456470.59, Survey Y: 3673714, Z1: 99.12, Z DEM: 99.12, Z LAS: 99.13, ΔZ DEM: 0, ΔZ LAS: 0.01



North



South



East



West

Point: TS0024

Survey X: 434633.49, Survey Y: 3693872.97, Z1: 130, Z DEM: 130, Z LAS: 130, ΔZ DEM: 0, ΔZ LAS: 0



North



South



East



West

Point: TS0028

Survey X: 432819.49, Survey Y: 3702283.65, Z1: 134.91, Z DEM: 134.98, Z LAS: 134.99, ΔZ DEM: 0.07, ΔZ LAS: 0.08



North



South



East



West

Point: TS0035

Survey X: 440067.81, Survey Y: 3707766.62, Z1: 107.52, Z DEM: 107.47, Z LAS: 107.48, ΔZ DEM: -0.05, ΔZ LAS: -0.03



North



South



East



West

Point: TS0036

Survey X: 443871.85, Survey Y: 3704402.08, Z1: 111.47, Z DEM: 111.47, Z LAS: 111.47, ΔZ DEM: 0.01, ΔZ LAS: 0



North



South



East



West

Point: TS0041

Survey X: 457012.27, Survey Y: 3710446.01, Z1: 159.24, Z DEM: 159.26, Z LAS: 159.25, ΔZ DEM: 0.02, ΔZ LAS: 0



North



South



East



West

Point: TS0042

Survey X: 456992.38, Survey Y: 3710453.97, Z1: 159.12, Z DEM: 159.13, Z LAS: 159.13, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: TS0043

Survey X: 453747.25, Survey Y: 3705711.33, Z1: 123.87, Z DEM: 123.98, Z LAS: 123.98, ΔZ DEM: 0.11, ΔZ LAS: 0.11



North



South



East



West

Point: TS0046

Survey X: 453521.44, Survey Y: 3699127.01, Z1: 166.83, Z DEM: 166.84, Z LAS: 166.84, ΔZ DEM: 0.02, ΔZ LAS: 0.01



North



South



East



West

Point: TS0047

Survey X: 453546.92, Survey Y: 3699118.16, Z1: 166.89, Z DEM: 166.93, Z LAS: 166.91, ΔZ DEM: 0.05, ΔZ LAS: 0.02



North



South



East



West

Point: TS0050

Survey X: 465287.97, Survey Y: 3679937.62, Z1: 143.1, Z DEM: 143.16, Z LAS: 143.15, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: TS0052

Survey X: 472209.4, Survey Y: 3685279.26, Z1: 215.94, Z DEM: 216.02, Z LAS: 216.02, ΔZ DEM: 0.08, ΔZ LAS: 0.08



North



South



East



West

Point: TS0058

Survey X: 456457.27, Survey Y: 3673705.62, Z1: 99.05, Z DEM: 99.06, Z LAS: 99.06, ΔZ DEM: 0.02, ΔZ LAS: 0.01



North



South



East



West

Point: TS0069

Survey X: 443426.68, Survey Y: 3677777.16, Z1: 52.05, Z DEM: 52.11, Z LAS: 52.1, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: TS0072

Survey X: 436453.56, Survey Y: 3679136.76, Z1: 63.89, Z DEM: 63.96, Z LAS: 63.98, ΔZ DEM: 0.07, ΔZ LAS: 0.09



North



South



East



West

Point: TS0074

Survey X: 427440.38, Survey Y: 3682519.53, Z1: 81.08, Z DEM: 81.14, Z LAS: 81.14, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: TS0077

Survey X: 435905.84, Survey Y: 3661952.74, Z1: 45.8, Z DEM: 45.78, Z LAS: 45.78, ΔZ DEM: -0.02, ΔZ LAS: -0.02



North



South



East



West

Point: TS0089

Survey X: 449910.85, Survey Y: 3664984.62, Z1: 80.74, Z DEM: 80.79, Z LAS: 80.78, ΔZ DEM: 0.05, ΔZ LAS: 0.04



North



South



East



West

Point: TS0090

Survey X: 449909.72, Survey Y: 3665004.7, Z1: 81.54, Z DEM: 81.57, Z LAS: 81.57, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0006

Survey X: 392997.24, Survey Y: 3347724.83, Z1: 1.66, Z DEM: 1.6, Z LAS: 1.6, ΔZ DEM: -0.06, ΔZ LAS: -0.06



North



South



East



West

Point: GS0008

Survey X: 388990.73, Survey Y: 3360807.82, Z1: 2.22, Z DEM: 2.17, Z LAS: 2.17, ΔZ DEM: -0.05, ΔZ LAS: -0.04



North



South



East



West

Point: GS0012

Survey X: 382866.55, Survey Y: 3367949.38, Z1: 26.4, Z DEM: 26.31, Z LAS: 26.3, ΔZ DEM: -0.09, ΔZ LAS: -0.1



North



South



East



West

Point: GS0013

Survey X: 380784.18, Survey Y: 3379371.95, Z1: 39.45, Z DEM: 39.36, Z LAS: 39.36, ΔZ DEM: -0.1, ΔZ LAS: -0.09



North



South



East



West

Point: GS0015

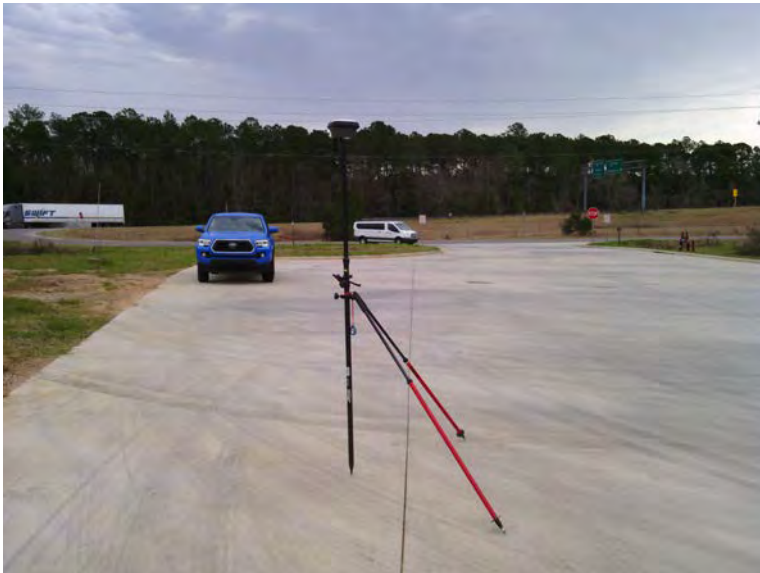
Survey X: 380750.43, Survey Y: 3379372.45, Z1: 40.13, Z DEM: 40.03, Z LAS: 40.02, ΔZ DEM: -0.1, ΔZ LAS: -0.11



North



South



East



West

Point: GS0022

Survey X: 387988.99, Survey Y: 3385271.74, Z1: 23.01, Z DEM: 22.99, Z LAS: 22.99, ΔZ DEM: -0.02, ΔZ LAS: -0.02



North



South



East



West

Point: GS0024

Survey X: 388020.56, Survey Y: 3385268.15, Z1: 23.08, Z DEM: 23.05, Z LAS: 23.06, ΔZ DEM: -0.02, ΔZ LAS: -0.02



North



South



East



West

Point: GS0025

Survey X: 379497.96, Survey Y: 3384745.54, Z1: 52.39, Z DEM: 52.38, Z LAS: 52.38, ΔZ DEM: -0.02, ΔZ LAS: -0.02



North



South



East



West

Point: GS0029

Survey X: 373277.13, Survey Y: 3391015.97, Z1: 44.32, Z DEM: 44.27, Z LAS: 44.31, ΔZ DEM: -0.05, ΔZ LAS: -0.01



North



South



East



West

Point: GS0030

Survey X: 373251.46, Survey Y: 3390999.28, Z1: 45.39, Z DEM: 45.39, Z LAS: 45.38, ΔZ DEM: 0, ΔZ LAS: -0.01



North



South



East



West

Point: GS0034

Survey X: 374409.33, Survey Y: 3398551.79, Z1: 51.01, Z DEM: 51.07, Z LAS: 51.06, ΔZ DEM: 0.05, ΔZ LAS: 0.05



North



South



East



West

Point: GS0035

Survey X: 379404.16, Survey Y: 3404941.97, Z1: 74.53, Z DEM: 74.54, Z LAS: 74.55, ΔZ DEM: 0.01, ΔZ LAS: 0.02



North



South



East



West

Point: GS0039

Survey X: 377843.38, Survey Y: 3419532.54, Z1: 87.18, Z DEM: 87.25, Z LAS: 87.24, ΔZ DEM: 0.07, ΔZ LAS: 0.06



North



South



East



West

Point: GS0043

Survey X: 385367.63, Survey Y: 3421587.33, Z1: 34.19, Z DEM: 34.1, Z LAS: 34.1, ΔZ DEM: -0.09, ΔZ LAS: -0.09



North



South



East



West

Point: GS0047

Survey X: 392599.48, Survey Y: 3423345.53, Z1: 85.65, Z DEM: 85.58, Z LAS: 85.58, ΔZ DEM: -0.07, ΔZ LAS: -0.07



North



South



East



West

Point: GS0049

Survey X: 392594.17, Survey Y: 3423287.83, Z1: 85.77, Z DEM: 85.67, Z LAS: 85.68, ΔZ DEM: -0.1, ΔZ LAS: -0.1



North



South



East



West

Point: GS0053

Survey X: 400890.11, Survey Y: 3419624.98, Z1: 11.41, Z DEM: 11.35, Z LAS: 11.35, ΔZ DEM: -0.05, ΔZ LAS: -0.06



North



South



East



West

Point: GS0054

Survey X: 400865.52, Survey Y: 3419617.76, Z1: 11.47, Z DEM: 11.39, Z LAS: 11.38, ΔZ DEM: -0.08, ΔZ LAS: -0.08



North



South



East



West

Point: GS0058

Survey X: 397601.3, Survey Y: 3410900.86, Z1: 3.62, Z DEM: 3.6, Z LAS: 3.61, ΔZ DEM: -0.02, ΔZ LAS: -0.01



North



South



East



West

Point: GS0062

Survey X: 392402.85, Survey Y: 3408024.32, Z1: 30.43, Z DEM: 30.4, Z LAS: 30.41, ΔZ DEM: -0.04, ΔZ LAS: -0.02



North



South



East



West

Point: GS0076

Survey X: 380059.41, Survey Y: 3446190.1, Z1: 66.65, Z DEM: 66.5, Z LAS: 66.49, ΔZ DEM: -0.16, ΔZ LAS: -0.16



North



South



East



West

Point: GS0077

Survey X: 380086.87, Survey Y: 3446154.3, Z1: 66.54, Z DEM: 66.41, Z LAS: 66.41, ΔZ DEM: -0.13, ΔZ LAS: -0.13



North



South



East



West

Point: GS0078

Survey X: 380116.22, Survey Y: 3446156.03, Z1: 66.23, Z DEM: 66.26, Z LAS: 66.27, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0079

Survey X: 380114.57, Survey Y: 3446178.9, Z1: 66.43, Z DEM: 66.48, Z LAS: 66.47, ΔZ DEM: 0.05, ΔZ LAS: 0.04



North



South



East



West

Point: GS0086

Survey X: 381199.07, Survey Y: 3470407.54, Z1: 69.24, Z DEM: 69.13, Z LAS: 69.13, ΔZ DEM: -0.11, ΔZ LAS: -0.11



North



South



East



West

Point: GS0089

Survey X: 401668.56, Survey Y: 3467058.45, Z1: 13.94, Z DEM: 13.89, Z LAS: 13.89, ΔZ DEM: -0.05, ΔZ LAS: -0.05



North



South



East



West

Point: GS0093

Survey X: 401654.66, Survey Y: 3471303.33, Z1: 20.03, Z DEM: 19.93, Z LAS: 19.93, ΔZ DEM: -0.11, ΔZ LAS: -0.1



North



South



East



West

Point: GS0103

Survey X: 401919.77, Survey Y: 3479237.29, Z1: 20.41, Z DEM: 20.32, Z LAS: 20.33, ΔZ DEM: -0.09, ΔZ LAS: -0.08



North



South



East



West

Point: GS0118

Survey X: 381948.65, Survey Y: 3501123.93, Z1: 25.33, Z DEM: 25.32, Z LAS: 25.31, ΔZ DEM: -0.01, ΔZ LAS: -0.02



North



South



East



West

Point: GS0120

Survey X: 375436.17, Survey Y: 3500712.5, Z1: 36.75, Z DEM: 36.63, Z LAS: 36.63, ΔZ DEM: -0.12, ΔZ LAS: -0.13



North



South



East



West

Point: GS0129

Survey X: 377162.28, Survey Y: 3509444.81, Z1: 71.4, Z DEM: 71.42, Z LAS: 71.42, ΔZ DEM: 0.02, ΔZ LAS: 0.03



North



South



East



West

Point: GS0137

Survey X: 378406.76, Survey Y: 3538014.81, Z1: 91.97, Z DEM: 92.07, Z LAS: 92.06, ΔZ DEM: 0.1, ΔZ LAS: 0.09



North



South



East



West

Point: GS0142

Survey X: 390842.32, Survey Y: 3501579.11, Z1: 48.27, Z DEM: 48.17, Z LAS: 48.18, ΔZ DEM: -0.1, ΔZ LAS: -0.09



North



South



East



West

Point: GS0151

Survey X: 369545.82, Survey Y: 3547067.88, Z1: 135.88, Z DEM: 135.89, Z LAS: 135.9, ΔZ DEM: 0.01, ΔZ LAS: 0.02



North



South



East



West

Point: GS0152

Survey X: 369564.88, Survey Y: 3547064.67, Z1: 136.92, Z DEM: 136.93, Z LAS: 136.95, ΔZ DEM: 0.01, ΔZ LAS: 0.03



North



South



East



West

Point: GS0161

Survey X: 381155.12, Survey Y: 3555531.67, Z1: 63.89, Z DEM: 64, Z LAS: 64, ΔZ DEM: 0.11, ΔZ LAS: 0.11



North



South



East



West

Point: GS0170

Survey X: 398045.75, Survey Y: 3555493.49, Z1: 22.94, Z DEM: 23.07, Z LAS: 23.06, ΔZ DEM: 0.13, ΔZ LAS: 0.12



North



South



East



West

Point: GS0171

Survey X: 398049.67, Survey Y: 3555536.6, Z1: 23.15, Z DEM: 23.28, Z LAS: 23.3, ΔZ DEM: 0.14, ΔZ LAS: 0.15



North



South



East



West

Point: TS0027

Survey X: 430686.61, Survey Y: 3698329.56, Z1: 98.92, Z DEM: 98.84, Z LAS: 98.84, ΔZ DEM: -0.08, ΔZ LAS: -0.09



North



South



East



West

Point: TS0030

Survey X: 437974.64, Survey Y: 3701822.36, Z1: 103.66, Z DEM: 103.65, Z LAS: 103.65, ΔZ DEM: -0.01, ΔZ LAS: -0.01



North



South



East



West

Point: TS0038

Survey X: 453774.05, Survey Y: 3705421.03, Z1: 127.9, Z DEM: 127.85, Z LAS: 127.88, ΔZ DEM: -0.05, ΔZ LAS: -0.02



North



South



East



West

Point: TS0049

Survey X: 446367.87, Survey Y: 3686705.03, Z1: 109.15, Z DEM: 109.19, Z LAS: 109.2, ΔZ DEM: 0.04, ΔZ LAS: 0.05



North



South



East



West

Point: TS0057

Survey X: 469176.84, Survey Y: 3679517.96, Z1: 179, Z DEM: 178.98, Z LAS: 179, ΔZ DEM: -0.02, ΔZ LAS: 0



North



South



East



West

Point: TS0064

Survey X: 458973.75, Survey Y: 3684335.2, Z1: 144.35, Z DEM: 144.32, Z LAS: 144.33, Δ Z DEM: -0.02, Δ Z LAS: -0.02



North



South



East



West

Point: TS0079

Survey X: 444537.93, Survey Y: 3669070.02, Z1: 40.56, Z DEM: 40.61, Z LAS: 40.62, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: TS0081

Survey X: 444577.7, Survey Y: 3669101.57, Z1: 40.48, Z DEM: 40.56, Z LAS: 40.56, ΔZ DEM: 0.08, ΔZ LAS: 0.08



North



South



East



West

Point: TS0087

Survey X: 468361.43, Survey Y: 3655378.14, Z1: 99.73, Z DEM: 99.74, Z LAS: 99.74, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: GS0005

Survey X: 392498.48, Survey Y: 3347425.29, Z1: 1.38, Z DEM: 1.34, Z LAS: 1.34, ΔZ DEM: -0.03, ΔZ LAS: -0.04



North



South



East



West

Point: GS0007

Survey X: 393001.49, Survey Y: 3347758.1, Z1: 1.69, Z DEM: 1.68, Z LAS: 1.67, ΔZ DEM: -0.01, ΔZ LAS: -0.02



North



South



East



West

Point: GS0009

Survey X: 388980.06, Survey Y: 3360780.63, Z1: 2.1, Z DEM: 2.08, Z LAS: 2.08, ΔZ DEM: -0.01, ΔZ LAS: -0.01



North



South



East



West

Point: GS0028

Survey X: 371132.98, Survey Y: 3382293.86, Z1: 37.42, Z DEM: 37.26, Z LAS: 37.27, ΔZ DEM: -0.16, ΔZ LAS: -0.15



North



South



East



West

Point: GS0033

Survey X: 374382.92, Survey Y: 3398570.63, Z1: 50.11, Z DEM: 50.17, Z LAS: 50.18, ΔZ DEM: 0.06, ΔZ LAS: 0.07



North



South



East



West

Point: GS0036

Survey X: 379389.16, Survey Y: 3404957.15, Z1: 74.91, Z DEM: 74.86, Z LAS: 74.87, ΔZ DEM: -0.05, ΔZ LAS: -0.04



North



South



East



West

Point: GS0042

Survey X: 385391.83, Survey Y: 3421591.09, Z1: 34.02, Z DEM: 33.93, Z LAS: 33.91, ΔZ DEM: -0.1, ΔZ LAS: -0.11



North



South



East



West

Point: GS0051

Survey X: 402123.31, Survey Y: 3426551.79, Z1: 12.36, Z DEM: 12.28, Z LAS: 12.29, ΔZ DEM: -0.07, ΔZ LAS: -0.07



North



South



East



West

Point: GS0052

Survey X: 402121.21, Survey Y: 3426528.7, Z1: 12.09, Z DEM: 12.11, Z LAS: 12.12, ΔZ DEM: 0.02, ΔZ LAS: 0.04



North



South



East



West

Point: GS0056

Survey X: 397583.27, Survey Y: 3410949.49, Z1: 5.8, Z DEM: 5.78, Z LAS: 5.79, ΔZ DEM: -0.02, ΔZ LAS: -0.01



North



South



East



West

Point: GS0066

Survey X: 397661.82, Survey Y: 3402124.05, Z1: 9.63, Z DEM: 9.65, Z LAS: 9.66, ΔZ DEM: 0.02, ΔZ LAS: 0.03



North



South



East



West

Point: GS0071

Survey X: 381836.02, Survey Y: 3429726.08, Z1: 44.63, Z DEM: 44.56, Z LAS: 44.55, ΔZ DEM: -0.07, ΔZ LAS: -0.08



North



South



East



West

Point: GS0097

Survey X: 402131.77, Survey Y: 3478843.07, Z1: 20.73, Z DEM: 20.73, Z LAS: 20.73, ΔZ DEM: 0, ΔZ LAS: 0



North



South



East



West

Point: GS0099

Survey X: 402124.18, Survey Y: 3478882.1, Z1: 20.38, Z DEM: 20.37, Z LAS: 20.37, ΔZ DEM: -0.01, ΔZ LAS: -0.01



North



South



East



West

Point: GS0101

Survey X: 406212.1, Survey Y: 3485126.26, Z1: 44.51, Z DEM: 44.39, Z LAS: 44.39, ΔZ DEM: -0.12, ΔZ LAS: -0.12



North



South



East



West

Point: GS0104

Survey X: 401931.11, Survey Y: 3479250.46, Z1: 20.16, Z DEM: 20.15, Z LAS: 20.15, ΔZ DEM: -0.01, ΔZ LAS: -0.01



North



South



East



West

Point: GS0106

Survey X: 388444.94, Survey Y: 3480254.9, Z1: 26.06, Z DEM: 26.05, Z LAS: 26.06, ΔZ DEM: -0.01, ΔZ LAS: -0.01



North



South



East



West

Point: GS0107

Survey X: 388430.68, Survey Y: 3480272.41, Z1: 26.09, Z DEM: 25.98, Z LAS: 26, ΔZ DEM: -0.11, ΔZ LAS: -0.09



North



South



East



West

Point: GS0108

Survey X: 388415.99, Survey Y: 3480285.68, Z1: 26.14, Z DEM: 26.06, Z LAS: 26.06, ΔZ DEM: -0.07, ΔZ LAS: -0.08



North



South



East



West

Point: GS0159

Survey X: 373842.98, Survey Y: 3561717.44, Z1: 67.05, Z DEM: 67.1, Z LAS: 67.1, ΔZ DEM: 0.05, ΔZ LAS: 0.05



North



South



East



West

Point: TS0010

Survey X: 443961.86, Survey Y: 3672600.17, Z1: 48.81, Z DEM: 48.88, Z LAS: 48.89, ΔZ DEM: 0.07, ΔZ LAS: 0.07



North



South



East



West

Point: TS0011

Survey X: 443985.68, Survey Y: 3672597.68, Z1: 48.93, Z DEM: 48.97, Z LAS: 48.96, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: TS0025

Survey X: 434616.52, Survey Y: 3693884.59, Z1: 129.45, Z DEM: 129.49, Z LAS: 129.49, ΔZ DEM: 0.04, ΔZ LAS: 0.04



North



South



East



West

Point: TS0032

Survey X: 441173.62, Survey Y: 3704876.62, Z1: 108.13, Z DEM: 108.22, Z LAS: 108.22, ΔZ DEM: 0.09, ΔZ LAS: 0.09



North



South



West

East (No image)

Point: TS0034

Survey X: 440050.67, Survey Y: 3707800.43, Z1: 107.81, Z DEM: 107.78, Z LAS: 107.78, ΔZ DEM: -0.02, ΔZ LAS: -0.02



North



South



East



West

Point: TS0044

Survey X: 453730.07, Survey Y: 3705759.45, Z1: 123.31, Z DEM: 123.34, Z LAS: 123.33, ΔZ DEM: 0.03, ΔZ LAS: 0.02



North



South



East



West

Point: TS0051

Survey X: 465287.46, Survey Y: 3679964.57, Z1: 142.98, Z DEM: 143.01, Z LAS: 143, ΔZ DEM: 0.02, ΔZ LAS: 0.02



North



South



East



West

Point: TS0055

Survey X: 469518.19, Survey Y: 3691954.48, Z1: 194.14, Z DEM: 194.15, Z LAS: 194.14, ΔZ DEM: 0.01, ΔZ LAS: 5.68



North



South



East



West

Point: TS0061

Survey X: 452040.77, Survey Y: 3680573.64, Z1: 94.29, Z DEM: 94.45, Z LAS: 94.45, ΔZ DEM: 0.16, ΔZ LAS: 0.16



North



South



East



West

Point: TS0062

Survey X: 452032.91, Survey Y: 3680592.77, Z1: 94.39, Z DEM: 94.57, Z LAS: 94.56, ΔZ DEM: 0.18, ΔZ LAS: 0.17



North



South



East



West

Point: TS0065

Survey X: 450168.19, Survey Y: 3680128.5, Z1: 104.44, Z DEM: 104.5, Z LAS: 104.51, ΔZ DEM: 0.06, ΔZ LAS: 0.07



North



South



East



West

Point: TS0067

Survey X: 450174.68, Survey Y: 3680169.47, Z1: 106.03, Z DEM: 106.08, Z LAS: 106.09, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: TS0085

Survey X: 468353.88, Survey Y: 3655408.98, Z1: 99.91, Z DEM: 99.89, Z LAS: 99.89, ΔZ DEM: -0.02, ΔZ LAS: -0.02



North



South



East



West

Point: TS0086

Survey X: 468336.96, Survey Y: 3655404.04, Z1: 99.55, Z DEM: 99.51, Z LAS: 99.54, ΔZ DEM: -0.04, ΔZ LAS: -0.02



North



South



East



West

Point: TS0088

Survey X: 449889.71, Survey Y: 3664959.58, Z1: 80.23, Z DEM: 80.32, Z LAS: 80.32, ΔZ DEM: 0.09, ΔZ LAS: 0.08



North



South



East



West

Point: GS0040

Survey X: 377852.76, Survey Y: 3419504.28, Z1: 86.79, Z DEM: 86.91, Z LAS: 86.89, ΔZ DEM: 0.12, ΔZ LAS: 0.11



North



South



East



West

Point: GS0064

Survey X: 397609.27, Survey Y: 3402120.45, Z1: 9.51, Z DEM: 9.54, Z LAS: 9.55, ΔZ DEM: 0.04, ΔZ LAS: 0.04



North



South



East



West

Point: GS0065

Survey X: 397630.03, Survey Y: 3402123.72, Z1: 9.55, Z DEM: 9.64, Z LAS: 9.63, ΔZ DEM: 0.1, ΔZ LAS: 0.09



North



South



East



West

Point: GS0082

Survey X: 375693.07, Survey Y: 3458405.08, Z1: 78.21, Z DEM: 78.1, Z LAS: 78.1, ΔZ DEM: -0.12, ΔZ LAS: -0.11



North



South



East



West

Point: GS0084

Survey X: 381219.12, Survey Y: 3470395.26, Z1: 69.15, Z DEM: 69.14, Z LAS: 69.15, ΔZ DEM: -0.02, ΔZ LAS: 0



North



South



East



West

Point: GS0085

Survey X: 381245.41, Survey Y: 3470380.31, Z1: 69.48, Z DEM: 69.48, Z LAS: 69.48, ΔZ DEM: 0, ΔZ LAS: 0



North



South



East



West

Point: GS0111

Survey X: 380908.01, Survey Y: 3482392.63, Z1: 49.47, Z DEM: 49.52, Z LAS: 49.52, ΔZ DEM: 0.06, ΔZ LAS: 0.05



North



South



East



West

Point: GS0131

Survey X: 374365.58, Survey Y: 3517107.96, Z1: 50.86, Z DEM: 51.01, Z LAS: 51.03, ΔZ DEM: 0.14, ΔZ LAS: 0.17



North



South



East



West

Point: GS0132

Survey X: 374385.12, Survey Y: 3517108.72, Z1: 50.53, Z DEM: 50.73, Z LAS: 50.74, ΔZ DEM: 0.2, ΔZ LAS: 0.21



North



South



East



West

Point: GS0133

Survey X: 374405.39, Survey Y: 3517107.72, Z1: 50.26, Z DEM: 50.44, Z LAS: 50.44, ΔZ DEM: 0.18, ΔZ LAS: 0.19



North



South



East



West

Point: GS0162

Survey X: 381172.44, Survey Y: 3555512.79, Z1: 63.19, Z DEM: 63.37, Z LAS: 63.39, ΔZ DEM: 0.18, ΔZ LAS: 0.2



North



South



East



West

Point: TS0003

Survey X: 491505.52, Survey Y: 3682229.17, Z1: 180.71, Z DEM: 180.6, Z LAS: 180.58, ΔZ DEM: -0.12, ΔZ LAS: -0.14



North



South



East



West

Point: TS0006

Survey X: 458338.89, Survey Y: 3672400.66, Z1: 93.99, Z DEM: 94.02, Z LAS: 94.02, ΔZ DEM: 0.03, ΔZ LAS: 0.03



North



South



East



West

Point: TS0007

Survey X: 458359.94, Survey Y: 3672397.17, Z1: 93.3, Z DEM: 93.34, Z LAS: 93.32, ΔZ DEM: 0.04, ΔZ LAS: 0.02



North



South



East



West

Point: TS0029

Survey X: 432857.43, Survey Y: 3702296.98, Z1: 135.54, Z DEM: 135.62, Z LAS: 135.65, ΔZ DEM: 0.08, ΔZ LAS: 0.11



North



South



East



West

Point: TS0053

Survey X: 472249.88, Survey Y: 3685271.8, Z1: 215.34, Z DEM: 215.47, Z LAS: 215.51, ΔZ DEM: 0.13, ΔZ LAS: 0.17



North



South



East



West

Point: TS0068

Survey X: 443446.82, Survey Y: 3677785.54, Z1: 52.24, Z DEM: 52.31, Z LAS: 52.31, ΔZ DEM: 0.08, ΔZ LAS: 0.08



North



South



East



West

Point: TS0073

Survey X: 427480.84, Survey Y: 3682523.45, Z1: 78.74, Z DEM: 78.85, Z LAS: 78.83, ΔZ DEM: 0.11, ΔZ LAS: 0.08



North



South



East



West

Point: TS0080

Survey X: 444561.06, Survey Y: 3669079.75, Z1: 40.34, Z DEM: 40.5, Z LAS: 40.47, ΔZ DEM: 0.16, ΔZ LAS: 0.13



North



South



East



West

Point: TS0083

Survey X: 469417.1, Survey Y: 3671380.69, Z1: 151.47, Z DEM: 151.49, Z LAS: 151.48, ΔZ DEM: 0.02, ΔZ LAS: 0.01



North



South



East



West

Point: TS0084

Survey X: 469403.7, Survey Y: 3671356.24, Z1: 154.32, Z DEM: 154.29, Z LAS: 154.34, ΔZ DEM: -0.03, ΔZ LAS: 0.03



North



South



East



West

Point: GS0031

Survey X: 373304.45, Survey Y: 3390976.02, Z1: 45.36, Z DEM: 45.52, Z LAS: 45.55, ΔZ DEM: 0.15, ΔZ LAS: 0.19



North



South



East



West

Point: GS0055

Survey X: 397596.66, Survey Y: 3410927.76, Z1: 4.81, Z DEM: 4.85, Z LAS: 4.86, ΔZ DEM: 0.04, ΔZ LAS: 0.04



North



South



East



West

Point: GS0060

Survey X: 392384.11, Survey Y: 3408057.73, Z1: 29.67, Z DEM: 29.73, Z LAS: 29.71, ΔZ DEM: 0.05, ΔZ LAS: 0.04



North



South



East



West

Point: GS0061

Survey X: 392385.88, Survey Y: 3408036.3, Z1: 29.56, Z DEM: 29.59, Z LAS: 29.61, ΔZ DEM: 0.03, ΔZ LAS: 0.05



North



South



East



West

Point: GS0073

Survey X: 382131.31, Survey Y: 3438176.77, Z1: 99.08, Z DEM: 99, Z LAS: 99, ΔZ DEM: -0.08, ΔZ LAS: -0.07



North



South



East



West

Point: GS0074

Survey X: 382129.82, Survey Y: 3438141.21, Z1: 99.22, Z DEM: 99.1, Z LAS: 99.12, ΔZ DEM: -0.12, ΔZ LAS: -0.1



North



South



East



West

Point: GS0075

Survey X: 382129.28, Survey Y: 3438104.67, Z1: 99.44, Z DEM: 99.31, Z LAS: 99.31, ΔZ DEM: -0.13, ΔZ LAS: -0.13



North



South



East



West

Point: GS0122

Survey X: 375413.91, Survey Y: 3500637.84, Z1: 35.23, Z DEM: 35.12, Z LAS: 35.13, ΔZ DEM: -0.11, ΔZ LAS: -0.1



North



South



East



West

Point: GS0124

Survey X: 368555.84, Survey Y: 3500450.01, Z1: 87.81, Z DEM: 87.73, Z LAS: 87.71, ΔZ DEM: -0.09, ΔZ LAS: -0.1



North



South



East



West

Point: GS0125

Survey X: 368555.47, Survey Y: 3500433.45, Z1: 87.44, Z DEM: 87.33, Z LAS: 87.33, ΔZ DEM: -0.11, ΔZ LAS: -0.11



North



South



East



West

Point: GS0126

Survey X: 368554.66, Survey Y: 3500413.99, Z1: 86.47, Z DEM: 86.57, Z LAS: 86.58, ΔZ DEM: 0.1, ΔZ LAS: 0.11



North



South



East



West

Point: GS0135

Survey X: 374959.55, Survey Y: 3527644.46, Z1: 38.47, Z DEM: 38.6, Z LAS: 38.59, ΔZ DEM: 0.13, ΔZ LAS: 0.12



North



South



East



West

Point: GS0143

Survey X: 399913.09, Survey Y: 3489909.23, Z1: 70.64, Z DEM: 70.55, Z LAS: 70.54, ΔZ DEM: -0.09, ΔZ LAS: -0.1



North



South



East



West

Point: GS0155

Survey X: 377873.42, Survey Y: 3559987.04, Z1: 49.84, Z DEM: 49.89, Z LAS: 49.9, ΔZ DEM: 0.05, ΔZ LAS: 0.06



North



South



East



West

Point: GS0156

Survey X: 377868.69, Survey Y: 3560007.32, Z1: 50.09, Z DEM: 50.13, Z LAS: 50.13, ΔZ DEM: 0.04, ΔZ LAS: 0.04



North



South



East



West

Point: GS0157

Survey X: 377875.28, Survey Y: 3560026.74, Z1: 50.31, Z DEM: 50.38, Z LAS: 50.38, ΔZ DEM: 0.06, ΔZ LAS: 0.06



North



South



East



West

Point: GS0165

Survey X: 384728.26, Survey Y: 3550960.63, Z1: 52.16, Z DEM: 52.31, Z LAS: 52.31, ΔZ DEM: 0.14, ΔZ LAS: 0.15



North



South



East



West

Point: GS0166

Survey X: 384664.45, Survey Y: 3550957.96, Z1: 51.07, Z DEM: 51.22, Z LAS: 51.24, ΔZ DEM: 0.15, ΔZ LAS: 0.18



North



South



East



West

Point: GS0167

Survey X: 384665.74, Survey Y: 3551024.88, Z1: 53.1, Z DEM: 53.34, Z LAS: 53.37, ΔZ DEM: 0.24, ΔZ LAS: 0.27



North



South



East



West

Point: TS0002

Survey X: 491498.33, Survey Y: 3682246.36, Z1: 181.11, Z DEM: 181.03, Z LAS: 181.03, ΔZ DEM: -0.08, ΔZ LAS: -0.08



North



South



East



West

Point: TS0004

Survey X: 476688.21, Survey Y: 3672837.69, Z1: 164.71, Z DEM: 164.75, Z LAS: 164.74, ΔZ DEM: 0.04, ΔZ LAS: 0.04



North



South



East



West

Point: TS0005

Survey X: 476659.47, Survey Y: 3672816.08, Z1: 164.98, Z DEM: 165.02, Z LAS: 165.03, ΔZ DEM: 0.04, ΔZ LAS: 0.05



North



South



East



West

Point: TS0008

Survey X: 453096.99, Survey Y: 3674395.6, Z1: 98.38, Z DEM: 98.41, Z LAS: 98.41, ΔZ DEM: 0.04, ΔZ LAS: 0.04



North



South



East



West

Point: TS0009

Survey X: 453093.34, Survey Y: 3674375.54, Z1: 99, Z DEM: 99.05, Z LAS: 99.05, ΔZ DEM: 0.05, ΔZ LAS: 0.04



North



South



East



West

Point: TS0012

Survey X: 445852.29, Survey Y: 3676612.56, Z1: 67.85, Z DEM: 67.96, Z LAS: 67.96, ΔZ DEM: 0.11, ΔZ LAS: 0.12



North



South



East



West

Point: TS0013

Survey X: 445841.9, Survey Y: 3676634.63, Z1: 68.02, Z DEM: 68.13, Z LAS: 68.13, ΔZ DEM: 0.11, ΔZ LAS: 0.11



North



South



East



West

Point: TS0014

Survey X: 451072, Survey Y: 3668154.3, Z1: 85.17, Z DEM: 85.2, Z LAS: 85.19, ΔZ DEM: 0.03, ΔZ LAS: 0.02



North



South



East



West

Point: TS0015

Survey X: 451069.37, Survey Y: 3668180.2, Z1: 85.15, Z DEM: 85.16, Z LAS: 85.17, ΔZ DEM: 0.01, ΔZ LAS: 0.02



North



South



East



West

Point: TS0037

Survey X: 443898.73, Survey Y: 3704408.59, Z1: 112.29, Z DEM: 112.29, Z LAS: 112.3, ΔZ DEM: 0, ΔZ LAS: 0.01



North



South



East



West

Point: TS0039

Survey X: 453753.64, Survey Y: 3705449.66, Z1: 127.76, Z DEM: 127.77, Z LAS: 127.77, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: TS0048

Survey X: 446350.16, Survey Y: 3686677.43, Z1: 109.36, Z DEM: 109.42, Z LAS: 109.43, ΔZ DEM: 0.06, ΔZ LAS: 0.07



North



South



East



West

Point: TS0056

Survey X: 469508.47, Survey Y: 3691834.83, Z1: 196.04, Z DEM: 196.04, Z LAS: 196.05, ΔZ DEM: 0.01, ΔZ LAS: 0.01



North



South



East



West

Point: TS0078

Survey X: 435922.12, Survey Y: 3661973.74, Z1: 45.58, Z DEM: 45.63, Z LAS: 45.64, ΔZ DEM: 0.04, ΔZ LAS: 0.05



North



South



East



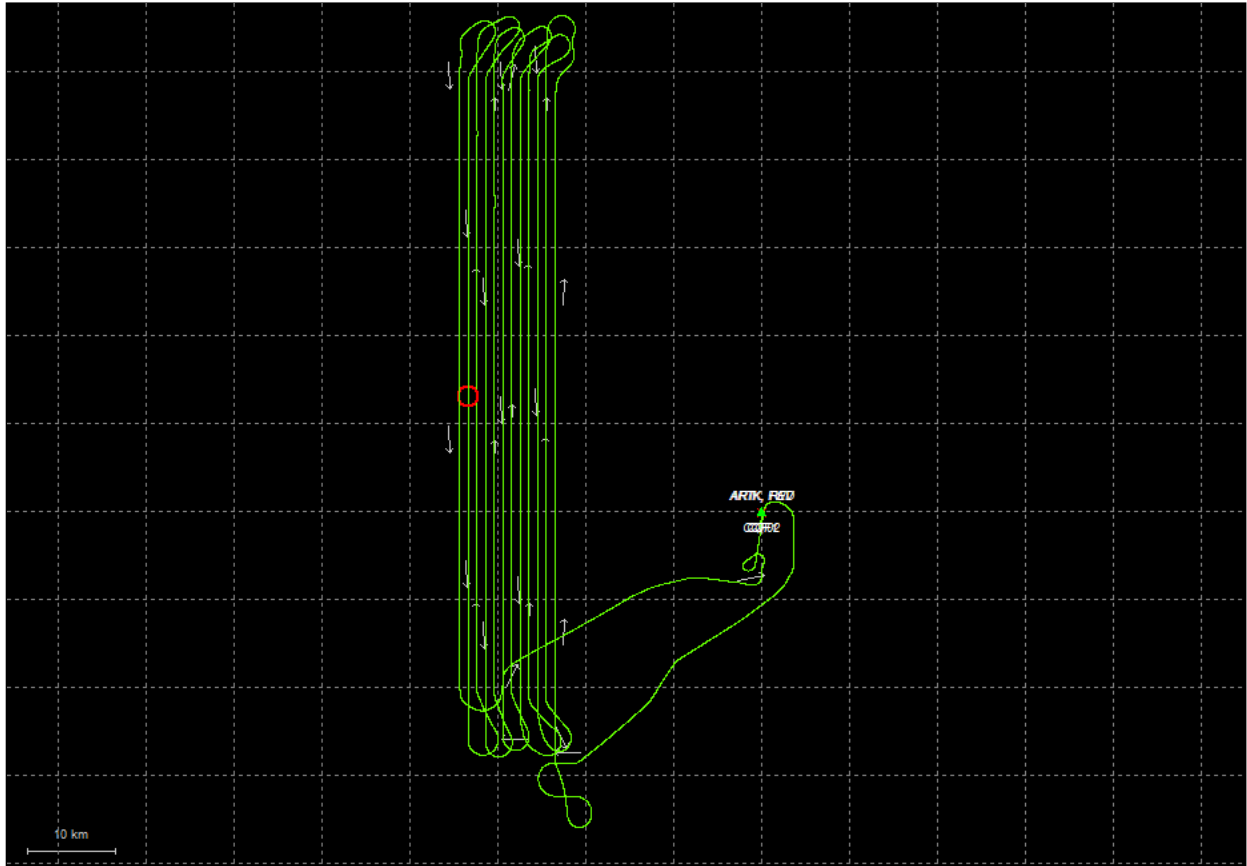
West

Appendix D. Inertial Explorer

Output Results for 20230109165159_1

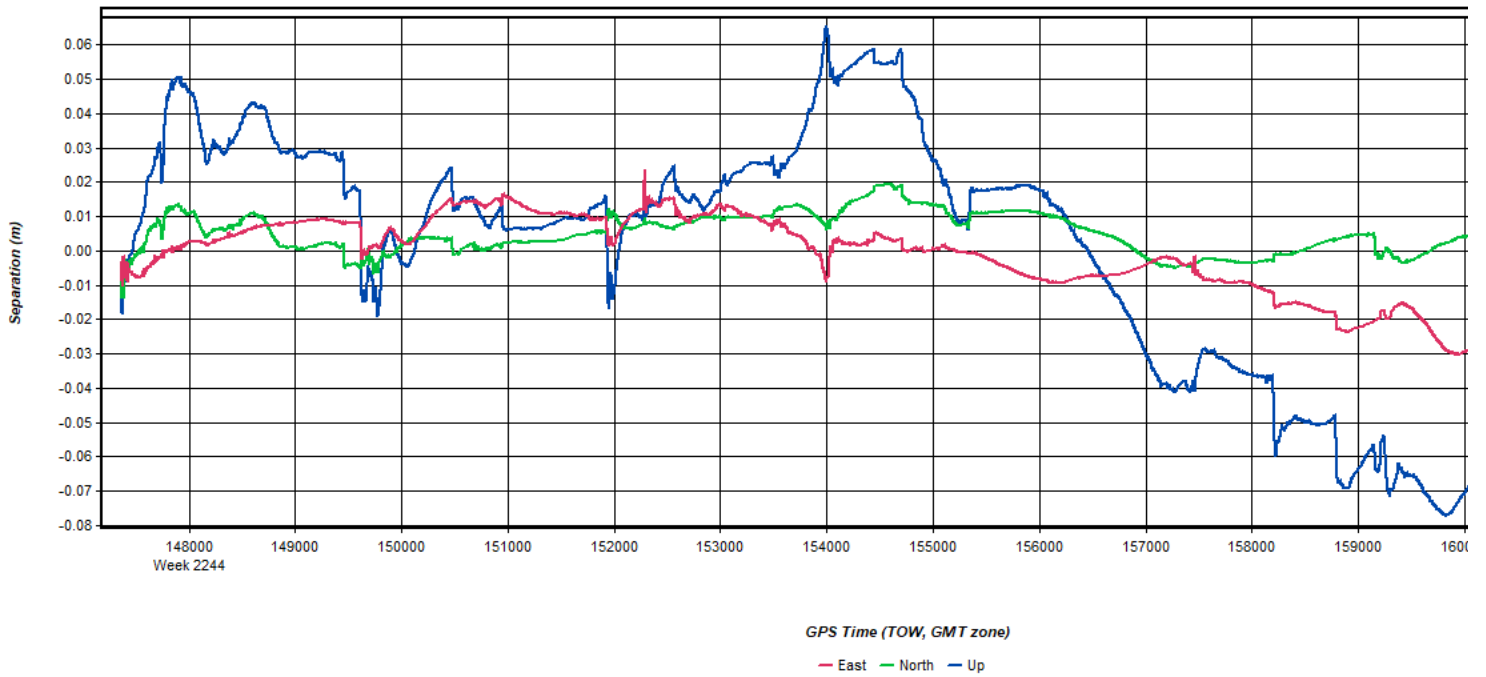
Inertial Explorer Version 8.90.6611
01/16/2023

Figure 1: Smoothed TC Combined - Map



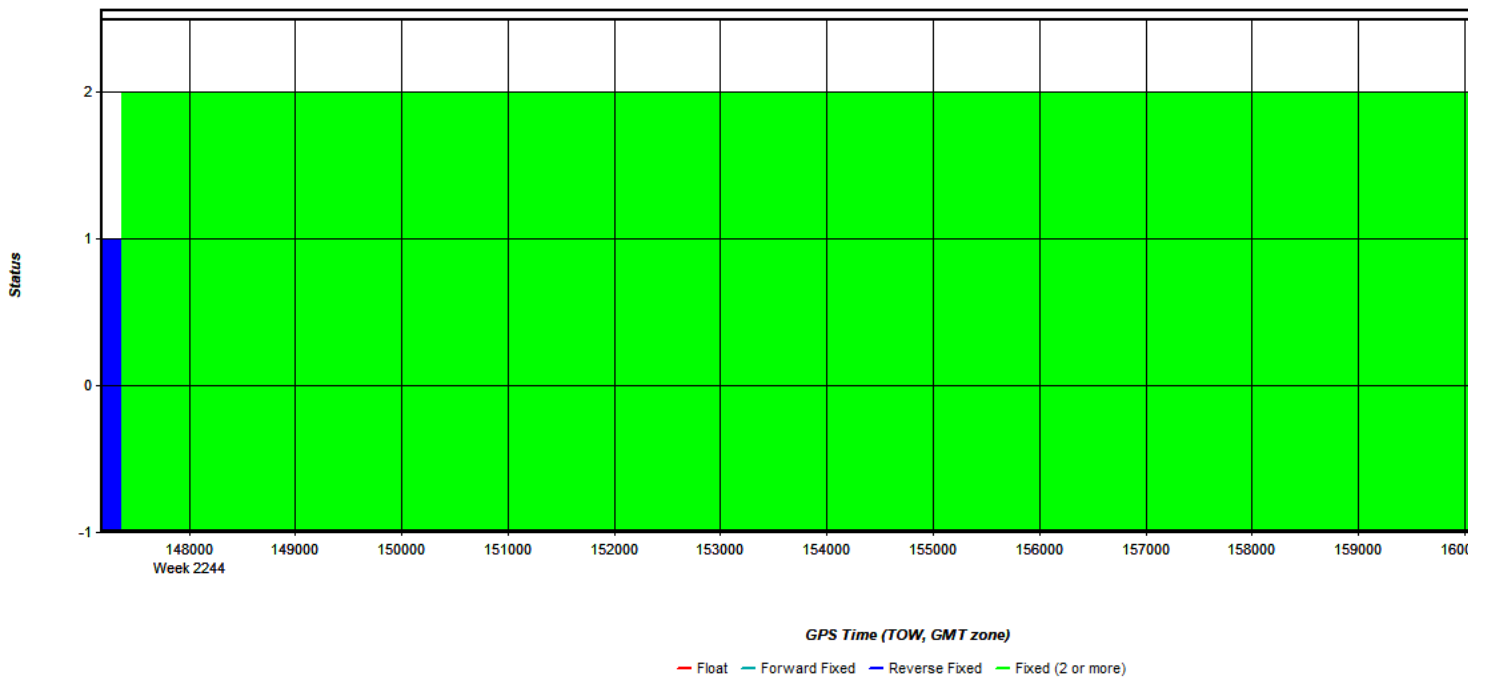
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 2: 20230109165159_1 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



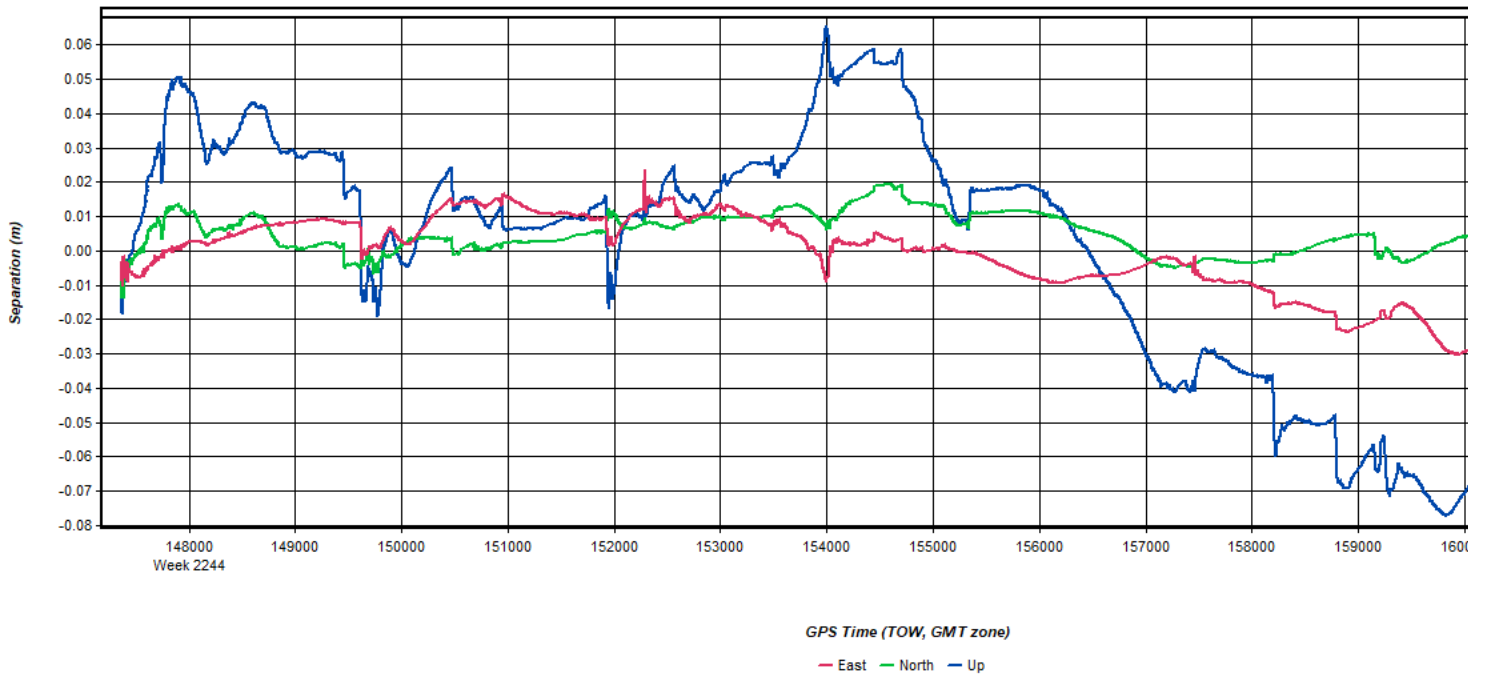
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 3: 20230109165159_1 [Smoothed TC Combined] - Float or Fixed Ambiguity



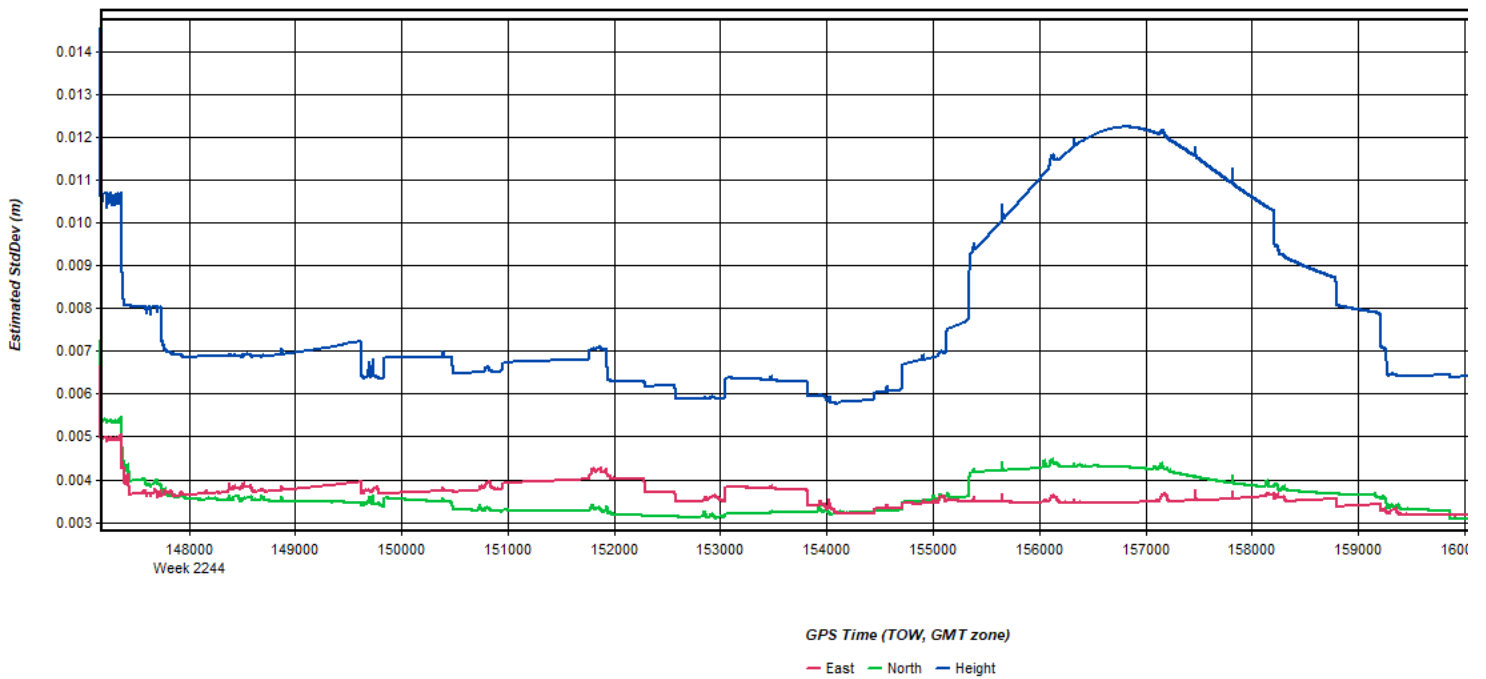
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 4: 20230109165159_1 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 5: 20230109165159_1 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 6: 20230109165159_1 [Smoothed TC Combined] - PDOP Plot

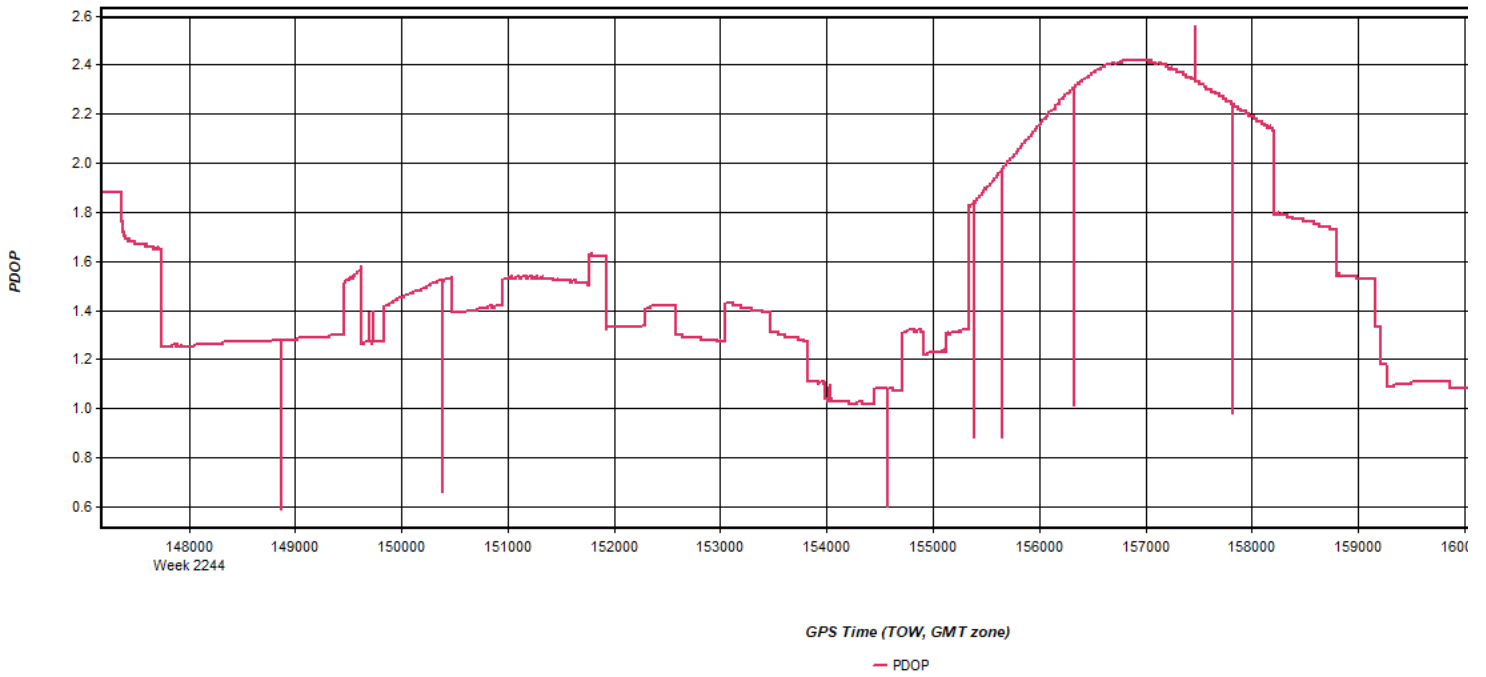


Figure 7: 20230109165159_1 [Smoothed TC Combined] - Number of Satellites Line Plot

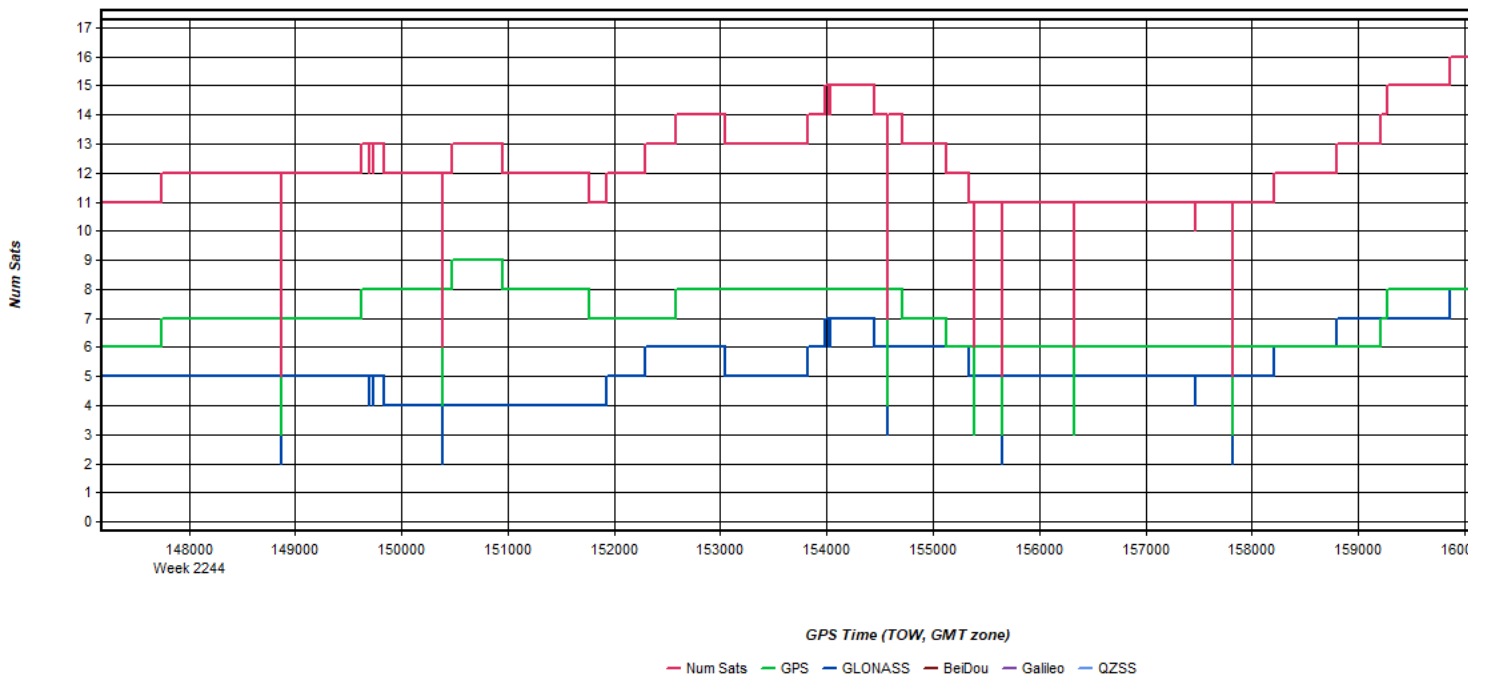


Figure 8: 20230109165159_1 [Smoothed TC Combined] - Status flag for IMU processing

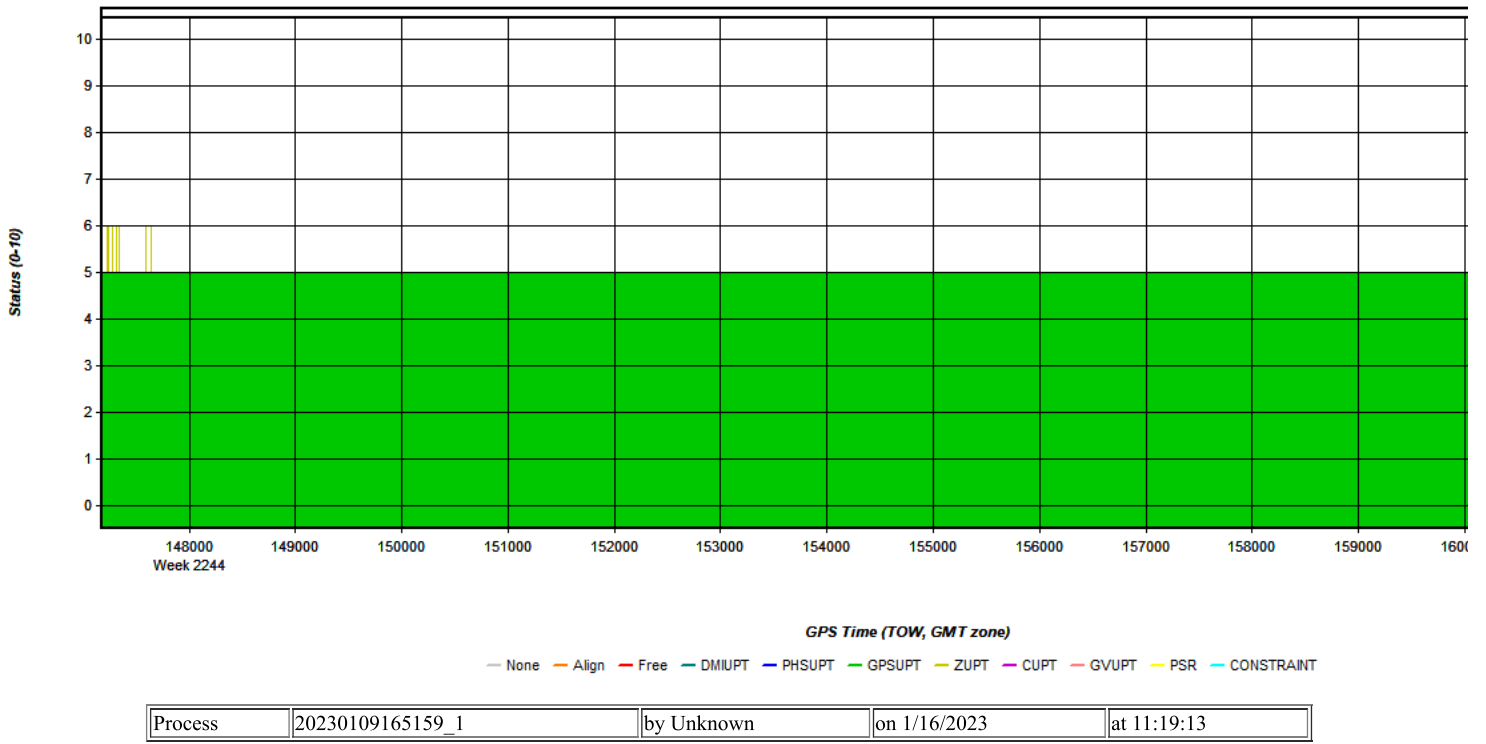


Figure 9: 20230109165159_1 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

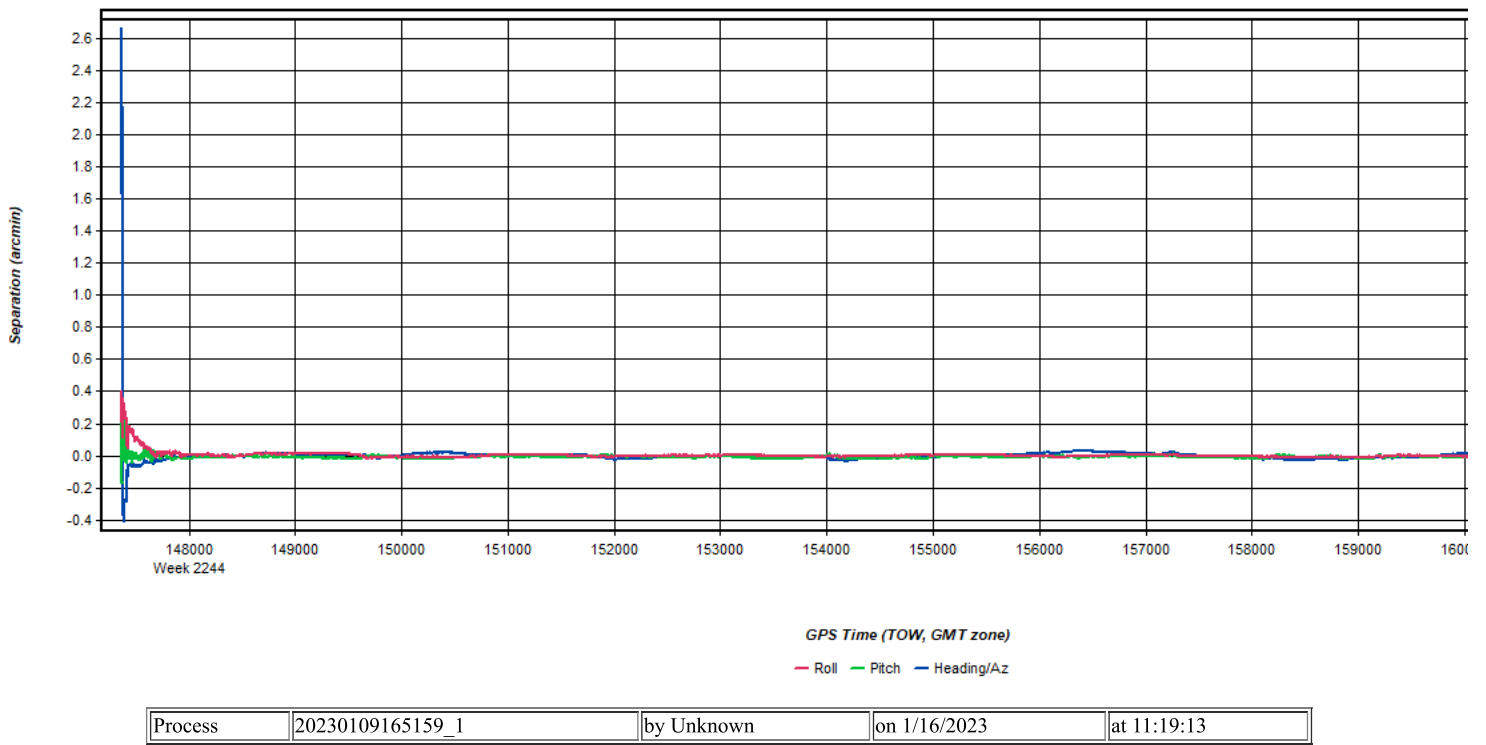
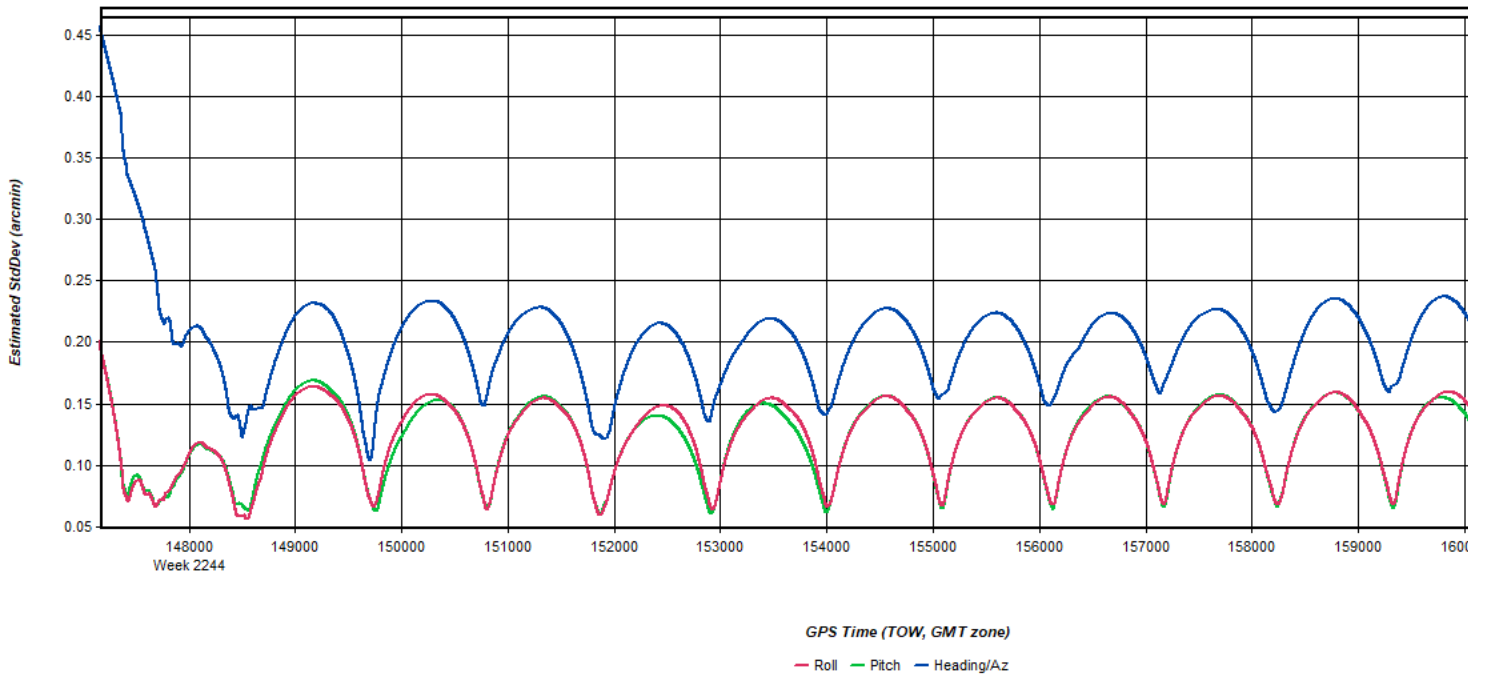
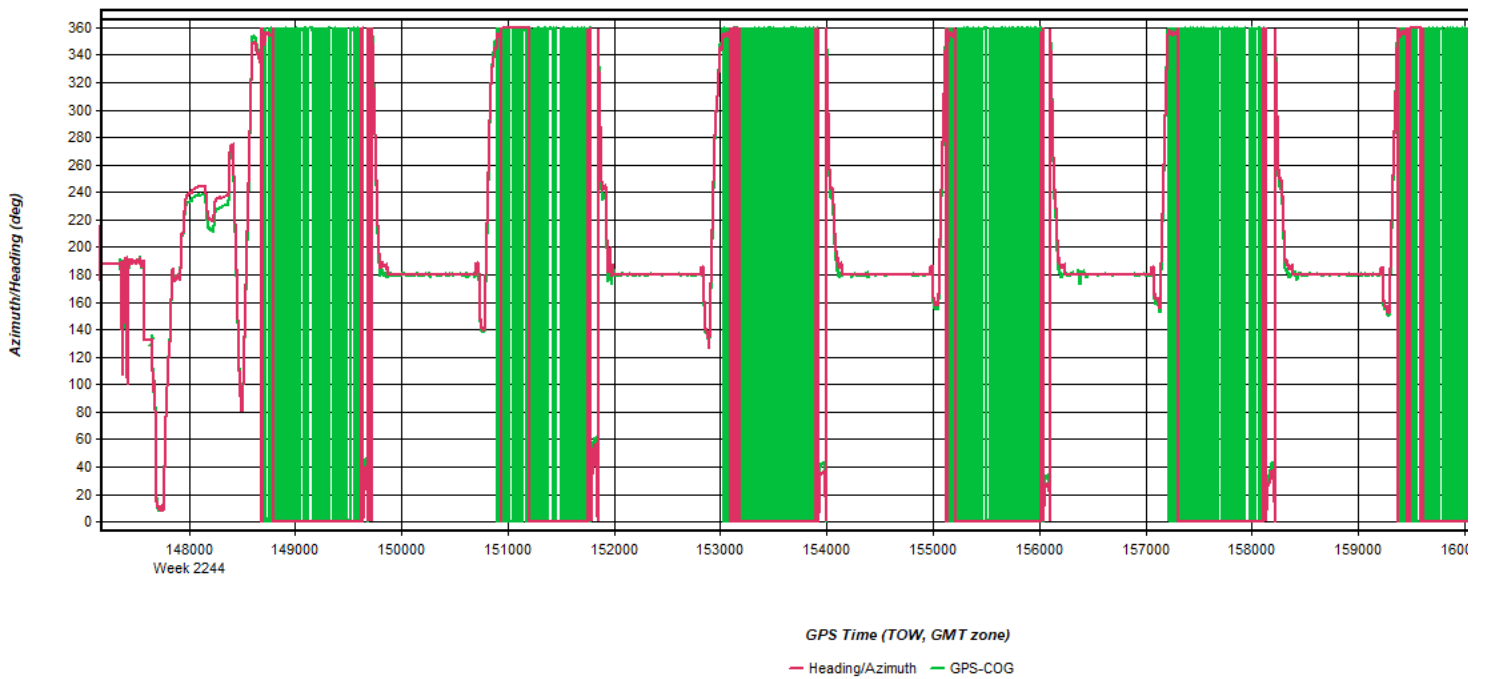


Figure 10: 20230109165159_1 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



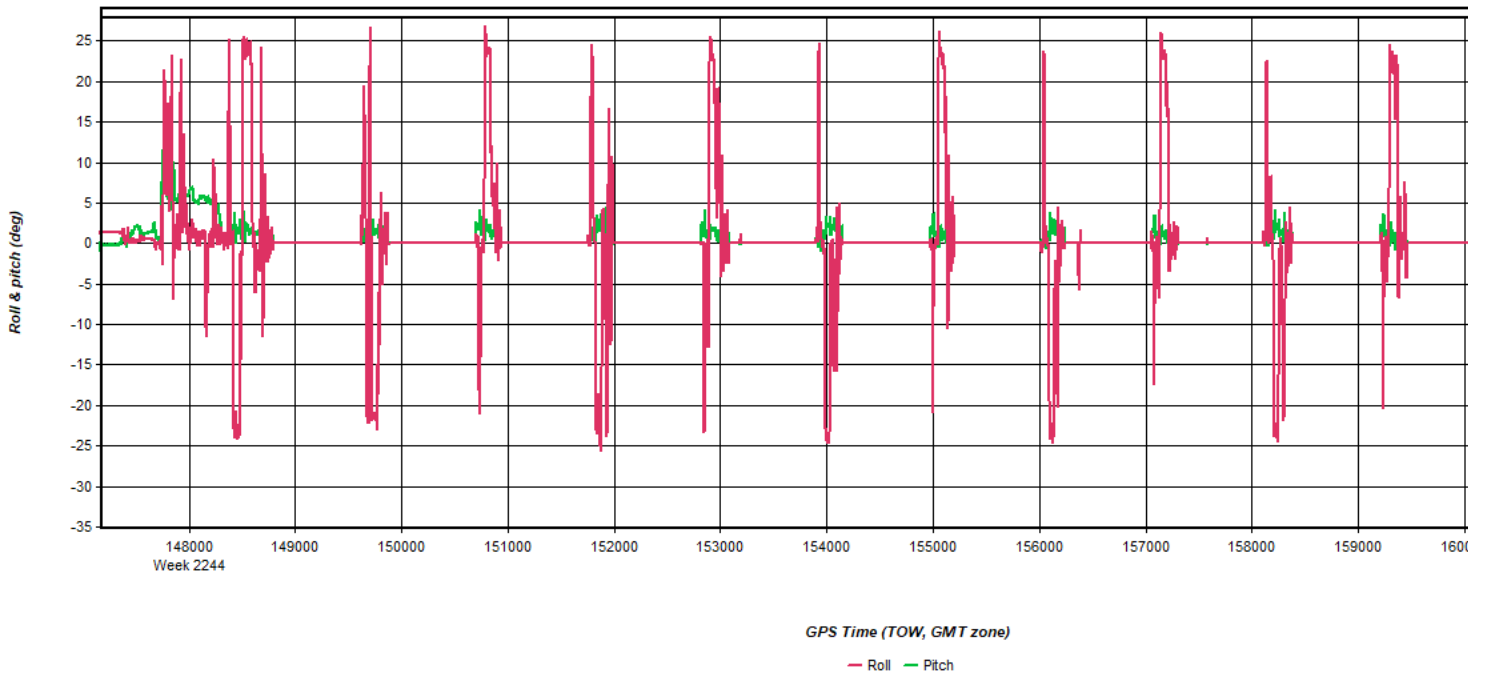
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 11: 20230109165159_1 [Smoothed TC Combined] - Azimuth Plot



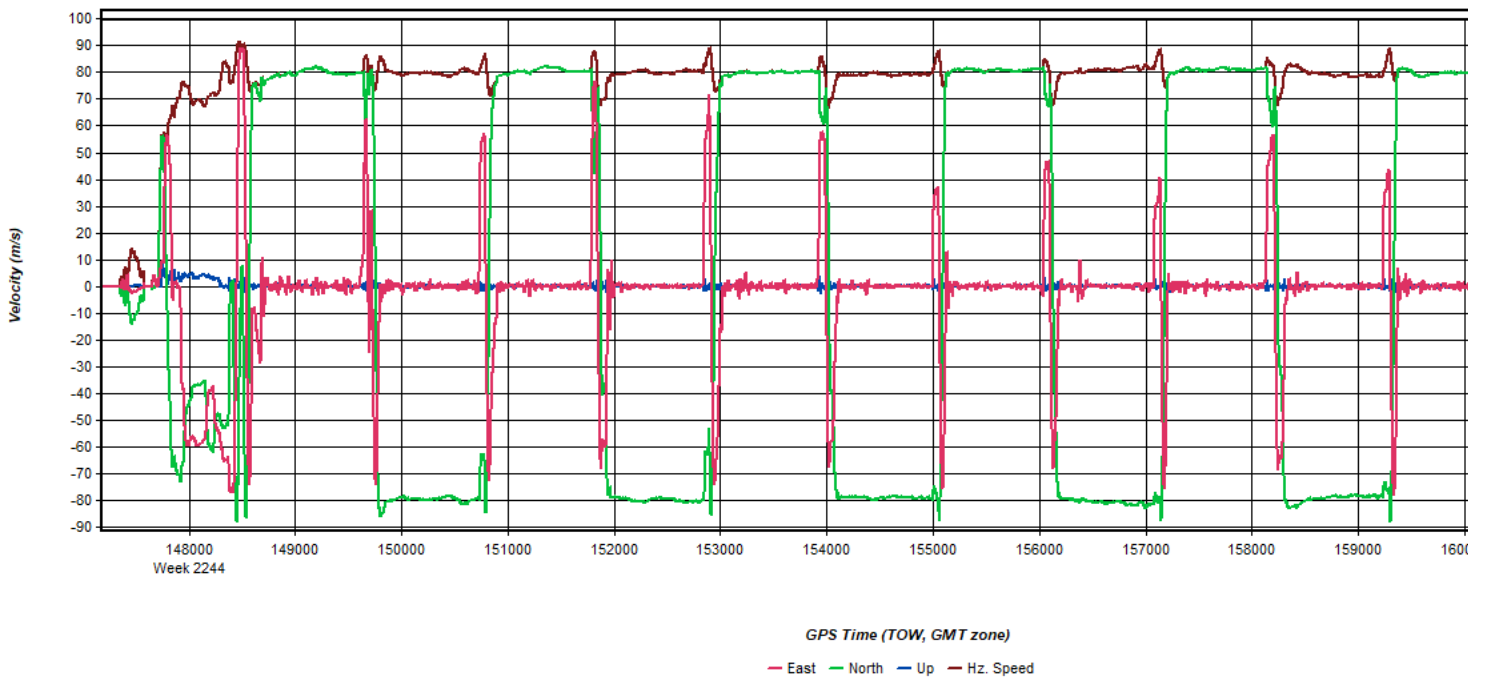
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 12: 20230109165159_1 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 13: 20230109165159_1 [Smoothed TC Combined] - Velocity Profile Plot



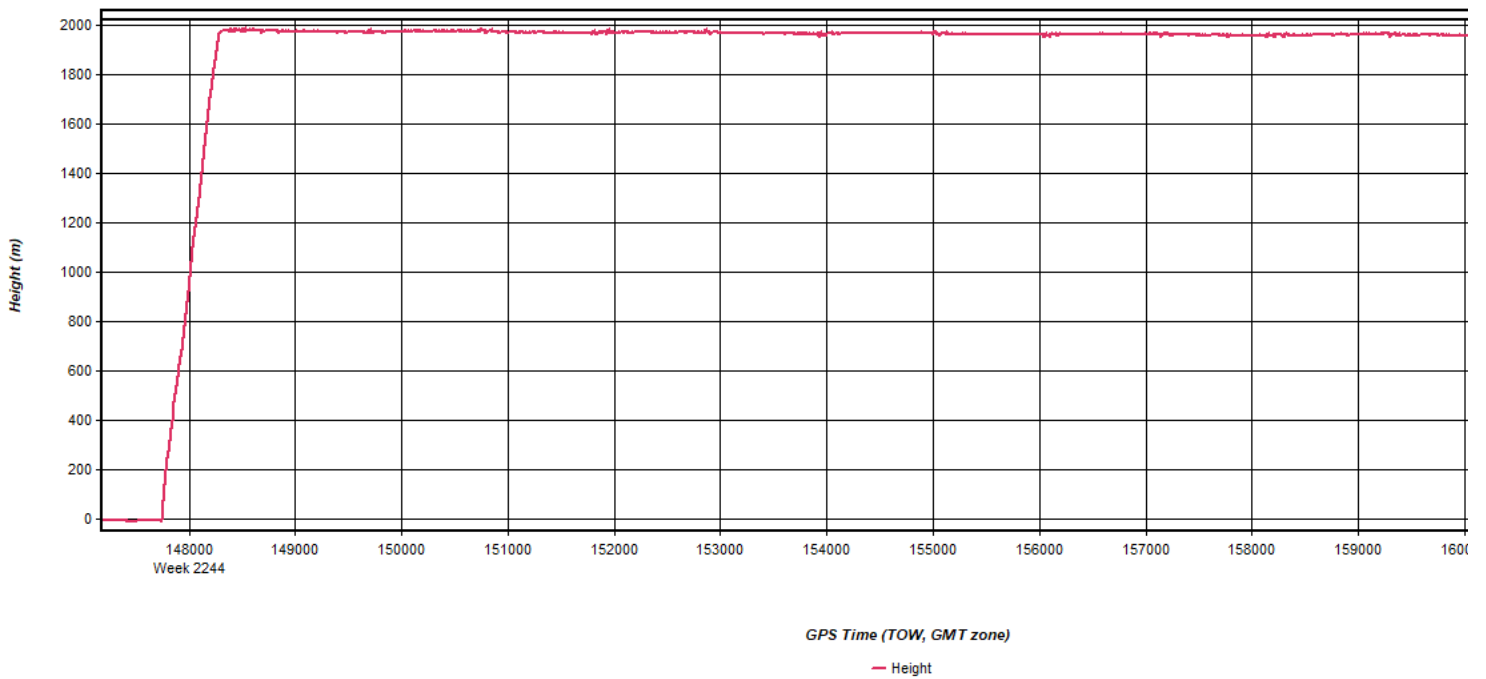
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 14: 20230109165159_1 [Smoothed TC Combined] - Body Frame Velocity Plot



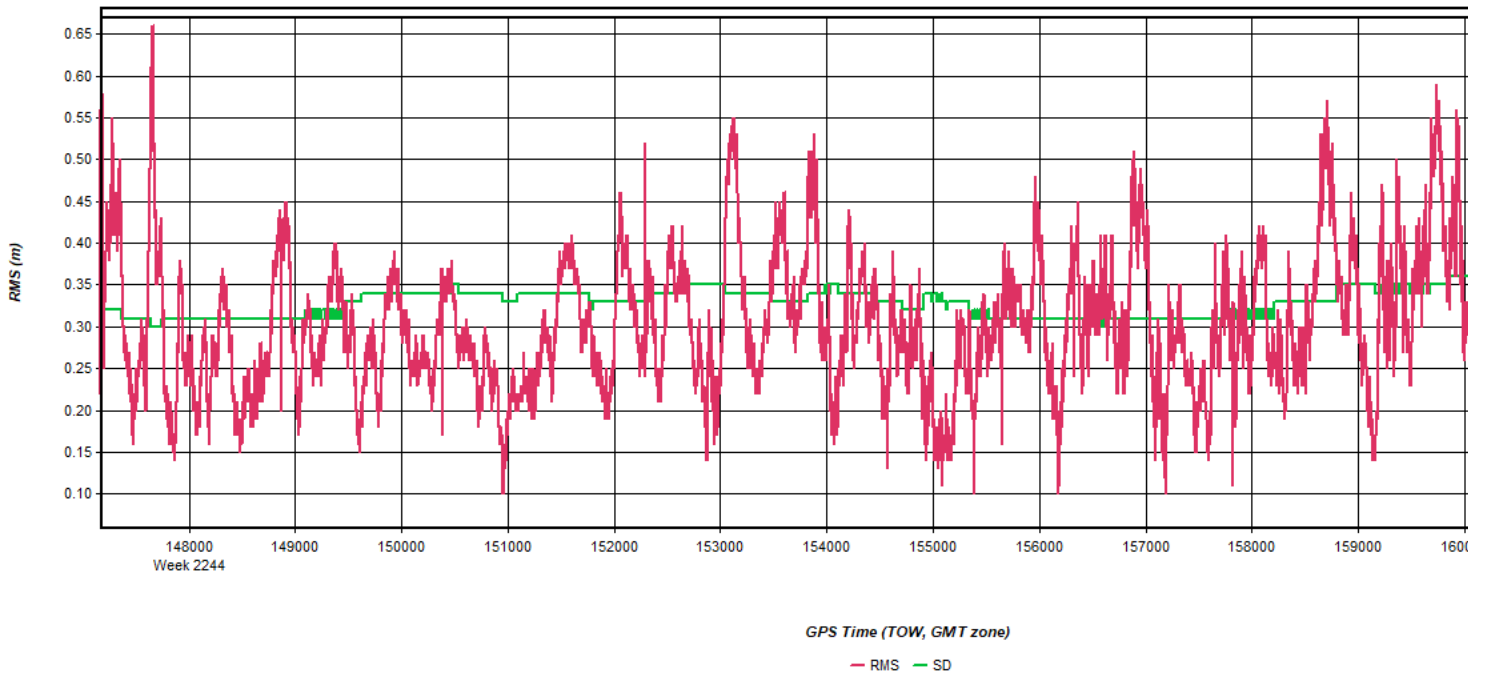
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 15: 20230109165159_1 [Smoothed TC Combined] - Height Profile Plot



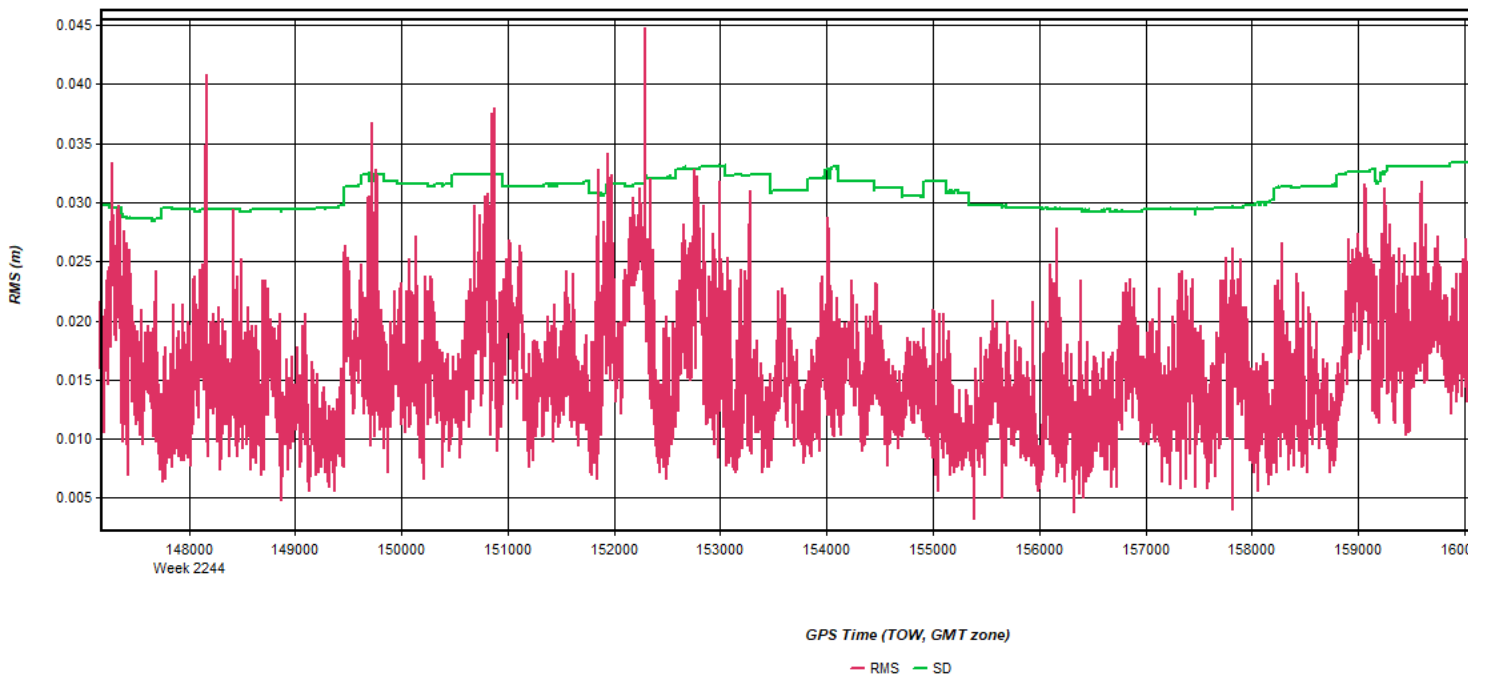
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 16: 20230109165159_1 [Smoothed TC Combined] - C/A Code Residual RMS Plot



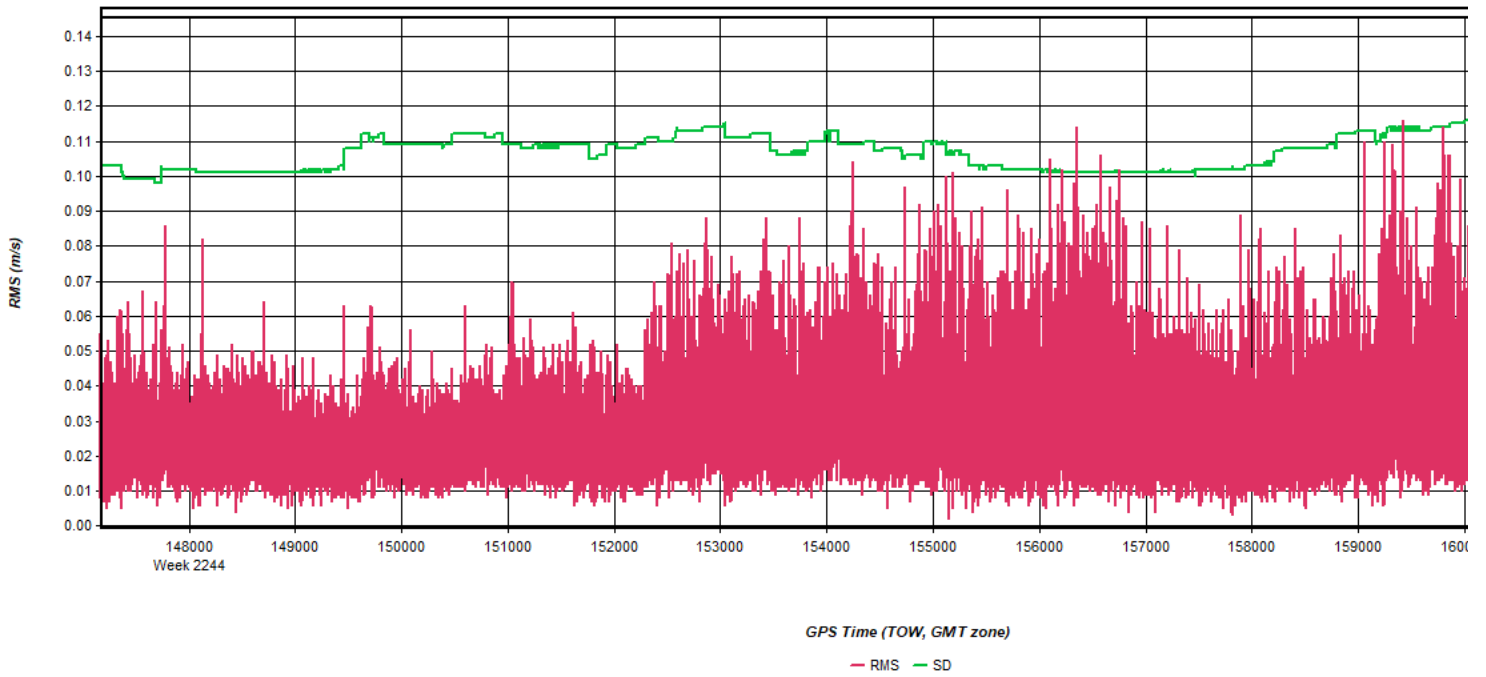
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 17: 20230109165159_1 [Smoothed TC Combined] - Carrier Residual RMS Plot



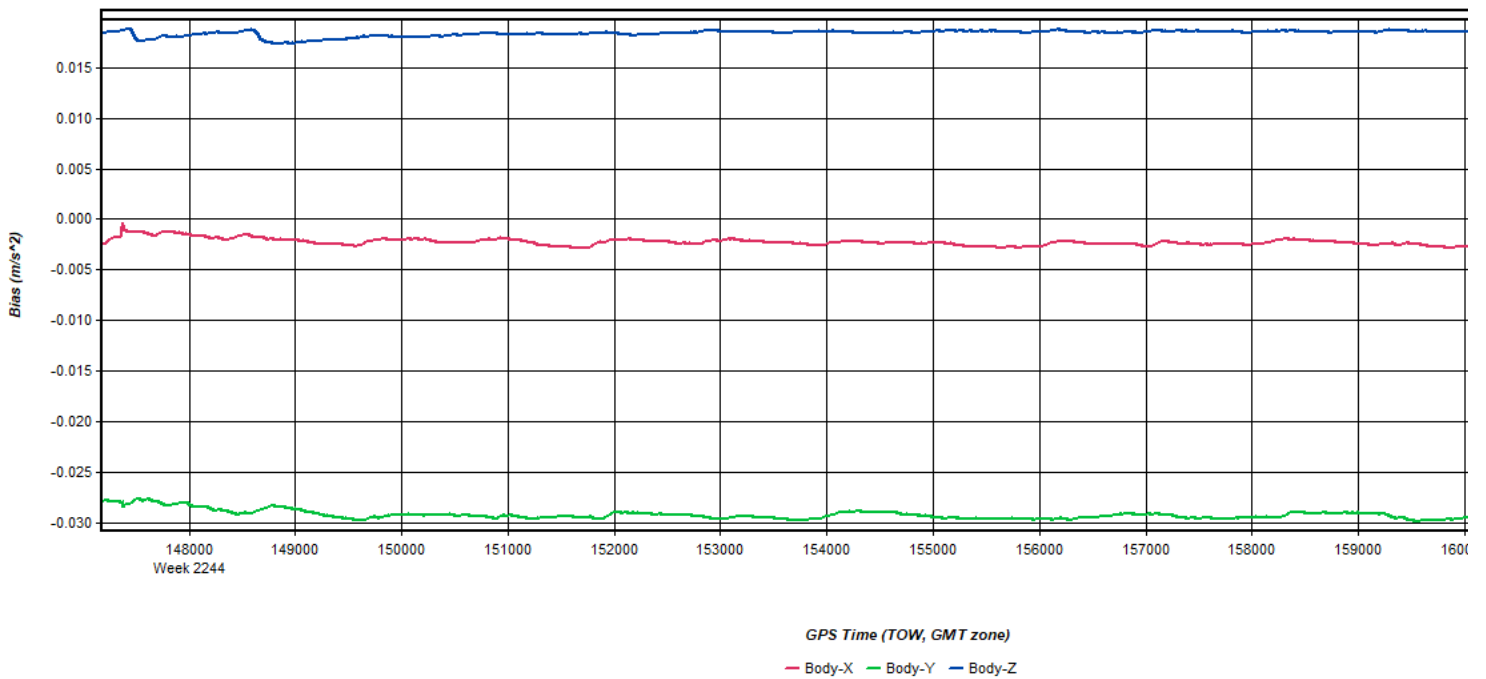
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 18: 20230109165159_1 [Smoothed TC Combined] - Doppler Residual RMS Plot



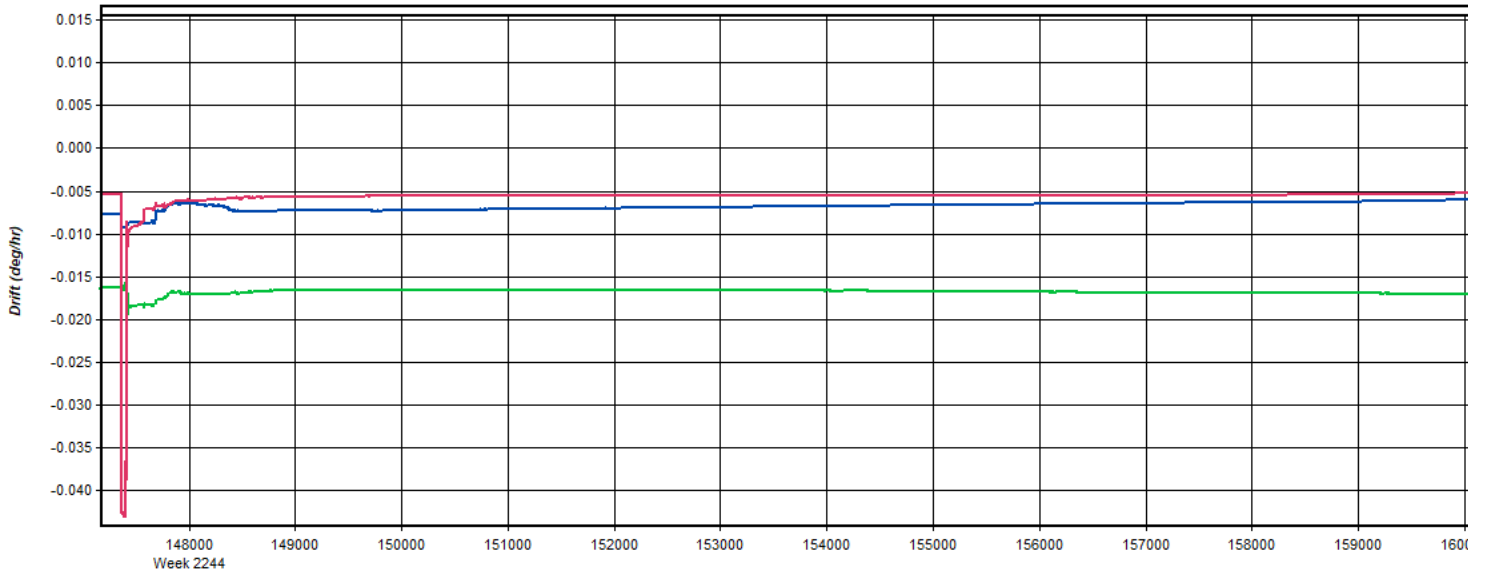
Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 19: 20230109165159_1 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Figure 20: 20230109165159_1 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

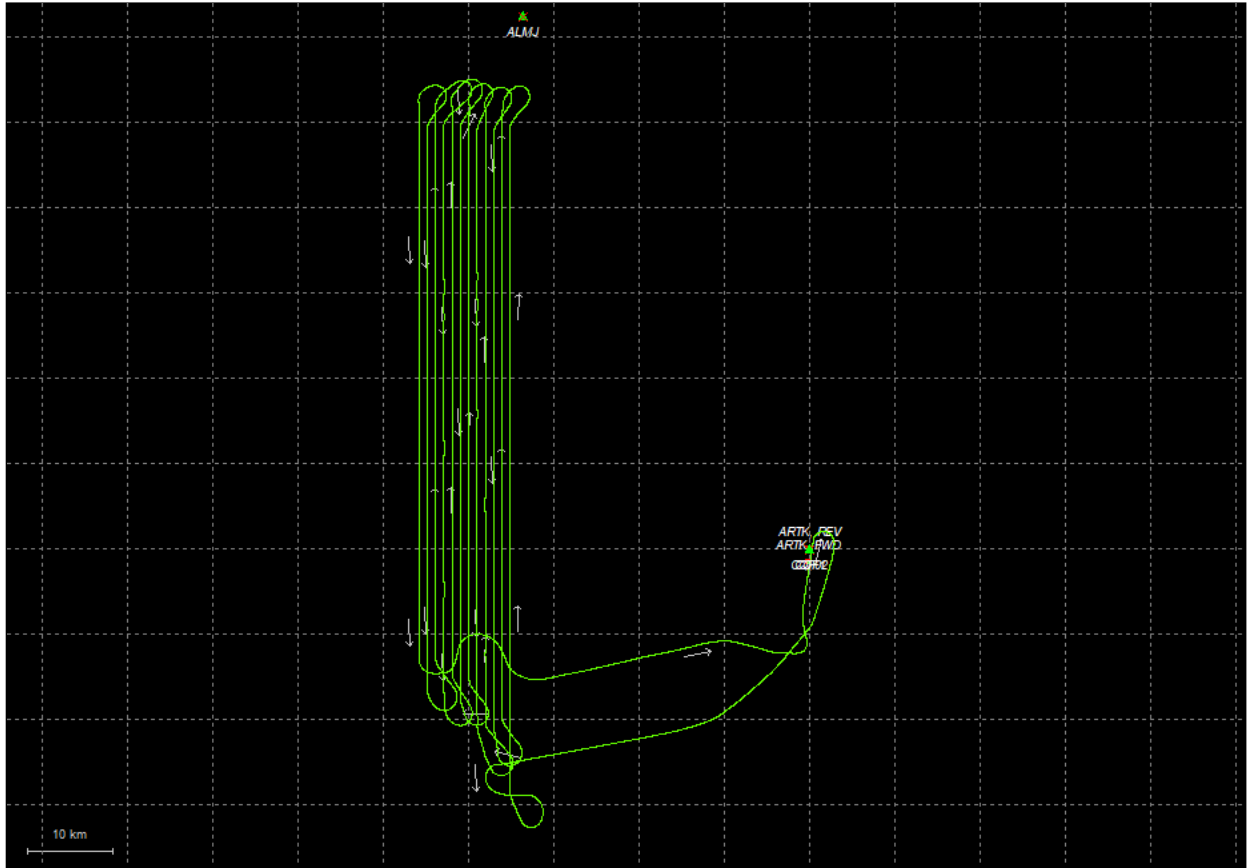
— Body-X — Body-Y — Body-Z

Process	20230109165159_1	by Unknown	on 1/16/2023	at 11:19:13
---------	------------------	------------	--------------	-------------

Output Results for 20230109223310_2

Inertial Explorer Version 8.90.2124
01/13/2023

Figure 1: Smoothed TC Combined - Map



Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 2: 20230109223310_2 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot

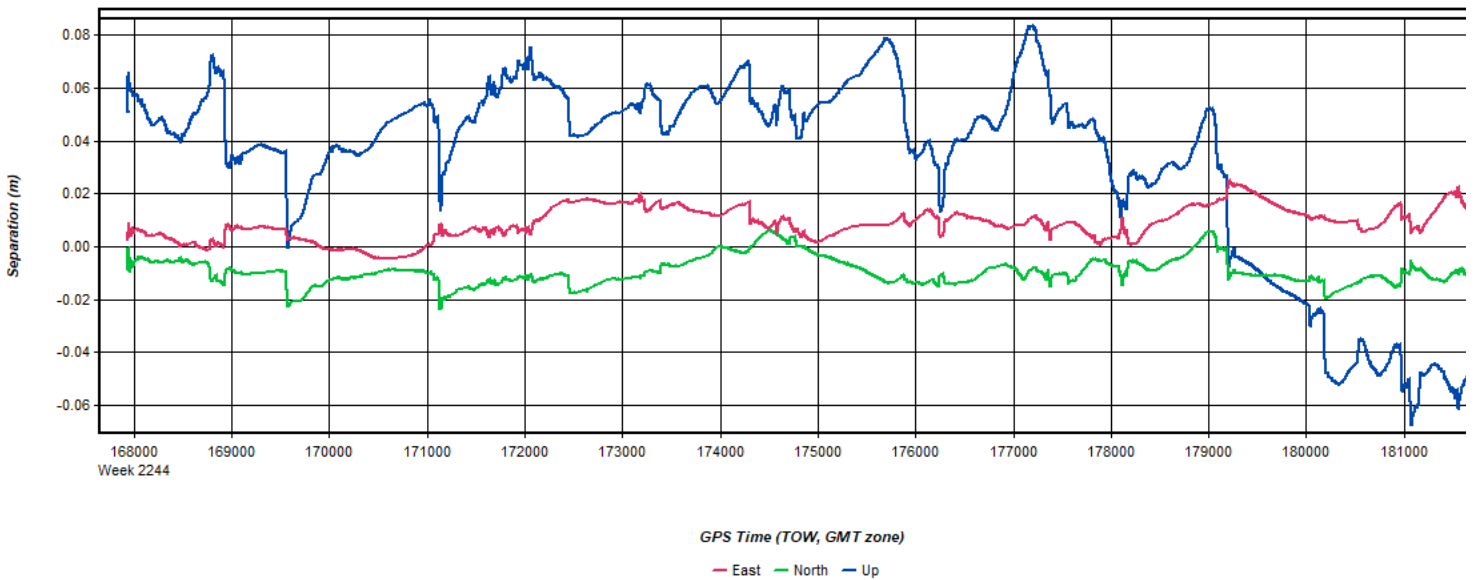


Figure 3: 20230109223310_2 [Smoothed TC Combined] - Float or Fixed Ambiguity

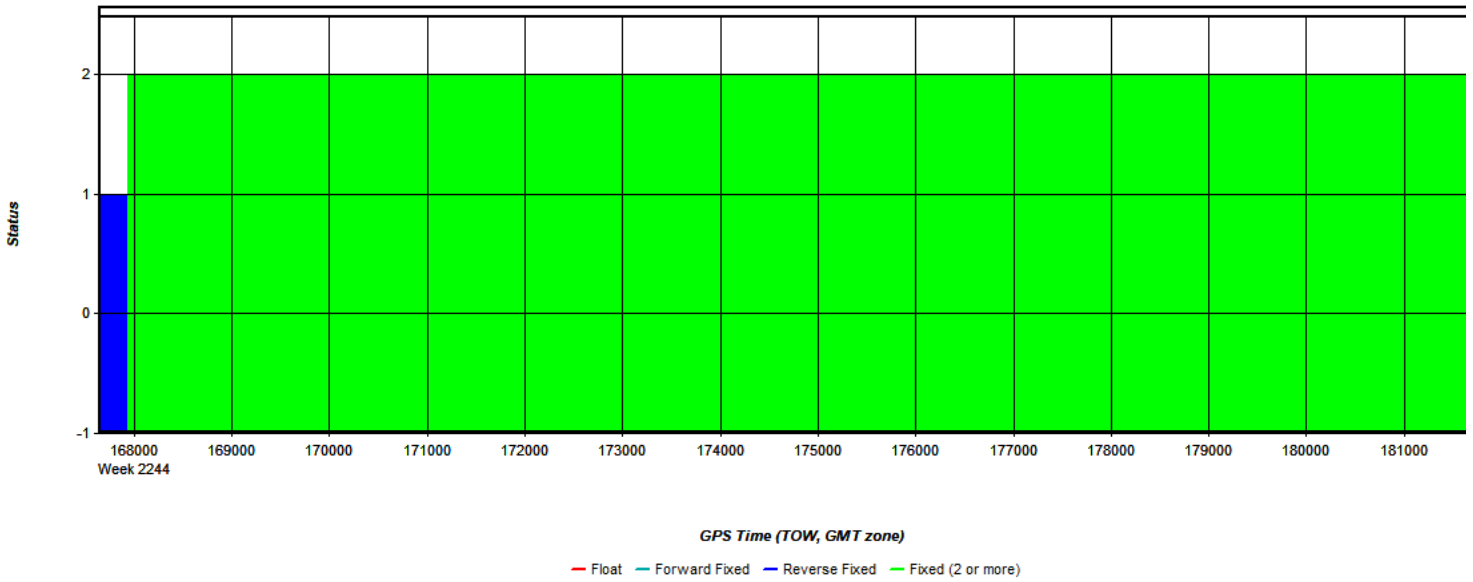


Figure 4: 20230109223310_2 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

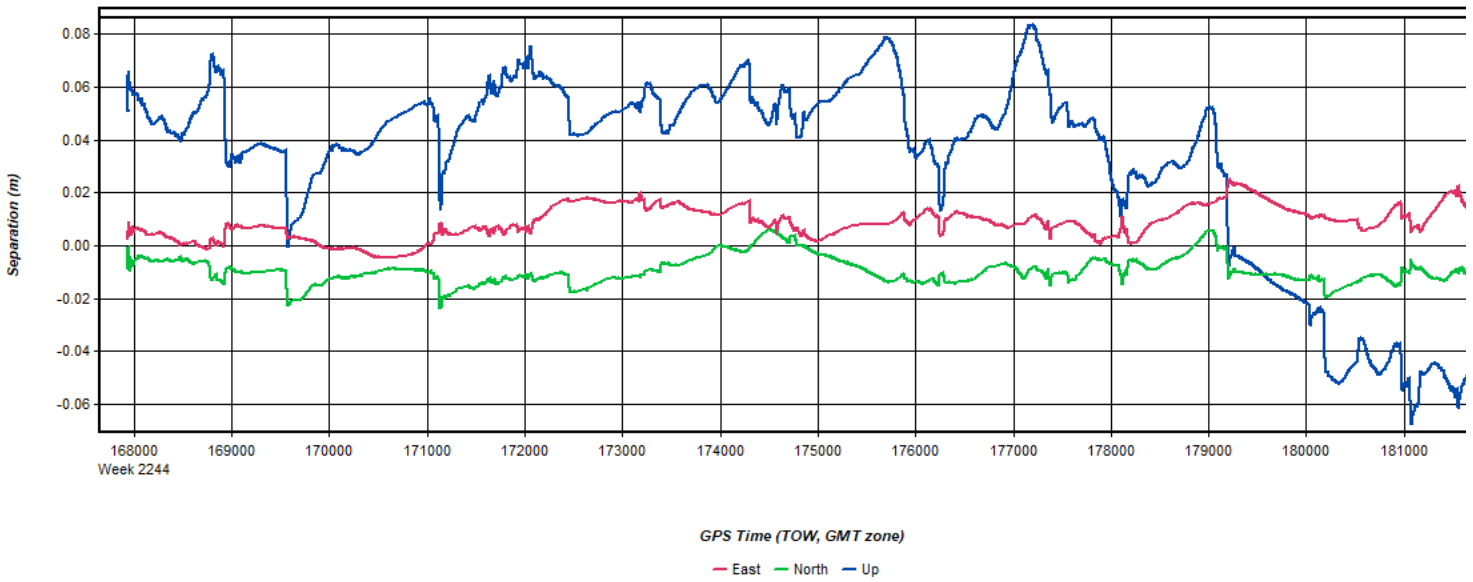
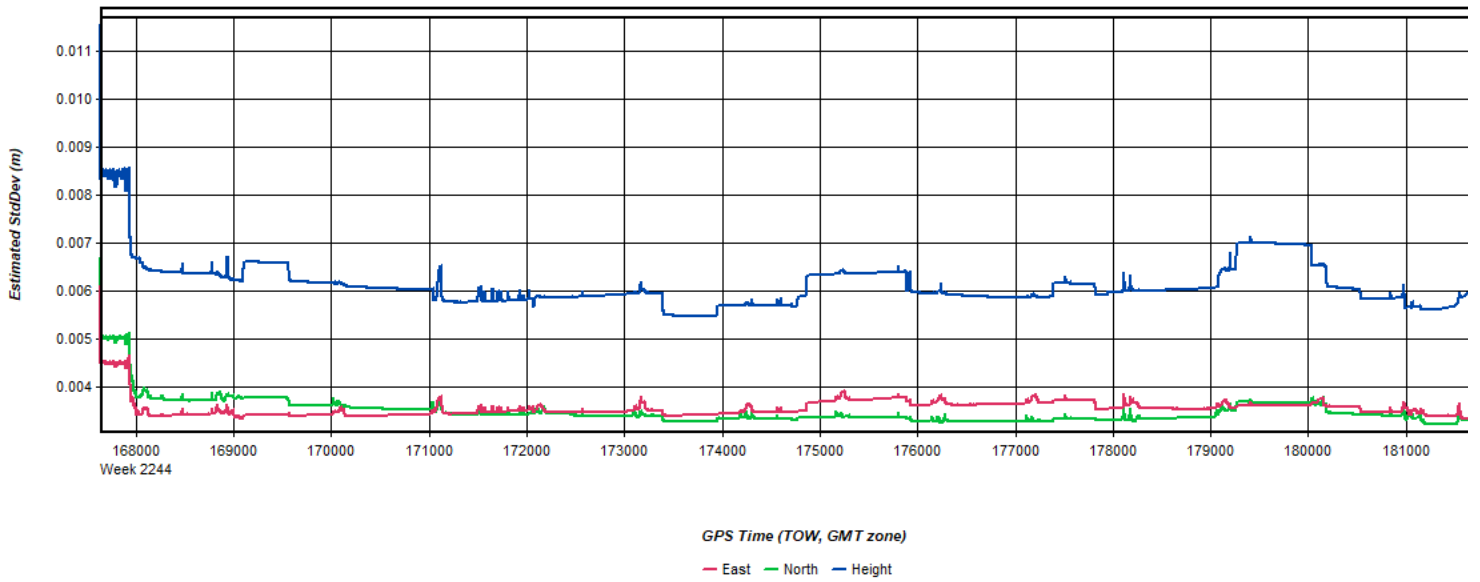
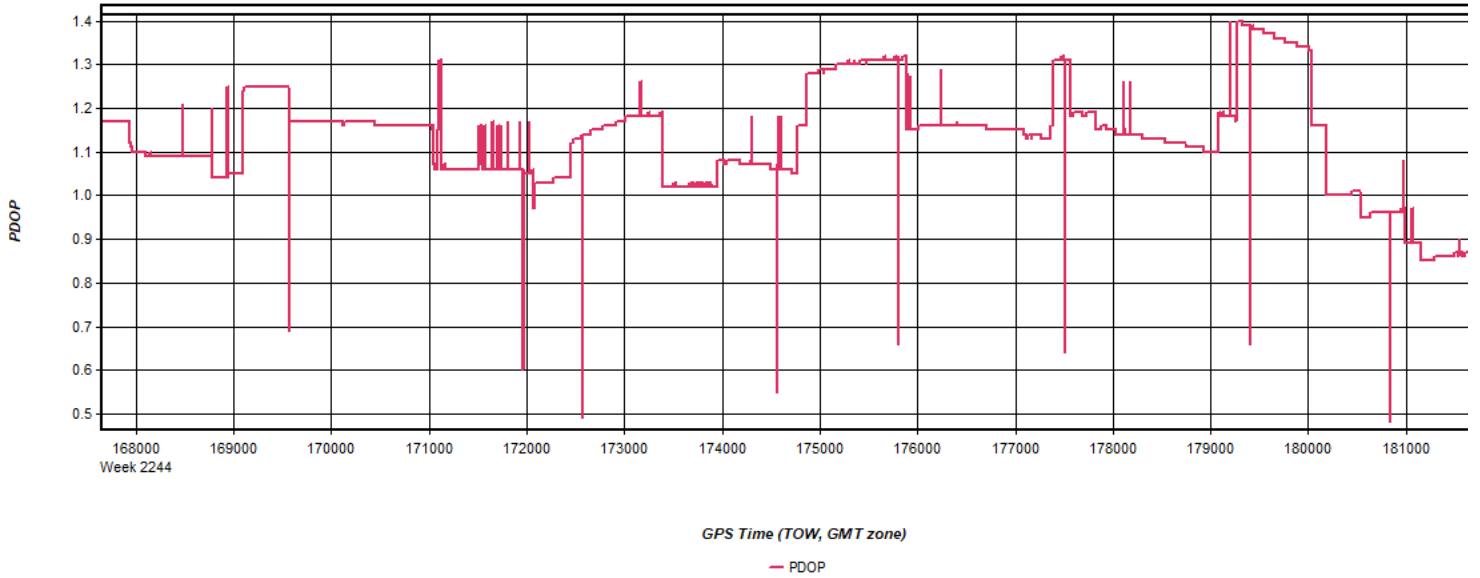


Figure 5: 20230109223310_2 [Smoothed TC Combined] - Estimated Position Accuracy Plot



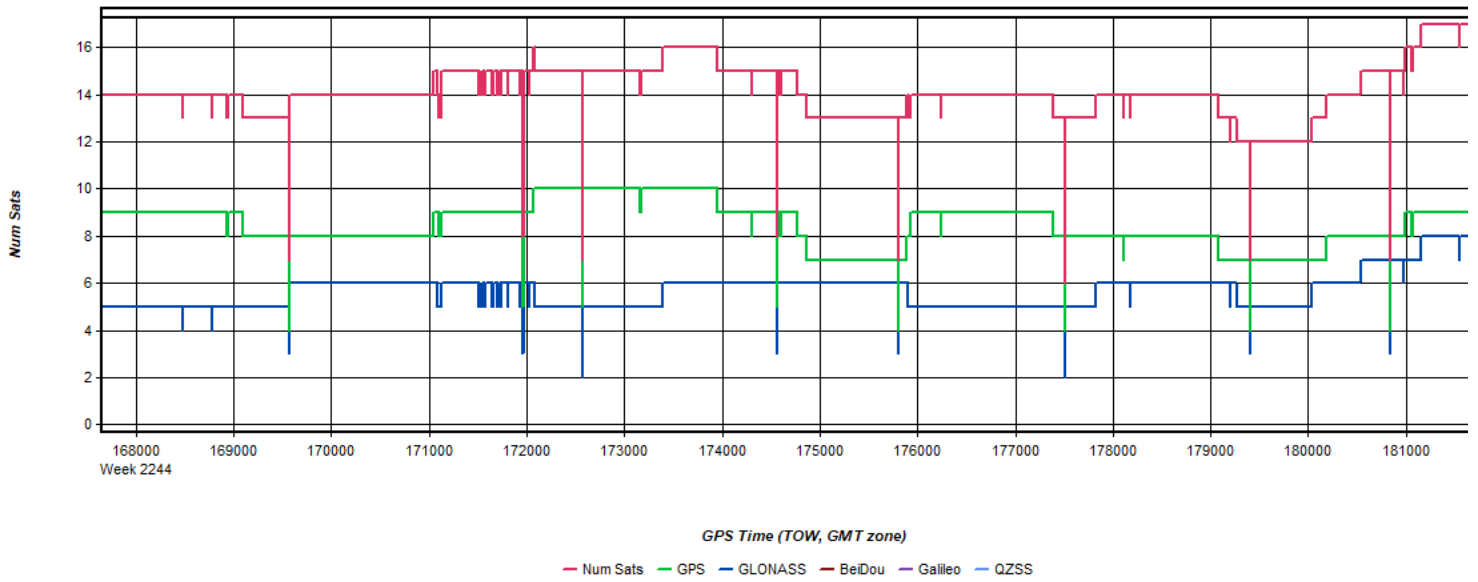
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 6: 20230109223310_2 [Smoothed TC Combined] - PDOP Plot



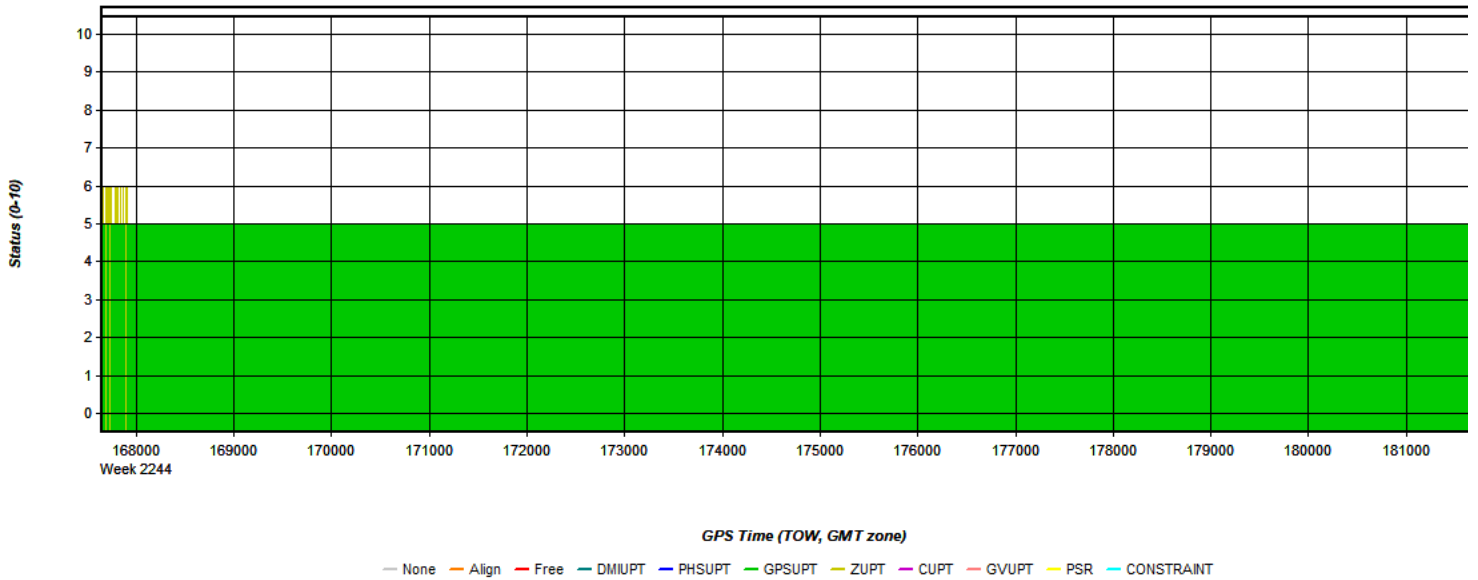
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 7: 20230109223310_2 [Smoothed TC Combined] - Number of Satellites Line Plot



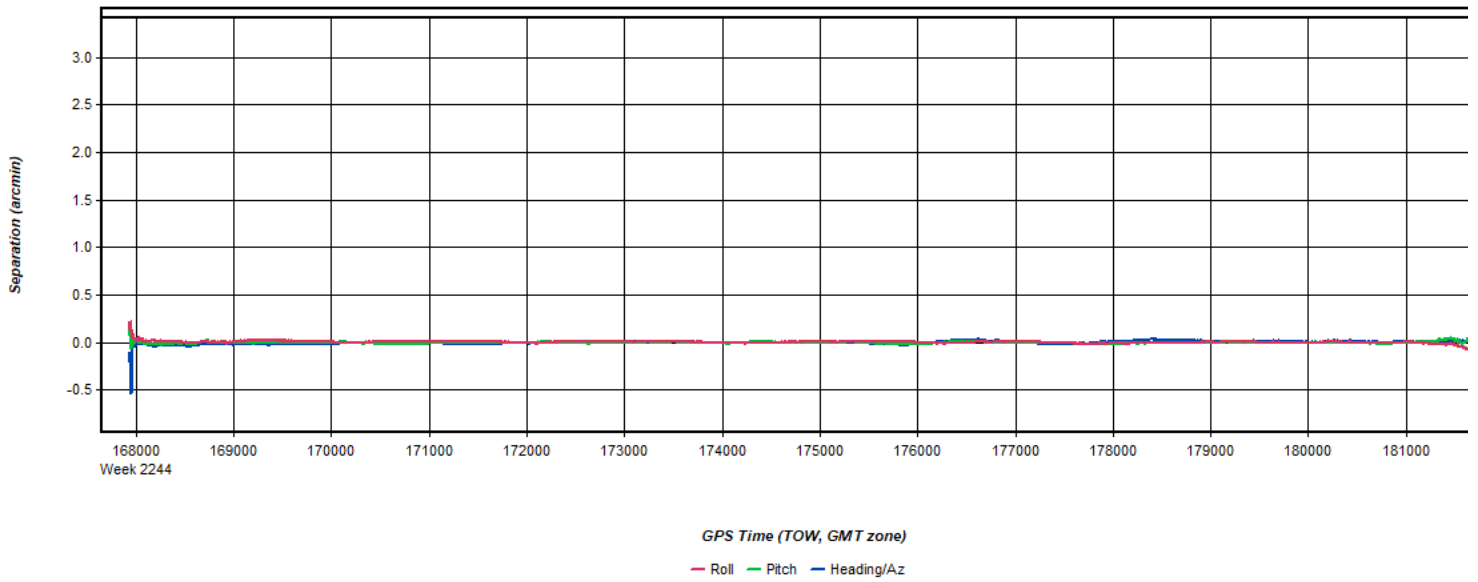
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 8: 20230109223310_2 [Smoothed TC Combined] - Status flag for IMU processing



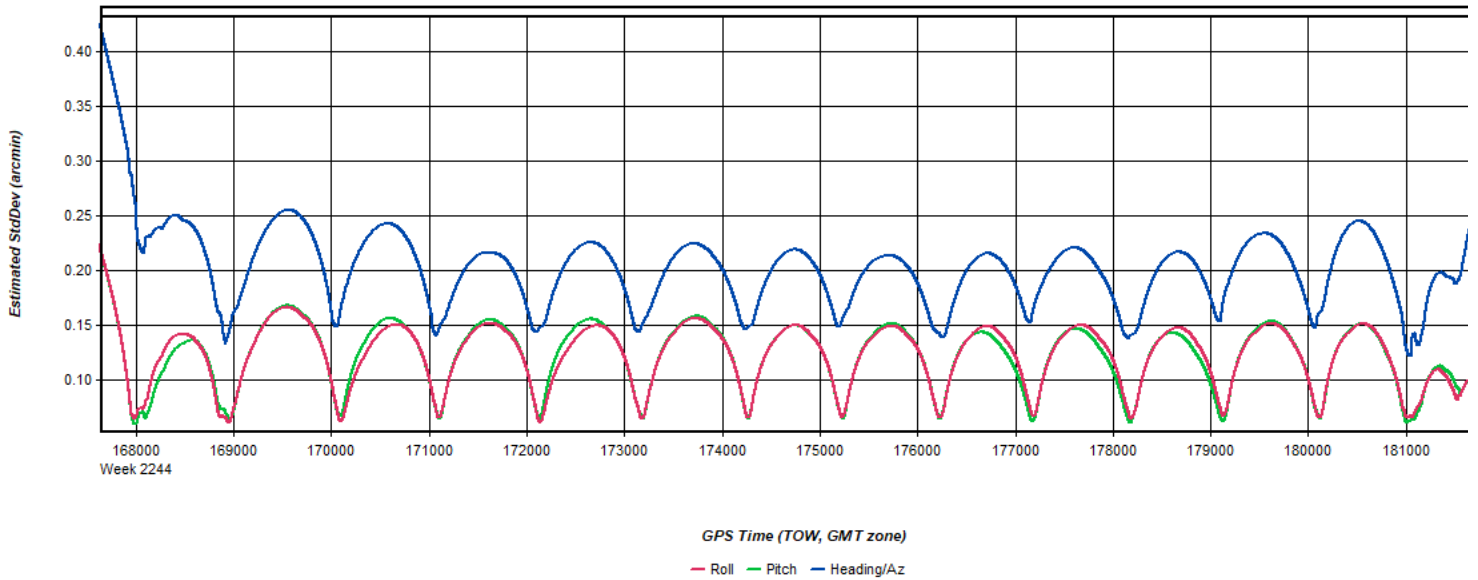
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 9: 20230109223310_2 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



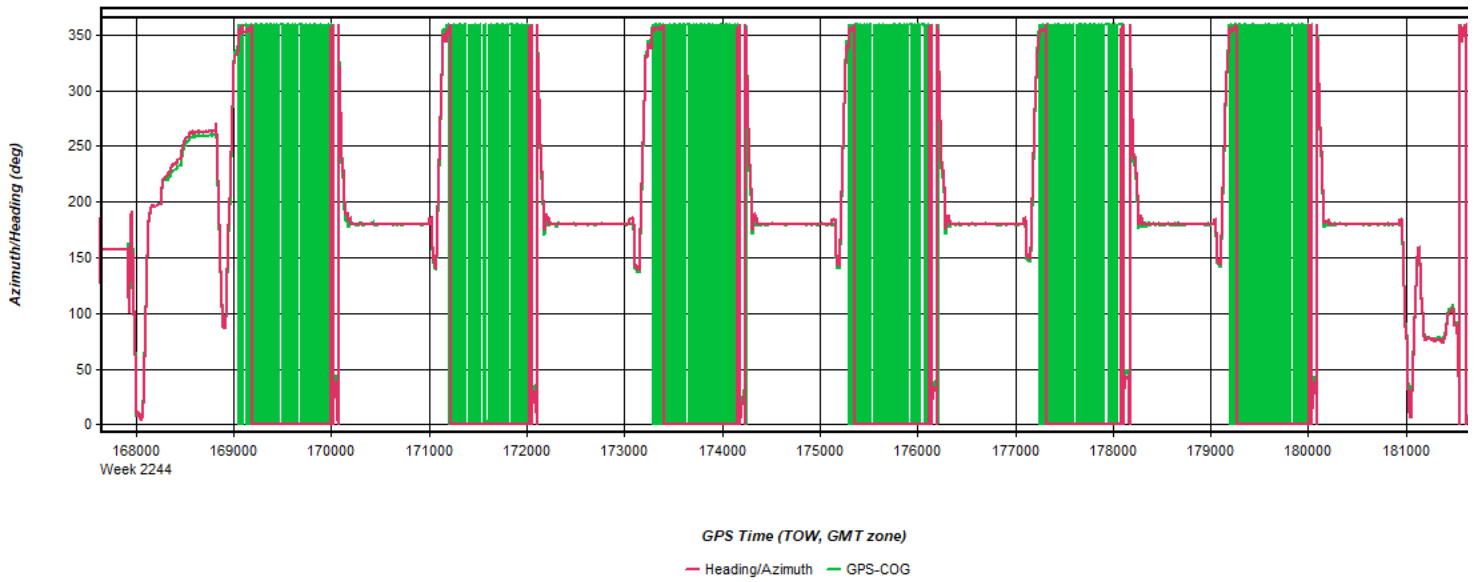
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 10: 20230109223310_2 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



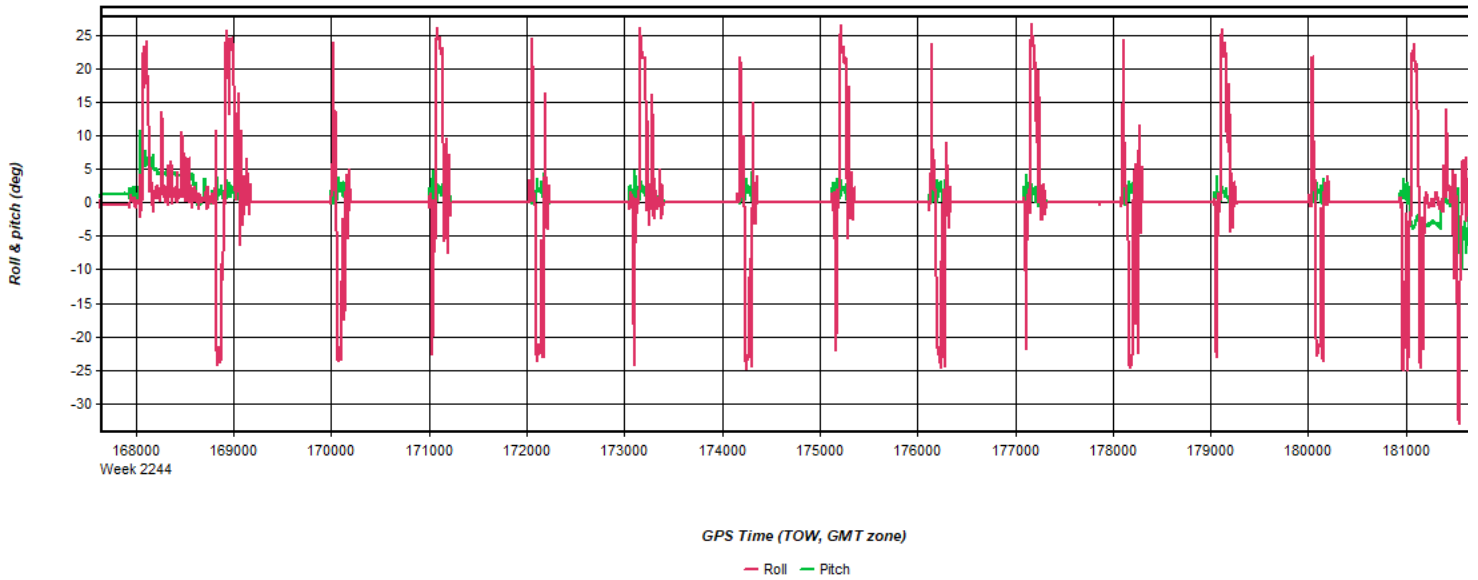
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 11: 20230109223310_2 [Smoothed TC Combined] - Azimuth Plot



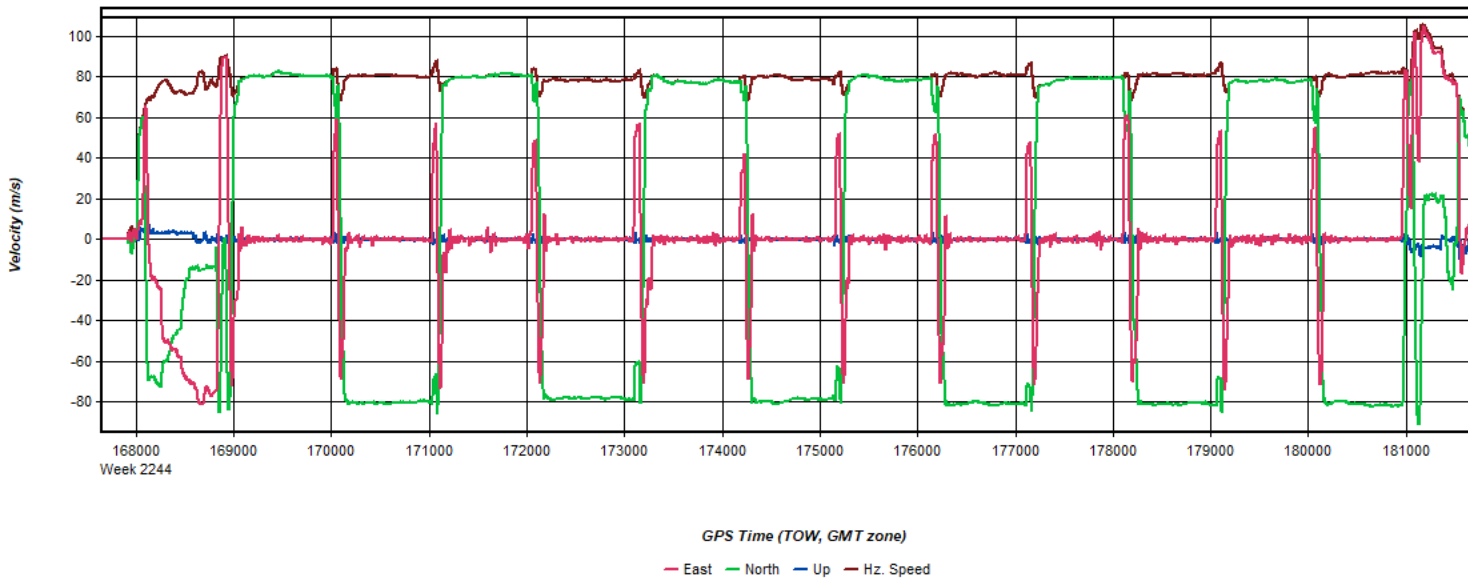
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 12: 20230109223310_2 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 13: 20230109223310_2 [Smoothed TC Combined] - Velocity Profile Plot



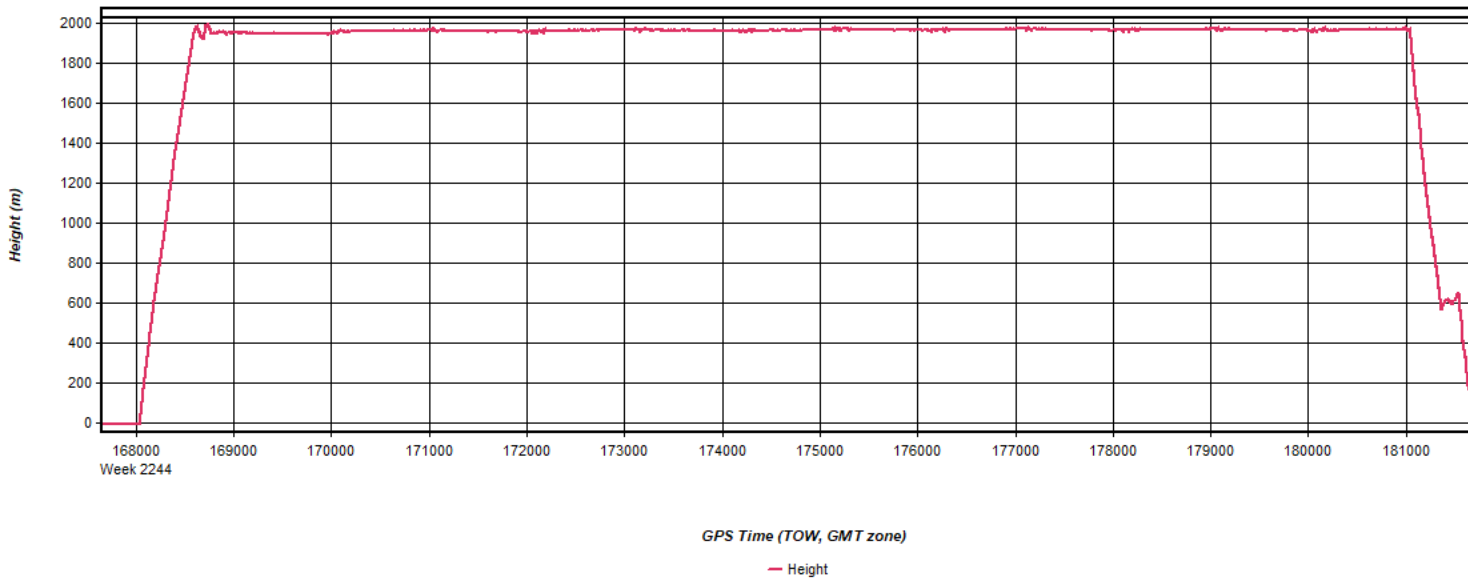
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 14: 20230109223310_2 [Smoothed TC Combined] - Body Frame Velocity Plot



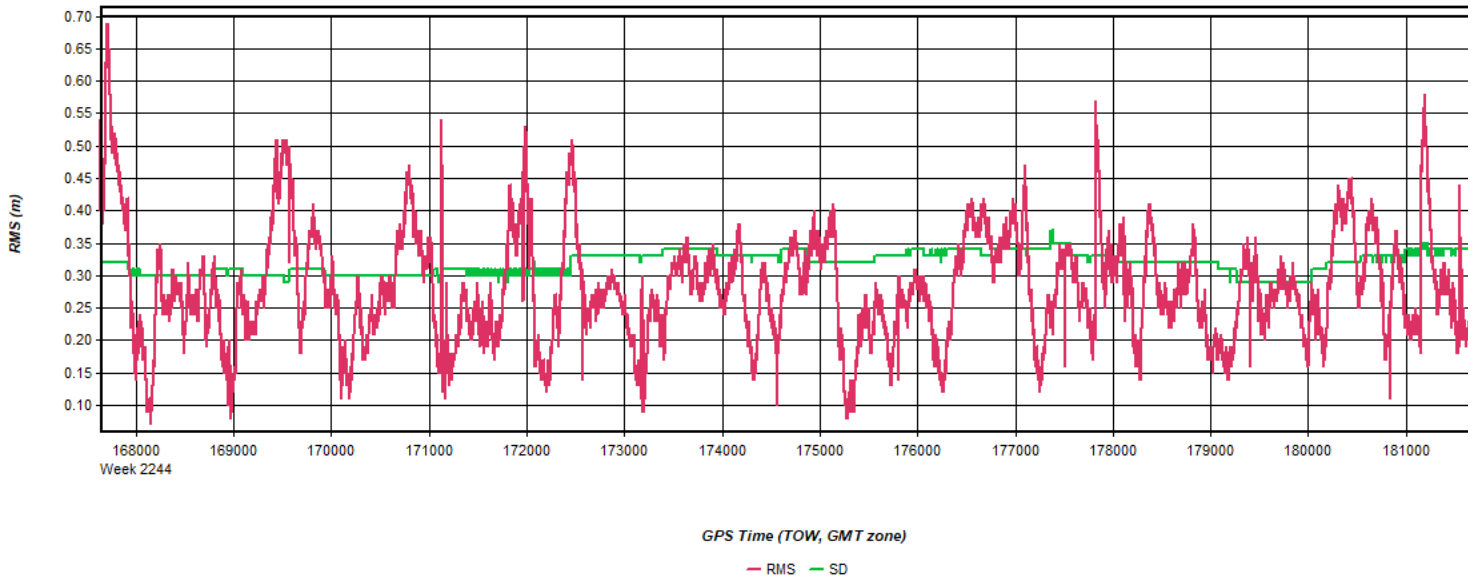
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 15: 20230109223310_2 [Smoothed TC Combined] - Height Profile Plot



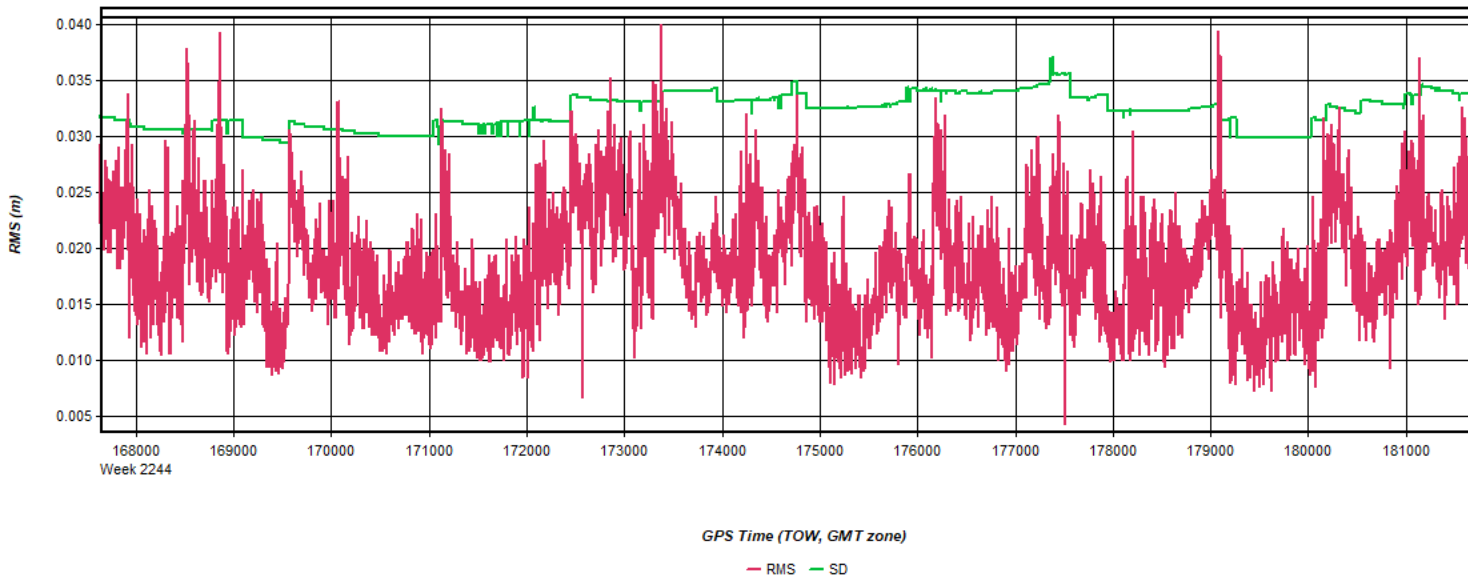
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 16: 20230109223310_2 [Smoothed TC Combined] - C/A Code Residual RMS Plot



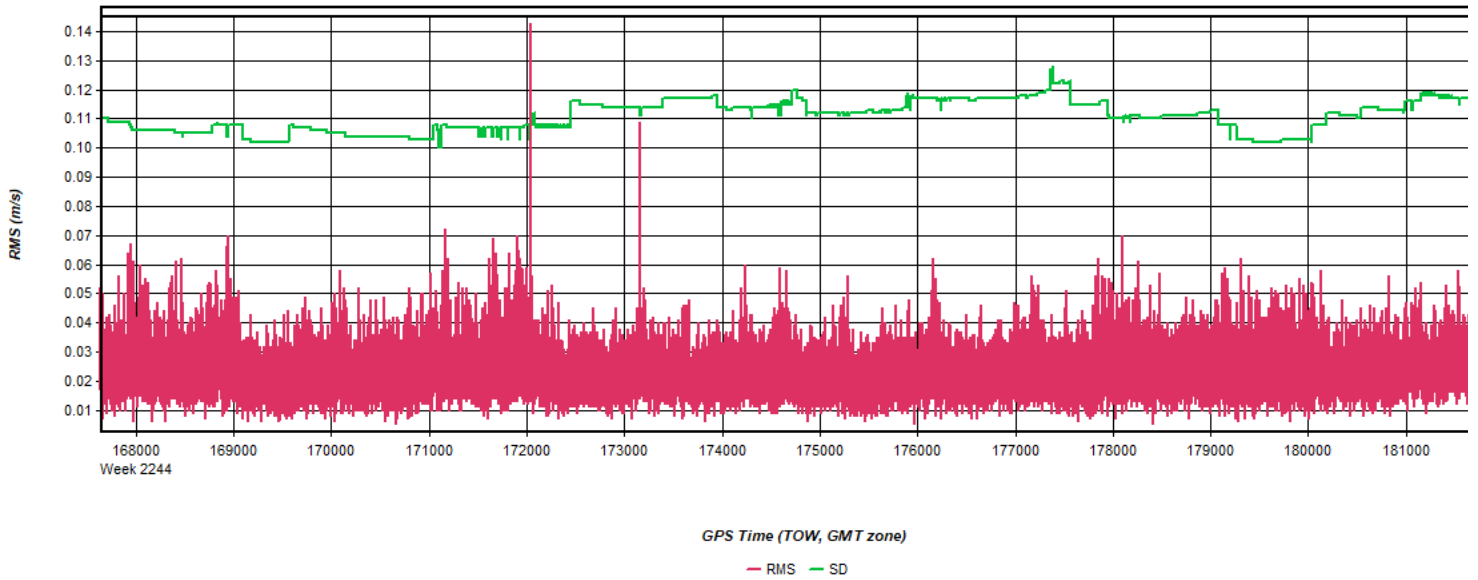
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 17: 20230109223310_2 [Smoothed TC Combined] - Carrier Residual RMS Plot



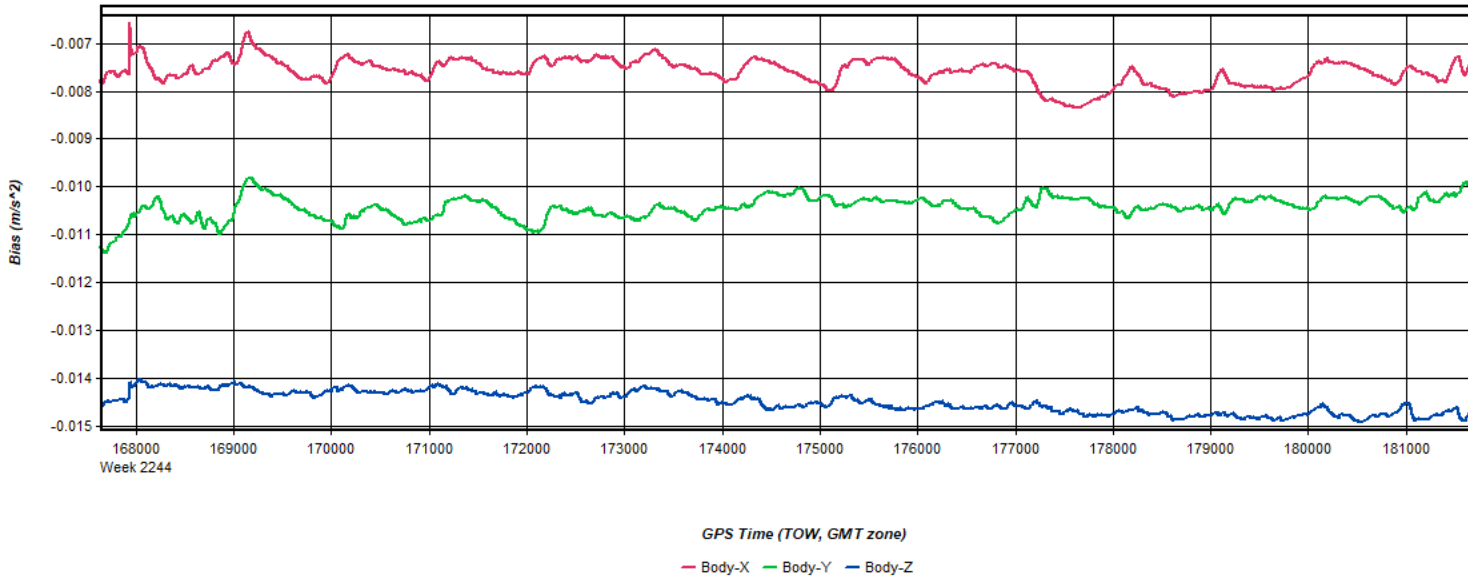
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 18: 20230109223310_2 [Smoothed TC Combined] - Doppler Residual RMS Plot



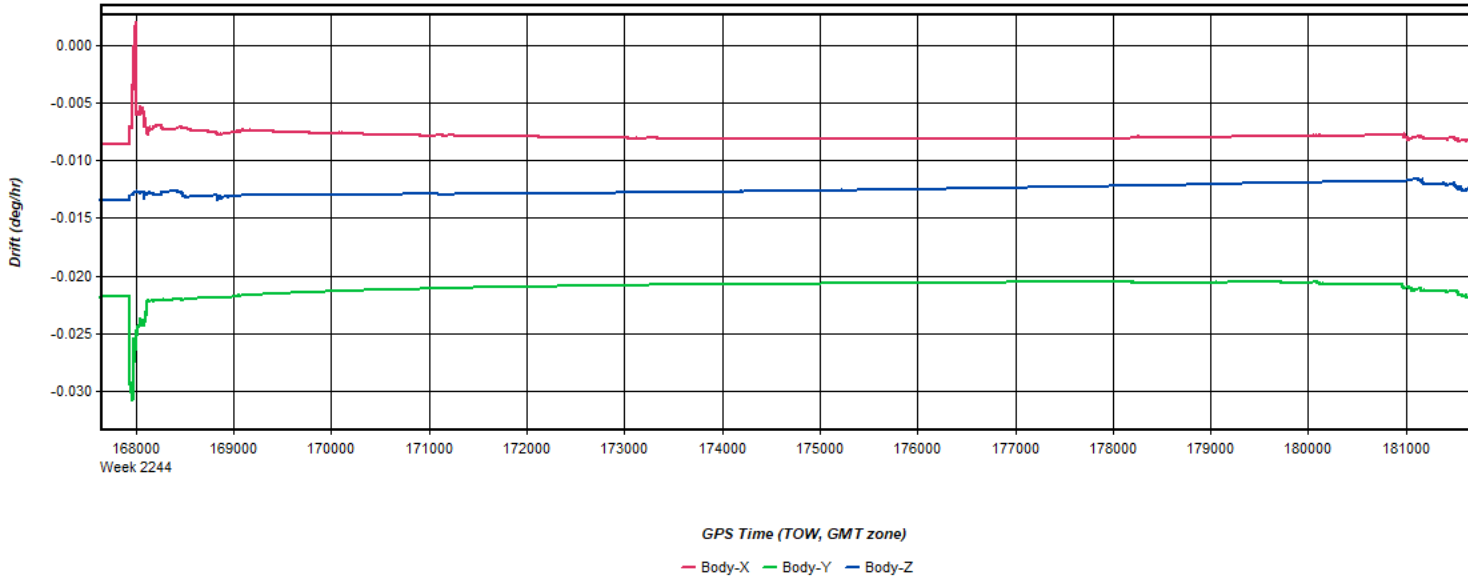
Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 19: 20230109223310_2 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Figure 20: 20230109223310_2 [Smoothed TC Combined] - Gyro Drift Plot



Process	20230109223310_2	by Unknown	on 1/13/2023	at 17:01:18
---------	------------------	------------	--------------	-------------

Output Results for 20230110142953_3

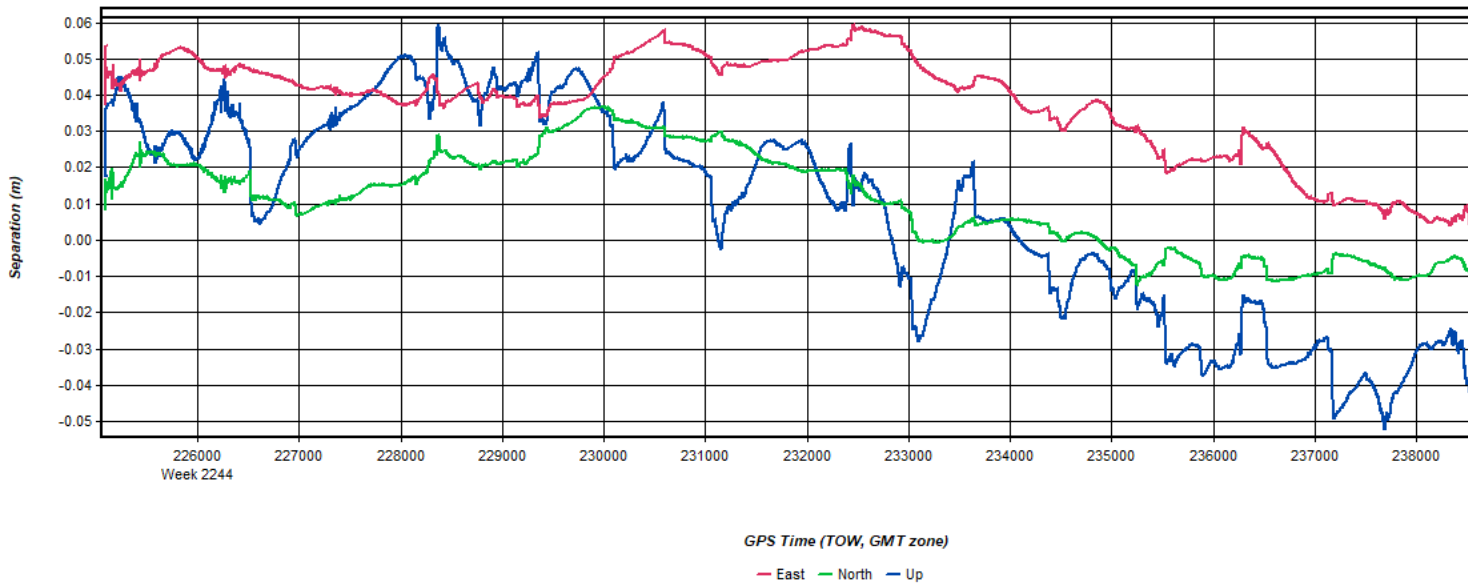
Inertial Explorer Version 8.90.6611
01/16/2023

Figure 1: Smoothed TC Combined - Map



Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 2: 20230110142953_3 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 3: 20230110142953_3 [Smoothed TC Combined] - Float or Fixed Ambiguity

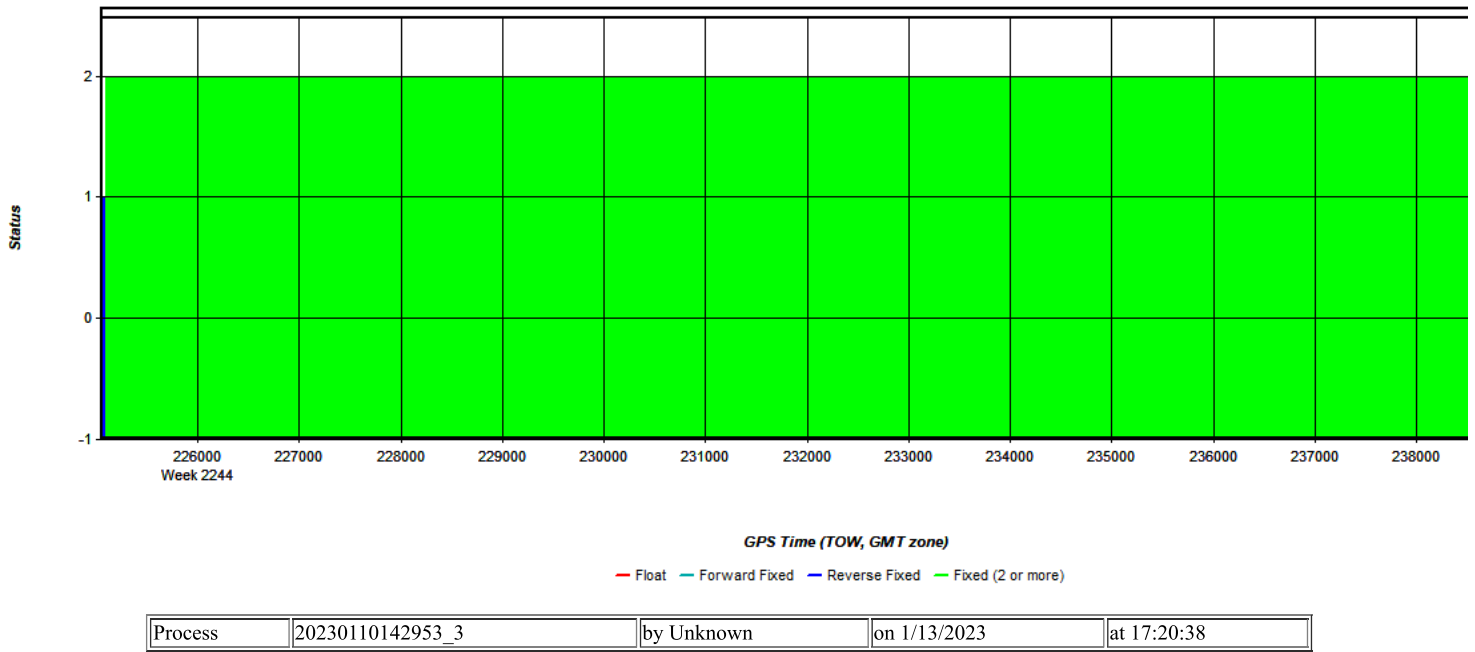


Figure 4: 20230110142953_3 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

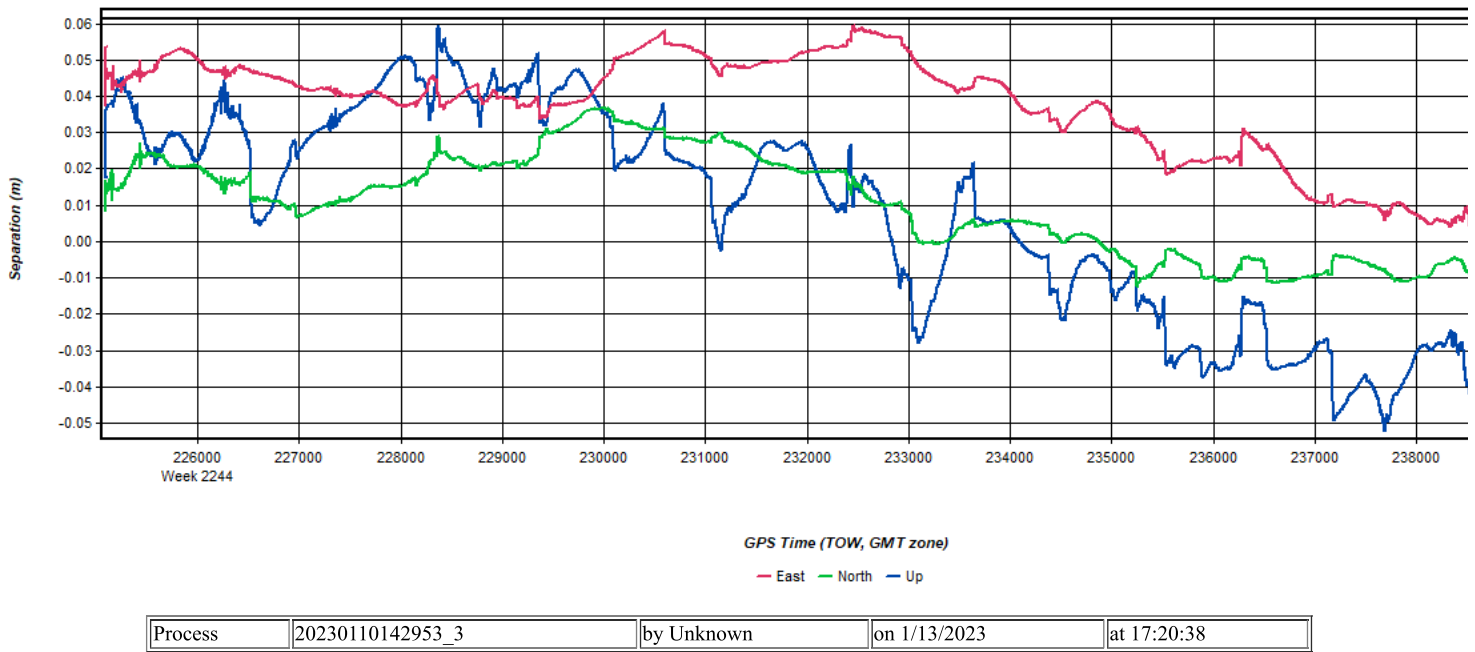
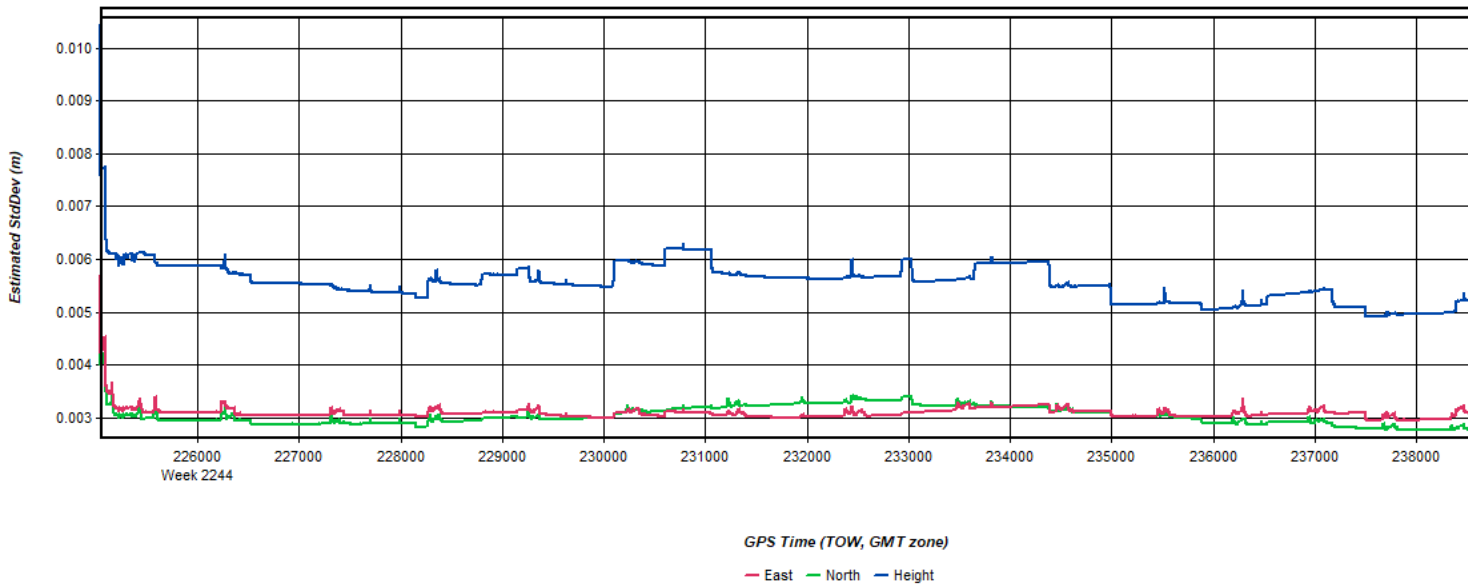
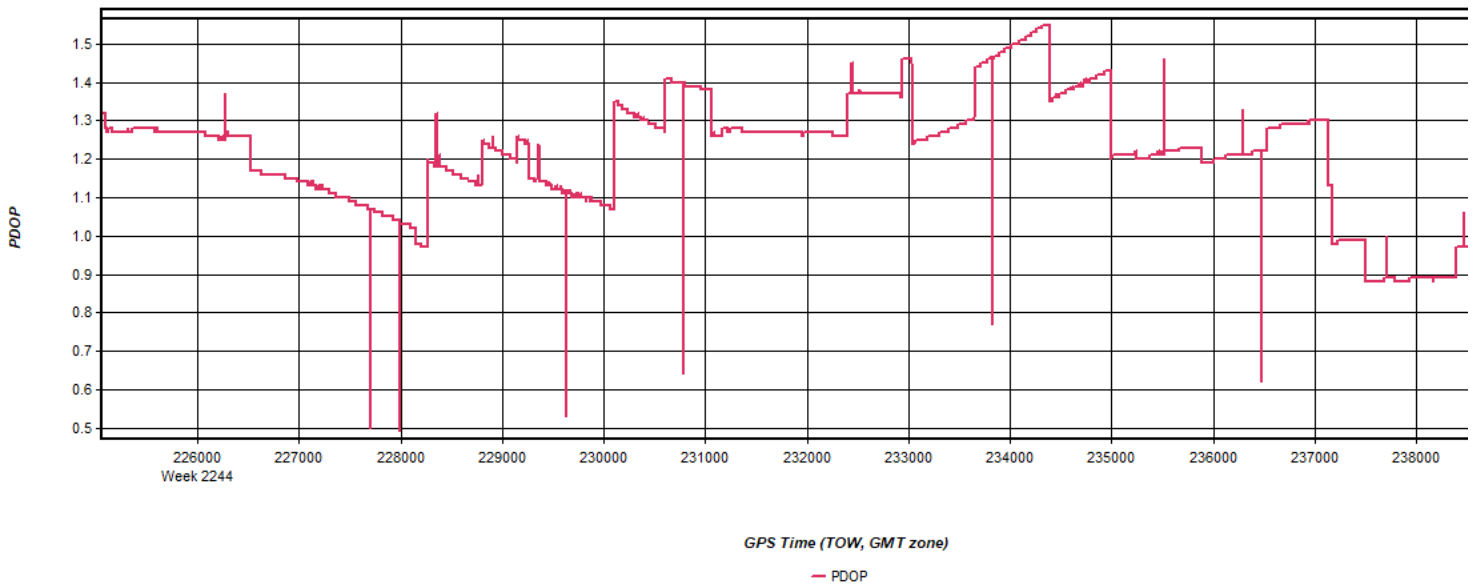


Figure 5: 20230110142953_3 [Smoothed TC Combined] - Estimated Position Accuracy Plot



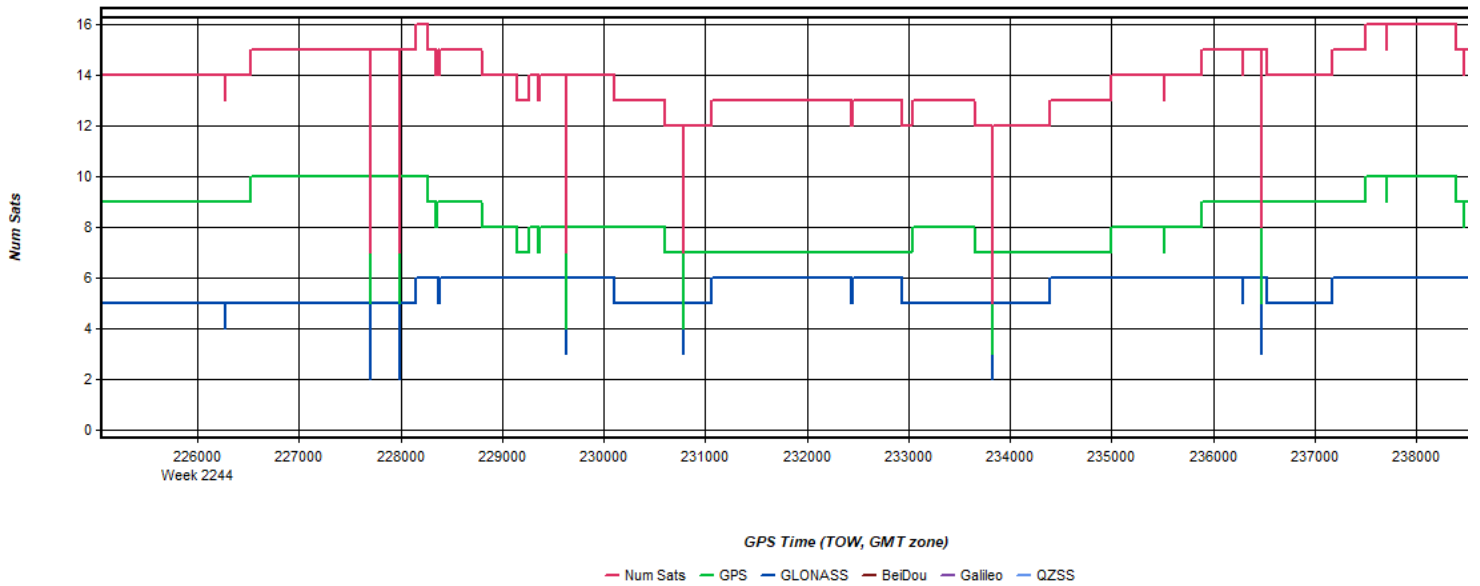
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 6: 20230110142953_3 [Smoothed TC Combined] - PDOP Plot



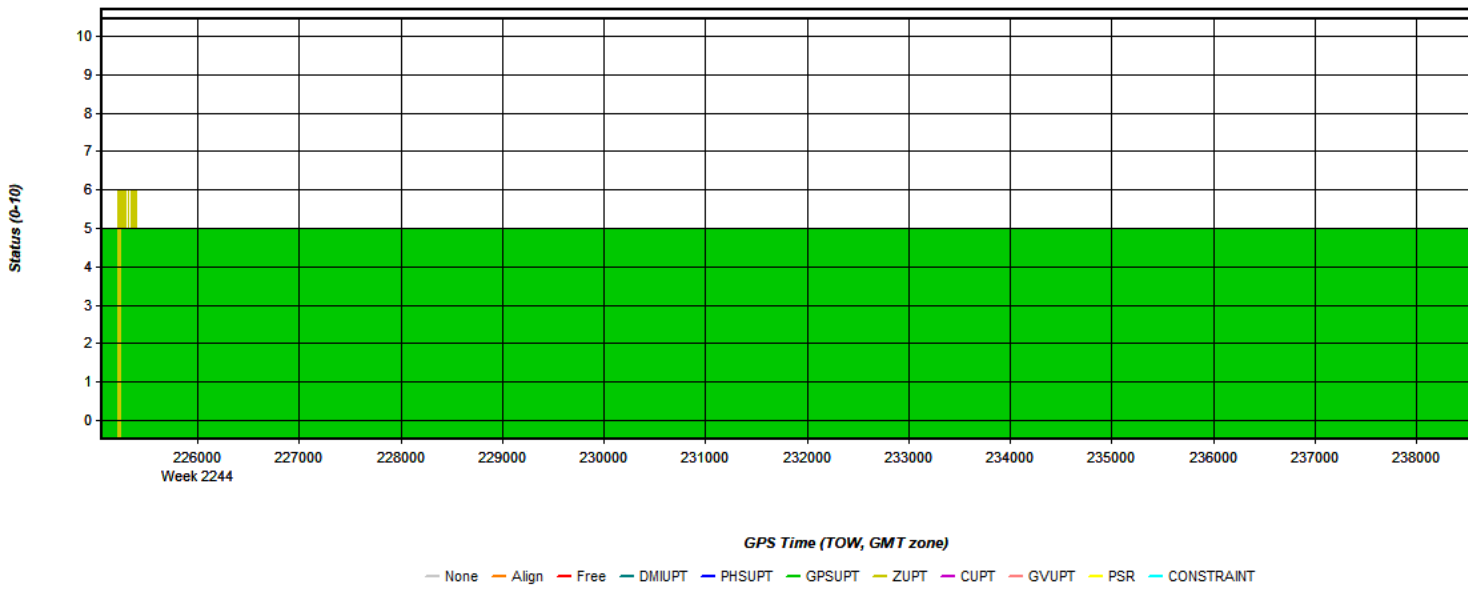
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 7: 20230110142953_3 [Smoothed TC Combined] - Number of Satellites Line Plot



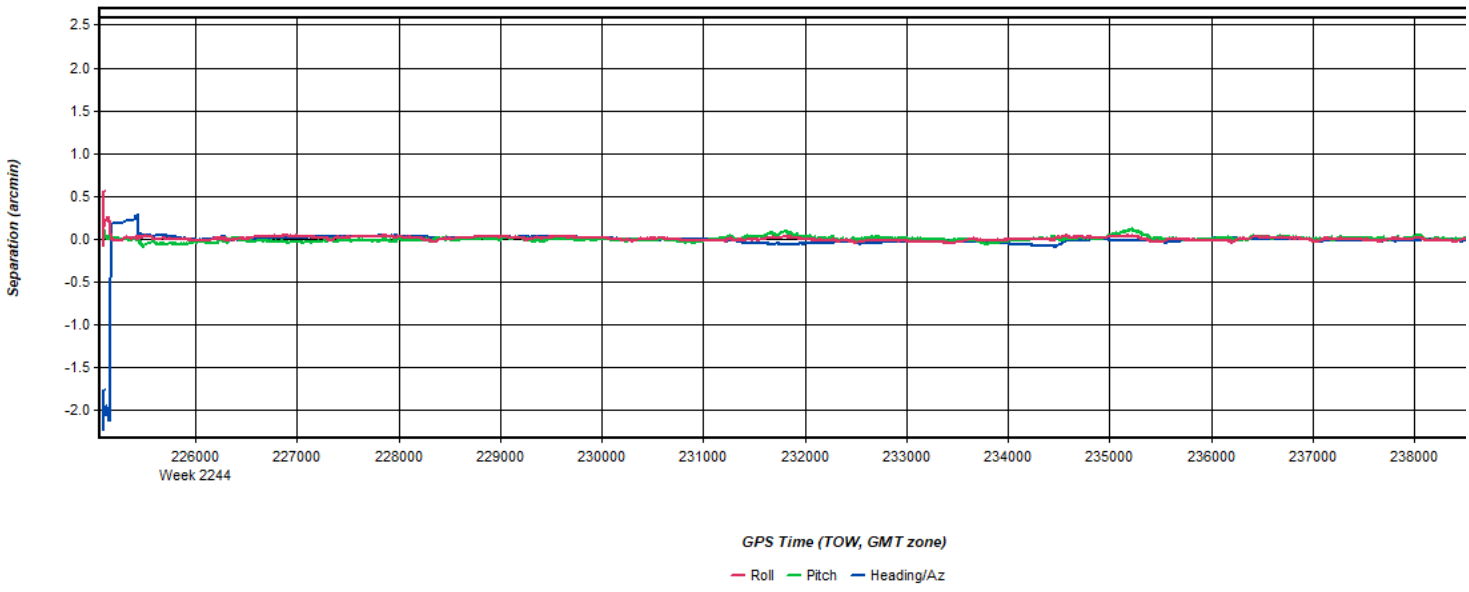
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 8: 20230110142953_3 [Smoothed TC Combined] - Status flag for IMU processing



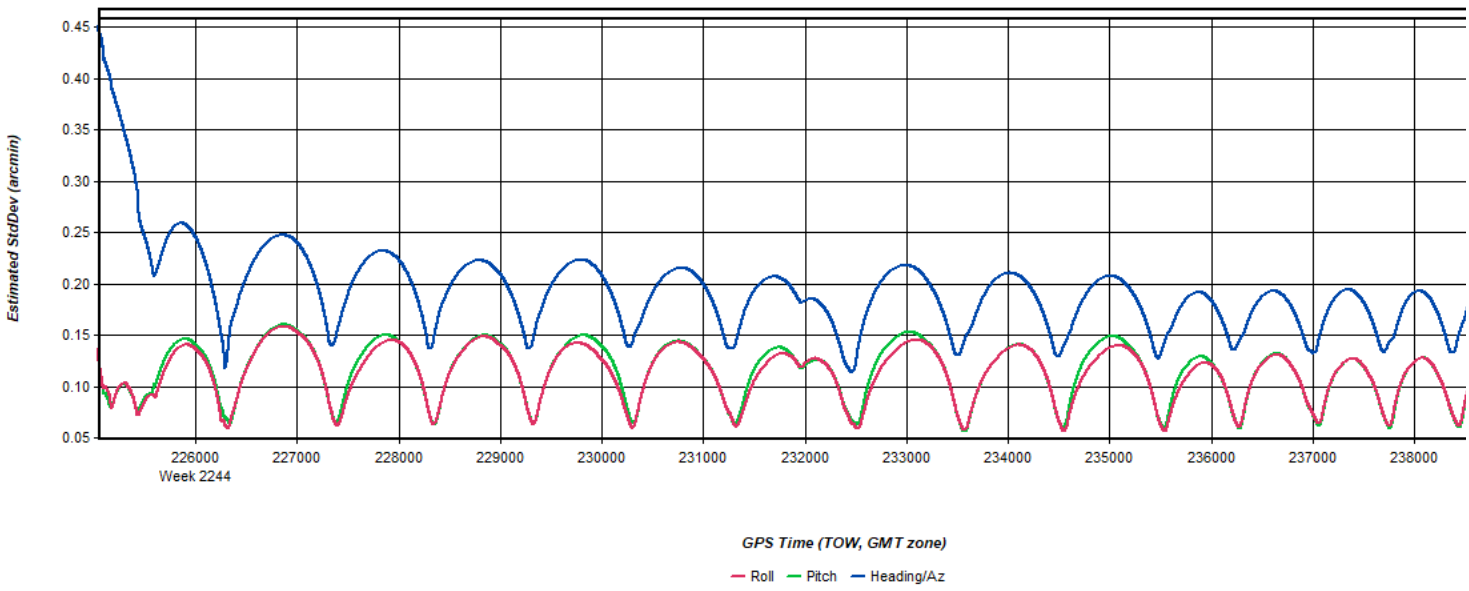
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 9: 20230110142953_3 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 10: 20230110142953_3 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



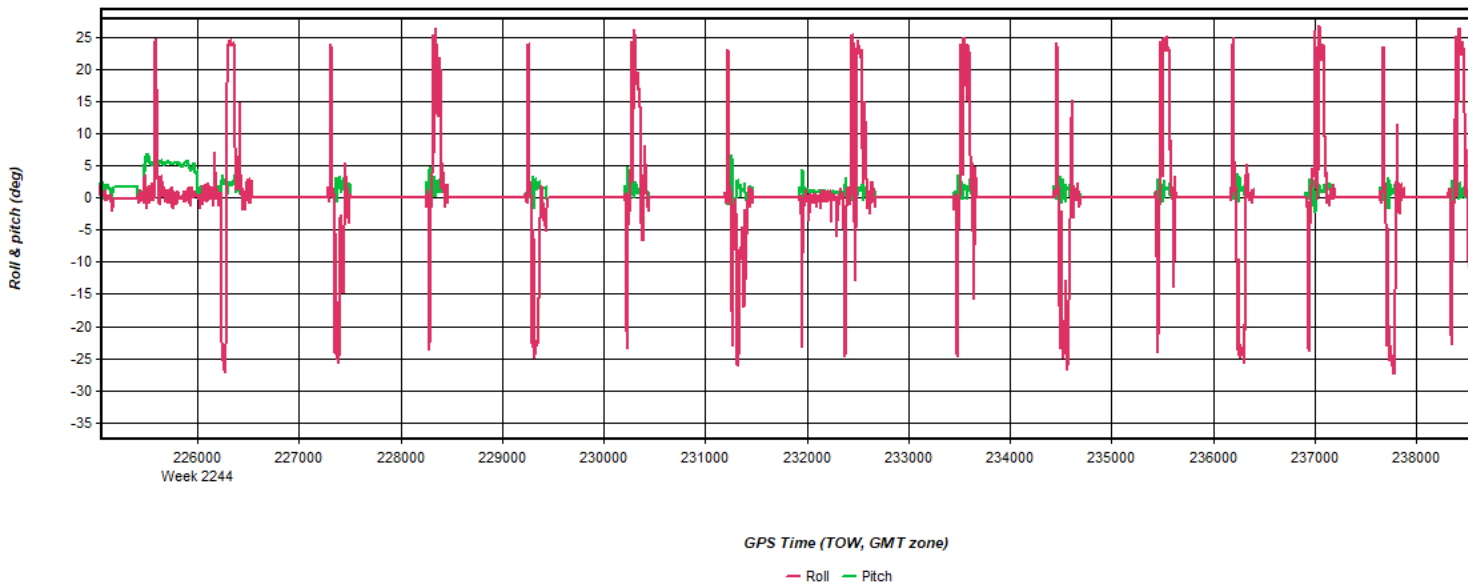
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 11: 20230110142953_3 [Smoothed TC Combined] - Azimuth Plot



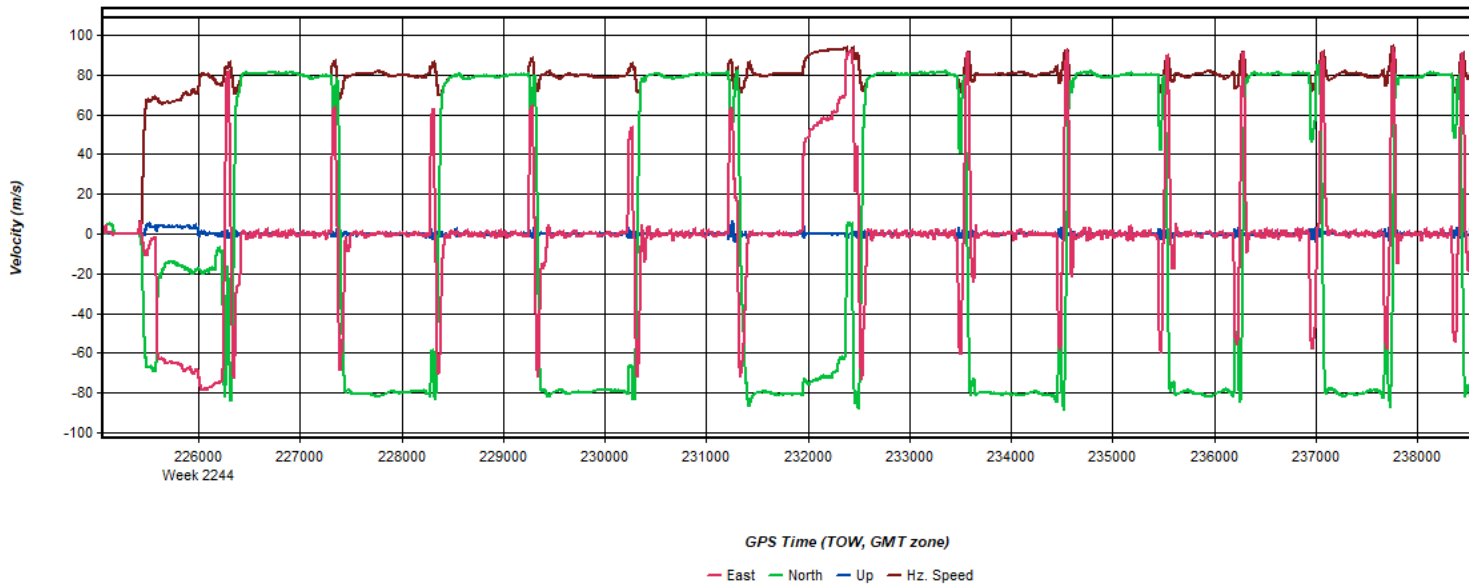
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 12: 20230110142953_3 [Smoothed TC Combined] - Roll & Pitch Plot



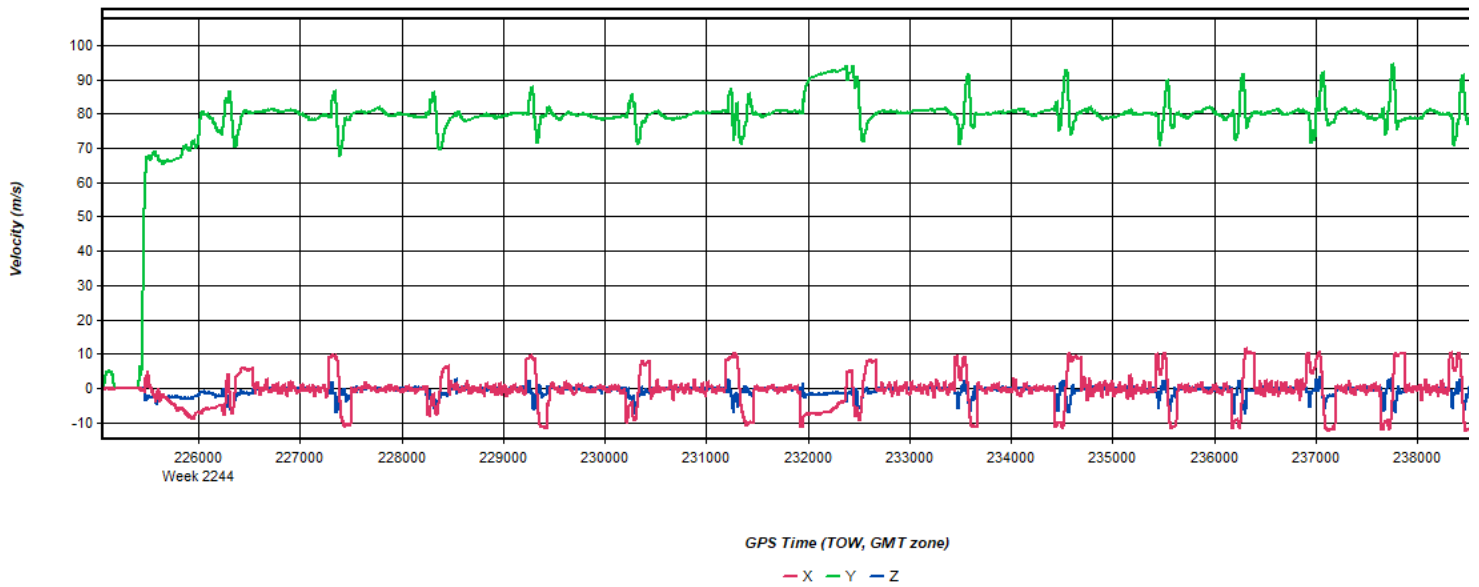
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 13: 20230110142953_3 [Smoothed TC Combined] - Velocity Profile Plot



Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 14: 20230110142953_3 [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 15: 20230110142953_3 [Smoothed TC Combined] - Height Profile Plot



Figure 16: 20230110142953_3 [Smoothed TC Combined] - C/A Code Residual RMS Plot

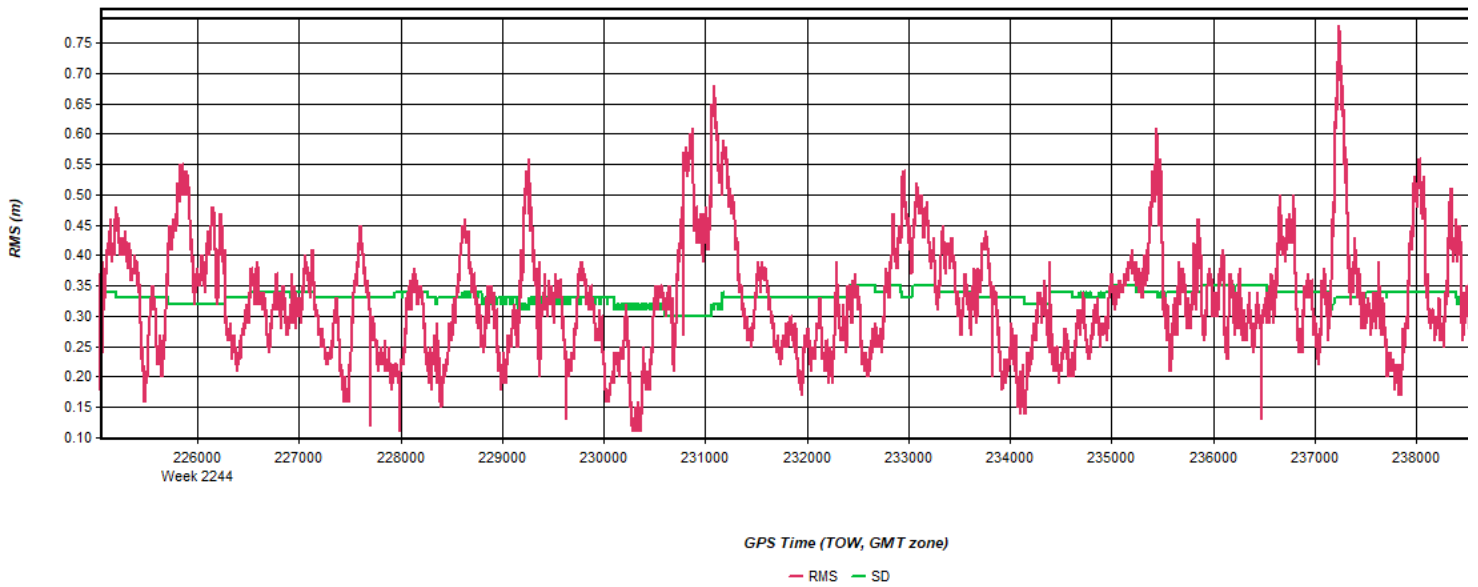
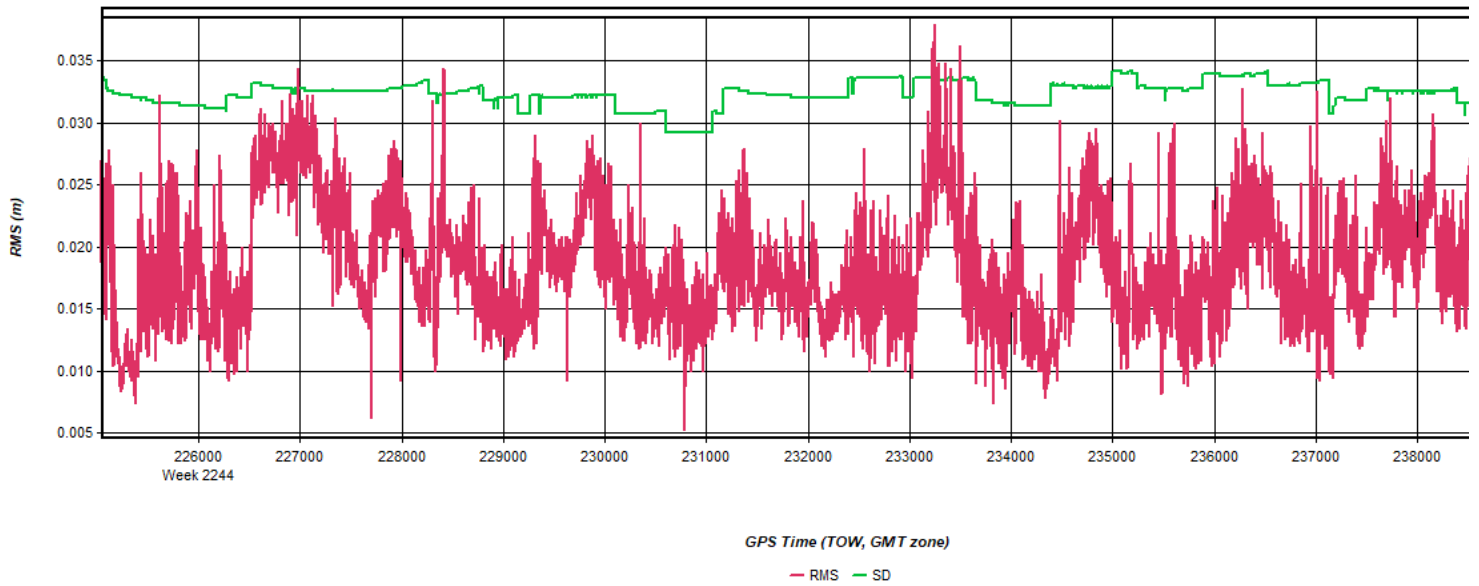
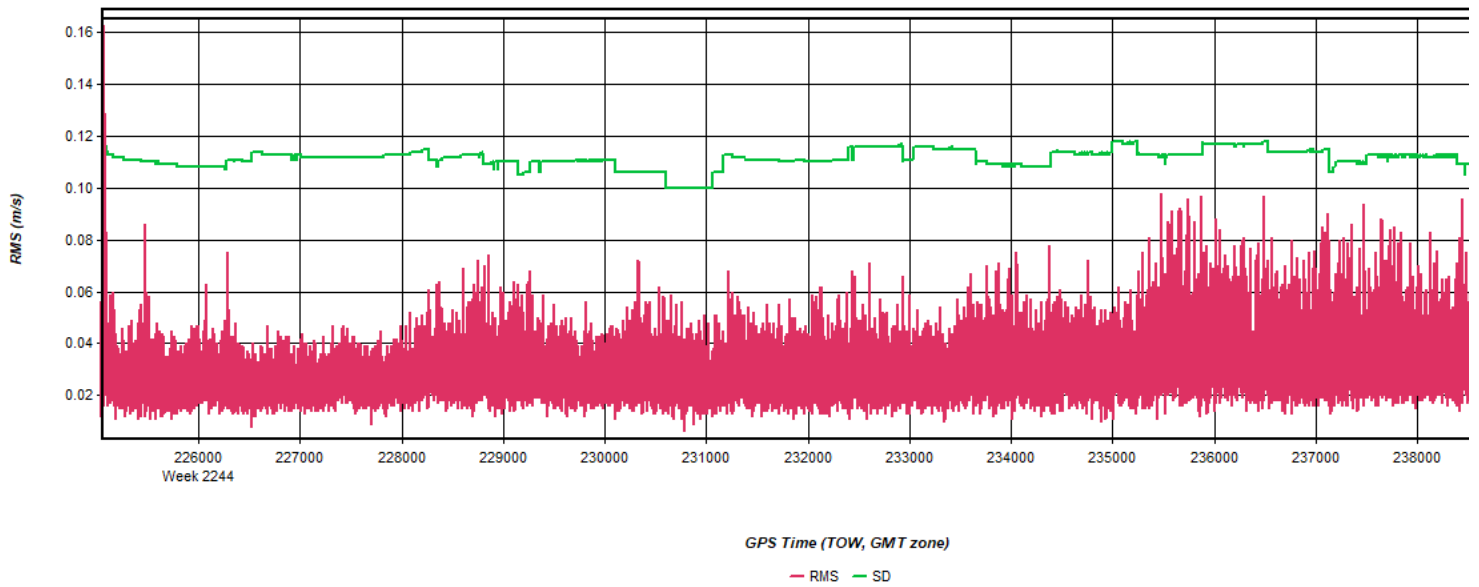


Figure 17: 20230110142953_3 [Smoothed TC Combined] - Carrier Residual RMS Plot



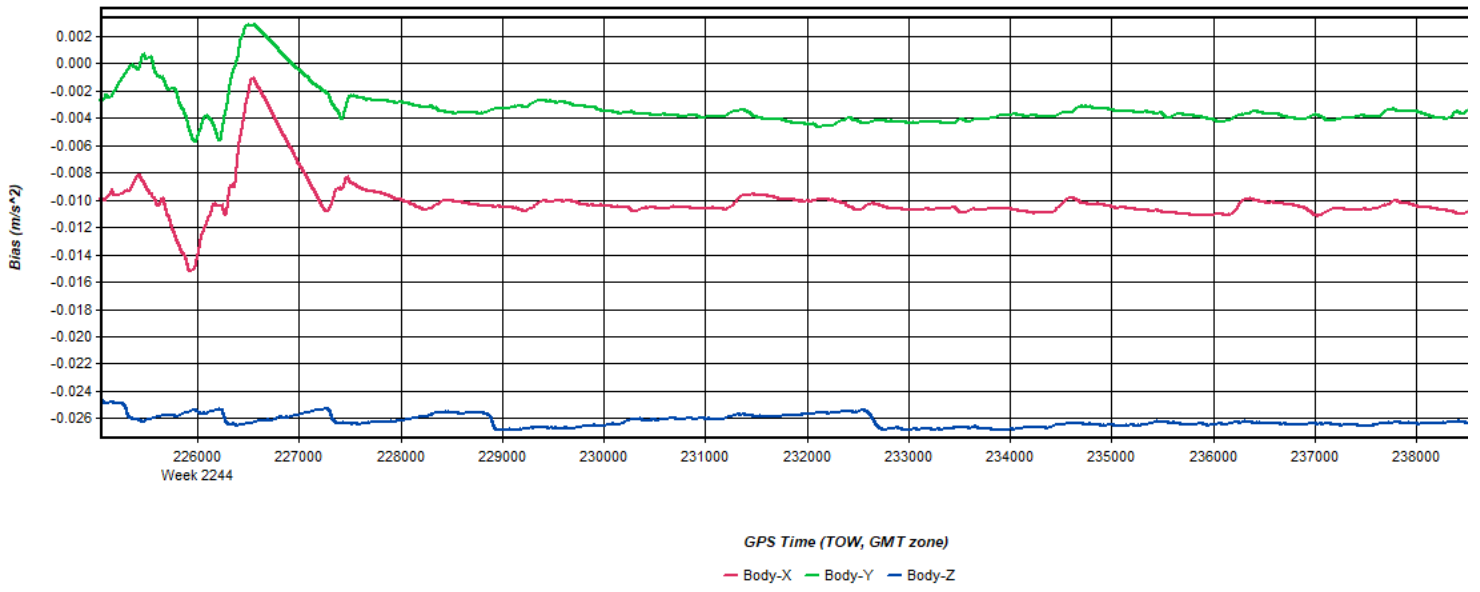
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 18: 20230110142953_3 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



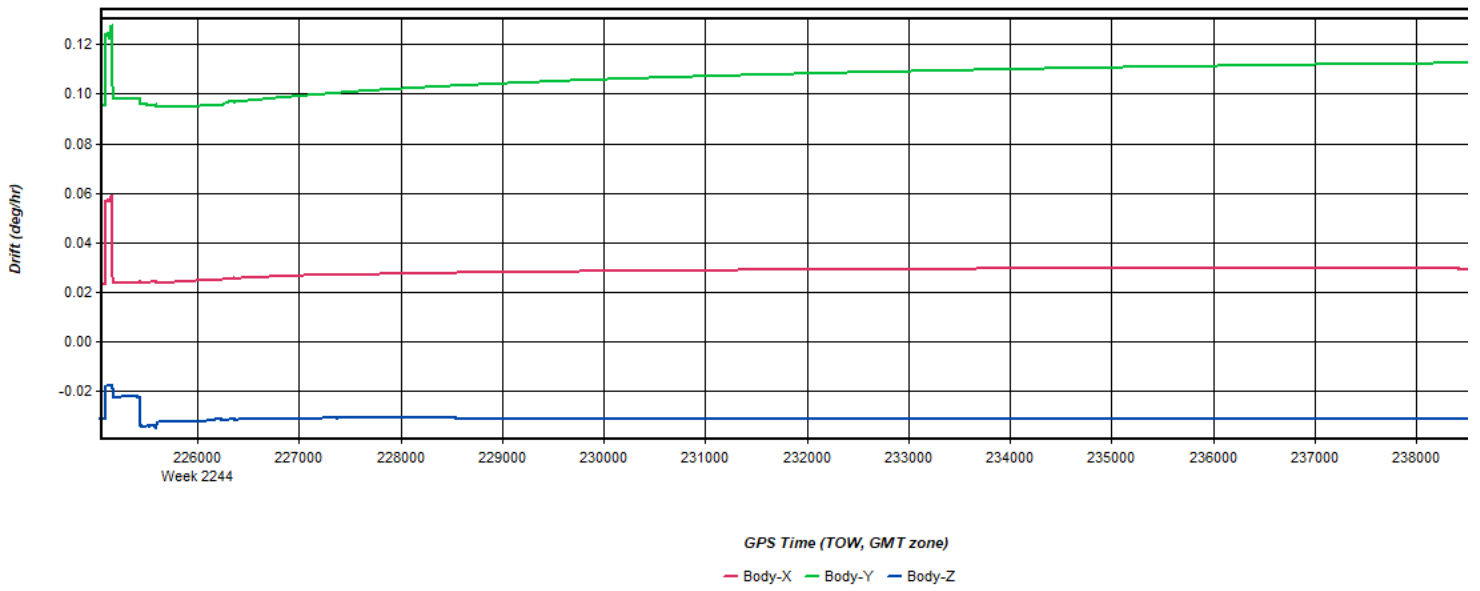
Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 19: 20230110142953_3 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Figure 20: 20230110142953_3 [Smoothed TC Combined] - Gyro Drift Plot

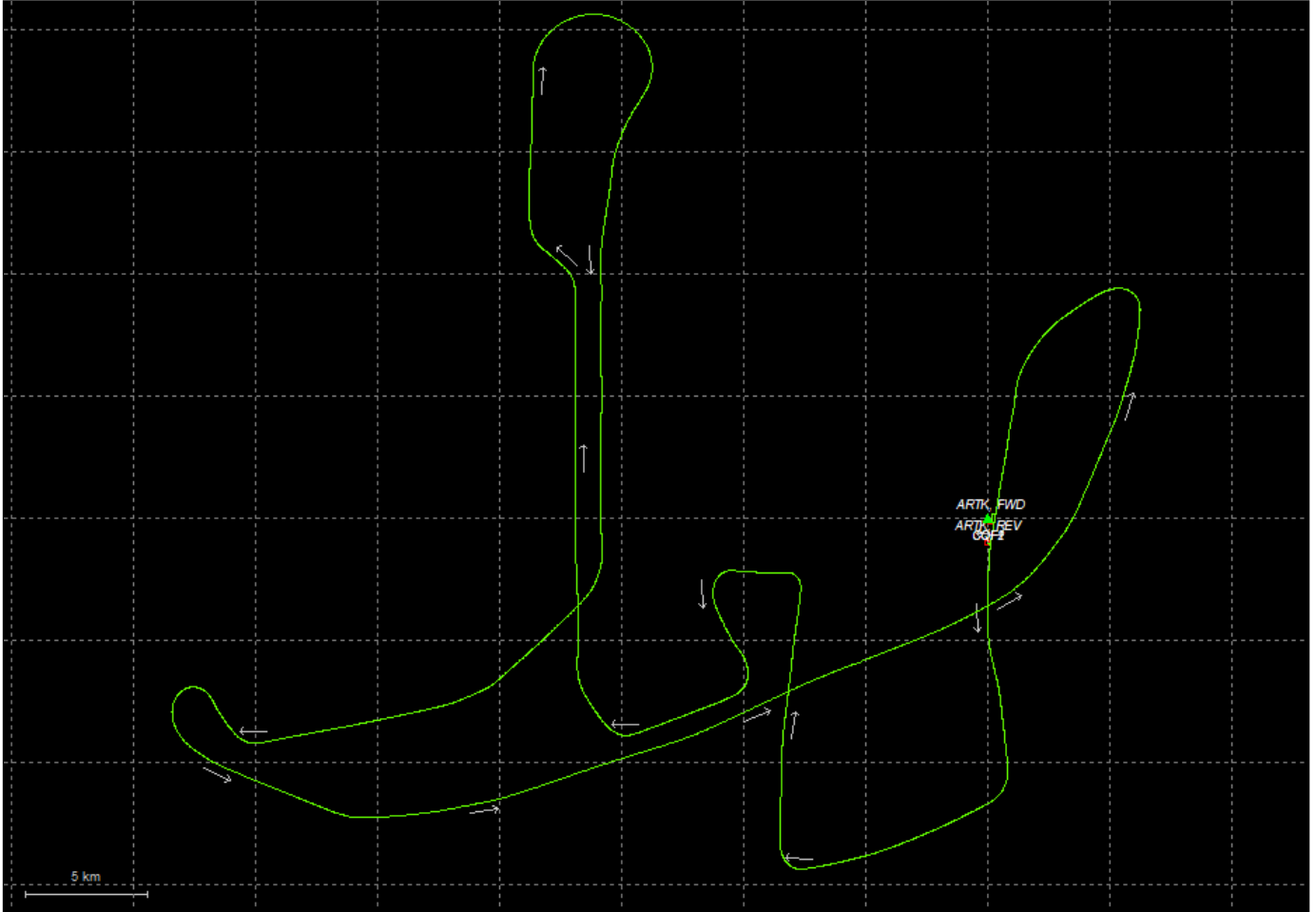


Process	20230110142953_3	by Unknown	on 1/13/2023	at 17:20:38
---------	------------------	------------	--------------	-------------

Output Results for 20230126002632_4

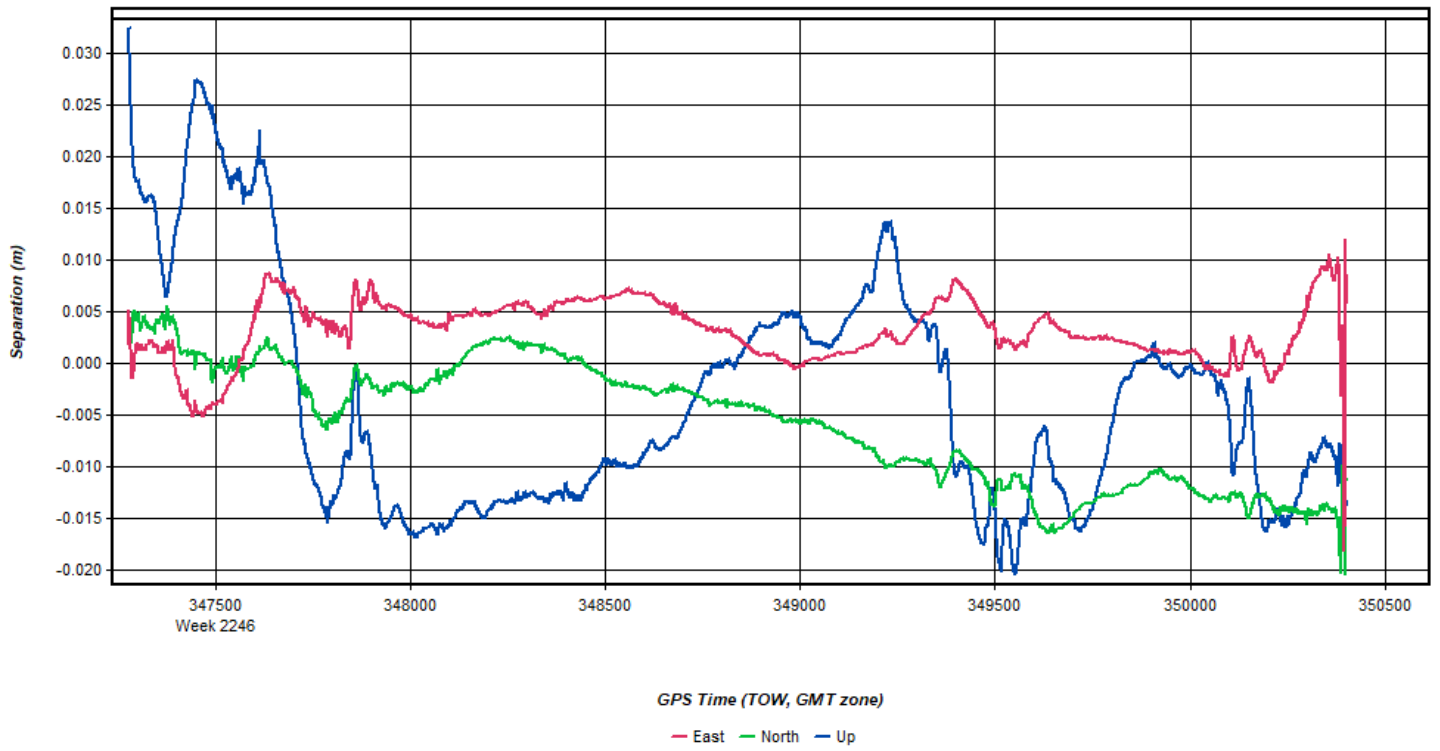
Inertial Explorer Version 8.90.6611
02/07/2023

Figure 1: Smoothed TC Combined - Map



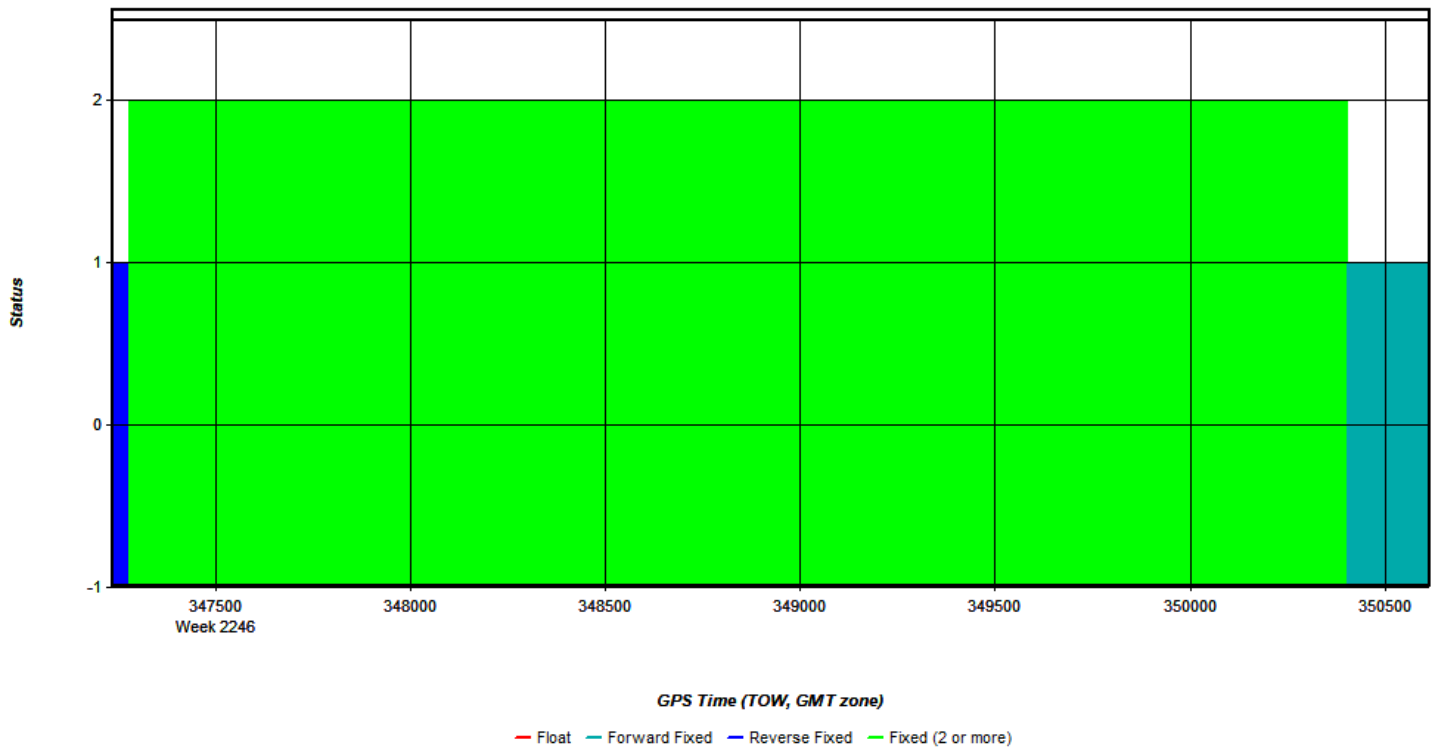
Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 2: 20230126002632_4 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



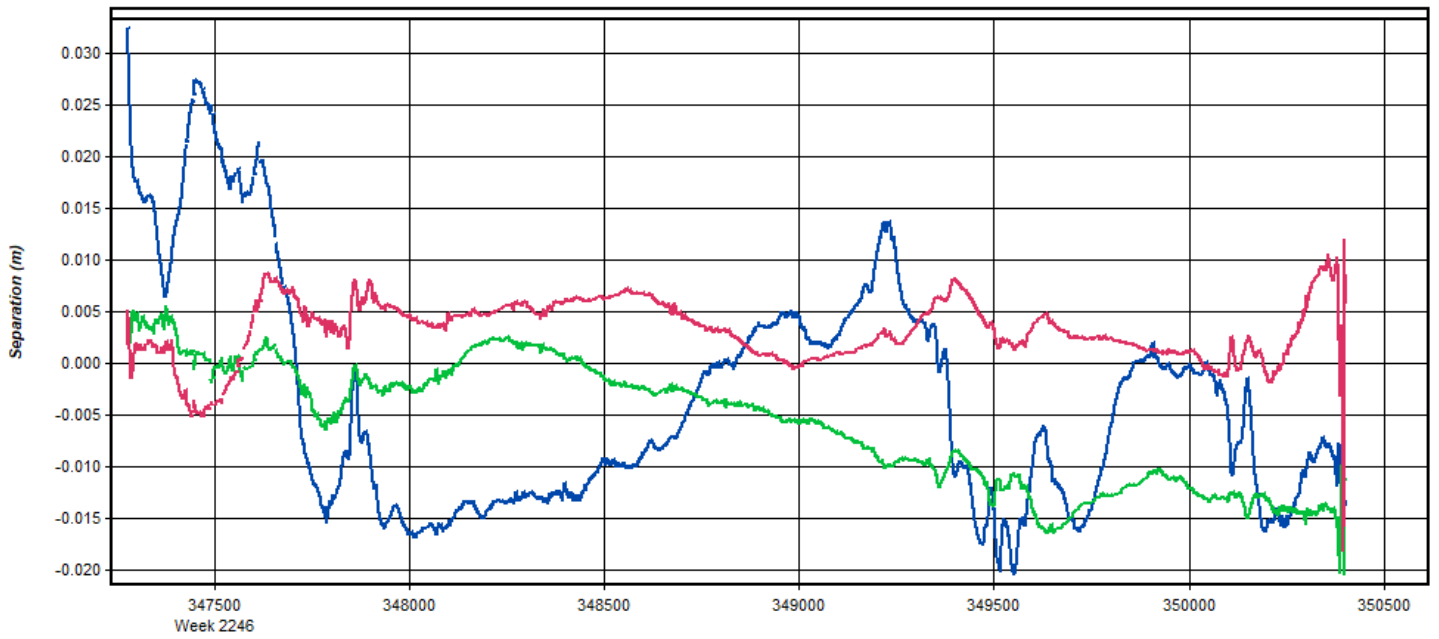
Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 3: 20230126002632_4 [Smoothed TC Combined] - Float or Fixed Ambiguity



Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 4: 20230126002632_4 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

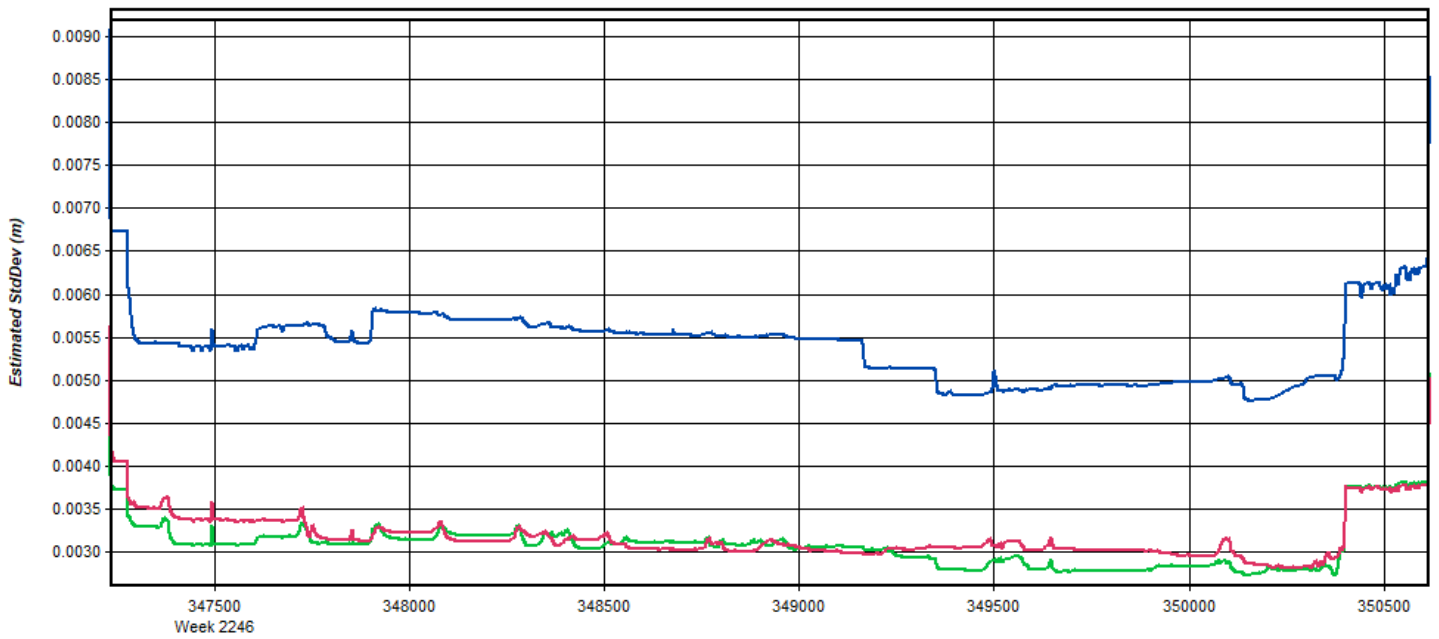


GPS Time (TOW, GMT zone)

— East — North — Up

Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 5: 20230126002632_4 [Smoothed TC Combined] - Estimated Position Accuracy Plot

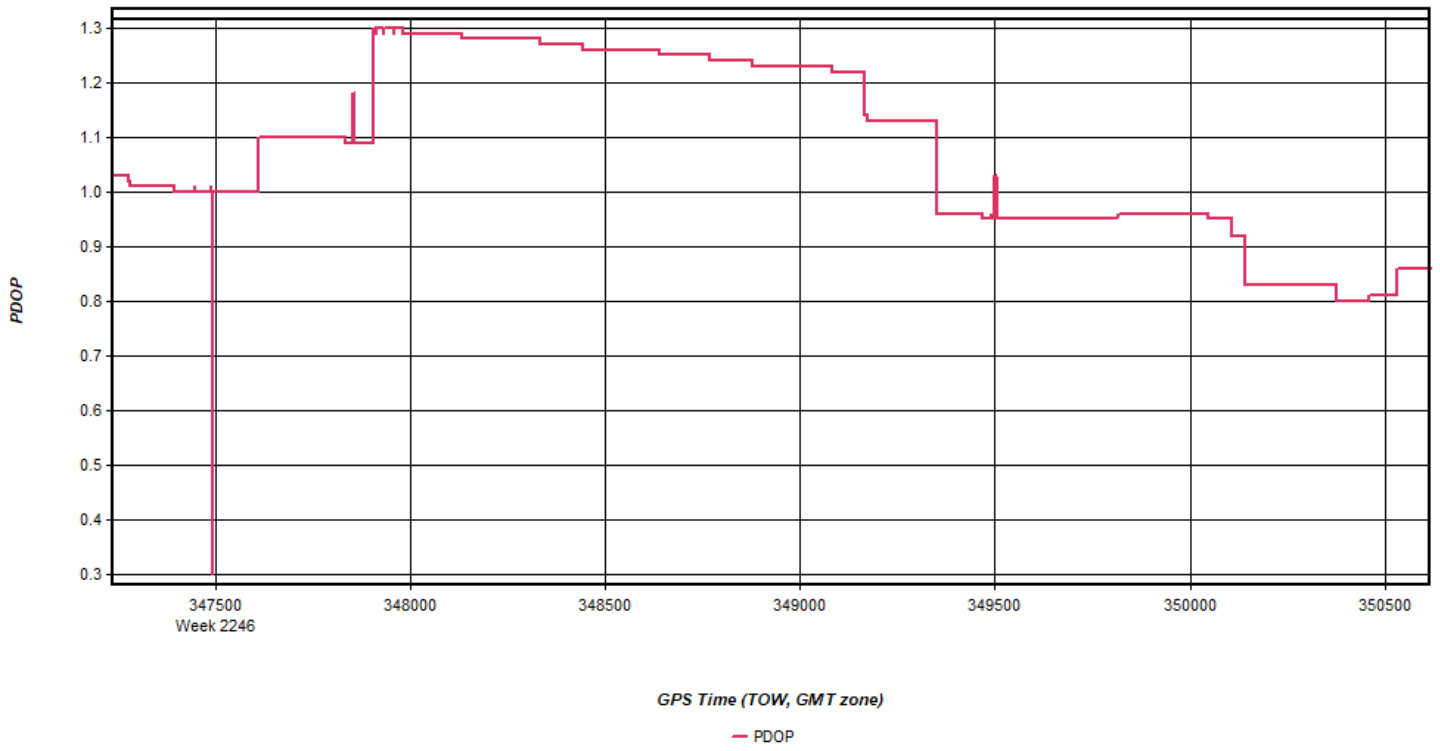


GPS Time (TOW, GMT zone)

— East — North — Height

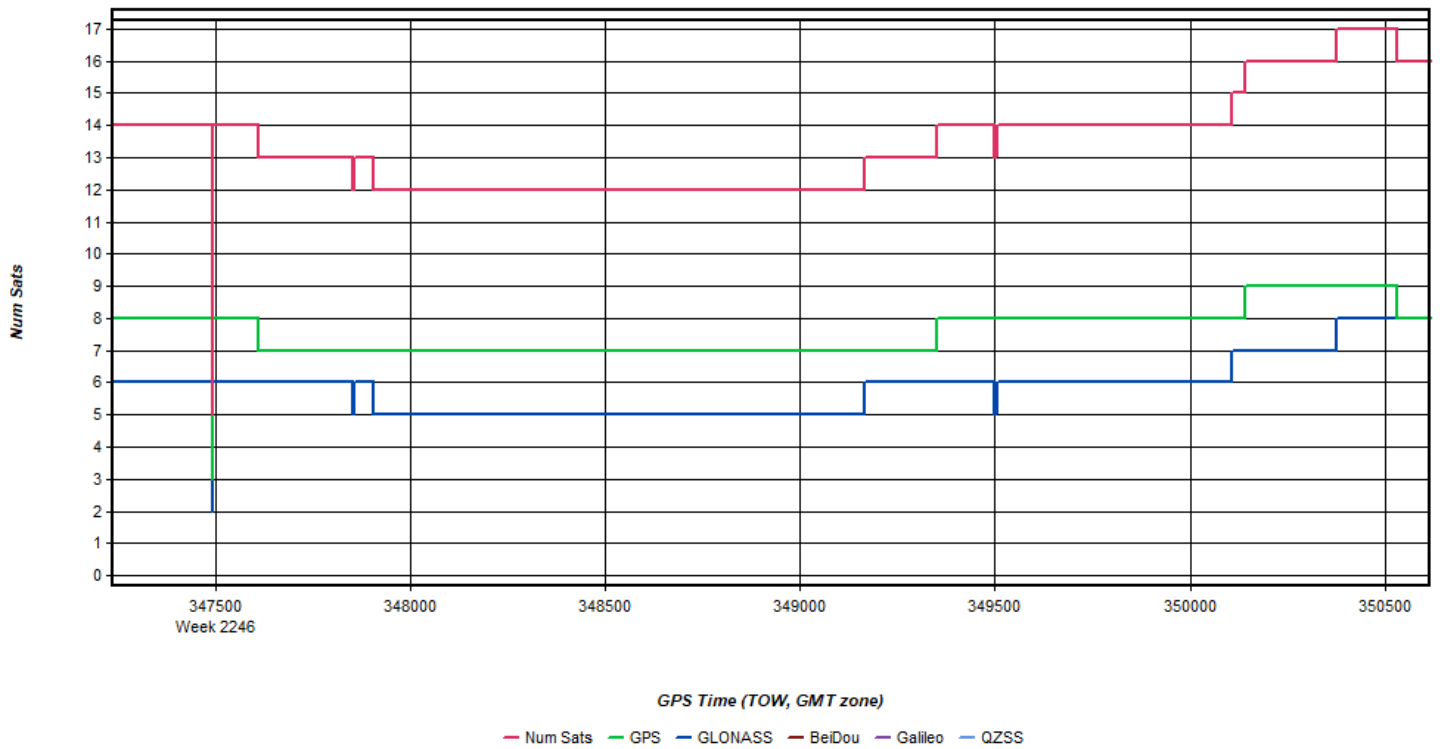
Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 6: 20230126002632_4 [Smoothed TC Combined] - PDOP Plot



Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 7: 20230126002632_4 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 8: 20230126002632_4 [Smoothed TC Combined] - Status flag for IMU processing

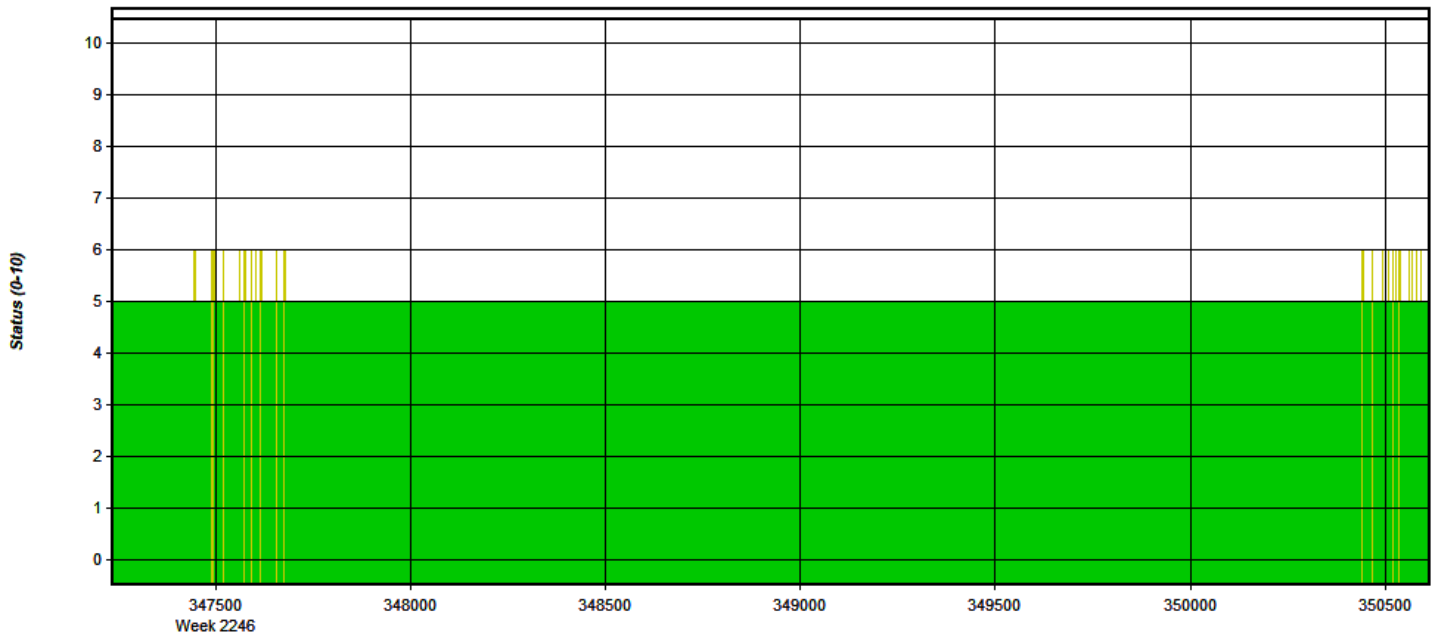


Figure 9: 20230126002632_4 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

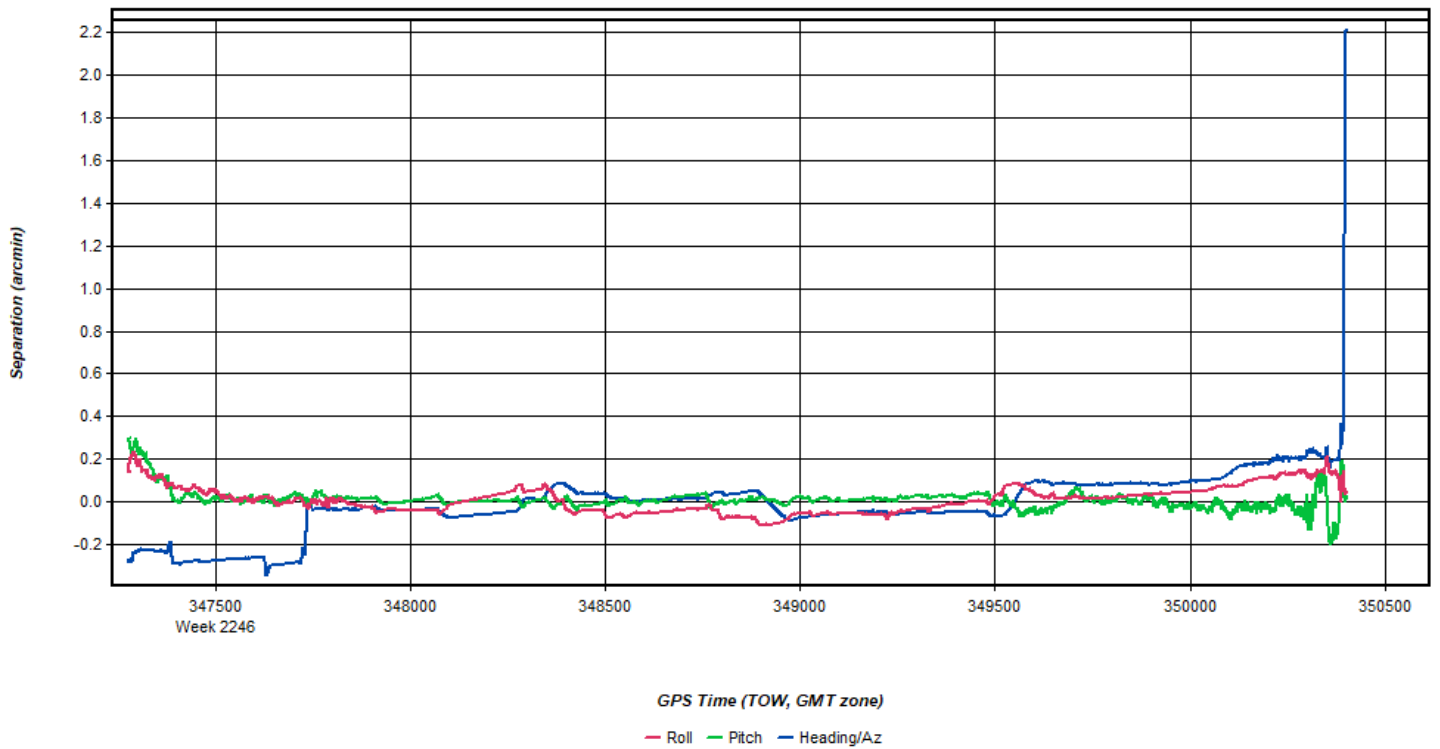
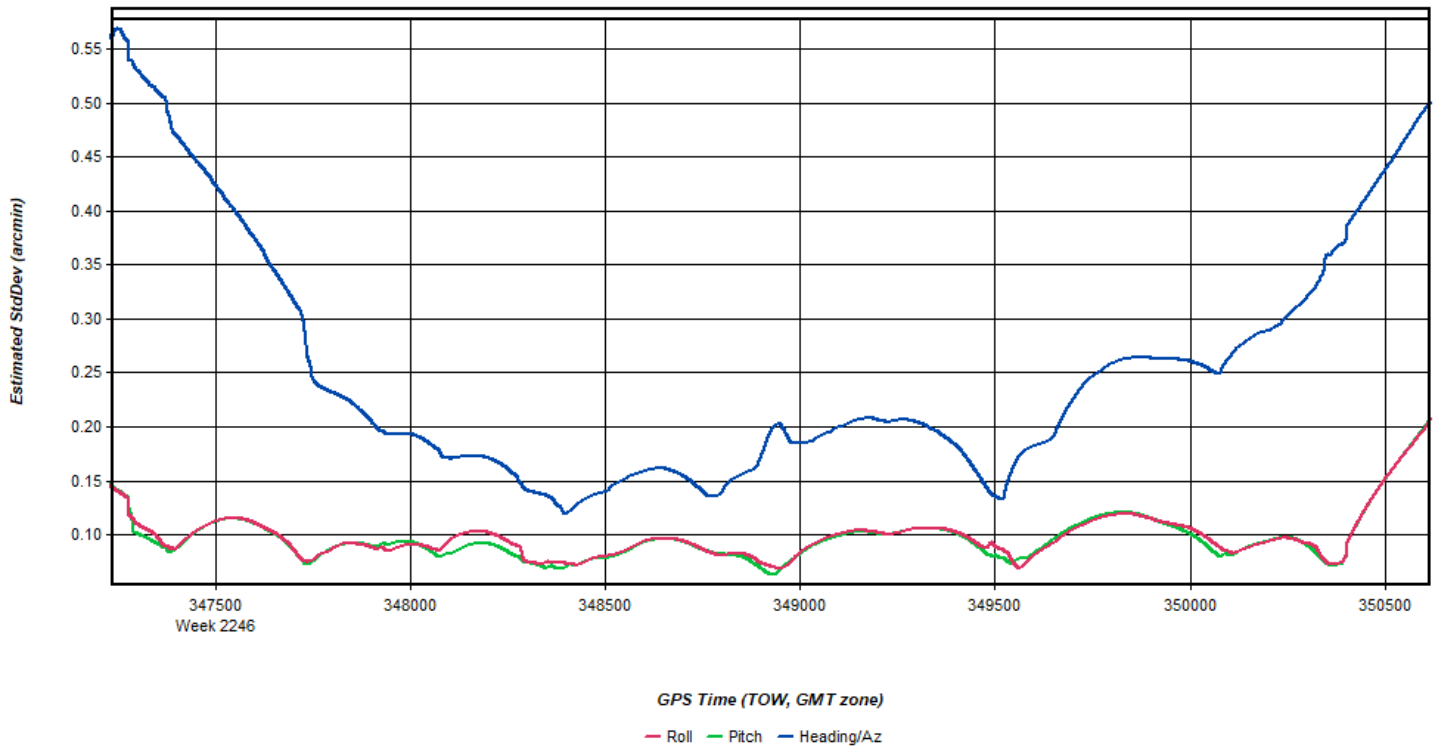


Figure 10: 20230126002632_4 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 11: 20230126002632_4 [Smoothed TC Combined] - Azimuth Plot



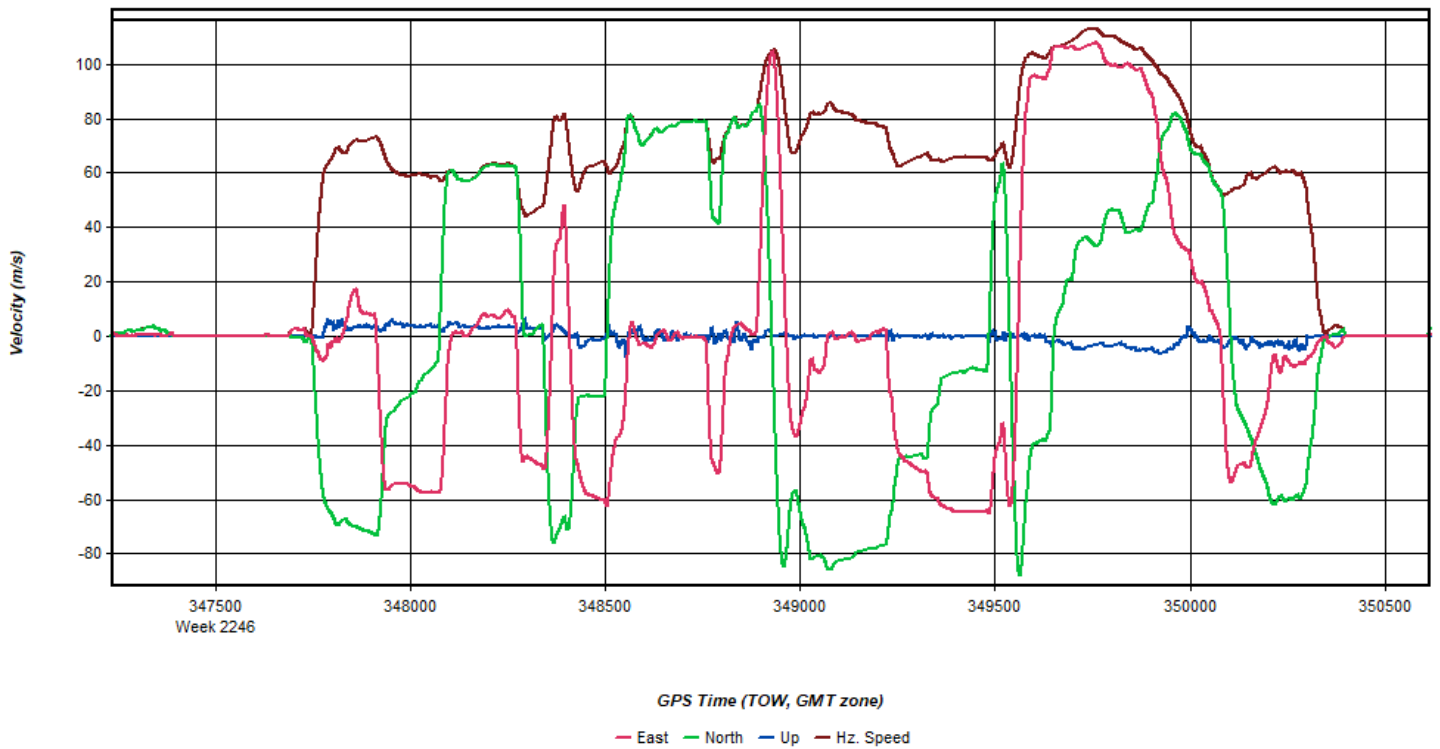
Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 12: 20230126002632_4 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

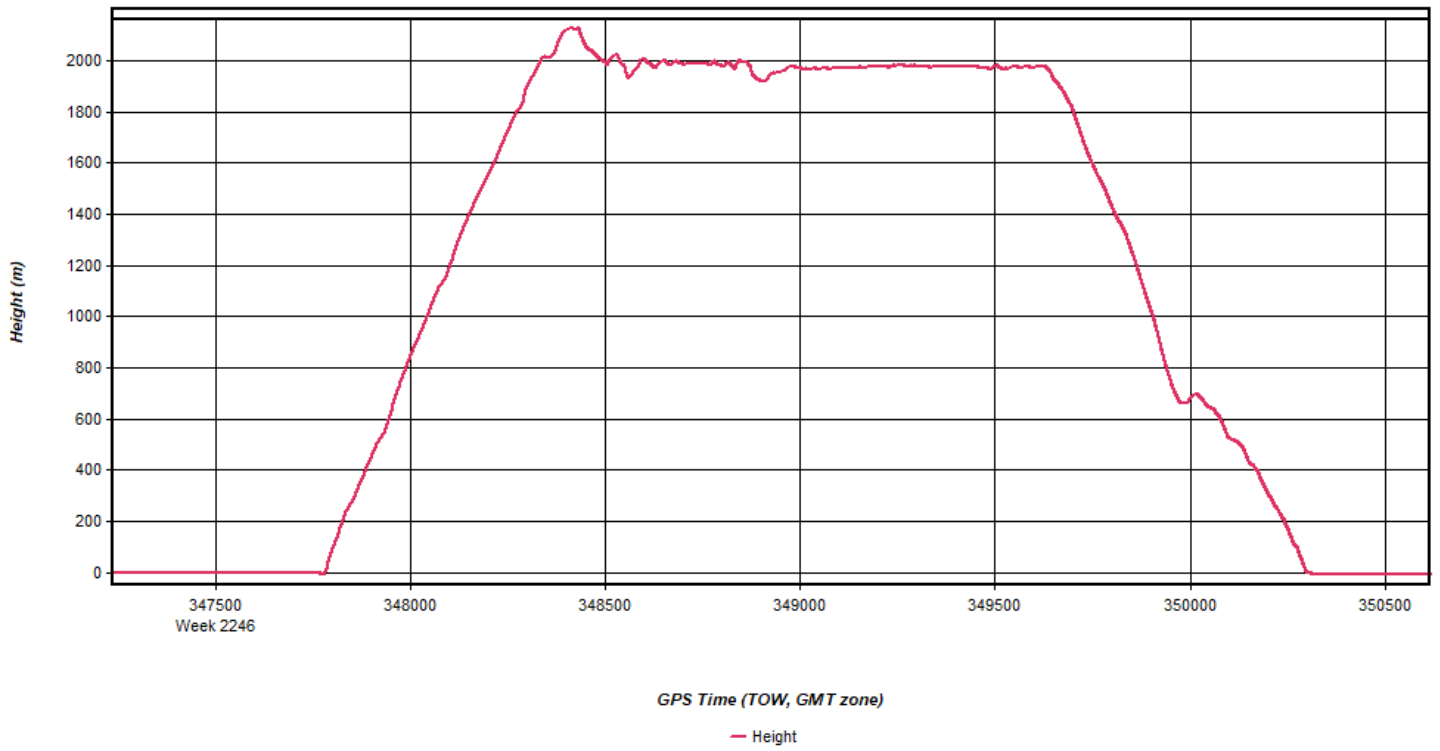
Figure 13: 20230126002632_4 [Smoothed TC Combined] - Velocity Profile Plot



Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

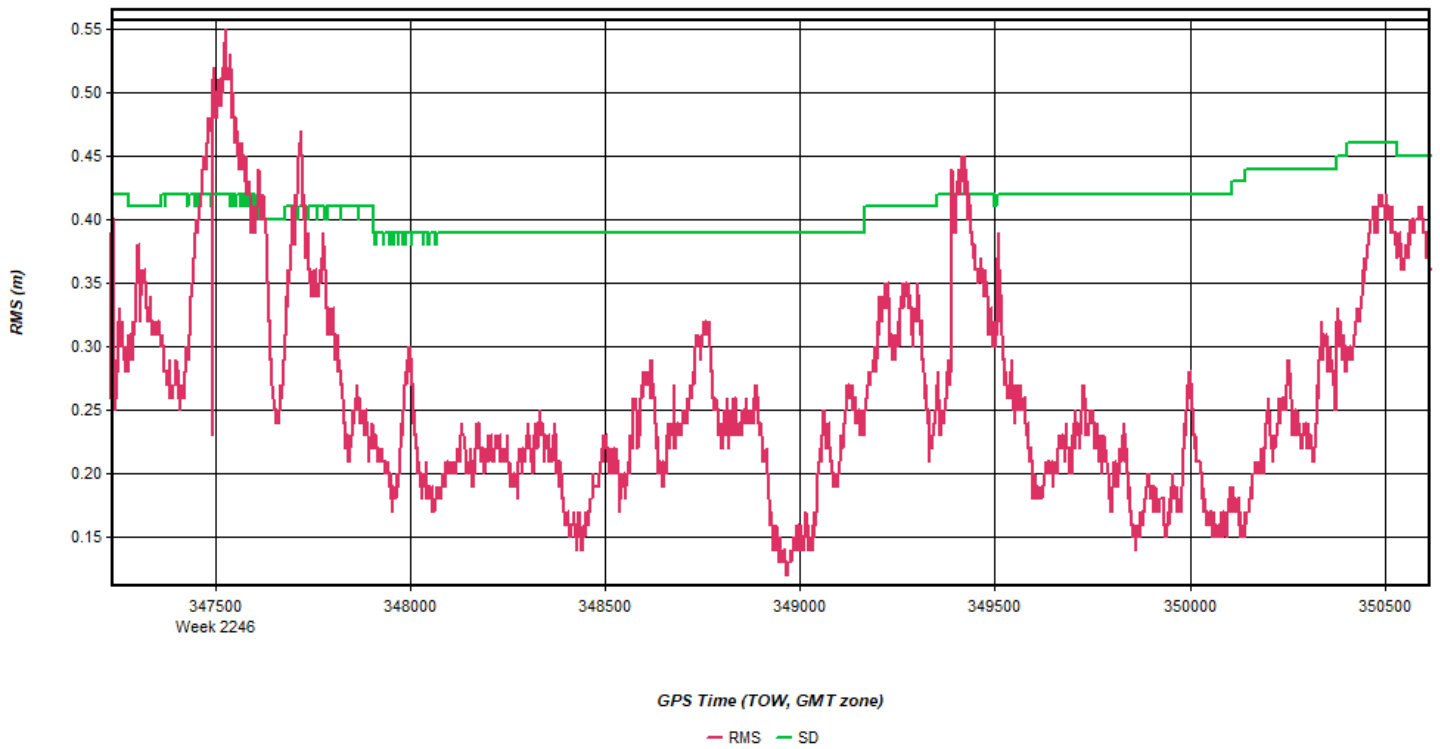
Object 20230126002632_4 [Smoothed TC Combined] - Body Frame Velocity Plot failed--NULL bitmap handle

Figure 14: 20230126002632_4 [Smoothed TC Combined] - Height Profile Plot



Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 15: 20230126002632_4 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 16: 20230126002632_4 [Smoothed TC Combined] - Carrier Residual RMS Plot

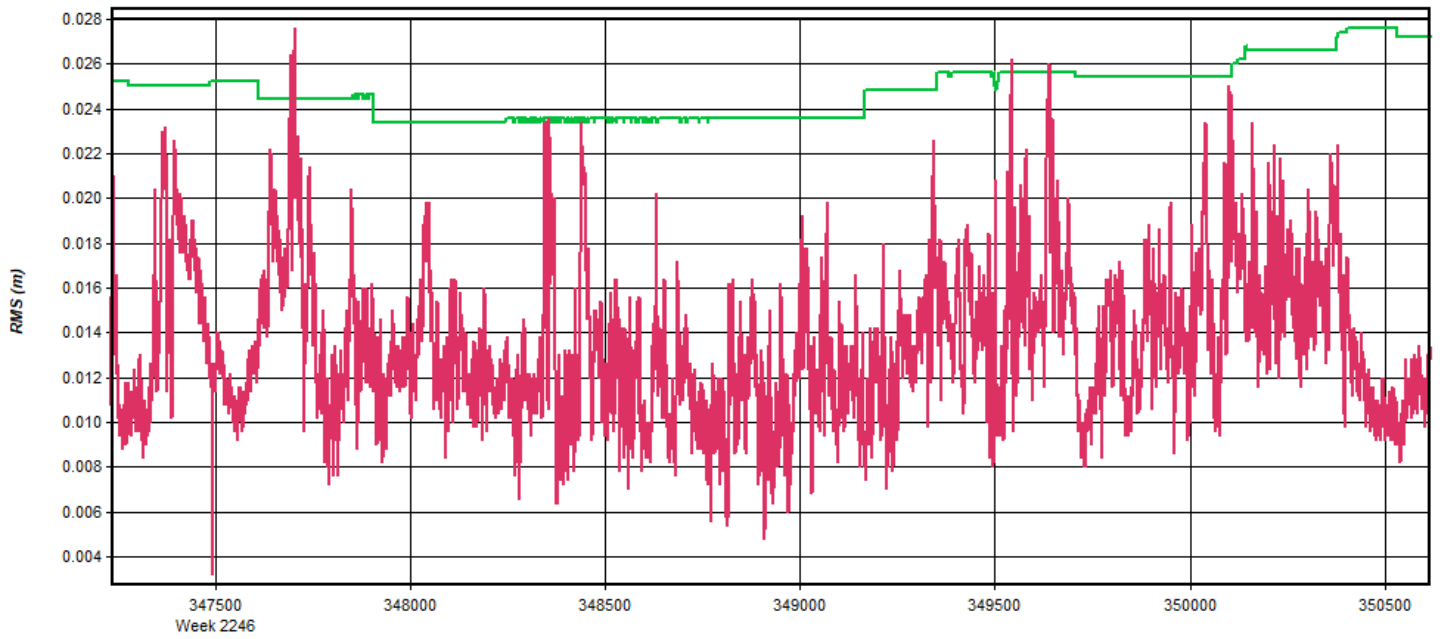


Figure 17: 20230126002632_4 [Smoothed TC Combined] - Doppler Residual RMS Plot

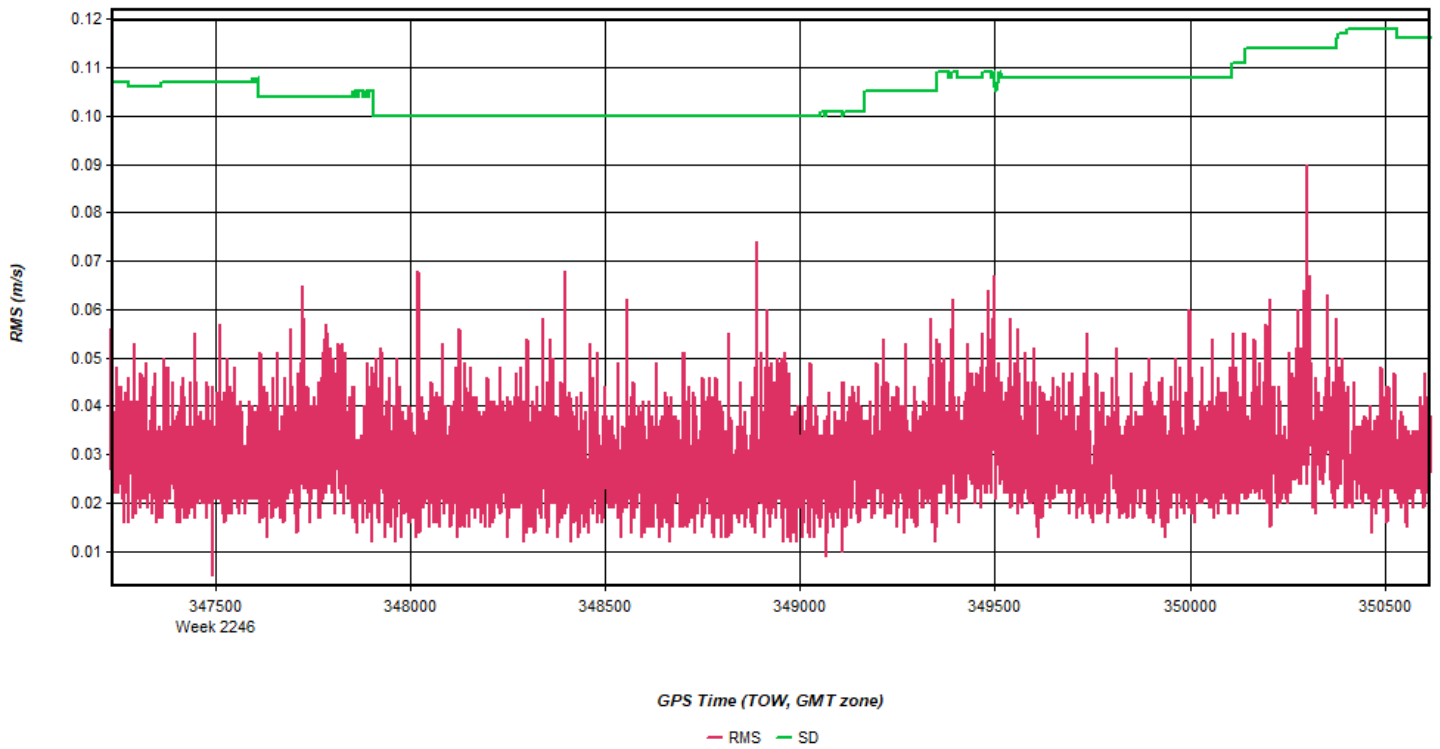
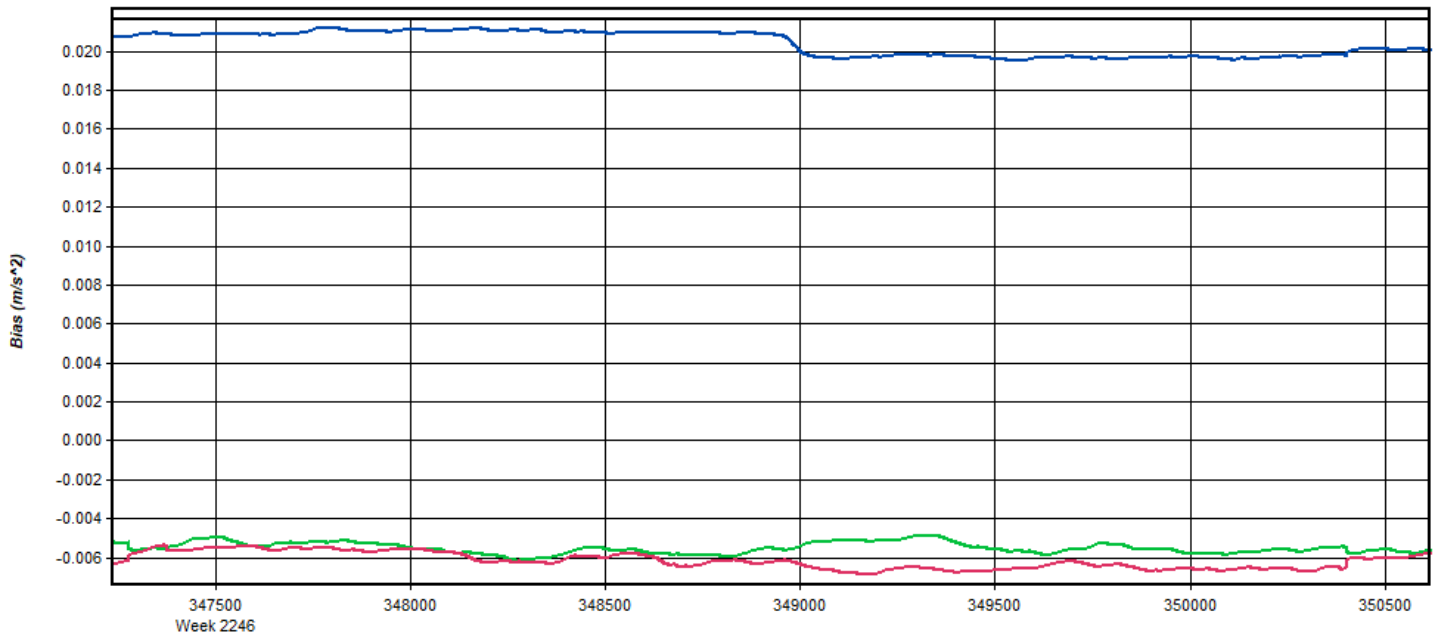


Figure 18: 20230126002632_4 [Smoothed TC Combined] - Accelerometer Bias Plot

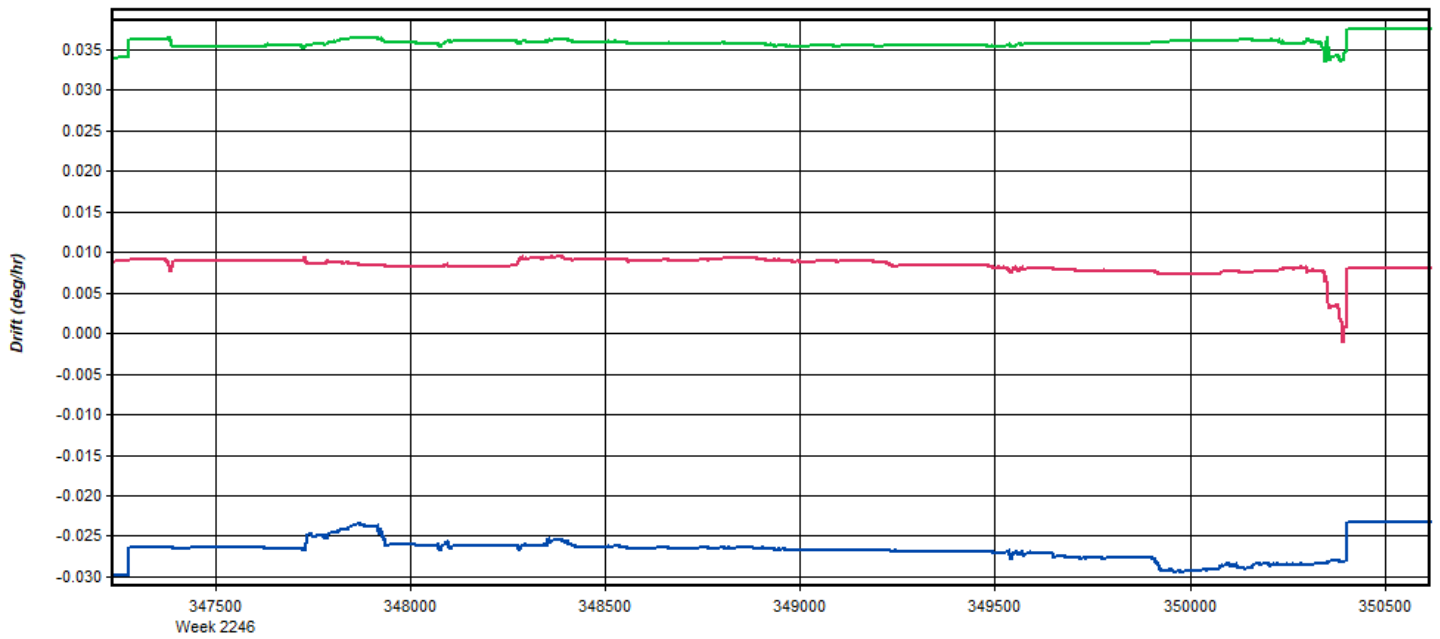


GPS Time (TOW, GMT zone)

— Body-X — Body-Y — Body-Z

Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Figure 19: 20230126002632_4 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

— Body-X — Body-Y — Body-Z

Process	20230126002632_4	by Unknown	on 2/7/2023	at 10:14:37
---------	------------------	------------	-------------	-------------

Output Results for 20230126165856_5

Inertial Explorer Version 8.90.6611
02/07/2023

Figure 1: Smoothed TC Combined - Map



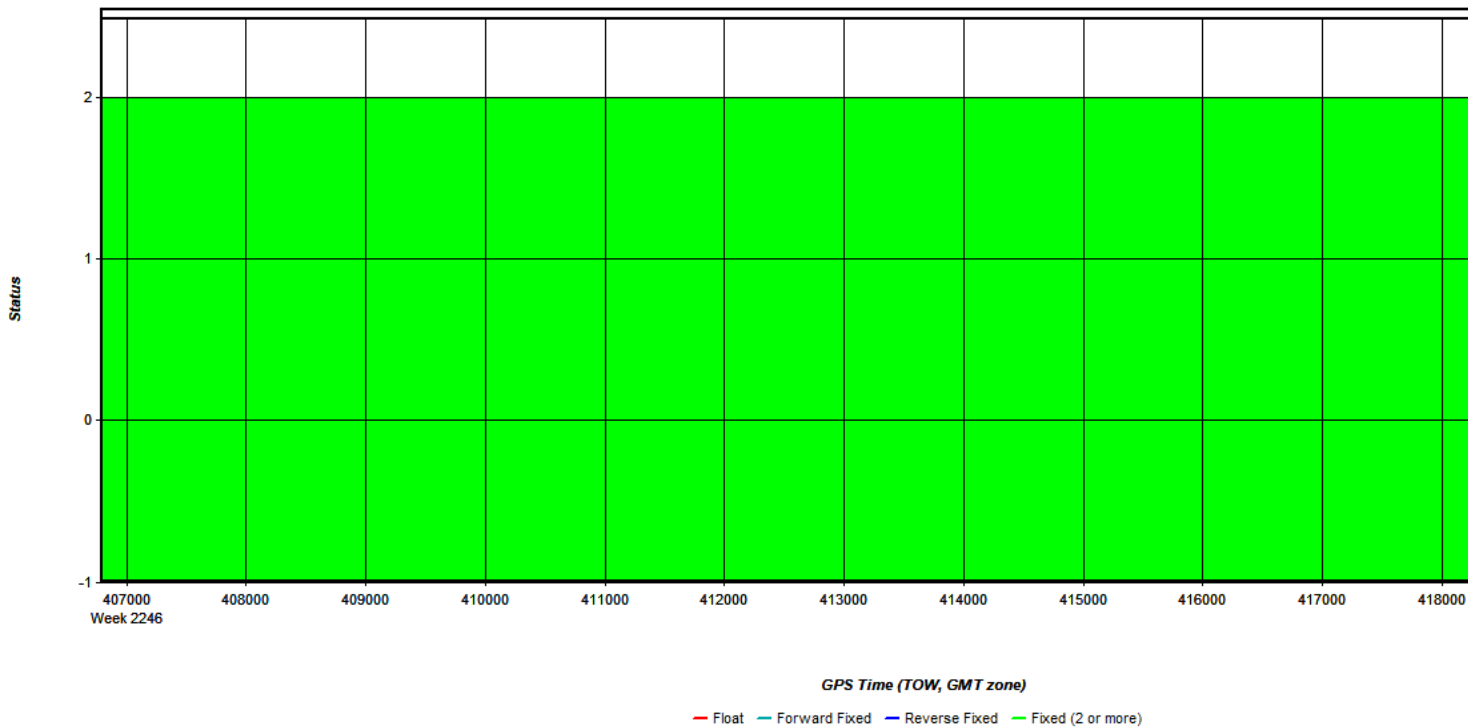
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 2: 20230126165856_5 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 3: 20230126165856_5 [Smoothed TC Combined] - Float or Fixed Ambiguity



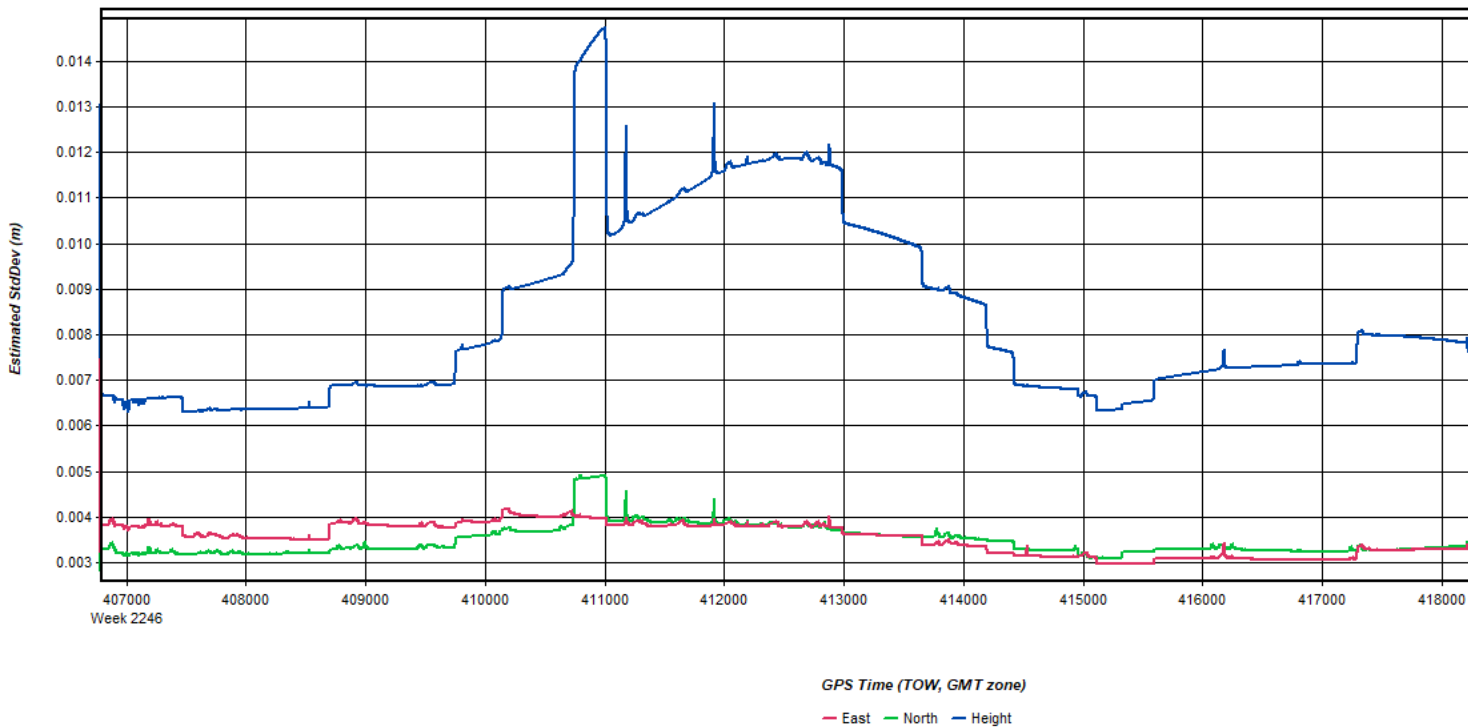
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 4: 20230126165856_5 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 5: 20230126165856_5 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 6: 20230126165856_5 [Smoothed TC Combined] - PDOP Plot

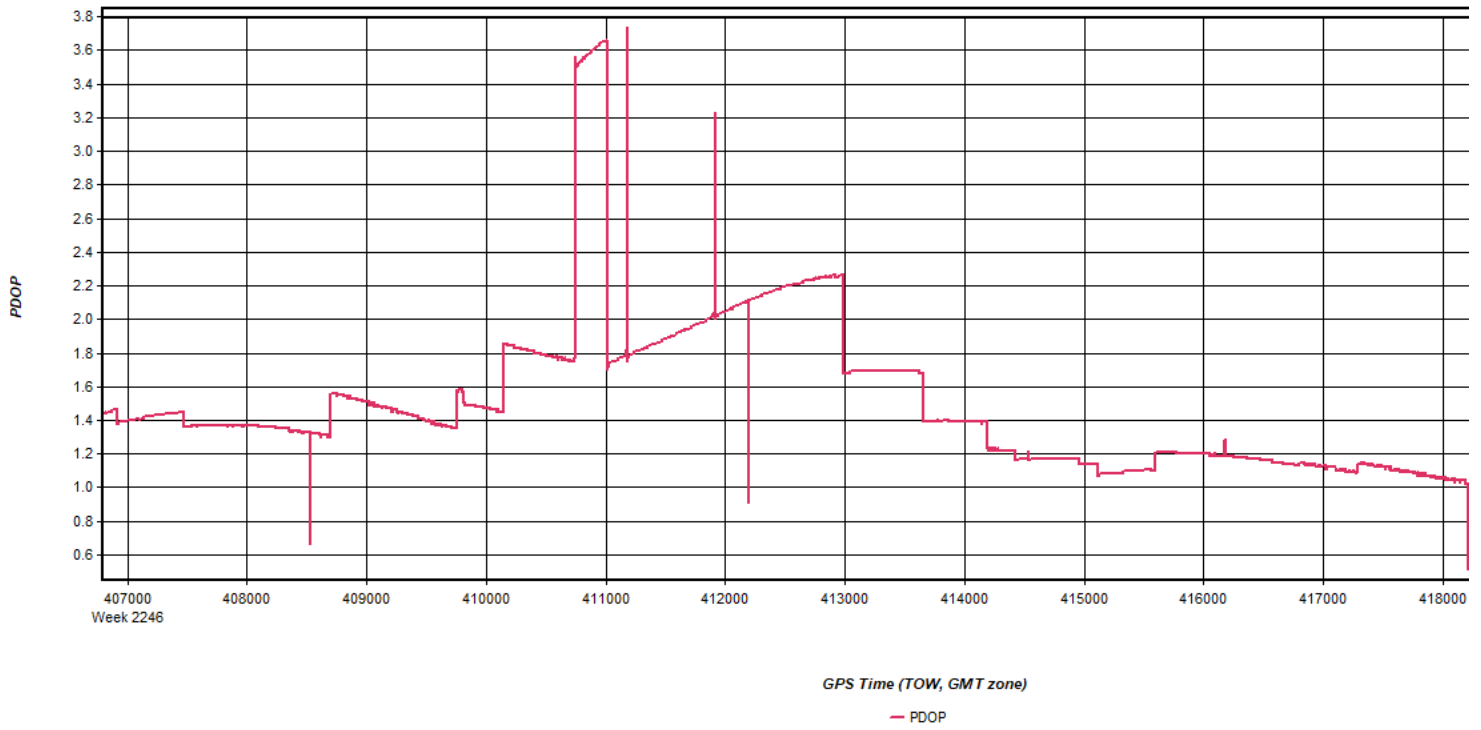


Figure 7: 20230126165856_5 [Smoothed TC Combined] - Number of Satellites Line Plot

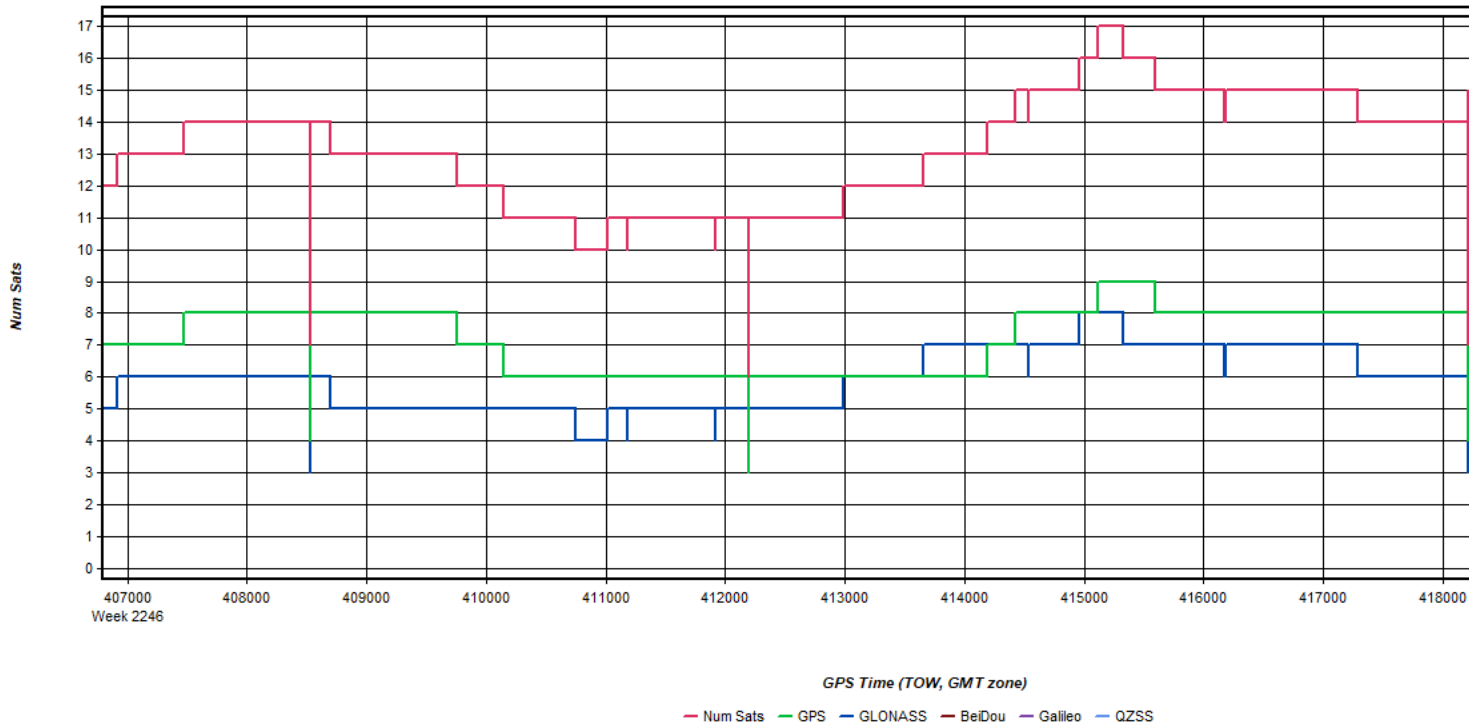
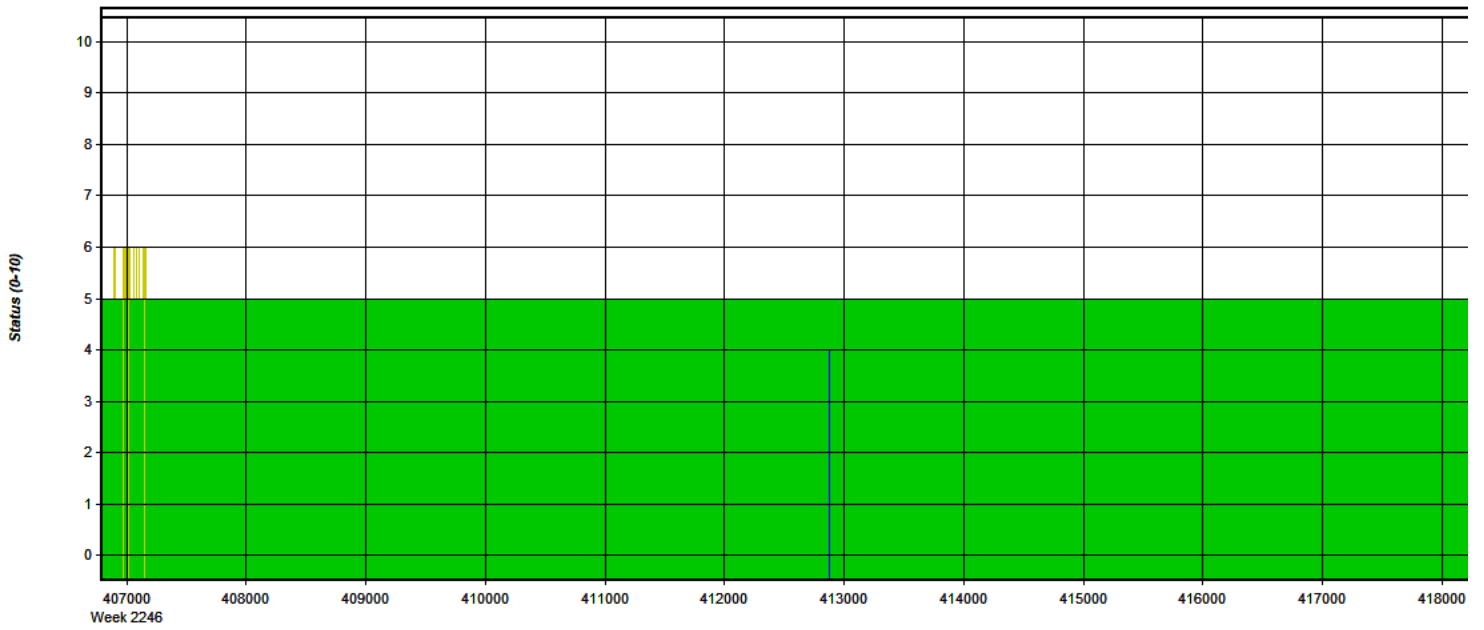


Figure 8: 20230126165856_5 [Smoothed TC Combined] - Status flag for IMU processing

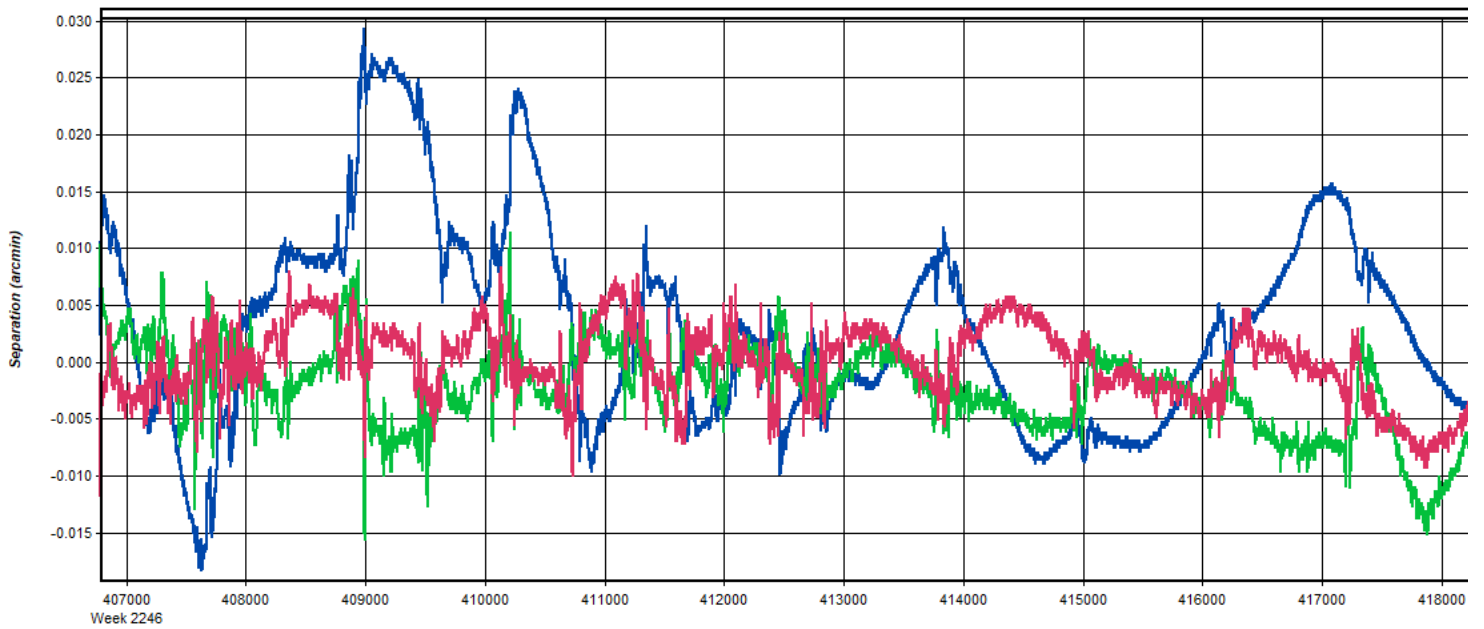


GPS Time (TOW, GMT zone)

— None — Align — Free — DMIUPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 9: 20230126165856_5 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

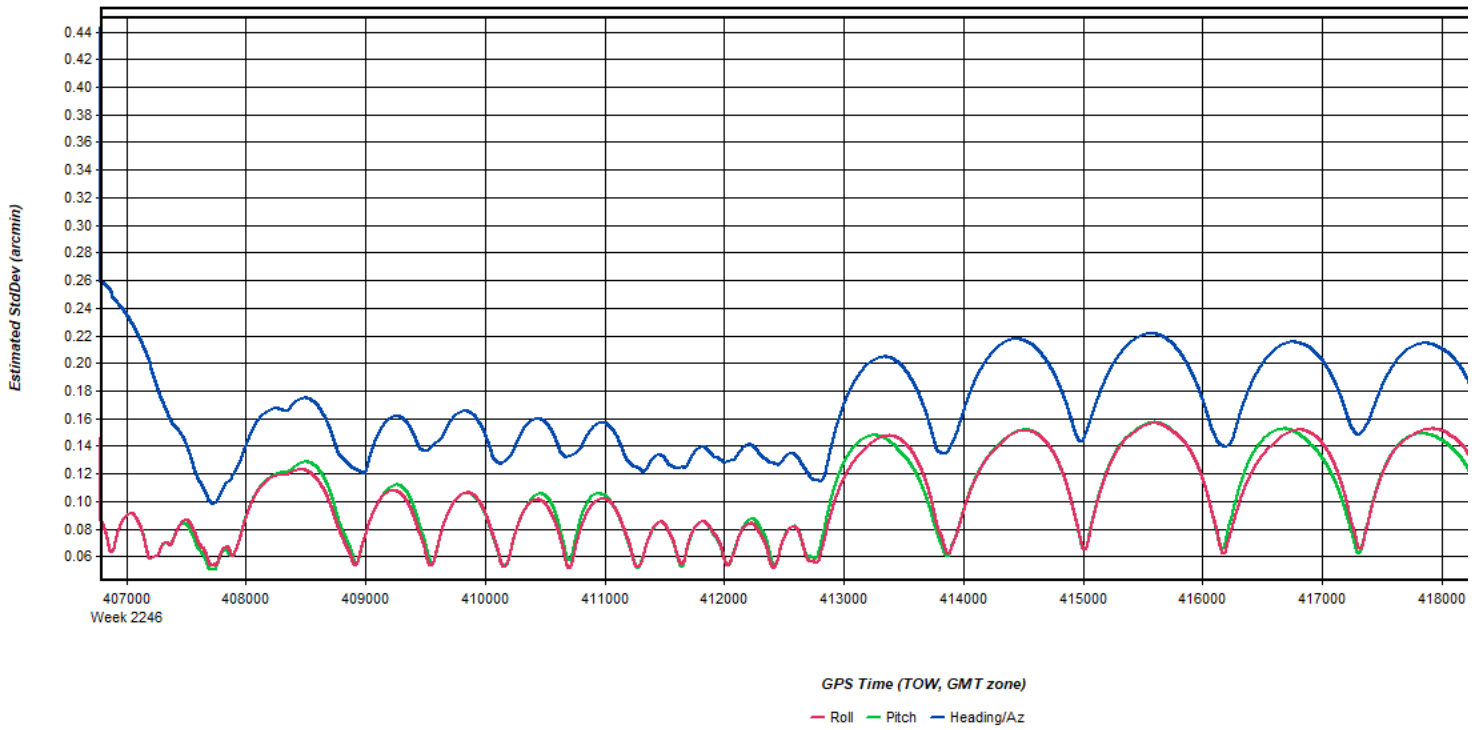


GPS Time (TOW, GMT zone)

— Roll — Pitch — Heading/Az

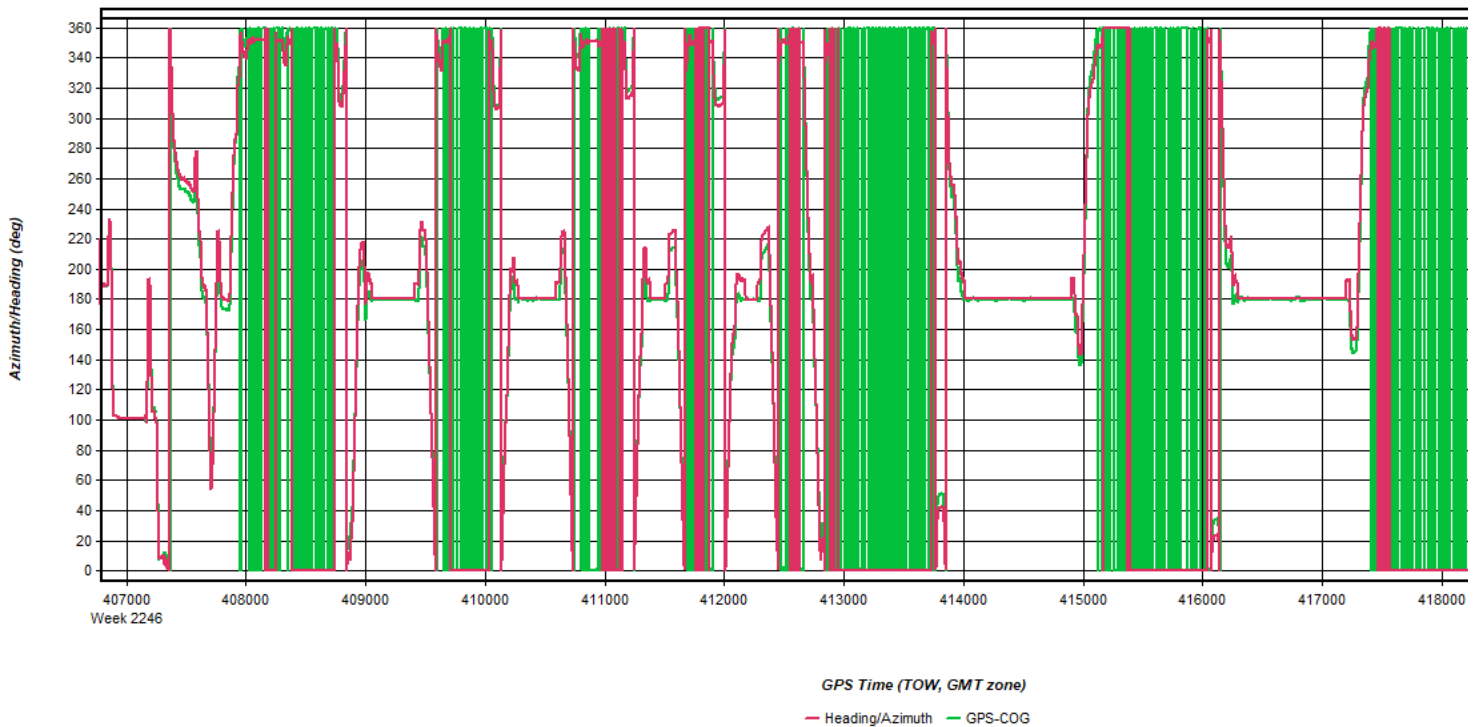
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 10: 20230126165856_5 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



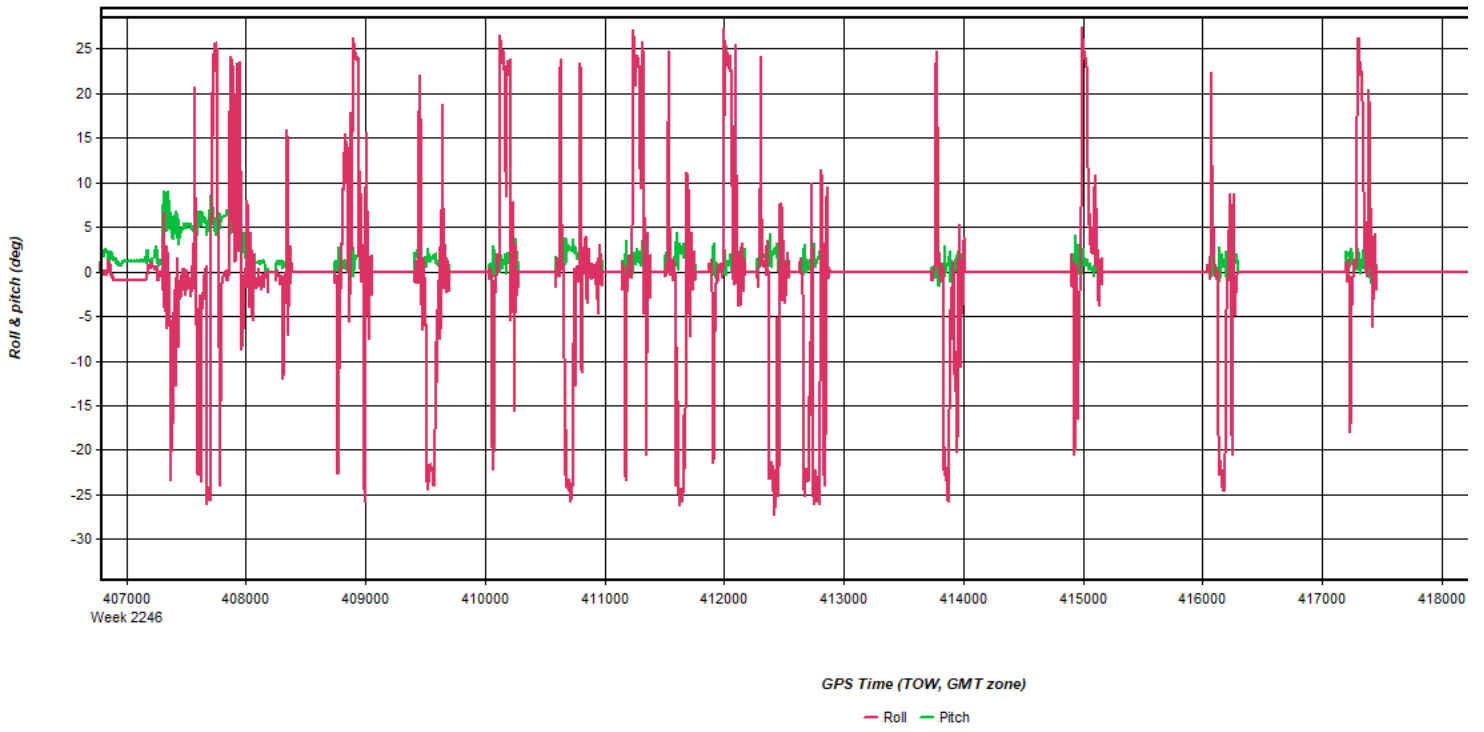
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 11: 20230126165856_5 [Smoothed TC Combined] - Azimuth Plot



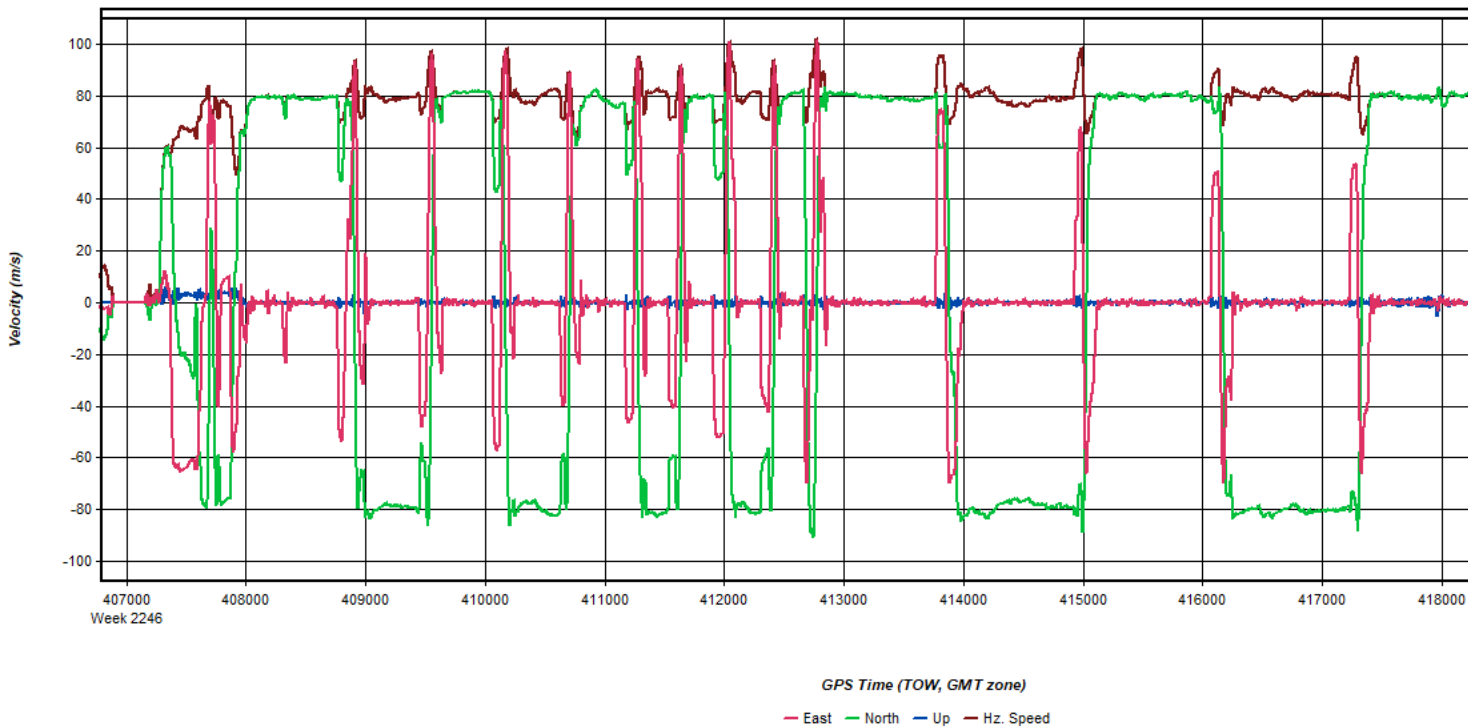
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 12: 20230126165856_5 [Smoothed TC Combined] - Roll & Pitch Plot



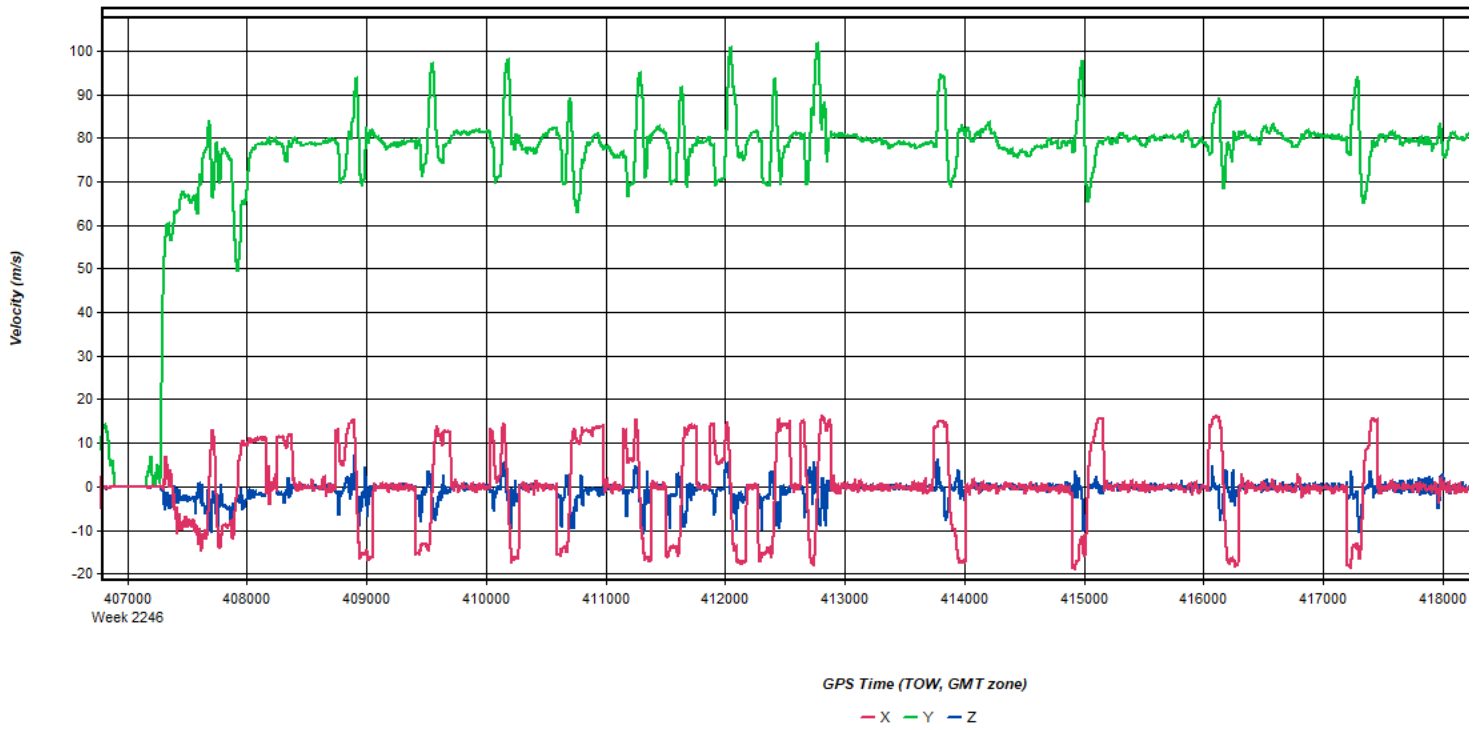
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 13: 20230126165856_5 [Smoothed TC Combined] - Velocity Profile Plot



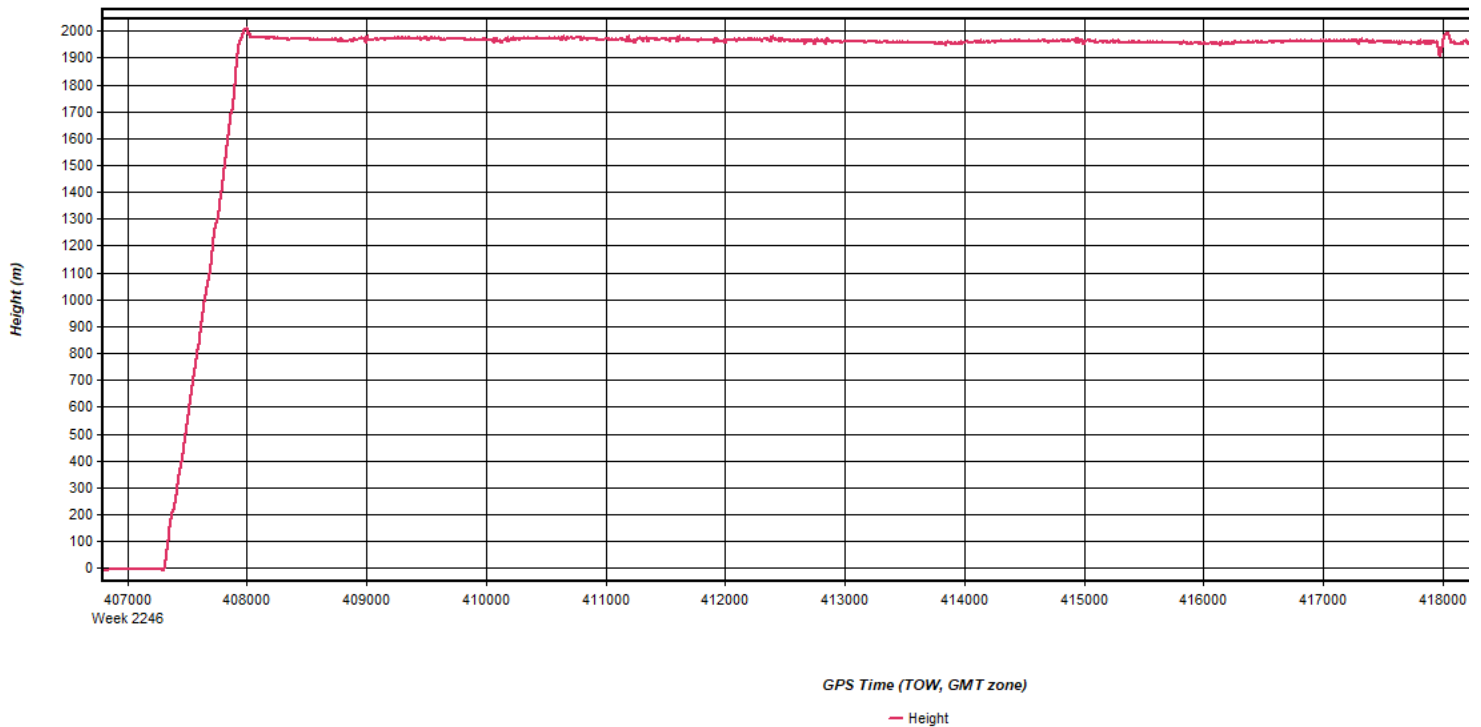
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 14: 20230126165856_5 [Smoothed TC Combined] - Body Frame Velocity Plot



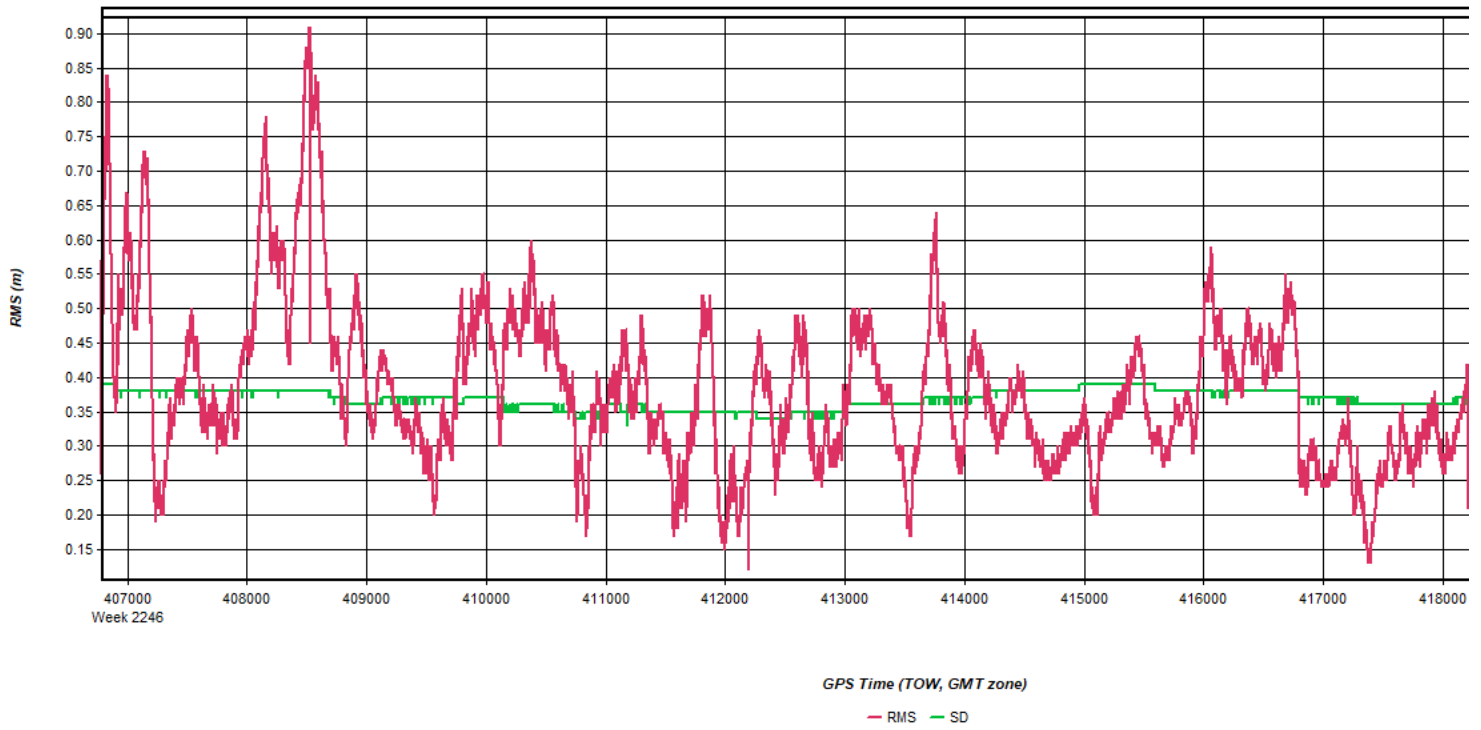
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 15: 20230126165856_5 [Smoothed TC Combined] - Height Profile Plot



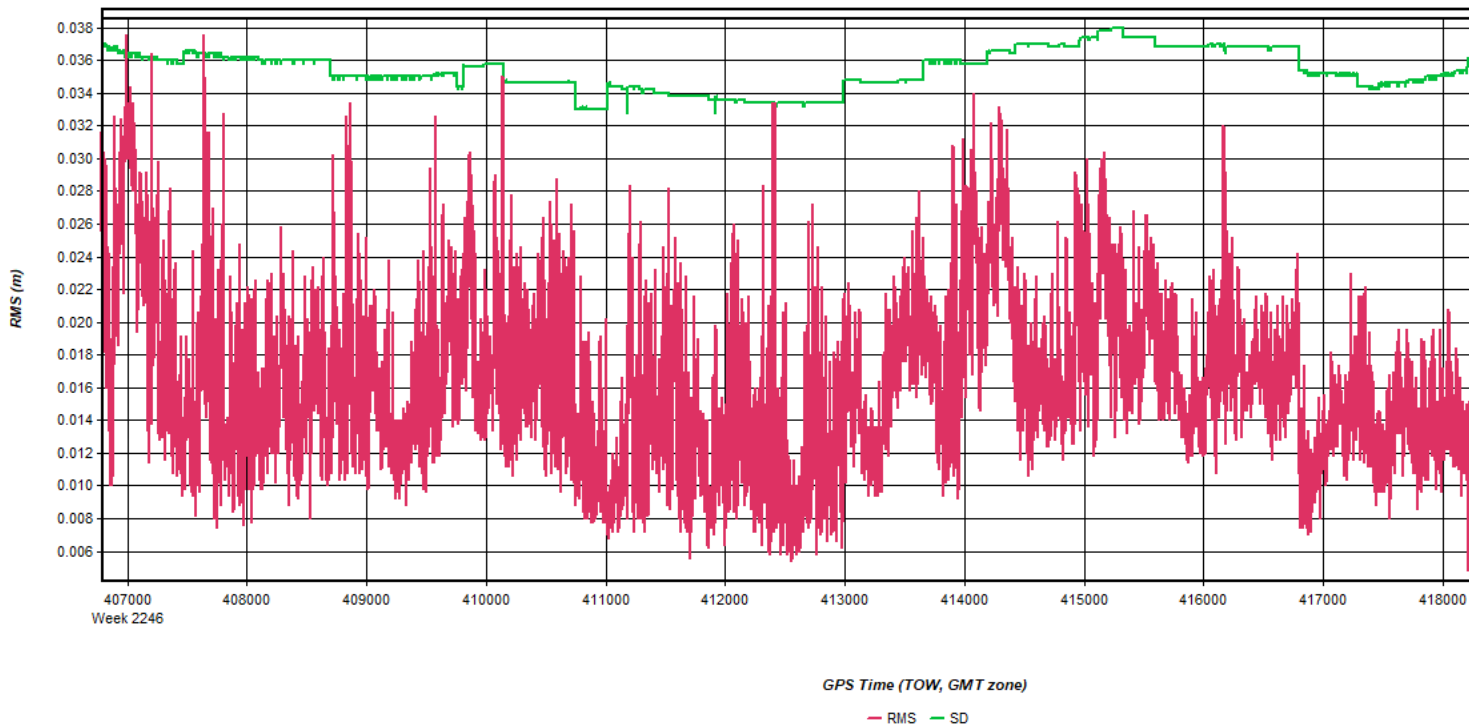
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 16: 20230126165856_5 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 17: 20230126165856_5 [Smoothed TC Combined] - Carrier Residual RMS Plot



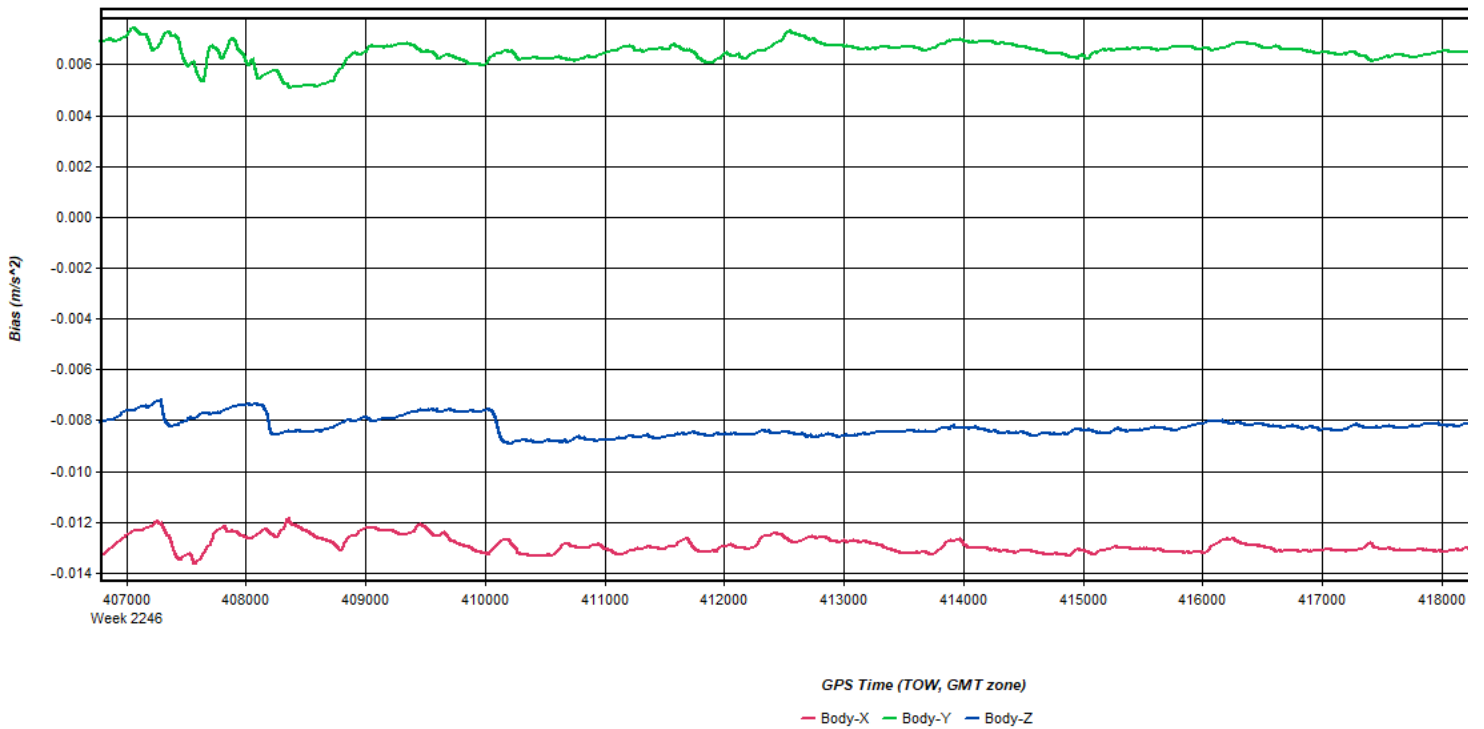
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 18: 20230126165856_5 [Smoothed TC Combined] - Doppler Residual RMS Plot



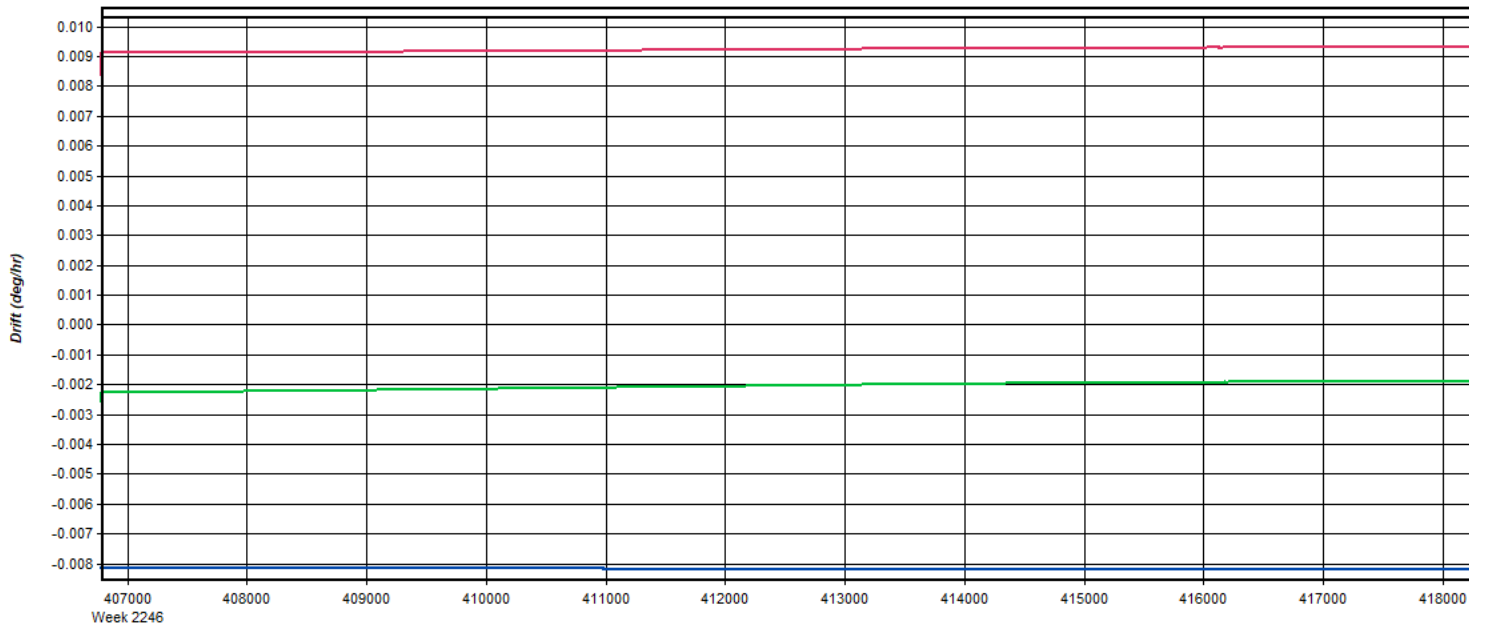
Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 19: 20230126165856_5 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Figure 20: 20230126165856_5 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

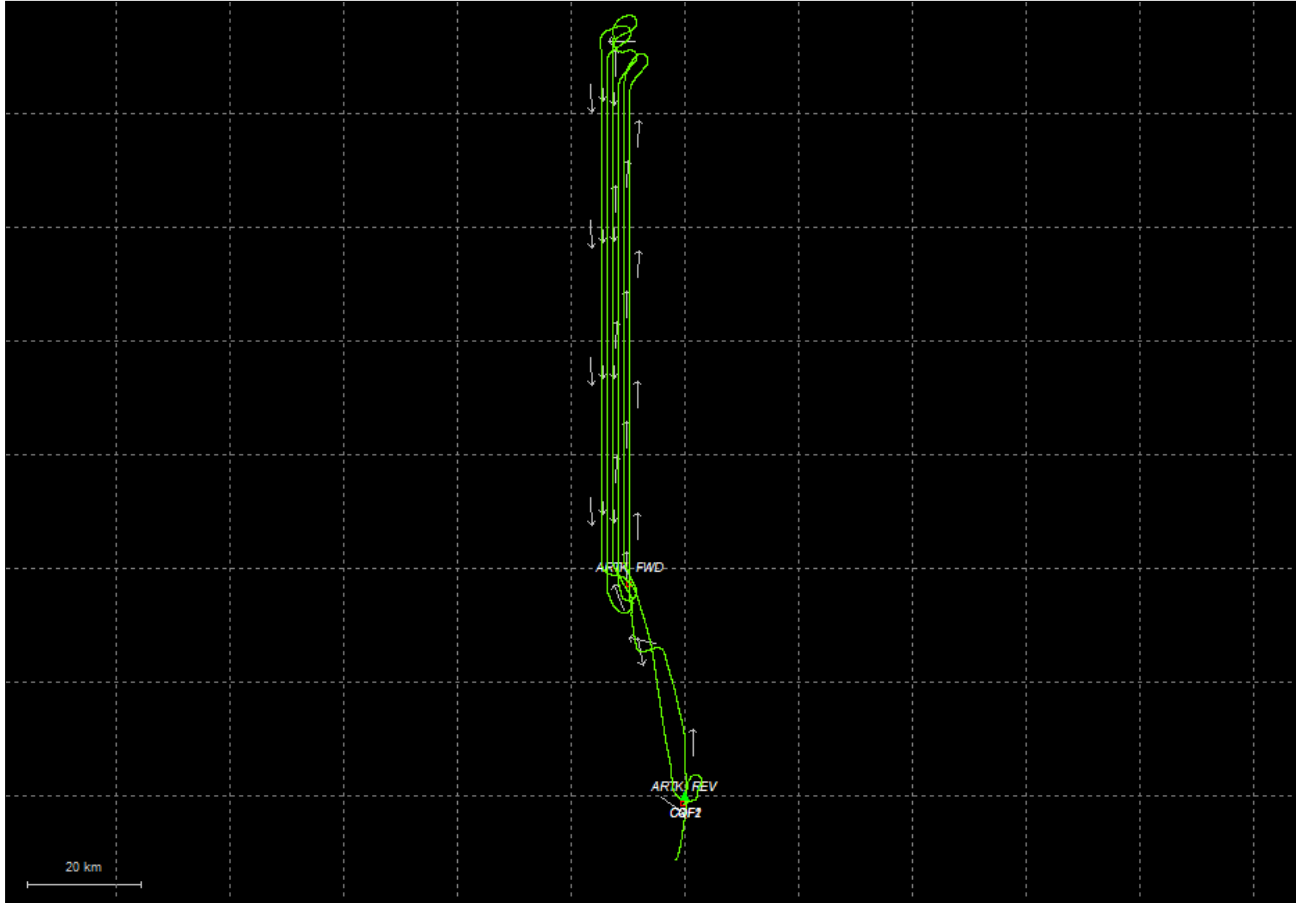
— Body-X — Body-Y — Body-Z

Process	20230126165856_5	by Unknown	on 2/7/2023	at 15:15:07
---------	------------------	------------	-------------	-------------

Output Results for 20230126214003_6

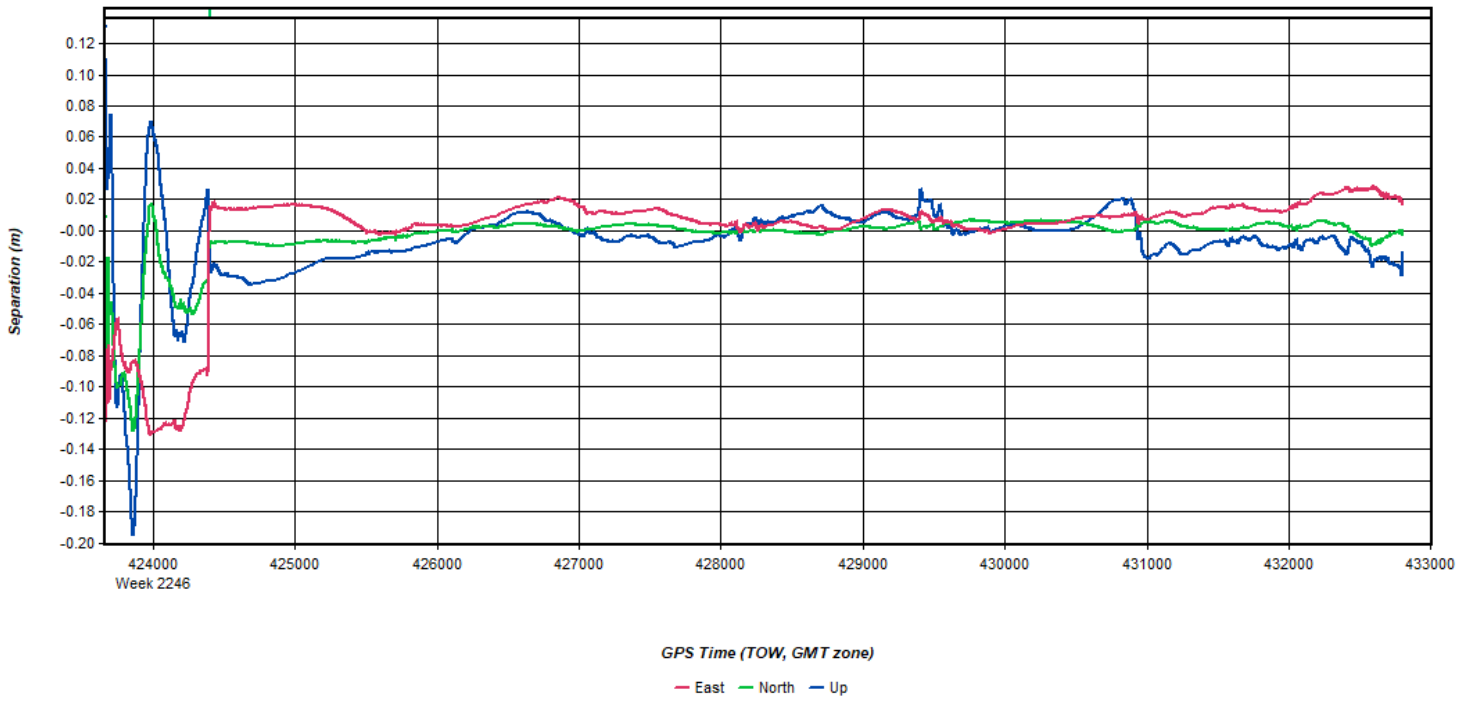
Inertial Explorer Version 8.90.6611
02/08/2023

Figure 1: Smoothed TC Combined - Map



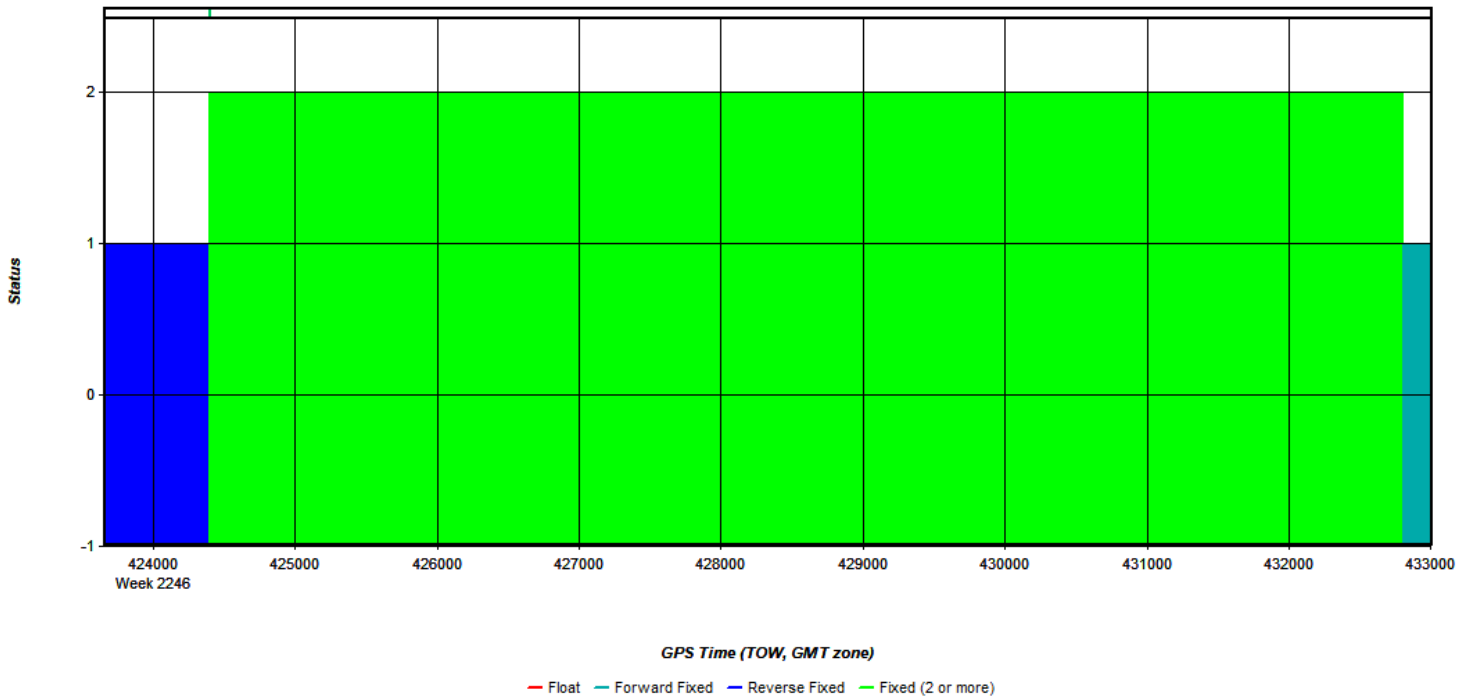
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 2: 20230126214003_6 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



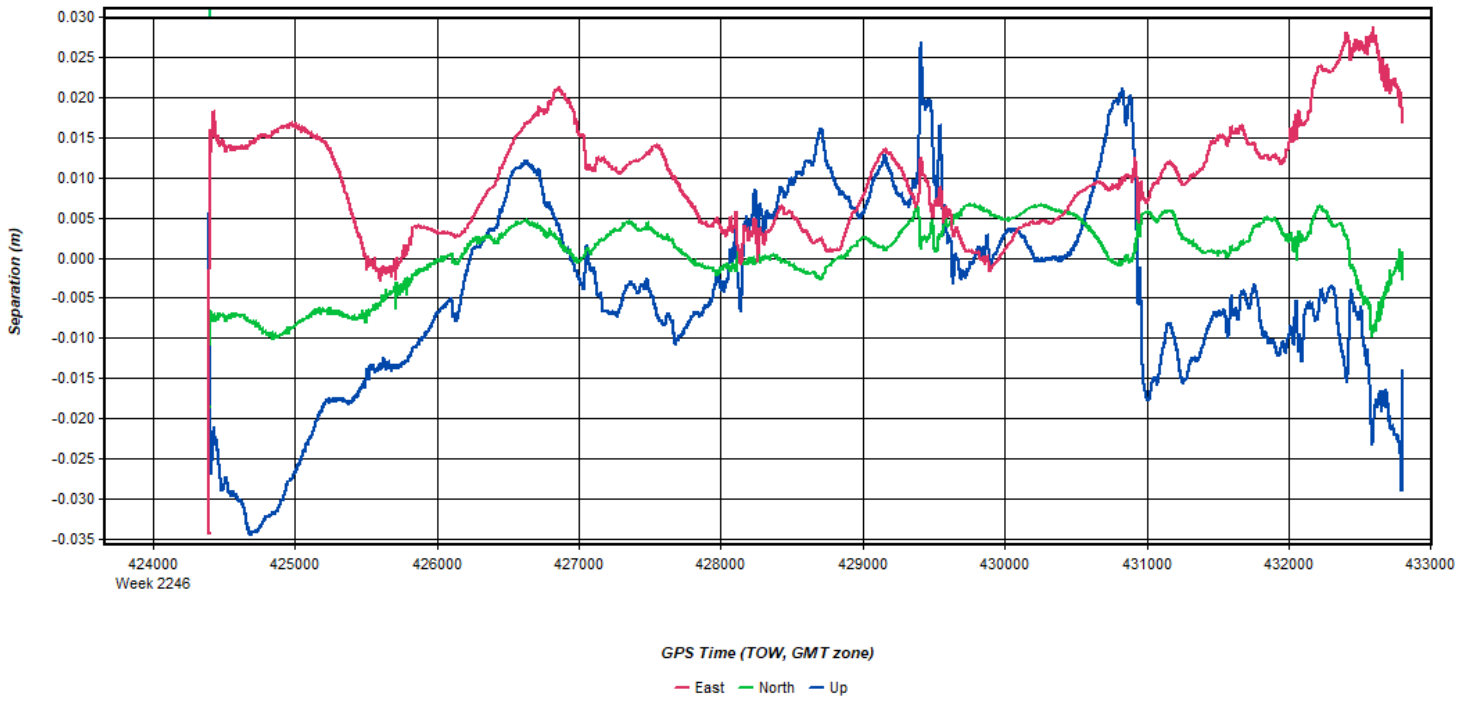
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 3: 20230126214003_6 [Smoothed TC Combined] - Float or Fixed Ambiguity



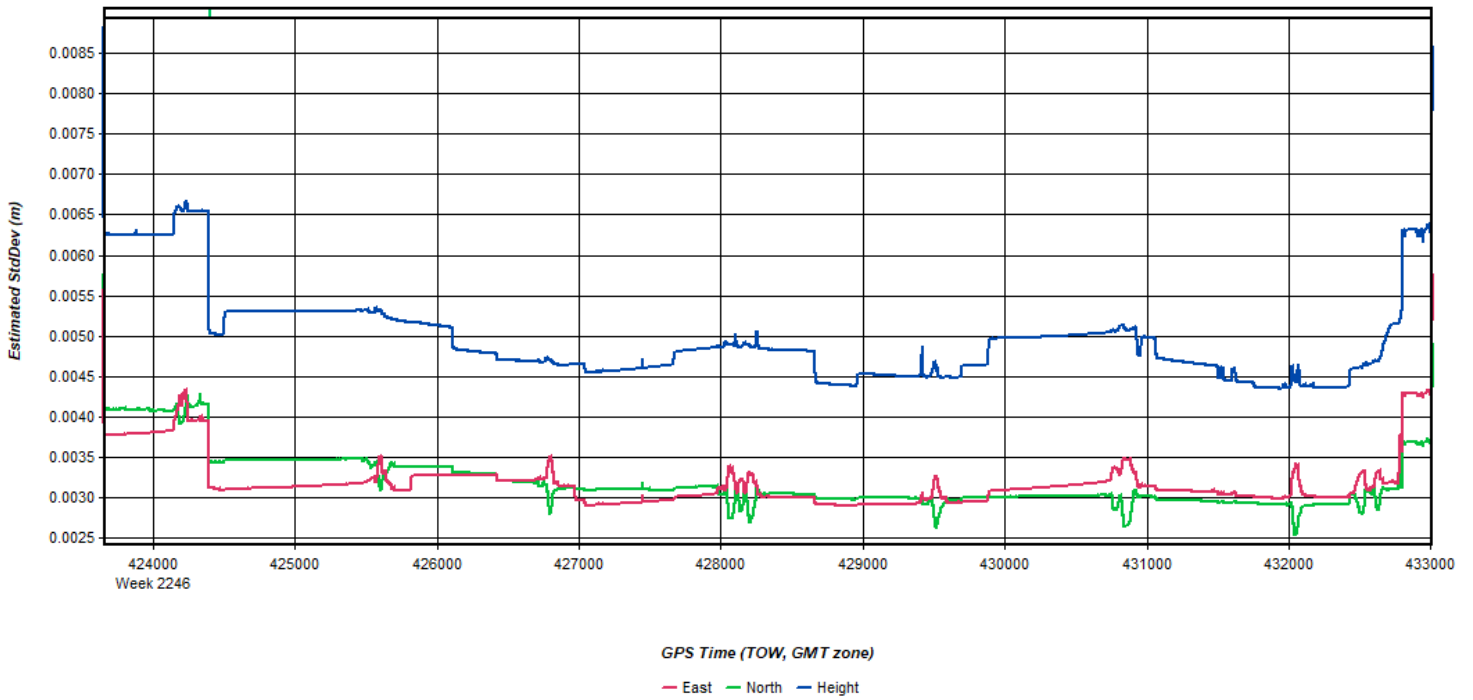
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 4: 20230126214003_6 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 5: 20230126214003_6 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 6: 20230126214003_6 [Smoothed TC Combined] - PDOP Plot

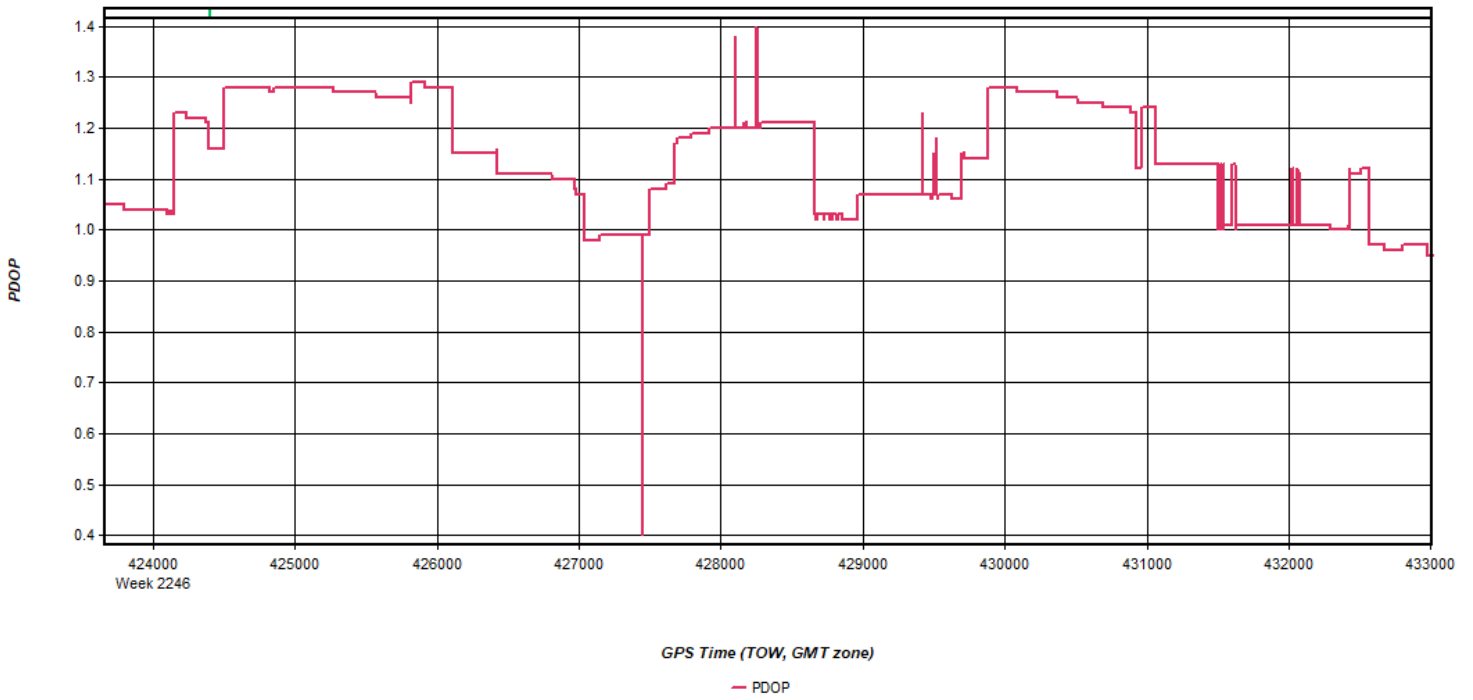


Figure 7: 20230126214003_6 [Smoothed TC Combined] - Number of Satellites Line Plot

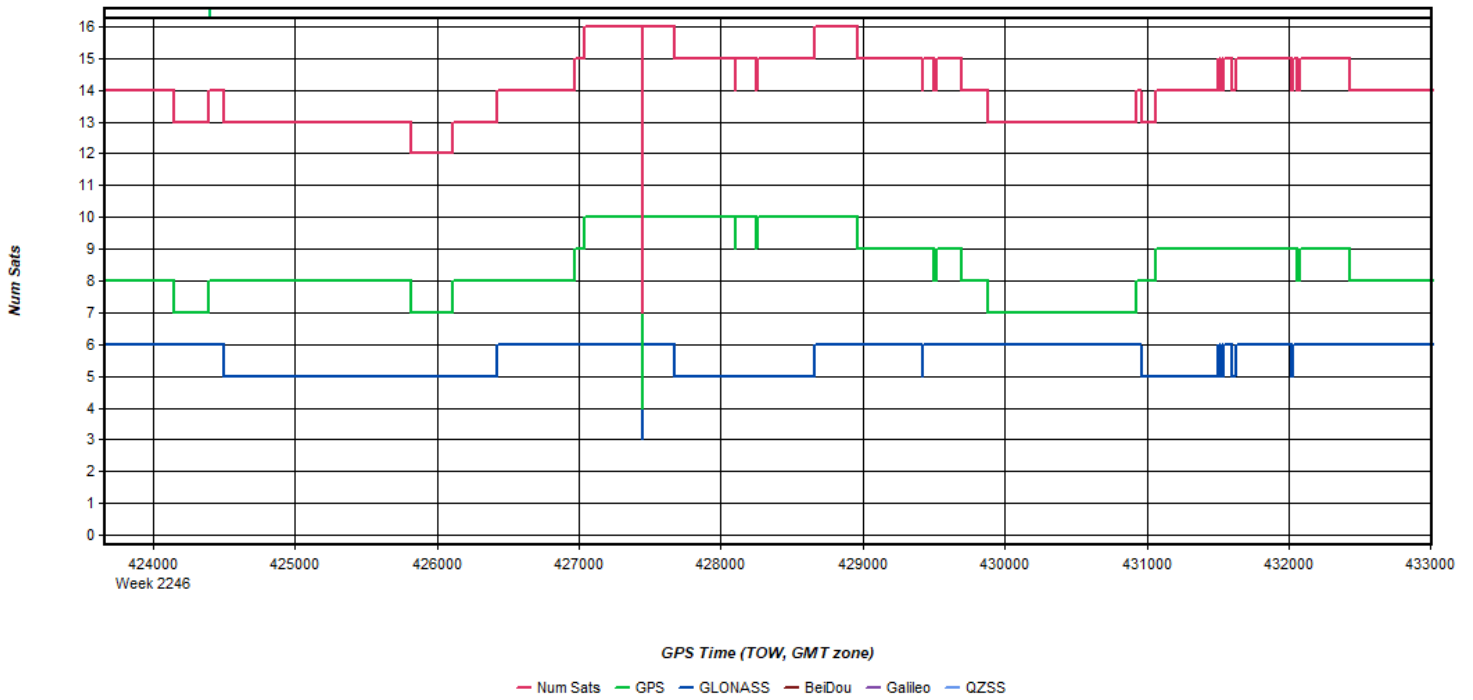


Figure 8: 20230126214003_6 [Smoothed TC Combined] - Status flag for IMU processing

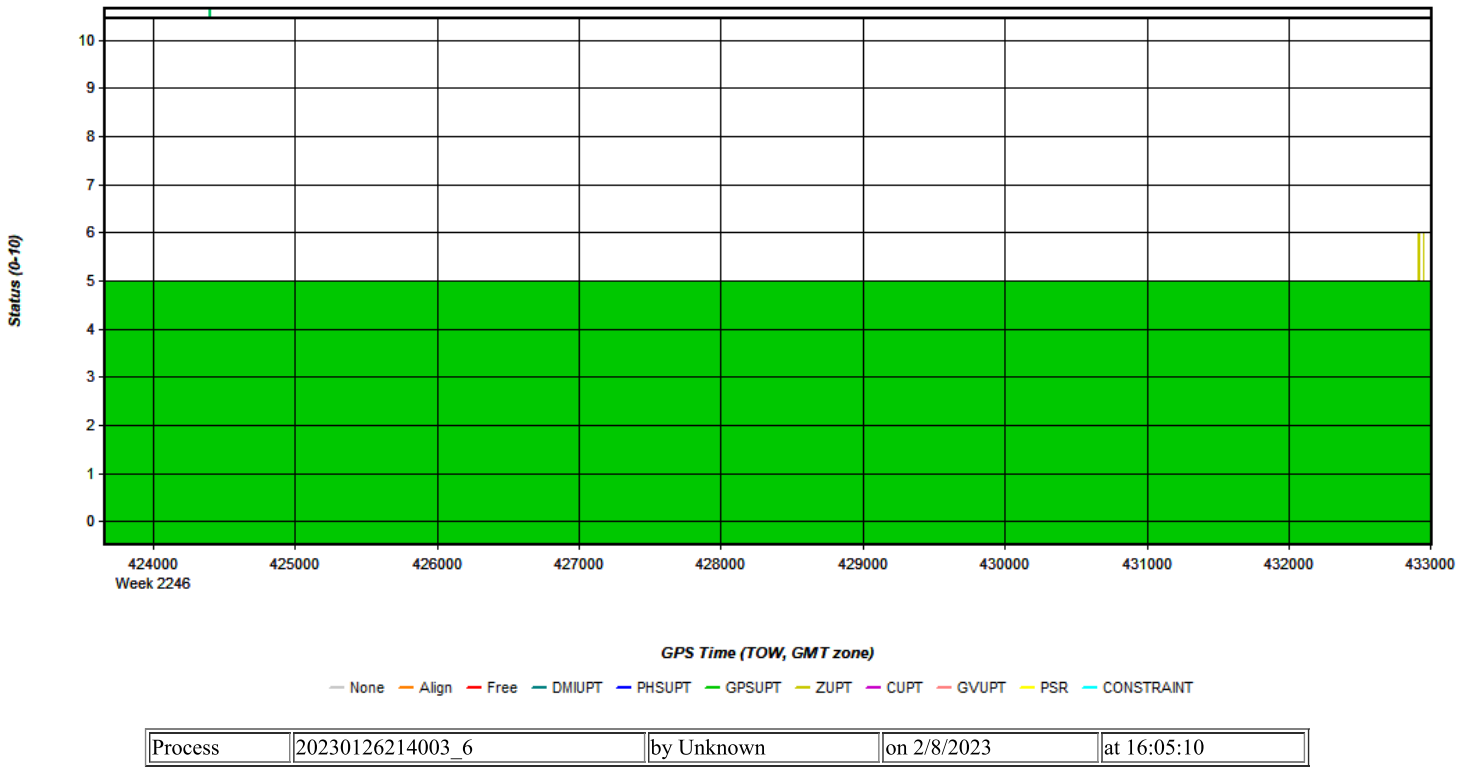


Figure 9: 20230126214003_6 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

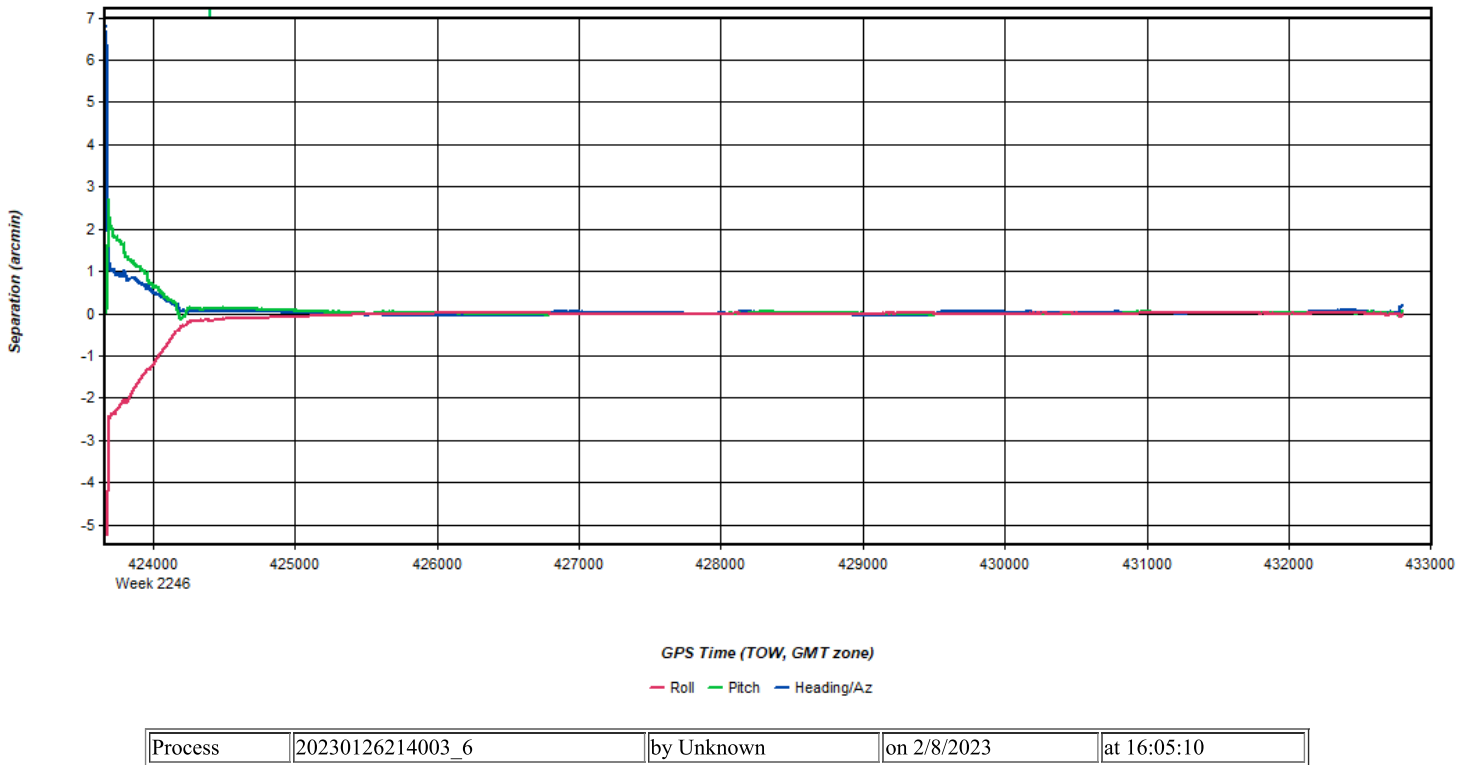
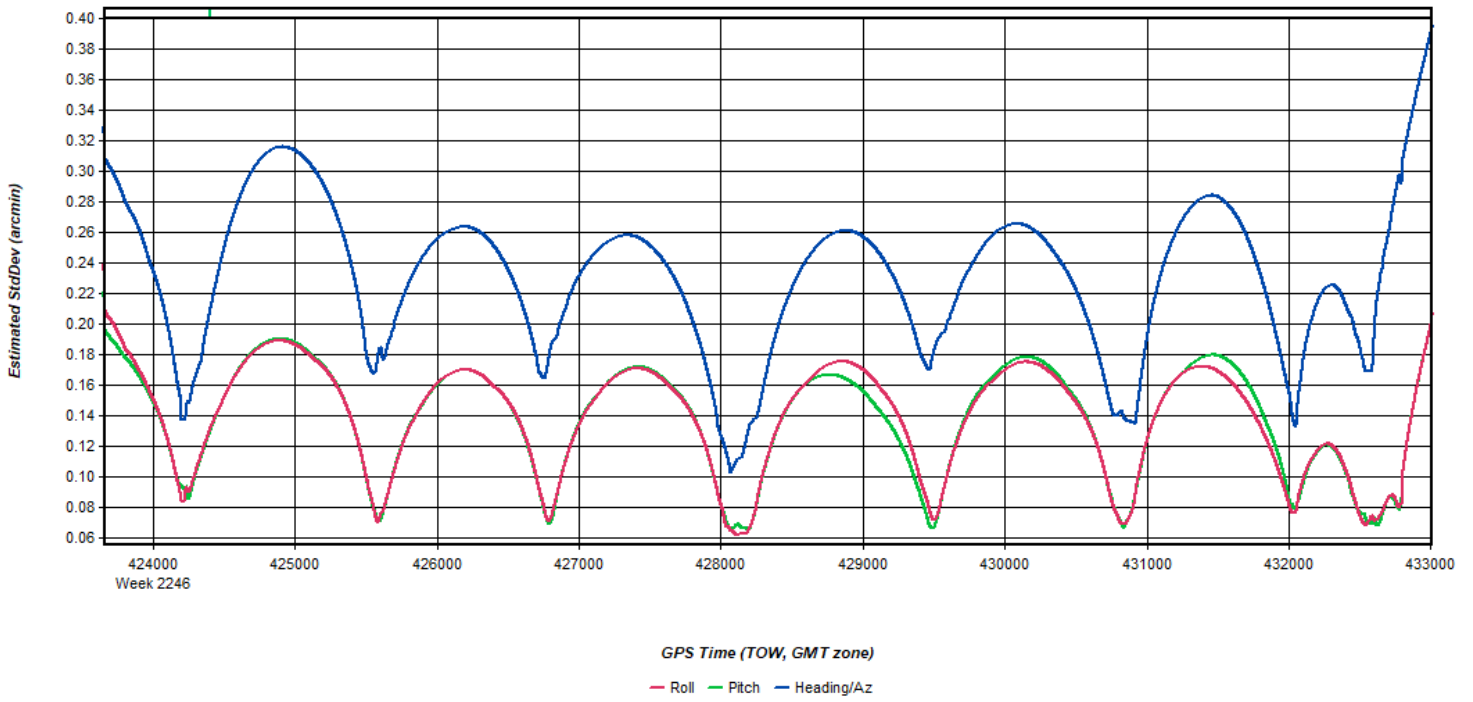


Figure 10: 20230126214003_6 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



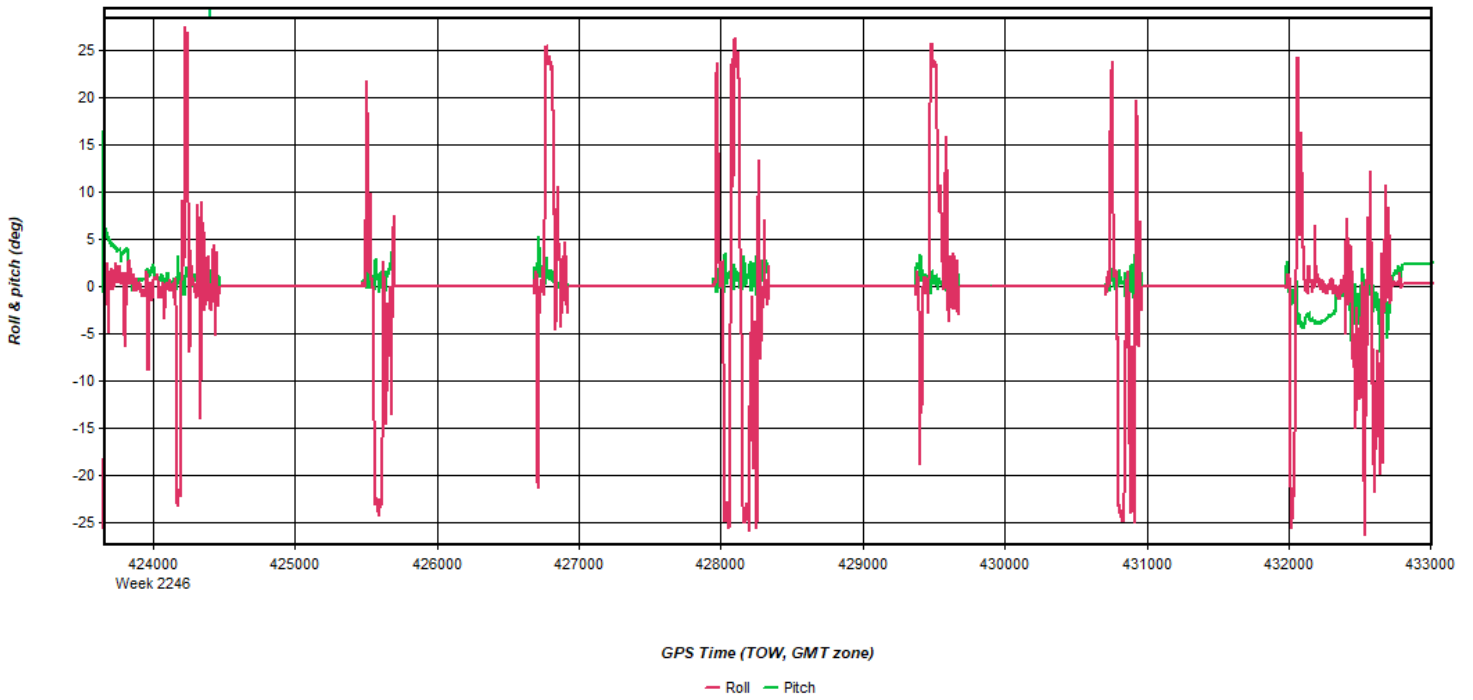
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 11: 20230126214003_6 [Smoothed TC Combined] - Azimuth Plot



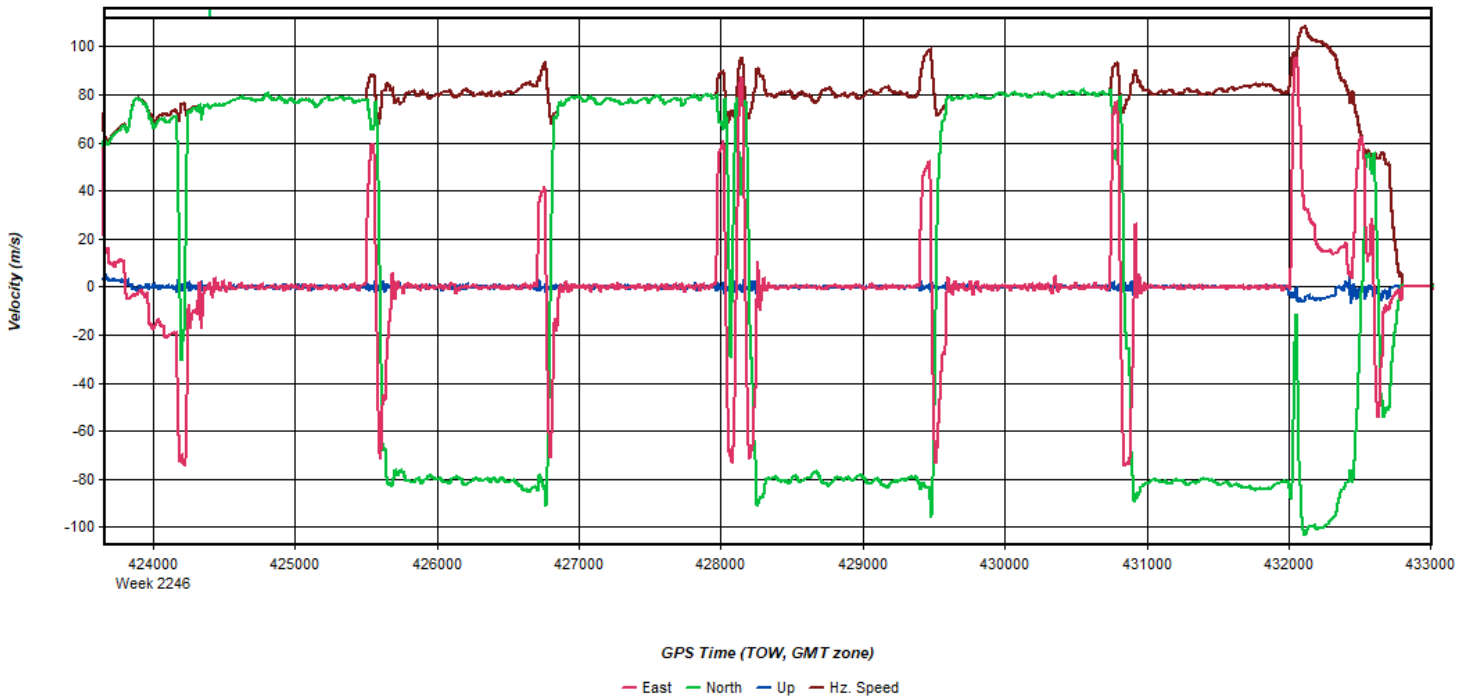
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 12: 20230126214003_6 [Smoothed TC Combined] - Roll & Pitch Plot



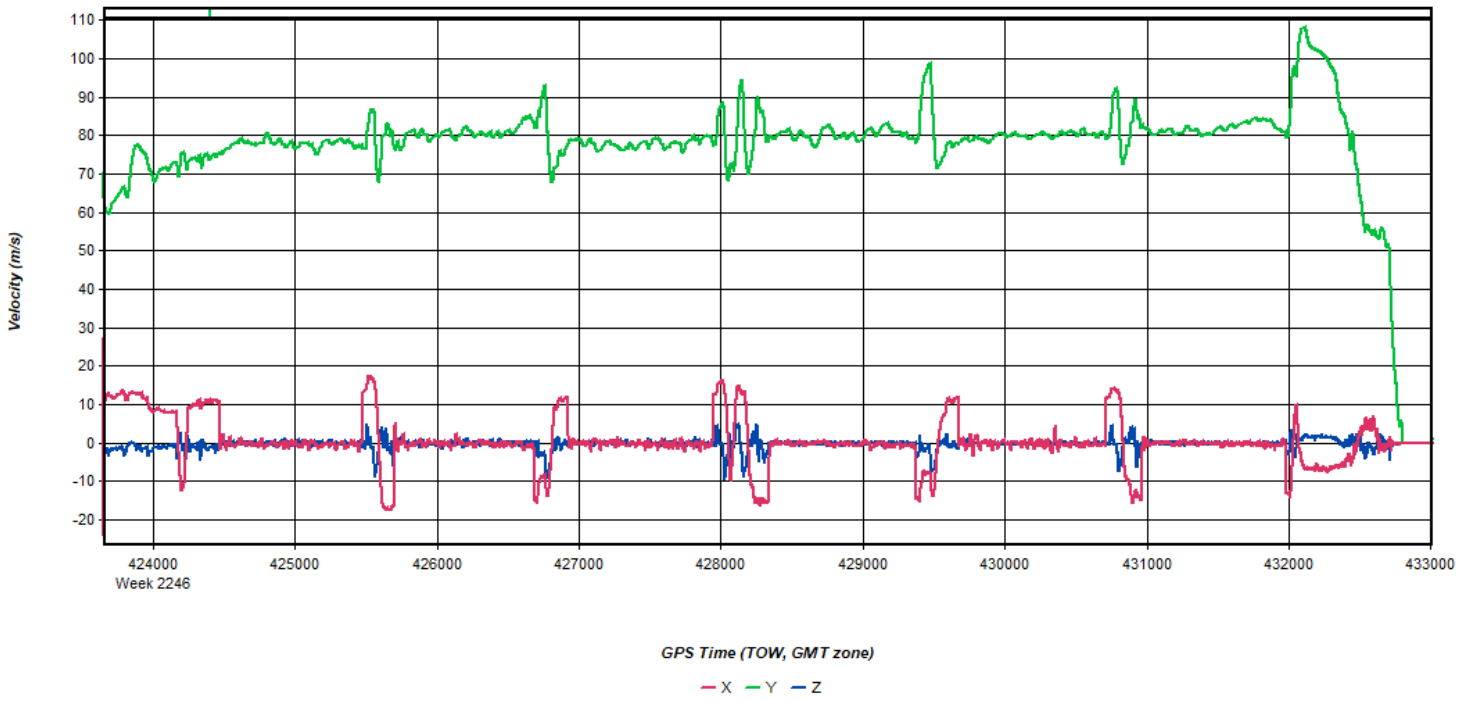
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 13: 20230126214003_6 [Smoothed TC Combined] - Velocity Profile Plot



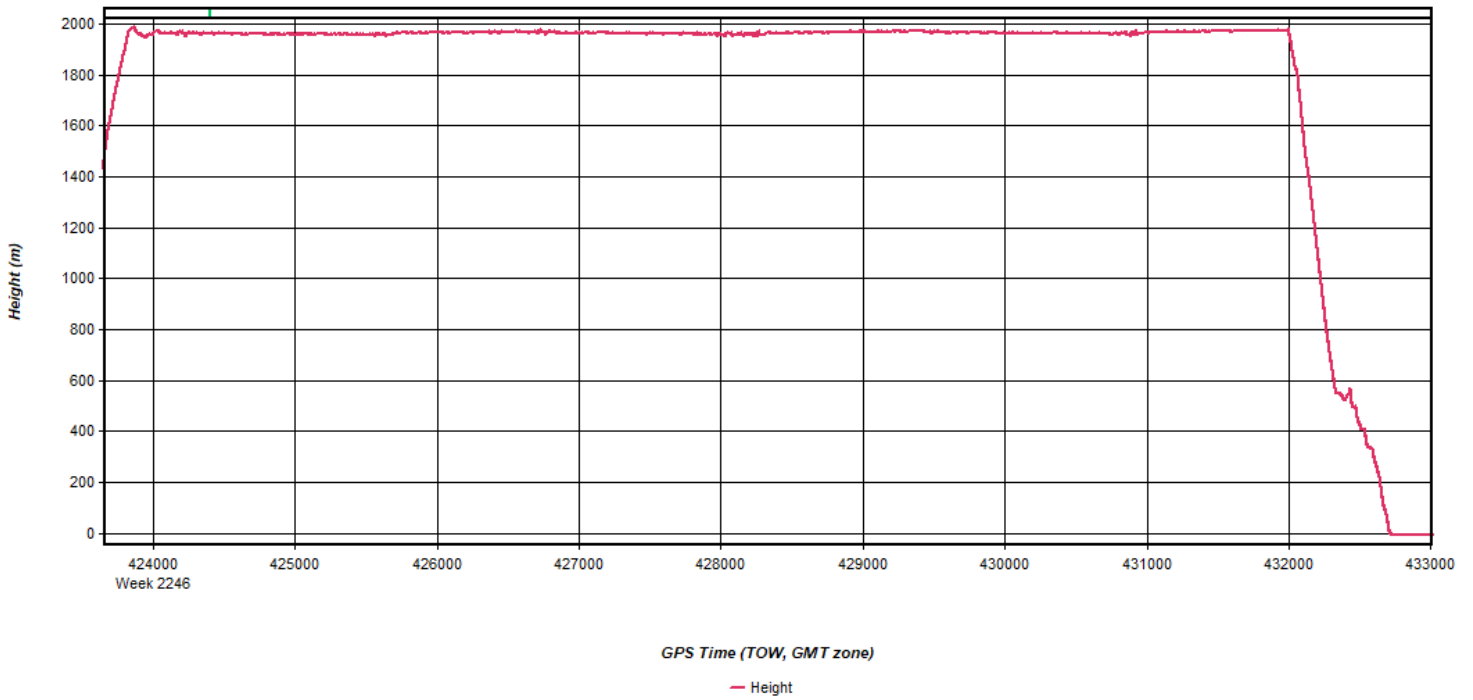
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 14: 20230126214003_6 [Smoothed TC Combined] - Body Frame Velocity Plot



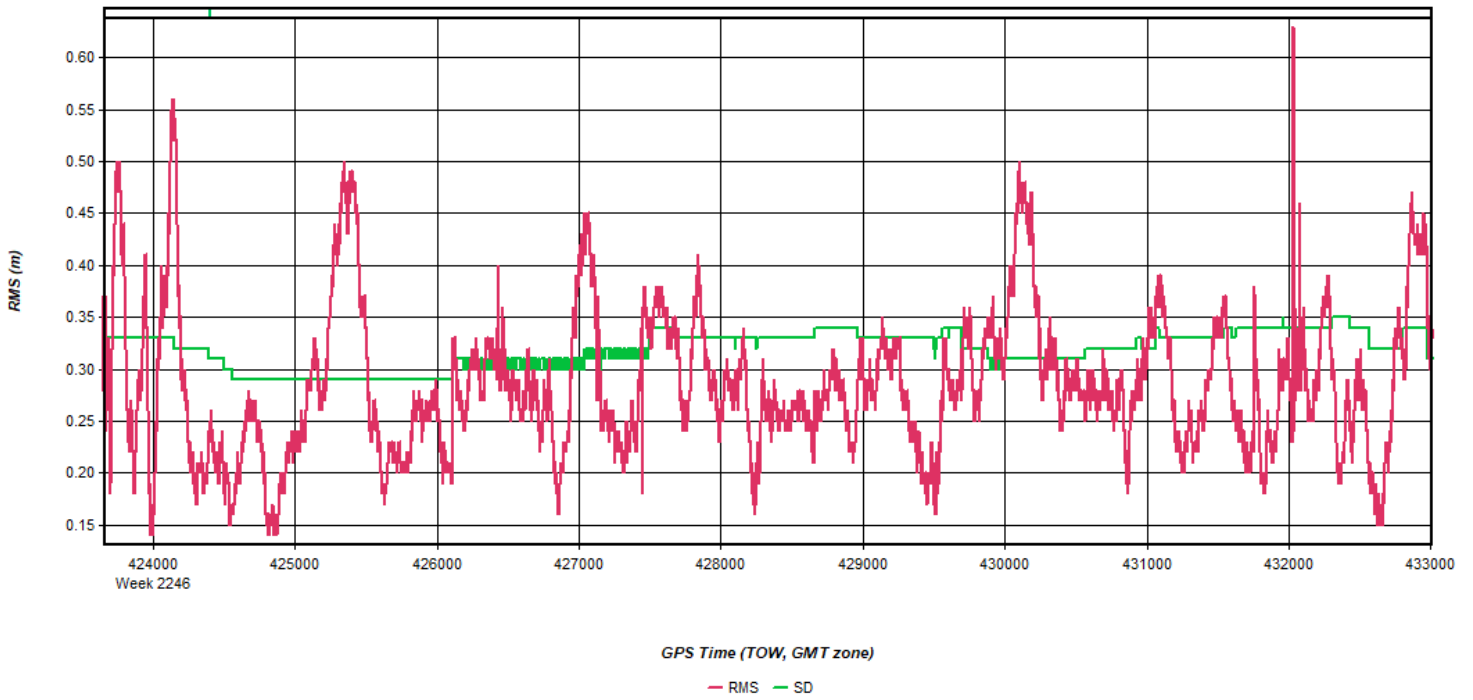
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 15: 20230126214003_6 [Smoothed TC Combined] - Height Profile Plot



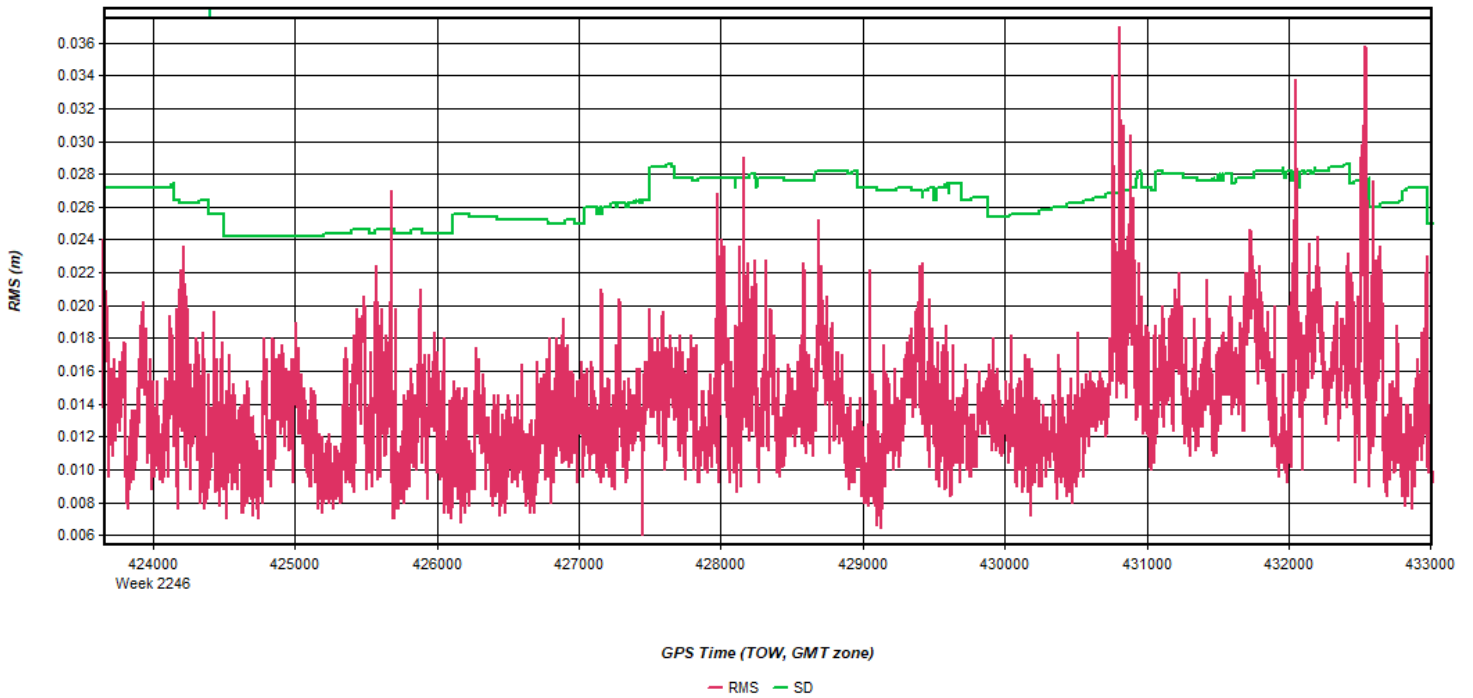
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 16: 20230126214003_6 [Smoothed TC Combined] - C/A Code Residual RMS Plot



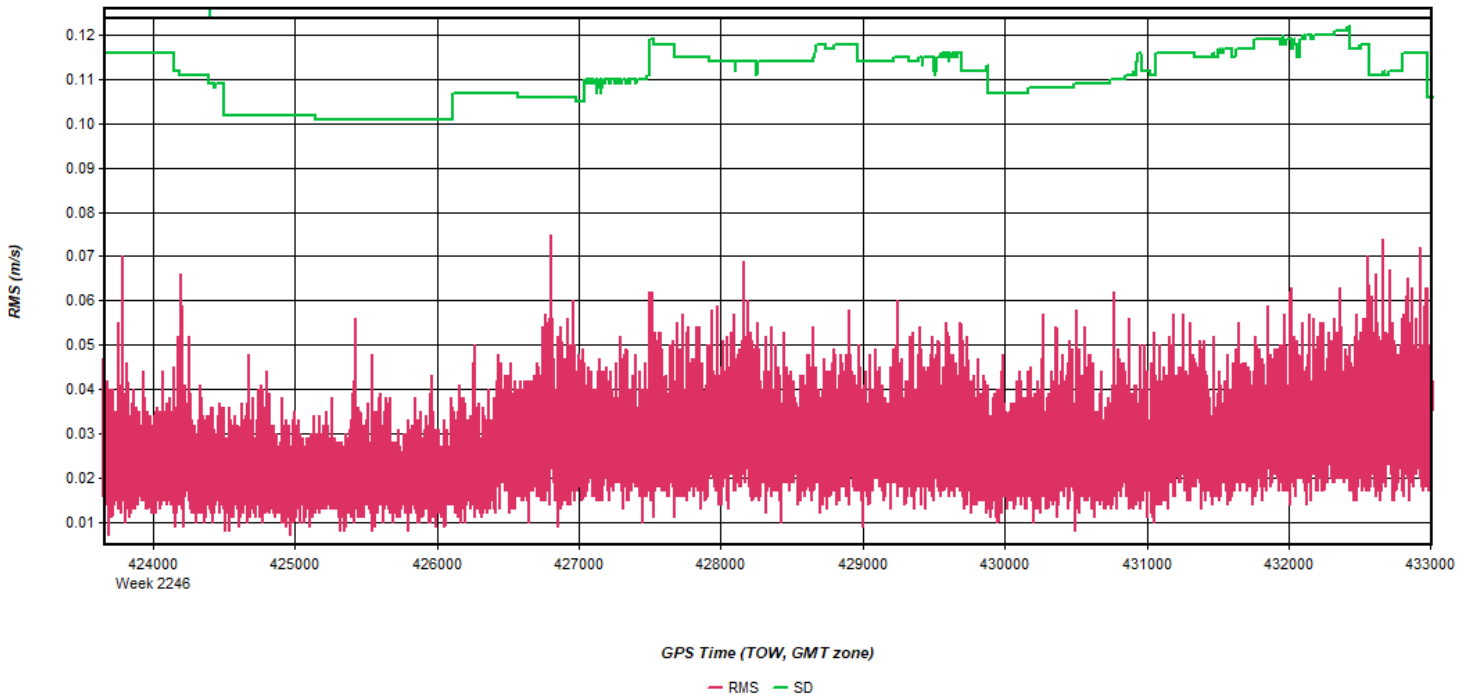
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 17: 20230126214003_6 [Smoothed TC Combined] - Carrier Residual RMS Plot



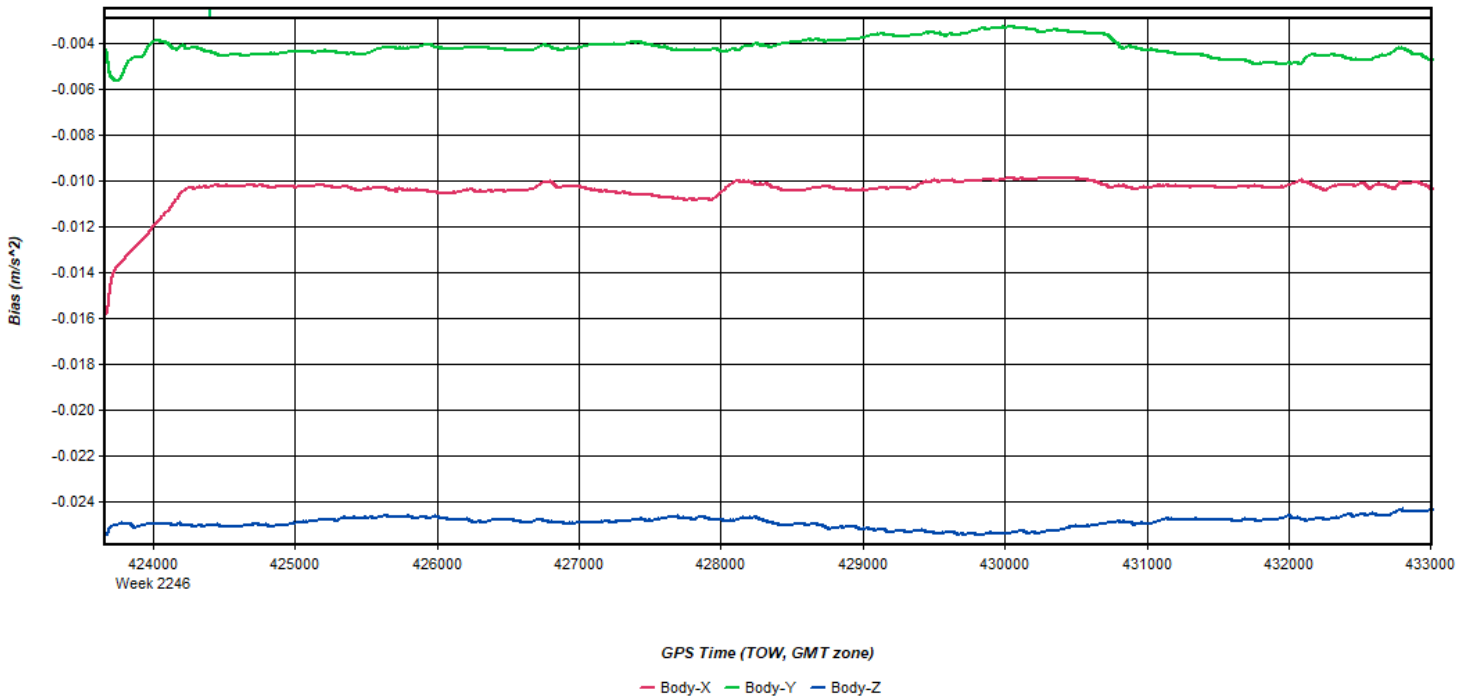
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 18: 20230126214003_6 [Smoothed TC Combined] - Doppler Residual RMS Plot



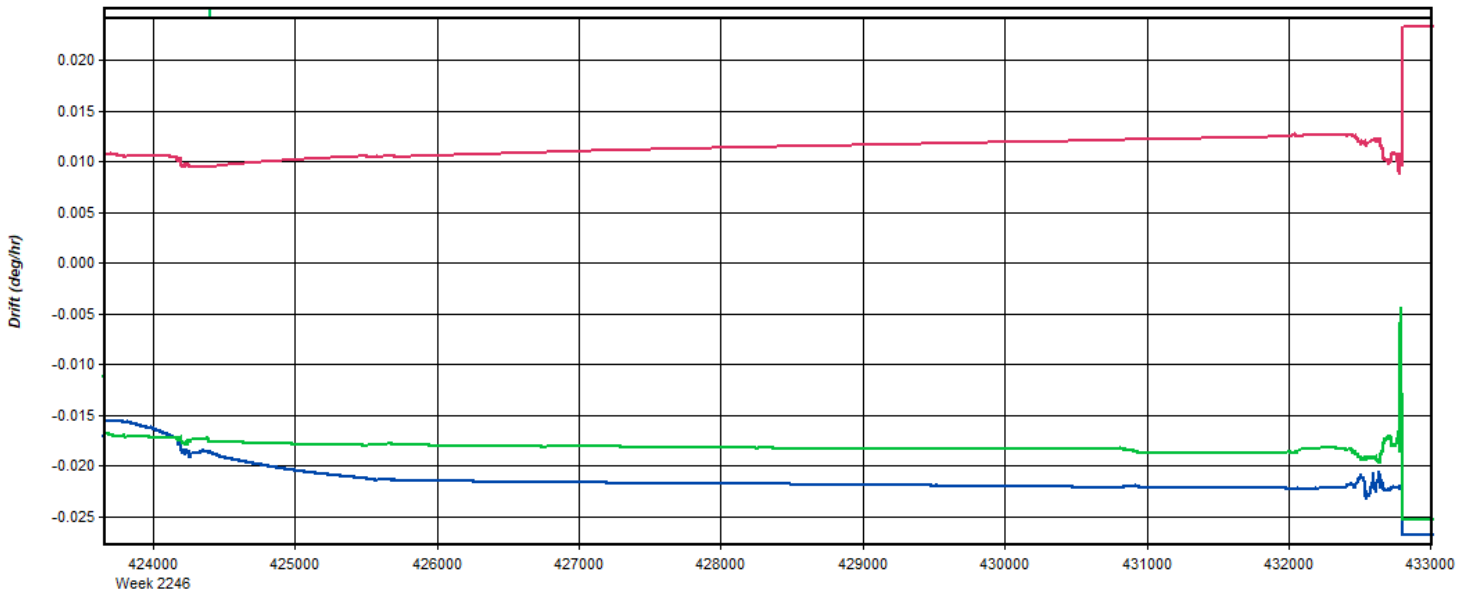
Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 19: 20230126214003_6 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Figure 20: 20230126214003_6 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

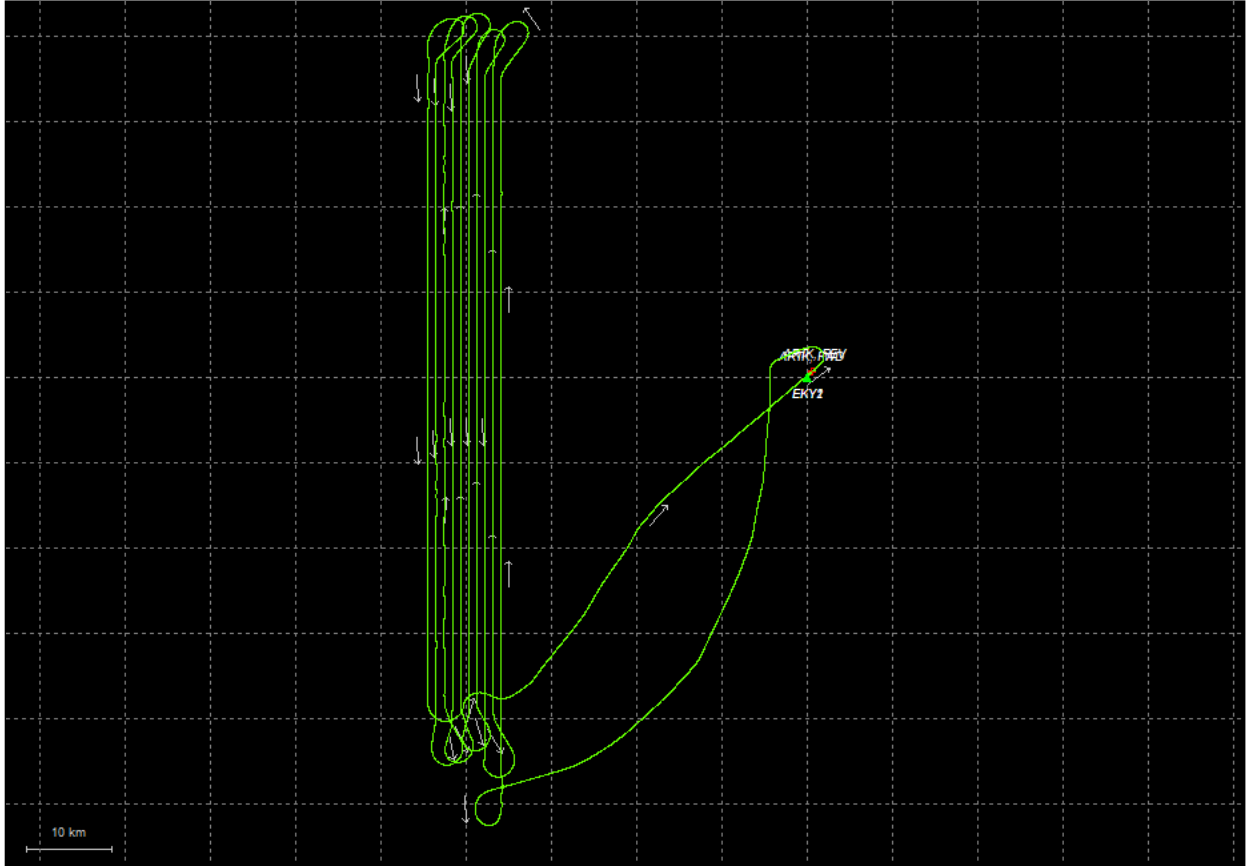
— Body-X — Body-Y — Body-Z

Process	20230126214003_6	by Unknown	on 2/8/2023	at 16:05:10
---------	------------------	------------	-------------	-------------

Output Results for 20230203183721_7

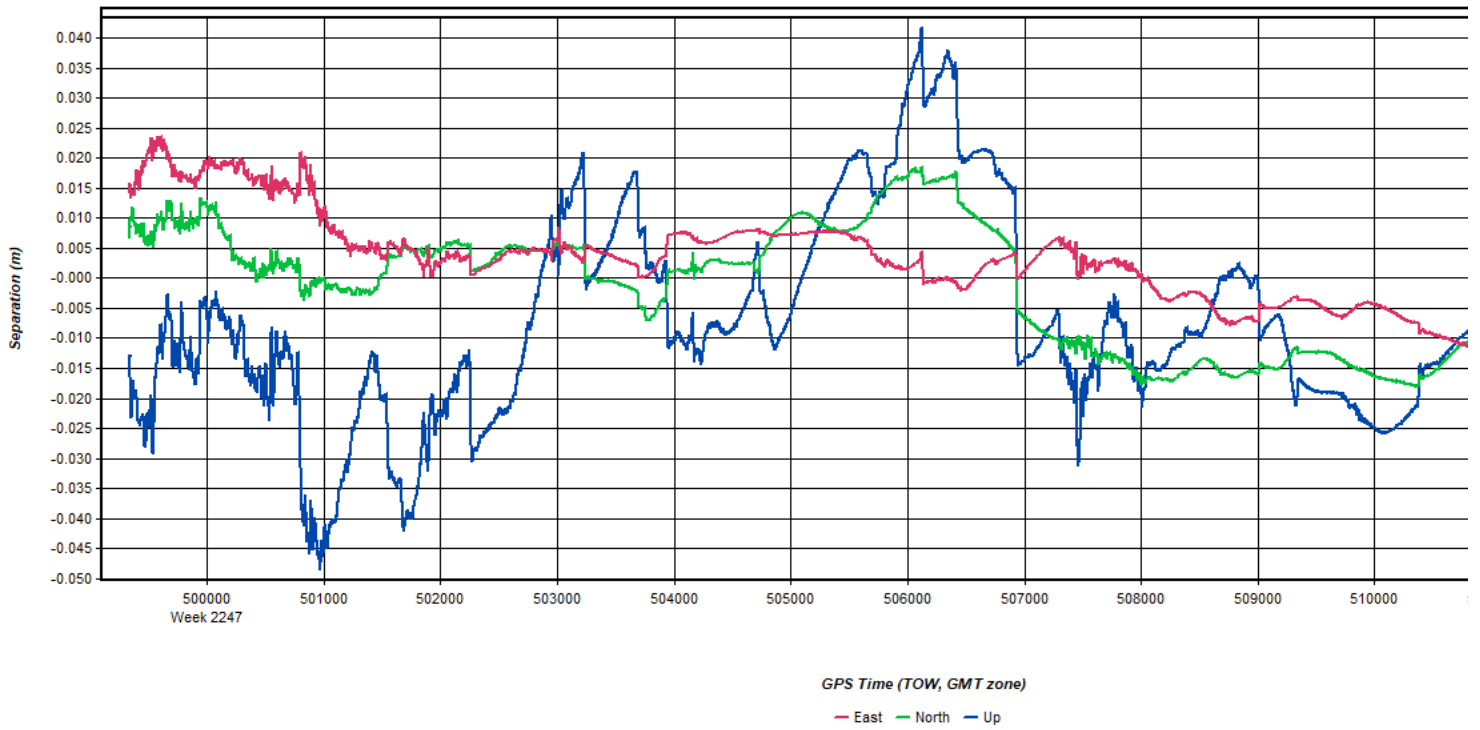
Inertial Explorer Version 8.90.6611
02/07/2023

Figure 1: Smoothed TC Combined - Map



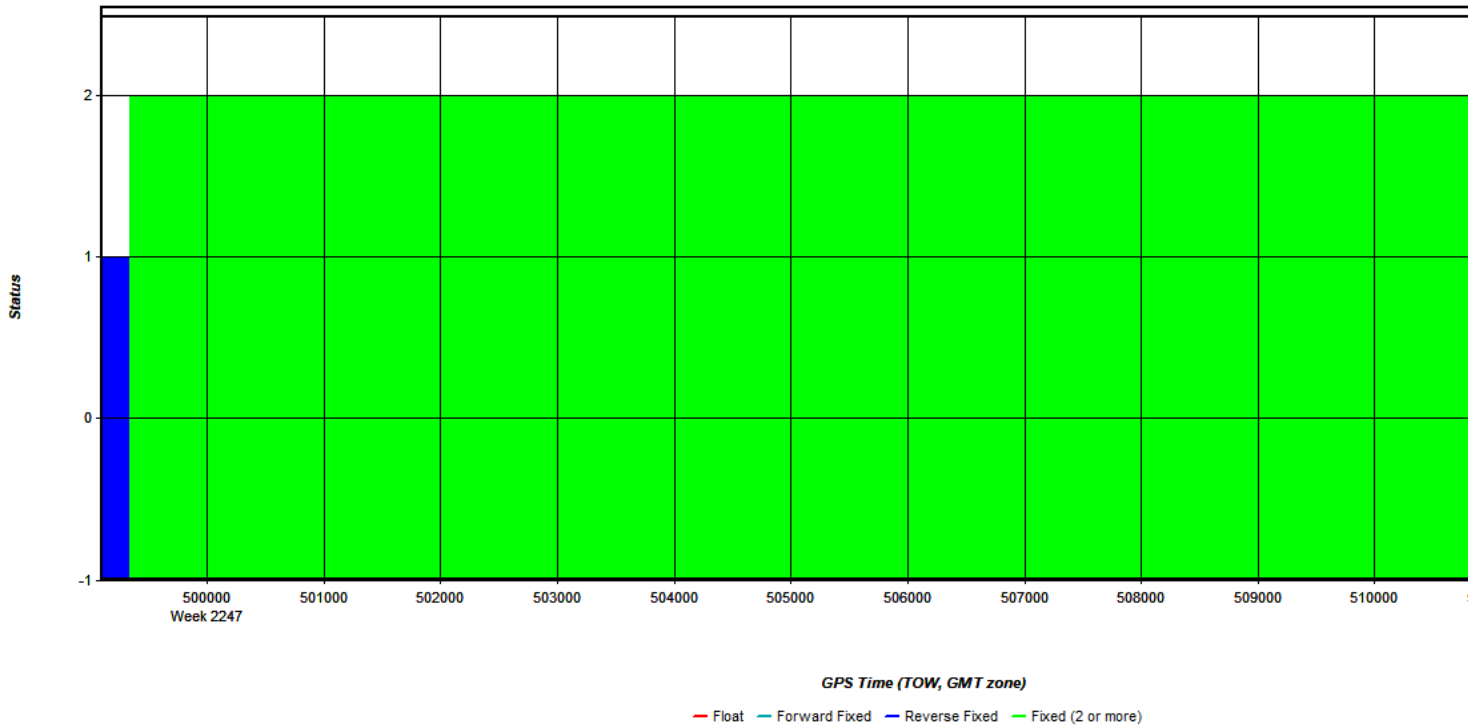
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 2: 20230203183721_7 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



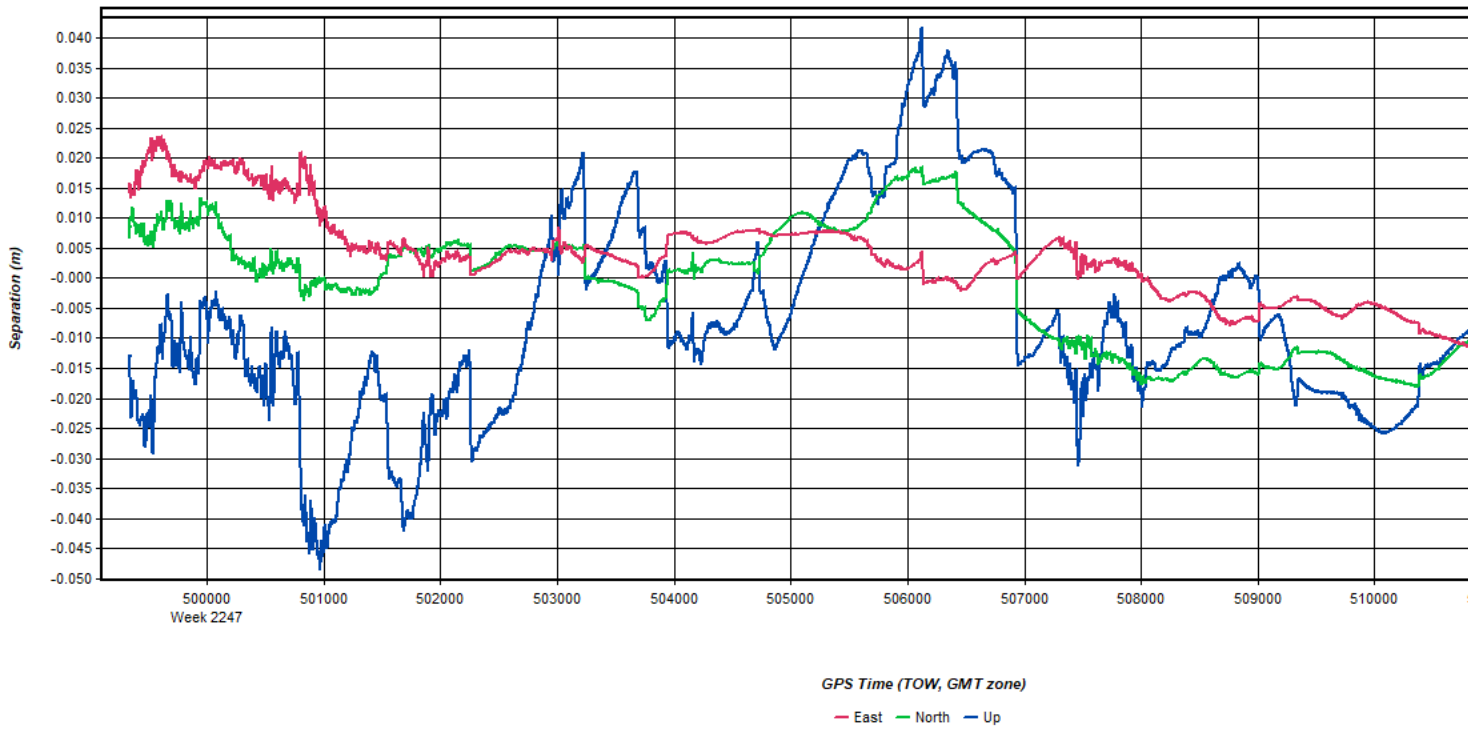
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 3: 20230203183721_7 [Smoothed TC Combined] - Float or Fixed Ambiguity



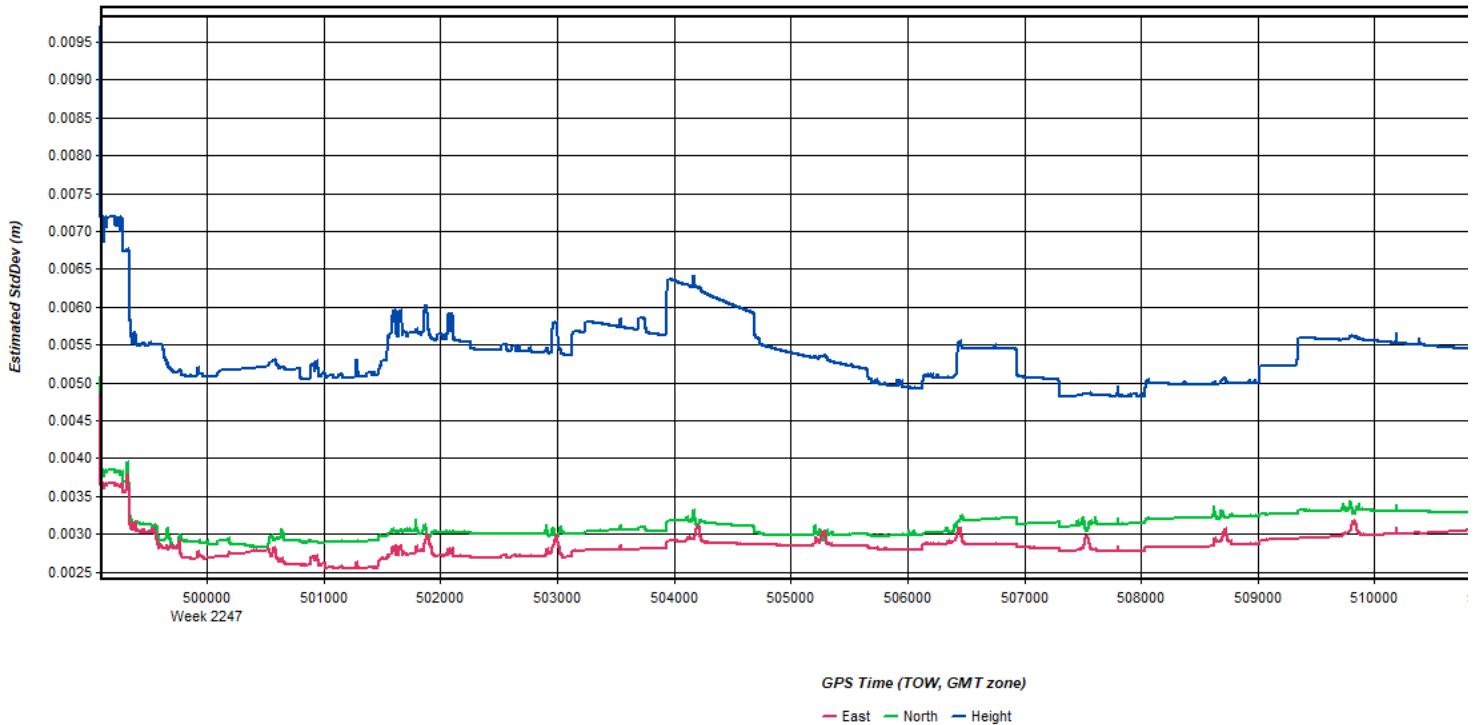
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 4: 20230203183721_7 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



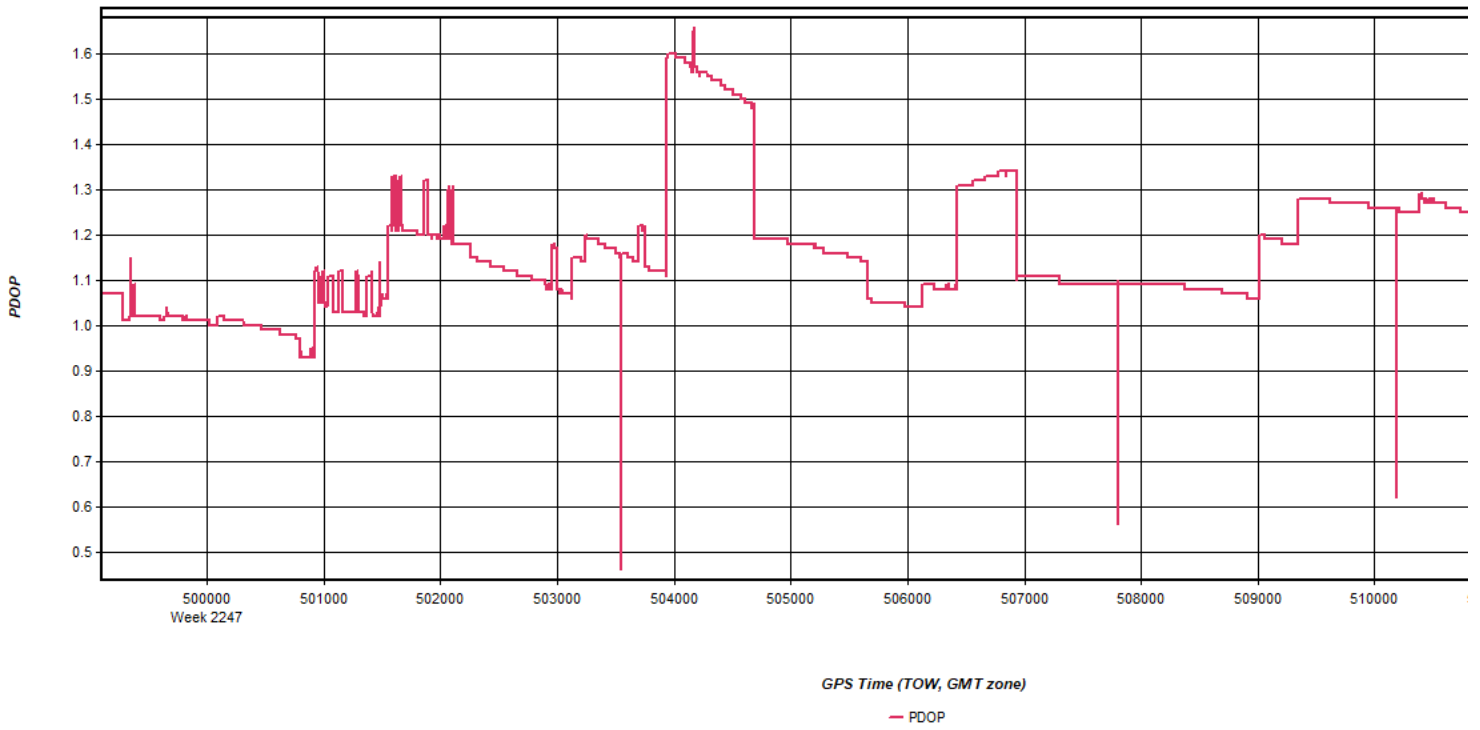
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 5: 20230203183721_7 [Smoothed TC Combined] - Estimated Position Accuracy Plot



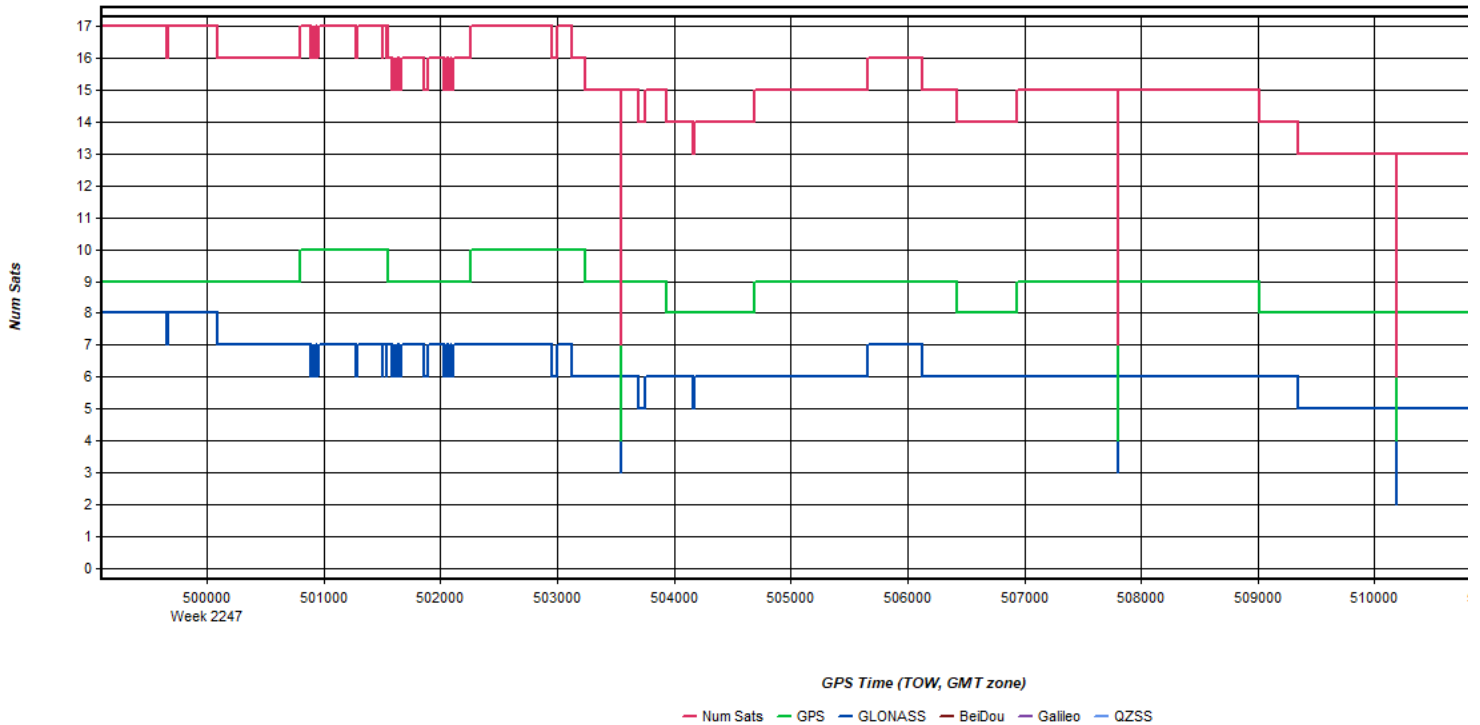
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 6: 20230203183721_7 [Smoothed TC Combined] - PDOP Plot



Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 7: 20230203183721_7 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 8: 20230203183721_7 [Smoothed TC Combined] - Status flag for IMU processing

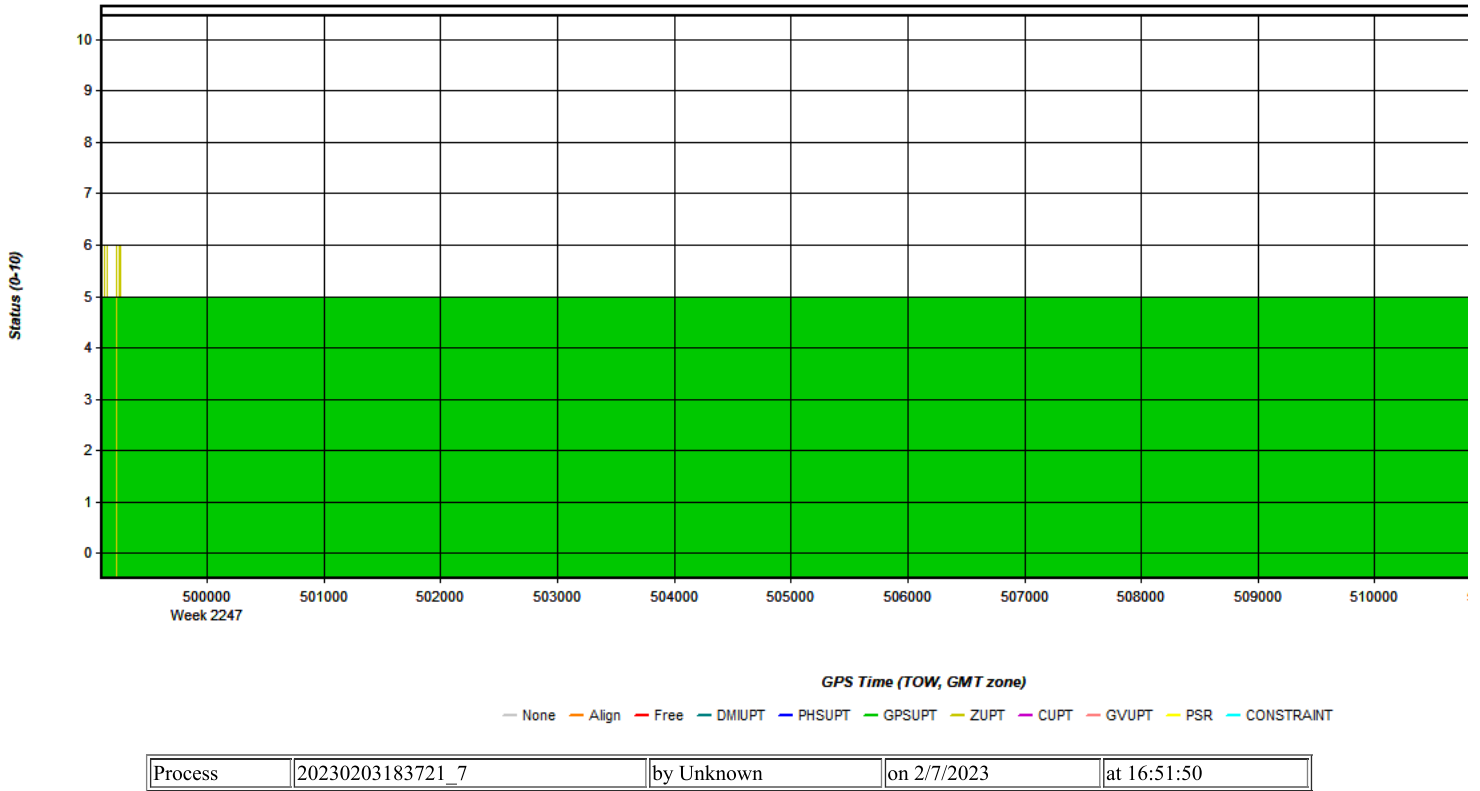


Figure 9: 20230203183721_7 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

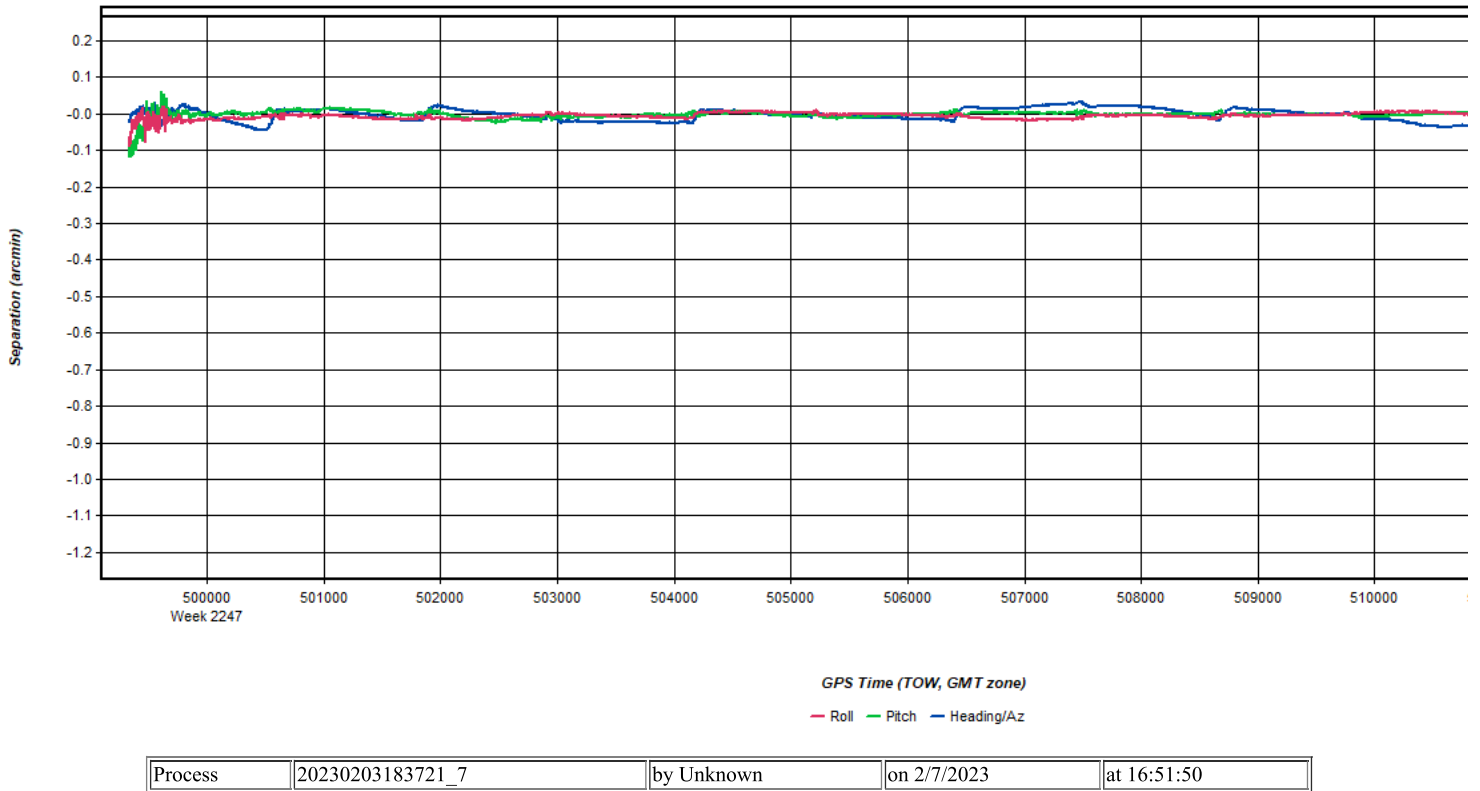
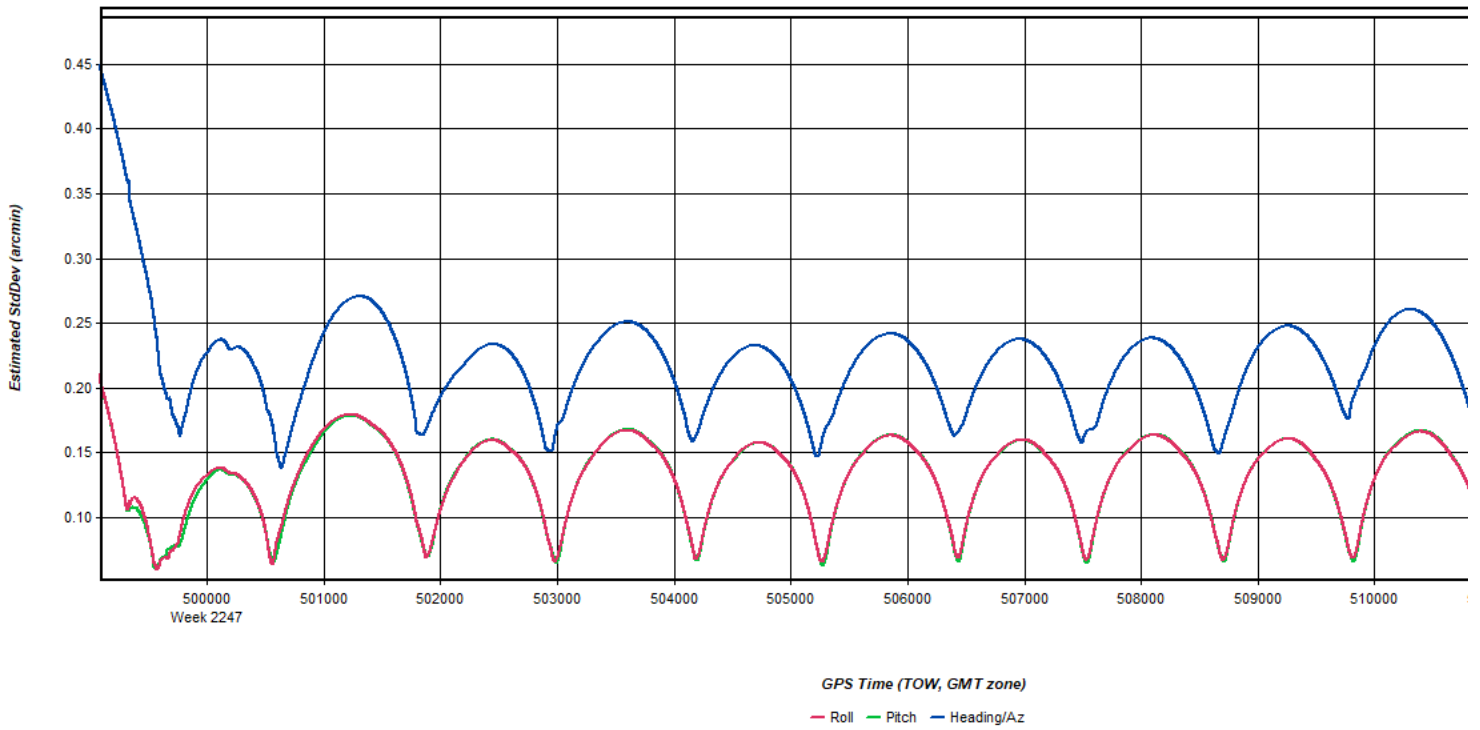
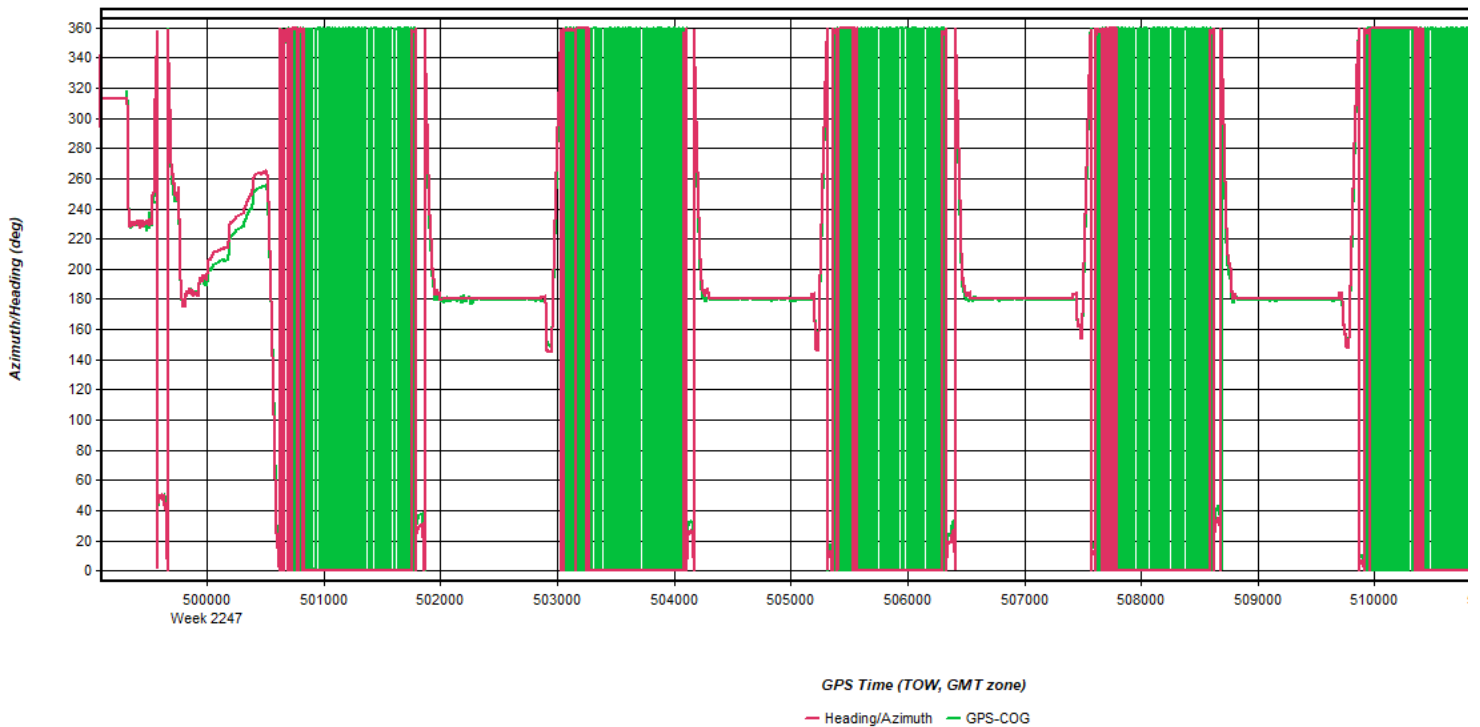


Figure 10: 20230203183721_7 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



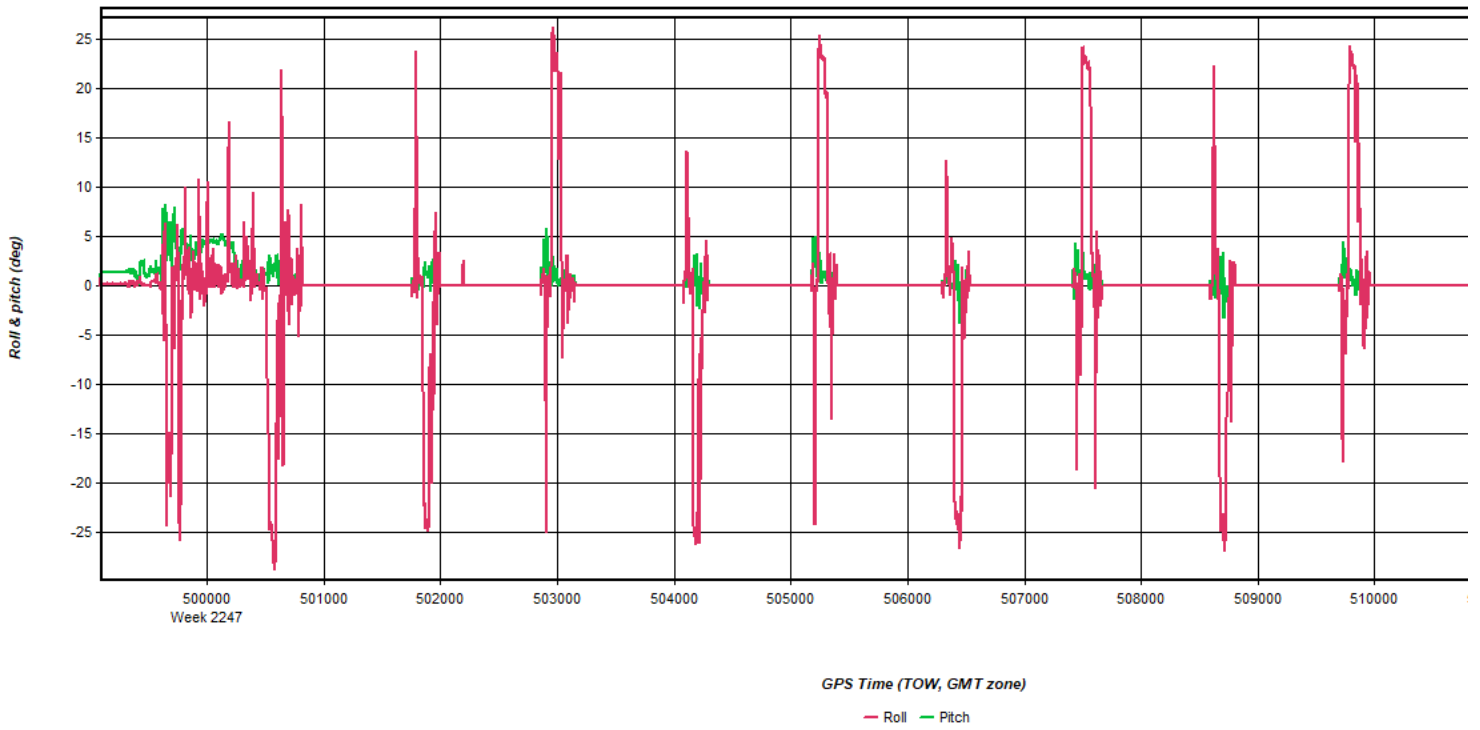
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 11: 20230203183721_7 [Smoothed TC Combined] - Azimuth Plot



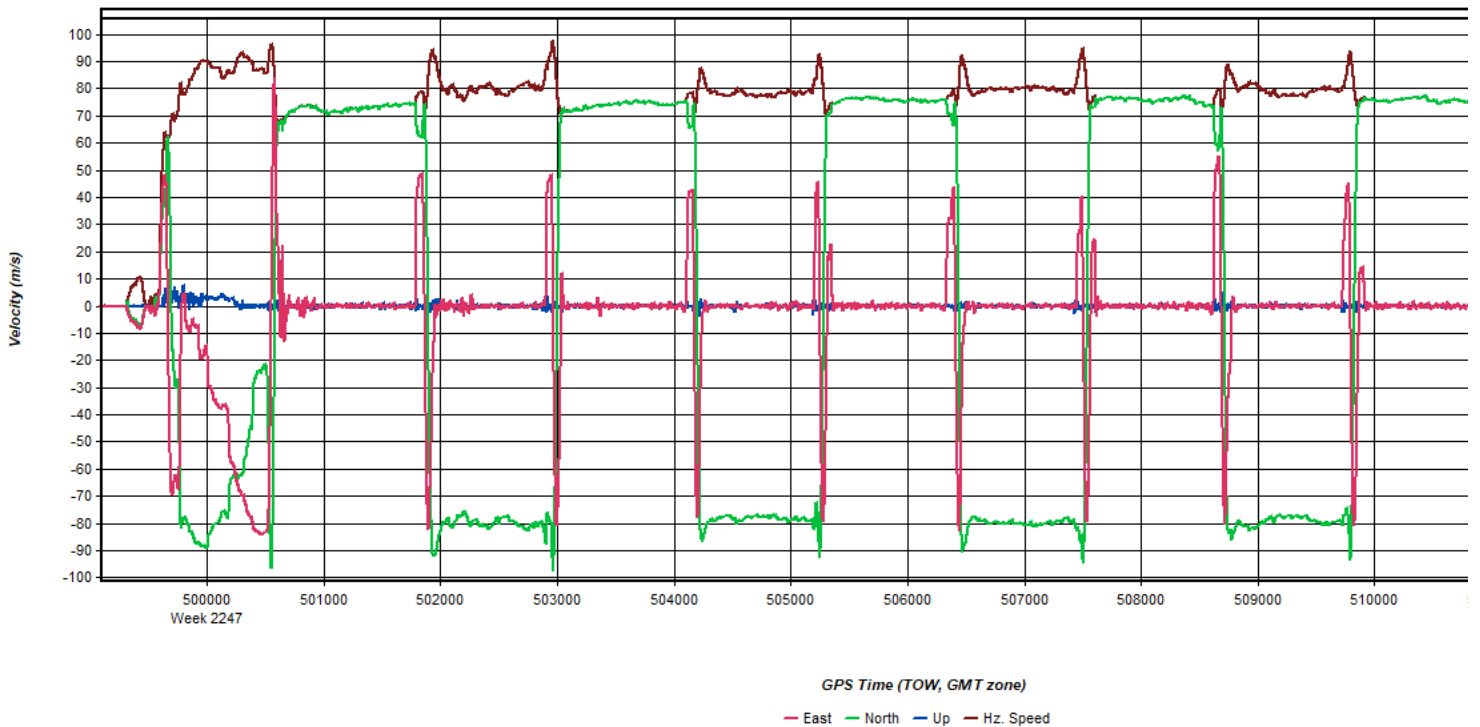
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 12: 20230203183721_7 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 13: 20230203183721_7 [Smoothed TC Combined] - Velocity Profile Plot



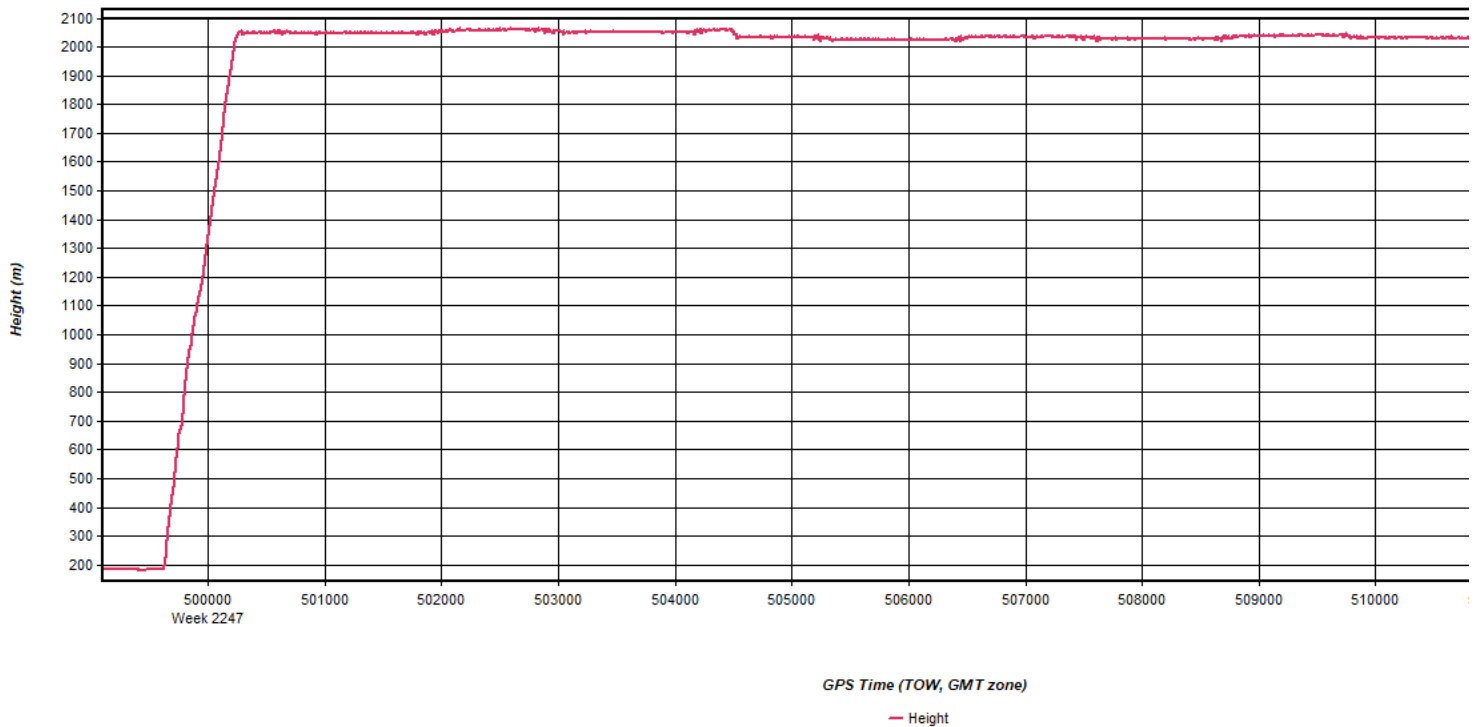
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 14: 20230203183721_7 [Smoothed TC Combined] - Body Frame Velocity Plot



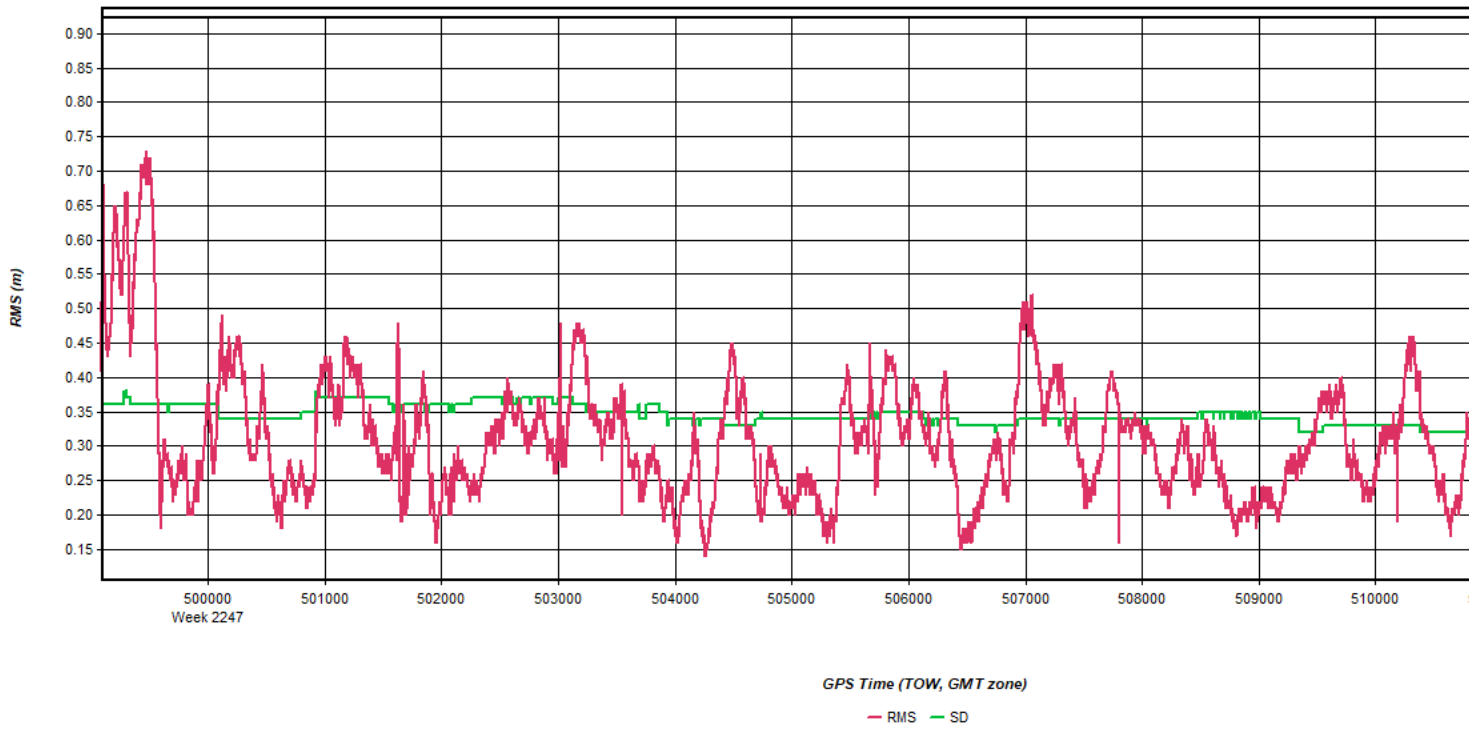
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 15: 20230203183721_7 [Smoothed TC Combined] - Height Profile Plot



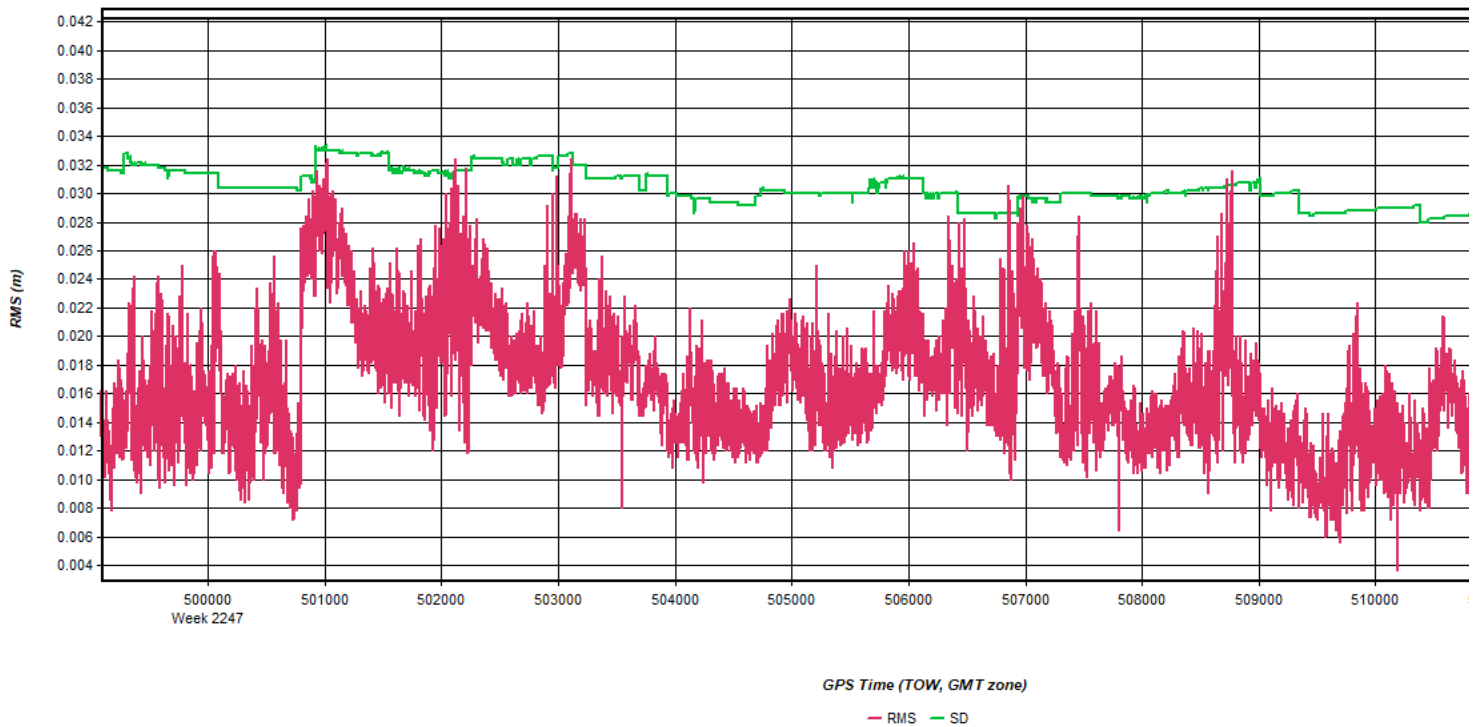
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 16: 20230203183721_7 [Smoothed TC Combined] - C/A Code Residual RMS Plot



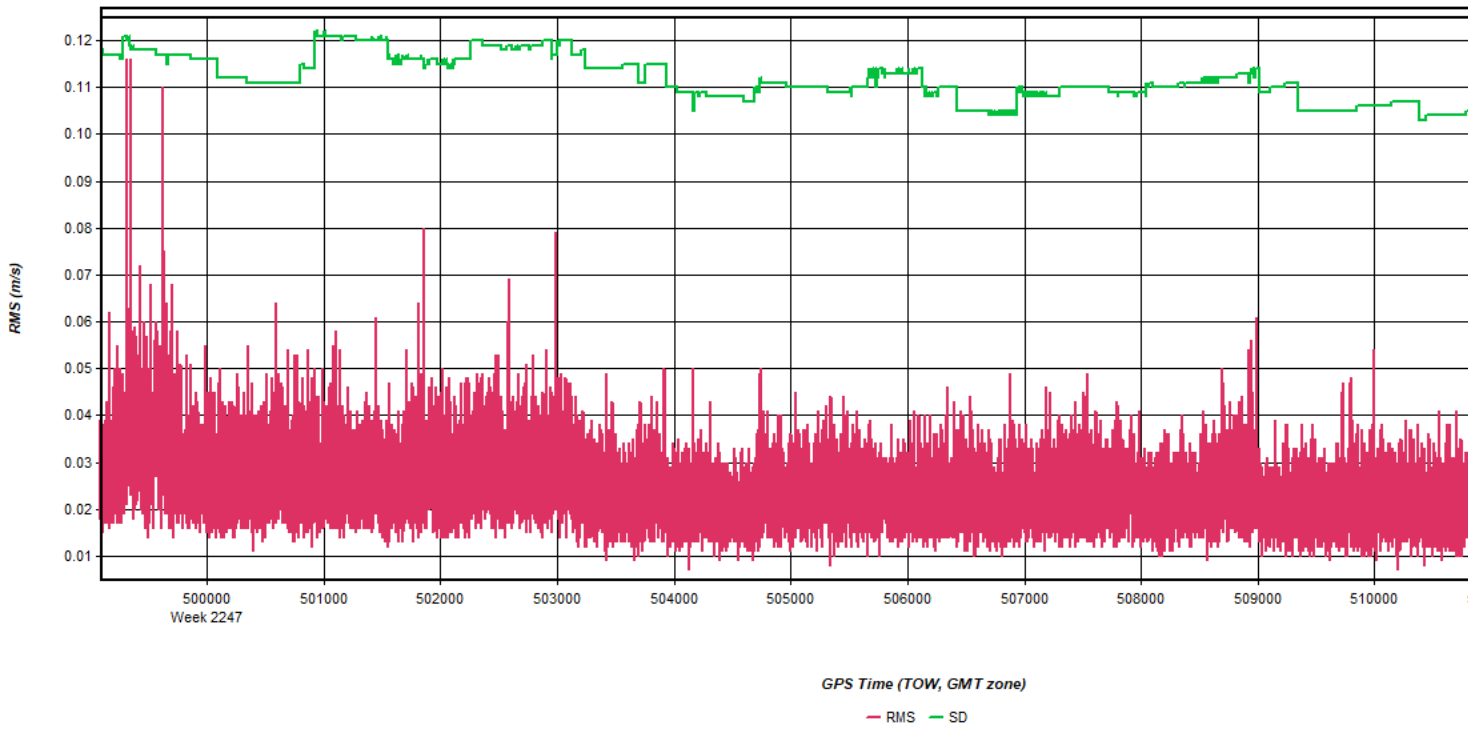
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 17: 20230203183721_7 [Smoothed TC Combined] - Carrier Residual RMS Plot



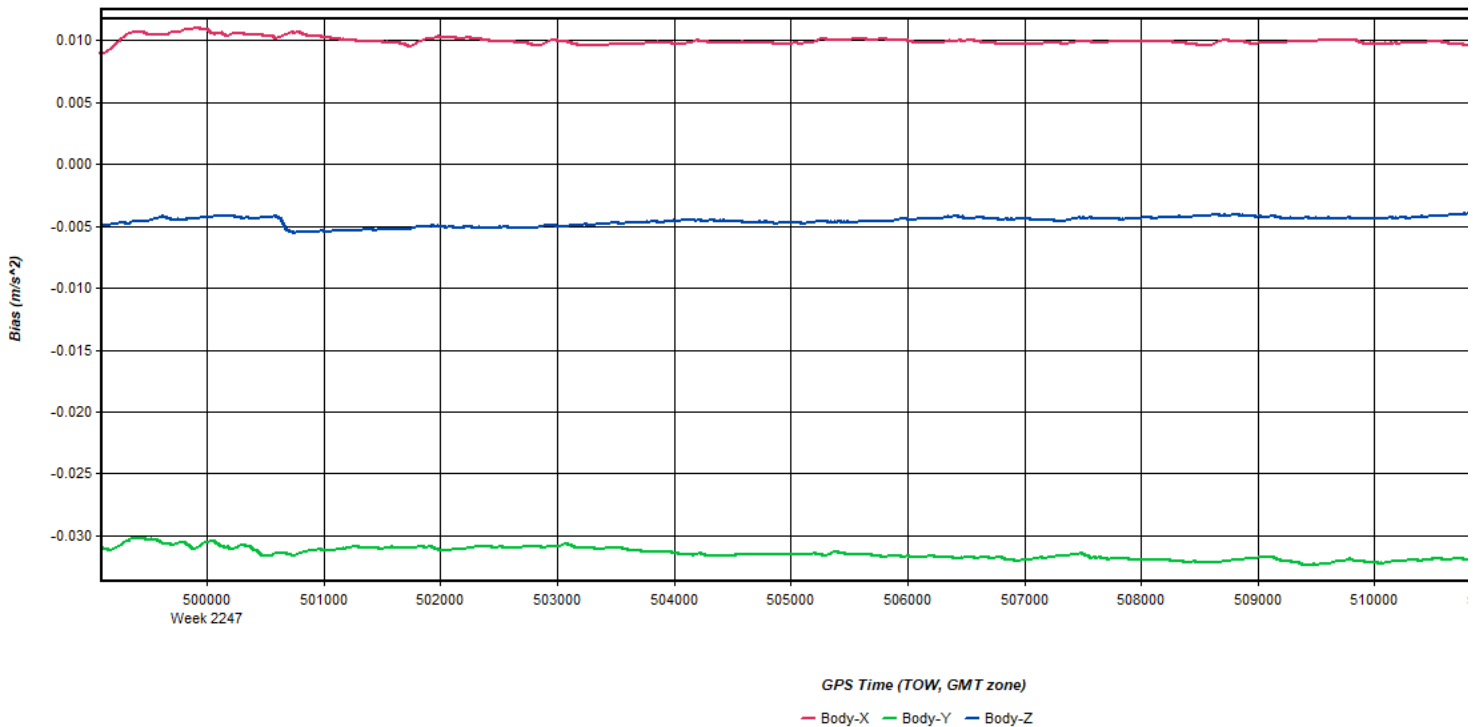
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 18: 20230203183721_7 [Smoothed TC Combined] - Doppler Residual RMS Plot



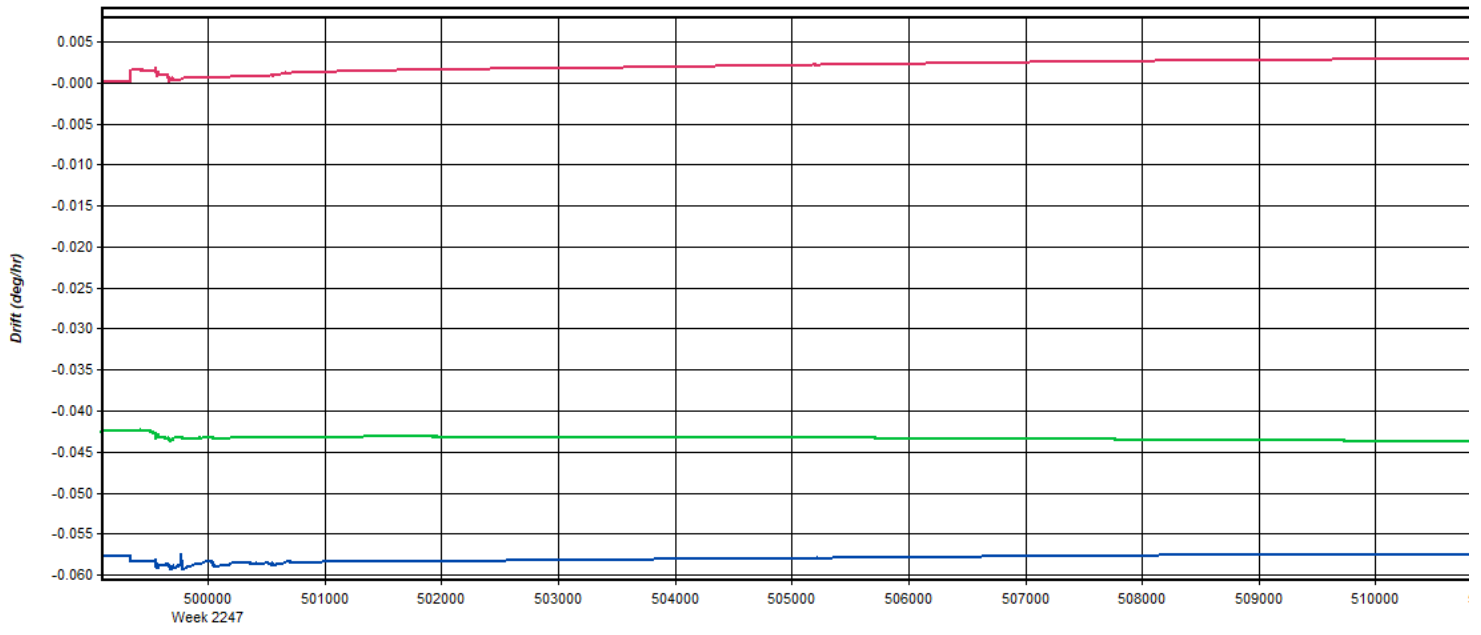
Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 19: 20230203183721_7 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Figure 20: 20230203183721_7 [Smoothed TC Combined] - Gyro Drift Plot



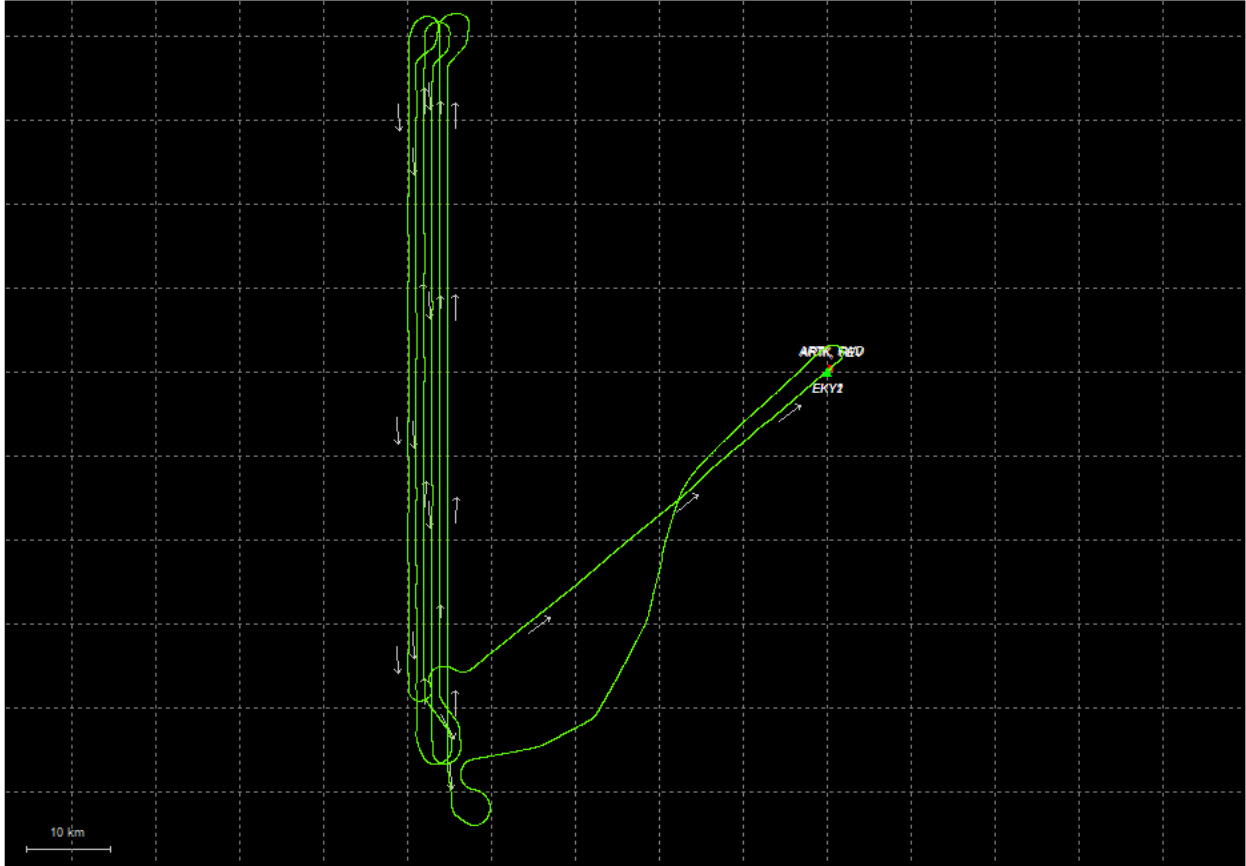
GPS Time (TOW, GMT zone)
— Body-X — Body-Y — Body-Z

Process	20230203183721_7	by Unknown	on 2/7/2023	at 16:51:50
---------	------------------	------------	-------------	-------------

Output Results for 20230204013137_8

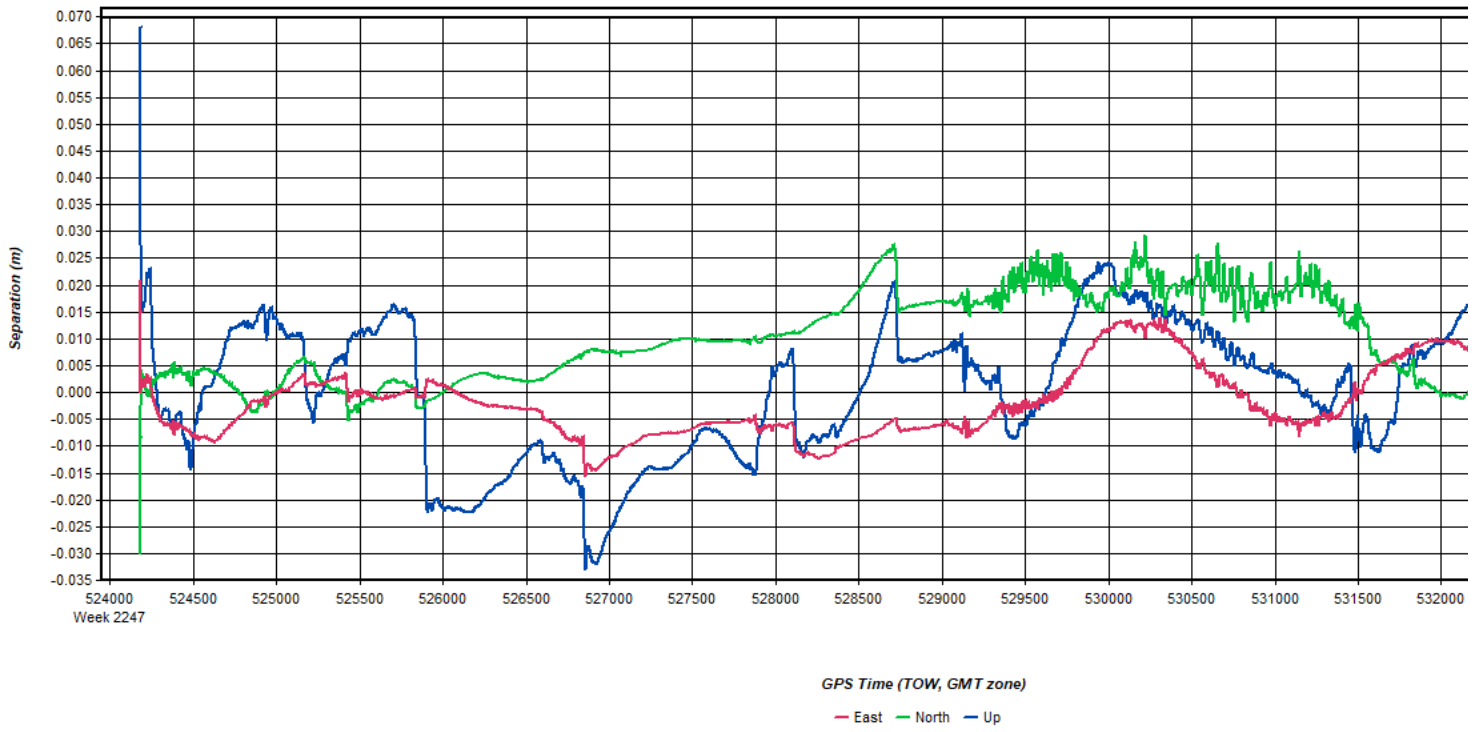
Inertial Explorer Version 8.90.6611
02/07/2023

Figure 1: Smoothed TC Combined - Map



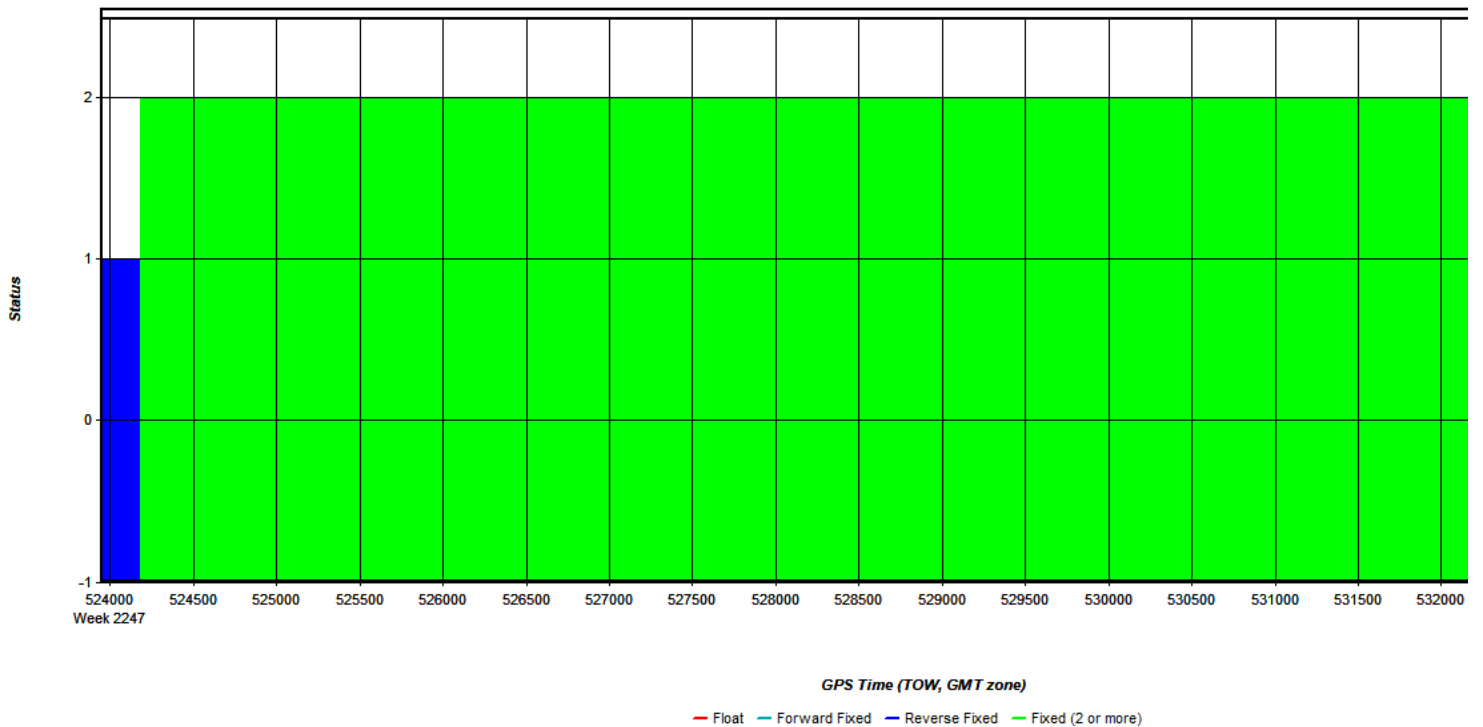
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 2: 20230204013137_8 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



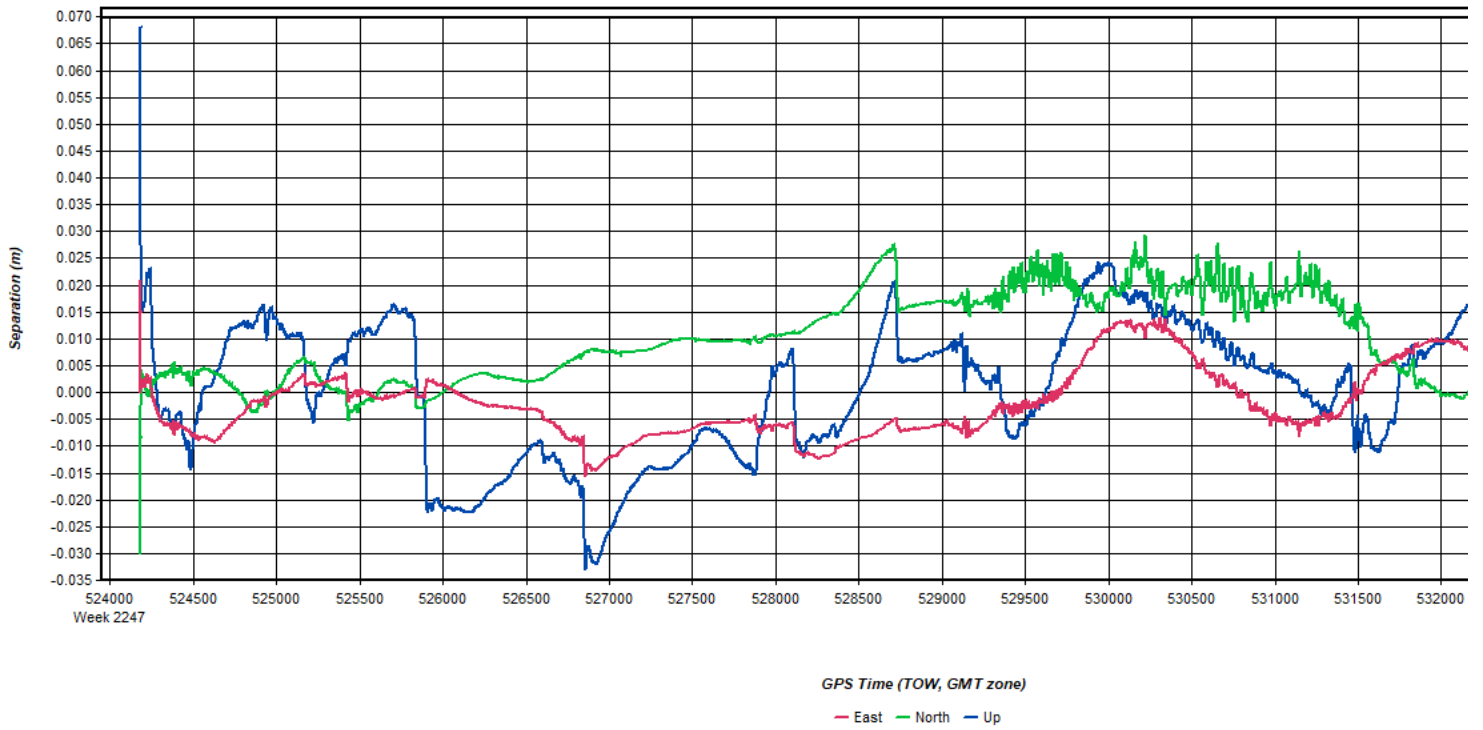
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 3: 20230204013137_8 [Smoothed TC Combined] - Float or Fixed Ambiguity



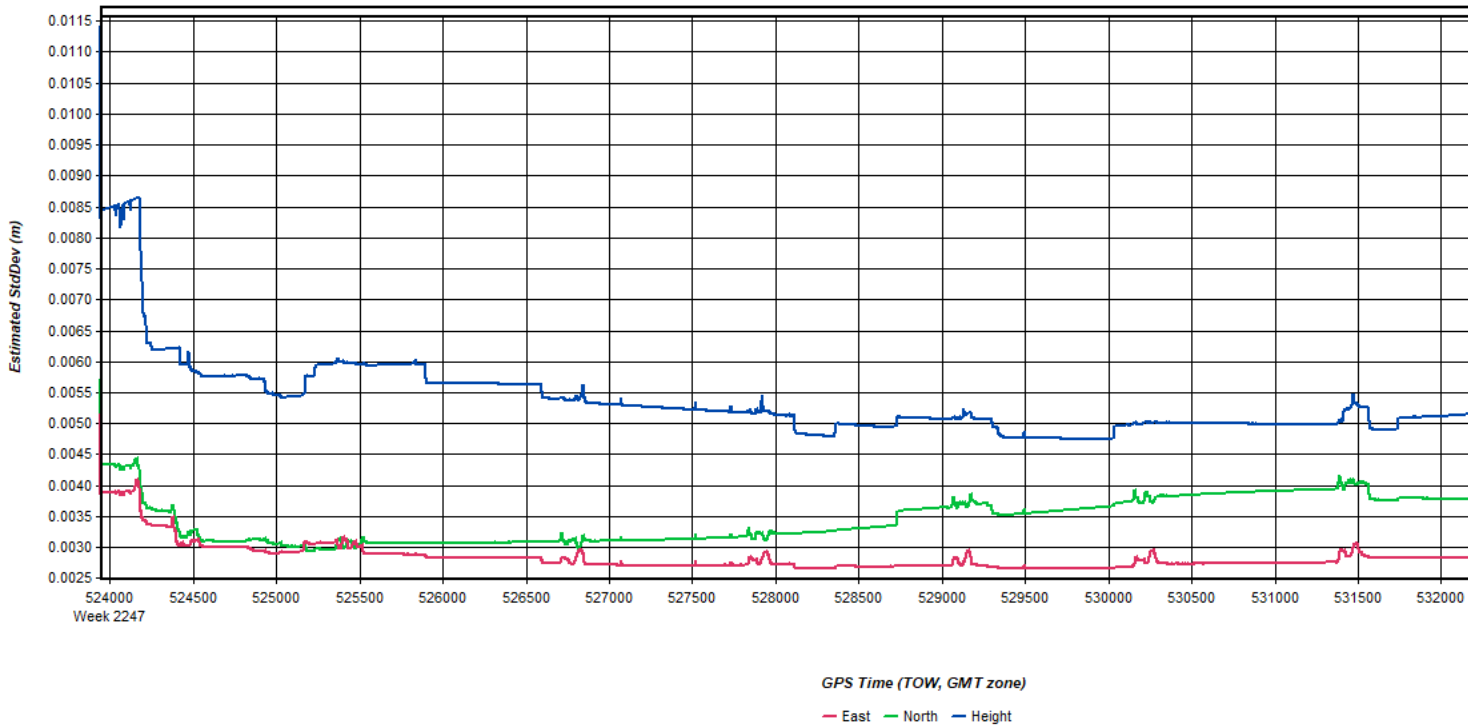
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 4: 20230204013137_8 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 5: 20230204013137_8 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 6: 20230204013137_8 [Smoothed TC Combined] - PDOP Plot

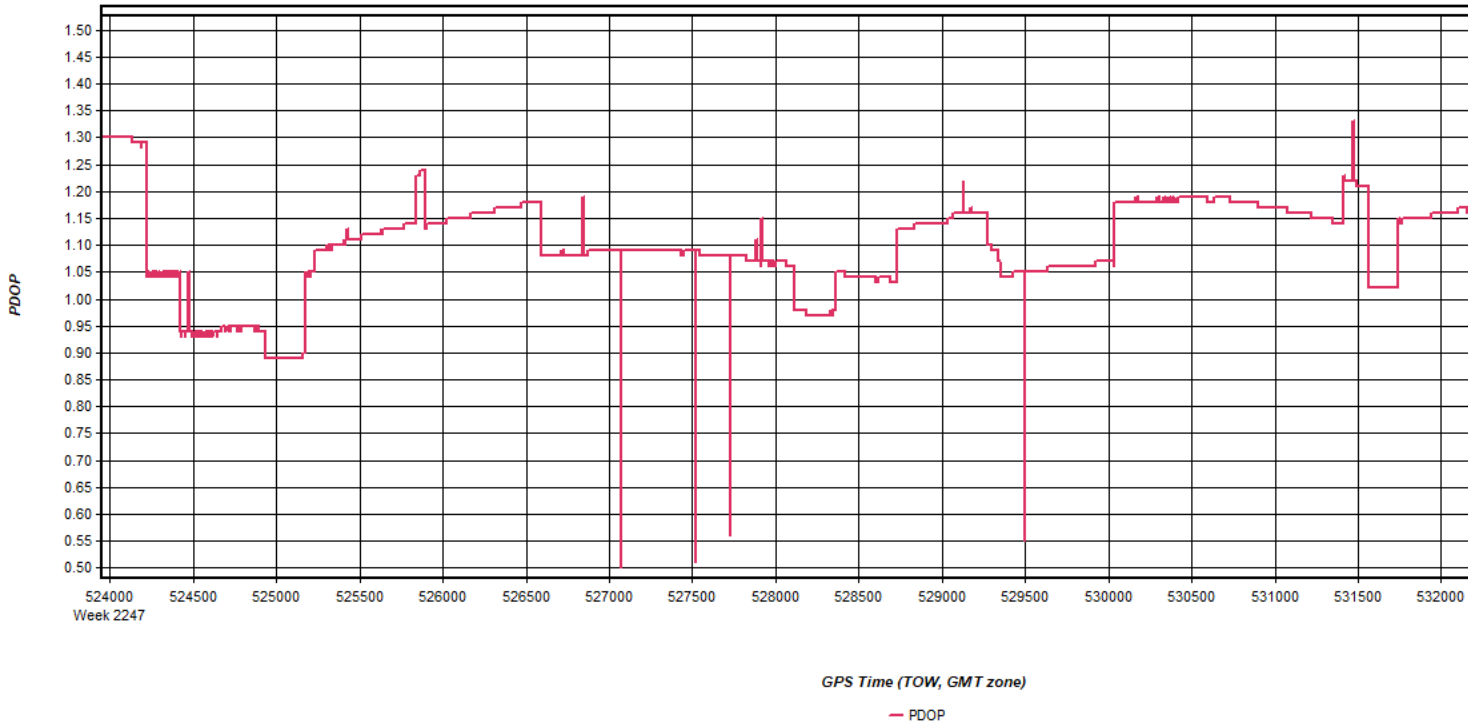


Figure 7: 20230204013137_8 [Smoothed TC Combined] - Number of Satellites Line Plot

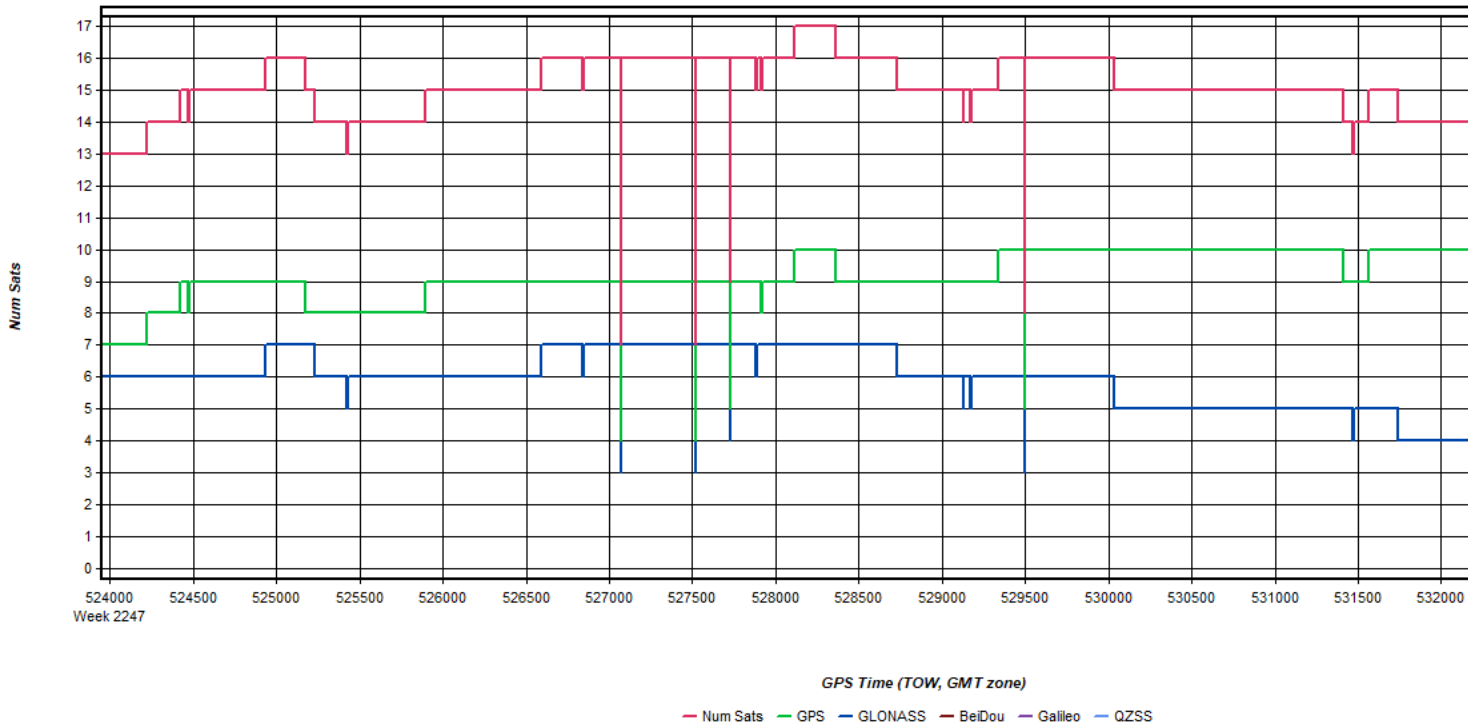
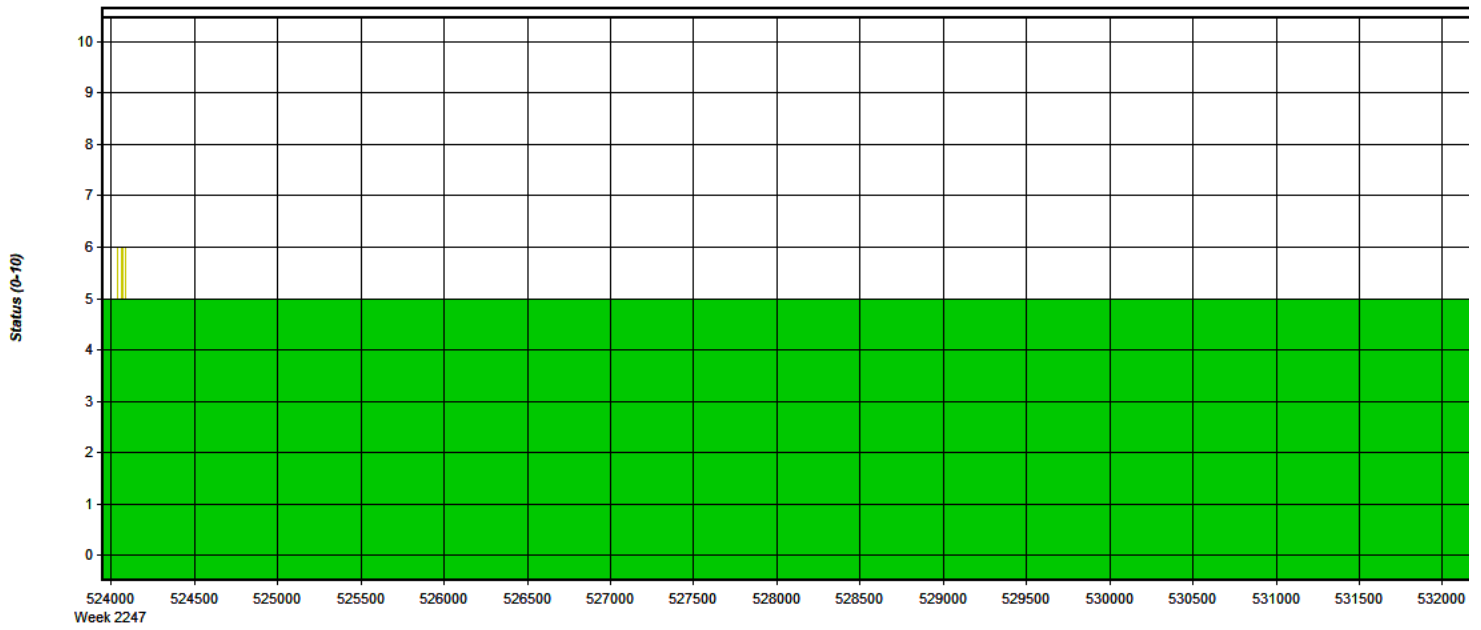


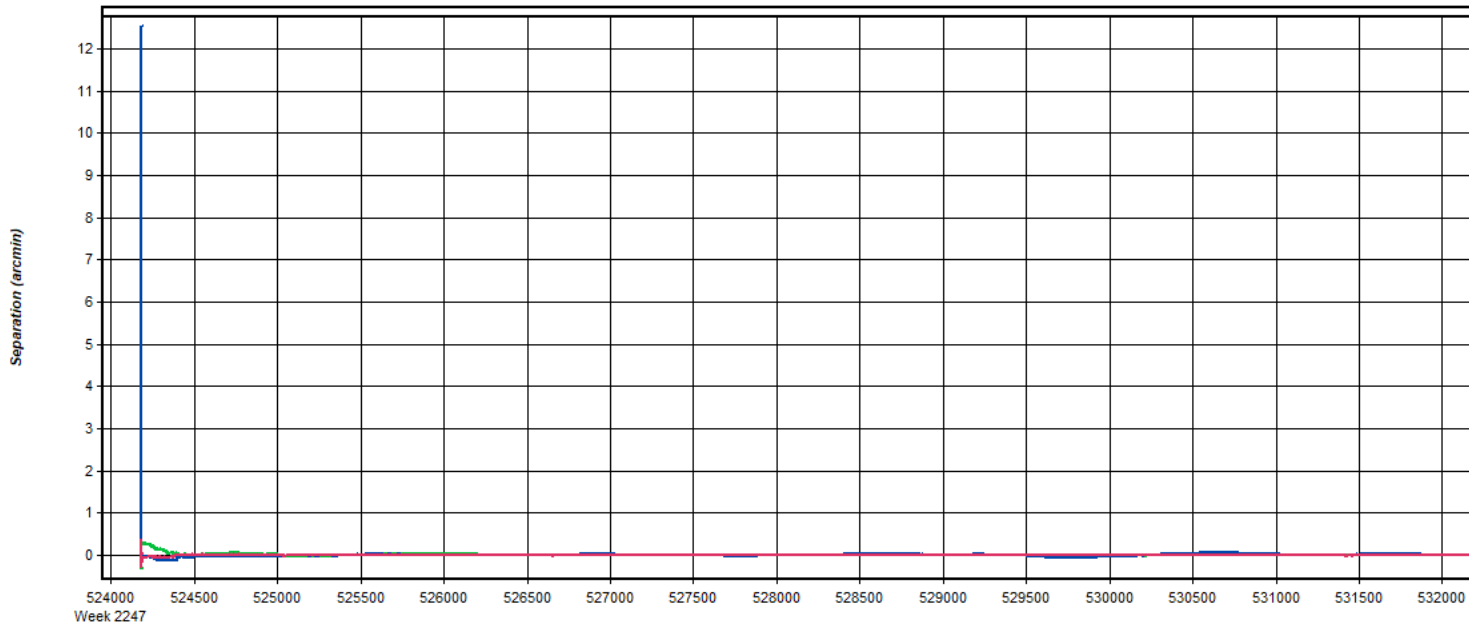
Figure 8: 20230204013137_8 [Smoothed TC Combined] - Status flag for IMU processing



GPS Time (TOW, GMT zone)
 — None — Align — Free — DMIUPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

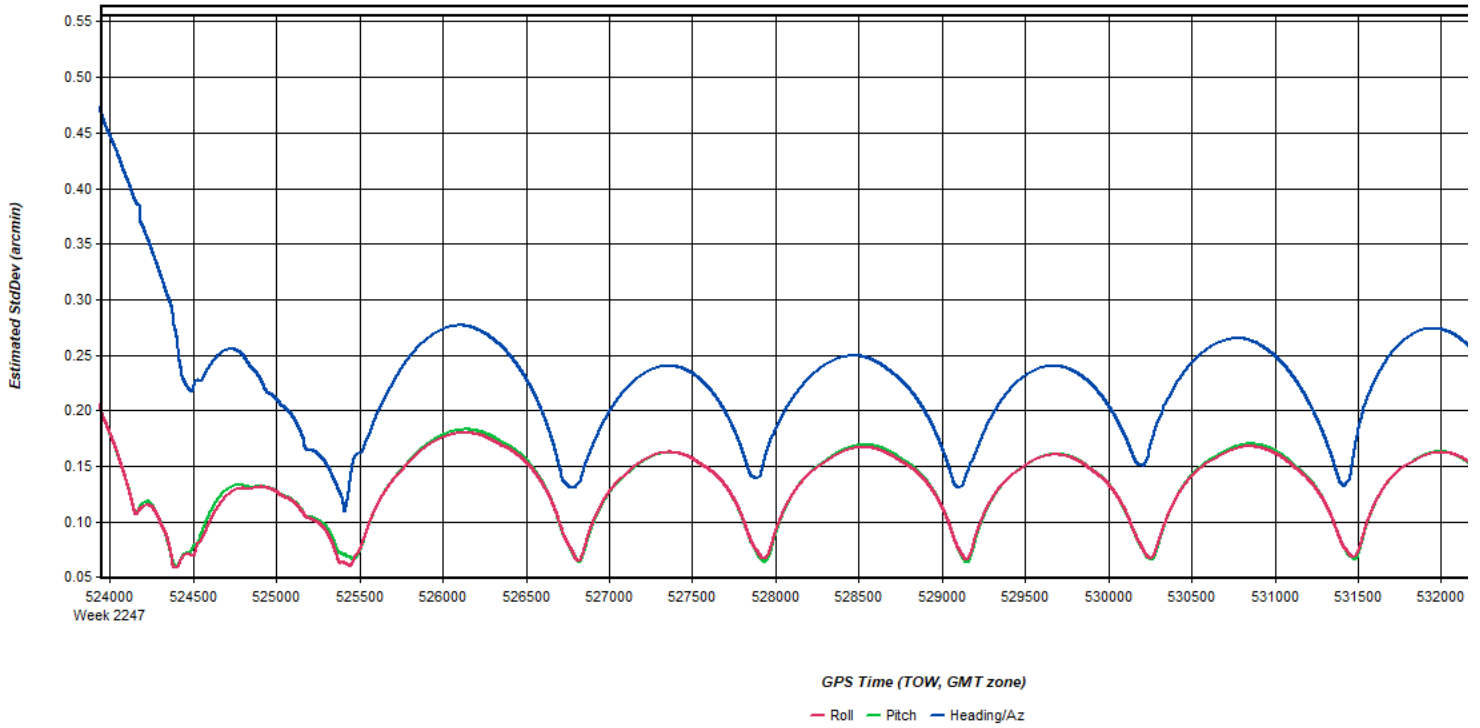
Figure 9: 20230204013137_8 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



GPS Time (TOW, GMT zone)
 — Roll — Pitch — Heading/Az

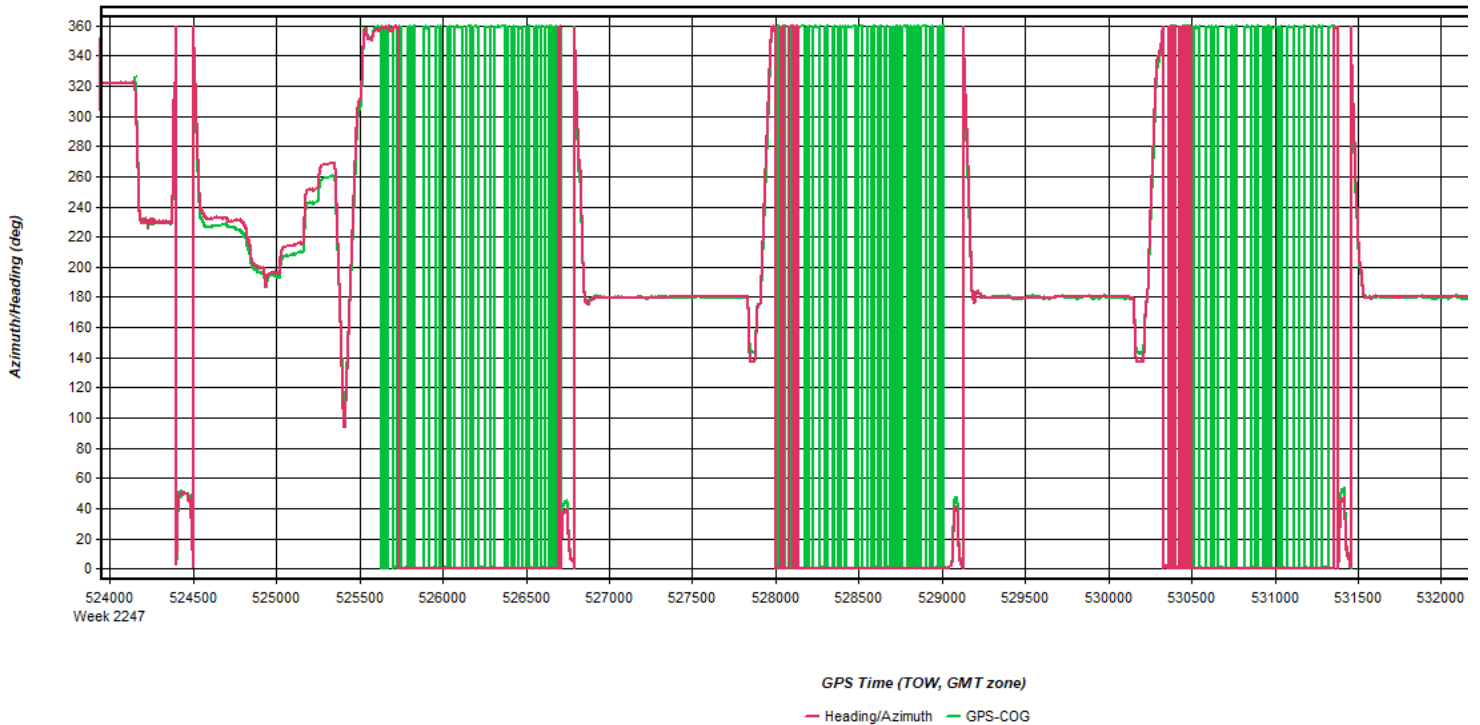
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 10: 20230204013137_8 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



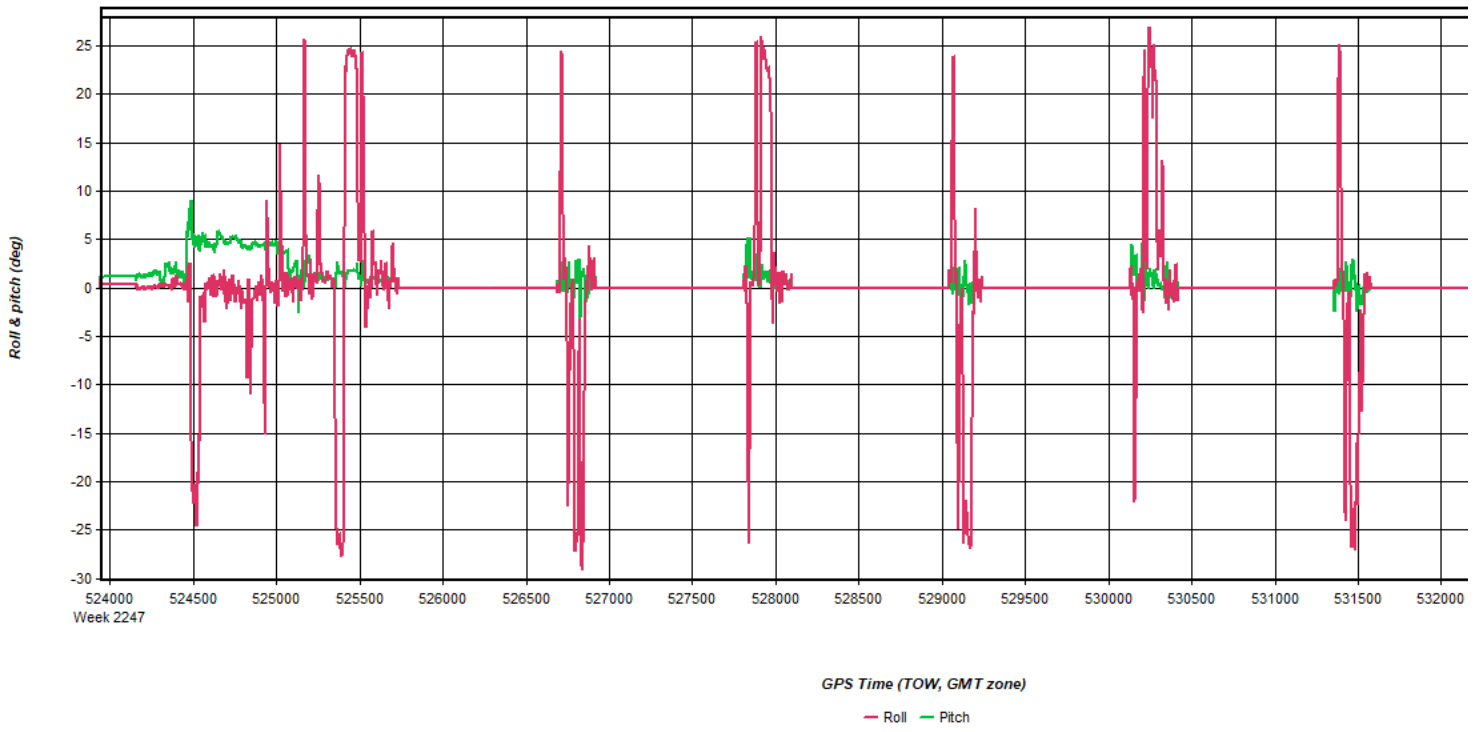
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 11: 20230204013137_8 [Smoothed TC Combined] - Azimuth Plot



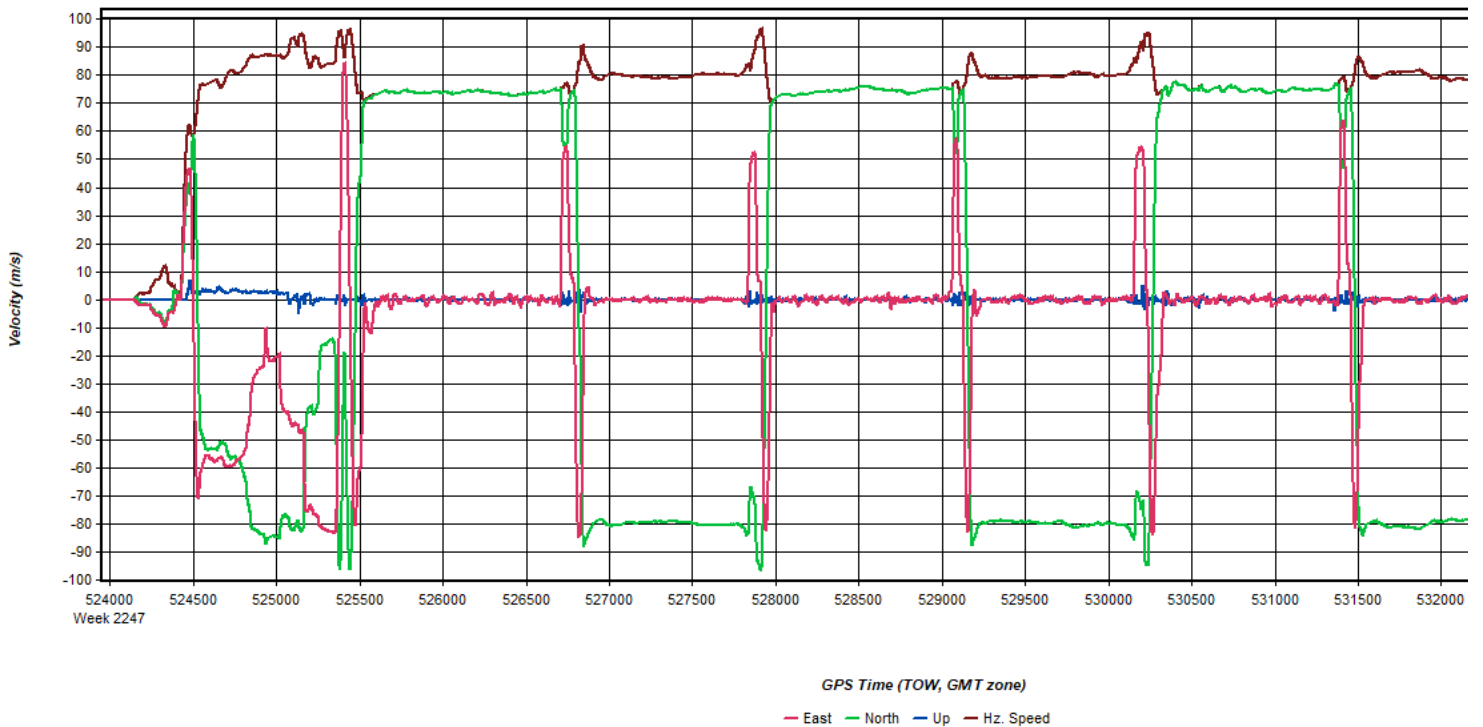
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 12: 20230204013137_8 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 13: 20230204013137_8 [Smoothed TC Combined] - Velocity Profile Plot



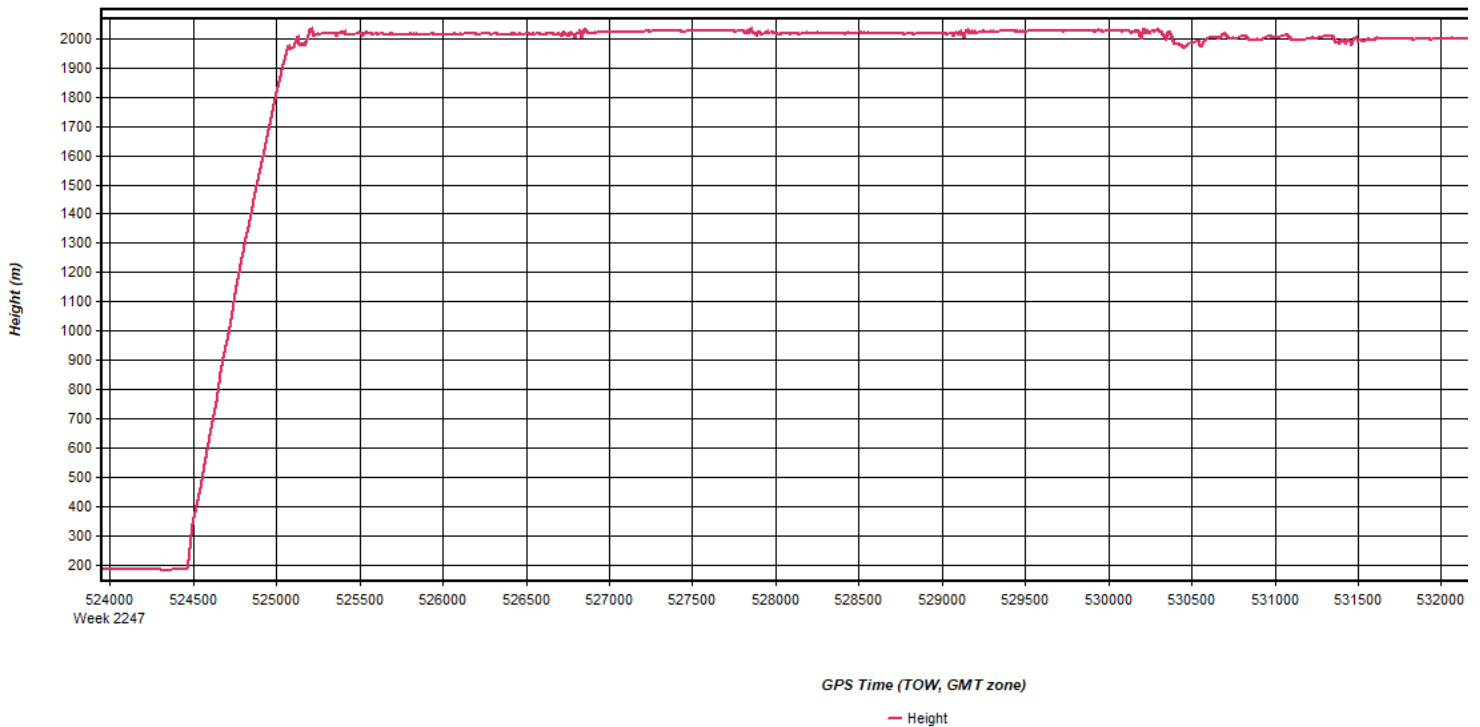
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 14: 20230204013137_8 [Smoothed TC Combined] - Body Frame Velocity Plot



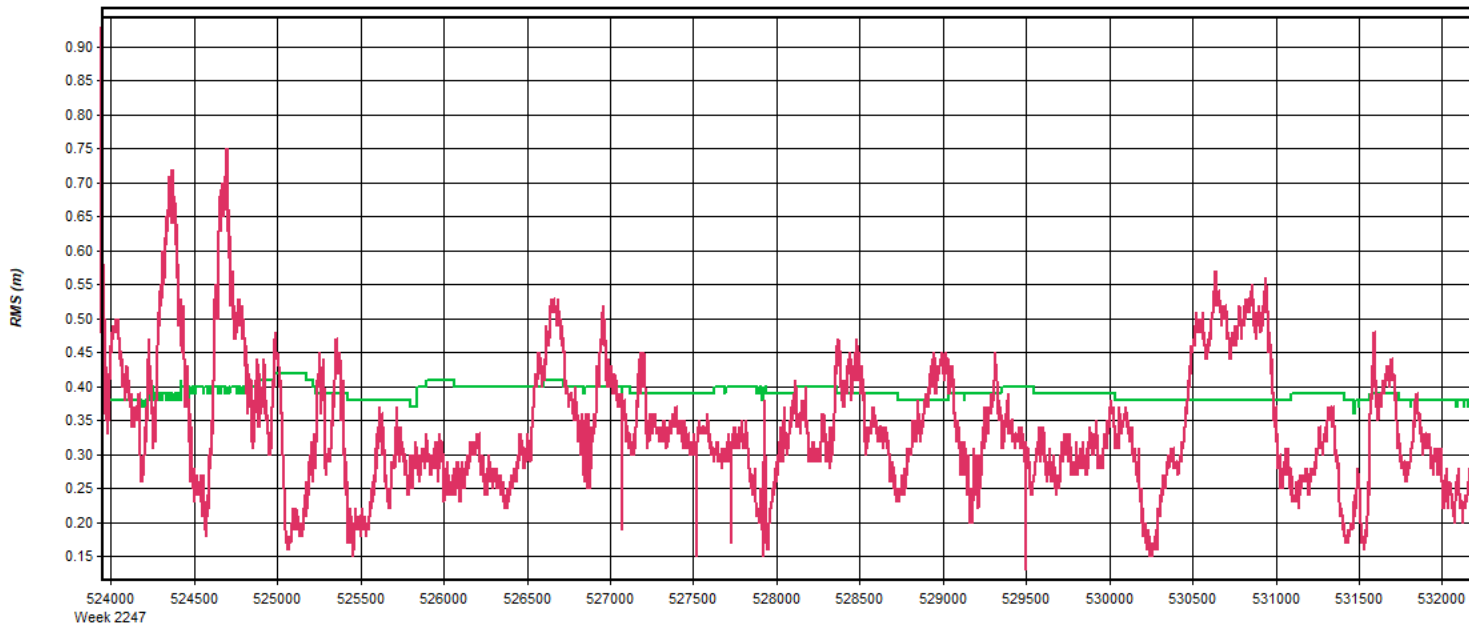
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 15: 20230204013137_8 [Smoothed TC Combined] - Height Profile Plot



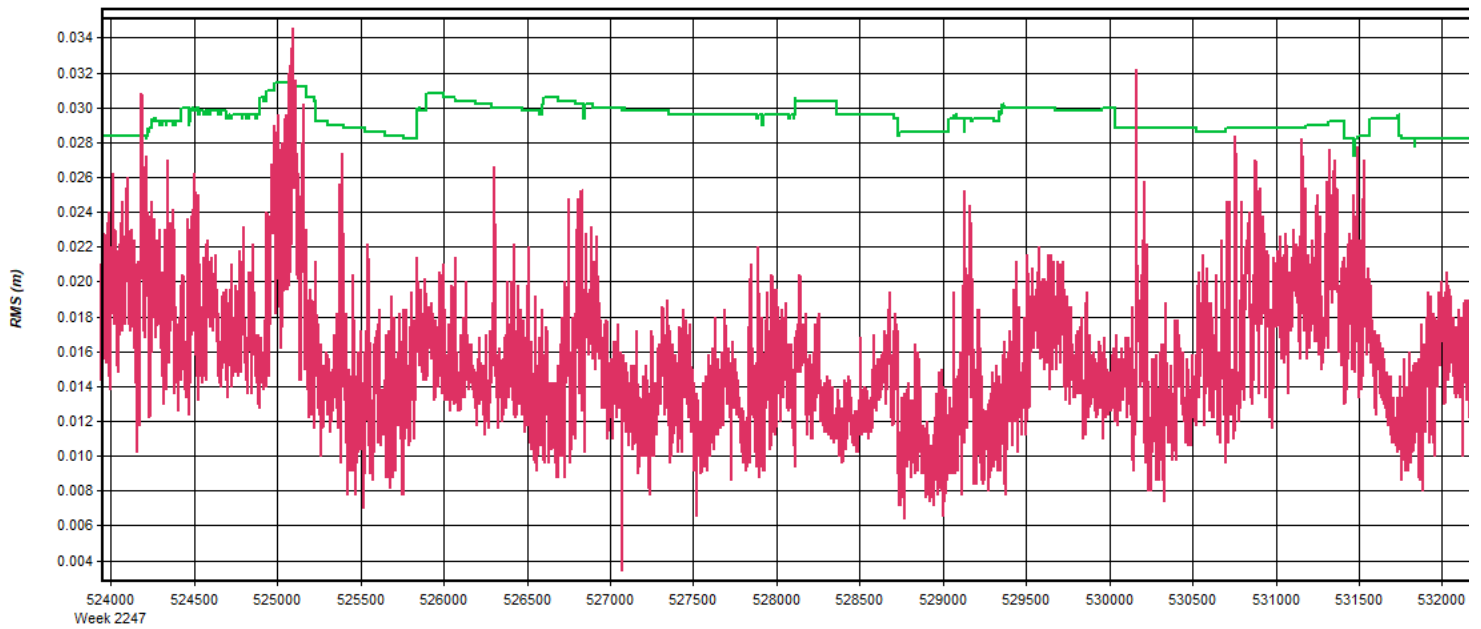
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 16: 20230204013137_8 [Smoothed TC Combined] - C/A Code Residual RMS Plot



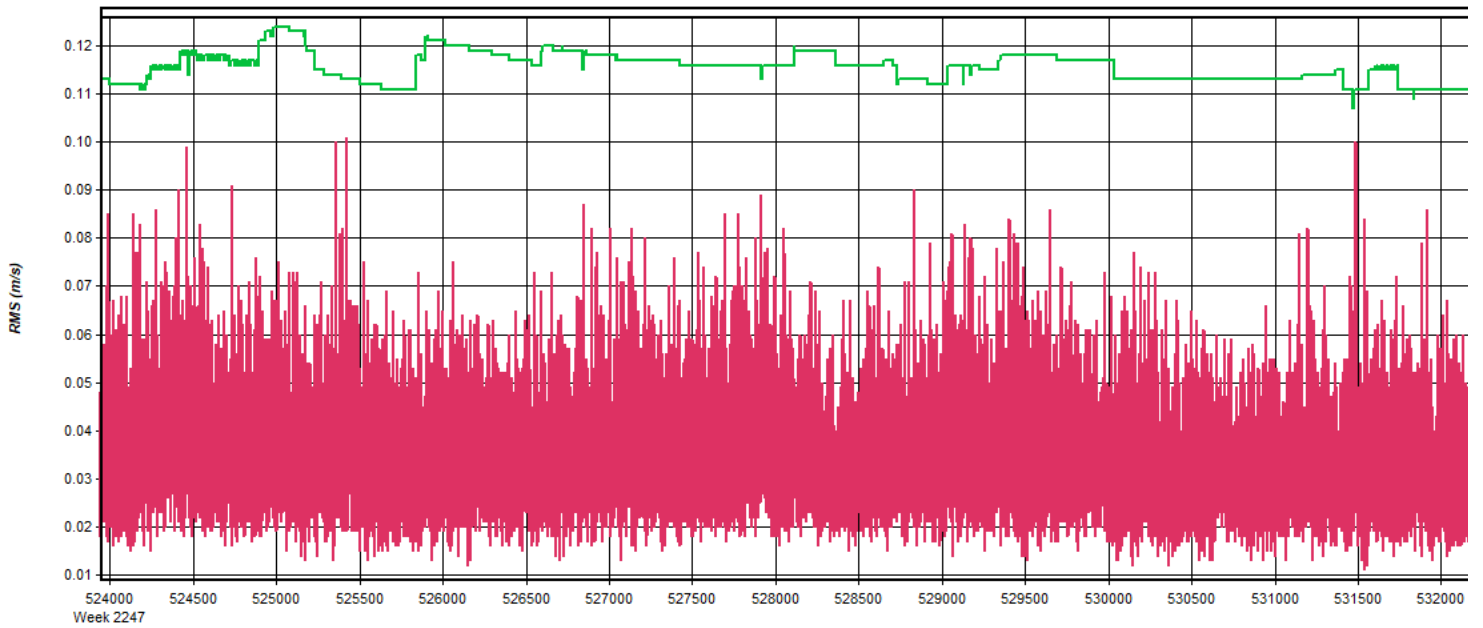
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 17: 20230204013137_8 [Smoothed TC Combined] - Carrier Residual RMS Plot



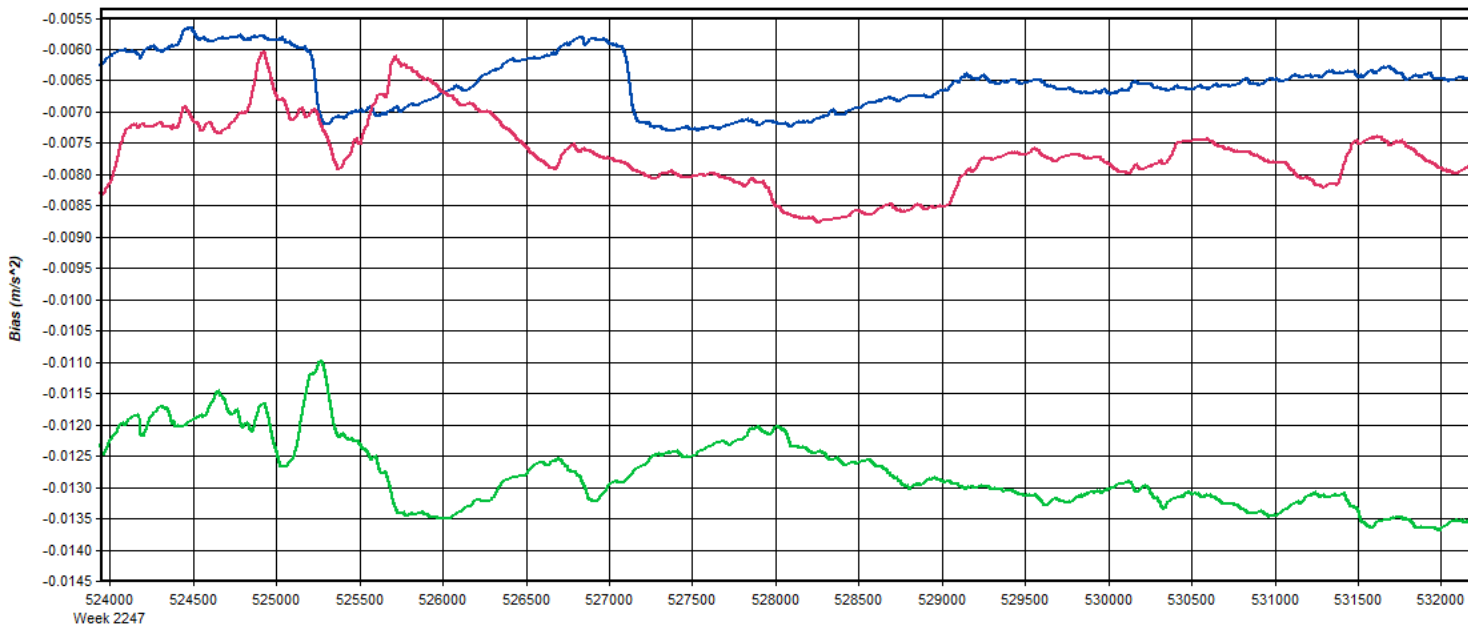
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 18: 20230204013137_8 [Smoothed TC Combined] - Doppler Residual RMS Plot



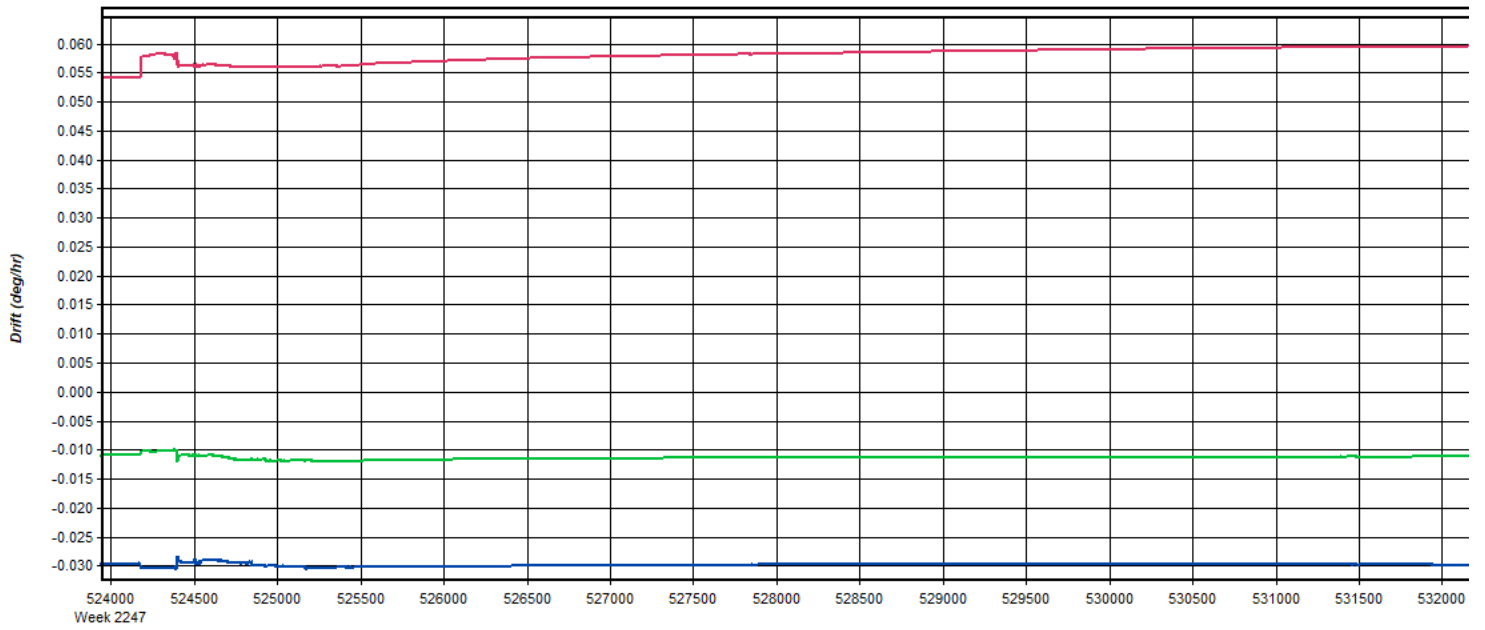
Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 19: 20230204013137_8 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Figure 20: 20230204013137_8 [Smoothed TC Combined] - Gyro Drift Plot



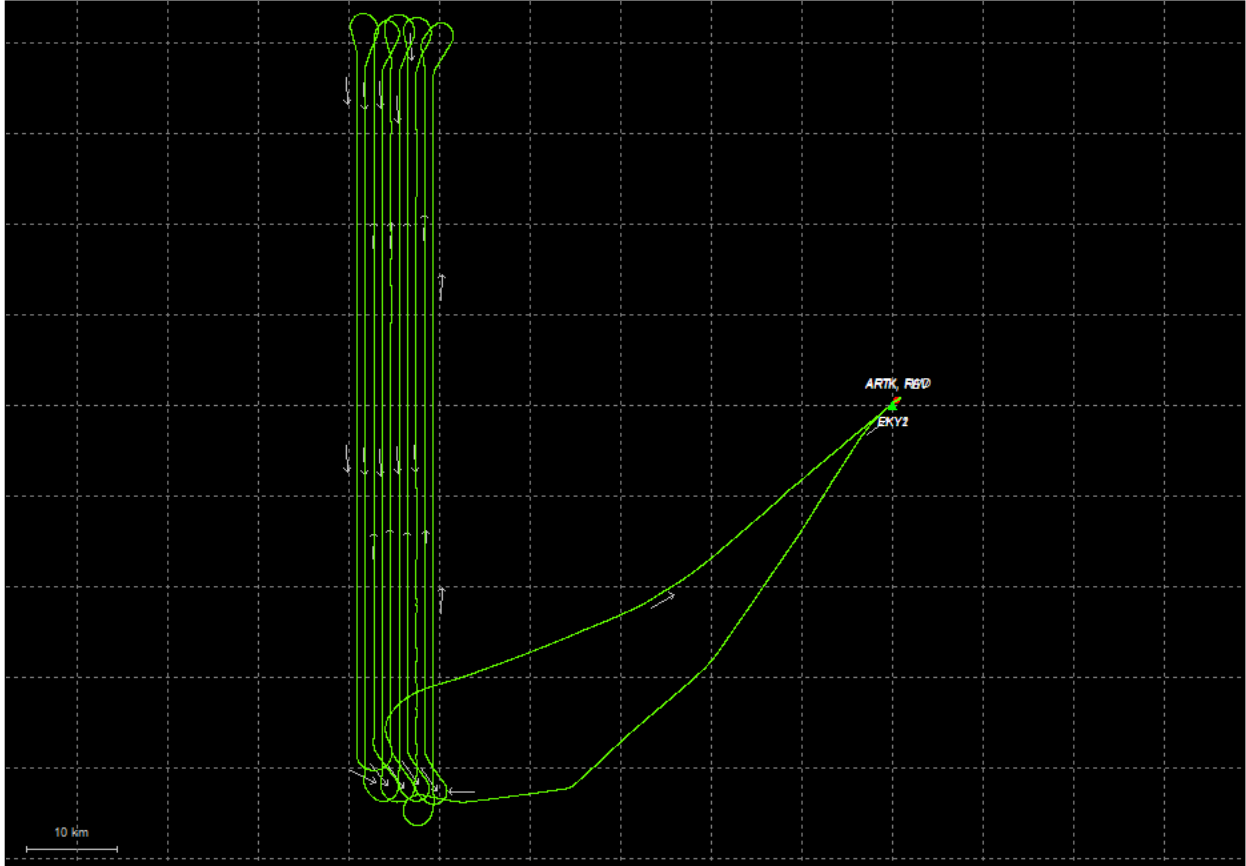
GPS Time (TOW, GMT zone)
 Body-X Body-Y Body-Z

Process	20230204013137_8	by Unknown	on 2/7/2023	at 16:20:10
---------	------------------	------------	-------------	-------------

Output Results for 20230204191511_9

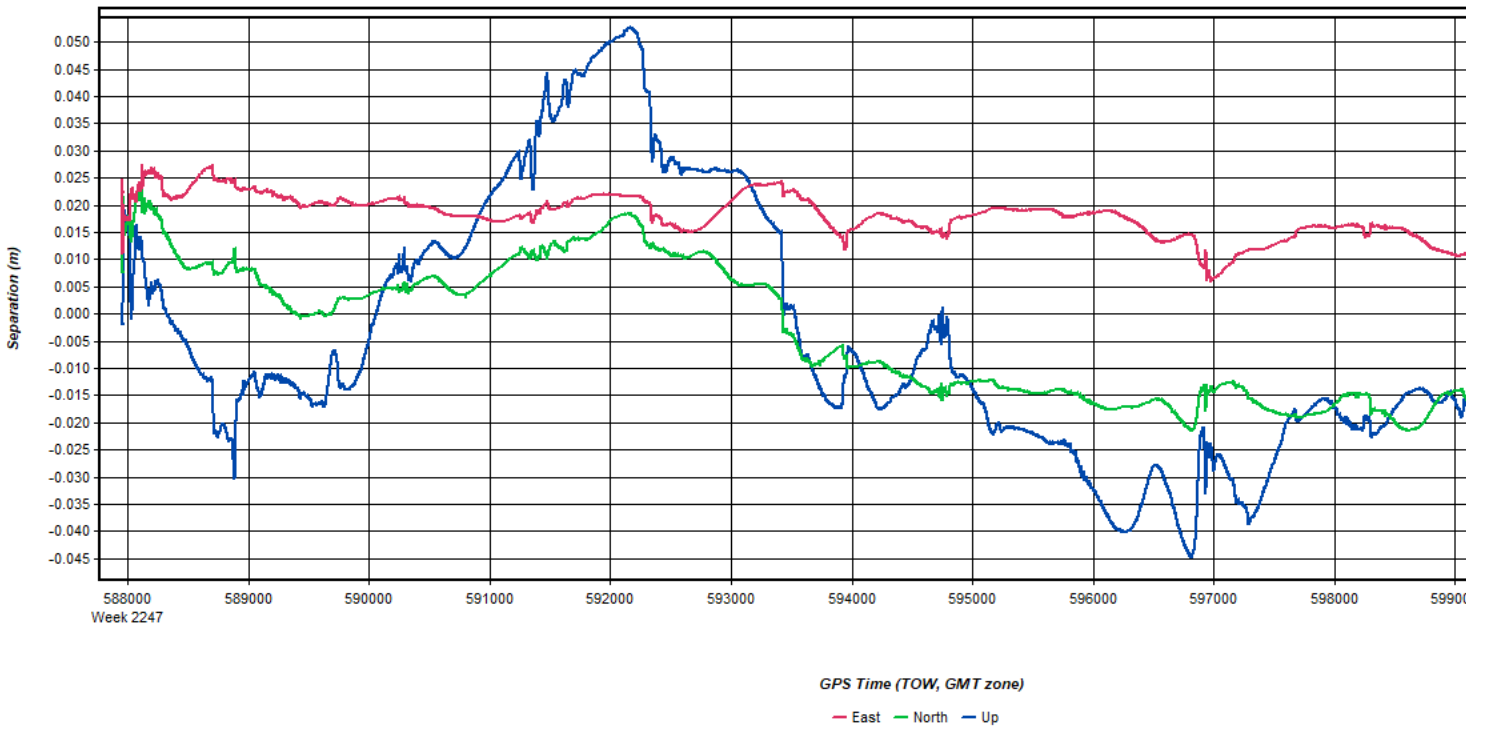
Inertial Explorer Version 8.90.6611
02/07/2023

Figure 1: Smoothed TC Combined - Map



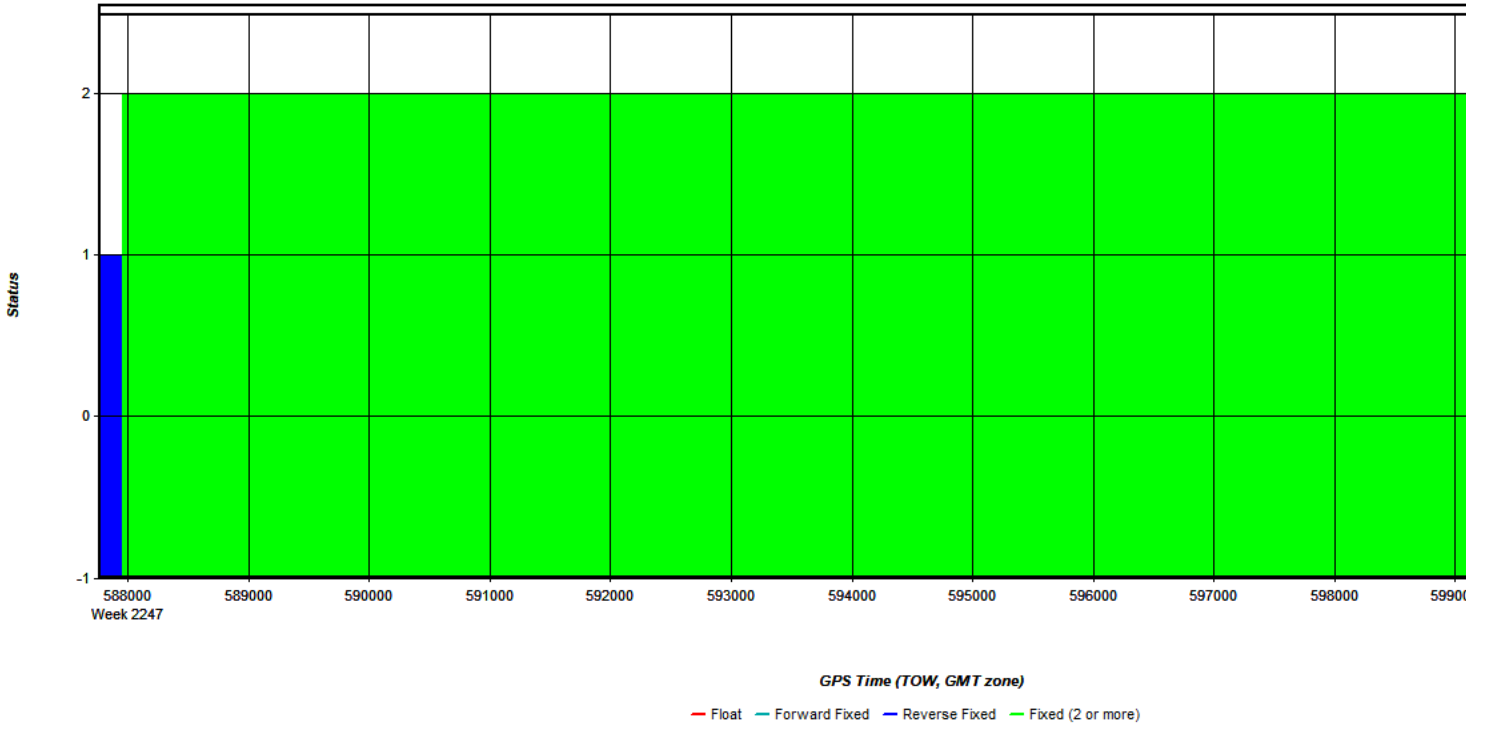
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 2: 20230204191511_9 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 3: 20230204191511_9 [Smoothed TC Combined] - Float or Fixed Ambiguity



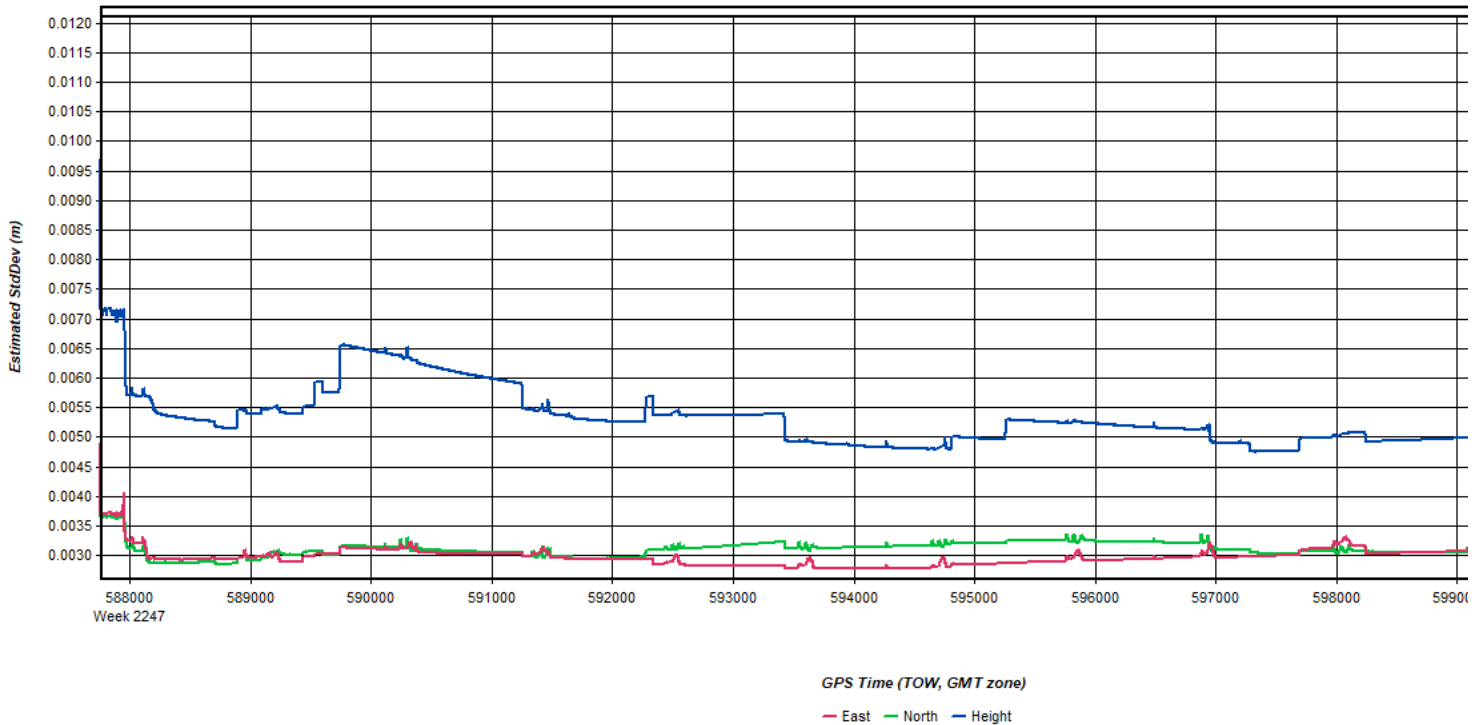
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 4: 20230204191511_9 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



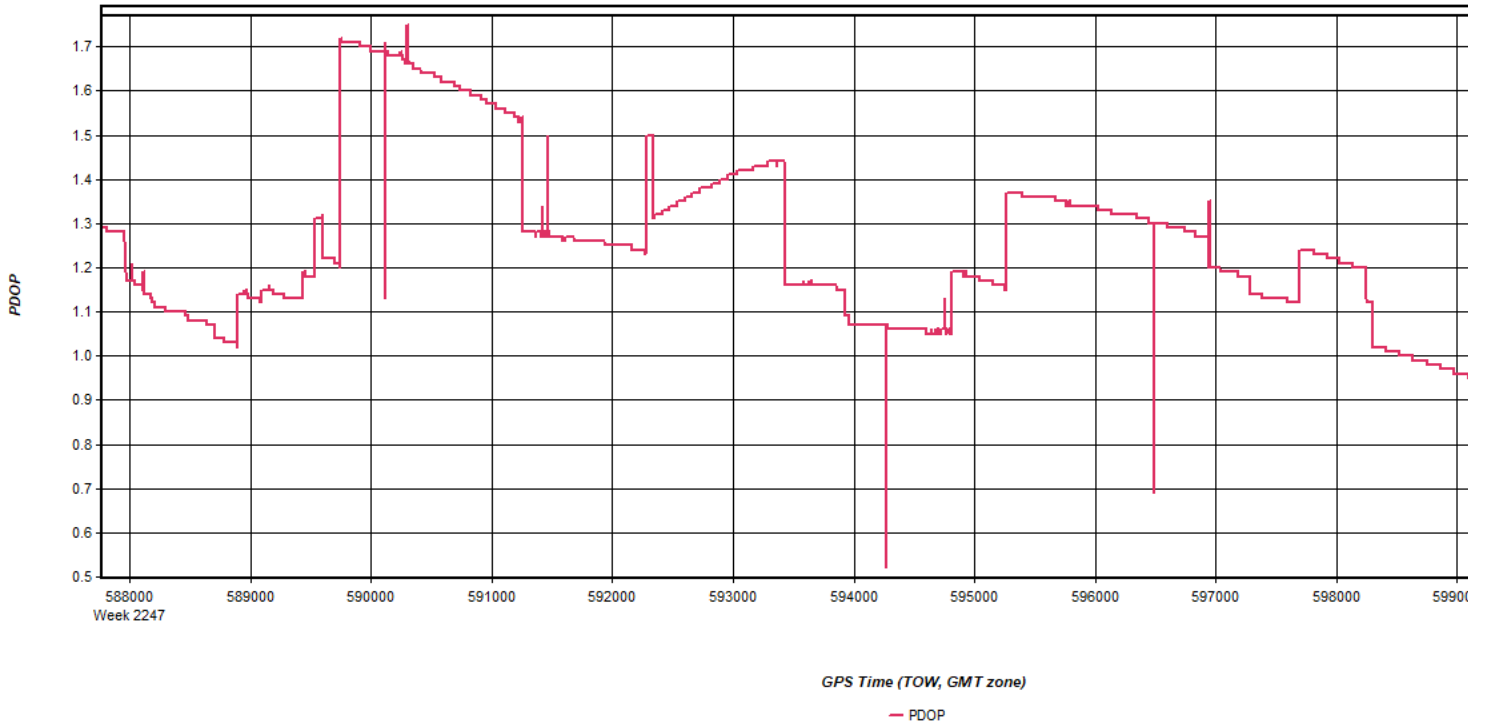
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 5: 20230204191511_9 [Smoothed TC Combined] - Estimated Position Accuracy Plot



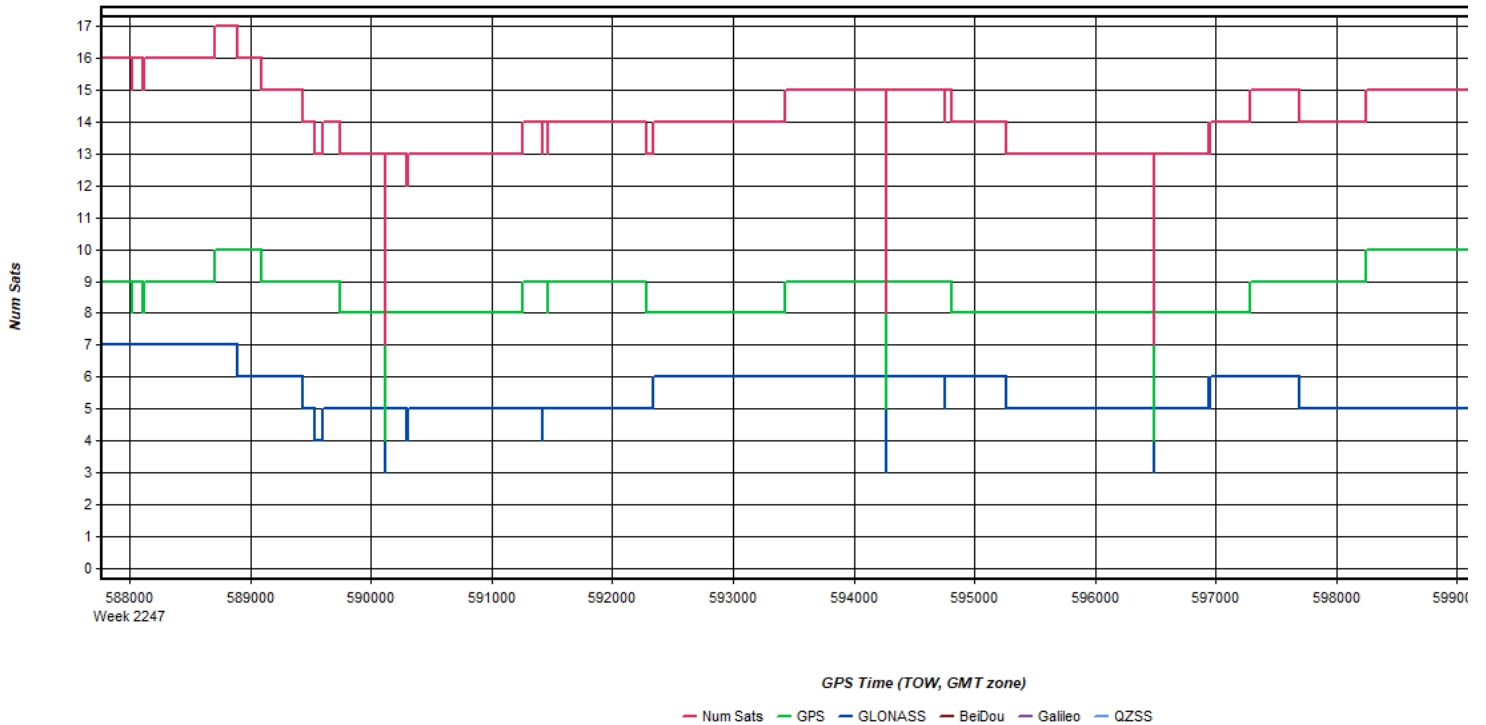
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 6: 20230204191511_9 [Smoothed TC Combined] - PDOP Plot



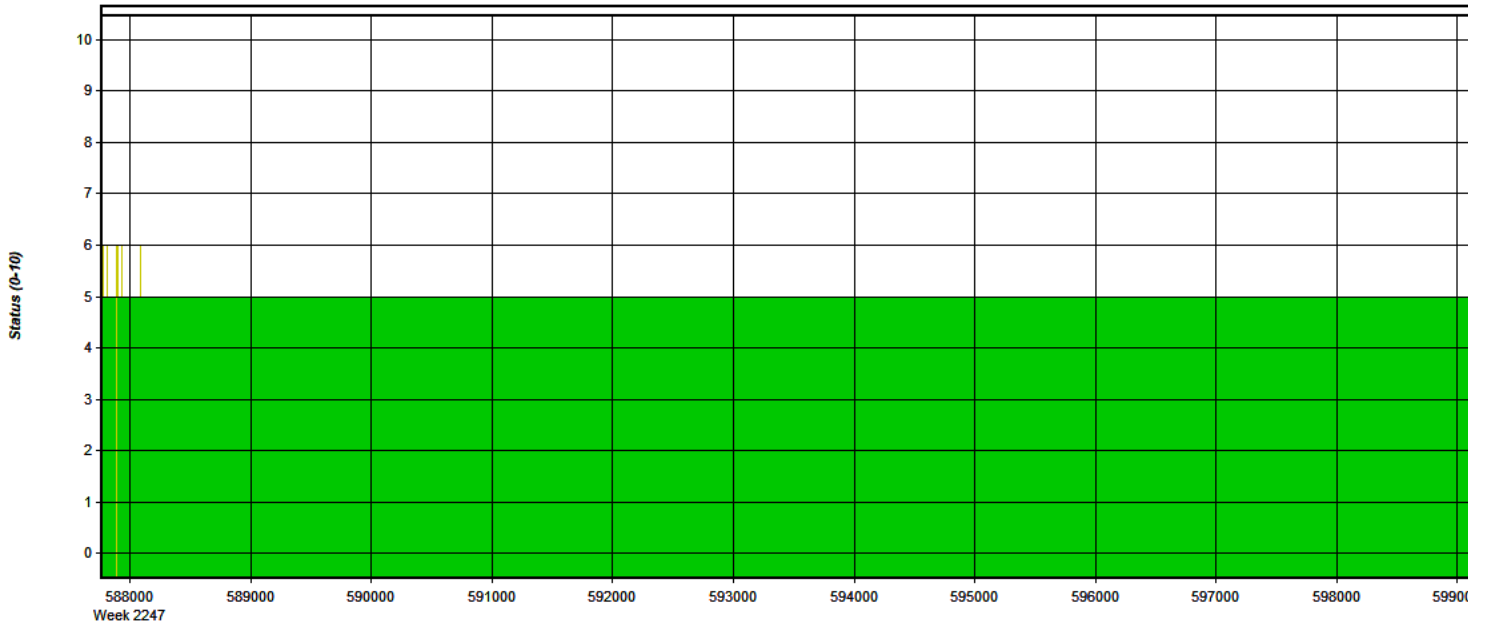
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 7: 20230204191511_9 [Smoothed TC Combined] - Number of Satellites Line Plot



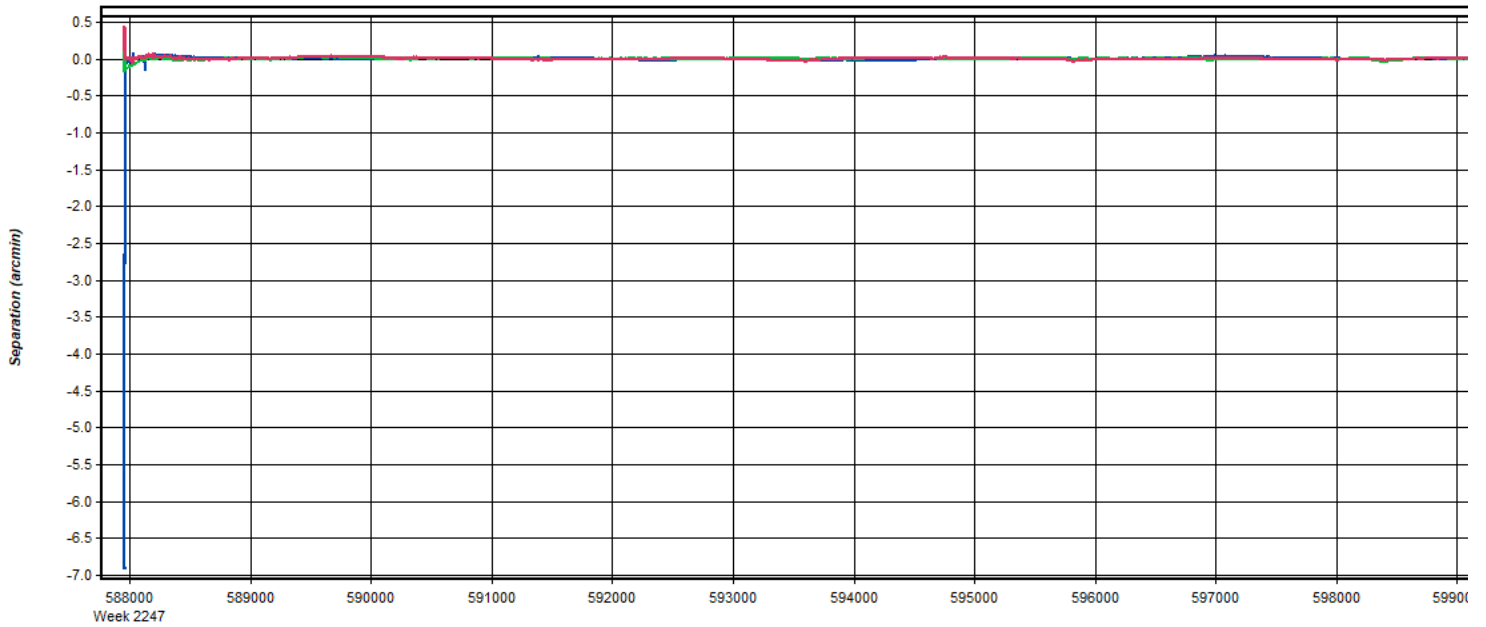
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 8: 20230204191511_9 [Smoothed TC Combined] - Status flag for IMU processing



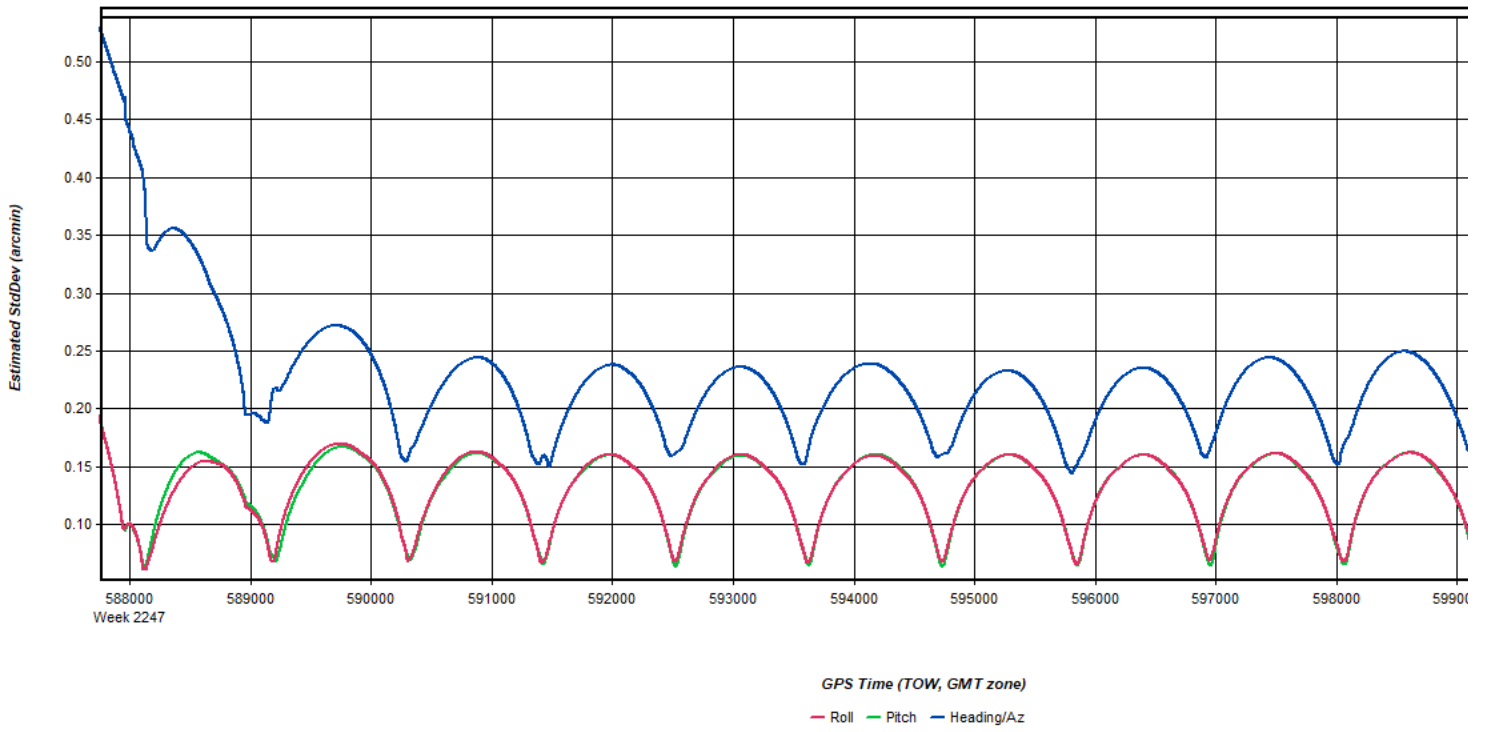
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 9: 20230204191511_9 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



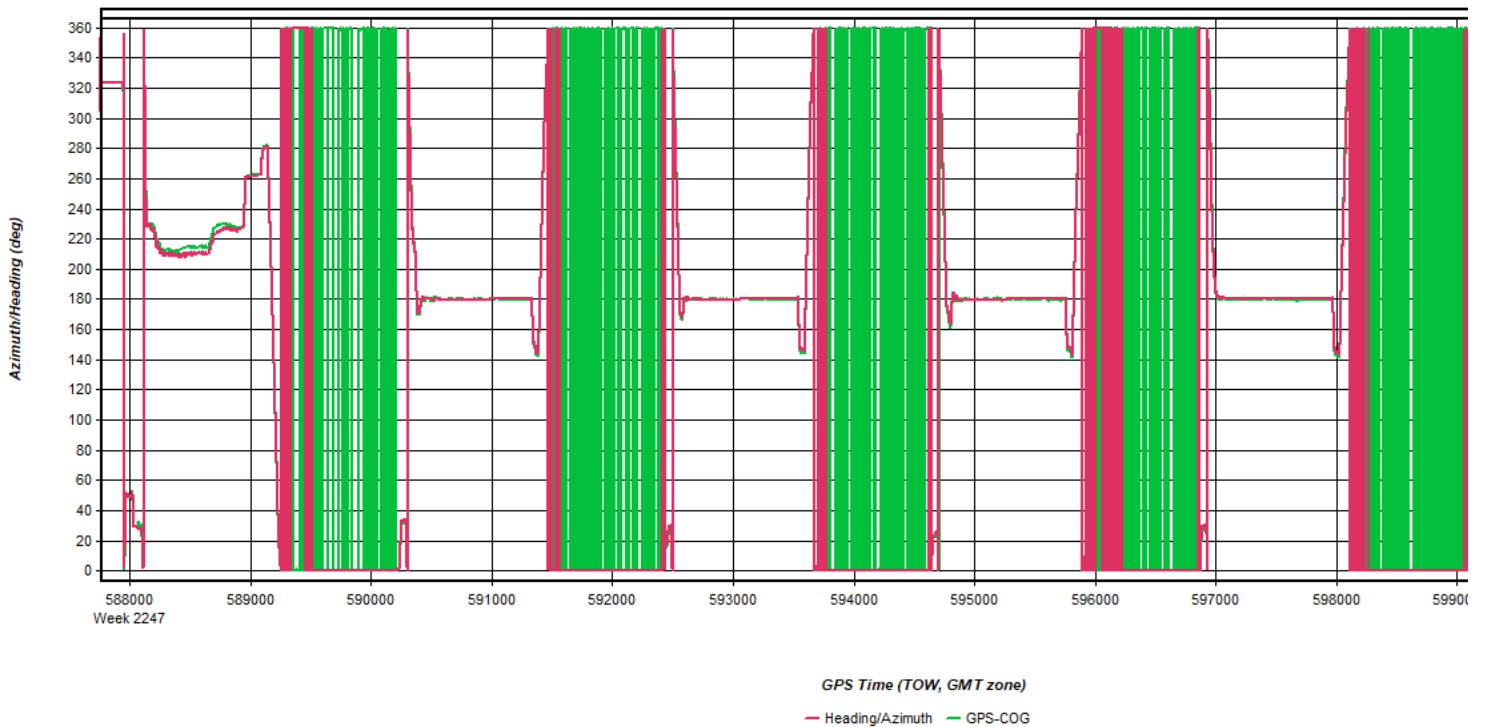
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 10: 20230204191511_9 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



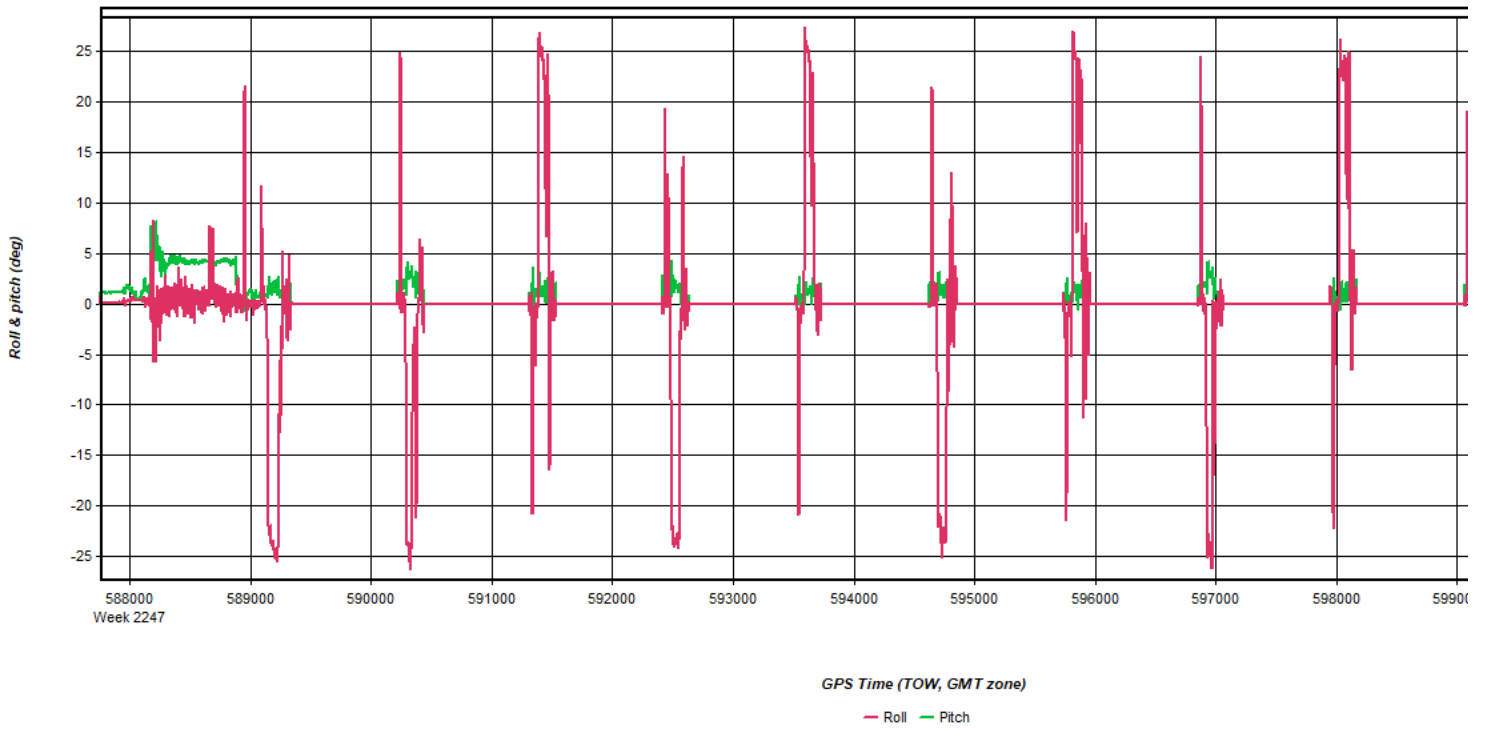
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 11: 20230204191511_9 [Smoothed TC Combined] - Azimuth Plot



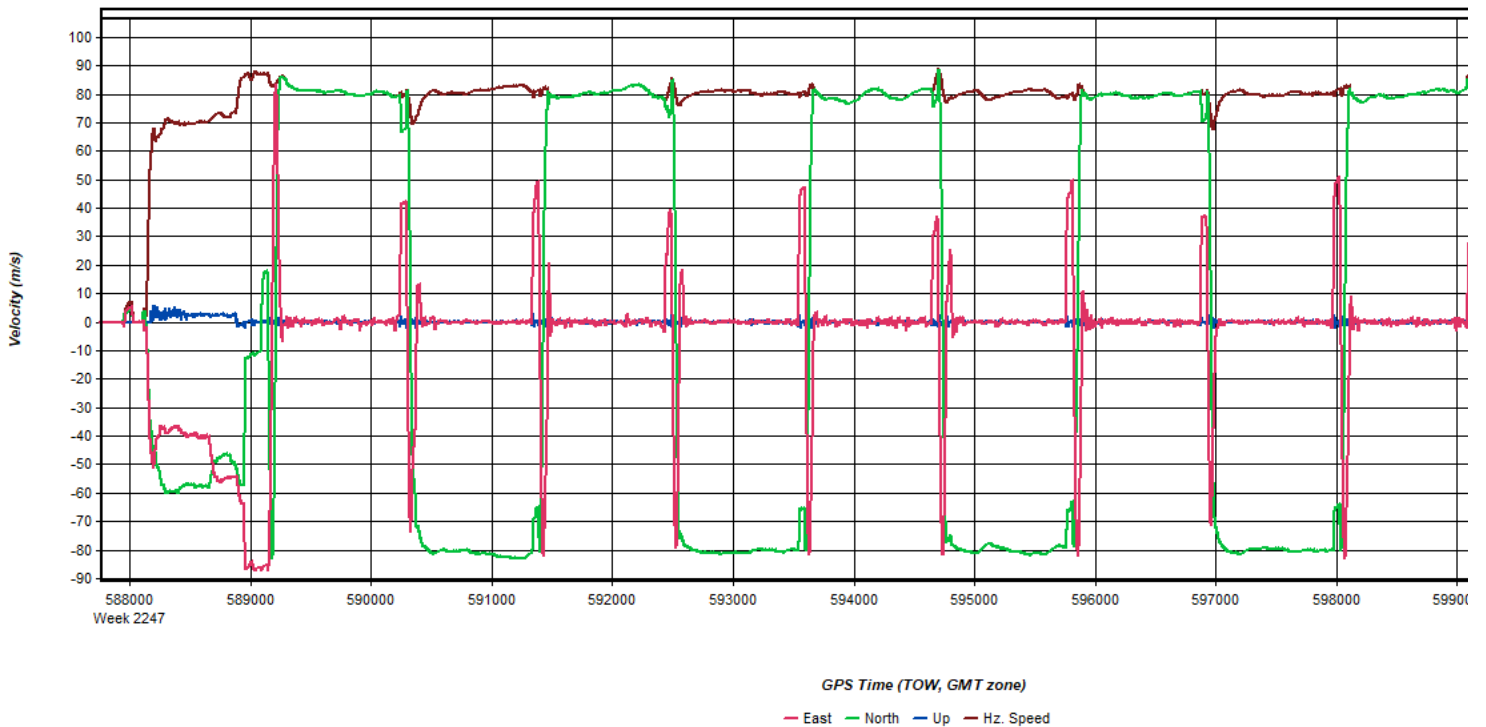
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 12: 20230204191511_9 [Smoothed TC Combined] - Roll & Pitch Plot



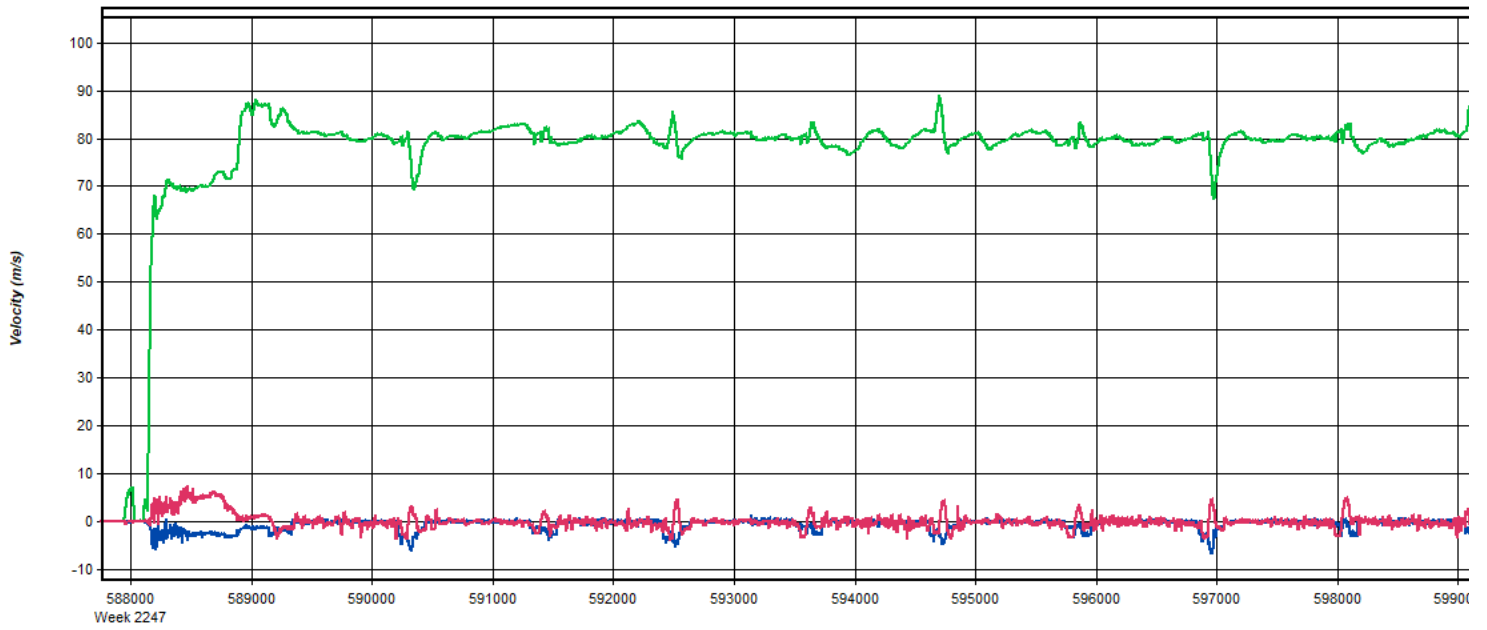
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 13: 20230204191511_9 [Smoothed TC Combined] - Velocity Profile Plot



Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 14: 20230204191511_9 [Smoothed TC Combined] - Body Frame Velocity Plot

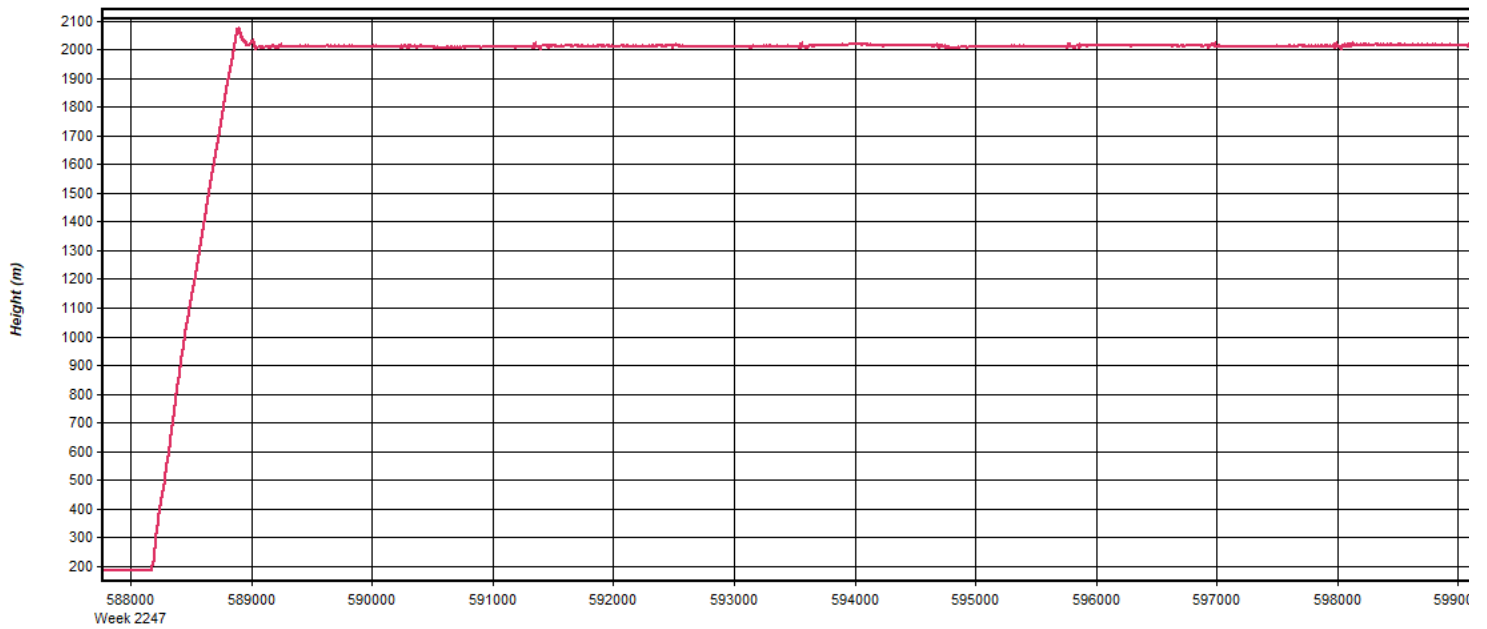


GPS Time (TOW, GMT zone)

— X — Y — Z

Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 15: 20230204191511_9 [Smoothed TC Combined] - Height Profile Plot

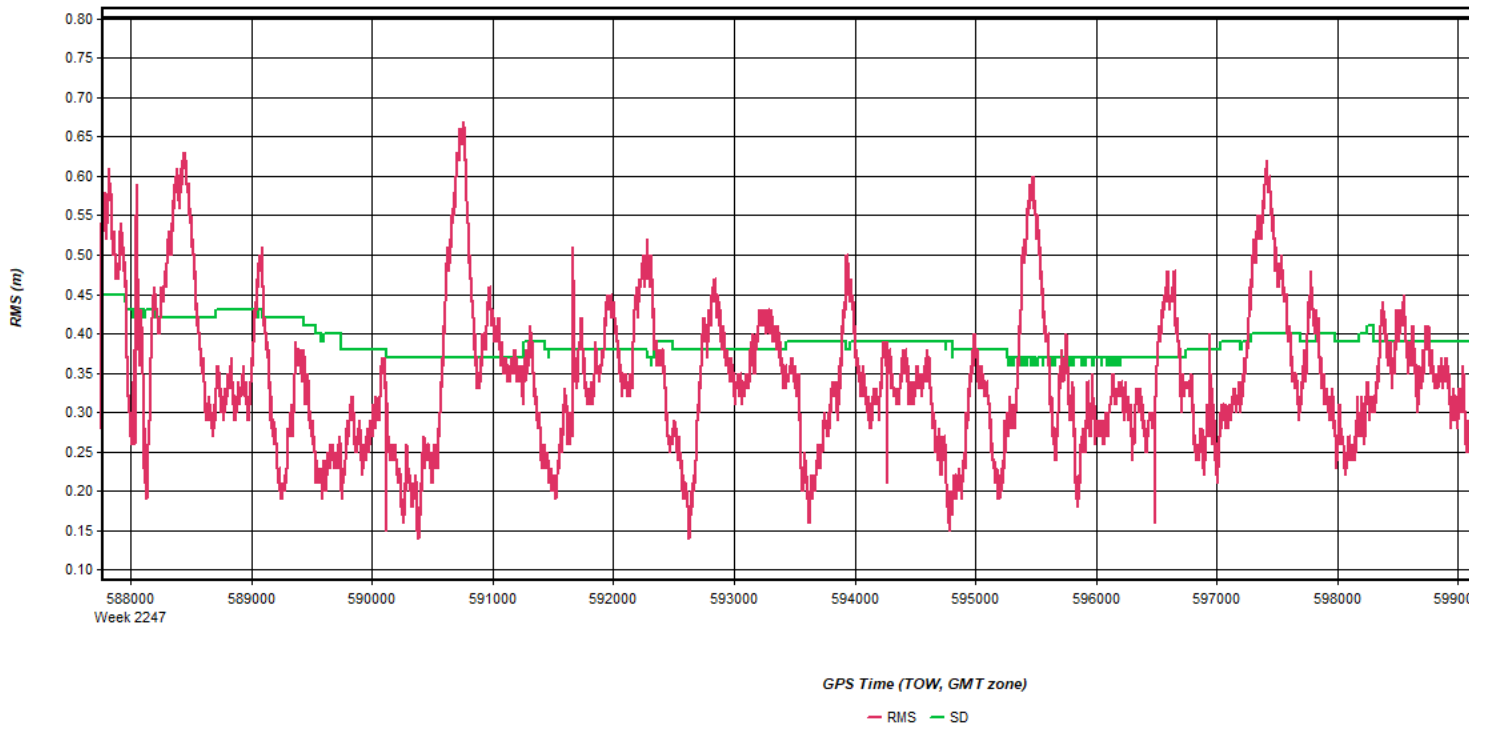


GPS Time (TOW, GMT zone)

— Height

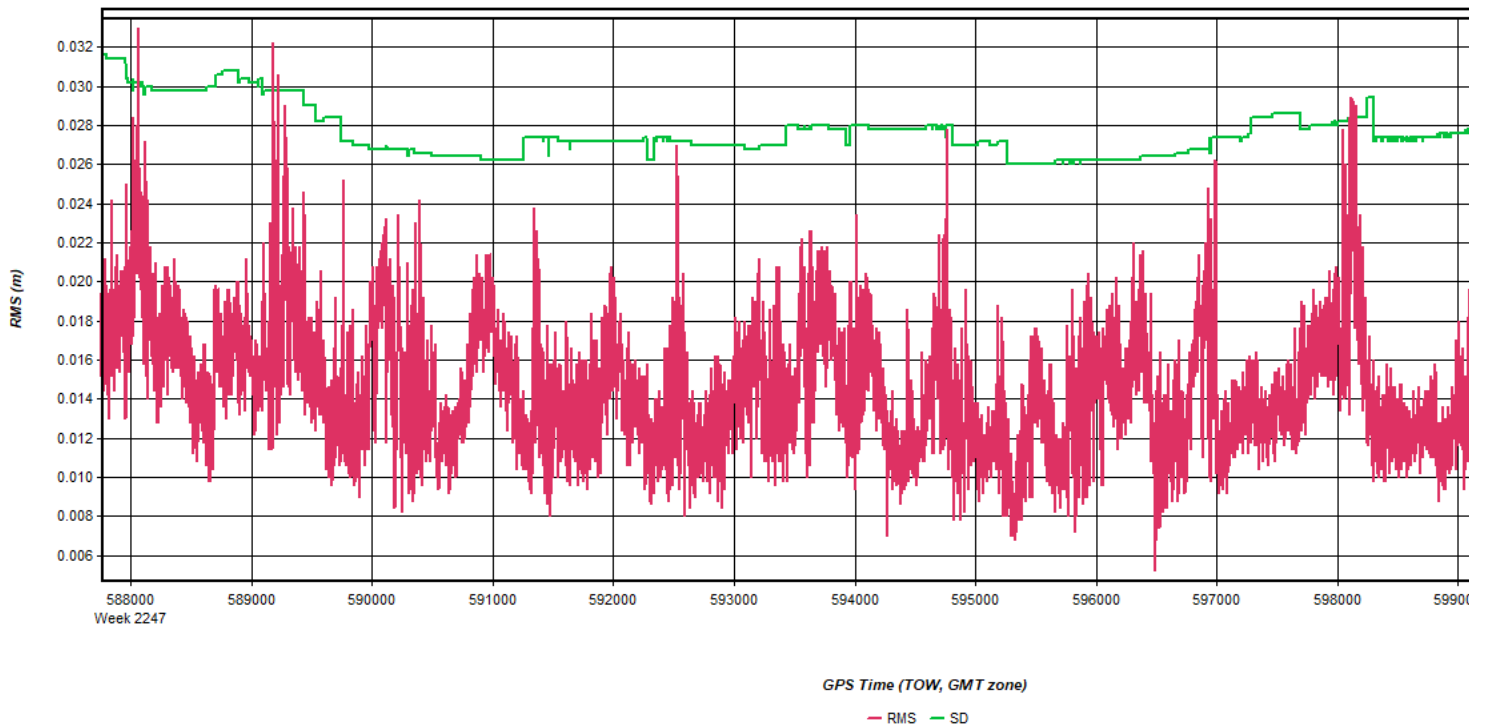
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 16: 20230204191511_9 [Smoothed TC Combined] - C/A Code Residual RMS Plot



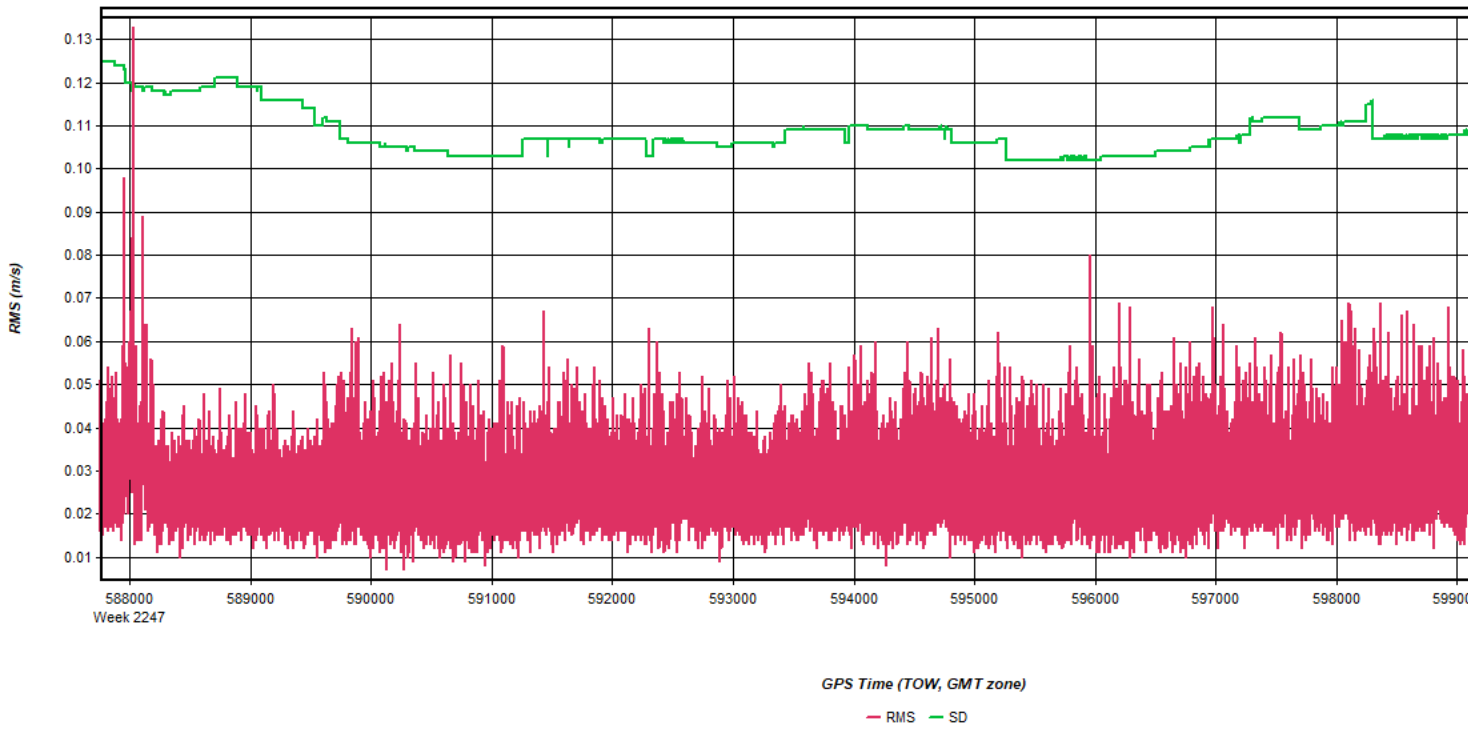
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 17: 20230204191511_9 [Smoothed TC Combined] - Carrier Residual RMS Plot



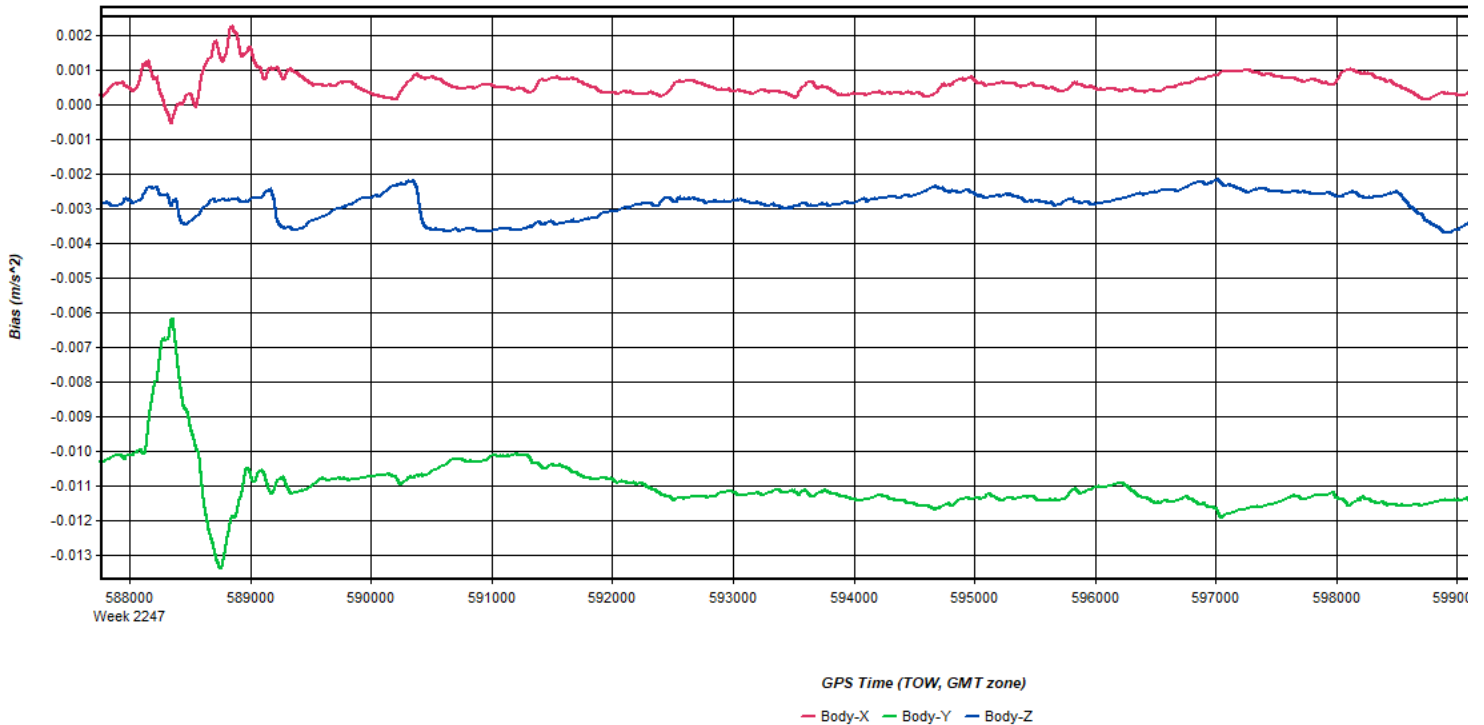
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 18: 20230204191511_9 [Smoothed TC Combined] - Doppler Residual RMS Plot



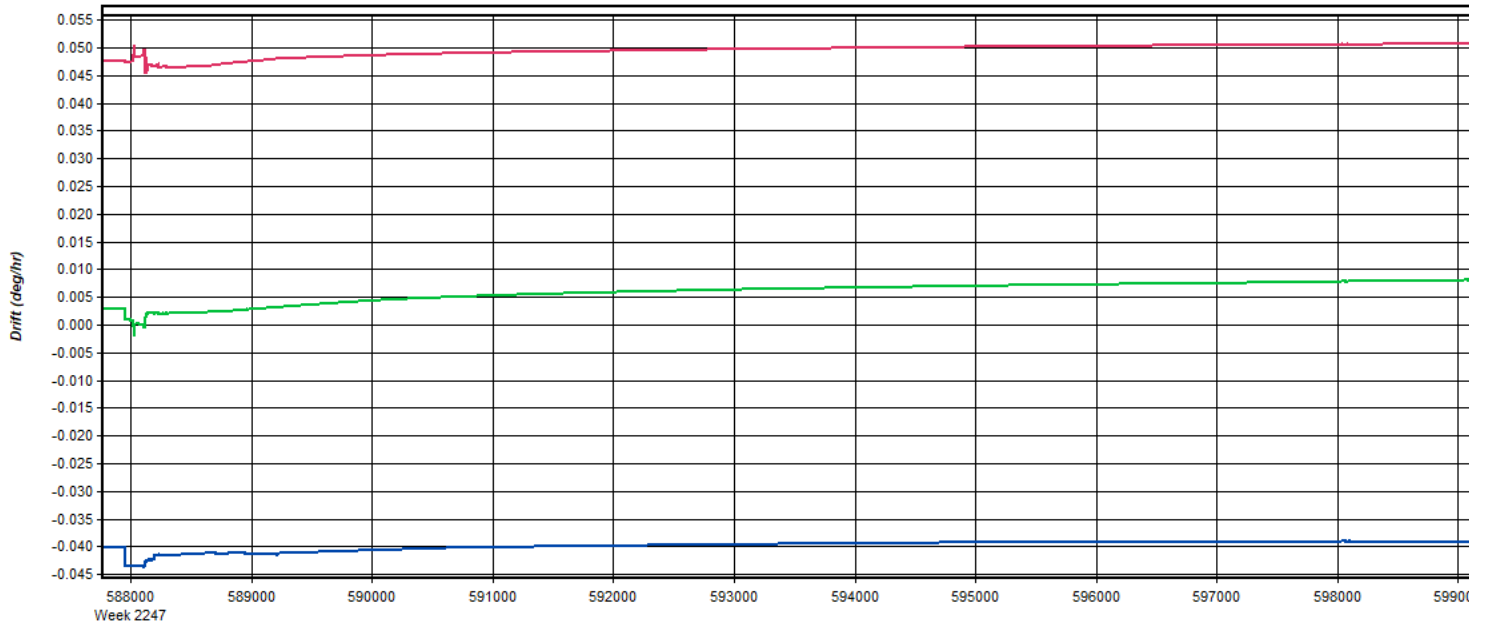
Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 19: 20230204191511_9 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Figure 20: 20230204191511_9 [Smoothed TC Combined] - Gyro Drift Plot



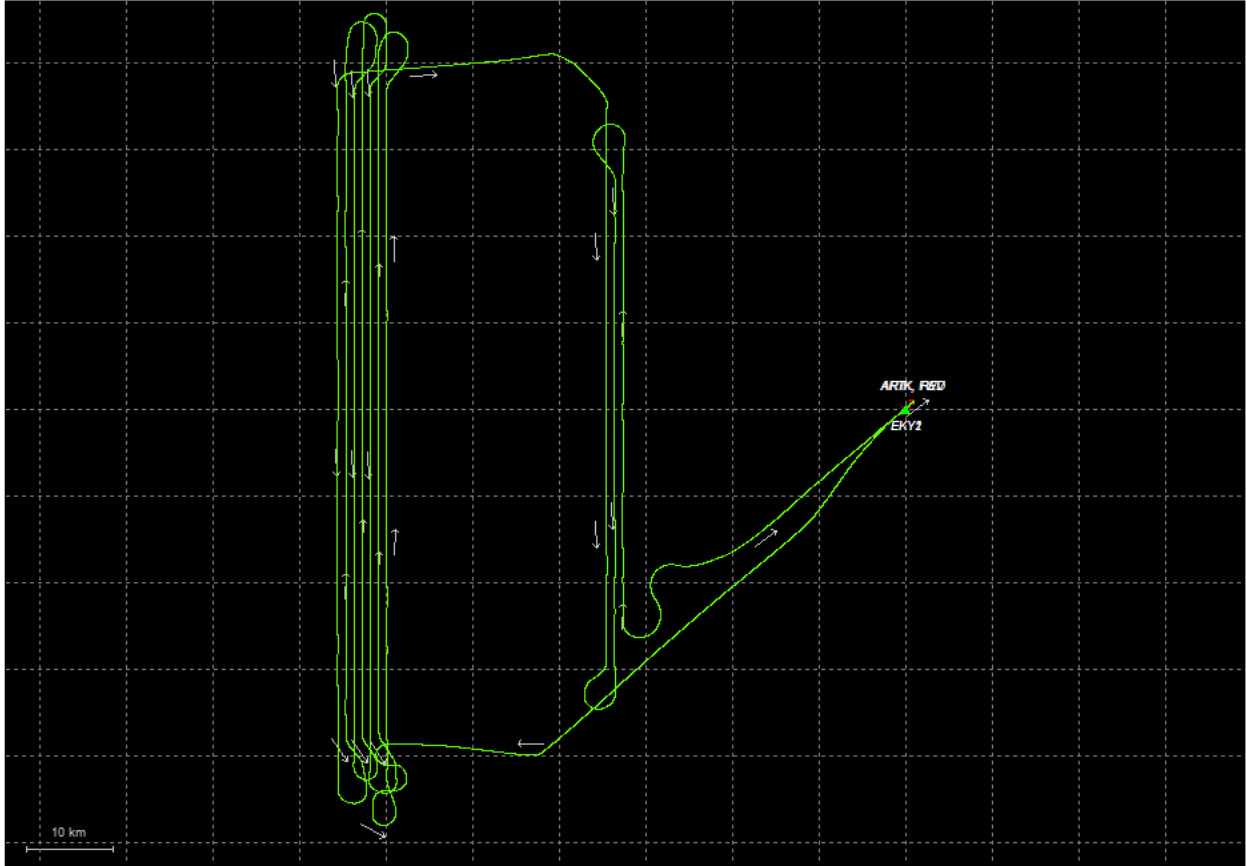
GPS Time (TOW, GMT zone)
 Body-X Body-Y Body-Z

Process	20230204191511_9	by Unknown	on 2/7/2023	at 17:12:10
---------	------------------	------------	-------------	-------------

Output Results for 20230204233500_10

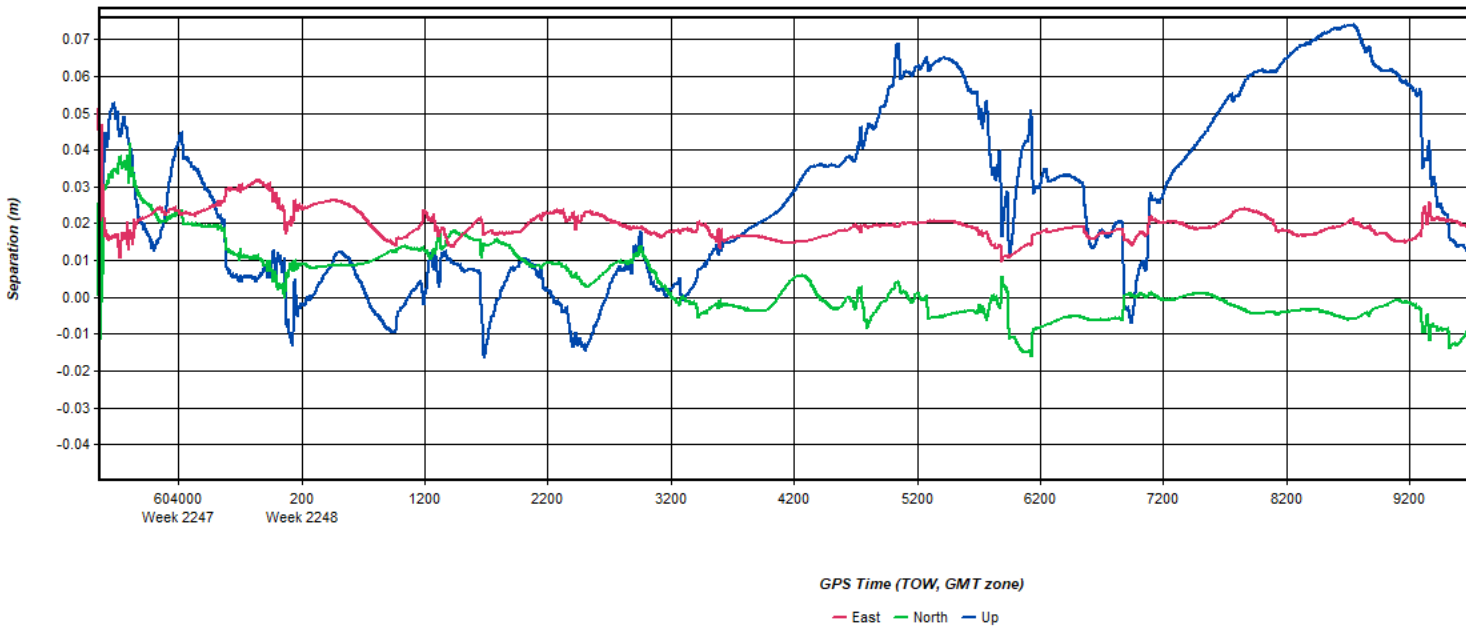
Inertial Explorer Version 8.90.6611
02/08/2023

Figure 1: Smoothed TC Combined - Map



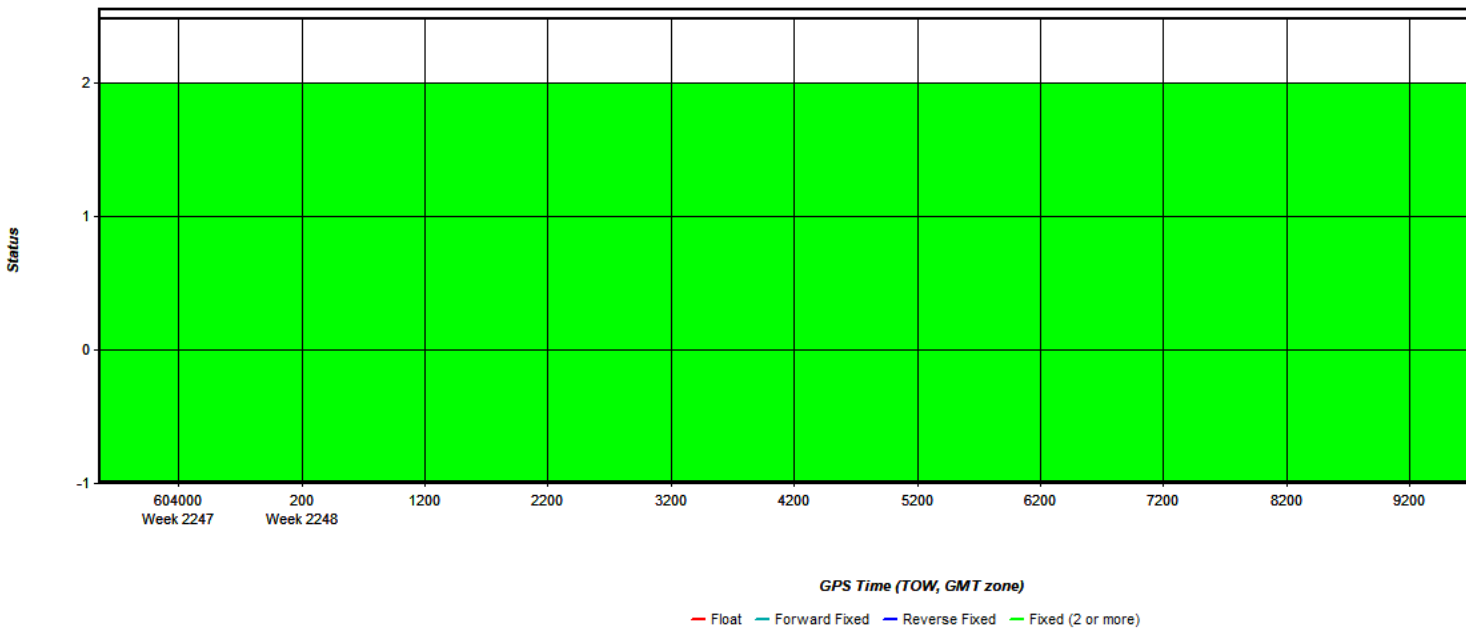
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 2: 20230204233500_10 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



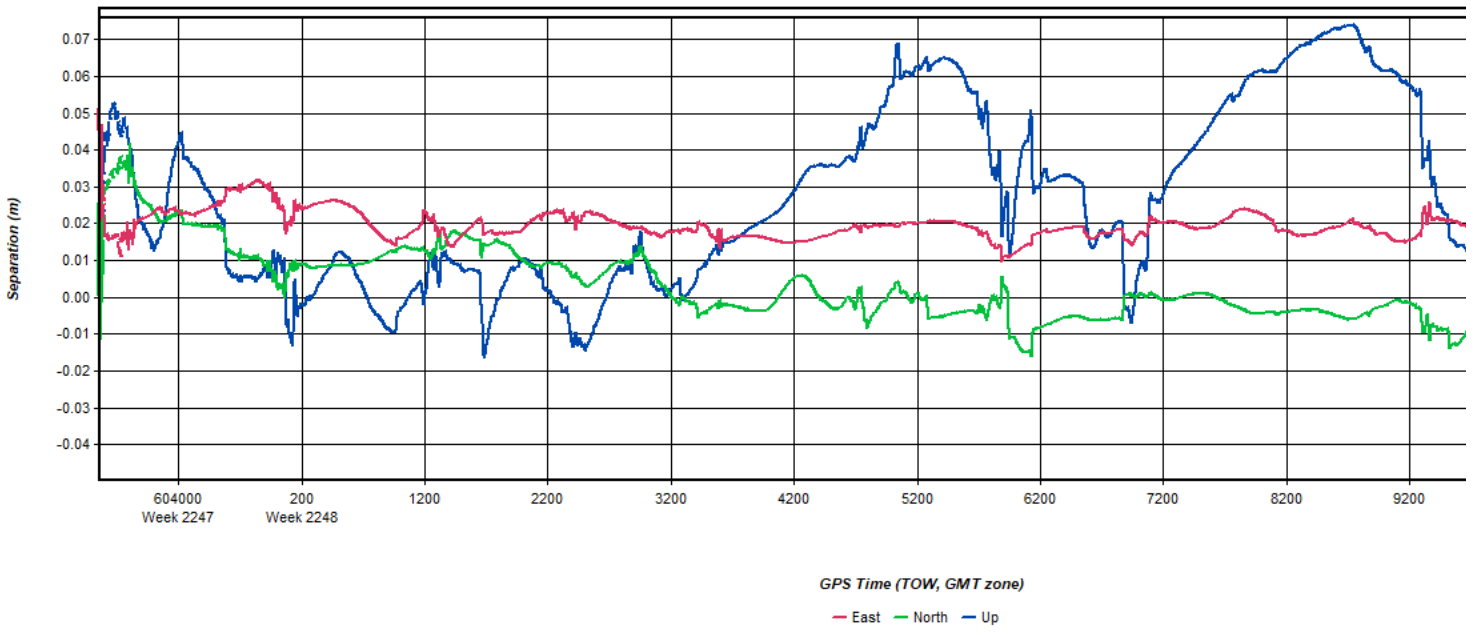
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 3: 20230204233500_10 [Smoothed TC Combined] - Float or Fixed Ambiguity



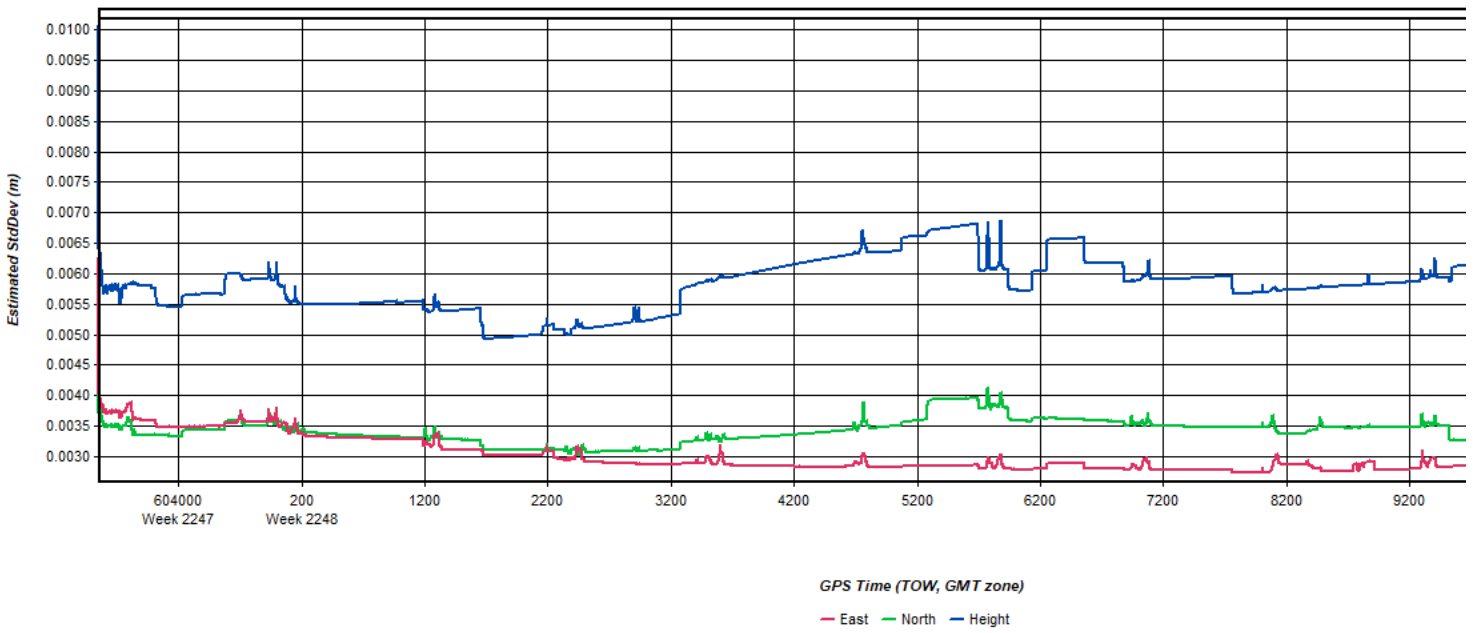
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 4: 20230204233500_10 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 5: 20230204233500_10 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 6: 20230204233500_10 [Smoothed TC Combined] - PDOP Plot

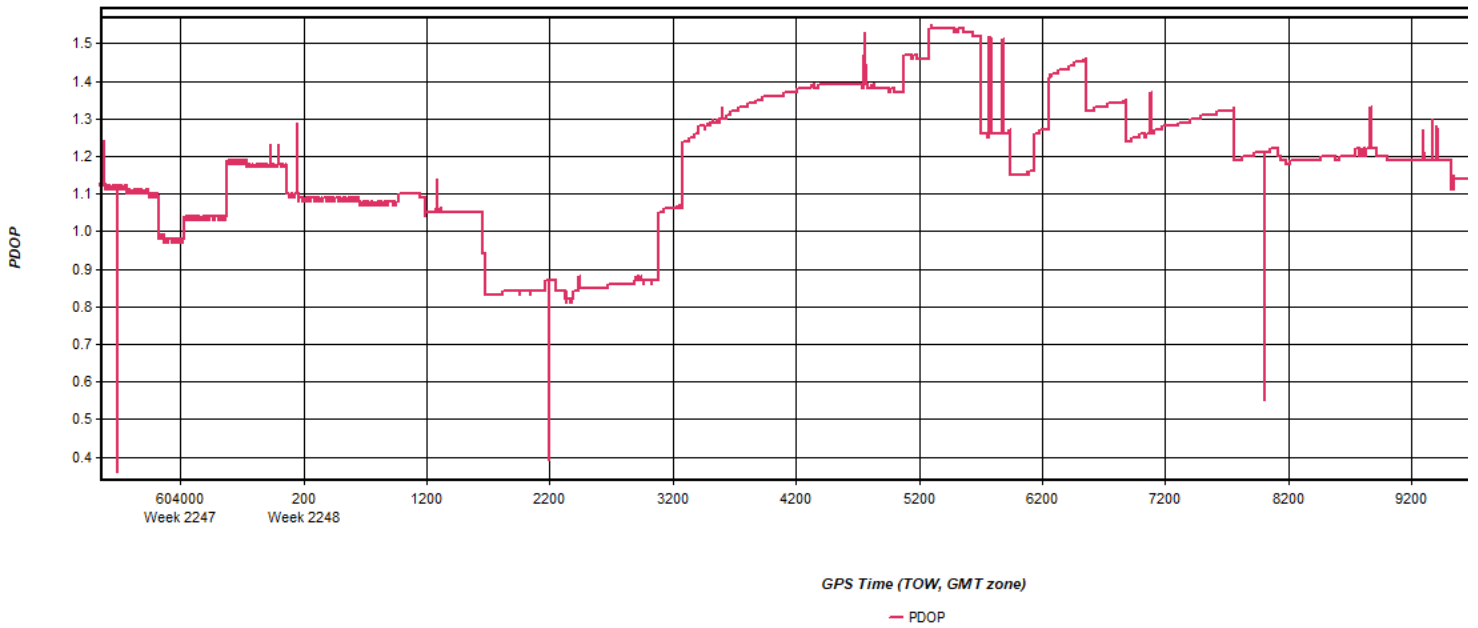


Figure 7: 20230204233500_10 [Smoothed TC Combined] - Number of Satellites Line Plot

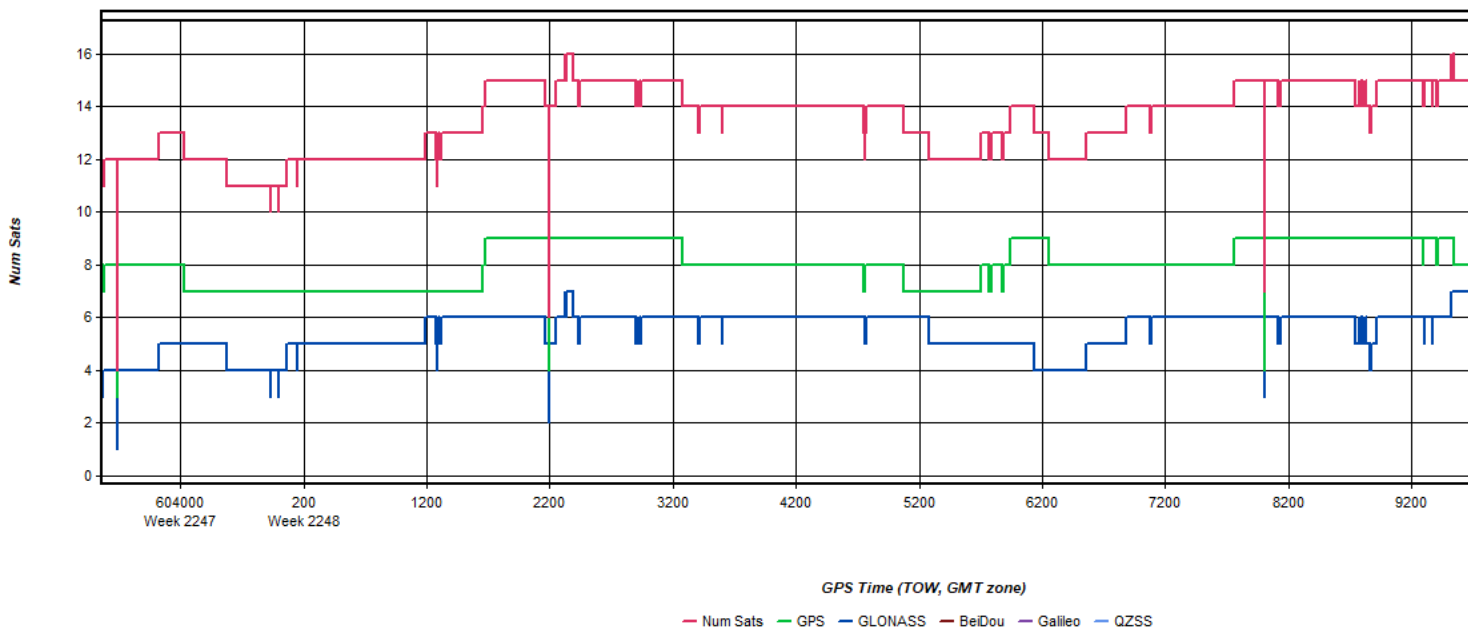


Figure 8: 20230204233500_10 [Smoothed TC Combined] - Status flag for IMU processing

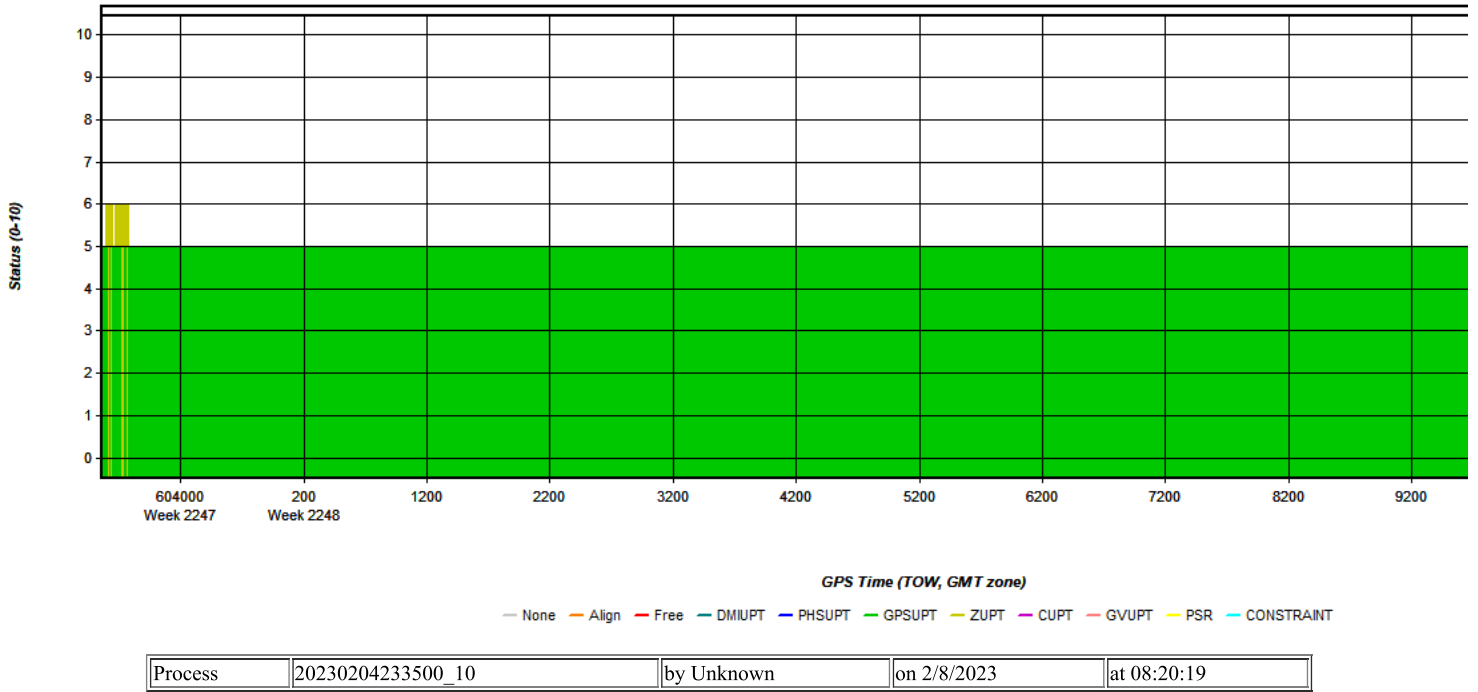


Figure 9: 20230204233500_10 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

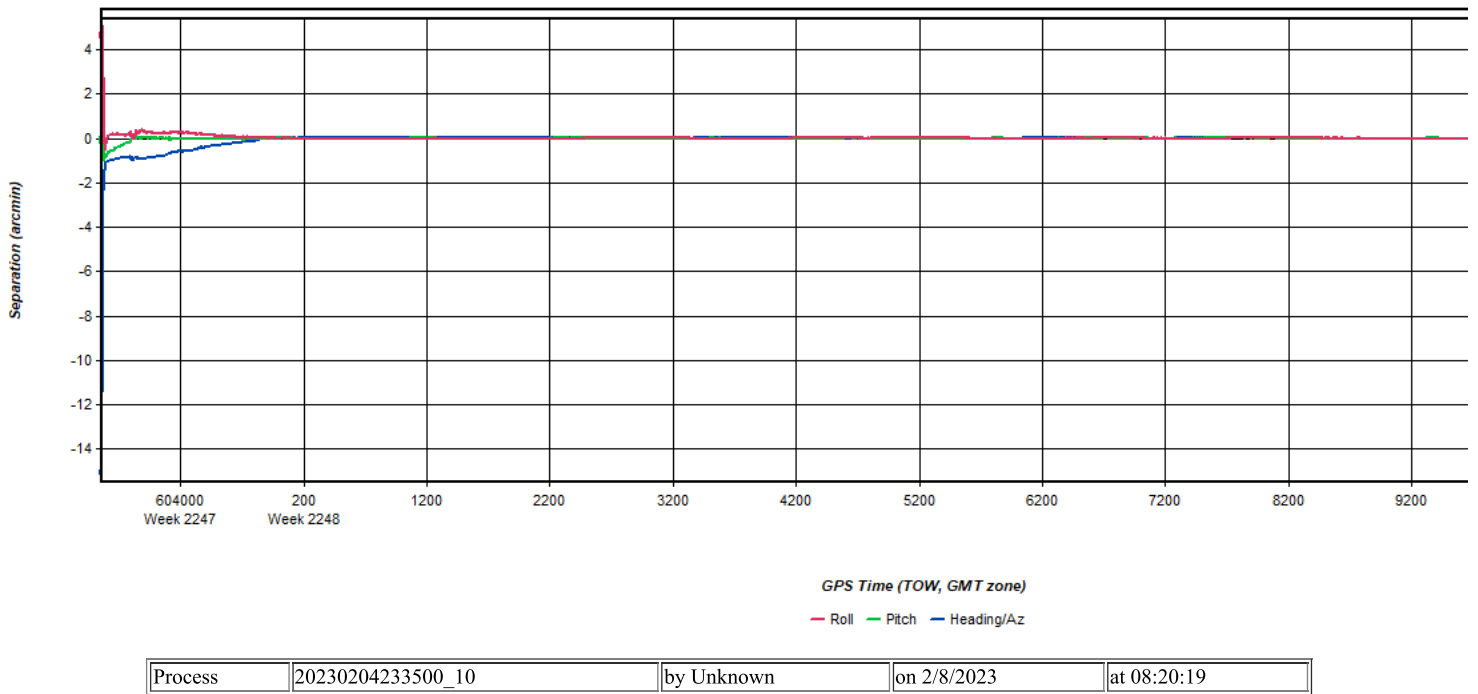
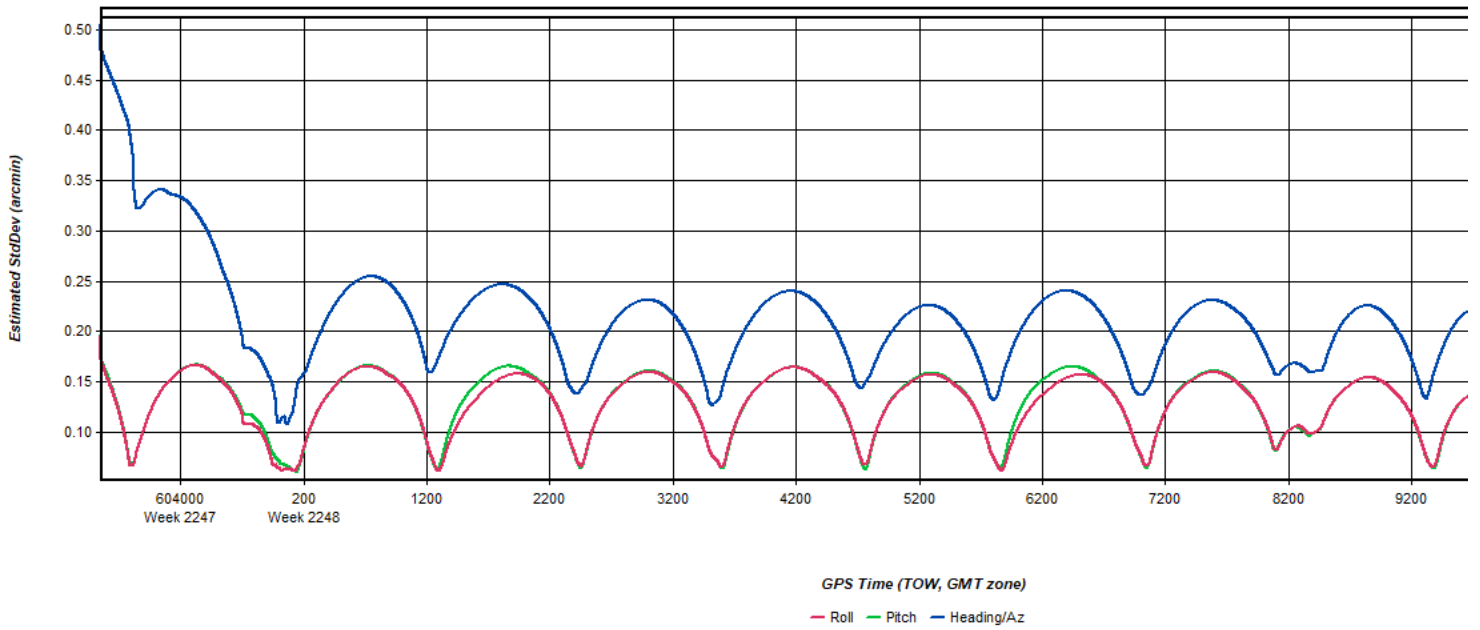
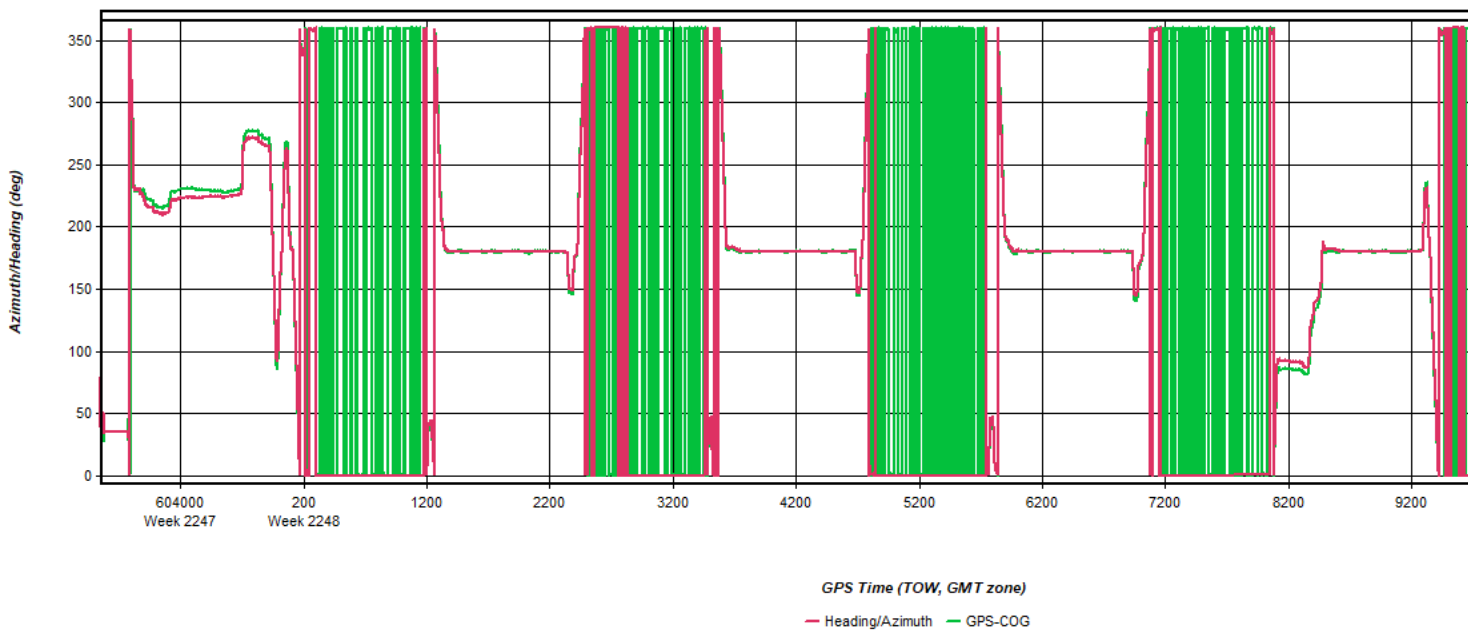


Figure 10: 20230204233500_10 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



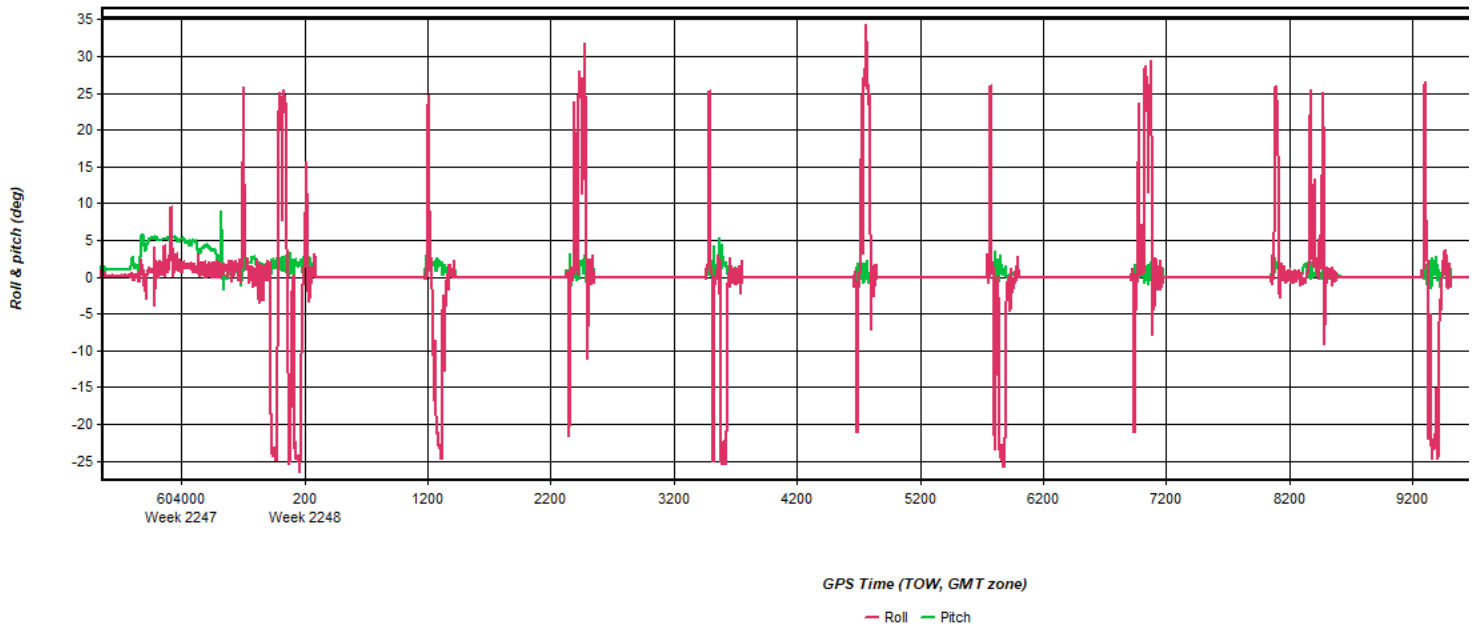
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 11: 20230204233500_10 [Smoothed TC Combined] - Azimuth Plot



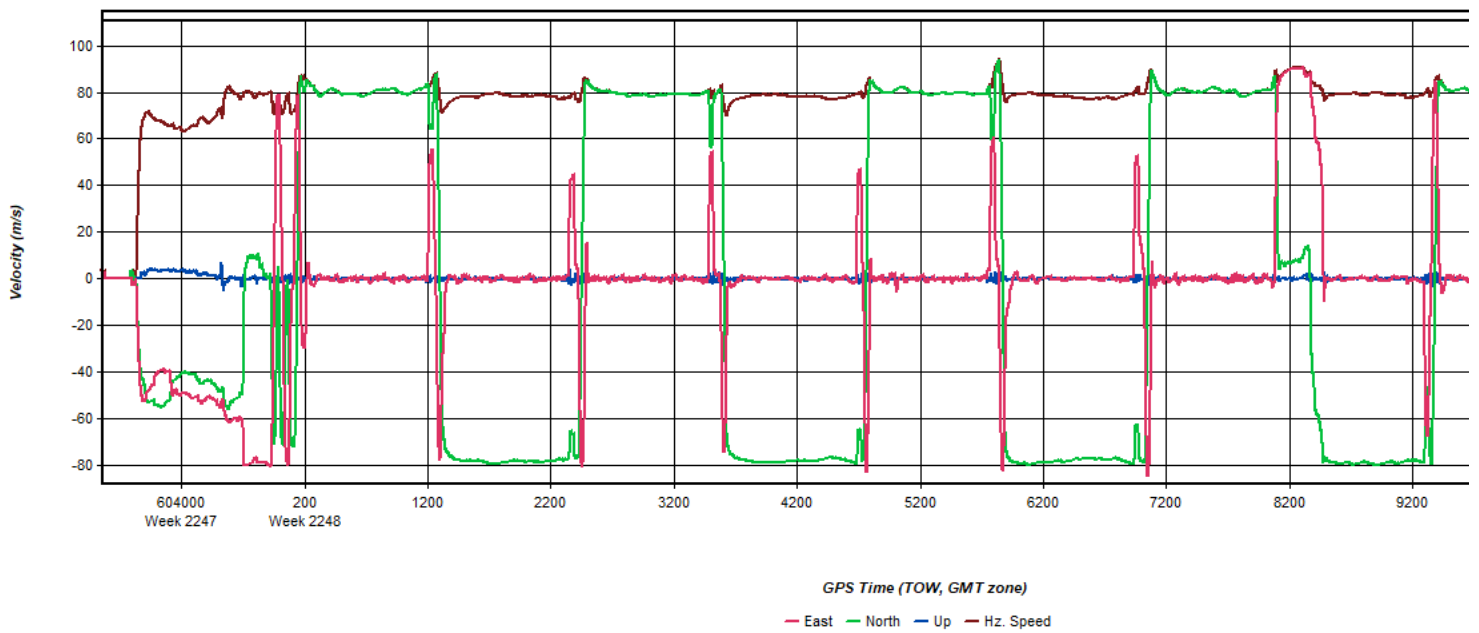
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 12: 20230204233500_10 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 13: 20230204233500_10 [Smoothed TC Combined] - Velocity Profile Plot



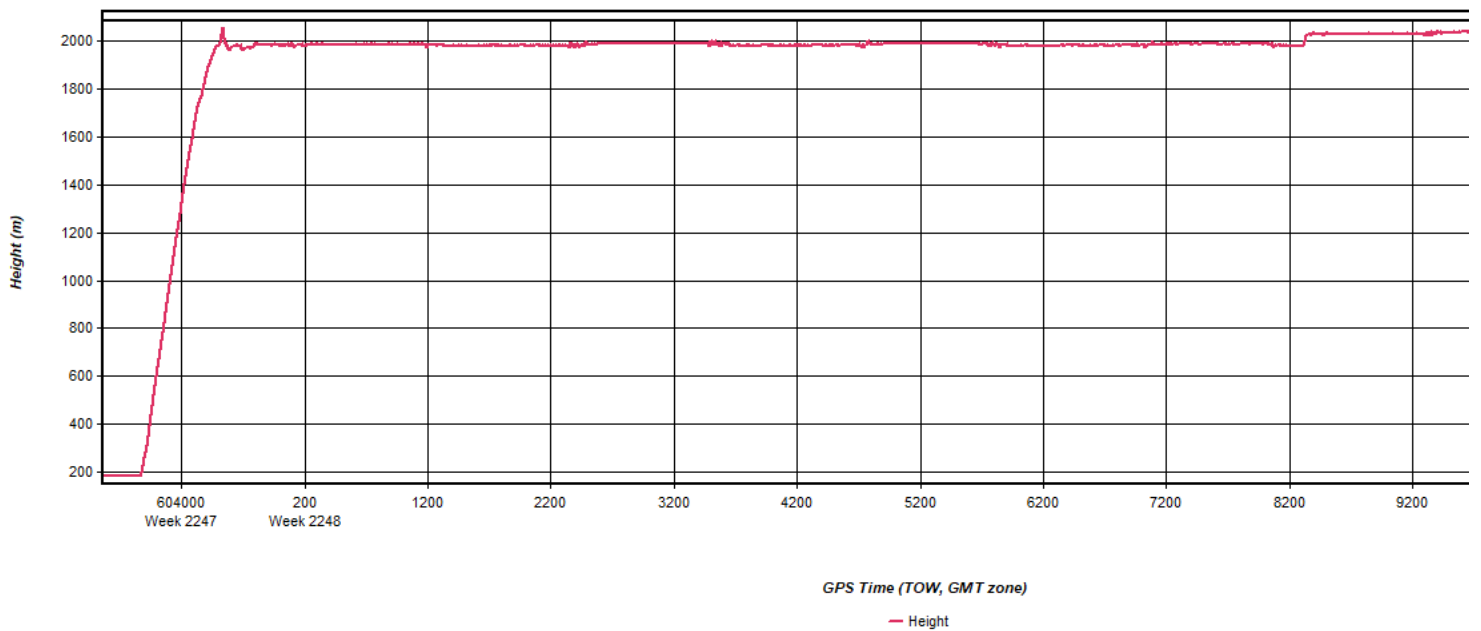
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 14: 20230204233500_10 [Smoothed TC Combined] - Body Frame Velocity Plot



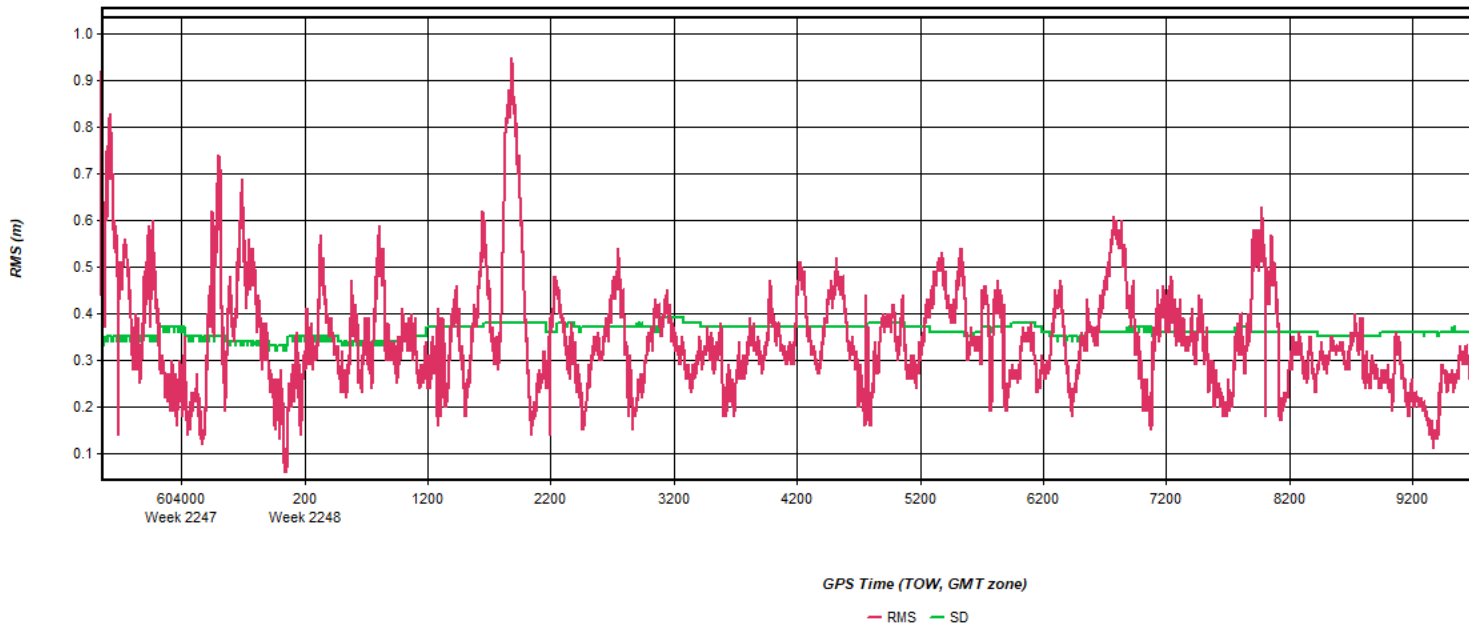
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 15: 20230204233500_10 [Smoothed TC Combined] - Height Profile Plot



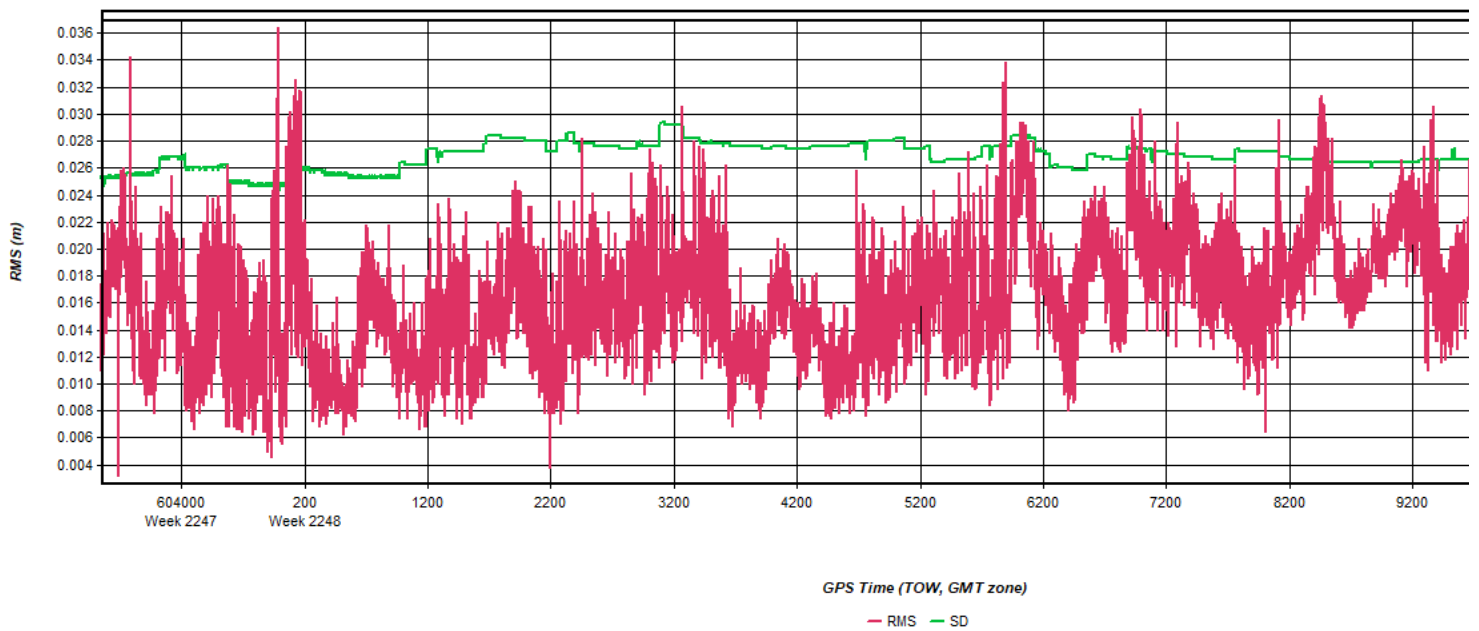
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 16: 20230204233500_10 [Smoothed TC Combined] - C/A Code Residual RMS Plot



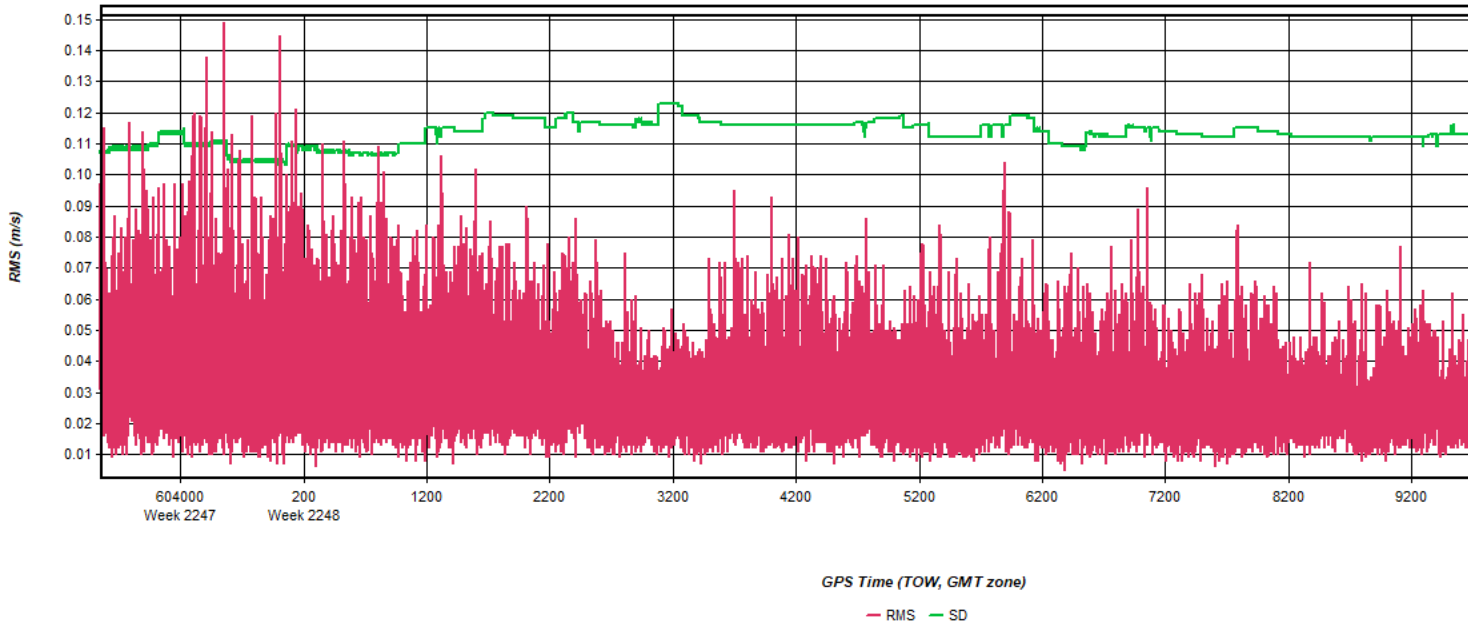
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 17: 20230204233500_10 [Smoothed TC Combined] - Carrier Residual RMS Plot



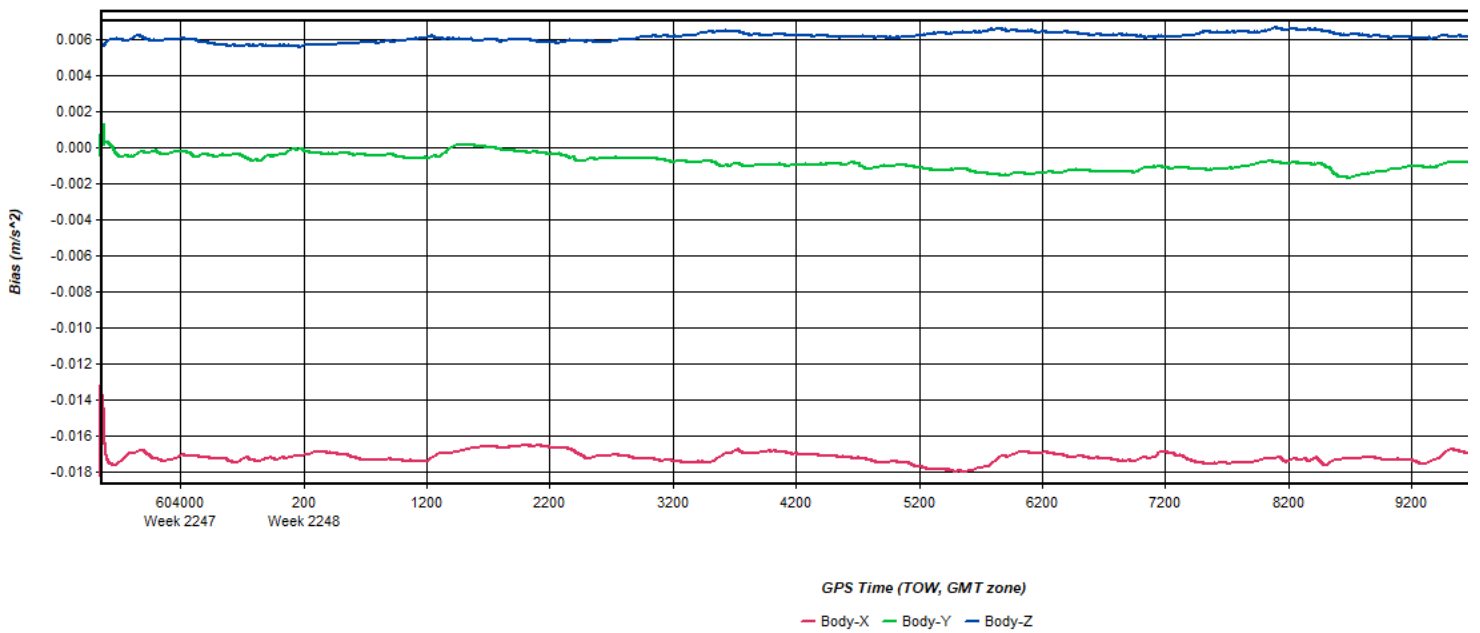
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 18: 20230204233500_10 [Smoothed TC Combined] - Doppler Residual RMS Plot



Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 19: 20230204233500_10 [Smoothed TC Combined] - Accelerometer Bias Plot



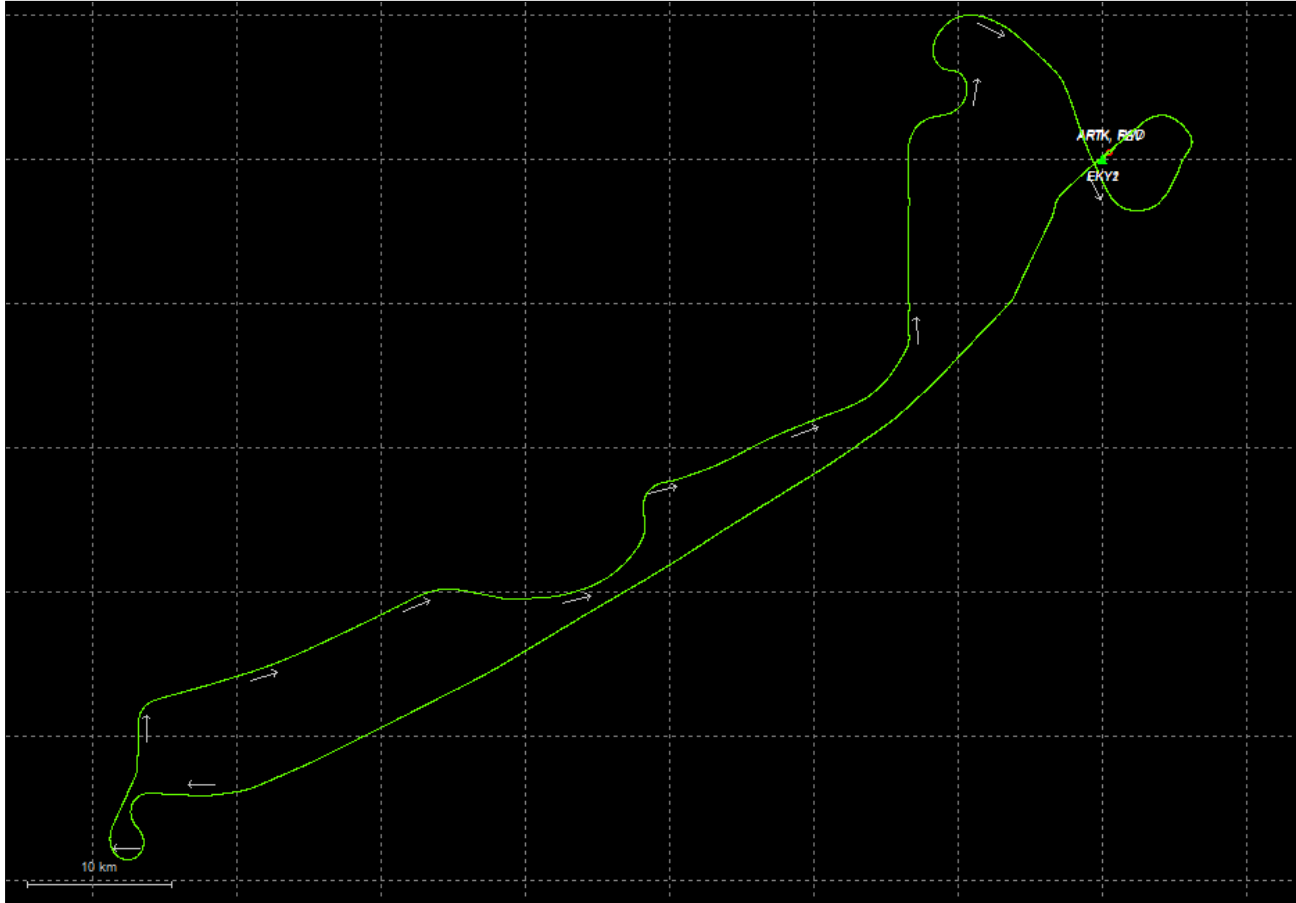
Process	20230204233500_10	by Unknown	on 2/8/2023	at 08:20:19
---------	-------------------	------------	-------------	-------------

Figure 20: 20230204233500_10 [Smoothed TC Combined] - Gyro Drift Plot

Output Results for 20230205162421_11

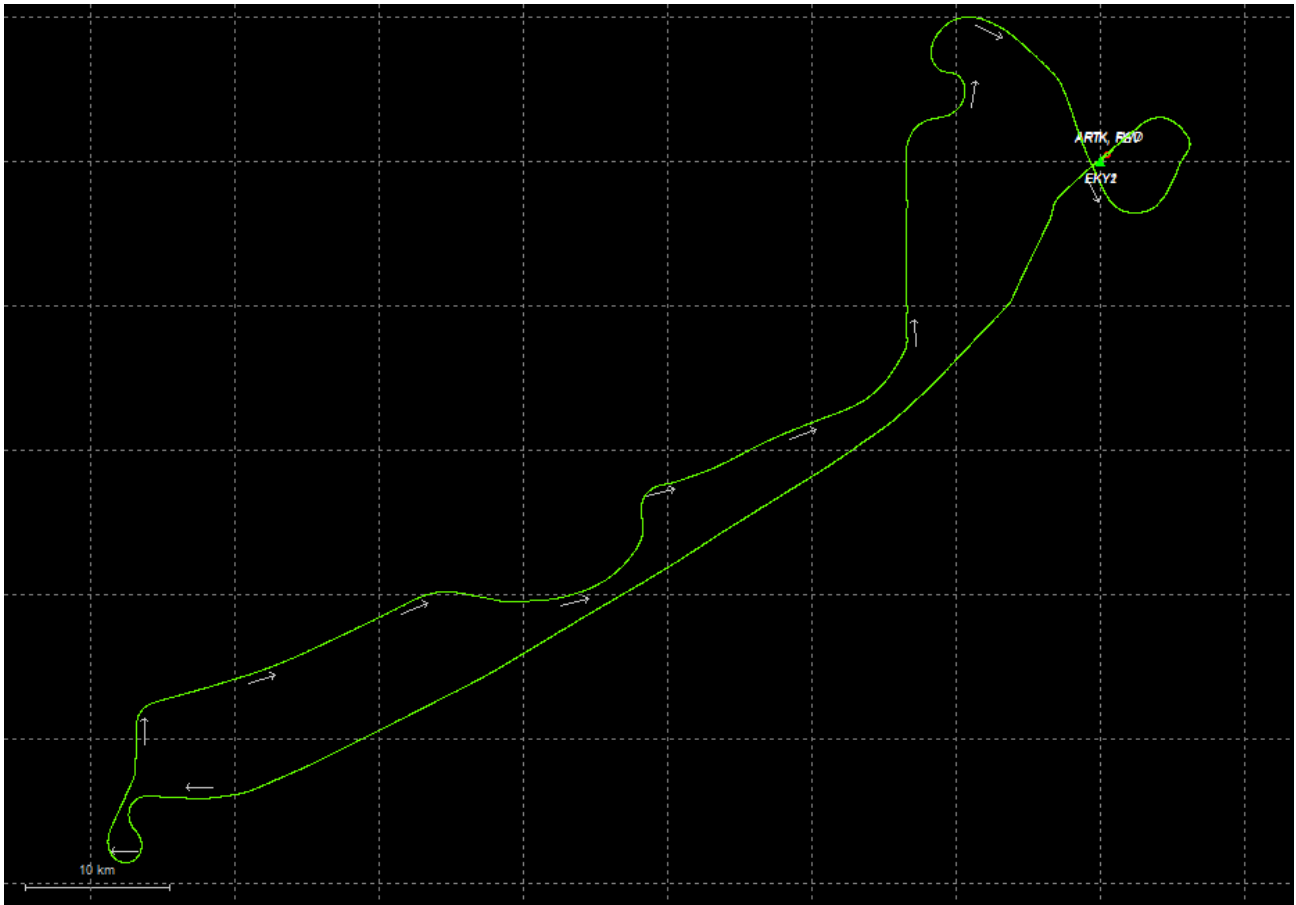
Inertial Explorer Version 8.90.6611
02/08/2023

Figure 1: Smoothed TC Combined - Map



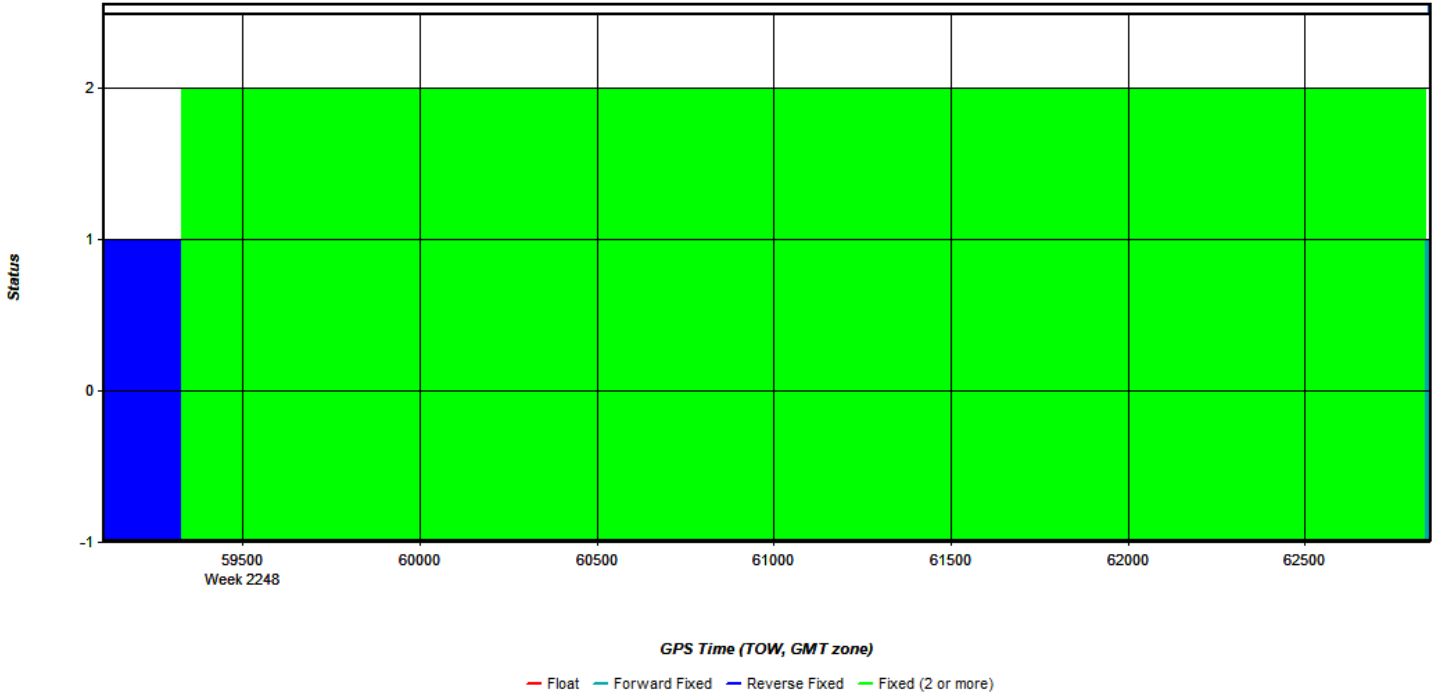
Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 2: 20230205162421_11 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 3: 20230205162421_11 [Smoothed TC Combined] - Float or Fixed Ambiguity



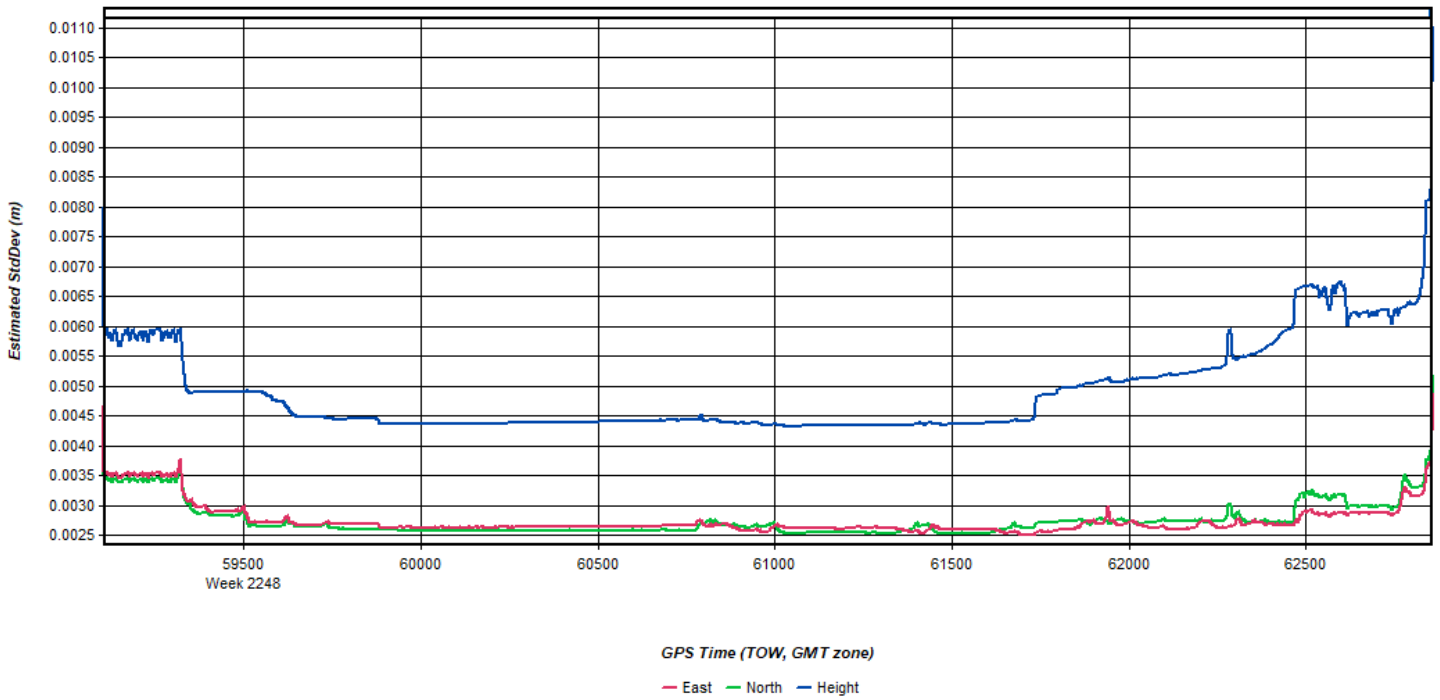
Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 4: 20230205162421_11 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 5: 20230205162421_11 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 6: 20230205162421_11 [Smoothed TC Combined] - PDOP Plot

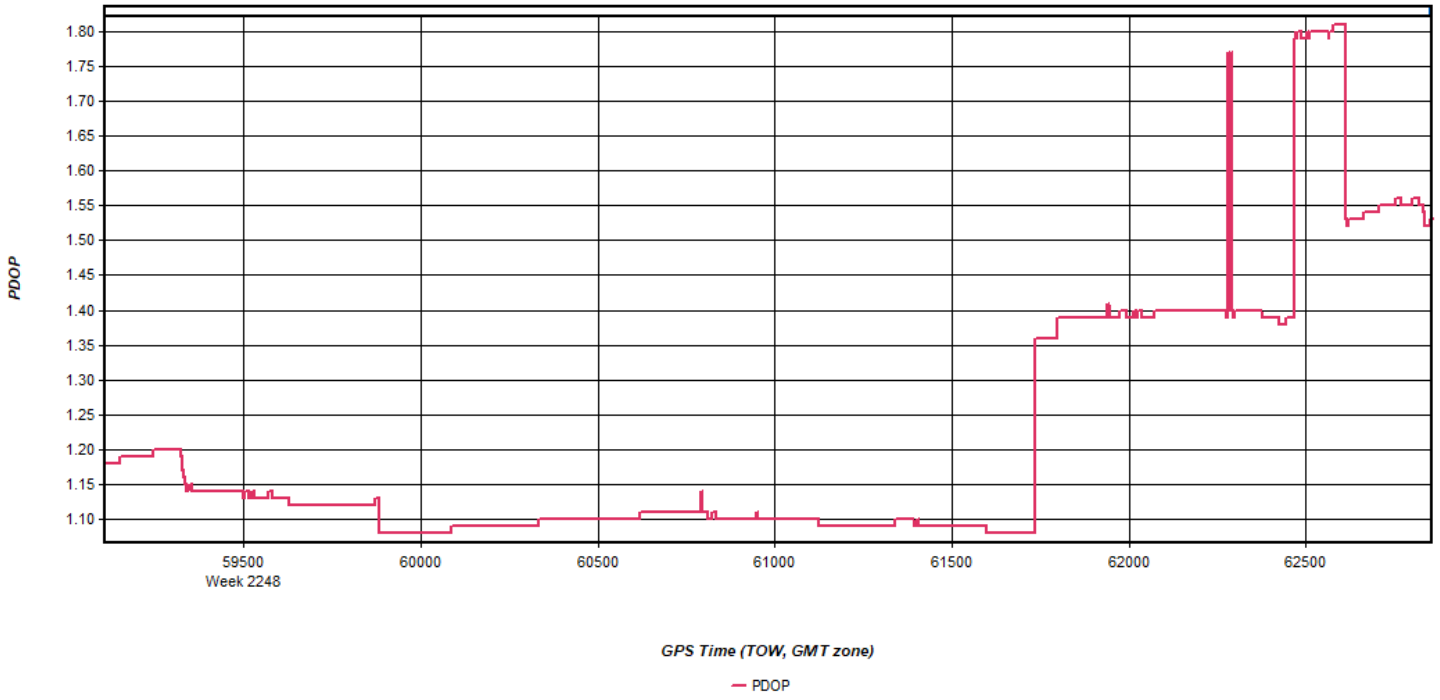


Figure 7: 20230205162421_11 [Smoothed TC Combined] - Number of Satellites Line Plot

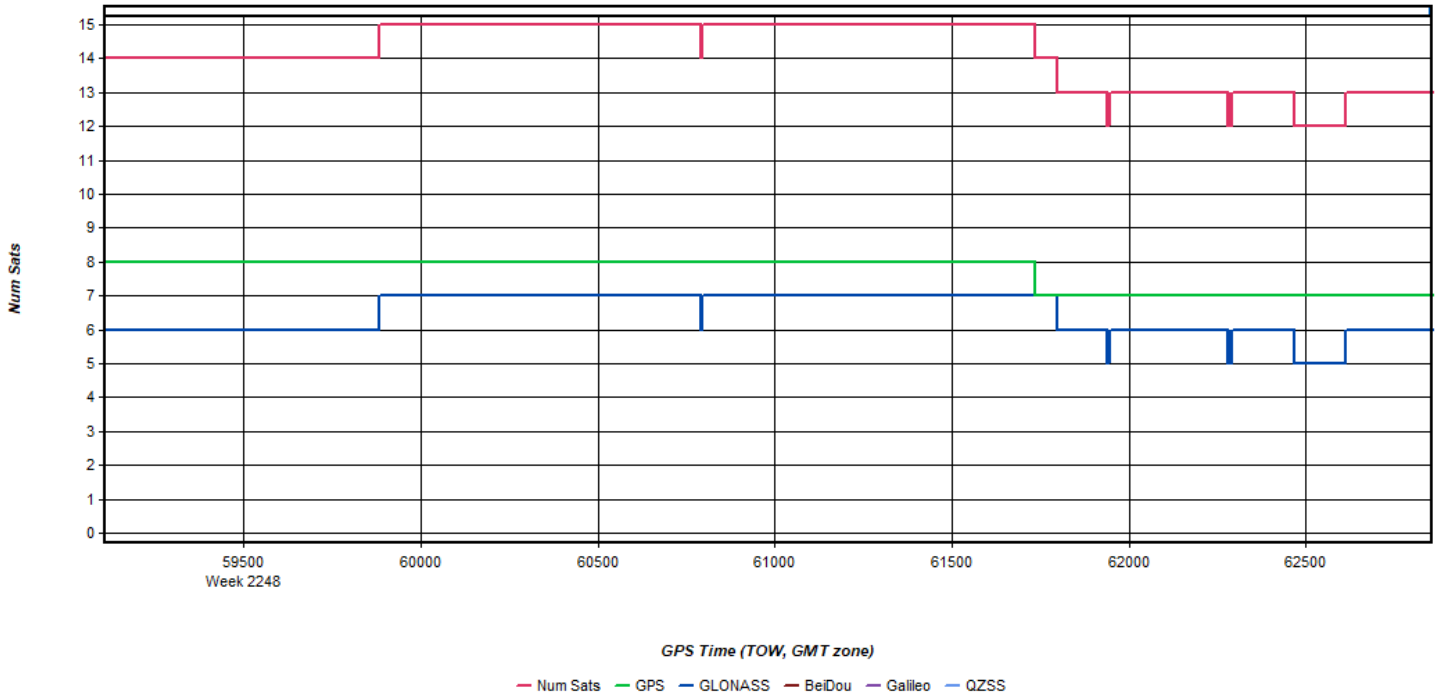


Figure 8: 20230205162421_11 [Smoothed TC Combined] - Status flag for IMU processing

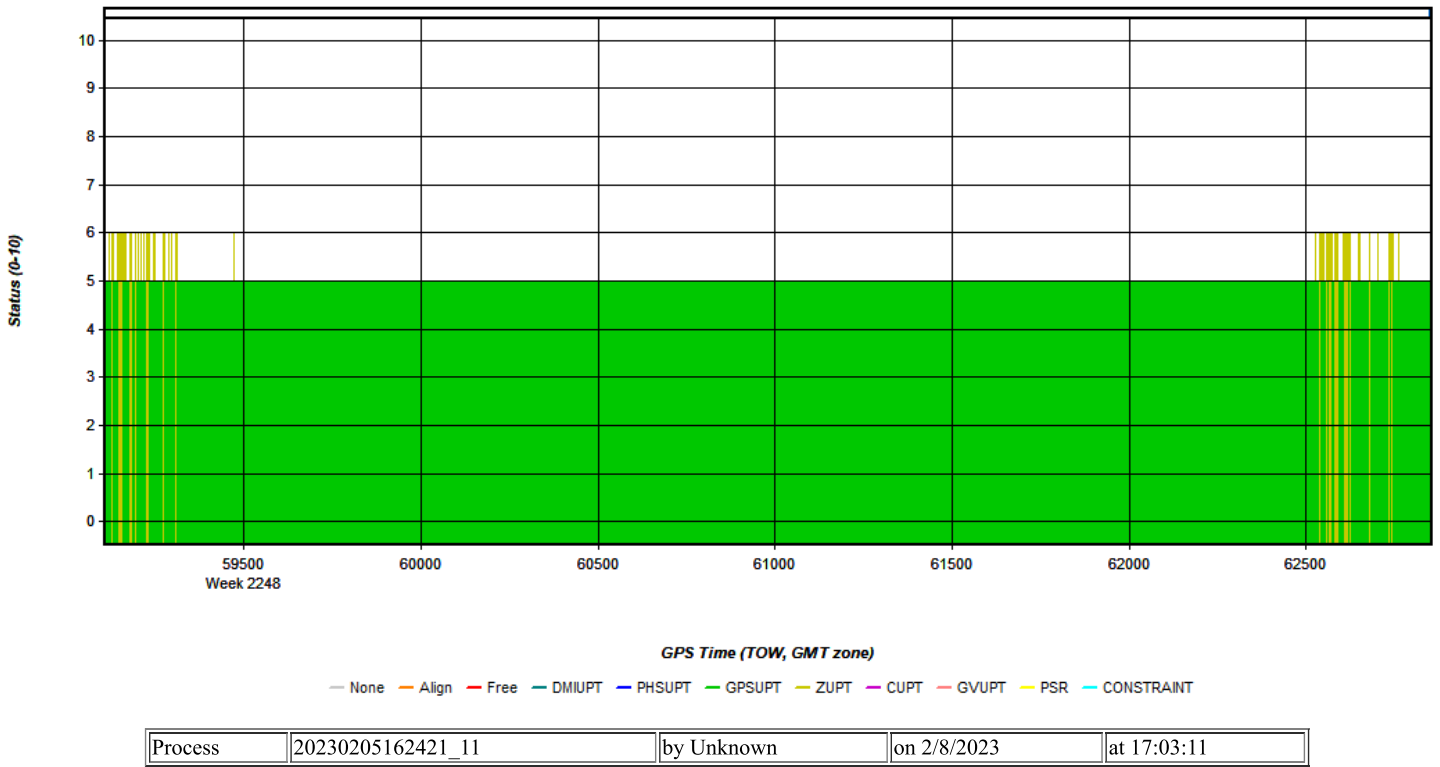


Figure 9: 20230205162421_11 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

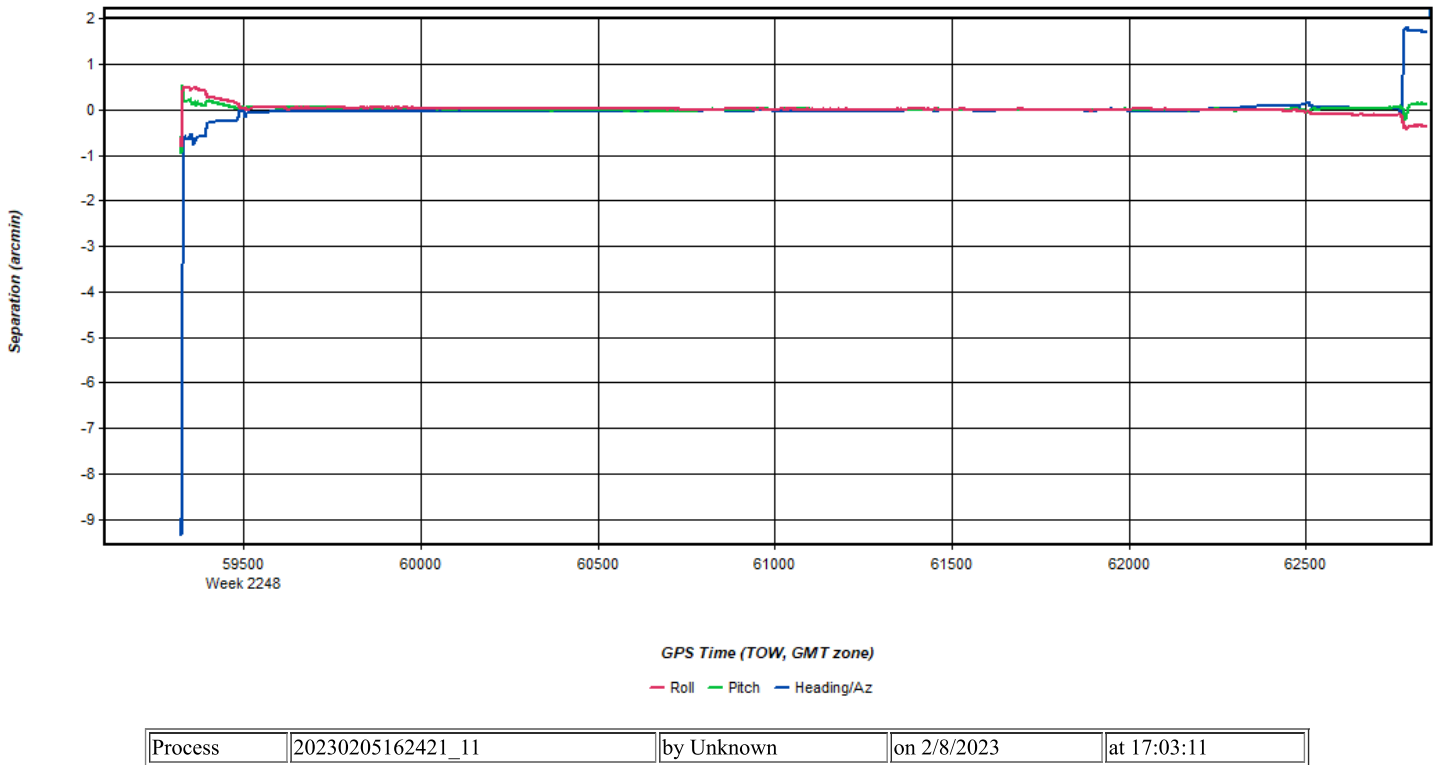
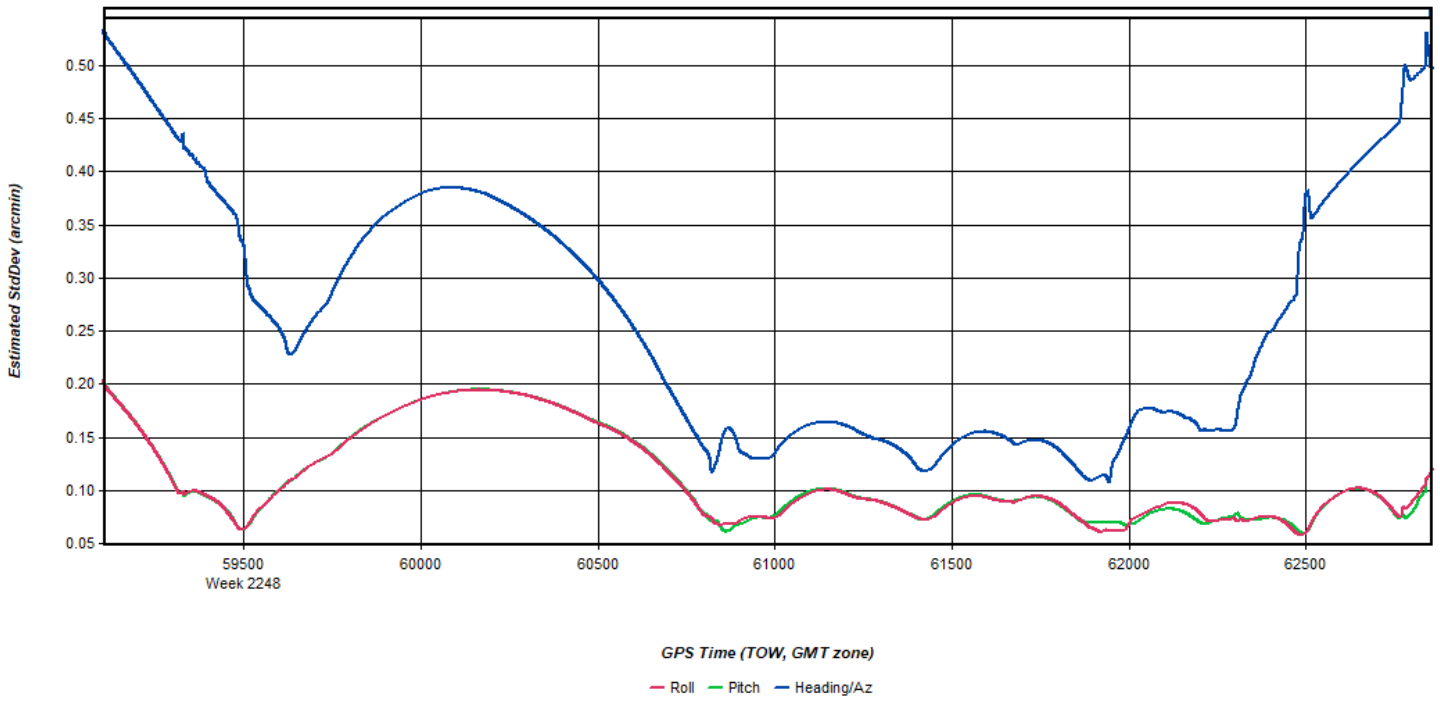


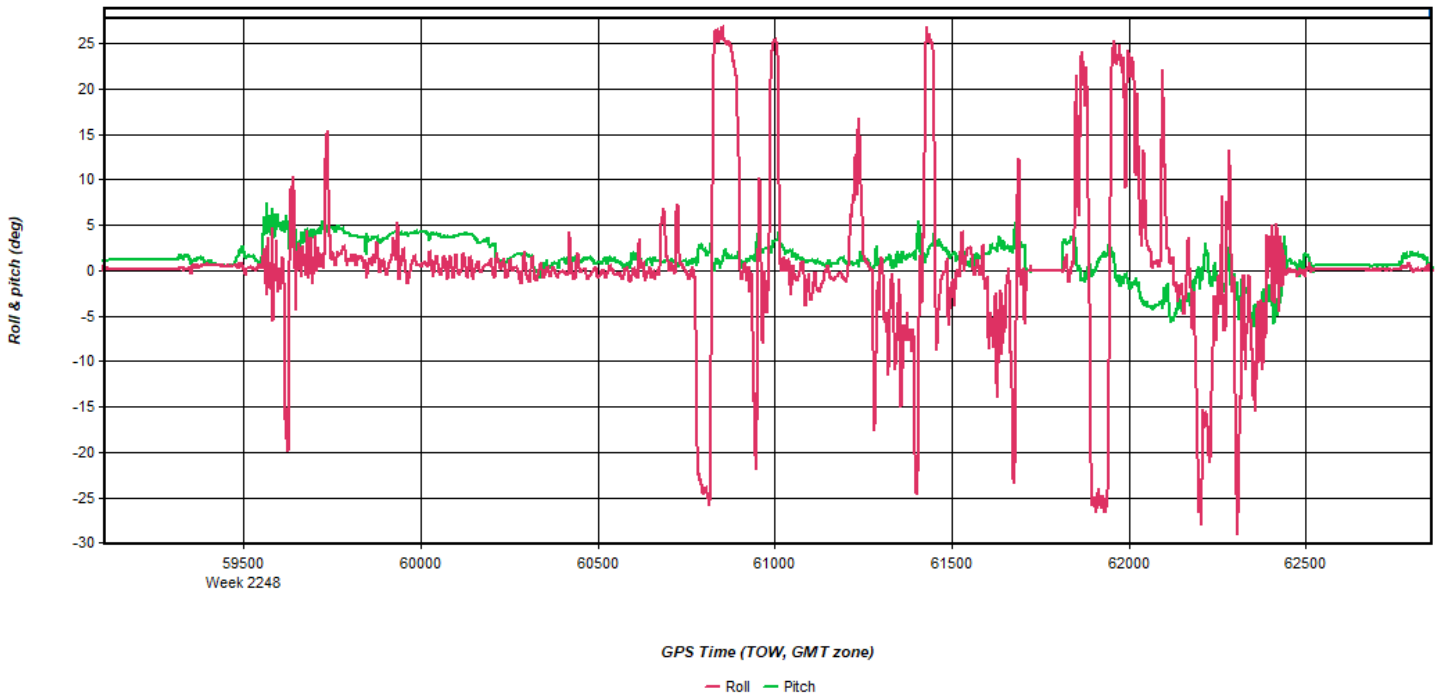
Figure 10: 20230205162421_11 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

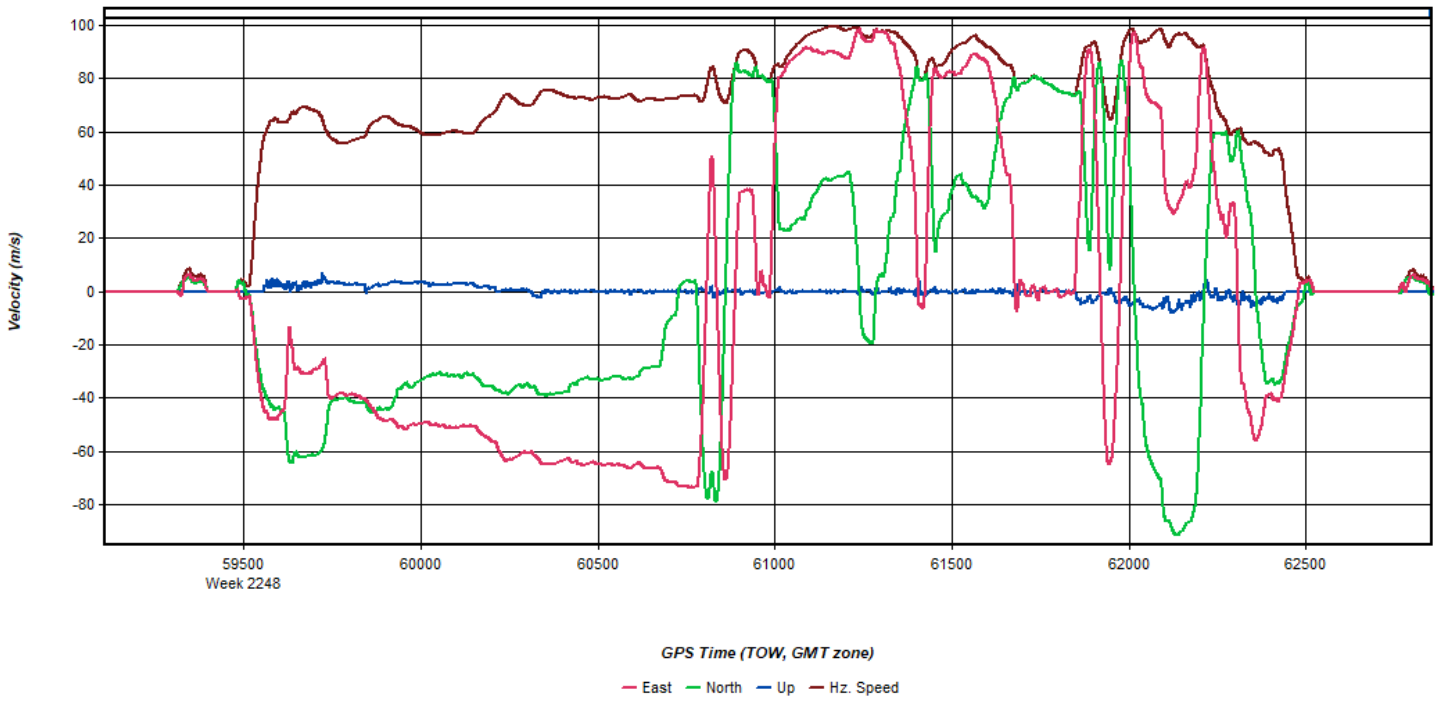
Object 20230205162421_11 [Smoothed TC Combined] - Azimuth Plot failed--NULL bitmap handle

Figure 11: 20230205162421_11 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 12: 20230205162421_11 [Smoothed TC Combined] - Velocity Profile Plot



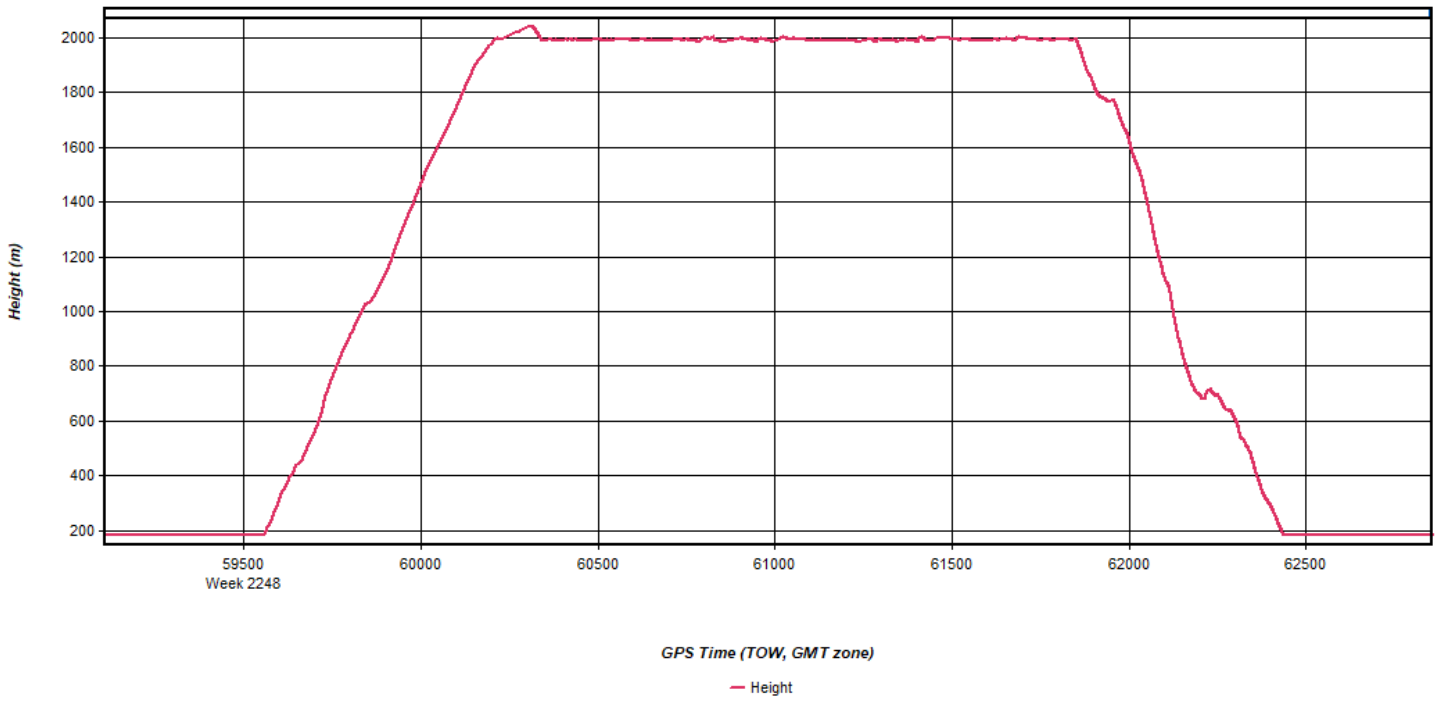
Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 13: 20230205162421_11 [Smoothed TC Combined] - Body Frame Velocity Plot



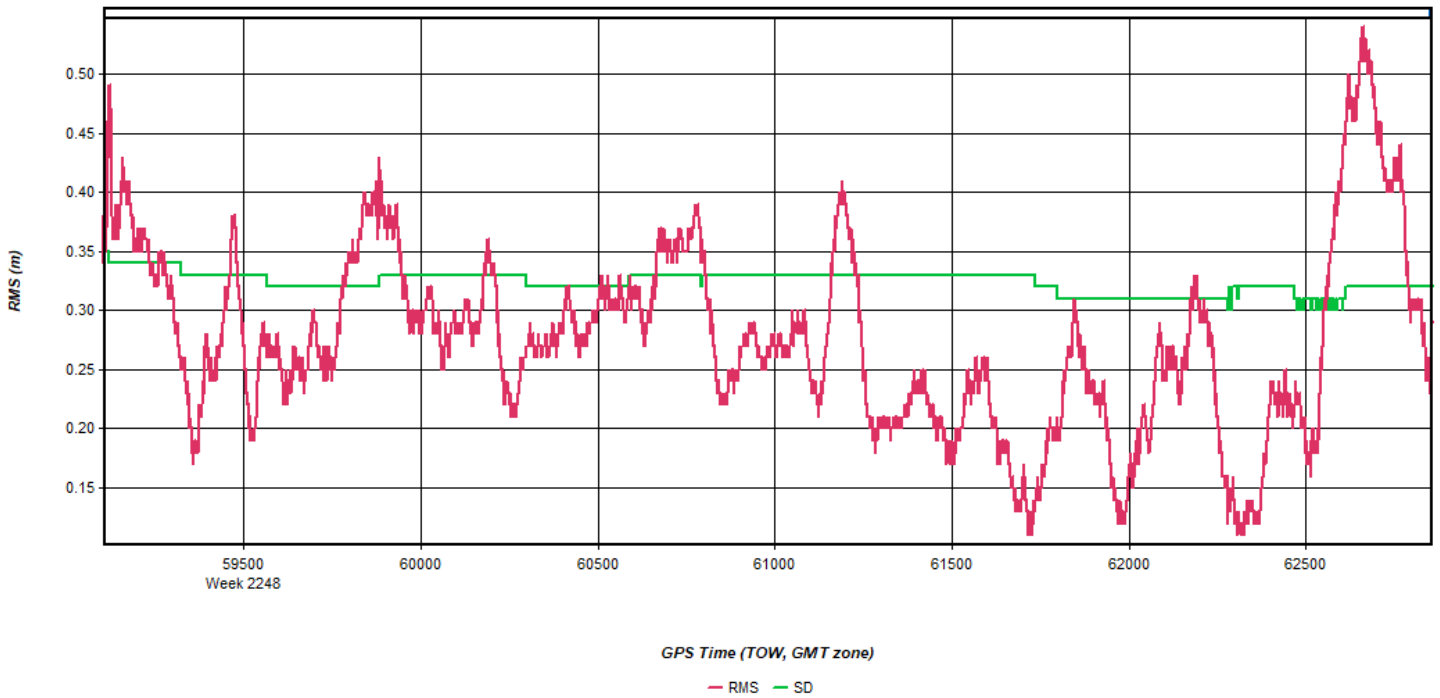
Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 14: 20230205162421_11 [Smoothed TC Combined] - Height Profile Plot



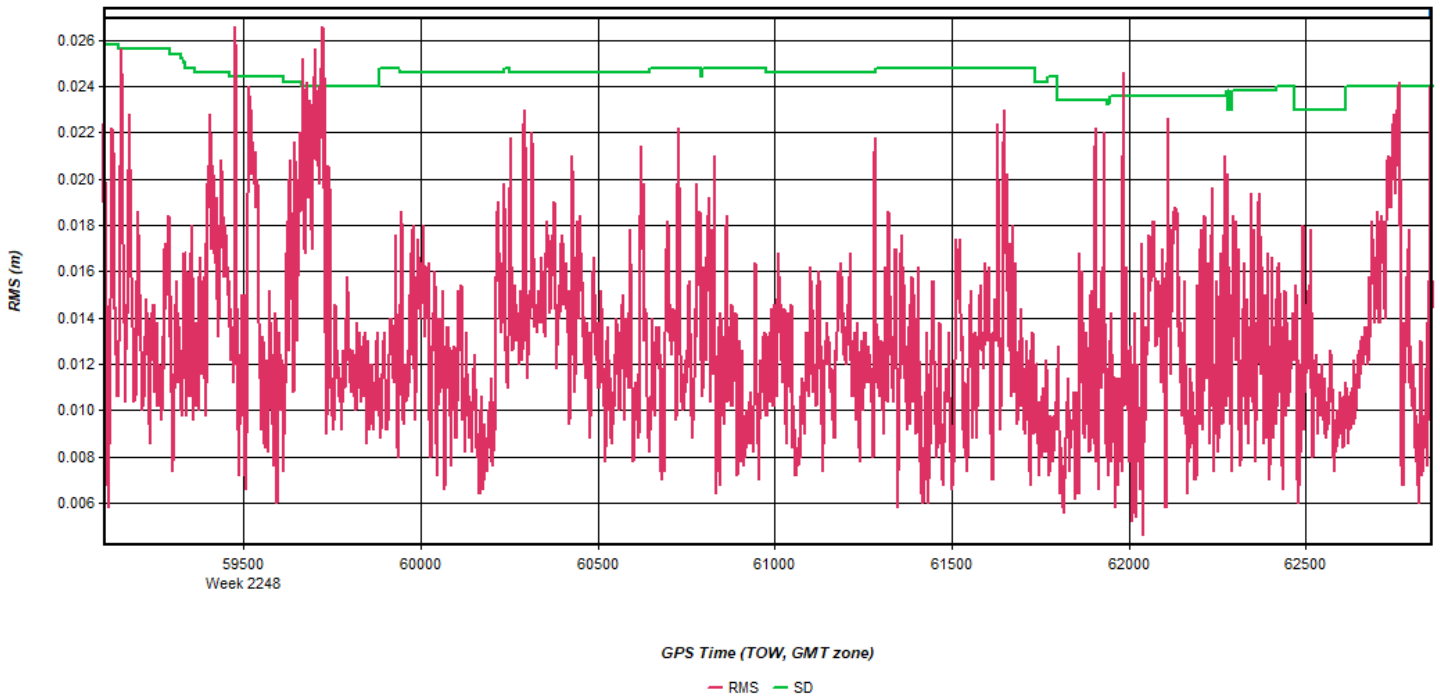
Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 15: 20230205162421_11 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 16: 20230205162421_11 [Smoothed TC Combined] - Carrier Residual RMS Plot



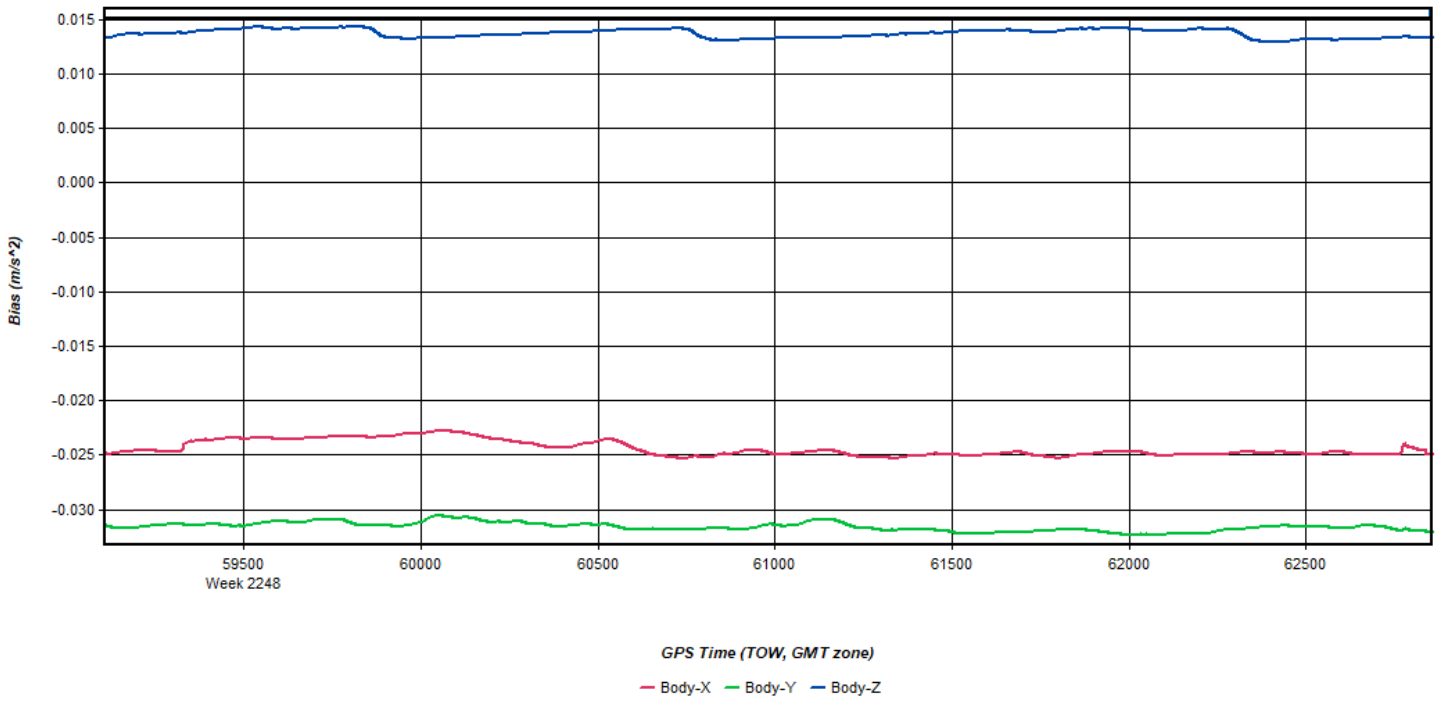
Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 17: 20230205162421_11 [Smoothed TC Combined] - Doppler Residual RMS Plot



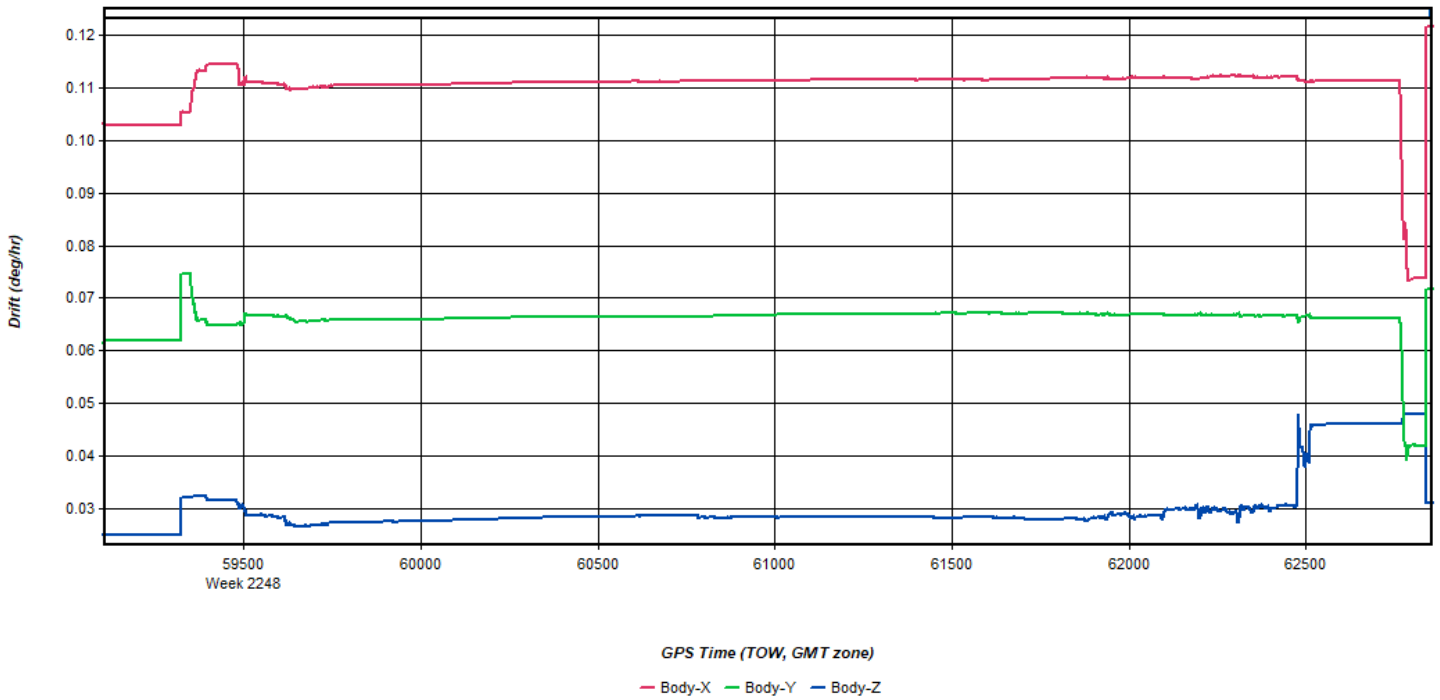
Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 18: 20230205162421_11 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Figure 19: 20230205162421_11 [Smoothed TC Combined] - Gyro Drift Plot

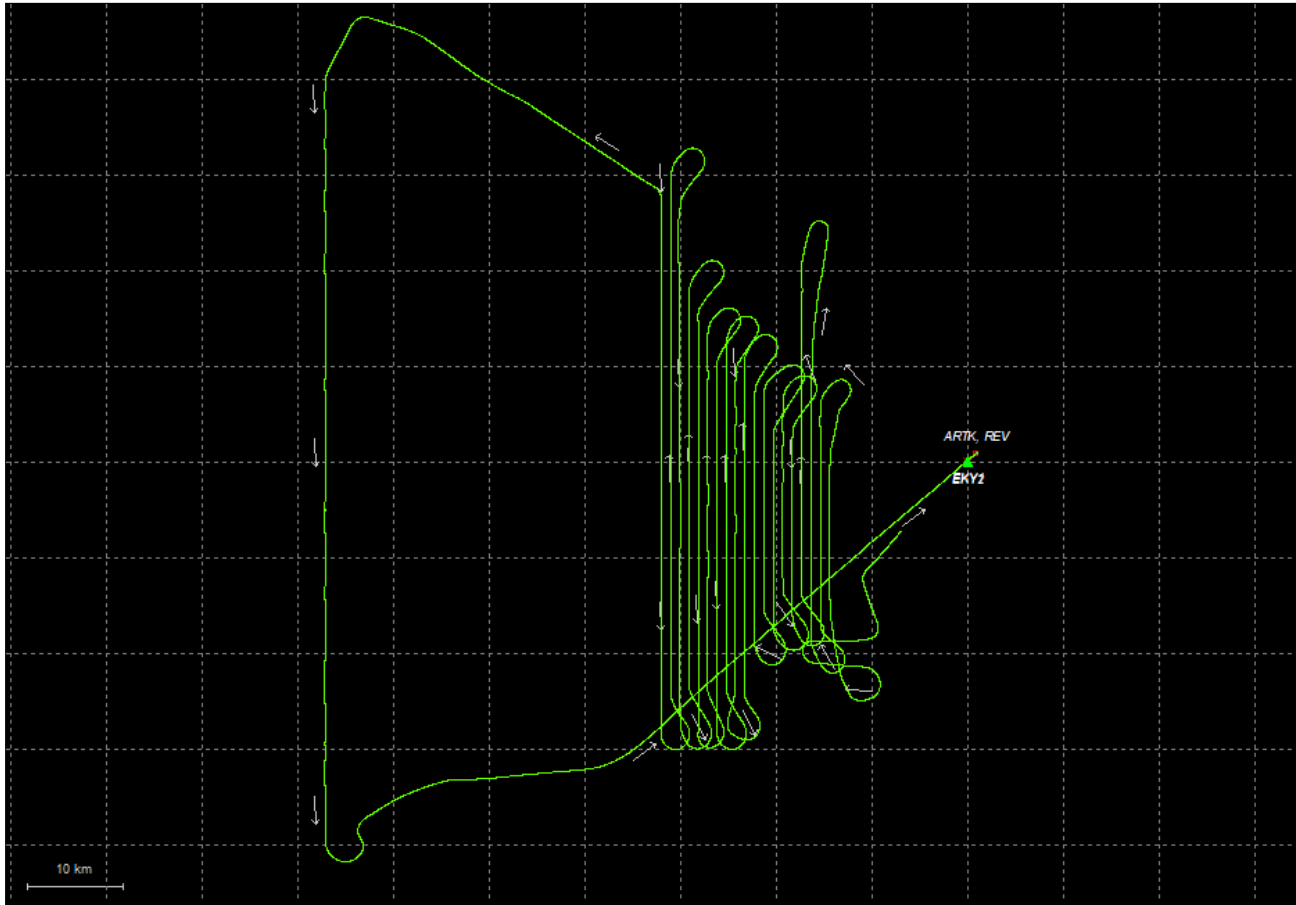


Process	20230205162421_11	by Unknown	on 2/8/2023	at 17:03:11
---------	-------------------	------------	-------------	-------------

Output Results for 20230205232840_12

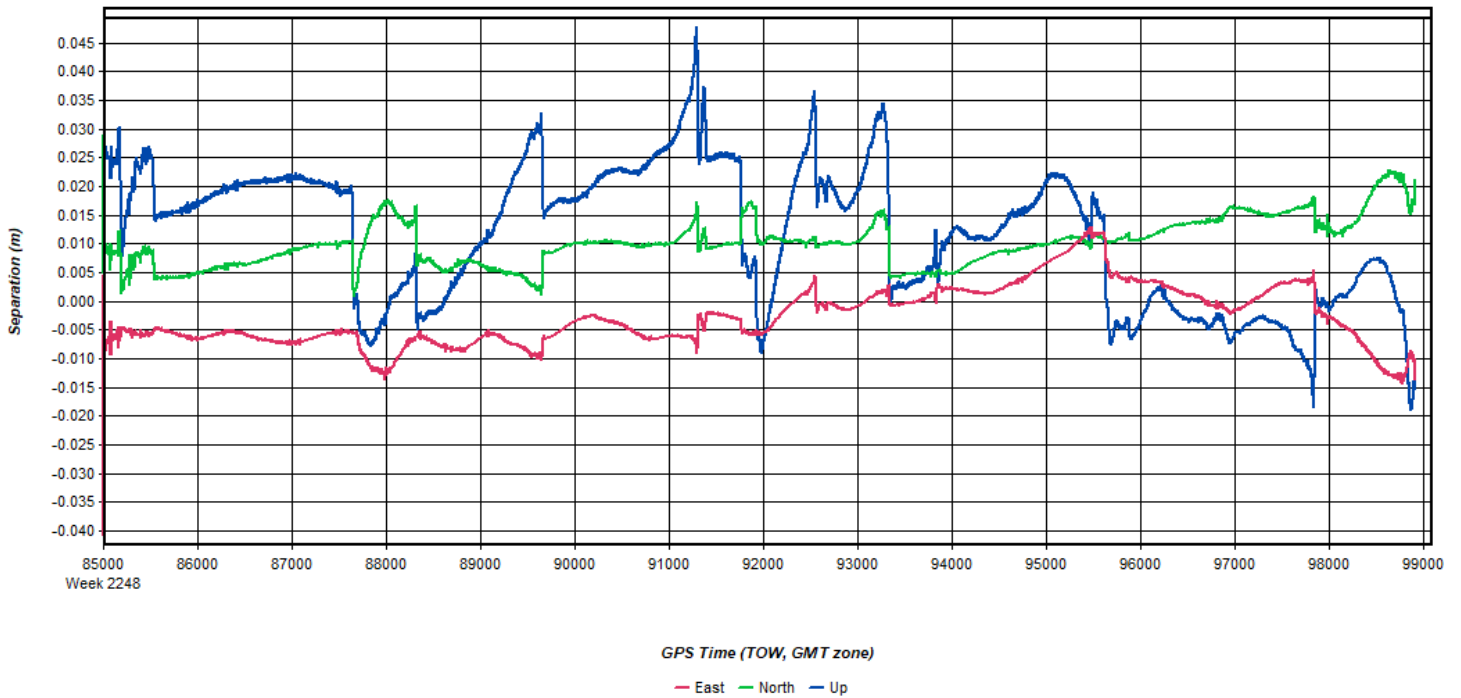
Inertial Explorer Version 8.90.6611
02/08/2023

Figure 1: Smoothed TC Combined - Map



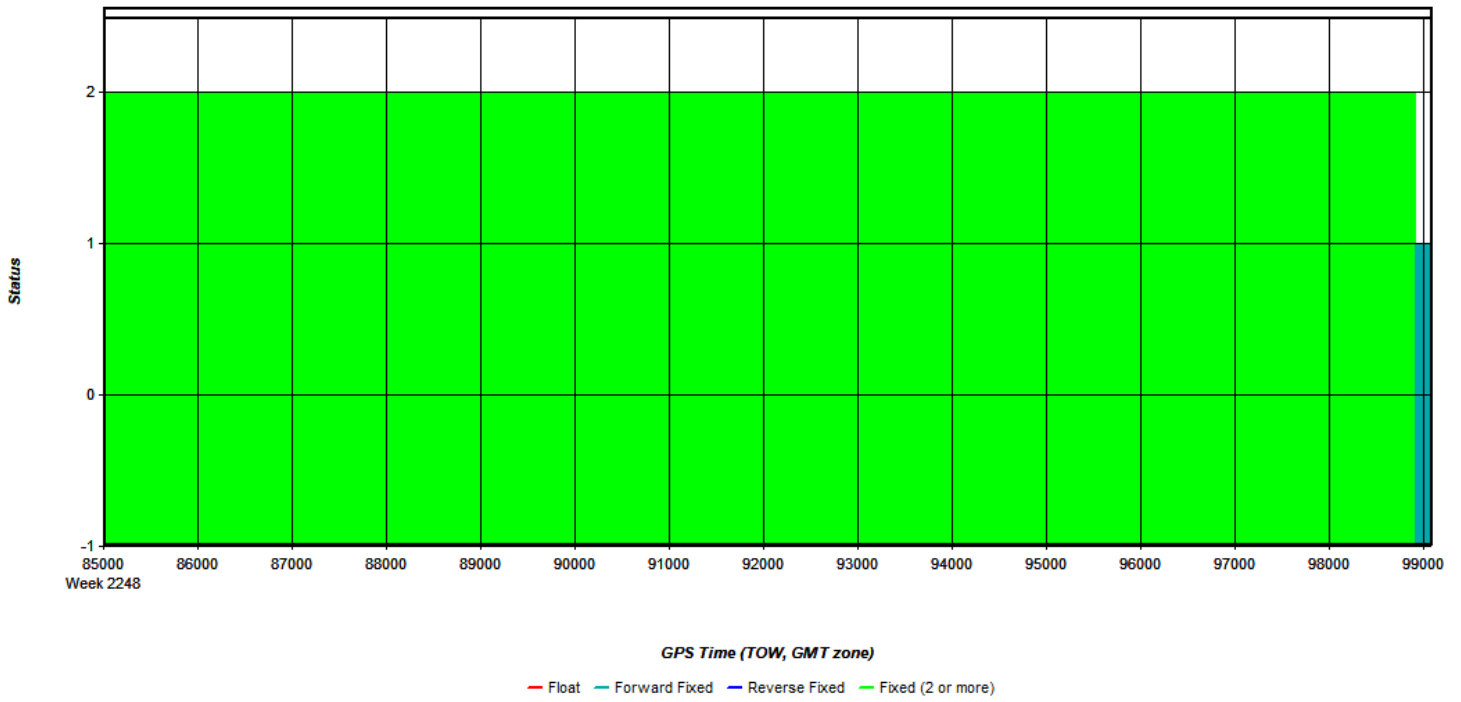
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 2: 20230205232840_12 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



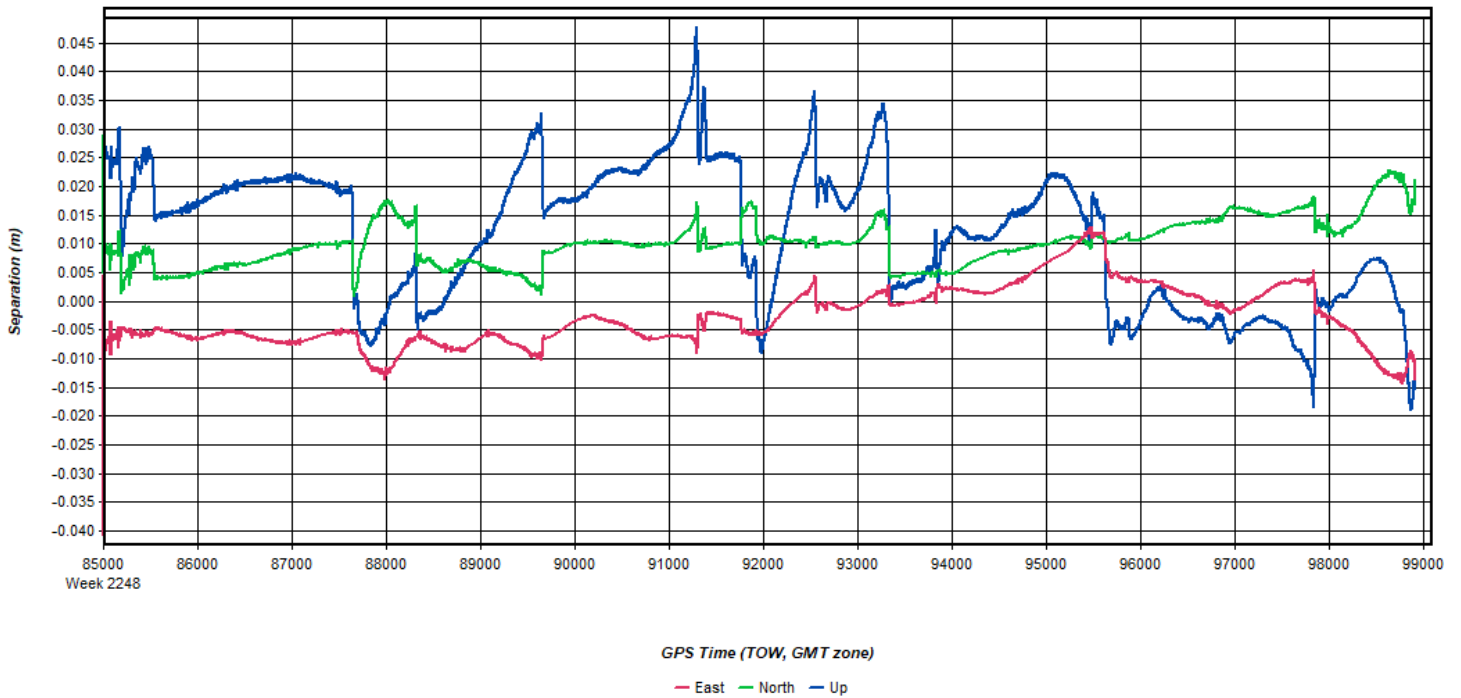
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 3: 20230205232840_12 [Smoothed TC Combined] - Float or Fixed Ambiguity



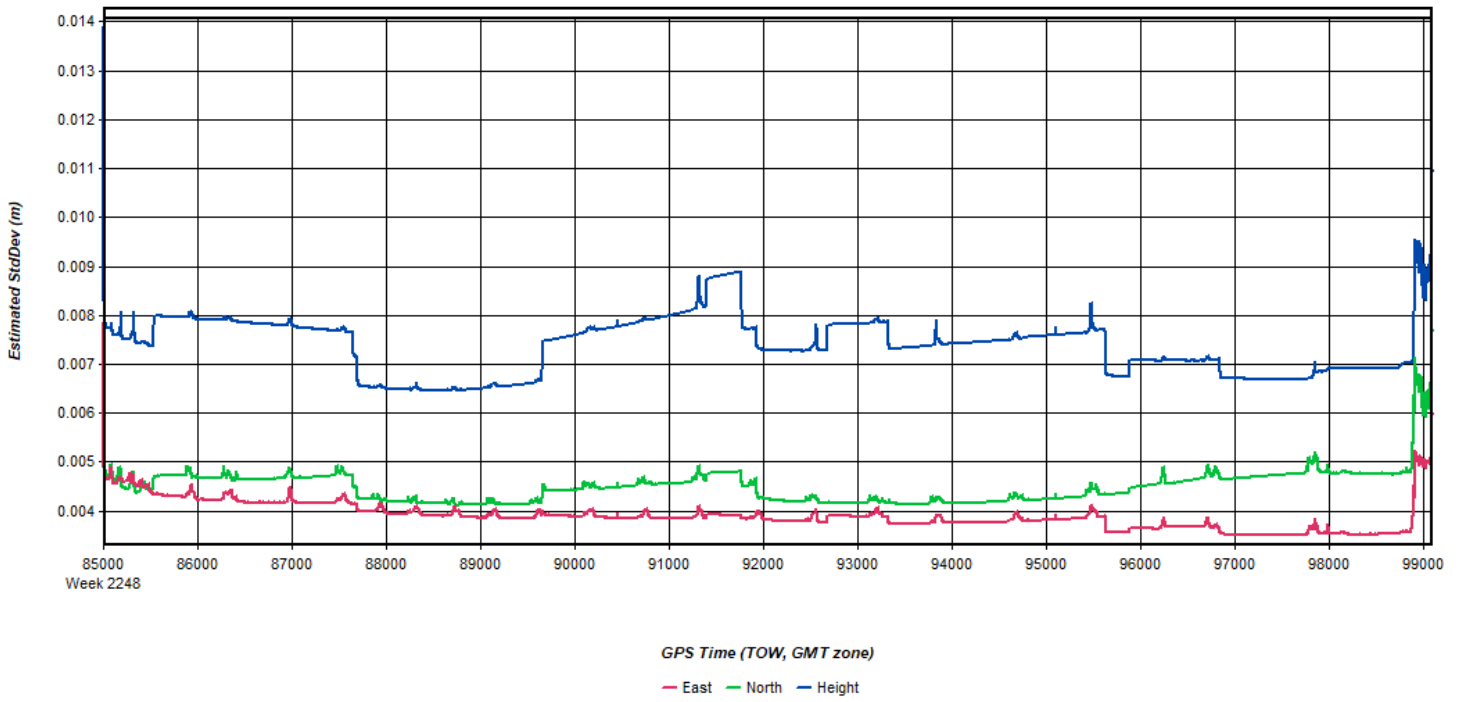
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 4: 20230205232840_12 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



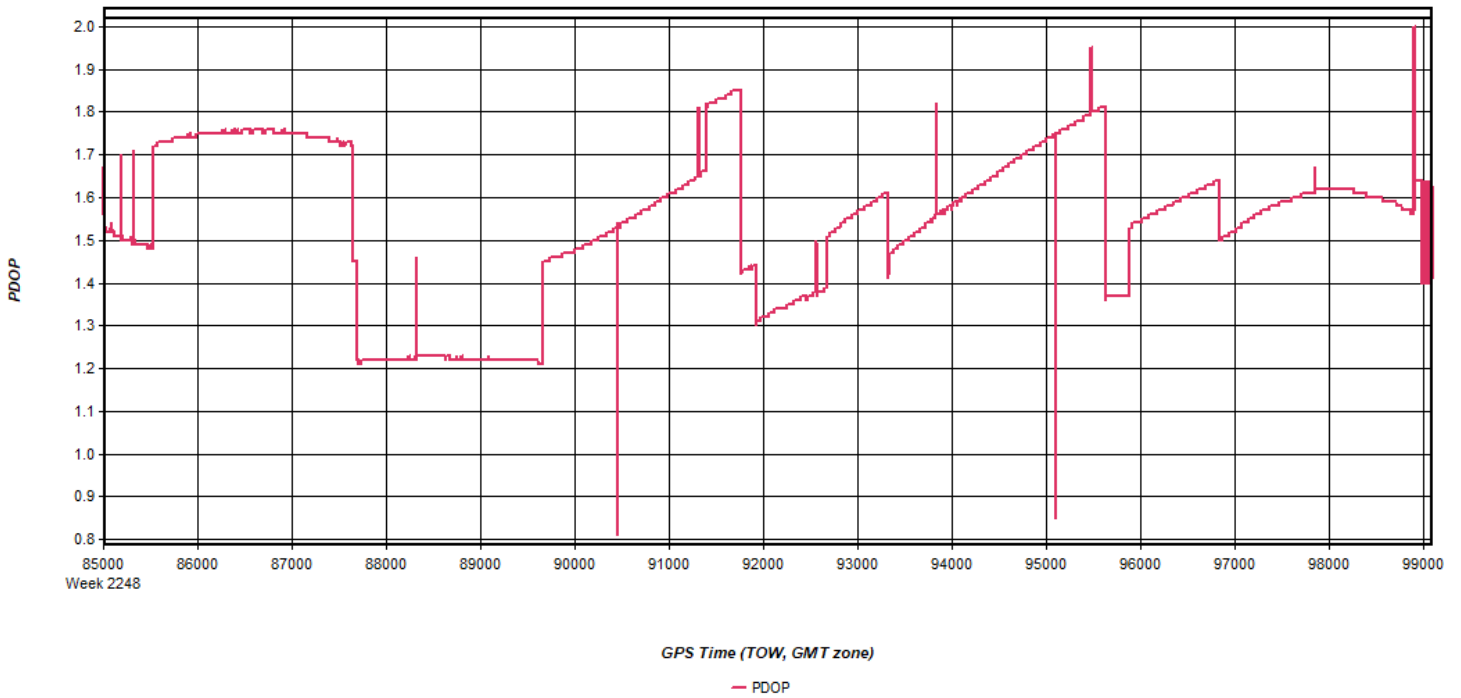
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 5: 20230205232840_12 [Smoothed TC Combined] - Estimated Position Accuracy Plot



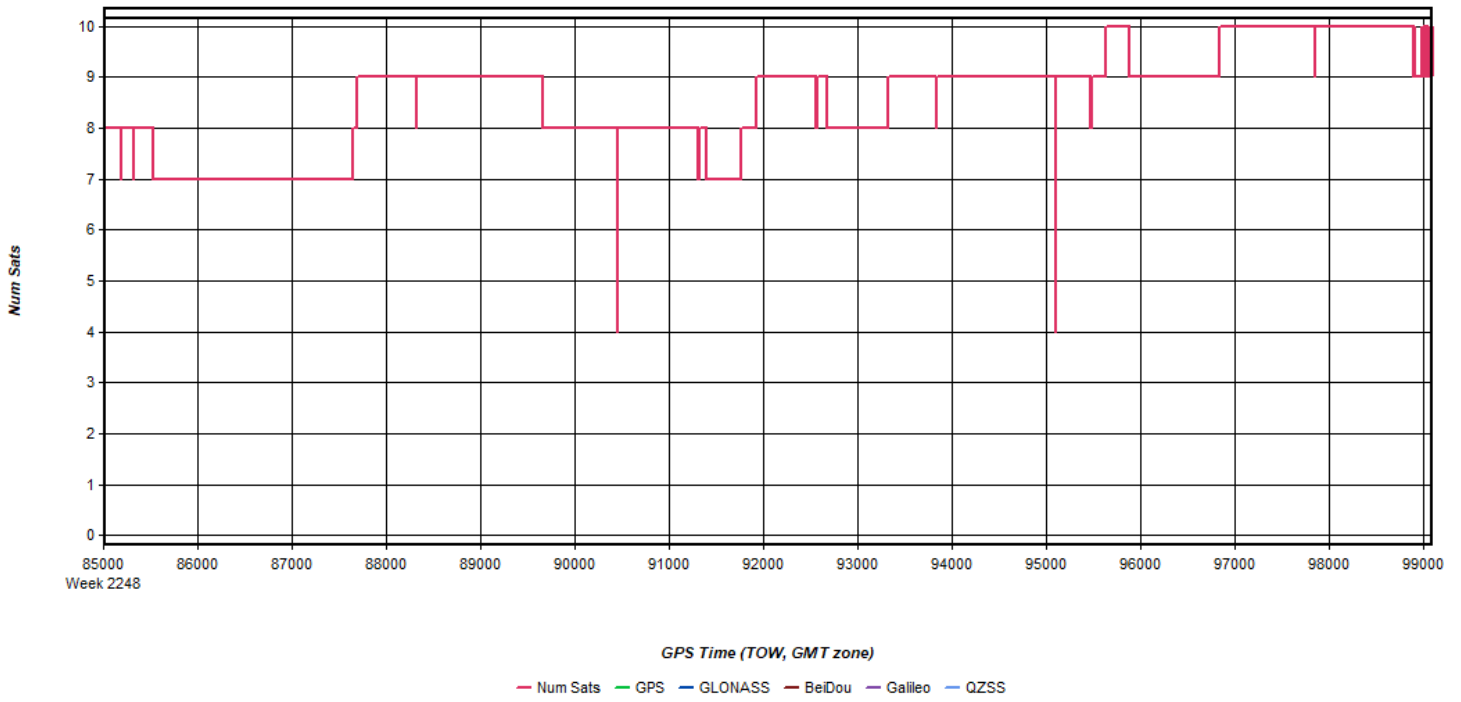
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 6: 20230205232840_12 [Smoothed TC Combined] - PDOP Plot



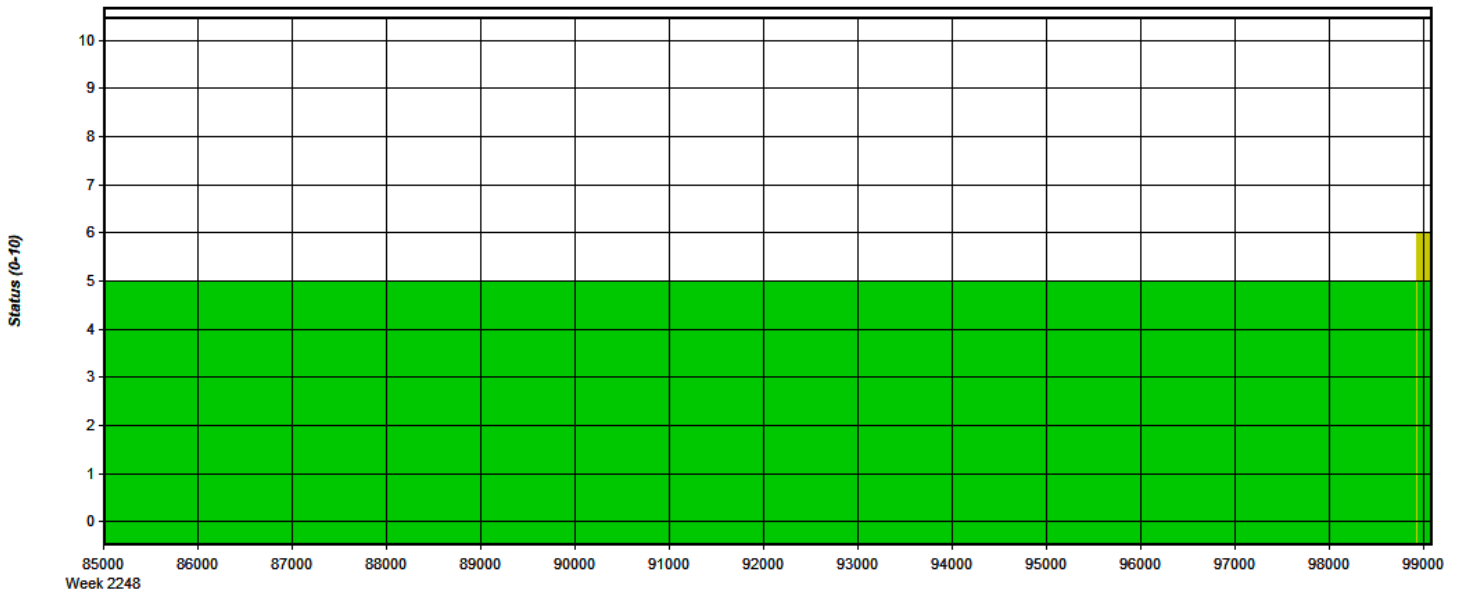
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 7: 20230205232840_12 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 8: 20230205232840_12 [Smoothed TC Combined] - Status flag for IMU processing

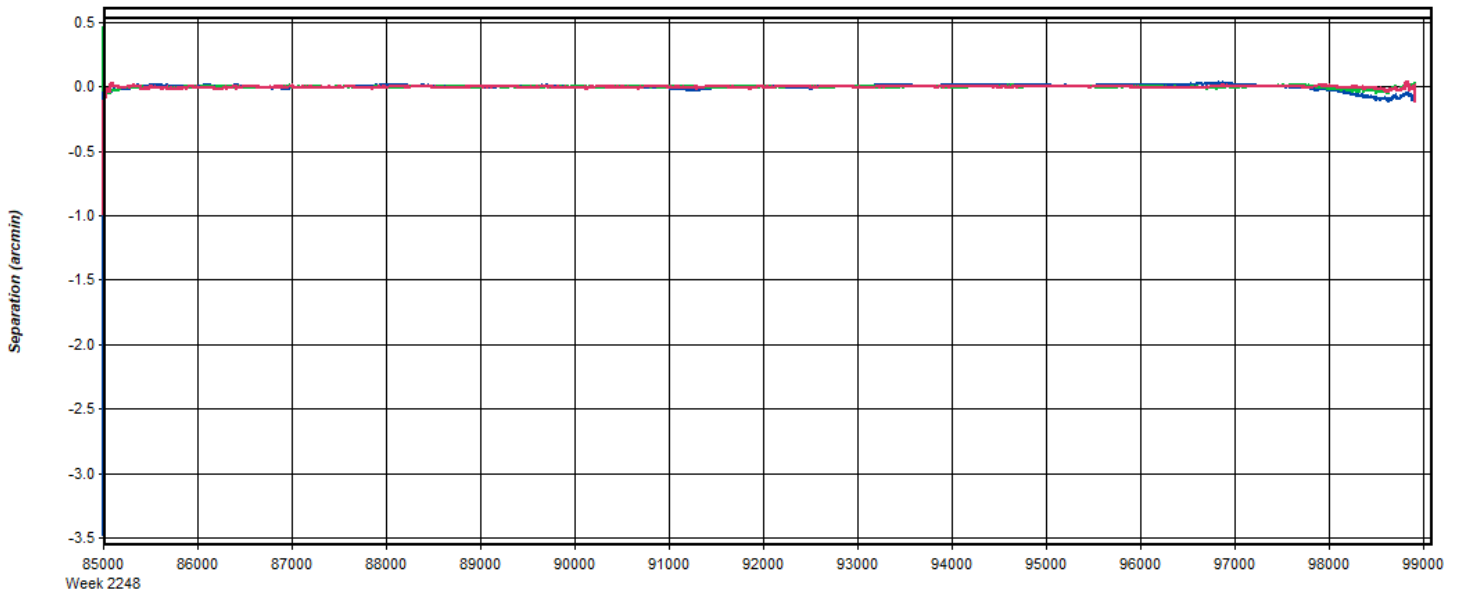


GPS Time (TOW, GMT zone)

— None — Align — Free — DMIUPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 9: 20230205232840_12 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

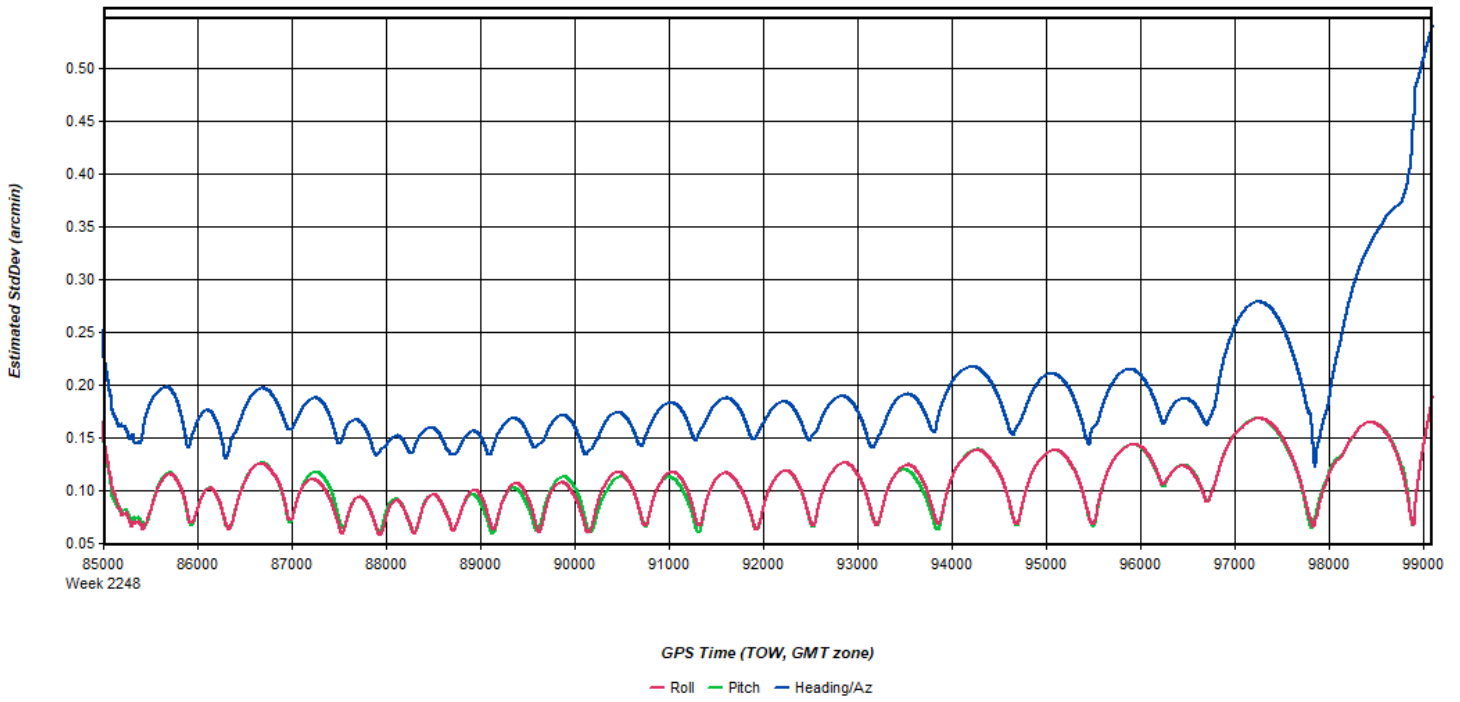


GPS Time (TOW, GMT zone)

— Roll — Pitch — Heading/Az

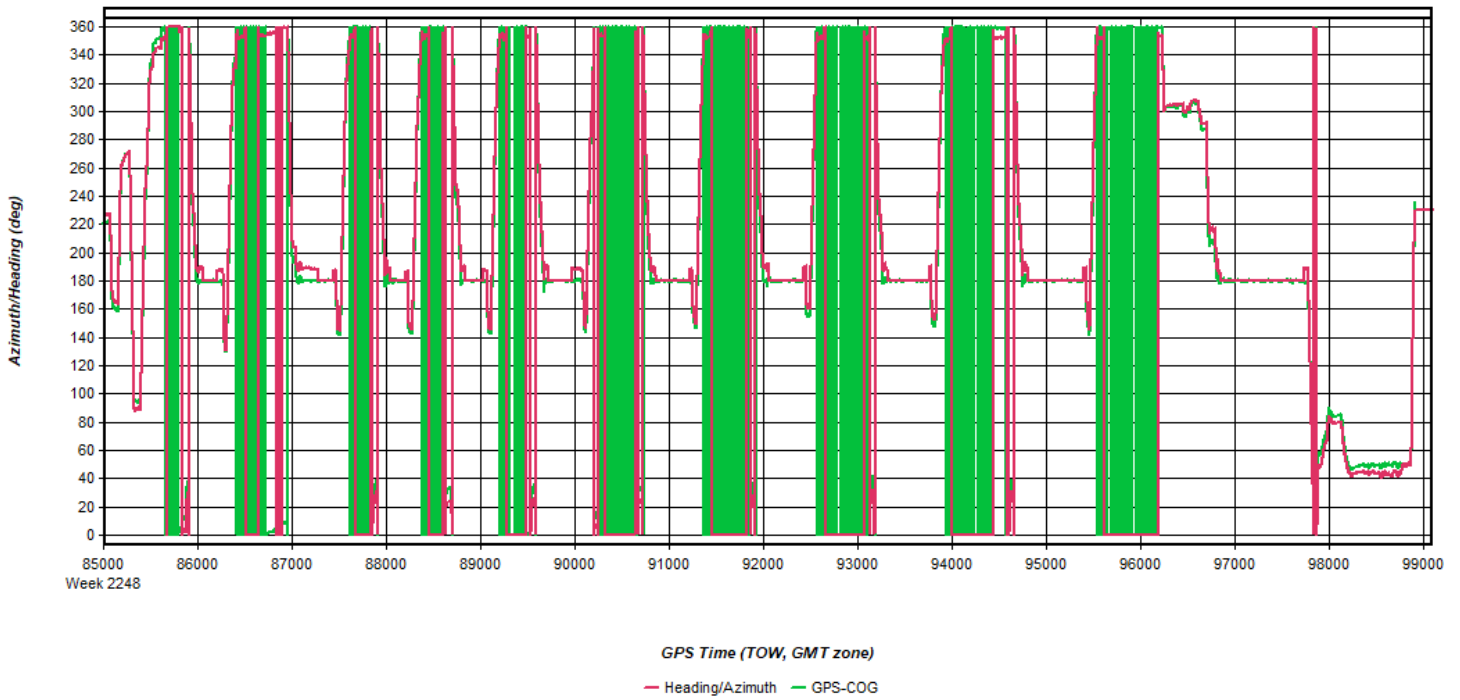
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 10: 20230205232840_12 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



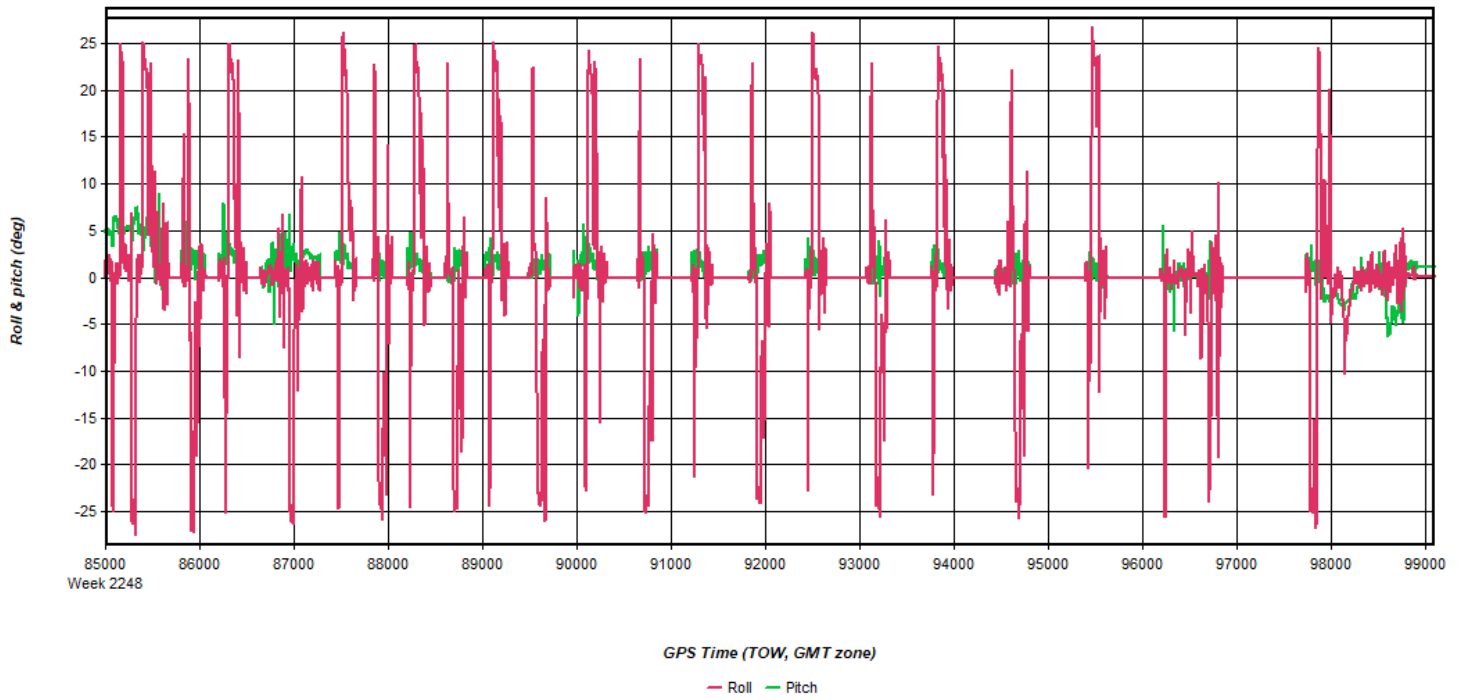
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 11: 20230205232840_12 [Smoothed TC Combined] - Azimuth Plot



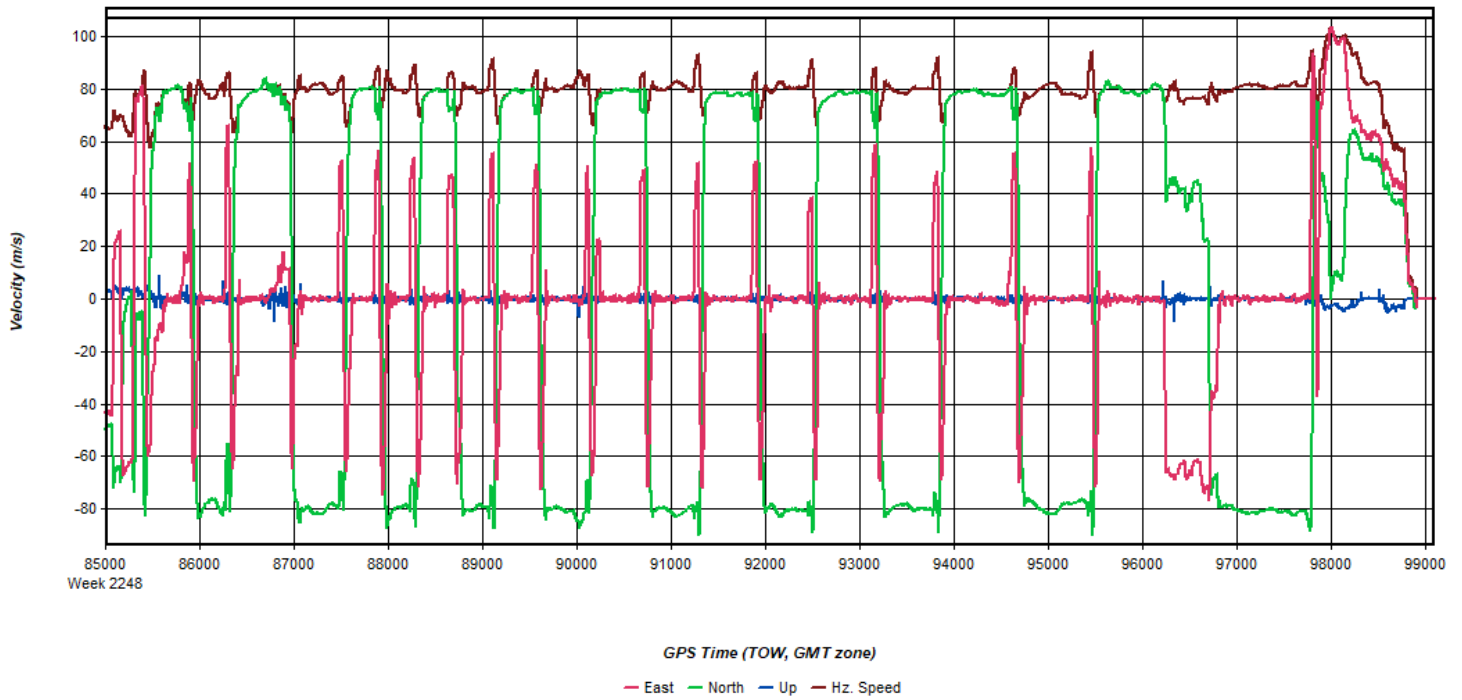
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 12: 20230205232840_12 [Smoothed TC Combined] - Roll & Pitch Plot



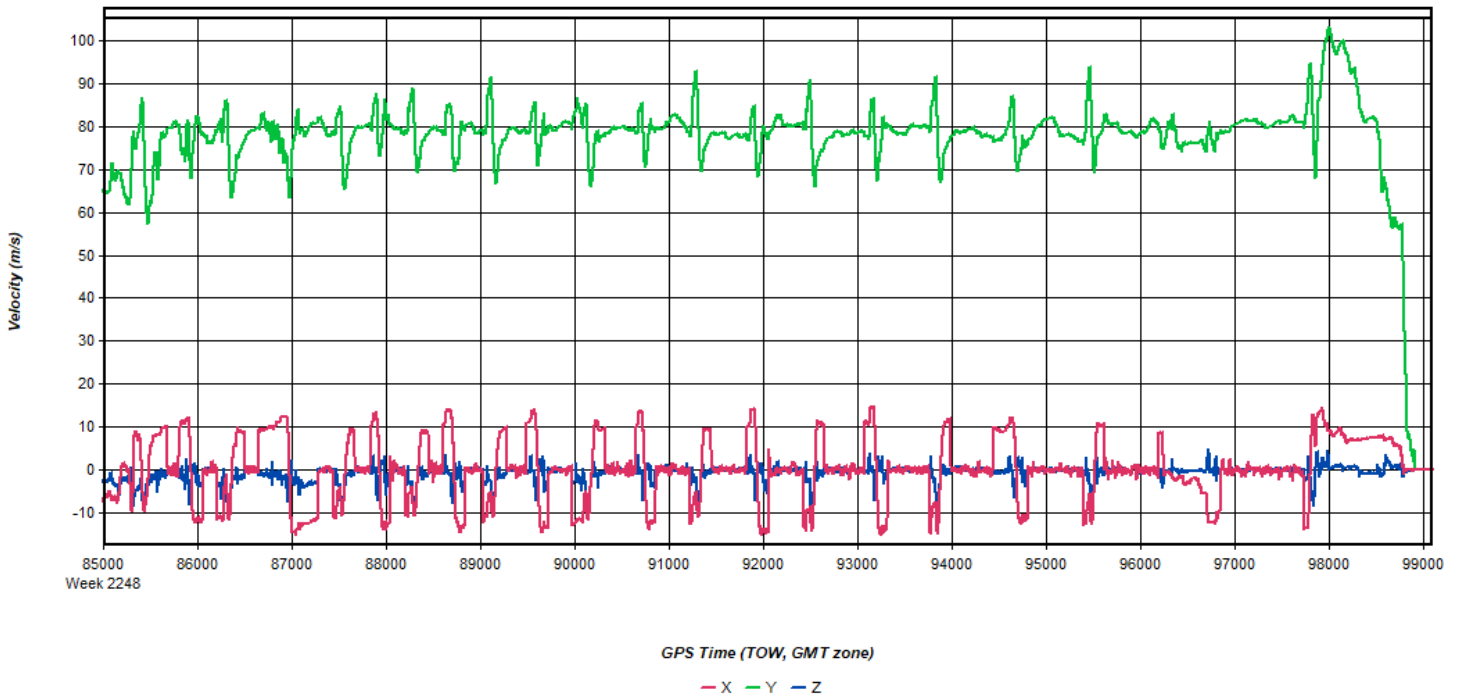
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 13: 20230205232840_12 [Smoothed TC Combined] - Velocity Profile Plot



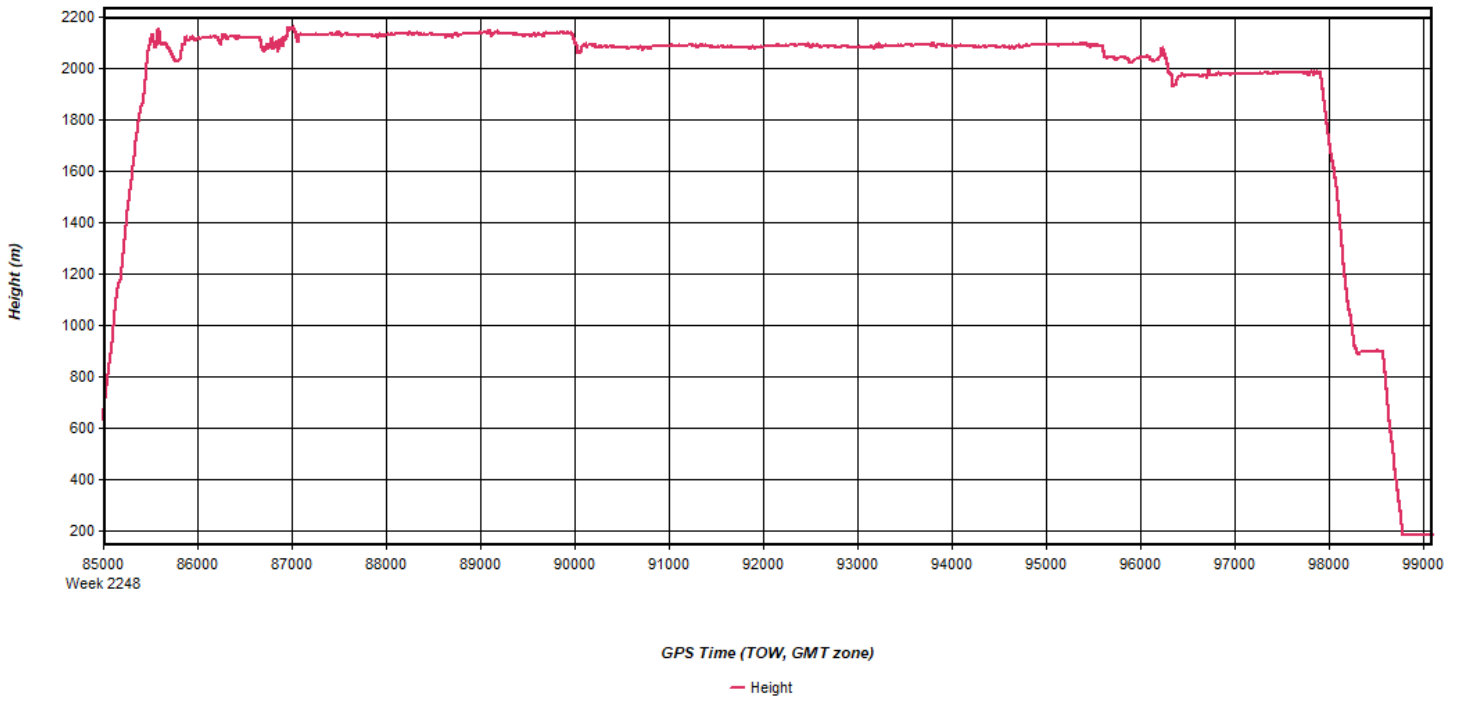
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 14: 20230205232840_12 [Smoothed TC Combined] - Body Frame Velocity Plot



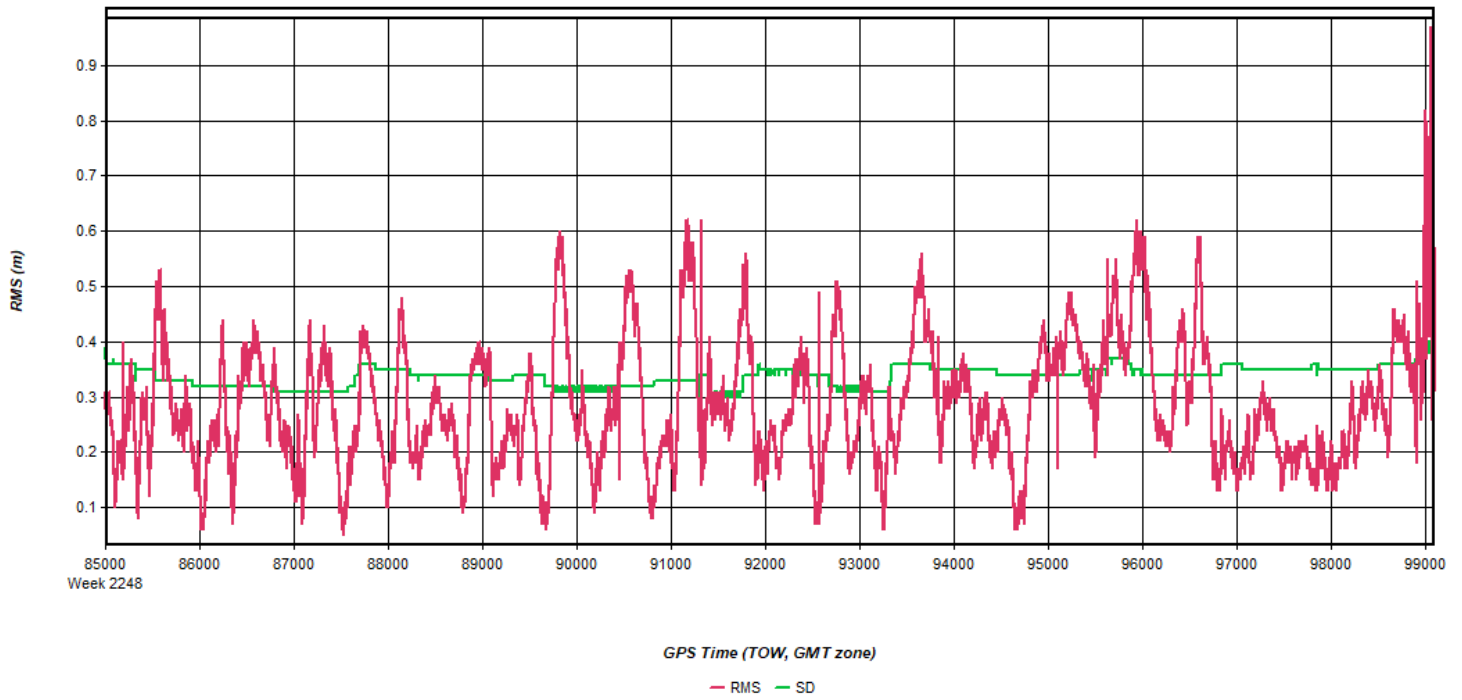
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 15: 20230205232840_12 [Smoothed TC Combined] - Height Profile Plot



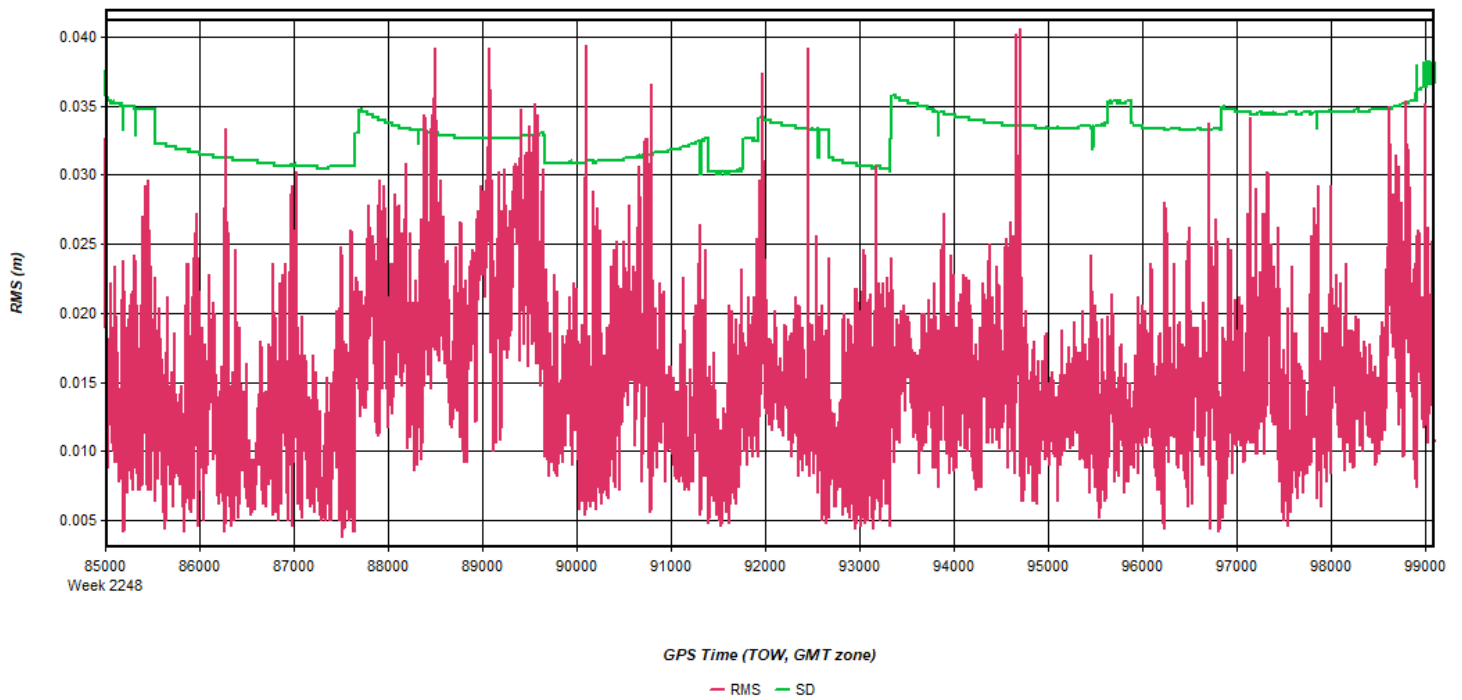
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 16: 20230205232840_12 [Smoothed TC Combined] - C/A Code Residual RMS Plot



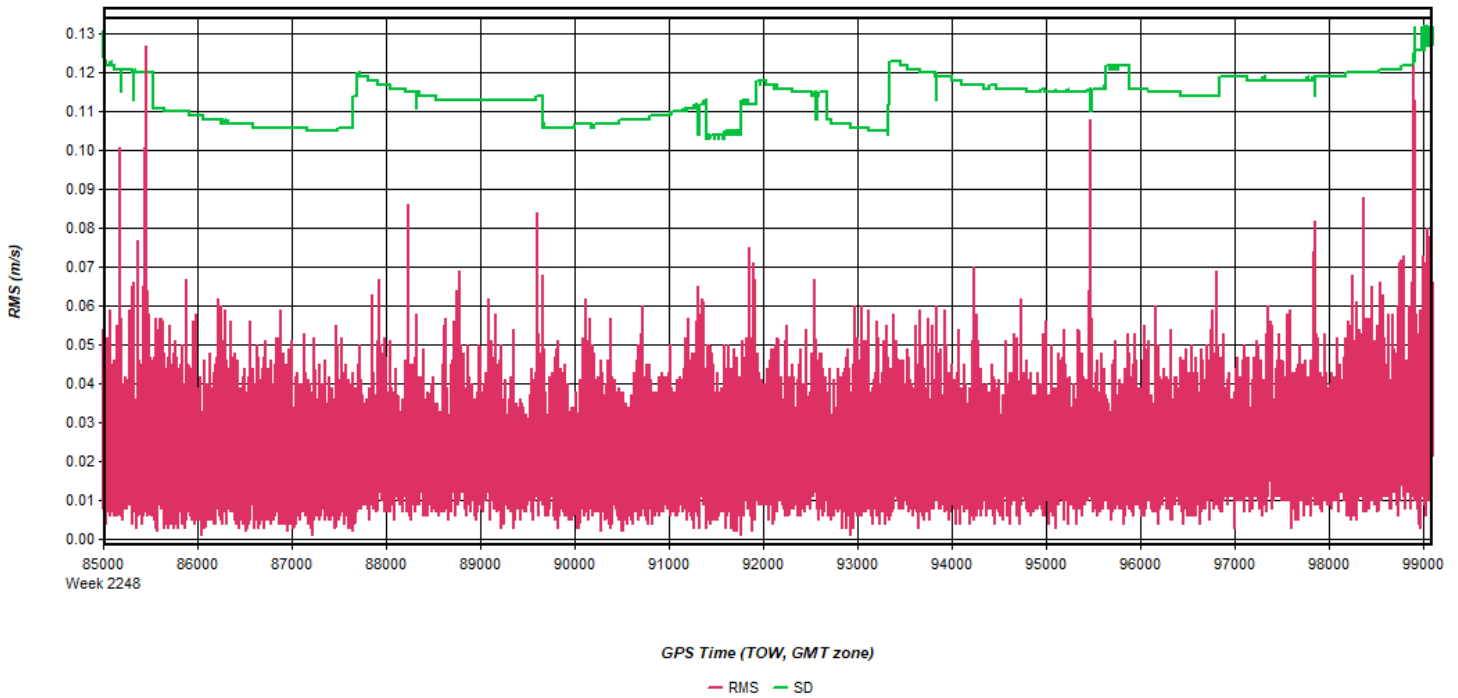
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 17: 20230205232840_12 [Smoothed TC Combined] - Carrier Residual RMS Plot



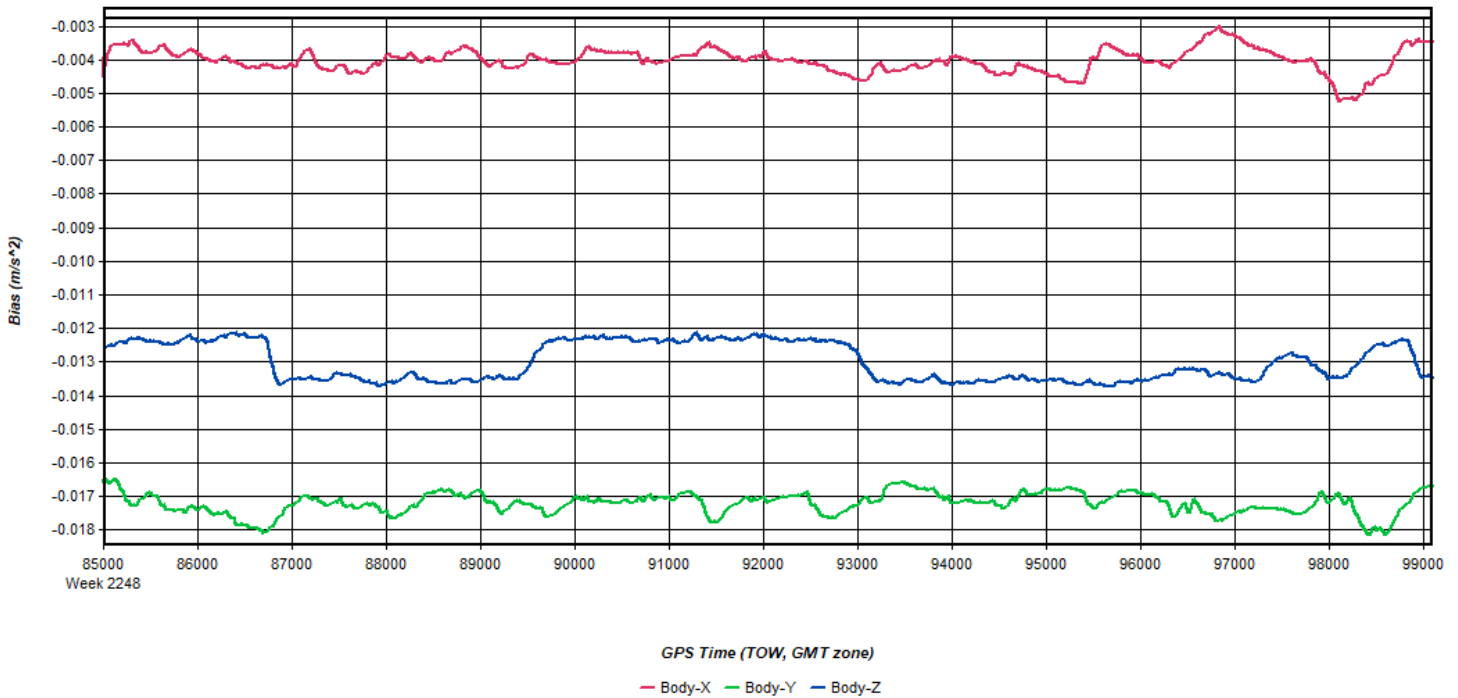
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 18: 20230205232840_12 [Smoothed TC Combined] - Doppler Residual RMS Plot



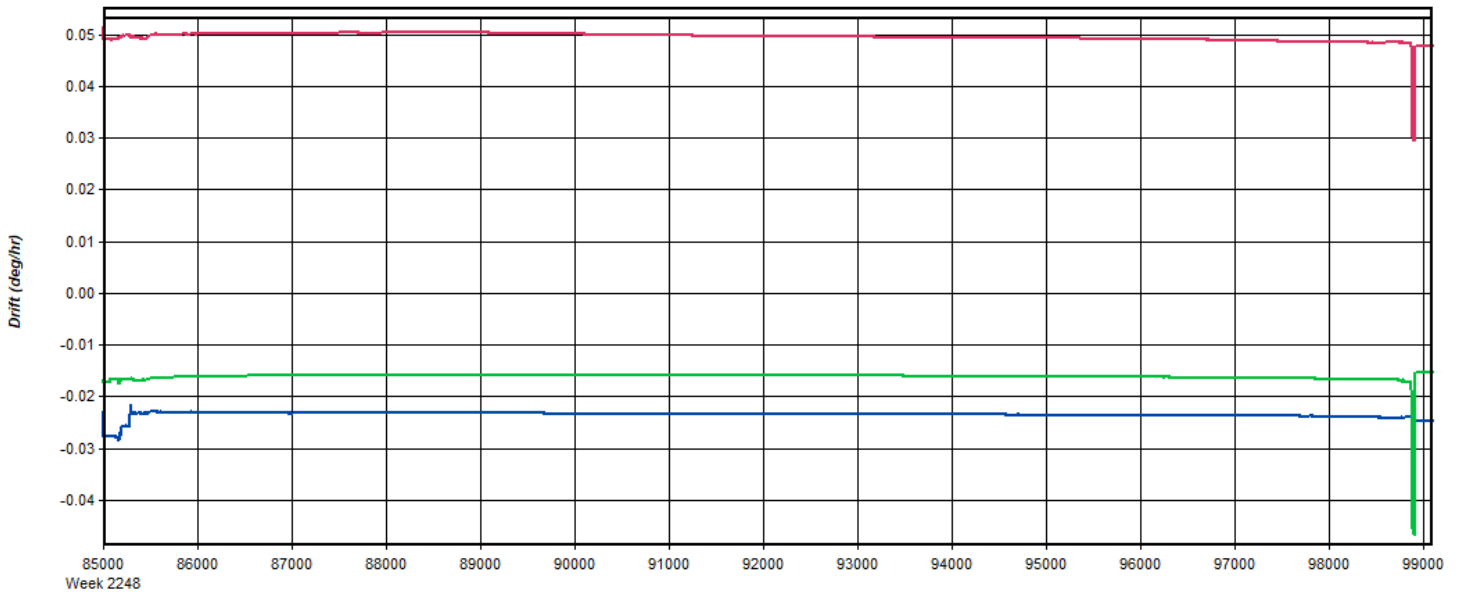
Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 19: 20230205232840_12 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Figure 20: 20230205232840_12 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

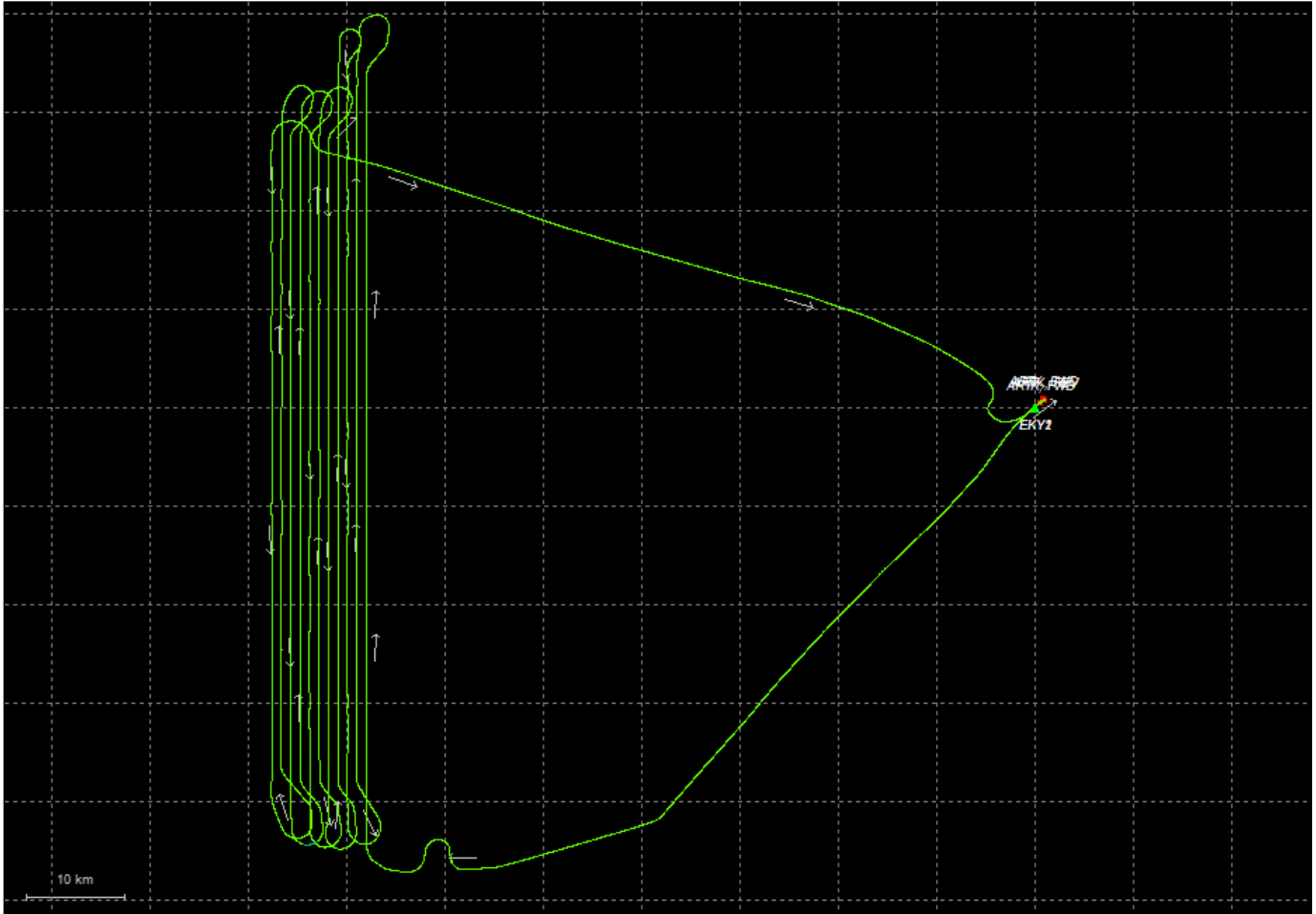
— Body-X — Body-Y — Body-Z

Process	20230205232840_12	by Unknown	on 2/8/2023	at 15:15:52
---------	-------------------	------------	-------------	-------------

Output Results for 20230206145243_13

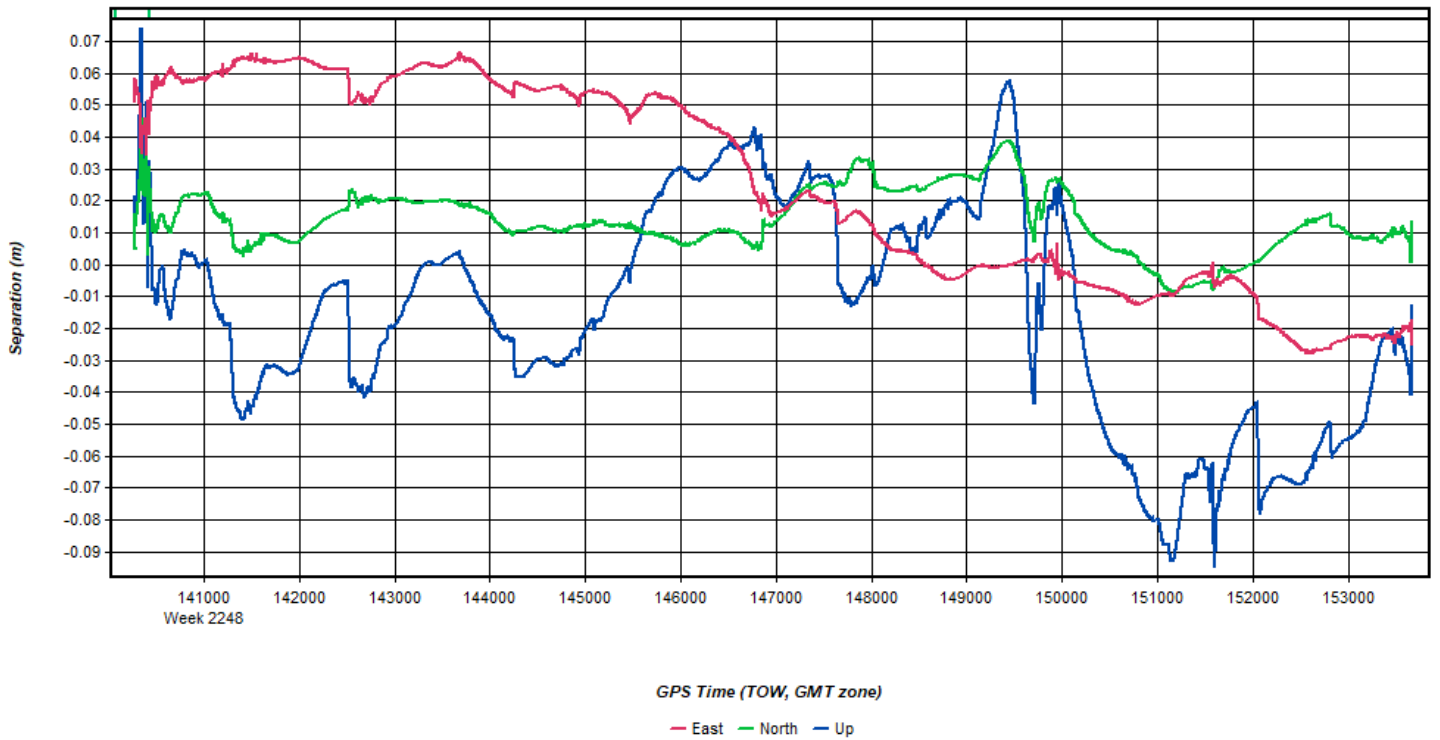
Inertial Explorer Version 8.90.6611
02/08/2023

Figure 1: Smoothed TC Combined - Map



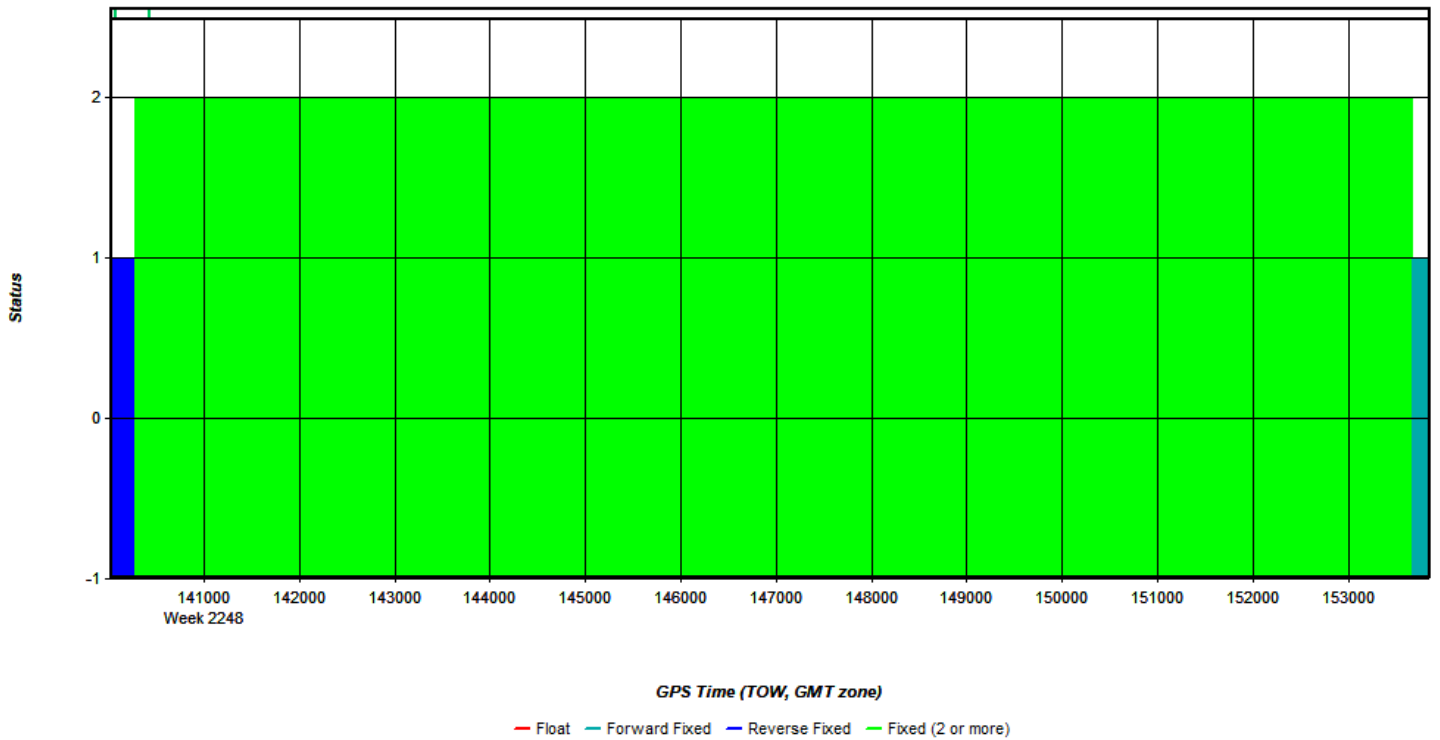
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 2: 20230206145243_13 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 3: 20230206145243_13 [Smoothed TC Combined] - Float or Fixed Ambiguity



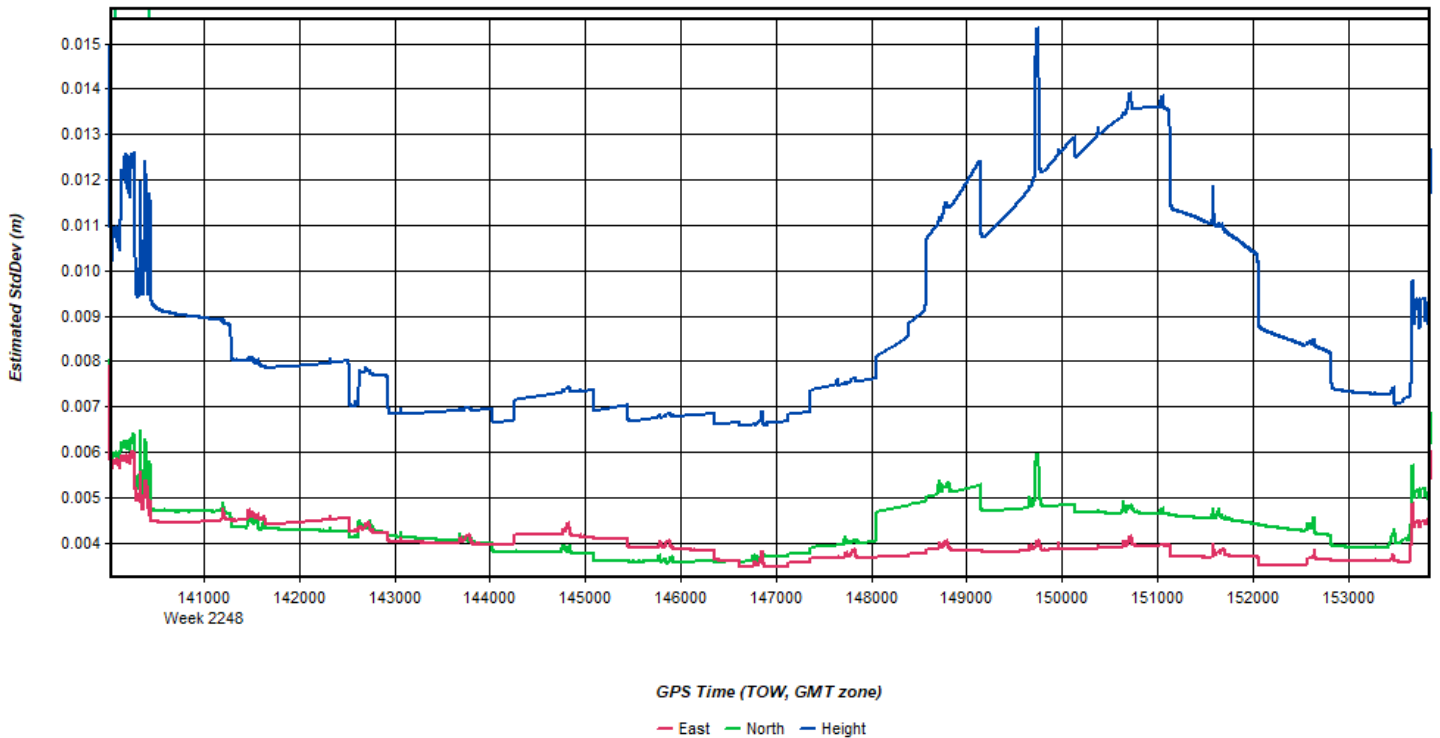
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 4: 20230206145243_13 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 5: 20230206145243_13 [Smoothed TC Combined] - Estimated Position Accuracy Plot



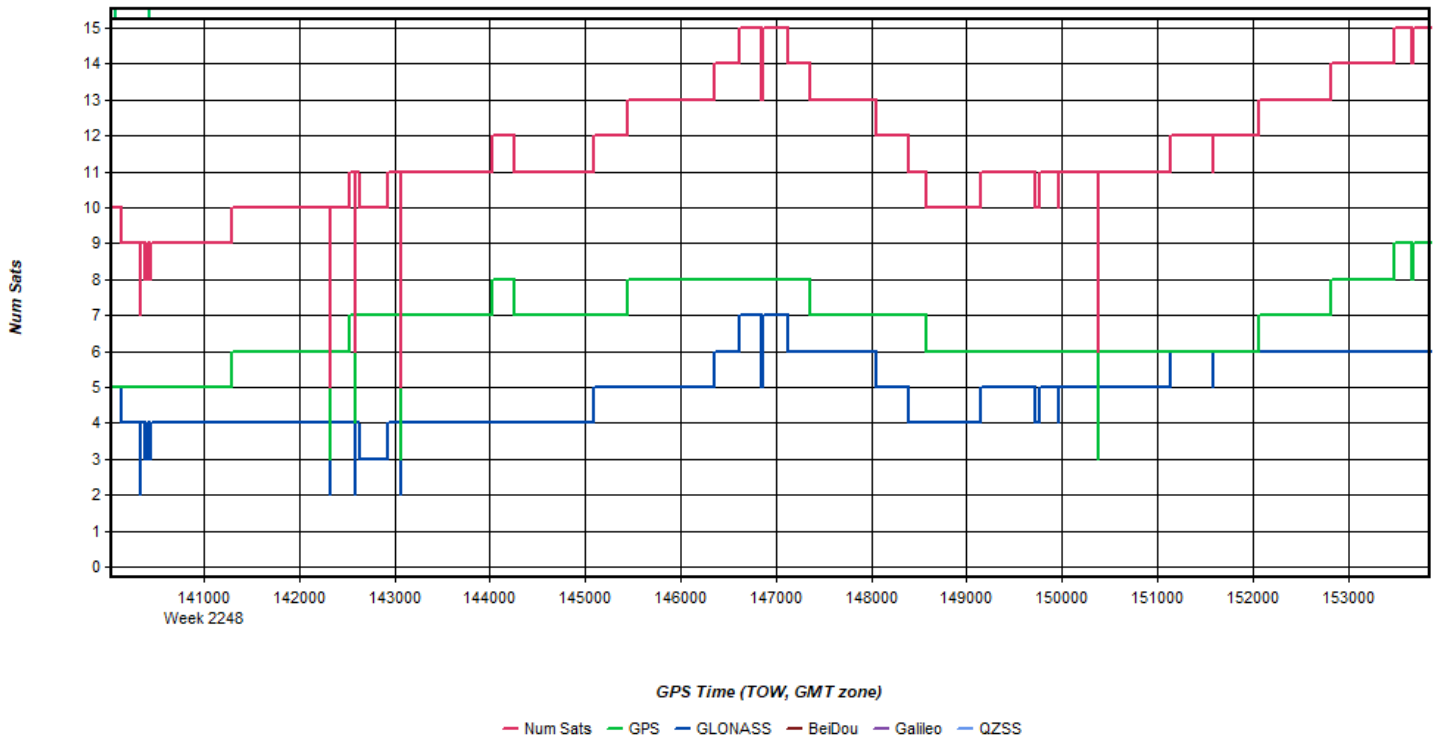
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 6: 20230206145243_13 [Smoothed TC Combined] - PDOP Plot



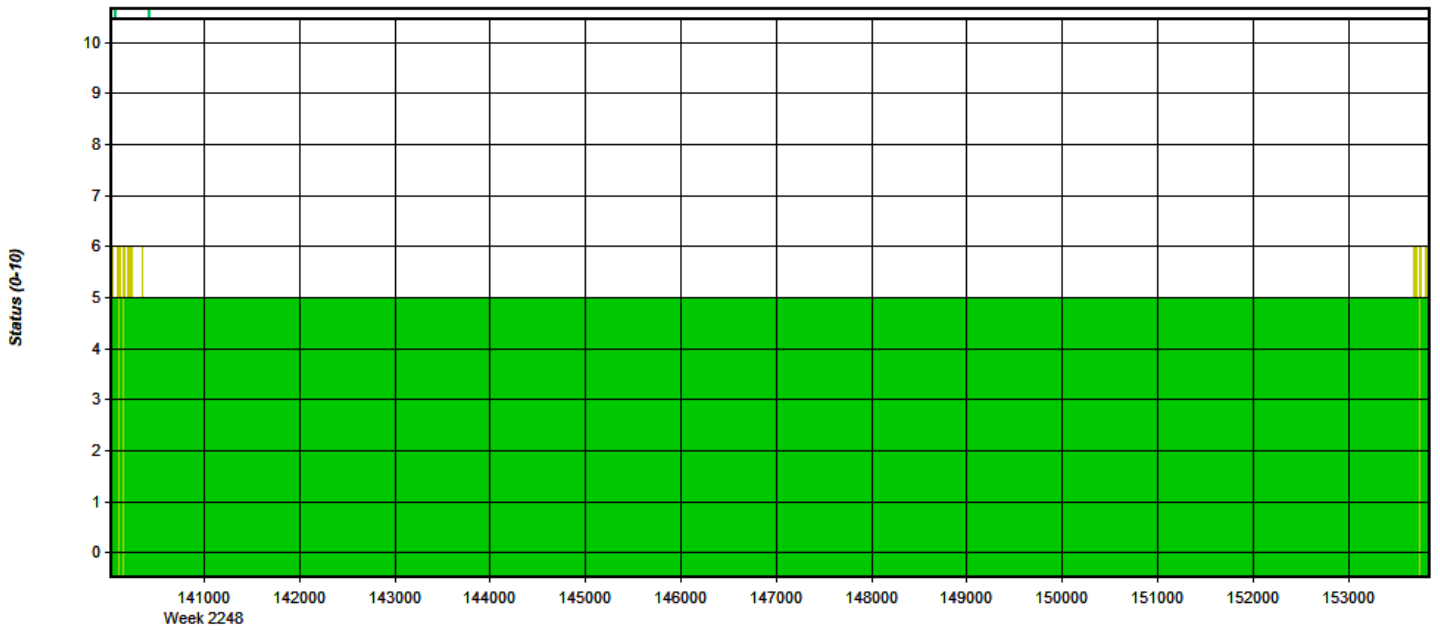
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 7: 20230206145243_13 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 8: 20230206145243_13 [Smoothed TC Combined] - Status flag for IMU processing

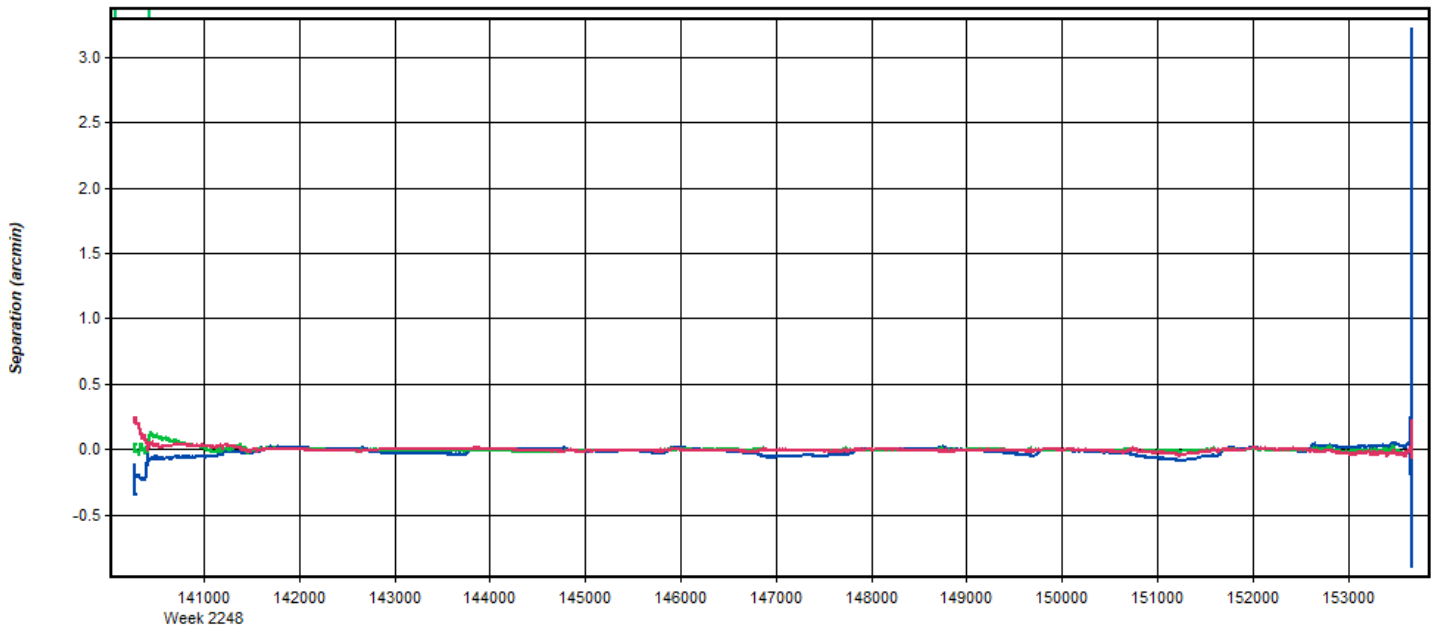


GPS Time (TOW, GMT zone)

— None
 — Align
 — Free
 — DMIUPT
 — PHSUPT
 — GPSUPT
 — ZUPT
 — CUPT
 — GVUPT
 — PSR
 — CONSTRAINT

Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 9: 20230206145243_13 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

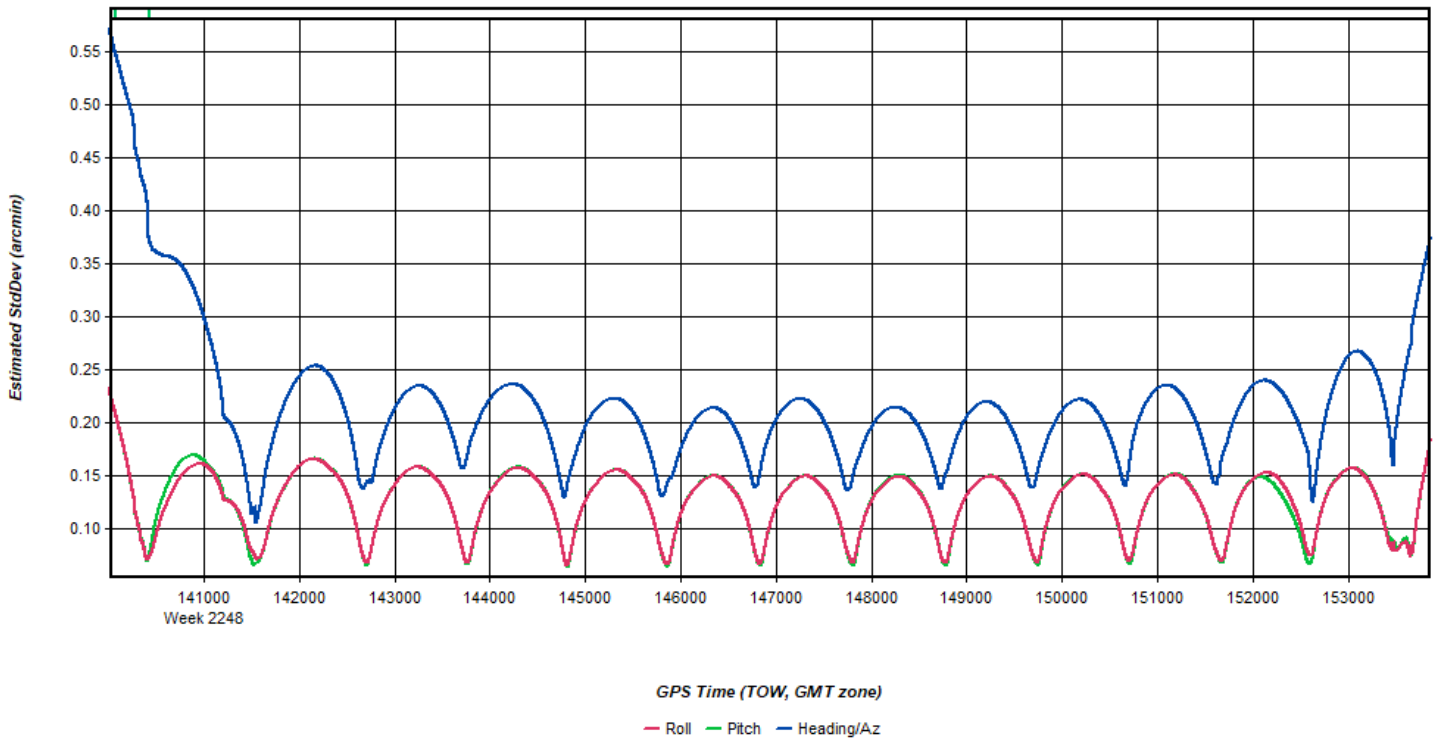


GPS Time (TOW, GMT zone)

— Roll
 — Pitch
 — Heading/Az

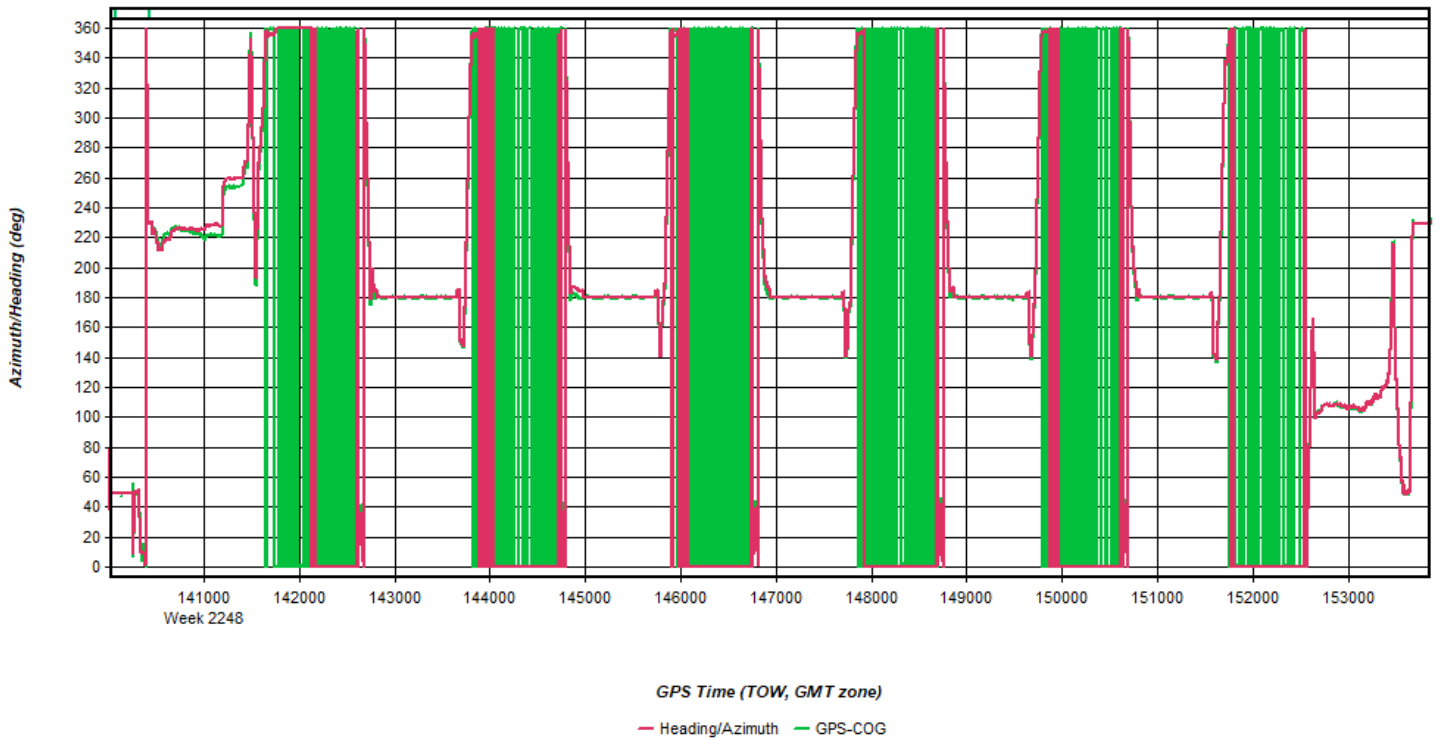
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 10: 20230206145243_13 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



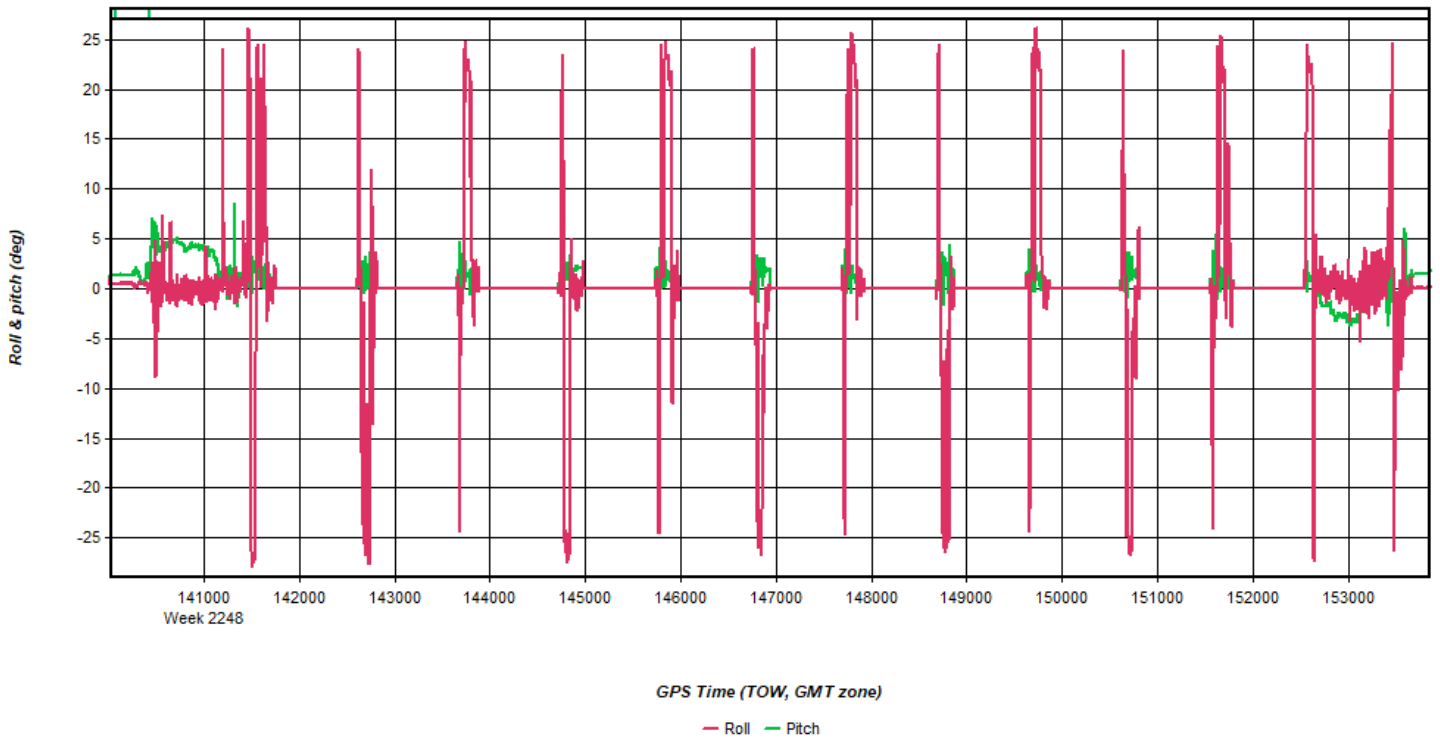
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 11: 20230206145243_13 [Smoothed TC Combined] - Azimuth Plot



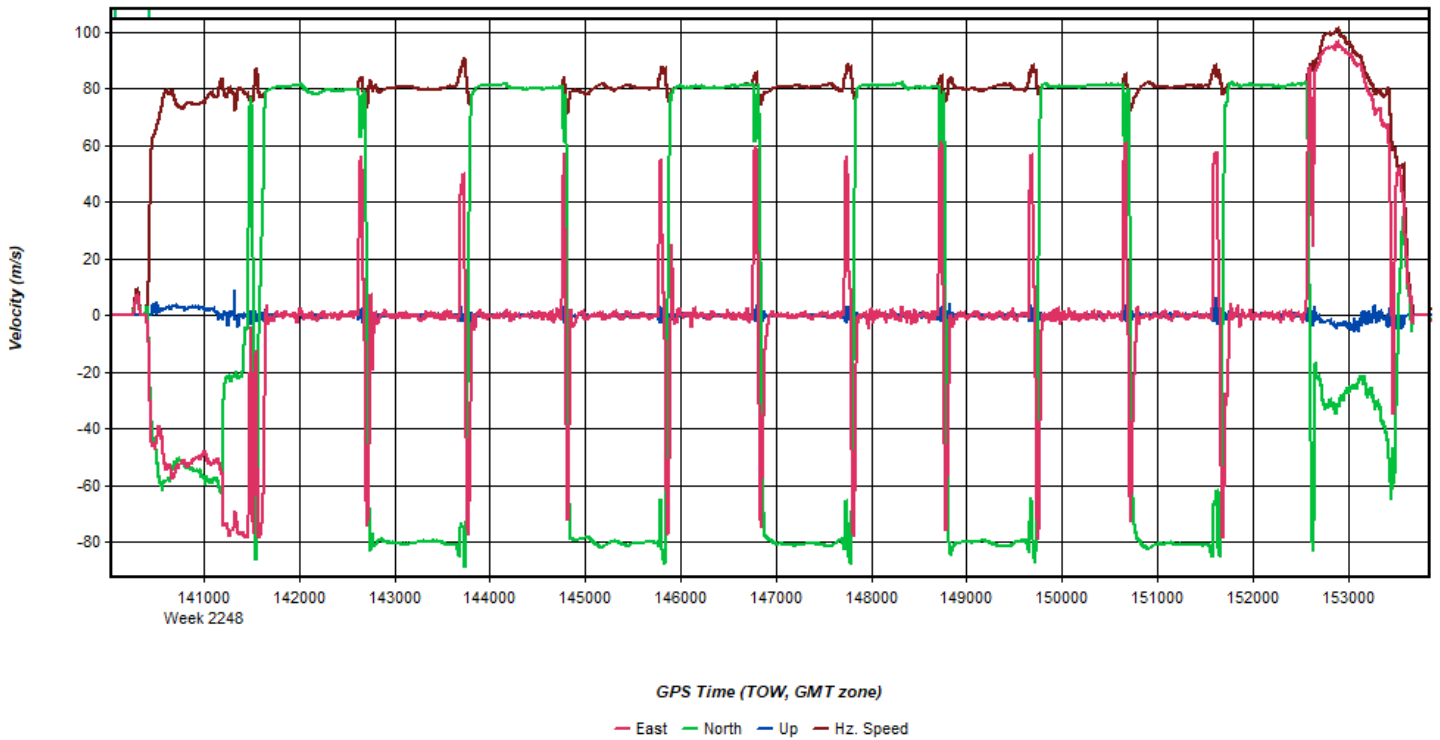
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 12: 20230206145243_13 [Smoothed TC Combined] - Roll & Pitch Plot



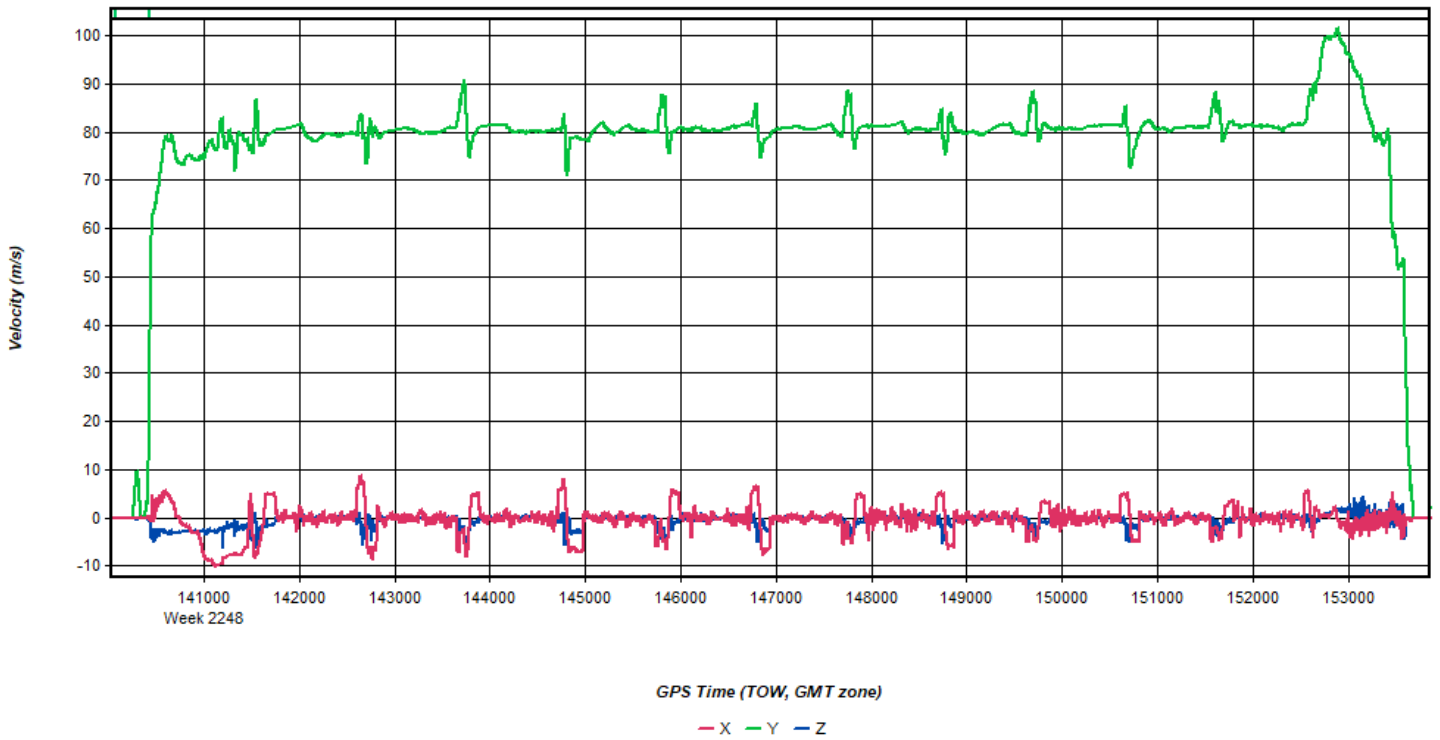
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 13: 20230206145243_13 [Smoothed TC Combined] - Velocity Profile Plot



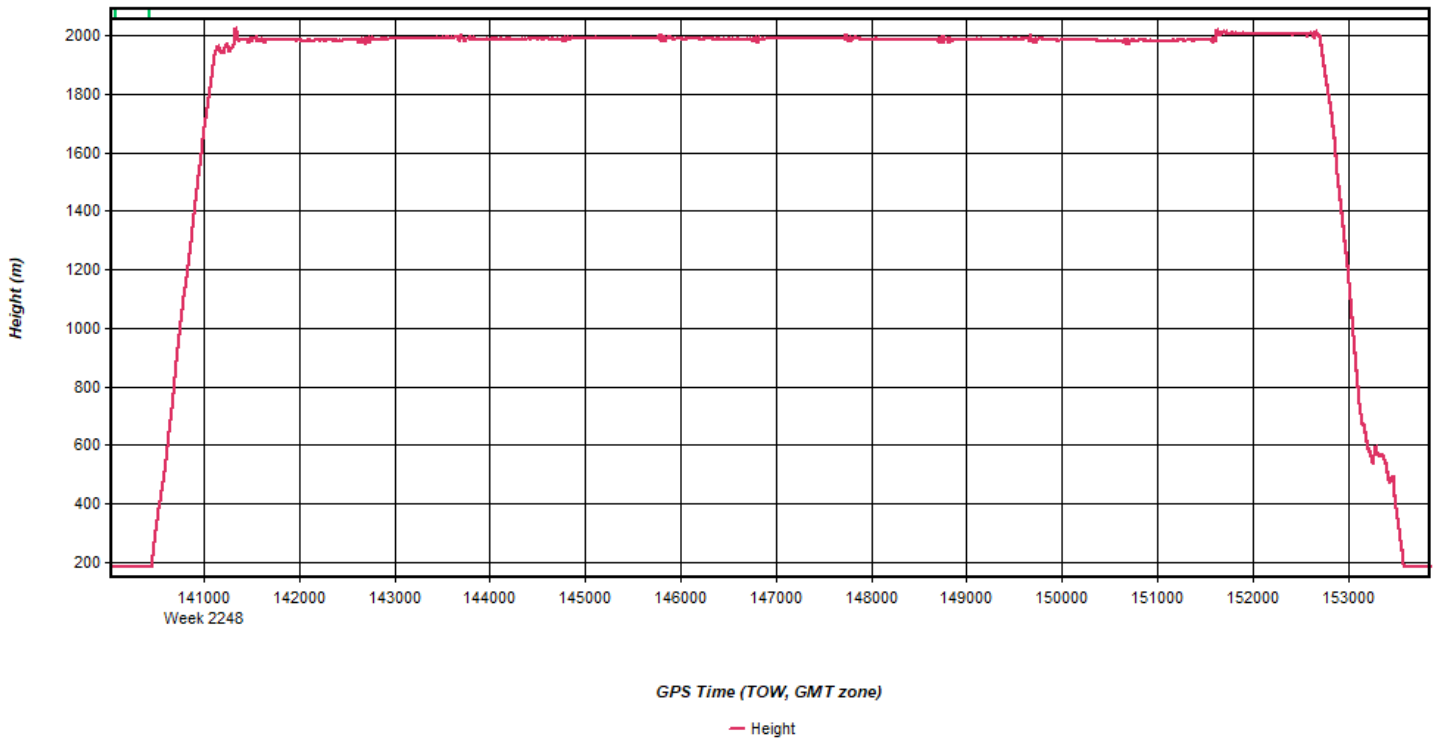
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 14: 20230206145243_13 [Smoothed TC Combined] - Body Frame Velocity Plot



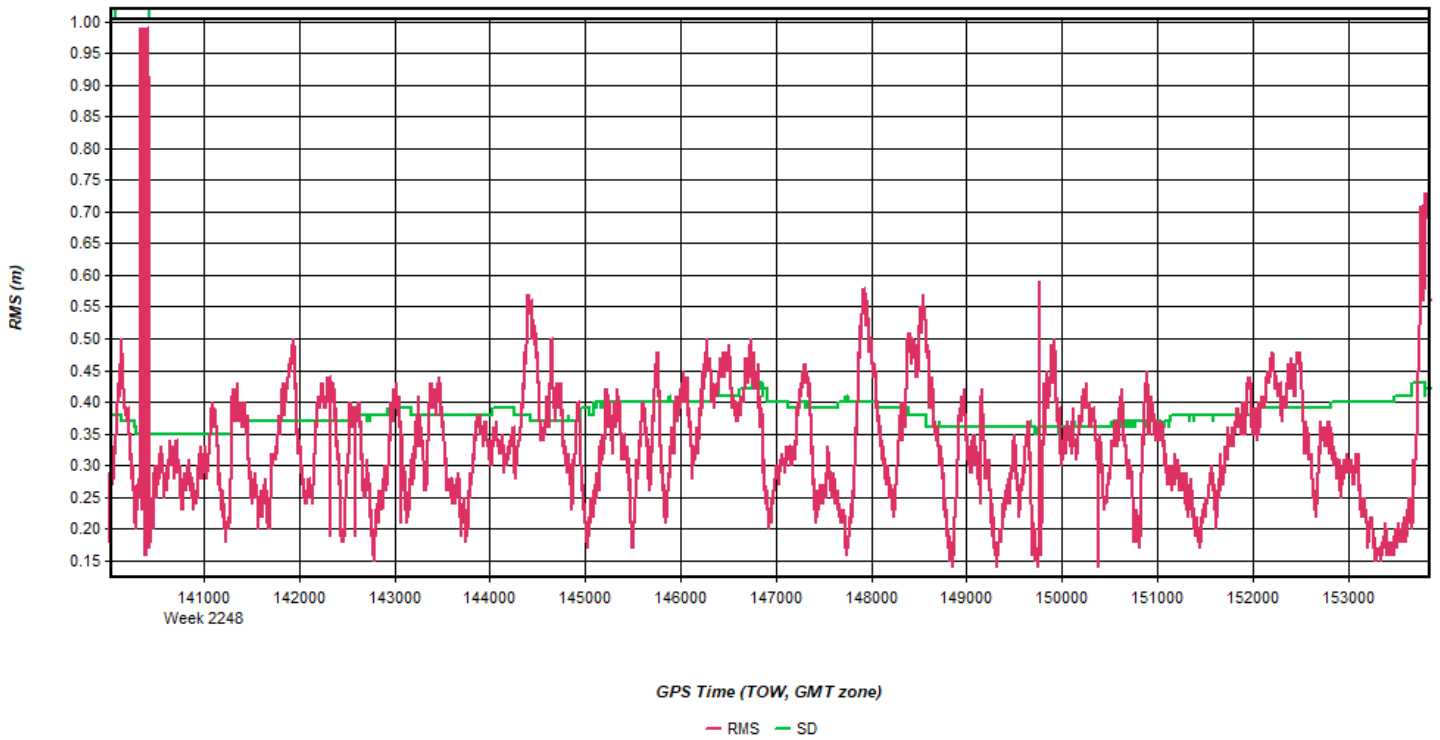
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 15: 20230206145243_13 [Smoothed TC Combined] - Height Profile Plot



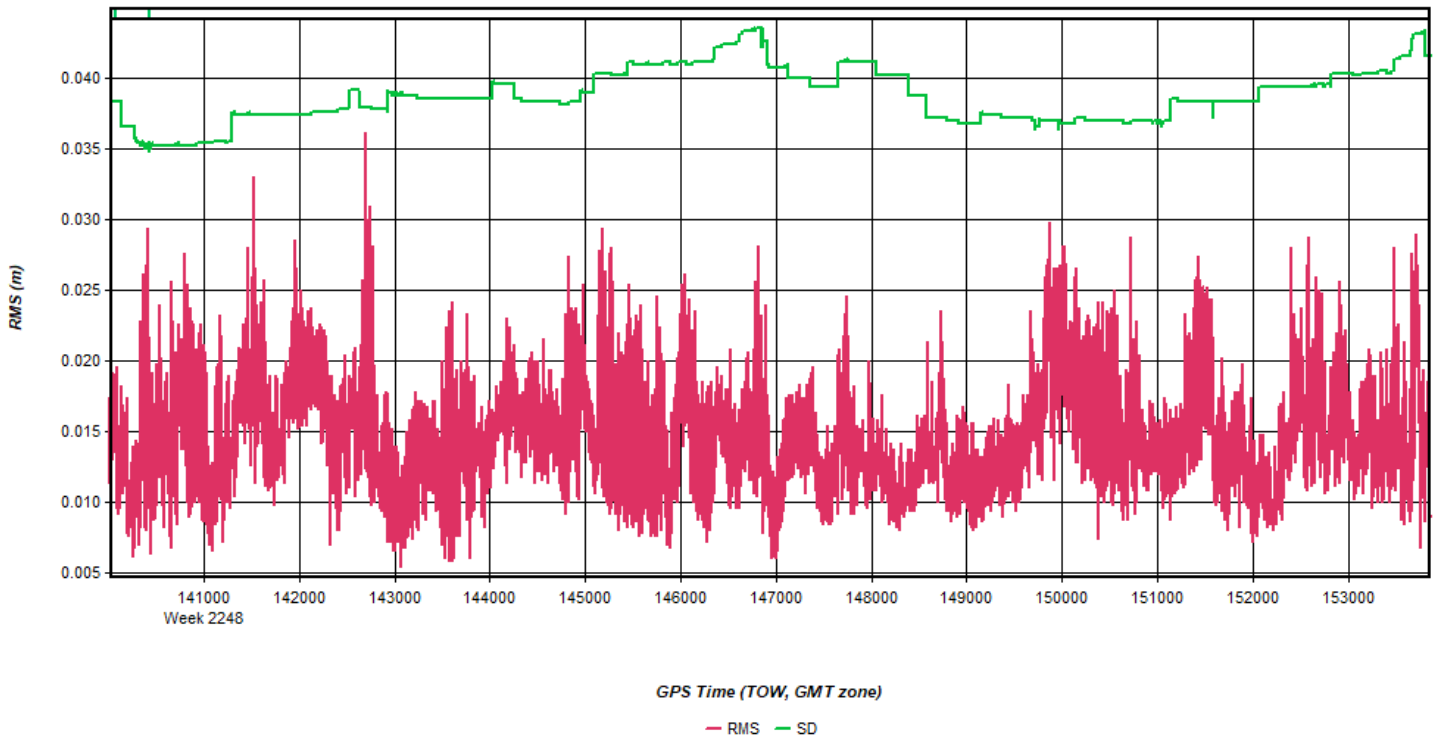
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 16: 20230206145243_13 [Smoothed TC Combined] - C/A Code Residual RMS Plot



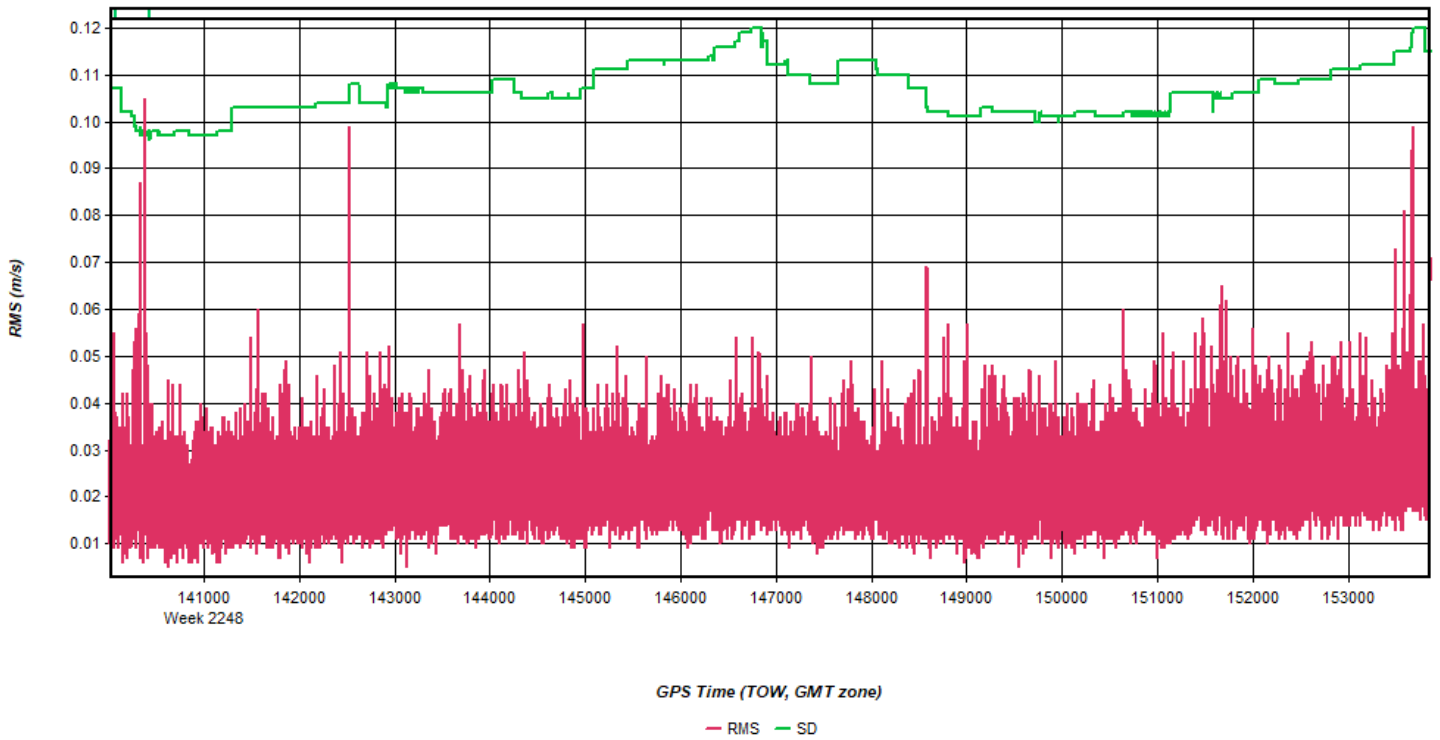
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 17: 20230206145243_13 [Smoothed TC Combined] - Carrier Residual RMS Plot



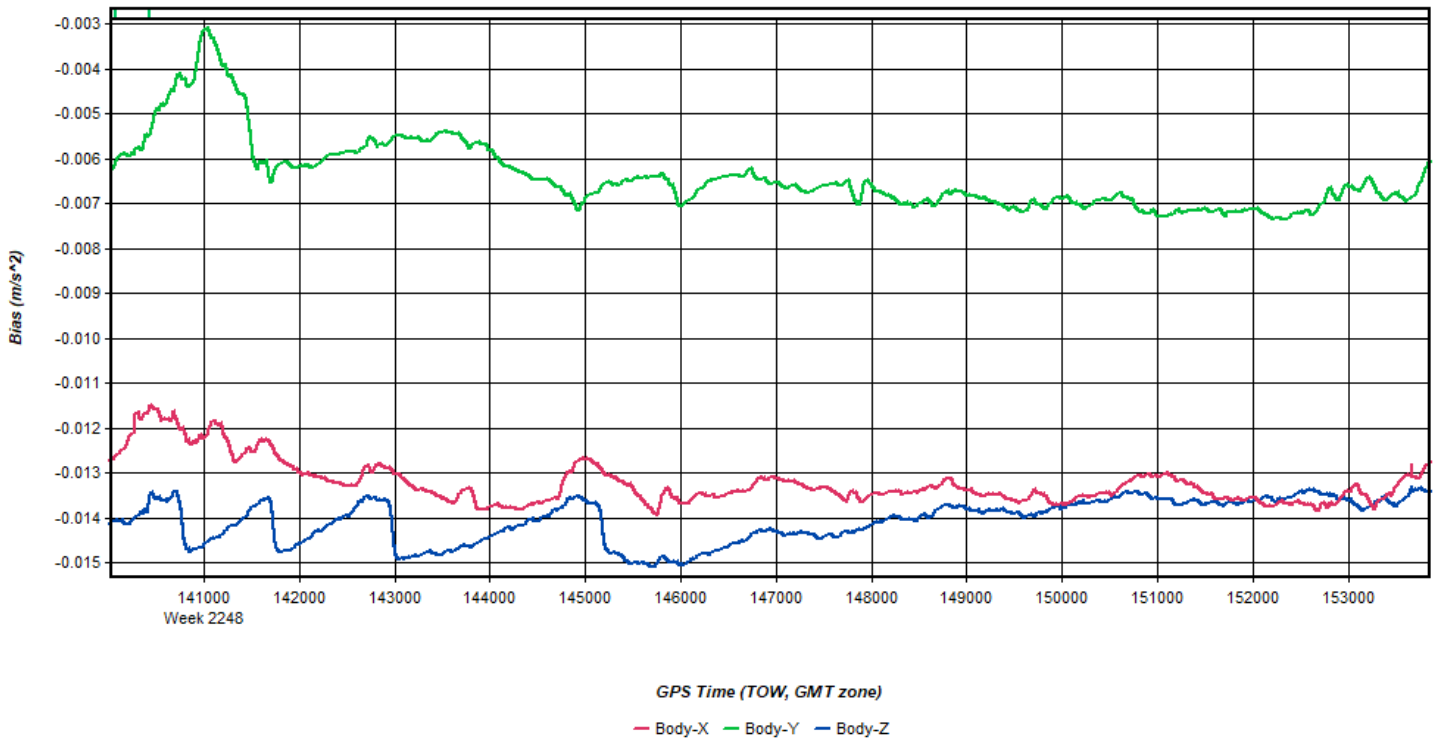
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 18: 20230206145243_13 [Smoothed TC Combined] - Doppler Residual RMS Plot



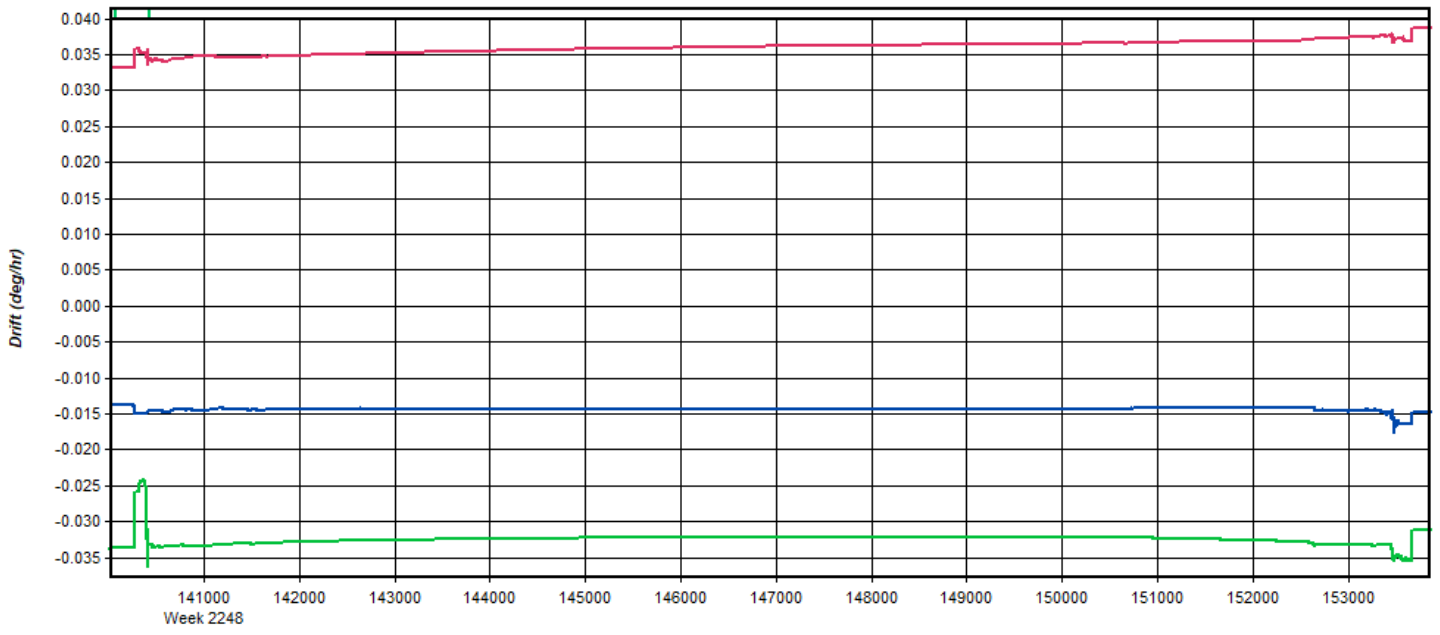
Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 19: 20230206145243_13 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Figure 20: 20230206145243_13 [Smoothed TC Combined] - Gyro Drift Plot



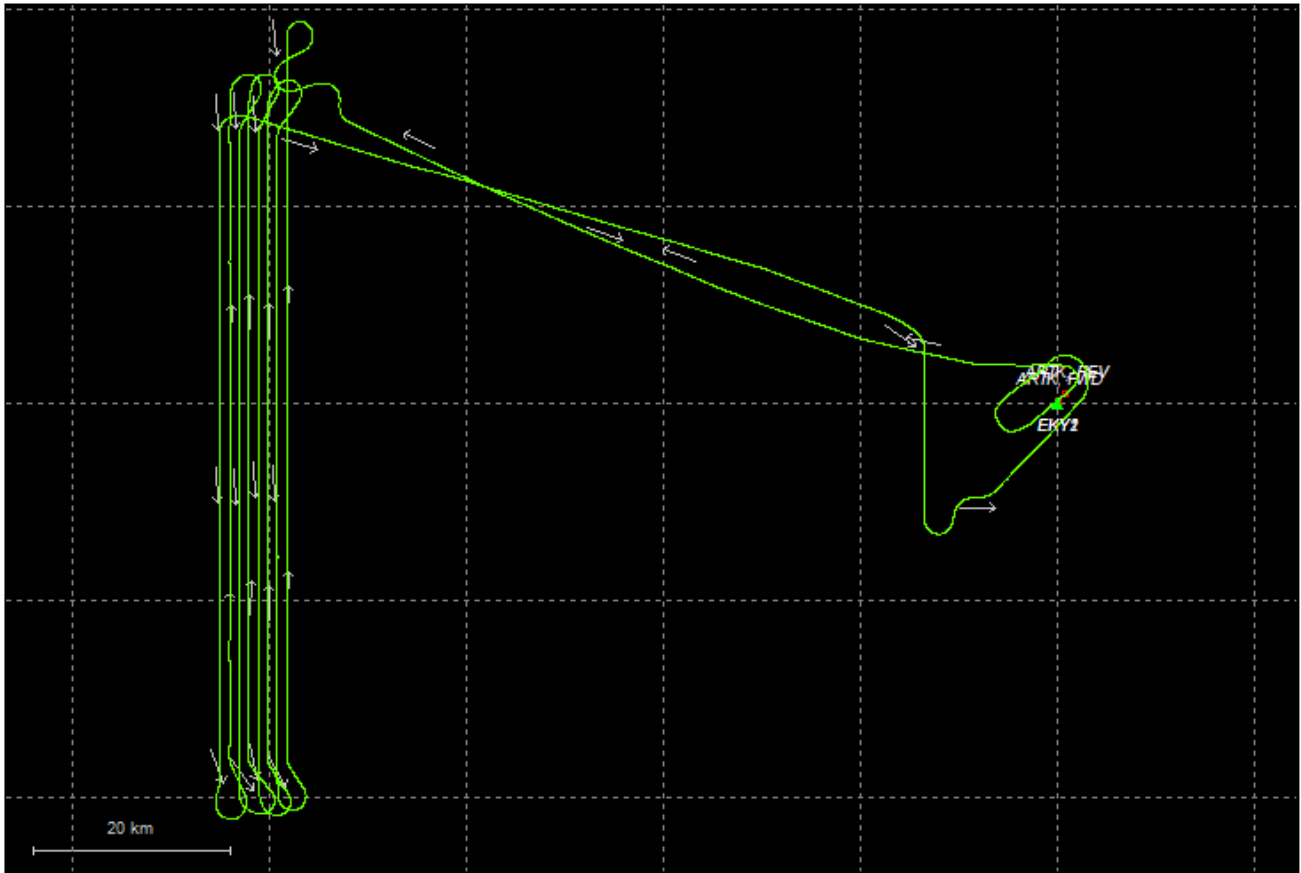
GPS Time (TOW, GMT zone)
 - Body-X - Body-Y - Body-Z

Process	20230206145243_13	by Unknown	on 2/8/2023	at 14:19:38
---------	-------------------	------------	-------------	-------------

Output Results for 20230206202717_14

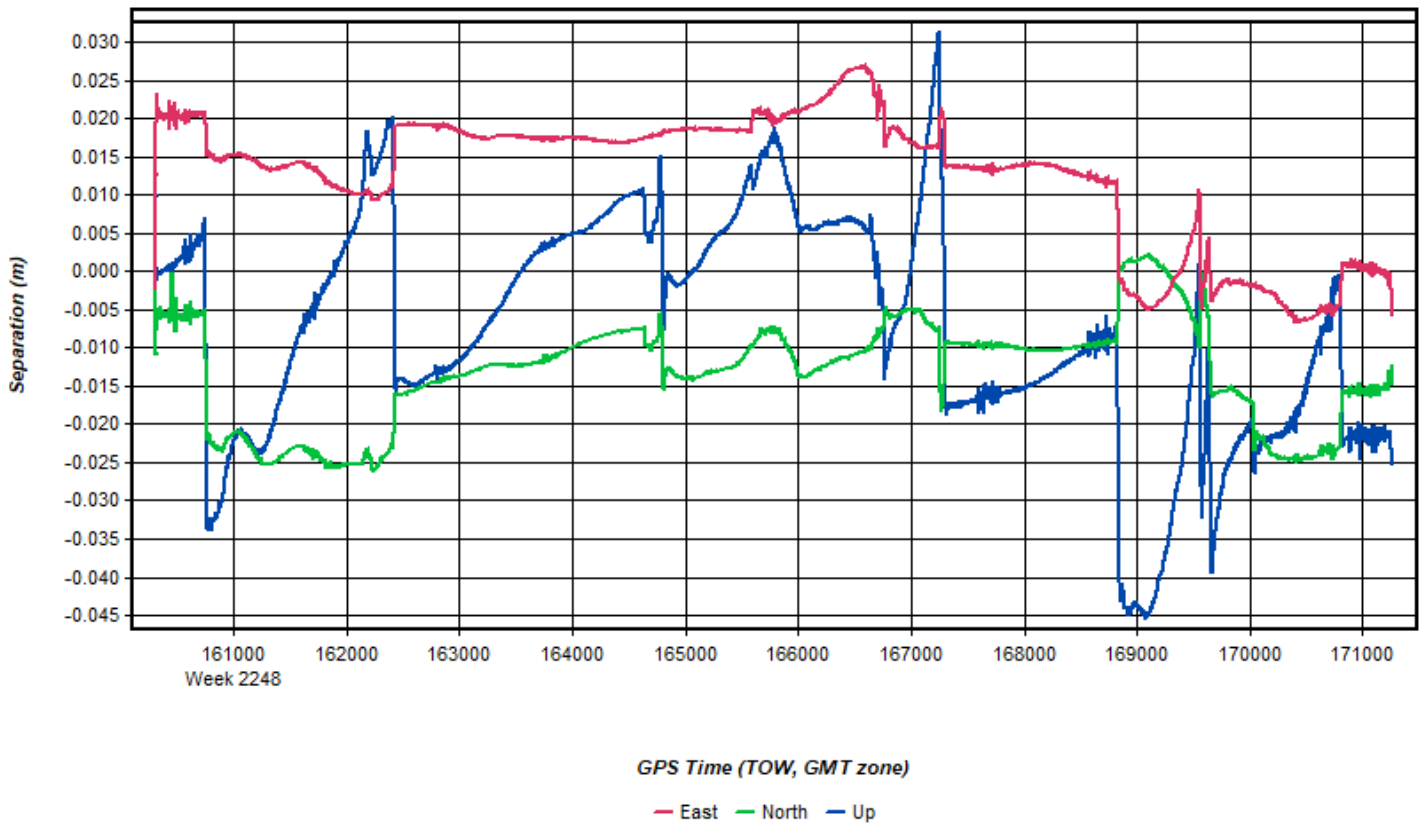
Inertial Explorer Version 8.90.6611
02/09/2023

Figure 1: Smoothed TC Combined - Map



Process	20230206202717_14	by Unknown	on 2/9/2023	at 14:07:51
---------	-------------------	------------	-------------	-------------

Figure 2: 20230206202717_14 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230206202717_14	by Unknown	on 2/9/2023	at 14:07:51
---------	-------------------	------------	-------------	-------------

Figure 3: 20230206202717_14 [Smoothed TC Combined] - Float or Fixed Ambiguity

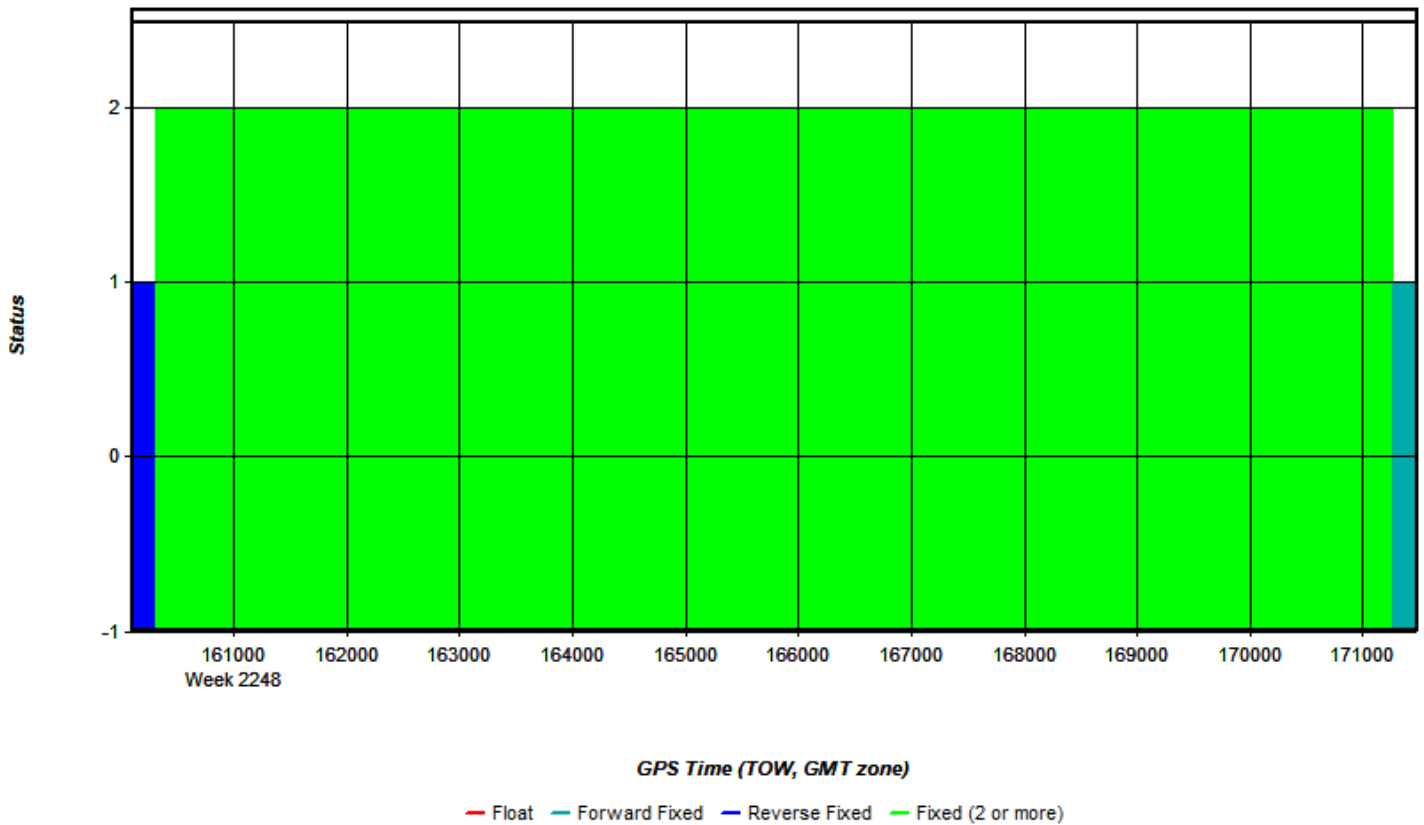


Figure 4: 20230206202717_14 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

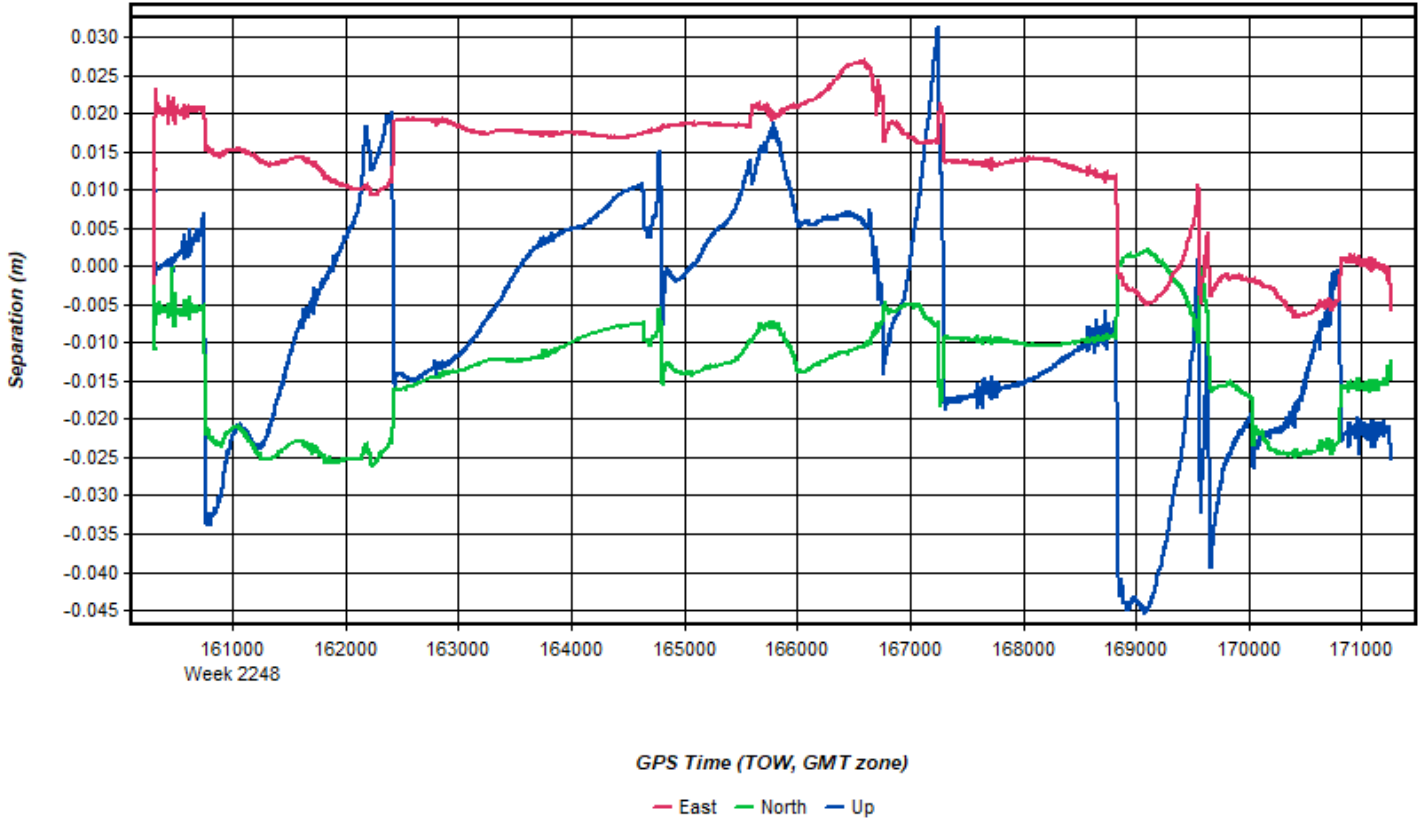
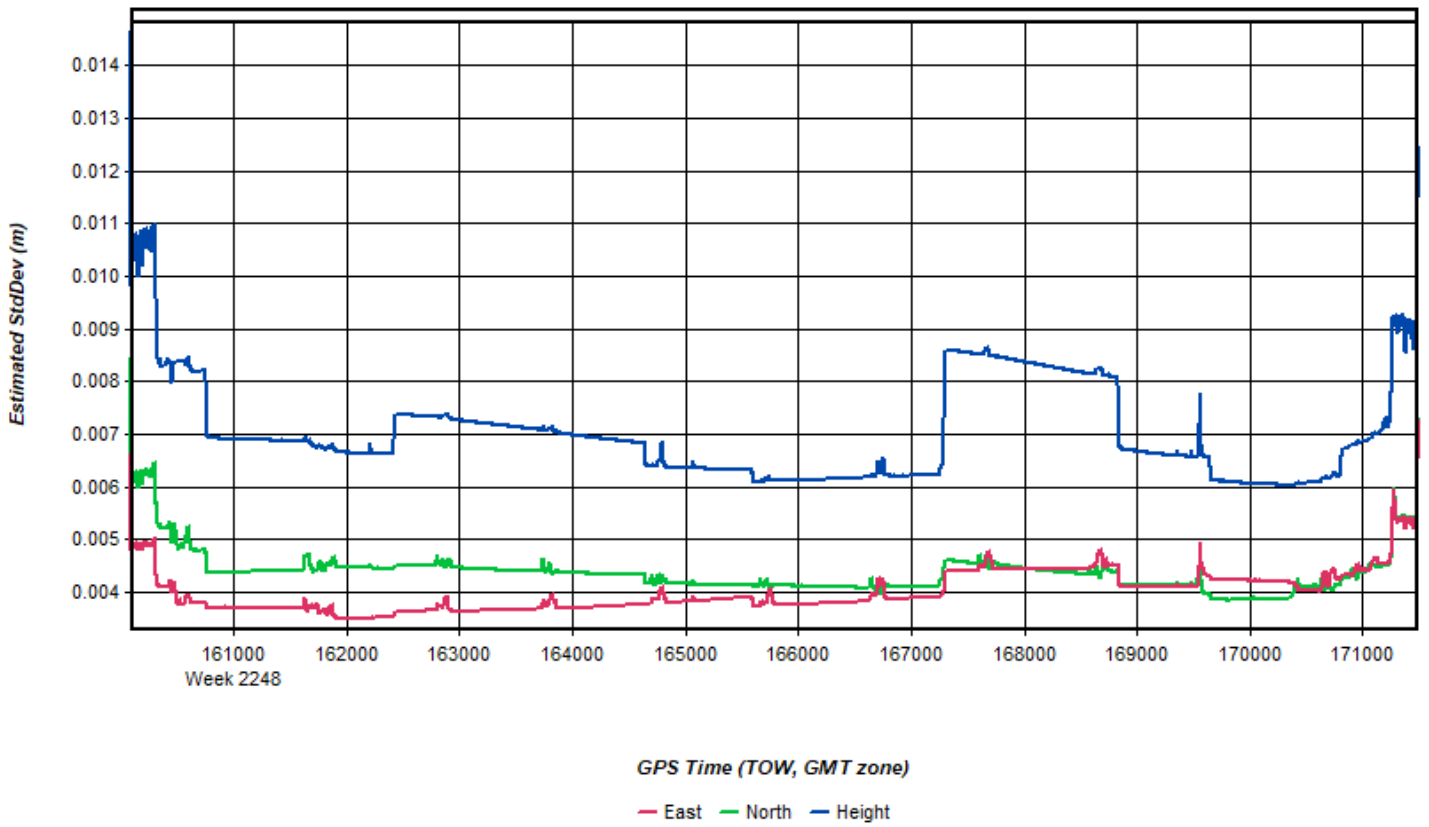


Figure 5: 20230206202717_14 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230206202717_14	by Unknown	on 2/9/2023	at 14:07:51
---------	-------------------	------------	-------------	-------------

Figure 6: 20230206202717_14 [Smoothed TC Combined] - PDOP Plot

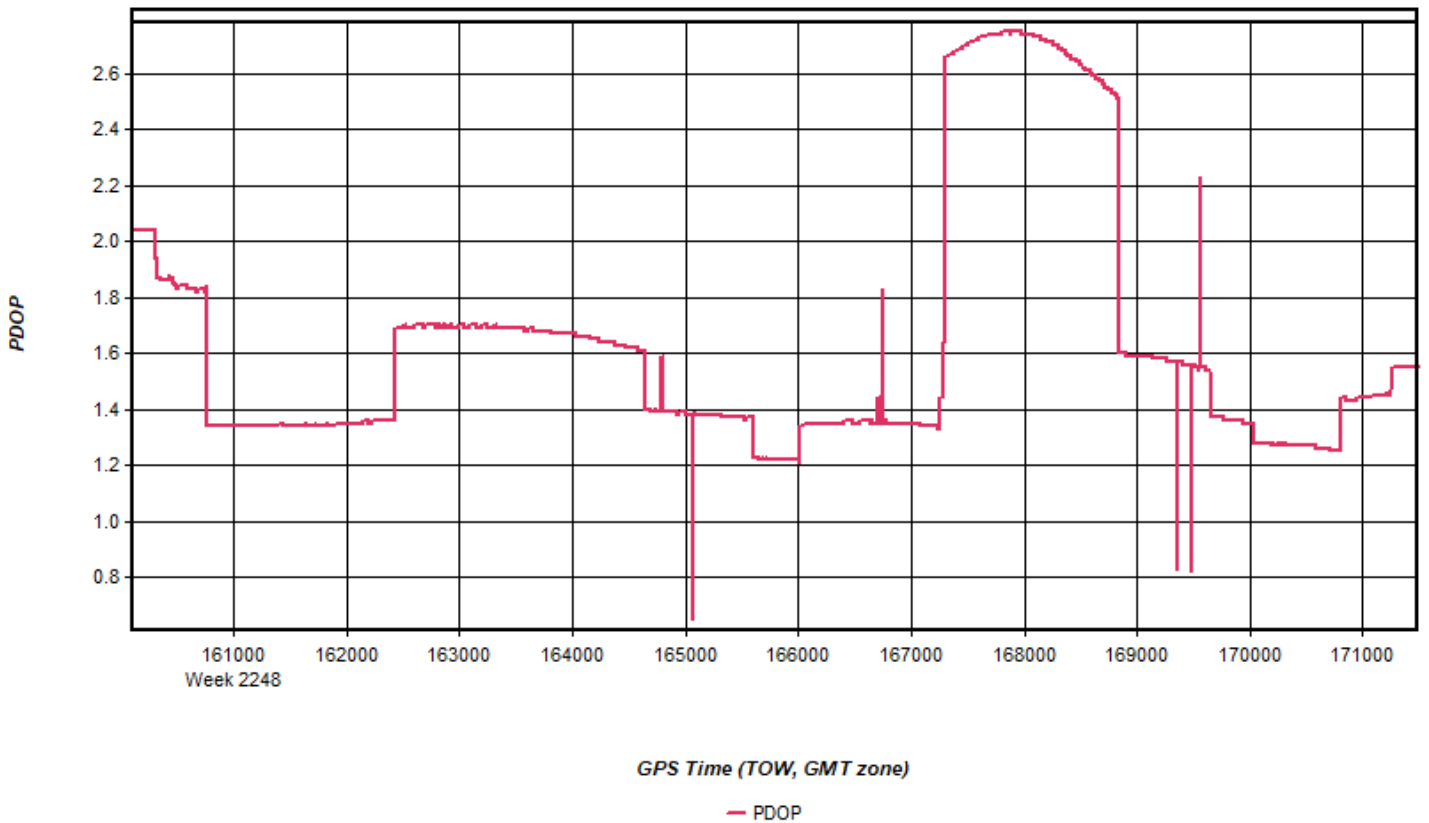


Figure 7: 20230206202717_14 [Smoothed TC Combined] - Number of Satellites Line Plot

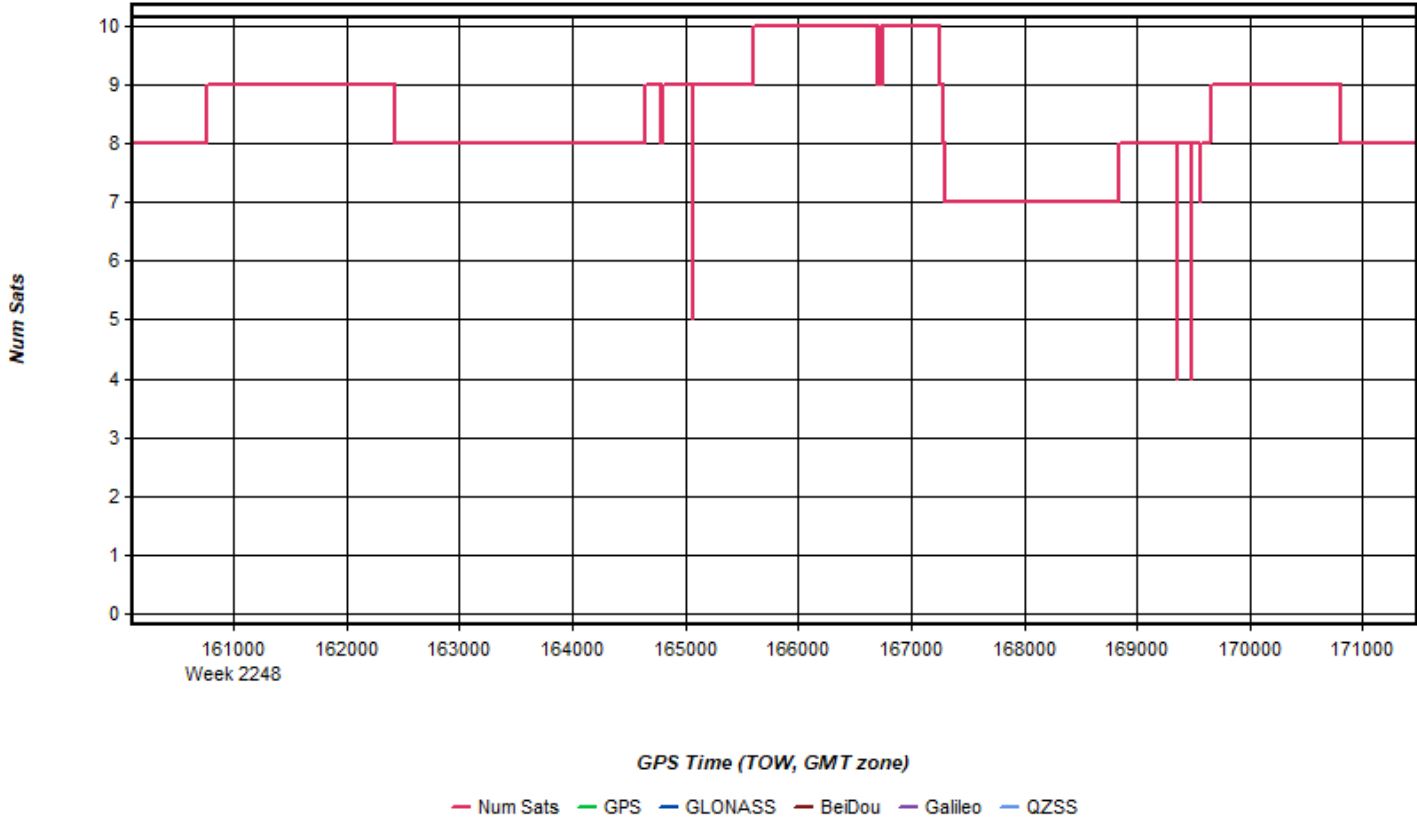


Figure 8: 20230206202717_14 [Smoothed TC Combined] - Status flag for IMU processing

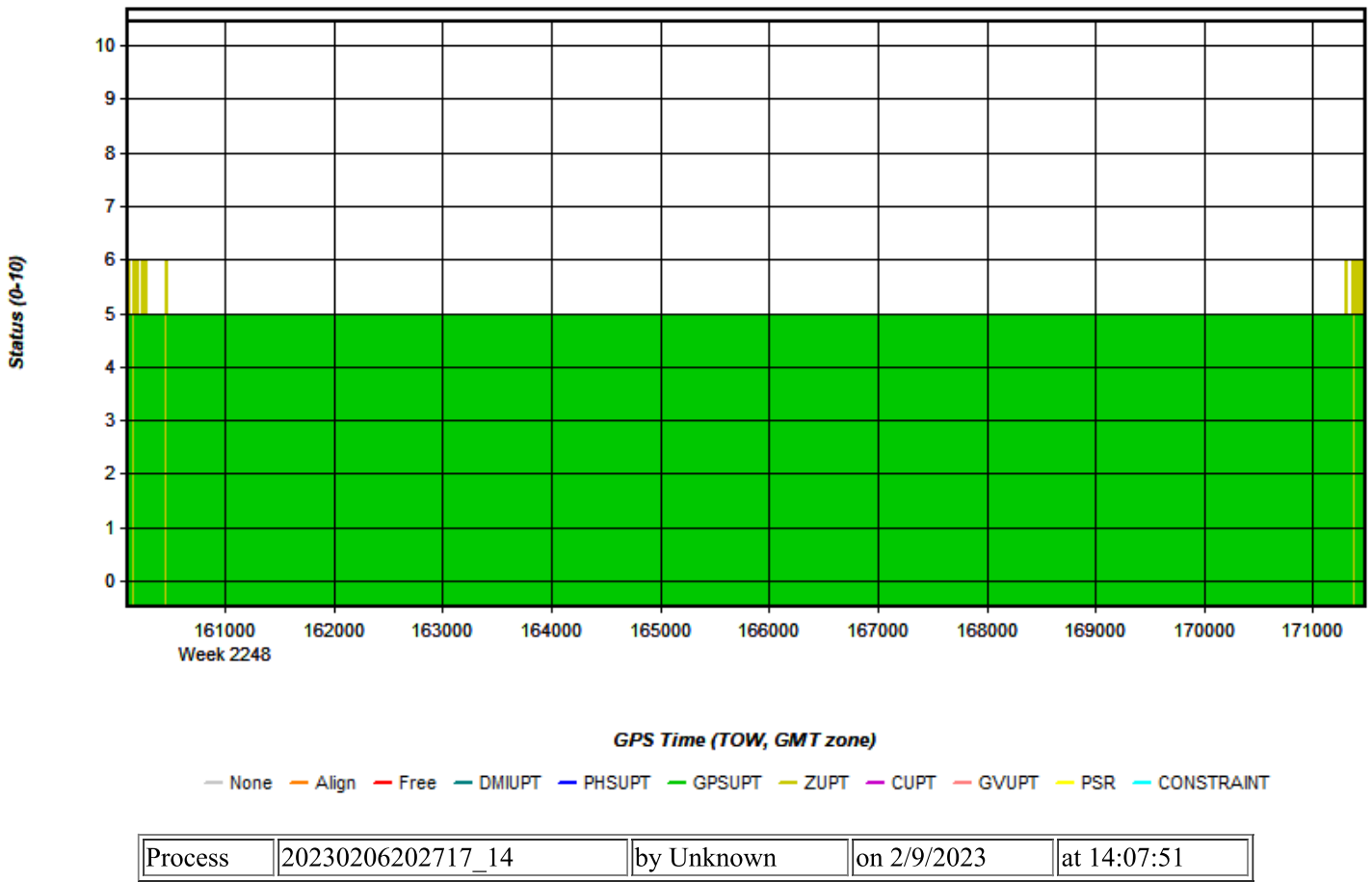


Figure 9: 20230206202717_14 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

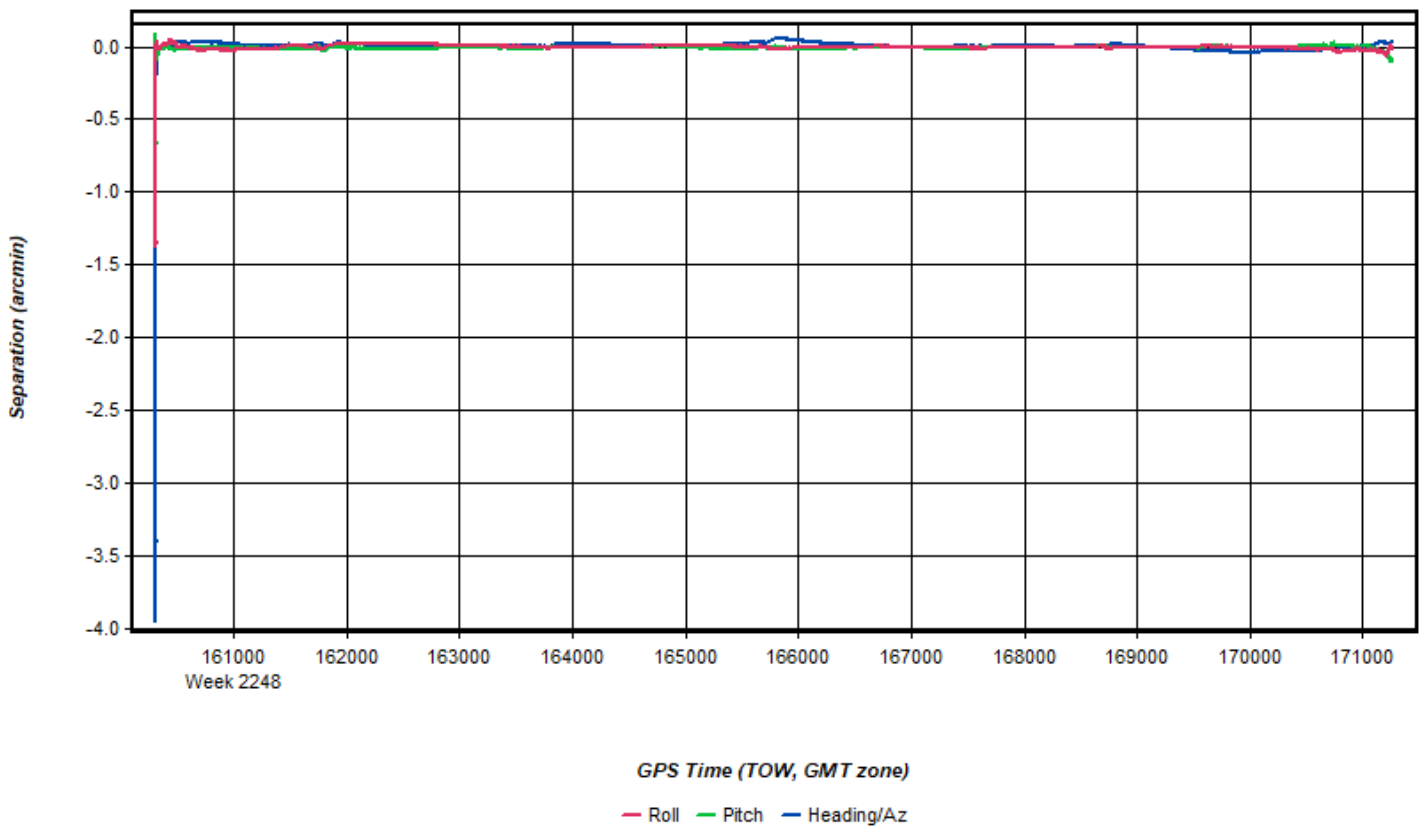


Figure 10: 20230206202717_14 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

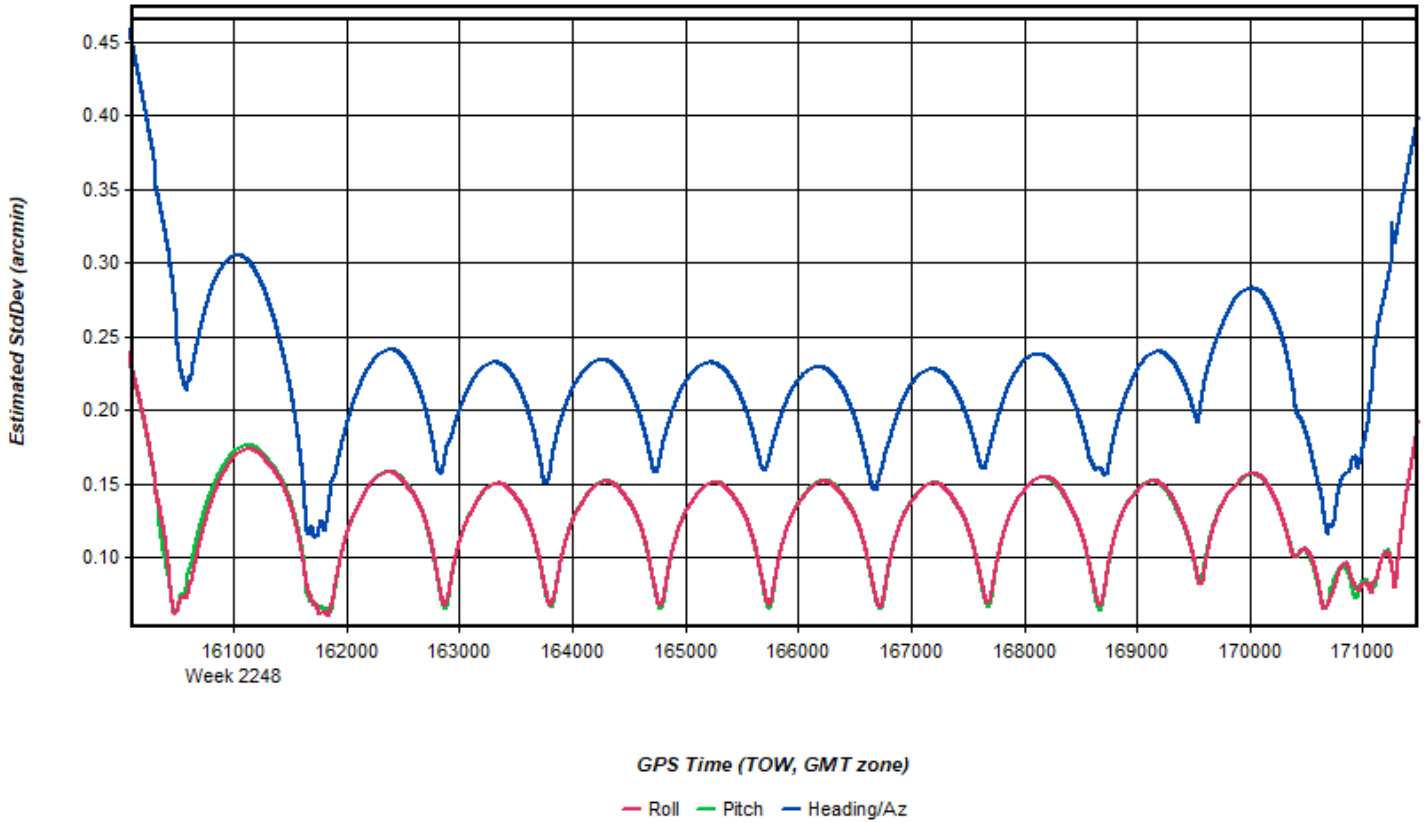
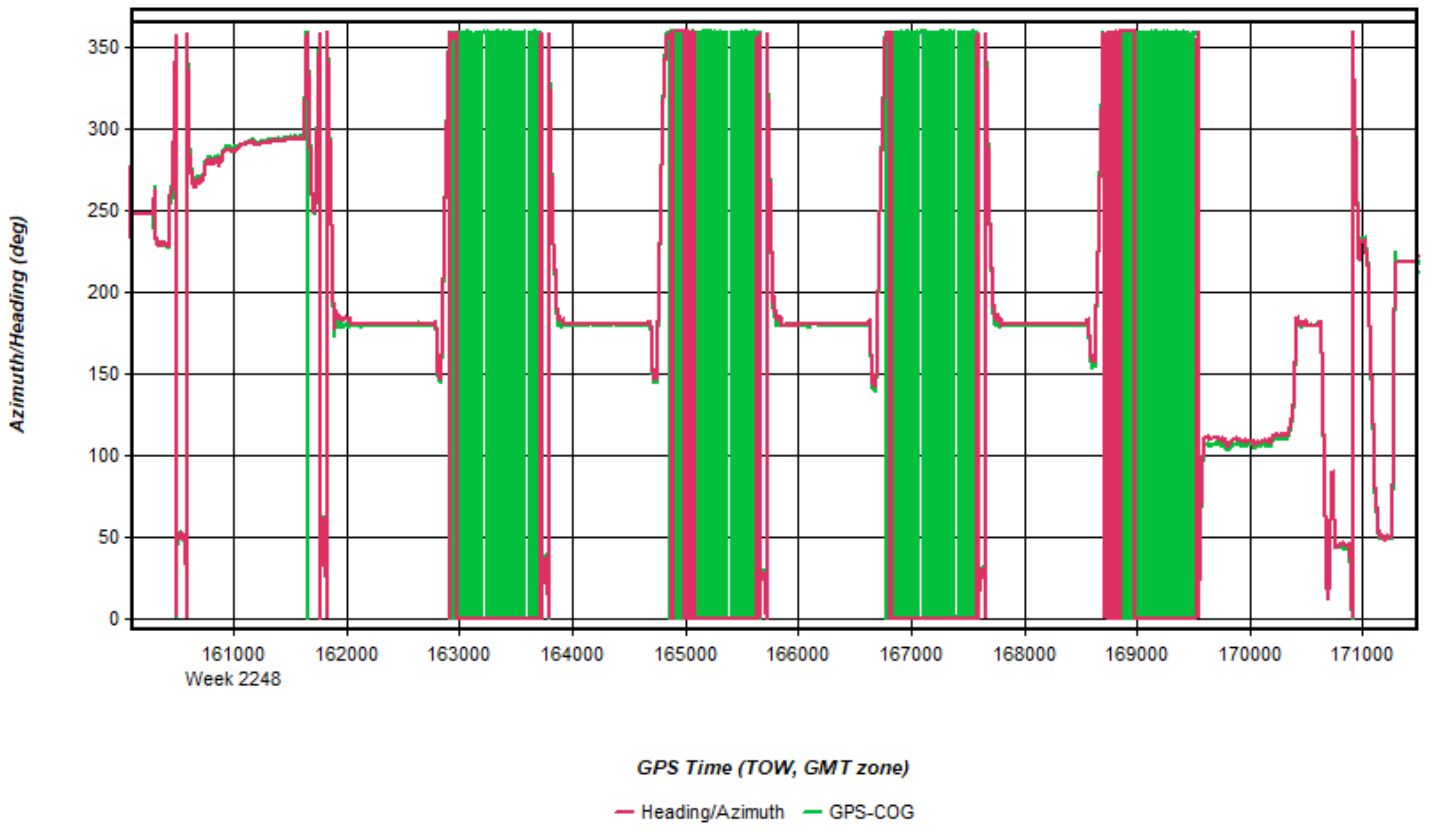


Figure 11: 20230206202717_14 [Smoothed TC Combined] - Azimuth Plot



Process	20230206202717_14	by Unknown	on 2/9/2023	at 14:07:51
---------	-------------------	------------	-------------	-------------

Figure 12: 20230206202717_14 [Smoothed TC Combined] - Roll & Pitch Plot

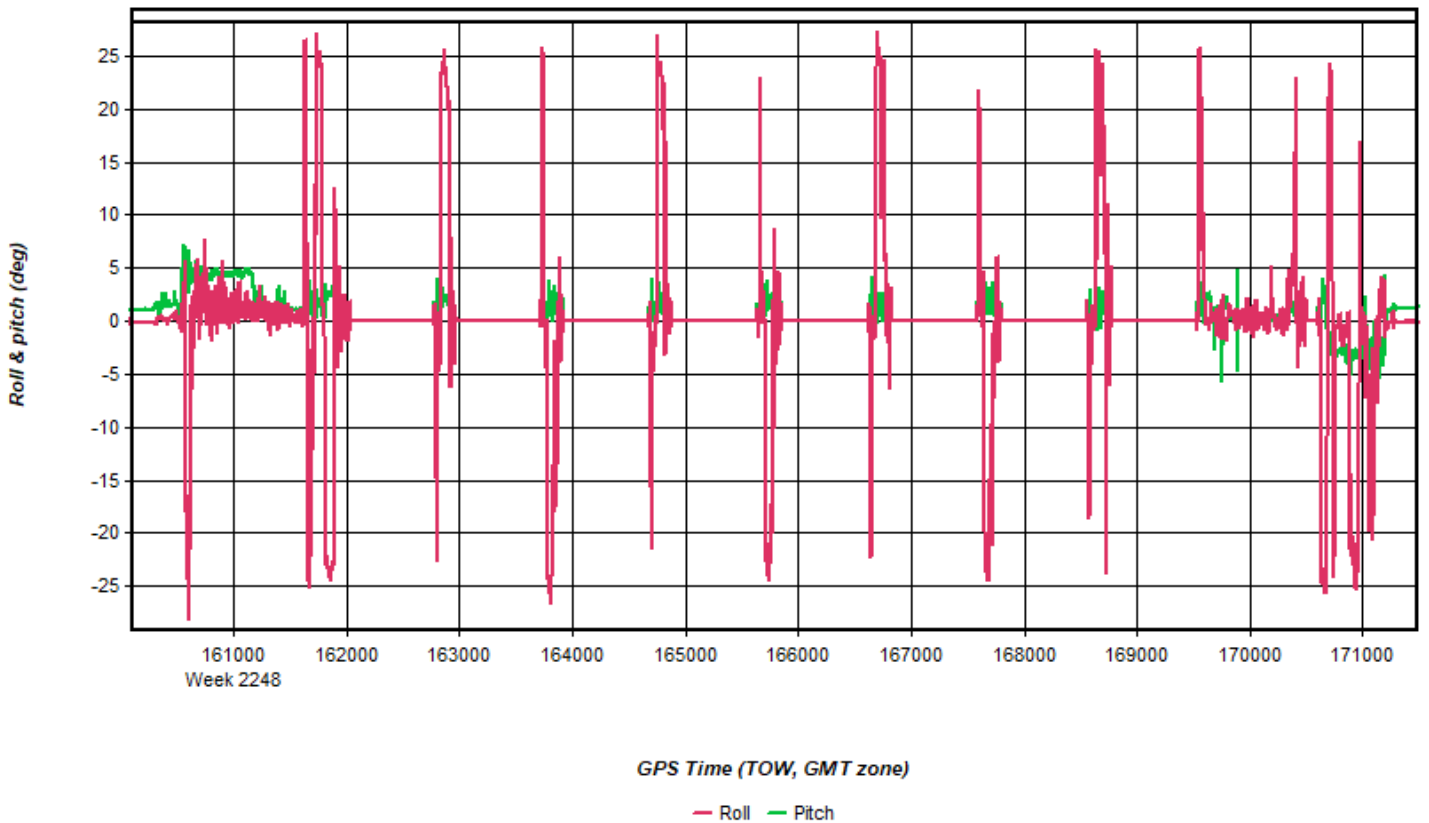


Figure 13: 20230206202717_14 [Smoothed TC Combined] - Velocity Profile Plot

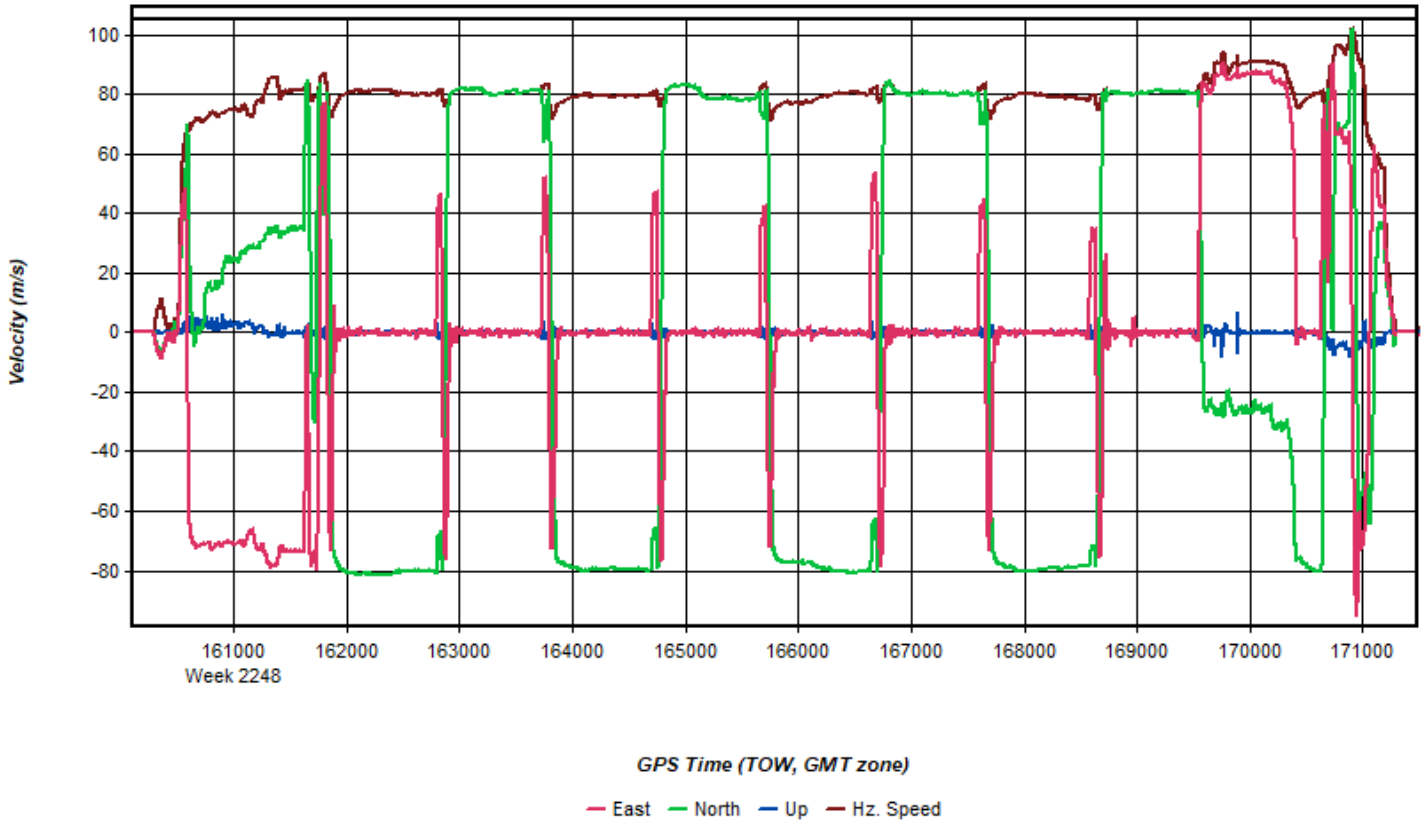
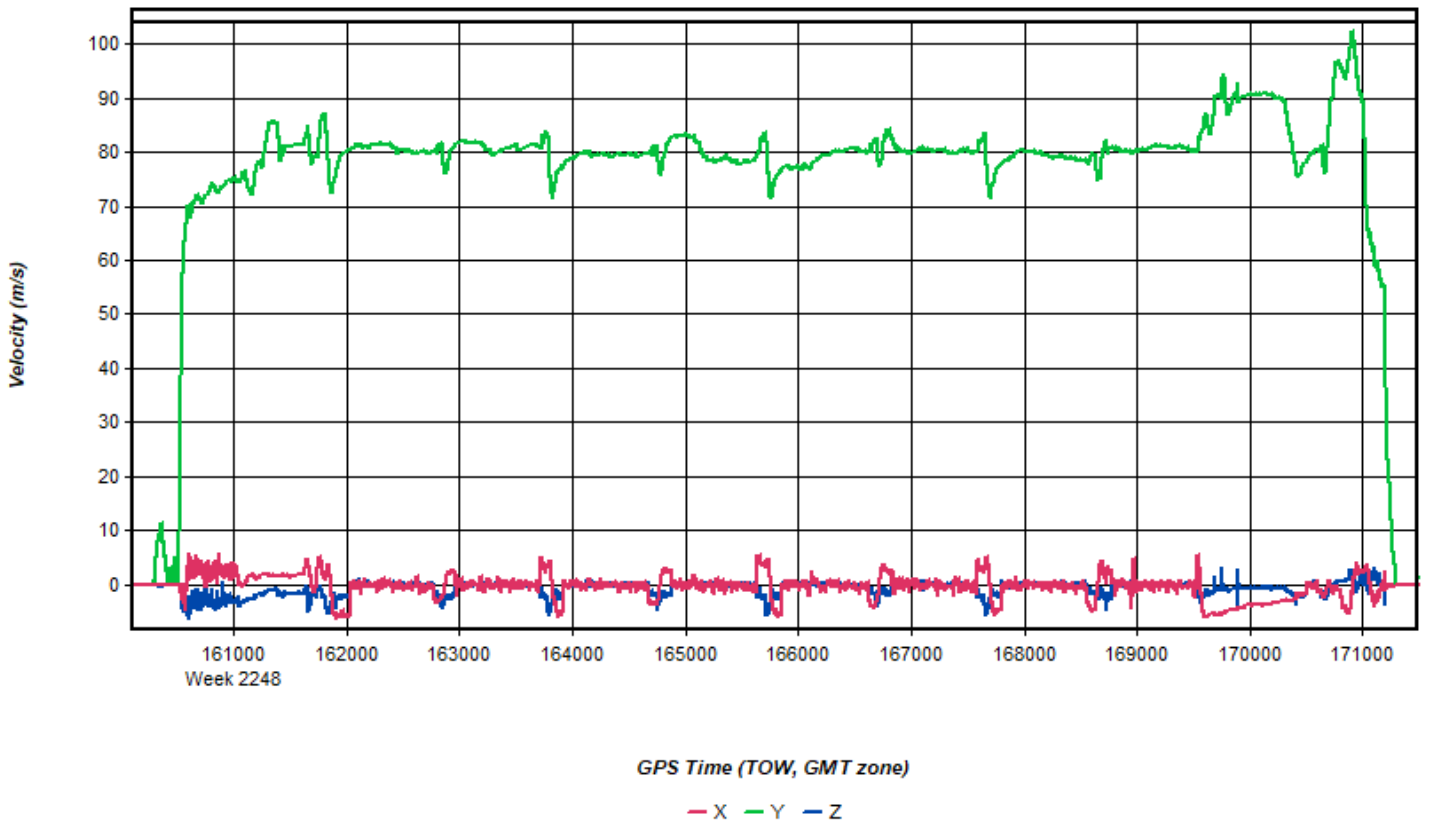


Figure 14: 20230206202717_14 [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20230206202717_14	by Unknown	on 2/9/2023	at 14:07:51
---------	-------------------	------------	-------------	-------------

Figure 15: 20230206202717_14 [Smoothed TC Combined] - Height Profile Plot

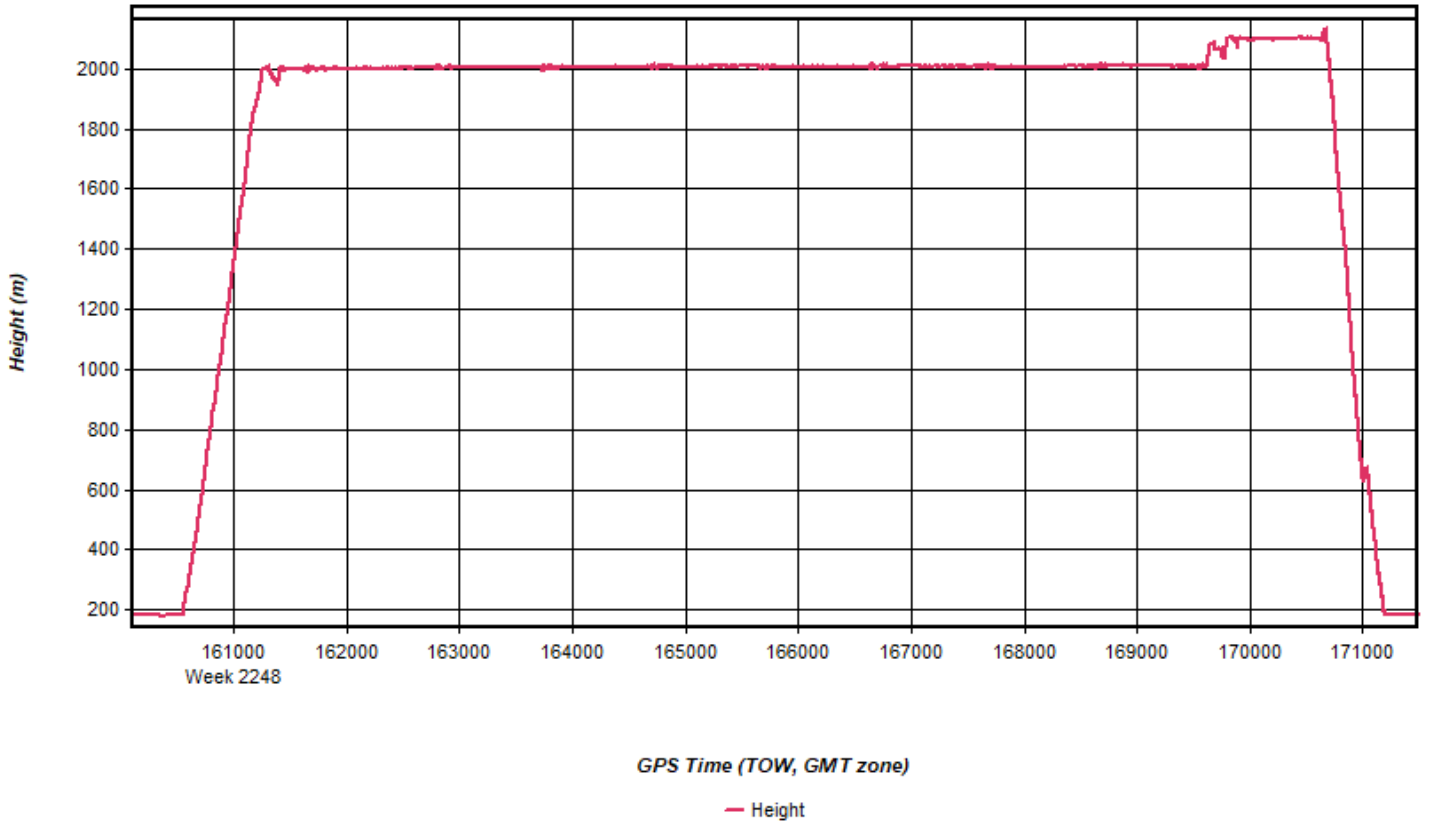


Figure 16: 20230206202717_14 [Smoothed TC Combined] - C/A Code Residual RMS Plot

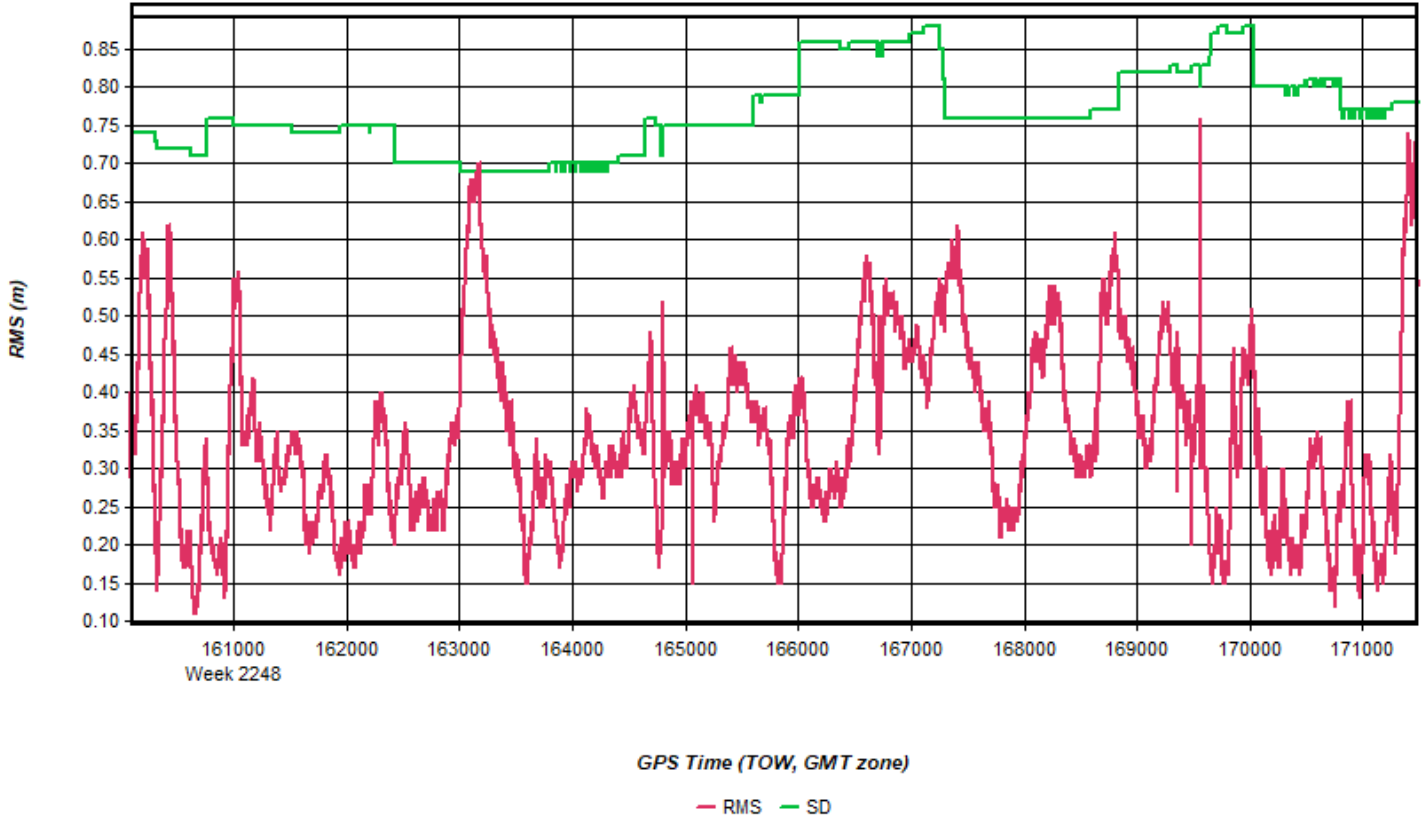
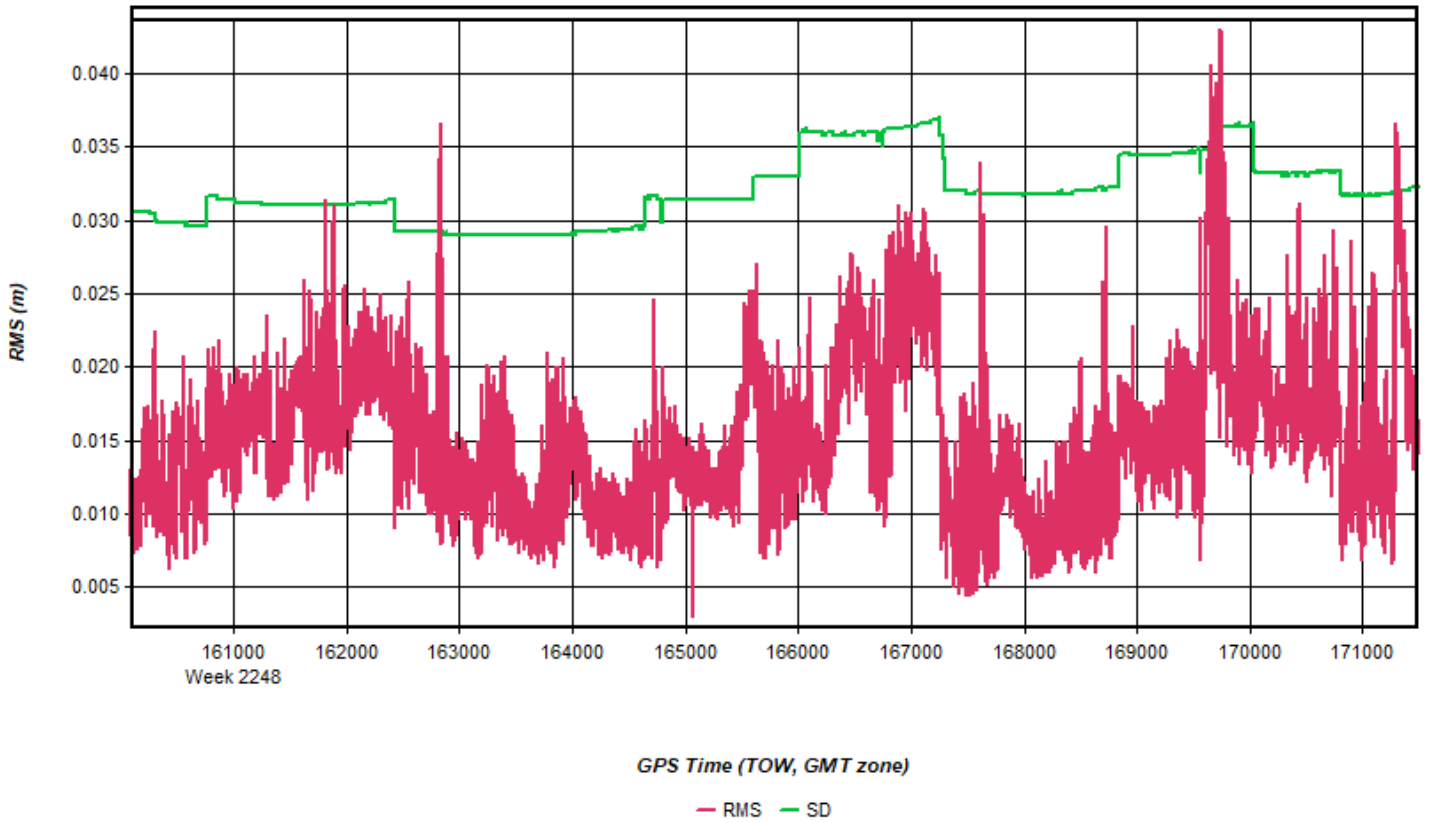


Figure 17: 20230206202717_14 [Smoothed TC Combined] - Carrier Residual RMS Plot



Process	20230206202717_14	by Unknown	on 2/9/2023	at 14:07:51
---------	-------------------	------------	-------------	-------------

Figure 18: 20230206202717_14 [Smoothed TC Combined] - Doppler Residual RMS Plot

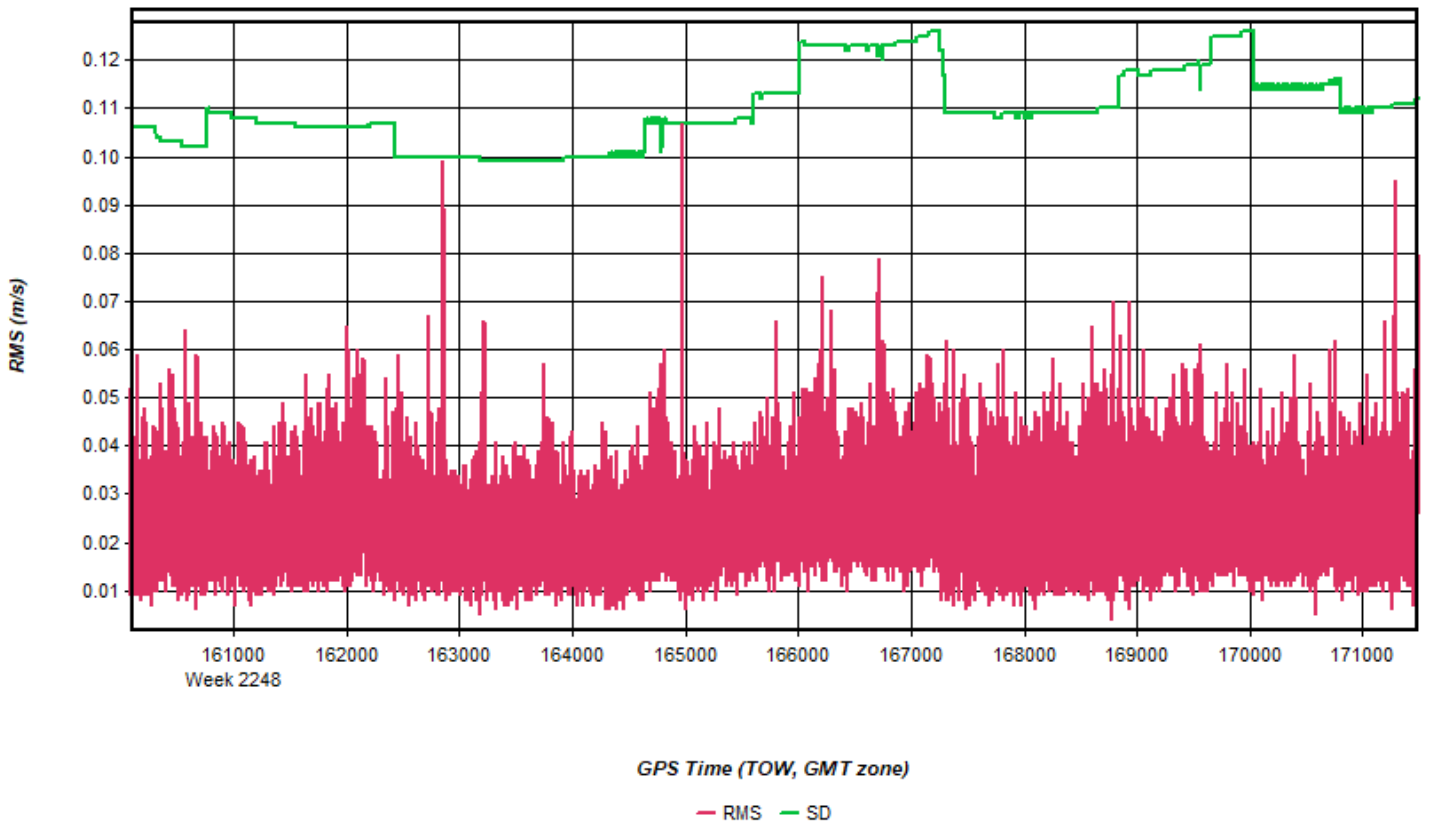


Figure 19: 20230206202717_14 [Smoothed TC Combined] - Accelerometer Bias Plot

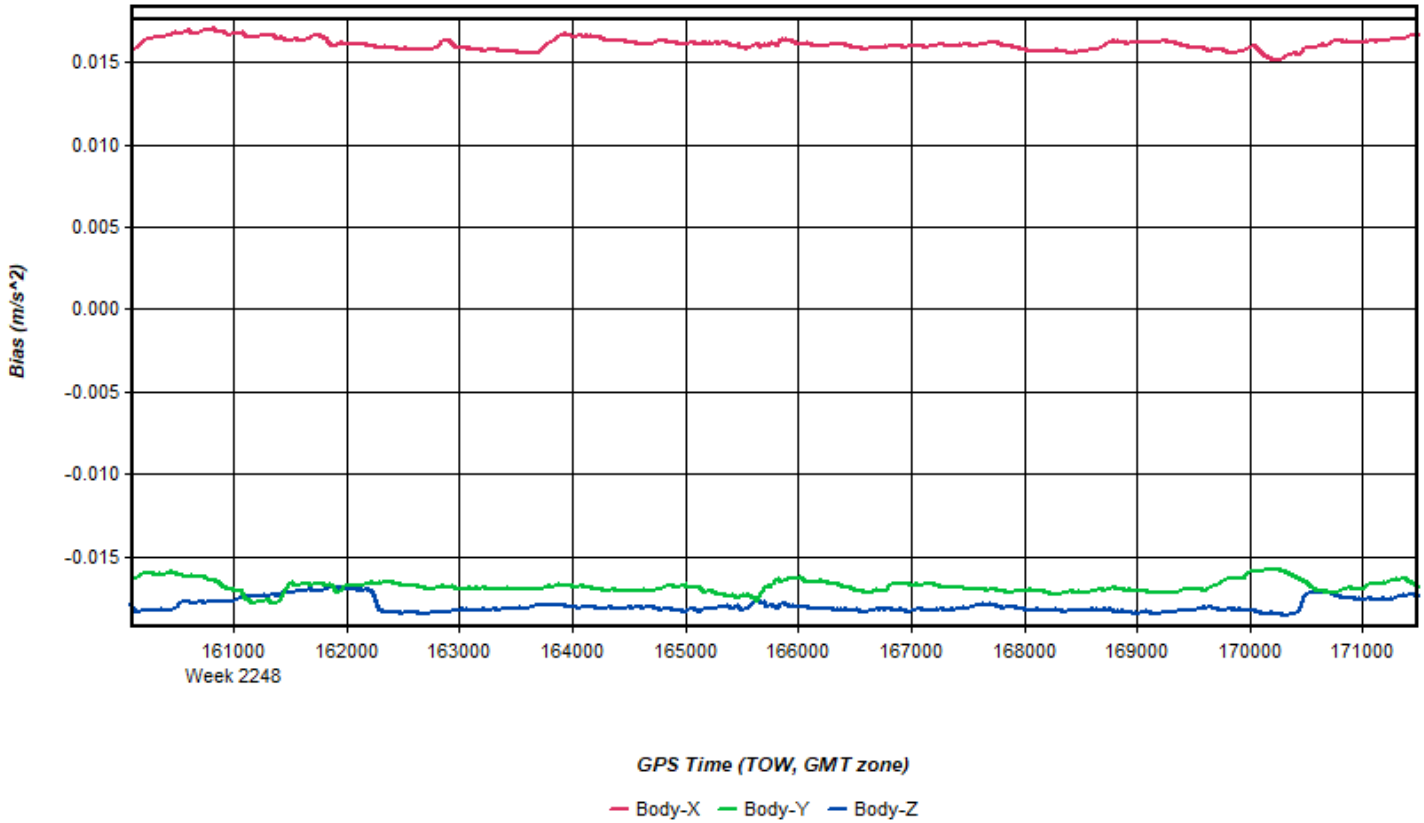
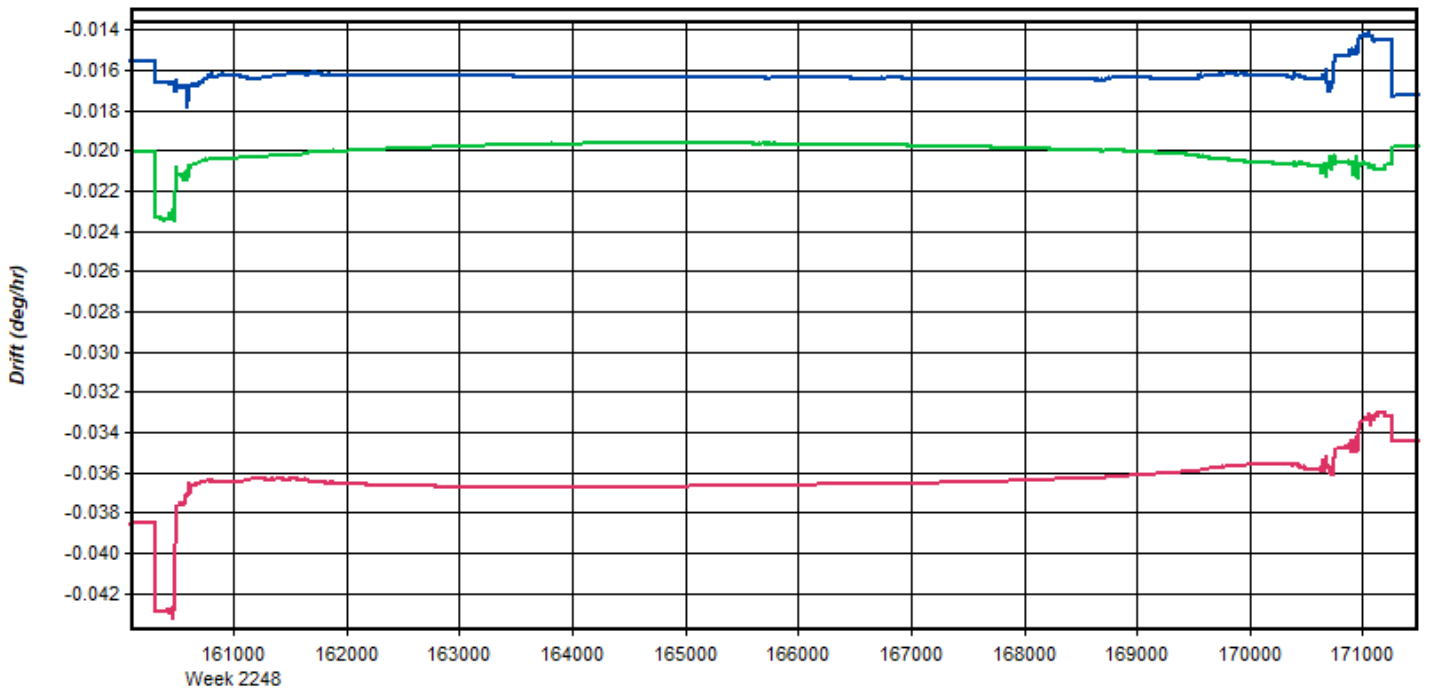


Figure 20: 20230206202717_14 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

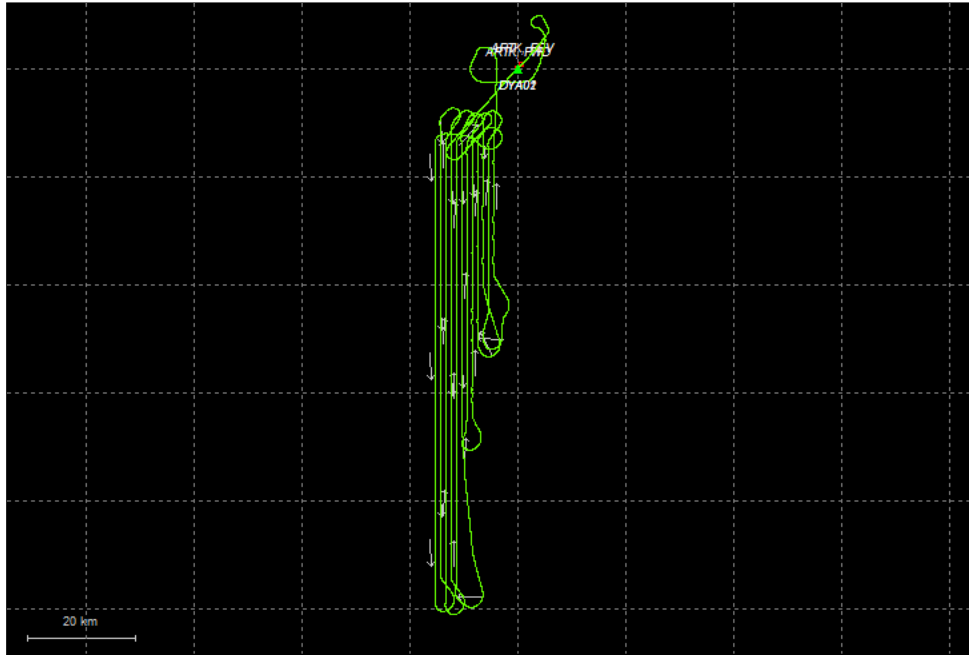
— Body-X — Body-Y — Body-Z

Process	20230206202717_14	by Unknown	on 2/9/2023	at 14:07:51
---------	-------------------	------------	-------------	-------------

Output Results for 20230212213211_15

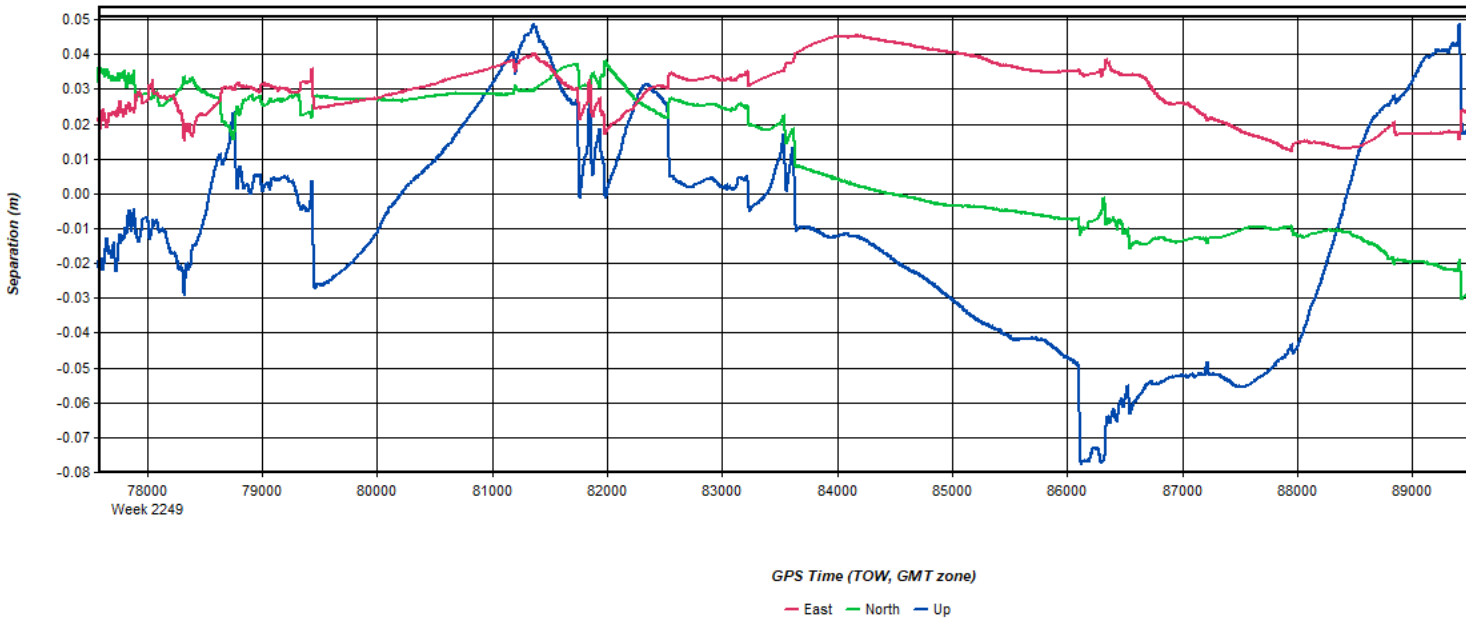
Inertial Explorer Version 8.90.6611
02/17/2023

Figure 1: Smoothed TC Combined - Map



Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 2: 20230212213211_15 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 3: 20230212213211_15 [Smoothed TC Combined] - Float or Fixed Ambiguity

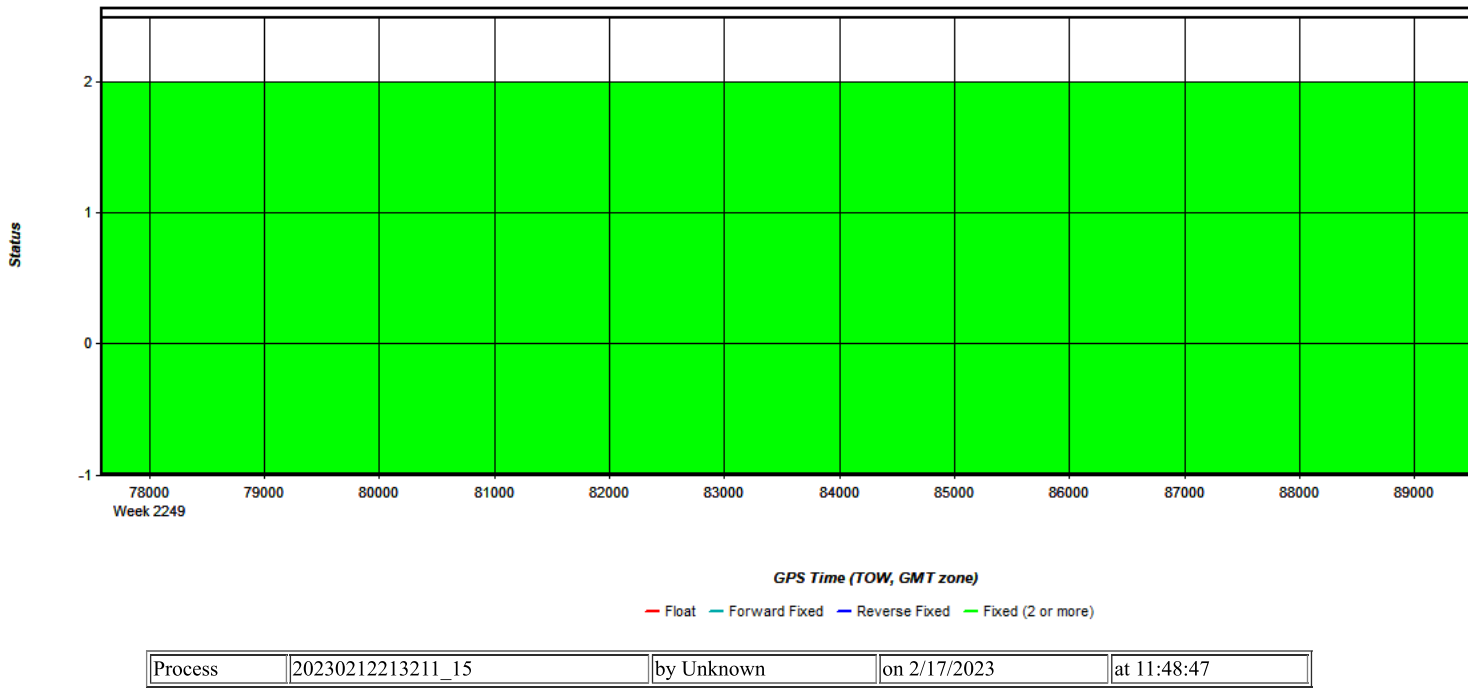


Figure 4: 20230212213211_15 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

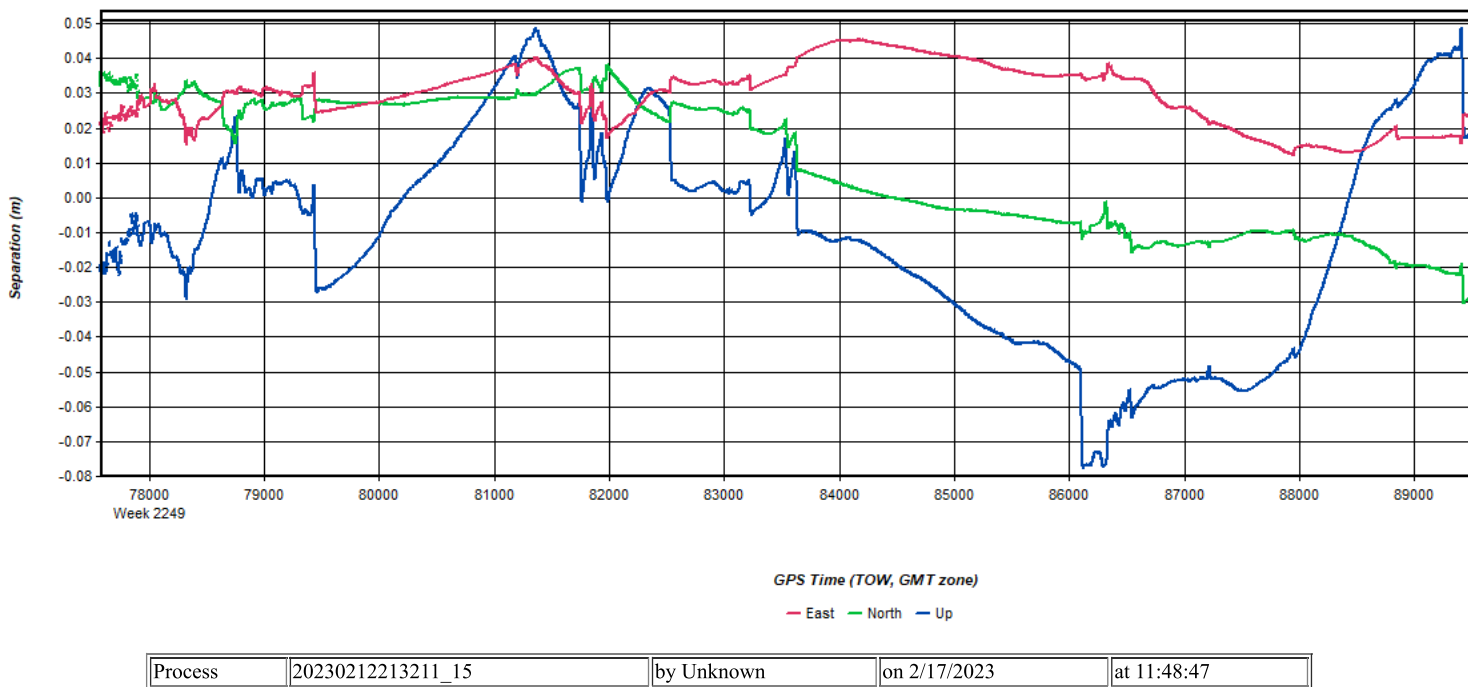
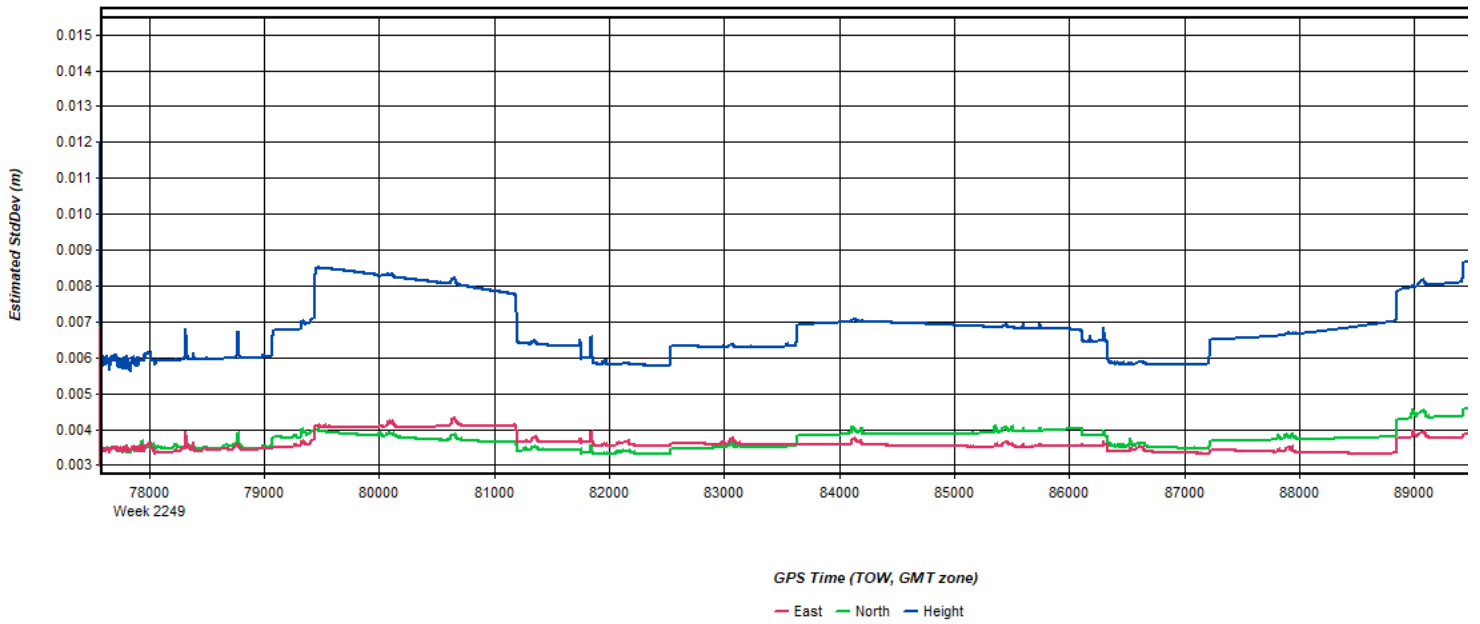


Figure 5: 20230212213211_15 [Smoothed TC Combined] - Estimated Position Accuracy Plot



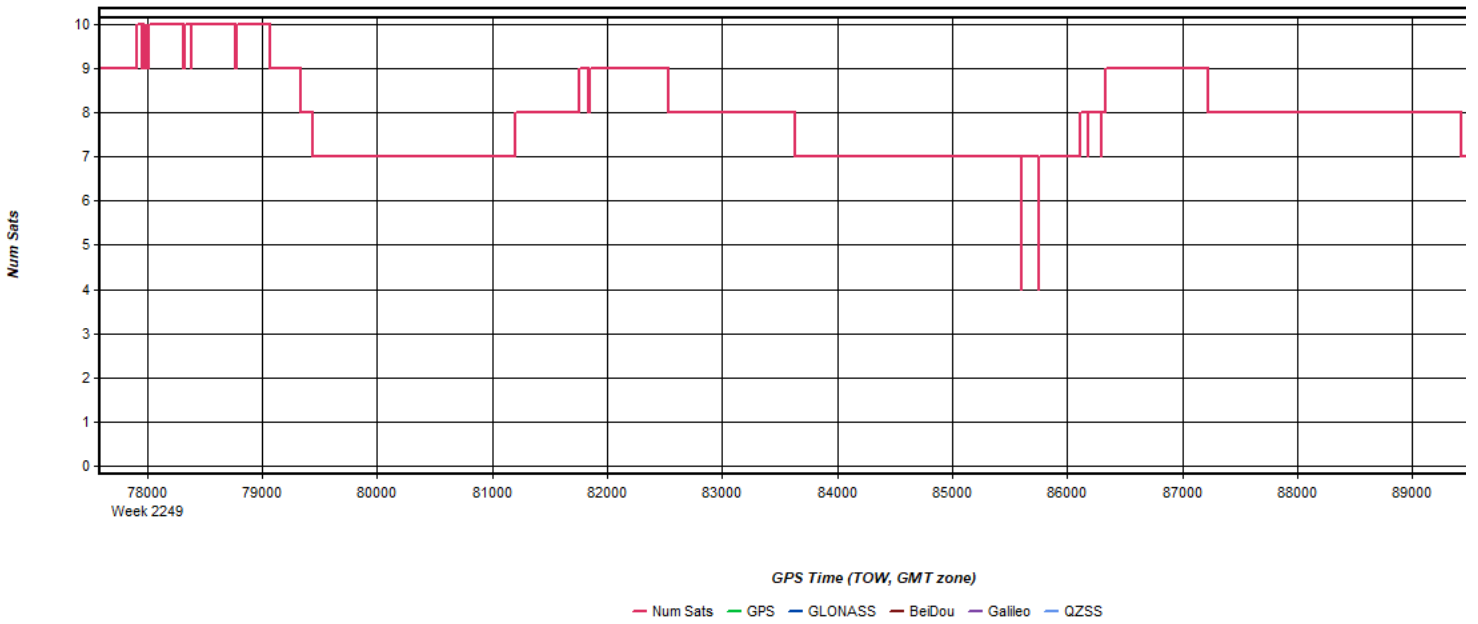
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 6: 20230212213211_15 [Smoothed TC Combined] - PDOP Plot



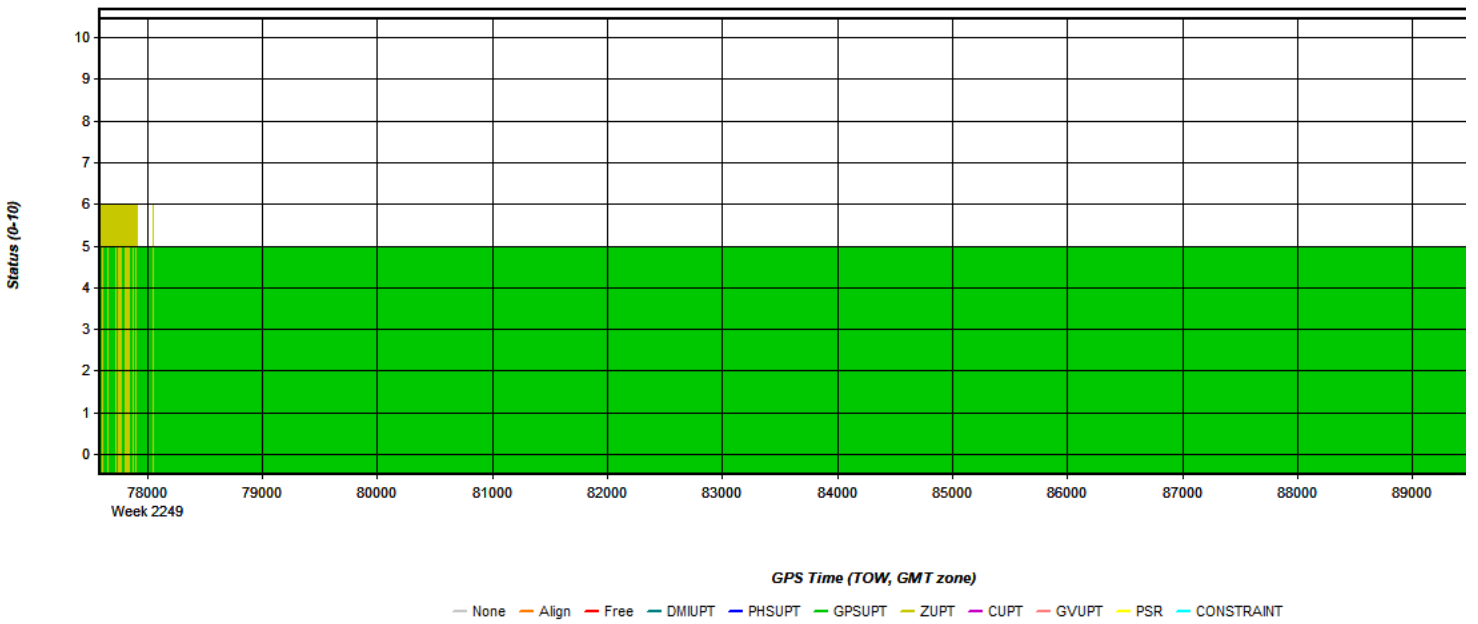
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 7: 20230212213211_15 [Smoothed TC Combined] - Number of Satellites Line Plot



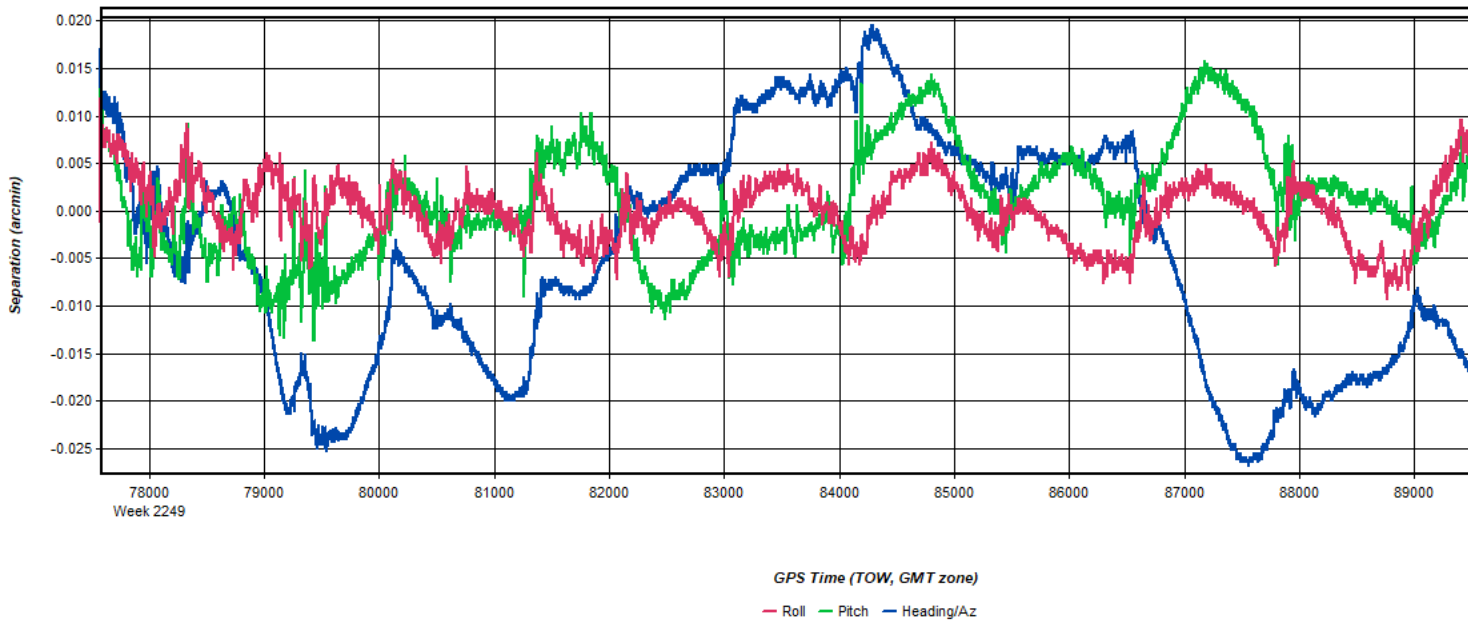
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 8: 20230212213211_15 [Smoothed TC Combined] - Status flag for IMU processing



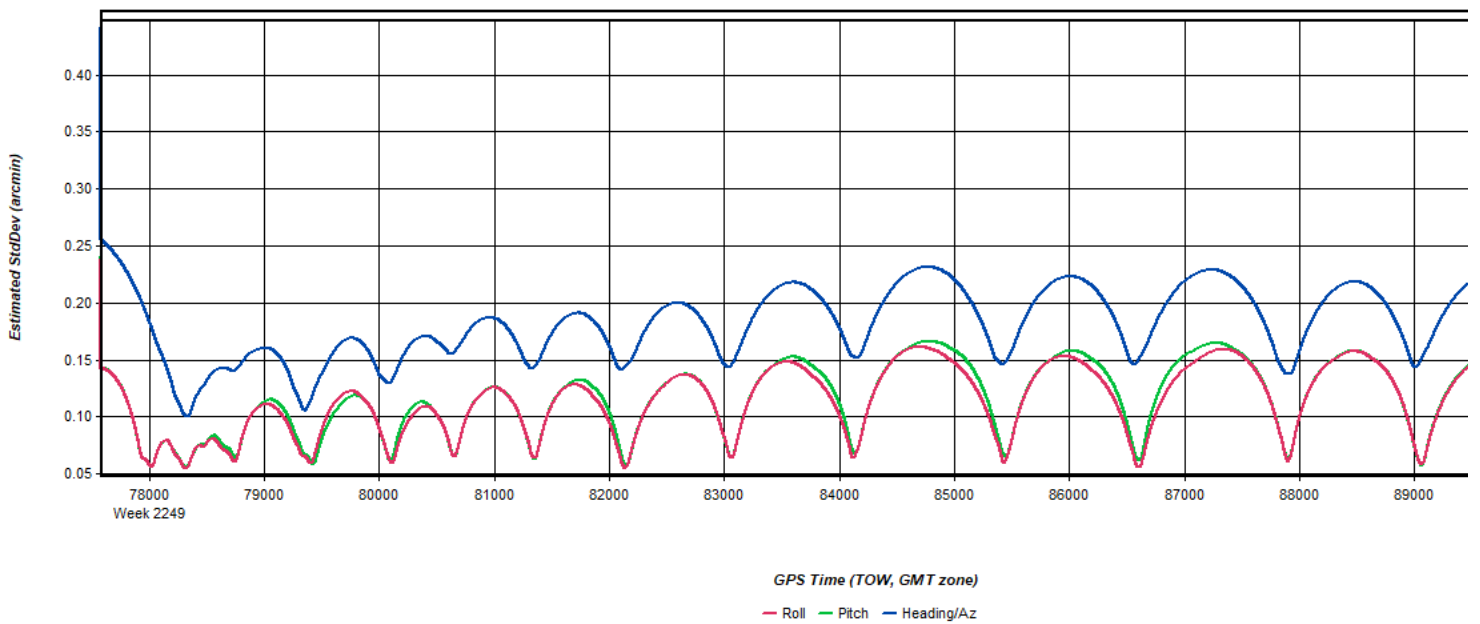
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 9: 20230212213211_15 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



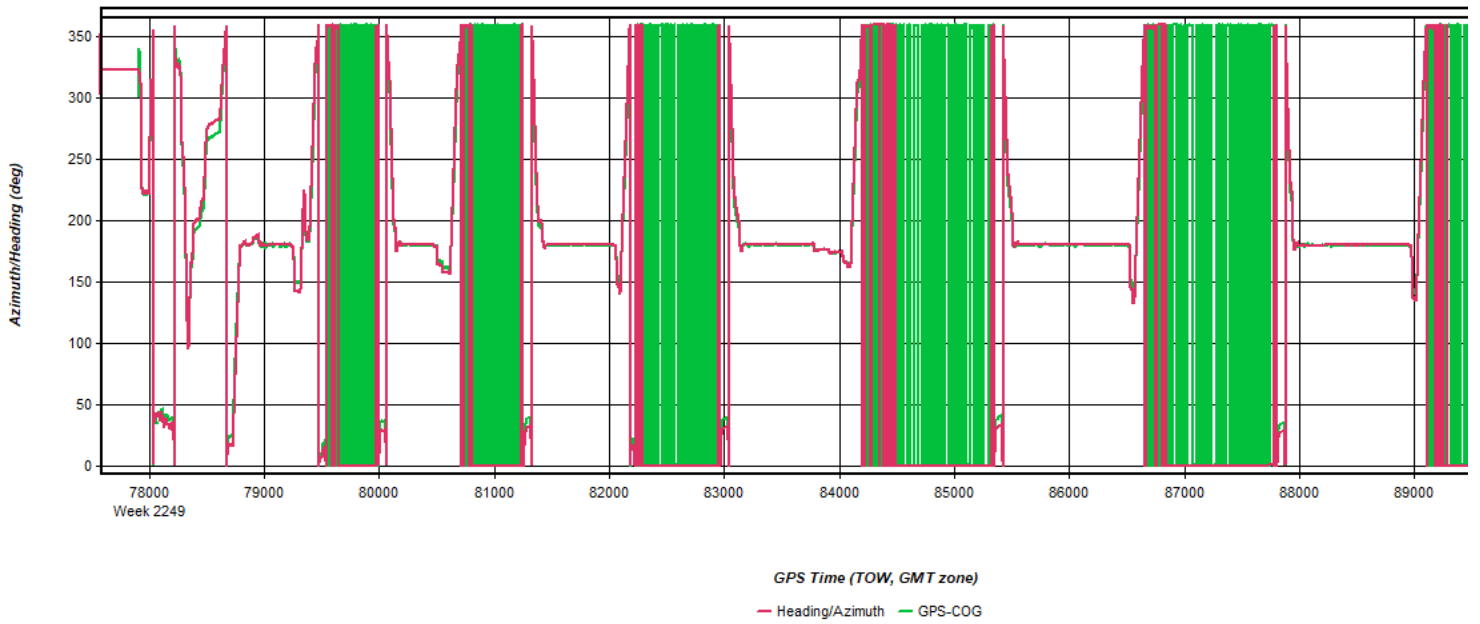
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 10: 20230212213211_15 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



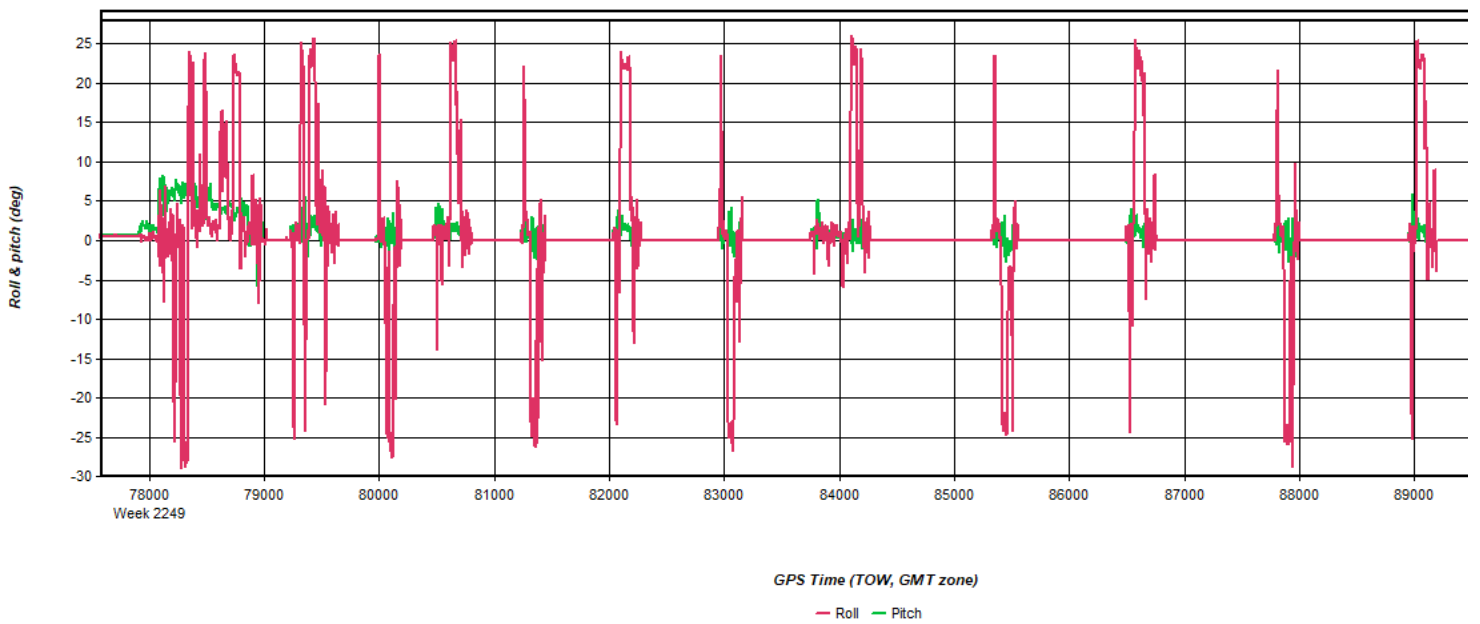
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 11: 20230212213211_15 [Smoothed TC Combined] - Azimuth Plot



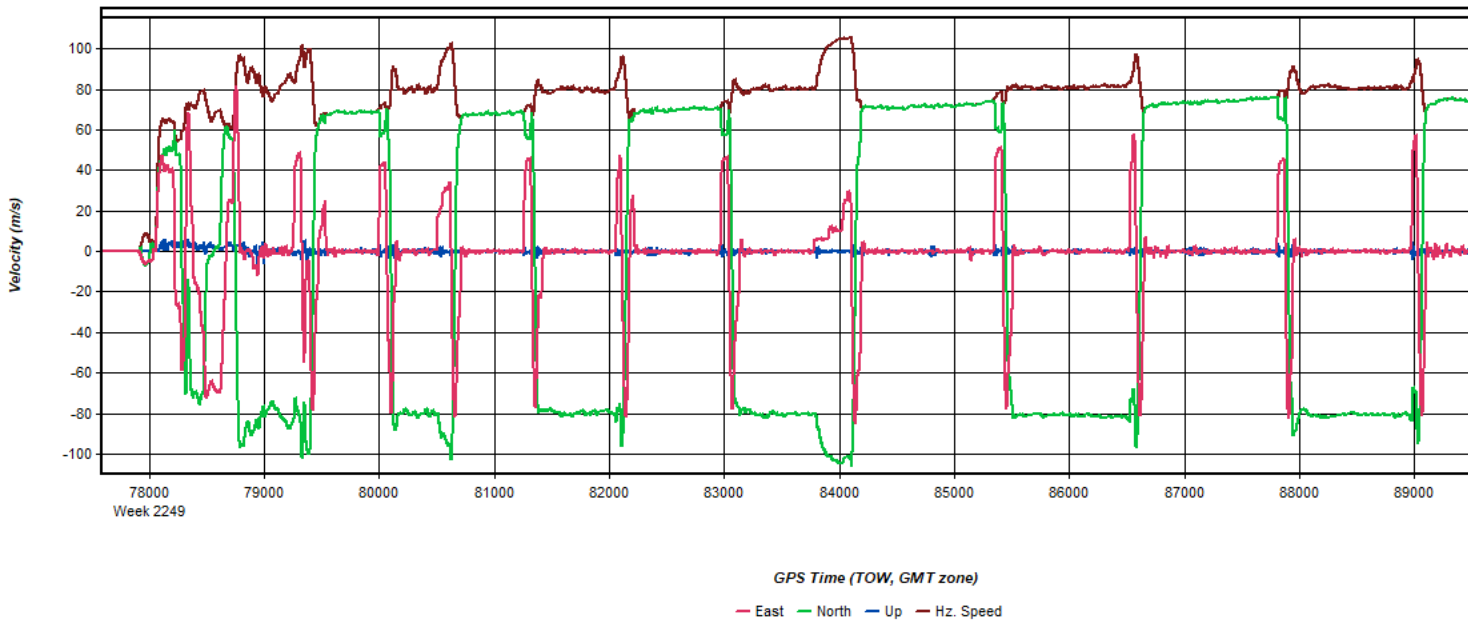
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 12: 20230212213211_15 [Smoothed TC Combined] - Roll & Pitch Plot



Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 13: 20230212213211_15 [Smoothed TC Combined] - Velocity Profile Plot



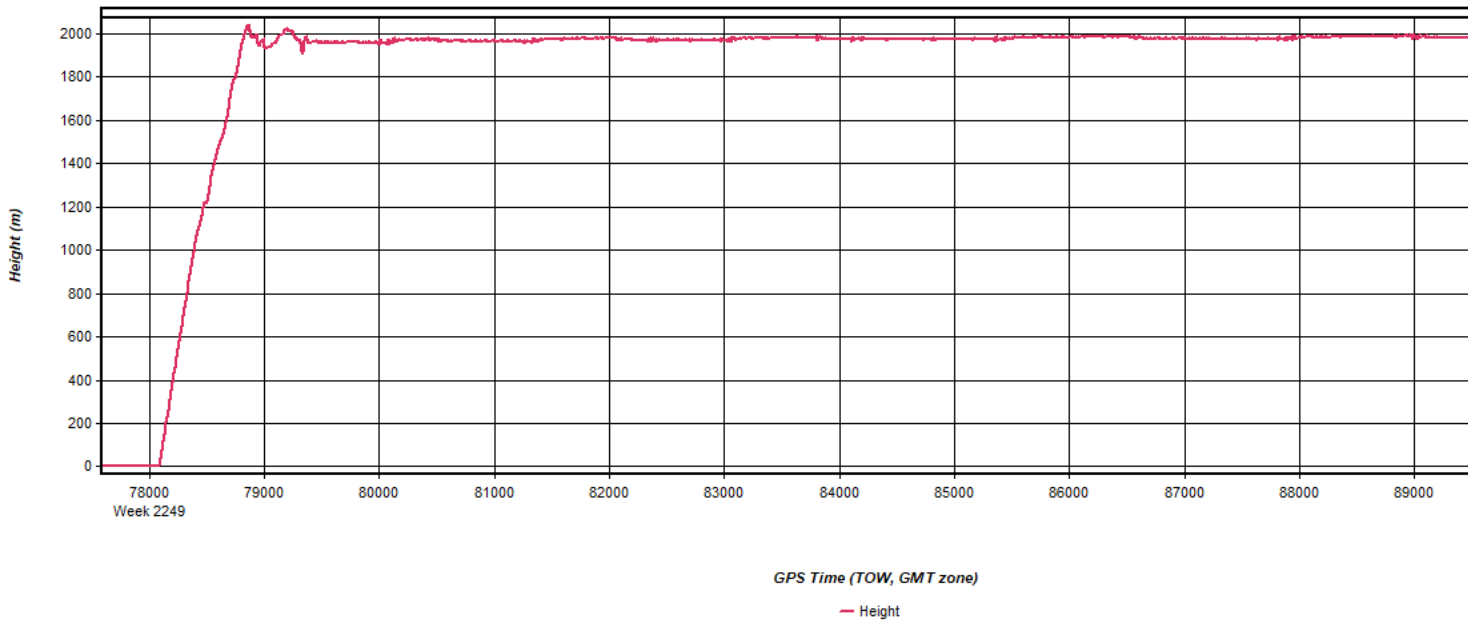
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 14: 20230212213211_15 [Smoothed TC Combined] - Body Frame Velocity Plot



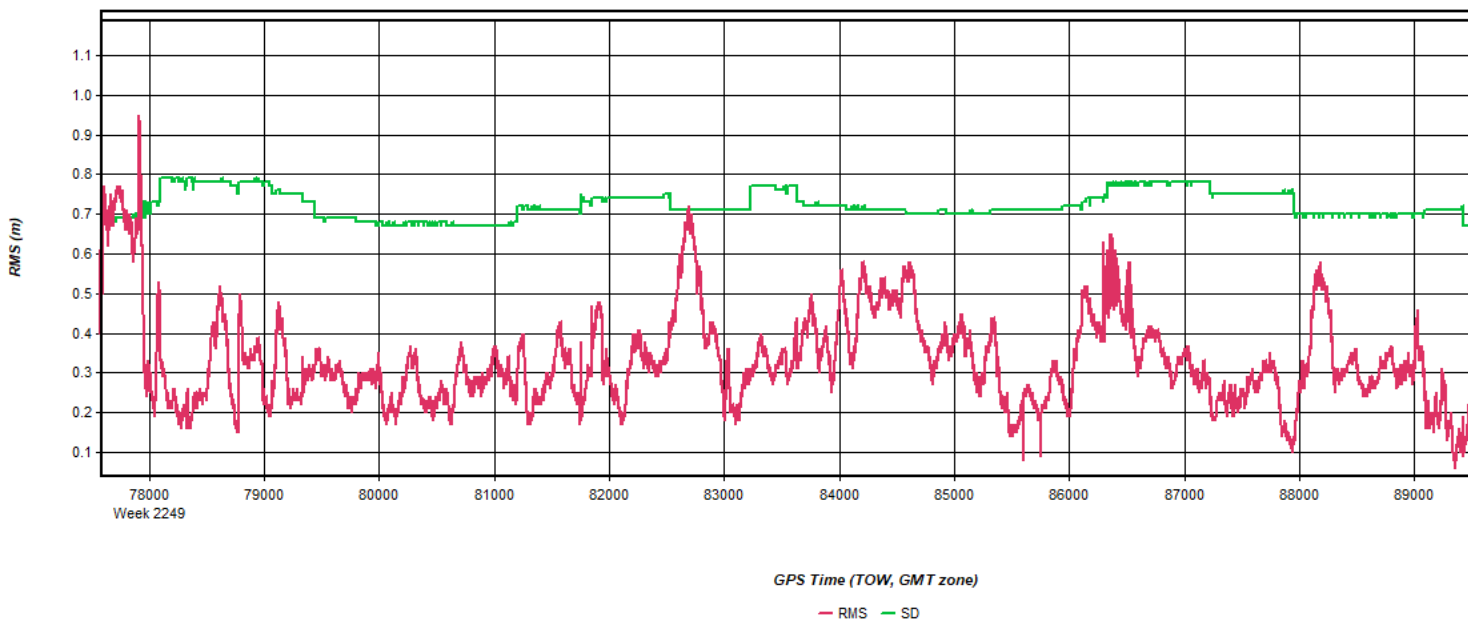
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 15: 20230212213211_15 [Smoothed TC Combined] - Height Profile Plot



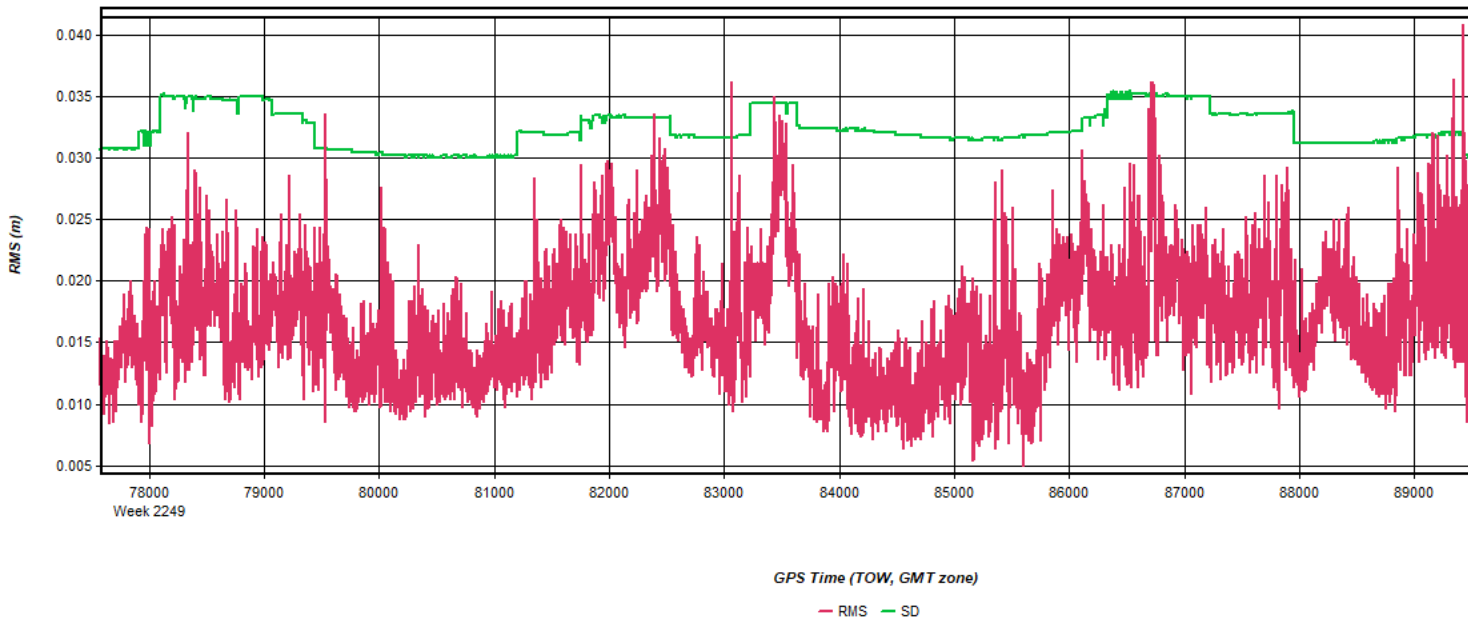
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 16: 20230212213211_15 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 17: 20230212213211_15 [Smoothed TC Combined] - Carrier Residual RMS Plot



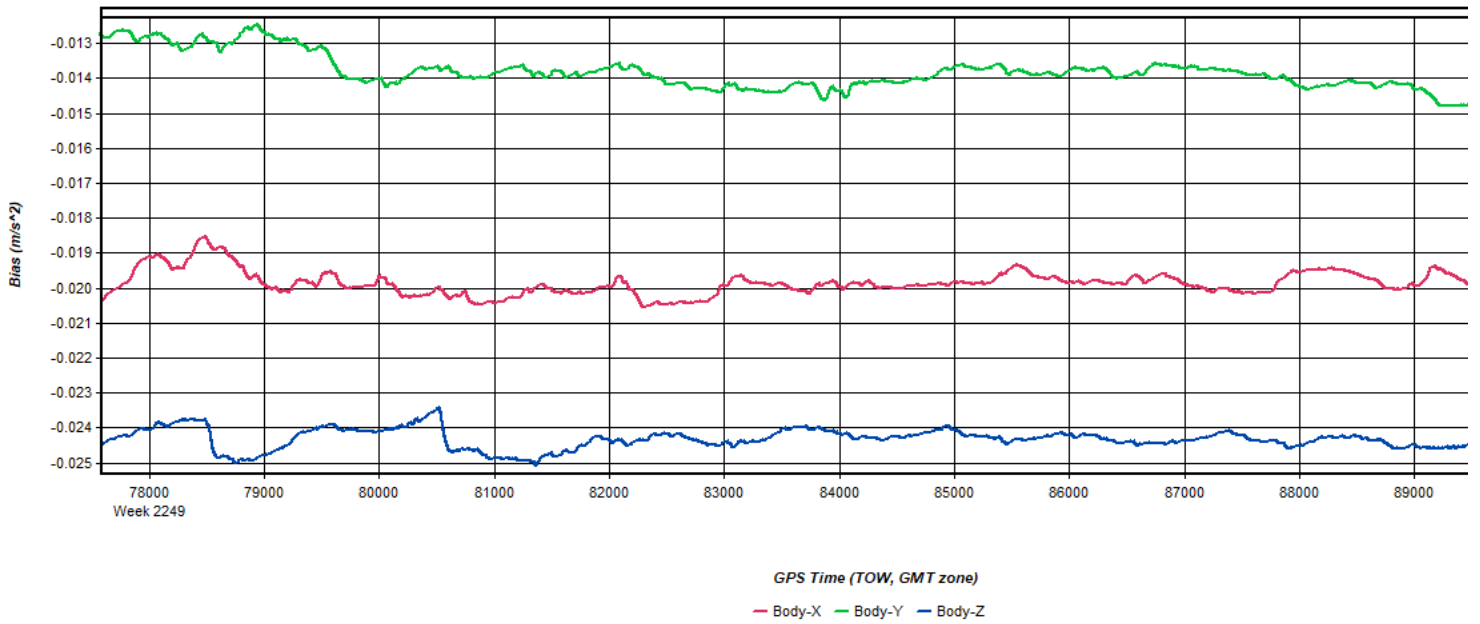
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 18: 20230212213211_15 [Smoothed TC Combined] - Doppler Residual RMS Plot



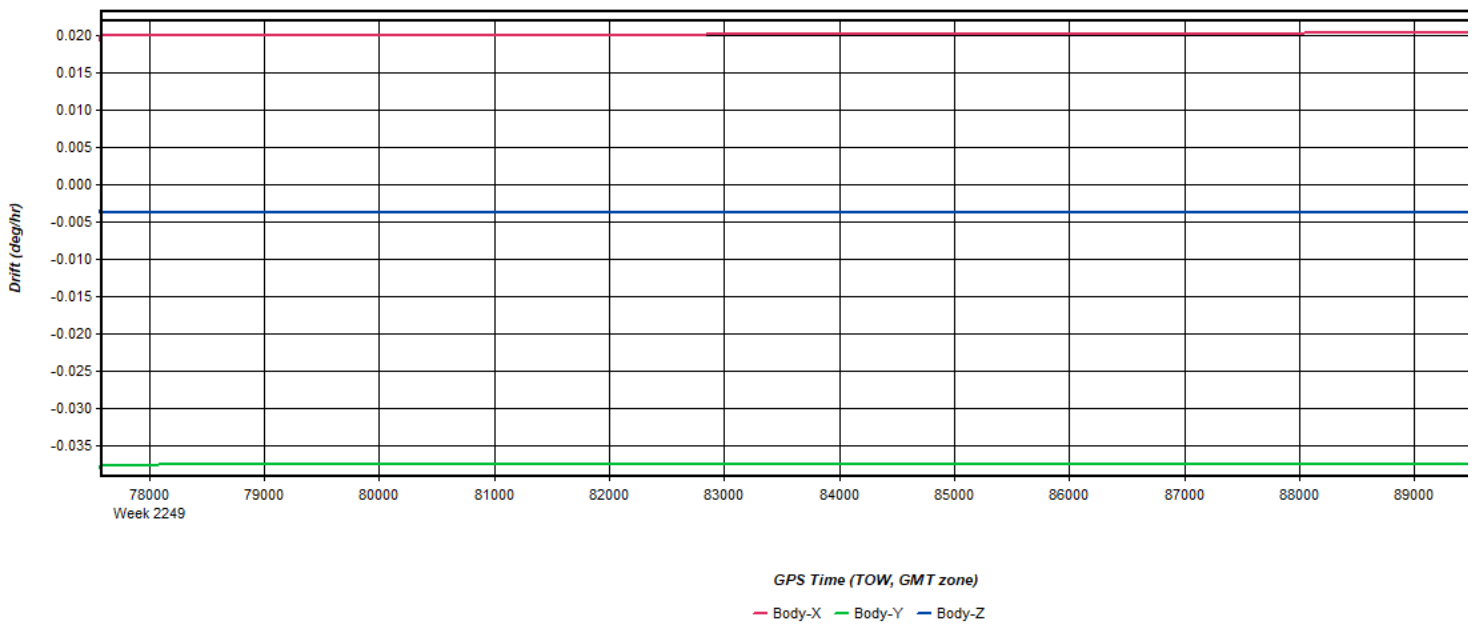
Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 19: 20230212213211_15 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Figure 20: 20230212213211_15 [Smoothed TC Combined] - Gyro Drift Plot



Process	20230212213211_15	by Unknown	on 2/17/2023	at 11:48:47
---------	-------------------	------------	--------------	-------------

Output Results for 20230213144530_16a

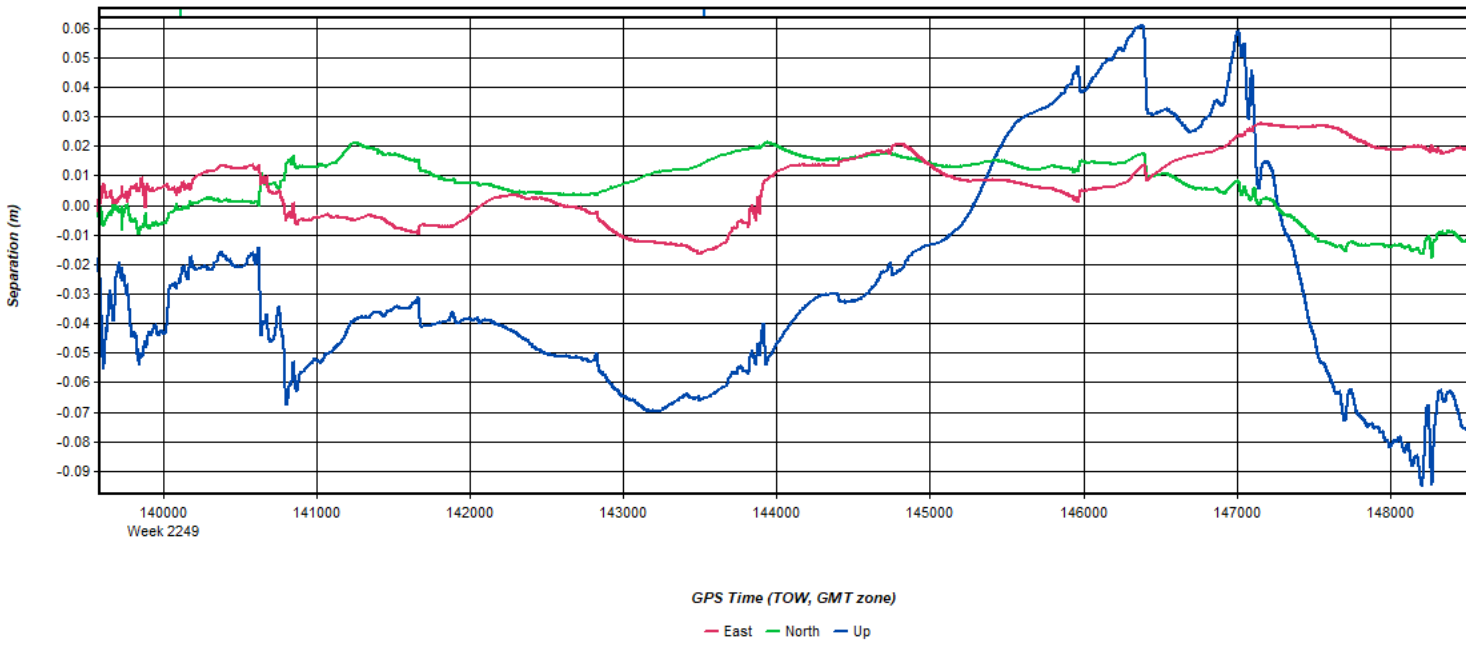
Inertial Explorer Version 8.90.2124
02/17/2023

Figure 1: Smoothed TC Combined - Map



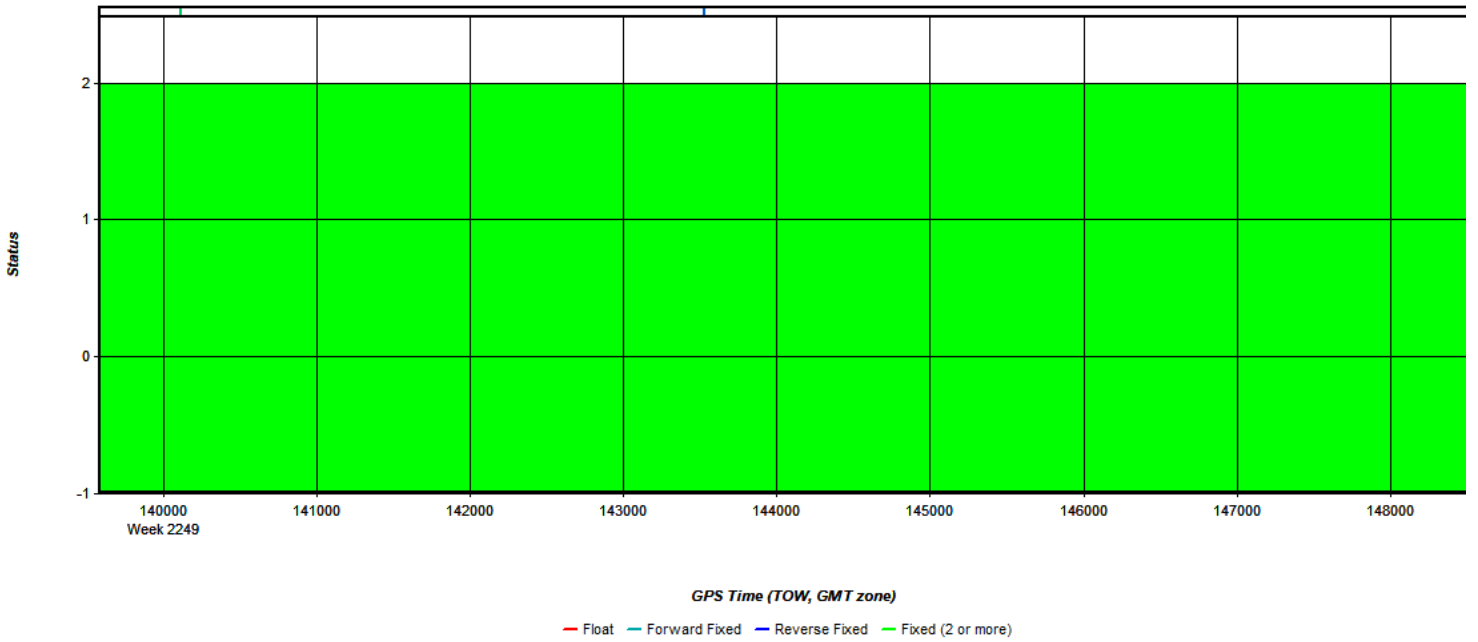
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 2: 20230213144530_16a [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 3: 20230213144530_16a [Smoothed TC Combined] - Float or Fixed Ambiguity



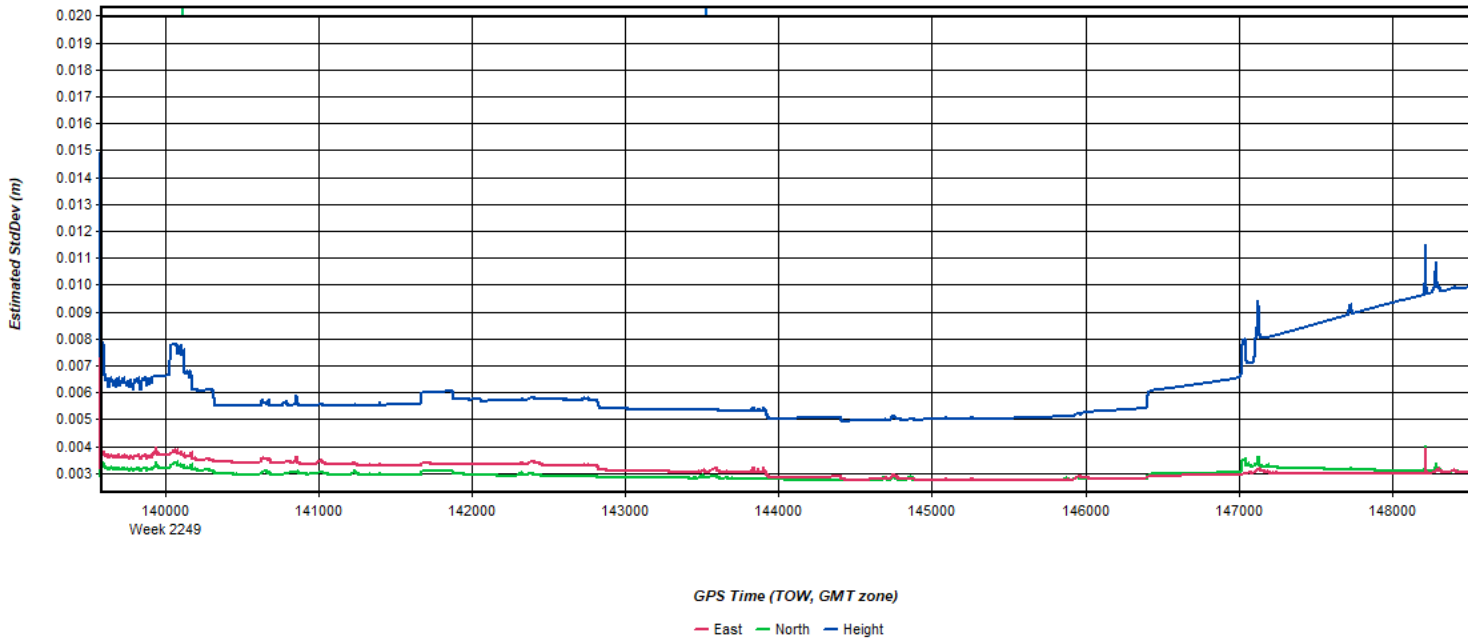
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 4: 20230213144530_16a [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 5: 20230213144530_16a [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 6: 20230213144530_16a [Smoothed TC Combined] - PDOP Plot

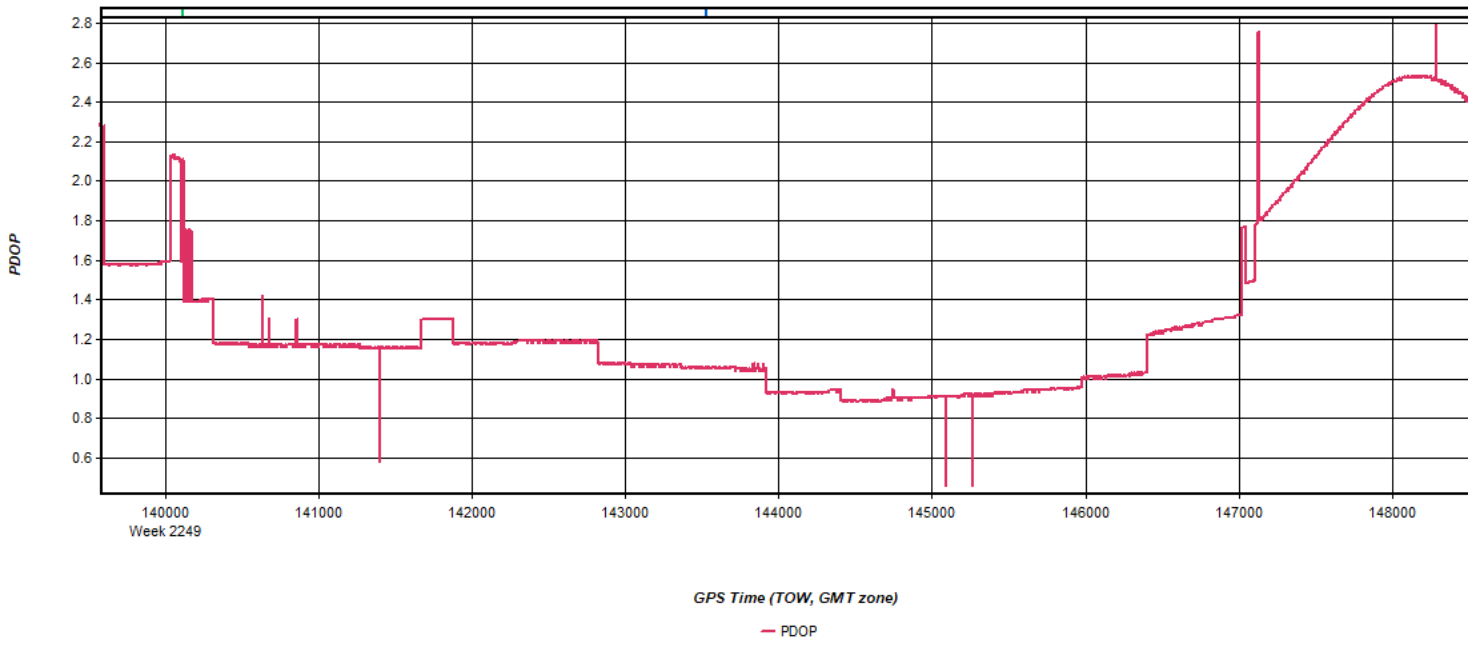


Figure 7: 20230213144530_16a [Smoothed TC Combined] - Number of Satellites Line Plot

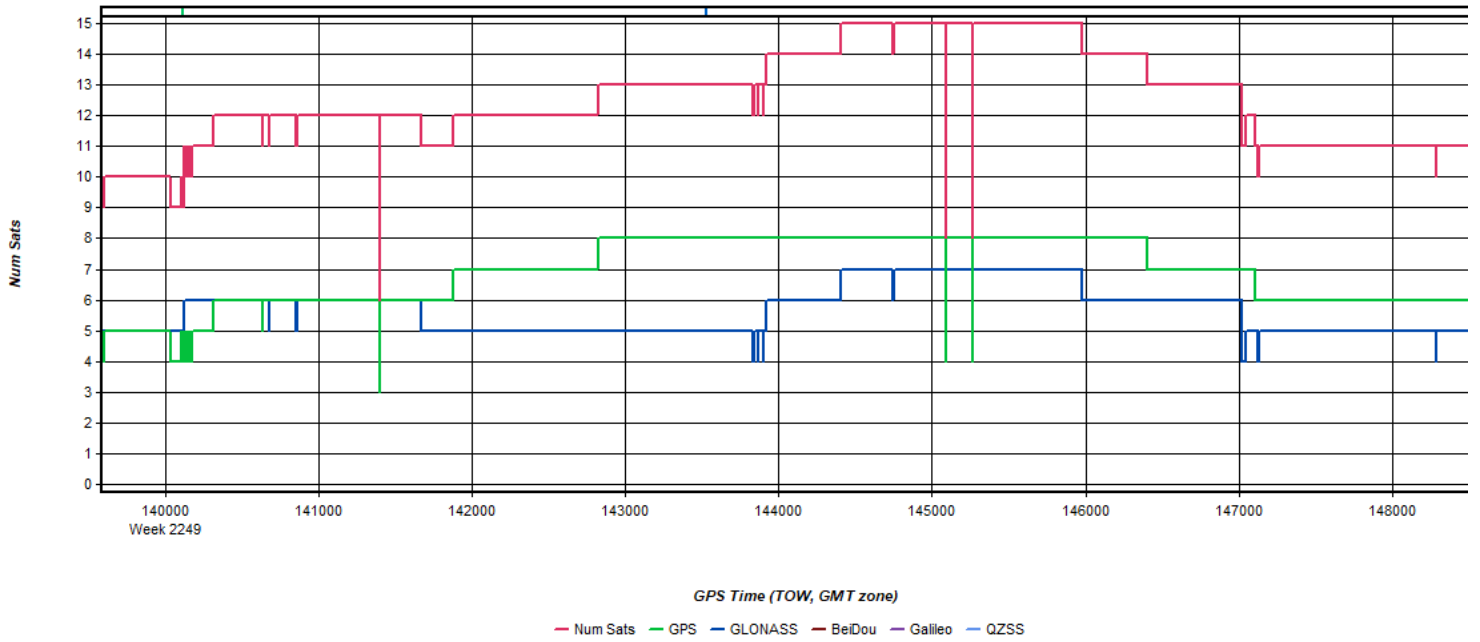


Figure 8: 20230213144530_16a [Smoothed TC Combined] - Status flag for IMU processing

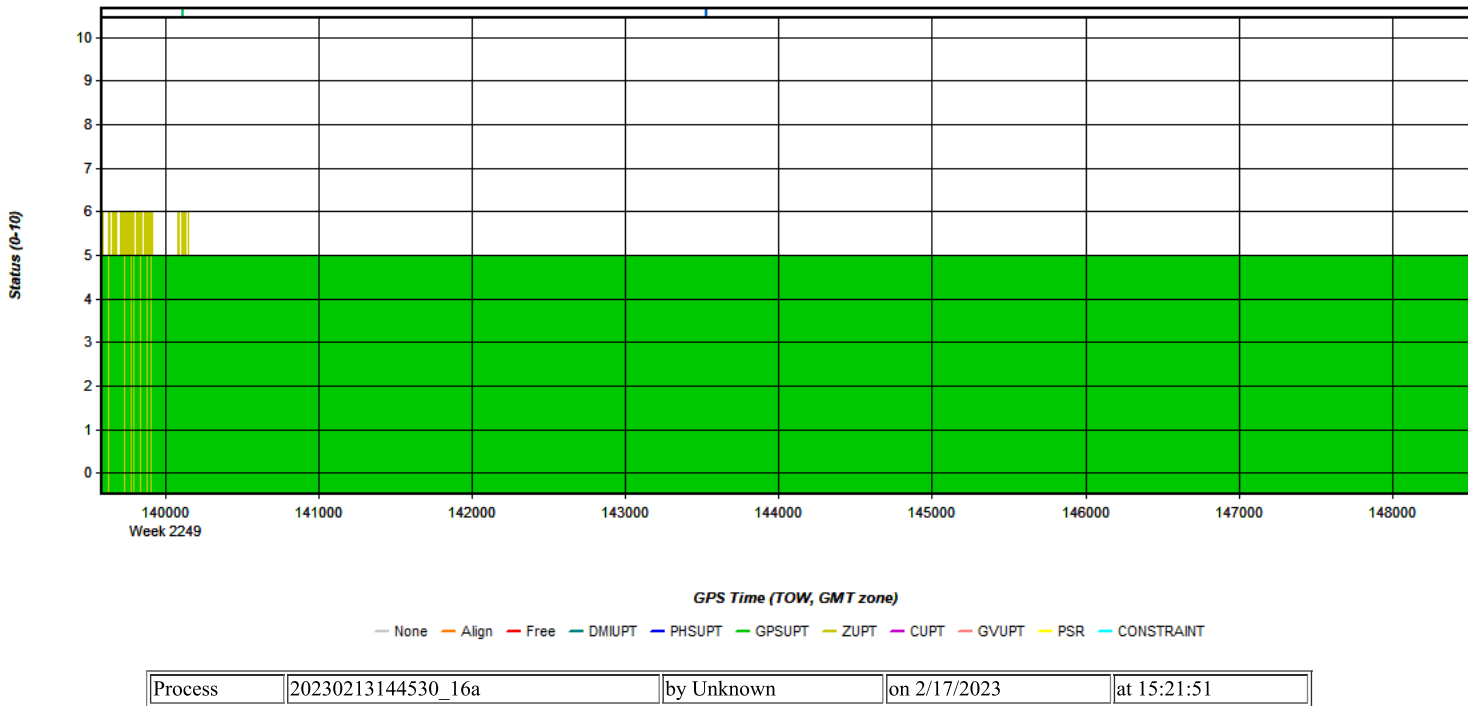


Figure 9: 20230213144530_16a [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

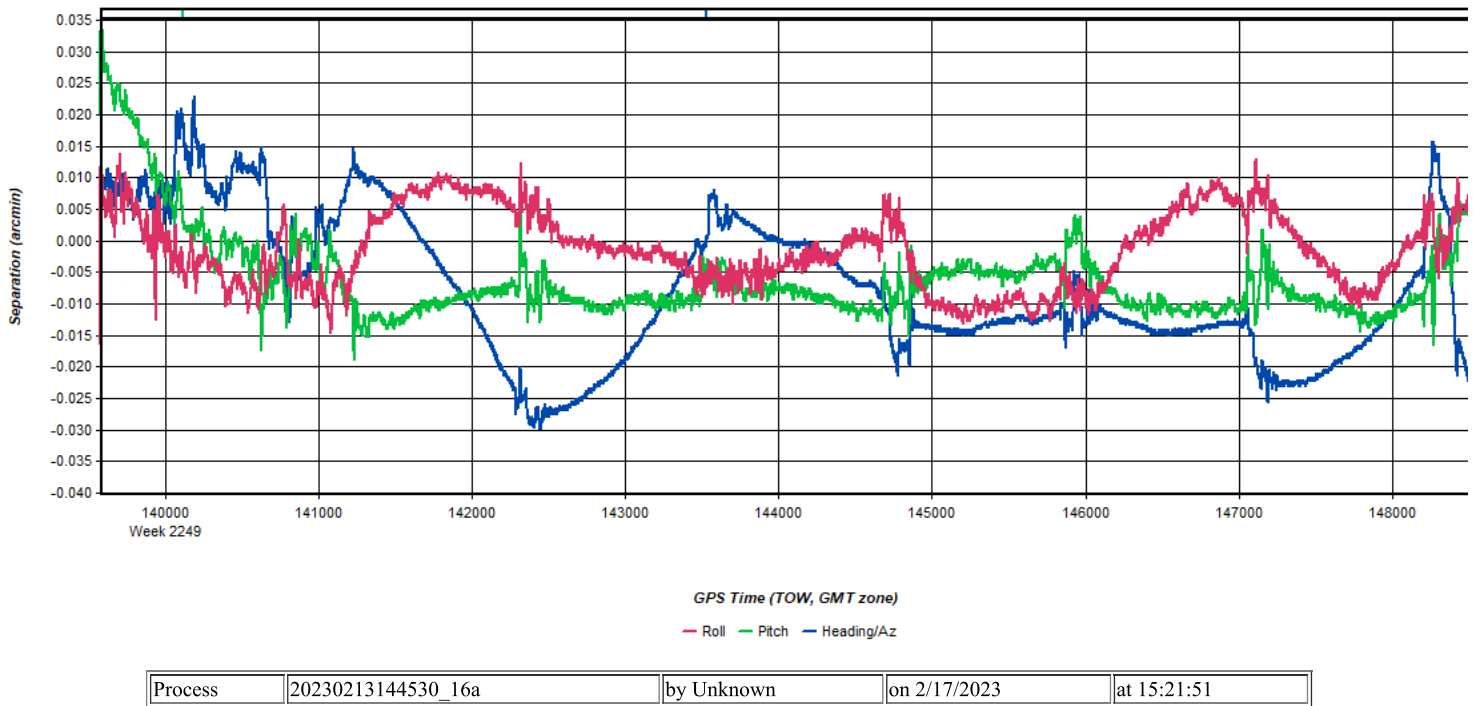
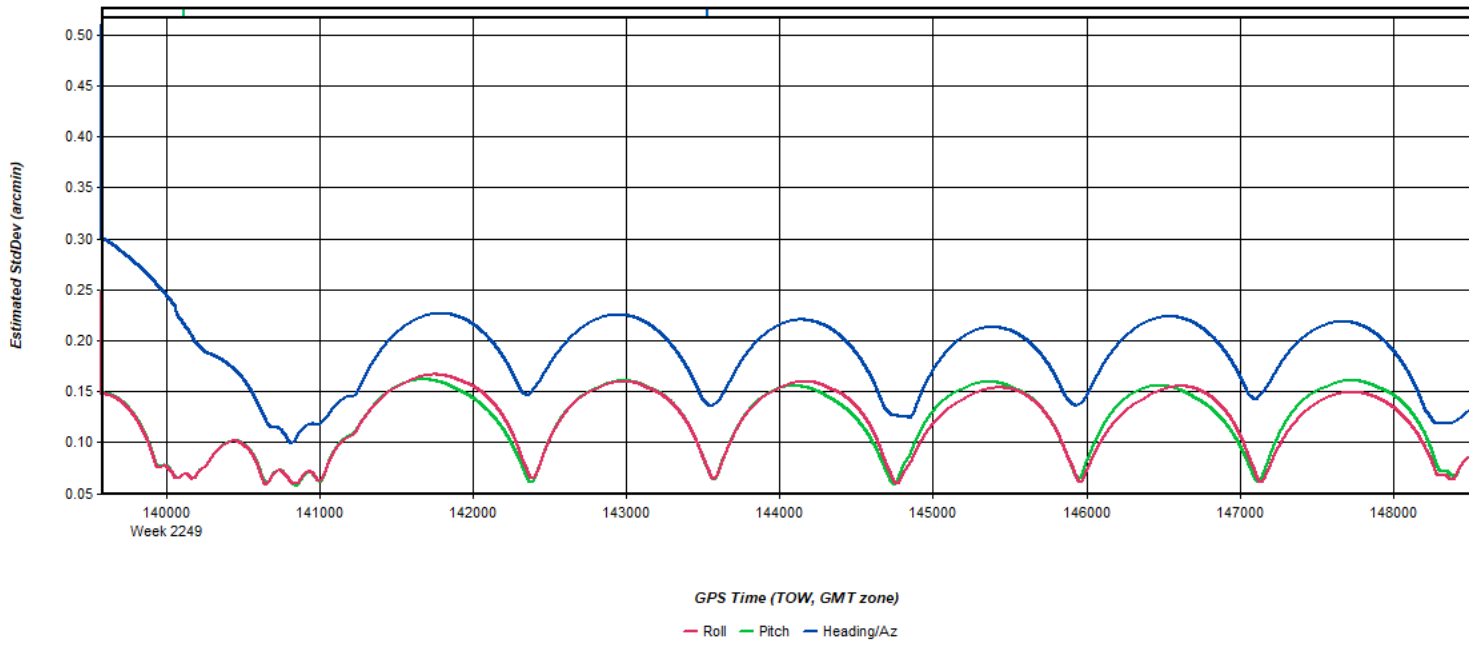
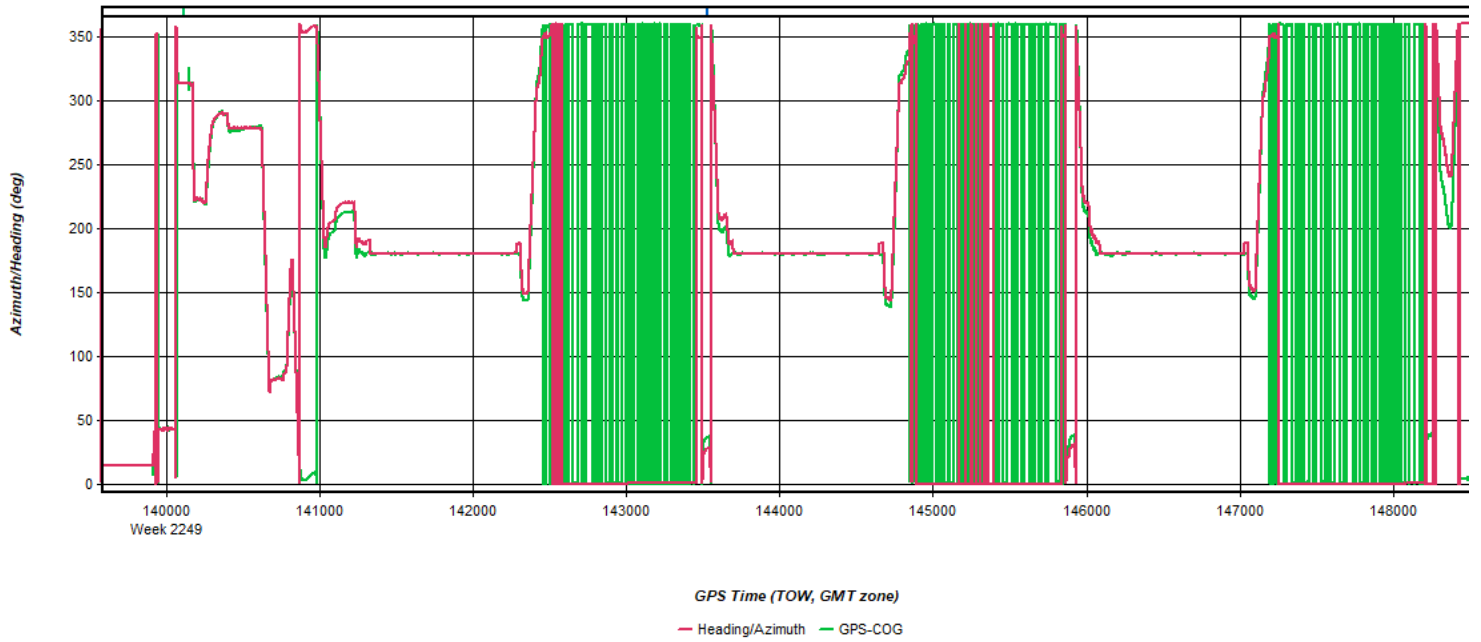


Figure 10: 20230213144530_16a [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



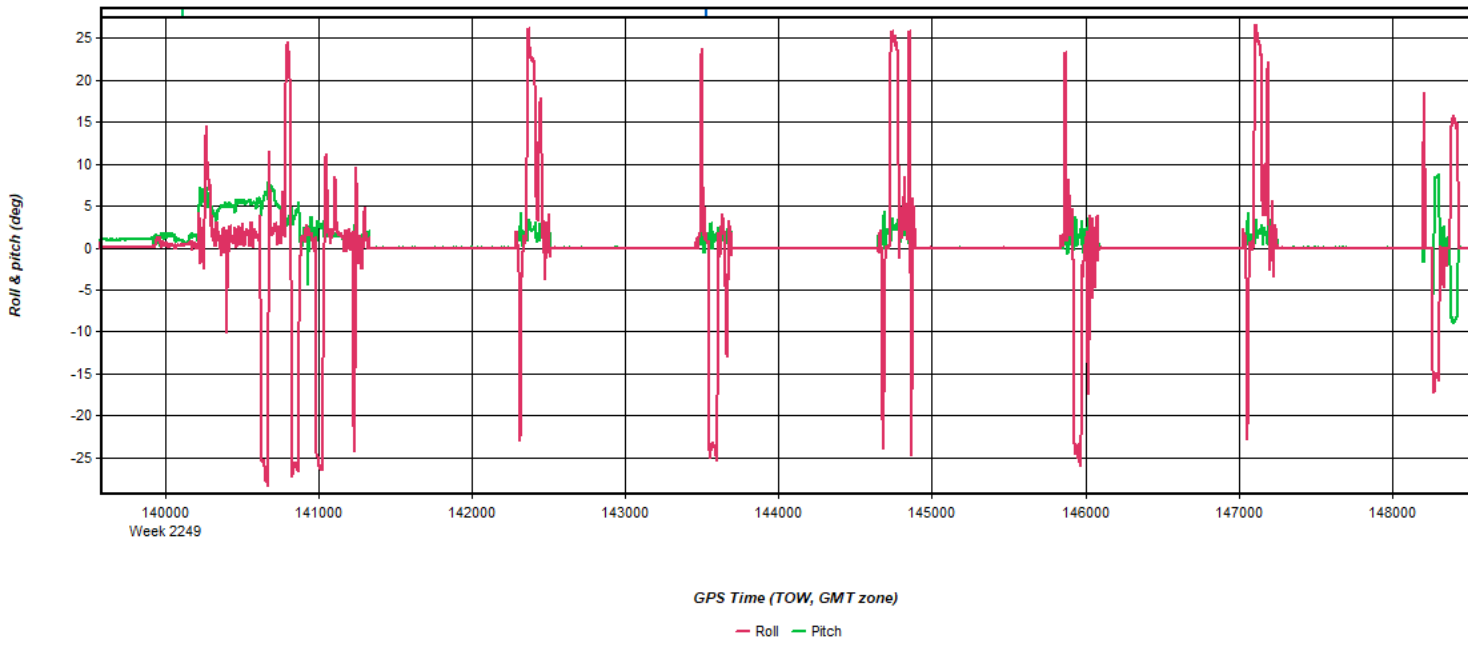
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 11: 20230213144530_16a [Smoothed TC Combined] - Azimuth Plot



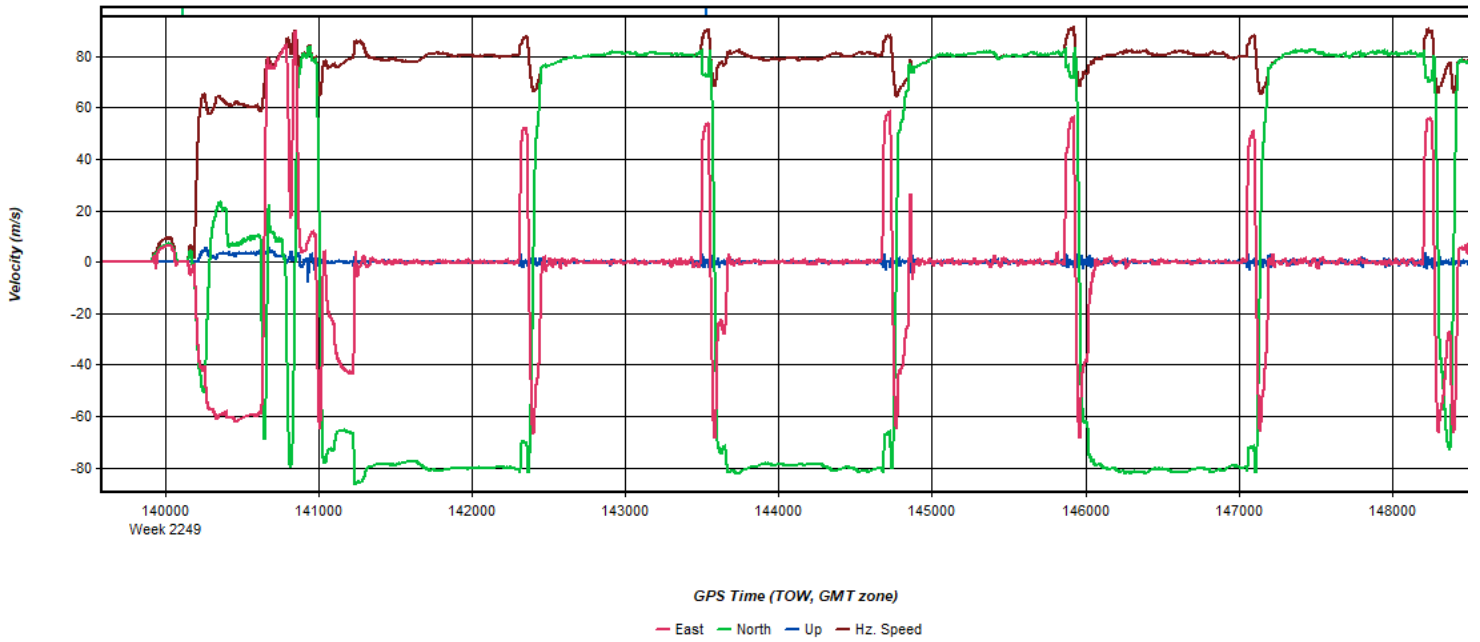
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 12: 20230213144530_16a [Smoothed TC Combined] - Roll & Pitch Plot



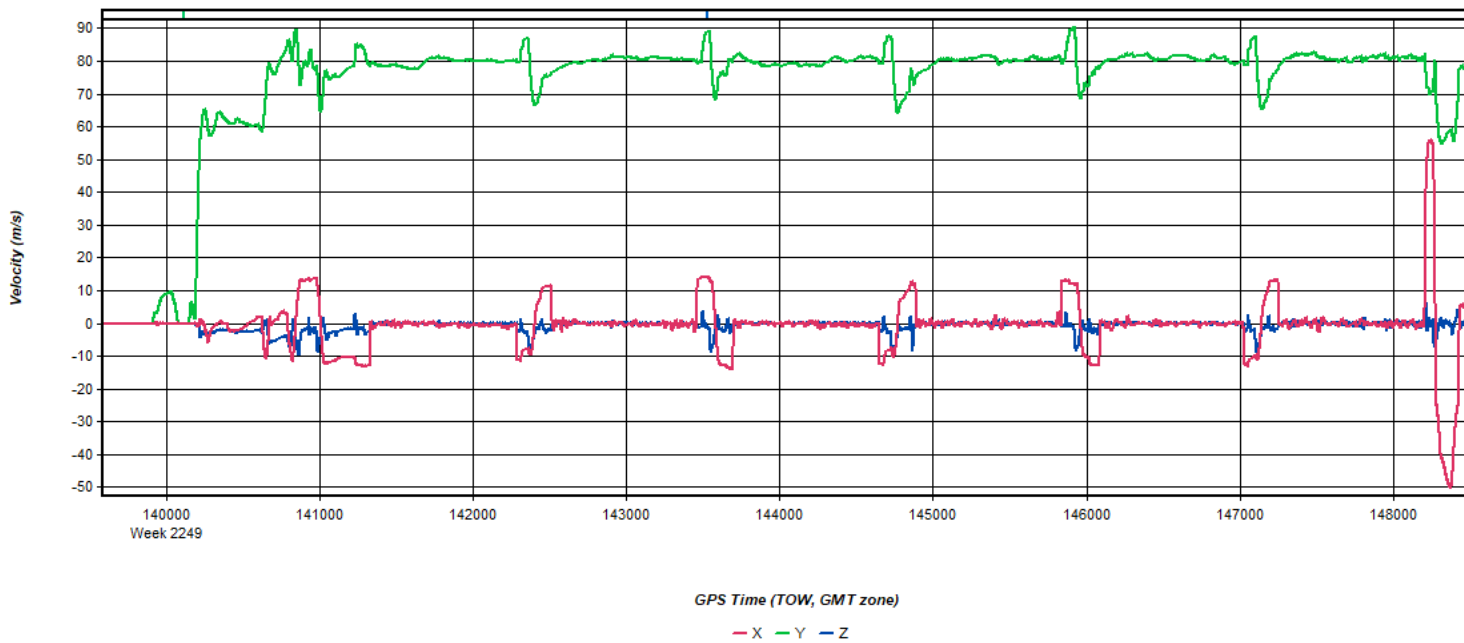
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 13: 20230213144530_16a [Smoothed TC Combined] - Velocity Profile Plot



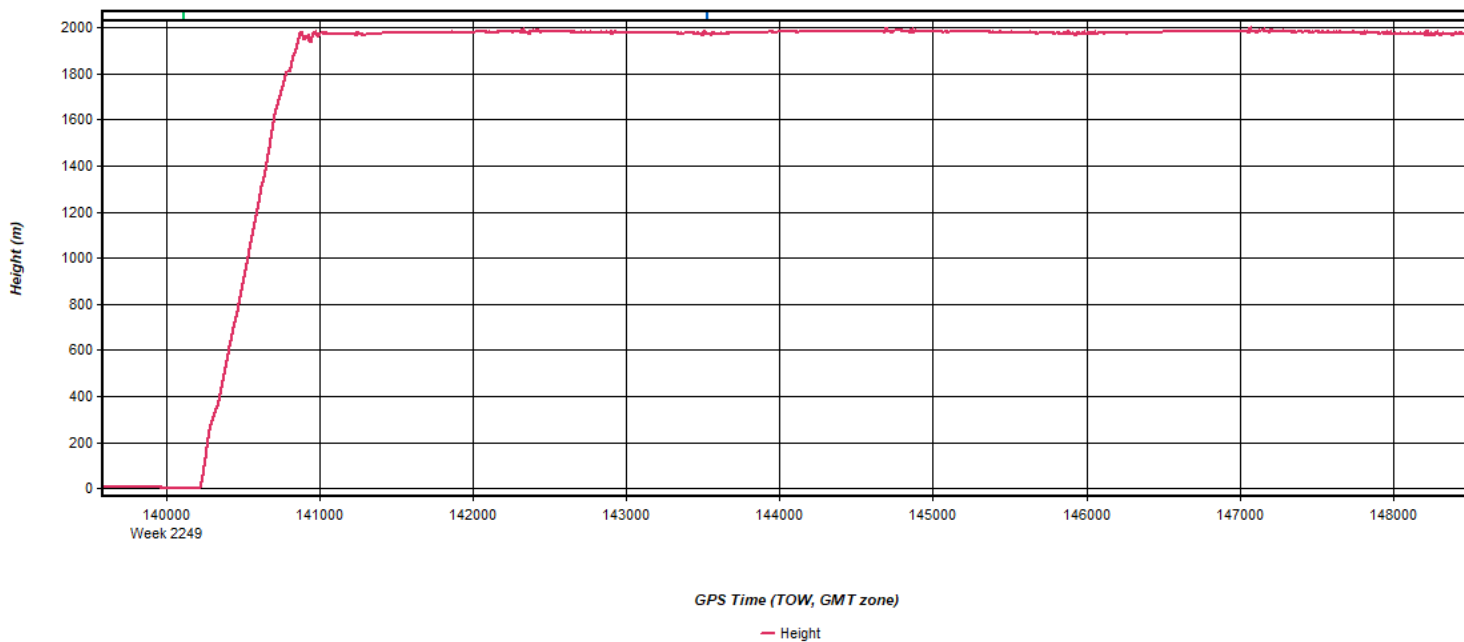
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 14: 20230213144530_16a [Smoothed TC Combined] - Body Frame Velocity Plot



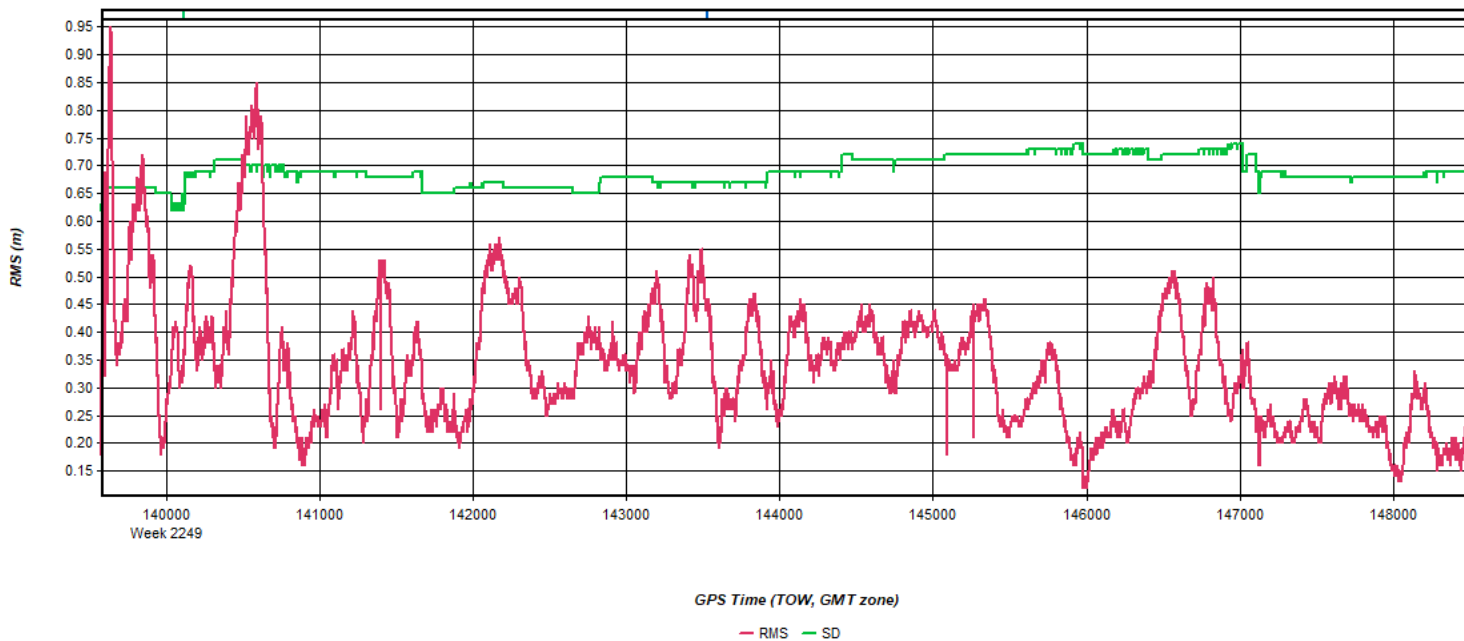
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 15: 20230213144530_16a [Smoothed TC Combined] - Height Profile Plot



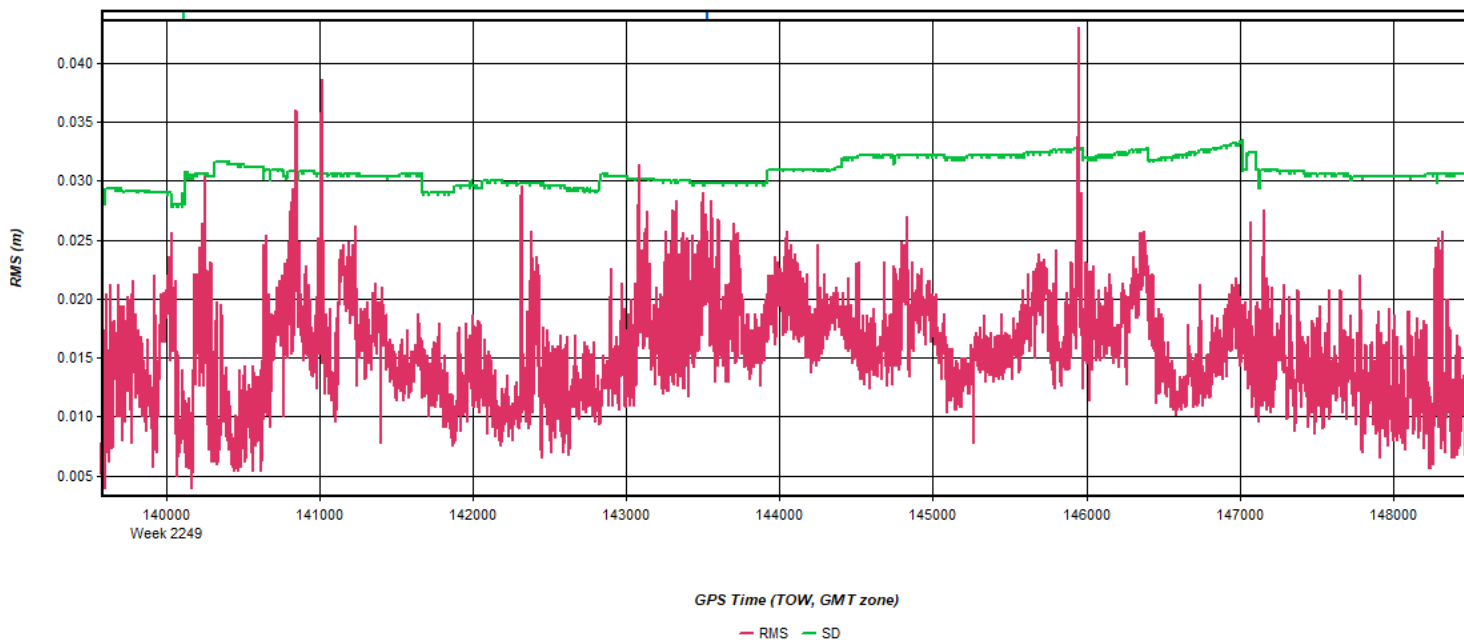
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 16: 20230213144530_16a [Smoothed TC Combined] - C/A Code Residual RMS Plot



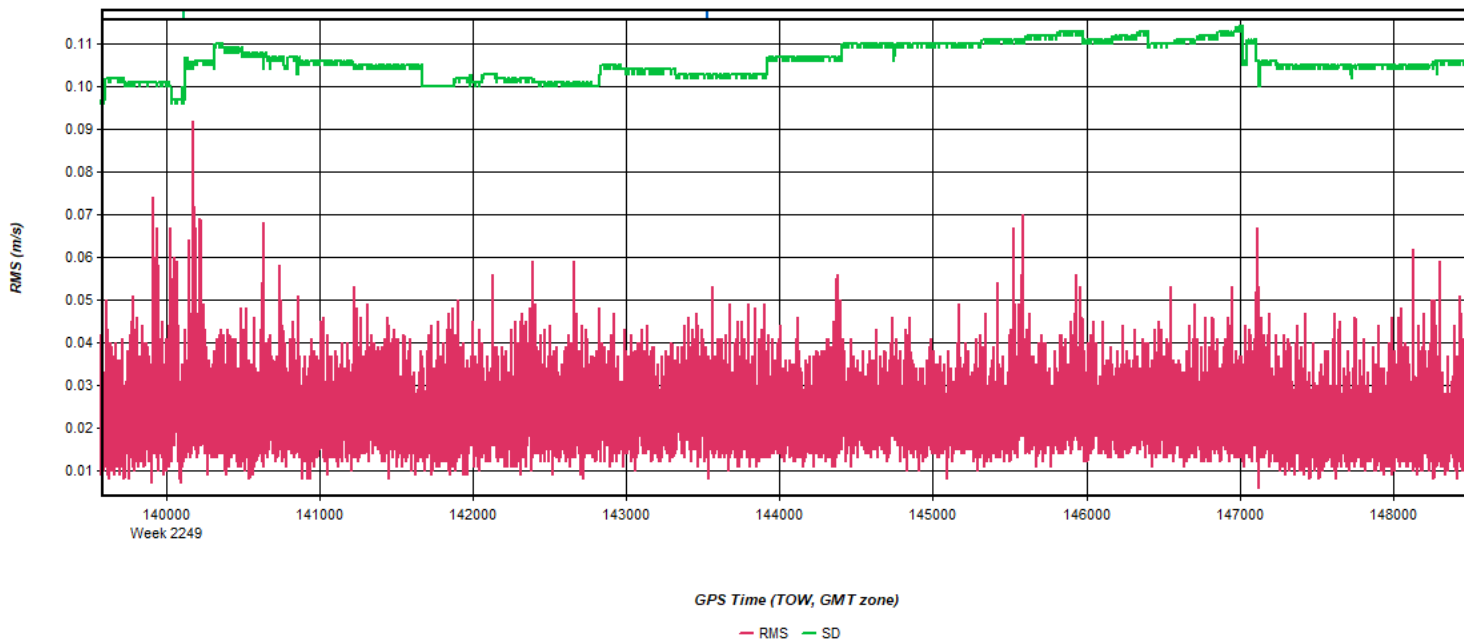
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 17: 20230213144530_16a [Smoothed TC Combined] - Carrier Residual RMS Plot



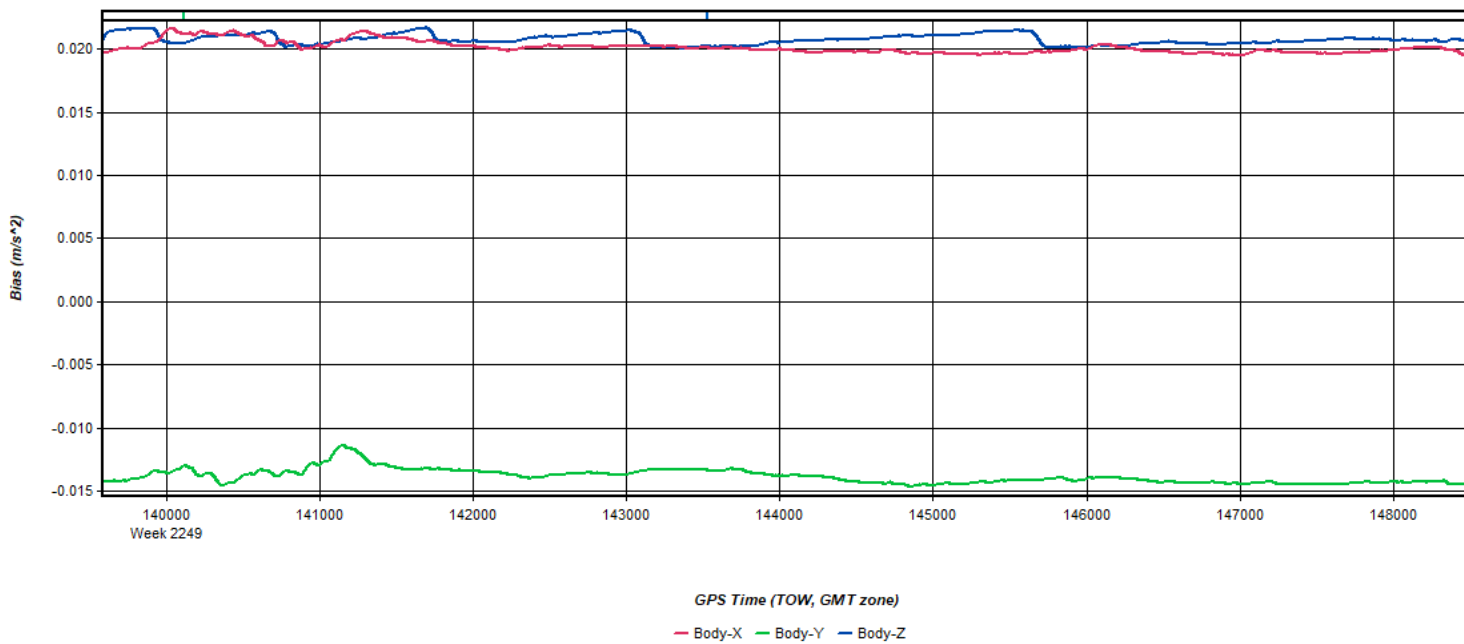
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 18: 20230213144530_16a [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



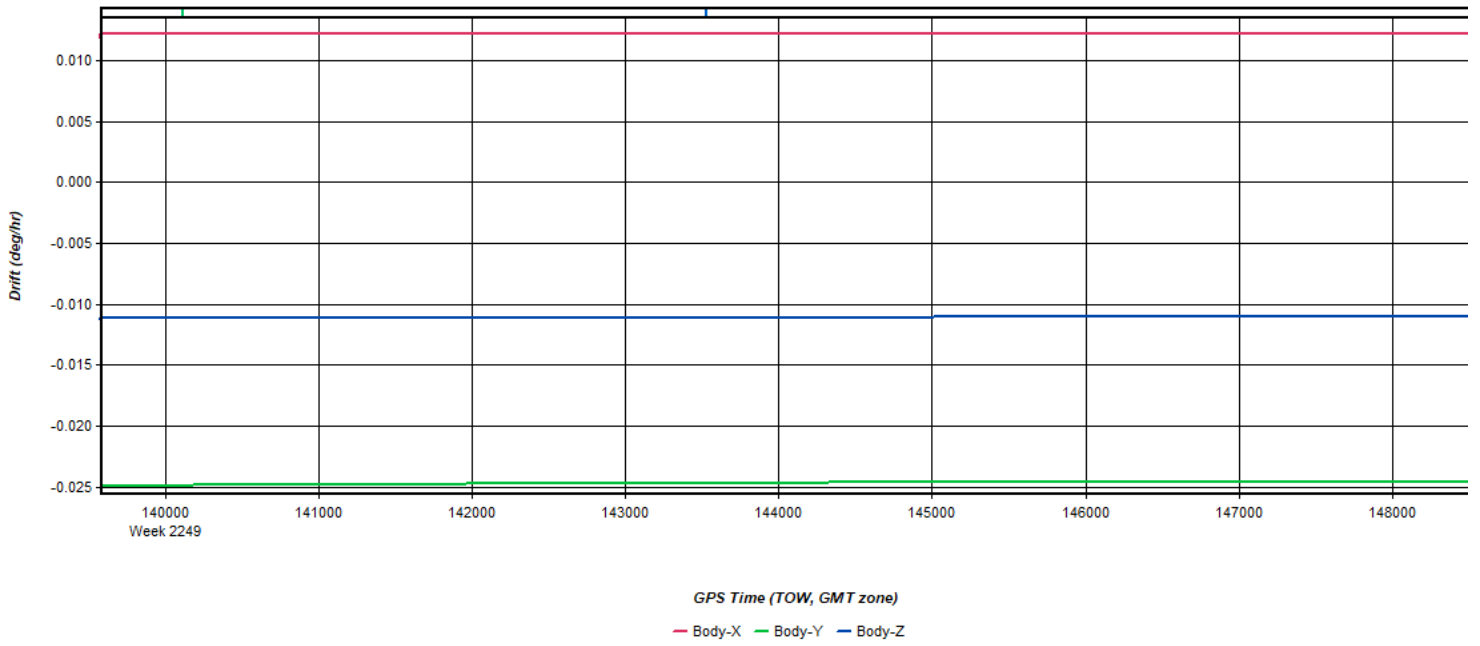
Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 19: 20230213144530_16a [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Figure 20: 20230213144530_16a [Smoothed TC Combined] - Gyro Drift Plot

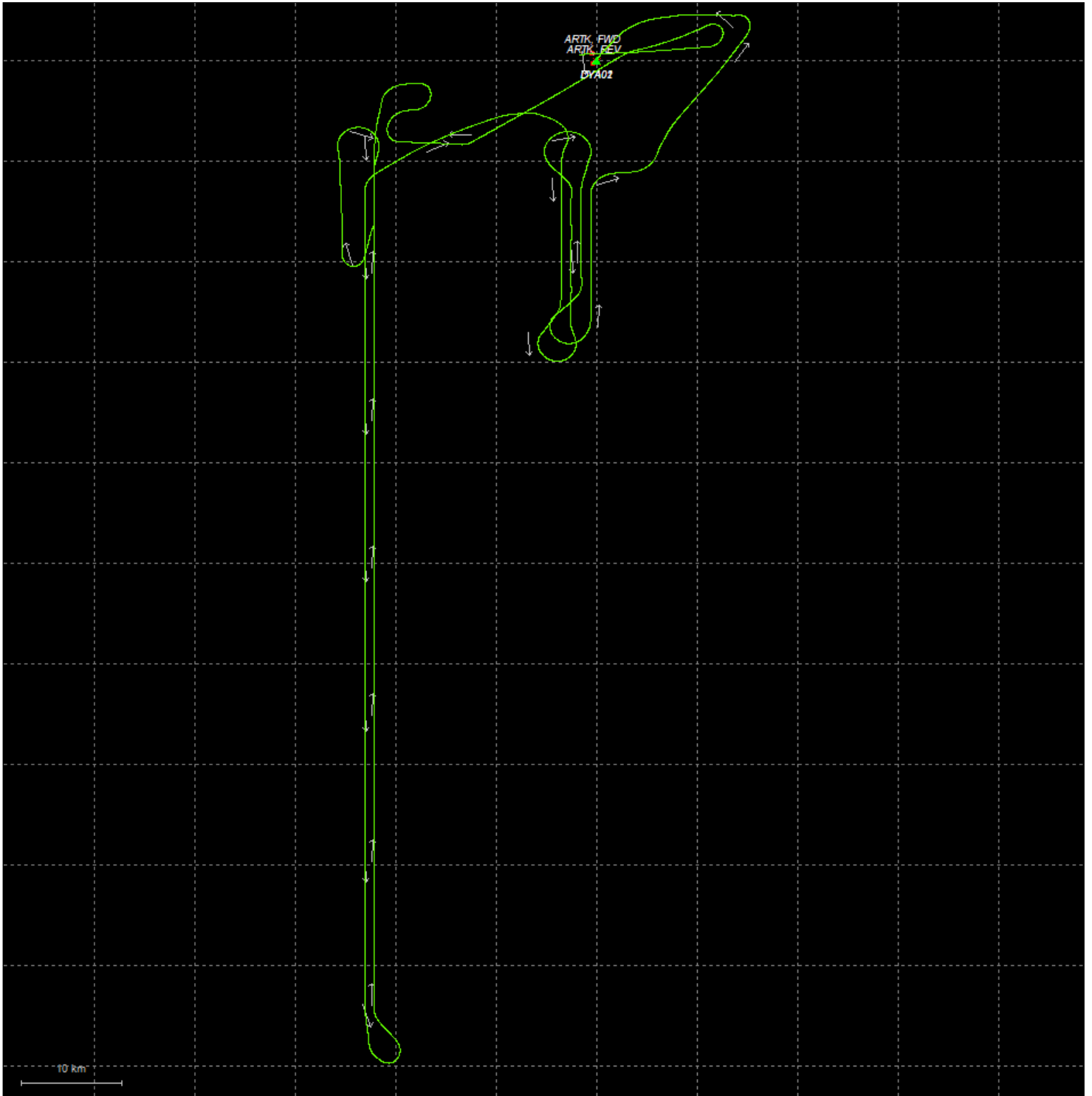


Process	20230213144530_16a	by Unknown	on 2/17/2023	at 15:21:51
---------	--------------------	------------	--------------	-------------

Output Results for 20230213171942_16b

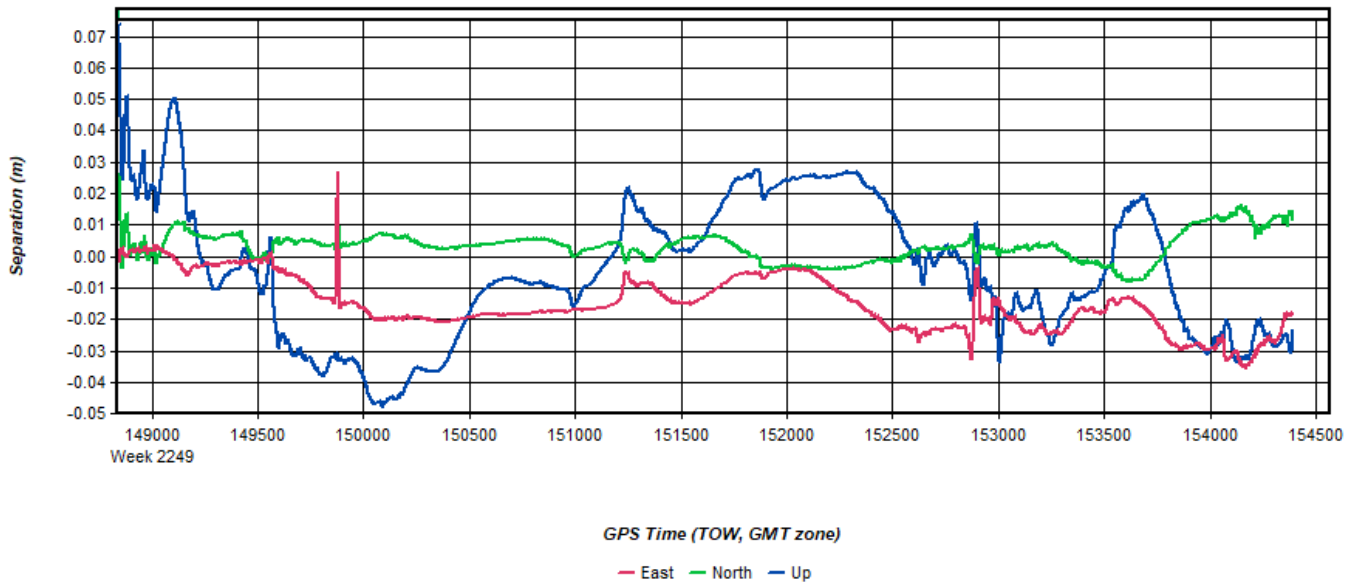
Inertial Explorer Version 8.90.2124
02/17/2023

Figure 1: Smoothed TC Combined - Map



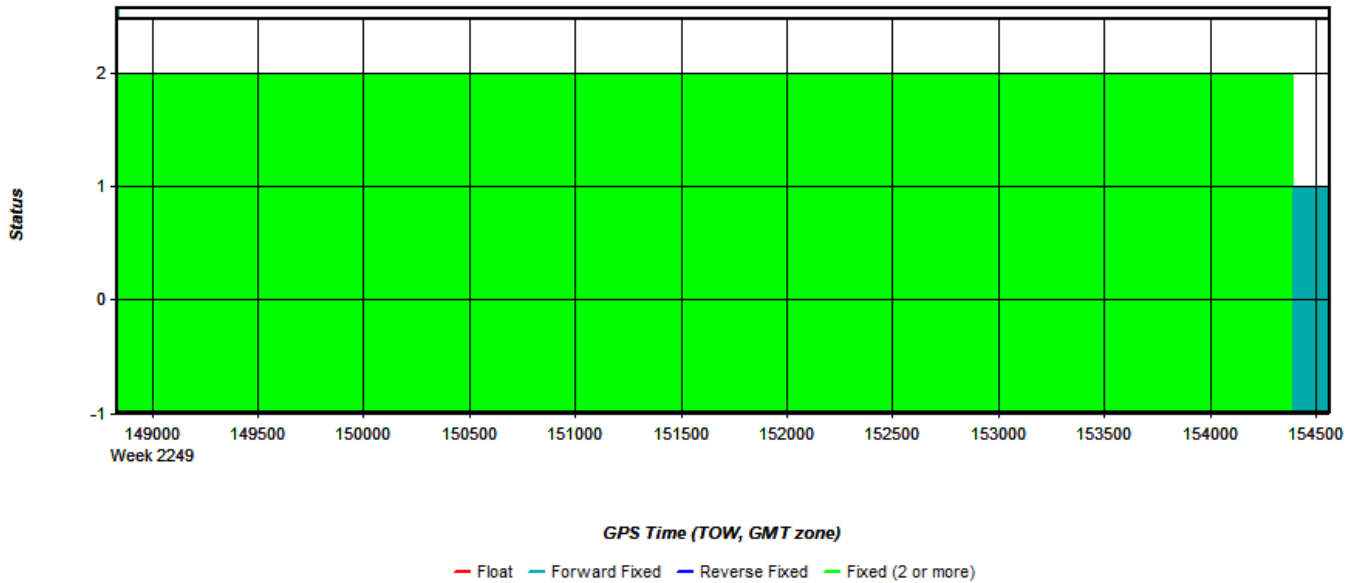
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 2: 20230213171942_16b [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



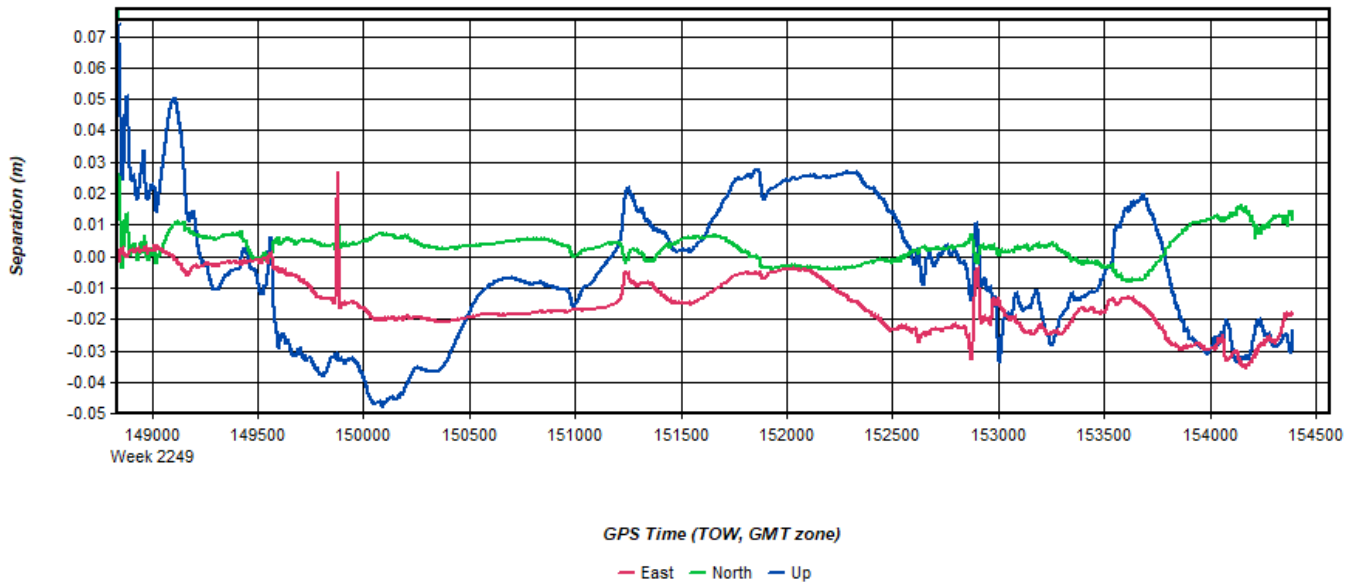
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 3: 20230213171942_16b [Smoothed TC Combined] - Float or Fixed Ambiguity



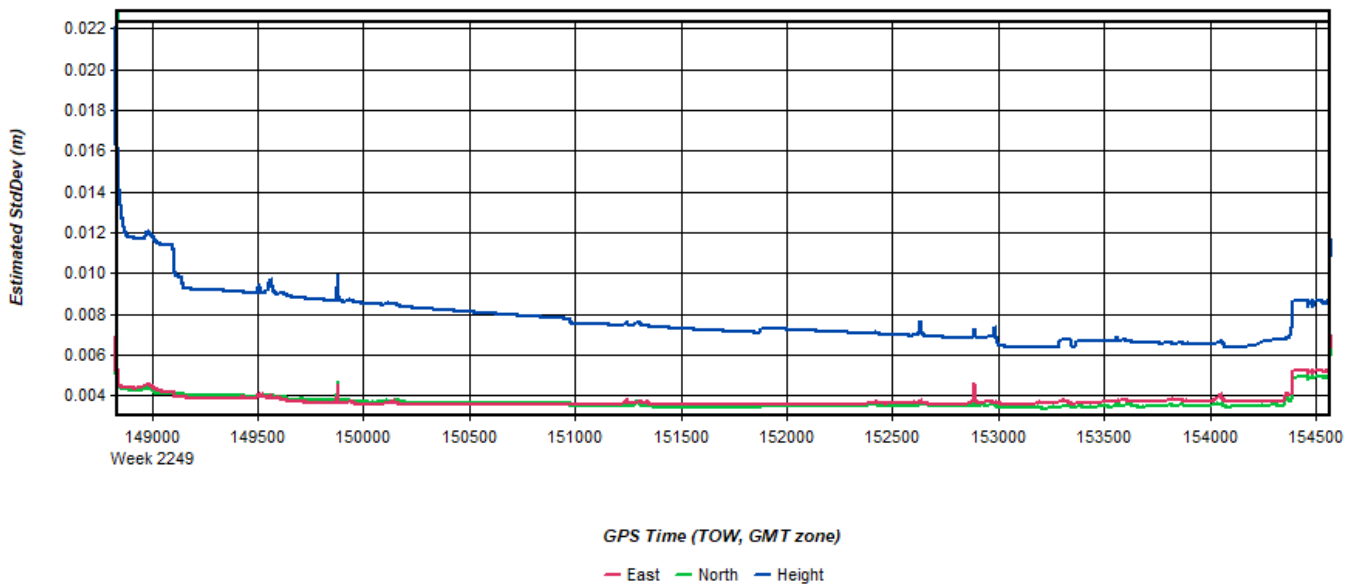
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 4: 20230213171942_16b [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 5: 20230213171942_16b [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 6: 20230213171942_16b [Smoothed TC Combined] - PDOP Plot

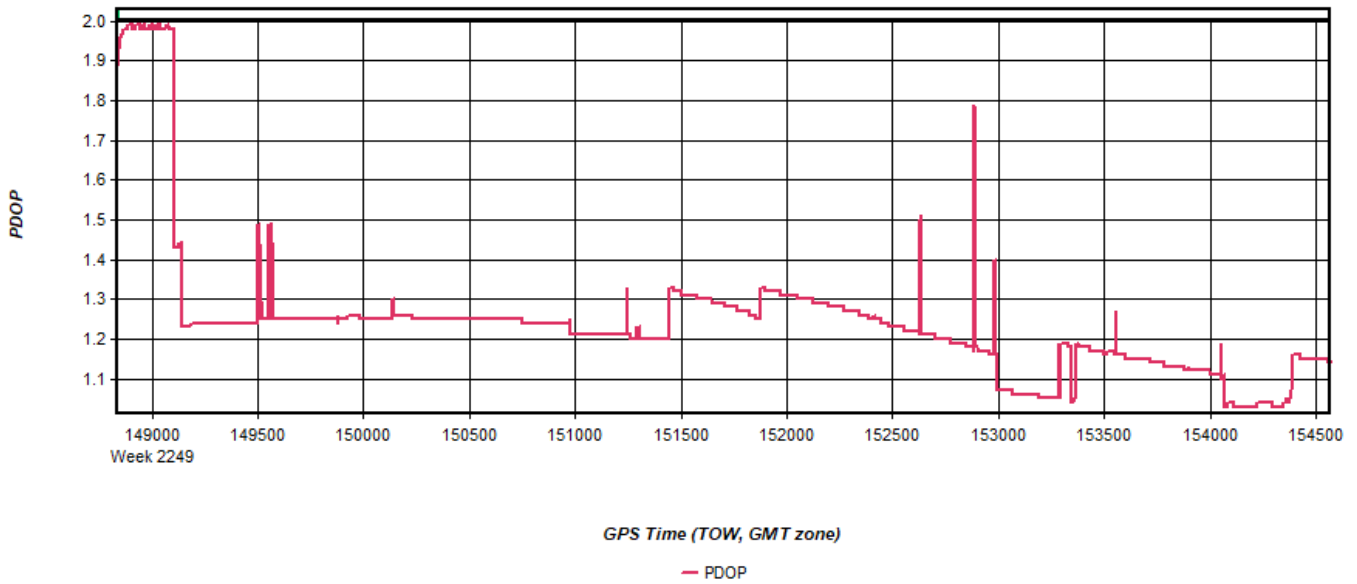


Figure 7: 20230213171942_16b [Smoothed TC Combined] - Number of Satellites Line Plot

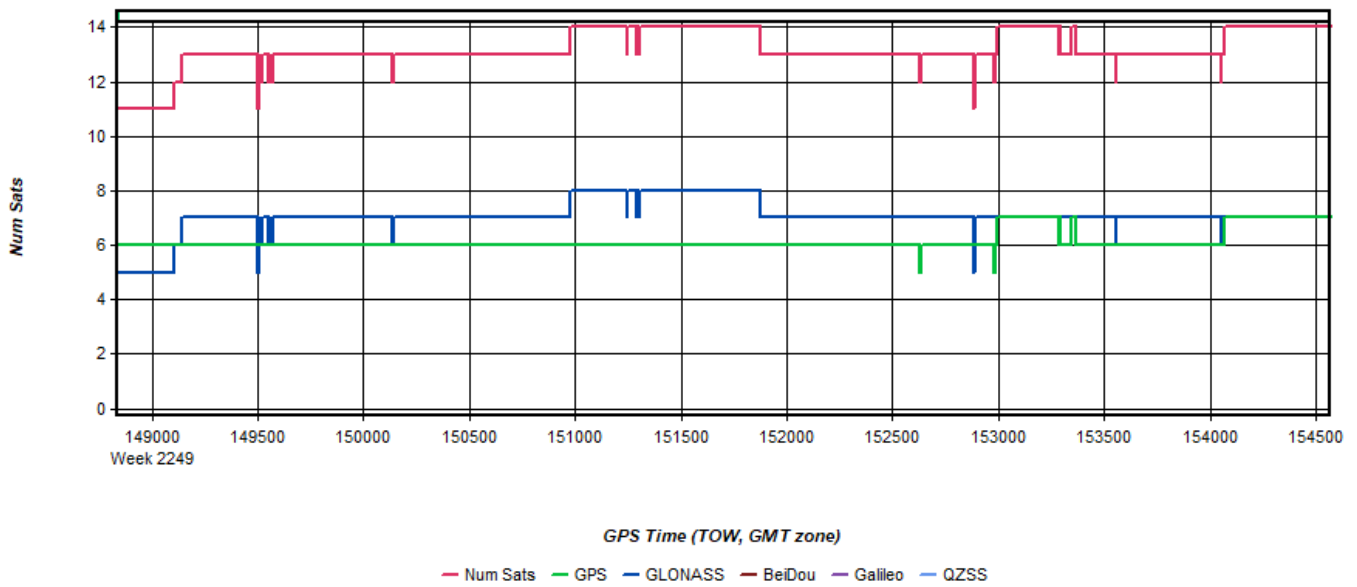
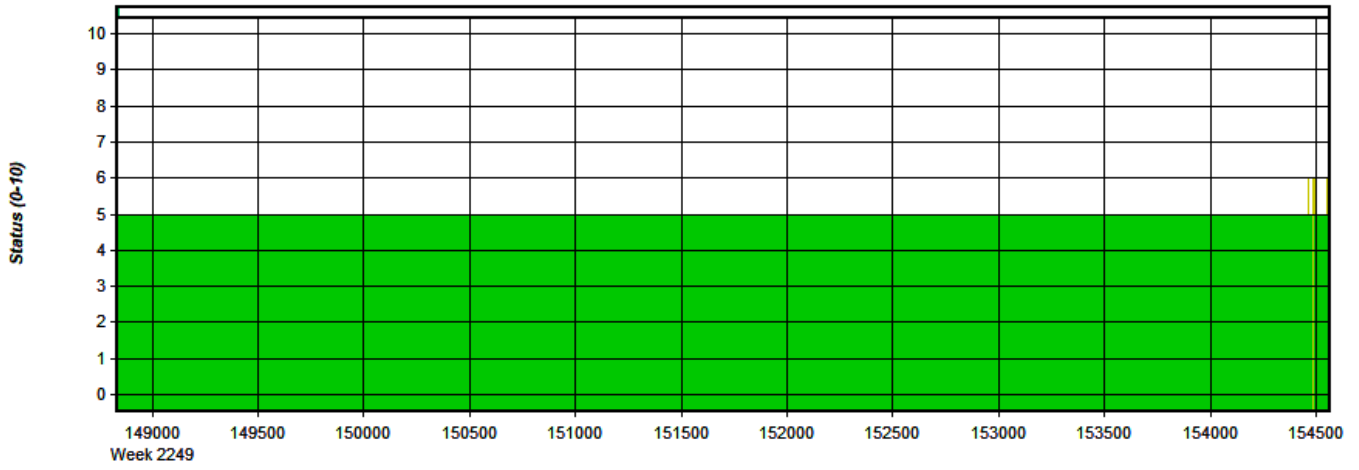


Figure 8: 20230213171942_16b [Smoothed TC Combined] - Status flag for IMU processing

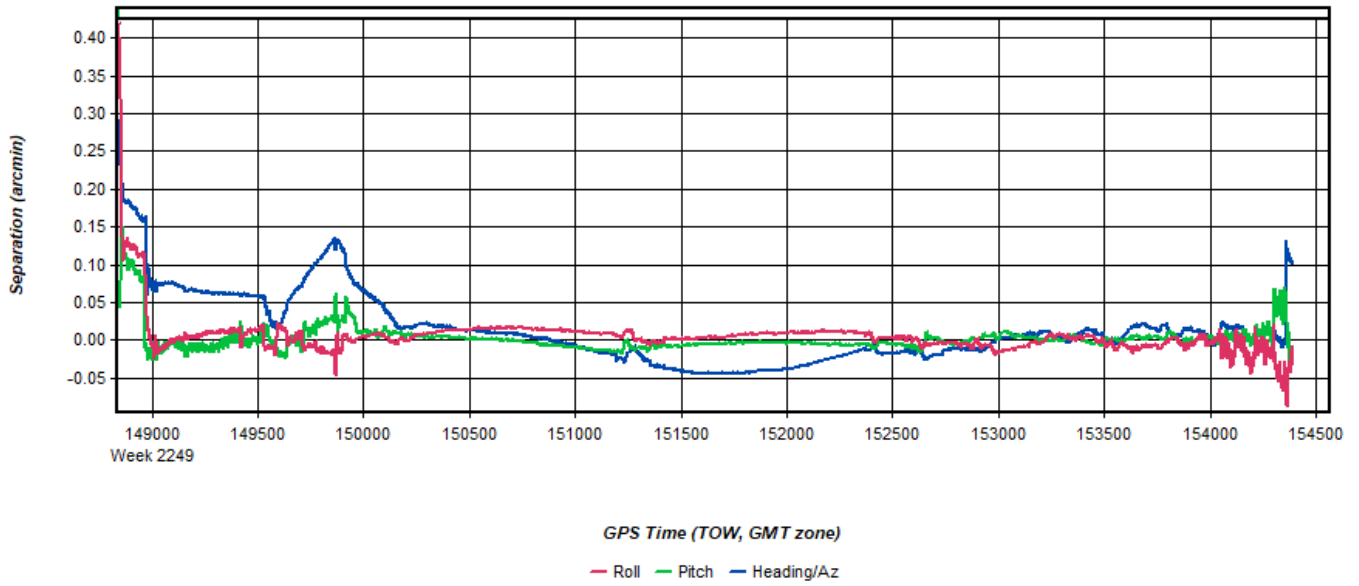


GPS Time (TOW, GMT zone)

— None
 — Align
 — Free
 — DMIUPT
 — PHSUPT
 — GPSUPT
 — ZUPT
 — CUPT
 — GVUPT
 — PSR
 — CONSTRAINT

Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 9: 20230213171942_16b [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

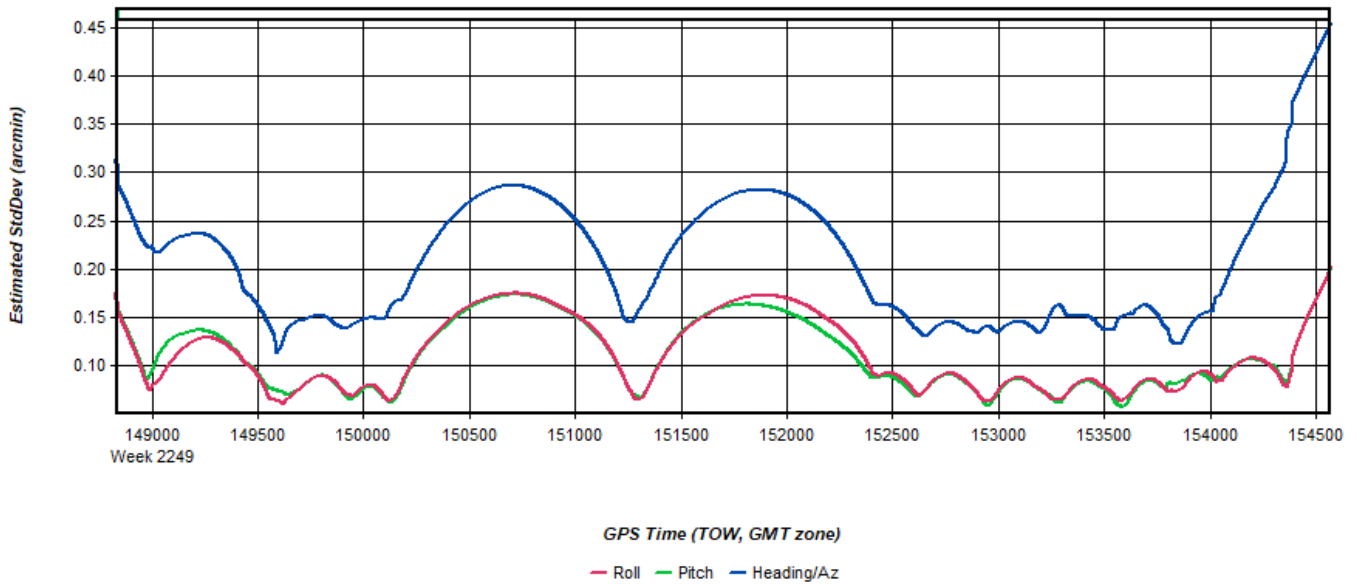


GPS Time (TOW, GMT zone)

— Roll
 — Pitch
 — Heading/Az

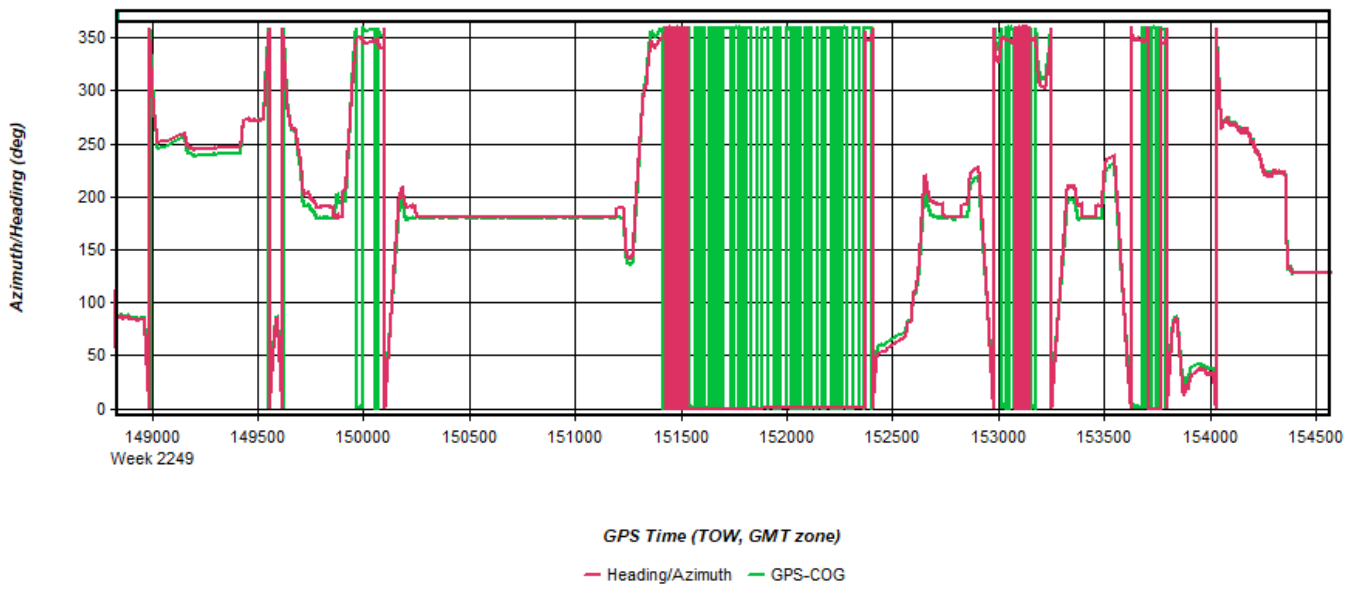
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 10: 20230213171942_16b [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



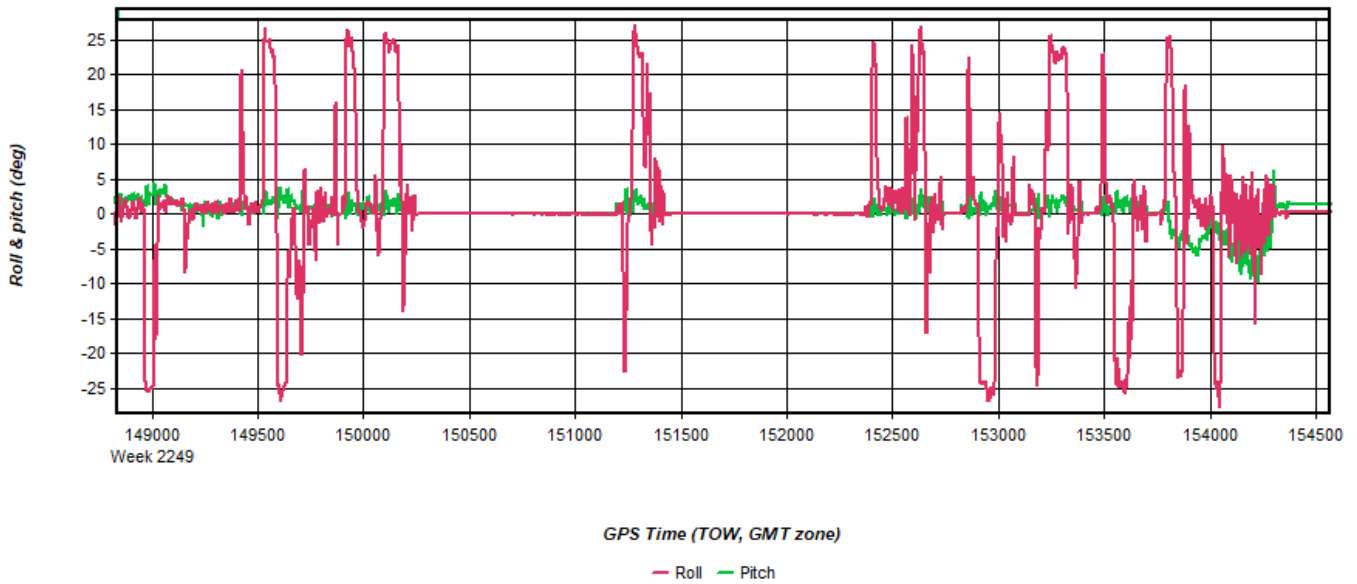
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 11: 20230213171942_16b [Smoothed TC Combined] - Azimuth Plot



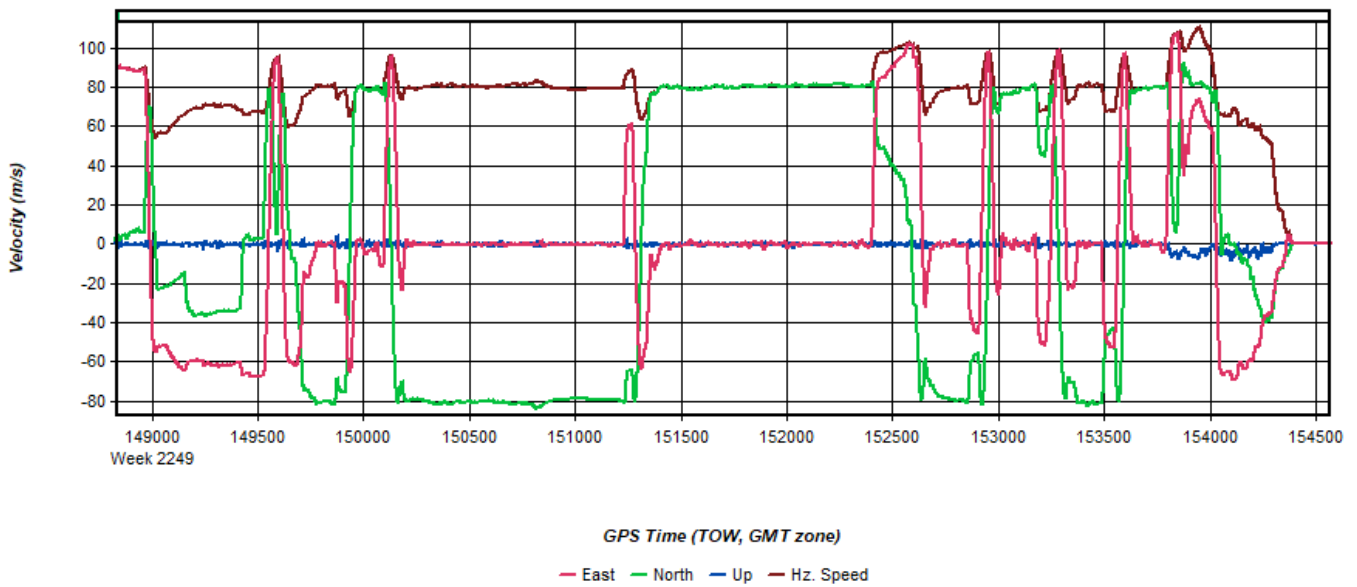
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 12: 20230213171942_16b [Smoothed TC Combined] - Roll & Pitch Plot



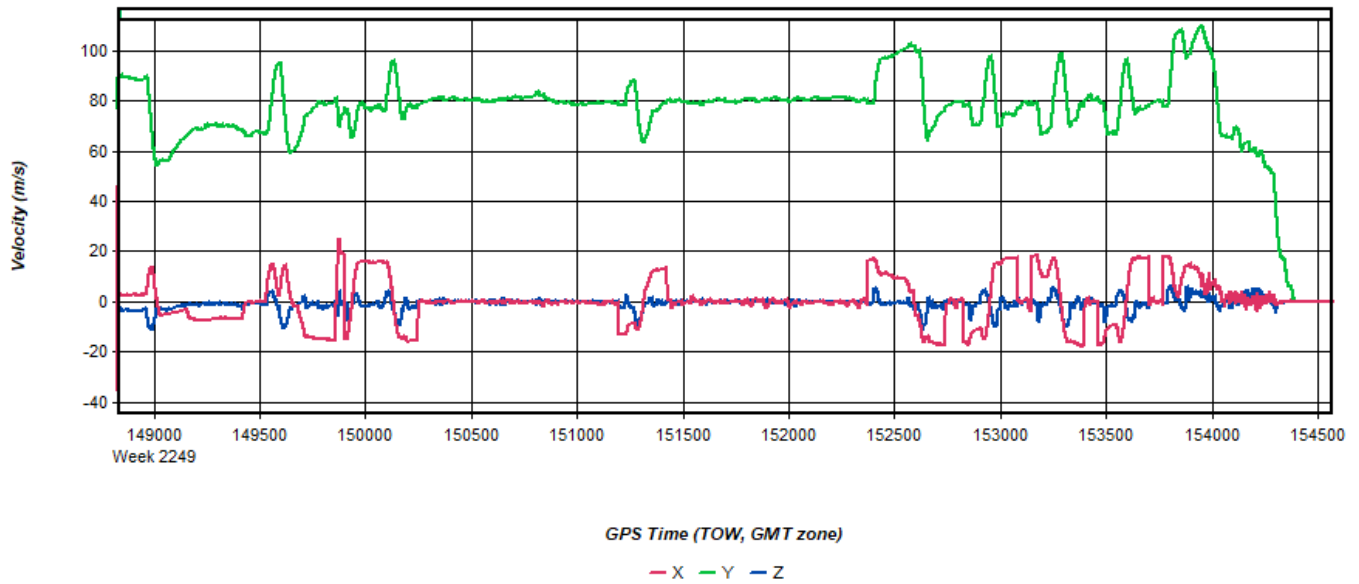
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 13: 20230213171942_16b [Smoothed TC Combined] - Velocity Profile Plot



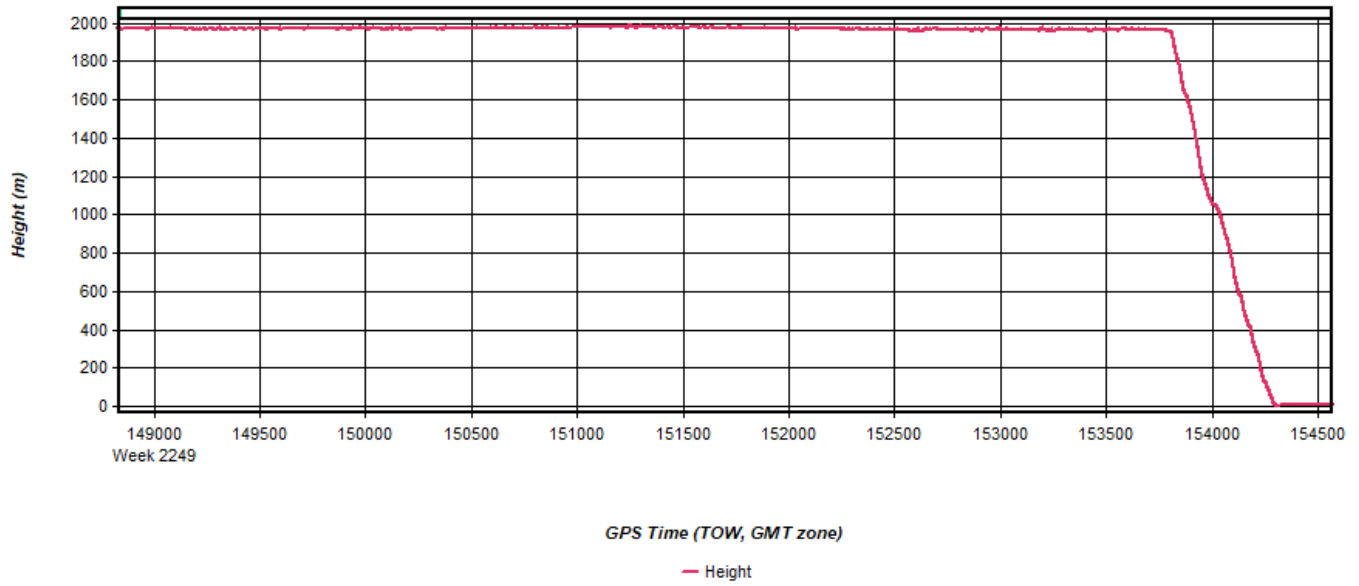
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 14: 20230213171942_16b [Smoothed TC Combined] - Body Frame Velocity Plot



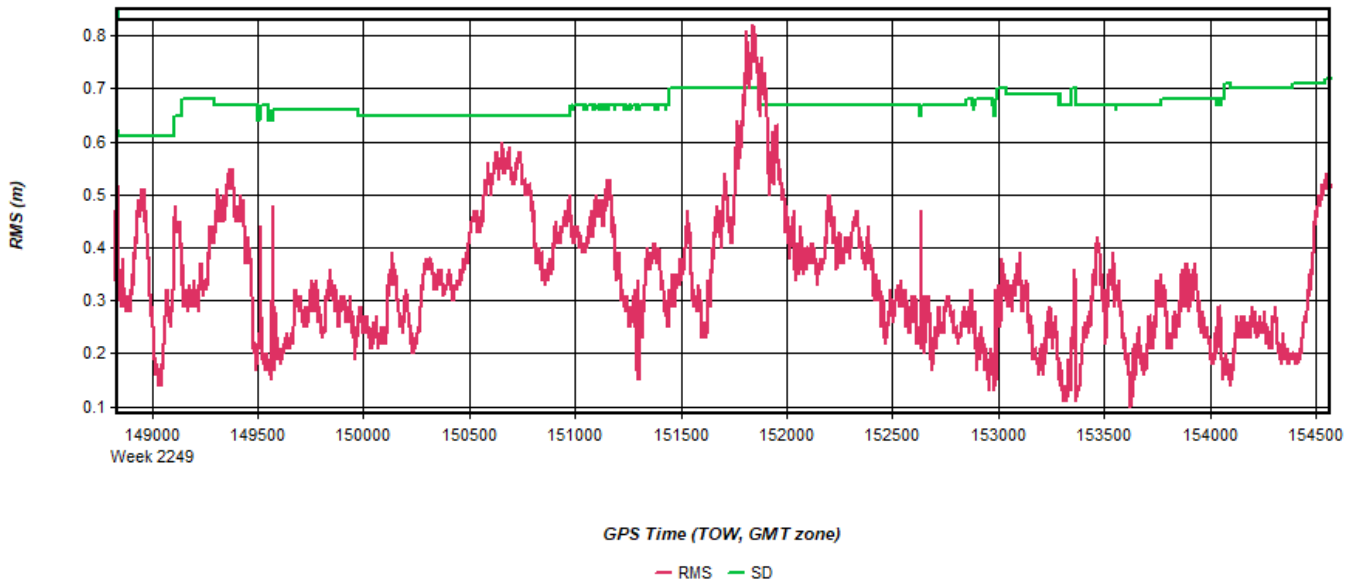
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 15: 20230213171942_16b [Smoothed TC Combined] - Height Profile Plot



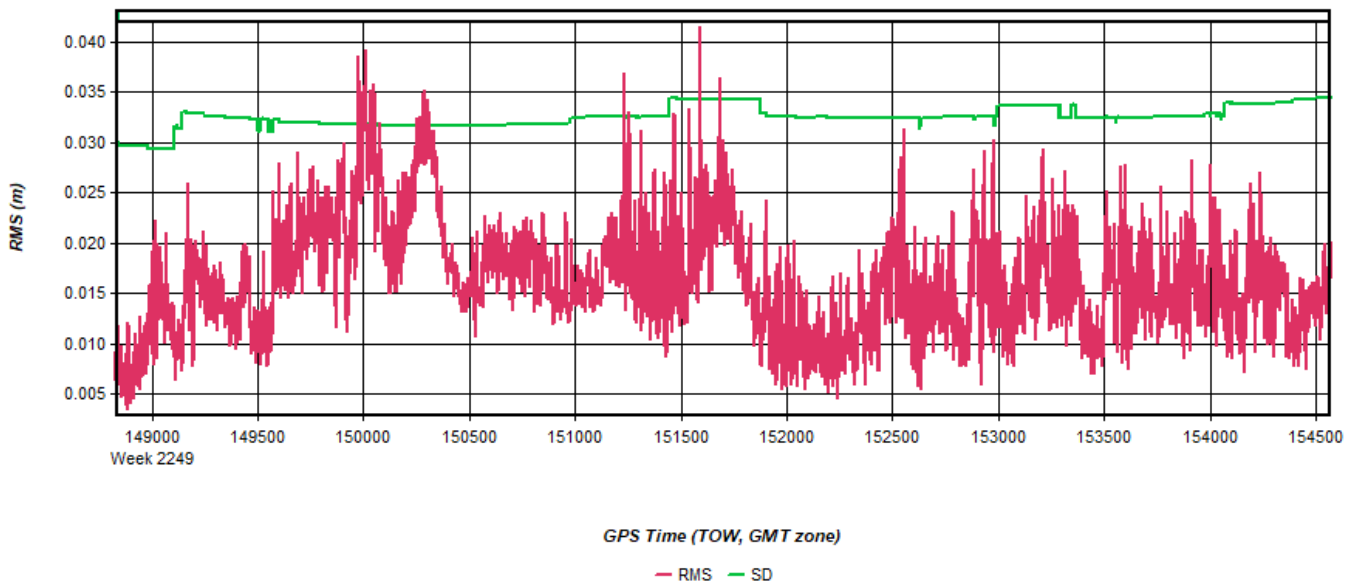
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 16: 20230213171942_16b [Smoothed TC Combined] - C/A Code Residual RMS Plot



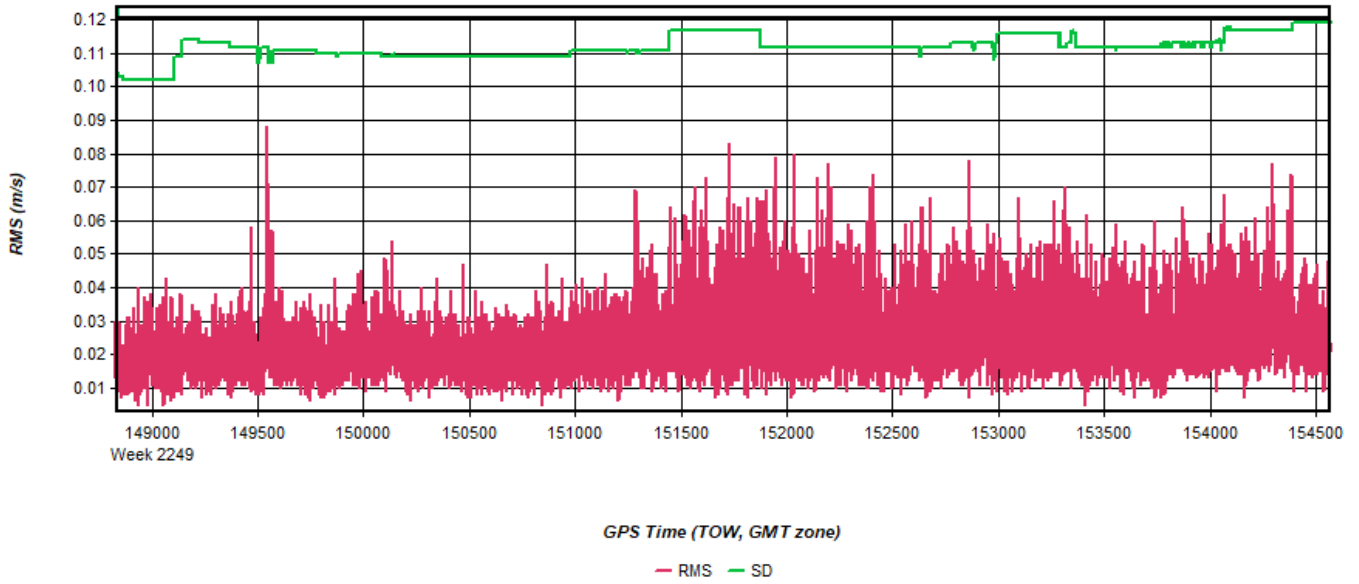
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 17: 20230213171942_16b [Smoothed TC Combined] - Carrier Residual RMS Plot



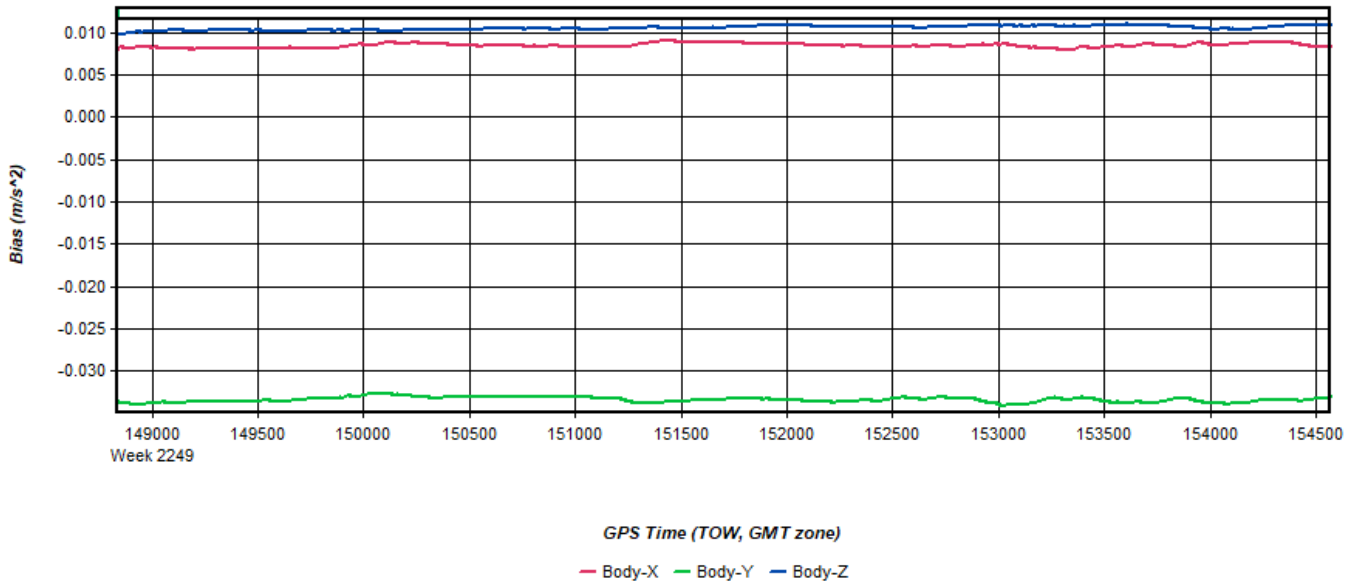
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 18: 20230213171942_16b [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



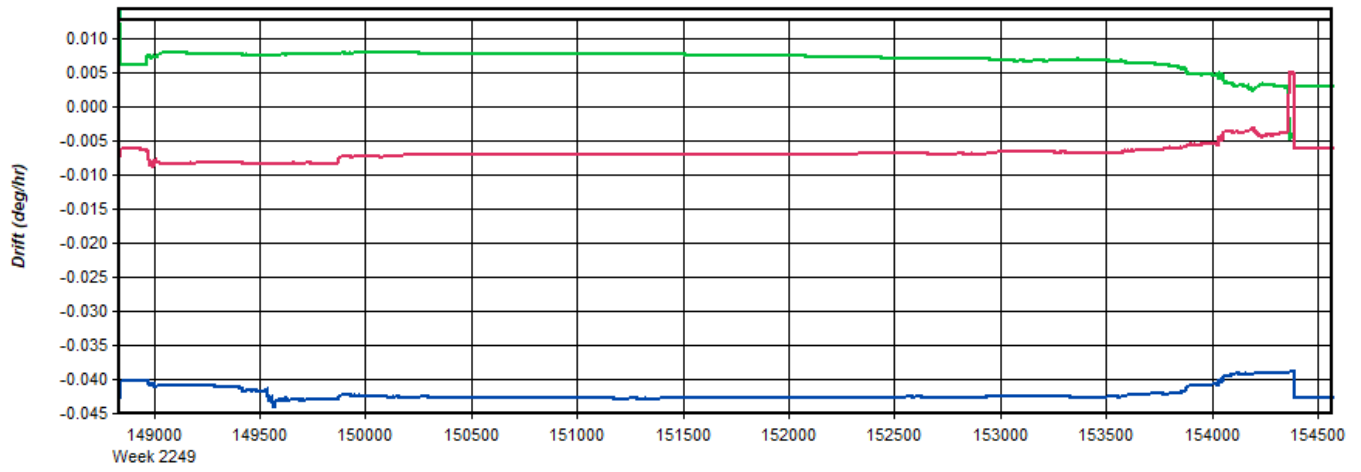
Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 19: 20230213171942_16b [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Figure 20: 20230213171942_16b [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

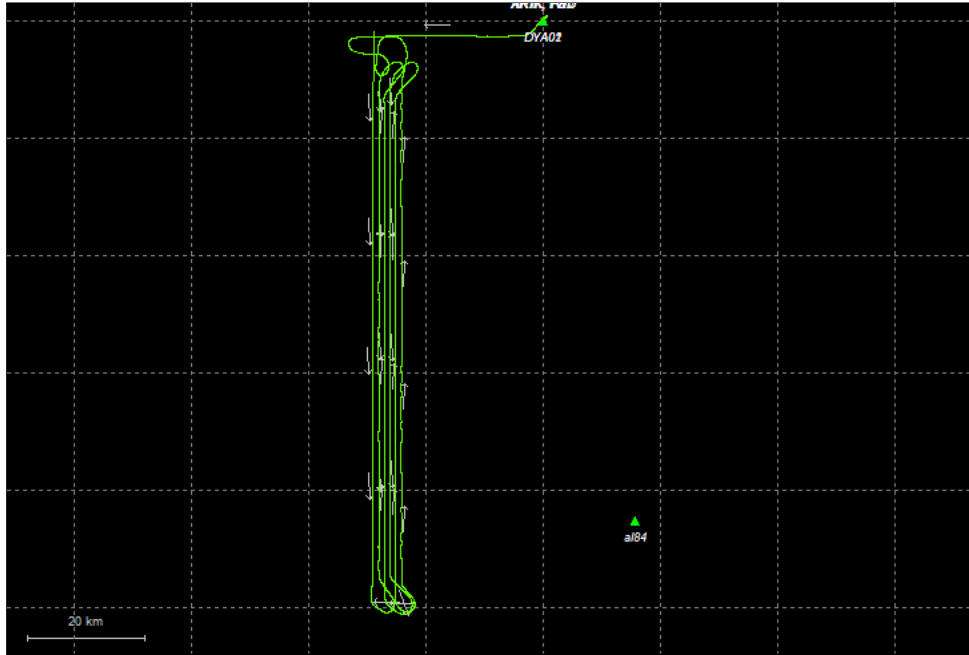
Body-X Body-Y Body-Z

Process	20230213171942_16b	by Unknown	on 2/17/2023	at 12:10:05
---------	--------------------	------------	--------------	-------------

Output Results for 20230213202445_17a

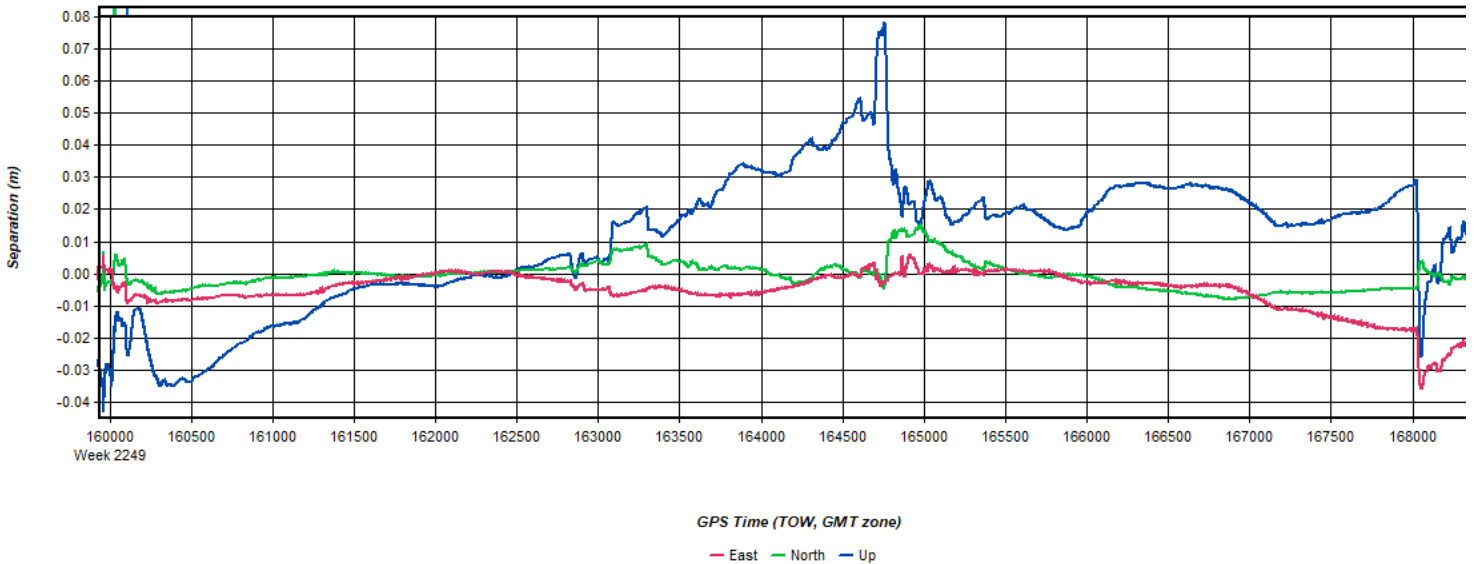
Inertial Explorer Version 8.90.6611
02/22/2023

Figure 1: Smoothed TC Combined - Map



Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 2: 20230213202445_17a [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 3: 20230213202445_17a [Smoothed TC Combined] - Float or Fixed Ambiguity

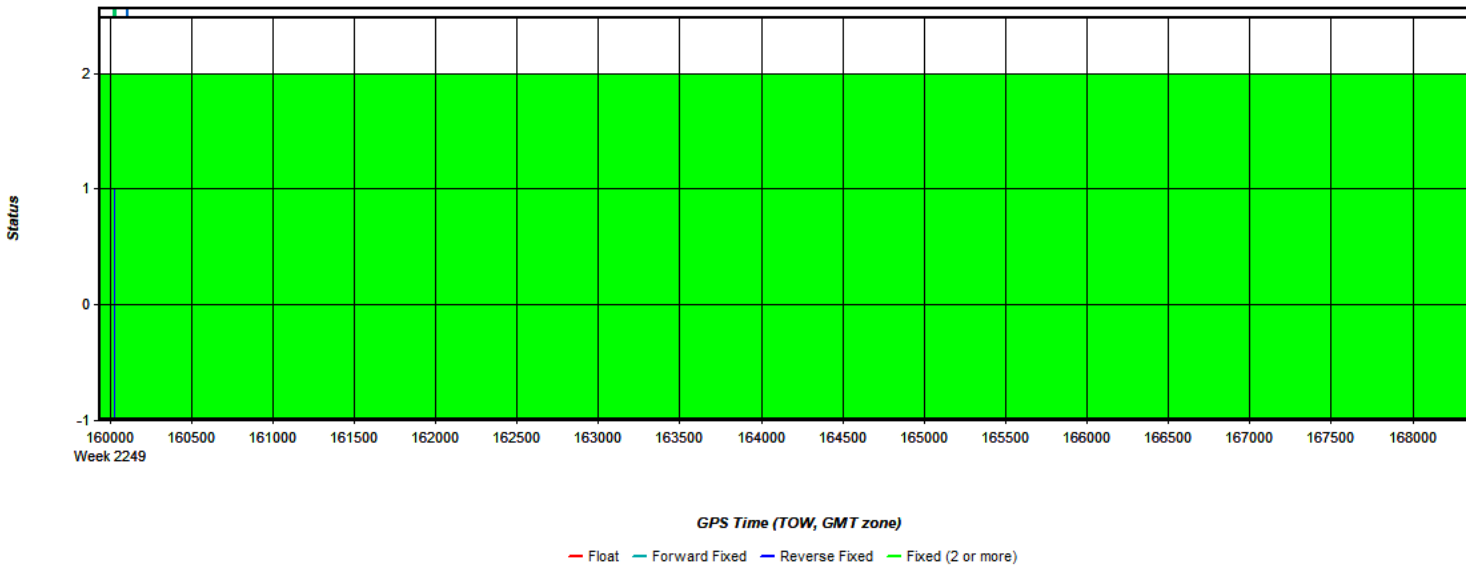


Figure 4: 20230213202445_17a [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

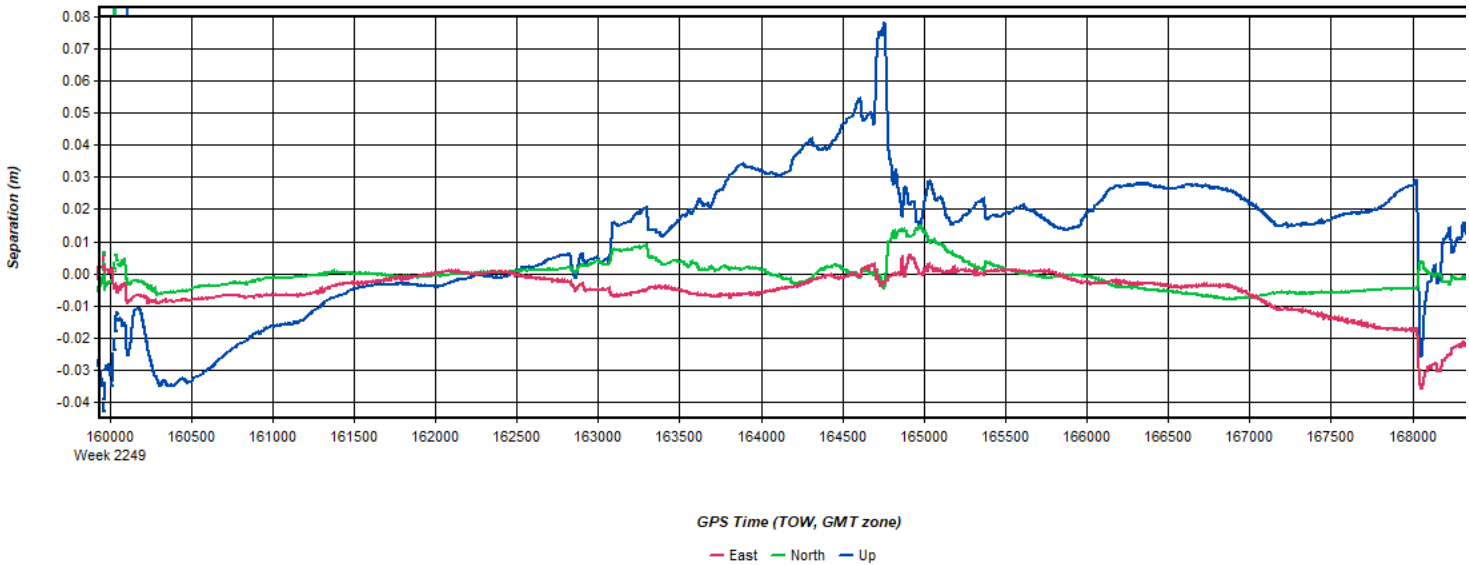
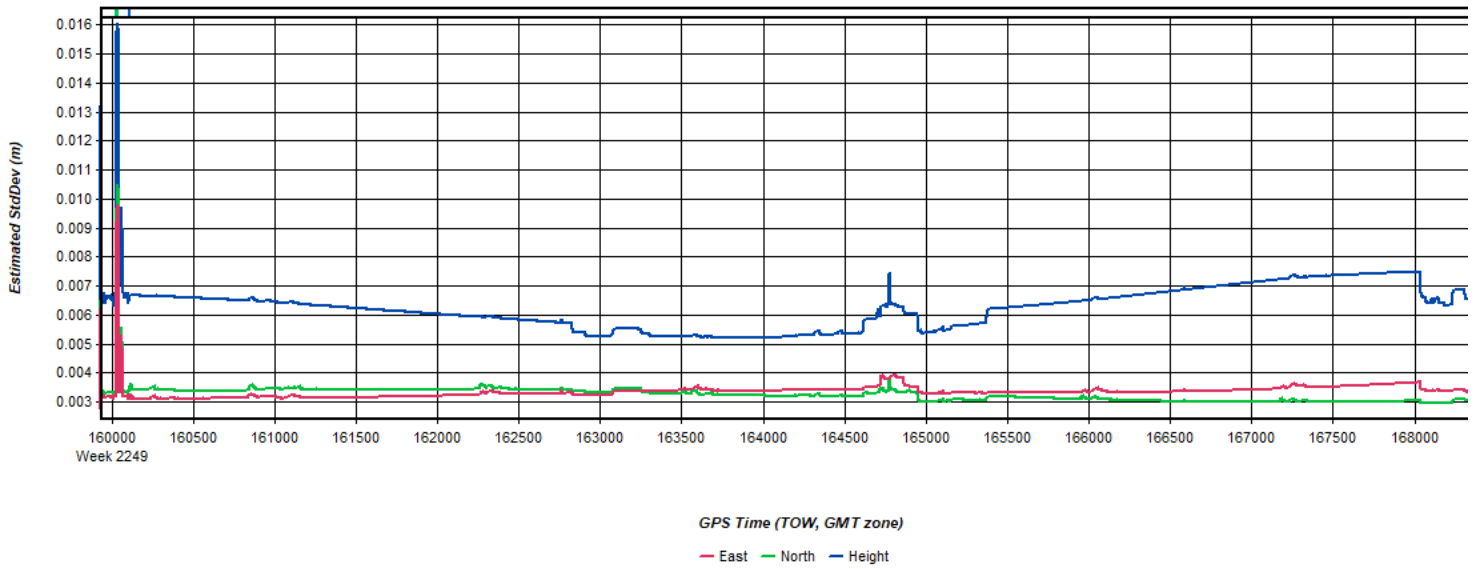
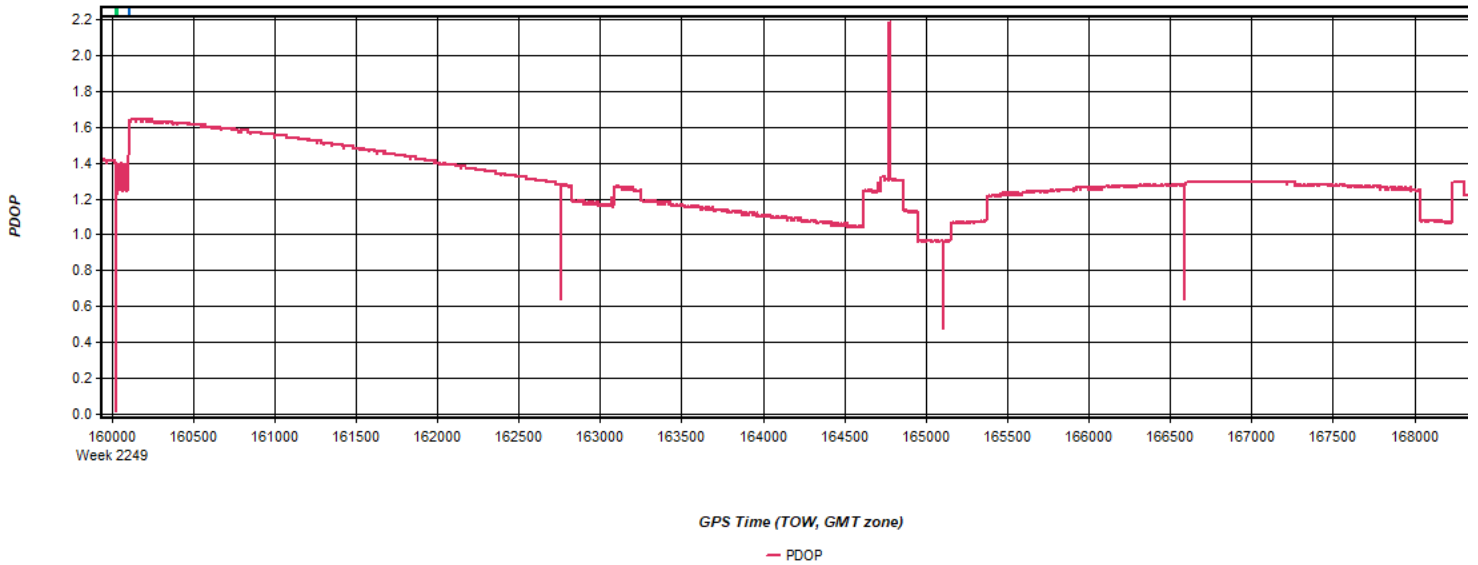


Figure 5: 20230213202445_17a [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 6: 20230213202445_17a [Smoothed TC Combined] - PDOP Plot



Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 7: 20230213202445_17a [Smoothed TC Combined] - Number of Satellites Line Plot

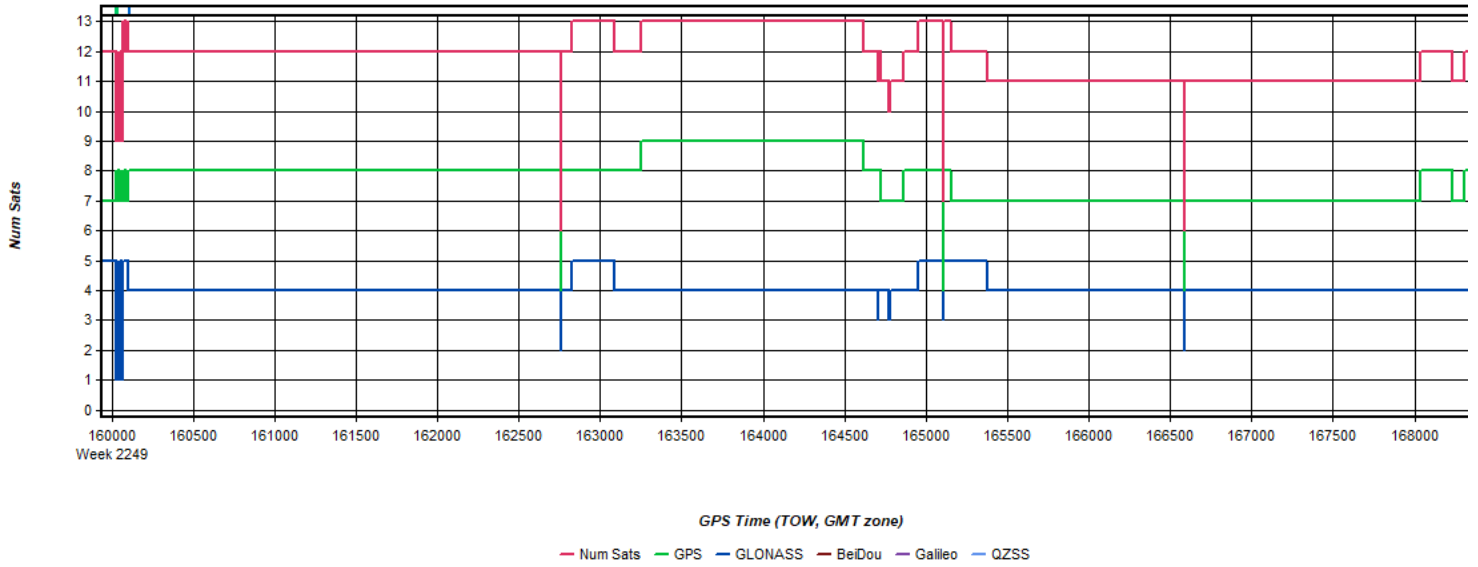


Figure 8: 20230213202445_17a [Smoothed TC Combined] - Status flag for IMU processing

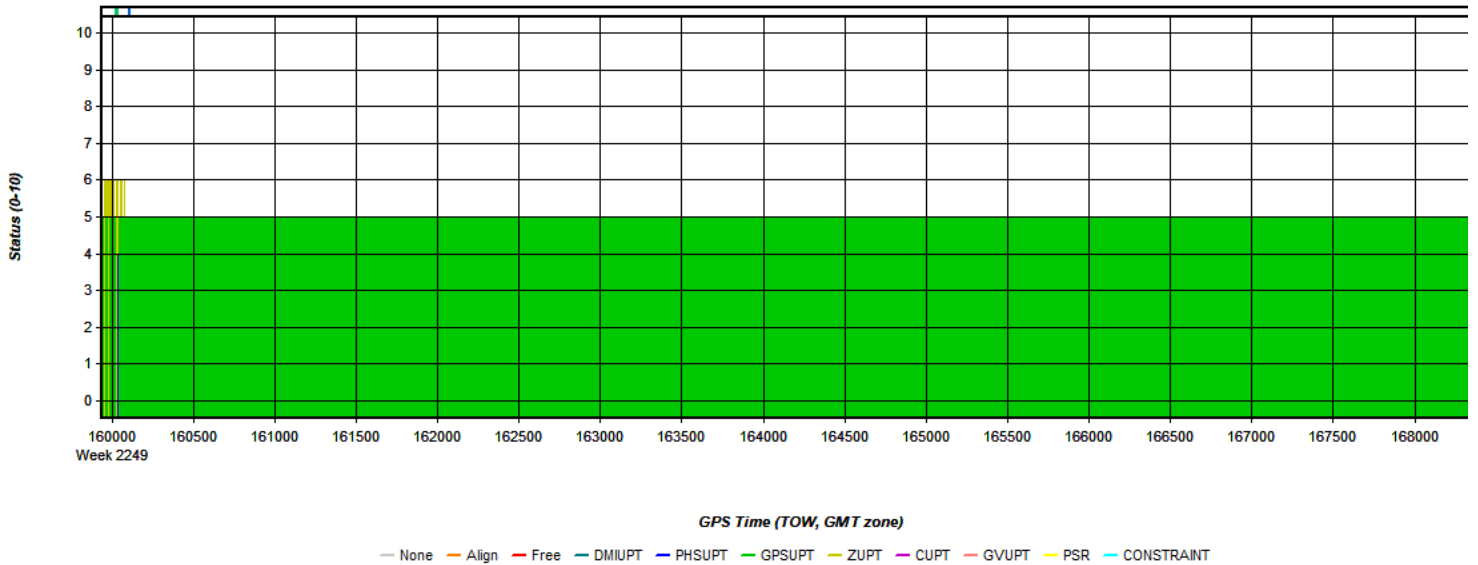
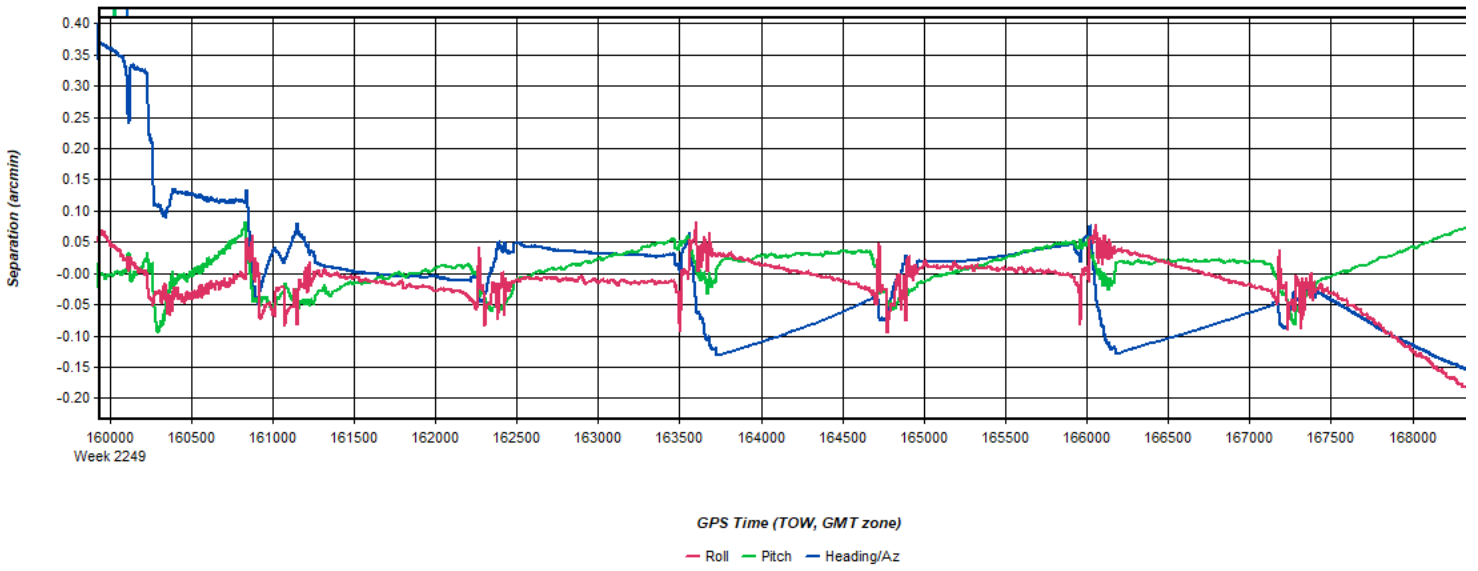
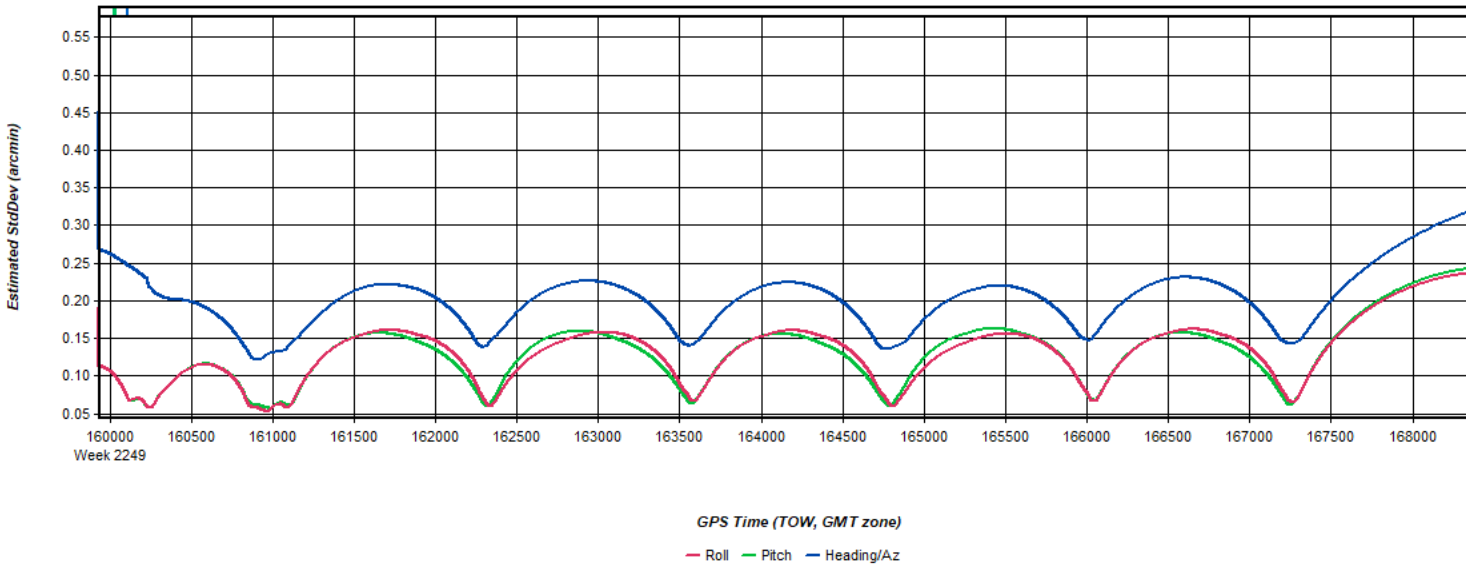


Figure 9: 20230213202445_17a [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



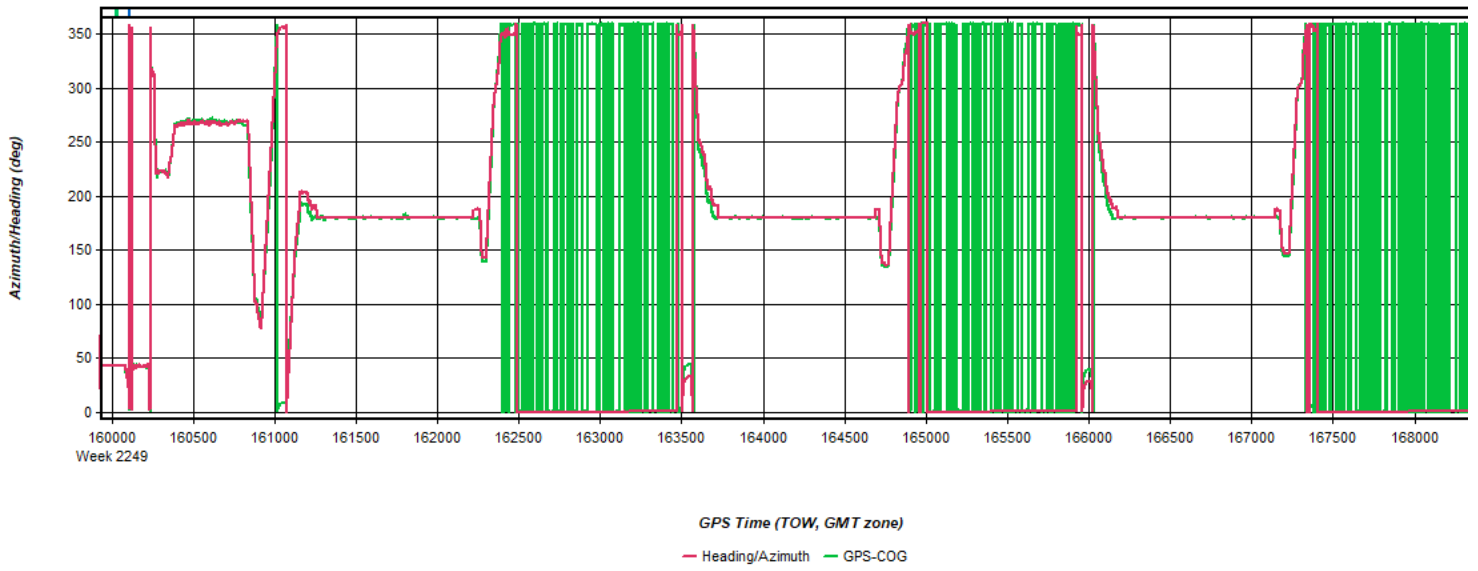
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 10: 20230213202445_17a [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



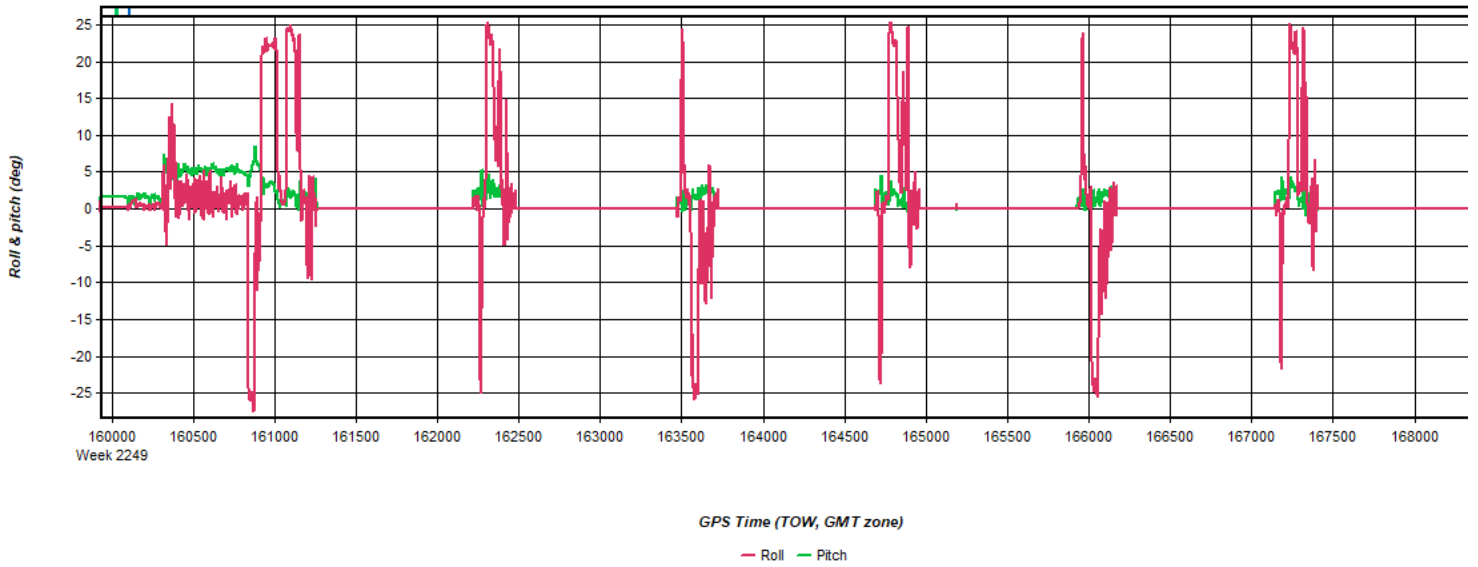
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 11: 20230213202445_17a [Smoothed TC Combined] - Azimuth Plot



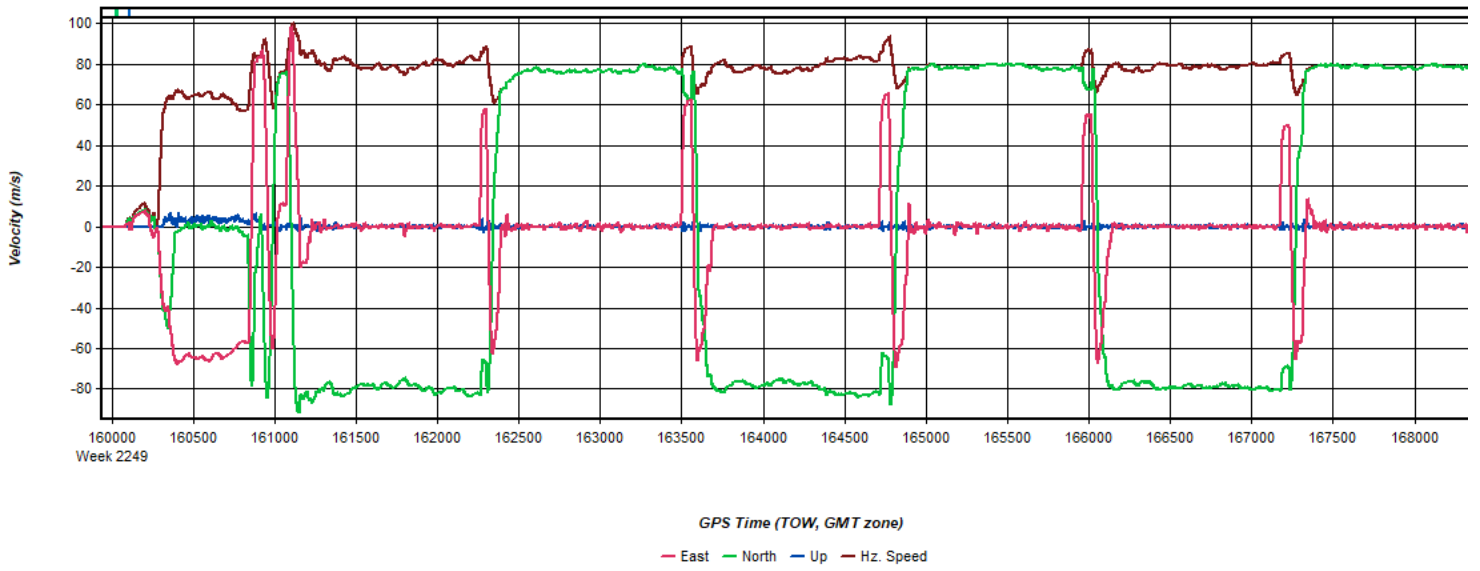
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 12: 20230213202445_17a [Smoothed TC Combined] - Roll & Pitch Plot



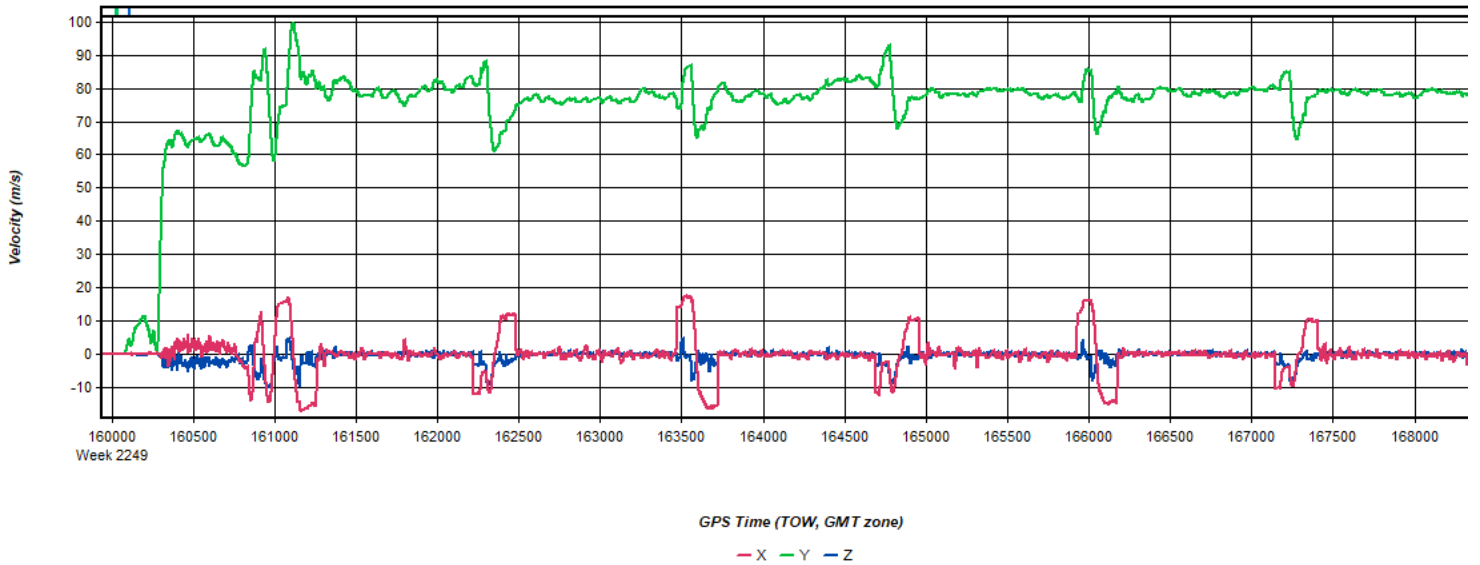
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 13: 20230213202445_17a [Smoothed TC Combined] - Velocity Profile Plot



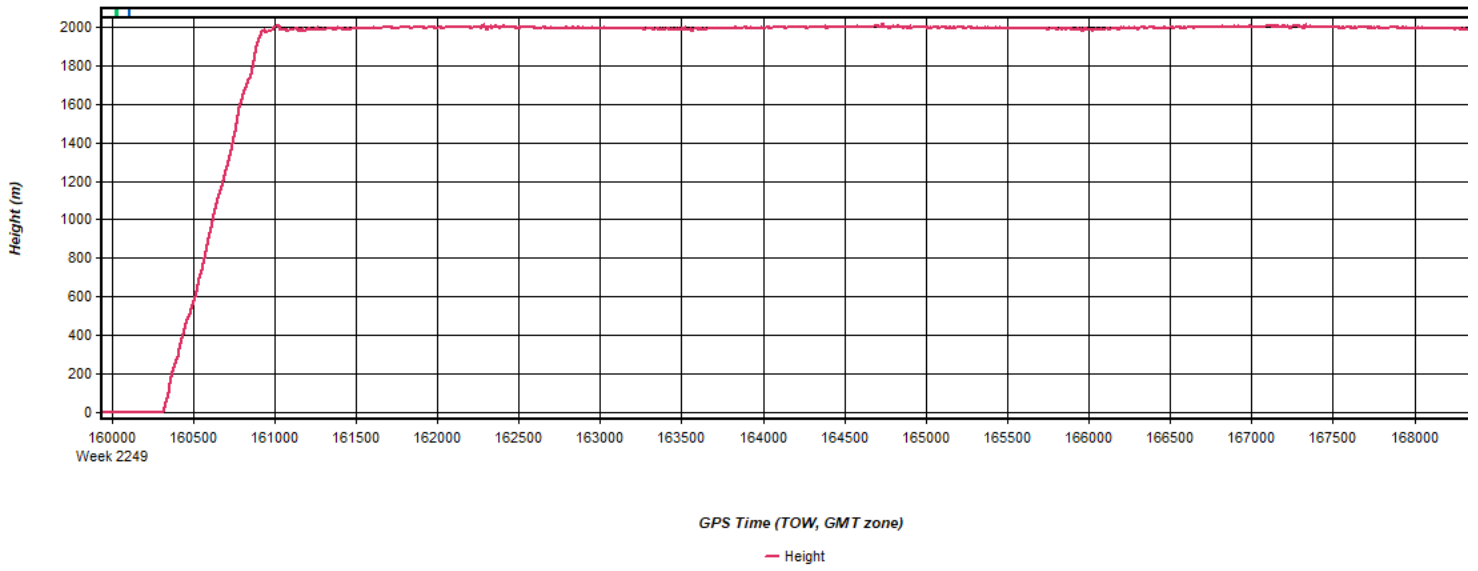
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 14: 20230213202445_17a [Smoothed TC Combined] - Body Frame Velocity Plot



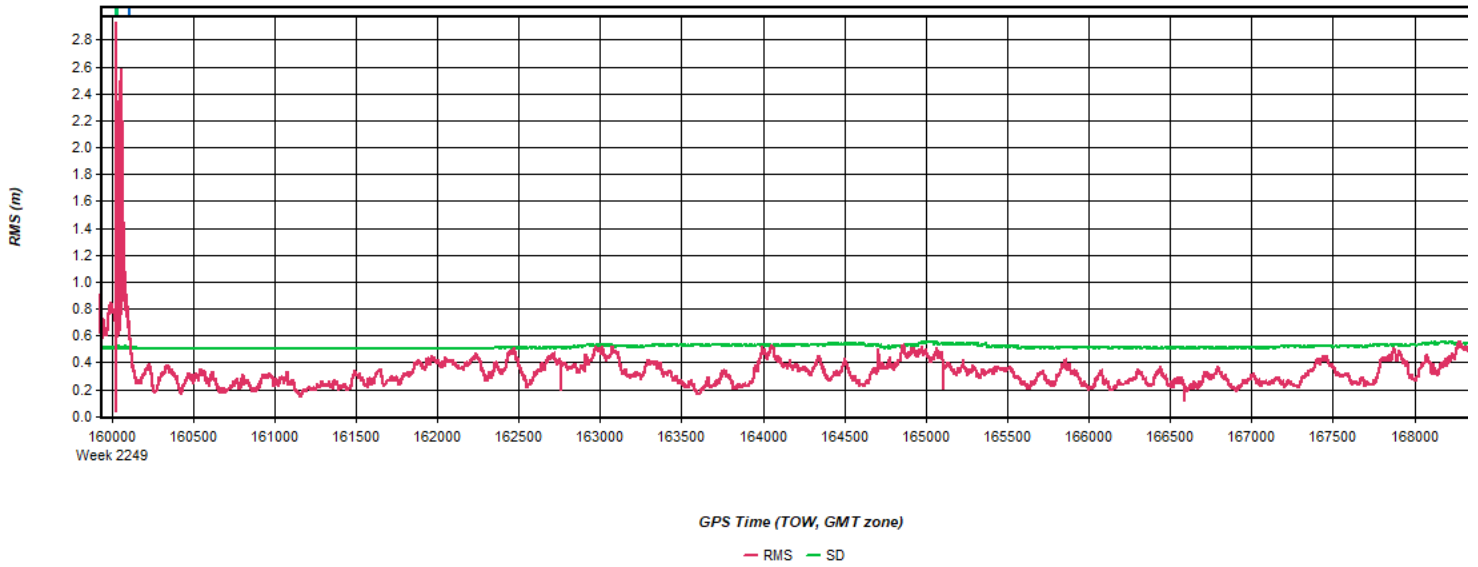
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 15: 20230213202445_17a [Smoothed TC Combined] - Height Profile Plot



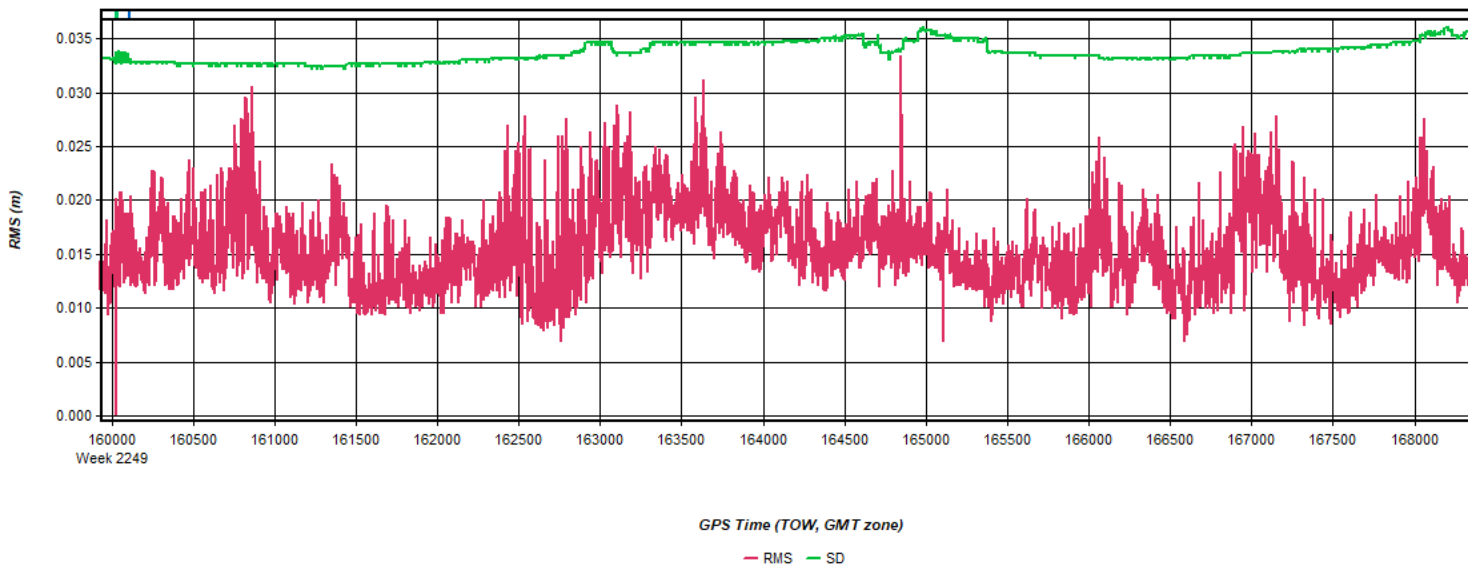
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 16: 20230213202445_17a [Smoothed TC Combined] - C/A Code Residual RMS Plot



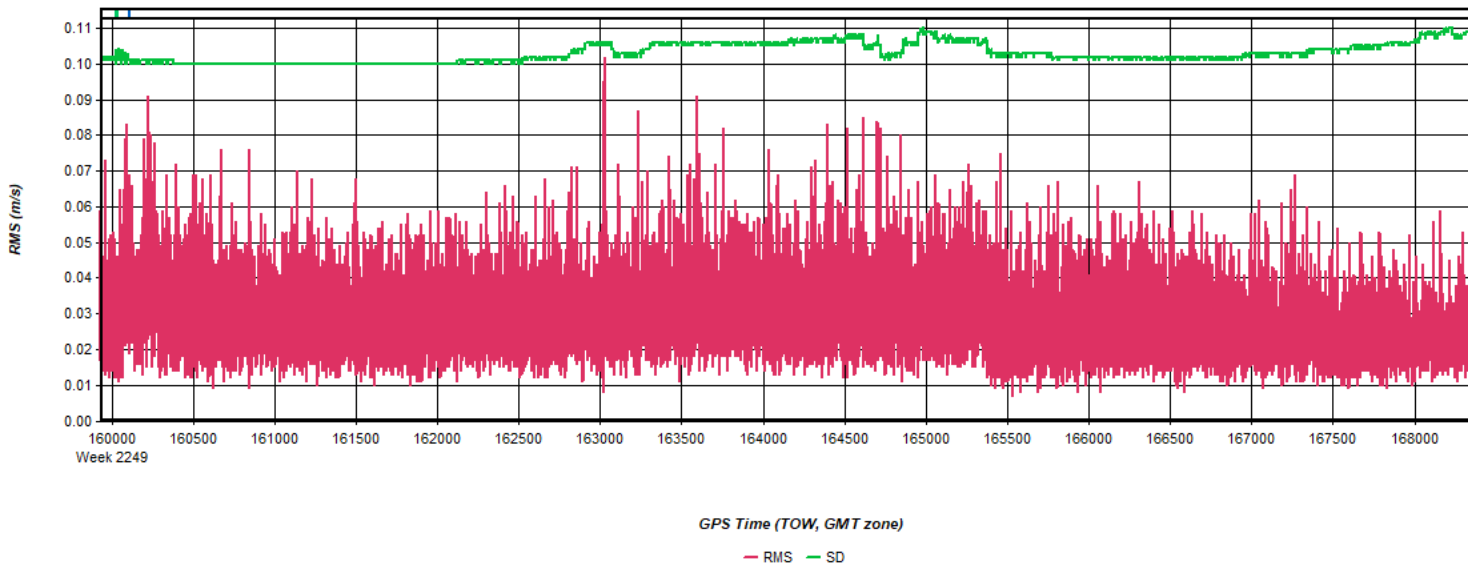
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 17: 20230213202445_17a [Smoothed TC Combined] - Carrier Residual RMS Plot



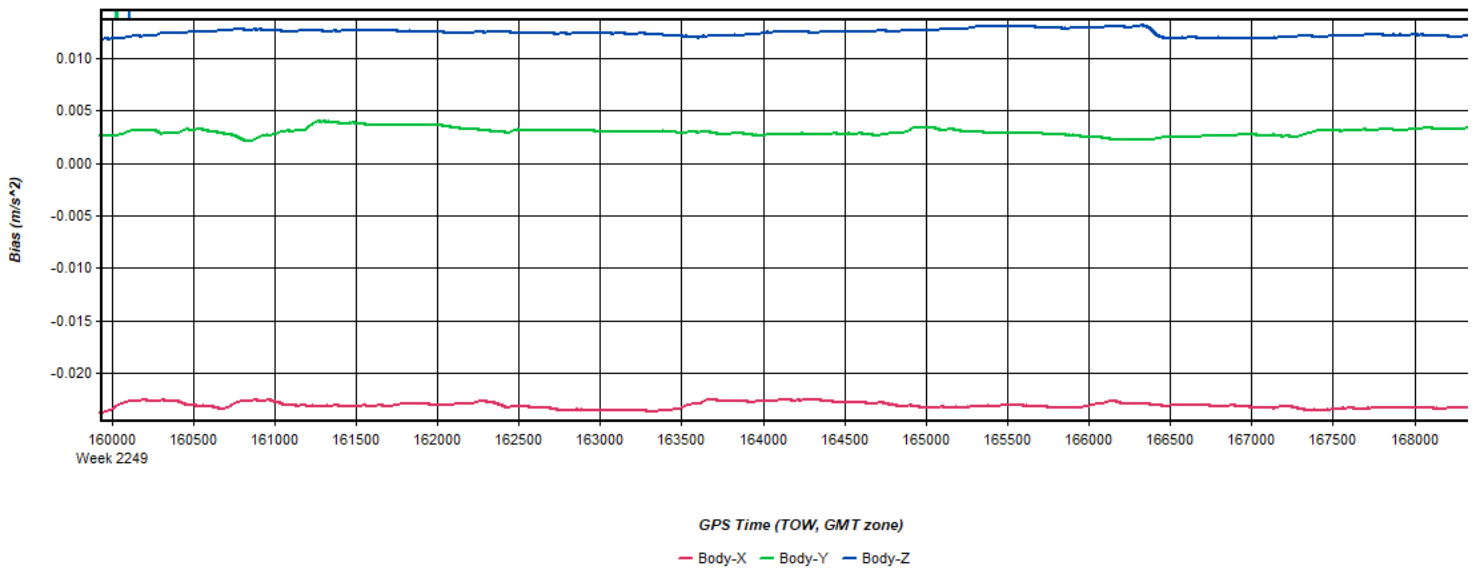
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 18: 20230213202445_17a [Smoothed TC Combined] - Doppler Residual RMS Plot



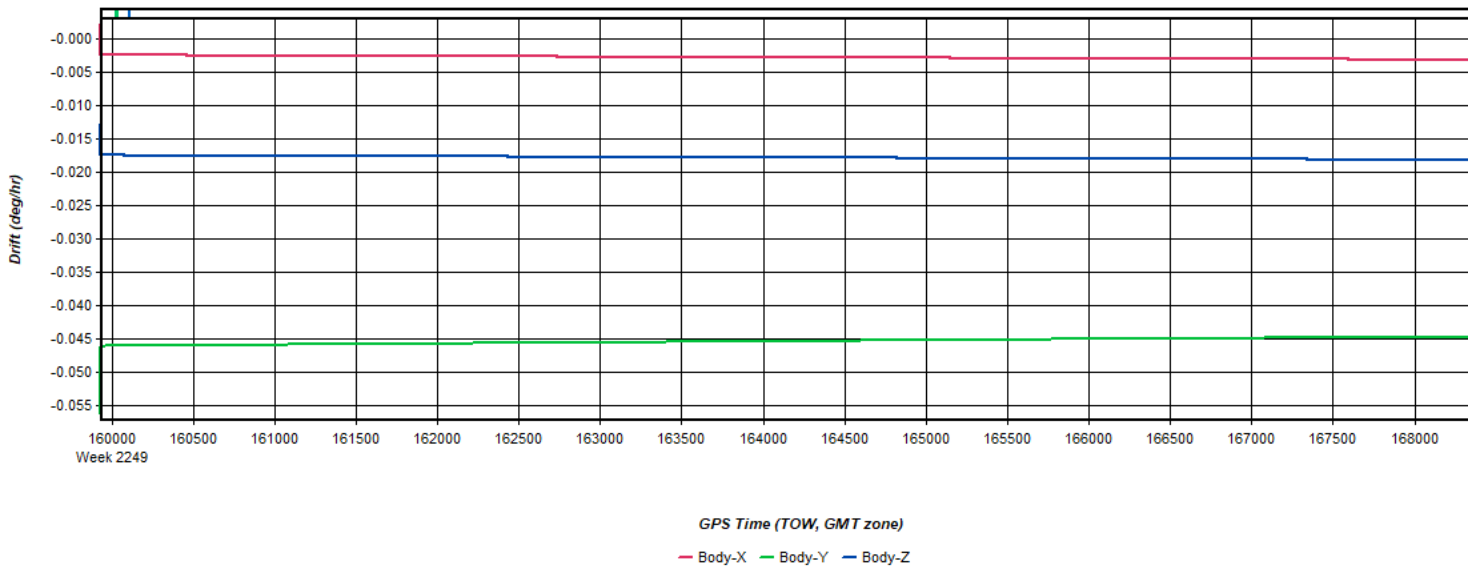
Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 19: 20230213202445_17a [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Figure 20: 20230213202445_17a [Smoothed TC Combined] - Gyro Drift Plot



Process	20230213202445_17a	by Unknown	on 2/22/2023	at 15:29:43
---------	--------------------	------------	--------------	-------------

Output Results for 20230213225110_17b

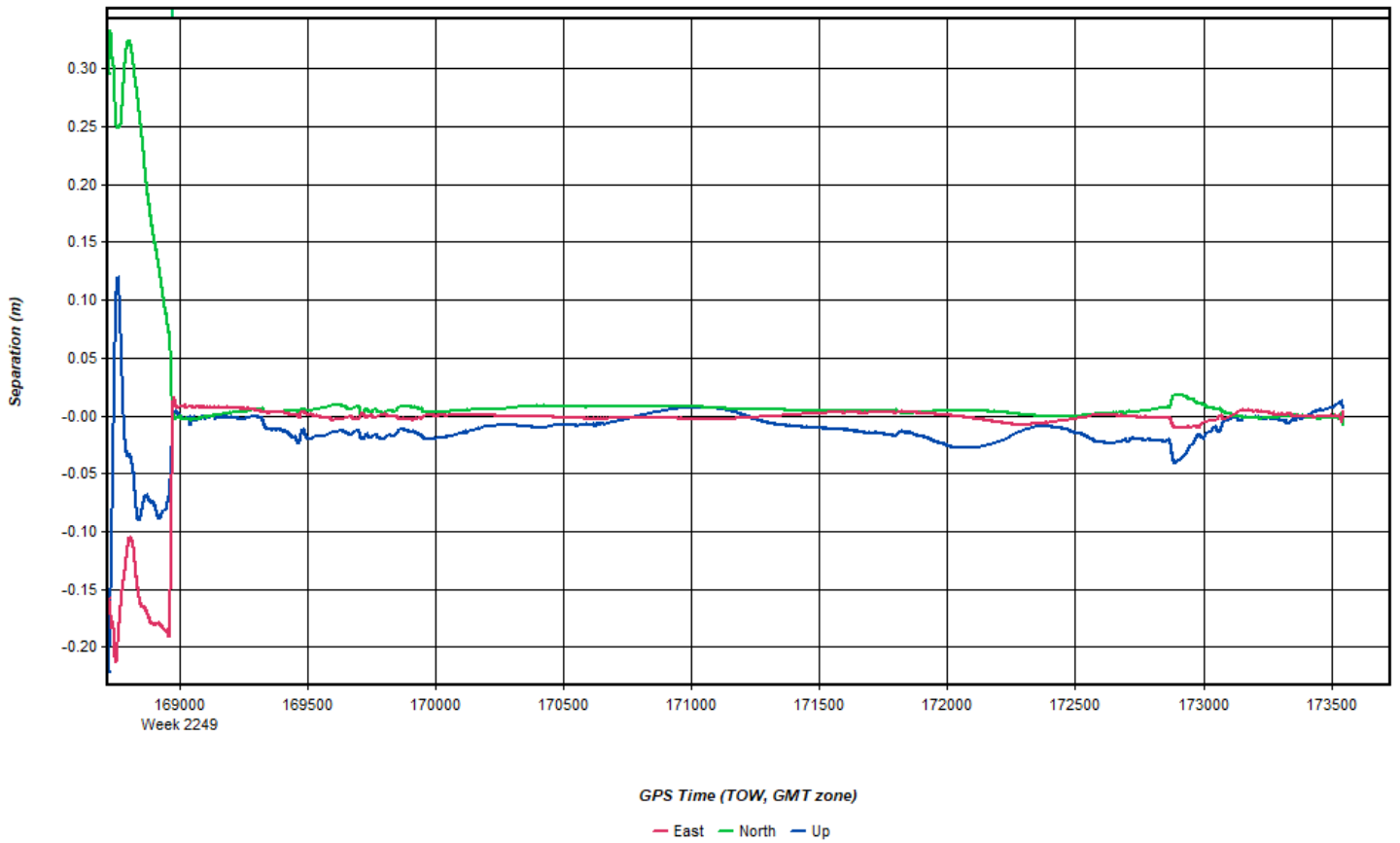
Inertial Explorer Version 8.90.6611
02/20/2023

Figure 1: Smoothed TC Combined - Map



Process	20230213225110_17b	by Unknown	on 2/17/2023	at 16:38:15
---------	--------------------	------------	--------------	-------------

Figure 2: 20230213225110_17b [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



Process	20230213225110_17b	by Unknown	on 2/17/2023	at 16:38:15
---------	--------------------	------------	--------------	-------------

Figure 3: 20230213225110_17b [Smoothed TC Combined] - Float or Fixed Ambiguity

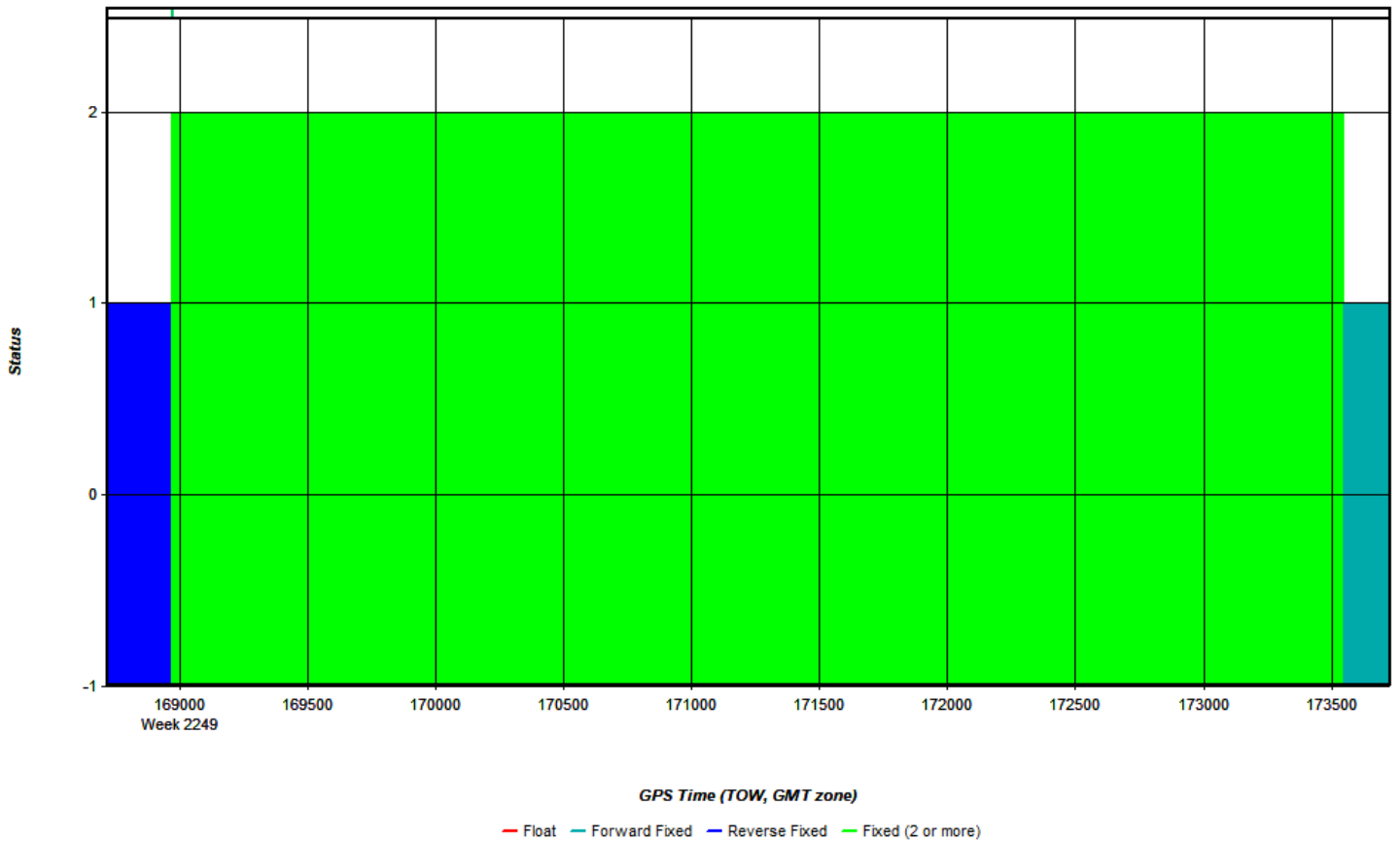


Figure 4: 20230213225110_17b [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)

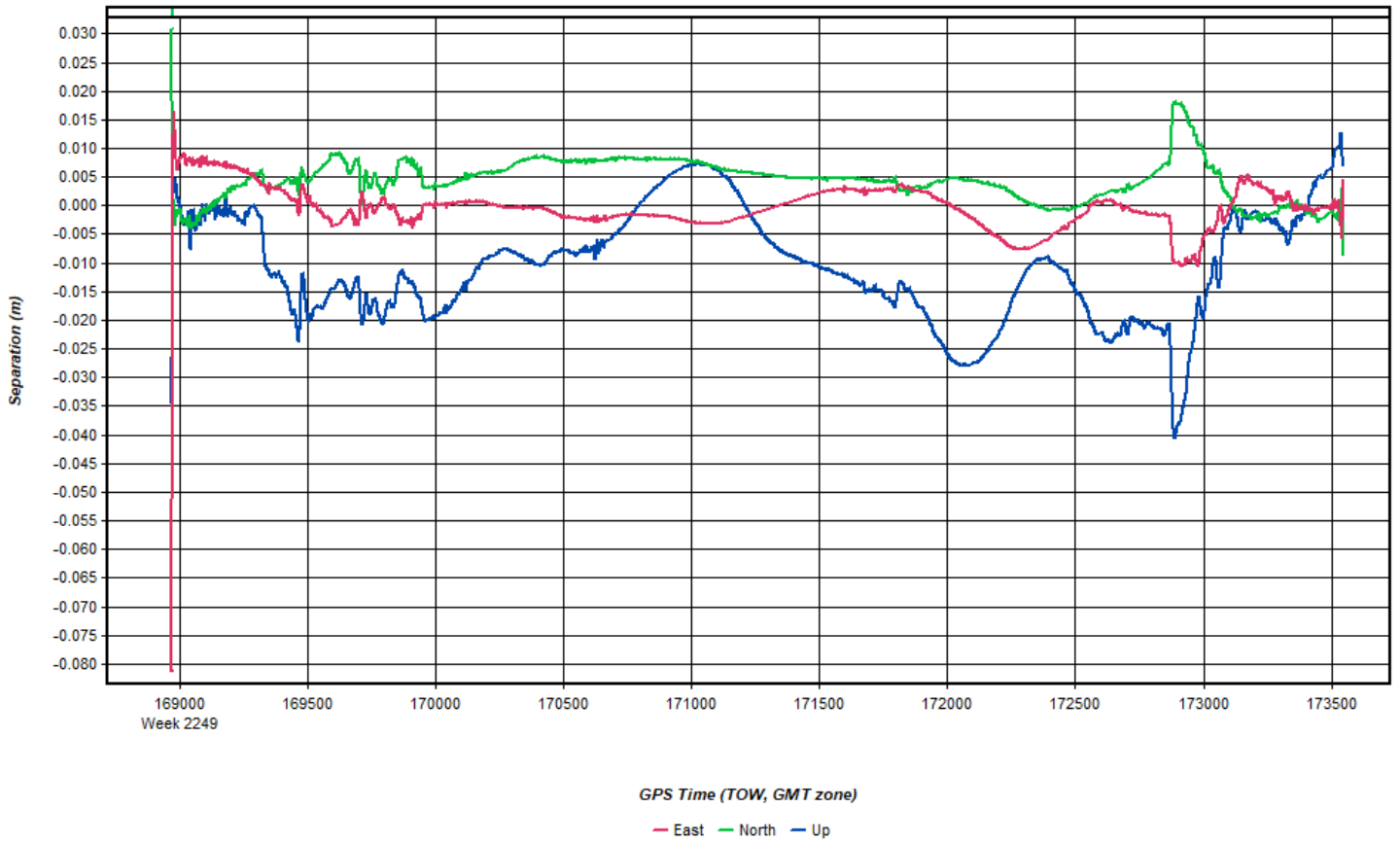
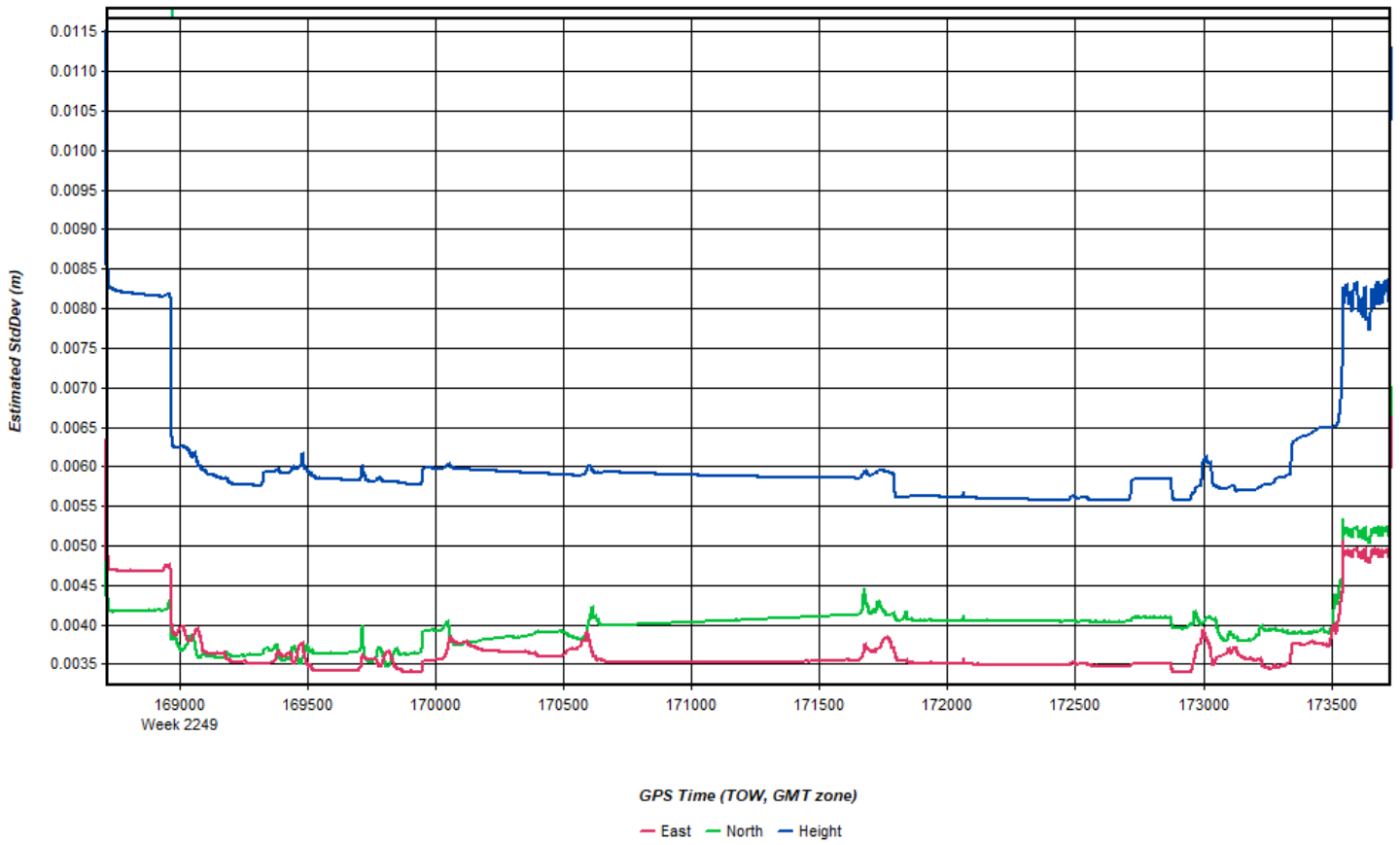


Figure 5: 20230213225110_17b [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230213225110_17b	by Unknown	on 2/17/2023	at 16:38:15
---------	--------------------	------------	--------------	-------------

Figure 6: 20230213225110_17b [Smoothed TC Combined] - PDOP Plot

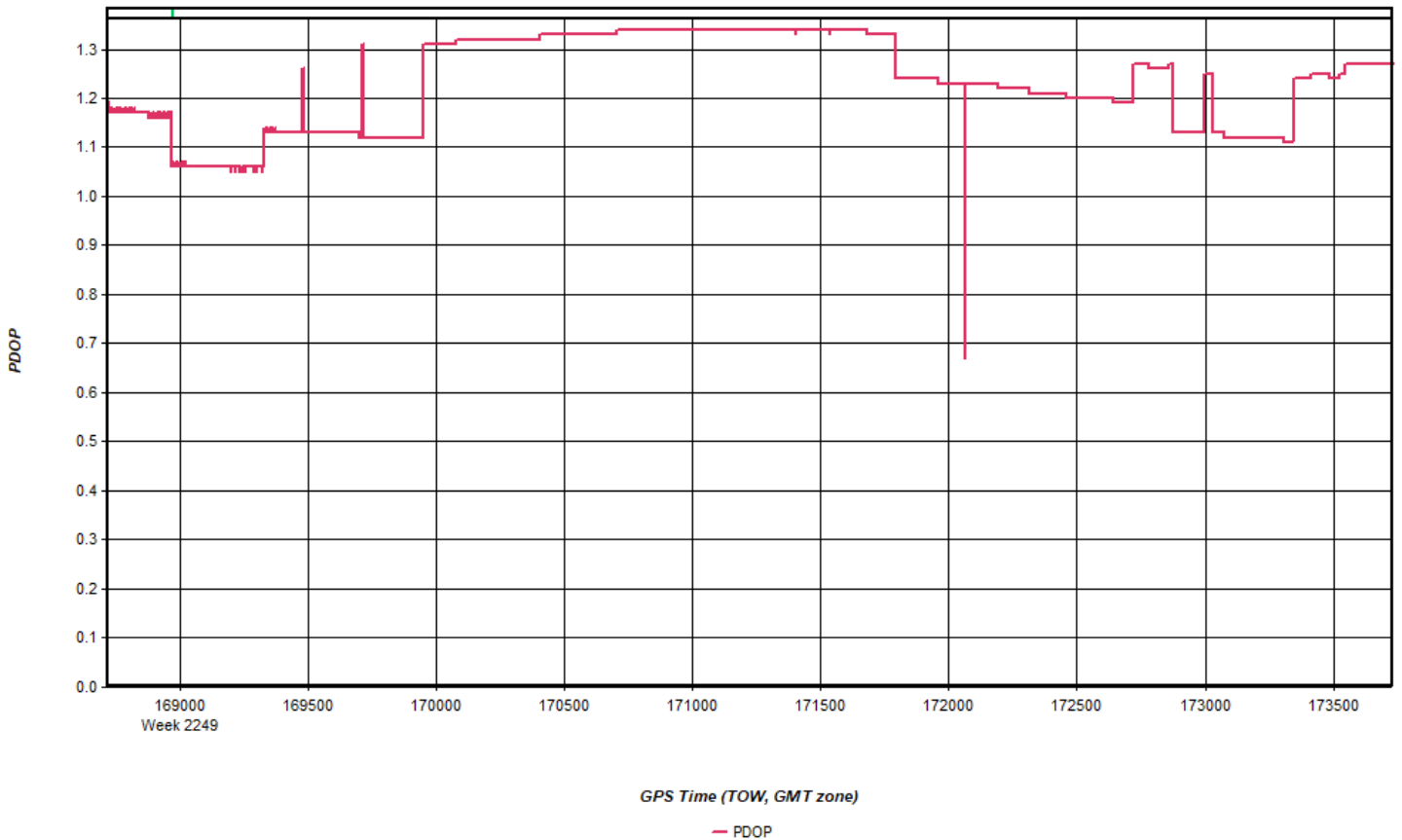


Figure 7: 20230213225110_17b [Smoothed TC Combined] - Number of Satellites Line Plot

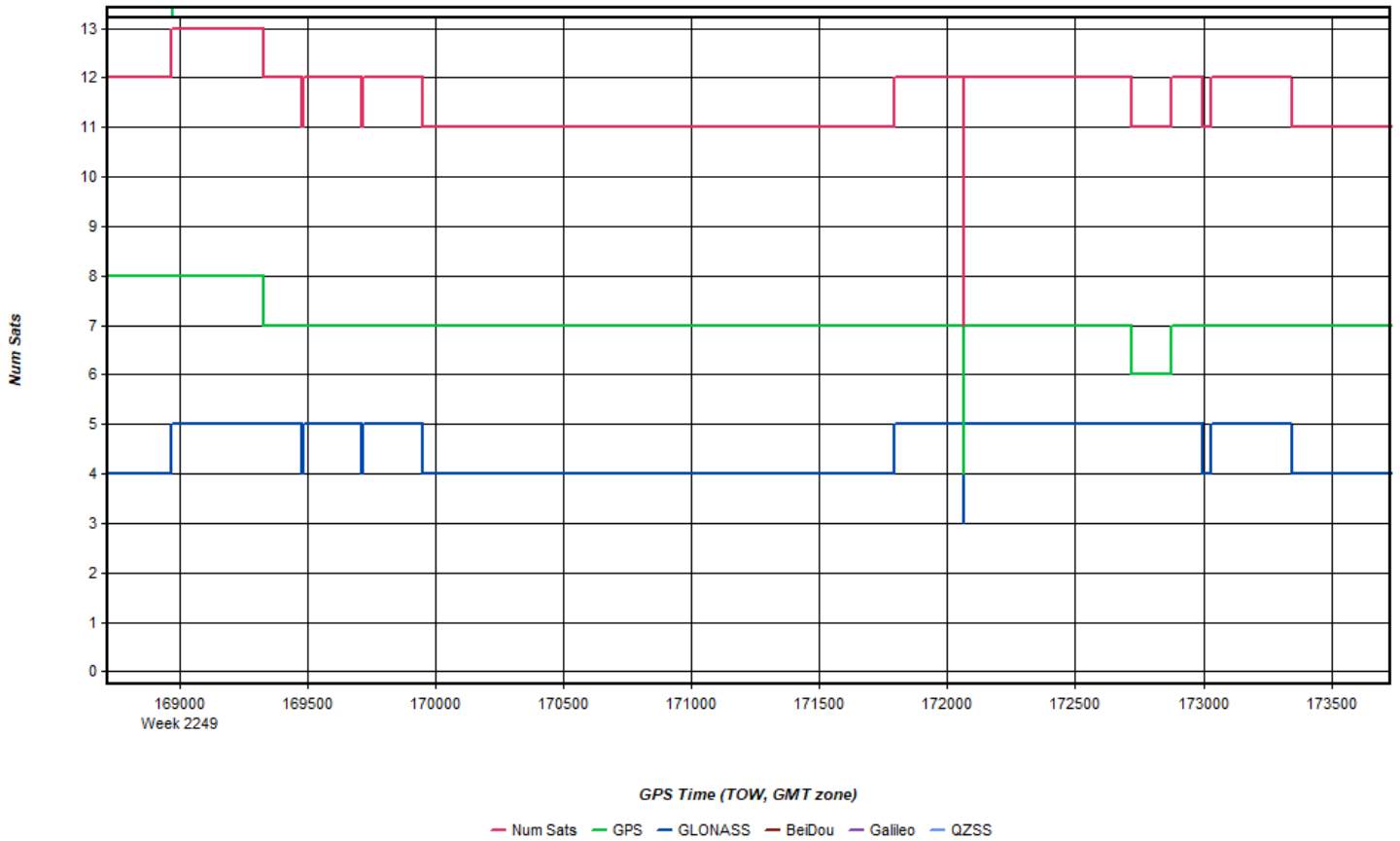


Figure 8: 20230213225110_17b [Smoothed TC Combined] - Status flag for IMU processing

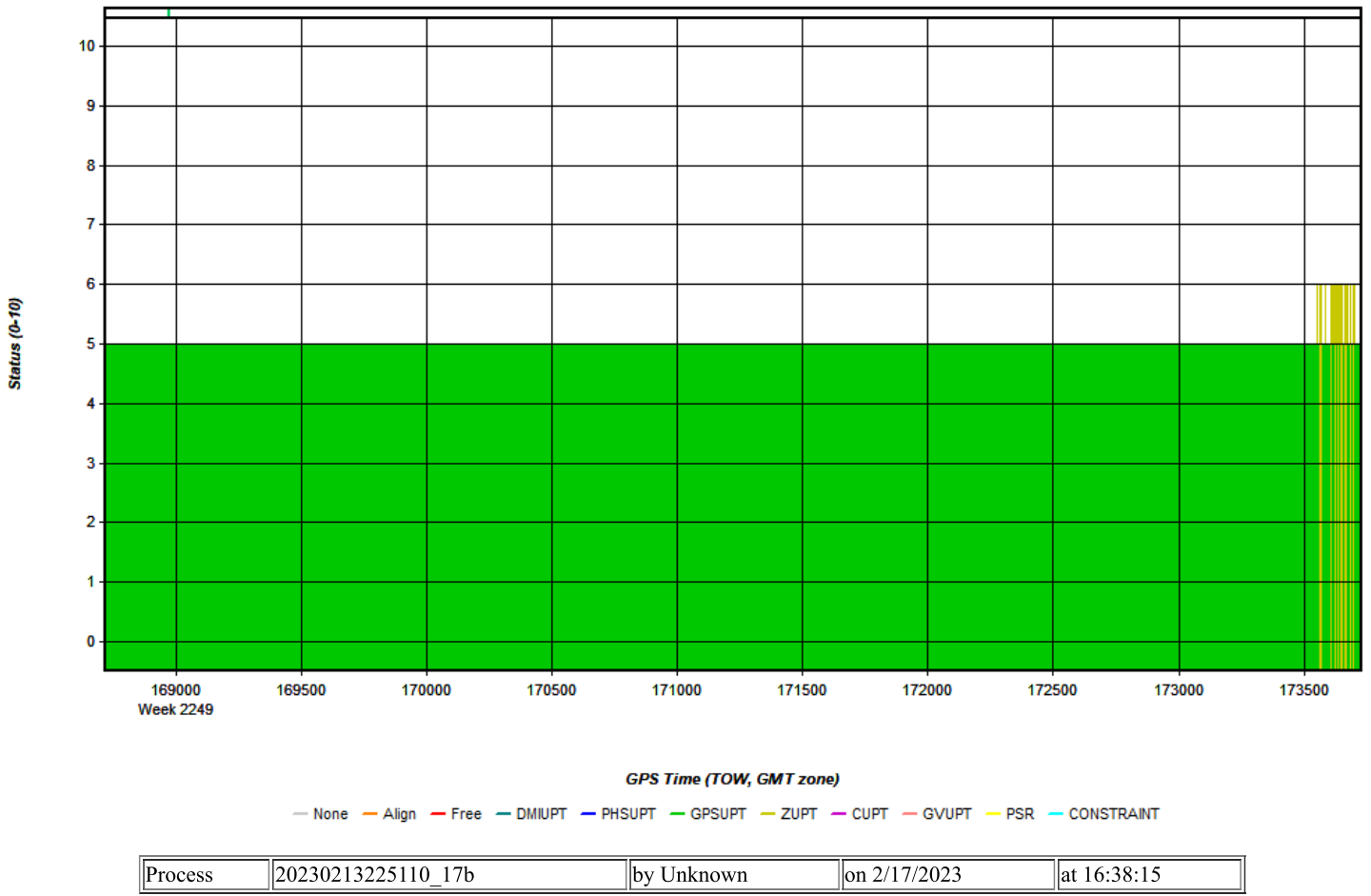


Figure 9: 20230213225110_17b [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

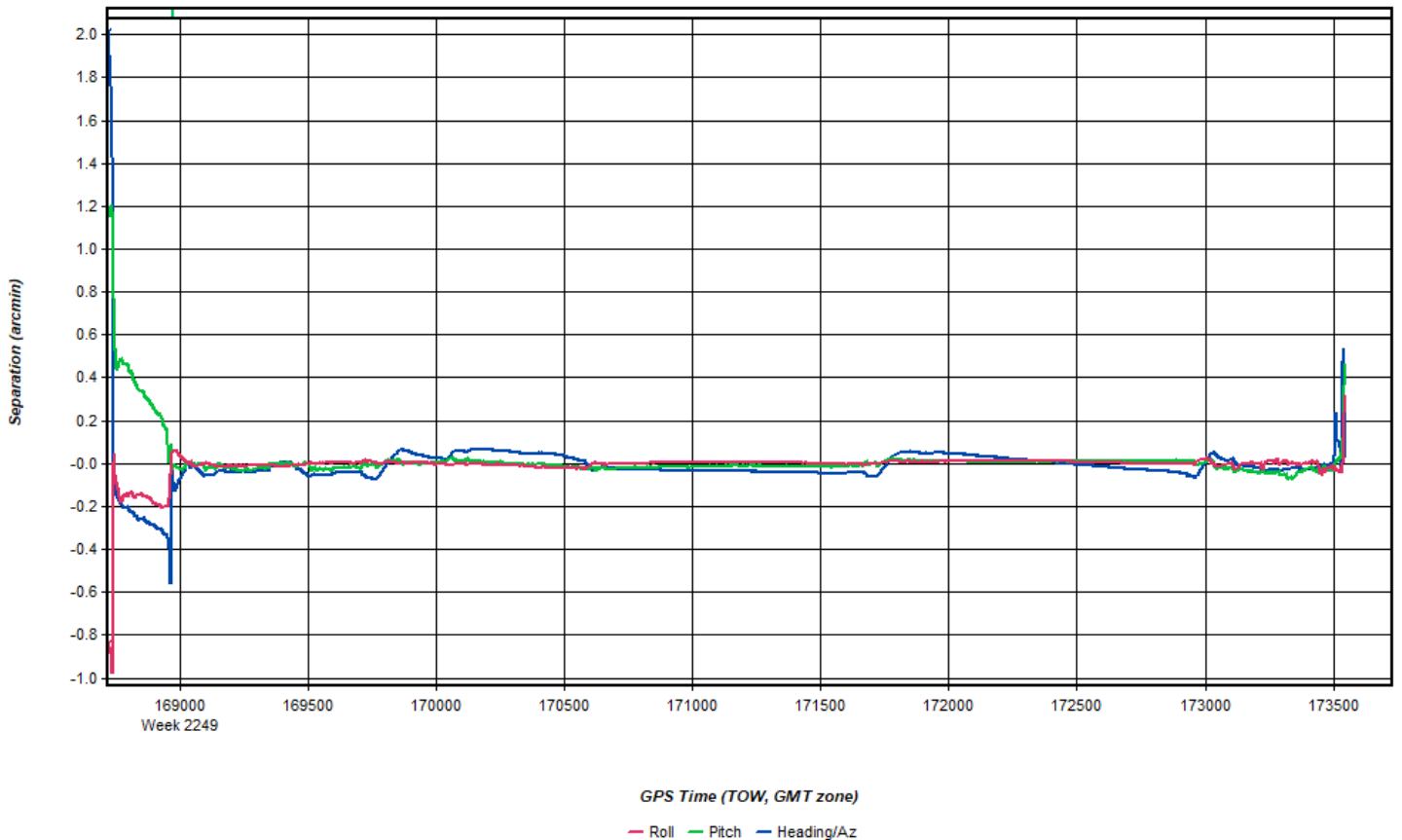


Figure 10: 20230213225110_17b [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

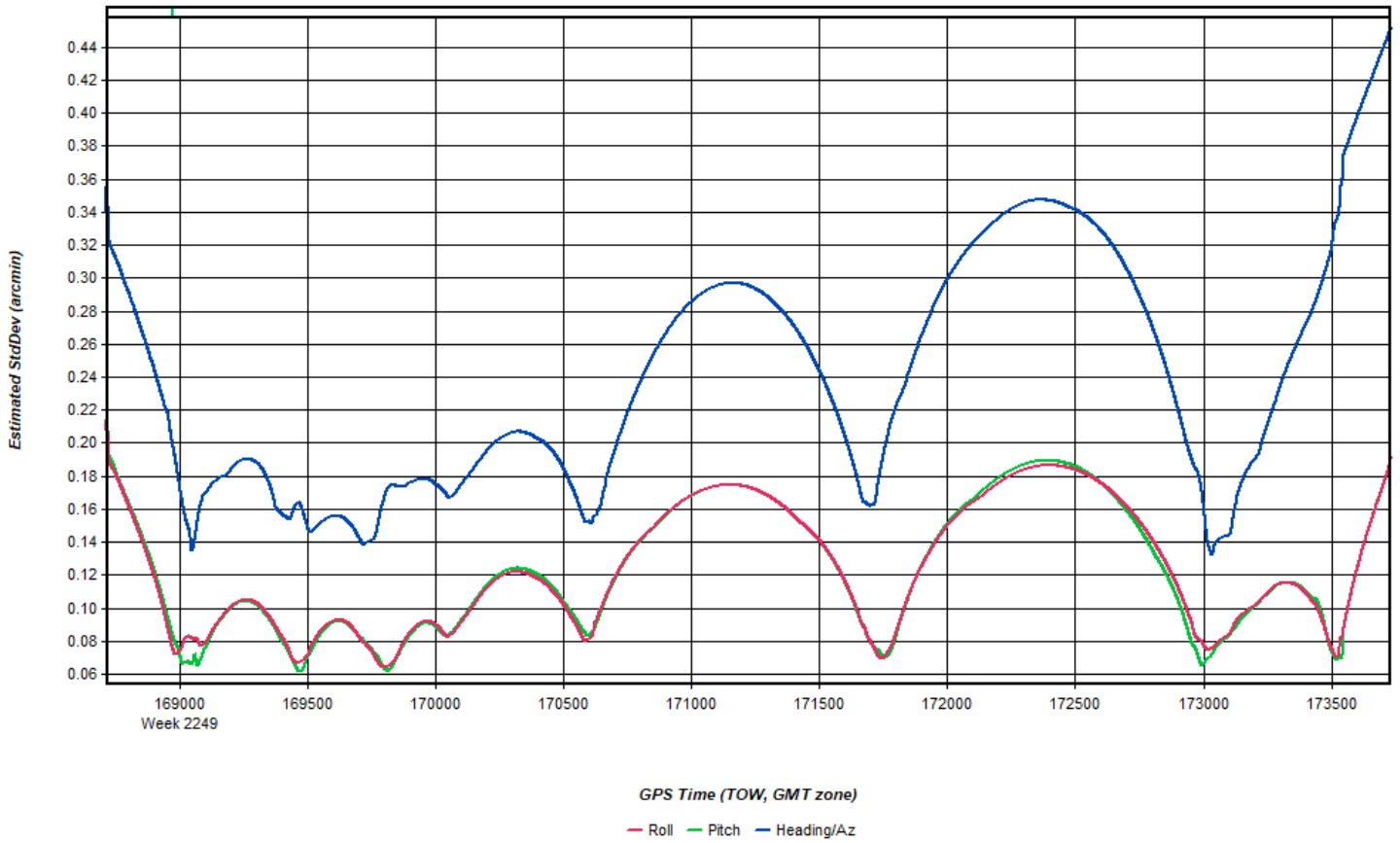


Figure 11: 20230213225110_17b [Smoothed TC Combined] - Azimuth Plot



Process	20230213225110_17b	by Unknown	on 2/17/2023	at 16:38:15
---------	--------------------	------------	--------------	-------------

Figure 12: 20230213225110_17b [Smoothed TC Combined] - Roll & Pitch Plot

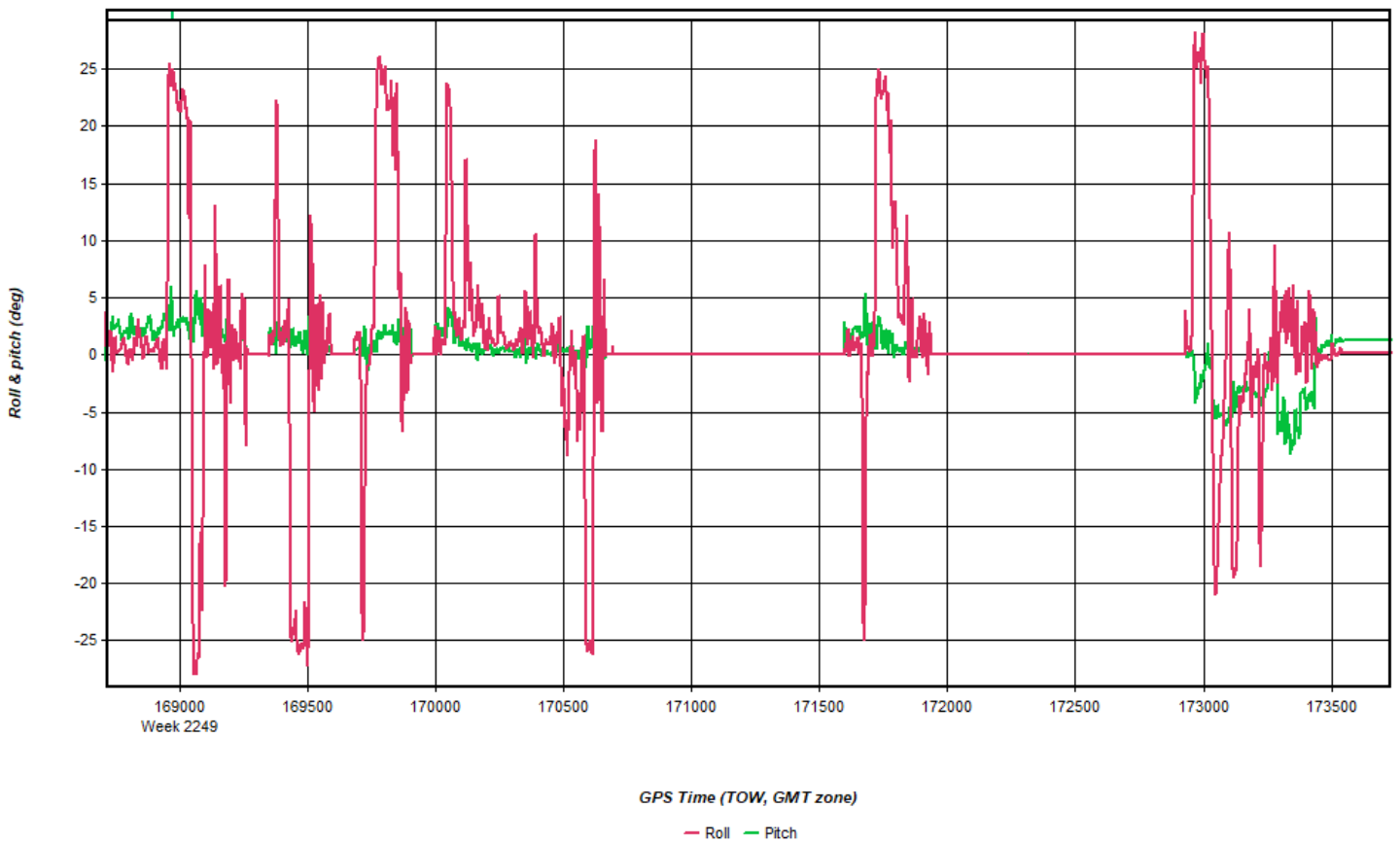


Figure 13: 20230213225110_17b [Smoothed TC Combined] - Velocity Profile Plot

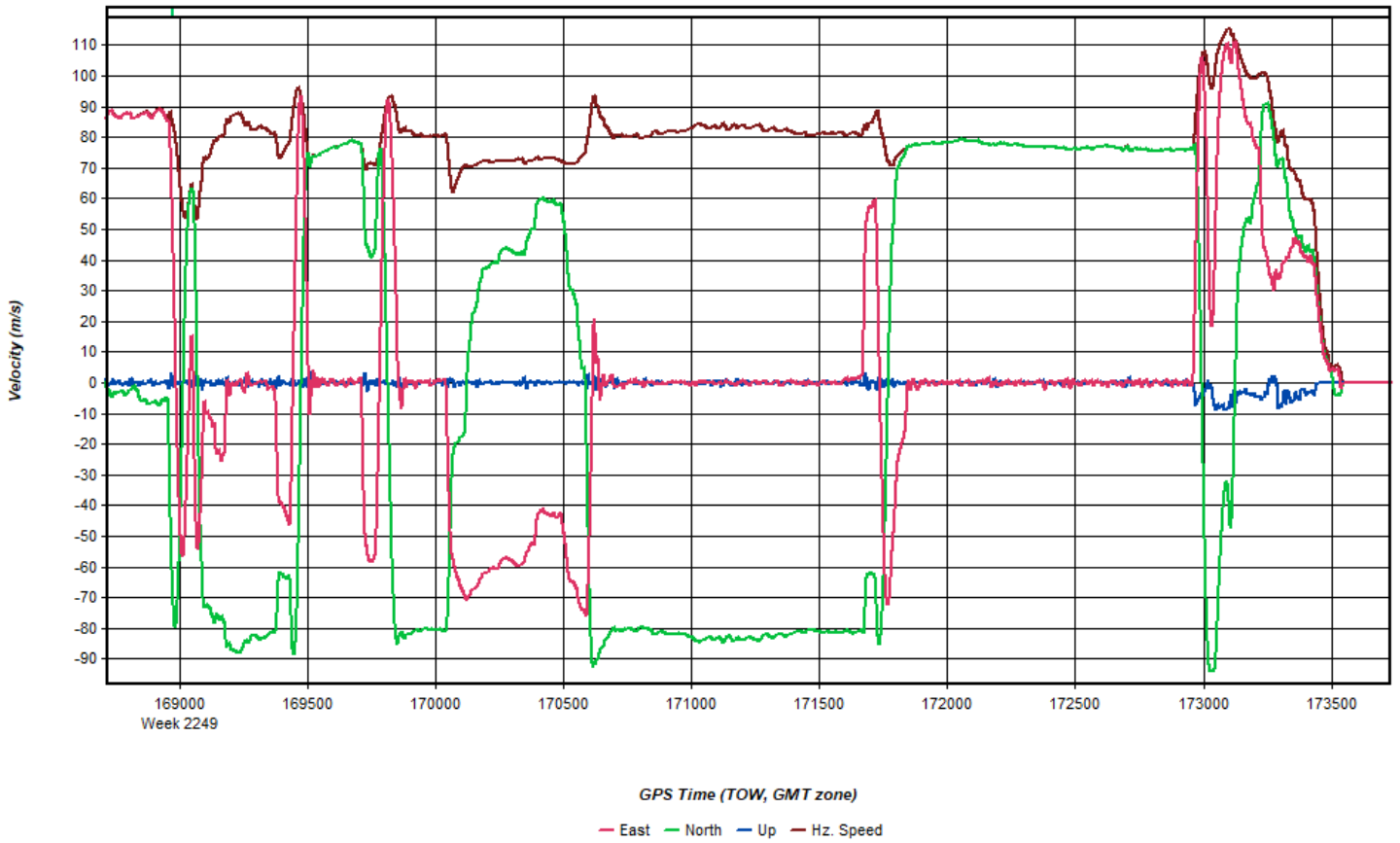
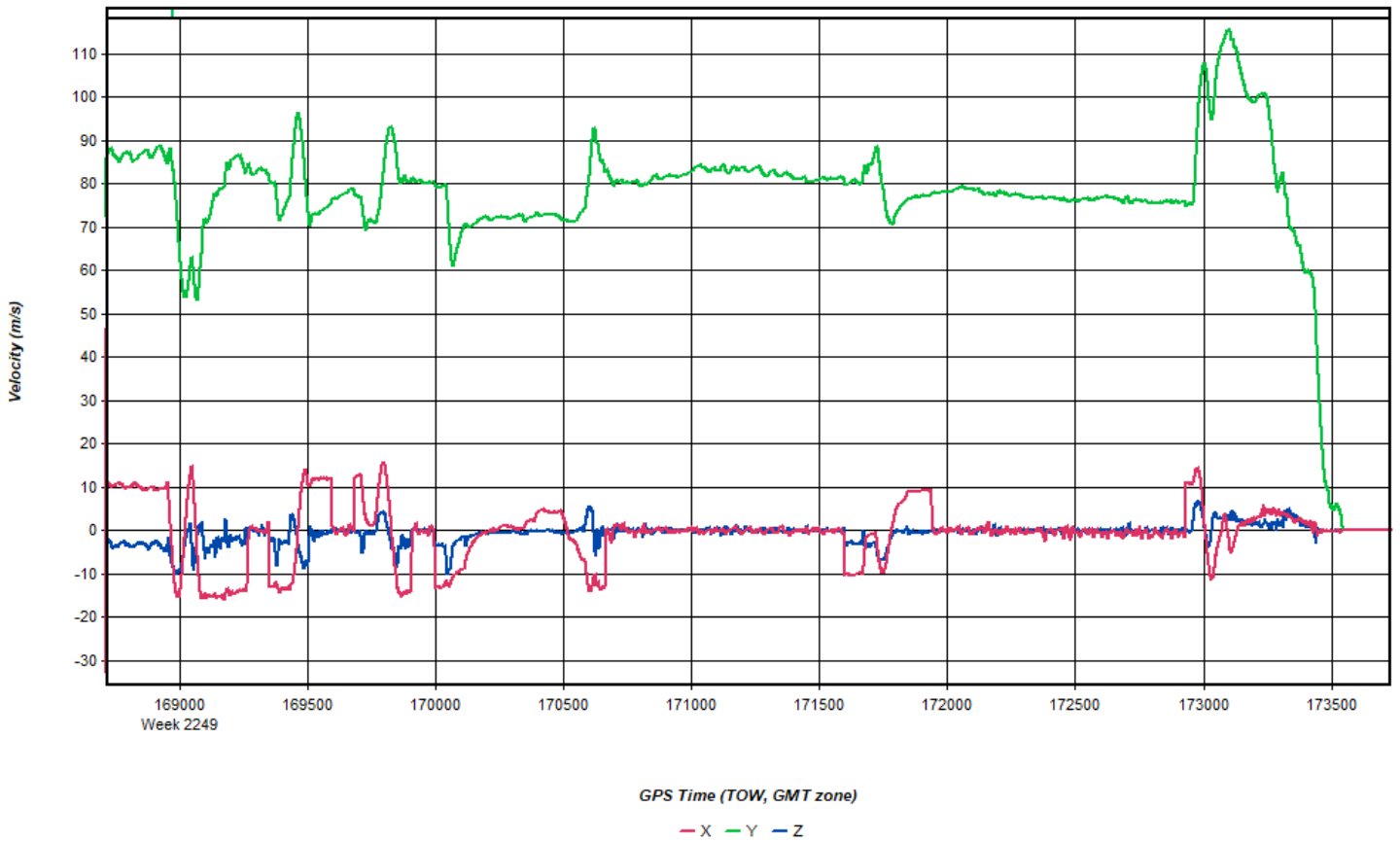


Figure 14: 20230213225110_17b [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20230213225110_17b	by Unknown	on 2/17/2023	at 16:38:15
---------	--------------------	------------	--------------	-------------

Figure 15: 20230213225110_17b [Smoothed TC Combined] - Height Profile Plot

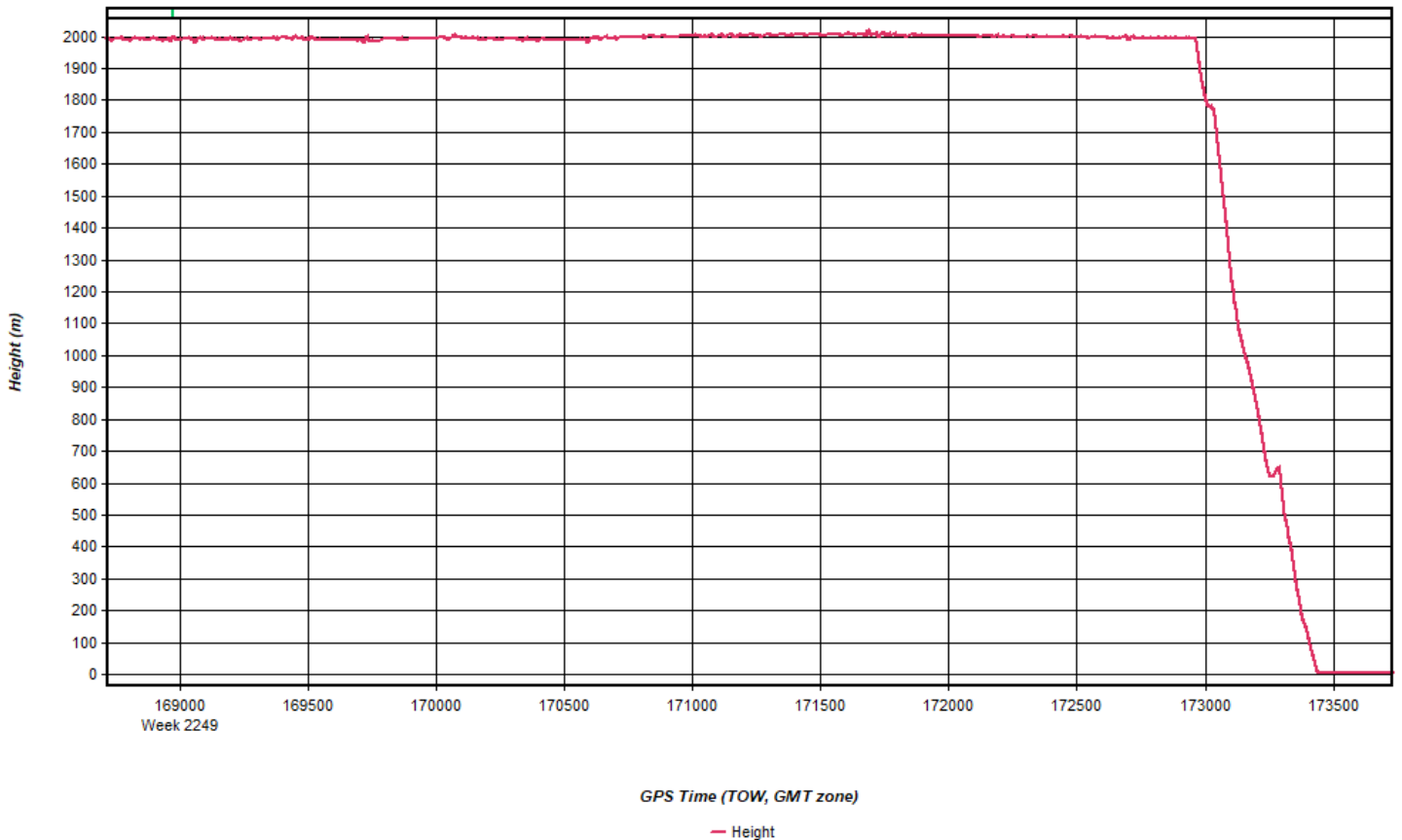


Figure 16: 20230213225110_17b [Smoothed TC Combined] - C/A Code Residual RMS Plot

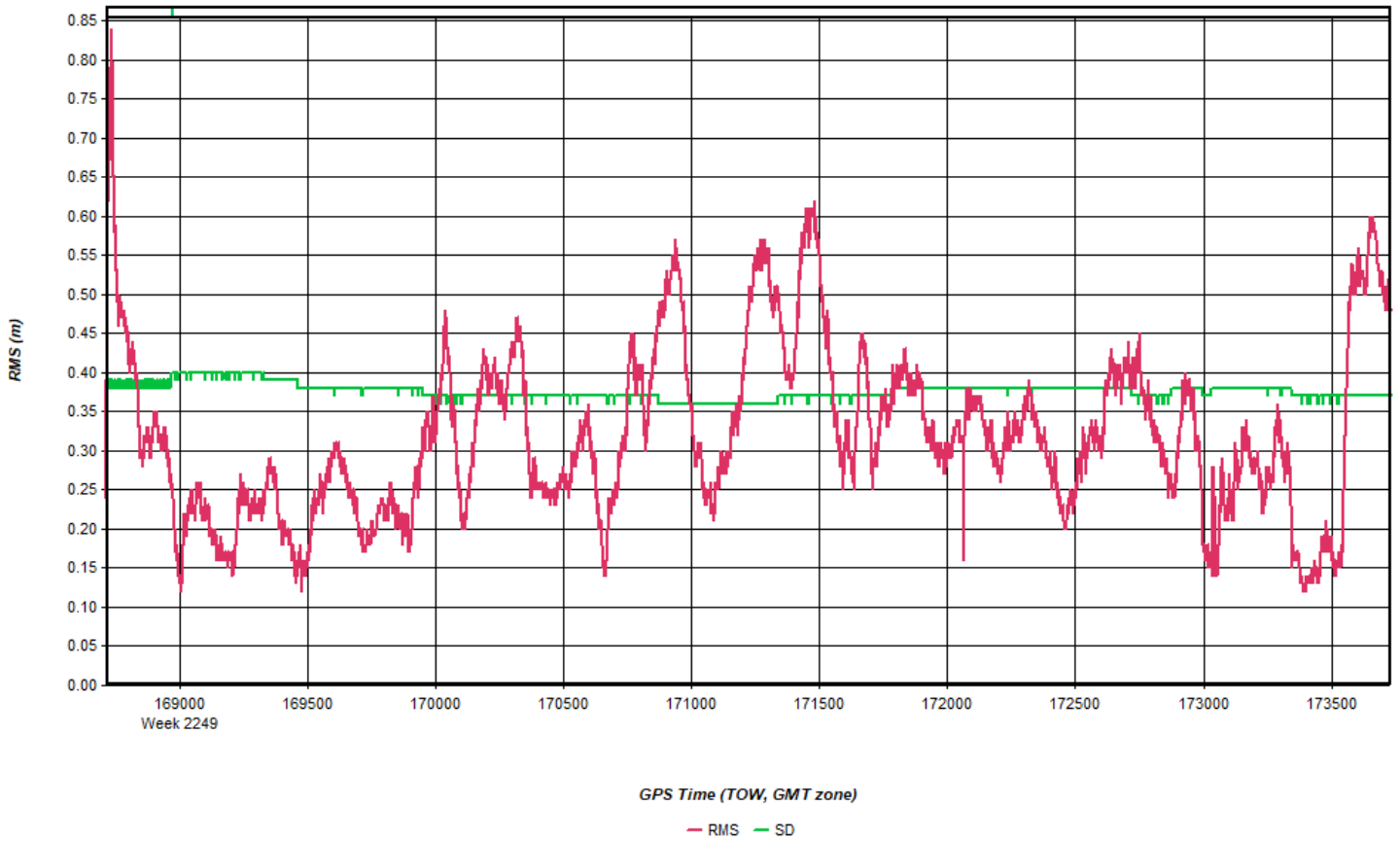
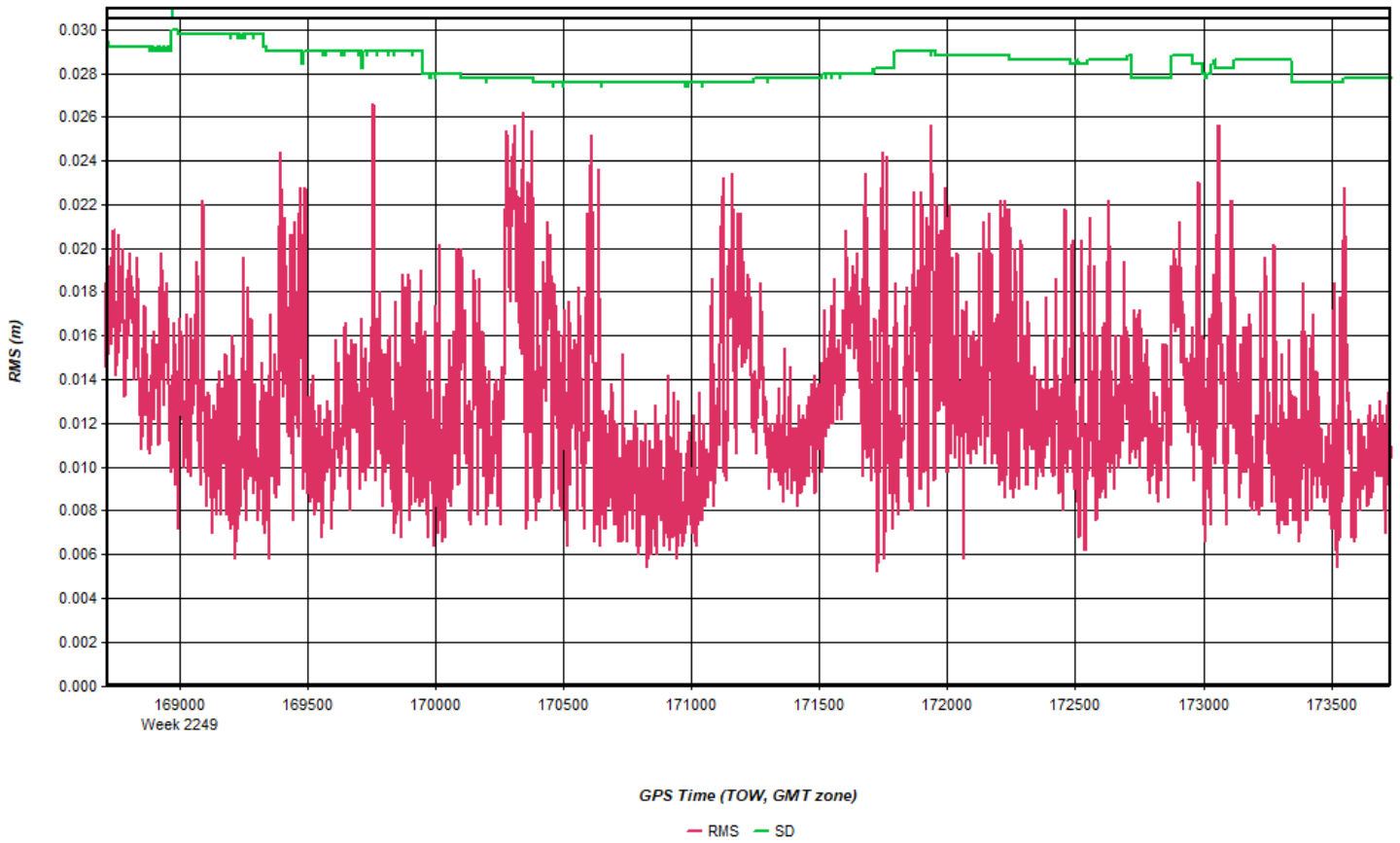


Figure 17: 20230213225110_17b [Smoothed TC Combined] - Carrier Residual RMS Plot



Process	20230213225110_17b	by Unknown	on 2/17/2023	at 16:38:15
---------	--------------------	------------	--------------	-------------

Figure 18: 20230213225110_17b [Smoothed TC Combined] - Doppler Residual RMS Plot

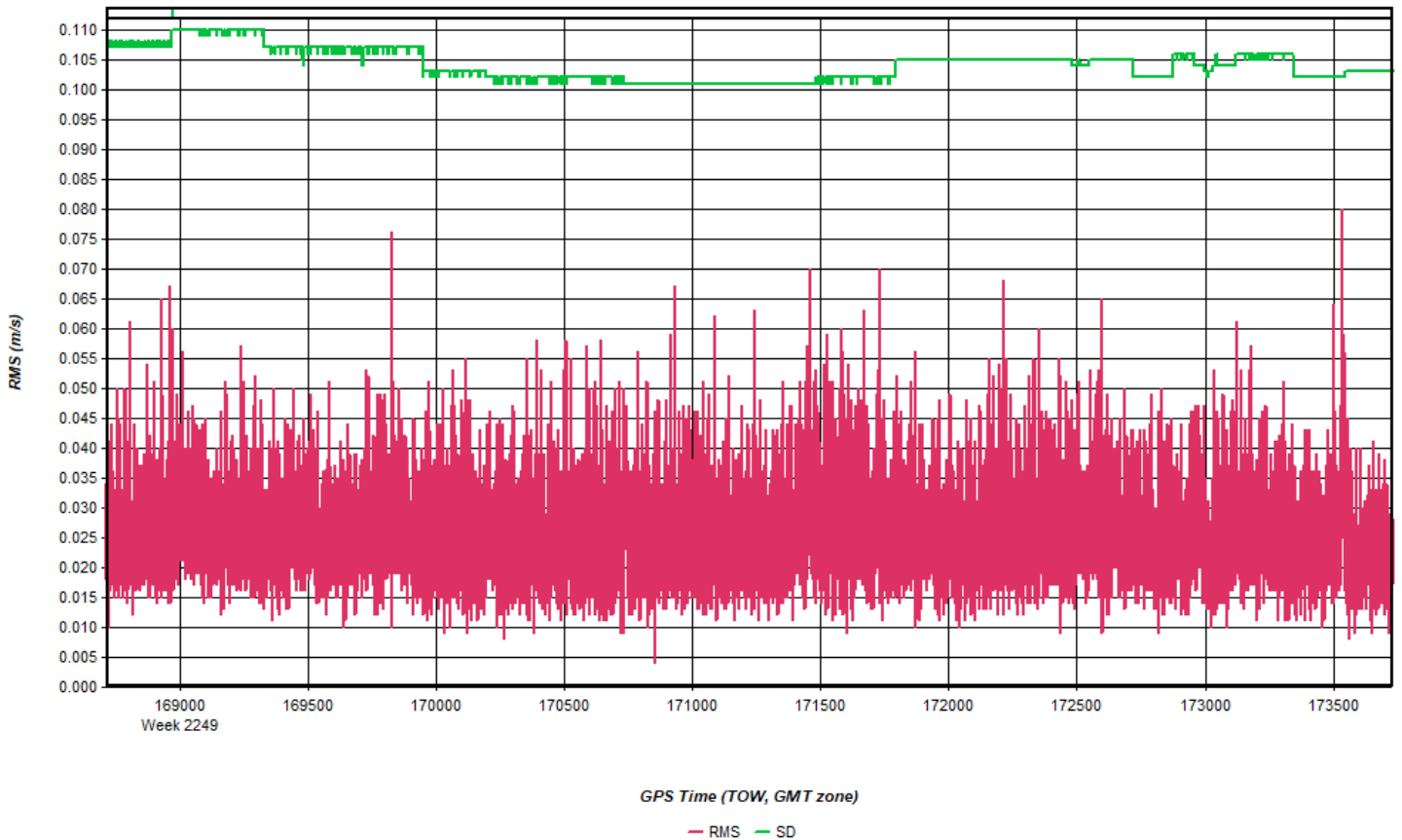


Figure 19: 20230213225110_17b [Smoothed TC Combined] - Accelerometer Bias Plot

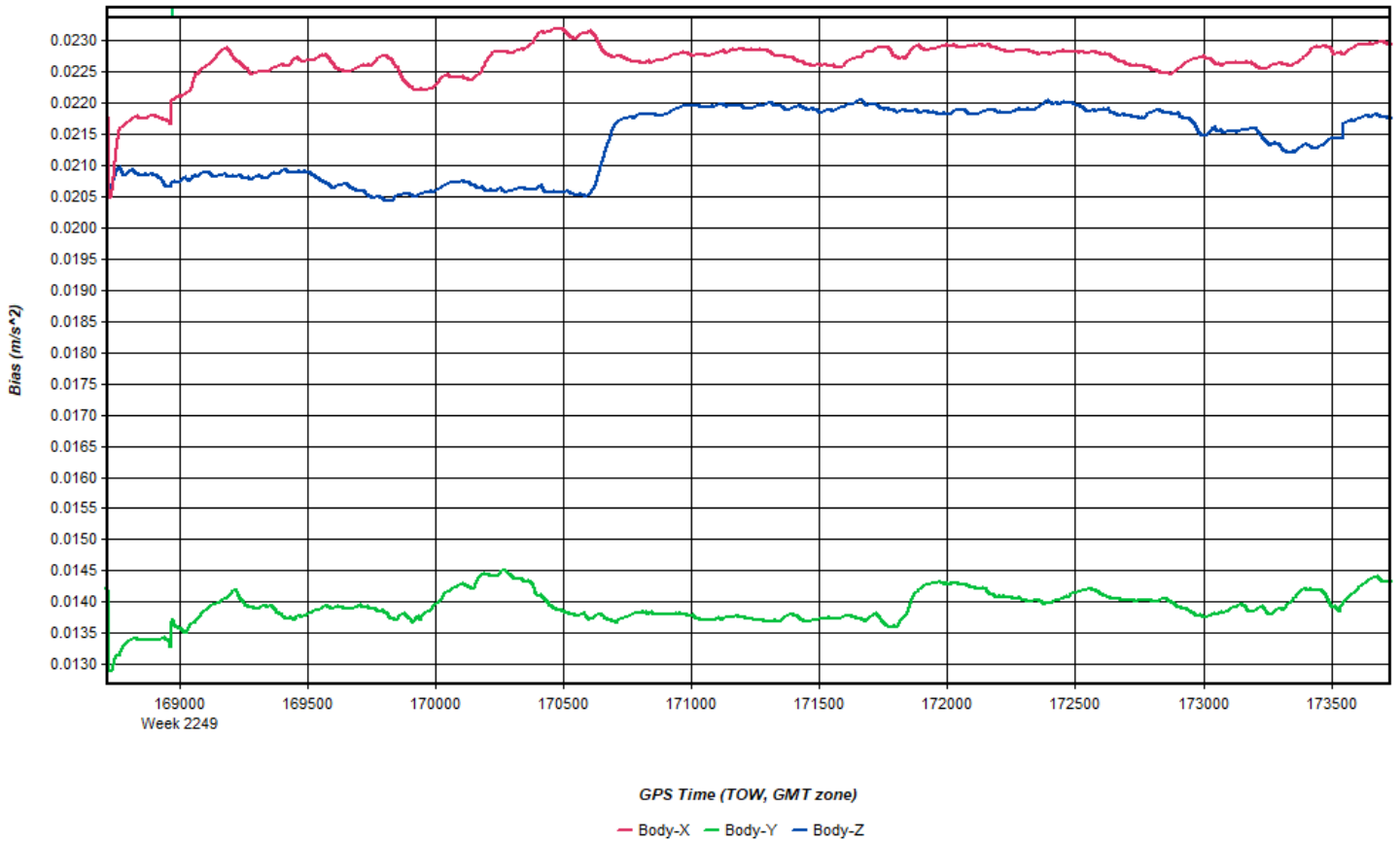
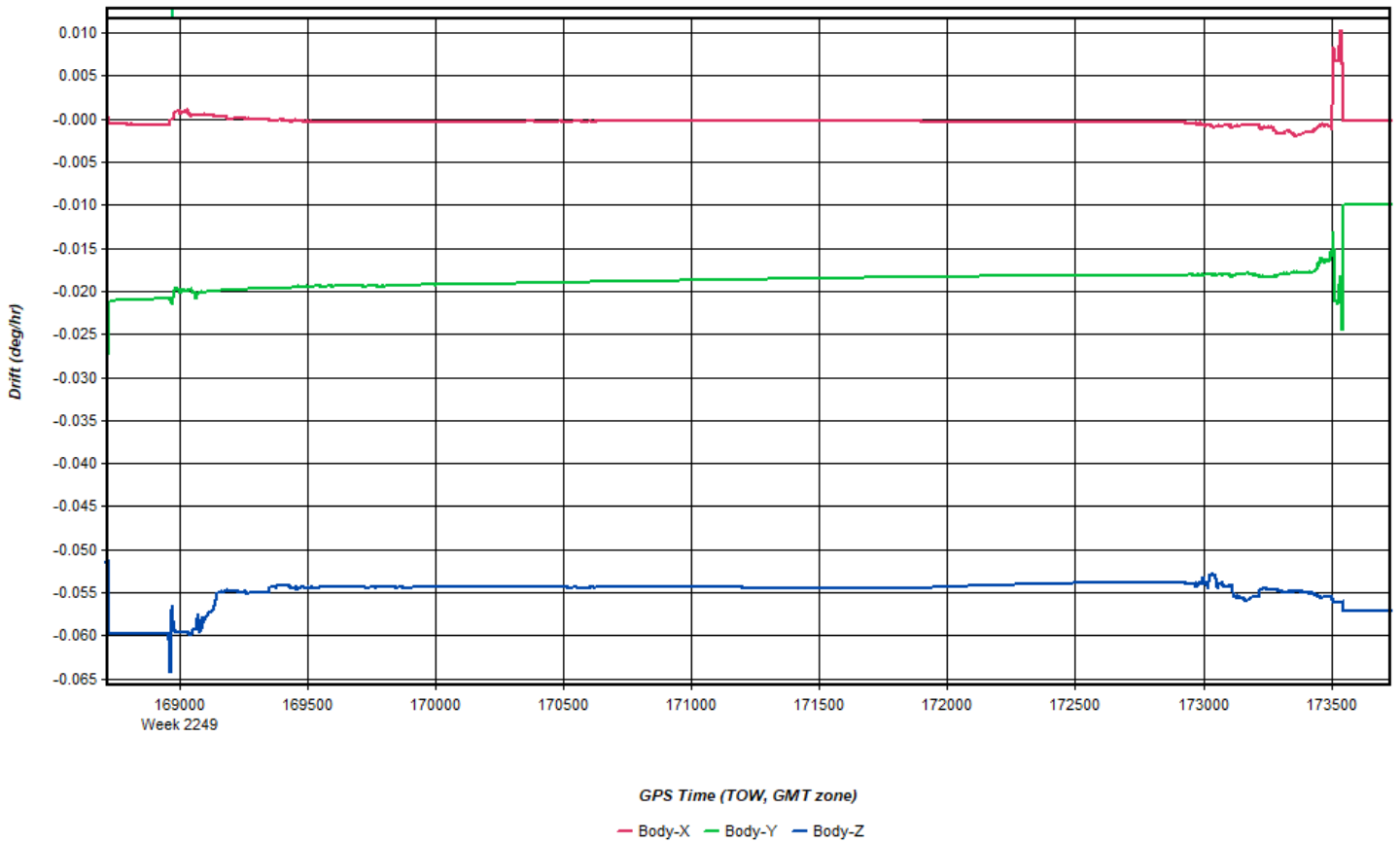


Figure 20: 20230213225110_17b [Smoothed TC Combined] - Gyro Drift Plot

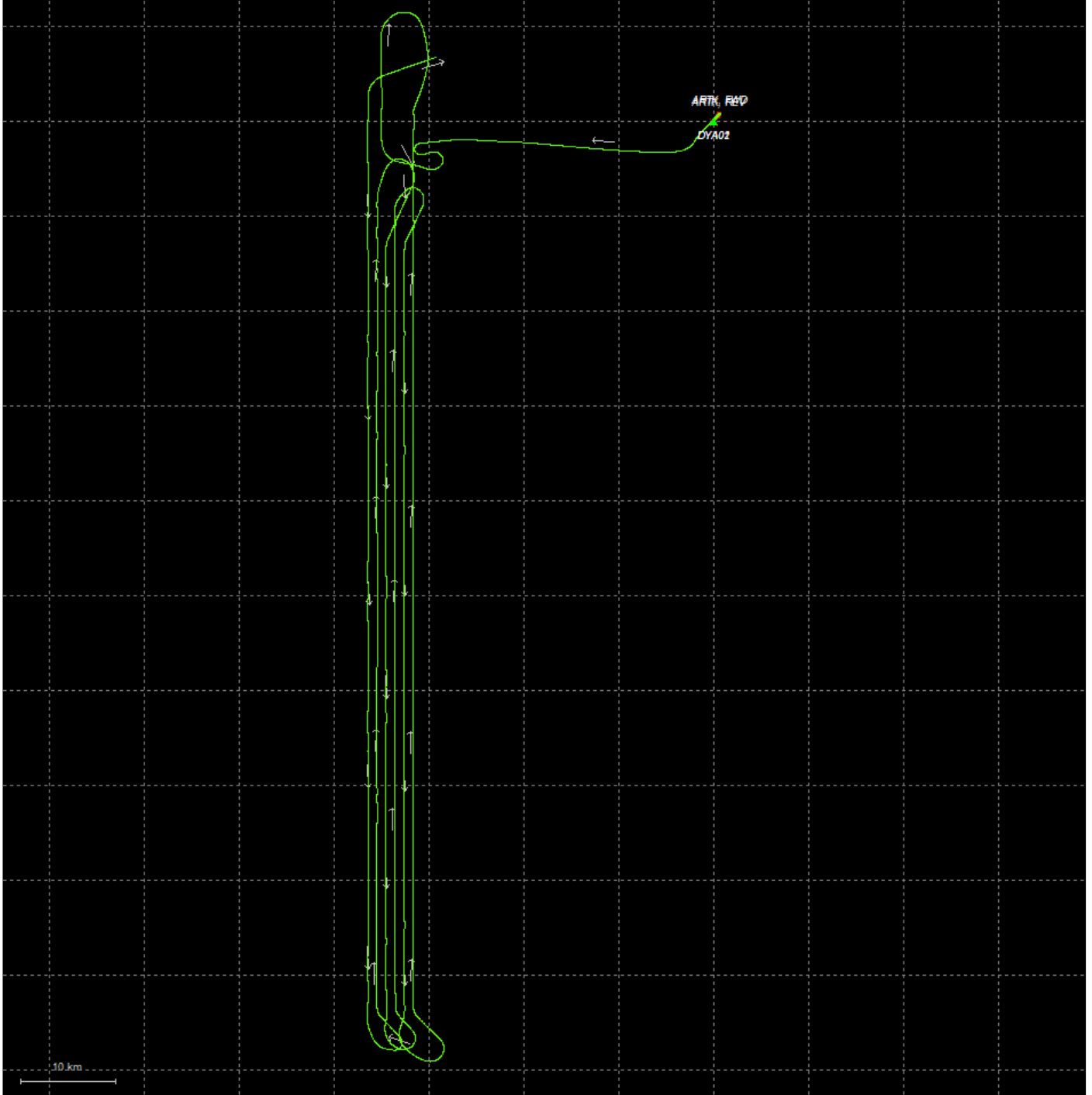


Process	20230213225110_17b	by Unknown	on 2/17/2023	at 16:38:15
---------	--------------------	------------	--------------	-------------

Output Results for 20230214143917_18a

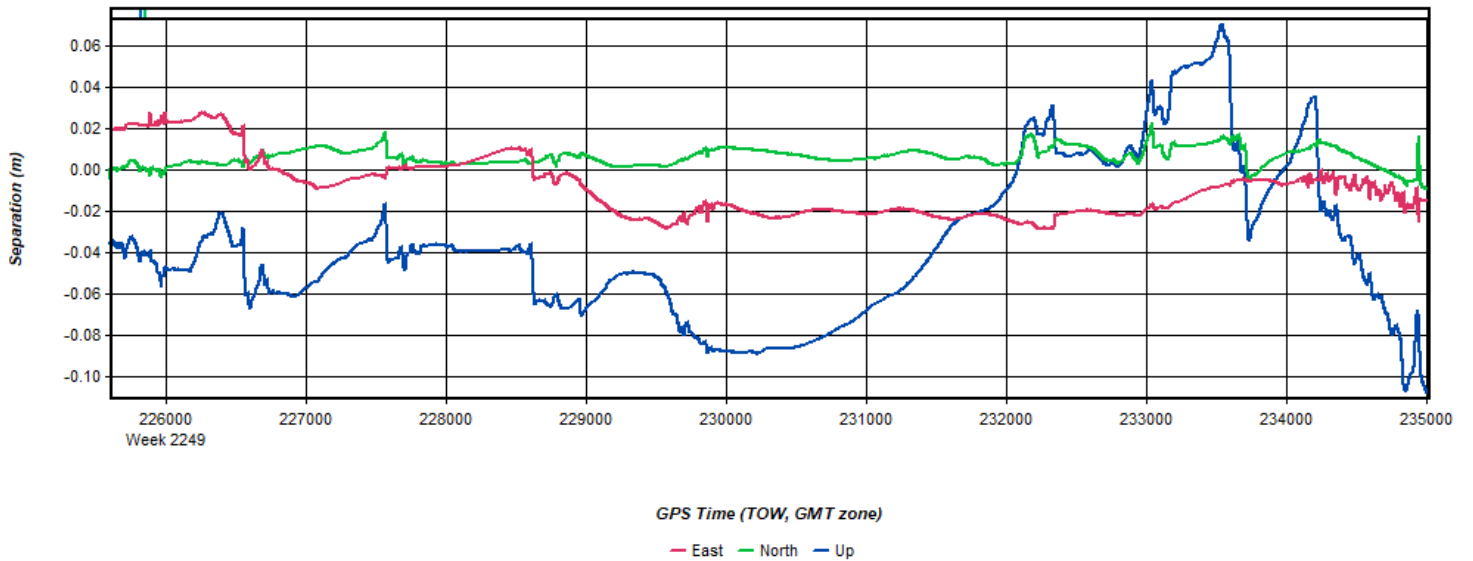
Inertial Explorer Version 8.90.2124
02/20/2023

Figure 1: Smoothed TC Combined - Map



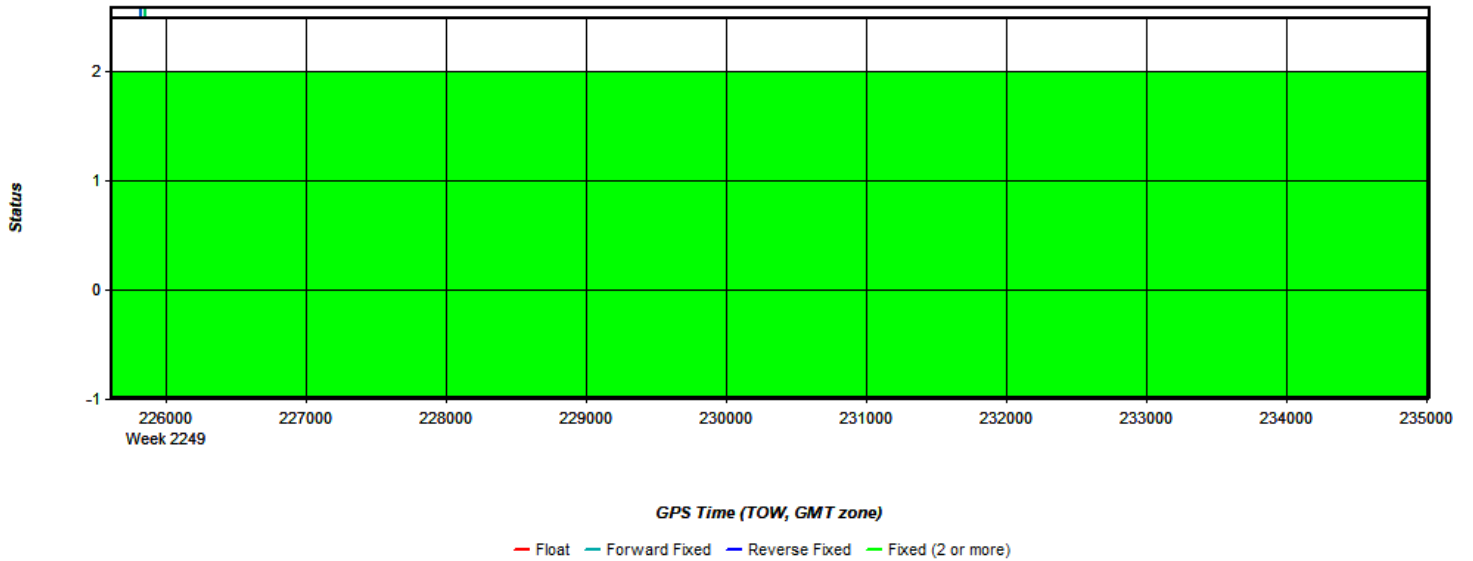
Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 2: 20230214143917_18a [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



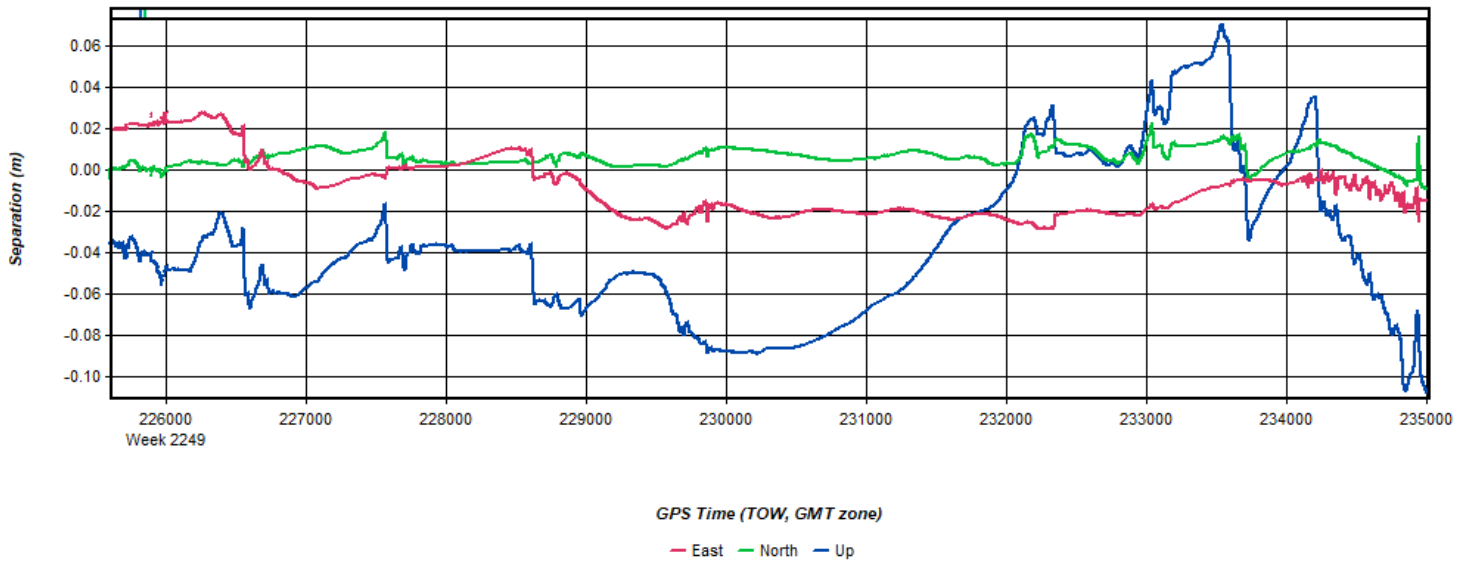
Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 3: 20230214143917_18a [Smoothed TC Combined] - Float or Fixed Ambiguity



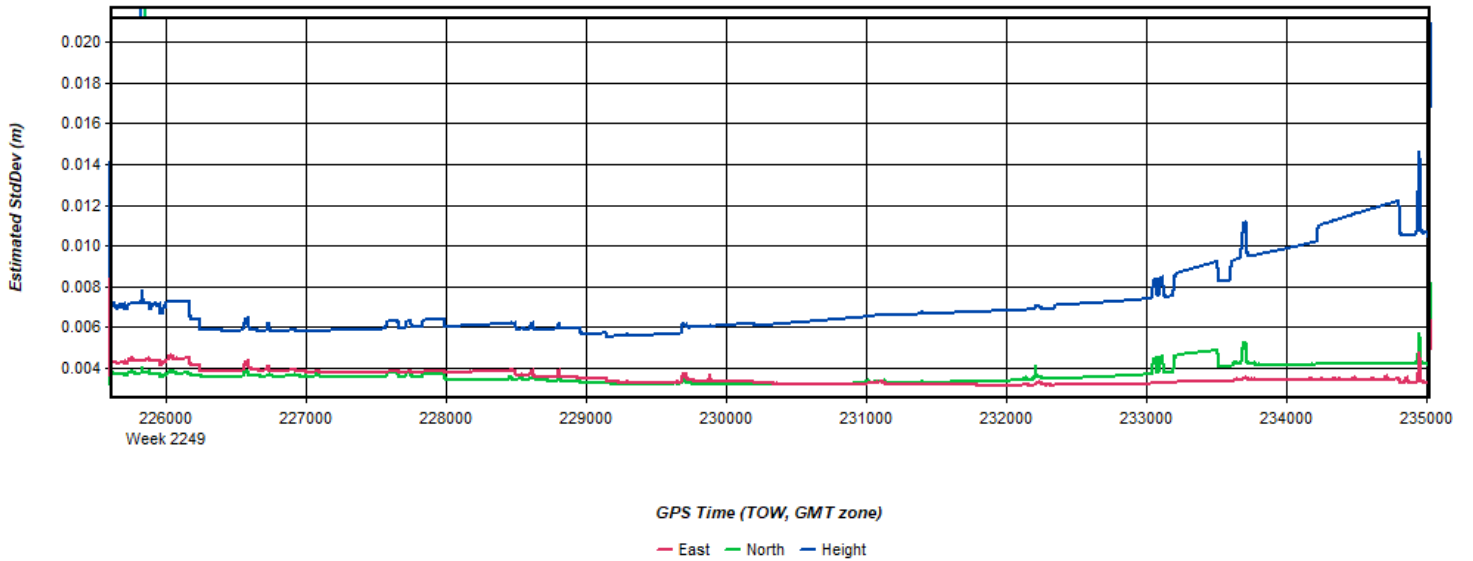
Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 4: 20230214143917_18a [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 5: 20230214143917_18a [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 6: 20230214143917_18a [Smoothed TC Combined] - PDOP Plot

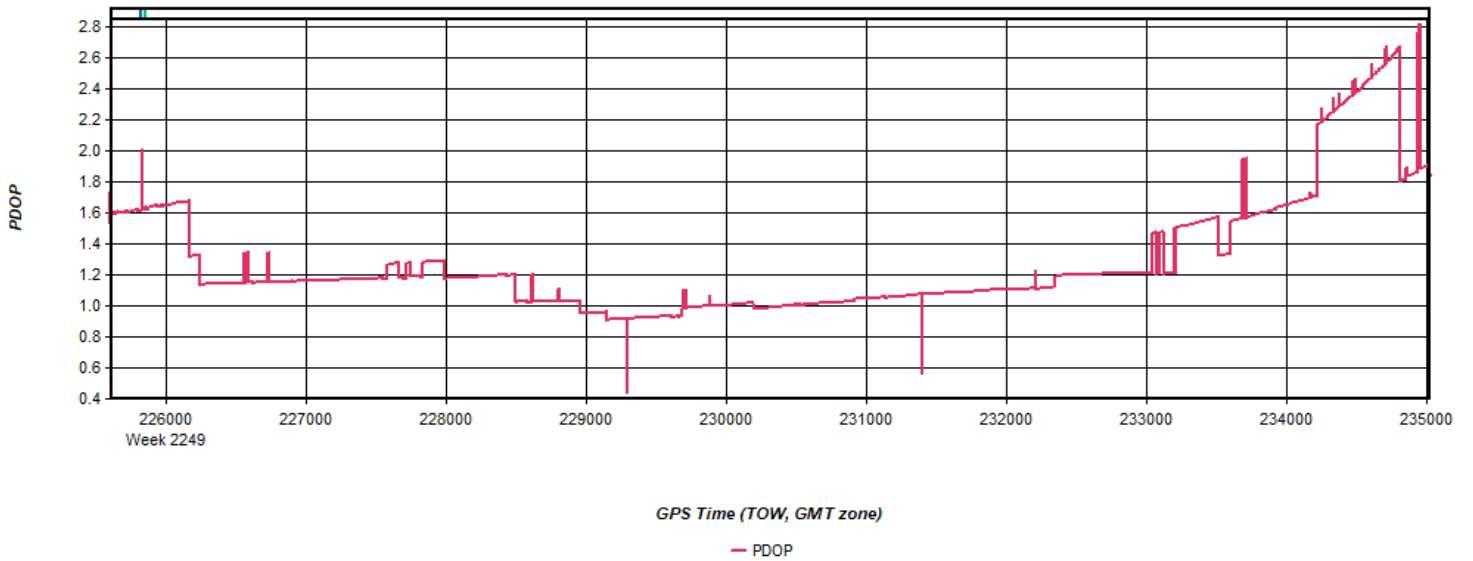


Figure 7: 20230214143917_18a [Smoothed TC Combined] - Number of Satellites Line Plot

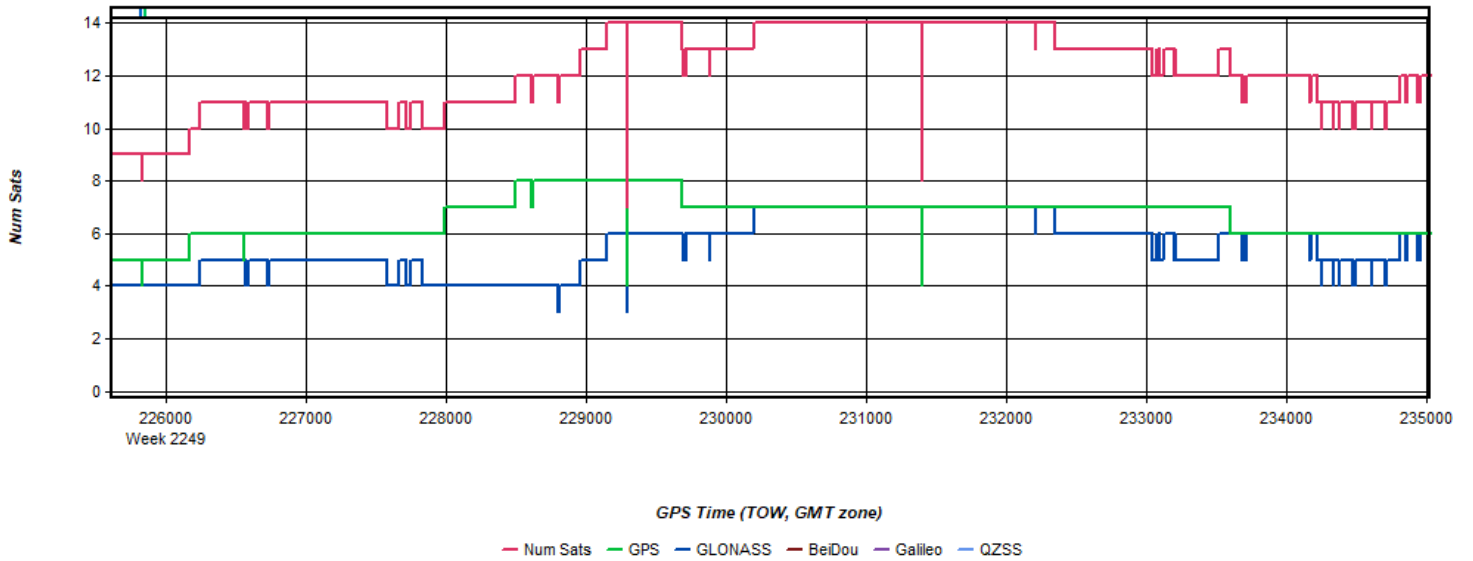


Figure 8: 20230214143917_18a [Smoothed TC Combined] - Status flag for IMU processing

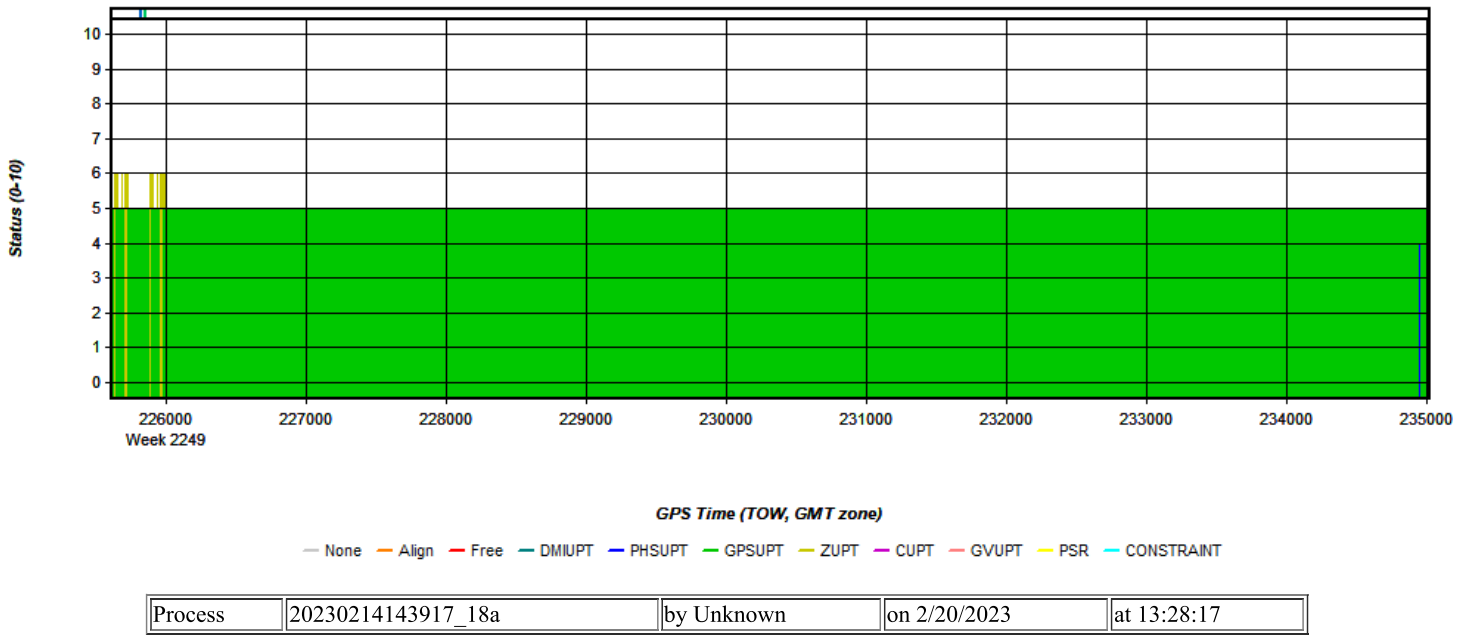


Figure 9: 20230214143917_18a [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

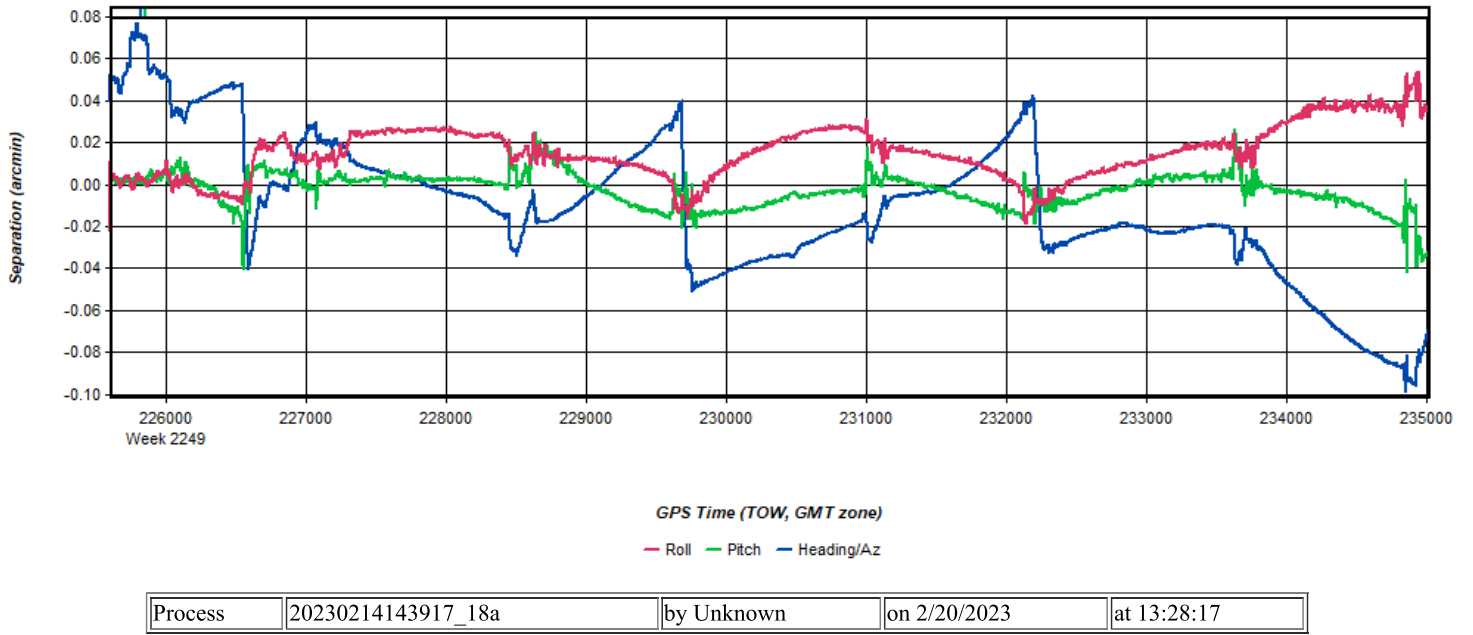
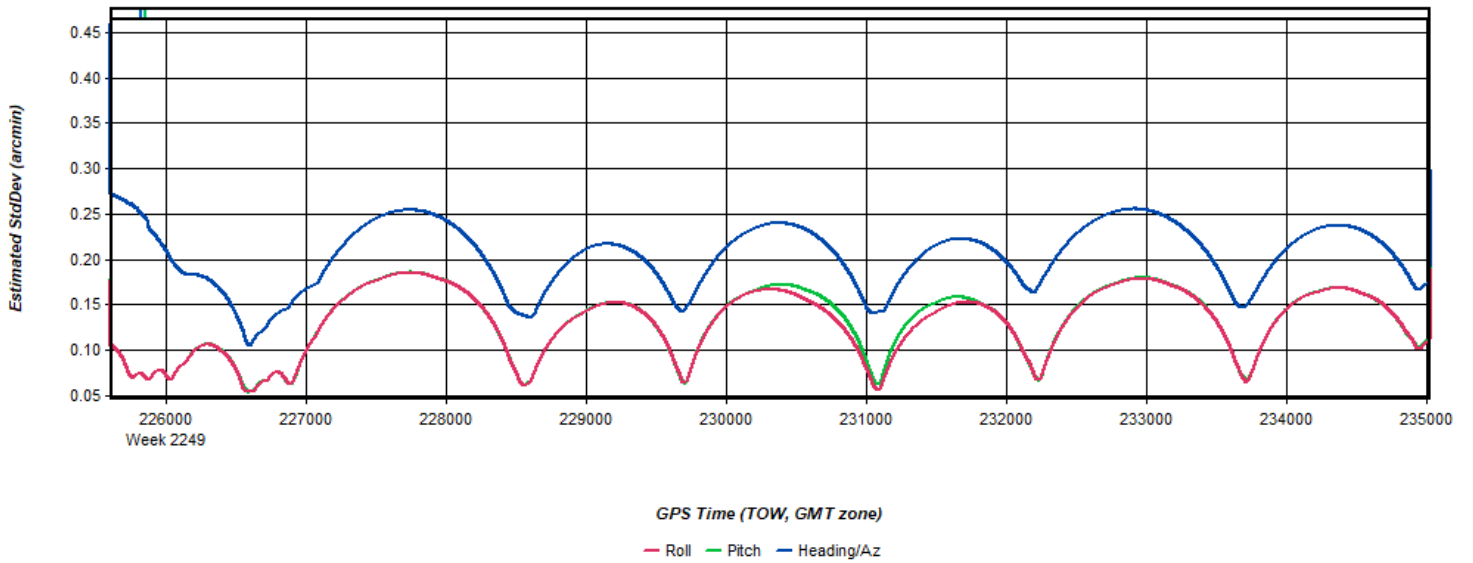
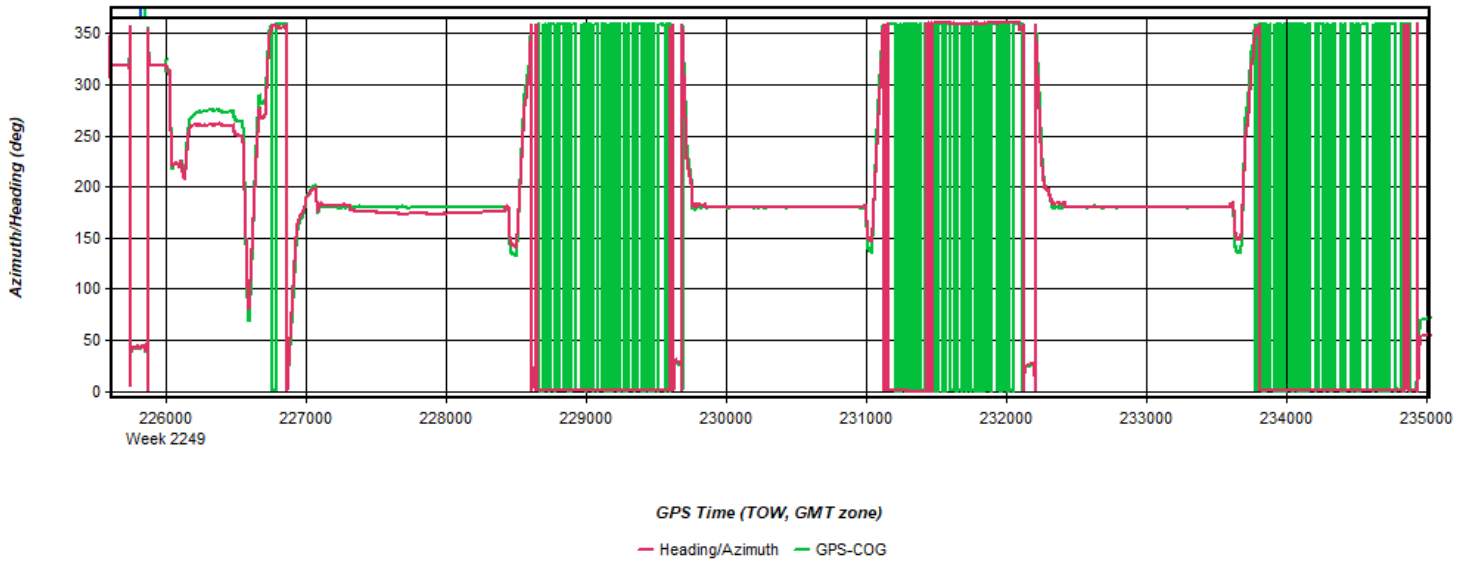


Figure 10: 20230214143917_18a [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

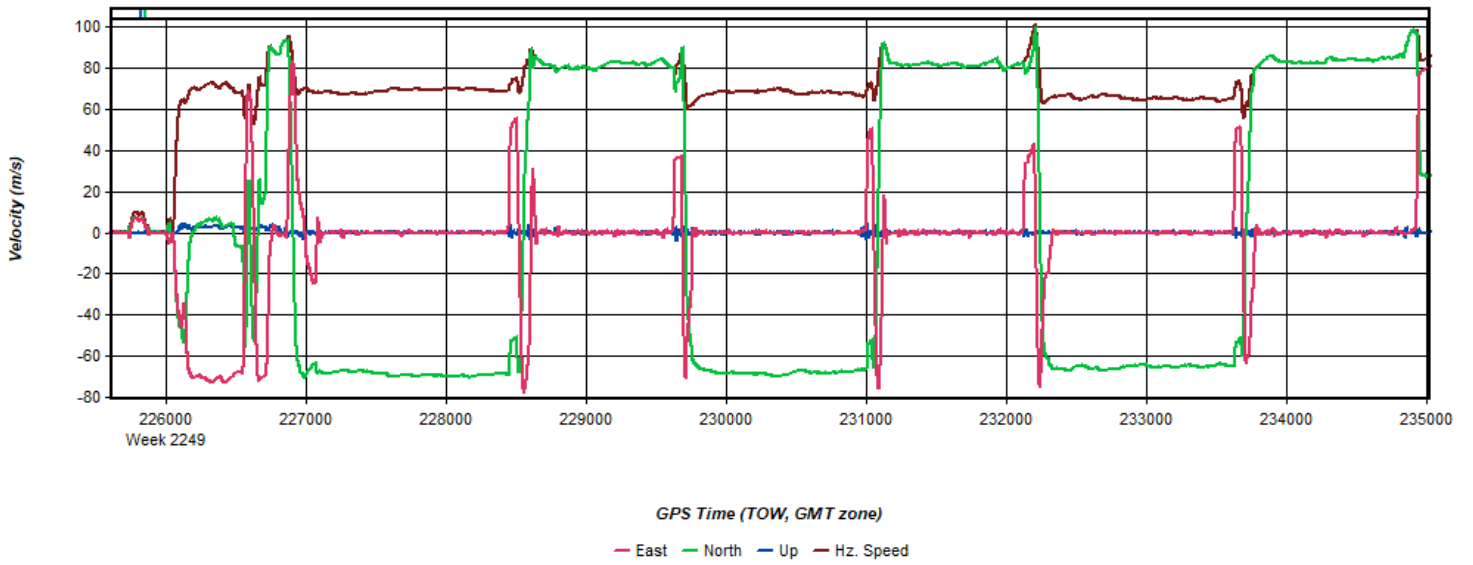
Figure 11: 20230214143917_18a [Smoothed TC Combined] - Azimuth Plot



Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

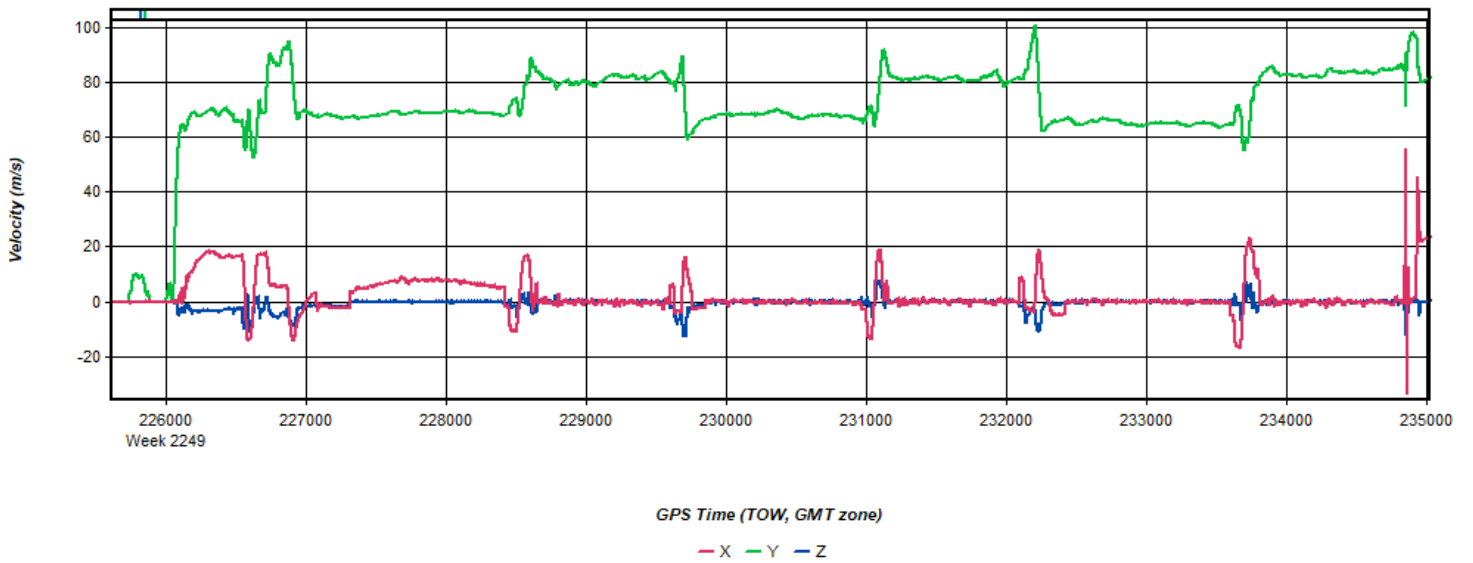
Object 20230214143917_18a [Smoothed TC Combined] - Roll & Pitch Plot failed--NULL bitmap handle

Figure 12: 20230214143917_18a [Smoothed TC Combined] - Velocity Profile Plot



Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 13: 20230214143917_18a [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 14: 20230214143917_18a [Smoothed TC Combined] - Height Profile Plot

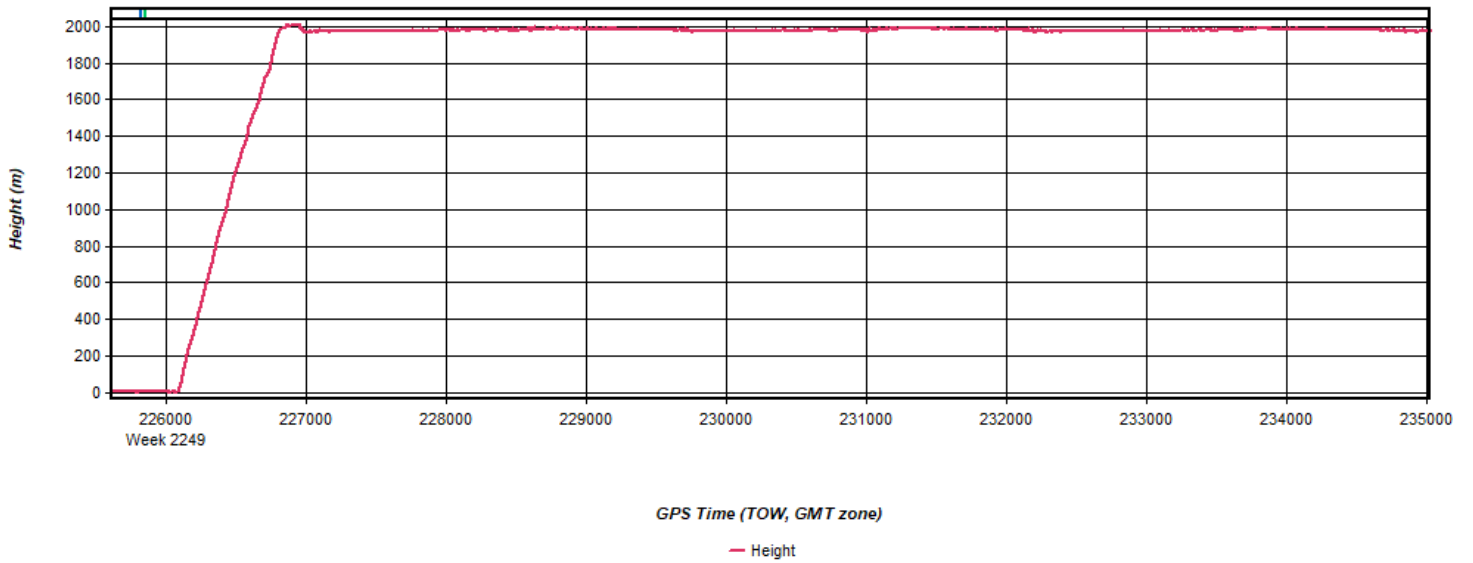


Figure 15: 20230214143917_18a [Smoothed TC Combined] - C/A Code Residual RMS Plot

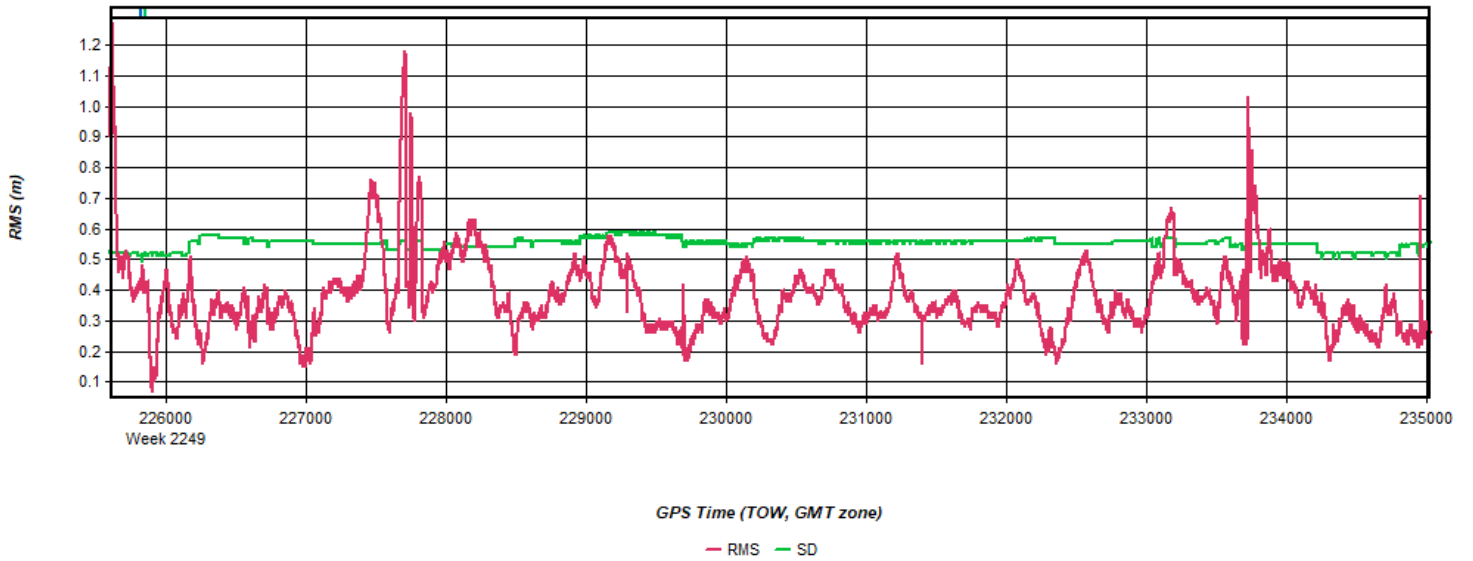
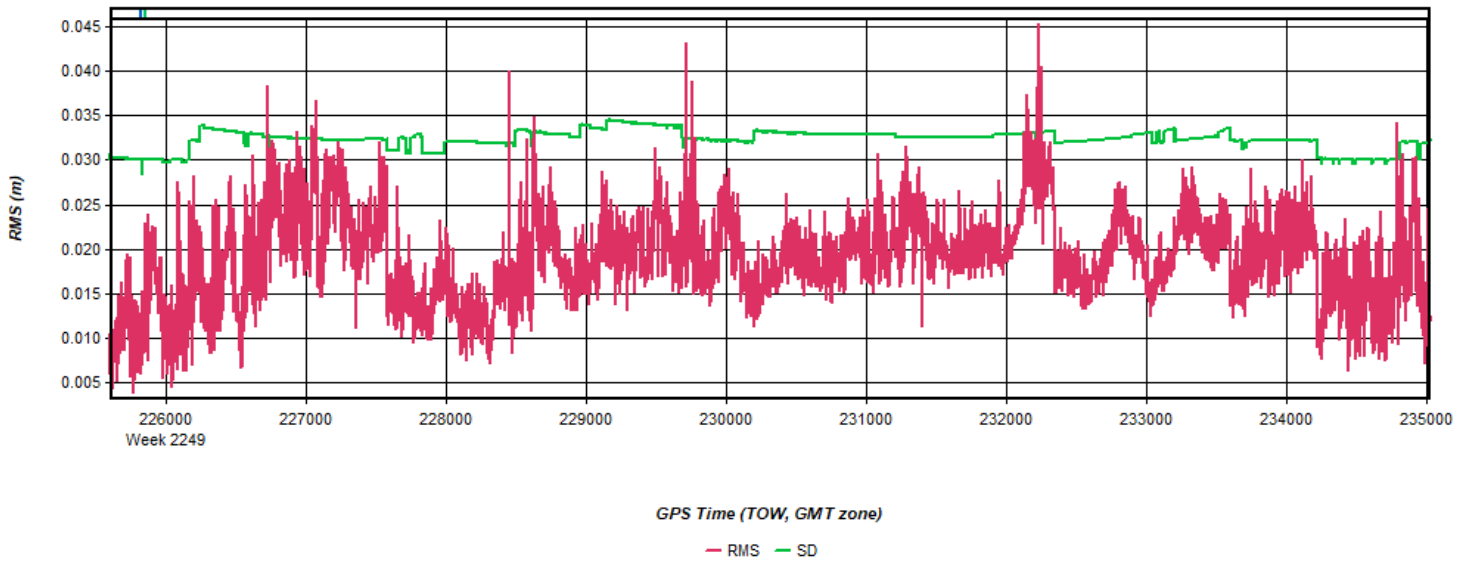


Figure 16: 20230214143917_18a [Smoothed TC Combined] - Carrier Residual RMS Plot



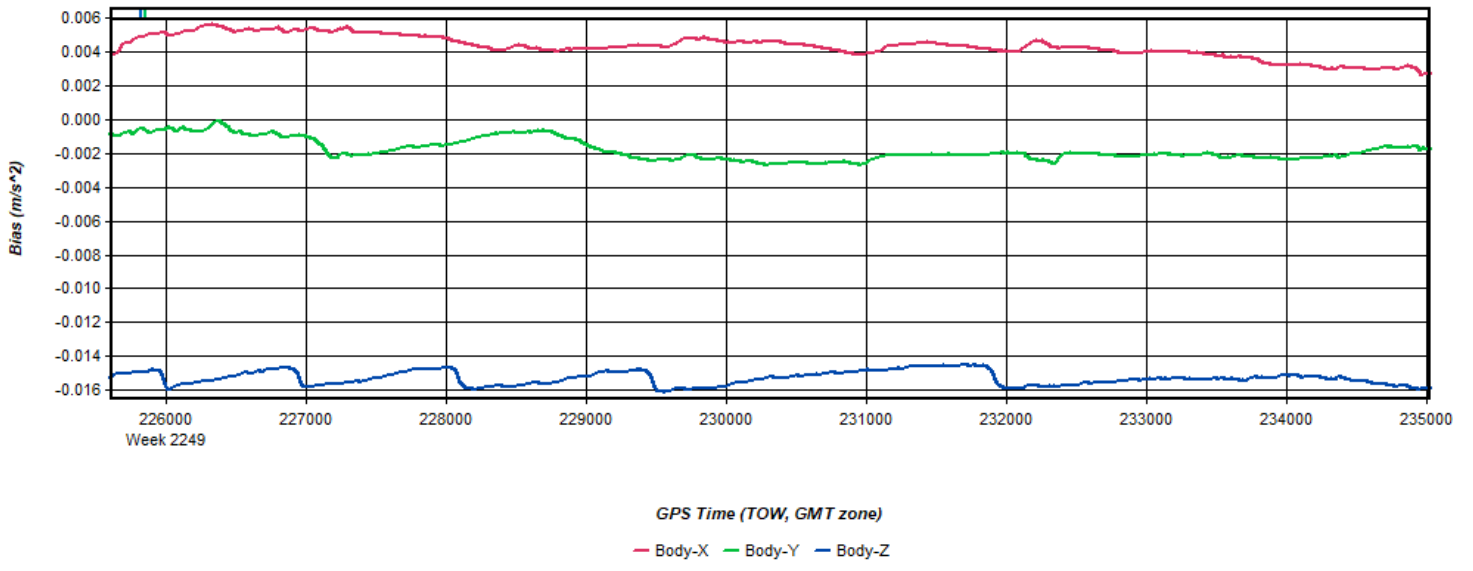
Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 17: 20230214143917_18a [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



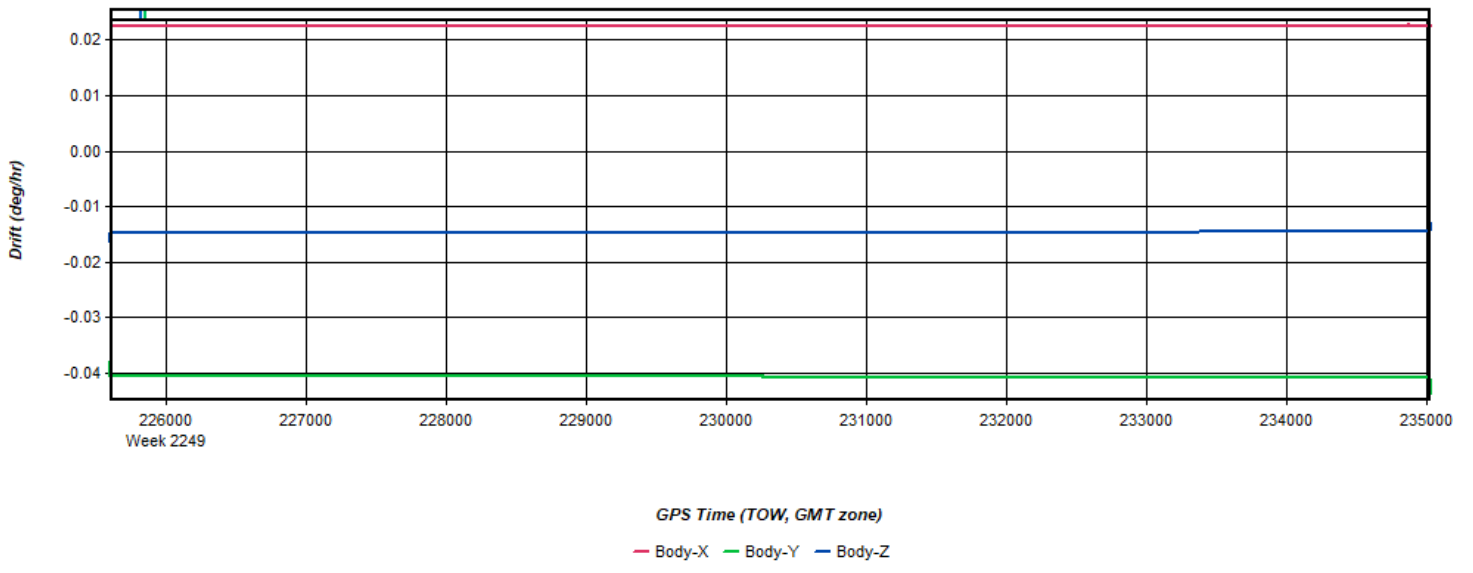
Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 18: 20230214143917_18a [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Figure 19: 20230214143917_18a [Smoothed TC Combined] - Gyro Drift Plot



Process	20230214143917_18a	by Unknown	on 2/20/2023	at 13:28:17
---------	--------------------	------------	--------------	-------------

Output Results for 20230214171913_18b

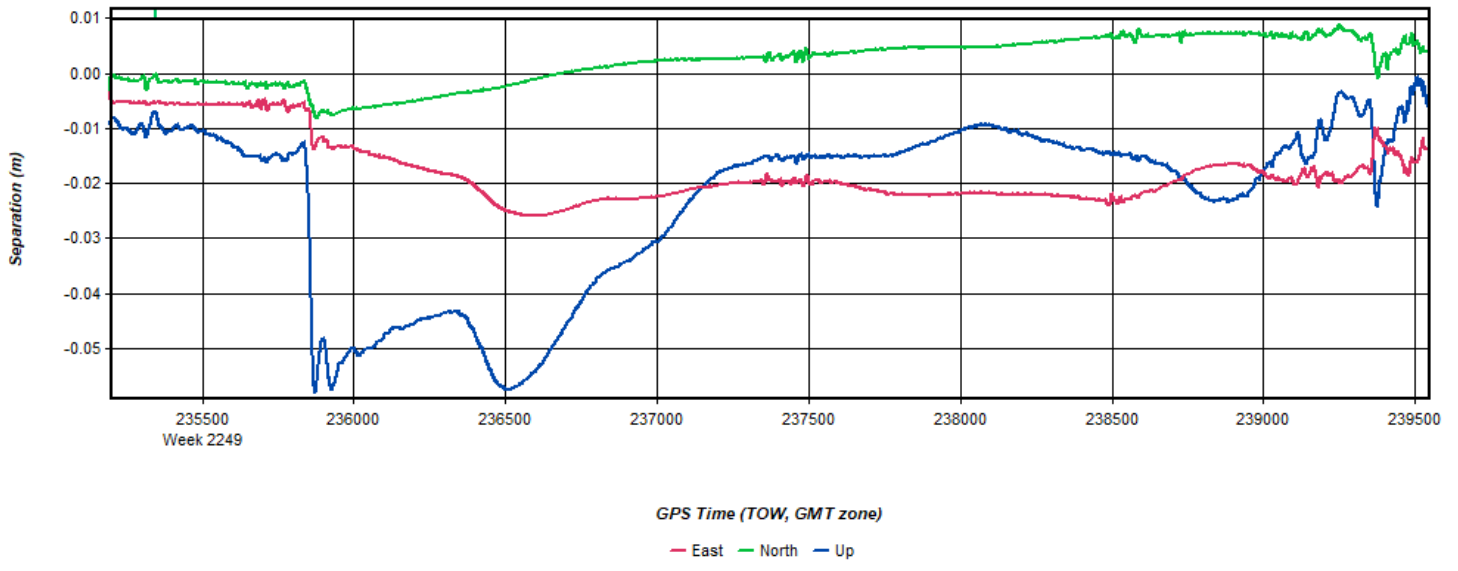
Inertial Explorer Version 8.90.2124
02/20/2023

Figure 1: Smoothed TC Combined - Map



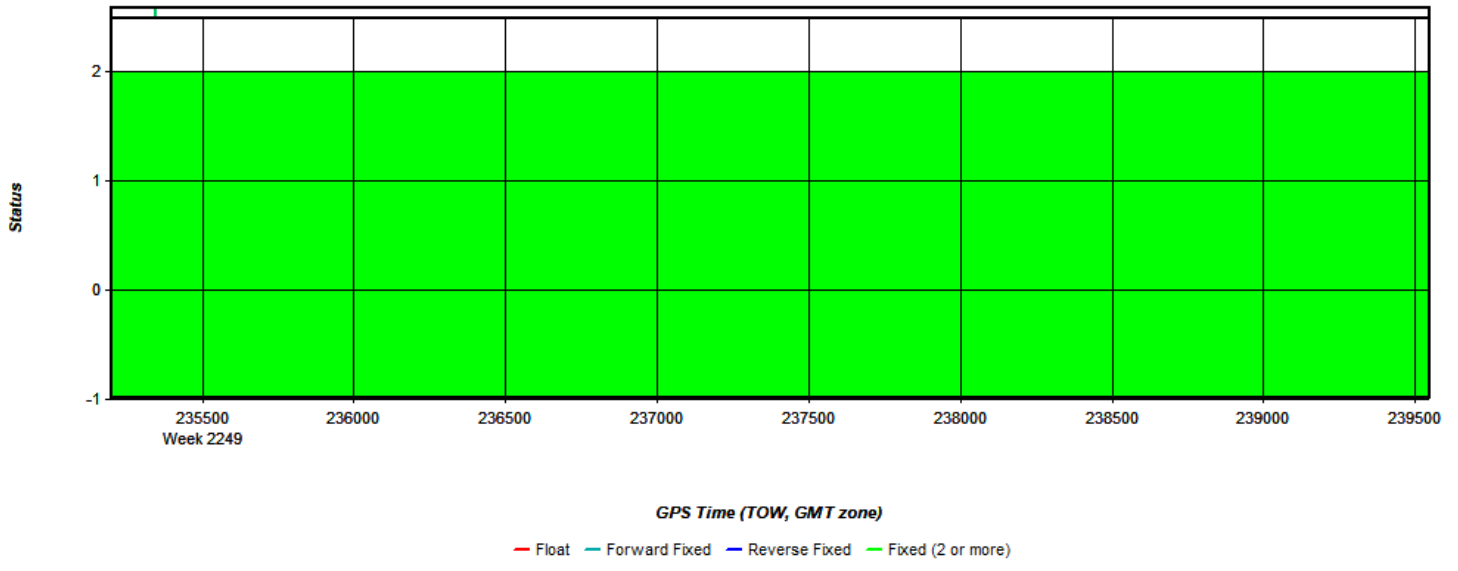
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 2: 20230214171913_18b [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



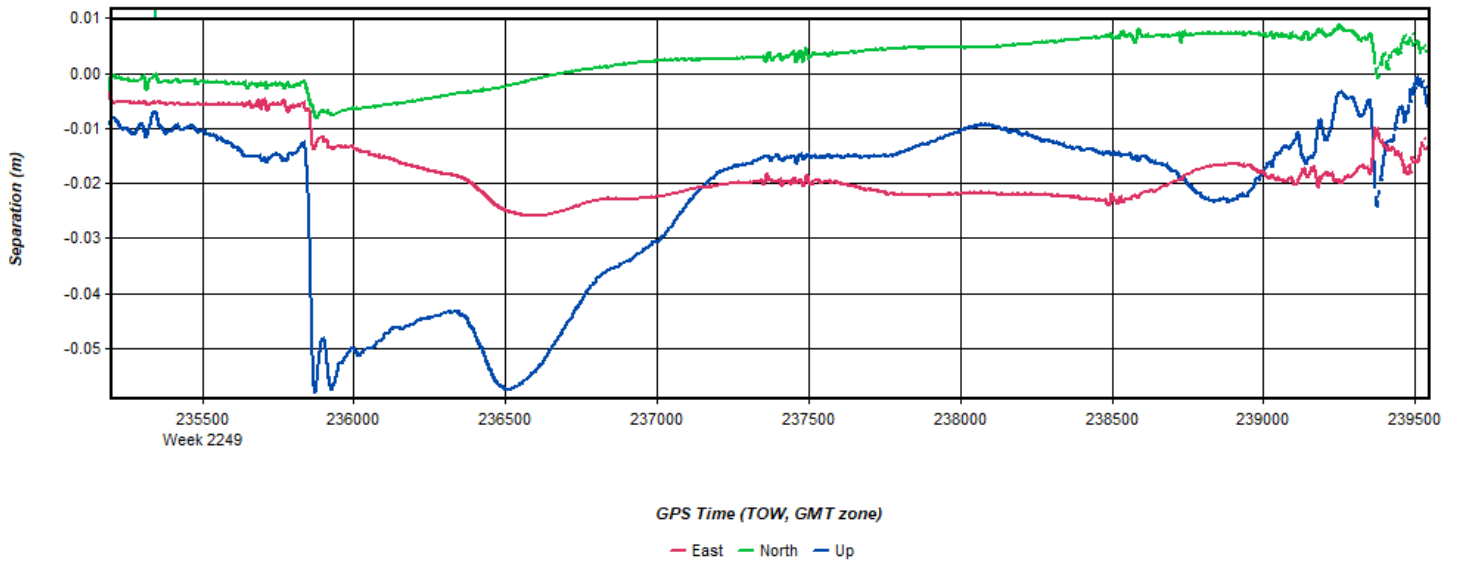
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 3: 20230214171913_18b [Smoothed TC Combined] - Float or Fixed Ambiguity



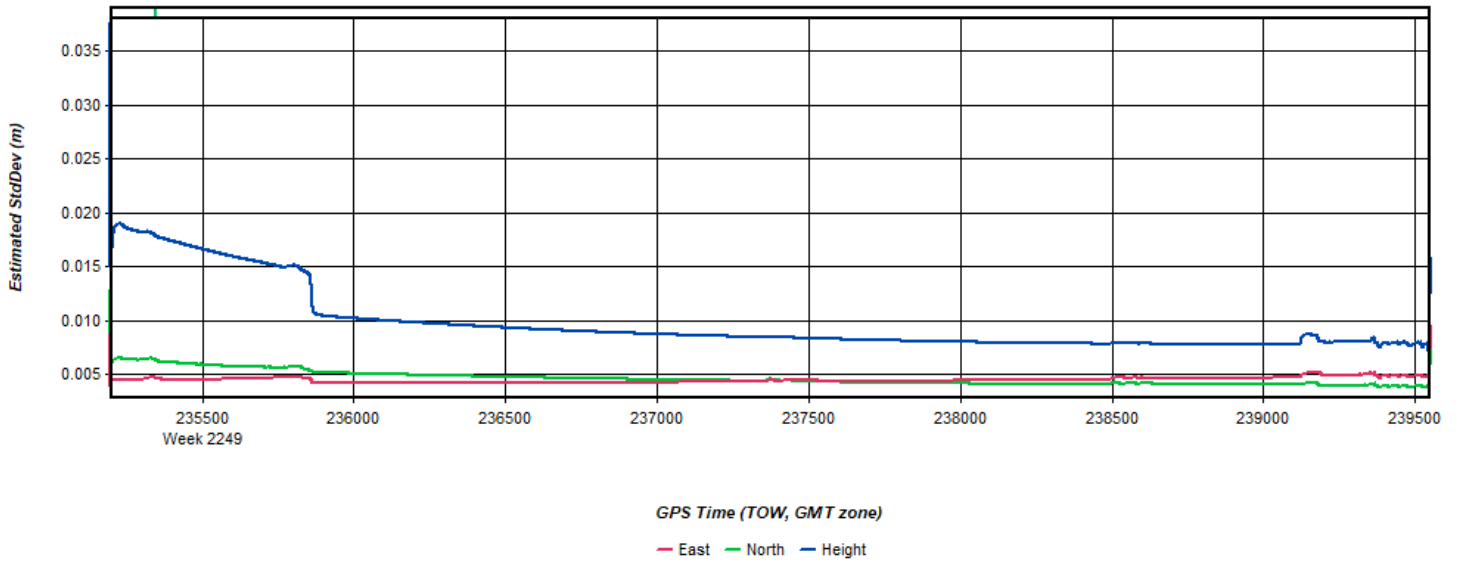
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 4: 20230214171913_18b [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 5: 20230214171913_18b [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 6: 20230214171913_18b [Smoothed TC Combined] - PDOP Plot

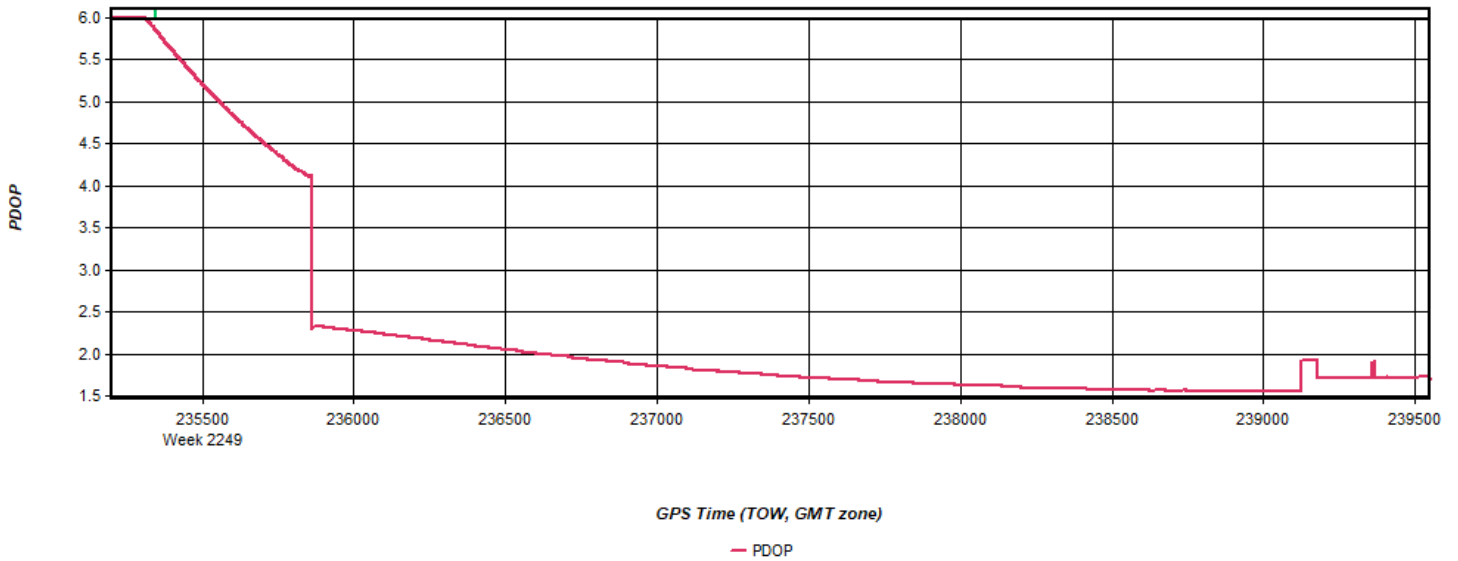


Figure 7: 20230214171913_18b [Smoothed TC Combined] - Number of Satellites Line Plot

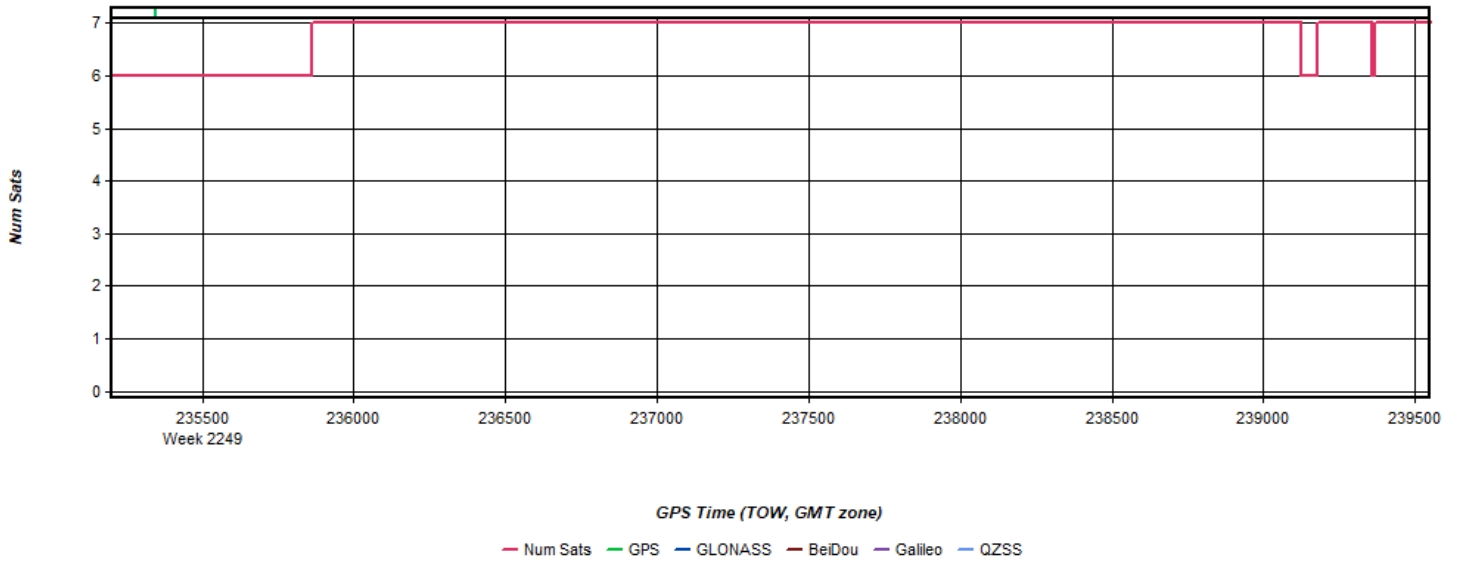


Figure 8: 20230214171913_18b [Smoothed TC Combined] - Status flag for IMU processing

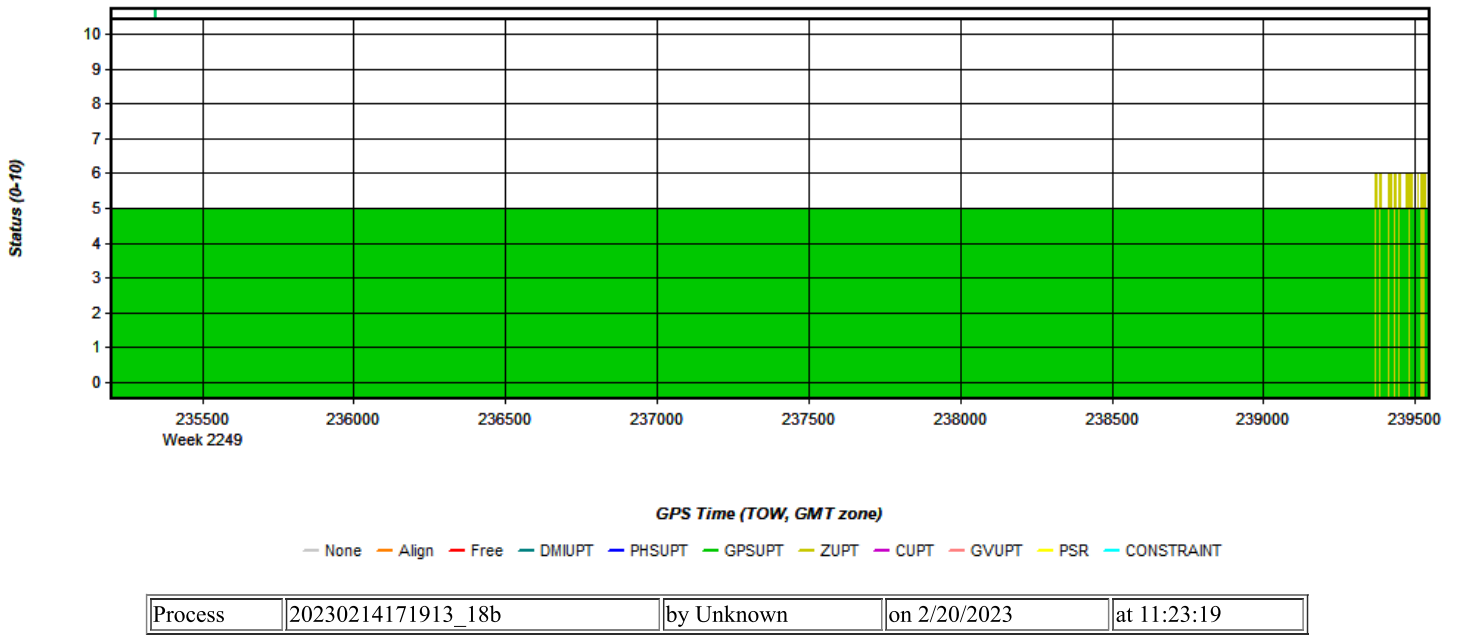


Figure 9: 20230214171913_18b [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

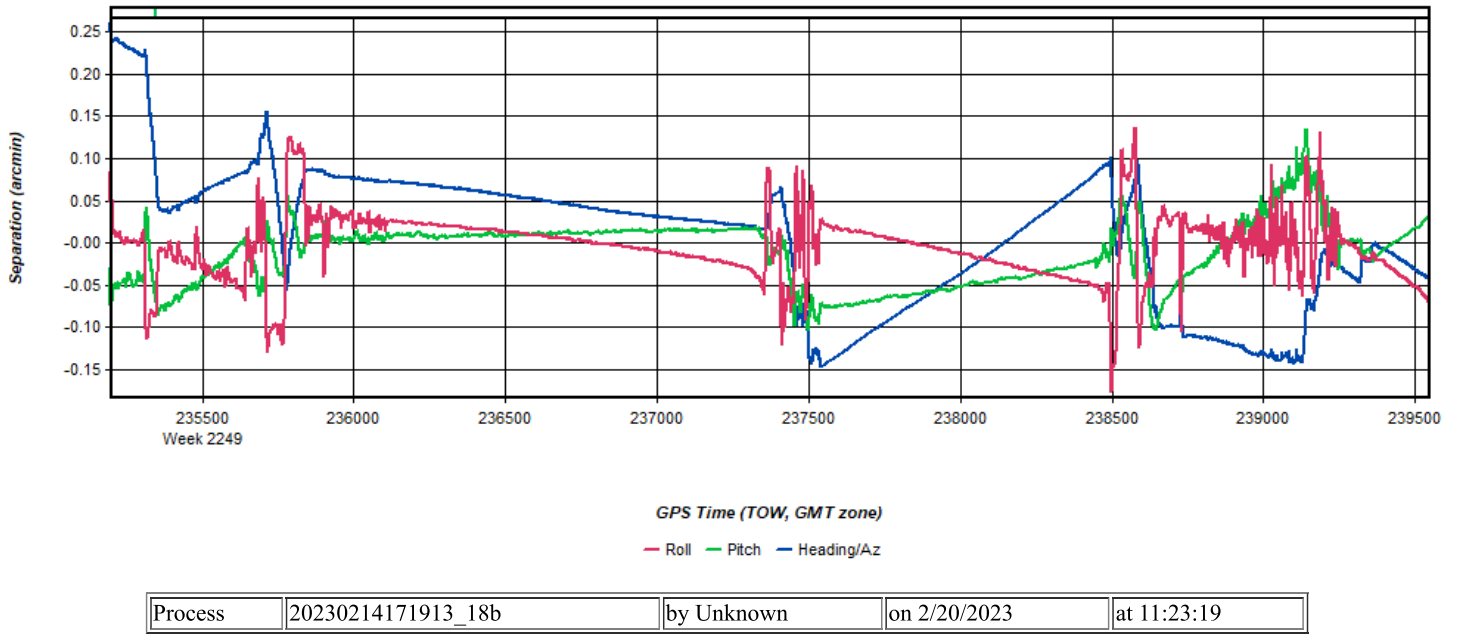
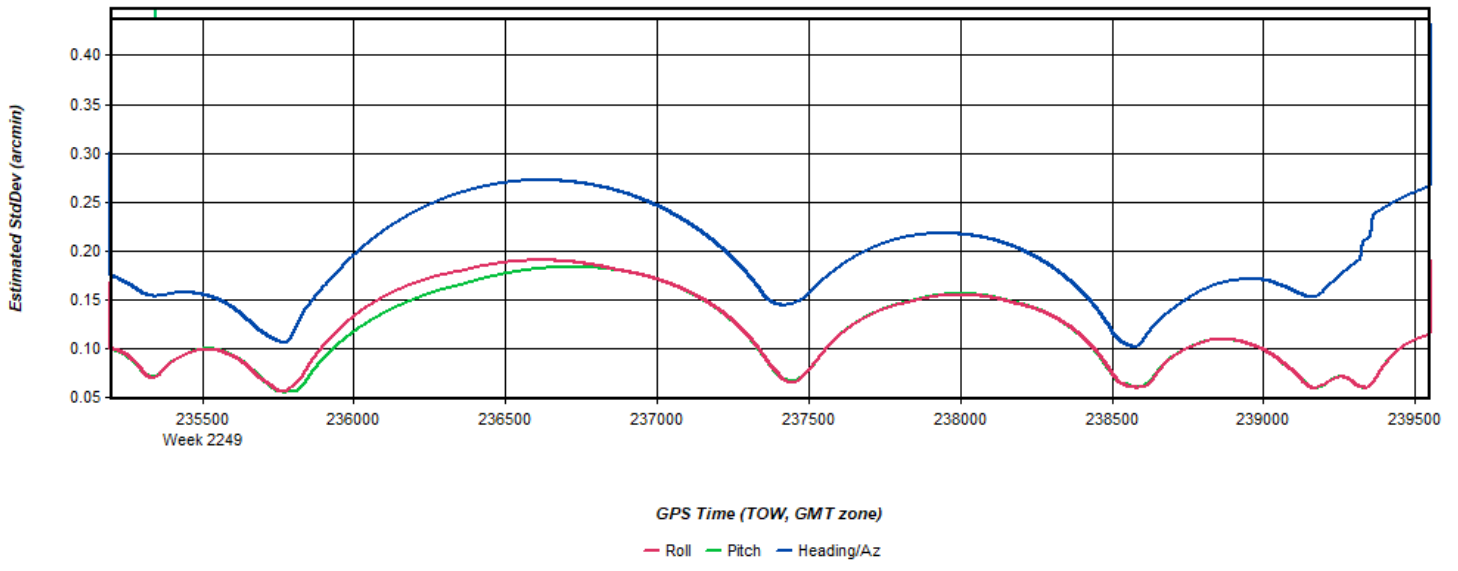
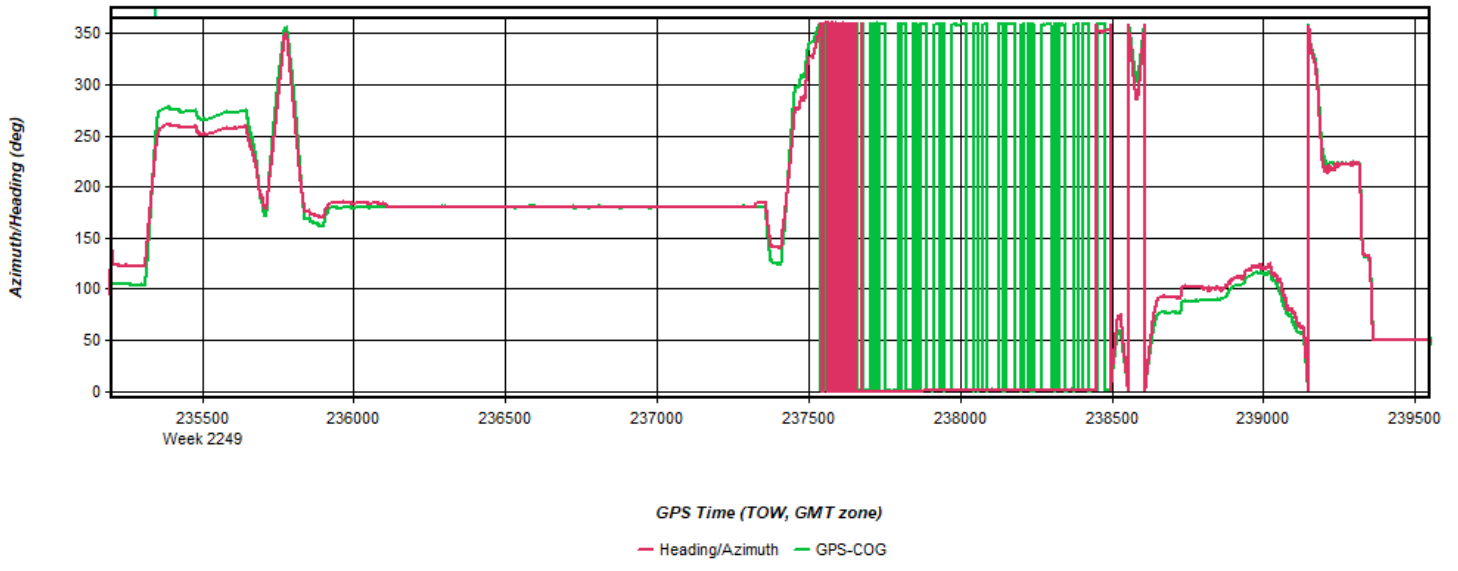


Figure 10: 20230214171913_18b [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



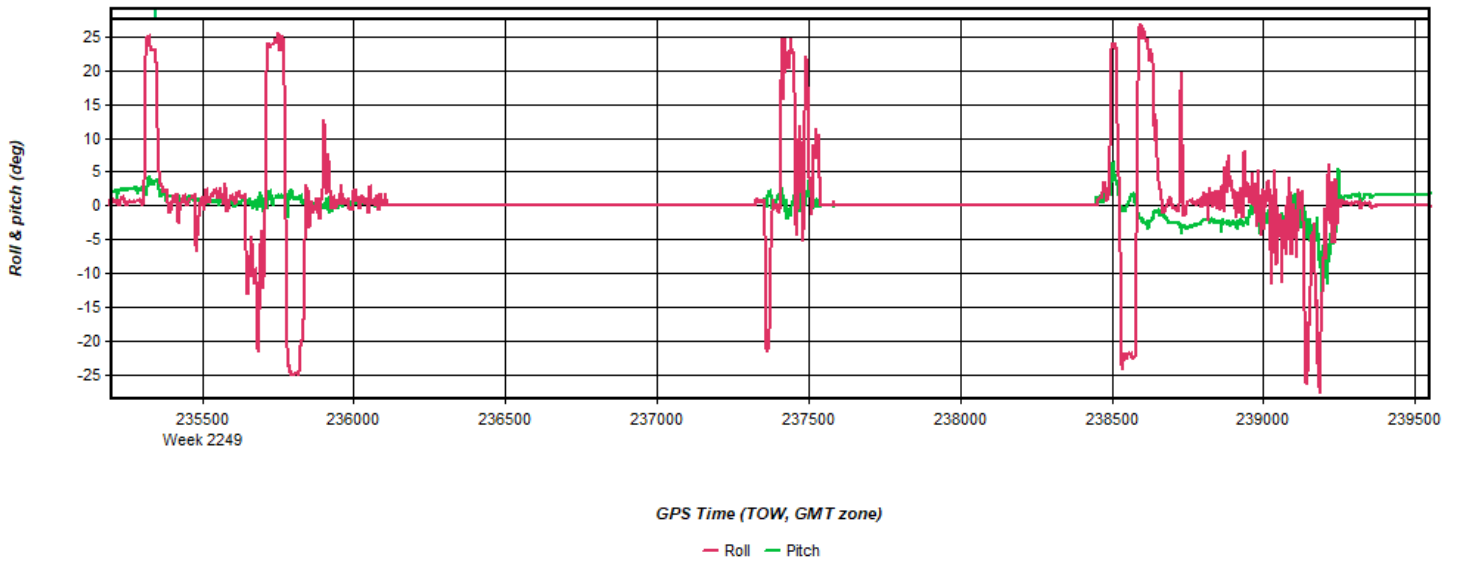
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 11: 20230214171913_18b [Smoothed TC Combined] - Azimuth Plot



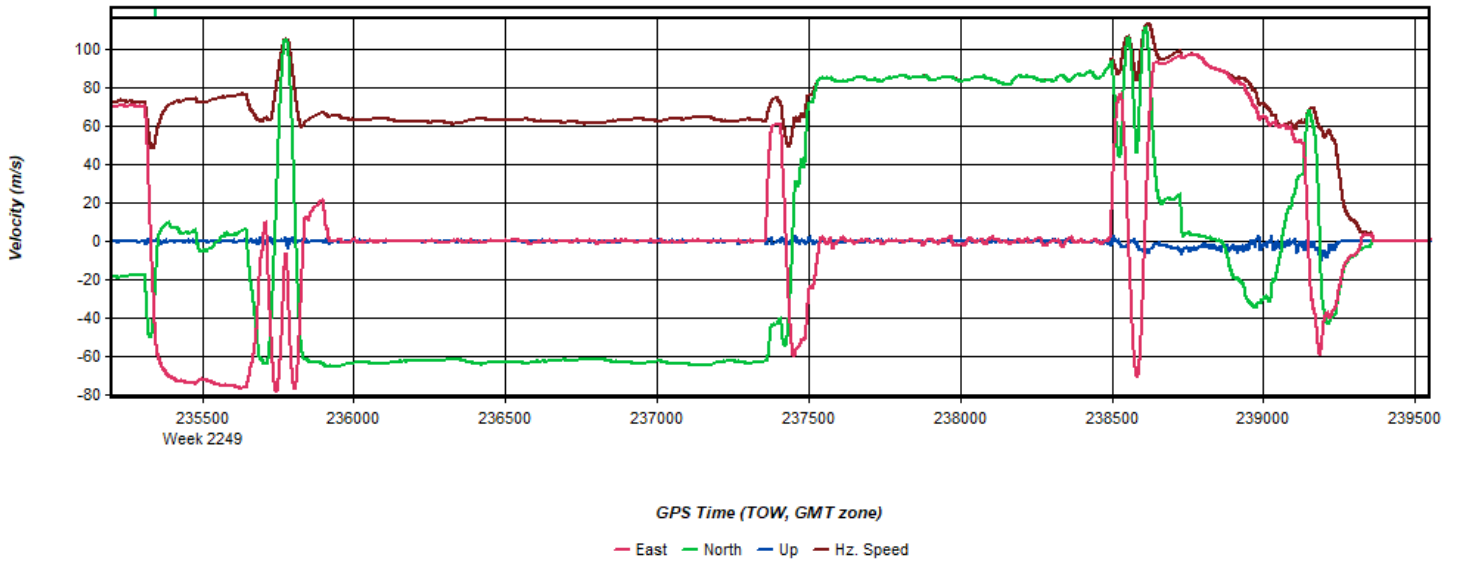
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 12: 20230214171913_18b [Smoothed TC Combined] - Roll & Pitch Plot



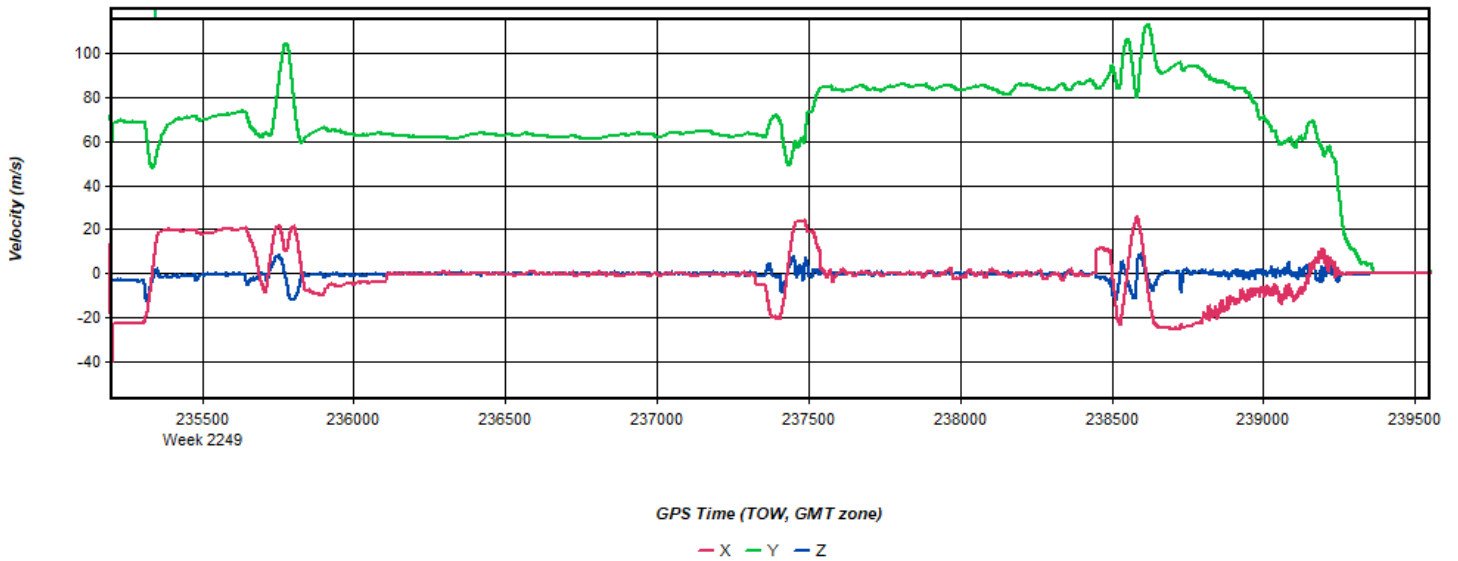
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 13: 20230214171913_18b [Smoothed TC Combined] - Velocity Profile Plot



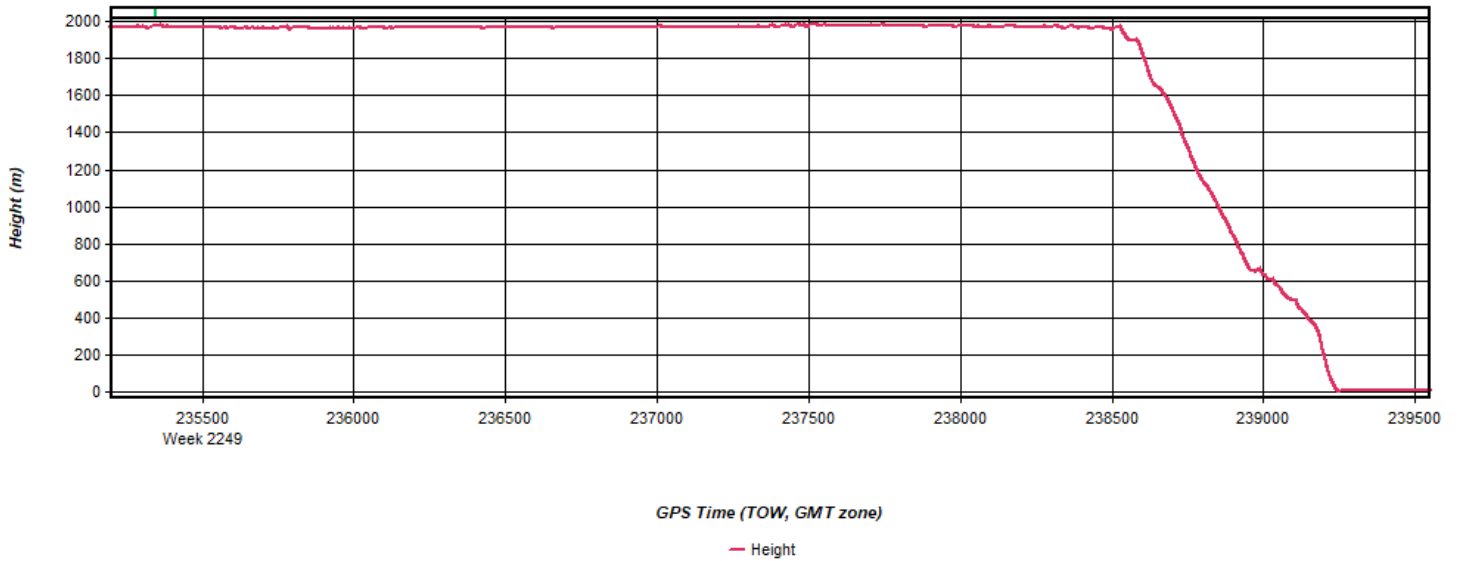
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 14: 20230214171913_18b [Smoothed TC Combined] - Body Frame Velocity Plot



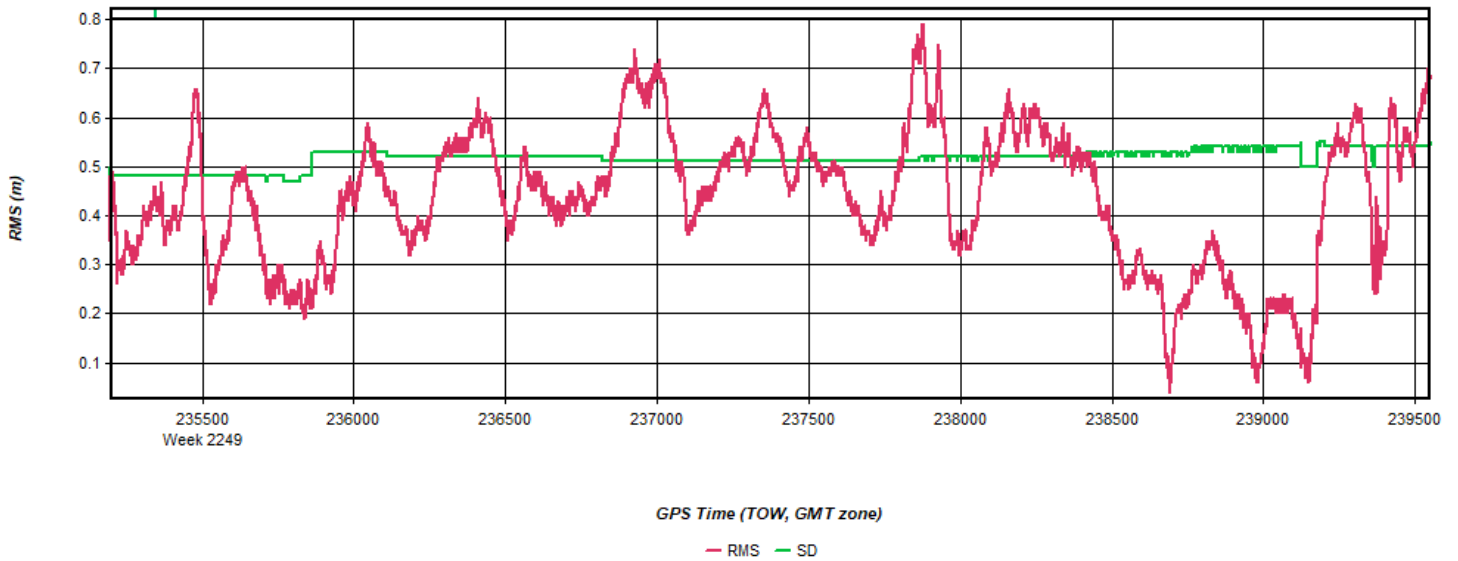
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 15: 20230214171913_18b [Smoothed TC Combined] - Height Profile Plot



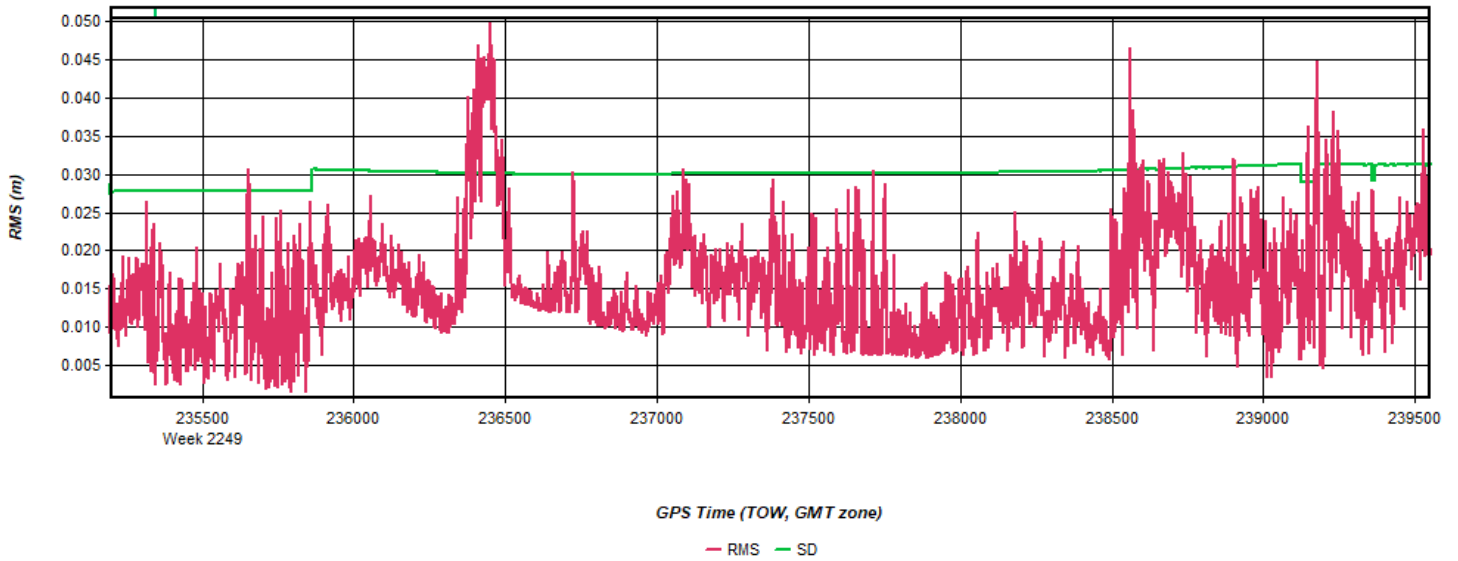
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 16: 20230214171913_18b [Smoothed TC Combined] - C/A Code Residual RMS Plot



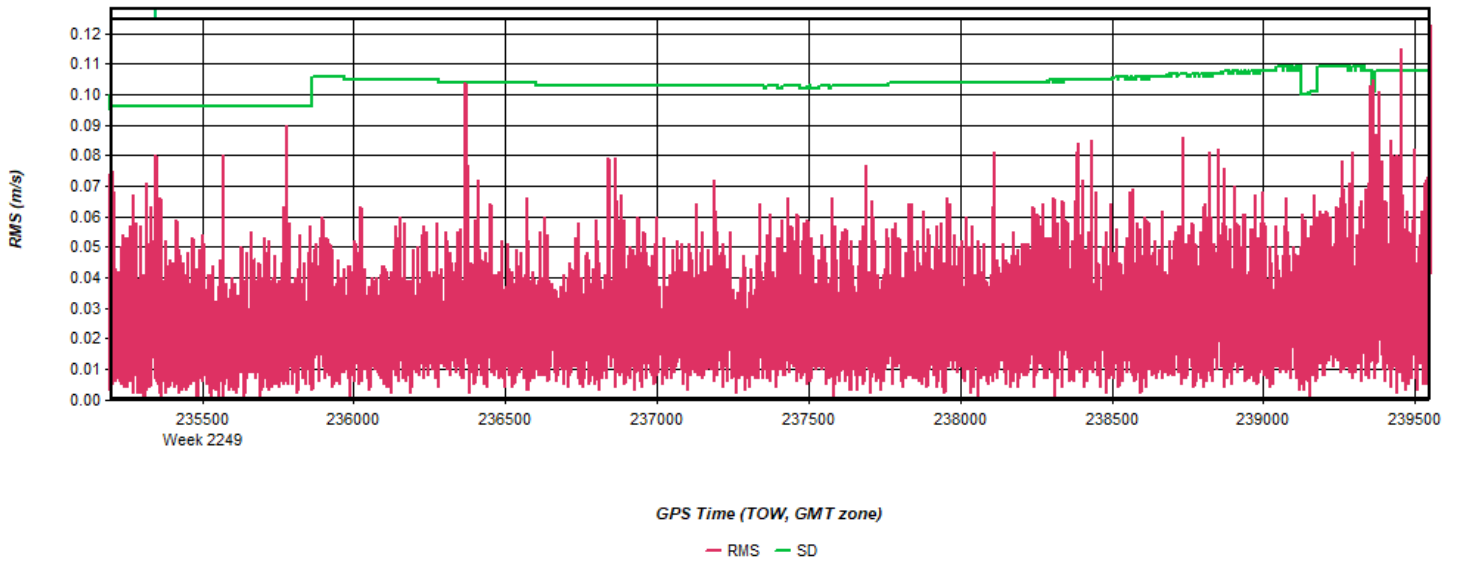
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 17: 20230214171913_18b [Smoothed TC Combined] - Carrier Residual RMS Plot



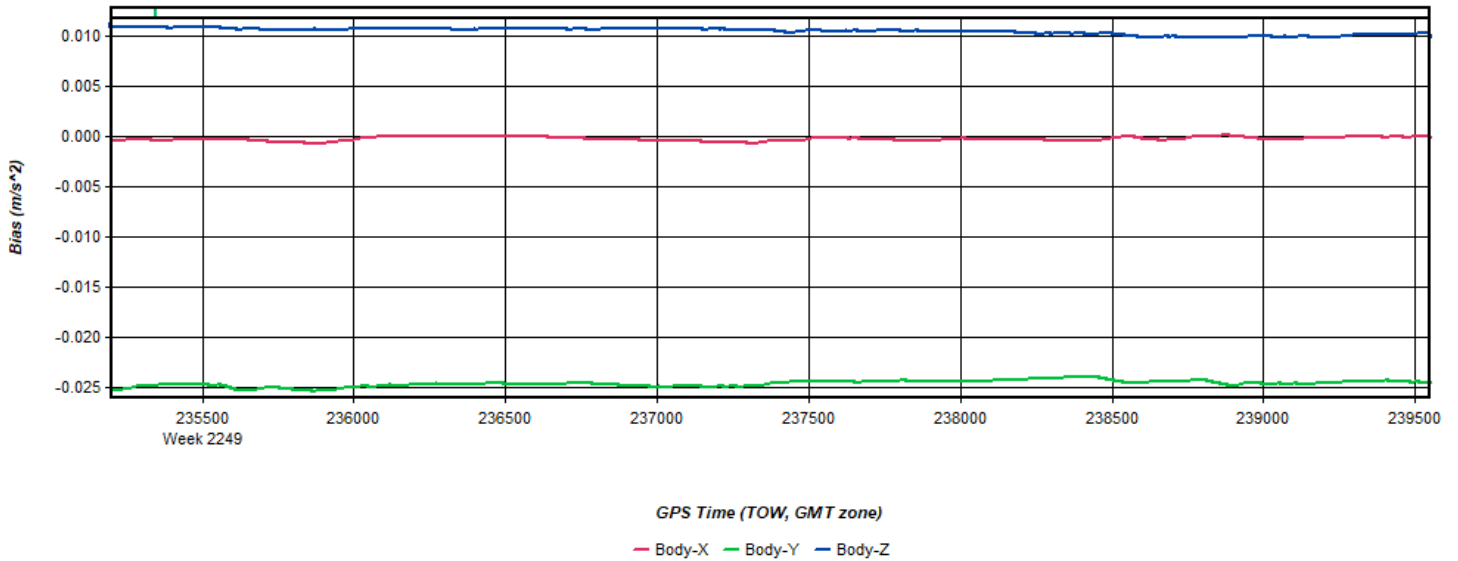
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 18: 20230214171913_18b [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



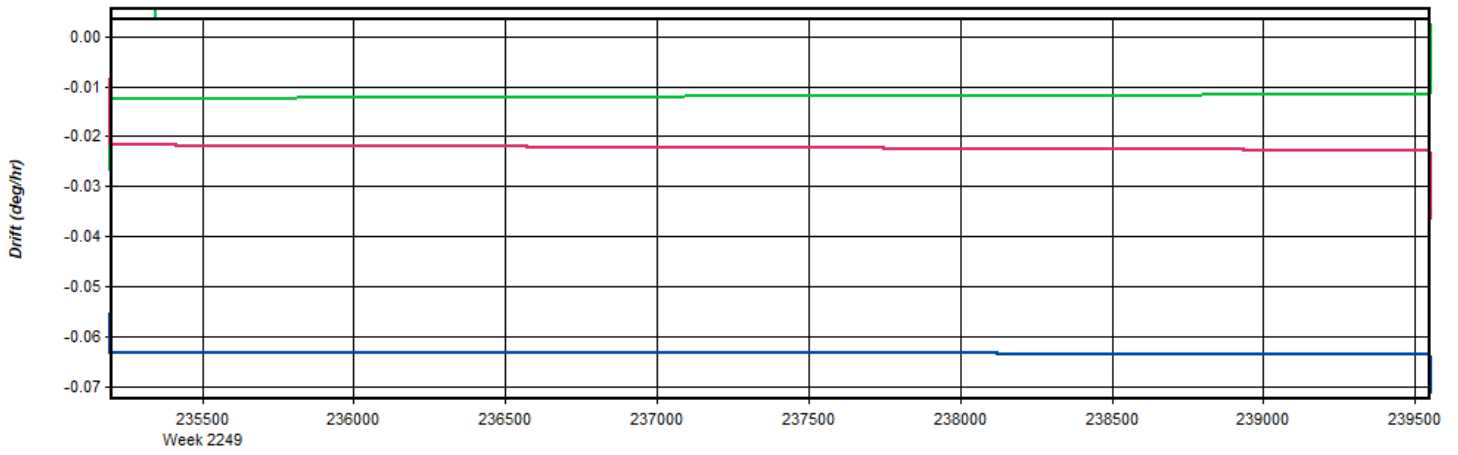
Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 19: 20230214171913_18b [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Figure 20: 20230214171913_18b [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

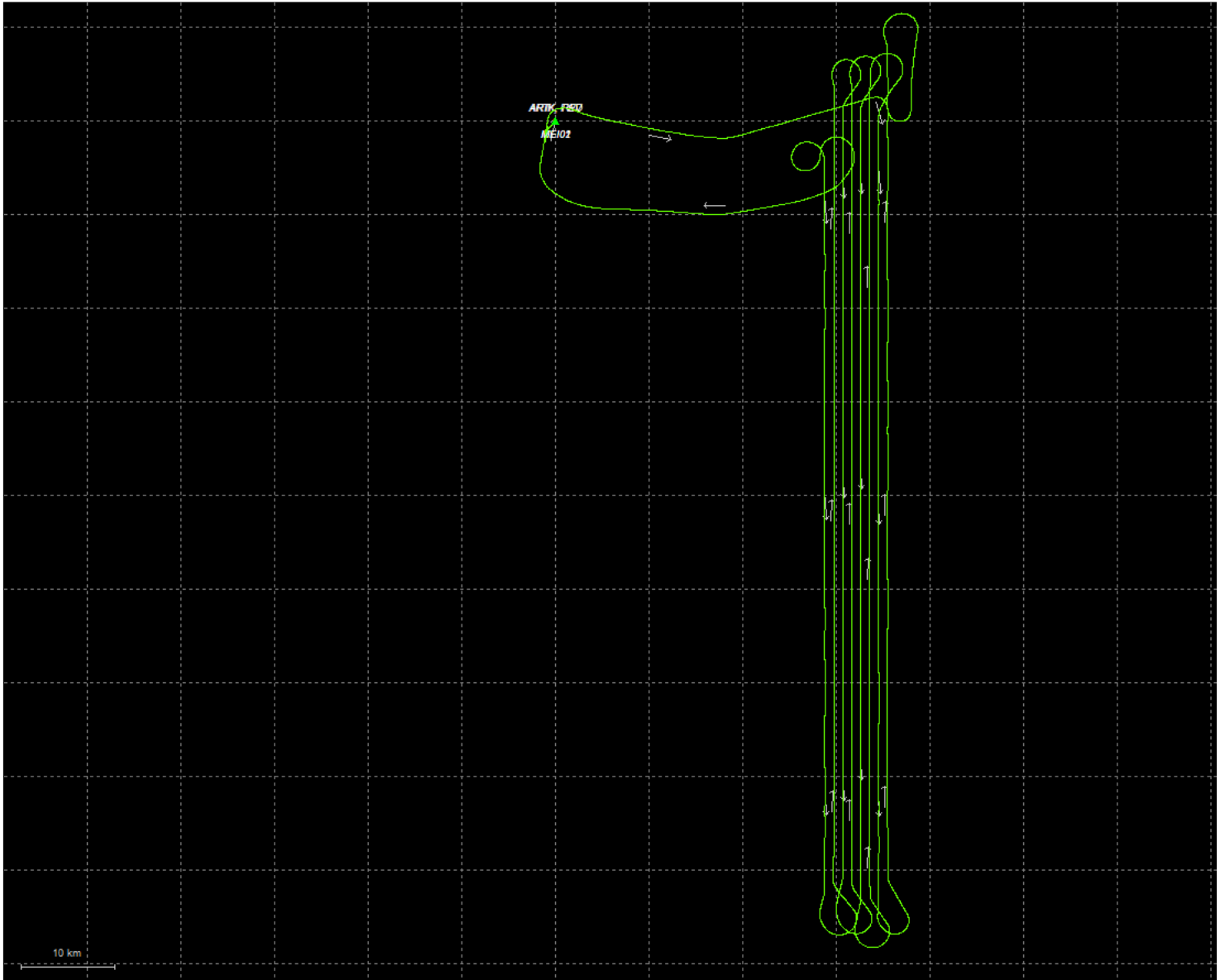
— Body-X — Body-Y — Body-Z

Process	20230214171913_18b	by Unknown	on 2/20/2023	at 11:23:19
---------	--------------------	------------	--------------	-------------

Output Results for 20230218142119_19

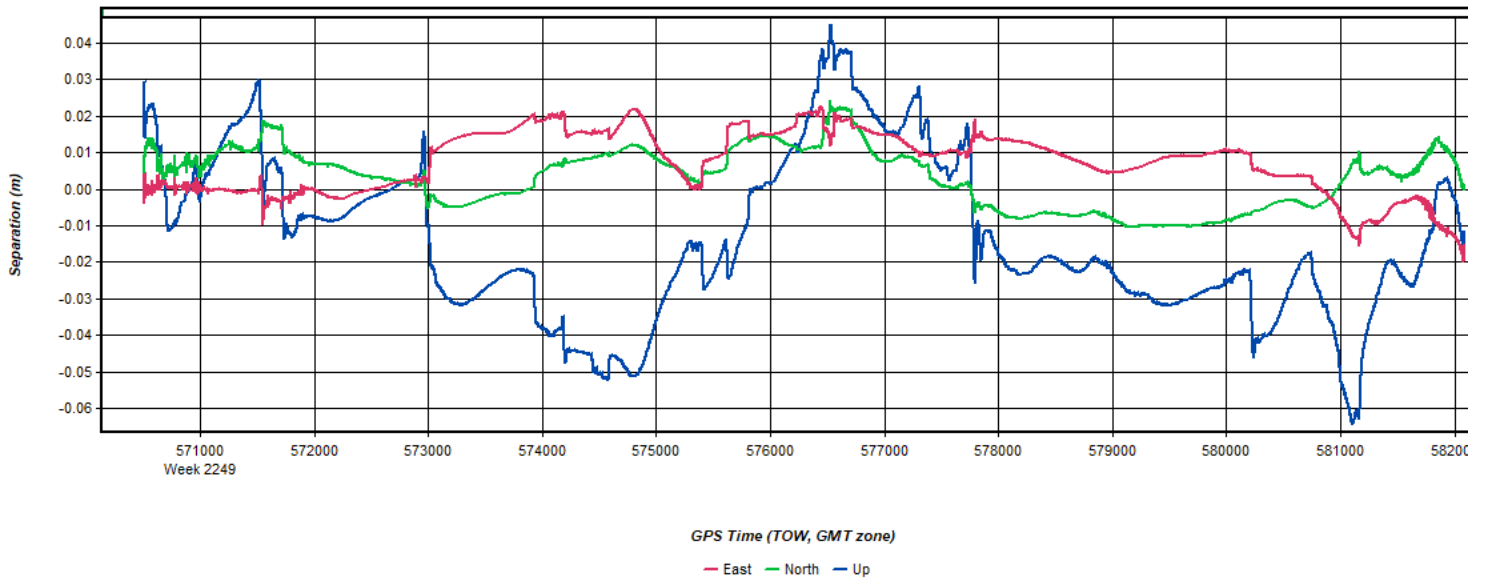
Inertial Explorer Version 8.90.6611
02/22/2023

Figure 1: Smoothed TC Combined - Map



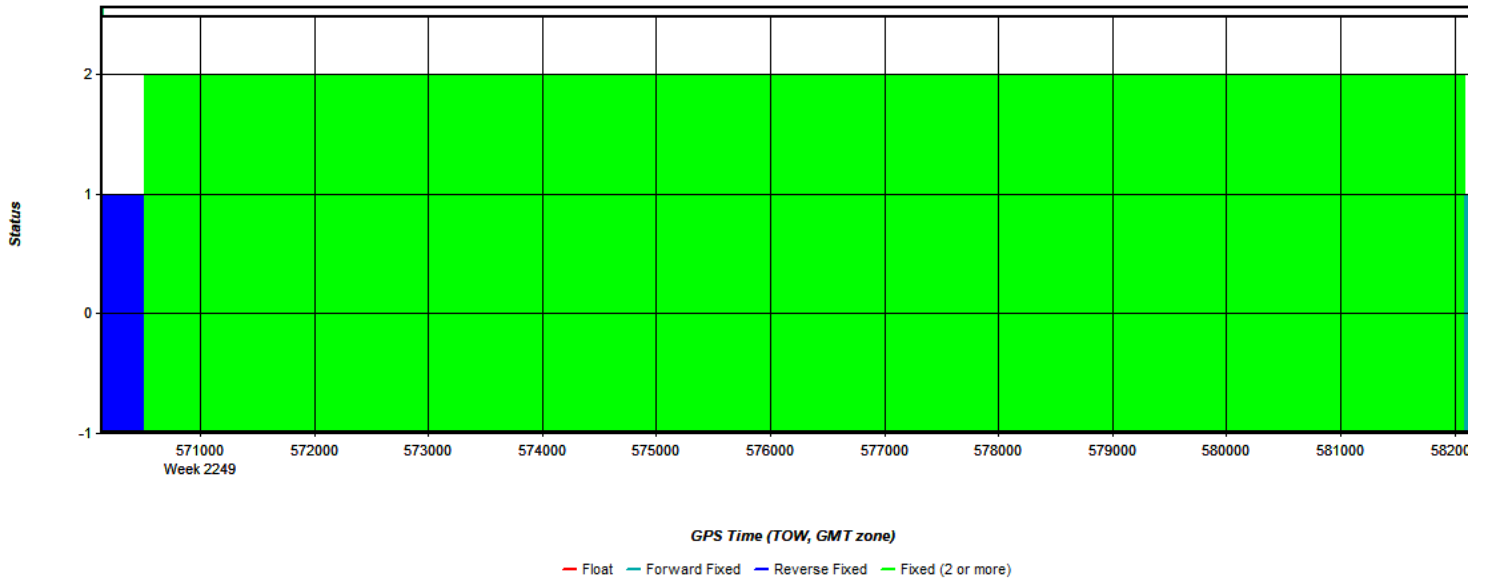
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 2: 20230218142119_19 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



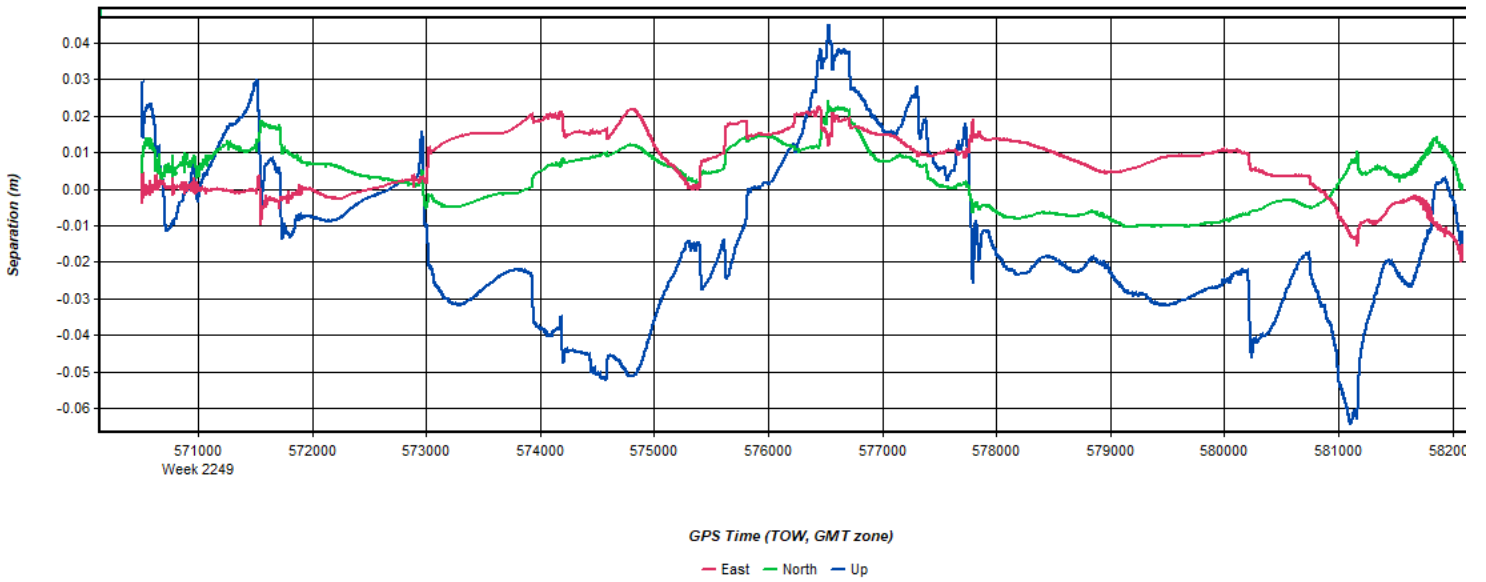
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 3: 20230218142119_19 [Smoothed TC Combined] - Float or Fixed Ambiguity



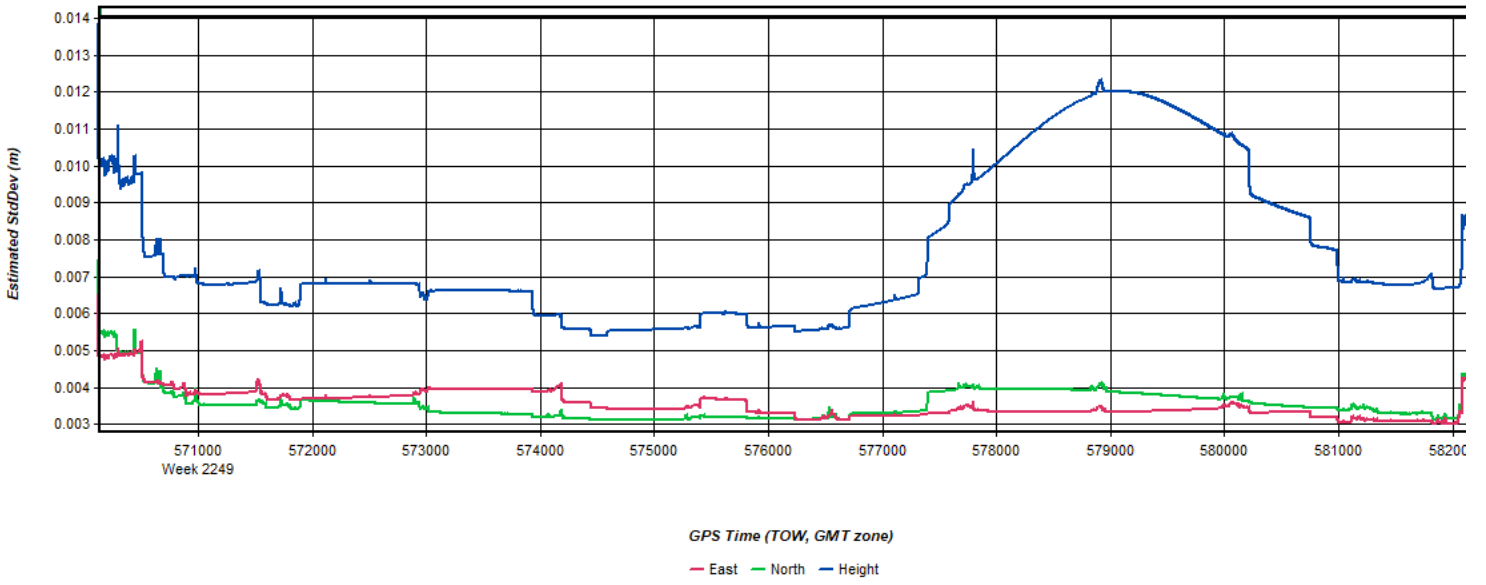
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 4: 20230218142119_19 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 5: 20230218142119_19 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 6: 20230218142119_19 [Smoothed TC Combined] - PDOP Plot

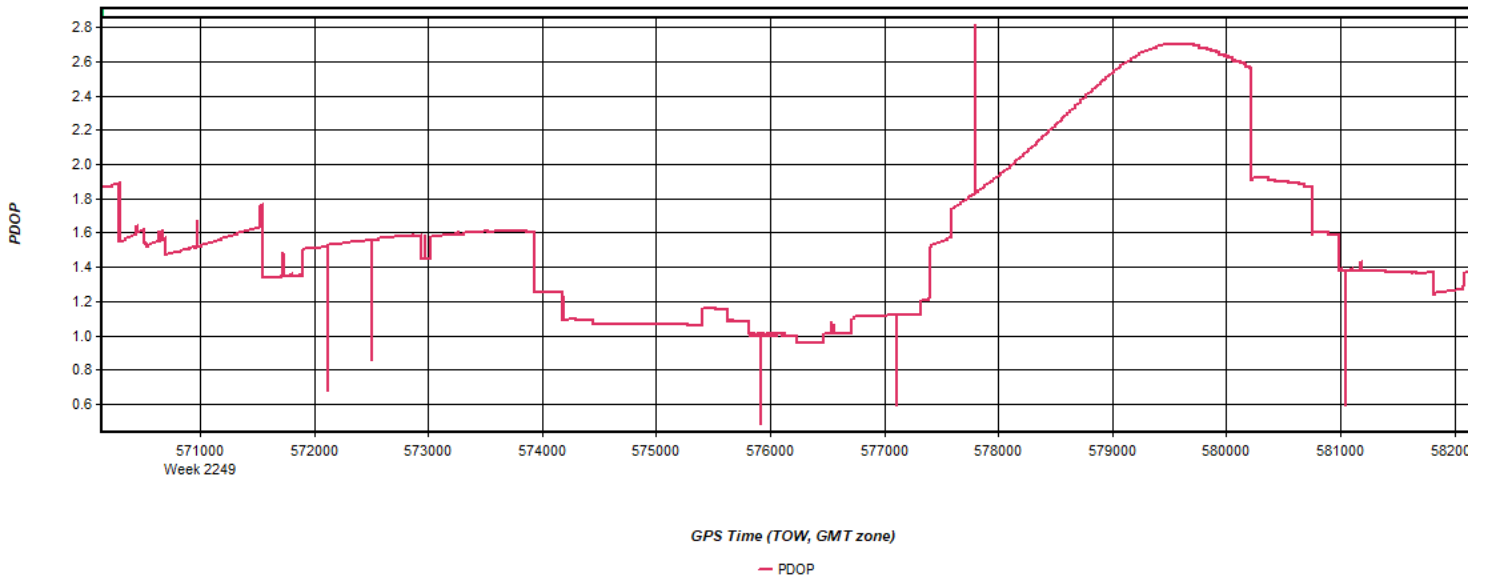


Figure 7: 20230218142119_19 [Smoothed TC Combined] - Number of Satellites Line Plot

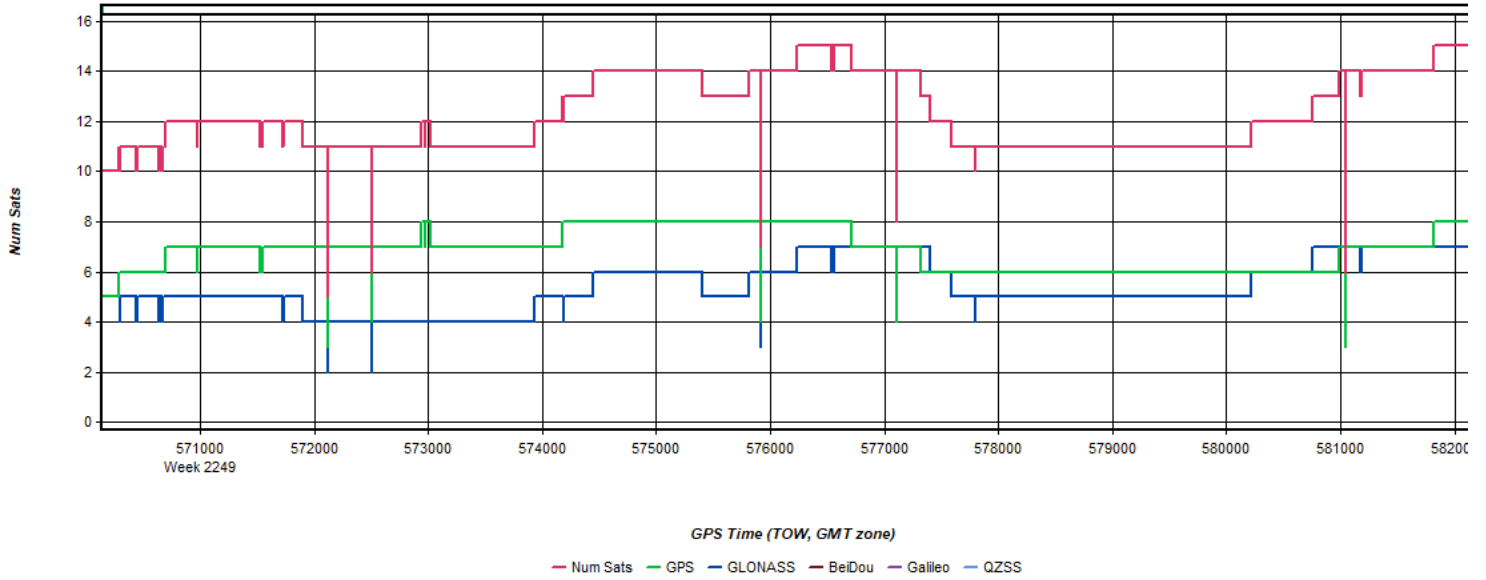


Figure 8: 20230218142119_19 [Smoothed TC Combined] - Status flag for IMU processing

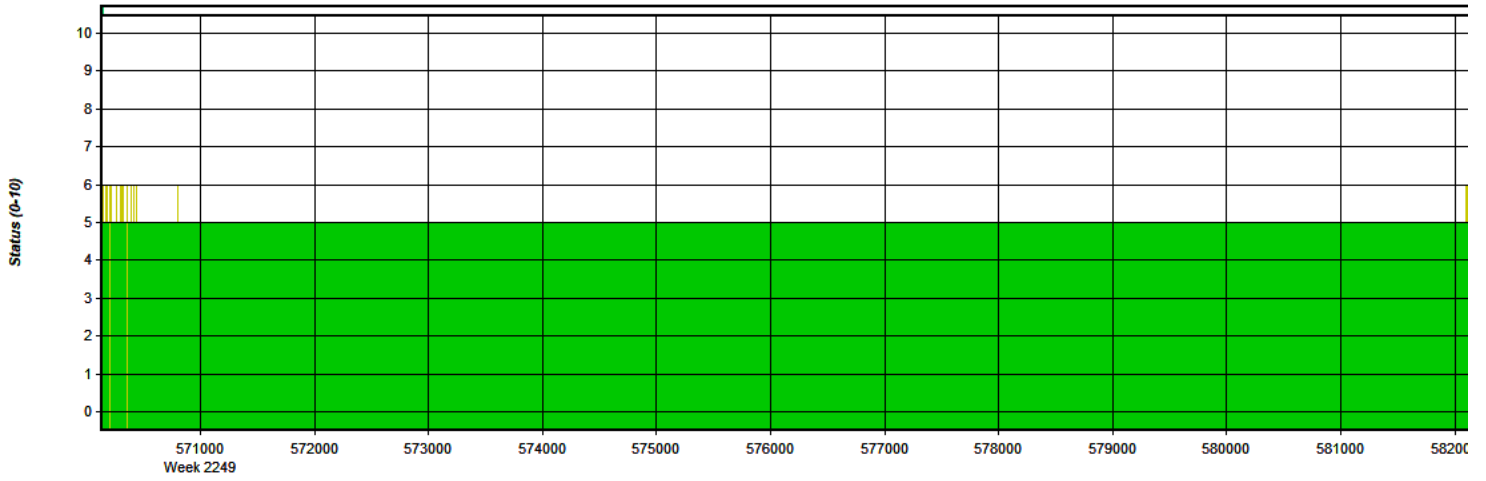


Figure 9: 20230218142119_19 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

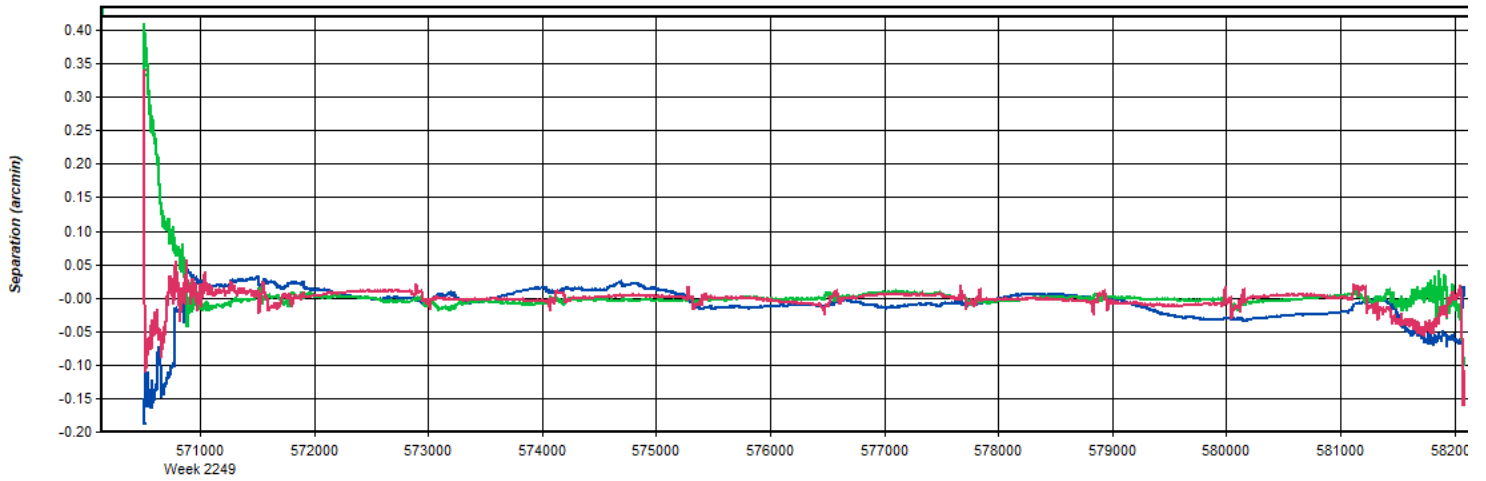
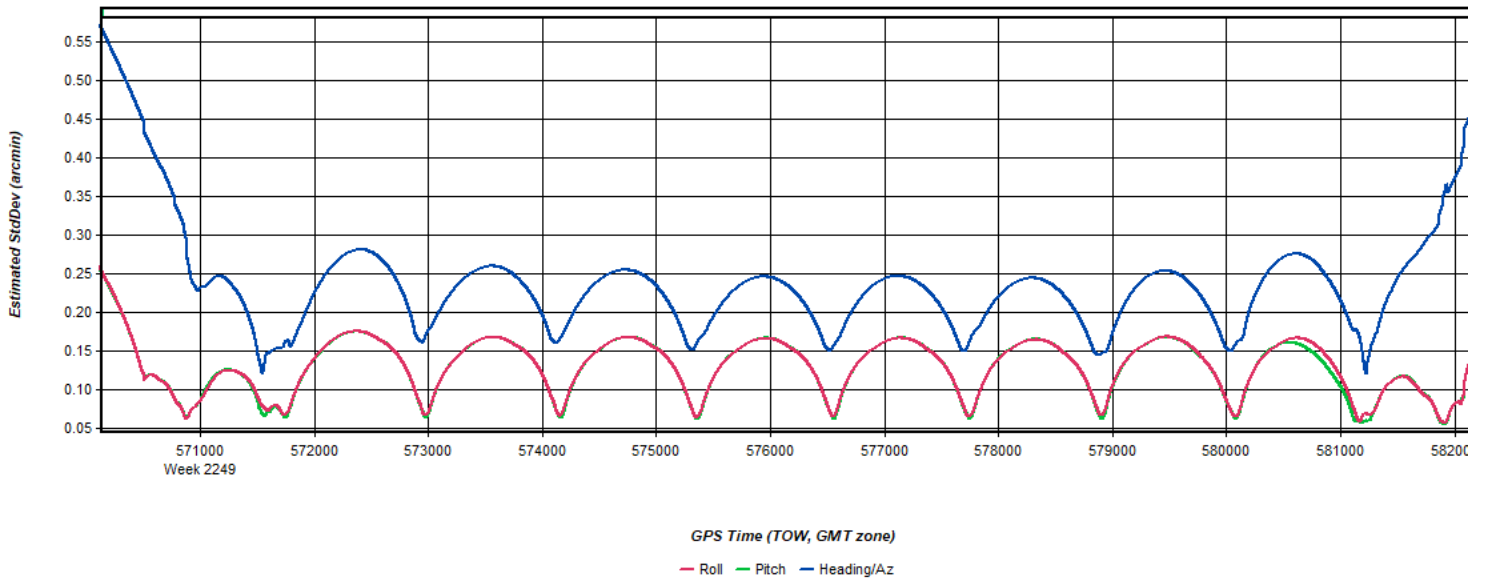
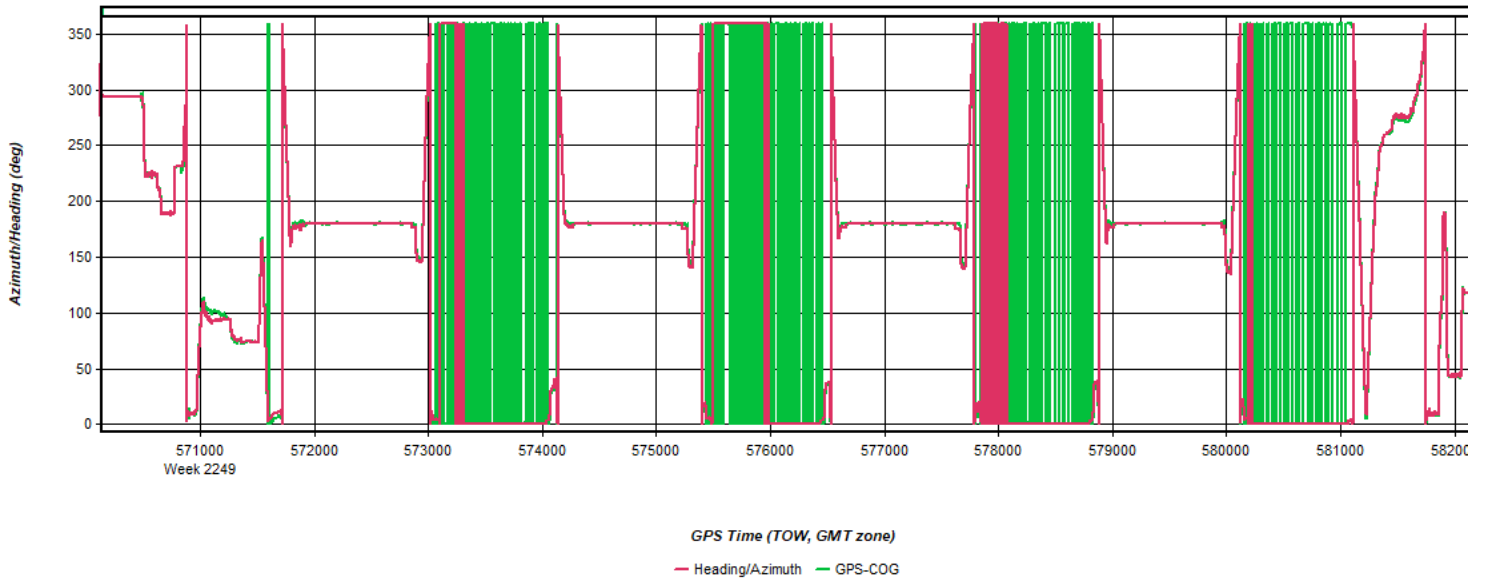


Figure 10: 20230218142119_19 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



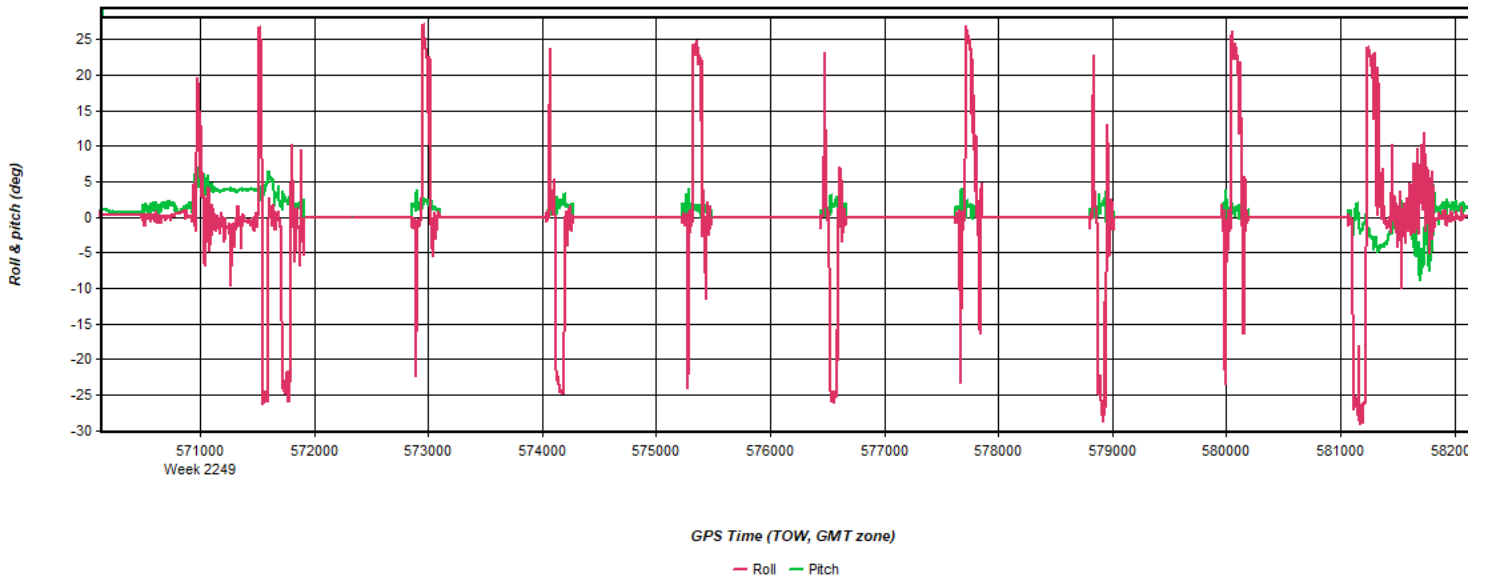
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 11: 20230218142119_19 [Smoothed TC Combined] - Azimuth Plot



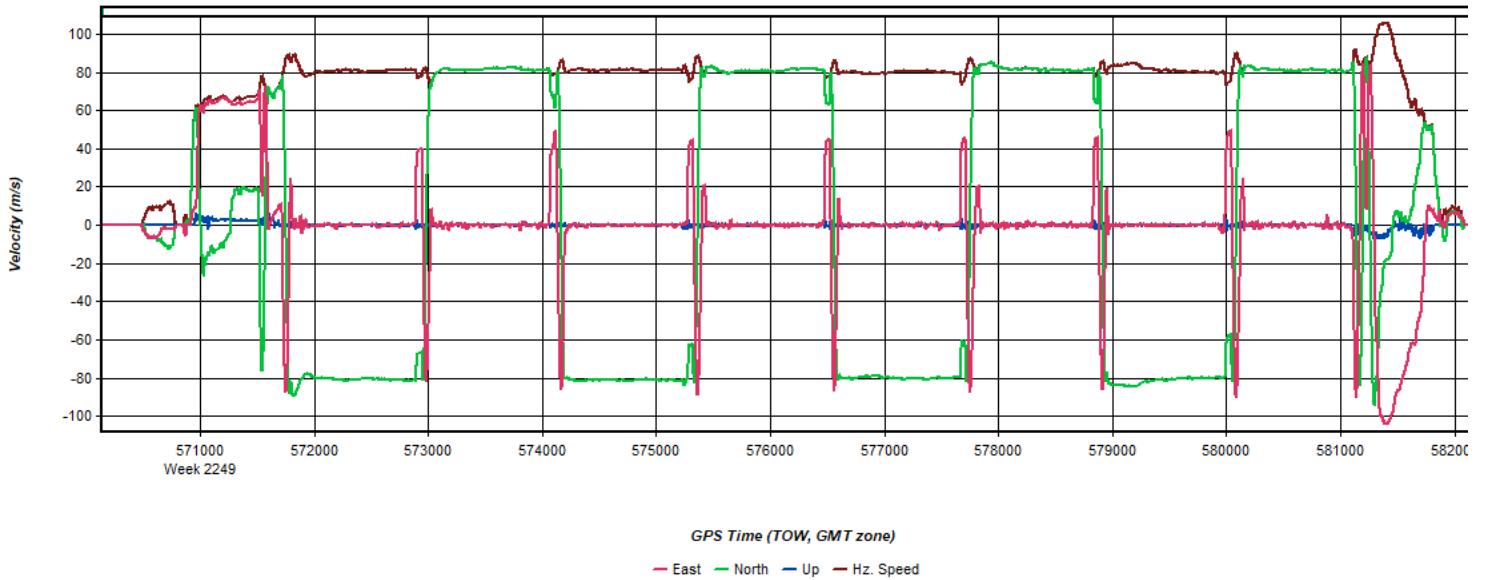
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 12: 20230218142119_19 [Smoothed TC Combined] - Roll & Pitch Plot



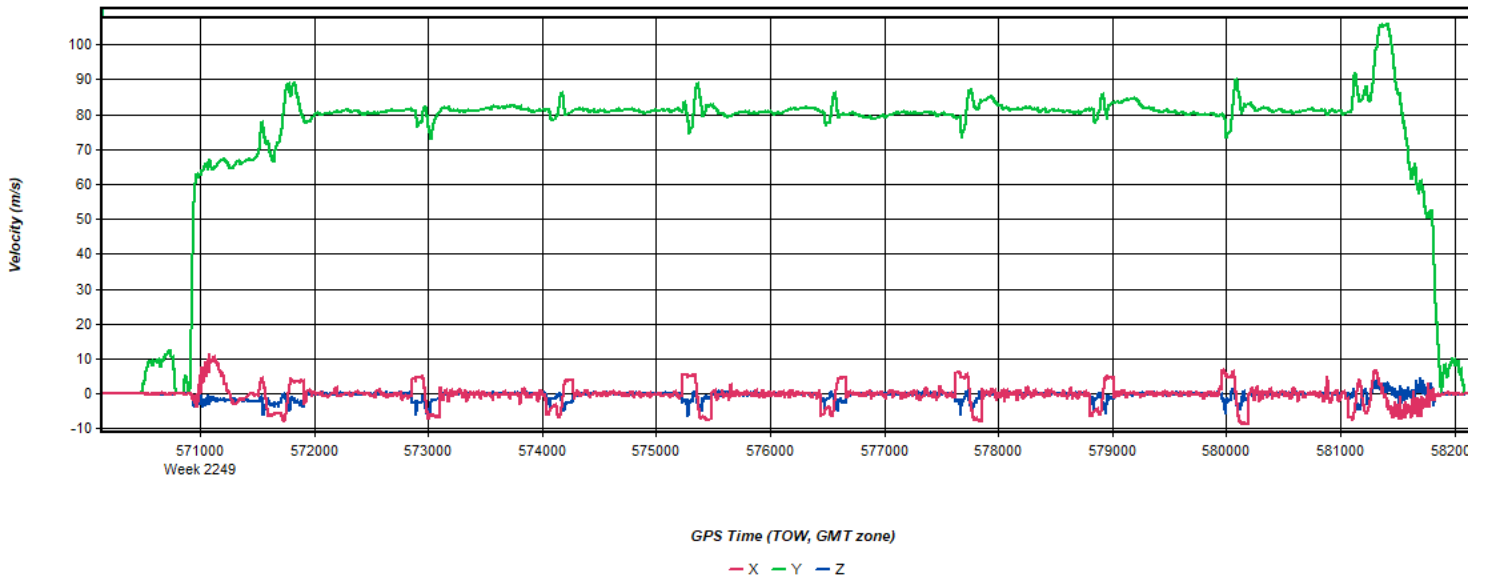
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 13: 20230218142119_19 [Smoothed TC Combined] - Velocity Profile Plot



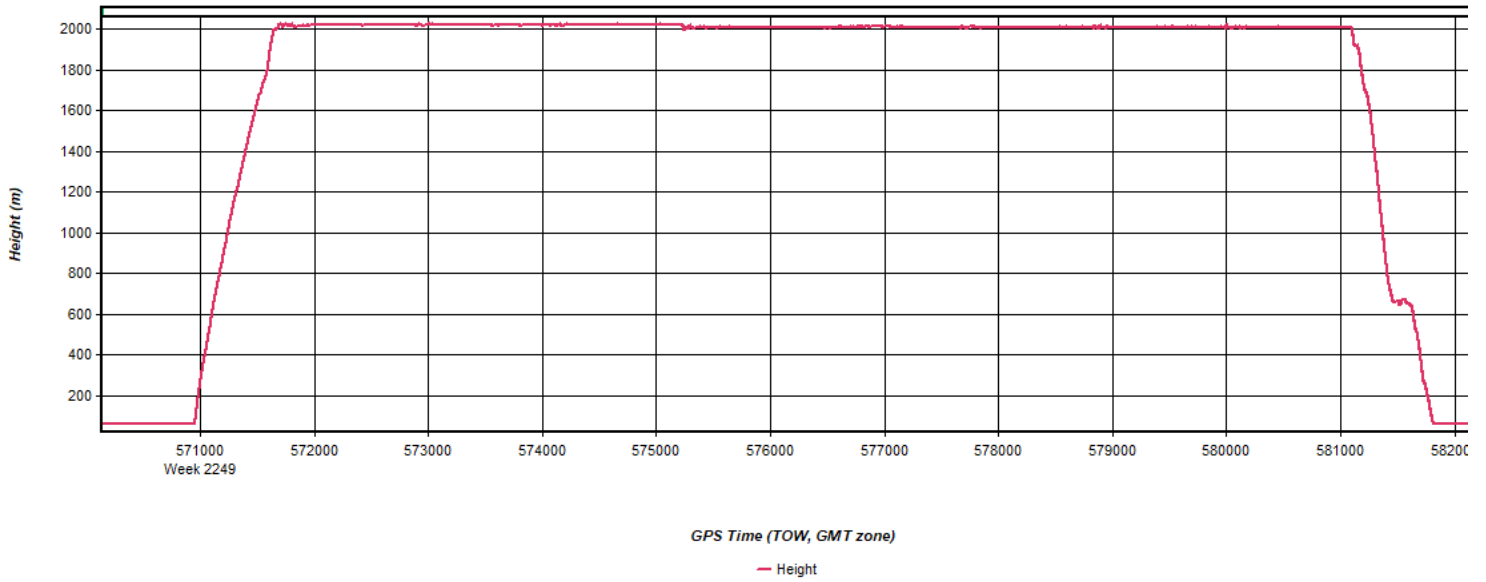
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 14: 20230218142119_19 [Smoothed TC Combined] - Body Frame Velocity Plot



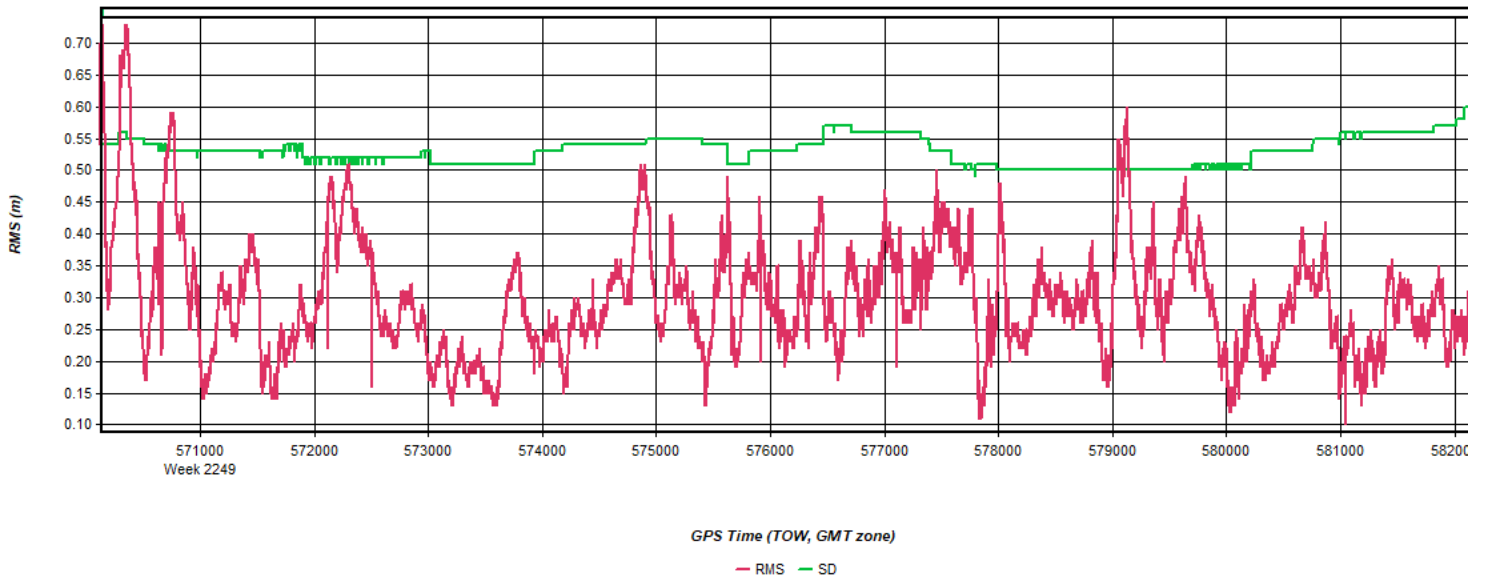
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 15: 20230218142119_19 [Smoothed TC Combined] - Height Profile Plot



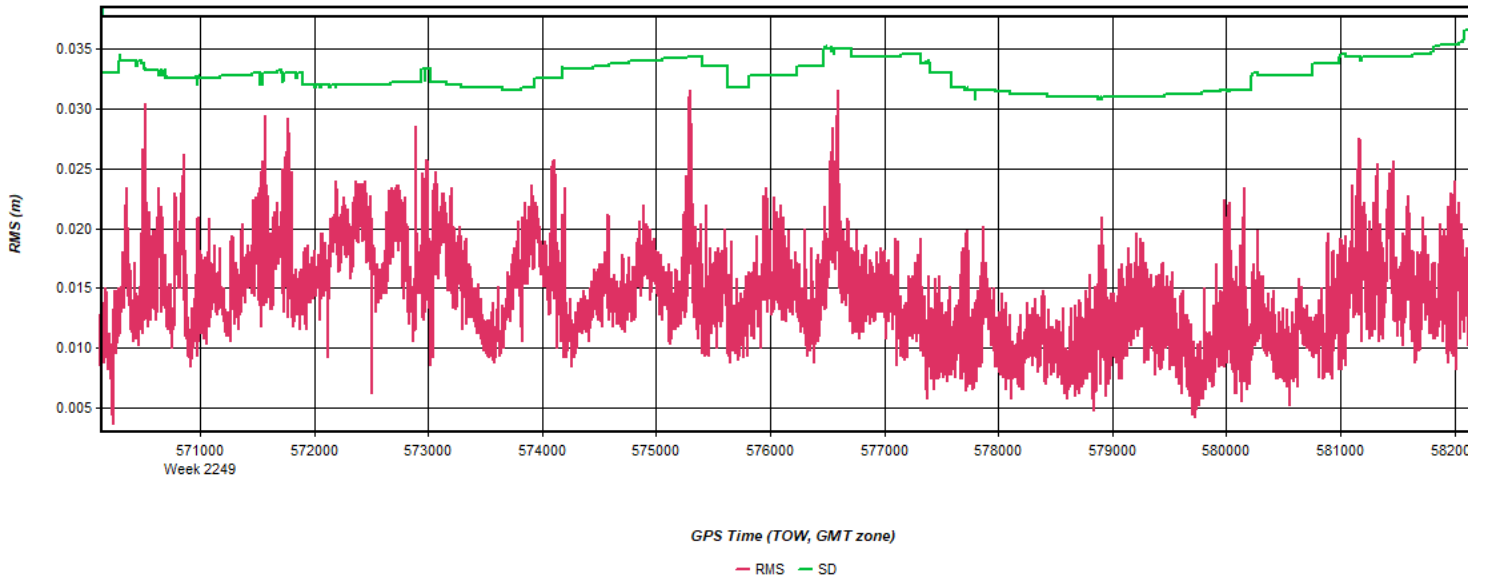
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 16: 20230218142119_19 [Smoothed TC Combined] - C/A Code Residual RMS Plot



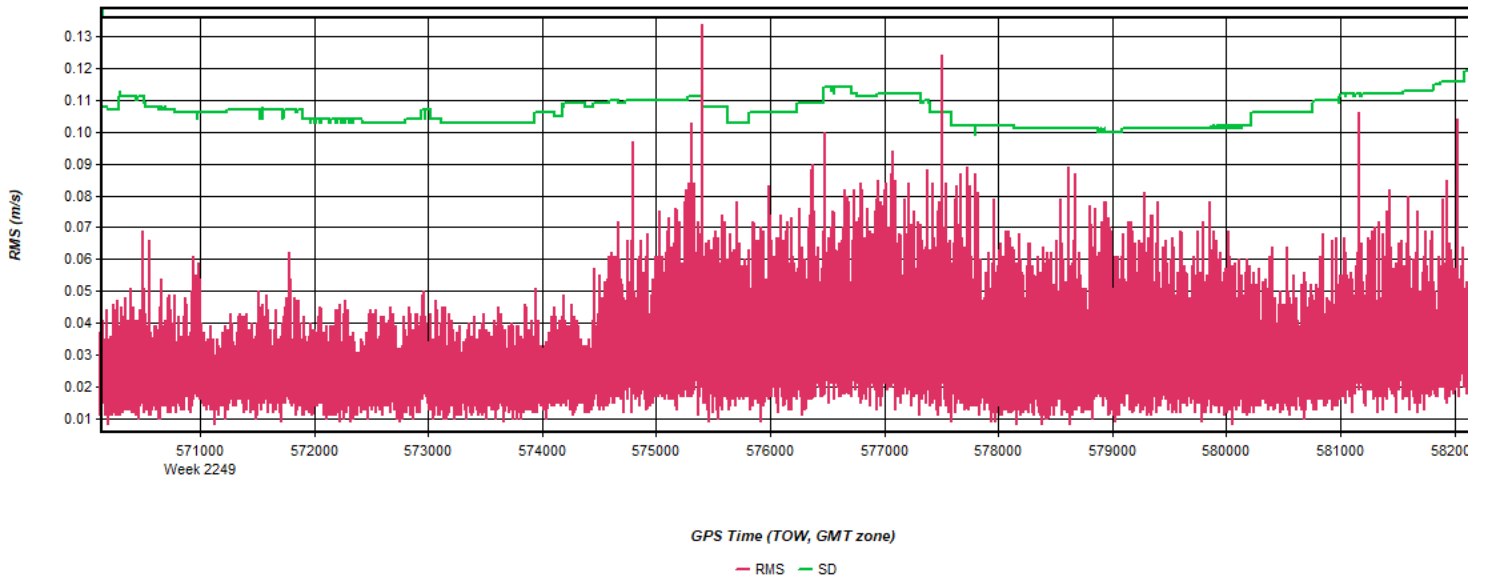
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 17: 20230218142119_19 [Smoothed TC Combined] - Carrier Residual RMS Plot



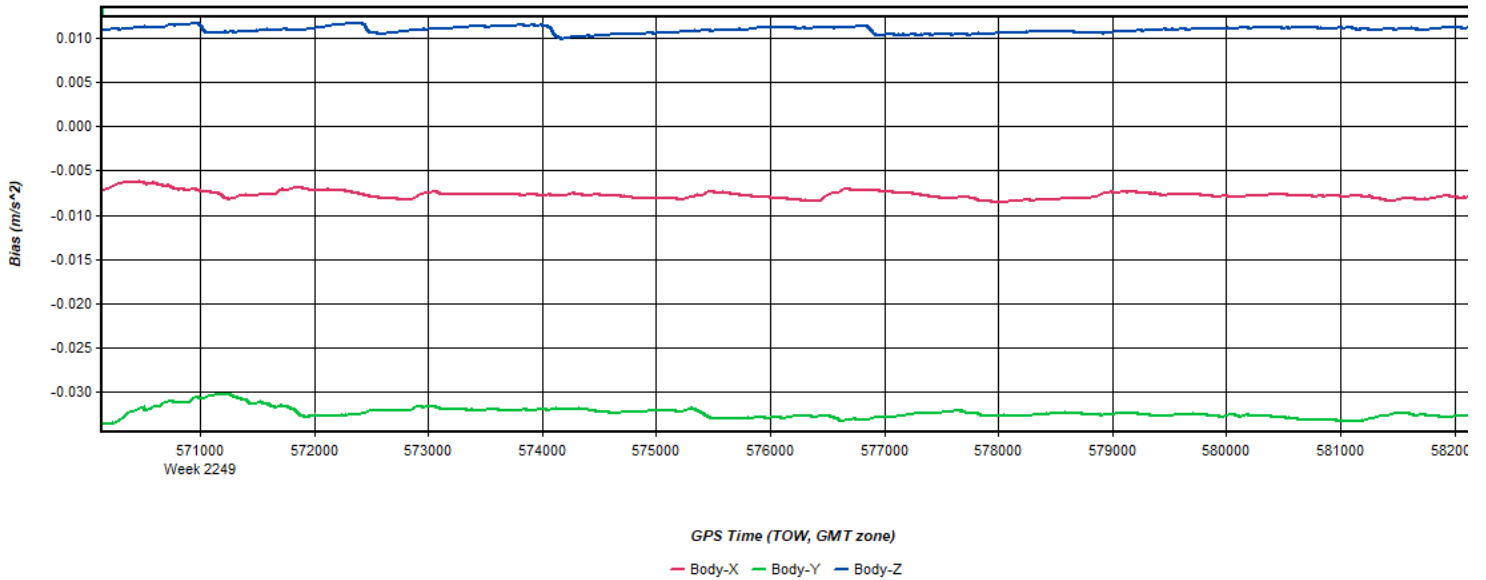
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 18: 20230218142119_19 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



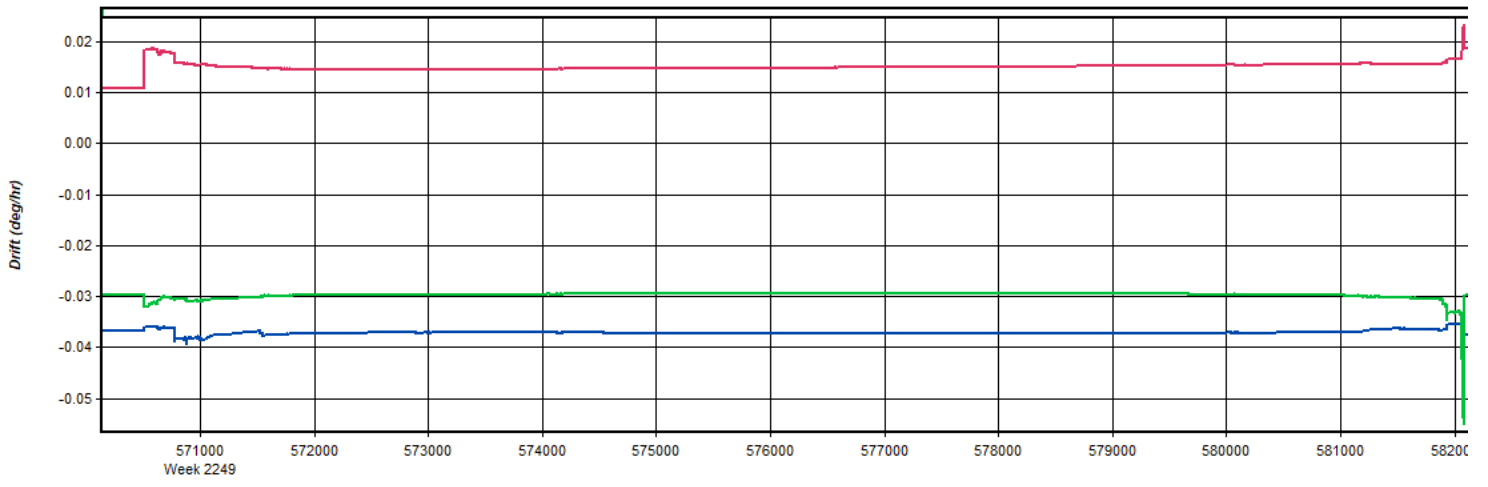
Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 19: 20230218142119_19 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Figure 20: 20230218142119_19 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

— Body-X — Body-Y — Body-Z

Process	20230218142119_19	by Unknown	on 2/22/2023	at 10:17:12
---------	-------------------	------------	--------------	-------------

Output Results for 20230218185604_20

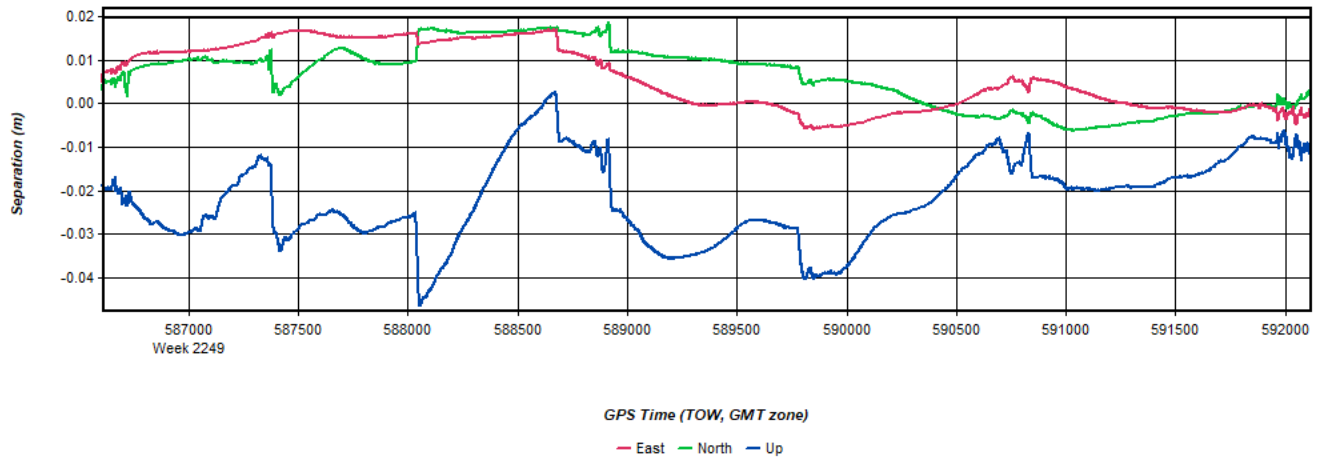
Inertial Explorer Version 8.90.6611
02/21/2023

Figure 1: Smoothed TC Combined - Map



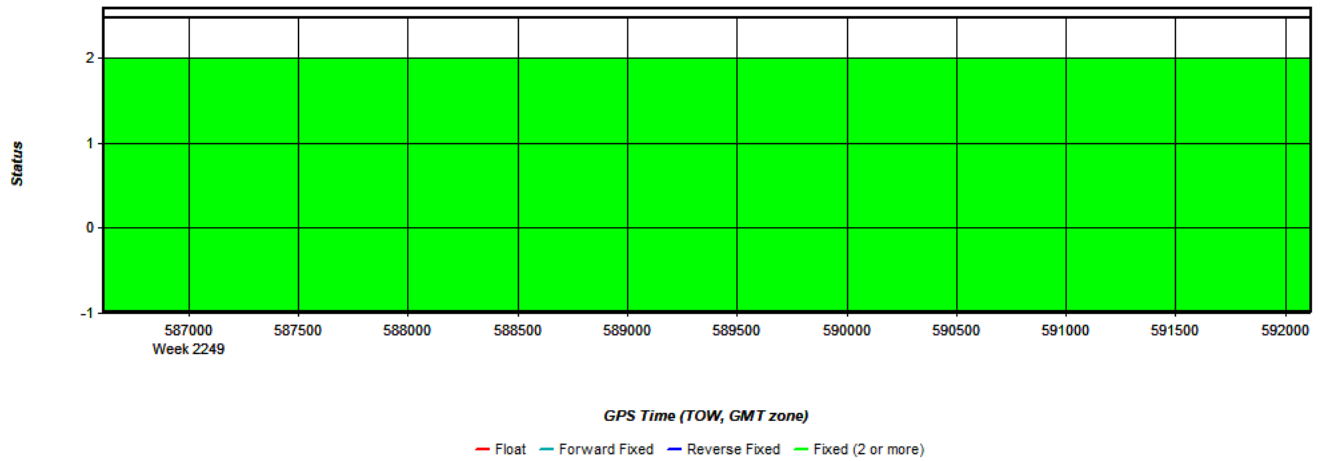
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 2: 20230218185604_20 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



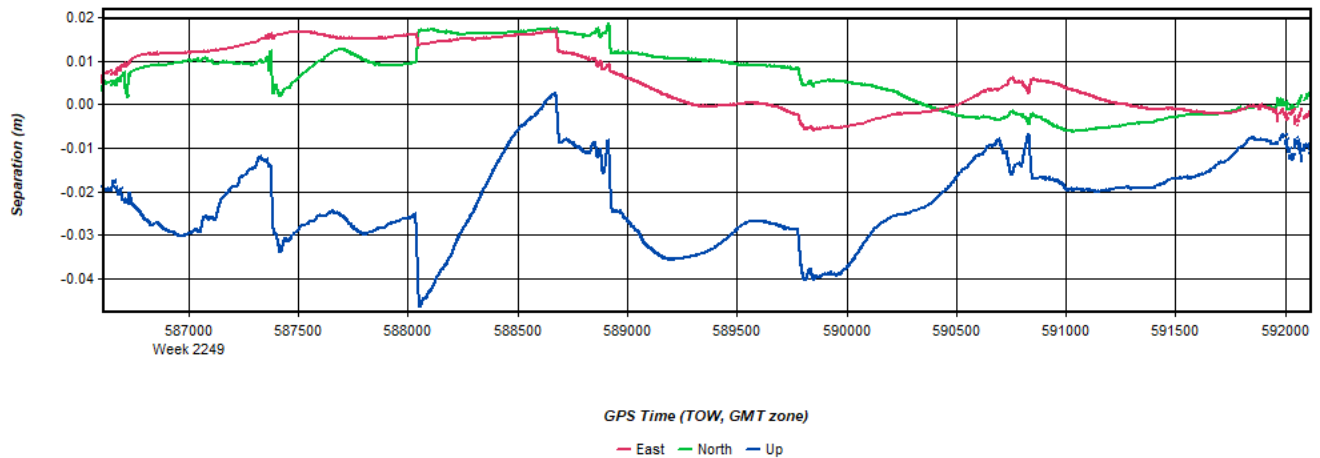
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 3: 20230218185604_20 [Smoothed TC Combined] - Float or Fixed Ambiguity



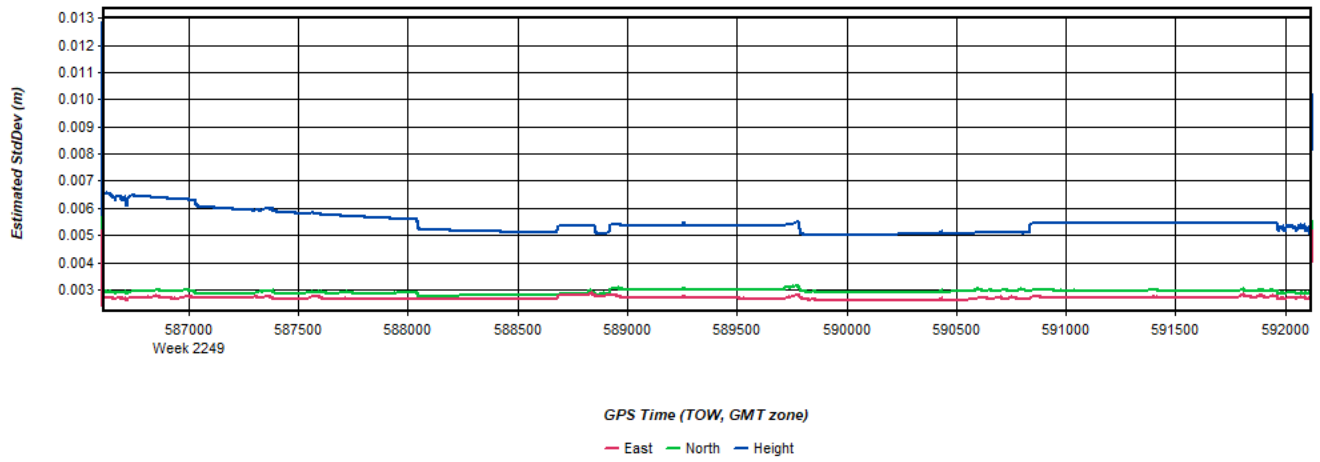
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 4: 20230218185604_20 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



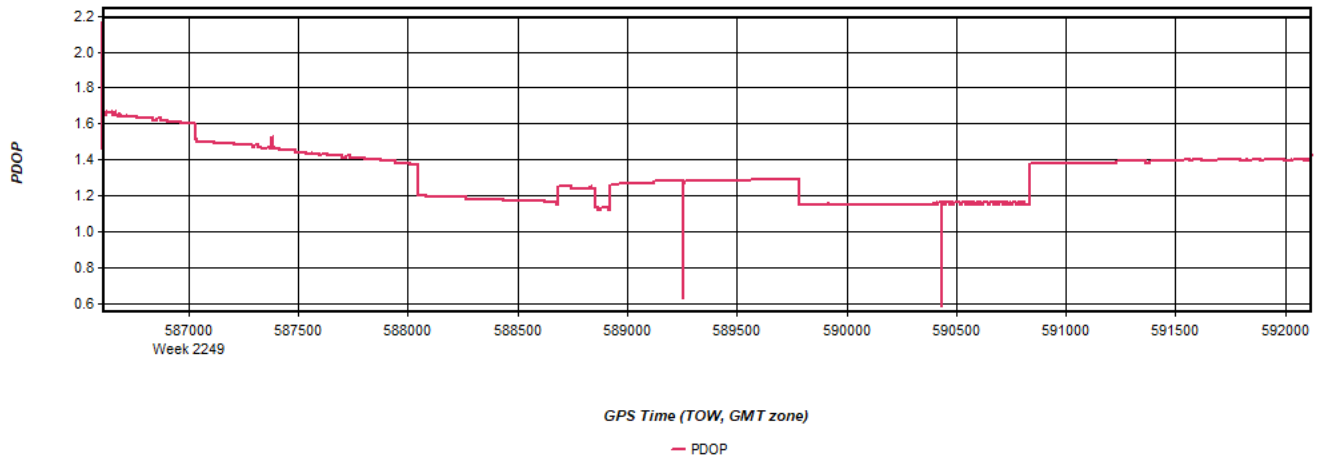
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 5: 20230218185604_20 [Smoothed TC Combined] - Estimated Position Accuracy Plot



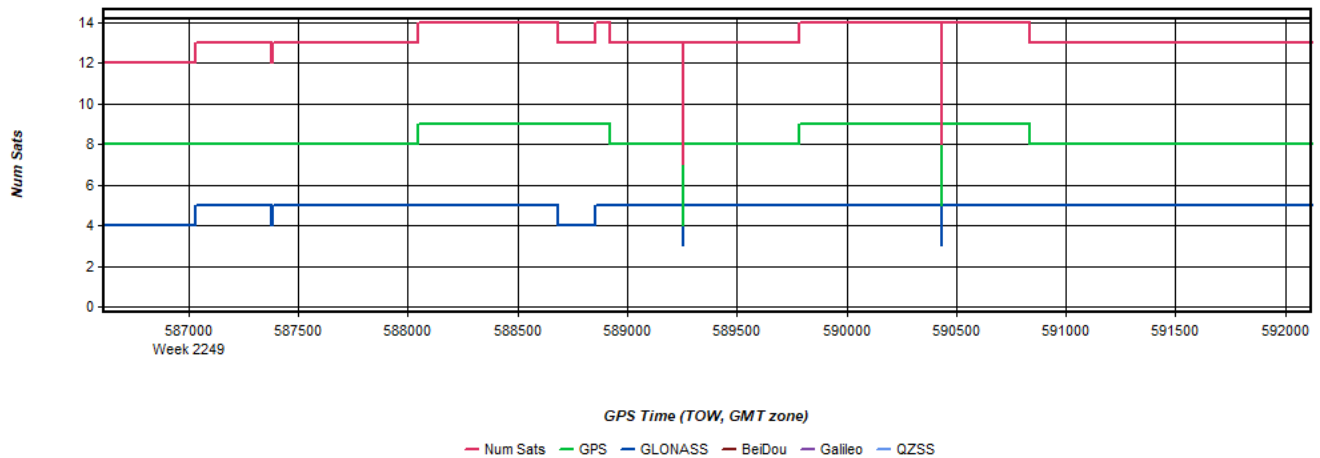
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 6: 20230218185604_20 [Smoothed TC Combined] - PDOP Plot



Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 7: 20230218185604_20 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 8: 20230218185604_20 [Smoothed TC Combined] - Status flag for IMU processing

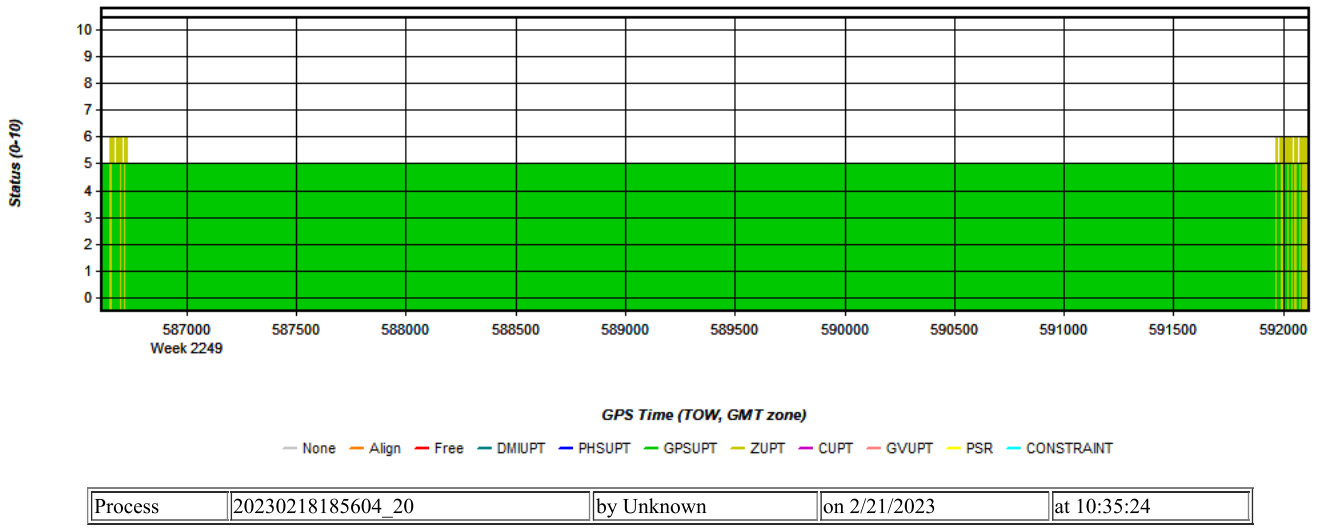


Figure 9: 20230218185604_20 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

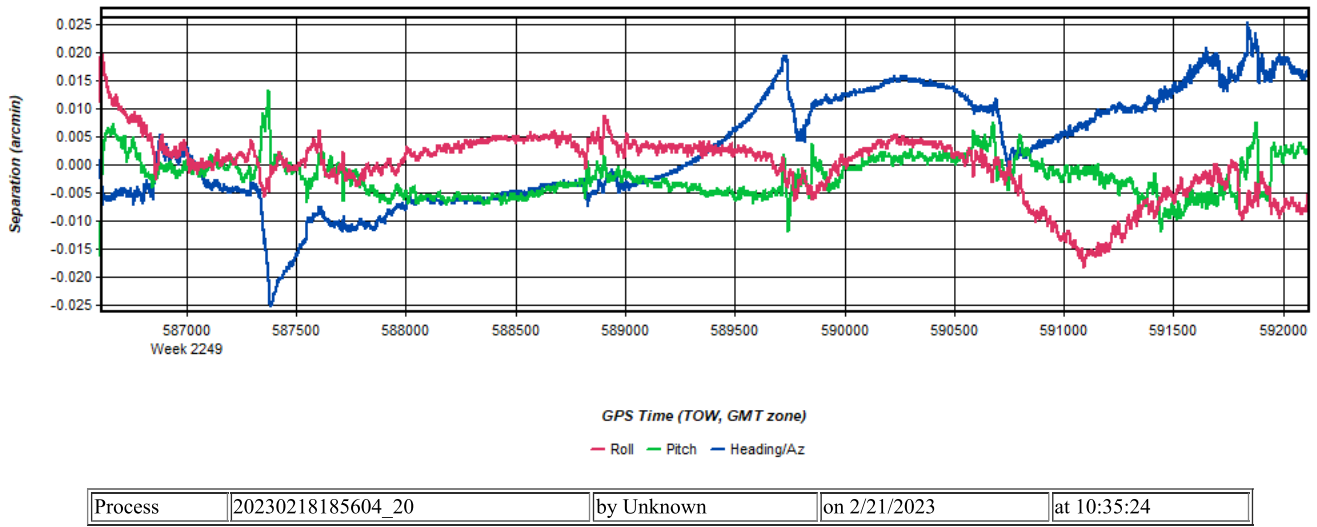


Figure 10: 20230218185604_20 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

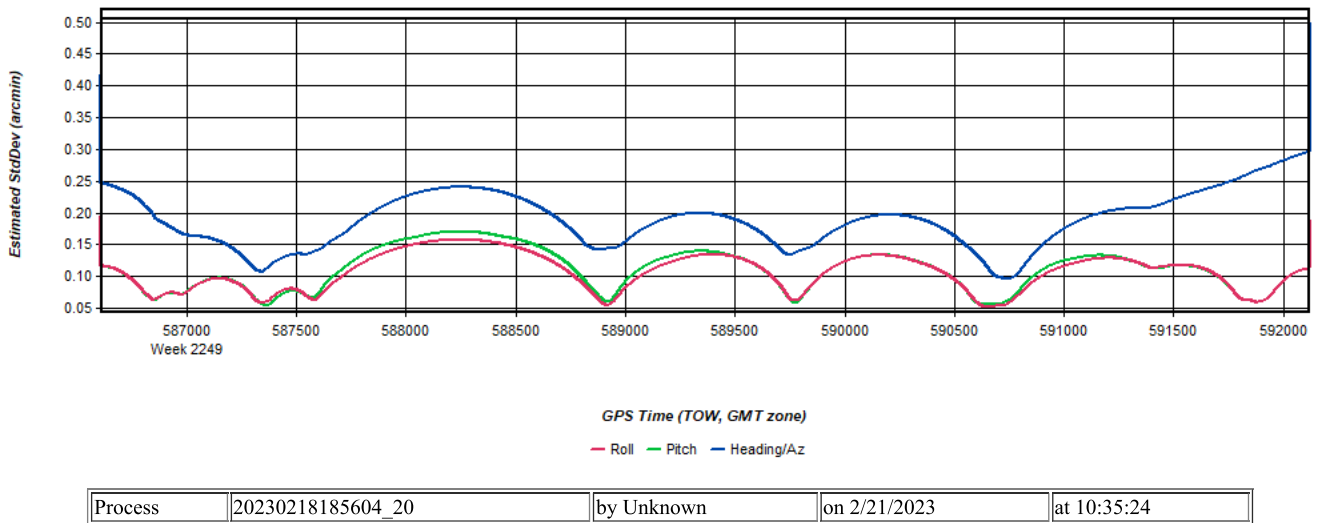
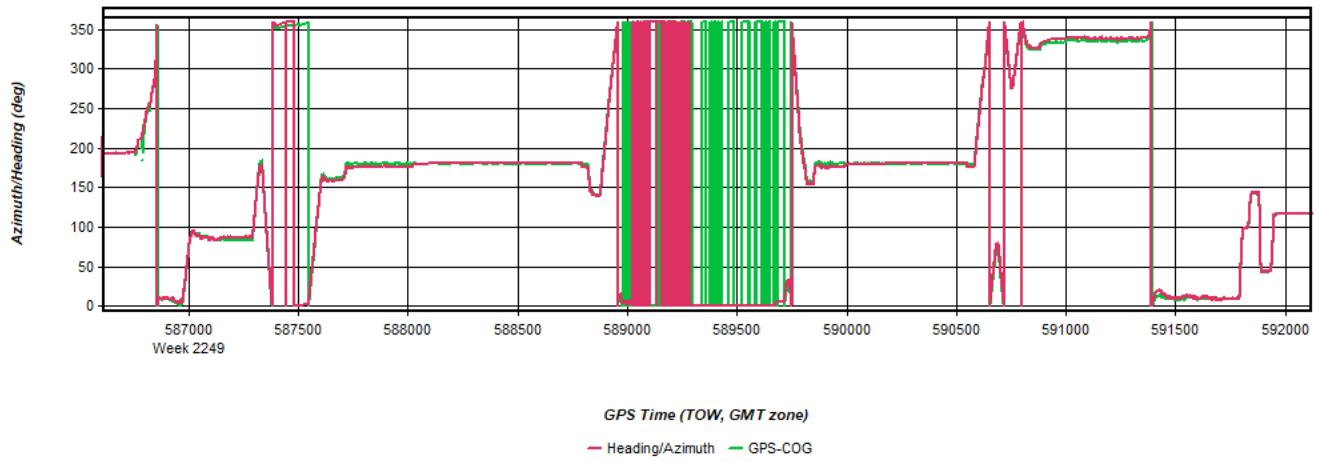
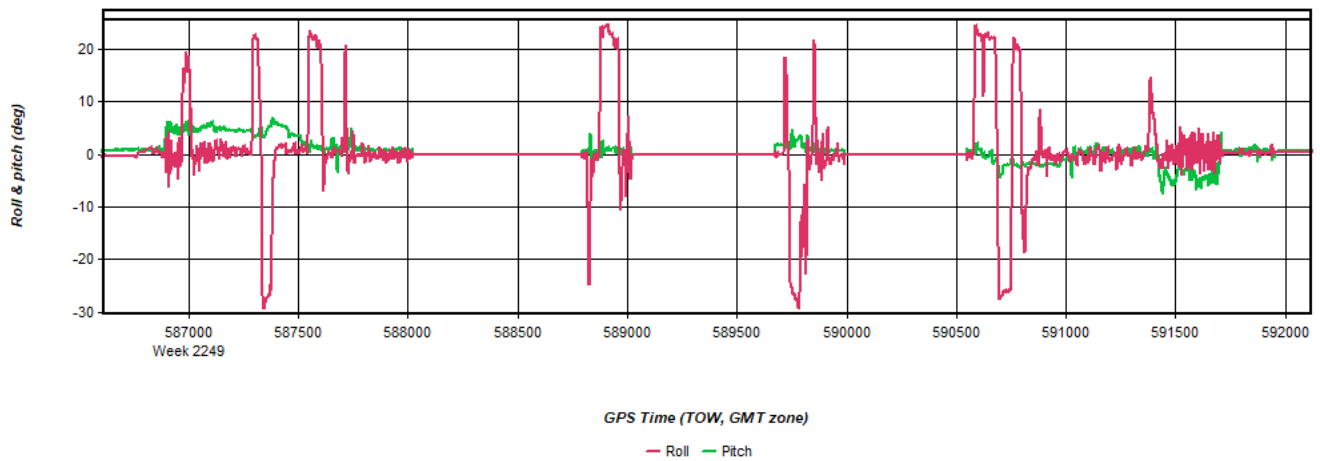


Figure 11: 20230218185604_20 [Smoothed TC Combined] - Azimuth Plot



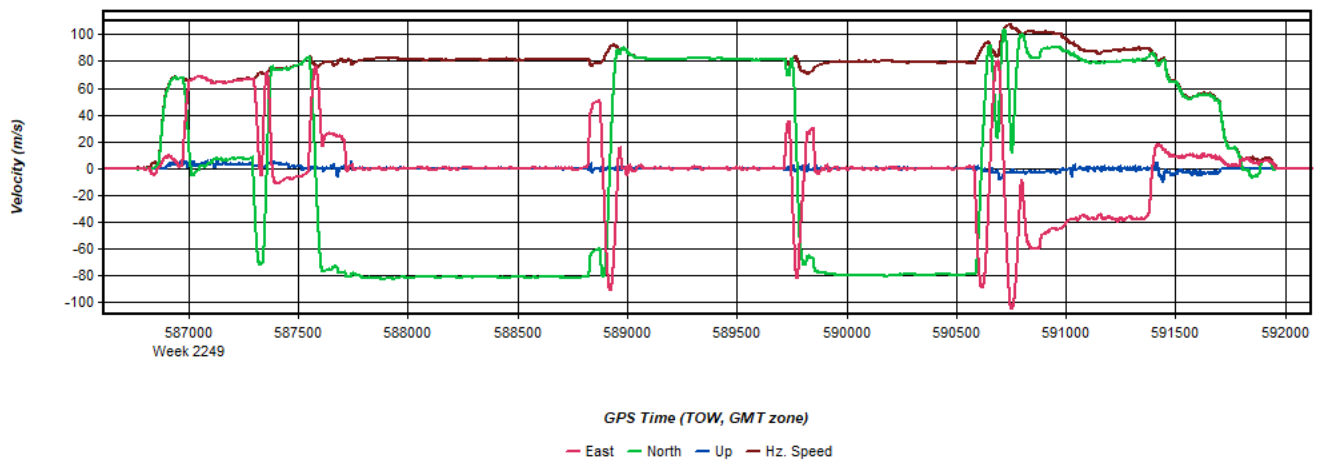
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 12: 20230218185604_20 [Smoothed TC Combined] - Roll & Pitch Plot



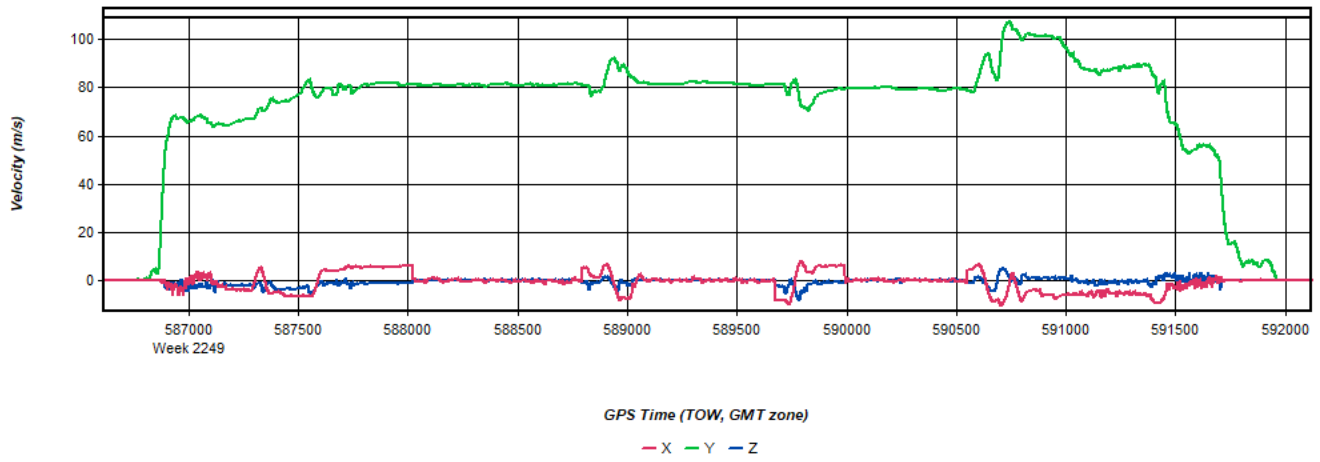
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 13: 20230218185604_20 [Smoothed TC Combined] - Velocity Profile Plot



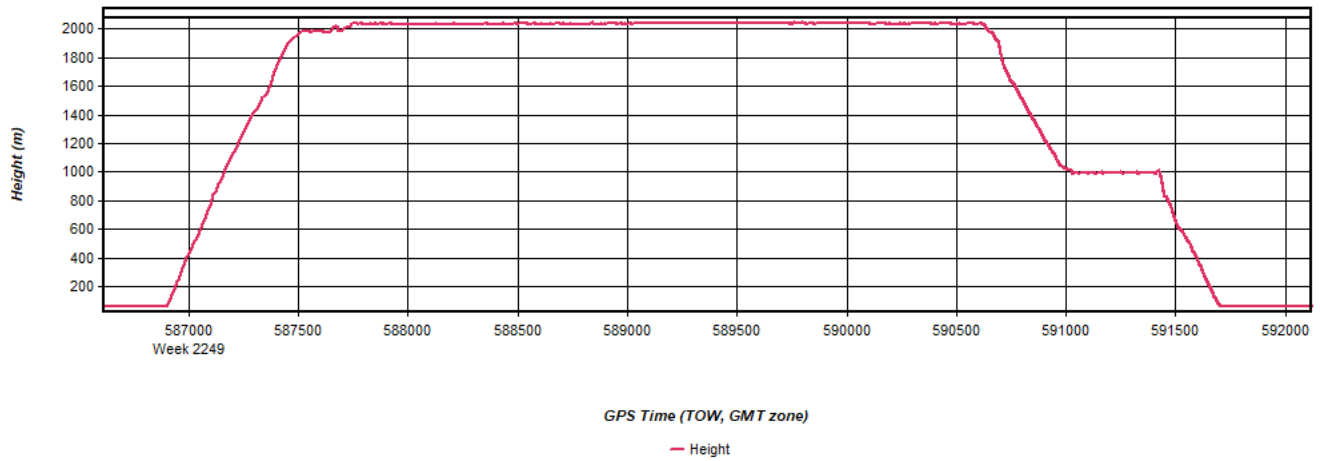
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 14: 20230218185604_20 [Smoothed TC Combined] - Body Frame Velocity Plot



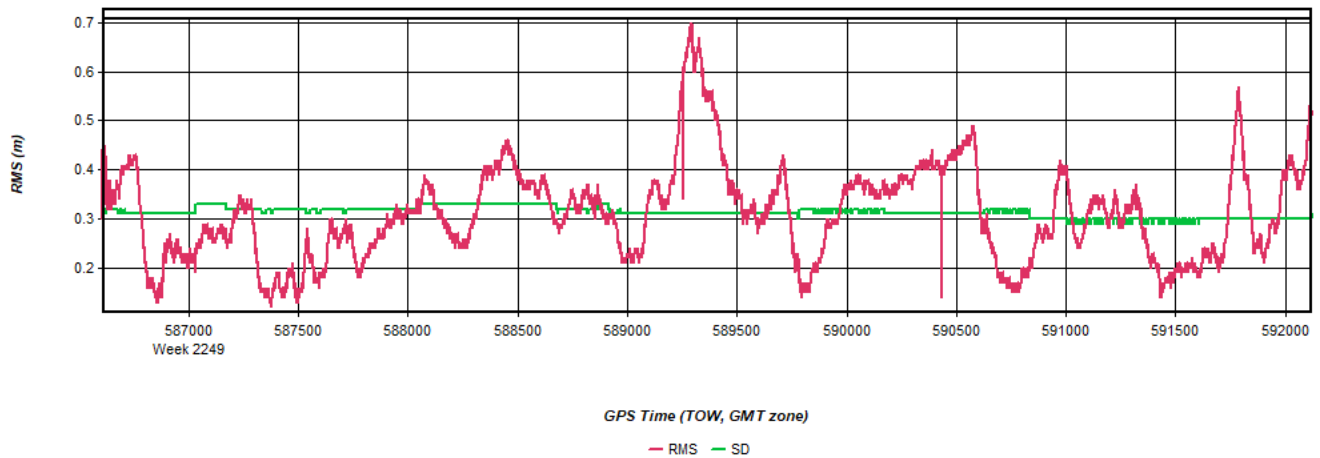
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 15: 20230218185604_20 [Smoothed TC Combined] - Height Profile Plot



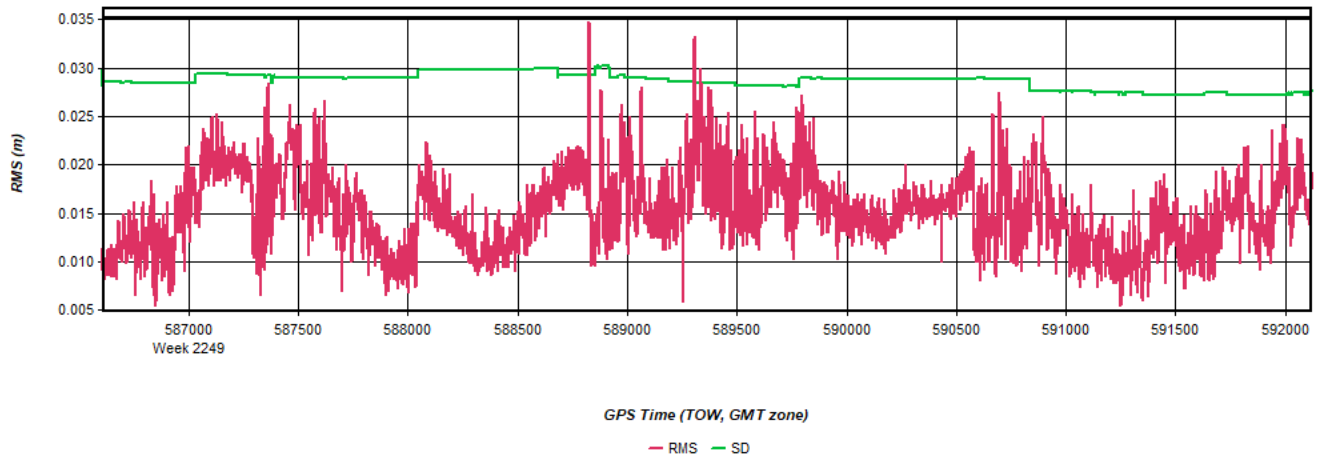
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 16: 20230218185604_20 [Smoothed TC Combined] - C/A Code Residual RMS Plot



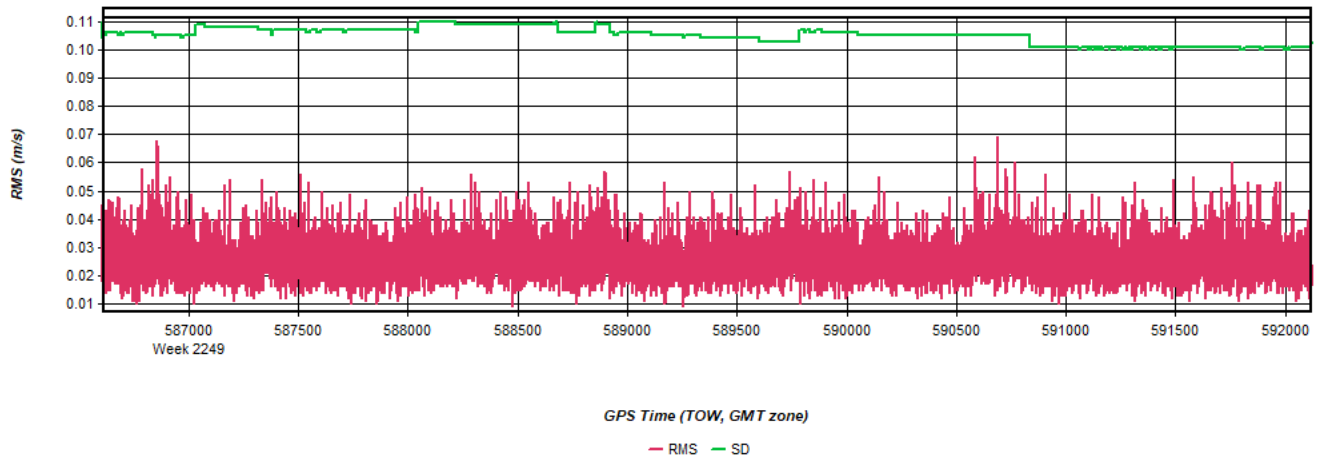
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 17: 20230218185604_20 [Smoothed TC Combined] - Carrier Residual RMS Plot



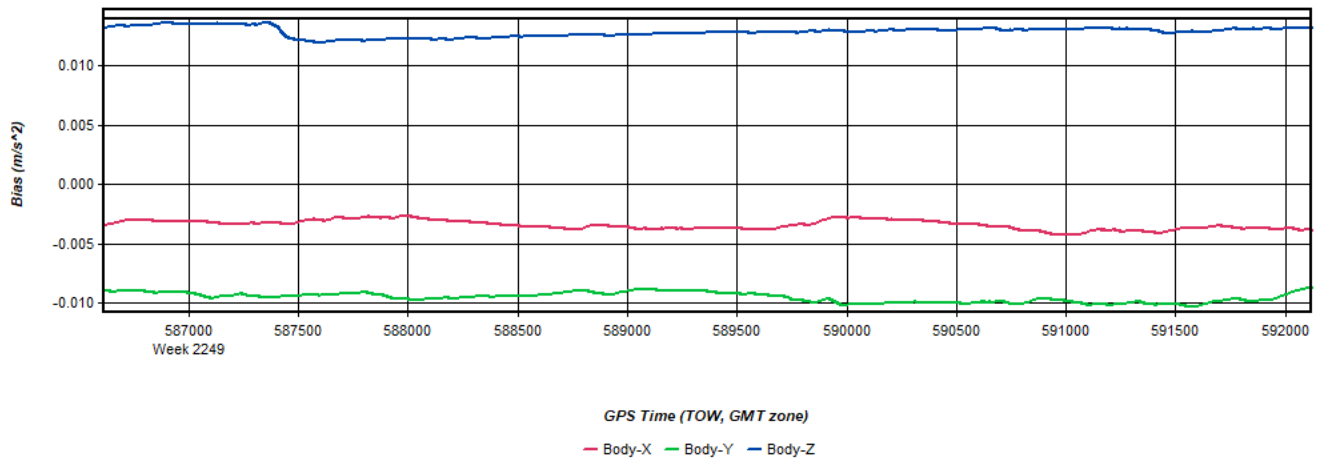
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 18: 20230218185604_20 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



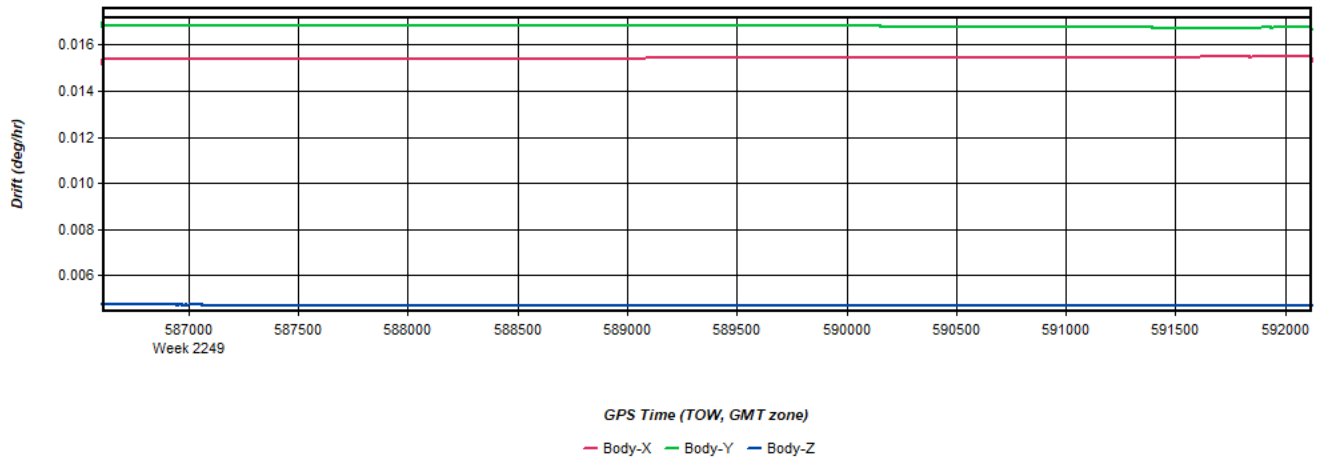
Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 19: 20230218185604_20 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Figure 20: 20230218185604_20 [Smoothed TC Combined] - Gyro Drift Plot

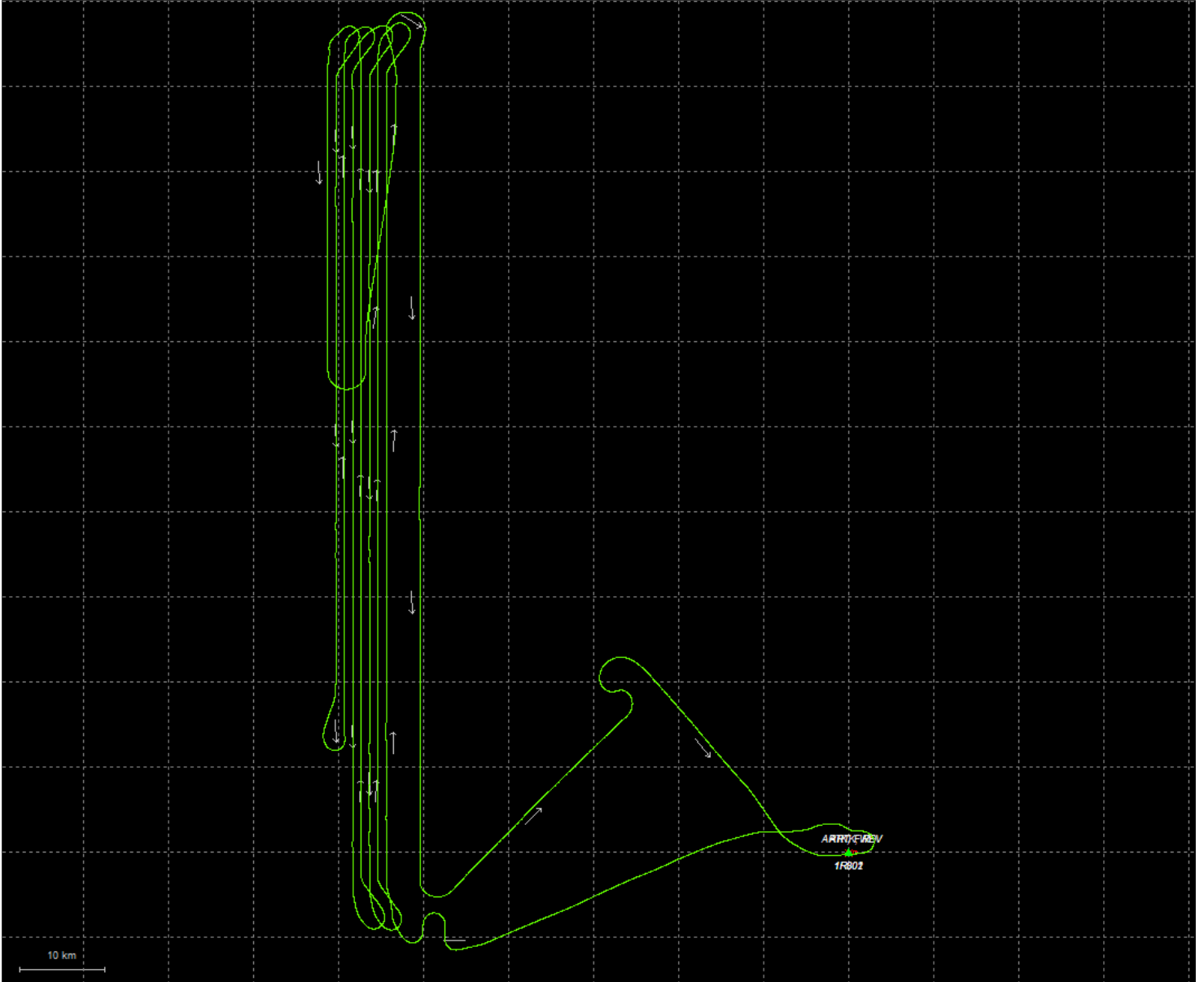


Process	20230218185604_20	by Unknown	on 2/21/2023	at 10:35:24
---------	-------------------	------------	--------------	-------------

Output Results for 20230219141502_21

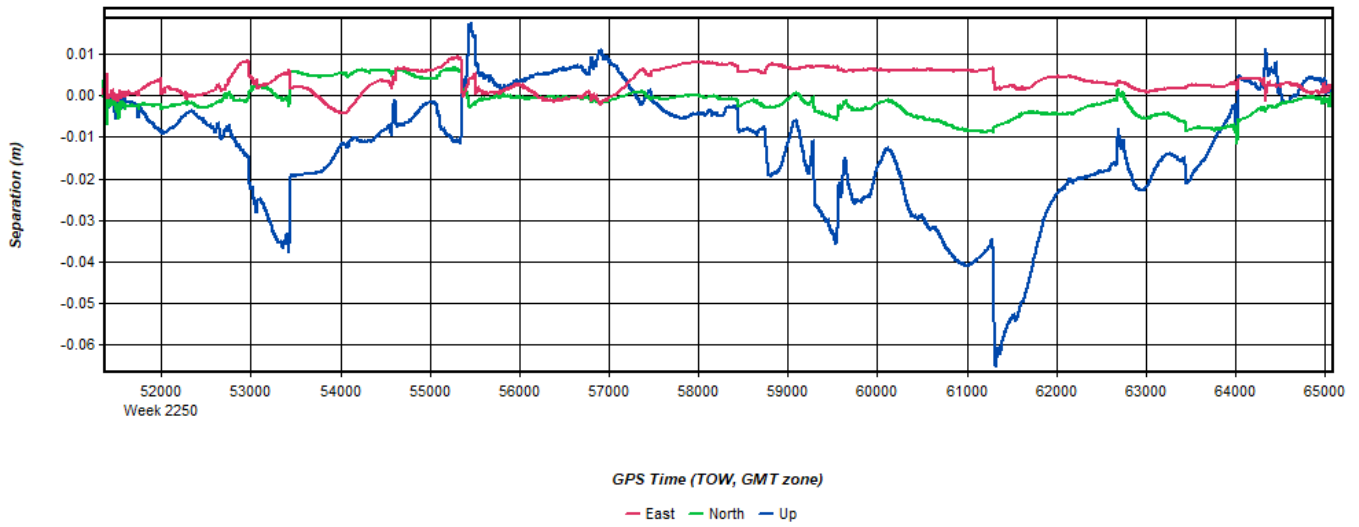
Inertial Explorer Version 8.90.2124
02/23/2023

Figure 1: Smoothed TC Combined - Map



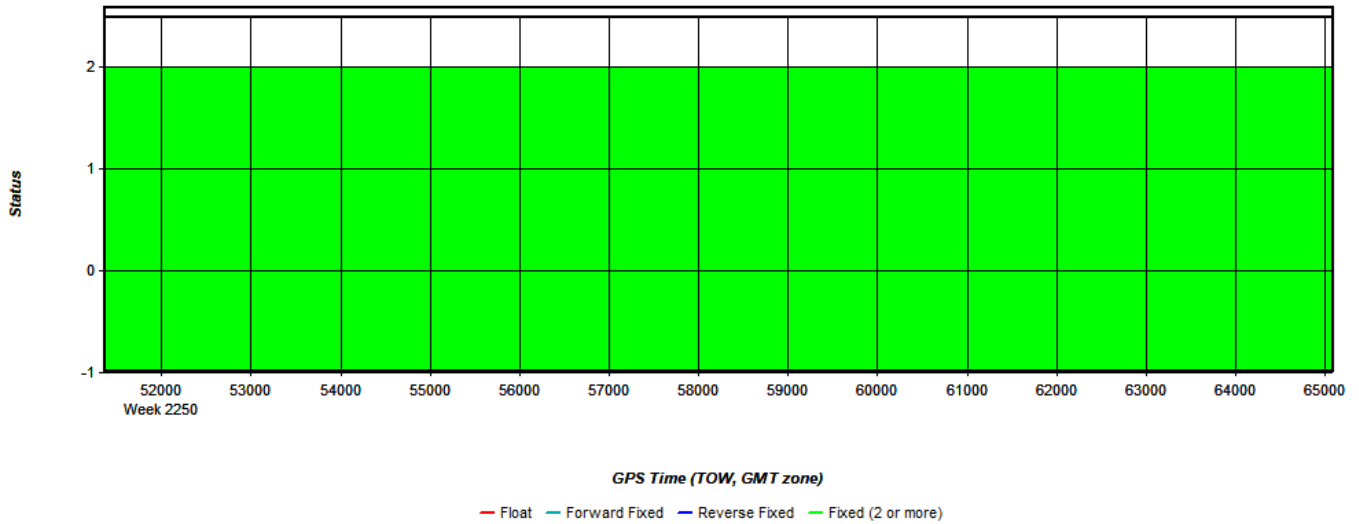
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 2: 20230219141502_21 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



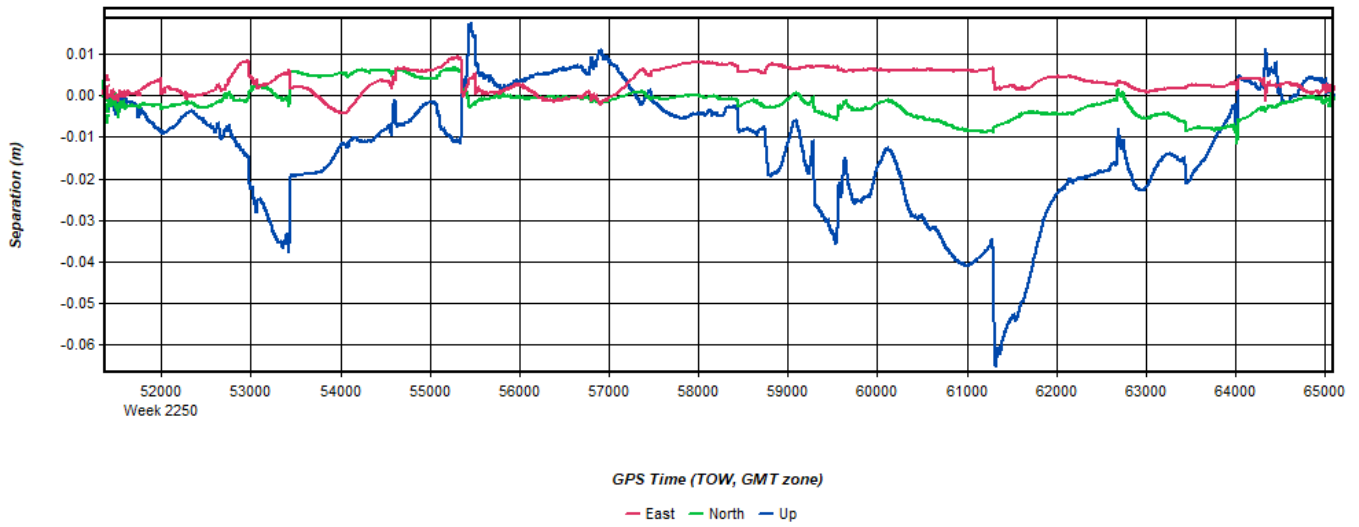
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 3: 20230219141502_21 [Smoothed TC Combined] - Float or Fixed Ambiguity



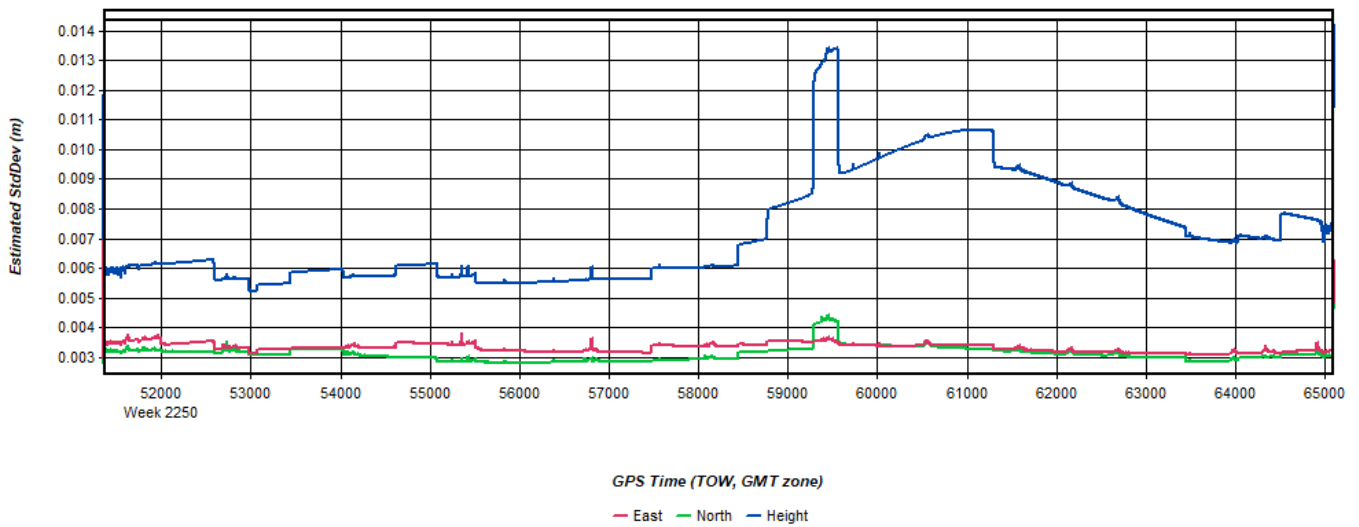
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 4: 20230219141502_21 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



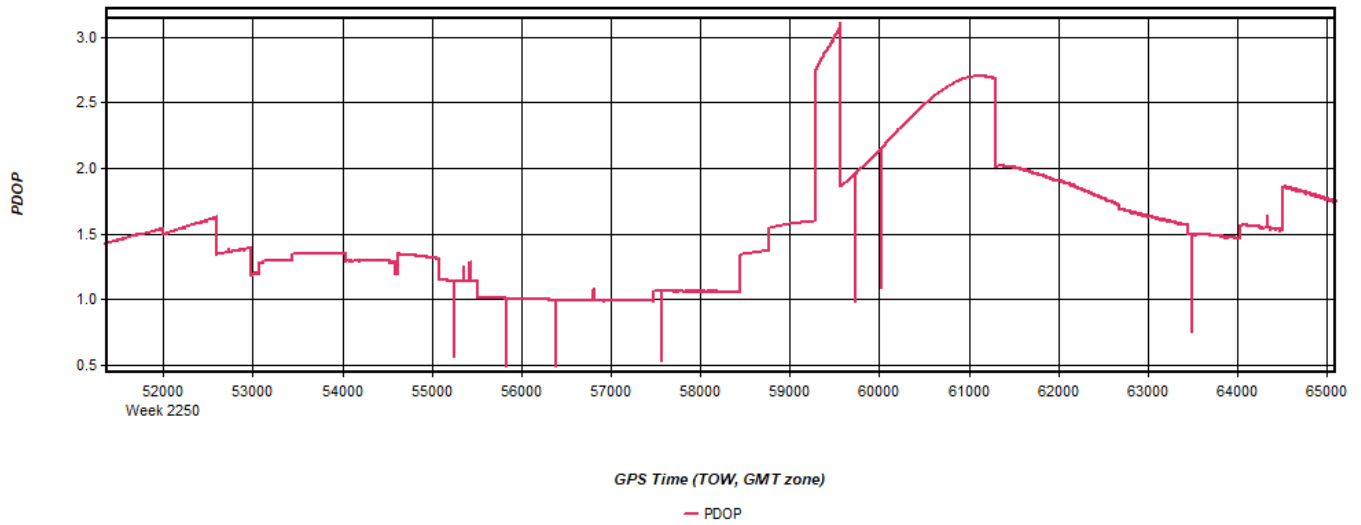
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 5: 20230219141502_21 [Smoothed TC Combined] - Estimated Position Accuracy Plot



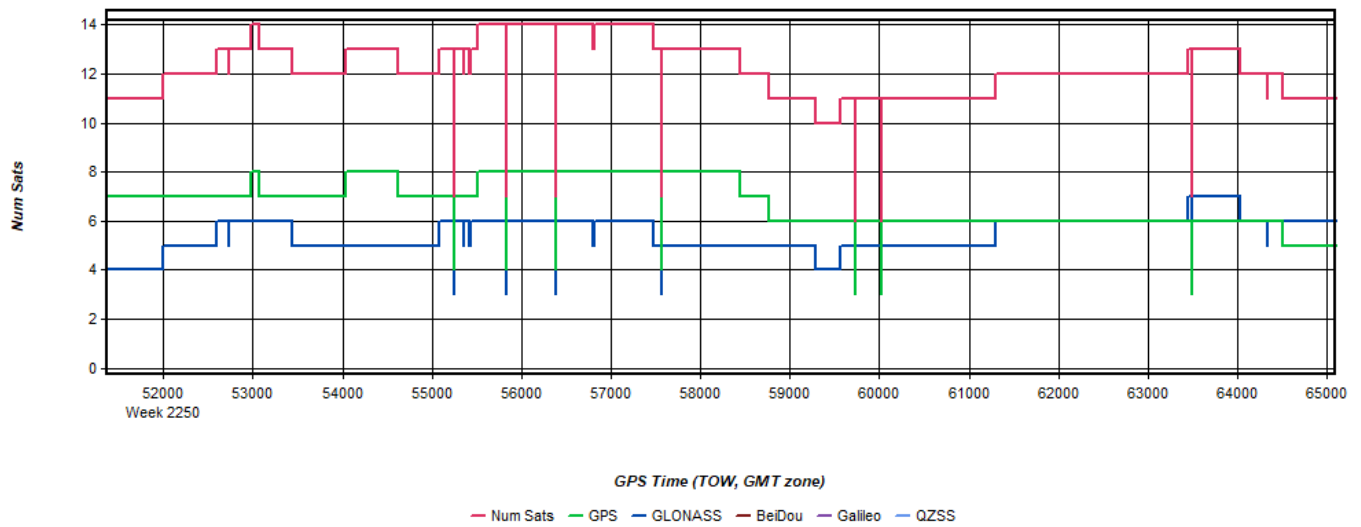
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 6: 20230219141502_21 [Smoothed TC Combined] - PDOP Plot



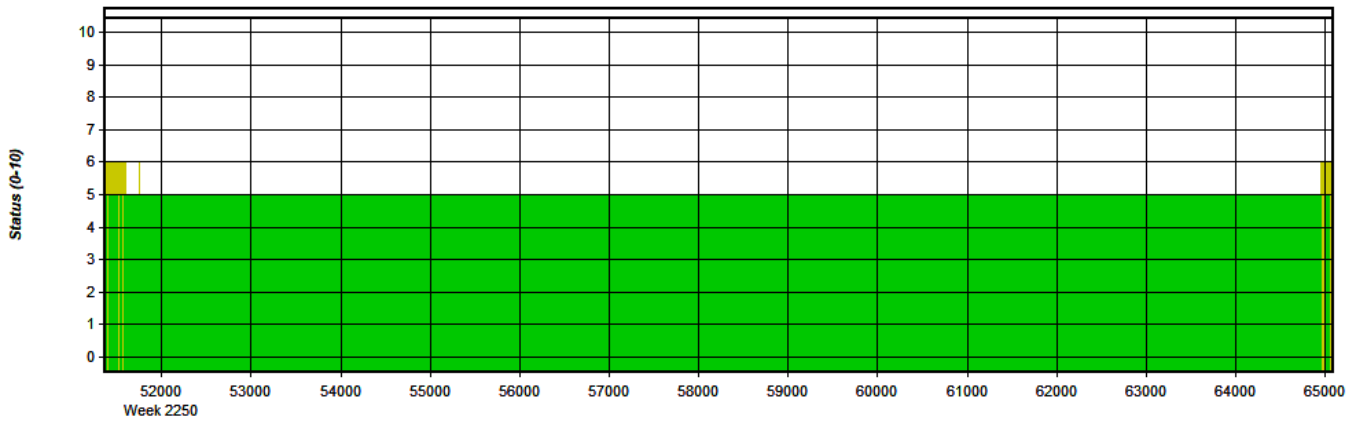
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 7: 20230219141502_21 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 8: 20230219141502_21 [Smoothed TC Combined] - Status flag for IMU processing

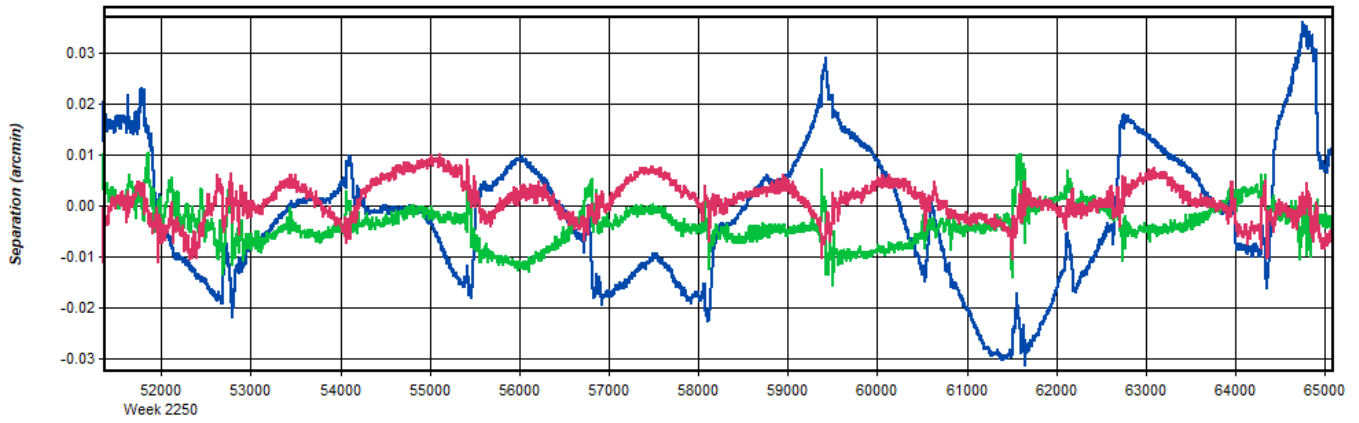


GPS Time (TOW, GMT zone)

— None — Align — Free — DMUIPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 9: 20230219141502_21 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

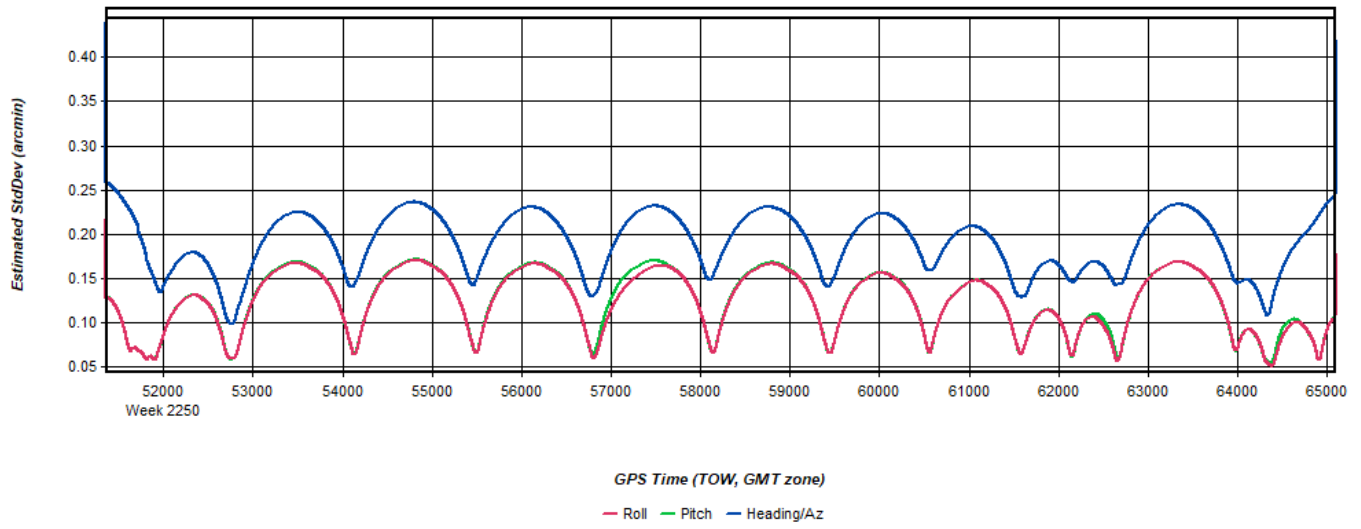


GPS Time (TOW, GMT zone)

— Roll — Pitch — Heading/Az

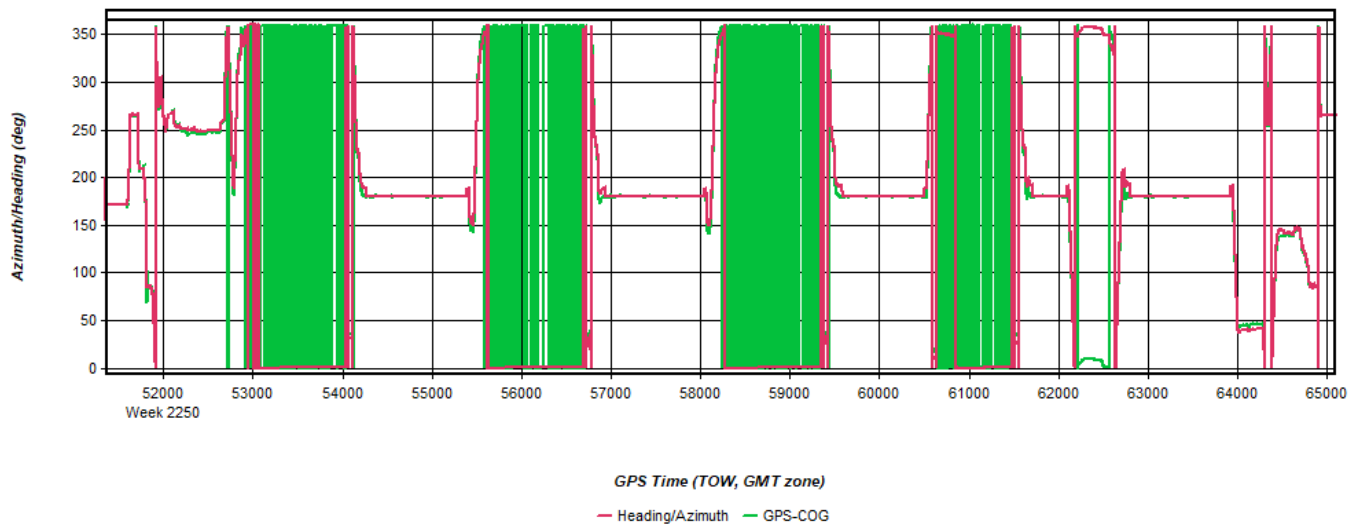
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 10: 20230219141502_21 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



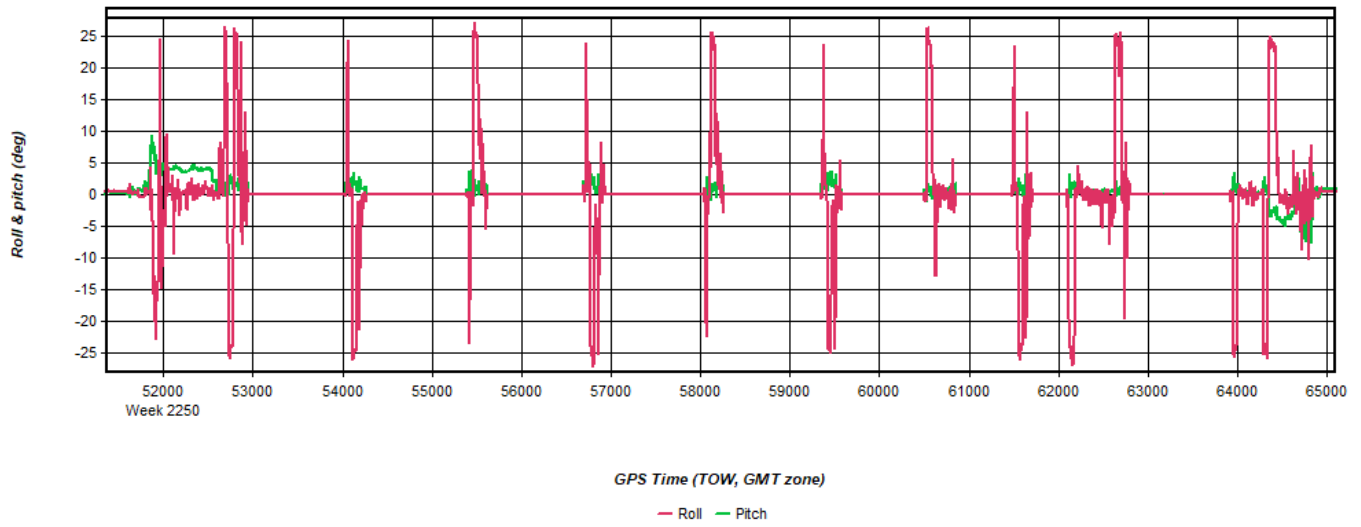
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 11: 20230219141502_21 [Smoothed TC Combined] - Azimuth Plot



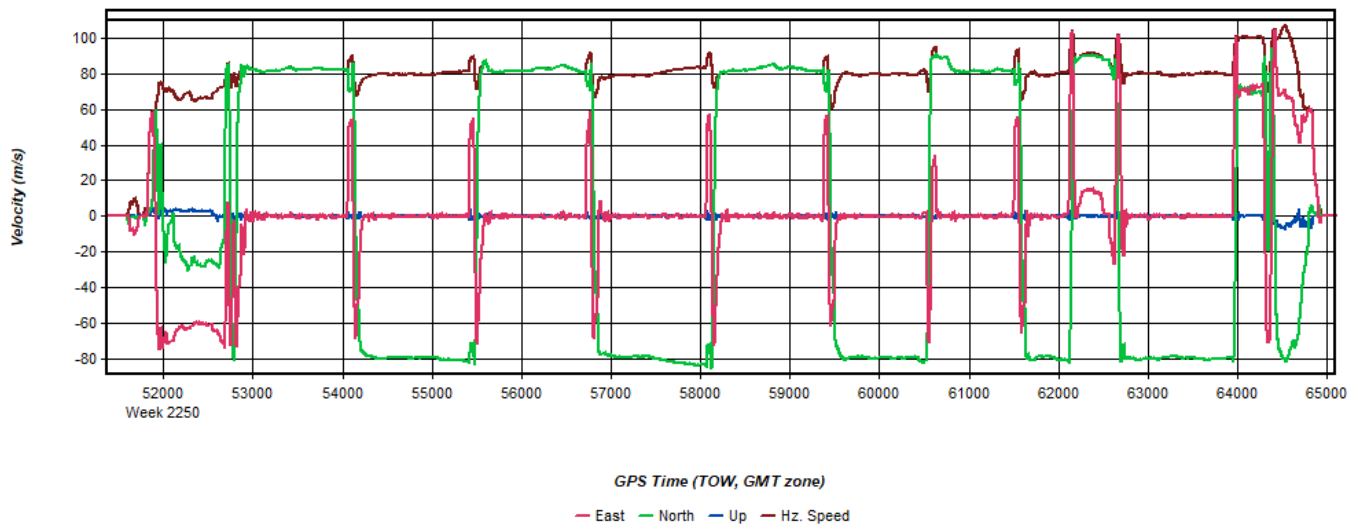
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 12: 20230219141502_21 [Smoothed TC Combined] - Roll & Pitch Plot



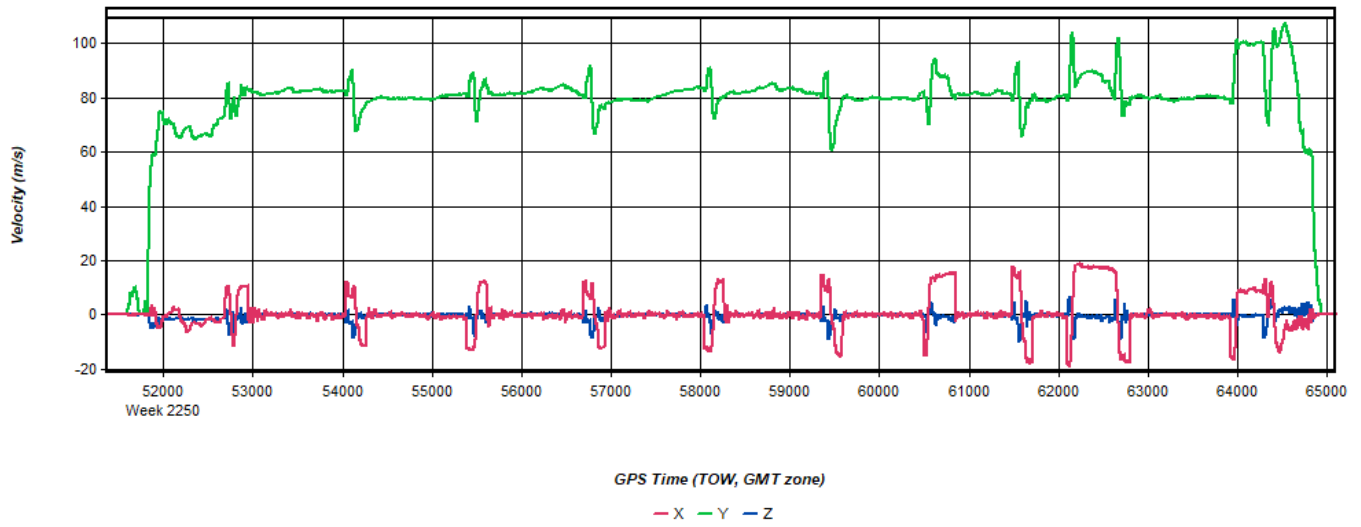
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 13: 20230219141502_21 [Smoothed TC Combined] - Velocity Profile Plot



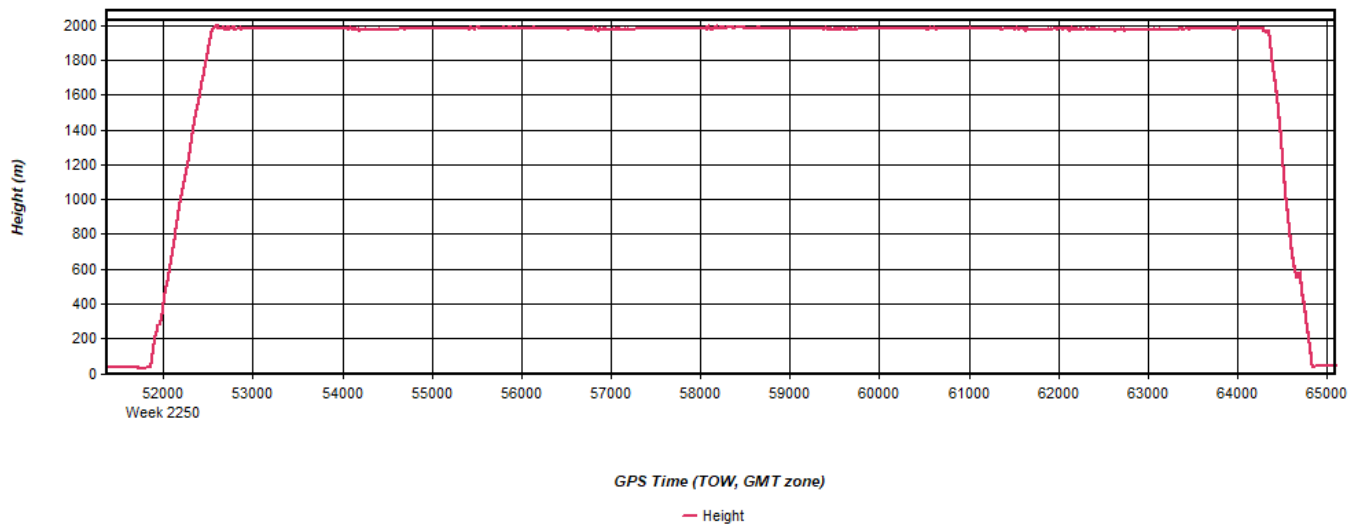
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 14: 20230219141502_21 [Smoothed TC Combined] - Body Frame Velocity Plot



Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 15: 20230219141502_21 [Smoothed TC Combined] - Height Profile Plot



Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 16: 20230219141502_21 [Smoothed TC Combined] - C/A Code Residual RMS Plot

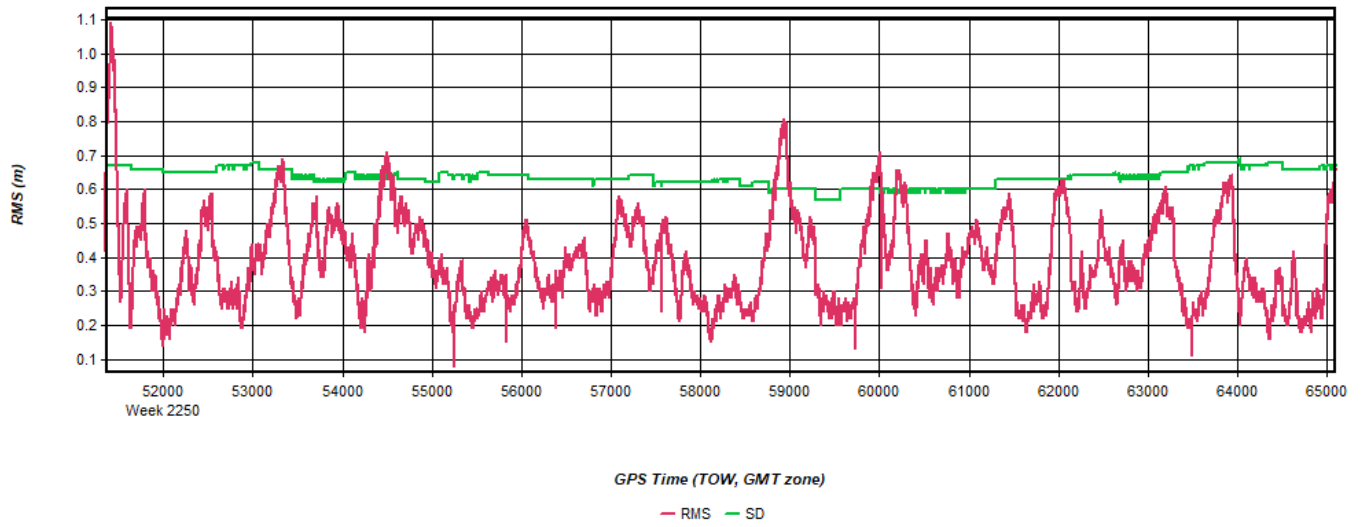


Figure 17: 20230219141502_21 [Smoothed TC Combined] - Carrier Residual RMS Plot

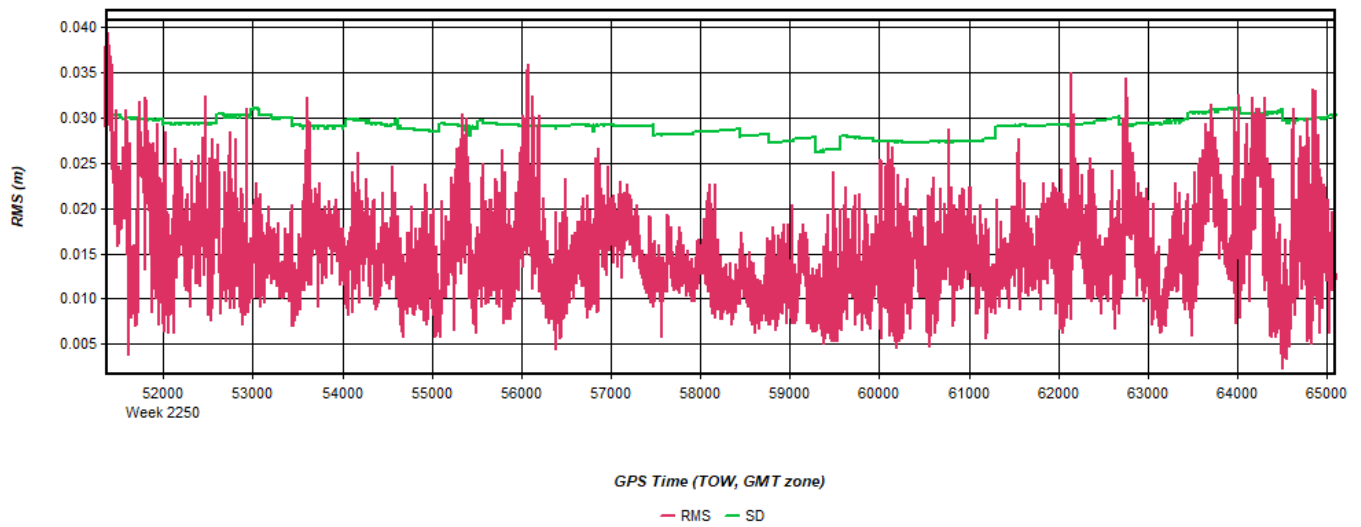
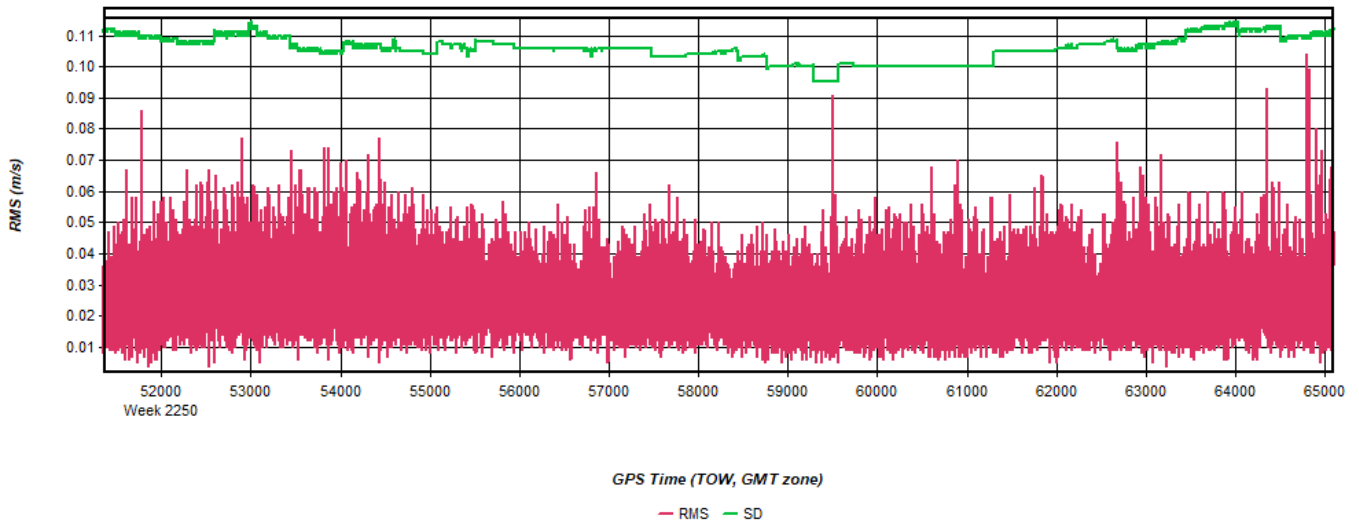
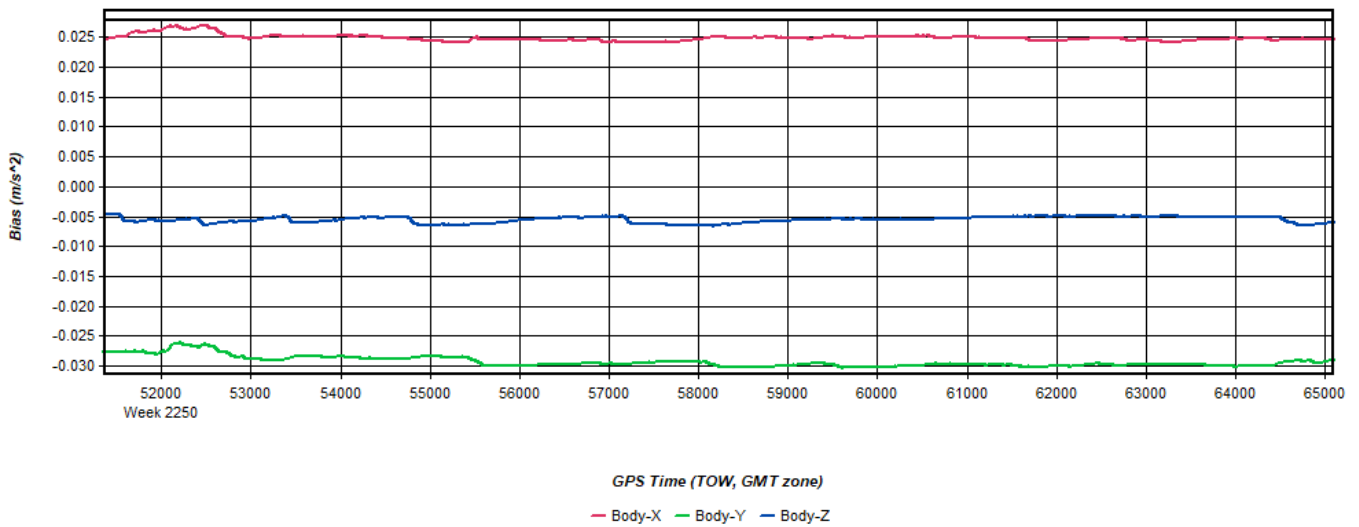


Figure 18: 20230219141502_21 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



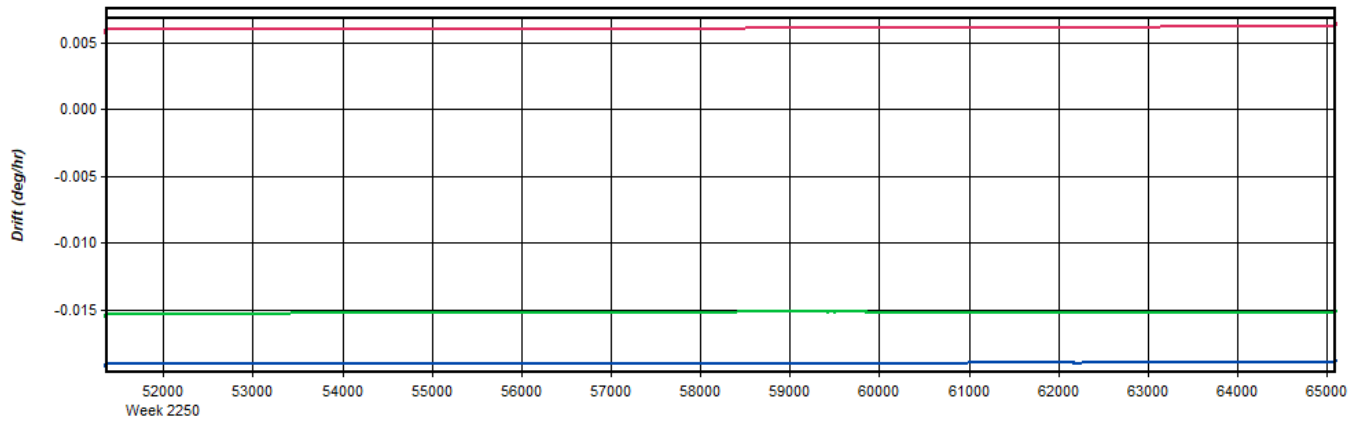
Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 19: 20230219141502_21 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Figure 20: 20230219141502_21 [Smoothed TC Combined] - Gyro Drift Plot



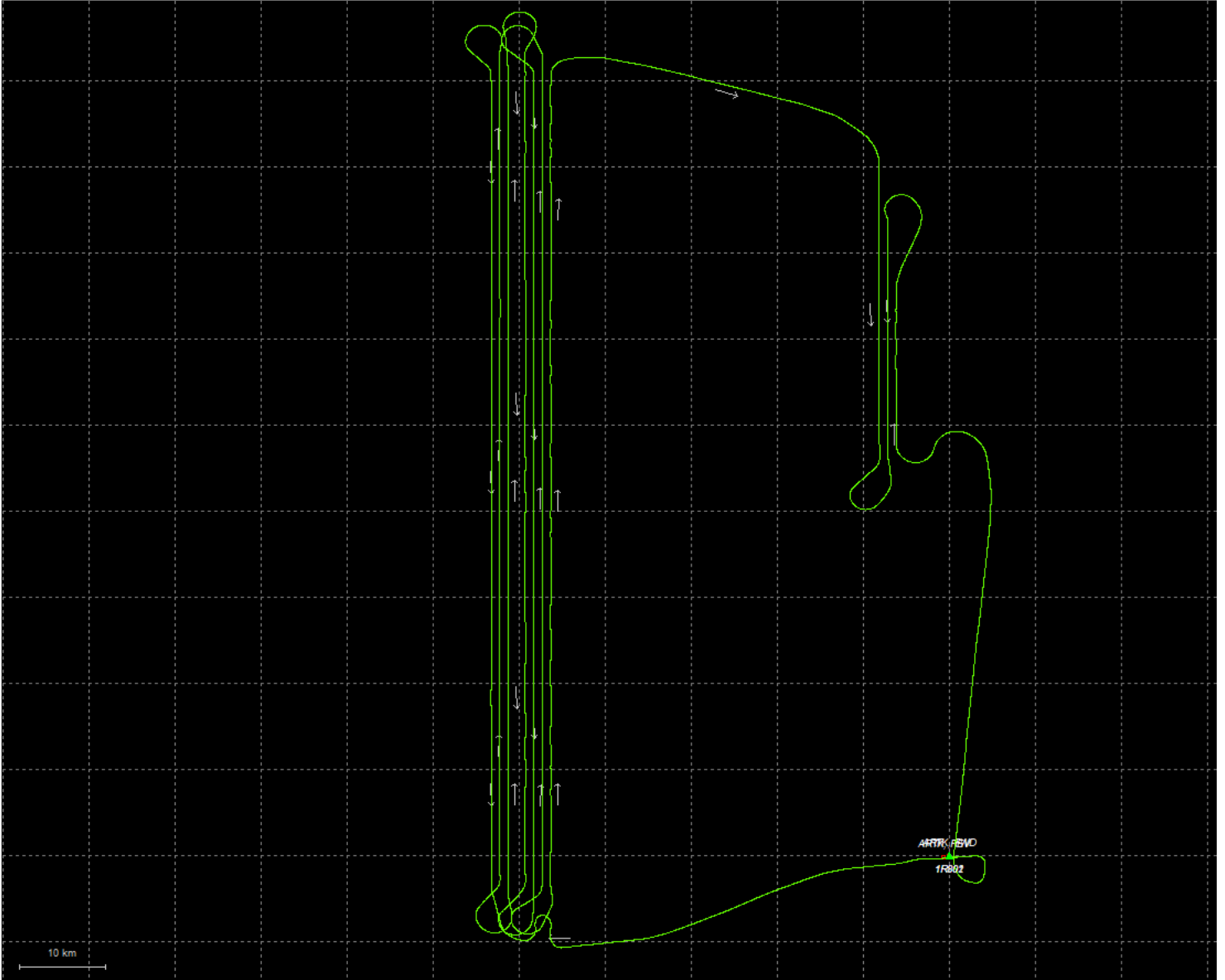
GPS Time (TOW, GMT zone)
 - Body-X - Body-Y - Body-Z

Process	20230219141502_21	by Unknown	on 2/23/2023	at 15:04:30
---------	-------------------	------------	--------------	-------------

Output Results for 20230219183926_22

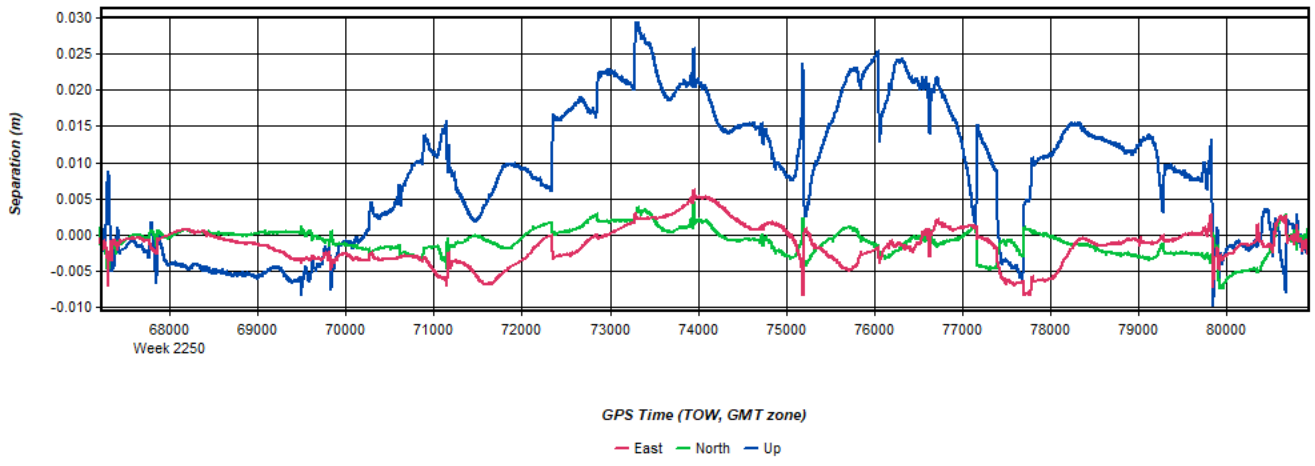
Inertial Explorer Version 8.90.6611
02/21/2023

Figure 1: Smoothed TC Combined - Map



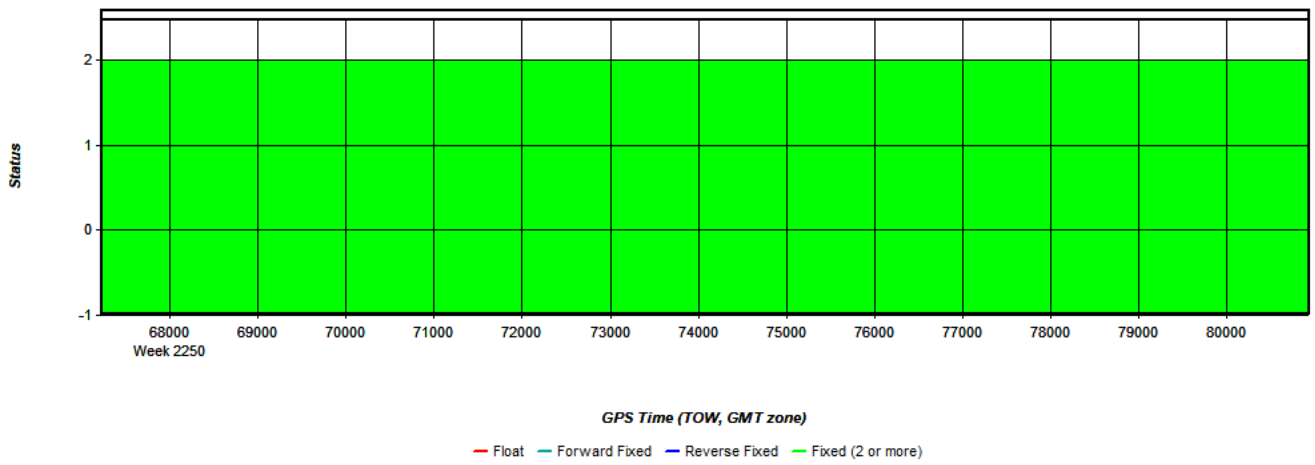
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 2: 20230219183926_22 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



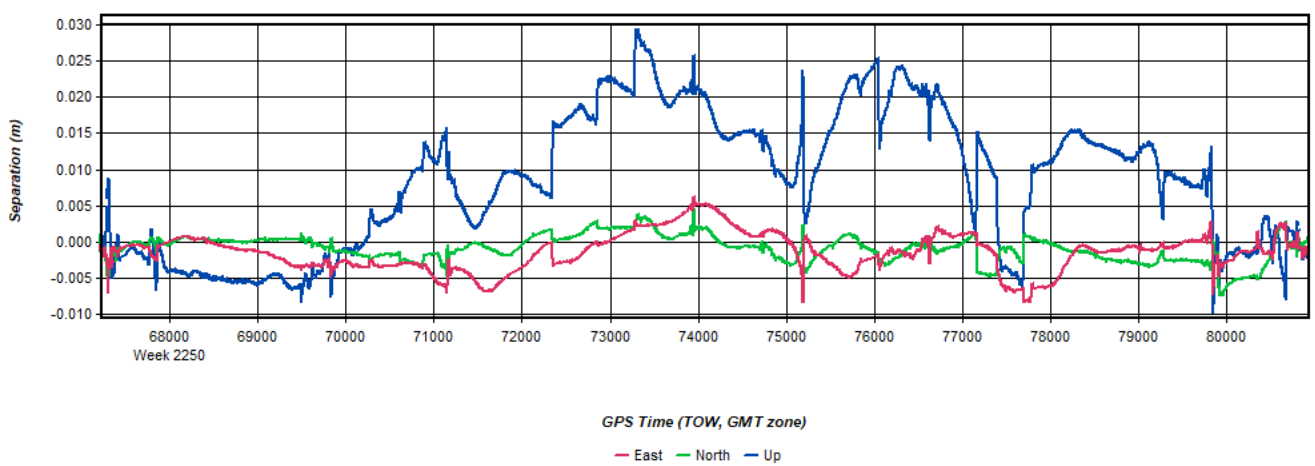
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 3: 20230219183926_22 [Smoothed TC Combined] - Float or Fixed Ambiguity



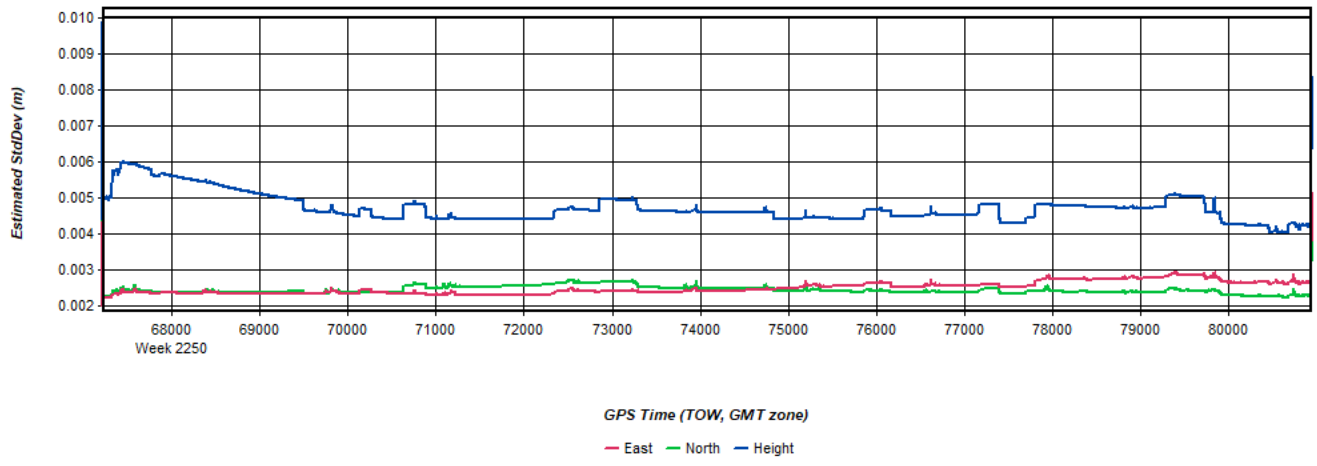
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 4: 20230219183926_22 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



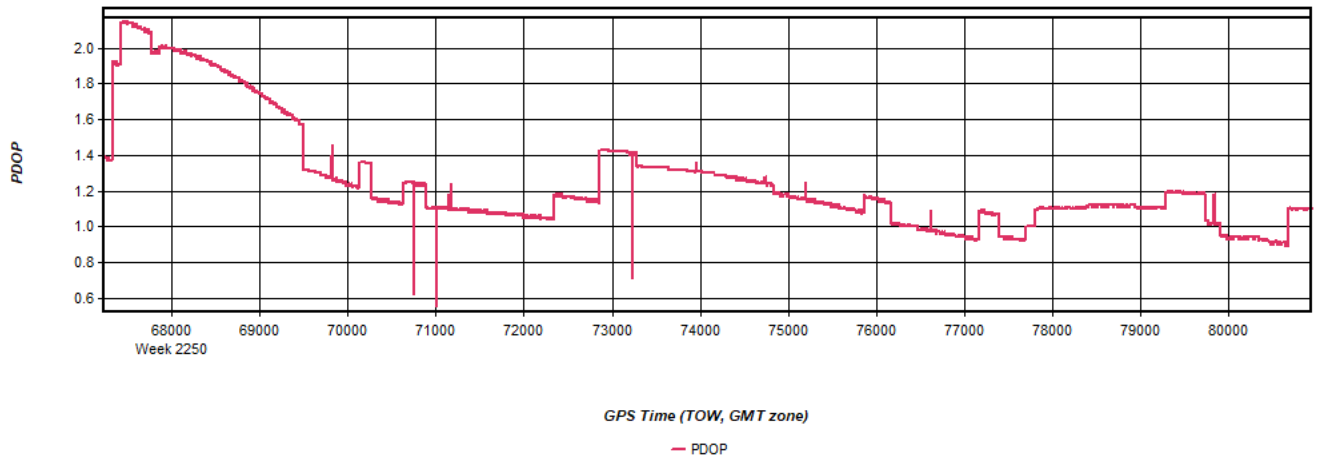
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 5: 20230219183926_22 [Smoothed TC Combined] - Estimated Position Accuracy Plot



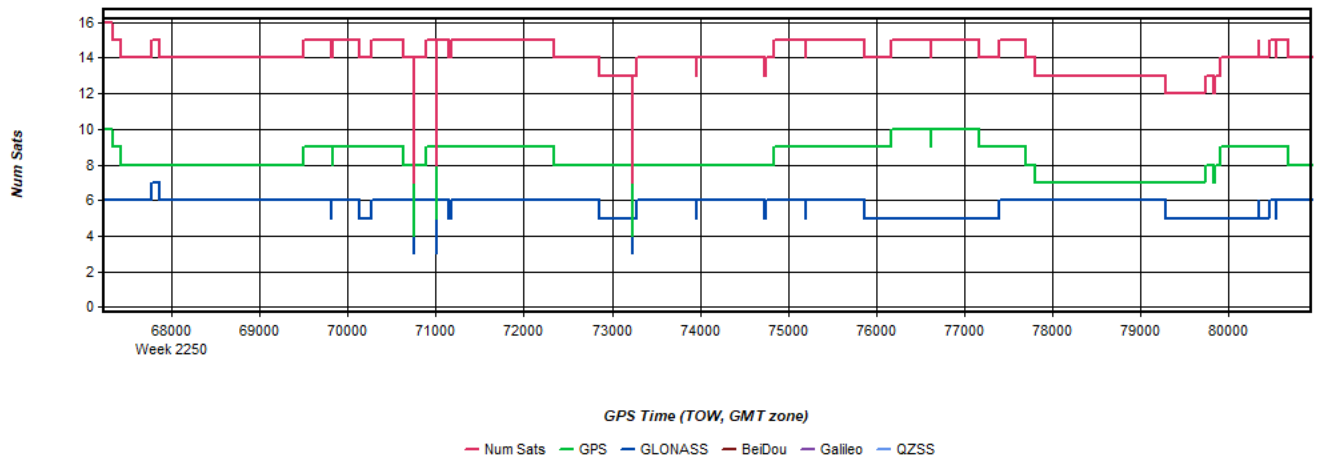
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 6: 20230219183926_22 [Smoothed TC Combined] - PDOP Plot



Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 7: 20230219183926_22 [Smoothed TC Combined] - Number of Satellites Line Plot



Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 8: 20230219183926_22 [Smoothed TC Combined] - Status flag for IMU processing

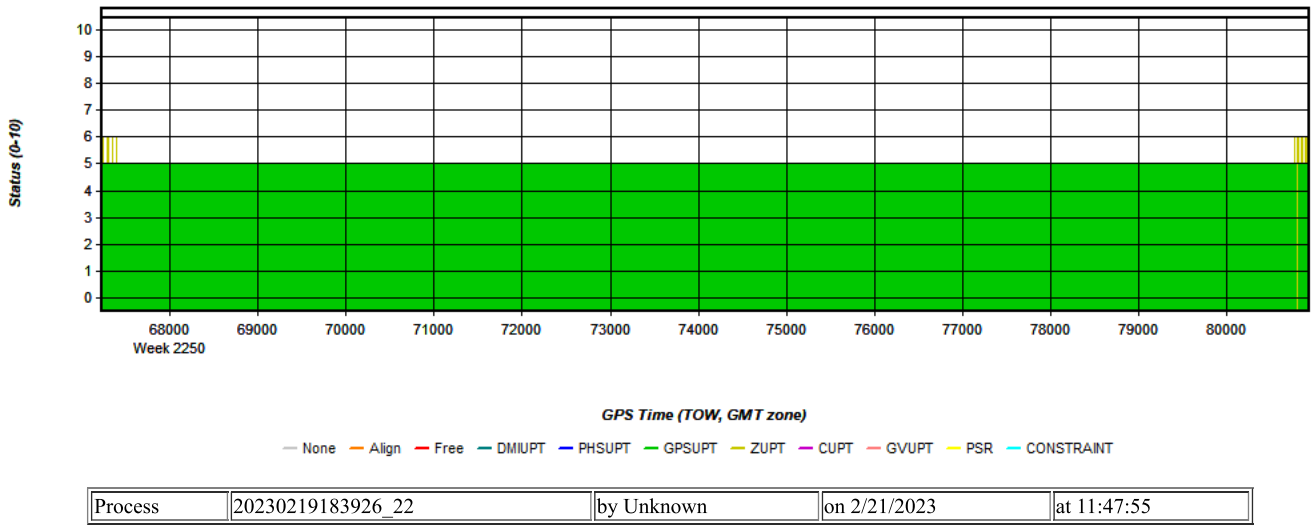


Figure 9: 20230219183926_22 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

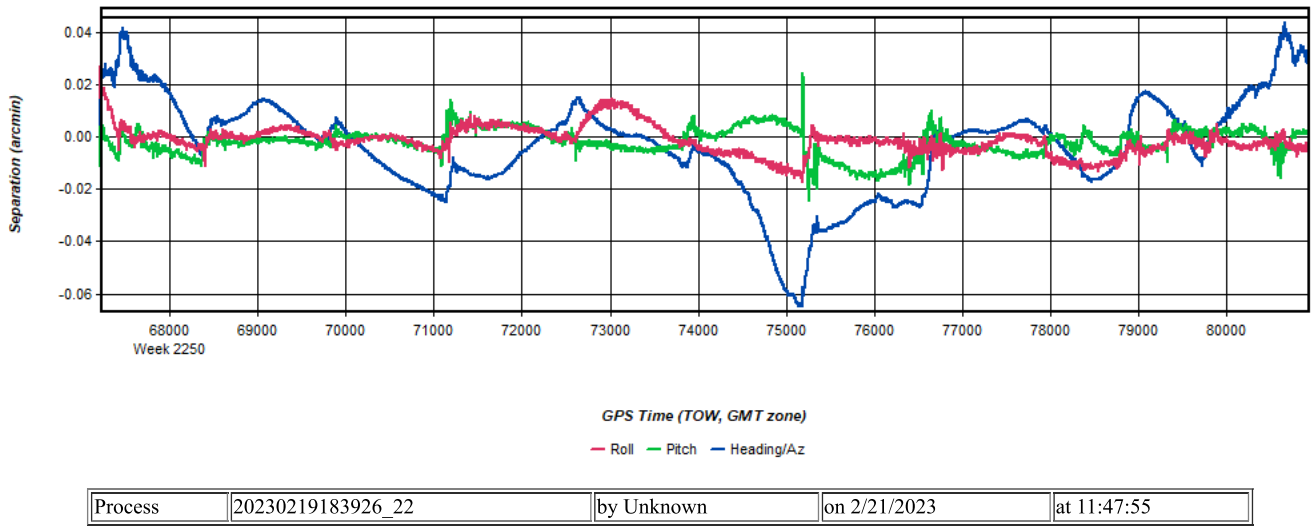


Figure 10: 20230219183926_22 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot

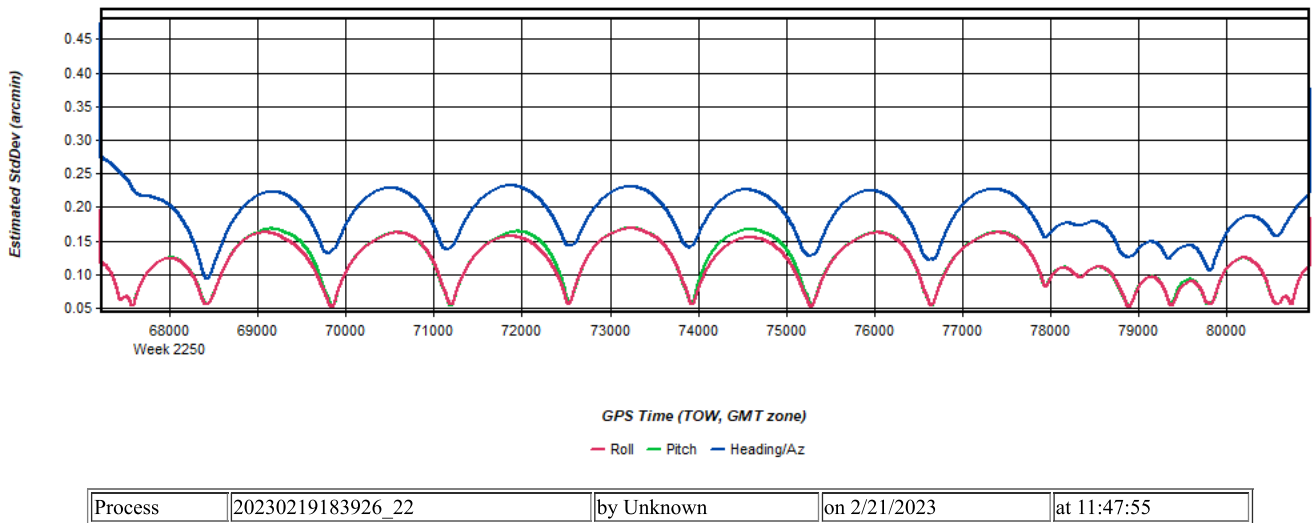
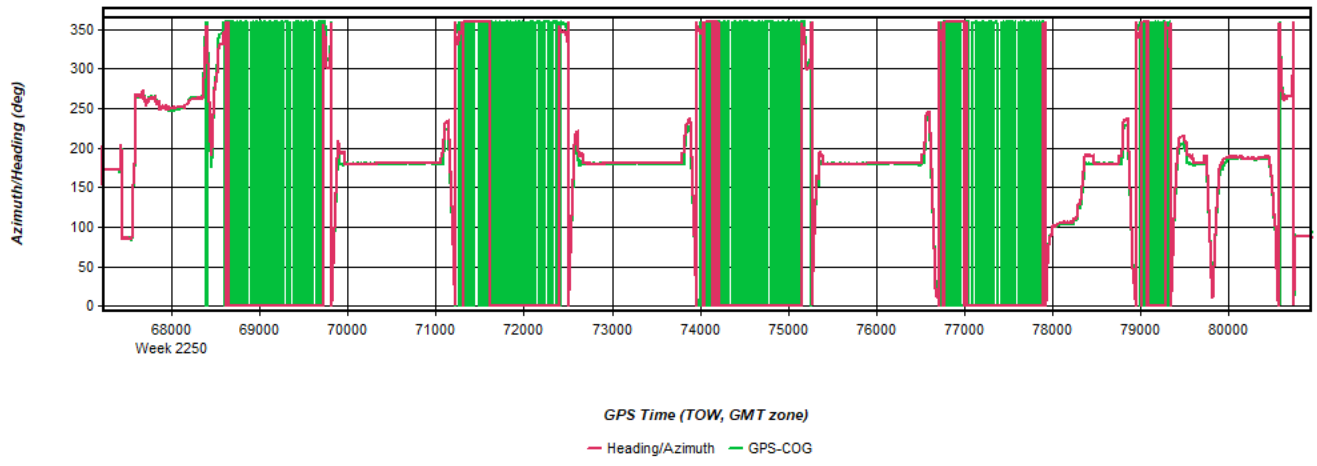
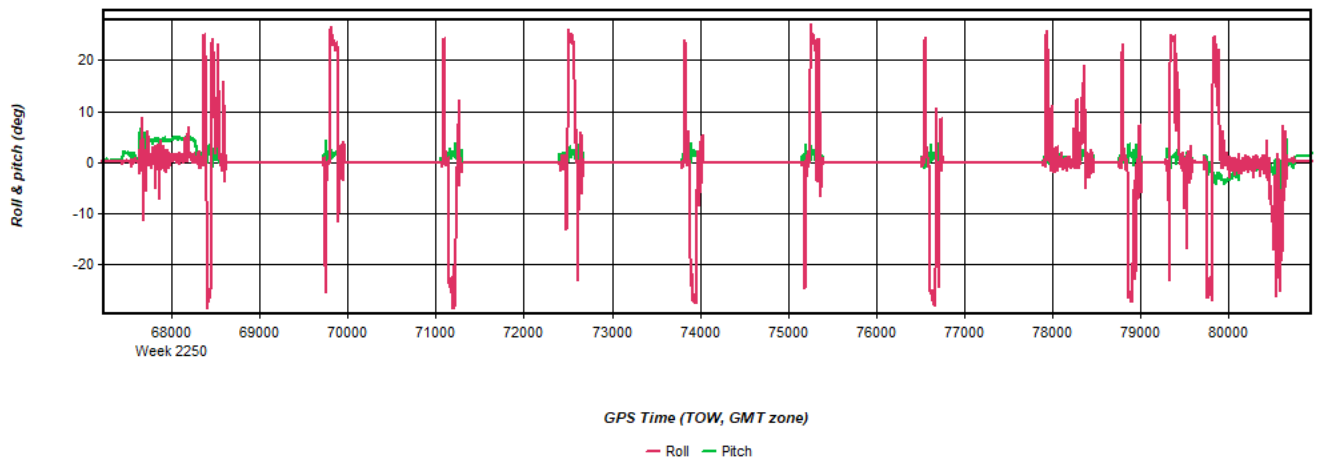


Figure 11: 20230219183926_22 [Smoothed TC Combined] - Azimuth Plot



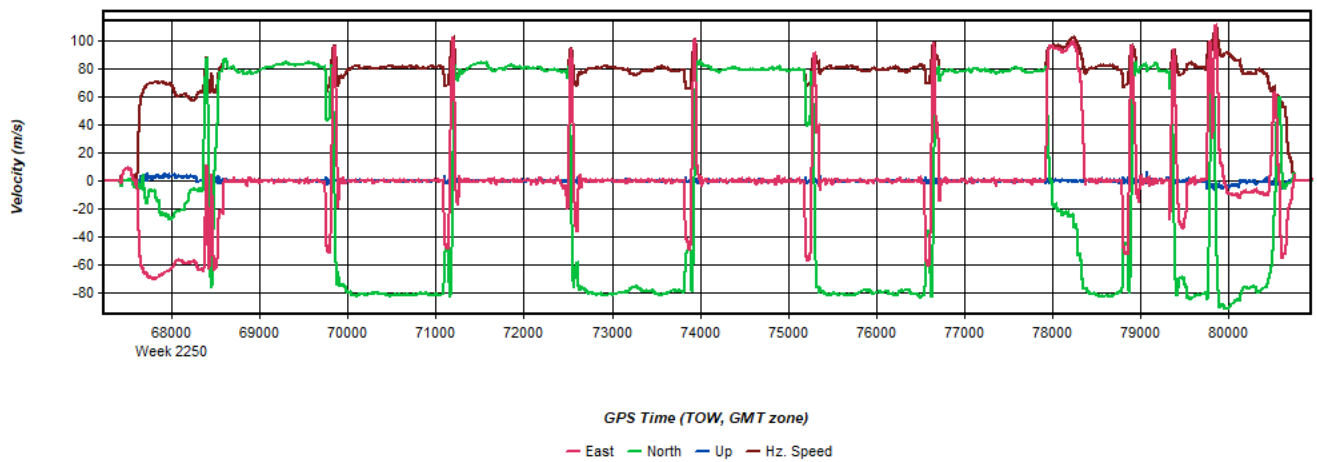
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 12: 20230219183926_22 [Smoothed TC Combined] - Roll & Pitch Plot



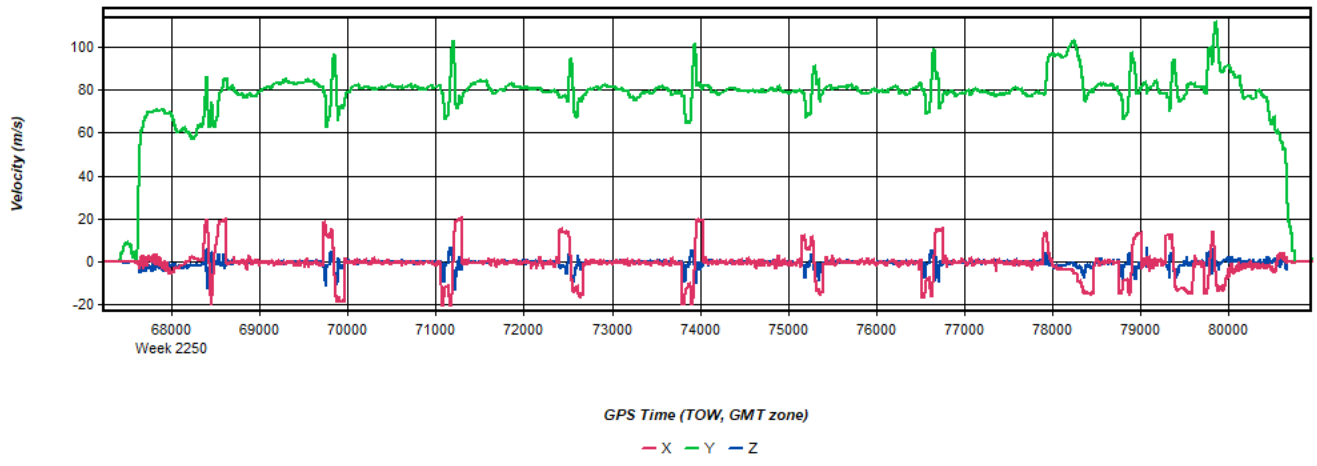
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 13: 20230219183926_22 [Smoothed TC Combined] - Velocity Profile Plot



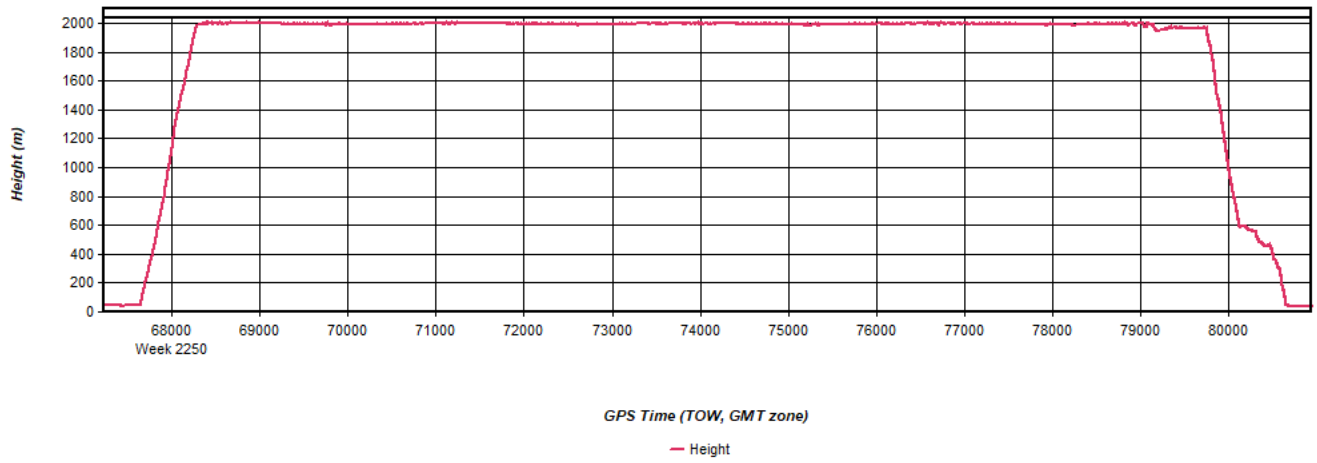
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 14: 20230219183926_22 [Smoothed TC Combined] - Body Frame Velocity Plot



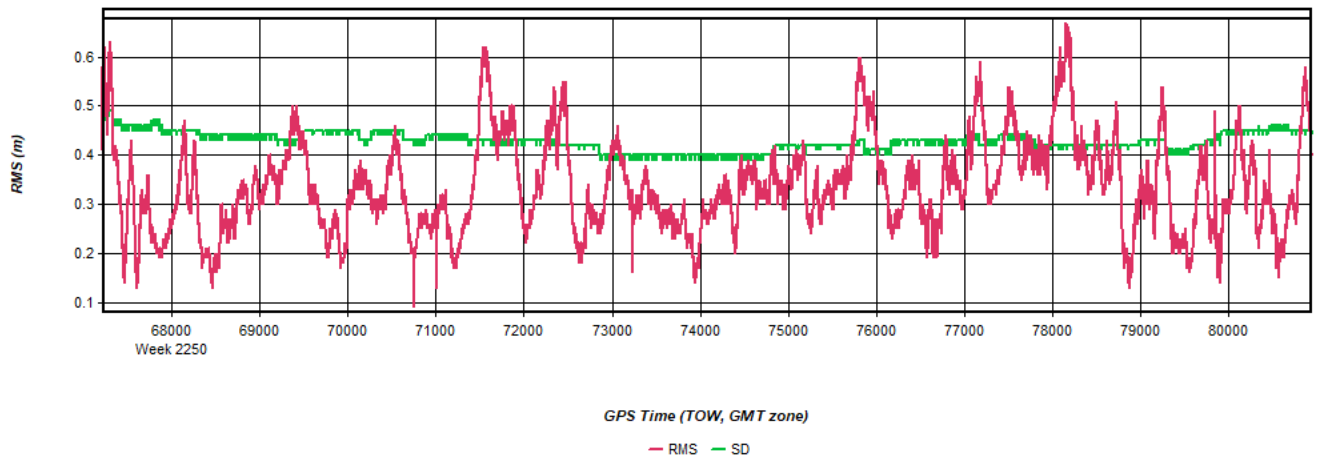
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 15: 20230219183926_22 [Smoothed TC Combined] - Height Profile Plot



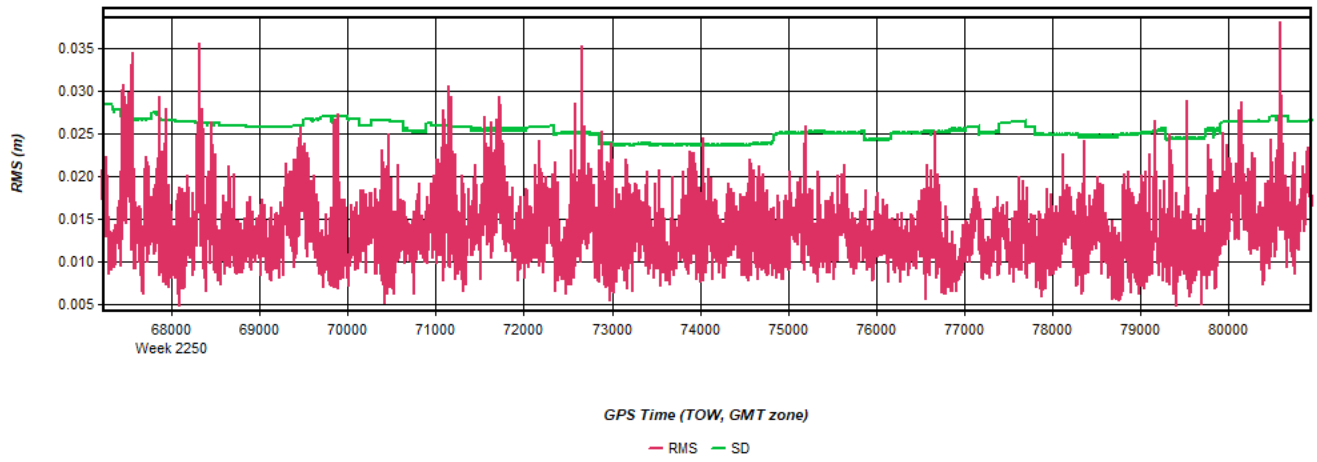
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 16: 20230219183926_22 [Smoothed TC Combined] - C/A Code Residual RMS Plot



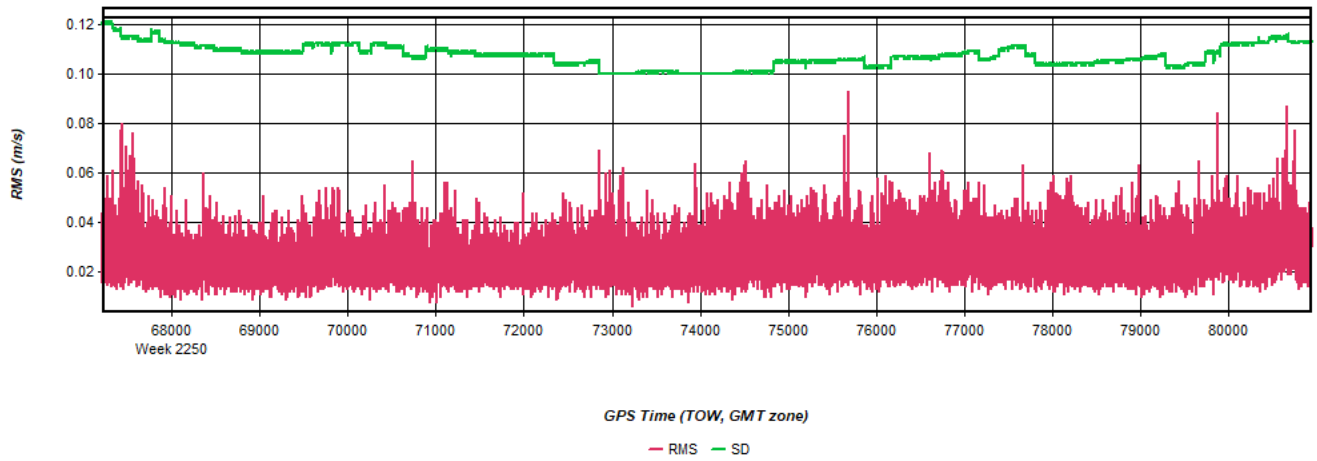
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 17: 20230219183926_22 [Smoothed TC Combined] - Carrier Residual RMS Plot



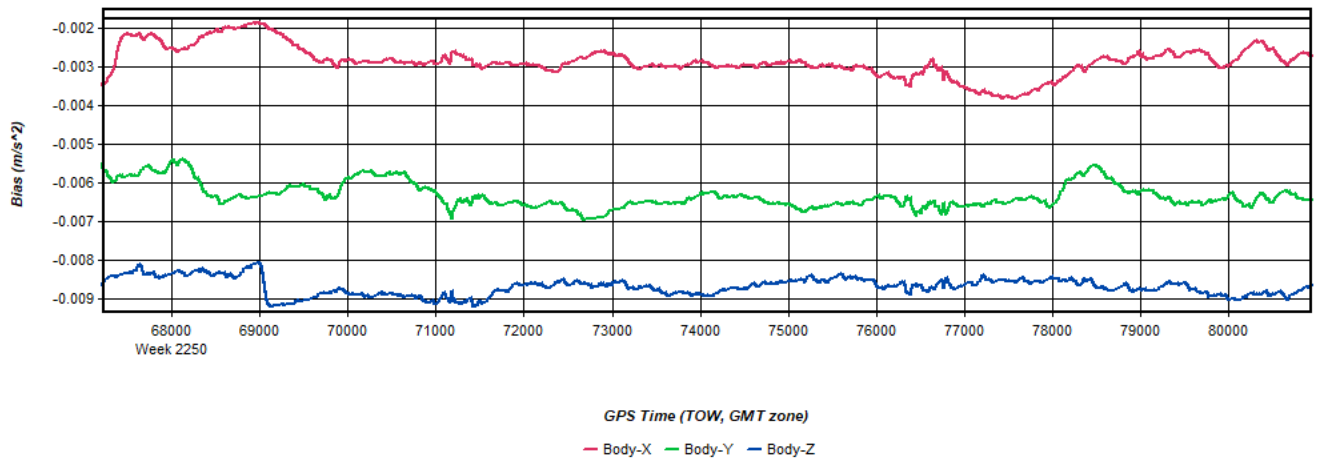
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 18: 20230219183926_22 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



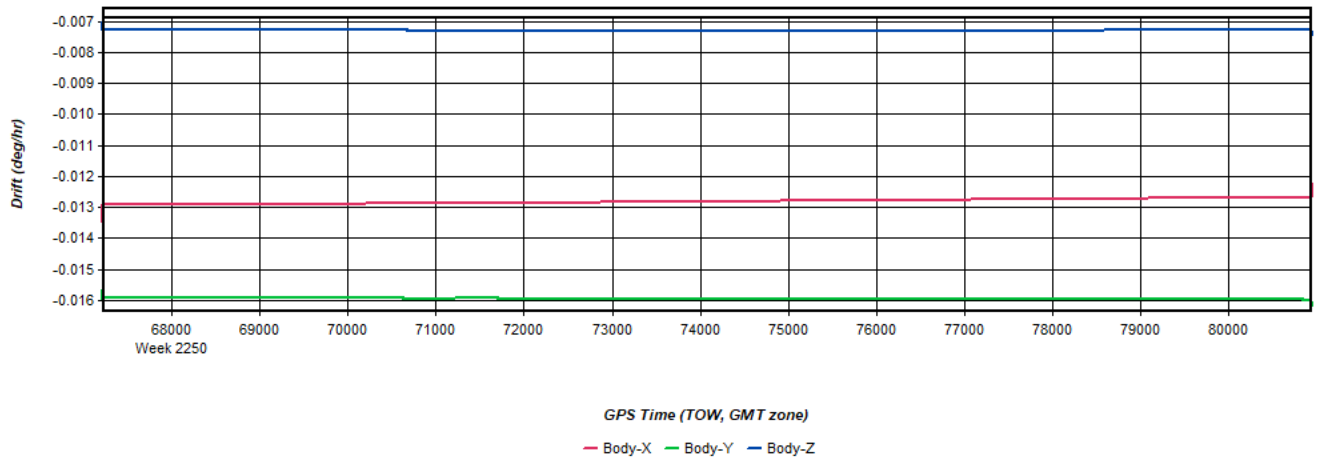
Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 19: 20230219183926_22 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Figure 20: 20230219183926_22 [Smoothed TC Combined] - Gyro Drift Plot

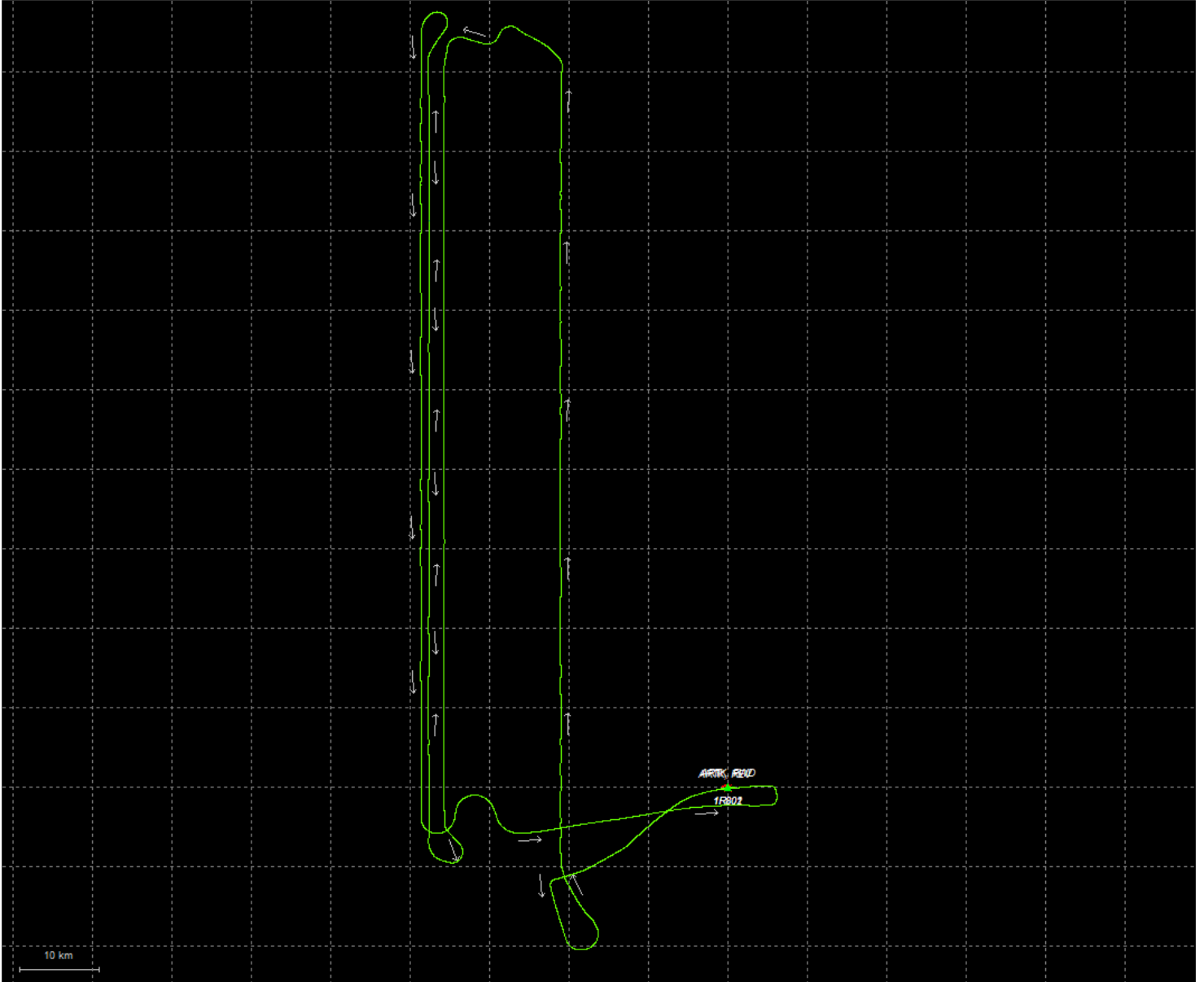


Process	20230219183926_22	by Unknown	on 2/21/2023	at 11:47:55
---------	-------------------	------------	--------------	-------------

Output Results for 20230303221103_23

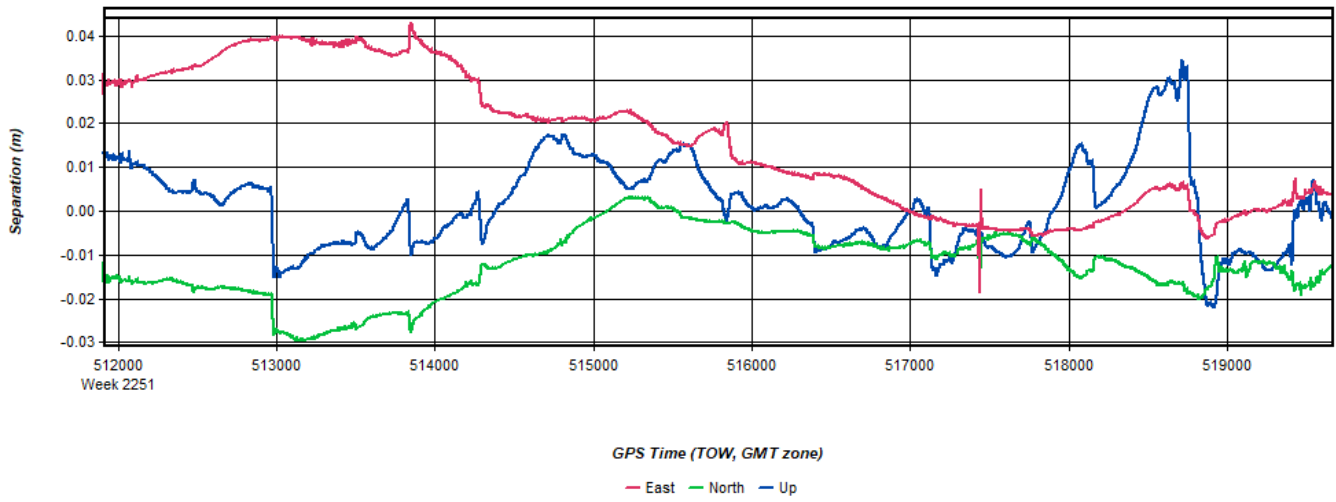
Inertial Explorer Version 8.90.2124
03/06/2023

Figure 1: Smoothed TC Combined - Map



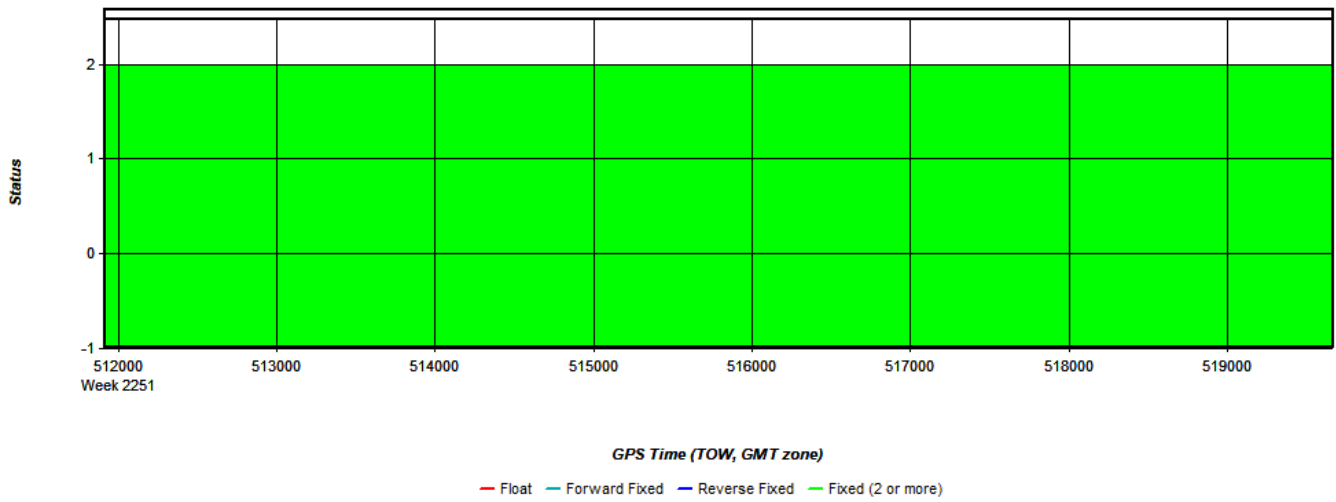
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 2: 20230303221103_23 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



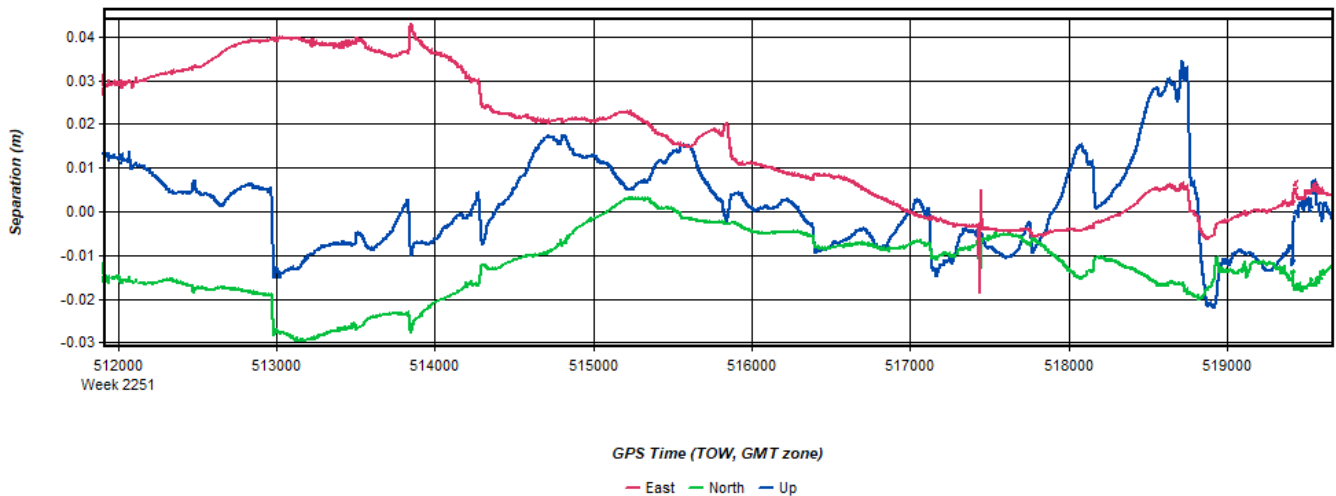
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 3: 20230303221103_23 [Smoothed TC Combined] - Float or Fixed Ambiguity



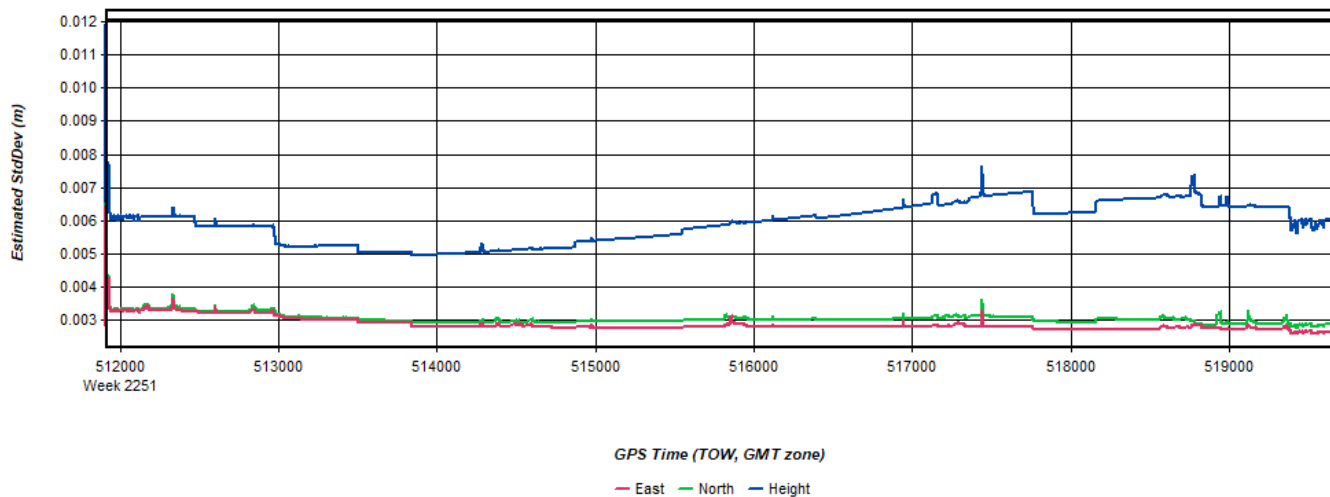
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 4: 20230303221103_23 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



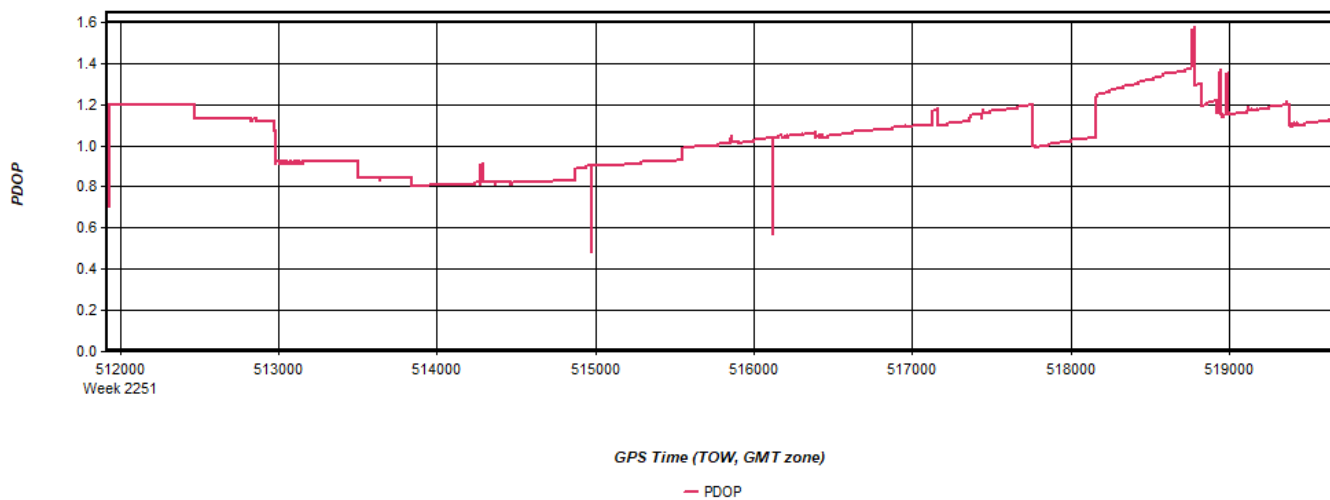
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 5: 20230303221103_23 [Smoothed TC Combined] - Estimated Position Accuracy Plot



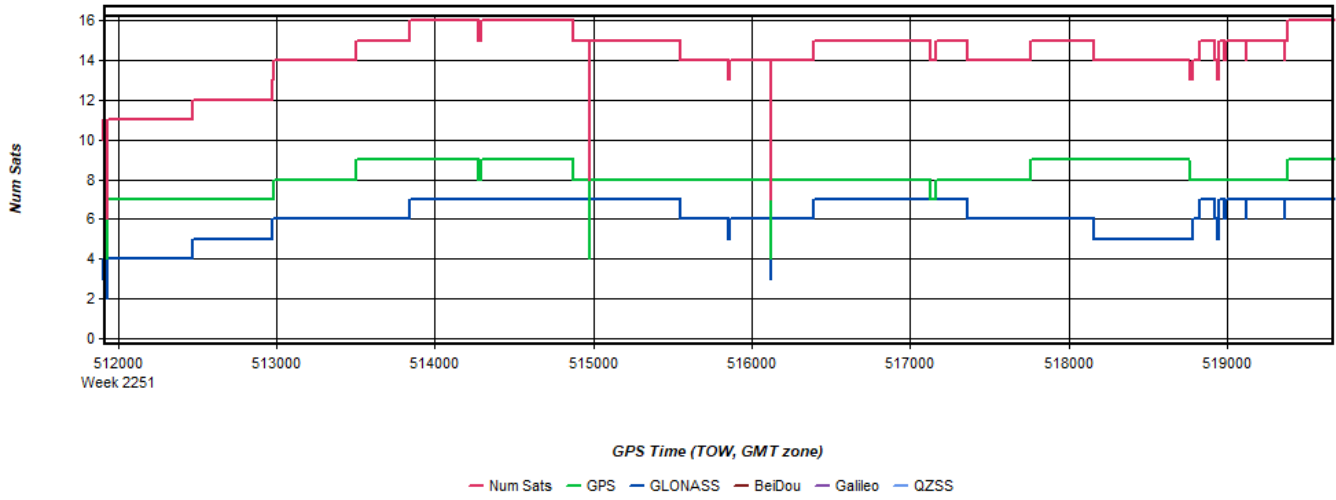
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 6: 20230303221103_23 [Smoothed TC Combined] - PDOP Plot



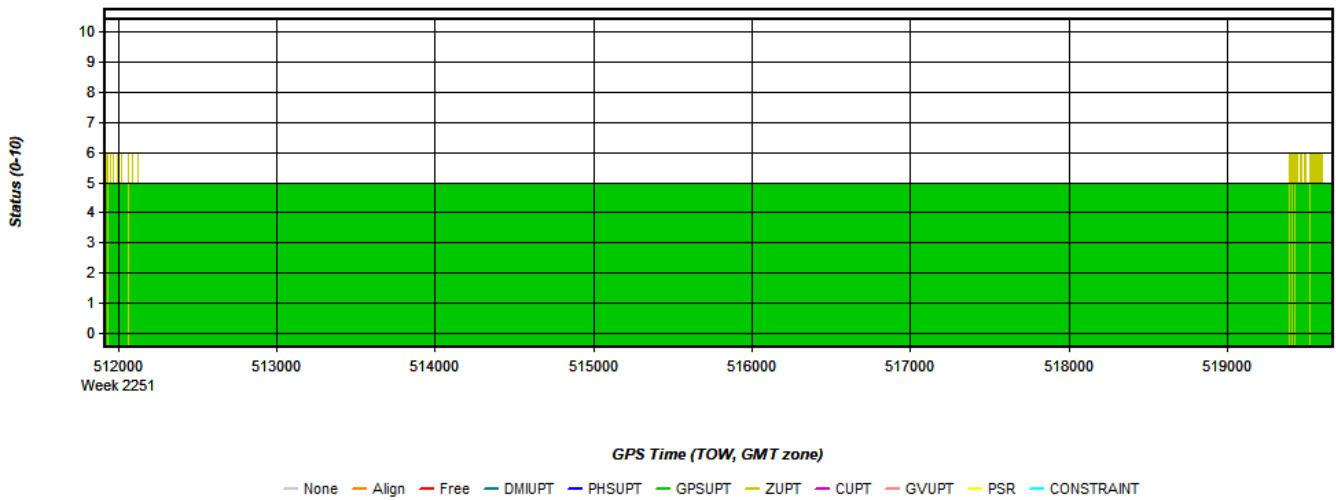
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 7: 20230303221103_23 [Smoothed TC Combined] - Number of Satellites Line Plot



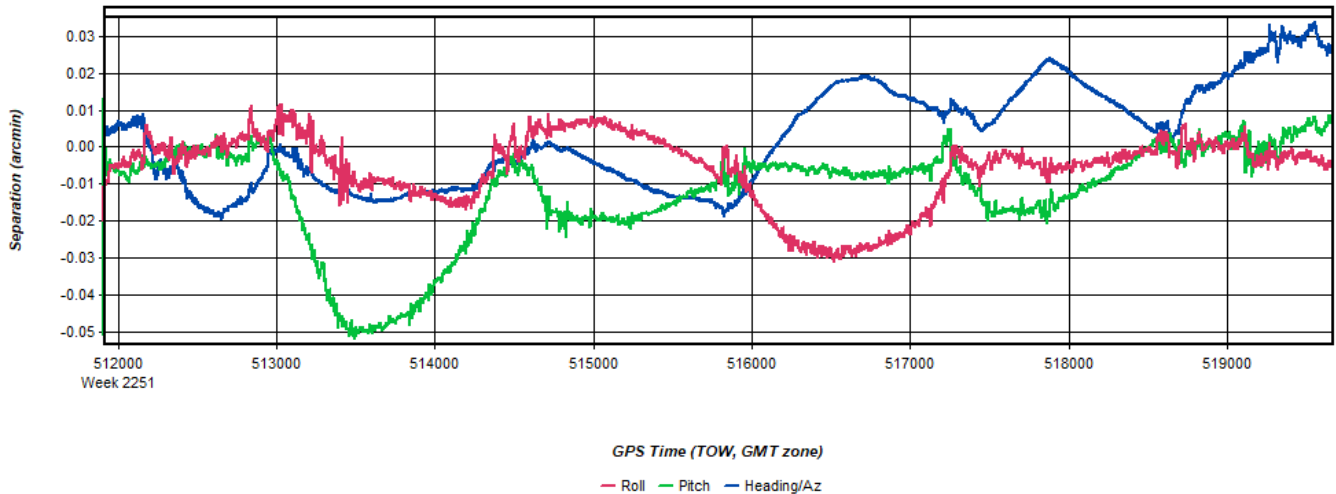
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 8: 20230303221103_23 [Smoothed TC Combined] - Status flag for IMU processing



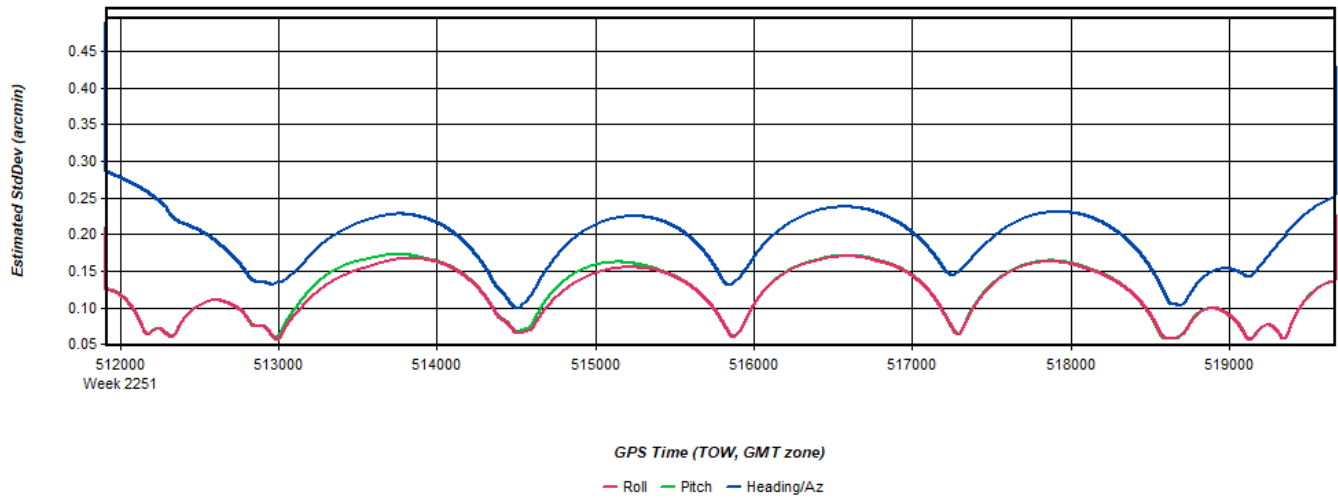
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 9: 20230303221103_23 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



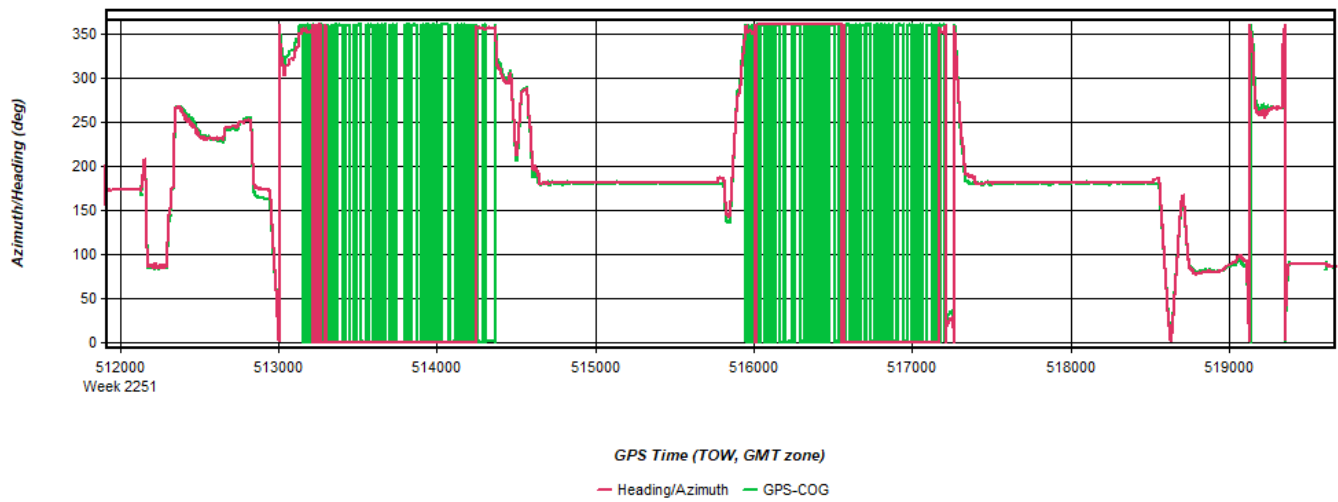
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 10: 20230303221103_23 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



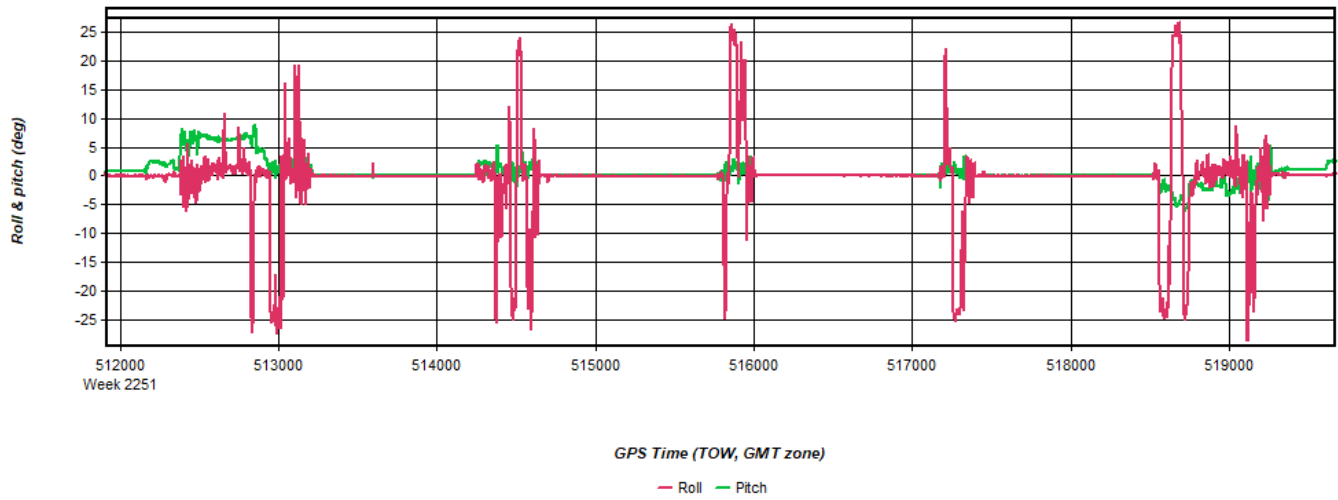
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 11: 20230303221103_23 [Smoothed TC Combined] - Azimuth Plot



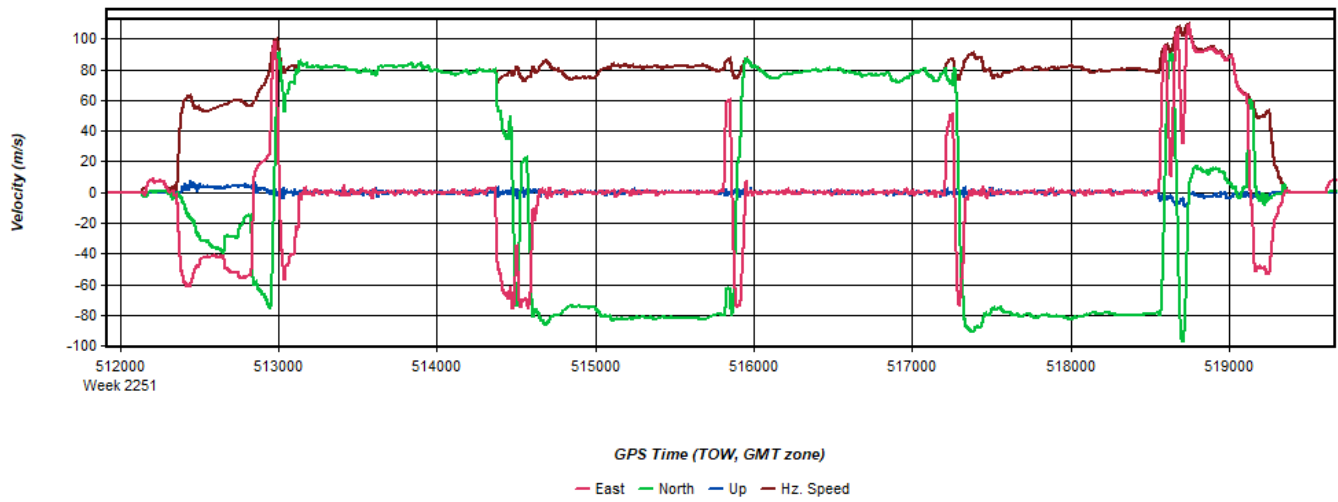
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 12: 20230303221103_23 [Smoothed TC Combined] - Roll & Pitch Plot



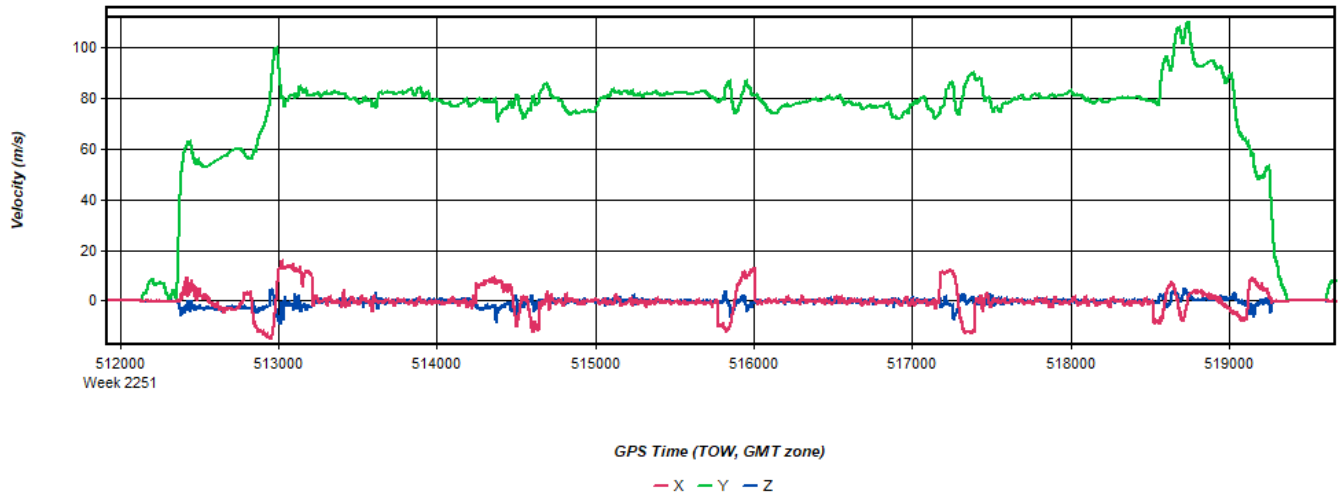
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 13: 20230303221103_23 [Smoothed TC Combined] - Velocity Profile Plot



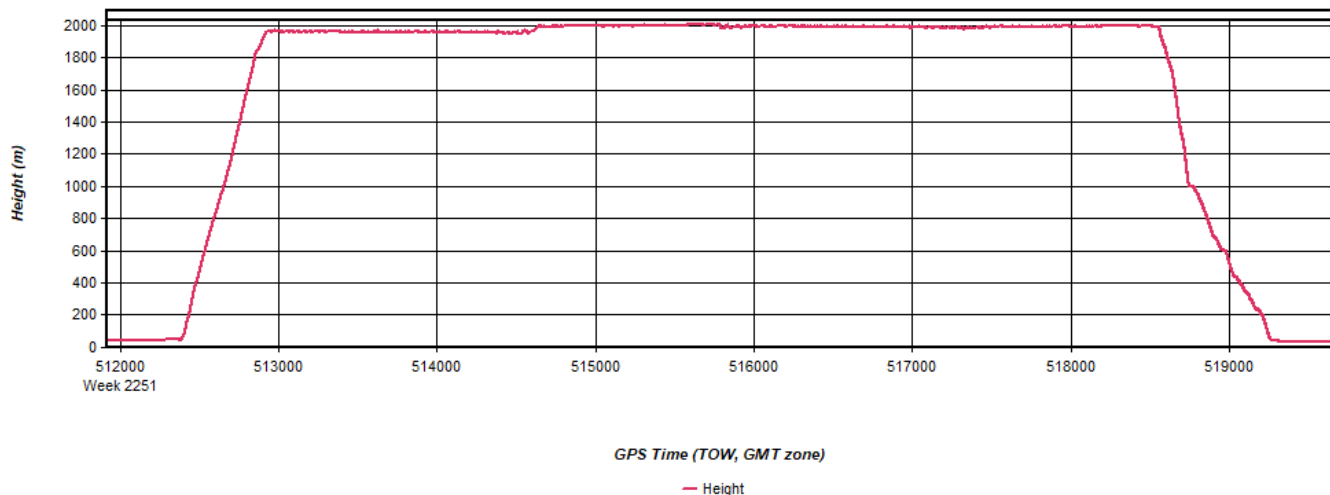
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 14: 20230303221103_23 [Smoothed TC Combined] - Body Frame Velocity Plot



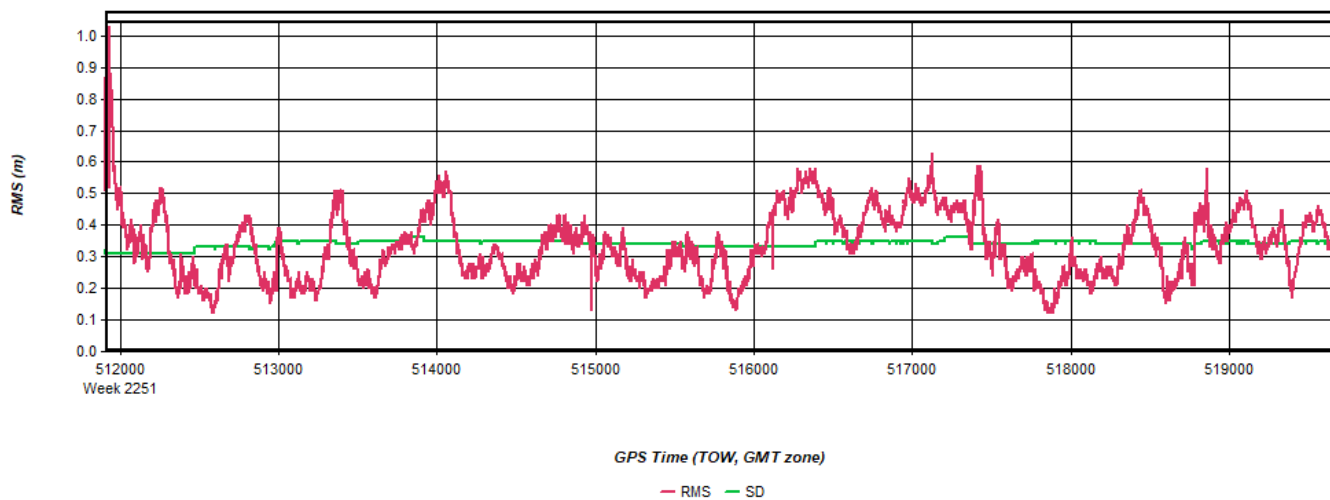
Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 15: 20230303221103_23 [Smoothed TC Combined] - Height Profile Plot



Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 16: 20230303221103_23 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Figure 17: 20230303221103_23 [Smoothed TC Combined] - Carrier Residual RMS Plot

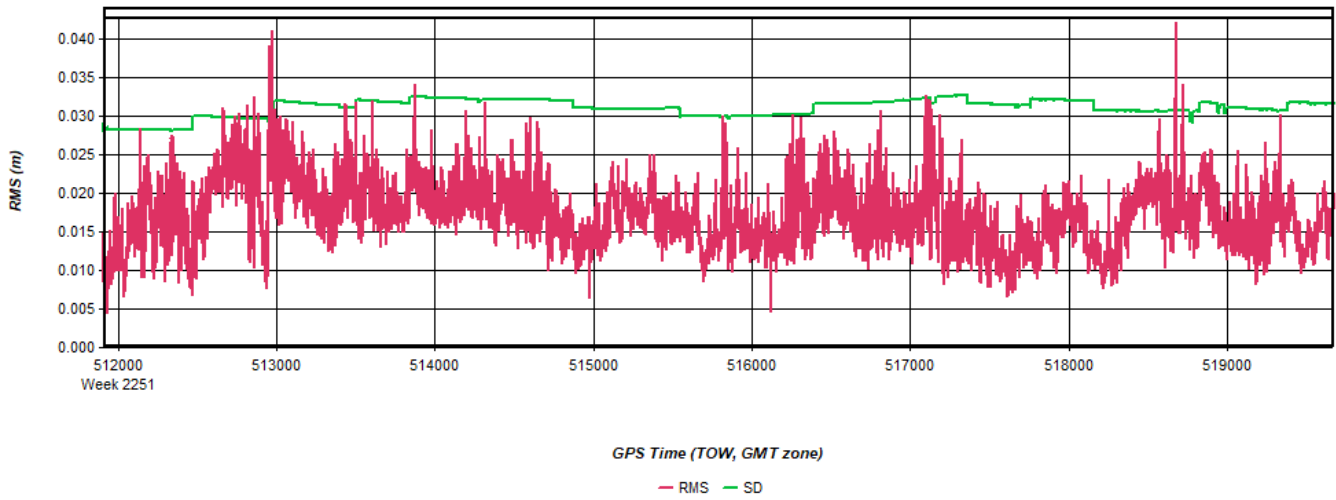


Figure 18: 20230303221103_23 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot

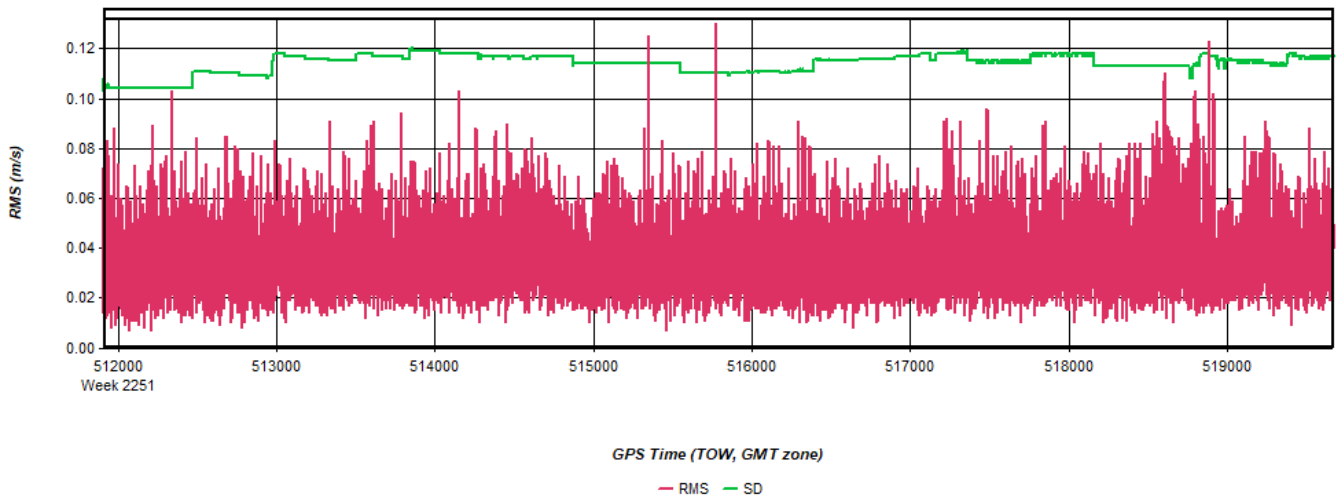


Figure 19: 20230303221103_23 [Smoothed TC Combined] - Accelerometer Bias Plot

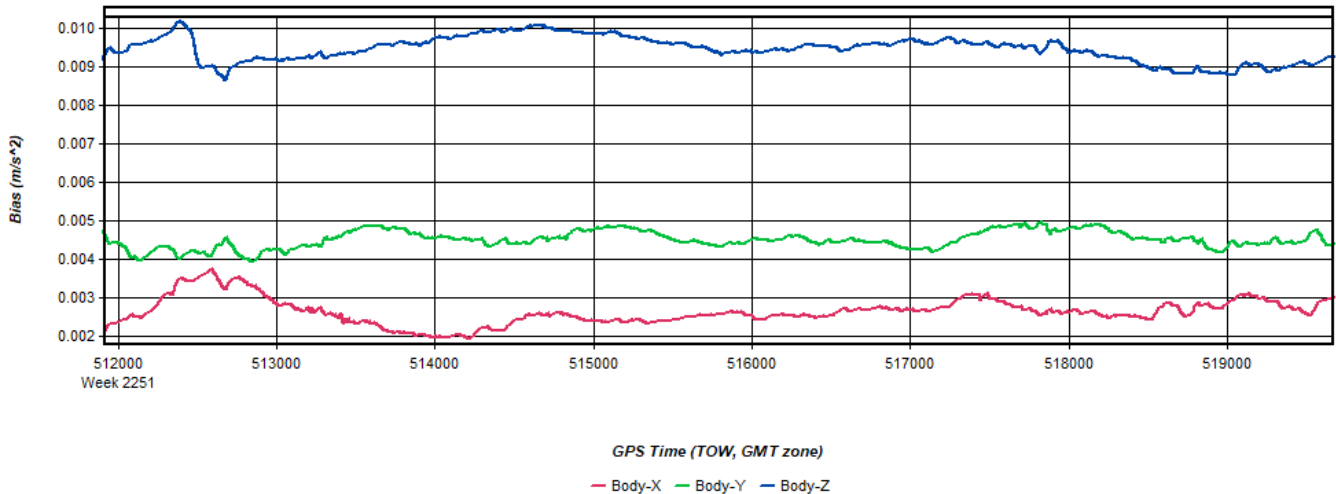
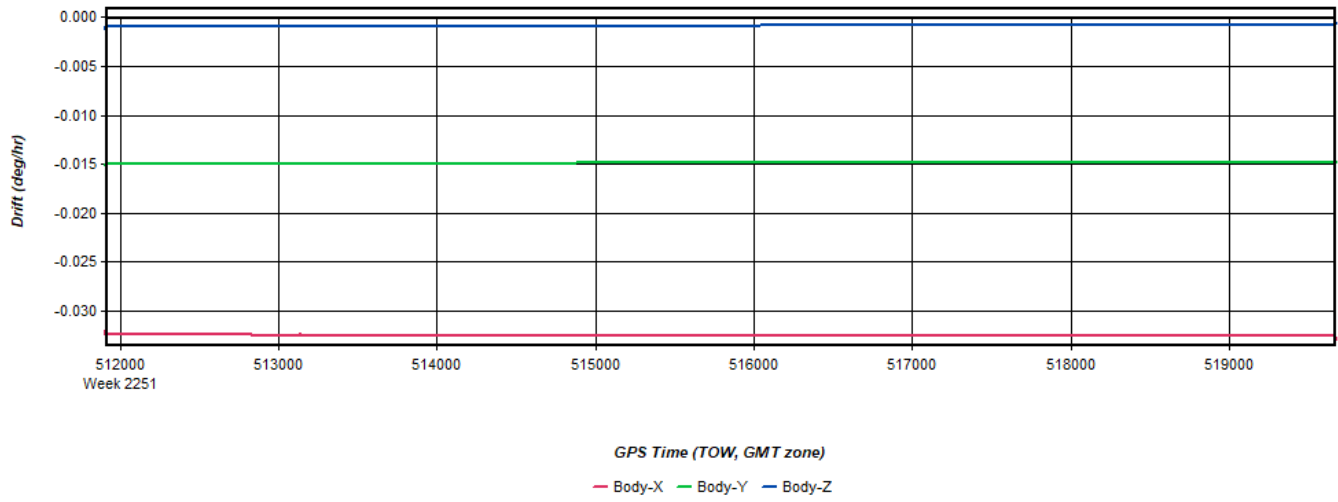


Figure 20: 20230303221103_23 [Smoothed TC Combined] - Gyro Drift Plot

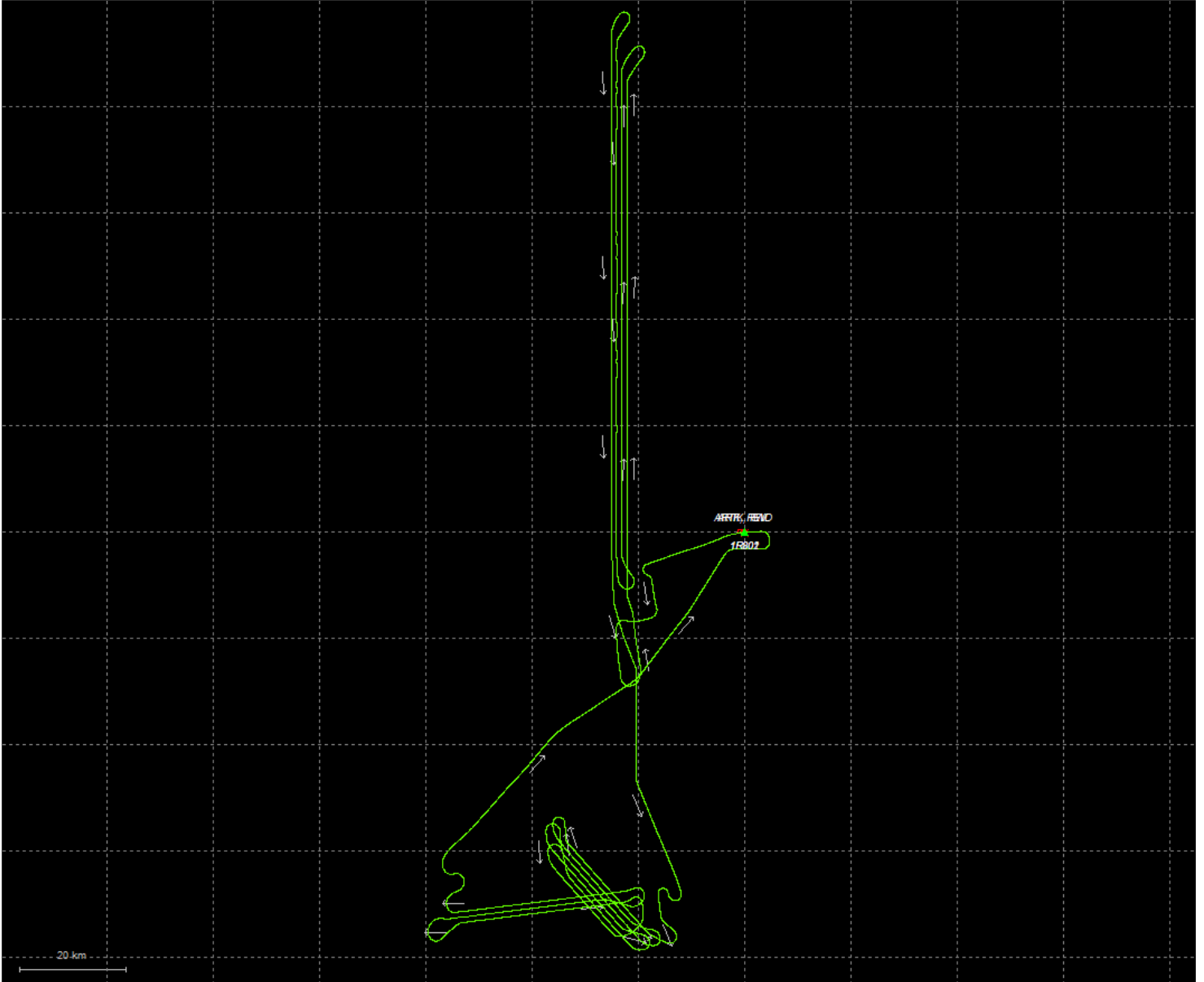


Process	20230303221103_23	by Unknown	on 3/6/2023	at 12:05:59
---------	-------------------	------------	-------------	-------------

Output Results for 20230304142452_24

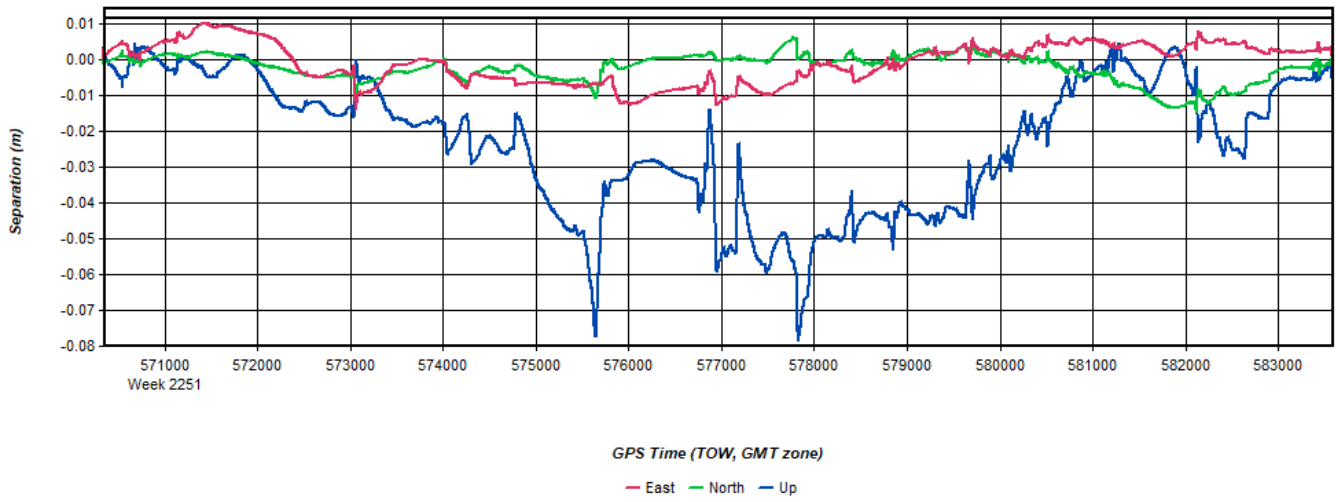
Inertial Explorer Version 8.90.2124
03/06/2023

Figure 1: Smoothed TC Combined - Map



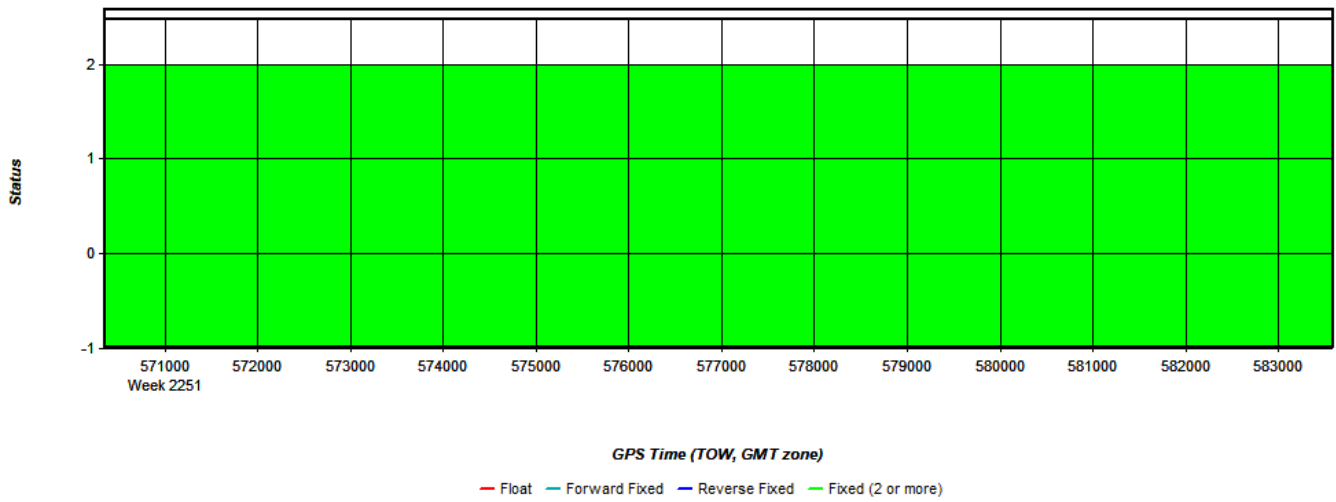
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 2: 20230304142452_24 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



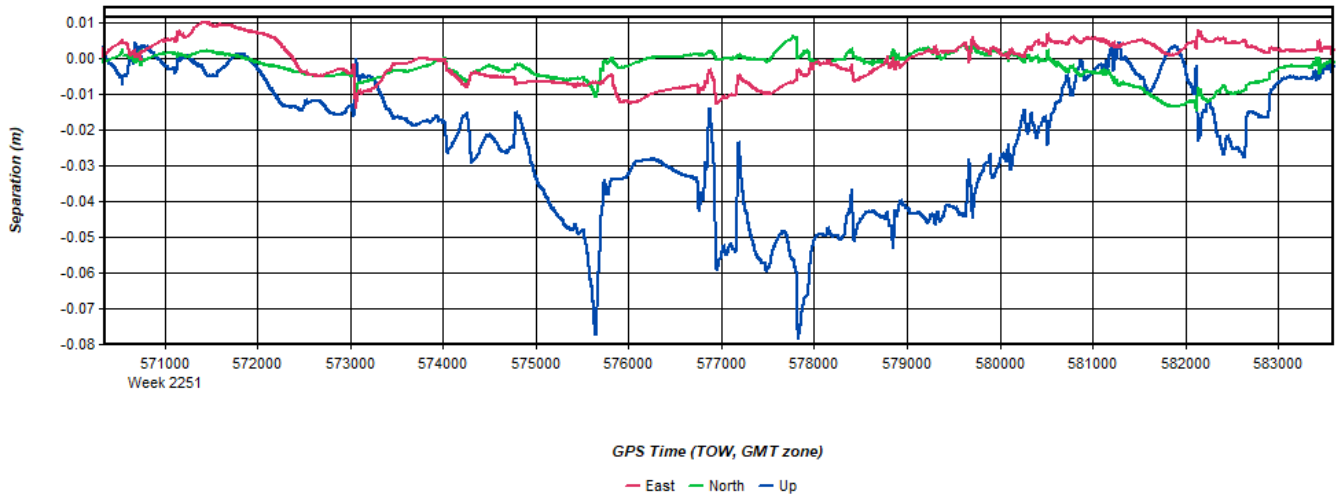
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 3: 20230304142452_24 [Smoothed TC Combined] - Float or Fixed Ambiguity



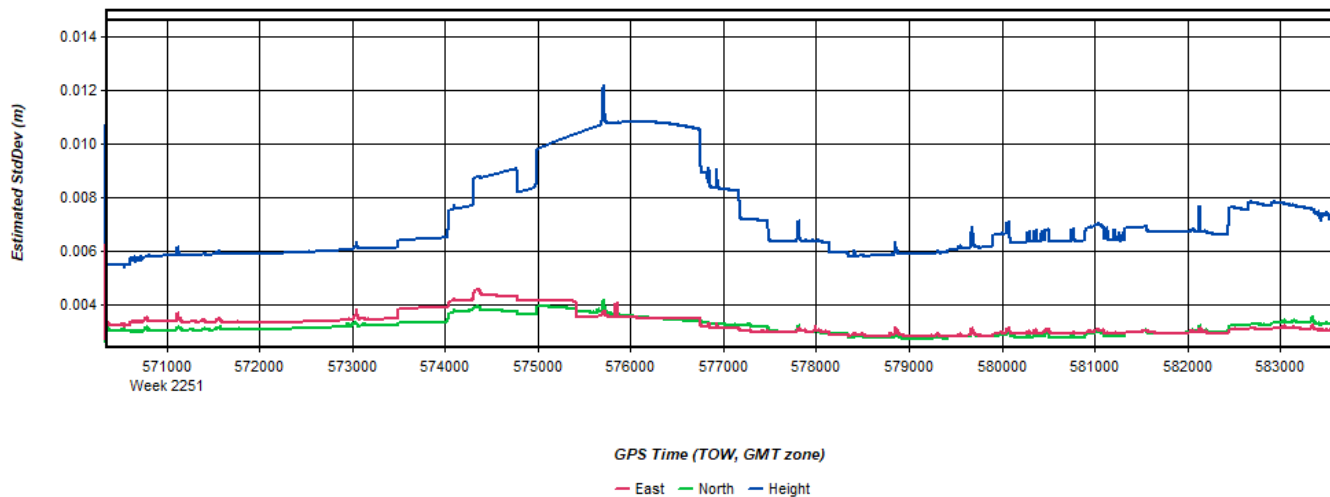
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 4: 20230304142452_24 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



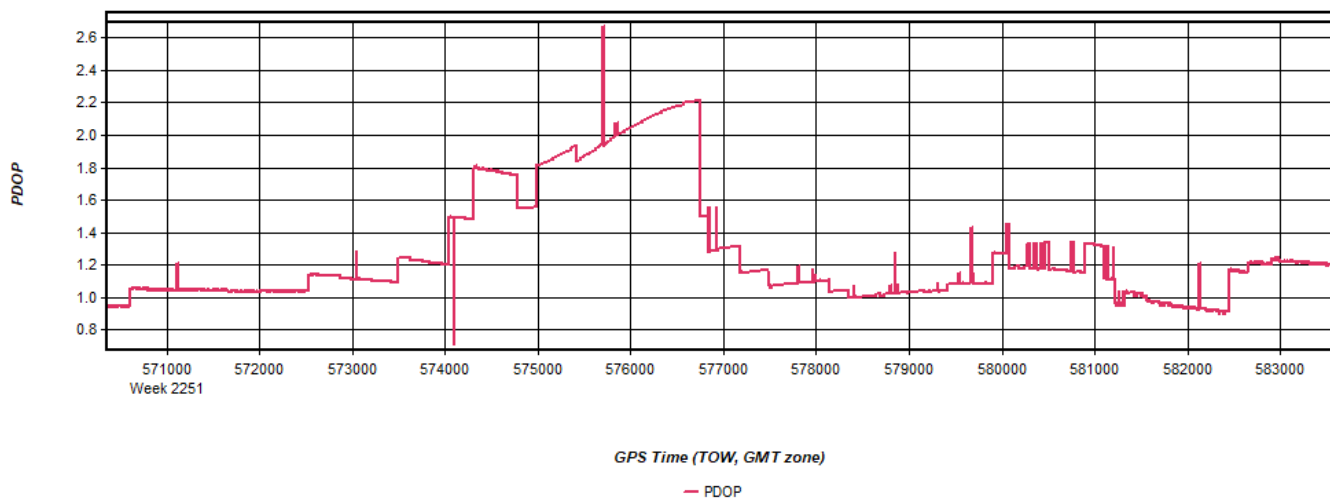
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 5: 20230304142452_24 [Smoothed TC Combined] - Estimated Position Accuracy Plot



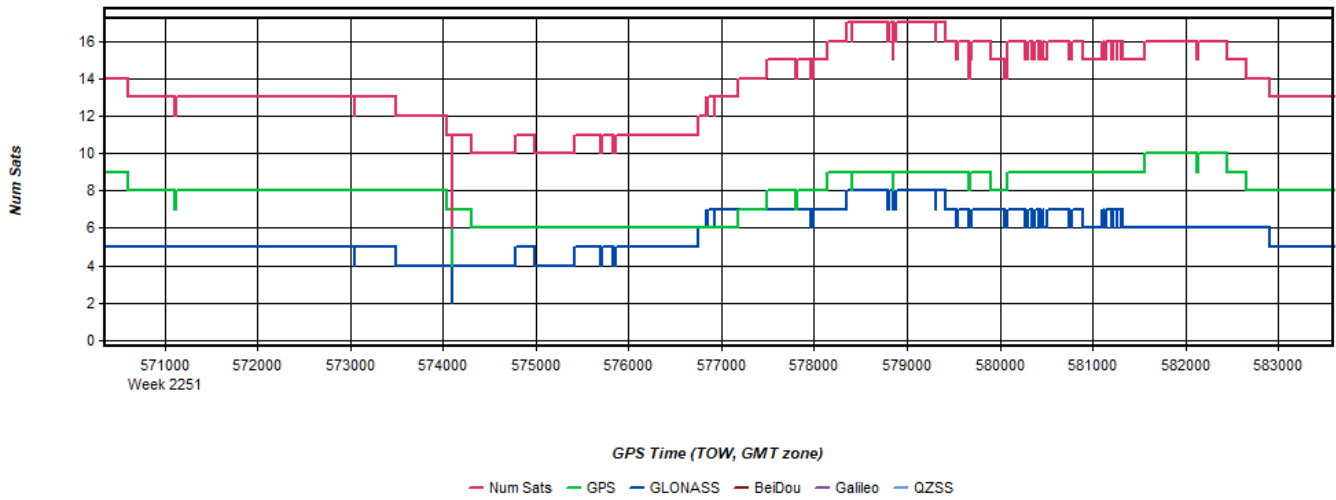
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 6: 20230304142452_24 [Smoothed TC Combined] - PDOP Plot



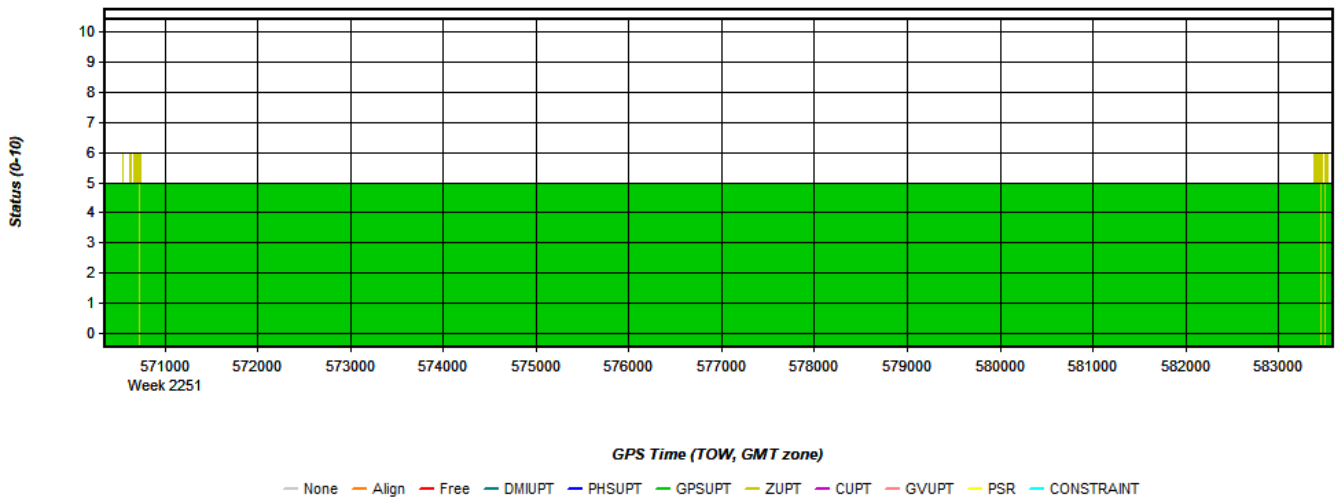
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 7: 20230304142452_24 [Smoothed TC Combined] - Number of Satellites Line Plot



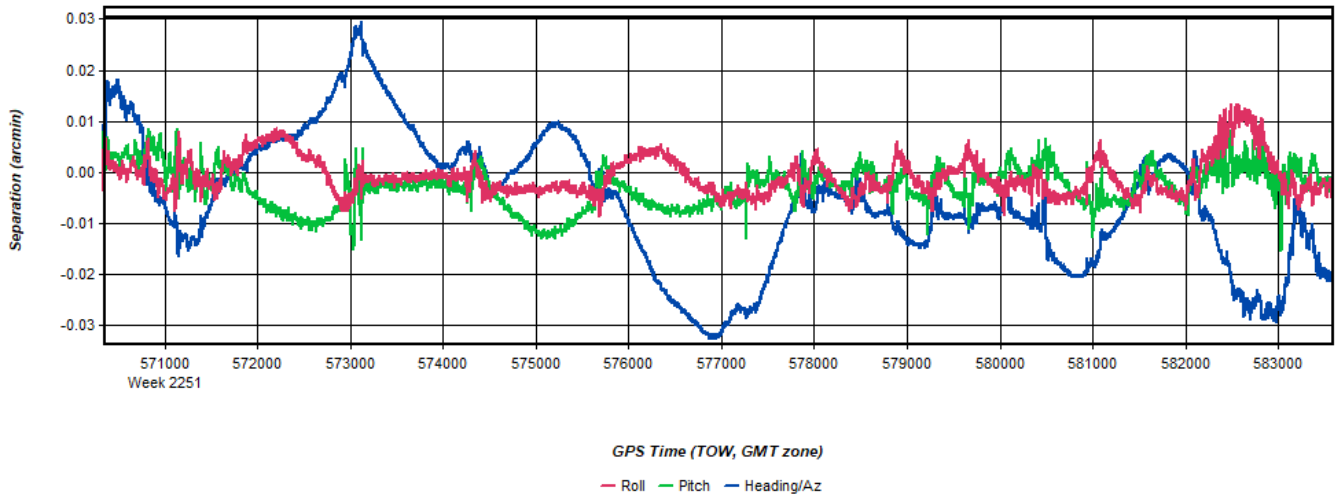
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 8: 20230304142452_24 [Smoothed TC Combined] - Status flag for IMU processing



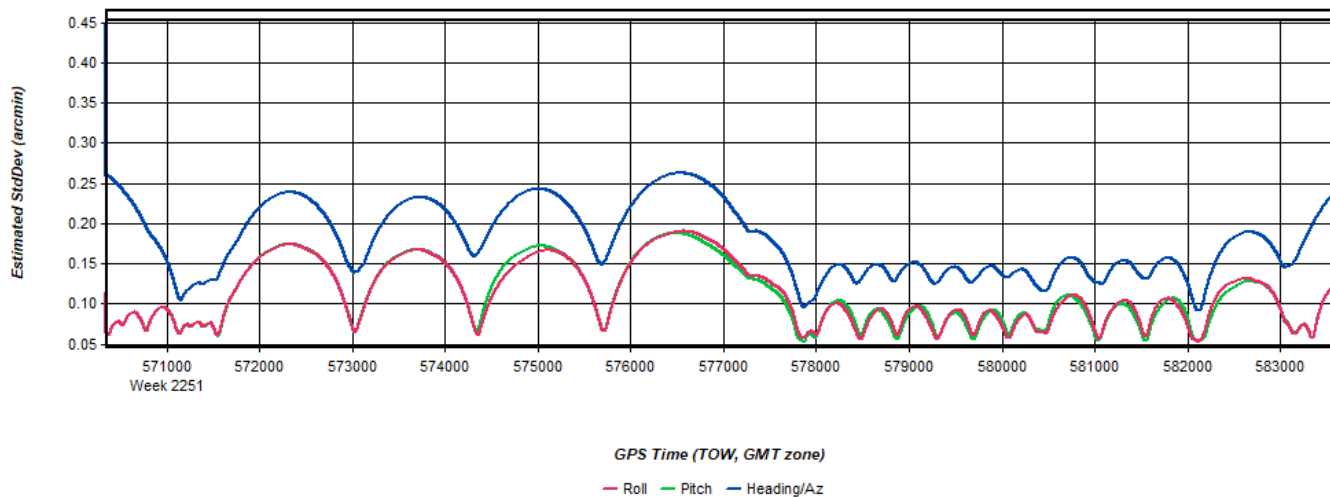
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 9: 20230304142452_24 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



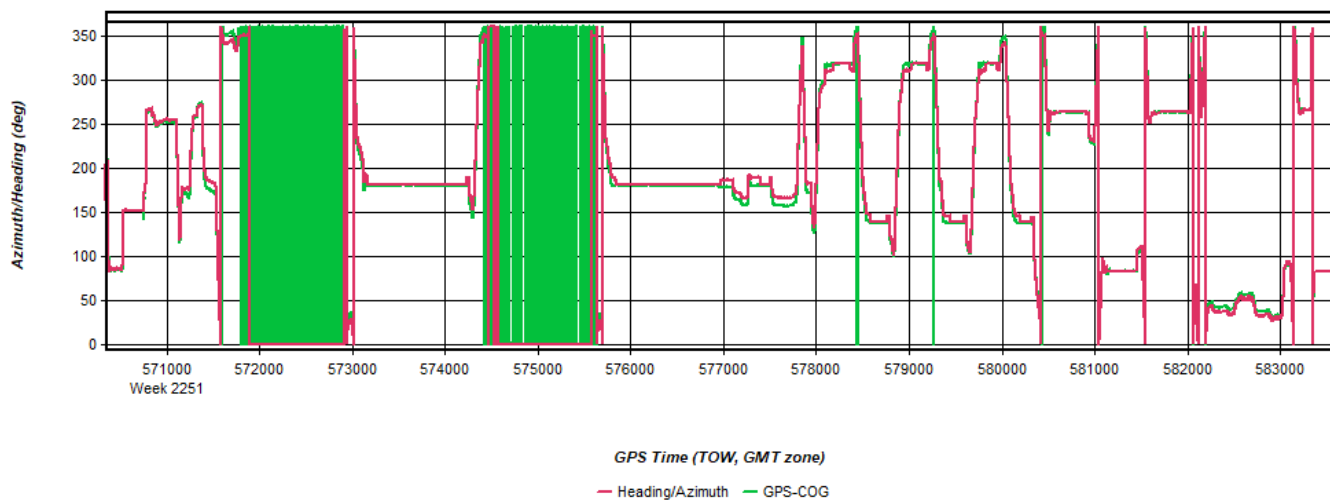
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 10: 20230304142452_24 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



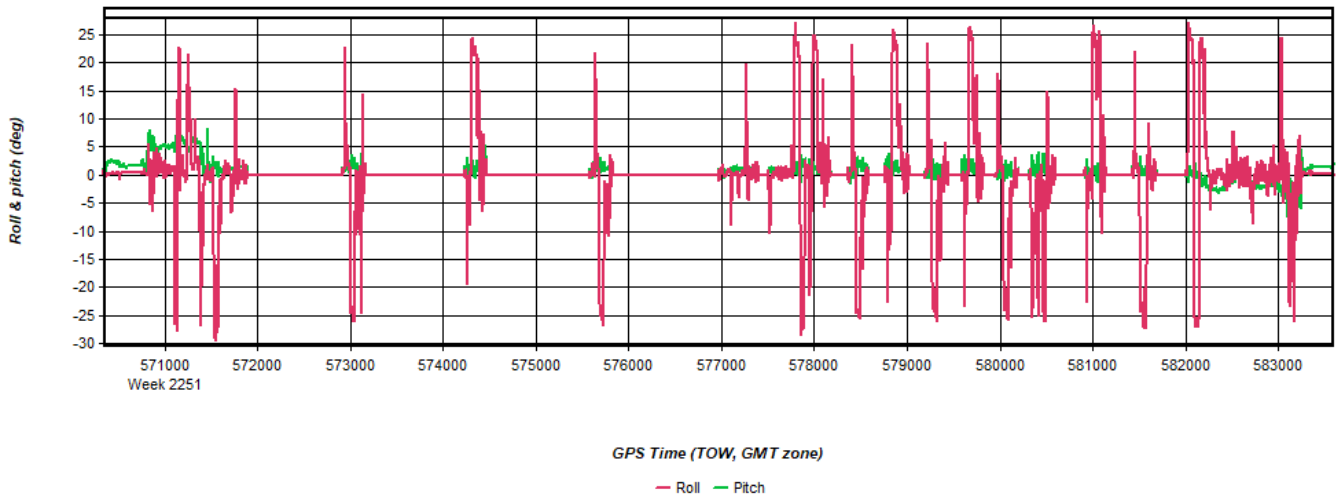
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 11: 20230304142452_24 [Smoothed TC Combined] - Azimuth Plot



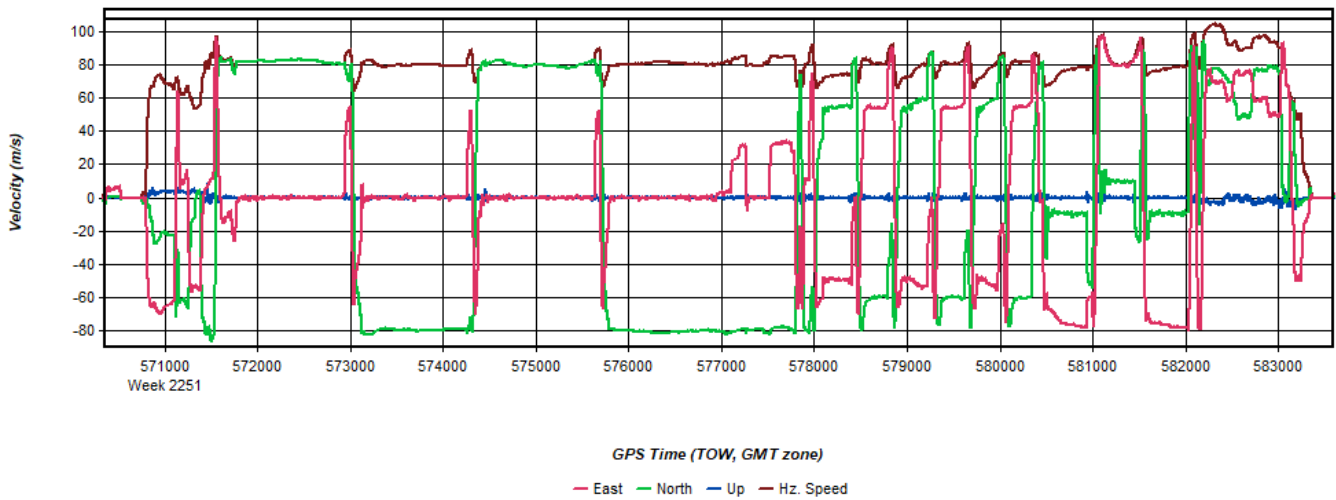
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 12: 20230304142452_24 [Smoothed TC Combined] - Roll & Pitch Plot



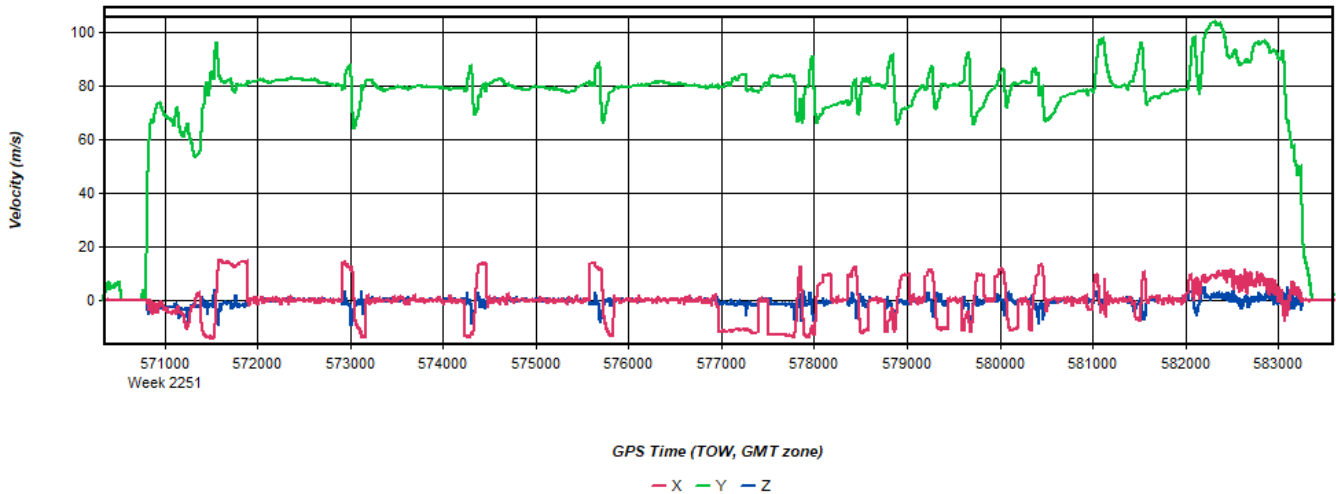
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 13: 20230304142452_24 [Smoothed TC Combined] - Velocity Profile Plot



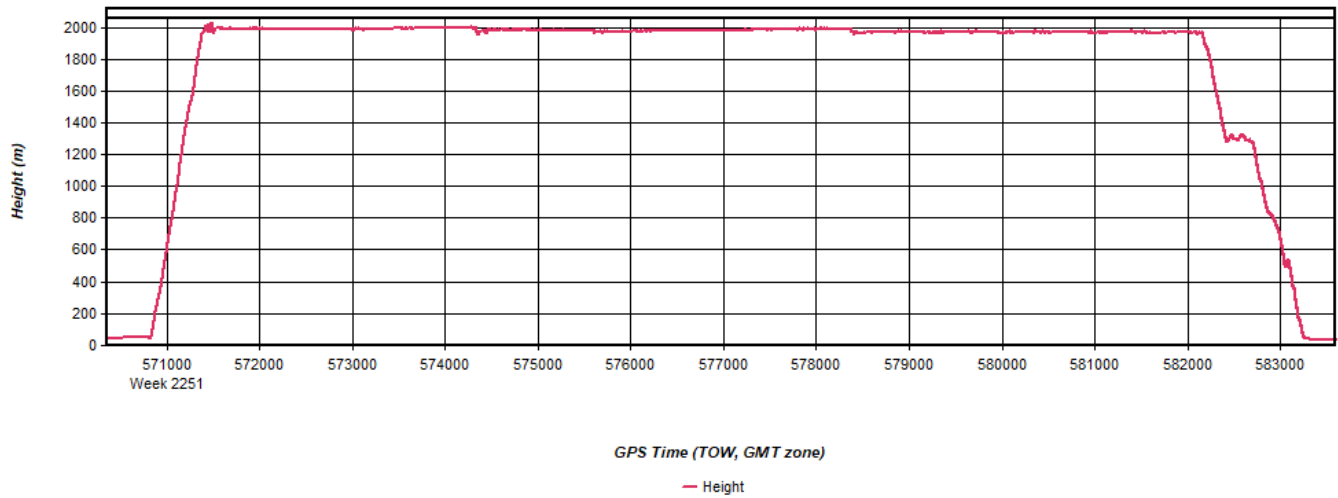
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 14: 20230304142452_24 [Smoothed TC Combined] - Body Frame Velocity Plot



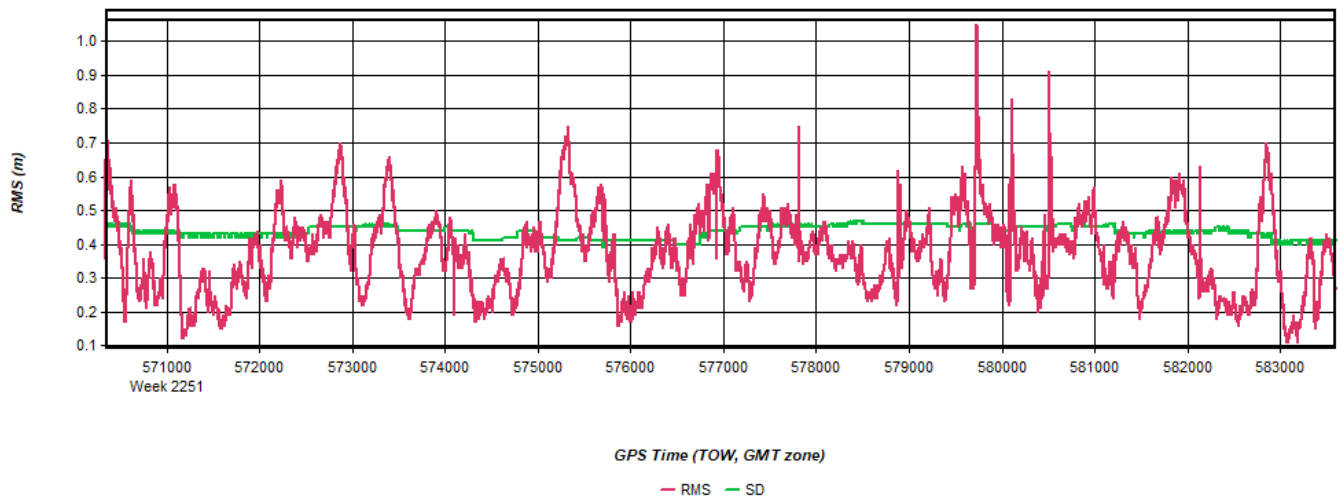
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 15: 20230304142452_24 [Smoothed TC Combined] - Height Profile Plot



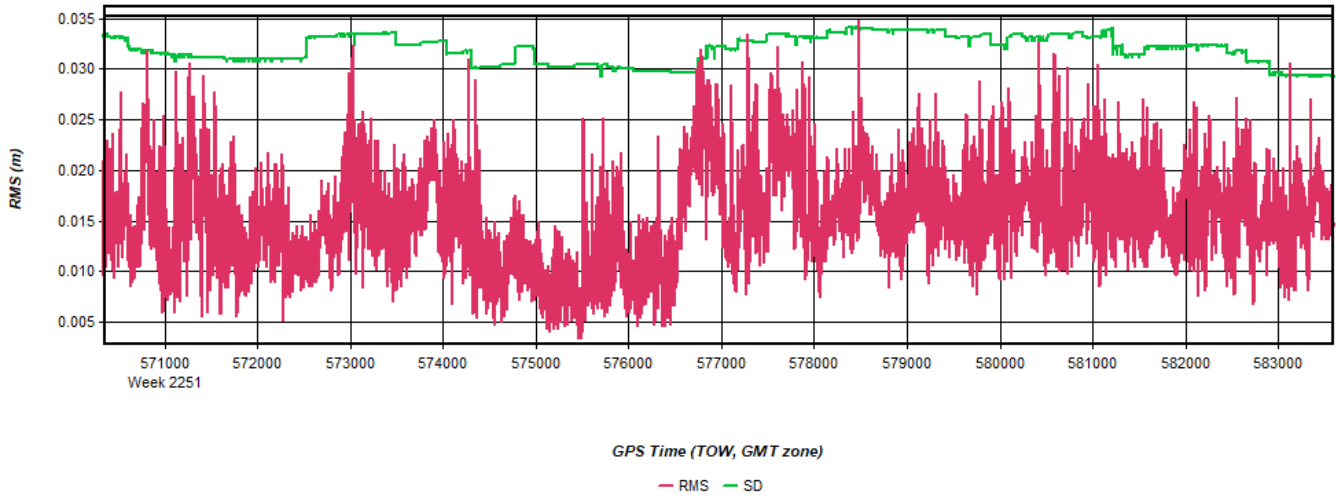
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 16: 20230304142452_24 [Smoothed TC Combined] - C/A Code Residual RMS Plot



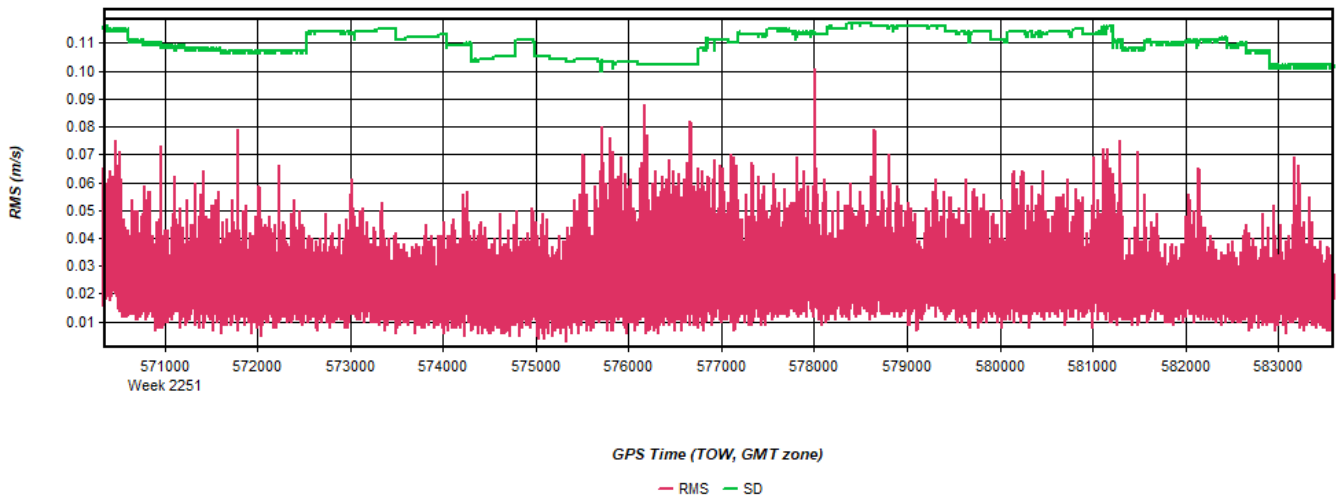
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 17: 20230304142452_24 [Smoothed TC Combined] - Carrier Residual RMS Plot



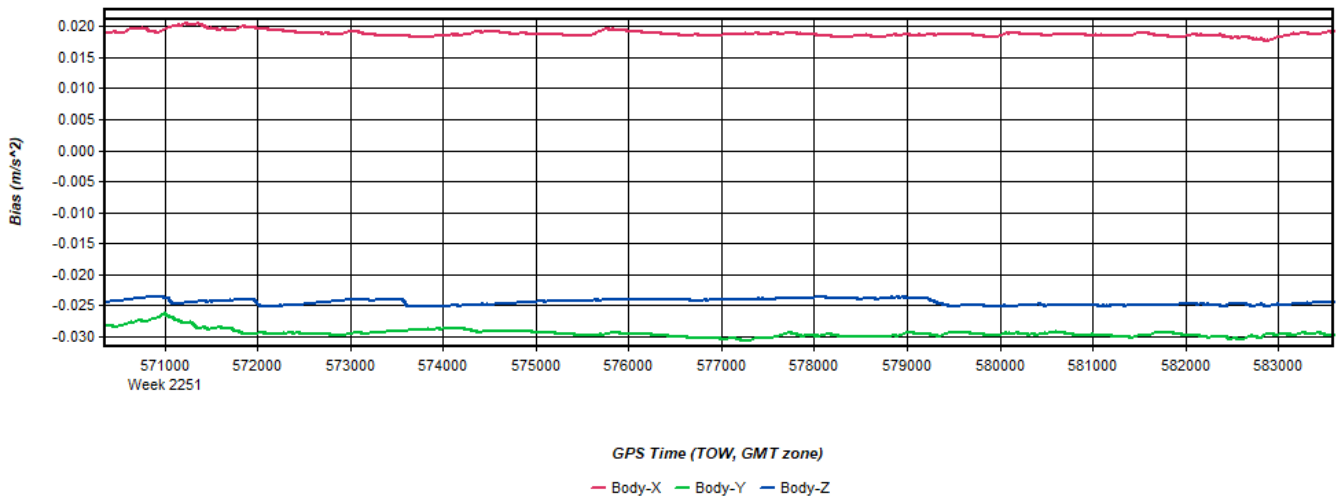
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 18: 20230304142452_24 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



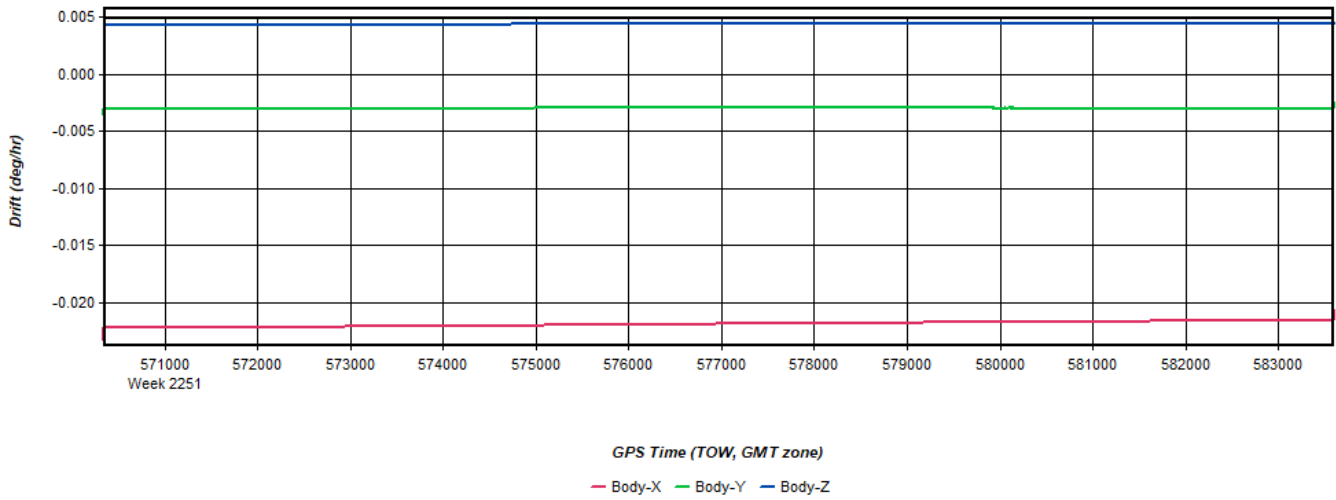
Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 19: 20230304142452_24 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Figure 20: 20230304142452_24 [Smoothed TC Combined] - Gyro Drift Plot



Process	20230304142452_24	by Unknown	on 3/6/2023	at 13:19:11
---------	-------------------	------------	-------------	-------------

Output Results for 20230304184714_25

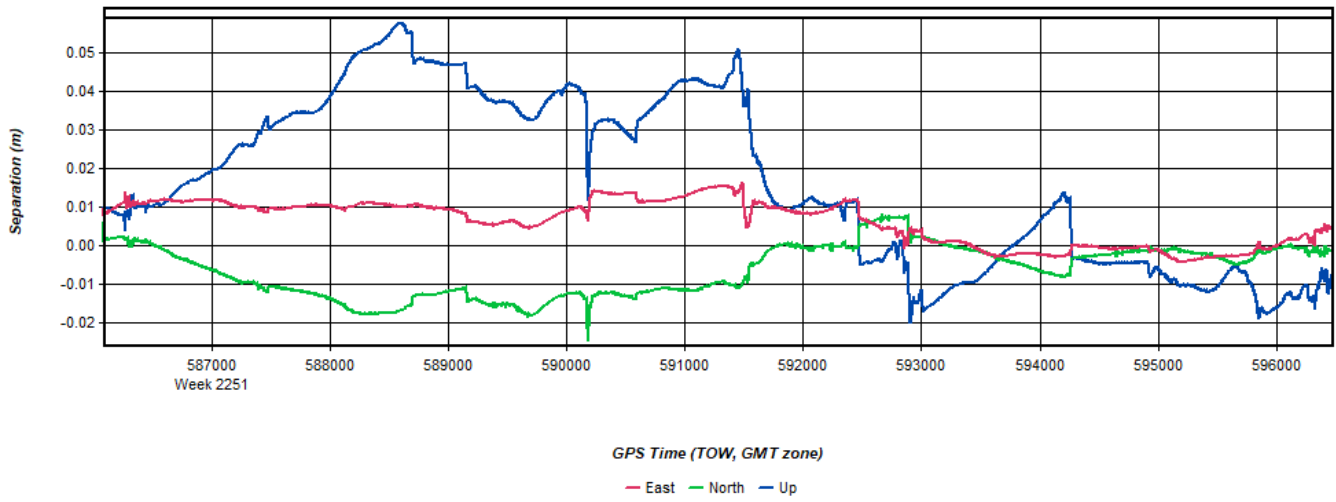
Inertial Explorer Version 8.90.2124
03/06/2023

Figure 1: Smoothed TC Combined - Map



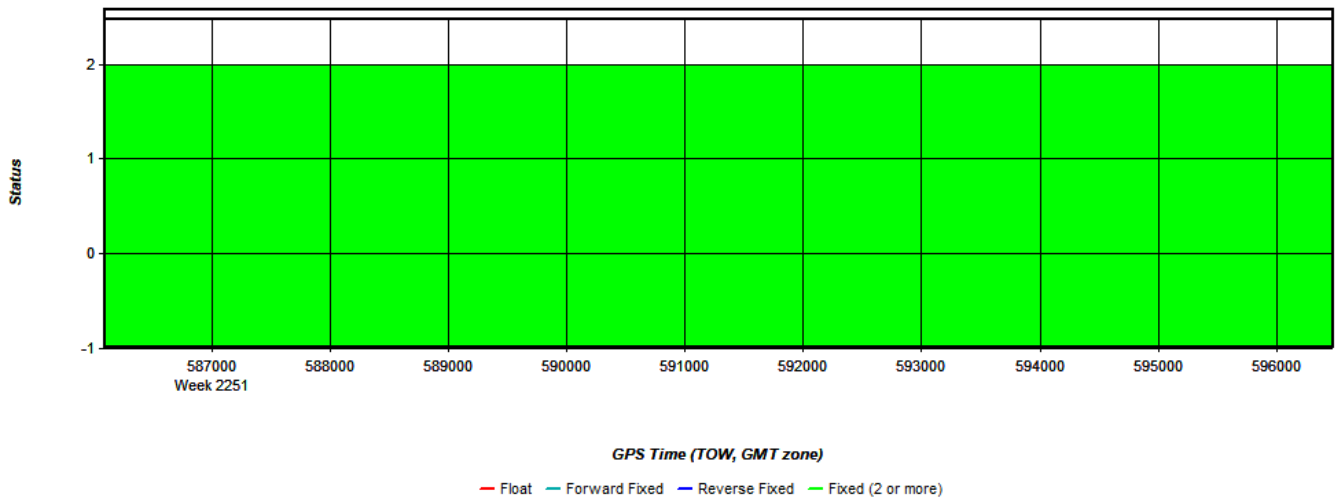
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 2: 20230304184714_25 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



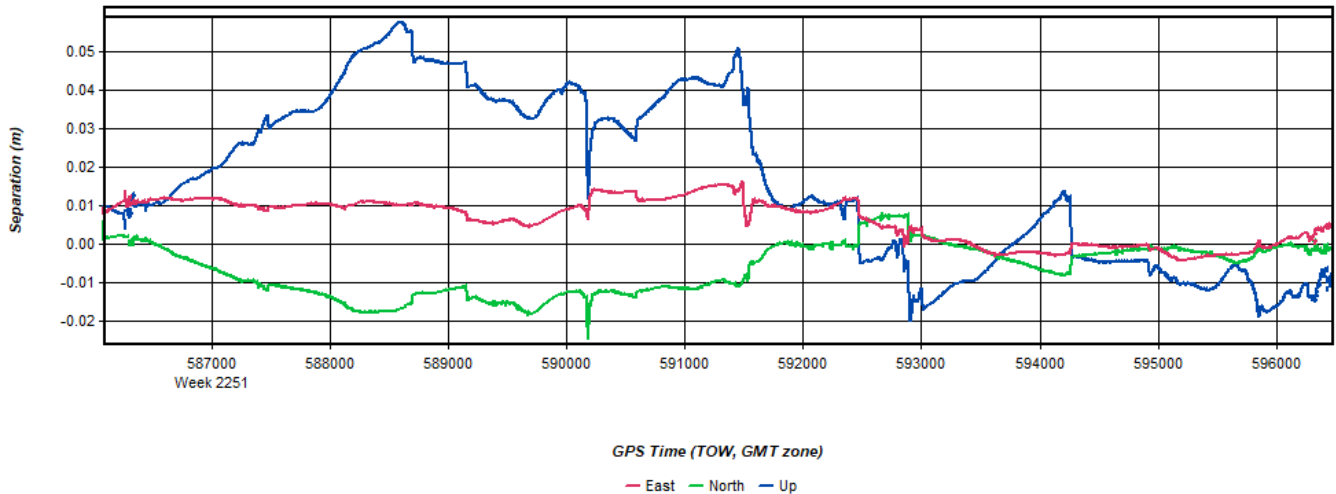
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 3: 20230304184714_25 [Smoothed TC Combined] - Float or Fixed Ambiguity



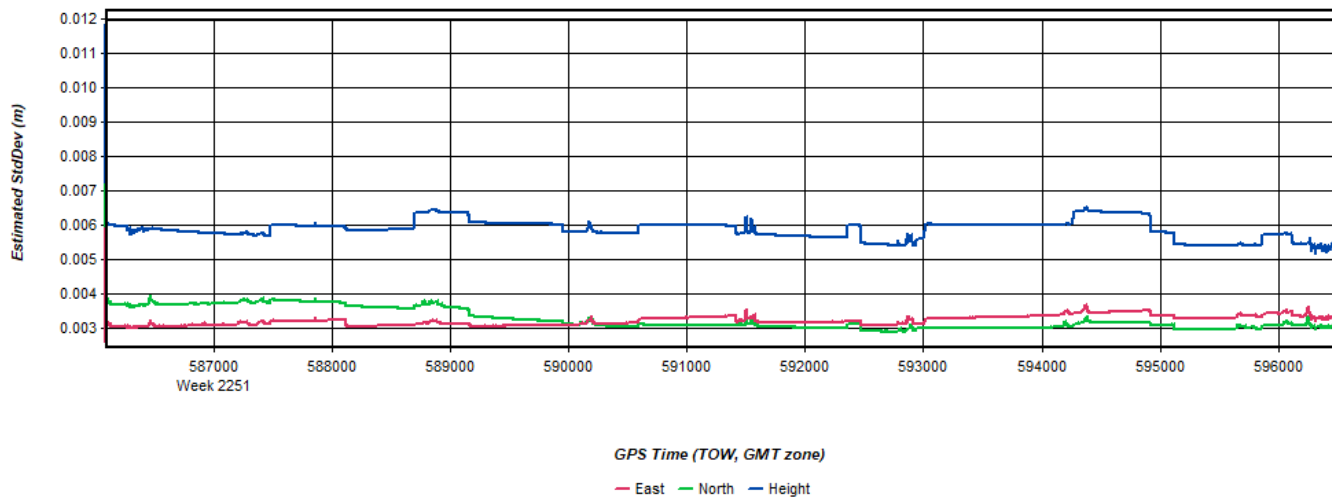
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 4: 20230304184714_25 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



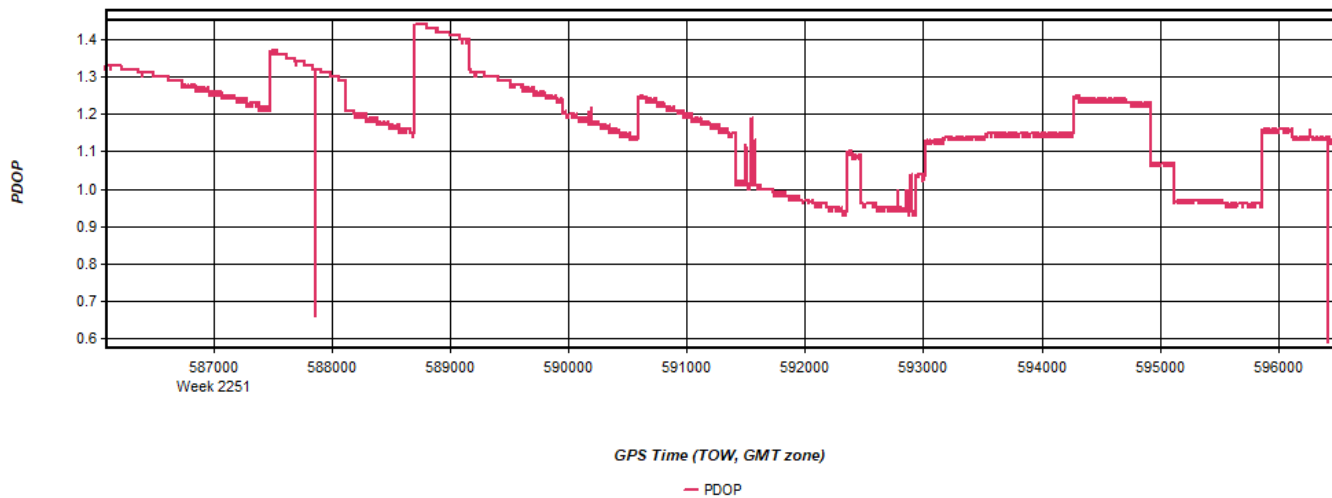
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 5: 20230304184714_25 [Smoothed TC Combined] - Estimated Position Accuracy Plot



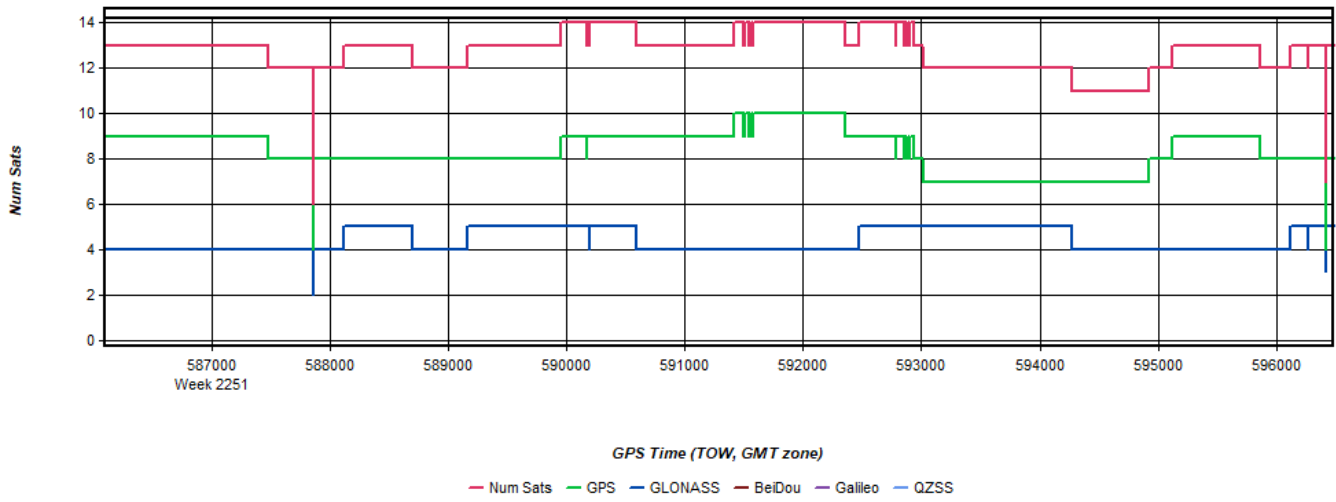
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 6: 20230304184714_25 [Smoothed TC Combined] - PDOP Plot



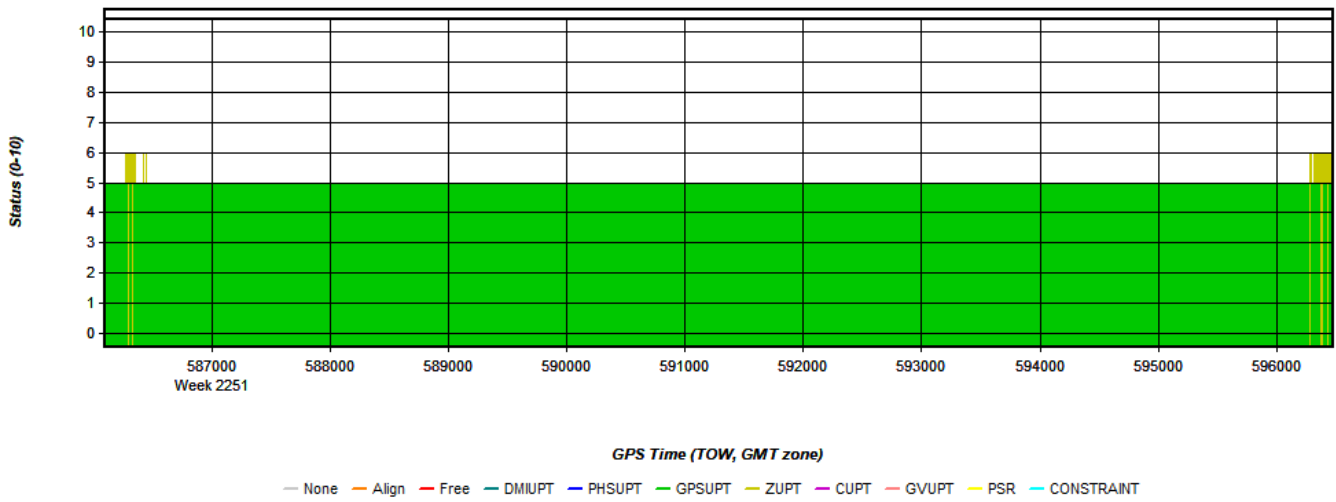
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 7: 20230304184714_25 [Smoothed TC Combined] - Number of Satellites Line Plot



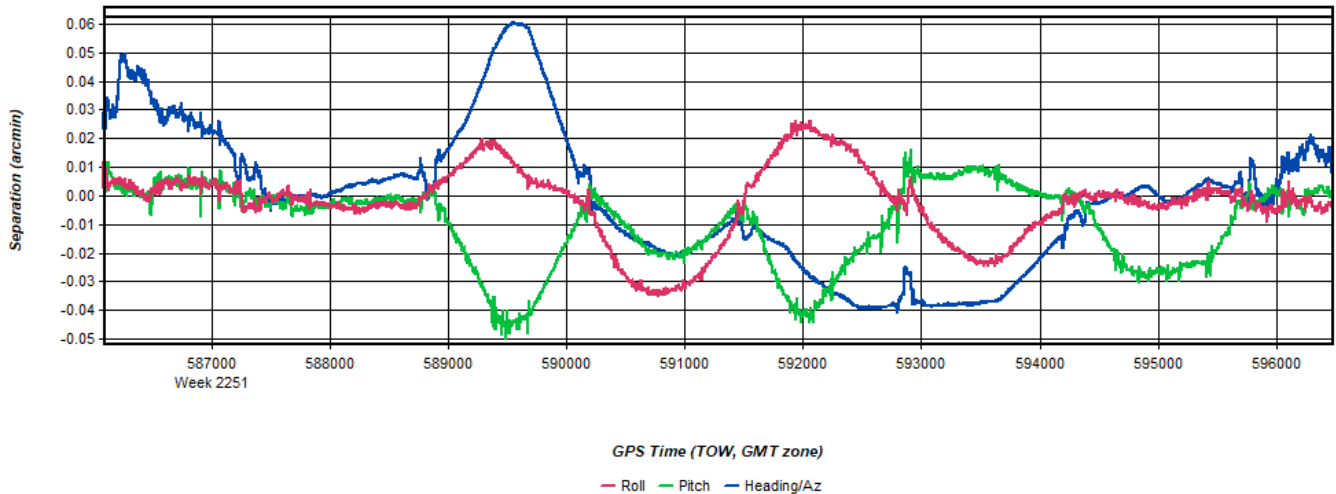
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 8: 20230304184714_25 [Smoothed TC Combined] - Status flag for IMU processing



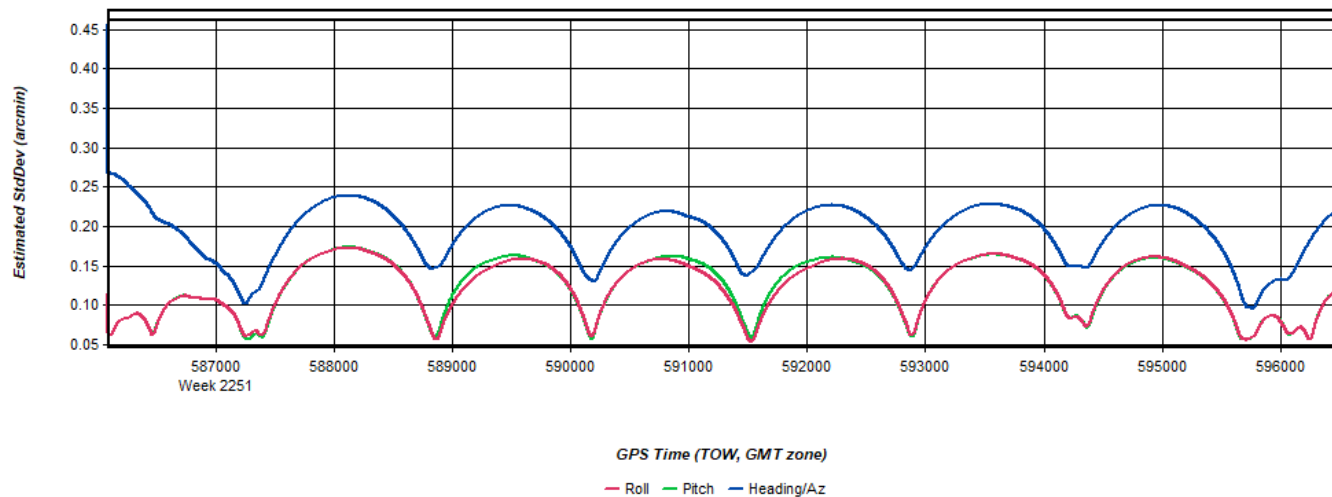
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 9: 20230304184714_25 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



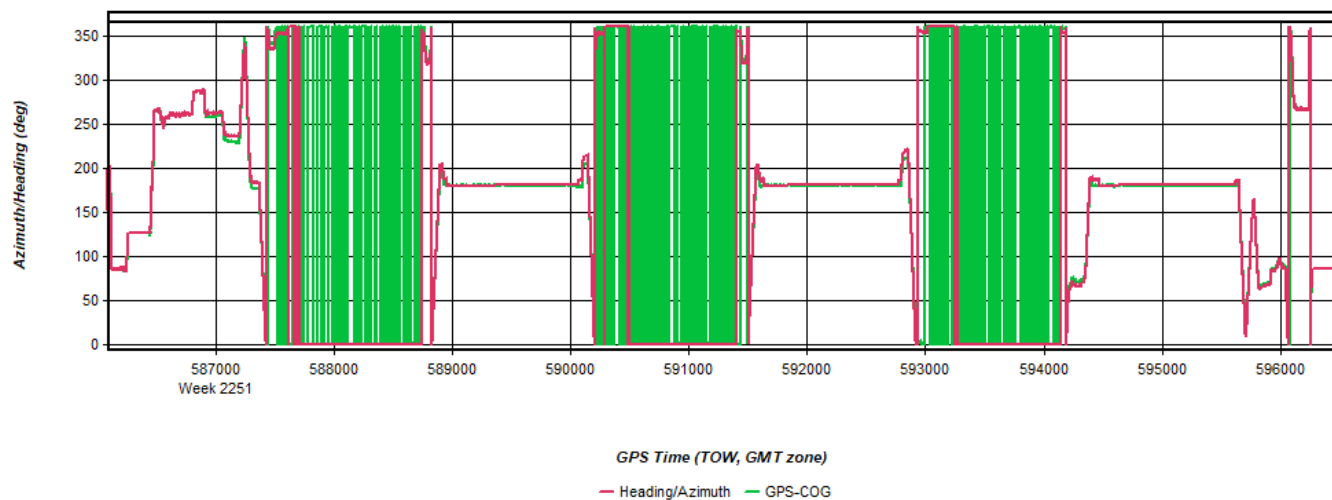
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 10: 20230304184714_25 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



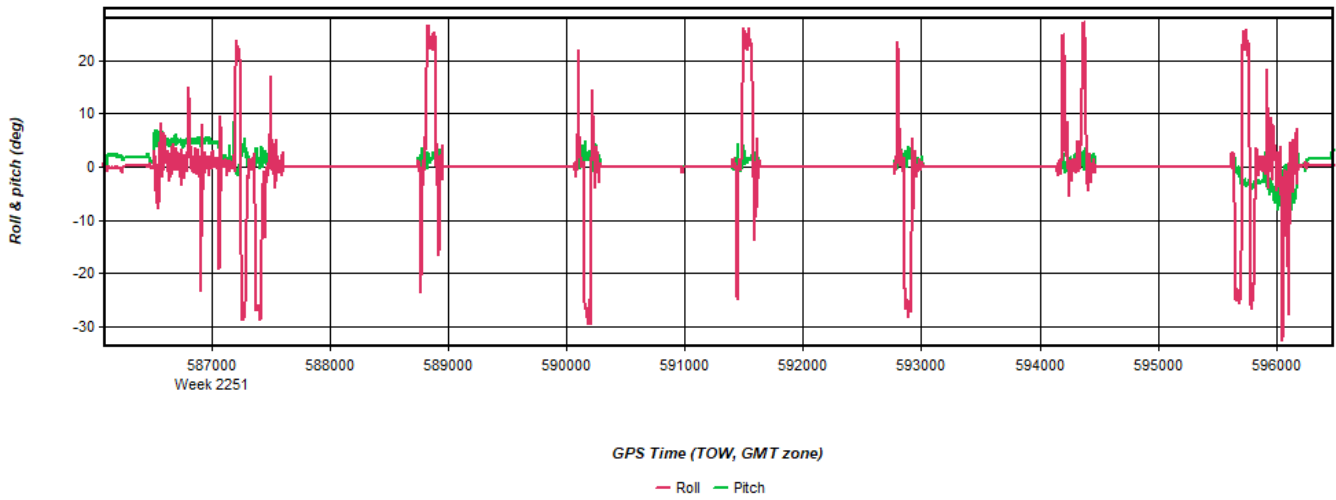
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 11: 20230304184714_25 [Smoothed TC Combined] - Azimuth Plot



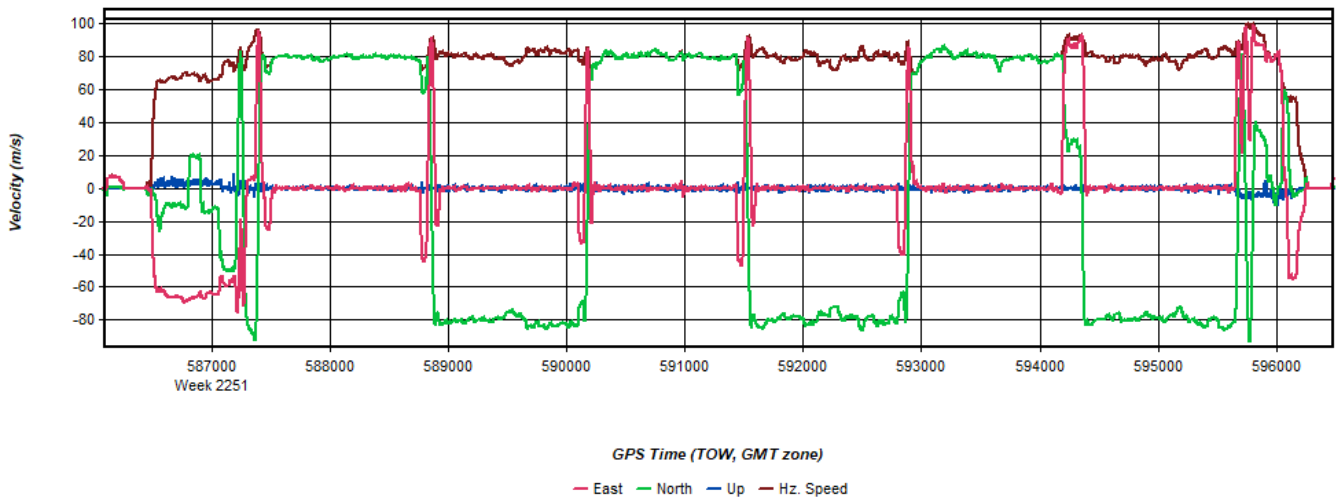
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 12: 20230304184714_25 [Smoothed TC Combined] - Roll & Pitch Plot



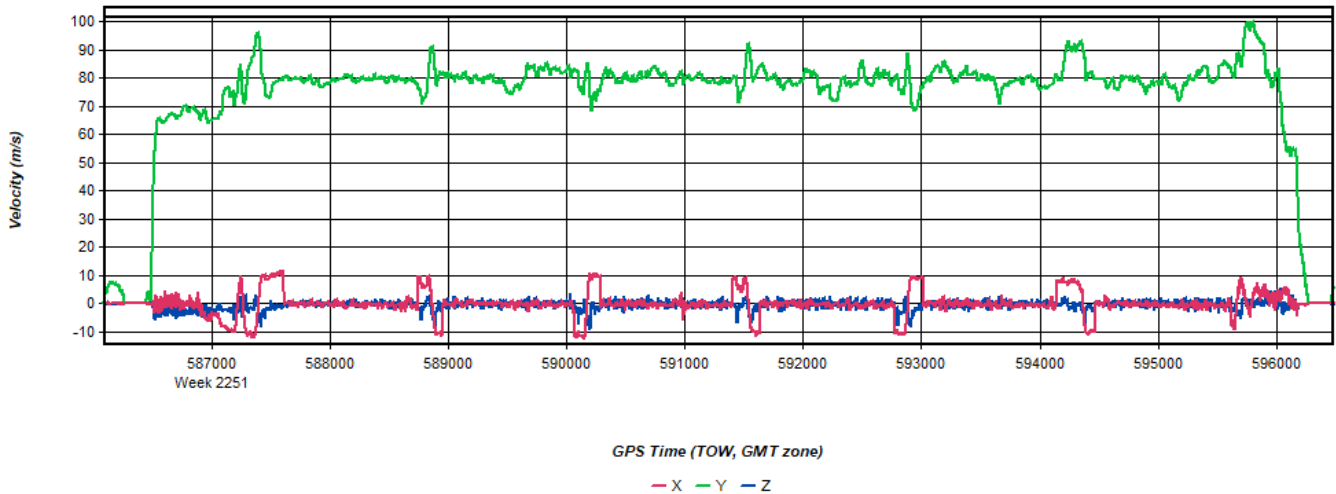
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 13: 20230304184714_25 [Smoothed TC Combined] - Velocity Profile Plot



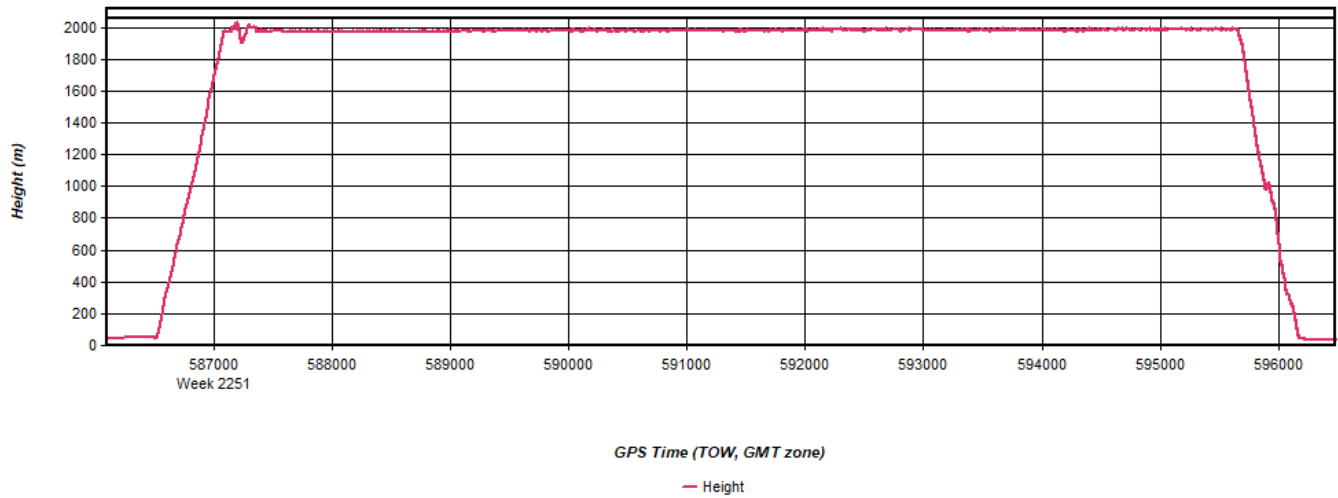
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 14: 20230304184714_25 [Smoothed TC Combined] - Body Frame Velocity Plot



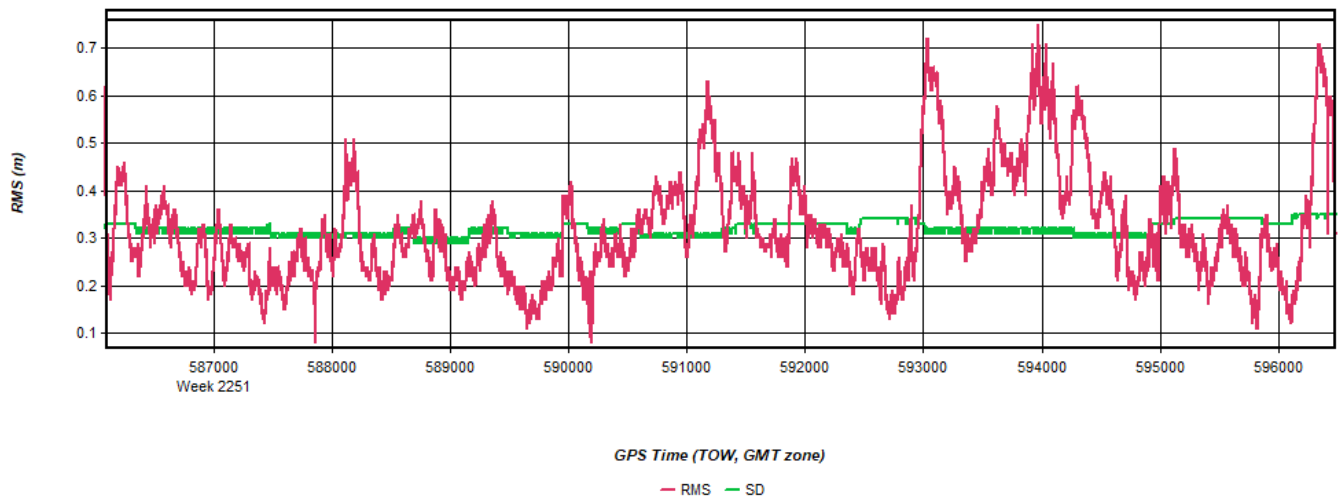
Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 15: 20230304184714_25 [Smoothed TC Combined] - Height Profile Plot



Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 16: 20230304184714_25 [Smoothed TC Combined] - C/A Code Residual RMS Plot



Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Figure 17: 20230304184714_25 [Smoothed TC Combined] - Carrier Residual RMS Plot

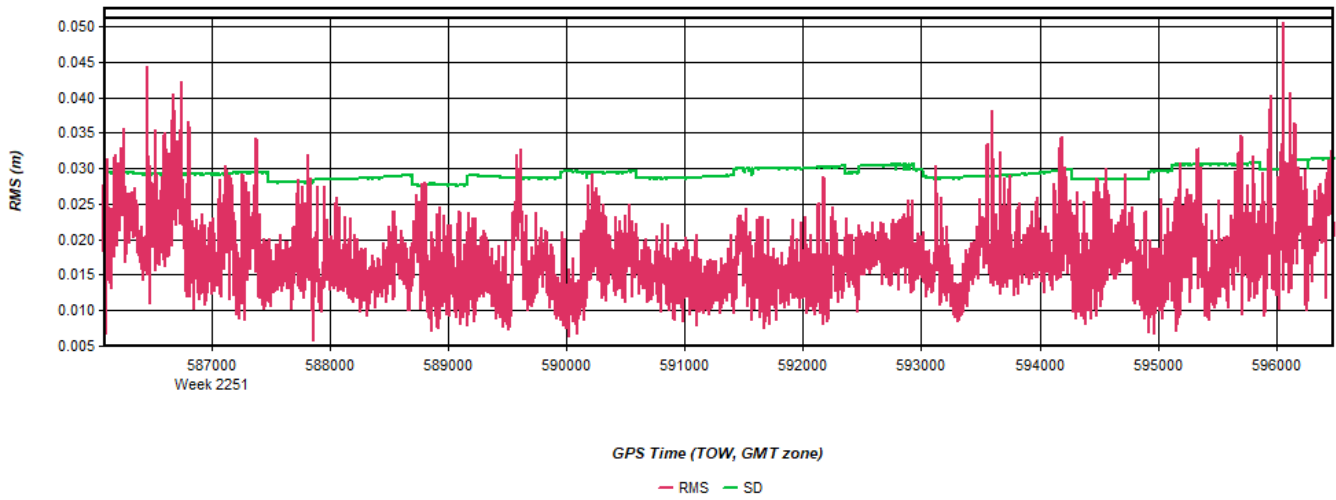


Figure 18: 20230304184714_25 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot

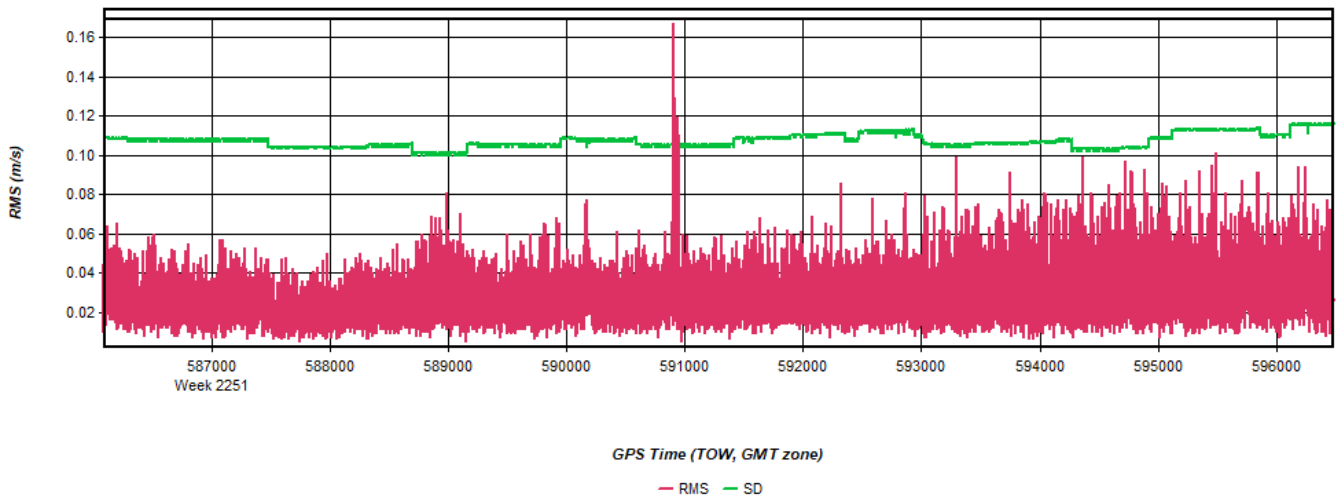


Figure 19: 20230304184714_25 [Smoothed TC Combined] - Accelerometer Bias Plot

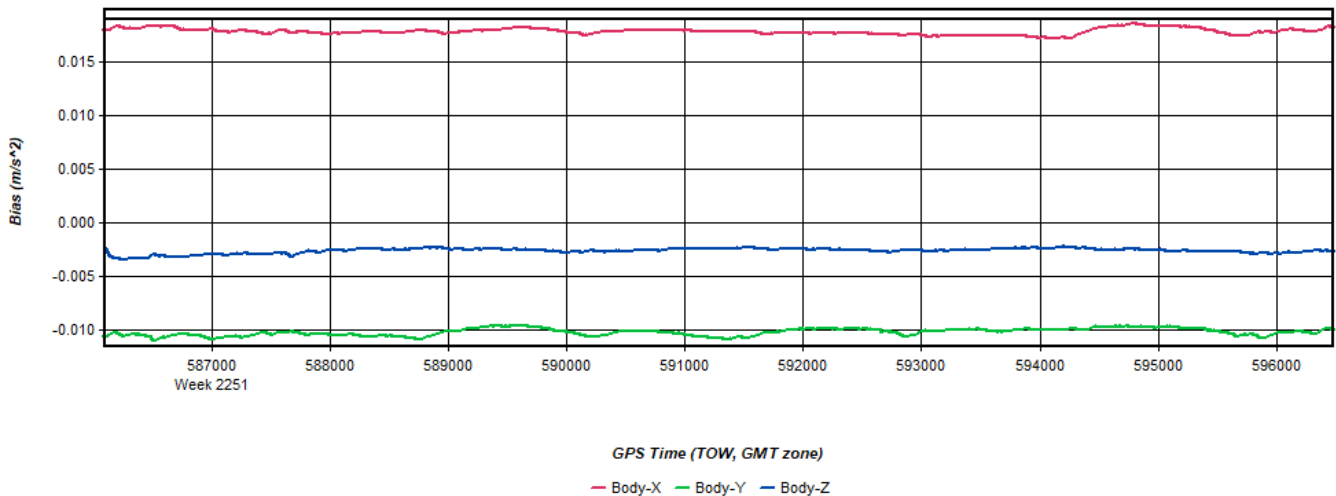
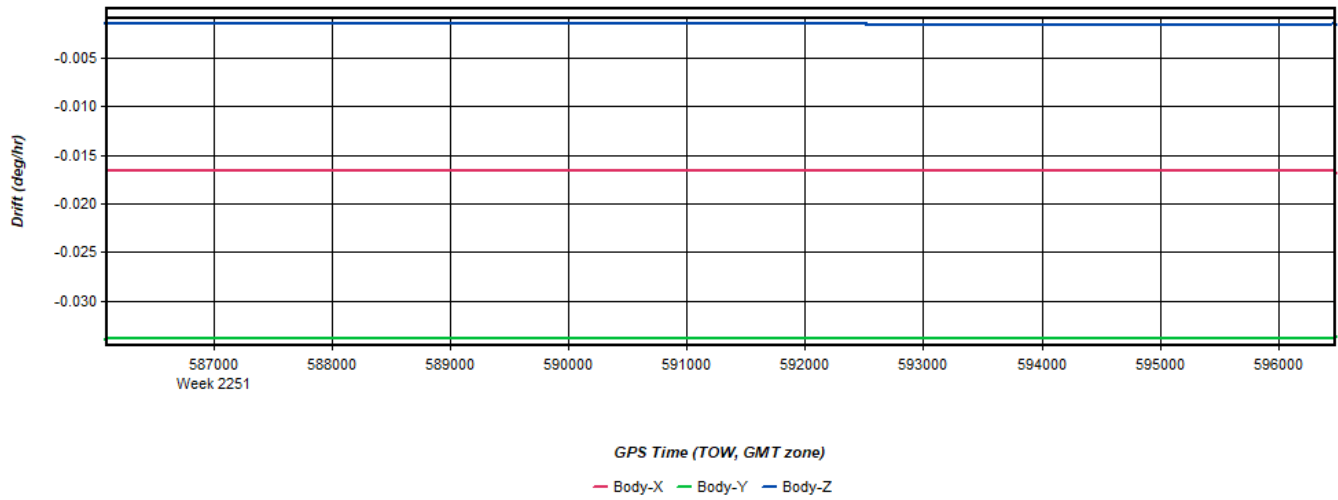


Figure 20: 20230304184714_25 [Smoothed TC Combined] - Gyro Drift Plot



Process	20230304184714_25	by Unknown	on 3/6/2023	at 16:07:35
---------	-------------------	------------	-------------	-------------

Output Results for 20230305133727_26

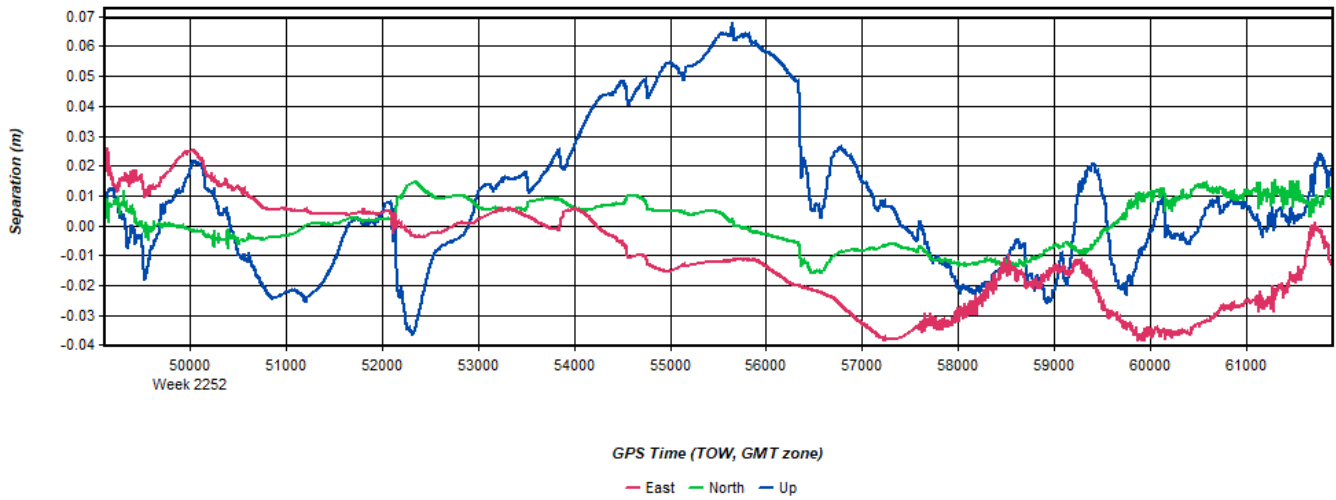
Inertial Explorer Version 8.90.2124
03/06/2023

Figure 1: Smoothed TC Combined - Map



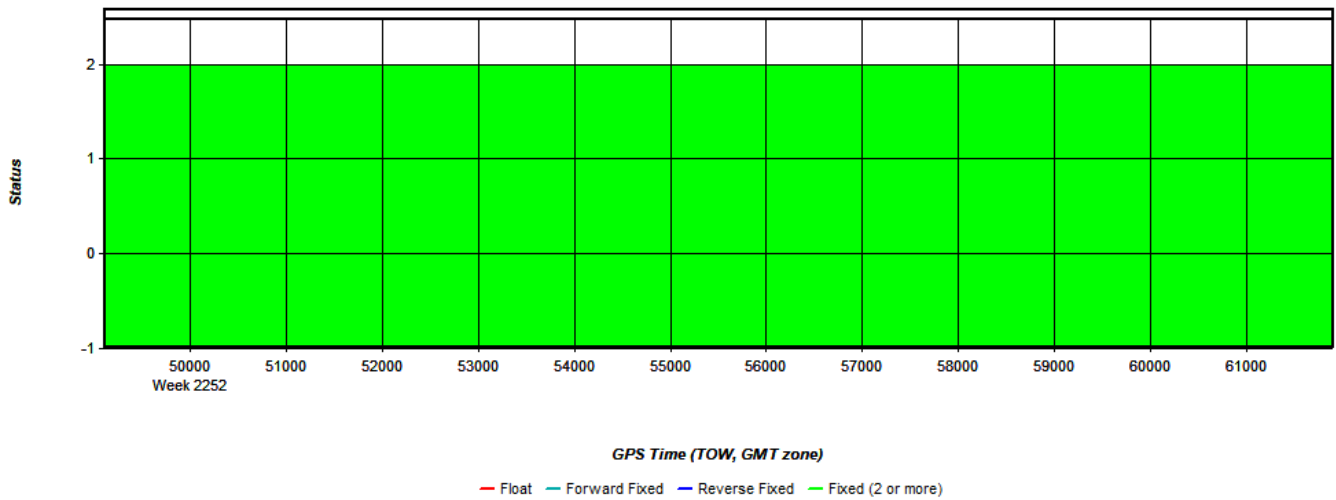
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 2: 20230305133727_26 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



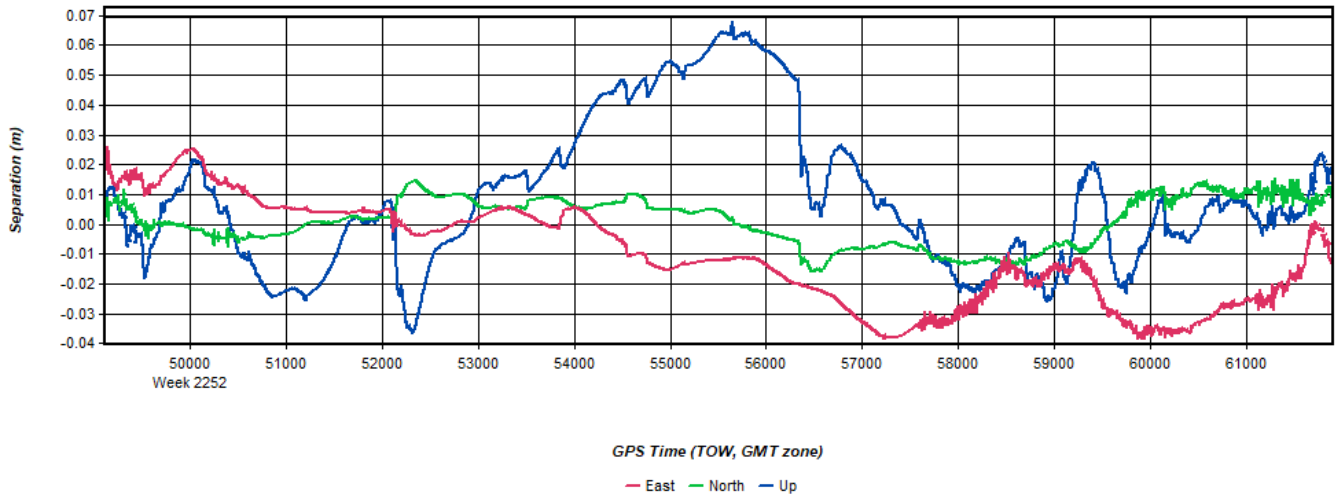
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 3: 20230305133727_26 [Smoothed TC Combined] - Float or Fixed Ambiguity



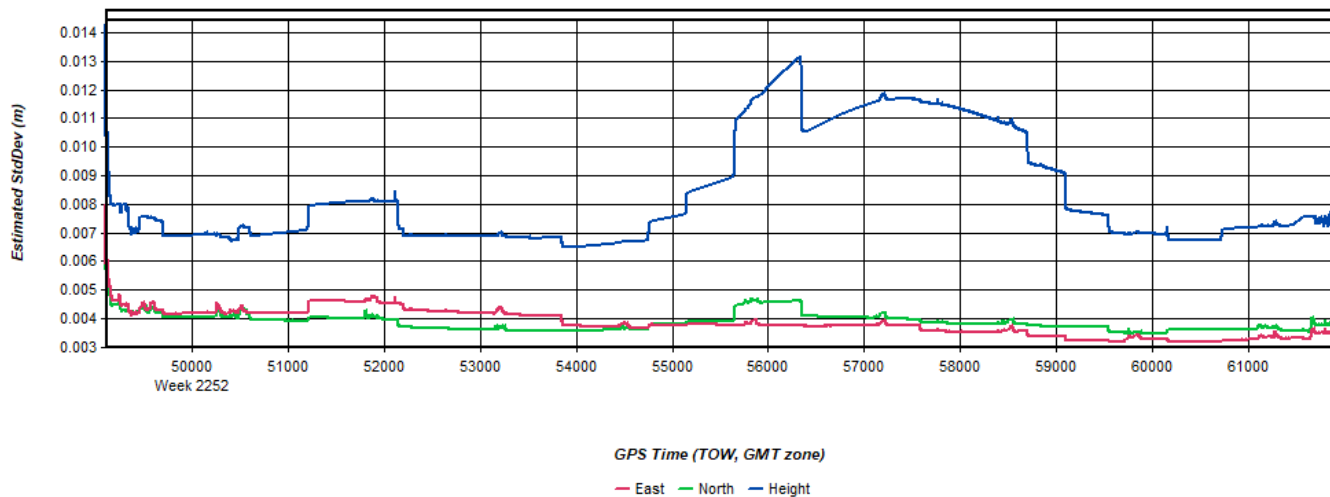
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 4: 20230305133727_26 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



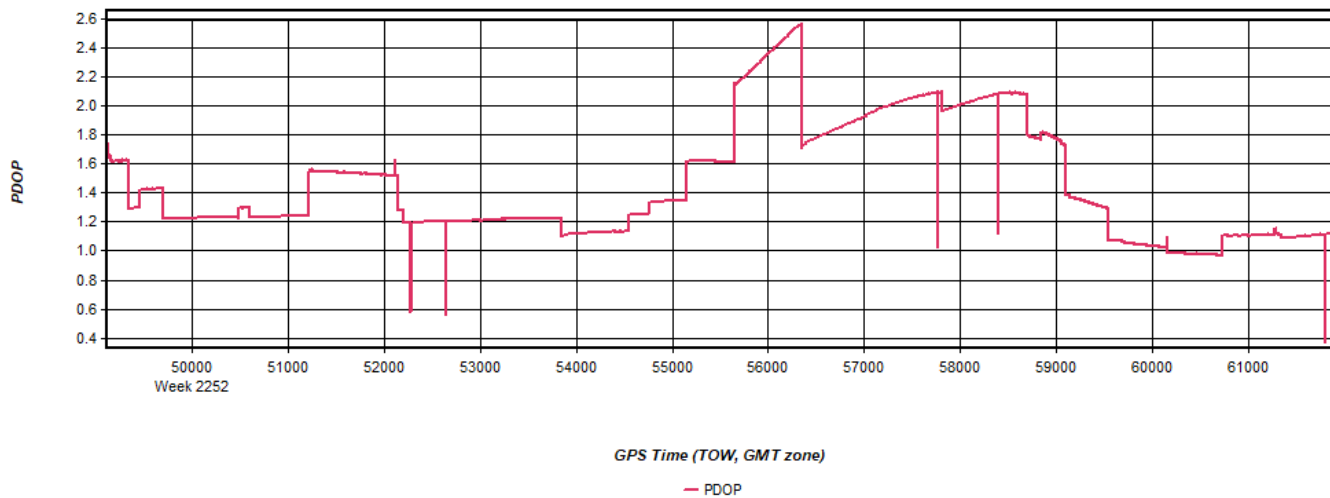
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 5: 20230305133727_26 [Smoothed TC Combined] - Estimated Position Accuracy Plot



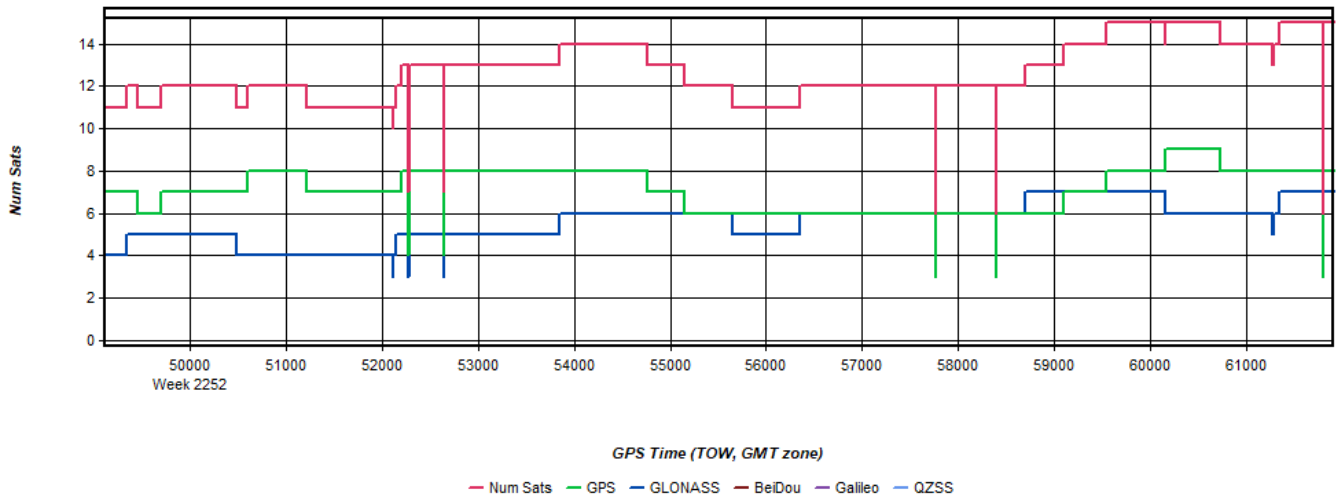
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 6: 20230305133727_26 [Smoothed TC Combined] - PDOP Plot



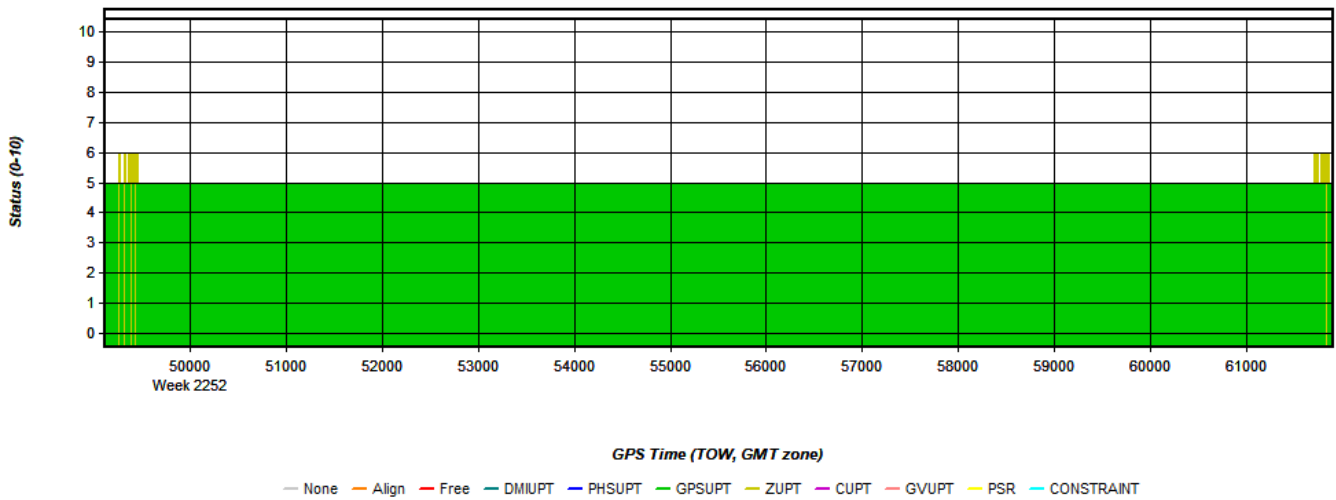
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 7: 20230305133727_26 [Smoothed TC Combined] - Number of Satellites Line Plot



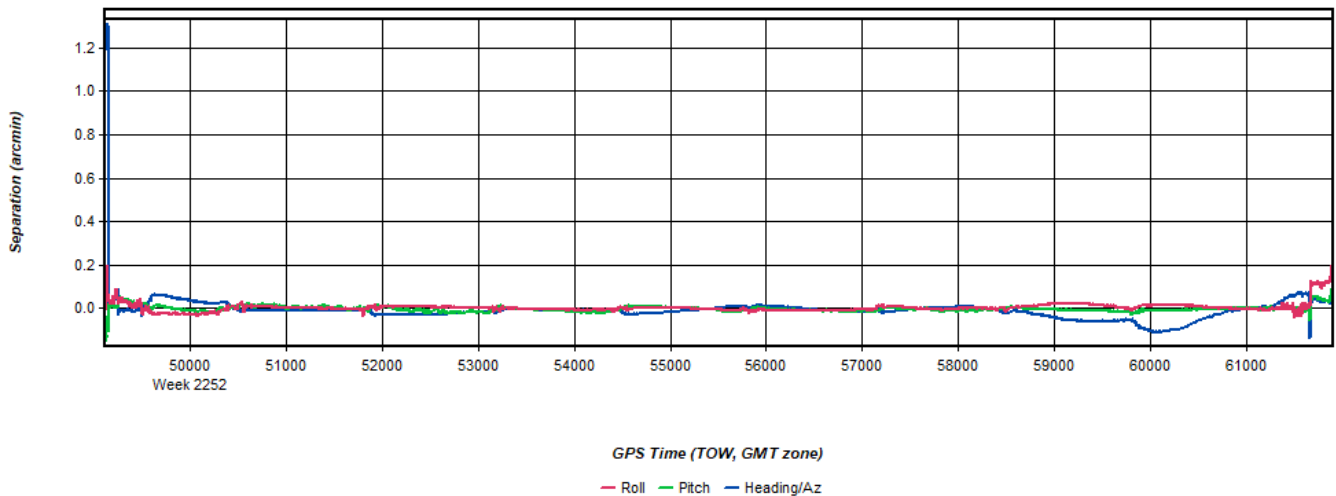
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 8: 20230305133727_26 [Smoothed TC Combined] - Status flag for IMU processing



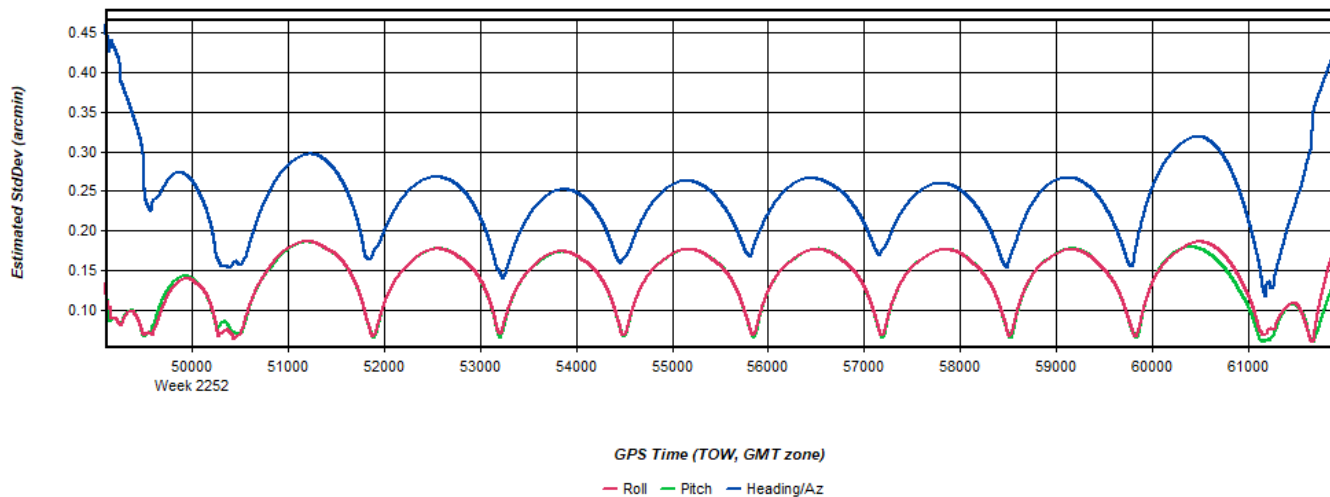
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 9: 20230305133727_26 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot



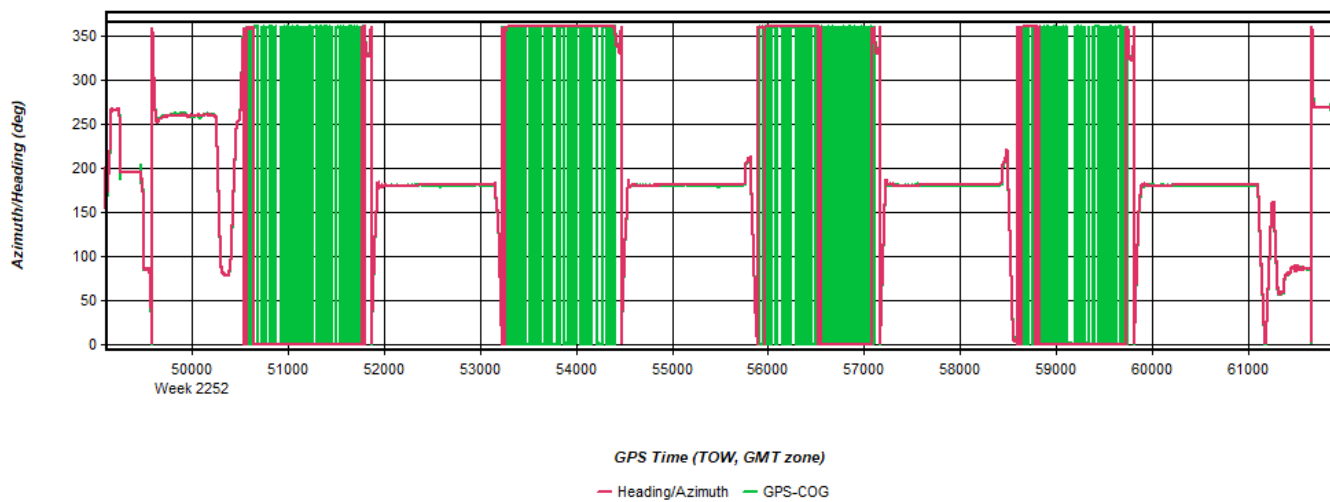
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 10: 20230305133727_26 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



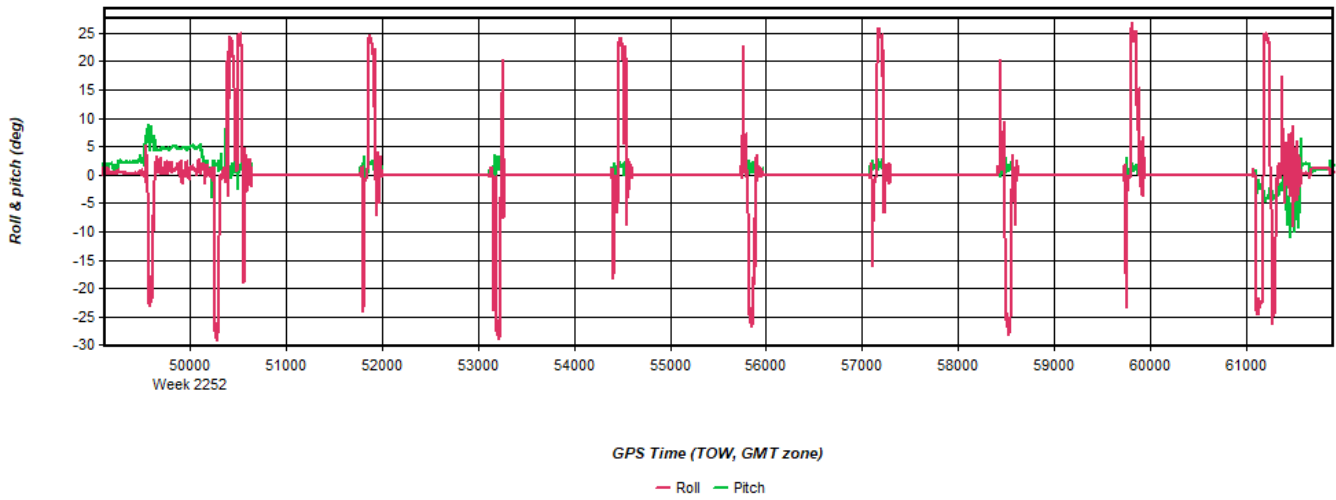
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 11: 20230305133727_26 [Smoothed TC Combined] - Azimuth Plot



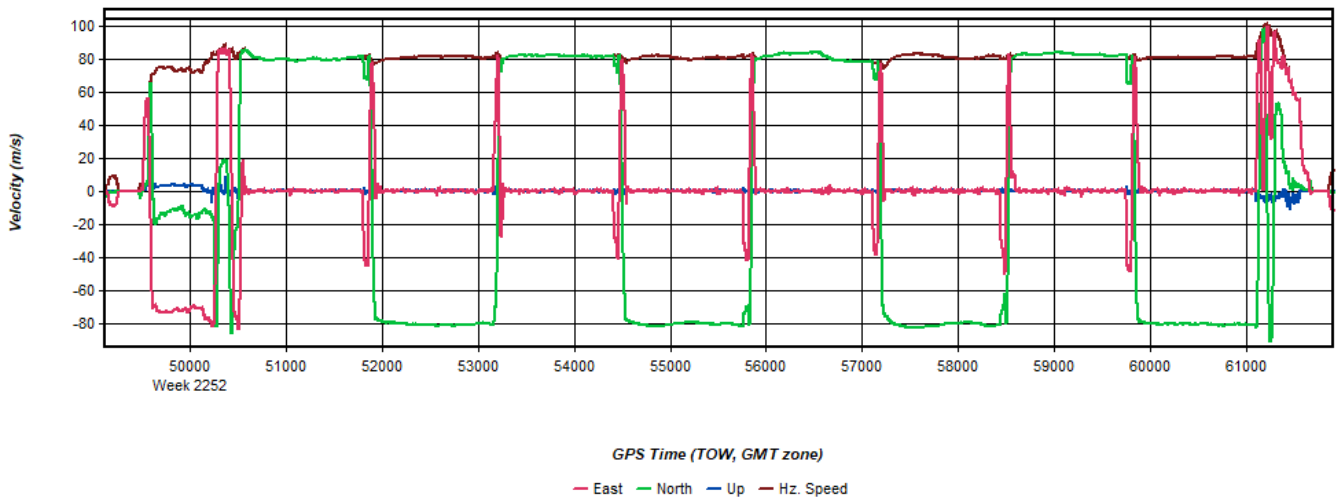
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 12: 20230305133727_26 [Smoothed TC Combined] - Roll & Pitch Plot



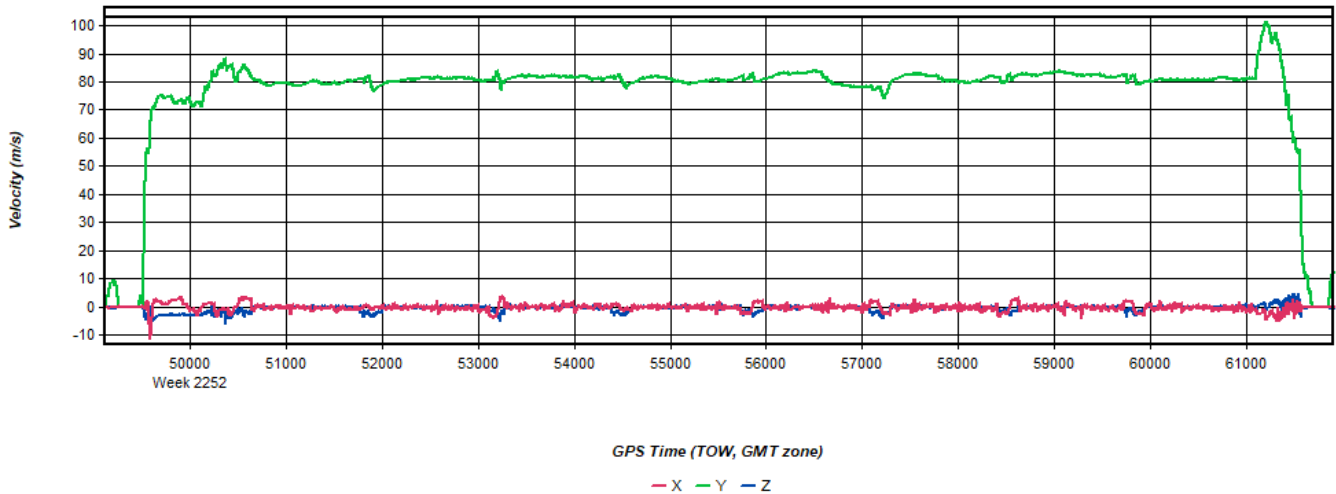
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 13: 20230305133727_26 [Smoothed TC Combined] - Velocity Profile Plot



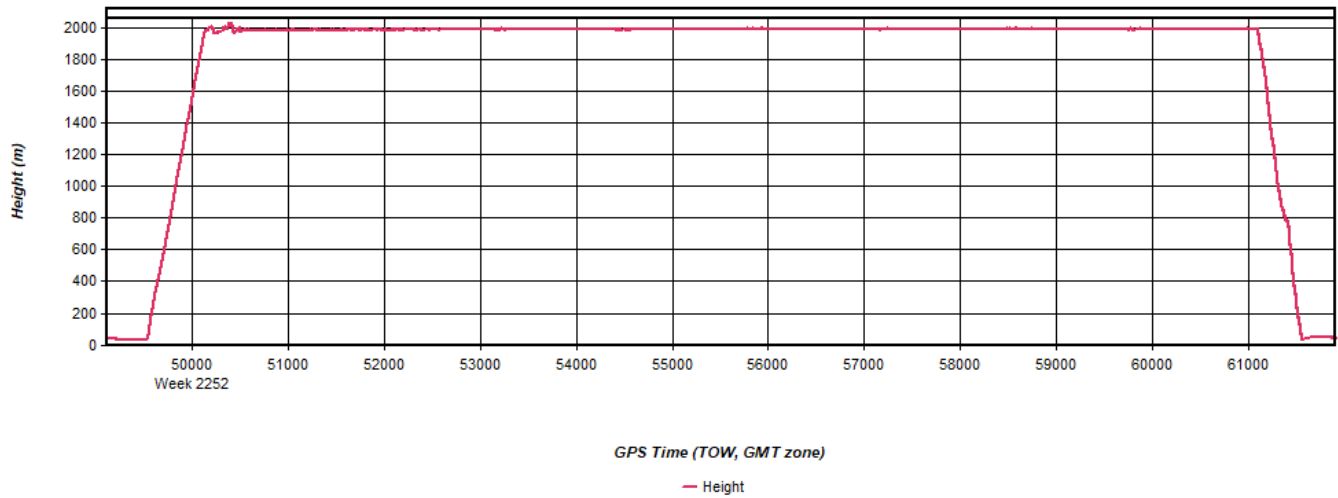
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 14: 20230305133727_26 [Smoothed TC Combined] - Body Frame Velocity Plot



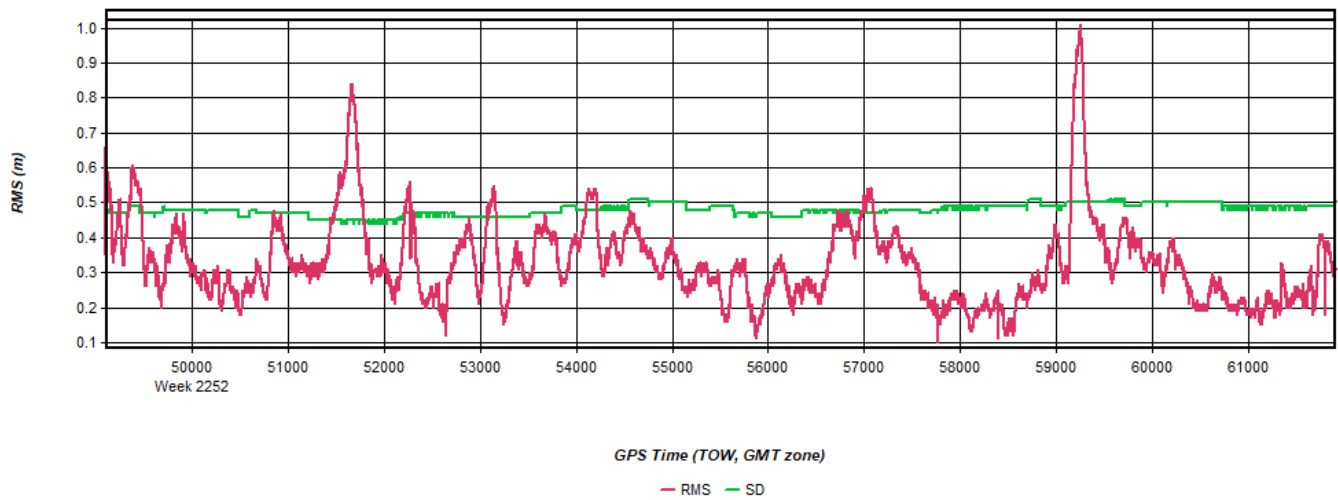
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 15: 20230305133727_26 [Smoothed TC Combined] - Height Profile Plot



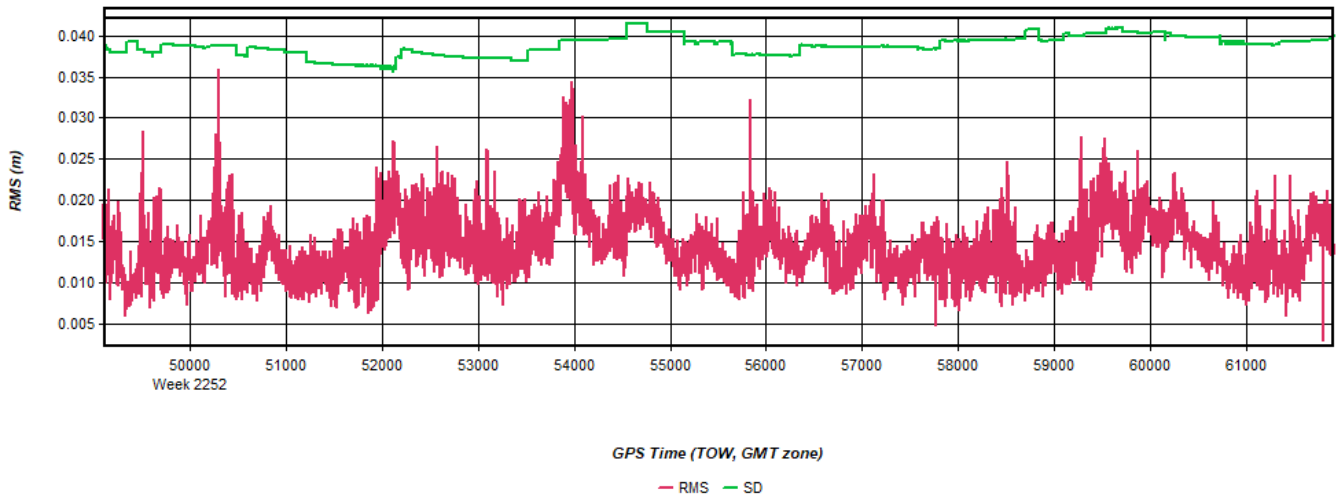
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 16: 20230305133727_26 [Smoothed TC Combined] - C/A Code Residual RMS Plot



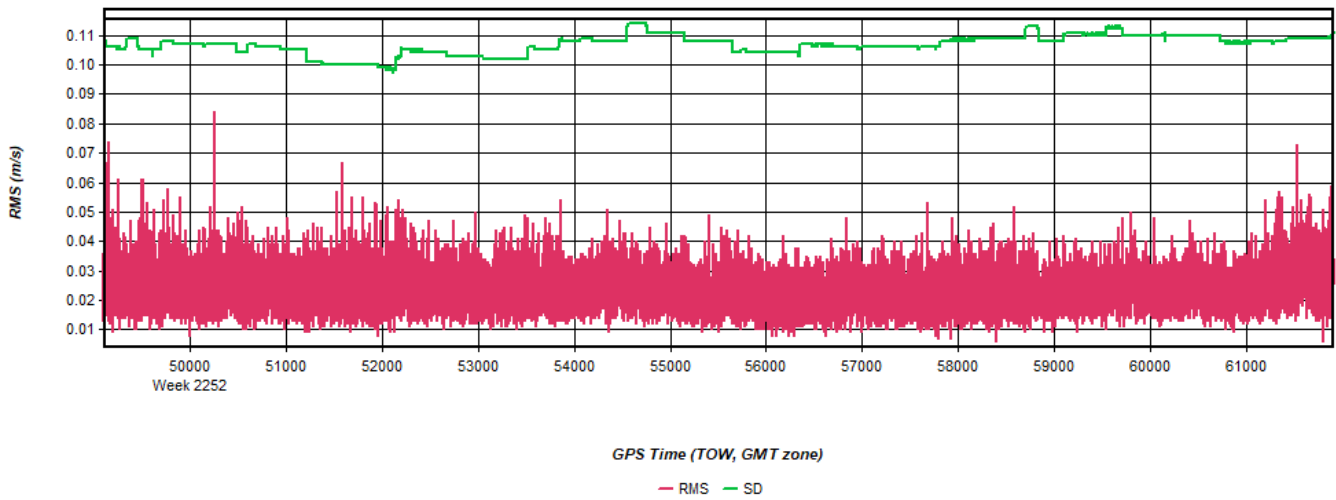
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 17: 20230305133727_26 [Smoothed TC Combined] - Carrier Residual RMS Plot



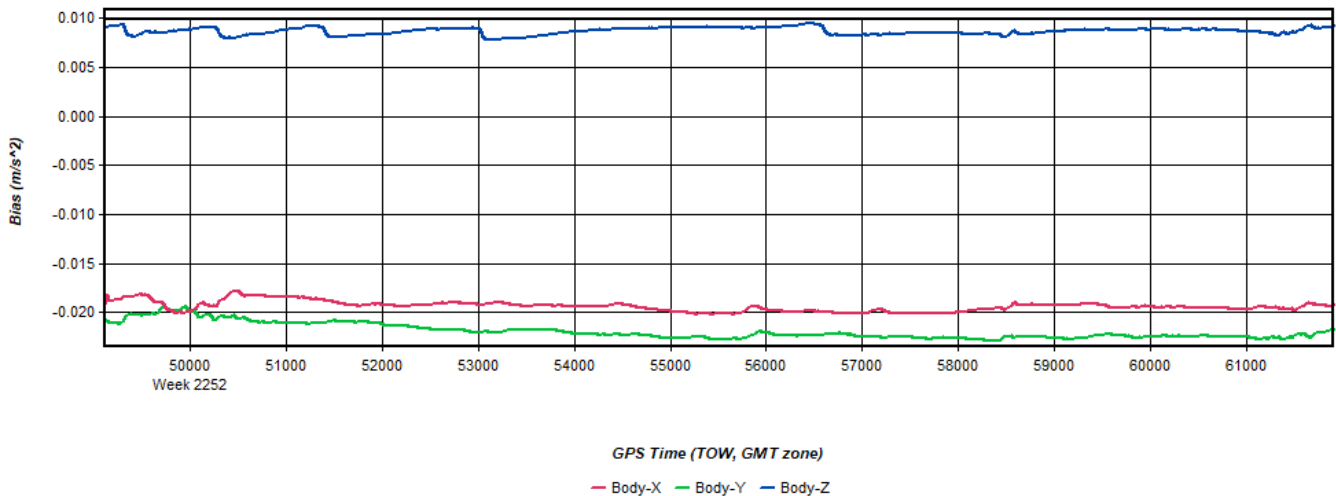
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 18: 20230305133727_26 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



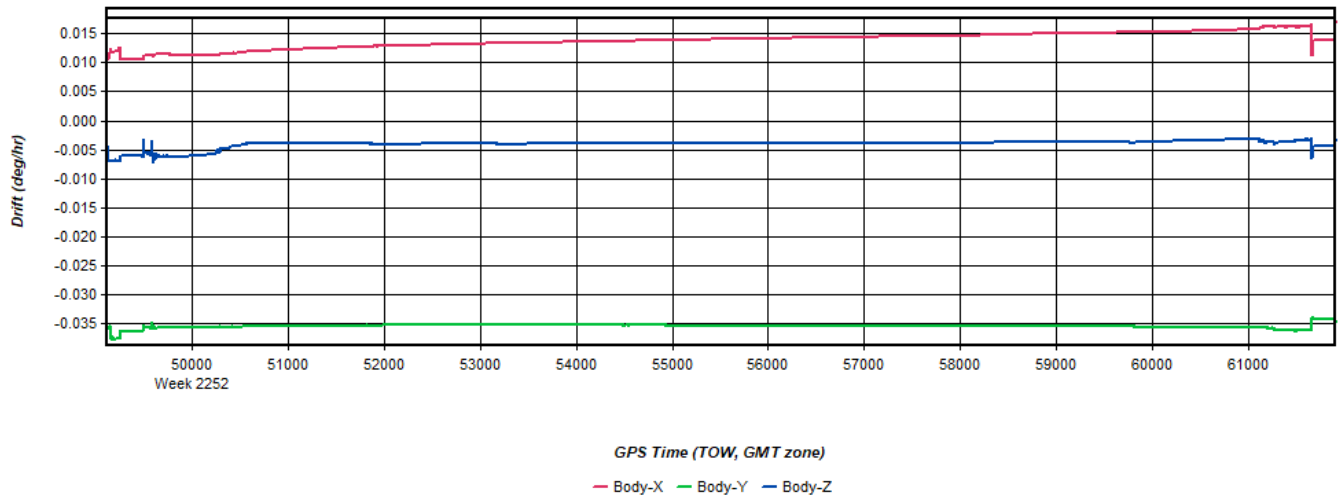
Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 19: 20230305133727_26 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Figure 20: 20230305133727_26 [Smoothed TC Combined] - Gyro Drift Plot



Process	20230305133727_26	by Unknown	on 3/6/2023	at 15:40:18
---------	-------------------	------------	-------------	-------------

Output Results for 20230305174239_27

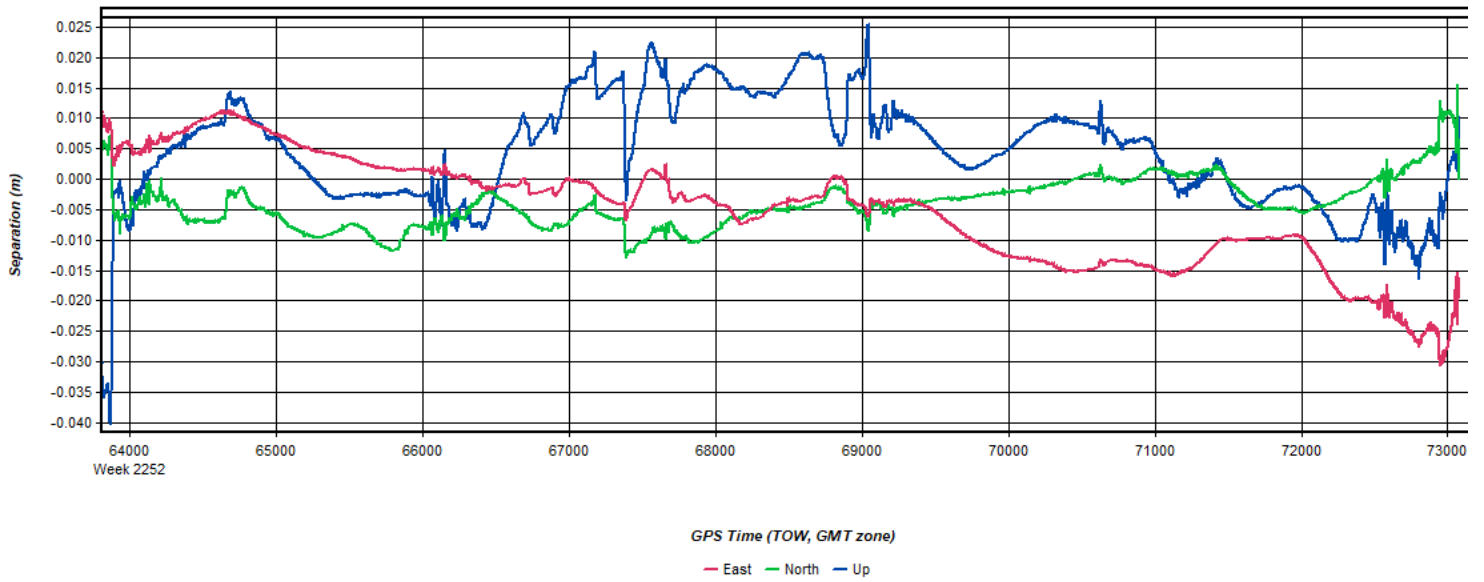
Inertial Explorer Version 8.90.6611
03/06/2023

Figure 1: Smoothed TC Combined - Map



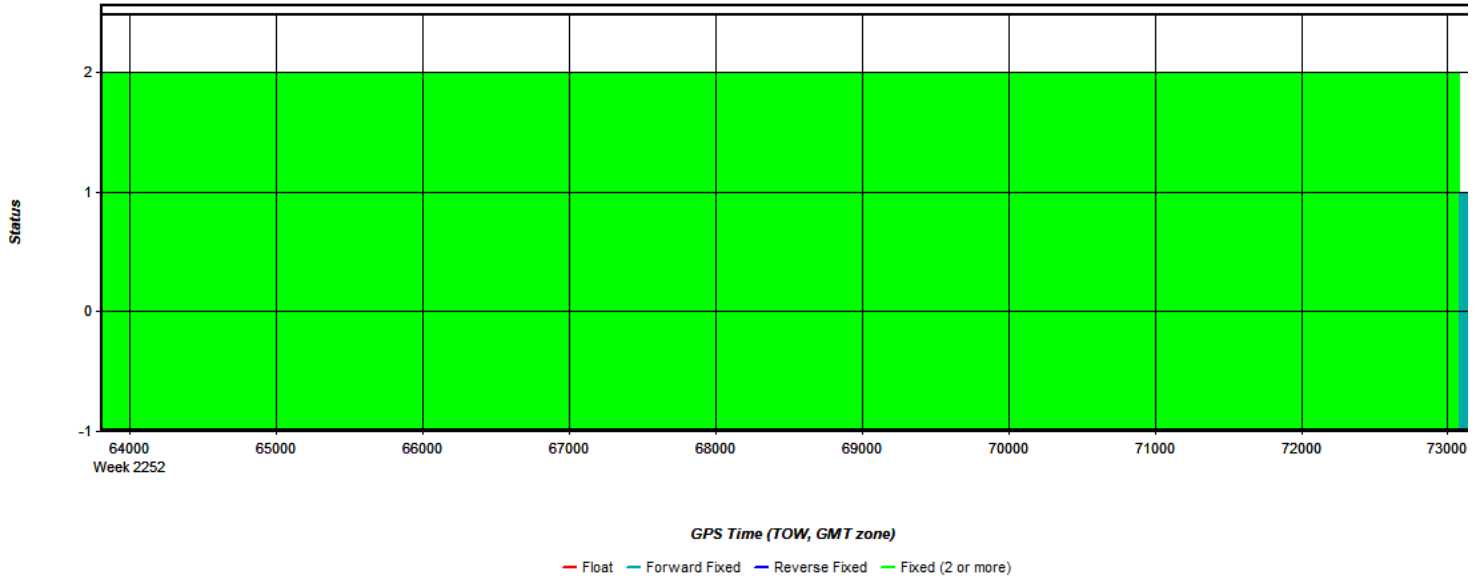
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 2: 20230305174239_27 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



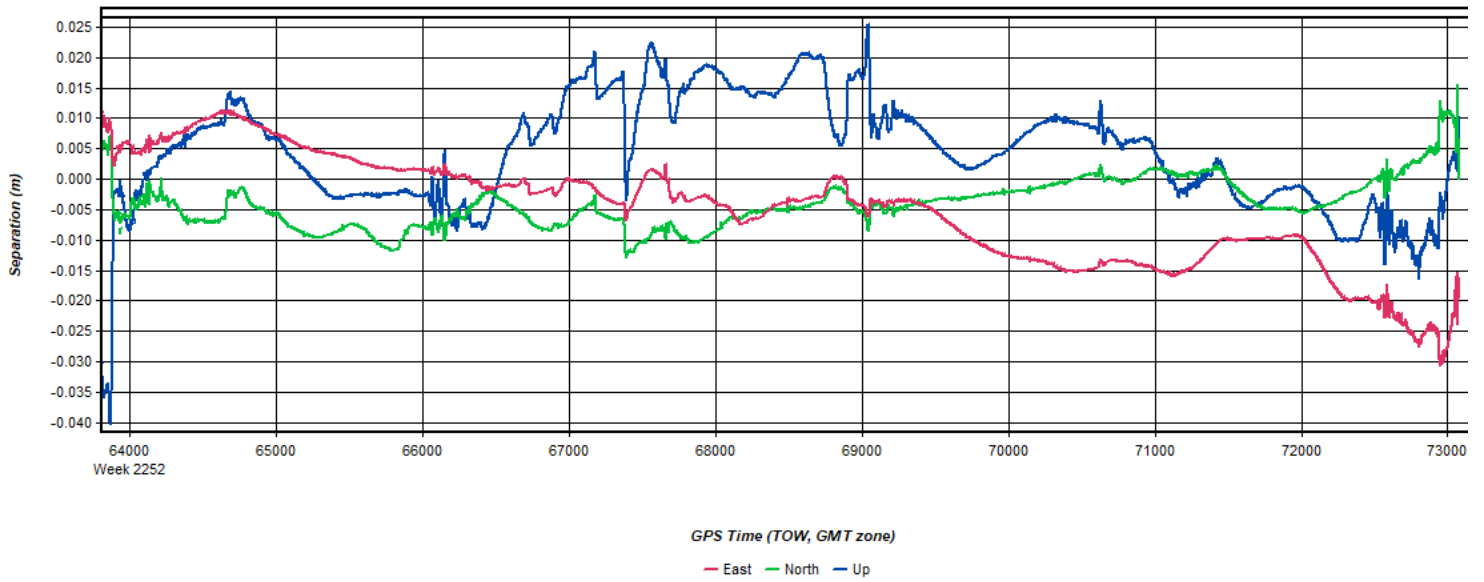
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 3: 20230305174239_27 [Smoothed TC Combined] - Float or Fixed Ambiguity



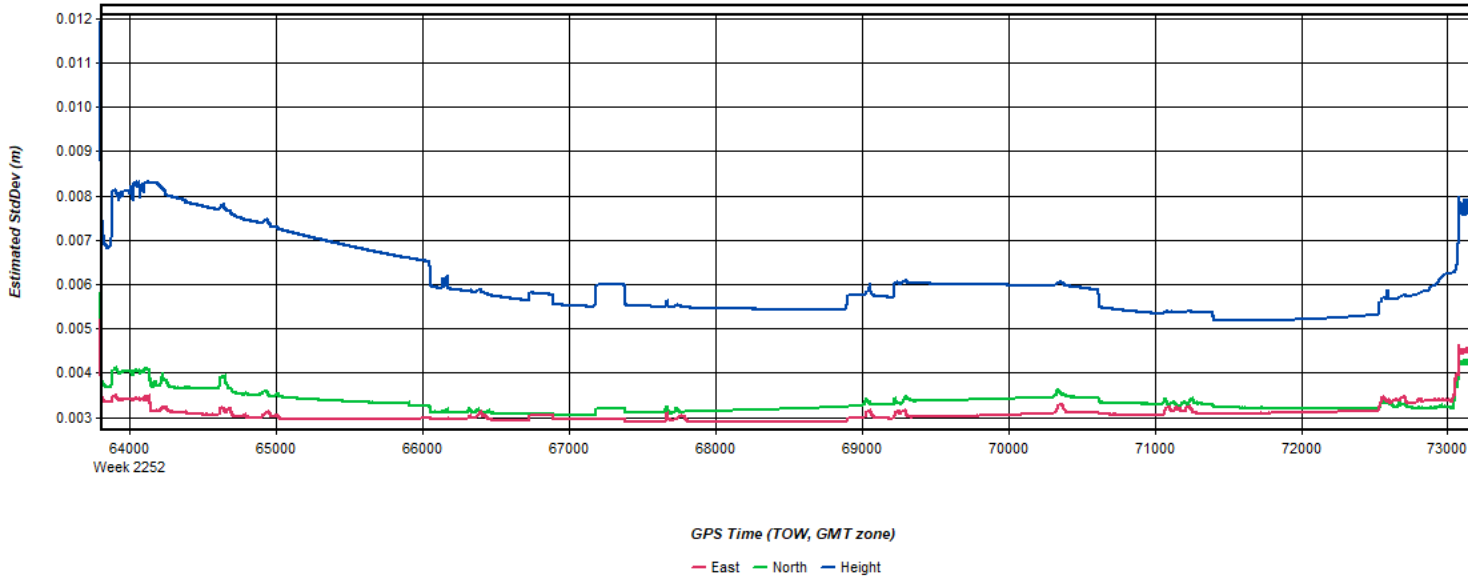
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 4: 20230305174239_27 [Smoothed TC Combined] - Forward/Reverse Separation Plot (Fixed)



Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 5: 20230305174239_27 [Smoothed TC Combined] - Estimated Position Accuracy Plot



Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 6: 20230305174239_27 [Smoothed TC Combined] - PDOP Plot

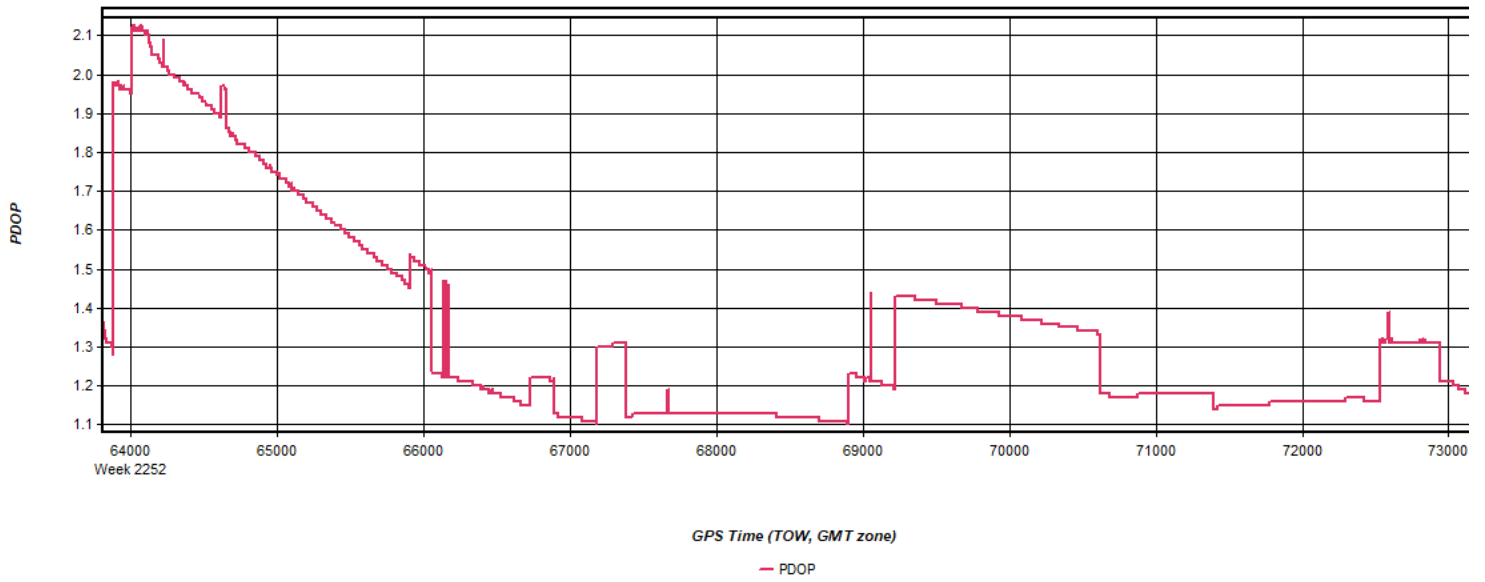


Figure 7: 20230305174239_27 [Smoothed TC Combined] - Number of Satellites Line Plot

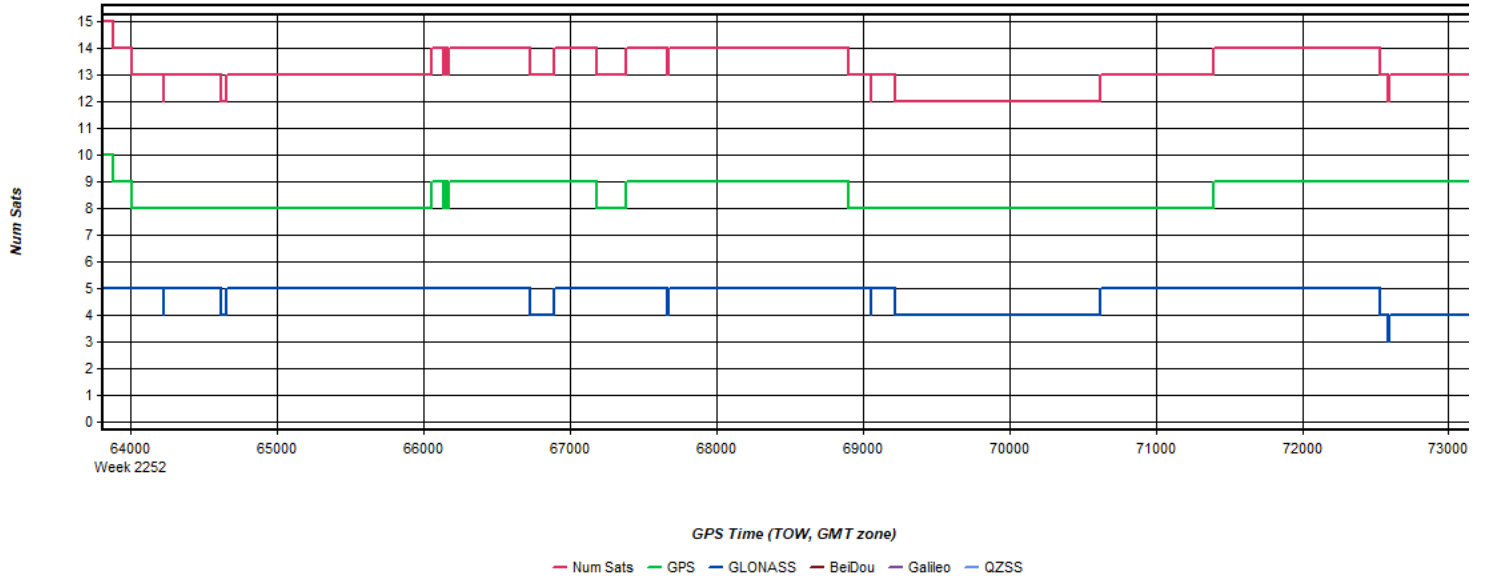
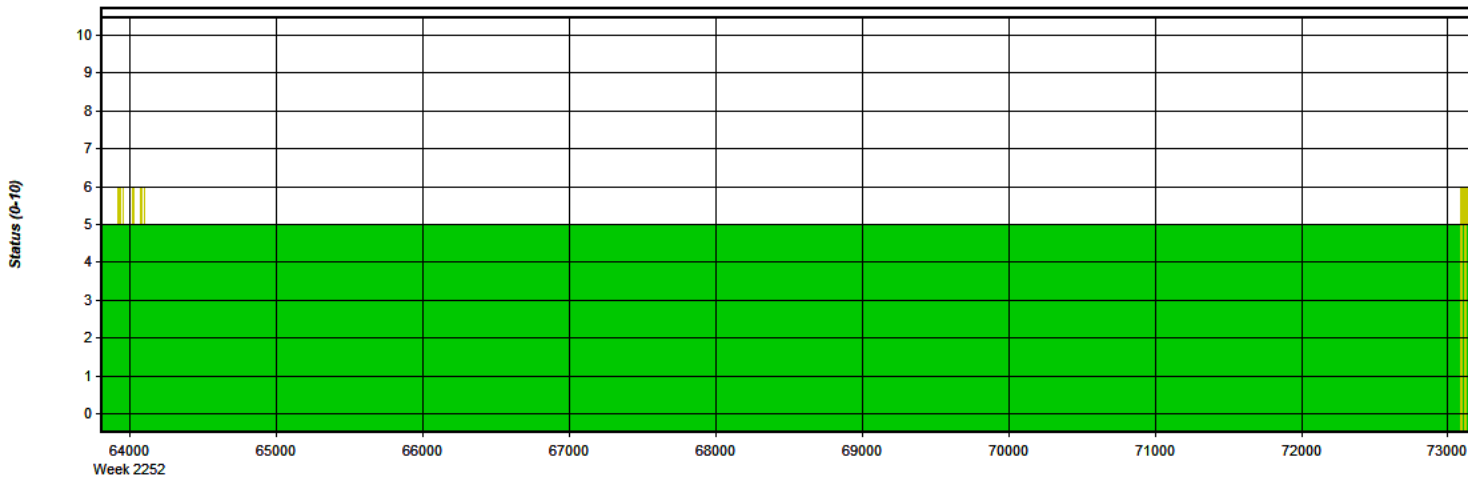


Figure 8: 20230305174239_27 [Smoothed TC Combined] - Status flag for IMU processing

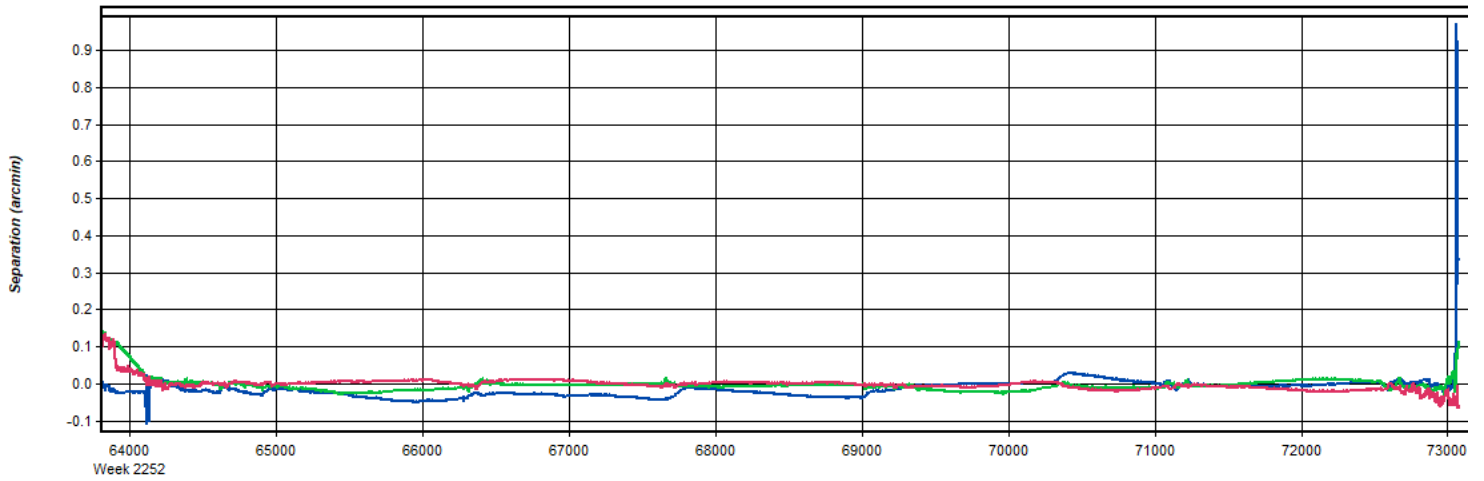


GPS Time (TOW, GMT zone)

— None — Align — Free — DMUIPT — PHSUPT — GPSUPT — ZUPT — CUPT — GVUPT — PSR — CONSTRAINT

Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 9: 20230305174239_27 [Smoothed TC Combined] - Fwd/Rev Attitude Separation Plot

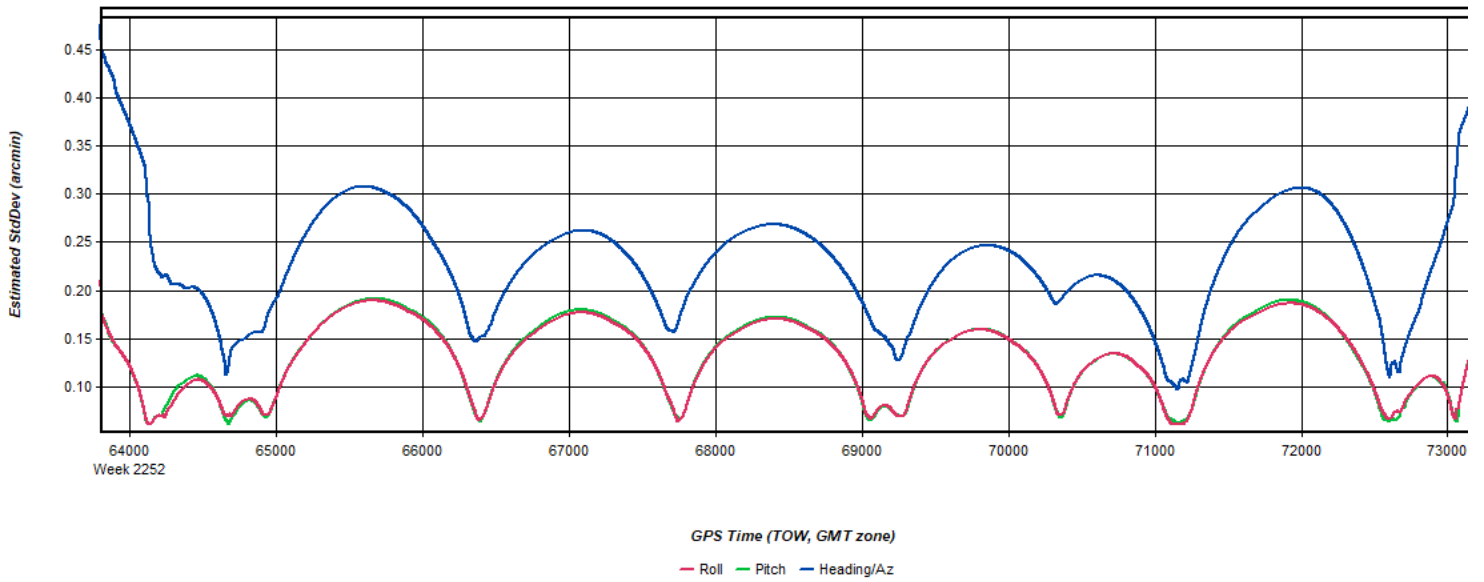


GPS Time (TOW, GMT zone)

— Roll — Pitch — Heading/Az

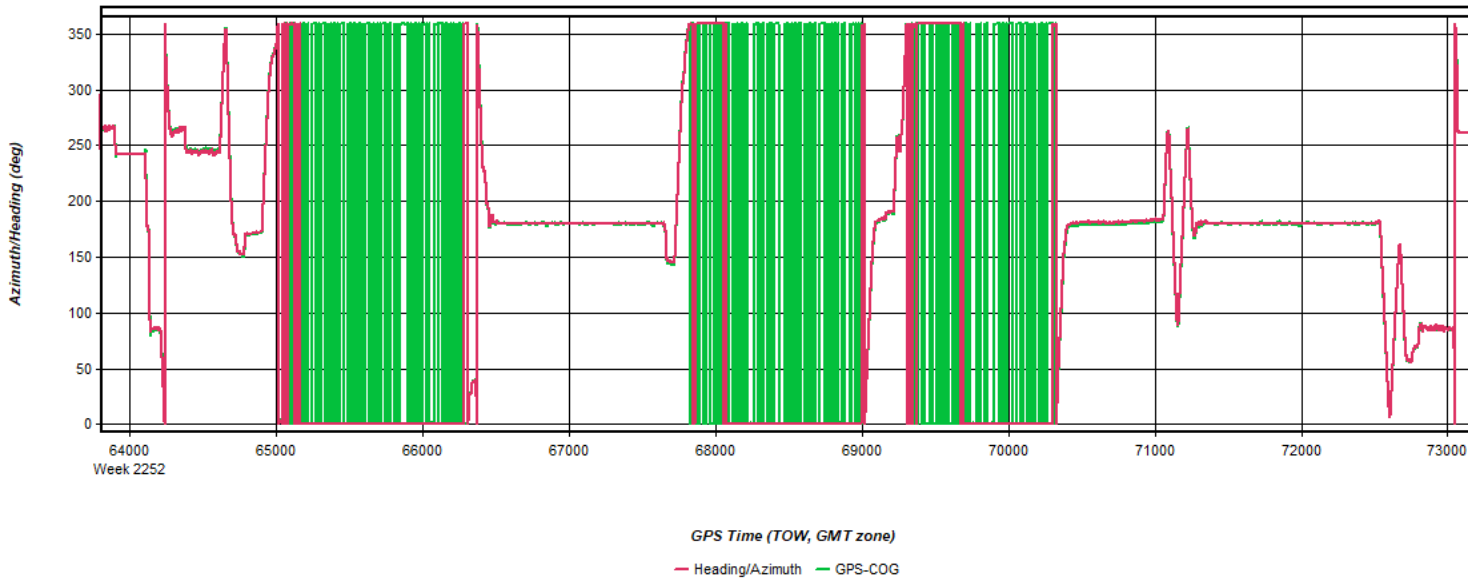
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 10: 20230305174239_27 [Smoothed TC Combined] - Estimated Attitude Accuracy Plot



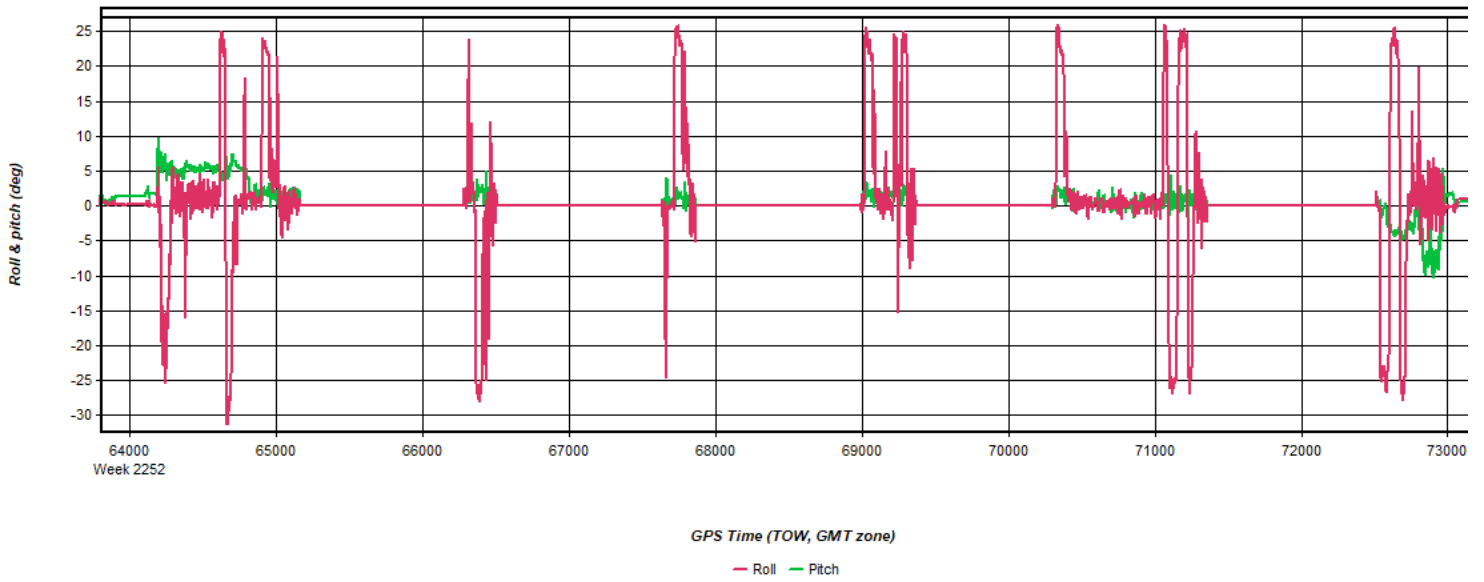
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 11: 20230305174239_27 [Smoothed TC Combined] - Azimuth Plot



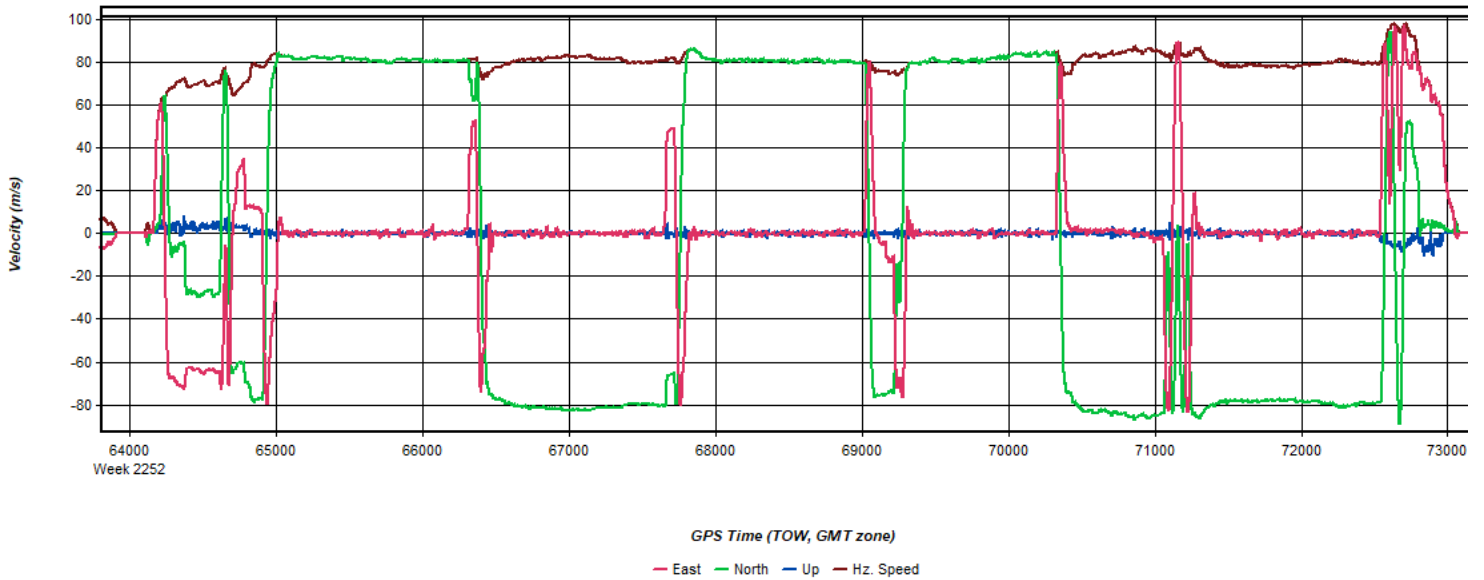
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 12: 20230305174239_27 [Smoothed TC Combined] - Roll & Pitch Plot



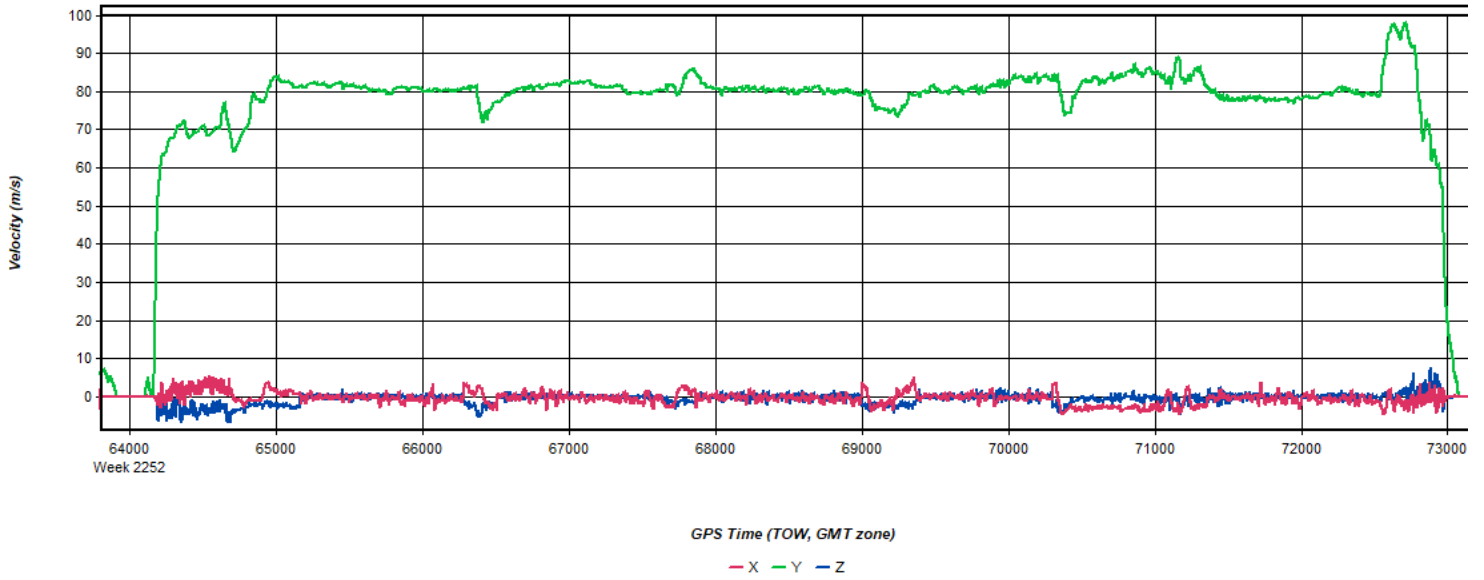
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 13: 20230305174239_27 [Smoothed TC Combined] - Velocity Profile Plot



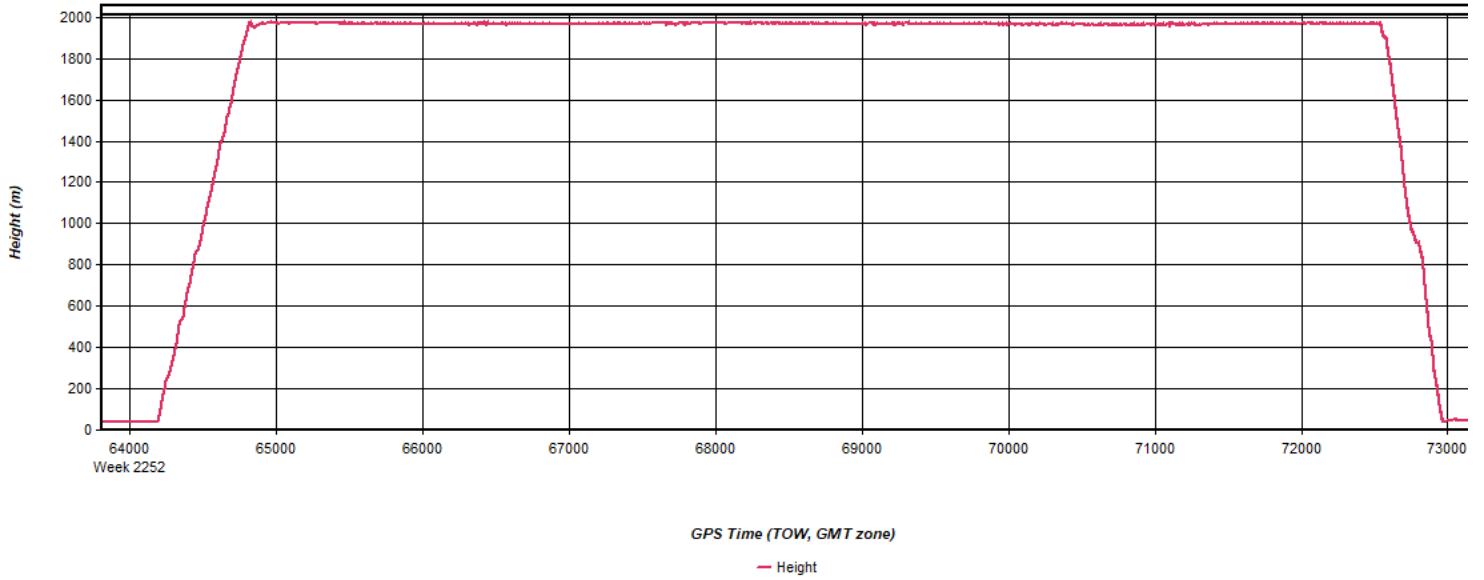
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 14: 20230305174239_27 [Smoothed TC Combined] - Body Frame Velocity Plot



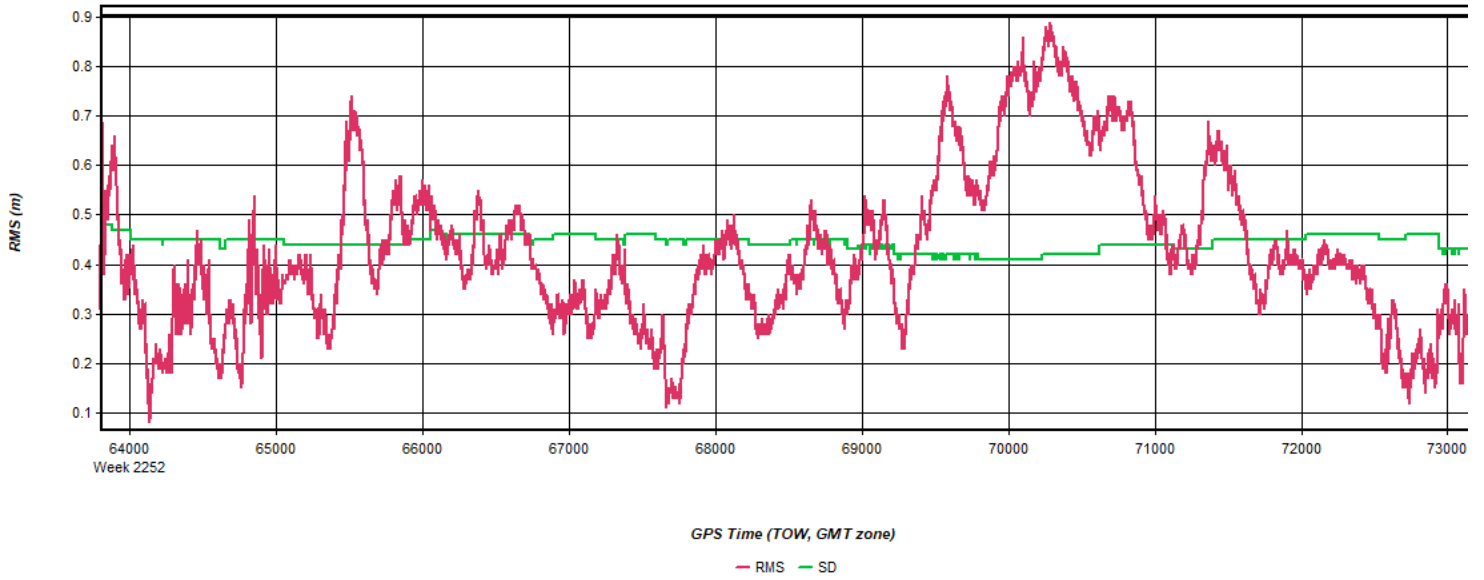
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 15: 20230305174239_27 [Smoothed TC Combined] - Height Profile Plot



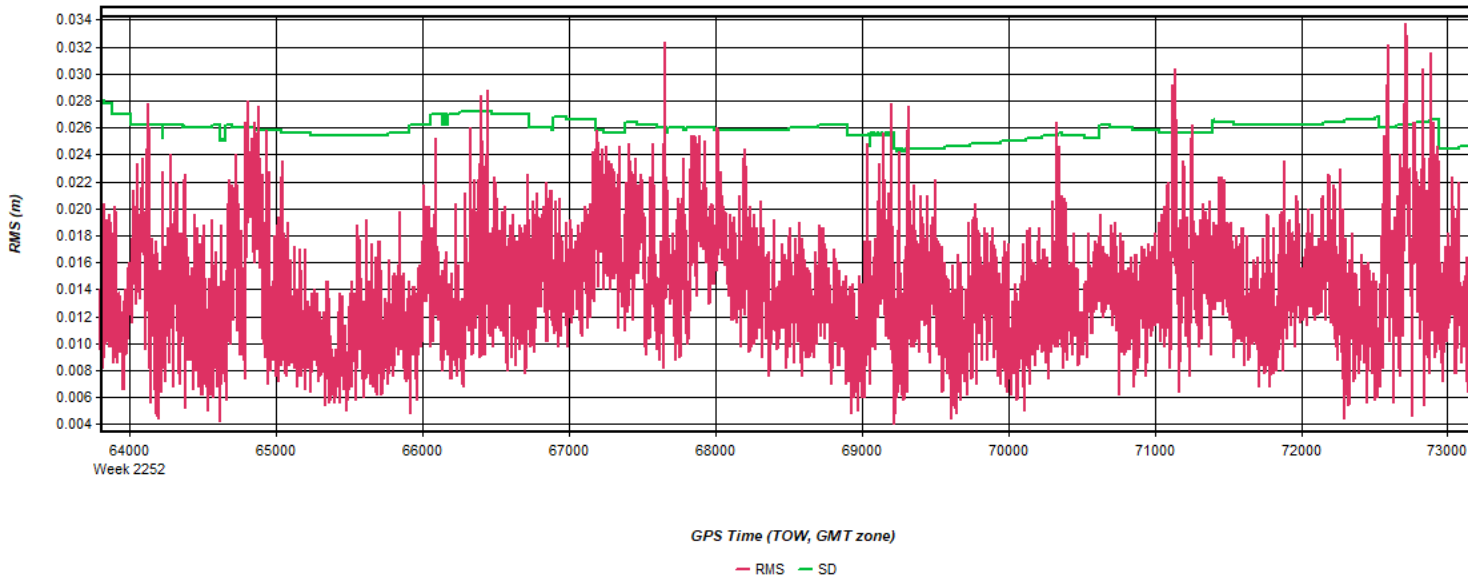
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 16: 20230305174239_27 [Smoothed TC Combined] - C/A Code Residual RMS Plot



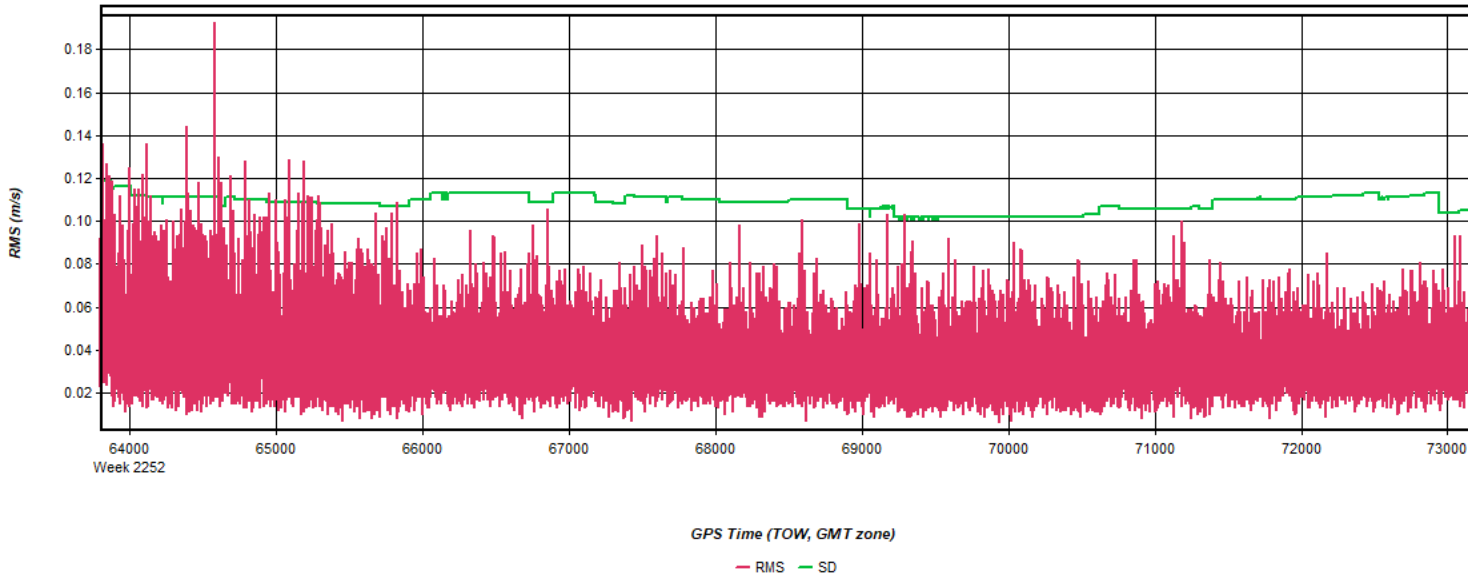
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 17: 20230305174239_27 [Smoothed TC Combined] - Carrier Residual RMS Plot



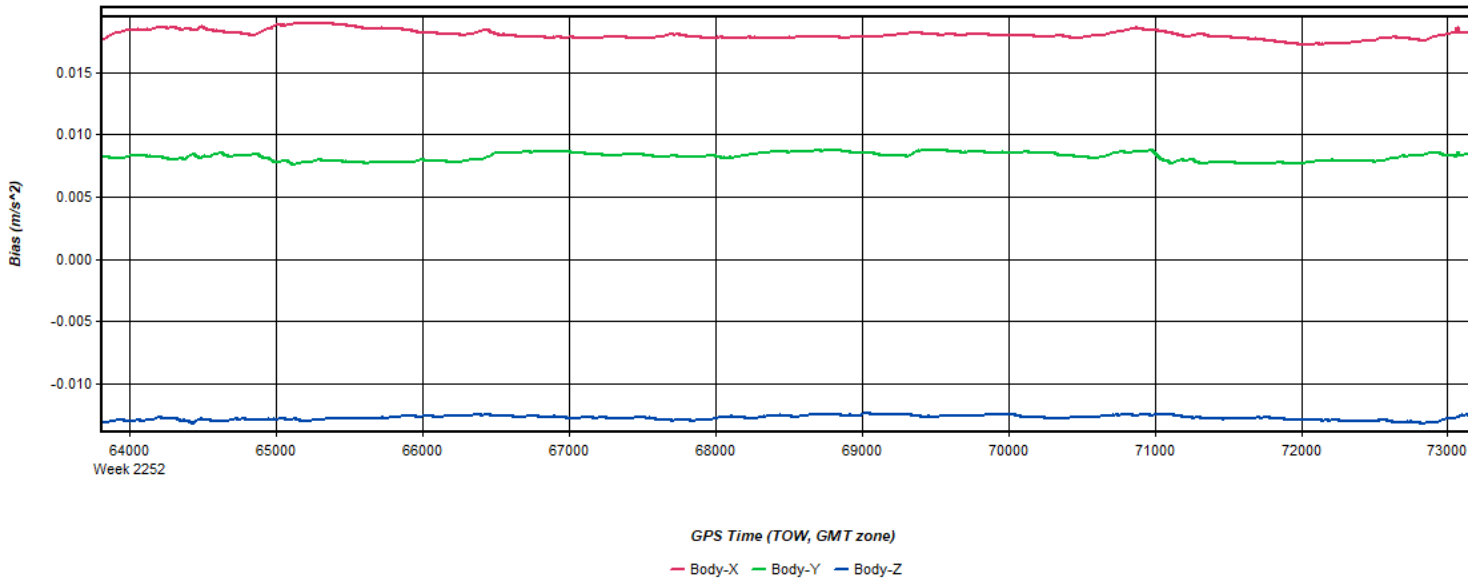
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 18: 20230305174239_27 [Smoothed TC Combined] - L1 Doppler Residual RMS Plot



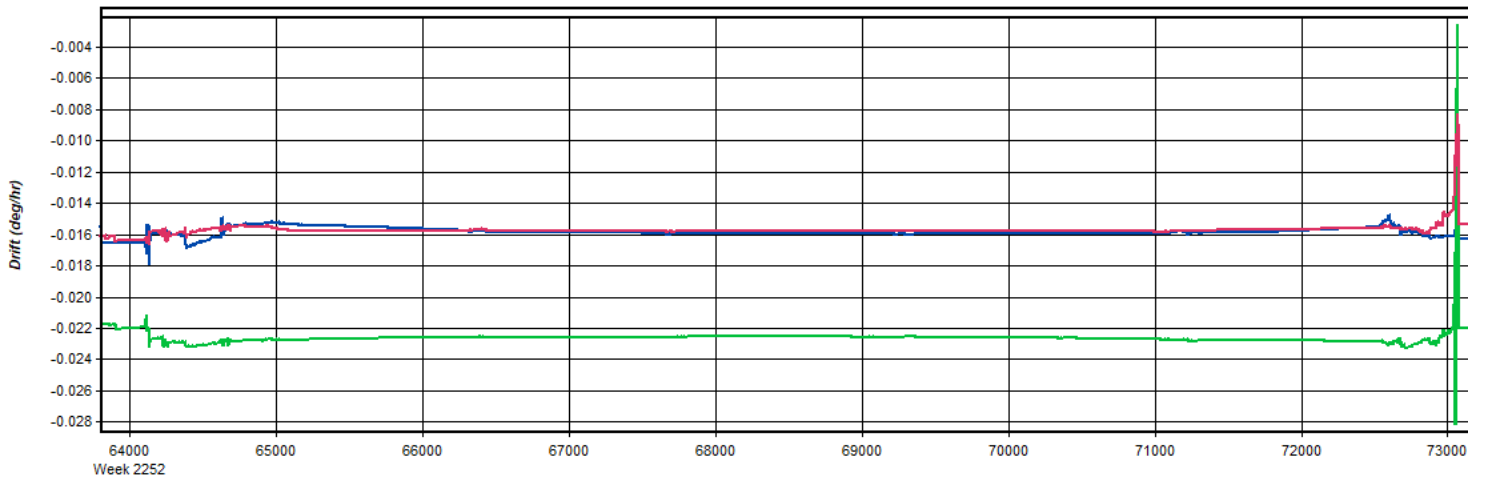
Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 19: 20230305174239_27 [Smoothed TC Combined] - Accelerometer Bias Plot



Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

Figure 20: 20230305174239_27 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

Body-X Body-Y Body-Z

Process	20230305174239_27	by Unknown	on 3/6/2023	at 15:59:45
---------	-------------------	------------	-------------	-------------

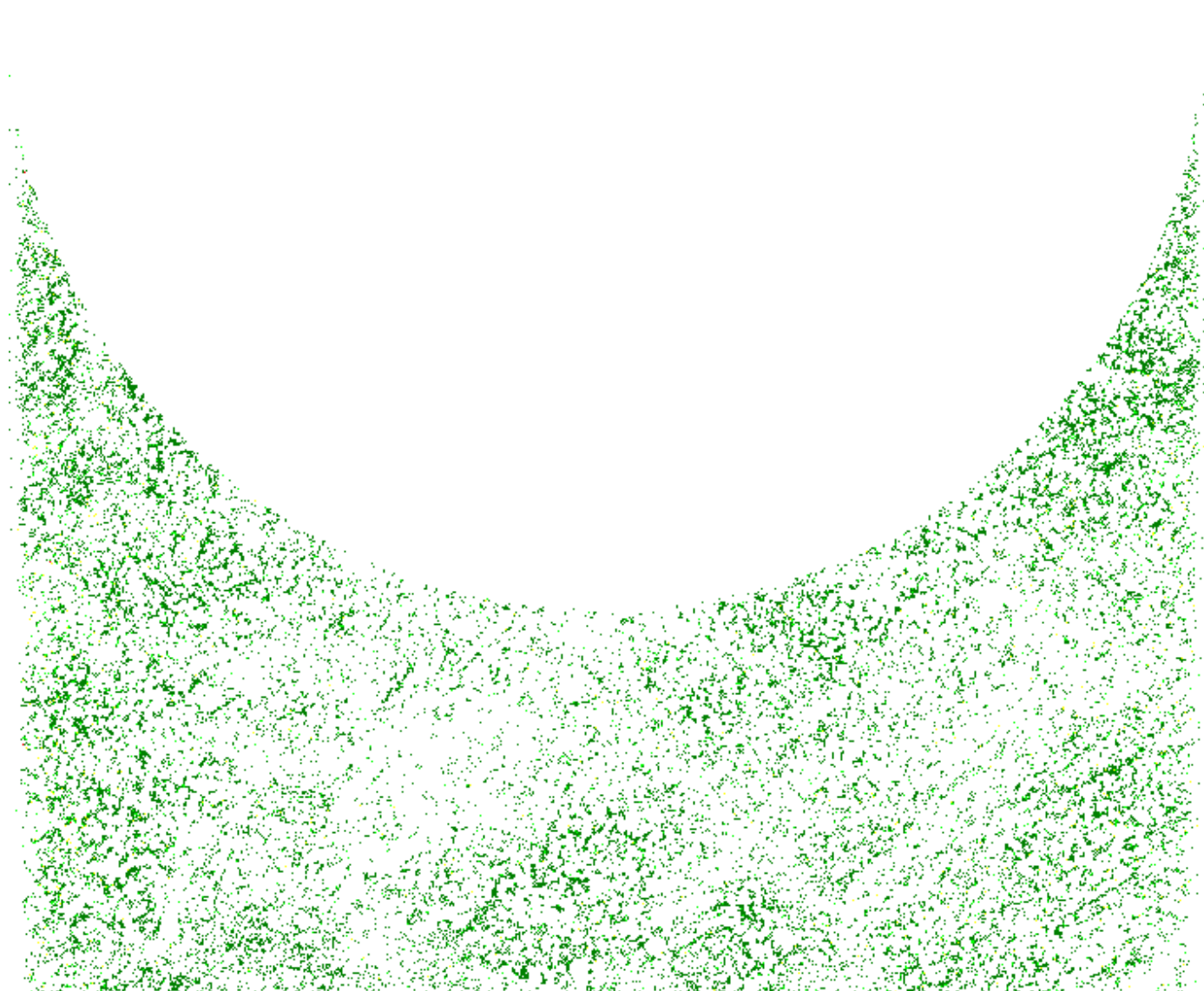
Appendix E. Geometric Quality & Smooth Surface Precision

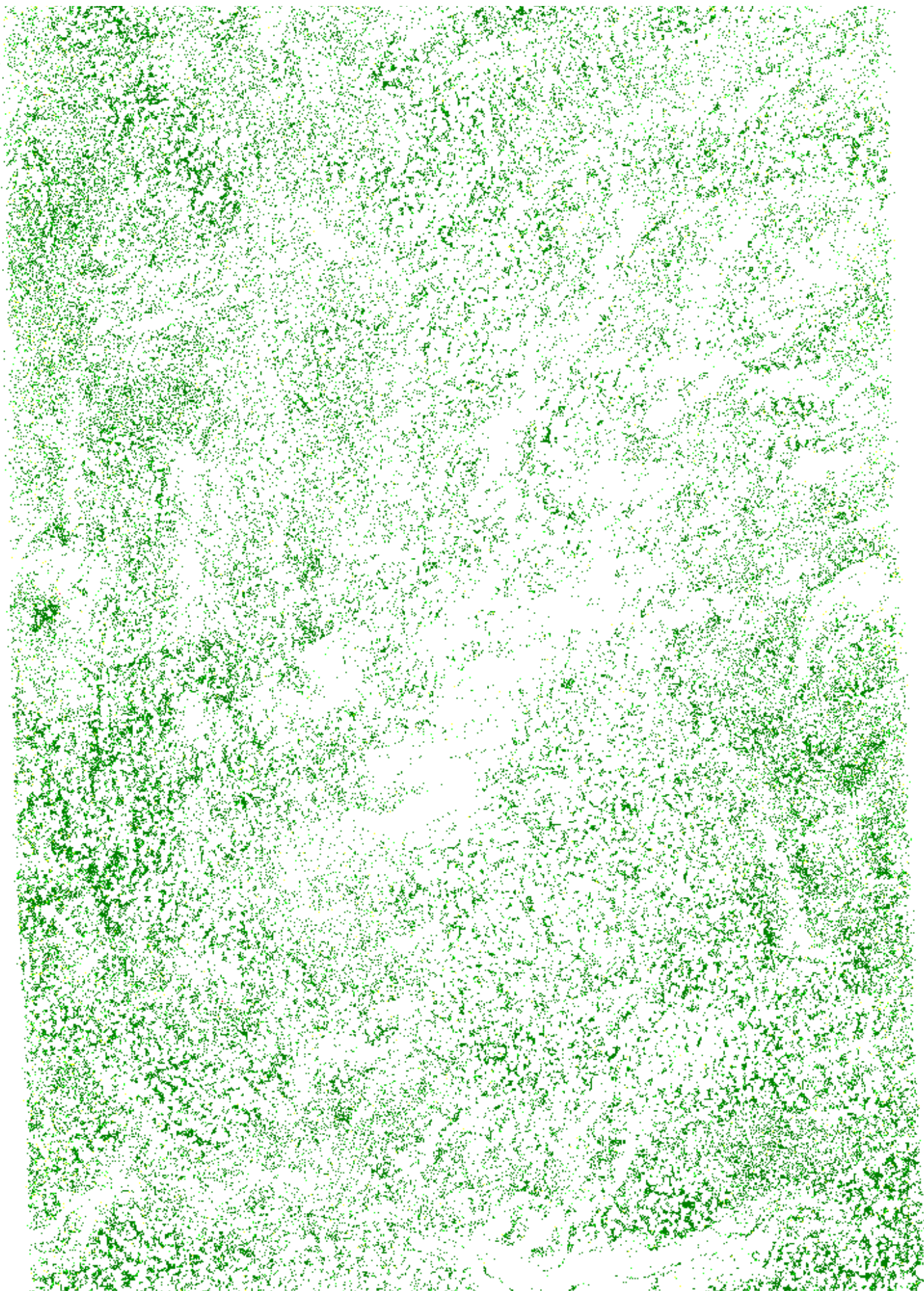
Vertical Accuracy Scan Direction Comparison-20230308_162054

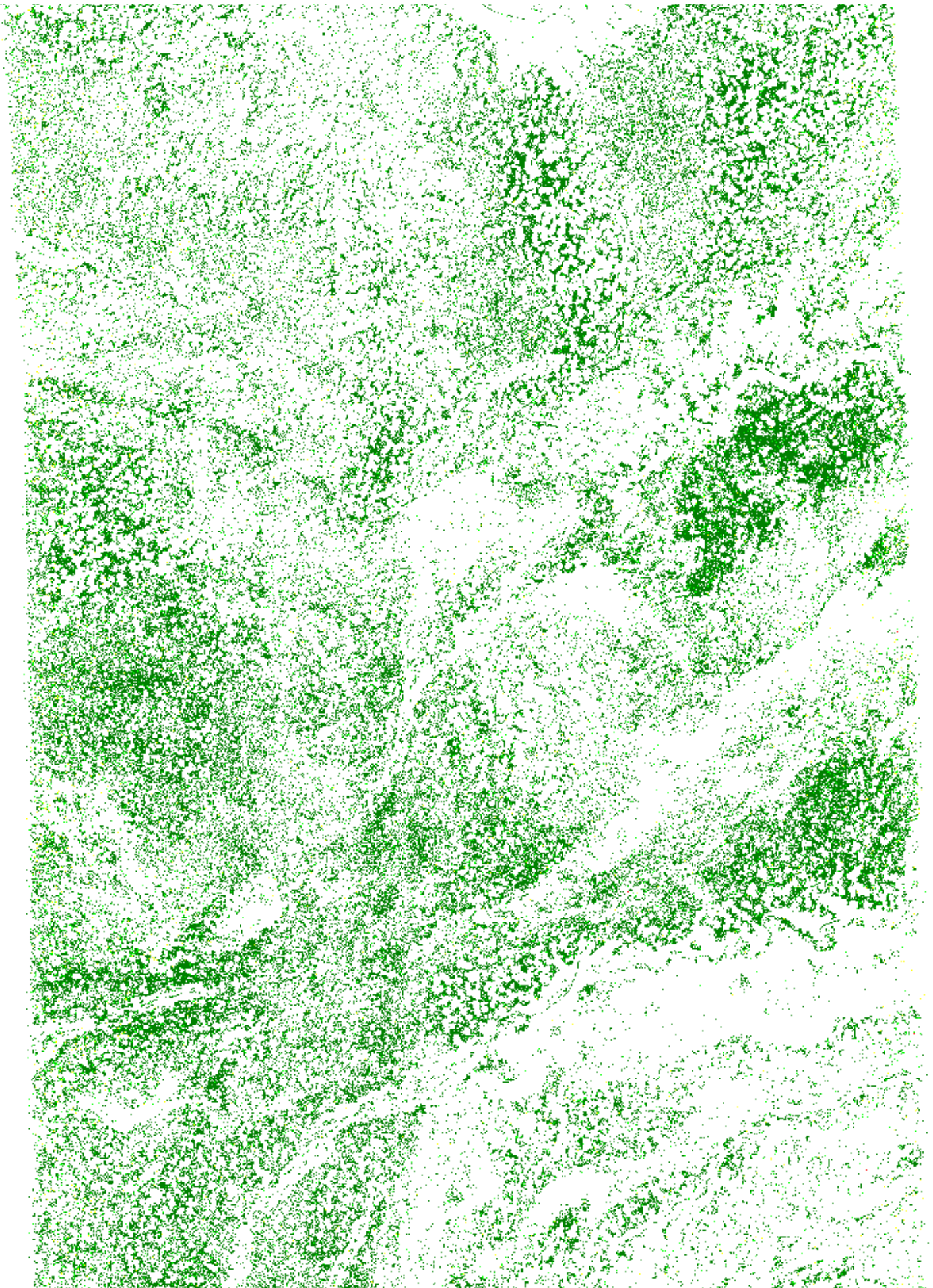
394_153343

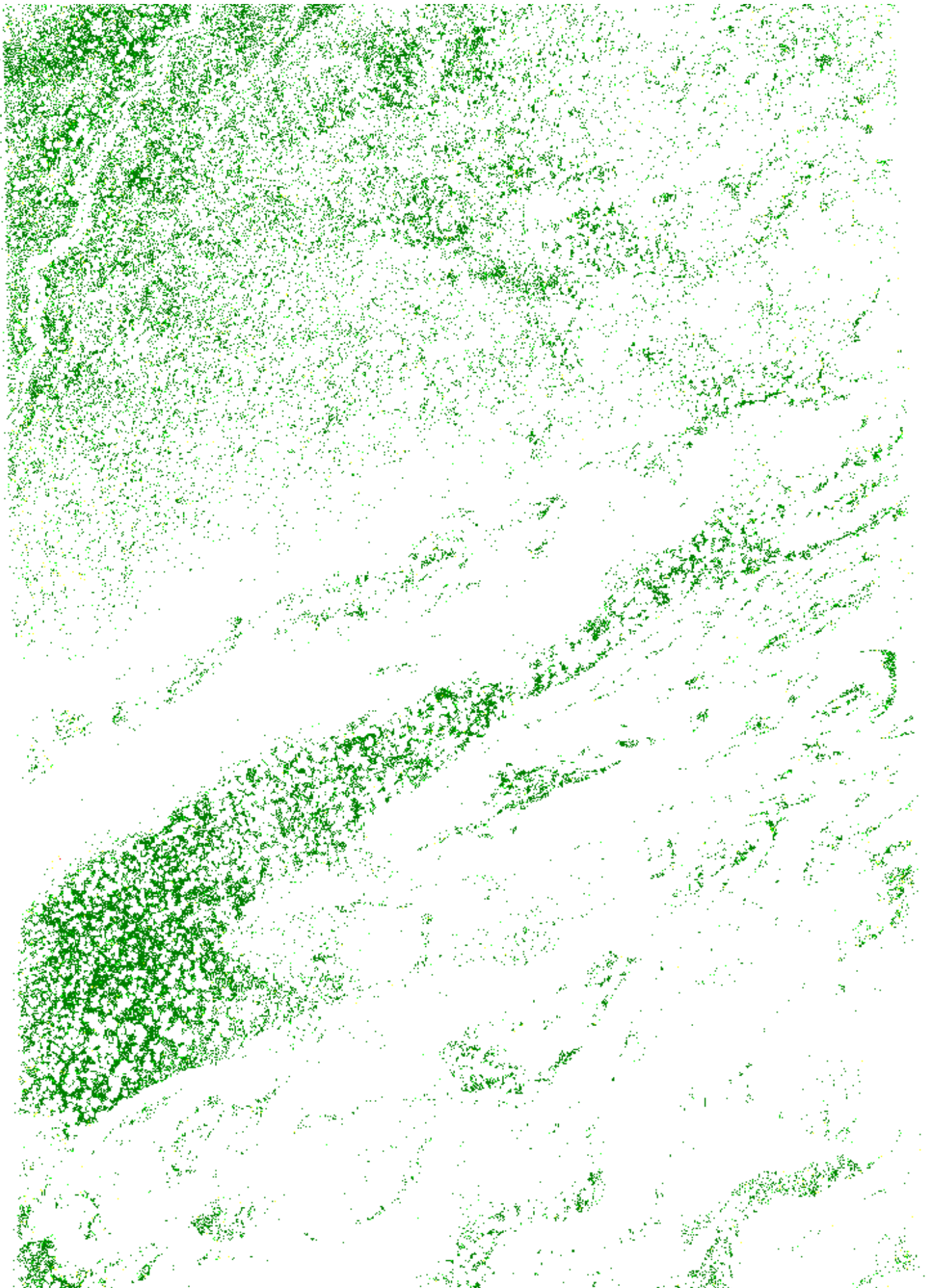
618634 valid patches with size of 2 m found. Only patches with standard deviation < 0.05 m and minimum of 5 points are included.

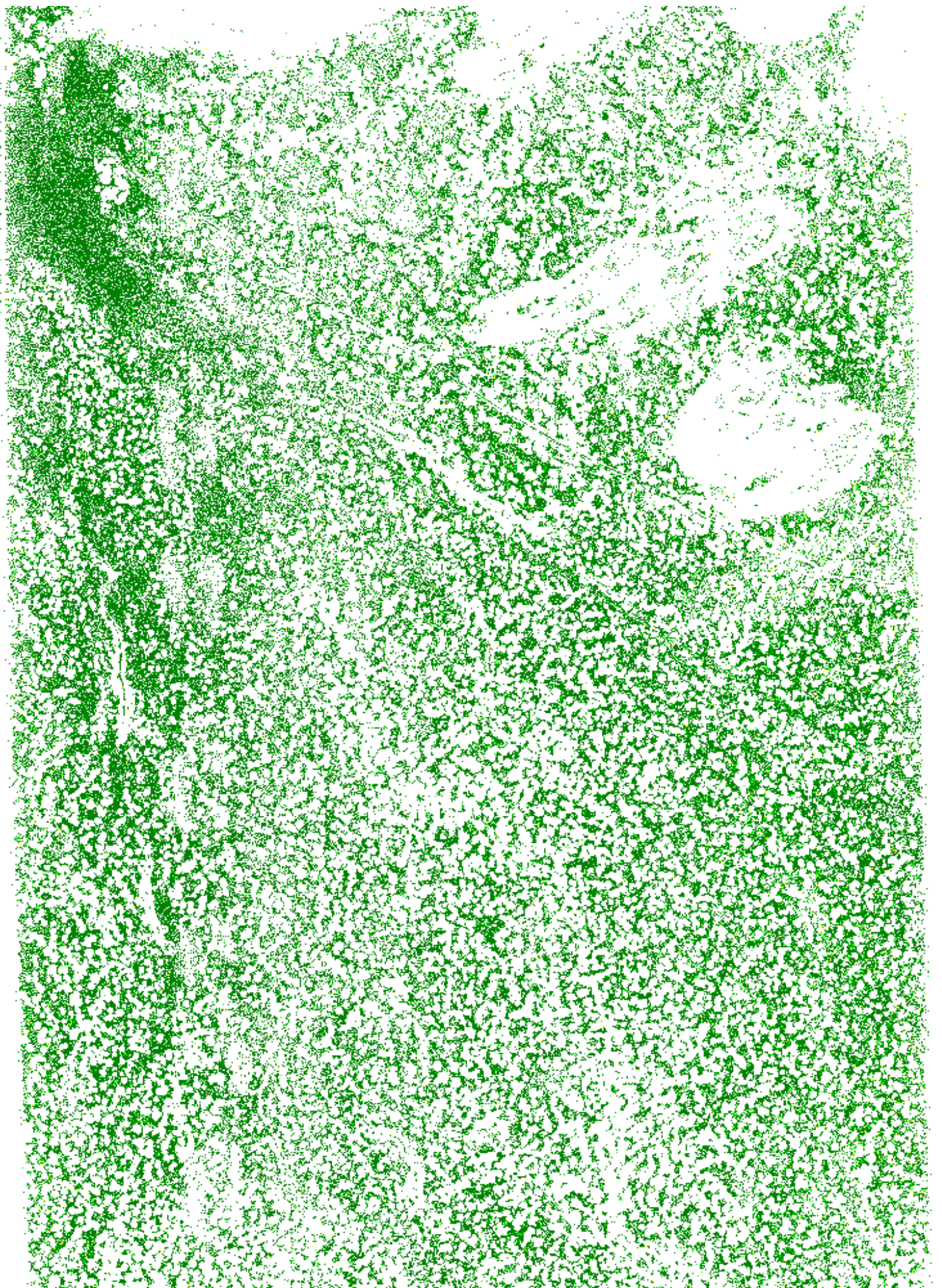
Color	Limits [m]	Number of patches	Proportion of total number of patches [%]
Dark Green	<=0.03	559347	90.42
Bright Green	0.03-0.05	51129	8.26
Yellow	0.05-0.1	8121	1.31
Red	>0.1	37	0.01

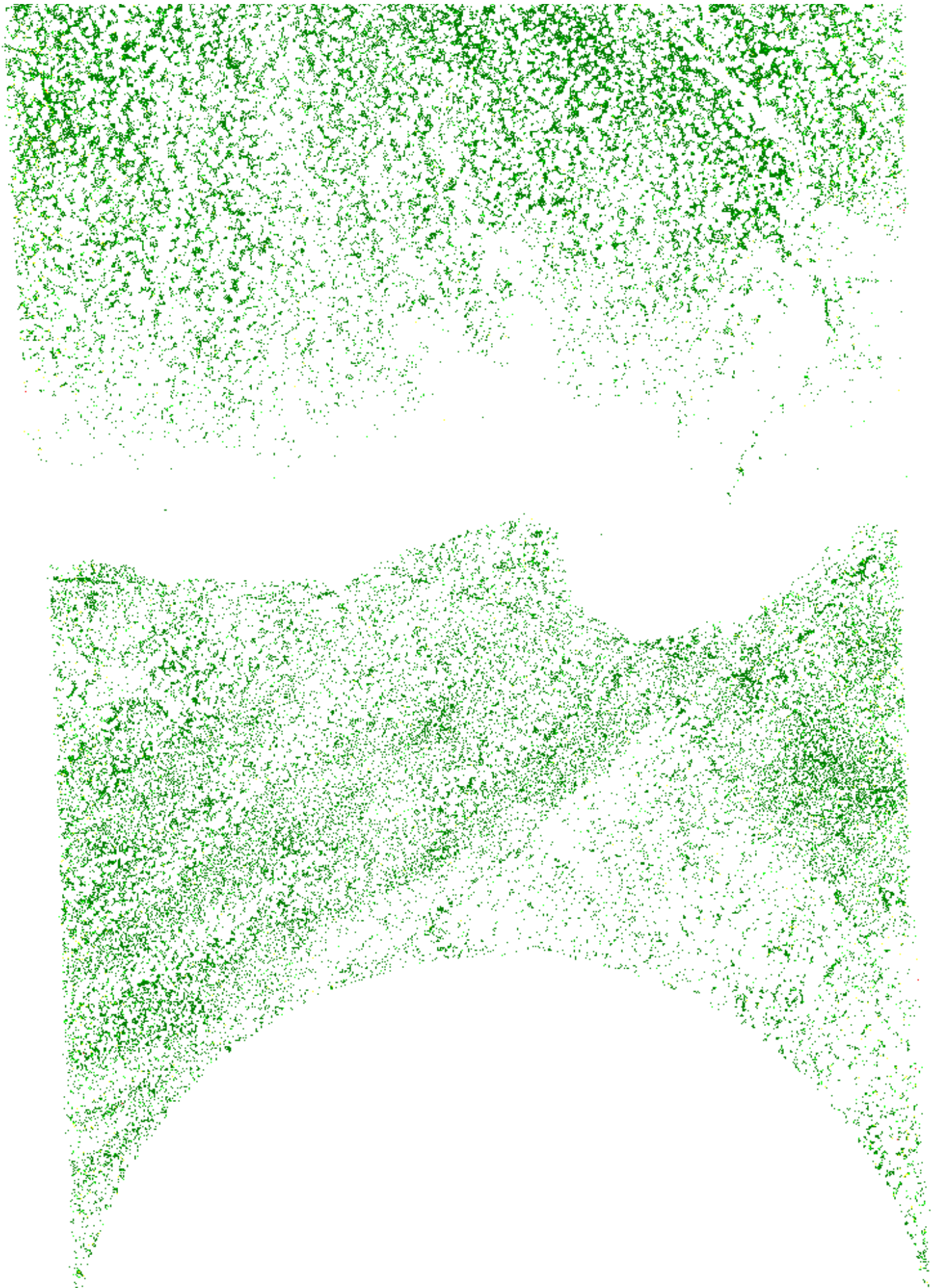










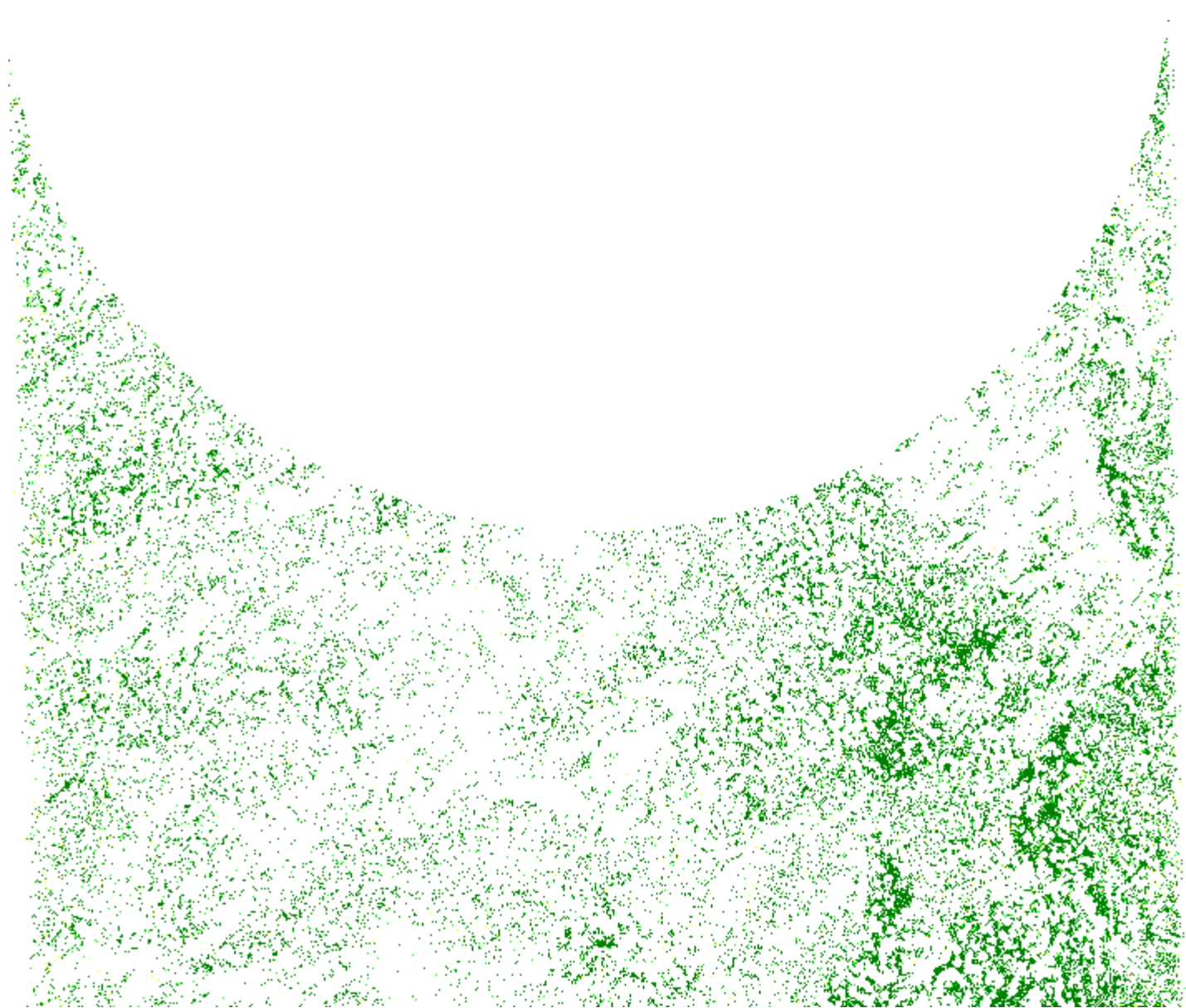


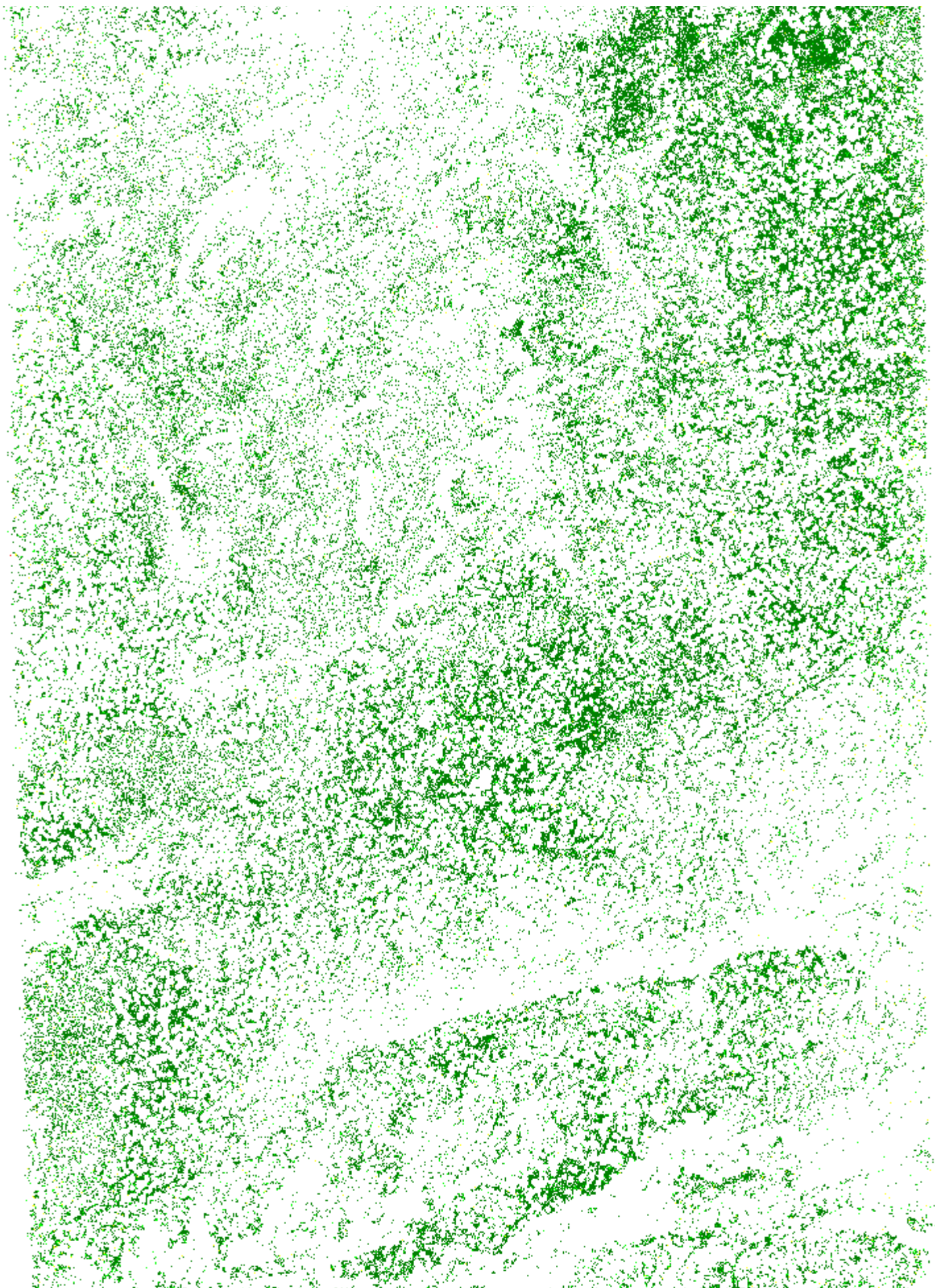
Vertical difference

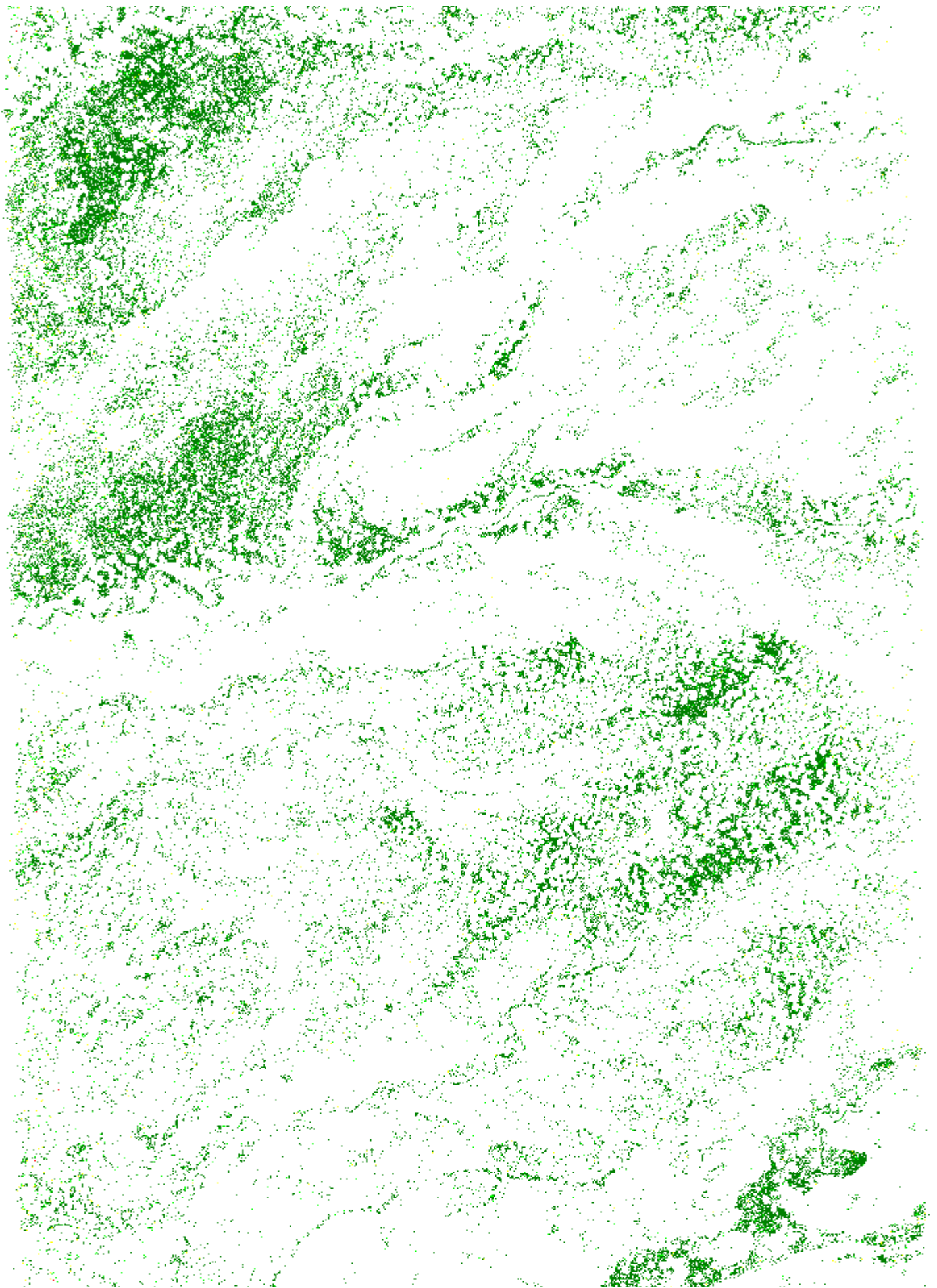
395_154254

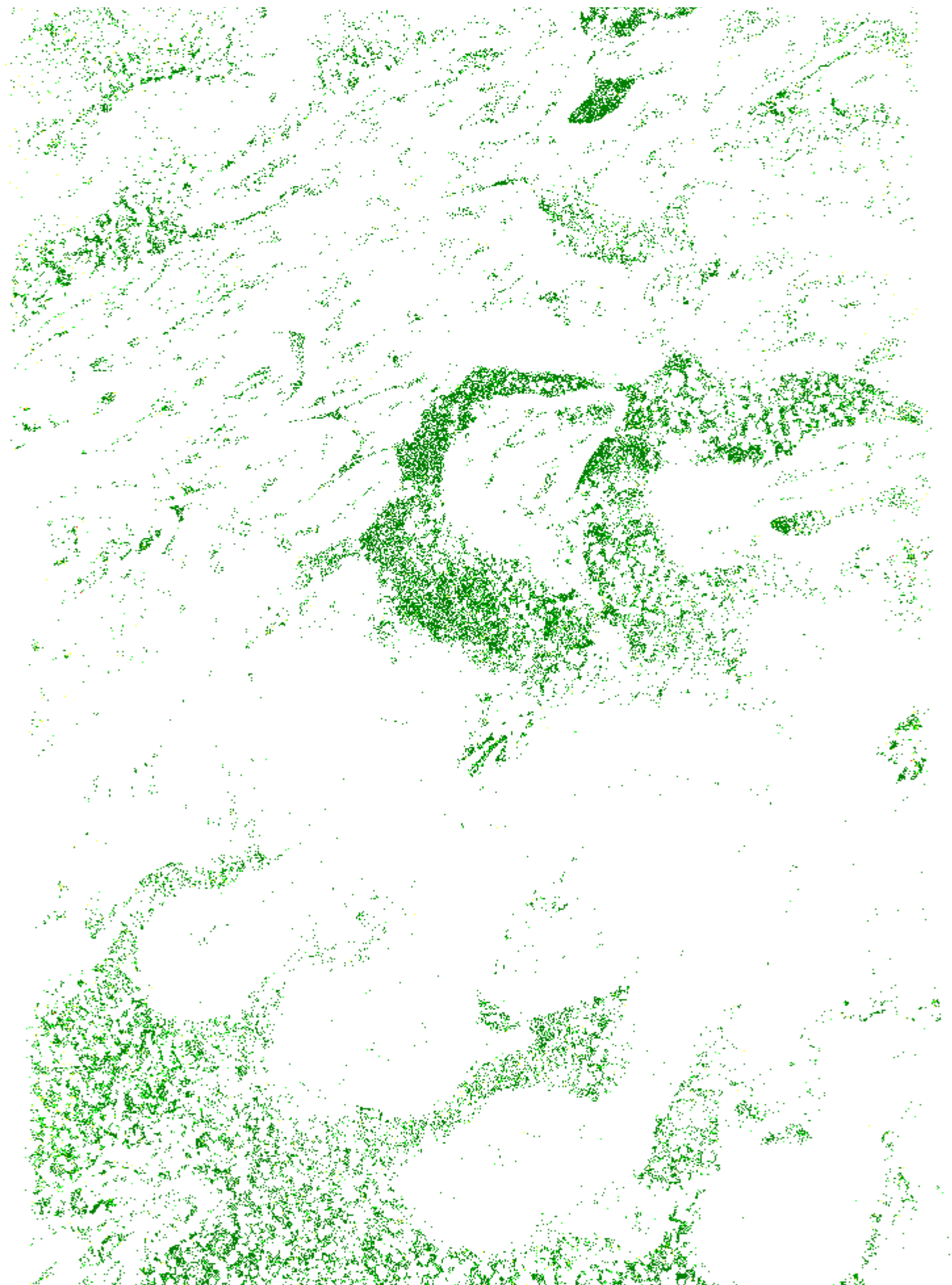
444552 valid patches with size of 2 m found. Only patches with standard deviation < 0.05 m and minimum of 5 points are included.

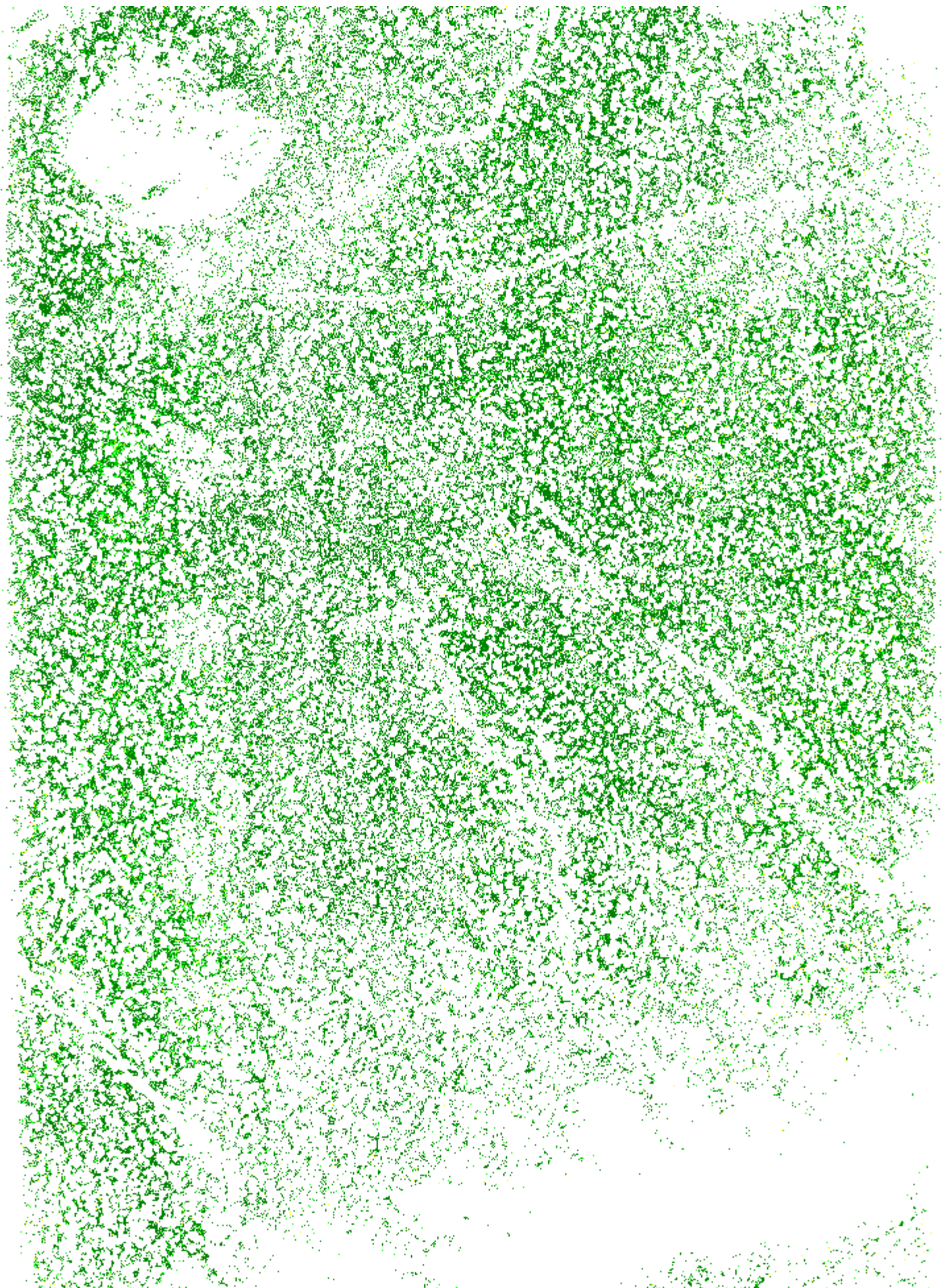
Color	Limits [m]	Number of patches	Proportion of total number of patches [%]
Dark Green	<=0.03	389062	87.52
Bright Green	0.03-0.05	47887	10.77
Yellow	0.05-0.1	7564	1.70
Red	>0.1	39	0.01

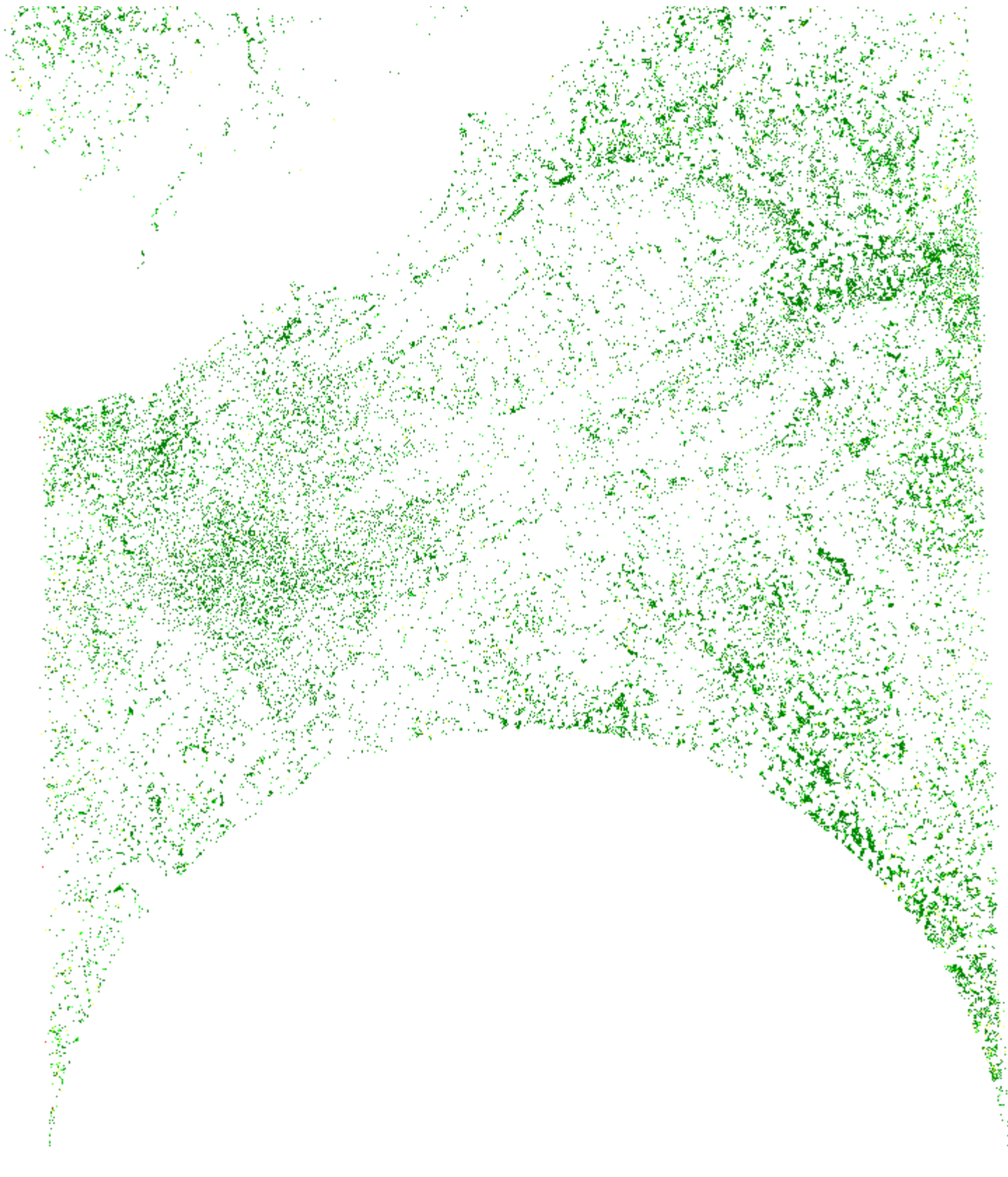










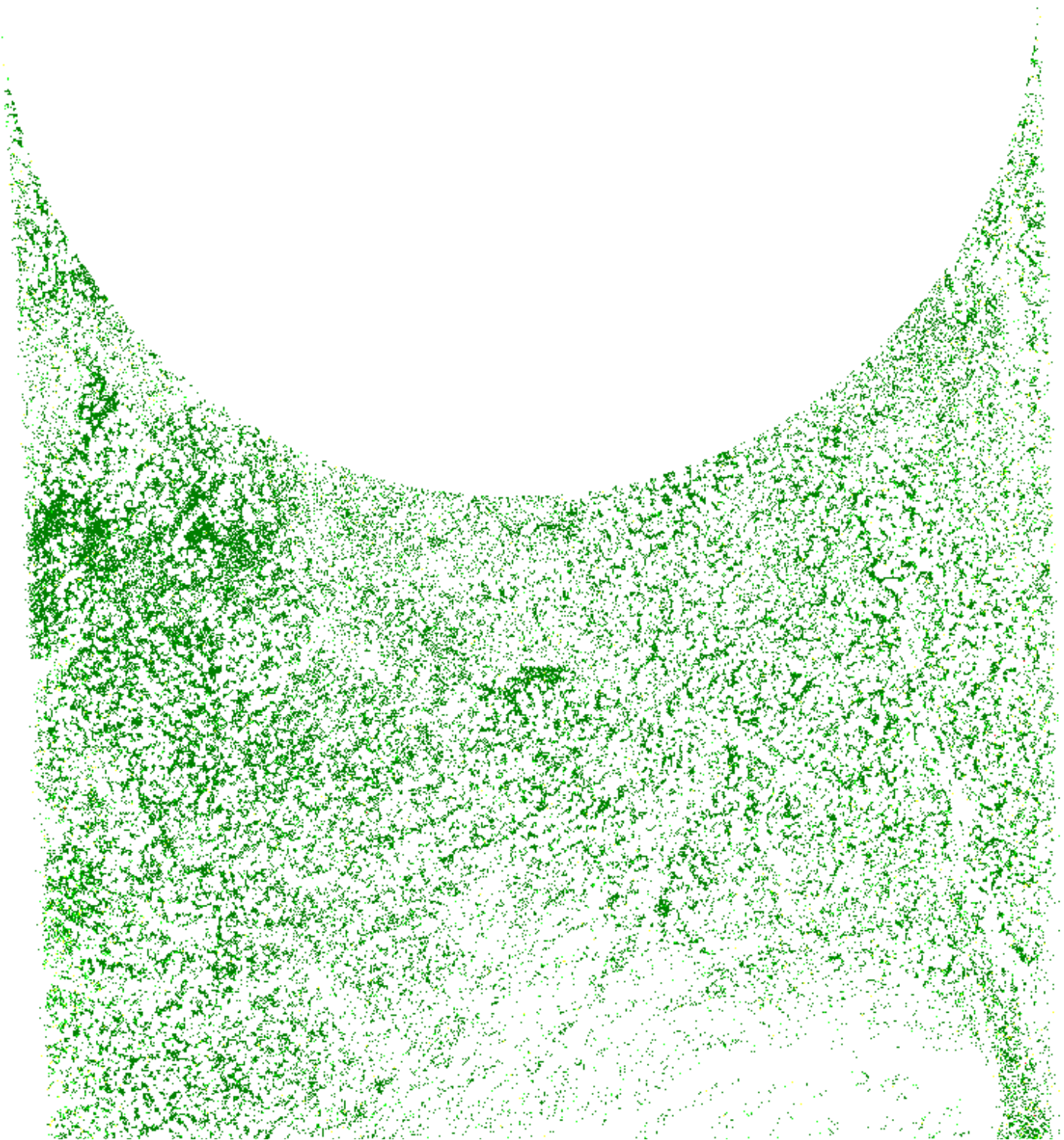


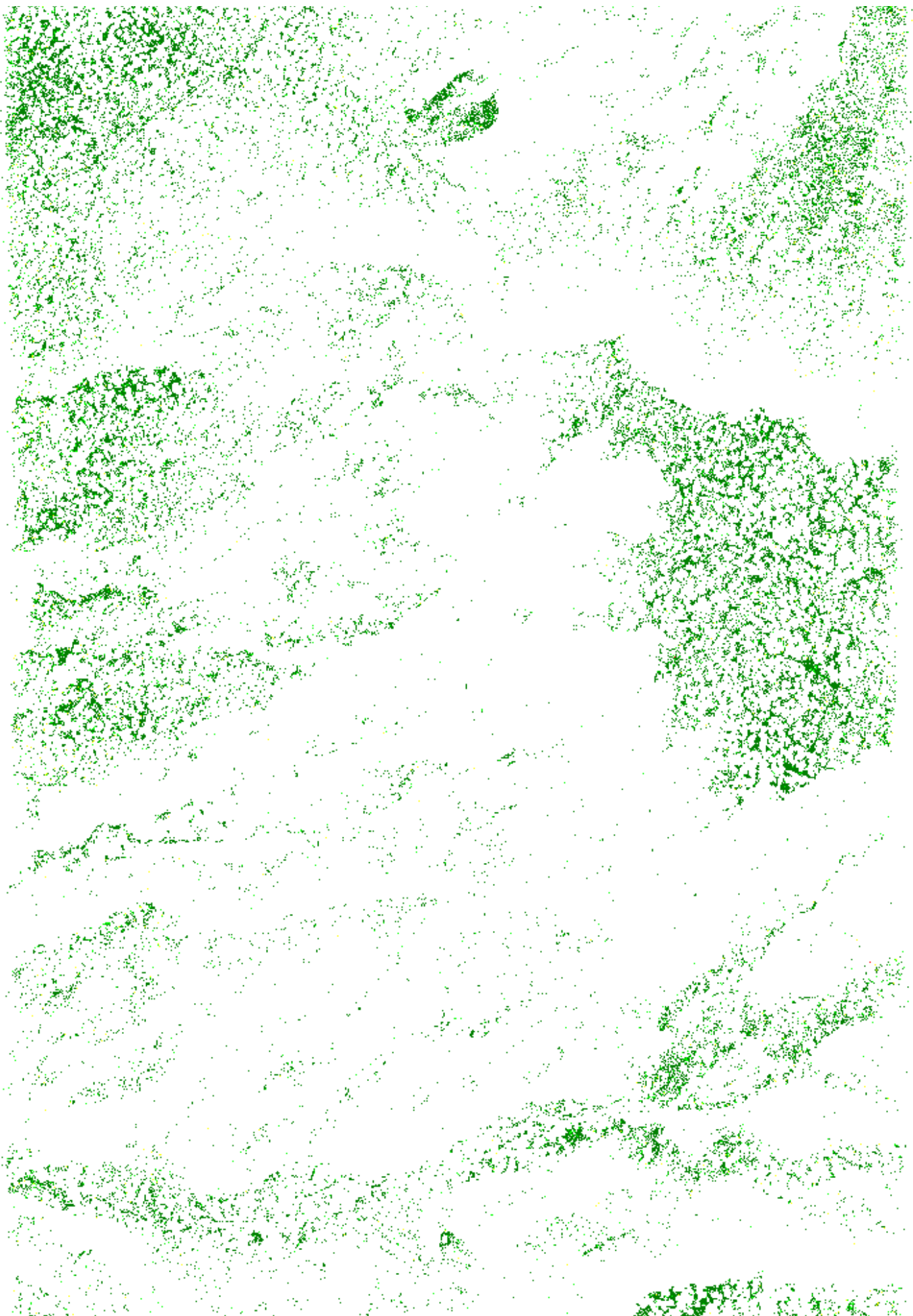
Vertical difference

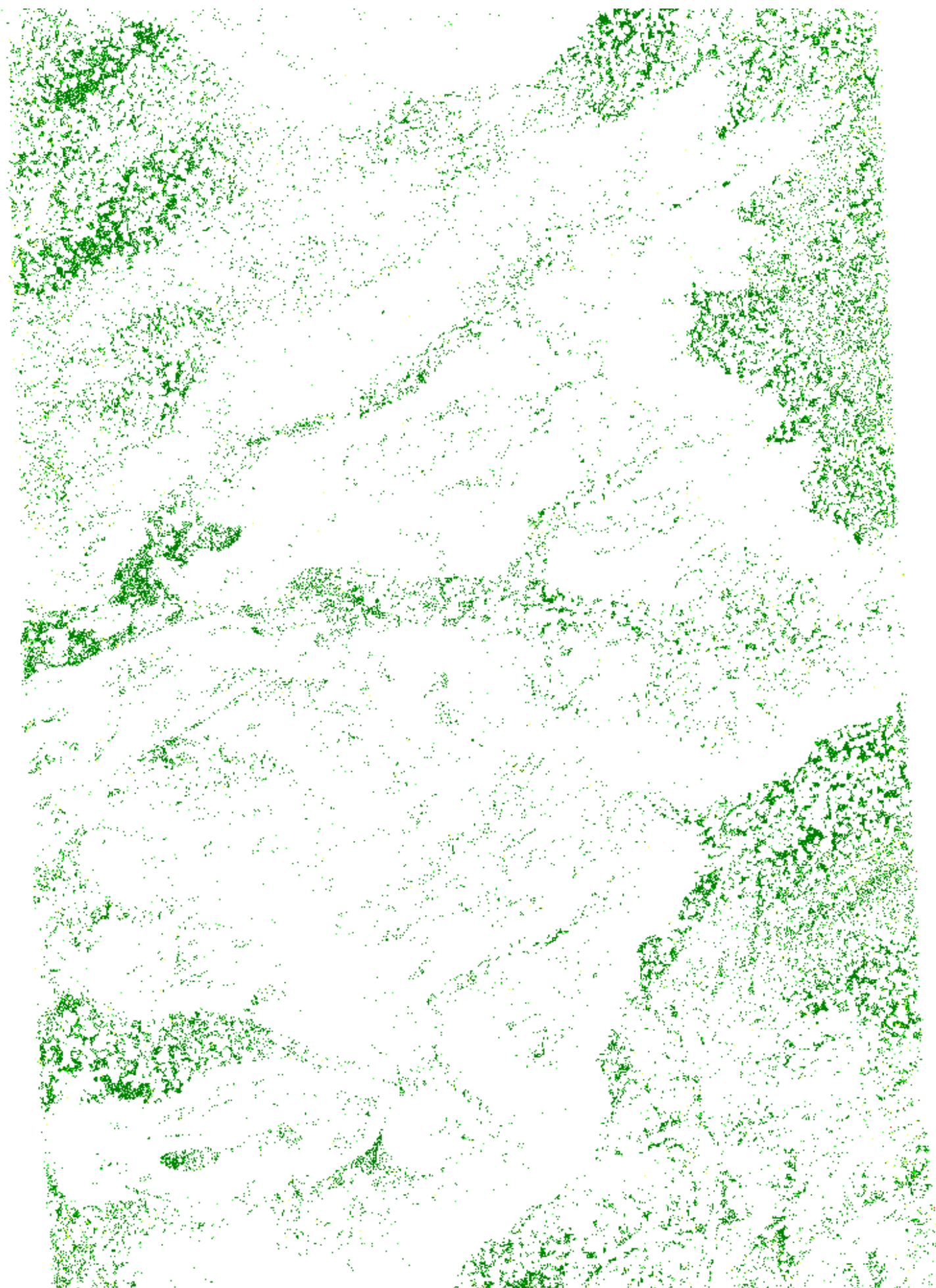
396_155156

338031 valid patches with size of 2 m found. Only patches with standard deviation < 0.05 m and minimum of 5 points are included.

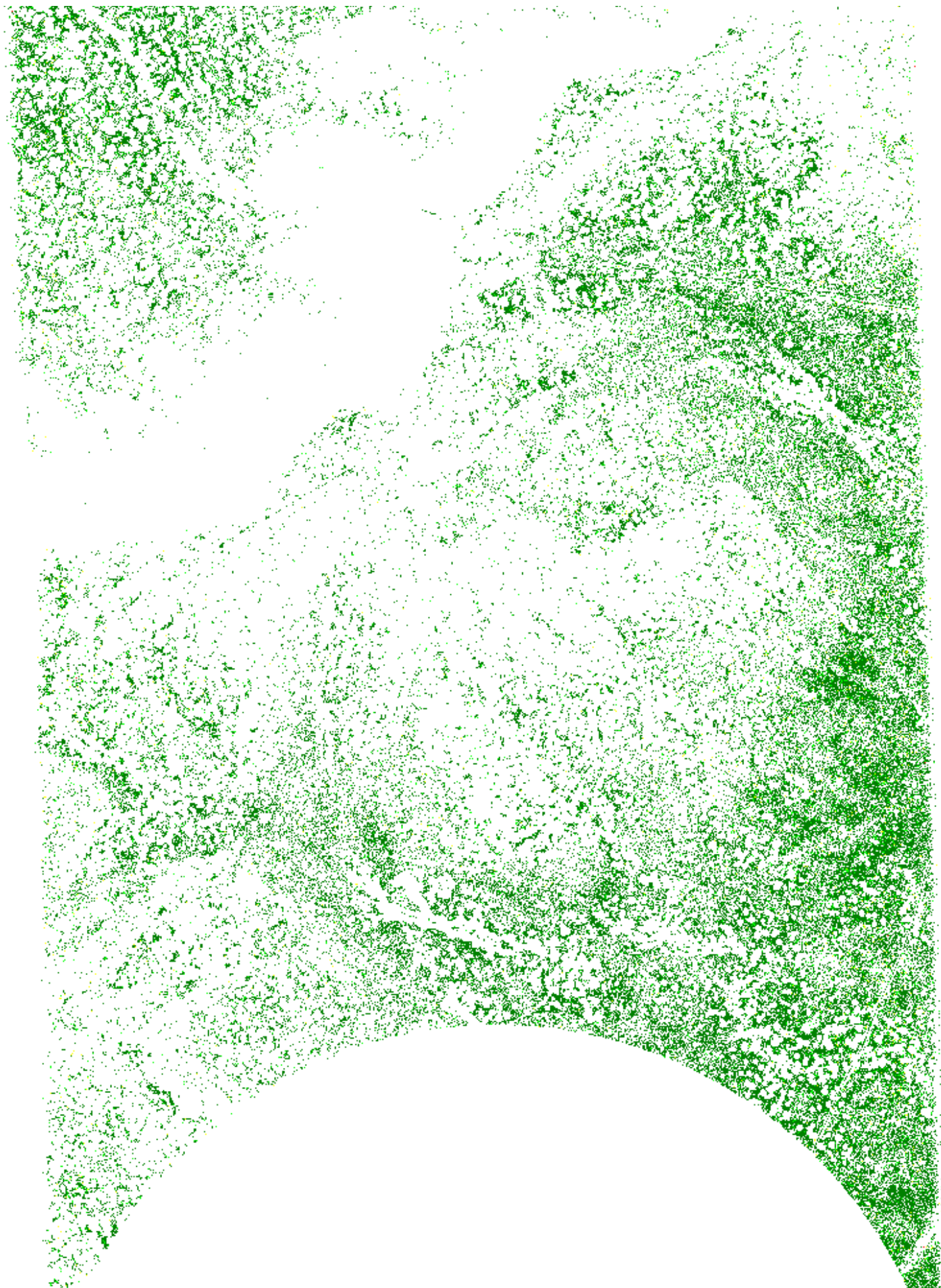
Color	Limits [m]	Number of patches	Proportion of total number of patches [%]
Dark Green	≤ 0.03	299486	88.60
Bright Green	0.03-0.05	32874	9.73
Yellow	0.05-0.1	5637	1.67
Red	> 0.1	34	0.01


















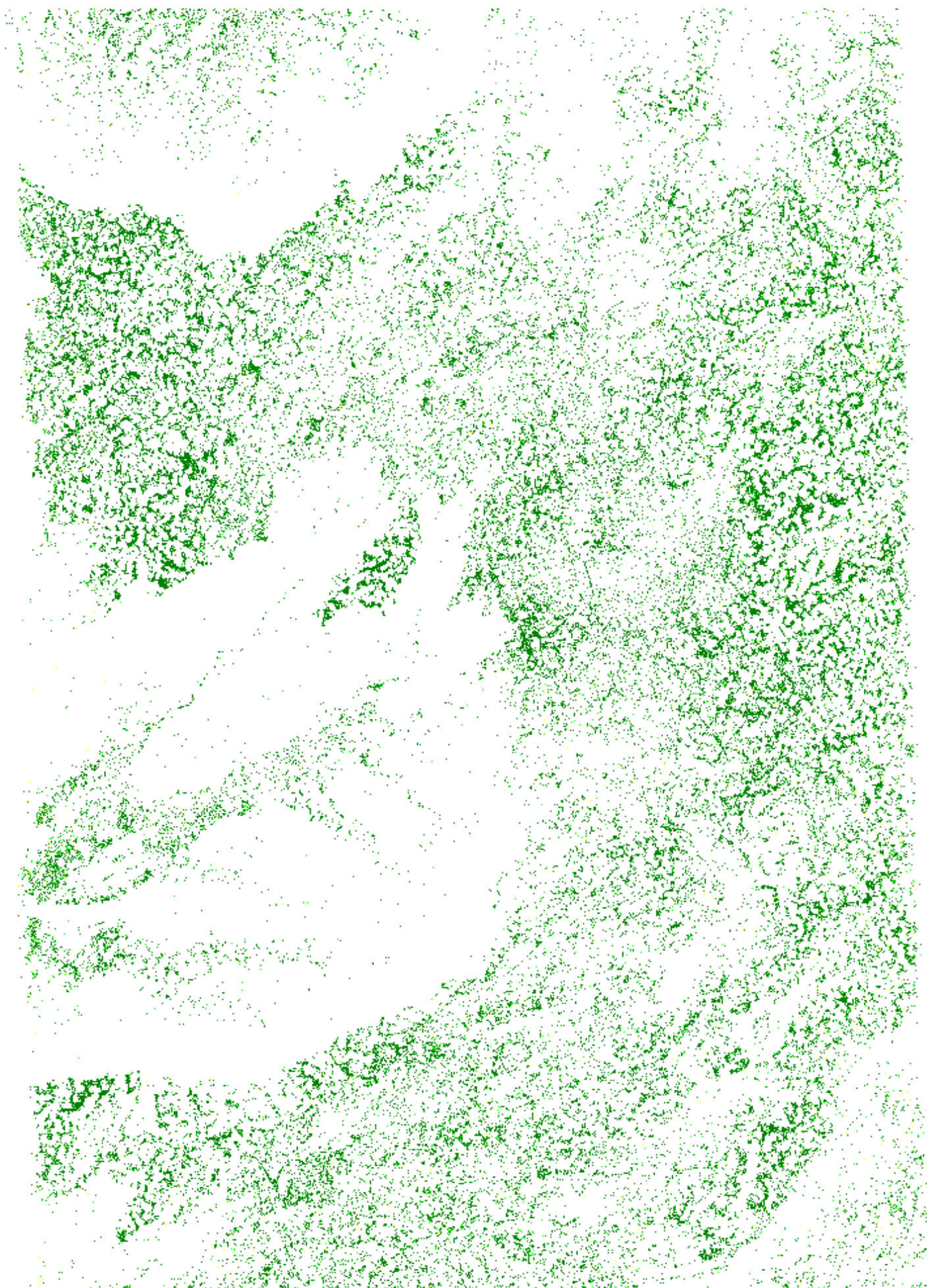
Vertical difference

397_155845

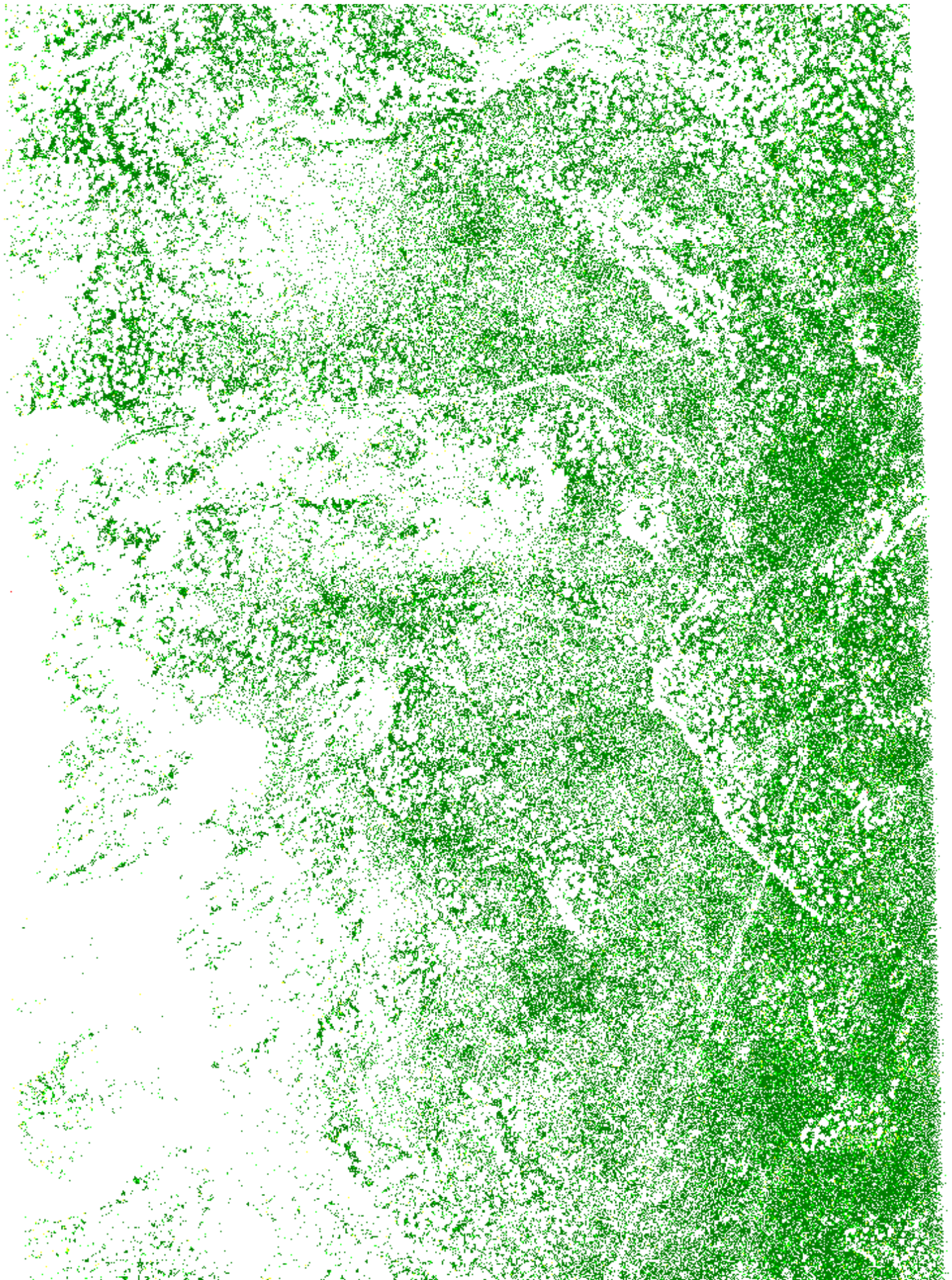
509726 valid patches with size of 2 m found. Only patches with standard deviation < 0.05 m and minimum of 5 points are included.

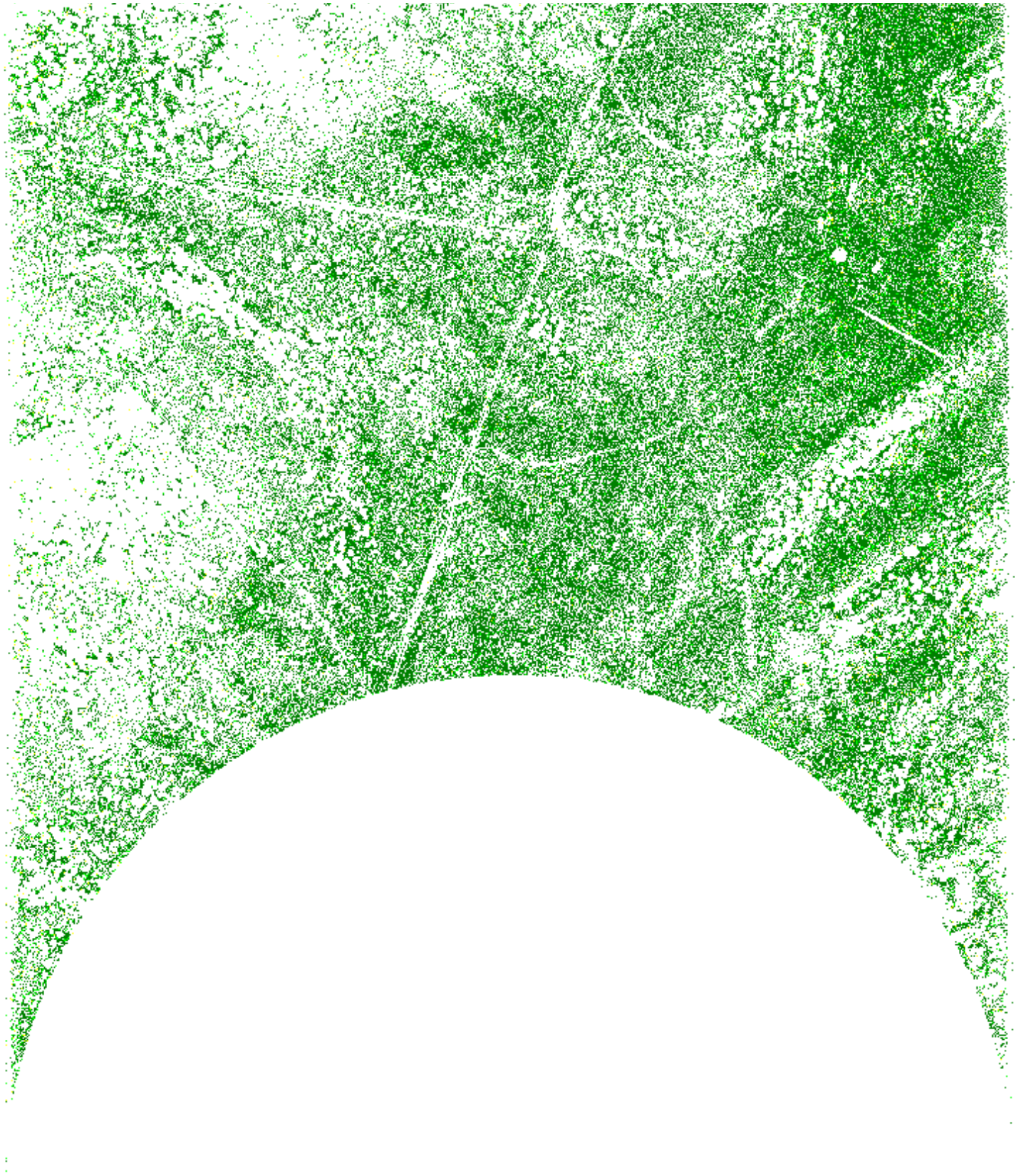
Color	Limits [m]	Number of patches	Proportion of total number of patches [%]
	<=0.03	446668	87.63
	0.03-0.05	54550	10.70
	0.05-0.1	8476	1.66
	>0.1	32	0.01











Vertical difference

Intra Take Elevation Difference Map

Table of Contents

20230908105421

VAL_SNC_14_111619

VAL_NSC_14_112250

20230908105421

VAL_SNC_14_111619

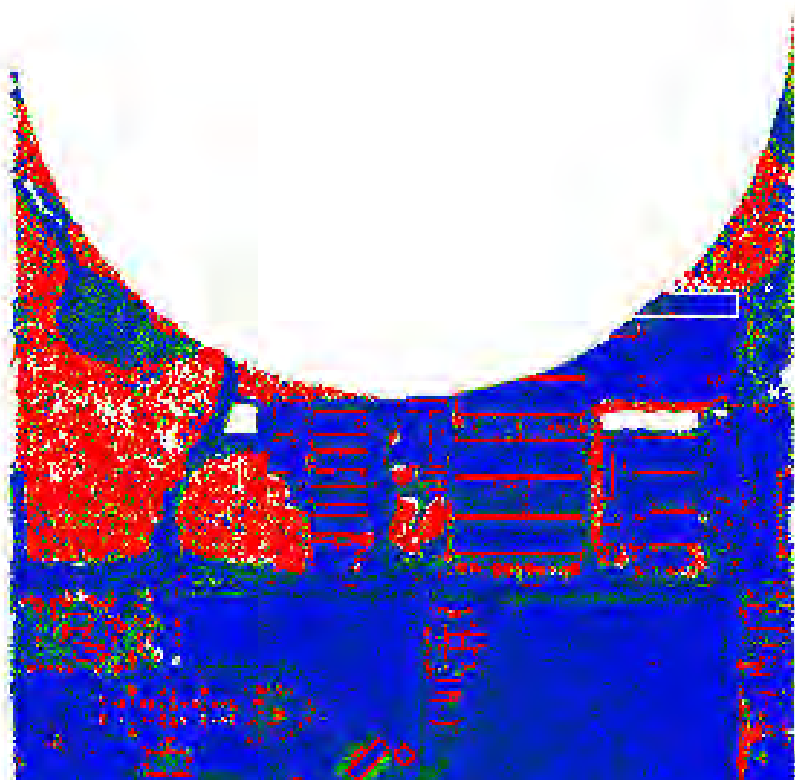
Return Type: SINGLE

Statistics

Range(metres)	Counts	Percentage(%)
0 - 0.04	516689	88.15
0.04 - 0.06	28242	4.82
0.06 - 0.08	9140	1.56
0.08 - 0.16	7547	1.29
0.16 - 1	24562	4.19
>1	0	0.00

Legend







VAL_NSC_14_112250

Return Type: SINGLE

Statistics

Range(metres)	Counts	Percentage(%)
0 - 0.04	533742	91.73
0.04 - 0.06	17568	3.02
0.06 - 0.08	6020	1.03
0.08 - 0.16	5409	0.93
0.16 - 1	19125	3.29
>1	0	0.00

Legend





