



11103U Dewberry VA FEMA USGS

Area 2 – Hooper’s Island, MD

Acquisition Summary

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2011 05 26



11103U Area 2 – Hooper’s island, MD - Flightline Overview Map

System Information

System 1 - Optech 3100EA		
Item	Parameter	units
System ID(s)	o5	o1,o2 etc...
Aircraft Type	Navajo	
Call sign	435H	
Endurance	6	hours
Aircraft Speed	150	knots
Data Acquisition Height	950	m AGL
Swath Width	691.54	m
Distance Between Flight Lines	311.2	m
Overlap	55%	%
Scanner Field Of View	22	+/- degrees
Pulse Repetition Rate	70	KHz
Scan Frequency	40	Hz
Number of Returns Per Pulse	4	wavefrom / 4 for Optech / 1 low range
Beam Divergence	Narrow	mRad or Narrow for Optech
Flight Line Length	70	<X km
Base Station Distance	~30km	<X km
Resultant Raw Point Density	2 point	pt/m2 with overlap



Mission Summary

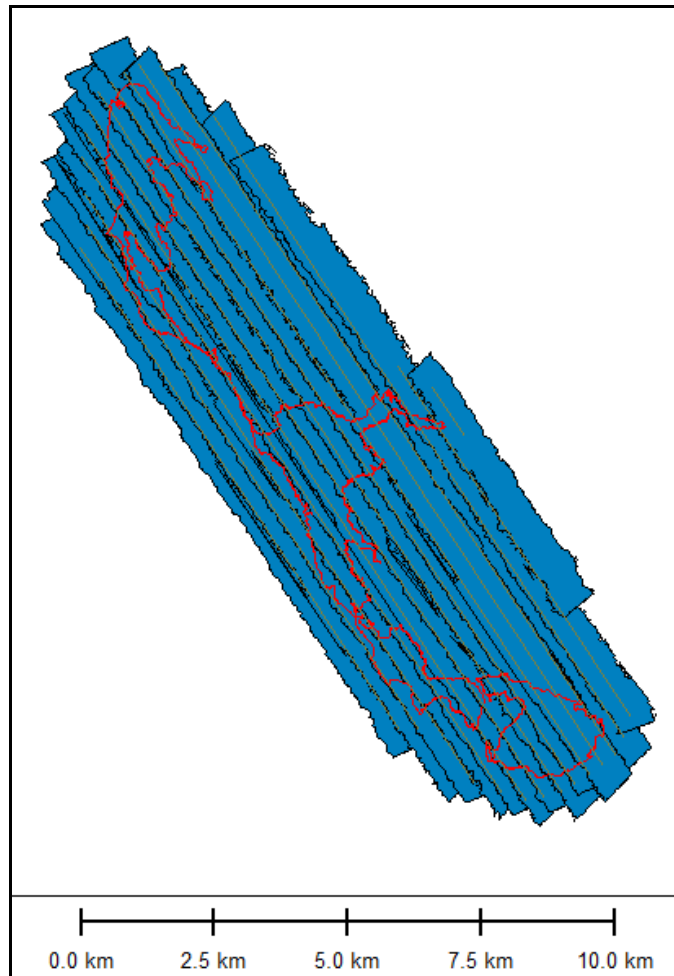
Survey Block	Base Station 1	Mission Name	Calendar Date	Number of LiDAR Production Lines	LiDAR Hours	Temperature and Pressure	Notes
Hooper's Island	1110303	o511108a	18-Apr	15	2.2	0 2995	Lines 1-14

Control Summary

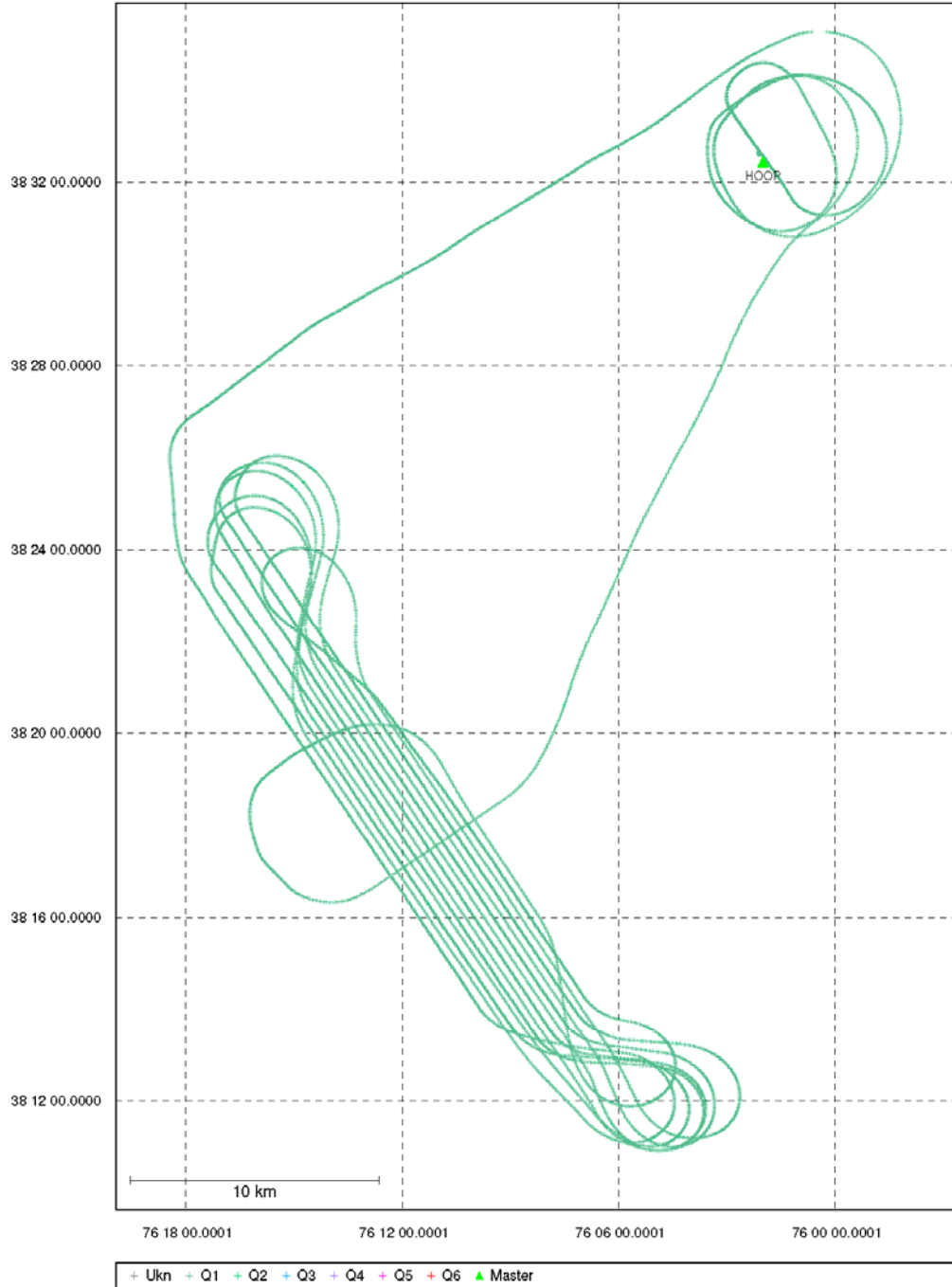
Survey Block	Station	Latitude (D M S Hem)	Longitude (D M S Hem)	Easting (m)	Northing (m)	H-Ell (m)	H-MSL (m)
Hooper's Island	1110303	N 38 32 25.67787	W 76 01 59.97232	409945.531	4266289.622	-29.956	5.183

Mission: o511108a

2011 03 25



Combined - Map Run (3)



proc.txt
Processing Summary Information

Program: POSGPS
Version: 4.30.3108
Project: F:\Projects\Va\HoopersIslandMD\pos\GPS\1108.gnv

Solution Type: Combined Fwd/Rev

Number of Epochs:

Total in GPB file:	104639
No processed position:	94187
Missing Fwd or Rev:	3
With bad C/A code:	0
With bad L1 Phase:	0

Measurement RMS Values:

L1 Phase:	0.0216 (m)
C/A Code:	0.95 (m)
L1 Doppler:	0.018 (m/s)

Fwd/Rev Separation RMS Values:

East:	0.015 (m)
North:	0.023 (m)
Height:	0.036 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (10447 occurrences):

East:	0.015 (m)
North:	0.023 (m)
Height:	0.035 (m)

Quality Number Percentages:

Q 1:	99.7 %
Q 2:	0.3 %
Q 3:	0.0 %
Q 4:	0.0 %

proc.txt

Q 5: 0.0 %
Q 6: 0.0 %

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

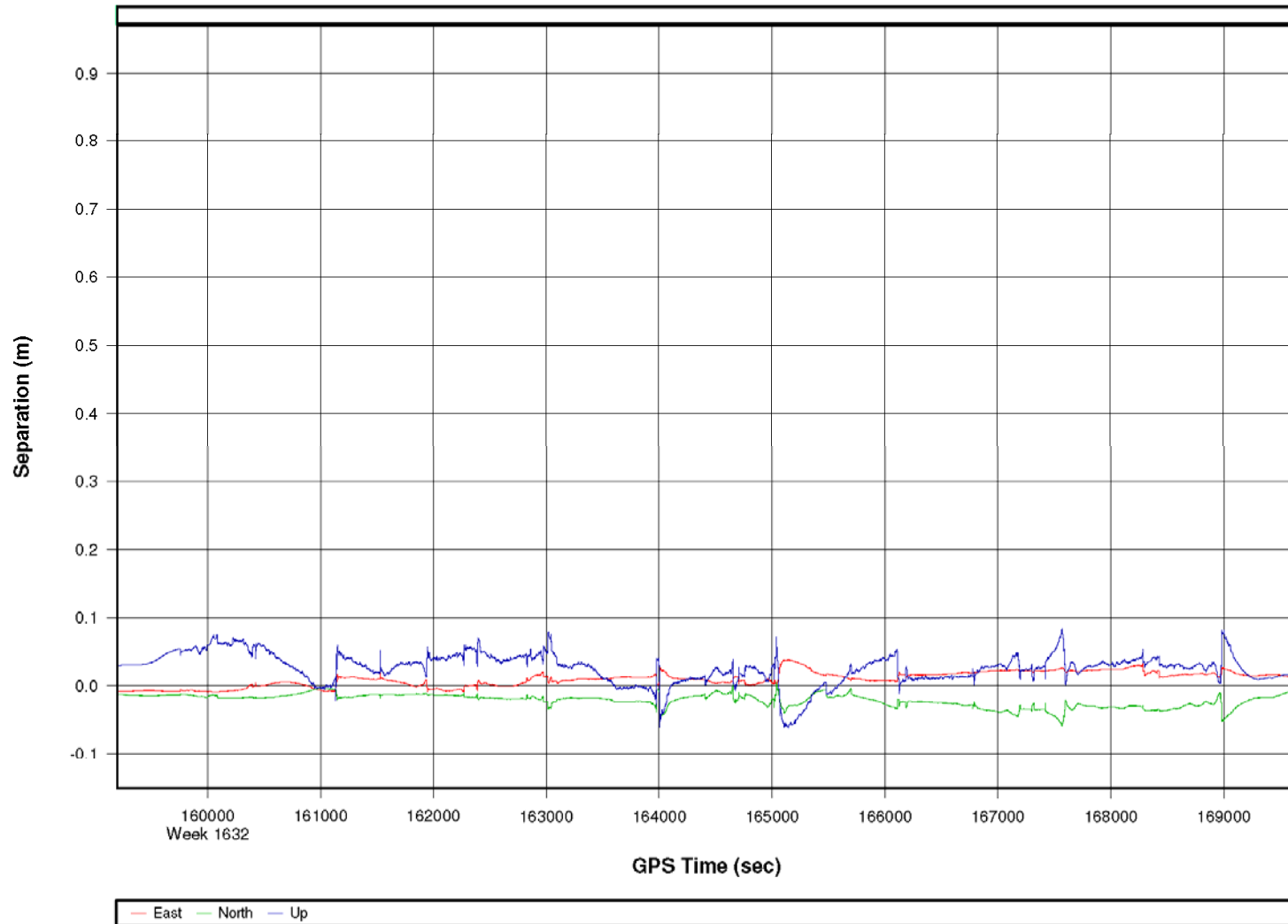
Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

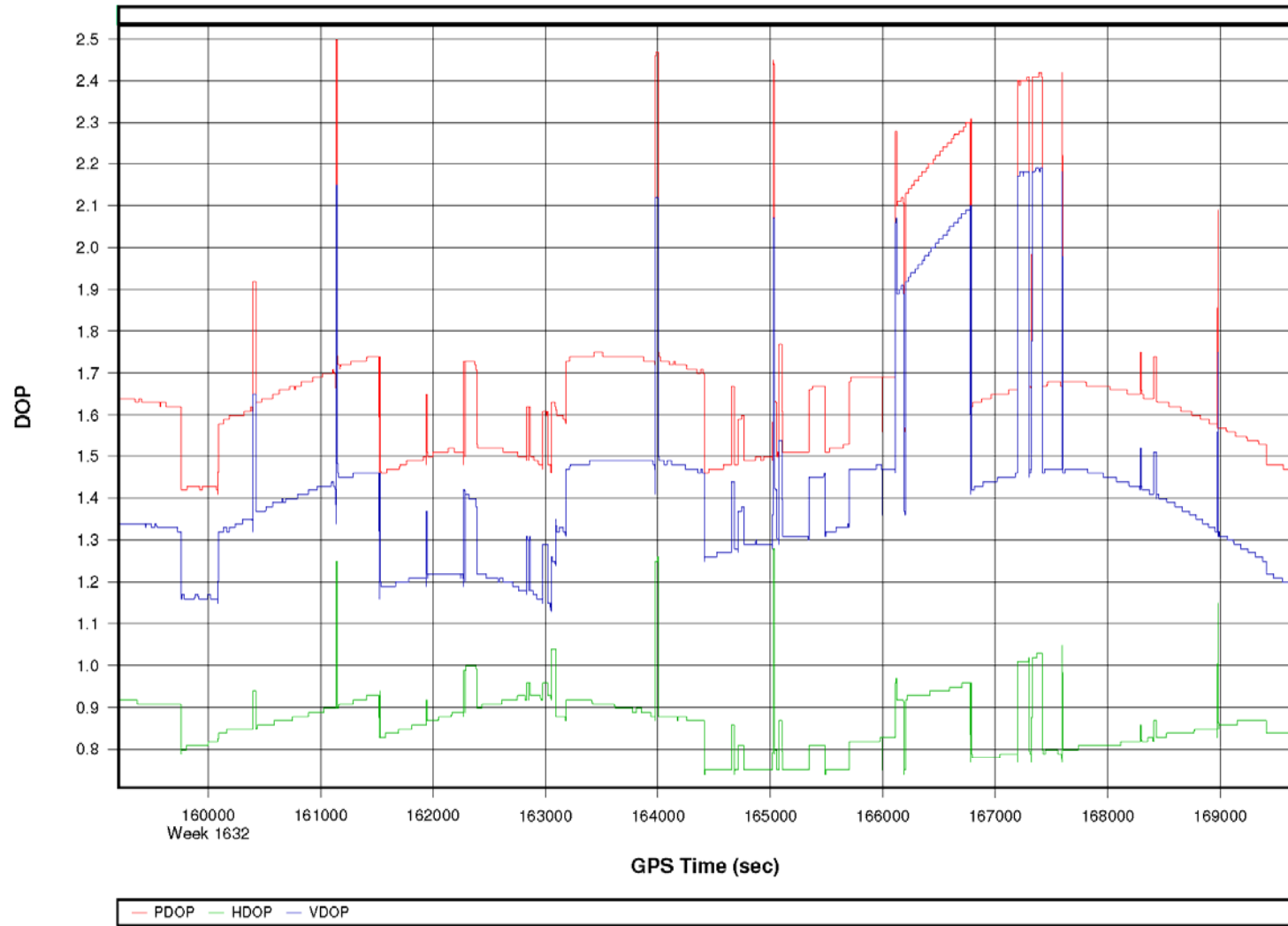
Baseline Distances:

Maximum: 40.039 (km)
Minimum: 0.022 (km)
Average: 23.287 (km)
First Epoch: 0.291 (km)
Last Epoch: 0.022 (km)

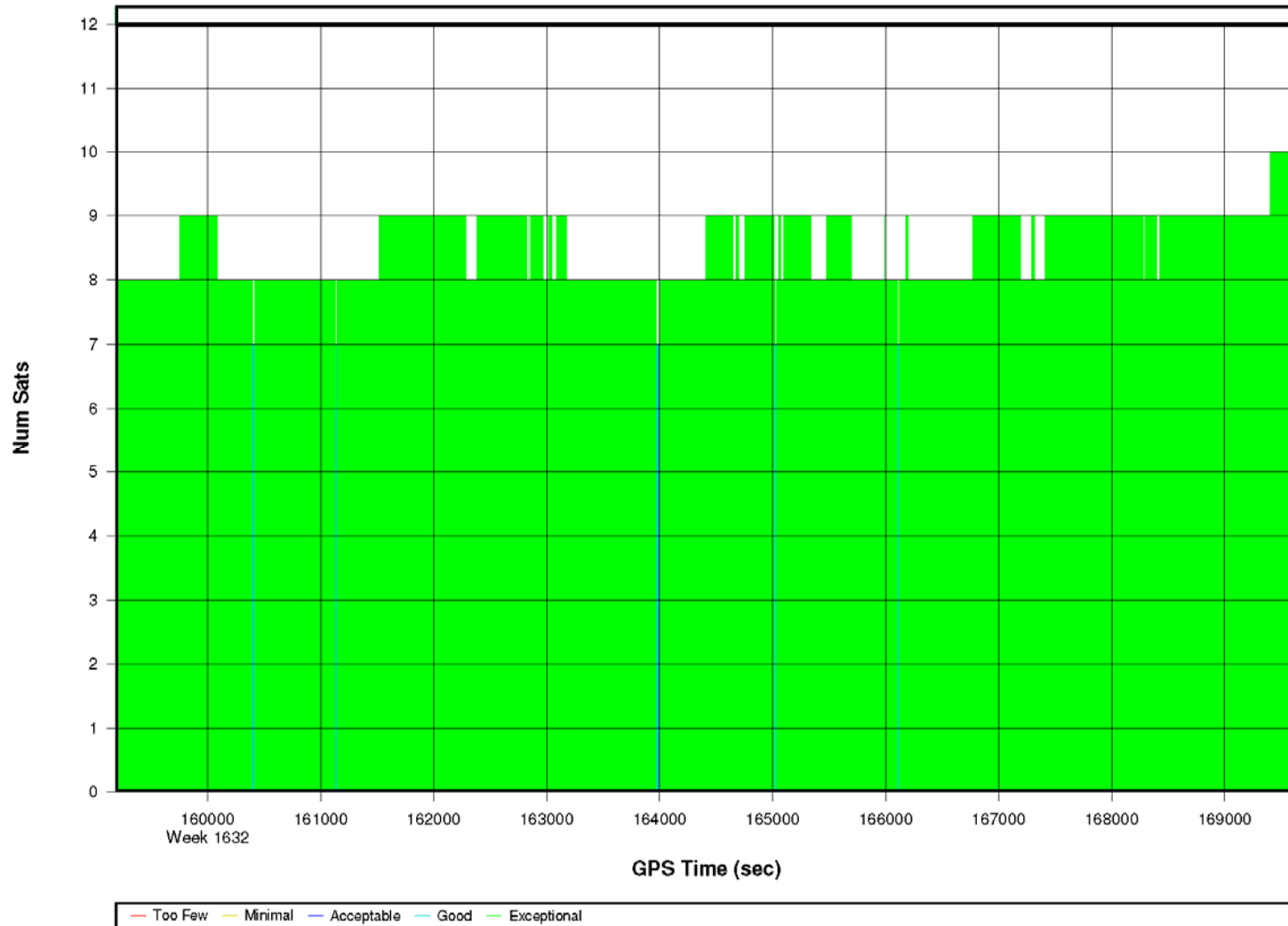
1108 [Combined] - Forward/Reverse or Combined Separation Plot



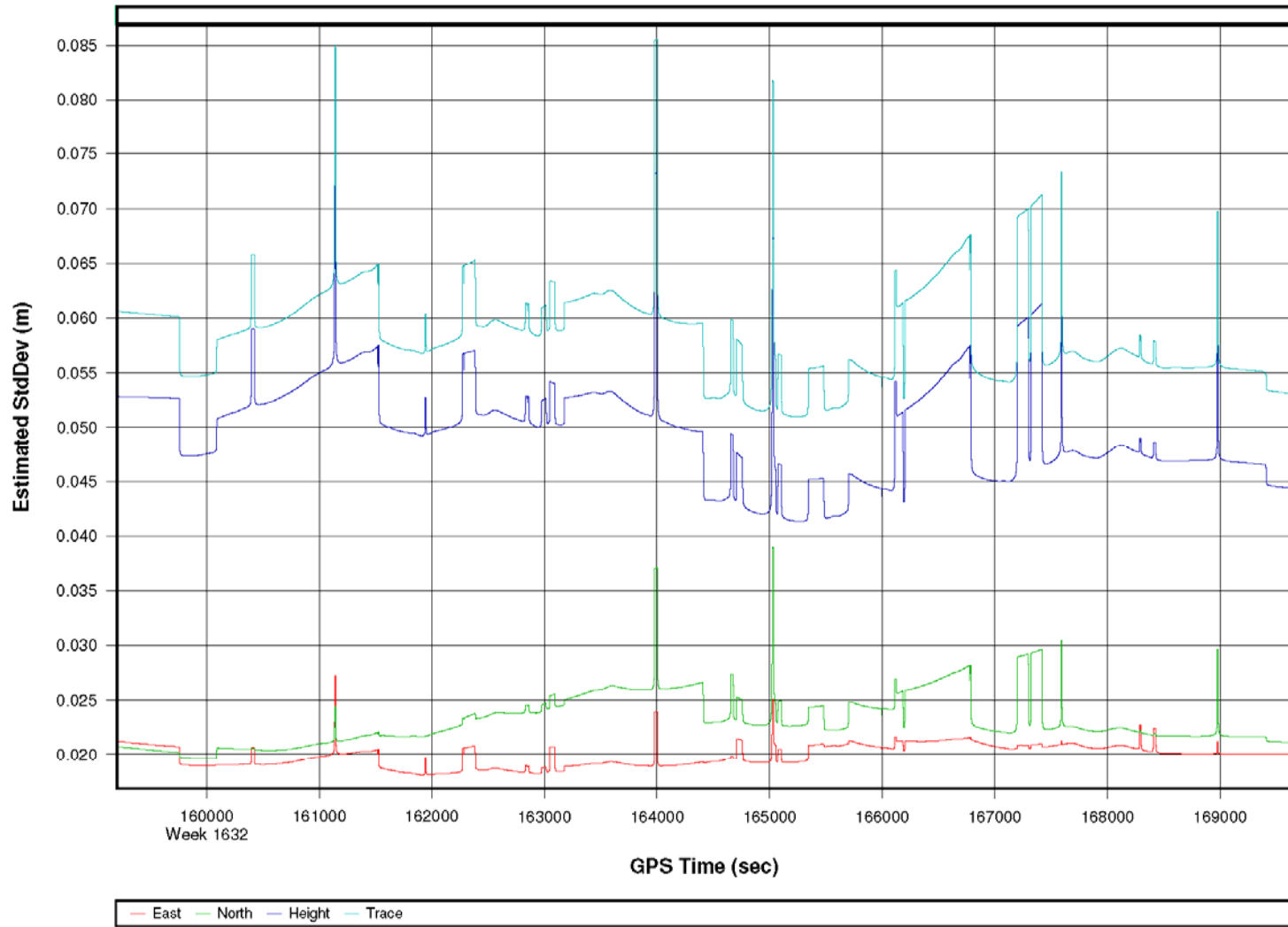
1108 [Combined] - PDOP, HDOP, VDOP Plots



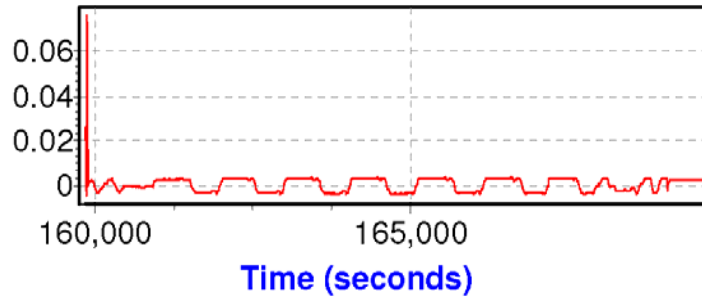
1108 [Combined] - Number of Satellites Bar Plot



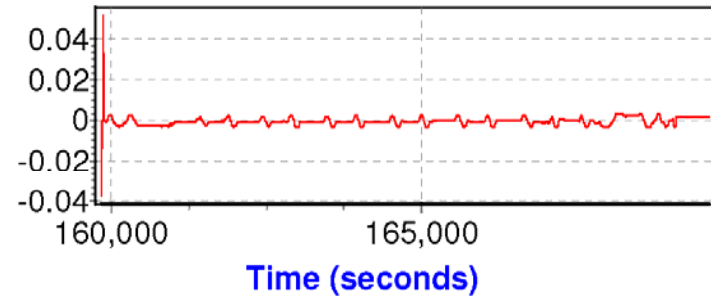
1108 [Combined] - Estimated Position Accuracy Plot



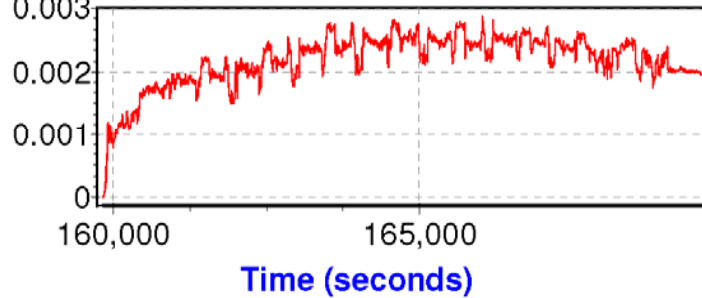
S/D Navigator X Position Error (meters)



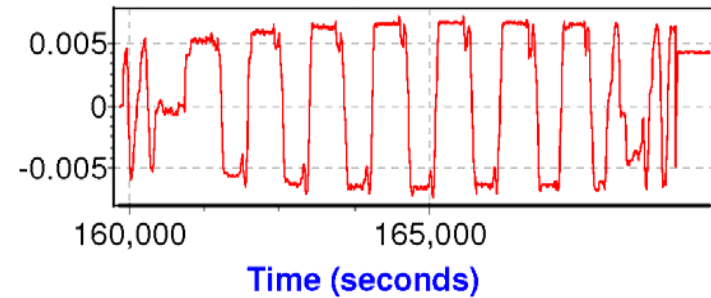
S/D Navigator Y Position Error (meters)



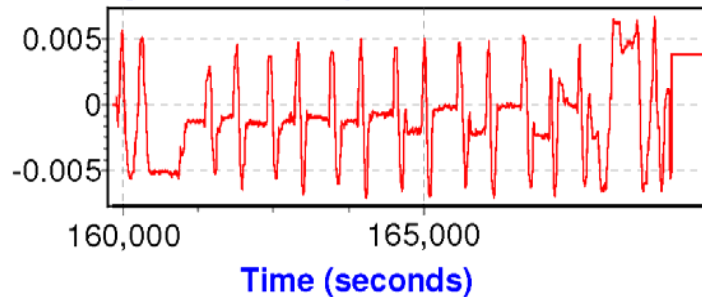
S/D Navigator Z Position Error (meters)



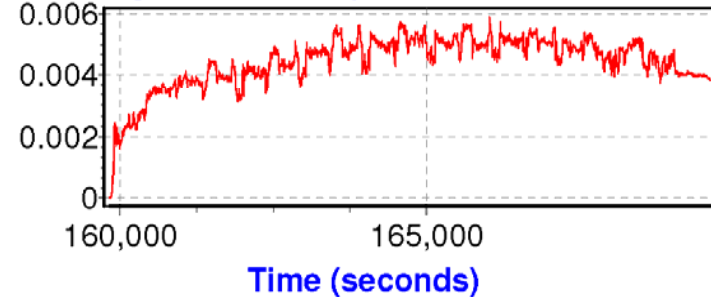
S/D Navigator X Velocity Error (meters/seconds)

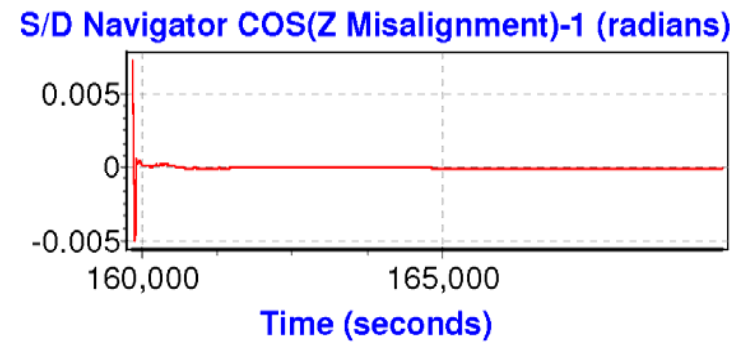
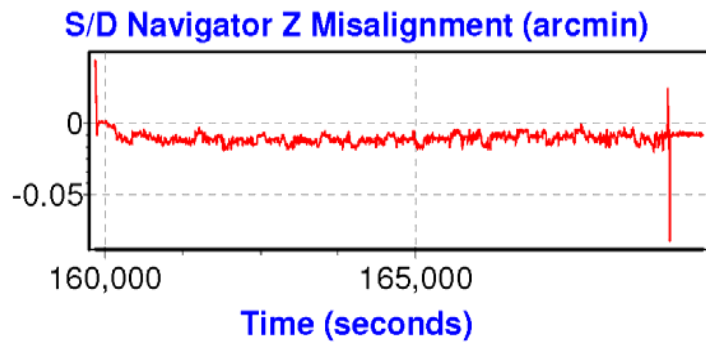
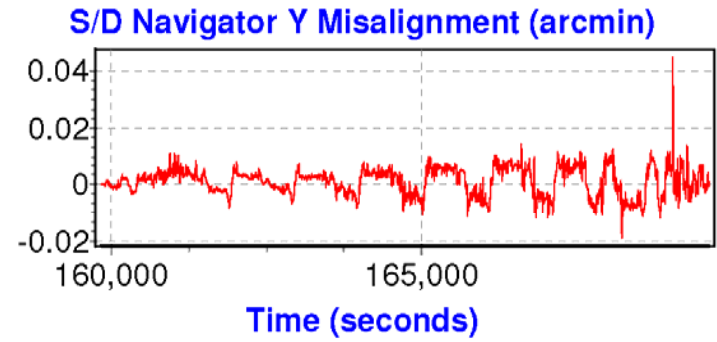
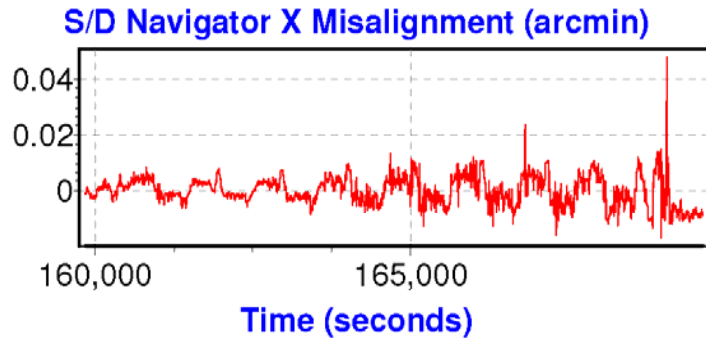


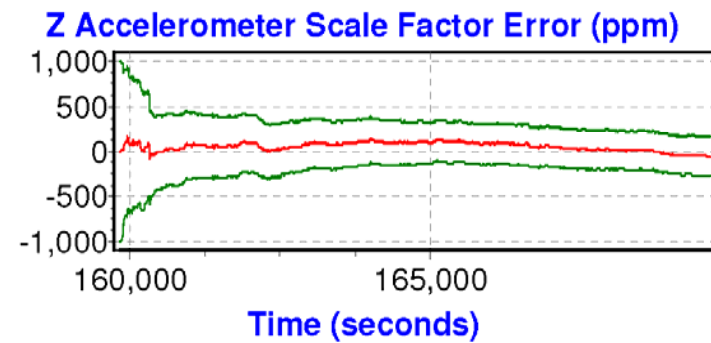
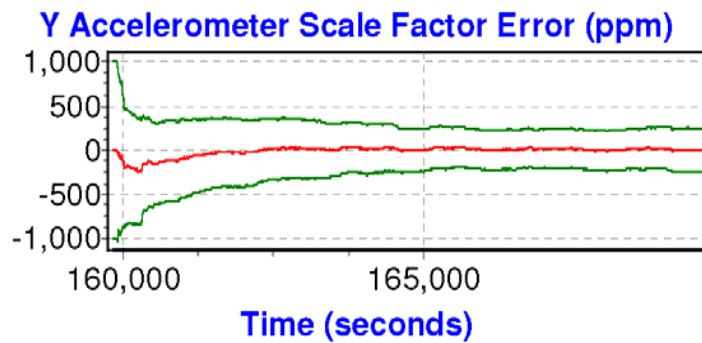
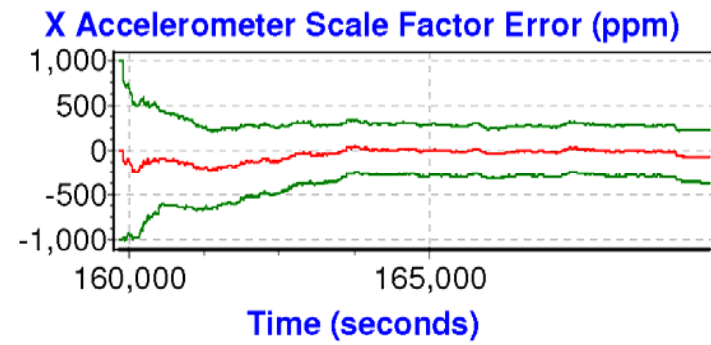
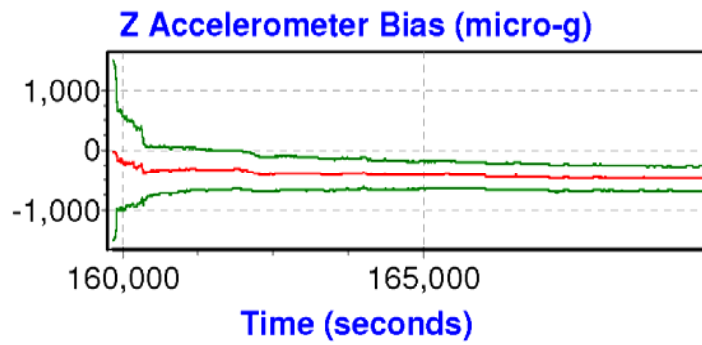
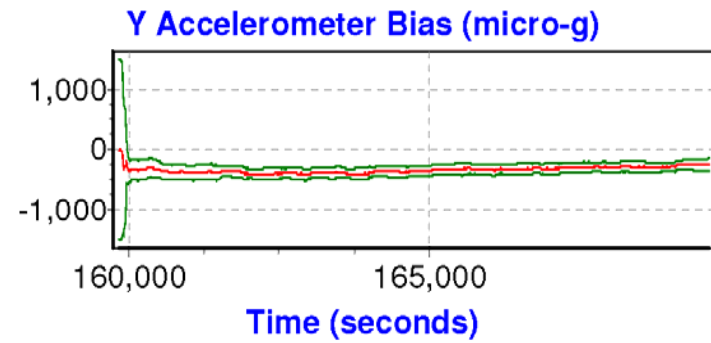
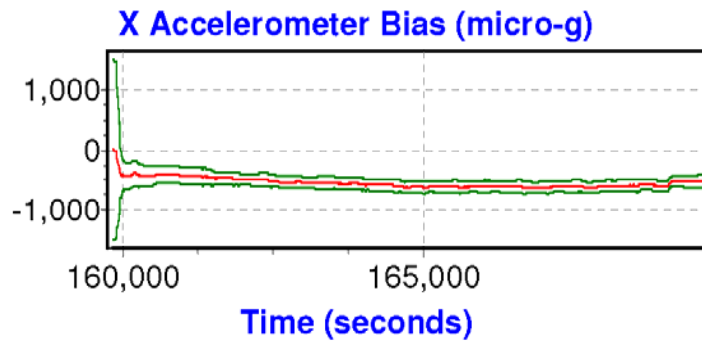
S/D Navigator Y Velocity Error (meters/seconds)

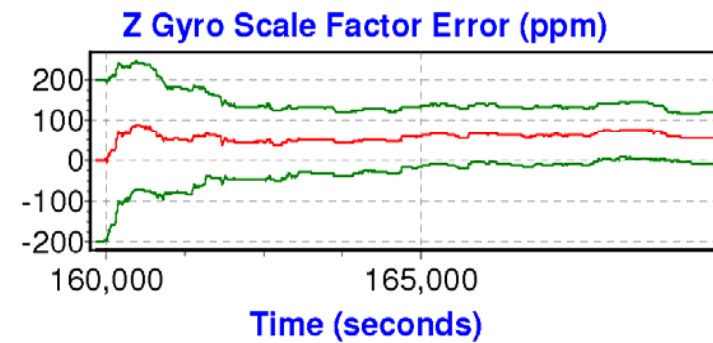
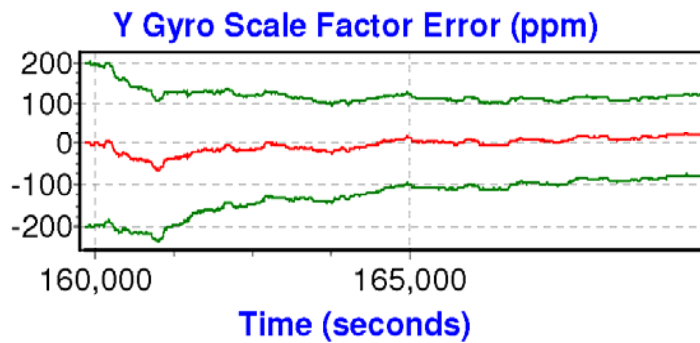
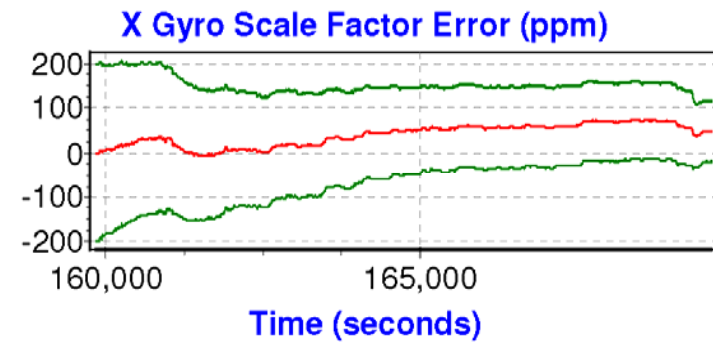
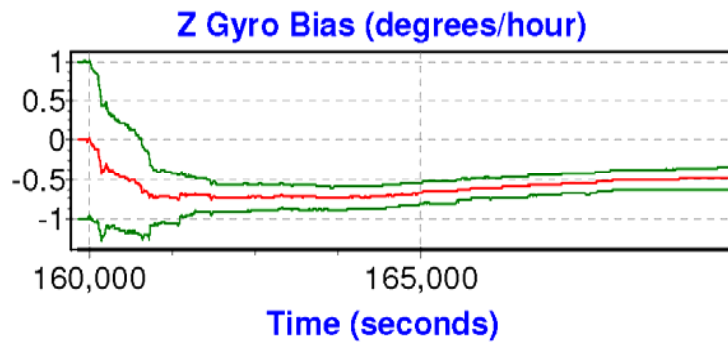
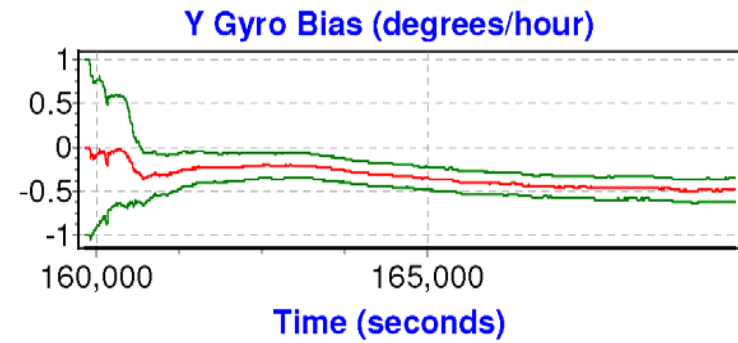
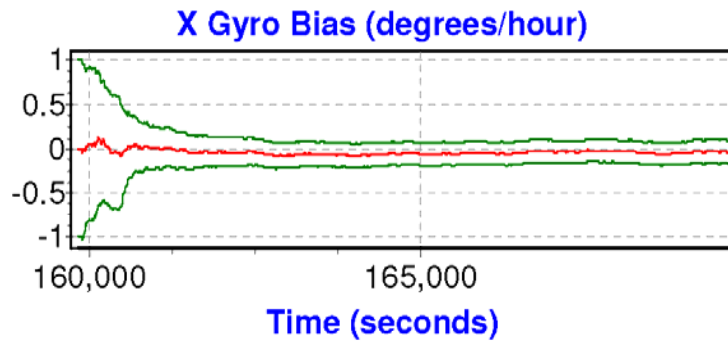


S/D Navigator Z Velocity Error (meters/seconds)









Daily Flight Log

Julian Date:	11108	Aircraft Tail #:	1635 H	Hobbs Beg:	POS/AV File Name	POS/AV File Transfers
Local Date:	April 19	Pilot:	J. Melton	65.1	11108A	1st File Last File
Local Time:	4:10	Airport ID:	CGE	Hobbs End:	ALTM-Logfile Name	
Time Zone:	EDT	Operator:	J. Hunter			

Weather

Time	Wind	Visibility	Sky Cond.	Temp	Dew Pt	Alt
2018z	160 7	10	12000	0c	11	2995

Ground Station Data

Begin Static 1	4:13
End Static 1	4:23
Begin Static 2	6:58
End Static 2	7:08
Temp/Pressure (GND)	0 12995

Flight Plan

Plans Flown	Client	Laser Pulse	Scan Rate	Scan Angle	Desired Range	Speed KTS

Start	Stop	Flight Line	HDG	Range	PDOP	SV	Speed (kts)	Comments
20:41	20:49	1	146	956	1.79	9	127.4	
20:53	20:57	2	326	961	1.92	9	151.5	
21:00	21:06	3	146	937	2.05	9	122.7	
21:09	21:14	4	326	942	2.12	9	148.3	
21:17	21:23	5	146	943	2.13	9	122.9	
21:26	21:31	6	326	951	1.54	10	151.2	
21:35	21:41	7	146	963	1.72	9	140.3	
21:44	21:49	8	326	988	1.58	10	156.7	
21:52	21:58	9	146	921	1.62	10	131.3	
22:02	22:06	10	326	960	1.69	9	194.0	
22:10	22:16	11	146	935	1.94	10	118.2	
22:19	22:24	12	326	958	1.47	10	158.0	
22:28	22:32	13	146	956	1.48	10	117.1	
22:35	22:37	14	326	953	1.97	9	152.6	
22:42	22:48	crossline	056	956	2.00	9	162.4	

Check-off When Complete

- Power up ALTM Laser Sys
- Boot Laptop/Open Program
- POS/AV
- ALTM/NAV
- Internet Explorer FTP:
- Delete old POS/AV files from PC
- Achieve fine alignment
- Start logging to pc card
- Collect 5-min Static
- Configure ALTM
- Verify Full NAV
- Shutters open at 2000ft A
- Two 10-second Test Fir
- Roll Comp Line
- Flight-lines flown
- Roll Comp Line
- Copy all but last 2 POS/AV to C
- Close Shutters
- Collect 5 min. Static
- Stop Logging to PC Ca
- Copy Remaining POS/AV Files to C
- Power-down ALTM Sys

Daily Activity/Comments