

Appendix A-Processing

Processing Summary

Once the lidar data passed initial QC, the dataset was corrected for aircraft orientation and movement. This process used airborne inertial, orientation, and GPS data collected during acquisition along with ground-based GPS data.

GNSS-IMU Trajectory Processing

Kinematic corrections for the aircraft position were resolved using aircraft GPS and static ground GPS (1-Hz) for each geodetic control (base station) for three subsystems: inertial measurement unit (IMU), sensor orientation information, and airborne GPS data.

Post-processing of the IMU system data and aircraft position with attitude data was completed to compute an optimally accurate, blended navigation solution based on Kalman filtering technology, or the smoothed best estimate of trajectory (SBET).

GPS processing reports for each mission are included in Appendix A.

Software: POSPac Software v. 5.3, IPAS Pro v.1.35., Novatel Inertial Explorer v8.60.6129

Trajectory Quality

The GNSS trajectory and high-quality IMU data are key factors in determining the overall positional accuracy of the final sensor data. Within the trajectory processing, there are many factors that affect the overall quality, but the most indicative are the combined separation, the estimated positional accuracy, and the positional dilution of precision (PDOP).

Combination Separation

Combined separation is a measure of the difference between the forward-run and the backward-run solution of the trajectory. The Kalman filter was processed in both directions to remove the combined directional anomalies. In general, when these two solutions match closely, an optimally accurate and reliable solution is achieved.

The data for this task order was processed with a goal to maintain a combined separation difference of less than ten (10) centimeters.

Estimated Positional Accuracy

Estimated positional accuracy plots the standard deviations of the east, north, and vertical directions along a time scale of the trajectory. It illustrates loss of satellite lock issues, as well as issues arising from long baselines, noise, and/or other atmospheric interference.

PDOP

The PDOP measures the precision of the GPS solution in regard to the geometry of the satellites acquired and used for the solution.

The data for this task order was processed with a goal to maintain an average PDOP value below 3.0. Brief periods of PDOP over 3.0 are acceptable due to the calibration and control process if other metrics are within specification.

Flight Line Coverage

A graphic depicting the shapefile of flight line coverage will be included with the project report delivered at the end of the project.

Appendix A: GPS/IMU Processing Reports & Flight Logs

A

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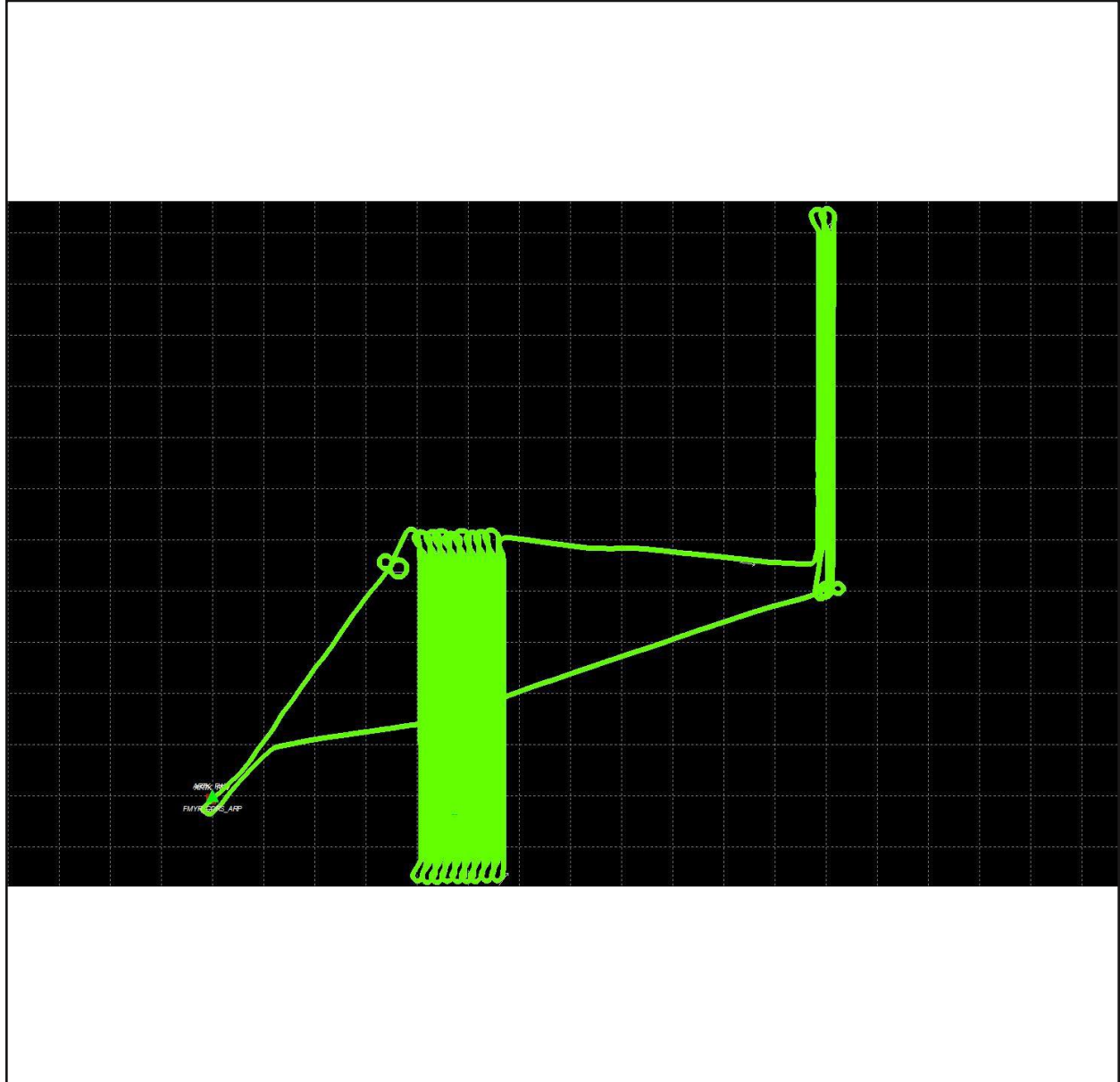
Day02519_TM511_A A-73 A-207	Day10119_TM511_A
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Day35818_TM511

Base Station Coordinates

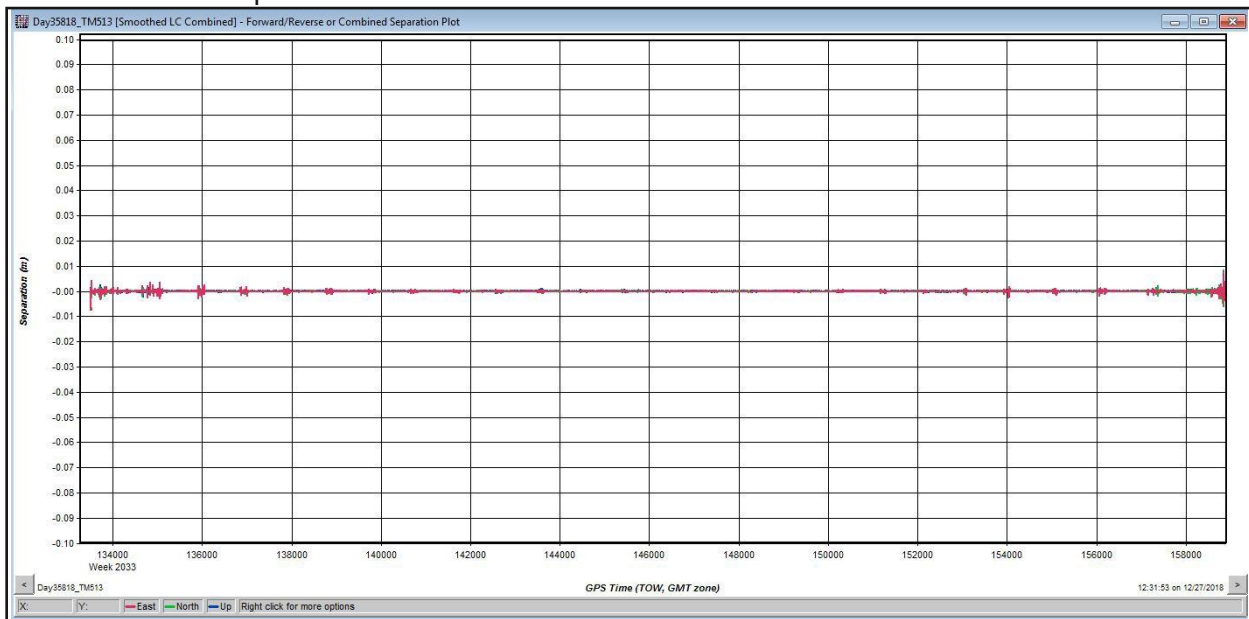
Name	Status	Latitude	Longitude	Height
FMYR_CORS_ARP	ENABLED	26° 35' 27.50794"	-81° 51' 50.97201"	-13.278 m (ELLIPSOIDAL)

Trajectory

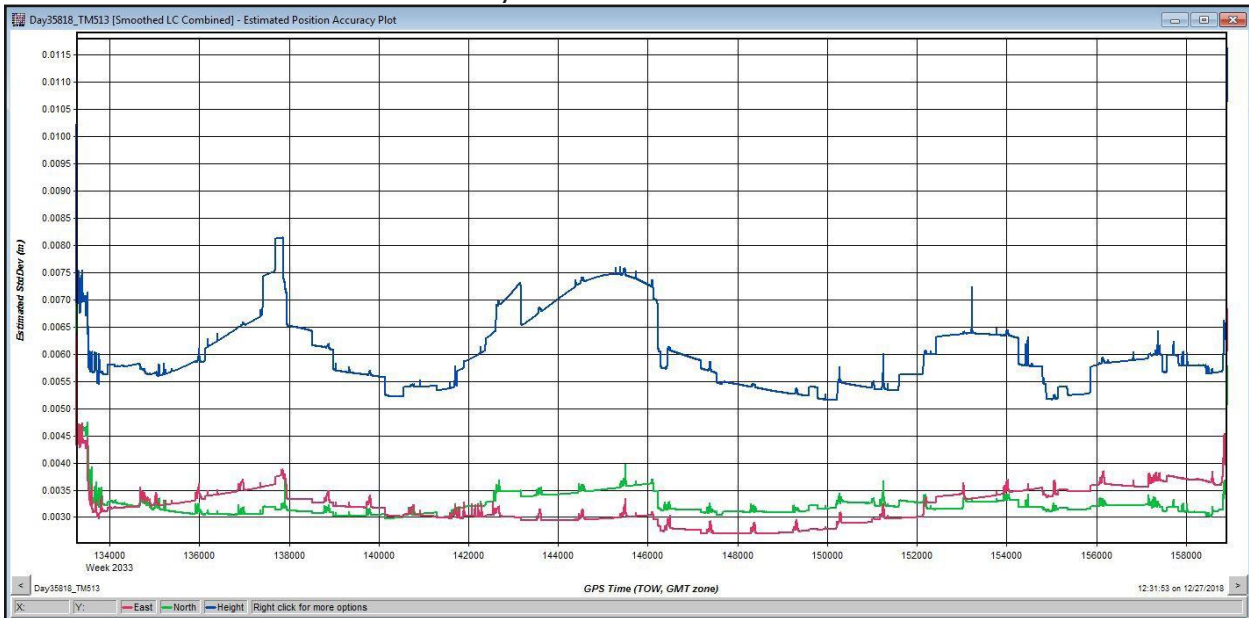


Day35818_TM511

Combined Separation Plot

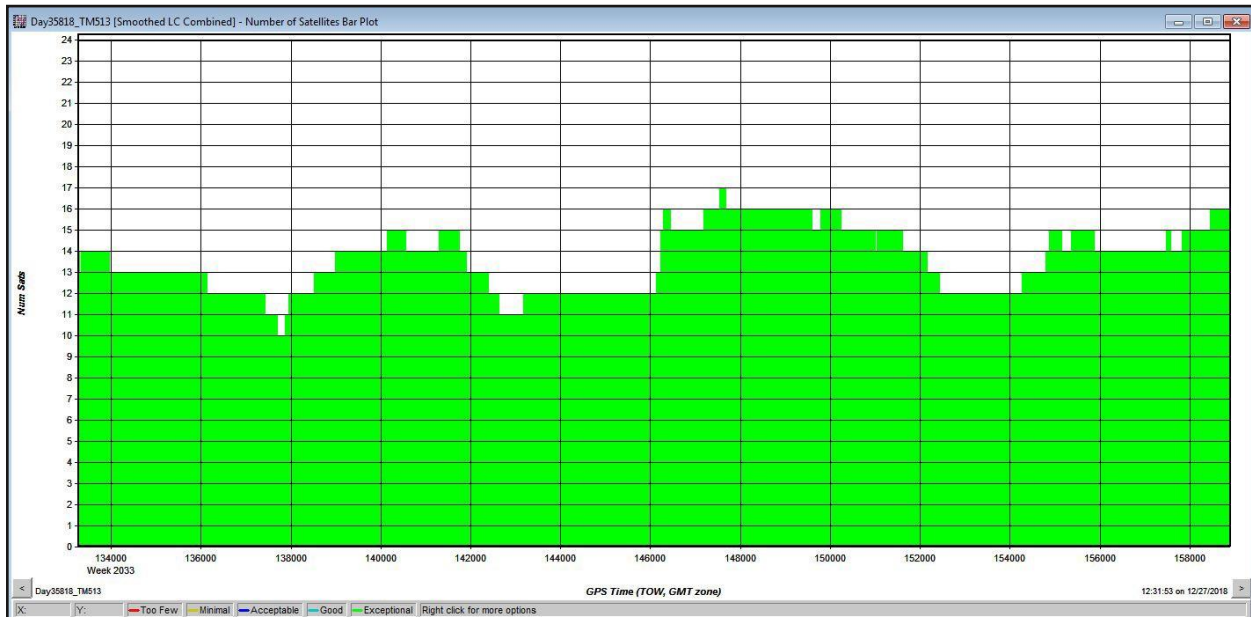


Estimated Position Accuracy Plot

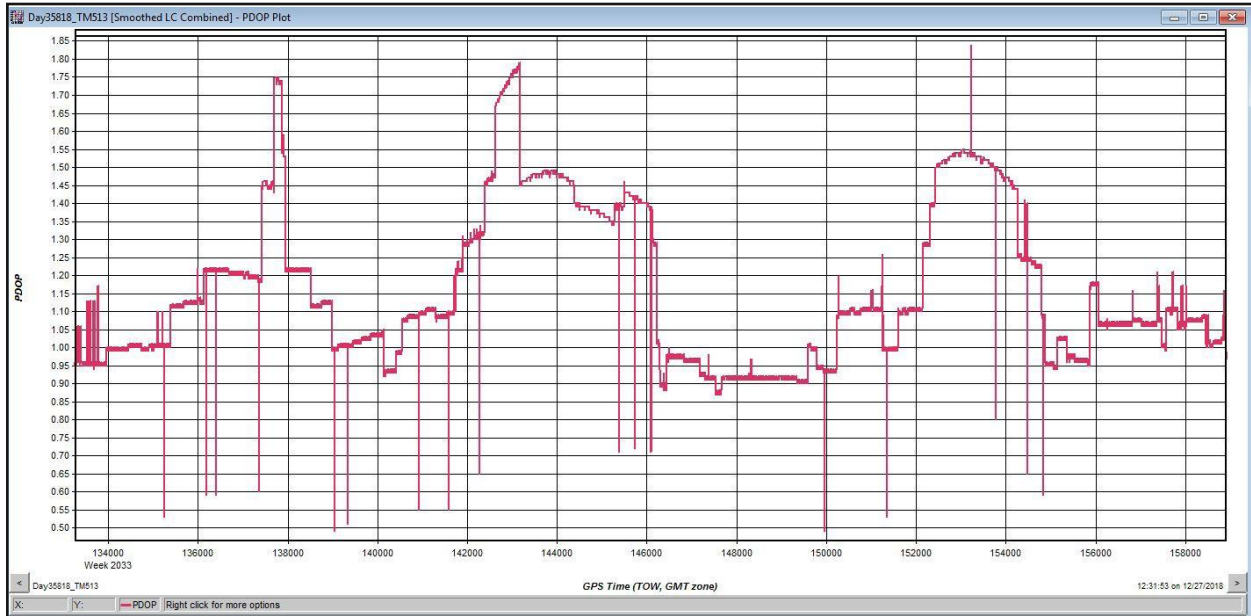


Day35818_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date		
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Blocks 7 & 6		Day358_90511_A			12/24/2018	358	A
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
LaRocque	Cessna 404 Titan - N404CP			6900	08:31:00	13:31:00	KFMY	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Galambos	Leica Terrain Mapper - 90511			6907.1	14:38:00	19:38:00	KFMY	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
50	3	10	12,000	Clear	10	9	30.26	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900	5,900	17				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35		40		150	1550	100		
						Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
1	S	13:31:40	13:44:48	00:13:08	17	1.3	Block #7	
2	N	13:47:31	14:00:42	00:13:11	19	1.2		
3	S	14:03:37	14:16:53	00:13:16	19	1.3		
4	N	14:19:33	14:32:35	00:13:02	18	1.3		
5	S	14:35:23	14:48:20	00:12:57	19	1.3		
6	N	14:51:09	15:04:07	00:12:58	18	1.3		
7	S	15:07:06	15:20:08	00:13:02	20	1.1		
8	N	15:22:50	15:35:45	00:12:55	19	1.2		
9	S	15:38:35	15:51:30	00:12:55	19	1.1		
10	N	15:54:17	16:07:13	00:12:56	17	1.3		
11	S	16:10:10	16:23:00	00:12:50	18	1.4	mount roll out of limit 13 mi south end	
12	N	16:25:46	16:39:04	00:13:18	21	1.1		
13	S	16:41:48	16:54:50	00:13:02	21	1.1		
14	N	16:57:41	17:11:04	00:13:23	21	1.2		
15	S	17:13:54	17:26:54	00:13:00	19	1.2		
16	N	17:29:35	17:43:00	00:13:25	18	1.2		

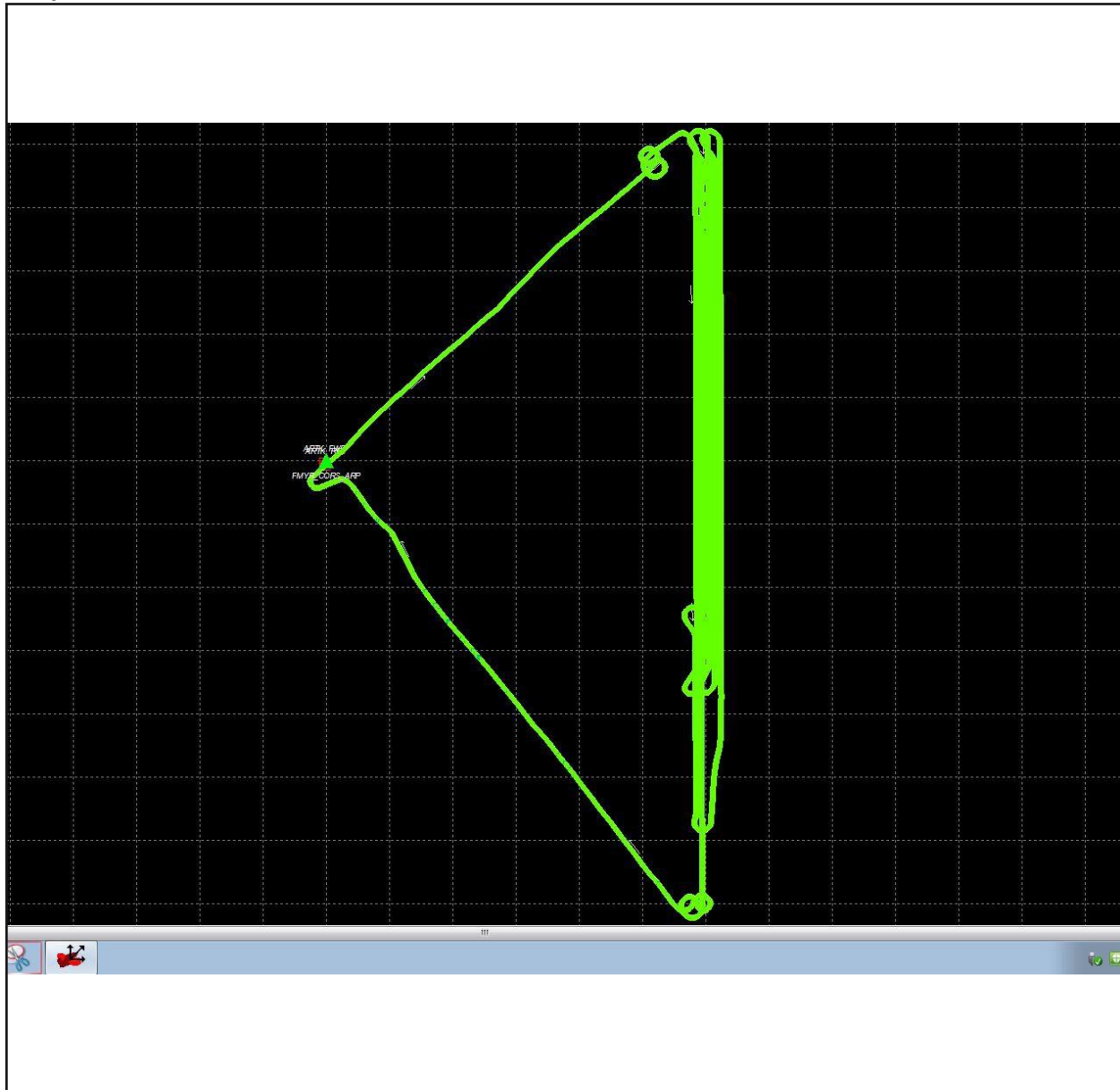
17	S	17:45:58	17:59:07	00:13:09	18	1.1	ATC dropped us 400'	
18	N	18:01:50	18:15:19	00:13:29	18	1.1		
1	N	18:31:29	18:45:09	00:13:40	18	1.2	Block 6	
2	S	18:47:54	19:01:19	00:13:25	18	1.2		
3	N	19:05:32	19:20:45	00:15:13	18	1.2		
4	S	19:23:34	19:38:51	00:15:17	18	1.2		
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
900 GB								

Day36018_TM511

Base Station Coordinates

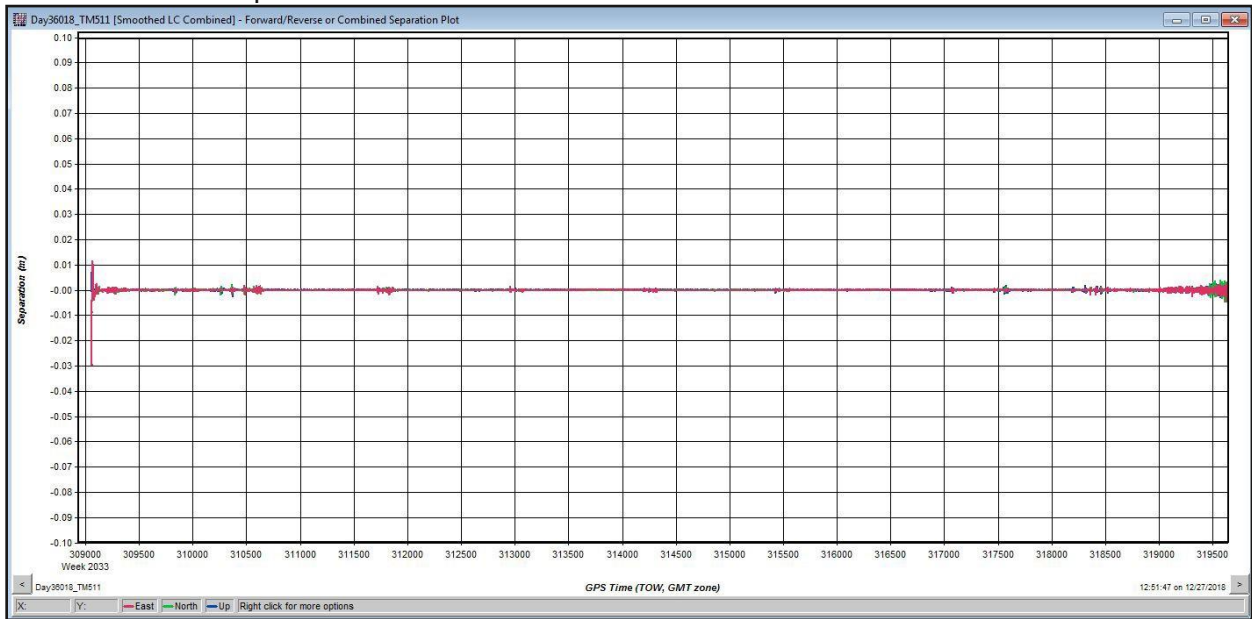
Name	Status	Latitude	Longitude	Height
FMYR_CORS_ARP	ENABLED	26° 35' 27.50794"	-81° 51' 50.97201"	-13.278 m (ELLIPSOIDAL)

Trajectory

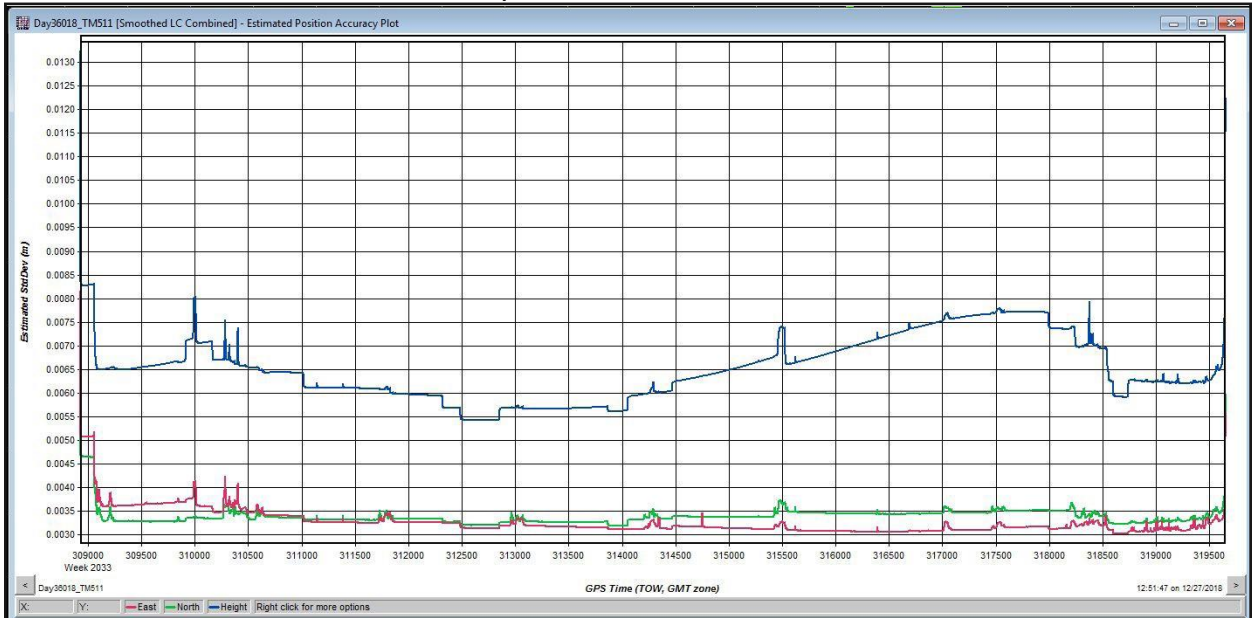


Day36018_TM511

Combined Separation Plot

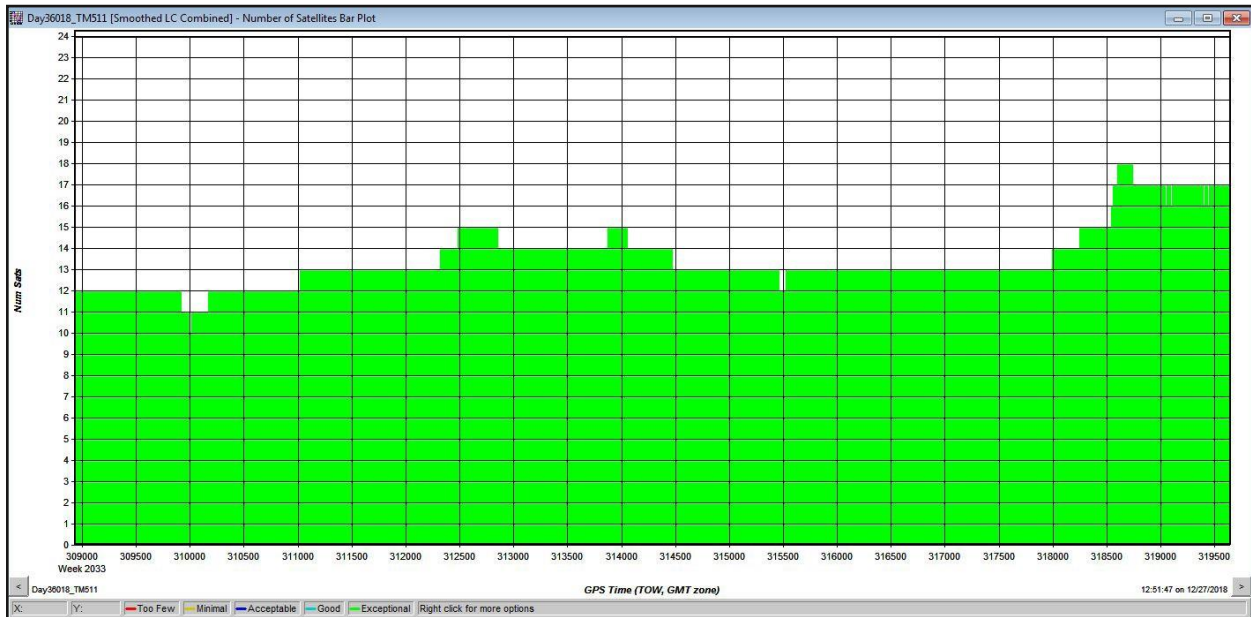


Estimated Position Accuracy Plot

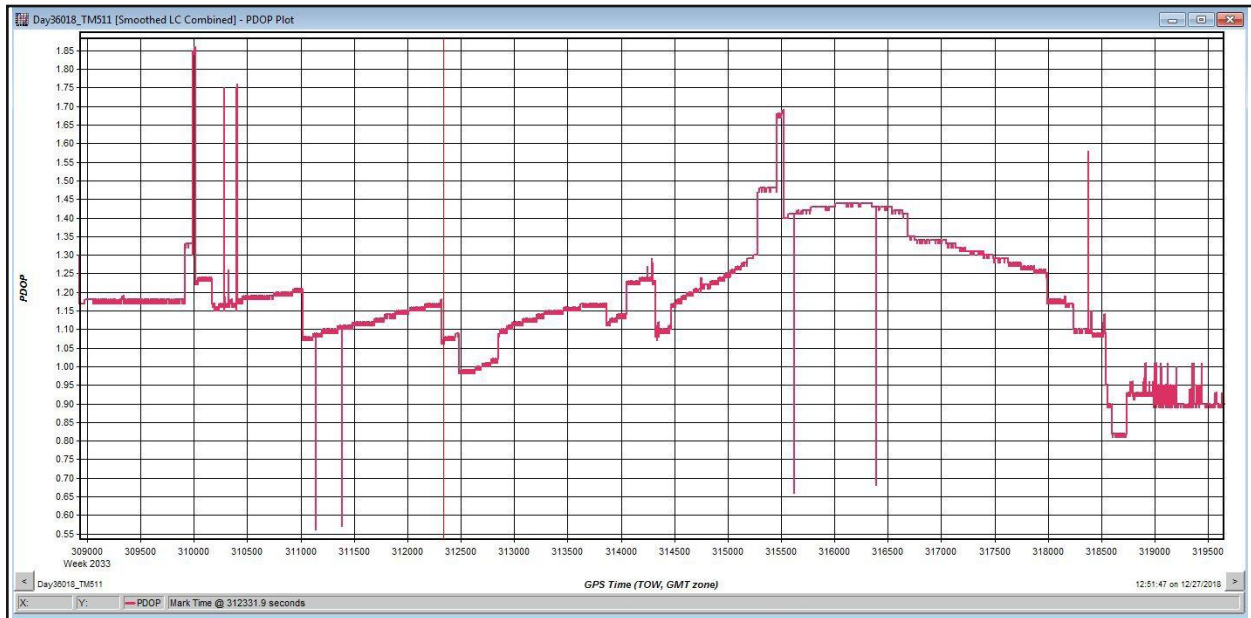


Day36018_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date			
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Blocks 7 & 9		Day360_90511_A			12/26/2018	360	A	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
LaRocque	Cessna 404 Titan - N404CP			6908.2	09:17:00	14:17:00	KFMY		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			6911.1	11:23:00	16:23:00	KFMY		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
60	7	10	12,000	Clear	16.1	14.4	30.23		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
						Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	13:48:28	Takeoff
							Line Notes/Comments		
19	S	14:17:27	14:35:01	00:17:34	17	1.3	Block 7		
20	N	14:37:53	14:55:34	00:17:41	18	1.1			
21	S	14:58:30	15:16:23	00:17:53	20	1.1			
22	N	15:19:08	15:36:39	00:17:31	21	1.2			
23	S	15:39:28	15:57:27	00:17:59	20	1.3	Some clouds from 17.6 miles from the N end to the end of line. No dropouts noted		
							Block 9		
1	N	16:05:00	16:10:35	00:05:35	21	1.2			
2	S	16:13:30	16:22:56	00:09:26	20	1.1	Ended 20 miles into the line from the North due to massive cloud cover		
							No noted dropouts		

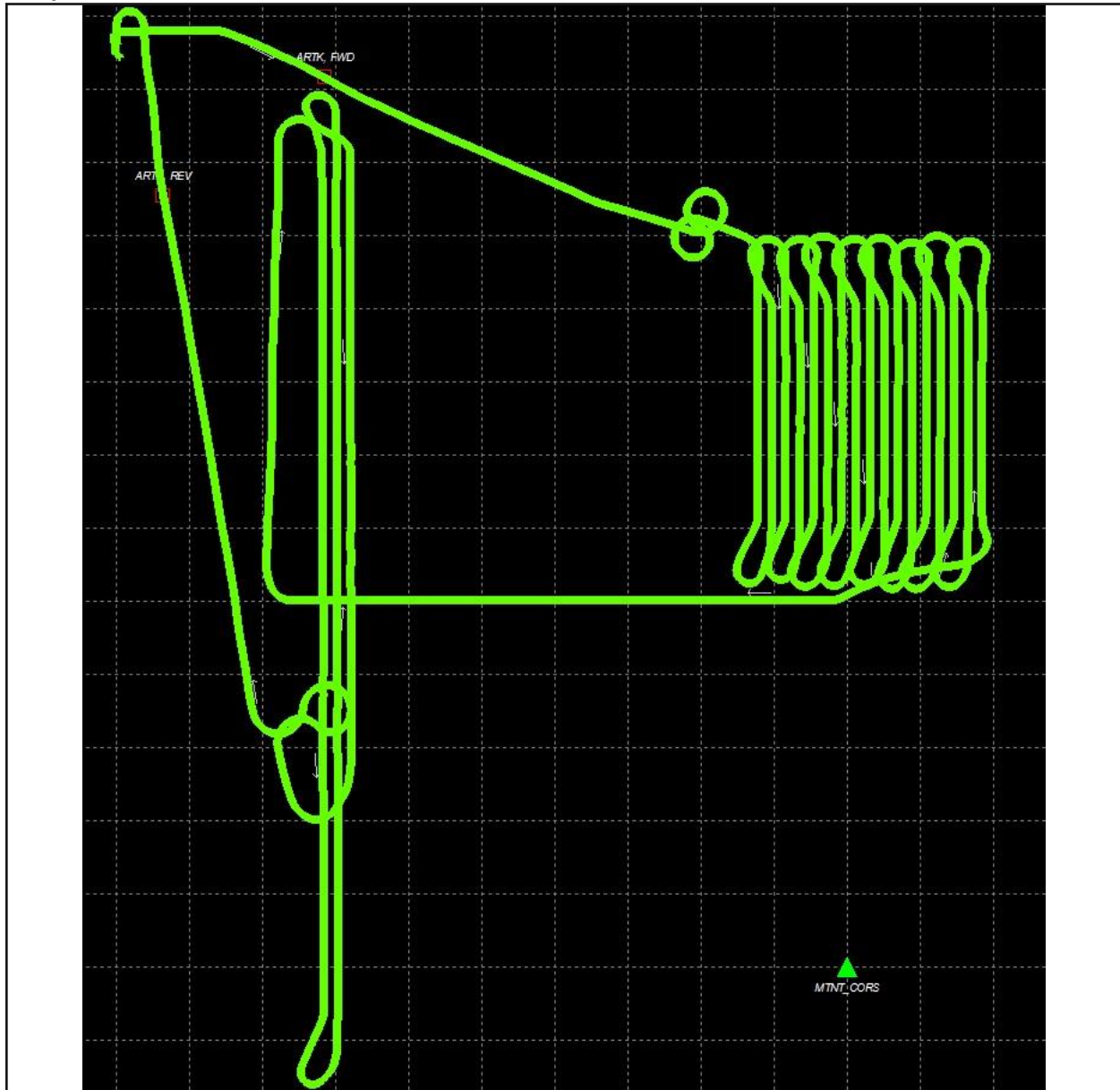
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
367 GB							

Day00219_TM511

Base Station Coordinates

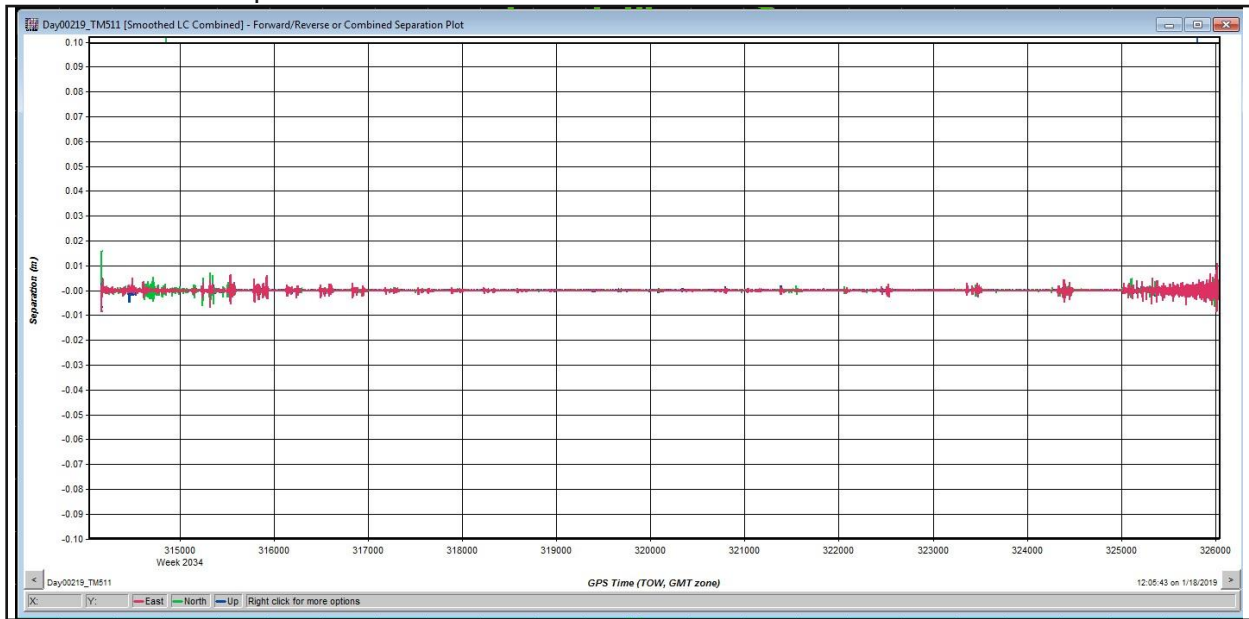
Name	Status	Latitude	Longitude	Height
MTNT_CORS	ENABLED	25° 51' 56.76077"	-80° 54' 25.18641"	-18.804 m (ELLIPSOIDAL)

Trajectory



Day00219_TM511

Combined Separation Plot

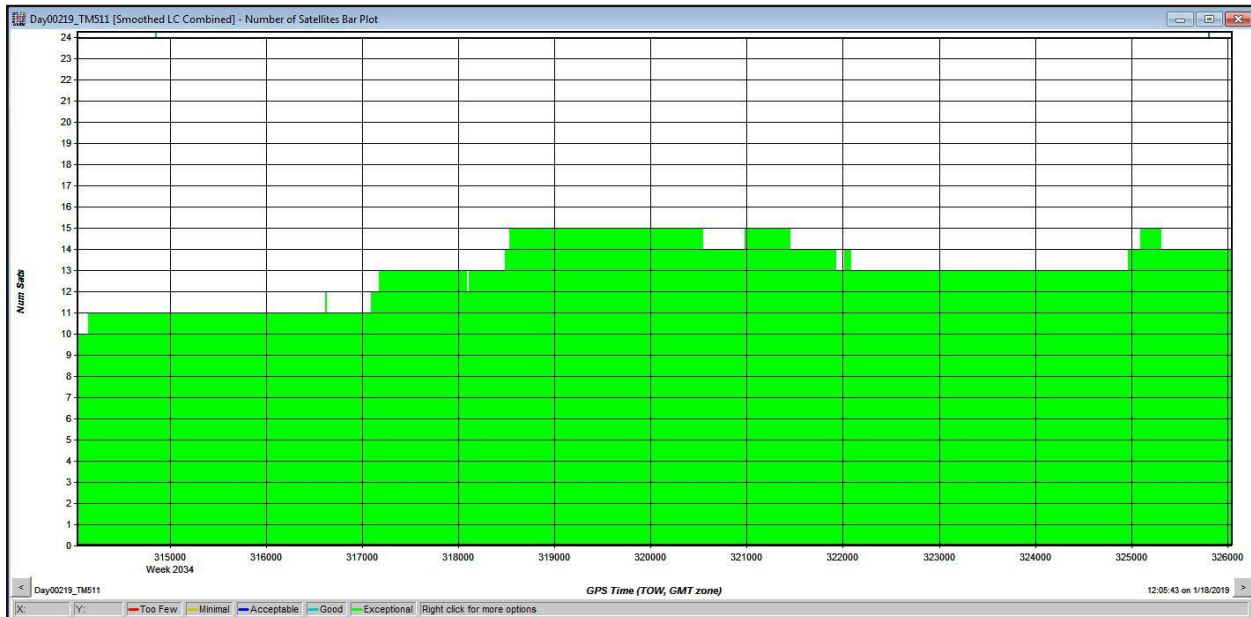


Estimated Position Accuracy Plot

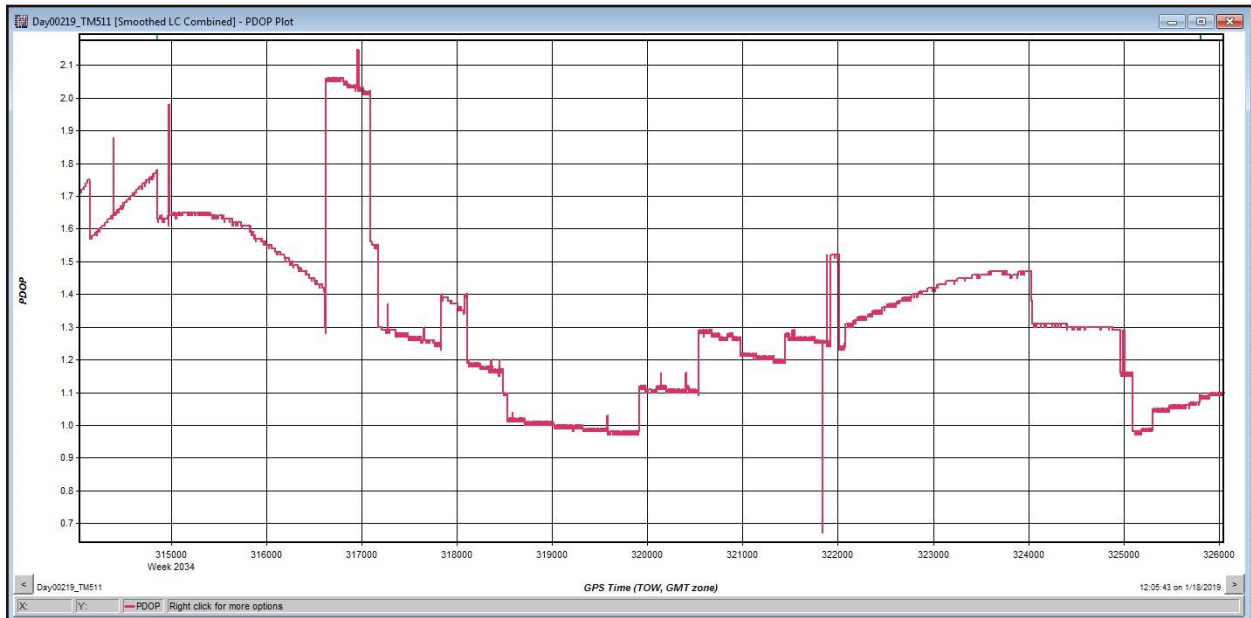


Day00219_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date				
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #		
79028	FL Peninsular 2018 D18 - Block 9			Day02_90511_A		01/02/2019	002	A		
Crew		Equipment			Time			Airports		
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing			
LaRocque	Cessna 404 Titan - N404CP			6911.8	10:39:00	15:39:00	KIMM			
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving			
Galambos	Leica Terrain Mapper - 90511			6915	01:17:00	18:17:00	KIMM			
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
90	6	10	12,000		25	20	30.2			
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)						
140		5,900	5,900	17						
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40		150	1550	100				
						Verify S-Turns Before Mission	Yes			
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	15:13:34	Takeoff	1523z
							Line Notes/Comments			
34	S	15:39:40	15:42:45	00:03:05	24	1.2				
35	N	15:45:30	15:47:34	00:02:04	24	1.2				
36	S	15:51:23	15:54:31	00:03:08	25	1.1				
37	N	15:57:03	16:00:12	00:03:09	25	1.2				
38	S	16:02:58	16:06:02	00:03:04	25	1.2				
39	N	16:08:47	16:11:49	00:03:02	25	1.2				
40	S	16:14:42	16:17:44	00:03:02	26	1.1				
41	N	16:20:30	16:23:30	00:03:00	26	1.1				
42	S	16:26:17	16:29:29	00:03:12	23	1.2				
43	N	16:32:08	16:35:10	00:03:02	20	1.3				
44	S	16:38:02	16:41:08	00:03:06	23	1.3				
45	N	16:44:00	16:47:07	00:03:07	22	1.3				
46	S	16:49:42	16:52:44	00:03:02	22	1.3				
47	N	16:55:35	16:58:35	00:03:00	22	1.3				

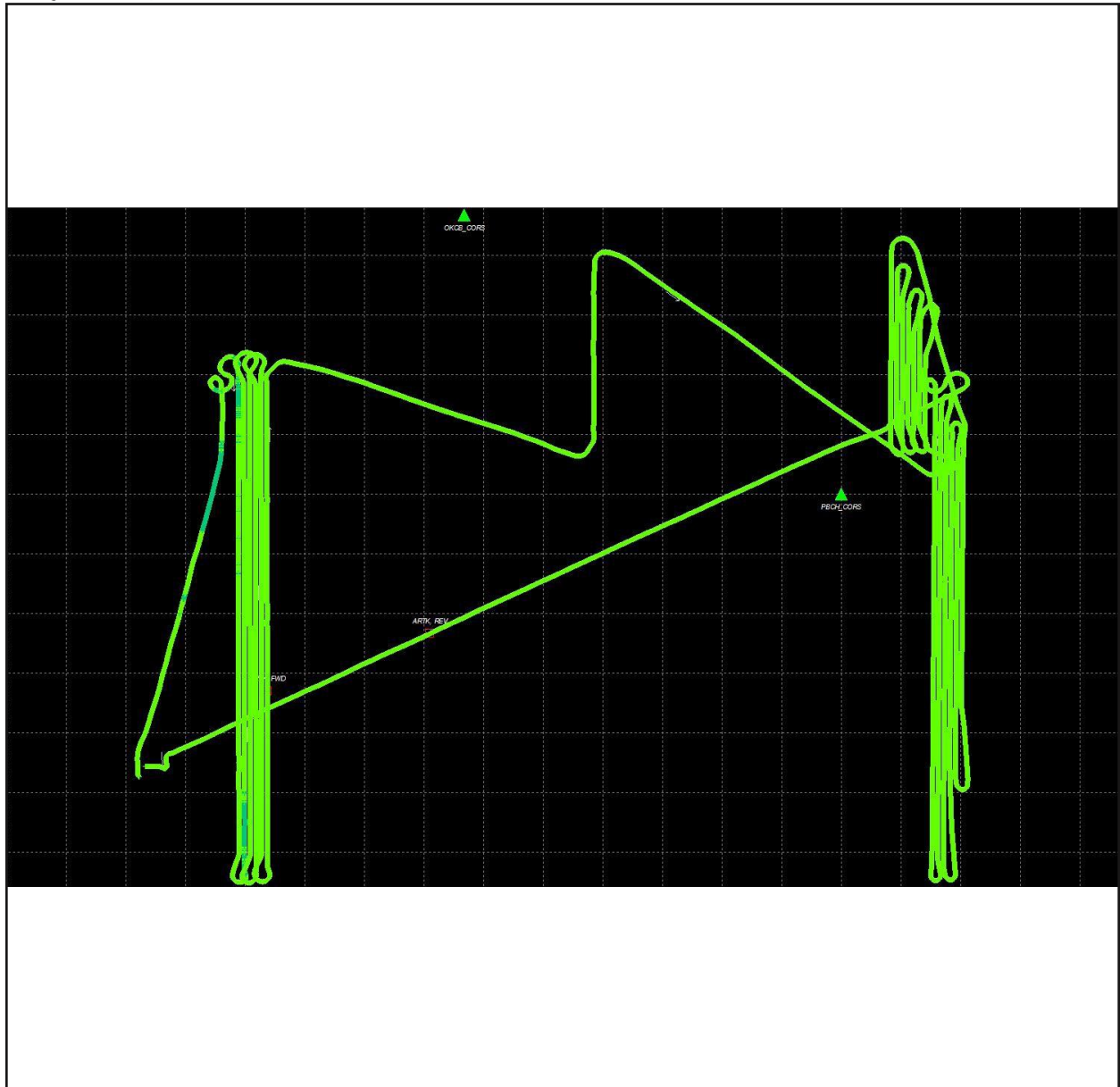
48	S	17:01:26	17:04:02	00:02:36	22	1.3		
49	N	17:07:10	17:10:10	00:03:00	23	1.2		
50	S	17:12:52	17:15:52	00:03:00	23	1.2		
51	W	17:20:04	17:27:18	00:07:14	23	1.1	Cross-Flight	
3	S	17:35:55	17:48:57	00:13:02	21	1.3	Clouds Southern End	
4	N	17:51:50	18:04:02	00:12:12	23	1.2	Clouds Southern End	
5	S	18:07:57	18:16:38	00:08:41	22	1.2	Manual Stop due to clouds	
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								

Day00519_TM511

Base Station Coordinates

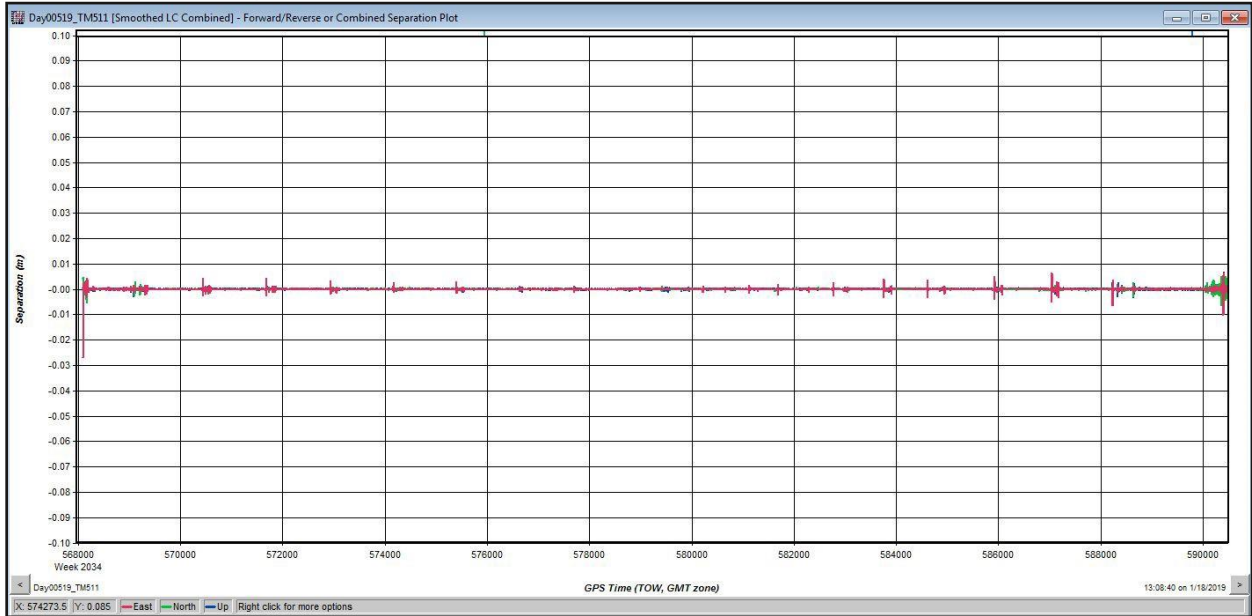
Name	Status	Latitude	Longitude	Height
PBCH_CORS	ENABLED	26° 50' 46.63807"	-80° 13' 09.29993"	-15.179 m (ELLIPSOIDAL)
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory

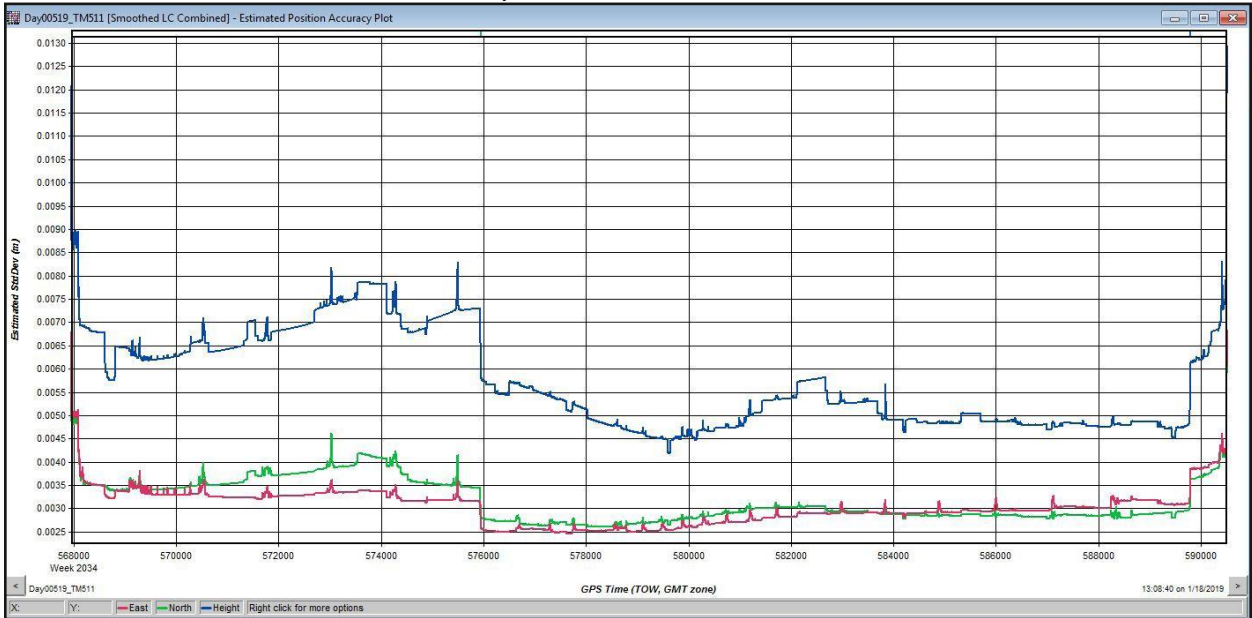


Day00519_TM511

Combined Separation Plot

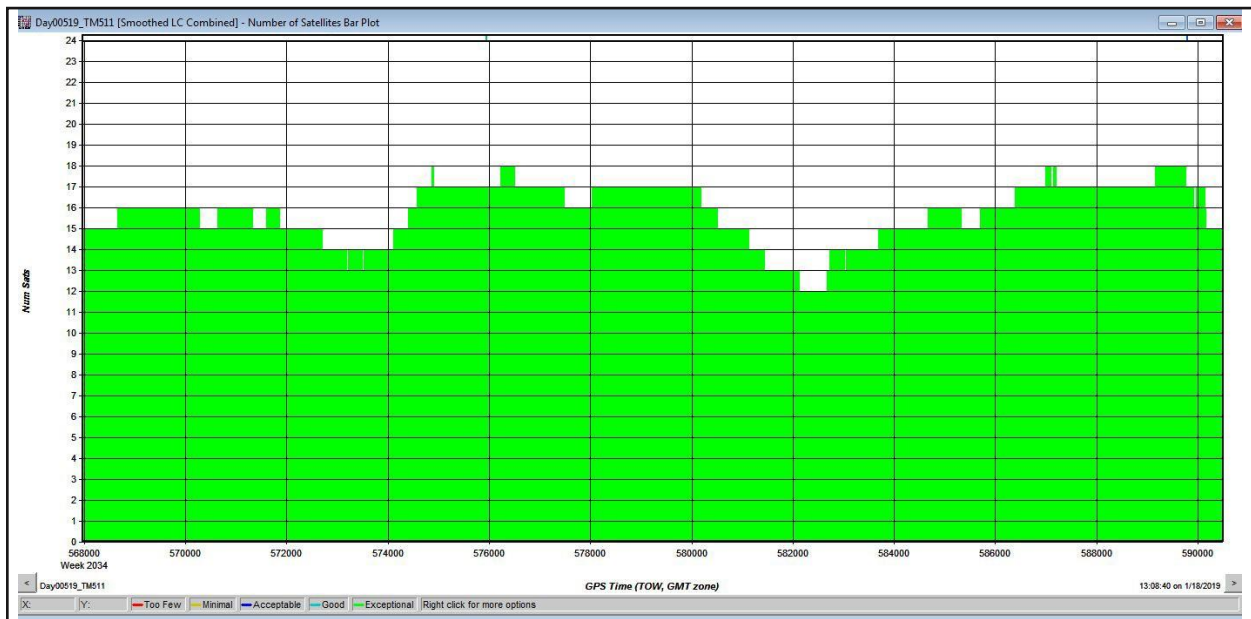


Estimated Position Accuracy Plot

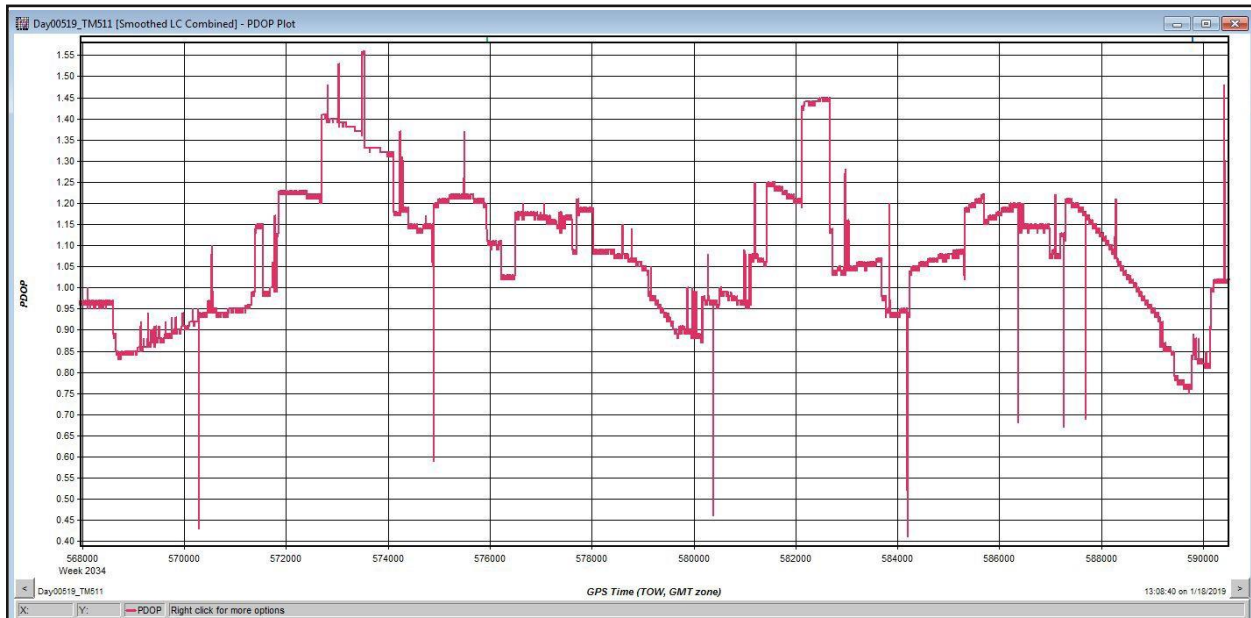


Day00519_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date				
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #		
79028	FL Peninsular 2018 D18 - Block 6, 7, 8			Day05_90511_A		01/05/2019	005	A		
Crew		Equipment			Time			Airports		
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing			
LaRocque	Cessna 404 Titan - N404CP			6915	09:09:00	14:09:00	KIMM			
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving			
Galambos	Leica Terrain Mapper - 90511			6921.2	14:23:00	19:23:00	KIMM			
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
10	5	10	7,500	Scattered	19	16	30.06			
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)						
140		5,900	5,900	17						
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40		150	1550	100				
						Verify S-Turns Before Mission	Yes			
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	13:46:00	Takeoff	1349z
							Line Notes/Comments			
24	S	14:09:18	14:27:08	00:17:50	22	1.2	Block 7			
25	N	14:29:54	14:47:08	00:17:14	20	1.2				
26	S	14:50:55	15:08:46	00:17:51	22	1.1				
27	N	15:11:32	15:29:09	00:17:37	23	1.1				
28	S	15:32:12	15:49:44	00:17:32	23	1.2	Smoke 26 mi, cloud 15 mi			
29	N	15:32:27	16:10:15	00:37:48	24	1.2	Small clouds throughout the flight line			
							Block 6			
5	N	16:22:42	16:28:07	00:05:25	23	1.5	Man stop due to clouds			
63	N	16:47:08	16:49:22	00:02:14	22	1.3	11:44 Tide opens			
62	S	16:53:18	16:56:35	00:03:17	23	1.1				
61	N	16:59:28	17:02:51	00:03:23	23	1.1				
60	S	17:05:53	17:10:00	00:04:07	23	1.1				
59	N	17:12:50	17:17:22	00:04:32	23	1.1	some small clouds over the water			
58	S	17:20:19	17:25:08	00:04:49	21	1.1				
57	N	17:28:07	17:34:25	00:06:18	20	1.1	to many clouds			
							Block 8			
75	S	17:44:46	17:52:30	00:07:44	19	1.3				
74	N	17:57:21	18:09:04	00:11:43	19	1.2				
73	S	18:11:37	18:23:15	00:11:38	19	1.2	TO Issue yellow, went away			

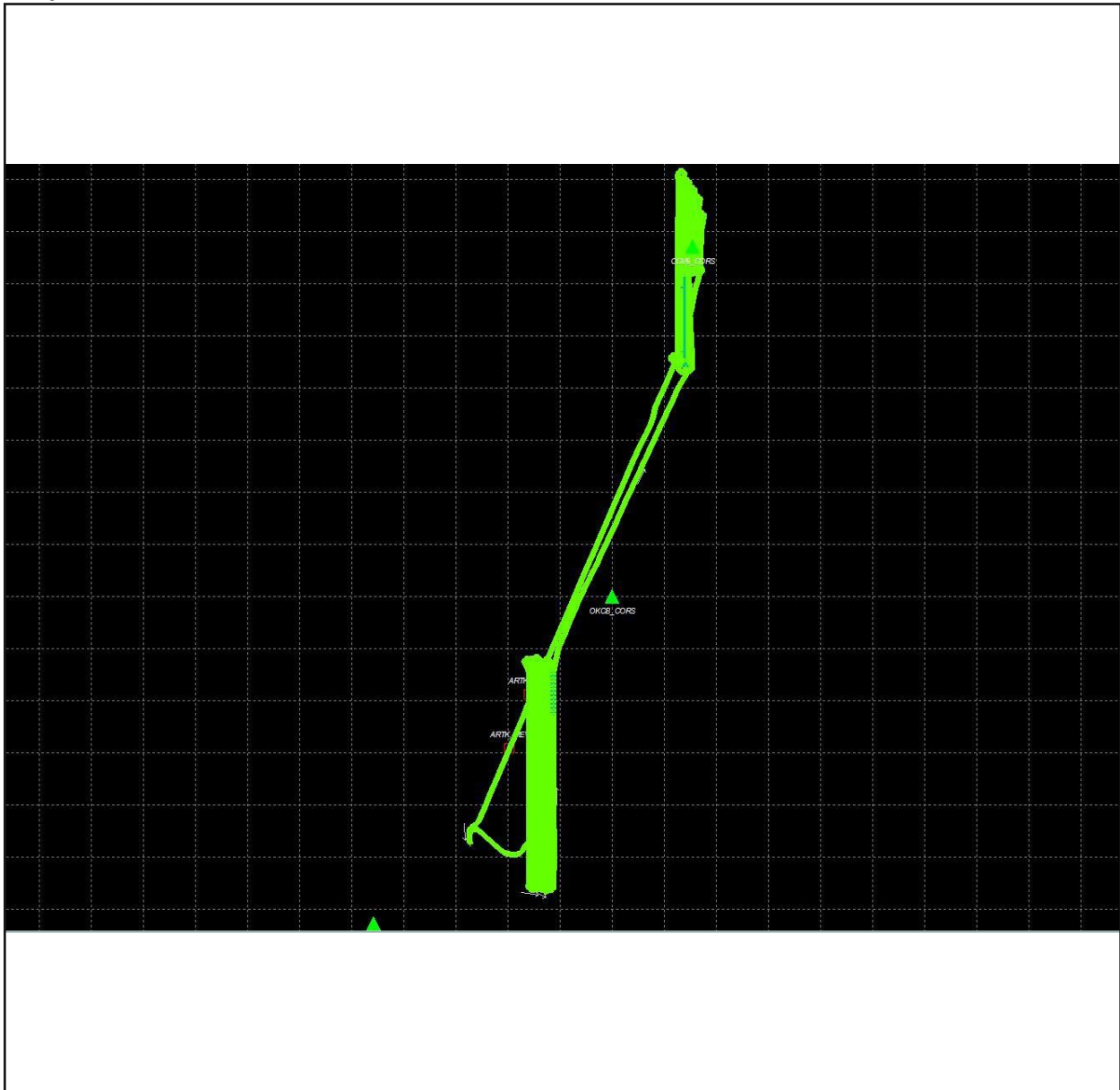
72	N	18:29:00	18:45:06	00:16:06	19	1.3		
71	S	18:47:41	19:03:49	00:16:08	21	1.2	cloud with 26 miles to go	
70	N	19:06:08	19:23:34	00:17:26	21	1.1	Clouds	
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
772GB								

Day00619_TM511

Base Station Coordinates

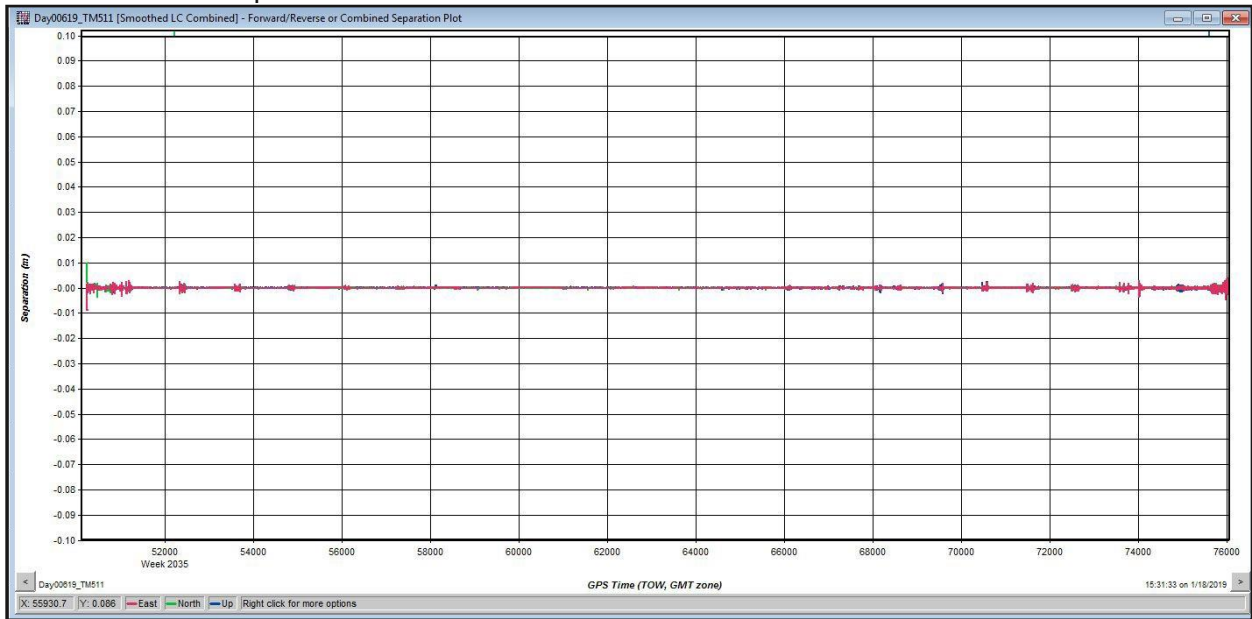
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)
NAPL_CORS	ENABLED	26° 08' 55.10363"	-81° 46' 34.62678"	-17.338 m (ELLIPSOIDAL)

Trajectory



Day00619_TM511

Combined Separation Plot

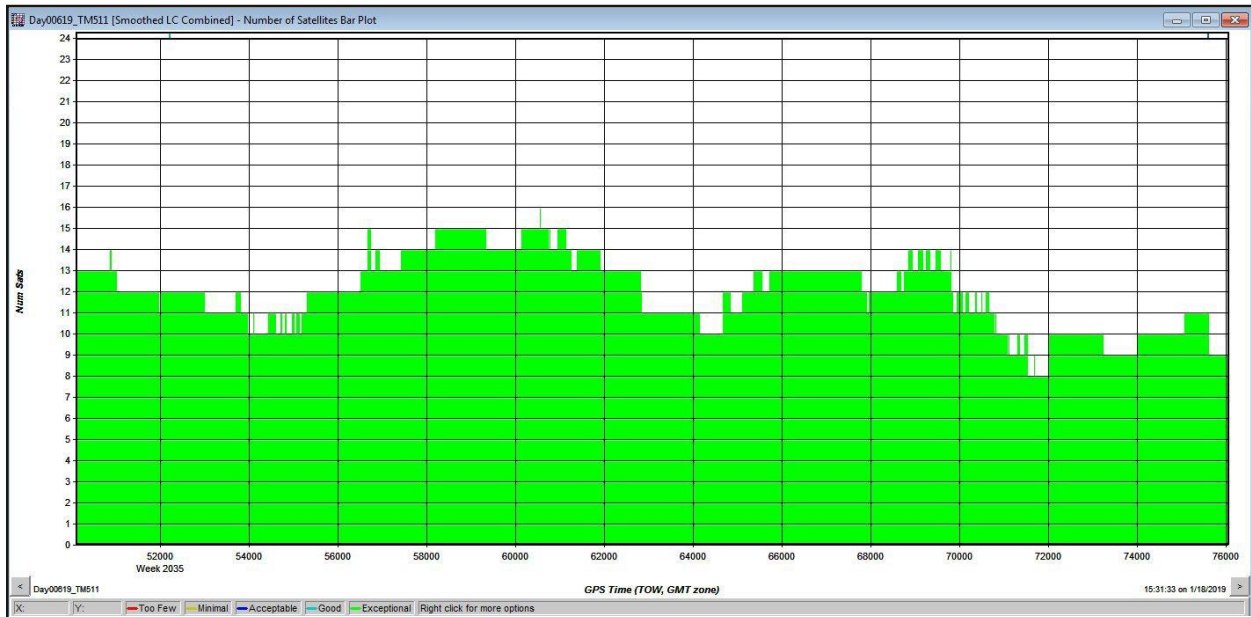


Estimated Position Accuracy Plot

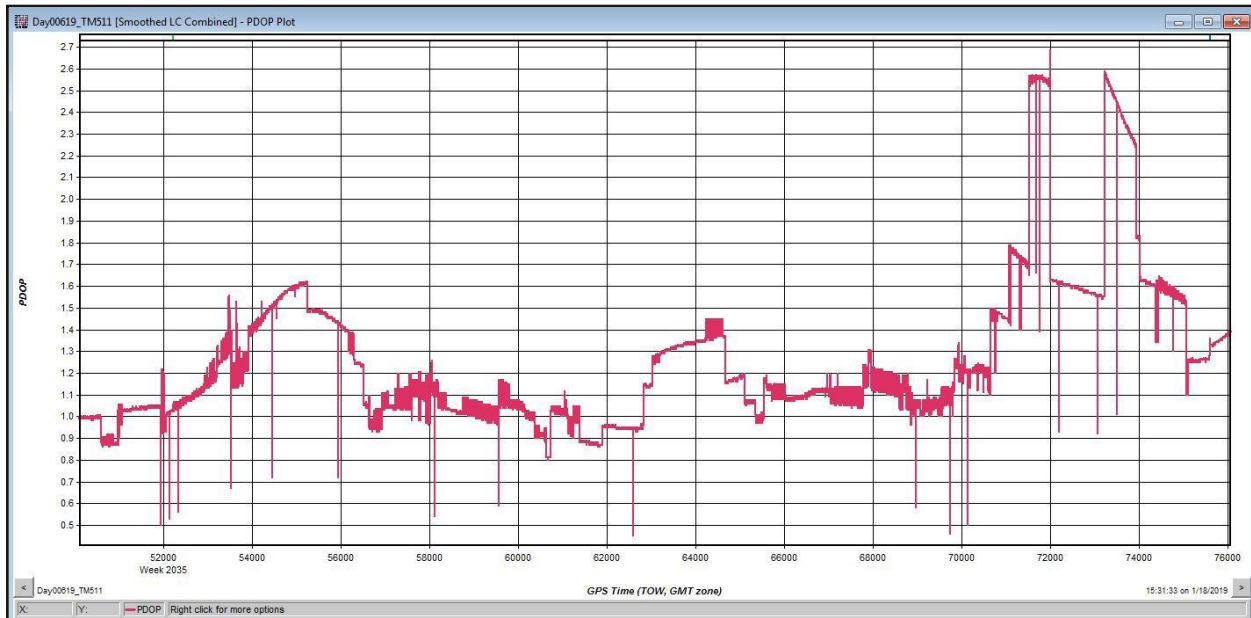


Day00619_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date			
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 7 & 2			Day06_90511_A			01/06/2018	006	A	
Crew		Equipment			Time			Airports		
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing			
LaRocque	Cessna 404 Titan - N404CP			6921.2	09:14:00	14:14:00	KIMM			
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving			
Galambos	Leica Terrain Mapper - 90511			6928.4	15:26:00	20:26:00	KIMM			
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
10	5	10	12,000		12	11	30.19			
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)						
140		5,900	5,900	17						
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40		150	1550	100				
							Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	13:54:54	Takeoff	
							Line Notes/Comments			
30	N	14:13:58	14:31:57	00:17:59	20	1.1	Block 7			
31	S	14:13:58	14:53:45	00:39:47	21	1.2				
32	N	14:55:20	15:13:00	00:17:40	19	1.3				
33	S	15:15:57	15:34:07	00:18:10	18	1.3				
34	N	15:36:45	15:54:09	00:17:24	21	1.1				
35	S	15:57:25	16:15:30	00:18:05	22	1.1				
36	N	16:18:03	16:34:55	00:16:52	19	1.2				
37	S	16:37:56	16:55:16	00:17:20	20	1.3				
38	N	16:58:00	17:15:10	00:17:10	19	1.1				
39	S	17:18:24	17:36:01	00:17:37	18	1.2				
40	N	17:38:40	17:56:09	00:17:29	18	1.2				
							Block 2 All lines tidal			
							tide 12:09 - 16:09			
39	N	18:22:53	18:25:40	00:02:47	17	1.2				
38	N	18:31:45	18:33:40	00:01:55	17	1.2				

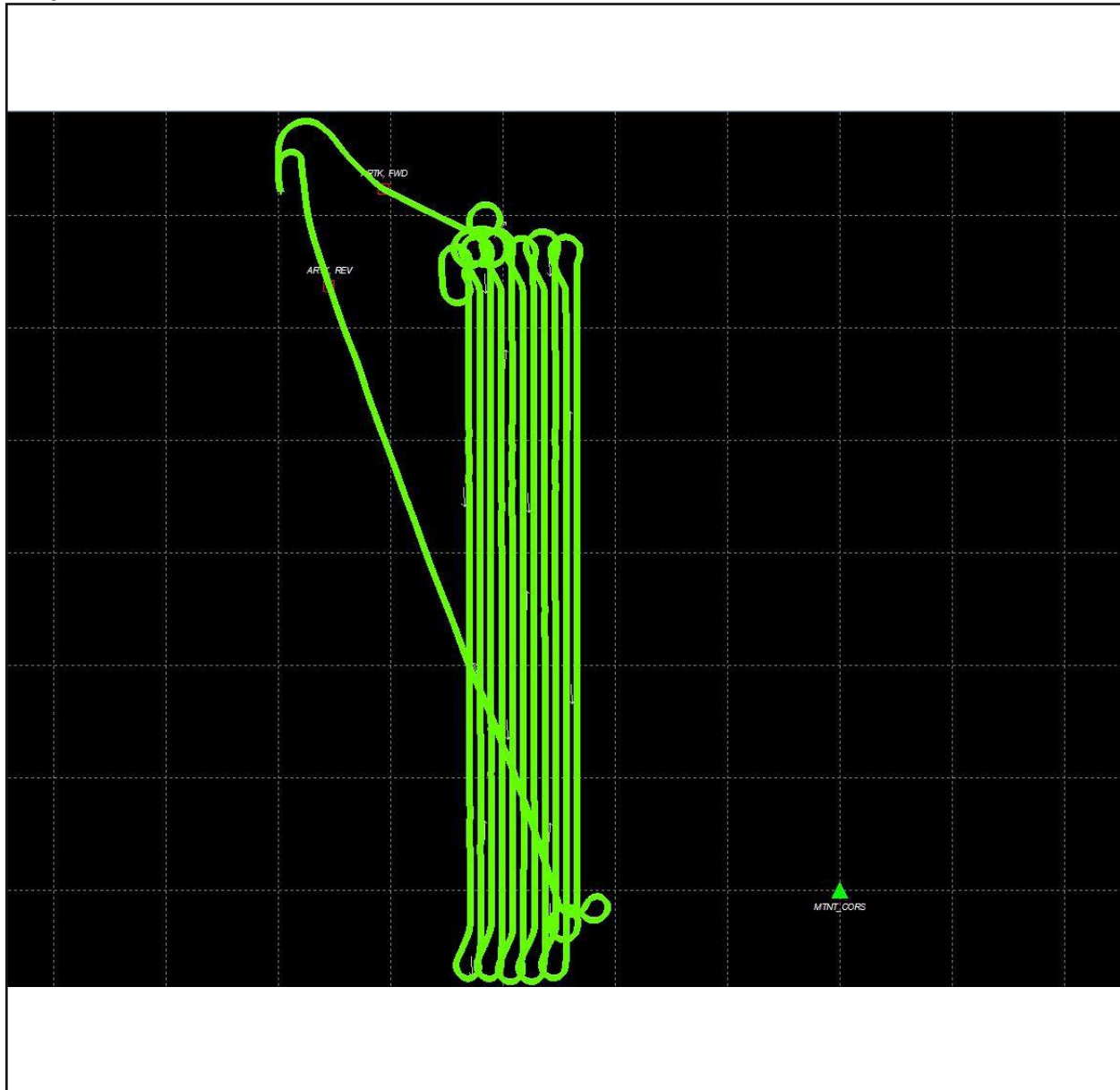
37	S	18:36:54	18:39:50	00:02:56	17	1.2		
36	N	18:42:38	18:45:39	00:03:01	17	1.2		
35	S	18:49:38	18:54:05	00:04:27	18	1.1	Small cloud over the water	
34	N	18:56:34	19:01:00	00:04:26	18	1.1		
33	S	19:04:22	19:10:09	00:05:47	18	1.3	Cloud	
32	N	19:20:07	19:34:14	00:14:07	19	1	Cloud 22 miles into the line	
31	S	19:36:54	19:51:00	00:14:06	19	1	Cloud 12 miles into the line	
30	N	19:53:52	20:08:03	00:14:11	19	1		
29	S	20:11:10	20:26:06	00:14:56	19	1		
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								

Day00719_TM511

Base Station Coordinates

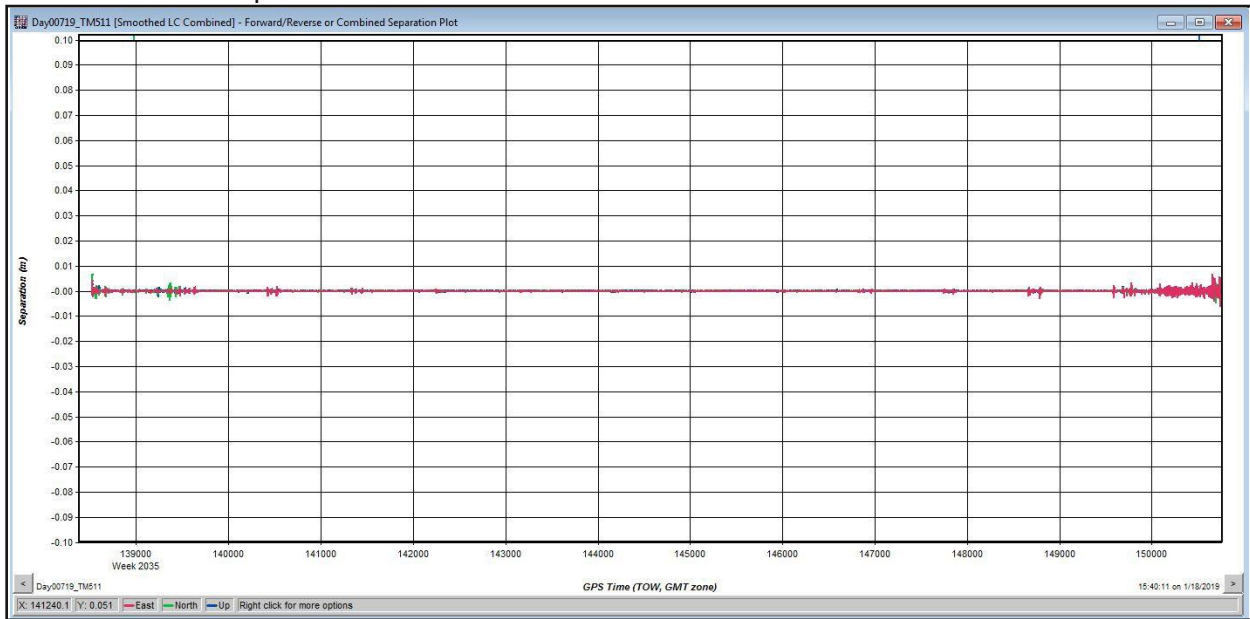
Name	Status	Latitude	Longitude	Height
MTNT_CORC	ENABLED	25° 51' 56.76077"	-80° 54' 25.18641"	-18.804 m (ELLIPSOIDAL)

Trajectory



Day00719_TM511

Combined Separation Plot

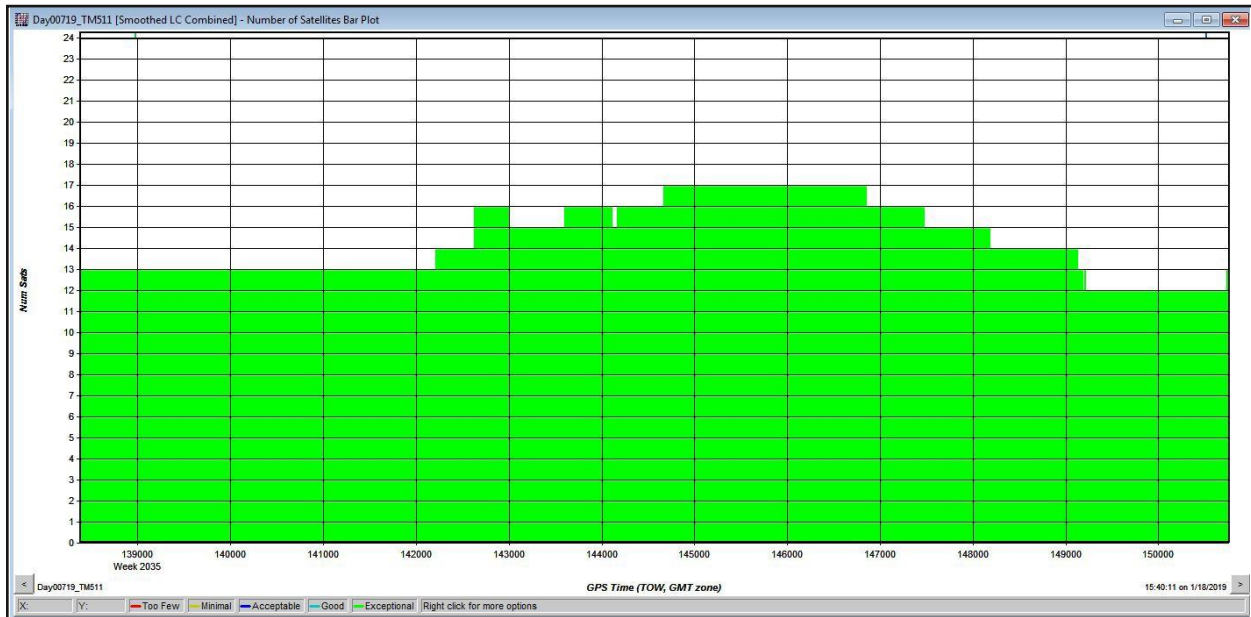


Estimated Position Accuracy Plot

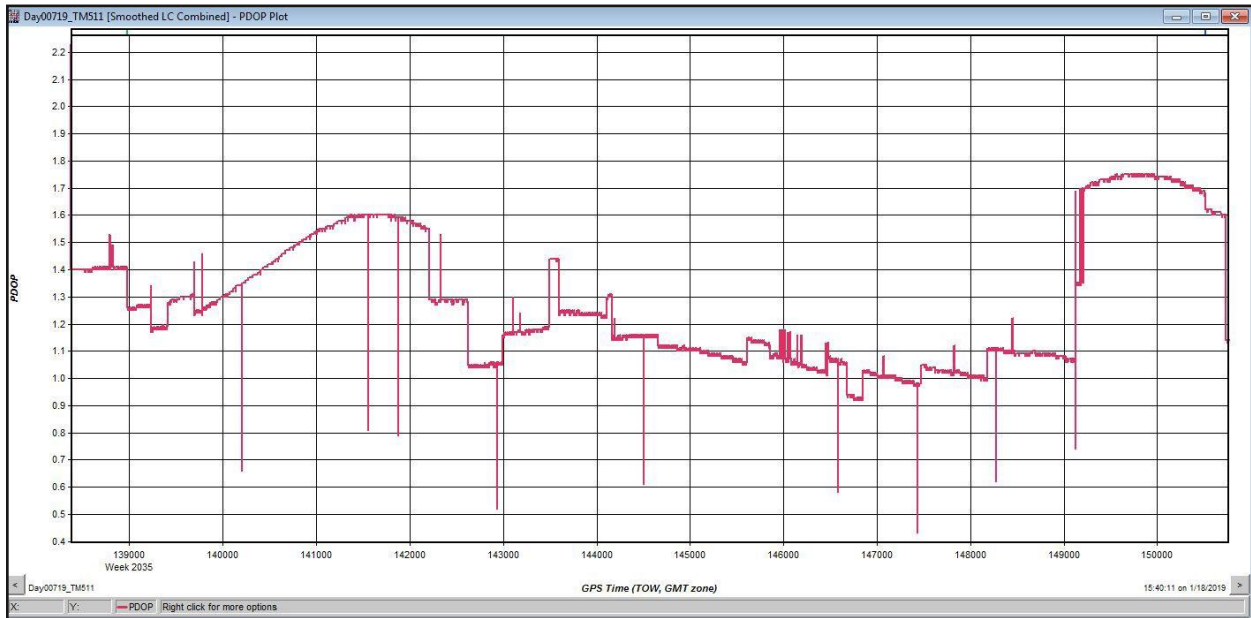


Day00719_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date			
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 9			Day07_90511_A		01/07/2019	007	A	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
LaRocque	Cessna 404 Titan - N404CP			6928.4	09:47:00	14:47:00	KIMM		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			6931.8	12:33:00	17:33:00	KIMM		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
70	5	10	12,000	Clear	19	18	30.24		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
						Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	14:26:06	Takeoff
							Line Notes/Comments		
6	S	14:47:36	15:00:00	00:12:24	21	1.2			
7	N	15:02:44	15:15:12	00:12:28	19	1.4			
8	S	15:18:00	15:30:30	00:12:30	22	1.1			
9	N	15:33:12	15:45:37	00:12:25	25	1.1			
10	S	15:48:42	16:01:05	00:12:23	23	1.2			
11	N	16:03:56	16:16:17	00:12:21	23	1.2			
12	S	16:19:03	16:31:42	00:12:39	23	1.2	Small cloud 4 miles to go		
13	N	16:34:20	16:46:39	00:12:19	21	1.2			
14	S	16:49:42	17:02:10	00:12:28	20	1.1	cloud 5 iles from end		
15	N	17:04:50	17:17:27	00:12:37	18	1.2	clouds 1st 7 mi		
16	S	17:20:12	17:32:45	00:12:33	17	1.3	clouds both ends		

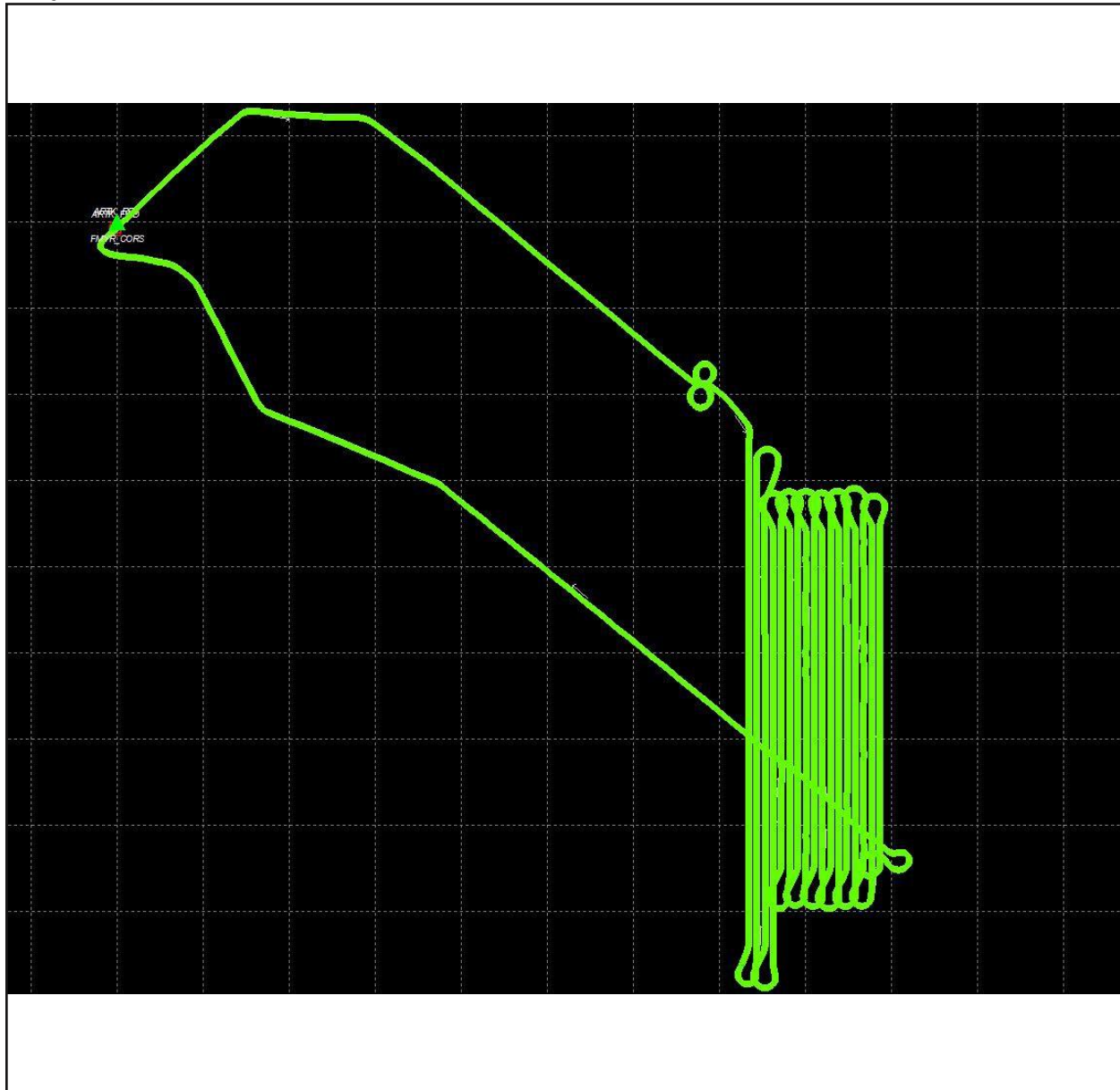
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							

Day00819_TM511

Base Station Coordinates

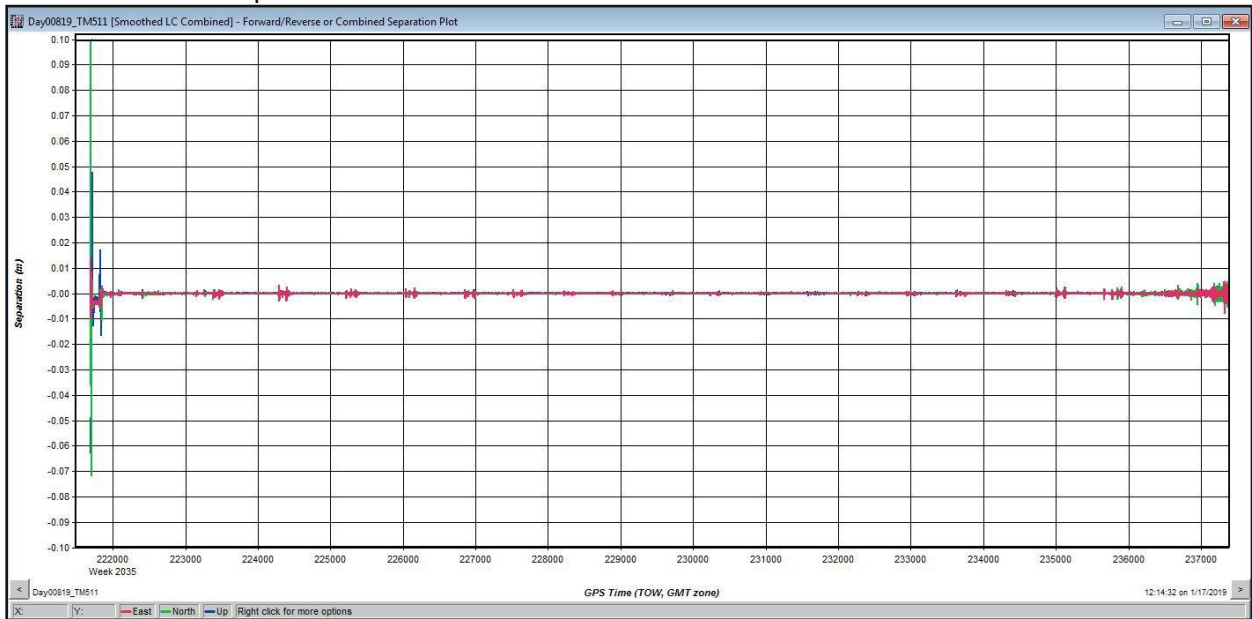
Name	Status	Latitude	Longitude	Height
FMYR_CORS	ENABLED	26° 35' 27.50795"	-81° 51' 59.97208"	-13.157 m (ELLIPSOIDAL)

Trajectory

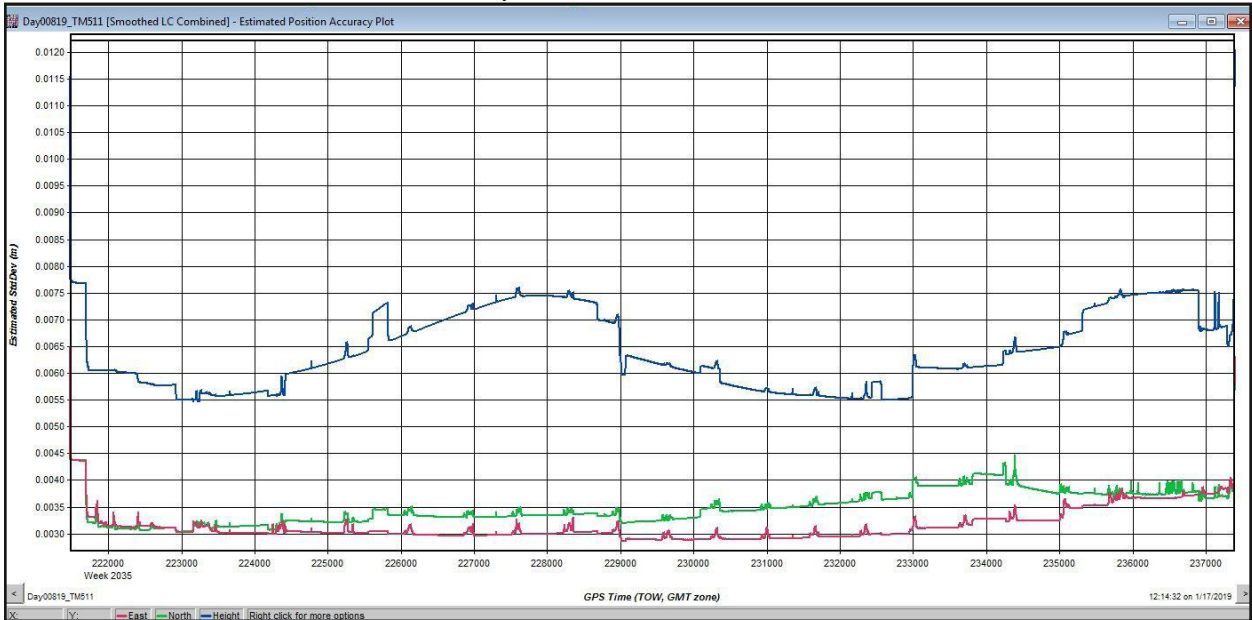


Day00819_TM511

Combined Separation Plot

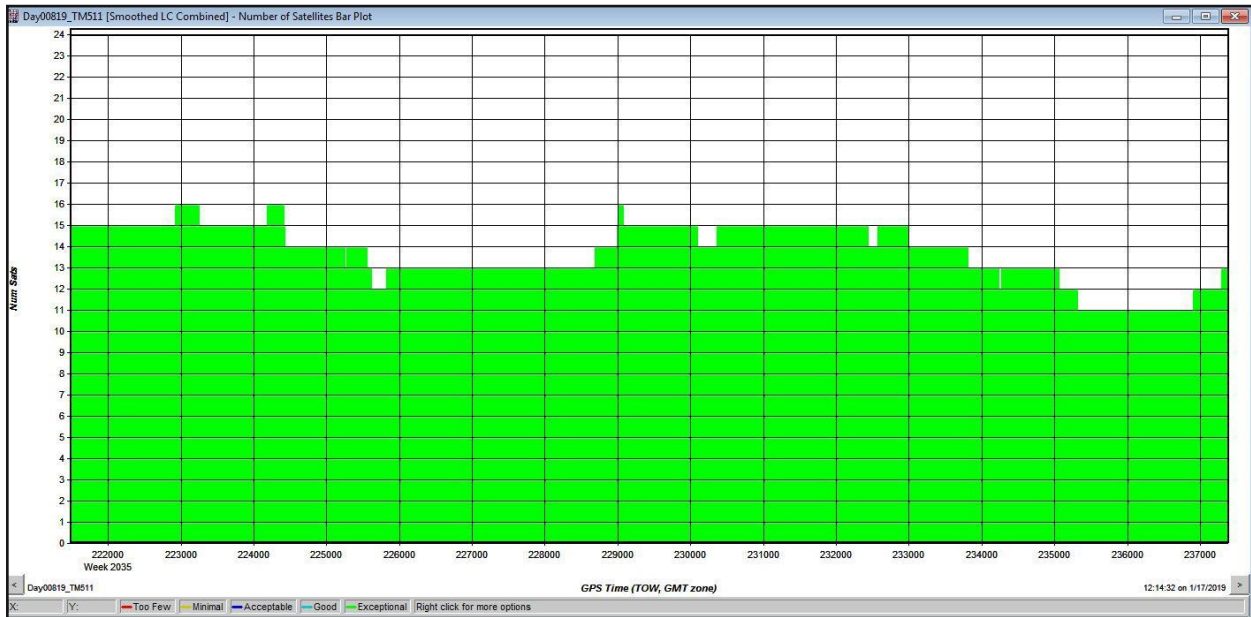


Estimated Position Accuracy Plot

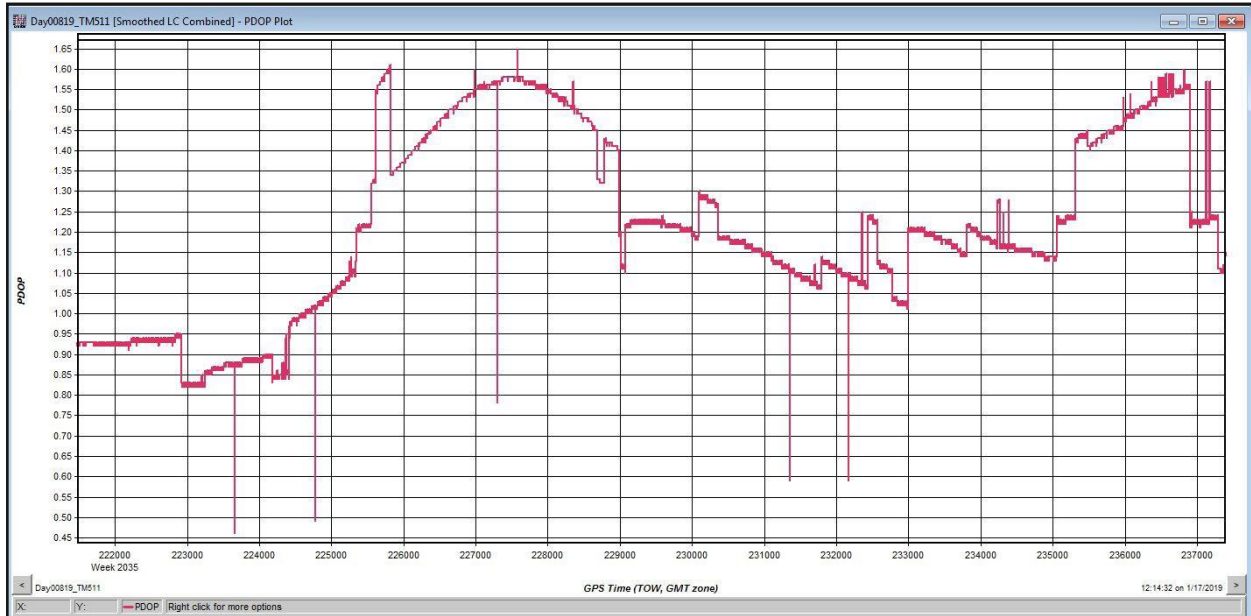


Day00819_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date			
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 9			Day08_90511_A		01/08/2019	008	A	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
LaRocque	Cessna 404 Titan - N404CP			6932.1	09:05:00	14:05:00	KFMY		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			6936.3	12:27:00	17:27:00	KFMY		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
10	3	10	12,000		15.6	14.4	30.19		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
						Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	13:31:05	Takeoff
							Line Notes/Comments		
17	S	14:05:12	14:17:50	00:12:38	21	1.2			
18	N	14:20:30	14:33:14	00:12:44	21	1.2			
19	S	14:36:23	14:46:58	00:10:35	21	1.2			
20	N	14:49:47	15:00:33	00:10:46	20	1.2			
21	S	15:03:12	15:11:42	00:08:30	18	1.4			
22	N	15:14:30	15:23:15	00:08:45	22	1.2			
23	S	15:26:02	15:34:24	00:08:22	22	1.2			
24	N	15:37:03	15:45:45	00:08:42	23	1.2			
25	S	15:48:35	15:56:54	00:08:19	25	1.2			
26	N	15:59:35	16:08:17	00:08:42	23	1.2			
27	S	16:10:56	16:19:16	00:08:20	21	1.4			
28	N	16:22:06	16:30:50	00:08:44	21	1.3			
29	S	16:33:32	16:42:06	00:08:34	19	1.2			
30	N	16:44:45	16:53:24	00:08:39	21	1.2			

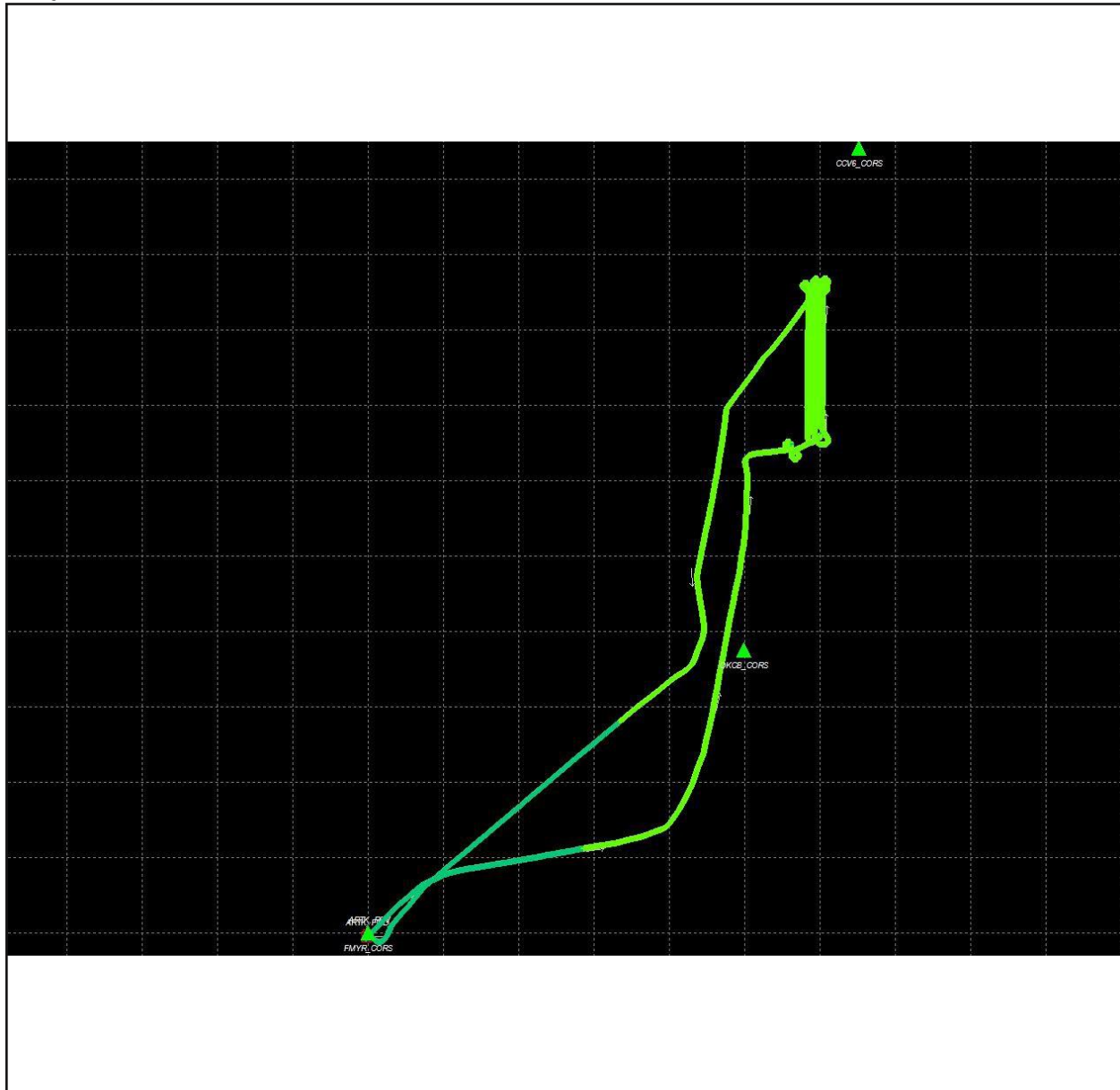
31	S	16:56:20	17:04:53	00:08:33	20	1.2		
32	N	17:07:34	17:16:20	00:08:46	18	1.4	Cloud end of the line	
33	S	17:18:54	17:27:25	00:08:31	17	1.4		
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
667GB								

Day00919_TM511

Base Station Coordinates

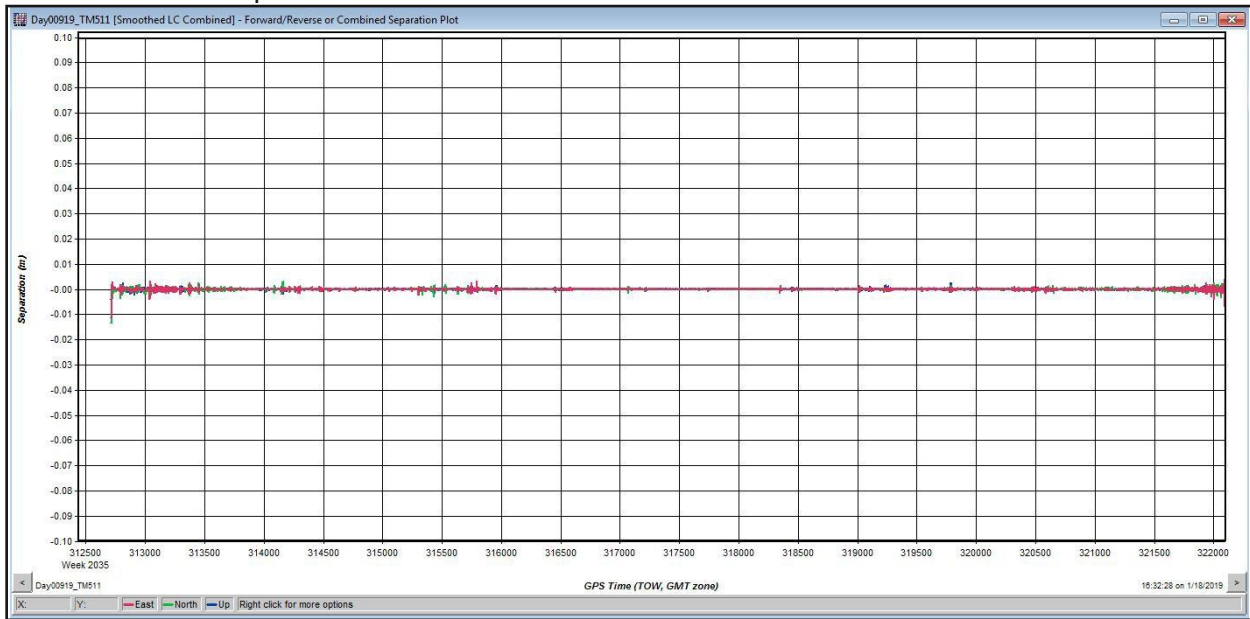
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)
CCV6_CORS	ENABLED	28° 27' 35.82726"	-80° 32' 43.70265"	-22.632 m (ELLIPSOIDAL)

Trajectory

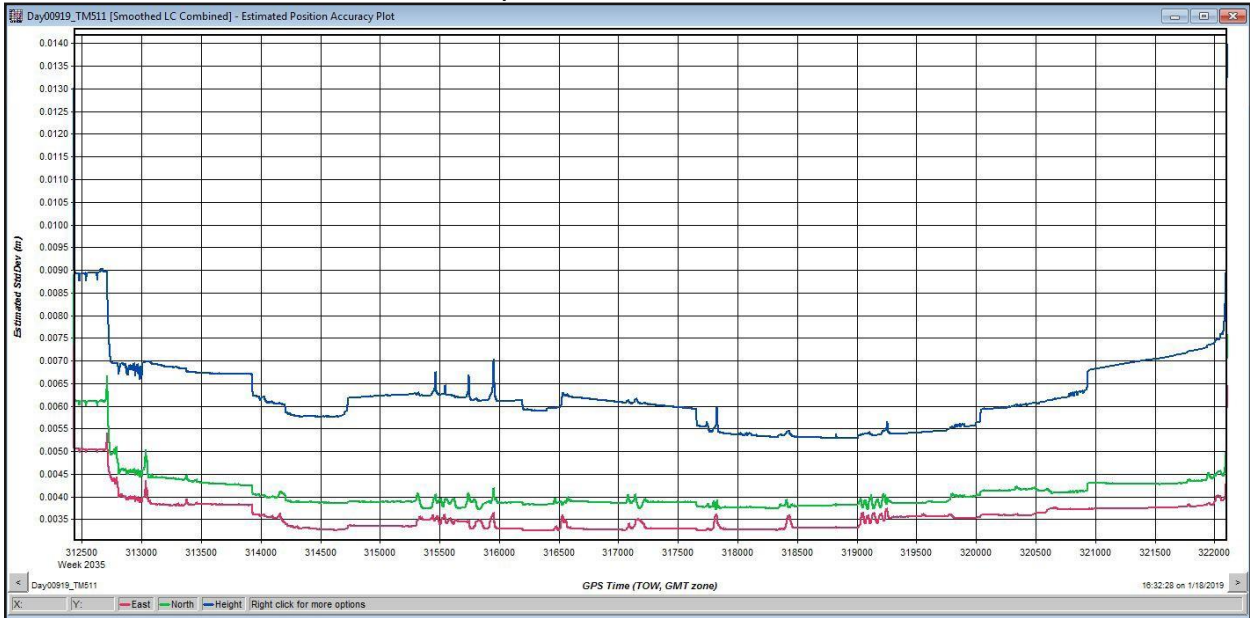


Day00919_TM511

Combined Separation Plot

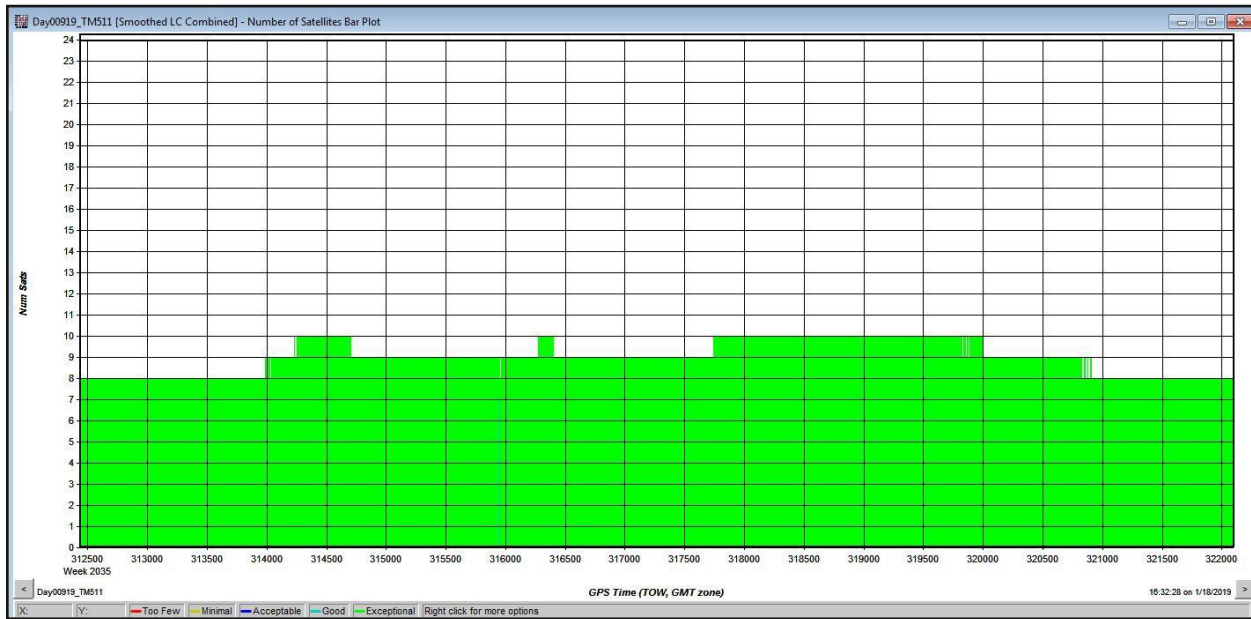


Estimated Position Accuracy Plot

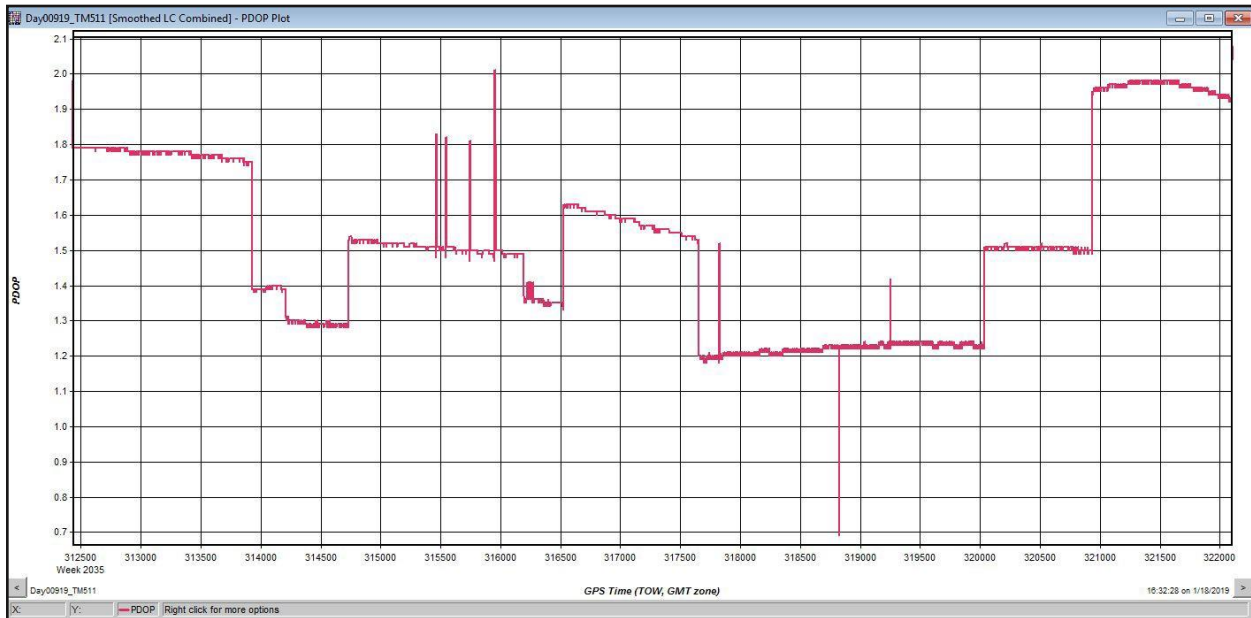


Day00919_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79028	Florida Lidar_Block 4			Day09_90511_A		01/09/2019	009	A	
Crew		Equipment			Time			Airports	
Pilot		Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
LaRocque		Cessna 404 Titan - N404CP			6936.3	10:46:00	15:46:00	KFMY	
Operator		Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Galambos		Leica Terrain Mapper - 90511			6938.9	11:37:00	16:37:00	KFMY	
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
350	7	10	12,000		20	15.6	30.15		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)	Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40	150	1550	100				
								Verify S-Turns Before Mission	Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	14:47:45	Takeoff
Line Notes/Comments									
22	N	15:46:18	15:53:52	00:07:34	23	1.3			
21	S	15:56:28	16:04:07	00:07:39	23	1.3		2:14-6:14	6/8
20	N	16:07:41	16:15:25	00:07:44	23	1.3		2:04-6:04	2/4
19	S	16:17:52	16:25:27	00:07:35	23	1.3		Small Clouds North end	
18	N	16:28:19	16:36:34	00:08:15	22	1.4		Clouds North 1/2 - Man Stop	

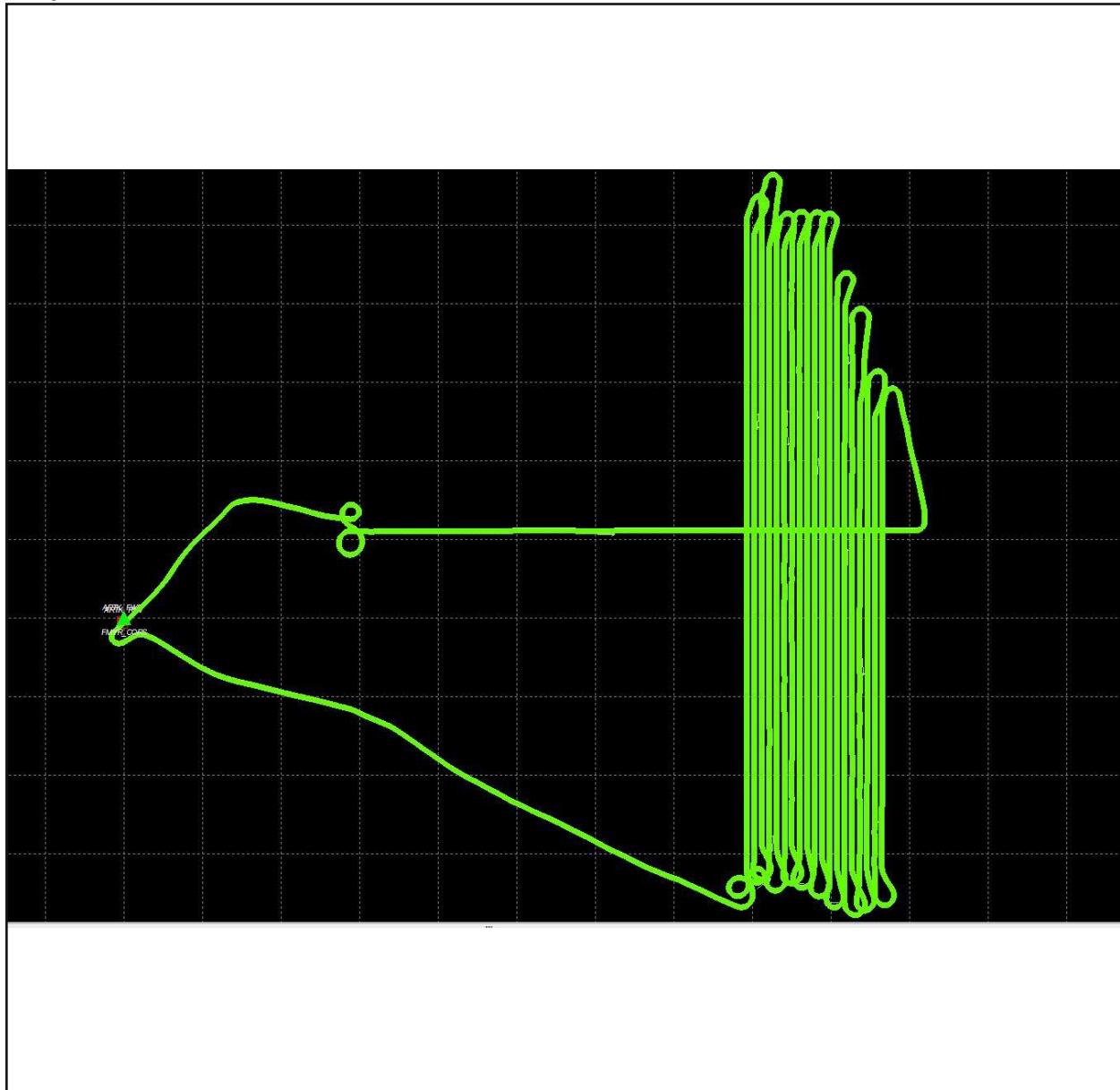
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
162 GB 23-55 Tidal 56 x-flight							

Day01019_TM511

Base Station Coordinates

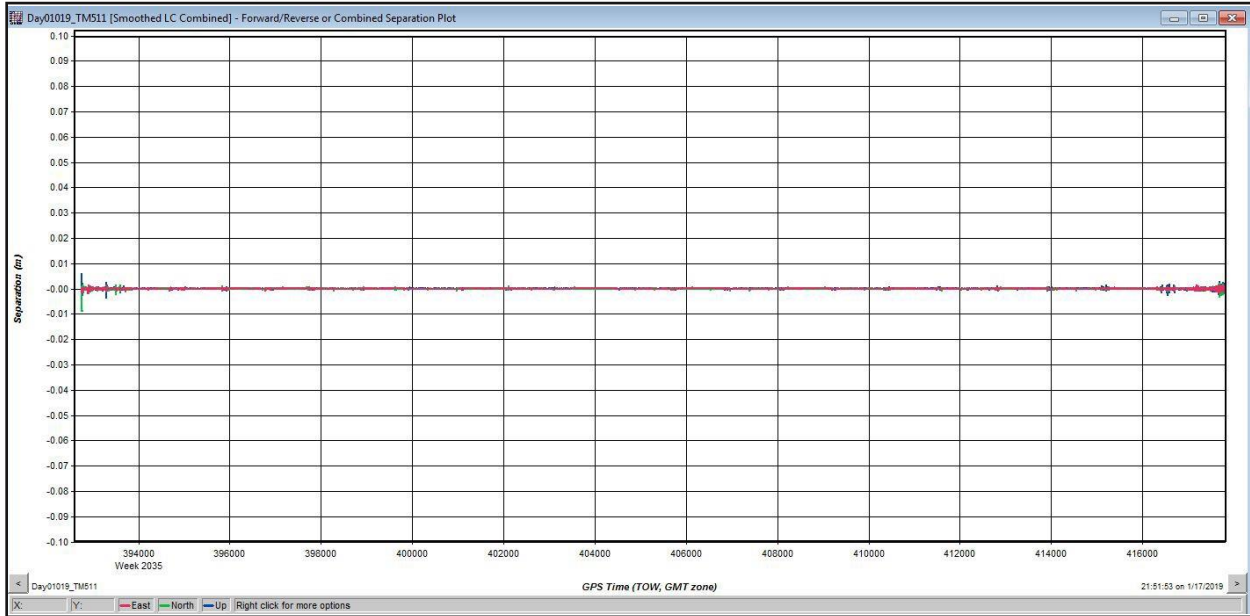
Name	Status	Latitude	Longitude	Height
FMYR_CORS	ENABLED	26° 35' 27.50795"	-81° 51' 59.97208"	-13.157 m (ELLIPSOIDAL)

Trajectory



Day01019_TM511

Combined Separation Plot

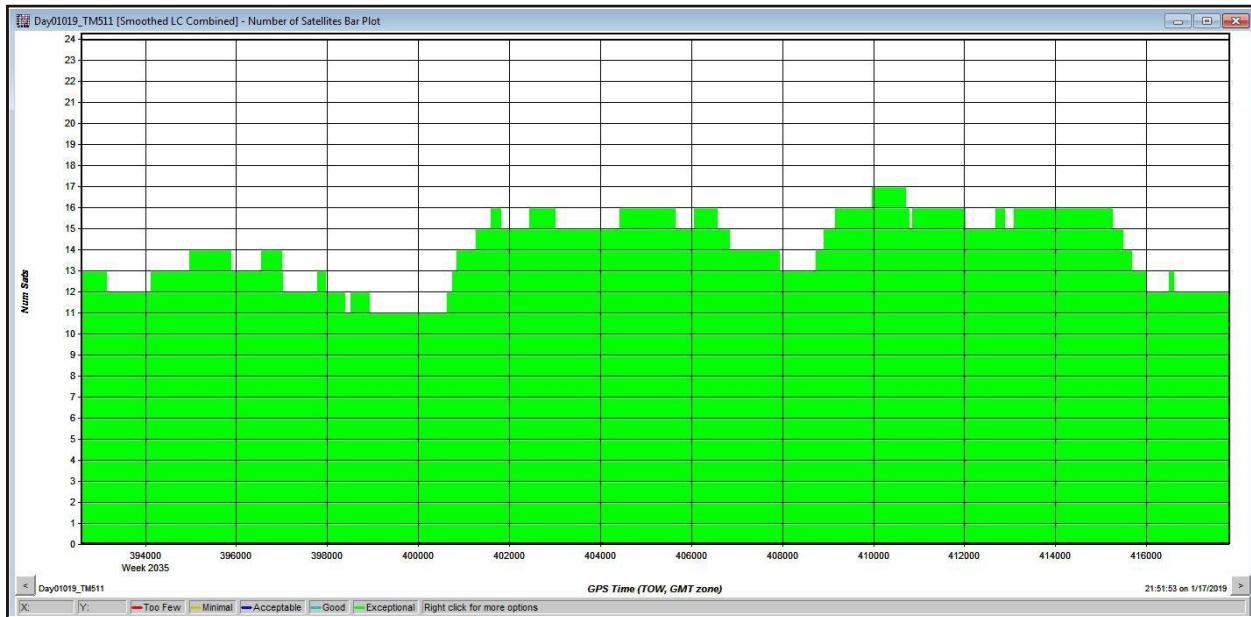


Estimated Position Accuracy Plot

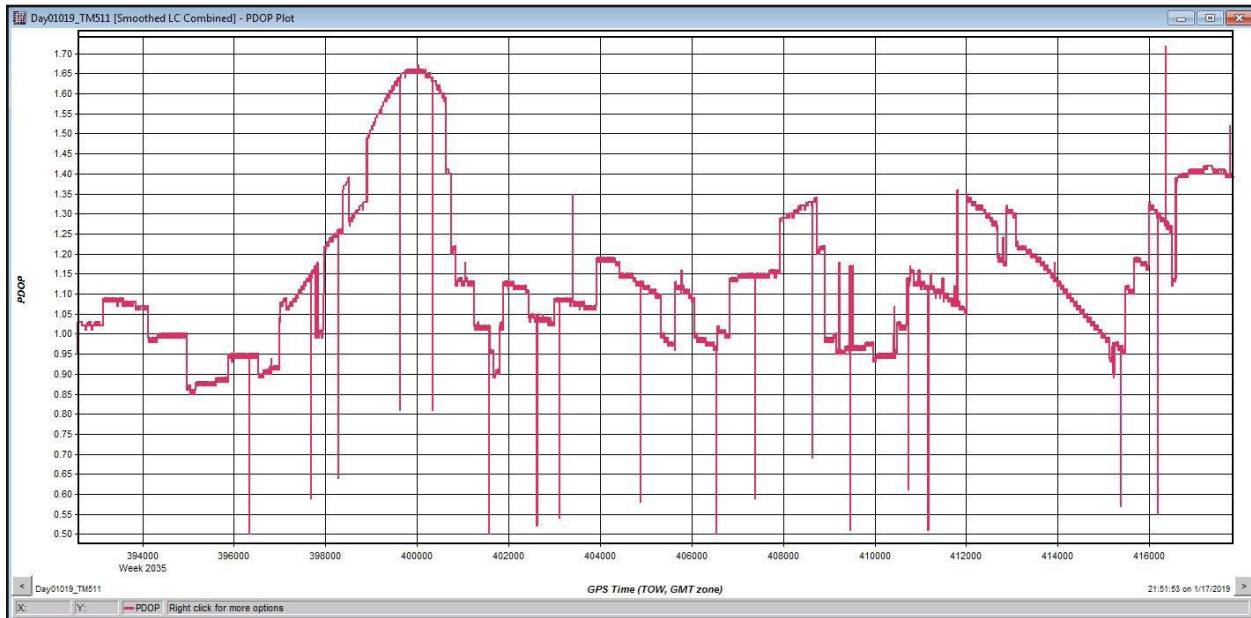


Day01019_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date			
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 7			Day010_90511_A		01/10/2019	010	A	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
LaRocque	Cessna 404 Titan - N404CP			6938.9	08:24:00	13:24:00	KFMY		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			6944.8	14:38:00	19:38:00	KFMY		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
10	12	10	12,000		9	-3	30.13		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
						Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	13:02:42	Takeoff
							Line Notes/Comments		
60 x-flight	E	13:24:02	13:37:42	00:13:40	18	1.3			
59	S	13:43:52	13:56:52	00:13:00	19	1.3			
58	N	13:59:47	14:12:47	00:13:00	20	1.1			
57	S	14:15:44	14:28:31	00:12:47	21	1.1			
56	N	14:31:23	14:42:40	00:11:17	21	1.1			
55	S	14:49:01	15:03:23	00:14:22	18	1.5			
54	N	15:06:43	15:22:50	00:16:07	21	1.3			
53	S	15:25:28	15:40:40	00:15:12	22	1.2			
52	N	15:43:25	16:01:37	00:18:12	22	1.2			
51	S	16:04:07	16:20:21	00:16:14	20	1.2			
50	N	16:23:10	16:41:03	00:17:53	21	1.2			
49	S	16:43:40	16:59:31	00:15:51	20	1.3			
48	N	17:02:31	17:19:52	00:17:21	19	1.3			
47	S	17:22:29	17:38:50	00:16:21	22	1.3			

46	N	17:31:34	17:58:37	00:27:03	21	1.2	
45	S	18:01:08	18:17:05	00:15:57	20	1.2	
44	N	18:20:11	18:37:10	00:16:59	19	1.3	
43	S	18:40:50	18:58:16	00:17:26	20	1.3	
42	N	19:00:49	19:18:00	00:17:11	19	1.3	
41	S	19:20:50	19:38:17	00:17:27	21	1	
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
1157 GB							

Day01119_TM511

Base Station Coordinates

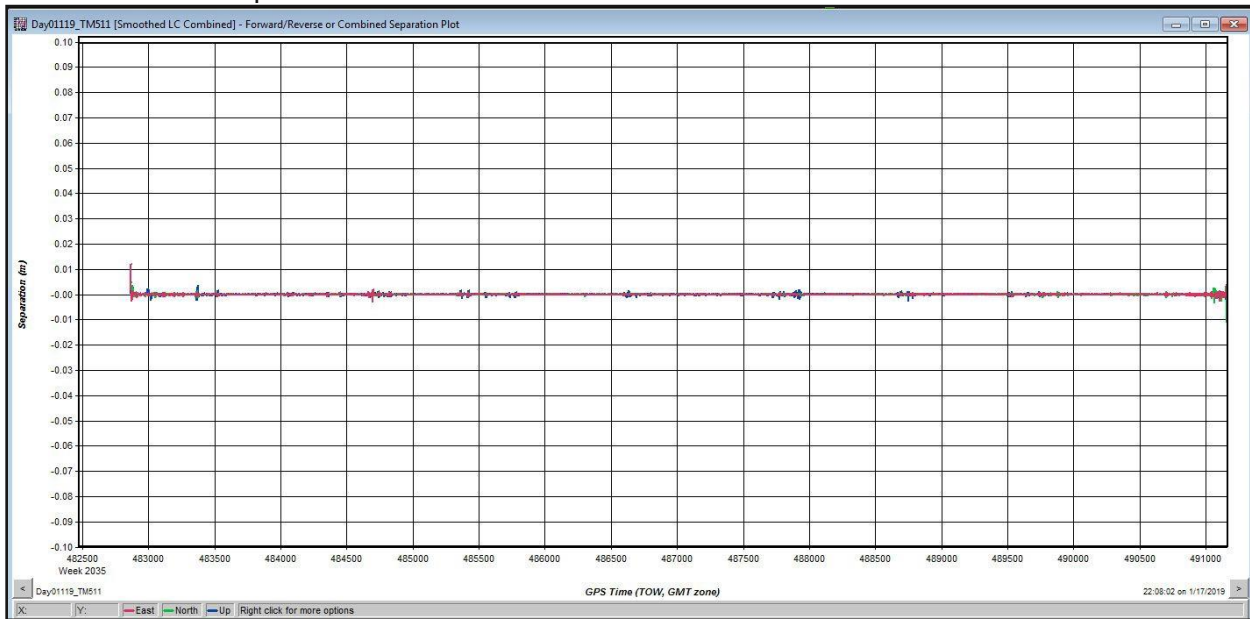
Name	Status	Latitude	Longitude	Height
FMYR_CORS	ENABLED	26° 35' 27.50795"	-81° 51' 59.97208"	-13.157 m (ELLIPSOIDAL)

Trajectory



Day01119_TM511

Combined Separation Plot

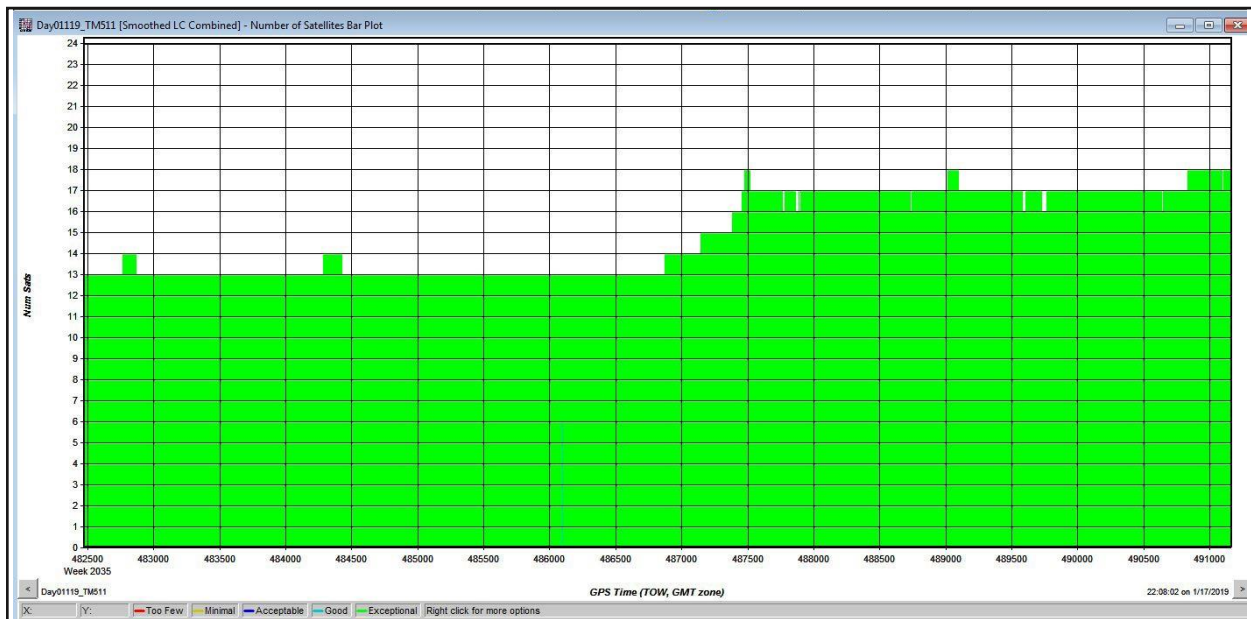


Estimated Position Accuracy Plot

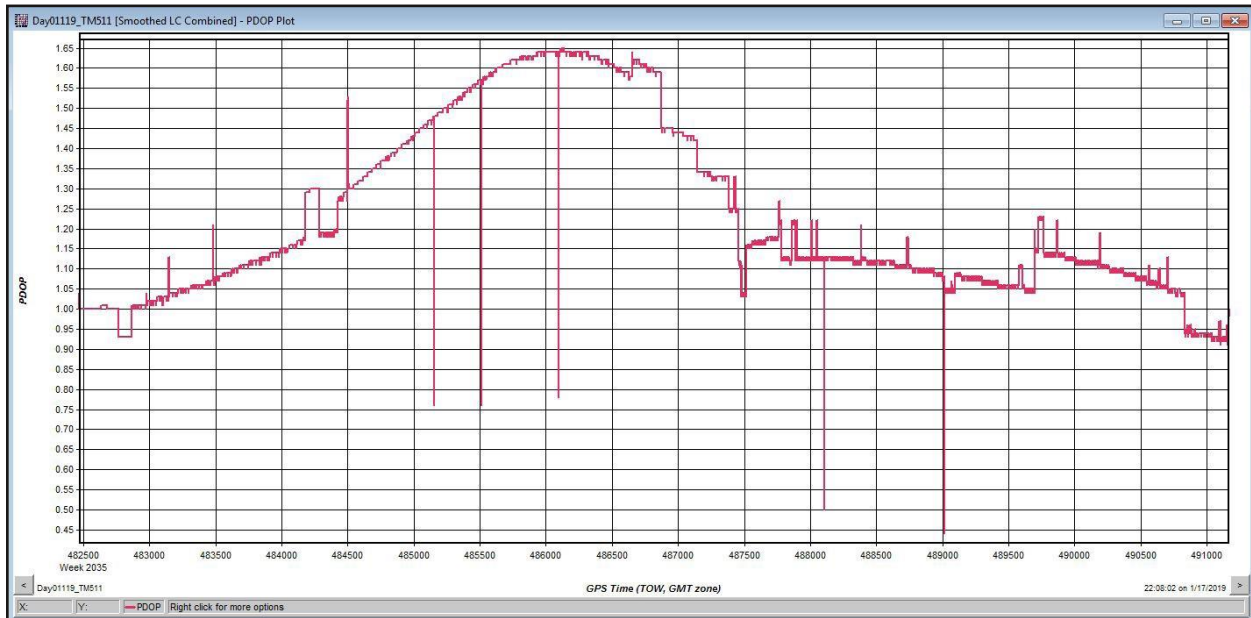


Day01119_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date		
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Blocks 9 & 5			Day011_90511_A			01/11/2019	011	A
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
LaRocque	Cessna 404 Titan - N404CP			6945.8	09:40:00	14:40:00	KFMY		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			6948.1	10:58:00	15:58:00	KFMY		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
40	7	10	12,000		11	7	30.18		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)	Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40	150	1550	100				
							Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff	Line Notes/Comments
									Block 9 Reflights
5	S	14:40:39	14:48:34	00:07:55	19	1.4			Clouds 8 to 4.36 miles from South end
3	N	14:50:44	14:52:00	00:01:16	21	1.2			2 miles southern end-Manual Stop
2	N	14:56:48	15:09:38	00:12:50	23	1.2			clouds from 24 to 20 from North End
									Block 5 fl1-82 non-tidal
60	N	16:32:33	15:43:58	23:11:25	25	1.1			Clouds 5 mile north end
59	S	15:48:52	15:57:54	00:09:02	24	1.2			Started 5 miles short of north end
									Clouds south end over lake

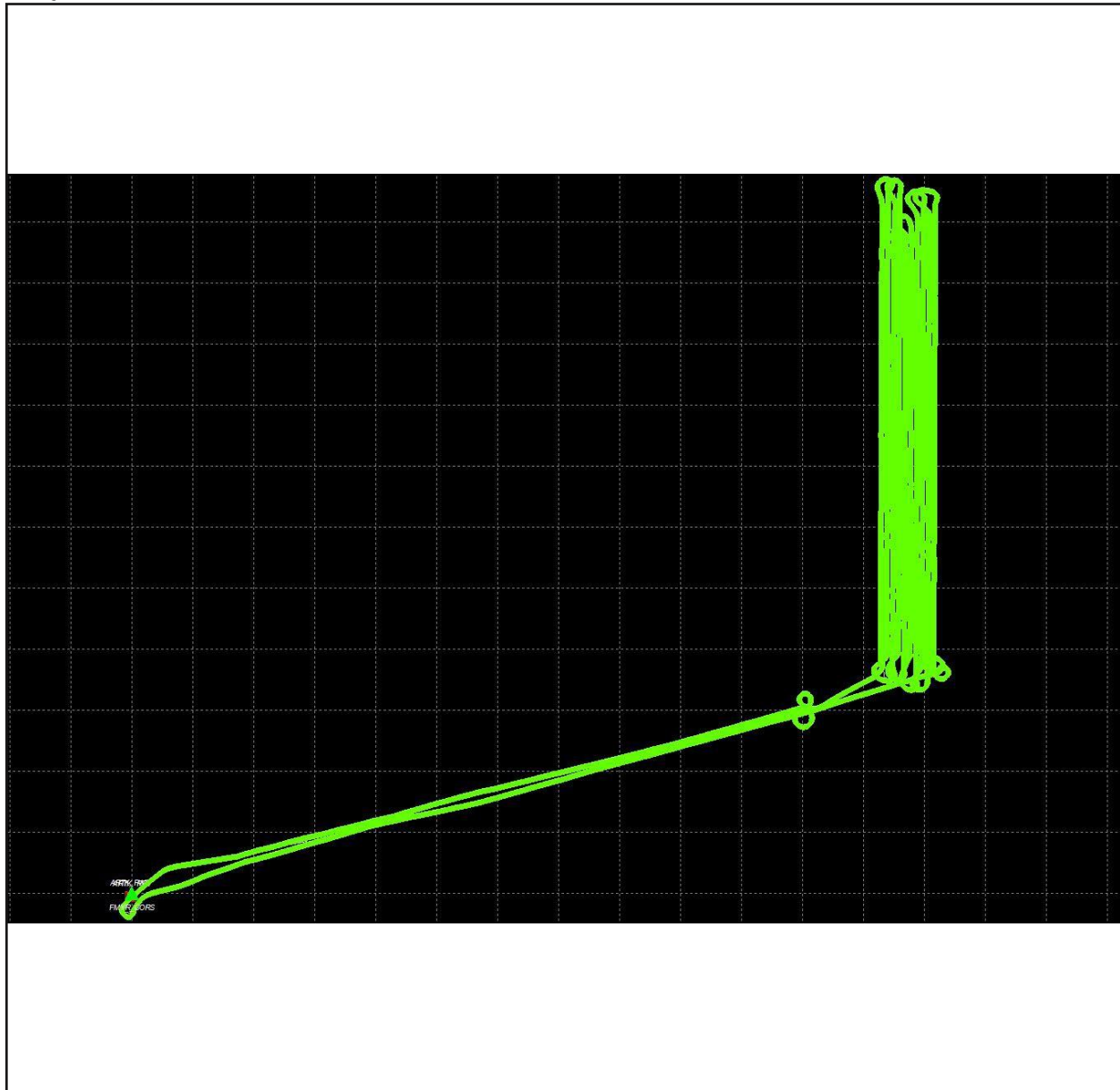
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							

Day01519_TM511

Base Station Coordinates

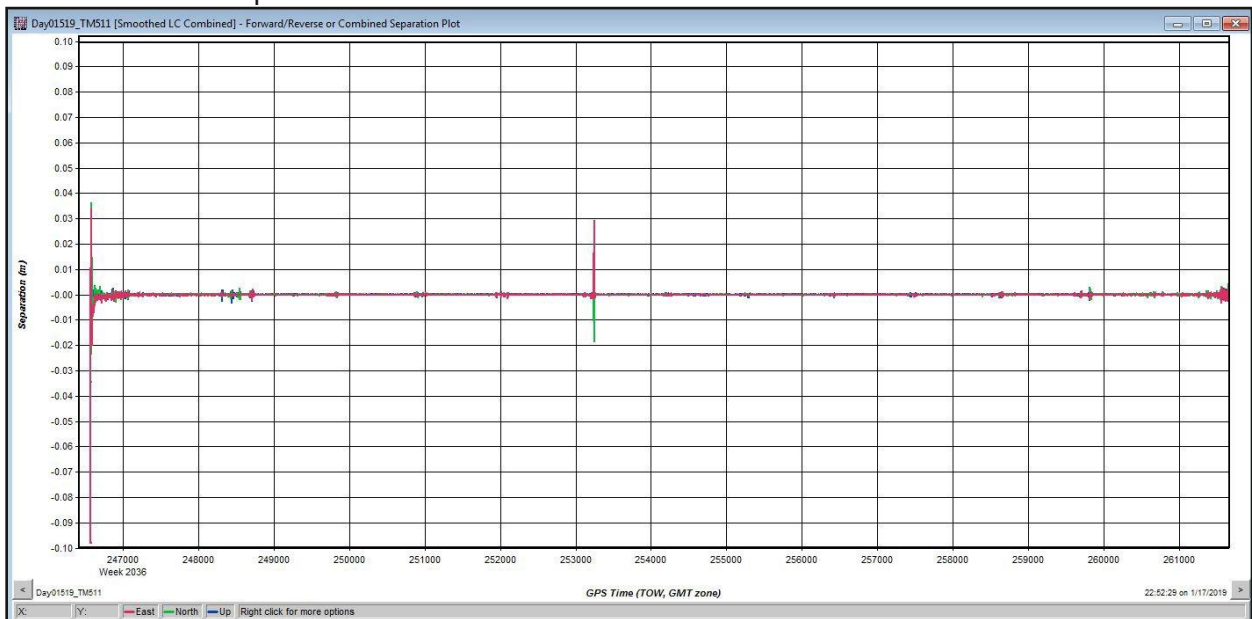
Name	Status	Latitude	Longitude	Height
FMYR_CORS	ENABLED	26° 35' 27.50795"	-81° 51' 59.97208"	-13.157 m (ELLIPSOIDAL)

Trajectory



Day01519_TM511

Combined Separation Plot

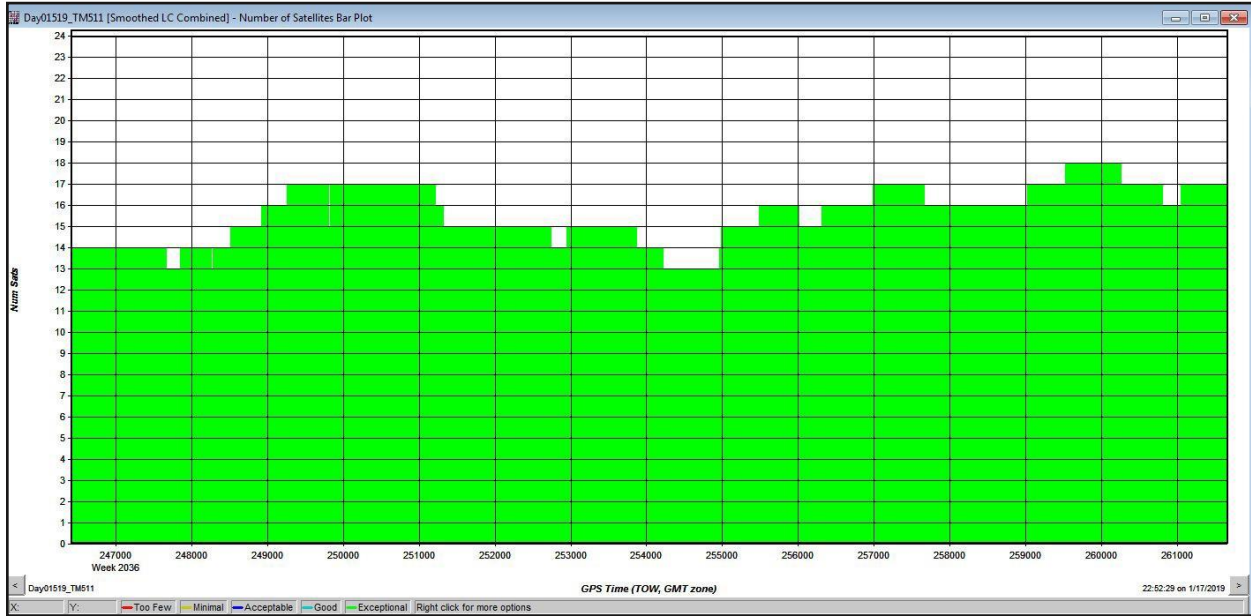


Estimated Position Accuracy Plot

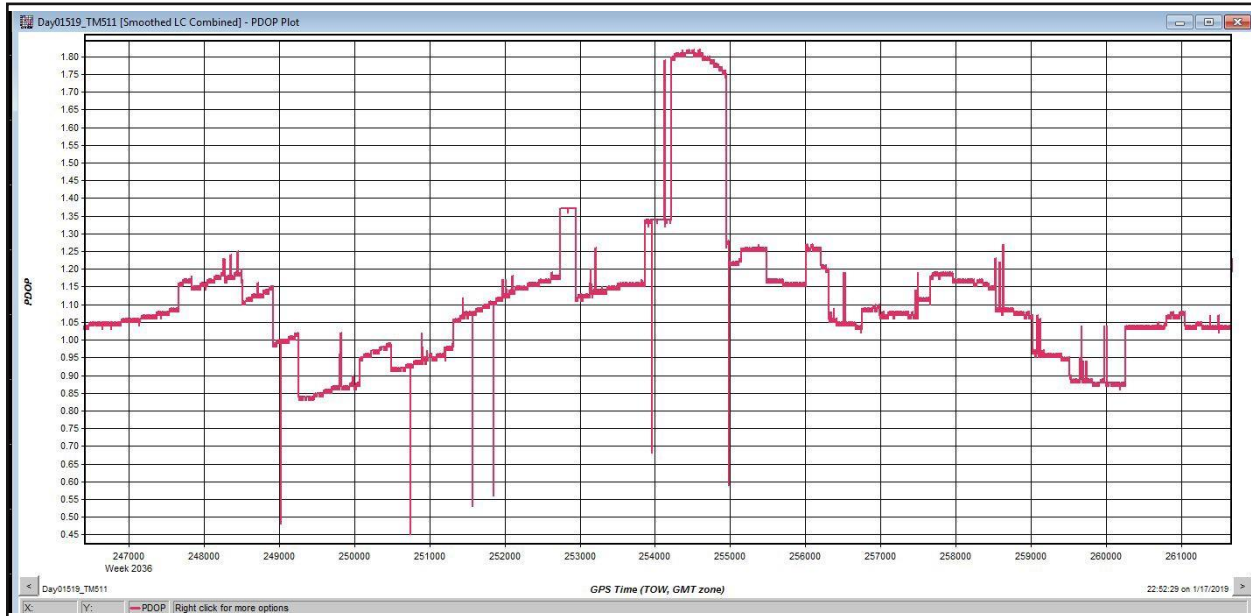


Day01519_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date			
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 6			Day015_90511_A			01/15/2019	015	A	
Crew		Equipment			Time			Airports		
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing			
Sanda	Cessna 404 Titan - N404CP			6950.5	16:05:00	21:05:00	KFMY			
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving			
Galambos	Leica Terrain Mapper - 90511			6954.6	19:06:00	00:06:00	KFMY			
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
0	9	10			17.2	6.1	30.13			
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)						
140		5,900	5,900	17						
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40		150	1550	100				
							Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff		
							Line Notes/Comments			
5	N	21:05:40	21:21:17	00:15:37	22	1.2	Reflight- Block 6			
6	S	21:24:48	21:40:41	00:15:53	22	1.4	Farmers burning--smoke			
7	N	21:43:34	21:59:15	00:15:41	24	1.2	Evasive manuver end of line to avoid midair			
8	S	22:02:40	22:18:04	00:15:24	22	1.2				
9	N	22:20:40	22:35:38	00:14:58	22	1.1				
10	S	22:38:36	22:52:39	00:14:03	23	1.2				
11	N	22:54:45	23:11:39	00:16:54	25	1	mount roll limit			
12	S	23:14:12	23:29:42	00:15:30	21	1.2				
13	N	23:32:10	23:48:08	00:15:58	21	1.1				
14	S	23:51:07	00:06:32	00:15:25	21	1.1	mount roll limit			

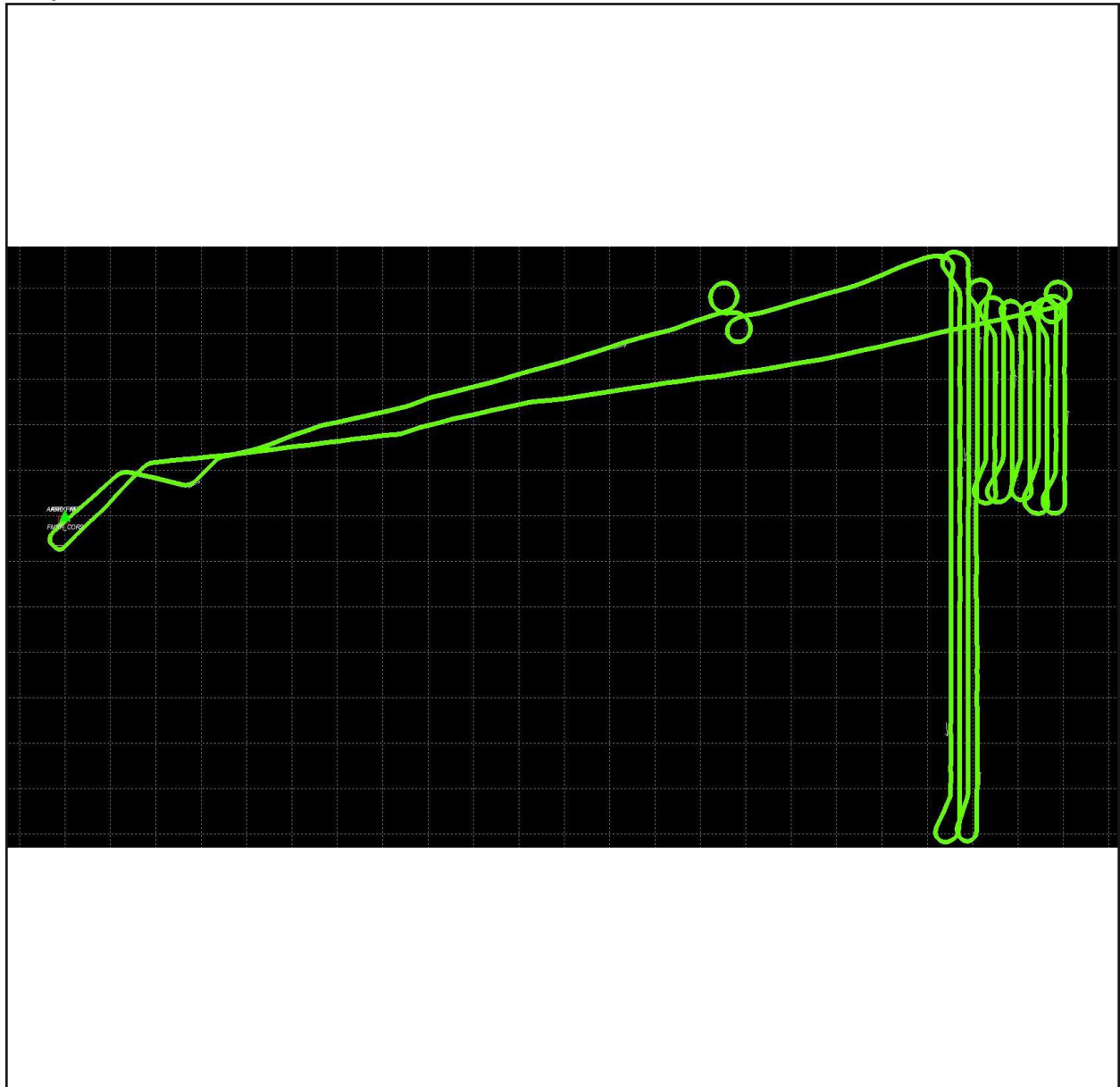
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
573GB							

Day01619_TM511_A

Base Station Coordinates

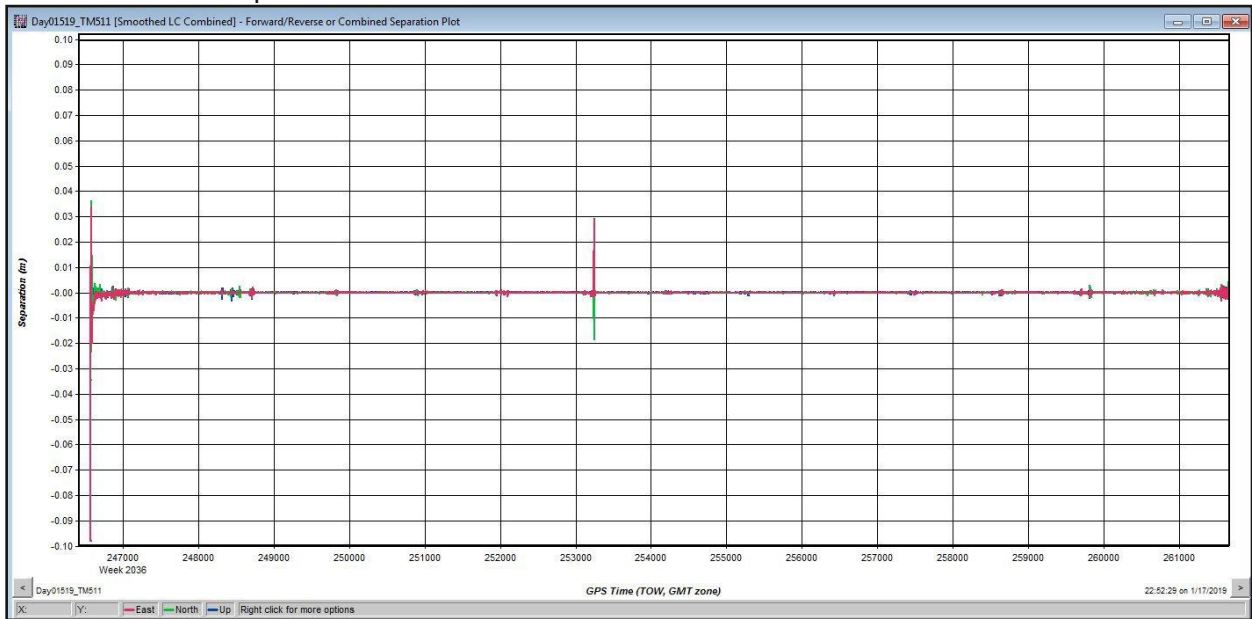
Name	Status	Latitude	Longitude	Height
FMYR_CORS	ENABLED	26° 35' 27.50795"	-81° 51' 59.97208"	-13.157 m (ELLIPSOIDAL)

Trajectory



Day01619_TM511_A

Combined Separation Plot

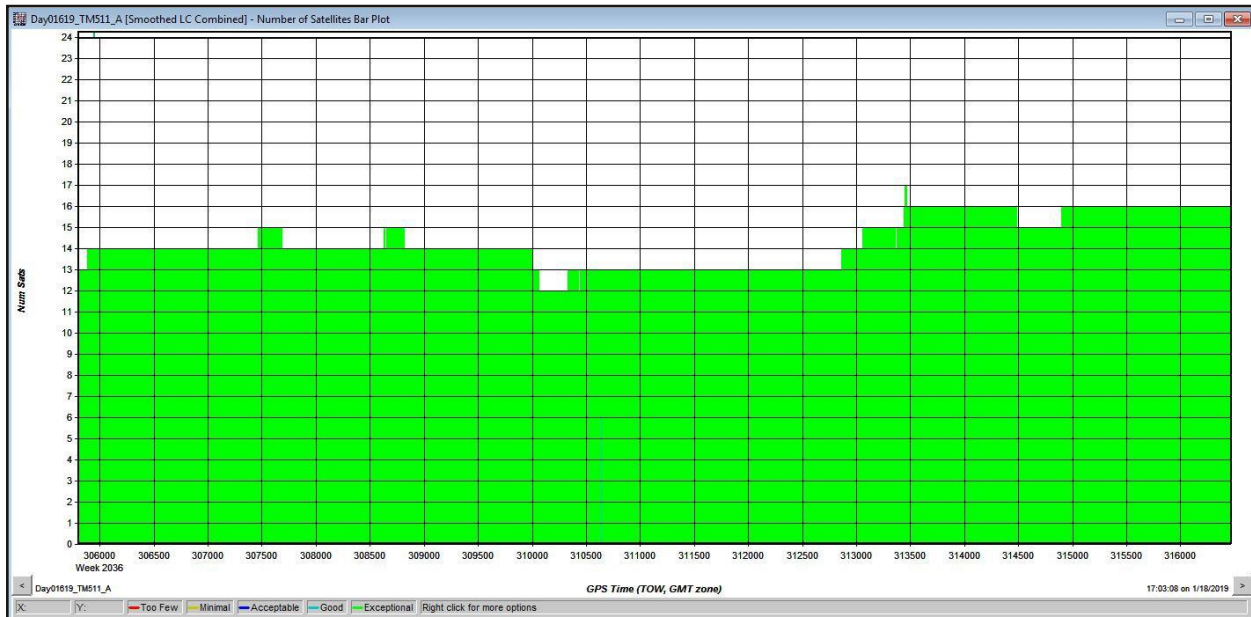


Estimated Position Accuracy Plot

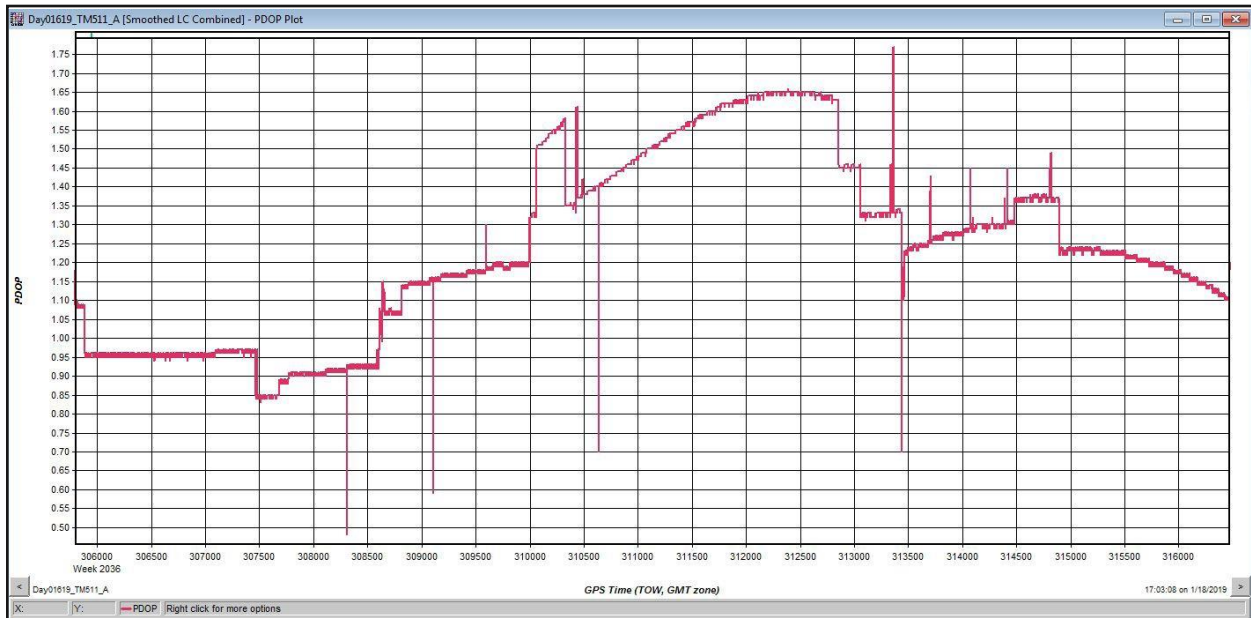


Day01619_TM511_A

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date			
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 8			Day016_90511_A		01/16/2019	016	A	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
Sanda	Cessna 404 Titan - N404CP			6954.6	08:30:00	13:30:00	KFMY		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			6957.4	10:24:00	15:24:00	KFMY		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
20	6	10			8	6	30.22		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
						Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	12:56:22	Takeoff
							Line Notes/Comments		
1	S	13:30:50	13:42:23	00:11:33	19	1.1			
2	N	13:45:30	13:57:45	00:12:15	21	1.1			
3	S	14:00:45	14:12:26	00:11:41	19	1.2			
5	N	14:15:18	14:16:40	00:01:22	19	1.3			
4	N	14:23:54	14:27:22	00:03:28	18	1.4			
6	S	14:30:22	14:33:02	00:02:40	18	1.2			
7	N	14:35:56	14:38:42	00:02:46	19	1.2			
8	S	13:41:30	14:44:03	01:02:33	20	1.1			
9	N	14:47:04	14:50:00	00:02:56	21	1.2			
10	S	14:52:36	14:55:16	00:02:40	20	1.2			
11	N	14:58:05	15:01:02	00:02:57	21	1.2			
12	S	15:03:22	15:06:22	00:03:00	22	1.2			
13	N	15:09:15	15:12:27	00:03:12	22	1.2			
14	S	15:15:12	15:18:16	00:03:04	23	1.1			

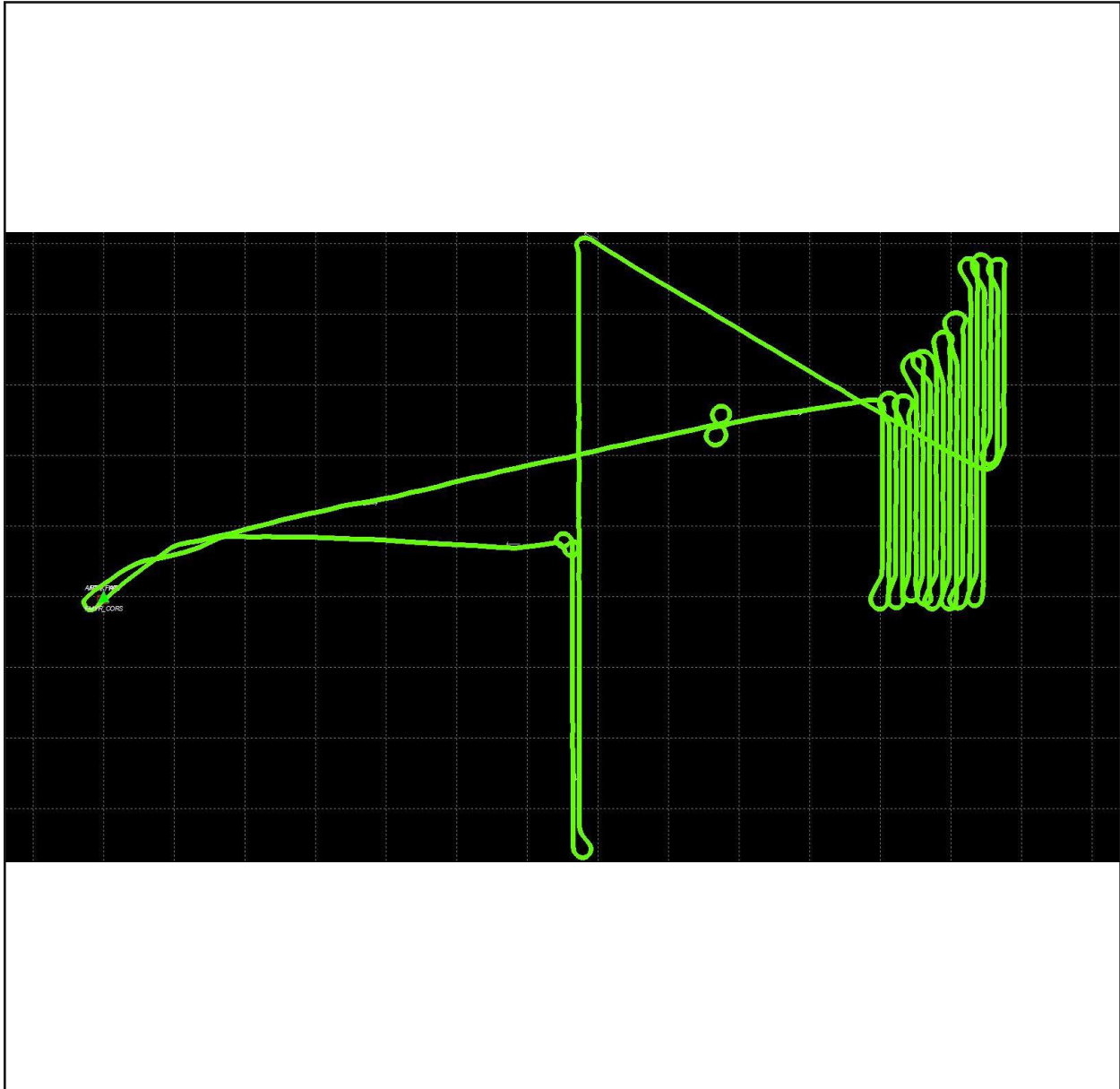
15	N	15:21:07	15:24:50	00:03:43	21	1.2		
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
817GB								

Day01619_TM511_B

Base Station Coordinates

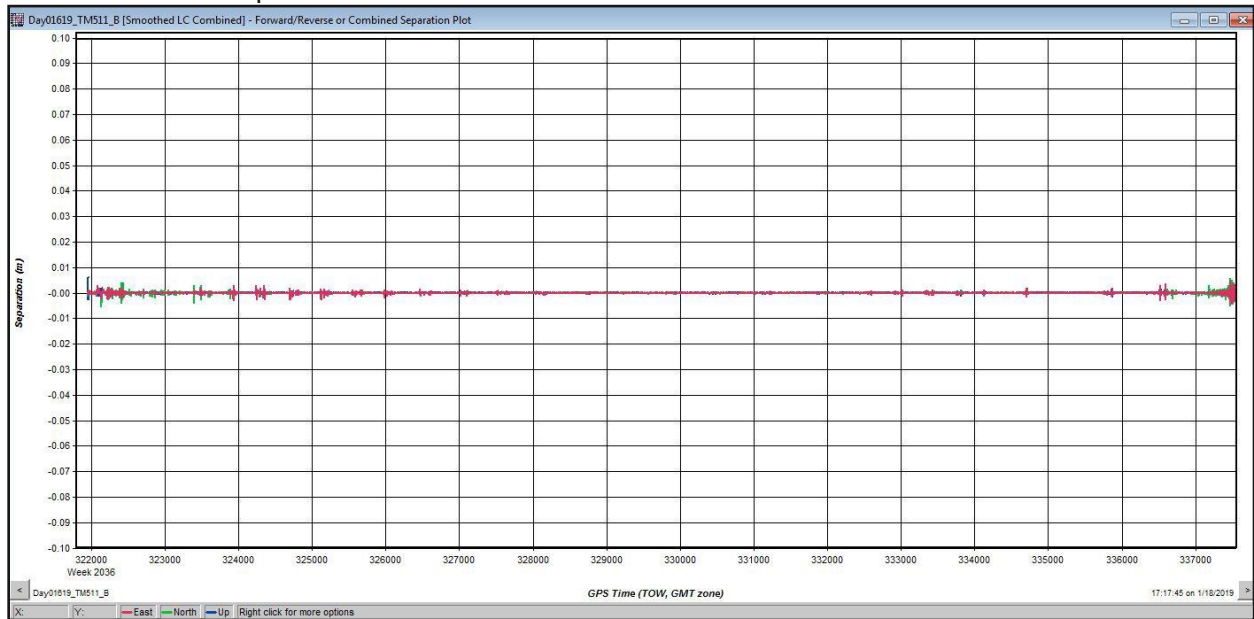
Name	Status	Latitude	Longitude	Height
FMYR_CORS	ENABLED	26° 35' 27.50795"	-81° 51' 59.97208"	-13.157 m (ELLIPSOIDAL)

Trajectory

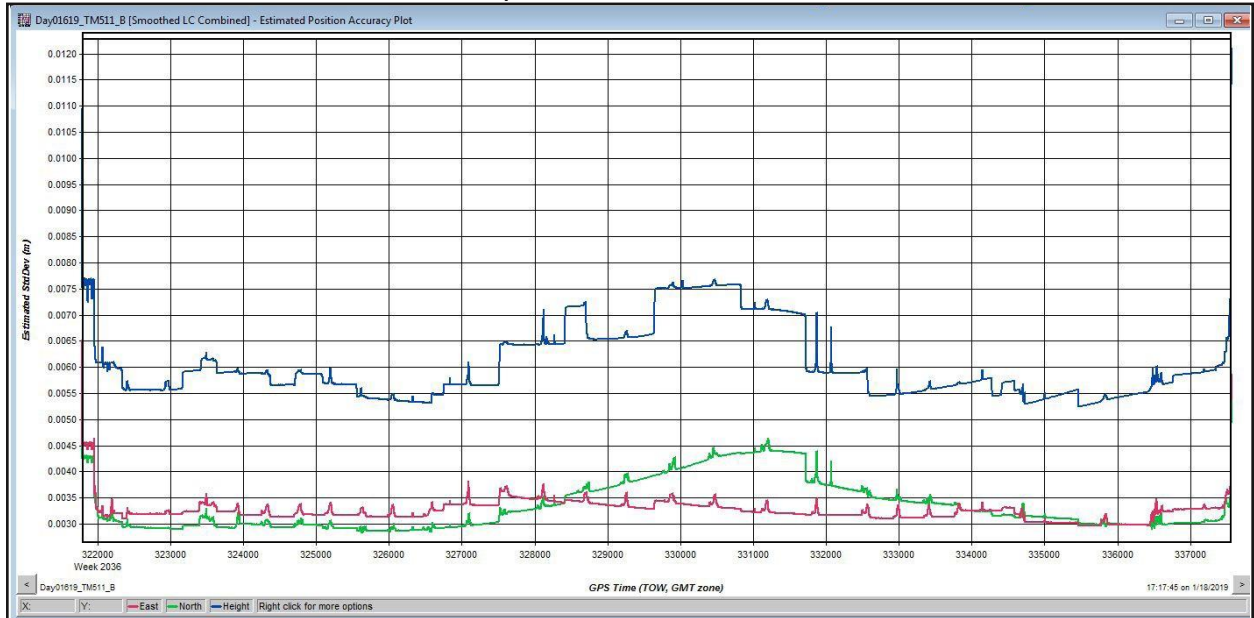


Day01619_TM511_B

Combined Separation Plot

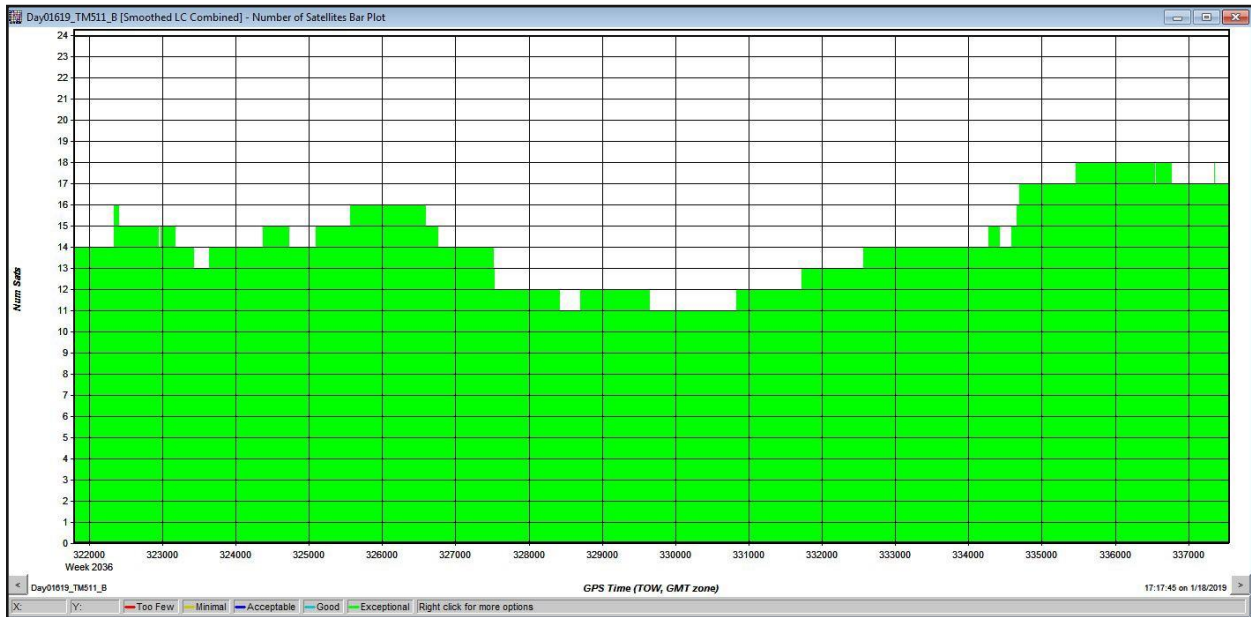


Estimated Position Accuracy Plot

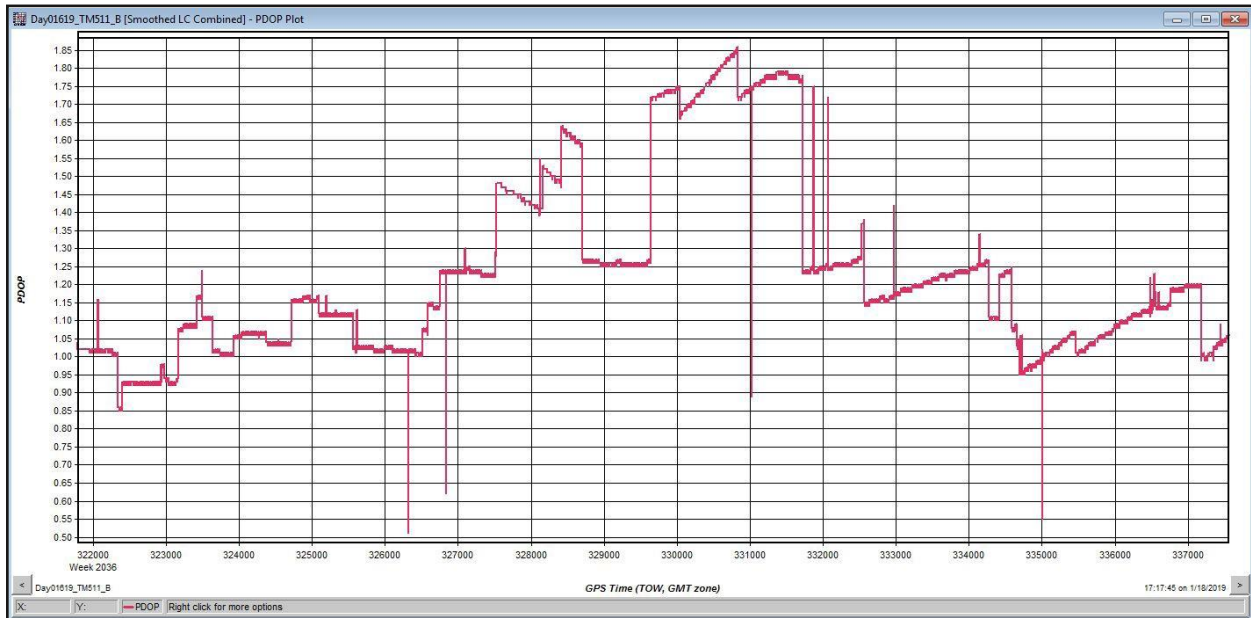


Day01619_TM511_B

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date			
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 8 & 7		Day016_90511_B			01/16/2019	016	B	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
Sanda	Cessna 404 Titan - N404CP			6957.4	12:59:00	17:59:00	KFMY		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			6961.8	16:27:00	21:27:00	KFMY		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
10	9	10			16.7	5.6	30.24		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
						Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	17:23:16	Takeoff
							Line Notes/Comments		
16	S	17:59:20	18:03:43	00:04:23	18	1.2	Block 8		
17	N	18:06:46	18:11:14	00:04:28	17	1.4			
18	S	18:14:00	18:18:17	00:04:17	18	1.3			
19	N	18:01:05	18:25:30	00:24:25	17	1.3			
20	S	18:28:16	18:32:38	00:04:22	20	1.2			
21	N	18:35:09	18:40:46	00:05:37	20	1.2			
22	S	18:44:17	18:49:55	00:05:38	20	1.2			
23	N	18:52:24	18:58:15	00:05:51	19	1.1			
24	S	19:01:15	19:06:52	00:05:37	20	1.2			
25	N	19:09:54	19:16:12	00:06:18	20	1	Mount Roll Limit Exceeded		
26	S	19:19:25	19:26:00	00:06:35	20	1			
27	N	19:28:52	19:35:36	00:06:44	18	1.2			
28	S	19:39:00	19:46:10	00:07:10	18	1.2			
29	N	19:49:02	19:58:02	00:09:00	18	1.2			
30	S	20:00:51	20:09:30	00:08:39	19	1.2			

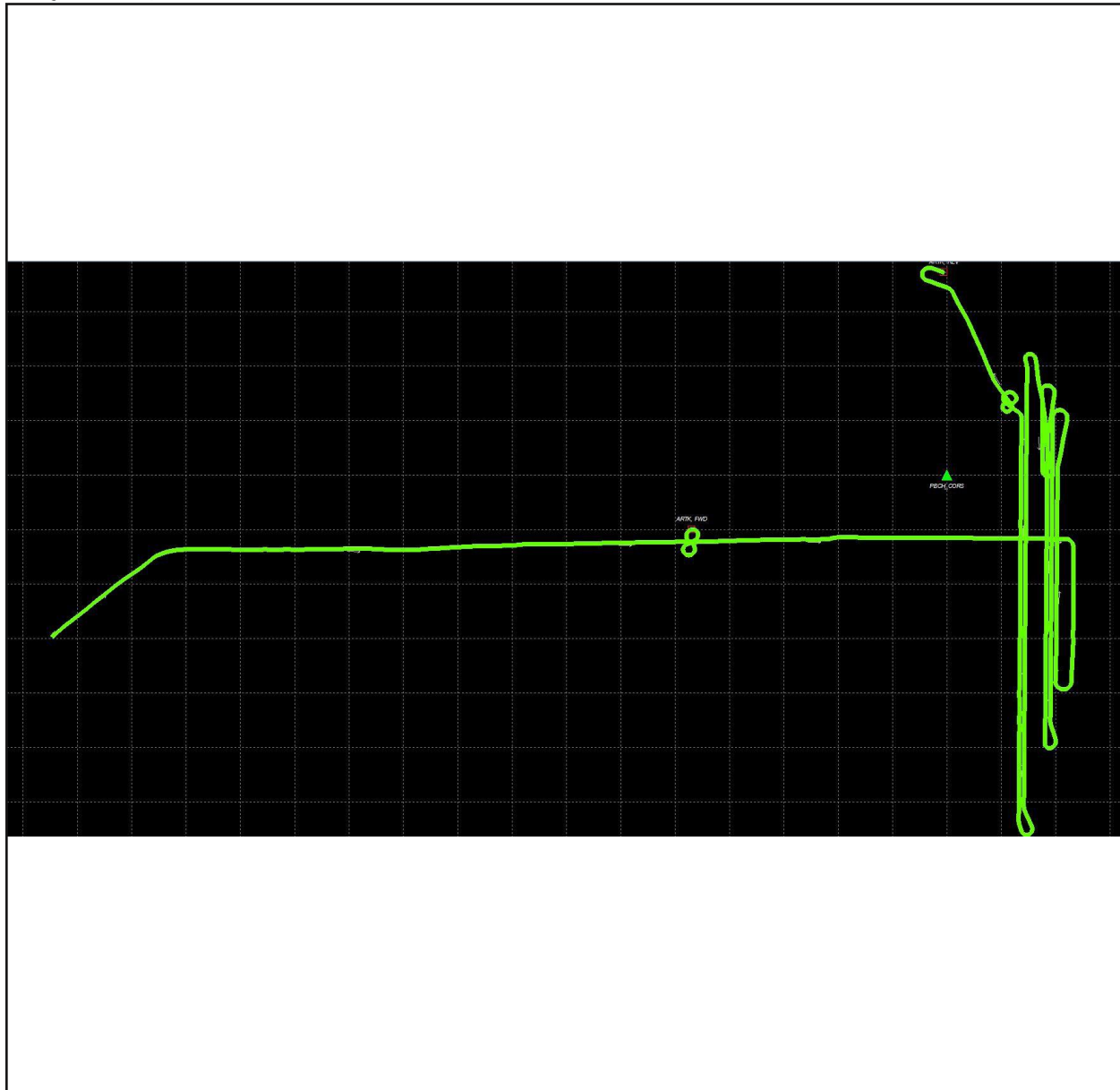
31	N	20:12:11	20:21:00	00:08:49	19	1.2		
32	S	20:24:05	20:28:12	00:04:07	19	1.2		
33	N	20:30:52	20:35:11	00:04:19	19	1.2	Mount Roll Limit Exceeded	
34	S	20:37:54	20:42:00	00:04:06	21	1.2		
							Block 7 reflights	
29	S	20:58:50	21:15:34	00:16:44	23	1.1	Mount Roll Limit Exceeded	
28	N	21:18:28	21:26:52	00:08:24	22	1.3	Southern 20 miles	
							Manual Stop	
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
485GB								

Day01819_TM511_A

Base Station Coordinates

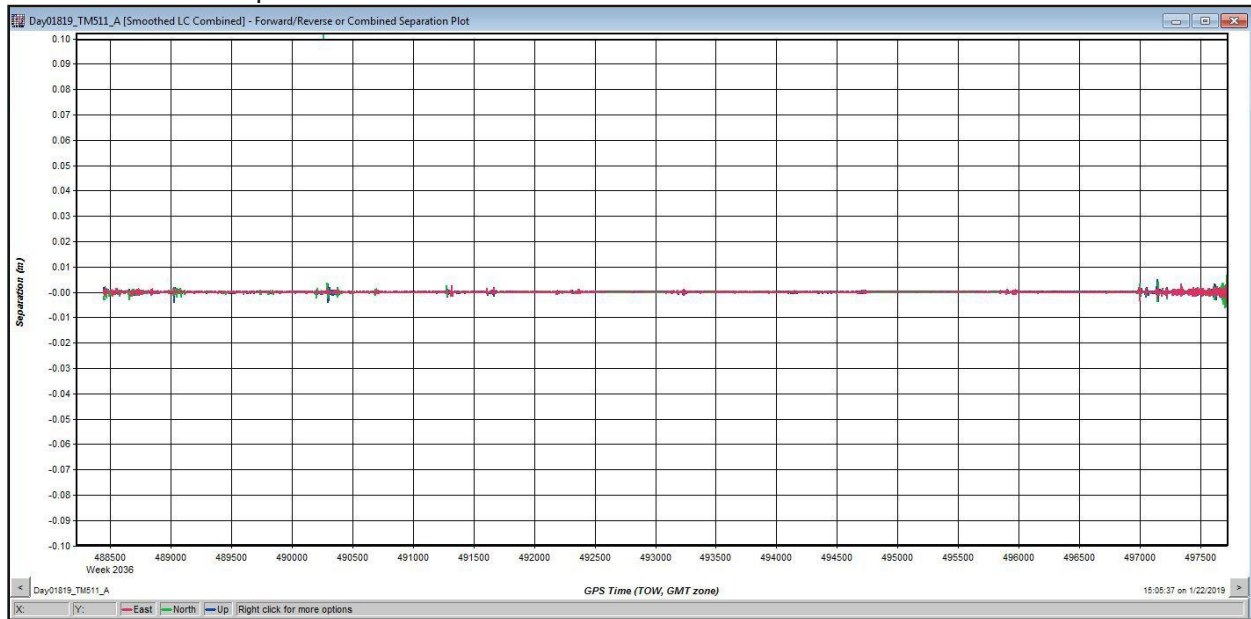
Name	Status	Latitude	Longitude	Height
PBCH_CORS	ENABLED	26° 50' 46.63807"	-80° 13' 09.29993"	-15.179 m (ELLIPSOIDAL)

Trajectory

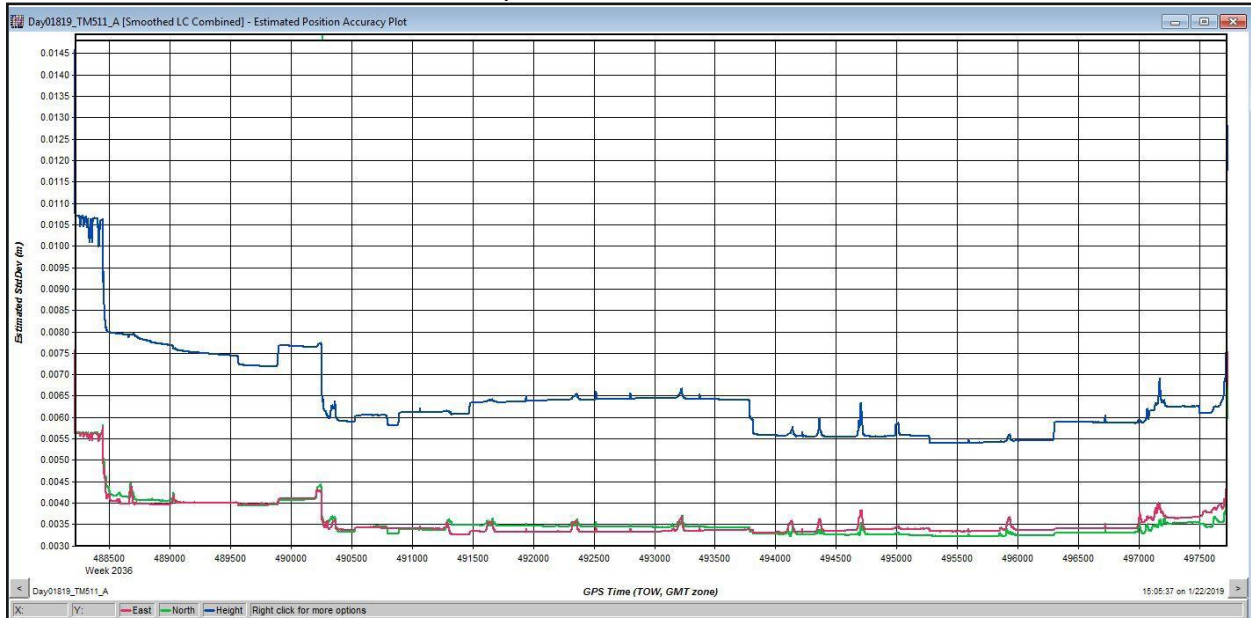


Day01819_TM511_A

Combined Separation Plot

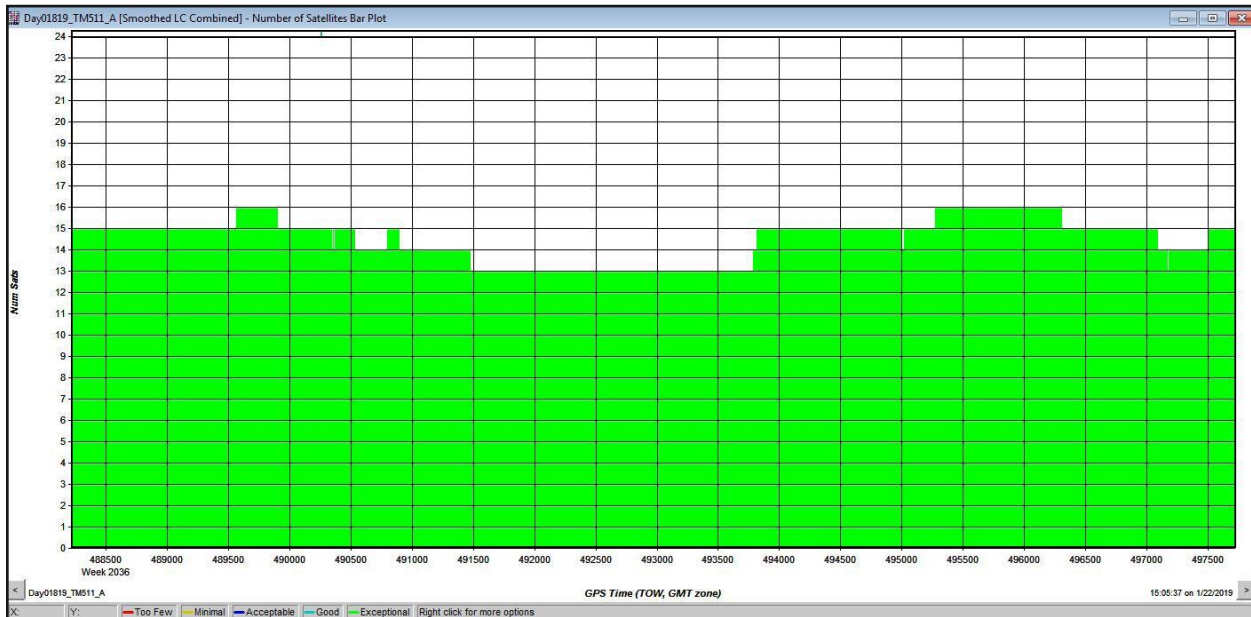


Estimated Position Accuracy Plot

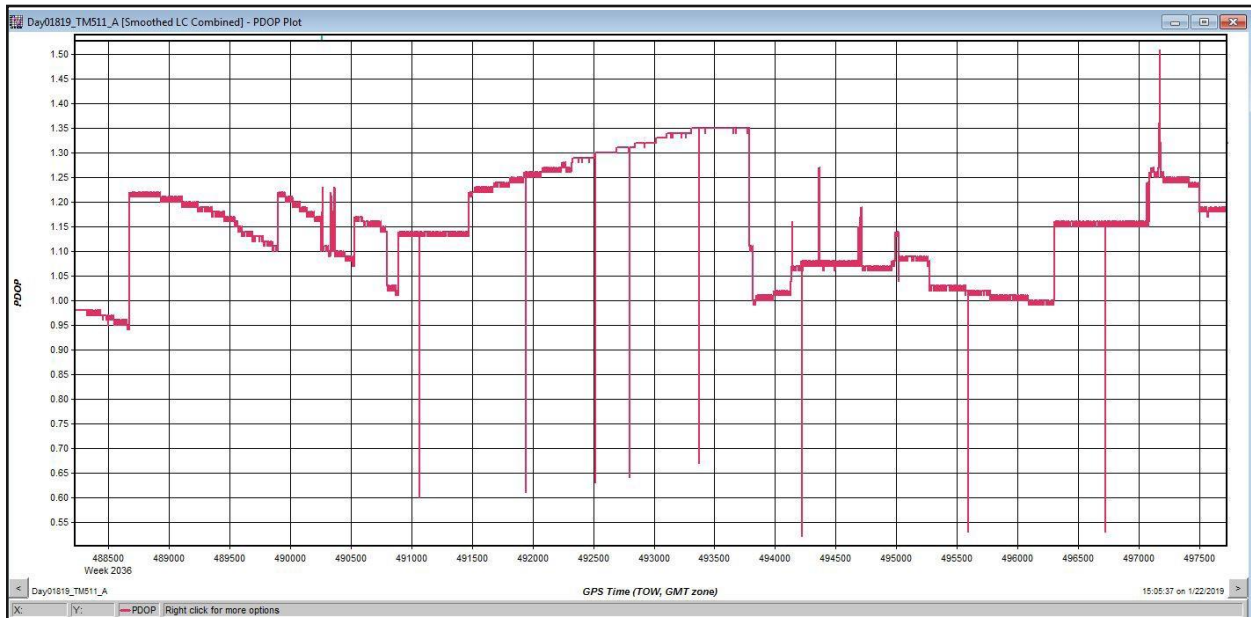


Day01819_TM511_A

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

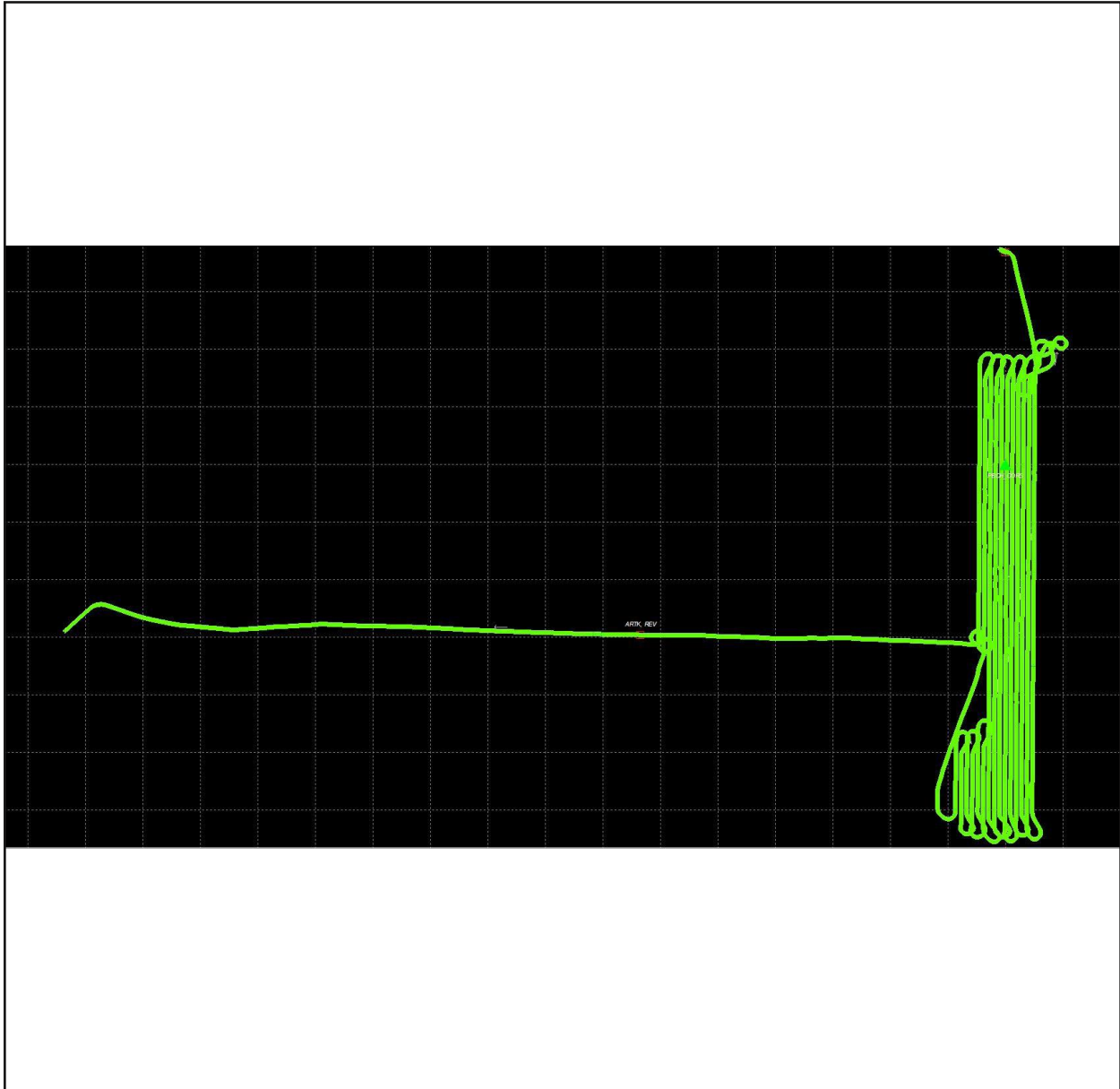
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
248 GB							

Day01819_TM511_B

Base Station Coordinates

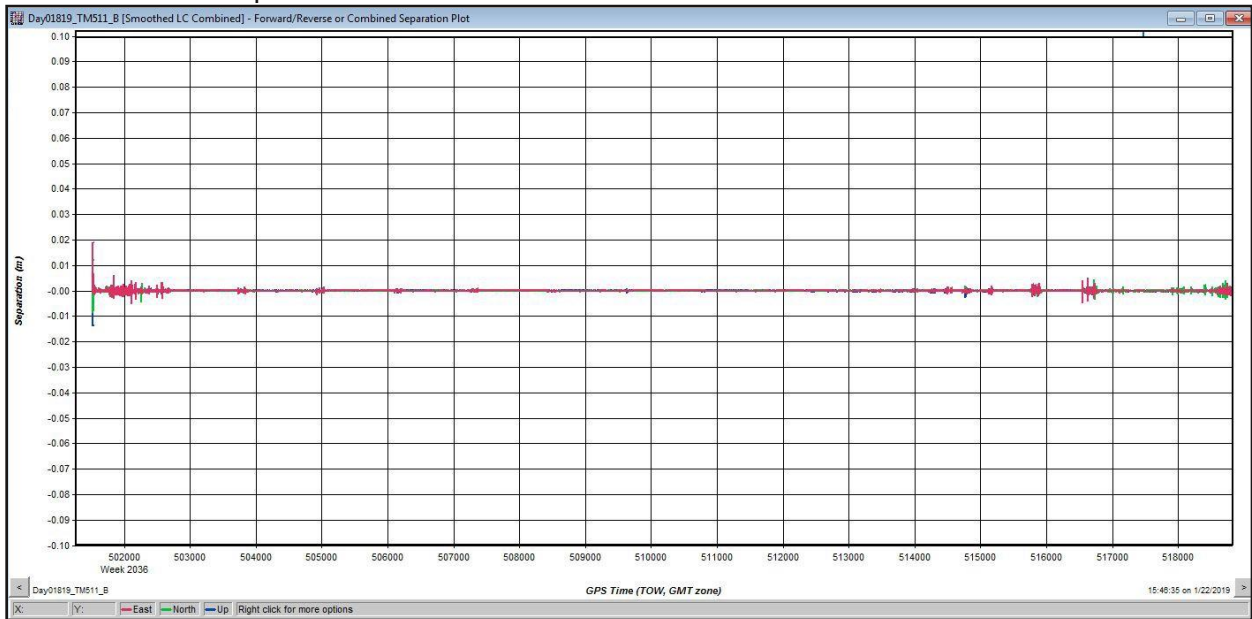
Name	Status	Latitude	Longitude	Height
PBCH_CORS	ENABLED	26° 50' 46.63807"	-80° 13' 09.29993"	-15.179 m (ELLIPSOIDAL)

Trajectory



Day01819_TM511_B

Combined Separation Plot

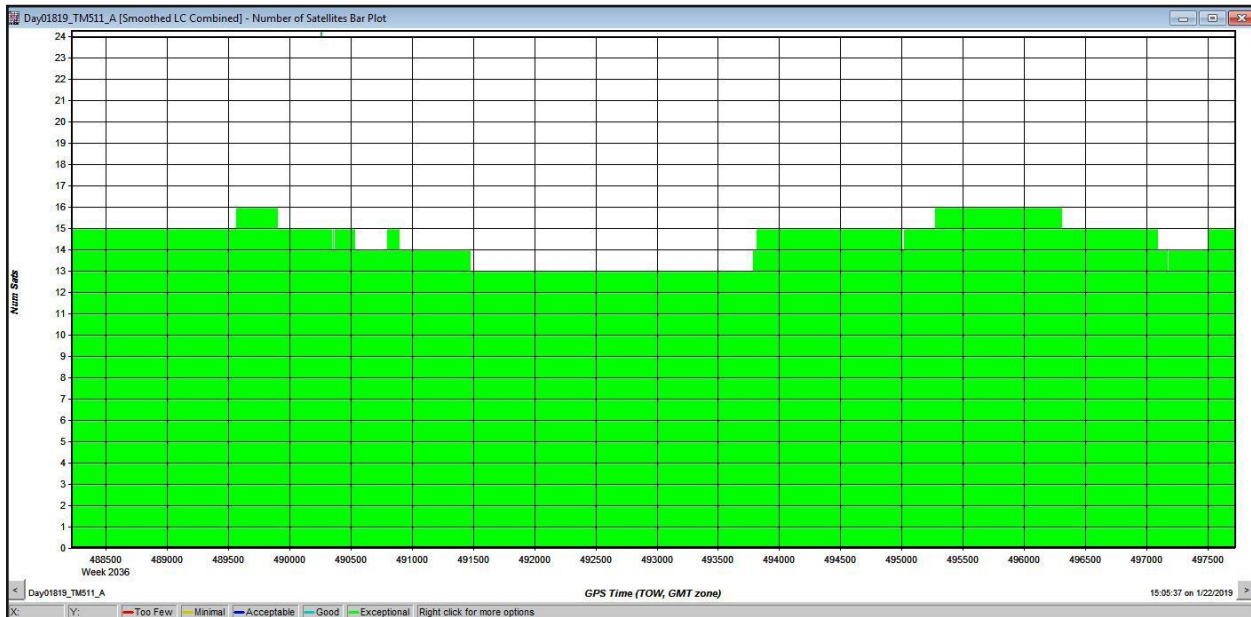


Estimated Position Accuracy Plot

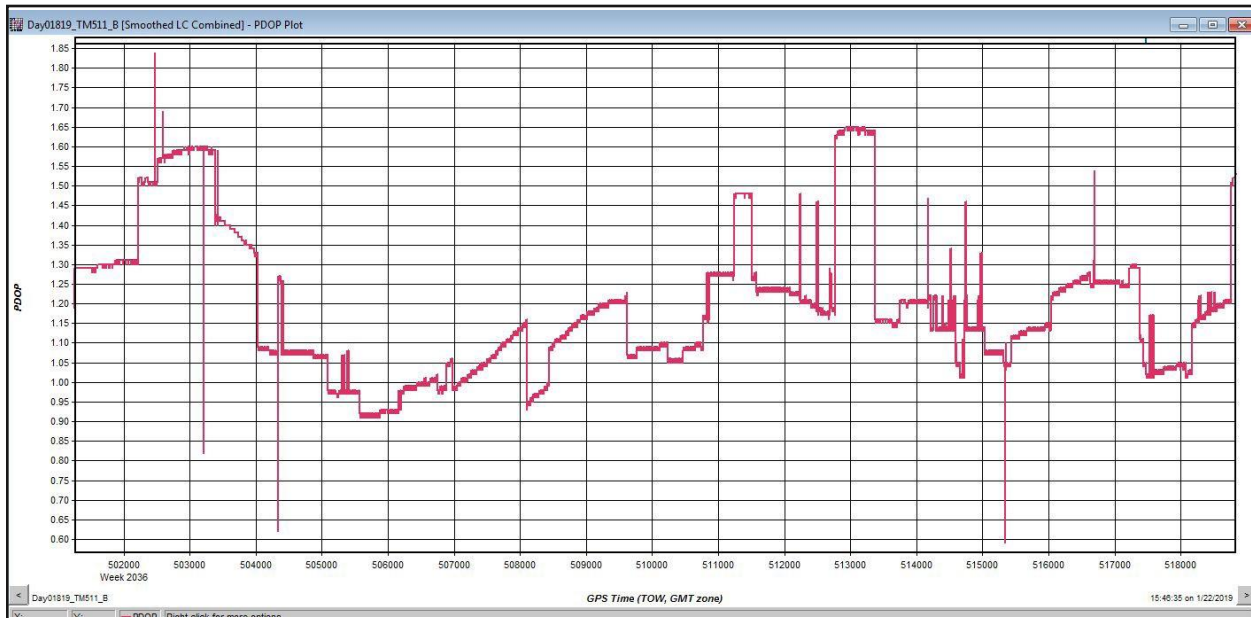


Day01819_TM511_B

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date				
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #		
79028	FL Peninsular 2018 D18 - Block 8		Day018_90511_B			01/18/2019	018	B		
Crew		Equipment			Time			Airports		
Pilot		Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
Sanda		Cessna 404 Titan - N404CP			6965.3	14:38:00	19:38:00	KSUA		
Operator		Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos		Leica Terrain Mapper - 90511			6970..0	18:29:00	23:29:00	KFMY		
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
100	7	12			23	14	30.12			
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)						
140		5,900	5,900	17						
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40		150	1550	100				
						Verify S-Turns Before Mission	Yes			
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	19:14:14	Takeoff	1923z
							Line Notes/Comments			
59	S	19:38:05	19:55:11		19	1.5	cloud 11 miles from south end			
58	N	19:58:54	20:15:00	00:16:06	21	1.3	tide window 9:321am to 1:32 pm (13:32)			
57	S	20:17:40	20:34:43	00:17:03	20	1.2				
56	N	20:37:08	20:56:30	00:19:22	24	1.1				
55	S	20:56:30	21:13:30	00:17:00	21	1.3				
54	N	21:16:21	21:32:51	00:16:30	22	1.4	***Note***Tidal 60-67			
53	S	21:35:22	21:52:15	00:16:53	22	1.4	***Note***Need non tidal 35-48			
52	N	21:54:55	22:11:10	00:16:15	22	1.4				
51	S	22:13:45	22:30:33	00:16:48	22	1.4				
81	N	22:33:32	22:35:48	00:02:16	20	1.4				
80	S	22:38:28	22:40:50	00:02:22	23	1				
79	N	22:43:24	22:45:19	00:01:55	23	1				
78	S	22:47:50	22:49:48	00:01:58	23	1				
77	N	22:52:06	22:54:02	00:01:56	20	1.2				
76	S	22:56:30	22:58:02	00:01:32	20	1.2				
50	N	23:06:16	23:15:59	00:09:43	20	1.2				

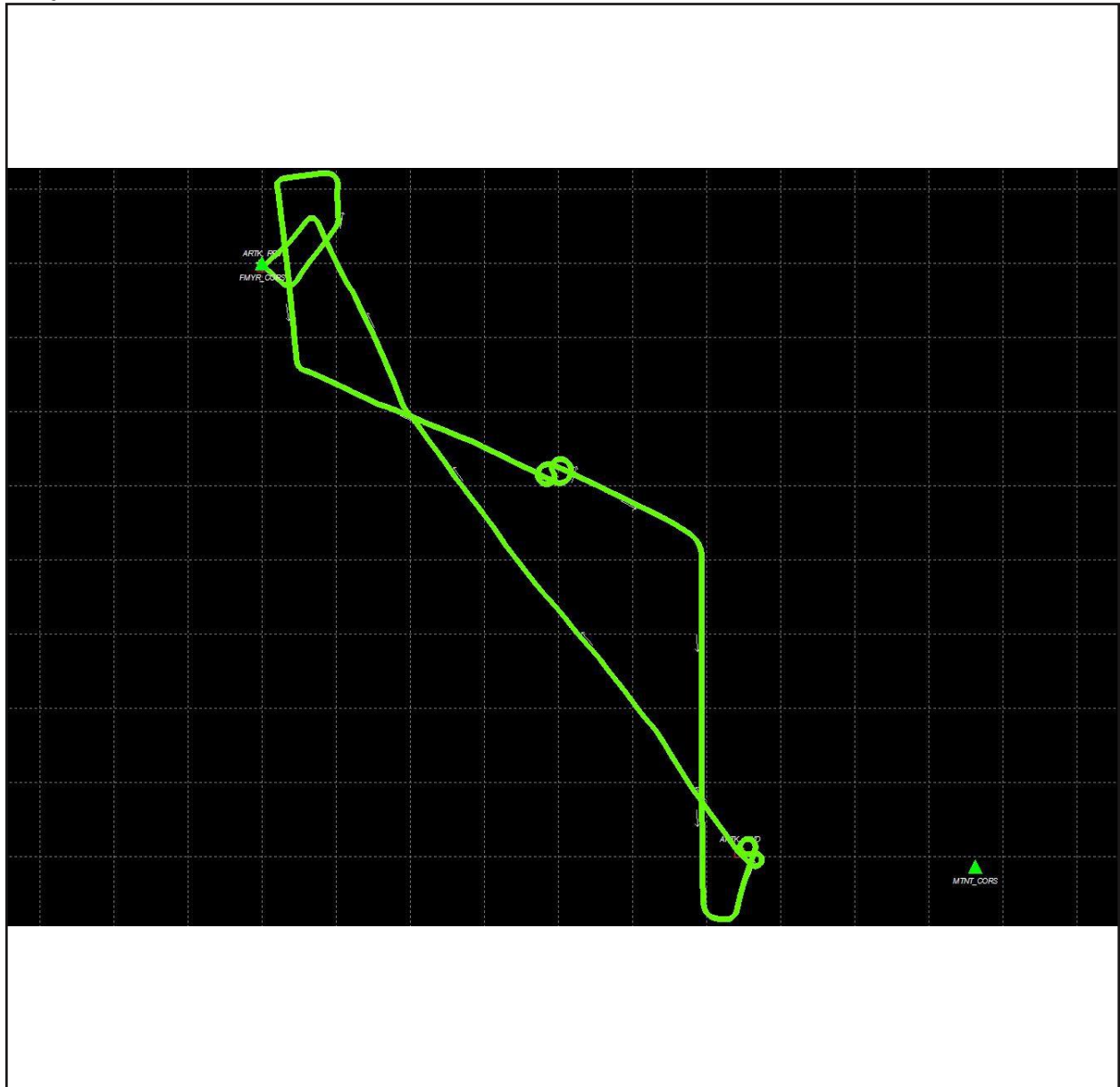
49	S	23:18:45	23:28:42	00:09:57	24	1		
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
966GB								

Day01919_TM511

Base Station Coordinates

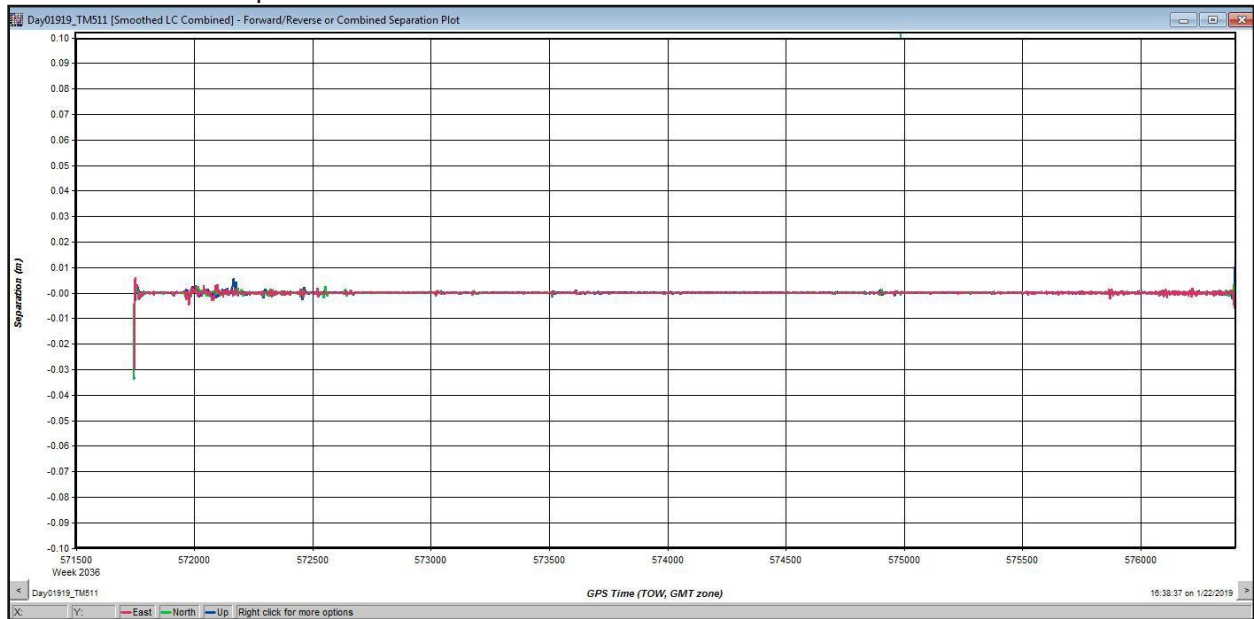
Name	Status	Latitude	Longitude	Height
MTNT_CORS	ENABLED	25° 51' 56.76077"	-80° 54' 25.18641"	-18.804 m (ELLIPSOIDAL)
FMYR_CORS	ENABLED	26° 35' 27.50795"	-81° 51' 59.97208"	-13.157 m (ELLIPSOIDAL)

Trajectory

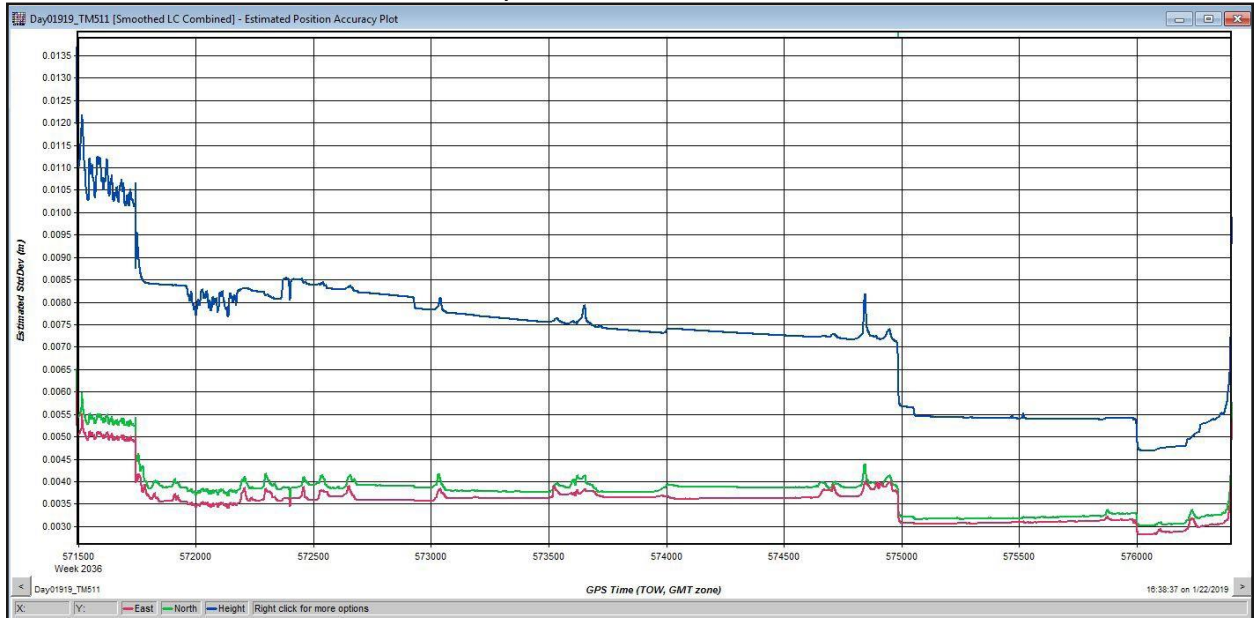


Day01919_TM511

Combined Separation Plot

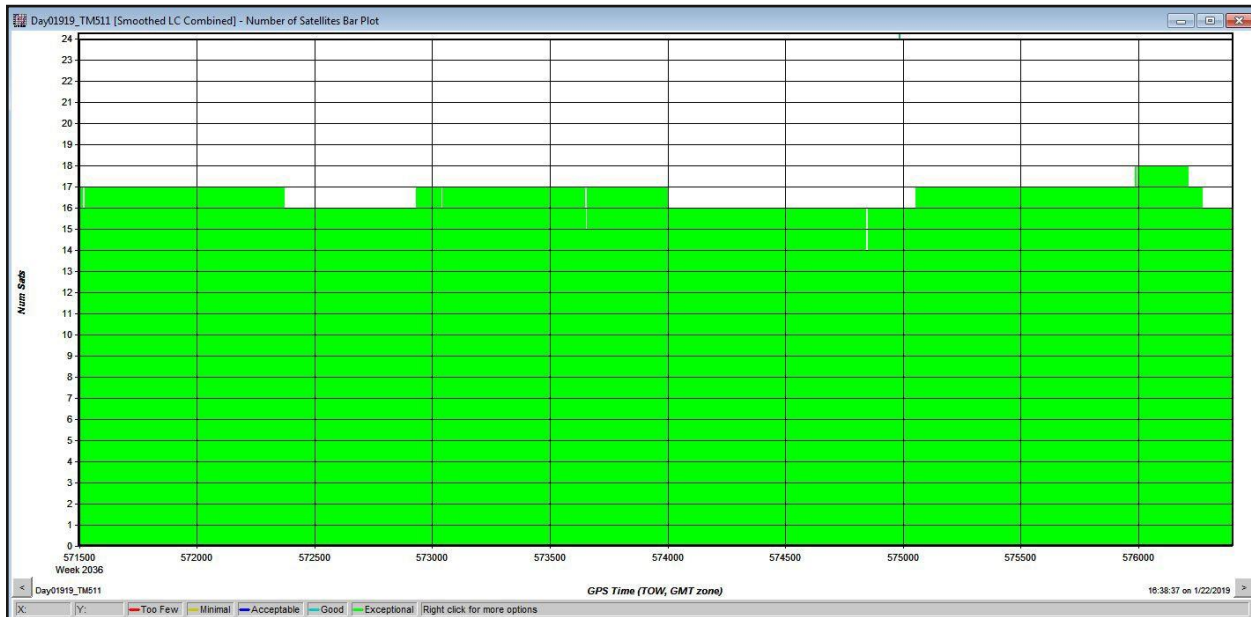


Estimated Position Accuracy Plot

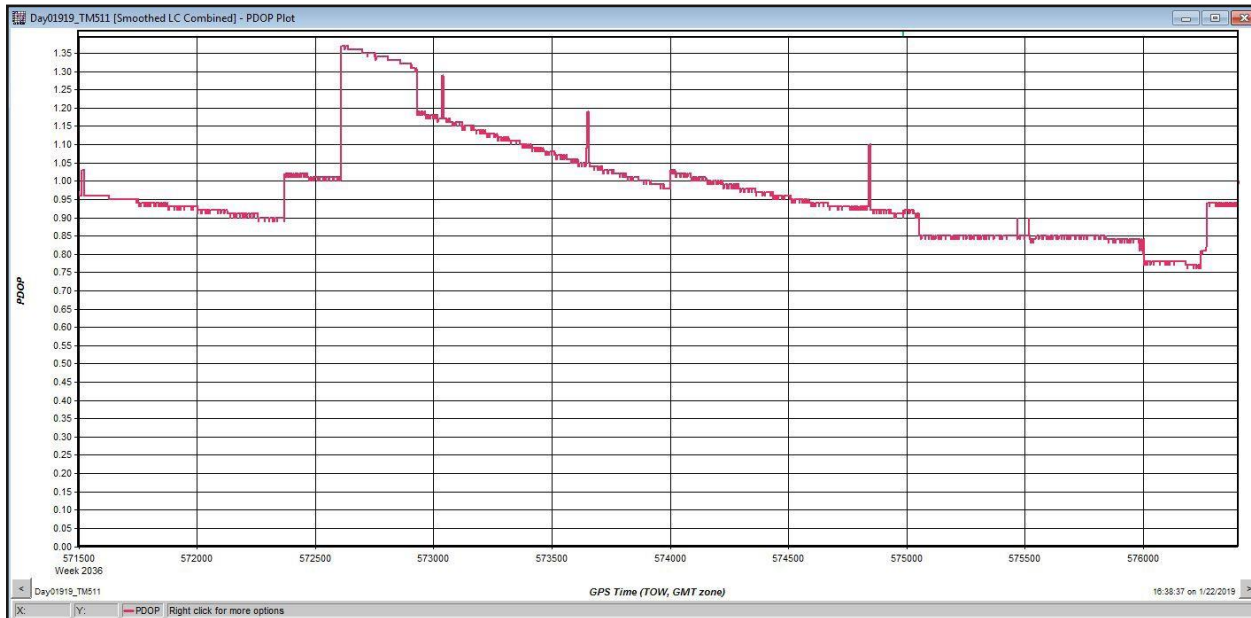


Day01919_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

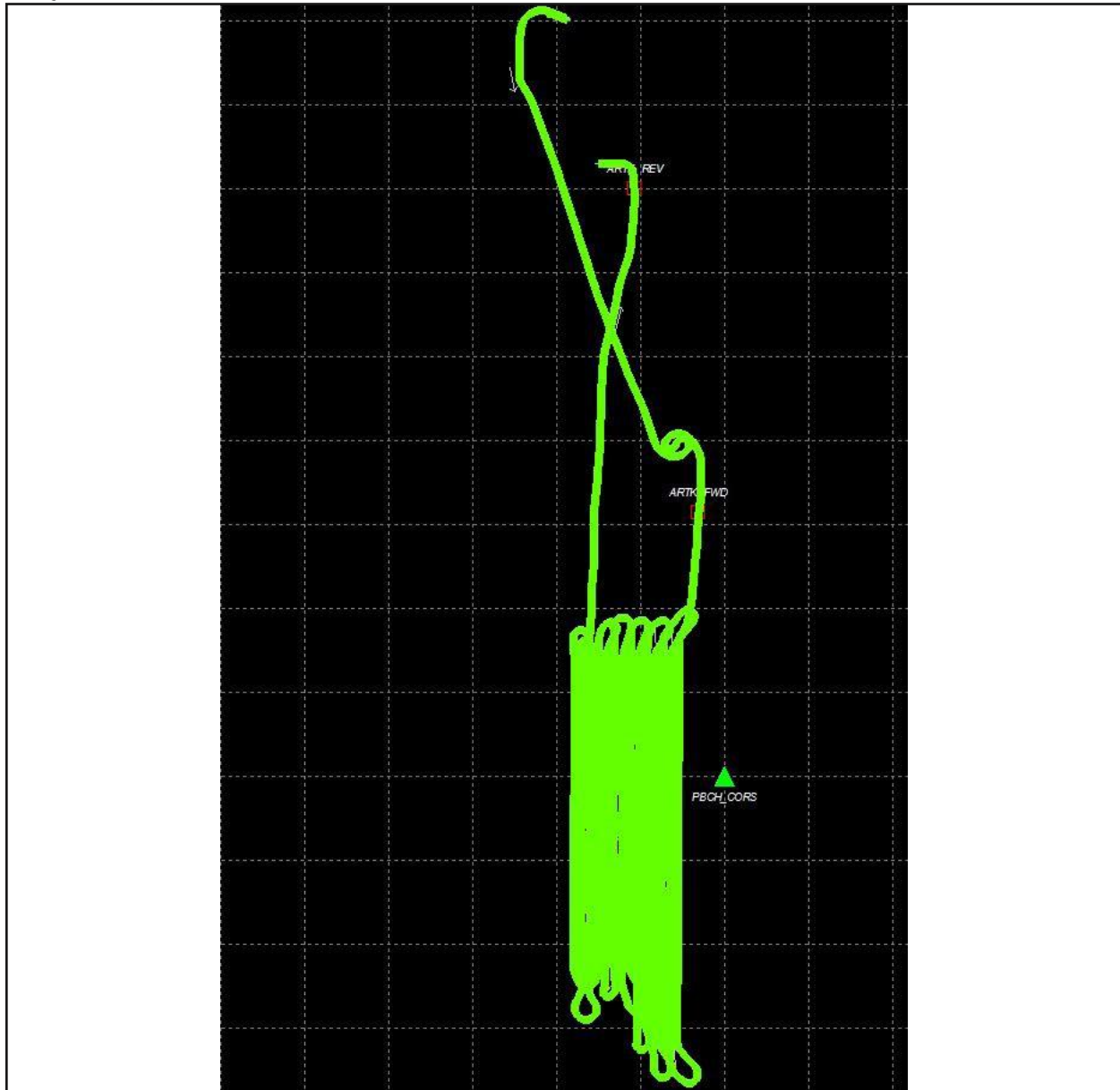
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							

Day02019_TM511

Base Station Coordinates

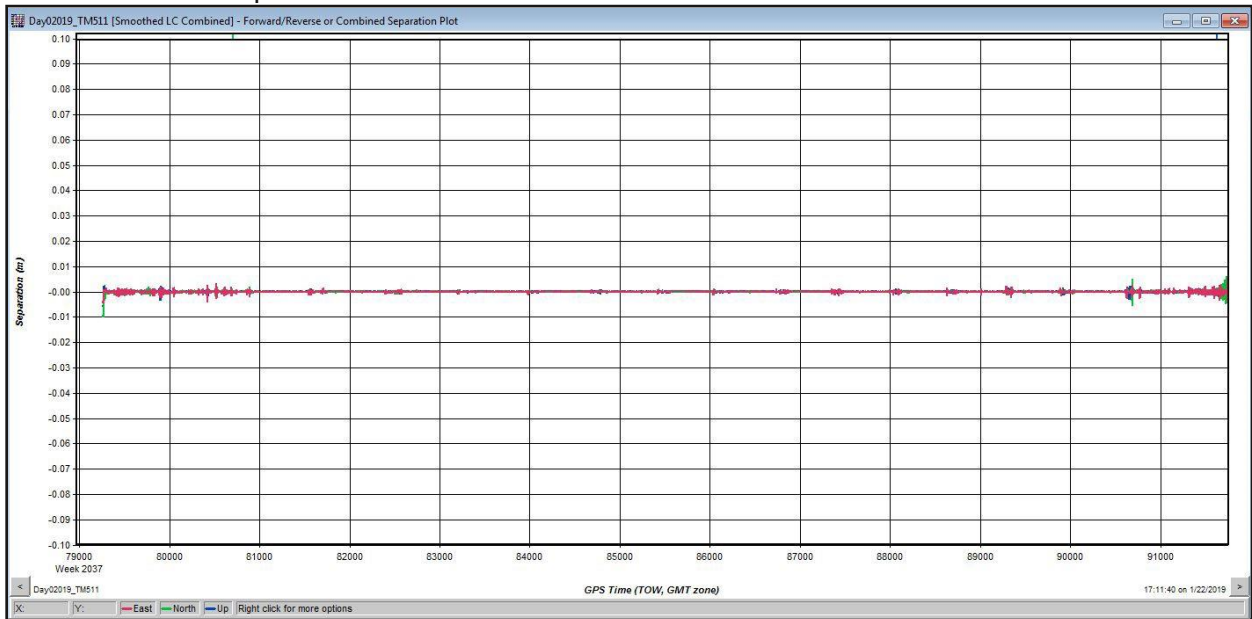
Name	Status	Latitude	Longitude	Height
PBCH_CORS	ENABLED	26° 50' 46.63807"	-80° 13' 09.29993"	-15.179 m (ELLIPSOIDAL)

Trajectory

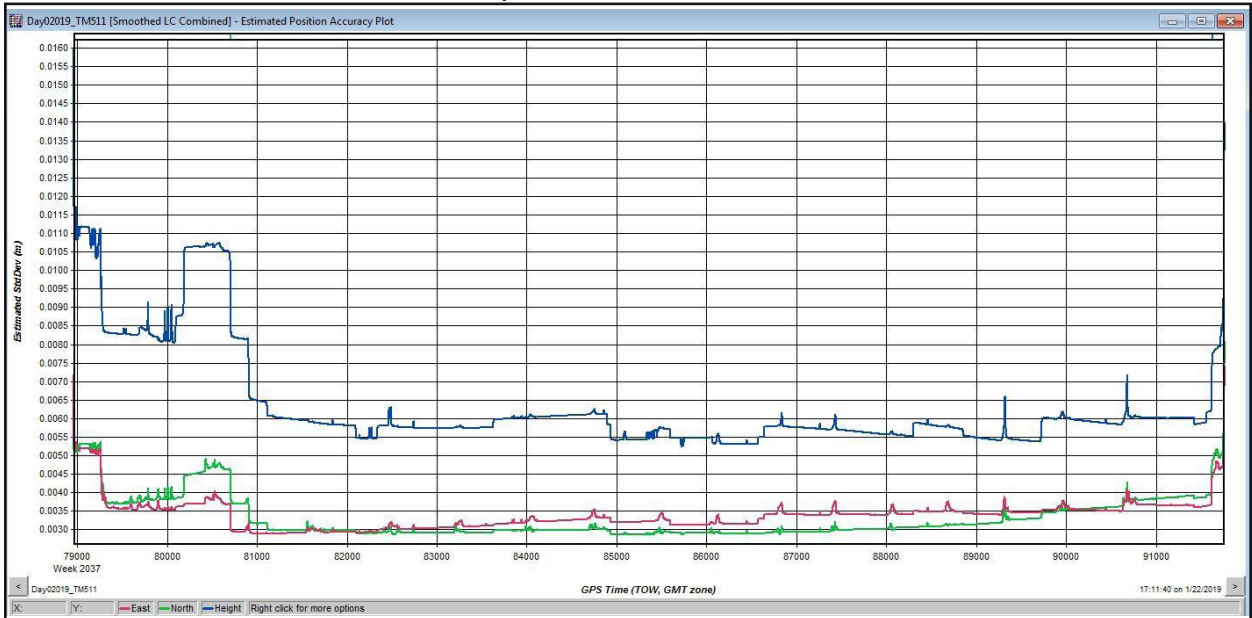


Day02019_TM511

Combined Separation Plot

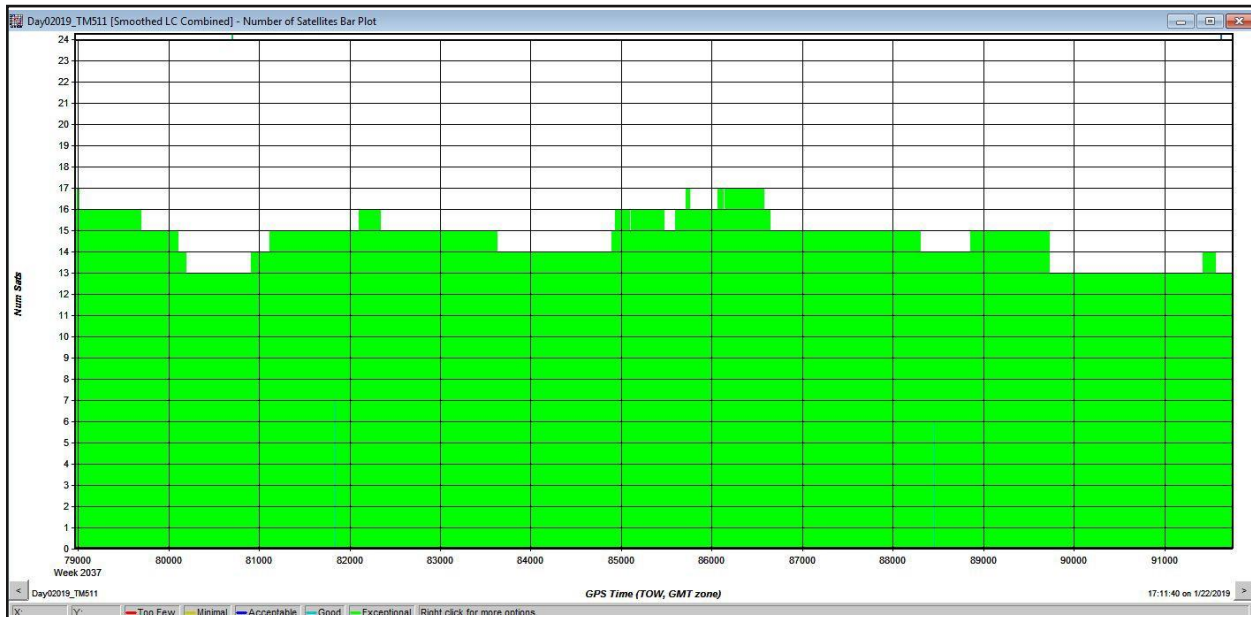


Estimated Position Accuracy Plot

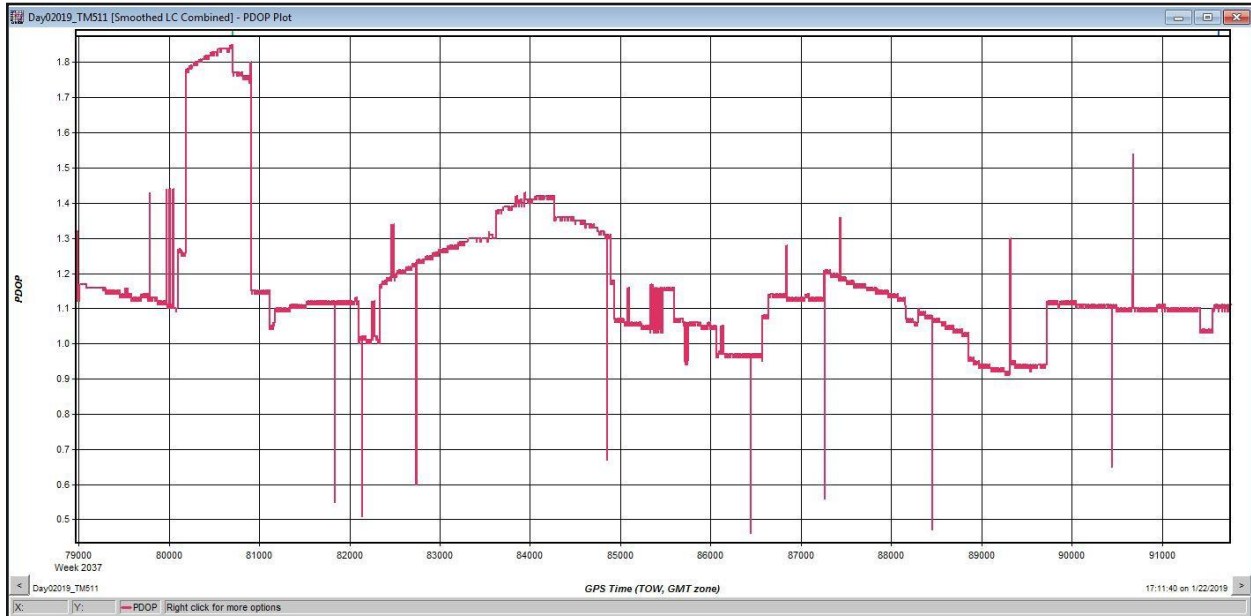


Day02019_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date			
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 8			Day020_90511_A			01/20/2019	020	A	
Crew		Equipment			Time			Airports		
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing			
Sanda	Cessna 404 Titan - N404CP			6971.8	05:28:00	22:28:00	KVRB			
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving			
Galambos	Leica Terrain Mapper - 90511			4:48	20:10:00	01:10:00	KFPR			
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
270	30	10	3,200	Few	18.9	7.2	29.91			
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)		Airfield Elevation (ft)				
140		5,900		5,900		24				
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)		Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150		1550	100			
							Verify S-Turns Before Mission		Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	21:55:54	Takeoff	
							Line Notes/Comments			
48	S	22:28:37	22:38:47	00:10:10	22	1.1				
47	N	22:42:22	22:52:58	00:10:36	22	1.3	***Note***Tidal 60-67			
46	S	22:56:14	23:06:10	00:09:56	20	1.2				
45	N	23:06:10	23:19:28	00:13:18	24	1.1				
44	S	23:21:48	23:31:24	00:09:36	23	1.2				
43	N	23:33:25	23:43:27	00:10:02	22	1.2				
42	S	23:45:48	23:53:38	00:07:50	22	1.1				
41	N	23:57:43	00:05:15	00:07:32	21	1.1				
40	S	00:07:45	00:15:32	00:07:47	20	1.2				
39	N	00:17:55	00:26:18	00:08:23	20	1.2				
38	S	00:28:36	00:36:51	00:08:15	20	1.2				
37	N	00:38:50	00:43:08	00:04:18	20	1.2				
36	S	00:49:03	00:57:29	00:08:26	20	1.2	Manual Start/Stop UL001/mount did not stop			
35	N	01:01:10	01:09:53	00:08:43	17	1.3				

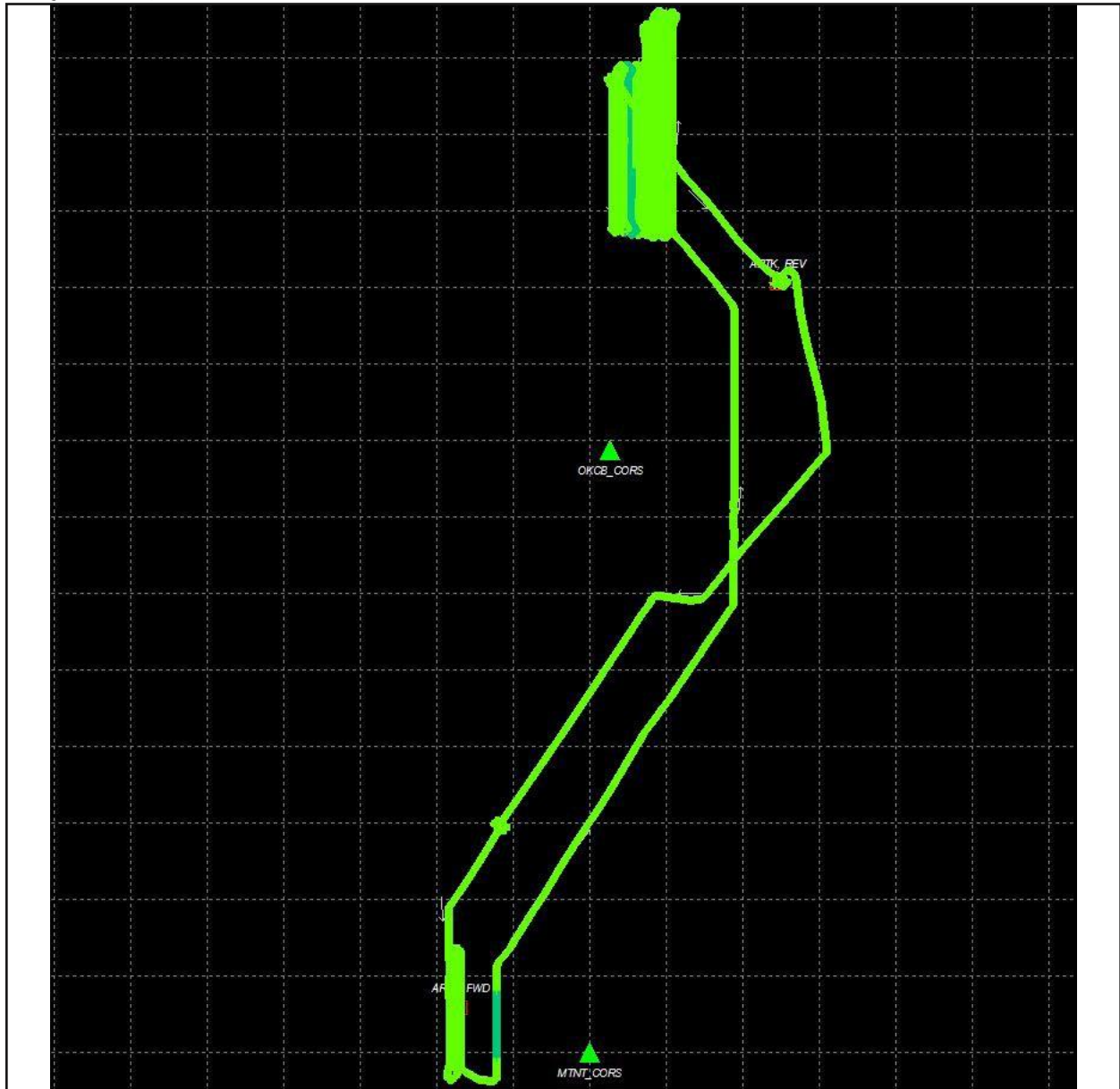
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
454 gb Landing at FT Pierce-because all the airport lighting is out at KVRB							

Day02119_TM511

Base Station Coordinates

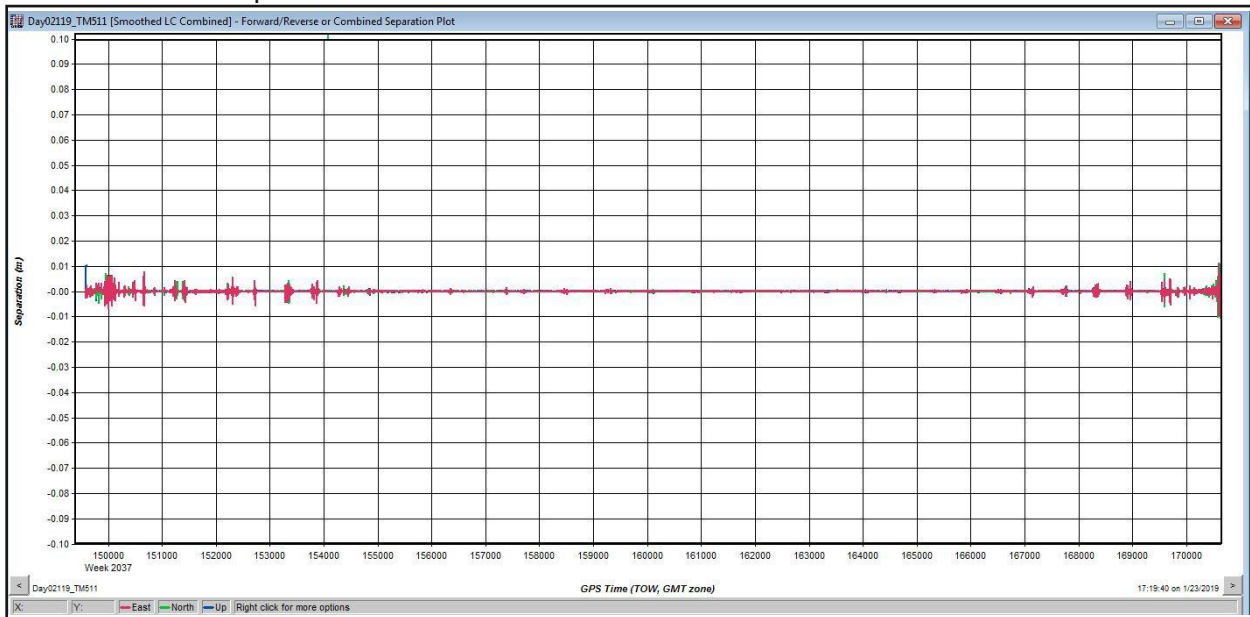
Name	Status	Latitude	Longitude	Height
MTNT_CORS	ENABLED	25° 51' 56.76077"	-80° 54' 25.18641"	-18.804 m (ELLIPSOIDAL)
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory



Day02119_TM511

Combined Separation Plot

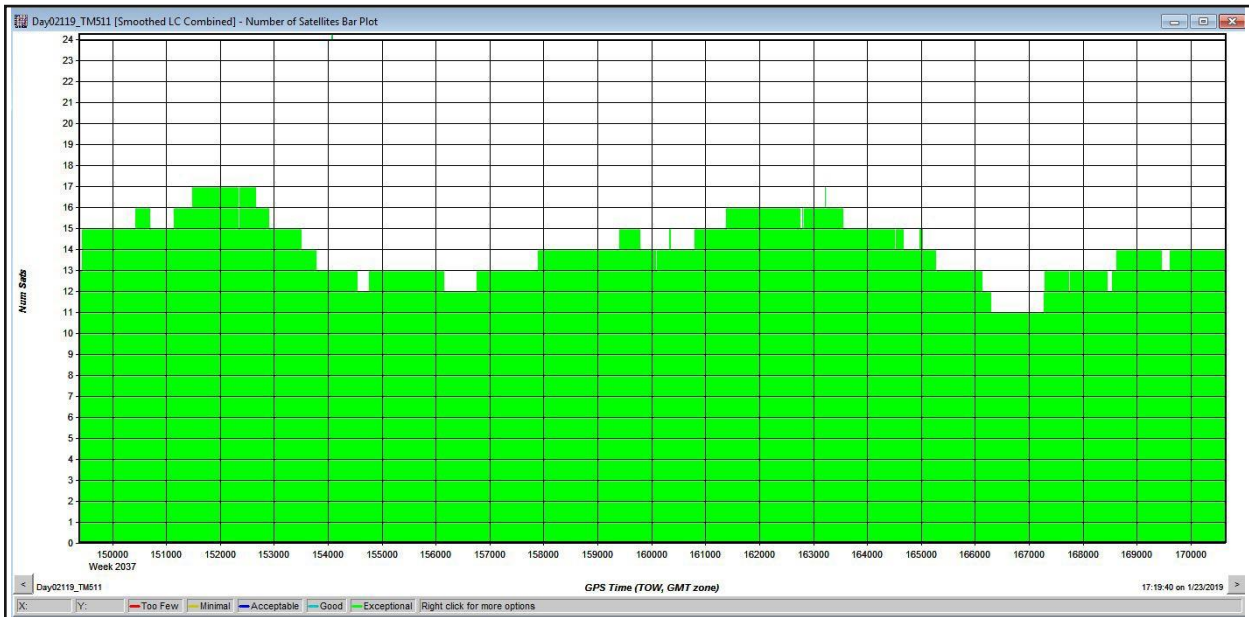


Estimated Position Accuracy Plot

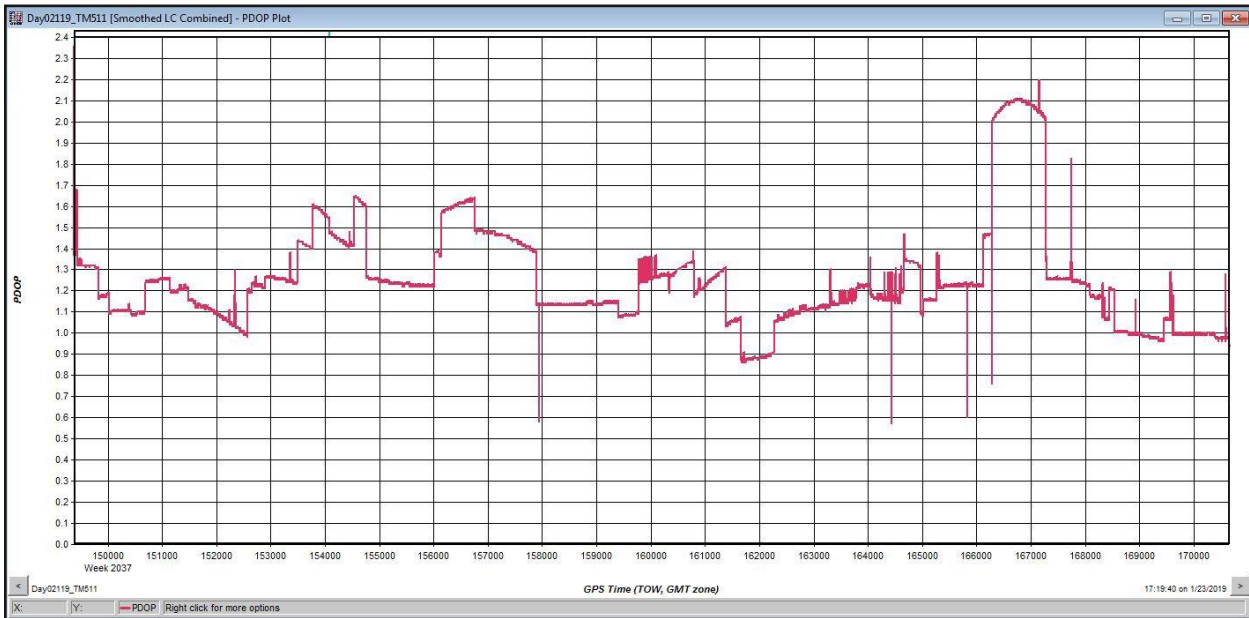


Day02119_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date		
Project #	Project Name				Unique ID	Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Blocks 9, 6, 4				Day021_90511_A	01/21/2019	021	A	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #				Hobbs Start	Local Start	UTC Start	Departing	
Sanda	Cessna 404 Titan - N404CP				6975.3	13:25:00	18:25:00	KVRB	
Operator	Sensor Make / Model / Serial #				Hobbs End	Local End	UTC End	Arriving	
Galambos	Leica Terrain Mapper - 90511				6981	18:05:00	23:05:00	KVRB	
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
10	21	10	1,800	Few	15.6	8.9	30.29		
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900		5,900	23				
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
							Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	17:29:22	Takeoff
Line Notes/Comments									
2	S	18:25:40	18:34:21		22	1.2	Block 9 reflights/ 18 mi s end		
4	N	18:36:52	18:42:24	00:05:32	20	1.1	last 12 miles S end-Man Stop		
5	S	18:45:06	18:50:58	00:05:52	20	1.1	last 12 miles S end		
15	N	18:54:50	18:59:47	00:04:57	21	1	last 10 miles S end		
Block 6 fl 1-64, non tidal 15-31									
16	N	19:26:12	19:42:18	00:16:06	16	1.5	tide window 12:08 - 16:08 complete 1-14, 57-63		
Block 4 - flight 1-56									
16	S	20:03:21	20:13:30	00:10:09	20	1.4	tidal 23-55		
15	N	20:15:28	20:26:50	00:11:22	21	1.3	complete 18-22--need reflight 18 N 17miles		
14	S	20:29:01	20:40:05	00:11:04	20	1.3			
13	N	20:43:00	20:53:54	00:10:54	20	1.4			
12	S	20:56:26	21:07:31	00:11:05	21	1.2			
11	N	21:10:18	21:21:12	00:10:54	22	1.2			
10	S	21:24:55	21:32:52	00:07:57	22	1.2			

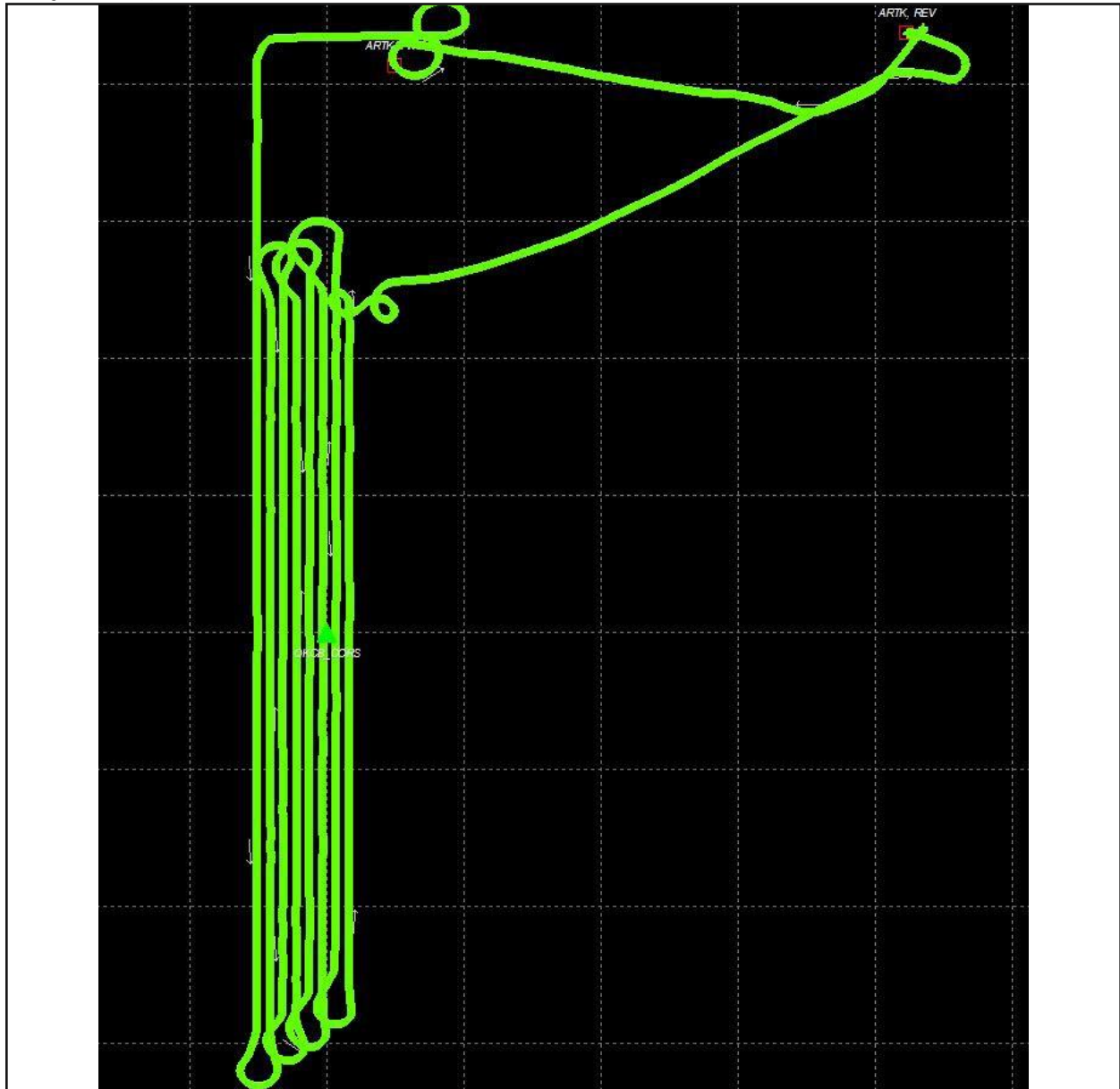
9	N	21:35:20	21:43:04	00:07:44	22	1.2		
8	S	21:45:21	21:53:21	00:08:00	21	1.2		
7	N	21:55:45	22:03:33	00:07:48	20	1.2		
6	S	22:06:00	22:14:00	00:08:00	22	1.2		
5	N	22:16:20	22:24:03	00:07:43	21	1.1		
4	S	22:26:28	22:34:21	00:07:53	21	1.1		
3	N	22:30:26	22:44:07	00:13:41	21	1.1		
2	S	22:46:23	22:54:20	00:07:57	20	1.2		
1	N	22:56:28	23:05:10	00:08:42	20	1.2		
Page 2							Verify S-Turns After Mission	Yes
Additional Comments								
817gb								

Day02519_TM511_A

Base Station Coordinates

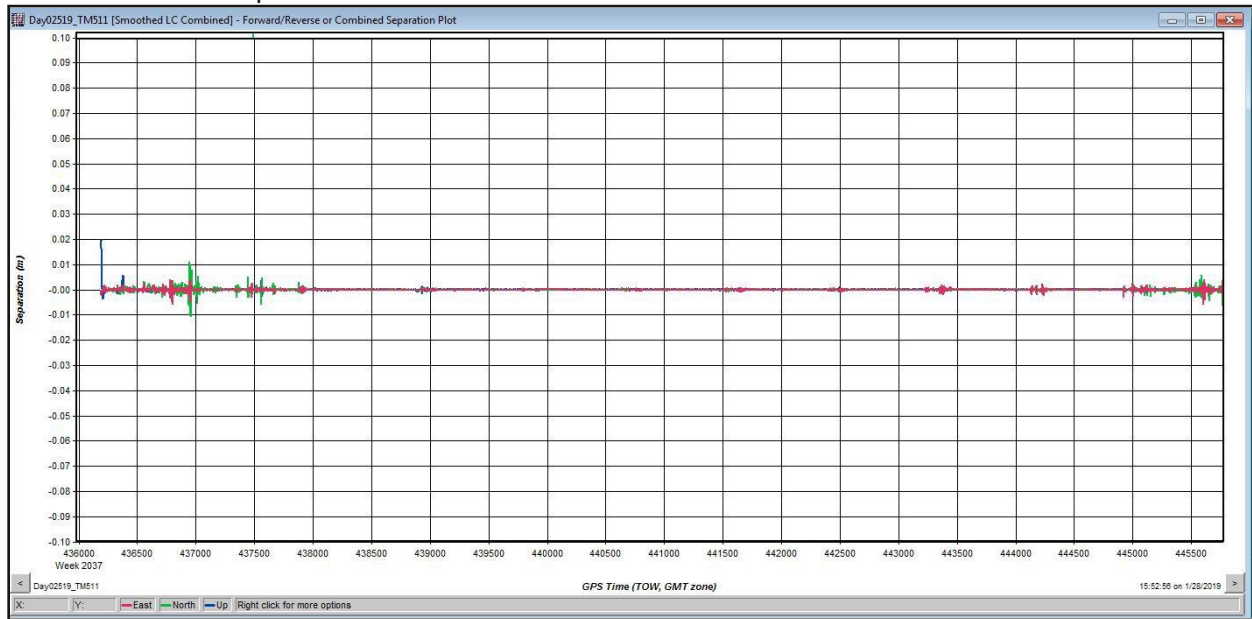
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory

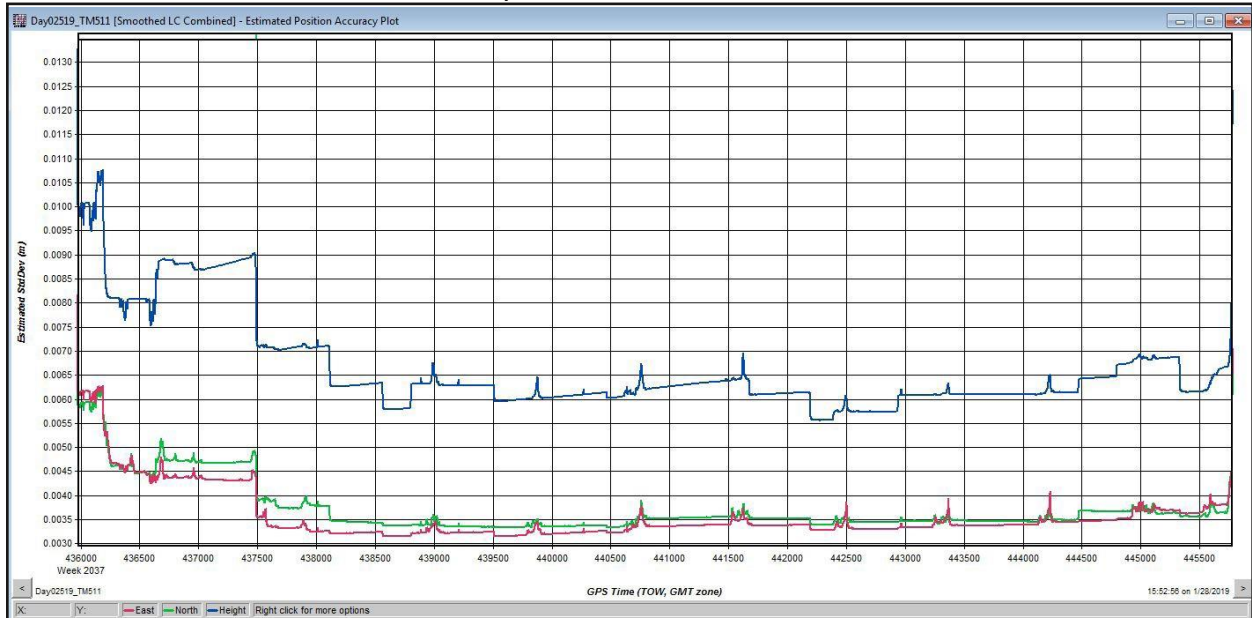


Day02519_TM511_A

Combined Separation Plot

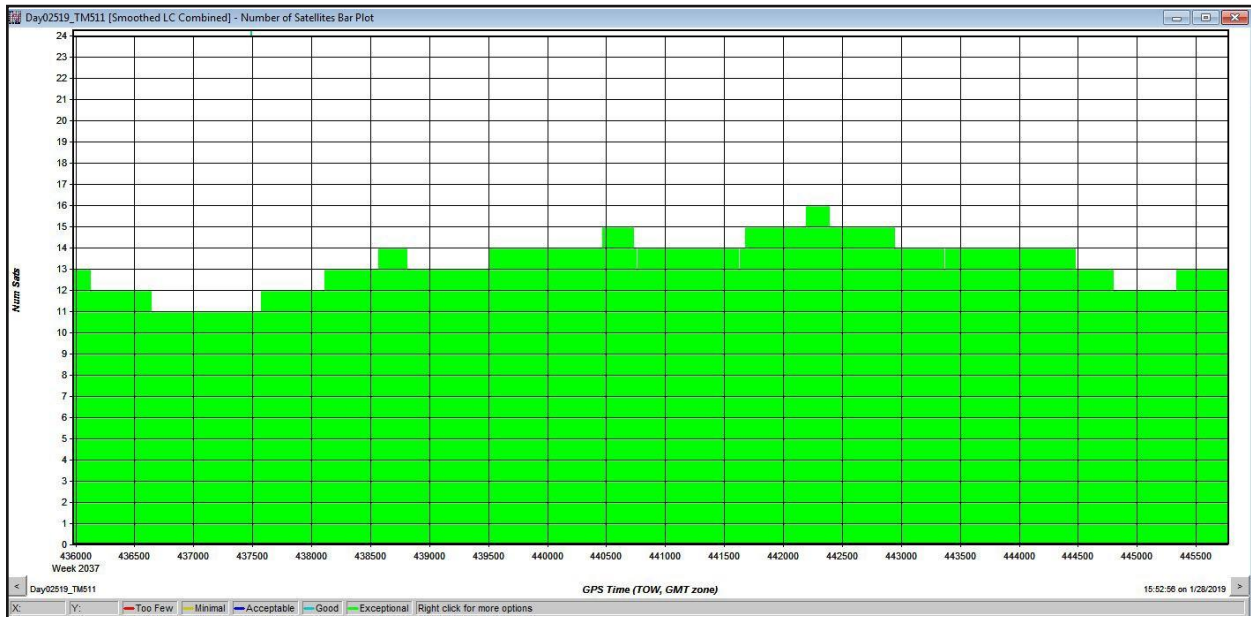


Estimated Position Accuracy Plot

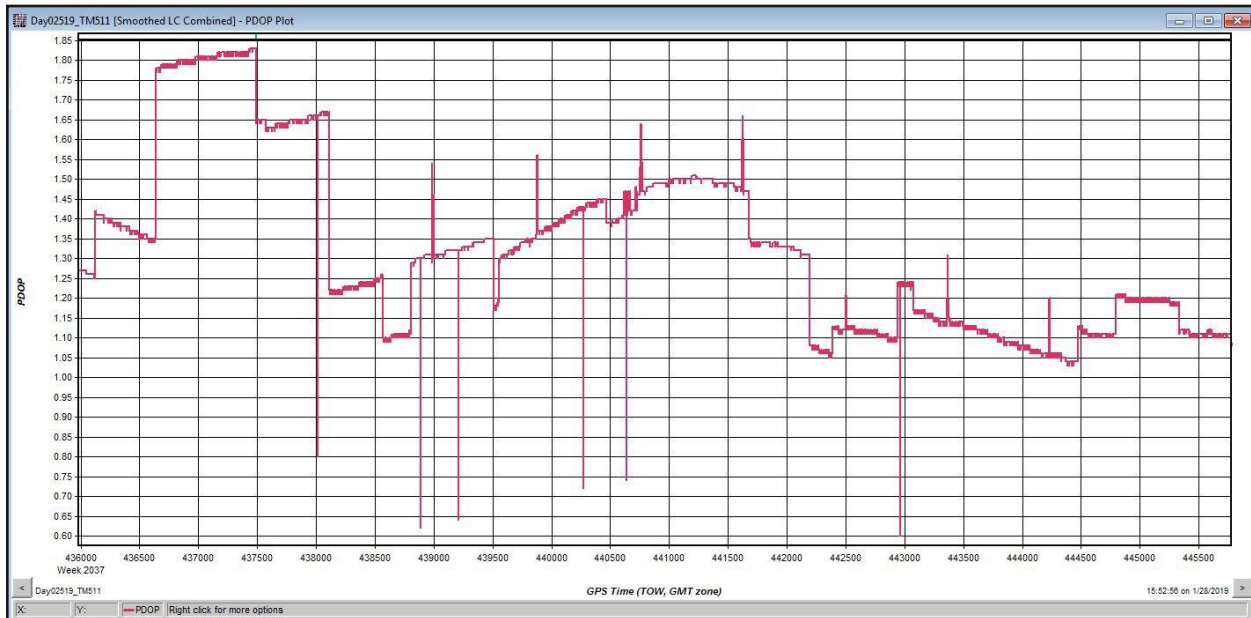


Day02519_TM511_A

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date			
Project #	Project Name				Unique ID	Flight Date (UTC)	Day of Year	Flight #		
79028	FL Peninsular 2018 D18 - Block 5				Day025_90511_A	01/25/2019	025	A		
Crew		Equipment			Time			Airports		
Pilot	Aircraft Make / Model / Tail #				Hobbs Start	Local Start	UTC Start	Departing		
Sanda	Cessna 404 Titan - N404CP				6981.5	20:39:00	01:39:00	KVRB		
Operator	Sensor Make / Model / Serial #				Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511				6983.6	10:35:00	03:35:00	KVRB		
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
240	8	10	8,000	Broken	19.4	16.7	30.01			
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900		5,900	17					
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40		150	1550	100				
							Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	1:06:30	Takeoff	01:18z
Line Notes/Comments										
58	S	01:39:01	01:55:07	00:16:06	22	1				
59	N	01:57:55	02:09:25	00:11:30	22	1.1				
60	S	02:12:10	02:24:07	00:11:57	23	1.2				
61	N	02:26:56	02:38:24	00:11:28	23	1.1				
62	S	02:41:27	02:53:06	00:11:39	21	1.2				
63	N	02:55:40	03:06:50	00:11:10	21	1.2				
64	S	03:10:40	03:21:52	00:11:12	21	1.2	Clouds KSEF reporting 100 SCT			
65	N	03:24:22	03:35:03	00:10:41	21	1.2	North end thick--hard to see			
							Moon came out so Samir could see the			
							clouds			

Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
408GB Touchdown 0348z							

Day02519_TM511_B

Base Station Coordinates

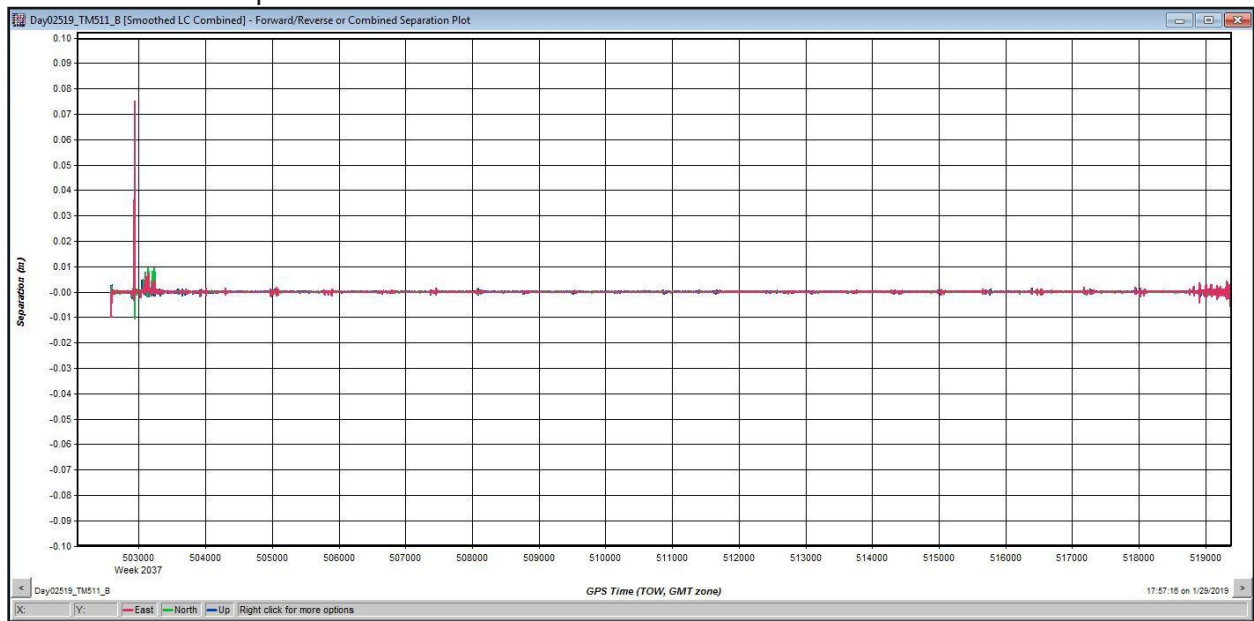
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory

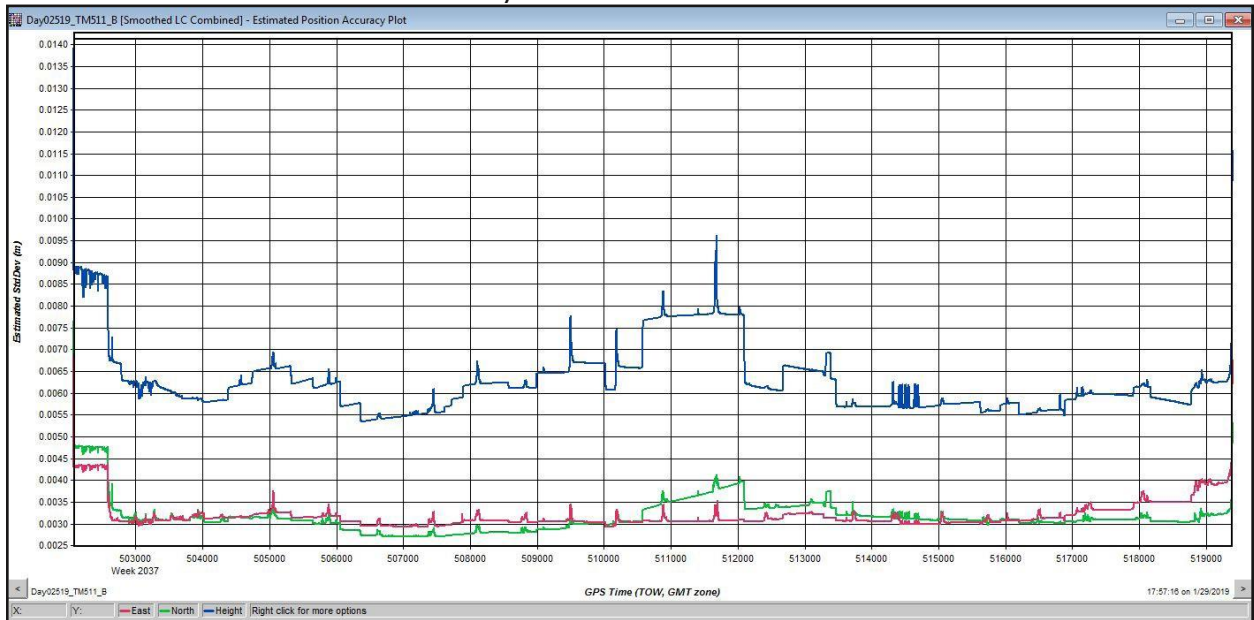


Day02519_TM511_B

Combined Separation Plot

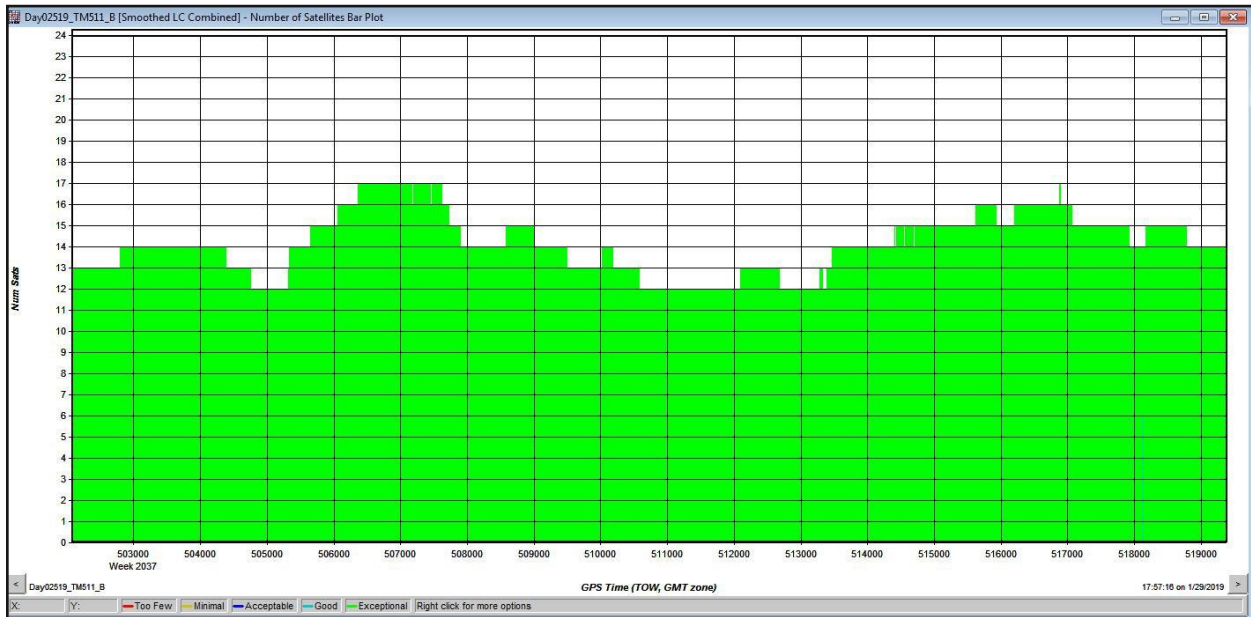


Estimated Position Accuracy Plot

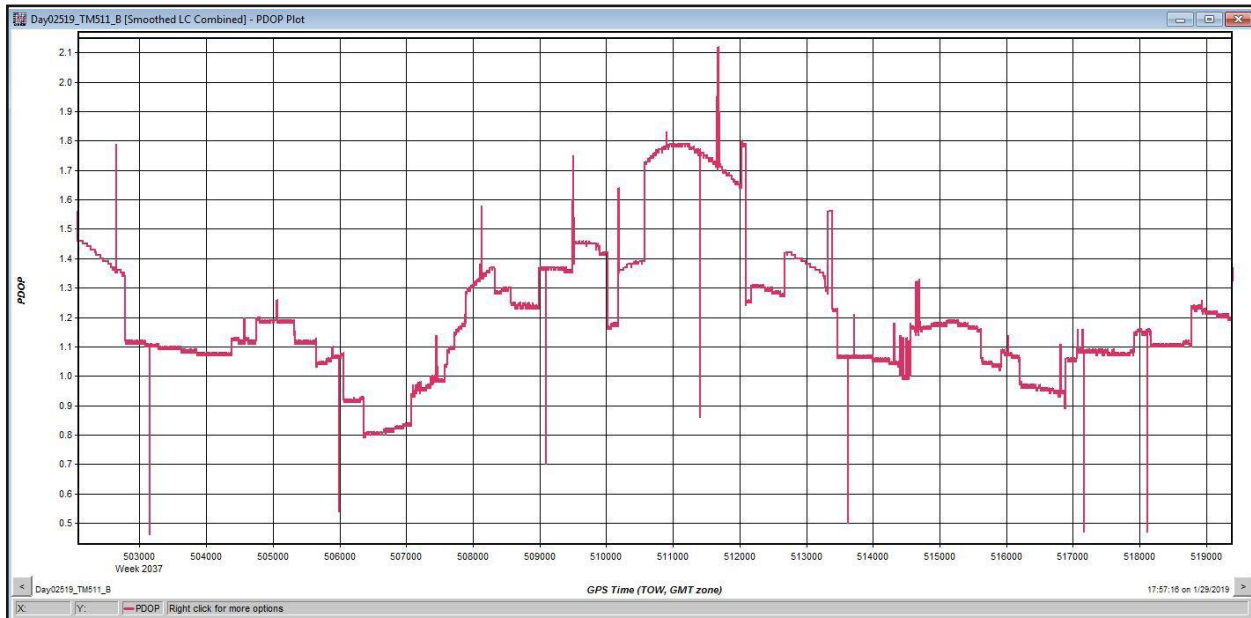


Day02519_TM511_B

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date			
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Blocks 5 & 4			Day025_90511_B			01/25/2019	025	B	
Crew		Equipment			Time			Airports		
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing			
Sanda	Cessna 404 Titan - N404CP			6983.6	15:05:00	20:05:00	KVRB			
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving			
Galambos	Leica Terrain Mapper - 90511			6988.1	19:05:00	23:05:00	KVRB			
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
0	17	10		Clear	15	2.8	30.16			
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900		5,900	23					
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40		150	1550	100				
							Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	19:26:35	Takeoff	1948z
							Line Notes/Comments			
66	S	20:05:15	20:15:55	00:10:40	21	1.4	Block 5			
67	N	20:18:18	20:29:20	00:11:02	21	1.3				
68	S	20:32:19	20:42:44	00:10:25	22	1.4				
69	N	20:47:04	20:55:42	00:08:38	22	1.4				
70	S	20:58:04	21:06:28	00:08:24	22	1.1				
71	N	21:09:36	21:19:00	00:09:24	22	1.1				
72	S	21:21:18	21:30:13	00:08:55	22	1.1				
73	N	21:32:30	21:41:48	00:09:18	22	1.1				
74	S	21:44:02	21:53:13	00:09:11	22	1.1				
75	M	21:55:40	22:05:29	00:09:49	22	1.2				
76	S	22:08:38	22:19:10	00:10:32	22	1.1				
47	N	22:32:30	22:40:04	00:07:34	21	1.2	Block 4 Tdal			
46	S	22:43:18	22:51:06	00:07:48	21	1.2	Tidal Window 3:21 - 7:21 PM			
45	N	22:53:54	23:02:48	00:08:54	21	1.2				
44	S	23:05:16	23:13:53	00:08:37	23	1.2				

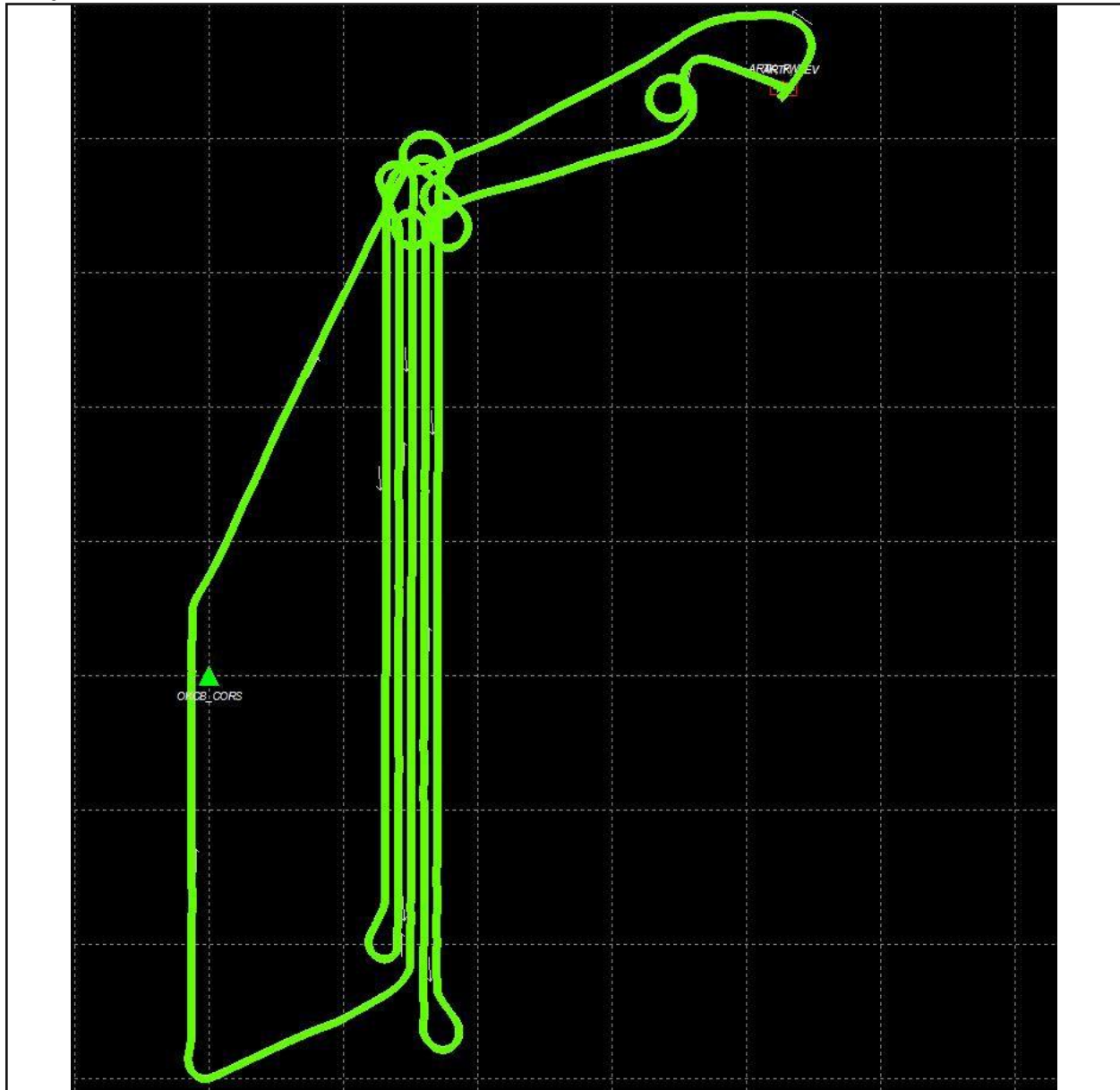
43	N	23:16:40	23:26:09	00:09:29	21	1.2		
42	S	23:29:38	23:39:20	00:09:42	23	1.1		
41	N	23:41:56	23:52:07	00:10:11	23	1.2		
40	S	23:55:05	23:05:37	23:10:32	23	1.2		
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
Landing: 649GB								

Day03519_TM511

Base Station Coordinates

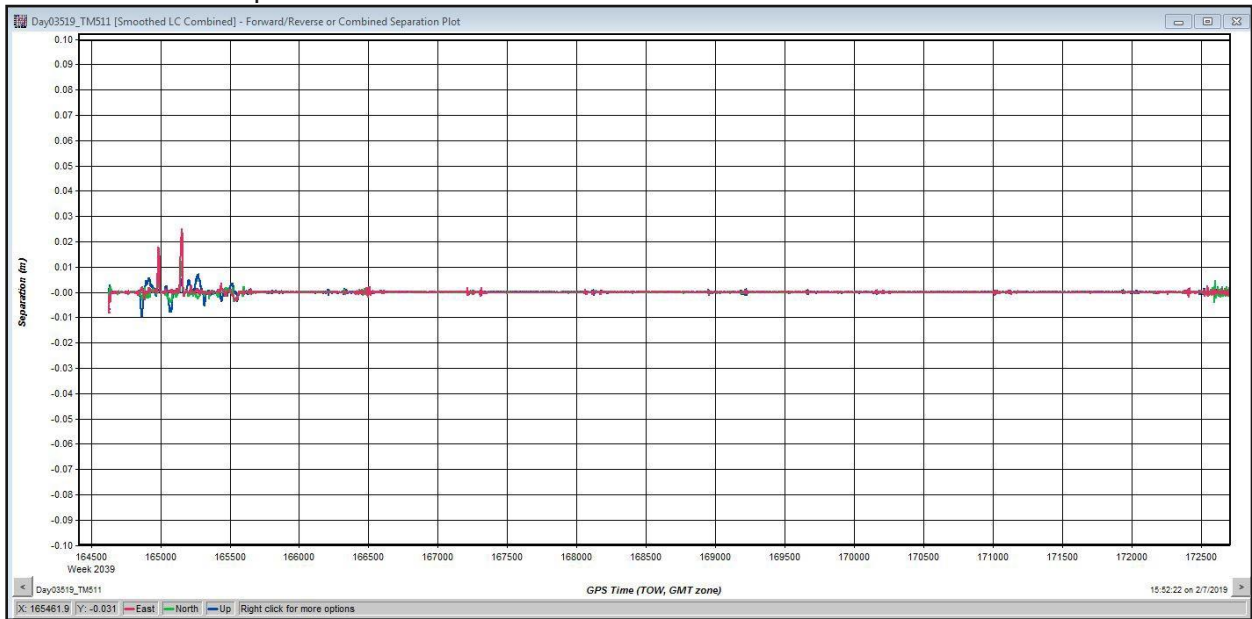
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory



Day03519_TM511

Combined Separation Plot

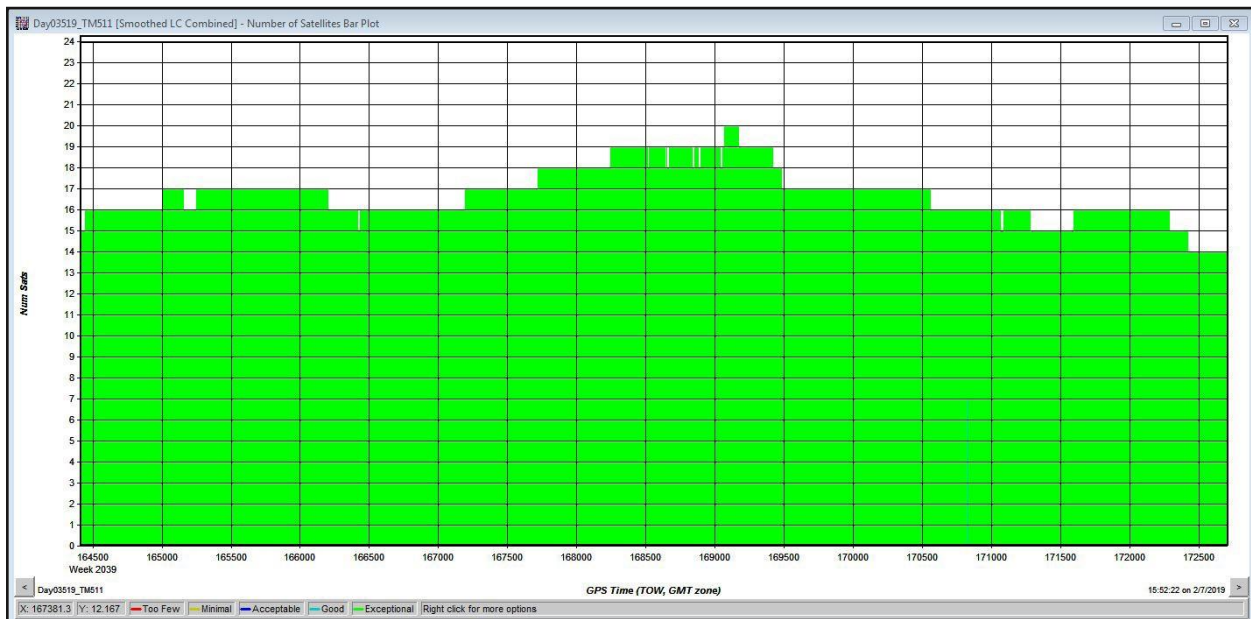


Estimated Position Accuracy Plot

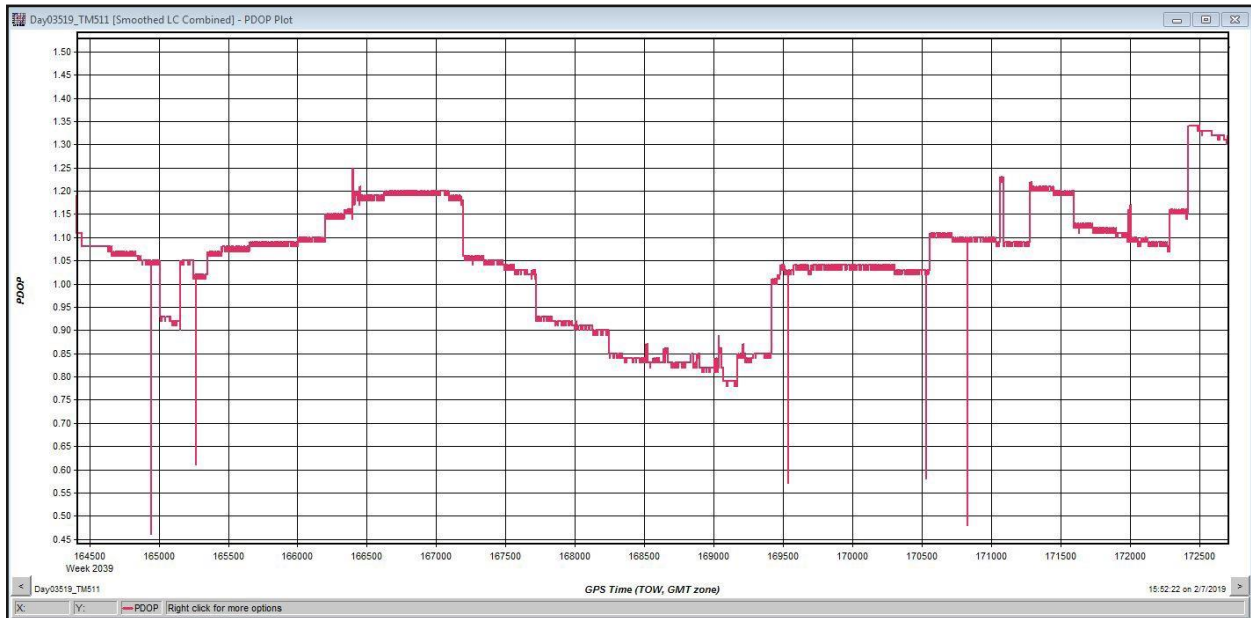


Day03519_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

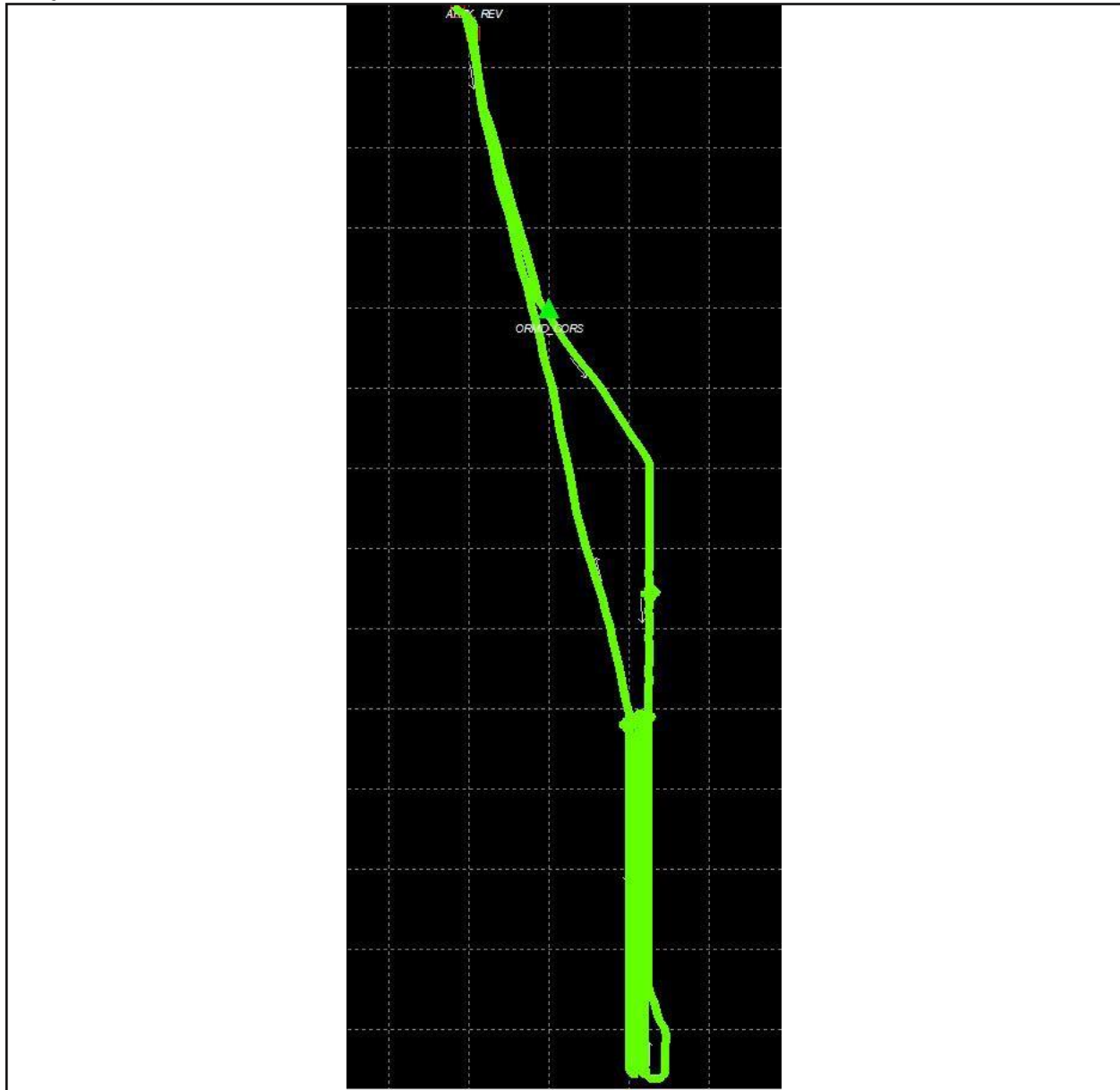
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
Landing: 245GB							

Day03519_TM515

Base Station Coordinates

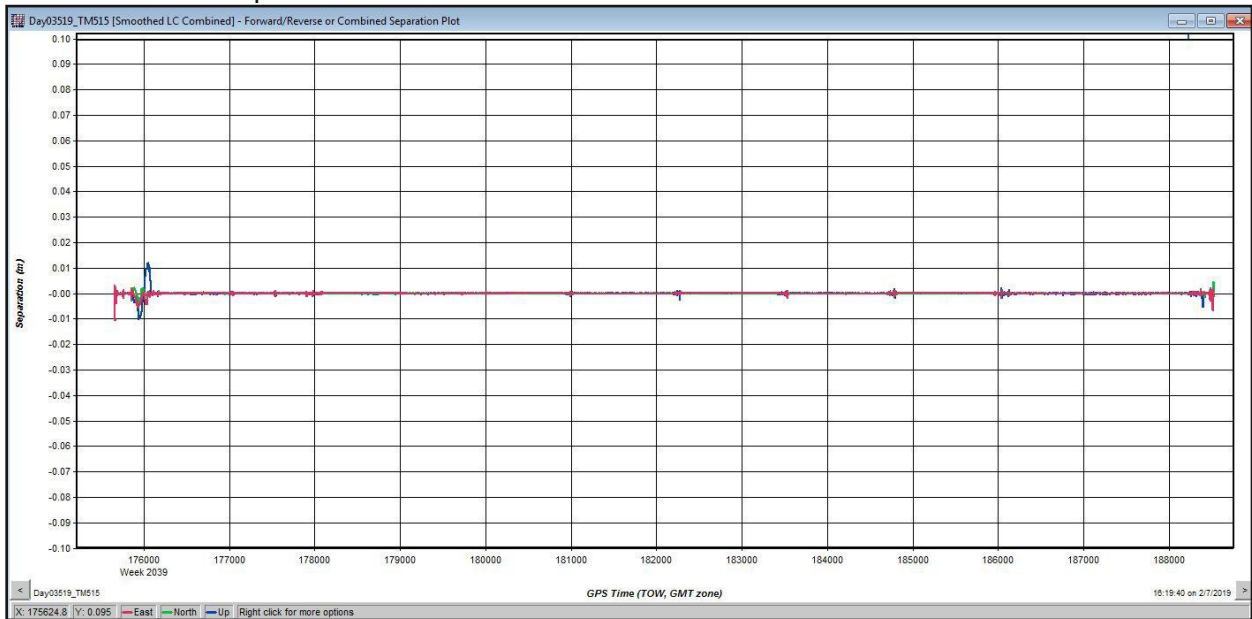
Name	Status	Latitude	Longitude	Height
ORMD_CORS	ENABLED	29° 17' 53.46943"	-81° 06' 32.01316"	-18.225 m (ELLIPSOIDAL)

Trajectory

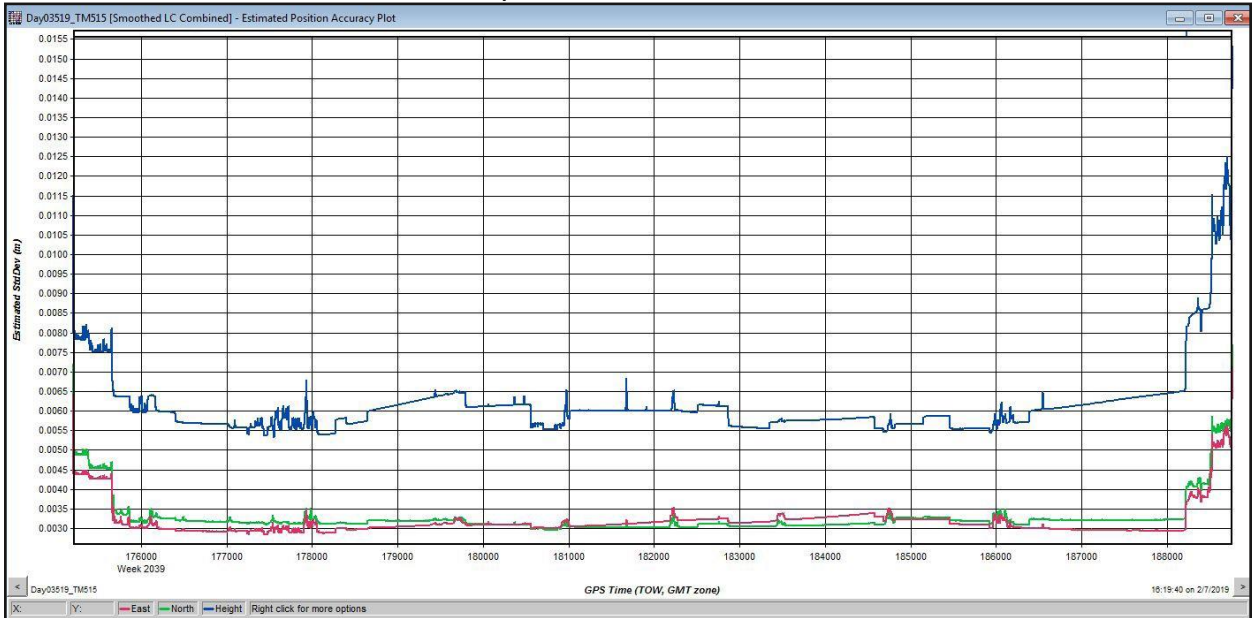


Day03519_TM515

Combined Separation Plot



Estimated Position Accuracy Plot

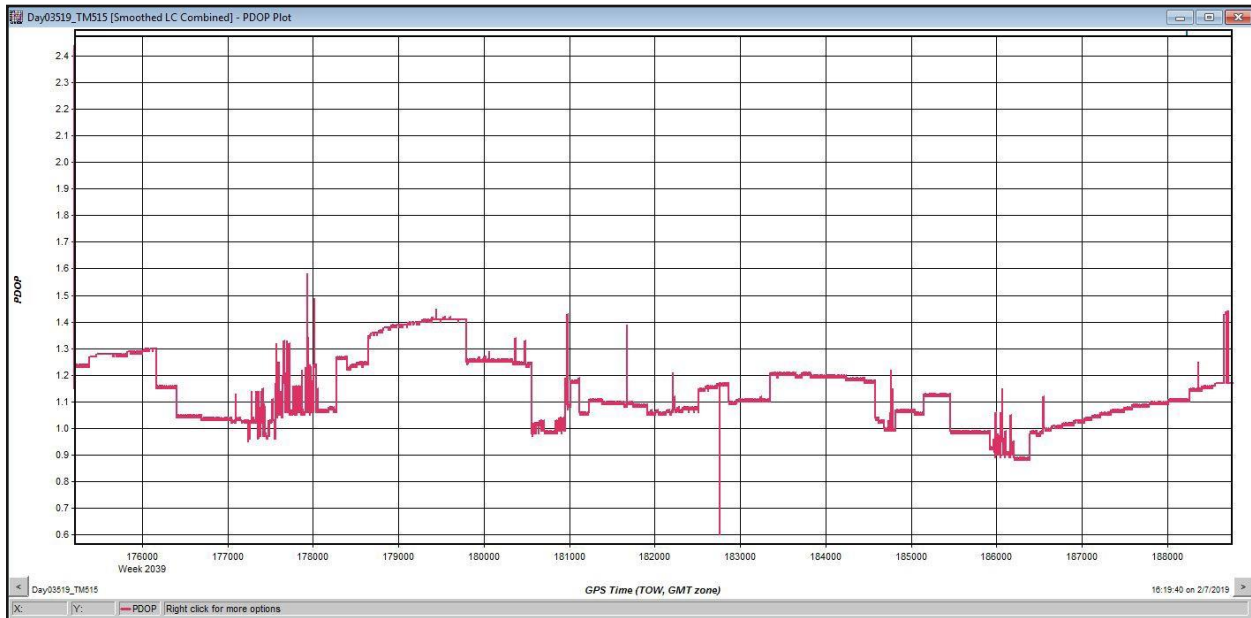


Day03519_TM515

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 3			Day035_10513_1		02/04/2019	035	1
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Swain	Reims 406 - N406SD			66.8	07:39:00	00:39:00	SGJ	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 10513			70.8	11:25:00	04:25:00	SGJ	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
0	0	10		Clear	12	11	30.08	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900	5,900	9				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35		40		150	1550	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
86	S	01:35:00	01:49:00	00:14:00	20	1.1		
85	N	01:56:00	02:14:00	00:18:00	22	1		
84	S	02:17:00	02:35:00	00:18:00	21	1.1		
83	N	02:38:00	02:56:00	00:18:00	19	1.3		
82	S	02:59:00	03:18:00	00:19:00	23	1.2		
81	N	03:20:00	03:38:00	00:18:00	21	1.1		

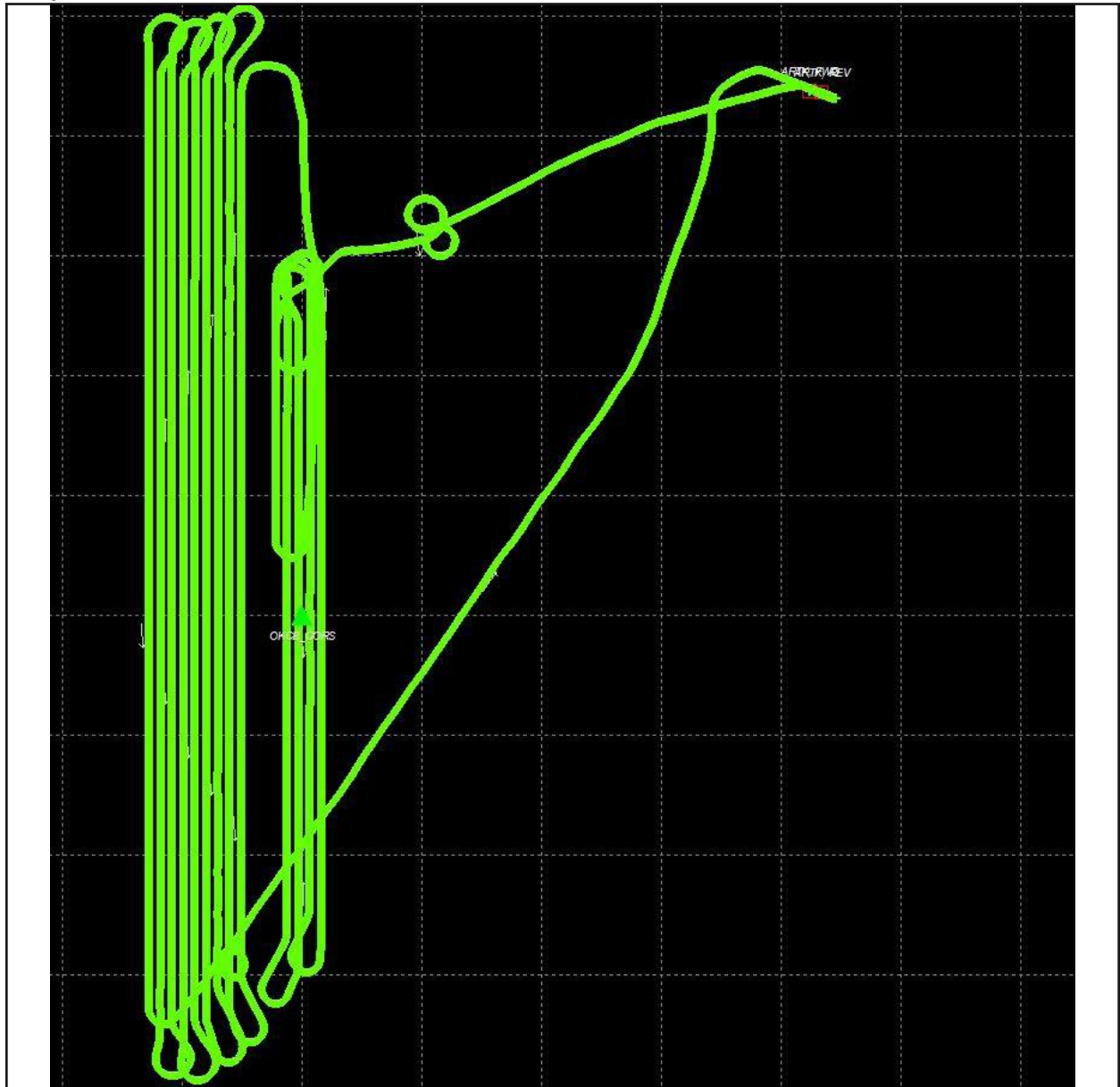
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
BLOCK 3							

Day03619_TM511

Base Station Coordinates

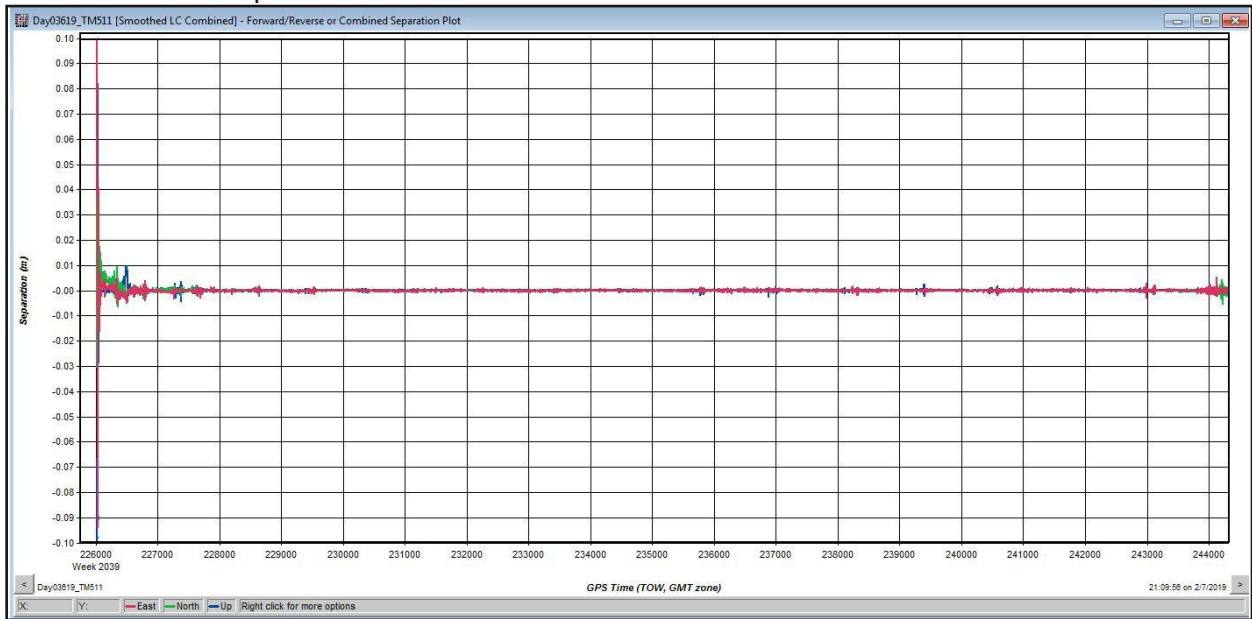
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory

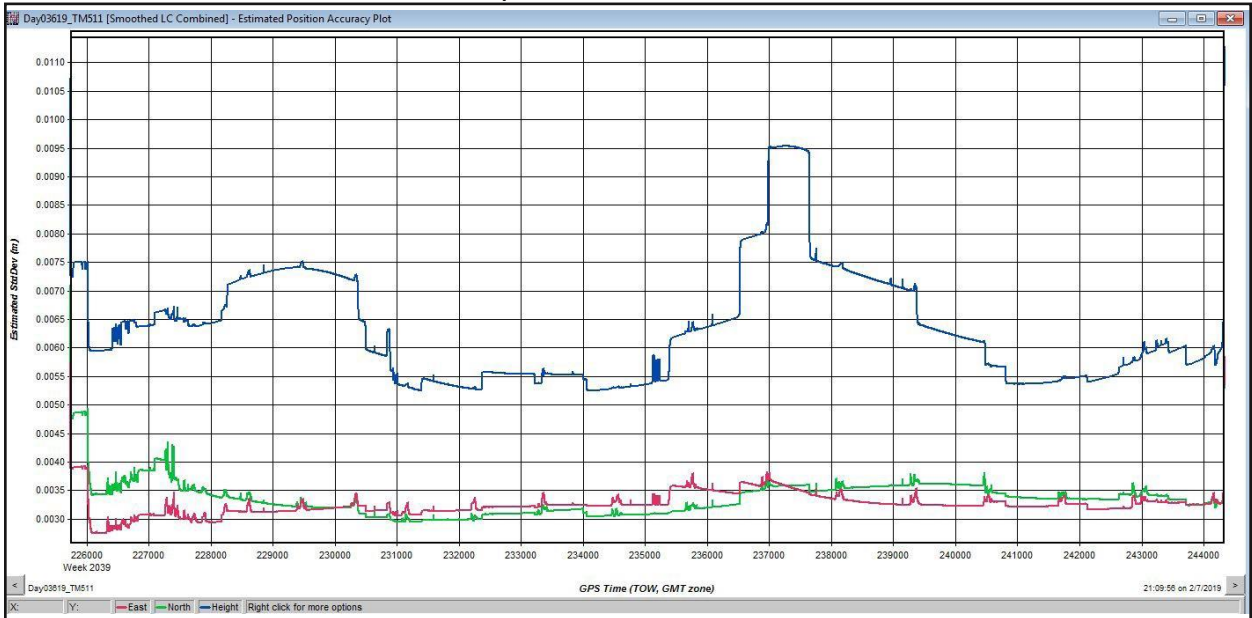


Day03619_TM511

Combined Separation Plot

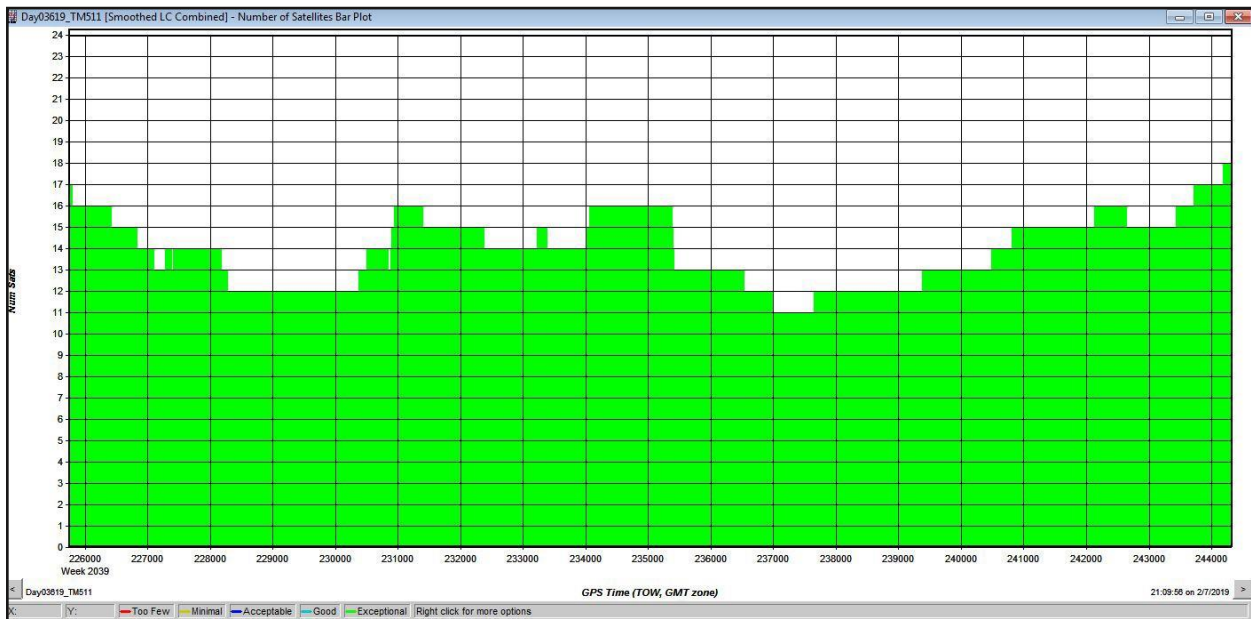


Estimated Position Accuracy Plot

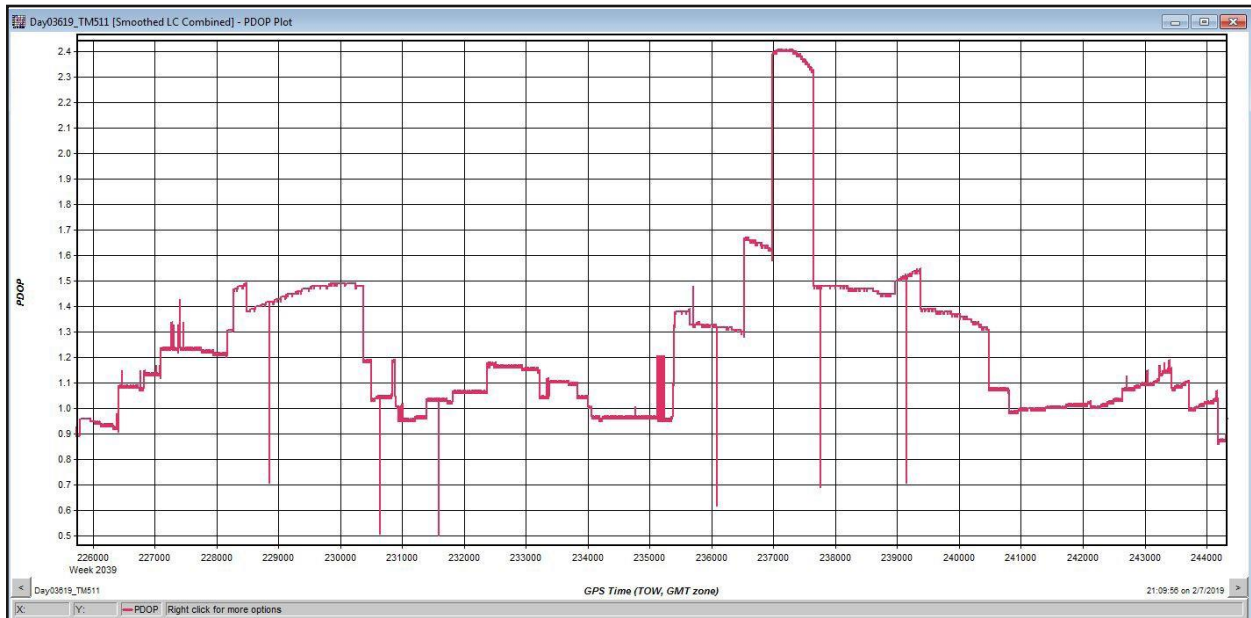


Day03619_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date			
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 5			Day036_90511_A		02/05/2019	036	A	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
LaRocque	Cessna 404 Titan - N404CP			6990.1	10:19:00	15:19:00	KVRB		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			6995	14:27:00	19:27:00	KVRB		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
350	4	10		Clear	16	14	30.12		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
						Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff	1459z
							Line Notes/Comments		
61	S	15:19:25	15:23:01		19	1.4	Reflight northern 8 miles/Manual Stop		
62	S	15:31:30	15:42:32	00:11:02	18	1.2	Reflight		
63	N	15:46:12	15:57:12	00:11:00	20	1.2	Reflight		
64	S	16:00:05	16:10:57	00:10:52	19	1.2	Reflight		
65	N	16:14:05	16:24:48	00:10:43	19	1.2	Reflight		
58	S	16:32:05	16:47:13	00:15:08	19	1.2	Reflight/Smoke		
57	N	16:50:33	17:07:07	00:16:34	18	1.2			
56	S	17:10:44	17:27:14	00:16:30	19	1.2			
55	N	17:10:35	17:47:28	00:36:53	18	1.3			
54	S	17:50:35	18:07:27	00:16:52	17	1.2			
53	N	18:10:27	18:27:27	00:17:00	16	1.6			
52	S	18:03:25	18:47:12	00:43:47	20	1.1			
51	N	18:50:12	19:07:15	00:17:03	20	1.1			
50	S	19:10:10	19:27:00	00:16:50	20	1.1			

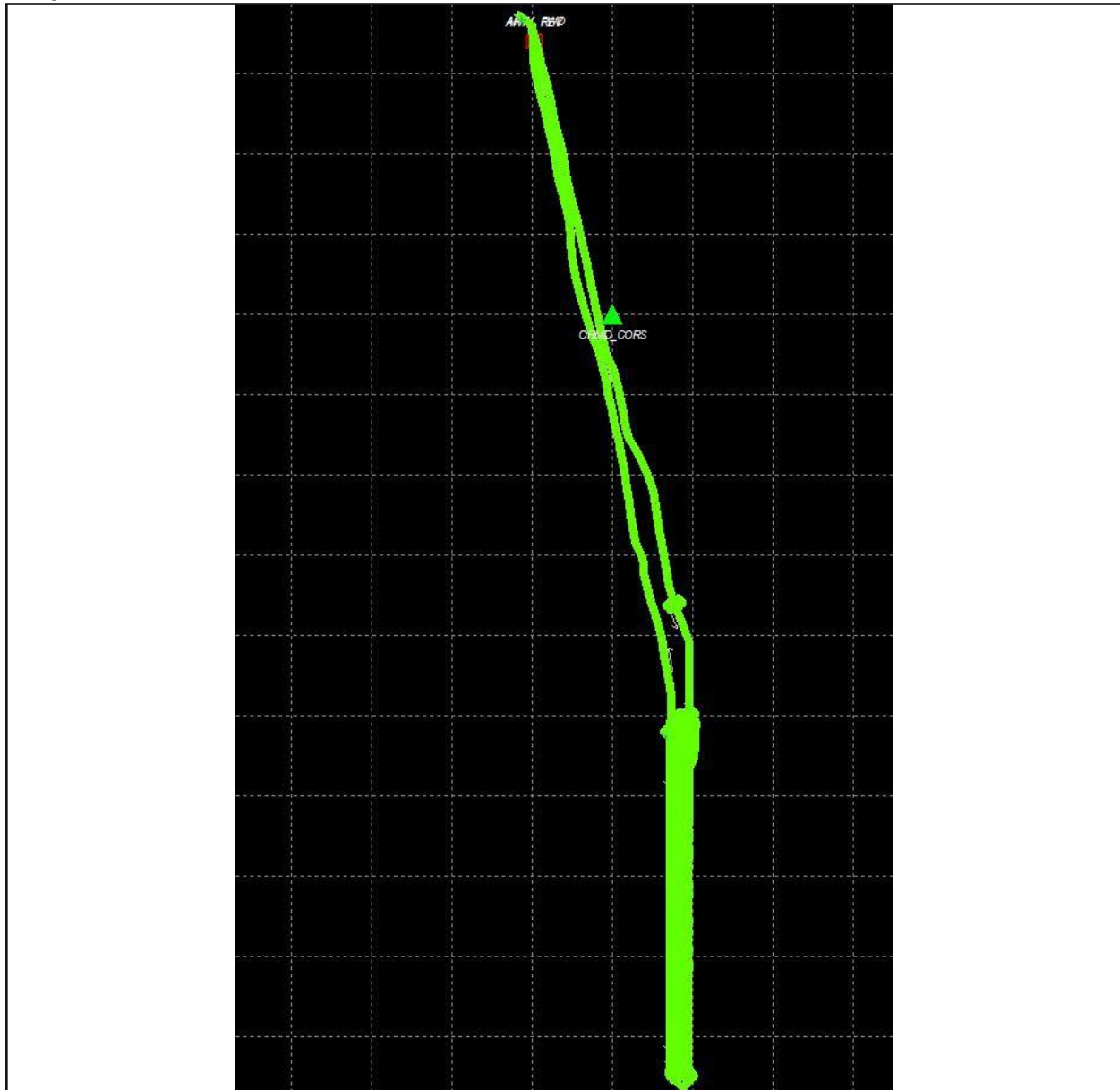
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
714GB							

Day03619_TM515

Base Station Coordinates

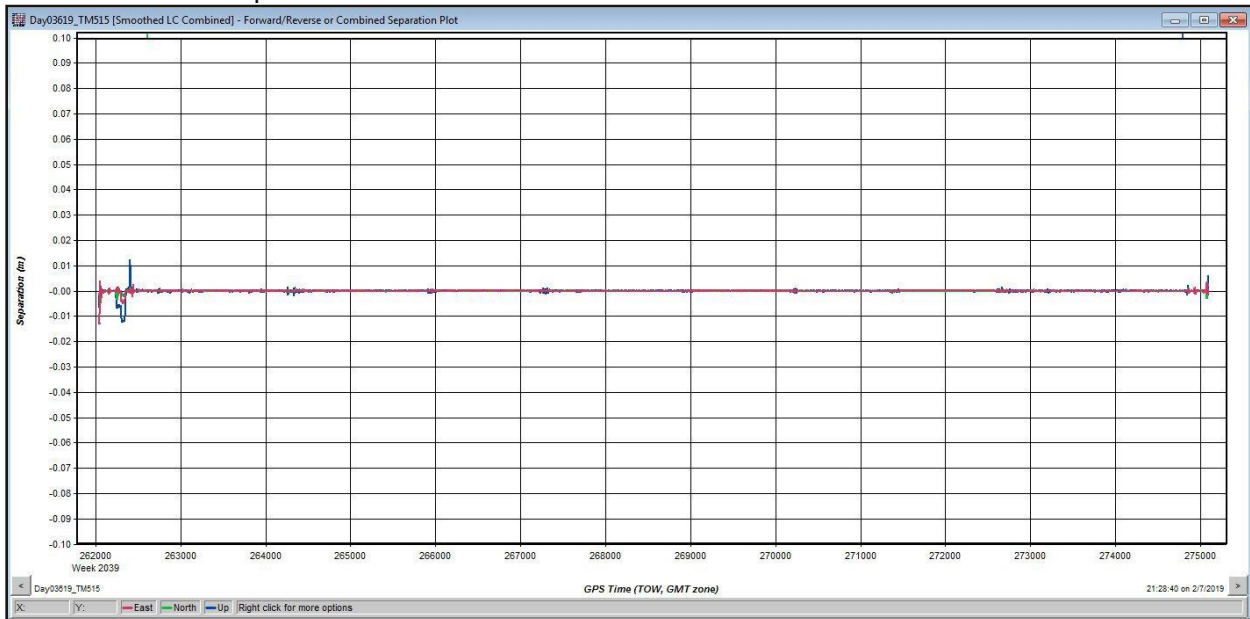
Name	Status	Latitude	Longitude	Height
ORMD_CORS	ENABLED	29° 17' 53.46943"	-81° 06' 32.01316"	-18.225 m (ELLIPSOIDAL)

Trajectory

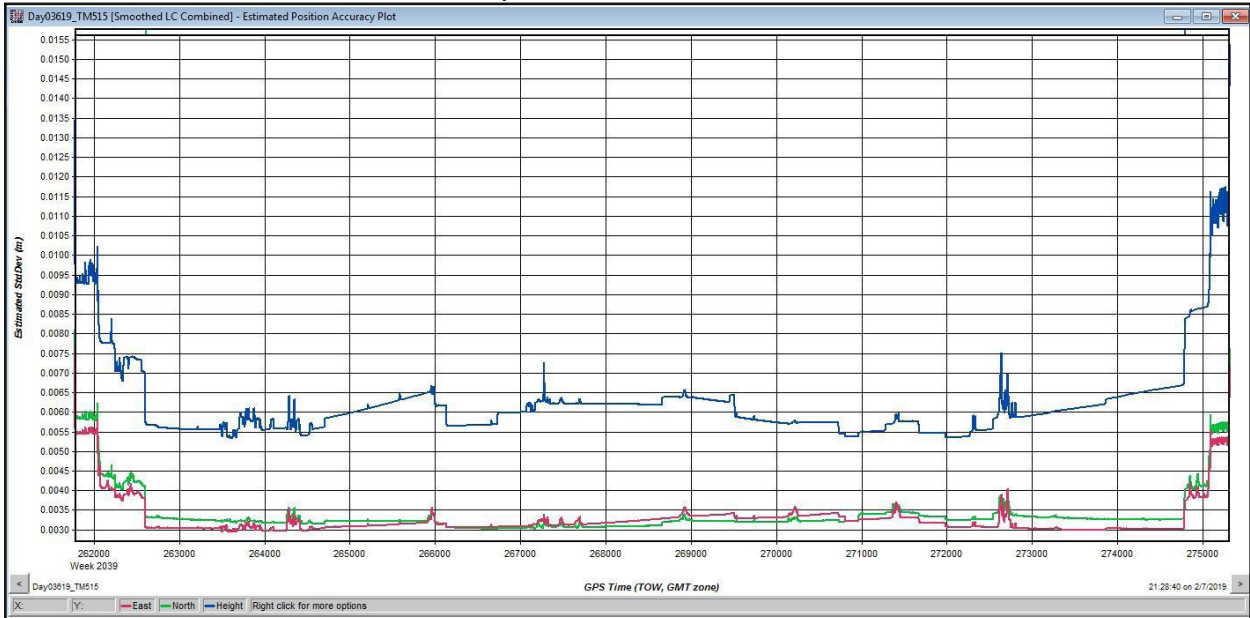


Day03619_TM515

Combined Separation Plot

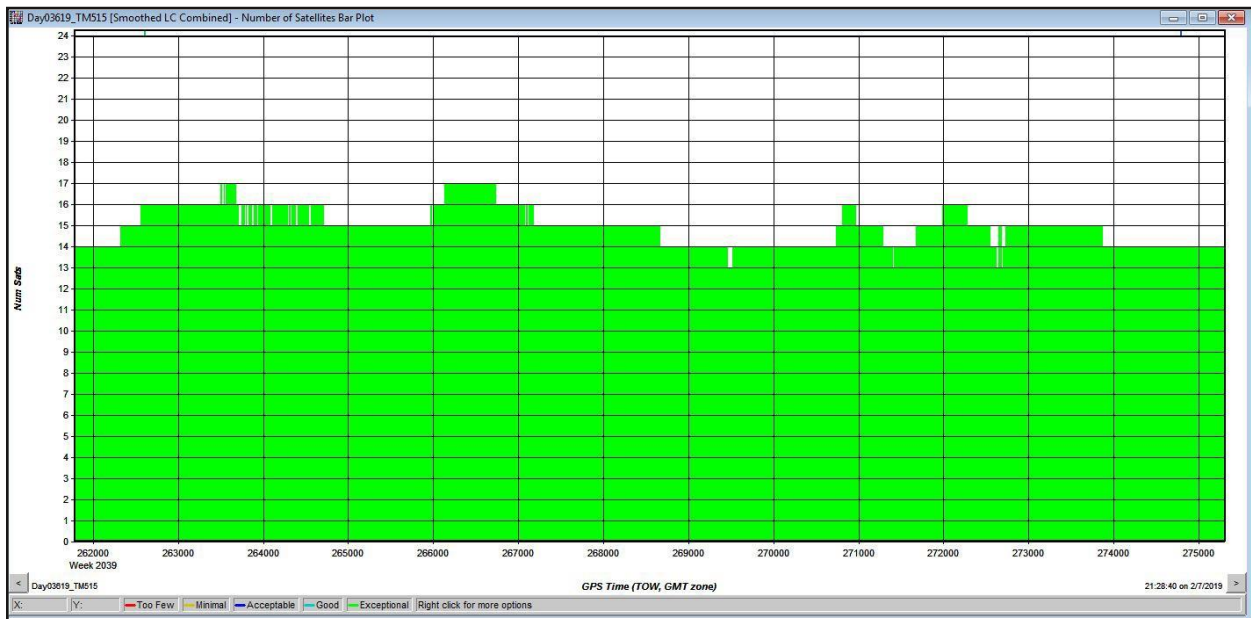


Estimated Position Accuracy Plot

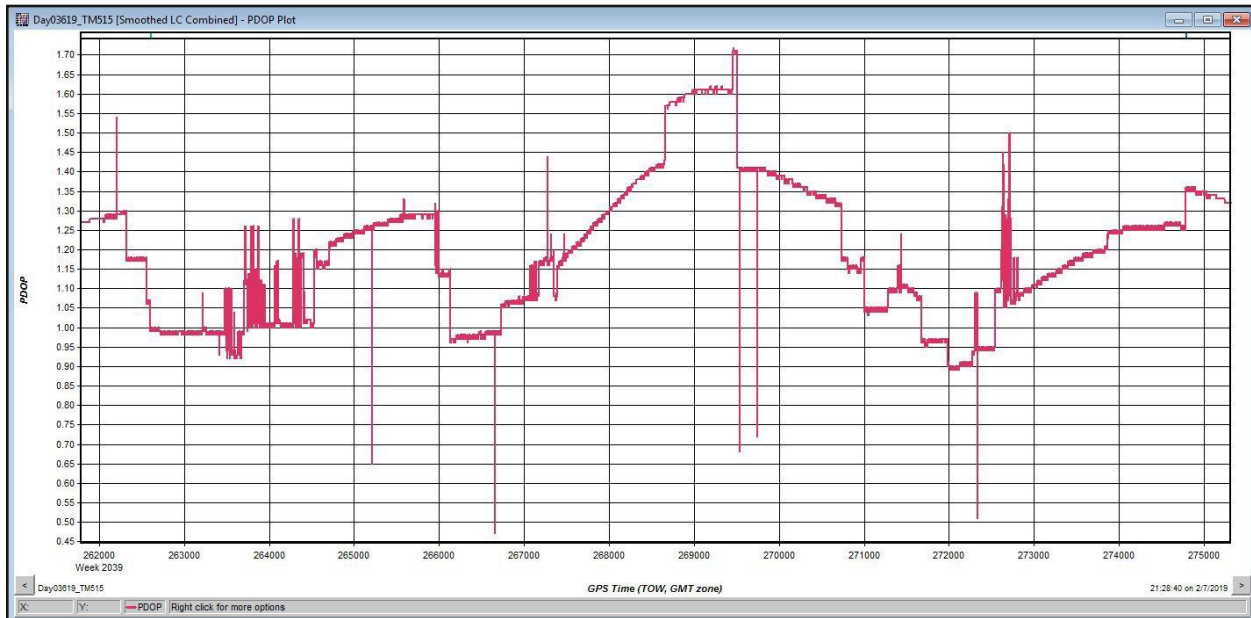


Day03619_TM515

Number of Satellites Bar Plot



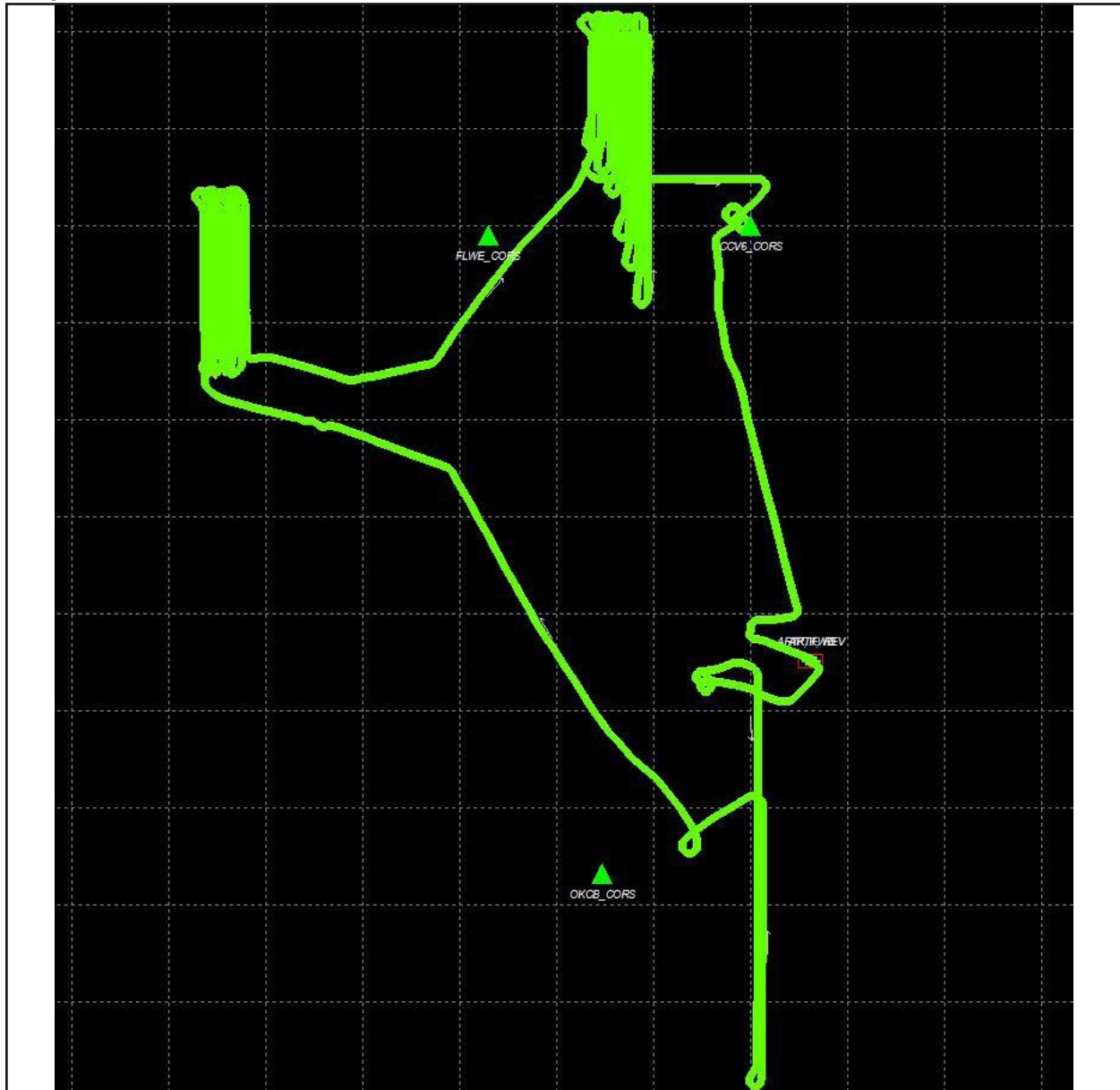
PDOP Plot



Woolpert Lidar Acquisition Log

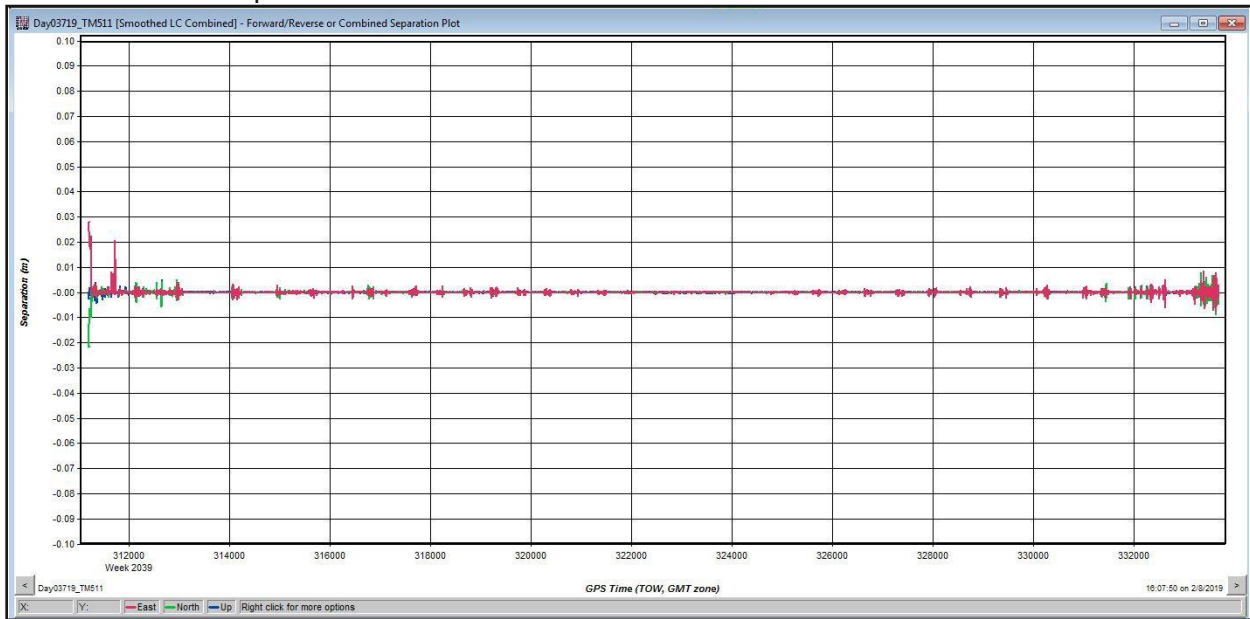
Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 3			Day036_90515_2		02/05/2019	036	2
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Swain	Reims 406 - N406SD			75.2	07:42:00	00:42:00	SGJ	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90515			79.2	11:28:00	04:28:00	SGJ	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
160	5	10		Clear	16	13	30.12	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,600	5,600	9				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1553	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
80	S	01:33:00	01:51:00	00:18:00	22	1.1		
79	N	01:54:00	02:11:00	00:17:00	21	1.1		
78	S	02:15:00					Mount In Roll - New Pilot Training	
78	S	02:22:00	02:40:00	00:18:00	21	1.1		
77	N	02:43:00	03:01:00	00:18:00	20	1.3		
76	S	03:04:00	03:22:00	00:18:00	22	1.1		
75	N	03:24:00	03:42:00	00:18:00	21	1.1		

Trajectory



Day03719_TM511

Combined Separation Plot

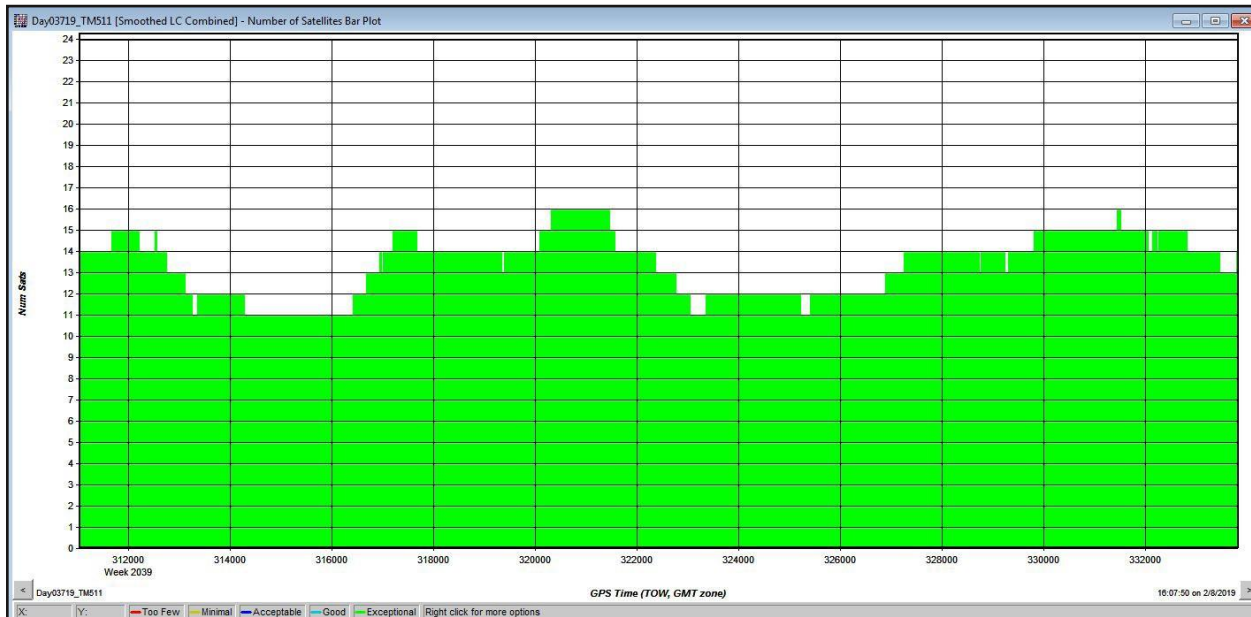


Estimated Position Accuracy Plot

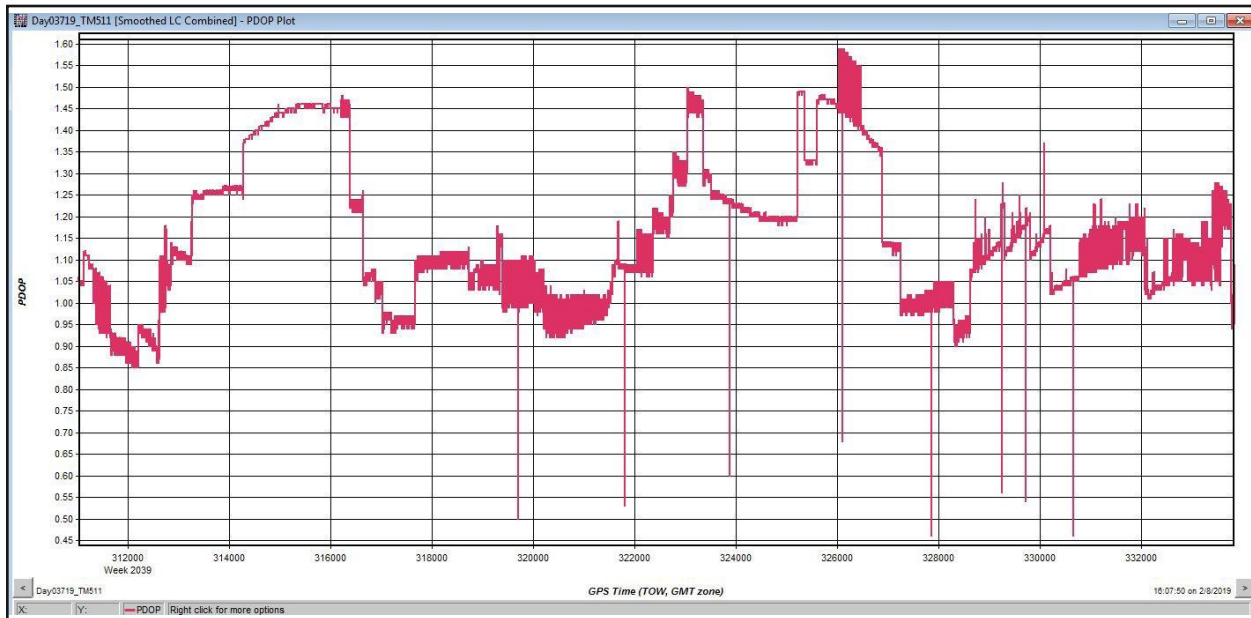


Day03719_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date			
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Blocks 6, 3, 2			Day037_90511_A			02/06/2019	037	A	
Crew		Equipment			Time			Airports		
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing			
LaRocque	Cessna 404 Titan - N404CP			6995	09:57:00	14:57:00	KVRB			
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving			
Galambos	Leica Terrain Mapper - 90511			7001.1	15:11:00	20:11:00	KVRB			
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
10	3	10		Clear	20	16	30.19			
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)						
140		5,900	5,900	17						
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35		40		150	1550	100				
							Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	14:24:00	Takeoff	1441z
							Line Notes/Comments			
16	S	14:57:00	15:13:00	00:16:00	25	1.1	Block 6			
17	N	15:17:00	15:28:00	00:11:00	20	1.2	Clouds throughout the line			
1	N	16:06:00	16:12:00	00:06:00	19	1.2	Block 3 - West Side			
2	S	16:15:00	16:22:00	00:07:00	18	1.2				
3	N	16:24:00	16:30:00	00:06:00	19	1.2				
4	S	16:33:00	16:39:00	00:06:00	20	1.2				
5	N	16:42:00	16:48:00	00:06:00	20	1.2				
6	S	16:51:00	16:57:00	00:06:00	21	1.2				
7	N	17:00:00	17:06:00	00:06:00	20	1.3				
8	S	17:09:00	17:15:00	00:06:00	21	1.1				
9	N	17:18:00	17:24:00	00:06:00	21	1.1	Tide Table 2/4 12:53-16:53			
10	S	17:27:00	17:33:00	00:06:00	21	1.1	Flight lines 1-28/refly 31,32 N 18 mi			
							Block 2 Tidal			
1	S	17:56:00	17:58:00	00:02:00	19	1.1				
2	N	18:01:00	18:03:00	00:02:00	16	1.4				
3	S	18:07:00	18:11:00	00:04:00	16	1.4				

4	N	18:14:00	18:17:00	00:03:00	18	1.5		
5	S	18:21:00	18:26:00	00:05:00	16	1.5		
6	N	18:29:00	18:35:00	00:06:00	18	1.2		
7	S	18:40:00	18:43:00	00:03:00	19	1.1		
8	N	18:46:00	18:54:00	00:08:00	19	1.1		
9	S	18:57:00	19:04:00	00:07:00	19	1.1		
10	N	19:07:00	19:15:00	00:08:00	19	1.3		
11	S	19:19:00	19:28:00	00:09:00	19	1.3	Goto Page #2	
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
629GB								

Day03719_TM515

Base Station Coordinates

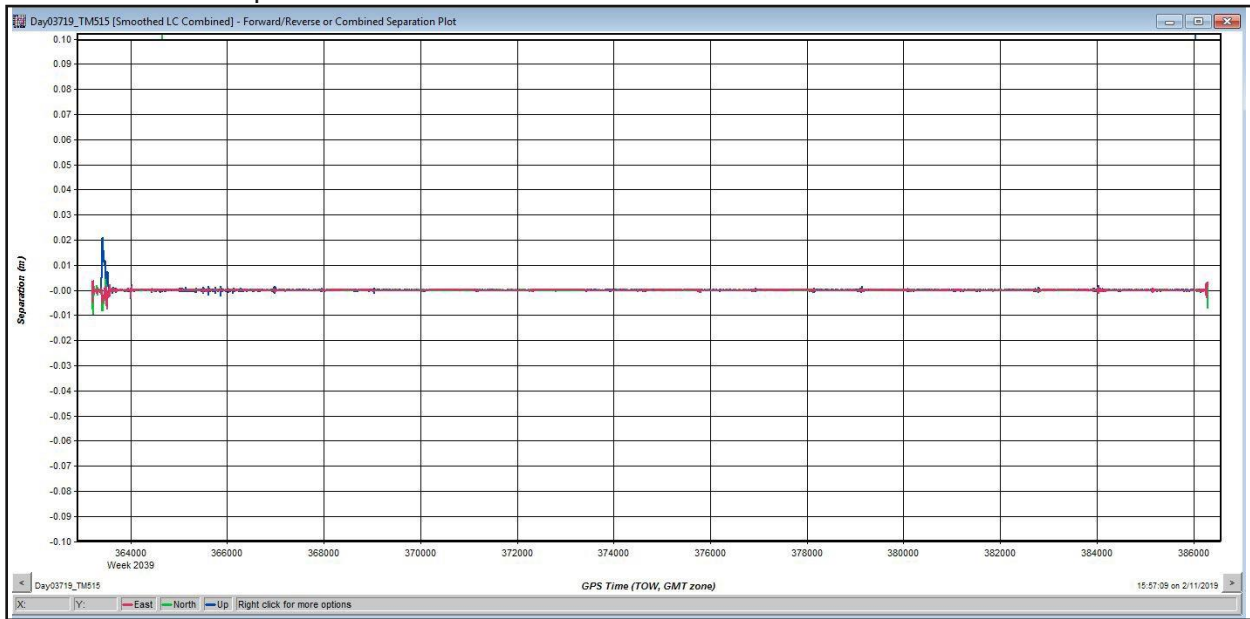
Name	Status	Latitude	Longitude	Height
ORMD_CORS	ENABLED	29° 17' 53.46943"	-81° 06' 32.01316"	-18.225 m (ELLIPSOIDAL)

Trajectory

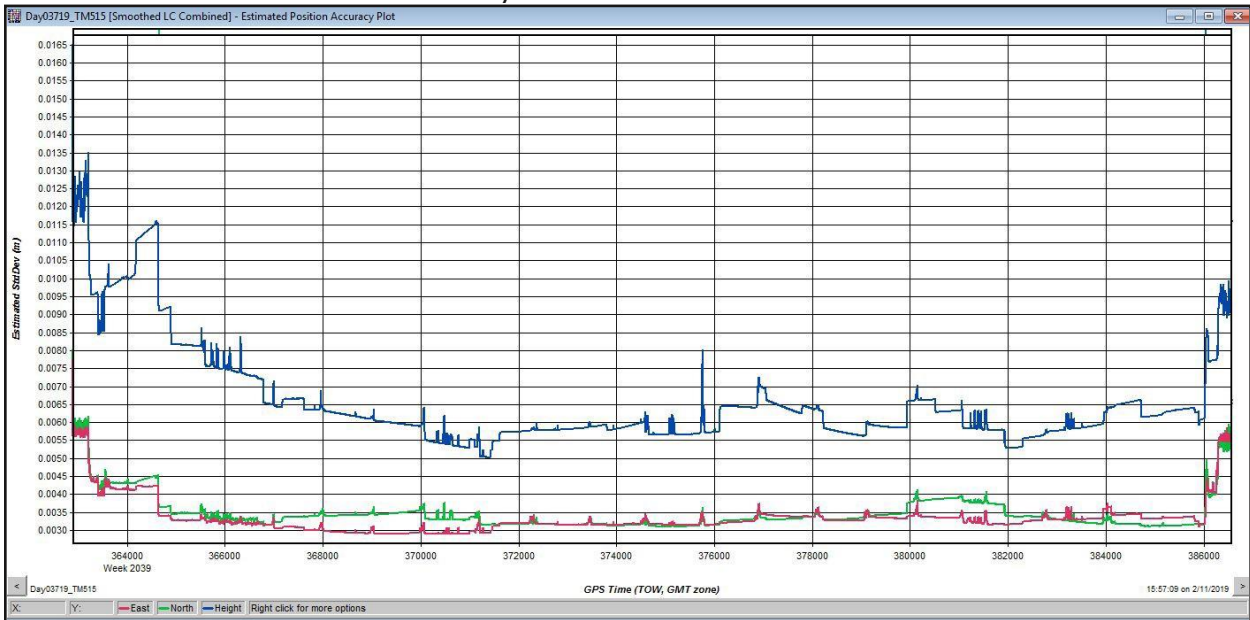


Day03719_TM515

Combined Separation Plot

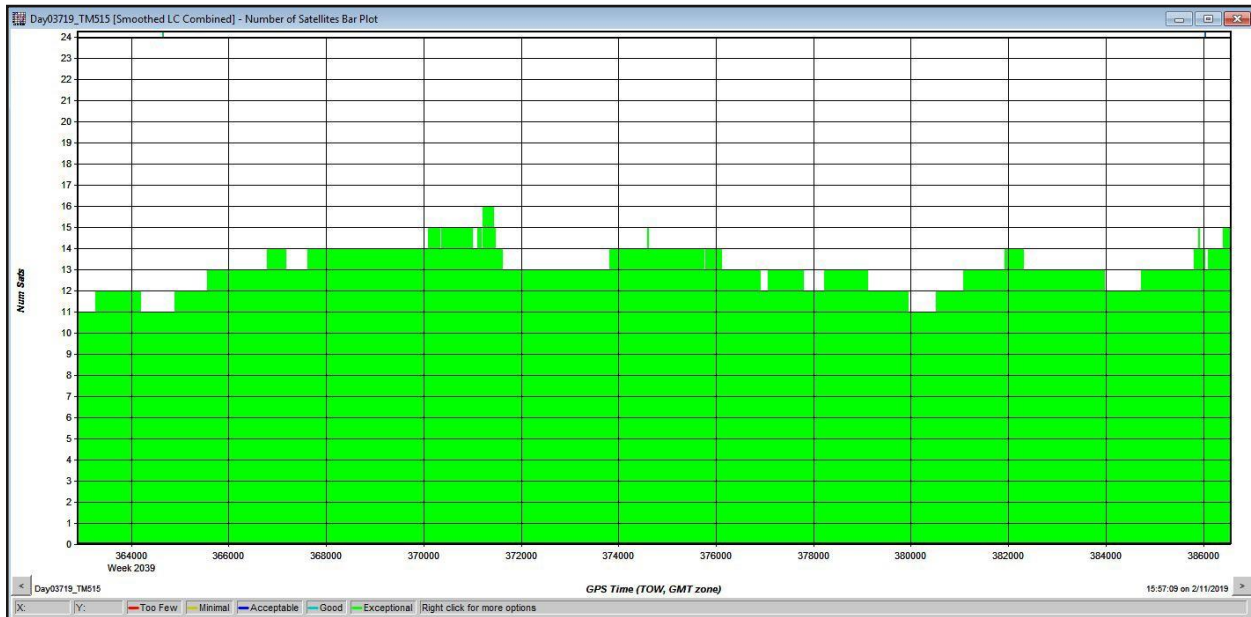


Estimated Position Accuracy Plot

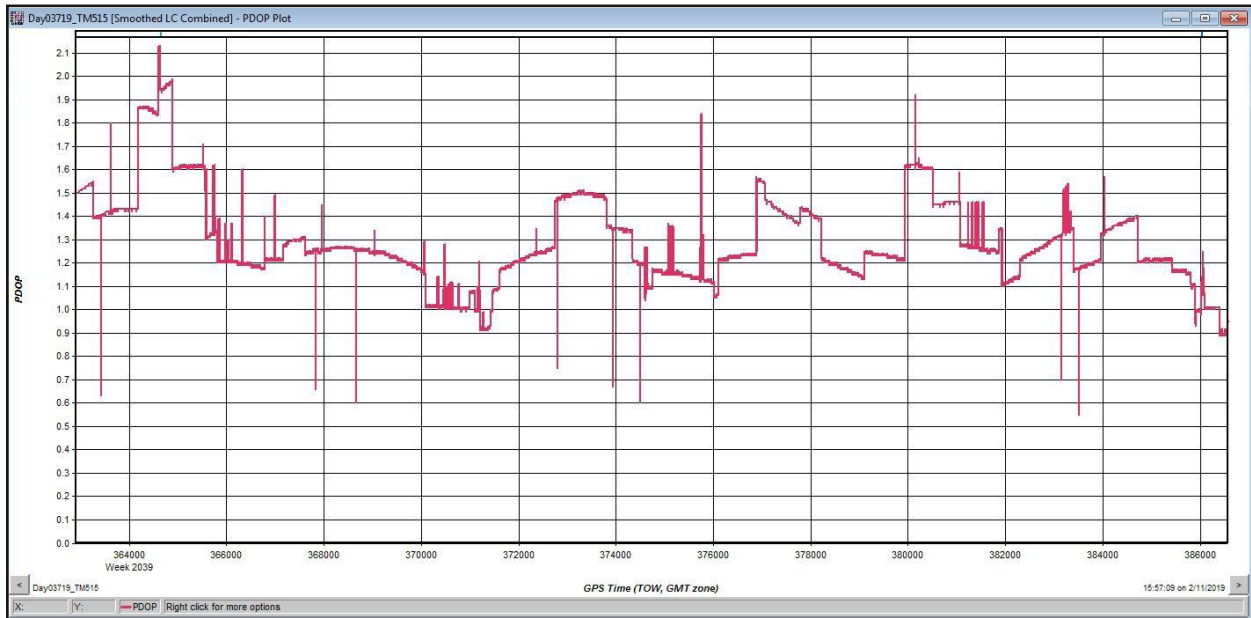


Day03719_TM515

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date		
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Blocks 2 & 3		Day037_90515_1			02/06/2019	037	1
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Swain	Reims 406 - N406SD			79.2	11:47:00	04:47:00	SGJ	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90515			85.9	06:22:00	11:22:00	SGJ	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
		10		Clear	17	14	30.18	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,600	5,600	9				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1553	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
32	S	05:57:00	06:11:00	00:14:00	22	1.2	BLOCK 2	
31	N	06:14:00	06:28:00	00:14:00	21	1.4		
28	S	06:30:00	06:45:00	00:15:00	20	1.5		
27	N	06:48:00	07:04:00	00:16:00	23	1.1		
26	S	07:07:00	07:22:00	00:15:00	21	1.1		
25	N	07:26:00	07:42:00	00:16:00	25	1.1		
24	S	07:45:00	08:01:00	00:16:00	18	1.6		
23	N	08:04:00	08:20:00	00:16:00	23	1.3		
22	S	08:23:00	08:40:00	00:17:00	19	1.3		
21	N	08:43:00	08:40:00	23:57:00	17	1.3		
20	S	09:03:00	09:17:00	00:14:00	17	1.3		
19	N	09:19:00	09:34:00	00:15:00	16	1.4		
18	S	09:36:00	09:49:00	00:13:00	15	1.2		
74	S	09:59:00	10:18:00	00:19:00	14	1.3	BLOCK 3 Flight #003	

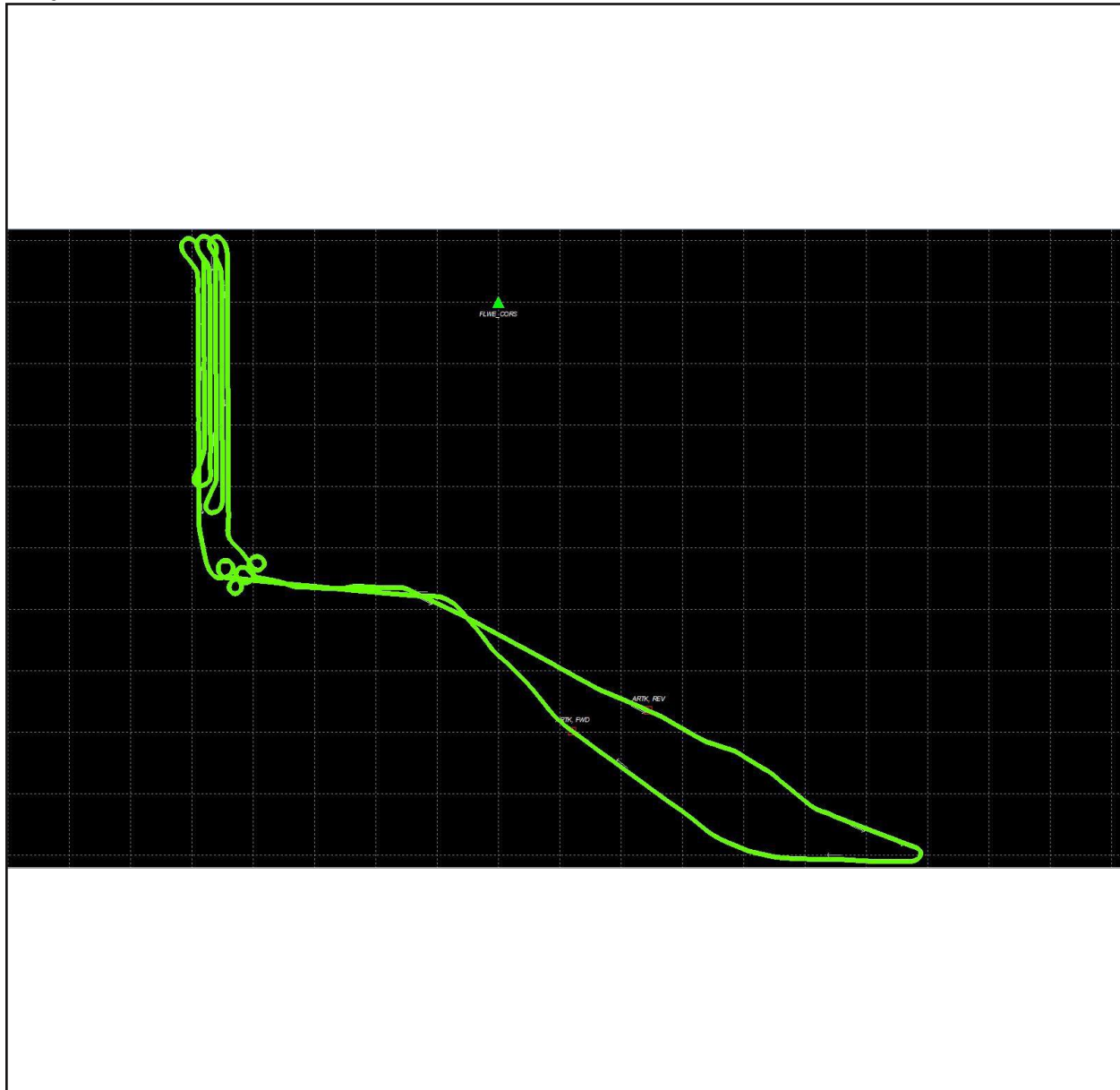
73	N	10:20:00	10:38:00	00:18:00	14	1.3		
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								
Block 3								

Day03819_TM511

Base Station Coordinates

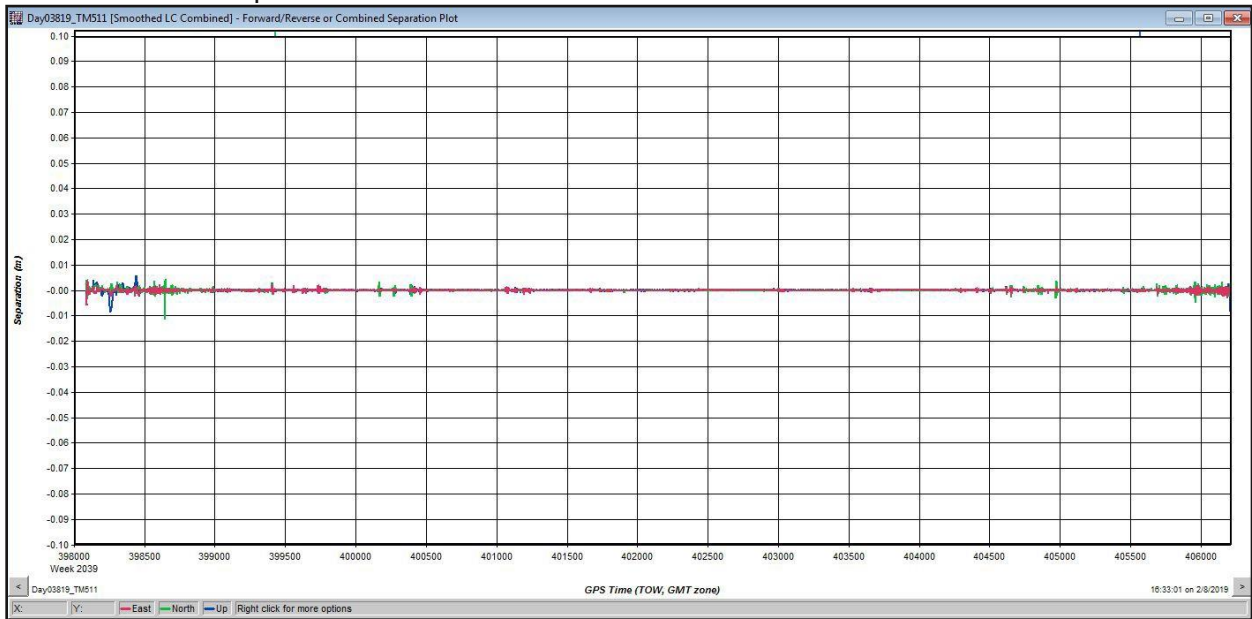
Name	Status	Latitude	Longitude	Height
FLWE_CORS	ENABLED	28° 26' 26.47748"	-81° 05' 33.17622"	-3.453 m (ELLIPSOIDAL)

Trajectory



Day03819_TM511

Combined Separation Plot

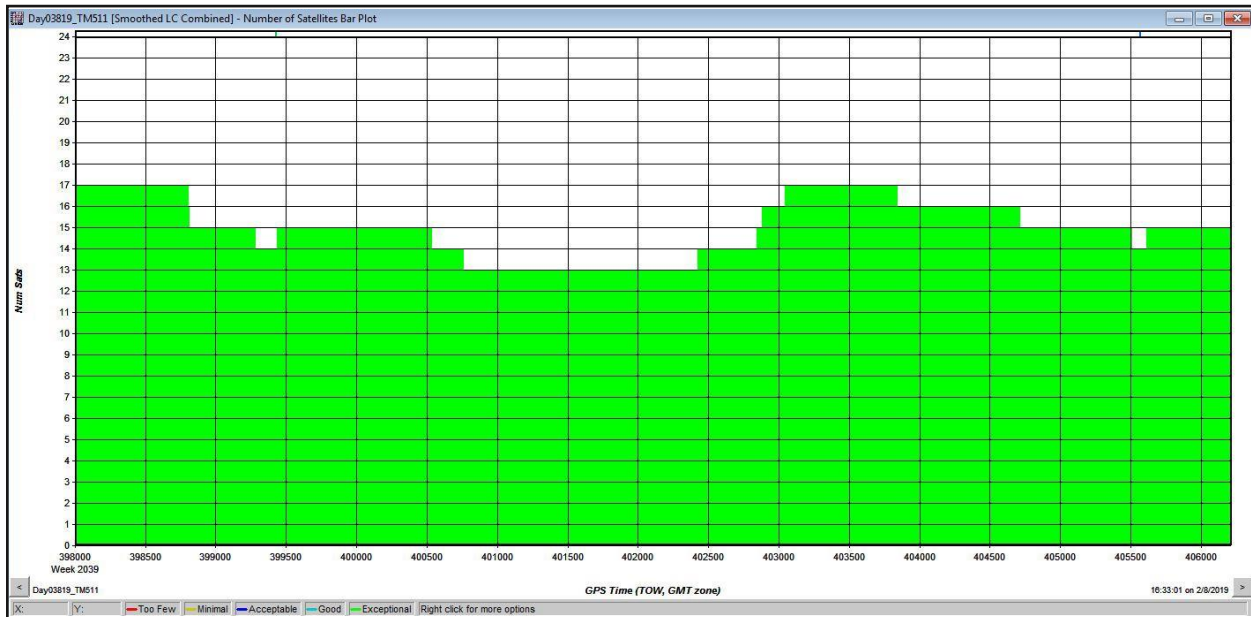


Estimated Position Accuracy Plot

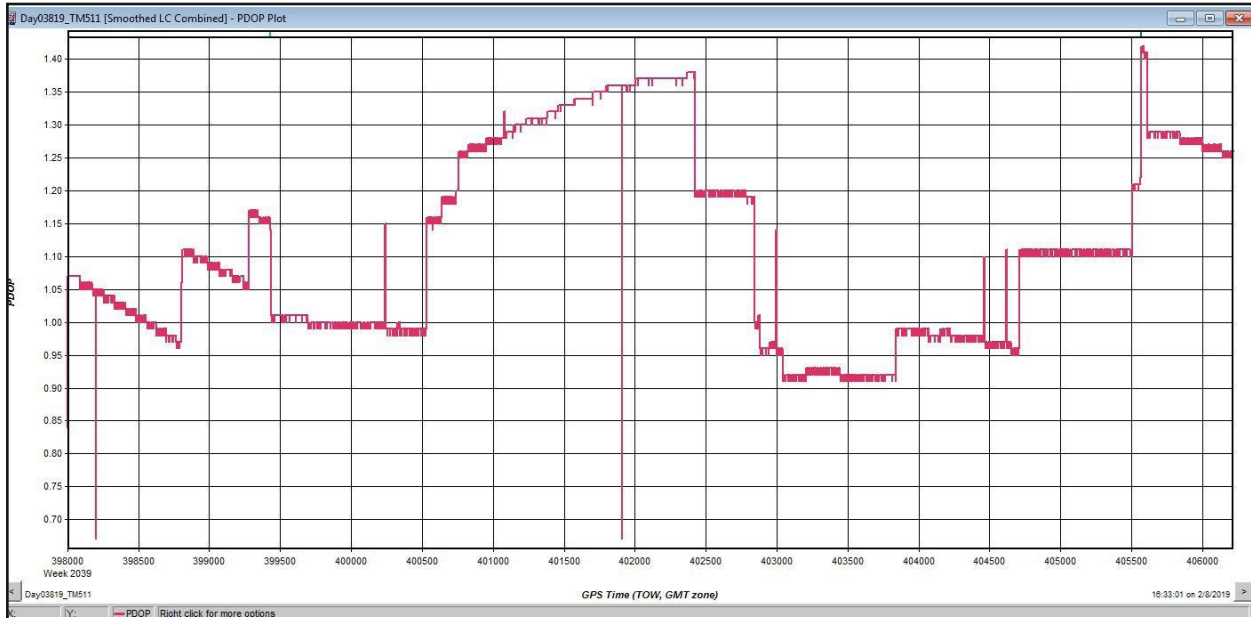


Day03819_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date			
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 3			Day038_90511_A		02/07/2019	038	A	
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
LaRocque	Cessna 404 Titan - N404CP			7001.2	10:18:00	15:18:00	KVRB		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			7003.3	11:15:00	16:17:00	KVRB		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
		10		Clear	15.6	15	30.18		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
0.35		40		150	1550	100			
						Verify S-Turns Before Mission	Yes		
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff	9:41 local am
							Line Notes/Comments		
11		15:18:00	15:24:00	00:06:00	20	1.2			
12		15:27:00	15:34:00	00:07:00	20	1.2	clouds		
13		15:37:00	15:43:00	00:06:00	20	1.2			
14		15:47:00	15:54:00	00:07:00	20	1.2			
15		15:58:00	16:05:00	00:07:00	20	1.2			
16		16:08:00	16:17:00	00:09:00	20	1.2	clouds		
							1:28 -5:28 pm 2/4 tides		
							1:41-5:41 pm 6/8 tides		

Page 1						Verify S-Turns After Mission	Yes
Additional Comments							

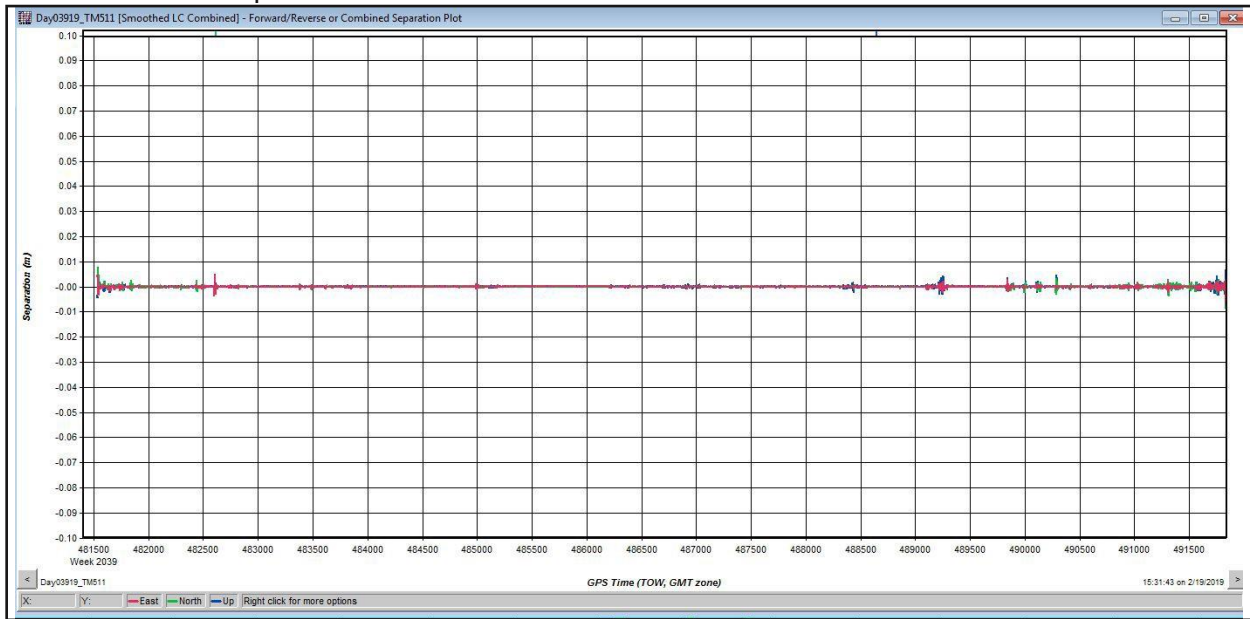
Day03919_TM511

Base Station Coordinates

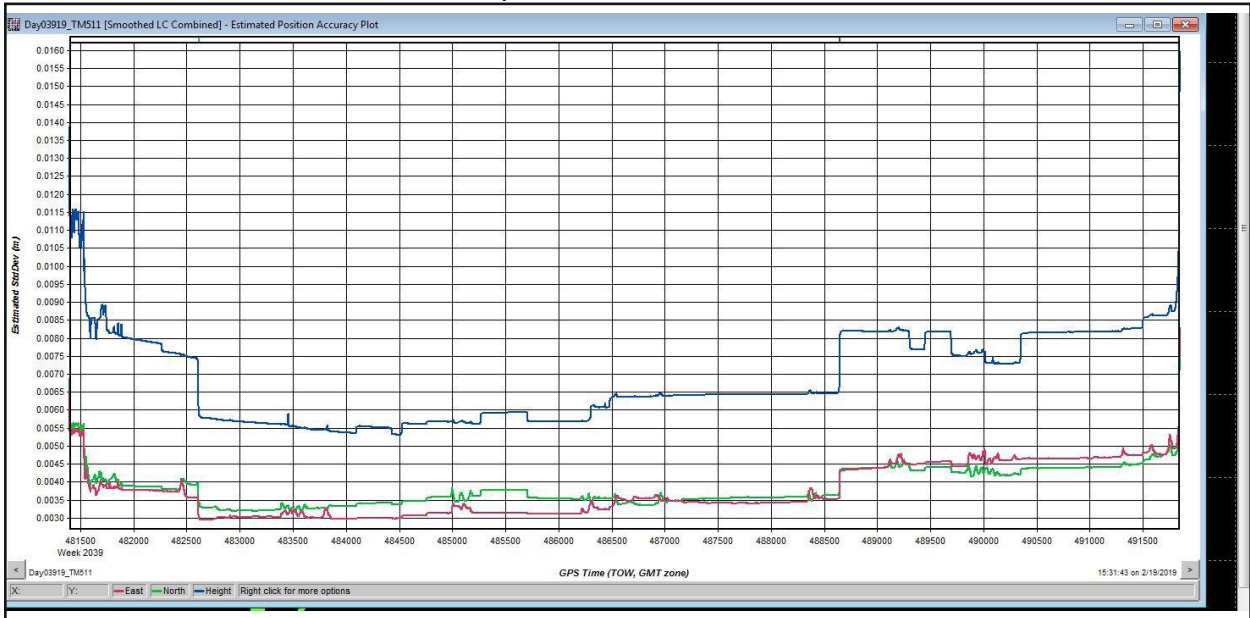
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Day03919_TM511

Combined Separation Plot

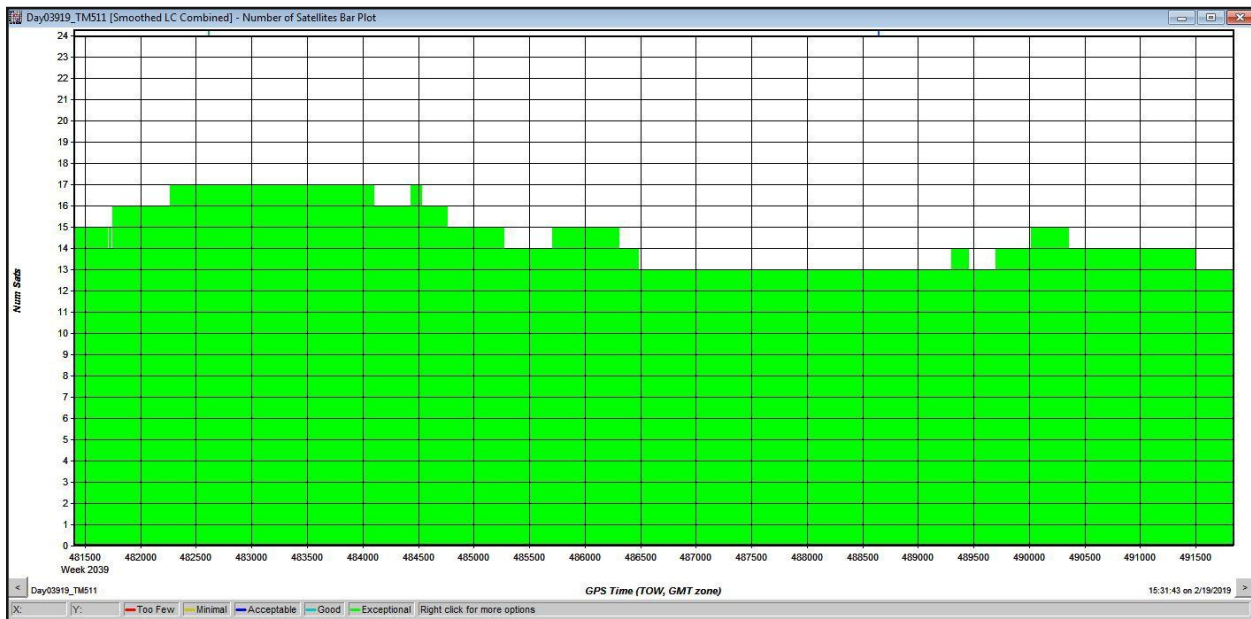


Estimated Position Accuracy Plot

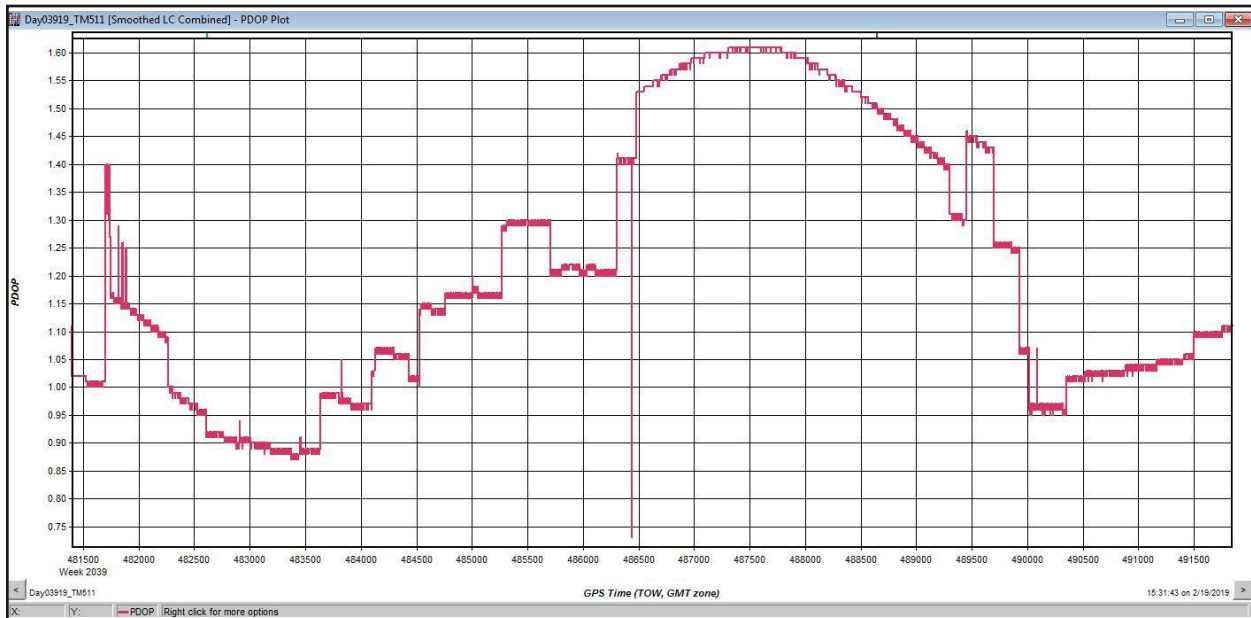


Day03919_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date		
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Blocks 5 & 3			Day039_90511_A			02/08/2019	039	A
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
LaRocque	Cessna 404 Titan - N404CP			7003.3	09:25:00	14:25:00	KVRB		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			7006.2	11:03:00	16:03:00	KVRB		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
		10		Few	14.4	13.9	30.21		
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)		Airfield Elevation (ft)			
140		5,900		5,900		17			
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)		Pulse Rate (kHz)	Laser Power (%)		
0.35		40		150		1550	100		
							Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff	8:48am
							Line Notes/Comments		
6	N	14:25:00	14:42:00	00:17:00			Block 5		
5	S	14:46:00	15:03:00	00:17:00	20	1.2	Small Clouds		
4	N	15:06:00	15:08:00	00:02:00	20	1.2	Clouds manual stop		
							Block 3		
17	N	15:42:00	15:51:00	00:09:00	21	1.2			
18	S	15:54:00	16:03:00	00:09:00	20	1.3	clouds manual stop		

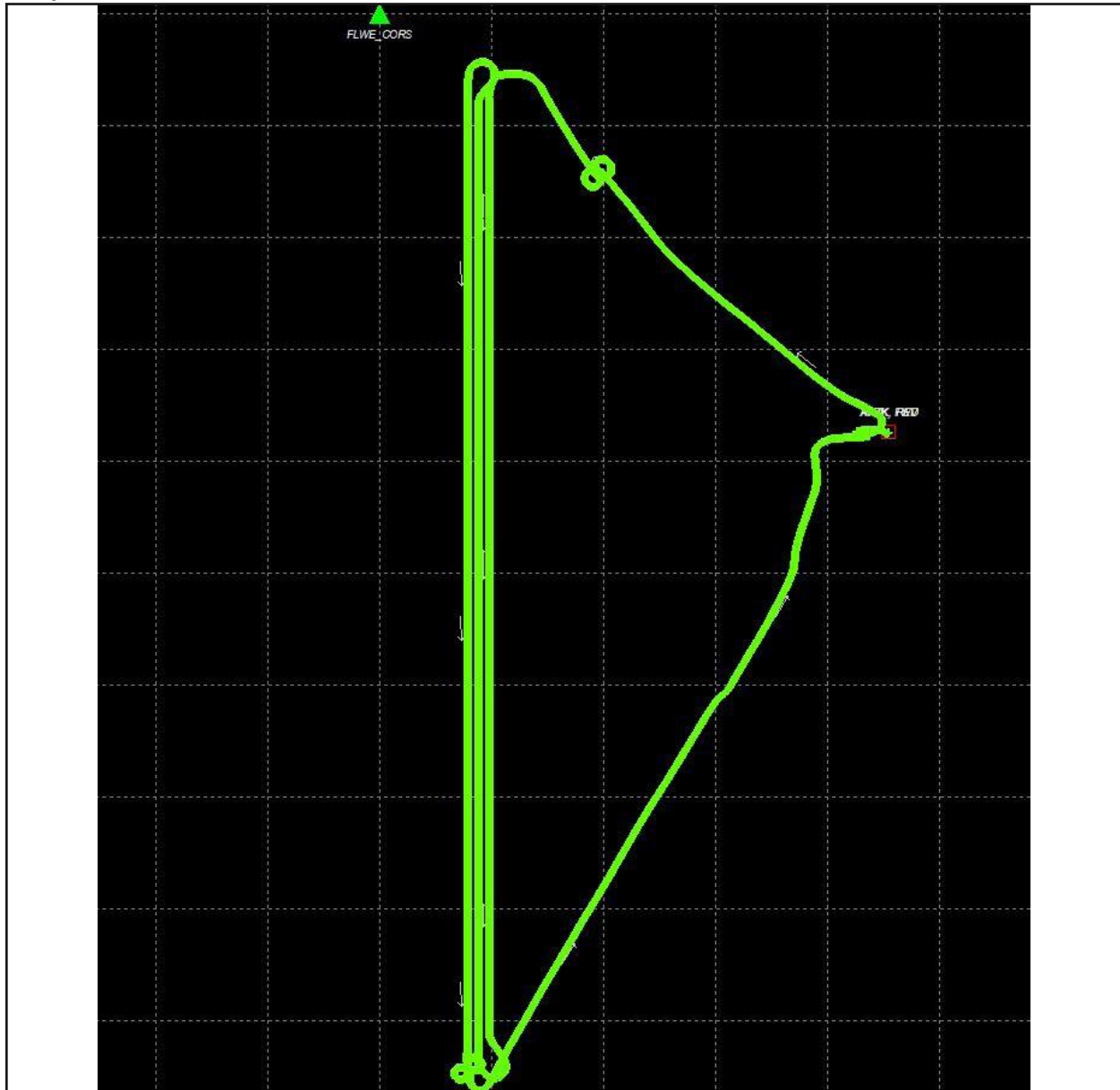
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
approx 200gb							

Day03919_TM515

Base Station Coordinates

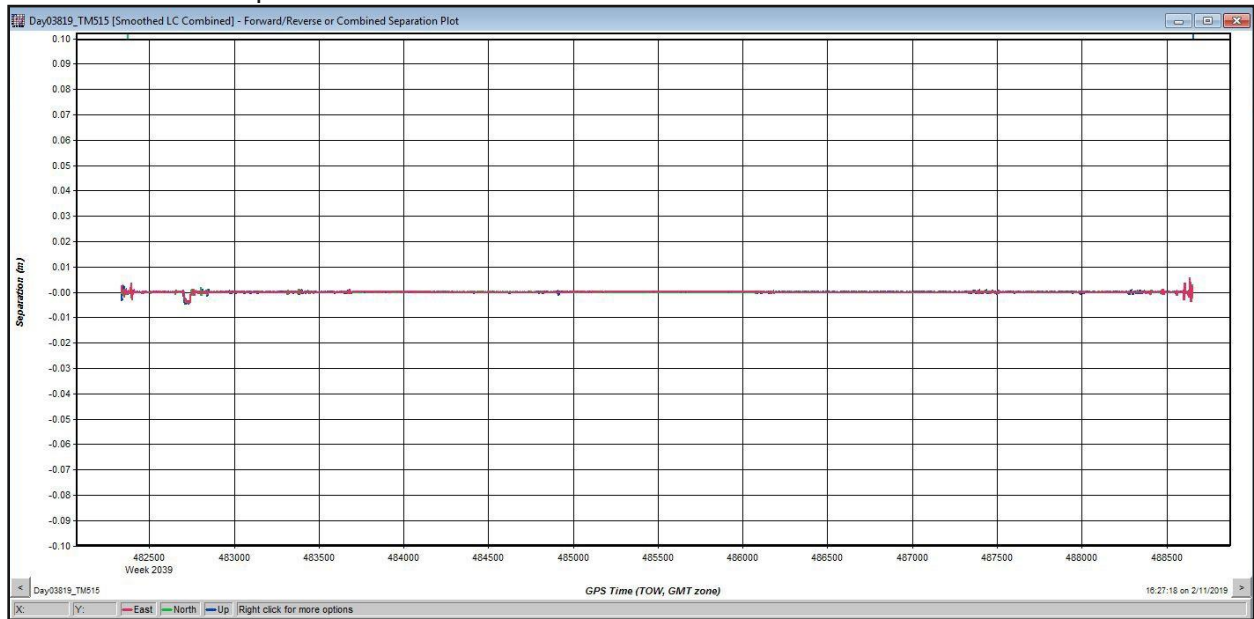
Name	Status	Latitude	Longitude	Height
FLWE_CORS	ENABLED	28° 26' 26.47748"	-81° 05' 33.17622"	-3.453 m (ELLIPSOIDAL)

Trajectory

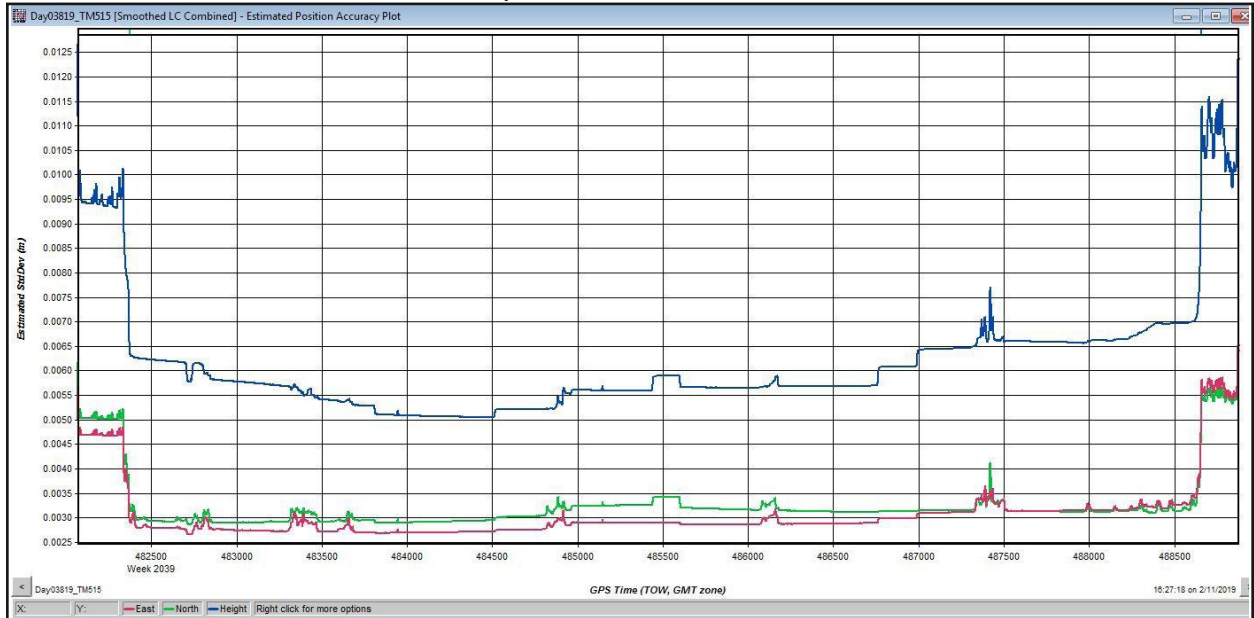


Day03919_TM515

Combined Separation Plot

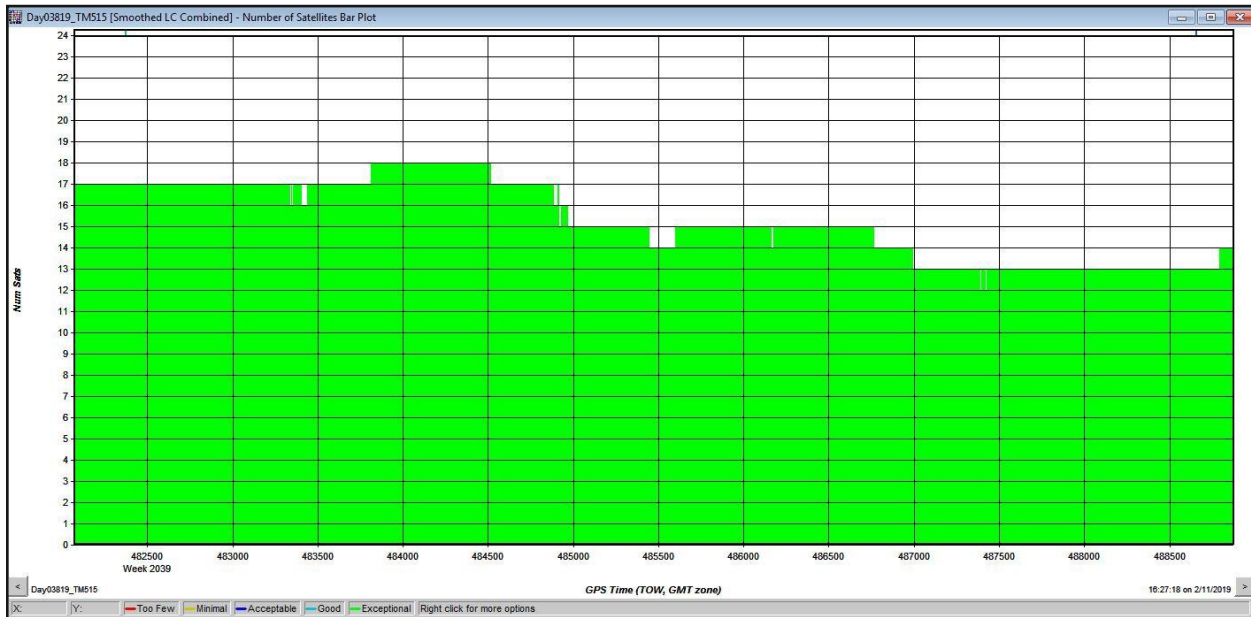


Estimated Position Accuracy Plot

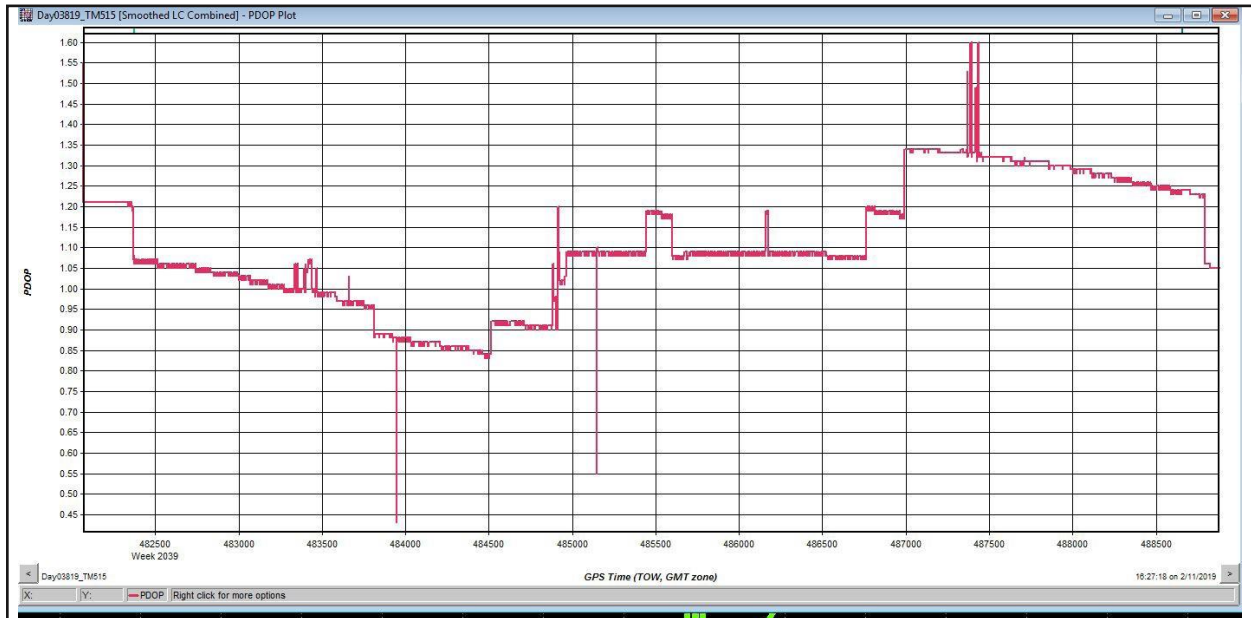


Day03919_TM515

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
Block 3							

Day04619_TM515

Base Station Coordinates

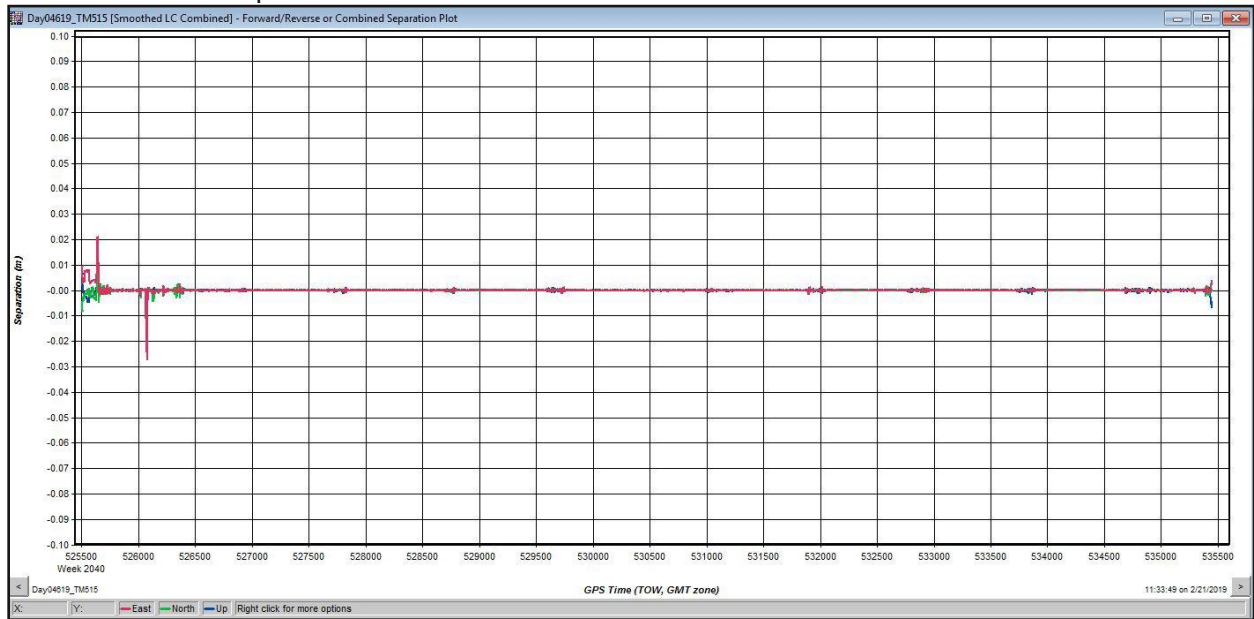
Name	Status	Latitude	Longitude	Height
CCV6_CORS	ENABLED	28° 27' 35.82726"	-80° 32' 43.70265"	-22.632 m (ELLIPSOIDAL)

Trajectory

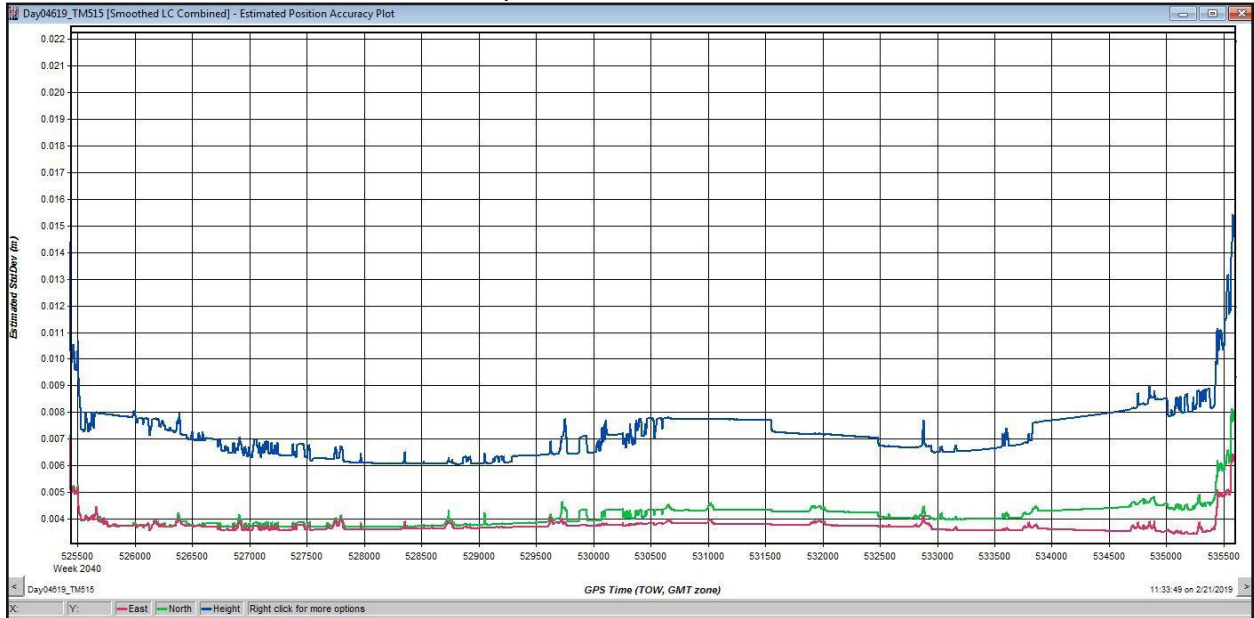


Day04619_TM515

Combined Separation Plot

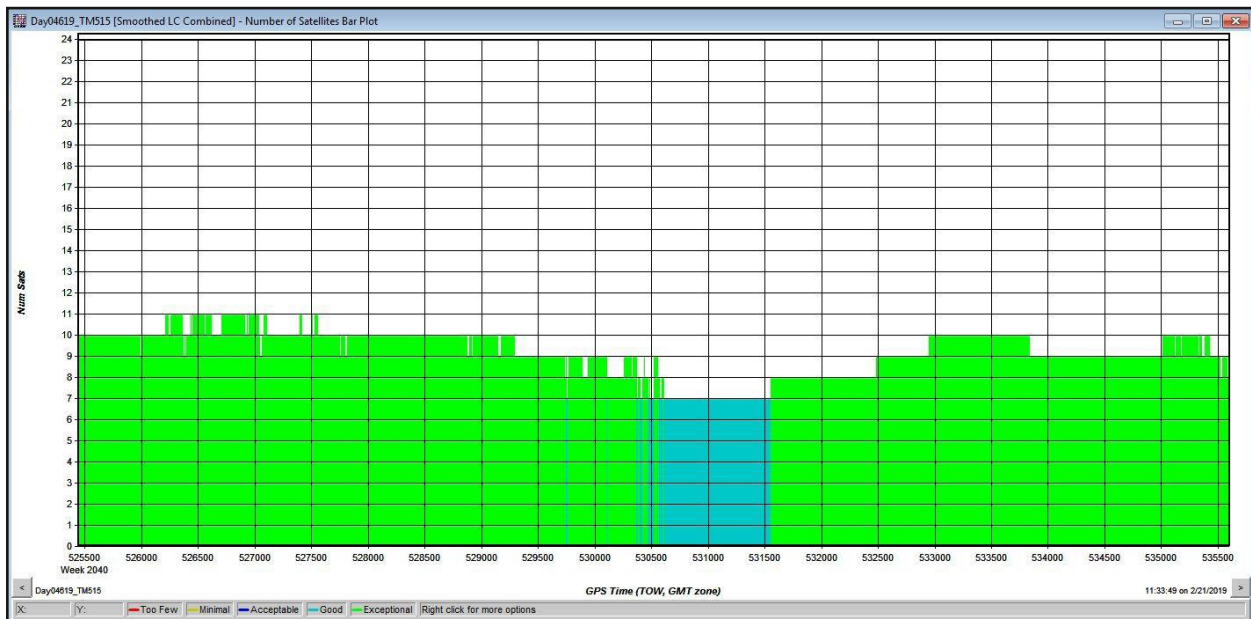


Estimated Position Accuracy Plot

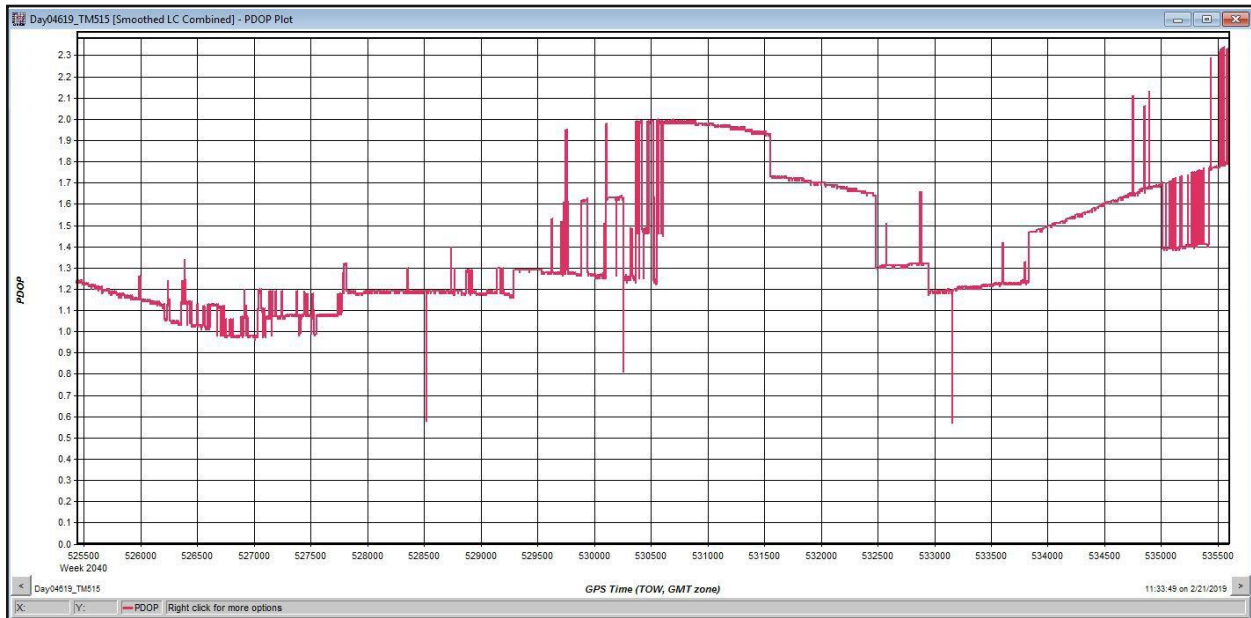


Day04619_TM515

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

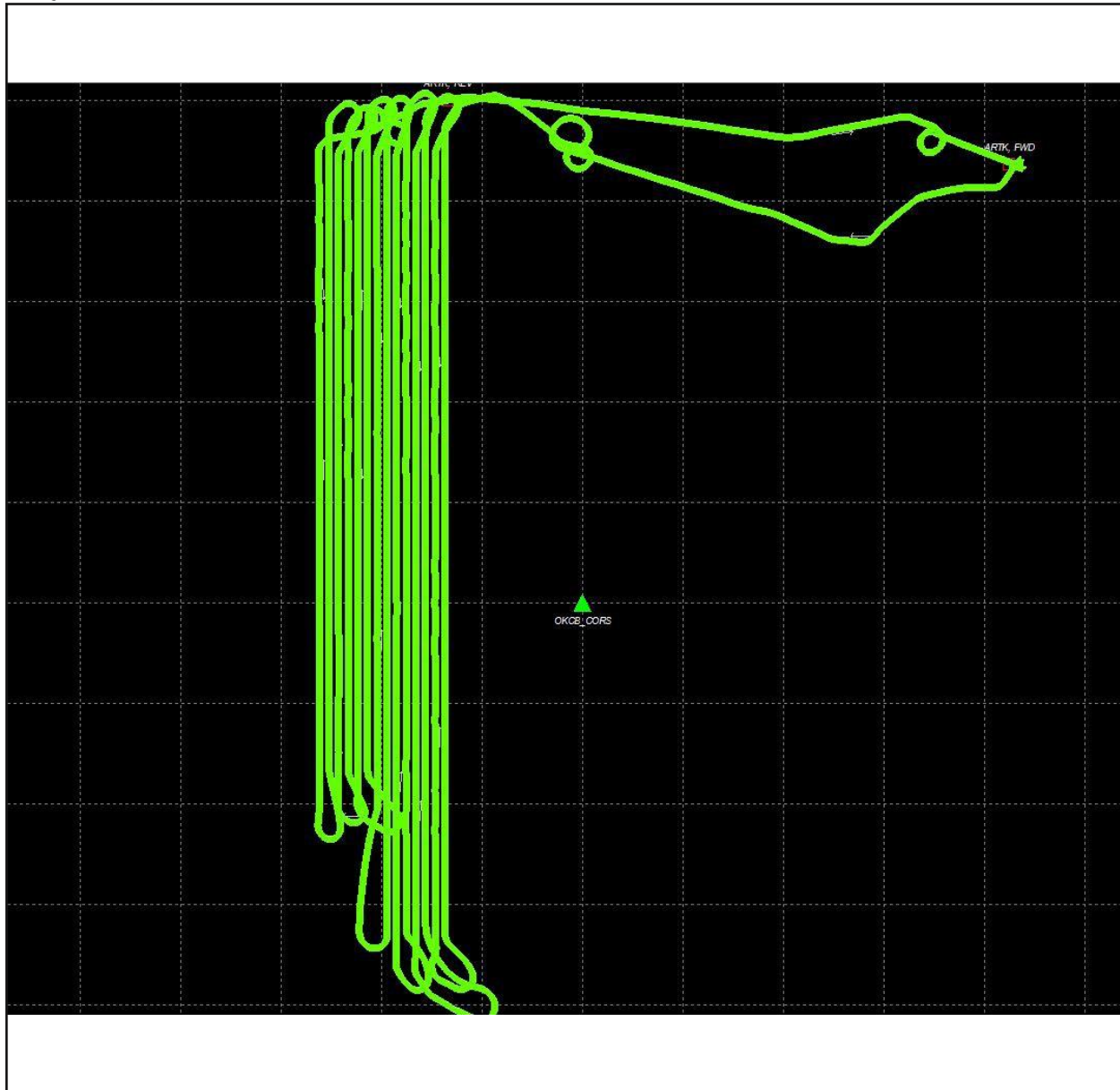
Page 1						Verify S-Turns After Mission	
Additional Comments							

Day04719_TM511

Base Station Coordinates

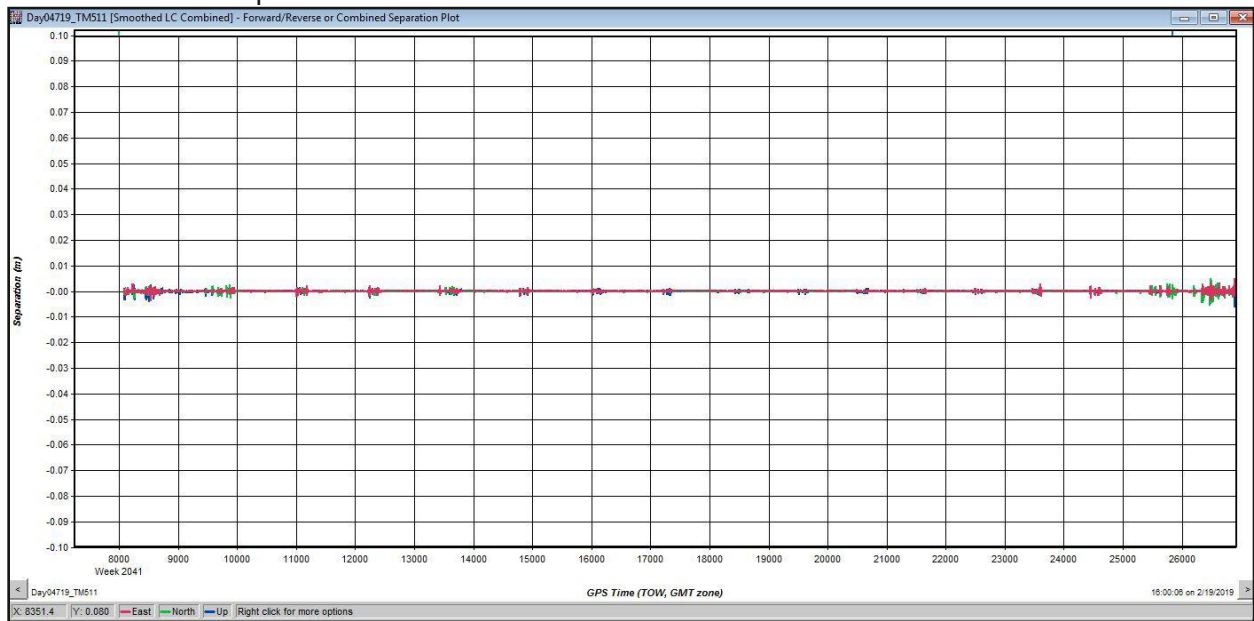
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory

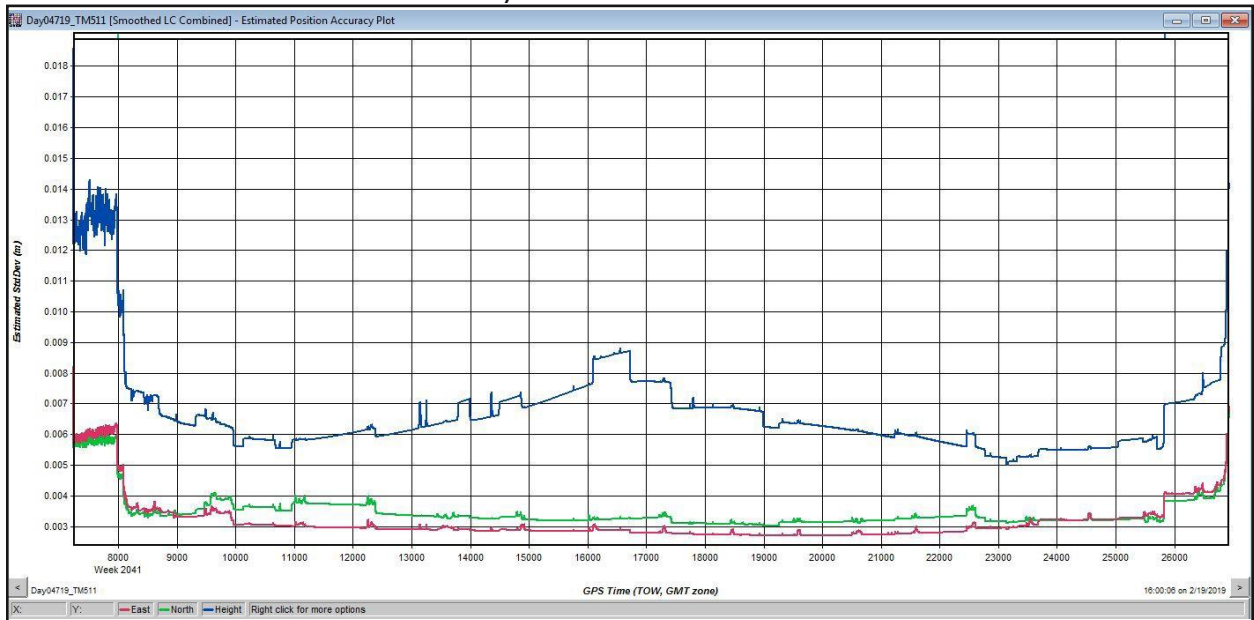


Day04719_TM511

Combined Separation Plot

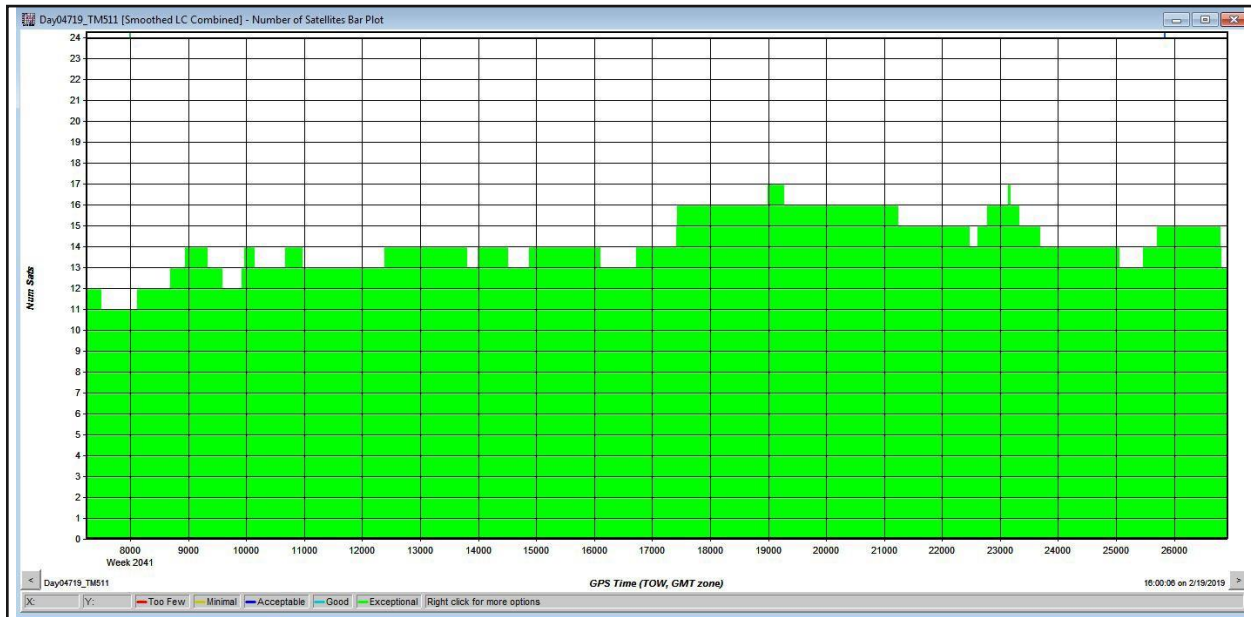


Estimated Position Accuracy Plot

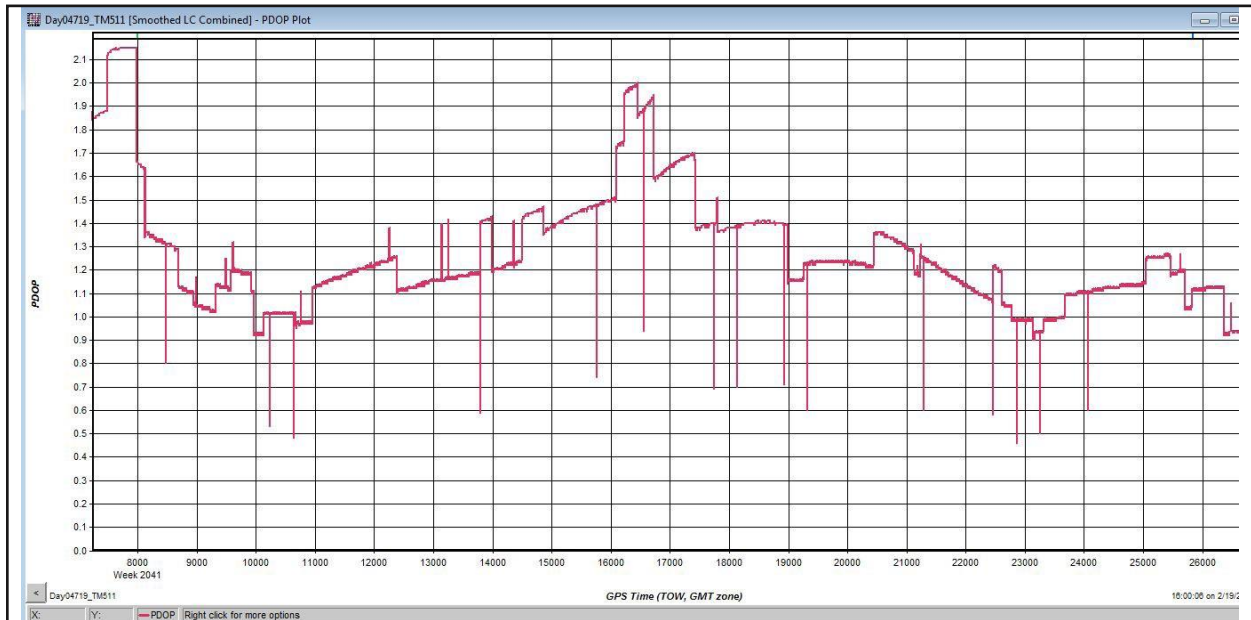


Day04719_TM511

Number of Satellites Bar Plot



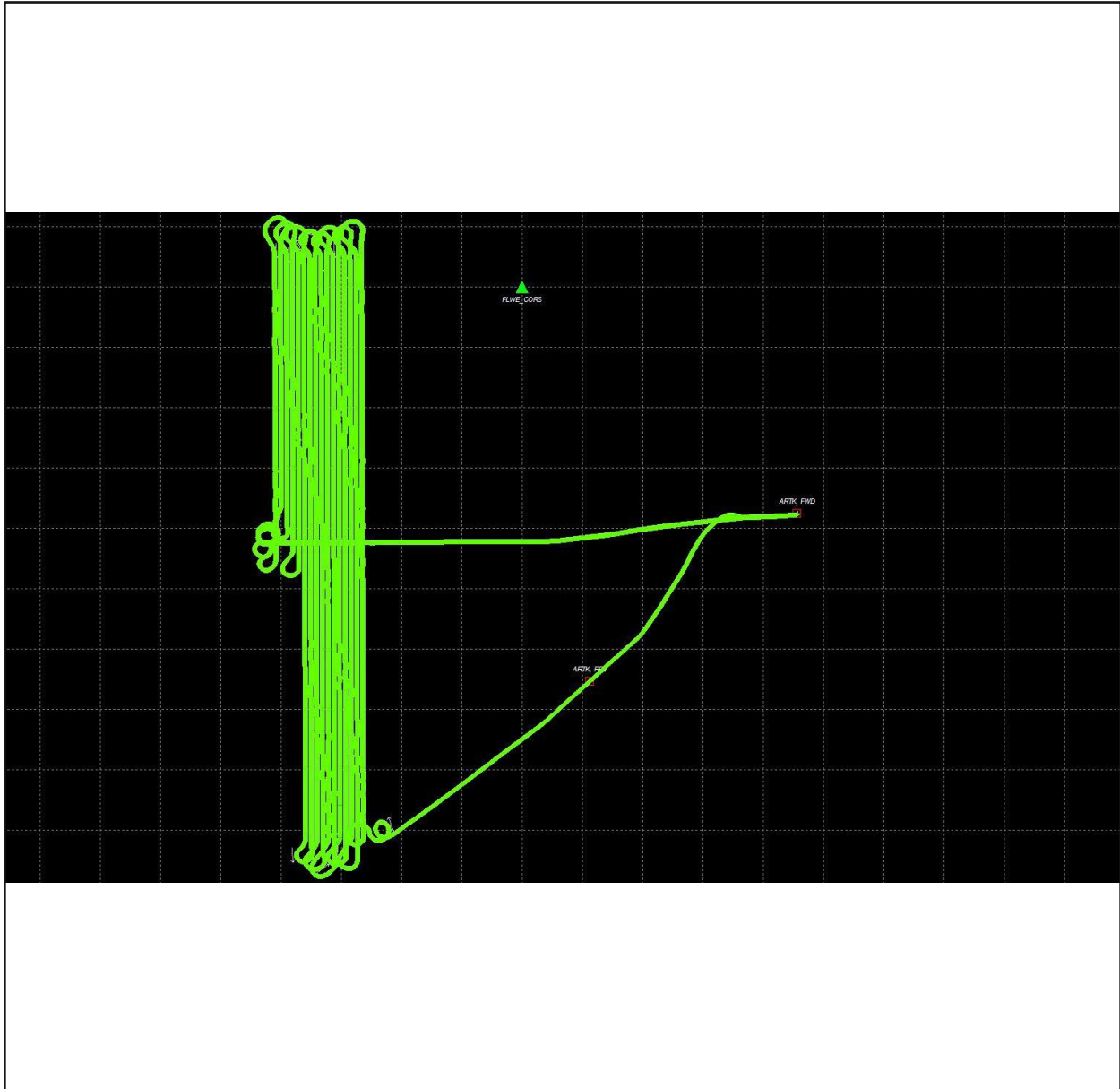
PDOP Plot



Woolpert Lidar Acquisition Log

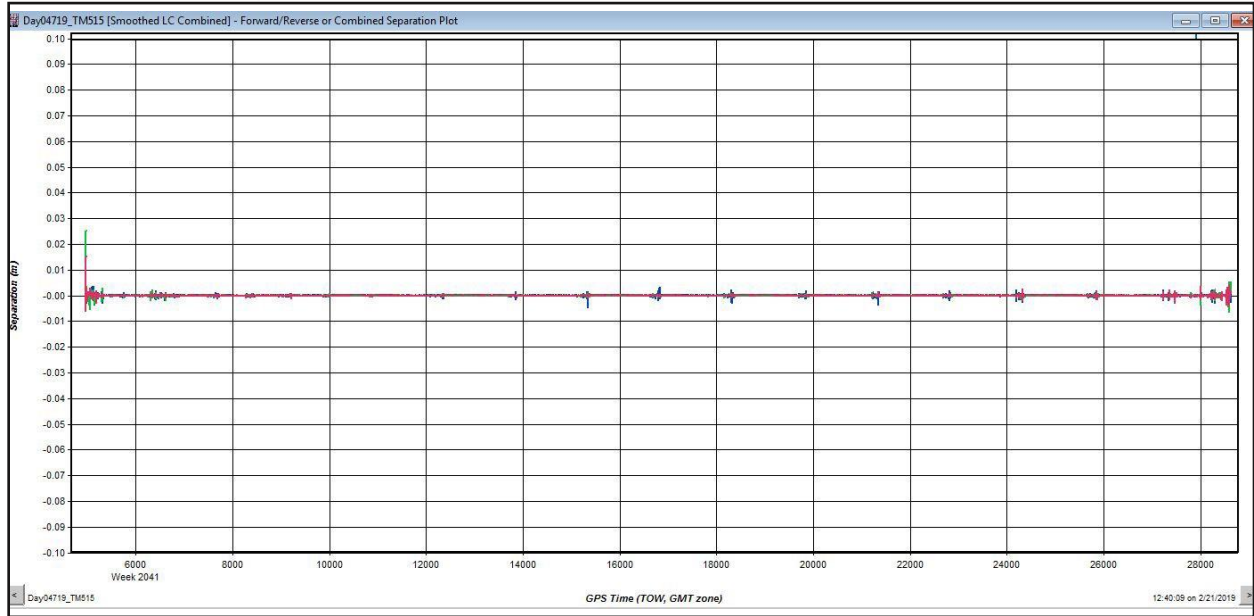
Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 5			Day047_90511_1A		02/16/2019	047	1A
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Dar Perl	Cessna 404 Titan - N404CP			7007	21:45:00	02:45:00	KVRB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Ryan	Leica Terrain Mapper - 90511			7012	02:04:00	07:04:00	KVRB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
260	8	10		Clear	22	16	2992	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900	5,900	17				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35		40		150	1550	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
49	S	02:45:00	03:03:00	00:18:00	20	1.1		
48	N	03:06:00	03:23:00	00:17:00	19	1.1		
47	S	03:26:00	03:43:00	00:17:00	17	1.4		
46	N	03:49:00	04:06:00	00:17:00	19	1.1		
45	S	04:09:00	04:26:00	00:17:00	20	1.1		
44	N	04:29:00	04:46:00	00:17:00	18	1.3		
43	S	04:49:00	05:06:00	00:17:00	19	1.3		
42	N	05:12:00	05:24:00	00:12:00	20	1.2		
41	S	05:27:00	05:41:00	00:14:00	19	1.4		
40	N	05:45:00	05:58:00	00:13:00	18	1.5		
39	S	06:01:00	06:14:00	00:13:00	19	1.2		
38	N	06:17:00	06:30:00	00:13:00	20	1.1		
37	S	06:33:00	06:47:00	00:14:00	20	1.1		
36	N	06:50:00	07:04:00	00:14:00	20	1		

Trajectory

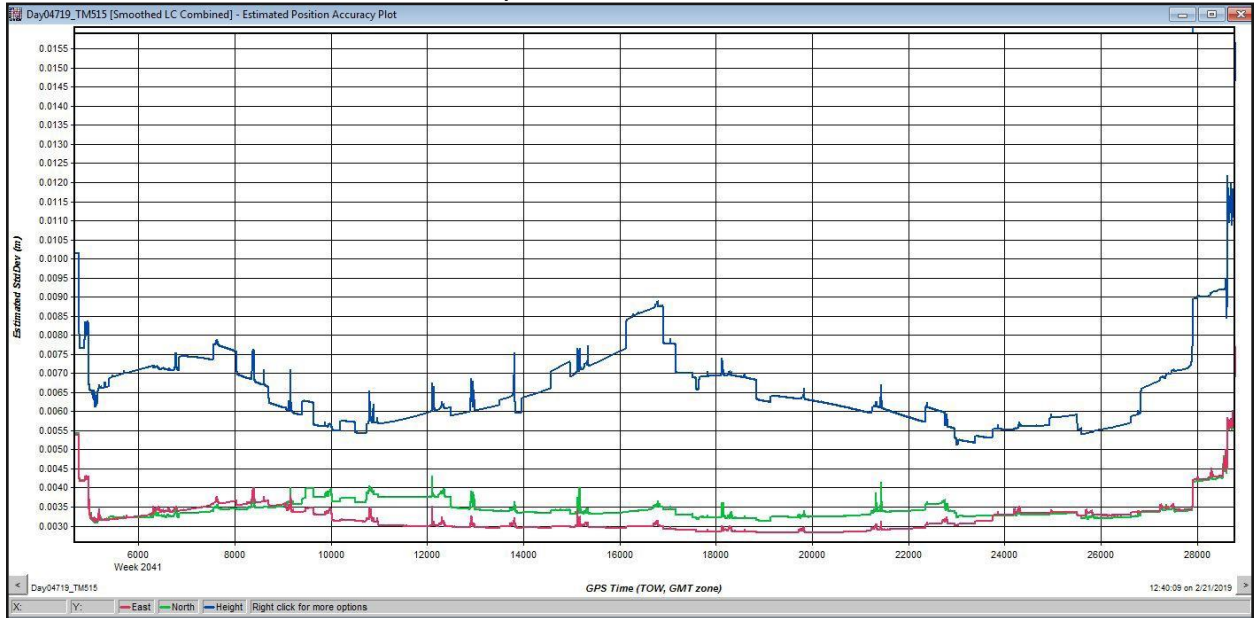


Day04719_TM515

Combined Separation Plot

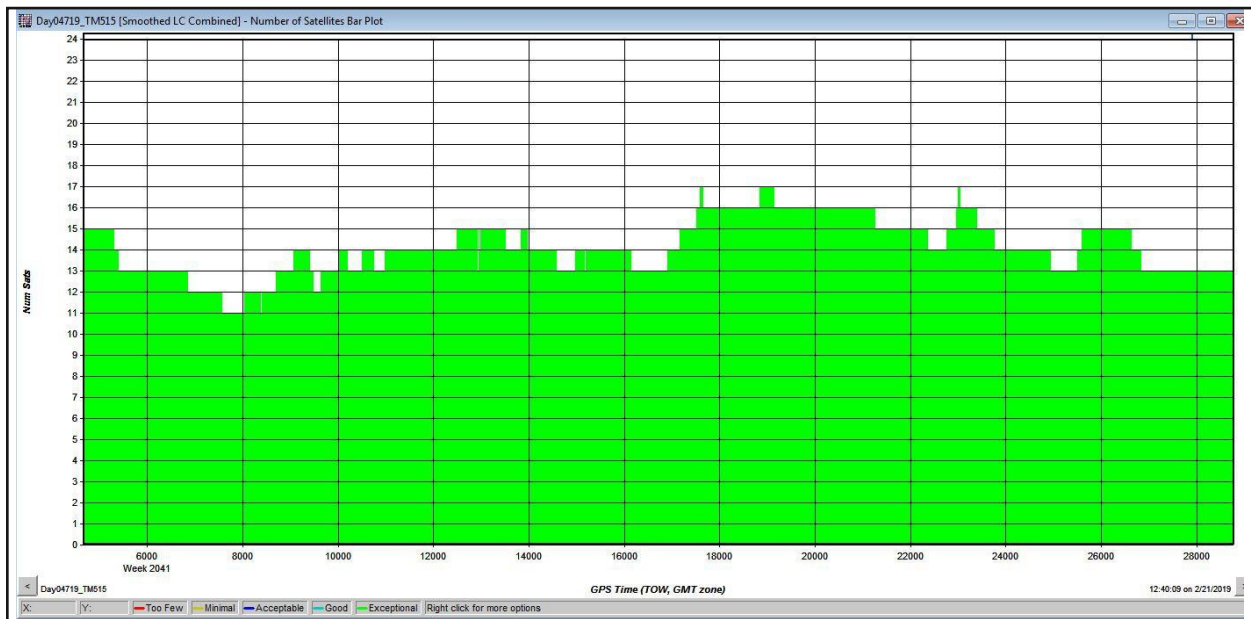


Estimated Position Accuracy Plot

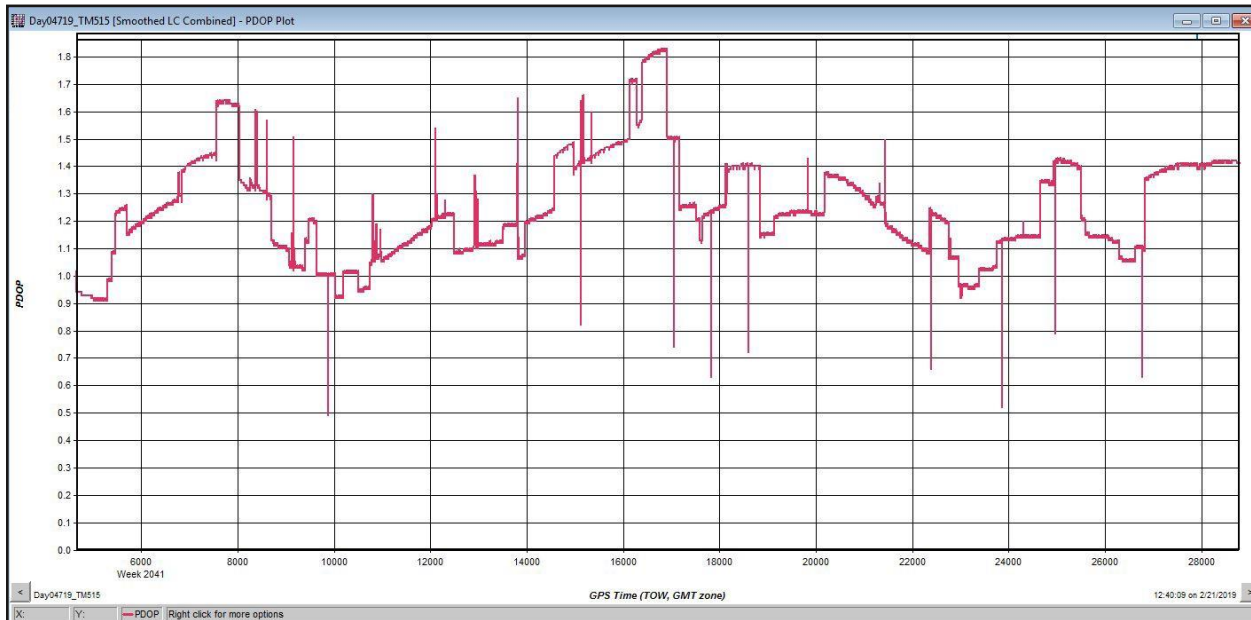


Day04719_TM515

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info					Date			
Project #	Project Name		Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79208	FL Peninsular 2018 D18 - Block 3		Day047_90515		02/16/2019	047		
Crew		Equipment		Time			Airports	
Pilot	Aircraft Make / Model / Tail #		Hobbs Start	Local Start	UTC Start	Departing		
Oleary	406SD		98.5	08:27:00	01:27:00	MLB		
Operator	Sensor Make / Model / Serial #		Hobbs End	Local End	UTC End	Arriving		
Nardone	Leica Terrain Mapper - 90515			02:54:00	07:54:00	MLB		
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
240	8	10	1		23	16	29.89	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900	5,900					
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)	Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)			
		40	150	1550	100			
					Verify S-Turns Before Mission			
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
19	N	01:55:00	02:04:00	00:09:00	18	1.5		
20	S	02:09:00	02:18:00	00:09:00	21	1.3		
21	N	02:21:00	02:30:00	00:09:00	20	1.2		
22	S	02:34:00	02:44:00	00:10:00	19	1.2		
23	N	02:47:00	02:58:00	00:11:00	20	1.1		
24	S	03:02:00	03:23:00	00:21:00	17	1.2		
25	N	03:26:00	03:48:00	00:22:00	17	1.4		
26	S	03:51:00	04:13:00	00:22:00	18	1.3		
27	N	04:16:00	04:38:00	00:22:00	17	1.3		
28	S	04:40:00	05:02:00	00:22:00	19	1.3		
29	N	05:06:00	05:28:00	00:22:00	21	1.2		
30	S	05:31:00	05:53:00	00:22:00	19	1.4		
31	N	05:56:00	06:18:00	00:22:00	18	1.4		

32	S	06:21:00	06:43:00	00:22:00	20	1.1	
33	N	06:46:00	07:08:00	00:22:00	20	1.2	
34	S	07:11:00	07:33:00	00:22:00	18	1.2	

Page 1	Verify S-Turns After Mission
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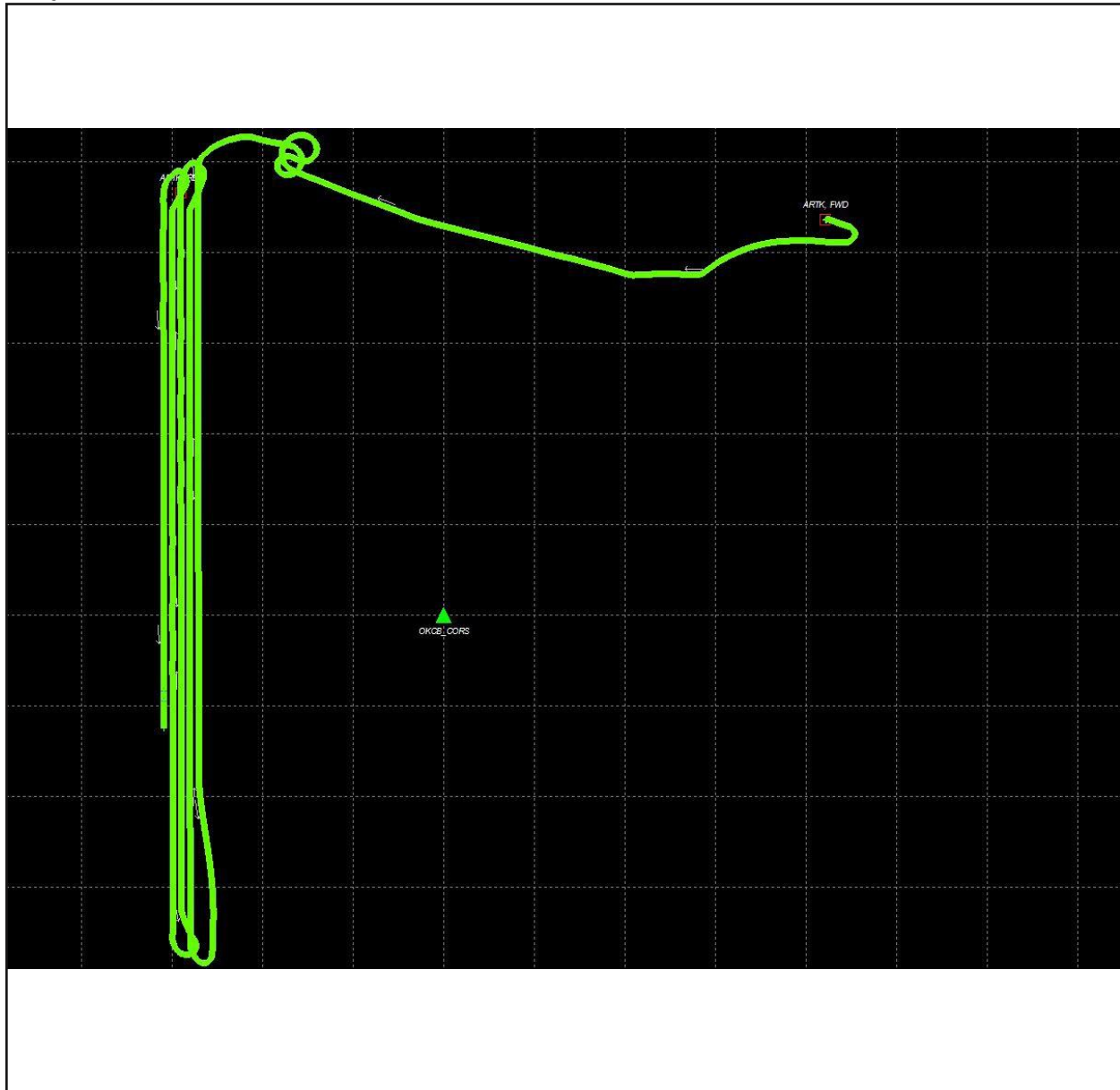
Additional Comments

Day04819_TM511_A

Base Station Coordinates

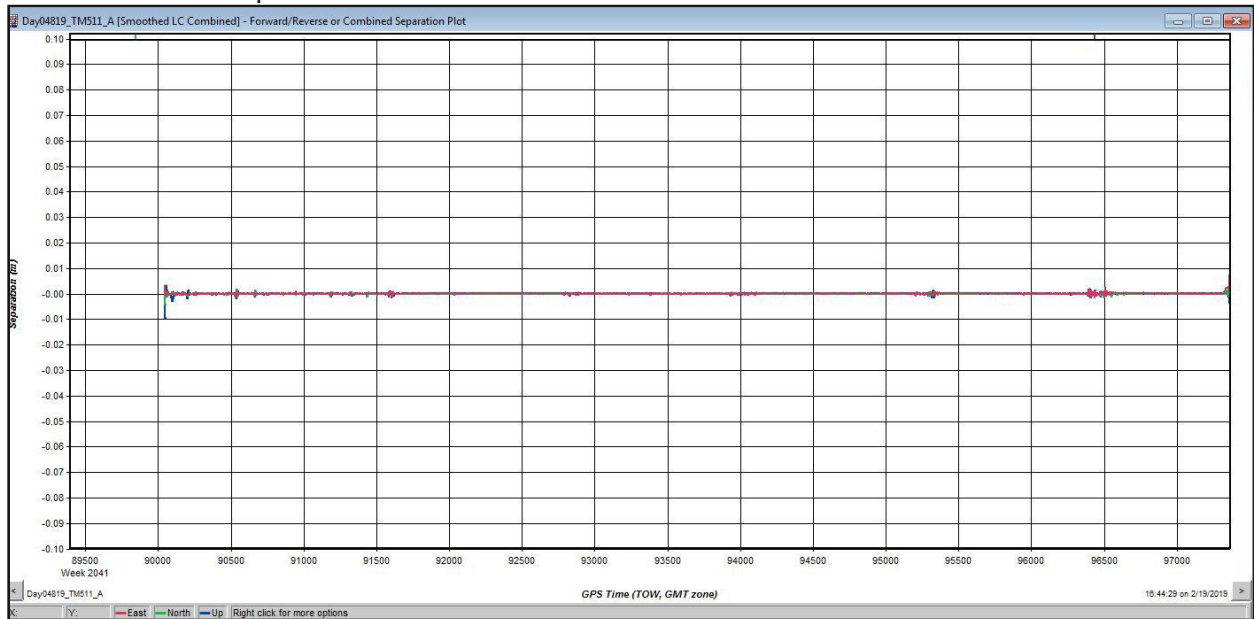
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory



Day04819_TM511_A

Combined Separation Plot

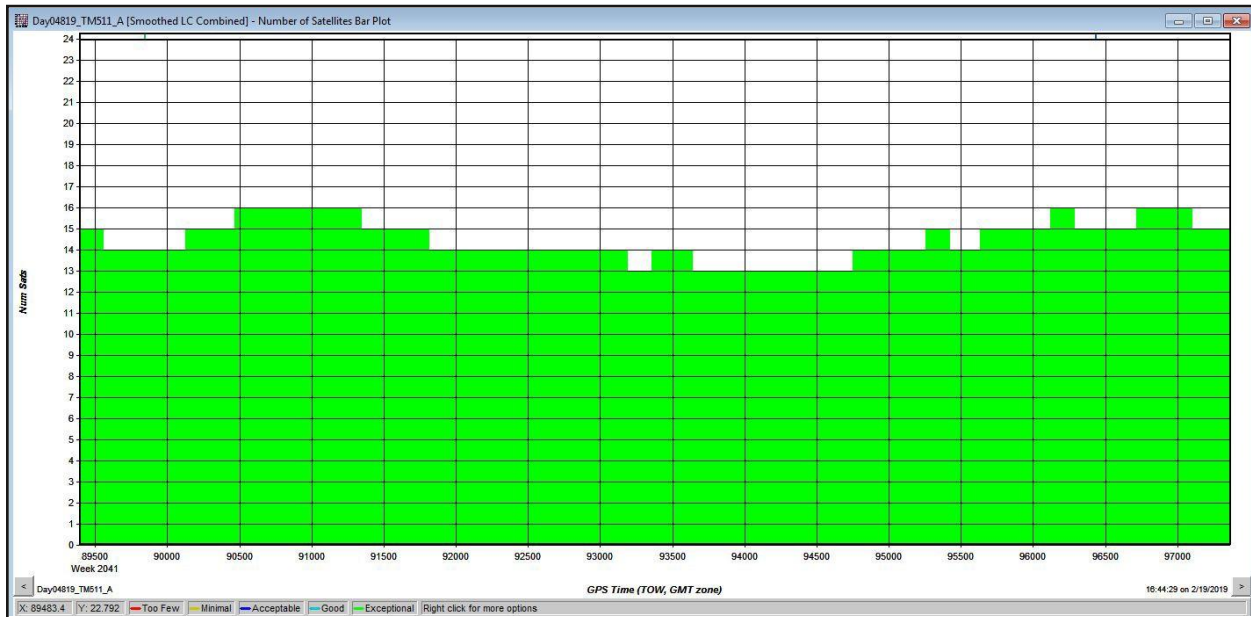


Estimated Position Accuracy Plot

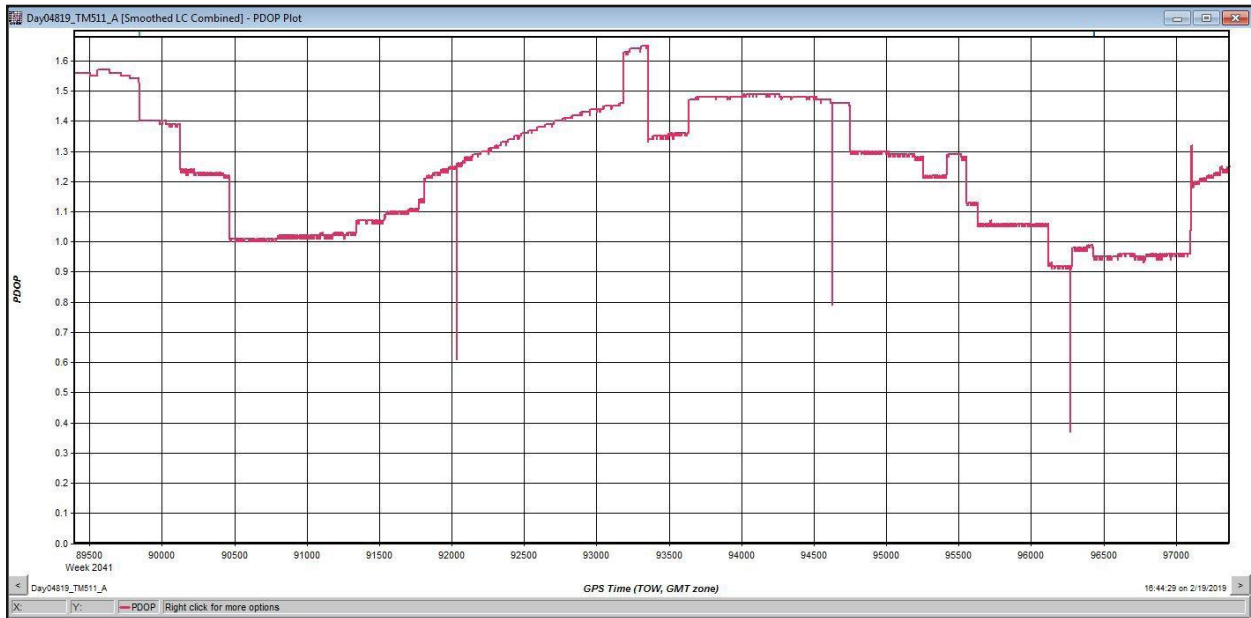


Day04819_TM511_A

Number of Satellites Bar Plot



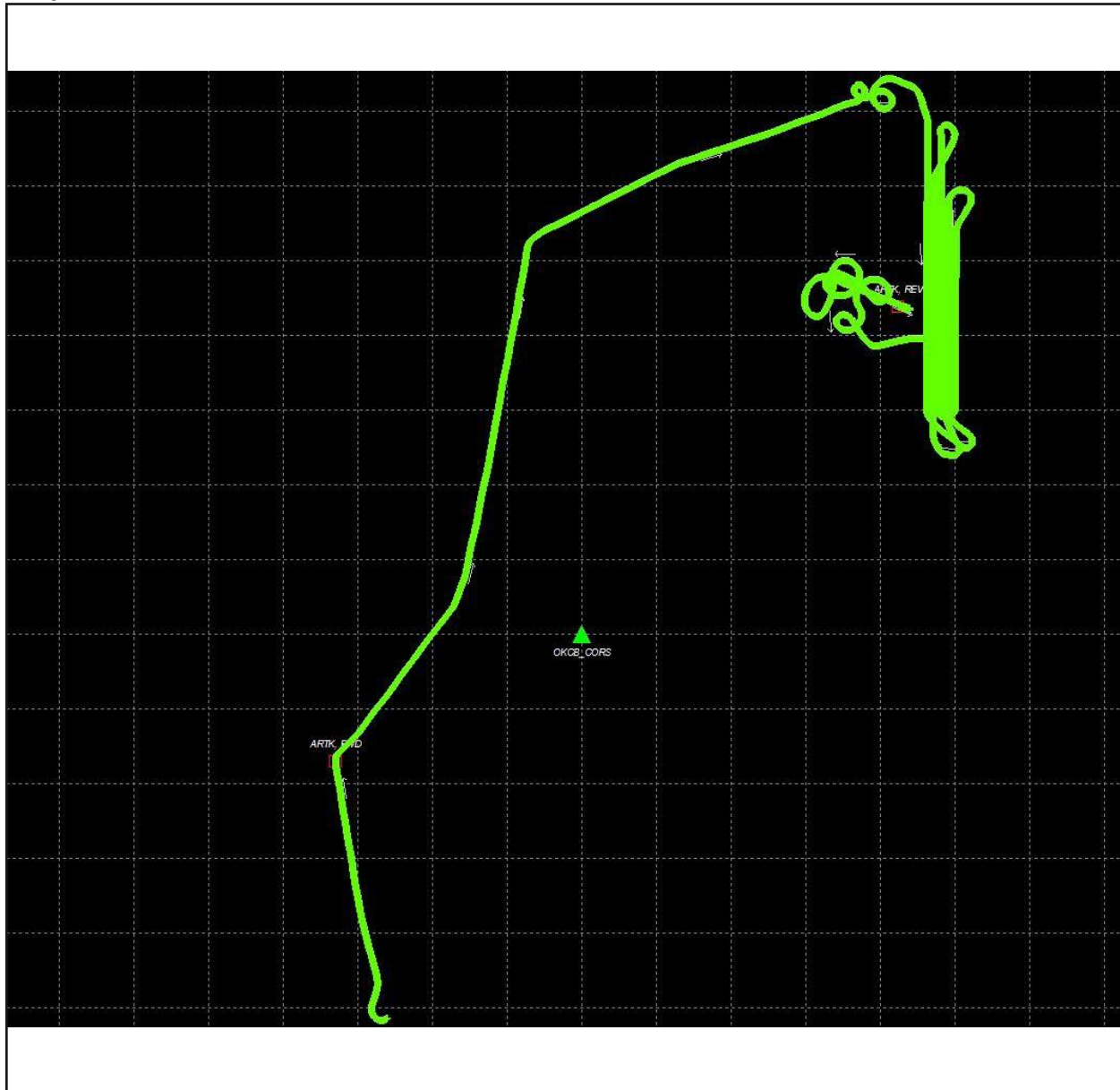
PDOP Plot



Woolpert Lidar Acquisition Log

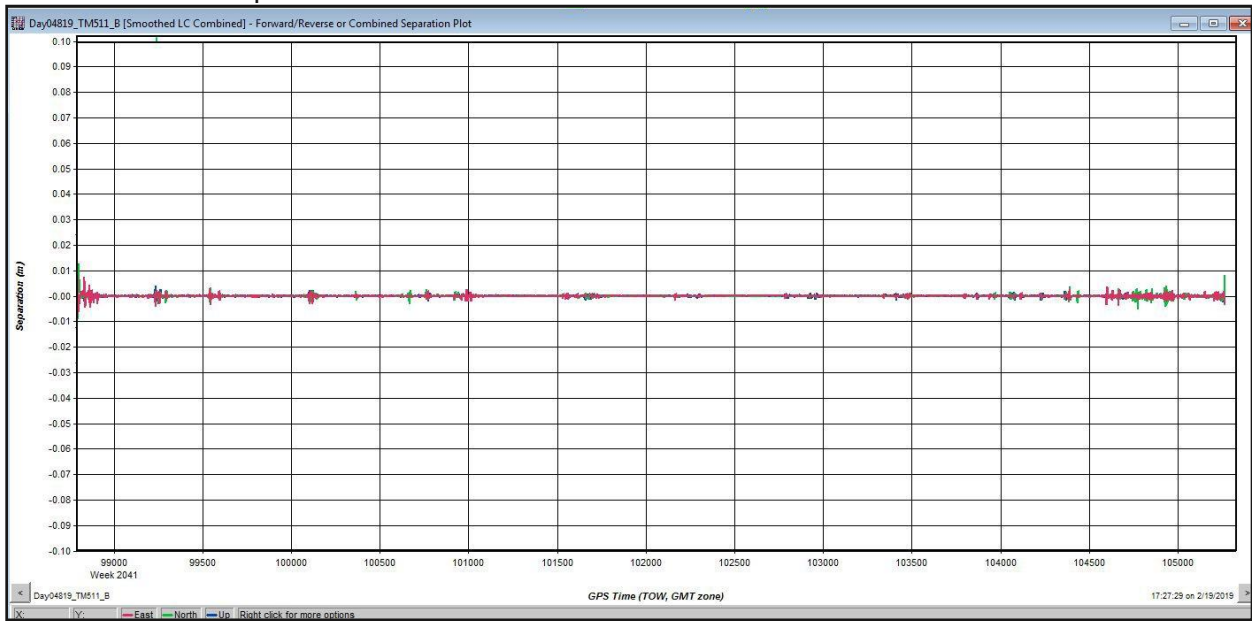
Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 5			Day048_90511_1A		02/17/2019	048	1A
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Dar Perl	Cessna 404 Titan - N404CP			7012	20:27:00	01:27:00	KVRB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Ryan	Leica Terrain Mapper - 90511			7016.2	21:46:00	02:46:00	KVRB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
150	9	10		Scattered	24	20	2998	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900	5,900	17				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35		40		150	1550	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
35	S	01:27:00	01:42:00	00:15:00	20	1.2		
34	N	01:48:00	02:05:00	00:17:00	18	1.4		
33	S	02:08:00	02:26:00	00:18:00	23	1.2		
32	N	02:29:00	02:46:00	00:17:00	21	1.1		
31	S	02:49:00			22	1.1	N.G. system froze up. reboot	

Trajectory



Day04819_TM511_B

Combined Separation Plot

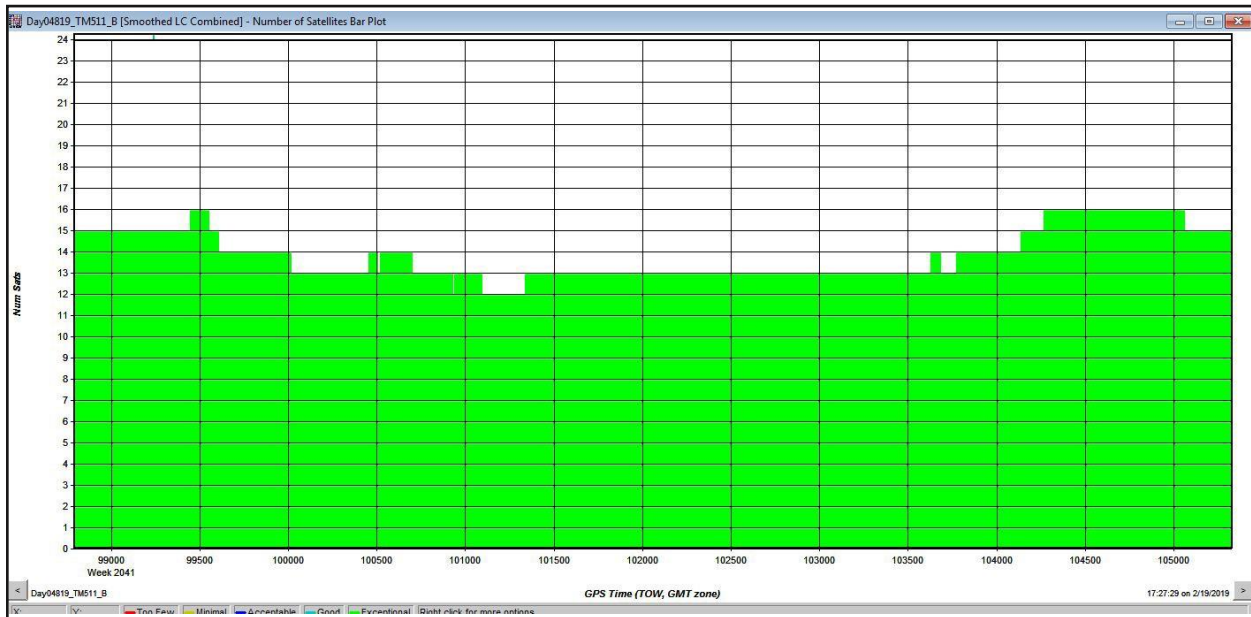


Estimated Position Accuracy Plot

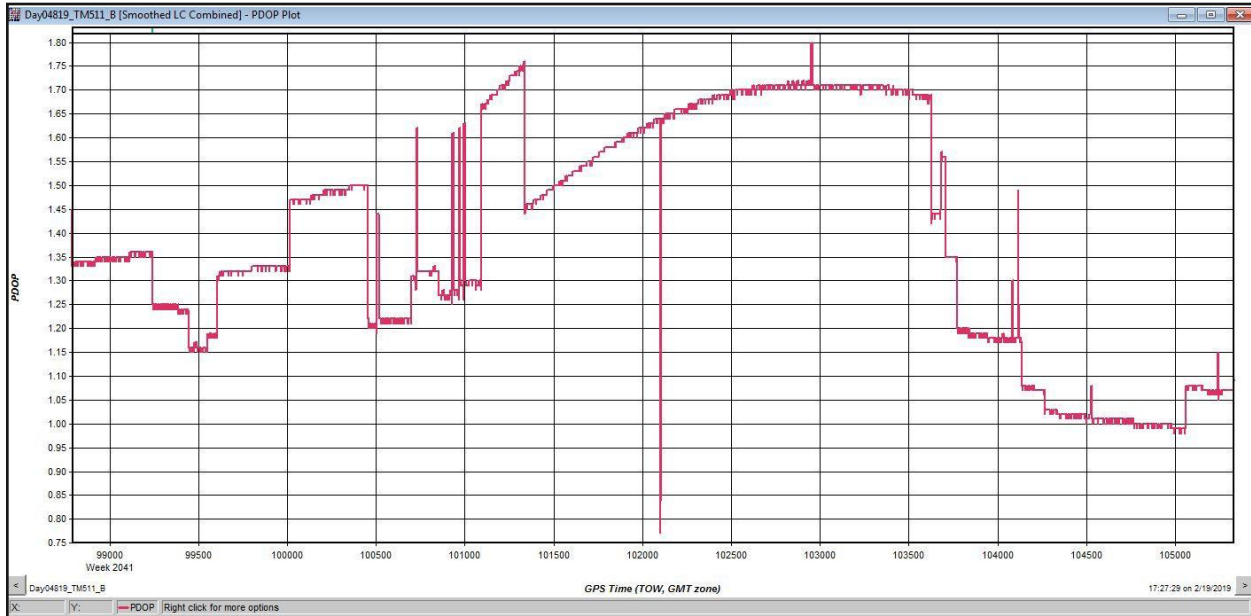


Day04819_TM511_B

Number of Satellites Bar Plot



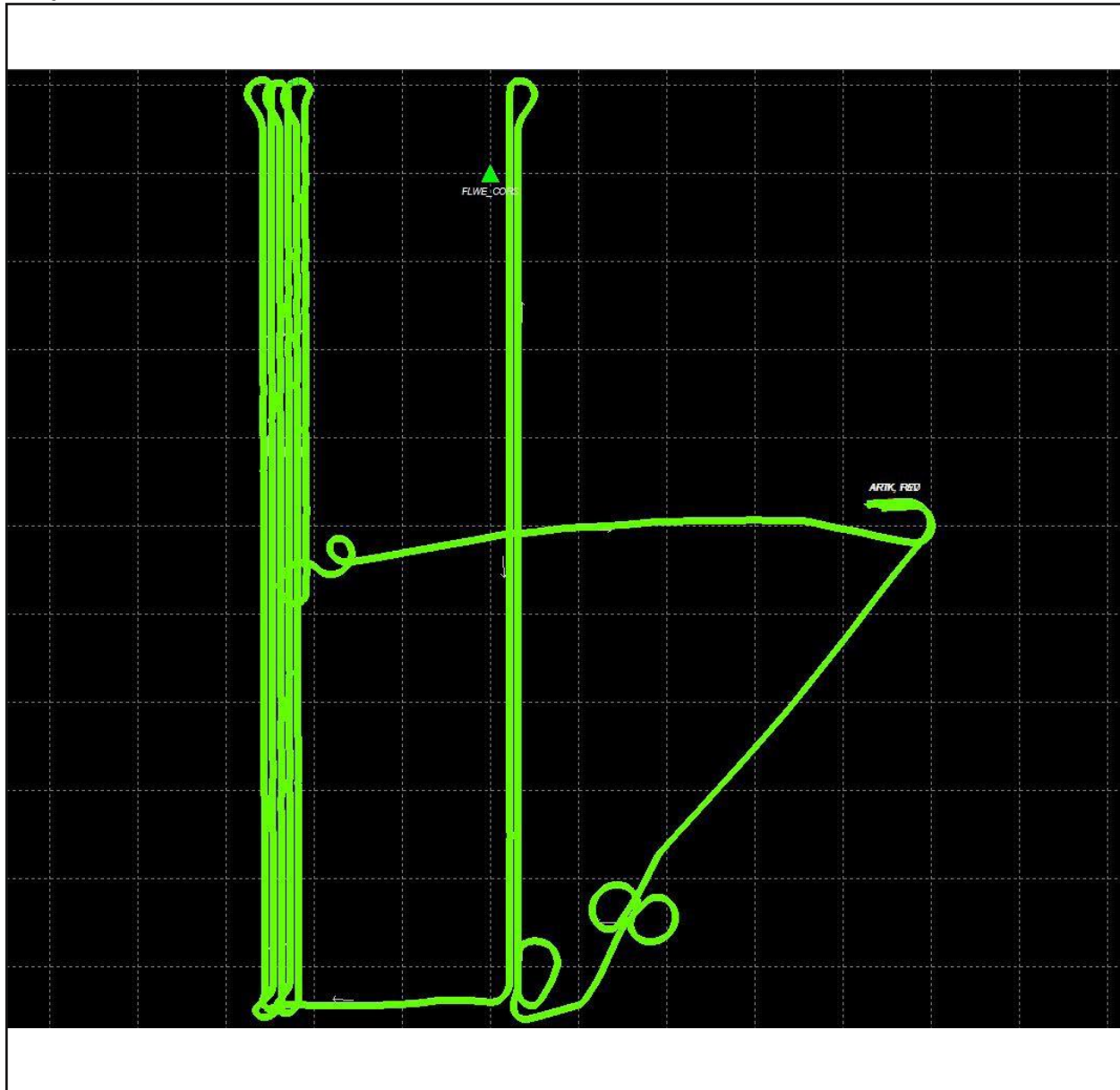
PDOP Plot



Woolpert Lidar Acquisition Log

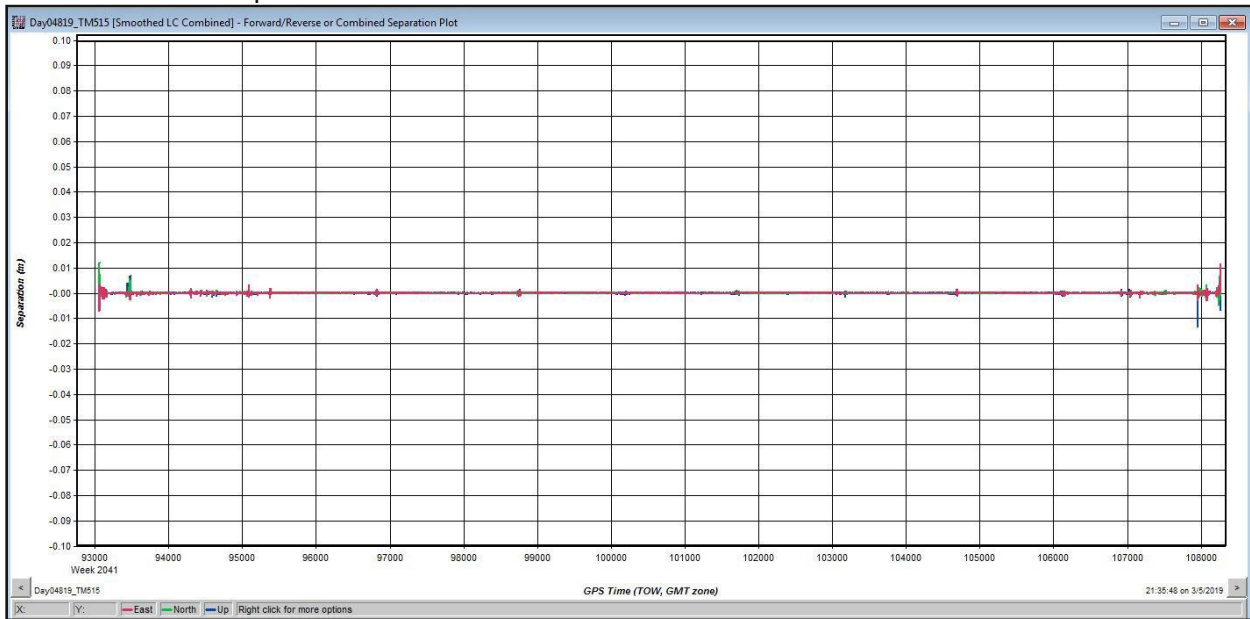
Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 4			Day048_90511_B		02/17/2019	048	B
Crew		Equipment			Time			Airports
Pilot		Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing
Dar Perl		Cessna 404 Titan - N404CP			7012		04:04:00	KVRB
Operator		Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving
Ryan		Leica Terrain Mapper - 90511			7016.2		04:42:00	KVRB
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
150	9	10		Scattered	24	20	2998	
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)			
140		5,900		5,900	17			
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35		40		150	1550	100		
							Verify S-Turns Before Mission	Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
48	S	04:04:00	04:11:00	00:07:00	23	1.1		
49	N	04:16:00	04:22:00	00:06:00	22	1.1		
50	S	04:26:00	04:32:00	00:06:00	20	1.2		
51	N	04:36:00	04:42:00	00:06:00	22	1.1		
52	S	04:45:00			22	1.1	N.G. clouds then TO window/pluse error	

Trajectory

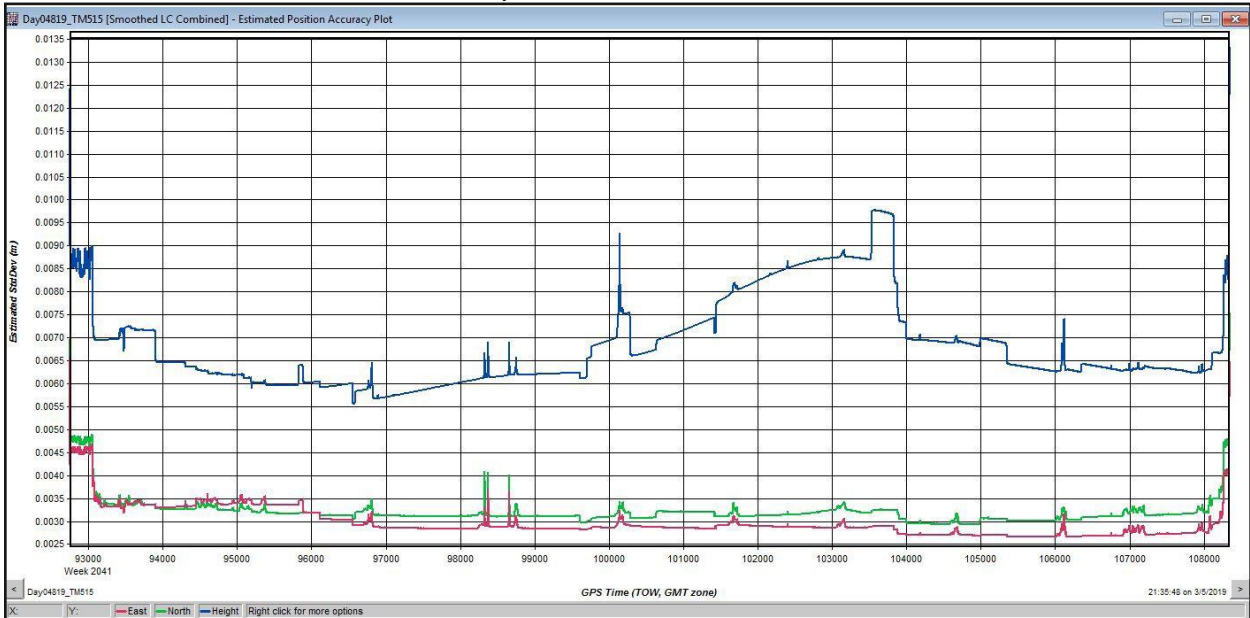


Day04819_TM515

Combined Separation Plot

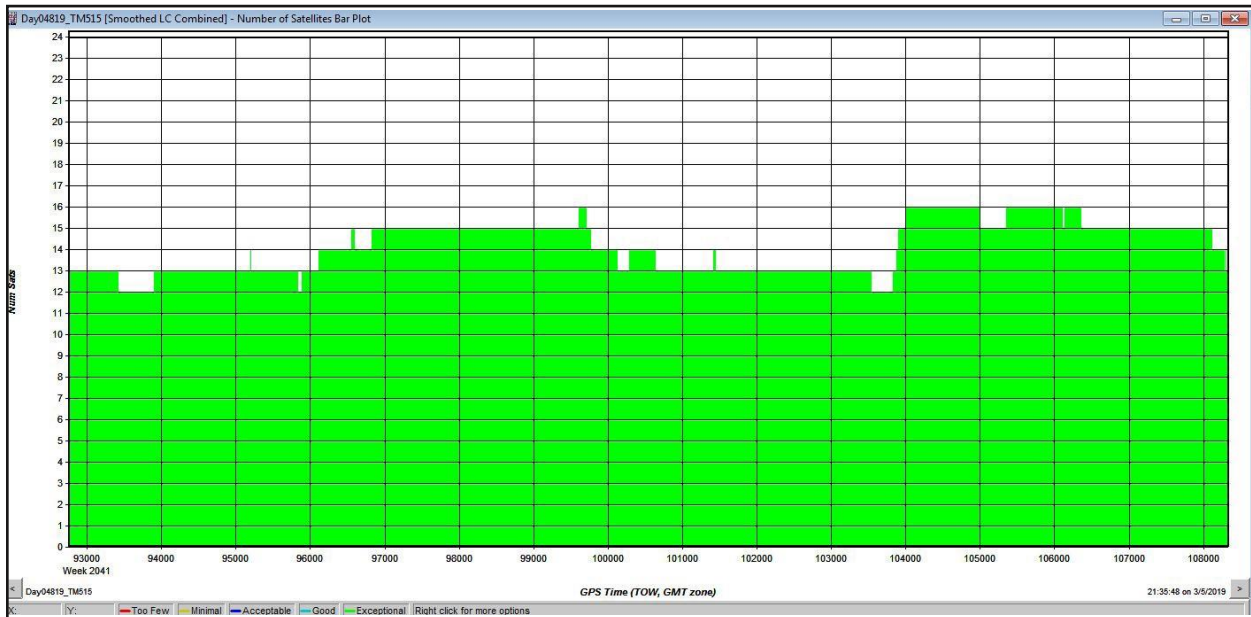


Estimated Position Accuracy Plot

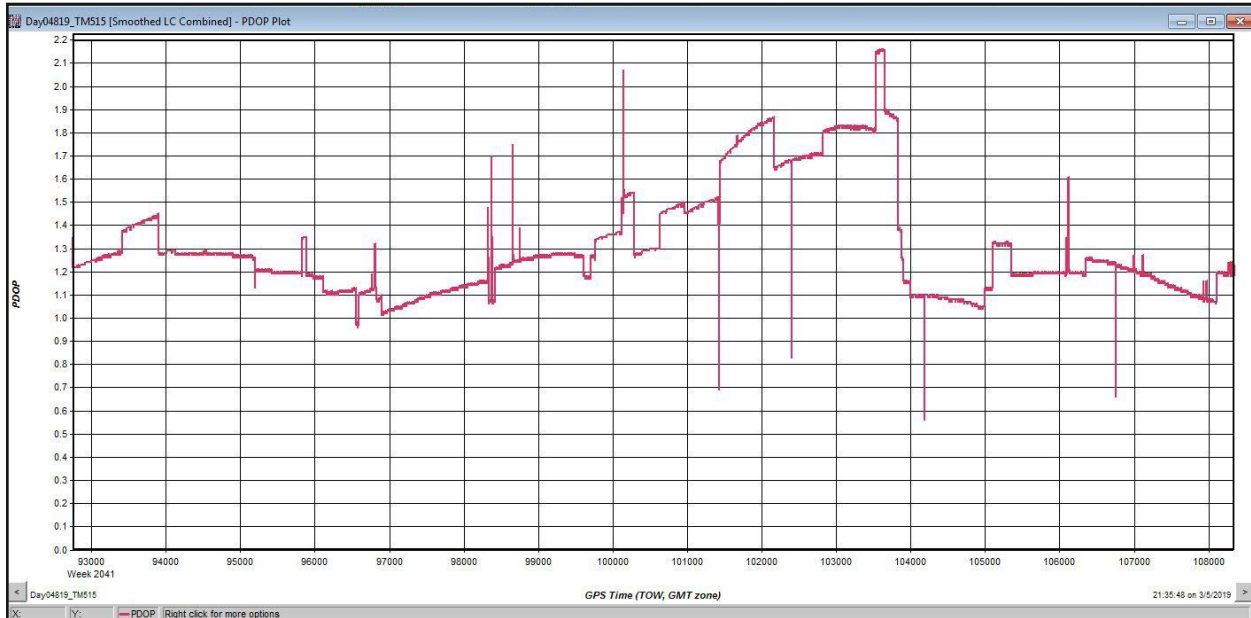


Day04819_TM515

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Page 1	Verify S-Turns After Mission
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Additional Comments

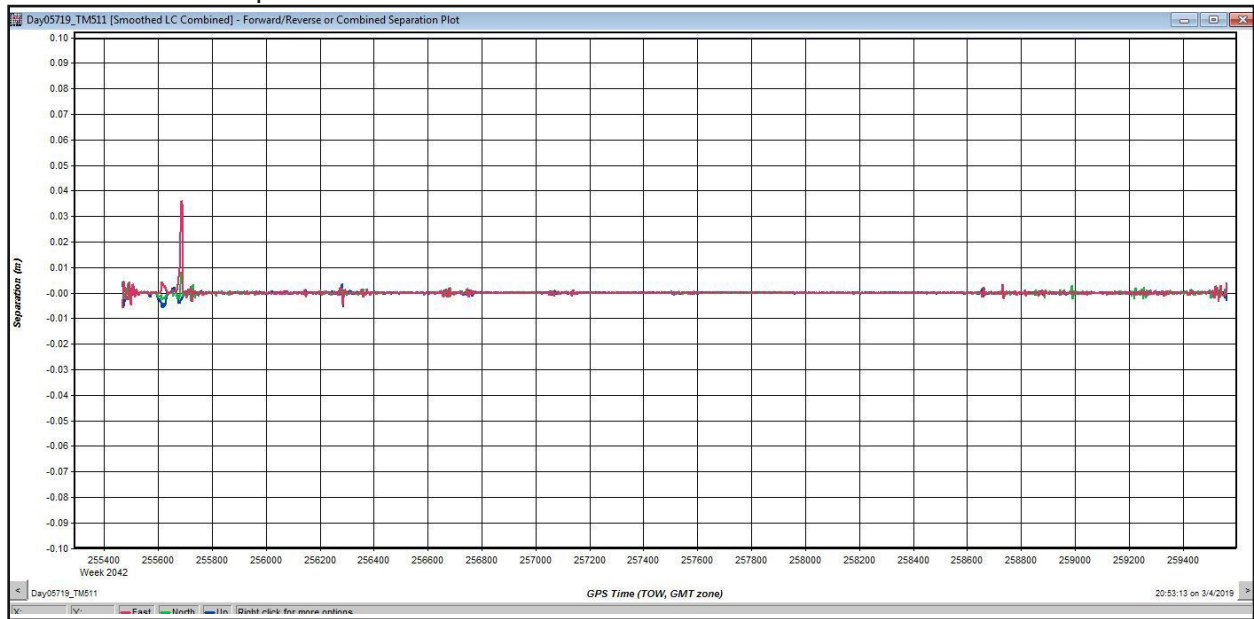
Day05719_TM511

Base Station Coordinates

Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Day05719_TM511

Combined Separation Plot

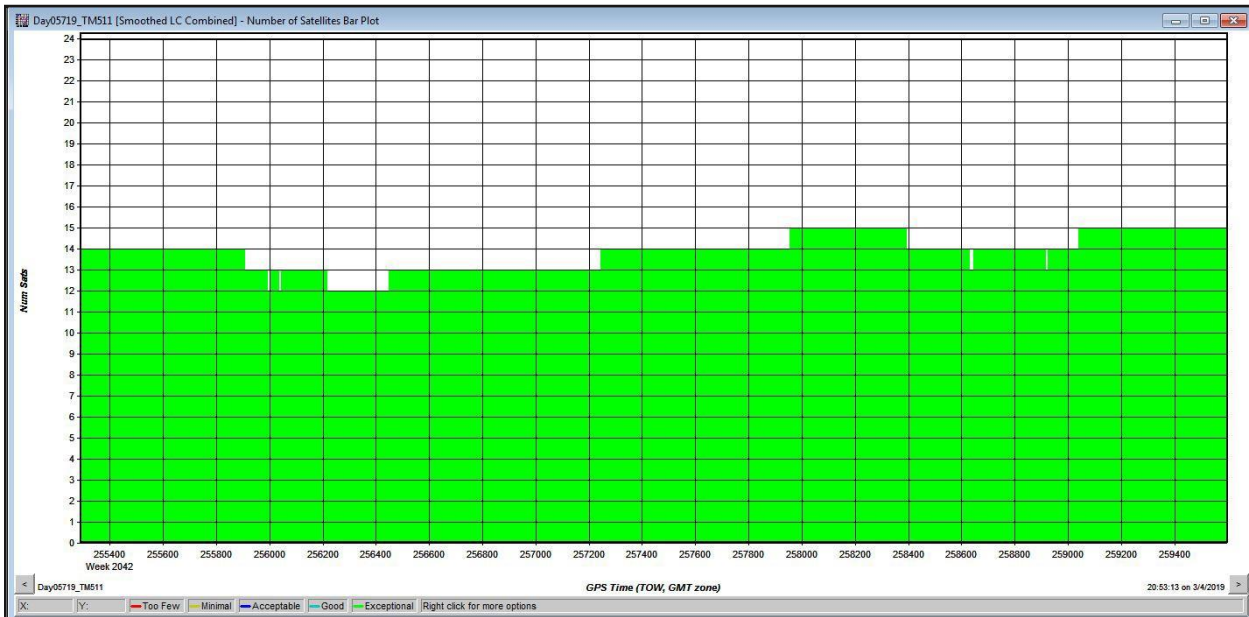


Estimated Position Accuracy Plot

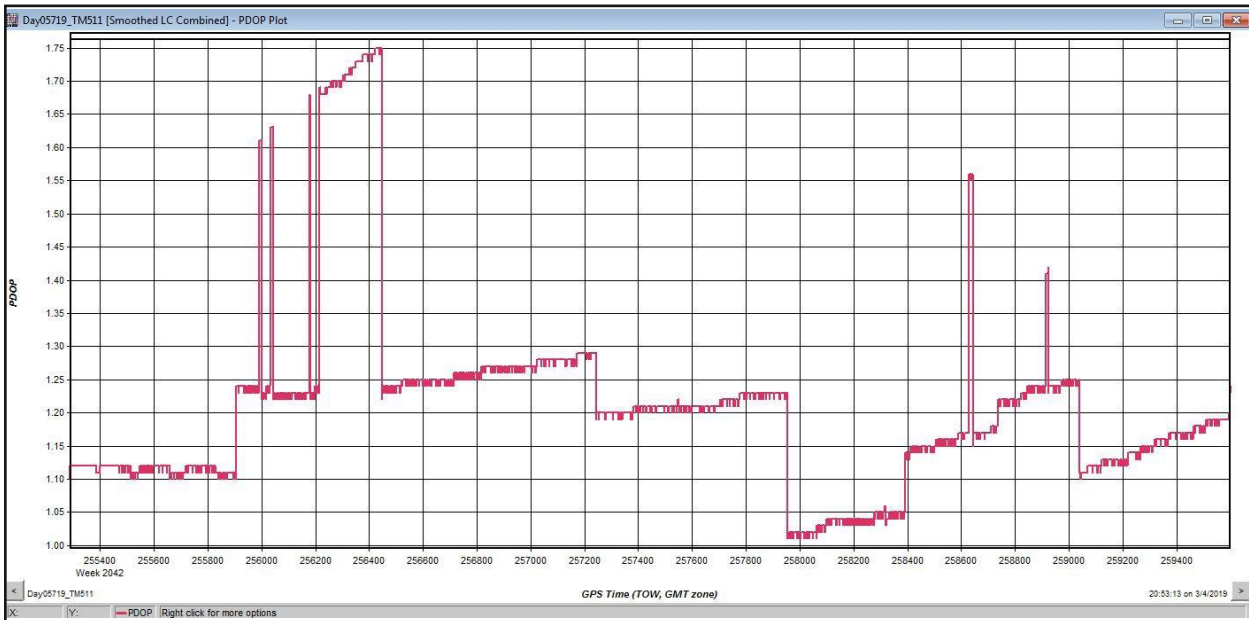


Day05719_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

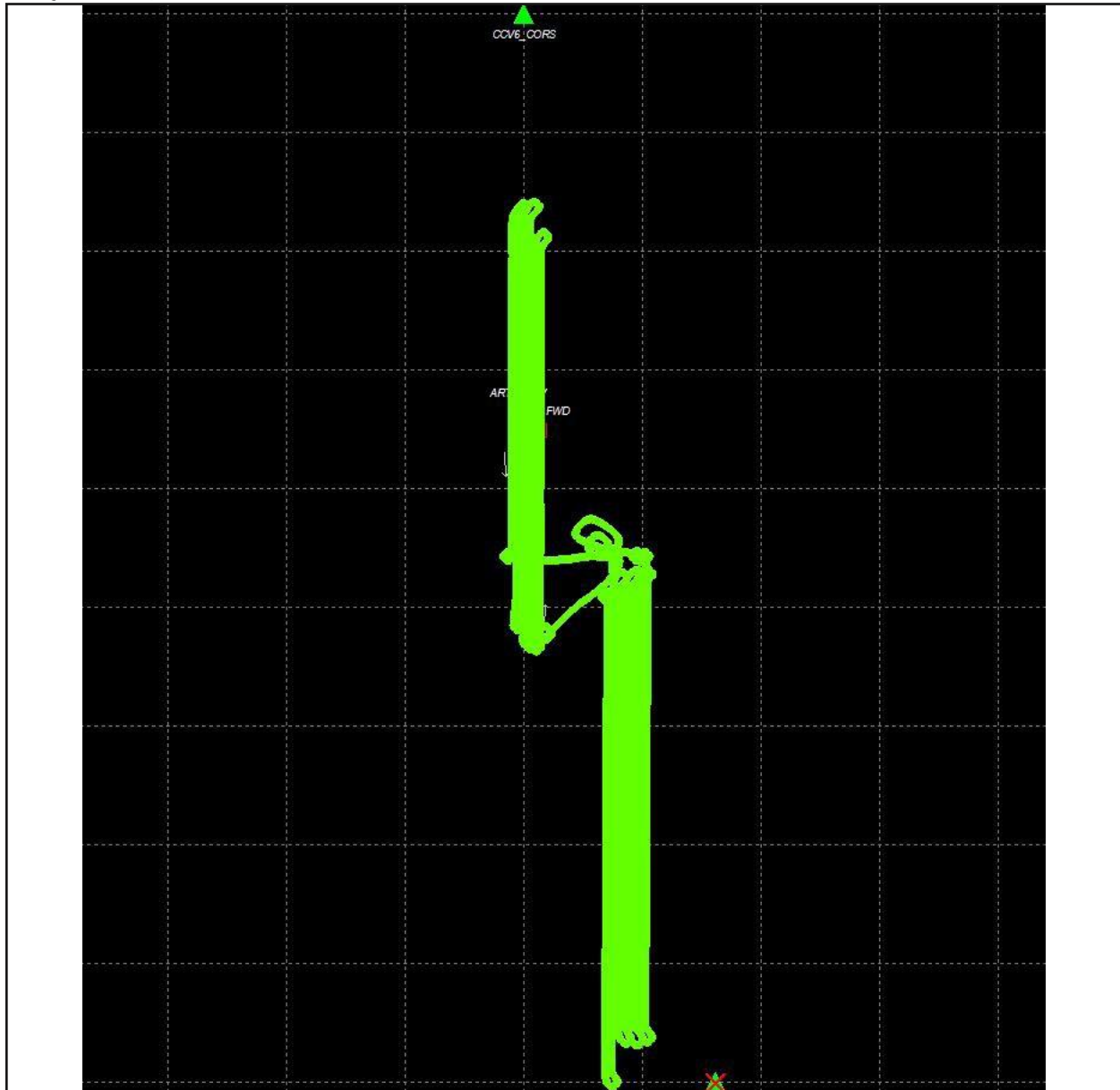
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							

Day05919_TM511

Base Station Coordinates

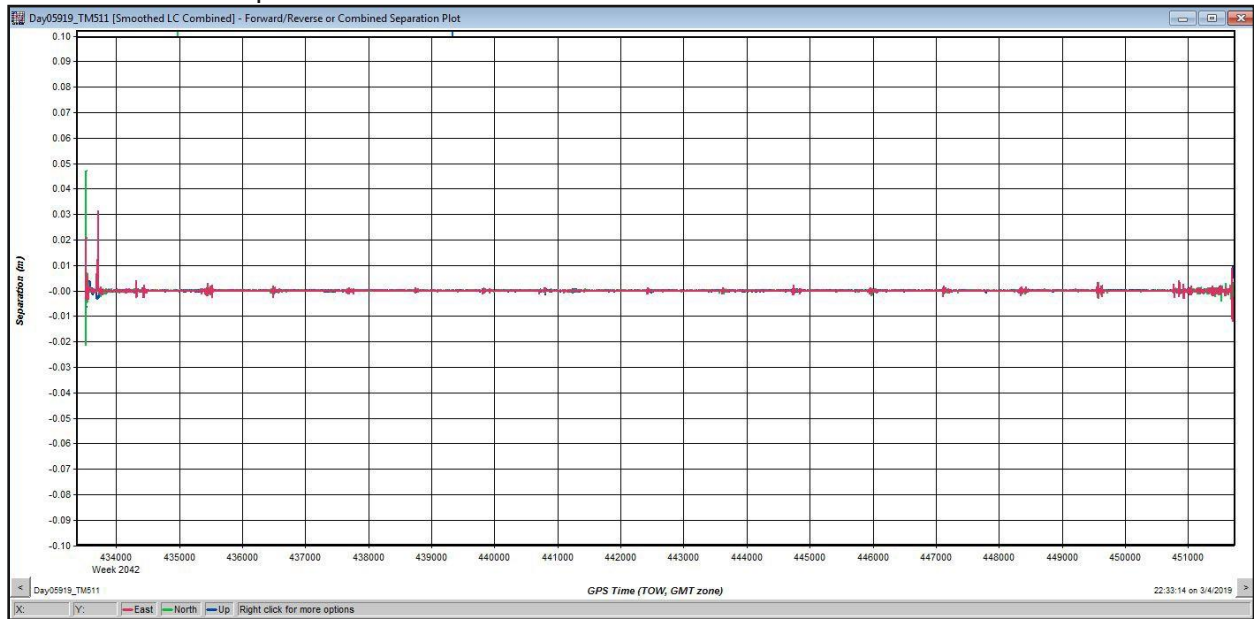
Name	Status	Latitude	Longitude	Height
CCV6_CORS	ENABLED	28° 27' 35.82726"	-80° 32' 43.70265"	-22.632 m (ELLIPSOIDAL)

Trajectory

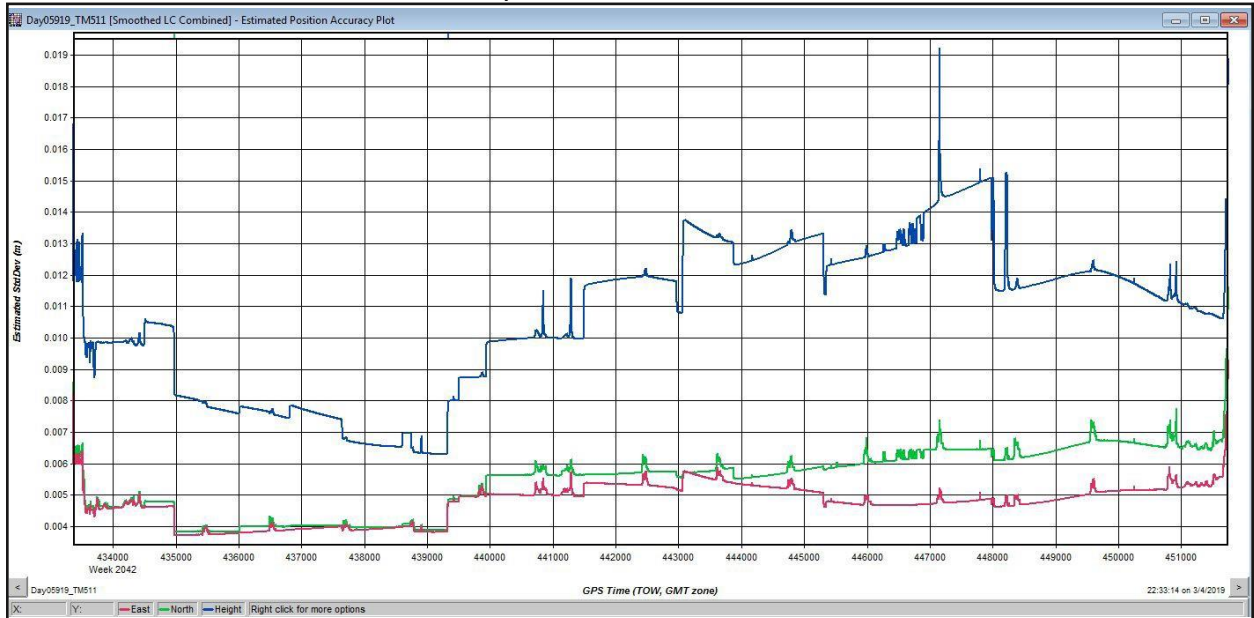


Day05919_TM511

Combined Separation Plot

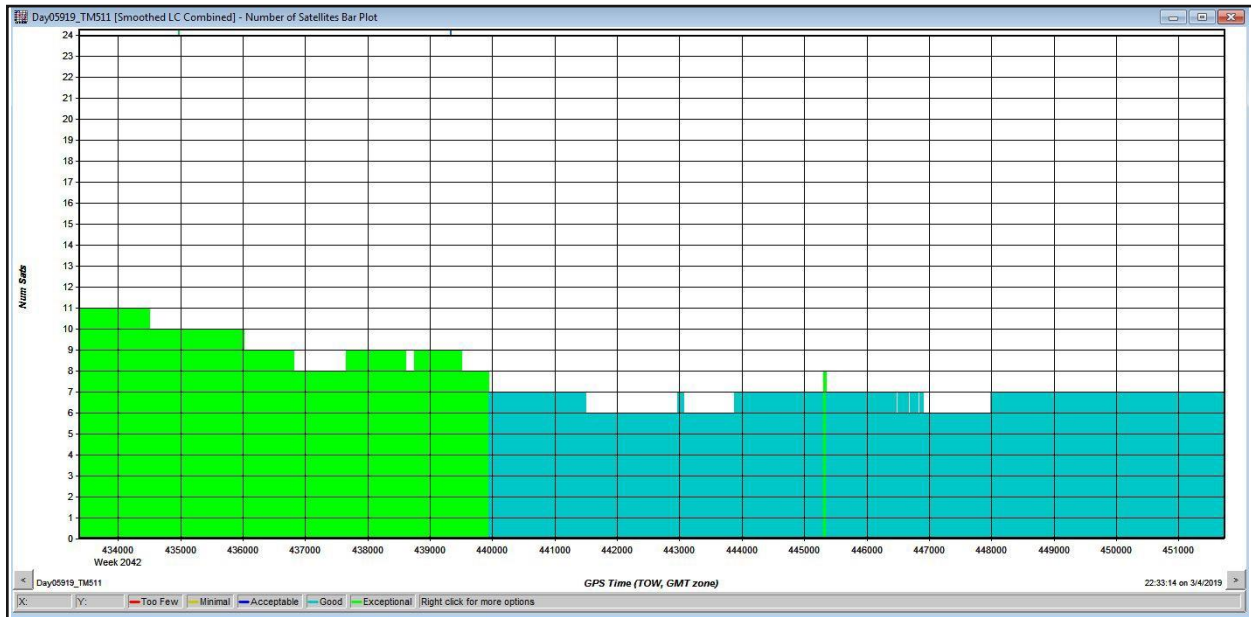


Estimated Position Accuracy Plot

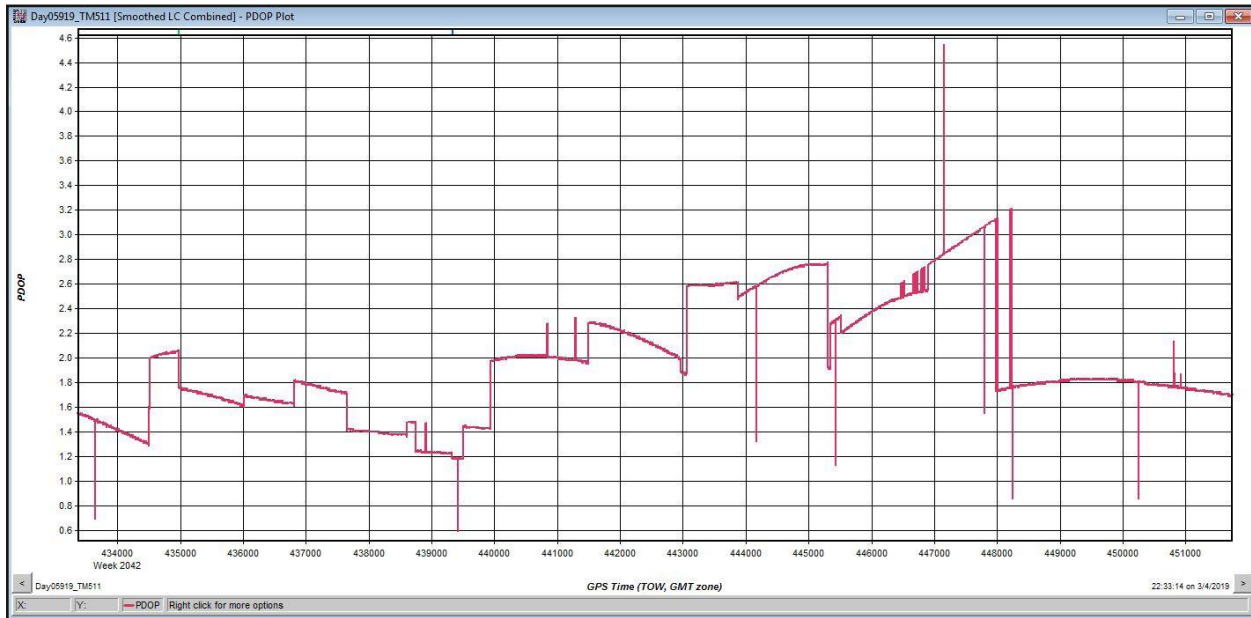


Day05919_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Blocks 4 & 6			Day059_90511_A		02/28/2019	059	A
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Gebhart	Cessna 404 Titan - N404CP			7018.2	19:41:00	00:41:00	VRB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
DeHart	Leica Terrain Mapper - 90511			7023.2	12:12:00	05:12:00	VRB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
70	4	10		Clear	19	17	3007	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900	5,900	17				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35	10	40		150	1550	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
35	N	00:41:00	00:55:00	00:14:00	21	1.1	Block 4	
34	S	00:58:00	01:14:00	00:16:00	19	1.3		
33	N	01:17:00	01:32:00	00:15:00	19	1.2		
32	S	01:36:00	01:52:00	00:16:00	21	1.1		
31	N	01:56:00	02:09:00	00:13:00	22	1		
30	S	02:13:00	02:24:00	00:11:00	20	1.2		
36	S	02:36:00	02:53:00	00:17:00	19	1.3	Block 06	
35	N	02:55:00	03:12:00	00:17:00	19	1.3		
34	S	03:15:00	03:31:00	00:16:00	21	1.2		
33	N	03:34:00	03:51:00	00:17:00	19	1.4		
32	S	03:55:00	04:11:00	00:16:00	22	1.2		
31	N	04:14:00	04:31:00	00:17:00	23	1.2		
30	S	04:34:00	04:52:00	00:18:00	20	1.4		
29	N	04:54:00	05:12:00	00:18:00	20	1.4		

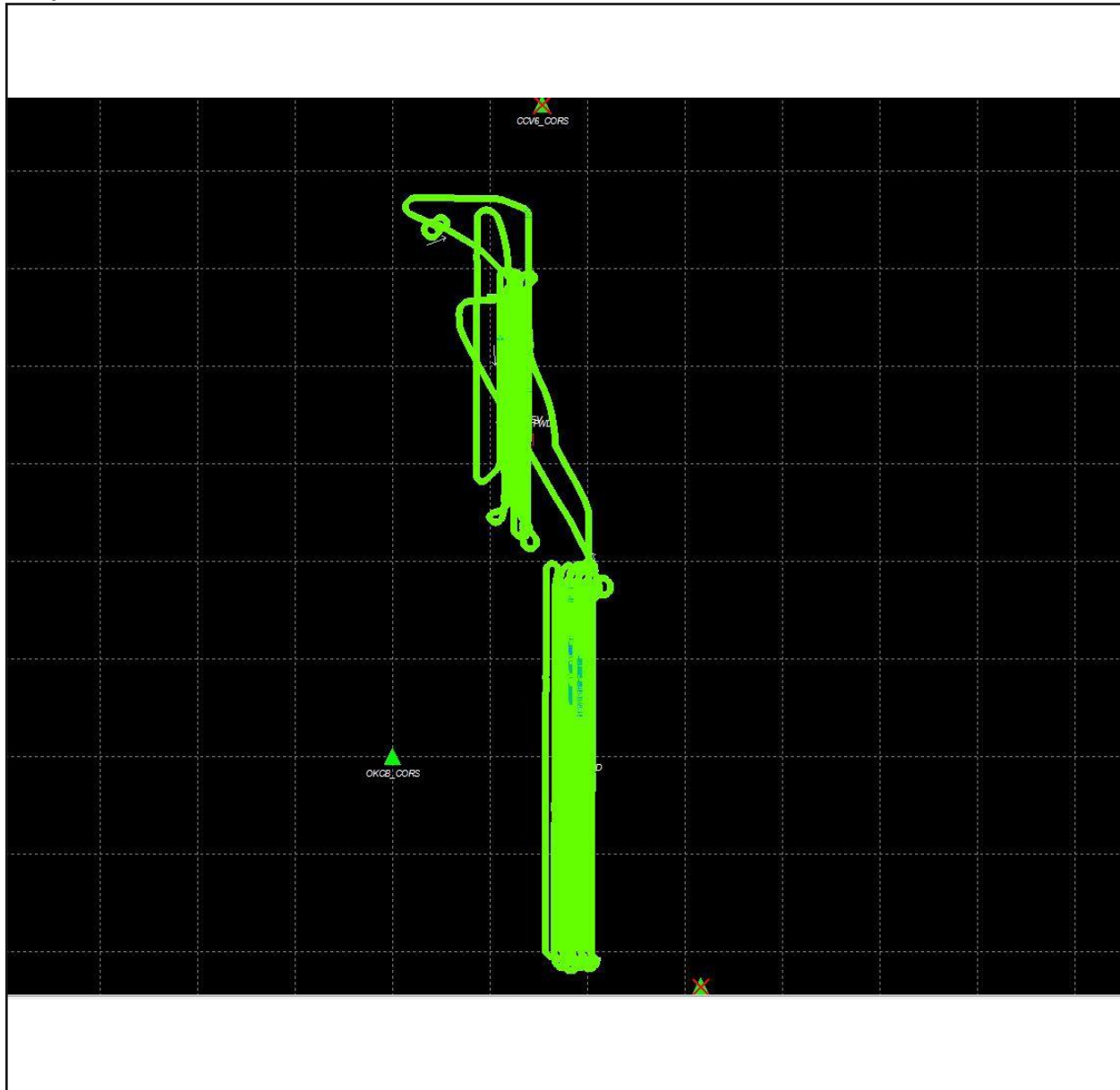
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
Tested ADS Camera while in air, just to make sure with would fully boot.							

Day05919_TM515

Base Station Coordinates

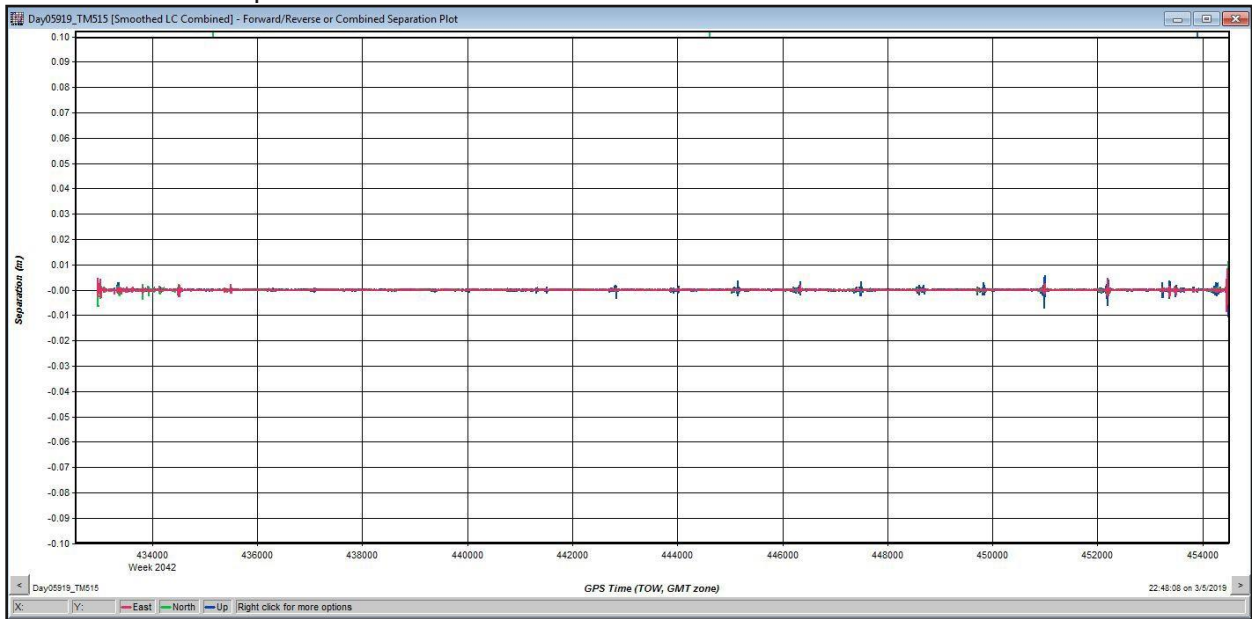
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory



Day05919_TM515

Combined Separation Plot

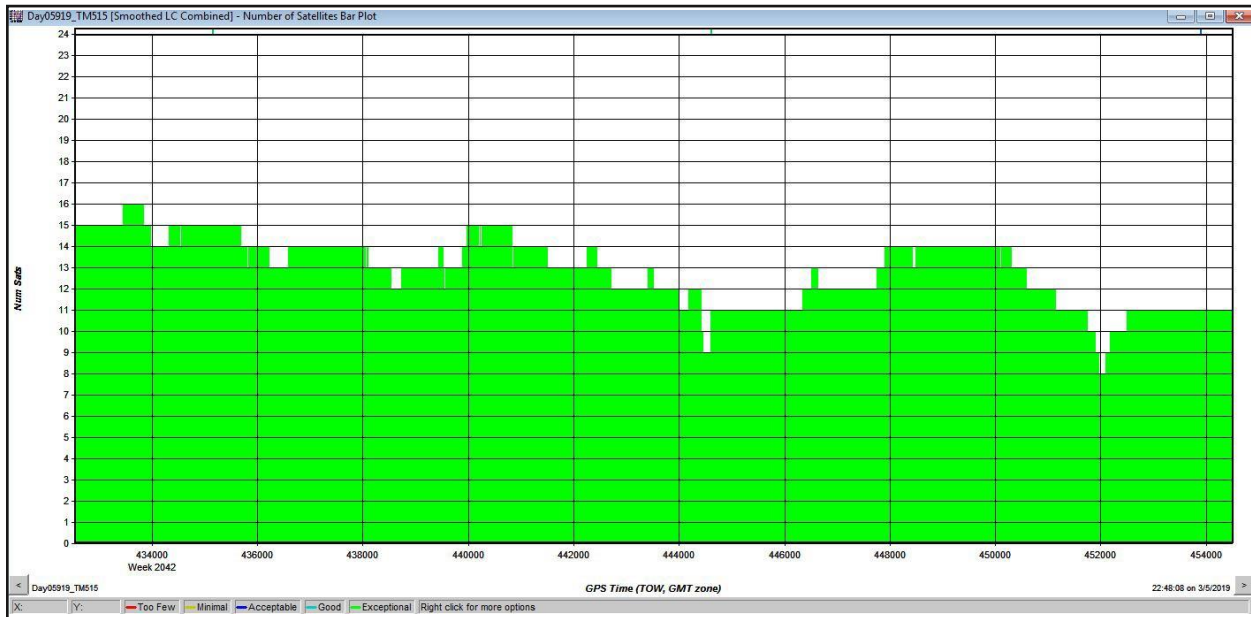


Estimated Position Accuracy Plot



Day05919_TM515

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date		
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 4		Day059_90515			02/28/2019	059	
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Oleary	406SD			110.7	07:17:00	00:17:00	MLB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Nardone	Leica Terrain Mapper - 90515			116	01:12:00	06:12:00	MLB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
70	6	10	10,000	Clear	20	16	30.07	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900	5,900	97				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35	10	40		150	1550	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
29	S	00:45:00	00:56:00	00:11:00	20	2.2		
28	N	01:00:00	01:10:00	00:10:00	18	1.3		
27	S	01:13:00	01:22:00	00:09:00	19	1.3		
26	N	01:26:00	01:35:00	00:09:00	21	1.2		
25	S	01:38:00	01:48:00	00:10:00	22	1.1		
24	N	01:51:00	02:00:00	00:09:00	20	1.1		
23	S	02:04:00	02:11:00	00:07:00	20	1.1		
18	N	02:14:00	02:25:00	00:11:00	19	1.2		

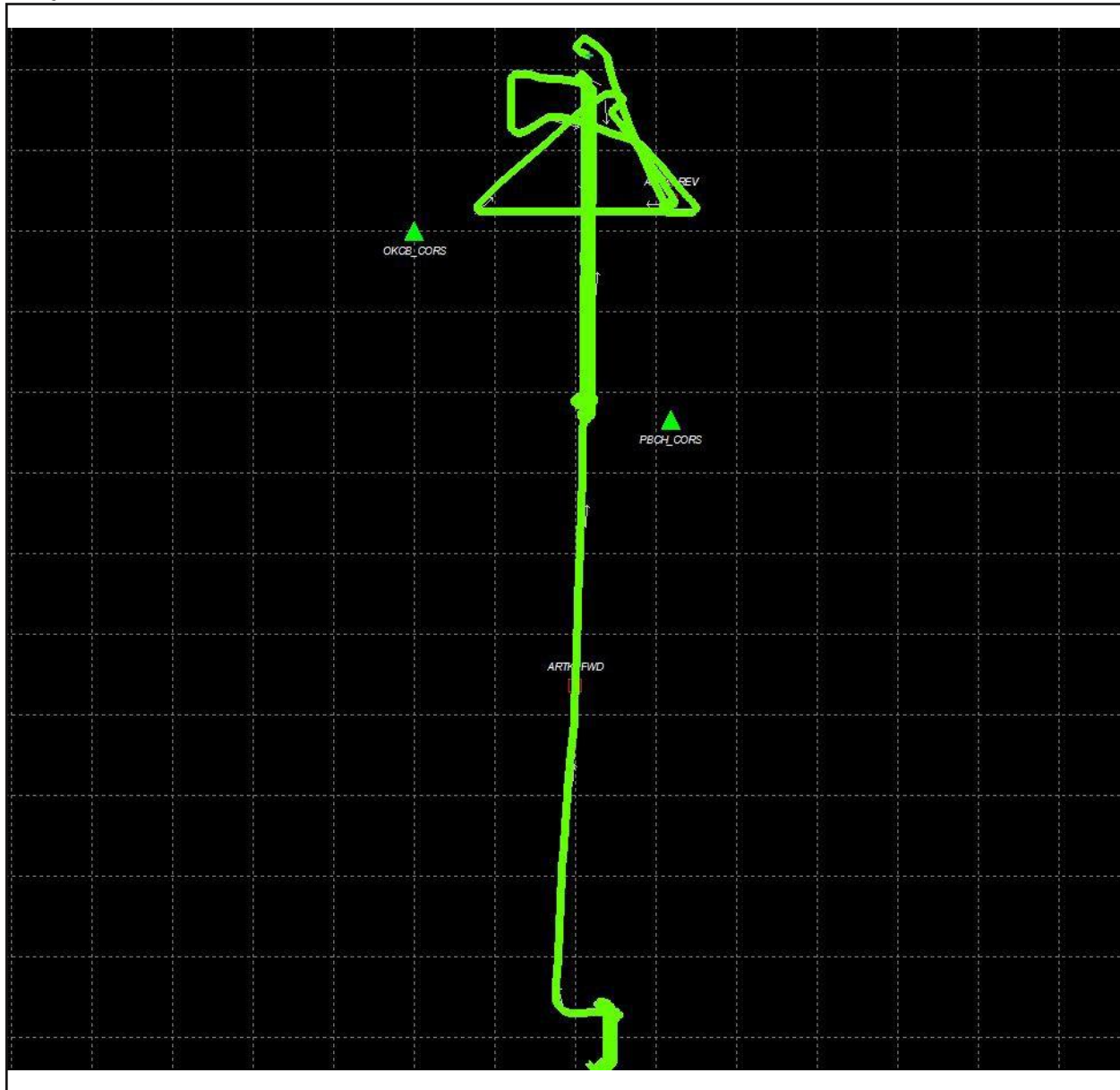
Page 1	Verify S-Turns After Mission
Additional Comments	

Day06119_TM511

Base Station Coordinates

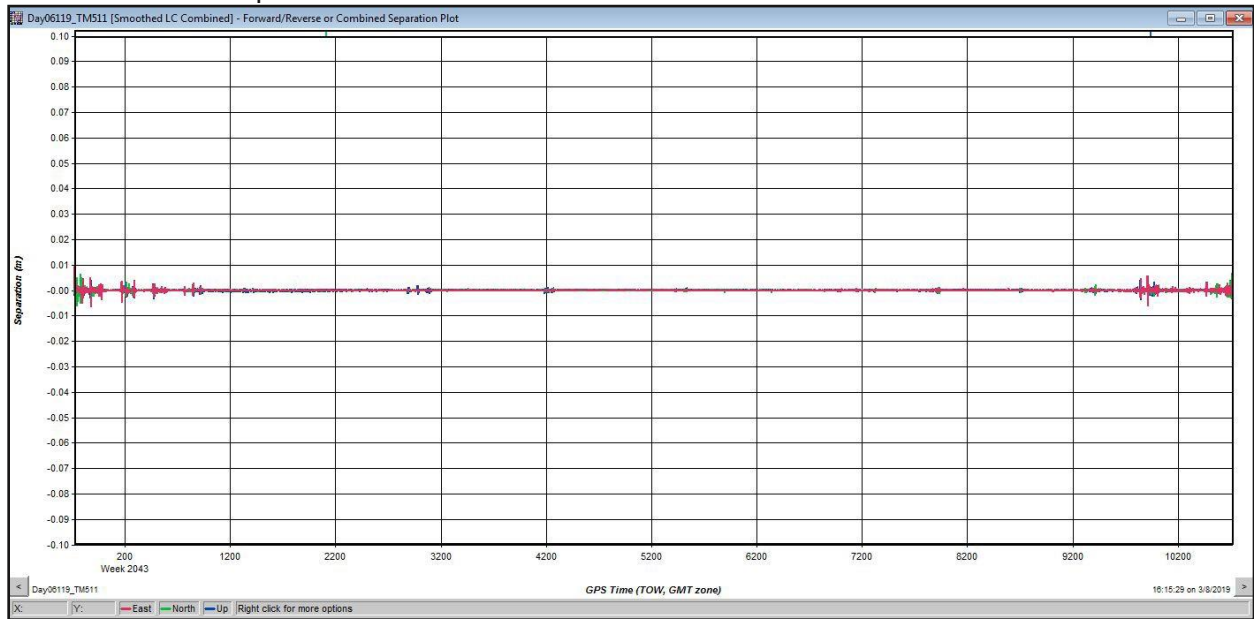
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)
PBCH_CORS	ENABLED	26° 50' 46.63807"	-80° 13' 09.29993"	-15.179 m (ELLIPSOIDAL)

Trajectory



Day06119_TM511

Combined Separation Plot

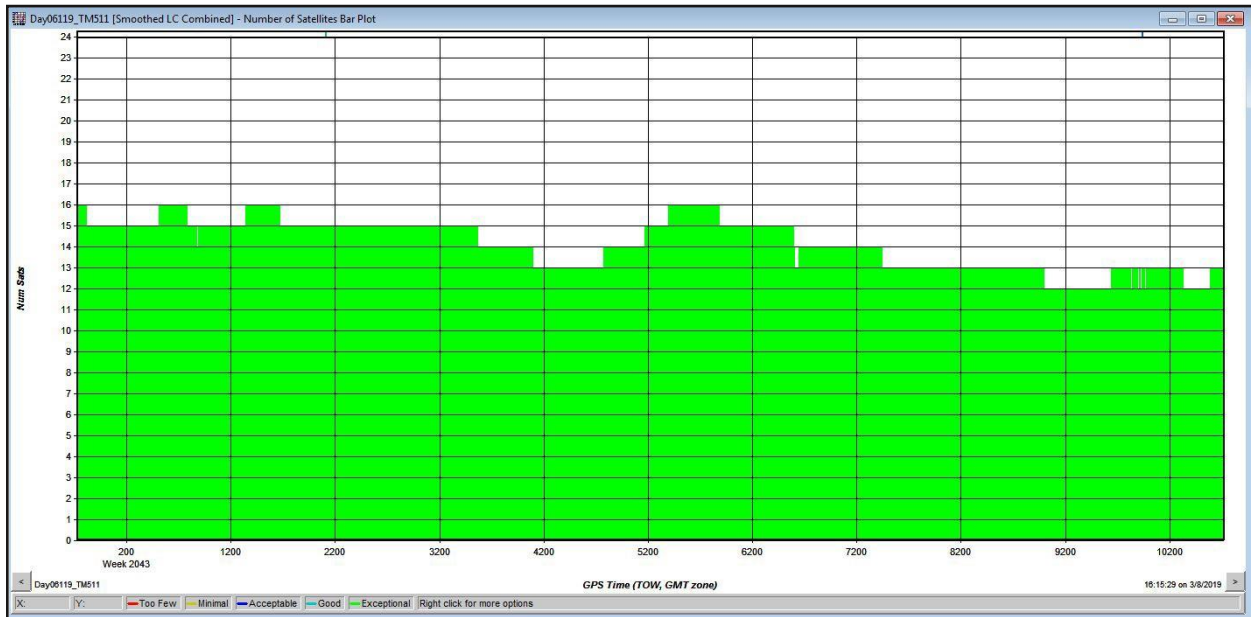


Estimated Position Accuracy Plot

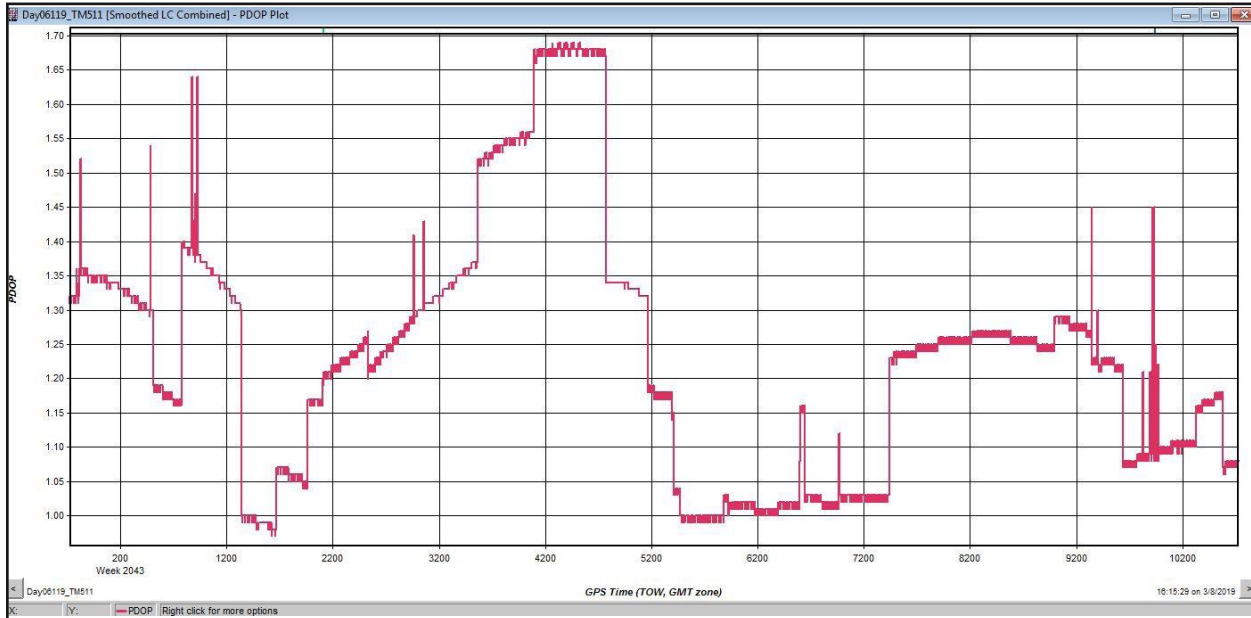


Day06119_TM511

Number of Satellites Bar Plot

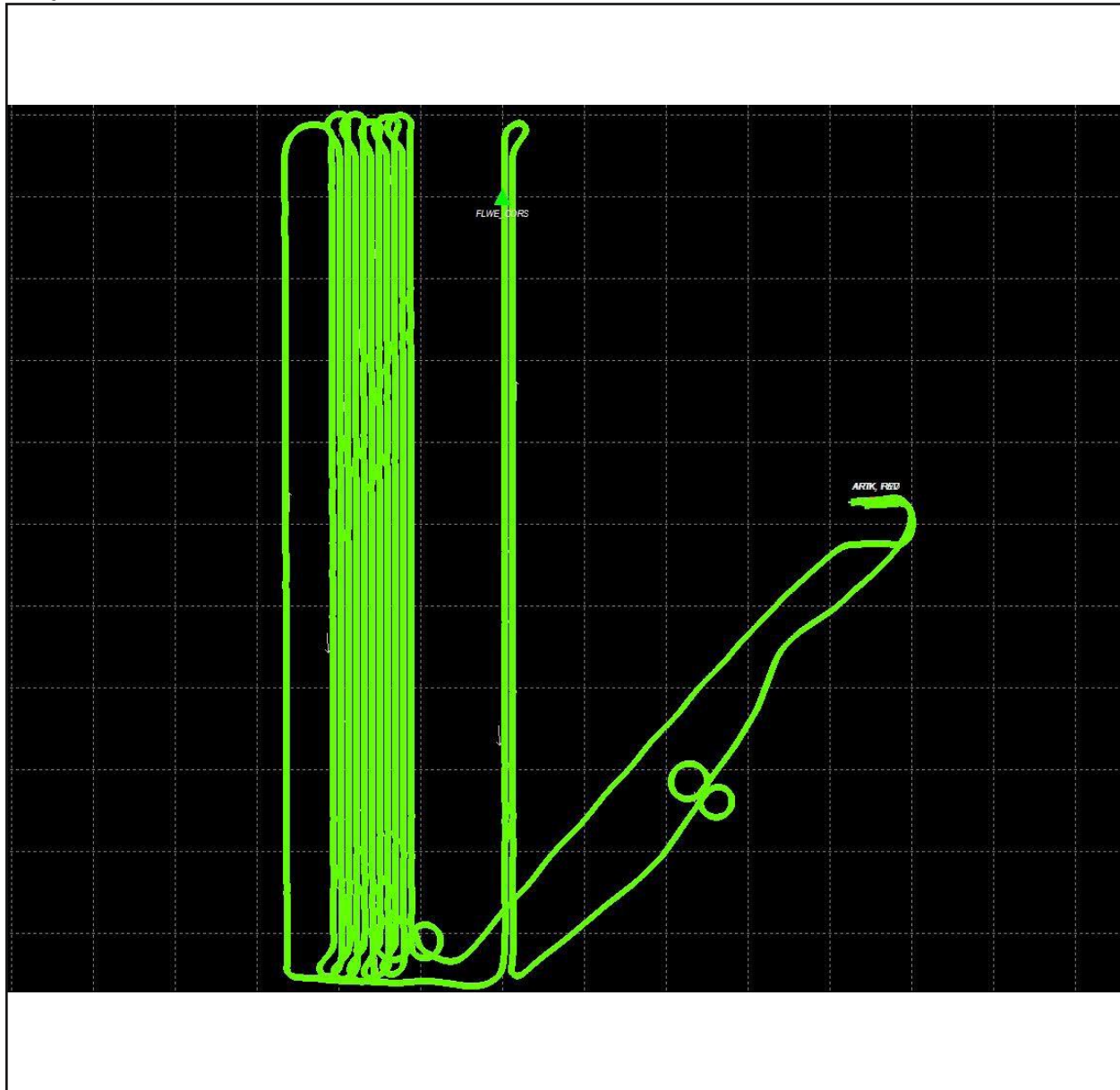


PDOP Plot



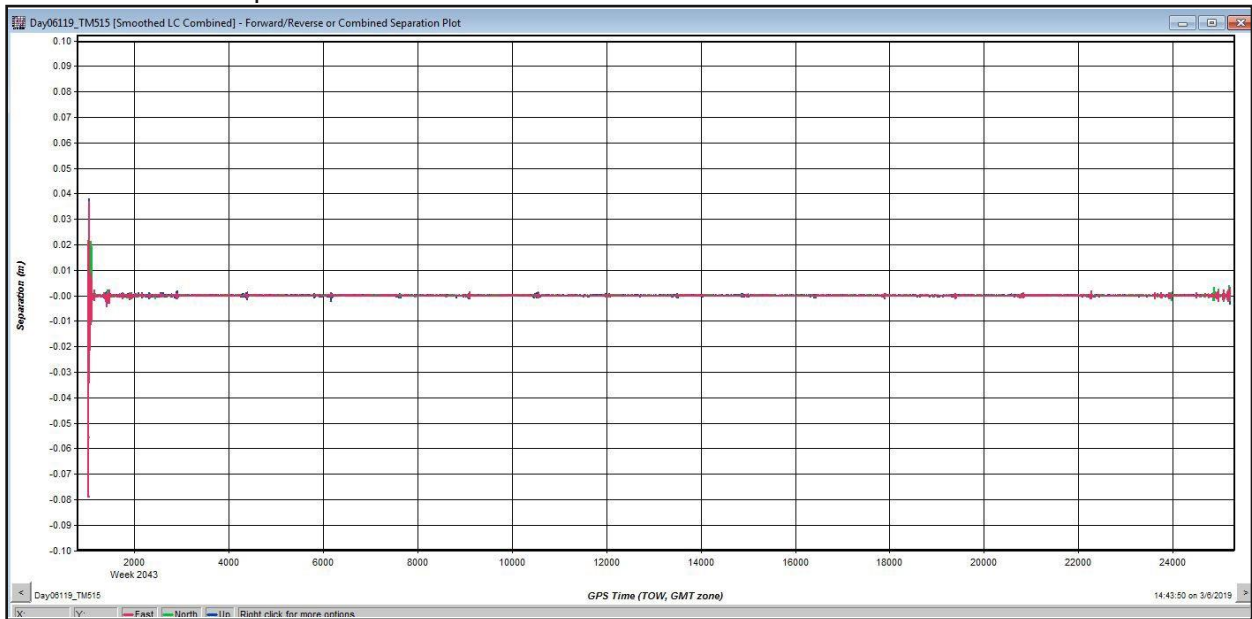
Woolpert Lidar Acquisition Log

Trajectory



Day06119_TM515

Combined Separation Plot

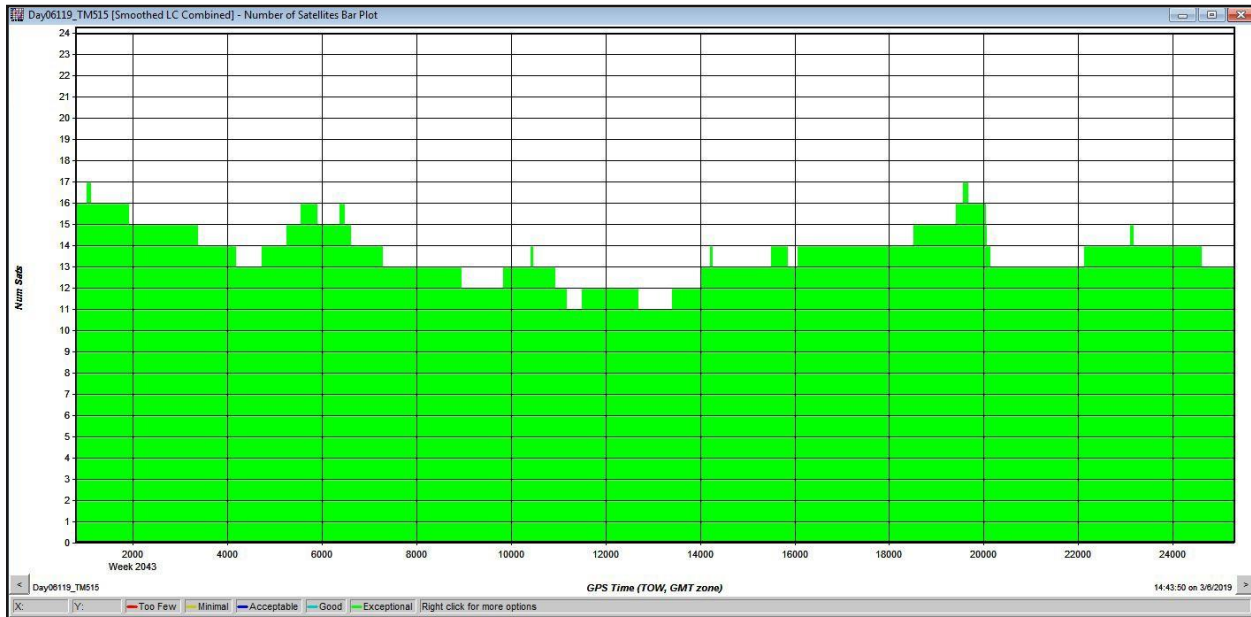


Estimated Position Accuracy Plot

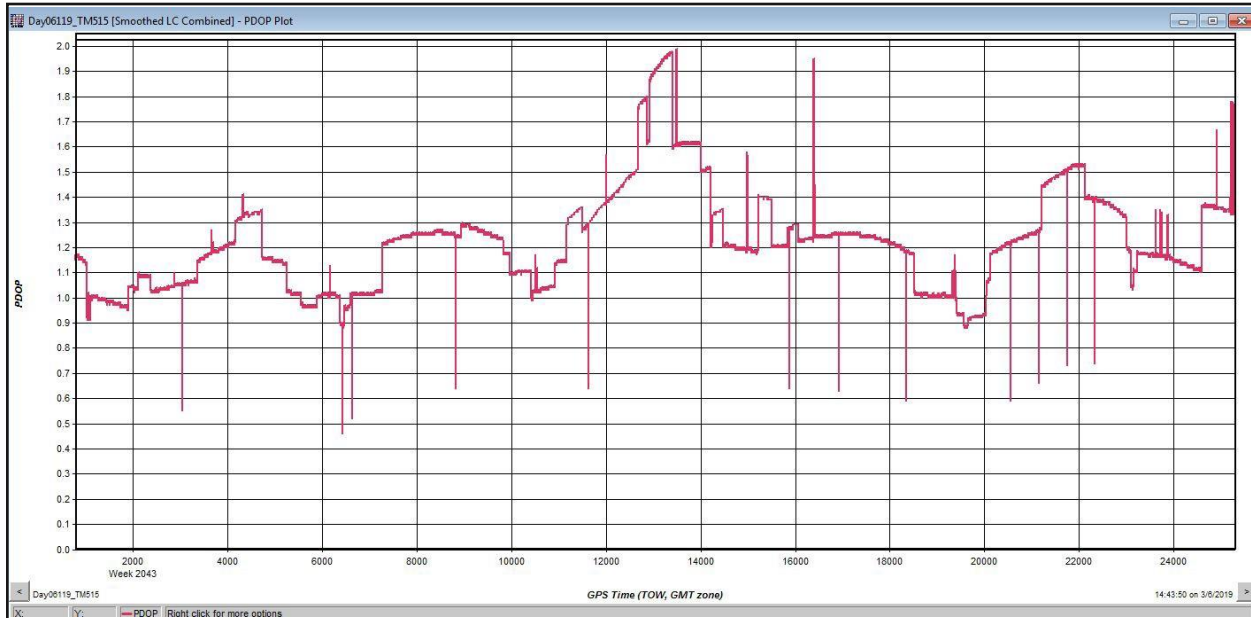


Day06119_TM515

Number of Satellites Bar Plot



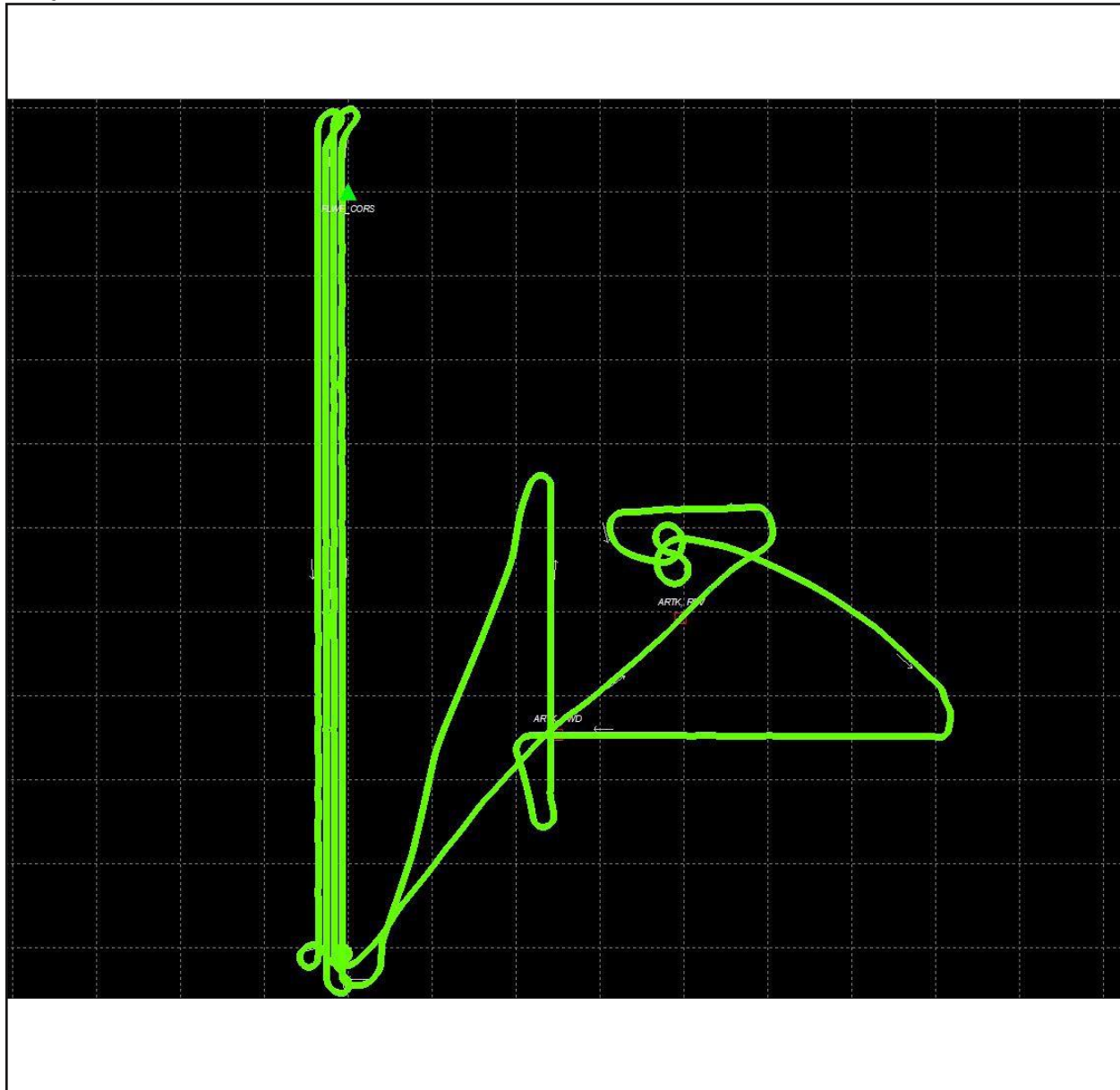
PDOP Plot



Woolpert Lidar Acquisition Log

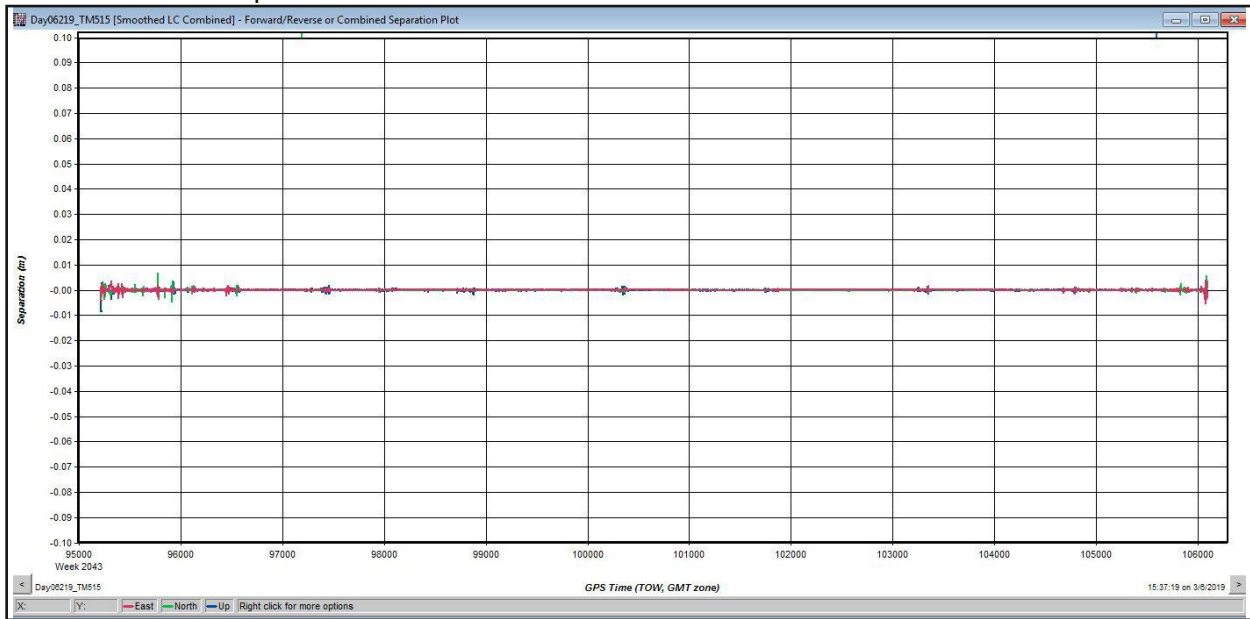
Project Info						Date		
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 3		Day061_90515			03/02/2019	061	
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Oleary	406SD			116	07:23:00	00:23:00	MLB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Nardone	Leica Terrain Mapper - 90515			123.8	01:56:00	06:56:00	MLB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
150	7	10	6,500	Broken	25	19	30.07	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900	5,900	33				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35	10	40		150	1550	100		
						Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
63	N	00:49:00	01:11:00	00:22:00	18	1.6		
62	S	01:14:00	01:35:00	00:21:00	22	1.1	clouds 80-95 km in	
34	N	01:43:00	02:05:00	00:22:00	22	1.1		
40	S	02:08:00	02:29:00	00:21:00	20	1.2		
41	N	02:32:00	02:53:00	00:21:00	18	1.4		
42	S	02:57:00	03:19:00	00:22:00	20	1.1		
43	N	03:22:00	03:43:00	00:21:00	18	1.3		
44	S	03:46:00	04:07:00	00:21:00	18	1.4		
45	N	04:10:00	04:32:00	00:22:00	20	1.2		
46	S	04:34:00	04:56:00	00:22:00	17	1.4		
47	N	04:59:00	05:21:00	00:22:00	17	1.3		
48	S	05:24:00	05:45:00	00:21:00	20	1.1		
49	N	05:48:00	06:09:00	00:21:00	20	1.1		
50	S	06:12:00	06:33:00	00:21:00	17	1.6		
								Maint hobbs: 5131.8

Trajectory

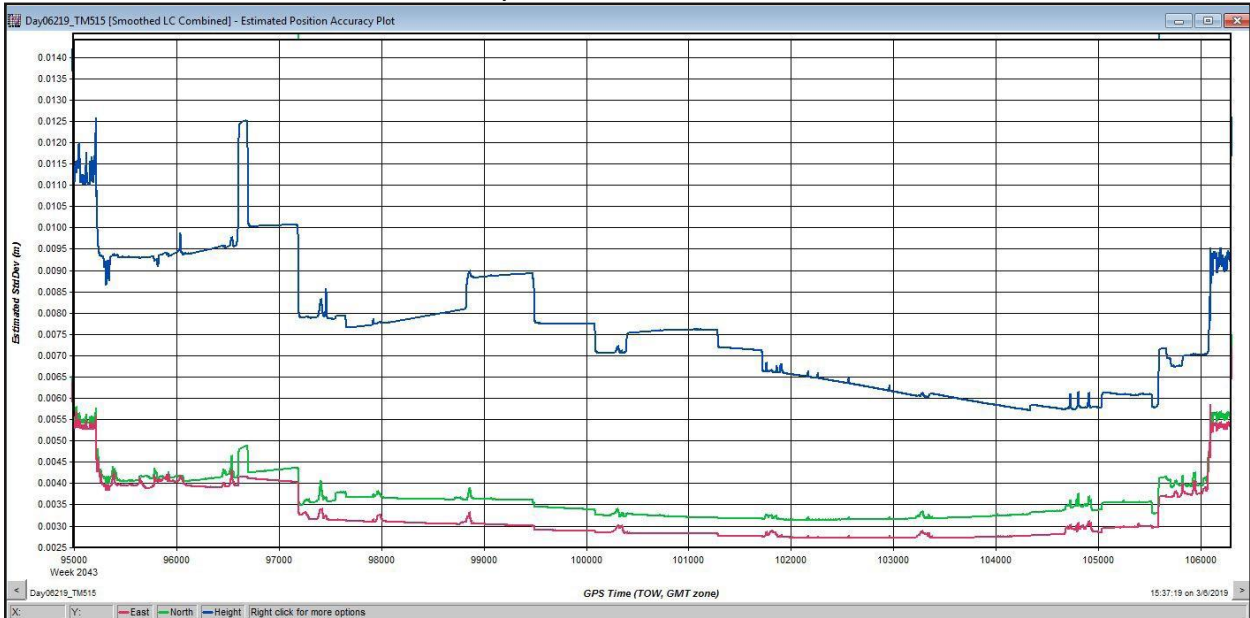


Day06219_TM515

Combined Separation Plot

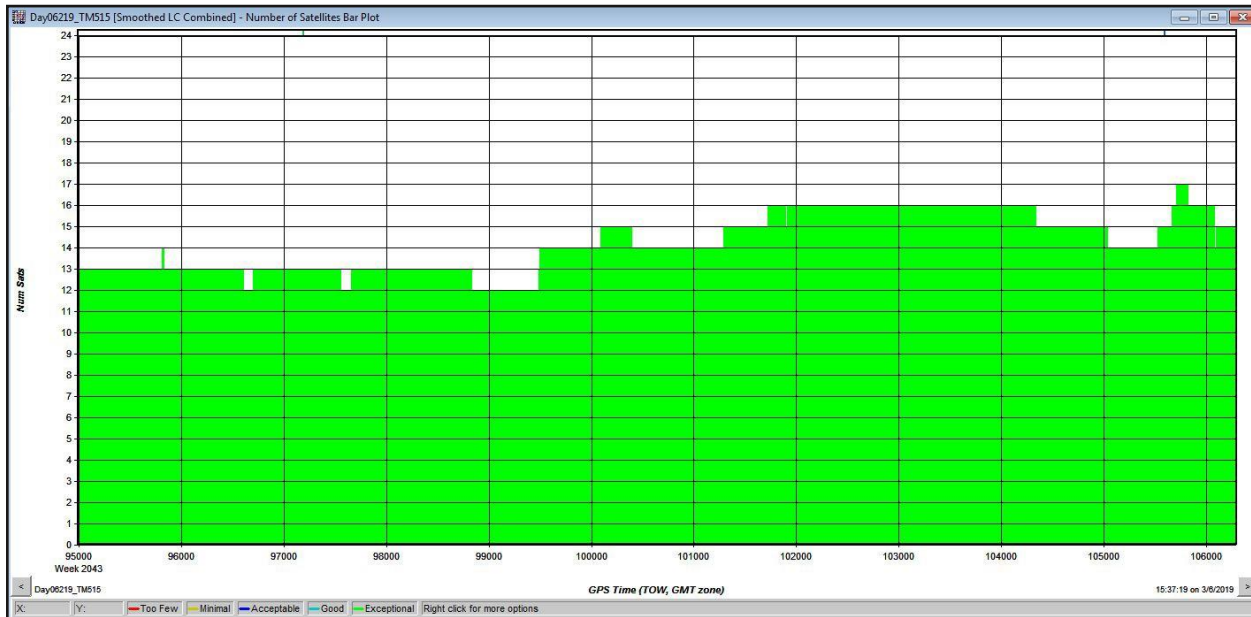


Estimated Position Accuracy Plot

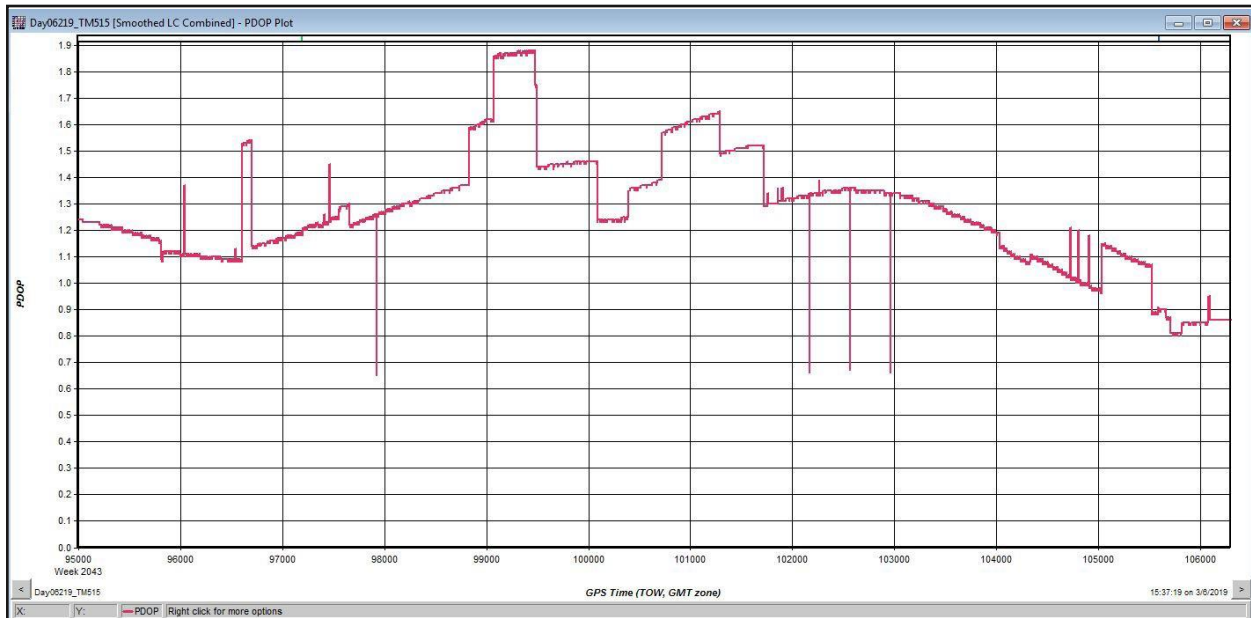


Day06219_TM515

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info					Date			
Project #	Project Name		Unique ID		Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 3 & 4		Day062_90515		03/03/2019	062		
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Oleary	406SD			123.7	09:30:00	02:30:00	MLB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Nardone	Leica Terrain Mapper - 90515			127.2	12:25:00	05:25:00	MLB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
230	7	10	10,000	Clear	25	17	29.92	
Air Speed (kts)	Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)				
140	5,900		5,900	33				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
0.35	10	40		150	1550	100		
					Verify S-Turns Before Mission		Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
56	W	02:49:00	03:00:00	00:11:00	22	1.3	Block 4	
1	N	03:04:00	03:12:00	00:08:00	23	1.2		
61	N	03:28:00	03:50:00	00:22:00	22	1.4	Block 3	
60	S	03:53:00	04:15:00	00:22:00	23	1.2		
59	N	04:18:00	04:40:00	00:22:00	21	1.5		
58	S	04:43:00	05:05:00	00:22:00	19	1.5	Unknown if cloud were on this line	
							Maint Hobbs: 5134.8	

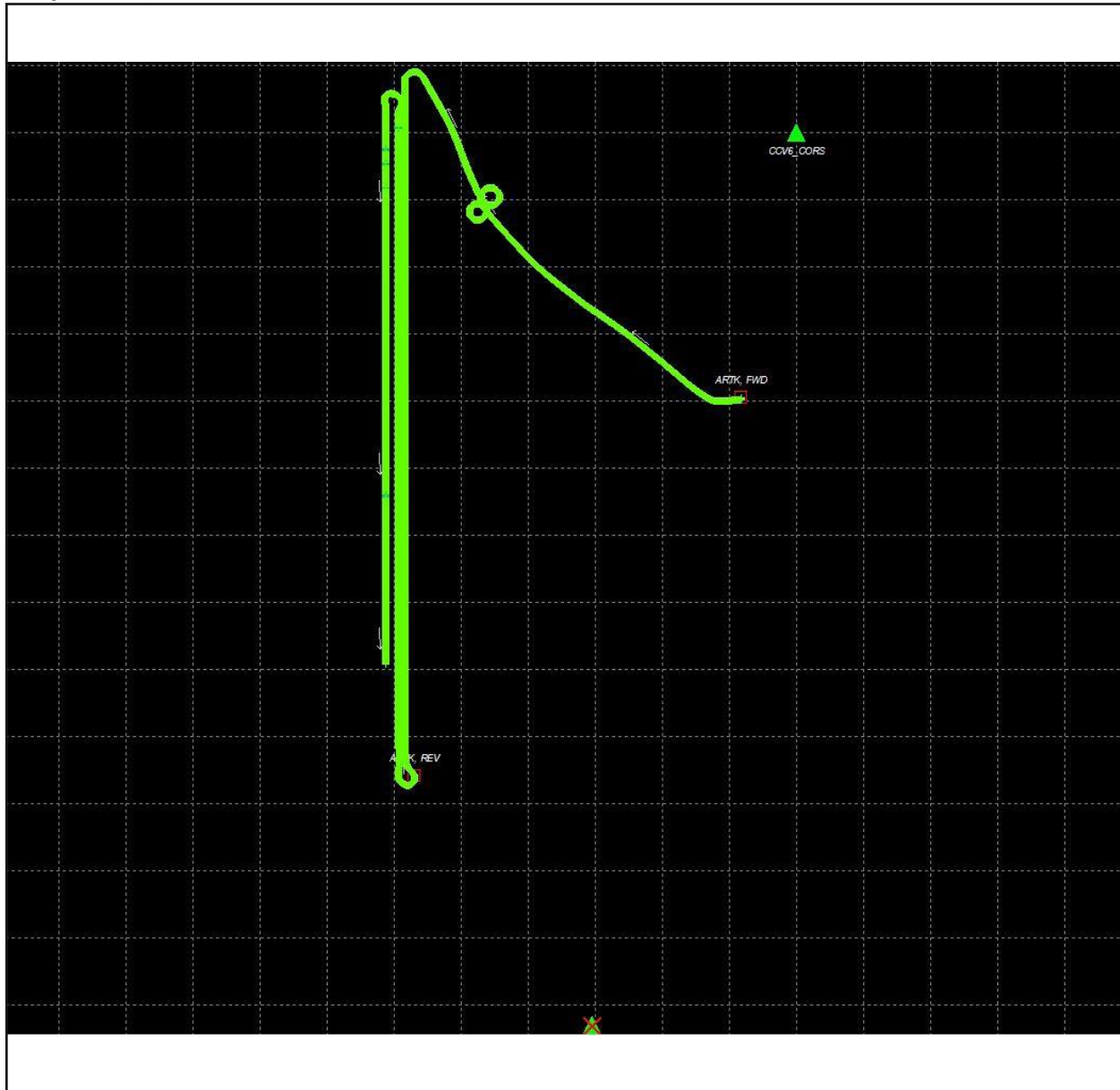
Page 1						Verify S-Turns After Mission	
Additional Comments							

Day06719_TM515_A

Base Station Coordinates

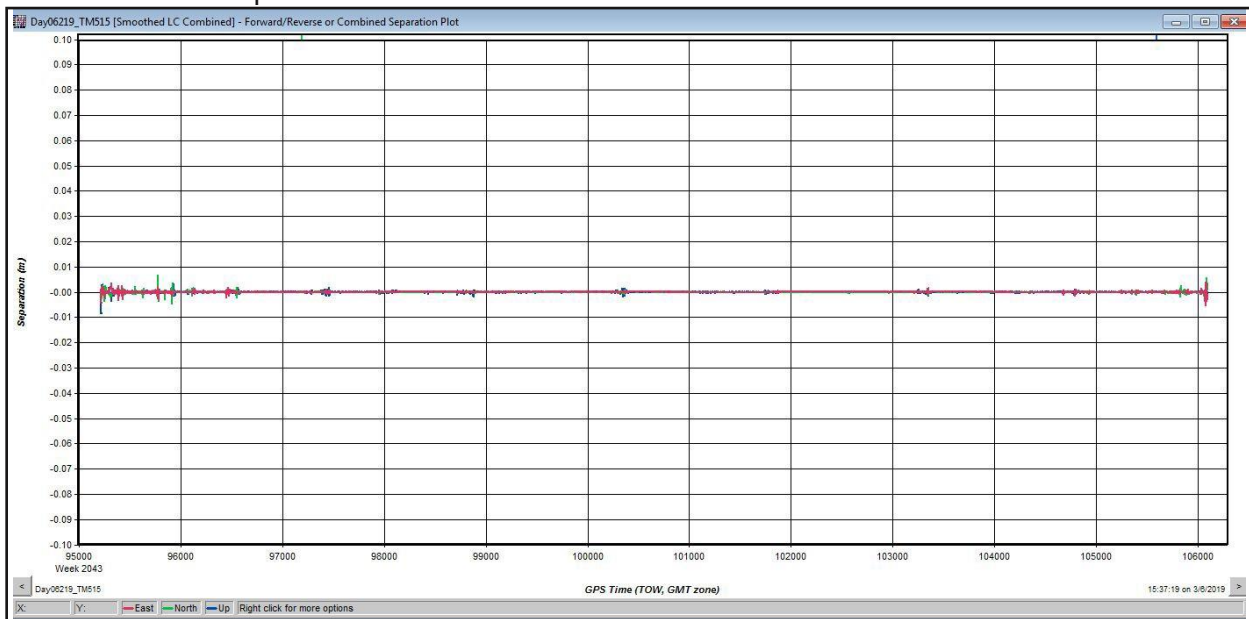
Name	Status	Latitude	Longitude	Height
CCV6_CORS	ENABLED	28° 27' 35.82726"	-80° 32' 43.70265"	-22.632 m (ELLIPSOIDAL)

Trajectory

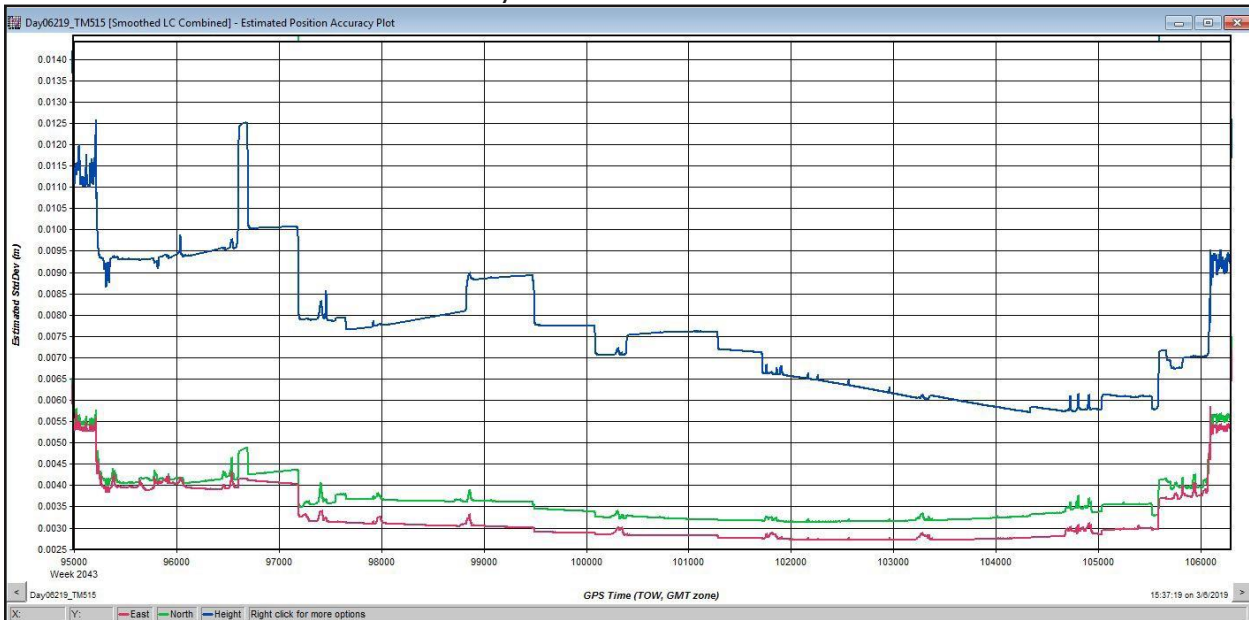


Day06719_TM515_A

Combined Separation Plot

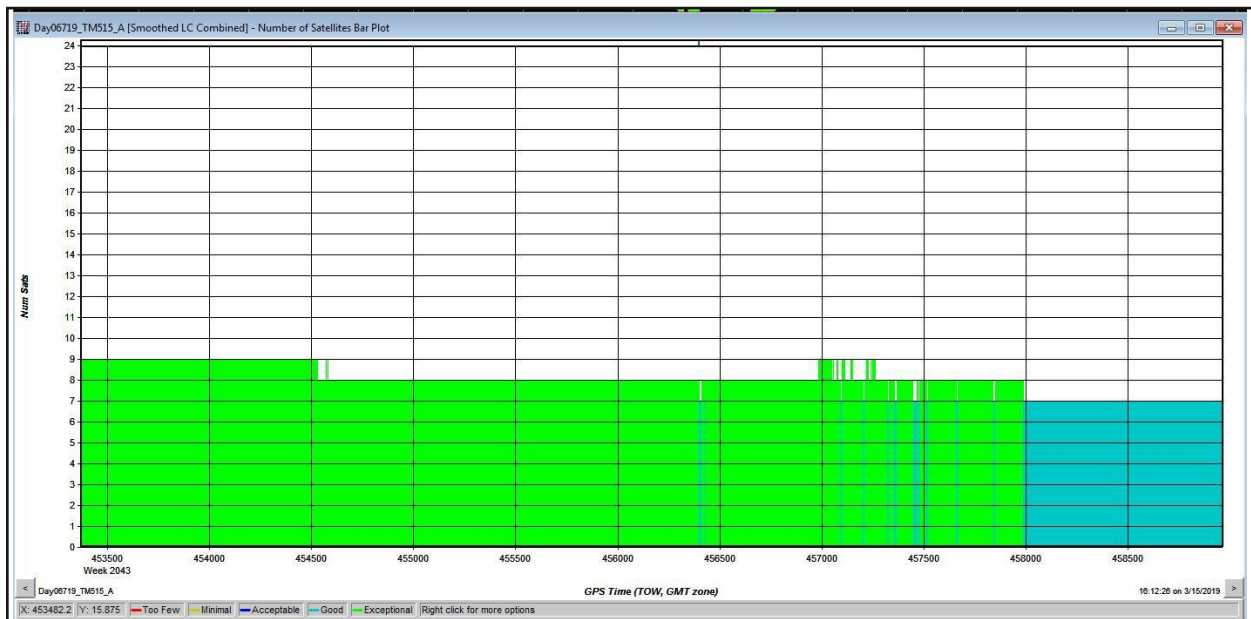


Estimated Position Accuracy Plot

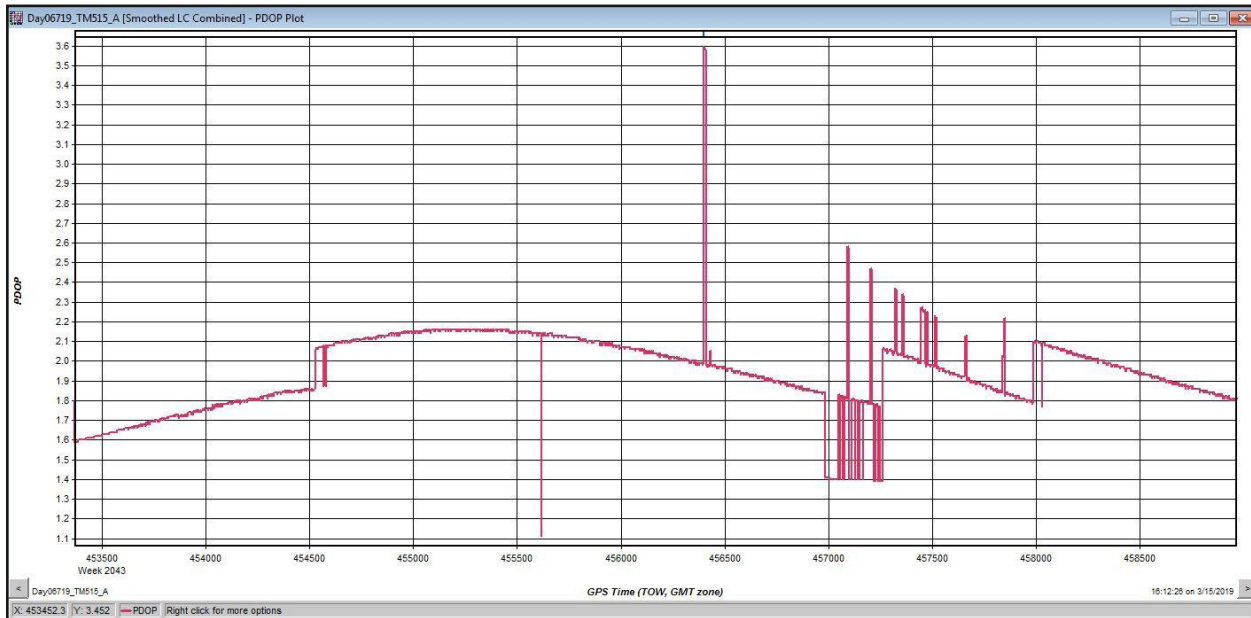


Day06719_TM515_A

Number of Satellites Bar Plot



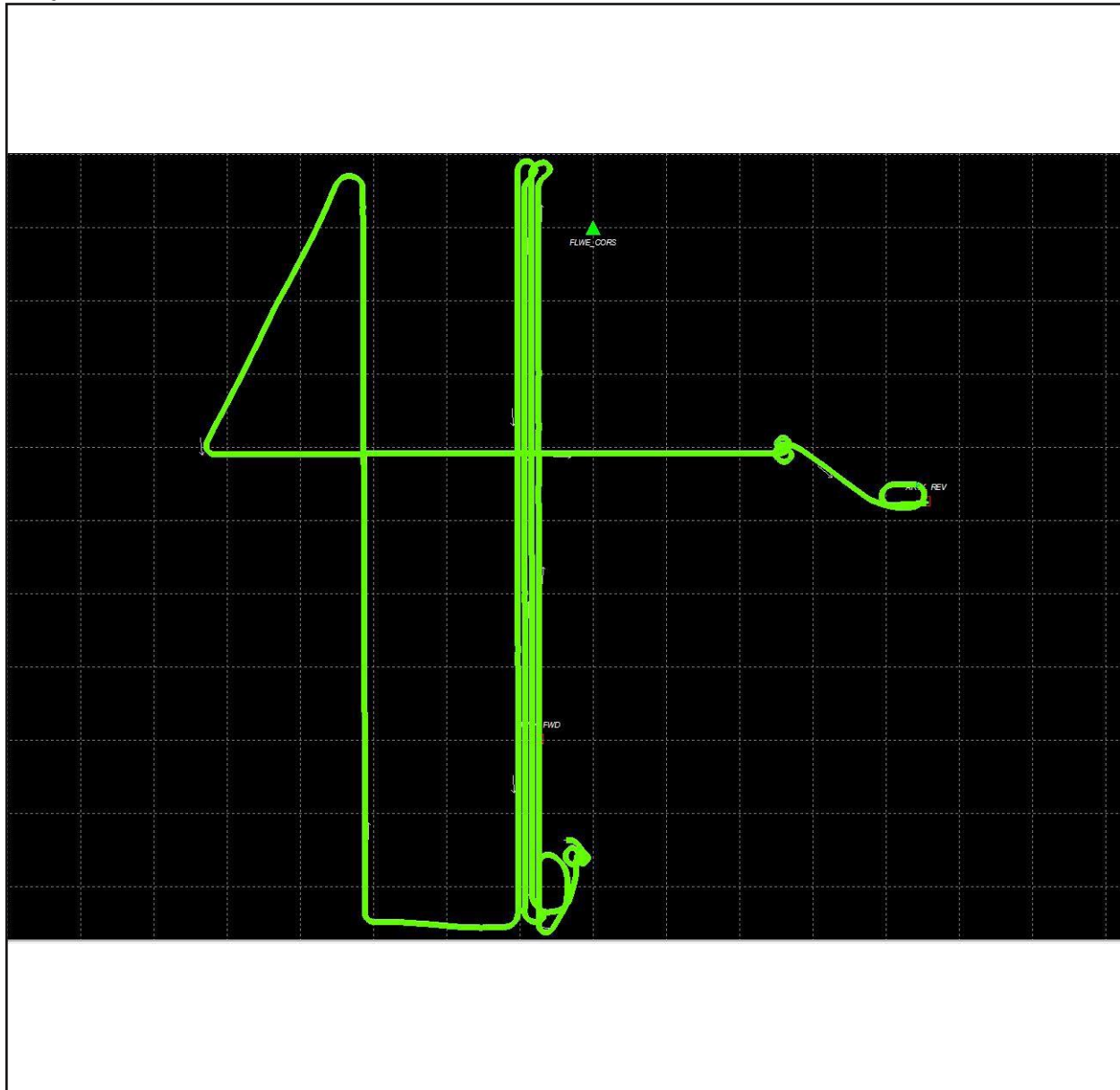
PDOP Plot



Woolpert Lidar Acquisition Log

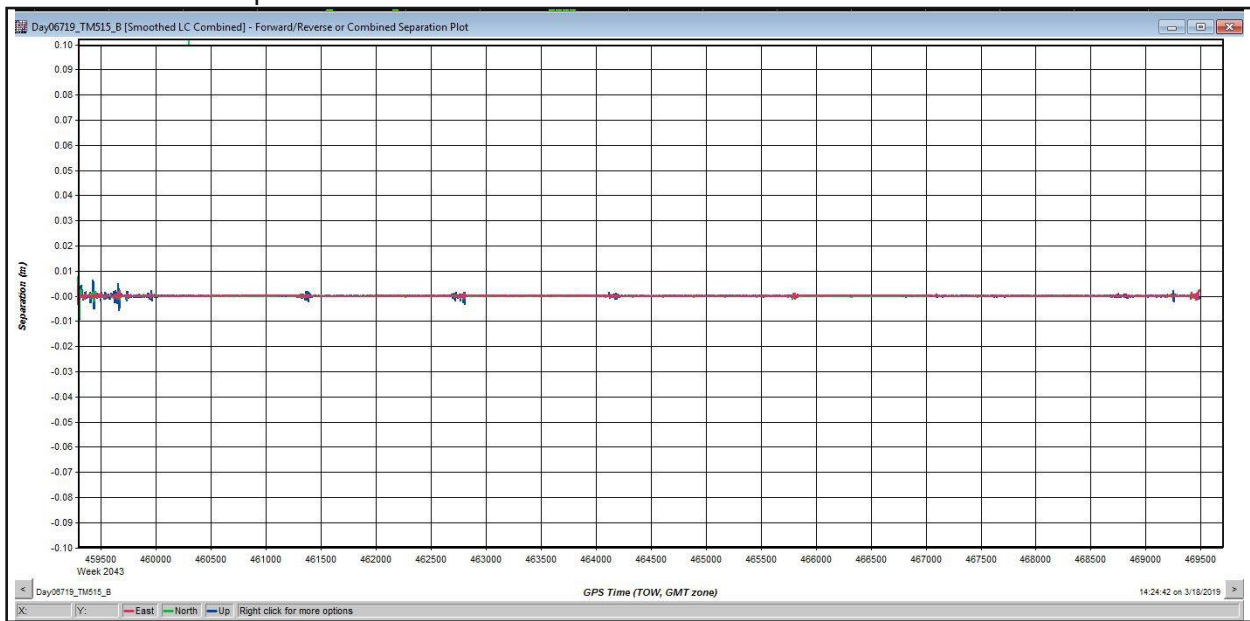
Project Info						Date		
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - BLOCK 3		Day067_90515_010/011			03/08/2019	067	010/011
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Swain	Reims 406 - N406SD			140	12:55:00	05:55:00	MLB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90515			144.7	05:28:00	10:28:00	MLB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
130	3	10		Clear	14	10	30.26	
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)			
140		5,900		5,900	33			
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1550	100		
							Verify S-Turns Before Mission	Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
								Line Notes/Comments
57	S	06:24:00	06:45:00	00:21:00	19	1.5		
56	N	06:48:00	07:09:00	00:21:00	18	1.9		
54	S	07:11:00			17	1.3	TEM FROZE-PAExec Stopped Working Windows E	
54	N	07:46:00	08:07:00	00:21:00	17	1.2	7:34 UTC System Back On	
53	S	08:10:00	08:31:00	00:21:00	16	1.3	Pushed by Crosswind	
52	N	08:33:00	08:54:00	00:21:00	16	1.3		
51	S	08:57:00	09:17:00	00:20:00	18	1.2		
29	N	09:24:00	09:45:00	00:21:00	20	1.3		
87	E	09:55:00	10:10:00	00:15:00	19	1.1		

Trajectory

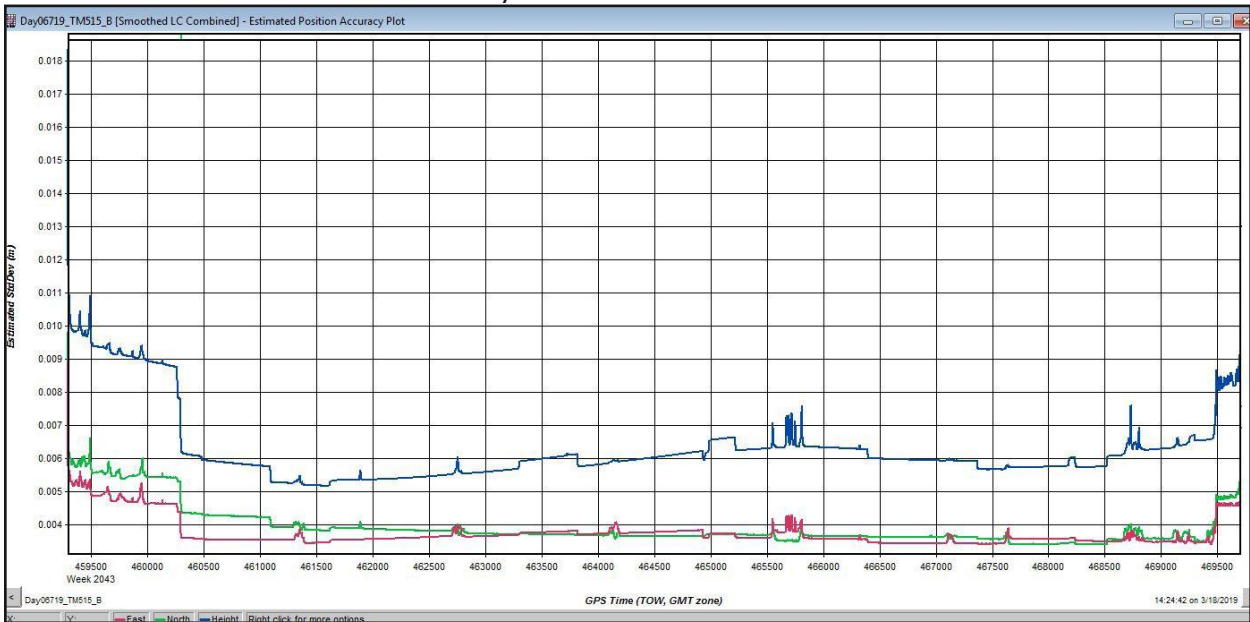


Day06719_TM515_B

Combined Separation Plot

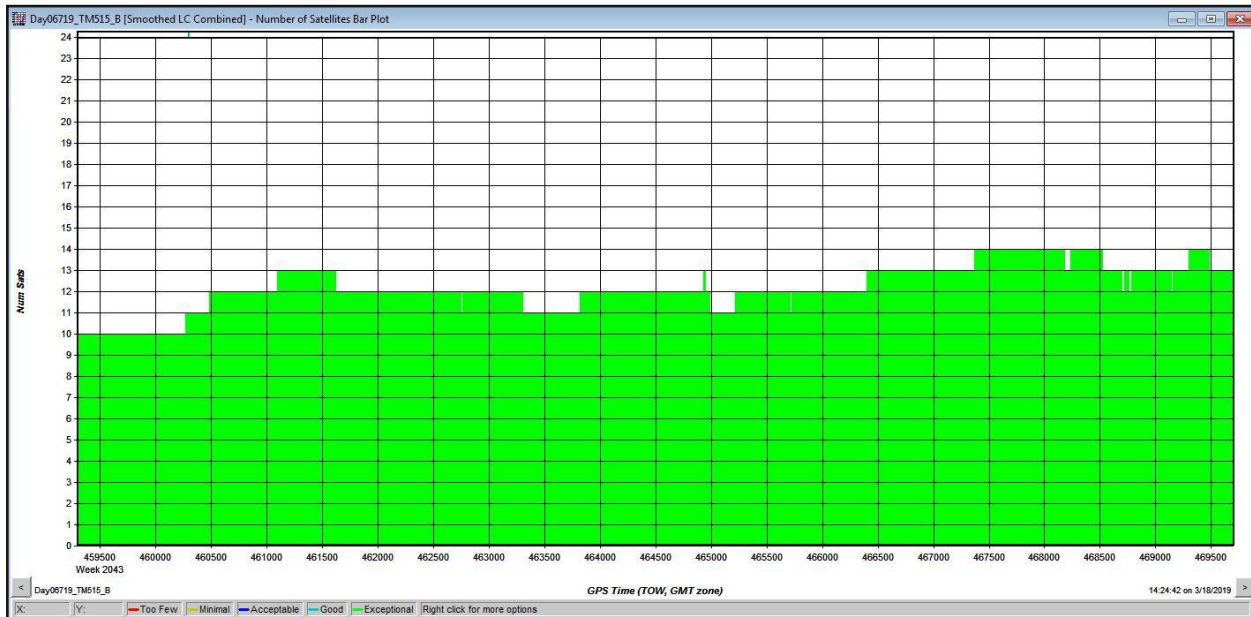


Estimated Position Accuracy Plot

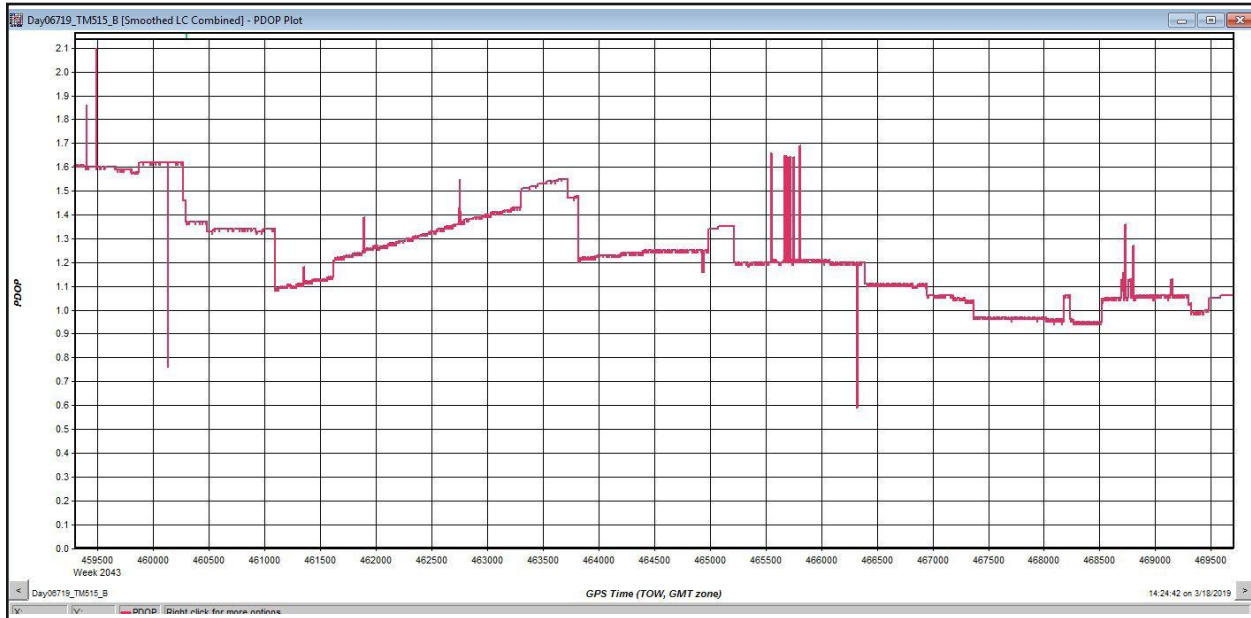


Day06719_TM515_B

Number of Satellites Bar Plot



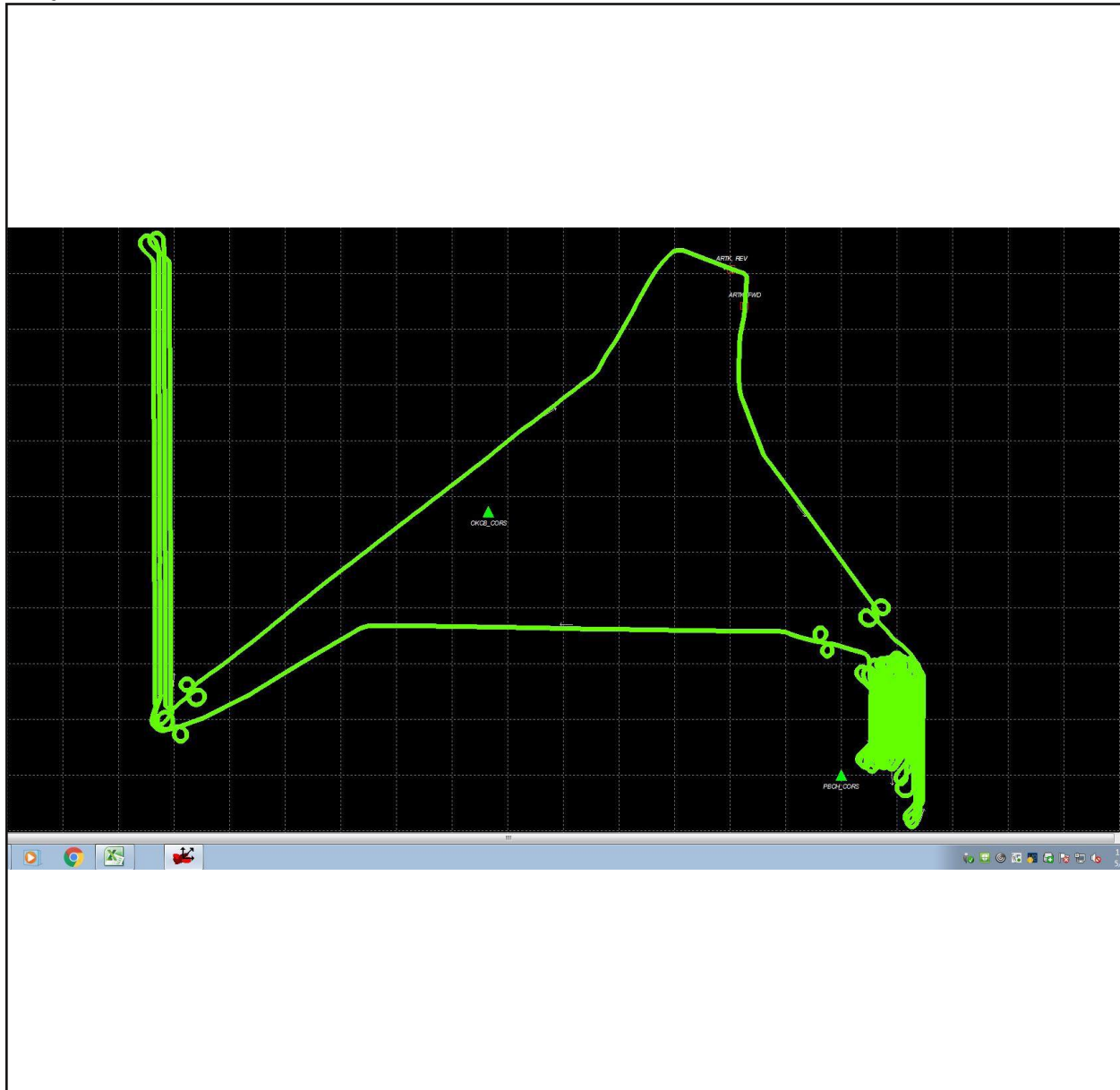
PDOP Plot



Woolpert Lidar Acquisition Log

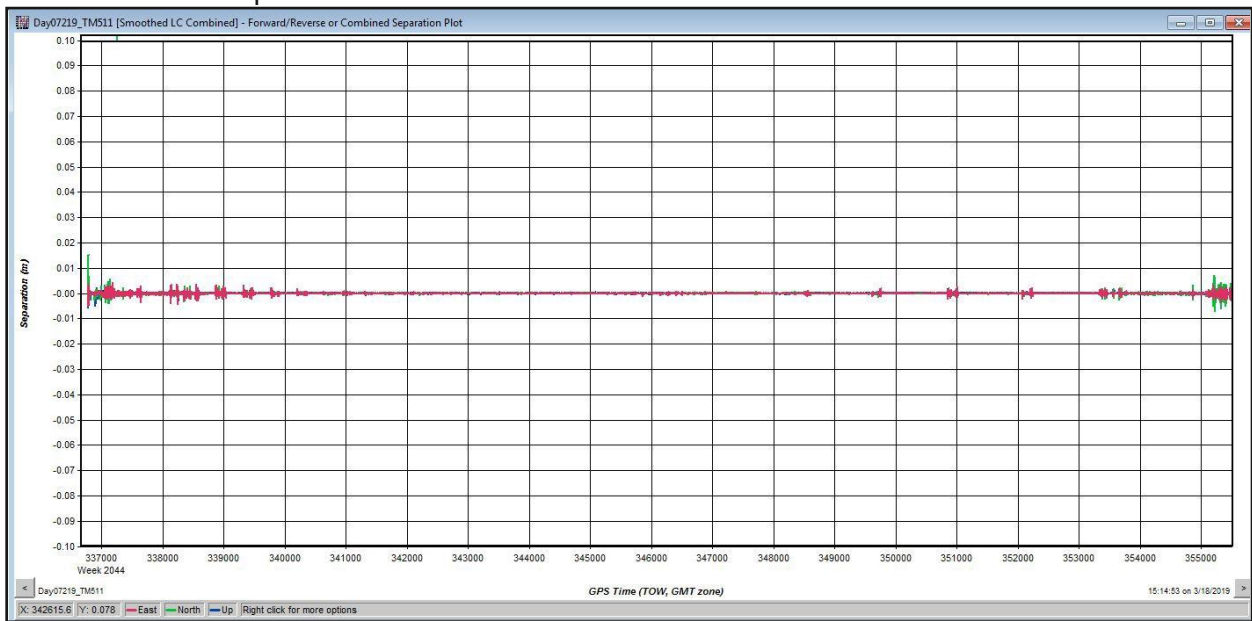
Project Info						Date		
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - BLOCK 3		Day067_90515_010/011			03/08/2019	067	010/011
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Swain	Reims 406 - N406SD			140	12:55:00	05:55:00	MLB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90515			144.7	05:28:00	10:28:00	MLB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
130	3	10		Clear	14	10	30.26	
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)			
140		5,900		5,900	33			
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1550	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
								Line Notes/Comments
57	S	06:24:00	06:45:00	00:21:00	19	1.5		
56	N	06:48:00	07:09:00	00:21:00	18	1.9		
54	S	07:11:00			17	1.3	TEM FROZE-PAExec Stopped Working Windows E	
54	N	07:46:00	08:07:00	00:21:00	17	1.2	7:34 UTC System Back On	
53	S	08:10:00	08:31:00	00:21:00	16	1.3	Pushed by Crosswind	
52	N	08:33:00	08:54:00	00:21:00	16	1.3		
51	S	08:57:00	09:17:00	00:20:00	18	1.2		
29	N	09:24:00	09:45:00	00:21:00	20	1.3		
87	E	09:55:00	10:10:00	00:15:00	19	1.1		

Trajectory



Day07219_TM511

Combined Separation Plot

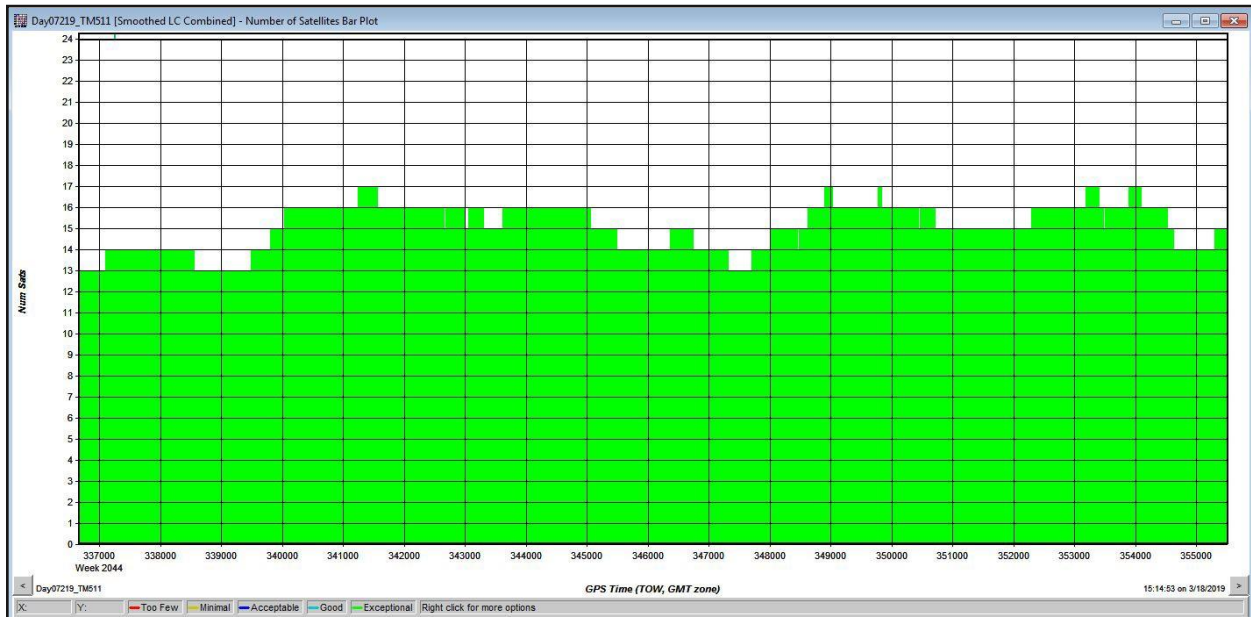


Estimated Position Accuracy Plot

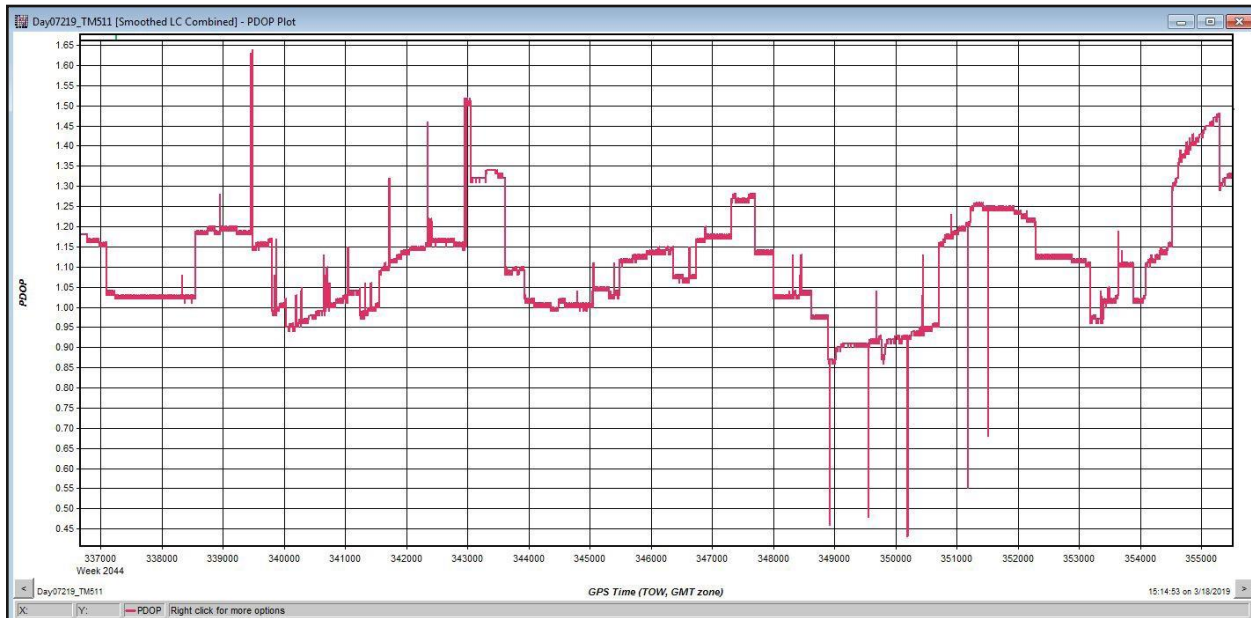


Day07219_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date		
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Blocks 8 & 5			Day072_90511_A			03/13/2019	072	A
Crew		Equipment			Time			Airports	
Pilot		Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Dar Perl		Cessna 404 Titan - N404CP			7047.3	06:03:00	22:03:00	VRB	
Operator		Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
DeHart		Leica Terrain Mapper - 90511			7052.5	10:08:00	02:08:00	VRB	
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
96	18	10	12,000	Scattered	22	17	3007		
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)		Airfield Elevation (ft)			
140		2,500		2,500		17			
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)		Pulse Rate (kHz)	Laser Power (%)		
0.35	10	40		150		1550	100		
							Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff	
Line Notes/Comments									
24	S	22:03:00	22:07:00	00:04:00	20	1	Blk 8		
23	N	22:10:00	22:15:00	00:05:00	21	1			
22	S	22:18:00	22:22:00	00:04:00	20	1.1			
21	N	22:25:00	22:29:00	00:04:00	21	1.1			
20	S	22:32:00	22:37:00	00:05:00	21	1.1			
19	N	22:39:00	22:42:00	00:03:00	20	1.1			
18	S	22:45:00	22:48:00	00:03:00	20	1.2			
17	N	22:51:00	22:53:00	00:02:00	20	1.2			
16	S	22:56:00	22:59:00	00:03:00	20	1.2			
15	N	23:02:00	23:04:00	00:02:00	20	1.2			
14	S	23:07:00	23:09:00	00:02:00	21	1.1			
13	N	21:12:00	23:14:00	02:02:00	20	1.3			
12	S	23:17:00	23:20:00	00:03:00	20	1.1			
11	N	23:22:00	23:24:00	00:02:00	21	1.1			
10	S	23:27:00	23:29:00	00:02:00	20	1.1			

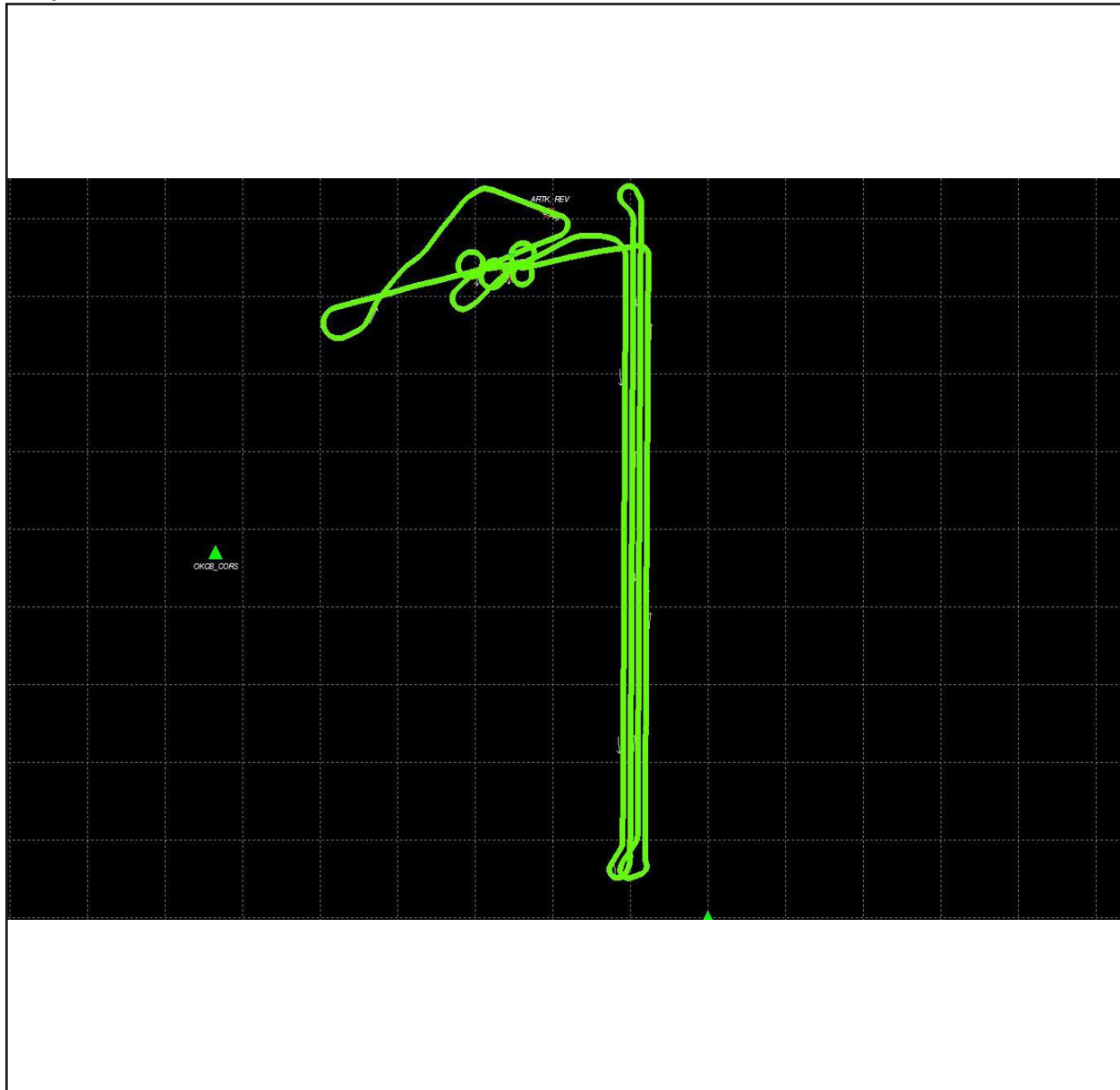
9	N	23:32:00	23:34:00	00:02:00	20	1,2		
8	S	23:37:00	23:39:00	00:02:00	20	1.2		
7	N	23:42:00	23:44:00	00:02:00	20	1.2		
6	S	23:48:00	23:49:00	00:01:00	19	1.2		
5	N	23:53:00	23:54:00	00:01:00	20	1.2		
4	S	23:57:00	23:59:00	00:02:00	20	1.2		
3	N	00:02:00	00:03:00	00:01:00	20	1.2		
2	S	00:07:00	00:08:00	00:01:00	19	1.3		
1	N	00:11:00	00:13:00	00:02:00	19	1.3		
Page 1							Verify S-Turns After Mission	Yes
Additional Comments								

Day07319_TM511

Base Station Coordinates

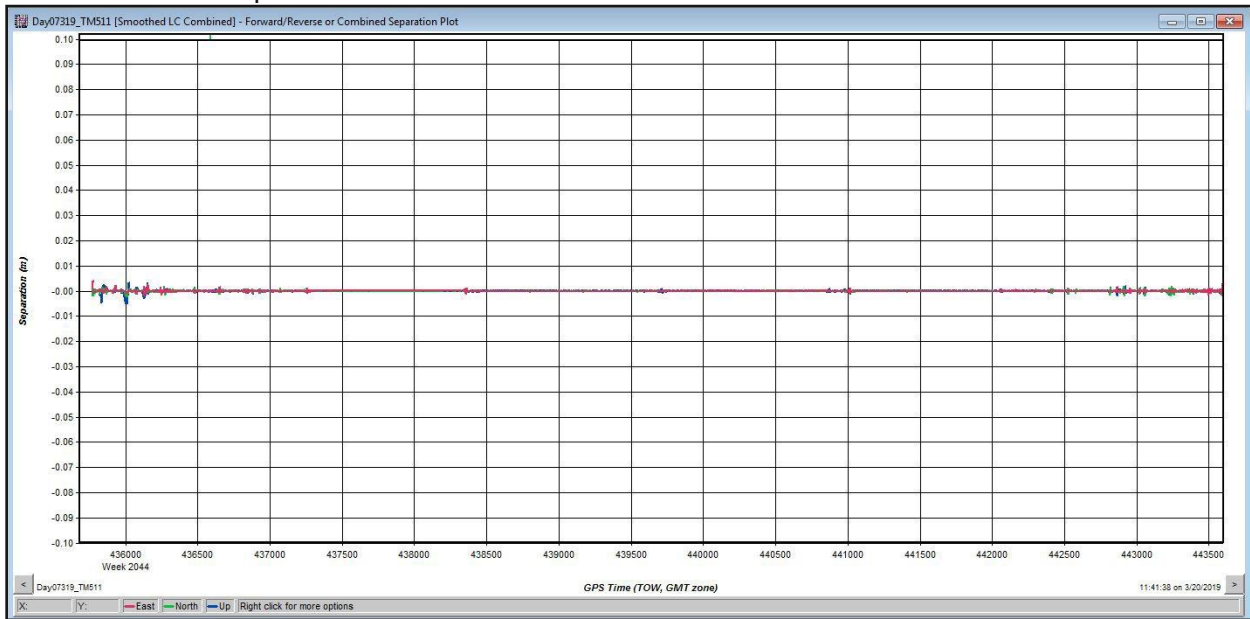
Name	Status	Latitude	Longitude	Height
PBCH_CORS	ENABLED	26° 50' 46.63807"	-80° 13' 09.29993"	-15.179 m (ELLIPSOIDAL)
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory



Day07319_TM511

Combined Separation Plot

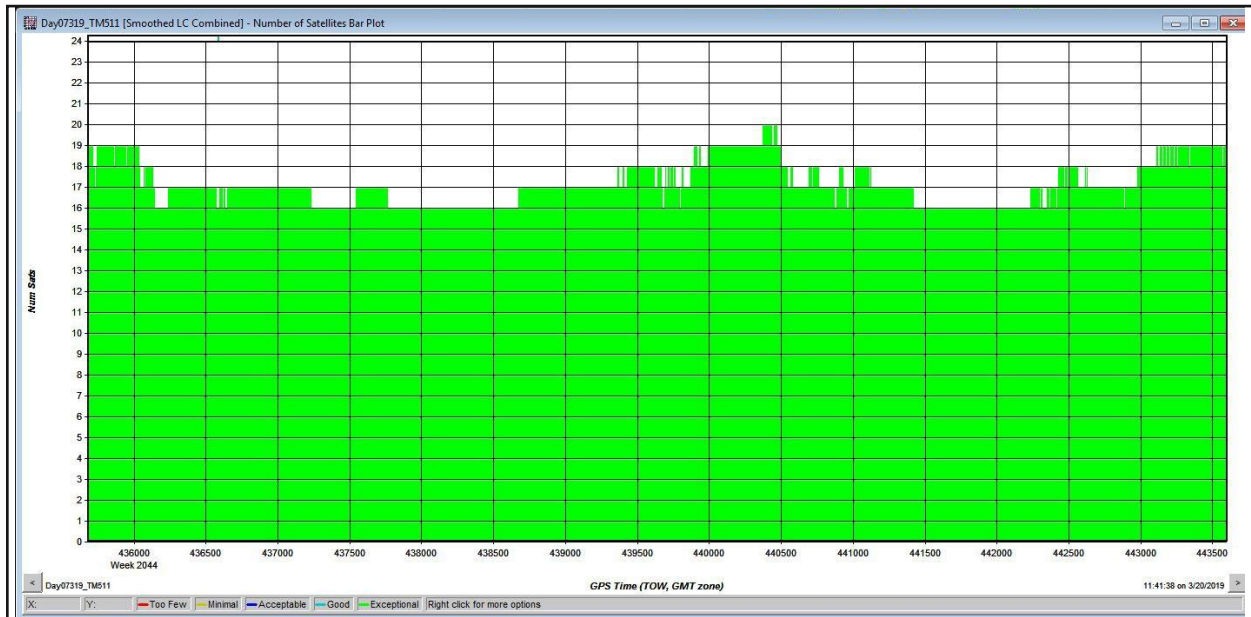


Estimated Position Accuracy Plot

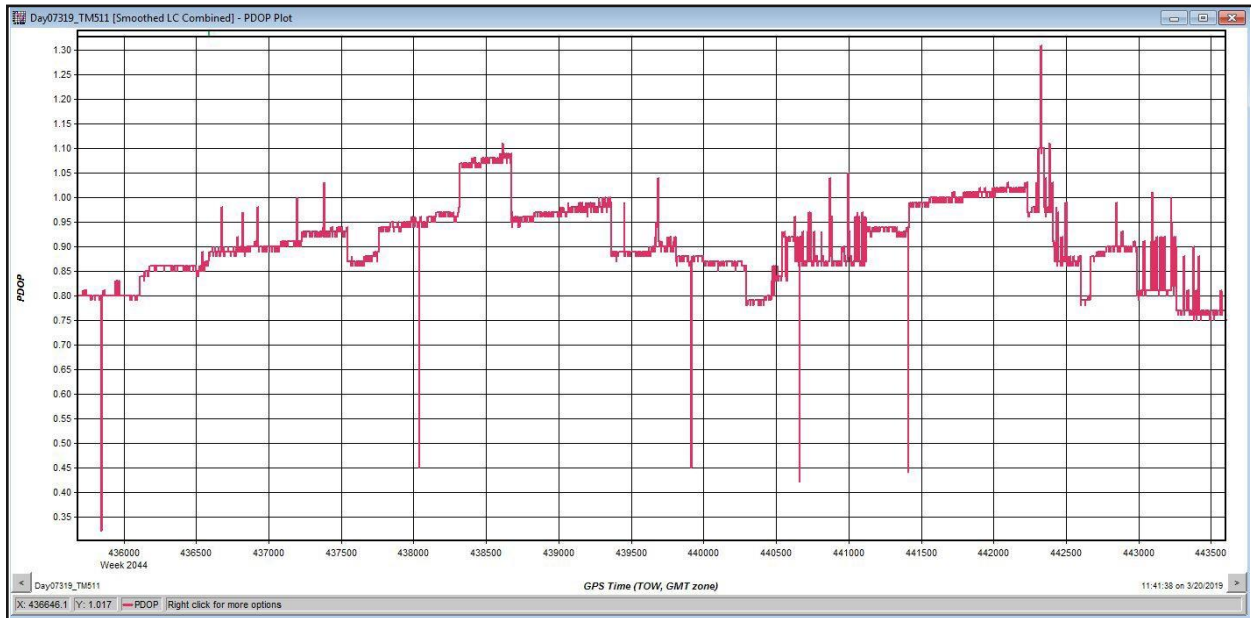


Day07319_TM511

Number of Satellites Bar Plot

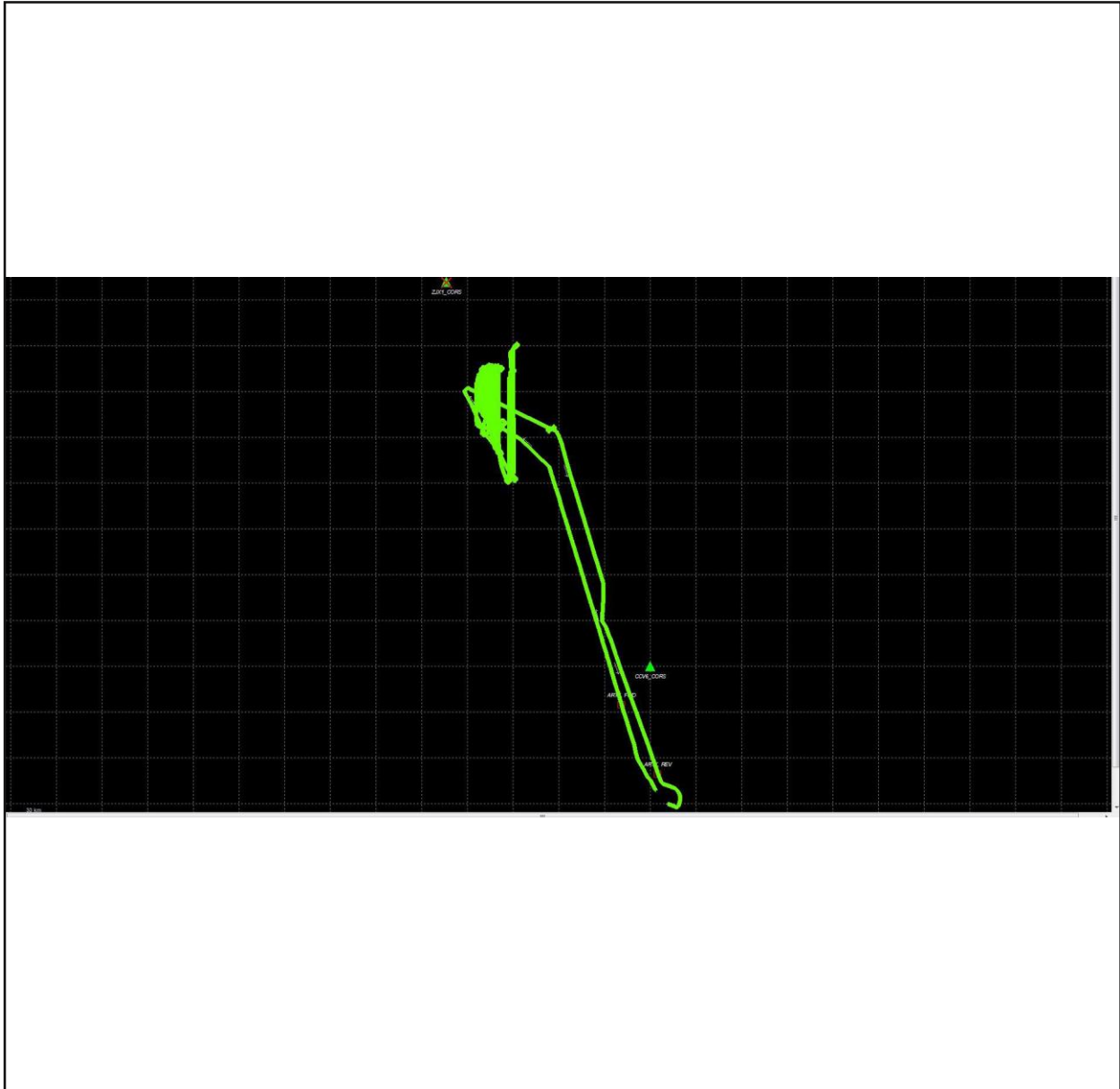


PDOP Plot



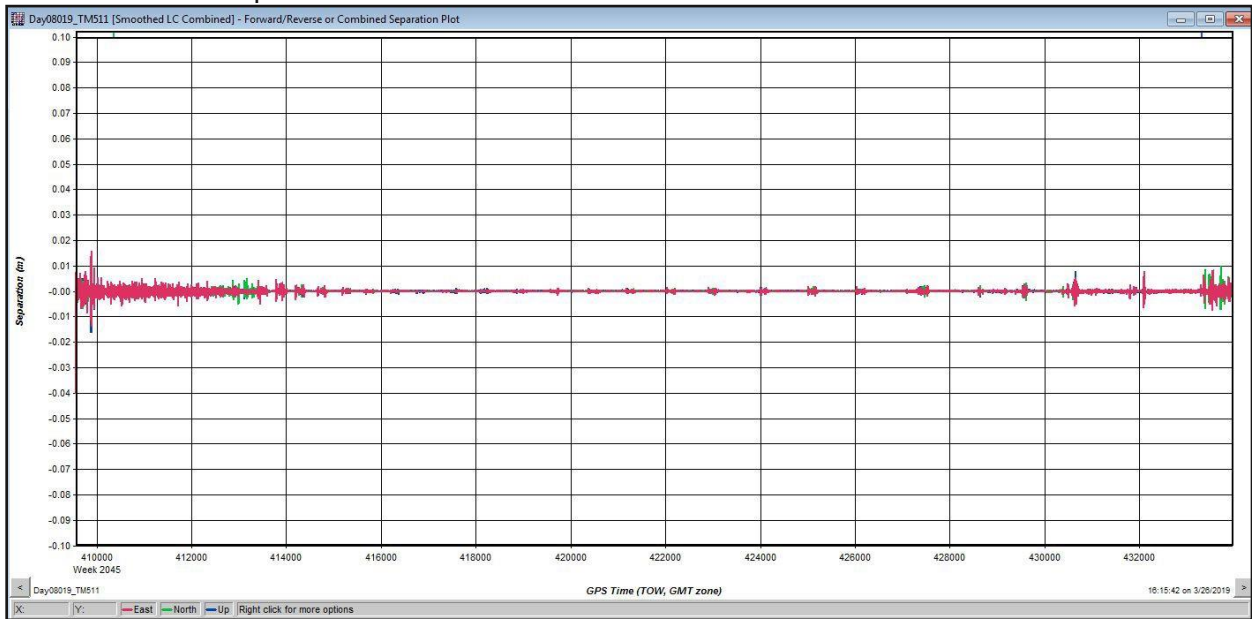
Woolpert Lidar Acquisition Log

Trajectory



Day08019_TM511

Combined Separation Plot

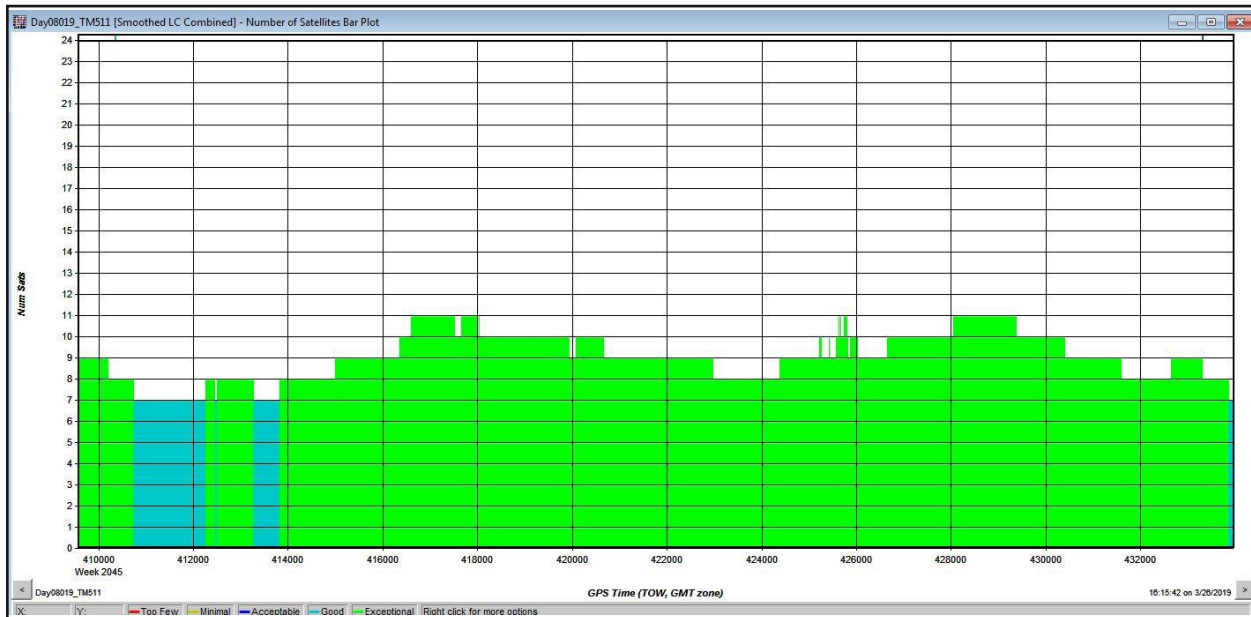


Estimated Position Accuracy Plot

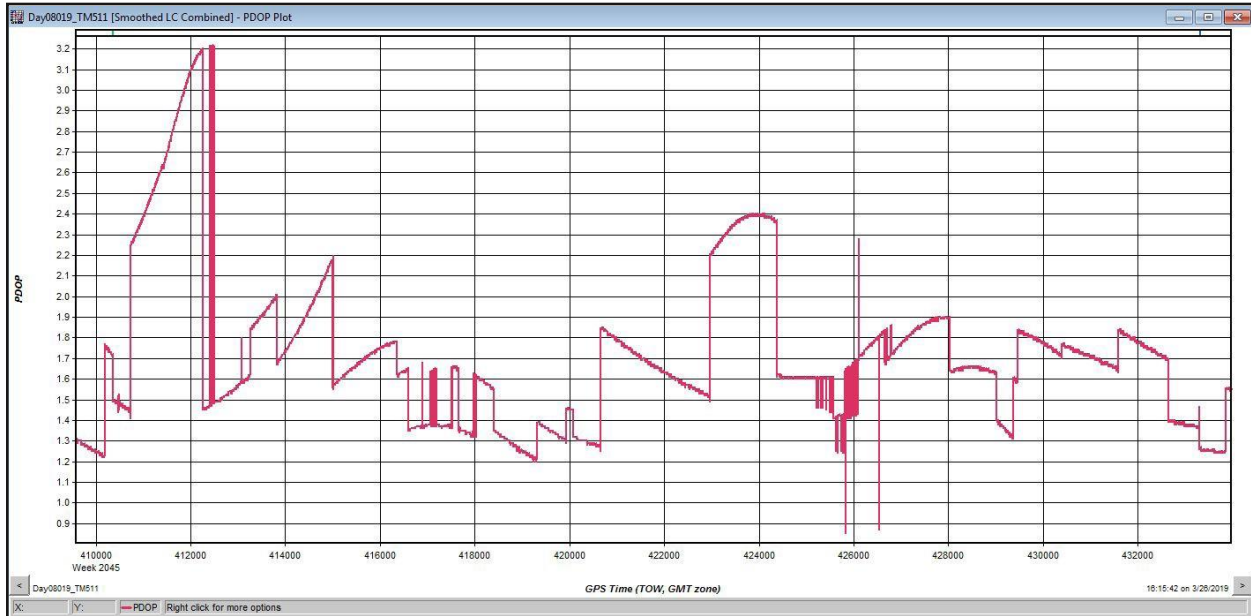


Day08019_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date		
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 1			Day080_90511_A			03/21/2019	080	A
Crew		Equipment			Time			Airports	
Pilot		Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Dar Perl		Cessna 404 Titan - N404CP			7054.5	02:53:00	18:53:00	VRB	
Operator		Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
DeHart		Leica Terrain Mapper - 90511			7061.3	07:32:00	23:32:00	VRB	
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
290	8	10	4,000	Scattered	24	13	29.99		
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900	5,900	17					
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)	Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35	10	40	150	1550	100				
							Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff	
								Line Notes/Comments	
1	N	18:53:00	18:56:00	00:03:00	24	1.1		BLOCK 01	
2	S	18:59:00	19:03:00	00:04:00	24	1.1			
3	N	19:06:00	19:10:00	00:04:00	24	1.1			
4	S	19:14:00	19:19:00	00:05:00	26	1.2			
5	N	19:23:00	19:27:00	00:04:00	27	1.1			
6	S	19:31:00	19:36:00	00:05:00	26	1.2			
7	N	19:40:00	19:45:00	00:05:00	26	1.2			
8	S	19:49:00	19:54:00	00:05:00	25	1.1			
9	N	20:01:00	20:08:00	00:07:00	24	1.2			
10	S	20:11:00	20:19:00	00:08:00	24	1.2			
11	N	20:24:00	20:32:00	00:08:00	24	1.1			
12	S	20:36:00	20:46:00	00:10:00	25	1			
13	N	20:49:00	20:59:00	00:10:00	20	1.3			
14	S	21:03:00	21:13:00	00:10:00	22	1.3			
15	N	21:17:00	21:28:00	00:11:00	19	1.3			

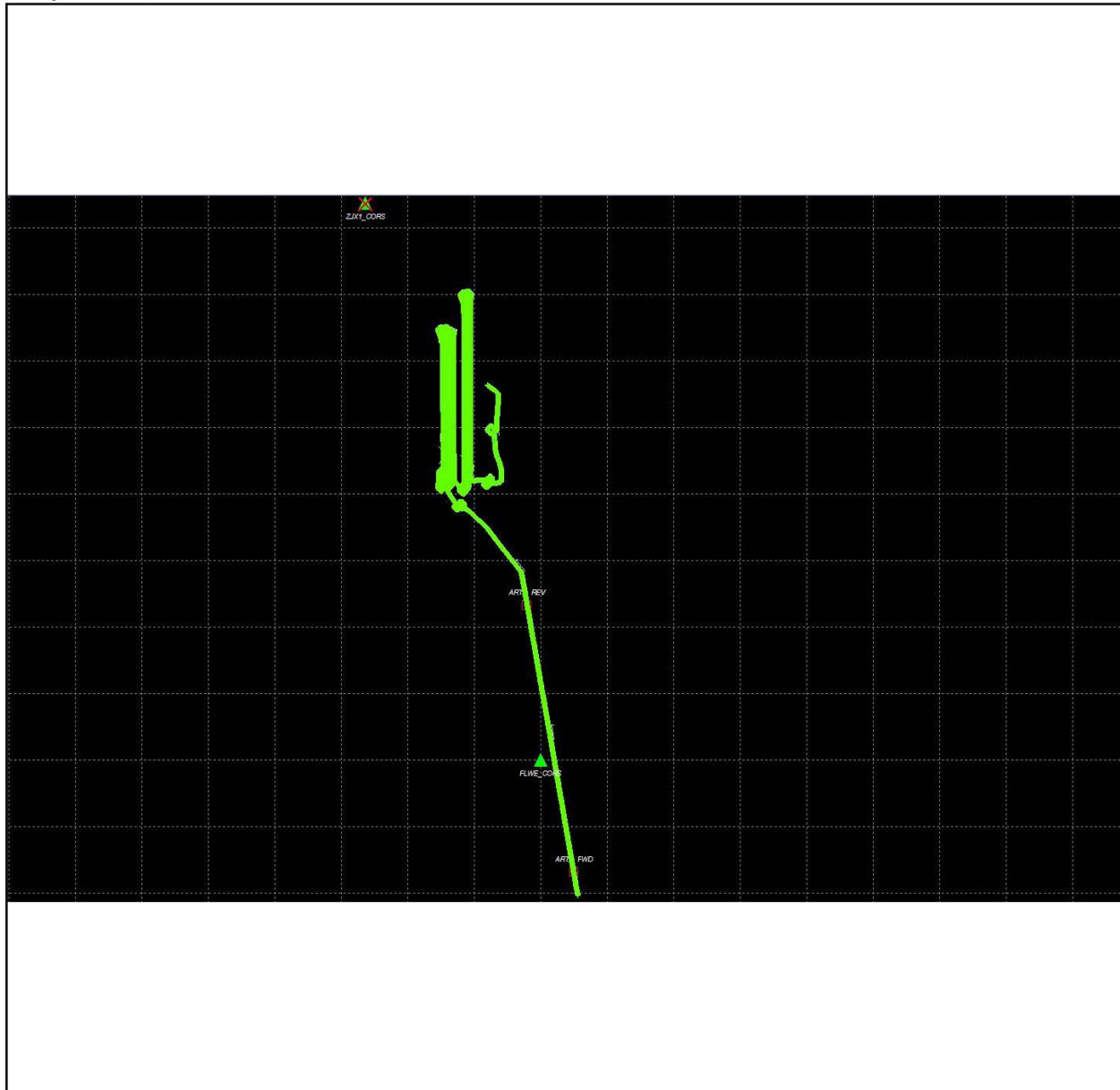
16	S	21:31:00	21:42:00	00:11:00	23	1	
23	N	21:49:00	22:02:00	00:13:00	21	1.1	
24	S	22:06:00	22:20:00	00:14:00	21	1.1	
25	N	22:23:00	22:38:00	00:15:00	23	1	
26	S	22:45:00	23:02:00	00:17:00	22	1.1	
58	E	23:20:00	23:32:00	00:12:00	21	1.2	
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							

Day08119_TM511

Base Station Coordinates

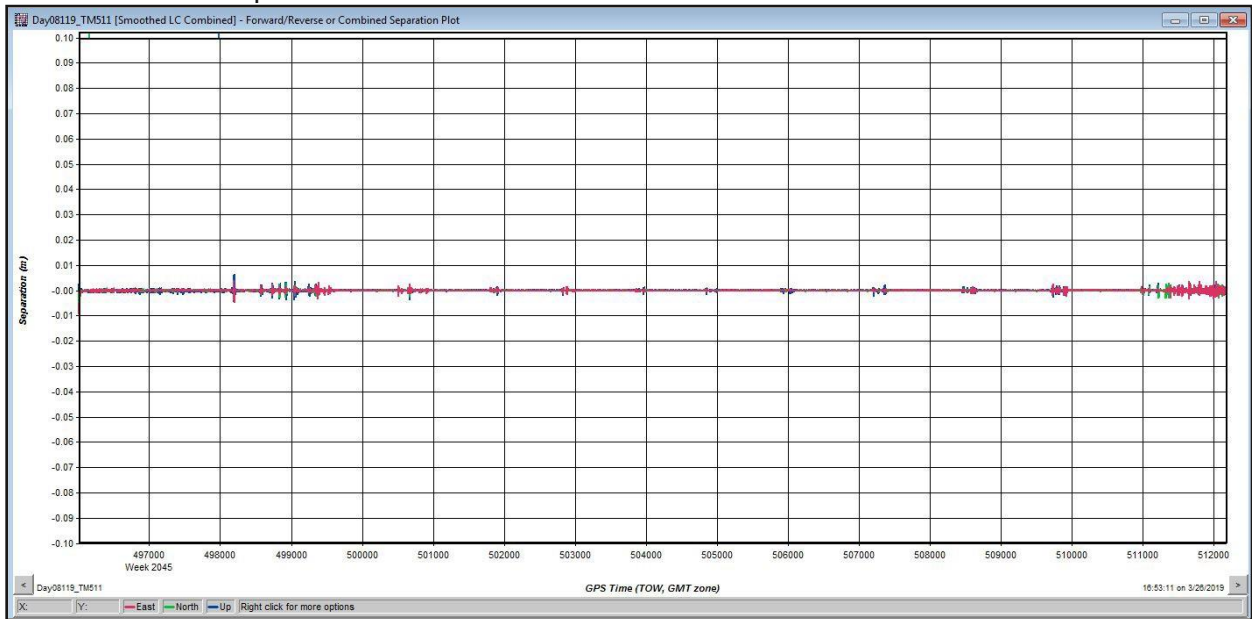
Name	Status	Latitude	Longitude	Height
FLWE_CORS	ENABLED	28° 26' 26.47748"	-81° 05' 33.17622"	-3.453 m (ELLIPSOIDAL)

Trajectory

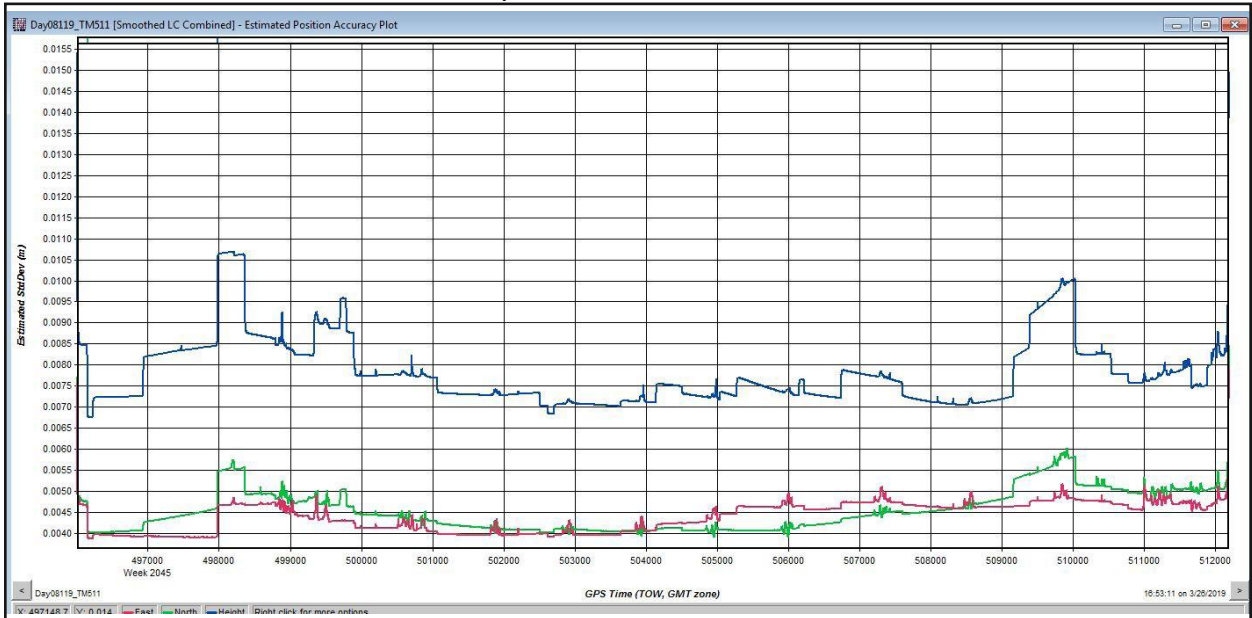


Day08119_TM511

Combined Separation Plot

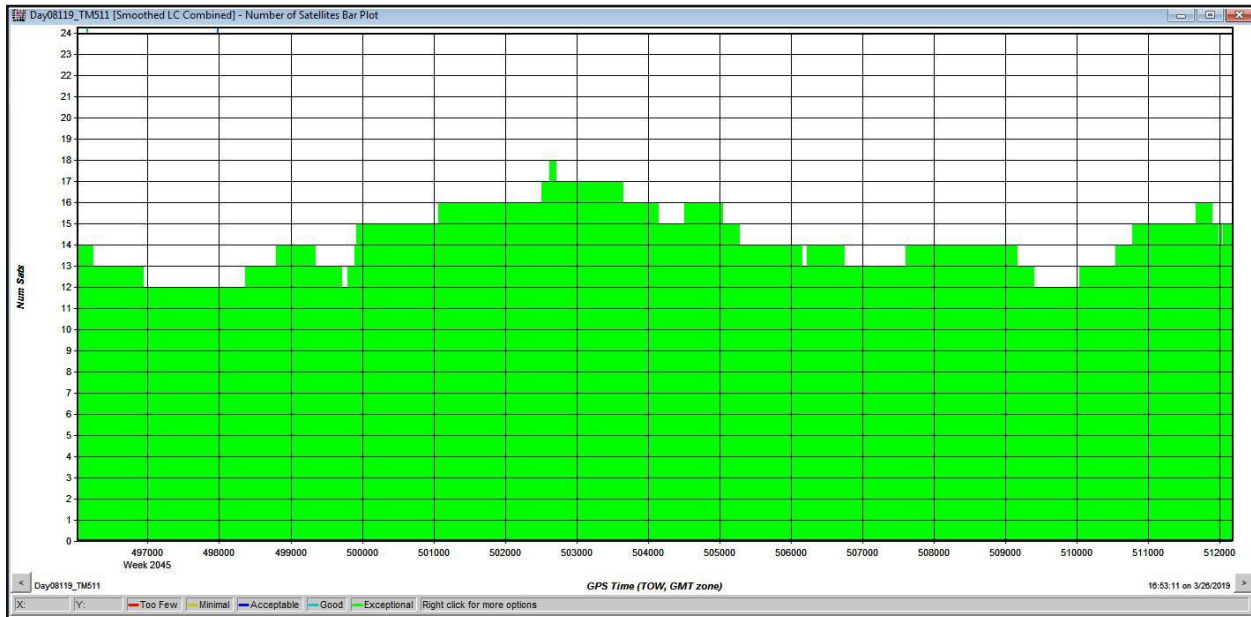


Estimated Position Accuracy Plot

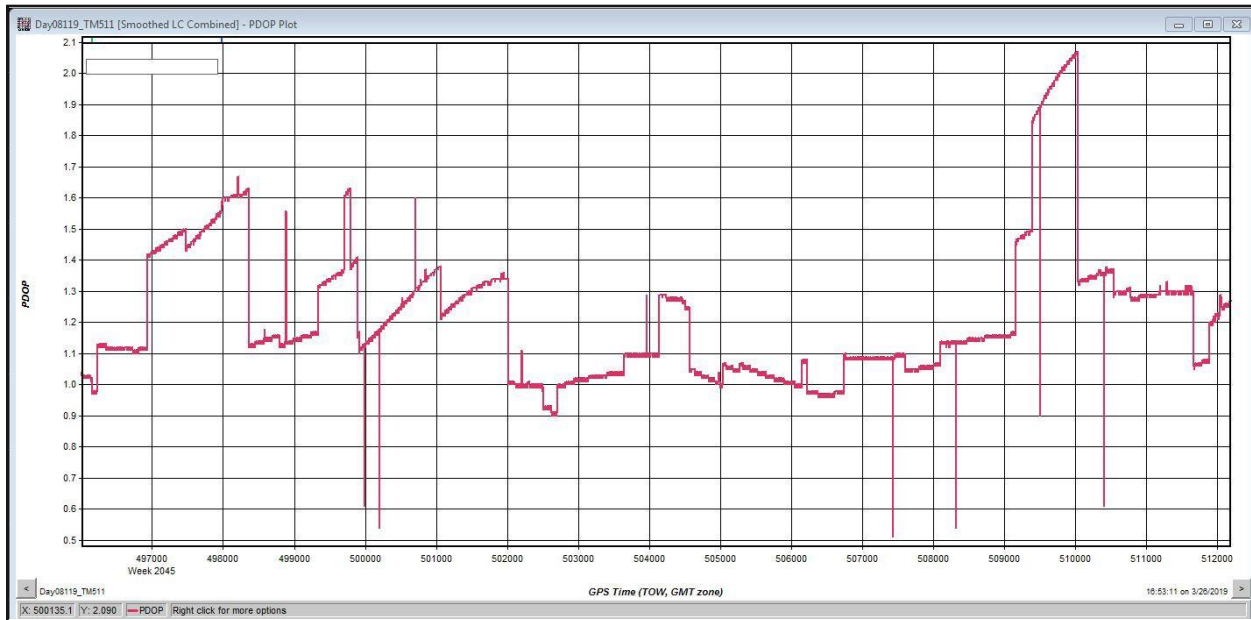


Day08119_TM511

Number of Satellites Bar Plot



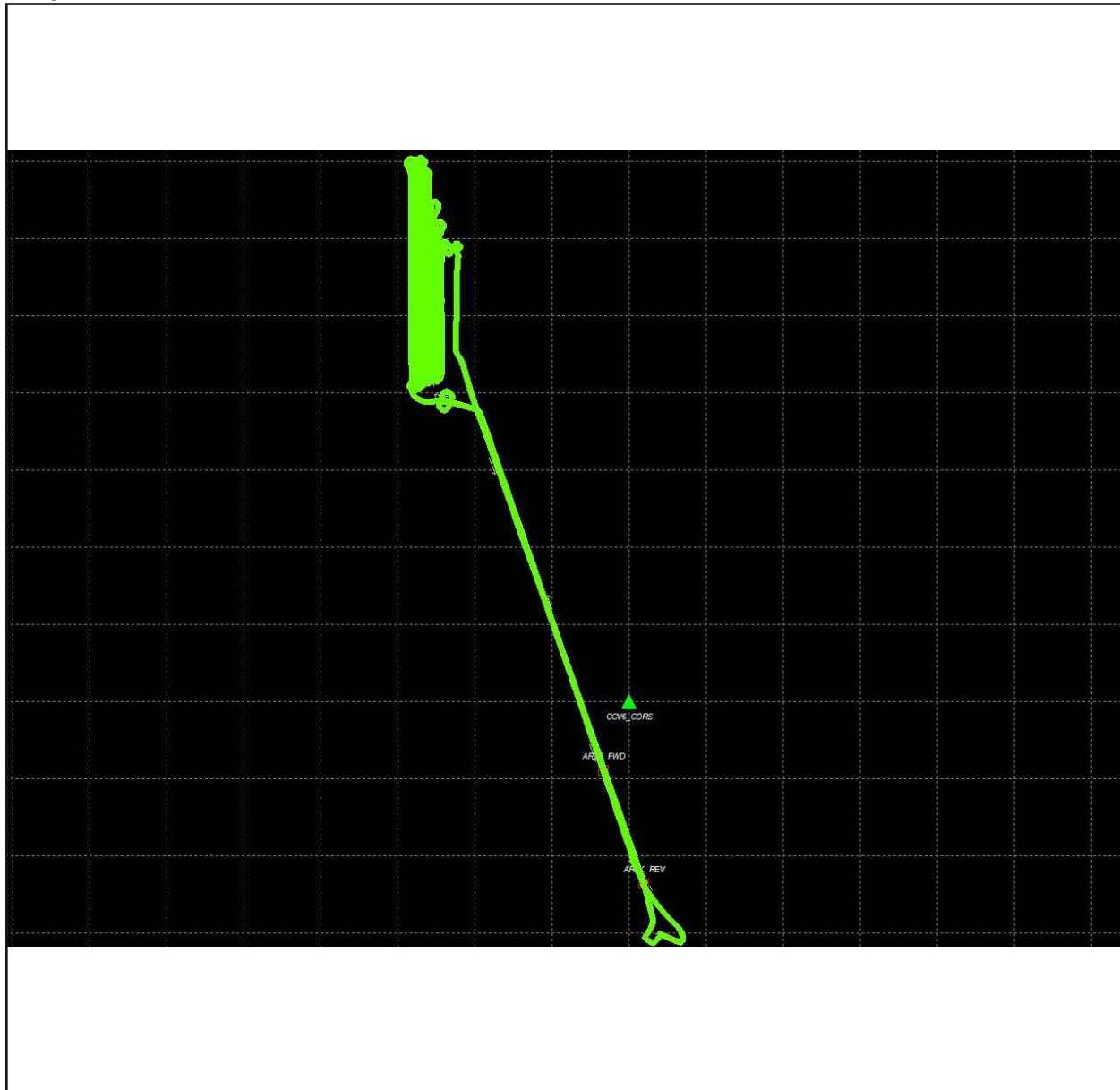
PDOP Plot



Woolpert Lidar Acquisition Log

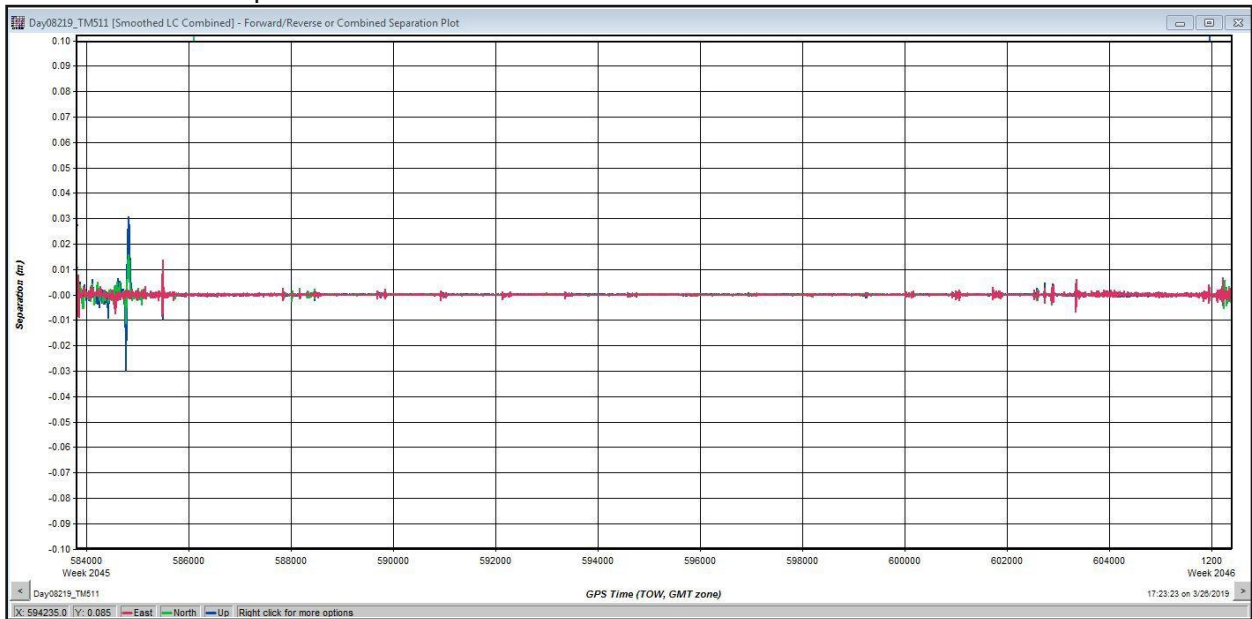
Project Info							Date		
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 1			Day081_90511_A			03/22/2019	081	A
Crew		Equipment			Time			Airports	
Pilot		Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Dar Perl		Cessna 404 Titan - N404CP			7061.3	02:56:00	18:46:00	VRB	
Operator		Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
DeHart		Leica Terrain Mapper - 90511			7069.2	05:56:00	21:56:00	SGJ	
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
310	7	10		Clear	19	17	3007		
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)				
140		5,900		5,900	17				
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)		Pulse Rate (kHz)	Laser Power (%)		
0.35	10	40		150		1550	100		
							Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff	
							Line Notes/Comments		
17	N	18:46:00	19:01:00	00:15:00	25	1.1	Block 1		
18	S	19:08:00	19:23:00	00:15:00	24	1.2			
19	N	19:26:00	19:40:00	00:14:00	25	1.2			
20	S	19:43:00	19:57:00	00:14:00	25	1.2			
21	N	20:00:00	20:16:00	00:16:00	25	1.2			
22	S	20:17:00	20:31:00	00:14:00	24	1.2	22 - Fire/smoke cloud at 3miles from north		
27	N	20:35:00	20:53:00	00:18:00	23	1.1	end of block		
28	S	20:56:00	21:14:00	00:18:00	20	1.4			
29	N	21:17:00	21:35:00	00:18:00	21	1.4			
30	S	21:38:00	21:56:00	00:18:00	23	1			

Trajectory



Day08219_TM511

Combined Separation Plot

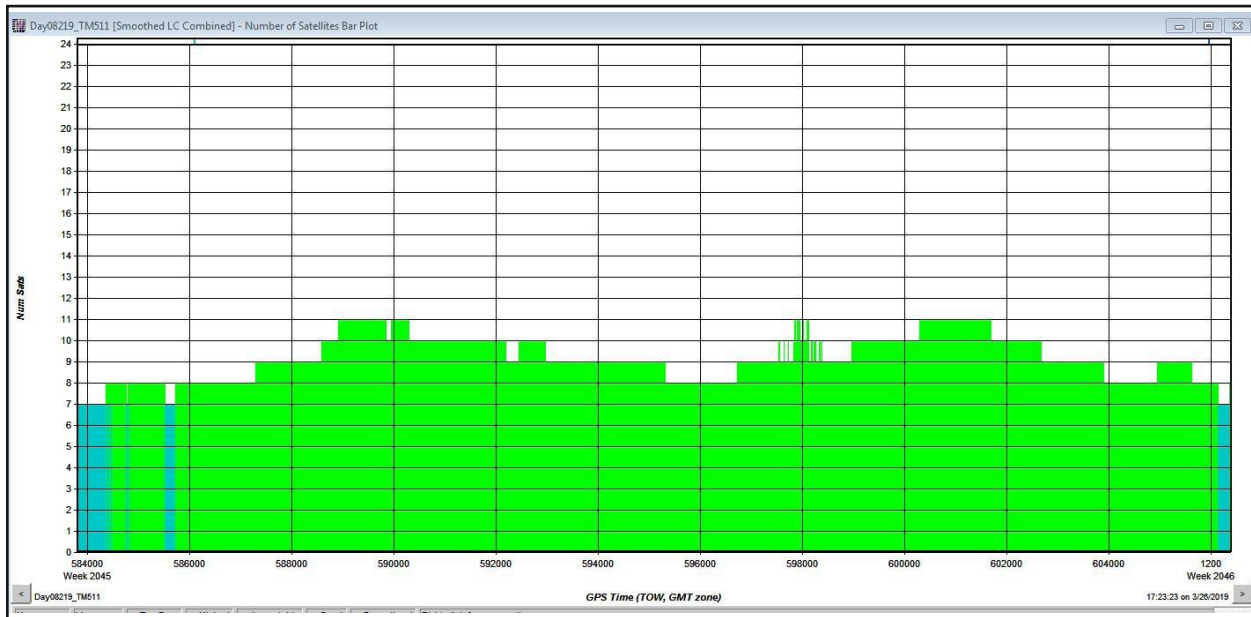


Estimated Position Accuracy Plot

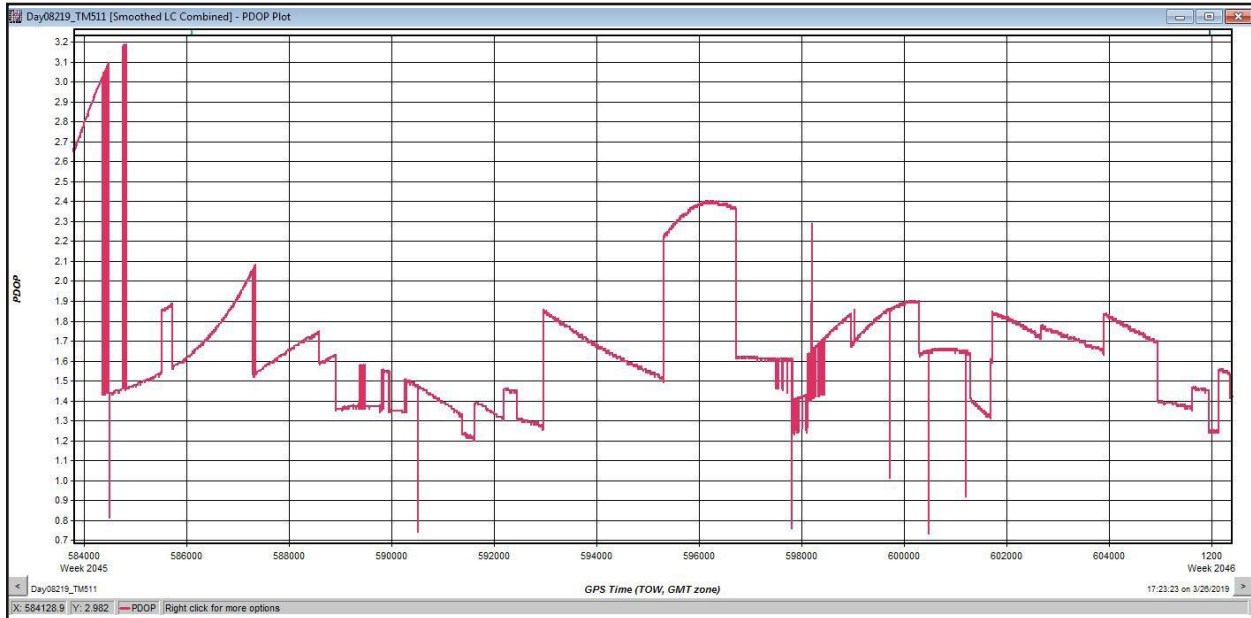


Day08219_TM511

Number of Satellites Bar Plot



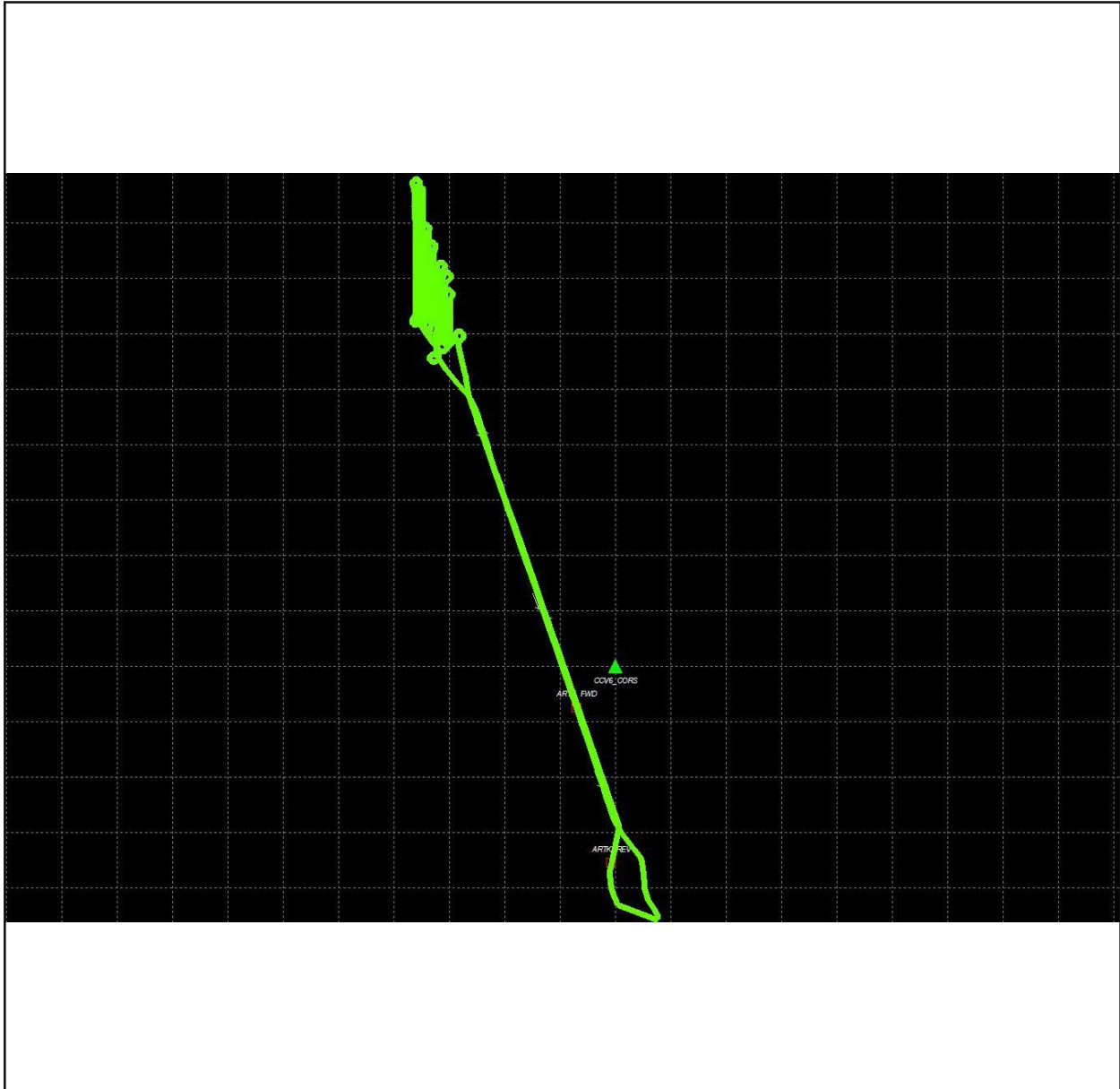
PDOP Plot



Woolpert Lidar Acquisition Log

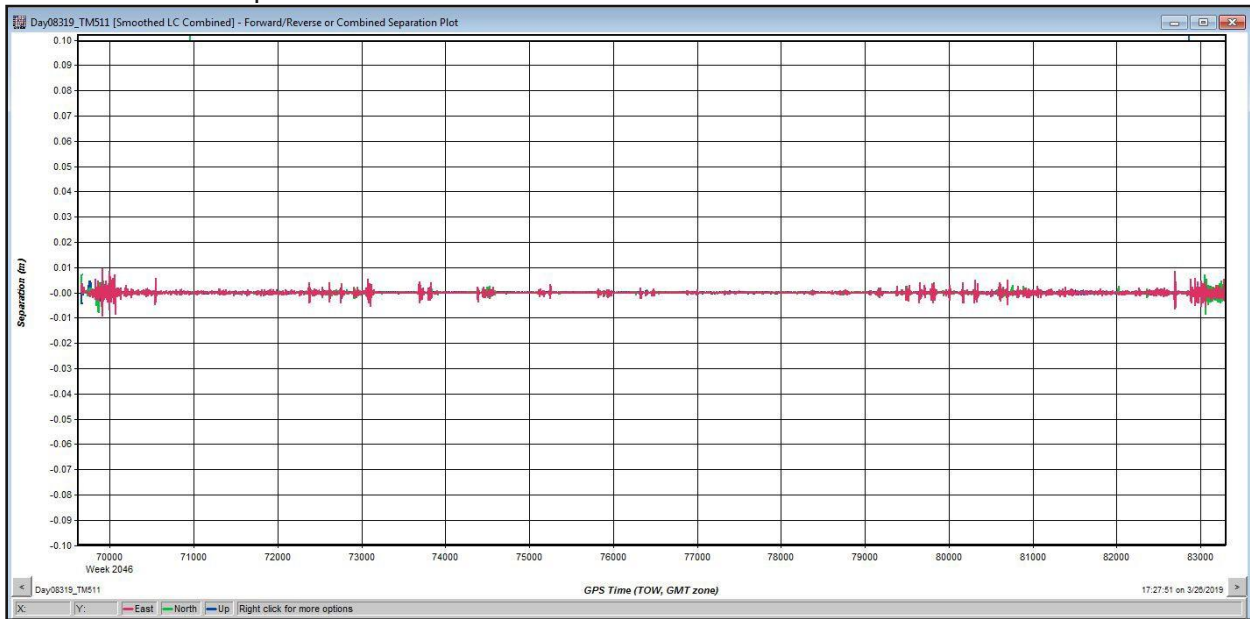
Project Info							Date			
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 1			Day082_90511_A			03/23/2019	082	A	
Crew		Equipment			Time			Airports		
Pilot		Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
Dar Perl		Cessna 404 Titan - N404CP			7069.2	15:29:00	19:29:00	VRB		
Operator		Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos		Leica Terrain Mapper - 90511			7076.2	19:21:00	23:21:00	VRB		
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
130	6	10		Clear	23.3	8.3	30.22			
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900		5,900	17					
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)		Pulse Rate (kHz)	Laser Power (%)			
0.35	10	40		150		1550	100			
							Verify S-Turns Before Mission		Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	18:12:36	Takeoff	1828z
							Line Notes/Comments			
31	N	19:29:47	19:47:45	00:17:58	22	1.2				
32	S	19:51:11	20:08:23	00:17:12	23	1.1				
33	N	20:11:40	20:28:38	00:16:58	21	1.2				
34	S	20:31:53	20:48:57	00:17:04	21	1.2				
35	N	20:52:13	21:09:29	00:17:16	18	1.3				
36	S	21:13:00	21:29:43	00:16:43	19	1.2				
37	N	21:32:58	21:49:15	00:16:17	21	1.1				
38	S	21:52:16	22:07:58	00:15:42	20	1.1				
39	N	22:10:48	22:25:02	00:14:14	20	1.2				
40	S	22:28:09	22:40:03	00:11:54	22	1				
41	N	22:43:20	22:55:07	00:11:47	21	1.1				
42	S	22:58:15	23:08:28	00:10:13	20	1.2	3/23/19 Tide Window 3:23 pm - 7:23 pm			
43	N	23:11:44	23:21:54	00:10:10	20	1.2	Need 31-57 All Tidal			

Trajectory

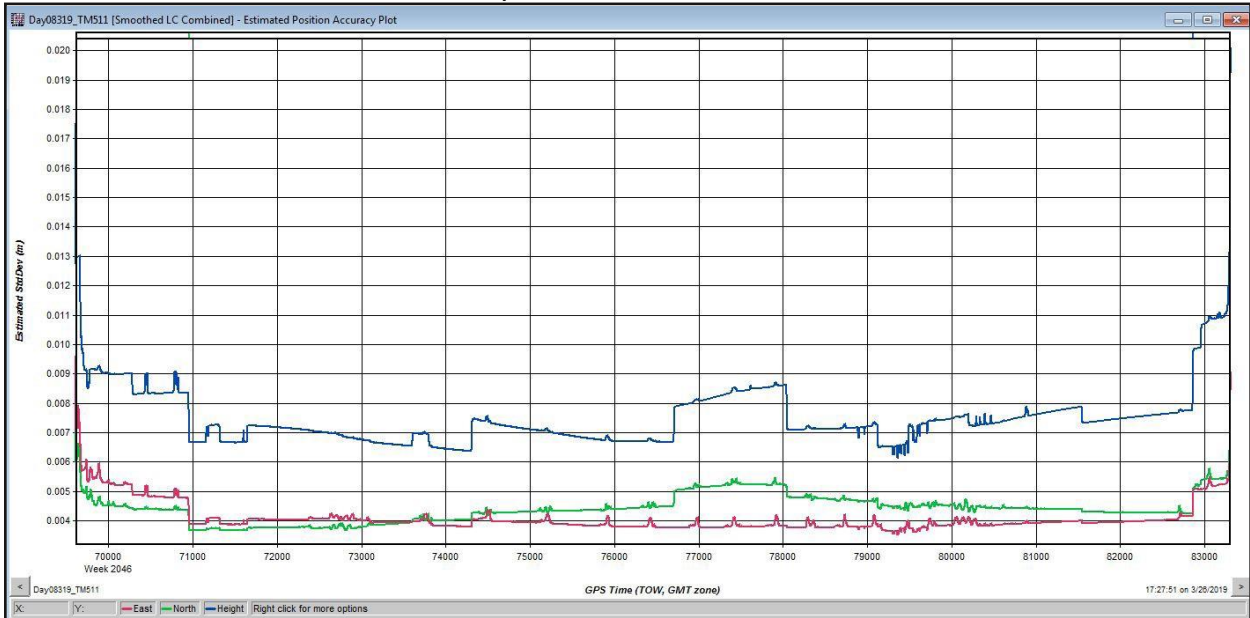


Day08319_TM511

Combined Separation Plot

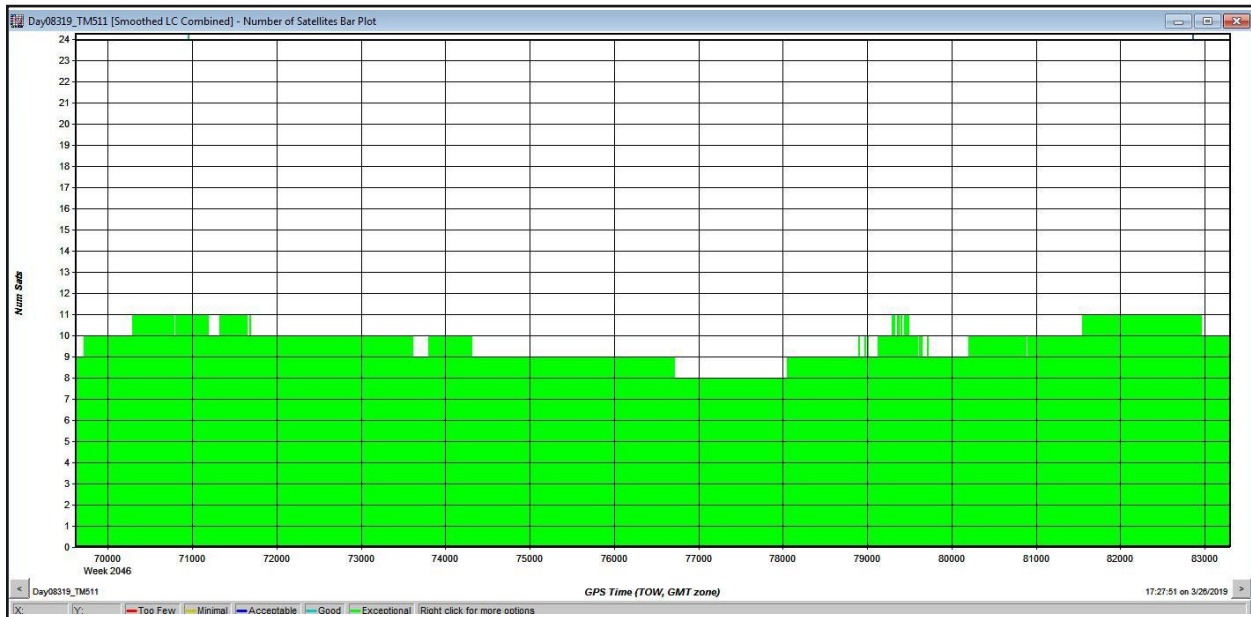


Estimated Position Accuracy Plot

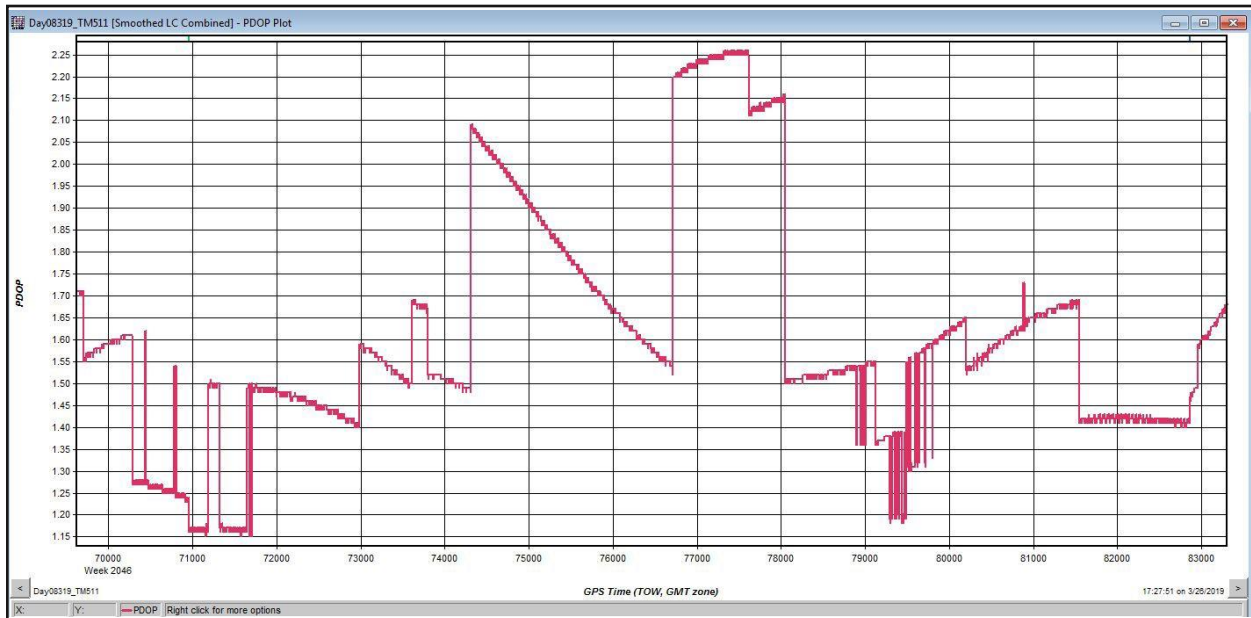


Day08319_TM511

Number of Satellites Bar Plot



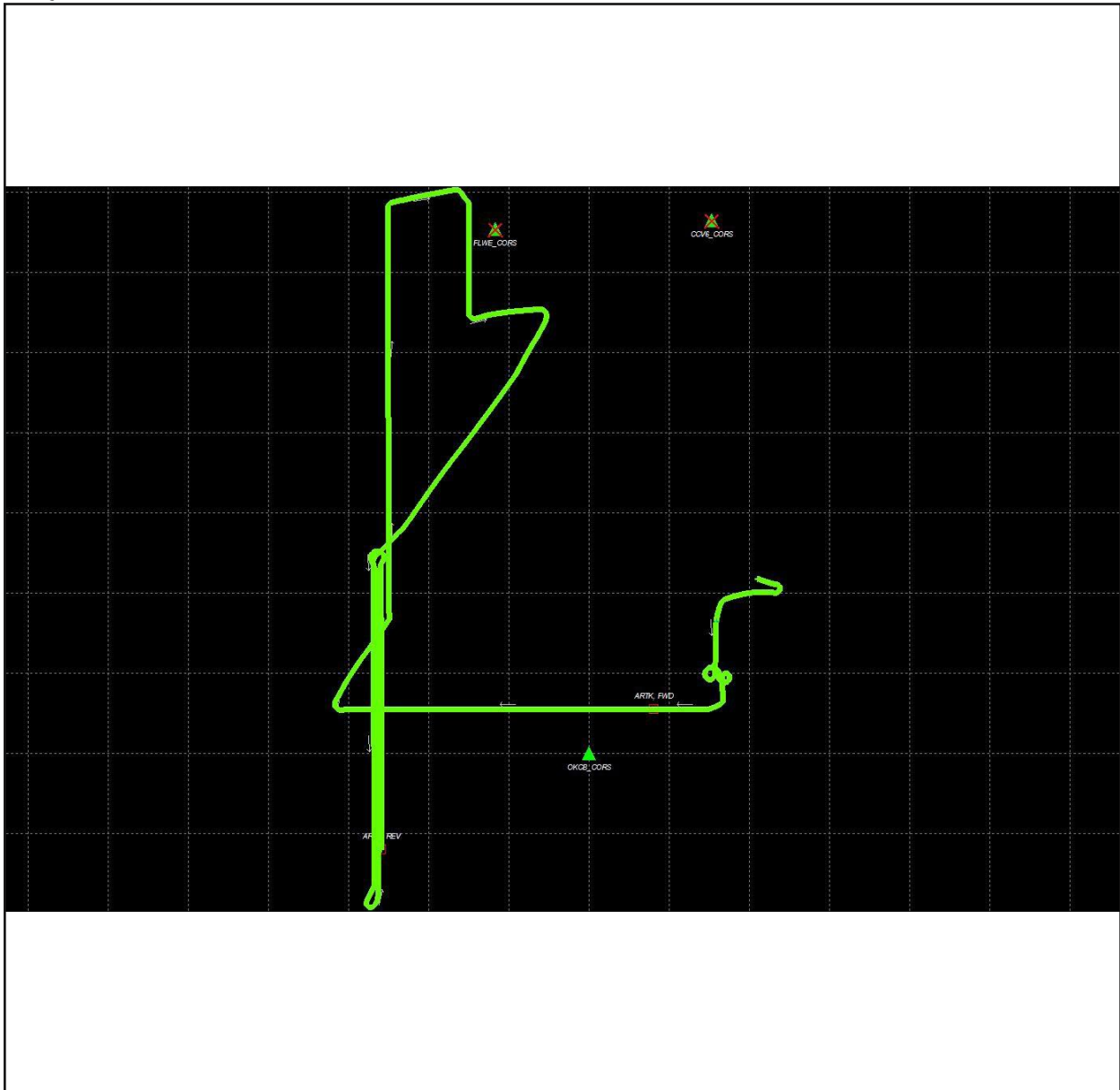
PDOP Plot



Woolpert Lidar Acquisition Log

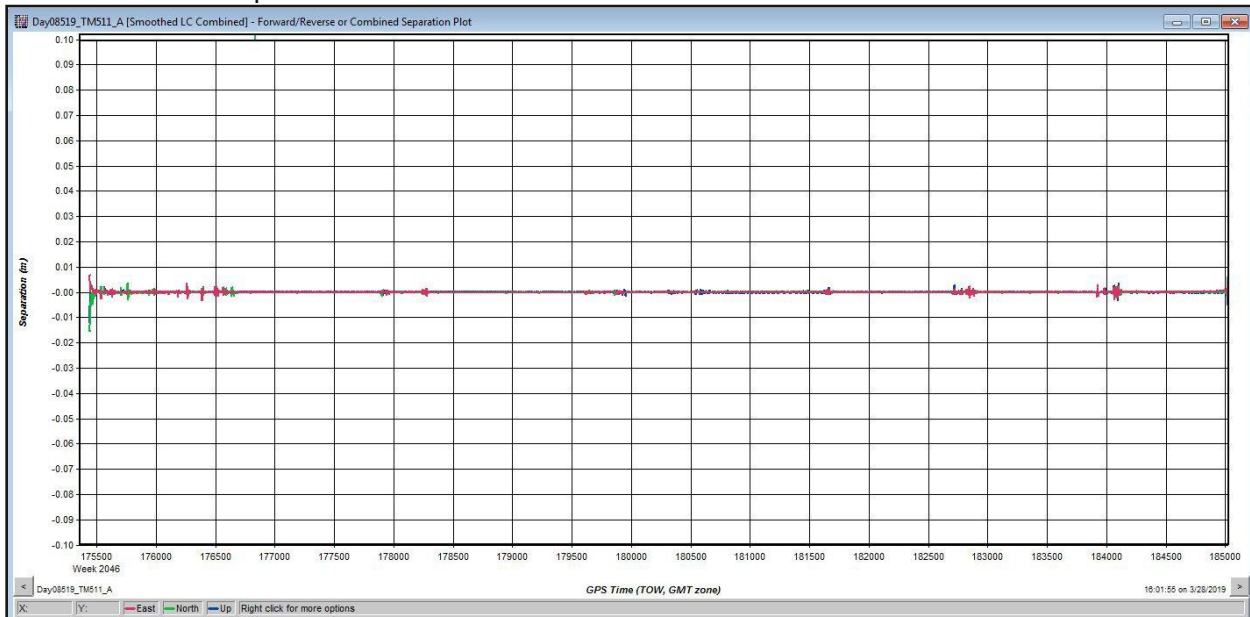
Project Info							Date			
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #	
79028	FL Peninsular 2018 D18 - Block 1			Day083_90511_A			03/24/2019	083	A	
Crew		Equipment			Time			Airports		
Pilot		Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
Dar Perl		Cessna 404 Titan - N404CP			7076.2	16:19:00	20:19:00	VRB		
Operator		Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos		Leica Terrain Mapper - 90511			7080	18:12:00	22:12:00	VRB		
Conditions										
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)			
130	13	10		Scattered	25.6	13.3	30.21			
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)					
140		5,900		5,900	17					
Settings										
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)				
0.35	10	40		150	1550	100				
							Verify S-Turns Before Mission		Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	19:20:00	Takeoff	1923z
							Line Notes/Comments			
44	N	20:19:00	20:27:48	00:08:48	21	1.1	Tide Window 4:10-8:10			
45	S	20:31:37	20:39:23	00:07:46	20	1.1				
46	N	20:43:04	20:51:27	00:08:23	19	1.1				
47	S	20:55:46	21:03:15	00:07:29	18	1.2				
48	N	21:06:38	21:11:42	00:05:04	19	1.3				
49	S	21:15:26	21:20:57	00:05:31	20	1.2				
50	N	21:24:13	21:29:18	00:05:05	21	1.1				
51	S	21:31:54	21:35:55	00:04:01	22	1.1				
52	N	21:39:52	21:43:51	00:03:59	21	1.1				
53	S	21:46:46	21:49:44	00:02:58	20	1.2				
54	N	21:53:33	21:56:44	00:03:11	20	1.2				
55	S	22:00:10	22:02:32	00:02:22	21	1.1				
56	N	22:05:49	22:07:07	00:01:18	21	1.1				
57	S	22:10:40	22:12:00	00:01:20	21	1.1				

Trajectory

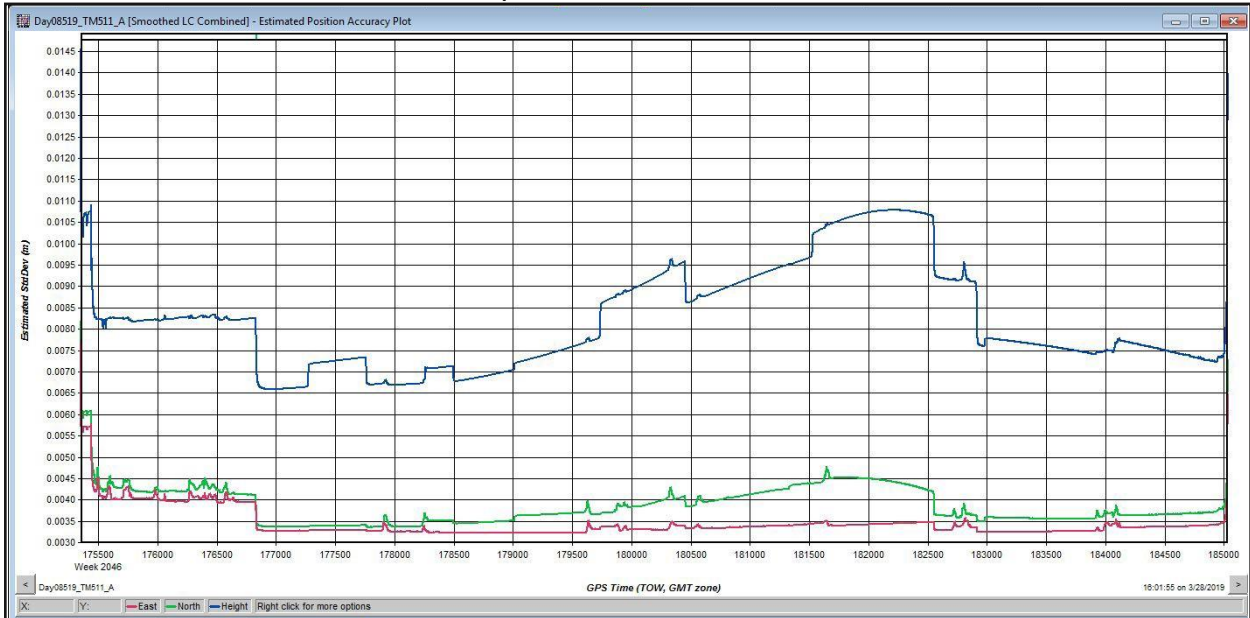


Day08519_TM511_A

Combined Separation Plot

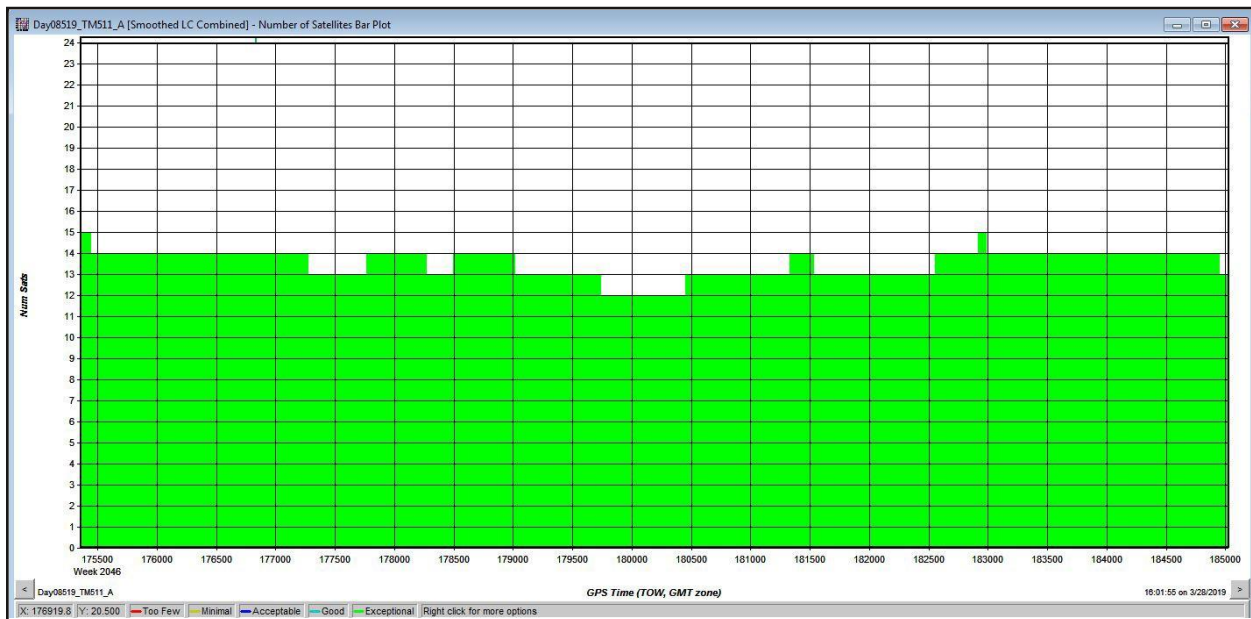


Estimated Position Accuracy Plot

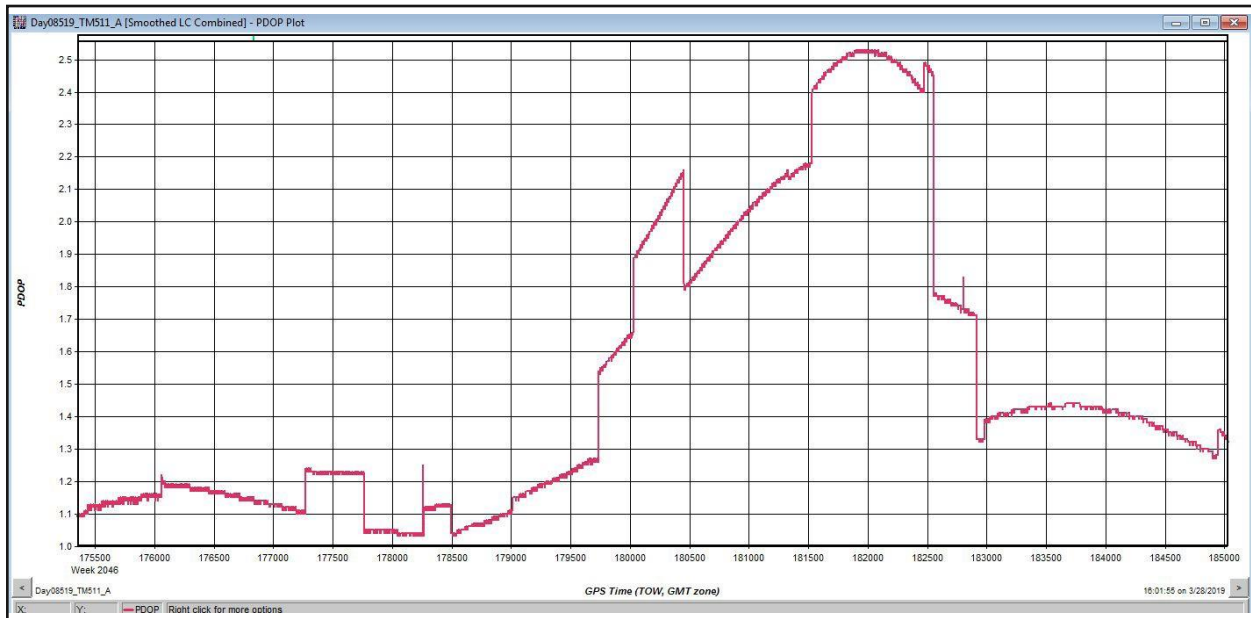


Day08519_TM511_A

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date		
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Blocks 5 & 3			Day085_90511_A			03/26/2019	085	A
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
Dar Perl	Cessna 404 Titan - N404CP			7080	21:06:00	01:06:00	VRB		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			7084.2	12:33:00	04:33:00	VRB		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
130	13	10		Clear	23	18	30.03		
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)		Airfield Elevation (ft)			
140		5,900		5,900		17			
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)		Pulse Rate (kHz)	Laser Power (%)		
0.35	10	40		150		1550	100		
							Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	0:43:20	Takeoff
Line Notes/Comments									
82	W	01:06:52	01:24:28	00:17:36	20	1.2	Cross-Flight/Manual Start--a bit late		
							Block 3 - 34, 55, 58, 62, 66-69		
34	N	01:32:05	01:53:11	00:21:06	21	1.1			
55	S	01:59:14	02:04:48	00:05:34	18	1.7	Manual Stop due to clouds sensor issues		
							Only flew 12 miles into it--in clouds		
7	S	02:28:05	02:44:52	00:16:47	22	1.5	Block 5		
8	N	02:48:20	03:04:58	00:16:38	19	1.5			
9	S	03:08:35	03:23:22	00:14:47	18	1.7	Issue TO and software---reboot		
10	N	03:35:37	03:52:04	00:16:27	21	1.1			
11	S	03:55:34	04:12:46	00:17:12	20	1.2			
12	N	04:15:07	04:33:00	00:17:53	20	1.2			

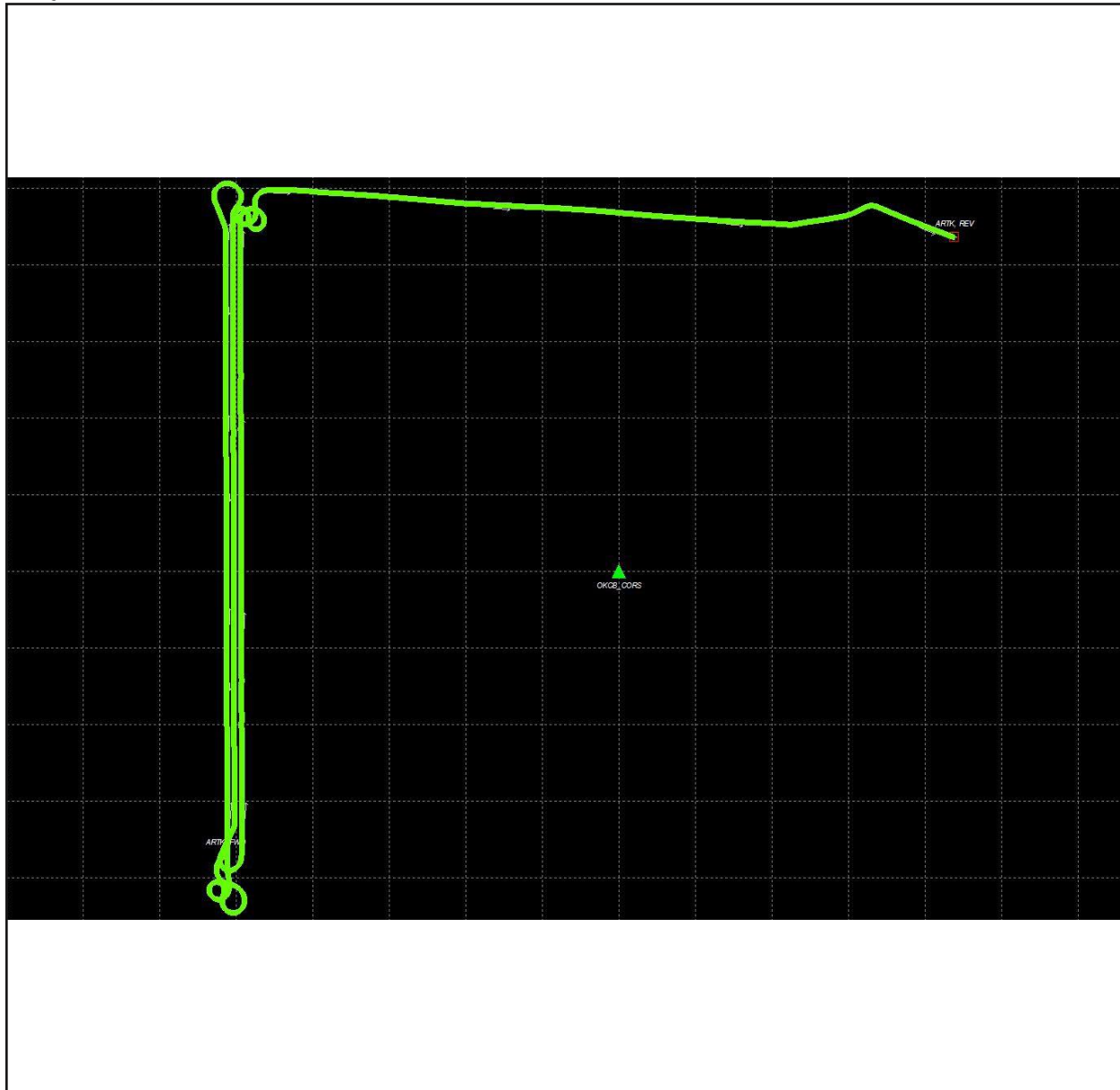
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
675 GB two files							

Day08519_TM511_B

Base Station Coordinates

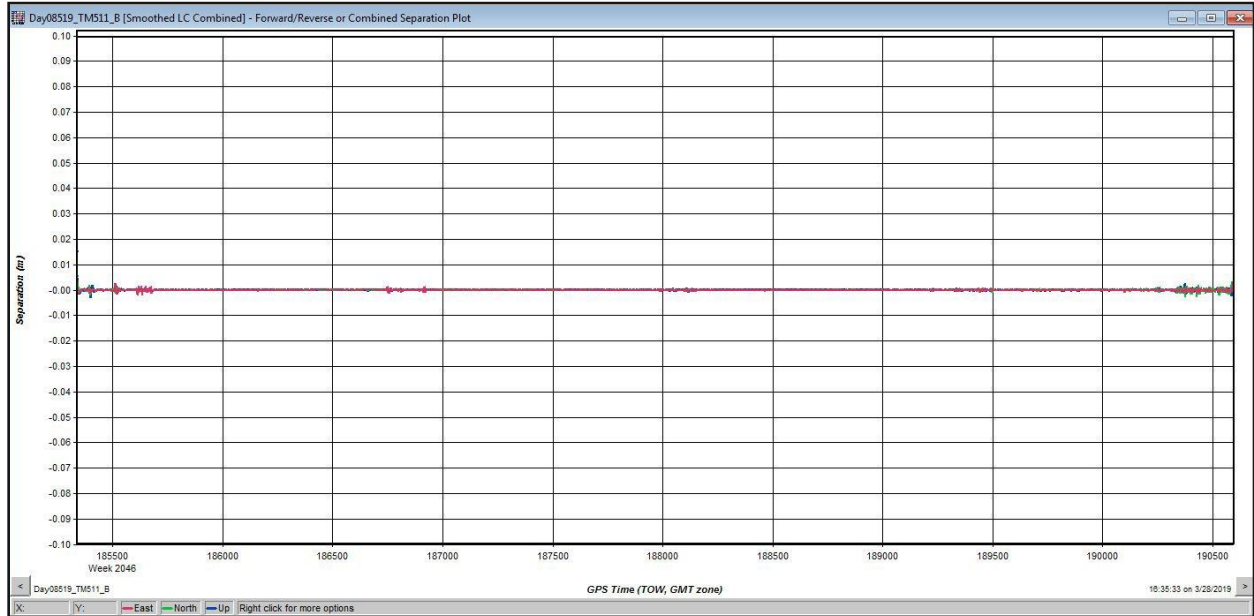
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory



Day08519_TM511_B

Combined Separation Plot

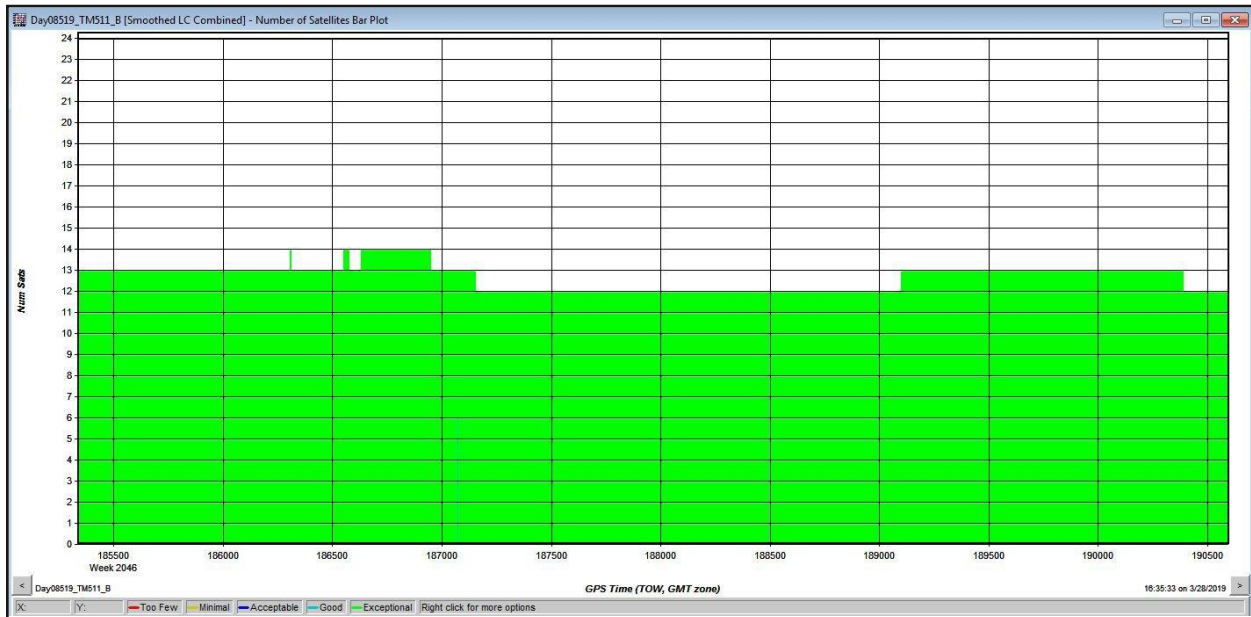


Estimated Position Accuracy Plot

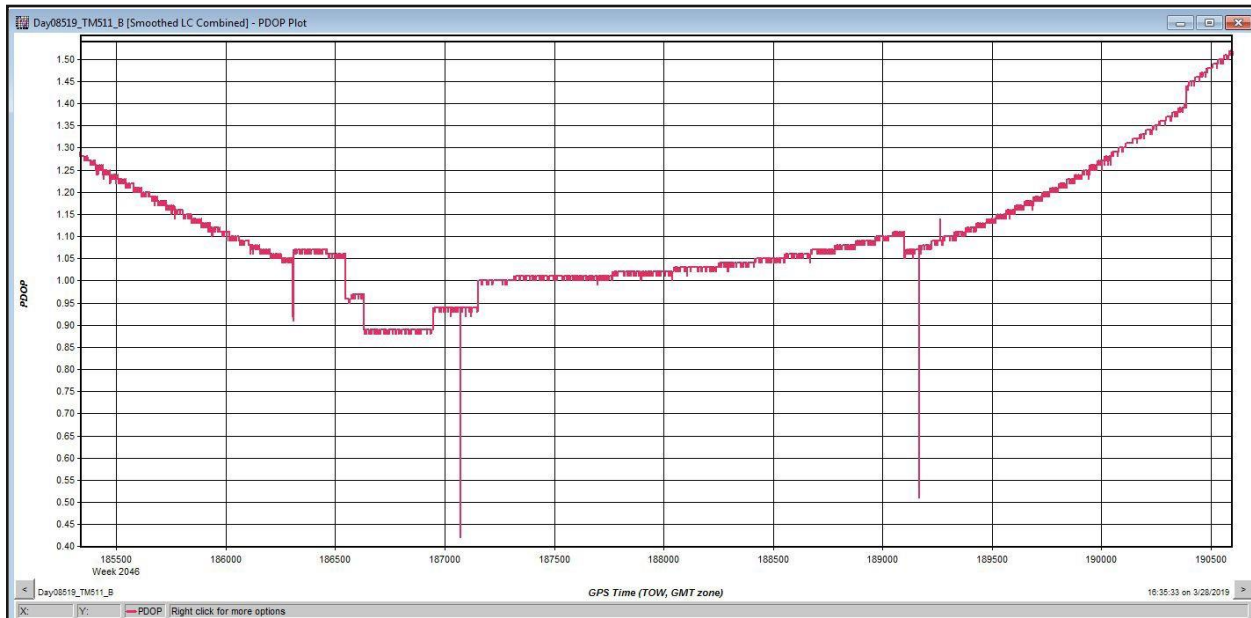


Day08519_TM511_B

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info							Date		
Project #	Project Name			Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Blocks 5 & 3			Day085_90511_A			03/26/2019	085	A
Crew		Equipment			Time			Airports	
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing		
Dar Perl	Cessna 404 Titan - N404CP			7080	21:06:00	01:06:00	VRB		
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving		
Galambos	Leica Terrain Mapper - 90511			7084.2	12:33:00	04:33:00	VRB		
Conditions									
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)		
130	13	10		Clear	23	18	30.03		
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)		Airfield Elevation (ft)			
140		5,900		5,900		17			
Settings									
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)		Pulse Rate (kHz)	Laser Power (%)		
0.35	10	40		150		1550	100		
							Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	0:43:20	Takeoff
Line Notes/Comments									
82	W	01:06:52	01:24:28	00:17:36	20	1.2	Cross-Flight/Manual Start--a bit late		
							Block 3 -34, 55, 58, 62, 66-69		
34	N	01:32:05	01:53:11	00:21:06	21	1.1			
55	S	01:59:14	02:04:48	00:05:34	18	1.7	Manual Stop due to clouds sensor issues		
							Only flew 12 miles into it--in clouds		
7	S	02:28:05	02:44:52	00:16:47	22	1.5	Block 5		
8	N	02:48:20	03:04:58	00:16:38	19	1.5			
9	S	03:08:35	03:23:22	00:14:47	18	1.7	Issue TO and software---reboot		
10	N	03:35:37	03:52:04	00:16:27	21	1.1	GPS 03:28:31 S-Turns		
11	S	03:55:34	04:12:46	00:17:12	20	1.2			
12	N	04:15:07	04:33:00	00:17:53	20	1.2			

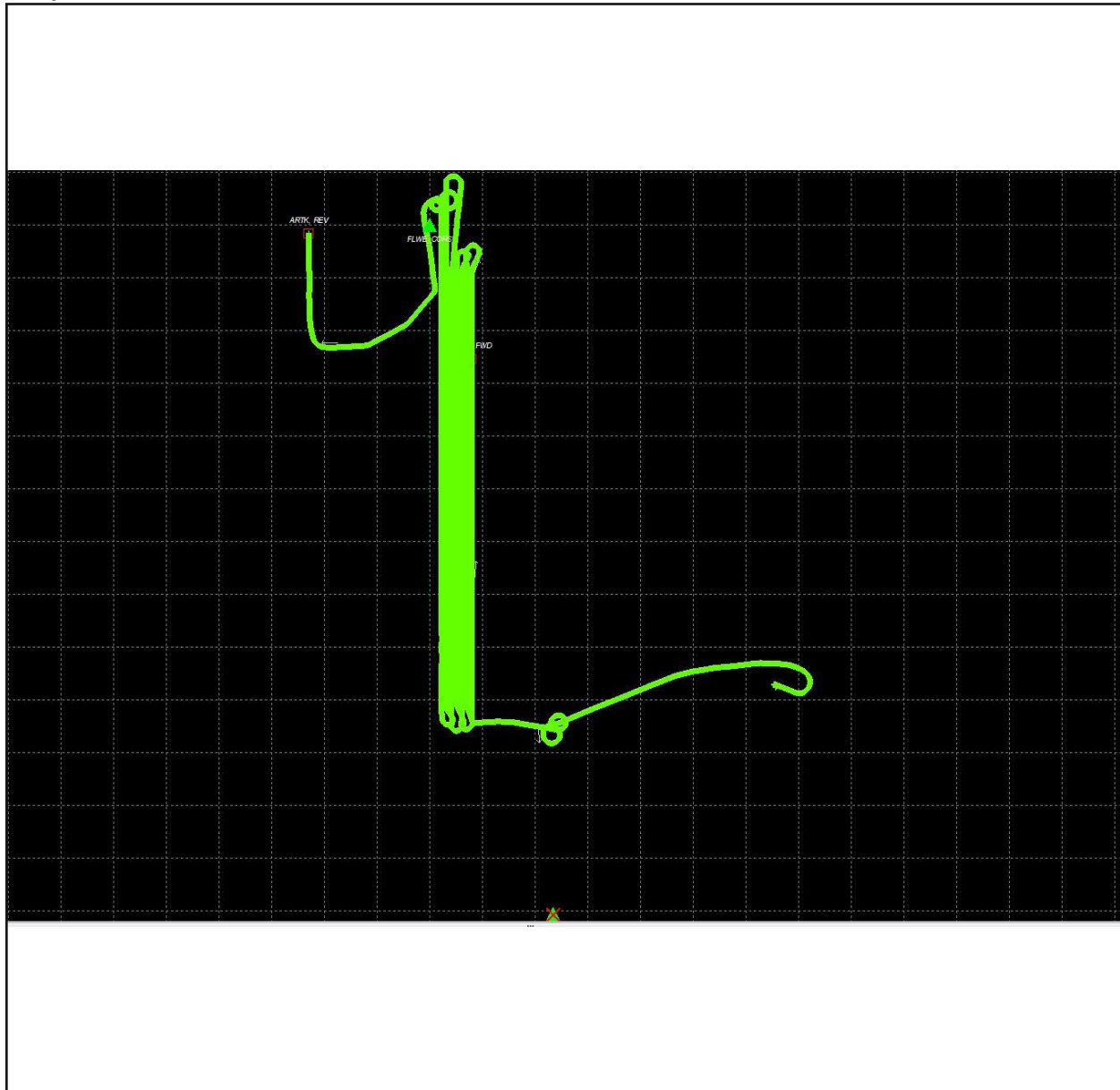
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
675 GB two files							

Day10119_TM511_A

Base Station Coordinates

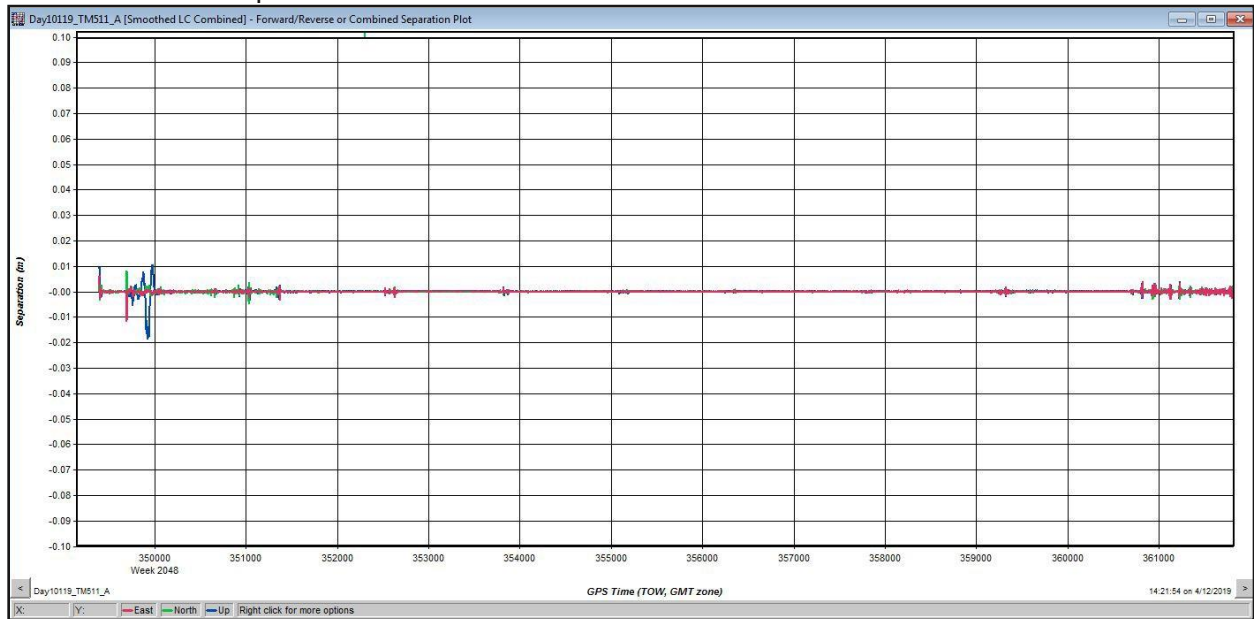
Name	Status	Latitude	Longitude	Height
FLWE_CORS	ENABLED	28° 26' 26.47748"	-81° 05' 33.17622"	-3.453 m (ELLIPSOIDAL)

Trajectory



Day10119_TM511_A

Combined Separation Plot

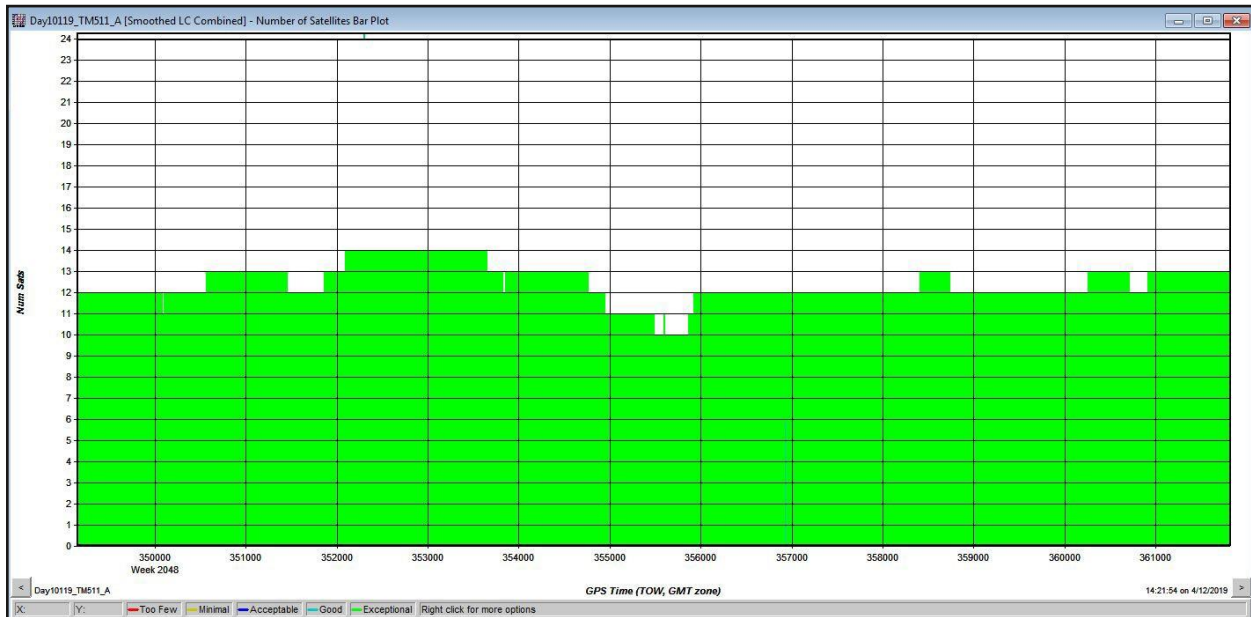


Estimated Position Accuracy Plot

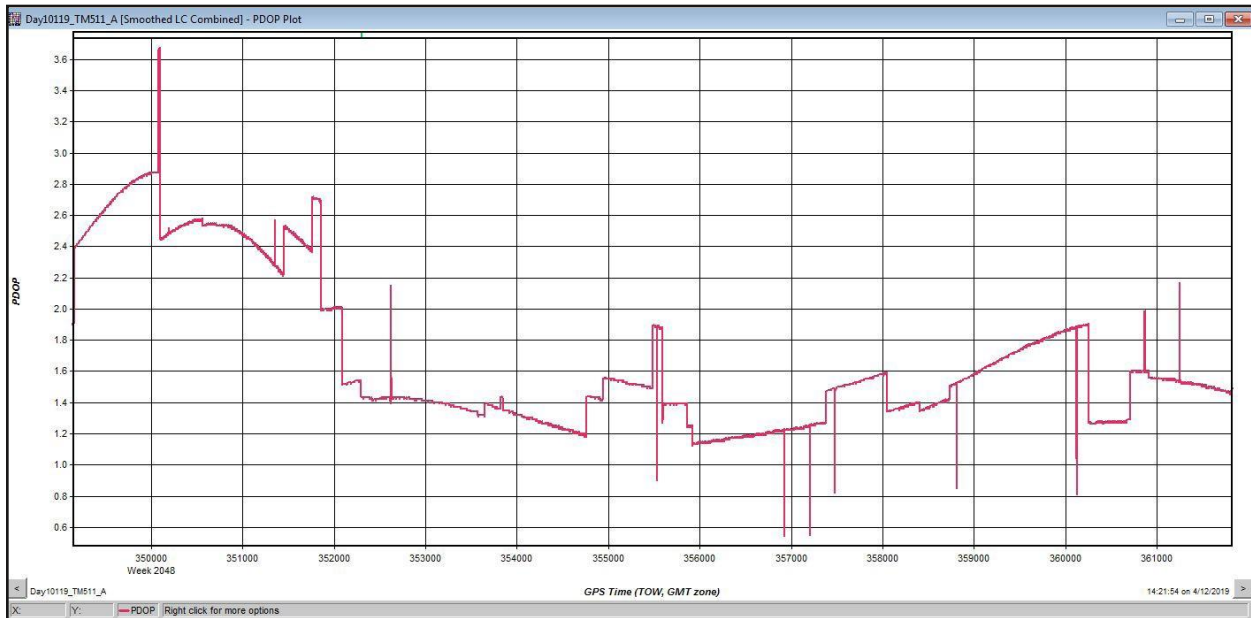


Day10119_TM511_A

Number of Satellites Bar Plot

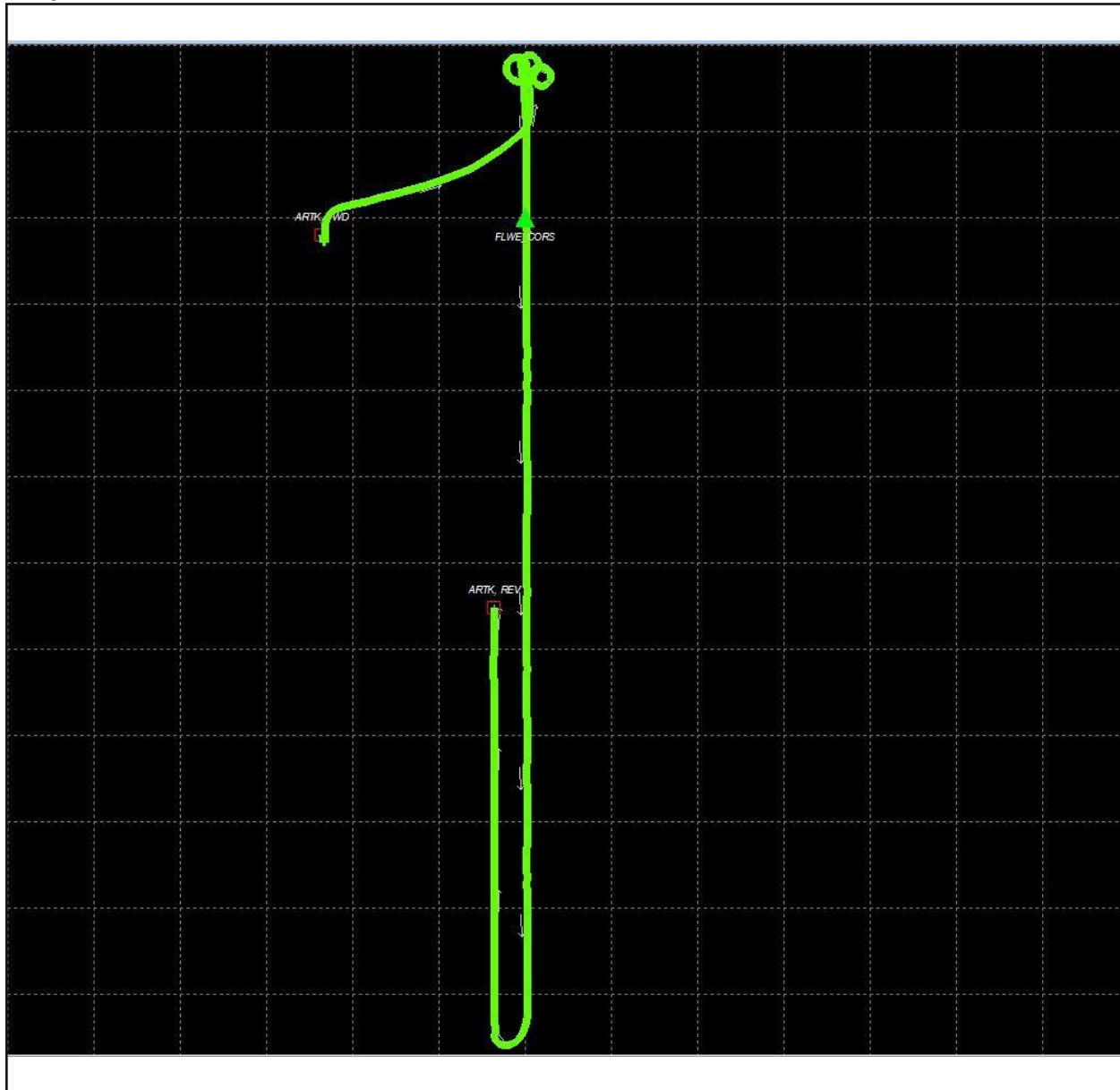


PDOP Plot



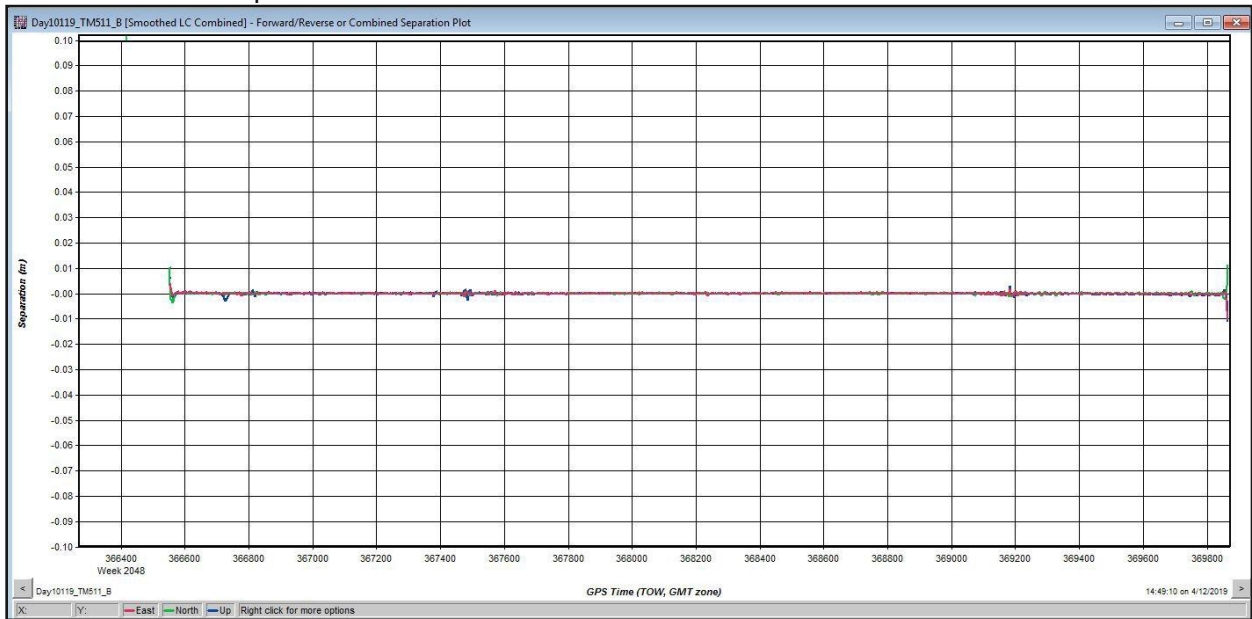
Woolpert Lidar Acquisition Log

Trajectory



Day10119_TM511_B

Combined Separation Plot

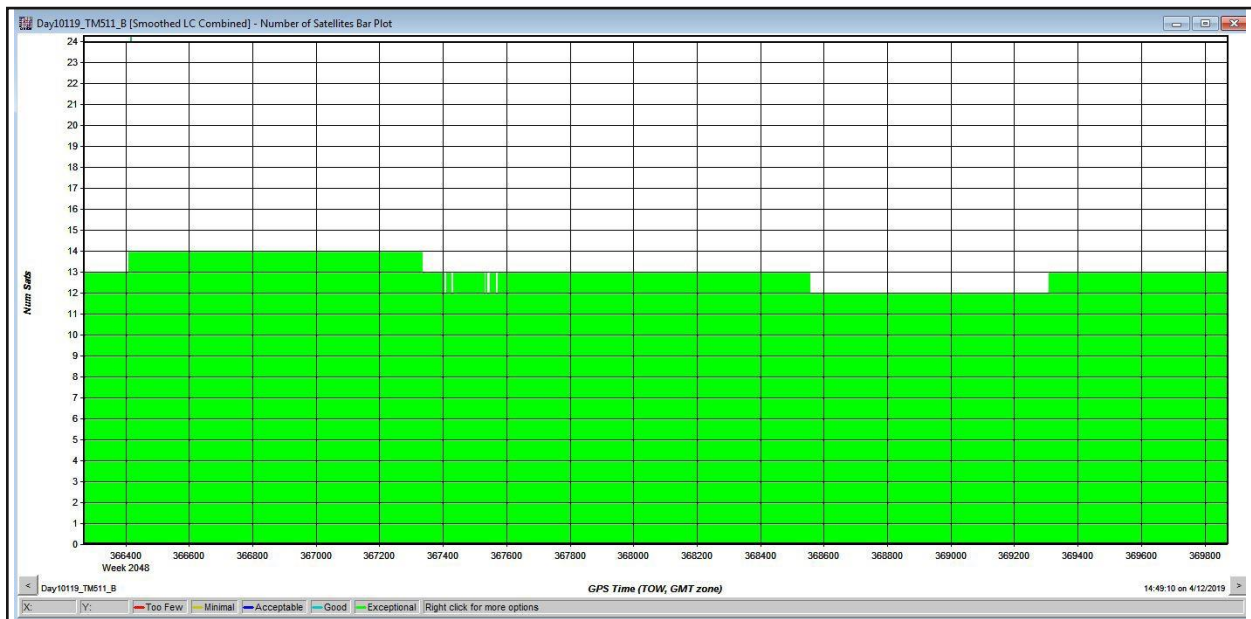


Estimated Position Accuracy Plot

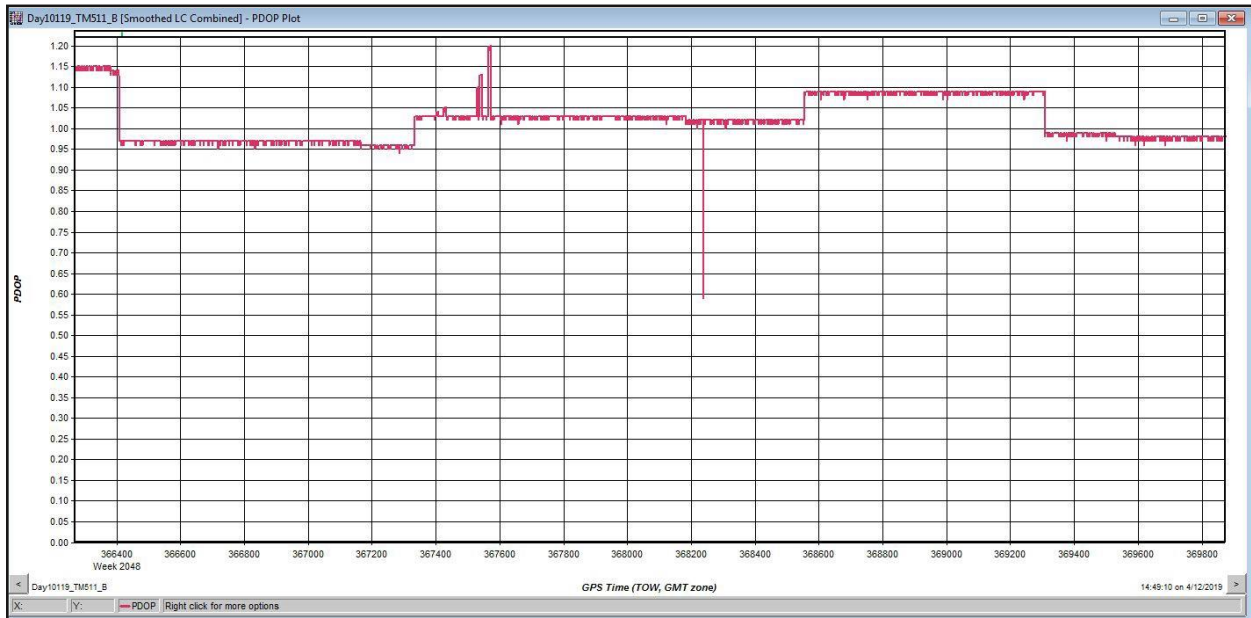


Day10119_TM511_B

Number of Satellites Bar Plot

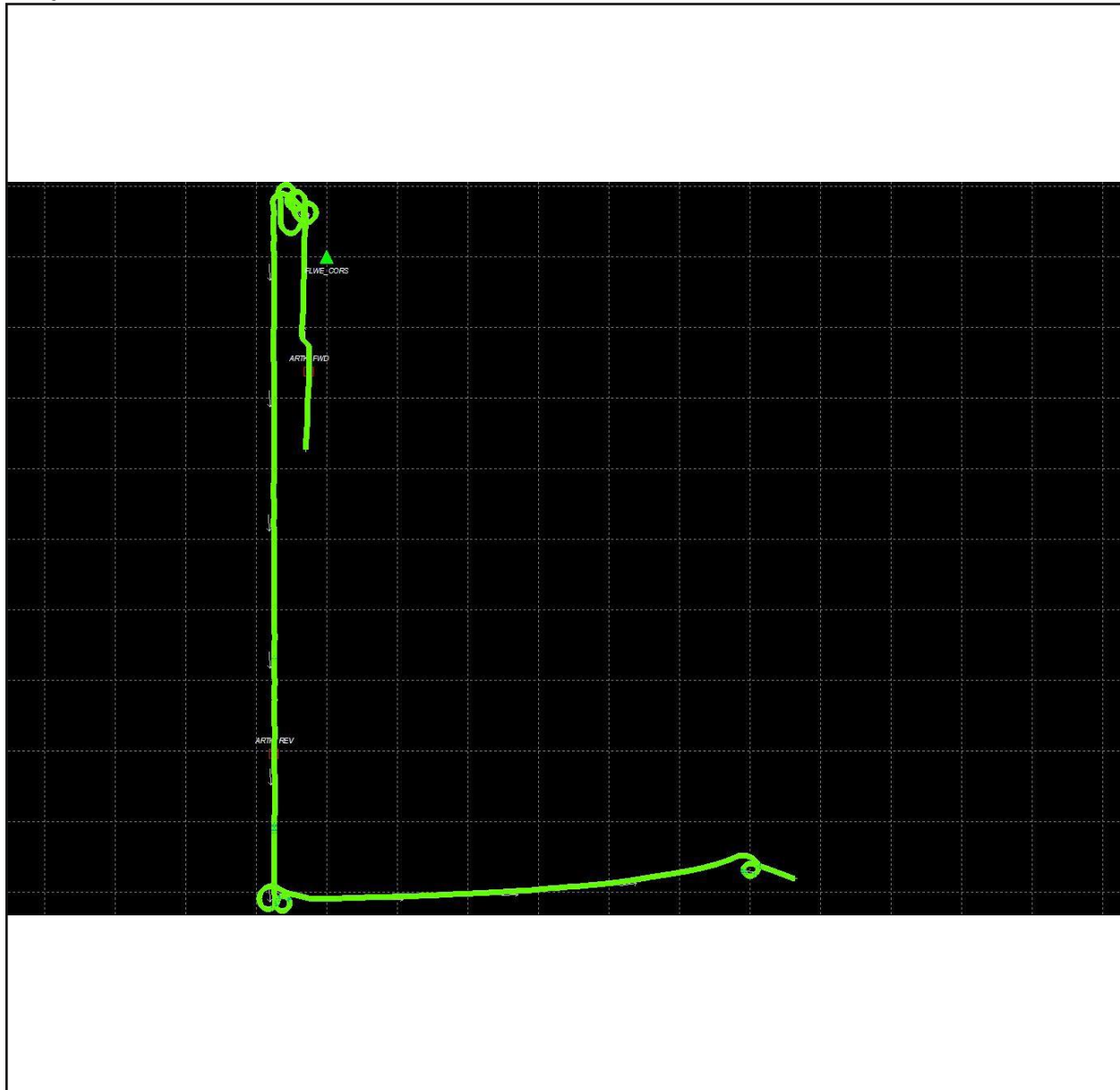


PDOP Plot



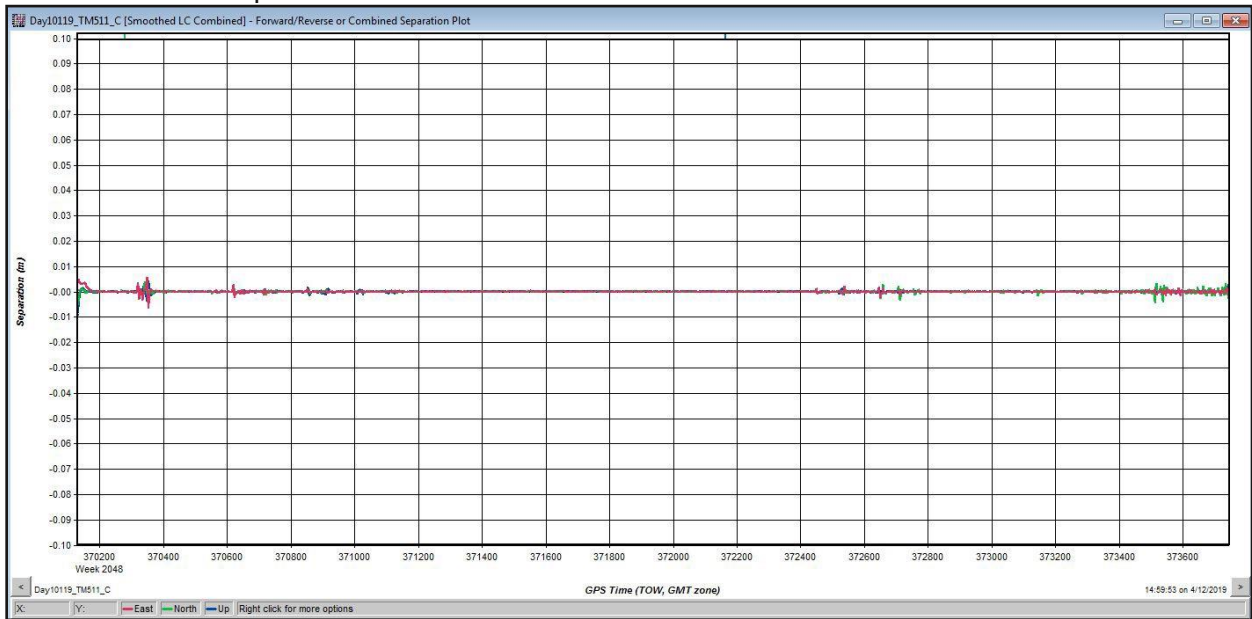
Woolpert Lidar Acquisition Log

Trajectory



Day10119_TM511_C

Combined Separation Plot

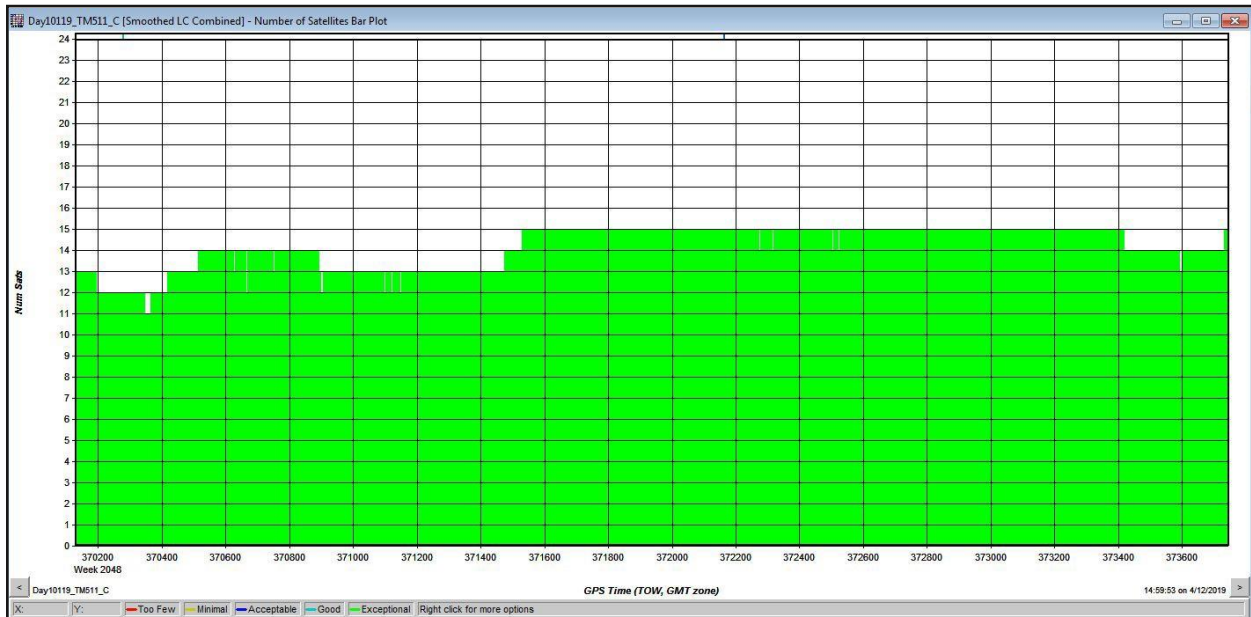


Estimated Position Accuracy Plot

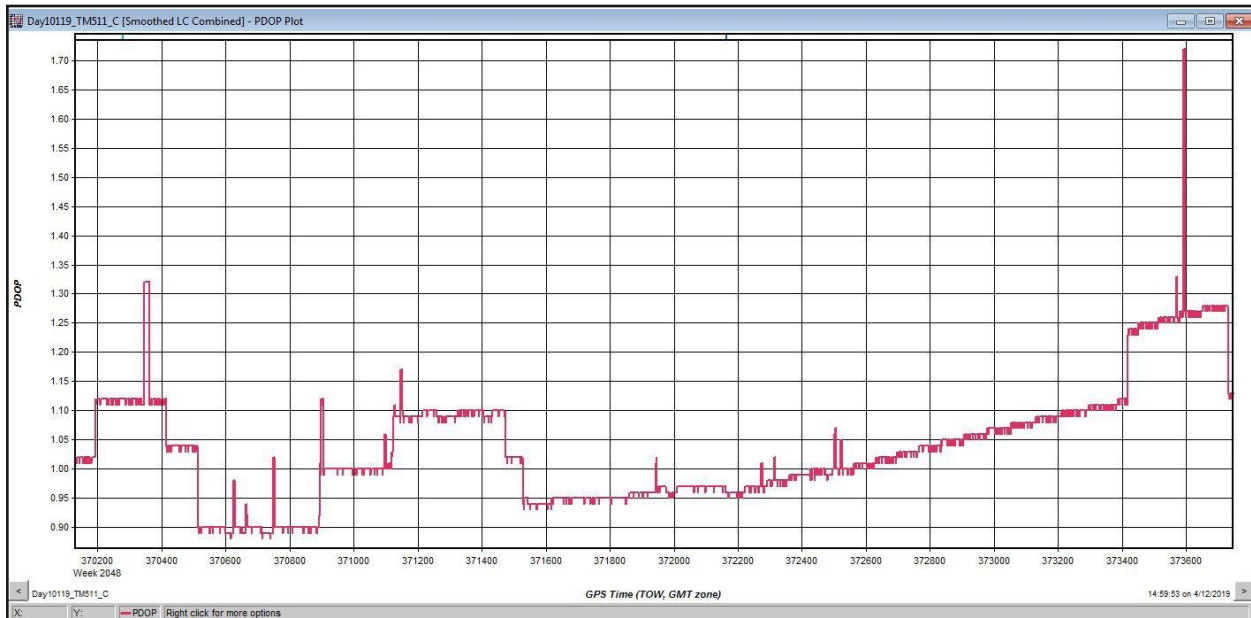


Day10119_TM511_C

Number of Satellites Bar Plot

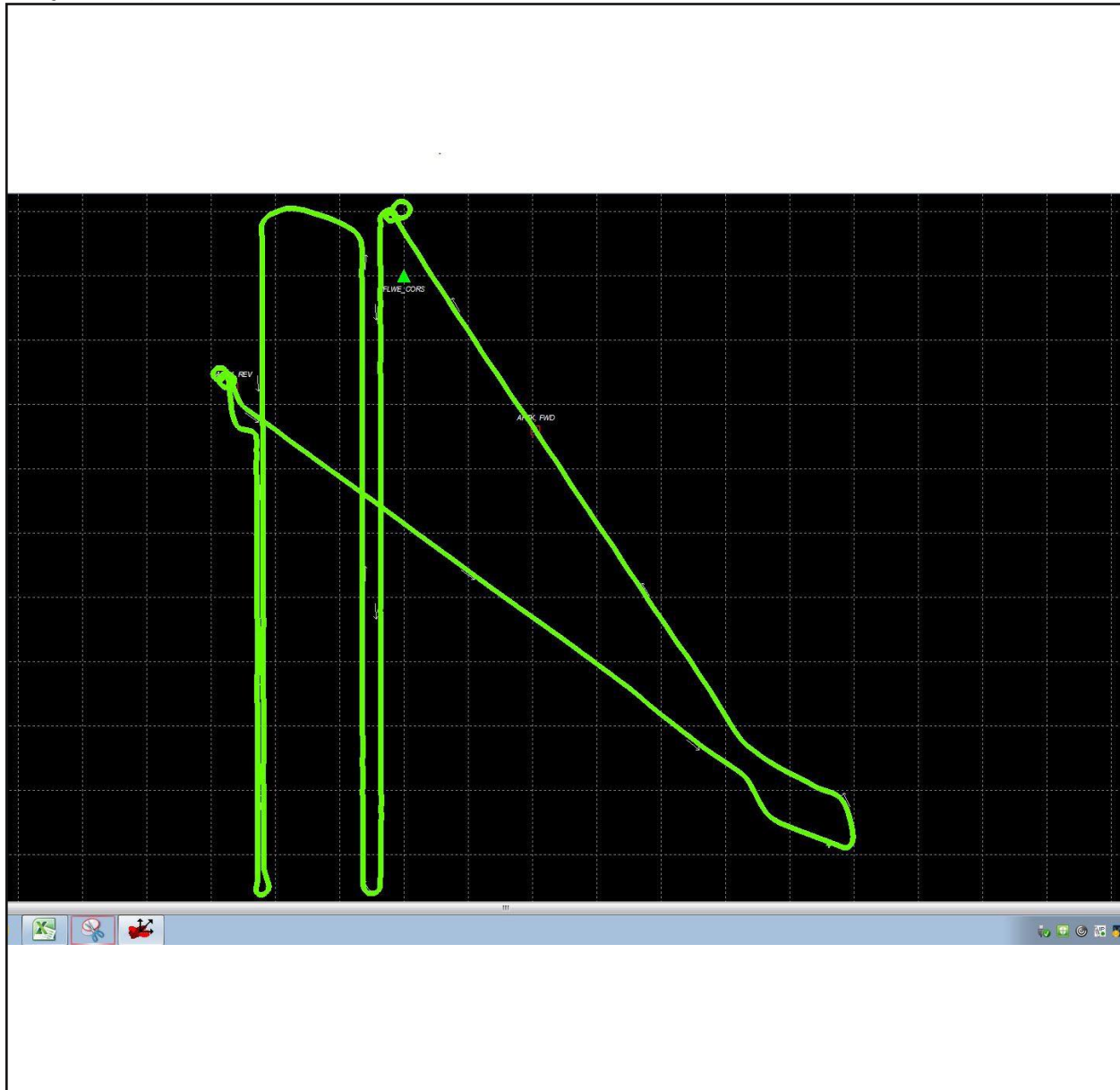


PDOP Plot



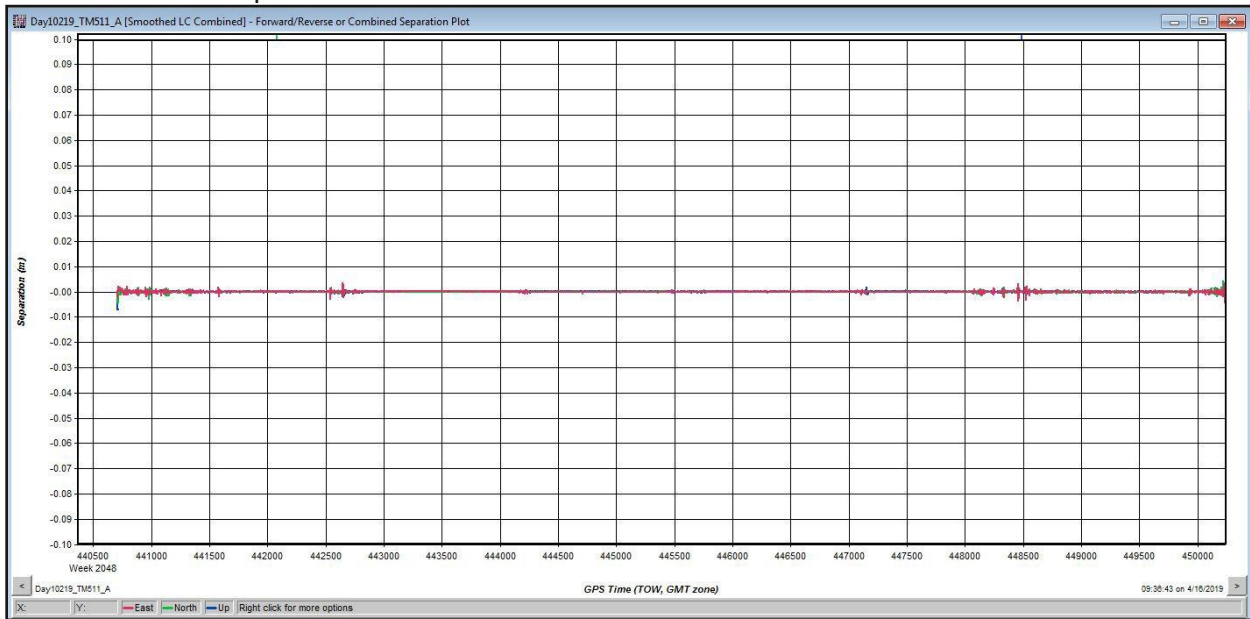
Woolpert Lidar Acquisition Log

Trajectory

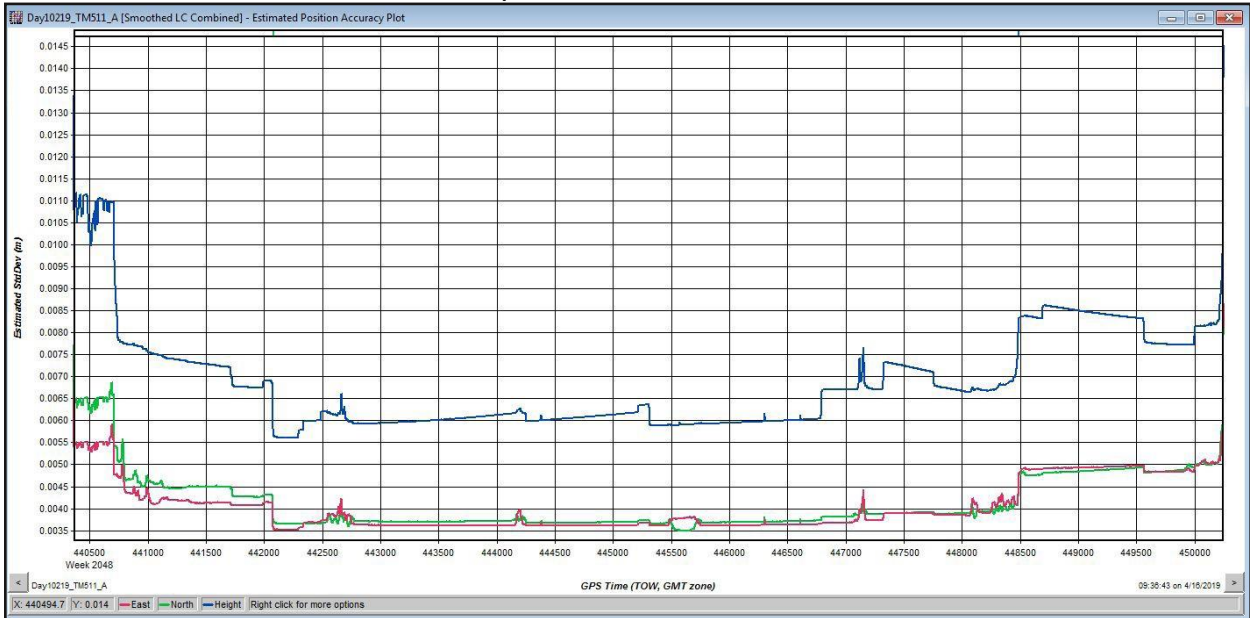


Day10219_TM511_A

Combined Separation Plot

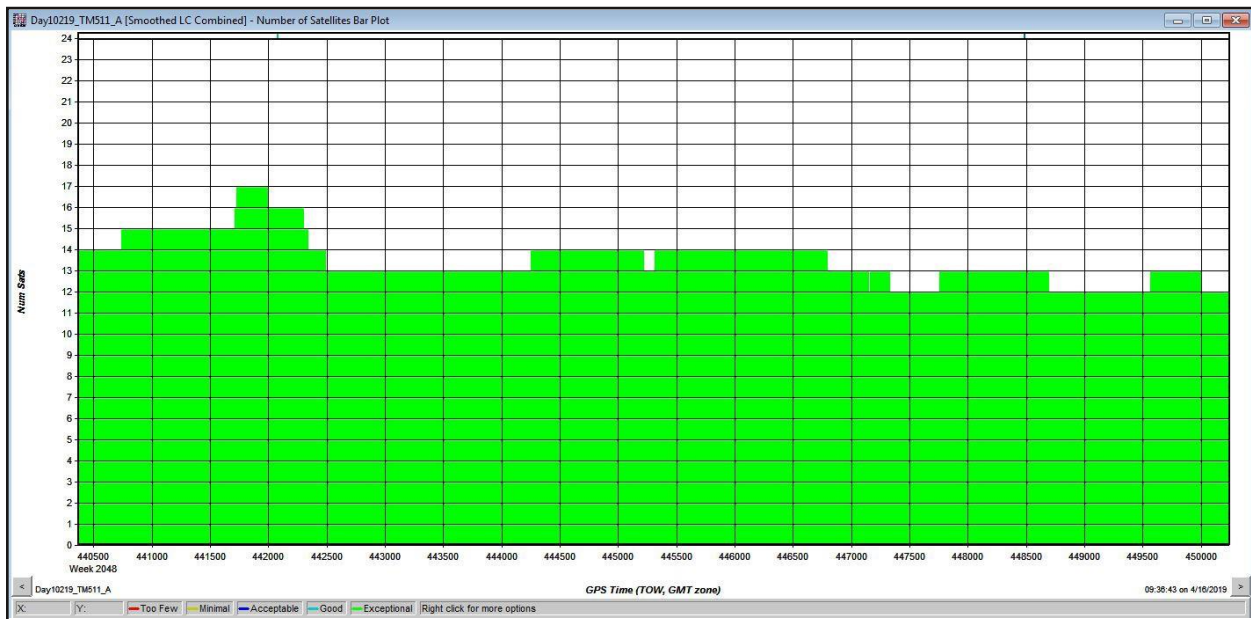


Estimated Position Accuracy Plot

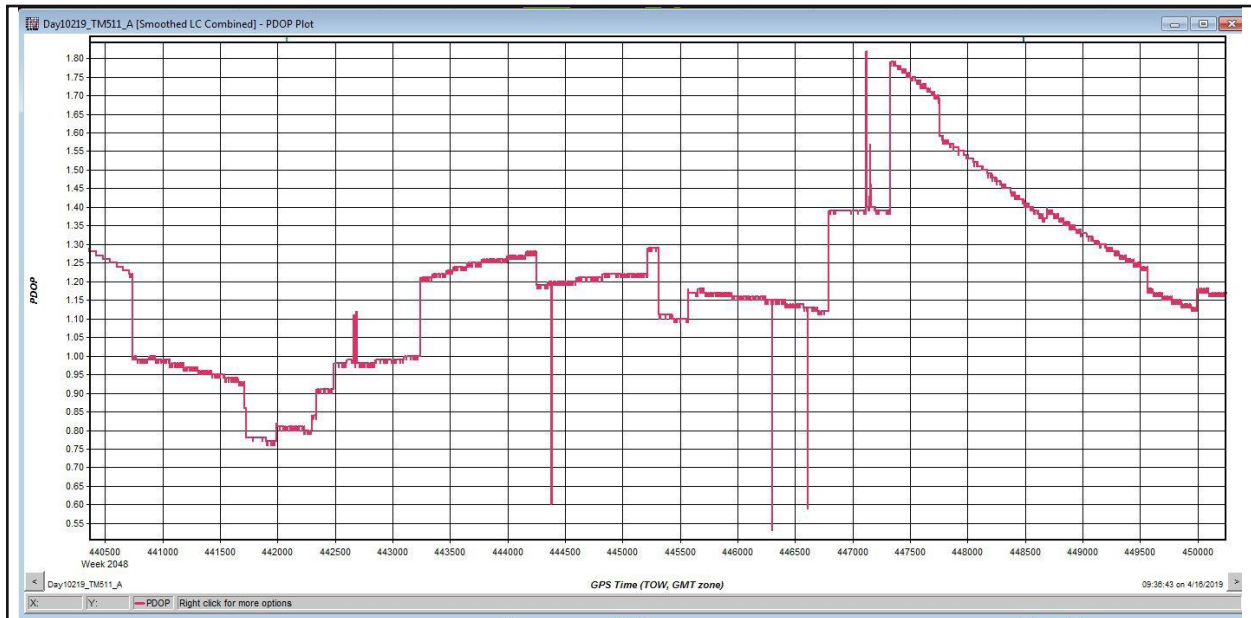


Day10219_TM511_A

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

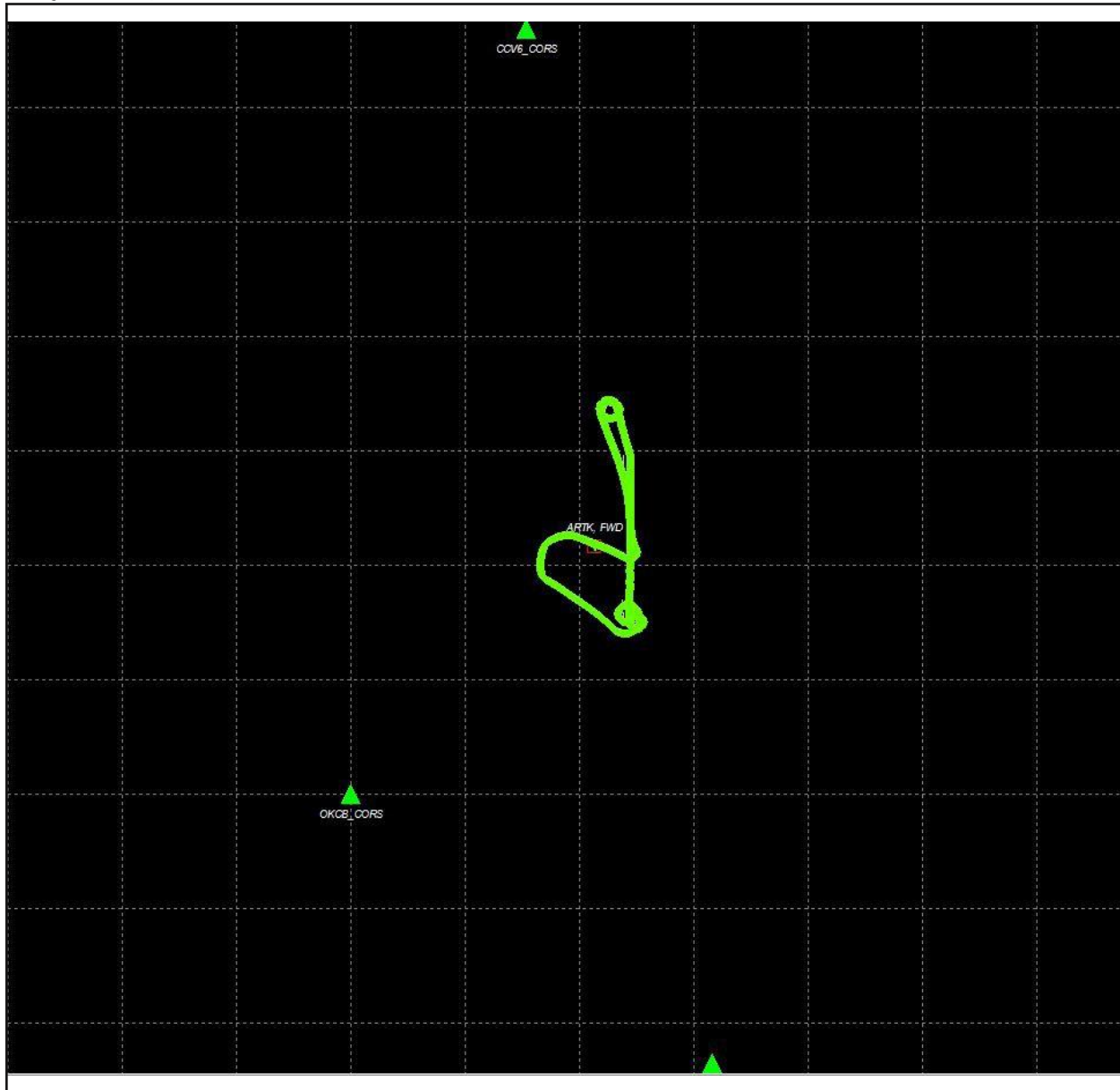
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
413 gb							

Day10219_TM511_B

Base Station Coordinates

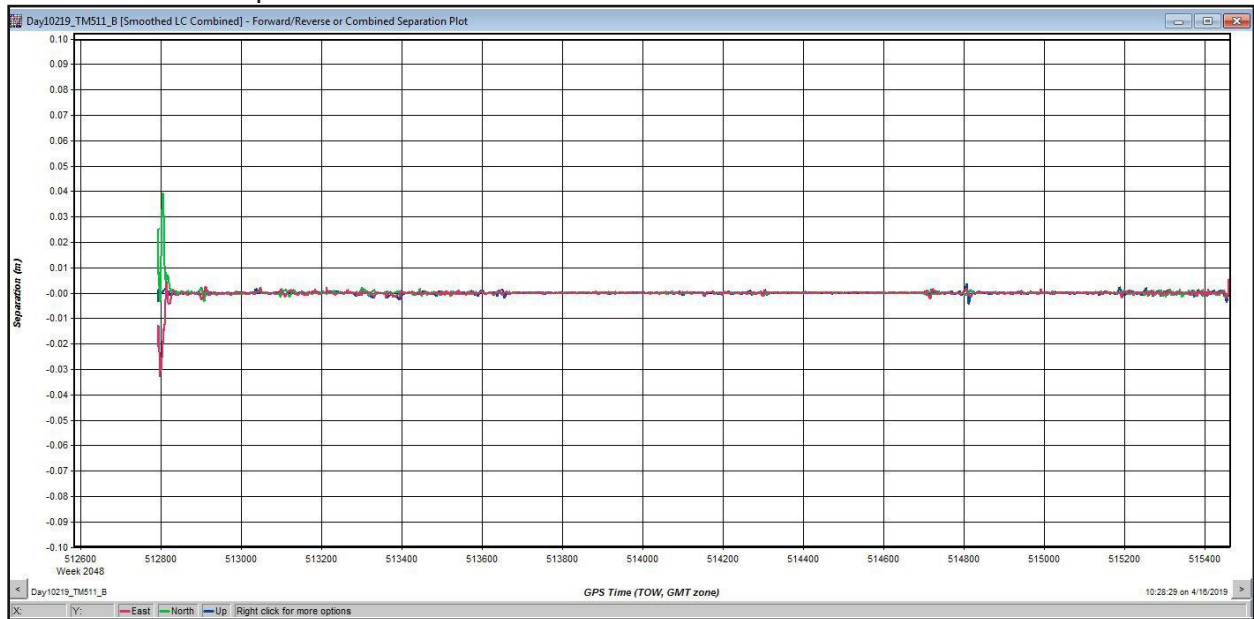
Name	Status	Latitude	Longitude	Height
PBCH_CORS	ENABLED	26° 50' 46.63807"	-80° 13' 09.29993"	-15.179 m (ELLIPSOIDAL)
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)
CCV6_CORS	ENABLED	28° 27' 35.82726"	-80° 32' 43.70265"	-22.632 m (ELLIPSOIDAL)

Trajectory

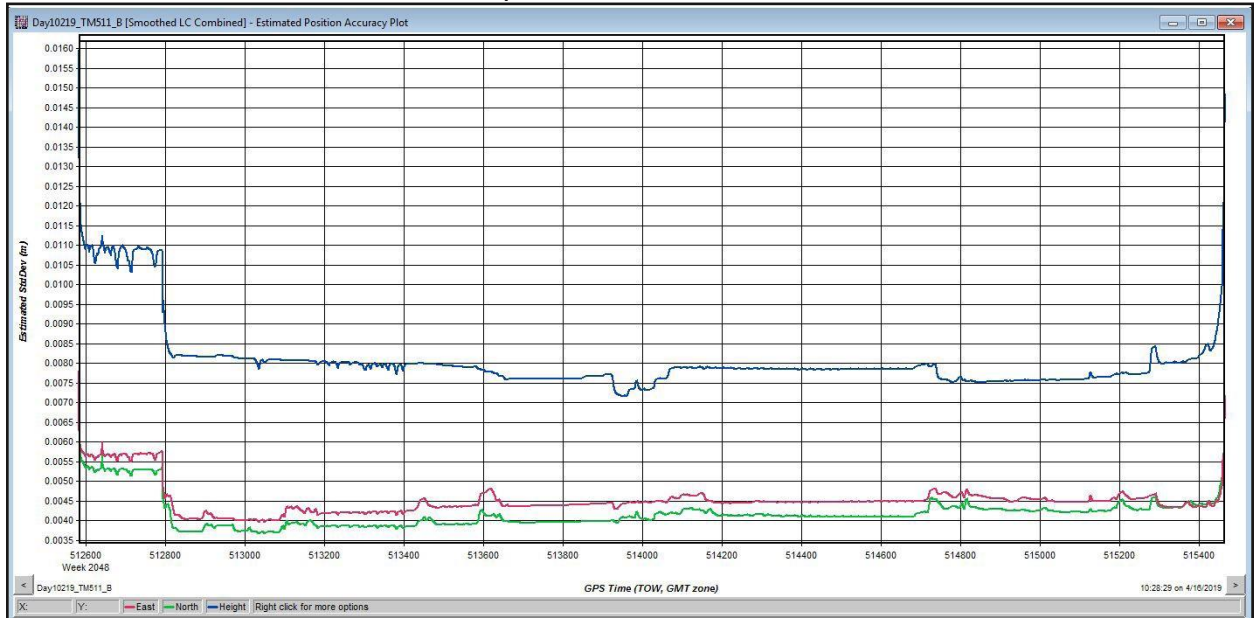


Day10219_TM511_B

Combined Separation Plot

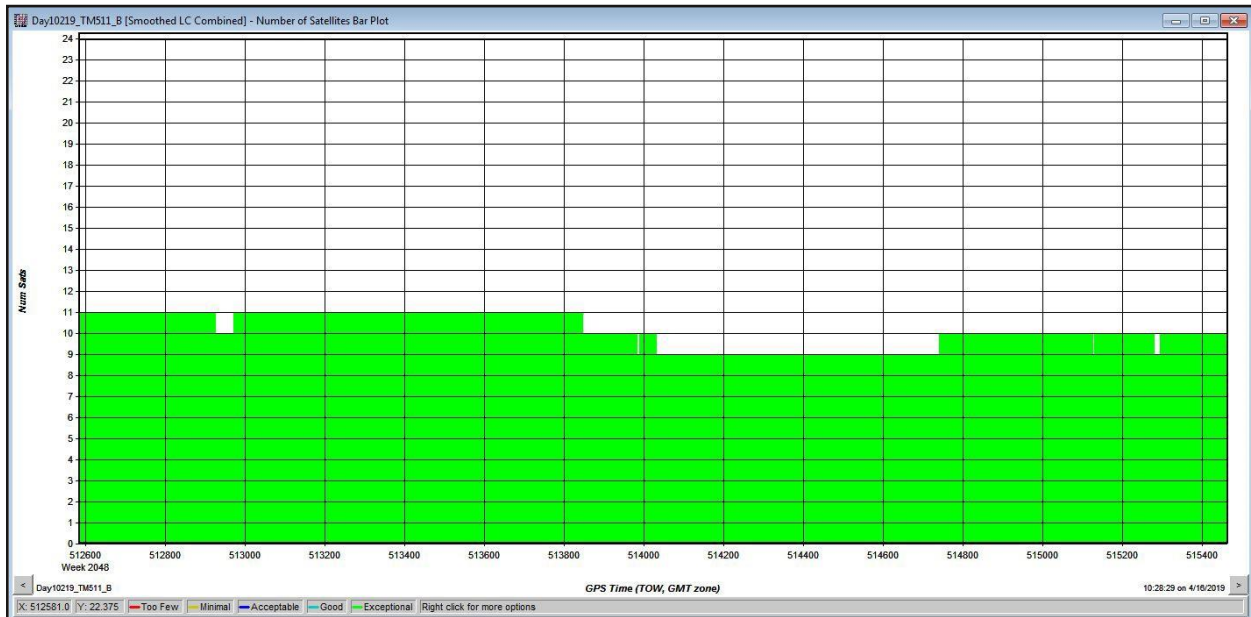


Estimated Position Accuracy Plot

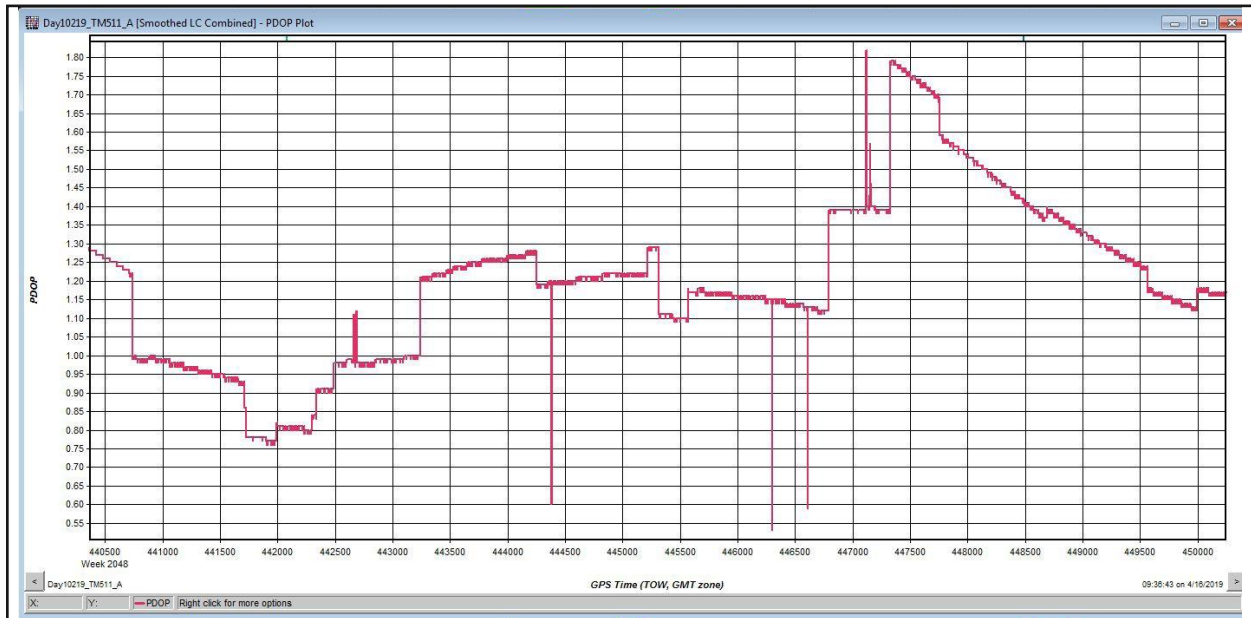


Day10219_TM511_B

Number of Satellites Bar Plot

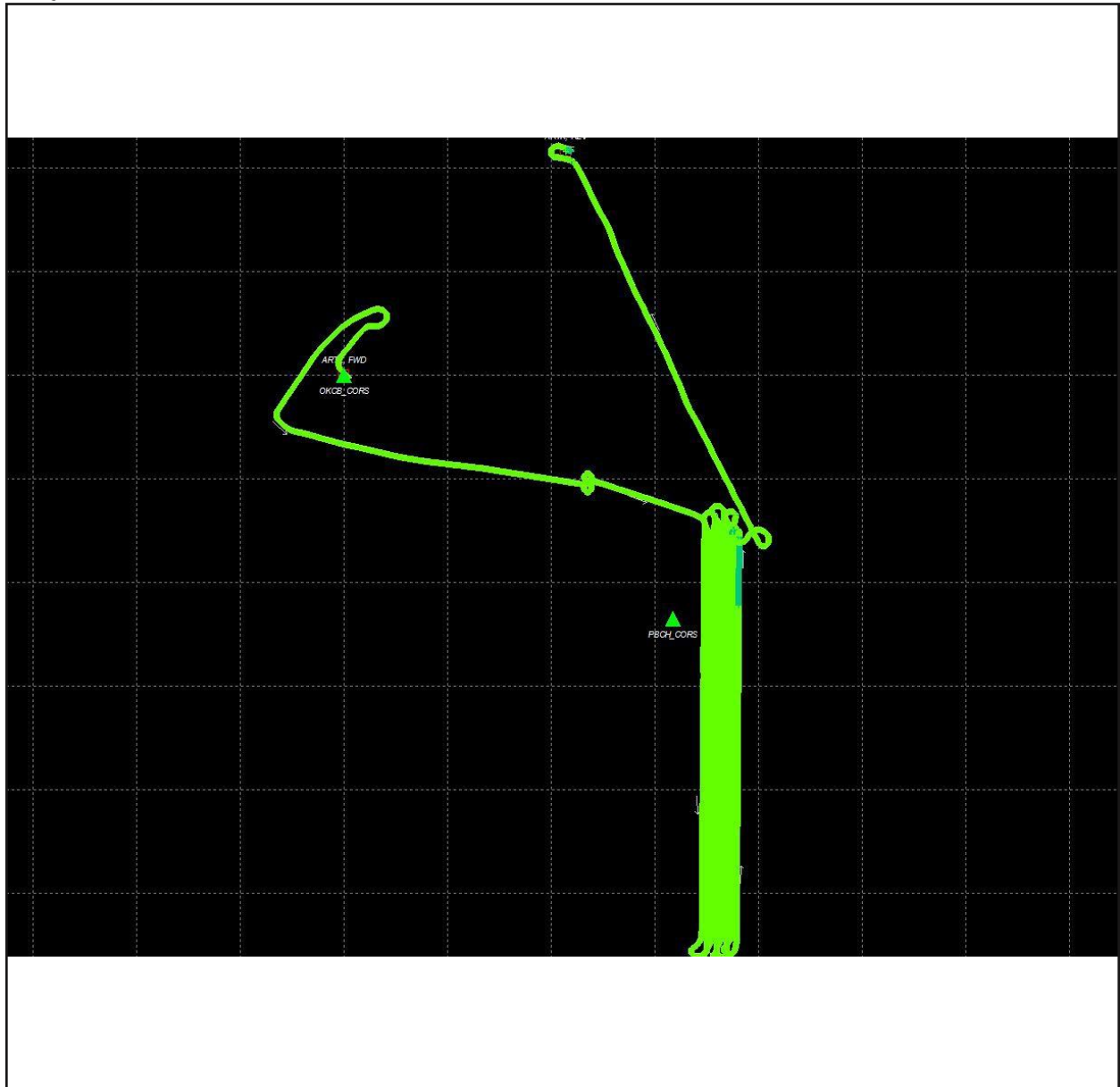


PDOP Plot



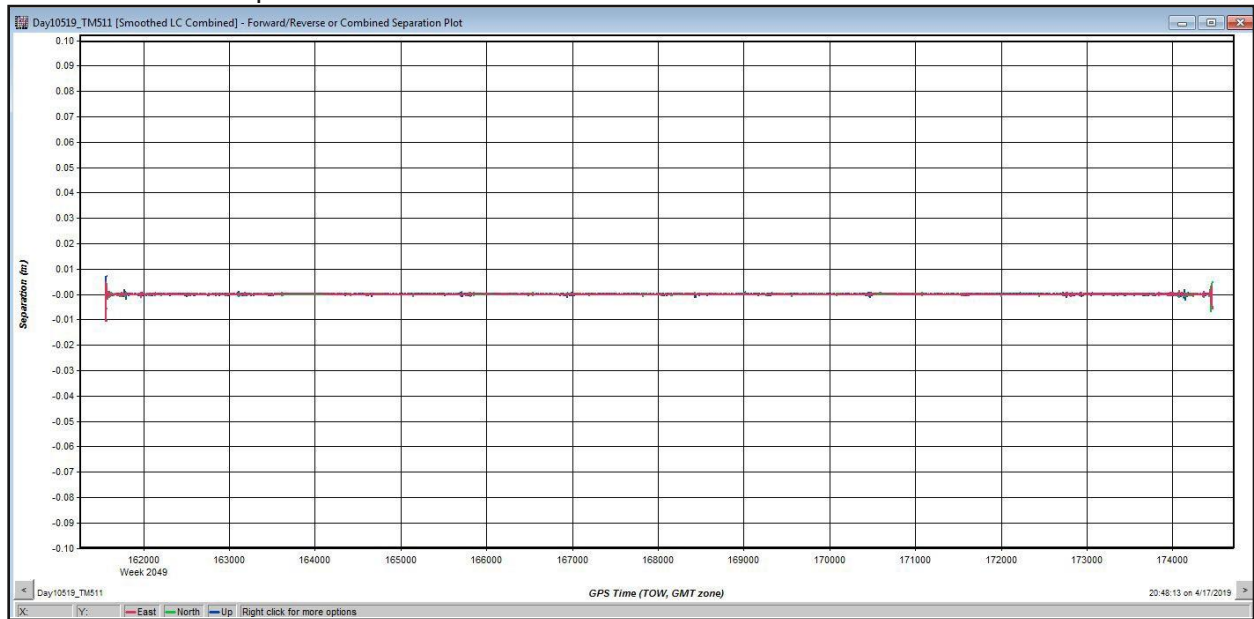
Woolpert Lidar Acquisition Log

Trajectory

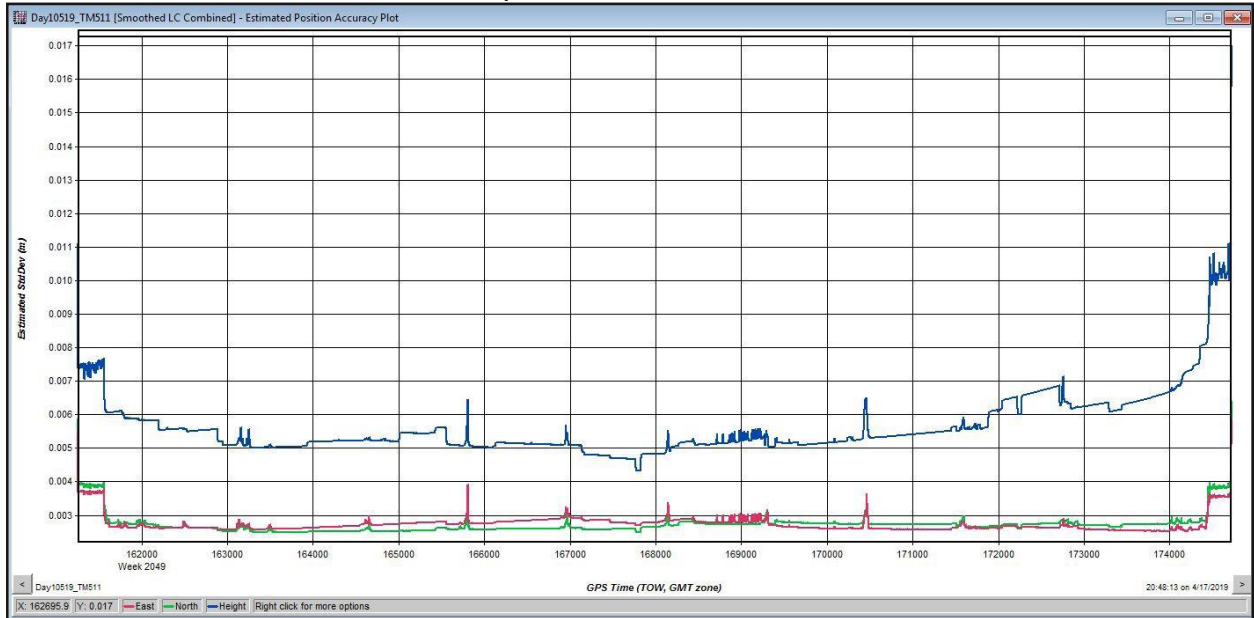


Day10519_TM511

Combined Separation Plot

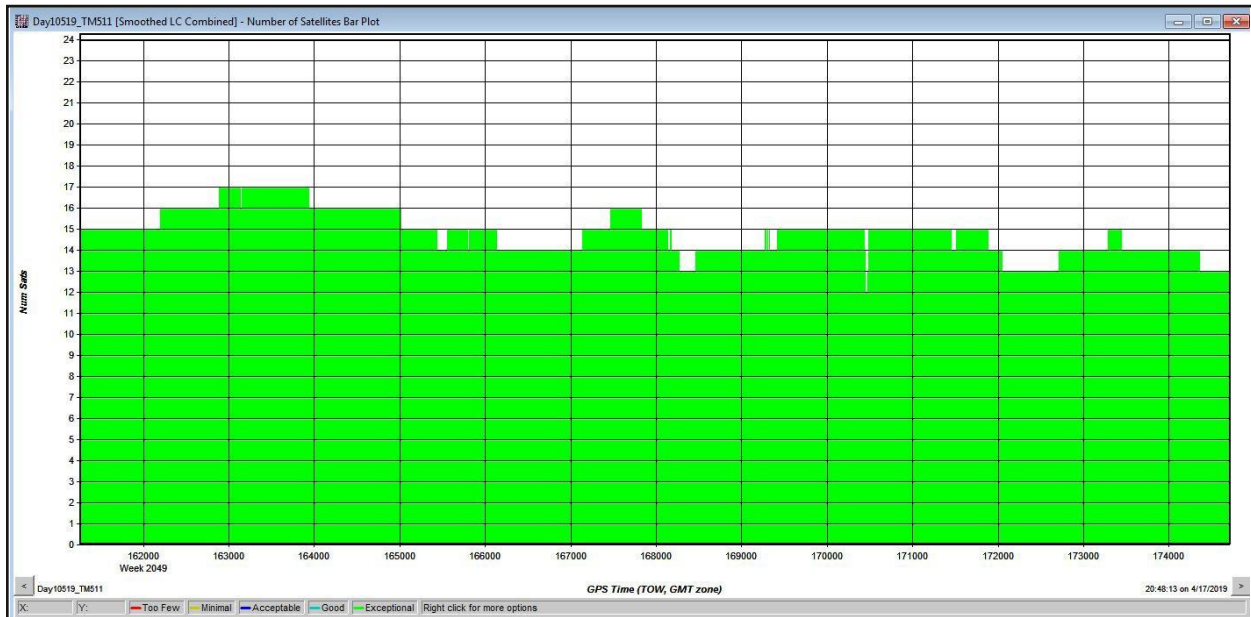


Estimated Position Accuracy Plot

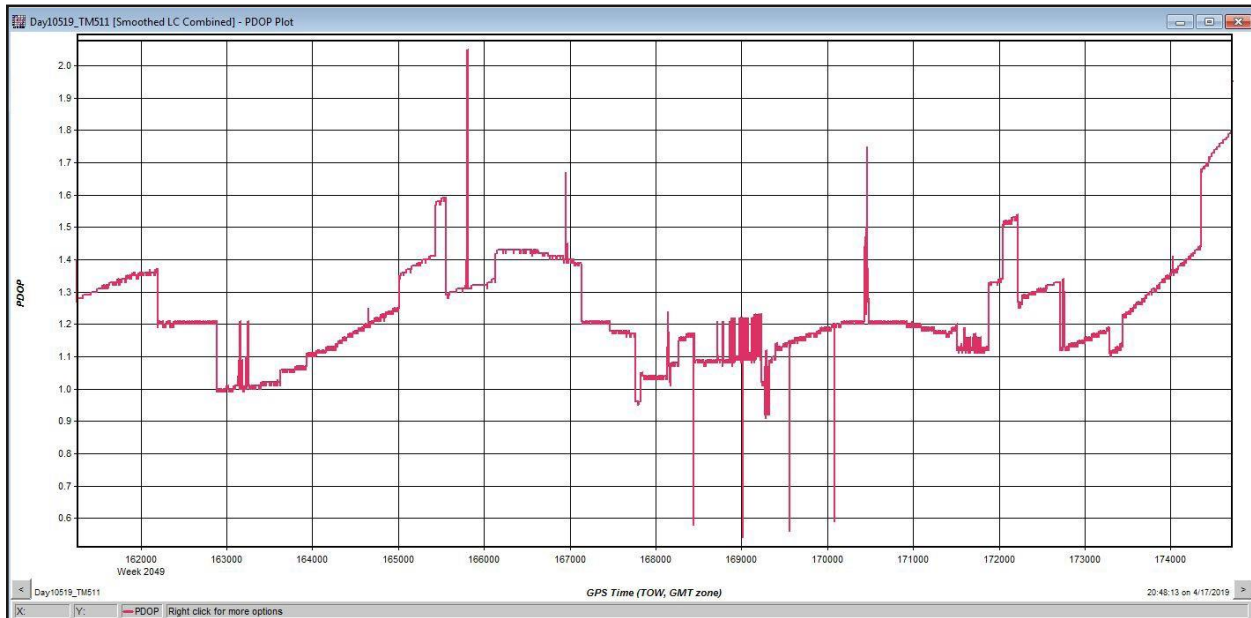


Day10519_TM511

Number of Satellites Bar Plot



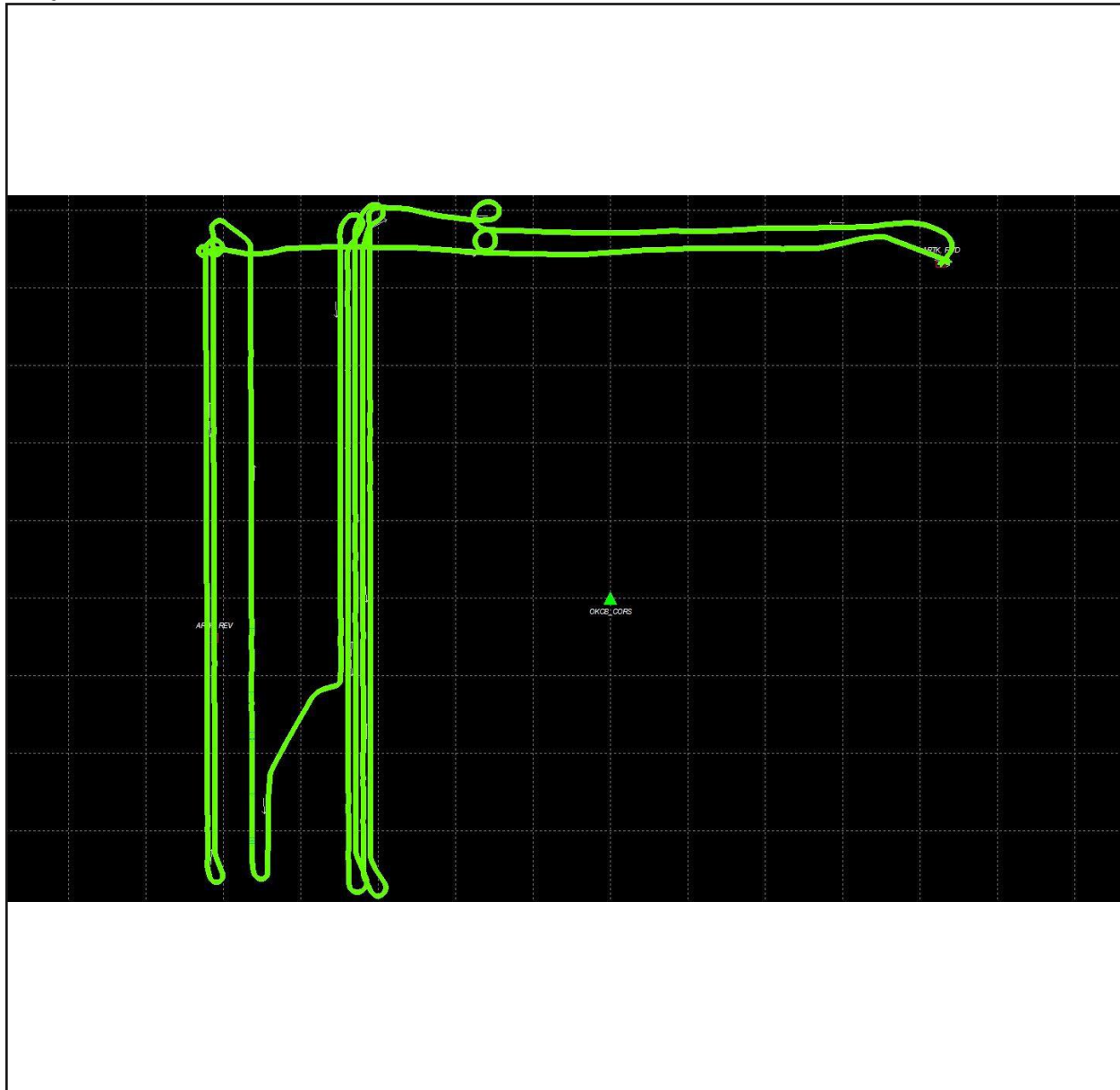
PDOP Plot



Woolpert Lidar Acquisition Log

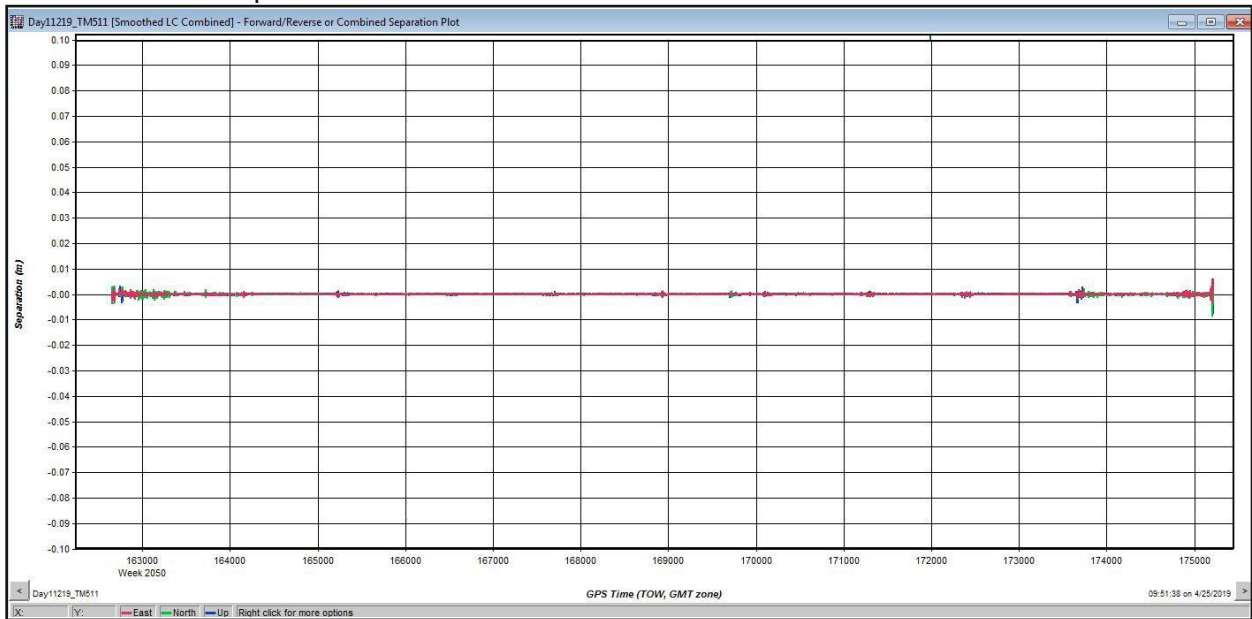
Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 8			Day105_90511_9		04/15/2019	105	9
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Sanda	Cessna 404 Titan - N404CP			7094.3	04:47:00	20:47:00	OVE	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90511			7097.8	08:31:00	00:31:00	KVRB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
320	13	10		Clear	29	12	29.98	
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)			
140				5,900	23			
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1553	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
60	S	21:25:00	21:42:00	00:17:00	20	1.2		
61	N	21:45:00	22:05:00	00:20:00	20	1.2	Mount in Roll- Wind Push	
62	S	22:04:00	22:20:00	00:16:00	20	1.2		
63	N	22:23:00	22:40:00	00:17:00	20	1.2	Mount in Roll- Wind Push 22:26	
64	S	22:43:00	23:00:00	00:17:00	21	1.1		
65	N	23:02:00	23:19:00	00:17:00	20	1.1		
66	S	23:21:00	23:38:00	00:17:00	20	1.2		
67	N	23:40:00	23:58:00	00:18:00	18	1.3		

Trajectory

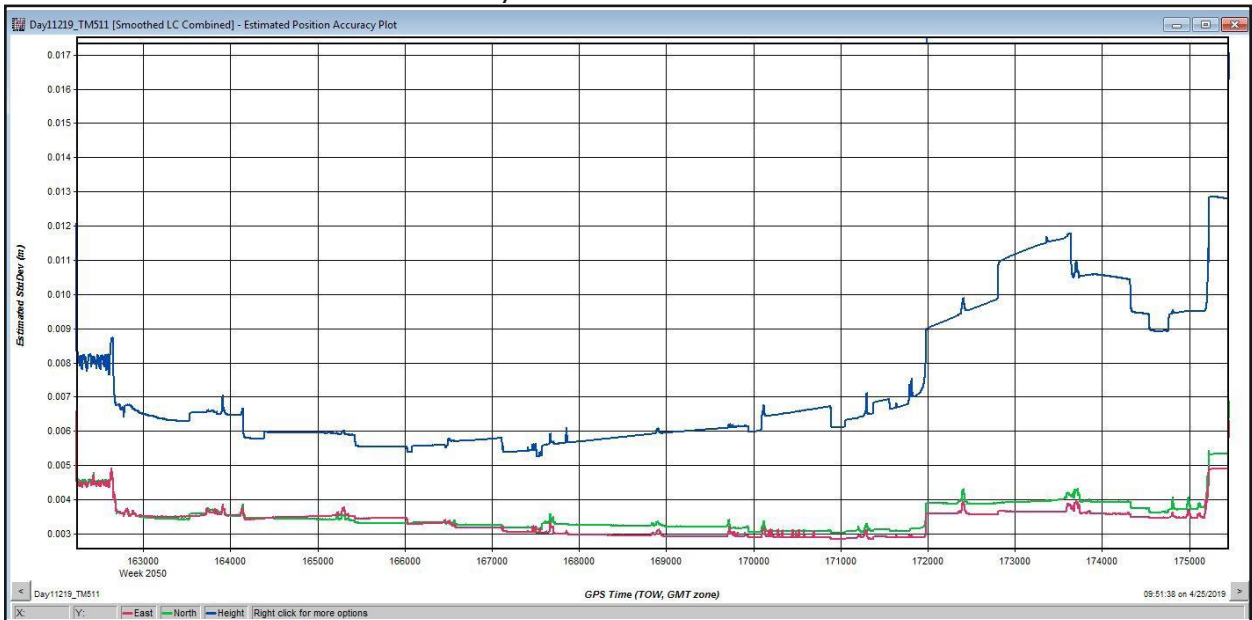


Day11219_TM511

Combined Separation Plot

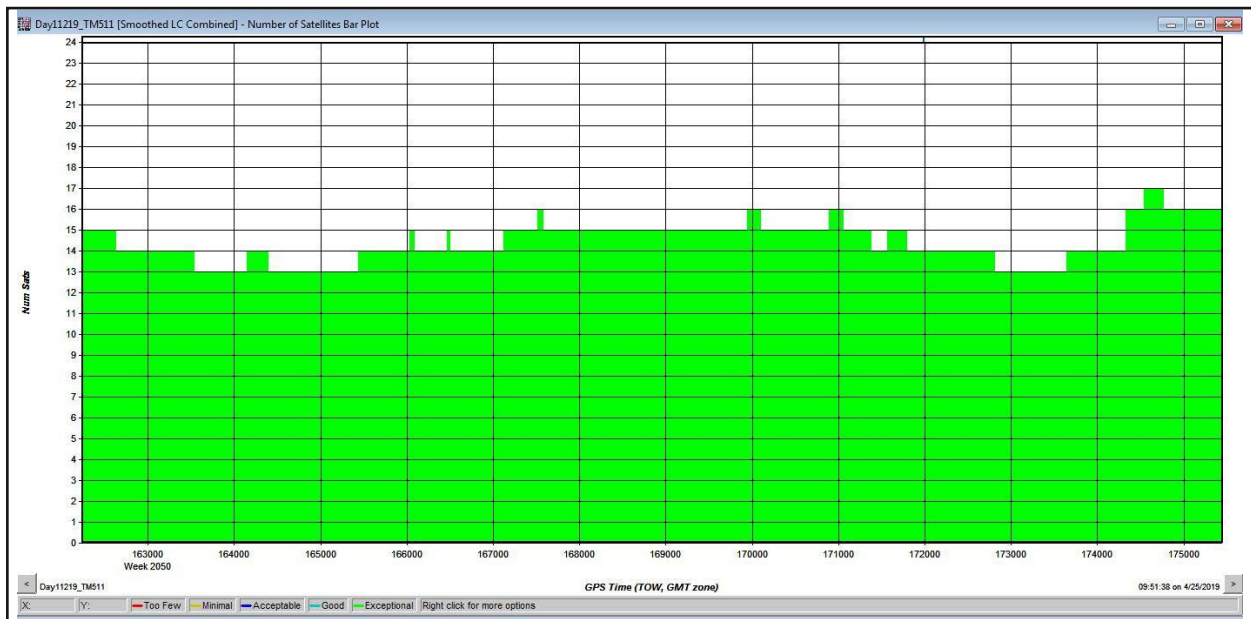


Estimated Position Accuracy Plot

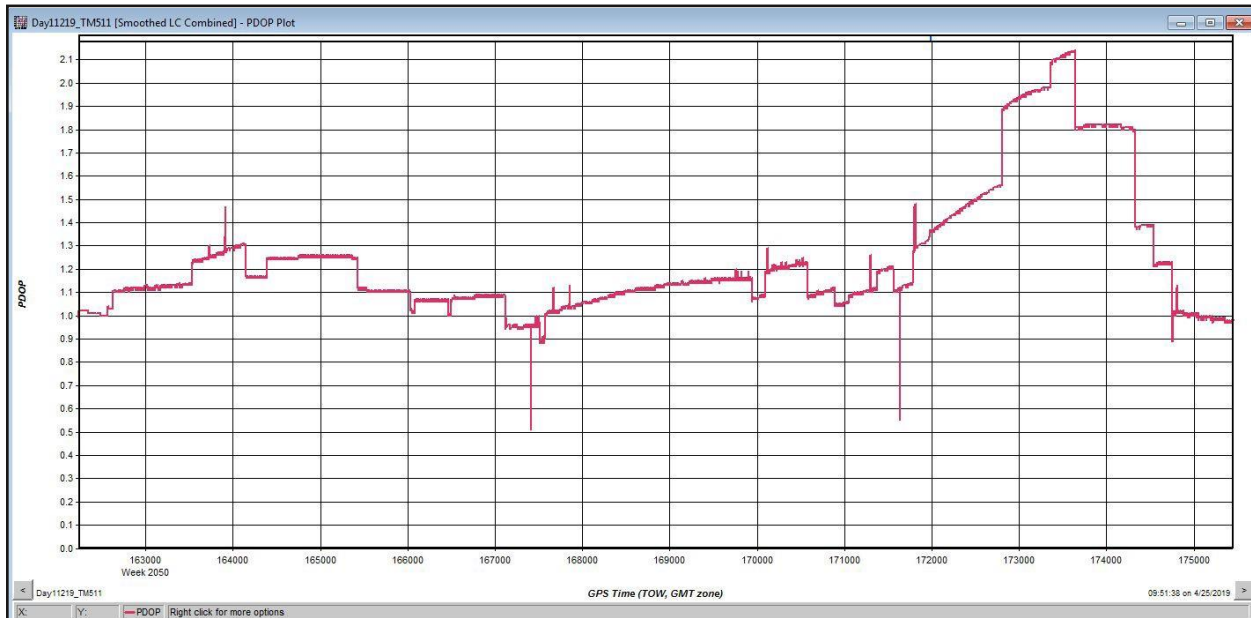


Day11219_TM511

Number of Satellites Bar Plot



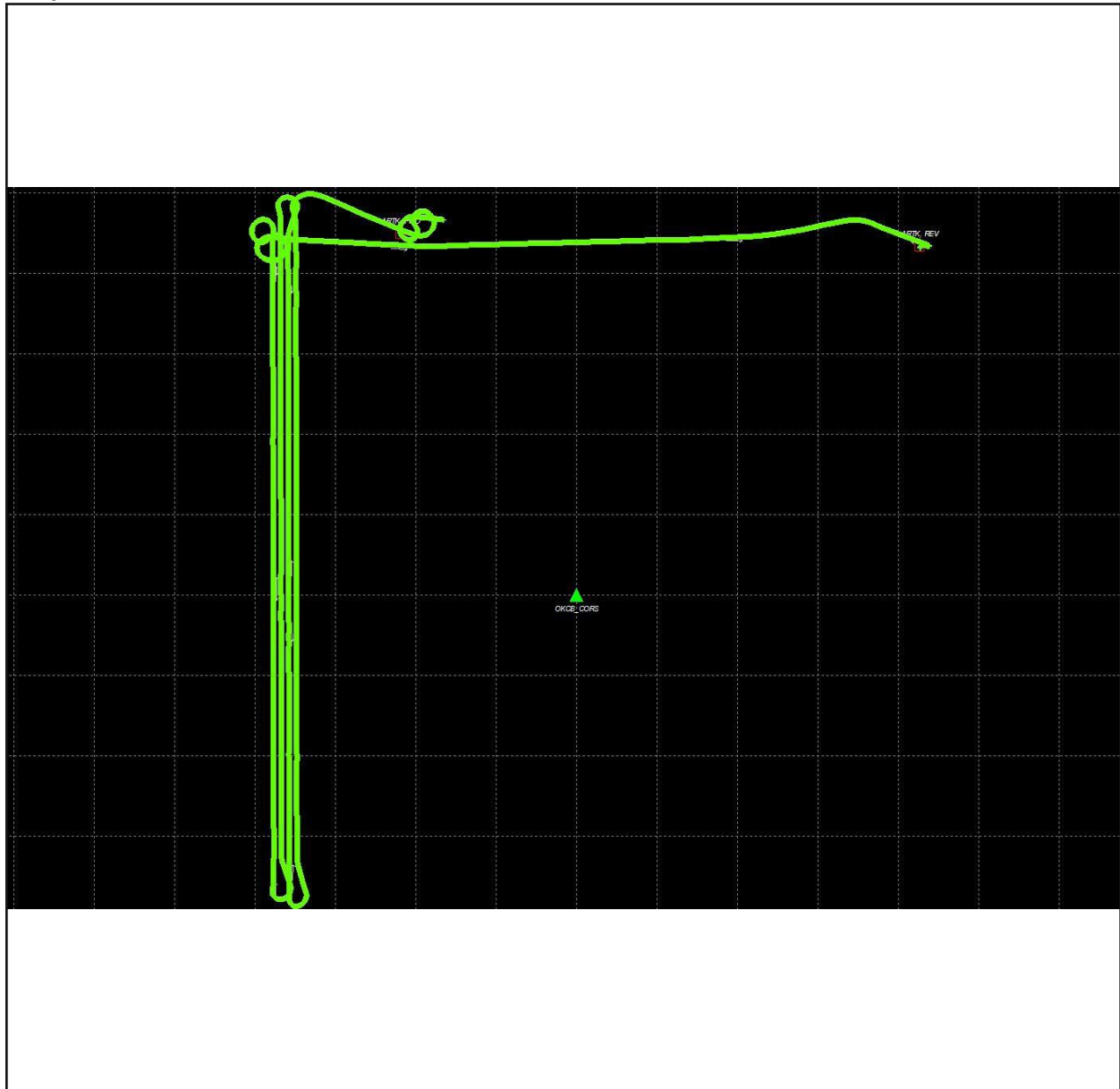
PDOP Plot



Woolpert Lidar Acquisition Log

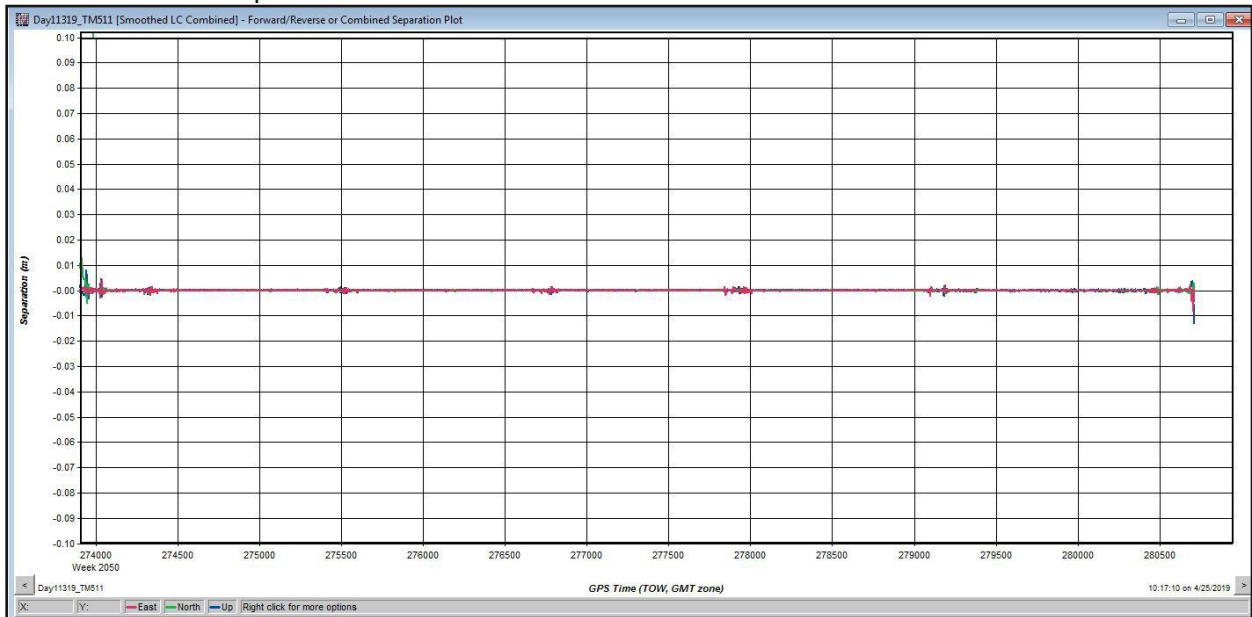
Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 5			Day112_90511_15		04/22/2019	112	15
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Sanda	Cessna 404 Titan - N404CP			7107.8	05:03:00	21:03:00	VRB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90511			7111.3	08:43:00	00:43:00	VRB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
70	12	10		Clear	25	13	30.12	
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)			
140				6,000	53			
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1553	100		
						Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
31	S	21:36:00	21:53:00	00:17:00	19	1.3		
30	N	21:56:00	22:13:00	00:17:00	24	1.1		
29	S	22:16:00	22:33:00	00:17:00	22	1.1		
28	N	22:36:00	22:53:00	00:17:00	21	1.1		
27	S	22:56:00	23:08:00	00:12:00	19	1.3	Cut Line Short - Clouds	
15	N	23:16:00	23:32:00	00:16:00	20	1.2		
10	S	23:35:00	23:52:00	00:17:00	24	1.1		
9	N	23:54:00	00:12:00	00:18:00	23	1.1		

Trajectory

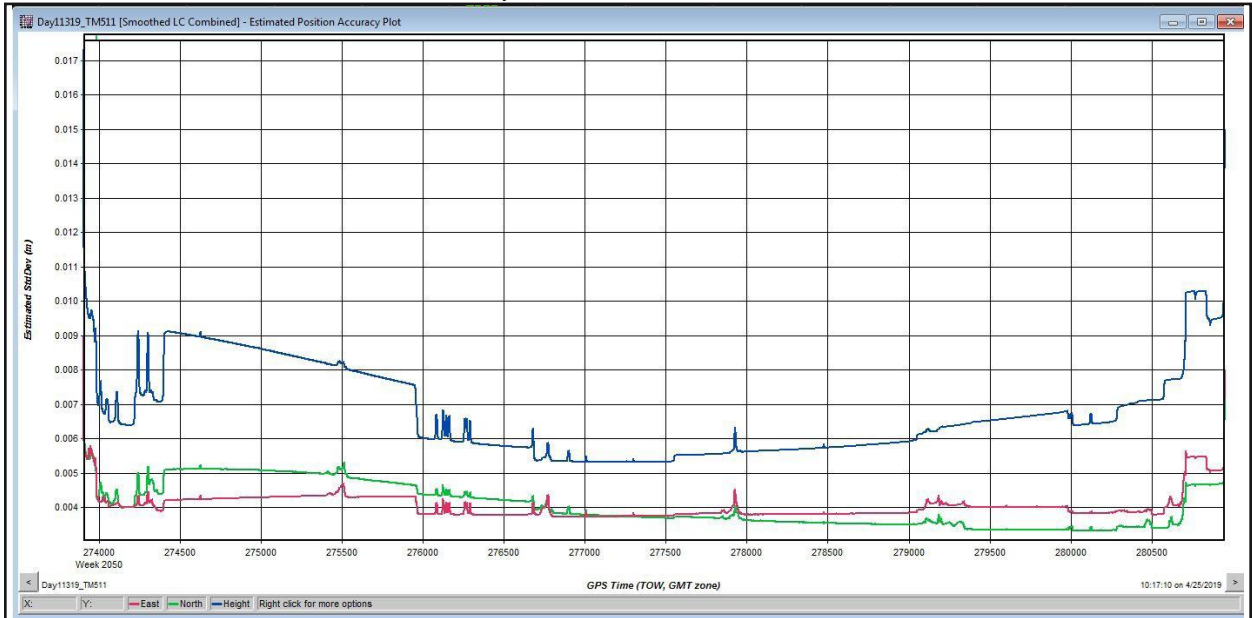


Day11319_TM511

Combined Separation Plot

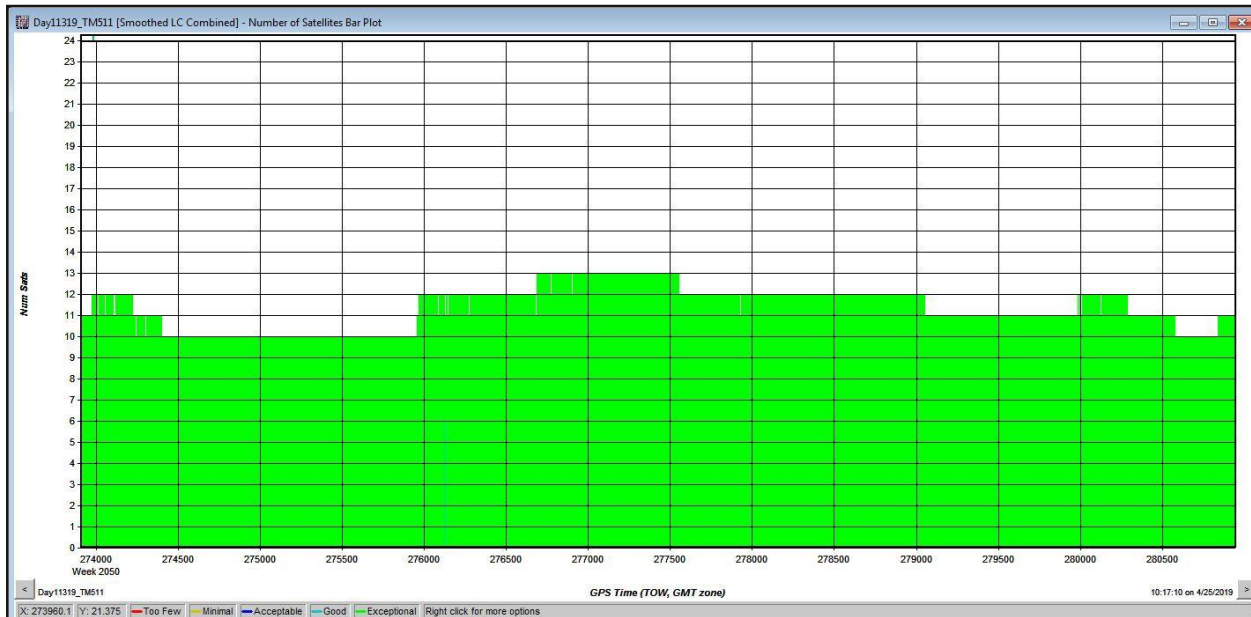


Estimated Position Accuracy Plot

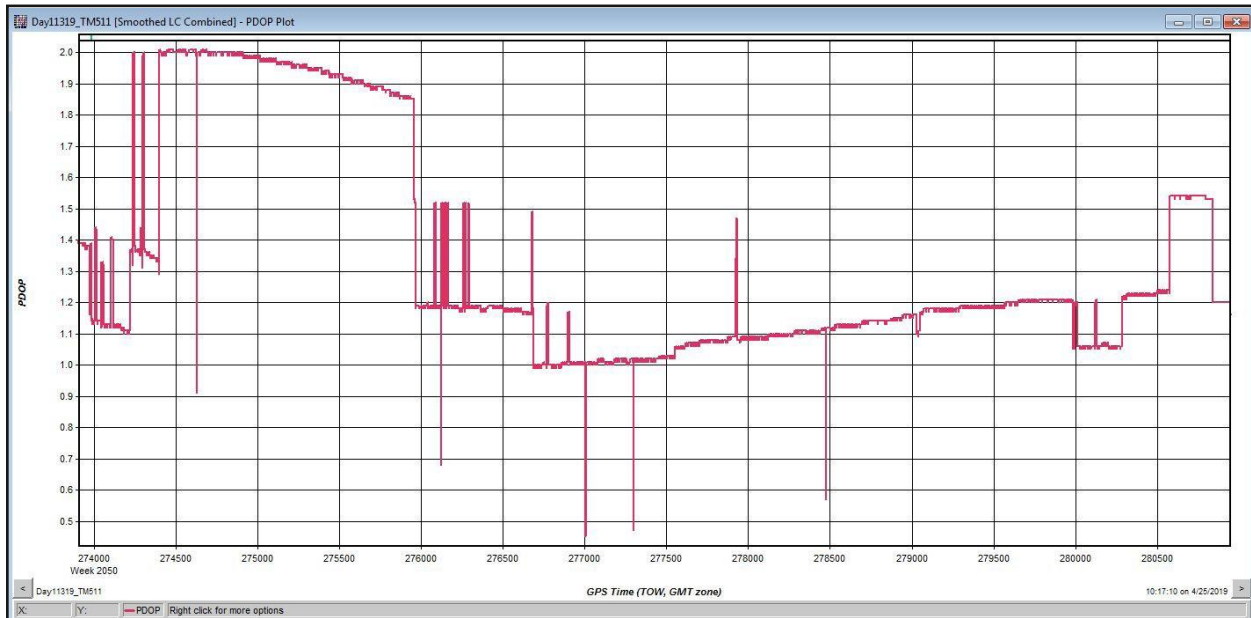


Day11319_TM511

Number of Satellites Bar Plot

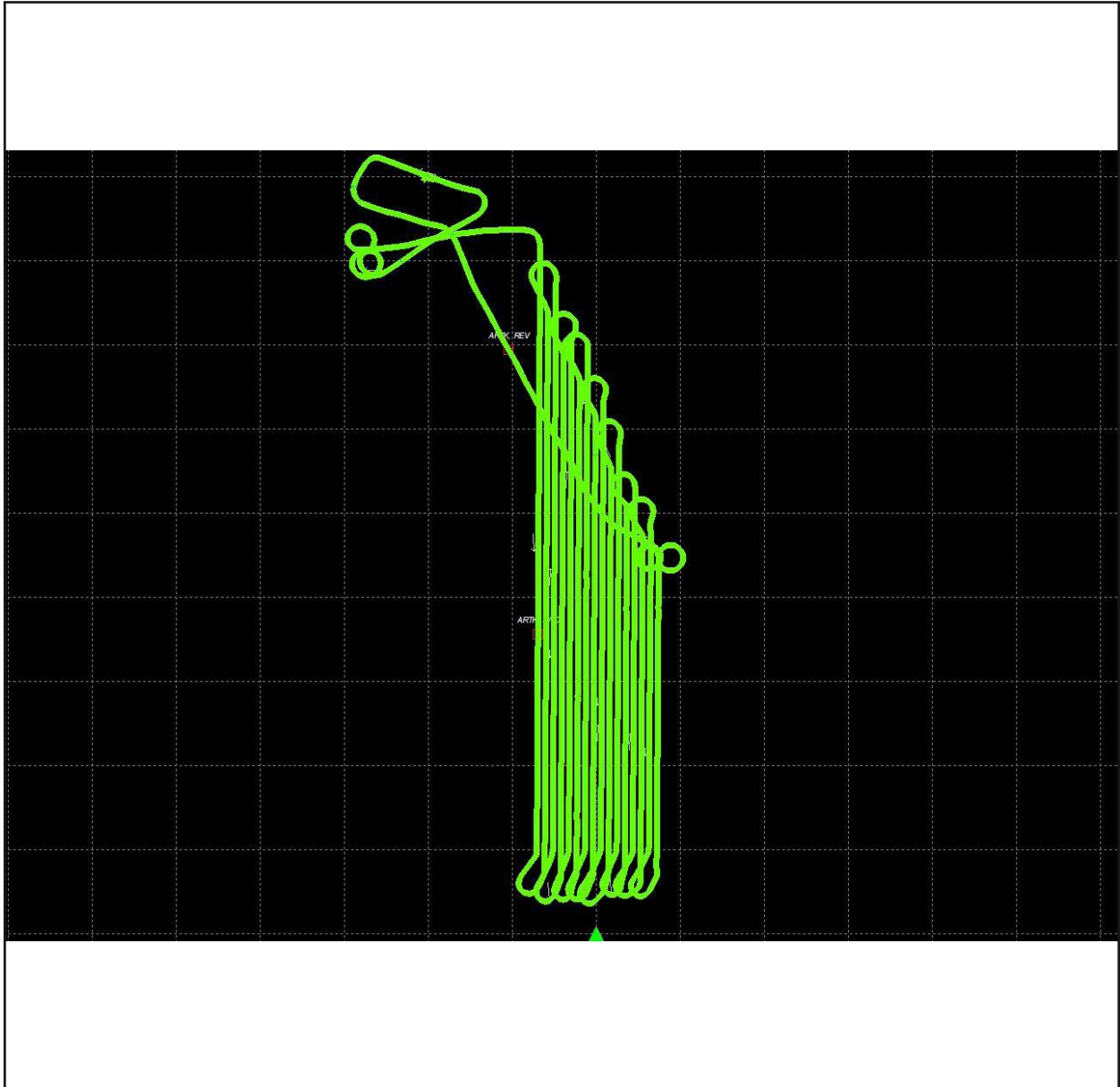


PDOP Plot



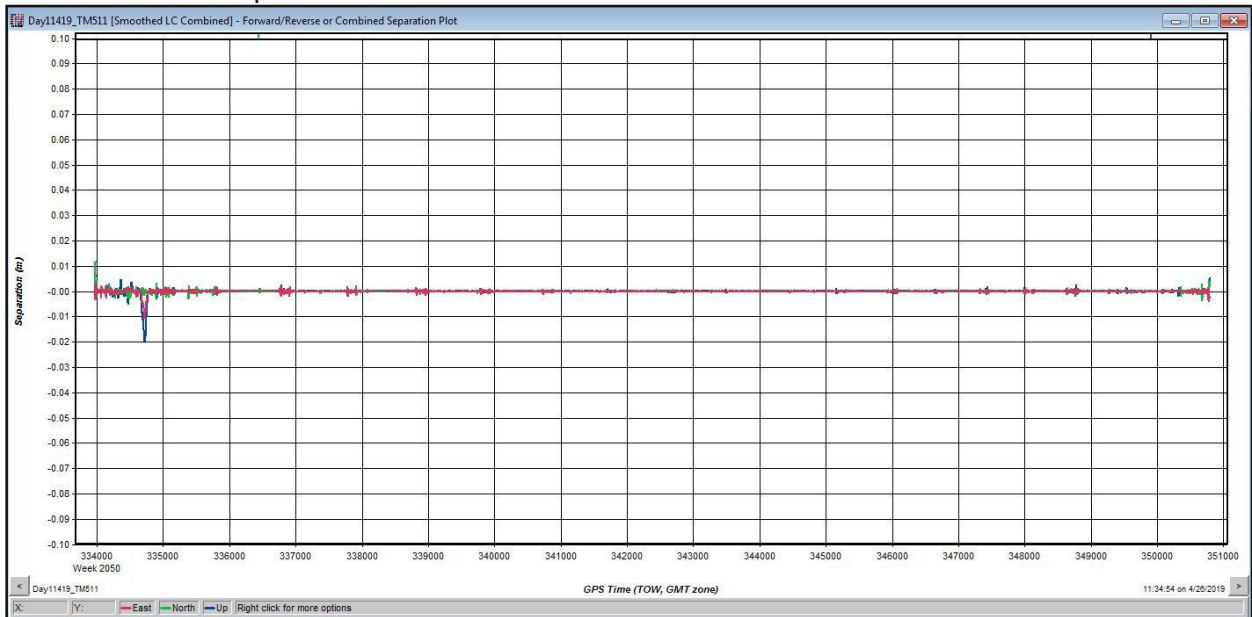
Woolpert Lidar Acquisition Log

Trajectory

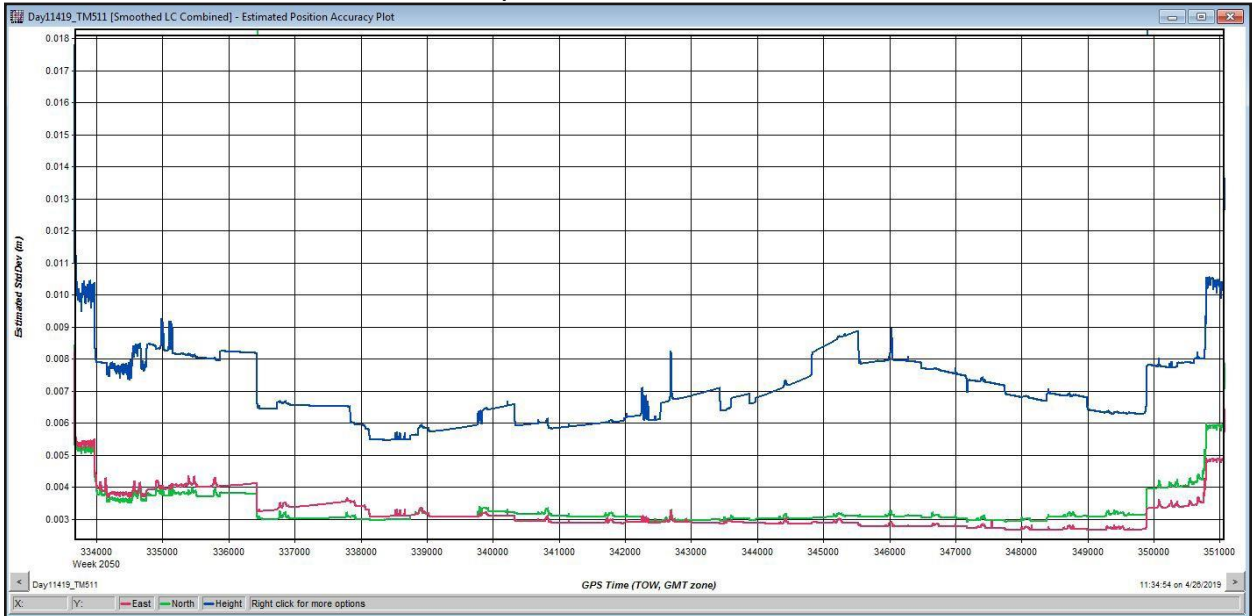


Day11419_TM511

Combined Separation Plot

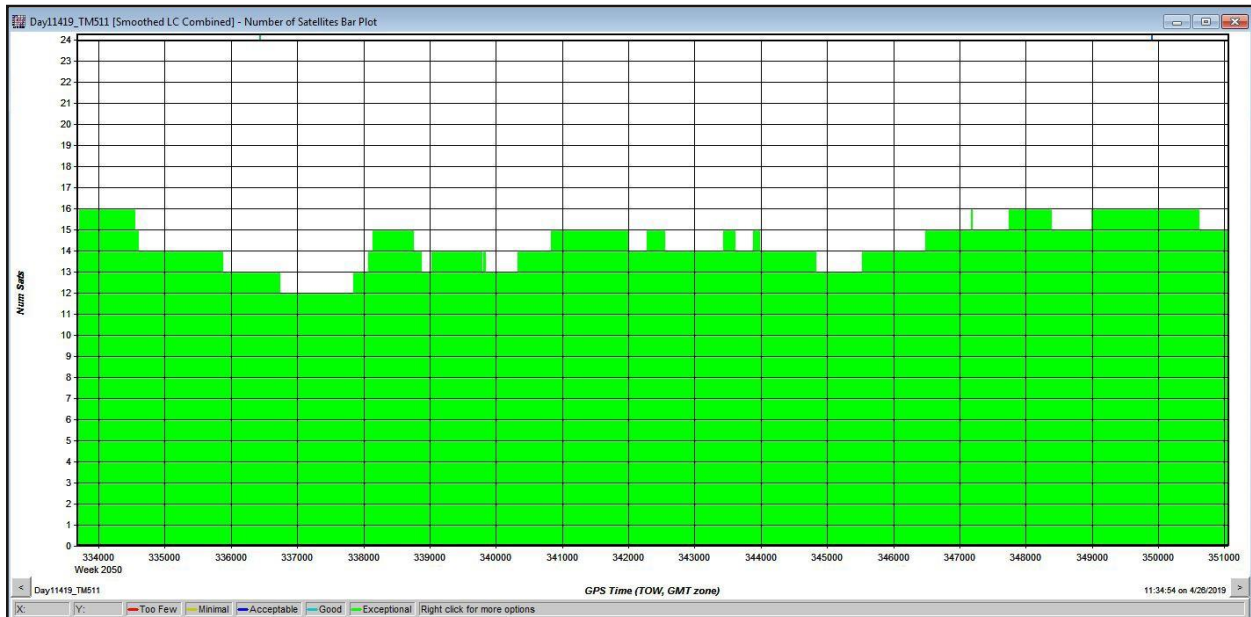


Estimated Position Accuracy Plot

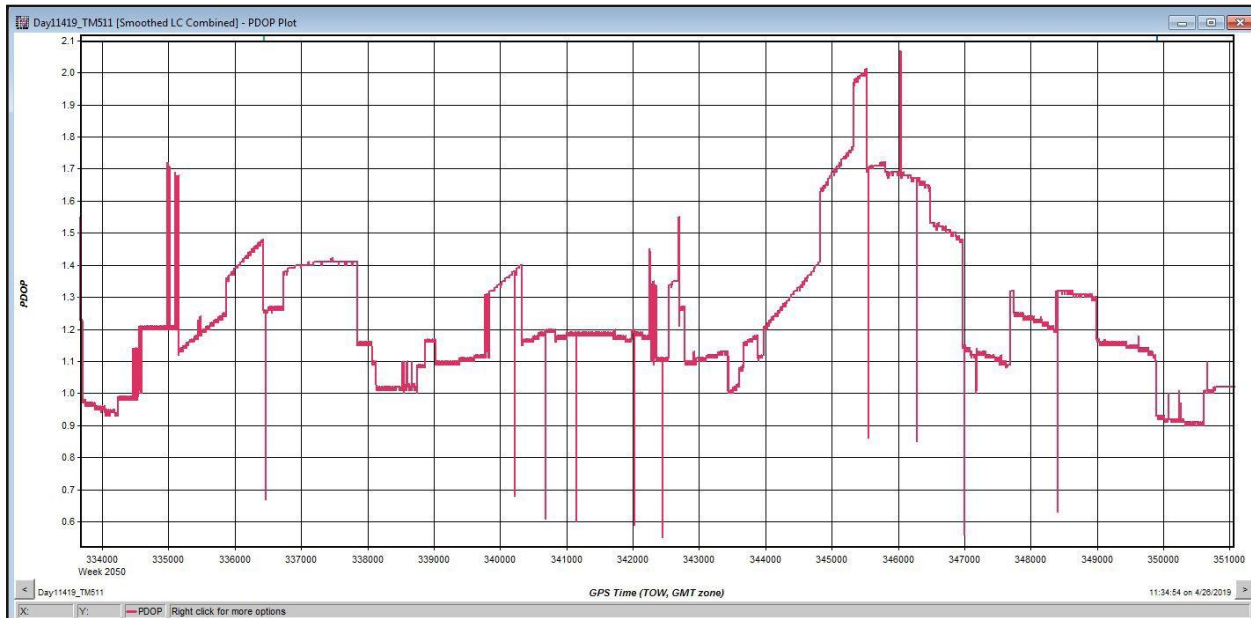


Day11419_TM511

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - BLOCK 6			Day114_90511_12		04/24/2019	114	12
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Dar Perl	Cessna 404 Titan - N404CP			7117.3	04:40:00	20:40:00	VRB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90511			7121.7	09:30:00	01:30:00	VRB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
110	8	10		Clear	26	14	30.02	
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)			
140				6,000	53			
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1553	100		
						Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
41	S	21:17:00	21:32:00	00:15:00	18	1.3		
42	N	21:35:00	21:49:00	00:14:00	20	1.2		
43	S	21:52:00	22:06:00	00:14:00	20	1.1		
44	N	22:10:00	22:22:00	00:12:00	18	1.1		
45	S	22:26:00	22:38:00	00:12:00	19	1.1		
46	N	22:41:00	22:54:00	00:13:00	18	1.2		
47	S	22:58:00	23:09:00	00:11:00	17	1.3		
48	N	23:13:00	23:24:00	00:11:00	19	1.1		
49	S	23:28:00	23:38:00	00:10:00	20	1.1		
50	N	23:42:00	23:52:00	00:10:00	17	1.3		
51	S	23:55:00	00:05:00	00:10:00	17	1.4		
52	N	00:08:00	00:16:00	00:08:00	18	1.3		
53	S	00:20:00	00:28:00	00:08:00	18	1.3	00:24 Cloud	
54	N	00:31:00	00:31:00	24:00:00	19	1.2	00:35 Cloud	
55	S	00:43:00	00:50:00	00:07:00	17	1.4	00:45 Cloud Past Tide Window	
56	N	00:53:00	01:00:00	00:07:00	18	1.4	00:56 Cloud Past Tide Window	

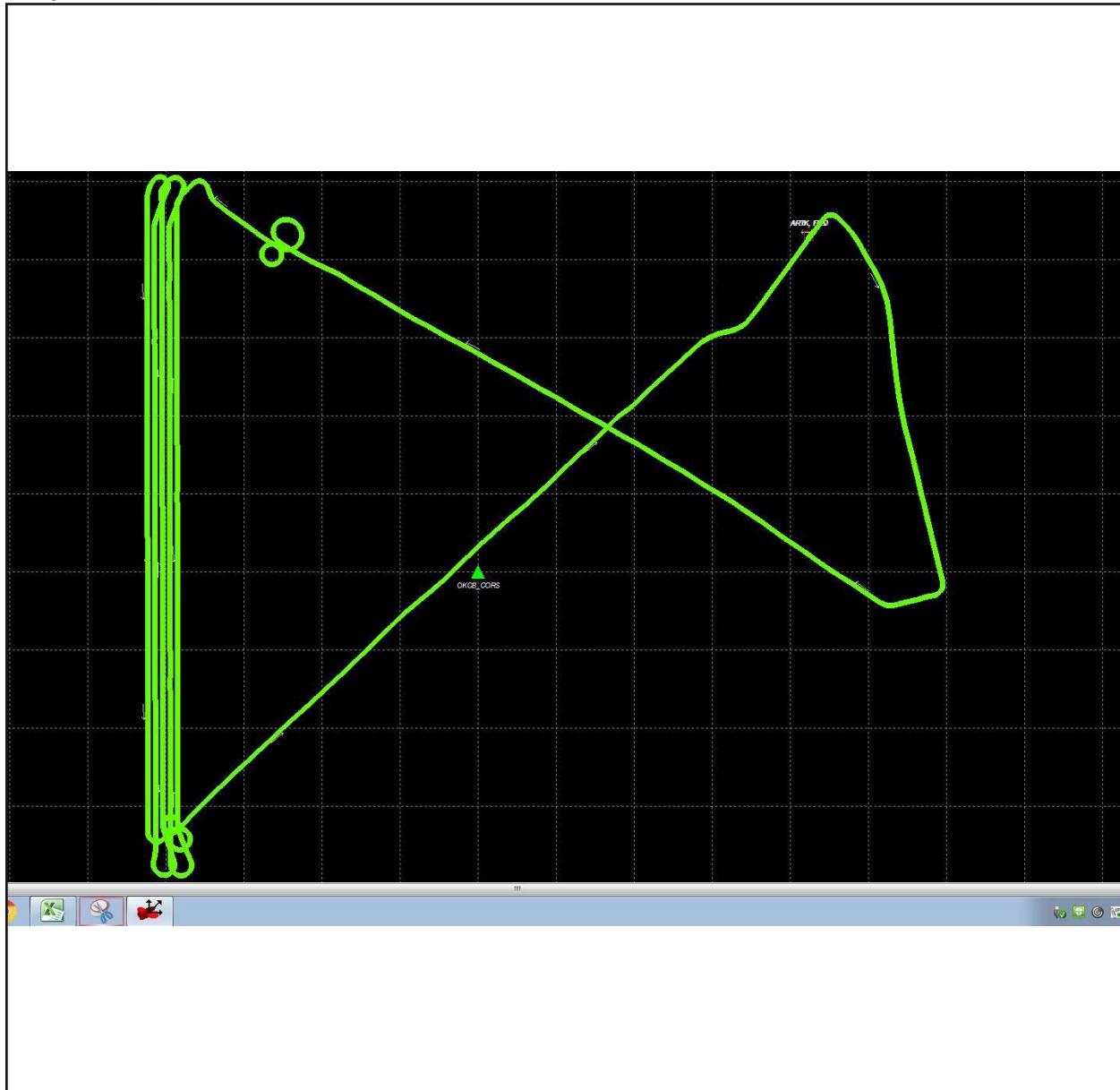
Page 1						Verify S-Turns After Mission	Yes
Additional Comments							
Clouds on last few lines. Tide Window ended at 00:48 UTC.							

Day11719_TM511_A

Base Station Coordinates

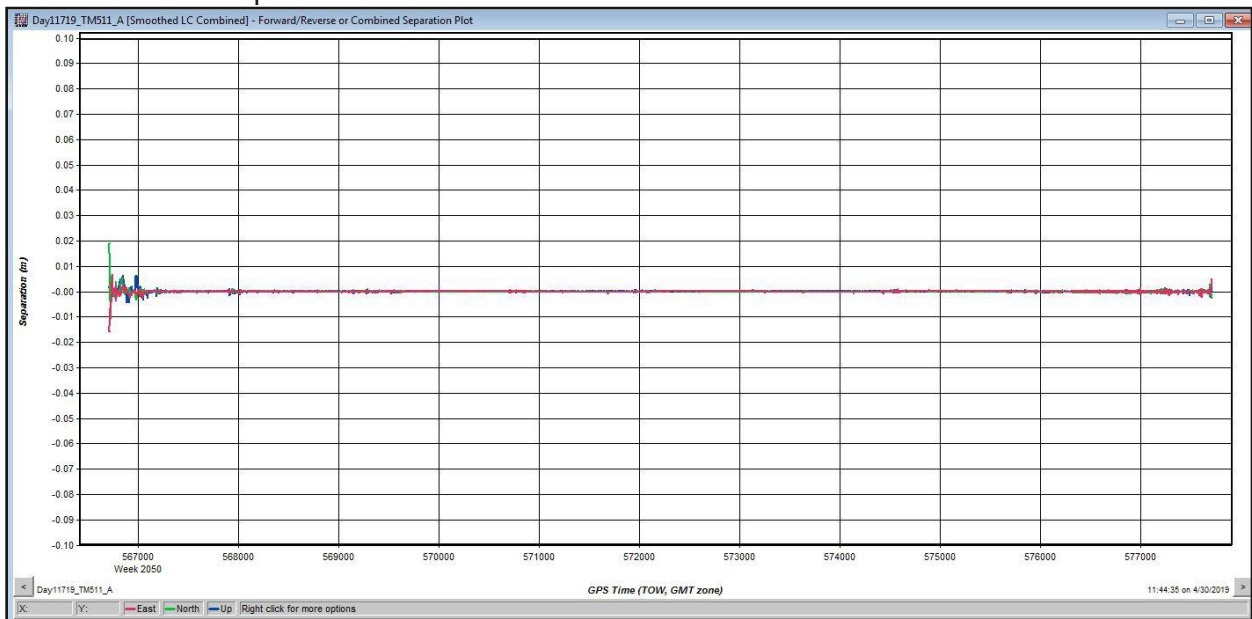
Name	Status	Latitude	Longitude	Height
OKCB_CORS	ENABLED	27° 15' 57.71558"	-80° 51' 19.18166"	-13.633 m (ELLIPSOIDAL)

Trajectory

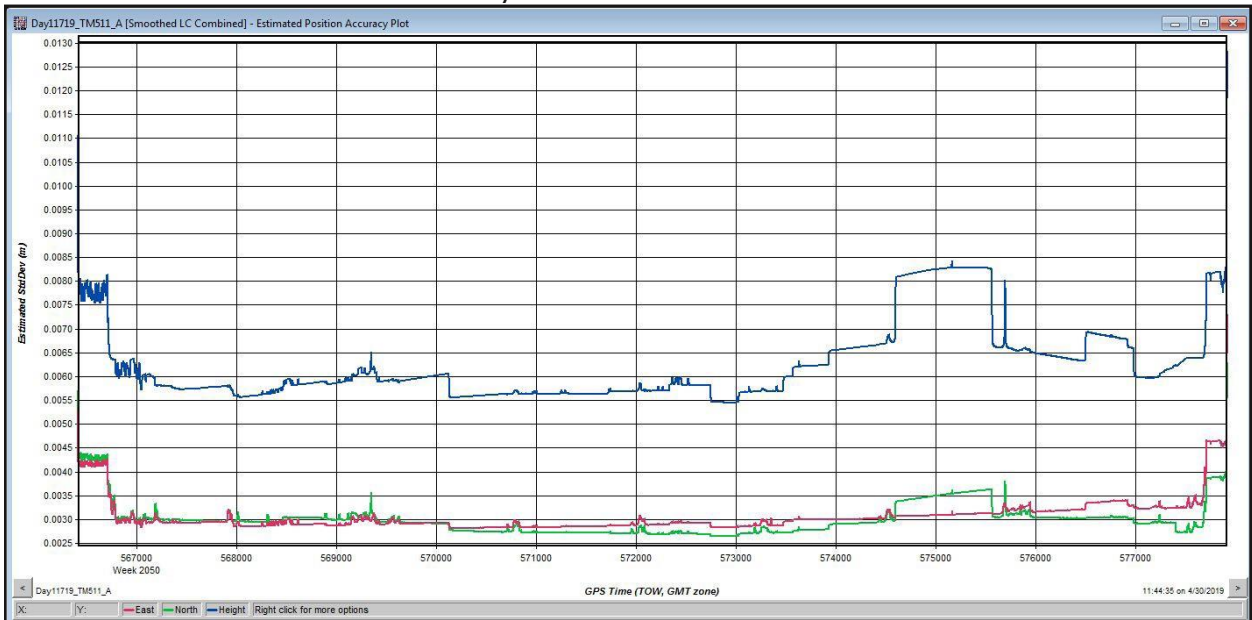


Day11719_TM511_A

Combined Separation Plot

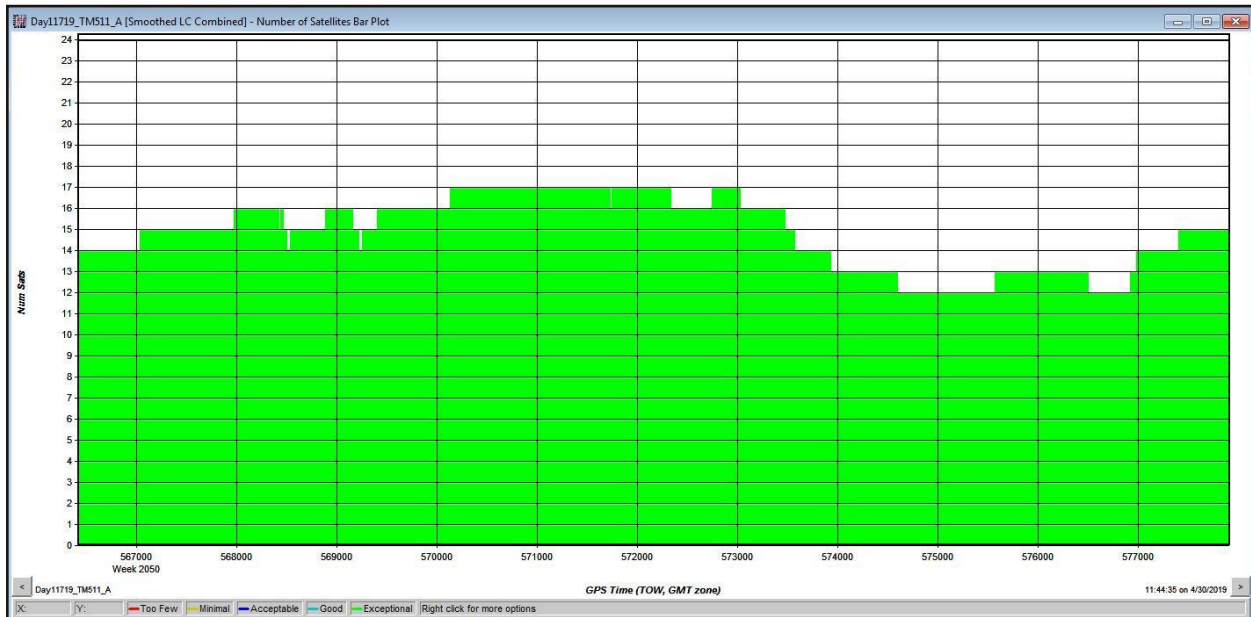


Estimated Position Accuracy Plot

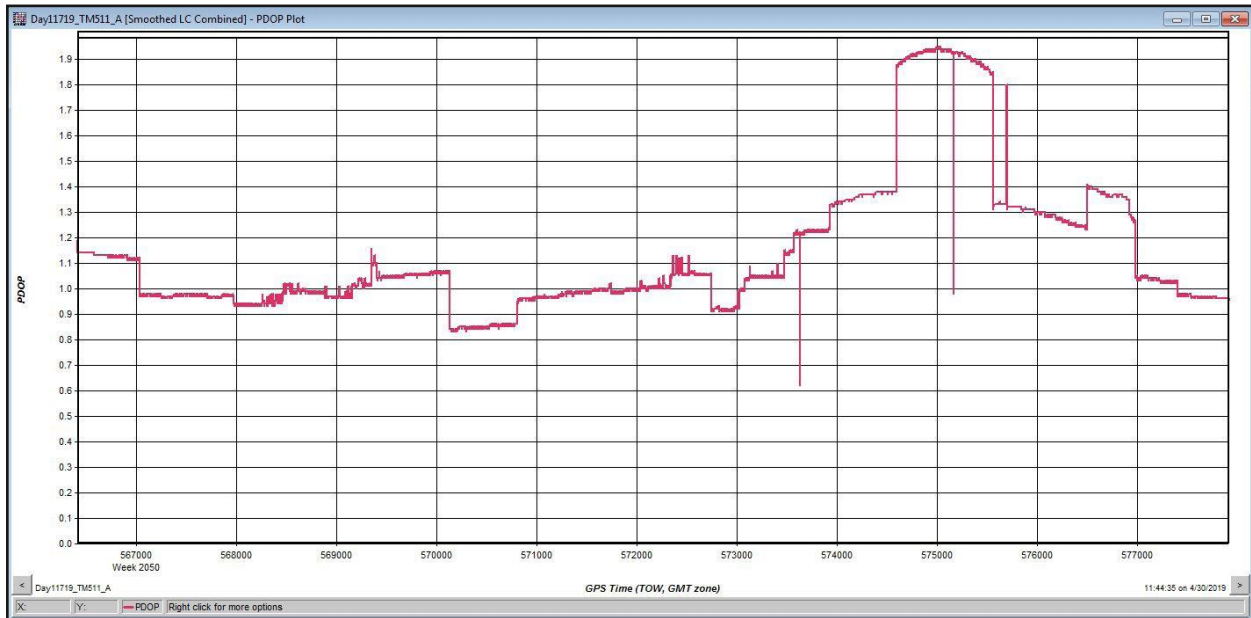


Day11719_TM511_A

Number of Satellites Bar Plot



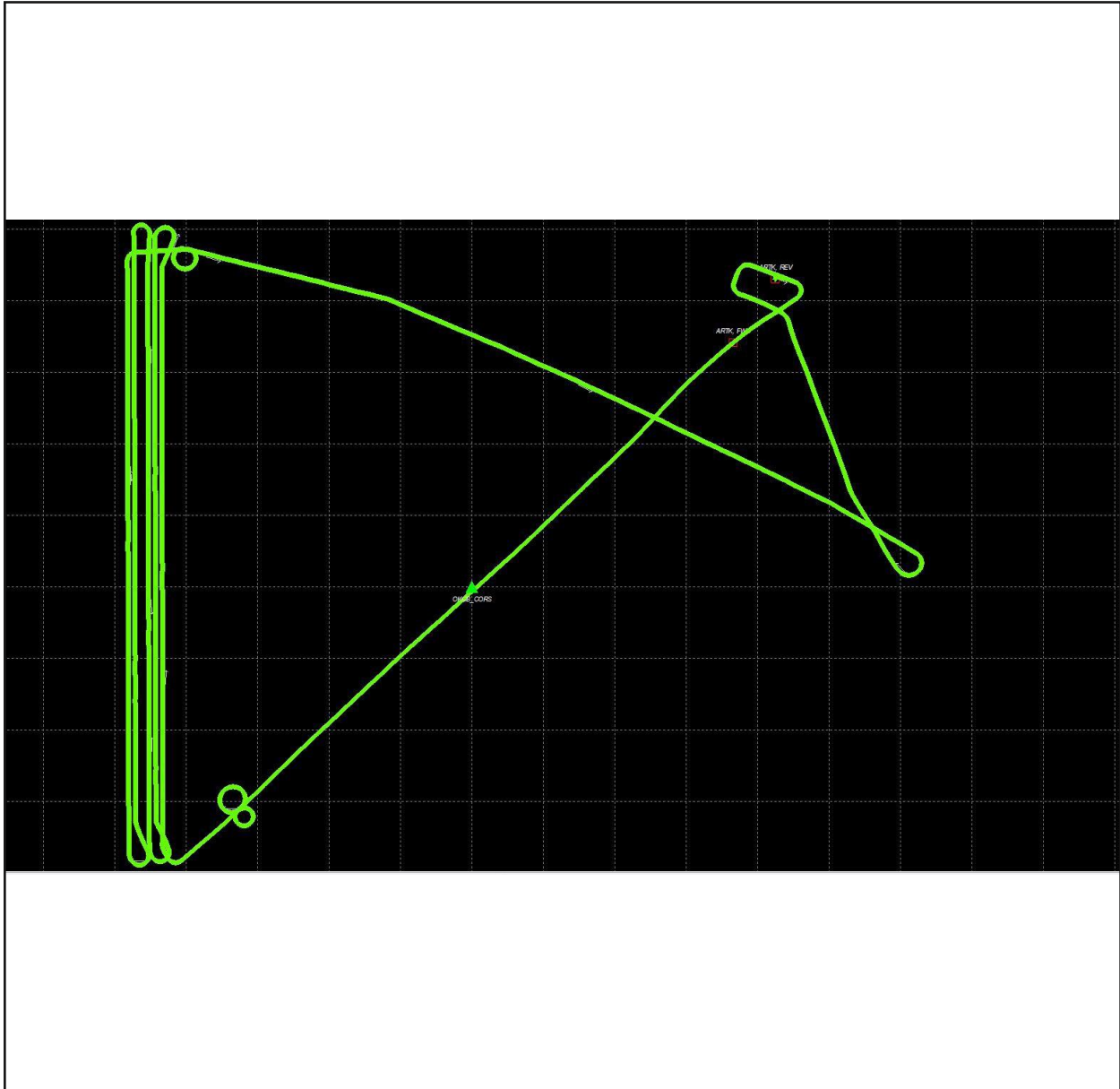
PDOP Plot



Woolpert Lidar Acquisition Log

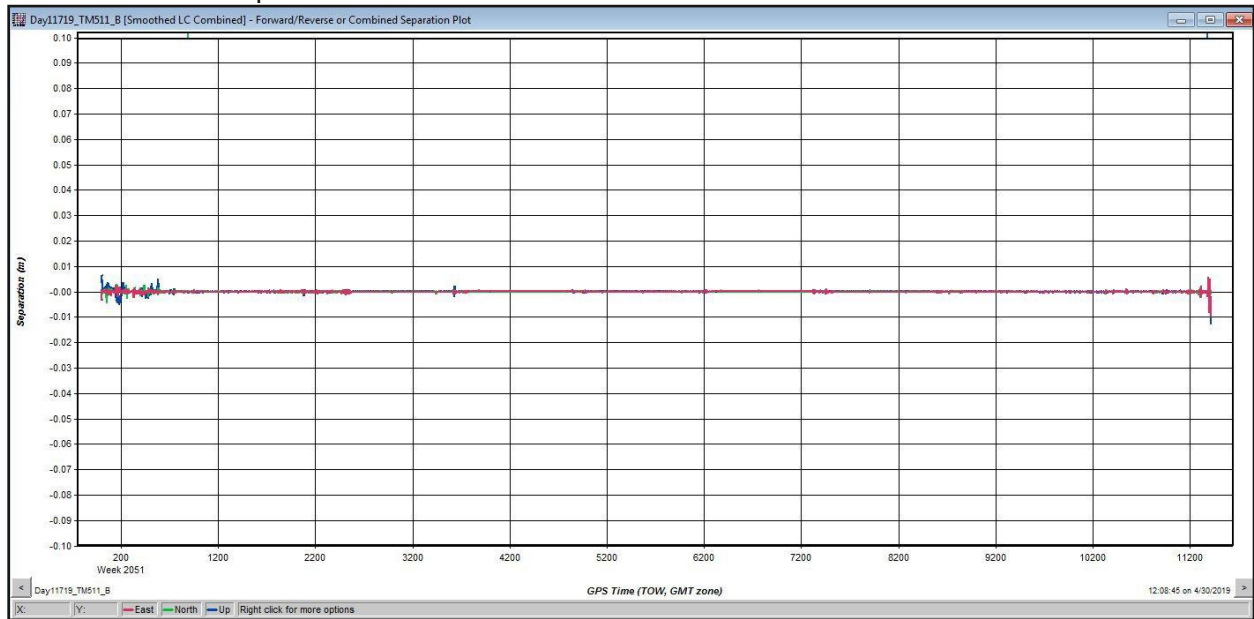
Project Info						Date		
Project #	Project Name			Unique ID		Flight Date (UTC)	Day of Year	Flight #
79018	FL Peninsular 2018 D18 - Block 5			Day117_90511_17		04/27/2019	117	17
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Dar Perl	Cessna 404 Titan - N404CP			7121.7	09:19:00	13:19:00	VRB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90511			7124.6	12:31:00	16:31:00	VRB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
30	13	10		Clear	25	12	30.07	
Air Speed (kts)		Altitude AGL (ft)		Altitude MSL (ft)	Airfield Elevation (ft)			
140				6,000	53			
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1553	100		
						Verify S-Turns Before Mission		Yes
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
23	S	14:14:00	14:31:00	00:17:00	24	1.2		
22	N	14:34:00	14:52:00	00:18:00	26	1.3		
21	S	14:55:00	15:12:00	00:17:00	25	1.2		
20	N	15:16:00	15:33:00	00:17:00	23	1.2		
19	S	15:37:00	15:53:00	00:16:00	22	1.1		

Trajectory

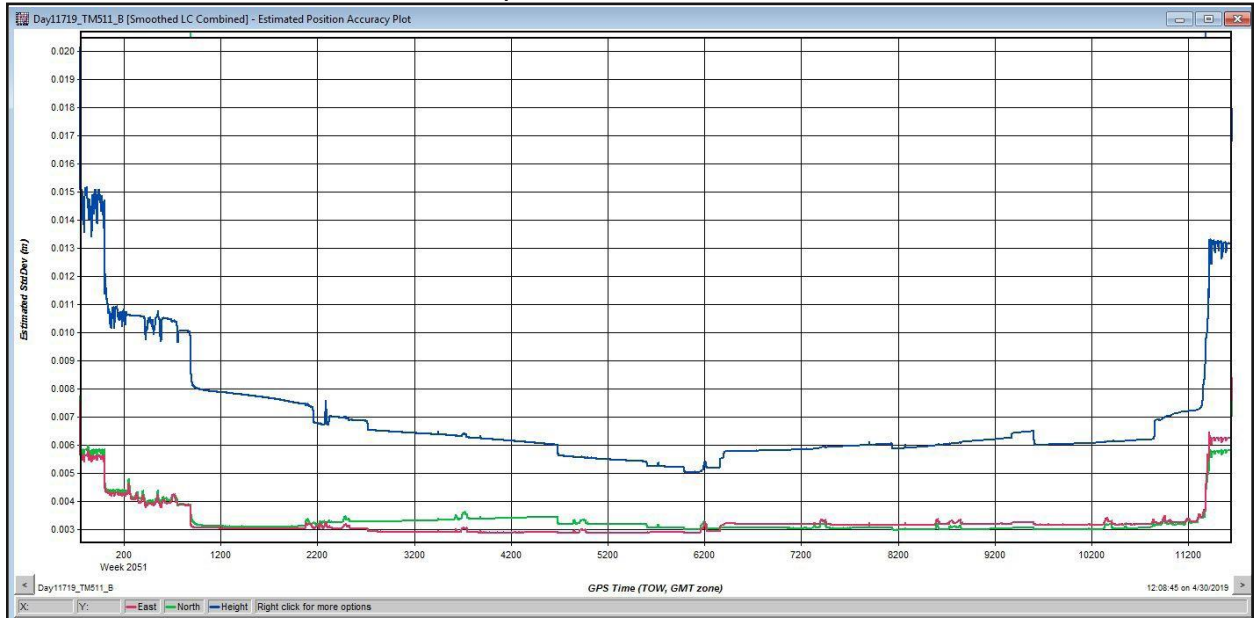


Day11719_TM511_B

Combined Separation Plot

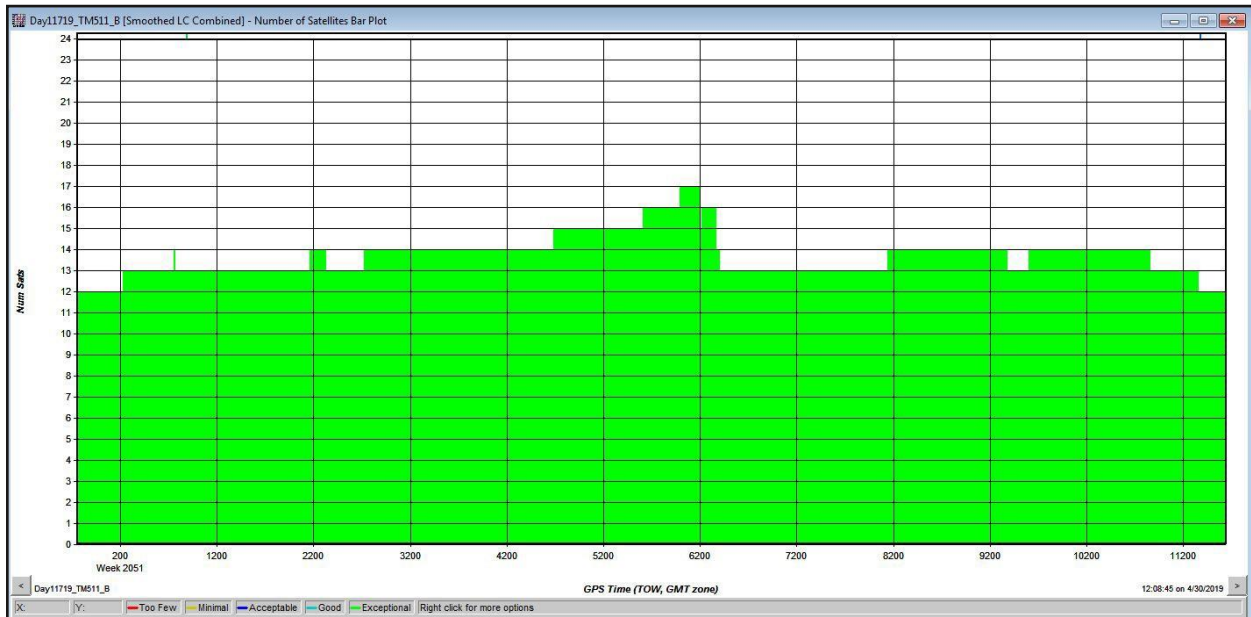


Estimated Position Accuracy Plot

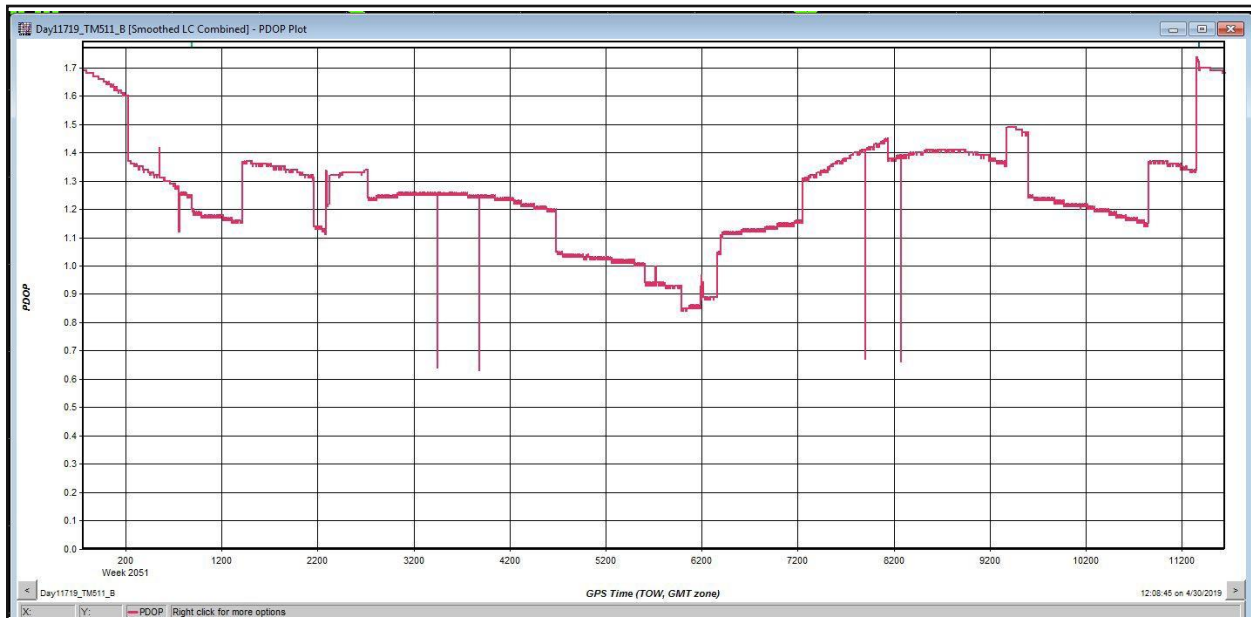


Day11719_TM511_B

Number of Satellites Bar Plot



PDOP Plot



Woolpert Lidar Acquisition Log

Project Info						Date		
Project #	Project Name		Unique ID			Flight Date (UTC)	Day of Year	Flight #
79028	FL Peninsular 2018 D18 - Block 5		Day117_90511			04/27/2019	117	
Crew		Equipment			Time			Airports
Pilot	Aircraft Make / Model / Tail #			Hobbs Start	Local Start	UTC Start	Departing	
Dar Perl	Cessna 404 Titan - N404CP			7124.6	07:55:00	23:55:00	VRB	
Operator	Sensor Make / Model / Serial #			Hobbs End	Local End	UTC End	Arriving	
Denham	Leica Terrain Mapper - 90511			7127.6	11:14:00	03:14:00	VRB	
Conditions								
Wind Dir (°)	Wind Speed (kts)	Visibility (mi)	Ceiling (ft)	Cloud Cover	Temp. (°C)	Dew Point (°C)	Pressure ("Hg)	
120	8	10		Clear	24	17	29.99	
Air Speed (kts)		Altitude AGL (ft)	Altitude MSL (ft)	Airfield Elevation (ft)				
140			6,000	53				
Settings								
Point Spacing (m)	Point Density (ppsm)	Scan Angle/FOV (°)		Scan Frequency (Hz)	Pulse Rate (kHz)	Laser Power (%)		
		40		150	1553	100		
						Verify S-Turns Before Mission	Yes	
Line #	Direction	Start Time (UTC)	End Time (UTC)	Time On-Line	Satellite	PDOP	GPS	Takeoff
							Line Notes/Comments	
18	N	00:42:00	01:00:00	00:18:00	19	1.4		
17	S	01:03:00	01:20:00	00:17:00	18	1.6		
16	N	01:23:00	01:41:00	00:18:00	21	1.1		
14	S	01:44:00	02:01:00	00:17:00	19	1.1		
13	N	02:05:00	02:22:00	00:17:00	19	1.1		

