

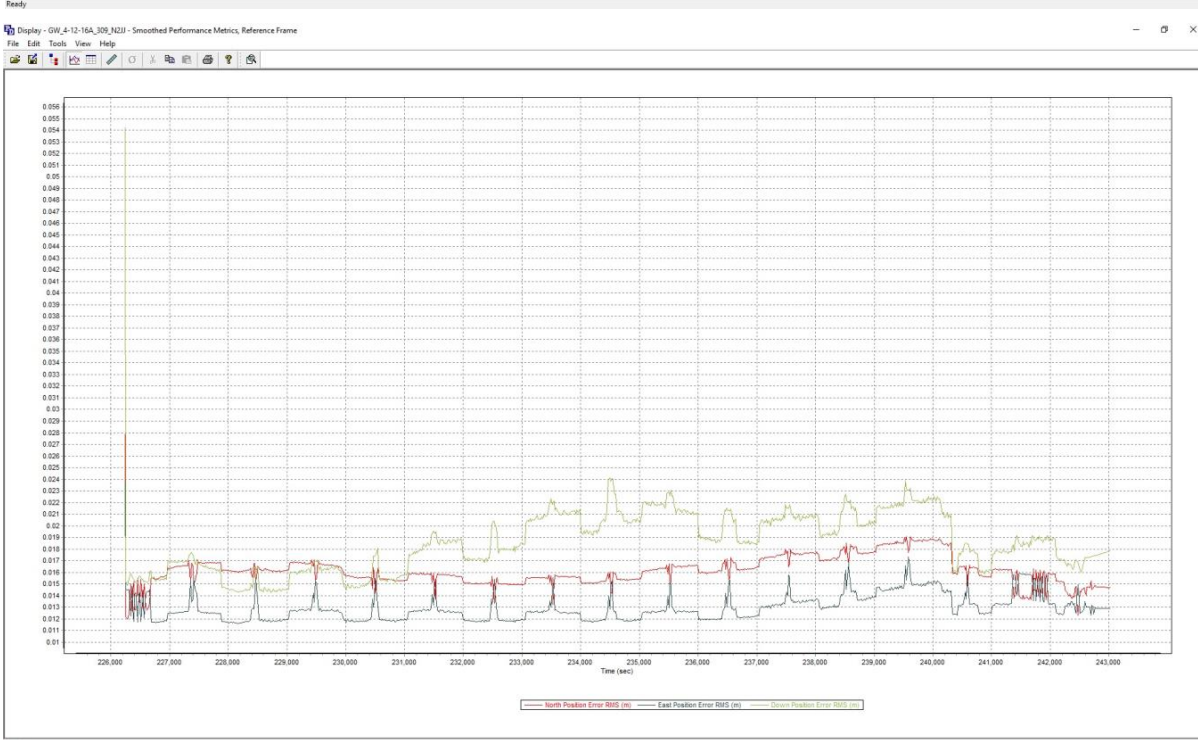
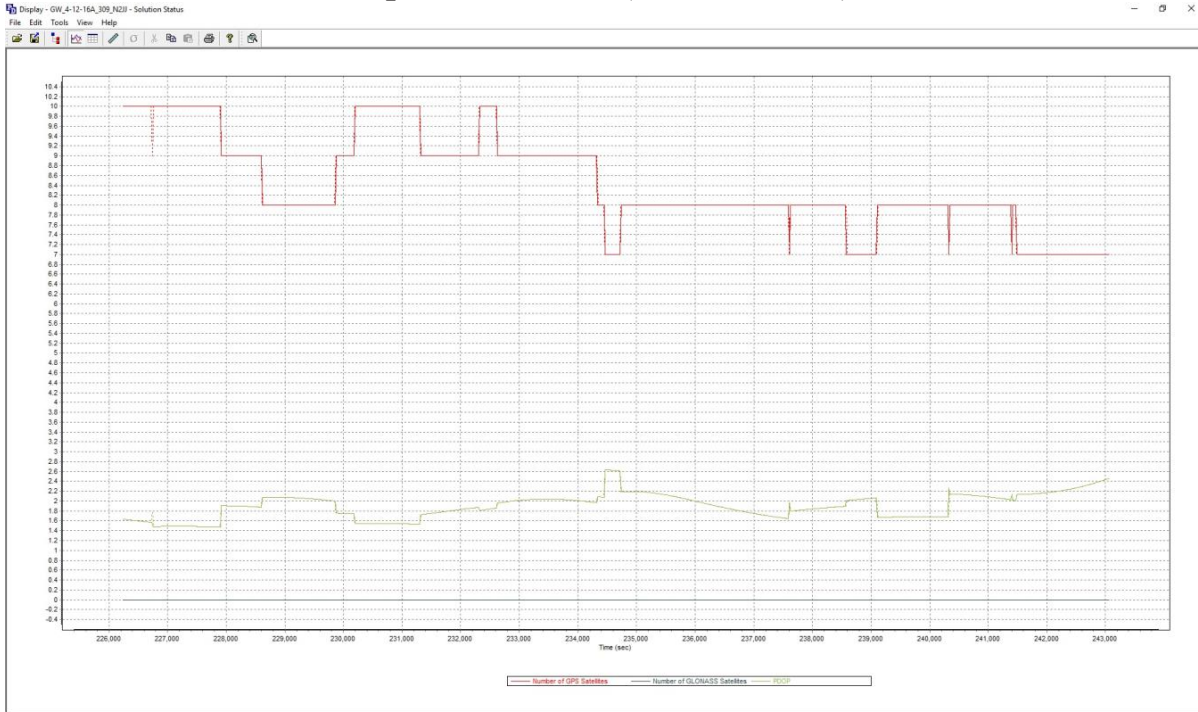
Appendix A:

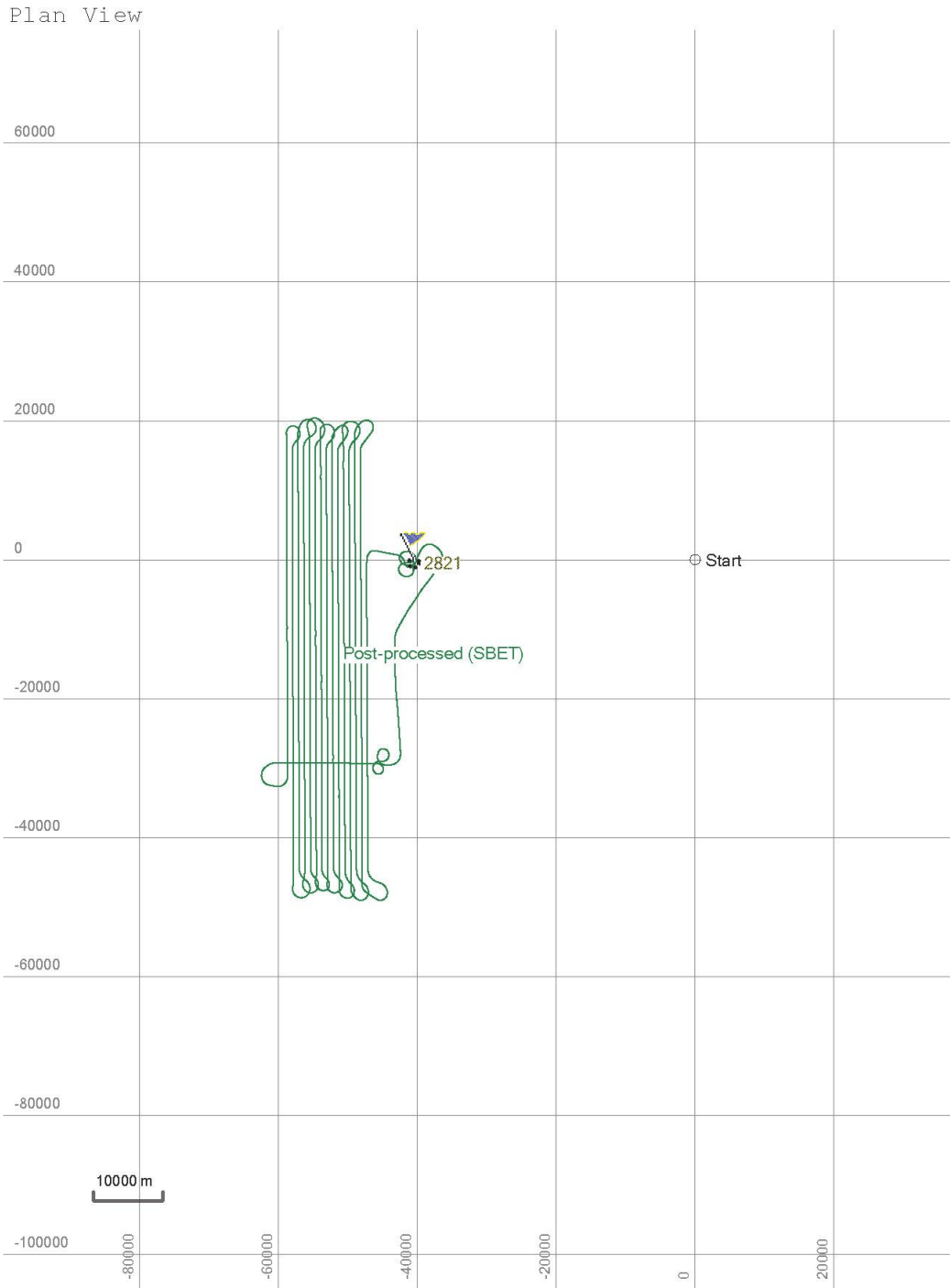
GPS/IMU Statistics, Flight Logs, and Base Station Logs

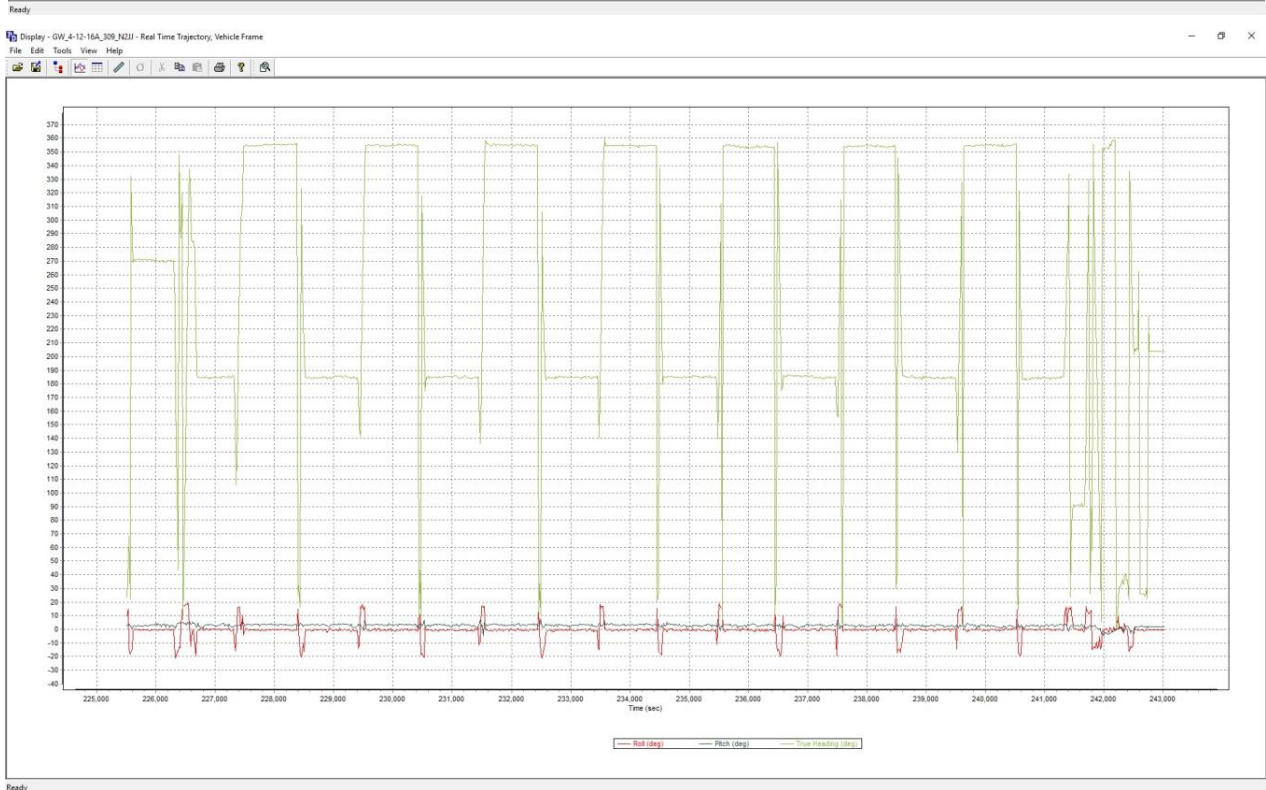
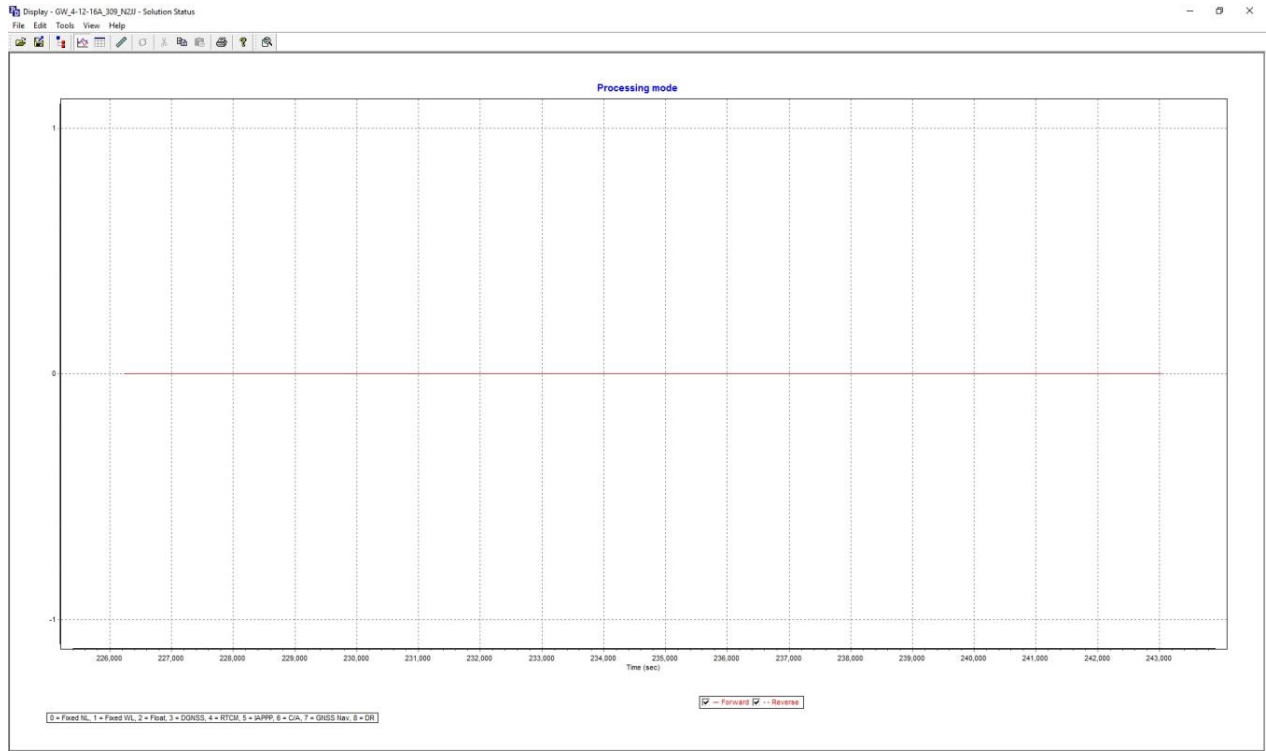
There were four total lifts. Graph reports generated from processing software, flight logs, and base station logs are found on the following pages.

Apr 12, 2016-A (N2JJ, SN309)	2
Apr 12, 2016-B (N2JJ, SN309)	7
Apr 13, 2016-A (N2JJ, SN309)	12
Apr 14, 2016-A (N2JJ, SN309)	17

Apr 12, 2016-A (N2JJ, SN309)







Coordinate Manager
— □ ×

Station Information

Station ID

Coordinates

Latitude

Longitude

Altitude m

Decimal Degrees

Antenna

Height

Method

Manufacturer

Type

Offset from Measured Point to APC

Ground Reference Point (GRP) coordinates

Station Database

Station ID

Primary Service ID

Secondary Service ID

Station Fullname

Coordinate Accuracy

Station ID	Station Full...	Frame	Epoch	Ellipsoid	Latitude	Longitude	Altitude	Coord Acc

Date: **4-12-16** Pg. 1 of 1

Project: **WASHBURN COUNTY, WI** Proj #: **27131** Flight Mgmt File: **20160412-A.LORC-N25J-SEN309-KHYR**

Altitude: **WASHBURN COUNTY, WI** End Hobbs: **27131** Total: **BRINKHOFF** Co-Pilot: **PETERSEN**

Dep Apt: **(Y) N** Sta 1: **(Y) N** Sta 2: **(Y) N** Arr Time (Local): **(Z)** Tot Time Aloft: **(Z)**

CORS: **(Y) N** Sta 1: **(Y) N** Sta 2: **(Y) N** Flyovers: **Y/N** If Y, times: **Sta1** **14:51** **Sta2**

GPS Unit: **(Y) N** Sta **(RM0899) 5.0 ft** Sta 2: **(Y) N** Flyovers: **Y/N** If Y, times: **Sta1** **14:51** **Sta2**

Gd Temp beg: **°C** End: **°C** OAT beg: **°C** End: **°C** Altimeter begin: **end:**

Type	Hdg	Start (UTC)	End (UTC)	Gd Spd	POB/Start	GPS Altitude	Crab	Turn (0-5)	Avg Terr Ht	Max Gdspd	Power	AVG Pt Spacing	PPSM	Bag CB	End CB	Tot CB	Score Name/°
LIDAR	H300	FOV 38	Scan Freq 52	Alt AGL 1700	Alt AMSL 2000	Pulses in Air	Pulses in Air										KHYR
TEST	1442	1443	1449	1451								140					
50	S	1458	1508	140	11	2082	-5		29	133							
49	N	1511	1526	132	11	2047	4		133	288							
48	S	1529	1543	134	10	2092	-4		288	441							
47	N	1546	1600	134	9	2092	4		441	595							
46	S	1602	1617	134	10	2089	-3		595	749							
45	N	1619	1634	134	10	2087	3		749	902							
44	S	1636	1650	134	10	2084	-5		902	1058							
43	N	1653	1707	136	10	2082	3		1058	1208							
42	S	1709	1723	136	10	2079	-3		1208	1363							
41	N	1726	1740	134	8	2079	3		1363	1514							
40	S	1743	1757	132	9	2077	-3		1514	1670							
39	N	1800	1814	134	9	2075	5		1670	1822							
38	S	1816	1831	136	10	2071	-3		1822	1978							
37	N	1834	1848	136	9	2067	5		1978	2131							
36	S	1850	1902	136	9	2064	-3		2131								
TL/SL	E	1904	1908	126	9	2086	0										

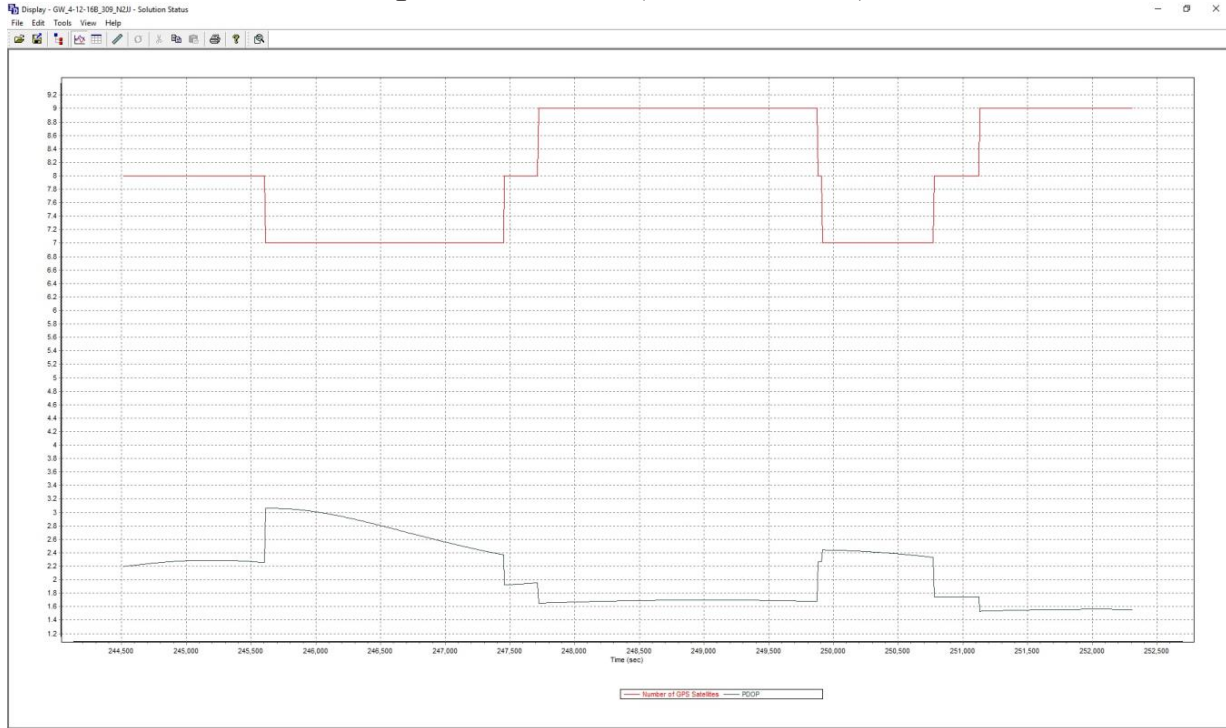
FLIGHT LINE NOTES - visibility, clouds, smoke, partial, etc.

14:40 - 14:51 ∞ / STATC IN AIR
LASER NOT CONNECT

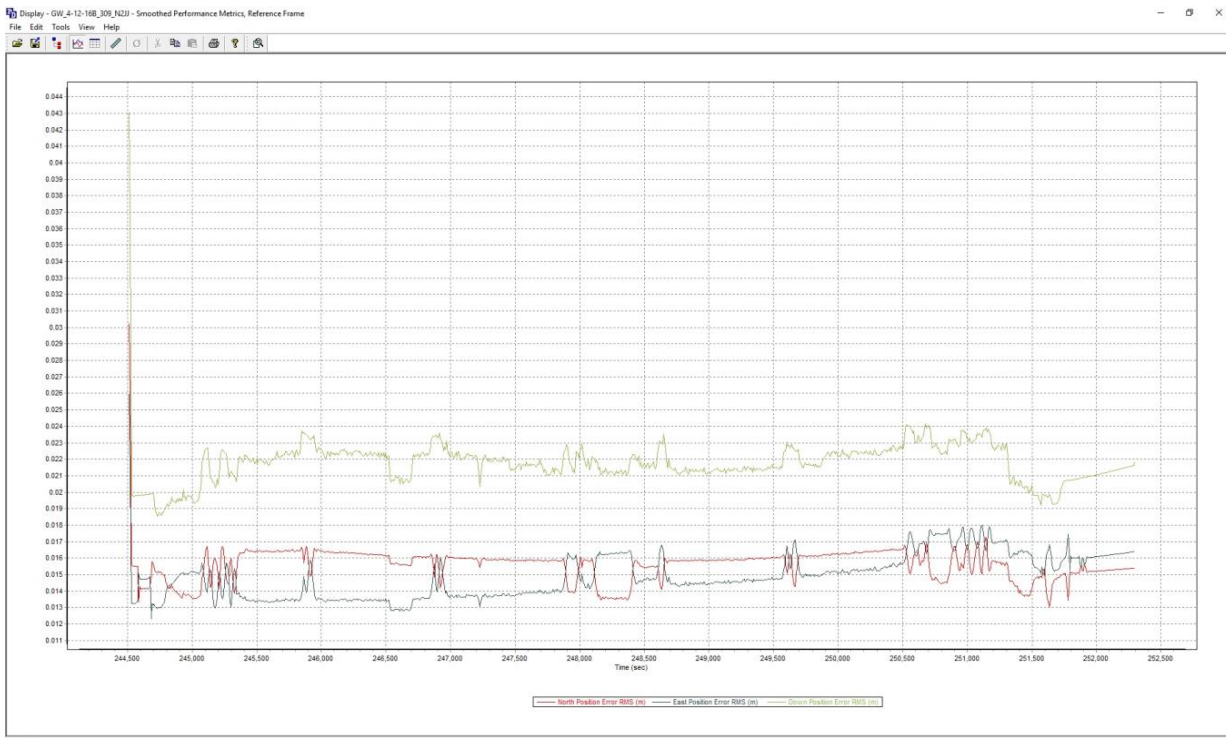
Events: 29, 133, 288, 441, 595, 749, 902, 1058, 1208, 1363, 1514, 1670, 1822, 1978, 2131

Notes: **Perth North 25 Miles**
END SURVEY - FUEL

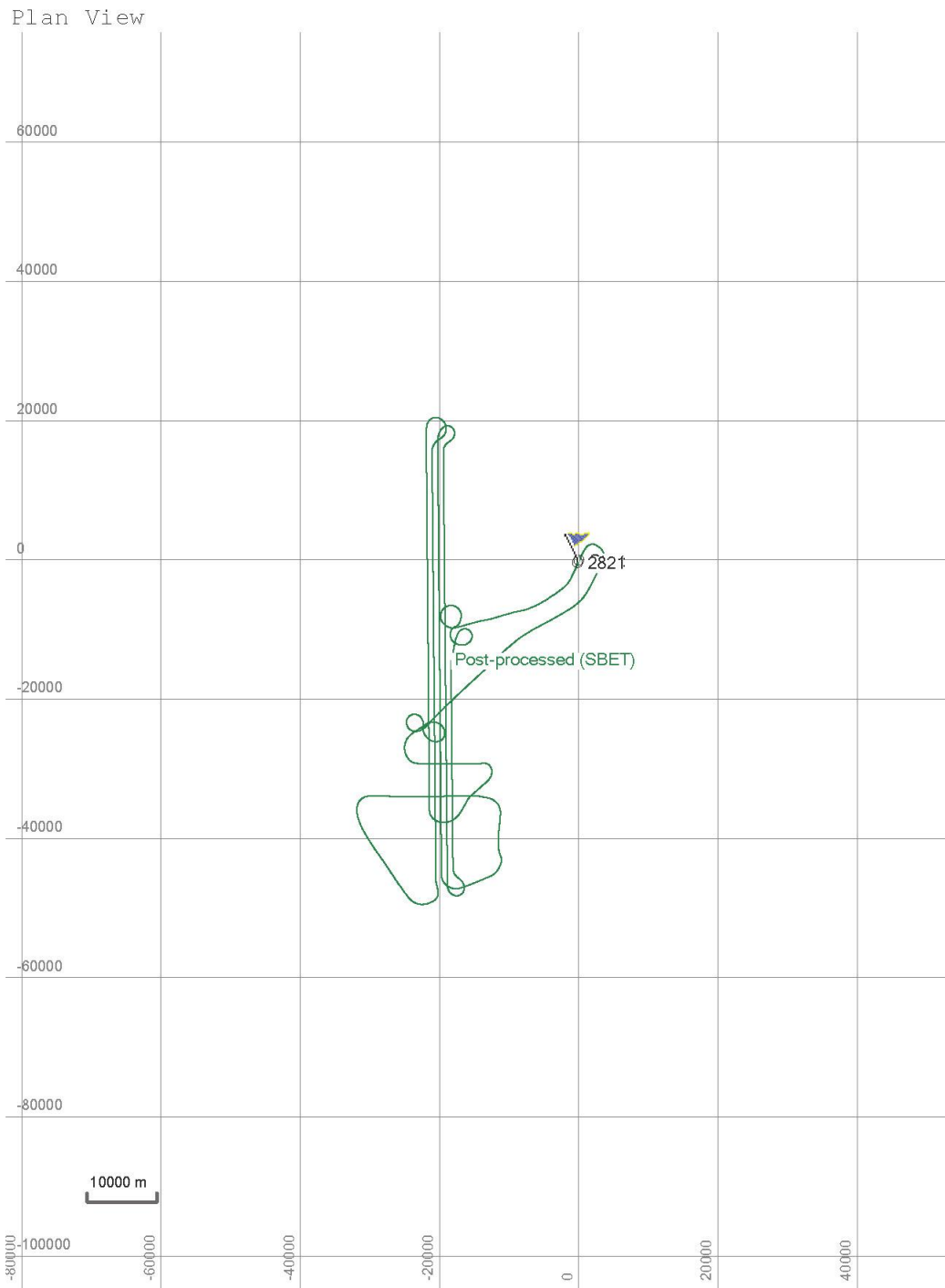
Apr 12, 2016-B (N2JJ, SN309)

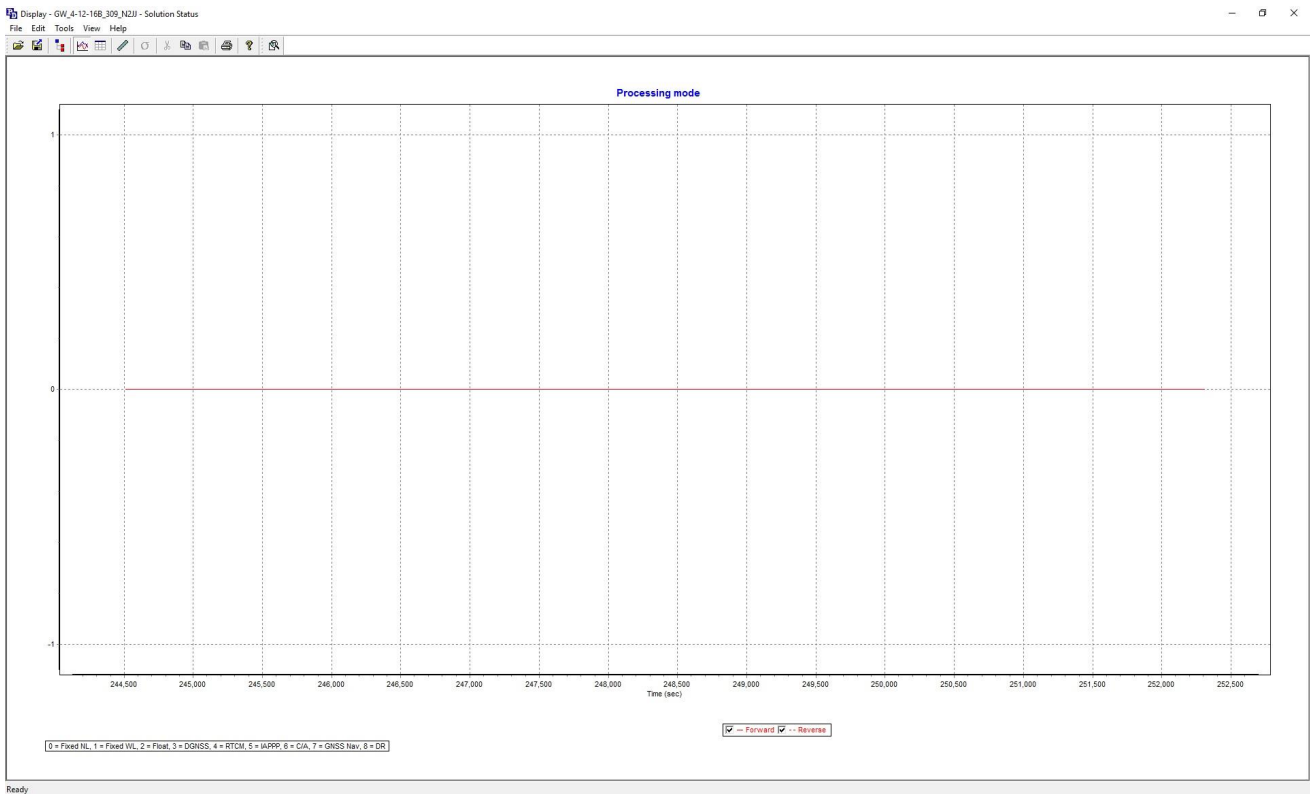


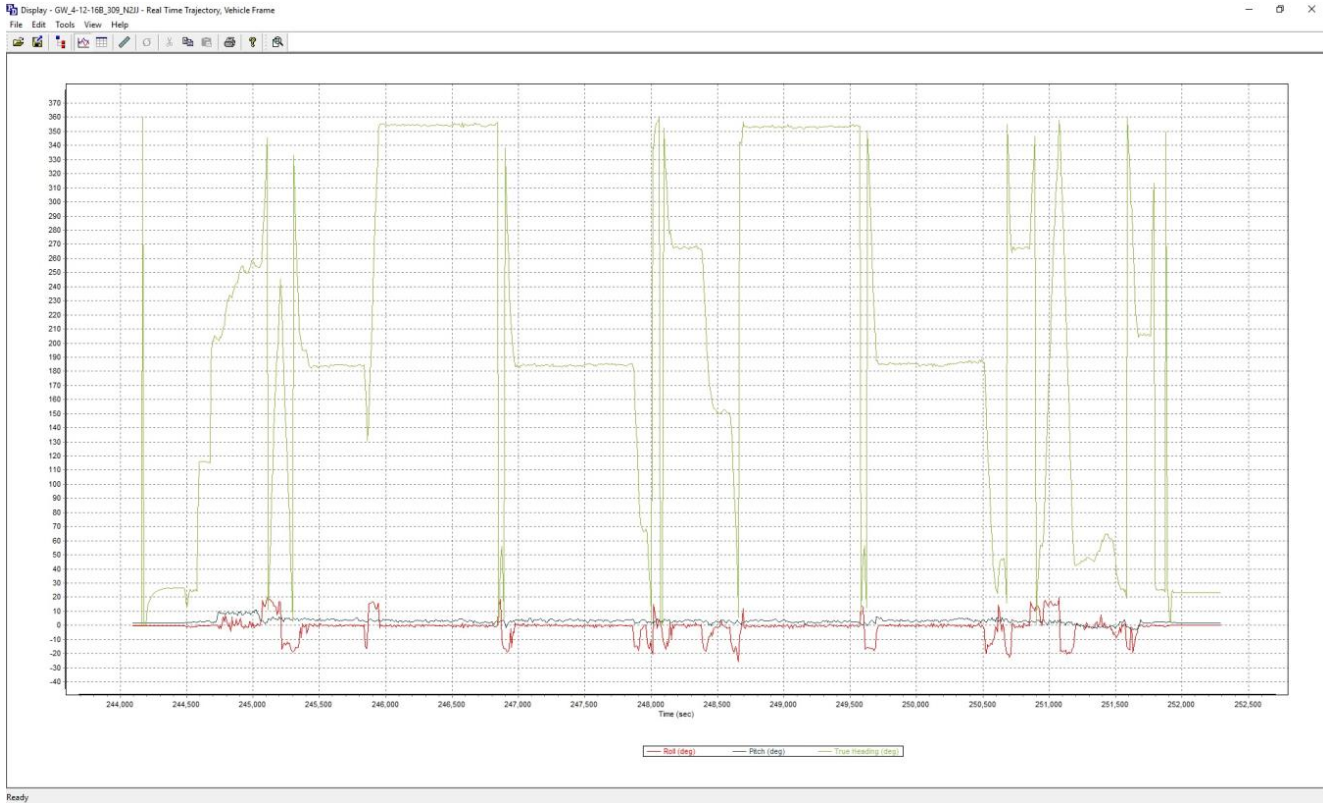
Ready



Ready







Coordinate Manager

Station Information

Station ID: 2821

Coordinates

Latitude: N 46 1 28.26036000

Longitude: W 91 26 48.97963000

Altitude: 339.2620 m

Decimal Degrees

Antenna Frame

Height: 1.524 m

Method: Bottom of notch

Manufacturer: Trimble

Type: Zephyr Geodetic

Offset from Measured Point to APC: -0.001 m

Ground Reference Point (GRP) coordinates Apply Changes

Station Database

Station ID: 2821 Station Fullname: 2821

Primary Service ID: Edit Coordinate Accuracy: UNKNOWN_ACC

Secondary Service ID: Edit Add Delete Update

Station ID	Station Full...	Frame	Epoch	Ellipsoid	Latitude	Longitude	Altitude	Coord Acc

Import Coordinates Export Coordinates Close

Quantum Spatial, Inc

Project: Washburn County, WI **Proj #:** 27131 **Date:** 4-12-2016

Flight Mgmt File: 20160412-8_Scan_52n309-n21 - KHYR

WROC (email log daily to flight_log_distribution_list@quantumspatial.com)

Aircraft: N233 **Begin Hobbs:** 3642.3 **End Hobbs:** 3644.3 **Total:** 2.0 **Pilot:** Brinkhoff **Co-Pilot:** Petersen

Dep Apt: [Z] **Arr Apt:** [Z] **Arr Time (Local):** [Z] **Tot Time Aloft:**

CORS: Y / N **Sta 1:** (RM0899) **Sta 2:** **Flyovers:** Y / N **If Y, times: Sta 1)** **Sta 2)**

GPS Unit: N N **Sta 1:** 5.0ft **Sta 2:** KHYR **Flyovers:** Y / N **If Y, times: Sta 1)** **Sta 2)**

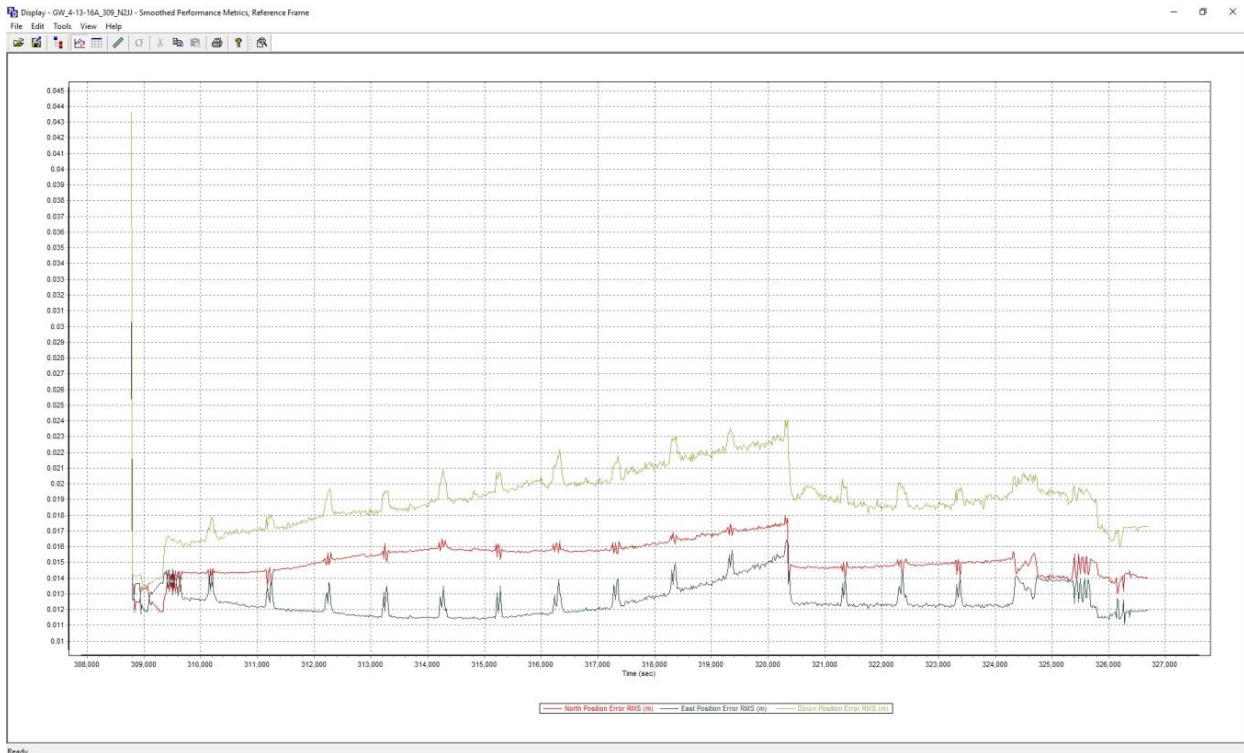
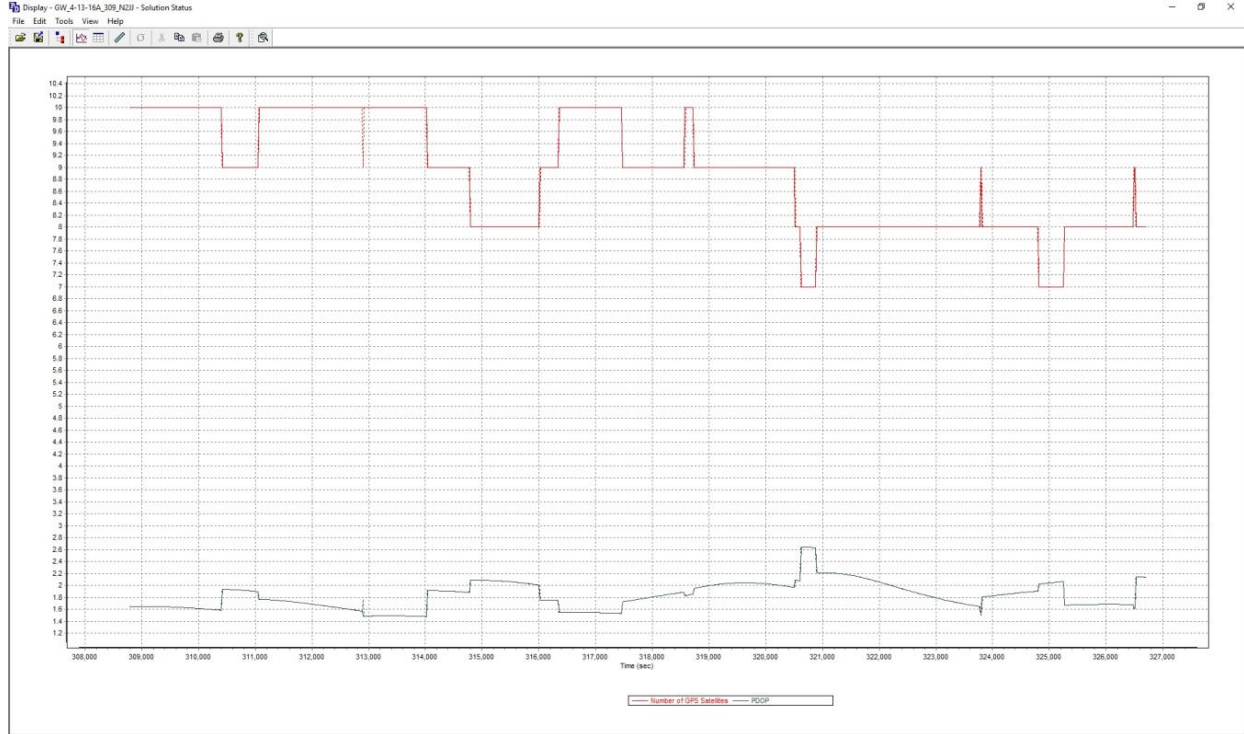
Gd Temp beg: °C **End:** °C **OAT beg:** °C **End:** °C **Altimeter begin:** end:

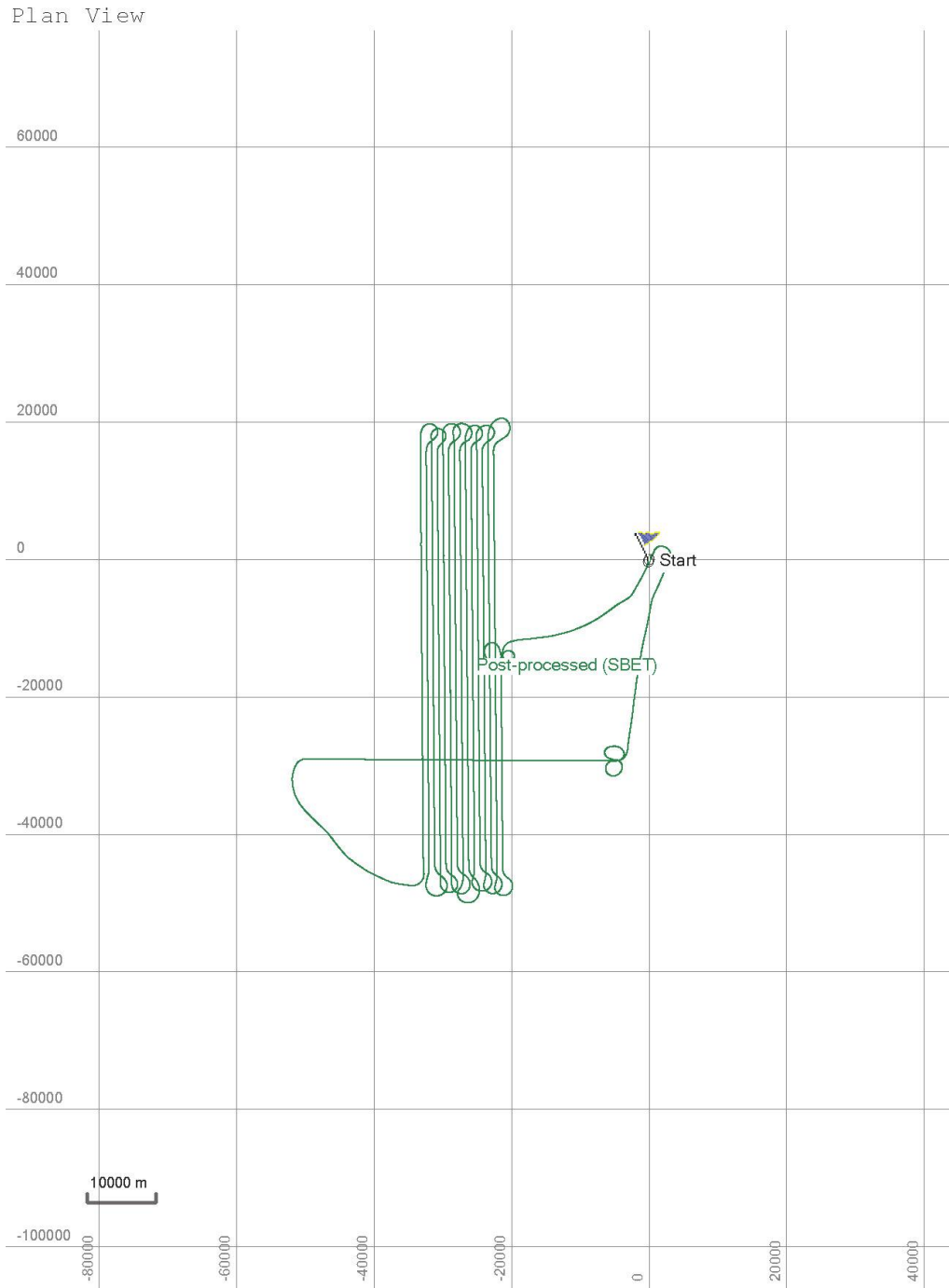
Type	FOV	Serial #	Scan Freq	Alt AGL	Alt AMSL	Avg Terr Ht	Max Glapd	Power	Avg Ft Spacing	PPSM	Storm Name*
LIDAR	38	309	52	1700	2000	300	40	H	40	2+	KHYR

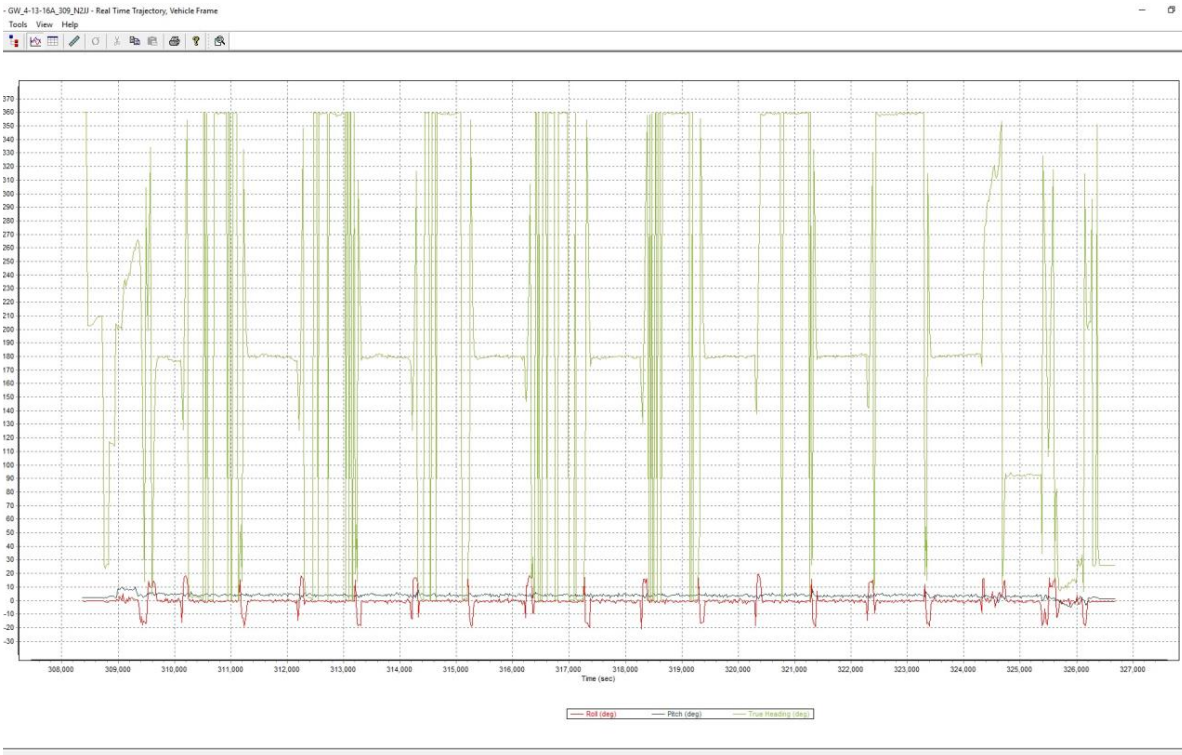
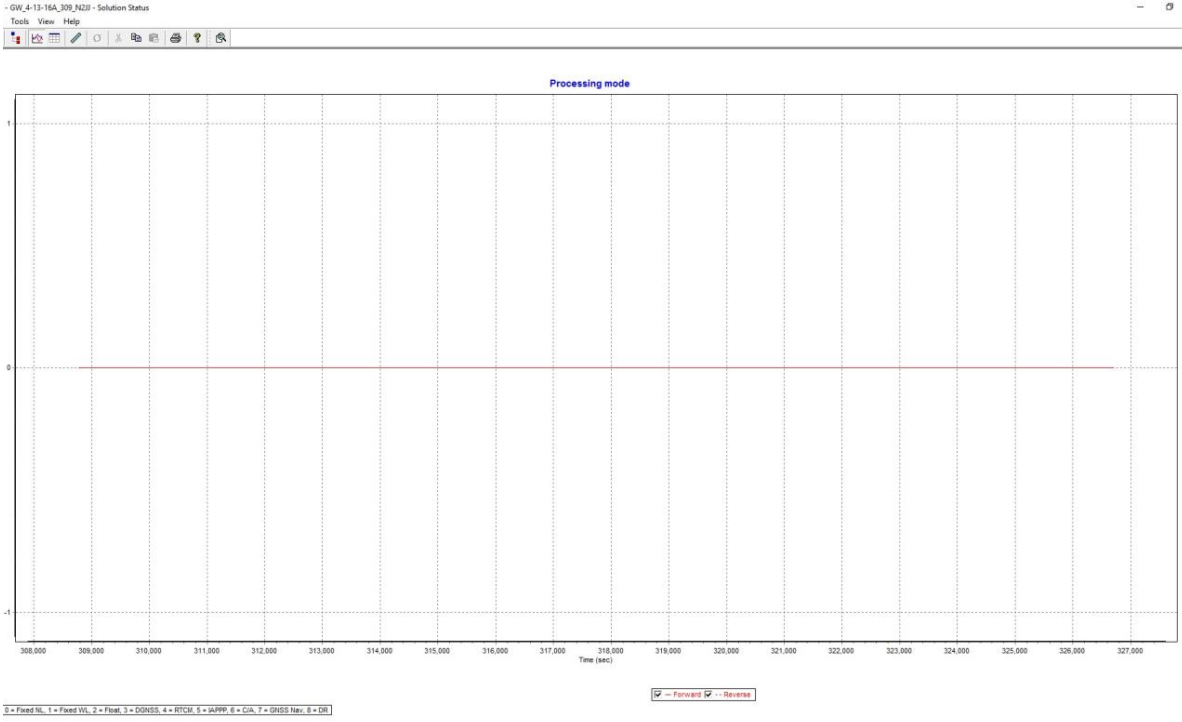
Line #	Hdg	Start [UTC]	End [UTC]	Gd Spd	Foot/Sec	GPS Altitude	Crab	Roll (0..-)	EVENTS	FLIGHT LINE NOTES - visibility, clouds, smoke, particl, etc.
36P	S	2010	2017	134	8	2064	-4		10	
35	N	2019	2034	136	8	2065	4		72	
34	S	2036	2050	136	7	2065	-4		208	
TL	W	2056	2059	136	9	2063				WEATHER MOVING IN FROM WEST / TL JUST IN CASE
TEST	-	2100	2100							*NO USE*
33	N	2105	2119	134	9	2063	4		350	
32	S	21022	2135	136	9	2064	-3		487	* Partic * Clouds 8-9 mile to south
TL/S2	W	2138	2140	134	9	2080				∞ END SURVEY / WEATHER

Total Proj Lines: _____ **Lines Flown:** _____ **Lines Remain:** _____ **Online Time:** _____ **Mob. Time:** _____ **Notes:** _____

Apr 13, 2016-A (N2JJ, SN309)







Coordinate Manager

Station Information

Station ID: 2821

Coordinates

Latitude: N 46 1 28.26036000

Longitude: W 91 26 48.97963000

Altitude: 339.2620 m

Decimal Degrees

Ground Reference Point (GRP) coordinates Apply Changes

Antenna **Frame**

Height: 1.524 m

Method: Bottom of notch

Manufacturer: Trimble

Type: Zephyr Geodetic

Offset from Measured Point to APC: -0.001 m

Station Database

Station ID: 2821 Station Fullname: 2821

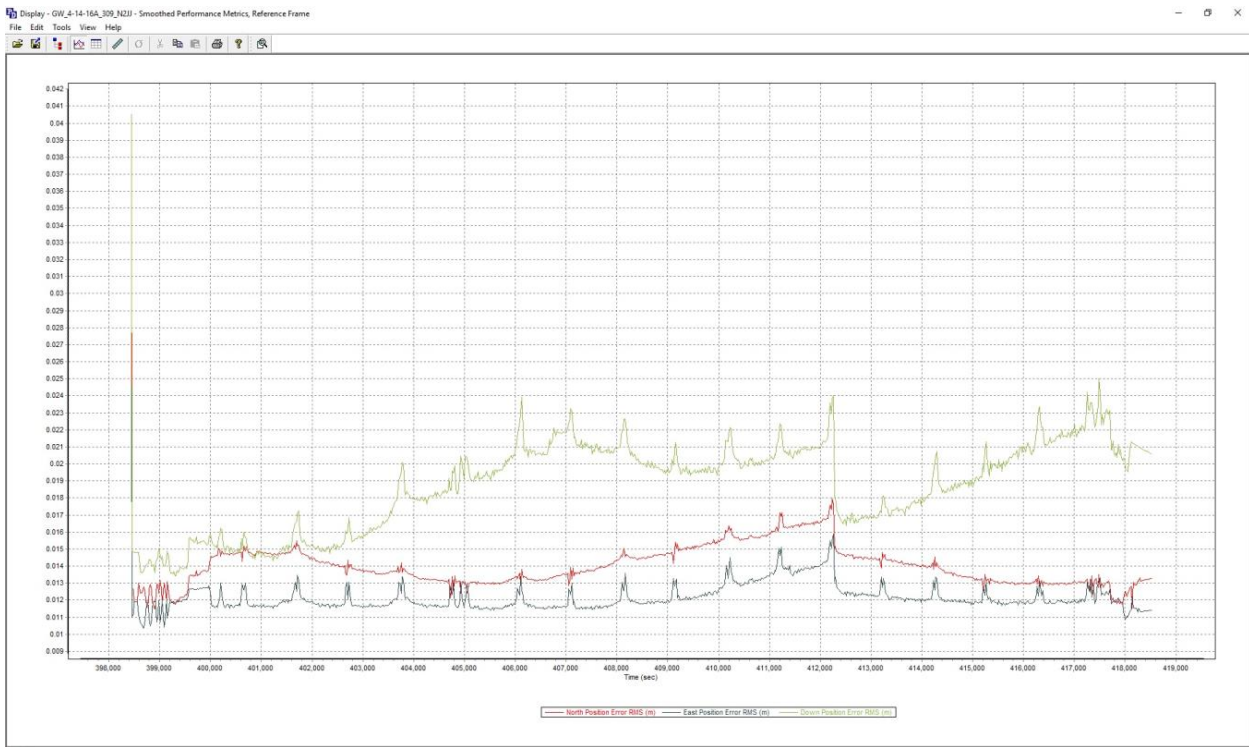
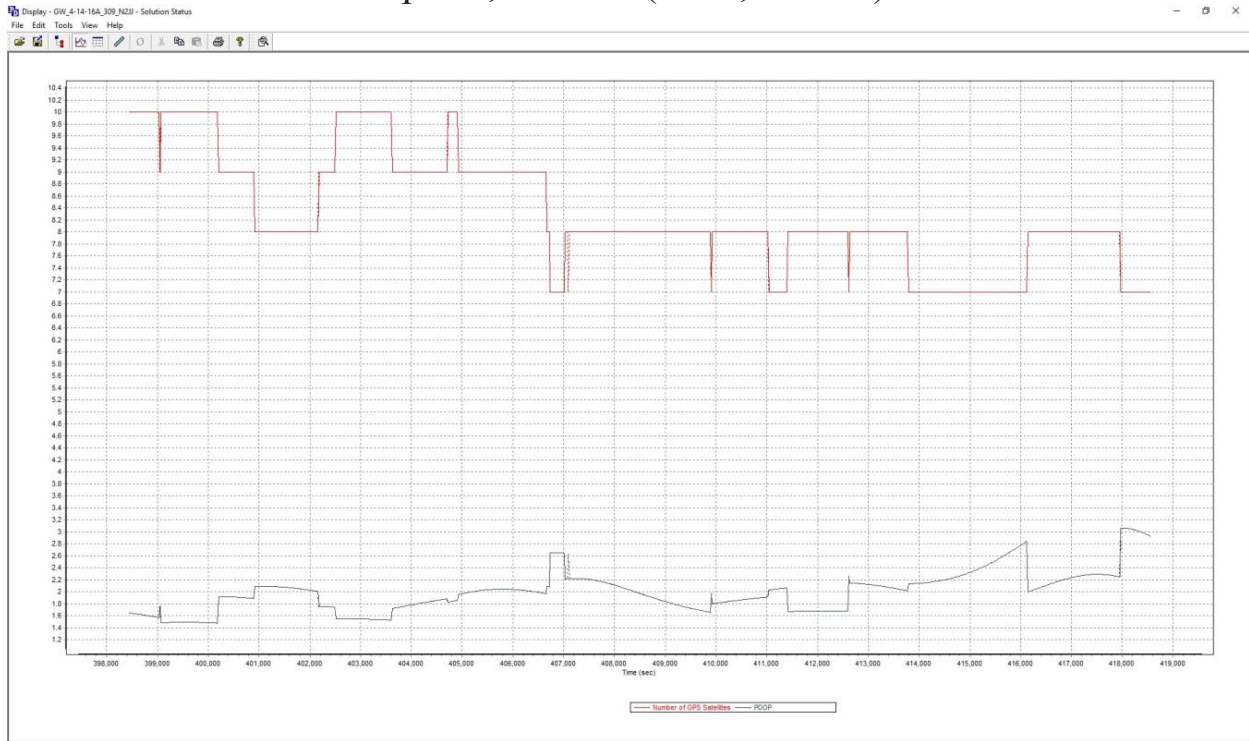
Primary Service ID: Edit Coordinate Accuracy: UNKNOWN_ACC

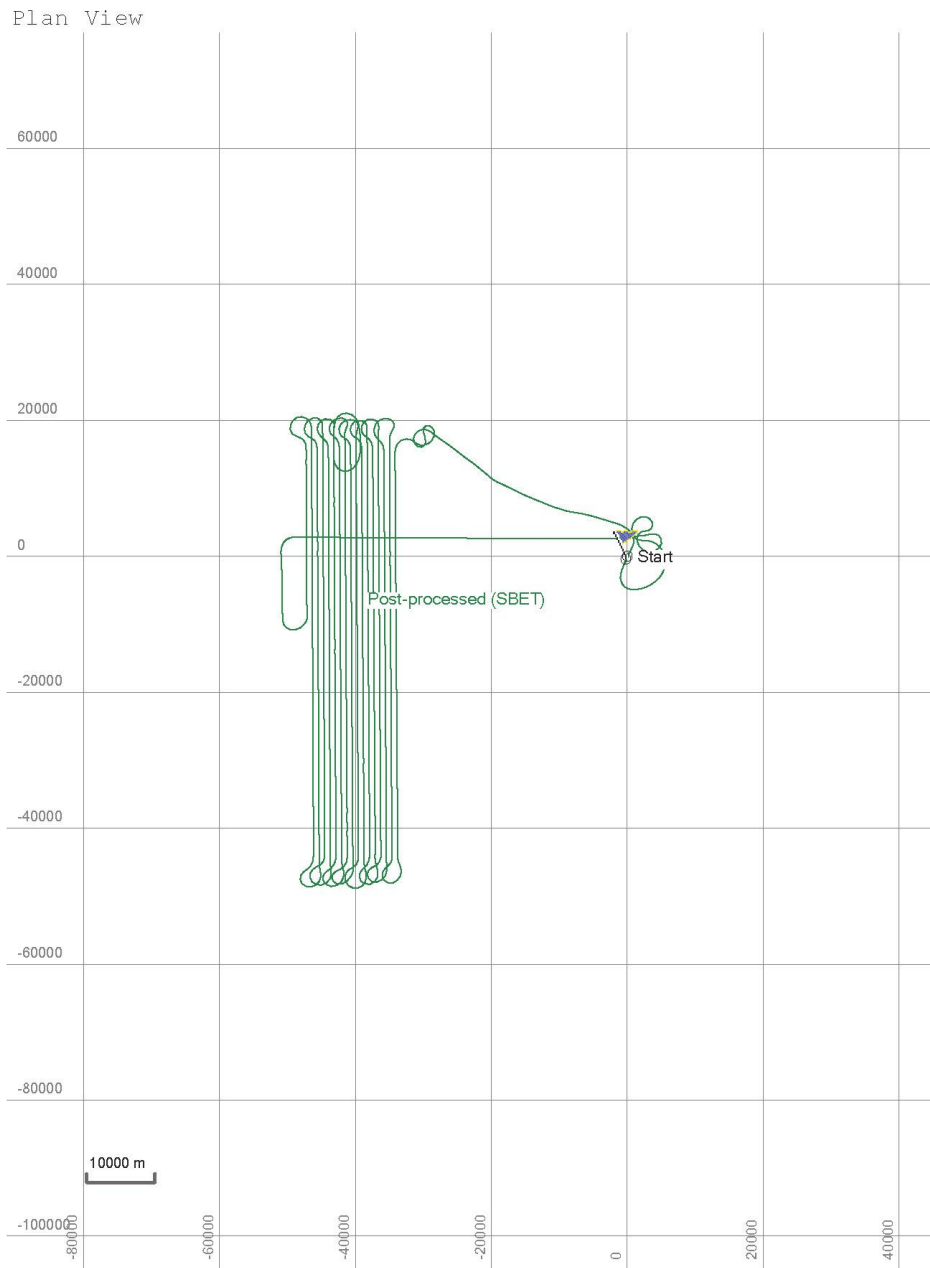
Secondary Service ID: Edit Add Delete Update

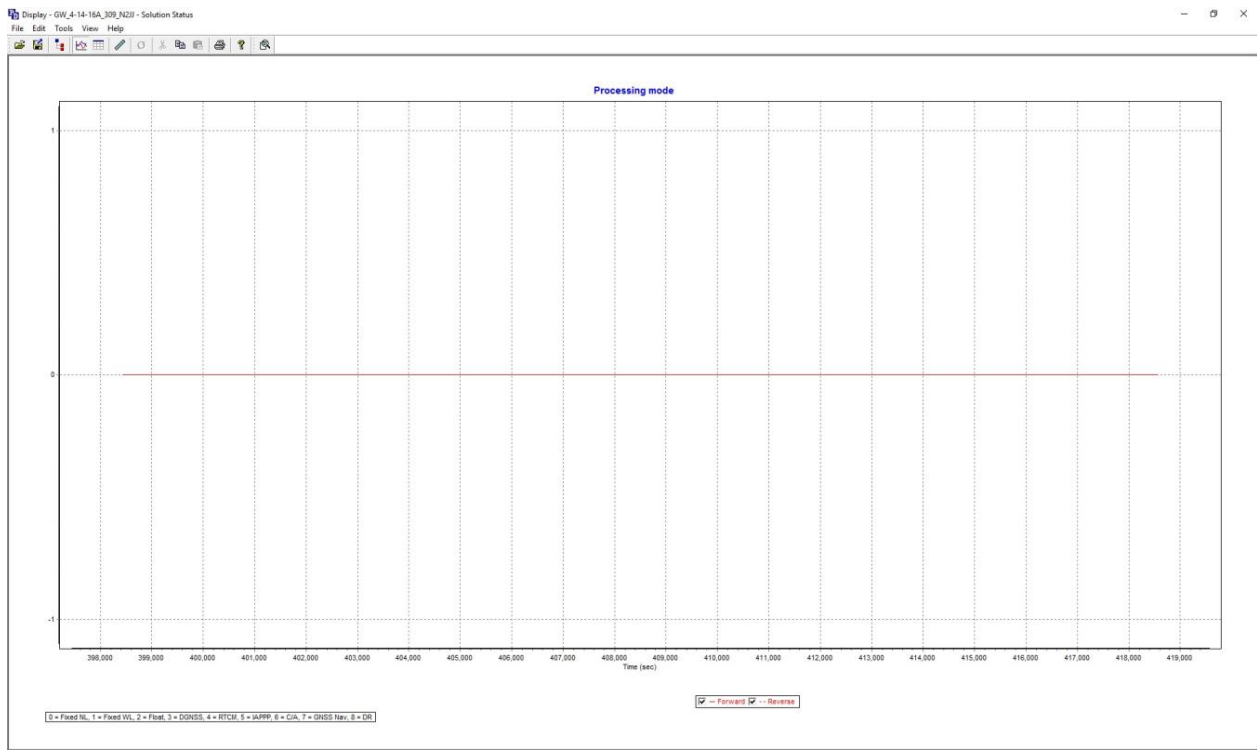
Station ID	Station Full...	Frame	Epoch	Ellipsoid	Latitude	Longitude	Altitude	Coord Acc

Import Coordinates Export Coordinates Close

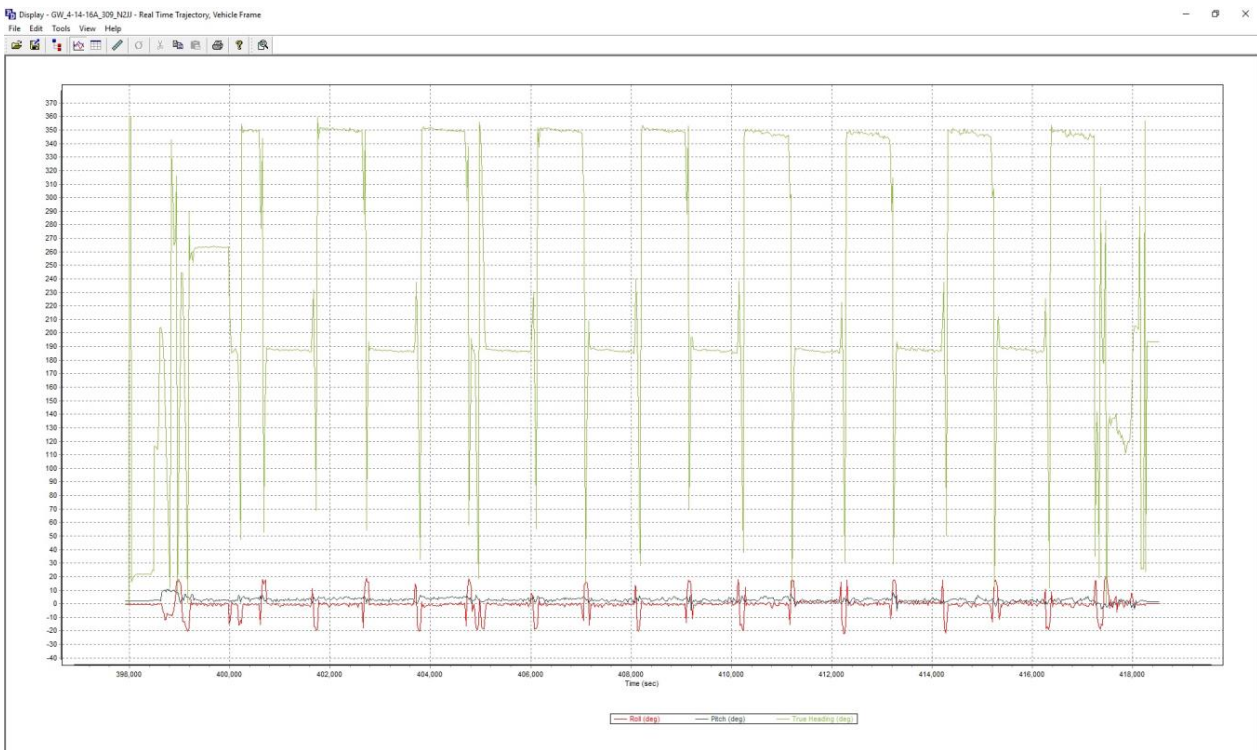
Apr 14, 2016-A (N2JJ, SN309)







Ready



Ready

Coordinate Manager

Station Information

Station ID: 2821

Coordinates

Latitude: N 46 1 28.26036000

Longitude: W 91 26 48.97963000

Altitude: 339.2620 m

Decimal Degrees

Antenna Frame

Height: 1.524 m

Method: Bottom of notch

Manufacturer: Trimble

Type: Zephyr Geodetic

Offset from Measured Point to APC: -0.001 m

Ground Reference Point (GRP) coordinates Apply Changes

Station Database

Station ID: 2821 Station Fullname: 2821

Primary Service ID: Coordinate Accuracy: UNKNOWN_ACC

Secondary Service ID: Add Delete Update

Station ID	Station Full...	Frame	Epoch	Ellipsoid	Latitude	Longitude	Altitude	Coord Acc

Import Coordinates Export Coordinates

Close

Q Airborne LiDAR Data Collection Log Sheet :: Quantum Spatial, Inc
(email Log daily to flight_Log_distribution_list@quantumspatial.com)

Date: 4-14-2016 (A) Pg. 1 of 1

Project: WASHBURN COUNTY, WI Proj #: 27131 Flight Mgmt File: 20160414_A_WROC-SEN-309_n2ji-KHYR
 Altcraft: Begin Hobbs: 3649.0 End Hobbs: 3645.5 Total: 0.5 Pilot: BRINKHOFF Co-Pilot: Tech: PETERSEN

Dep Apt: Dep Time (Ld): (Z): Arr Apt: Arr Time (Local): (Z): Tot Time Aloft:

CORS: Y / N Sta 1: (Rm0899) Sta 2: Flyovers: Y / N If Y, times: Sta1) Flyovers: Y / N If Y, times: Sta2)

GPS Unit: Y / N Sta 1: 5.0 Hz Sta 2: Pulse Rate: 225

Line #	Hdg	Start (UTC)	End (UTC)	Gd Spd	m00ft/sec	GPS Altitude	Crab	Turb (0..-1)	°C		Alt AMSL	Pulse In Air	Ave Terr Ht	Max Gdspd	Power	Avg Pt Spacing	IFSM	Image Name/ID
									OAT beg:	End:								
51	W	1455	1506	140	11	2008	6				309		300	140	H			KHYR
1	N	1511	1516	136	11	2008	9											
2	S	1519	1533	130	10	2029	-8											
3	N	1536	1550	132	10	2029	8											
4	S	1553	1608	136	10	2034	-8											
5	N	1610	1624	140	10	2038	8											
6	S	1631	1646	136	10	2035	-9											
7	N	1649	1703	140	9	2035	8											
8	S	1706	1721	134	7	2036	-8											
9	N	1723	1737	134	9	2039	8											
10	S	1740	1755	136	9	2040	-9											
11	N	1758	1812	158	9	2038	9											
12	S	1819	1829	139	10	2039	-8											
13	N	1831	1846	136	10	2039	9											
14	S	1849	1903	134	10	2040	-9											
15	N	1906	1919	136	07	2043	12											
16	S	1922	1937	138	08	2042	-9											
17	N	1939	1953	138	08	2041	8											

FLIGHT LINE NOTES - visibility, cloud, smoke, particl, etc.

Total Proj Lines: Lines Flow: Lines Remain: Online Time: Mob. Time: Notes: