

## Project Report Appendices

**The following section contains the appendices as listed in the Garrett, MD Project Report.**



## Appendix A

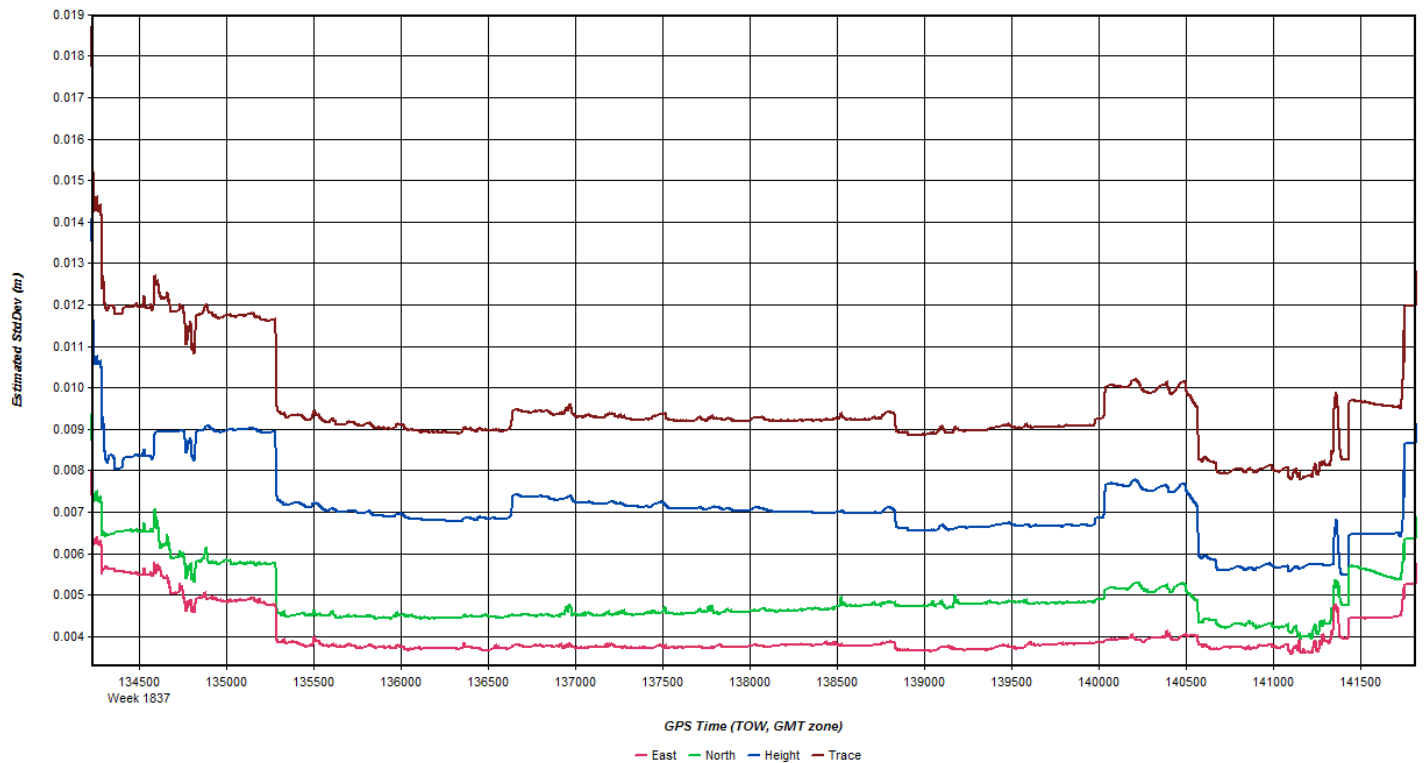
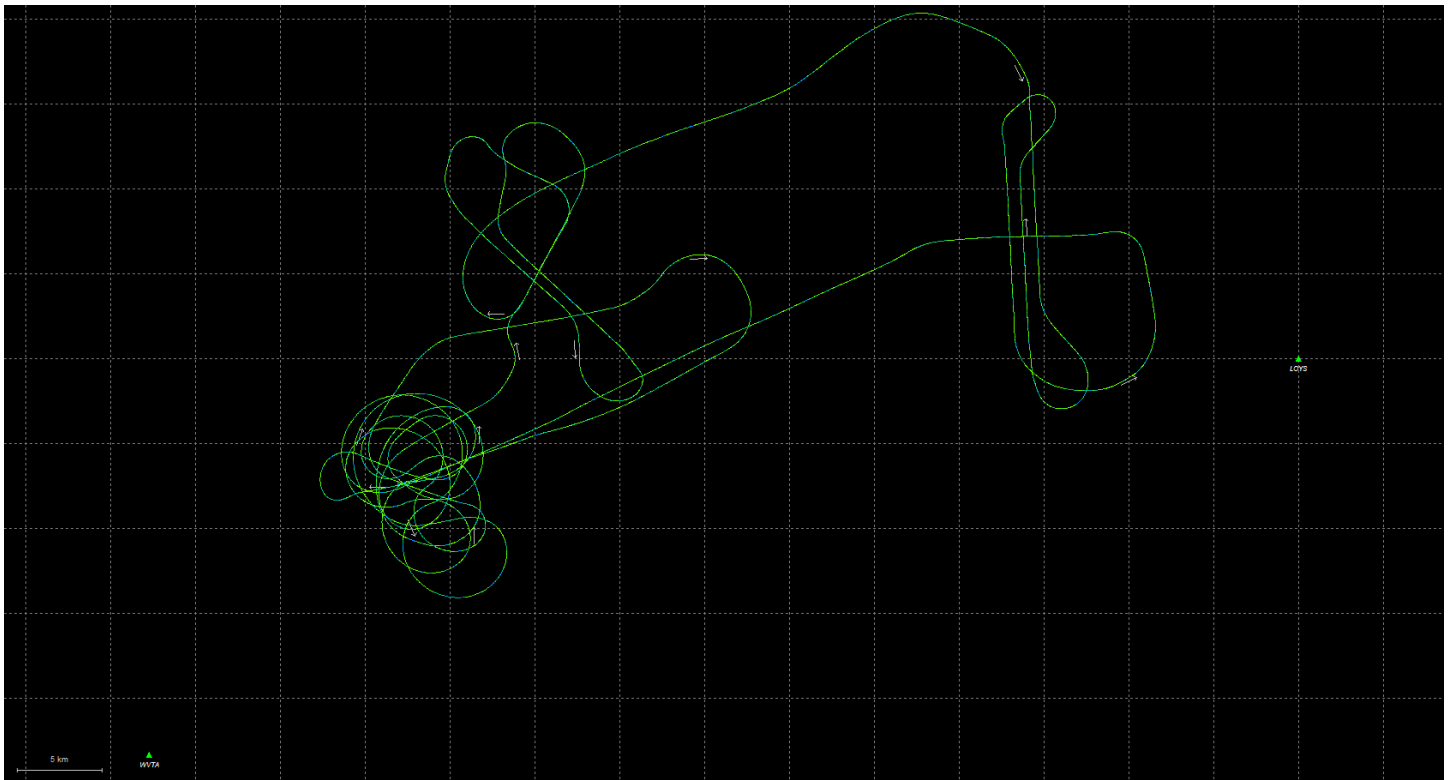
# GPS/IMU Processing Statistics Flight Logs Base Station Logs

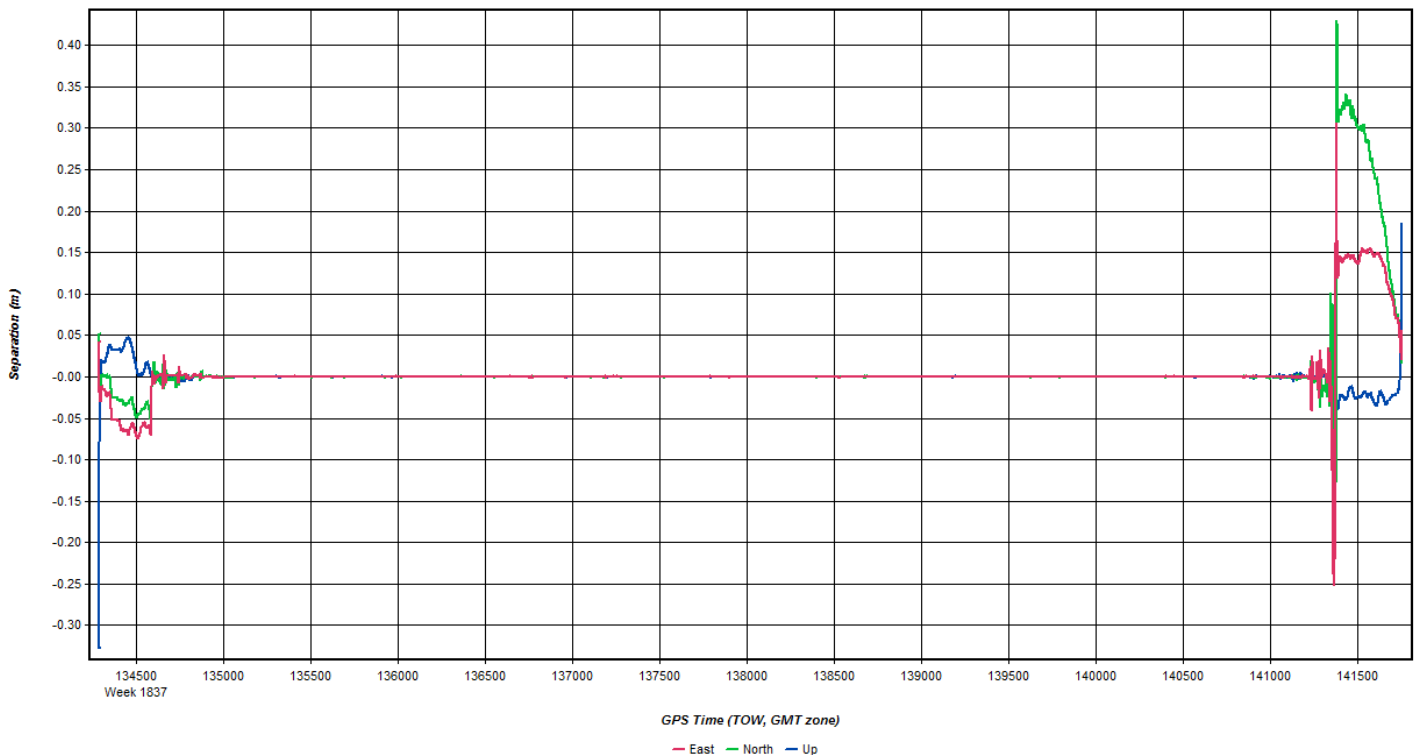
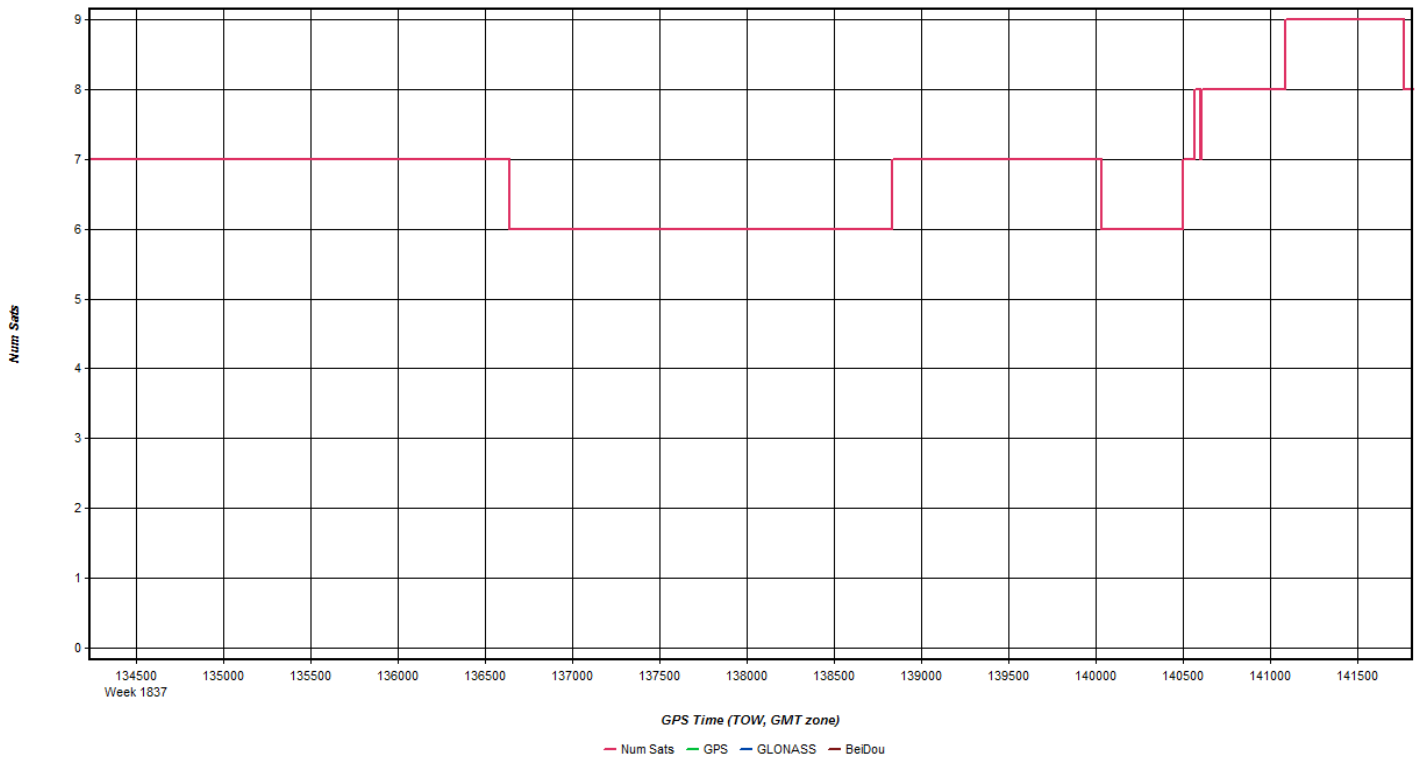


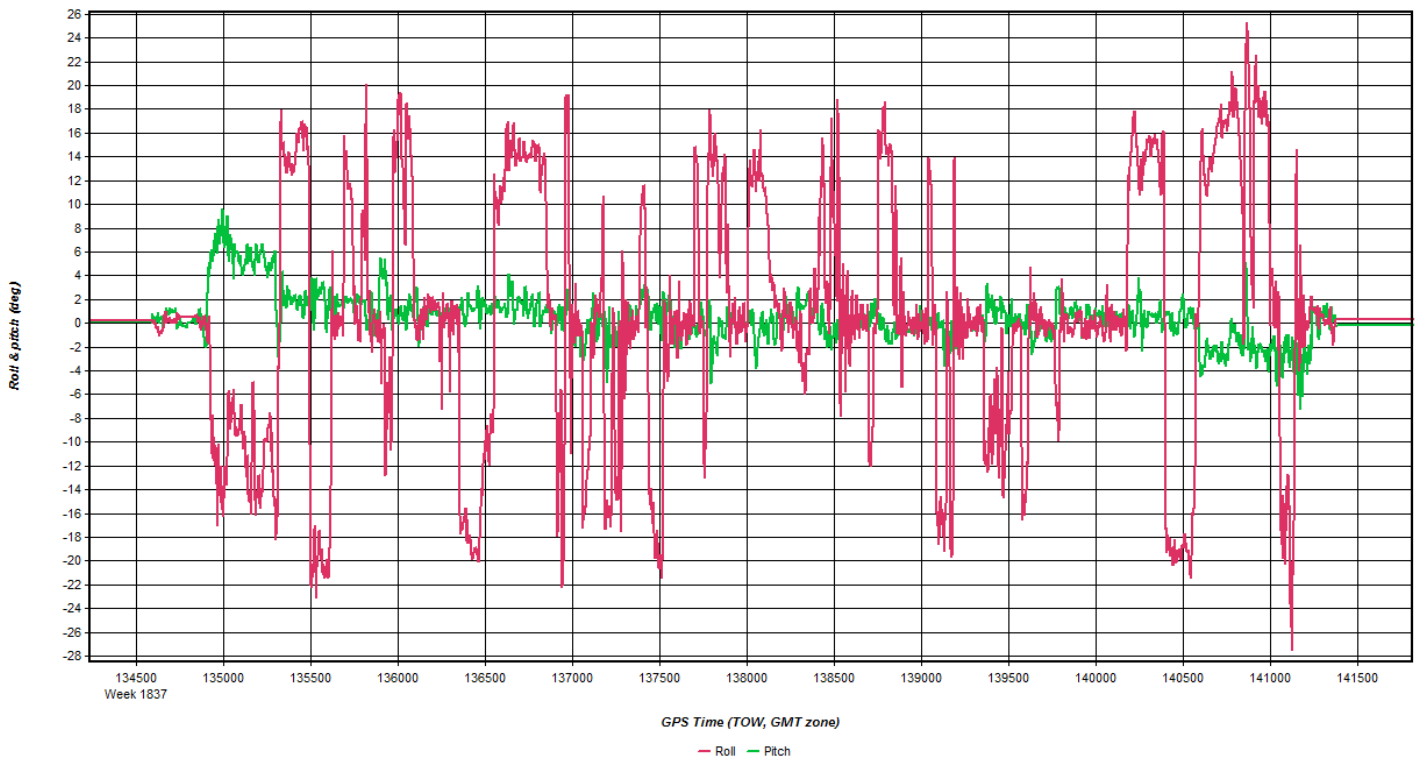
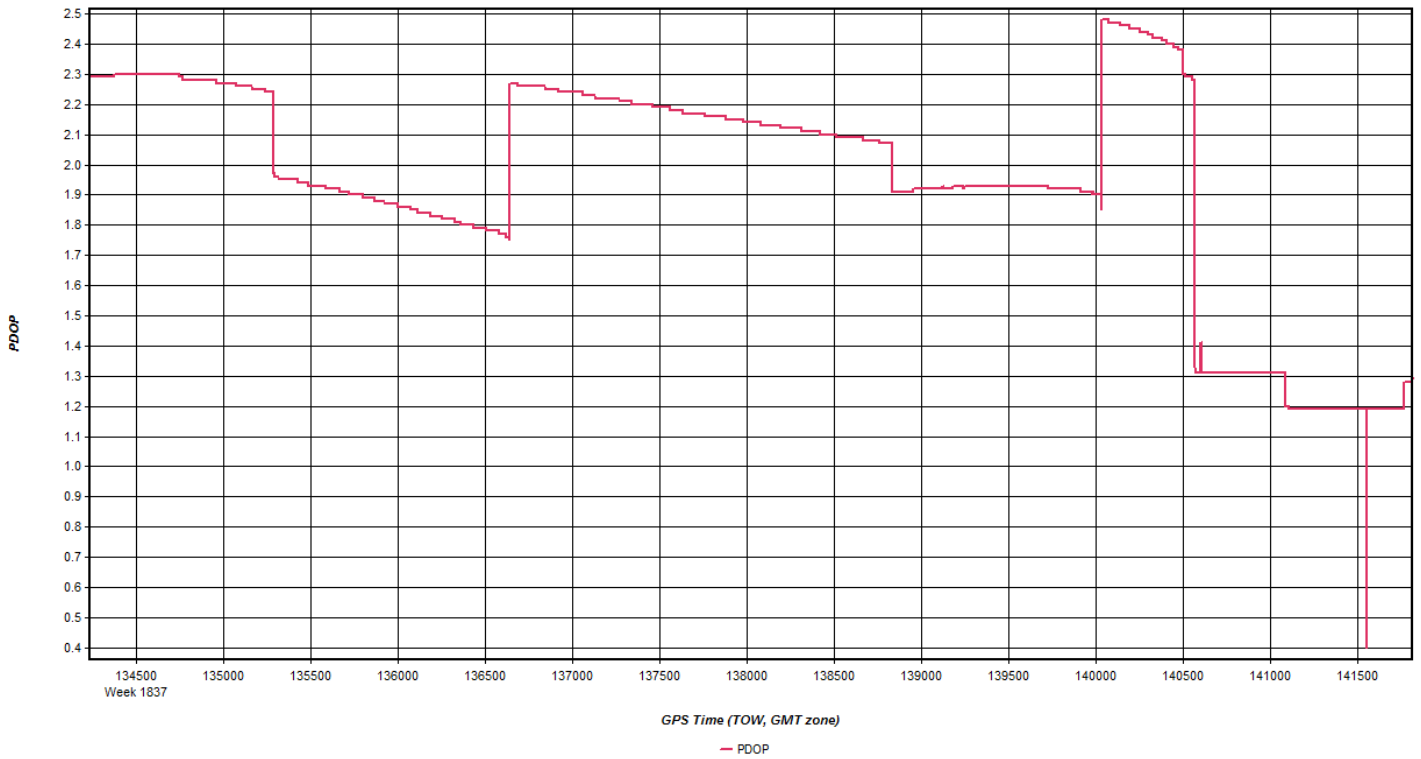
There were eight lifts total. Graph reports generated from processing software, as well as flight logs, are found for each lift on the following pages.

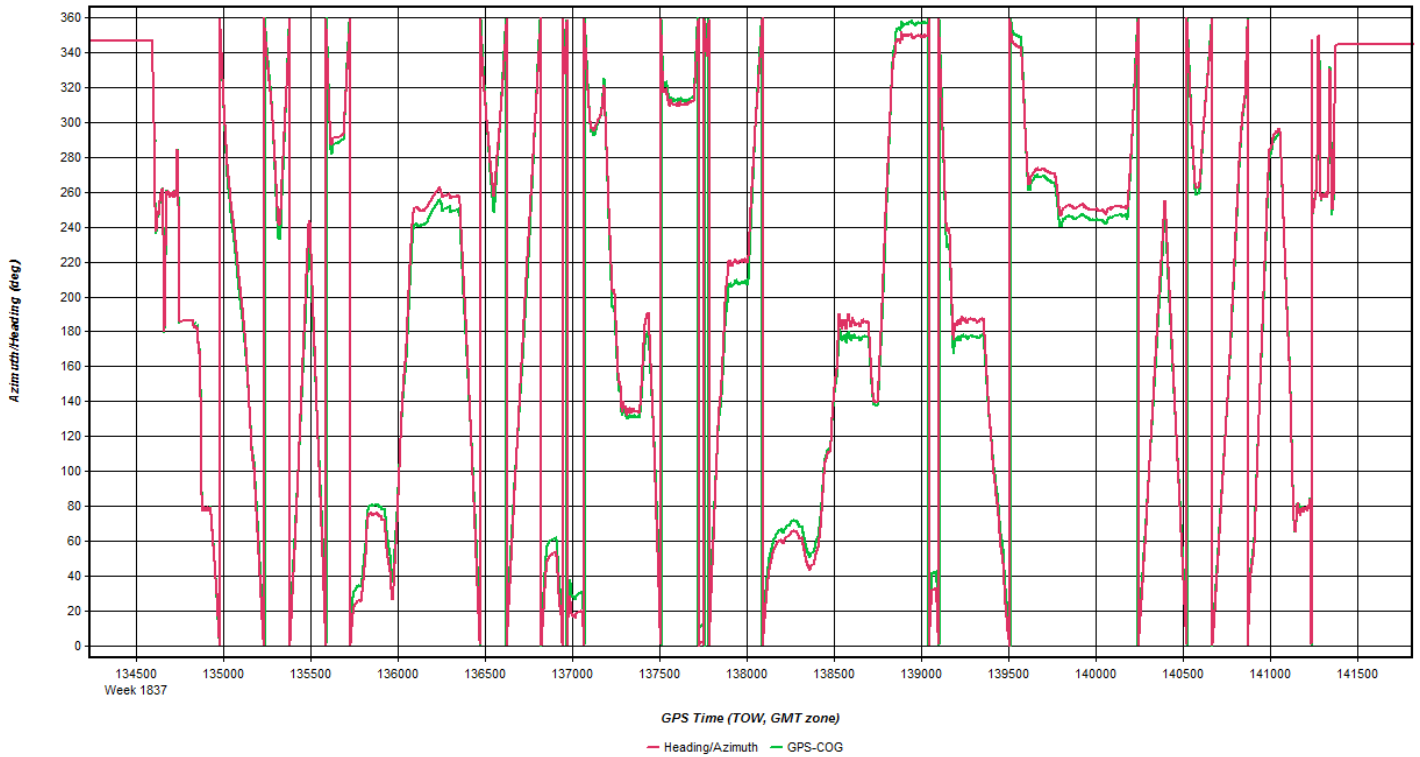
20150323A_7178 .....	2
Flight Log.....	8
Base Station Log.....	10
20150412A_7123 .....	12
Flight Log.....	17
20150424A_7225 .....	19
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20150429A_7225 .....	27
Flight Log.....	33
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Flight Log.....	54
20150504B_7225 .....	56
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# 20150323A\_7178









**Coordinate/Antenna Settings**

Master  Remote

Base Station  
 1: LOYS Name: LOYS  Disabled  
 File: D:\Proc\25442\_Garrett\_Co\_Maryland\20150323\_131323\Voys082

Coordinates  
 Latitude: North 39 38 46.39061   
 Longitude: West 78 43 47.89729   
 Ellipsoidal height: 169.354 m   
 Datum: NAD83(2011)

Antenna Height  
 From station file: LEIAX1202GG, NONE   
 Antenna profile: LEIAX1202GG   
 Measured height: 0.000 m  
 ARP to L1 offset: 0.063 m  
 Applied height: 0.063 m  
 Measured to:  
 ARP  
 L1 Phase Centre



Coordinate/Antenna Settings

Master Remote

Base Station  
2: WVTA Name: WVTA  Disabled  
File: D:\Proc\25442\_Garrett\_Co\_Maryland\20150323\_131323\wvta08

Coordinates  
Latitude: North 39 26 16.64399 Compute from PPP  
Longitude: West 79 30 52.95281 Enter Grid Values  
Ellipsoidal height: 726.044 m Enter MSL Height  
Datum: NAD83(2011) Datum Options  
Select From Favorites Add To Favorites Use Average Position

Antenna Height  
From station file: TRM57971.00, NONE View STA File  
Antenna profile: TRM57971.00 Info  
Measured height: 0.000 m  
ARP to L1 offset: 0.067 m  
Applied height: 0.067 m  
Measured to  
 ARP  
 L1 Phase Centre  
Compute From Slant

OK Cancel

# Flight Log

OPERATORS FLIGHT LOG

YYYYMMDD\_TIME(GPS)

MISSION: 20150323-131323		DATE: 3-23-15		LEICA ALS-70		SENSOR: 7178																																															
PILOT: John Barkham		OPERATOR: Emily Dyreson		AIRCRAFT: NZ62AS		MM70 DRIVE																																															
PROJECT NUMBER AND NAME	LINE		GND SPEED (KTS)	FREQ Hz	SCAN ANGLE	PRF kHz	FIXED GAIN	Flying Ht. (m)	START	STOP	REMARKS																																										
	No.	Lbl										Hdg																																									
25442									13:28	14:03	ZG4 → site .6																																										
Garrett Co.	314	074	28	35	40	261		9000	14:03	14:03	S02 GS 160 at line start (reply)																																										
Maryland (validation range)	315	075	131						14:08	14:09	tailwind - couldn't get GS any more																																										
	316	076	312						14:13	14:14																																											
	314	074	208						14:19	14:19	reflow from ↑																																										
	317	001	177						14:29	14:31																																											
	318	002	357						14:34	14:36																																											
	319	003	177						14:40	14:42																																											
	X	001	269						14:47	14:48	cross tie for lines 1-3																																										
									14:48	15:13	site ZG4 .4																																										
<table border="1"> <thead> <tr> <th rowspan="2">STATUS</th> <th rowspan="2">TOTAL LINES</th> <th rowspan="2">FLOWN</th> <th rowspan="2">LEFT</th> <th colspan="2">AIRCRAFT</th> <th rowspan="2">STATIC</th> <th rowspan="2">START</th> <th rowspan="2">STOP</th> <th rowspan="2">NOTES</th> </tr> <tr> <th>SITE</th> <th>FERRY</th> </tr> </thead> <tbody> <tr> <td>○</td> <td>76</td> <td>6</td> <td>70</td> <td>0.8</td> <td>1.0</td> <td></td> <td>13:17</td> <td>13:22</td> <td>Over base station at</td> </tr> <tr> <td>○</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>WX</td> <td>15:16</td> <td>15:21</td> <td>ZG4 13:52, 14:56</td> </tr> <tr> <td>○</td> <td></td> <td></td> <td></td> <td></td> <td>1.8</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>												STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT		STATIC	START	STOP	NOTES	SITE	FERRY	○	76	6	70	0.8	1.0		13:17	13:22	Over base station at	○						WX	15:16	15:21	ZG4 13:52, 14:56	○					1.8				
STATUS	TOTAL LINES	FLOWN	LEFT	AIRCRAFT		STATIC	START	STOP	NOTES																																												
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○	76	6	70	0.8	1.0		13:17	13:22	Over base station at																																												
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○					1.8																																																

Quantum Spatial N 6216 Resource Drive Sheboygan Falls, WI, 53085 PHONE: 920-467-2655 FAX: 888-253-6695 E-Mail: amphoto@quantumspatial.com

0030 - 982m

# Base Station Log

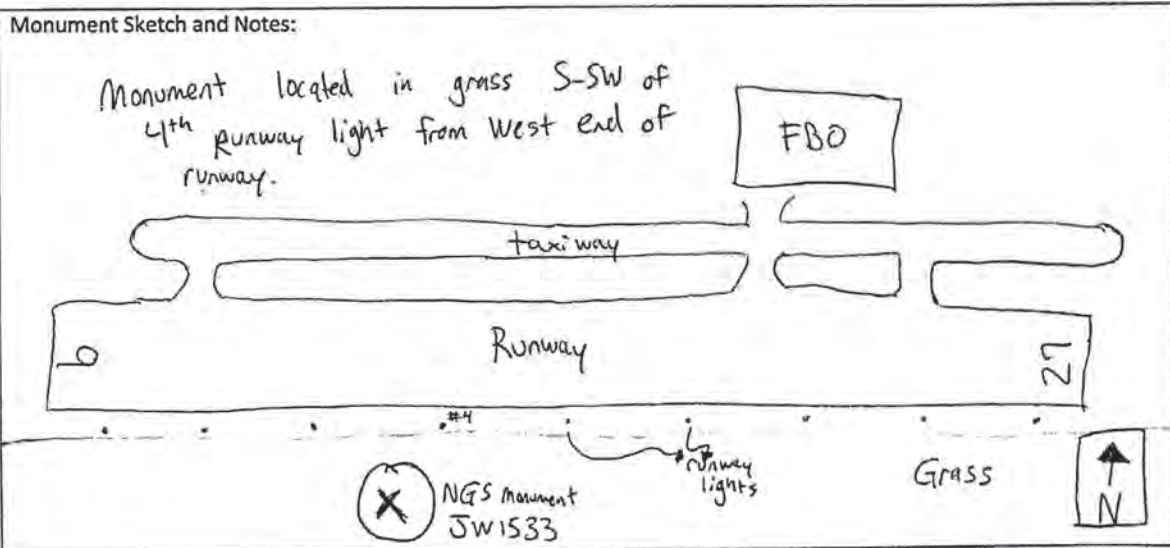
### GPS OBSERVATION LOG

Station ID	<u>JW1533</u>	Date	<u>3, 23, 15</u>
Project Number	<u>25442</u>	Julian Date	_____
Project Name	<u>Garrett Co. Maryland</u>	Start Time	<u>: 12 : 53 : UTC</u>
Revr. Type	<u><del>Novatel</del> Trimble R7</u>	Stop Time	<u>: 19 : 06 : UTC</u>
Revr. S/N	<u>5106K20884</u>	Revr. File Name	<u>08840820.T01</u>
Antenna Type	<u><del>Novatel</del> Trimble Zephyr Geodetic Model 2</u>	Observer	<u>E. Dyreson</u>
Antenna S/N	<u>1441101268</u>		

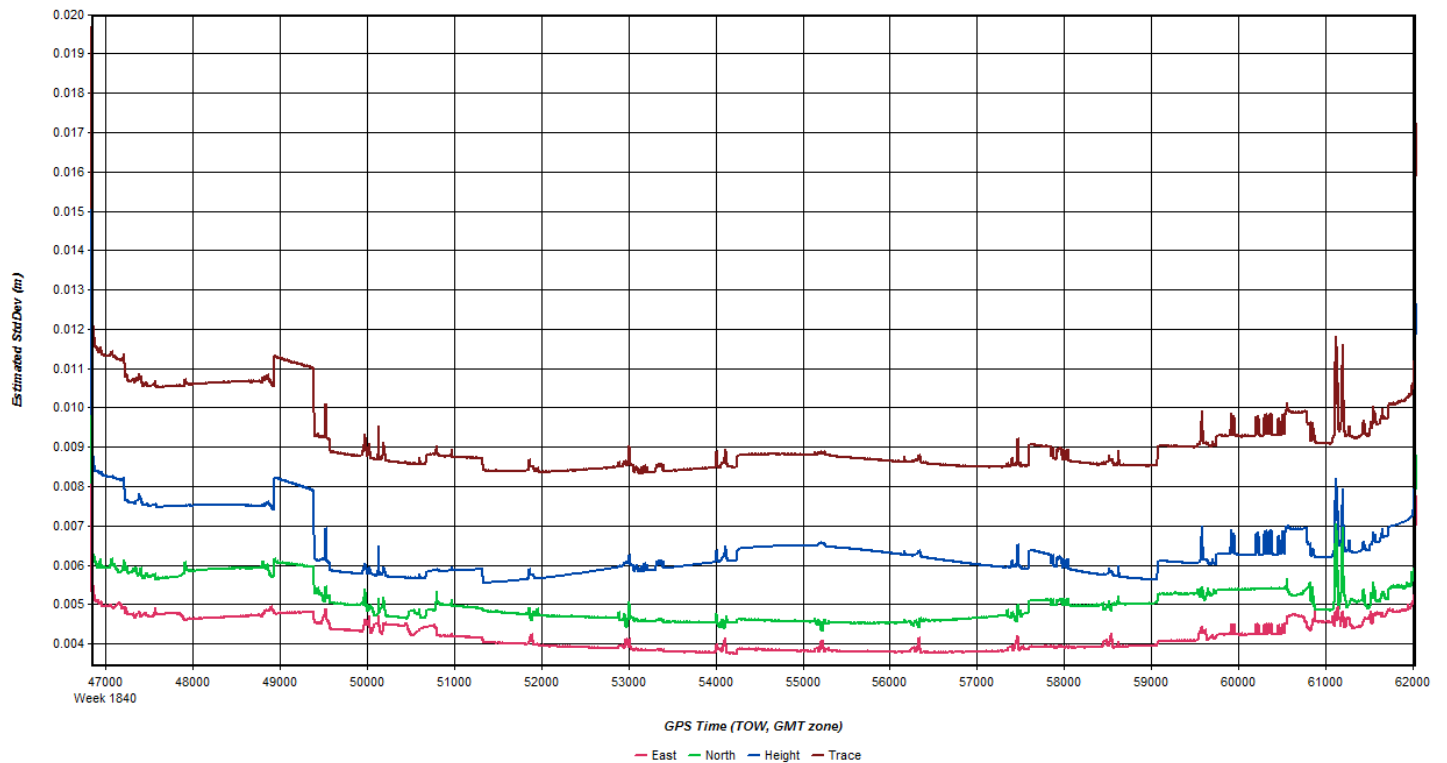
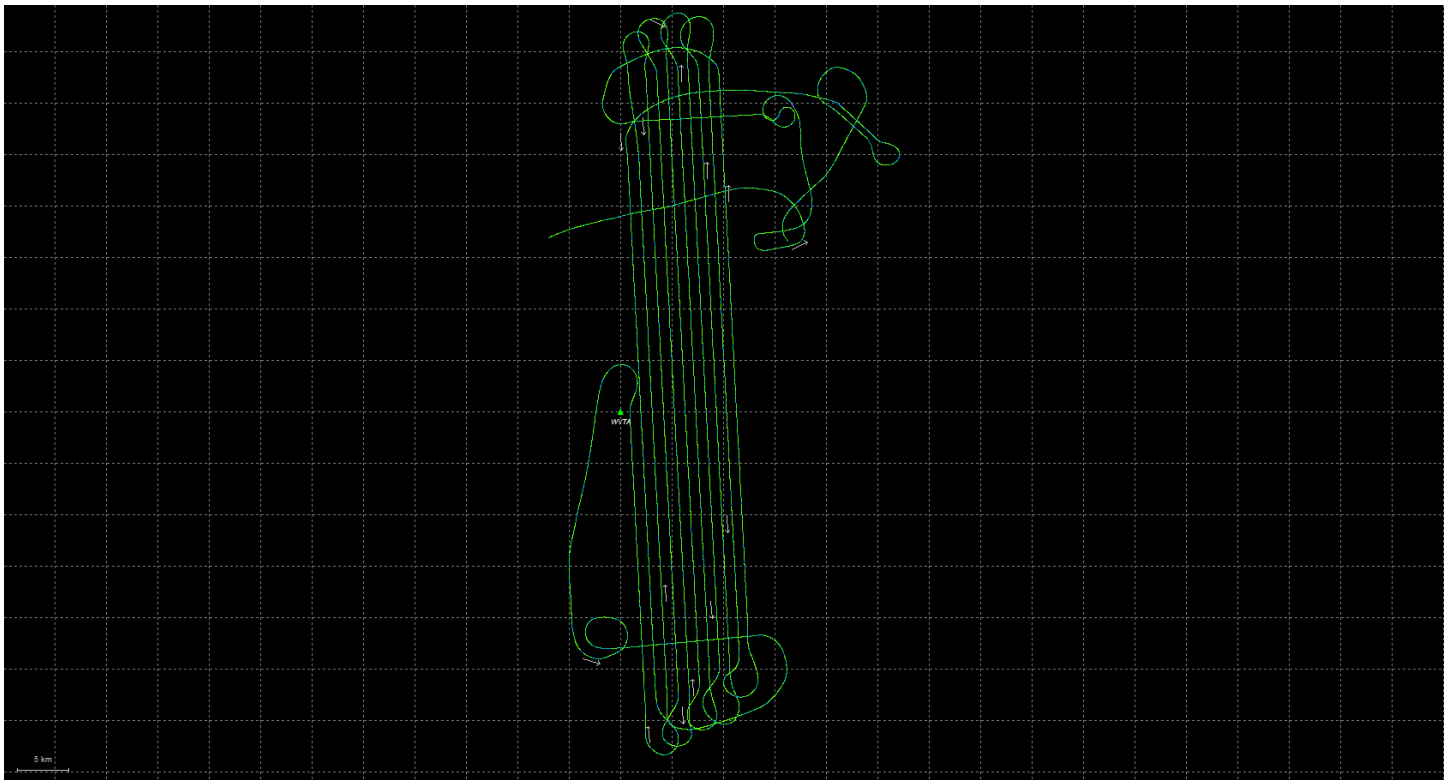
Mission ID: 20150323\_131323

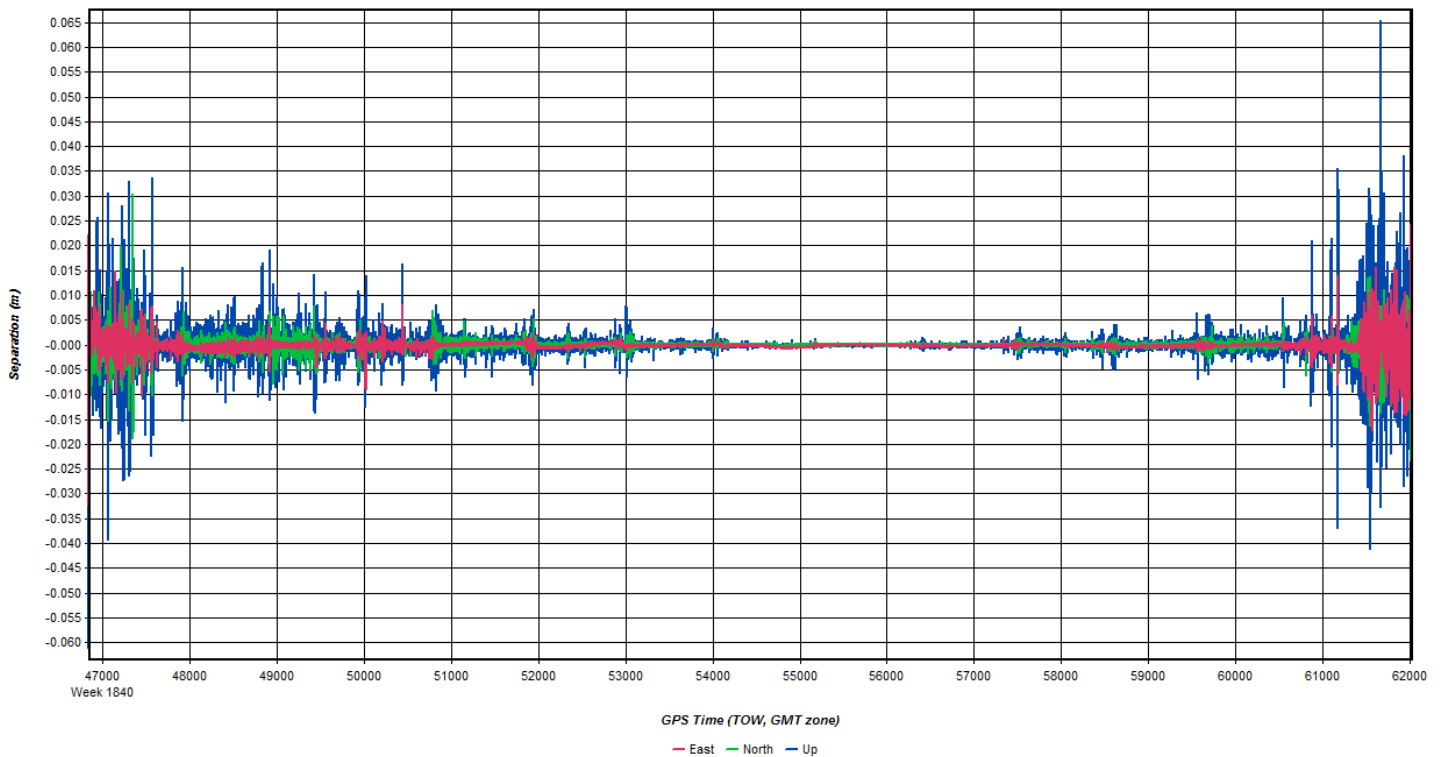
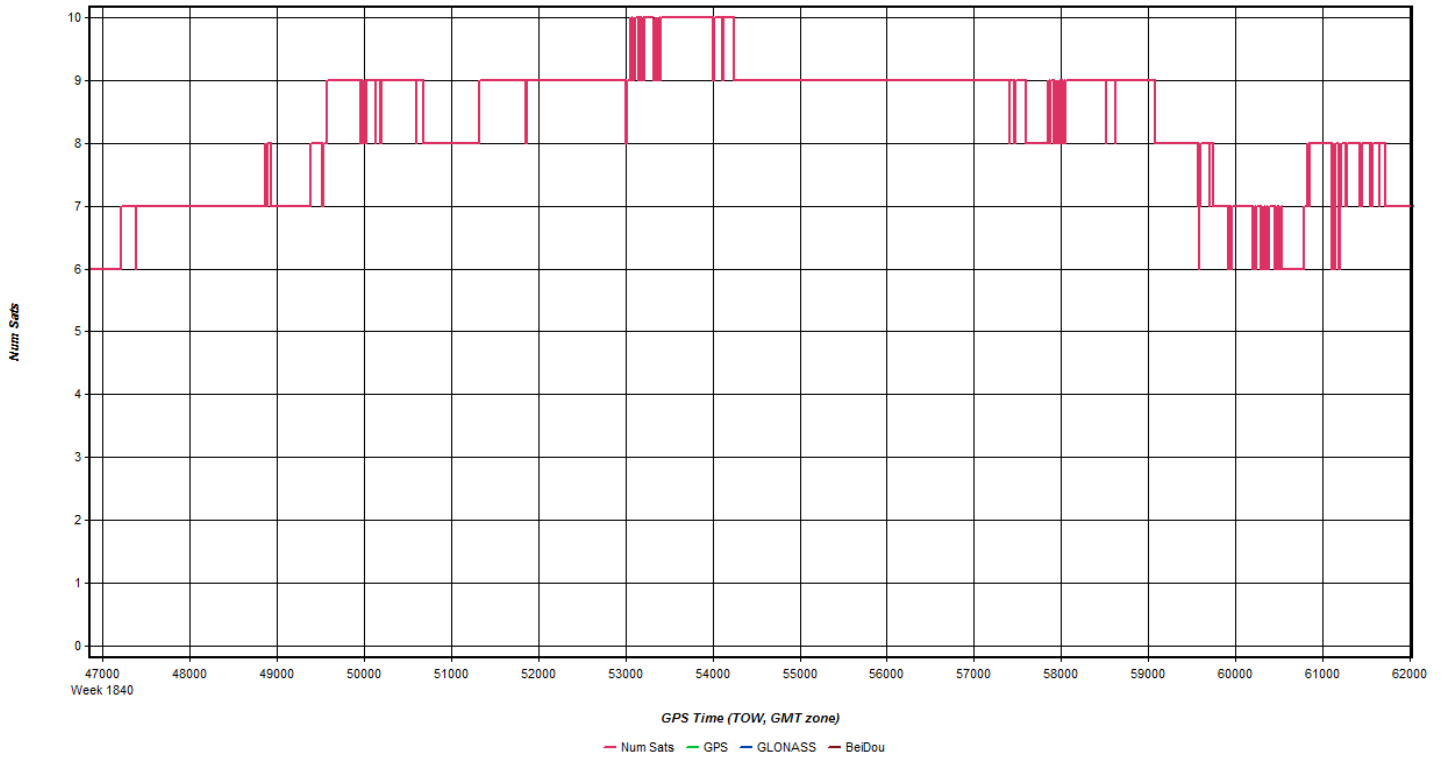
New or Existing Mon.  New  Existing  
 Photo Taken:  Yes  No  
 Monument Type: NGS monument  
 Spike  PK Nail  AM Washer   
 Other \_\_\_\_\_

Height Readings:  
 (Top of Monument to Bottom of Ground Plane)  
 Start \_\_\_\_\_ M. 3.42 Ft.  
 Stop \_\_\_\_\_ M. 3.42 Ft.  
 Mean \_\_\_\_\_ M. 3.42 Ft.

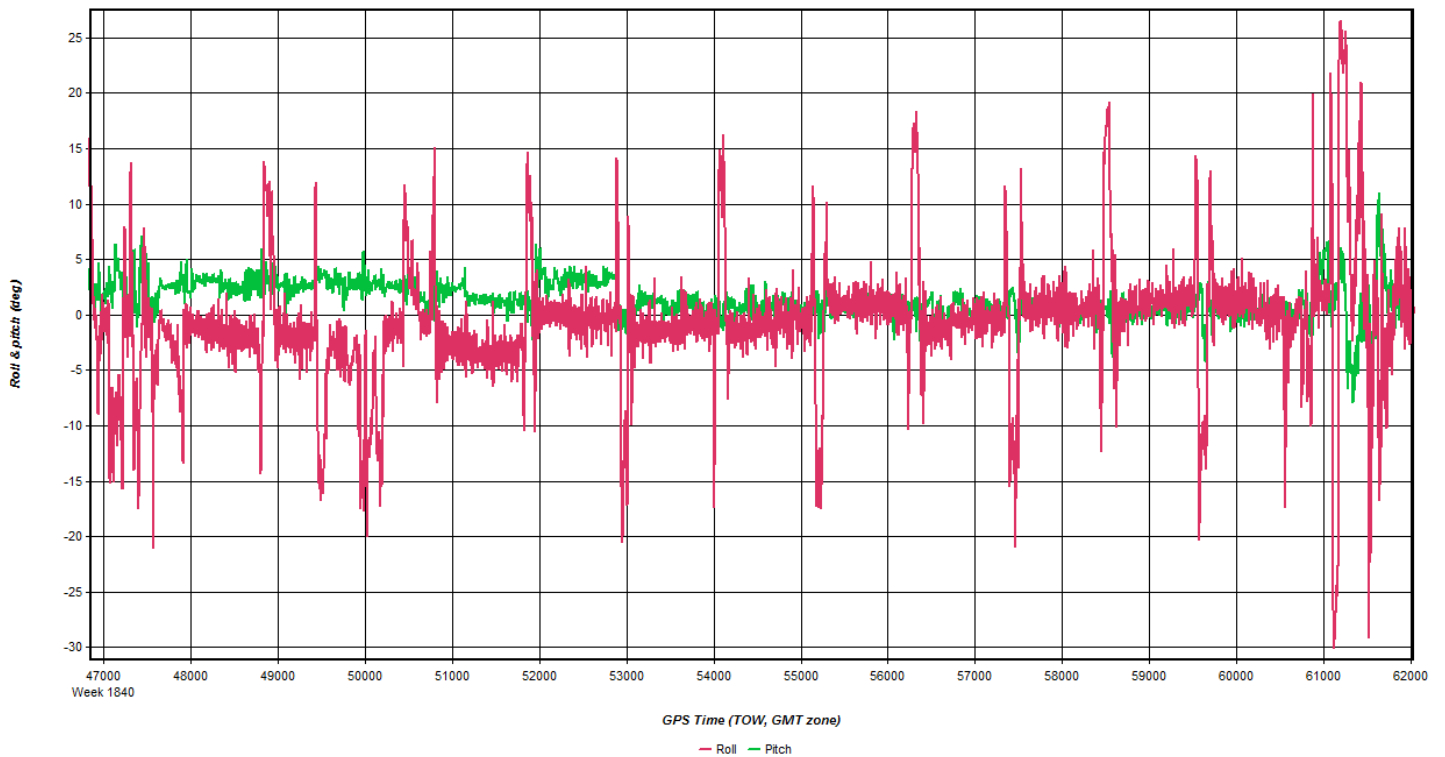
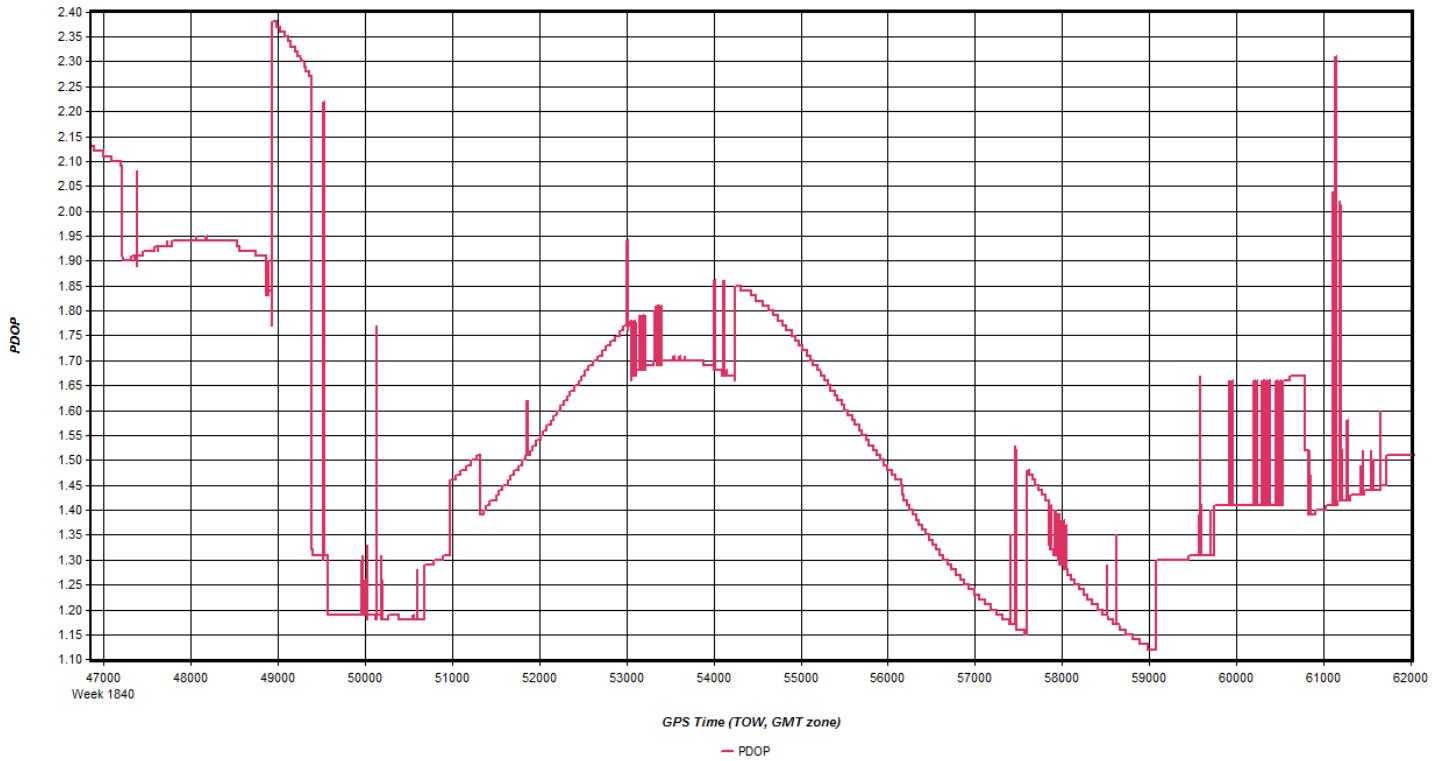


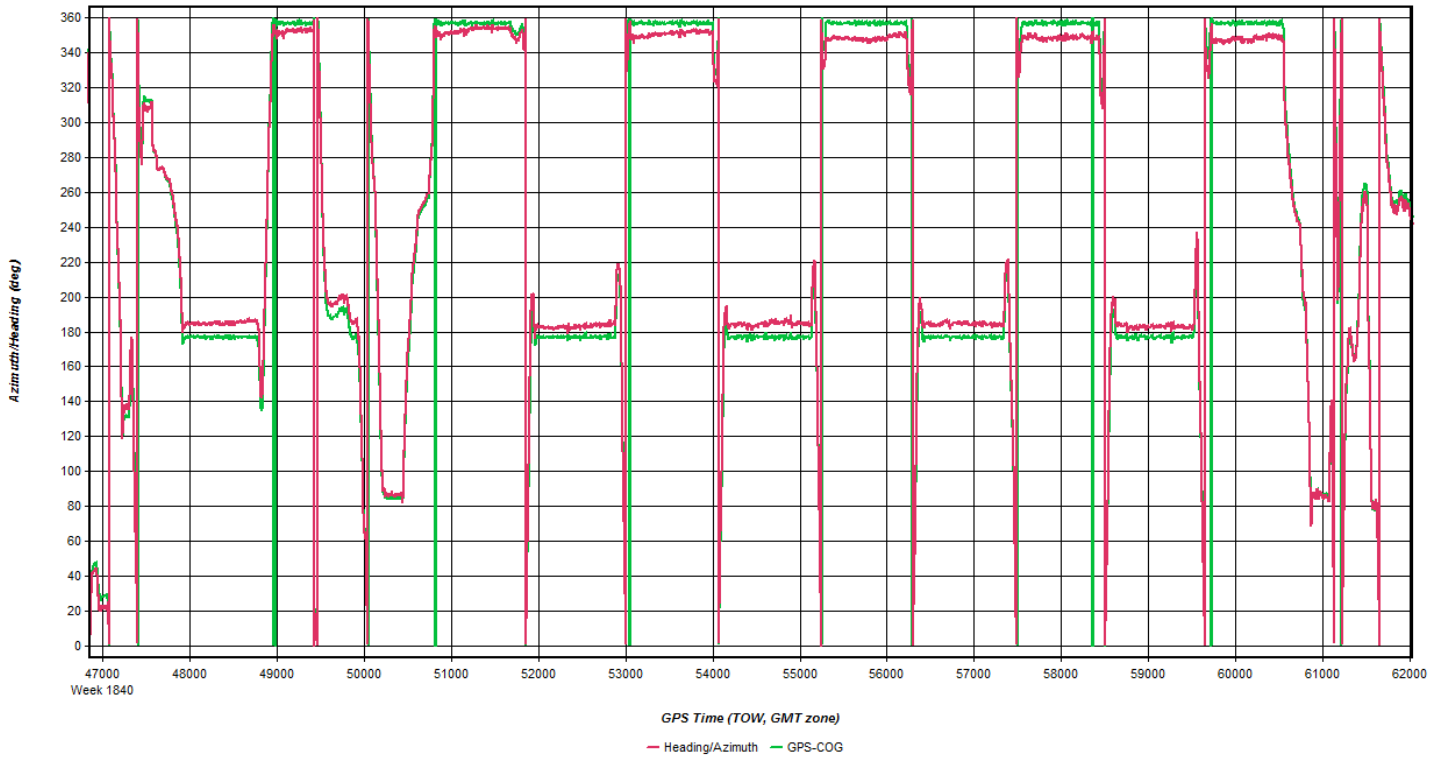
# 20150412A\_7123











**Coordinate/Antenna Settings**

Master Remote

Base Station  
 1: WVTA Name: WVTA  Disabled  
 File: D:\Proc\15126\_GarrettCo\N775MW\ALS\7123\_20150412\_1\20

Coordinates  
 Latitude: North 39 26 16.64399   
 Longitude: West 79 30 52.95281   
 Ellipsoidal height: 726.044 m   
 Datum: NAD83(2011)

Antenna Height  
 From station file: TRM57971.00, NONE   
 Antenna profile: TRM57971.00   
 Measured height: 0.000 m  
 ARP to L1 offset: 0.067 m  
 Applied height: 0.067 m  
 Measured to:  
 ARP  
 L1 Phase Centre

# Flight Log

Line/DIR	Start	End	Air Speed	Alt(ft)	# Exp	Light Values	GB Size	Comments or errors while online:										
74	13:03	13:04	118	9607					calibration site									
75	13:07	13:08	115	9634					calibration site									
76	13:11	13:12	94	9659					calibration site									
52	13:18	13:32	117	9125														
53	13:35	13:42	128	9463														
73	13:57	14:00	124	9645					planned crossline									
51	14:07	14:20	110	9250														
50	14:25	14:41	129	9316														
49	14:44	14:59	130	8952														
48	15:03	15:18	126	8836														
47	15:27	15:36	129	8793														
46	15:40	15:55	122	8673														
45	15:59	16:13	130	8644														
44	16:15	16:31	123	8475														
43	16:35	16:48	127	8572														
71	16:54	16:57	120	8353					planned crossline (partial)									

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Huntsville, AL 35805  
PH: (256) 971-9991  
FX: (256) 971-1154

**Project #:** 15126  
**Flight plan name:** GarrettCo\_MD\_120knts  
**Location:** 2G4  
**Pilot:** Spry  
**Operator:** Huey  
**Sensor:** ALS70  
**Hobbs Time Start:** 3486.7  
**Hobbs Time Stop:** 3491.3  
**Pre-Static:** 12:38 - 12:43  
**Post-Static:** static enroute to KMGW  
**Fwd Lap:**  
**Side Lap:**

**Tail Number:** N775MMW  
**Flight Date:** 20150412\_1 / JD102  
**Sensor SN:** 7123  
**Weather:** 150@7 - 10SM - CLR - 6C - 30.31

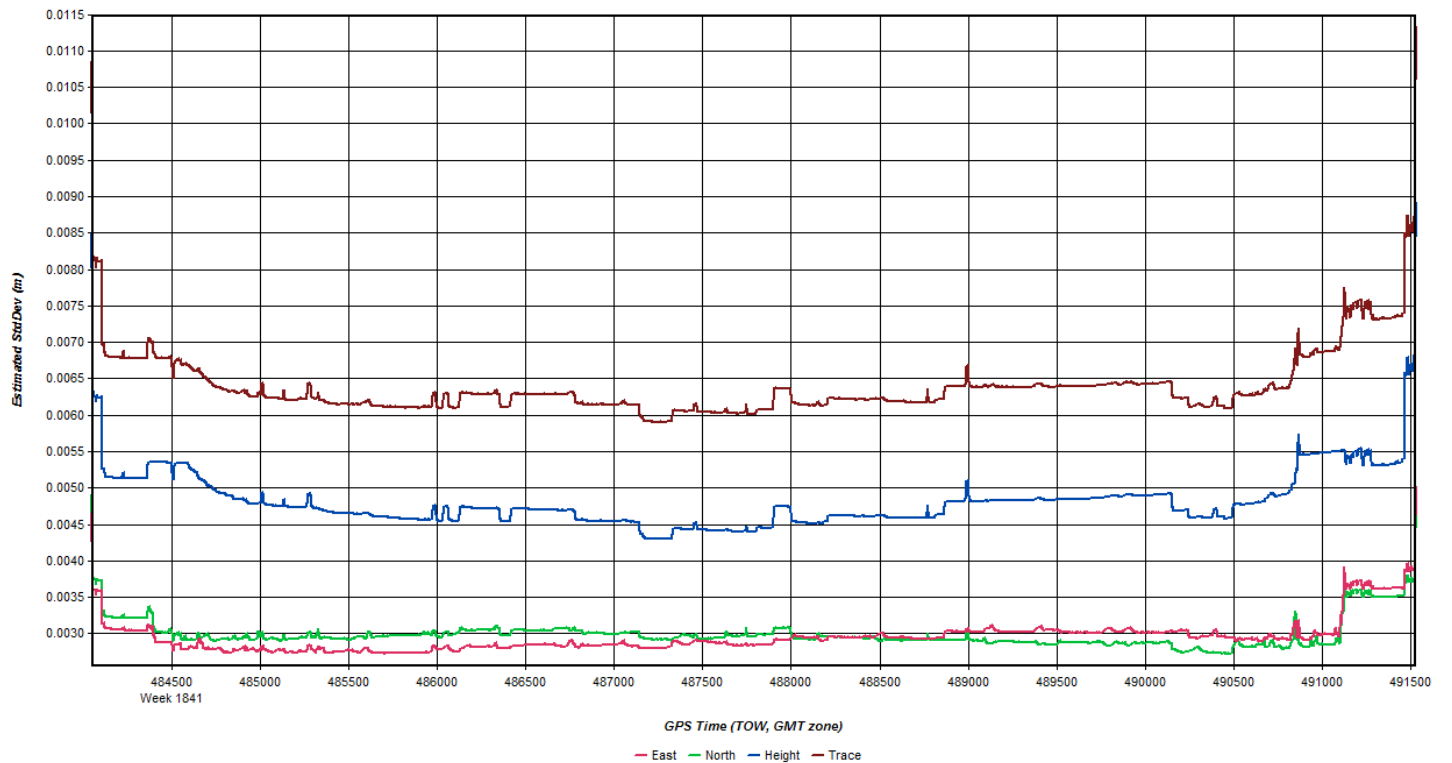
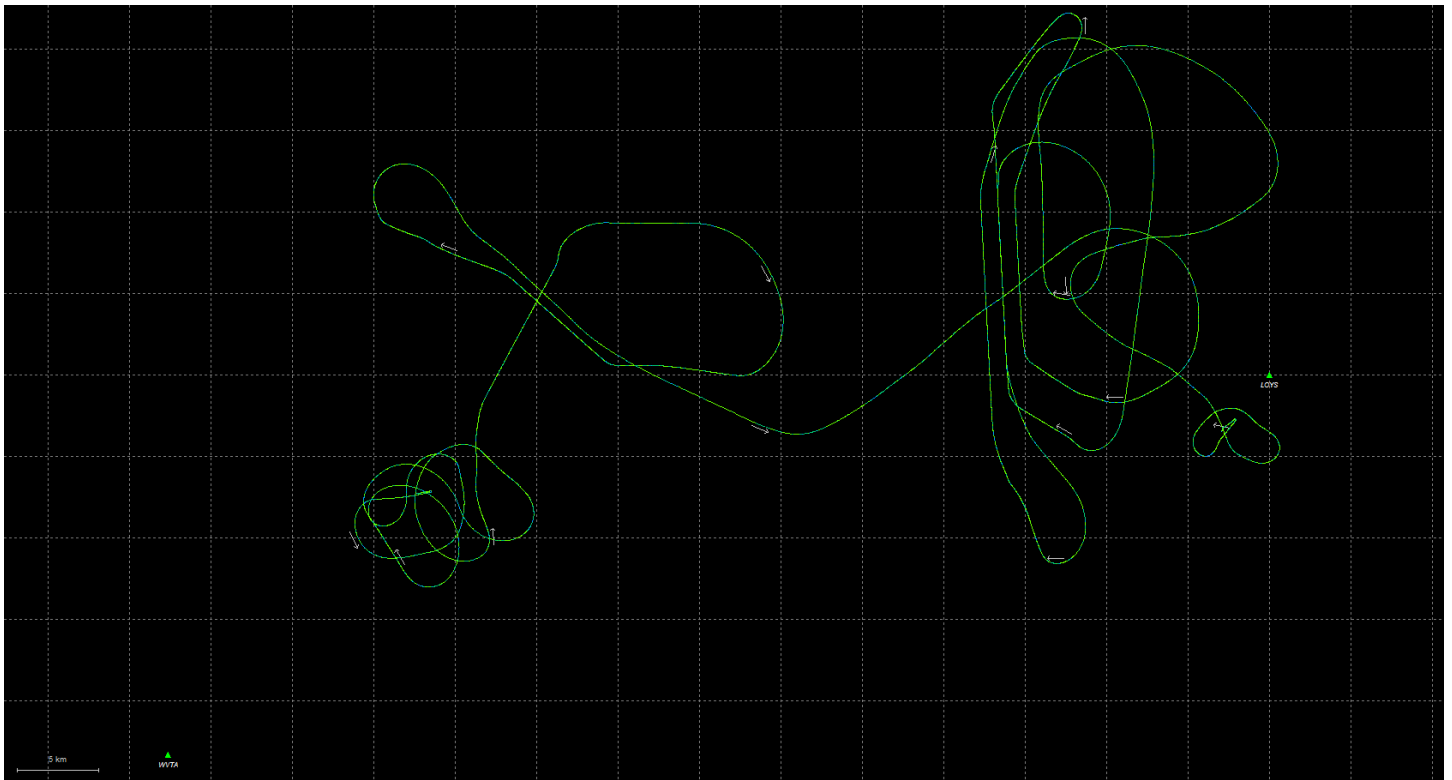
**Base Station:**  
**SET\_1**

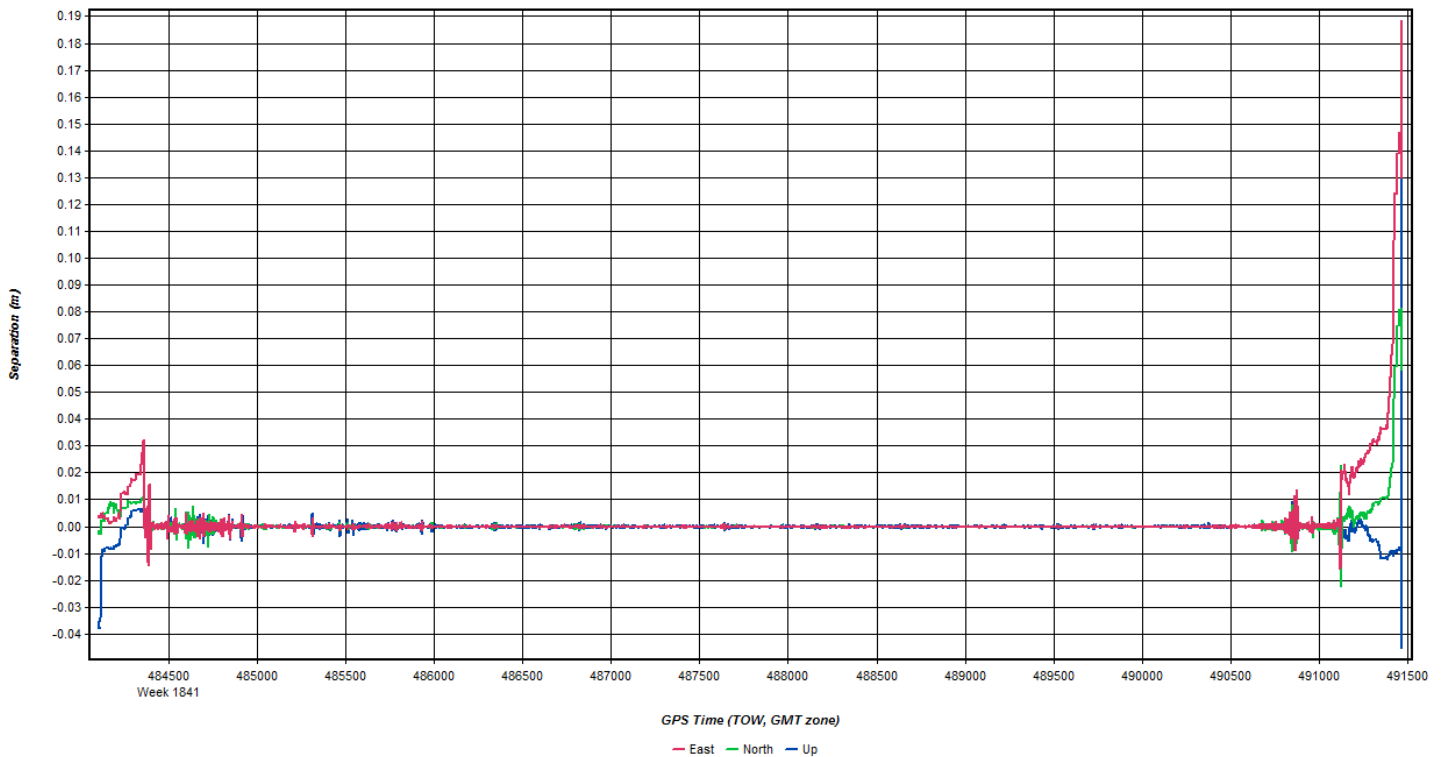
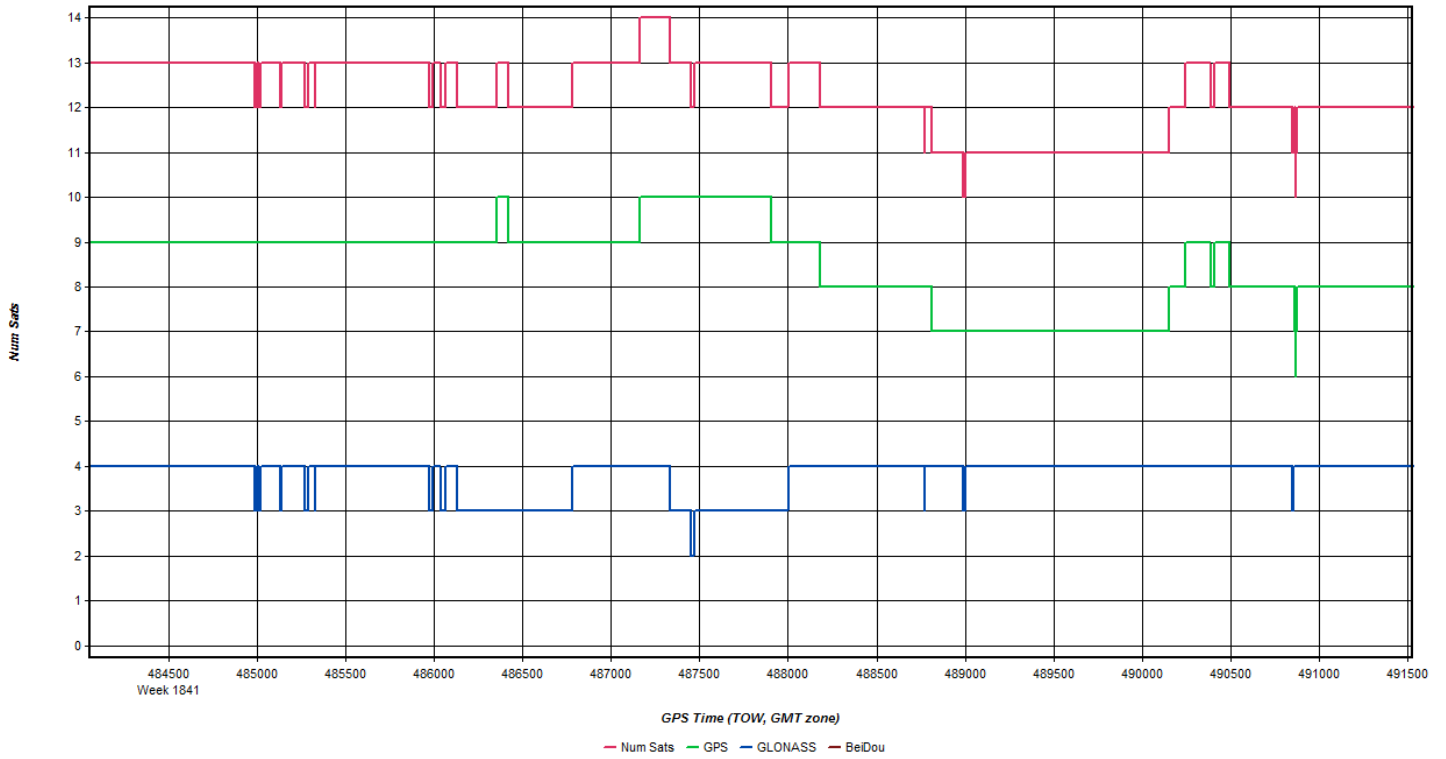
**GPS:**  
**IMU:**  
**T2:** 1.51  
1.46  
0.00  
#NUM!  
0.00  
#NUM!

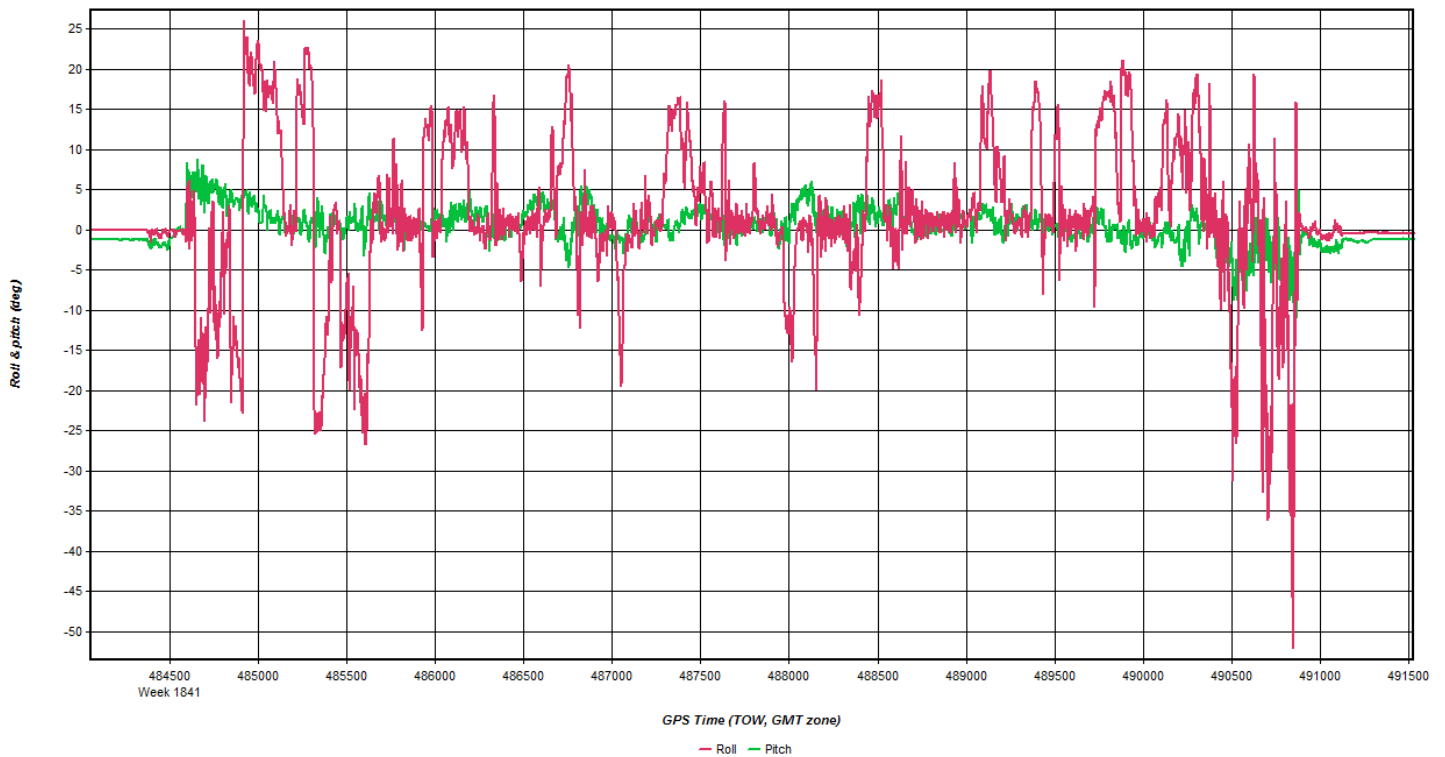
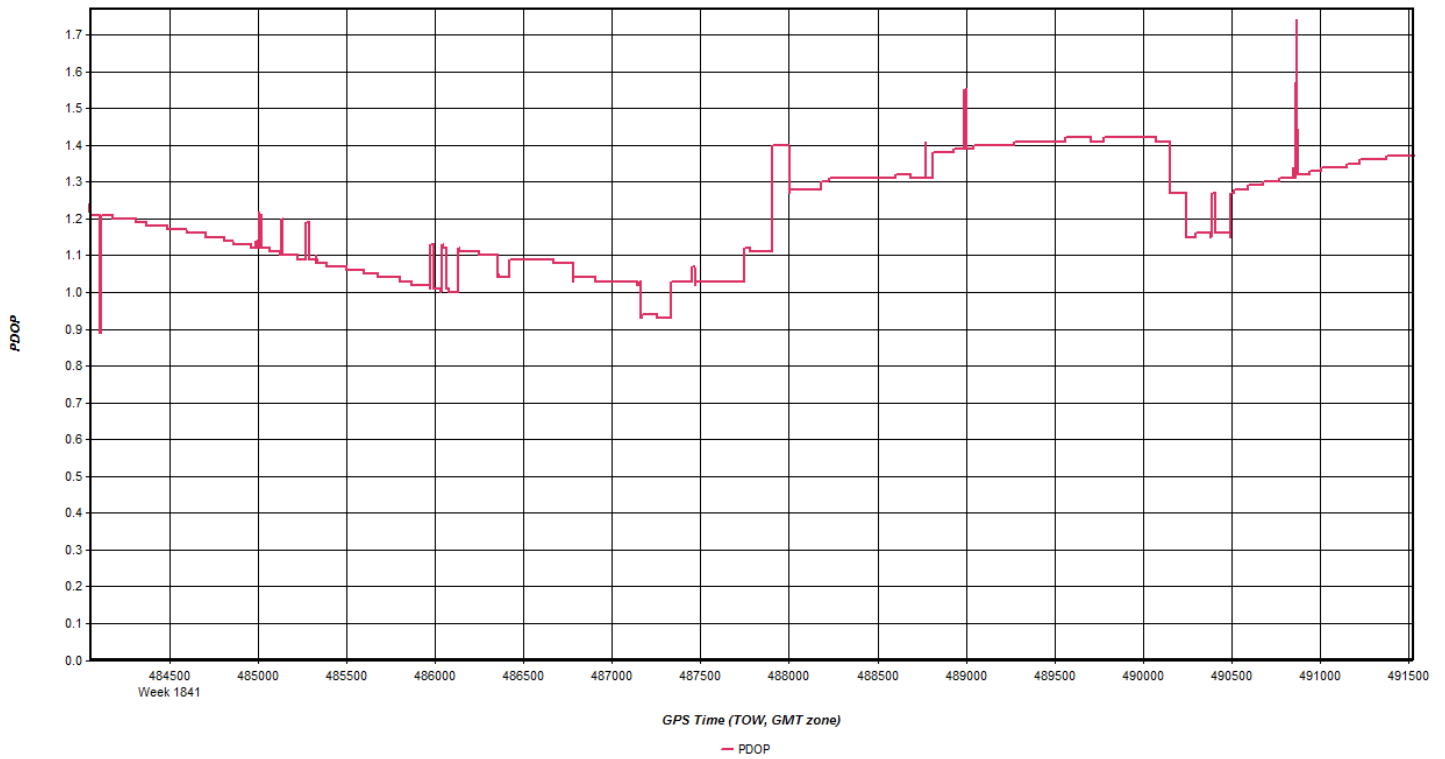
**Level Arm:**  
**X:**  
**Y:**  
**Z:**

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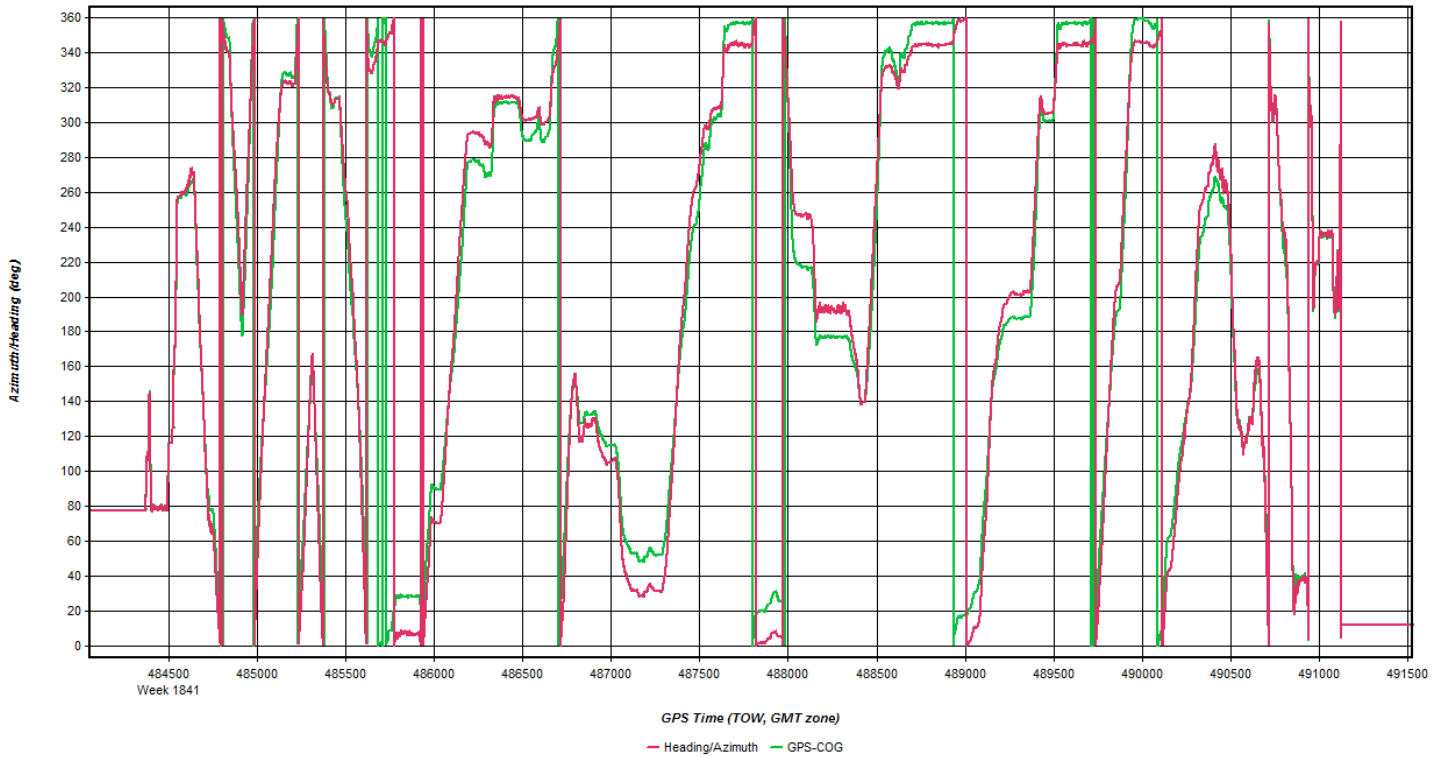
# 20150424A\_7225











**Coordinate/Antenna Settings**

Master  Remote

Base Station  
 1: LOYS Name: LOYS  Disabled  
 File: G:\Proc\25442\_Garrett\_TAG\15126\_GARRETT\1872H\VALS\722

Coordinates  
 Latitude: North 39 38 46.39061   
 Longitude: West 78 43 47.89729   
 Ellipsoidal height: 169.354 m   
 Datum: NAD83(2011)

Antenna Height  
 From station file: LEIAX1202GG, NONE   
 Antenna profile: LEIAX1202GG   
 Measured height: 0.000 m  
 ARP to L1 offset: 0.063 m  
 Applied height: 0.063 m  
 Measured to:  
 ARP  
 L1 Phase Centre

Coordinate/Antenna Settings

Master Remote

Base Station  
 2: WVTA Name: WVTA  Disabled  
 File: G:\Proc\25442\_Garrett\_TAG\15126\_GARRETT\1872H\VALS\722

Coordinates  
 Latitude: North 39 26 16.64399   
 Longitude: West 79 30 52.95281   
 Ellipsoidal height: 726.044 m   
 Datum: NAD83(2011)

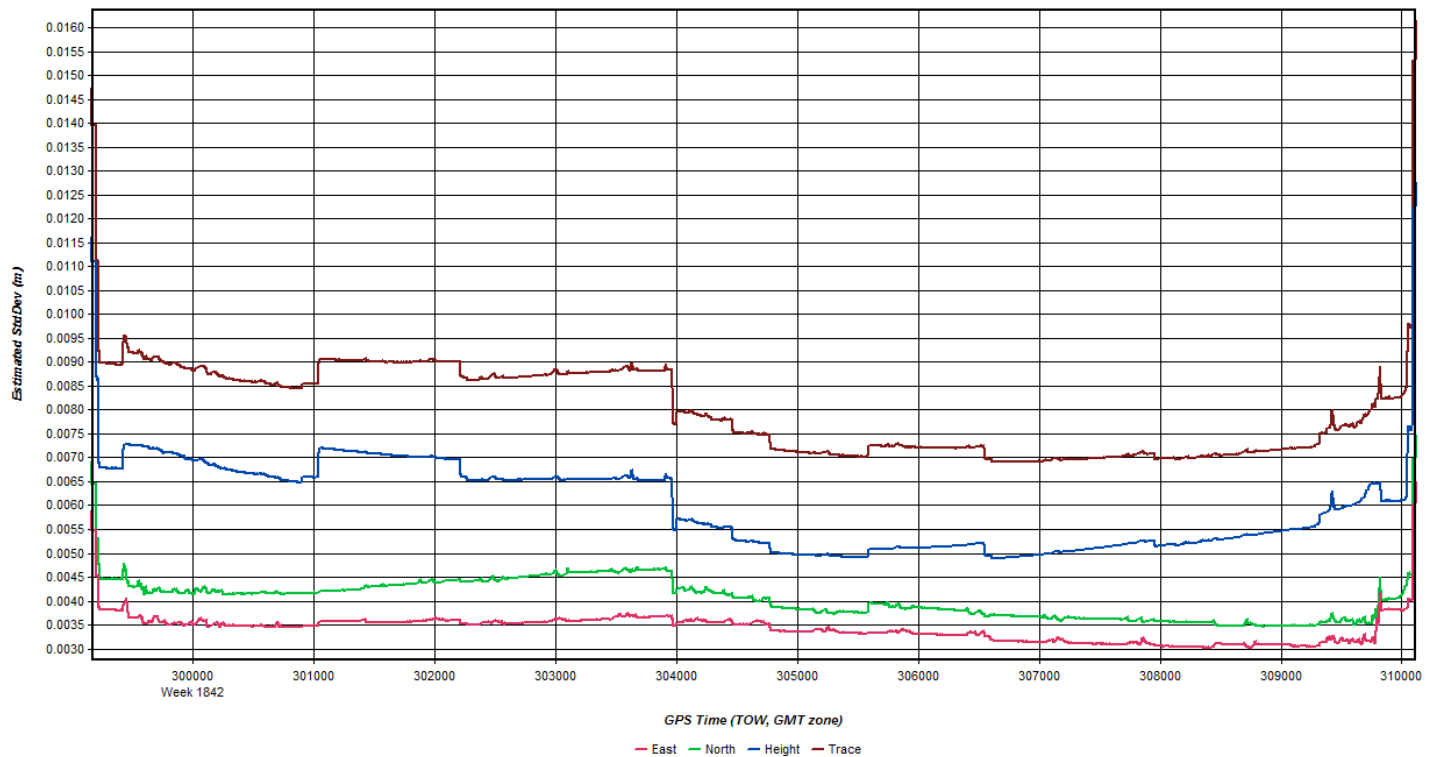
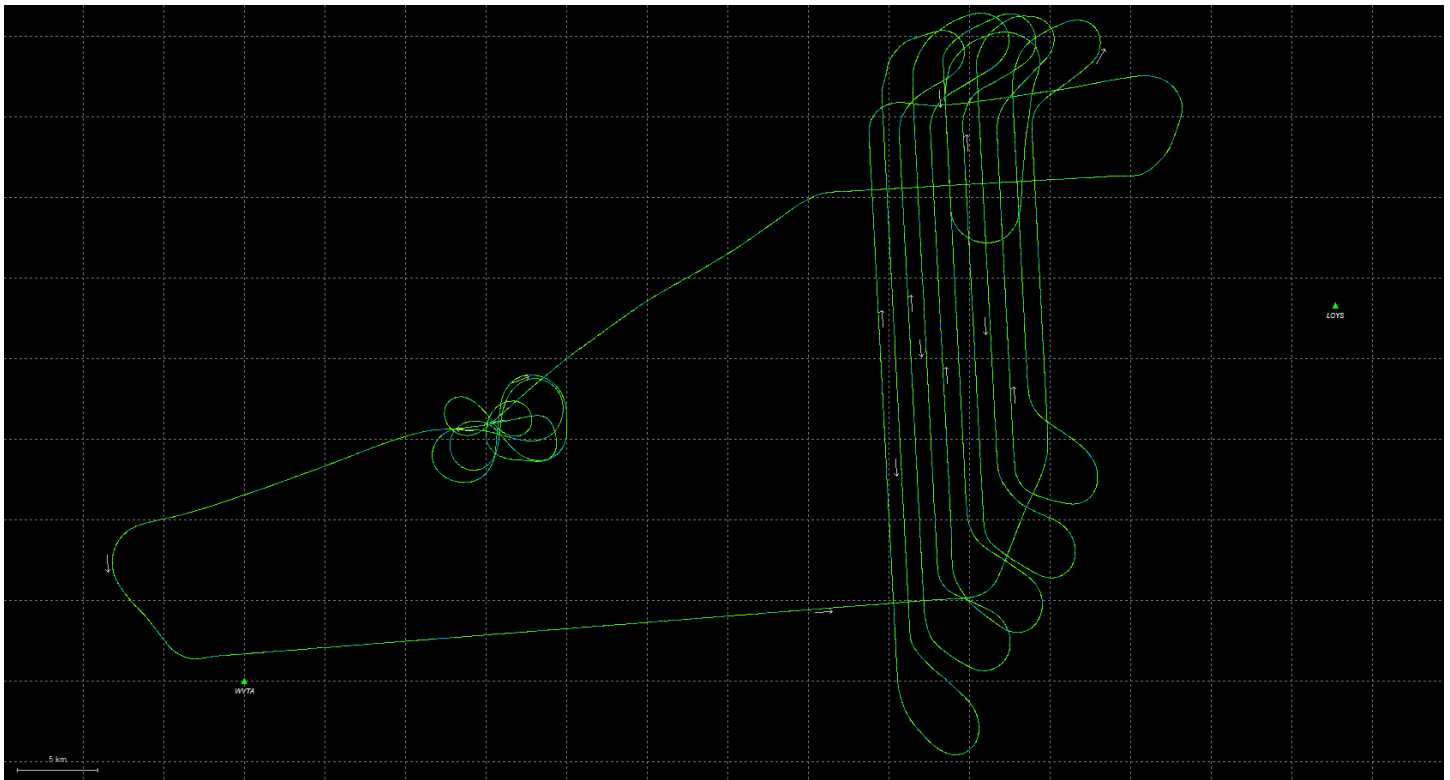
Antenna Height  
 From station file: TRM57971.00, NONE   
 Antenna profile: TRM57971.00   
 Measured height: 0.000 m  
 ARP to L1 offset: 0.067 m  
 Applied height: 0.067 m  
 Measured to  
 ARP  
 L1 Phase Centre

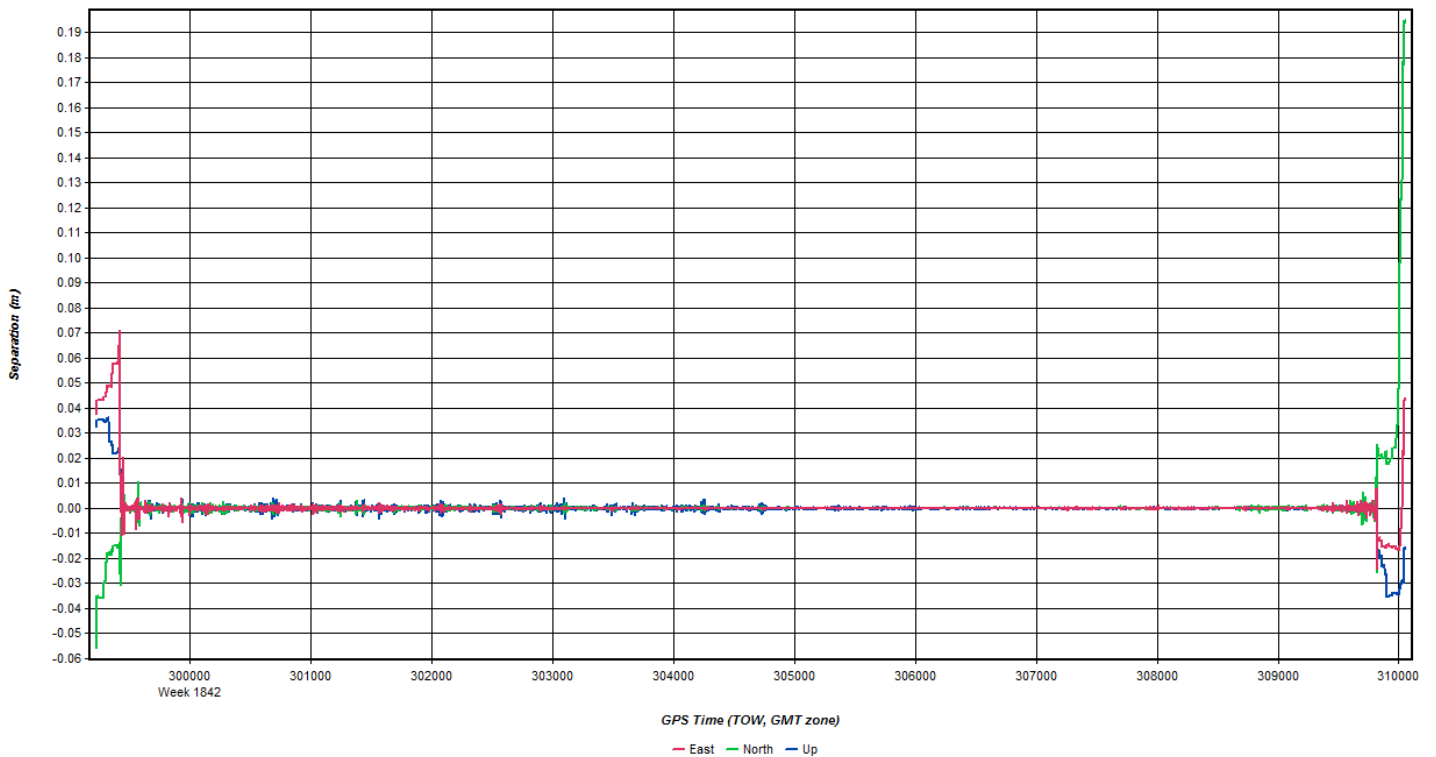
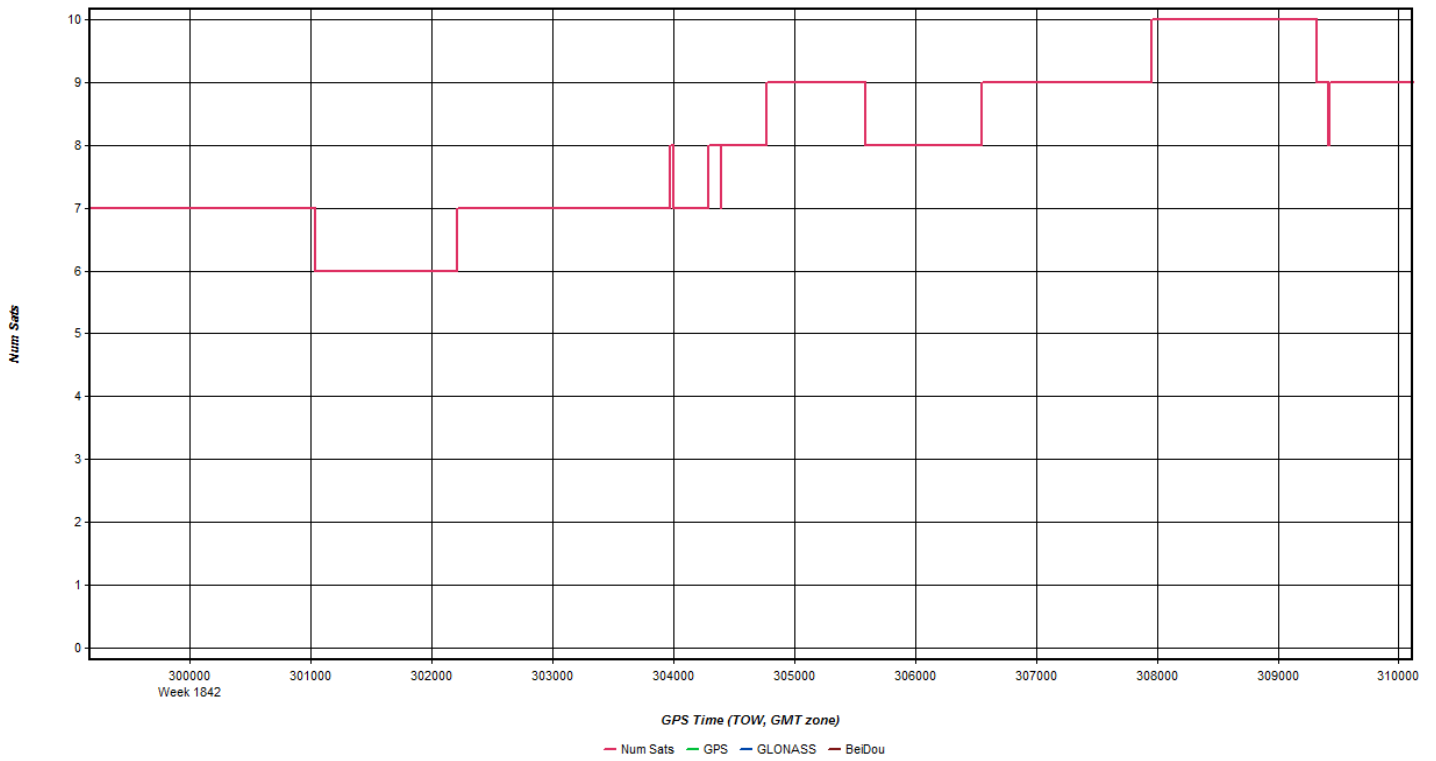
# Flight Log

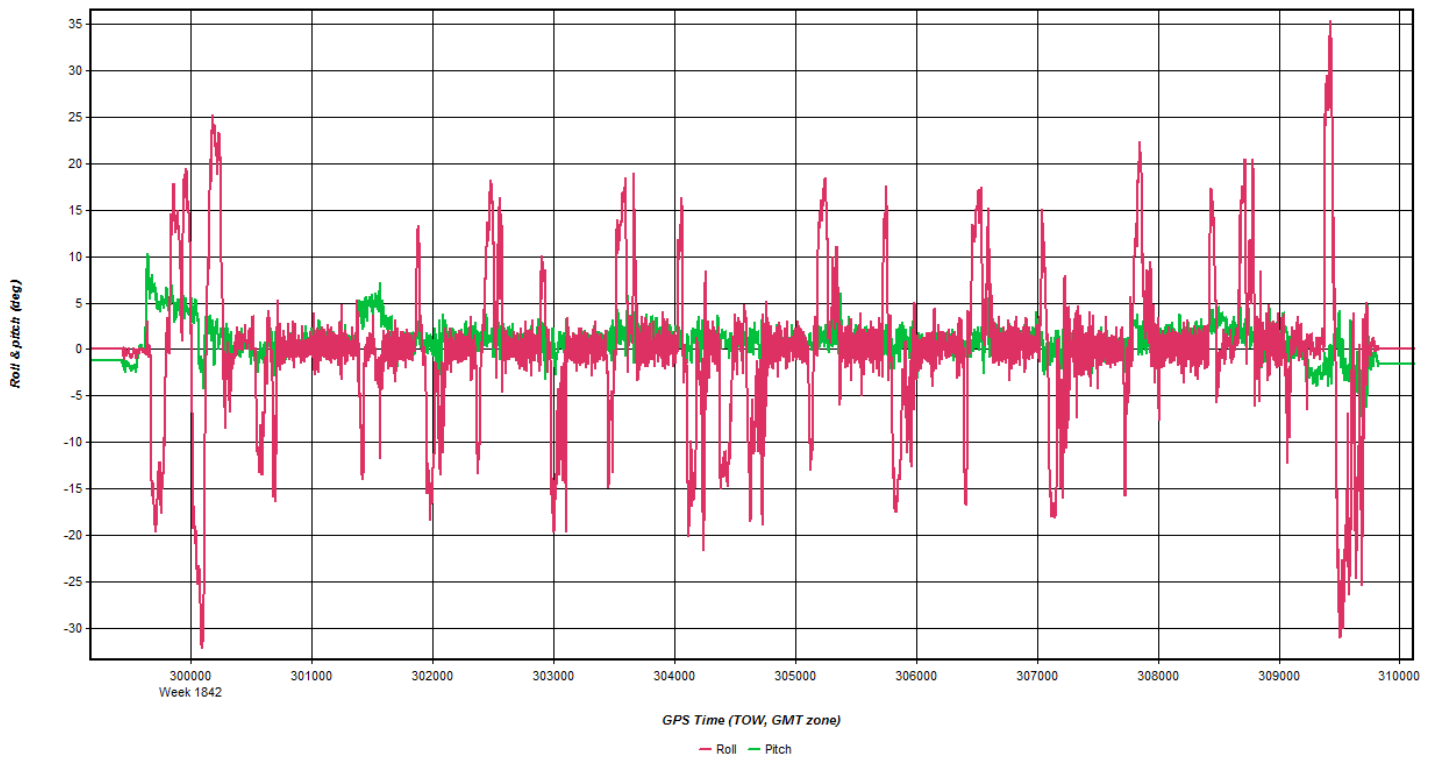
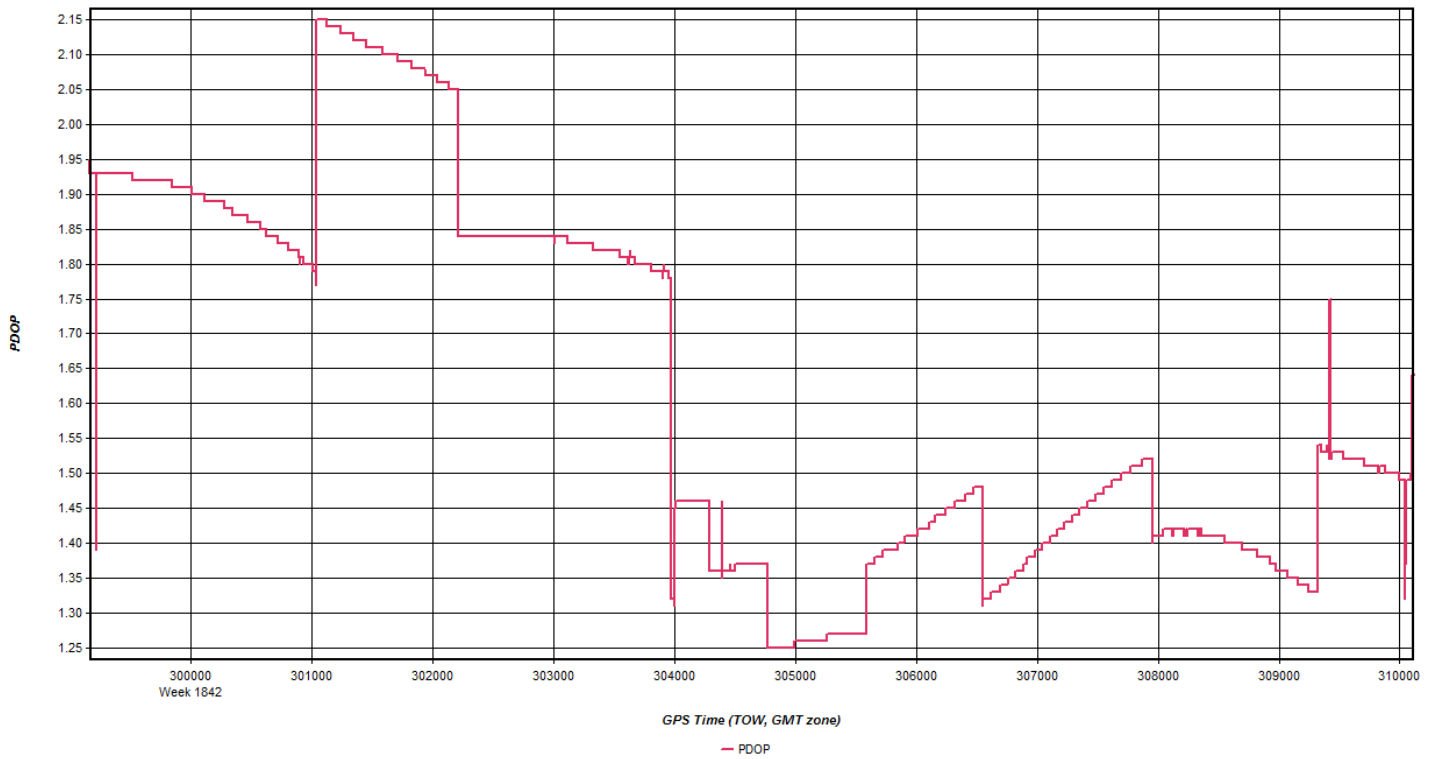
atlantic 2223 S Drake Ave, Suite 200 Huntsville, AL 35805 PH: (256) 971-9991 FX: (256) 971-1154		Project #: 15126 Flight plan name: GARRETT CO MD Location: GARRETT Pilot: MAX Operator: DANE Sensor: ALS70 Hobbs Time Start: 4191.2 Hobbs Time Stop: 4192.9 Pre-Static: 1027 - 1032 Post-Static: 1225 - 1230 Fwd Lap: 60 Side Lap: 30		Tail Number: 1827H Flight Date: 20150424 Sensor SN: 7225 Weather: CLR		GPS IMU Topcon ARP Start Stop			Lever Arm X Y Z				
Line/DIR	Start	End	Air Speed	Alt(ft)	# Exp	Light Values	GB Size	Base Station	Topcon	ARP	Start	Stop	Comments or errors while online:
74	37	1057	1058	128	9640			T1	1.45	1.387	1018	1720	
75	321	1106	1107	107	9560				0.00	#NUM!			
76	142	1113	1114	170	9500				0.00	#NUM!			
1	7	1127	1129	117	8590								
2	187	1136	1138	160	8570								
3	7	1145	1148	119	8760								
2	7	1158	1200	122	8580								
													60 KT WIND FROM 327d
													REFLY FOR AIRSPEED
													CLOUDS PUSHED IN FROM NORTH
													ENGINE TROUBLE, IMMEDIATE LANDING

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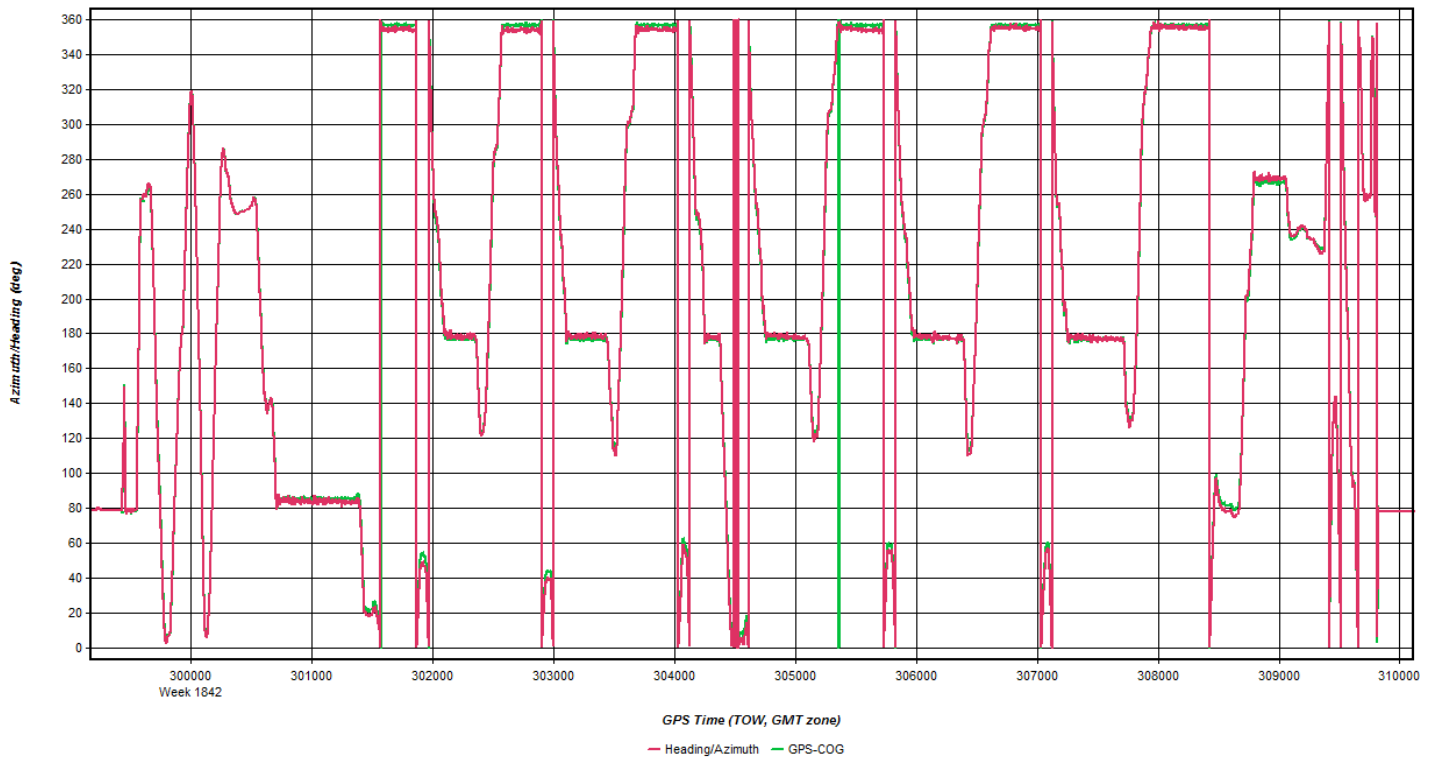
# 20150429A\_7225











Coordinate/Antenna Settings

Master Remote

Base Station  
2: LOYS Name: LOYS  Disabled  
File: G:\Proc\25442\_Garrett\_TAG\SXL4\15126\1872H\VALS\7225\_20

Coordinates  
Latitude: North 39 38 46.39061   
Longitude: West 78 43 47.89729   
Ellipsoidal height: 169.354 m   
Datum: NAD83(2011)

Antenna Height  
From station file: LEIAX1202GG, NONE   
Antenna profile: LEIAX1202GG   
Measured height: 0.000 m  
ARP to L1 offset: 0.063 m  
Applied height: 0.063 m  
Measured to:  
 ARP  
 L1 Phase Centre

Coordinate/Antenna Settings

Master Remote

Base Station  
1: WVTA Name: WVTA  Disabled  
File: G:\Proc\25442\_Garrett\_TAG\SXL4\15126\1872H\ALS\7225\_20

Coordinates  
Latitude: North 39 26 16.64399 Compute from PPP  
Longitude: West 79 30 52.95281 Enter Grid Values  
Ellipsoidal height: 726.044 m Enter MSL Height  
Datum: NAD83(2011) Datum Options  
Select From Favorites Add To Favorites Use Average Position

Antenna Height  
From station file: TRM57971.00, NONE View STA File  
Antenna profile: TRM57971.00 Info

Measured height: 0.000 m  
ARP to L1 offset: 0.067 m  
Applied height: 0.067 m

Measured to  
 ARP  
 L1 Phase Centre  
Compute From Slant

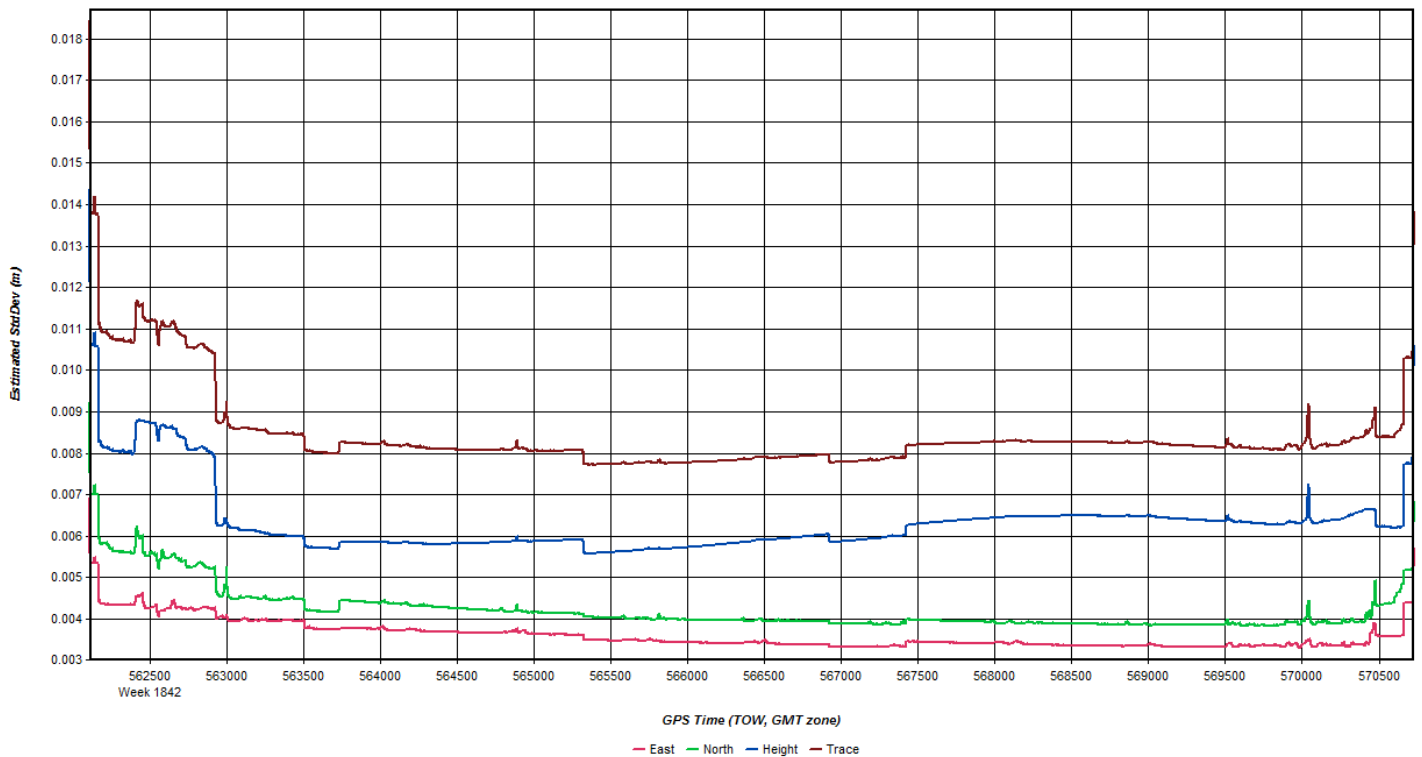
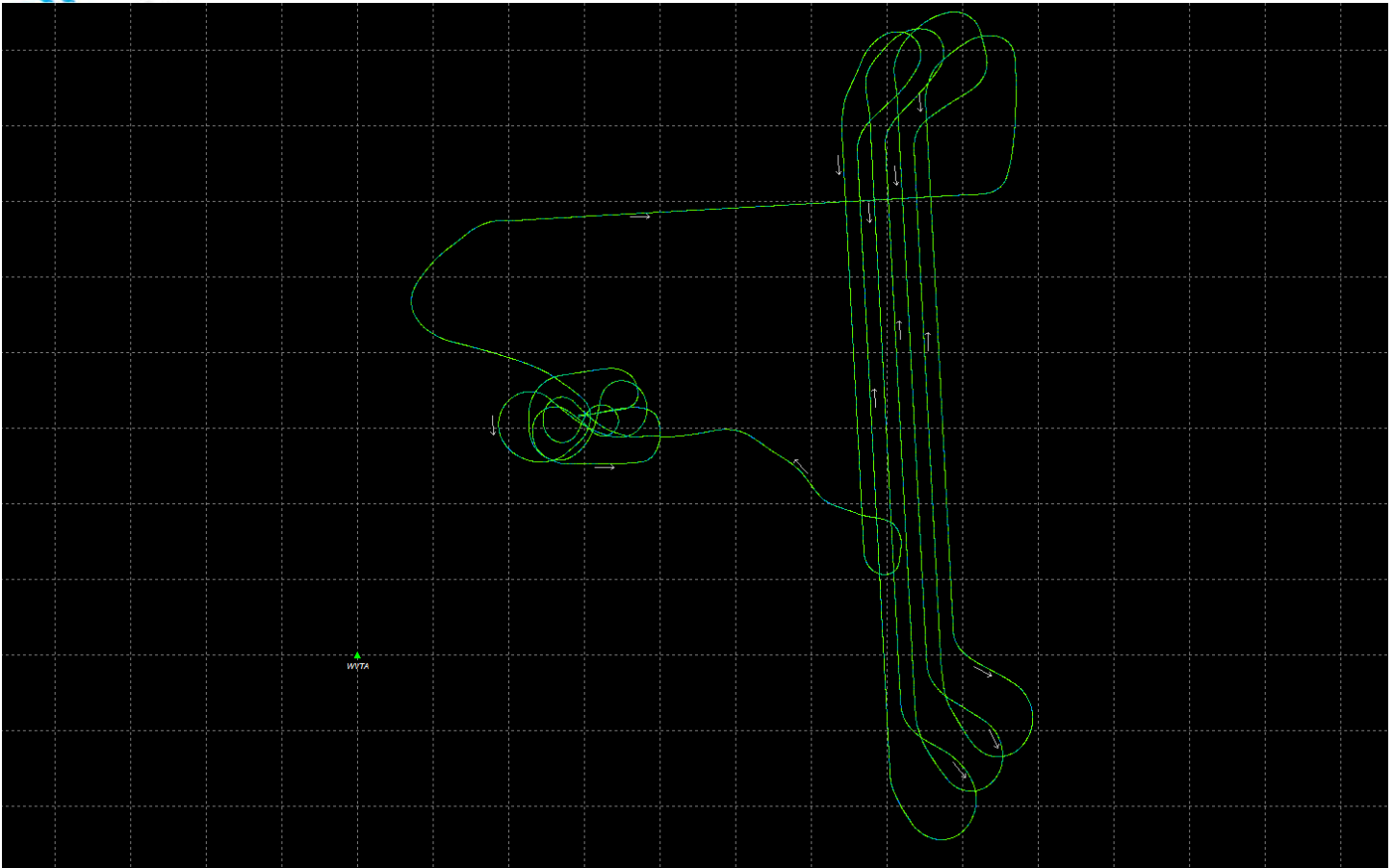
OK Cancel

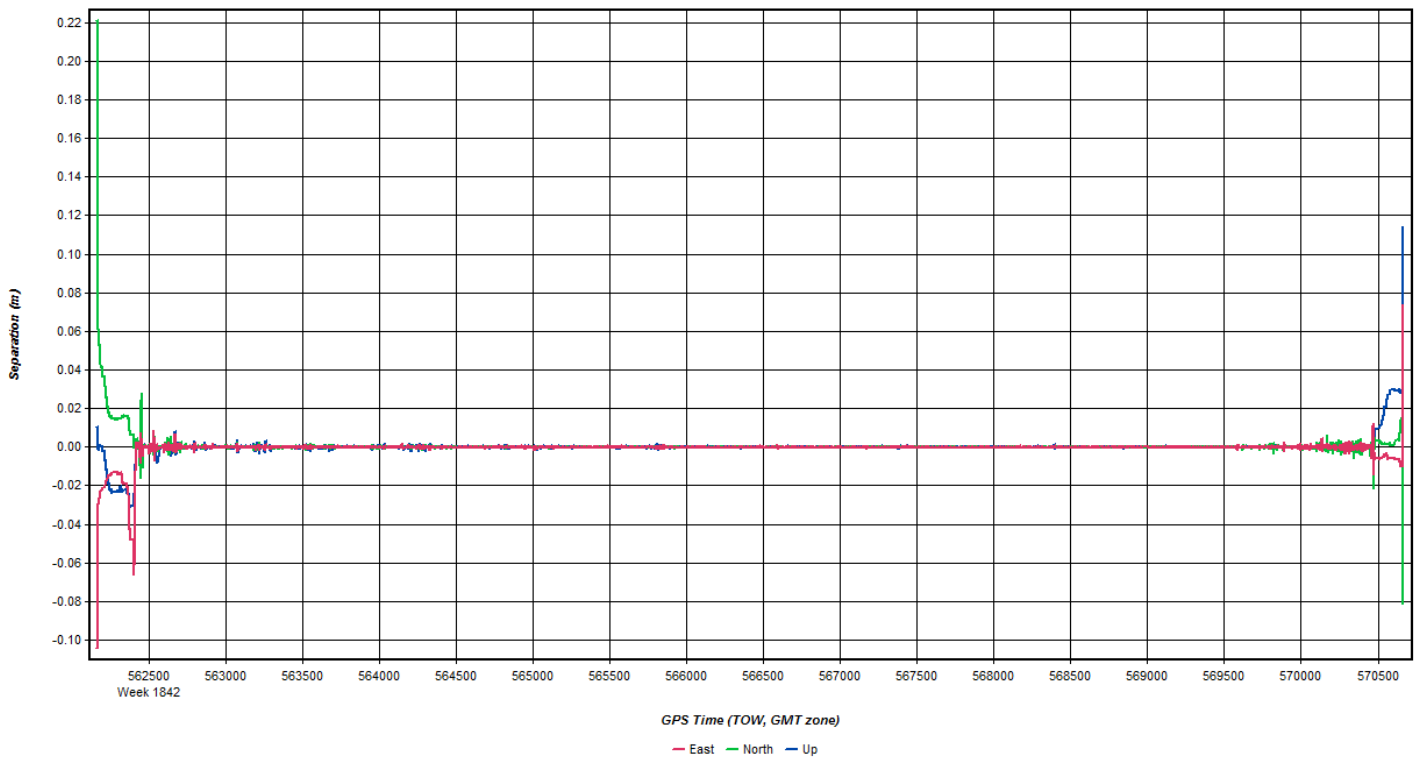
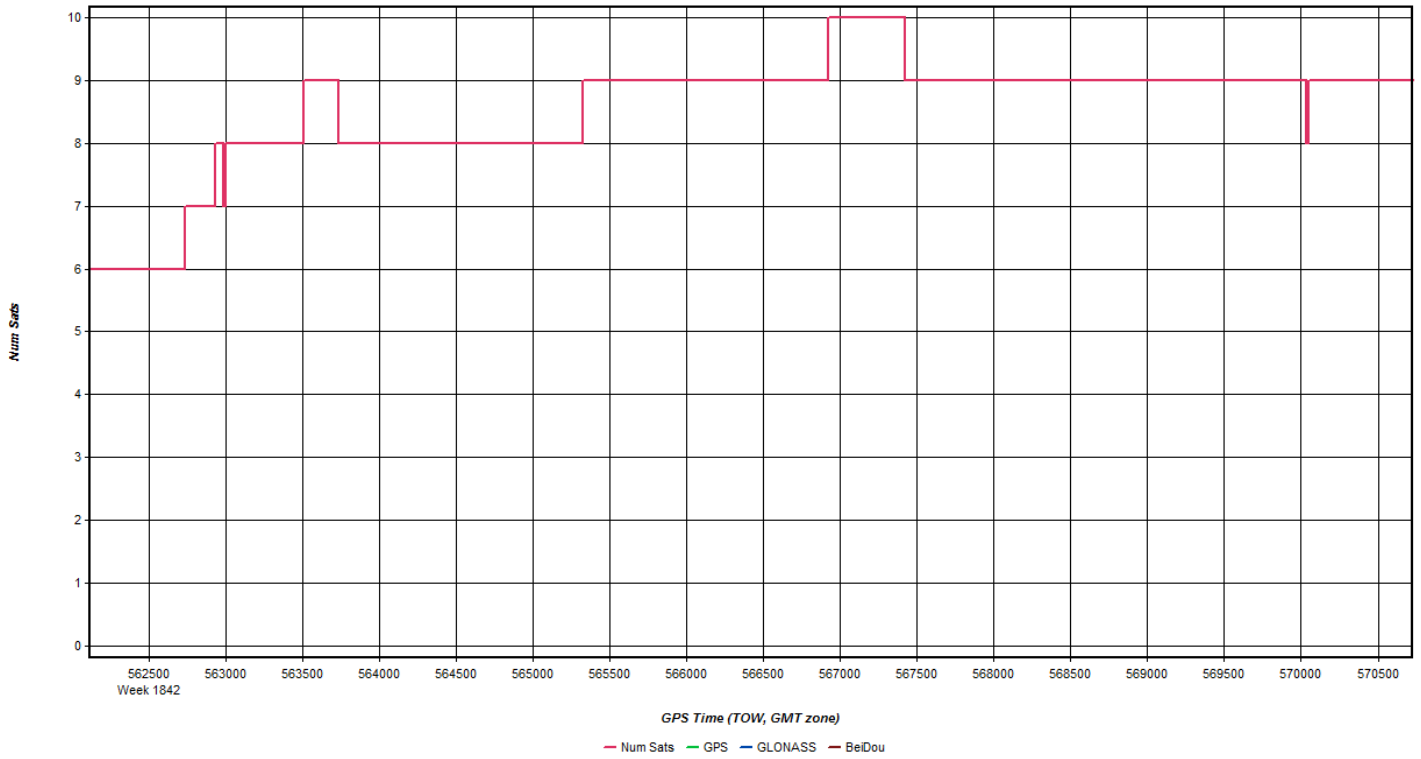
# Flight Log

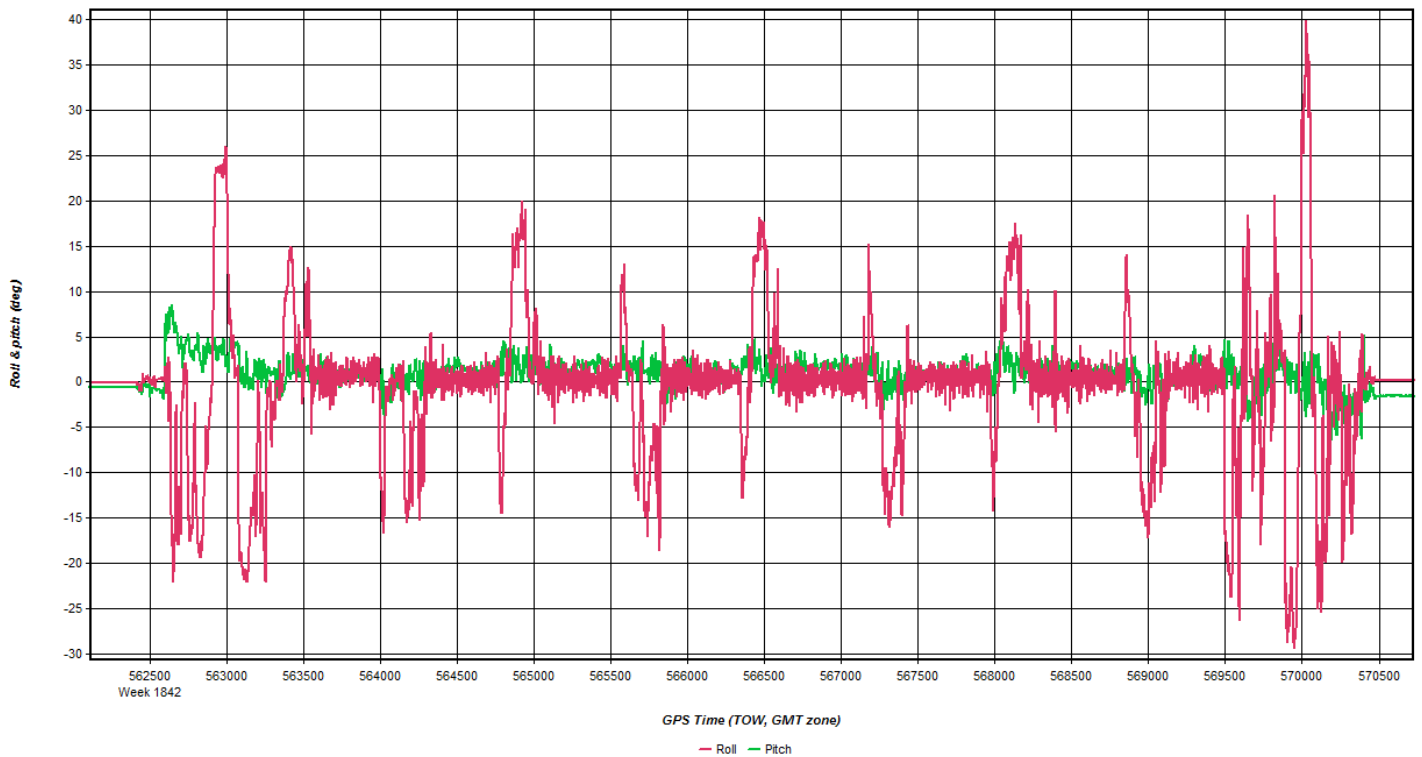
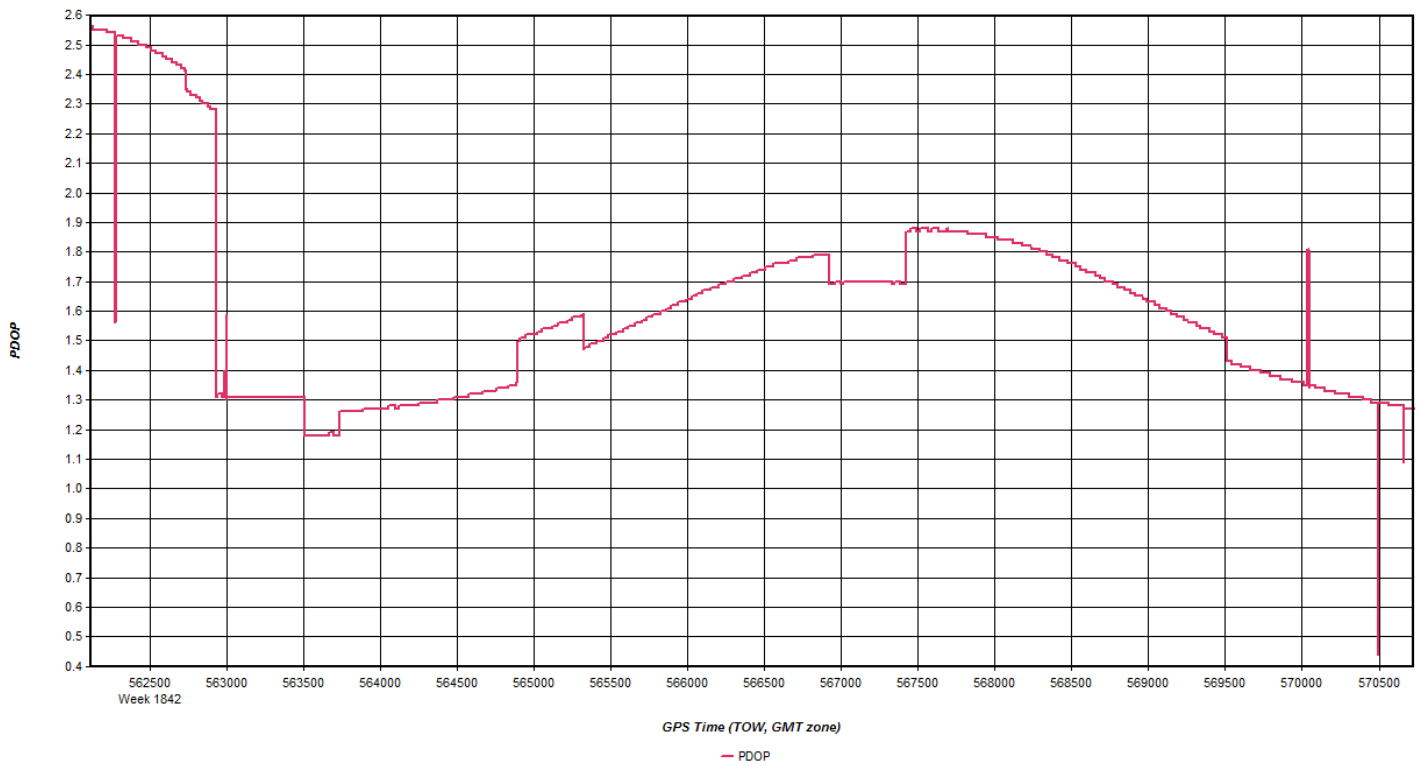
<p>Project#: 15126 Flight plan name: GARRETT CO MD Location: GARRETT Pilot: MAX Operator: DANE Sensor: ALS70 Hobbs Time Start: 4193.2 Hobbs Time Stop: 4196.0 Pre-Static: 0705 - 0710 Post-Static: 1003 - 1008 Fwd Lap: 60 Side Lap: 30</p>										<p>Tail Number: 1827H Flight Date: 20150429 Sensor SN: 7225 Weather: CLR</p>			<p>Base Station: T1 Topcon ARP: 1.400 #NUM! #NUM!</p>			<p>Lever Arm X Y Z</p>		
Line/DIR	Start	End	Air Speed	Alt(ft)	# Exp	Light Values	GB Size	Comments or errors while online:										
72	94	0732	0742	140	7870			X LINE										
4	7	0747	0750	127	8820													
5	187	0755	7058	130	8710													
6	7	0803	0807	124	8750													
7	187	0812	0817	140	8420													
8	7	0821	0826	130	8480													
9	187	0831	0833	125	8290			EARLY STOP. MISFIRE										
9	187	0839	0844	139	8230			REFLIGHT										
10	7	0849	0854	140	8330													
11	187	0859	0906	137	8109													
12	7	0910	0916	135	8130													
13	187	0920	0928	130	7890													
14	7	0932	0939	140	7870													
71	277	0946	0950	140	8310			X LINE										

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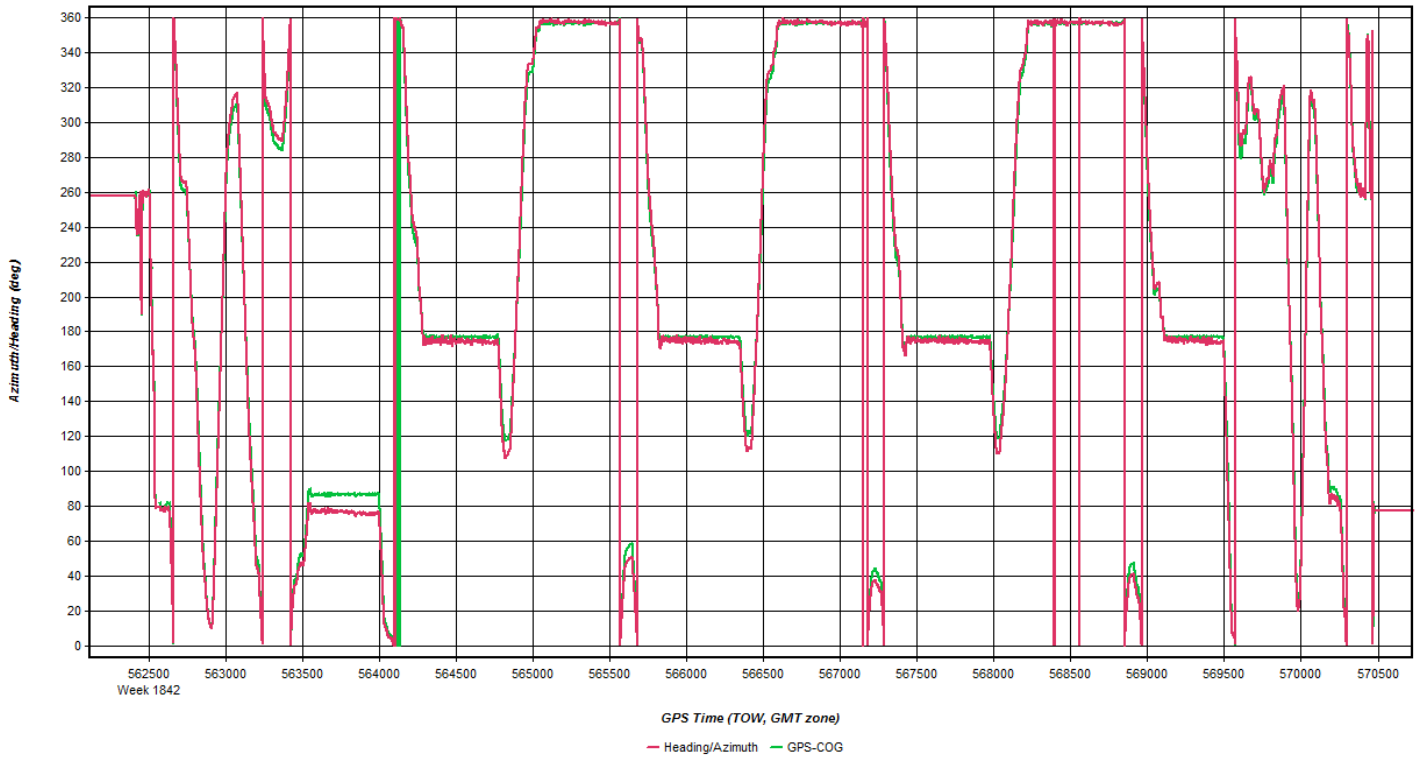
# 20150502A\_7225











**Coordinate/Antenna Settings**

Master  Remote

Base Station  
 1: WVTA Name: WVTA  Disabled  
 File: D:\Proc\25442\_Garrett\_Co\XU56\15126\_GARRETT\1872H\ALS

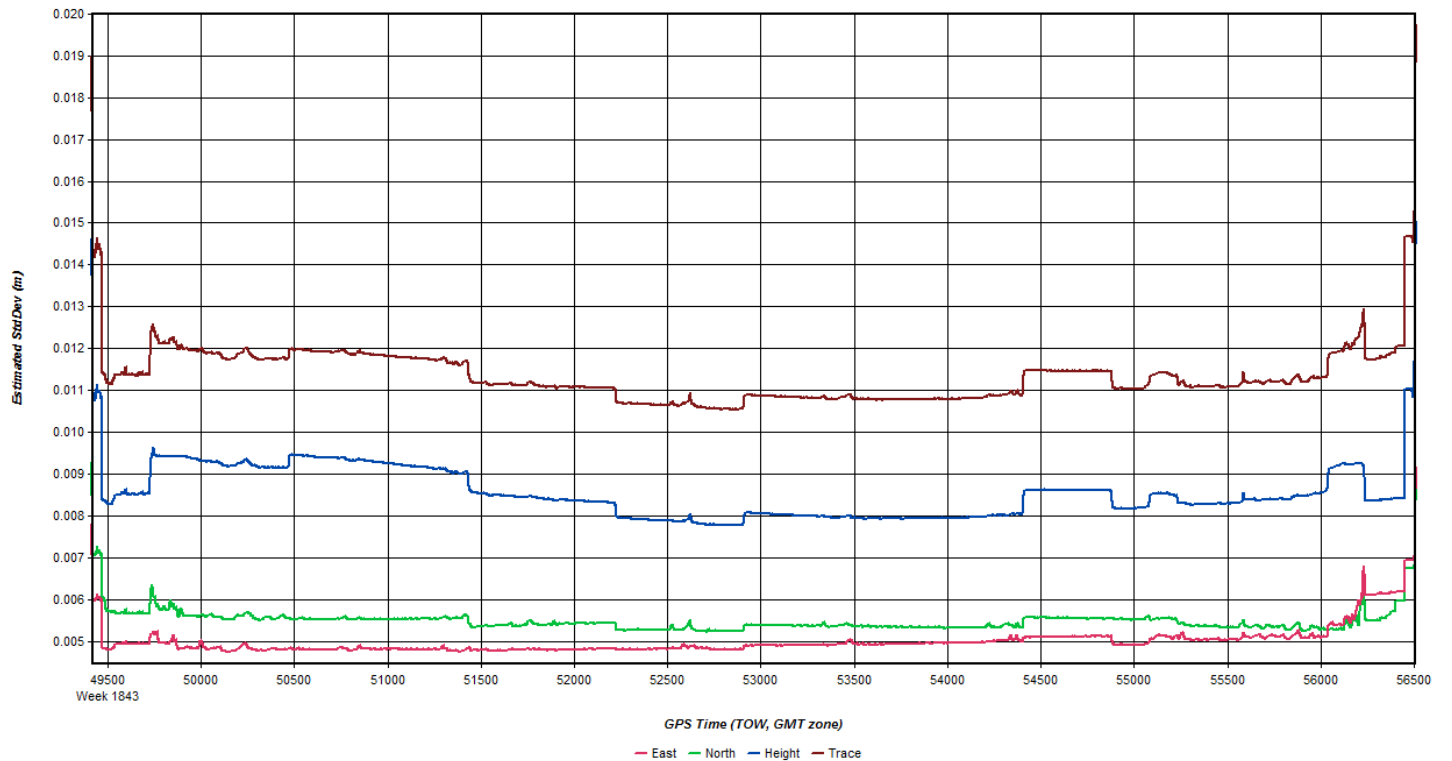
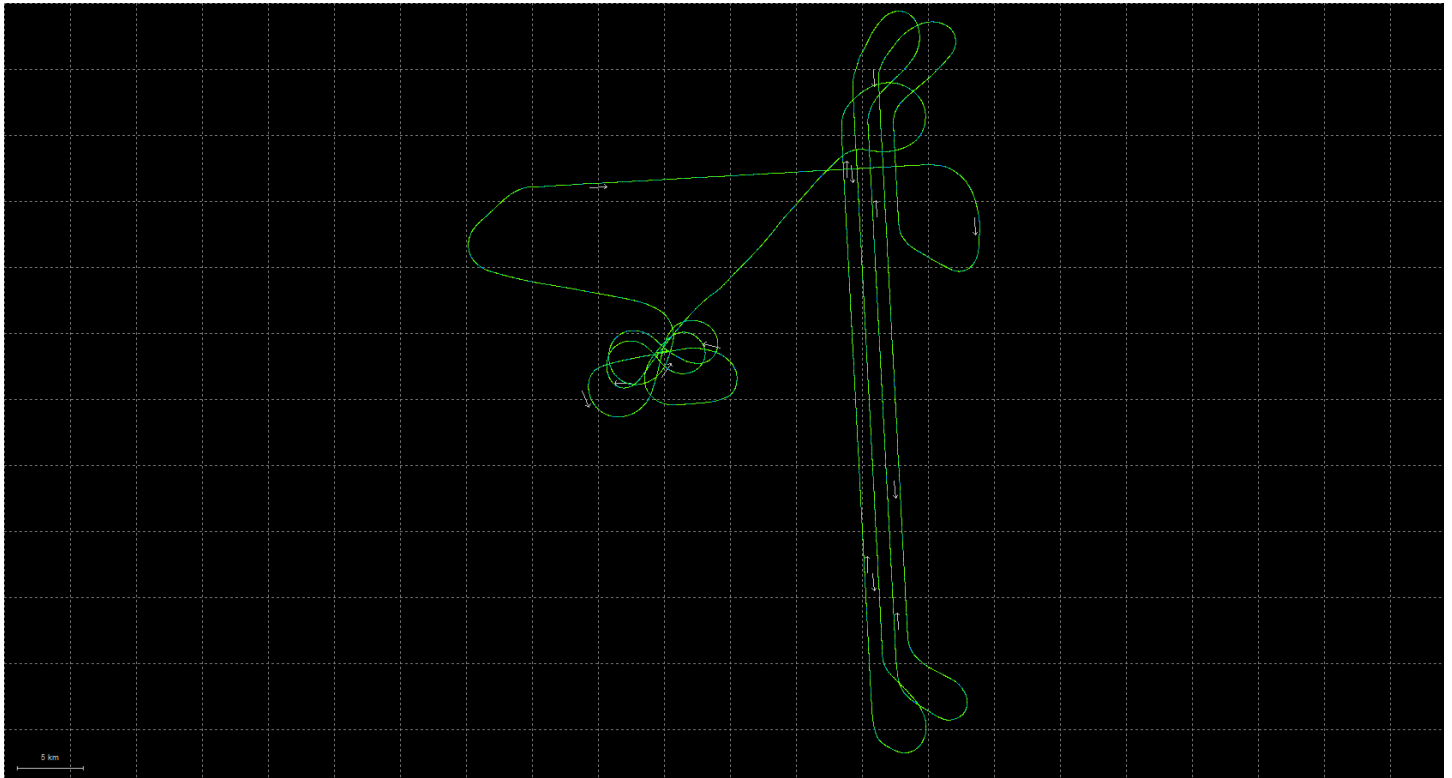
Coordinates  
 Latitude: North 39 26 16.64399   
 Longitude: West 79 30 52.95281   
 Ellipsoidal height: 726.044 m   
 Datum: NAD83(2011)

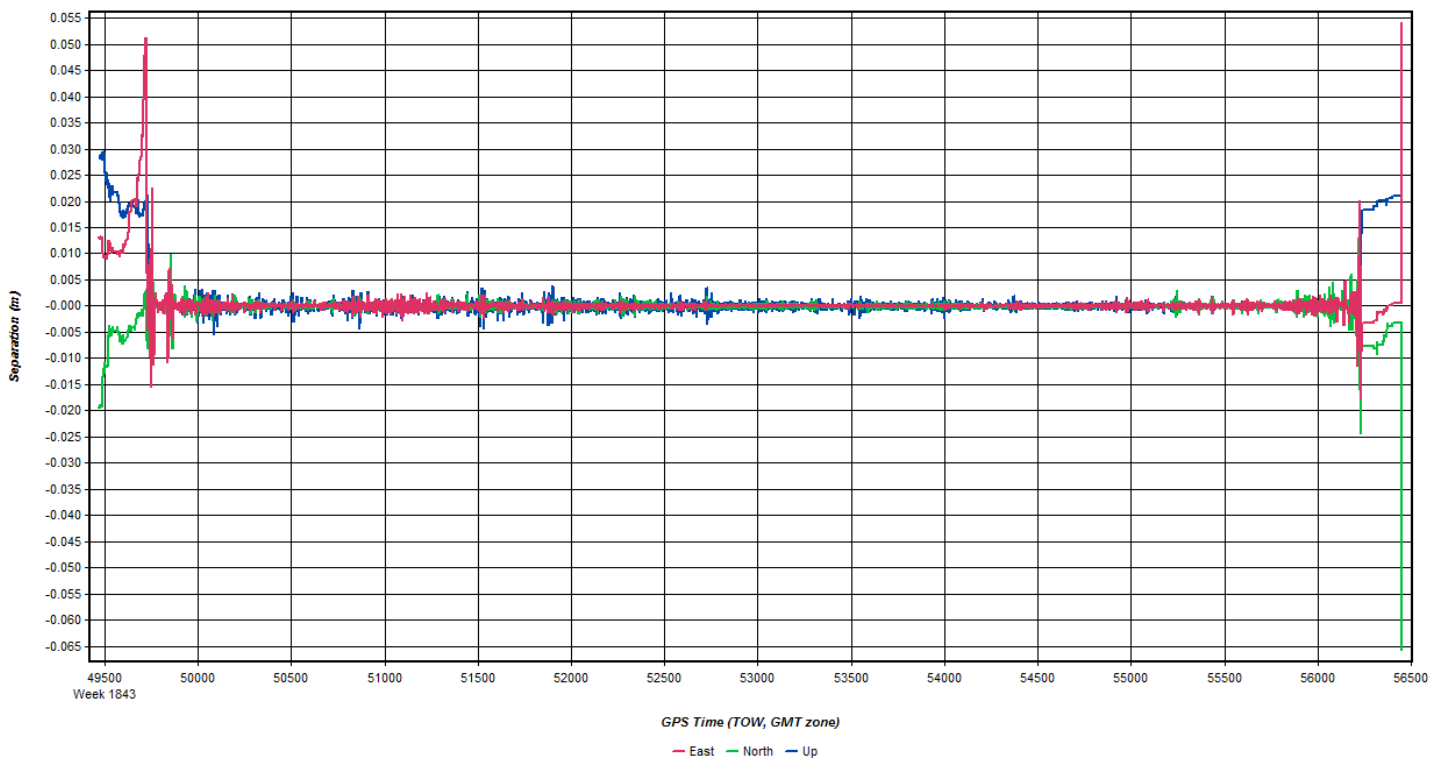
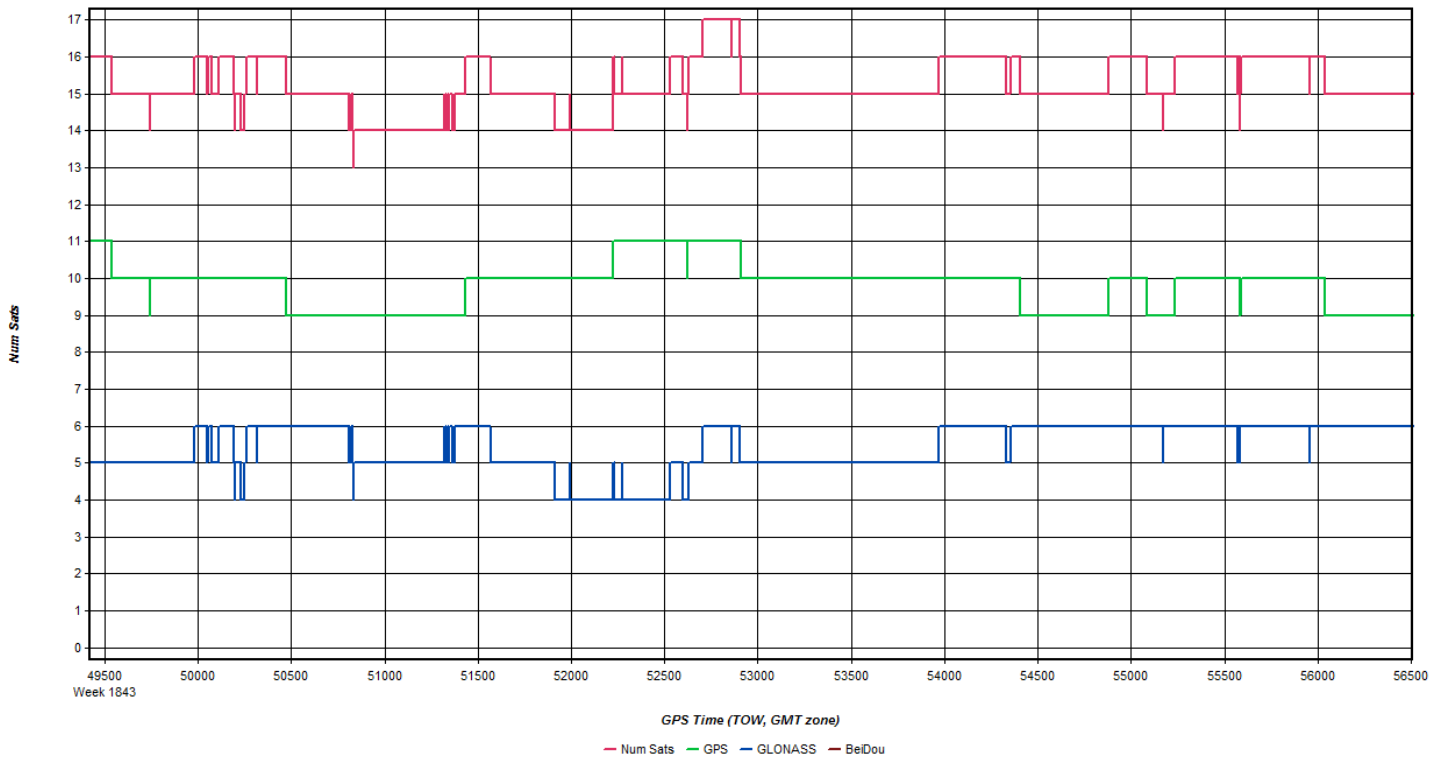
Antenna Height  
 From station file: TRM57971.00, NONE   
 Antenna profile: TRM57971.00   
 Measured height: 0.000 m  
 ARP to L1 offset: 0.067 m  
 Applied height: 0.067 m  
 Measured to:  
 ARP  
 L1 Phase Centre

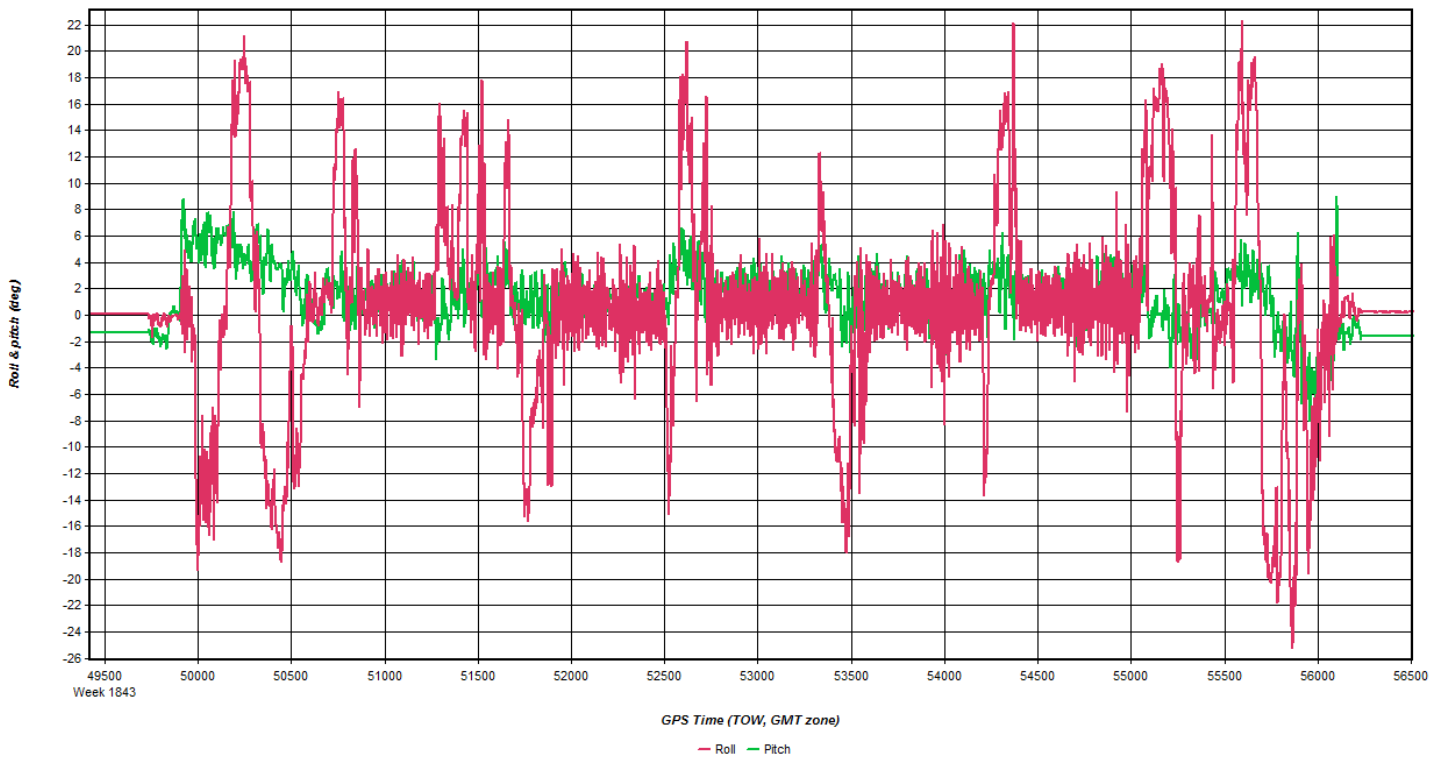
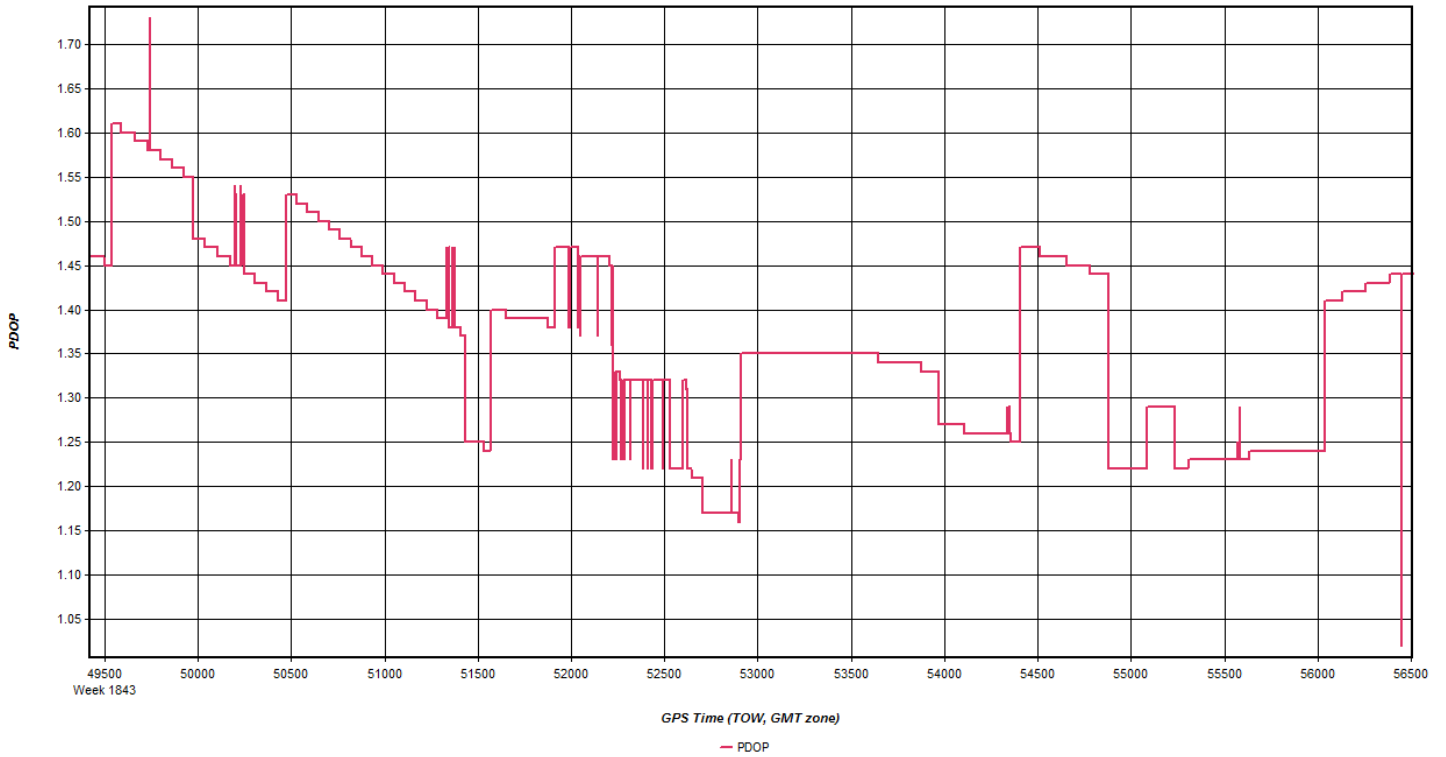
# Flight Log

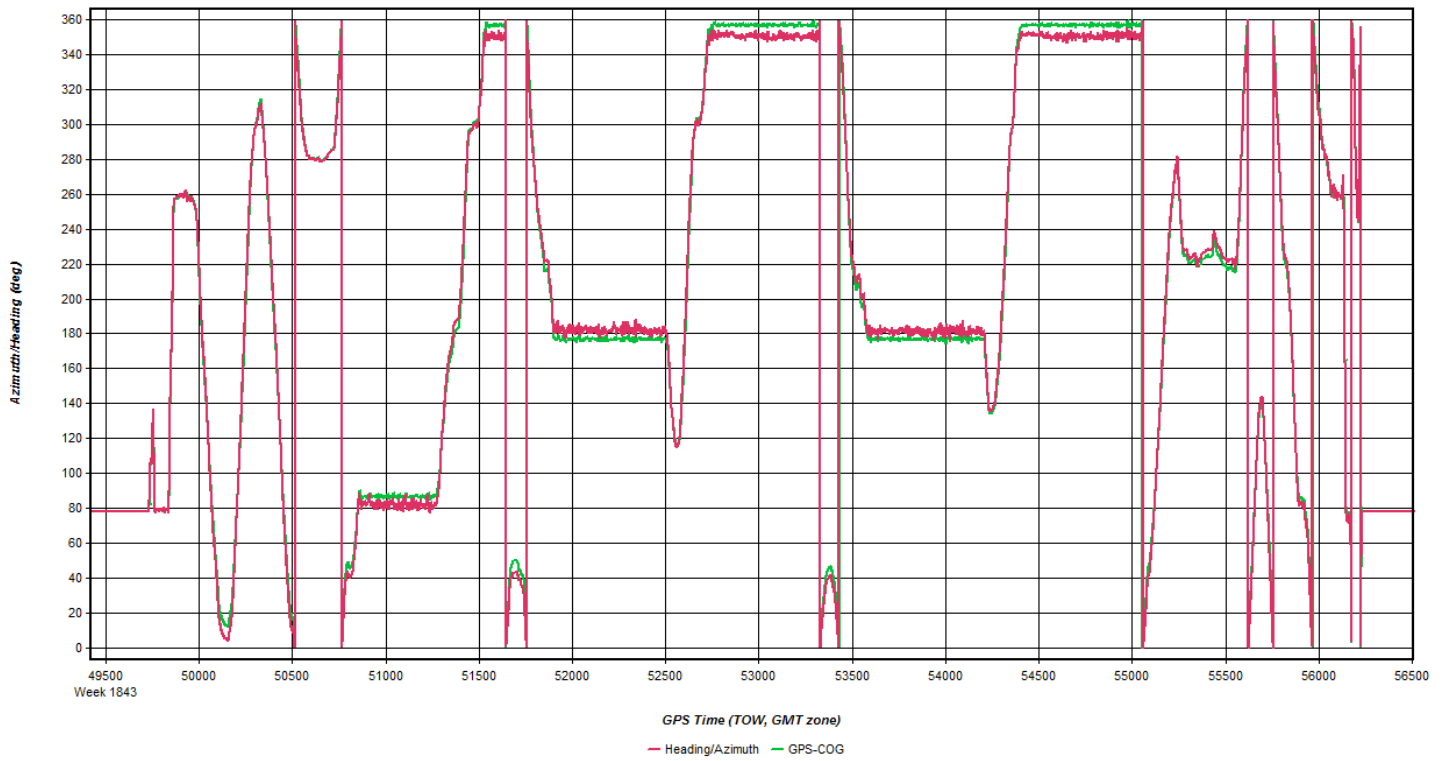


# 20150503A\_7225









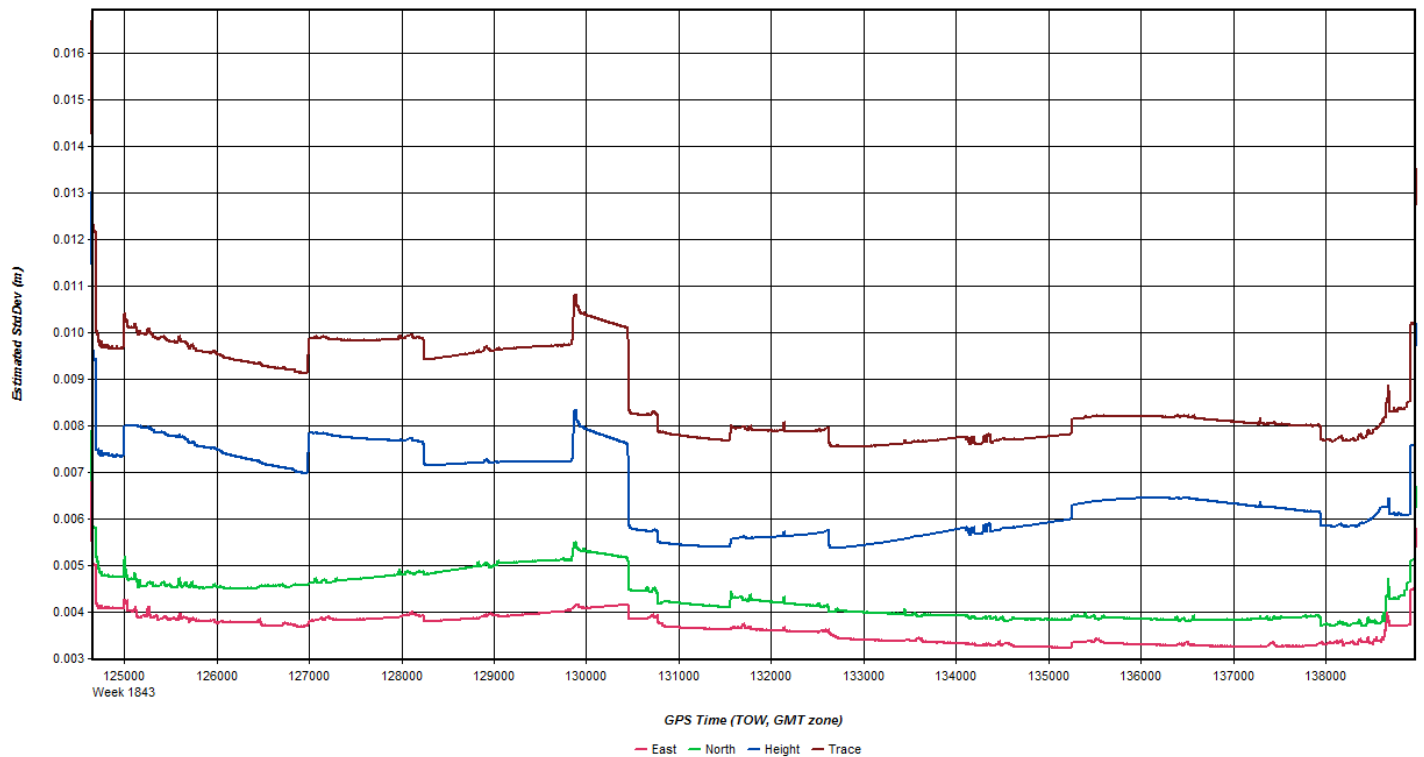
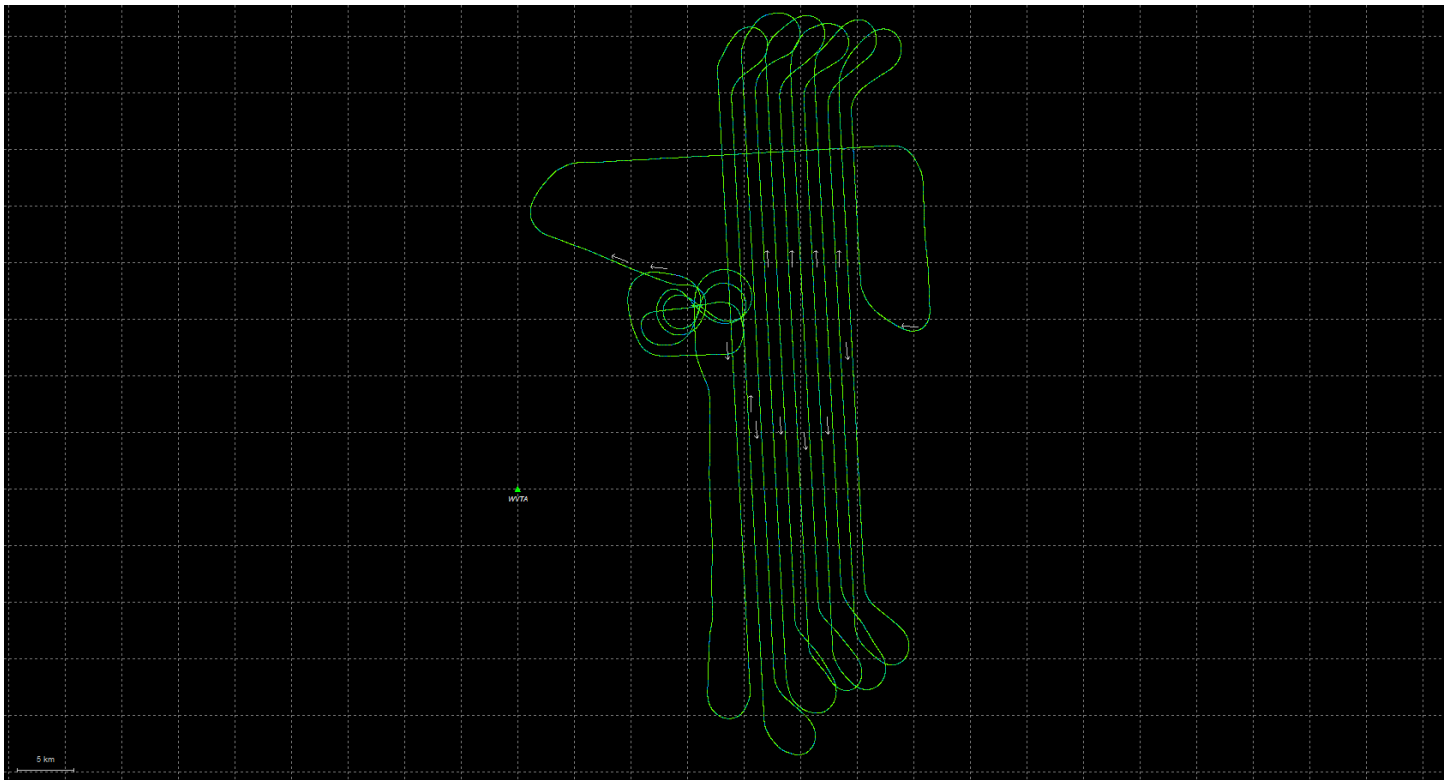


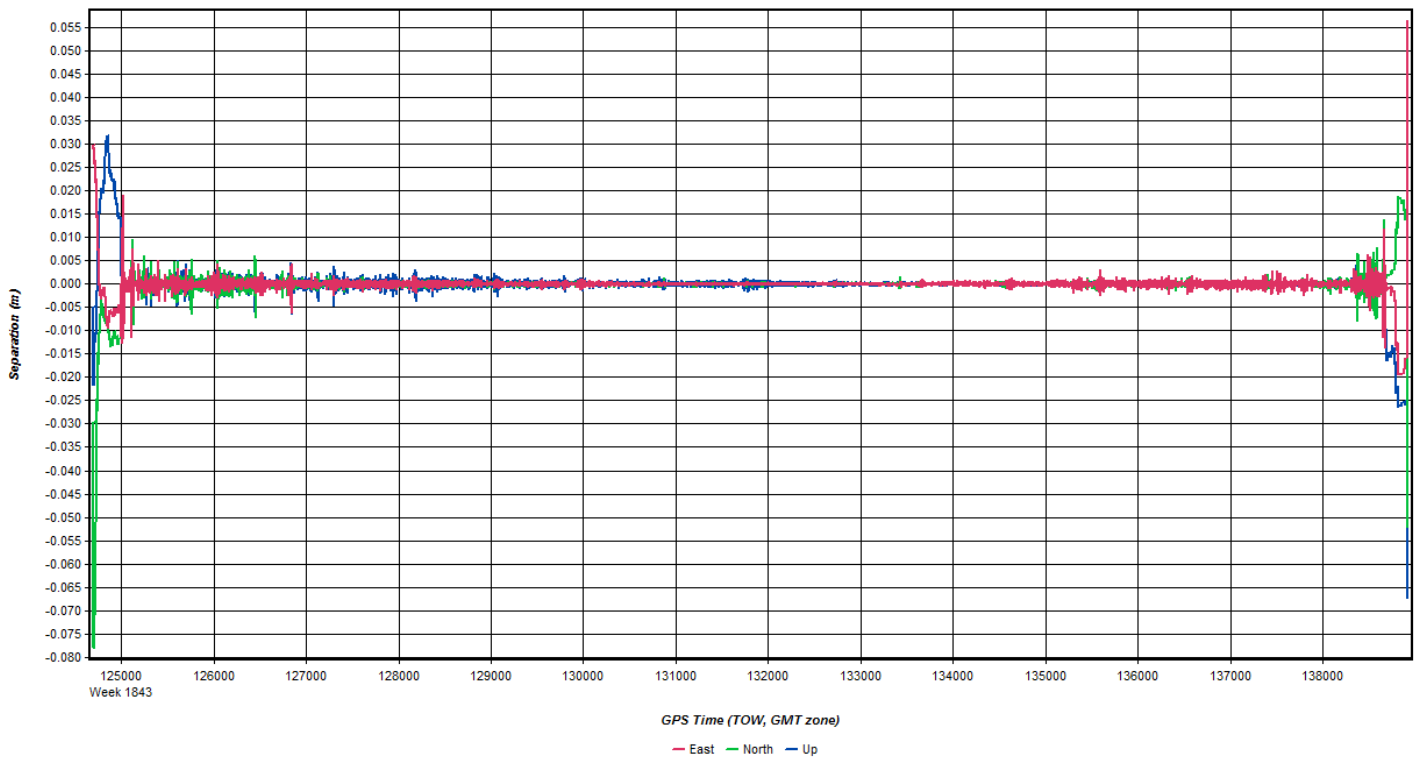
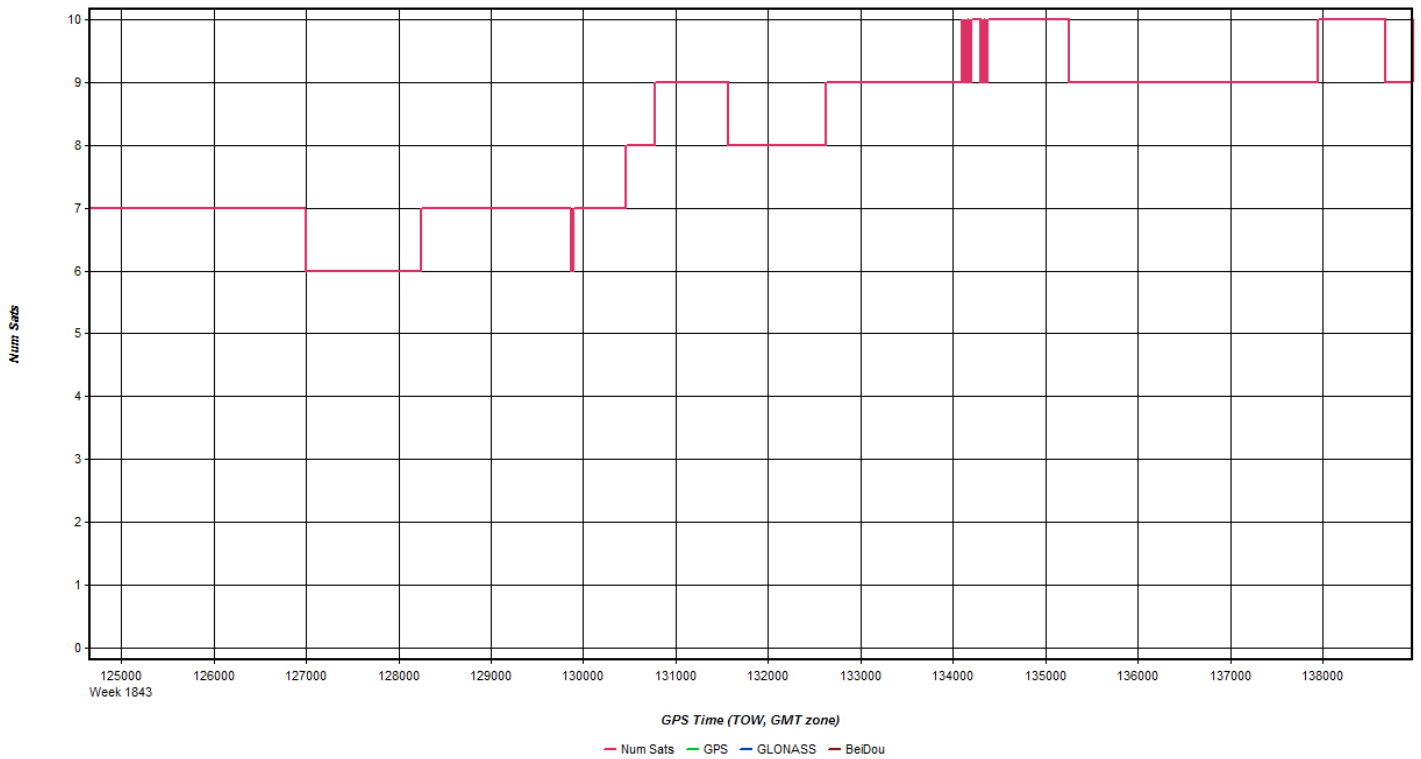
# Flight Log

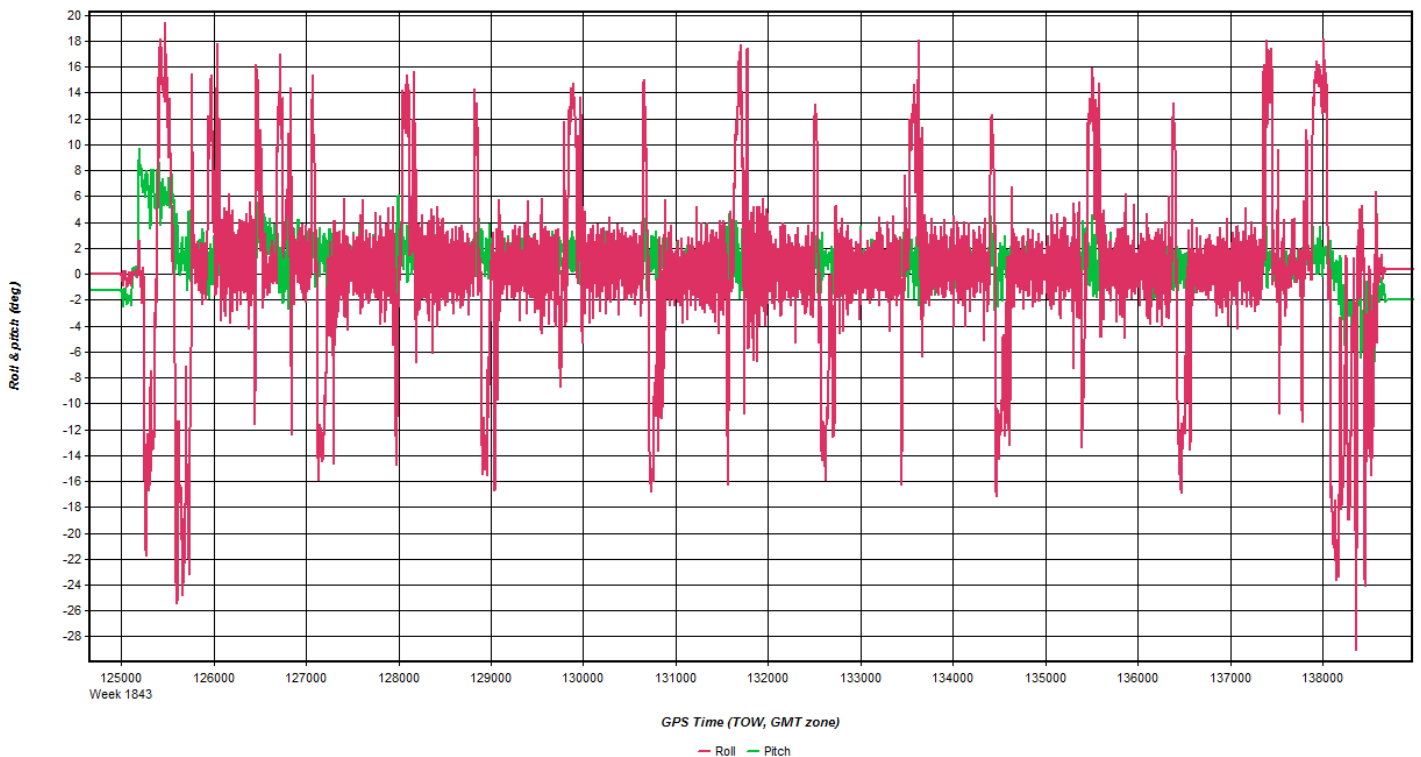
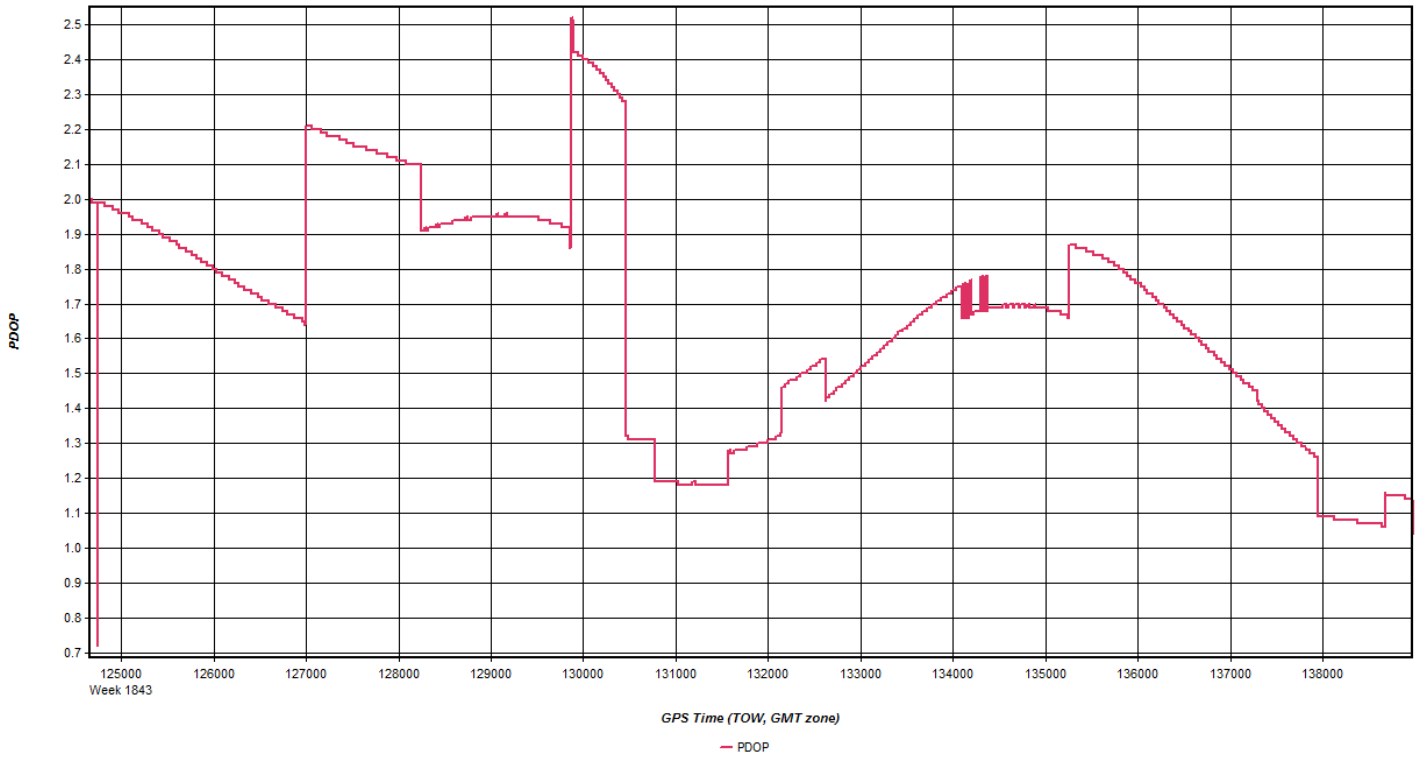
Line/DIR	Start	End	Air Speed	Alt(ft)	# Exp	Light Values	GB Size	Comments or errors while online:	Lever Arm		
									X	Y	Z
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div data-bbox="170 1732 479 1911"> <p>2223 S Drake Ave, Suite 200 Huntsville, AL 35805 PH: (256) 971-9991 FX: (256) 971-1154</p> </div> <div data-bbox="170 1123 479 1722"> <p>Project#: 15126 Flight plan name: GARRETT CO MD Location: GARRETT Pilot: MAX Operator: DANE Sensor: ALS70 Hobbs Time Start: 4199.6 Hobbs Time Stop: 4201.3 Pre-Static: 0943 - 0948 Post-Static: 1136 - 1141 Fwd Lap: 60 Side Lap: 30</p> </div> <div data-bbox="170 619 479 1113"> <p>Tail Number: 1827H Flight Date: 20150503 Sensor SN: 7225 Weather: SCT BKN</p> </div> <div data-bbox="170 199 479 609"> <p>GPS</p> <p>IMU</p> <p>Topcon</p> <p>Base Station</p> <p>T1</p> <p>ARP</p> <p>1.439</p> <p>#NUM!</p> <p>Start</p> <p>935</p> <p>Stop</p> <p>1145</p> </div> </div>											
71	97	1008	1013	140	8340			X LINE			
20	7	1019	1020	130	8020			REFLIGHT LAST MILE FROM NORTH END			
21	187	1025	1035	130	8130			REFLIGHT. LOW ALT FOR CLOUDS			
22	7	1039	1048	134	8280			LOW ALT FOR CLOUDS			
23	187	1054	1102	134	8380			LOW ALT FOR CLOUDS			
24	7	1107	1116	138	8350			LOW ALT FOR CLOUDS. CLOUDS LAST 5 MILES			

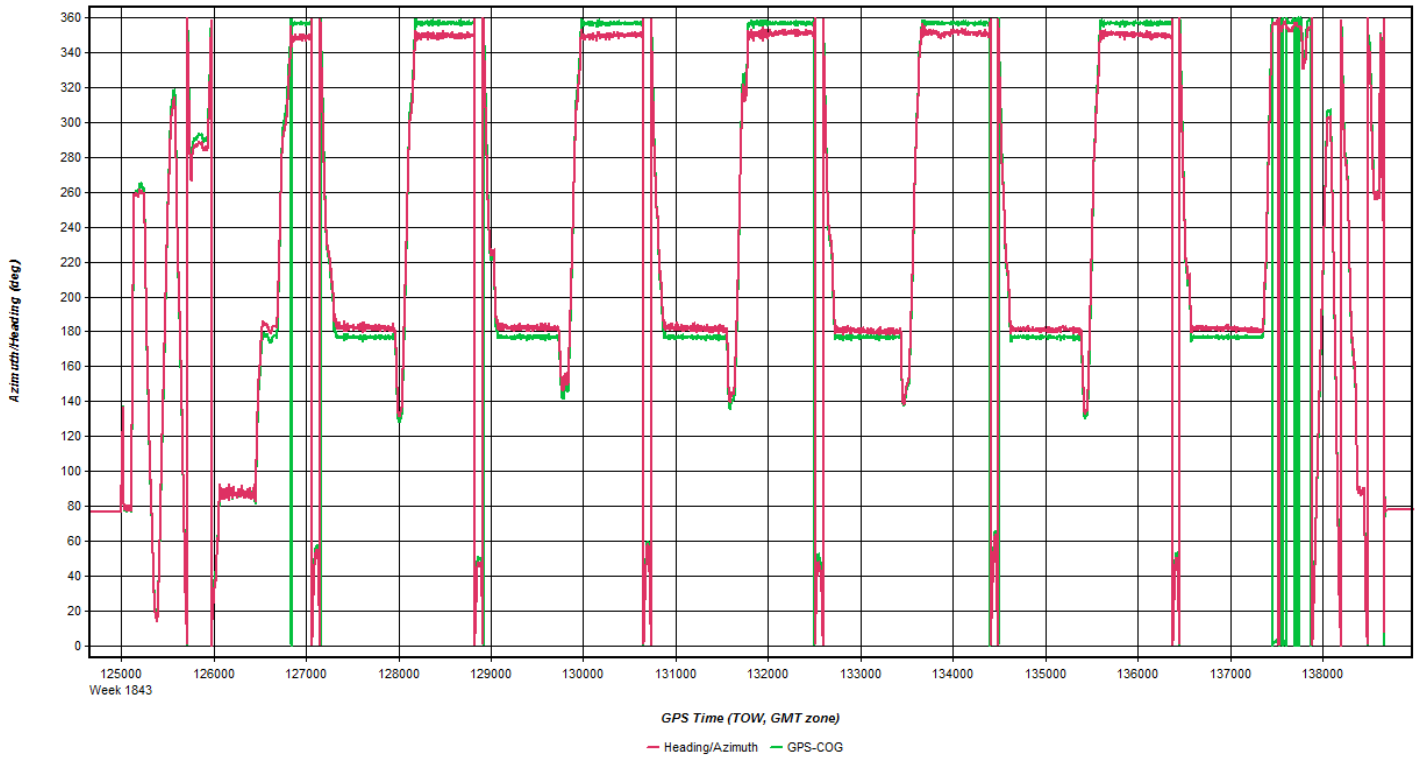
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# 20150504A\_7255









**Coordinate/Antenna Settings**

Master  Remote

Base Station  
 1: WVTA Name: WVTA  Disabled  
 File: D:\Proc\25442\_Garrett\_Co\XU56\15126\_GARRETT\1872H\ALS

Coordinates  
 Latitude: North 39 26 16.64399   
 Longitude: West 79 30 52.95281   
 Ellipsoidal height: 726.044 m   
 Datum: NAD83(2011)

Antenna Height  
 From station file: TRM57971.00, NONE   
 Antenna profile: TRM57971.00   
 Measured height: 0.000 m  
 ARP to L1 offset: 0.067 m  
 Applied height: 0.067 m  
 Measured to:  
 ARP  
 L1 Phase Centre

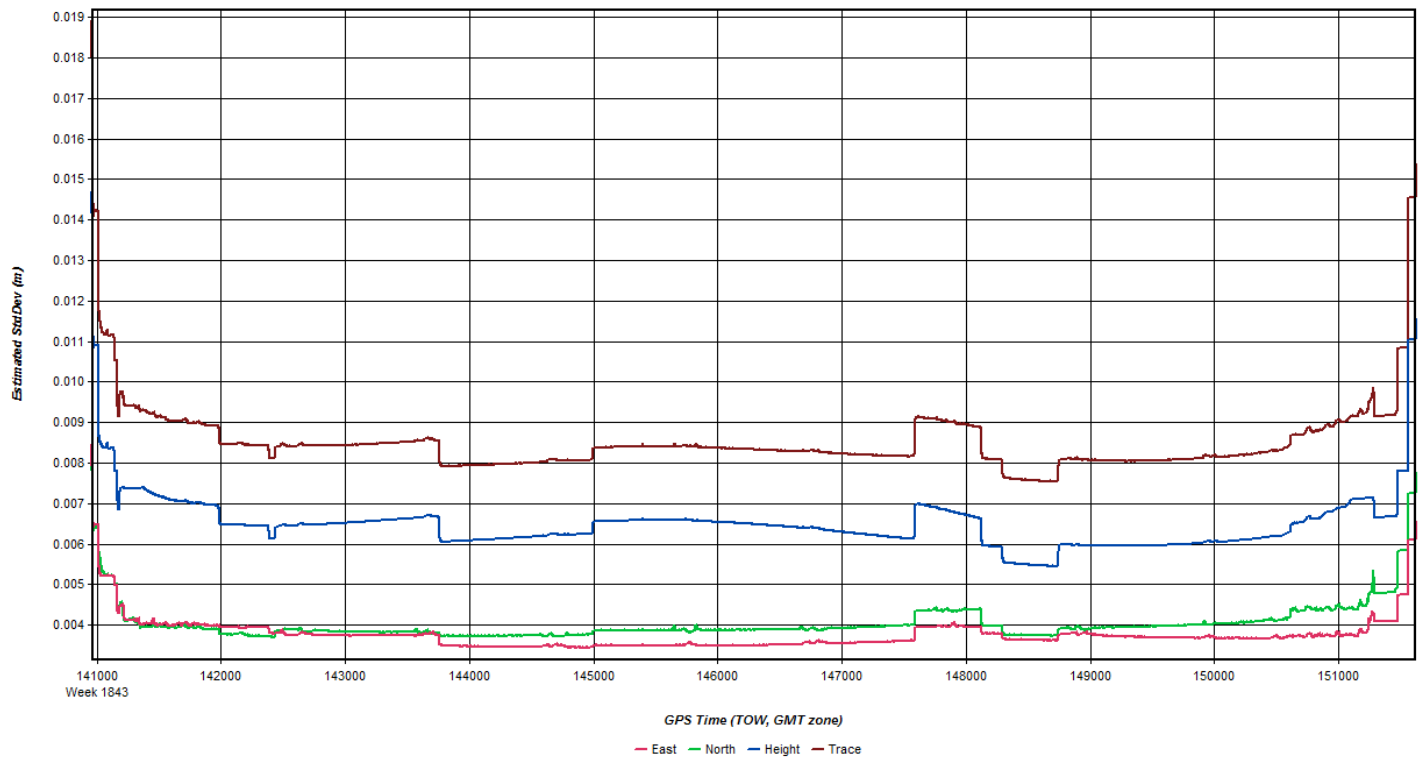
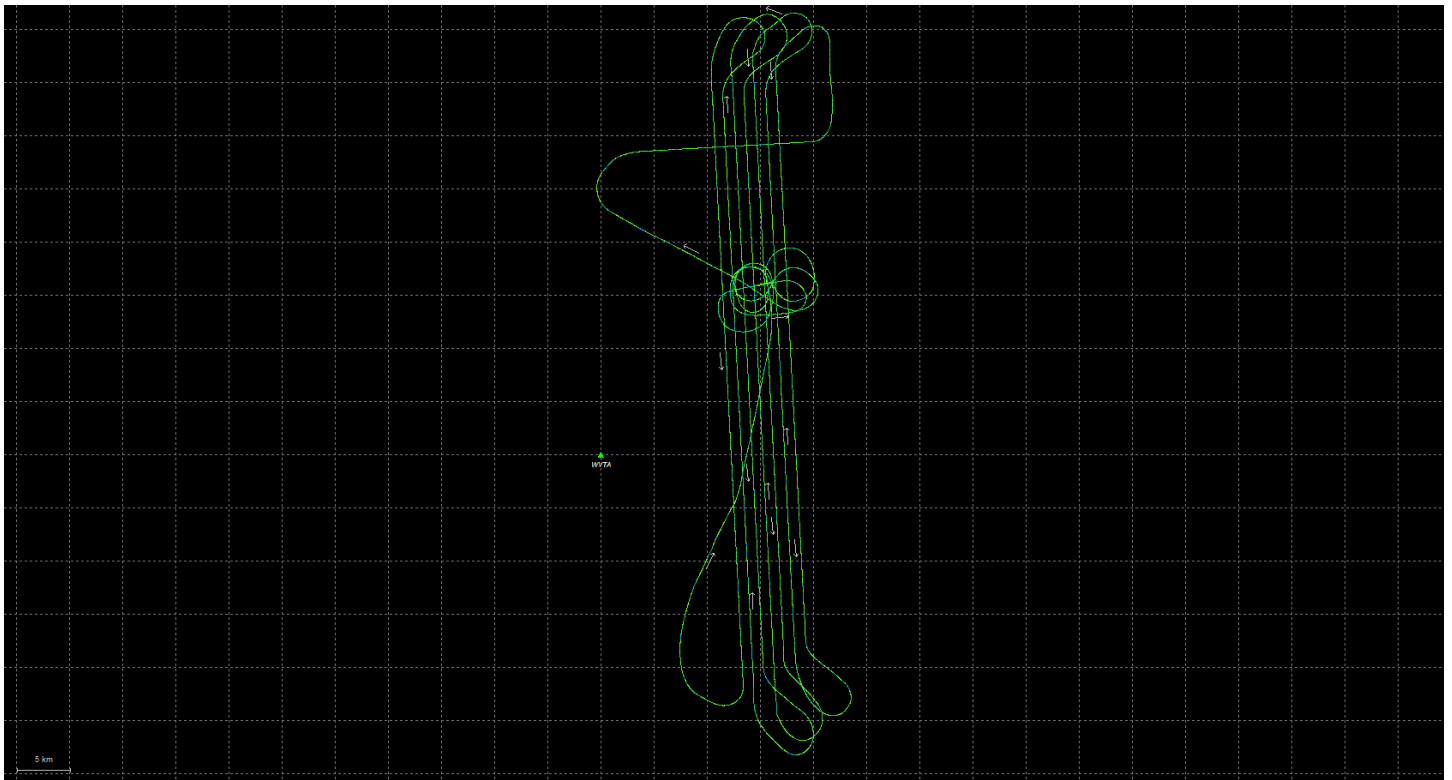
# Flight Log

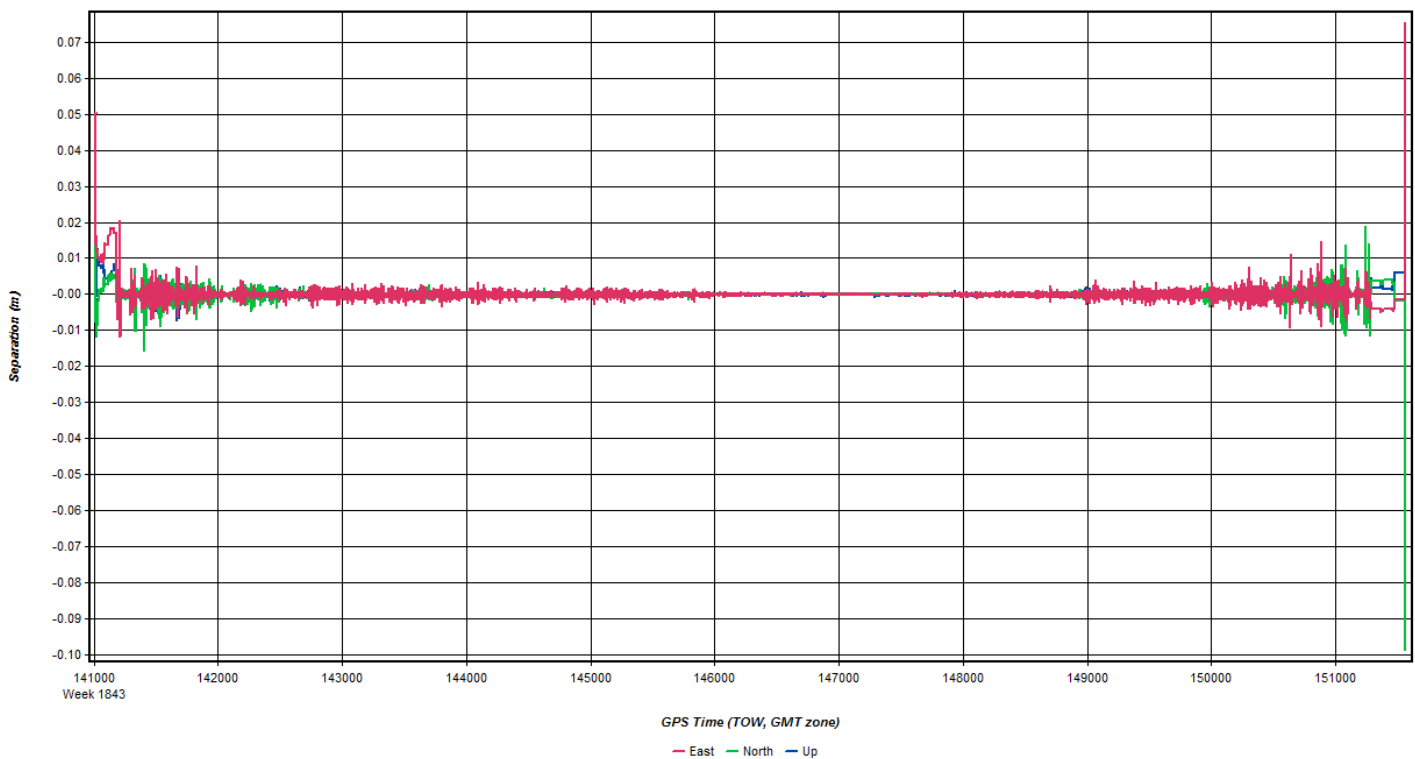
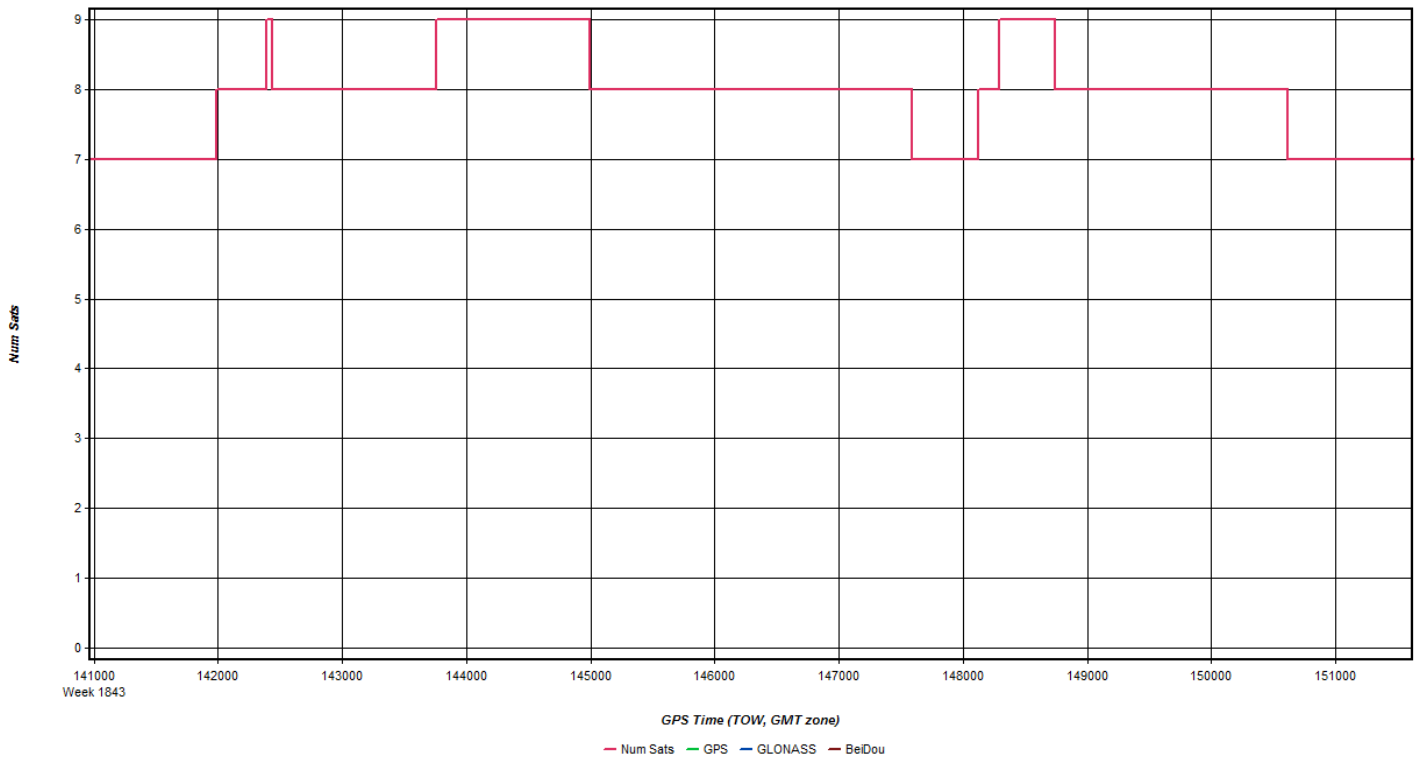


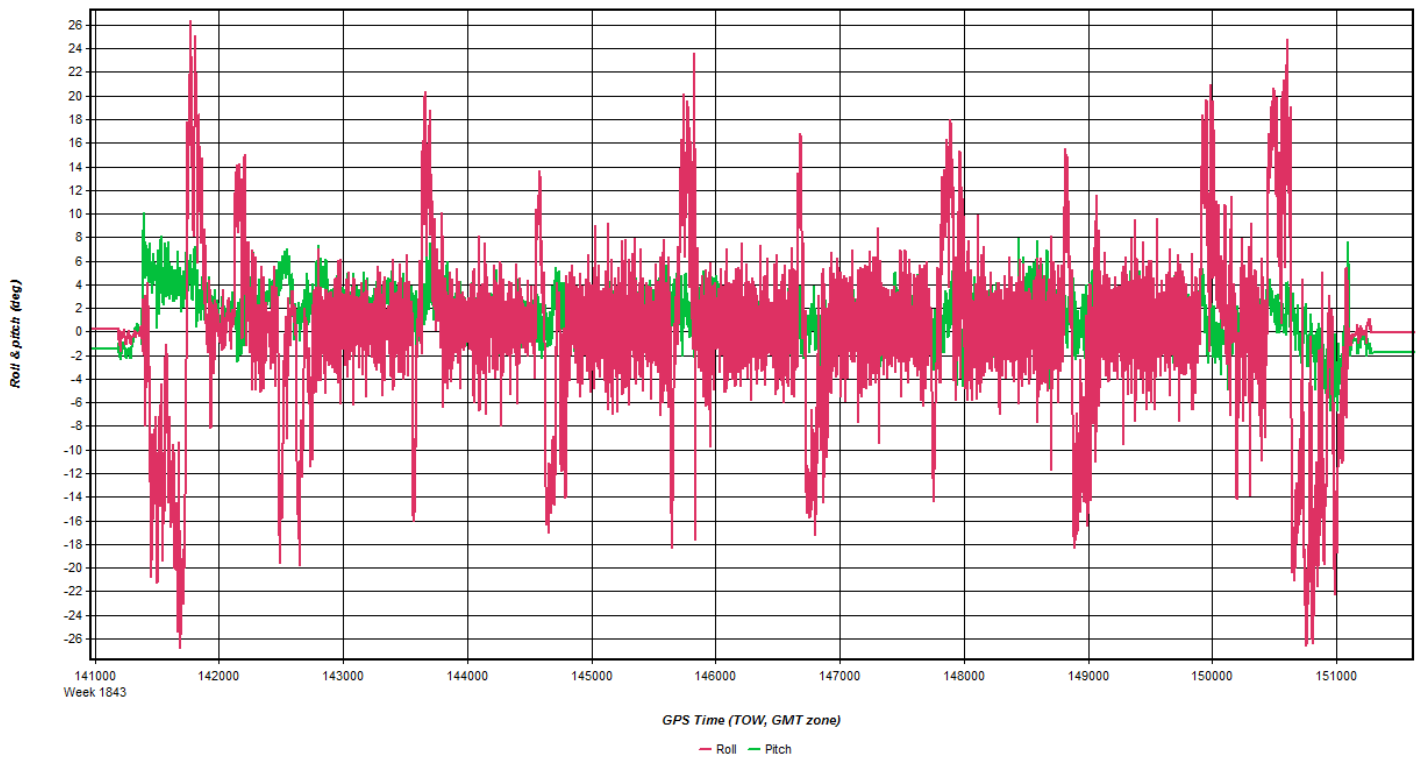
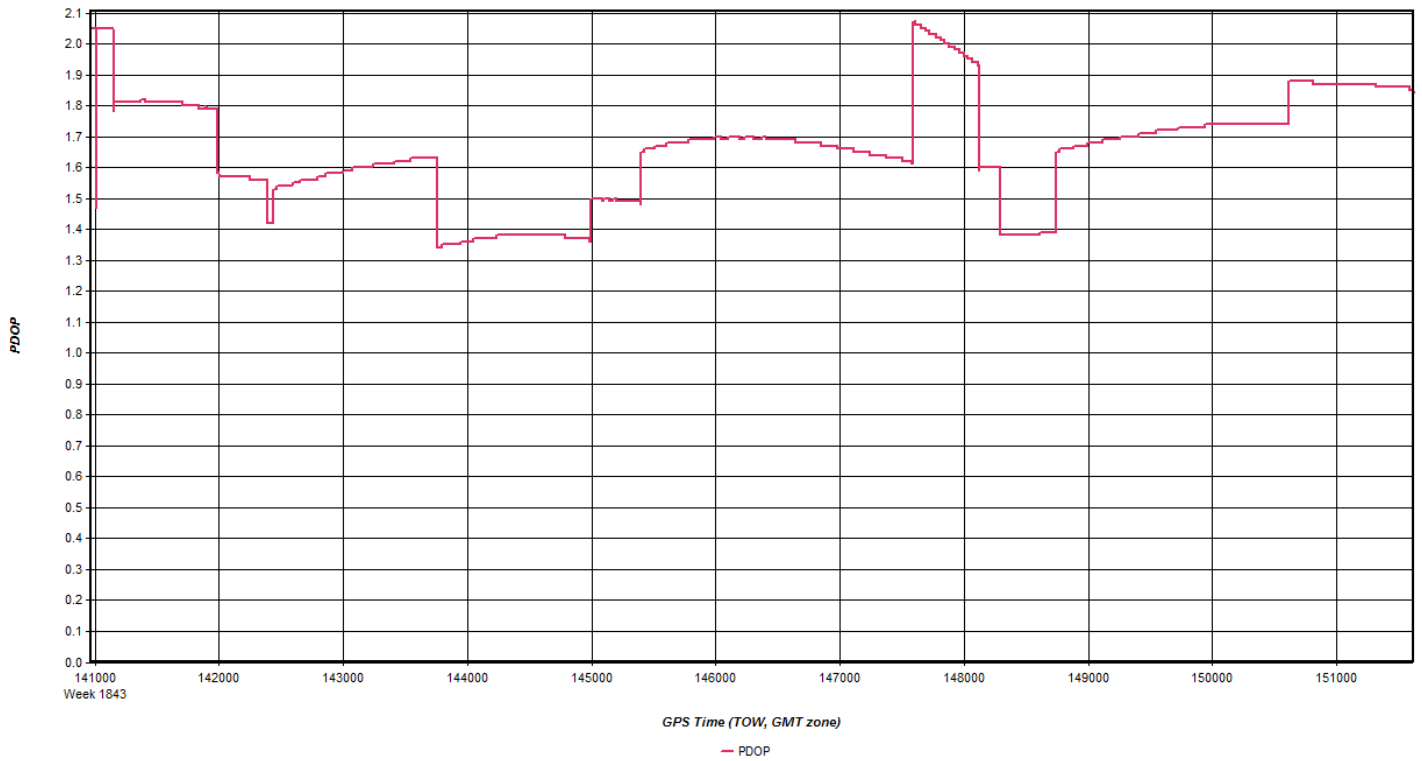
atlantic		Project #: 15126		Tail Number: 1827H		Lever Arm			
2223 S Drake Ave, Suite 200 Huntsville, AL 35805 PH: (256) 971-9991 FX: (256) 971-1154		Flight plan name: GARRETT CO MD		Flight Date: 20150504 F01		X Y Z			
		Location: GARRETT		Sensor SN: 7225		GPS			
		Pilot: MAX		Weather: CLR		IMU			
		Operator: DANE		Base Station: T1		Topcon			
		Sensor: ALS70		ARP		Start Stop			
		Hobbs Time Start: 4201.8		1.392		630 1410			
		Hobbs Time Stop: 4205.5		#NUM!					
		Pre-Static: 0637 - 0642		#NUM!					
		Post-Static: 1031 - 1036							
		Fwd Lap: 60							
		Side Lap: 30							
Line/DIR	Start	End	Air Speed	Alt(ft)	# Exp	Light Values	GB Size	Comments or errors while online:	
71	97	701	135	8370				X LINE	
24	7	714	128	8350				REFLIGHT 5NM FROM NORTH END	
25	187	721	131	8370					
26	7	736	135	8511					
27	187	751	129	8540					
28	7	805	133	8620					
29	187	821	135	8620					
30	7	836	127	8790					
31	187	852	139	8800					
32	7	907	132	8850					
33	187	924	135	8880					
34	7	940	127	9060					
35	187	956	129	9030					

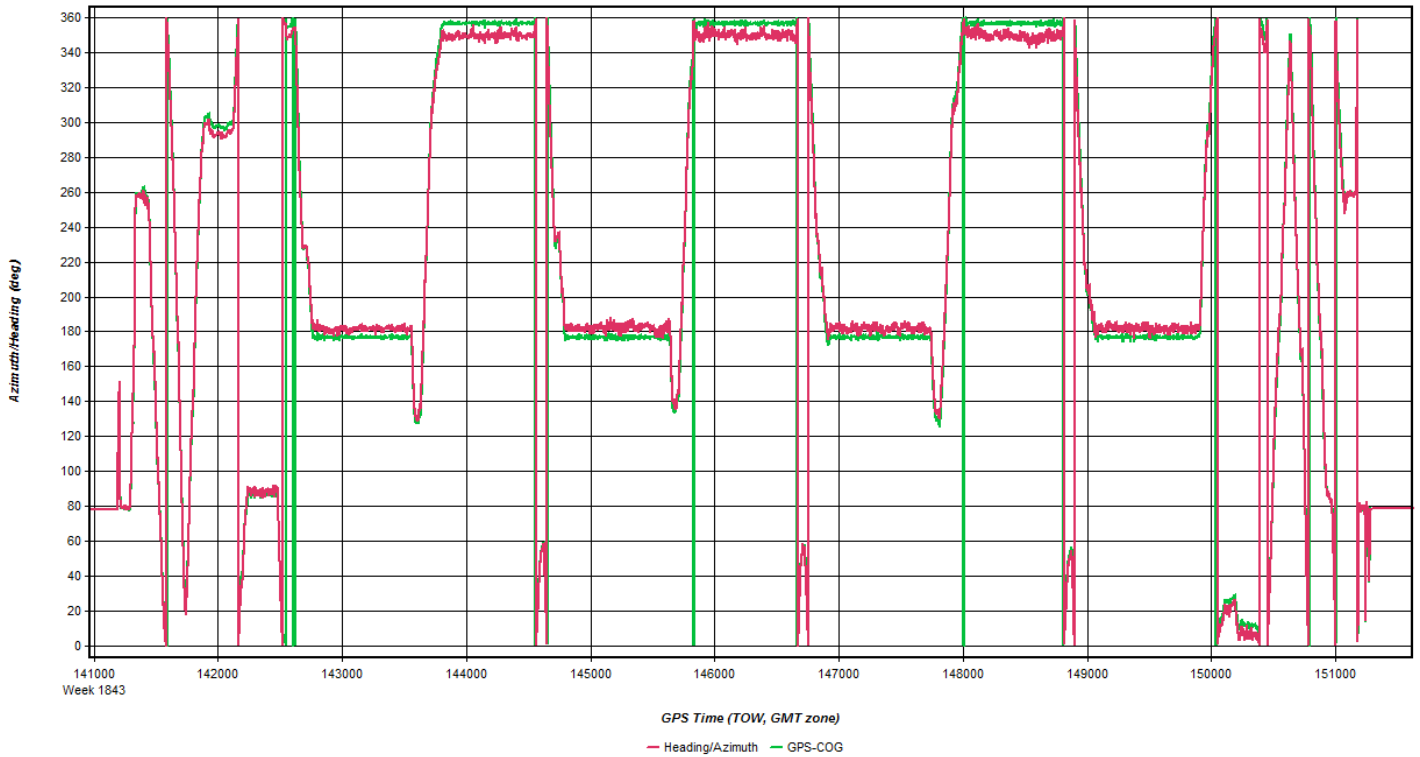
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# 20150504B\_7225









Coordinate/Antenna Settings

Master Remote

Base Station  
 1: WVTA Name: WVTA  Disabled  
 File: D:\Proc\25442\_Garrett\_Co\XU56\15126\_GARRETT\1872H\ALS

Coordinates  
 Latitude: North 39 26 16.64399 Compute from PPP  
 Longitude: West 79 30 52.95281 Enter Grid Values  
 Ellipsoidal height: 726.044 m Enter MSL Height  
 Datum: NAD83(2011) Datum Options  
 Select From Favorites Add To Favorites Use Average Position

Antenna Height  
 From station file: TRM57971.00, NONE View STA File  
 Antenna profile: TRM57971.00 Info  
 Measured height: 0.000 m  
 ARP to L1 offset: 0.067 m  
 Applied height: 0.067 m  
 Measured to  
 ARP  
 L1 Phase Centre  
 Compute From Slant

OK Cancel

# Flight Log







## Appendix B

# Survey Report

March 25, 2015

Field Survey Report of  
LiDAR Ground Control & QC Points

TO# 57 – Garrett County, MD QL2 LiDAR  
USGS Contract: G10PC00026  
USGS Task Order: G15PD00051  
Photo Science Project No. 25442



1400 Independence Road  
Rolla, Missouri 65401

Presented by



**A Quantum Spatial Company**

1410 Indian Trail Road  
Norcross, Georgia 30093  
770-564-9843





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## PROJECT PROCEDURE SUMMARY

### **Project Description**

Photo Science, a Quantum Spatial company, was contracted by U.S. Geological Survey (USGS) under task order number G15PD00051 to field survey LiDAR calibration control points and quality control points in support of TO# 57– Garrett County, MD QL2 LiDAR. There are 20 calibration points, 42 bare earth points, 28 forested points, 8 tall weeds points, and 8 urban area points throughout the project area for a total of 106 points. In addition, 20 of the bare earth points and 4 of the urban area points were chosen in photo identifiable locations for horizontal verification.

### **Field Procedure**

Field work began on January 14<sup>th</sup>, 2015 and came to a temporary stop on January 20<sup>th</sup>, 2015 due to weather restrictions. The remainder of the field work was completed from February 23<sup>th</sup>, 2015 to March 6<sup>th</sup>, 2015. A static GPS survey was performed using 5 Trimble R8-Model 3 GNSS receivers. Each point was set on a flat surface at least five meters away from any significant elevation change and occupied for a minimum of 20 minutes. Each point also shares common time with at least one other control point within the project AOI. For any of the QC points that were unable to be collected with GPS were located conventionally with a Trimble M3 total station utilizing points previously set with GPS. Data sheets for each point were filled out with information including point type, general location, occupation time, equipment used, and photographs. Final coordinates, point ties, and RMSE values were filled in after the post processed network adjustment.

### **Office Procedure**

Upon completion of the field survey, the observations were input into Trimble Business Center and CORS information was downloaded from NGS to create a static network. Along with CORS stations, one Key Net station was used to constrain the network in a least squares adjustment to yield the final coordinates.

### **Reporting Procedure**

The North American Datum of 1983 (NAD83 (2011)), UTM Zone 17N projection was used for reporting the horizontal coordinates in meters. The vertical elevations are North American Vertical Datum of 1988 (NAVD 88) utilizing the GEOID12A model and are reported in meters.

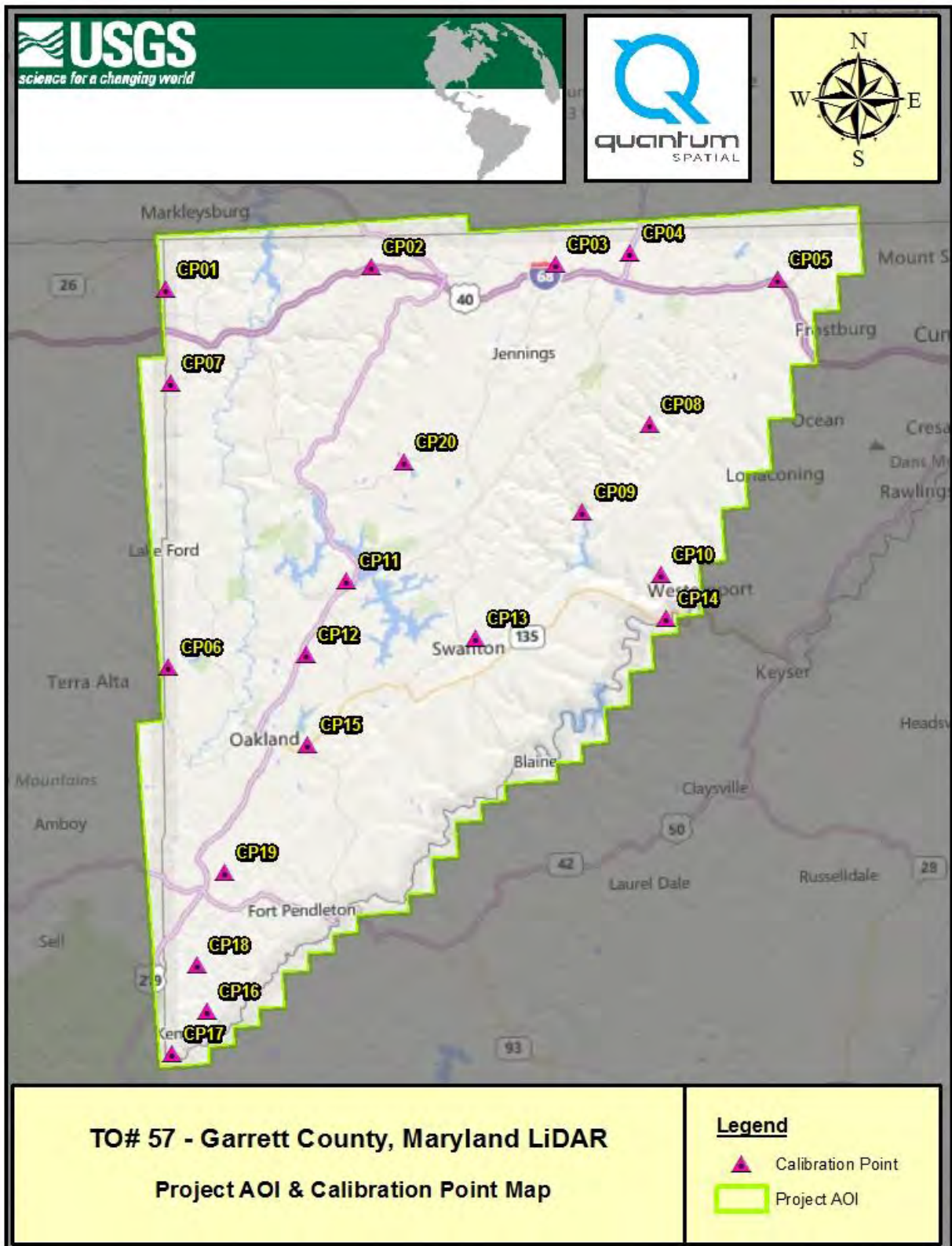
The average Horizontal RMSE for all points at the 95% confidence level is 0.005 meter.

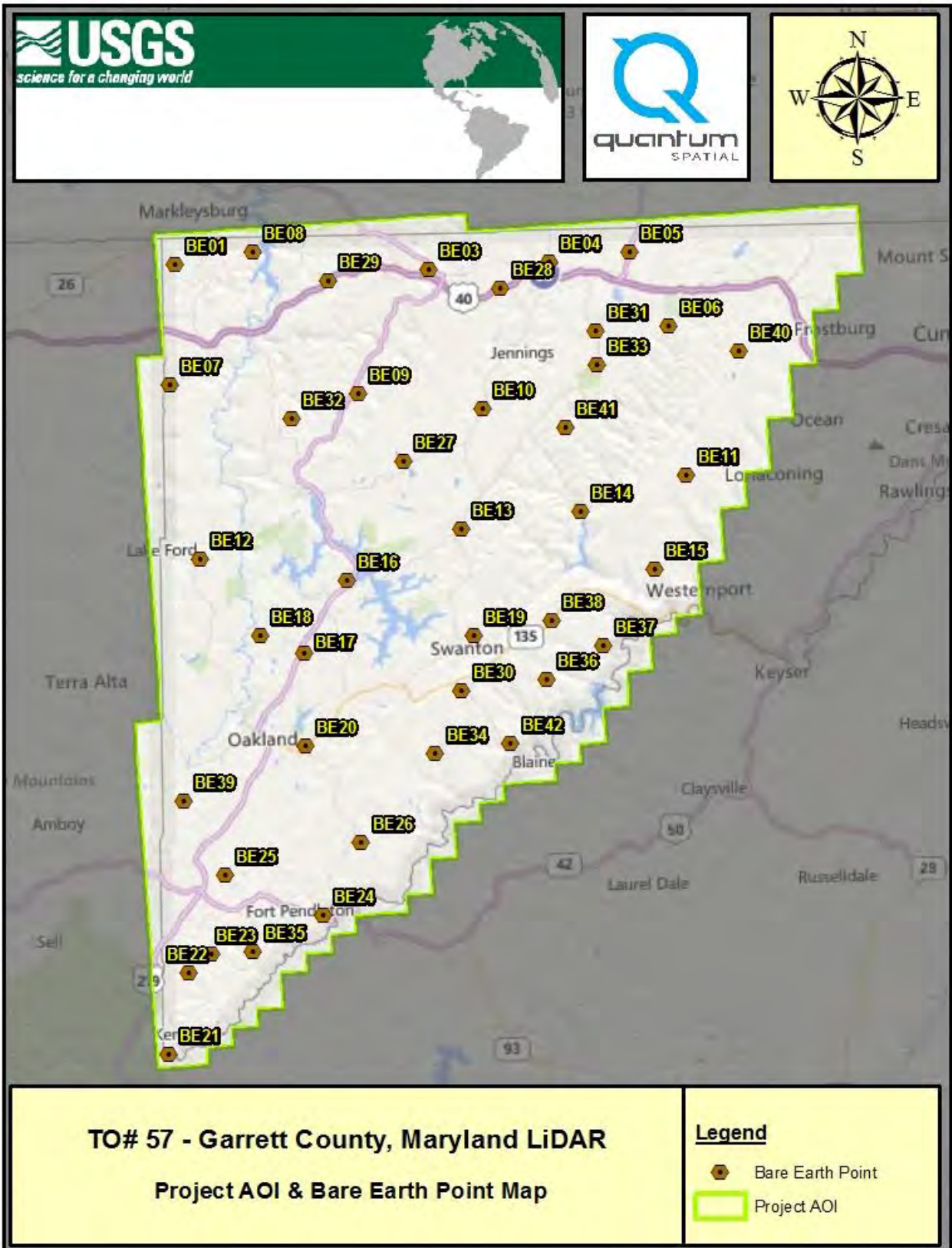
The average Elevation RMSE for all points at the 95% confidence level is 0.012 meter.

The average 3-Dimensional RMSE for all points at the 95% confidence level is 0.013 meter.

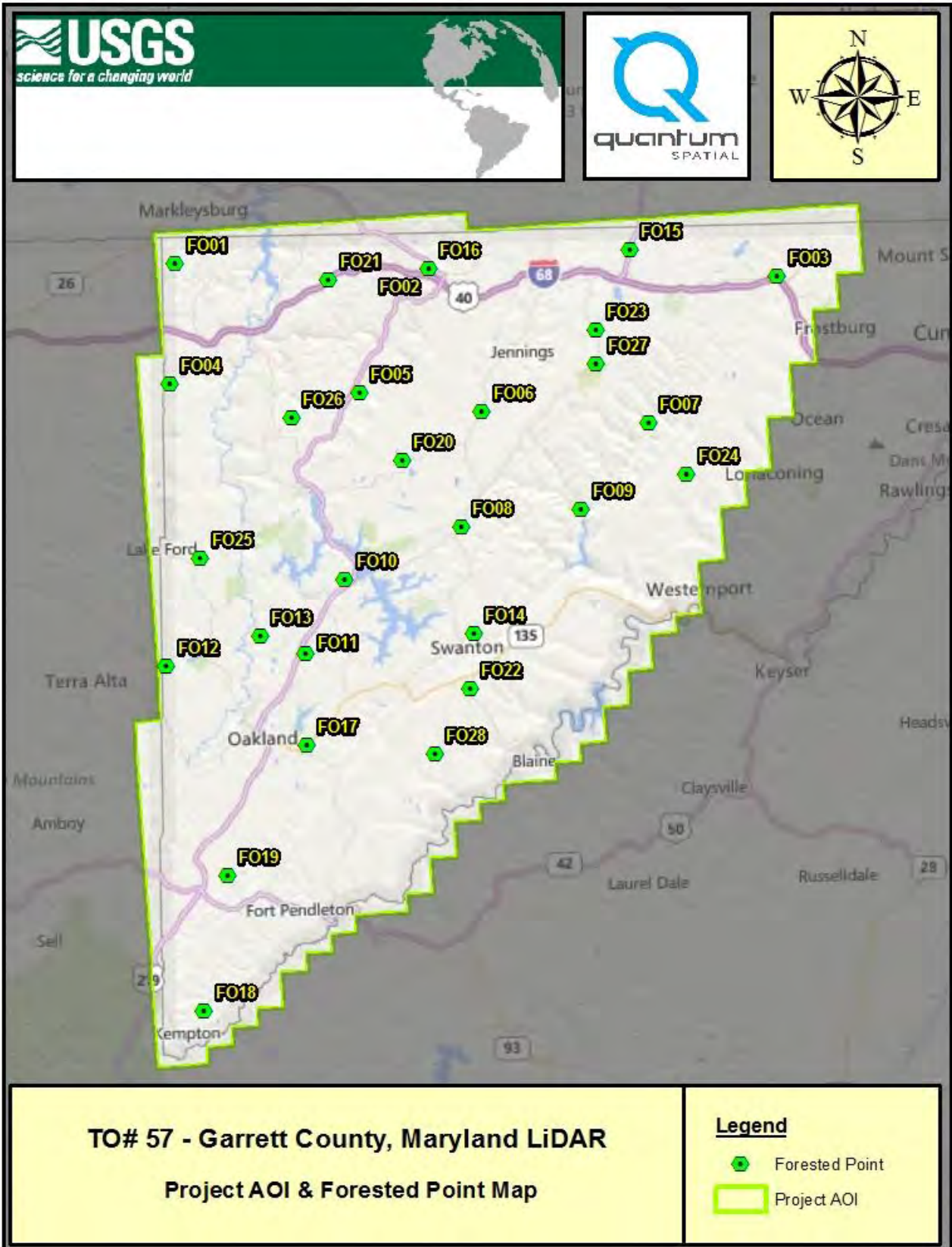


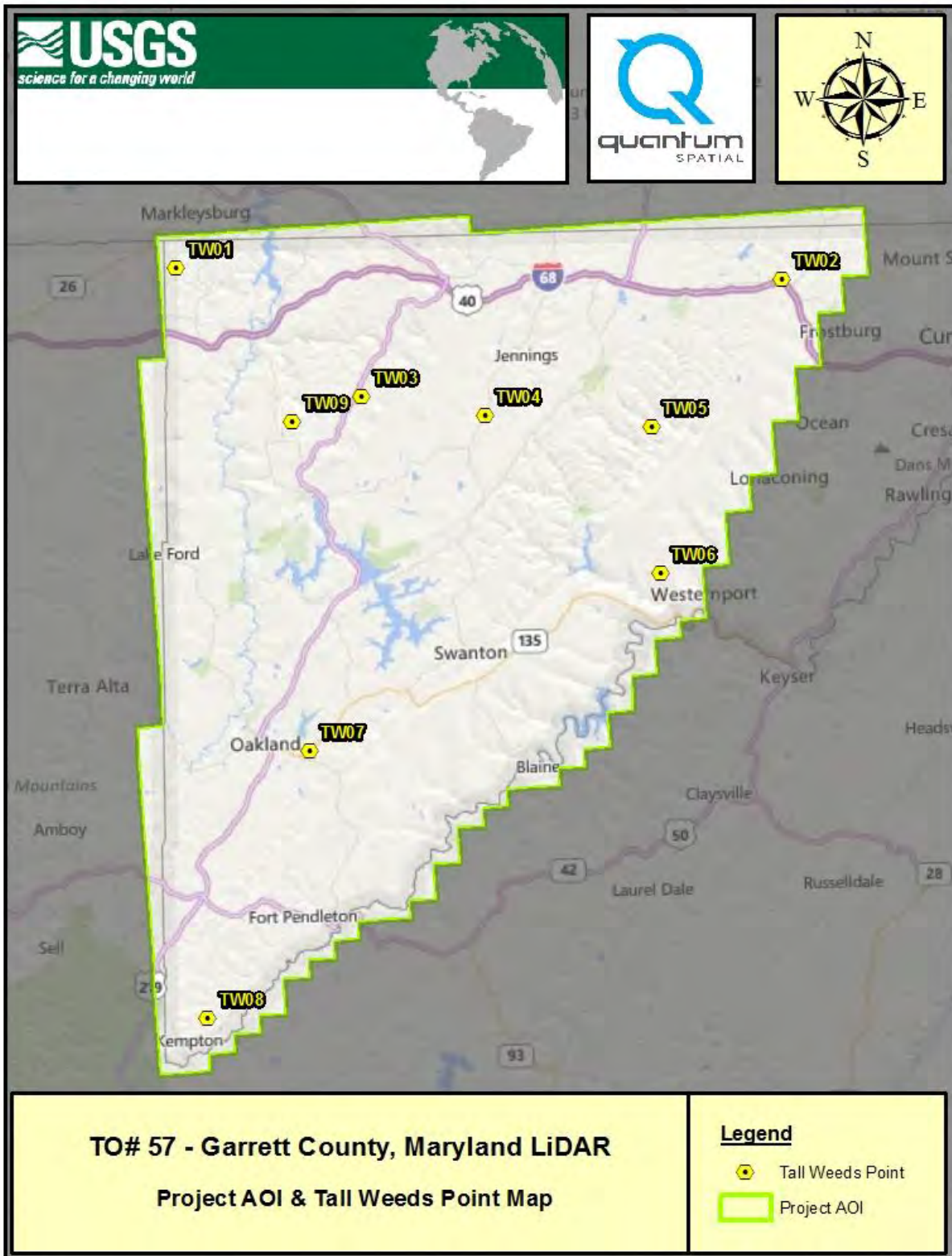
## **PROJECT AOI & POINT MAPS**

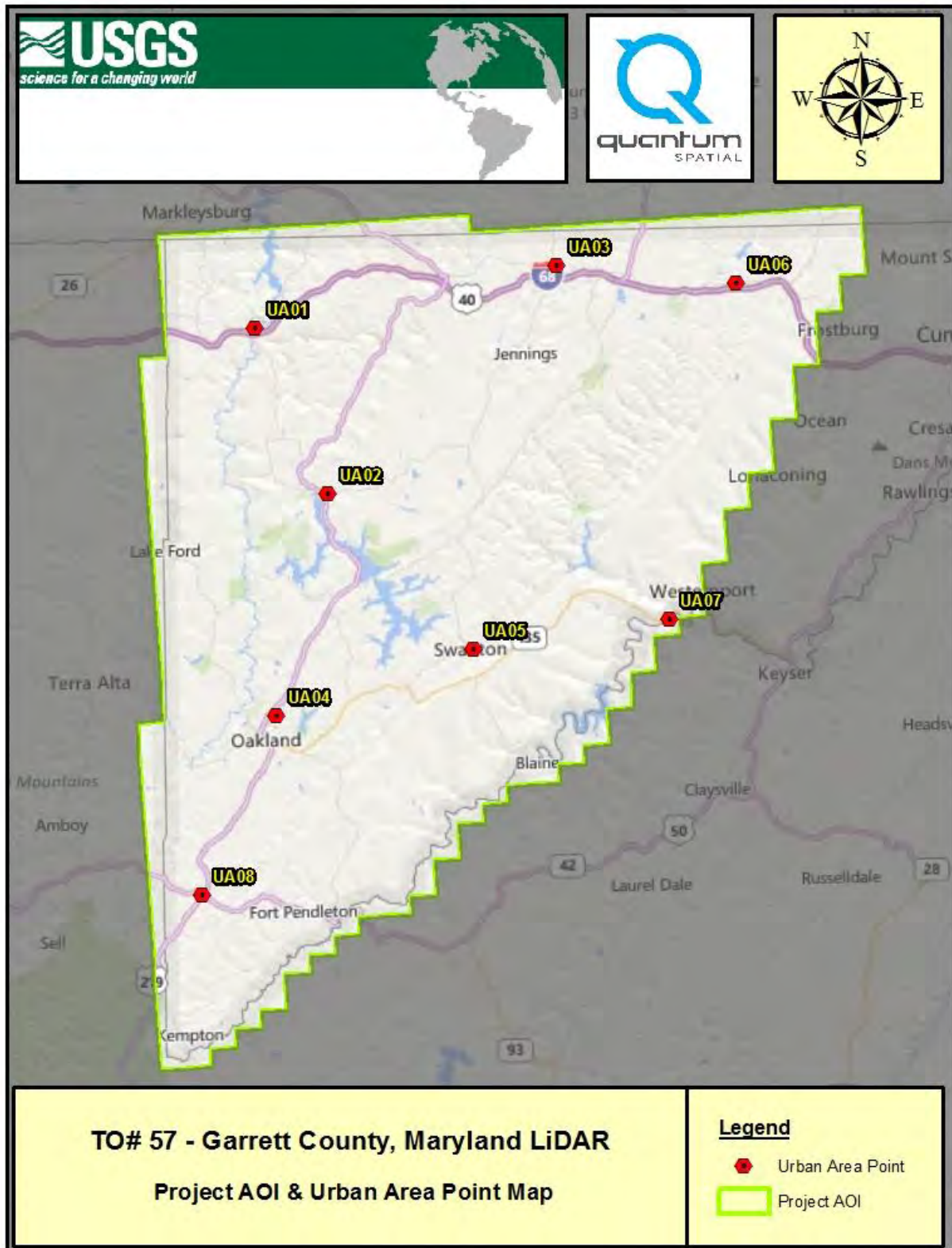














## **FINAL POINT COORDINATES**



### CALIBRATION POINT COORDINATES

Horizontal Datum - NAD83(2011)  
UTM Zone 17 North  
Vertical Datum - NAVD 88  
Geoid - GEOID12A  
Units – Meters

POINT_ID	Northing	Easting	Elevation
CP01	4394463.993	630705.003	706.604
CP02	4396082.696	645117.270	780.278
CP03	4396190.146	658055.096	717.905
CP04	4397000.248	663264.531	814.265
CP05	4395165.662	673591.164	793.255
CP06	4367962.294	630898.929	763.396
CP07	4387854.930	631034.217	709.116
CP08	4384981.441	664611.823	538.458
CP09	4378854.399	659929.398	451.650
CP10	4374415.465	665395.710	627.957
CP11	4373974.734	643401.754	790.980
CP12	4368790.367	640551.131	784.594
CP13	4369943.034	652387.265	747.350
CP14	4371336.769	665756.749	317.616
CP15	4362450.419	640660.481	743.609
CP16	4343715.203	633586.857	856.415
CP17	4340712.817	631151.367	825.227
CP18	4346973.487	632884.629	940.721
CP19	4353494.609	634835.687	752.557
CP20	4382367.691	647390.329	823.394



### BARE EARTH POINT COORDINATES

Horizontal Datum - NAD83(2011)  
UTM Zone 17 North  
Vertical Datum - NAVD 88  
Geoid - GEOID12A  
Units – Meters

POINT_ID	Northing	Easting	Elevation
BE01	4396132.807	631490.331	688.527
BE02	4396257.912	645140.941	781.625
BE03	4395791.768	649248.755	812.254
BE04	4396296.255	657672.465	735.948
BE05	4397057.165	663315.785	813.322
BE06	4391821.336	666064.878	795.938
BE07	4387703.815	631139.562	711.408
BE08	4397017.315	636930.873	564.609
BE09	4387067.198	644328.346	719.774
BE10	4386003.491	653008.235	797.274
BE11	4381388.669	667272.546	798.161
BE12	4375486.964	633222.438	834.673
BE13	4377631.958	651544.263	809.258
BE14	4378827.027	659894.190	451.373
BE15	4374796.098	665044.023	645.766
BE16	4374004.797	643525.774	779.949
BE17	4368866.766	640551.535	786.328
BE18	4370097.964	637465.985	772.943
BE19	4370100.989	652409.047	754.454
BE20	4362418.532	640628.041	741.939
BE21	4340747.358	631018.343	825.301
BE22	4346429.182	632490.738	981.816
BE23	4347831.328	634061.255	859.860
BE24	4350505.657	641853.988	801.461
BE25	4353346.505	635004.437	744.718
BE26	4355625.978	644536.814	853.225
BE27	4382343.511	647455.354	824.228
BE28	4394429.213	654292.899	776.798
BE29	4394988.956	642192.824	722.596
BE30	4366221.709	651569.307	903.000
BE31	4391490.455	660984.307	829.116



BE32	4385342.242	639668.502	774.622
BE33	4389061.953	660993.551	799.604
BE34	4361839.990	649710.512	830.742
BE35	4347962.296	636971.295	821.201
BE36	4367056.280	657479.676	799.342
BE37	4369455.090	661491.318	585.218
BE38	4371165.561	657827.297	845.077
BE39	4358555.666	632081.911	738.919
BE40	4390108.824	670939.378	792.844
BE41	4384727.981	658814.460	759.647
BE42	4362547.497	654990.453	690.681



### FORESTED POINT COORDINATES

Horizontal Datum - NAD83(2011)  
UTM Zone 17 North  
Vertical Datum - NAVD 88  
Geoid - GEOID12A  
Units – Meters

POINT_ID	Northing	Easting	Elevation
FO01	4396138.164	631513.657	688.580
FO02	4396081.227	644986.343	775.559
FO03	4395295.328	673635.821	799.843
FO04	4387674.170	631147.855	710.649
FO05	4387056.087	644390.262	717.482
FO06	4385742.669	652984.287	793.585
FO07	4384999.228	664635.539	536.993
FO08	4377658.185	651509.566	807.997
FO09	4378880.268	659920.976	451.795
FO10	4373989.734	643400.576	793.215
FO11	4368780.702	640619.030	782.825
FO12	4367921.396	630904.447	762.079
FO13	4370033.522	637451.218	773.784
FO14	4370165.634	652374.072	764.065
FO15	4397097.061	663323.144	811.393
FO16	4395819.324	649232.544	809.827
FO17	4362370.447	640735.188	743.695
FO18	4343704.928	633556.239	857.231
FO19	4353270.528	635168.087	746.195
FO20	4382293.249	647404.720	822.750
FO21	4395004.711	642242.013	723.131
FO22	4366300.336	652140.365	874.635
FO23	4391483.836	660951.733	828.537
FO24	4381364.434	667305.644	799.703
FO25	4375508.852	633278.921	841.630
FO26	4385357.865	639655.034	774.198
FO27	4389068.662	660970.759	791.607
FO28	4361800.096	649682.591	828.479





### TALL WEEDS POINT COORDINATES

Horizontal Datum - NAD83(2011)  
UTM Zone 17 North  
Vertical Datum - NAVD 88  
Geoid - GEOID12A  
Units – Meters

POINT_ID	Northing	Easting	Elevation
TW01	4396091.181	631440.371	687.586
TW02	4395253.101	673628.941	797.340
TW03	4387057.898	644362.858	720.455
TW04	4385775.242	652939.352	795.440
TW05	4385002.073	664548.129	539.594
TW06	4374755.908	665120.640	641.497
TW07	4362397.245	640697.407	742.736
TW08	4343726.368	633619.504	854.564
TW09	4385339.206	639536.647	767.456



### URBAN AREAS POINT COORDINATES

Horizontal Datum - NAD83(2011)  
UTM Zone 17 North  
Vertical Datum - NAVD 88  
Geoid - GEOID12A  
Units – Meters

POINT_ID	Northing	Easting	Elevation
UA01	4391743.310	636858.750	455.978
UA02	4380139.178	641955.813	783.603
UA03	4396166.898	657971.944	722.445
UA04	4364614.079	638368.763	784.171
UA05	4369257.646	652132.685	705.772
UA06	4394863.546	670537.330	793.912
UA07	4371349.042	665835.233	315.980
UA08	4351983.403	633144.132	780.344



## **POINT LOCATION & ACCURACY DATA SHEETS**



## **CALIBRATION POINT DATA SHEETS**



Point ID	CP01
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Friendsville

	Aerial Target
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4394463.993	630705.003	706.604

Operator	Rick Ingram
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660553
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	20:34
End Time (UTC)	21:29

**Point Ties:** BE01 - BE07 - GPS 1 - GTY1 - LS08 - P817 - PAFU - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.013

PHOTOS:





Point ID	CP02
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Accident

	Aerial Target
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4396082.696	645117.270	780.278

Operator	ZEKE INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840561
Date (MM-DD-YYYY)	02-25-2015
Start Time (UTC)	1715
End Time (UTC)	1912

**Point Ties:** FO21TP - GPS 1 - FO02TP - BE03 - FO16BS - BE02 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.012

PHOTOS:





Point ID	CP03
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Grantsville

	Aerial Target
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4396190.146	658055.096	717.905

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180562
Date (MM-DD-YYYY)	02-25-2015
Start Time (UTC)	20:31
End Time (UTC)	21:02

**Point Ties:** BE04 - GPS 1 - GTY1 - LS08 - P817 - PAFU - PAGW - PAWG - UA03 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004

**RMSE Z:** 0.012

PHOTOS:





Point ID	CP04
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Avilton

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4397000.248	663264.531	814.265

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180570
Date (MM-DD-YYYY)	02-26-2015
Start Time (UTC)	14:58
End Time (UTC)	1531

**Point Ties:** BE04 - BE05 - BE06 - BE31 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.012

PHOTOS:







Point ID	CP05
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Frostburg

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4395165.662	673591.164	793.255

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180571
Date (MM-DD-YYYY)	02-26-2015
Start Time (UTC)	16:16
End Time (UTC)	1713

**Point Ties:** TW02 - BE05 - BE40 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA06 - WVBR - WVBU - WVCV - WVMF - WVMO - WVN R - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.012

PHOTOS:





Point ID	CP06
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Oakland

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4367962.294	630898.929	763.396

Operator	RICK INGRAM
Receiver Model	Trimble R8 - Model3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660170
Date (MM-DD-YYYY)	01-17-2015
Start Time (UTC)	13:39
End Time (UTC)	14:13

**Point Ties:** F012TP - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:





Point ID	CP07
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Friendsville

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4387854.930	631034.217	709.116

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046450824
Antenna Height	2.000 Meters

Static Session	08240551
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	19:51
End Time (UTC)	20:27

**Point Ties:** FO04TP - BE07 - GPS 1 - GTY1 - LS08 - P817 - PAFU - PAWG - TW09 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS:





Point ID	CP08
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4384981.441	664611.823	538.458

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180540
Date (MM-DD-YYYY)	02-23-2015
Start Time (UTC)	16:08
End Time (UTC)	1640

**Point Ties:** BE14 - CP09 - GTY1 - LOYS - TW05 - WVBU

**RMSE Hz:** 0.007  
**RMSE Z:** 0.013

PHOTOS:





Point ID	CP09
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Bittenger

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4378854.399	659929.398	451.650

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840540
Date (MM-DD-YYYY)	02-23-2015
Start Time (UTC)	16:05
End Time (UTC)	17:06

**Point Ties:** CP08 - BE14 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW05 - WVBR - WVBU - WVCV - WVNR - WVTA

**RMSE Hz:** 0.006

**RMSE Z:** 0.012

PHOTOS:





Point ID	CP10
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Barton

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4374415.465	665395.710	627.957

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180202
Date (MM-DD-YYYY)	01-20-2015
Start Time (UTC)	16:24
End Time (UTC)	20:05

**Point Ties:** FO24BS - CP14 - BE15 - TW06 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBW - WVCV - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.0012

PHOTOS:





Point ID	CP11
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	McHenry

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4373974.734	643401.754	790.980

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5328439860
Antenna Height	2.000 Meters

Static Session	98600590
Date (MM-DD-YYYY)	2-28-2015
Start Time (UTC)	13:40
End Time (UTC)	16:00

**Point Ties:** BE16 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA02 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:





Point ID	CP12
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Deer Park

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4368790.367	640551.131	784.594

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180173
Date (MM-DD-YYYY)	01-17-2015
Start Time (UTC)	21:02
End Time (UTC)	21:33

**Point Ties:** BE17 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.010

PHOTOS:







Point ID	CP13
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Kitzmilller

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4369943.034	652387.265	747.350

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180191
Date (MM-DD-YYYY)	01-19-2015
Start Time (UTC)	15:28
End Time (UTC)	16:08

**Point Ties:** GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA05 - WVBR - WVBU - WVCV - WVMO - WVNR

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:





Point ID	CP14
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Westernport

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4371336.769	665756.749	317.616

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660201
Date (MM-DD-YYYY)	01-20-2015
Start Time (UTC)	14:19
End Time (UTC)	17:06

**Point Ties:** UA07 - BE37 - CP10 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS:





Point ID	CP15
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Deer Park

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4362450.419	640660.481	743.609

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180156
Date (MM-DD-YYYY)	01-15-2015
Start Time (UTC)	18:30
End Time (UTC)	18:51

**Point Ties:** FO22BS - FO22TP - BE42 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW07 - UA05 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:





Point ID	CP16
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Davis

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4343715.203	633586.857	856.415

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5136472526
Antenna Height	2.000 Meters

Static Session	25260140
Date (MM-DD-YYYY)	01-14-15
Start Time (UTC)	17:30
End Time (UTC)	18:01

**Point Ties:** BE21 - CP17 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAGW - PAWG - TW08 - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.007  
**RMSE Z:** 0.013

PHOTOS:





Point ID	CP17
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Davis

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4340712.817	631151.367	825.227

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660140 / 10660141
Date (MM-DD-YYYY)	01-14-2015
Start Time (UTC)	17:59 / 19:37
End Time (UTC)	18:31 / 20:09

**Point Ties:** CP16 - BE21 - BE23 - BE35 - CP18 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW08 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS:





Point ID	CP18
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Table Rock

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4346973.487	632884.629	940.721

Operator	RICK INGRAM
Receiver Model	Trimble R8 - Model3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180141 / 57180150
Date (MM-DD-YYYY)	01-14-2015 / 01-14-2015
Start Time (UTC)	19:20 / 13:04
End Time (UTC)	21:08 / 13:39

**Point Ties:** CP17 - BE22 - BE35 - BE23 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW08 - UA08 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:





Point ID	CP19
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	Table Rock

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4353494.609	634835.687	752.557

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180153
Date (MM-DD-YYYY)	01-15-2015
Start Time (UTC)	15:03
End Time (UTC)	15:23

**Point Ties:** BE24 - BE26 - GPS 1 - GTY1 - P817 - PAFU - PAGW - UA08 - WVBR - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.007  
**RMSE Z:** 0.012

PHOTOS:





Point ID	CP20
Project No.	25442
Project Name	Garrett County, Maryland LiDAR
State	Maryland
County	Garrett
Quad	McHenry

Aerial Target	
X	LiDAR Ground Control
	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4382367.691	647390.329	823.394

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840550
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	14:41
End Time (UTC)	15:03

Point Ties: BE27 - GPS 1 - GTY1 - P817 - PAWG - WVBU - WVCV - WVMF - WVNR - WVTA

RMSE Hz: 0.006  
RMSE Z: 0.011

PHOTOS:







## **BARE EARTH POINT DATA SHEETS**



Point ID	BE01
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Friendsville

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4396132.807	631490.331	688.527

Operator	Rick Ingram
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106460824
Antenna Height	2.000 Meters

Static Session	08240552
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	20:48
End Time (UTC)	21:26

Point Ties: TW01 - BE07 - CP01 - GTY1 - LS08 - P817 - PAFU - PAWG - WVBR - WVBU - WVMF - WVNR - WVTA

RMSE Hz: 0.006

RMSE Z: 0.014

PHOTOS: Centerline of Drive @ Road





Point ID	BE02
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Accident

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4396257.912	645140.941	781.625

Operator	ZEKE INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5329440824
Antenna Height	2.000 Meters

Static Session	08240560
Date (MM-DD-YYYY)	2-25-2015
Start Time (UTC)	1730
End Time (UTC)	1802

**Point Ties:** CP02 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVN R - WVTA

**RMSE Hz:** 0.004

**RMSE Z:** 0.012

PHOTOS: Centerline of Road @ Centerline of Road





Point ID	BE03
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Accident

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4395791.768	649248.755	812.254

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	5718056
Date (MM-DD-YYYY)	02-25-2015
Start Time (UTC)	18:30
End Time (UTC)	20:09

**Point Ties:** FO02TP - FO16BS - CP02 - GTY1 - PAFU

**RMSE Hz:** 0.007  
**RMSE Z:** 0.017

PHOTOS: Center of Gravel Cul-de-sac





Point ID	BE04
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Grantsville

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4396296.255	657672.465	735.948

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840570
Date (MM-DD-YYYY)	02-26-2015
Start Time (UTC)	14:06
End Time (UTC)	15:40

**Point Ties:** BE06 - CP04 - UA03 - CP03 - BE05 - BE28 - BE31 - FO16BS - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.012

PHOTOS:





Point ID	BE05
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Avilton

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4397057.165	663315.785	813.322

Operator	ZEKE INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5329440824
Antenna Height	2.000 Meters

Static Session	08240570
Date (MM-DD-YYYY)	02-26-2015
Start Time (UTC)	14:44
End Time (UTC)	1658

**Point Ties:** BE40 - BE31 - CP05 - CP04 - GPS 1 - UA06 - BE04 - TW02 - BE06 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004

**RMSE Z:** 0.012

PHOTOS:





Point ID	BE06
Project No.	25422
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garret
Quad	Avilton

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4391821.336	666064.878	795.938

Operator	Steve Miller
Receiver Model	Trimble R8 - Model 4
Receiver S/N	5407453971
Antenna Height	2.000 Meters

Static Session	39710571
Date (MM-DD-YYYY)	02-26-2015
Start Time (UTC)	14:28
End Time (UTC)	14:58

**Point Ties:** BE05 - CP04 - BE04 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA06 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.012

PHOTOS:





Point ID	BE07
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	McHenry

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4387703.815	631139.562	711.408

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180551
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	19:14
End Time (UTC)	22:43

**Point Ties:** CP07 - FO04TP - GPS 1 - BE08 - CP01 - TW09 - UA01 - BE01 - TW01 - GTY1 - LS08 - P817 - PAFU - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVN R - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS:







Point ID	BE08
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Friendsville

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4397017.315	636930.873	564.609

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660554
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	21:50
End Time (UTC)	22:21

**Point Ties:** BE07 - GPS 1 - GTY1 - PAFU - PAWG - UA01 - WVBR - WVBU - WVMF

**RMSE Hz:** 0.007  
**RMSE Z:** 0.014

PHOTOS: Center of Gravel Turn Around





Point ID	BE09
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	McHenry

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4387067.198	644328.346	719.774

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660551
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	16:50
End Time (UTC)	17:23

**Point Ties:** GPS 1 - GTY1 - LS08 - P817 - PAFU - PAWG - TW03 - TW04 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006

**RMSE Z:** 0.011

**PHOTOS:**





Point ID	BE10
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Bittinger

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4386003.491	653008.235	797.274

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840552
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	15:54
End Time (UTC)	16:15

**Point Ties:** BE27 - GPS 1 - GTY1 - PAFU - PAWG - TW04 - WVBU - WVCV - WVMF - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS:





Point ID	BE11
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Barton

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
X Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4381388.669	667272.546	798.161

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180203
Date (MM-DD-YYYY)	01-20-2015
Start Time (UTC)	20:22
End Time (UTC)	20:44

**Point Ties:** FO24BS - GPS 1 - GTY1 - LOYS - P817 - PAFU - PAGW - PAWG - WVBU - WVCV - WVMO - WVNR – WVTA

**RMSE Hz:** 0.006

**RMSE Z:** 0.012

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE12
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Sang Run

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4375486.964	633222.438	834.673

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180171
Date (MM-DD-YYYY)	01-17-2015
Start Time (UTC)	16:02
End Time (UTC)	16:34

**Point Ties:** FO25TP - GPS 1 - GTY1 - LOYS - LS08 - PAGW - WVCV - WVTA

**RMSE Hz:** 0.007

**RMSE Z:** 0.012

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE13
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Bittenger

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4377631.958	651544.263	809.258

Operator	Rick Ingram
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461884
Antenna Height	2.000 Meters

Static Session	18840541
Date (MM-DD-YYYY)	02-23-2015
Start Time (UTC)	17:40
End Time (UTC)	20:07

**Point Ties:** BE14 - FO27TP - BE16 - BE41 - FO08BS - BE33 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVNR - WVTA

**RMSE Hz:** 0.004

**RMSE Z:** 0.011

PHOTOS:





Point ID	BE14
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Bittenger

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4378827.027	659894.190	451.373

Operator	Rick Ingram
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106460824
Antenna Height	2.000 Meters

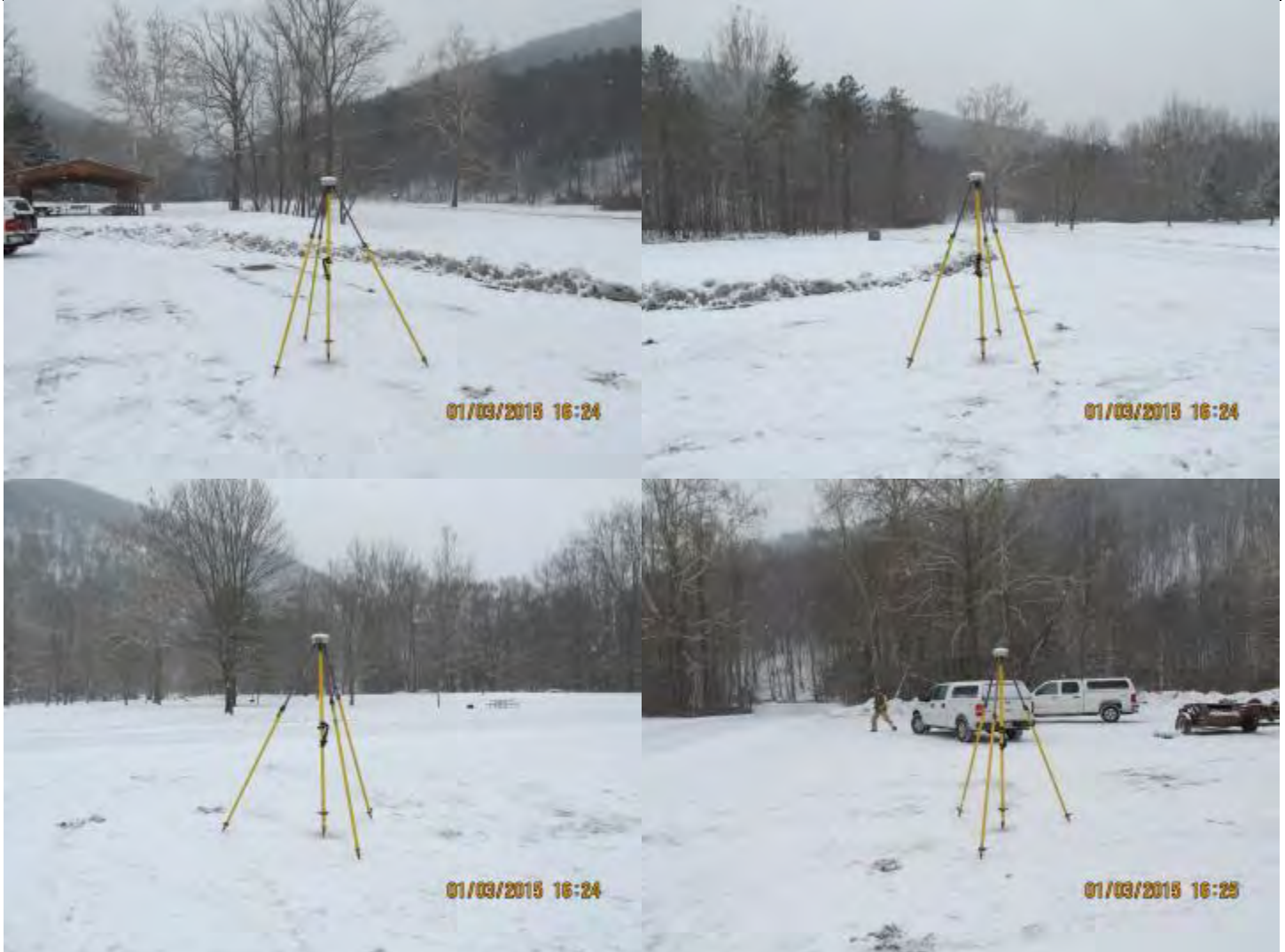
Static Session	08240540
Date (MM-DD-YYYY)	02-23-2015
Start Time (UTC)	15:58
End Time (UTC)	18:10

**Point Ties:** CP09 - TW05 - CP08 - BE13 - BE41 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVNR – WVTA

**RMSE Hz:** 0.005

**RMSE Z:** 0.011

PHOTOS:





Point ID	BE15
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Barton

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4374796.098	665044.023	645.766

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

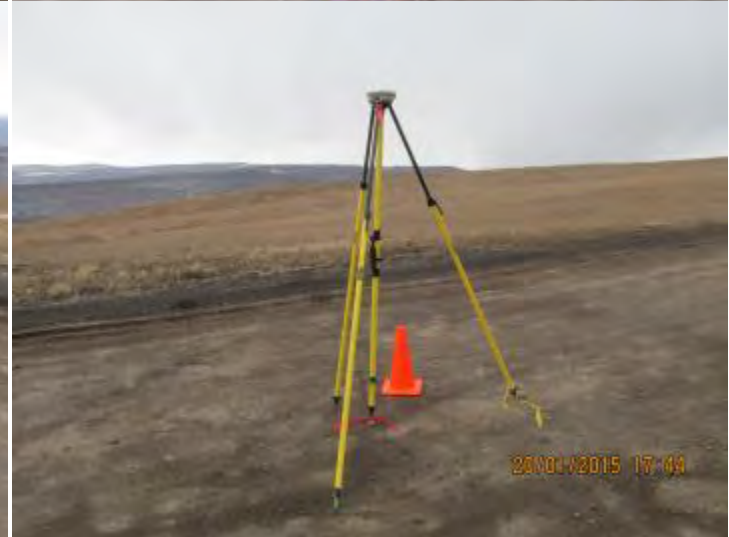
Static Session	10660202
Date (MM-DD-YYYY)	01-20-2015
Start Time (UTC)	17:42
End Time (UTC)	18:08

**Point Ties:** CP10 - GPS 1 - GTY1 - LS08 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMO - WVNR - WVTA

**RMSE Hz:** 0.007

**RMSE Z:** 0.012

PHOTOS: Apex of Road Intersection







Point ID	BE16
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	McHenry

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4374004.797	643525.774	779.949

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5407453971
Antenna Height	2.000 Meters

Static Session	39710590
Date (MM-DD-YYYY)	2-28-2015
Start Time (UTC)	14:20
End Time (UTC)	

**Point Ties:** BE27 - CP11 - UA02 - BE13 - BE41 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.010

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE17
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Deer Park

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4368866.766	640551.535	786.328

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660173 / 10660190
Date (MM-DD-YYYY)	01-17-2015 / 01-19-2015
Start Time (UTC)	19:45 / 13:34
End Time (UTC)	20:41 / 14:55

**Point Ties:** CP12 - BE18 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA05 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.010

PHOTOS:





Point ID	BE18
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Oakland

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4370097.964	637465.985	772.943

Operator	RICK INGRAM
Receiver Model	Trimble R8 - Model3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180172
Date (MM-DD-YYYY)	01-17-2015
Start Time (UTC)	17:26
End Time (UTC)	20:29

**Point Ties:** BE17 - FO13TP - FO25TP - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.010

PHOTOS:





Point ID	BE19
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Kitzmilller

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4370100.989	652409.047	754.454

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180192
Date (MM-DD-YYYY)	01-19-2015
Start Time (UTC)	16:15
End Time (UTC)	16:59

**Point Ties:** GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA05 - WVBR - WVBU - WVCV - WVMO - WVNR

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:





Point ID	BE20
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Deer Park

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4362418.532	640628.041	741.939

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180155
Date (MM-DD-YYYY)	01-15-2015
Start Time (UTC)	17:58
End Time (UTC)	18:21

**Point Ties:** BE42 - FO28BS - GPS 1 - GTY1 - LS08 - PAGW - TW07 - WVBR - WVBU - WVCV - WVMF - WVN R - WVTA

**RMSE Hz:** 0.006

**RMSE Z:** 0.011

**PHOTOS:**





Point ID	BE21
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Davis

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4340747.358	631018.343	825.301

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57183160
Date (MM-DD-YYYY)	01-14-2015
Start Time (UTC)	17:42
End Time (UTC)	18:35

**Point Ties:** CP17 - CP16 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW08 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.007  
**RMSE Z:** 0.012

PHOTOS:





Point ID	BE22
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Table Rock

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4346429.182	632490.738	981.816

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660142
Date (MM-DD-YYYY)	01-14-2015
Start Time (UTC)	20:44
End Time (UTC)	21:00

**Point Ties:** CP18 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVCV - WVMF - WVNR - WVTA

**RMSE Hz:** 0.007

**RMSE Z:** 0.012

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE23
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Table Rock

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4347831.328	634061.255	859.860

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5136472526
Antenna Height	2.000 Meters

Static Session	25260141
Date (MM-DD-YYYY)	01-14-15
Start Time (UTC)	18:54
End Time (UTC)	20:33

**Point Ties:** BE35 - CP17 - CP18 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW08 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS: Centerline of Drive @ Centerline of Drive







Point ID	BE24
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Gorman

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4350505.657	641853.988	801.461

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5133470976
Antenna Height	2.000 Meters

Static Session	09760150
Date (MM-DD-YYYY)	01-15-15
Start Time (UTC)	14:00
End Time (UTC)	15:35

**Point Ties:** BE26 - BE25 - FO19TP - CP19 - BE35 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA08  
 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

**PHOTOS:**





Point ID	BE25
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Table Rock

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4353346.505	635004.437	744.718

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180151
Date (MM-DD-YYYY)	01-15-2015
Start Time (UTC)	14:05
End Time (UTC)	14:26

**Point Ties:** BE24 - BE35 - GPS 1 - GTY1 - PAGW - UA08 - WVBR - WVCV - WVMF - WVMO - WVTA

**RMSE Hz:** 0.007

**RMSE Z:** 0.012

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE26
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Gorman

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4355625.978	644536.814	853.225

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5136472526
Antenna Height	2.000 Meters

Static Session	25260151
Date (MM-DD-YYYY)	01-15-15
Start Time (UTC)	15:04
End Time (UTC)	16:34

**Point Ties:** CP19 - BE34 - BE24 - BE39 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA08 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE27
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4382343.511	647455.354	824.228

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660543
Date (MM-DD-YYYY)	02-23-2015
Start Time (UTC)	20:32
End Time (UTC)	21:33

**Point Ties:** BE10 - UA02 - CP20 - BE16 - BE41 - GPS 1 - GTY1 - LS08 - P817 - PAFU - PAGW - PAWG - TW04 - WVBR - WVBU - WVCV - WVMF - WVNR - WVTA

**RMSE Hz:** 0.004

**RMSE Z:** 0.011

PHOTOS:





Point ID	BE28
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Grantsville

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4394429.213	654292.899	776.798

Operator	Zeke Ingram
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461884
Antenna Height	2.000 Meters

Static Session	18840630
Date (MM-DD-YYYY)	03-04-2015
Start Time (UTC)	18:10
End Time (UTC)	19:10

**Point Ties:** UA03 - BE04 - LOYS - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR – WVTA

**RMSE Hz:** 0.005

**RMSE Z:** 0.013

**PHOTOS: End of Median**





Point ID	BE29
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Accident

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4394988.956	642192.824	722.596

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660560
Date (MM-DD-YYYY)	02-25-2015
Start Time (UTC)	16:12
End Time (UTC)	17:11

**Point Ties:** UA01 - FO21TP - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVNR – WVTA

**RMSE Hz:** 0.005

**RMSE Z:** 0.012

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE30
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Kitzmilller

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4366221.709	651569.307	903.000

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5136472526
Antenna Height	2.000 Meters

Static Session	25260153
Date (MM-DD-YYYY)	01-15-15
Start Time (UTC)	19:09
End Time (UTC)	20:09

**Point Ties:** BE42 - BS30 BS - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW07 - UA04 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:





Point ID	BE31
Project No.	25422
Project Name	Garrett co
State	Maryland
County	Garret
Quad	Avilton

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4391490.455	660984.307	829.116

Operator	Steve Miller
Receiver Model	Trimble R8 - Model 4
Receiver S/N	5407453971
Antenna Height	2.000 Meters

Static Session	39710570
Date (MM-DD-YYYY)	02-26-2015
Start Time (UTC)	13:25
End Time (UTC)	14:00

**Point Ties:** GPS 1 - BE04 - CP04 - BE05 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBW - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.011

PHOTOS:







Point ID	BE32
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Sang Run

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4385342.242	639668.502	774.622

Operator	Zeke Ingram
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106460824
Antenna Height	2.000 Meters

Static Session	08240550
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	18:14
End Time (UTC)	18:55

**Point Ties:** GPS 1 - GTY1 - LS08 - PAFU - PAWG - TW03 - TW09 - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE33
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Avilton

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4389061.953	660993.551	799.604

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660541
Date (MM-DD-YYYY)	02-23-2015
Start Time (UTC)	18:20
End Time (UTC)	18:53

**Point Ties:** BE13 - BE41 - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVN R - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS:





Point ID	BE34
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Deer Park

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4361839.990	649710.512	830.742

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5133470976
Antenna Height	2.000 Meters

Static Session	09760151
Date (MM-DD-YYYY)	01-15-15
Start Time (UTC)	16:03
End Time (UTC)	17:20

**Point Ties:** F028BS - BE26 - BE39 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW07 - UA08 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:





Point ID	BE35
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Table Rock

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4347962.296	636971.295	821.201

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5133470976 / 5136472526
Antenna Height	2.000 Meters

Static Session	09760141 / 25260150
Date (MM-DD-YYYY)	01-14-15 / 01-15-2015
Start Time (UTC)	19:45 / 13:35
End Time (UTC)	20:18 / 14:31

**Point Ties:** CP17 - BE25 - BE23 - BE24 - CP18 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA08 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS: Centerline of Drive @ Curve Midpoint





Point ID	BE36
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Kitzmilller

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4367056.280	657479.676	799.342

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5136472526 / 5046455718
Antenna Height	2.000 Meters

Static Session	25260154 / 57180193
Date (MM-DD-YYYY)	01-15-15 / 01-19-2015
Start Time (UTC)	20:31 / 17:37
End Time (UTC)	21:16 / 19:26

**Point Ties:** BE38 - FO12TP - BS30 BS - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA04 - UA05 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.011

PHOTOS:





Point ID	BE37
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Westernport

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4369455.090	661491.318	585.218

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180200
Date (MM-DD-YYYY)	01-20-2015
Start Time (UTC)	13:27
End Time (UTC)	15:04

**Point Ties:** BE38 - CP14 - GPS 1 - GTY1 - LOYS - P817 - PAGW - WVBR - WVCV - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006

**RMSE Z:** 0.014

PHOTOS: End of Drives @ Road





Point ID	BE38
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Kitzmilller

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4371165.561	657827.297	845.077

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660192 / 10660200
Date (MM-DD-YYYY)	01-19-2015 / 01-20-2015
Start Time (UTC)	18:41 / 13:10
End Time (UTC)	19:53 / 14:02

**Point Ties:** BE36 - BE37 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS: Centerline of Road @ Centerline of Drive





Point ID	BE39
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Davis

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4358555.666	632081.911	738.919

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180154
Date (MM-DD-YYYY)	01-15-2015
Start Time (UTC)	15:42
End Time (UTC)	17:28

**Point Ties:** F028BS - BE34 - BE26 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW07 - UA08 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS: Centerline of Drive @ Centerline of Drive







Point ID	BE40
Project No.	25422
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garret
Quad	Avilton

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4390108.824	670939.378	792.844

Operator	Steve Miller
Receiver Model	Trimble R8 - Model 4
Receiver S/N	5407453971
Antenna Height	2.000 Meters

Static Session	39710572
Date (MM-DD-YYYY)	02-26-2015
Start Time (UTC)	15:25
End Time (UTC)	15:55

**Point Ties:** CP05 - TW02 - UA06 - BE05 - GPS 1 - GTY1 - LOYS - LS08 - PAGW - WVBR - WVBU - WVMF

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS:





Point ID	BE41
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Bittenger

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4384727.981	658814.460	759.647

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 – MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180541
Date (MM-DD-YYYY)	02-23-2015
Start Time (UTC)	17:23
End Time (UTC)	21:12

**Point Ties:** FO27TP - BE16 - FO08BS - TW05 - BE33 - BE14 - BE27 - BE13 - GTY1 - LOYS - LS08 - P817 - PAFU - PAWG - PAWG - WVBR - WVBU - WVCV - WVNR - WVTA

**RMSE Hz:** 0.004

**RMSE Z:** 0.011

PHOTOS:





Point ID	BE42
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Kitzmilller

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
X Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4362547.497	654990.453	690.681

Operator	Kevin Chapman
Receiver Model	Trimble R8 - Model 3
Receiver S/N	5133470976
Antenna Height	2.000 Meters

Static Session	09760152
Date (MM-DD-YYYY)	01-15-15
Start Time (UTC)	17:42
End Time (UTC)	19:40

**Point Ties:** CP15 - FO28BS - BE20 - BE30 - GTY1 - PAGW - UA04 - WVCV - WVMO

**RMSE Hz:** 0.007

**RMSE Z:** 0.013

PHOTOS: Centerline of Drive @ Curve Midpoint





## **FORESTED AREA POINT DATA SHEETS**



Point ID	FO01
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Friendsville

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4396138.164	631513.657	688.580

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-29-2015
Occupy PT	BE01
Back Sight PT	TW01
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO02
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Accident

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4396081.227	644986.343	775.559

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-28-2015
Occupy PT	FO02TP
Back Sight PT	CP02
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO03
Project No.	25422
Project Name	Garrett Co. MD
State	Maryland
County	Garret
Quad	Frostburge

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4395295.328	673635.821	799.843

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	02-26-2015
Occupy PT	TW02
Back Sight PT	CP05
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO04
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Friendsville

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4387674.170	631147.855	710.649

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-28-2015
Occupy PT	BE07
Back Sight PT	FO04TP
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:







Point ID	FO05
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	McHenry

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4387056.087	644390.262	717.482

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	02-28-2015
Occupy PT	TW03
Back Sight PT	BE09
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO06
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Bittenger

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4385742.669	652984.287	793.585

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	3-1-2015
Occupy PT	TW04
Back Sight PT	BE10
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO07
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Barton

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4384999.228	664635.539	536.993

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2015
Occupy PT	CP08
Back Sight PT	TW05
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO08
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Bittinger

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4377658.185	651509.566	807.997

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	3-3-2015
Occupy PT	BE13
Back Sight PT	FO08TP
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO09
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Bittenger

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4378880.268	659920.976	451.795

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-29-2015
Occupy PT	BE14
Back Sight PT	CP09
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO10
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	McHenry

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4373989.734	643400.576	793.215

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-28-2015
Occupy PT	CP11
Back Sight PT	BE16
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO11
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Deer Park

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4368780.702	640619.030	782.825

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-29-2015
Occupy PT	CP12
Back Sight PT	BE17
RMSE Hz	0.010
RMSE Z	0.030

PHOTOS:





Point ID	FO12
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Oakland

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4367921.396	630904.447	762.079

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	02-28-2015
Occupy PT	FO12TP
Back Sight PT	CP06
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:







Point ID	FO13
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Oakland

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4370033.522	637451.218	773.784

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-29-2015
Occupy PT	FO13TP
Back Sight PT	BE18
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO14
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Kitzmilller

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4370165.634	652374.072	764.065

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	3-3-2015
Occupy PT	BE19
Back Sight PT	CP13
RMSE Hz	0.020
RMSE Z	0.020

PHOTOS:





Point ID	FO15
Project No.	25422
Project Name	Garrett Co. MD
State	Maryland
County	Garret
Quad	Avilton

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4397097.061	663323.144	811.393

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	02-26-2015
Occupy PT	BE05
Back Sight PT	CP04
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO16
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Accident

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4395819.324	649232.544	809.827

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	3-3-2015
Occupy PT	BE03
Back Sight PT	FO16TP
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO17
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Deer Park

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4362370.447	640735.188	743.695

Operator	Kevin Chapman
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	01-16-2015
Occupy PT	TW07
Back Sight PT	BE20
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO18
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Davis

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4343704.928	633556.239	857.231

Operator	Kevin Chapman
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	01-16-2015
Occupy PT	CP16
Back Sight PT	TW08
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO19
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Table Rock

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4353270.528	635168.087	746.195

Operator	Kevin Chapman
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	01-16-2015
Occupy PT	TP19
Back Sight PT	BE25
RMSE Hz	0.020
RMSE Z	0.030

PHOTOS:





Point ID	FO20
Project No.	25442
Project Name	Garrett Co. Maryland
State	Maryland
County	Garrett
Quad	McHenry

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4382293.249	647404.720	822.750

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	3-3-2015
Occupy PT	BE27
Back Sight PT	CP20
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:







Point ID	FO21
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Accident

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4395004.711	642242.013	723.131

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-28-2015
Occupy PT	FO21TP
Back Sight PT	BE29
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO22
Project No.	25442
Project Name	Garrett Co. Maryland
State	Maryland
County	Garrett
Quad	Kittzmiller

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 18N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4366300.336	652140.365	874.635

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	3-3-2015
Occupy PT	FO22TP
Back Sight PT	FO22BS
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO23
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Avilton

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4391483.836	660951.733	828.537

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	02-26-2015
Occupy PT	FO23TP
Back Sight PT	BE31
RMSE Hz	0.010
RMSE Z	0.030

PHOTOS:





Point ID	FO24
Project No.	25442
Project Name	Garrett Co. Maryland
State	Maryland
County	Garrett
Quad	Barton

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 18N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4381427.98	667169.45	804.14

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	3-3-2015
Occupy PT	FO24TP
Back Sight PT	BE11
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO25
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	Sang Run

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 18N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4375508.852	633278.921	841.630

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2015
Occupy PT	F025TP
Back Sight PT	BE12
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO26
Project No.	25442
Project Name	Garrett Co. MD
State	Maryland
County	Garrett
Quad	McHenry

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	
NAD83(2011)	
UTM – Zone 18N	
NAVD88	
GEOID12A	
Meters	

Northing	Easting	Elevation
4385357.865	639655.034	774.198

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	2-28-2015
Occupy PT	BE32
Back Sight PT	TW09
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO27
Project No.	25422
Project Name	Garret Co
State	Maryland
County	Garret
Quad	Avilton

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 18N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4389068.662	660970.759	791.607

Operator	Zeke Ingram
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	02-26-2015
Occupy PT	BE33
Back Sight PT	FO27BS
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:





Point ID	FO28
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Deer Park

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4389016.106	661000.420	791.134

Operator	Kevin Chapman
Instrument Model	Trimble M3 2"
Date (MM-DD-YYYY)	01-16-2015
Occupy PT	BE34BS
Back Sight PT	BE34
RMSE Hz	0.010
RMSE Z	0.020

PHOTOS:







## **TALL WEEDS POINT DATA SHEETS**



Point ID	TW01
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Friendsville

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4396091.181	631440.371	687.586

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5106461884
Antenna Height	2.000 Meters

Static Session	18840555
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	20:55
End Time (UTC)	21:27

**Point Ties:** BE01 - BE07 - CP01 - GPS 1 - GTY1 - LS08 - P817 - PAWG - WVBU - WVCV - WVMF - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.014

PHOTOS:



West Picture Missing



Point ID	TW02
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Frostburg

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4395253.101	673628.941	797.340

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	1066055
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	1626
End Time (UTC)	1722

**Point Ties:** BE05 - BE40 - CP05 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - UA06 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.012

PHOTOS:





Point ID	TW03
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	McHenry

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4387057.898	644362.858	720.455

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840550
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	16:50
End Time (UTC)	19:09

**Point Ties:** BE32 - TW09 - TW04 - BE09 - GPS 1 - GTY1 - LS08 - P817 - PAFU - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.011

PHOTOS:





Point ID	TW04
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Bittinger

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4385775.242	652939.352	795.440

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180550
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	15:45
End Time (UTC)	17:42

**Point Ties:** BE09 - BE27 - BE10 - GPS 1 - GTY1 - LS08 - P817 - PAFU - PAWG - TW03 - WVBR - WVBU - WVCV - WVMF - WVNR - WVTA

**RMSE Hz:** 0.005  
**RMSE Z:** 0.011

PHOTOS:





Point ID	TW05
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Barton

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4385002.073	664548.129	539.594

Operator	RICK INGRAM
Receiver Model	Trimble R8 - Model3
Receiver S/N	5046455718 / 5106461066
Antenna Height	2.000 Meters

Static Session	57180204 / 10660540
Date (MM-DD-YYYY)	01-20-2015 / 02-23-2015
Start Time (UTC)	21:02 / 15:58
End Time (UTC)	21:58 / 17:56

**Point Ties:** CP09 - CP08 - BE14 - BE41 - FO24BS - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.011

PHOTOS:





Point ID	TW06
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Barton

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4374755.908	665120.640	641.497

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660203
Date (MM-DD-YYYY)	01-20-2015
Start Time (UTC)	18:24
End Time (UTC)	18:56

**Point Ties:** CP10 - GPS 1 - GTY1 - LOYS - LS08 - PAGW - WVBR - WVBU - WVCV - WVNR - WVTA

**RMSE Hz:** 0.006

**RMSE Z:** 0.012

PHOTOS:





Point ID	TW07
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Deer Park

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4362397.245	640697.407	742.736

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660151
Date (MM-DD-YYYY)	01-15-2015
Start Time (UTC)	16:51
End Time (UTC)	20:03

**Point Ties:** BE20 - CP15 - BE30 - UA04 - BE34 - FO28BS - BE39 - BS30 BS - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.010

PHOTOS:







Point ID	TW08
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	Davis

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4343726.368	633619.504	854.564

Operator	Kevin Chapman
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5133470976
Antenna Height	2.000 Meters

Static Session	09760140
Date (MM-DD-YYYY)	01-14-15
Start Time (UTC)	17:27
End Time (UTC)	19:25

**Point Ties:** CP16 - CP17 - CP18 - BE23 - BE21 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.012

PHOTOS:





Point ID	TW09
Project No.	25442
Project Name	Garrett County Maryland LiDAR
State	Maryland
County	Garrett
Quad	McHenry

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4385339.206	639536.647	767.456

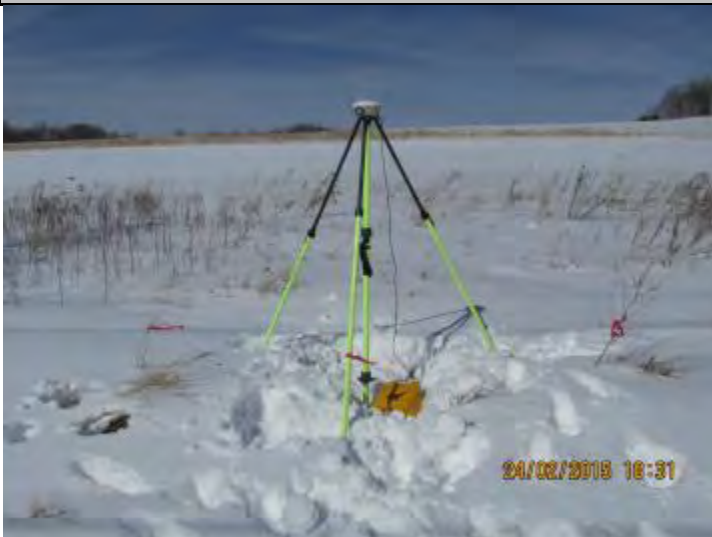
Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660552
Date (MM-DD-YYYY)	02-24-2015
Start Time (UTC)	18:23
End Time (UTC)	19:59

**Point Ties:** CP07 - BE32 - BE07 - GPS 1 - GTY1 - LS08 - P817 - PAFU - PAWG - TW03 - WVBR - WVBU - WVCV - WVMF - WVNR - WVTA

**RMSE Hz:** 0.005  
**RMSE Z:** 0.012

PHOTOS:





## **URBAN AREA POINT DATA SHEETS**



Point ID	UA01
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Friendsville

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

Northing	Easting	Elevation
4391743.310	636858.750	455.978

Operator	Zeke Ingram
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840560
Date (MM-DD-YYYY)	02-25-2015
Start Time (UTC)	15:36
End Time (UTC)	16:41

**Point Ties:** BE08 - BE07 - BE29 - F021TP - GPS 1 - GTY1 - LS08 - PAFU - WVBU - WVTA

**RMSE Hz:** 0.007  
**RMSE Z:** 0.013

PHOTOS: Centerline of Road @ Centerline of Road





Point ID	UA02
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	McHenry

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4380139.178	641955.813	783.603

Operator	Rick Ingram
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180590
Date (MM-DD-YYYY)	2-28-2015
Start Time (UTC)	12:55
End Time (UTC)	17:26

**Point Ties:** BE16 - CP11 - BE27 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.010

PHOTOS:





Point ID	UA03
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Granstville

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4396166.898	657971.944	722.445

Operator	Zeke Ingram
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840562
Date (MM-DD-YYYY)	02-25-2015
Start Time (UTC)	19:45
End Time (UTC)	20:33

**Point Ties:** CP03 - BE04 - BE28 - FO16BS - GPS 1 - GTY1 - LOYS - LS08 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.012

PHOTOS: Center of Cul-De-Sac





Point ID	UA04
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Oakland

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System
NAD83(2011)
UTM – Zone 17N
NAVD88
GEOID12A
Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4364614.079	638368.763	784.171

Operator	Rick Ingram
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180157
Date (MM-DD-YYYY)	01-15-2015
Start Time (UTC)	19:23
End Time (UTC)	21:34

**Point Ties:** BE30 - BS30 BS - FO12TP - BE36 - BE42 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - TW07 - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS: Center of Cul-De-Sac





Point ID	UA05
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Kitzmilller

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4369257.646	652132.685	705.772

Operator	RICK INGRAM
Receiver Model	Trimble R8 - Model3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660190 / 10660191
Date (MM-DD-YYYY)	01-19-2015
Start Time (UTC)	14:12 / 17:20
End Time (UTC)	17:15 / 18:08

**Point Ties:** BE36 - GPS 1 - FO22BS - FO22TP - CP13 - BE17 - BE19 - CP15 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.010

PHOTOS:







Point ID	UA06
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Avilton

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	
NAD83(2011)	
UTM – Zone 17N	
NAVD88	
GEOID12A	
Meters	

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4394863.546	670537.330	793.912

Operator	RICK INGRAM
Receiver Model	TRIMBLE R8 - MODEL 3
Receiver S/N	5108461884
Antenna Height	2.000 Meters

Static Session	18840571
Date (MM-DD-YYYY)	02-26-2015
Start Time (UTC)	15:59
End Time (UTC)	17:08

**Point Ties:** BE06 - CP05 - TW02 - BE05 - BE40 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.004  
**RMSE Z:** 0.012

PHOTOS:





Point ID	UA07
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Westernport

	Aerial Target
	LiDAR Ground Control
X	LiDAR QC Point
	New Control
X	Photo ID
	Published Control

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4371349.042	665835.233	315.980

Operator	RICK INGRAM
Receiver Model	Trimble R8 - Model3
Receiver S/N	5046455718
Antenna Height	2.000 Meters

Static Session	57180201
Date (MM-DD-YYYY)	01-20-2015
Start Time (UTC)	15:26
End Time (UTC)	15:48

**Point Ties:** CP14 - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBU - WVMO - WVNR - WVTA

**RMSE Hz:** 0.007

**RMSE Z:** 0.013

PHOTOS: Centerline of Road @ Centerline of Road





Point ID	UA08
Project No.	25442
Project Name	Garrett County, MD QL2 LiDAR
State	Maryland
County	Garrett
Quad	Table Rock

Aerial Target	
LiDAR Ground Control	
X LiDAR QC Point	
New Control	
Photo ID	
Published Control	

Coordinate System	NAD83(2011)
	UTM – Zone 17N
	NAVD88
	GEOID12A
	Meters

<b>Northing</b>	<b>Easting</b>	<b>Elevation</b>
4351983.403	633144.132	780.344

Operator	RICK INGRAM
Receiver Model	Trimble R8 – Model 3
Receiver S/N	5106461066
Antenna Height	2.000 Meters

Static Session	10660150
Date (MM-DD-YYYY)	01-15-2015
Start Time (UTC)	12:42
End Time (UTC)	16:21

**Point Ties:** BE35 - BE26 - BE24 - BE25 - CP18 - BE34 - CP19 - BE39 - FO19TP - GPS 1 - GTY1 - LOYS - LS08 - P817 - PAFU - PAGW - PAWG - WVBR - WVBU - WVCV - WVMF - WVMO - WVNR - WVTA

**RMSE Hz:** 0.006  
**RMSE Z:** 0.011

PHOTOS:

