



## **FUGRO EARTHDATA, INC.**

### **Collection Report – USGS Lidar Acquisition**

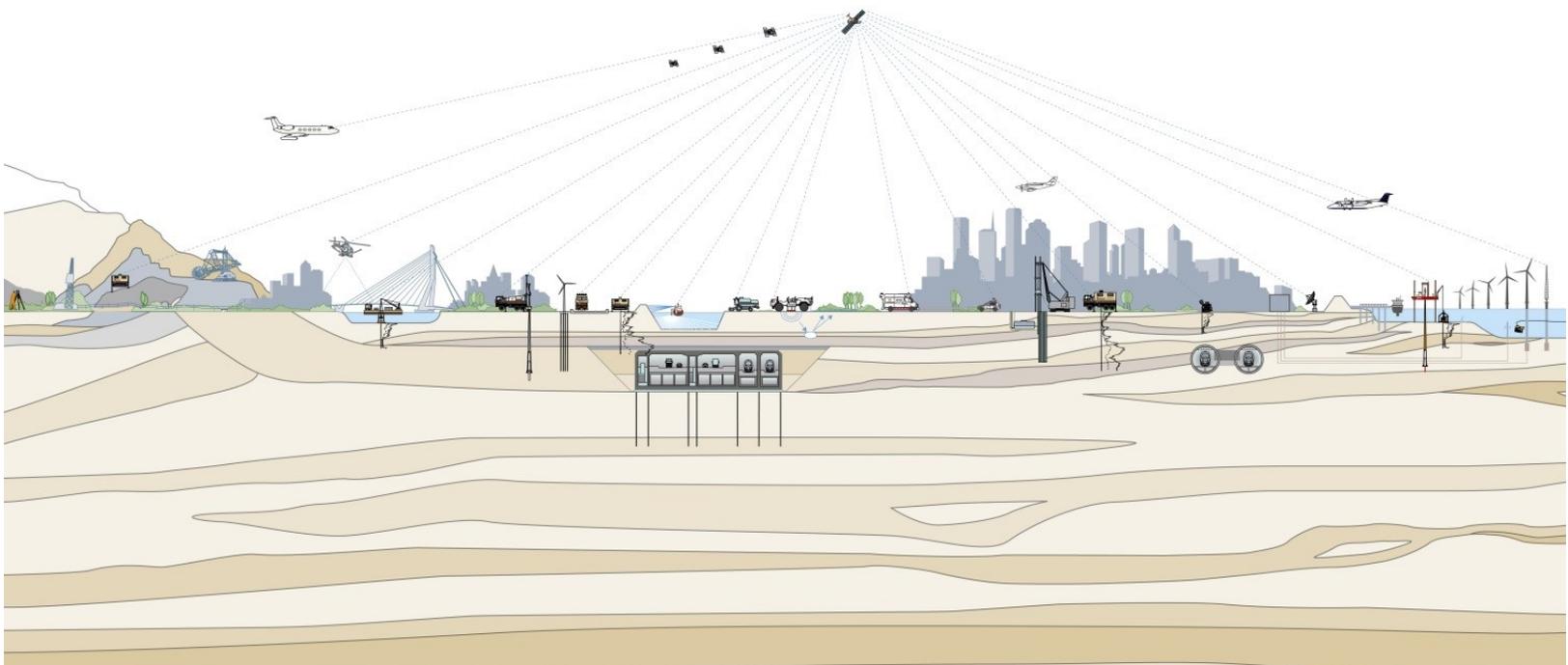
#### **Upper Delta Plain, LA Lidar**

Prepared for:

United States Geological Survey  
1400 Independence Road  
Rolla, MO 65401  
(573) 308-3810

May 3, 2017

USGS Contract: G11PC00014  
USGS Task Order: G15PD00936



Fugro was tasked with planning, acquiring, processing, and producing derivative products of lidar data collected at an aggregate nominal pulse spacing (ANPS) of 0.7 meters (2ppsm), including overlap, for an Area of Interest (AOI) defined as the Upper Delta Plain in the south eastern portion of Louisiana. The AOI covers approximately 3,805 square miles. A 100-meter buffer was added to the AOI covering approximately 3,843 square miles; all products will be generated to the limit of this buffered boundary.

Lidar data, and derivative products produced in compliance with the task order will be based on the “**U.S. Geological Survey National Geospatial Program Lidar Base Specification Version 1.2**”. In addition to the Specification Requirements, the task order will meet NEEA QL2.

Acquisition occurred during the acceptable collection windows that existed between January 23 and March 20, 2017; with a re-flight occurring on April 24, 2017.

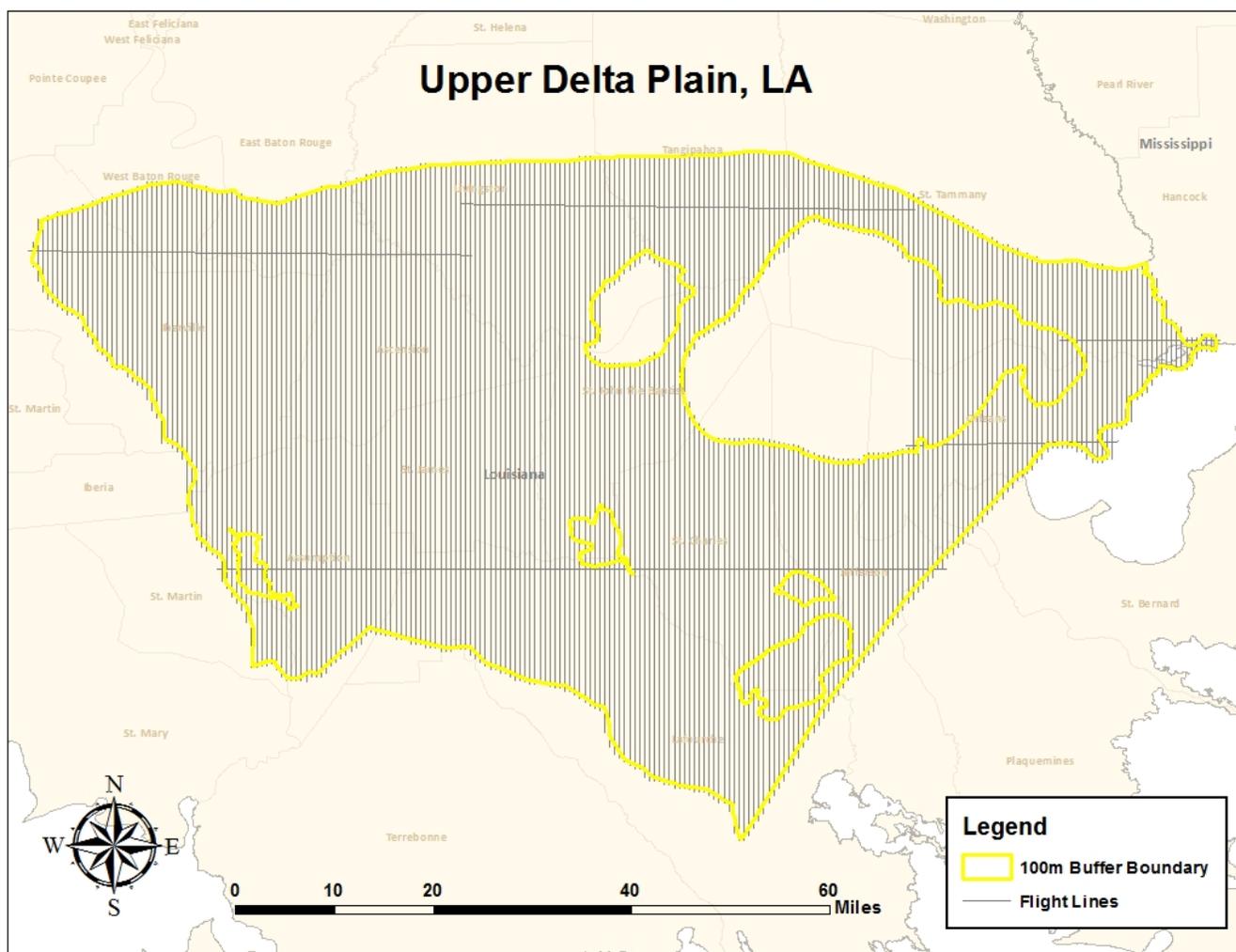


Figure 1: Flight plan

The following is detail on the lidar acquisition covering the Upper Delta Plain, LA lidar buffered boundary.

<b>Collections:</b>	32
<b>Collection Dates:</b>	January 23 <sup>rd</sup> – March 20 <sup>th</sup> , 2017; April 24 <sup>th</sup> , 2017
<b>Field of View (FOV):</b>	60 degrees
<b>Average Point Density (planned):</b>	2 ppsm
<b>Flight Level(s) AMT:</b>	3281 ft, 4400 ft
<b>Sensor Type(s):</b>	Riegl LMS-Q680i, Riegl LMS-Q780
<b>Sensor Serial Number(s):</b>	165, 961, 216

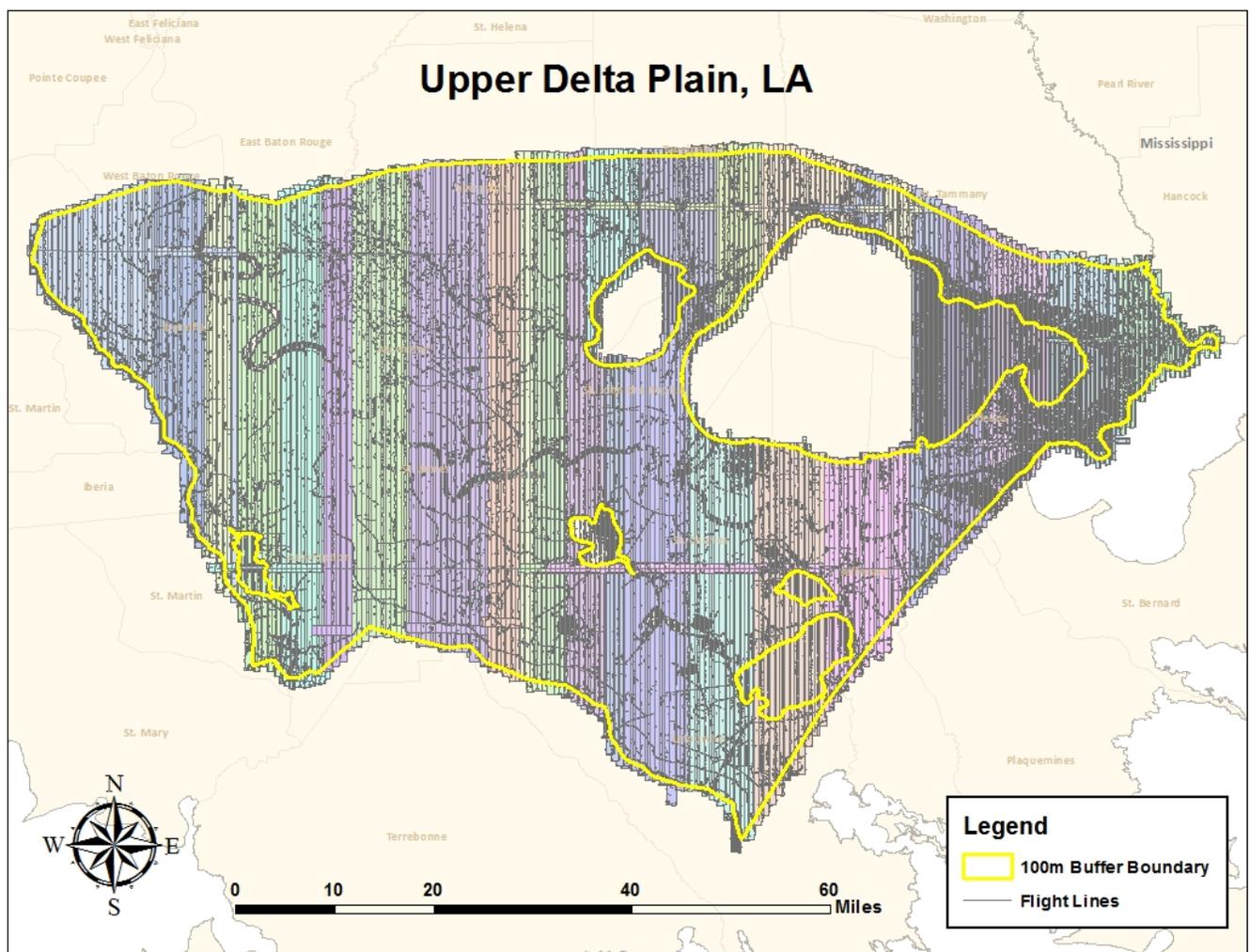


Figure 2: Executed Collection Footprints

All acquired lidar data was QC'd and accepted for processing.

Below are the acquisition logs and GPS plots from all collections covering the Upper Delta Plain, LA lidar buffered boundary.

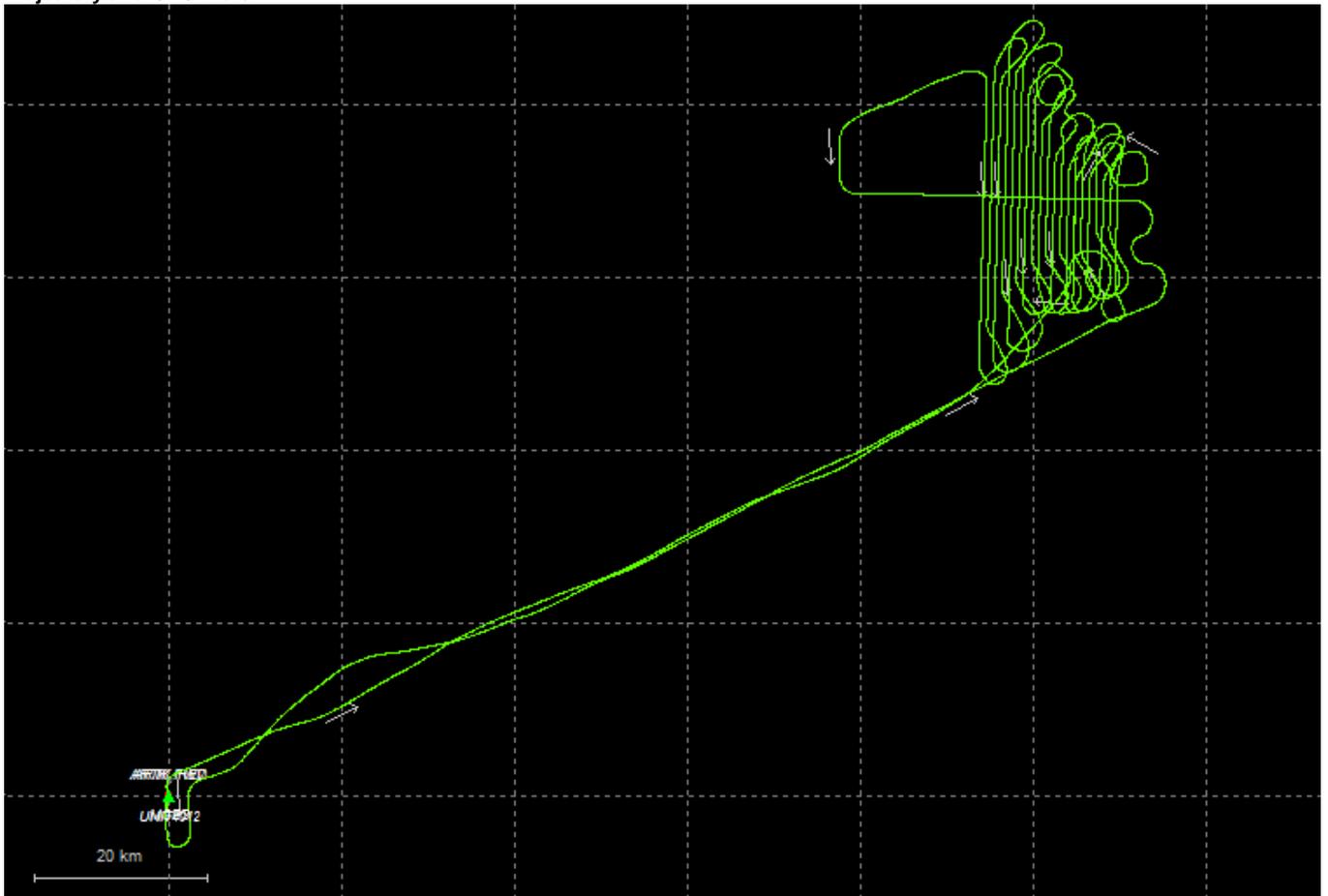


Acquisition and Processing details ----- Collection 1 (January 23, 2017)

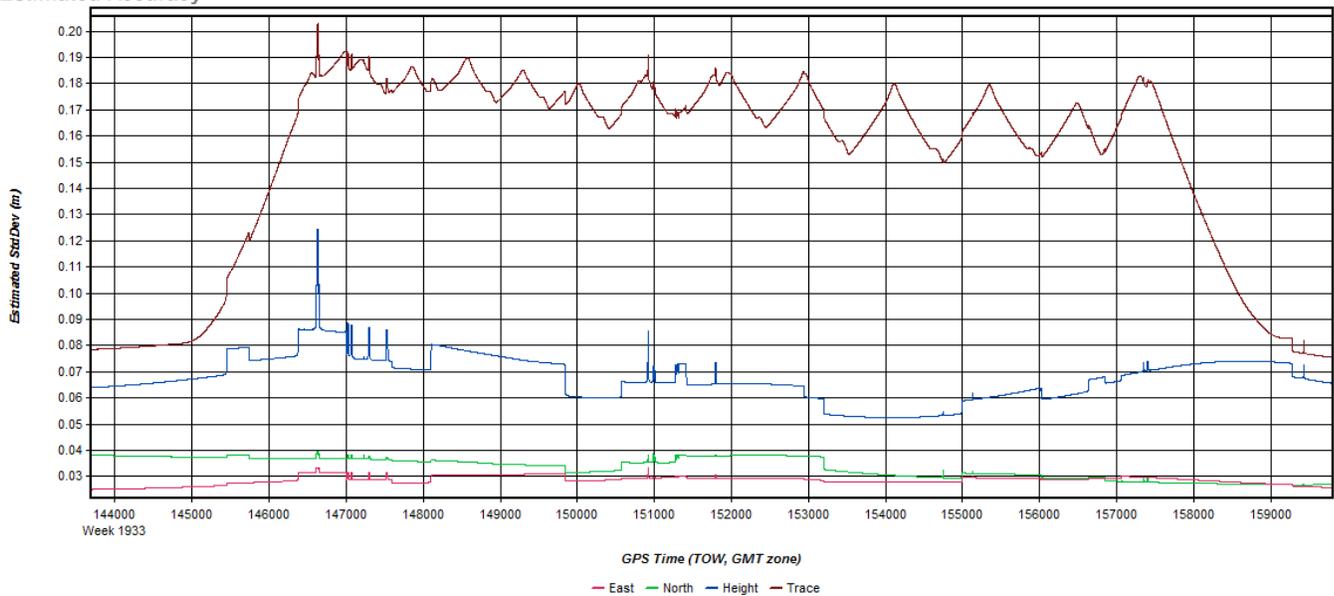
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	15:50	378.4	KHUM	20:24	380.9	4:34	4.50	4.5	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Min Range'		Data Logger Drives		
15004000		Upper Delta				680i	165	FMU-300	13.0 17.0		2100		DR680-13		
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range'		Download Drive		
23-Jan-17		17-023	1					240	10.0 10.0		4052		NS1TB-57		
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	mi/WPT	Alt. Setting	Humidity @ Alt	Shipping Track	
170123_165_15004000_01		N62912	KHUM		-6	3281	145	60	130	2	0.374	29.88 29.85	58	778255129949	
Pilot #1		Pilot #2		Operator #1			Operator #2								
Randy Green				Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-4	GR3-4	1.8					UNIT40122m.tps	Riley Forsyth		Shipped			
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							15:58:00	16:03:00					Ground Static at KHUM	9	1.4
							16:29:00	16:34:00					overfly ENG6 cors	11	1.0
							16:41:00						pre acquisition s turn	12	1.0
UpDelta4	42		1	6	0	3	16:47:00	16:48:00	N	3,180	118			12	1.0
	41		6	1	3	0	16:54:00	16:55:00	S	3,130	143			10	1.2
	40		1	6	0	3	17:00:00	17:02:00	N	3,180	104			10	1.2
	39		6	1	3	0	17:05:00	17:06:00	S	3,170	143			10	1.2
	38		1	7	0	3.6	17:12:00	17:13:00	N	3,230	111			10	1.1
	37		9	1	4.8	0	17:18:00	17:19:00	S	3,235	142			10	1.1
	36		1	10	0	5.4	17:24:00	17:26:00	N	3,315	115			10	1.0
	36		10	1	5.4	0	17:29:00	17:31:00	S	3,310	141		calibration line	10	1.0
	35		1	13	0	7.2	17:35:00	17:38:00	N	3,270	117			10	1.0
	34		14	1	7.8	0	17:42:00	17:44:00	S	3,300	140			10	1.0
	33		1	15	0	8.4	17:48:00	17:51:00	N	3,260	111			11	1.0
	32		20	1	11.4	0	17:56:00	17:59:00	S	3,255	139			11	1.0
	31		1	22	0	12.6	18:03:00	18:07:00	N	3,265	119			10	1.1
	30		28	1	16.3	0	18:14:00	18:18:00	S	3,160	141			9	1.3
	29		1	32	0	18.7	18:21:00	18:27:00	N	3,280	119			10	1.2
	28		36	1	21.1	0	18:30:00	18:35:00	S	3,215	138			11	1.1
	27		1	37	0	21.7	18:40:00	18:46:00	N	3,250	130			11	1.1
	26		38	1	22.3	0	18:50:00	18:55:00	S	3,330	144			11	1.1
	25		1	43	0	25.3	19:00:00	19:07:00	N	3,380	124			11	1.1
	24		44	1	25.9	0	19:10:00	19:16:00	S	3,340	145			12	1.0
	23		1	45	0	26.5	19:20:00	19:27:00	N	3,290	129			11	1.3
UpDeltaX	5		1	44	0	25.9	19:34:00	19:40:00	E	3,260	134			12	1.2
							19:41:00						post acquisition s turn	11	1.3
							19:53:00	19:58:00					overfly ENG6 cors	11	1.1
							20:18:00	20:23:00					ground static at KHUM	11	1.2

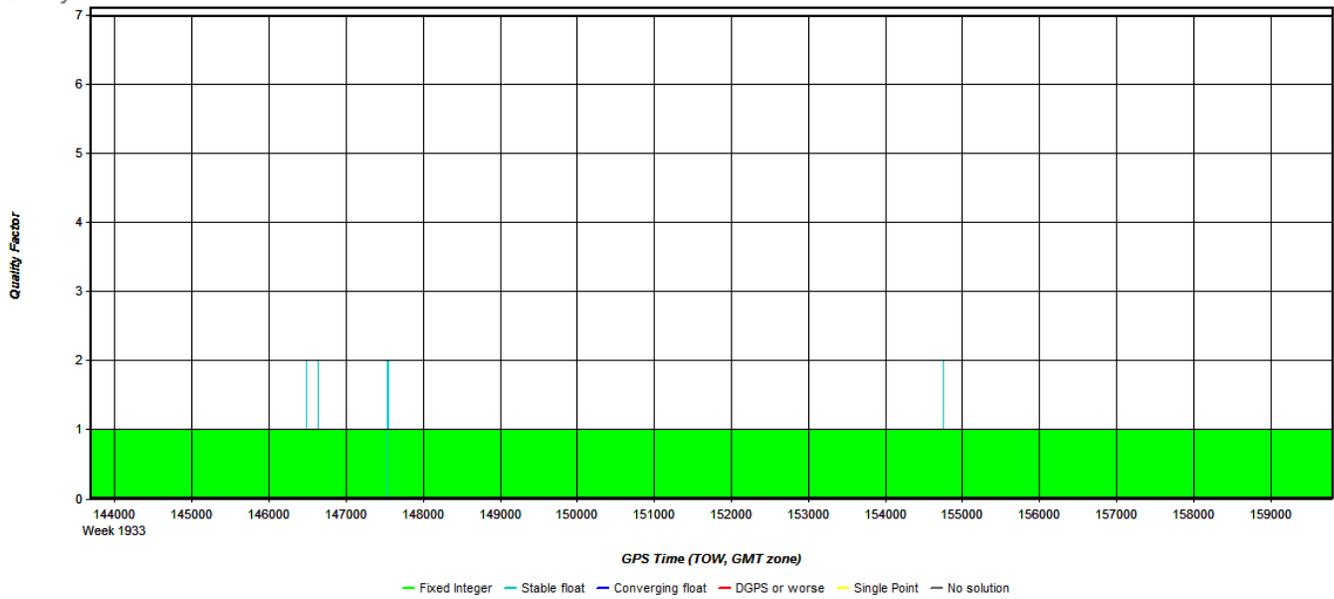
Trajectory and GPS Plots:



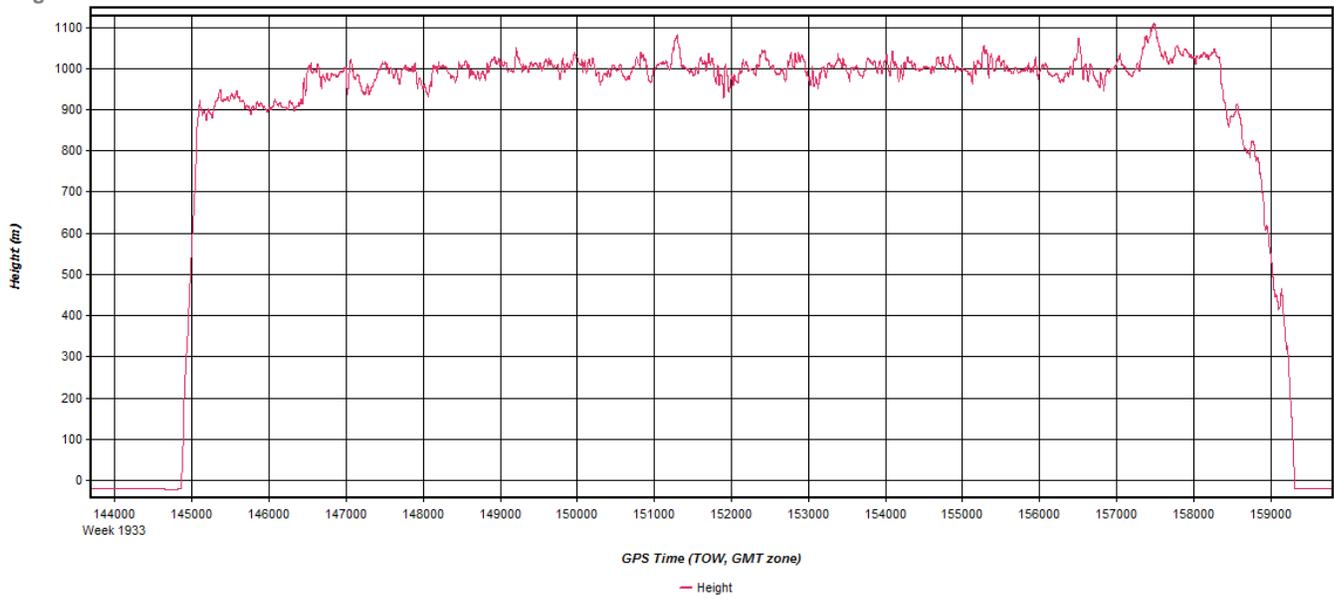
Estimated Accuracy



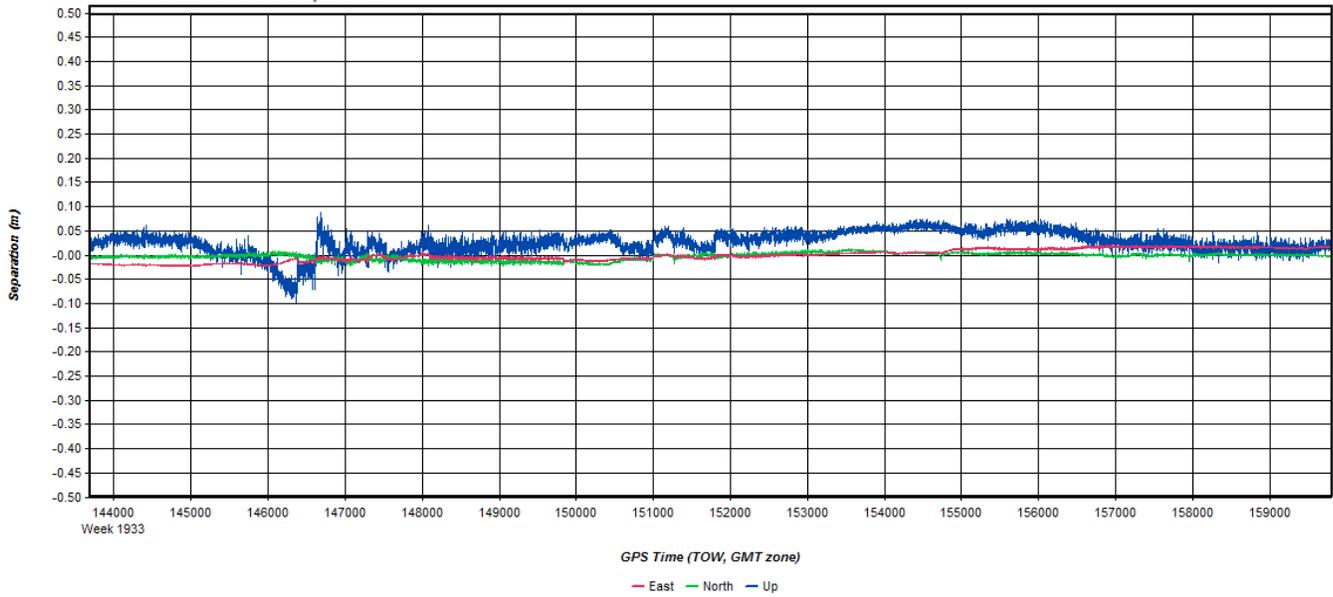
Quality Factor



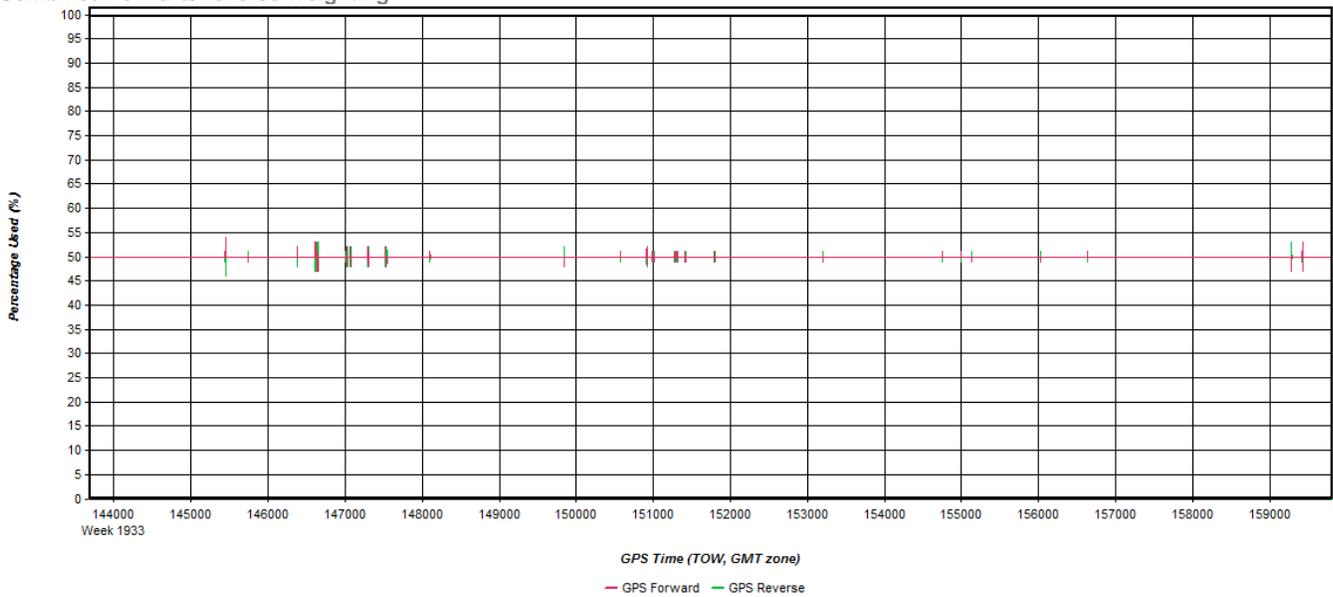
Height



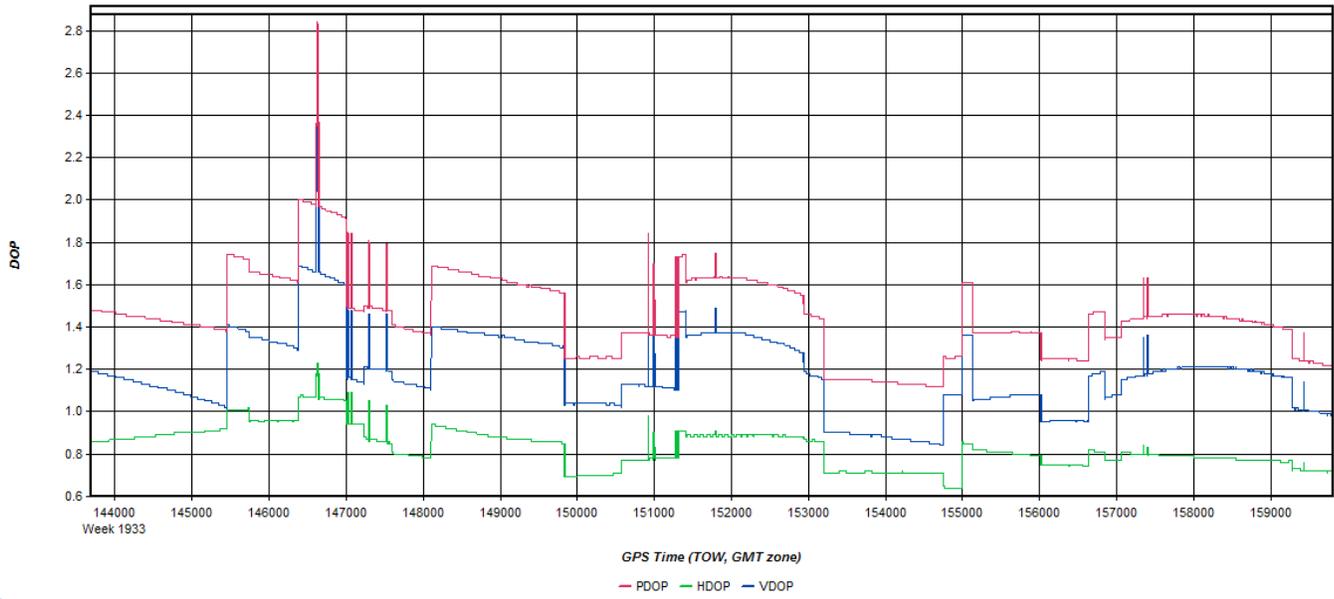
Combined Forward/Reverse Separation



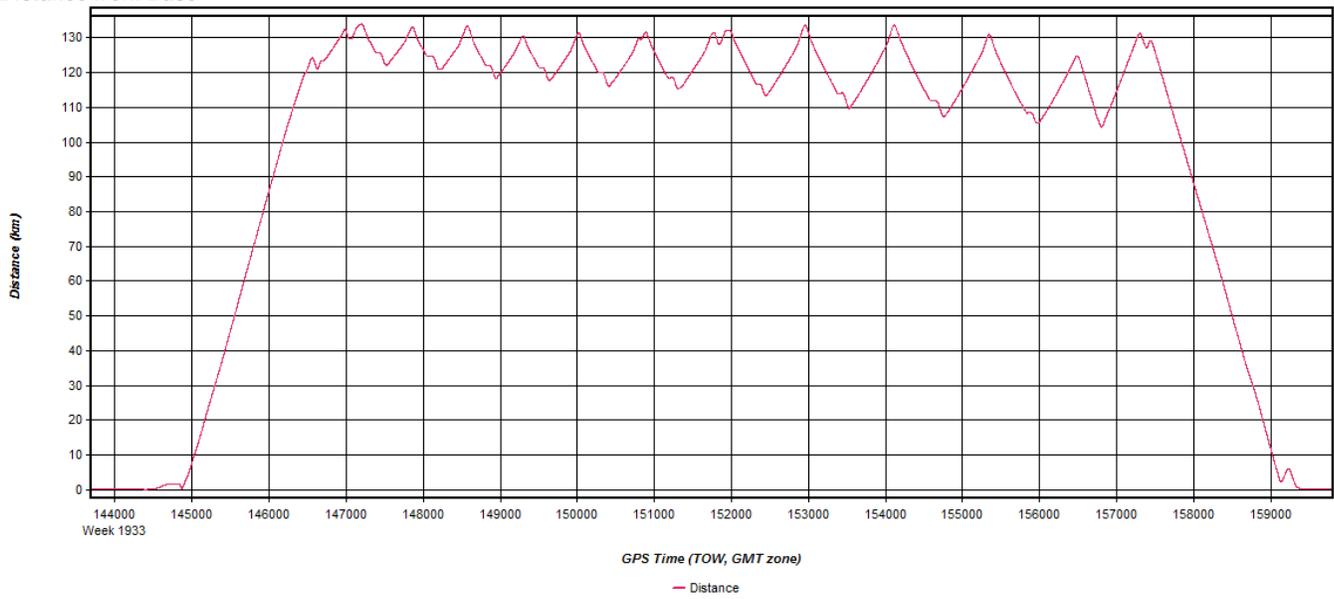
Combined Forward/Reverse Weighting



PDOP

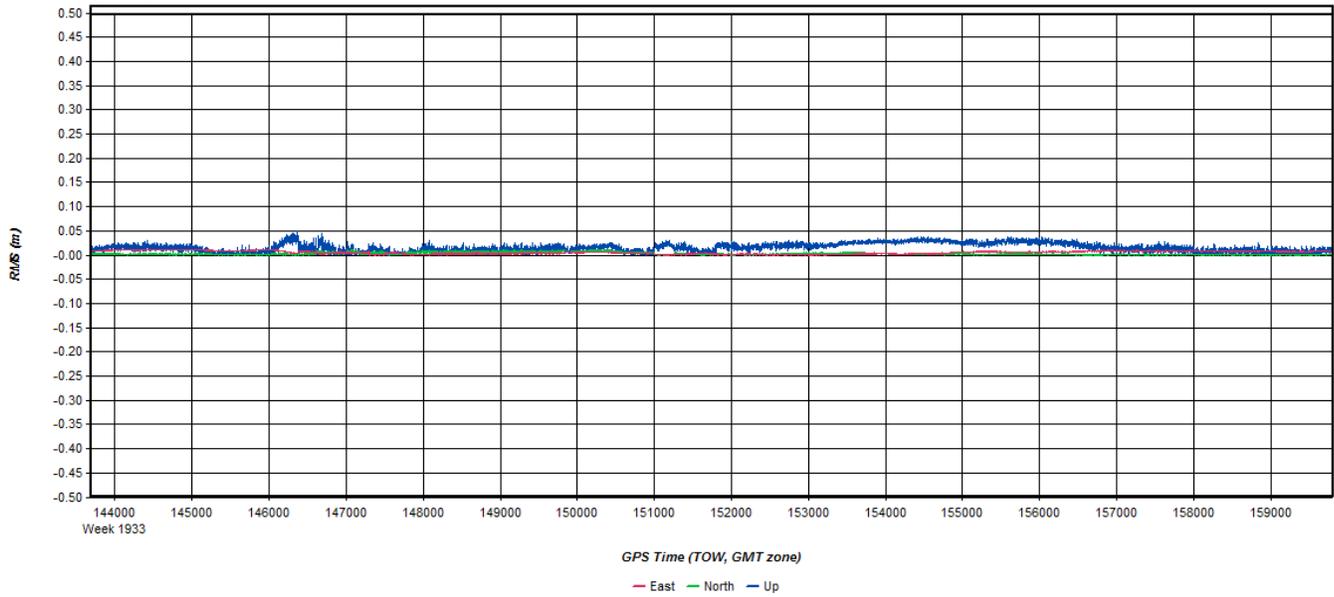


Distance from Base

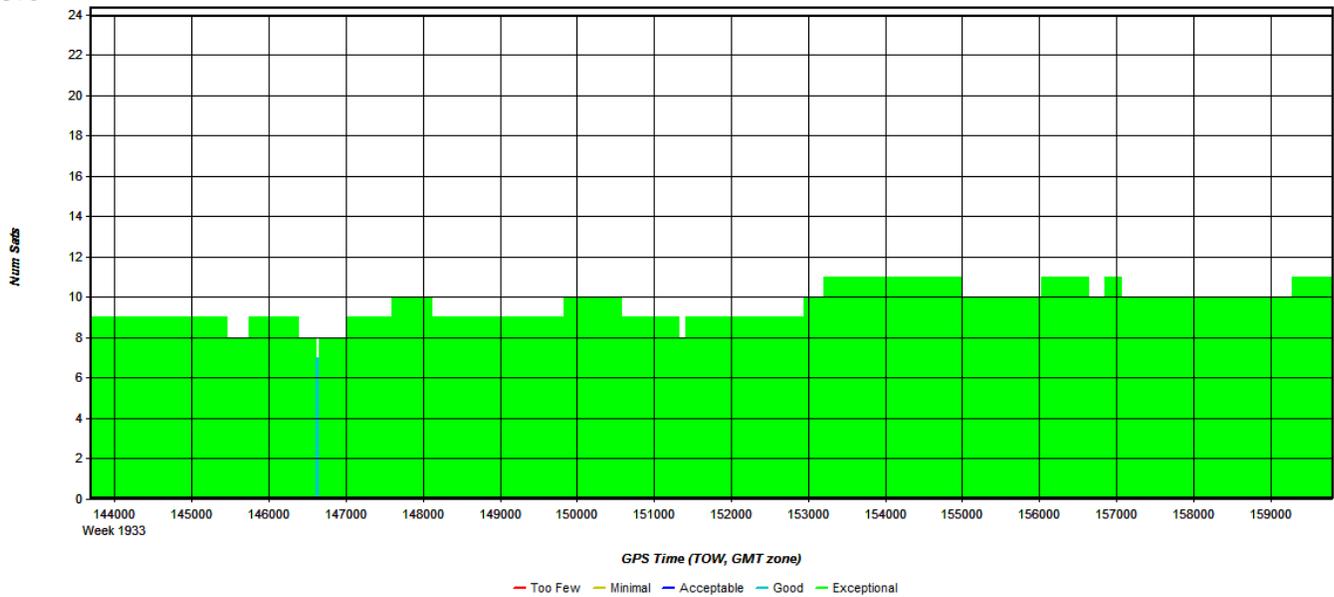




Combined RMS



SVs



USGS  
COLLECTION REPORT

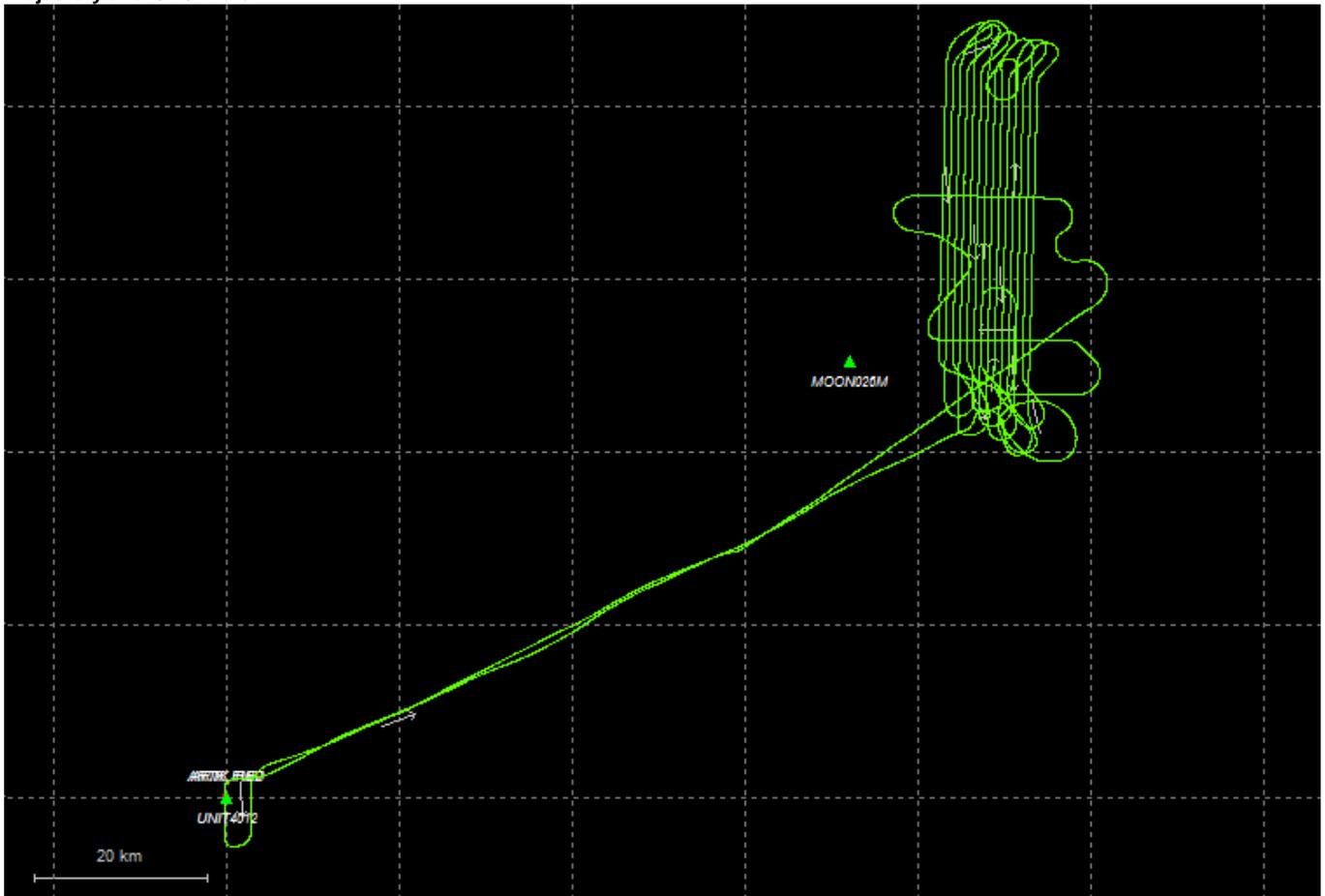


Acquisition and Processing details ----- Collection 2 (January 26, 2017)

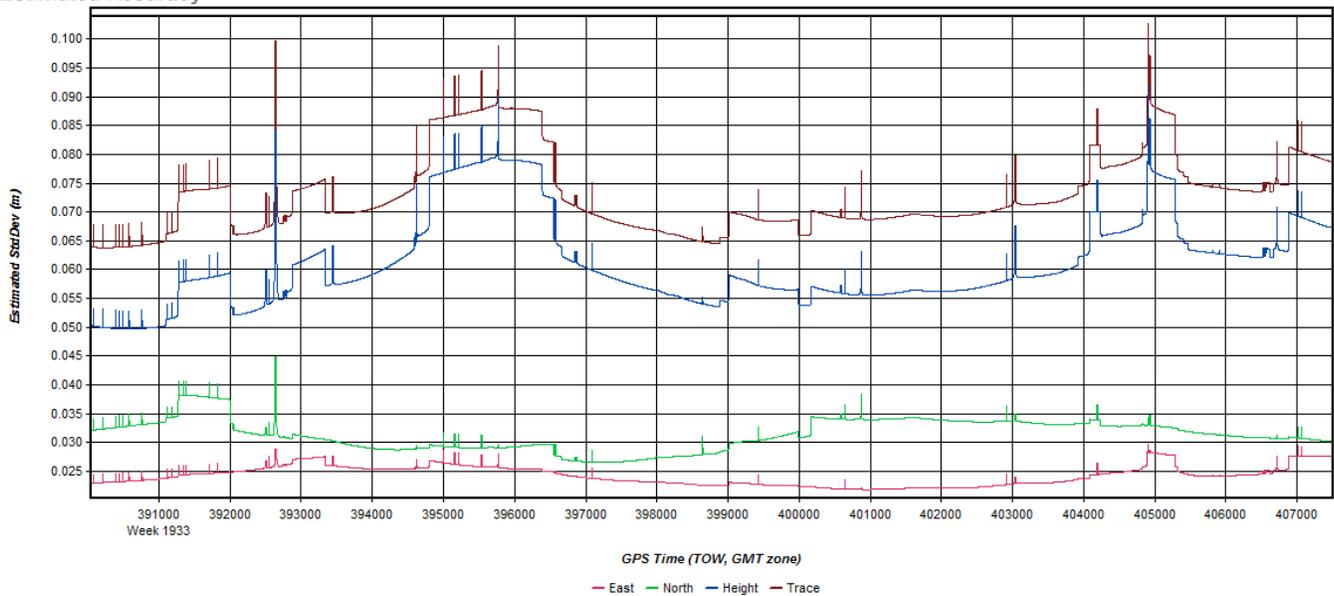
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl																	
												Flight Log																	
												AO80-50-00-02																	
16.92		Lift Begin		Lift End		Fit		Fit		Hobbs																			
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs	Activity																		
1		KHUM	12:16	391.3	KHUM	17:12	386.2	4:56	5.00	4.9	0900-Production																		
2																													
3																													
FGI Job #		Project Name				System		Unit		IMU		Ground Temp °C		Min Range'		Data Logger Drives													
15004000		Upper Delta				880i		185		FMU-300		12.0 12.0		2100		DR880-12													
Flight Date		GPS Day		Lift		Sun*		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Max Range'		Download Drive													
26-Jan-17		17-026		2						240		9.0 6.0		4052		NS1TB-61													
Mission ID (ymmdd_Sen_Job_Lit)				Aircraft		Airport ID		FMS		UTC		AMT (ft)		Speed		FOV		Scan Rate (Hz)		MTA		mi/WPT		Altm Setting		Humidity @ Alt		Shipping Track	
170126_165_15004000_02				N62912		KHUM				-6		3281		145		60		130		2		0.374		30.98 30.18		51			
Pilot #1				Pilot #2				Operator #1				Operator #2																	
Randy Green								Riley Forsyth																					
Base 1 ID		Location		Rec ID		Ant ID		ARP (m)		Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator		Data											
018		KHUM		GR3-4		GR3-4		1.8						UNIT40126l.tps		Riley Forsyth		Shipped											
Area		Flight #		Wpt		Distance		UTC		Fit		Altitude		Speed		Scan		Comments and Conditions		SVs		PDOP							
		FGI Client		From To		Begin End		Start End		Dir		(GPS)		(knots)		Rate													
								12:24:00 12:29:00										Ground Static at KHUM		10		1.2							
								12:55:00 13:00:00										overfly ENG6 cors		9		1.3							
								13:01:00										pre acquisition s turn		9		1.3							
UpDelta4		22		1 45 0		26.5		13:07:00 13:14:00		N		3,180		123						10		1.2							
		21		53 1 31.3 0				13:17:00 13:25:00		S		3,175		144						9		1.3							
		20		1 53 0		31.3		13:29:00 13:37:00		N		3,205		123						9		1.2							
		19		55 1 32.5 0				13:40:00 13:48:00		S		3,220		142						9		1.1							
		18		1 55 0		32.5		13:58:00 14:07:00		N		3,240		122						9		1.2							
		17		55 1 32.5 0				14:10:00 14:18:00		S		3,215		140						10		1.2							
		16		1 55 0		32.5		14:22:00 14:31:00		N		3,180		122						10		1.3							
		15		53 1 31.3 0				14:39:00 14:46:00		S		3,315		145						10		1.2							
		15		1 10 0		5.4		14:50:00 14:52:00		N		3,215		122				calibration line		10		1.2							
		14		1 53 0		31.3		14:58:00 15:07:00		N		3,280		117						10		1.3							
		13		52 1 30.7 0				15:11:00 15:18:00		S		3,240		145						10		1.1							
		12		1 52 0		30.7		15:23:00 15:31:00		N		3,130		131						9		1.3							
		11		52 1 30.7 0				15:35:00 15:42:00		S		3,205		145						9		1.3							
		10		1 52 0		30.7		15:46:00 15:55:00		N		3,200		129						9		1.3							
		9		52 1 30.7 0				15:59:00 16:06:00		S		3,145		136						10		1.1							
UpDeltak		6		60 40 35.5 23.5				16:15:00 16:16:00		W		3,130		137						11		1.1							
		5		1 20 0		11.4		16:23:00 16:26:00		E		3,255		132						12		1.0							
								16:26:00										post acquisition s turn		12		1.1							
								16:37:00 16:42:00										overfly ENG6 cors		12		1.0							
								17:03:00 17:08:00										Ground Static at KHUM		10		1.0							

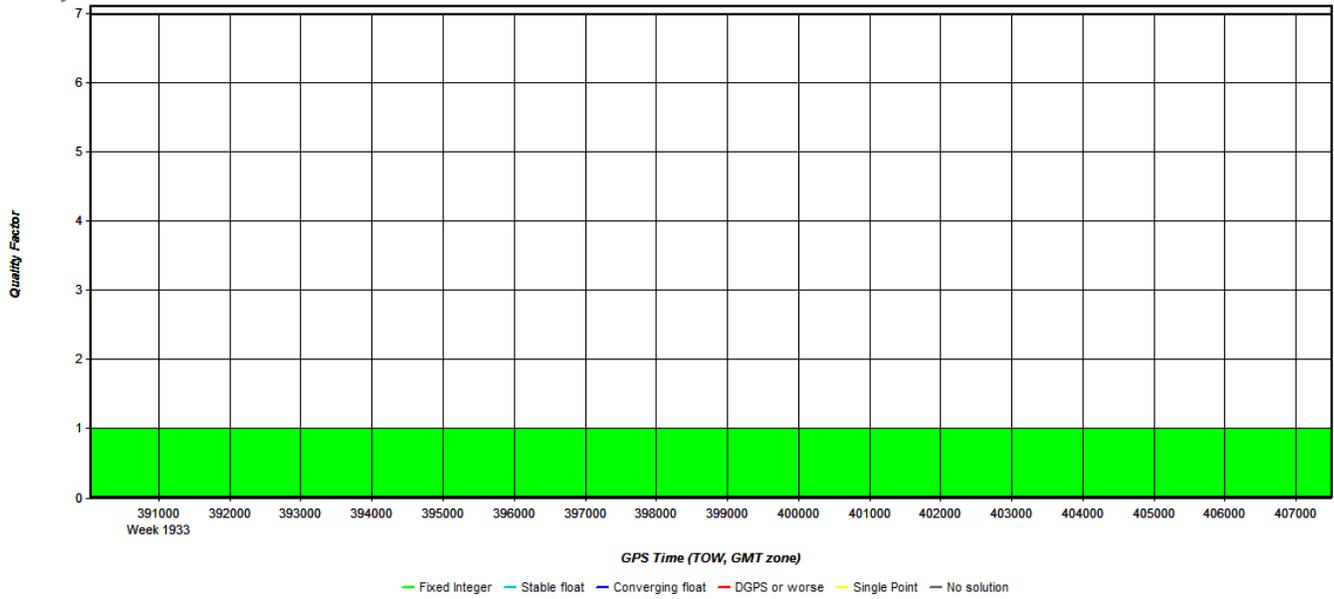
Trajectory and GPS Plots:



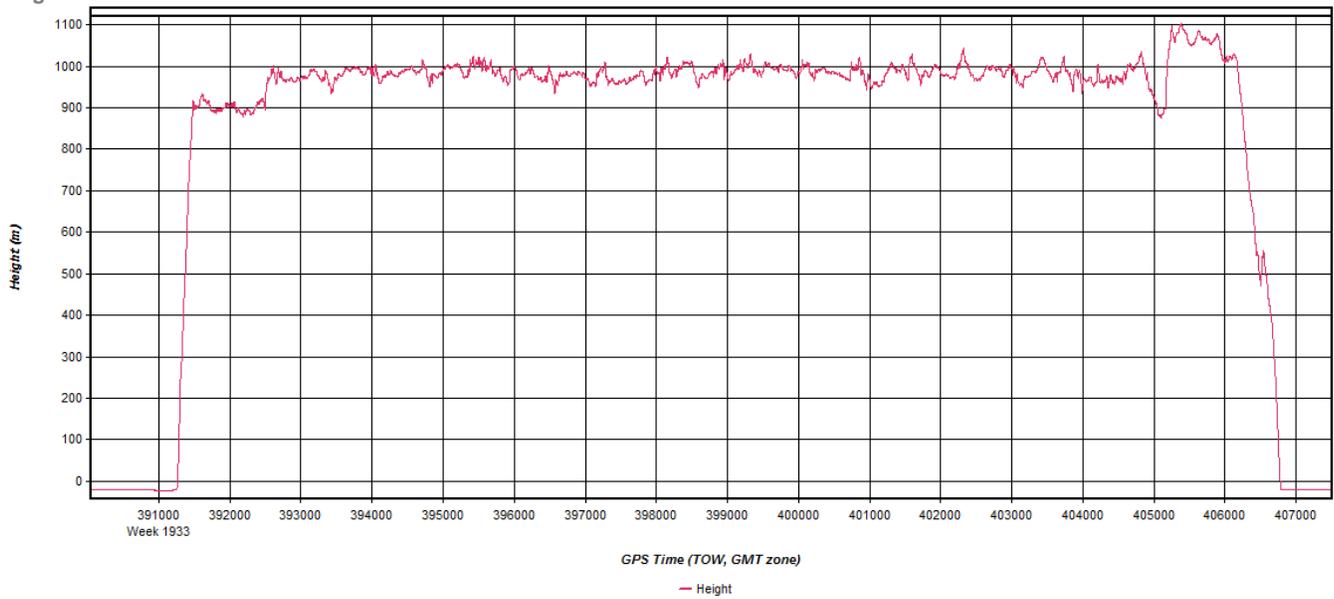
Estimated Accuracy



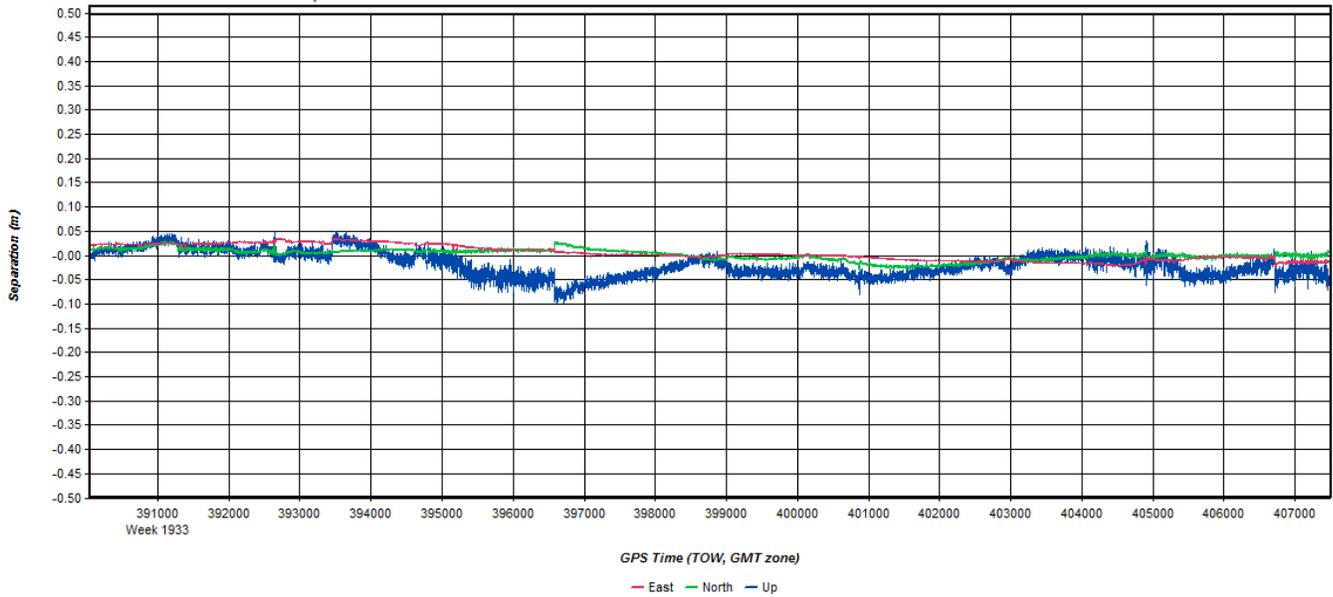
Quality Factor



Height



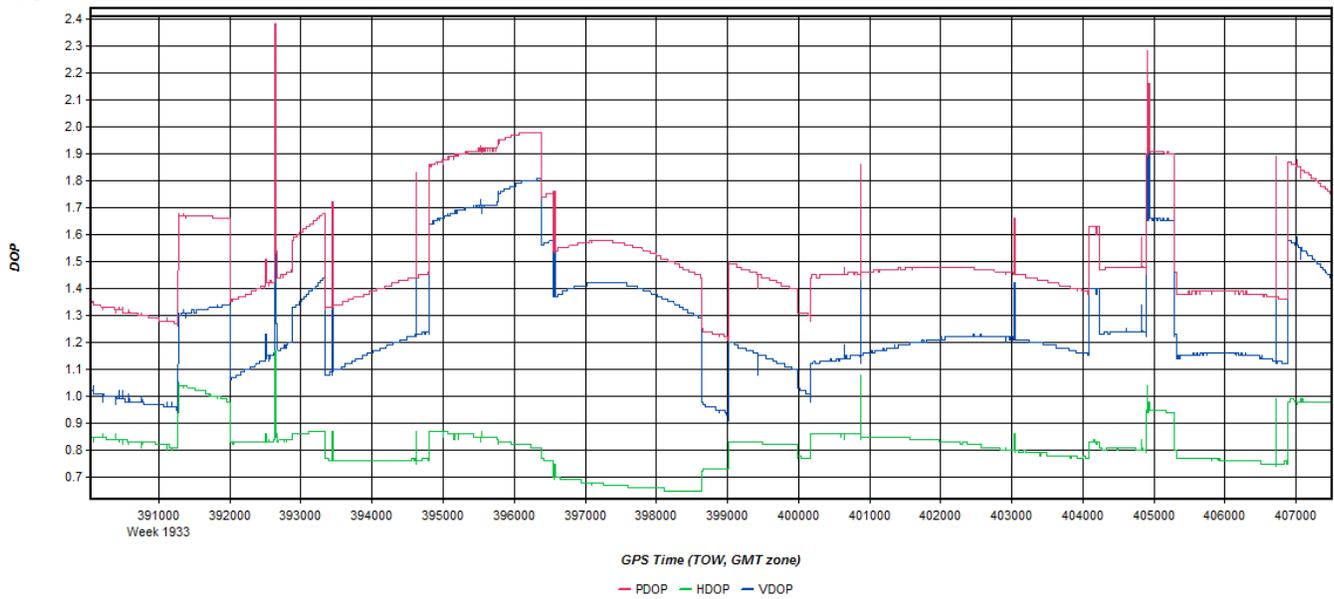
Combined Forward/Reverse Separation



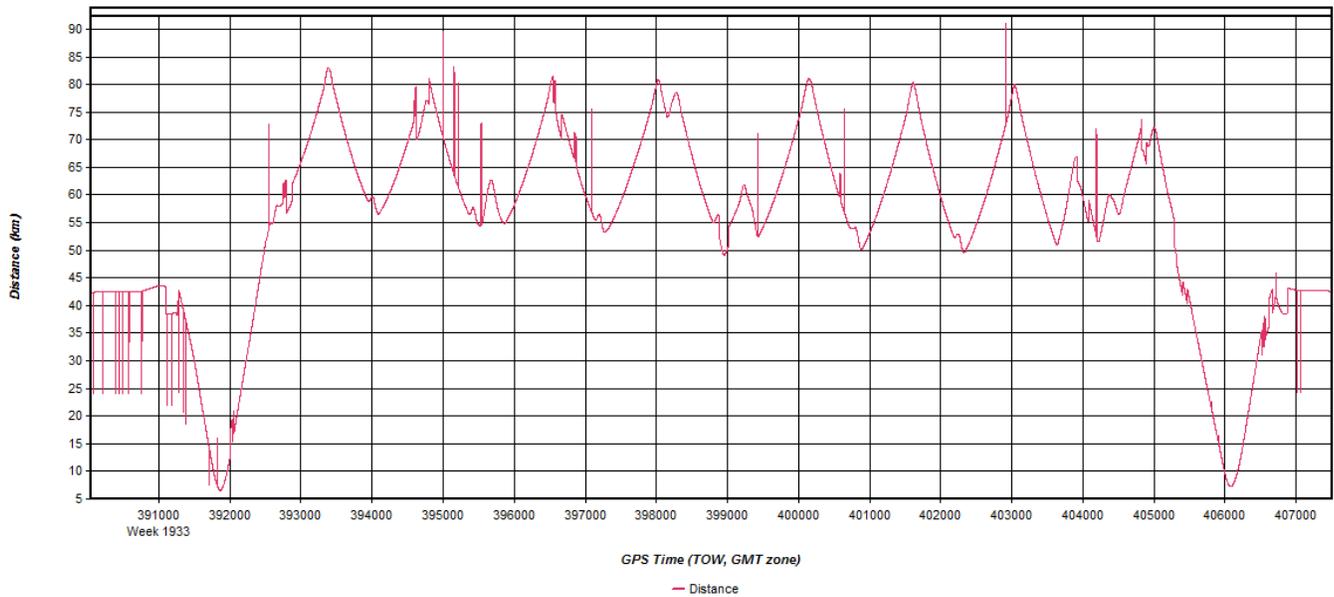
Combined Forward/Reverse Weighting



PDOP

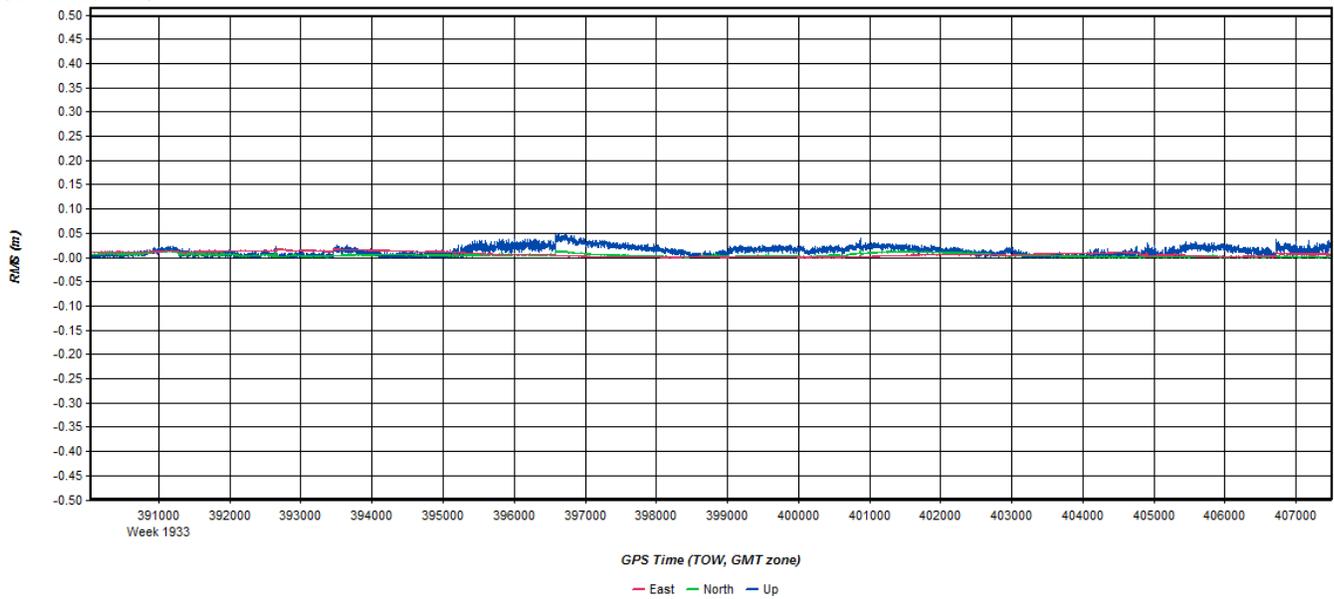


Distance from Base

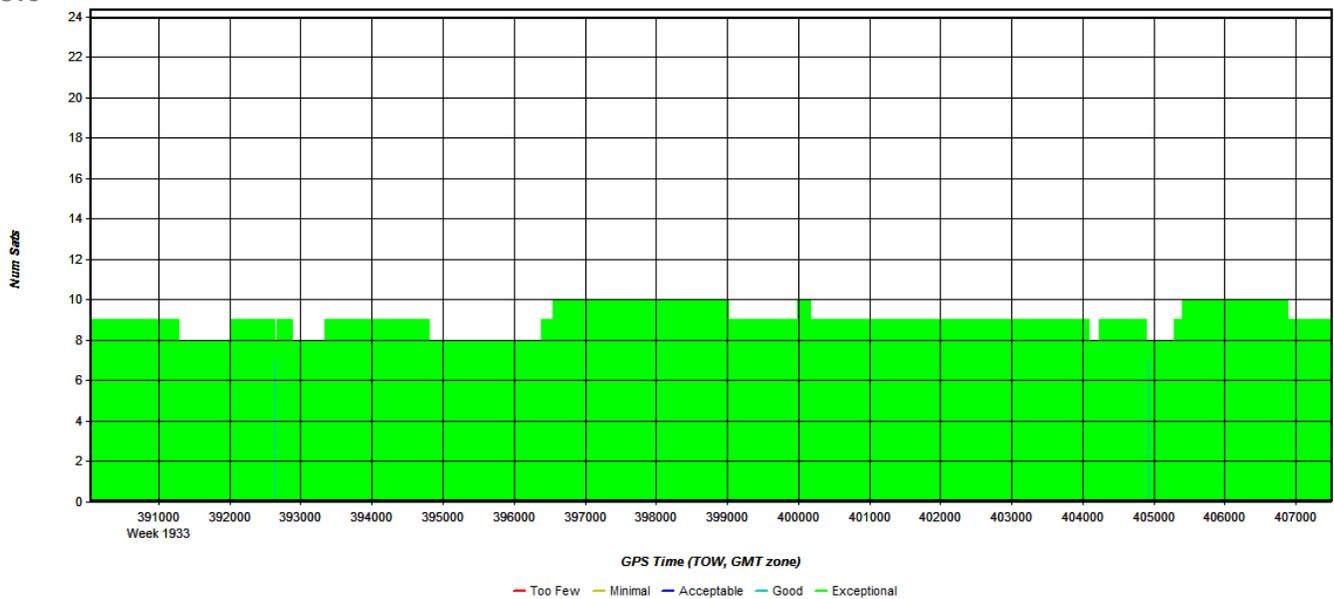




Combined RMS



SVs



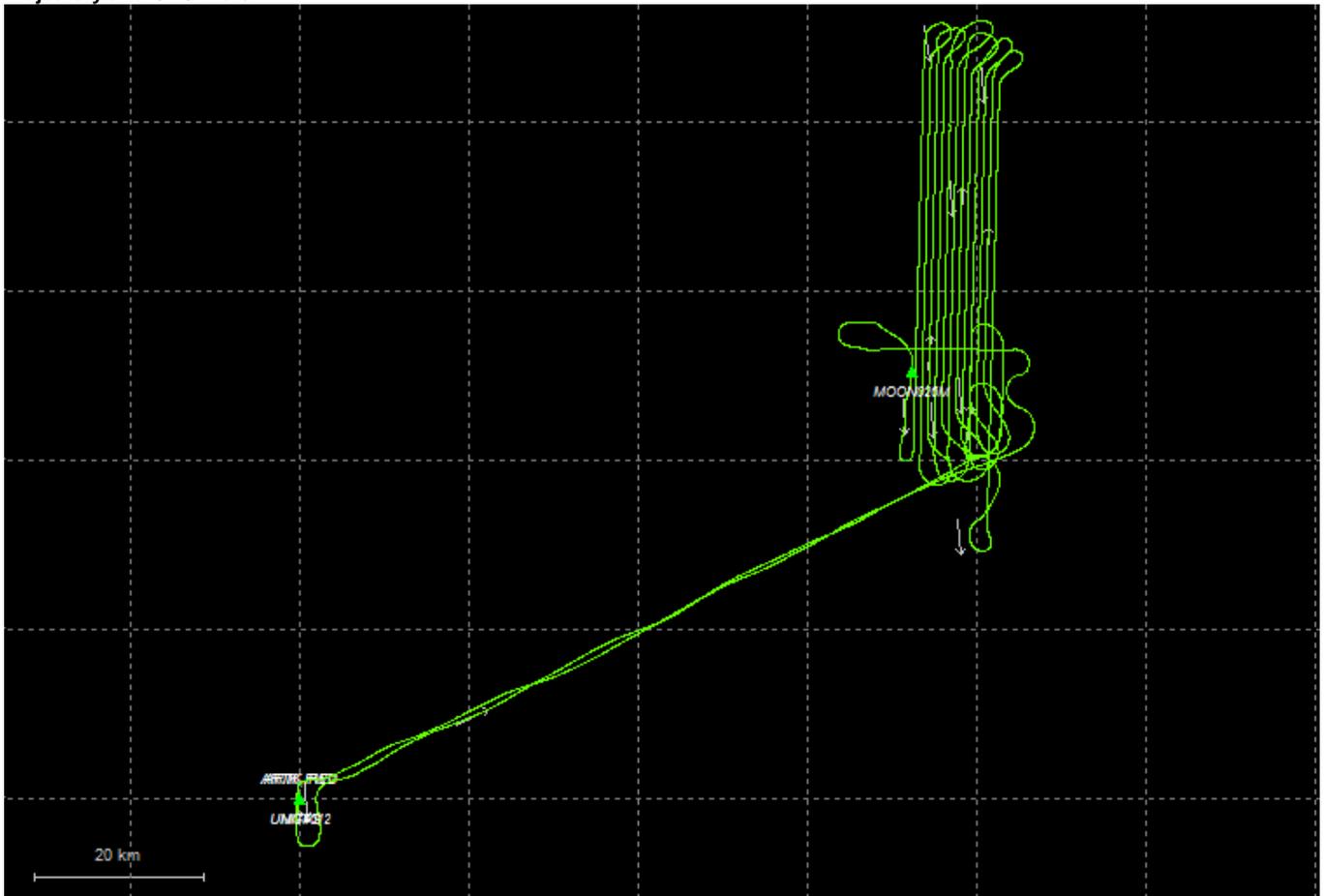


Acquisition and Processing details ----- Collection 3 (January 26, 2017)

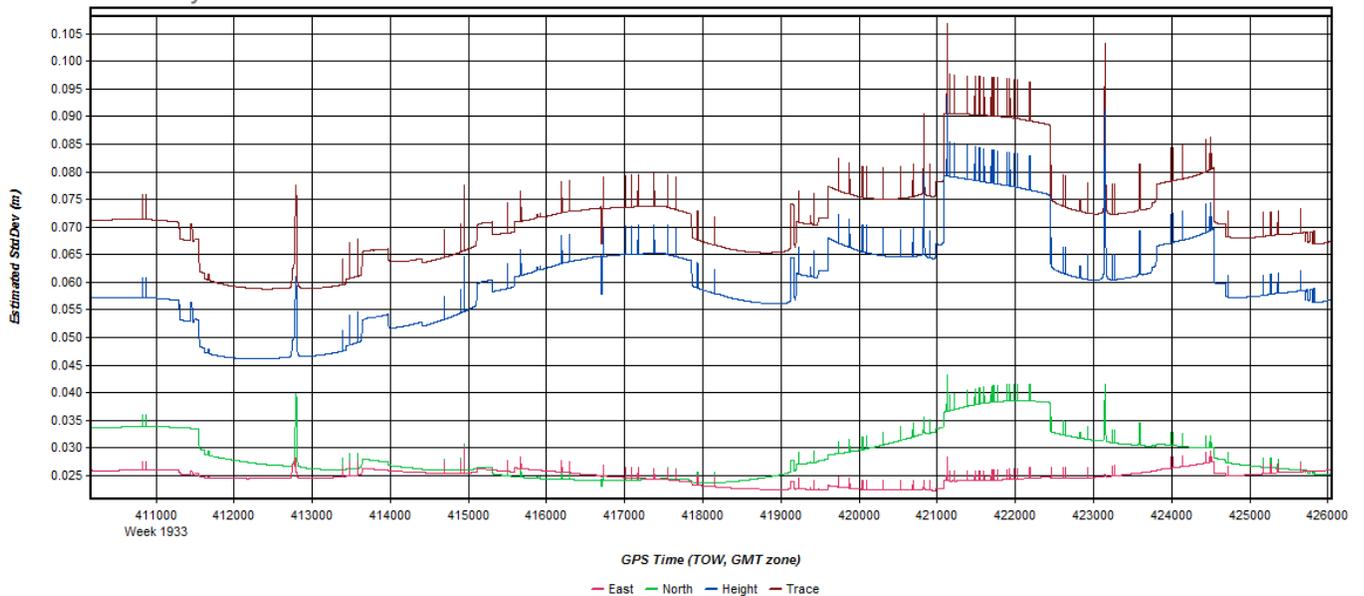
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	17:54	386.2	KHUM	22:23	390.7	4:29	4:50	4:5	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU		Ground Temp °C		Mn Range'	Data Logger Drives		
15004000		Upper Delta				680i	165	FMU-300		13.0 10.0		2100	DR680-15		
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive		
26-Jan-17		17-026	3						240	6.0 5.0		4052	NS1TB-54		
Mission ID (Symmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	mi/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170126_165_15004000_03		N62912	KHUM		-6	3281	145	60	130	2	0.374	30.15	36		
Pilot #1		Pilot #2		Operator #1		Operator #2									
Randy Green				Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-4	GR3-4	1.8					UNIT40126I.tps	Riley Forsyth		Shipped			
Area	Flight #	Client	Wpt	Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions		SVs	PDOP
				From	To	Begin	End					Start	End		
						17:58:00	18:03:00					Ground Static at KHUM		9	1.3
						18:31:00	18:36:00					overfly ENG6 cors		11	1.1
						18:36:00						pre acquisition s turn		11	1.1
UpDelta4	8		1 53	0 31.3	18:45:00	18:53:00	N	3,180	125					11	1.0
	7		55 1	32.5 0	18:56:00	19:03:00	S	3,120	145					12	1.0
	6		1 57	0 33.7	19:08:00	19:17:00	N	3,130	129					11	1.3
	5		59 1	34.9 0	19:21:00	19:29:00	S	3,180	134					12	1.2
	5		1 10	0 5.4	19:34:00	19:35:00	N	3,135	129			calibration		11	1.3
	4		1 61	0 36.1	19:46:00	19:56:00	N	3,285	124					10	1.4
	3		62 1	36.7 0	19:59:00	20:06:00	S	3,175	136					11	1.2
	2		1 64	0 37.9	20:13:00	20:23:00	N	3,145	125					11	1.2
	1		66 1	39.1 0	20:27:00	20:36:00	S	3,300	138					11	1.1
UpDelta3	85		1 68	0 40.3	20:40:00	20:51:00	N	3,235	124					10	1.1
	84		70 1	41.5 0	20:54:00	21:03:00	S	3,180	133					10	1.1
	83		1 72	0 42.7	21:07:00	21:18:00	N	3,255	123					10	1.1
	82		75 1	44.5 0	21:21:00	21:31:00	S	3,175	142					10	1.3
UpDeltaX	6		20 45	11.4 26.5	21:40:00	21:44:00	E	3,335	129					9	1.2
					21:44:00							post acquisition s turn		9	1.2
					21:49:00	21:54:00						overfly ENG6 cors		10	1.1
					22:14:00	22:19:00						Ground Static at KHUM		11	1.1

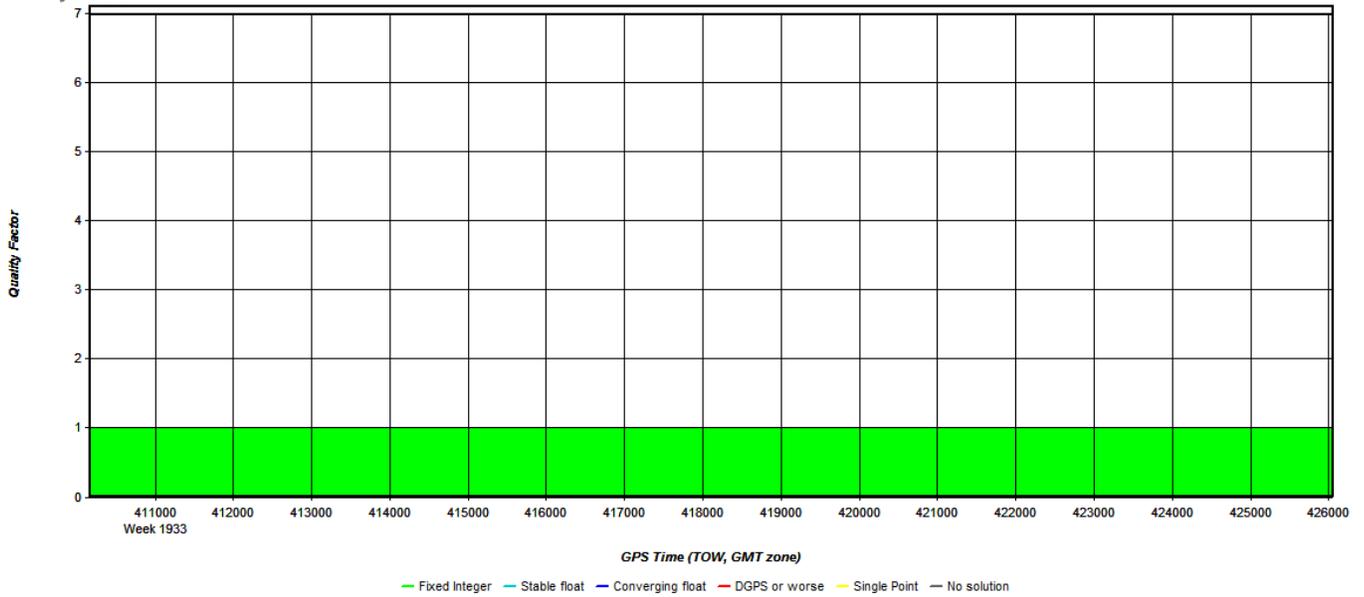
Trajectory and GPS Plots:



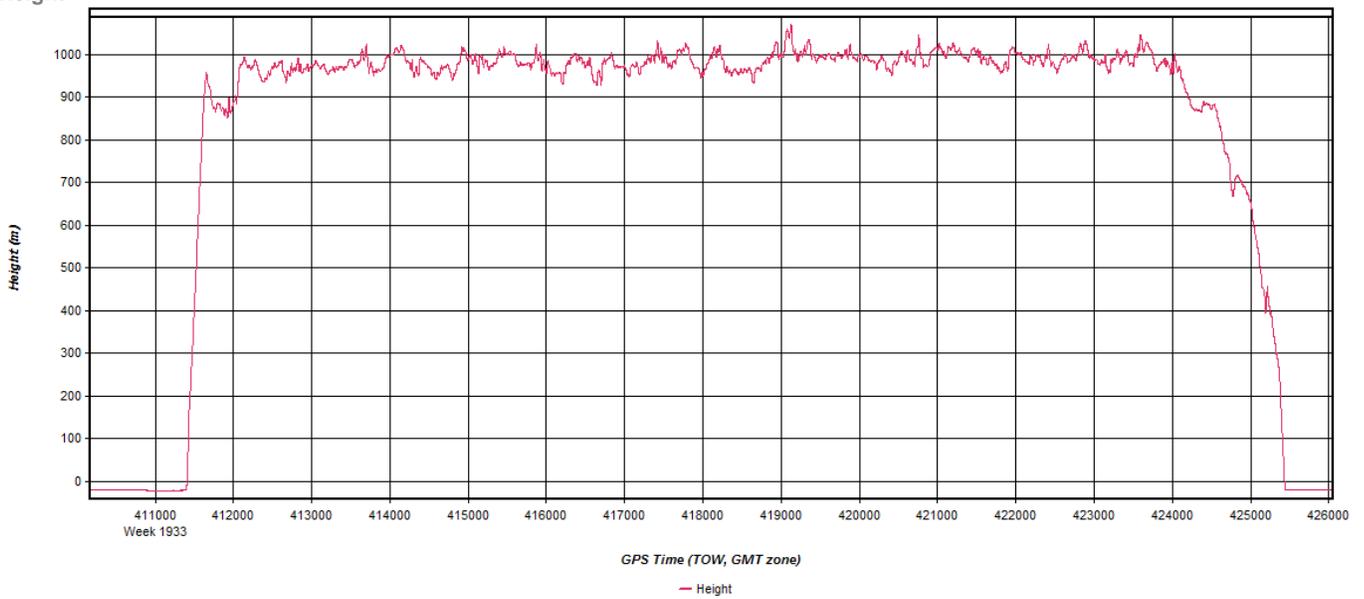
Estimated Accuracy



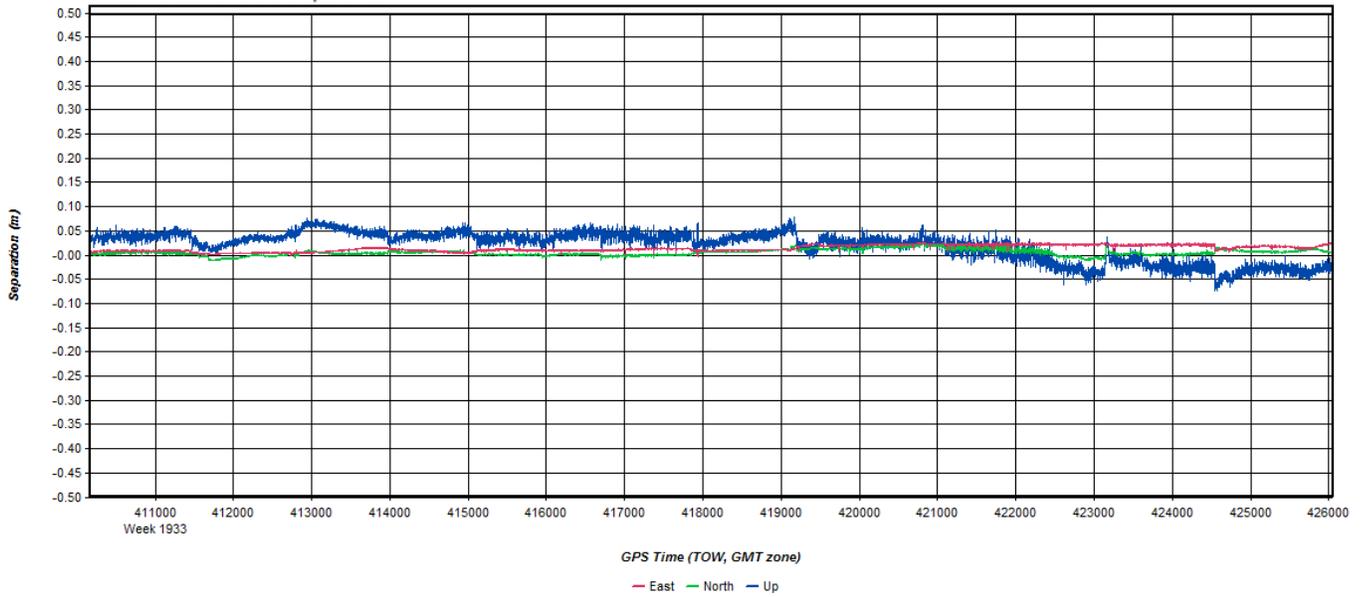
Quality Factor



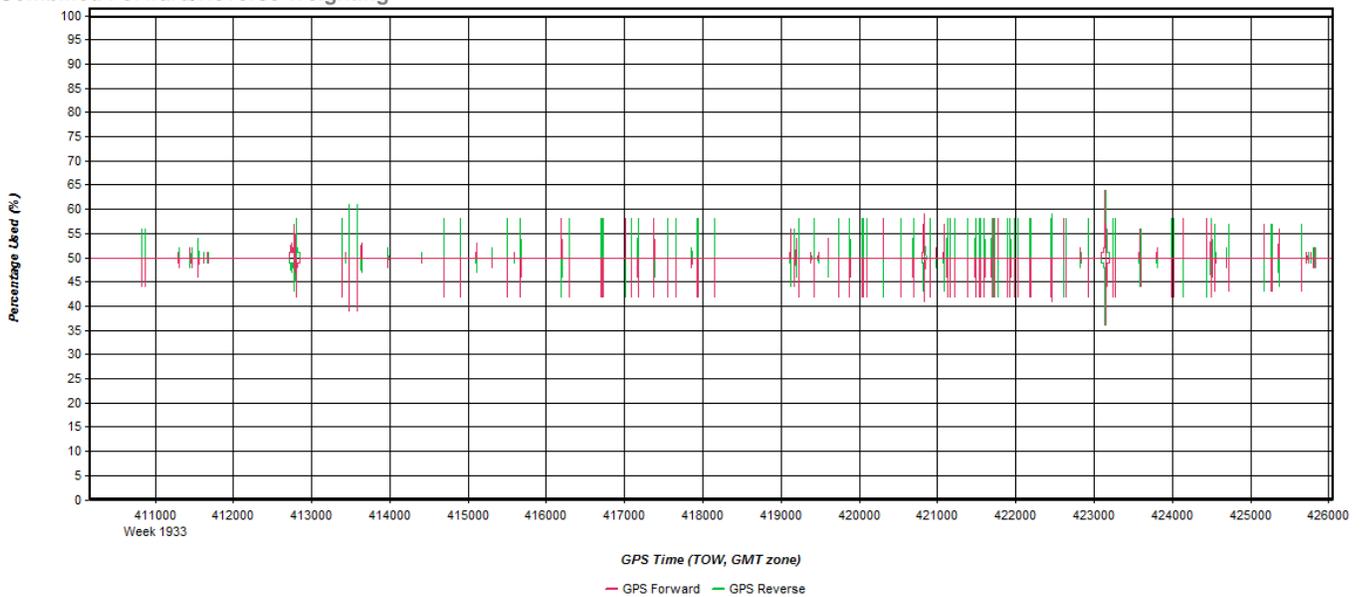
Height



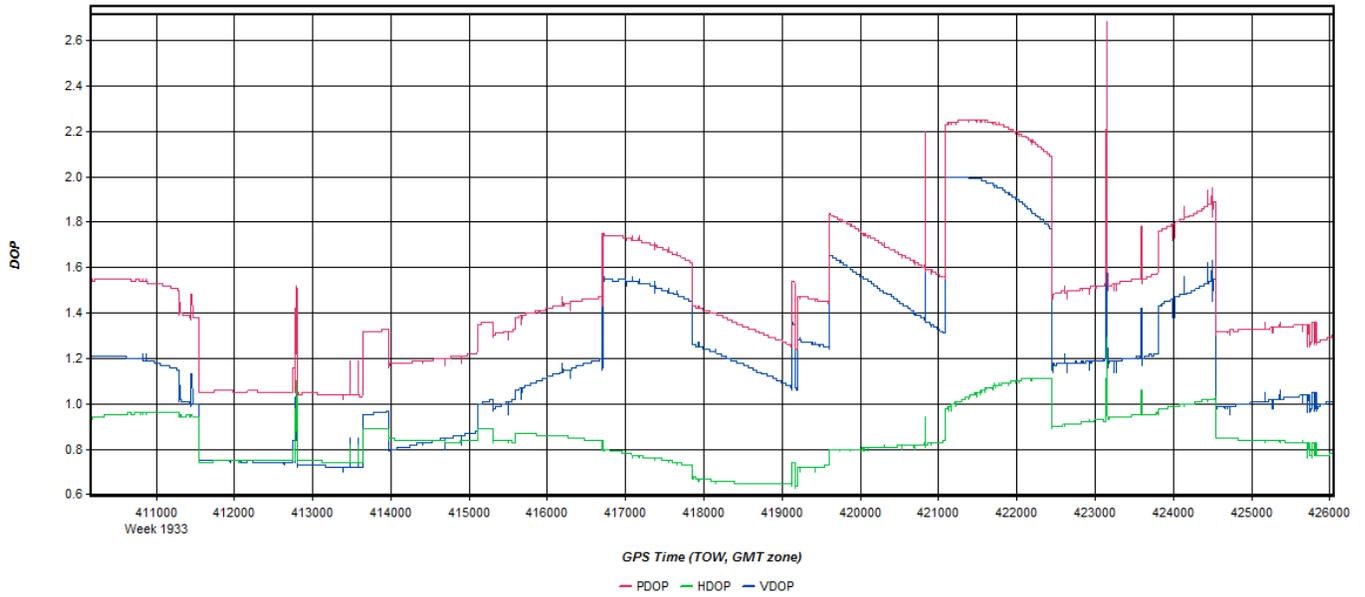
Combined Forward/Reverse Separation



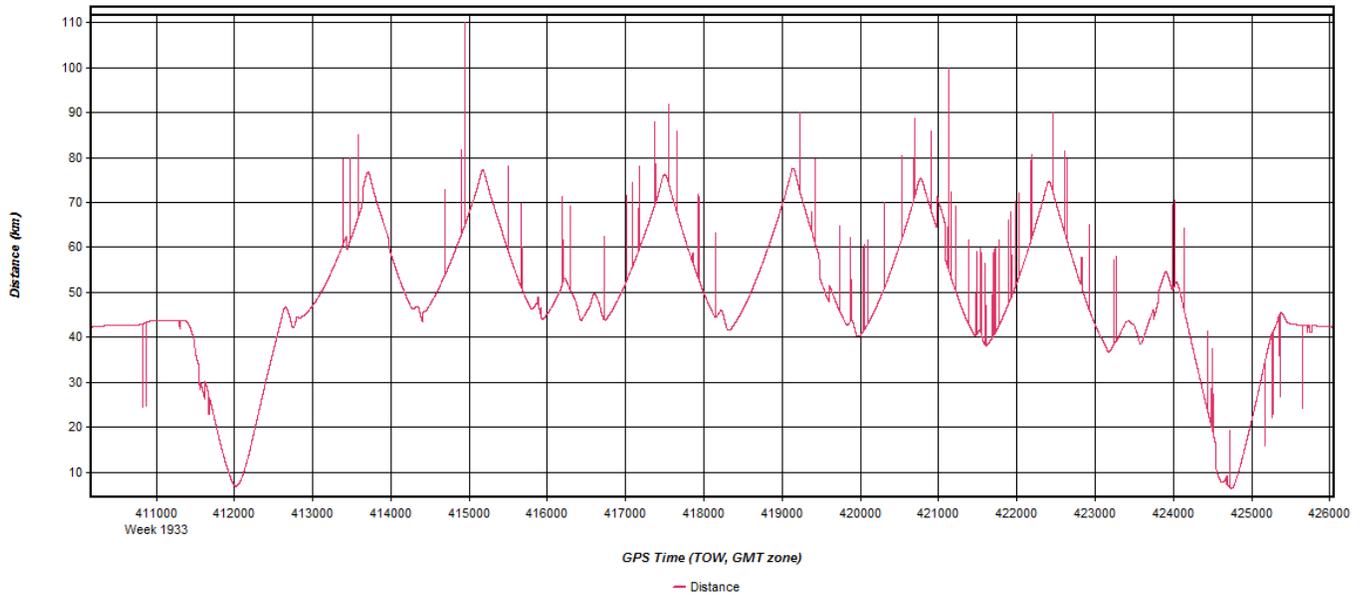
Combined Forward/Reverse Weighting



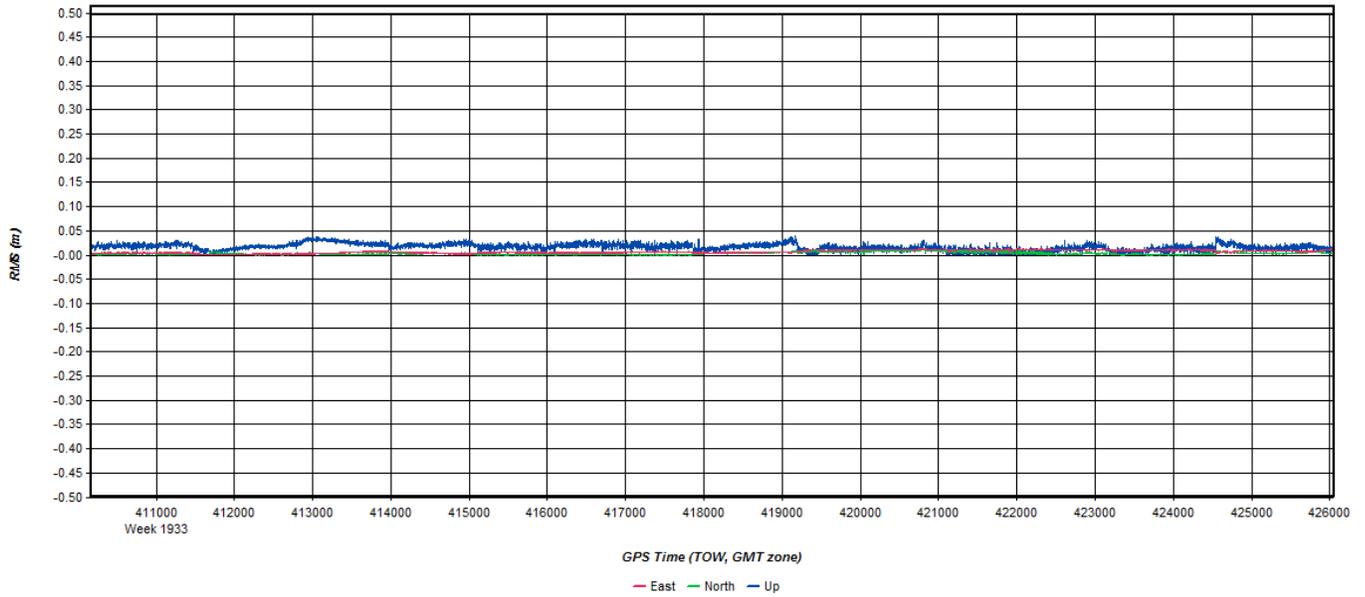
PDOP



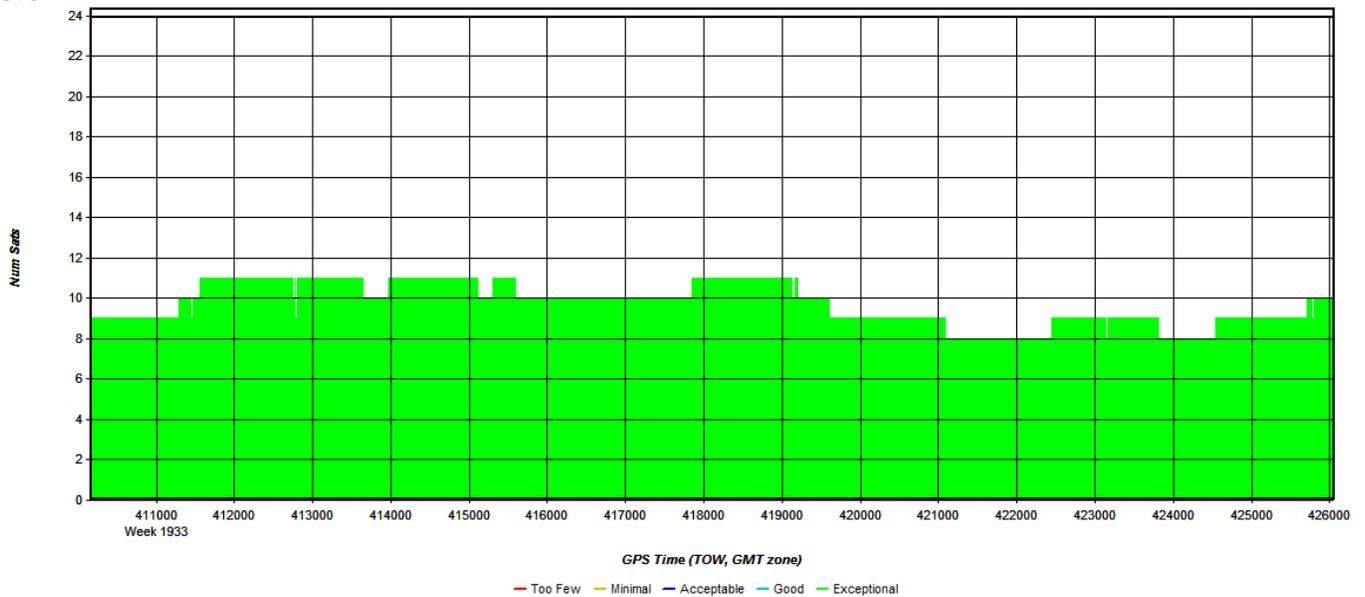
Distance from Base



Combined RMS



SVs



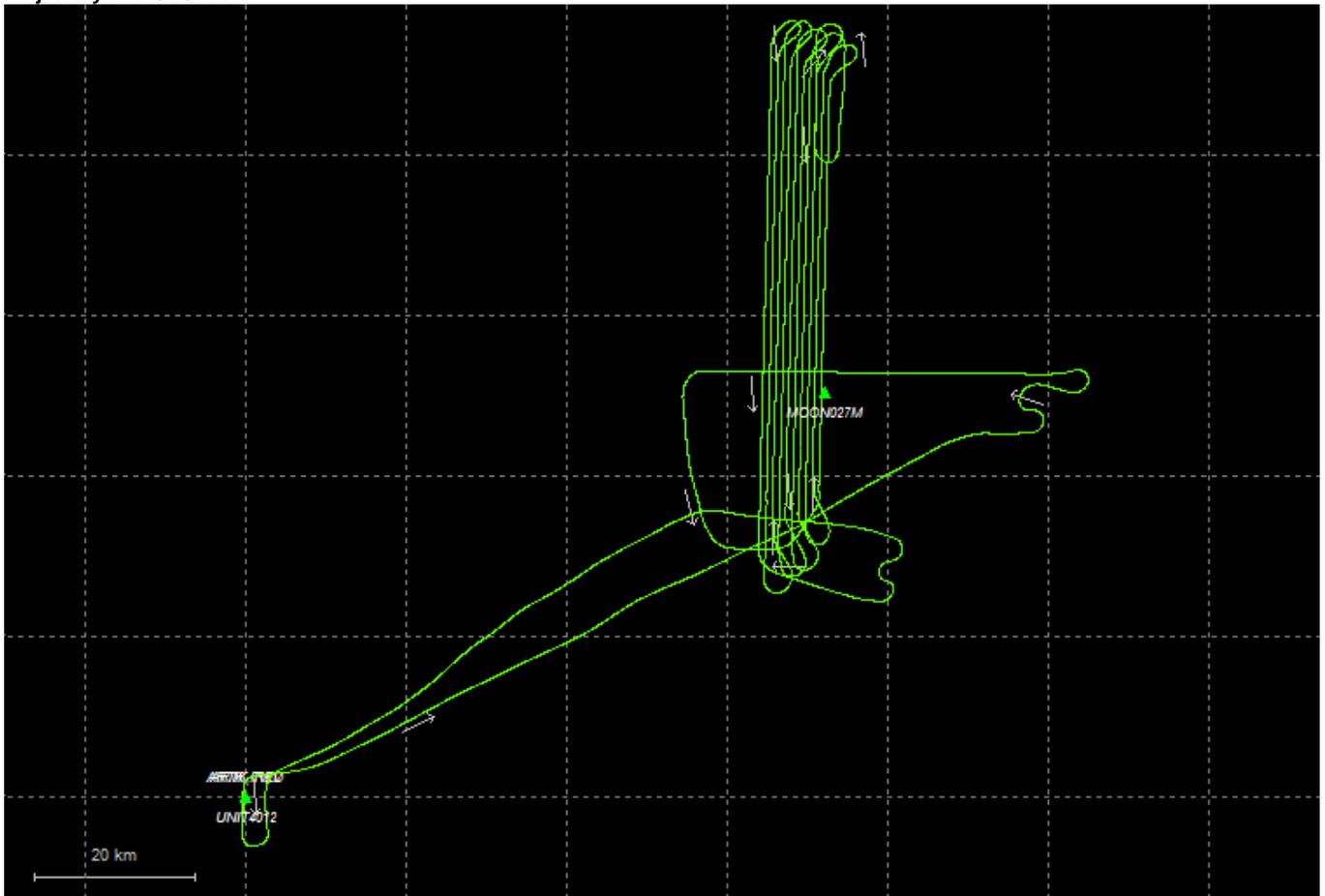


Acquisition and Processing details ----- Collection 4 (January 27, 2017)

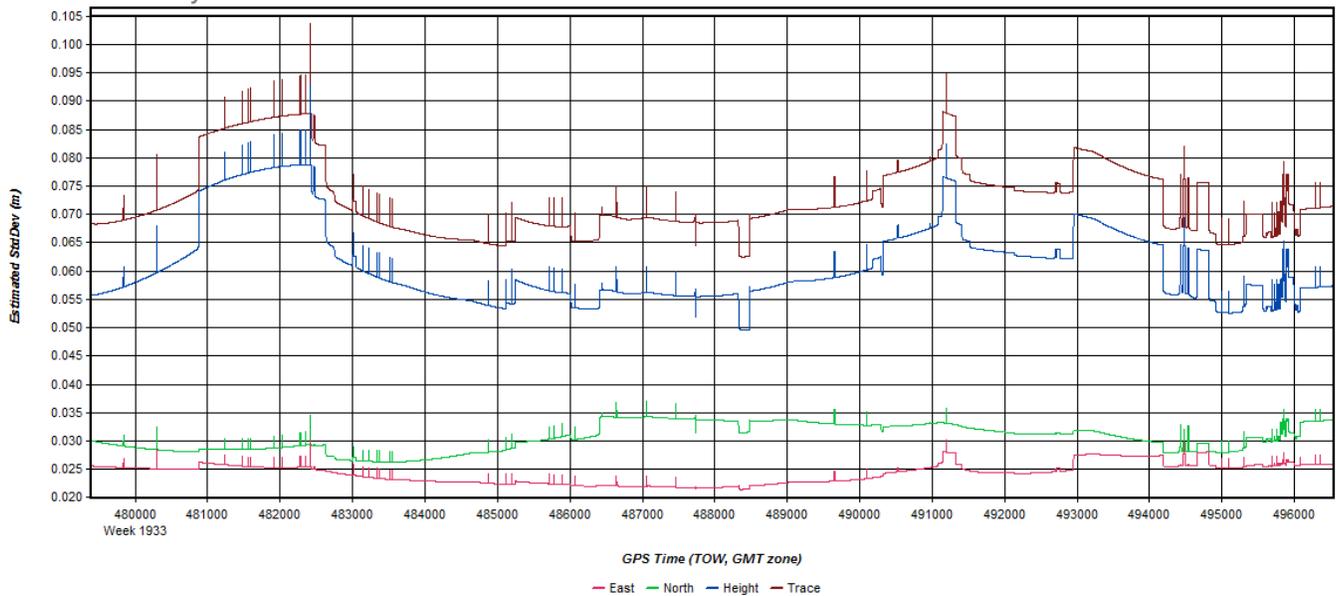
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl					
												Flight Log					
												AO80-50-00-02					
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity						
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs							
1		KHUM	13:00	390.7	KHUM	17:58	395.8	4:58	5:00	5:1	0900-Production						
2																	
3																	
FGI Job #		Project Name				System	Unit	IMU		Ground Temp °C		Min Range'	Data Logger Drives				
15004000		Upper Delta				680i	165	FMU-300		5.0	10.0	2100					
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive				
27-Jan-17		17-027	4						240	4.0	8.0	4052	NS1TB-62				
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	mi/WPT	Altim Setting	Humidity @ Alt	Shipping Track			
170127_165_15004000_04		N62912	KHUM		-6	3281	145	60	130	2	0.374	30.11	30.32	50			
Pilot #1		Pilot #2		Operator #1		Operator #2		gps on pos never goes green									
Randy Green				Chris Fought													
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator		Data				
016	KHUM	GR3-4	GR3-4	1.8	27-Jan-17 12:10		27-Jan-17 22:20		UNIT40127m.tps		Chris Fought		Shipped				
Area	Flight #	Wpt	Distance		UTC		Fit	Altitude	Speed	Scan	Comments and Conditions			SVs	PDOP		
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate					
							13:22:00	13:27:00					Ground Static at KHUM			9	1.1
							13:51:00	13:56:00					overfly ENG6 cors			8	1.3
							13:59:30	14:02:00					pre acquisition s turn			10	1.2
UpDeltaX	6		60	1	35.5	0	14:06:00	14:15:00	270	3,200	138	240.0	whole cross line			10	1.2
UpDelta3	81		1	76	0	45.1	14:24:00	14:35:10	000	3,200	130	240.0				10	1.2
	80		79	1	46.9	0	14:38:45	14:50:49	180	3,200	138	240.0				10	1.2
	79		1	81	0	48.2	14:54:40	15:06:00	000	3,200	140	240.0				10	1.2
	79		81	71	48.2	42.1	15:09:45	15:12:20	180	3,200	141	240.0	calibration line			10	1.2
	78		84	1	50	0	15:19:30	15:31:40	180	3,200	142	240.0				10	1.0
	77		1	85	0	50.6	15:36:15	15:49:00	000	3,200	138	240.0				9	1.3
	76		88	1	52.4	0	15:52:00	16:05:17	180	3,200	134	240.0				9	1.2
	75		1	90	0	53.6	16:09:30	16:23:10	000	3,200	133	240.0				11	1.0
	74		93	1	55.4	0	16:26:22	16:39:48	180	3,200	144	240.0				12	1.0
	73		1	94	0	56	16:44:10	16:58:28	000	3,200	132	240.0				10	1.2
	72		98	1	58.4	0	17:01:37	17:15:37	180	3,200	141	240.0				10	1.0
							17:19:31	17:22:00					post S turn			10	1.0
							17:22:30	17:27:30					overfly ENG6 cors			10	1.1
							17:48:30	17:53:30					Ground Static at KHUM			10	1.1

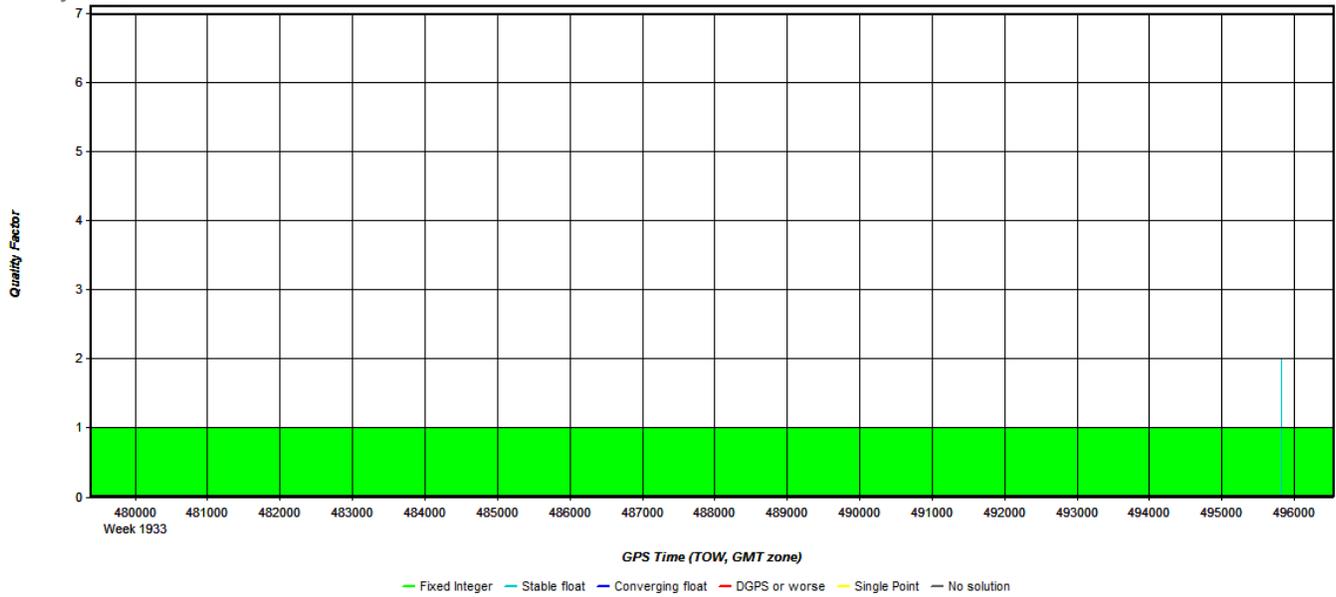
Trajectory and GPS Plots:



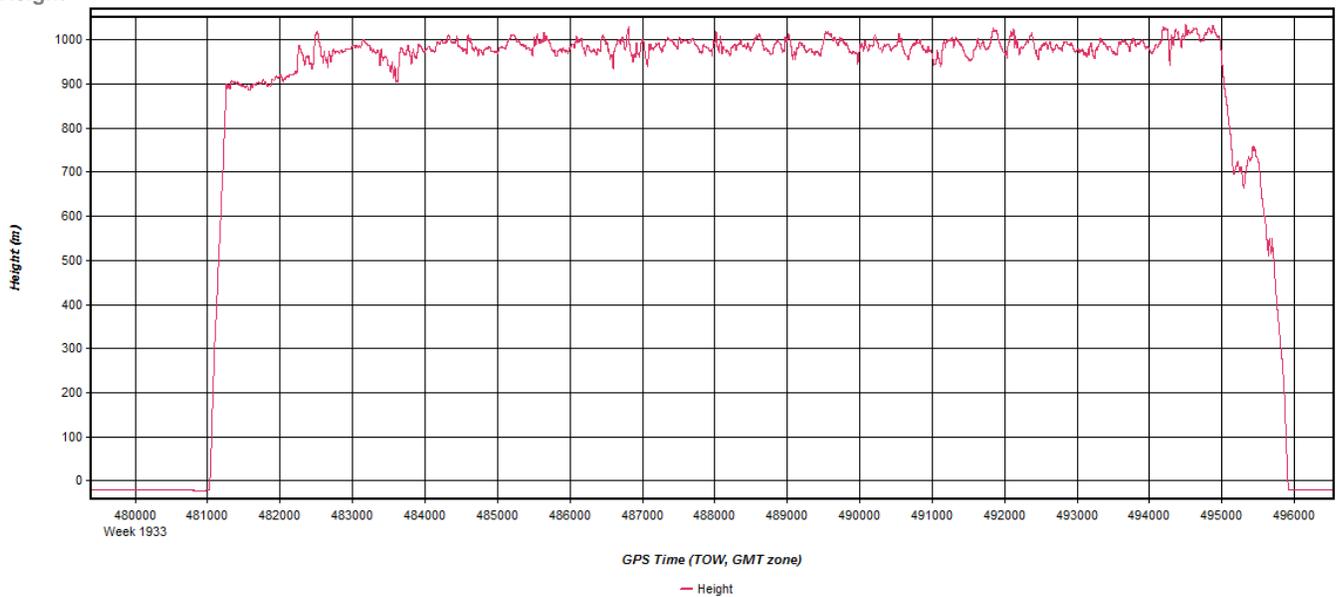
Estimated Accuracy



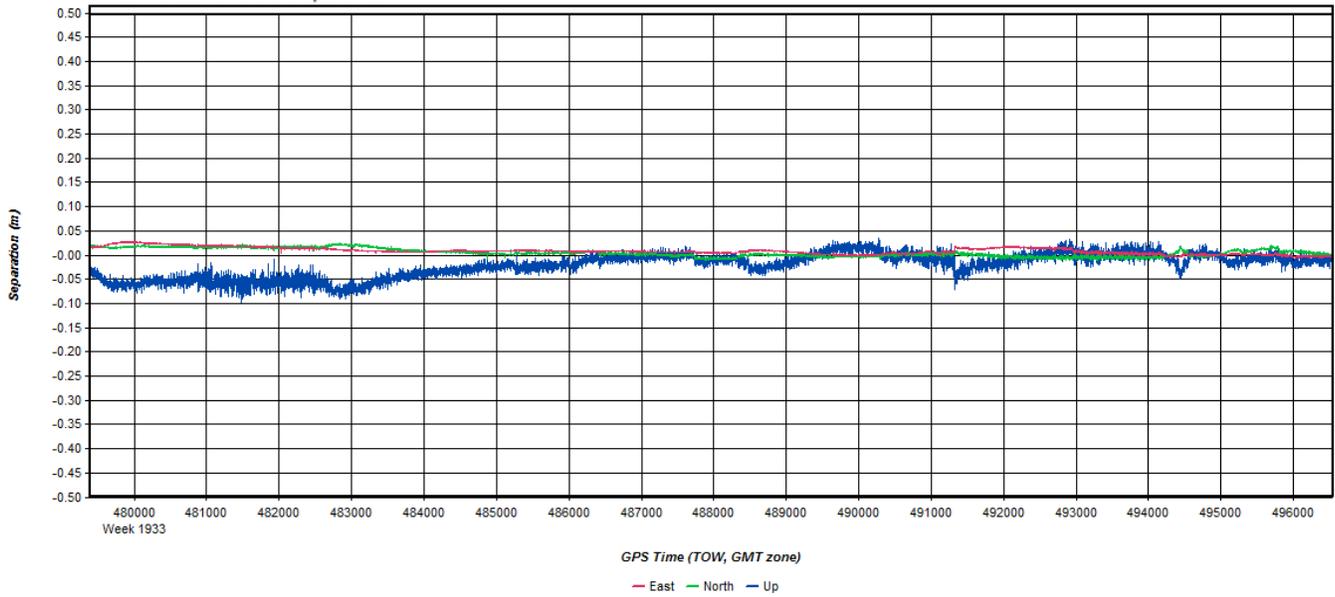
Quality Factor



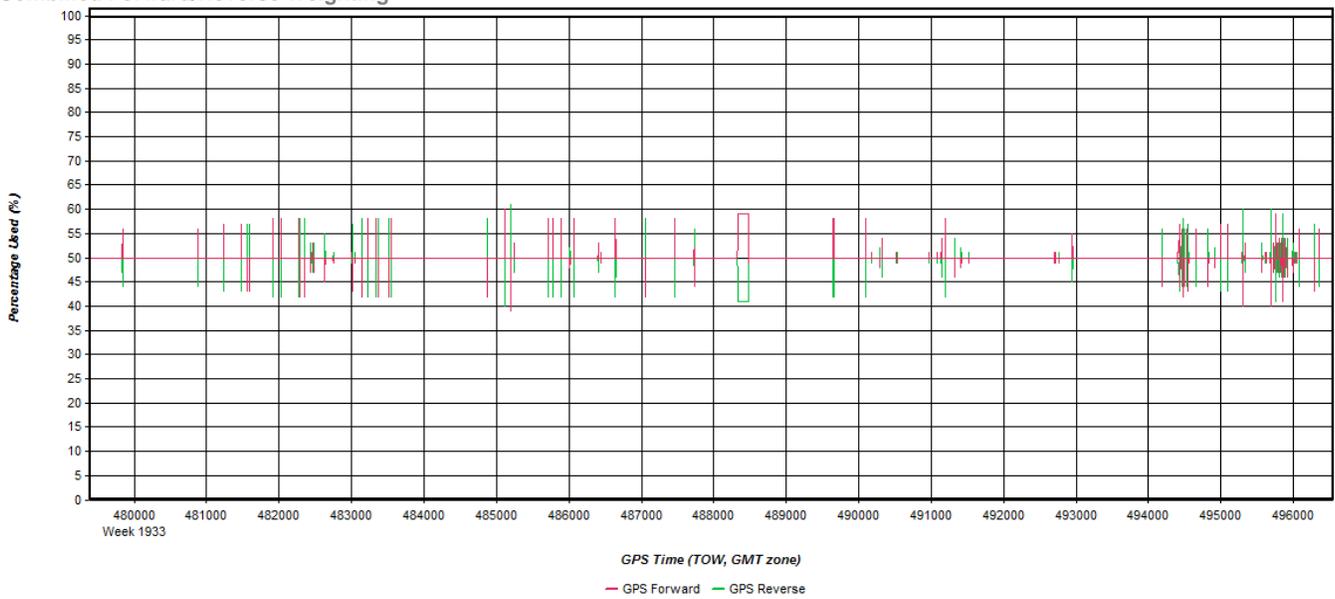
Height



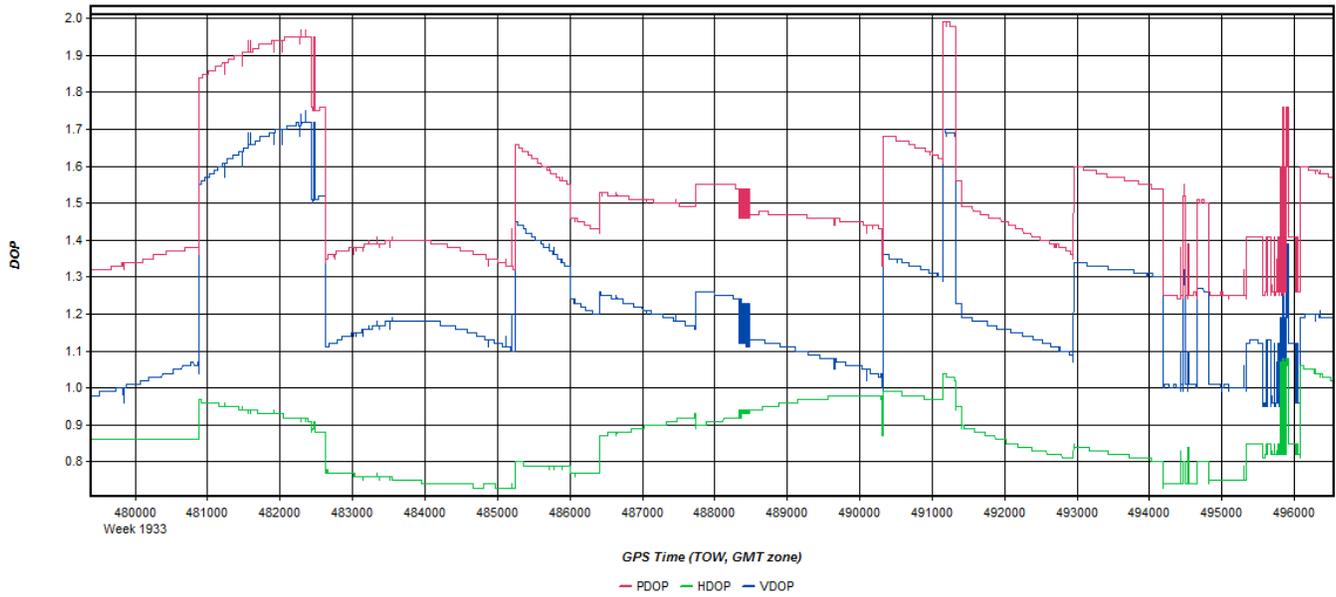
Combined Forward/Reverse Separation



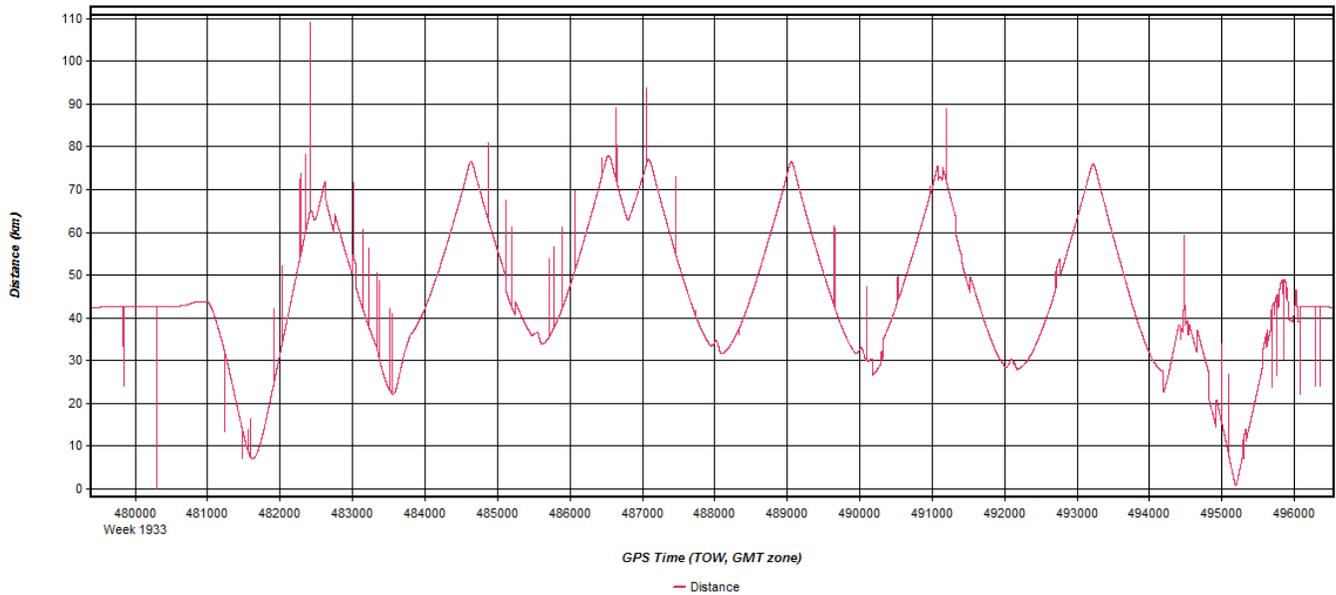
Combined Forward/Reverse Weighting



PDOP

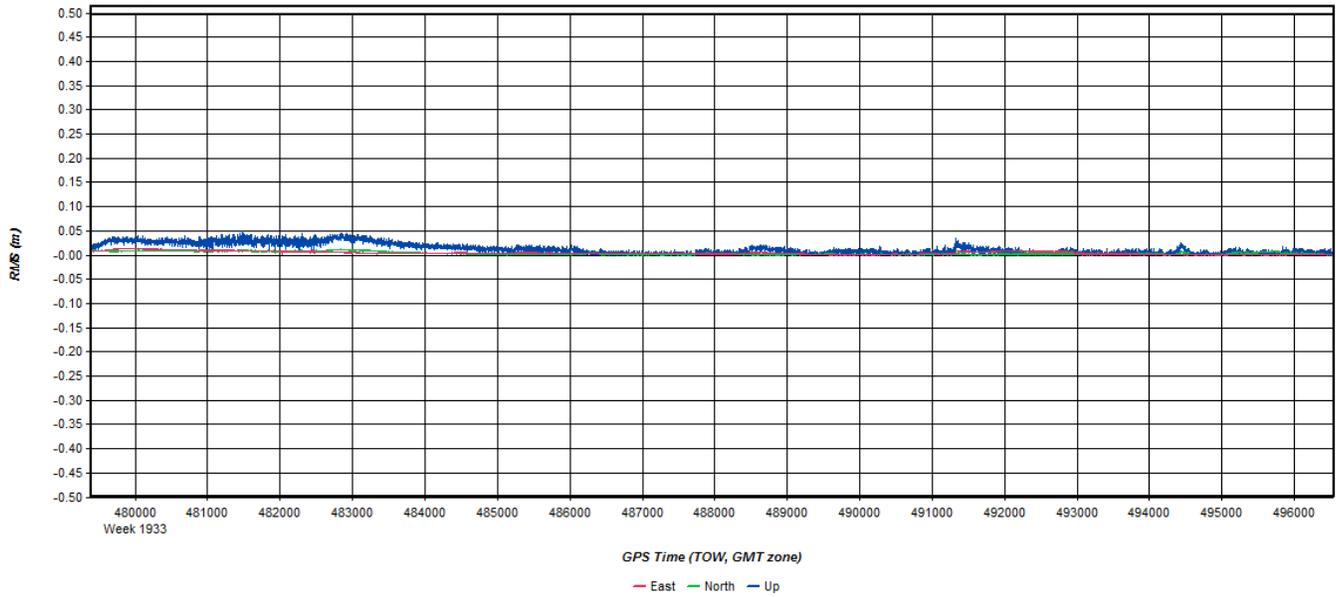


Distance from Base

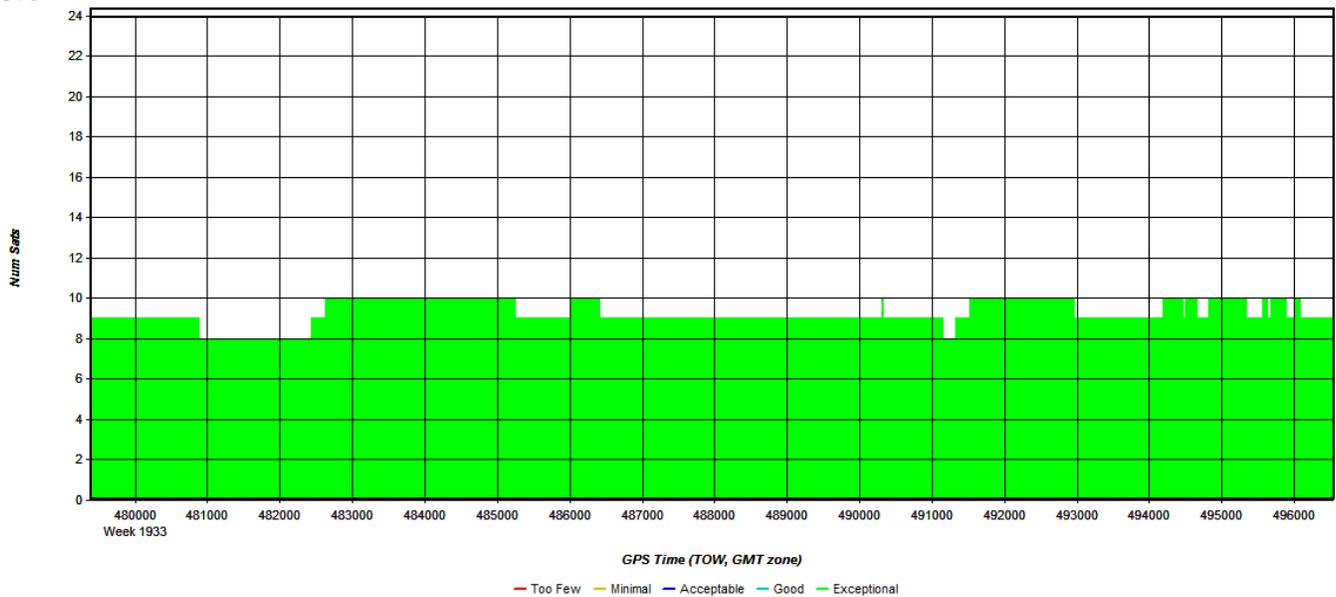




Combined RMS



SVs





Acquisition and Processing details ----- Collection 5 (January 27, 2017)

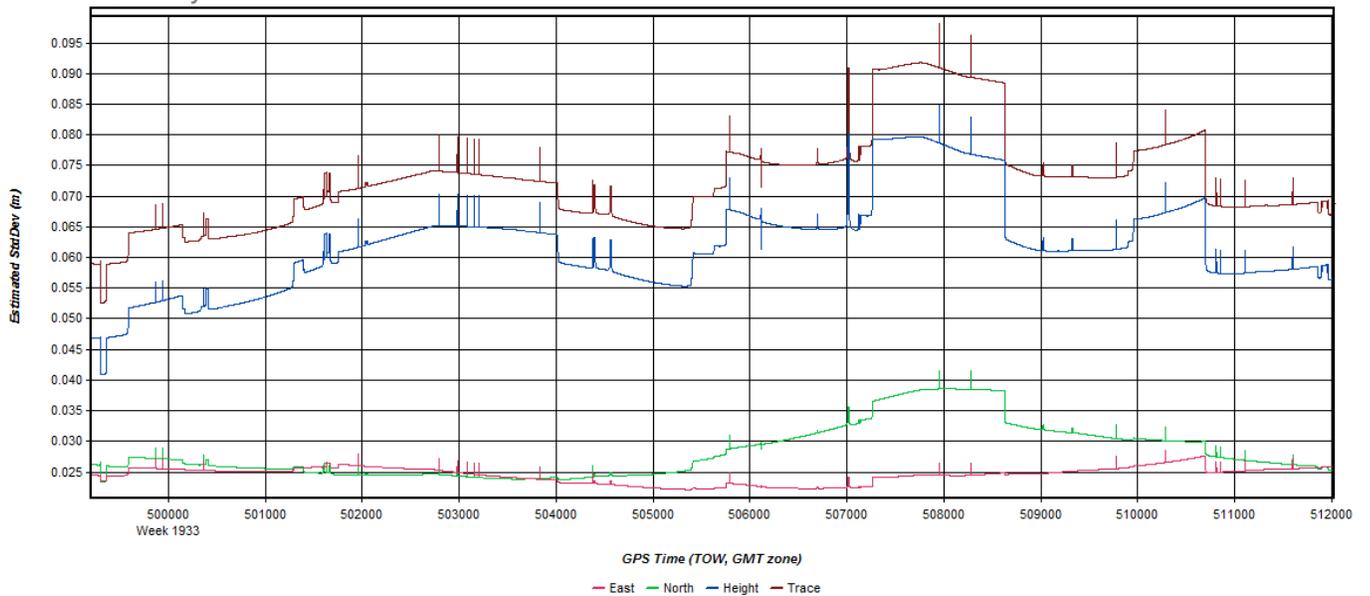
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl				
												Flight Log				
												AO80-50-00-02				
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity					
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1		KHUM	18:38	395.8	KHUM	22:15	399.4	3:37	3:50	3:6	0900-Production					
2																
3																
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Mn Range'		Data Logger Drives			
15004000		Upper Delta				680i	165	FMU-300	11.0 10.0		2100					
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive			
27-Jan-17		17-027	5						240	9.0 8.0		4052	NS1TB-62			
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	mi/WPT	Altm Setting	Humidity @ Alt	Shipping Track		
170127_165_15004000_05		N62912	KHUM		-6	3281	145	60	130	2	0.374	30.30 30.32	50			
Pilot #1		Pilot #2		Operator #1			Operator #2									
Randy Green				Chris Fought												
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator		Data			
016	KHUM	GR3-4	GR3-4	1.8	27-Jan-17 12:10		1/27/17 22:22:00 AM		UNIT40127m.tps		Chris Fought		Shipped			
Area	Flight #		Wpt		Distance		UTC		Fit	Althude	Speed	Scan	Comments and Conditions		SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate				
							18:45:30	18:50:30					Ground Static at KHUM		11	1.0
							19:13:00	19:18:00					overfly ENG6 cors		12	1.2
							19:18:34	19:22:00					pre acquisition s turn		12	1.2
UpDelta3	85		1	68	0	40.3	19:26:40	19:37:00	000	3,200	134	240.0	reflight		12	1.2
	84		70	1	41.5	0	19:40:25	19:50:43	180	3,200	142	240.0	reflight		11	1.2
	83		1	75	0	44.5	19:55:00	20:07:00	000	3,200	132	240.0	reflight		11	1.1
	82		76	1	45.1	0	20:10:25	20:21:30	180	3,200	141	240.0	reflight		11	1.2
	82		1	10	0	5.4	20:25:45	20:27:20	000	3,200	131	240.0	calibration line		11	1.1
UpDeltaX	6		35	20	20.5	11.4	20:33:20	20:35:30	270	3,200	135	240.0	cross line		9	1.4
UpDelta3	65		1	20	0	11.4	20:43:45	20:47:14	000	3,200	131	240.0			10	1.2
	64		19	1	10.8	0	20:51:00	20:53:33	180	3,200	144	240.0			10	1.1
	63		1	18	0	10.2	20:57:41	21:01:00	000	3,200	133	240.0			10	1.2
	62		17	1	9.6	0	21:04:05	21:06:51	180	3,200	138	240.0			10	1.1
	61		1	16	0	9	21:12:40	21:15:31	000	3,200	136	240.0			10	1.2
	61		16	7	9	3.6	21:19:38	21:21:14	180	3,200	139	240.0	calibration line		10	1.2
UpDeltaX	3		110	125	65.6	74.6	21:26:40	21:29:20	90	3,200	133	240.0	crossing line		10	1.2
							21:29:30	21:32:15					post S turn		9	1.1
							21:39:00	21:44:00					overfly ENG6 cors		9	1.2
							22:07:30	22:12:30					Ground Static at KHUM		11	1.1

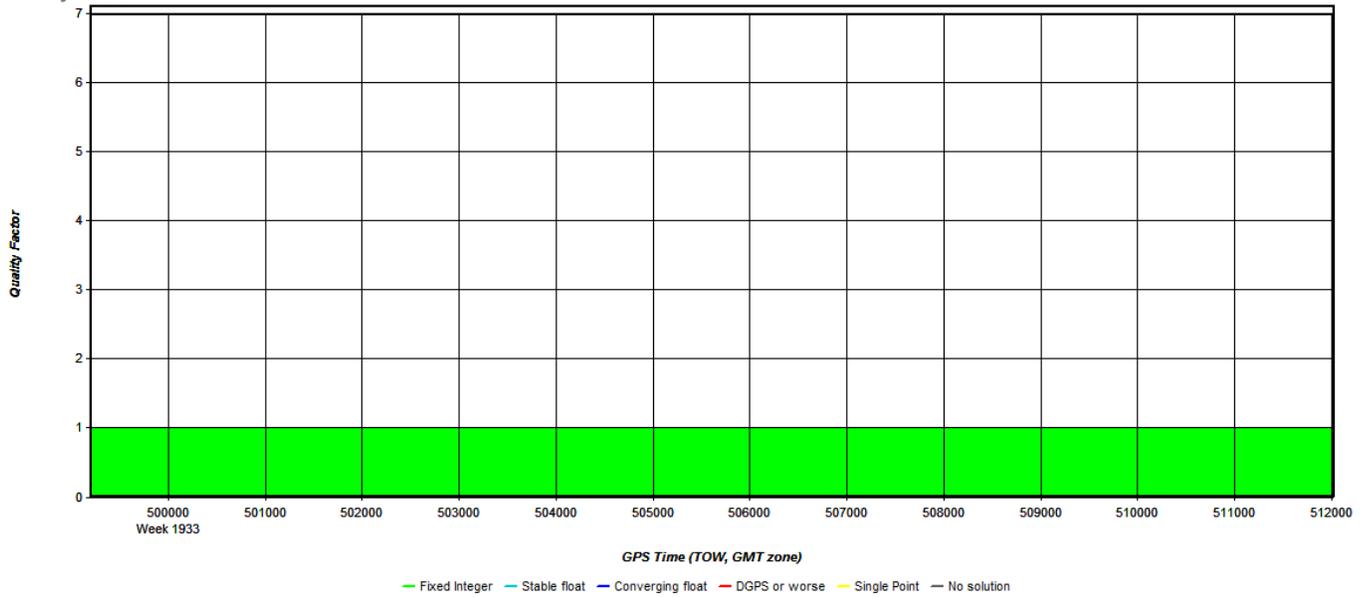
Trajectory and GPS Plots:



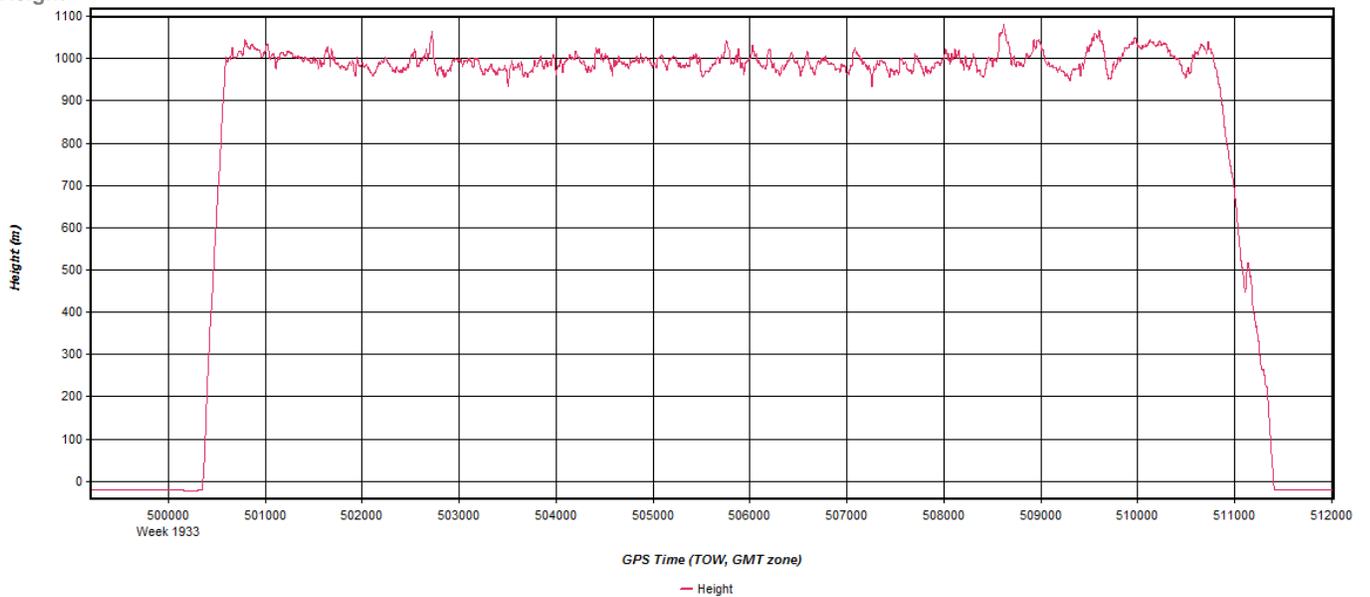
Estimated Accuracy



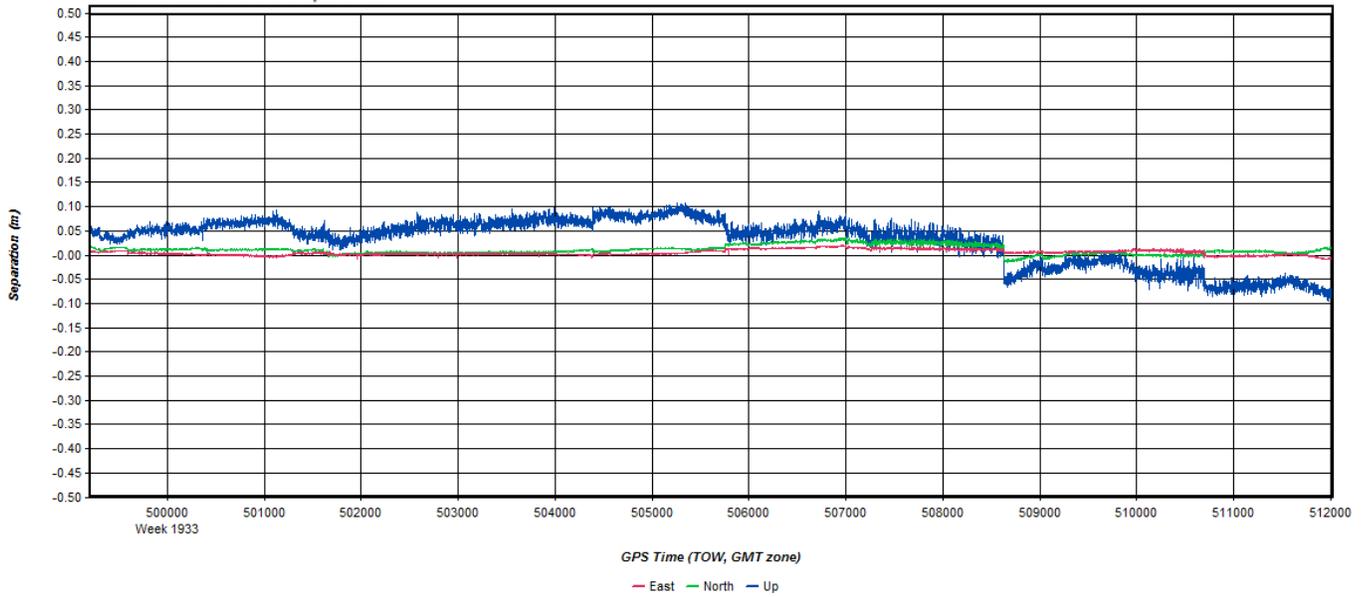
Quality Factor



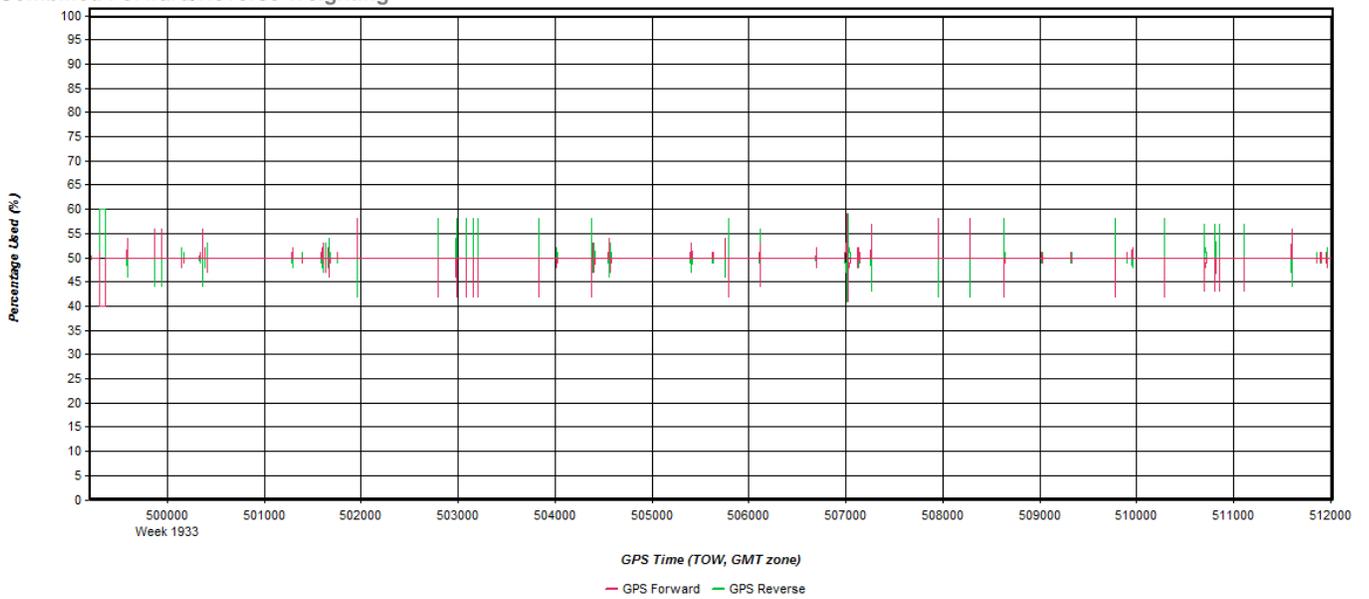
Height



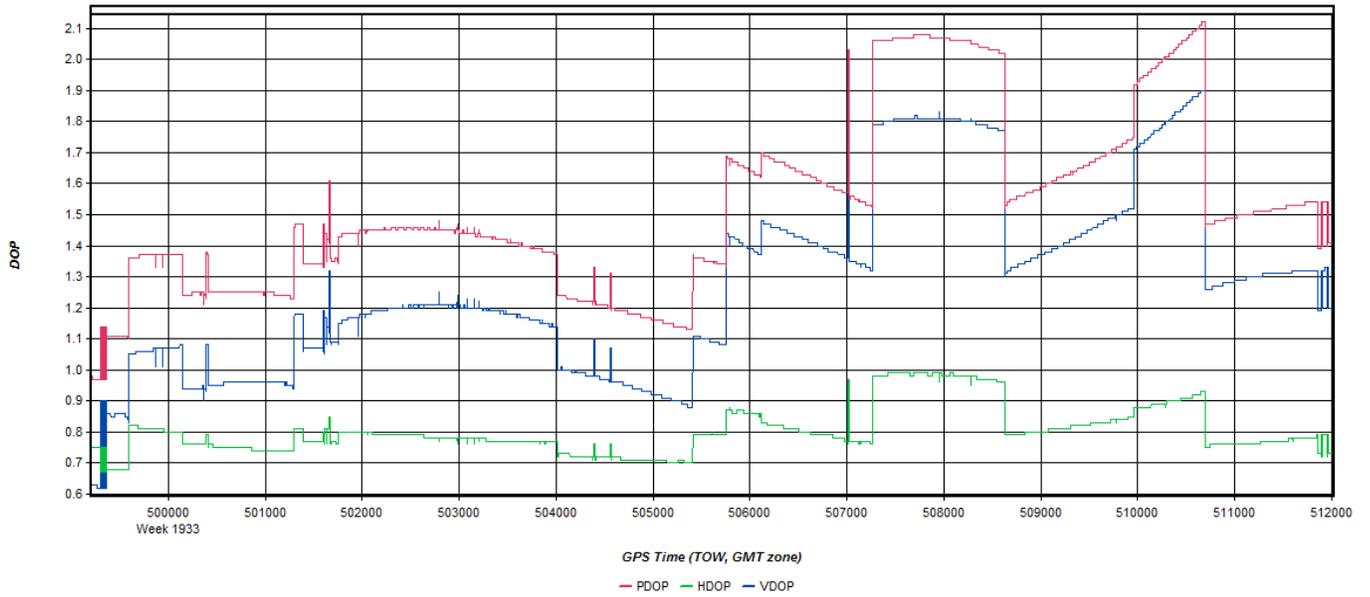
Combined Forward/Reverse Separation



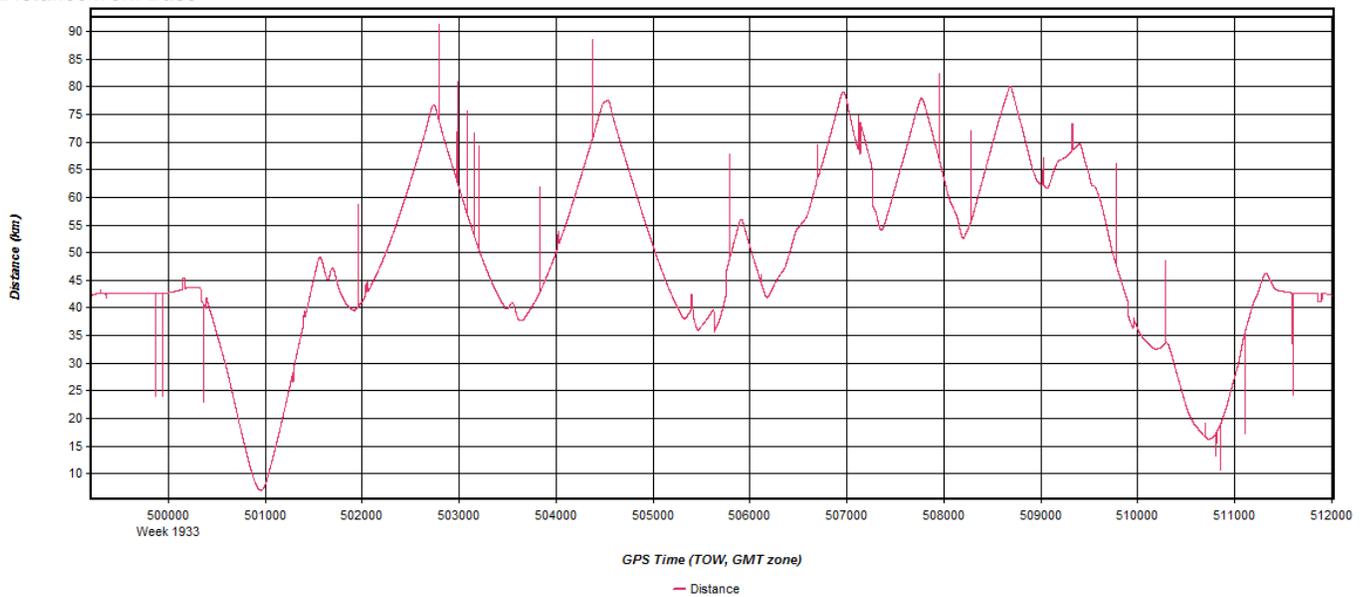
Combined Forward/Reverse Weighting



PDOP

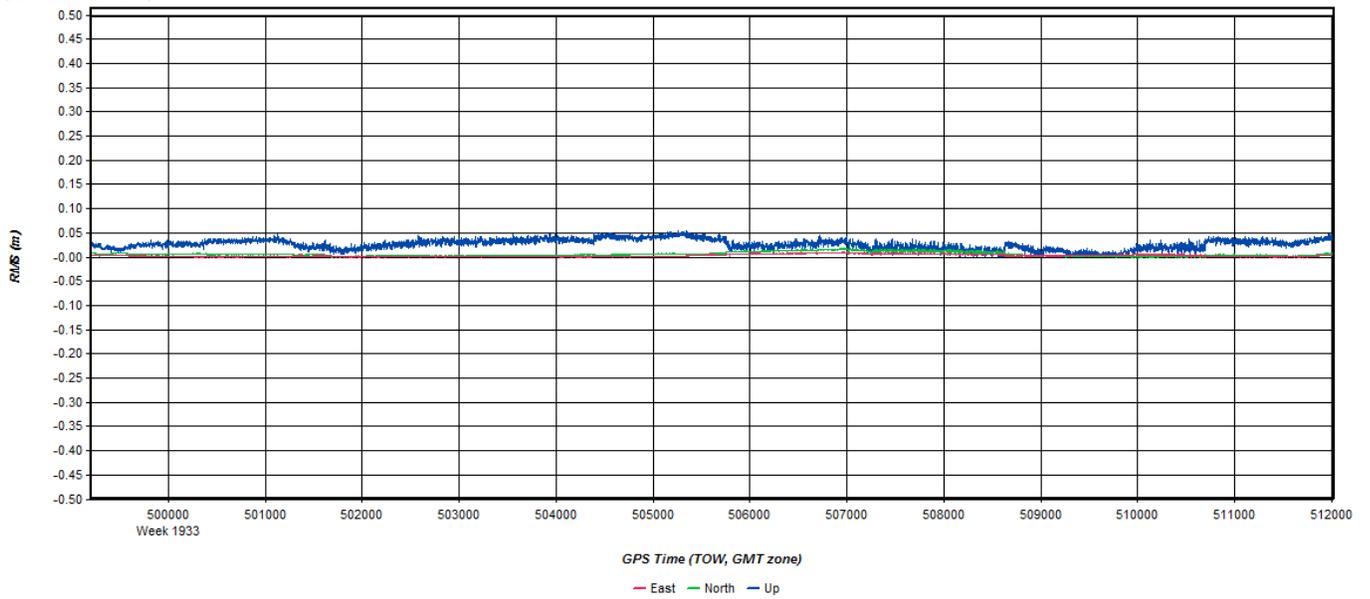


Distance from Base

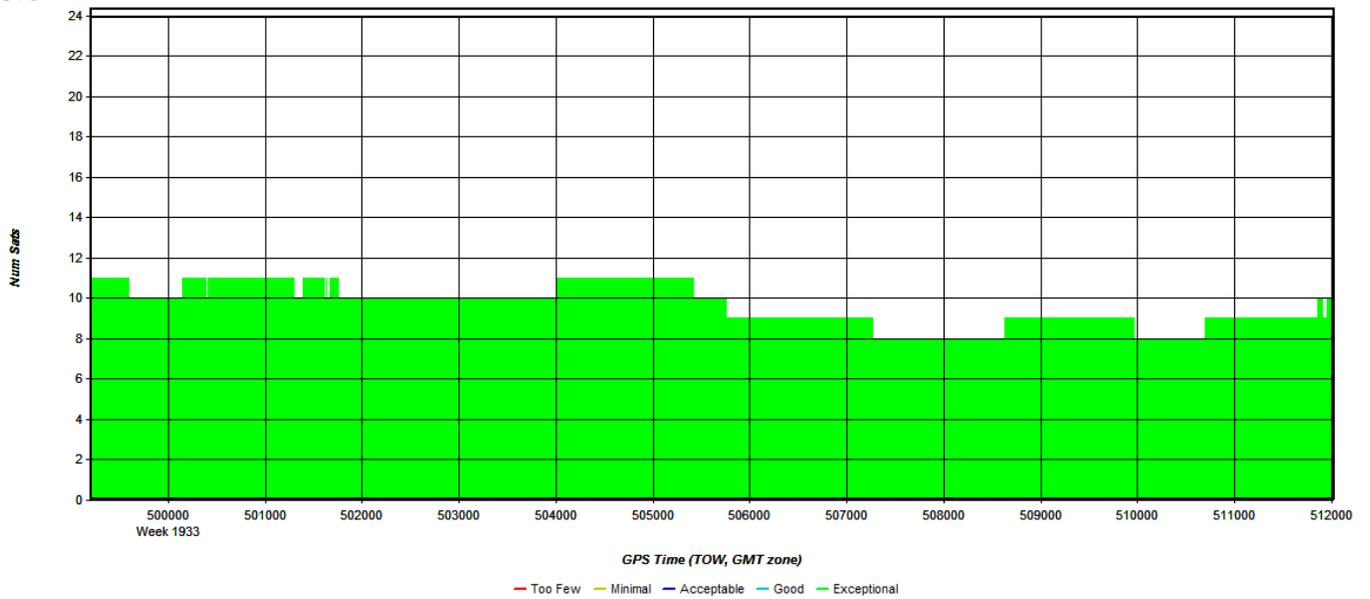




Combined RMS



SVs





Acquisition and Processing details ----- Collection 6 (January 27, 2017)

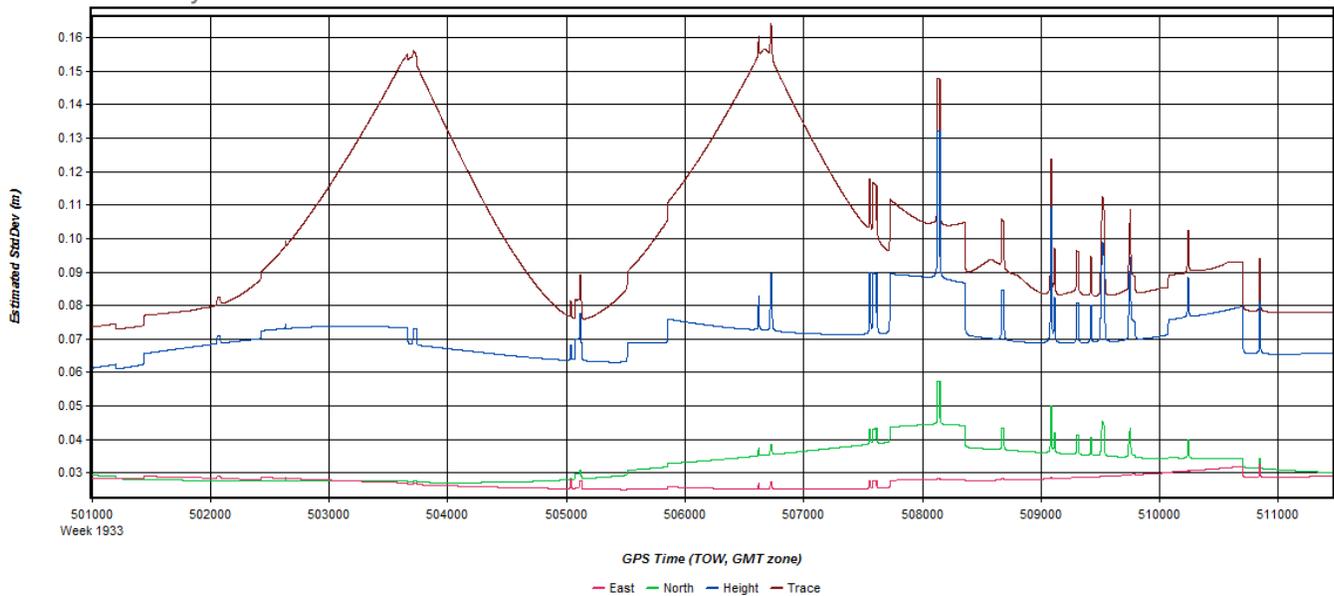
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl				
												Flight Log				
												AO80-50-00-02				
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity					
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1		KHUM	19:06	203.4	KHUM	21:55	206.0	2:49	2.75	2.6	0103-Mob/Demob					
2																
3																
FGI Job #		Project Name				System	Unit	IMU		Ground Temp °C		Data Logger Drives				
15004000		Upper Delta				780	961	FMU-300		15.0						
Flight Date		GPS Day	Lift			Sun*	Solar Times (UTC)		Pulse Rate	Flying Temp °C		Download Drive				
26-Jan-17		17-026	1						360	2.0						
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track		
170126_961_15004000_01		N83AR	KHUM	Track	-6	4400	130	60	110			30.00	25.00			
Pilot #1		Pilot #2		Operator #1		Operator #2										
John Stright		Ryan Farnworth		Larry Scott												
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator		Data			
016	Houma	4							Same file as N62912		Chris Fought					
Area	Flight #		Wpt		Distance		UTC		Fit	Altitude	Speed	Scan	Comments and Conditions		SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate				
UpDelta 1	68						19:29:55	19:53:00	N		118					
	67						19:56:07	20:15:00	S		130					
	66						20:20:42	20:43:00	N		120					
	65						20:45:33	21:06:00	S		135					
	65						21:11:41	21:14:00	N				Calibration, reversed line			
	-						21:17:52	21:19:00	E				x-tie over today's lines			
	1						21:25:11		W		130		Airport calibration			
	2						21:28:45		E				Airport calibration			
	3						21:33:11		W				Airport calibration			
	6						21:36:51		N				Airport calibration			
	5						21:40:53		S				Airport calibration			
	4						21:46:29		N		130		Airport calibration			

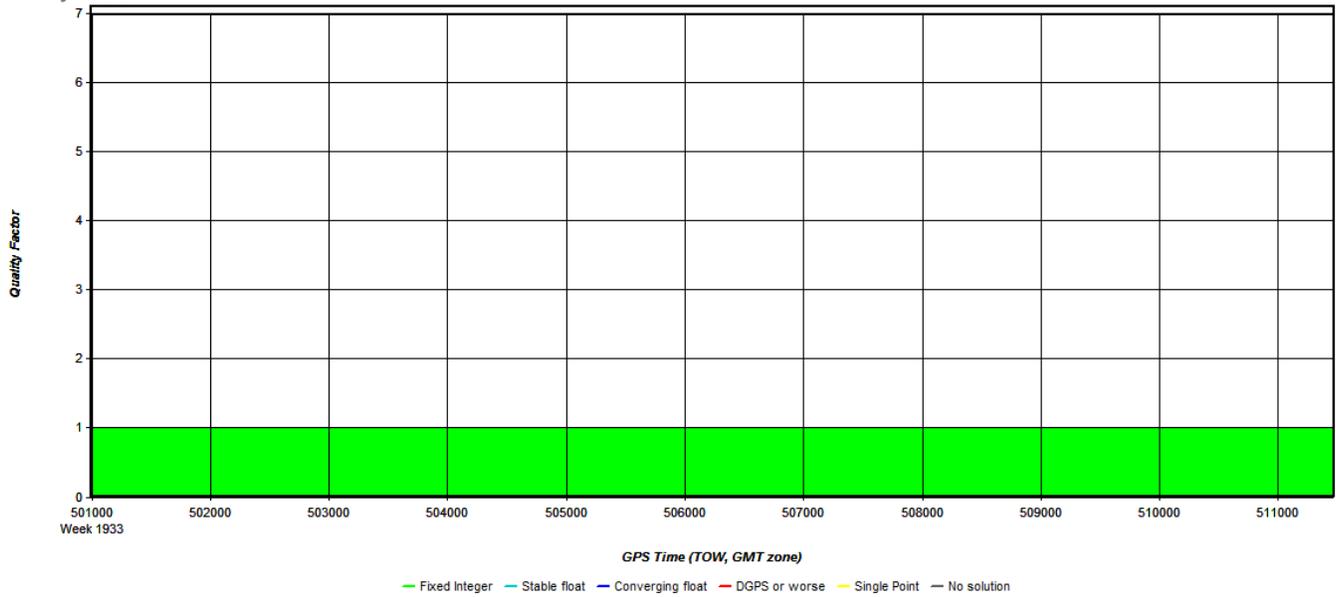
Trajectory and GPS Plots:



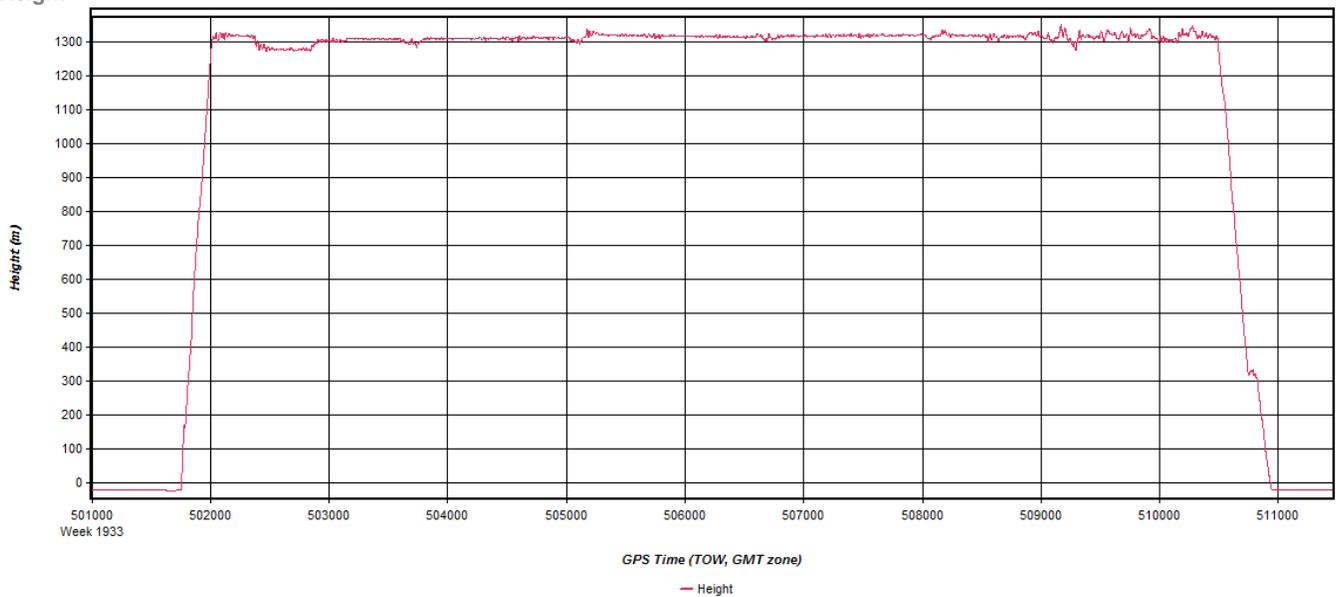
Estimated Accuracy



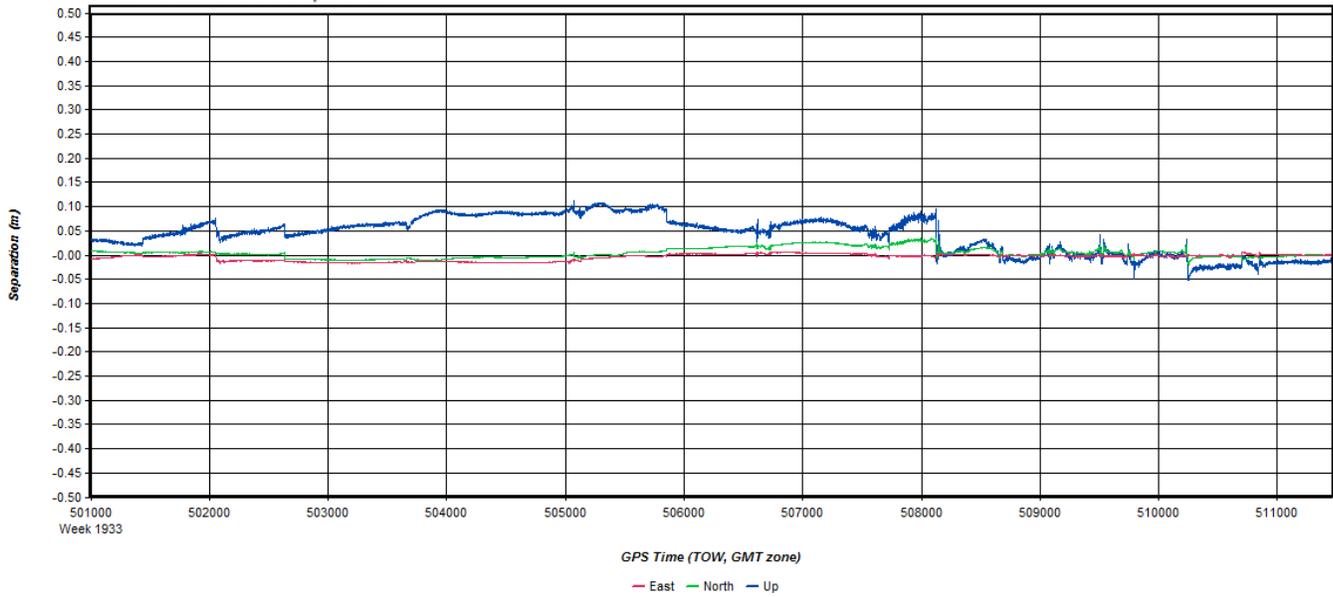
Quality Factor



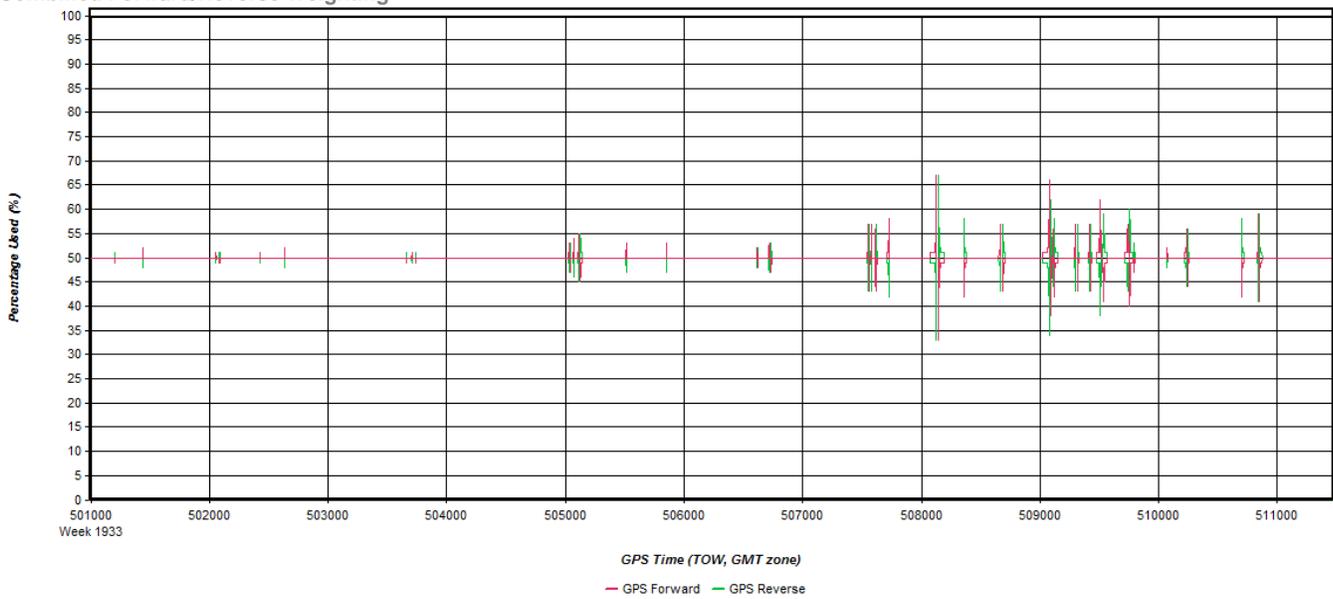
Height



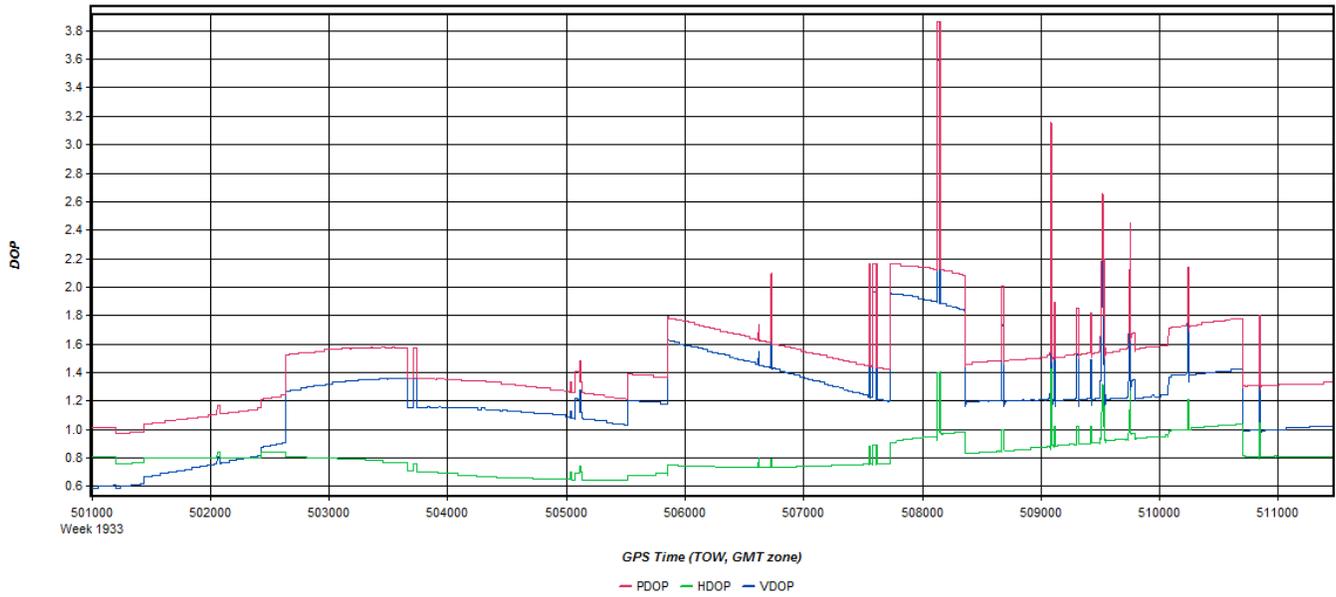
Combined Forward/Reverse Separation



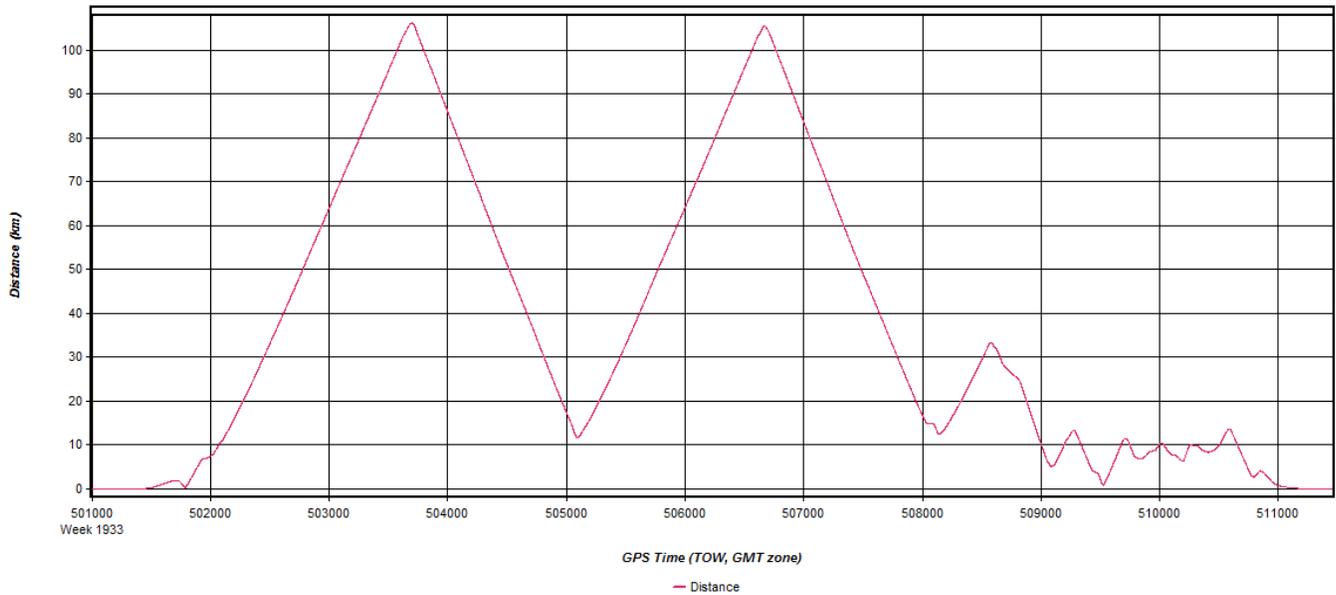
Combined Forward/Reverse Weighting



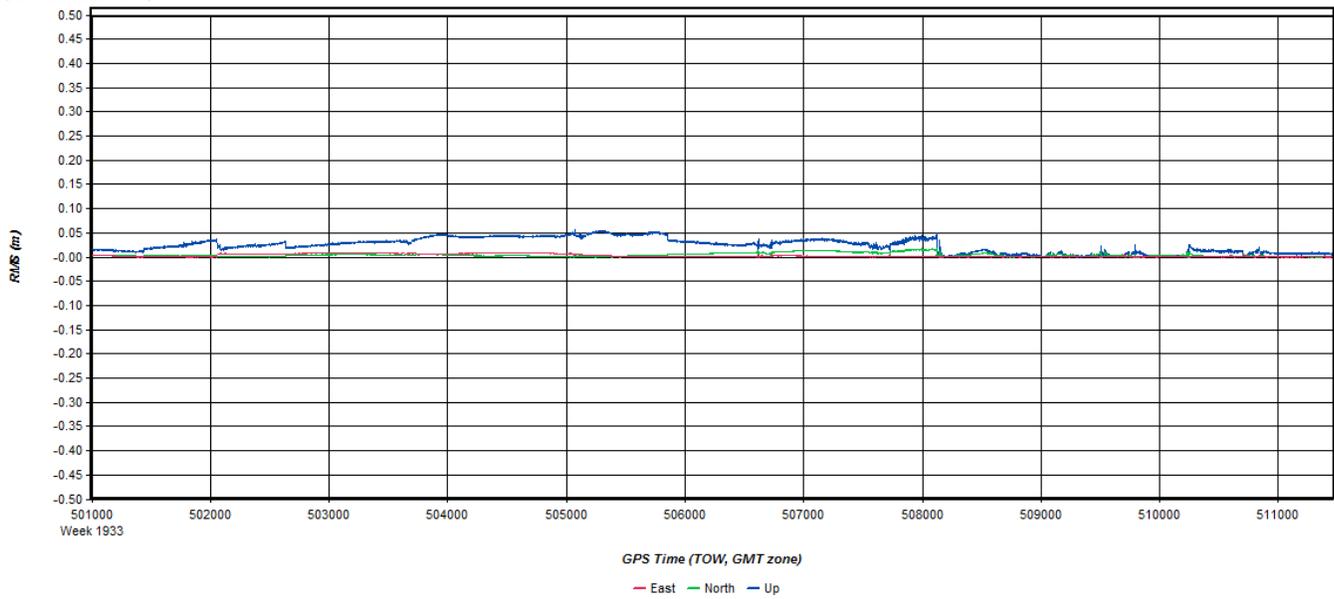
PDOP



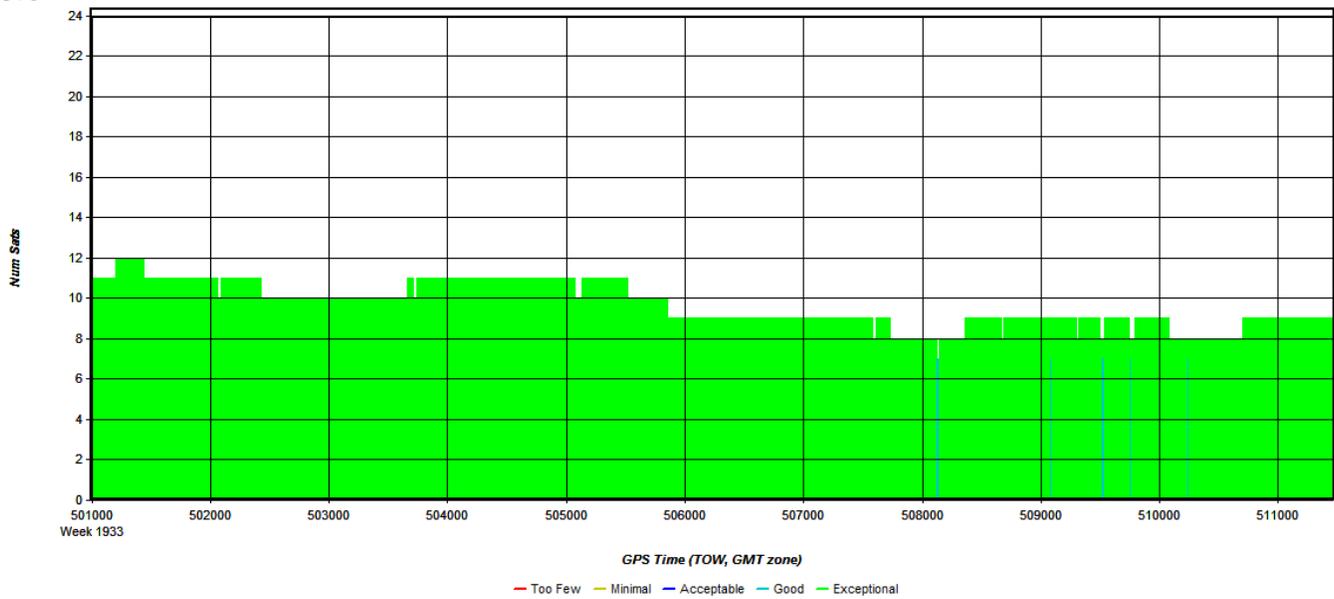
Distance from Base



Combined RMS



SVs



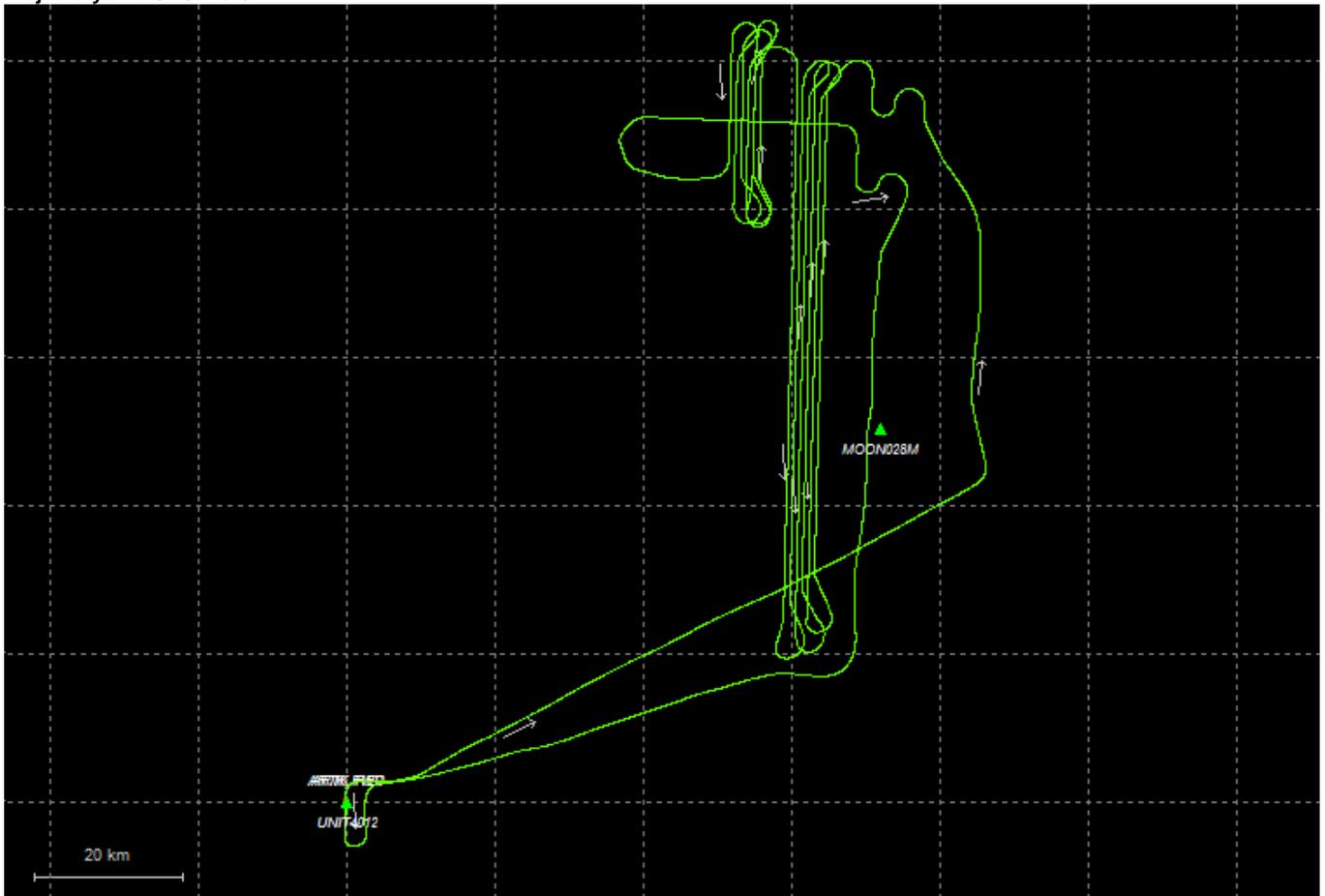


Acquisition and Processing details ----- Collection 7 (January 28, 2017)

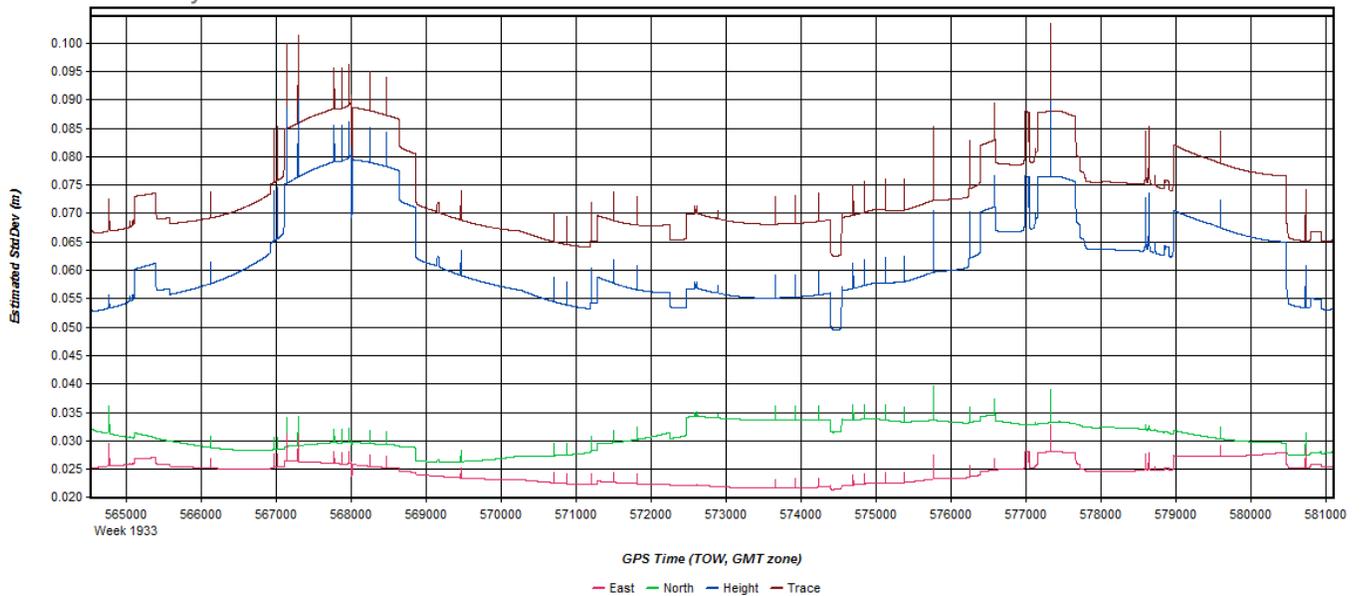
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl		
												Flight Log		
												AO80-50-00-02		
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity			
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs				
1		KHUM	12.45	399.4	KHUM	17.26	404.1	4:41	4.75	4.7	0900-Production			
2														
3														
FGI Job #		Project Name				System	Unit	IMU		Ground Temp C		Mn Range'	Data Logger Drives	
15004000		Upper Delta				680i	165	FMU-300		5.0	7.0	2100		
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive	
28-Jan-17		17-028	6						240	4.0	0.0	4052	NS1TB-51	
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	mi/WPT	Altm Setting	Humidity @ Alt	Shipping Track
170128_165_15004000_06		N62912	KHUM		-6	3281	145	60	130	2	0.374	30.26	30.29	70
Pilot #1		Pilot #2		Operator #1		Operator #2								
Randy Green				Chris Fought										
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator		Data	
016	KHUM	GR3-4	GR3-4	1.8	28-Jan-17 12:00		28-Jan-17 17:55		Unit40128m.tps		Chris Fought		Shipped	
Area	Flight #	Wpt	Distance		UTC		Fit	Althude	Speed	Scan	Comments and Conditions			
	FGI	Client	From	To	Begin	End	Dir	(GPS)	(knots)	Rate	SVs	PDOP		
					12:53:00	12:58:00						10	1.2	
					13:23:30	13:28:30						9	1.1	
					13:41:50	13:46:00						9	1.2	
UpDelta3	71	99	1	59	0	13:48:22	14:03:05	180	3,200	135	240.0		8	1.3
	70	1	102	0	60.8	14:07:20	14:22:21	000	3,200	134	240.0		10	1.1
	69	103	1	61.4	0	14:26:08	14:41:39	180	3,200	134	240.0		10	1.2
	68	1	106	0	63.2	14:46:15	15:01:46	000	3,200	133	240.0		10	1.1
	67	108	1	64.4	0	15:05:10	15:20:41	180	3,200	137	240.0		10	1.0
	66	1	111	0	66.2	15:24:54	15:41:04	000	3,200	135	240.0		9	1.2
	60	16	1	9	0	15:44:26	15:47:07	180	3,200	141	240.0		9	1.2
	59	1	16	0	9	15:51:08	15:53:48	000	3,200	141	240.0		9	1.2
	59	16	1	9	0	15:58:12	16:00:57	180	3,200	138	240.0	calibration line	10	1.2
	58	1	16	0	9	16:04:58	16:08:04	000	3,200	139	240.0		10	1.1
	57	17	1	9.6	0	16:11:47	16:14:41	180	3,200	137	240.0		11	1.1
	56	1	17	0	9.6	16:19:05	16:21:52	000	3,200	140	240.0		12	1.0
	55	17	1	9.6	0	16:25:45	16:28:44	180	3,200	134	240.0		12	1.1
UpDeltaX	3	95	125	56.6	74.6	16:35:12	16:40:55	90	32,000	138	240.0		11	1.1
						16:43:00	16:45:15						10	1.3
						16:52:00	16:57:00						10	1.2
						17:19:00	17:24:00						10	1.0

Trajectory and GPS Plots:

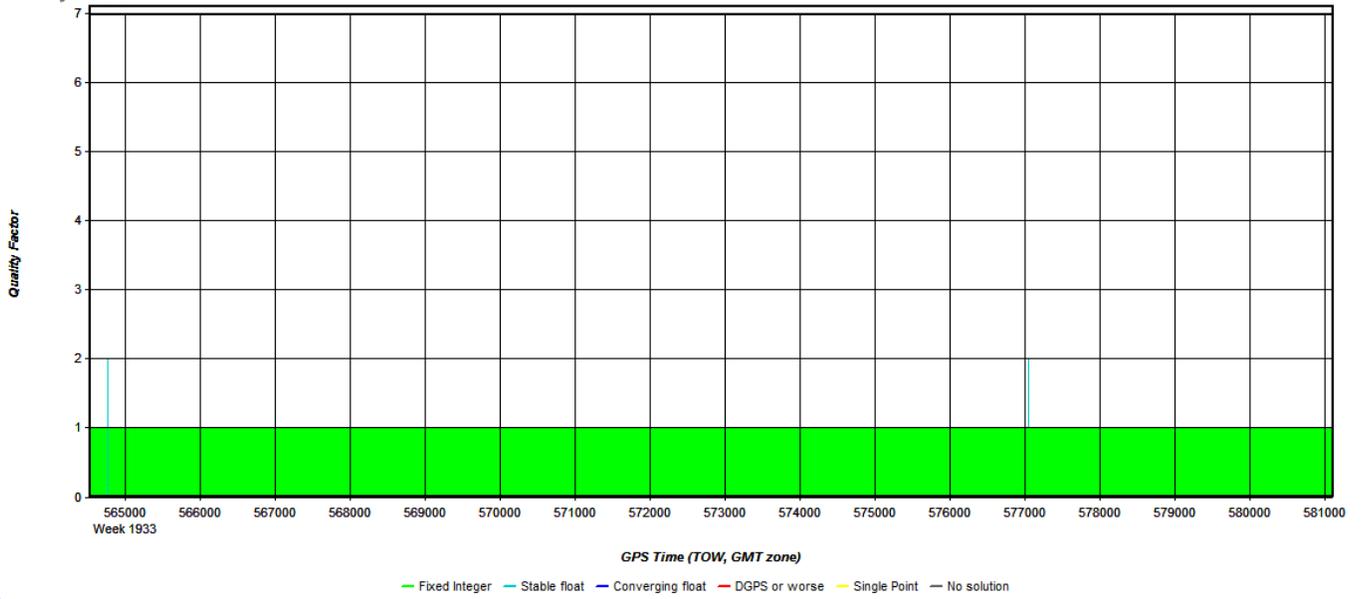


Estimated Accuracy

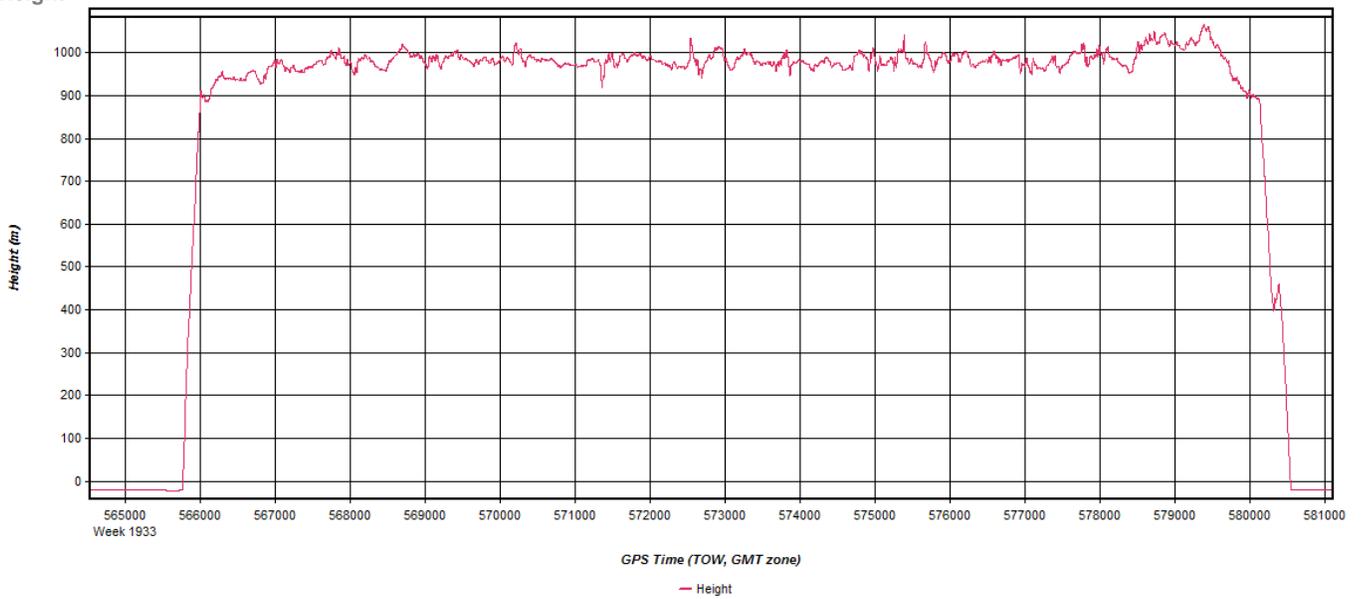




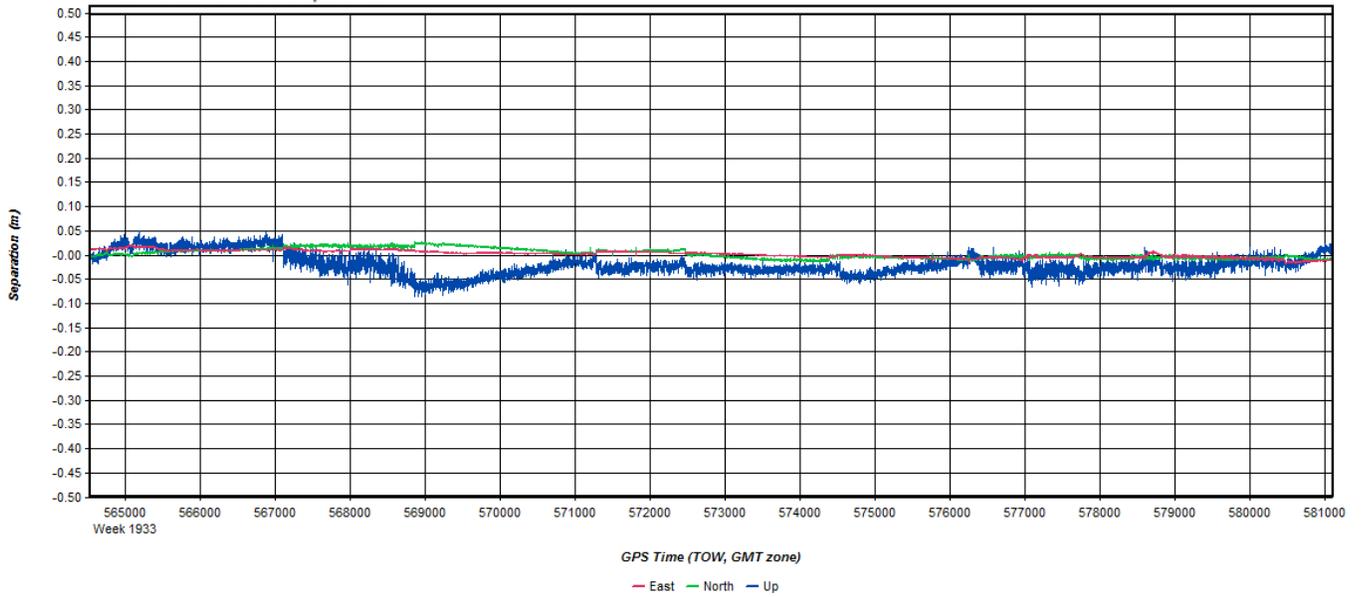
Quality Factor



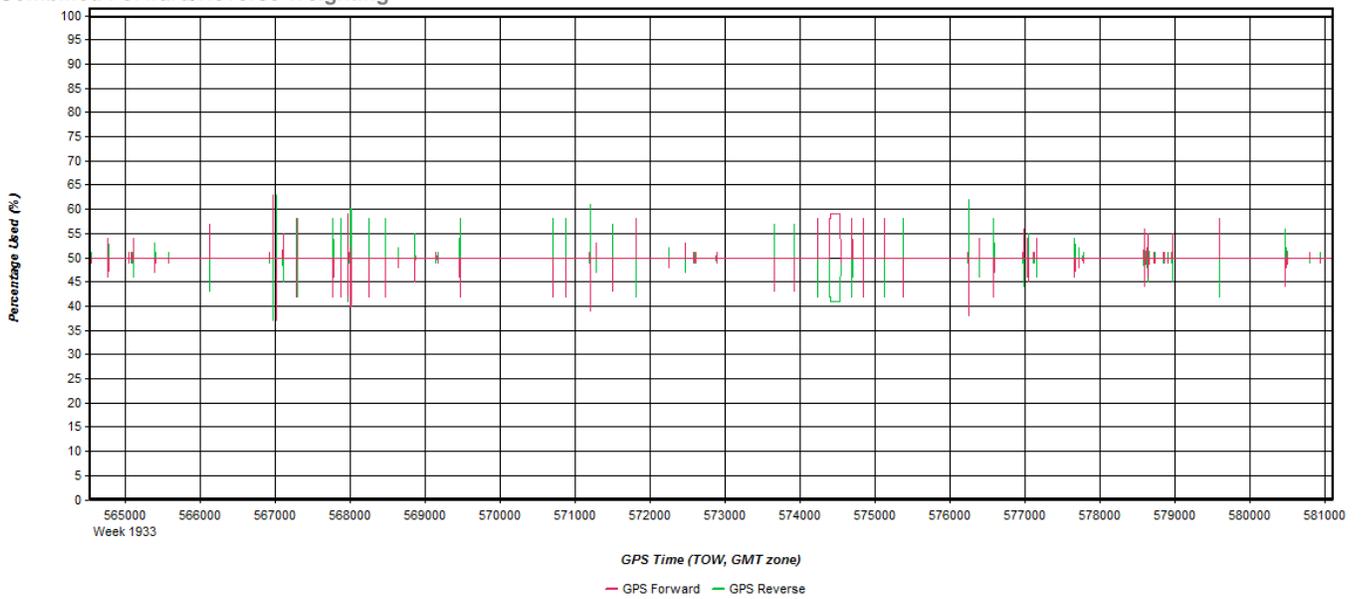
Height



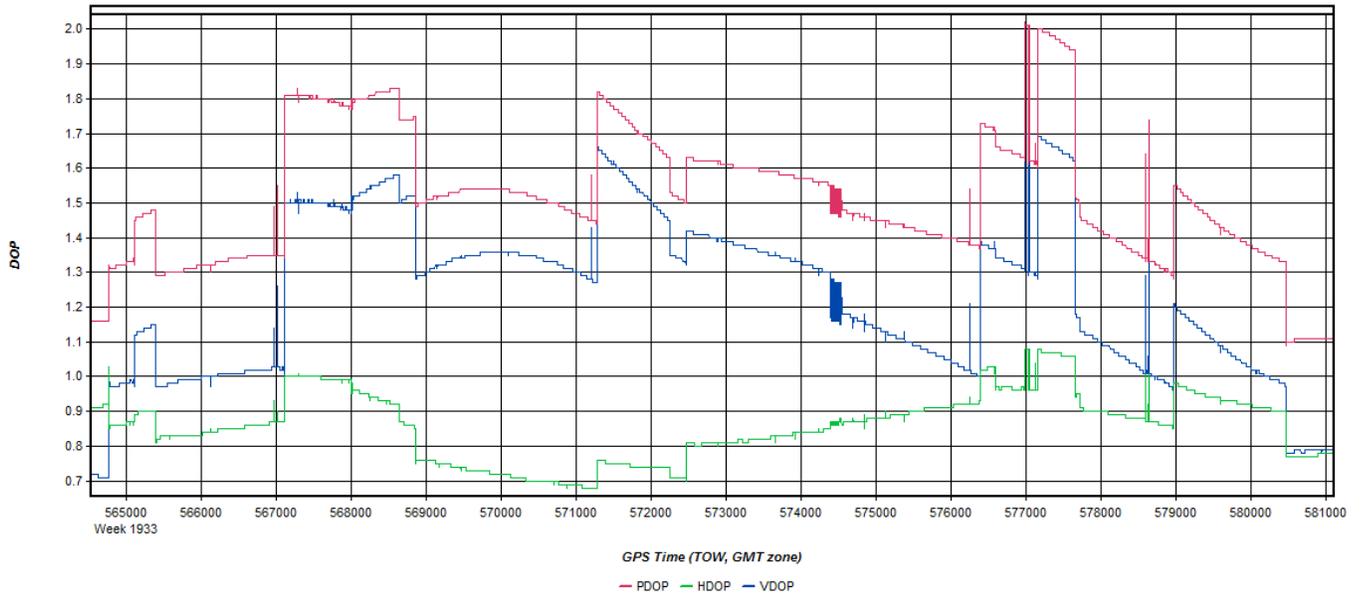
Combined Forward/Reverse Separation



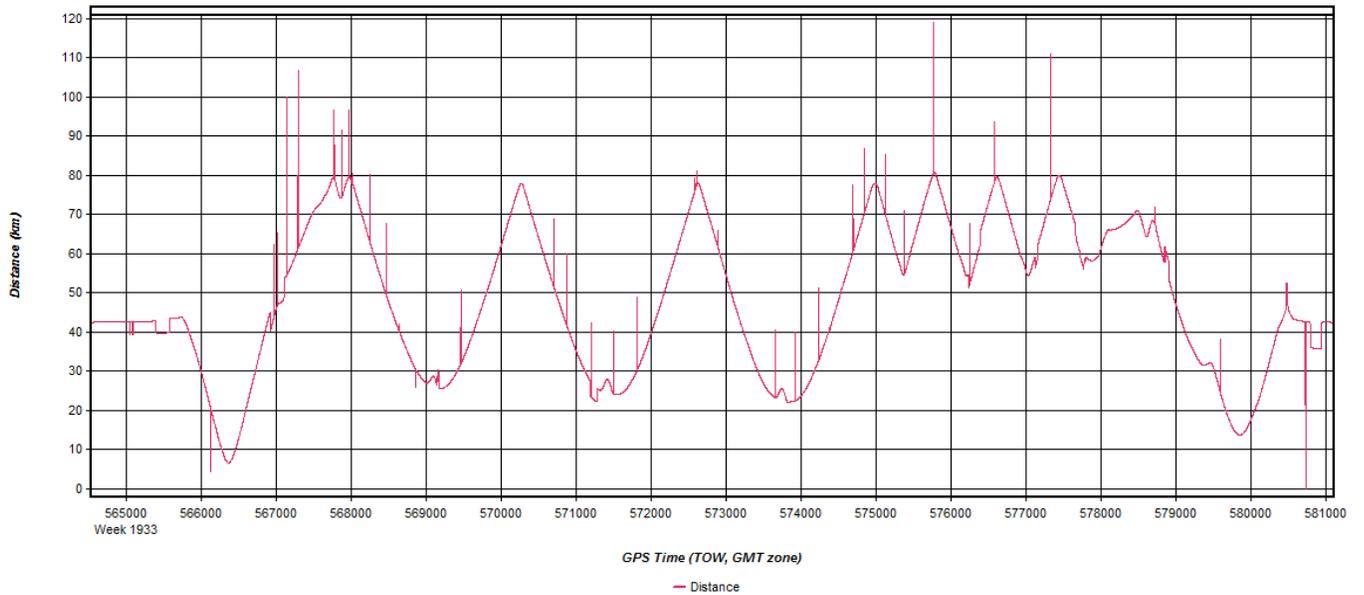
Combined Forward/Reverse Weighting



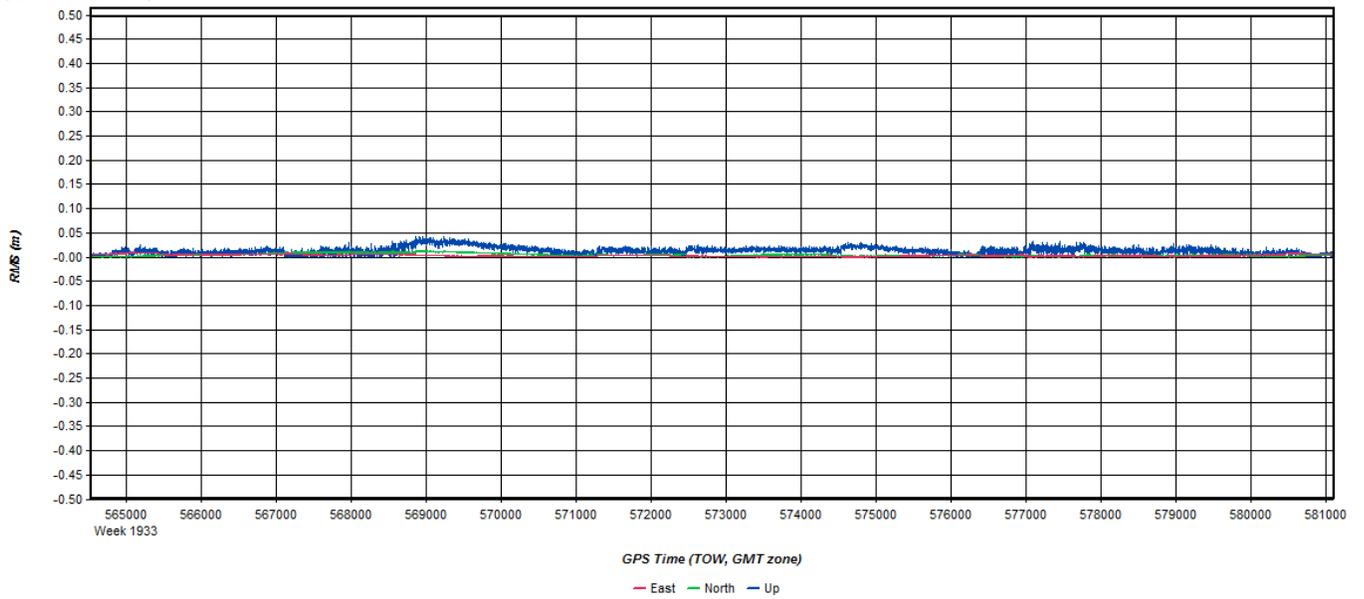
PDOP



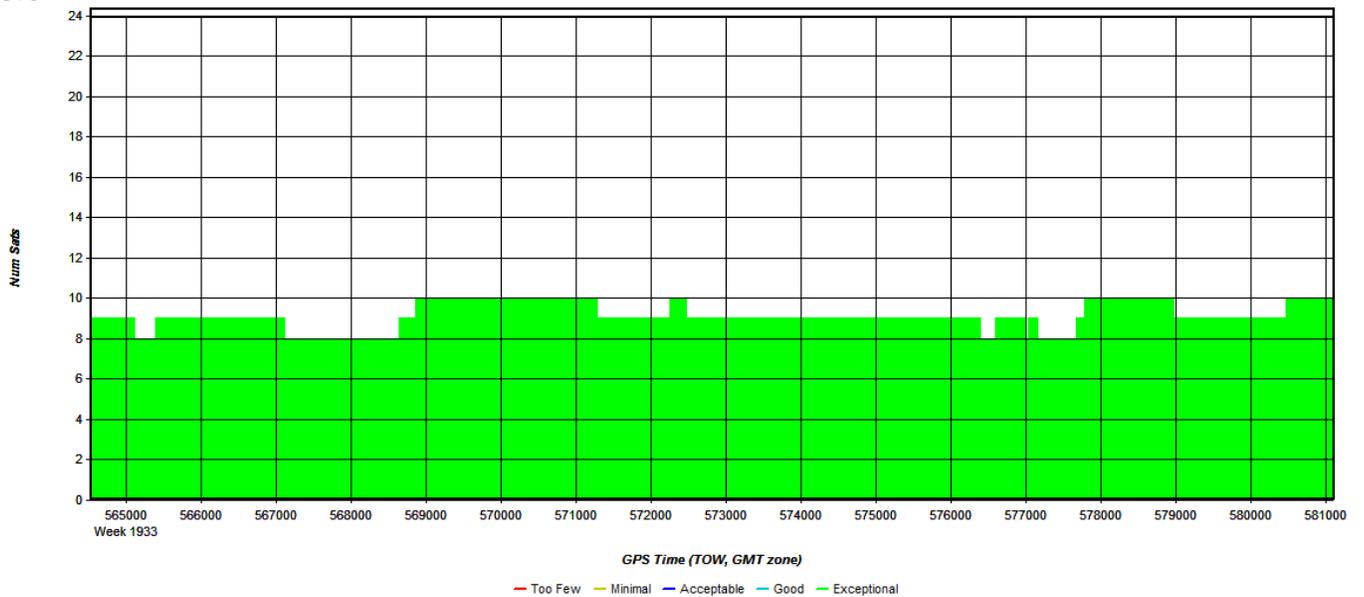
Distance from Base



Combined RMS



SVs



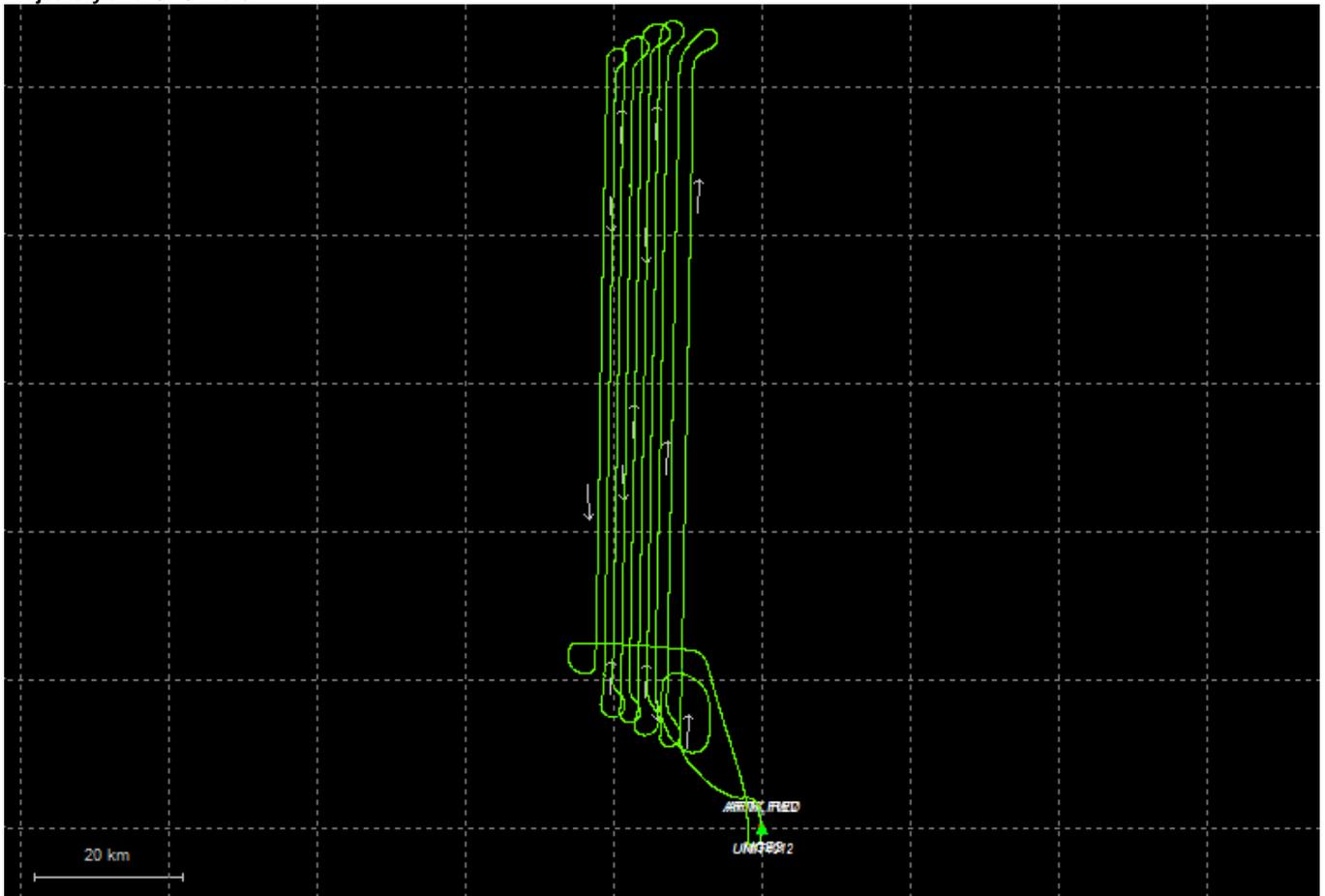


Acquisition and Processing details ----- Collection 8 (January 28, 2017)

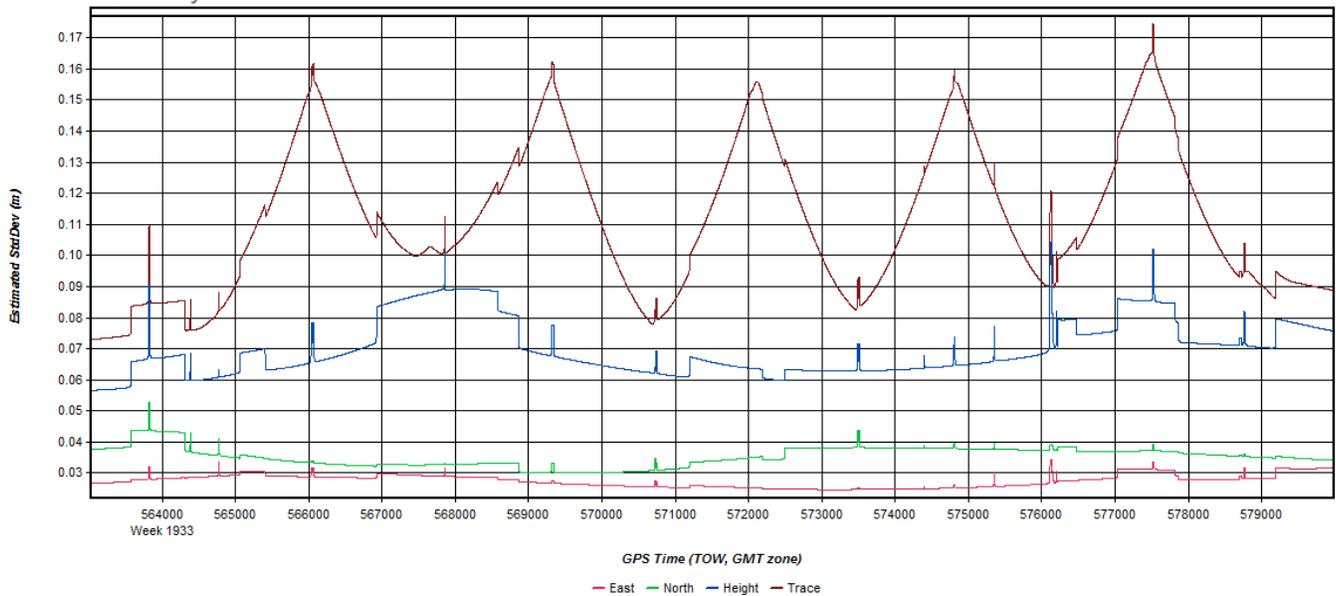
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
	Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1	KHUM	12:16	206.0	KHUM	17:06	210.3	4:50	4.75	4.3	0103-Mob/Demob					
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Min Range'	Data Logger Drives			
15004000		Upper Delta				780	961	FMU-300	8.0		1340 m				
Flight Date		GPS Day	Lift	Sun*		Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive			
28-Jan-17		17-028	2					360	0.0						
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	kmWPT	Altim Setting	Humidity @ Alt	Shipping Track	
170128_961_15004000_02		N83AR	KHUM	Track	-6	4400	130	60	110			30.25			
Pilot #1		Pilot #2		Operator #1		Operator #2									
John Stright		Ryan Farnworth		Larry Scott											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator	Data			
016	Houma	GR3-4		1.8	28-Jan-17 12:00		28-Jan-17 17:55		Same file as N62912		Chris Fought				
Area	Flight #		Wpt		Distance		UTC		Fit	Altitude	Speed	Scan	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate			
UpDelta1	64						12:51:48	13:12:00	N	4,330	130				
	63						13:16:15	13:35:00							
	61						13:46:49	14:06:00							
	60						14:10:13	14:30:00							
	59						14:33:37	14:53:00							
	58						14:56:53	15:16:00							
	57						15:19:44	15:38:00							
	56						15:41:44	16:00:00							
	55						16:04:13	16:24:00							
	54						16:25:45	16:44:00							
X-tie						16:47:01	16:49:00								

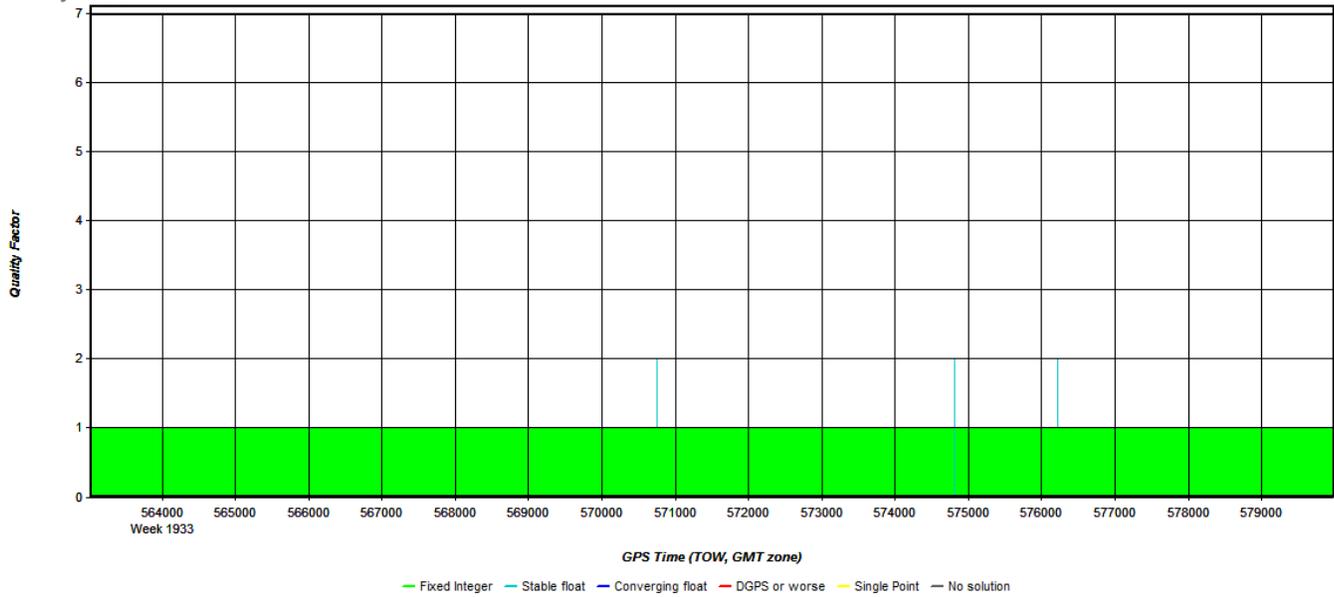
Trajectory and GPS Plots:



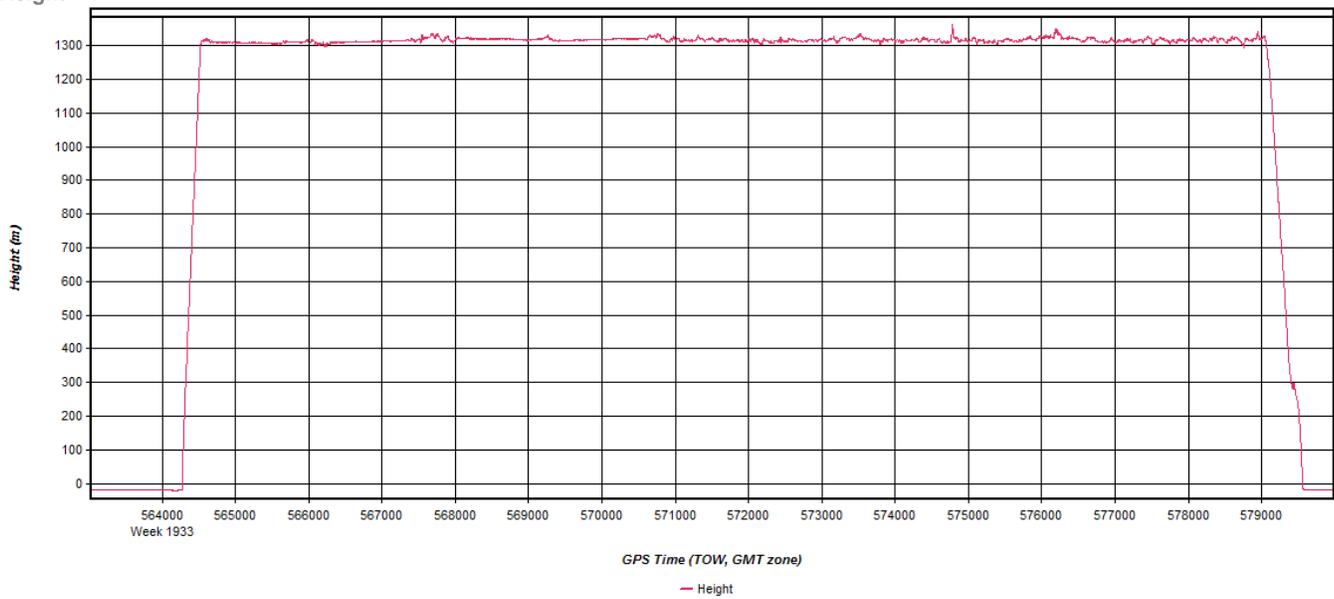
Estimated Accuracy



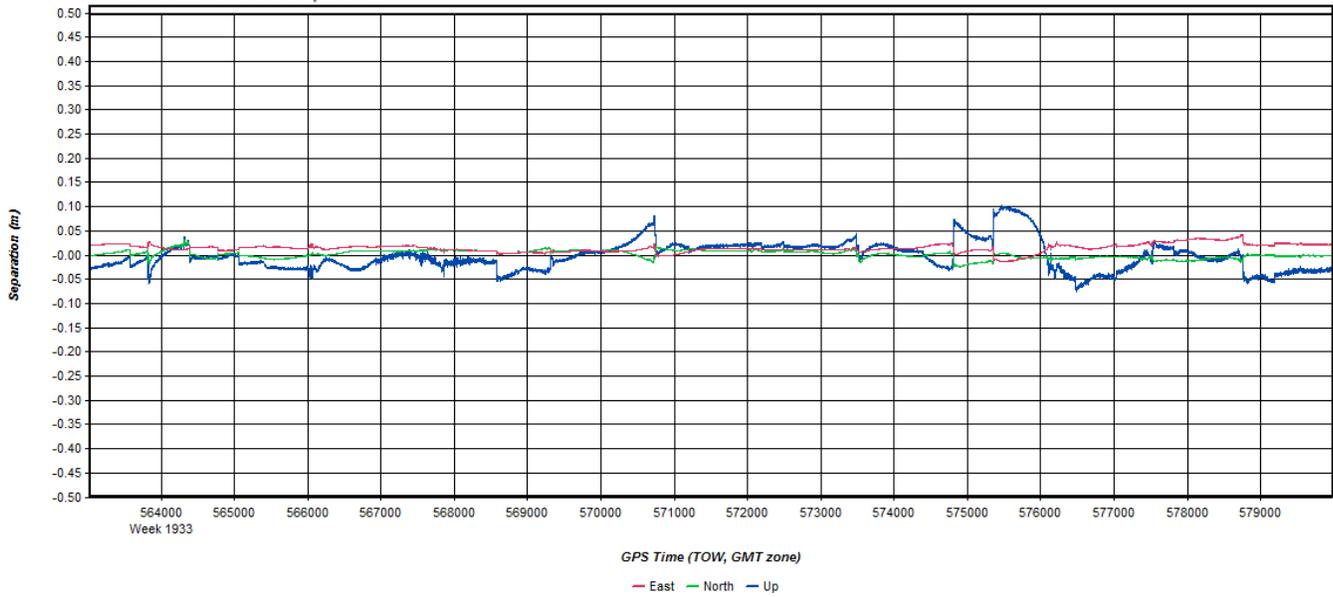
Quality Factor



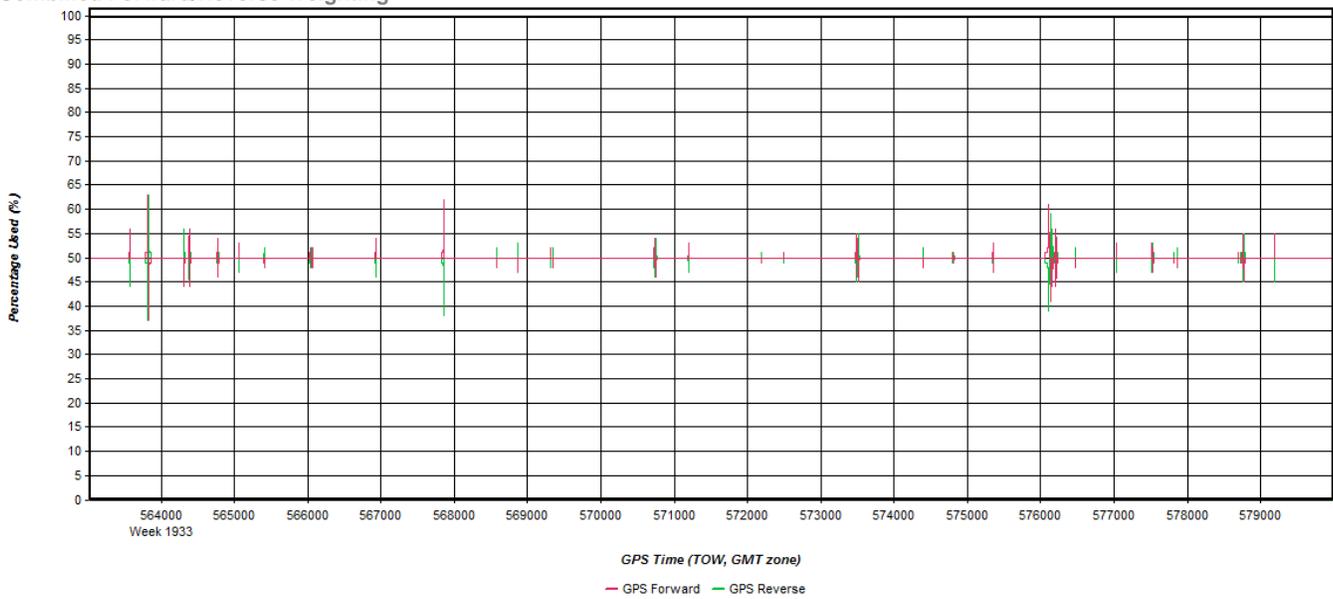
Height



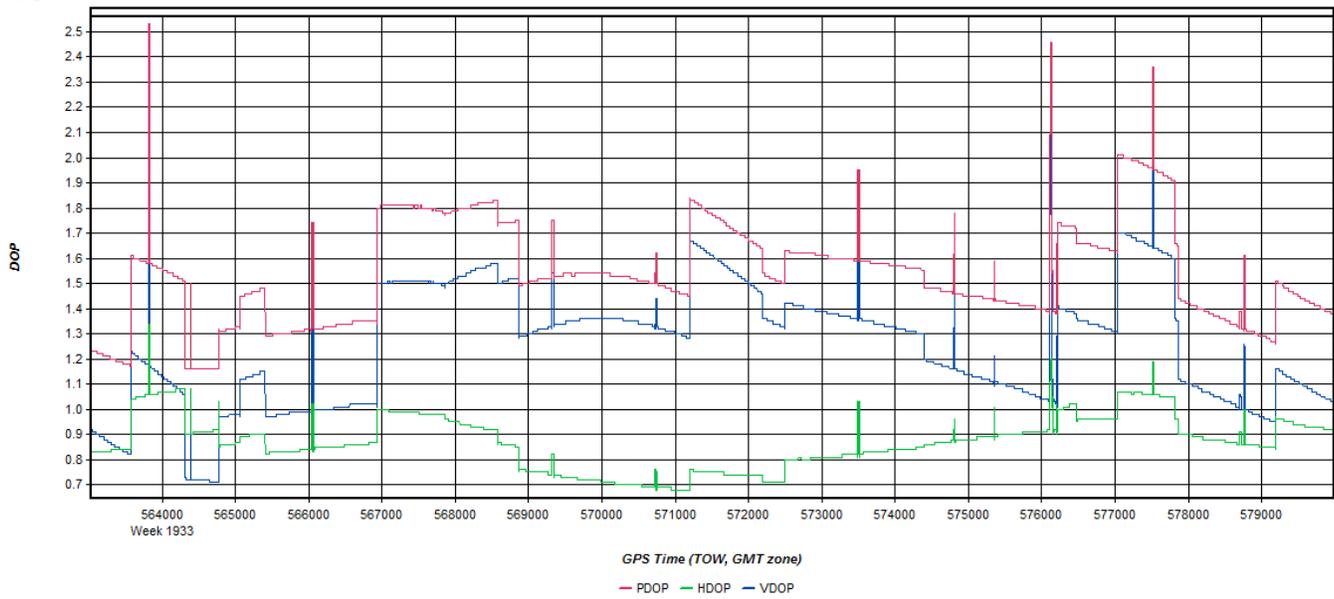
Combined Forward/Reverse Separation



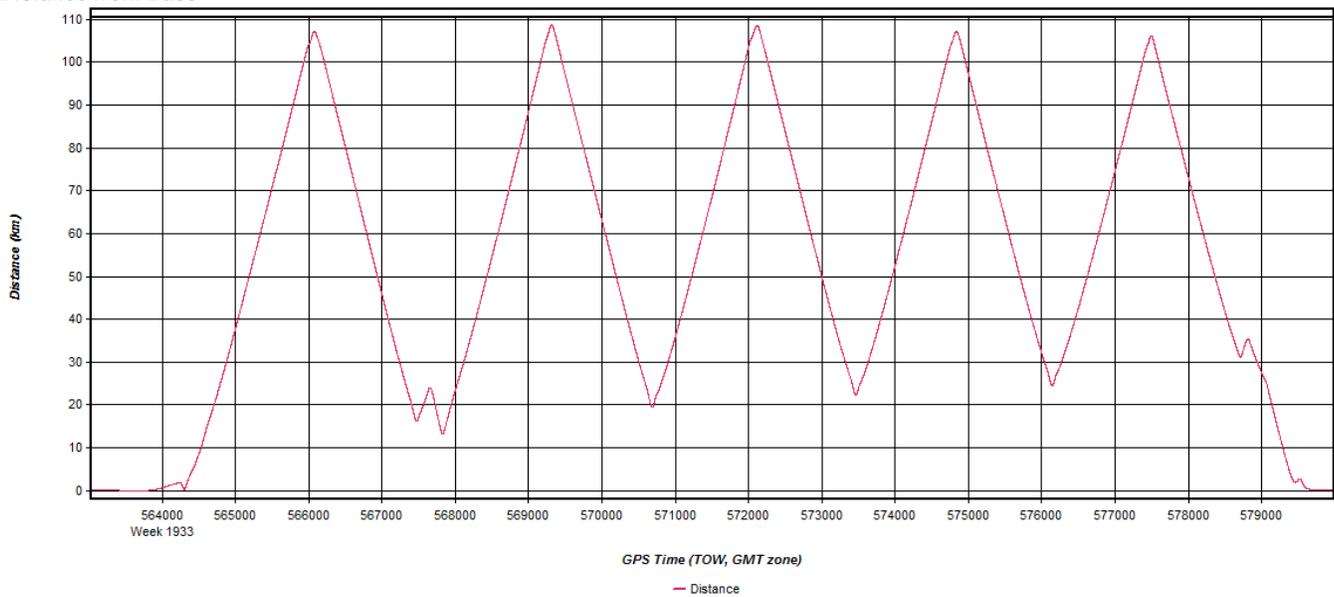
Combined Forward/Reverse Weighting



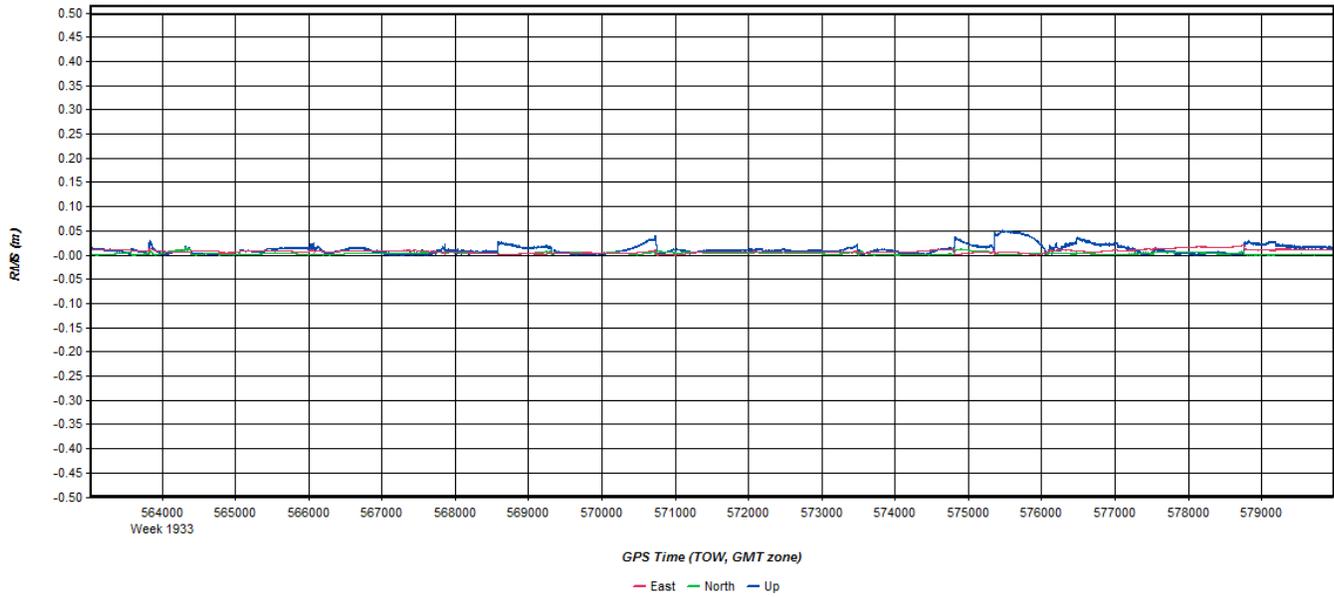
PDOP



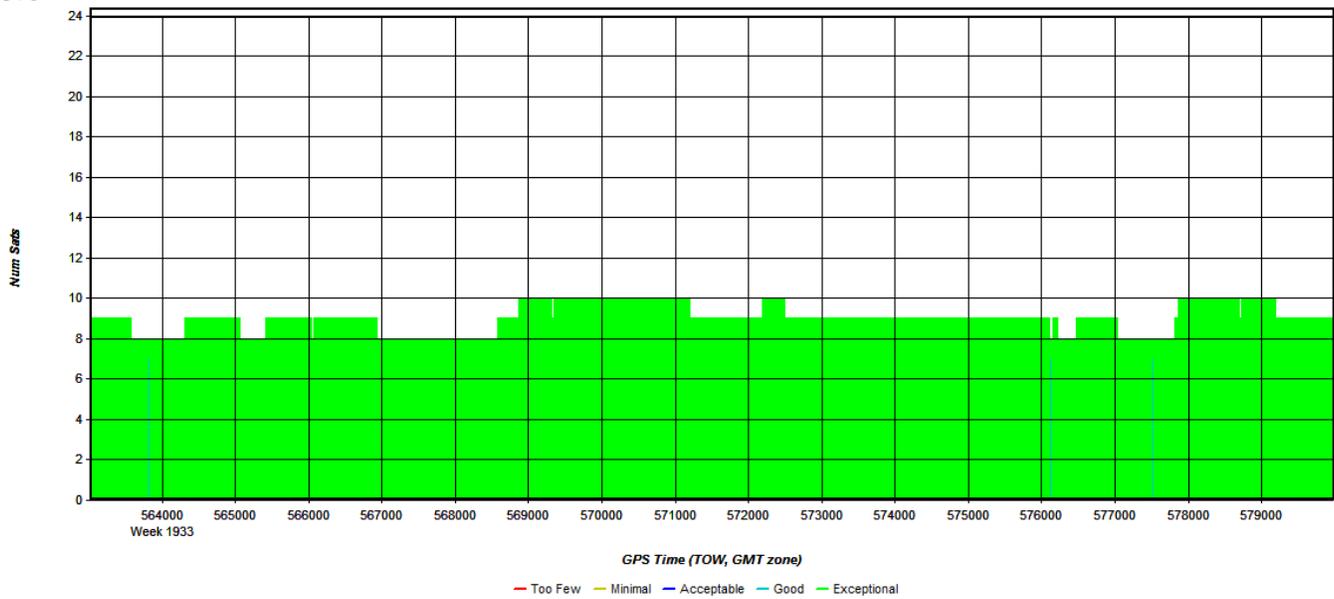
Distance from Base



Combined RMS



SVs





Acquisition and Processing details ----- Collection 9 (January 30, 2017)

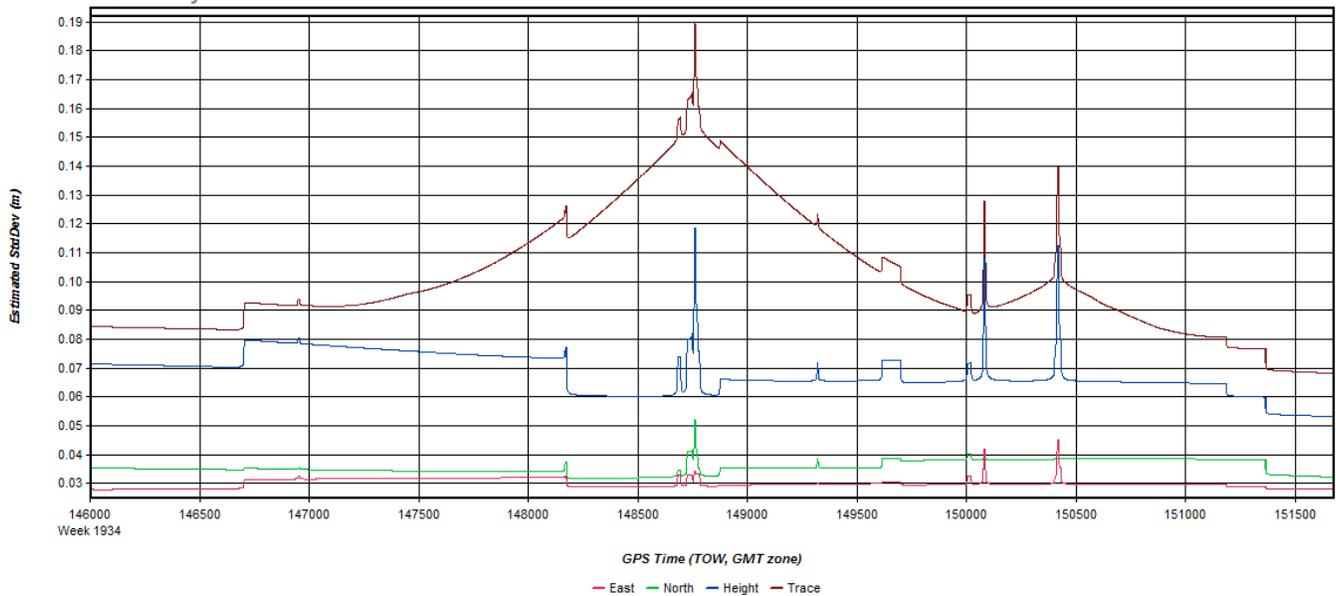
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl Flight Log			
16.92		Lift Begin			Lift End			FR	FR	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	16:25	210.3	KHUM	18:08	211.5	1:43	1.75	1.2	0103-Mob/Demob				
2															
3															
FGI Job #	Project Name				System	Unit	IMU	Ground Temp °C		Min Range'		Data Logger Drives			
15004000	Upper Delta				780	961	FMU-300	15.0		1340 m					
Flight Date	GPS Day	Lift	Sun*		Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'		Download Drive			
30-Jan-17	17-030	3					360	5.0				NS1TB-68			
Mission ID (yyymmdd_Sen_Job_Lift)	Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPPT	Altm Setting	Humidity @ Alt	Shipping Track		
170130_961_15004000_03	N83AR	KHUM	Track	-6	4400	130	60	110			30.25	low			
Pilot #1		Pilot #2		Operator #1		Operator #2									
Diego Calderoni		Ryan Farnworth		Larry Scott											
Base 1 ID	Location		Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename		Operator		Data			
016	Houma		GR3-5		1.8	30-Jan-17 16:15	30-Jan-17 21:50	Unit#50130q.tps		Larry Scott					
Area	Flight #		Wprt		Distance		UTC		FR	Altitude	Speed	Scan	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate			
UpDelta1	53						16:54:55								
	52						16:58:59				17:18:00				
	cal						17:20:14				17:41:00				
	x-tie						17:42:12				17:45:00				
						17:49:38									

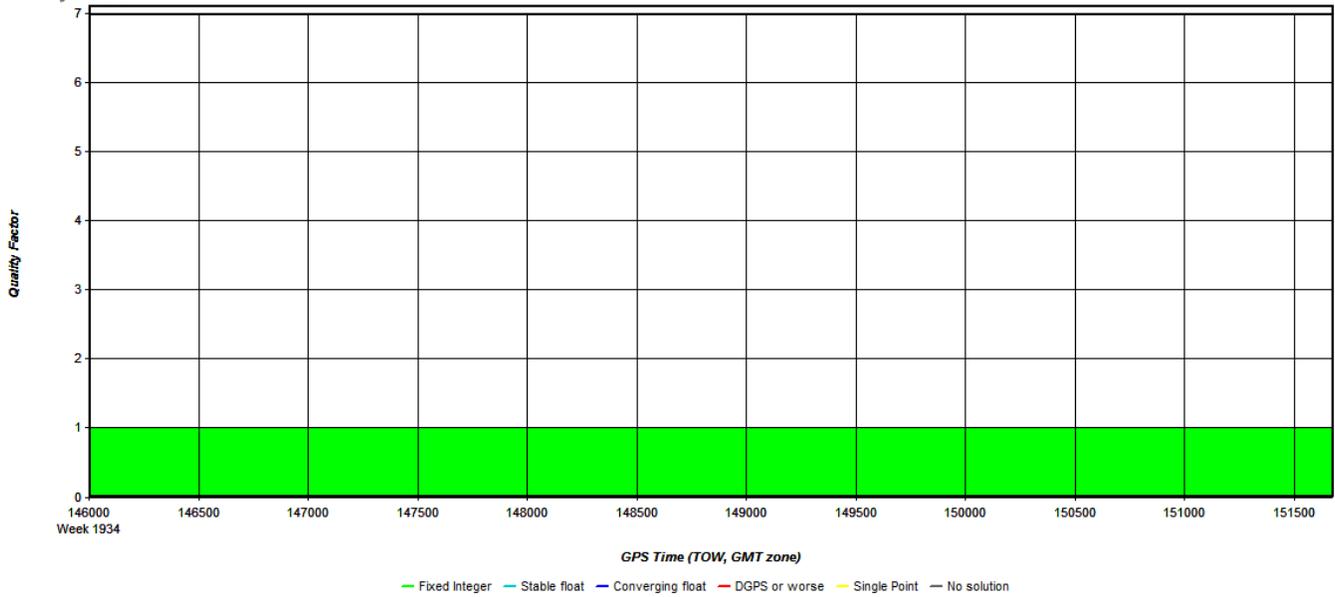
Trajectory and GPS Plots:



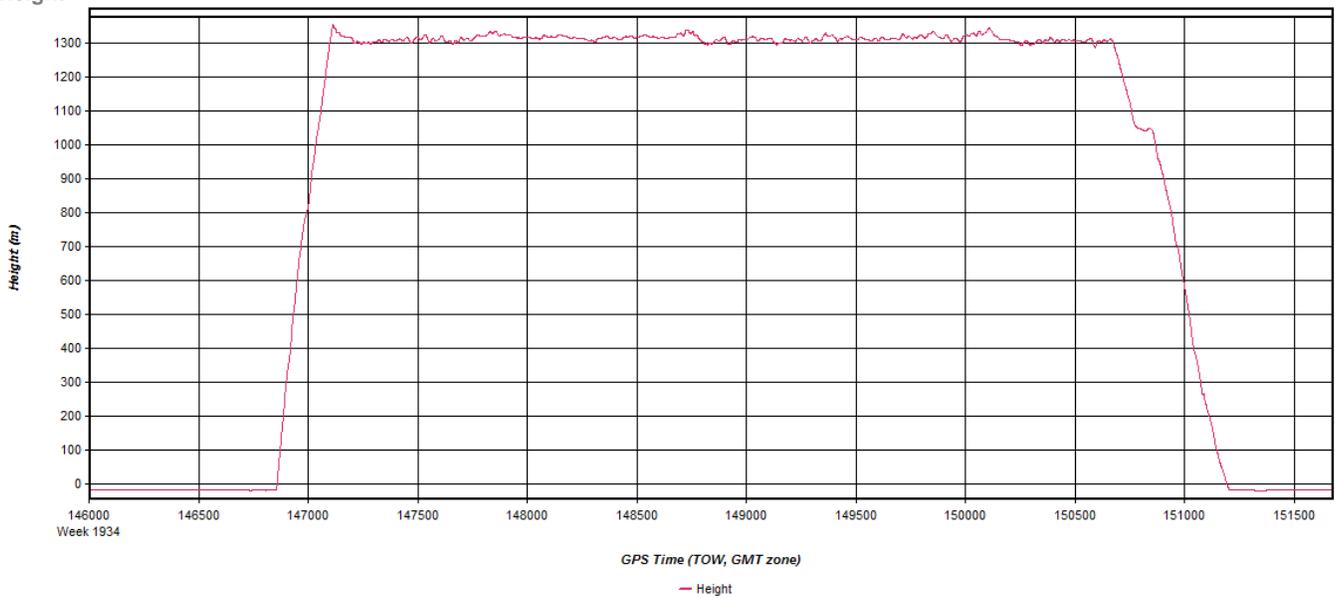
Estimated Accuracy



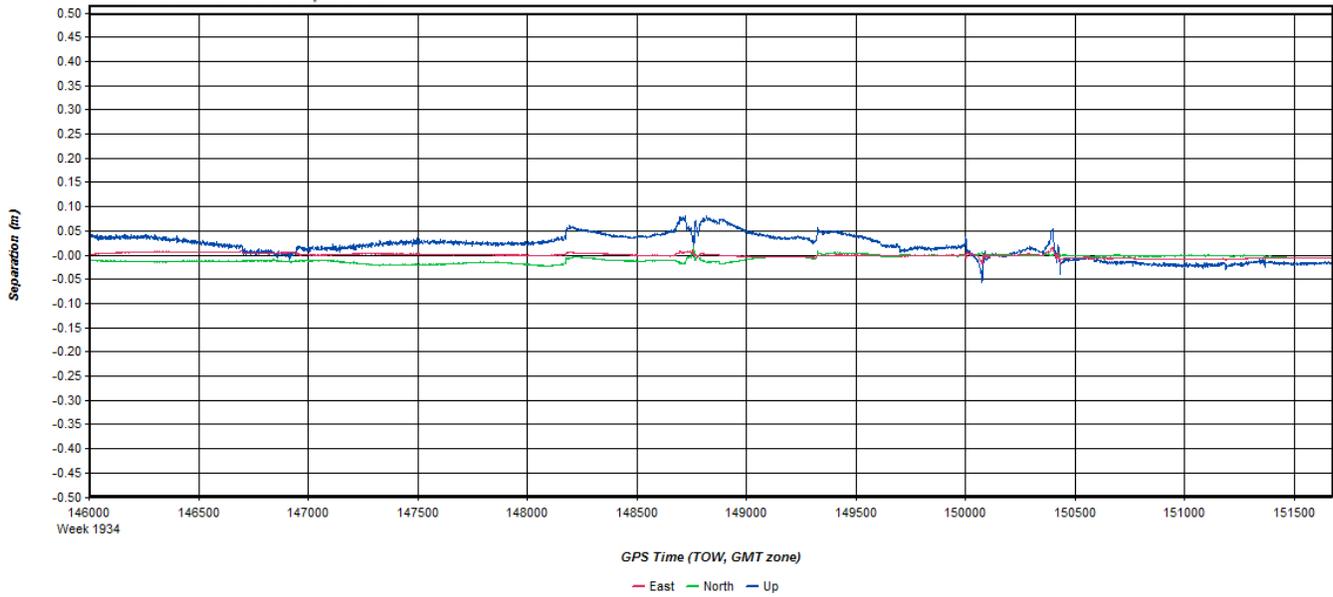
Quality Factor



Height



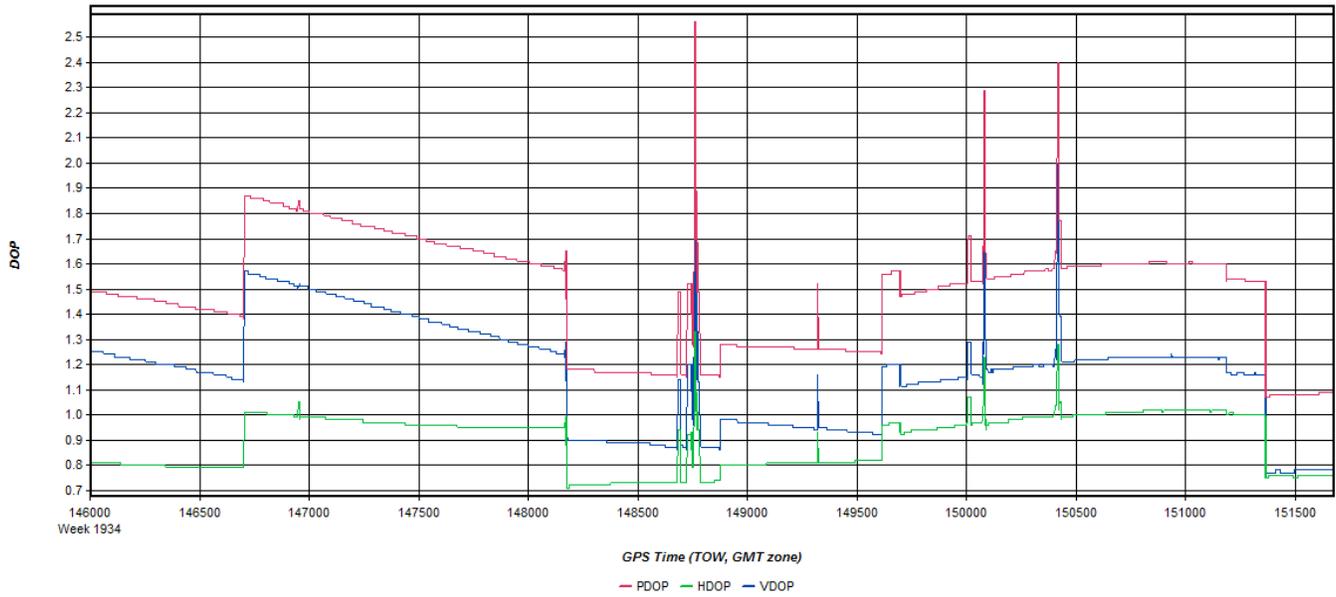
Combined Forward/Reverse Separation



Combined Forward/Reverse Weighting



PDOP

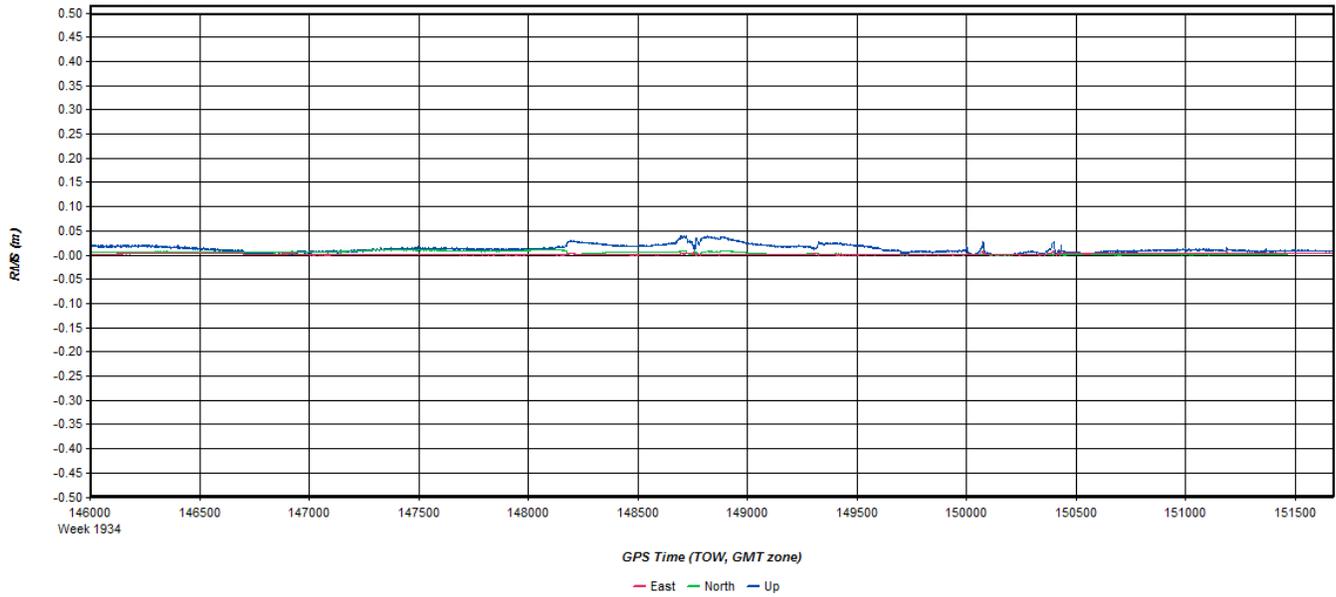


Distance from Base

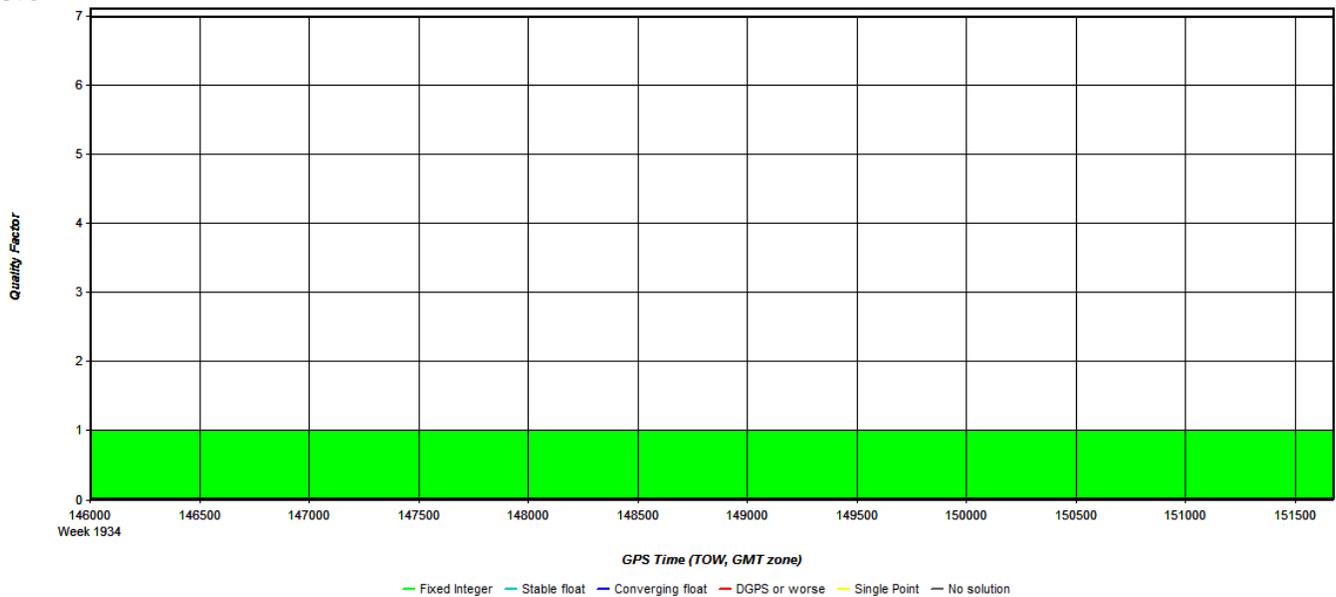




Combined RMS



SVs





Acquisition and Processing details ----- Collection 10 (January 30, 2017)

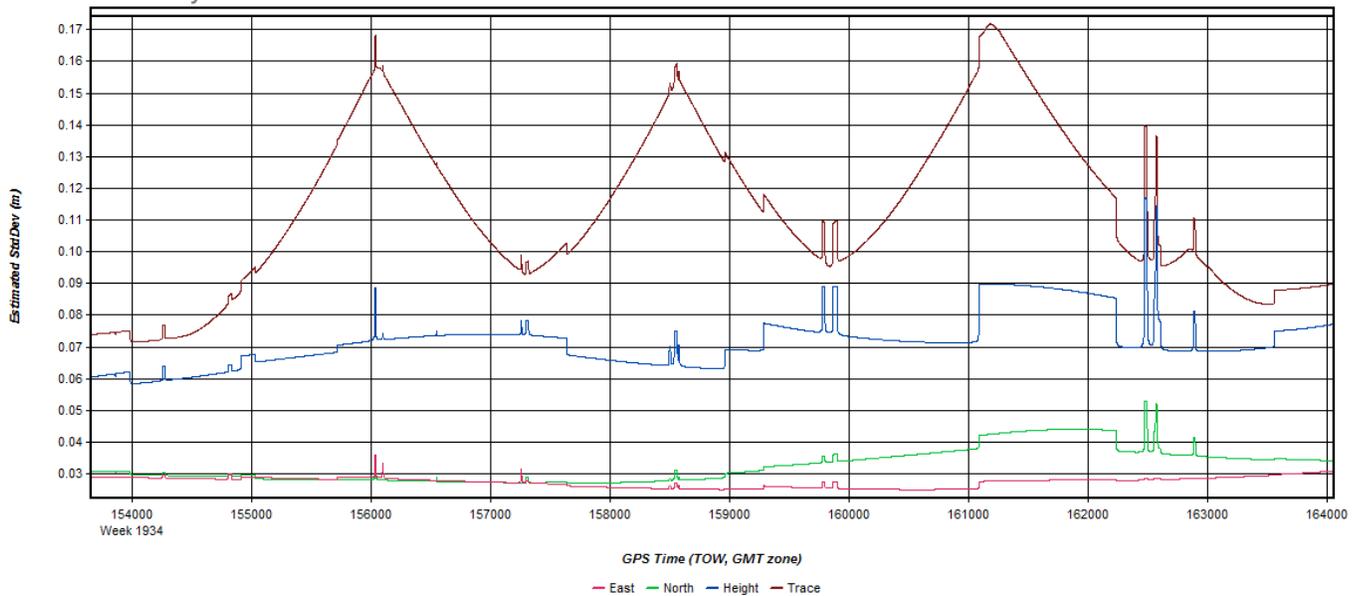
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl				
												Flight Log				
												AO80-50-00-02				
16.90		Lift Begin			Lift End			FR	FR	Hobbs	Activity					
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1		KHUM	18:37	211.5	KHUM	21:35	214.2	2:58	3.00	2.7	0103-Mob/Demob					
2																
3																
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Min Range'	Data Logger Drives				
15004000		Upper Delta				780	961	FMU-300	20.0		1340 m					
Flight Date		GPS Day	Lift	Sun			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range'	Download Drive				
30-Jan-17		17-030	4					360	10.0			NS1TB-68				
Mission ID (yyymmdd_Ser_Job_Lit)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altitude Setting	Humidity @ Alt	Shipping Track		
170130_961_15004000_04		N83AR	KHUM	Track	-6	4400	130	60	110			30.25	low			
Pilot #1		Pilot #2		Operator #1		Operator #2										
Diego Calderoni		Ryan Farnworth		Larry Scott												
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data							
016	Houma	GR3-5		1.8	30-Jan-17 16:15	30-Jan-17 21:50	Unit#50130q.tps	Larry Scott								
Area	Flight #		Wpt		Distance		UTC		FR	Altitude	Speed	Scan	Comments and Conditions		SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate				
UpDelta1		51					18:52:08			4,330	140					
							19:01:06	19:19:00	N		140					
							19:22:16	19:40:00	S		135					
							19:42:52	20:01:00	N		139					
							20:03:55	20:23:00	S		135					
							20:25:15	20:44:00	N		138					
							20:48:23	21:08:00	S		137					
						21:10:35	21:13:00	N								
		x-tie					21:14:25	21:16:00	E							

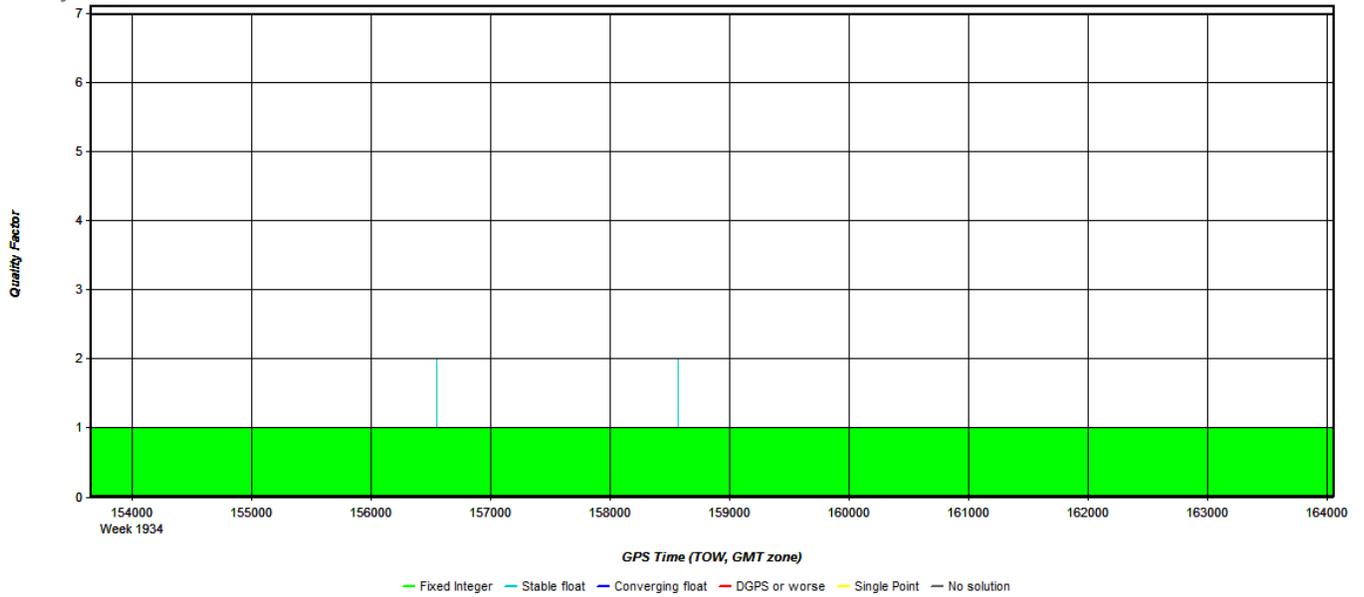
Trajectory and GPS Plots:



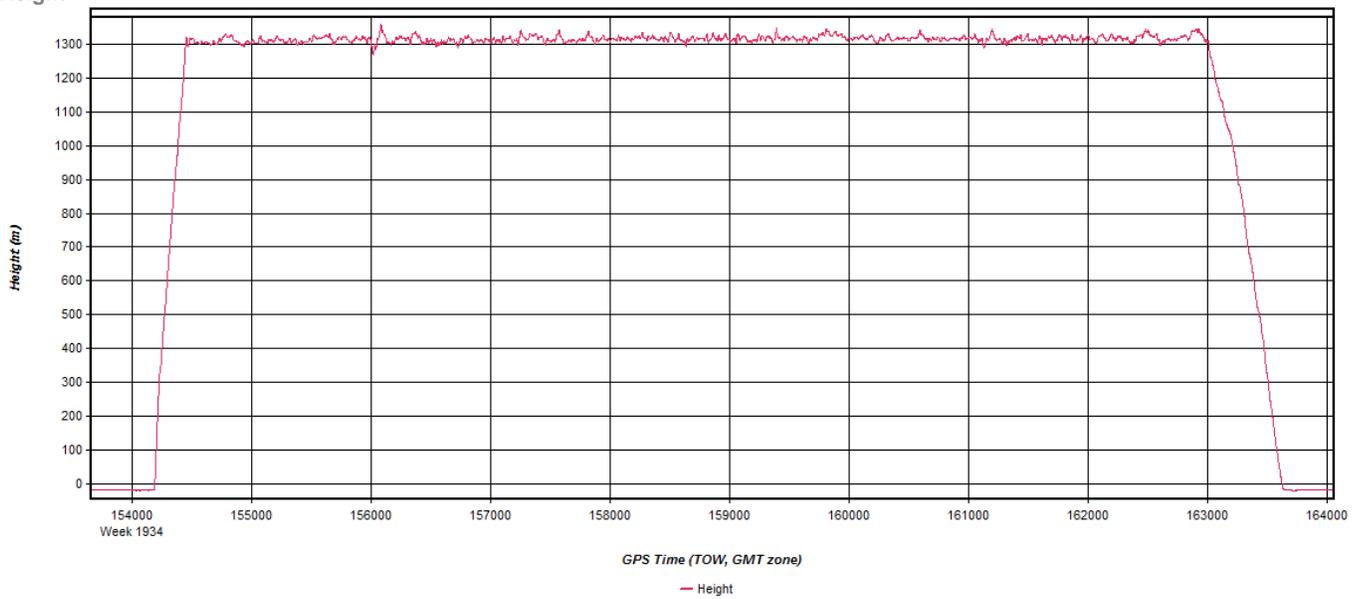
Estimated Accuracy



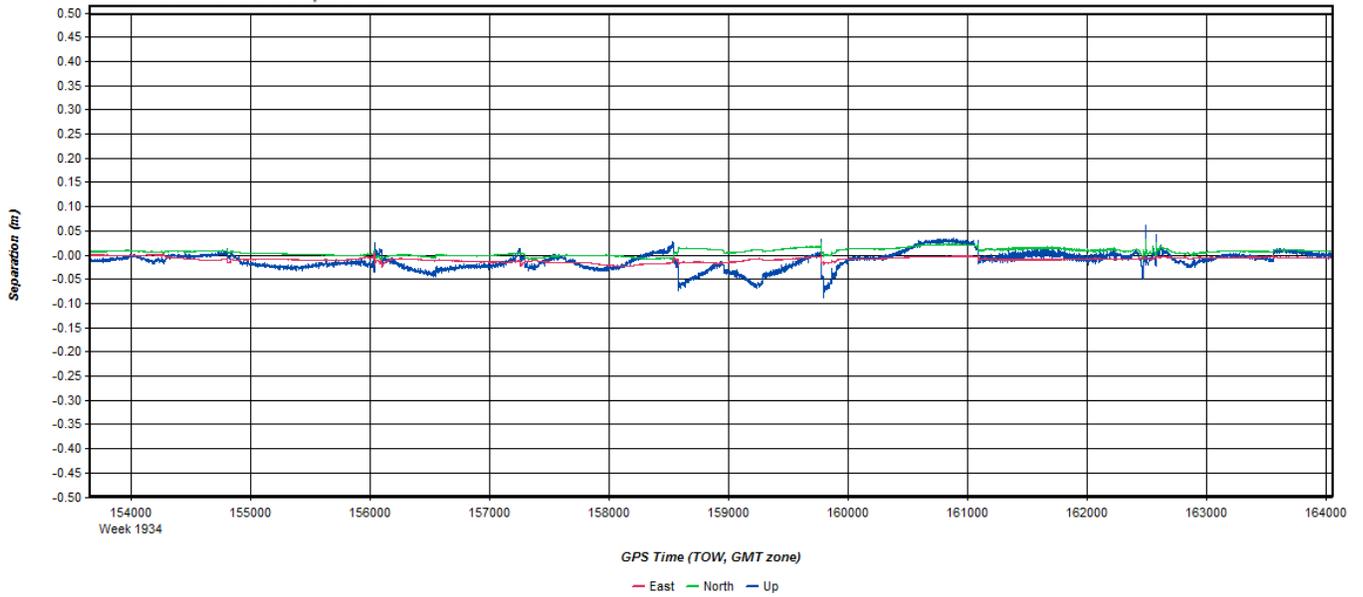
Quality Factor



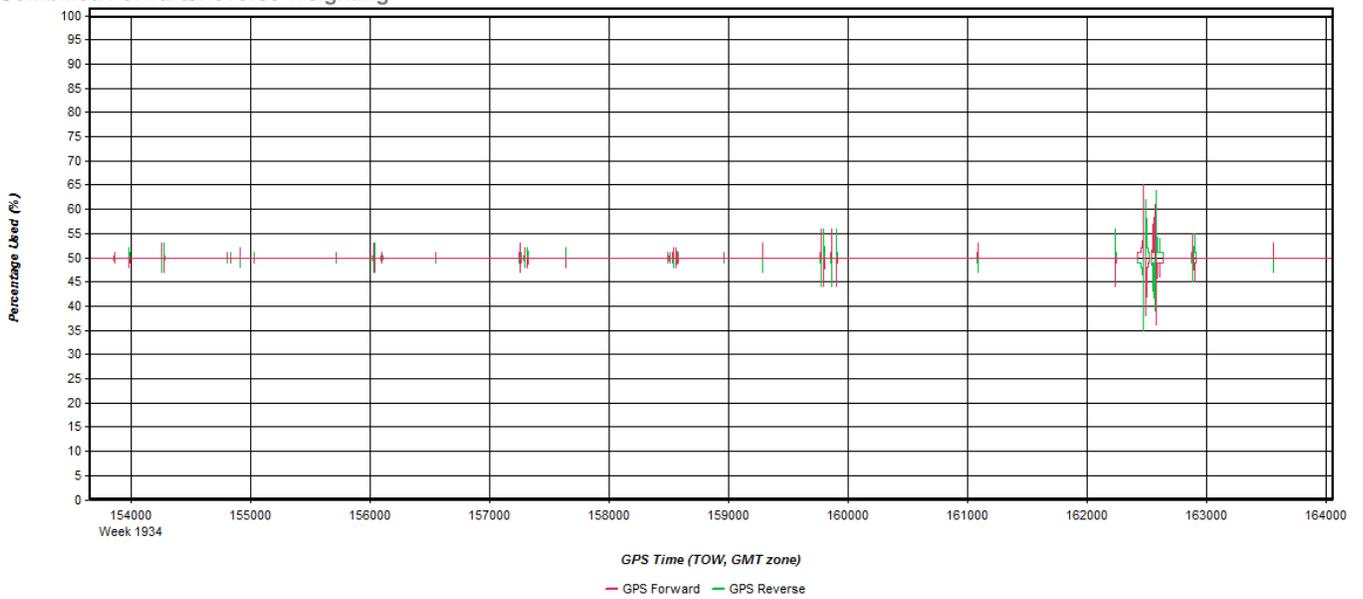
Height



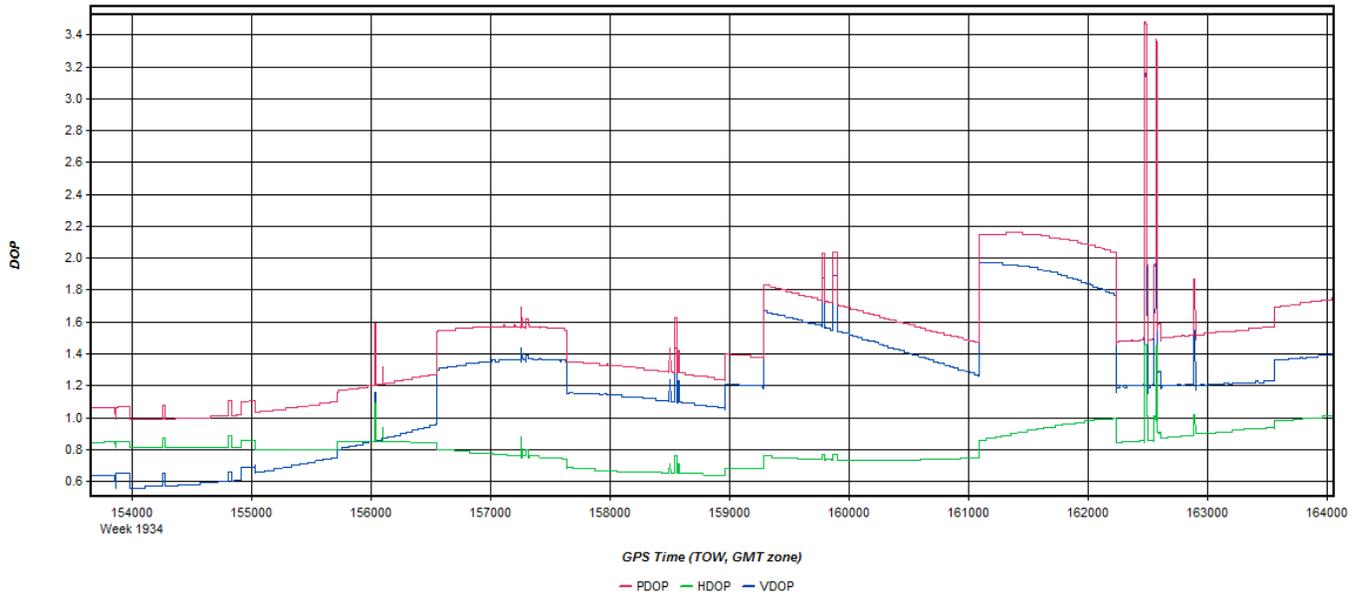
Combined Forward/Reverse Separation



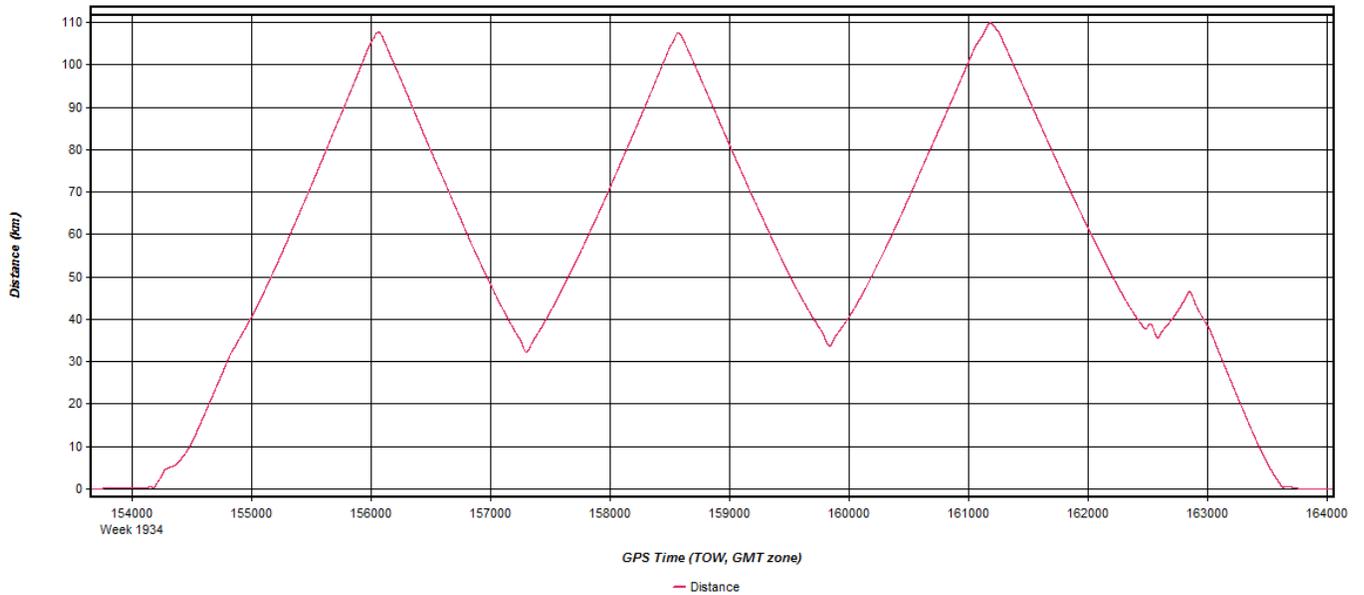
Combined Forward/Reverse Weighting



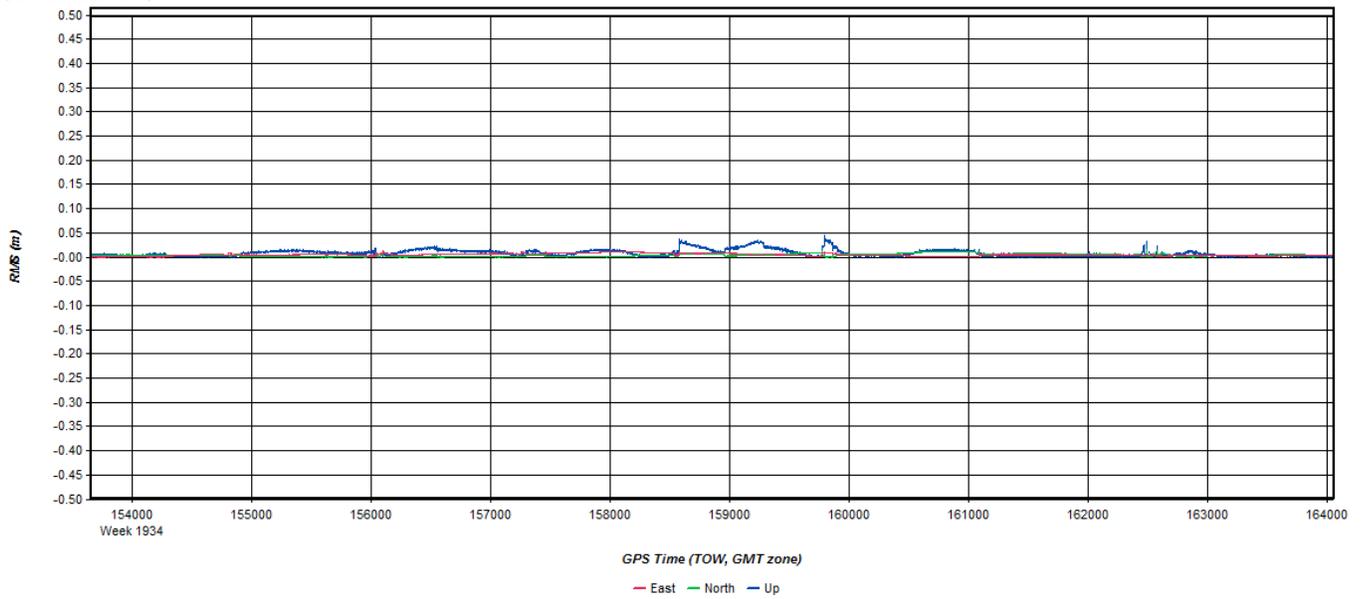
PDOP



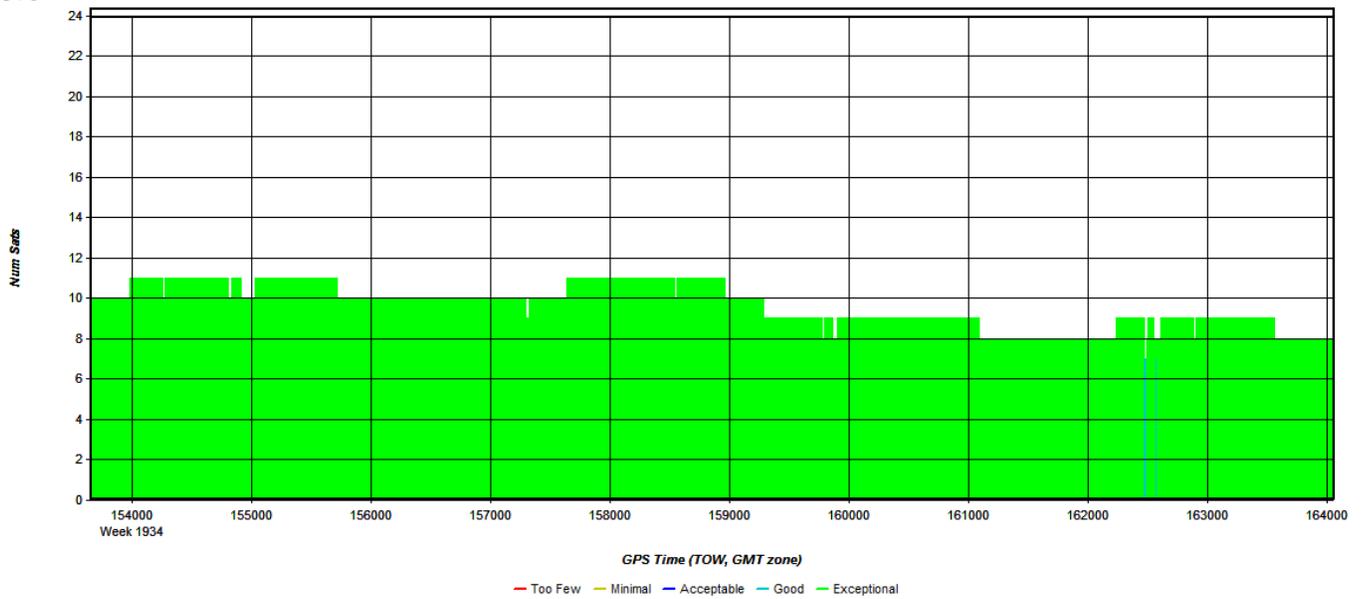
Distance from Base



Combined RMS



SVs





Acquisition and Processing details ----- Collection 11 (January 31, 2017)

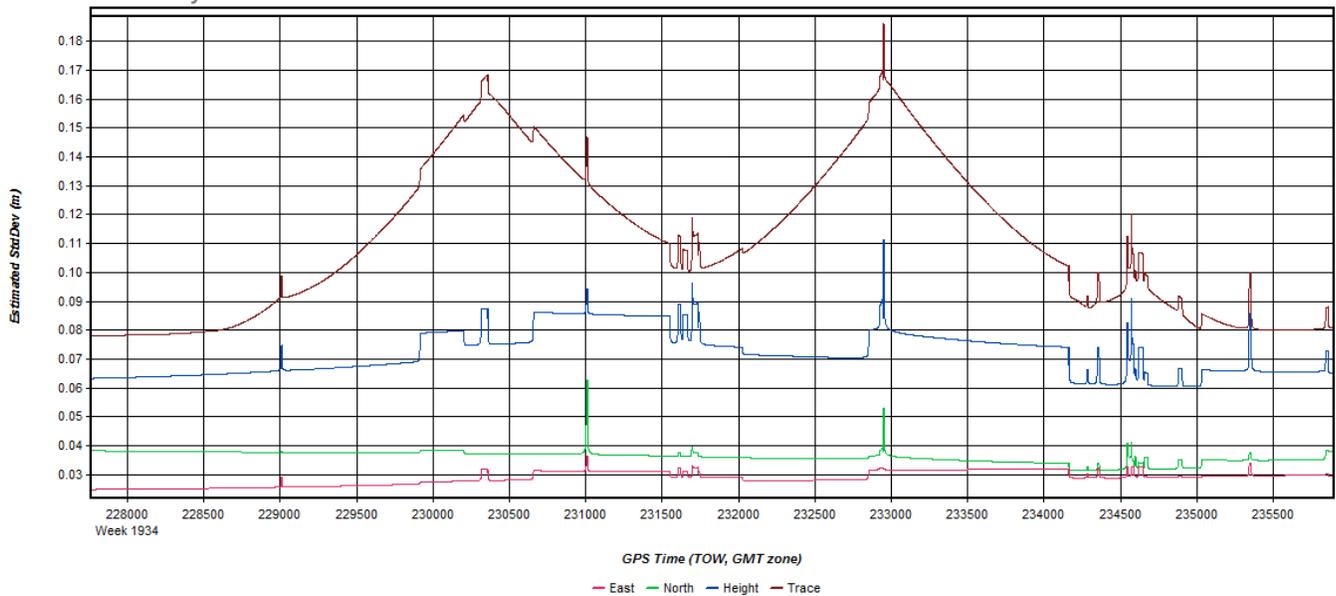
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl		
												Flight Log		
												AO80-50-00-02		
16.90		Lift Begin			Lift End			FR	FR	Hobbs	Activity			
	Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	FR	Hrs	Hrs				
1	KHUM	15:10	214.2	KHUM	16:30	216.2	1:20	1.25	2.0	0900-Production				
2														
3														
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Min Range'	Data Logger Drives		
15004000		Upper Delta				780	961	FMU-300	20.0		1340 m			
Flight Date		GPS Day	Lift			Sun*	Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range'	Download Drive		
31-Jan-17		17-031	5					360	10.0			NS1TB-65		
Mission ID (yyymmdd_Ser_Job_Lit)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altitude Setting	Humidity @ Alt	Shipping Track
170131_961_15004000_05		N83AR	KHUM	Track	-6	4400	130	60	110			30.25	low	
Pilot #1		Pilot #2		Operator #1		Operator #2								
Diego Calderoni		Ryan Farnworth		Larry Scott										
Base 1 ID	Location		Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator	Data	
016	Houma		GR3-5		1.8	31-Jan-17 15:00		30-Jan-17 20:00		Unit#50131o.tps		Larry Scott		
Area	Flight #		Wpt		Distance		UTC		FR	Altitude	Speed	Scan	Comments and Conditions	
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate		
							15:26:43							
UpDelta1	45				1	96	15:39:20	15:57:00	N	4,380	135			
	44				98	1	16:00:47	16:19:00	S		140			
	43				1	98	16:22:18	16:41:00	N		138			
	42				99	1	16:44:19	17:03:00	S		135			
	42				1	7	17:06:48		N		135			
x-tie							17:10:56		E		135			

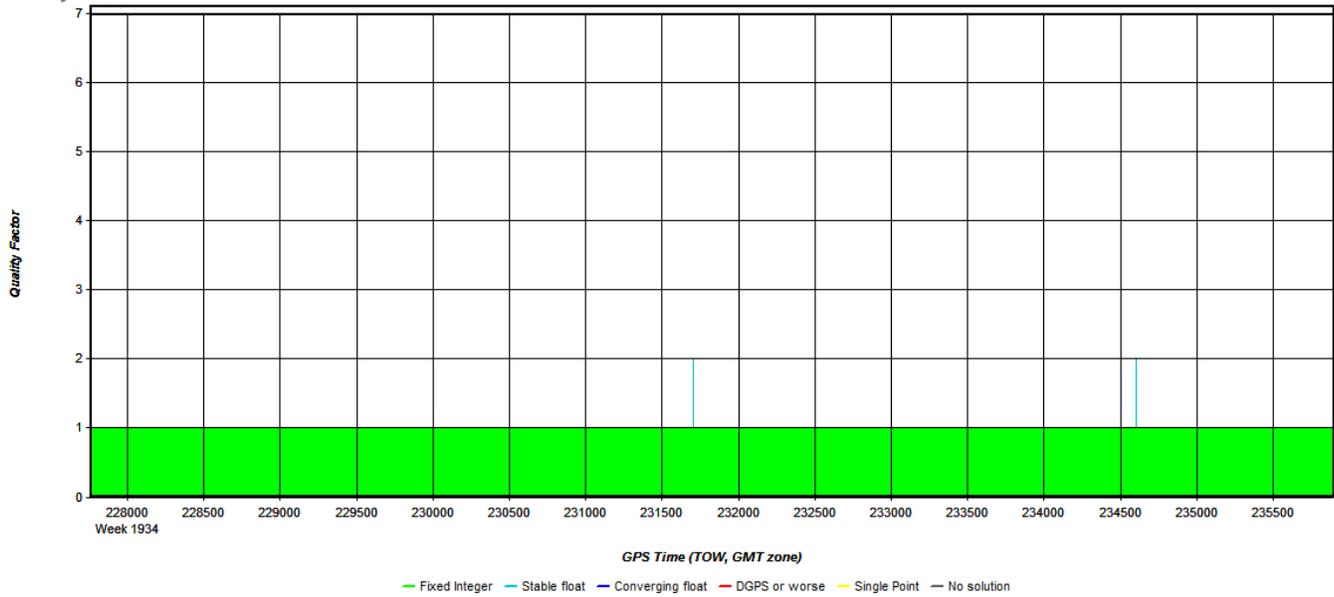
Trajectory and GPS Plots:



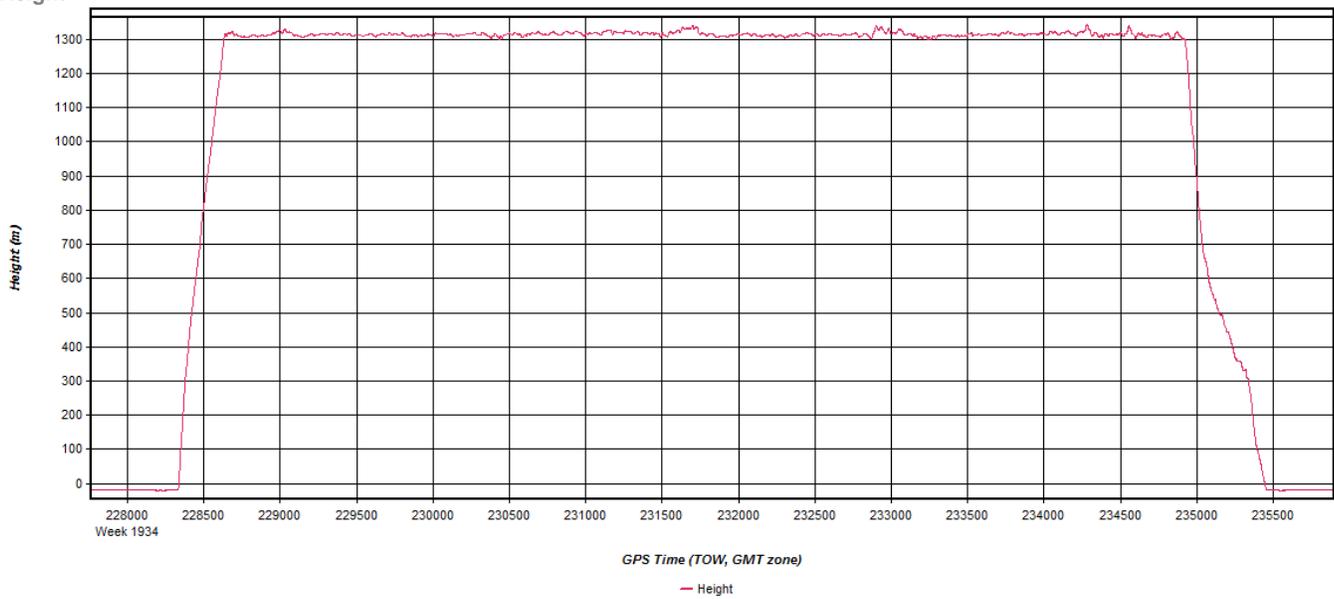
Estimated Accuracy



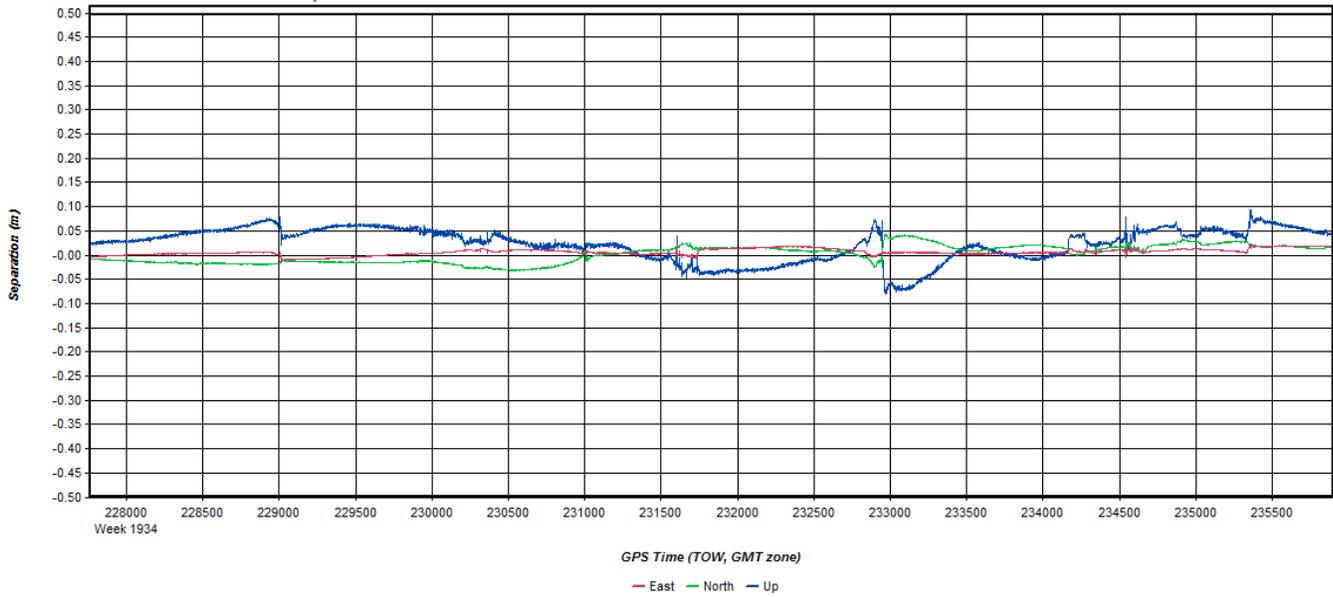
Quality Factor



Height



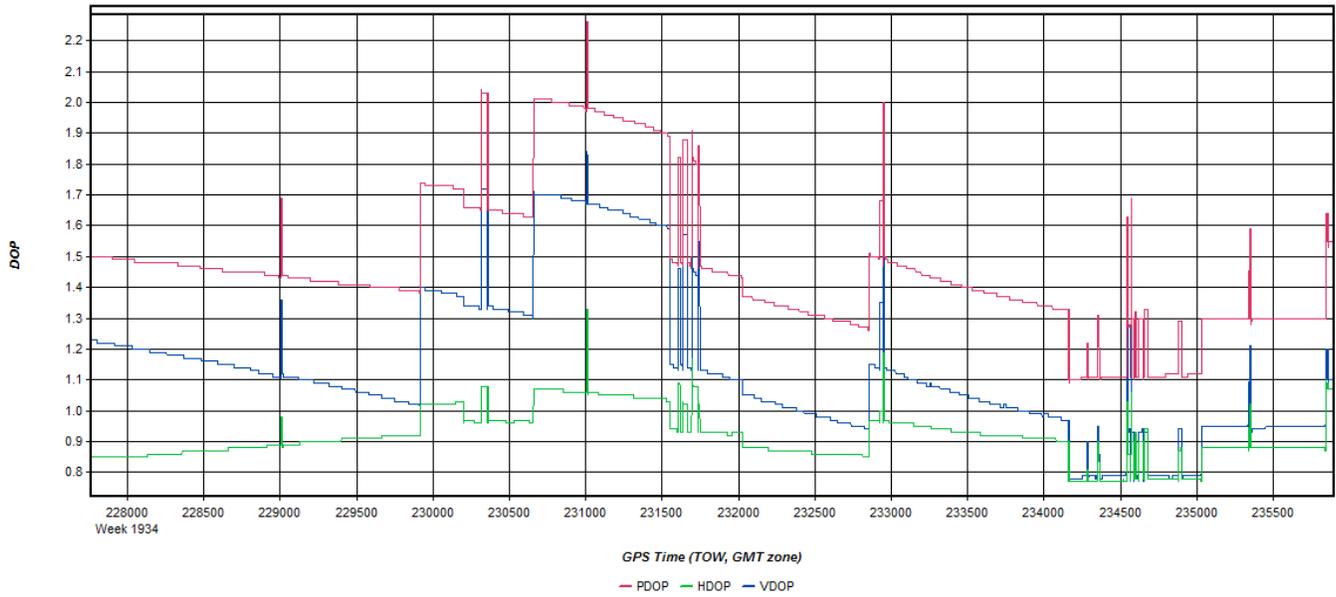
Combined Forward/Reverse Separation



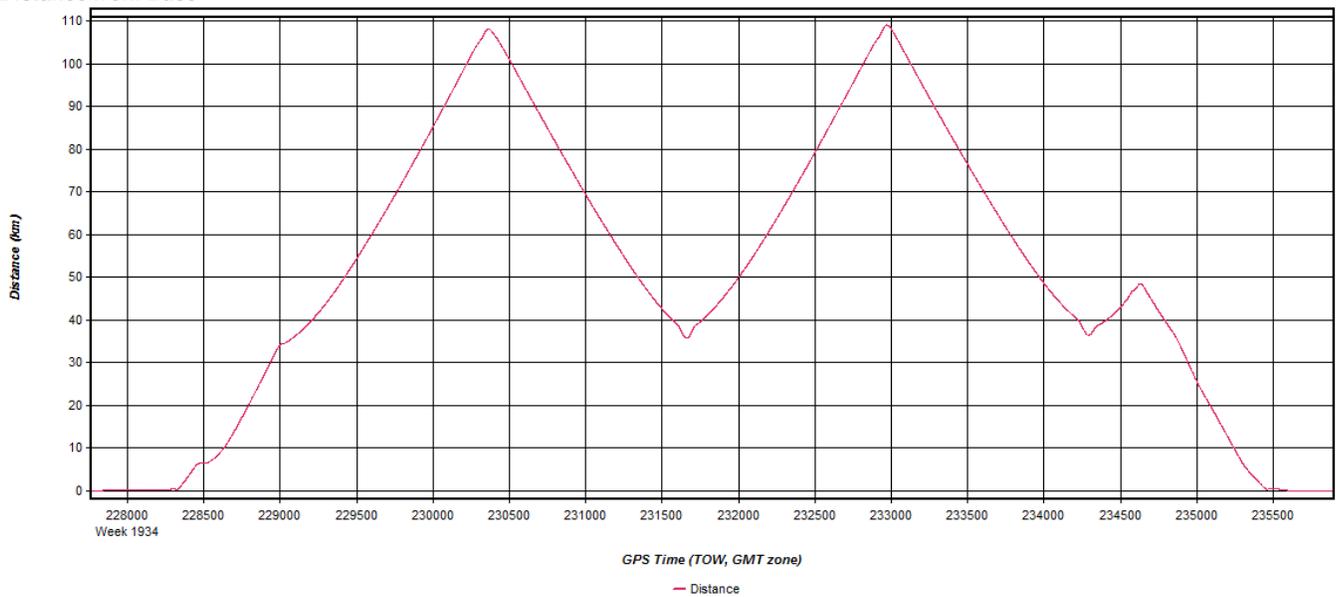
Combined Forward/Reverse Weighting



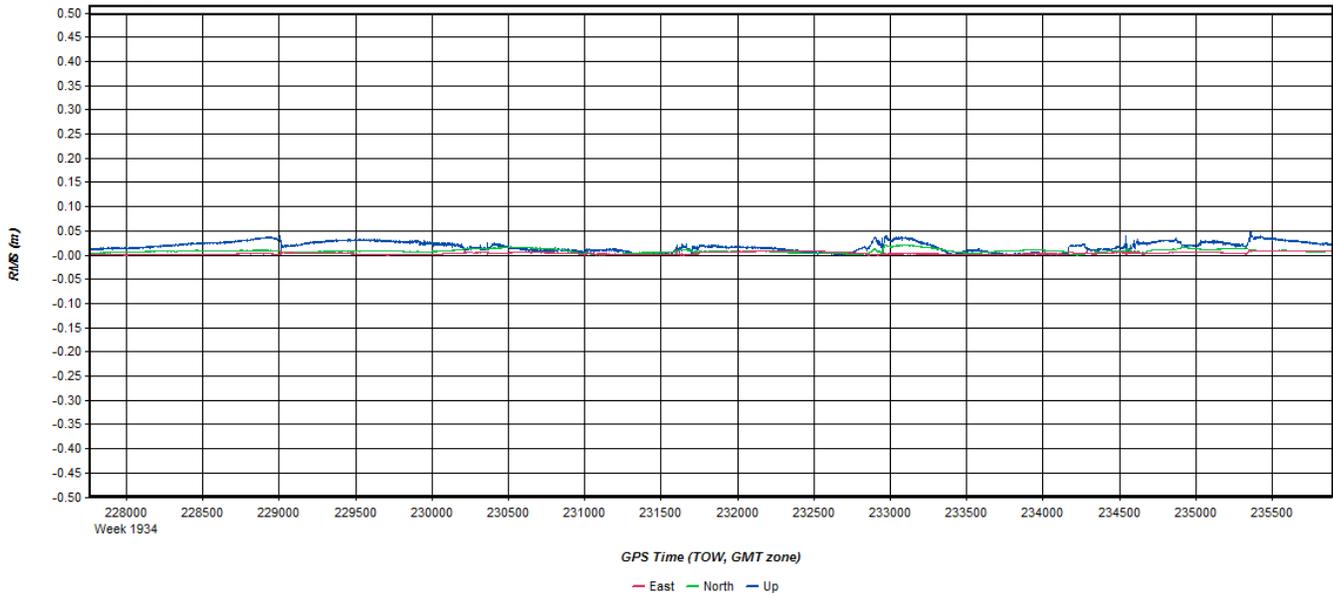
PDOP



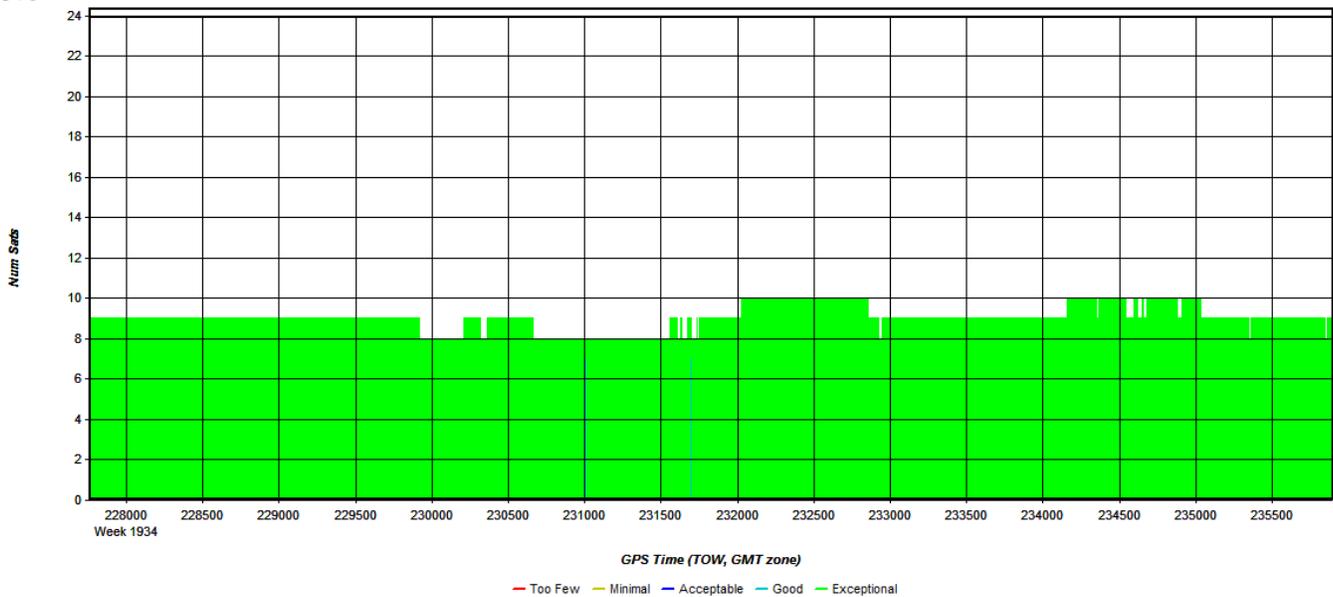
Distance from Base



Combined RMS



SVs





Acquisition and Processing details ----- Collection 12 (February 15, 2017)

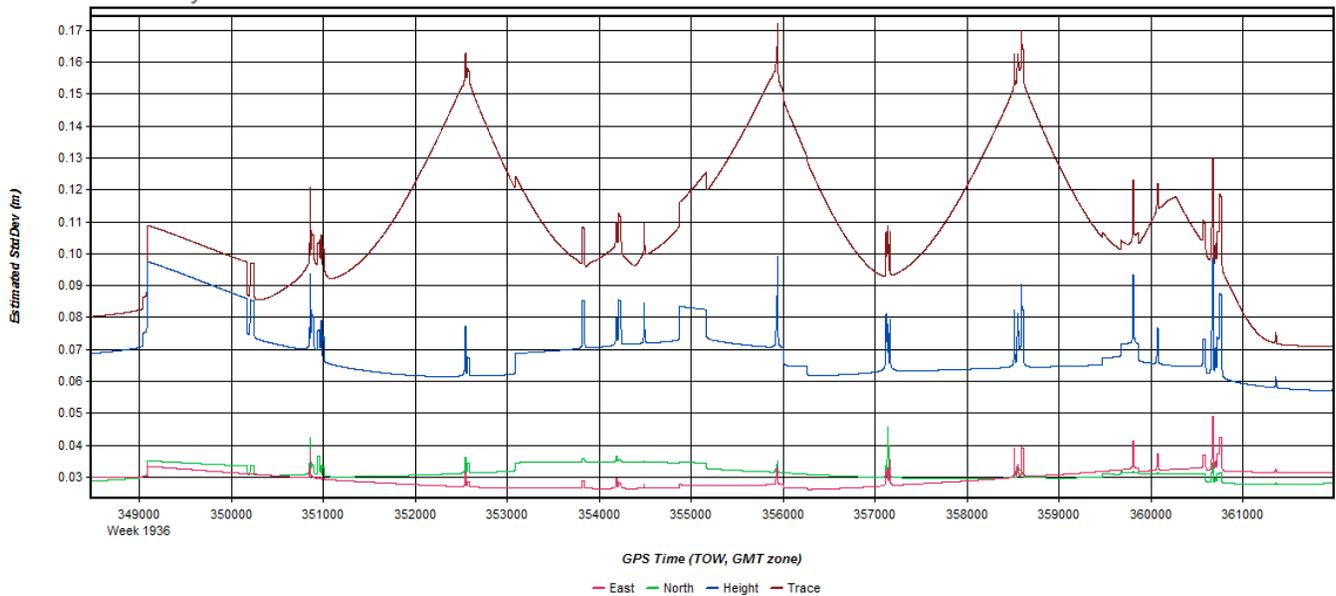
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
	Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1	KHUM	0:35	244.2	KHUM	4:34	247.4	3:59	4.00	3.2	0900-Production					
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Min Range'		Data Logger Drives		
15004000		Upper Delta				780	961	FMU-300	10.0	9.0	1248		Drive #1		
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range'		Download Drive		
15-Feb-17		17-046	6					360	7.0	10.0	1599		NS1TB-67		
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Alt. Setting	Humidity @ Alt	Shipping Track	
170215_961_15004000_06		N83AR	KHUM	Track	-6	4400	130	60	110		0.806	30.00	30.07	778442253091	
Pilot #1		Pilot #2		Operator #1			Operator #2								
Richard Webb		Ryen Farnworth		Riley Forsyth											
Base 1 ID	Location		Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator	Data		
016	KHUM		GR3-5	GR3-5	1.8					Unit#50216a		Riley Forsyth	Shipped		
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							01:00:00	01:05:00					Ground static at KHUM	16	1.4
							01:27:00						pre acquisition s turn	16	1.2
UpDelta1	41	1	100	0	79.8		01:32:00	01:53:00	N	4,400	120			17	1.2
	40		100	1	79.8	0	01:57:00	02:15:00	S	4,400	138			16	1.2
	40	1	10	0	7.3		02:19:00	02:22:00	N	4,400	118		calibration line	15	1.3
	39	1	100	0	79.8		02:28:00	02:50:00	N	4,400	117			16	1.1
	38	100	1	79.8	0		02:52:00	03:10:00	S	4,400	140			15	1.3
	37	1	99	0	79		03:14:00	03:34:00	N	4,400	125			17	1.2
	36	99	1	79	0		03:37:00	03:55:00	S	4,400	138			17	1.2
UpDeltaX	1	1	25	0	19.3		04:05:00	04:10:00	E	4,400	134		cross tie line	17	1.1
							04:10:00						post acquisition s turn	16	1.2
							04:27:00	04:32:00					Ground static at KHUM	15	1.2

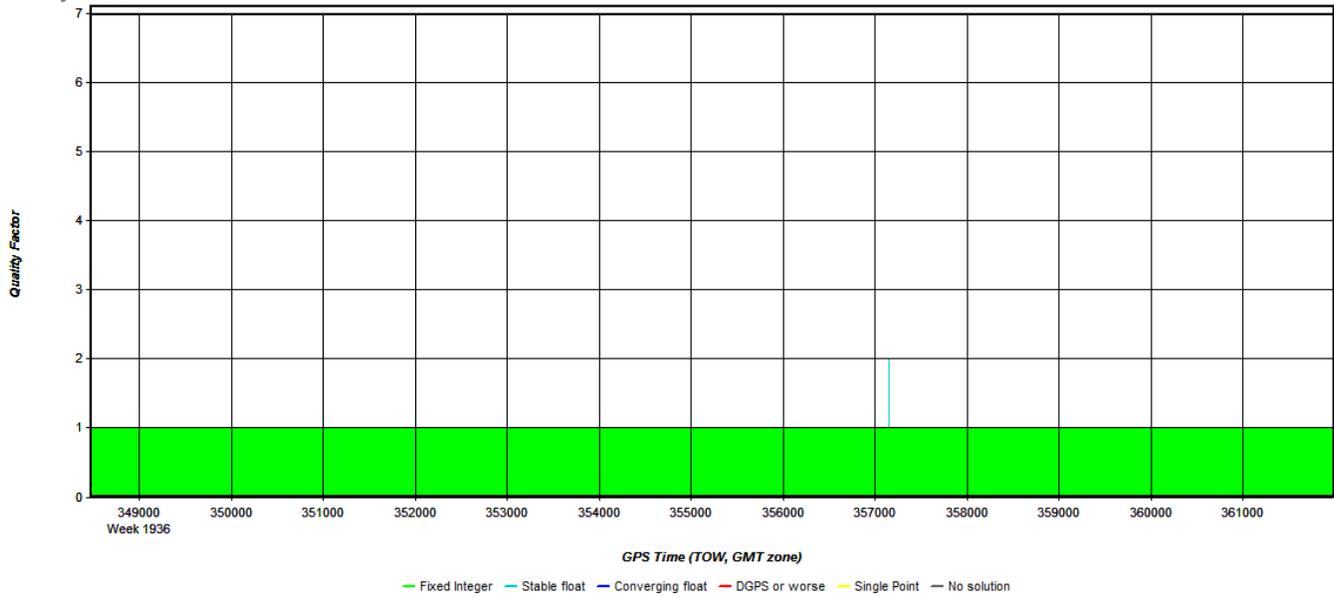
Trajectory and GPS Plots:



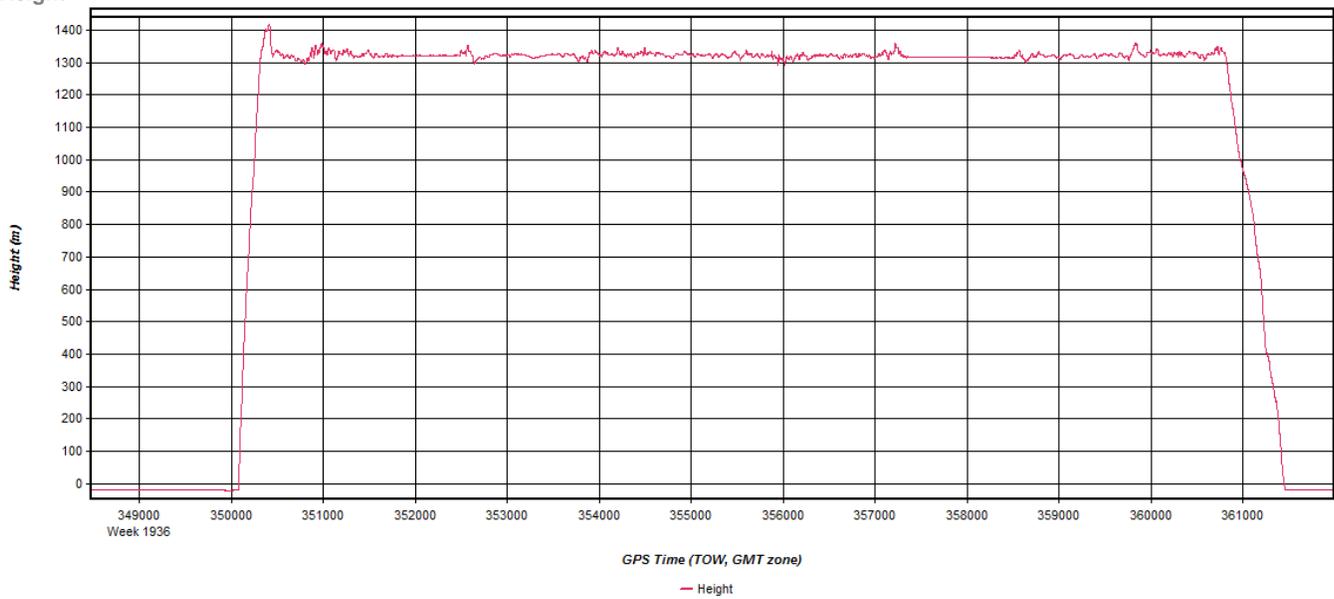
Estimated Accuracy



Quality Factor

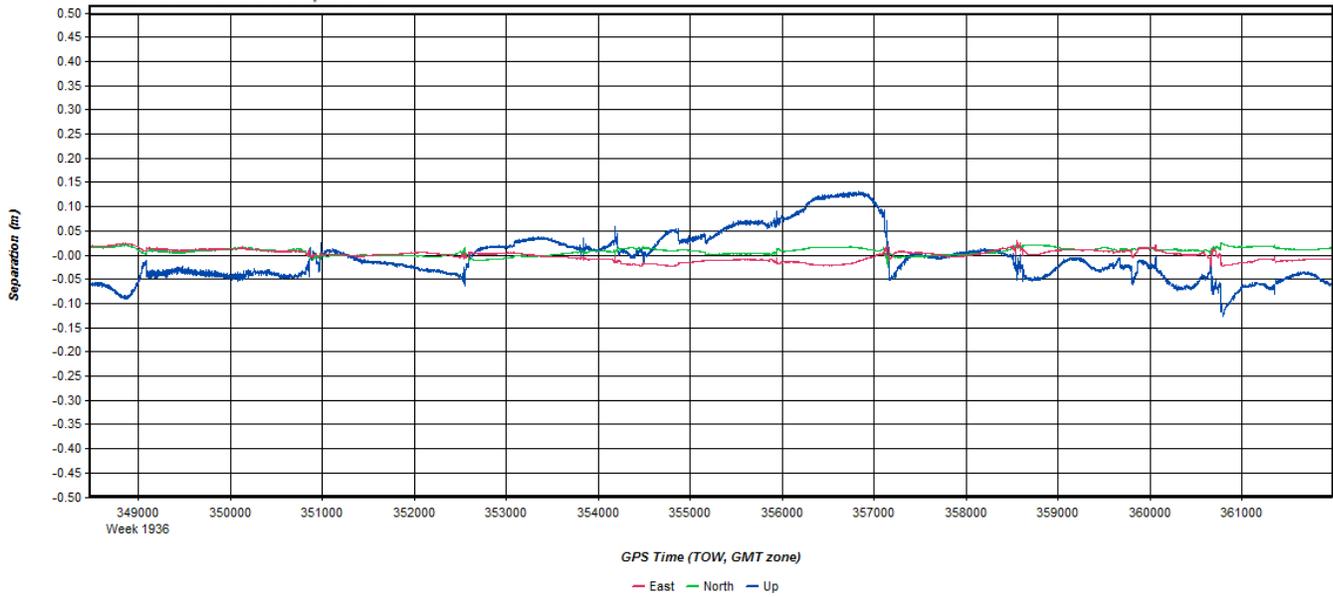


Height

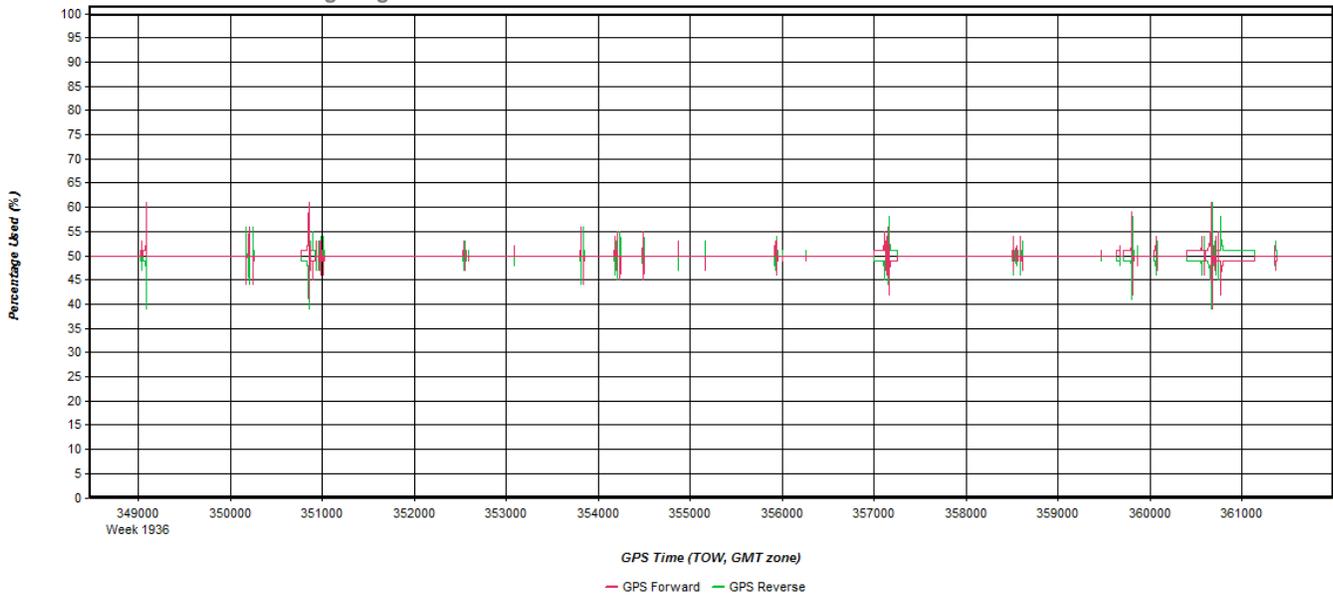




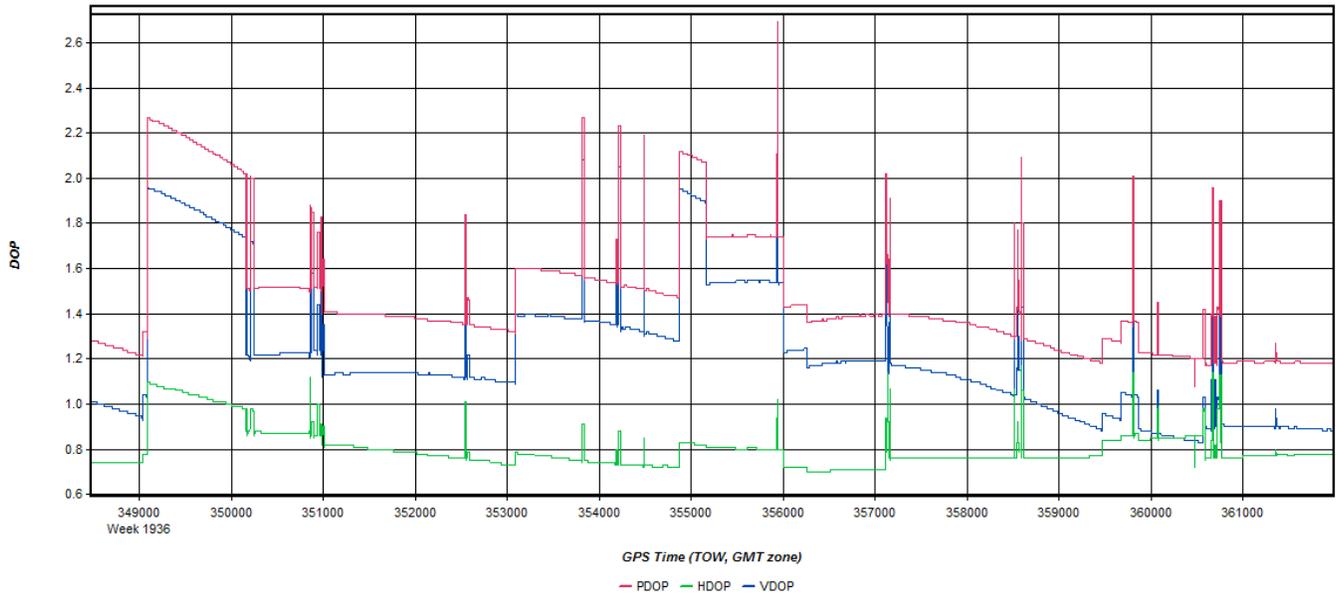
Combined Forward/Reverse Separation



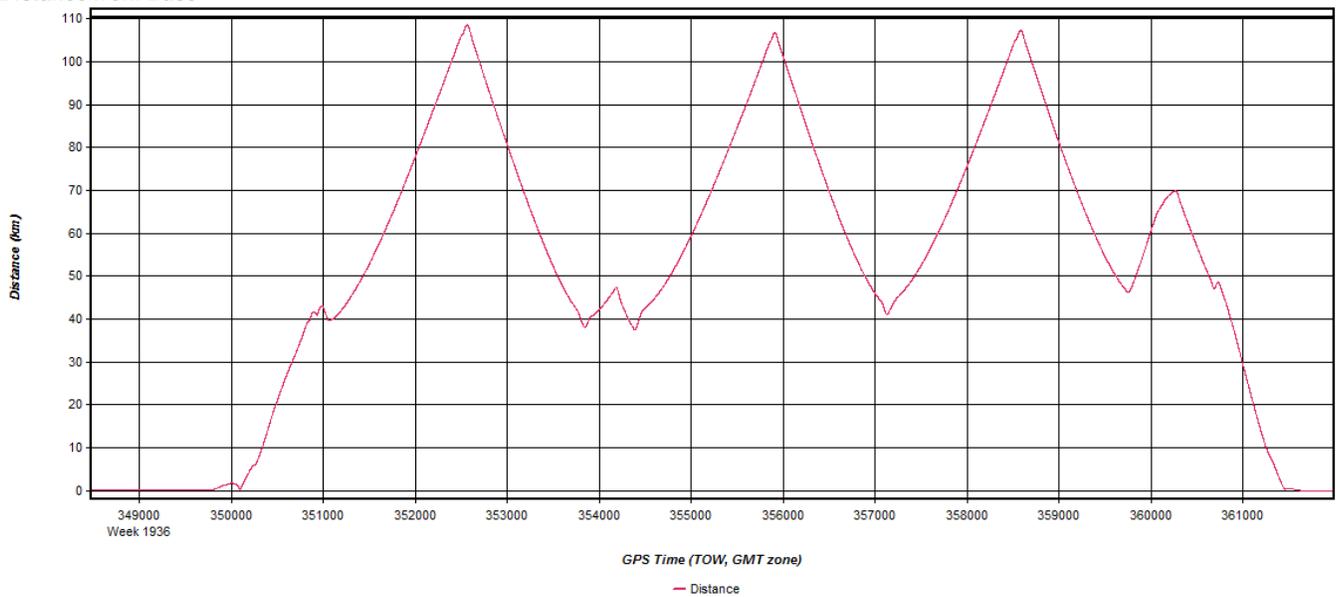
Combined Forward/Reverse Weighting



PDOP

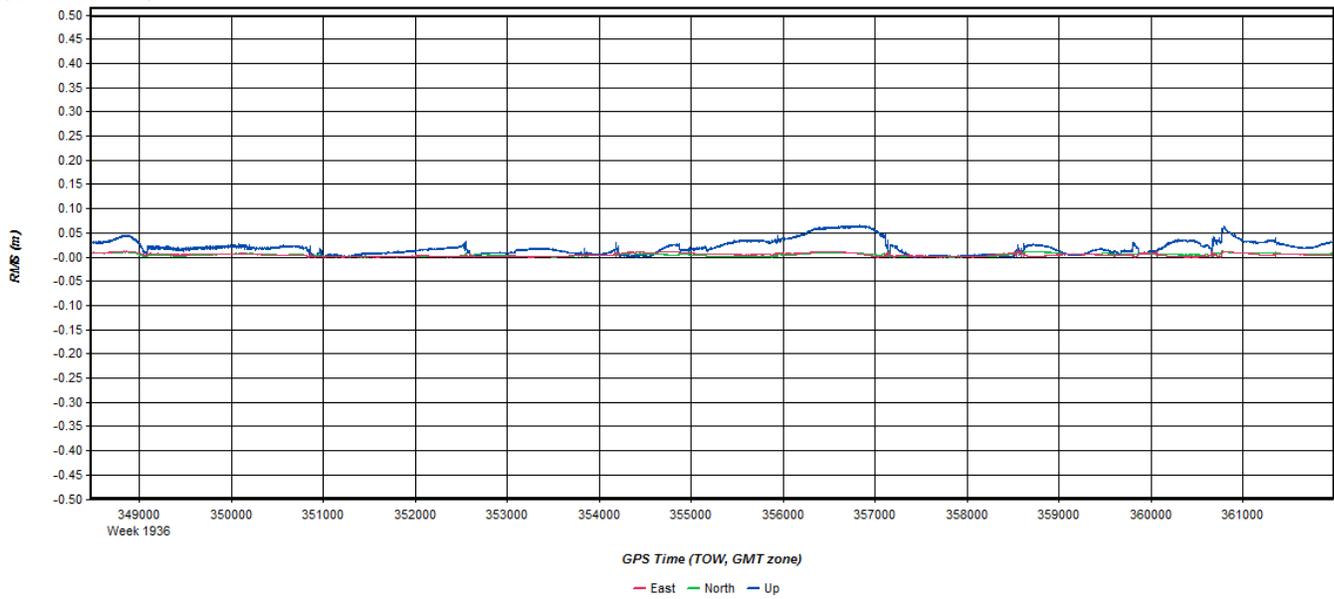


Distance from Base

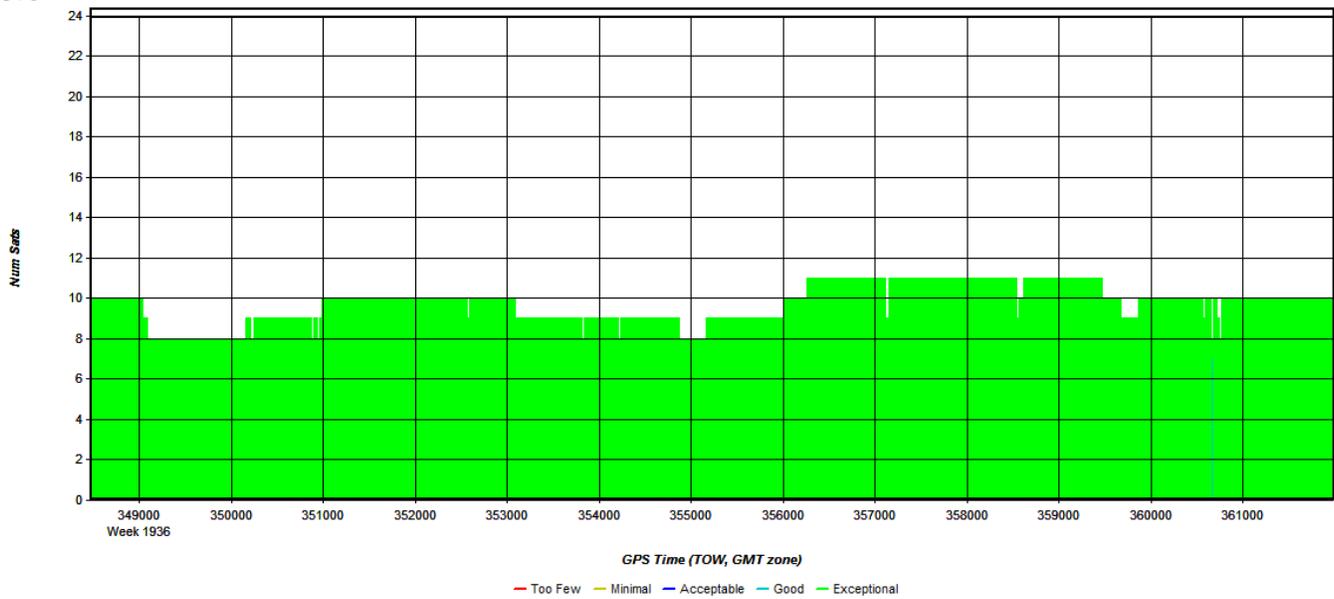




Combined RMS



SVs



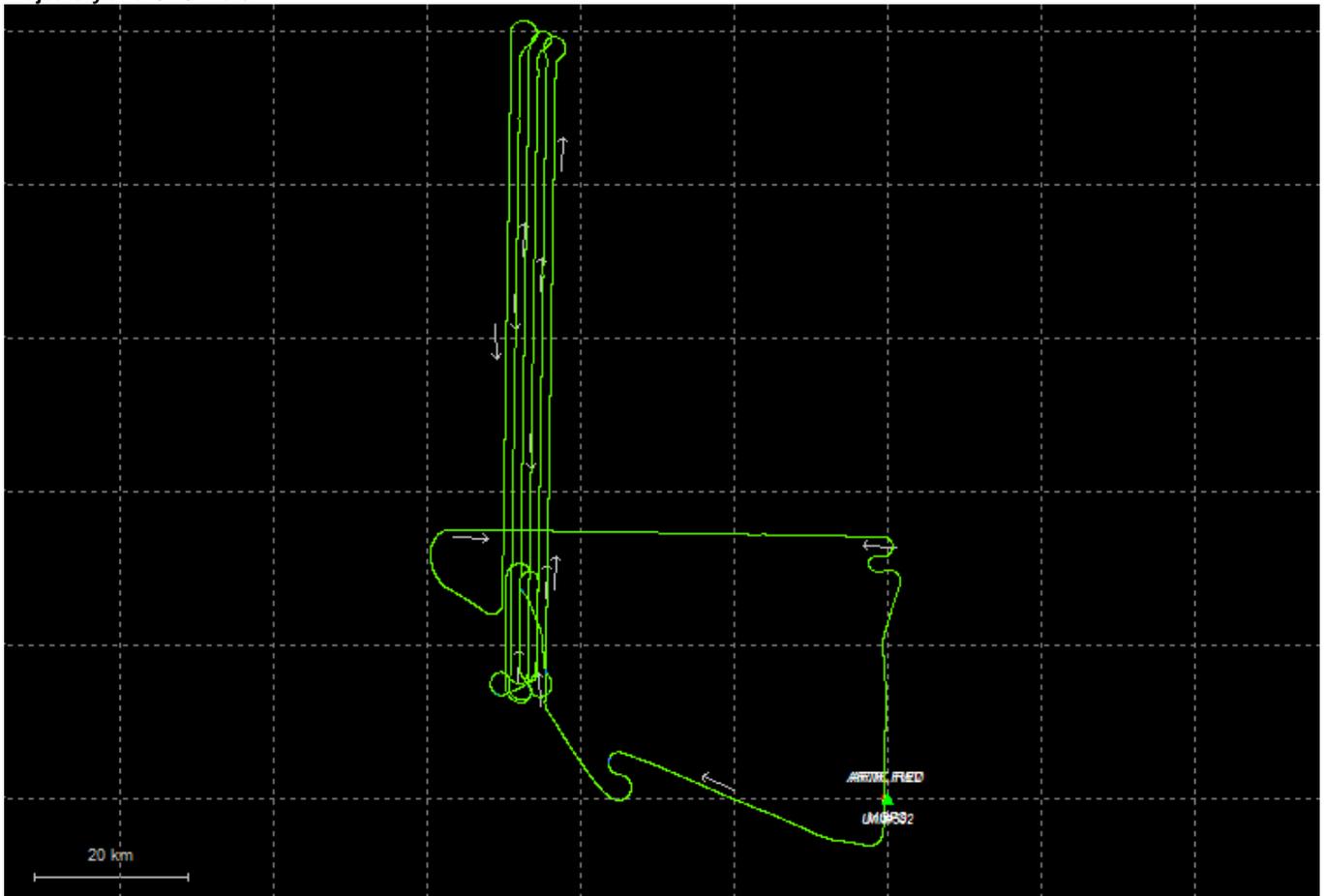


Acquisition and Processing details ----- Collection 13 (February 15, 2017)

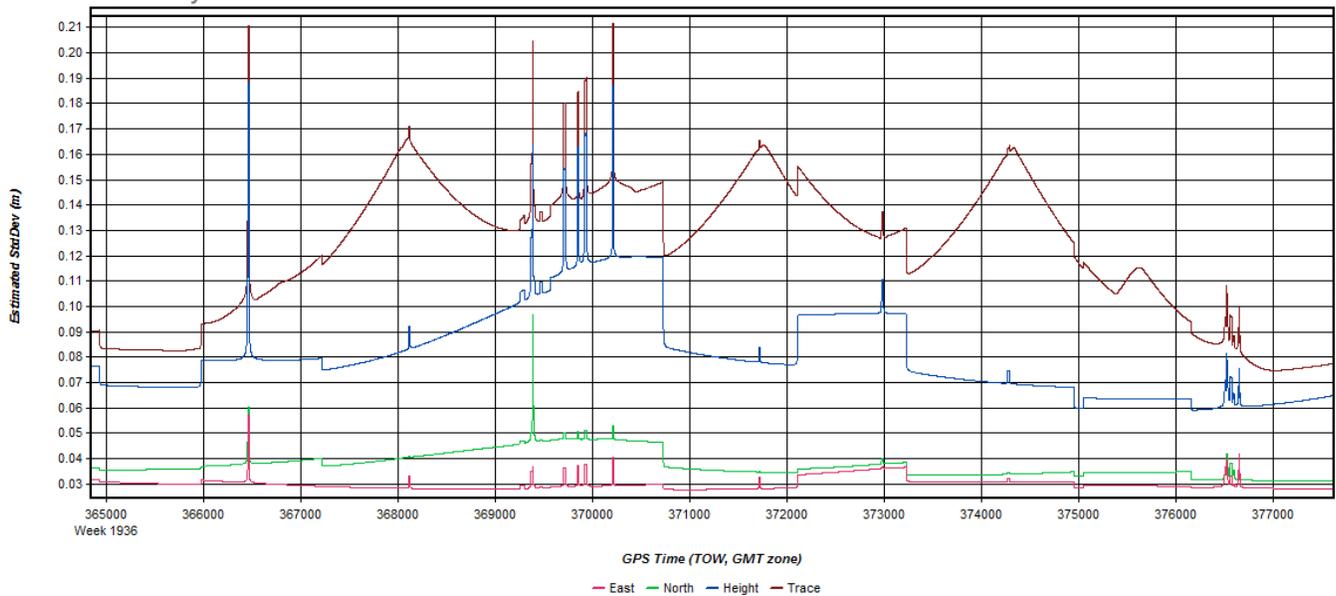
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	5:15	247.4	KHUM	8:55	250.8	3:40	3.75	3.2	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU		Ground Temp °C		Min Range'	Data Logger Drives		
15004000		Upper Delta				780	961	FMU-300		8.0		1248	Drive #0		
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive		
15-Feb-17		17-046	7						360	5.0 6.0		1599	NS1TB-67		
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170215_961_15004000_07		N83AR	KHUM	Track	-6	4400	130	60	110		0.806	30.09 30.11	99	778442253091	
Pilot #1		Pilot #2		Operator #1		Operator #2									
Richard Webb		Ryen Farnworth		Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-5	GR3-5	1.8					Unit#50216a	Riley Forsyth		Shipped			
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							05:26:00	05:31:00					Ground static at KHUM	15	1.2
							05:47:00						pre acquisition s turn	14	1.3
UpDelta1	35		1	97	0	77.4	05:54:00	06:13:00	N	4,400	128			14	1.4
	34		96	1	76.6	0	06:15:00	06:33:00	S	4,400	137			15	1.5
	34		1	10	0	7.3	06:38:00	06:40:00	N	4,400	131		calibration line	16	1.5
	33		1	96	0	76.6	06:46:00		N	4,400	128		line aborted, riaquire quit	16	1.5
	33		1	96	77.4	0	06:55:00	07:14:00	N	4,400	131			16	1.4
	32		97	1	77.4	0	07:16:00	07:34:00	S	4,400	131			16	1.3
	31		1	97	0	77.4	07:37:00	07:56:00	N	4,400	136			16	1.2
	30		88	1	70.1	0	07:59:00	08:15:00	S	4,400	133			17	1.2
UpDeltaX	1		1	69	0	54.8	08:21:00	08:34:00	E	4,400	123		cross tie line	18	1.1
							08:34:00						post acquisition s turn	17	1.2
							08:48:00	08:53:00					Ground static at KHUM	17	1.1

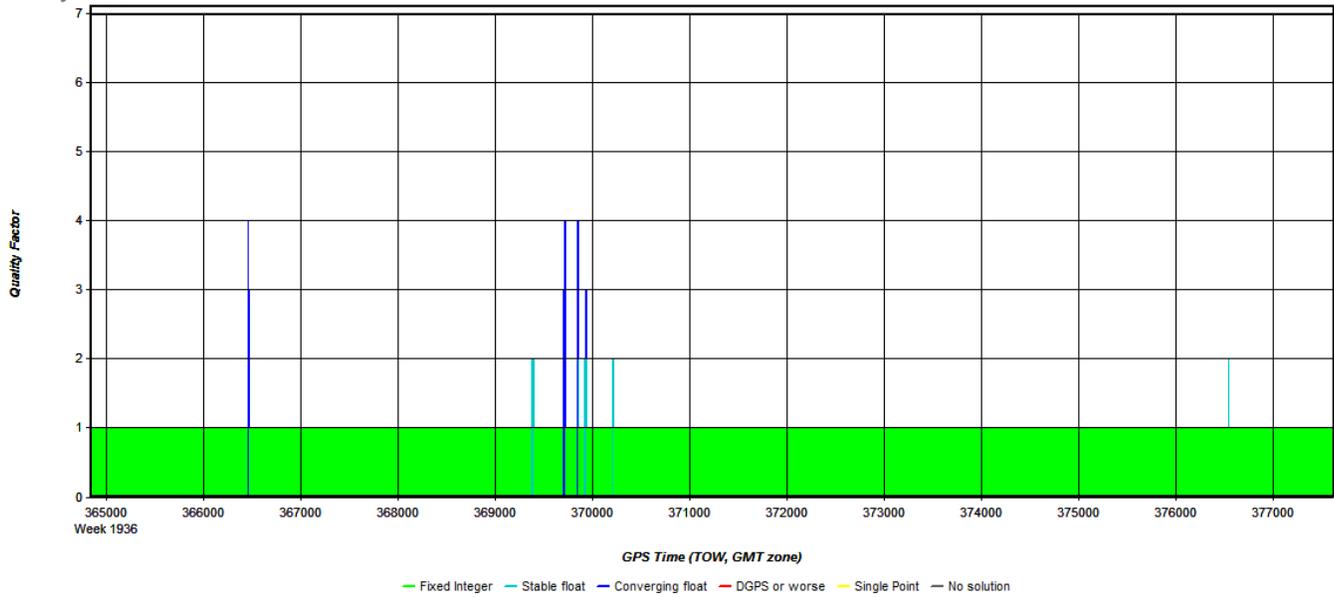
Trajectory and GPS Plots:



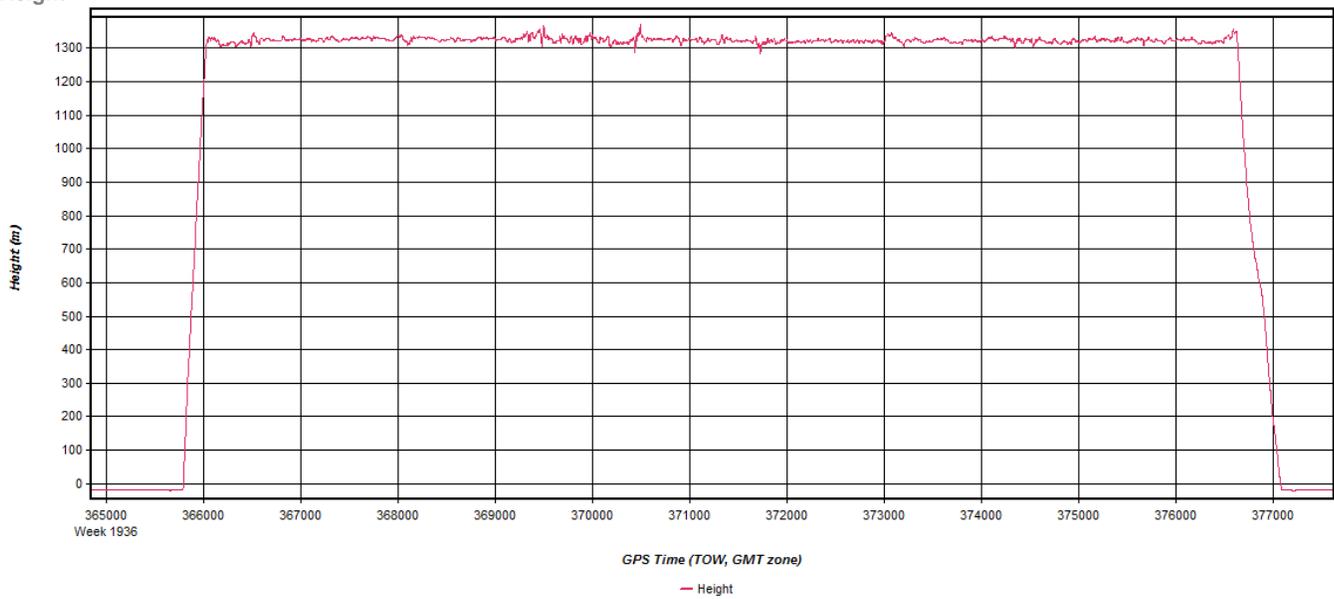
Estimated Accuracy



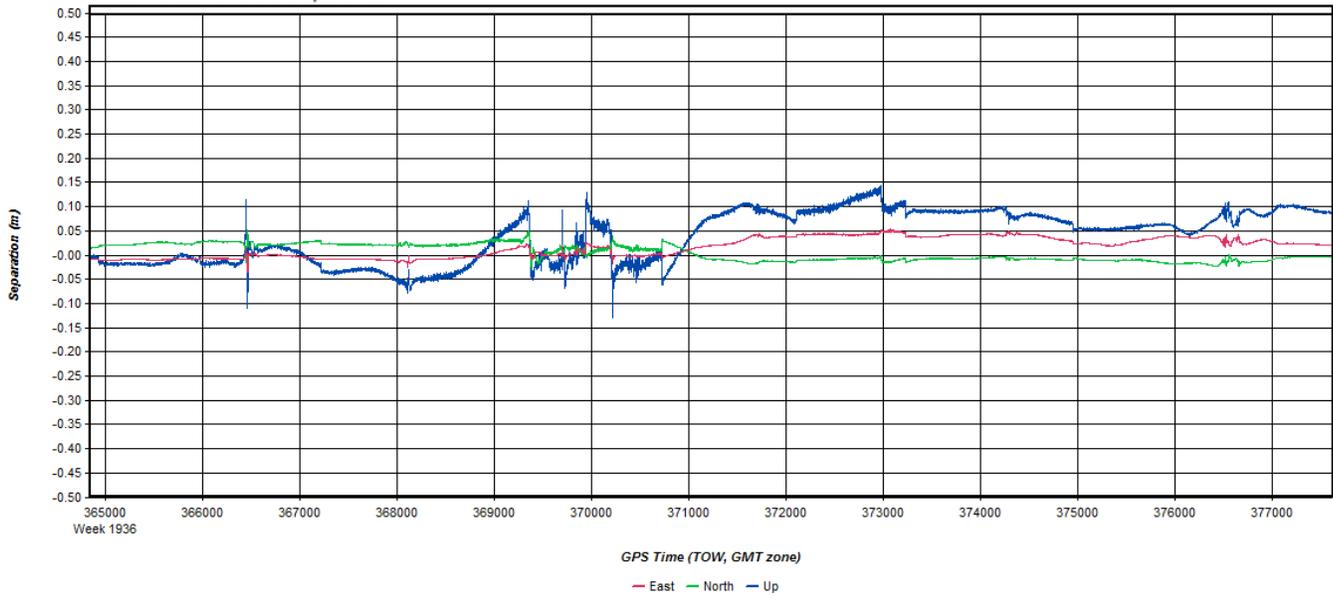
Quality Factor



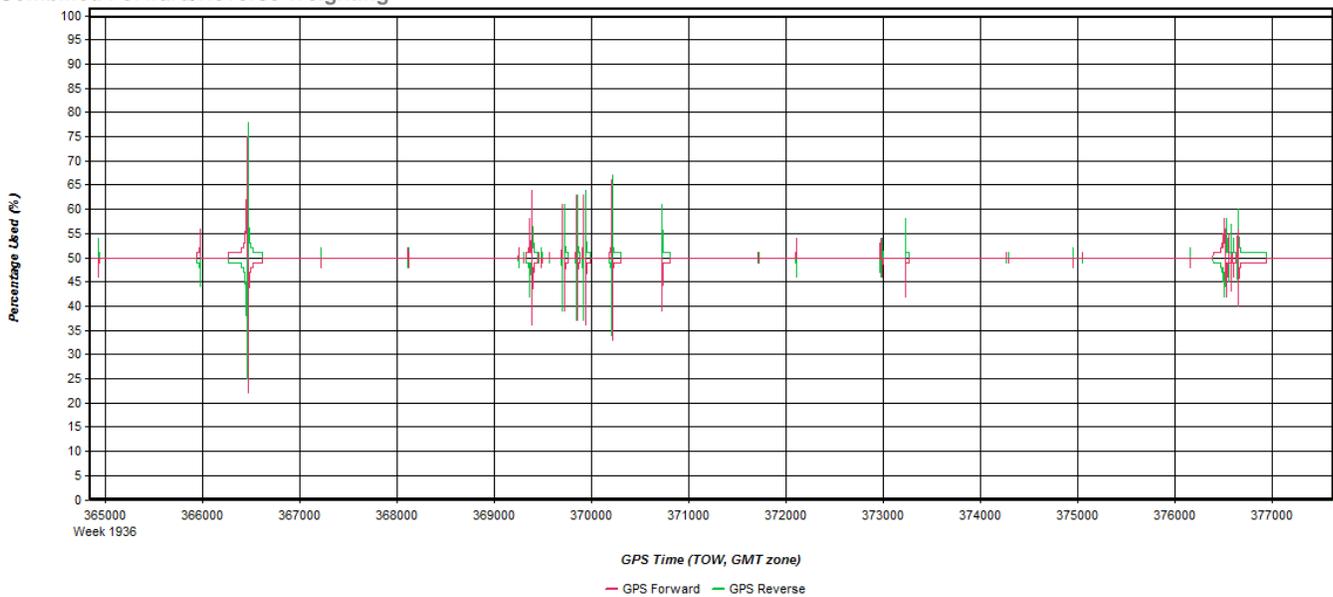
Height



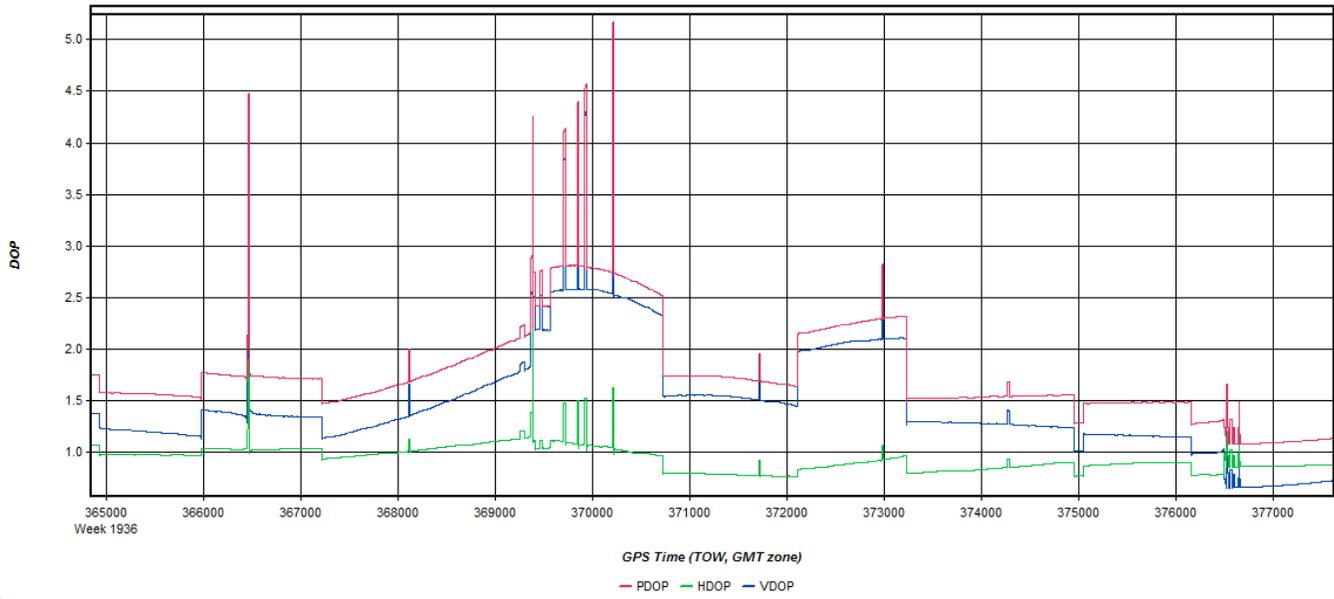
Combined Forward/Reverse Separation



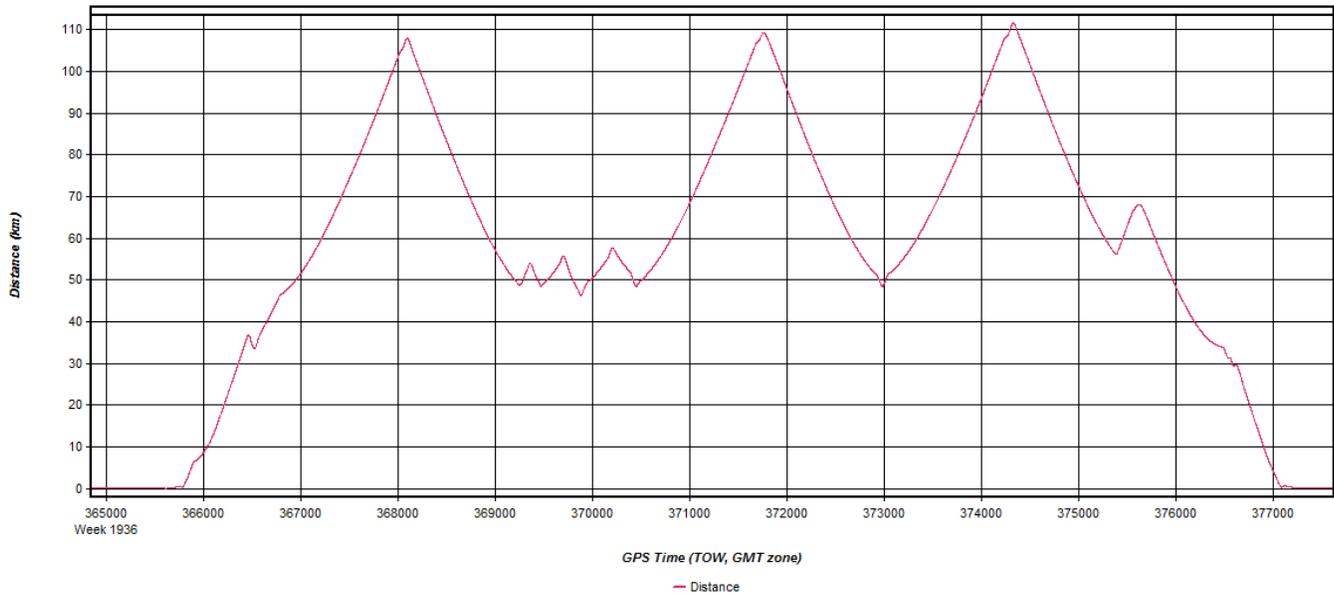
Combined Forward/Reverse Weighting



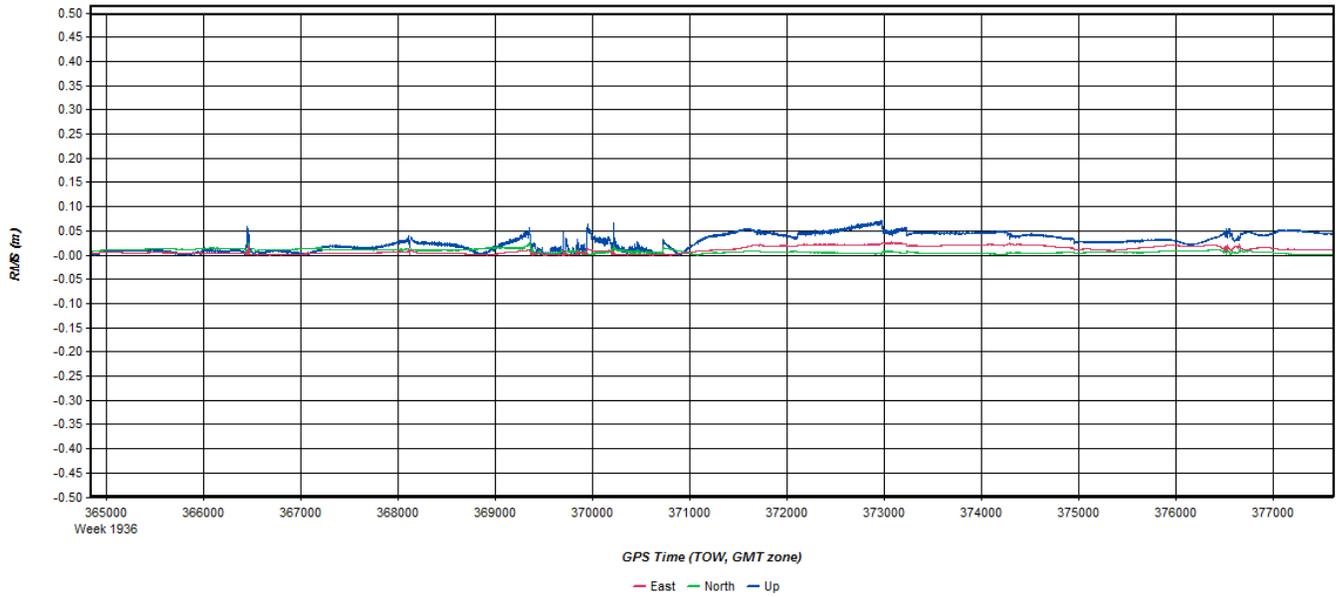
PDOP



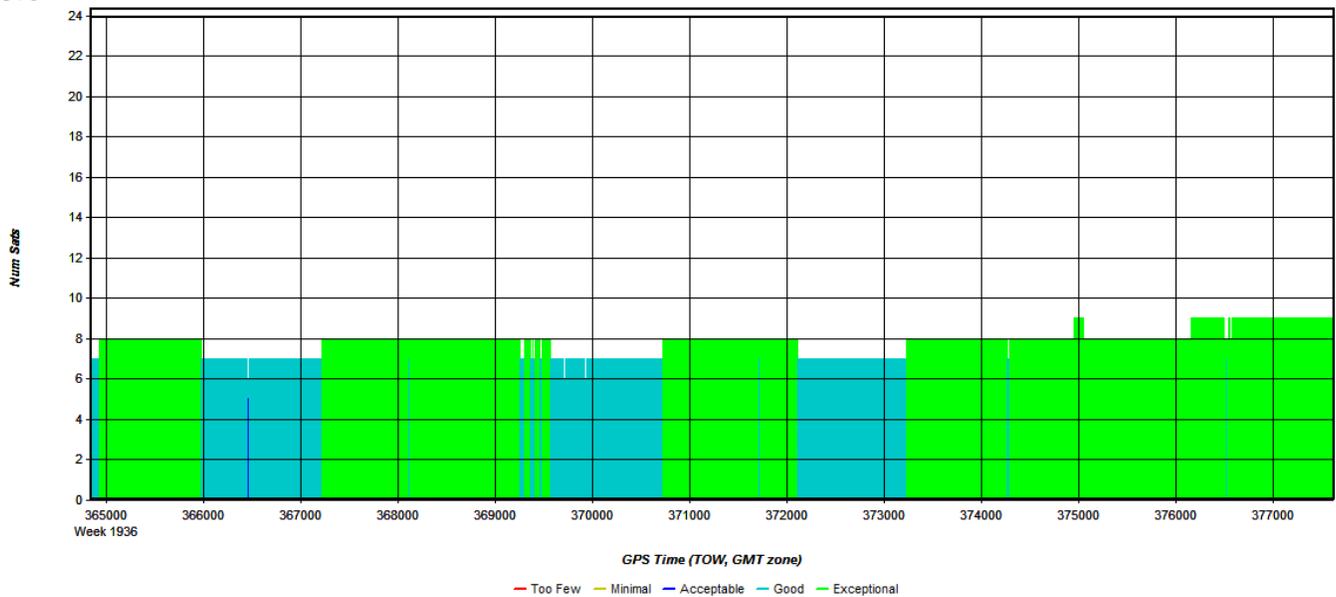
Distance from Base



Combined RMS



SVs





Acquisition and Processing details ----- Collection 14 (February 22, 2017)

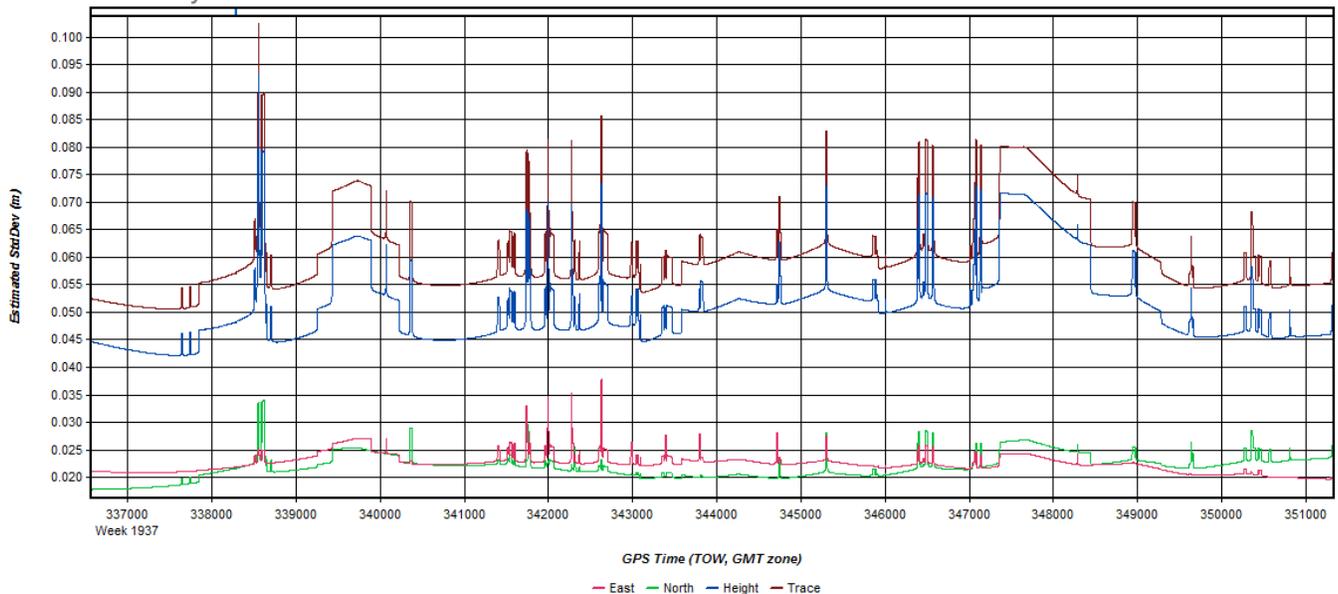
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	21:23	251.2	KBTR	1:36	255.0	4:13	4.25	3.8	0900-Production				
2															
3															
FGL Job #		Project Name				System	Unit	IMU	Ground Temp °C		Mn Range'	Data Logger Drives			
15004000		Upper Delta				780	961	FMU-300	25.0 18.0		1248	Drive #2			
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range'	Download Drive			
22-Feb-17		17-053	8					360	12.0 16.0		1599	NS1TB-42			
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170222_961_15004000_08		N83AR	KHUM	Track	-6	4400	150	60	110		0.806	29.78 29.79	53	778494591076	
Pilot #1		Pilot #2		Operator #1			Operator #2								
Richard Webb		Phil Shredfler		Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-5	GR3-5	1.8					Unit#50222v	Riley Forsyth		Shipped			
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGL	Client	From	To	Begin	End	Start	End							
							21:34:00	21:39:00					Ground static at KHUM	17	1.3
							22:01:00						pre acquisition s turn	16	1.3
UpDelta1	29		1	85	0	67.7	22:05:00	22:21:00	N	4,377	138			18	1.2
UpDeltaX	6		91	1	72.5	0	22:33:00	22:49:00	W	4,392	147		cross tie line	18	1.1
UpDelta1	1		11	1	8.1	0	22:53:00	22:54:00	S	4,425	150			17	1.2
	1		1	11	0	8.1	22:56:00	22:58:00	N	4,375	118		calibration line	17	1.2
	2		17	1	12.9	0	23:00:00	23:03:00	S	4,363	140			17	1.2
	3		1	19	0	14.5	23:05:00	23:09:00	N	4,428	128			17	1.2
	4		21	1	16.1	0	23:11:00	23:15:00	S	4,350	148			17	1.2
	5		1	22	0	16.9	23:17:00	23:21:00	N	4,383	127			17	1.2
	6		23	1	17.7	0	23:24:00	23:28:00	S	4,425	150			19	1.0
	7		1	26	0	20.2	23:31:00	23:35:00	N	4,390	137			17	1.3
	8		28	1	21.8	0	23:38:00	23:43:00	S	4,385	147			17	1.3
	9		1	31	0	24.2	23:46:00	23:52:00	N	4,385	138			17	1.3
	10		33	1	25.8	0	23:56:00	00:01:00	S	4,430	146			16	1.4
	11		1	36	0	28.2	00:05:00	00:12:00	N	4,420	139			18	1.2
	12		37	1	29	0	00:16:00	00:22:00	S	4,395	148			18	1.1
	13		1	38	0	29.8	00:25:00	00:32:00	N	4,414	135			18	1.1
	14		40	1	31.4	0	00:35:00	00:43:00	S	4,409	142			15	1.4
	15		1	41	0	32.2	00:46:00	00:53:00	N	4,375	140			16	1.2
	16		43	1	33.9	0	00:57:00	01:04:00	S	4,390	143			16	1.2
	17		1	47	0	37.1	01:08:00	01:17:00	N	4,390	140			16	1.3
							01:17:00						post acquisition s turn	16	1.3
							01:30:00	01:35:00					ground static at KBRT	16	1.2

Trajectory and GPS Plots:



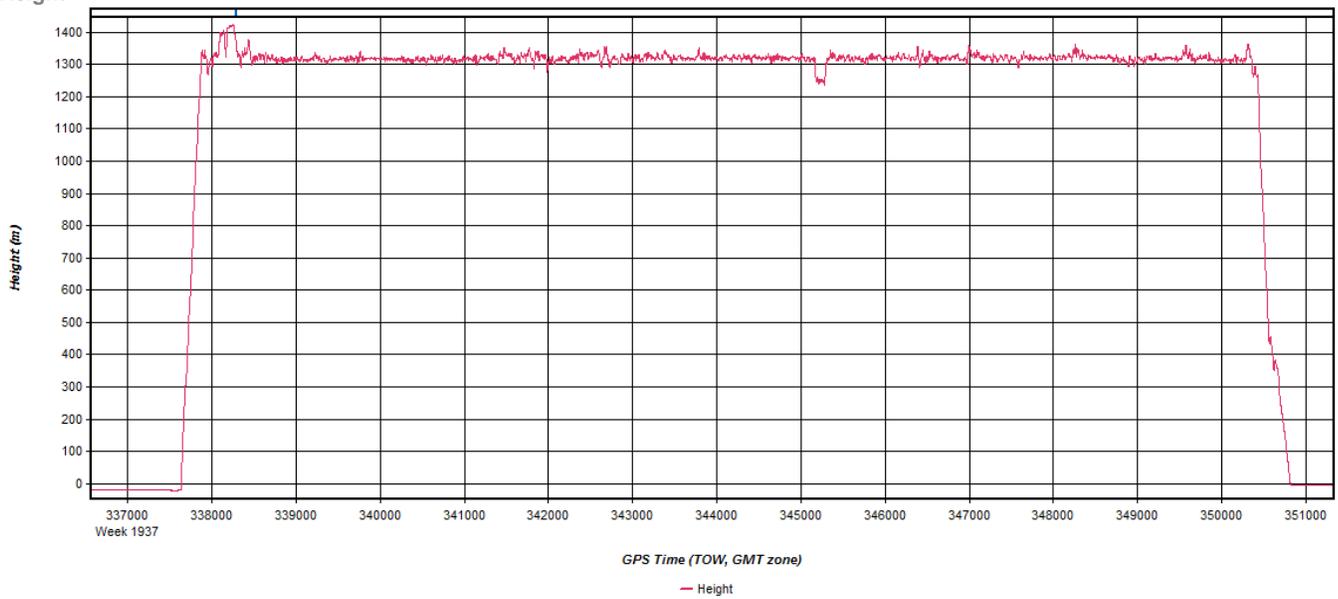
Estimated Accuracy



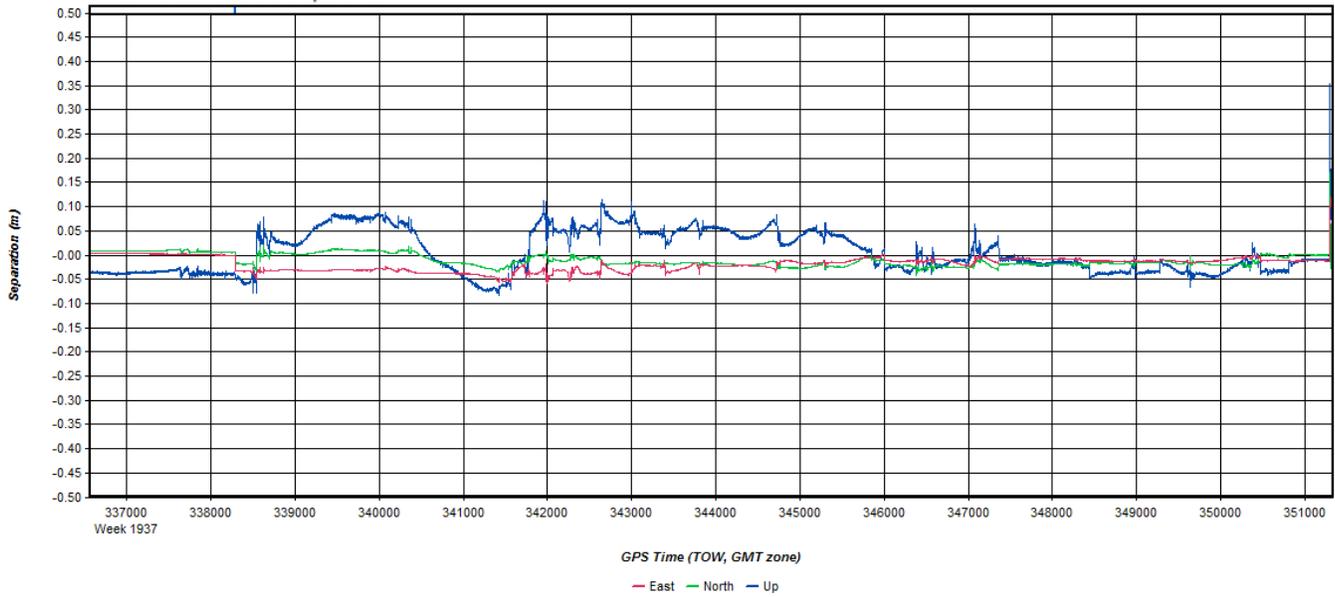
Quality Factor



Height



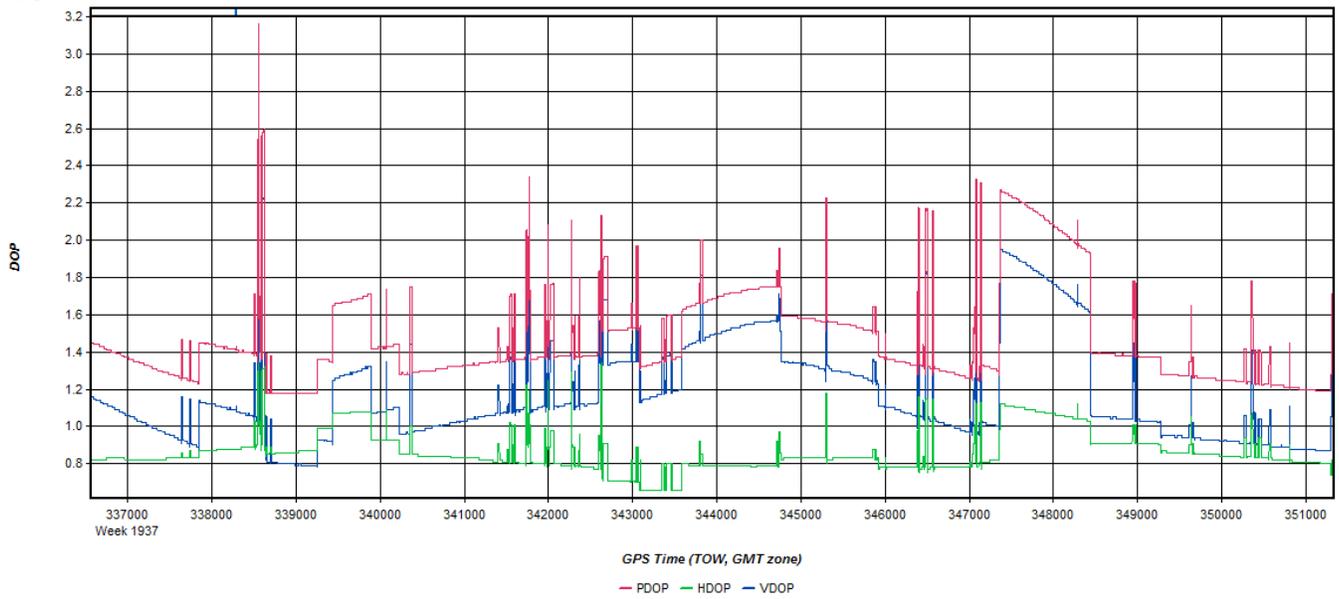
Combined Forward/Reverse Separation



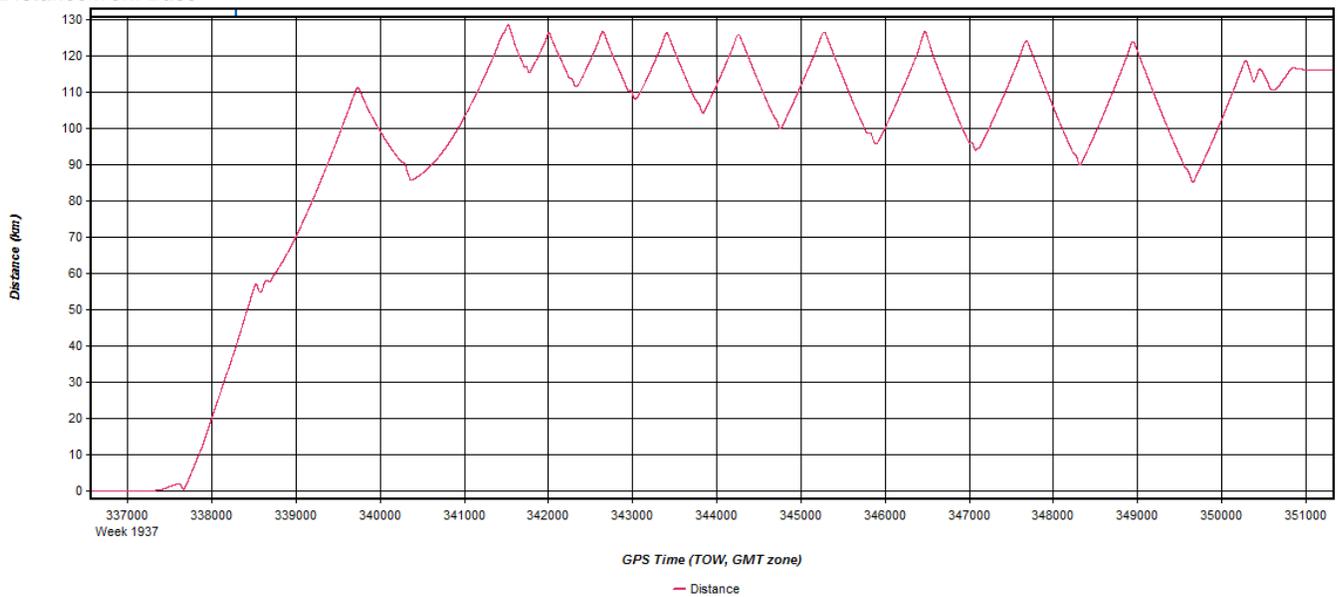
Combined Forward/Reverse Weighting



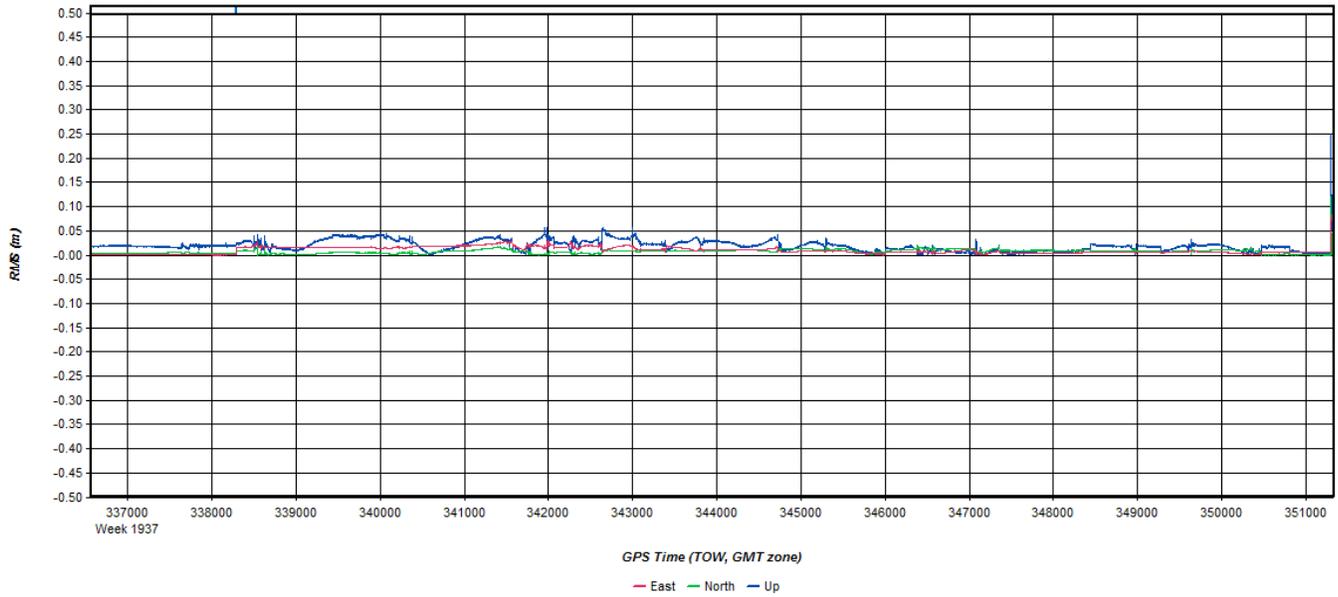
PDOP



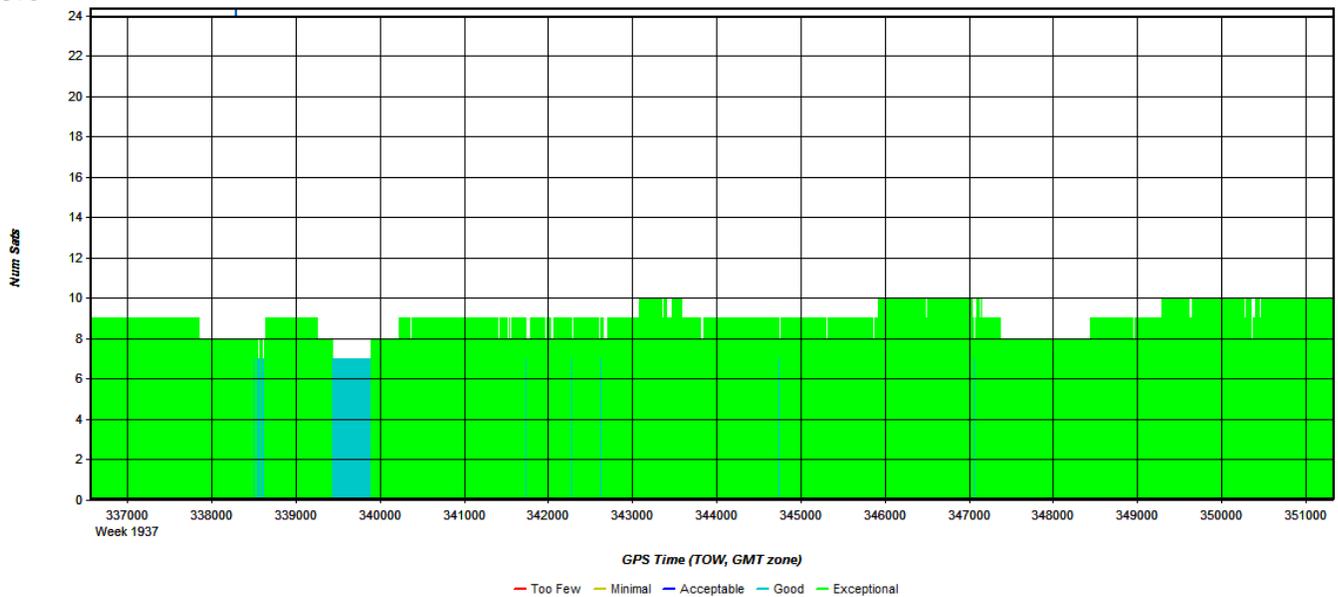
Distance from Base



Combined RMS



SVs





Acquisition and Processing details ----- Collection 15 (February 22, 2017)

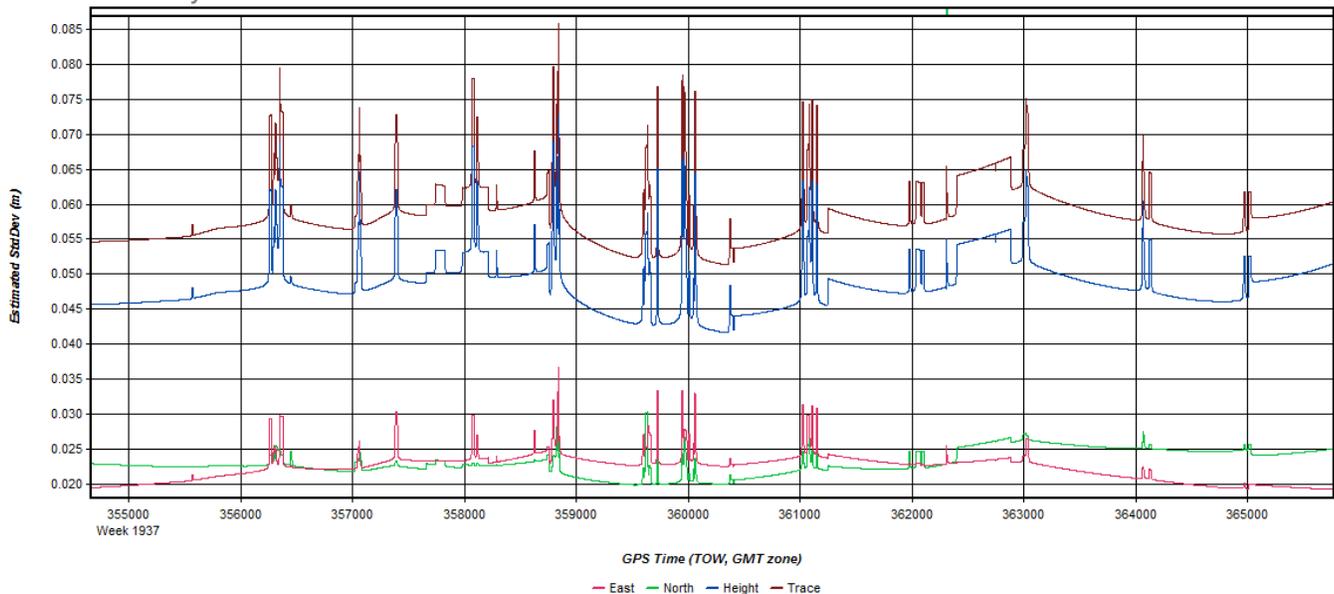
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KBTR	2:27	254.8	KHUM	5:37	257.7	3:10	3:25	2:9	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Data Logger Drives				
15004000		Upper Delta				780	961	FMU-300	16.0	18.0	1248	Drive #2			
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range*	Download Drive			
22-Feb-17		17-053	9					360	15.0	14.0	1599	NS1TB-42			
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altitude Setting	Humidity @ Alt	Shipping Track	
170222_961_15004000_09		N83AR	KHUM	Track	-6	4400	150	60	110		0.806	29.81	29.84	68	778494591076
Pilot #1		Pilot #2		Operator #1		Operator #2									
Richard Webb		Phil Shredfler		Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-5	GR3-5	1.8					Unit#50222v	Riley Forsyth		Shipped			
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							02:35:00	02:40:00					Ground static at KBTR	17	1.2
							02:56:00						pre acquisition s turn	17	1.2
UpDeltaX	6		1	45	0	35.5	03:01:00	03:09:00	E	4,400	145		cross tie line	17	1.2
UpDelta1	18		50	1	39.5	0	03:17:00	03:26:00	S	4,420	138			17	1.2
	19		1	54	0	42.7	03:29:00	03:38:00	N	4,430	147			15	1.3
	20		56	1	44.3	0	03:41:00	03:51:00	S	4,405	139			17	1.0
	20		1	10	0	7.3	03:55:00	03:58:00	N	4,432	144		calibration line	16	1.2
	21		1	57	0	45.1	04:06:00	04:16:00	N	4,435	147			17	1.2
	22		70	1	55.6	0	04:19:00	04:32:00	S	4,390	142			17	1.2
	23		1	73	0	58	04:35:00	04:48:00	N	4,430	148			16	1.3
	24		75	1	59.6	0	04:51:00	05:05:00	S	4,425	135			15	1.3
							05:06:00						post acquisition s turn	16	1.2
							05:30:00	05:35:00					ground static at KHUM	17	1.4

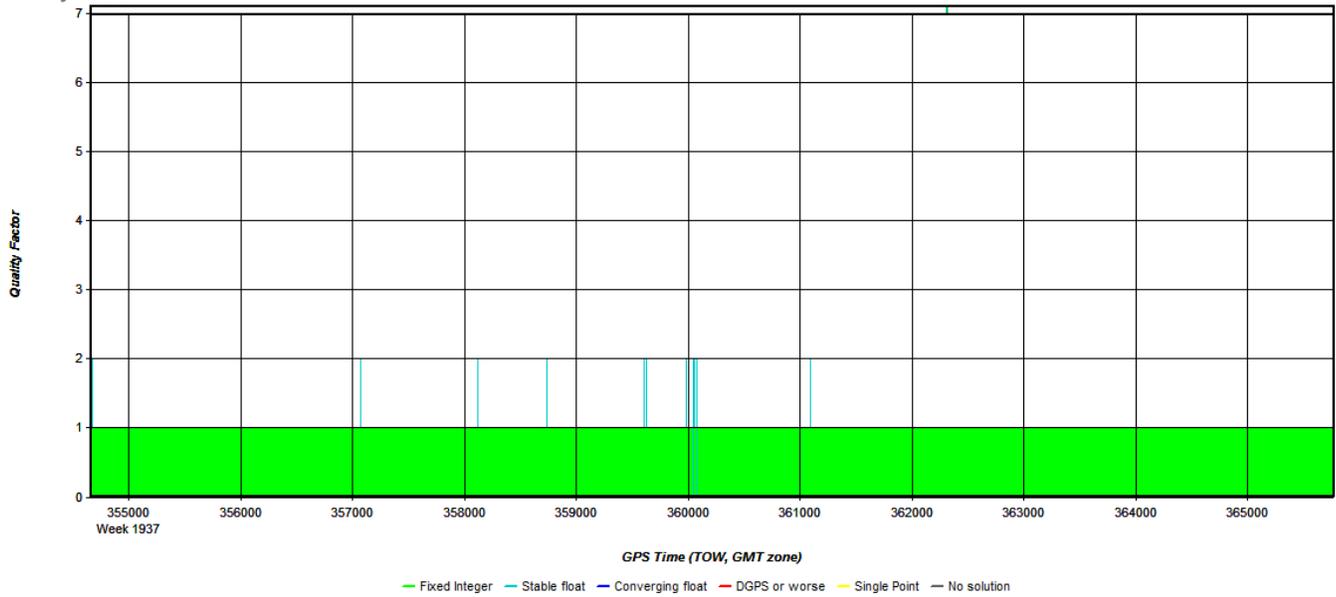
Trajectory and GPS Plots:



Estimated Accuracy



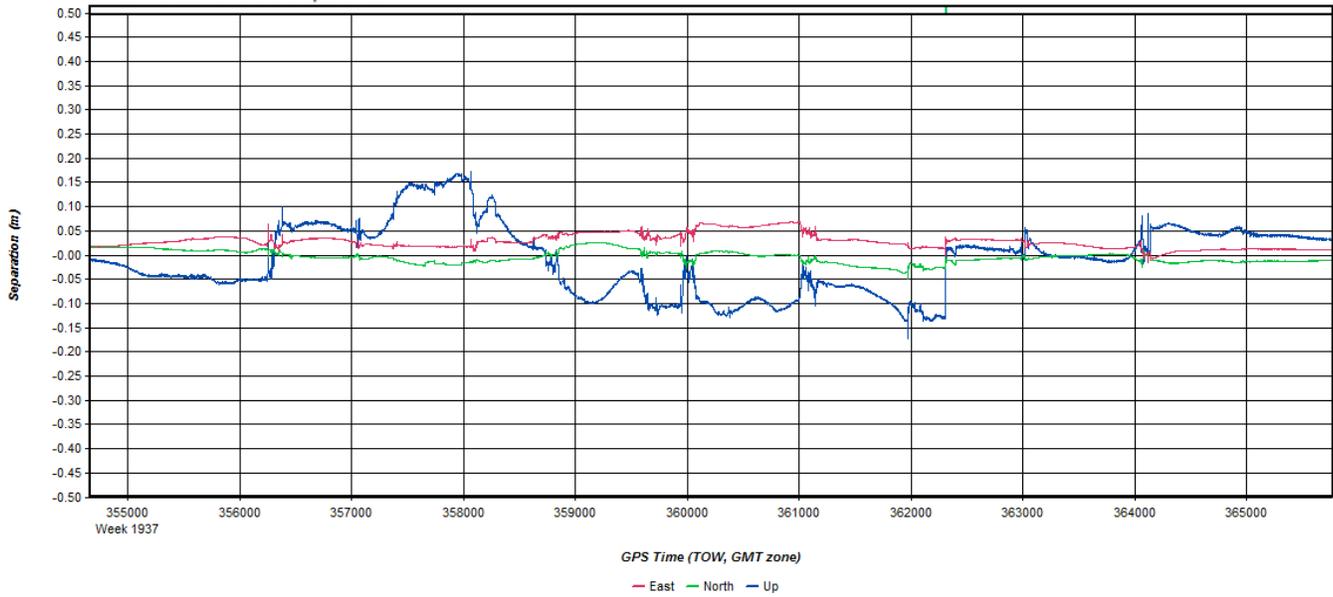
Quality Factor



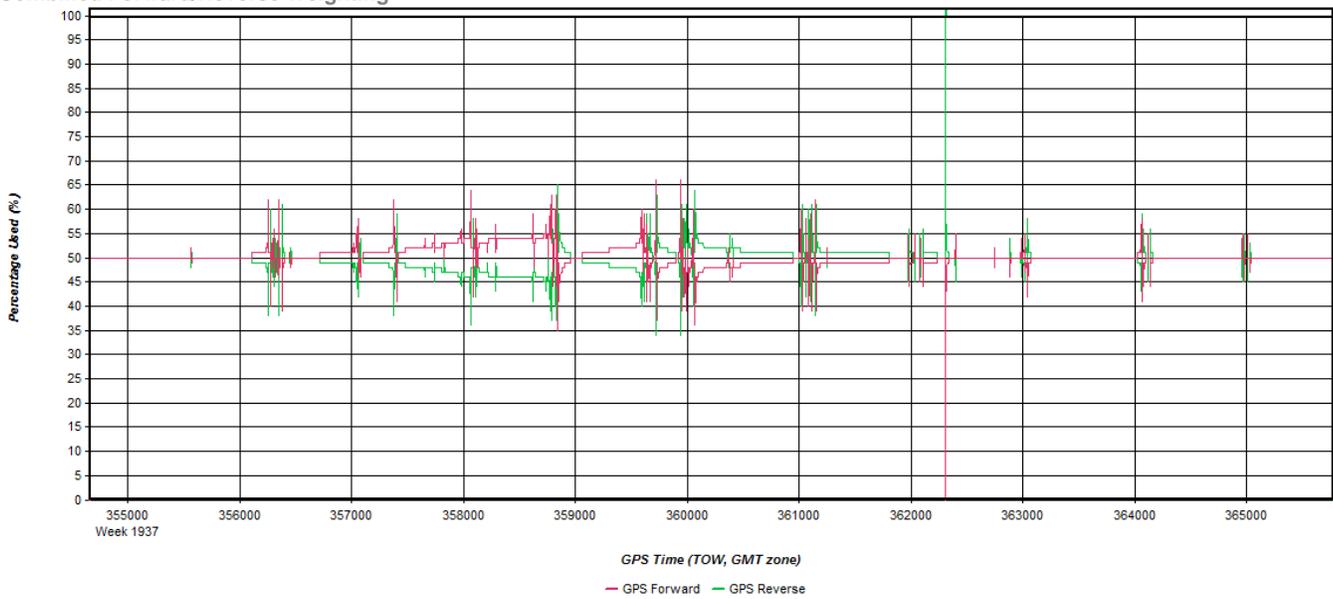
Height



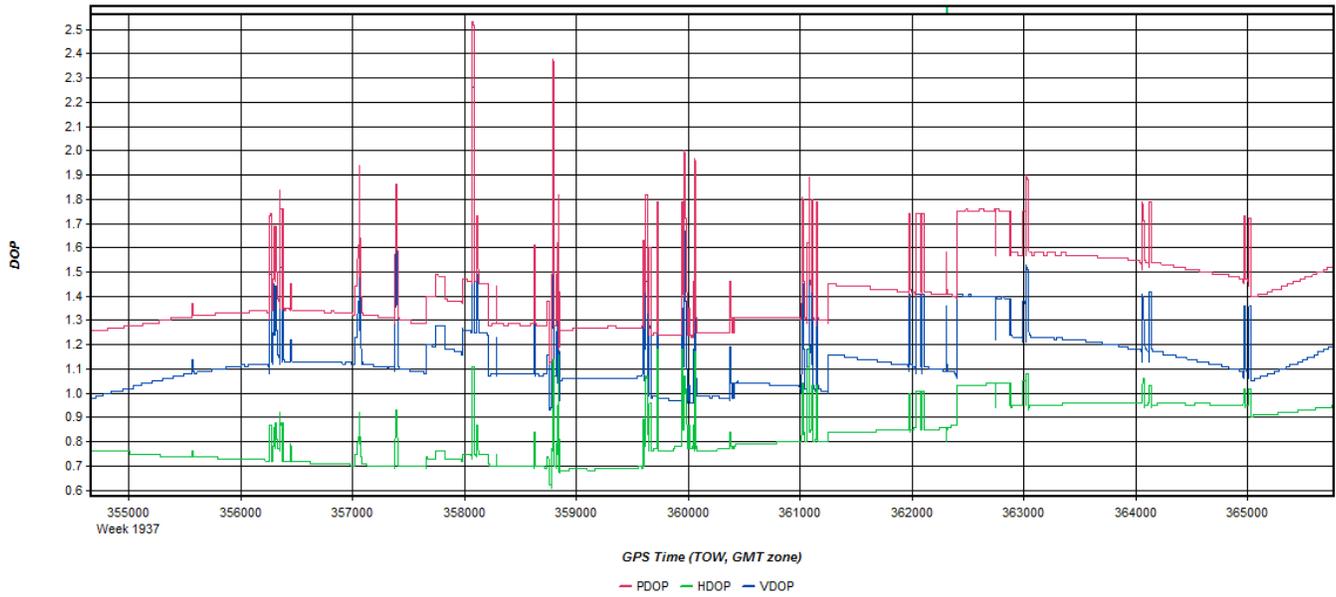
Combined Forward/Reverse Separation



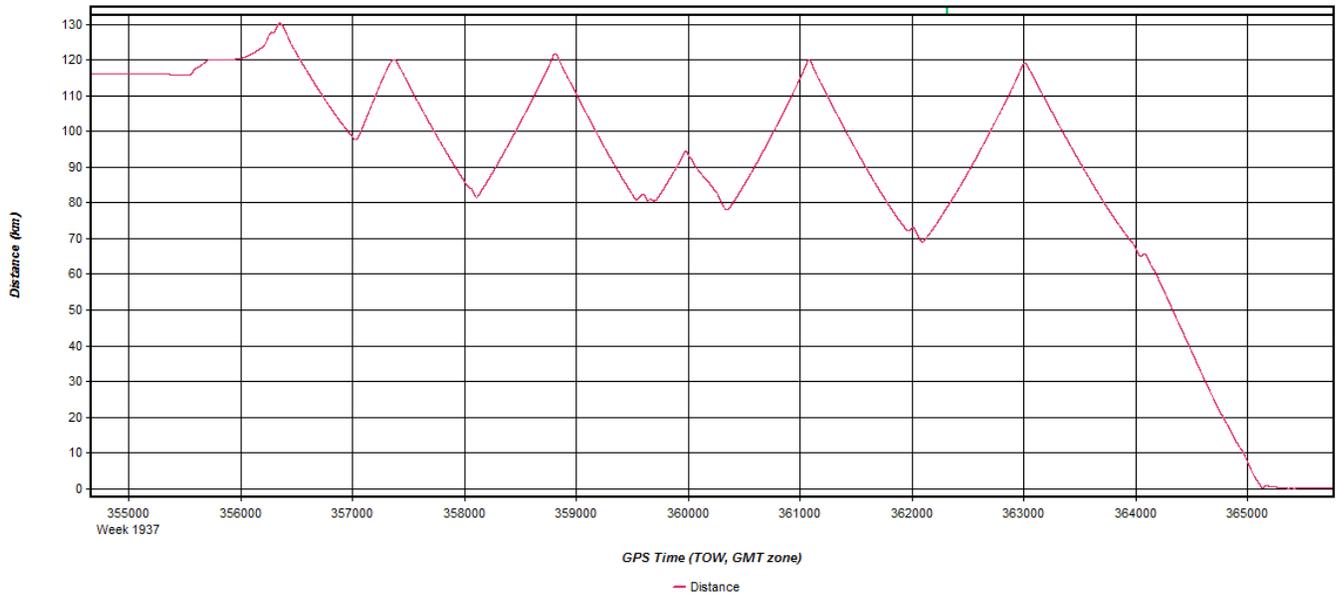
Combined Forward/Reverse Weighting



PDOP

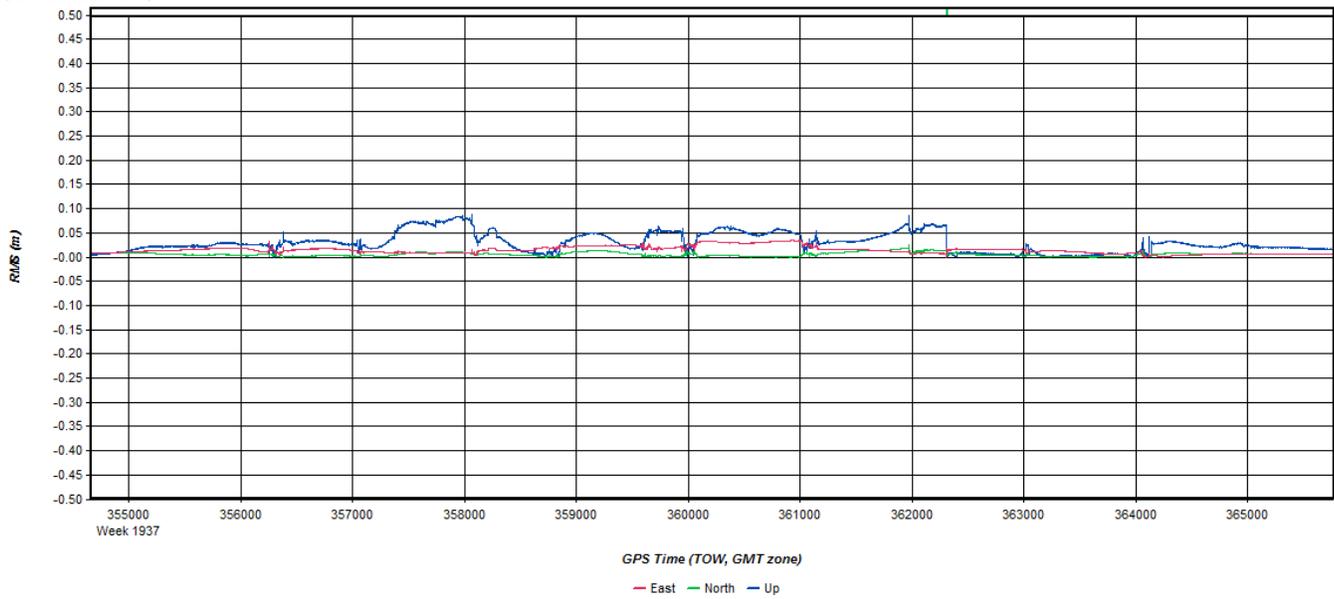


Distance from Base

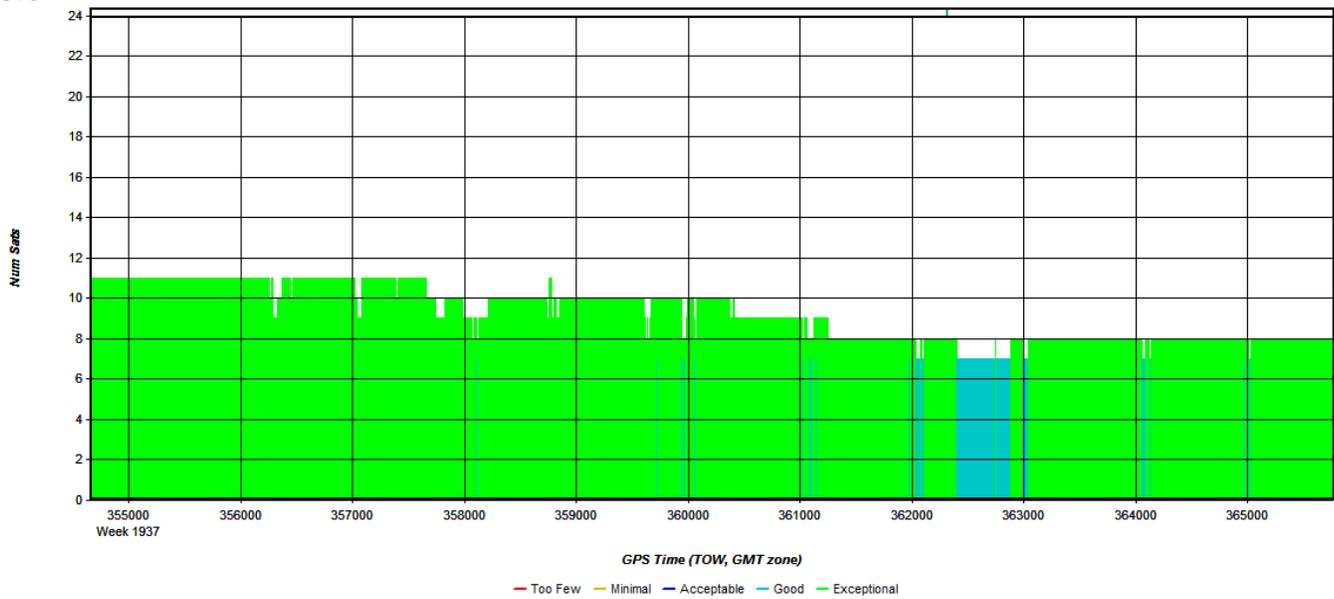




Combined RMS



SVs





Acquisition and Processing details ----- Collection 16 (February 25, 2017)

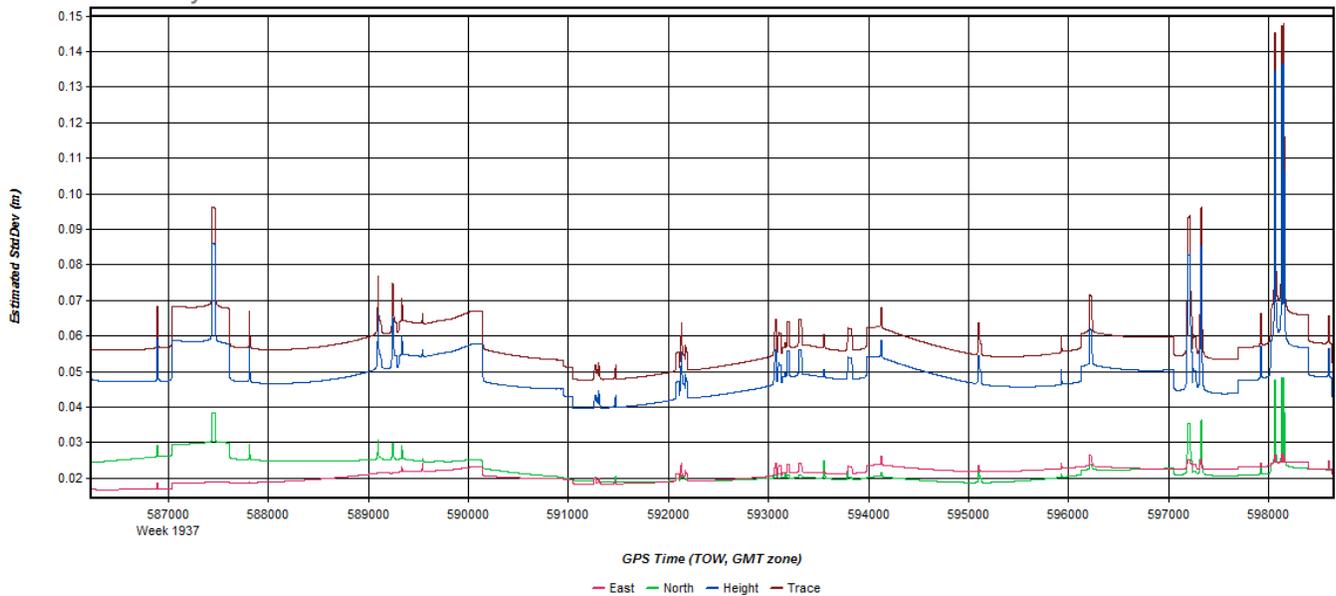
Log:

Fugro Geospatial, Inc.		Riegl Flight Log										AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KCXC	16:34	270.5	KHUM	18:26	272.1	1:52	1.75	1.6	0103-Mob/Demob				
2		KHUM	18:46	272.1	KHUM	22:18	275.2	3:32	3.50	3.1	0900-Production				
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Data Logger Drives				
15004000		Upper Delta				780	961	FMU-300	21.0 18.0		1248 Drive#2				
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range*				
25-Feb-17		17-056	10					360	12.0 11.0		1599 EP750#52				
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170225_961_15004000_10		N83AR	KHUM	Track	-6	4400	150	60	110		0.806	30.05 30.04	30	778515775364	
Pilot #1		Pilot #2		Operator #1			Operator #2								
Richard Webb		Phil Shredfler		Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-5	GR3-5	1.8					Unit#50225s	Riley Forsyth		Shipped			
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							18:55:00	19:00:00					Ground static at KHUM	15	1.3
							19:09:00						pre acquisition s turn	14	1.7
UpDelta2	1		1	106	0	84.6	19:15:00	19:37:00	N	4,406	128			15	1.5
	1			106	96	84.6	76.6	19:43:00	19:45:00	S	4,377	145	calibration line	14	1.4
UpDeltaX	3			10	25	7.3	19.3	19:48:00	19:49:00	E	4,387	135	cross tie line	15	1.3
UpDelta2	2			106	1	84.6	0	19:54:00	20:13:00	S	4,376	144		15	1.3
UpDelta1	25			1	69	0	55.6	20:30:00	20:44:00	N	4,384	132	partial line aborted for atc	18	1.1
	25			69	75	55.6	60.4	20:46:00	20:48:00	N	4,364	135	partial line	17	1.3
UpDeltaX	6			35	45	27.4	35.5	20:52:00	20:55:00	E	4,418	121	cross tie line	17	1.3
	26			76	1	60.4	0	21:02:00	21:16:00	S	4,433	140		17	1.3
	27			1	82	0	65.3	21:19:00	21:35:00	N	4,380	120		16	1.4
	28			84	1	66.9	0	21:37:00	21:52:00	S	4,417	138		16	1.3
								21:52:00					post acquisition s turn	18	1.1
								22:12:00					ground static at KHUM	16	1.3

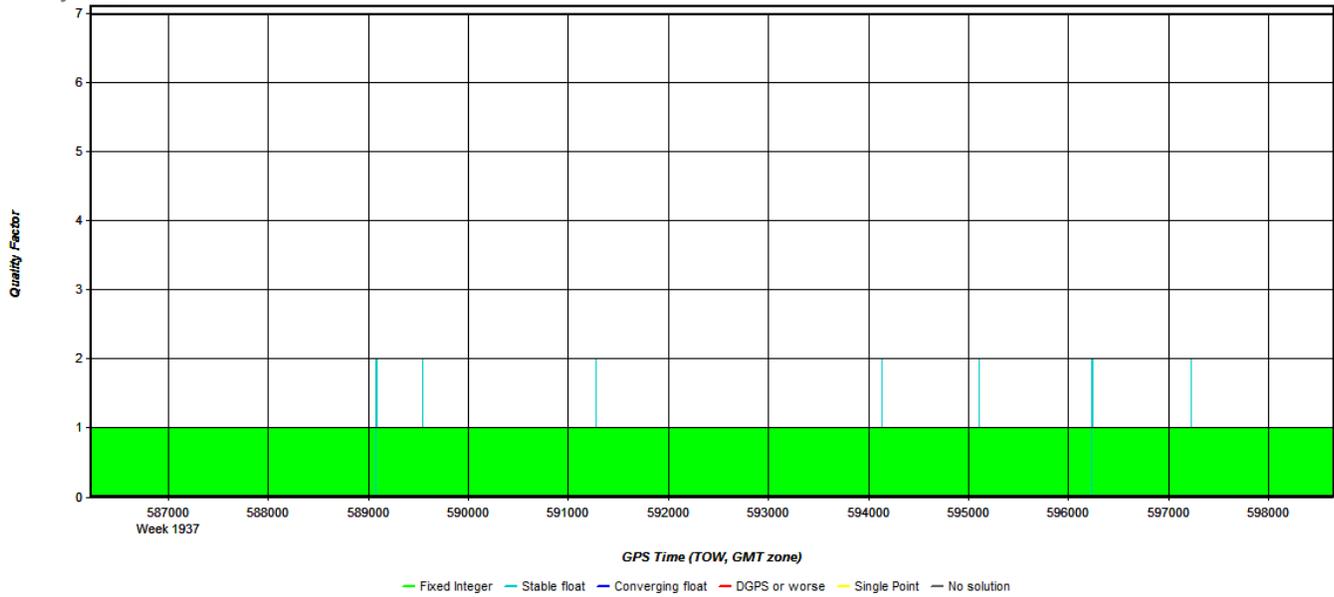
Trajectory and GPS Plots:



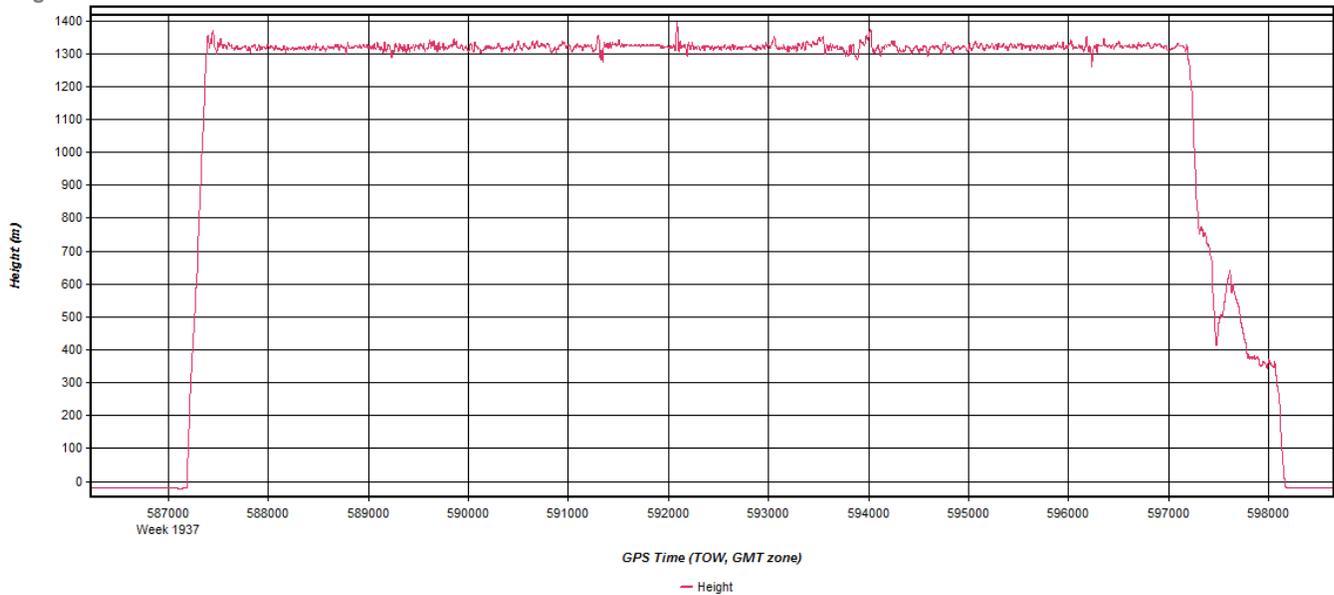
Estimated Accuracy



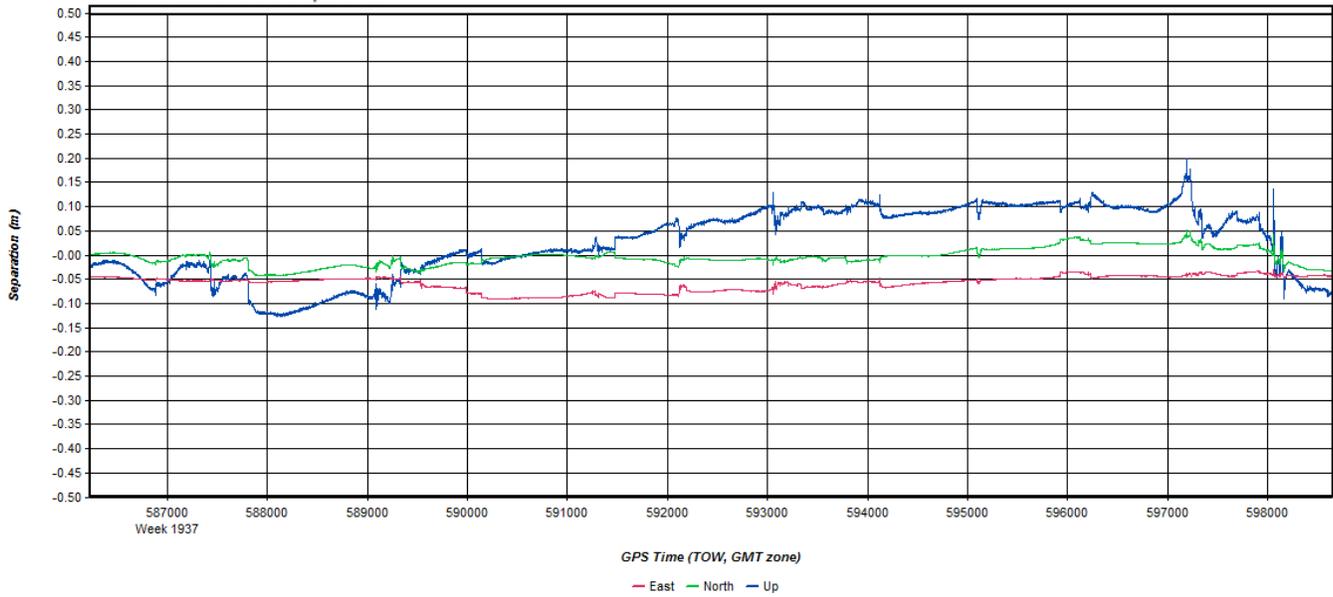
Quality Factor



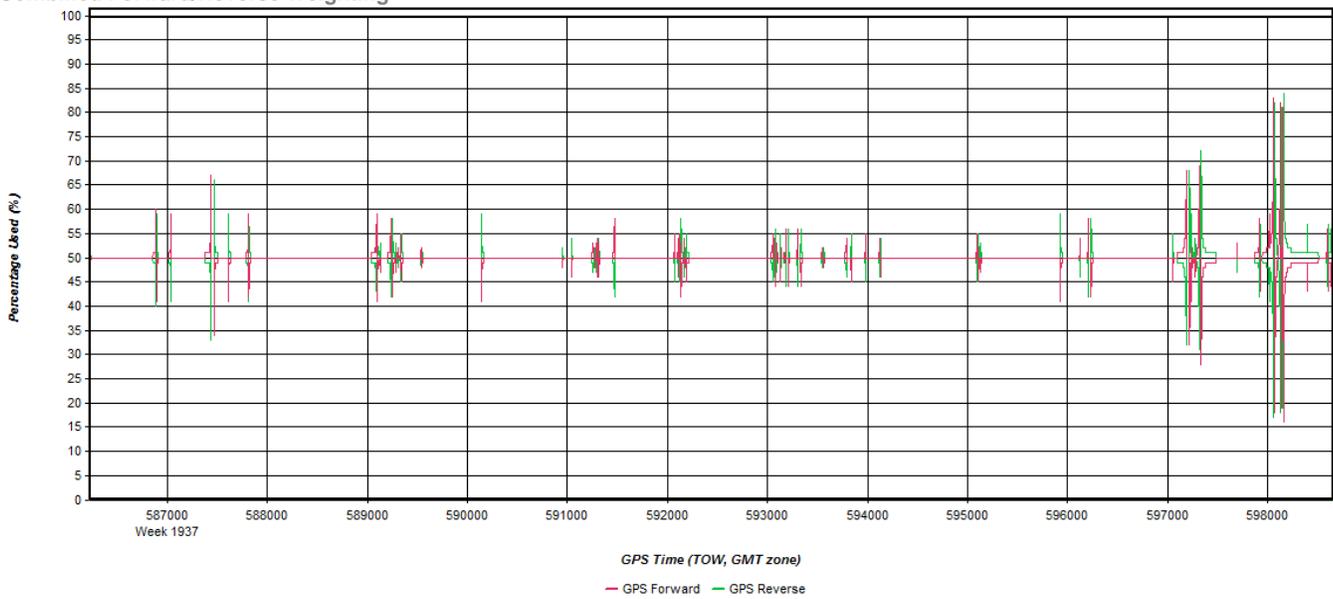
Height



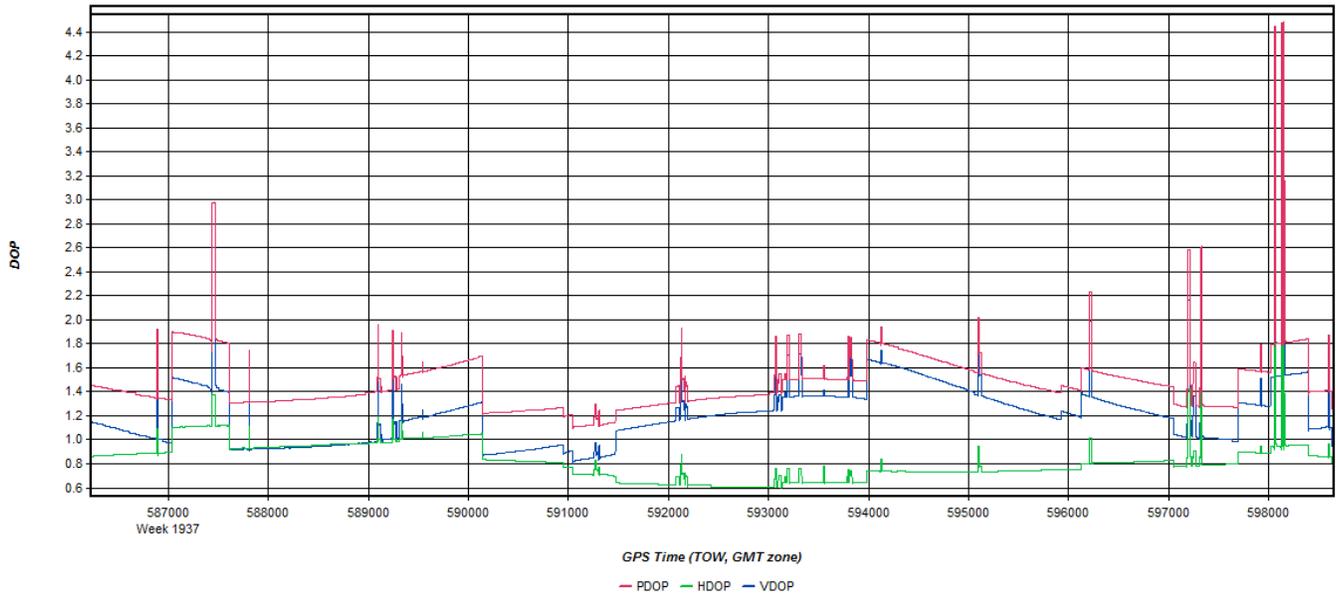
Combined Forward/Reverse Separation



Combined Forward/Reverse Weighting



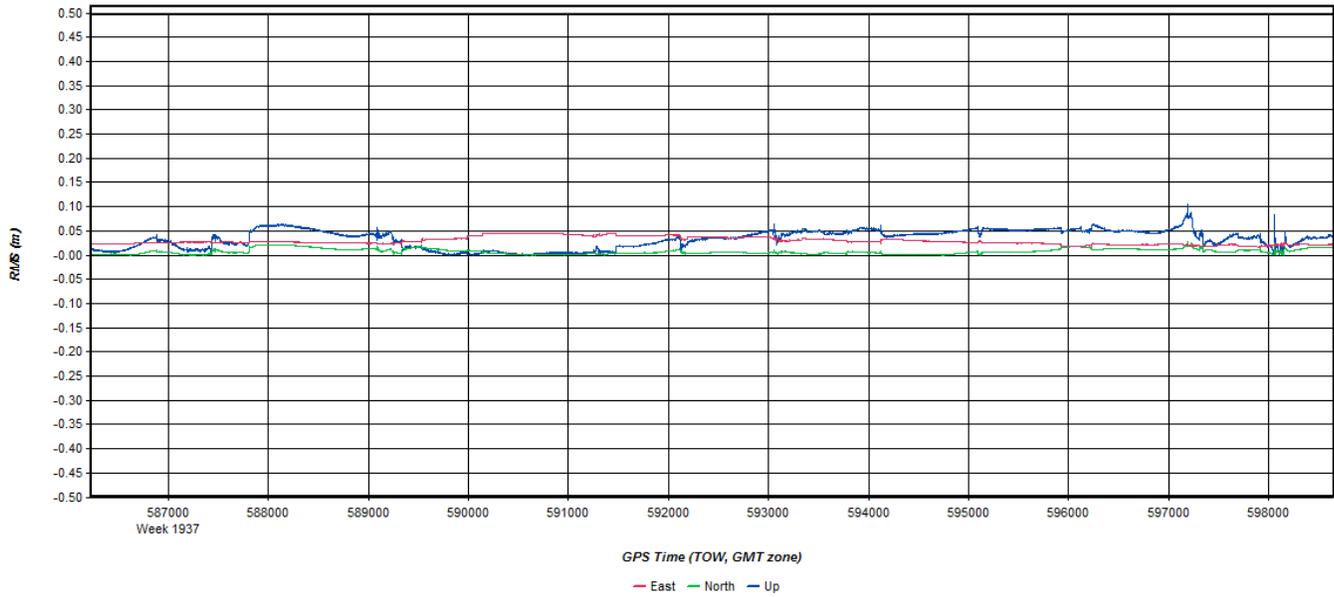
PDOP



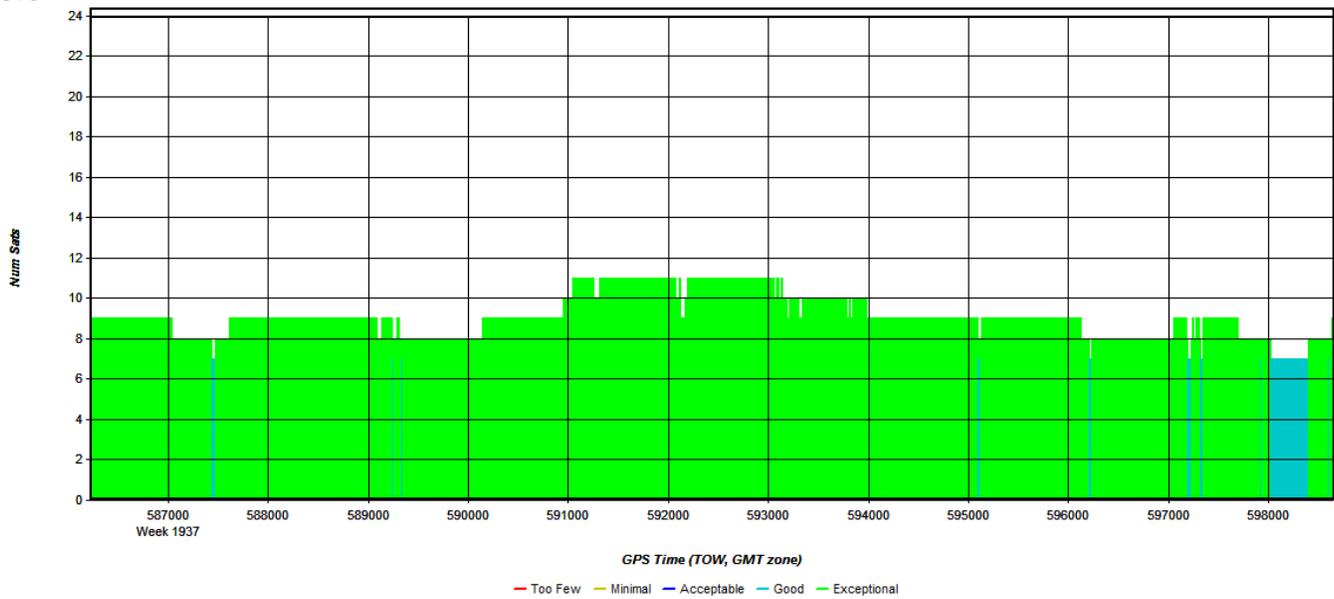
Distance from Base



Combined RMS



SVs



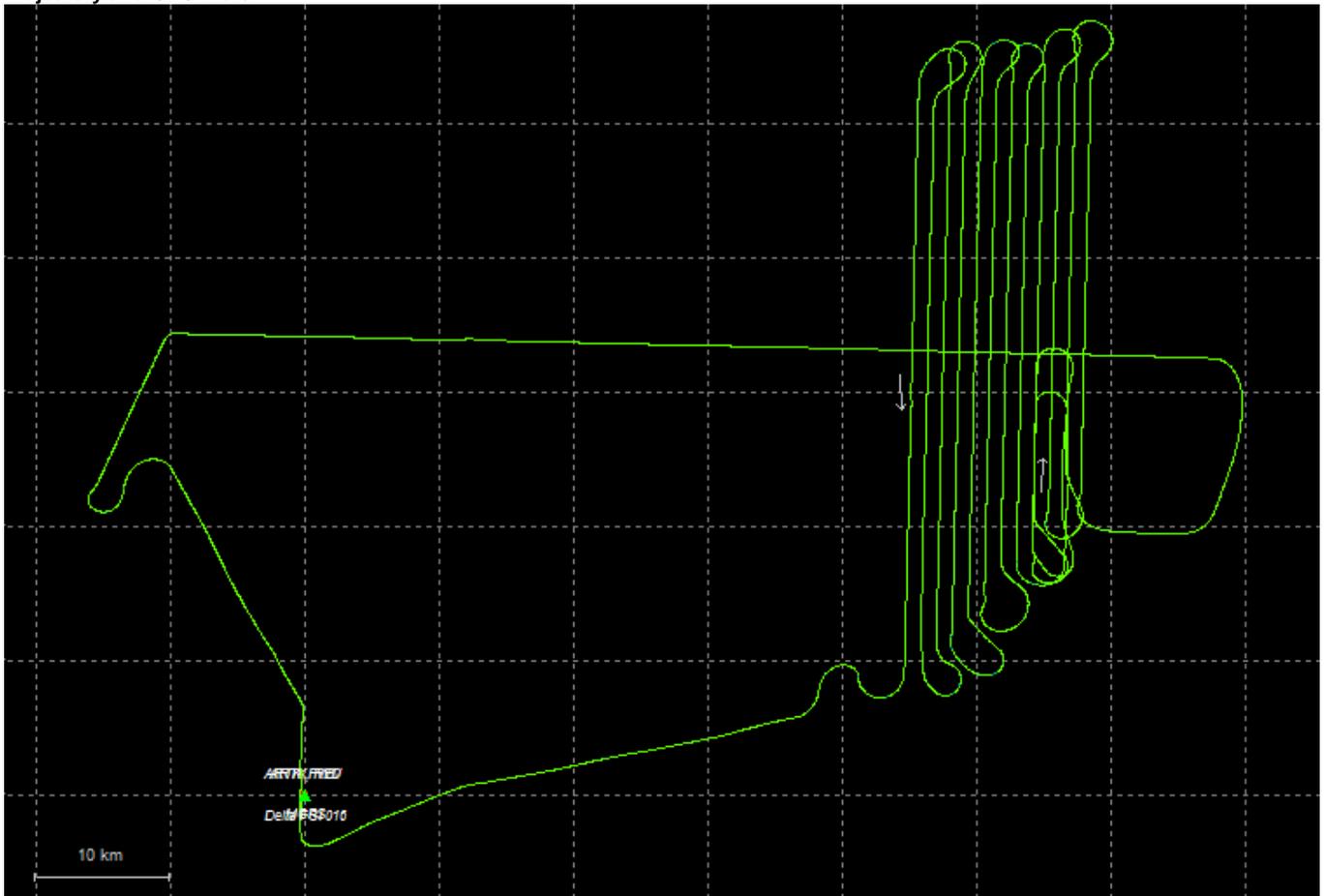


Acquisition and Processing details ----- Collection 17 (March 2, 2017)

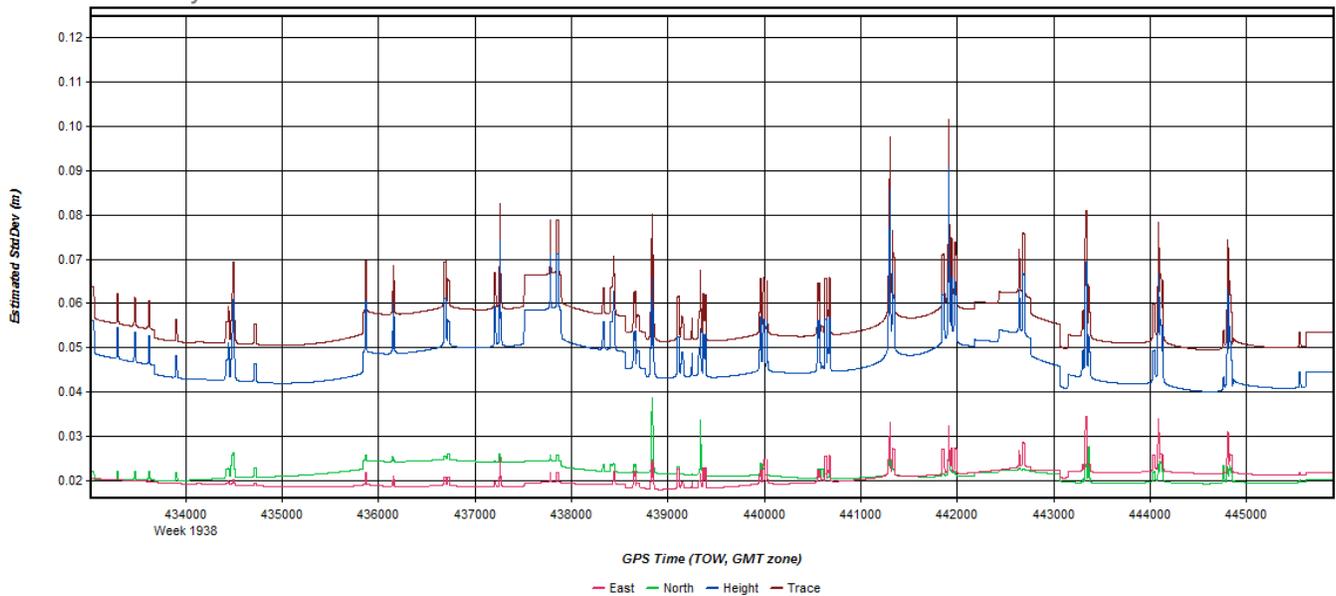
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	0:13	275.2	KHUM	3:52	278.4	3:39	3.75	3.2	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Min Range'		Data Logger Drives		
15004000		Upper Delta				780	961	FMU-300	15.0 13.0		1248		Drive#1		
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range'		Download Drive		
2-Mar-17		17-061	11					360	8.0 9.0		1599		NS1TB-48		
Mission ID (yyymmdd_Sen_Job_Lit)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170302_961_15004000_11		N83AR	KHUM	Track	-6	4400	150	60	110		0.806	30.32 30.39	38	778563442642	
Pilot #1		Pilot #2		Operator #1			Operator #2								
Richard Webb		Phil Schreffler		Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-5	GR3-5	1.8					Unit#50302x	Riley Forsyth		Shipped			
Area	Flight #		Wpt		Distance		UTC		Dir	Althude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOF
	FGI	Client	From	To	Begin	End	Start	End							
							00:20:00	00:25:00					Ground static at KHUM	15	1.3
							00:39:00						pre acquisition s turn	16	1.3
UpDeltaX	2		1	88	0	70.1	00:46:00	01:03:00	E				Cross tie	16	1.3
UpDelta2	55		1	33	0	25.8	01:10:00	01:16:00	N					16	1.2
	54		35	1	27.4	0	01:19:00	01:25:00	S					16	1.2
	53		1	37	0	29	01:28:00	01:35:00	N					15	1.4
	52		38	1	29.8	0	01:38:00	01:45:00	S					15	1.4
	52		1	10	0	7.3	01:55:00	01:57:00	N				Calibration	17	1.2
	51		1	40	0	31.4	02:03:00	02:11:00	N					17	1.2
	50		42	1	33	0	02:13:00	02:21:00	S					18	1.1
	49		1	44	0	34.7	02:24:00	02:33:00	N					17	1.2
	48		45	1	35.5	0	02:36:00	02:43:00	S					17	1.2
	47		1	46	0	36.3	02:47:00	02:55:00	N					17	1.2
	46		48	1	37.9	0	02:58:00	03:07:00	S					15	1.3
	45		1	50	0	39.5	03:10:00	03:20:00	N					17	1.1
	44		52	1	41.1	0	03:22:00	03:31:00	S					16	1.2
							03:32:00						post acquisition s turn	17	1.2
							03:46:00	03:51:00					Ground static at KHUM	17	1.2

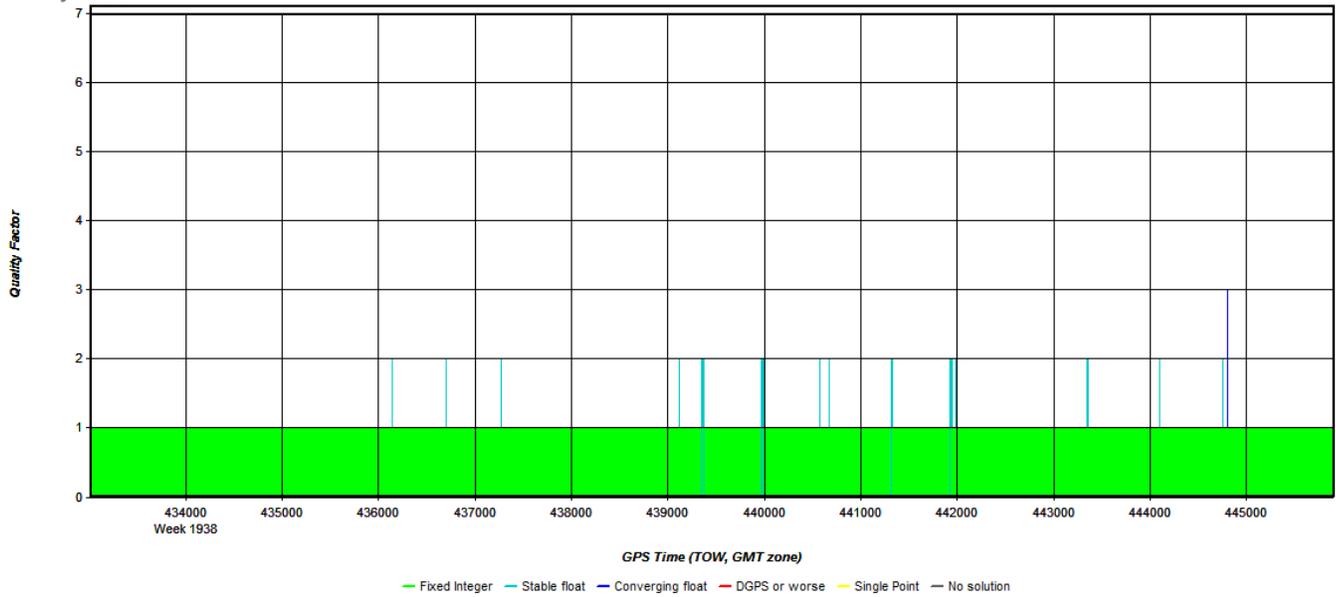
Trajectory and GPS Plots:



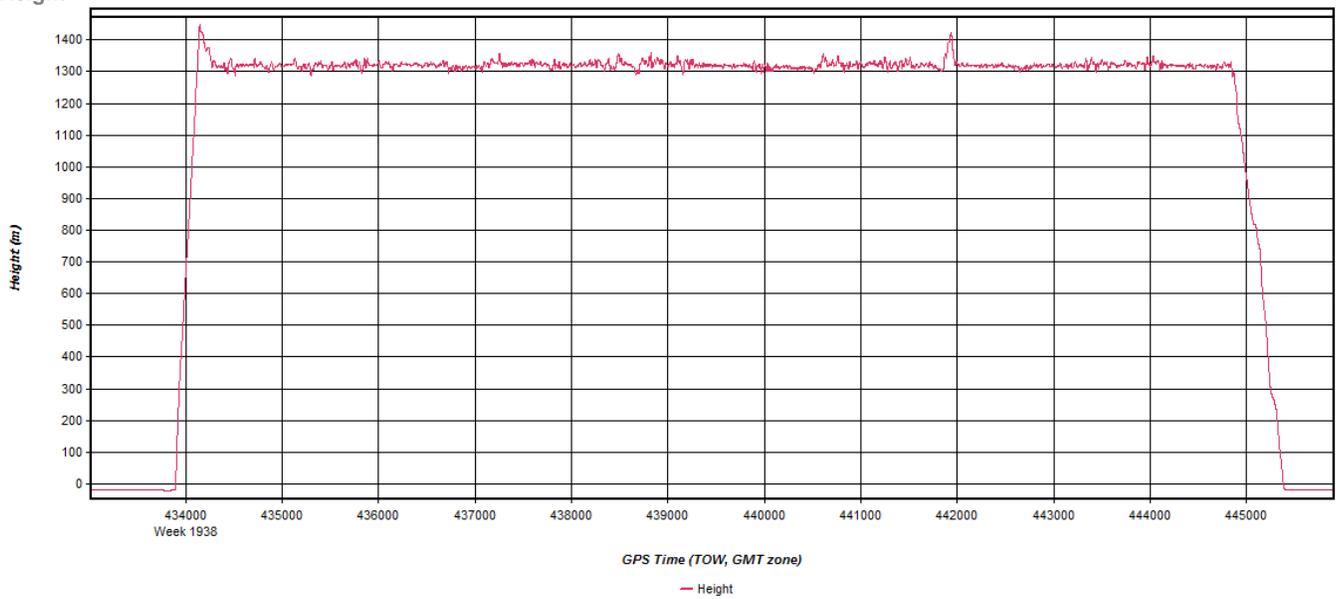
Estimated Accuracy



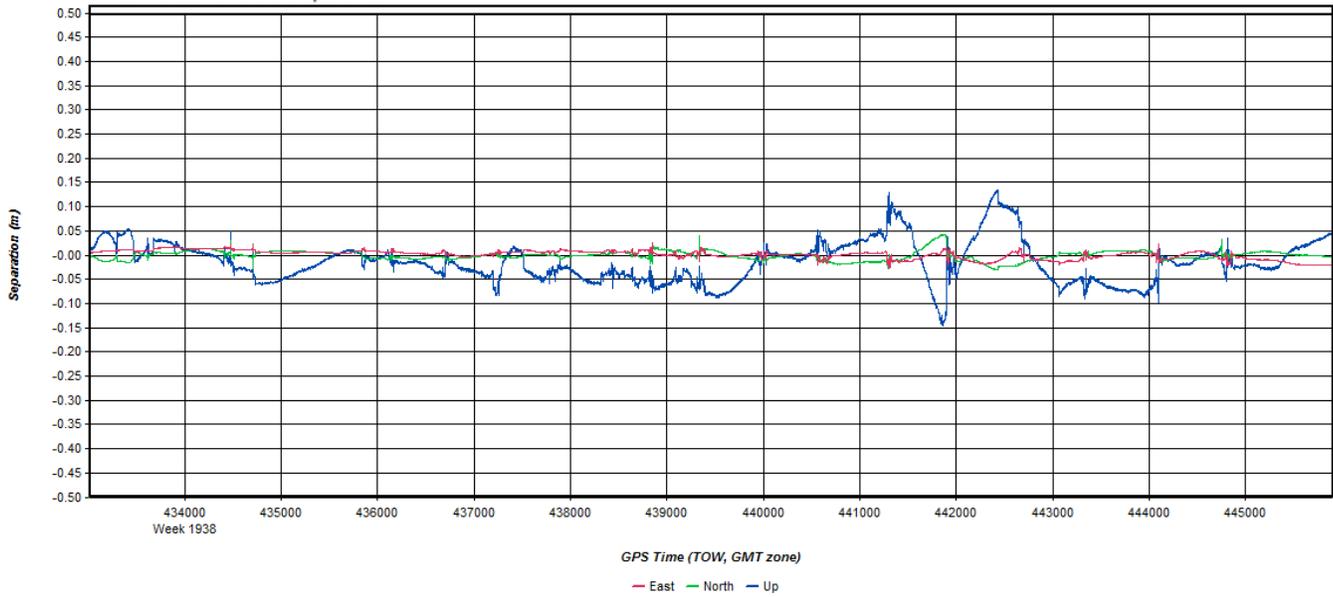
Quality Factor



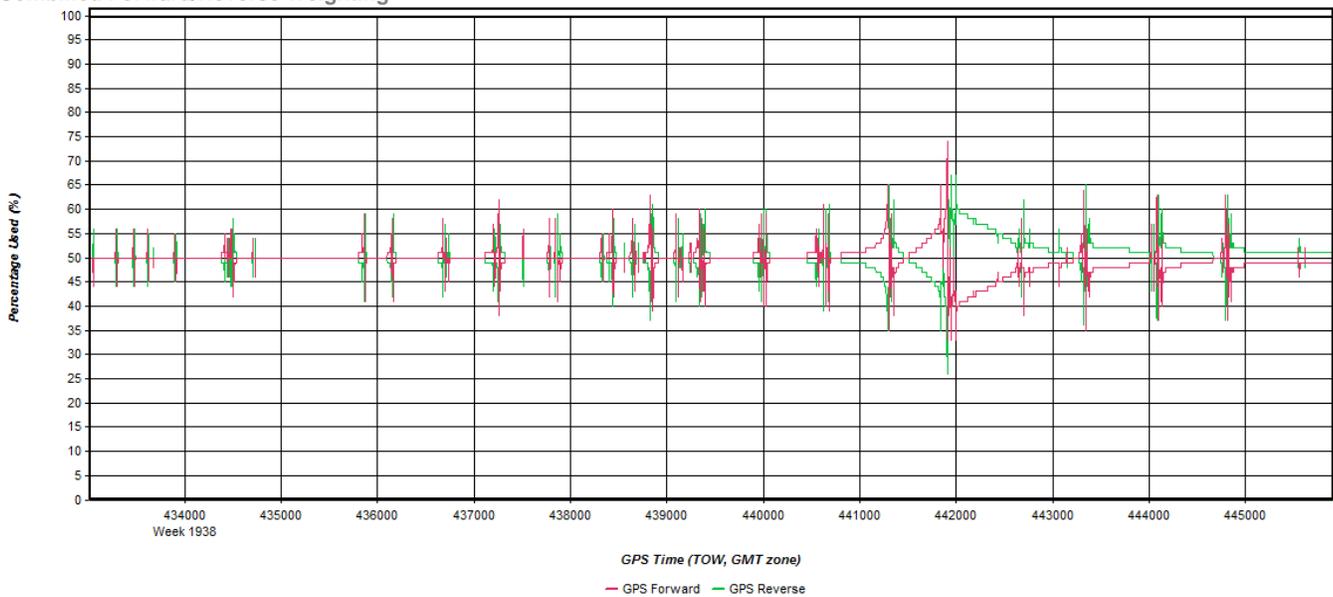
Height



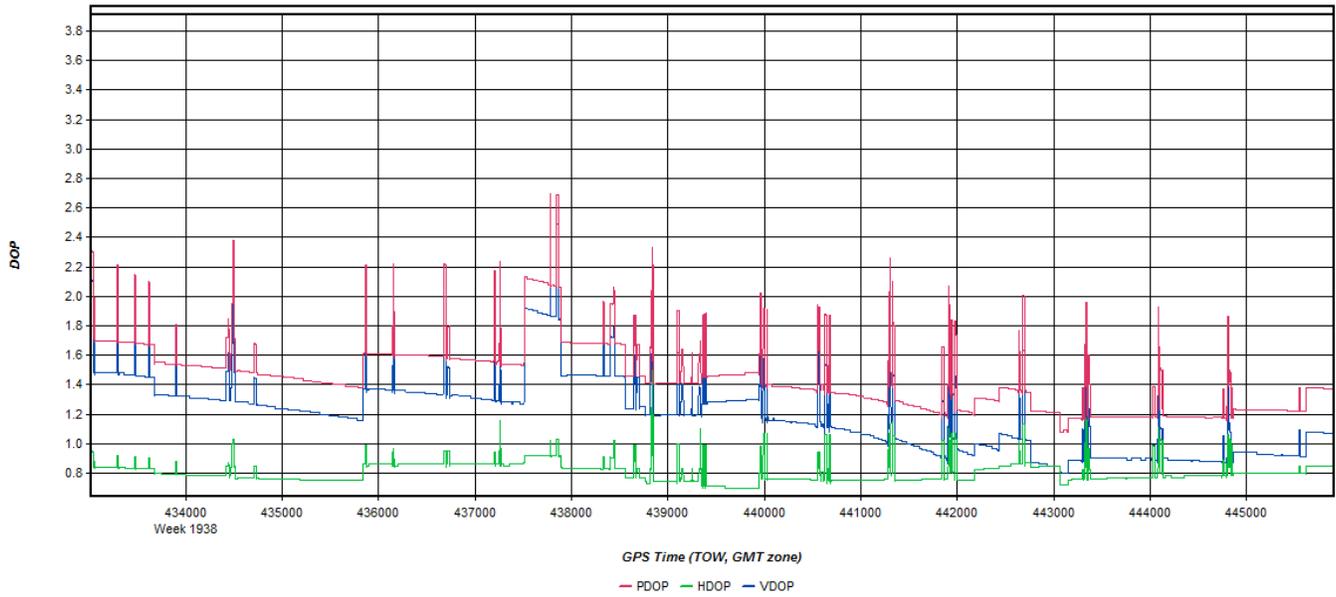
Combined Forward/Reverse Separation



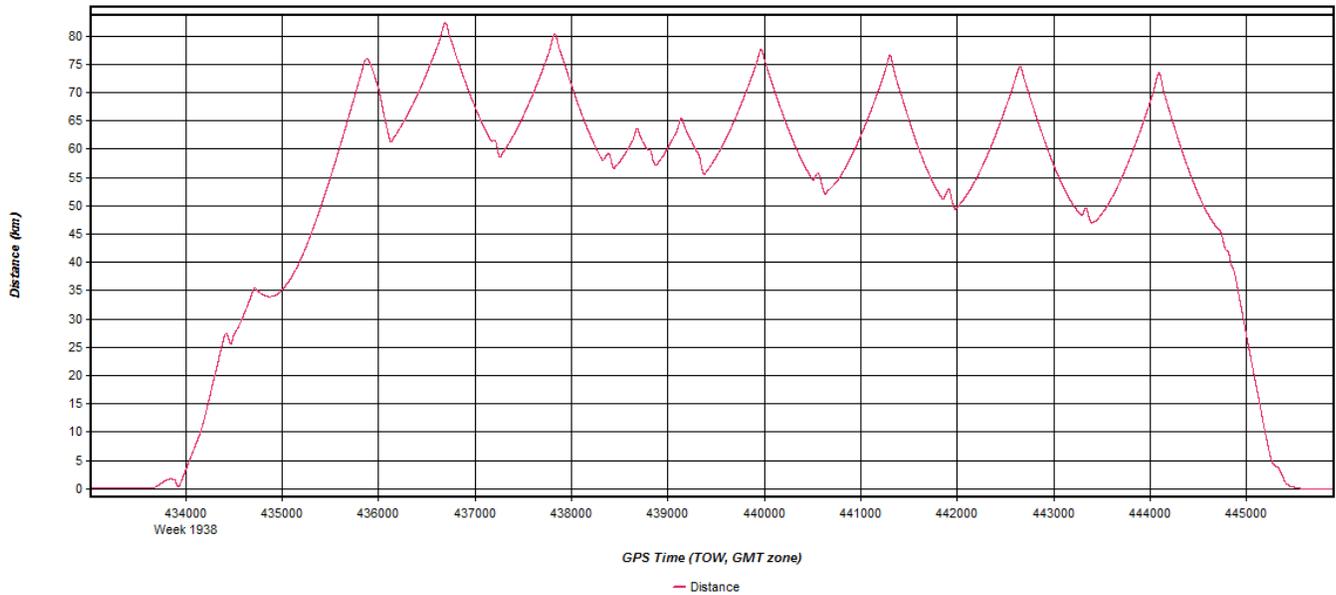
Combined Forward/Reverse Weighting



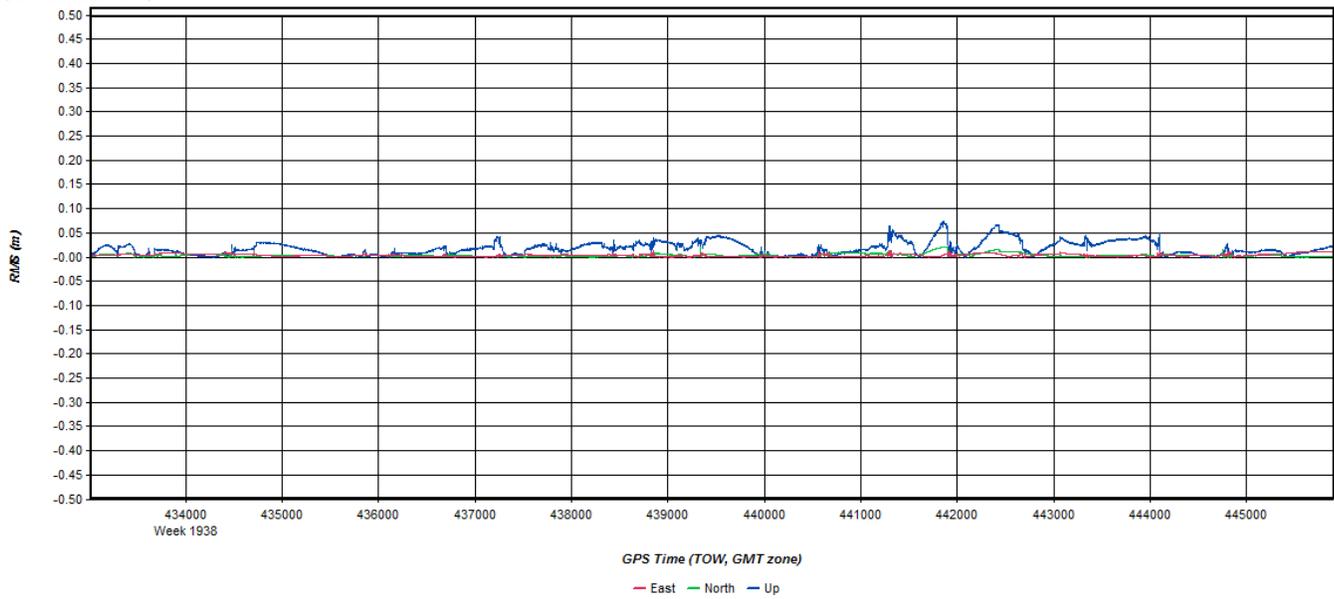
PDOP



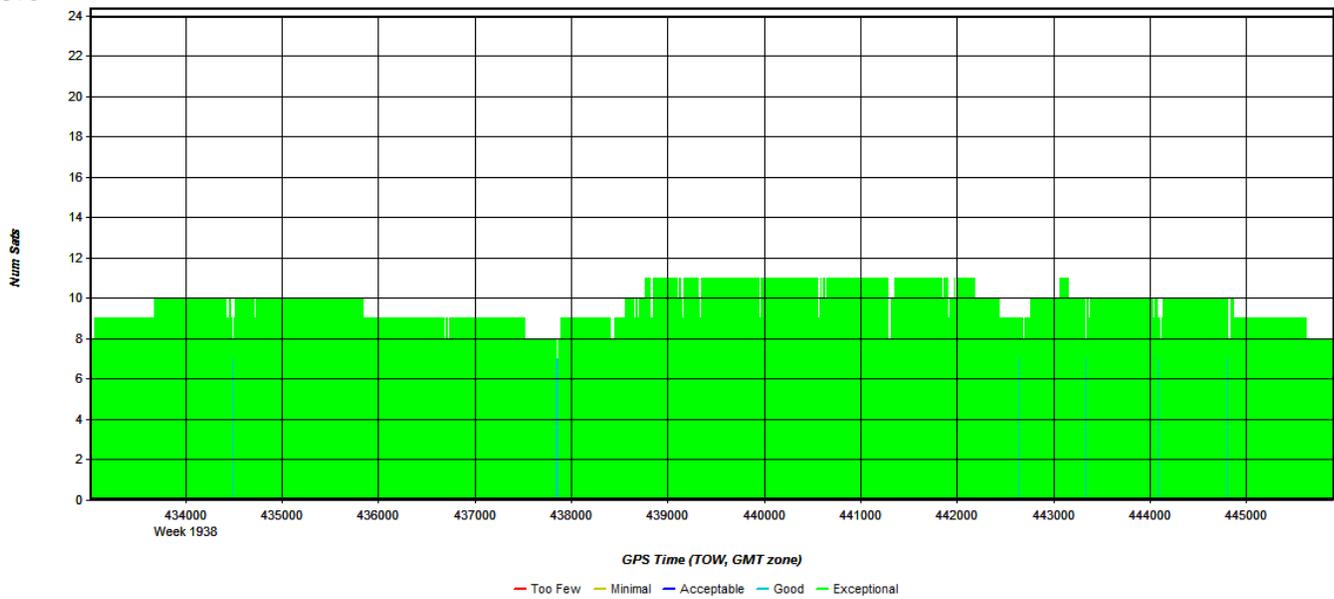
Distance from Base



Combined RMS



SVs



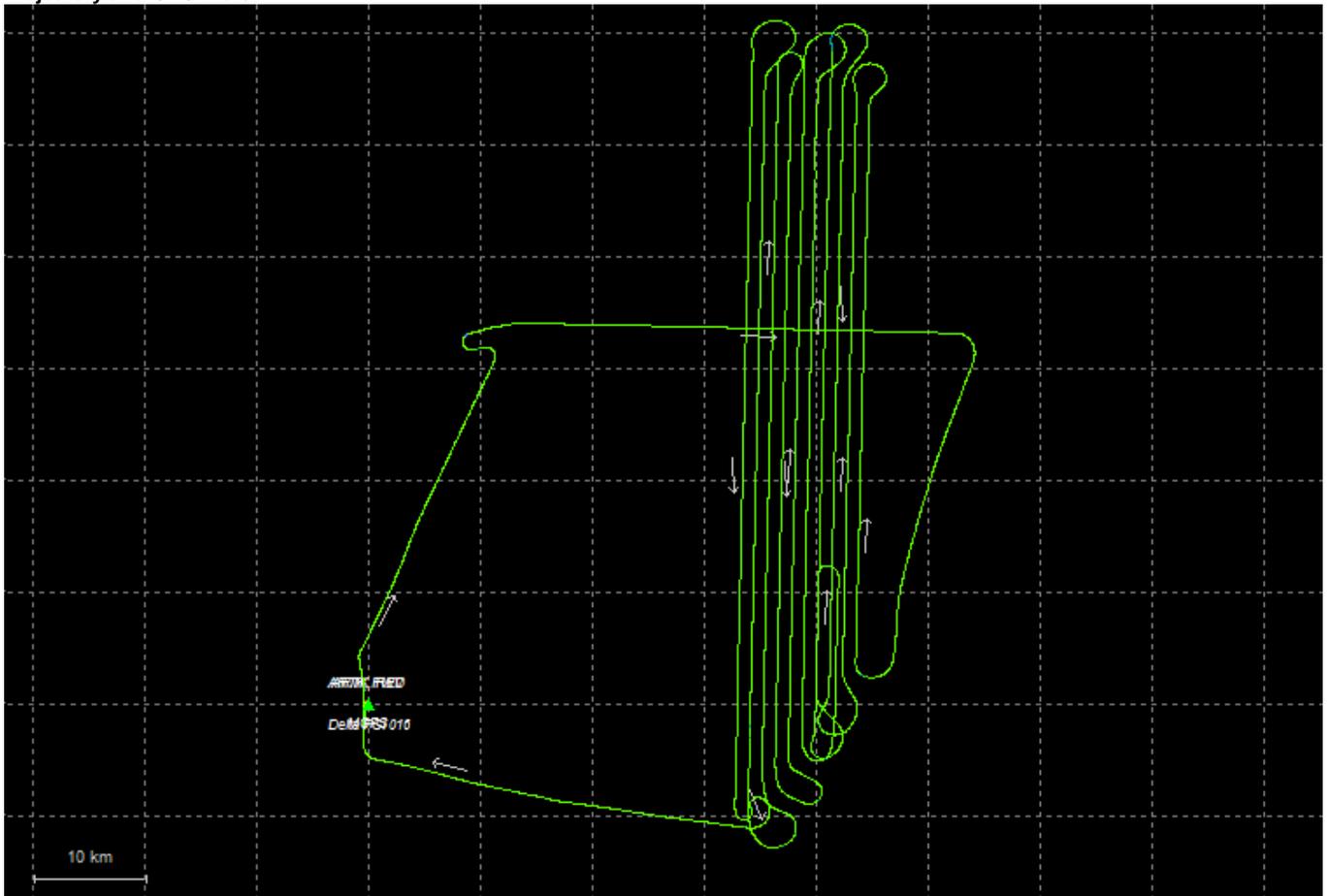


Acquisition and Processing details ----- Collection 18 (March 2, 2017)

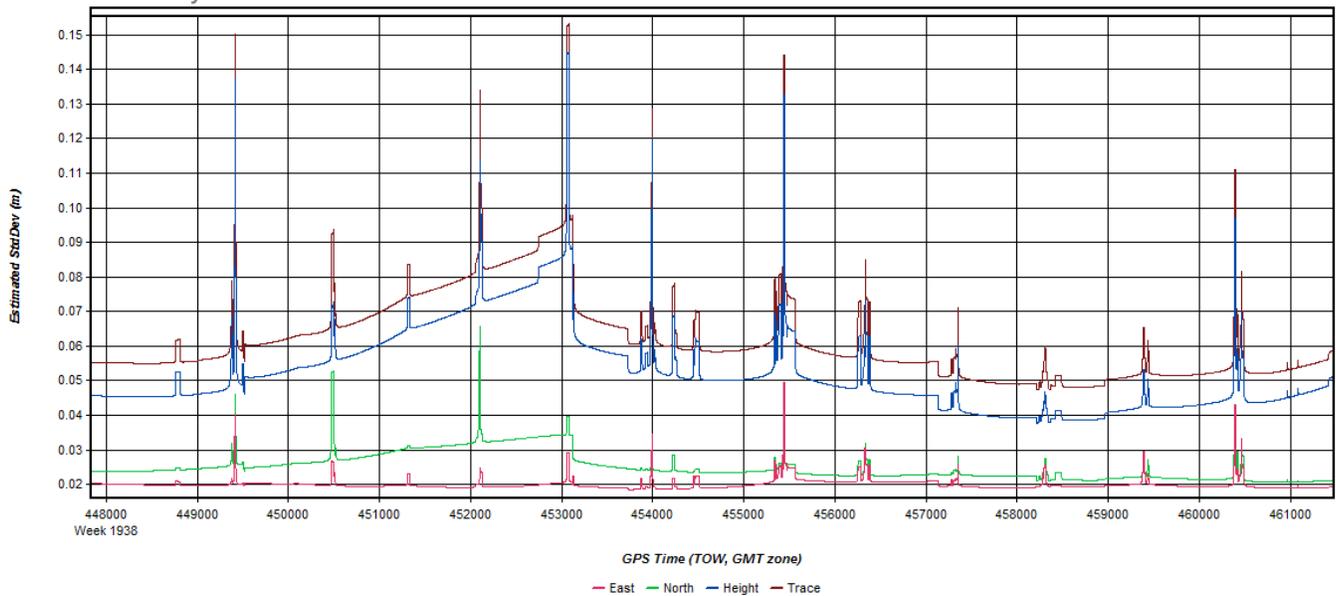
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	4:20	278.4	KHUM	8:12	281.9	3:52	3.75	3.5	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU		Ground Temp °C		Mn Range'	Data Logger Drives		
15004000		Upper Delta				780	961	FMU-300		13.0 11.0		1248	Drive#12		
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive		
2-Mar-17		17-061	12						360	9.0 10.0		1599	NS1TB-48		
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altitude Setting	Humidity @ Alt	Shipping Track	
170302_961_15004000_12		N83AR	KHUM	Track	-6	4400	150	60	110		0.806	30.40 30.43	57	778563442642	
Pilot #1		Pilot #2		Operator #1		Operator #2									
Richard Webb		Phil Schreffler		Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-5	GR3-5	1.8					Unit#50302x	Riley Forsyth		Shipped			
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							04:27:00	04:32:00					Ground static at KHUM	17	1.1
							04:49:00						pre acquisition s turn	17	1.2
UpDeltaX	2		35	70	27.4	55.6	04:53:00	05:01:00	E				Cross tie	17	1.2
UpDelta2	43		1	56	0	44.3	05:09:00	05:19:00	N					16	1.4
	42		58	1	45.9	0	05:22:00	05:32:00	S					16	1.5
	41		1	61	0	48.4	05:36:00	05:46:00	N					17	1.5
	40		65	1	51.6	0	05:52:00	06:03:00	S					17	1.3
	40		1	10	0	7.3	06:07:00	06:10:00	N				Calibration	17	1.3
	39		1	67	0	53.2	06:15:00	06:28:00	N					17	1.3
	38		69	1	54.8	0	06:31:00	06:43:00	S					15	1.5
	37		1	72	0	57.2	06:47:00	07:00:00	N					17	1.2
	36		74	1	58.8	0	07:03:00	07:16:00	S					18	1.1
	35		1	77	0	61.3	07:20:00	07:34:00	N					19	1.0
	34		79	1	62.9	0	07:38:00	07:52:00	S					17	1.2
							07:52:00						post acquisition s turn	16	1.2
							08:05:00	08:10:00					Ground static at KHUM	17	1.2

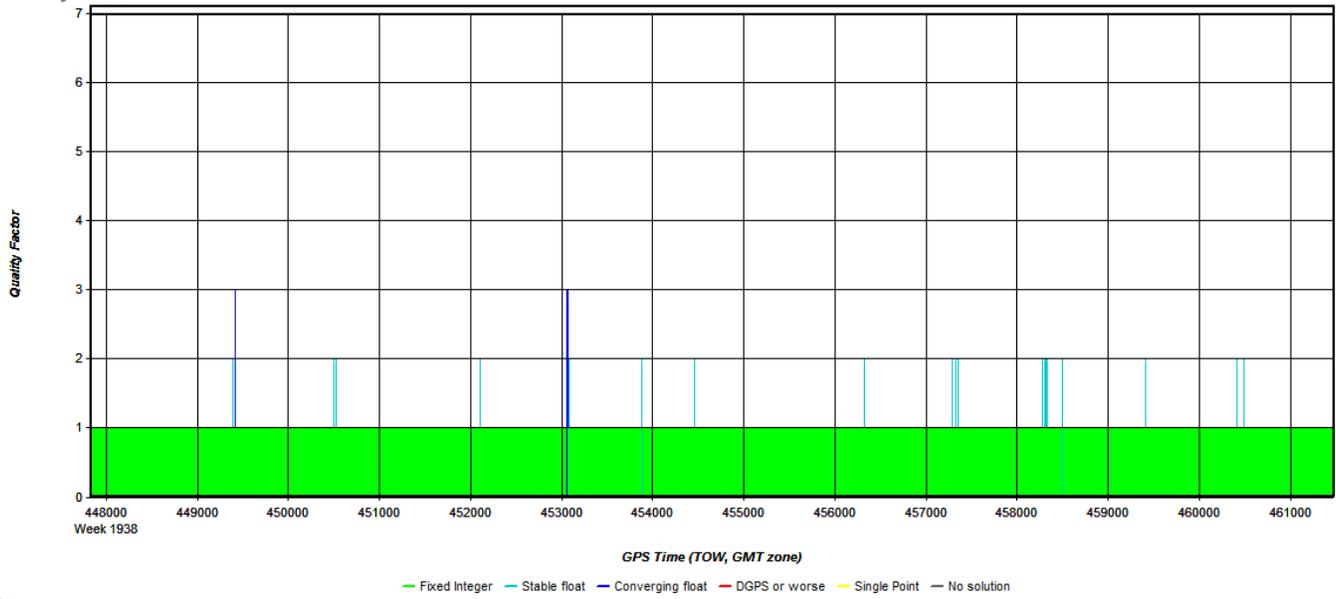
Trajectory and GPS Plots:



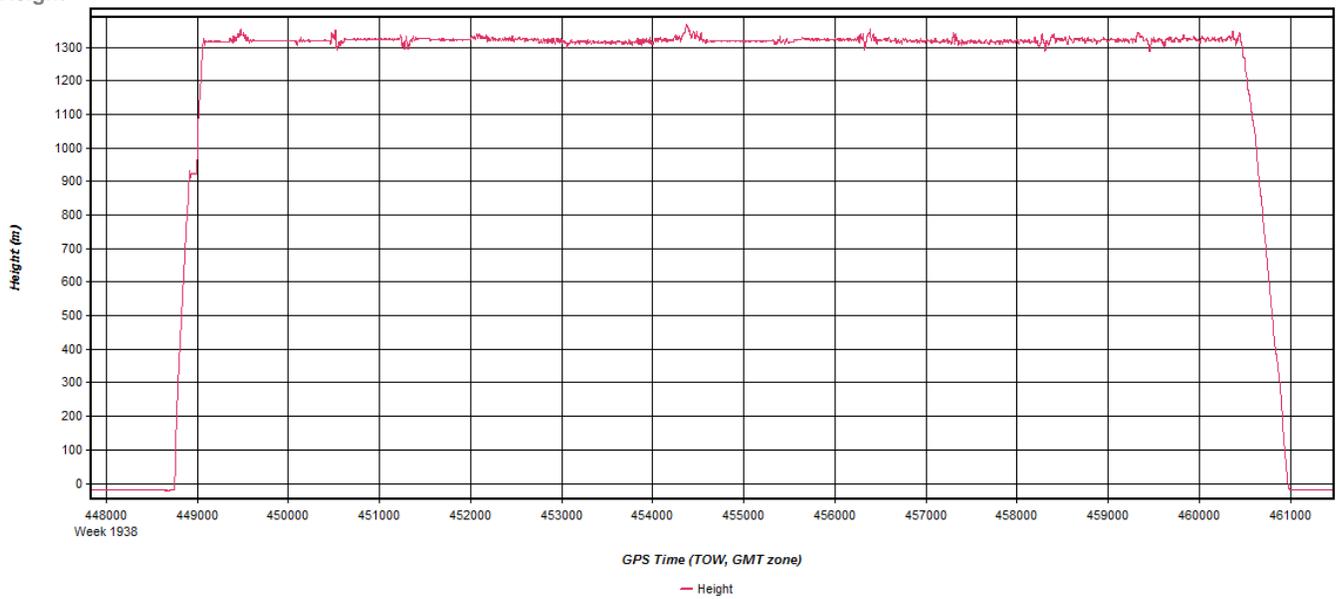
Estimated Accuracy



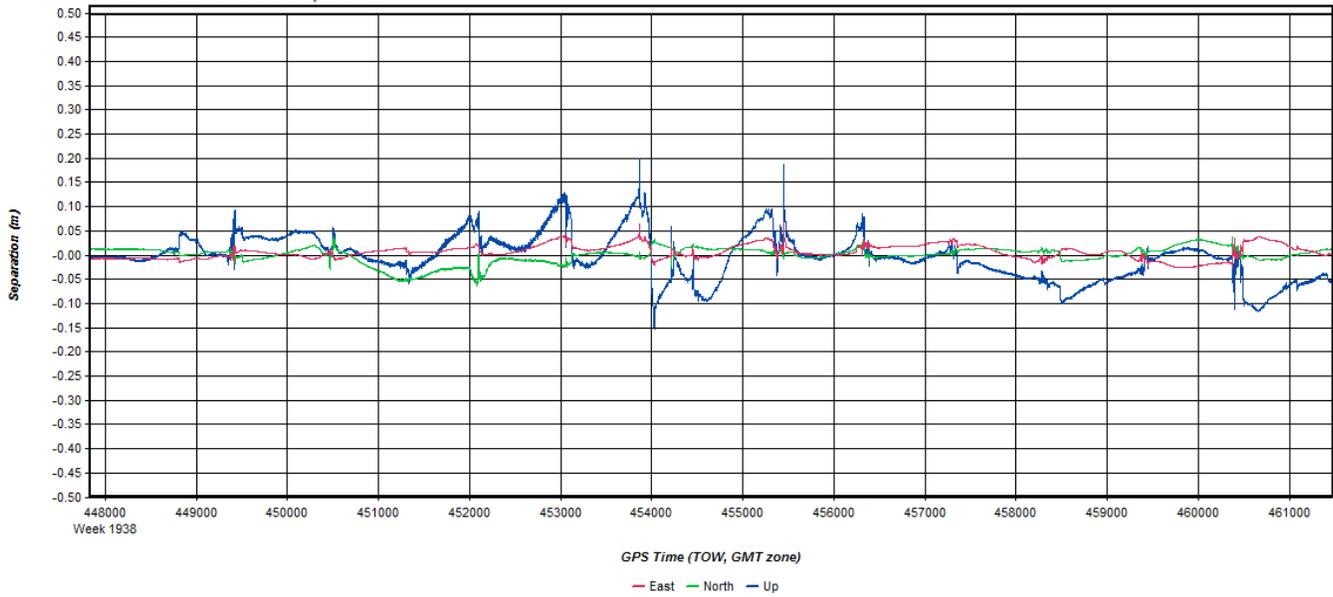
Quality Factor



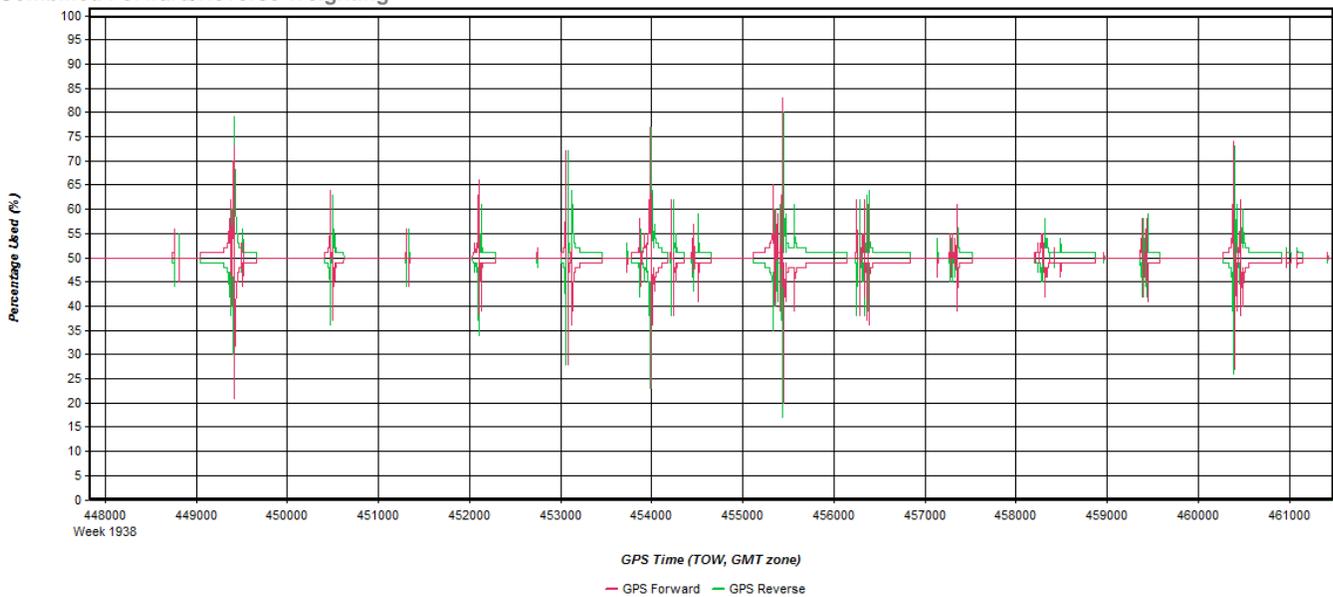
Height



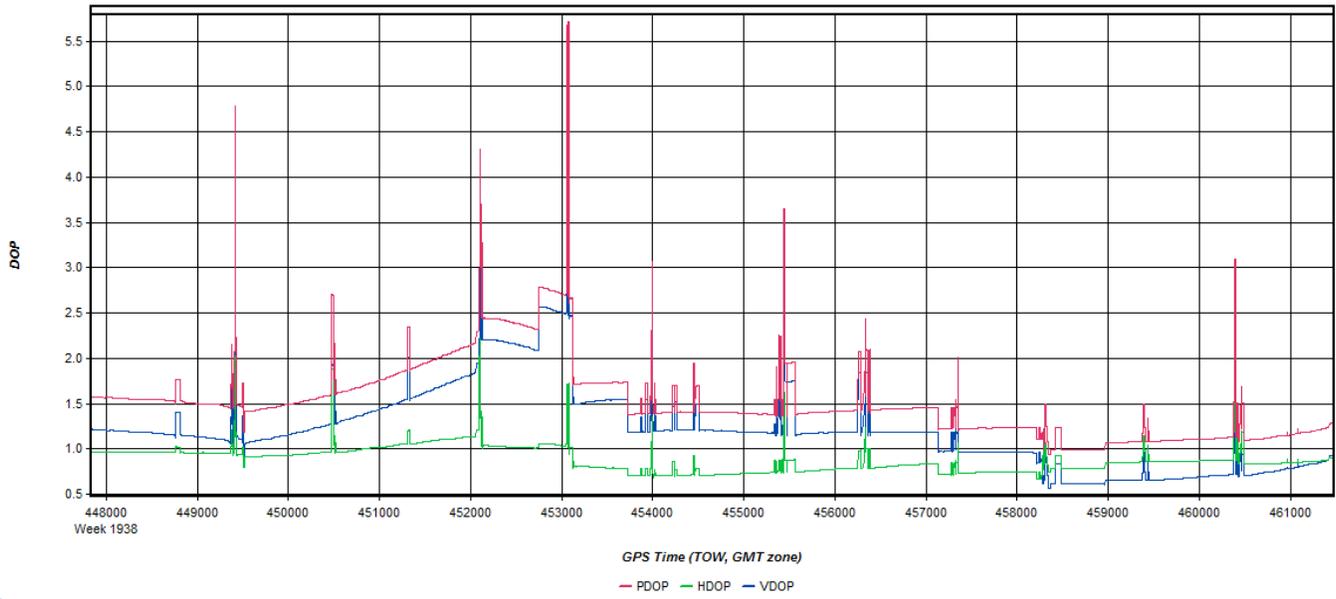
Combined Forward/Reverse Separation



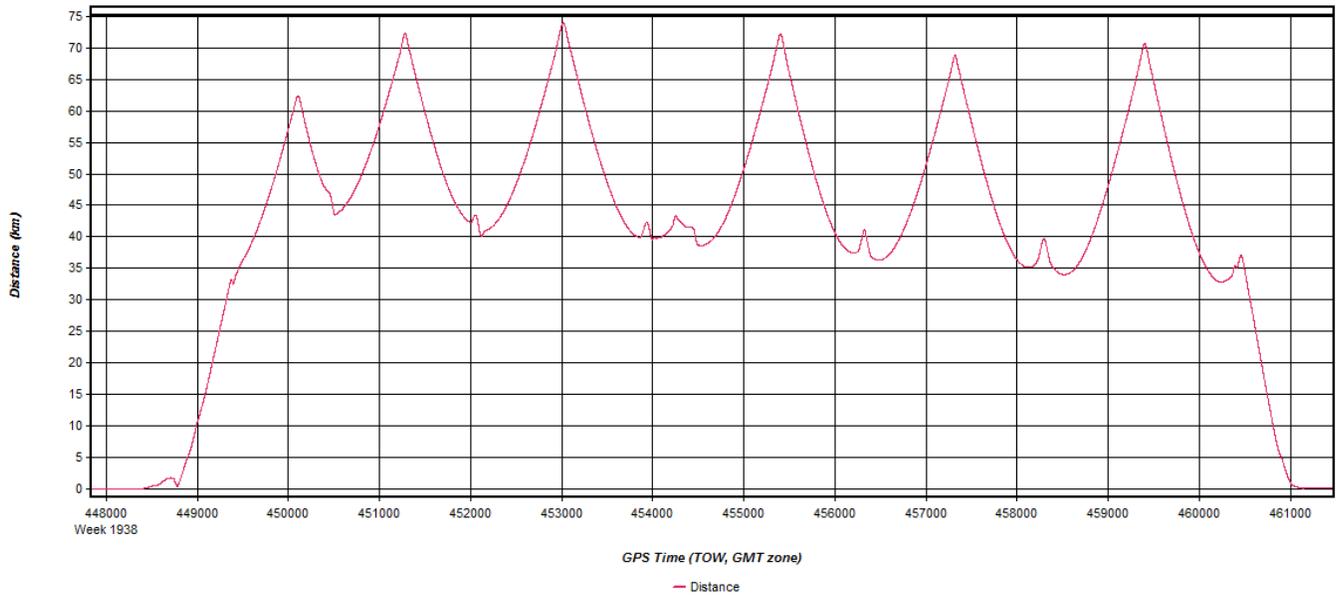
Combined Forward/Reverse Weighting



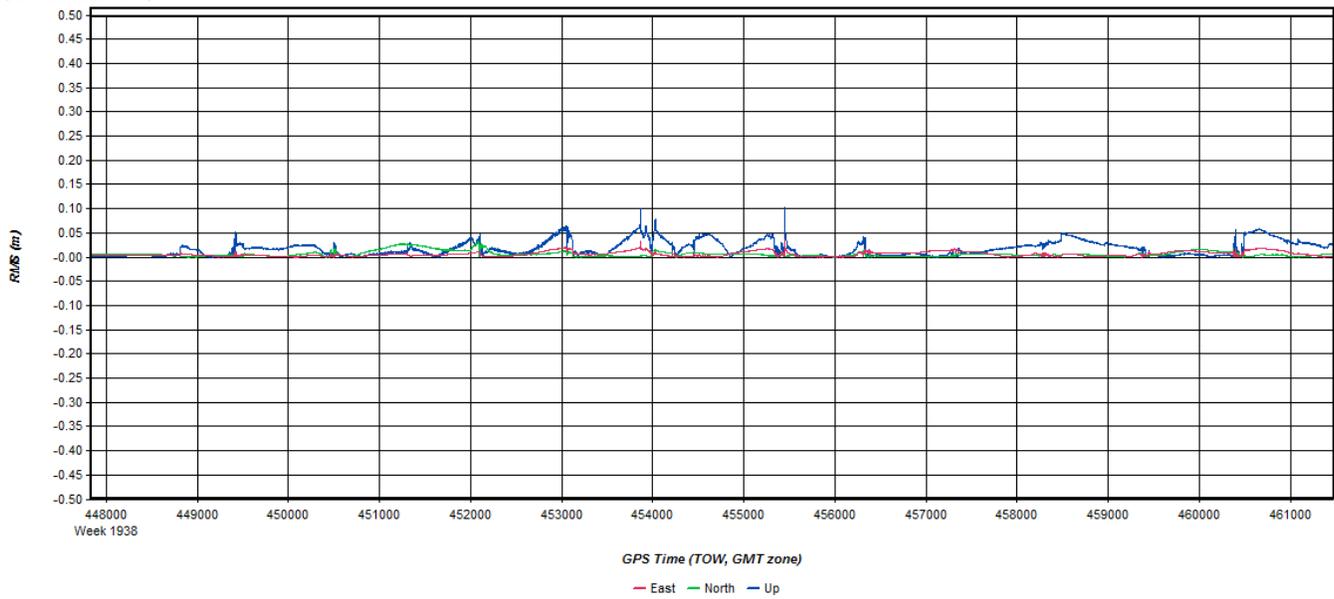
PDOP



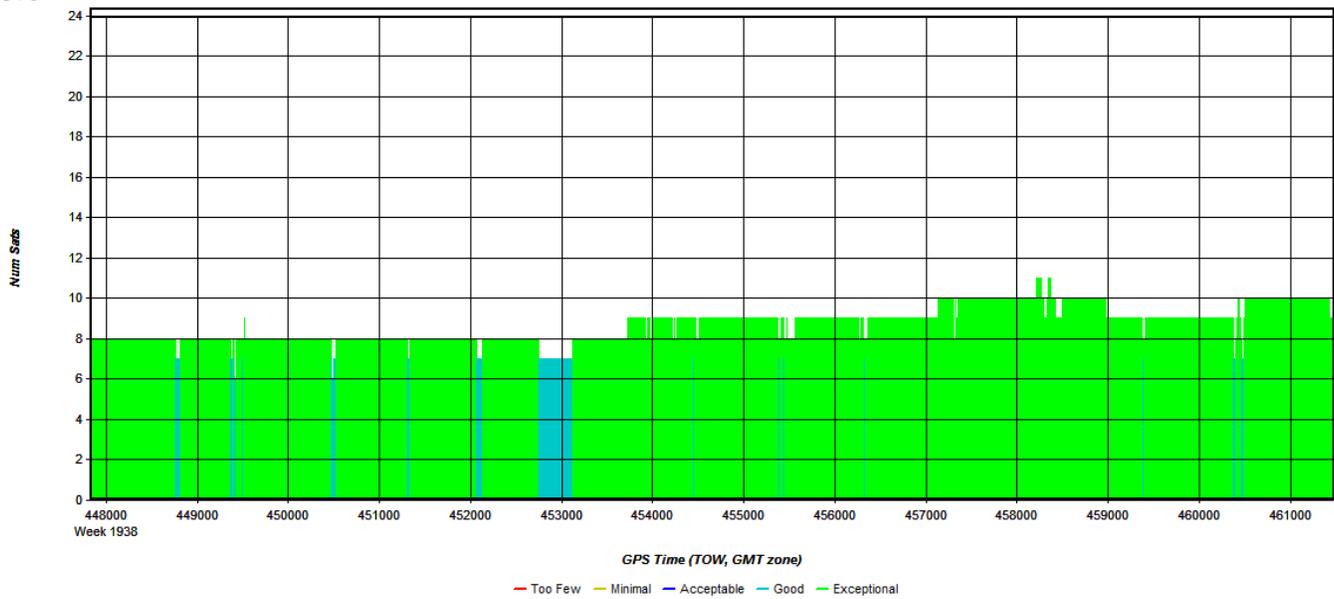
Distance from Base



Combined RMS



SVs



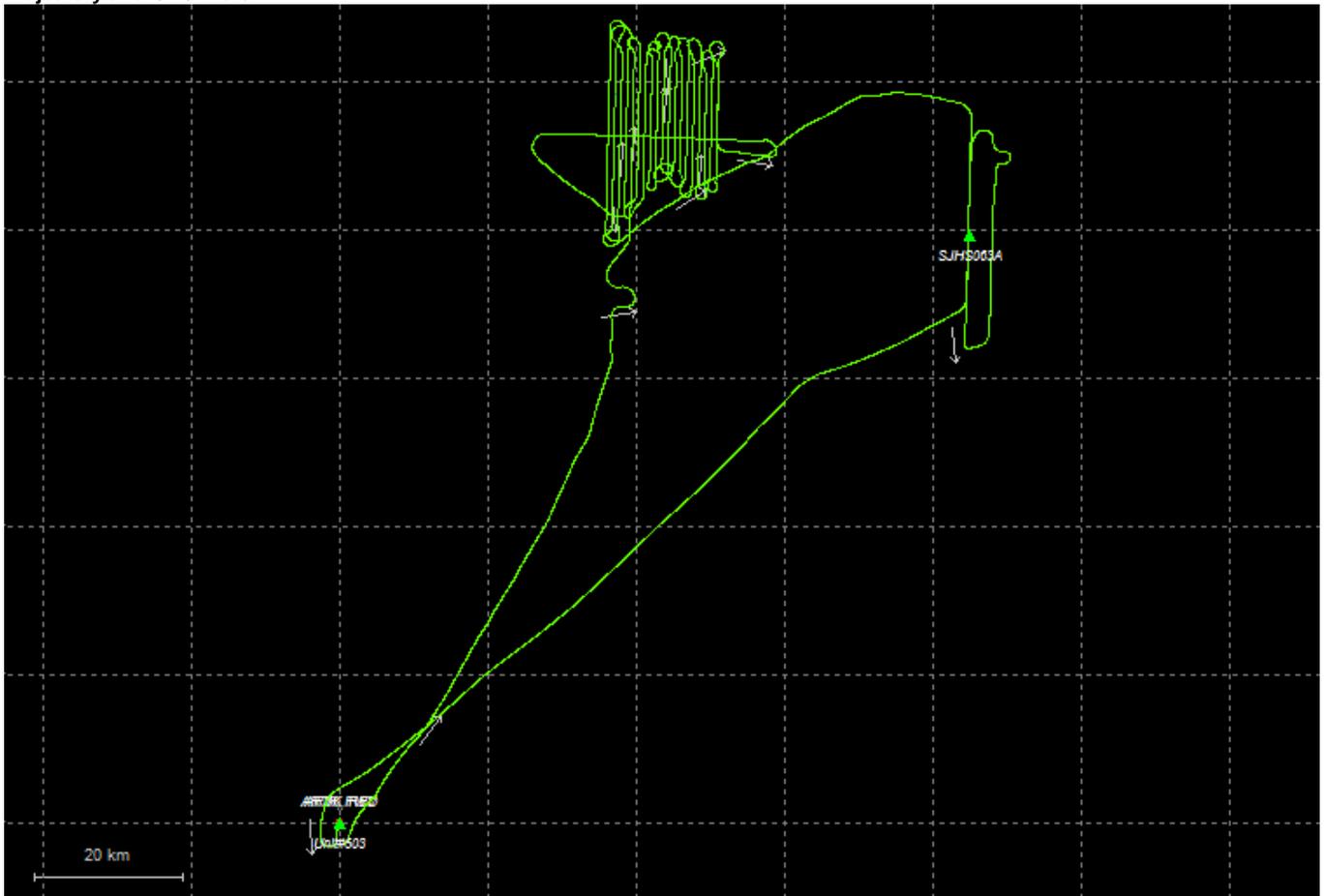


Acquisition and Processing details ----- Collection 19 (March 3, 2017)

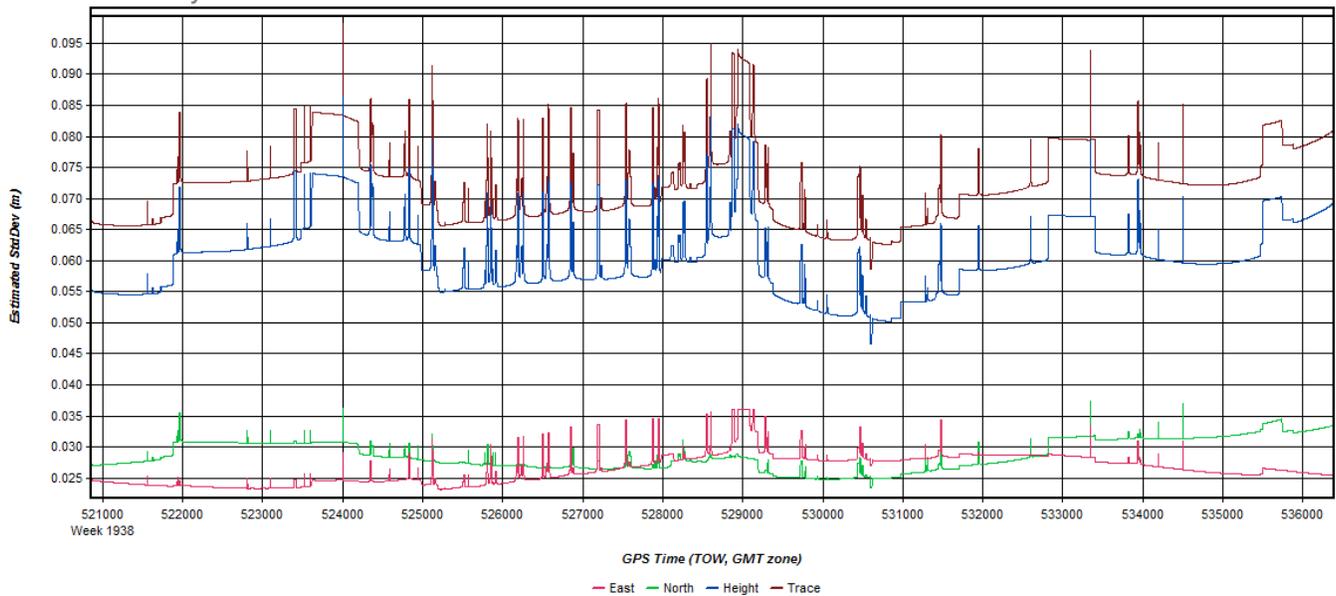
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl				
												Flight Log				
												AO80-50-00-02				
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity					
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1		KHUM	18:30	16:14.7	KHUM	23:00	16:18.8	4:30	4:50	3.9	0900-Production					
2																
3																
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Min Range'		Data Logger Drives			
15004000		Upper Delta				680i	216	LN-200	16.0 10.0		2100					
Flight Date		GPS Day	Lift	Sun		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Max Range'	Download Drive			
3-Mar-17		17-062	1	N/A		N/A		240k		10.0 9.0		4052				
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track		
170303_216_15004000_01		N88N	KGTV	CCNS 4	-6	2400	145		100	2	0.601	30.46 30.50	50			
Pilot #1		Pilot #2		Operator #1		Operator #2										
Kevin Ellington				Chris Fought												
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data							
016	KHUM	GR3-5	GR#-5	1.8			Unit#50304a.tps	Riley Forsyth	With AB							
Base 3 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data							
SJHS	Slidell, LA	CORS	CORS													
Area	Flight #		Wpt		Distance		UTC		Fit	Altitude	Speed	Scan	Comments and Conditions		SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate				
							00:45:00	00:50:00					GROUND-STATIC @ KHUM			16
							01:21:00	01:24:00					pre S turn			16
UpDelta3	40	1	28	0	16.2	01:27:01	01:31:49	360	3,200	130	100.0					18
	41		27	1	15.6	0	01:33:50	01:38:07	180	3,200	140	100.0				19
	42		1	24	0	13.8	01:40:57	01:45:13	360	3,200	134	100.0				17
	43		22	1	12.6	0	01:47:40	01:51:16	180	3,200	140	100.0				18
	44		1	20	0	11.4	01:53:01	01:56:32	360	3,200	133	100.0				18
	45		18	1	10.2	0	01:59:07	02:02:08	180	3,200	140	100.0				19
	46		1	17	0	9.6	02:05:26	02:08:24	360	3,200	135	100.0				19
	47		17	1	9.6	0	02:11:15	02:14:09	180	3,200	140	100.0				20
	48		1	17	0	9.6	02:16:16	02:19:18	360	3,200	134	100.0				19
	49		17	1	9.6	0	02:22:19	02:25:22	180	3,200	140	100.0				19
	50		1	17	0	9.6	02:27:46	02:30:48	360	3,200	133	100.0				19
	51		17	1	9.6	0	02:53:58	02:56:52	180	3,200	140	100.0				19
	52		1	17	0	9.6	02:39:19	02:42:35	360	3,200	135	100.0				19
	53		17	1	9.6	0	02:45:25	02:48:14	180	3,200	140	100.0				19
	54		1	17	0	9.6	02:49:59	02:52:59	360	3,200	132	100.0				19
	54		17	7	9.6	3.6	02:56:29	02:58:12	180	3,200	140	100.0	calibration line			20
UpDeltaX	3		115	75	68.5	44.5	03:02:02	03:07:32	270	3,200	135	100.0	X line			20
UpDelta3	39		1	29	0	16.8	03:14:22	03:19:21	360	3,200	133	100.0				20
	38		30	1	17.4	0	03:22:21	03:27:23	180	3,200	140	100.0				20
	37		1	32	0	18.6	03:30:33	03:35:54	360	3,200	132	100.0				20
	36		34	1	19.8	0	03:39:00	03:44:30	180	3,200	140	100.0				20
							04:01:00	04:06:00					overflight of CORS SJHS			18
UpDelta4	15		48	53	28.2	31.3	04:13:42	04:15:24	360	3,200	133	100.0	re flight			18
							04:16:00	04:19:00					post S turn			18
							04:20:00	04:25:00					overflight of CORS SJHS			18
							04:54:00	04:59:00					GROUND-STATIC @ KHUM			19

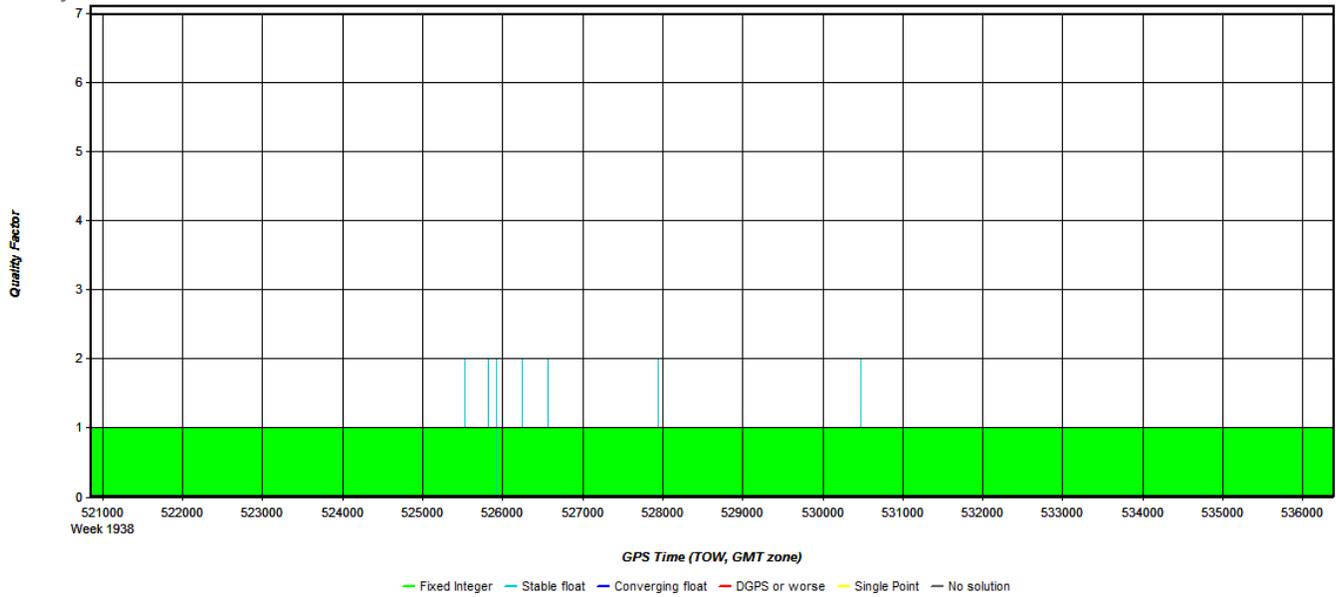
Trajectory and GPS Plots:



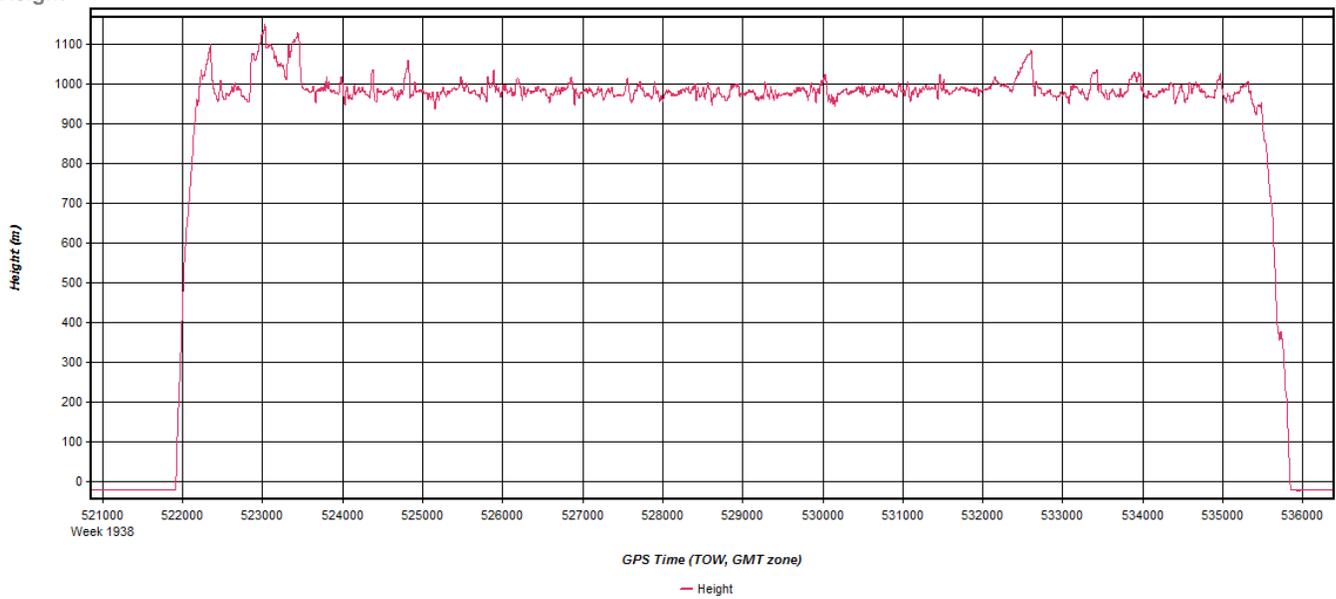
Estimated Accuracy



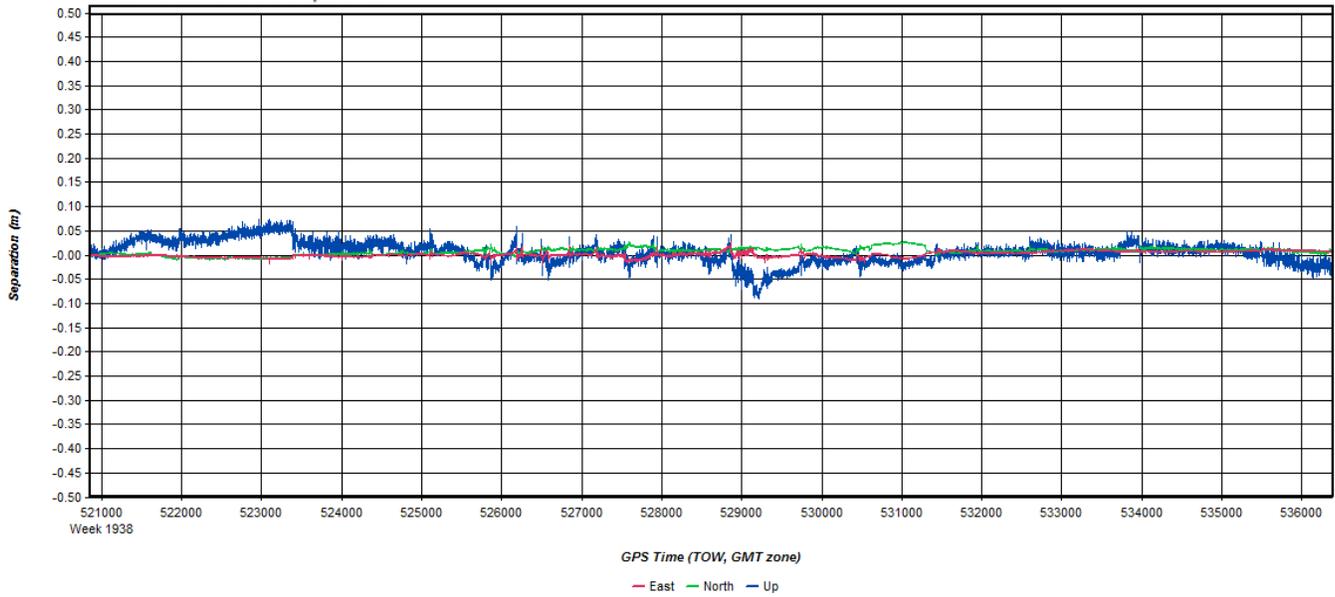
Quality Factor



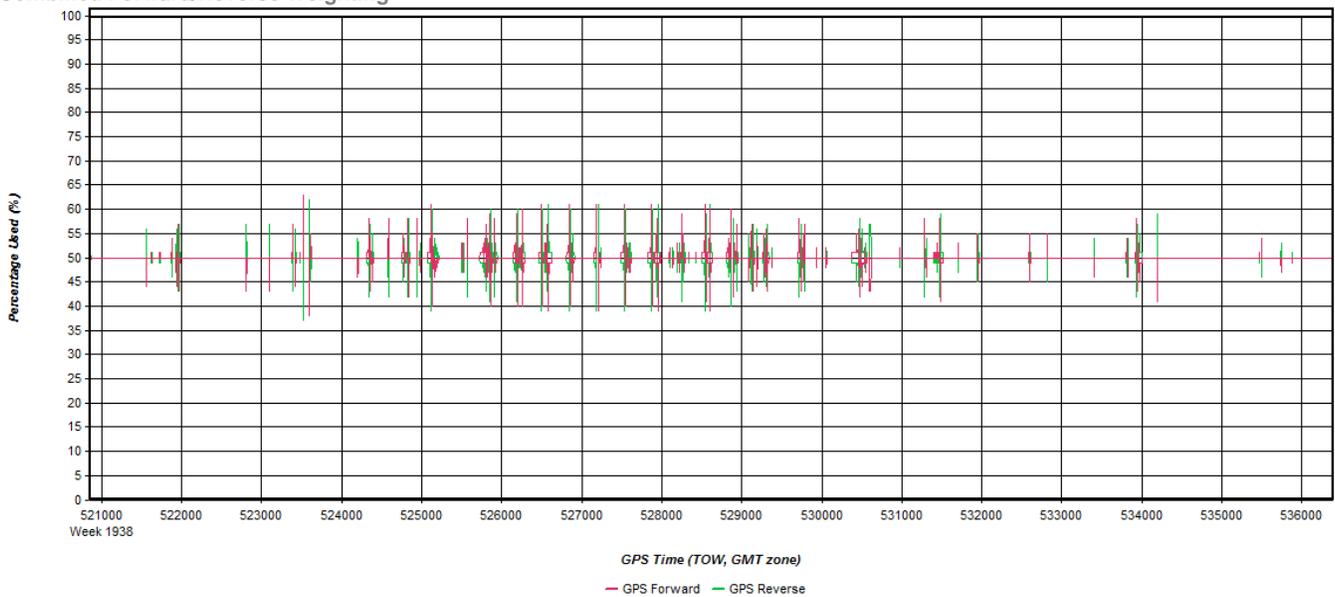
Height



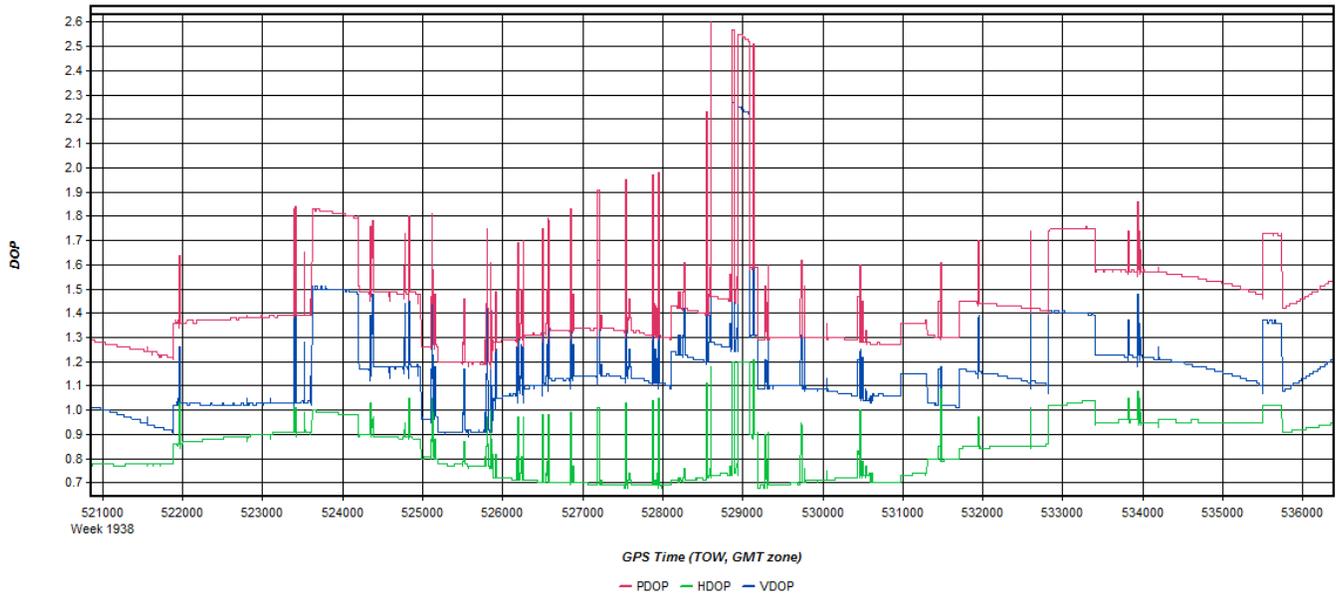
Combined Forward/Reverse Separation



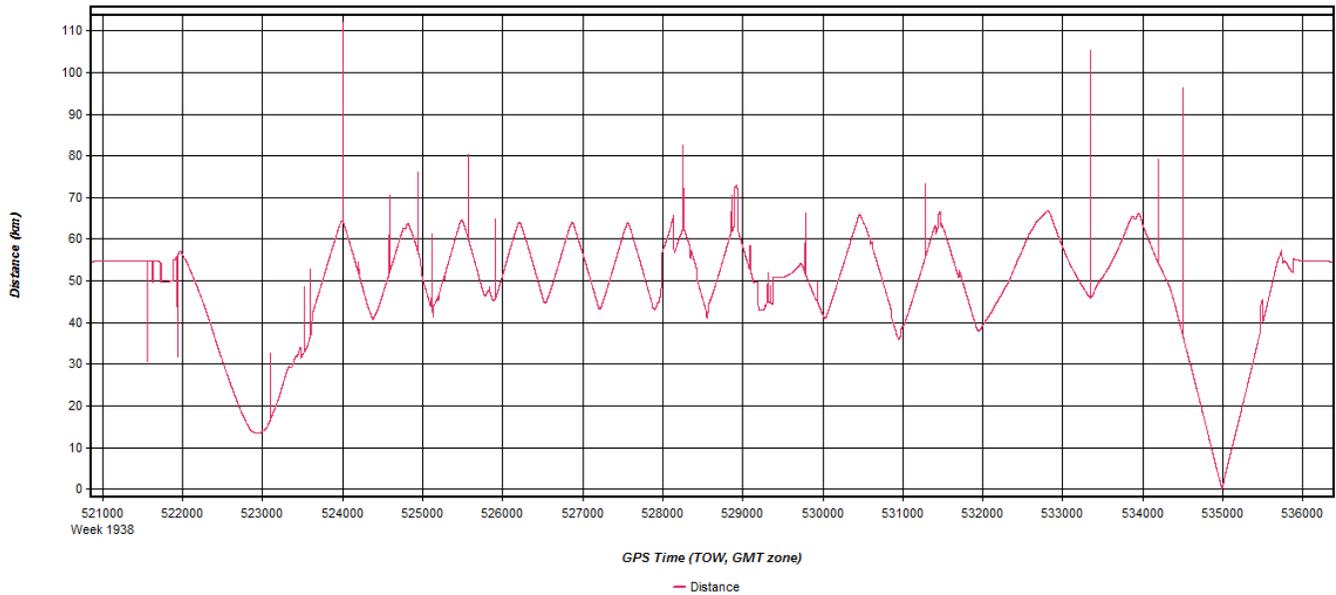
Combined Forward/Reverse Weighting



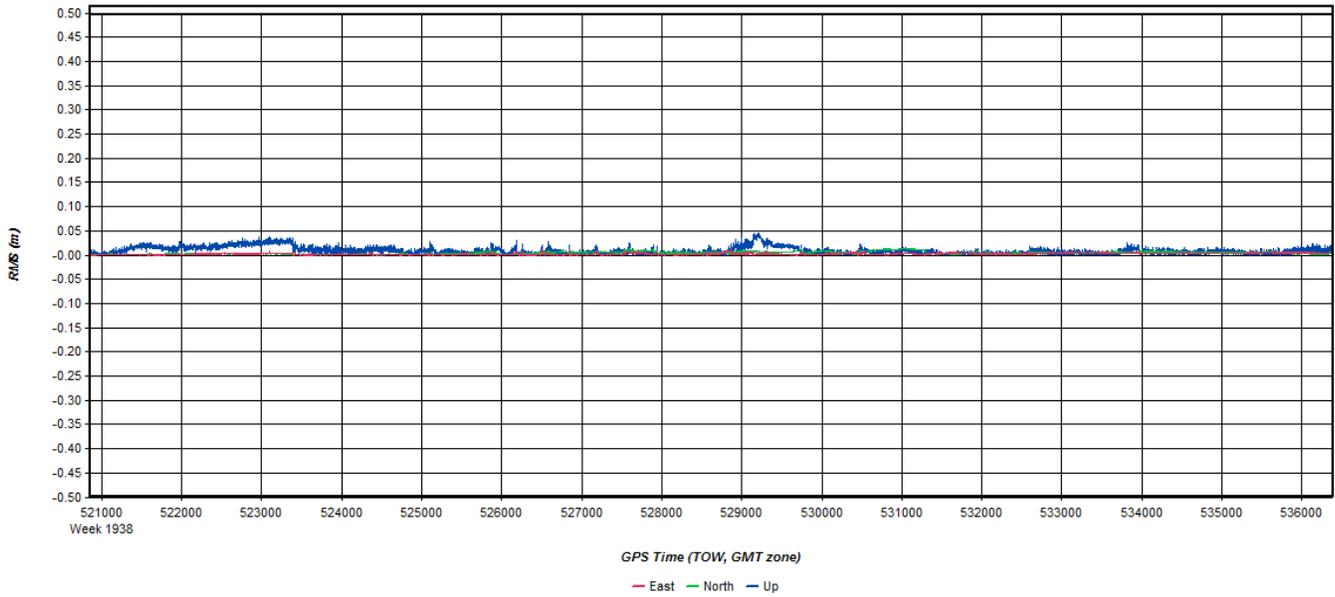
PDOP



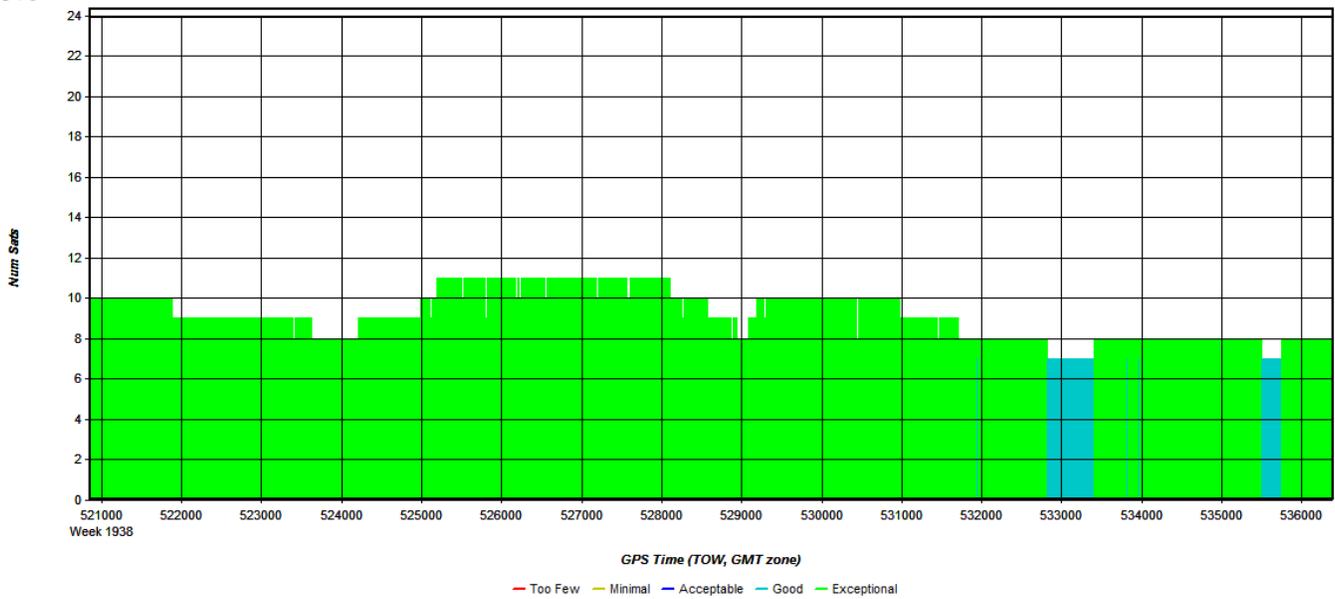
Distance from Base



Combined RMS



SVs



USGS  
COLLECTION REPORT



Acquisition and Processing details ----- Collection 20 (March 3, 2017)

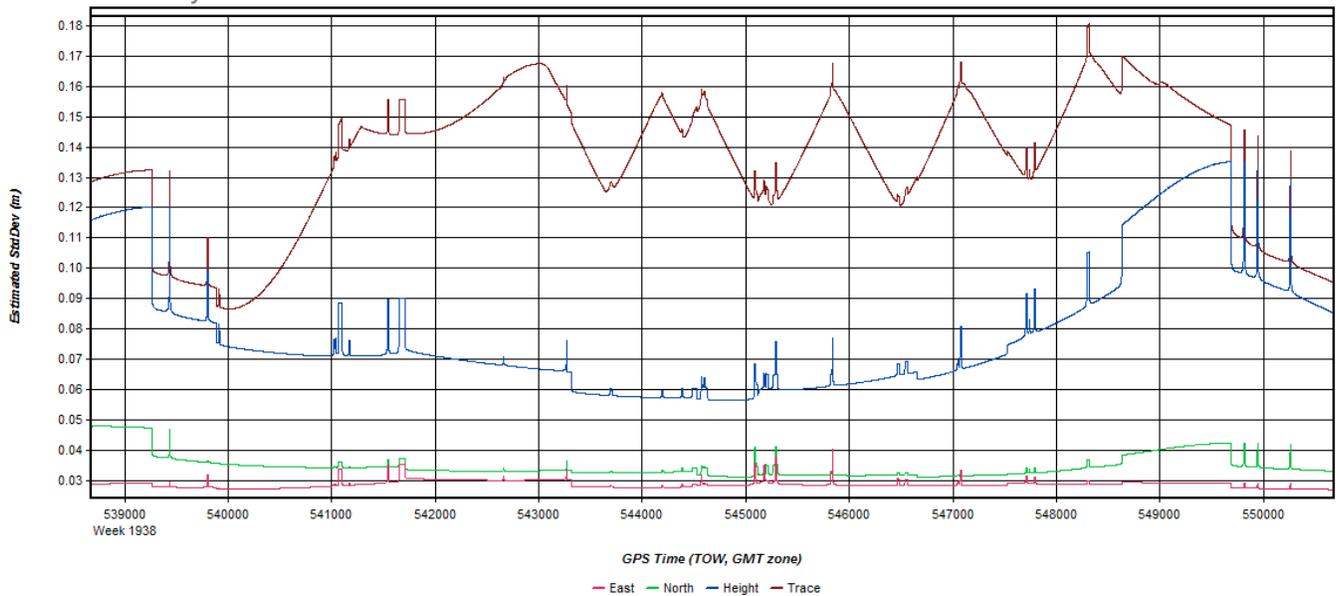
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl				
												Flight Log				
												AO80-50-00-02				
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity					
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1		KHUM	23:35	1618.6	KHUM	3:00	1621.5	3:25	3:50	2.9	0900-Production					
2																
3																
FGI Job #		Project Name				System	Unit	IMU		Ground Temp °C		Mn Range'	Data Logger Drives			
15004000		Upper Delta				680i	216	LN-200		8.0	9.0	2100				
Flight Date		GPS Day	Lift	Sun°		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Max Range'	Download Drive			
3-Mar-17		17-062	2	N/A		N/A		240k		6.0 5.0		4052	NS1TB-103			
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track		
170303_216_15004000_02		N88N	KGTU	CCNS 4	-6	2400	145		100	2	0.601	30.50 30.44	50			
Pilot #1		Pilot #2		Operator #1		Operator #2										
Kevin Ellington				Chris Fought												
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator		Data			
016	KHUM	GR3-5	GR3-5	1.8					Unit#50304.tps		Riley Forsyth		With AB			
Base 3 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator		Data			
Area	Flight #		Wpt		Distance		UTC		Fit	Altitude	Speed	Scan	Comments and Conditions		SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate				
							05:42:00	05:47:00					GROUND-STATIC @ KHUM		20	
							06:16:00	06:19:00					pre S turn		19	
UpDeltaX	3		1	125	0	74.5	06:23:02	06:43:28	90	3,200	135	100.0			19	
UpDelta3	35		36	1	21	0	06:53:29	06:59:15	180	3,200	135	100.0			20	
	34		1	38	0	22.2	07:02:22	07:08:10	360	3,200	140	100.0			20	
	34		38	28	22.2	16.2	07:10:33	07:12:24	180	3,200	130	100.0	calibration line		22	
	33		40	1	23.4	0	07:17:09	07:23:27	180	3,200	133	100.0			21	
	32		1	42	0	24.6	07:29:13	07:35:45	360	3,200	137	100.0			19	
	31		44	1	25.8	0	07:38:55	07:45:52	180	3,200	133	100.0			20	
	30		1	46	0	27	07:49:35	07:56:29	360	3,200	141	100.0			20	
	29		47	1	27.6	0	07:59:53	08:07:19	180	3,200	134	100.0			20	
	28		1	48	0	28.2	08:09:49	08:16:58	360	3,200	142	100.0			18	
	27		48	1	28.2	0	08:20:03	08:27:43	180	3,200	133	100.0			18	
							08:28:00	08:31:00					post S turn		18	
							08:52:00	08:57:00					GROUND-STATIC @ KHUM		17	

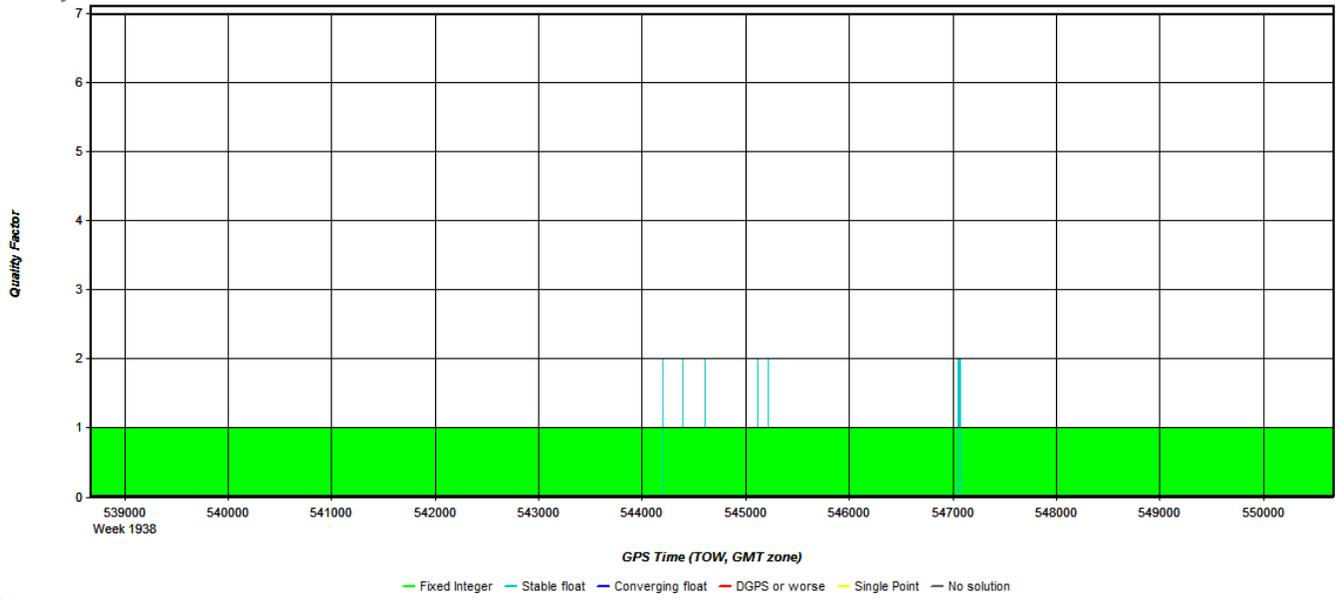
Trajectory and GPS Plots:



Estimated Accuracy



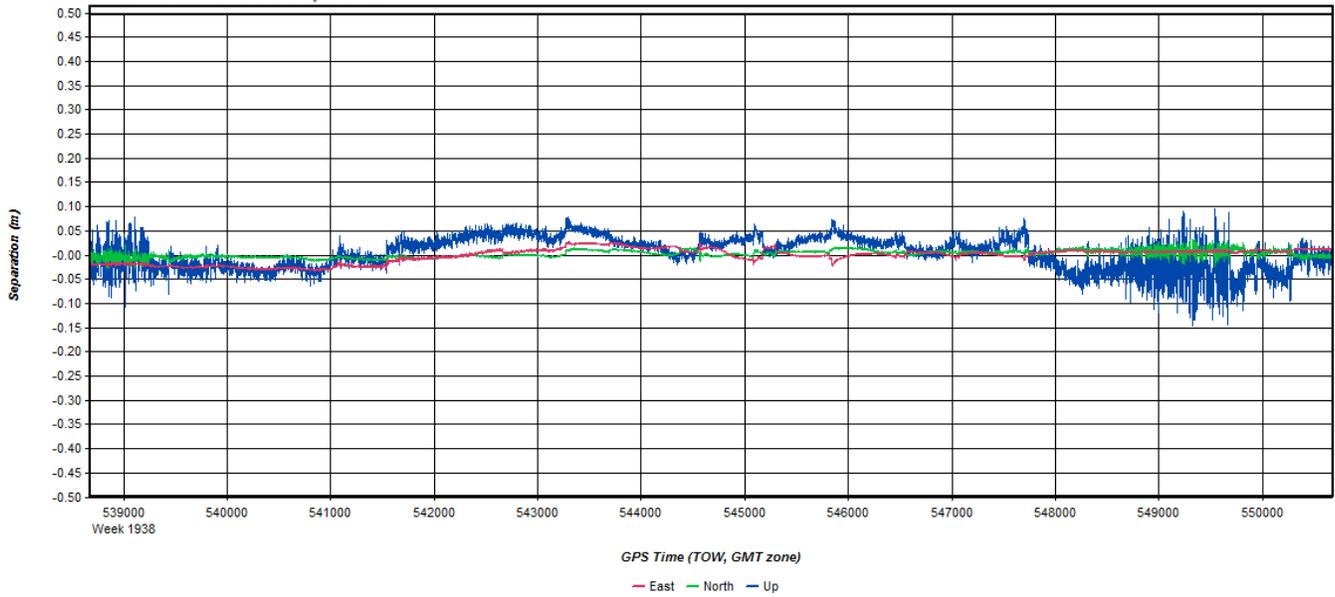
Quality Factor



Height



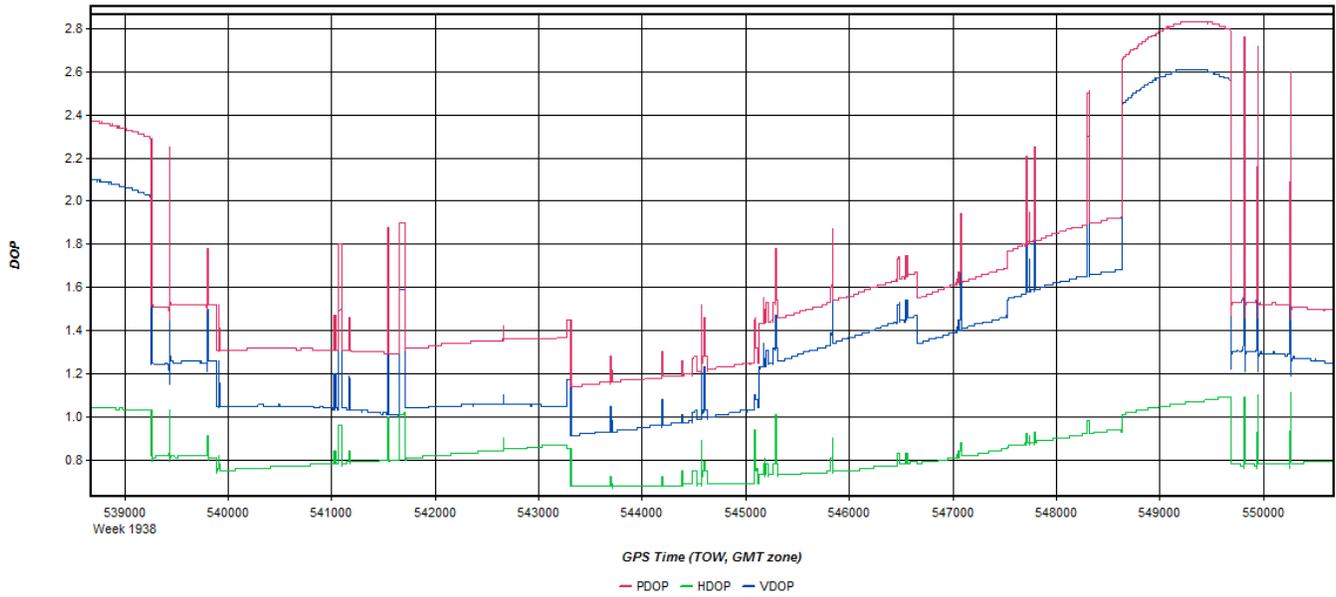
Combined Forward/Reverse Separation



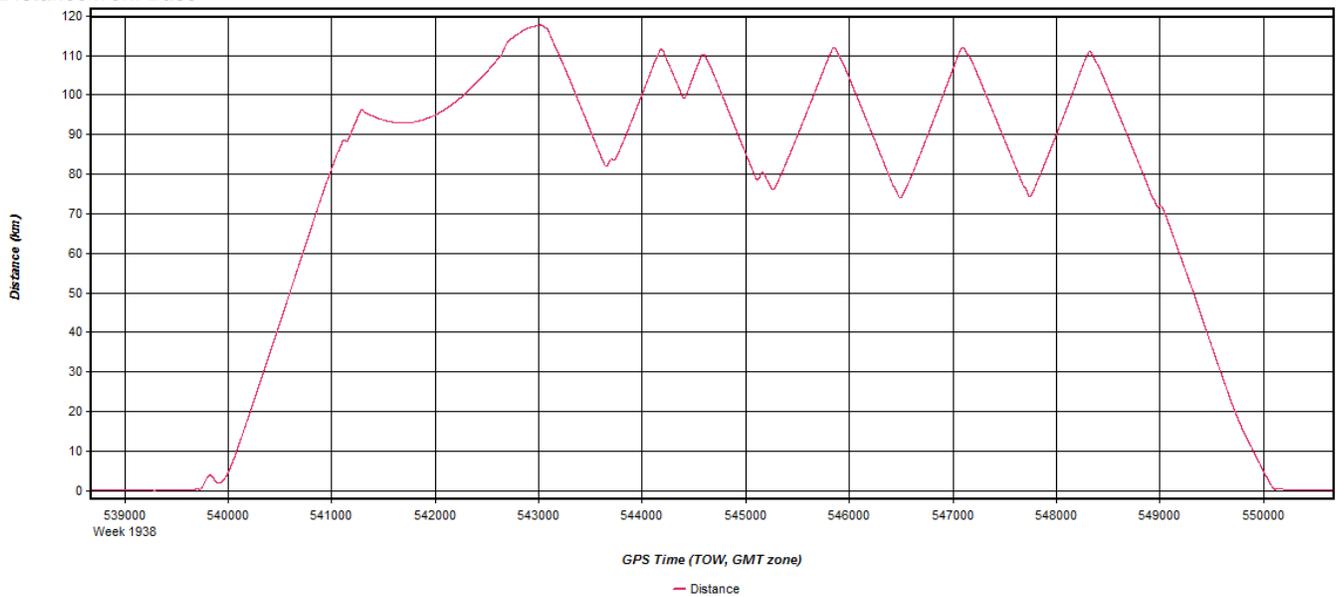
Combined Forward/Reverse Weighting



PDOP

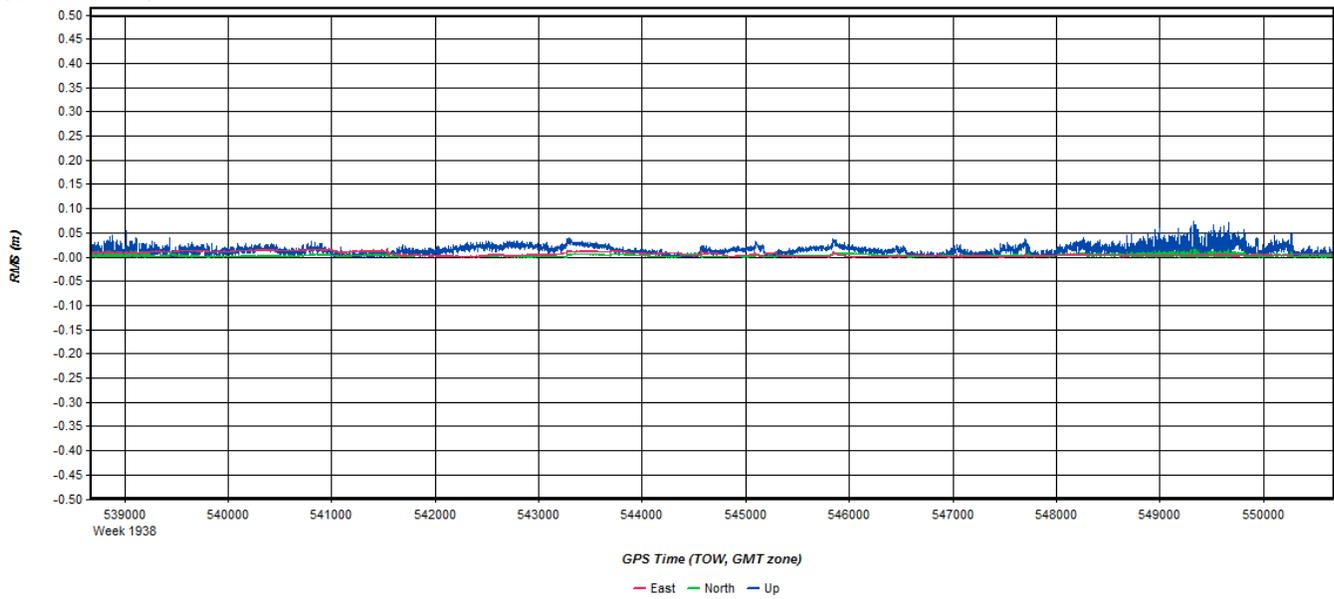


Distance from Base

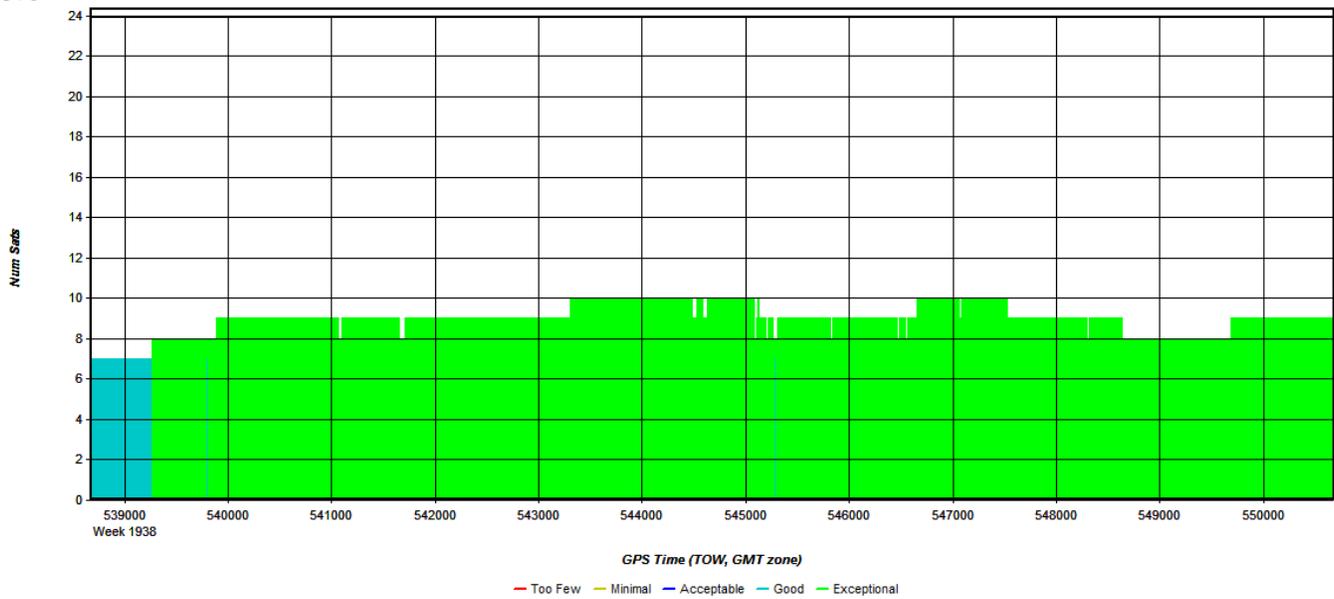




Combined RMS



SVs



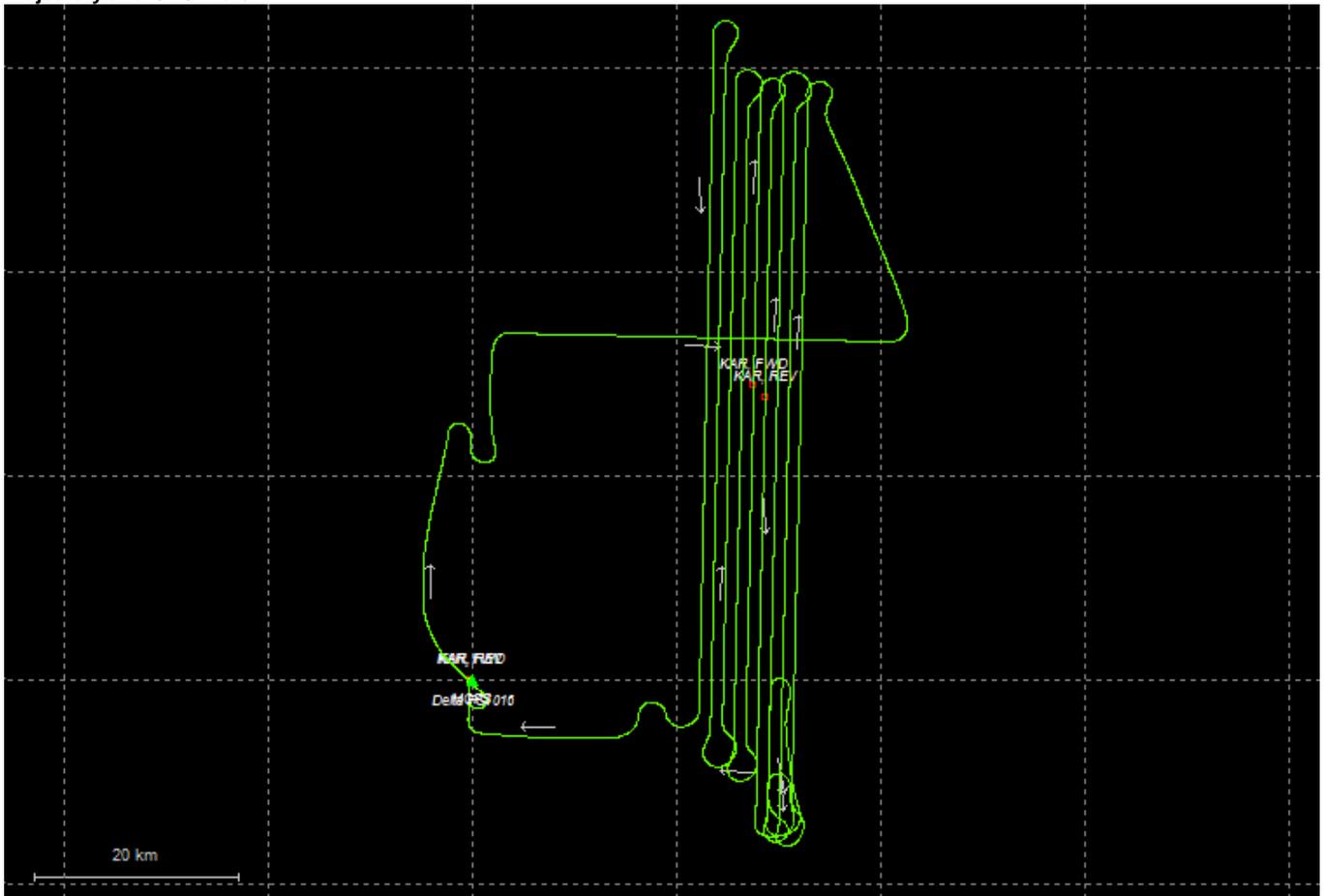


Acquisition and Processing details ----- Collection 21 (March 3, 2017)

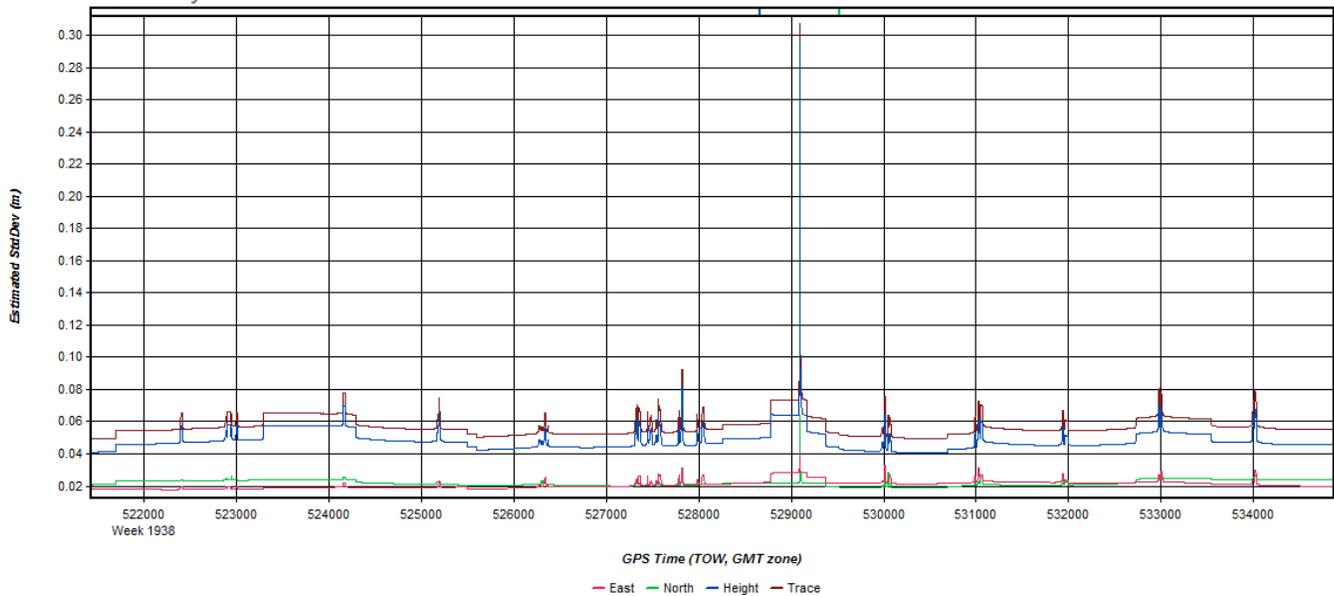
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	0:46	281.9	KHUM	4:35	285.3	3:49	3.75	3.4	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Mn Range'	Data Logger Drives			
15004000		Upper Delta				780	961	FMU-300	14.0 10.0		1248	Drive#2			
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range'	Download Drive			
3-Mar-17		17-062	13					360	8.0 8.0		1599	NS1TB-07			
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Alt. Setting	Humidity @ Alt	Shipping Track	
170303_961_15004000_13		N83AR	KHUM	Track	-6	4400	150	60	110		0.806	30.48 30.51	51	778573374900	
Pilot #1		Pilot #2		Operator #1			Operator #2								
Phil Schreffler		Ryen Farnworth		Riley Forsyth											
Base 1 ID	Location		Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data		
016	KHUM		GR3-5	GR3-5	1.8					Unit#50304a	Riley Forsyth		Shipped		
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							00:56:00	01:01:00					Ground static at KHUM	16	1.3
							01:14:00						pre acquisition s turn	14	1.4
UpDeltaX	2		10	60	7.3	47.6	01:19:00	01:28:00	E	4,400	128		Cross tie	16	1.2
UpDelta2	33		82	1	65.3	0	01:36:00	01:51:00	S	4,388	138			15	1.4
	32		1	82	0	65.3	01:54:00	02:10:00	N	4,388	123			17	1.2
	31		82	1	65.3	0	02:13:00	02:27:00	S	4,381	131			17	1.2
	31		1	10	0	7.3	02:33:00	02:36:00	N	4,384	131		Calibration	17	1.2
	30		1	78	0	62.1	02:42:00	02:57:00	N	4,382	137			17	1.2
	29		75	1	59.6	0	02:59:00	03:12:00	S	4,372	143			18	1.1
	28		1	75	0	59.6	03:15:00	03:29:00	N	4,430	133			17	1.1
	27		75	1	59.6	0	03:31:00	03:44:00	S	4,422	148			17	1.2
	26		1	76	0	60.4	03:47:00	04:01:00	N	4,370	141			16	1.2
	25		79	1	62.9	0	04:04:00	04:18:00	S	4,372	136			15	1.4
							04:18:00						post acquisition s turn	14	1.3
							04:29:00	04:34:00					Ground static at KHUM	17	1.1

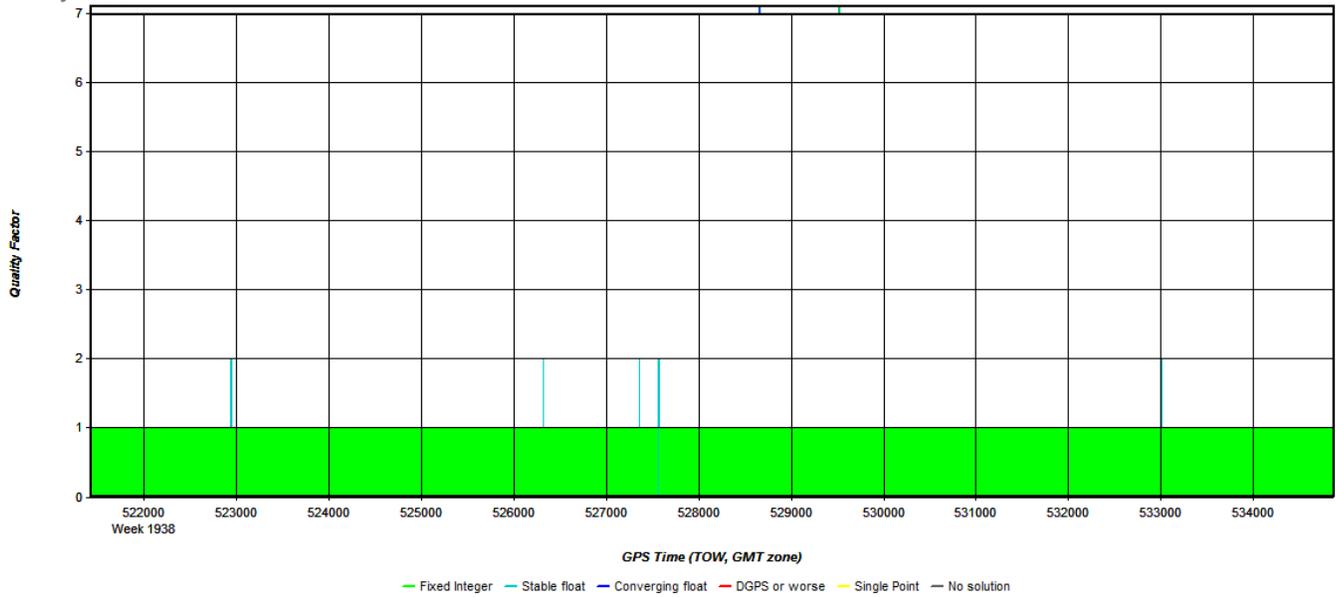
Trajectory and GPS Plots:



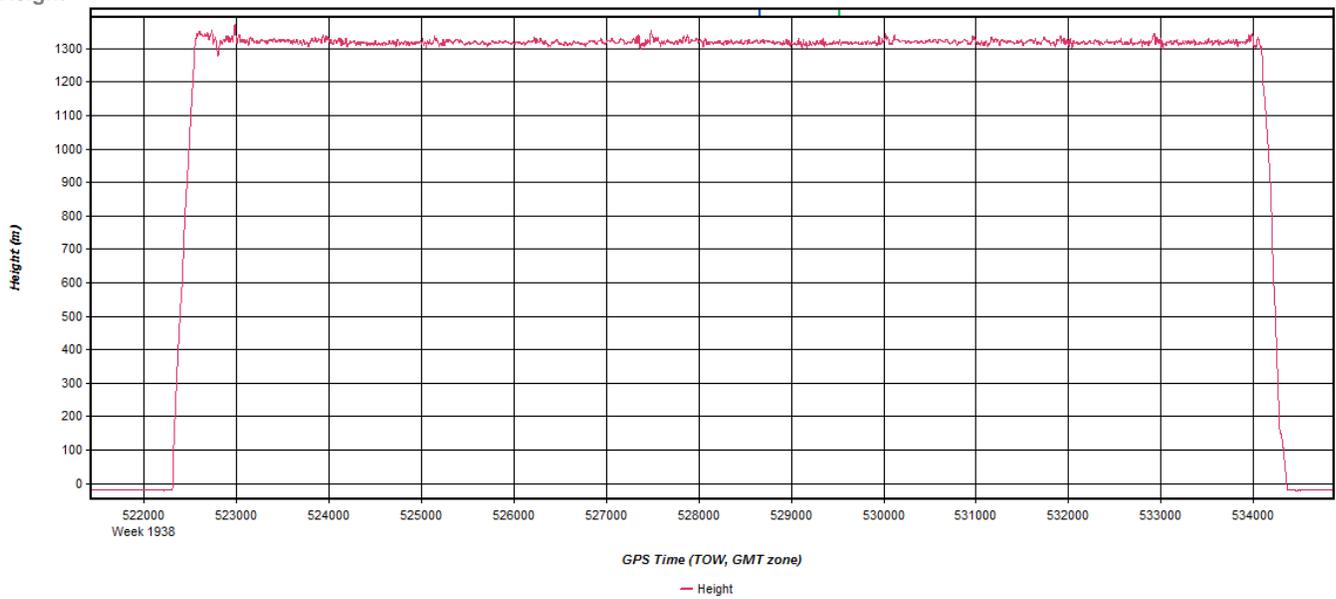
Estimated Accuracy



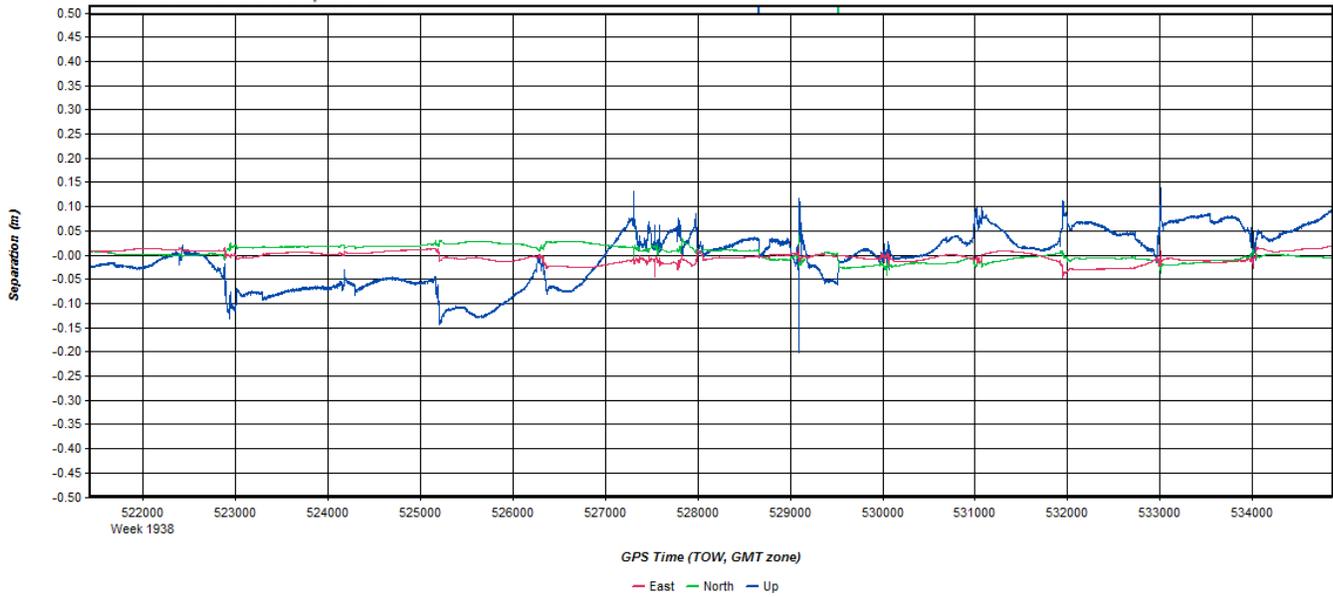
Quality Factor



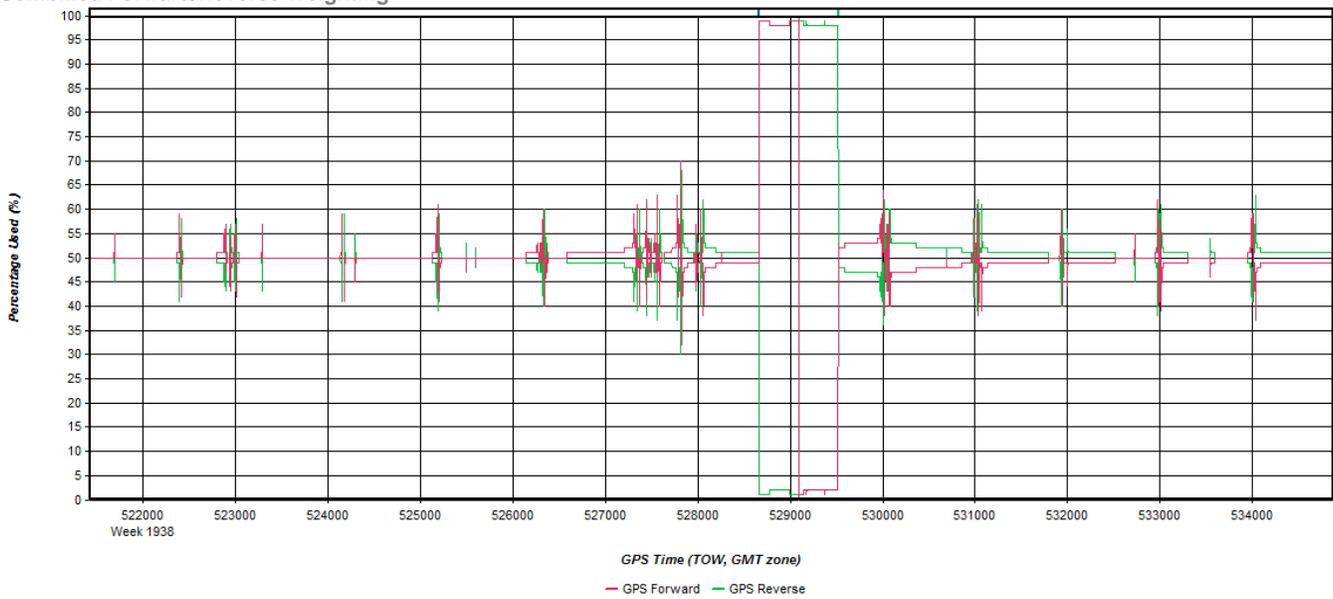
Height



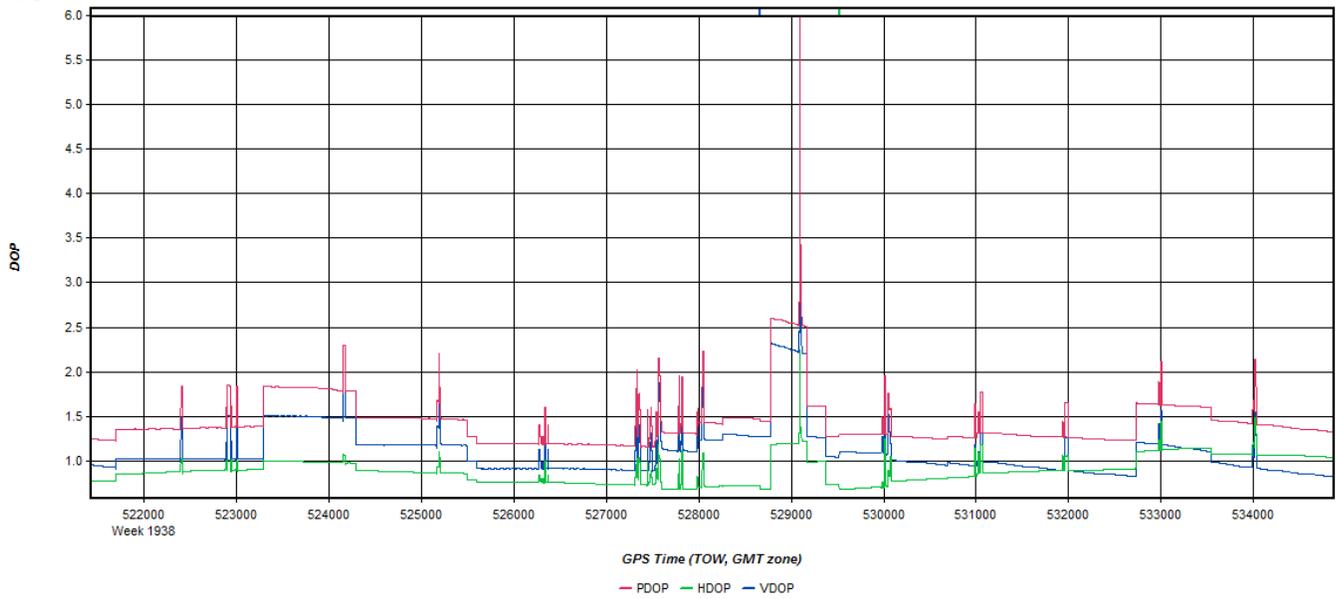
Combined Forward/Reverse Separation



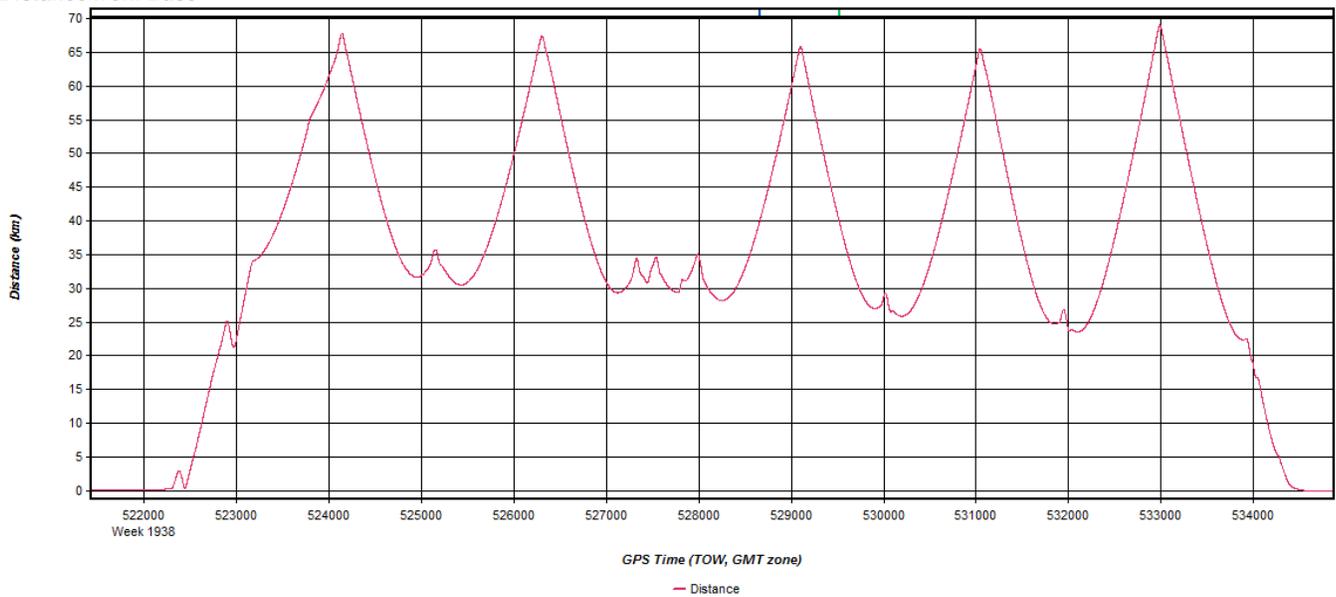
Combined Forward/Reverse Weighting



PDOP

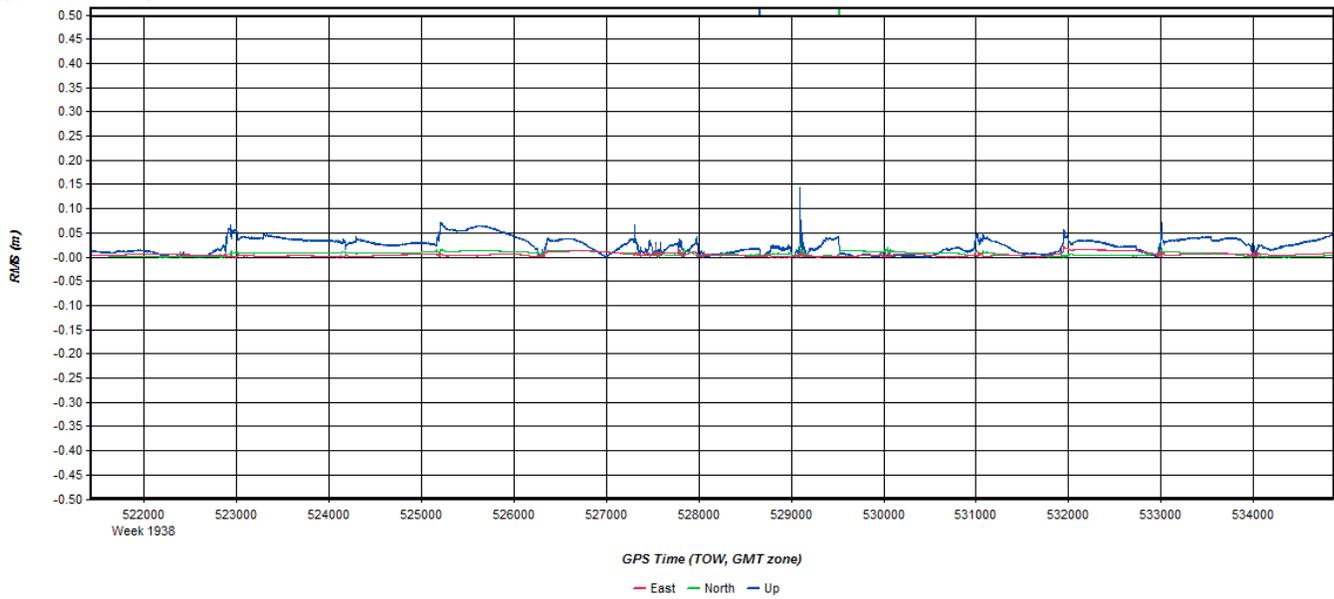


Distance from Base

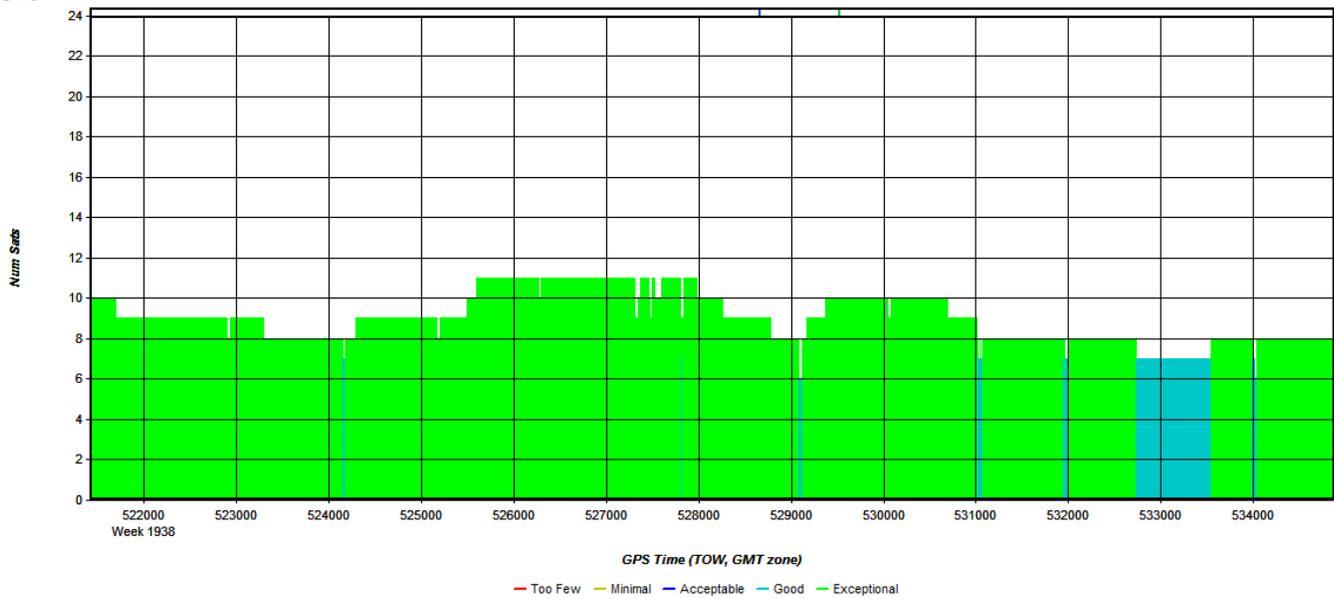




Combined RMS



SVs





Acquisition and Processing details ----- Collection 22 (March 3, 2017)

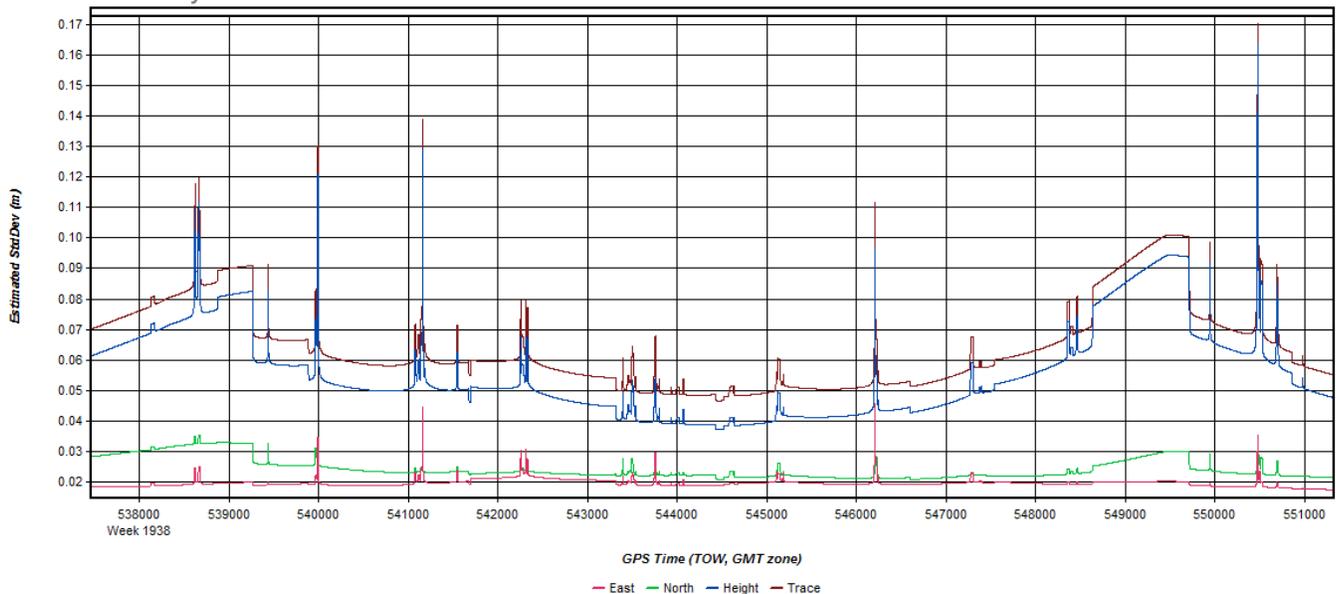
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	5:14	285.3	KHUM	9:09	288.8	3:55	4:00	3.5	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Mn Range'		Data Logger Drives		
15004000		Upper Delta				780	961	FMU-300	10.0 10.0		1248		Drive#0		
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)	Pulse Rate	Flying Temp °C		Max Range'		Download Drive		
3-Mar-17		17-062	14					360	6.0 12.0		1599		NS1TB-07		
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170303_961_15004000_14		N83AR	KHUM	Track	-6	4400	150	60	110		0.806	30.50 30.44	81	778573374900	
Pilot #1		Pilot #2		Operator #1			Operator #2								
Phil Schreffler		Ryen Farnworth		Riley Forsyth											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	GR3-5	GR3-5	1.8					Unit#50304e	Riley Forsyth		Shipped			
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							05:19:00	05:24:00					Ground static at KHUM	16	1.4
							05:35:00						pre acquisition s turn	16	1.4
UpDeltaX	2		1	45	0	35.5	05:41:00	05:49:00	E	4,419	130		Cross tie	15	1.6
UpDelta2	24		90	1	71.7	0	06:00:00	06:17:00	S	4,415	129			18	1.3
	23		1	90	0	71.7	06:20:00	06:36:00	N	4,430	135			17	1.3
	22		94	1	75	0	06:39:00	06:55:00	S	4,385	138			17	1.2
	22		1	10	0	7.3	06:58:00	07:02:00	N	4,433	144		Calibration	18	1.1
	21		1	92	0	73.3	07:08:00	07:24:00	N	4,392	145			18	1.1
	20		88	1	70.1	0	07:26:00	07:42:00	S	4,362	148			18	1.1
	19		1	87	0	69.3	07:44:00	08:00:00	N	4,394	139			17	1.1
	18		85	1	67.7	0	08:03:00	08:18:00	S	4,402	146			17	1.2
	17		1	84	0	66.9	08:21:00	08:36:00	N	4,382	148			15	1.2
	16		83	1	66.1	0	08:38:00	08:53:00	S	4,415	144			14	1.8
							08:53:00						post acquisition s turn	14	1.9
							04:03:00	09:08:00					Ground static at KHUM	17	1.3

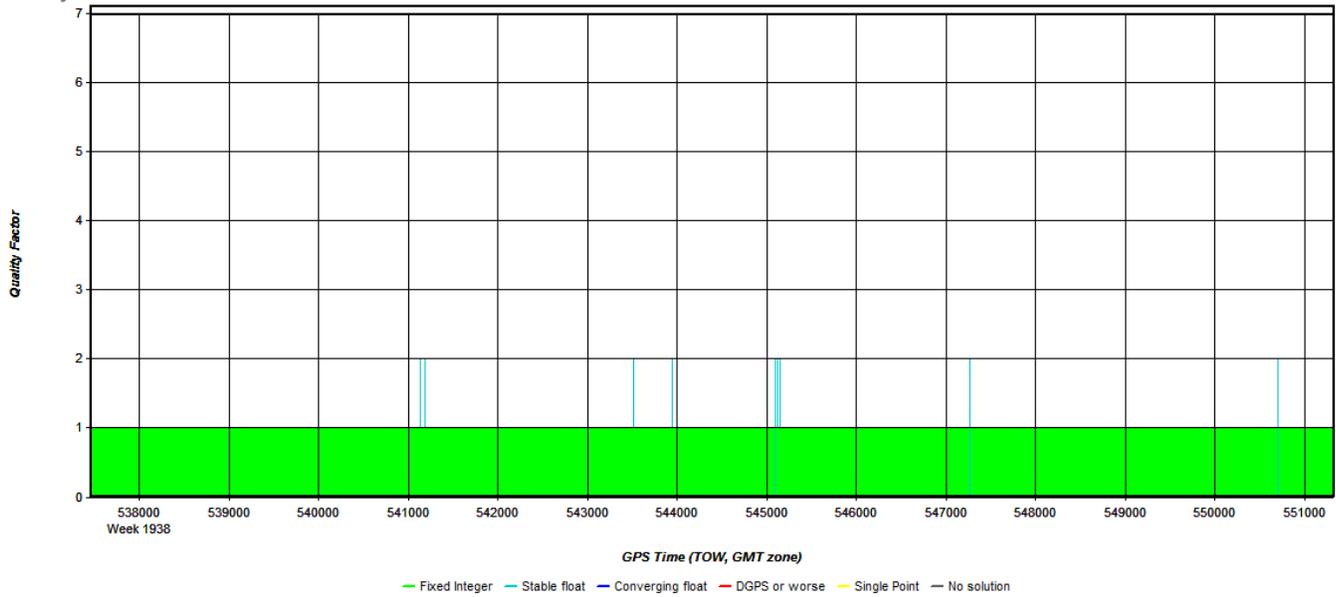
Trajectory and GPS Plots:



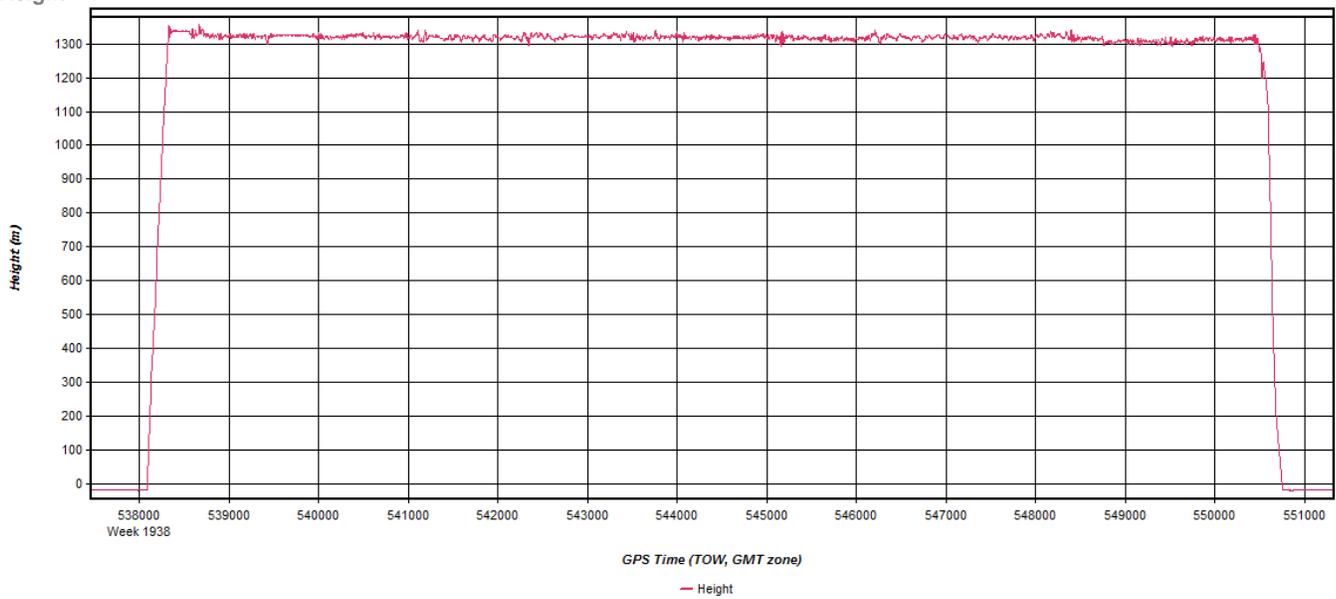
Estimated Accuracy



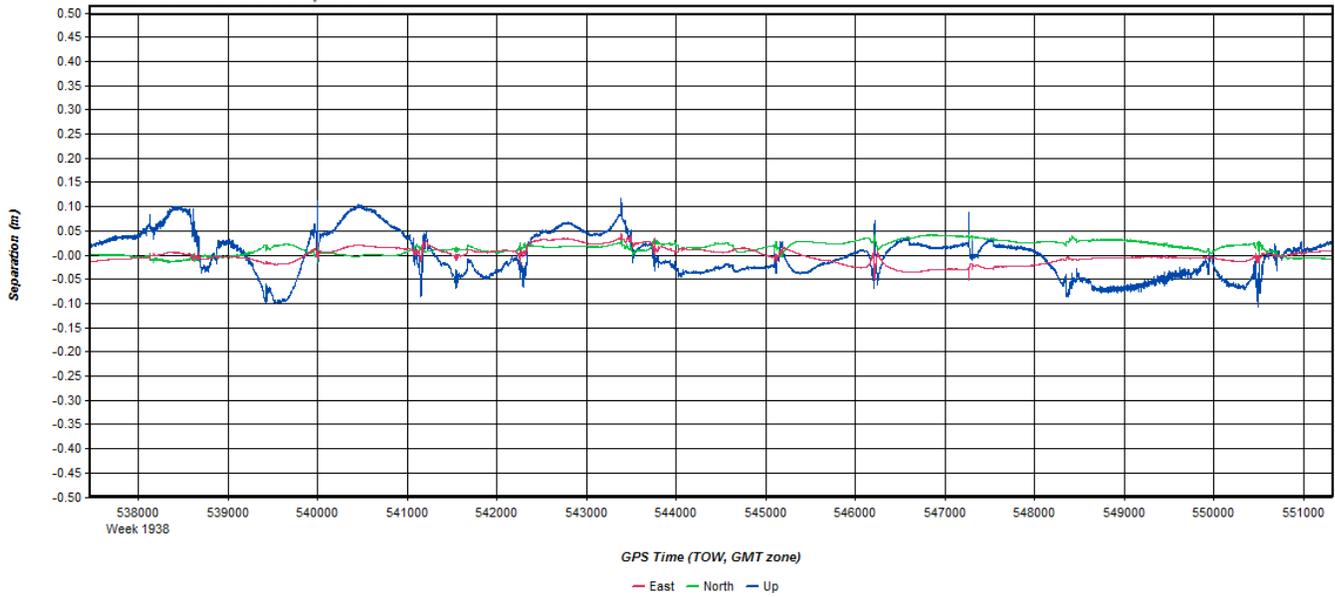
Quality Factor



Height



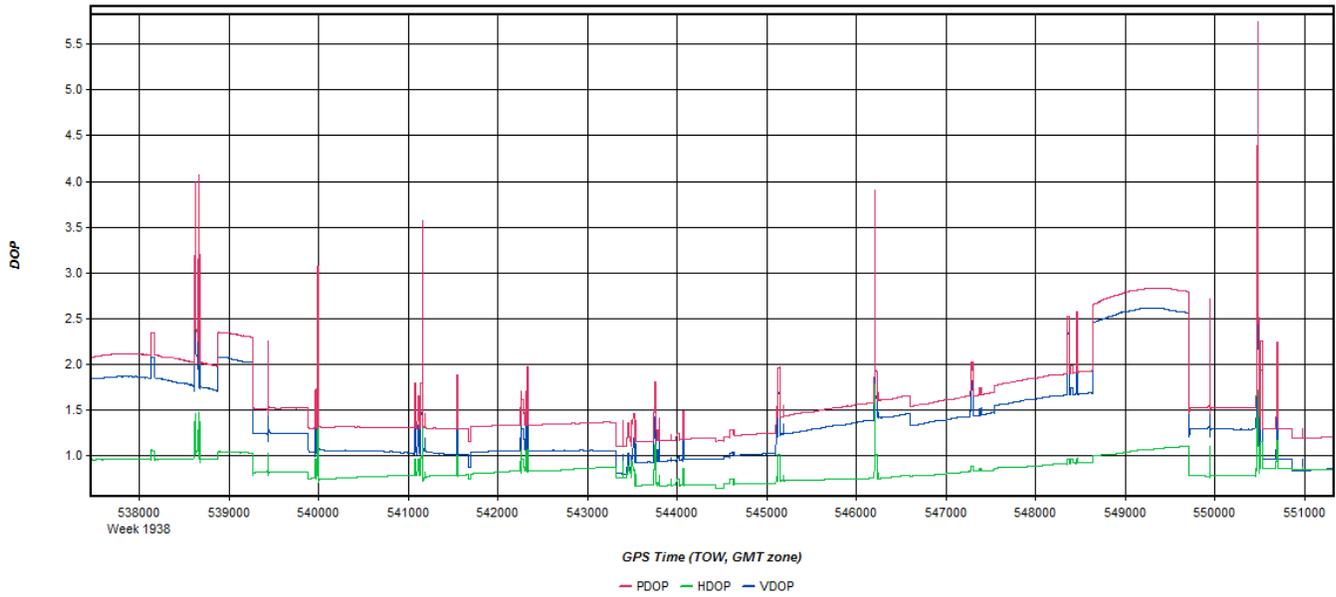
Combined Forward/Reverse Separation



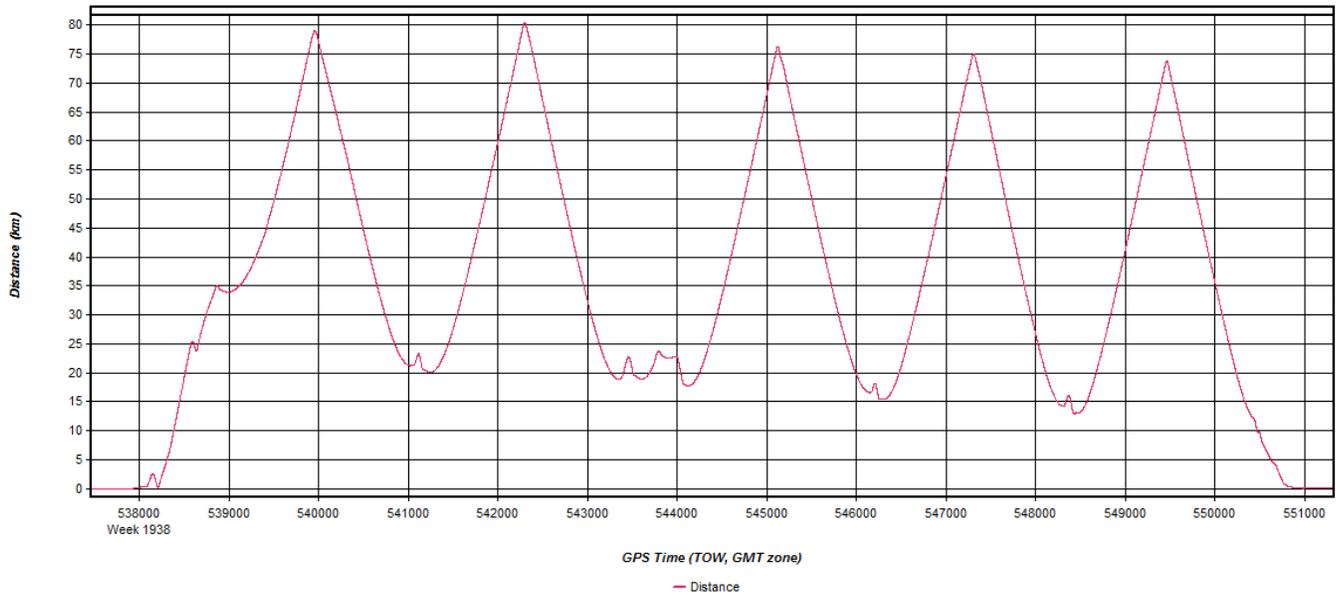
Combined Forward/Reverse Weighting



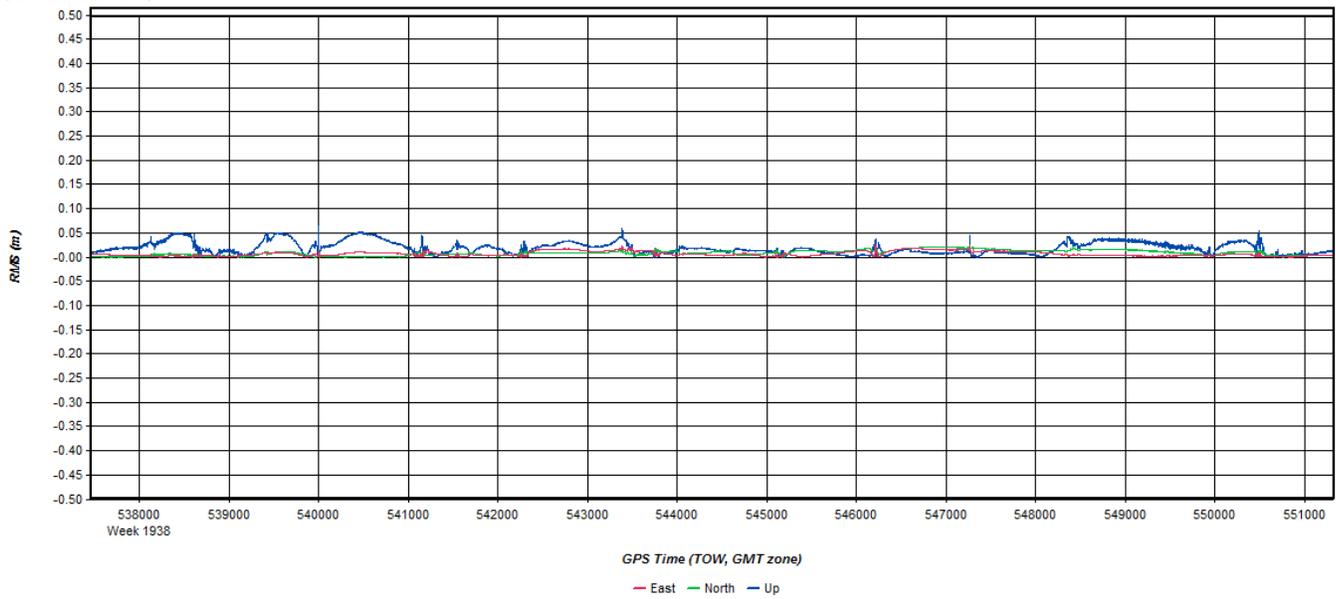
PDOP



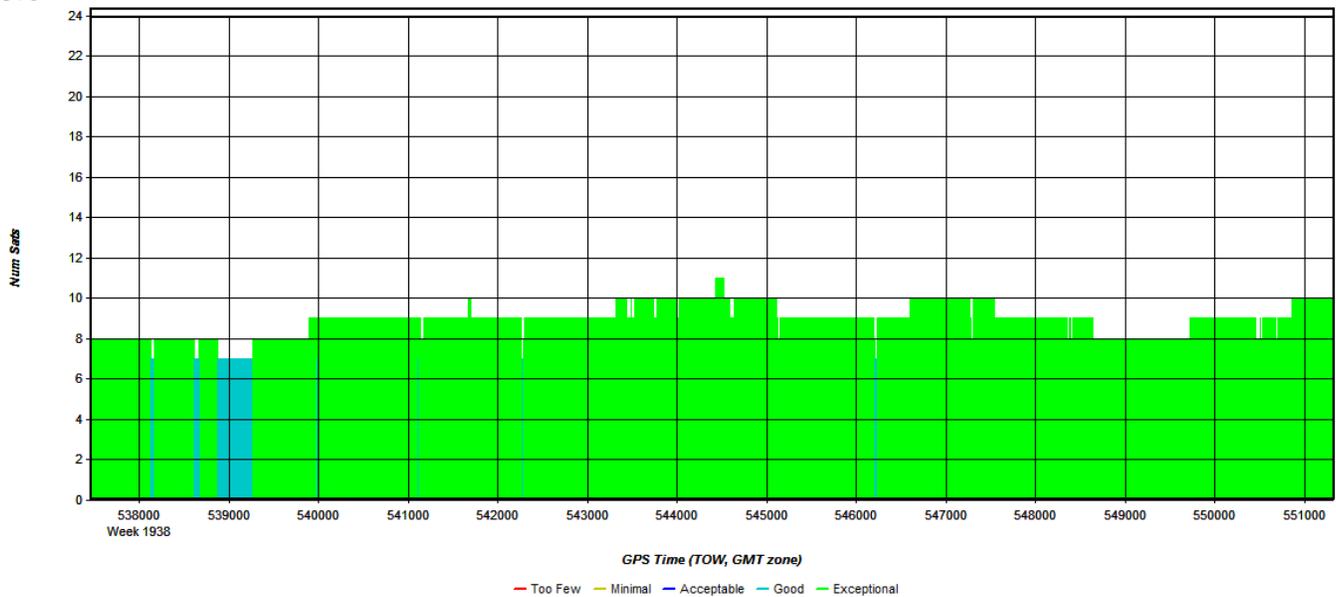
Distance from Base



Combined RMS



SVs



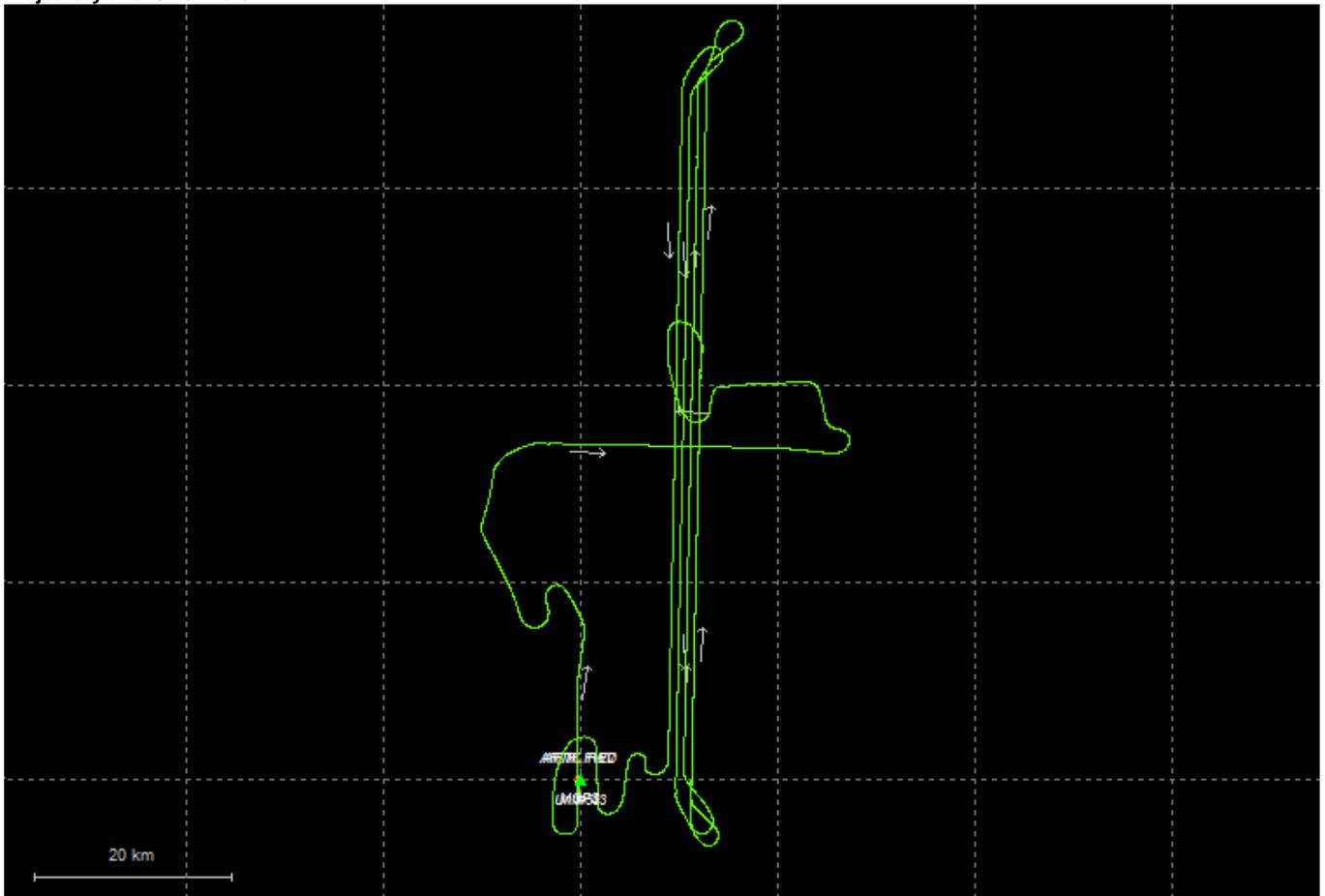


Acquisition and Processing details ----- Collection 23 (March 14, 2017)

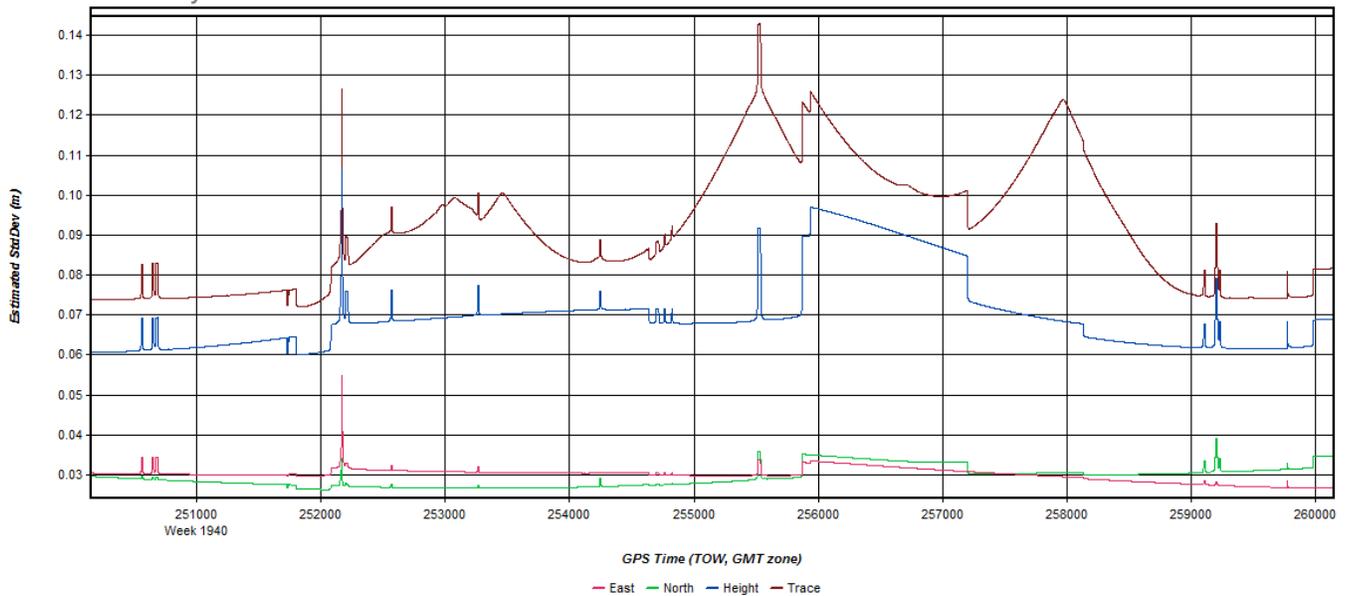
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
	1	KGTU	17:31	538.3	KHUM	20:10	541.0	2:39	2:75	2.7	0103-Mob/Demob				
	2	KHUM	21:18	541.0	KHUM	0:18	543.9	3:00	3:00	2.9	0900-Production				
	3														
FGI Job #	Project Name			System	Unit	IMU		Ground Temp °C		Mn Range'	Data Logger Drives				
15004000	Upper Delta			680i	165	FMU-300				2100					
Flight Date	GPS Day	Lift	Sun"		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Max Range'	Download Drive			
14-Mar-17	17-073	7	N/A		N/A		240k		5.0 5.0		4052				
Mission ID (yyymmdd_Sen_Job_Lift)	Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	mi/WPT	Altm Setting	Humidity @ Alt	Shipping Track		
170314_165_15004000_07	N62912	KHUM		-6	3281	145	60	99	2	0.374	30.20 30.20				
Pilot #1	Pilot #2		Operator #1		Operator #2										
Skip Bugh		Eric Mueller													
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator	Data			
016	KHUM			1.8							Chris Fought				
Area	Flight #		Wpt		Distance		UTC		Fit	Althude	Speed	Scan	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate			
							21:34:00	21:38:00					GROUND-STATIC @KHUM	17	
							22:02:00	22:04:00			150		PRE ACQUISITION CALIBRATION	17	
UpDeltaX	4		1	25	0	14.4	22:14:00	091	3,200	150			CROSS LINE	17	
UpDelta2	23		60	1	35.5	0	22:26:00	181	3,200	140			CALIBRATION LINE	18	
	23		1	109	0	65	22:40:00	001	3,200	132				18	
	22		108	1	64.4	0	23:01:00	181	3,200	138				18	
	21		1	107	0	63.8	23:21:00	001	3,200	130				17	
	20		105	1	62.6	0	23:41:00	181	3,200	145				16	
							23:57:00	23:59:00			132		POST ACQUISITION CALIBRATION	16	
							00:10:00	00:15:00					GROUND-STATIC @KHUM	16	

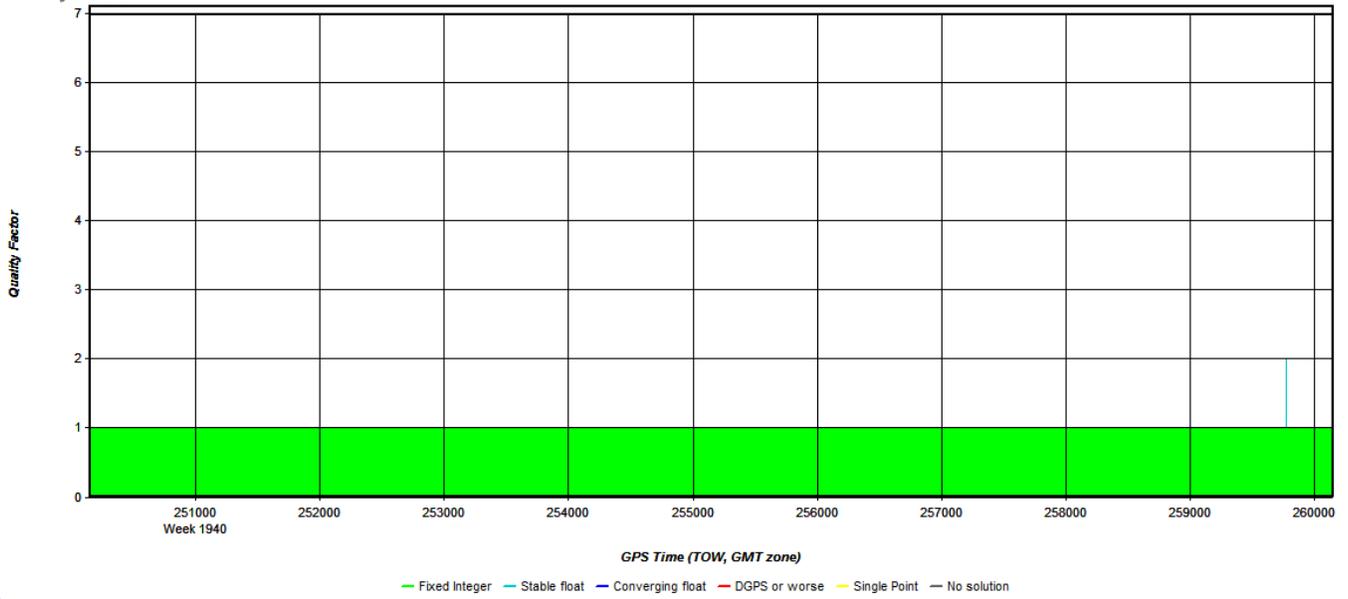
Trajectory and GPS Plots:



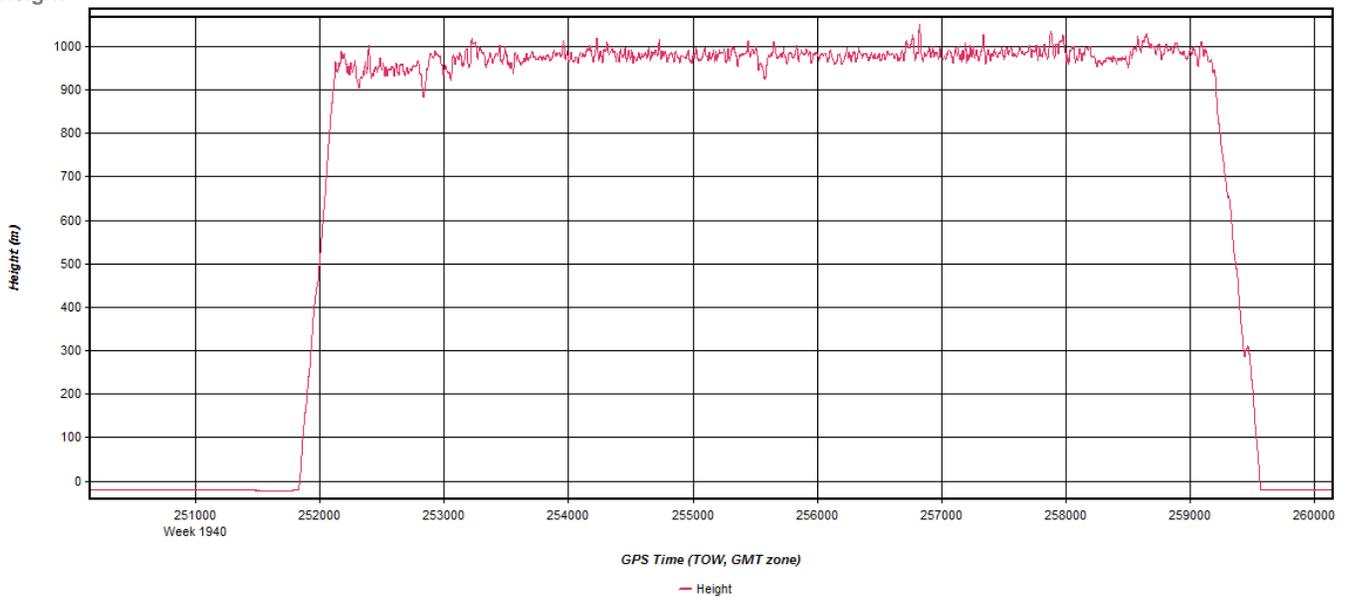
Estimated Accuracy



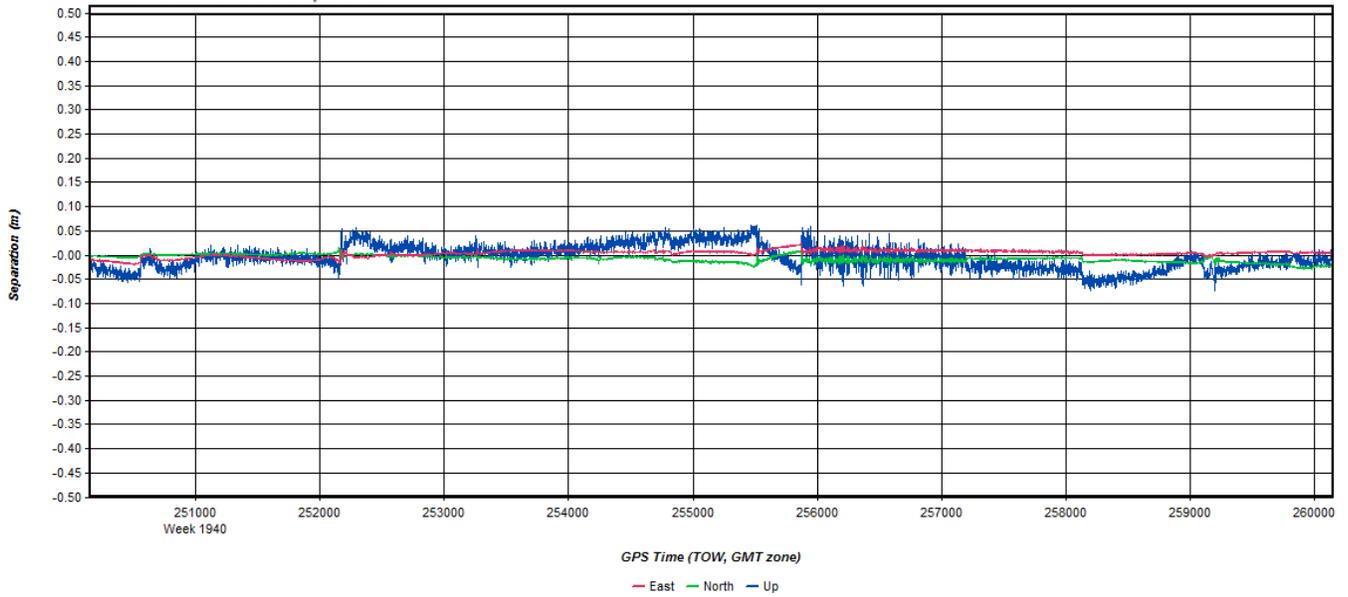
Quality Factor



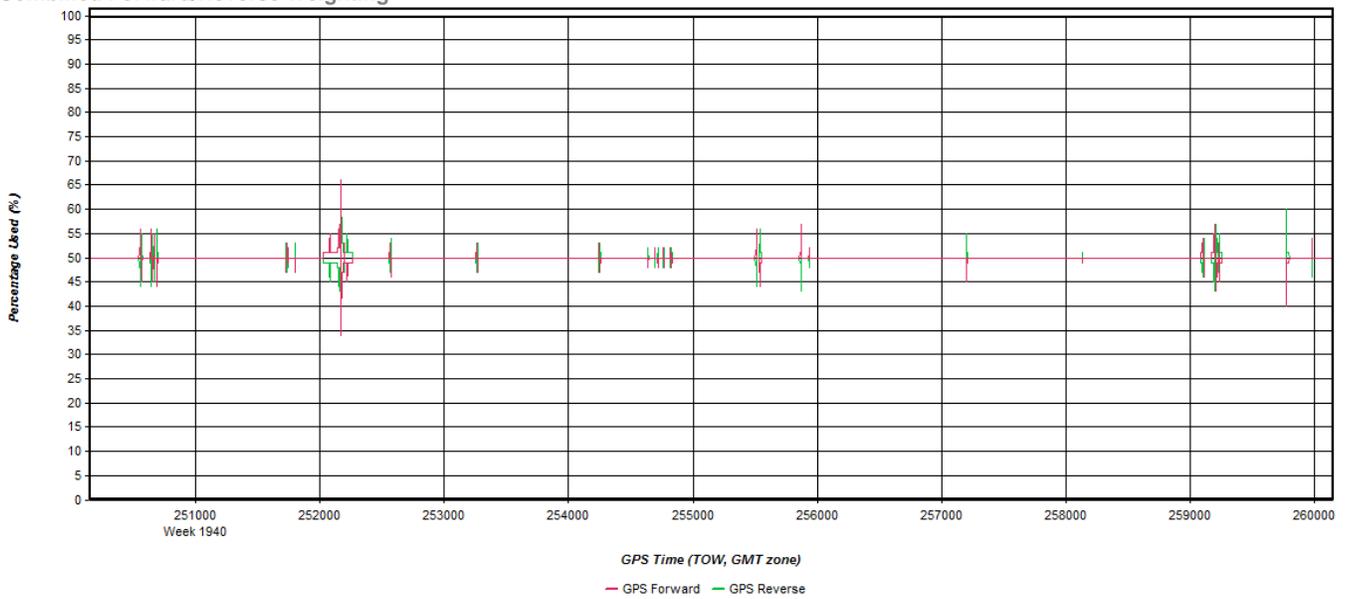
Height



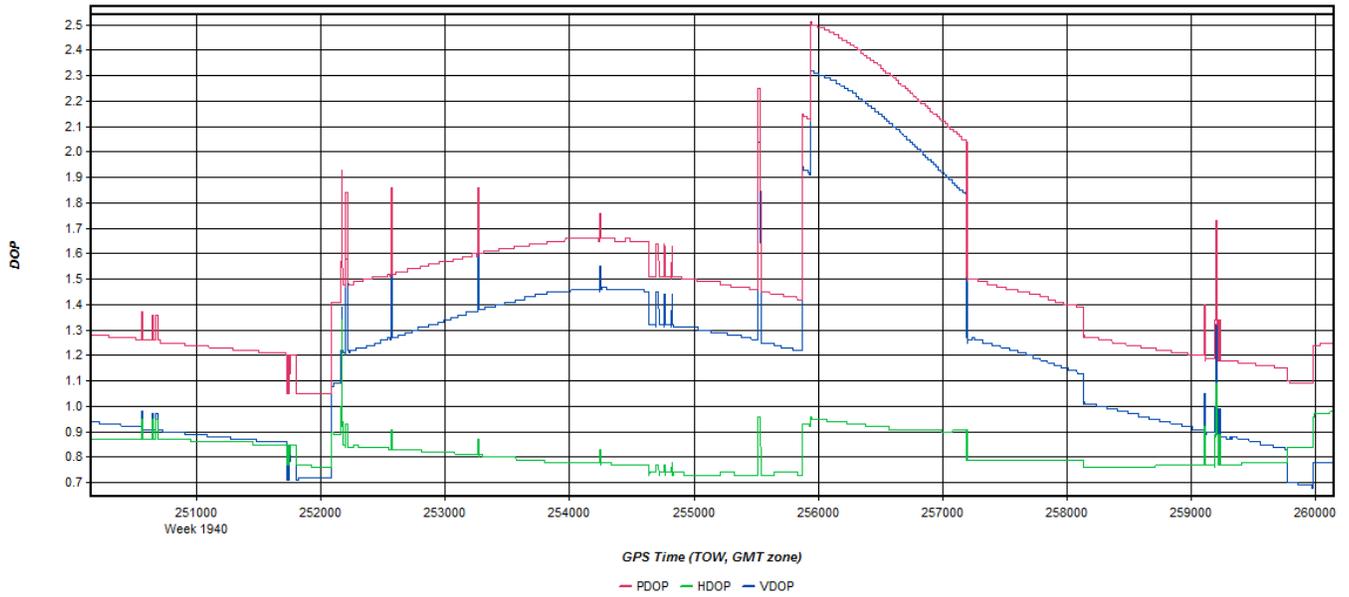
Combined Forward/Reverse Separation



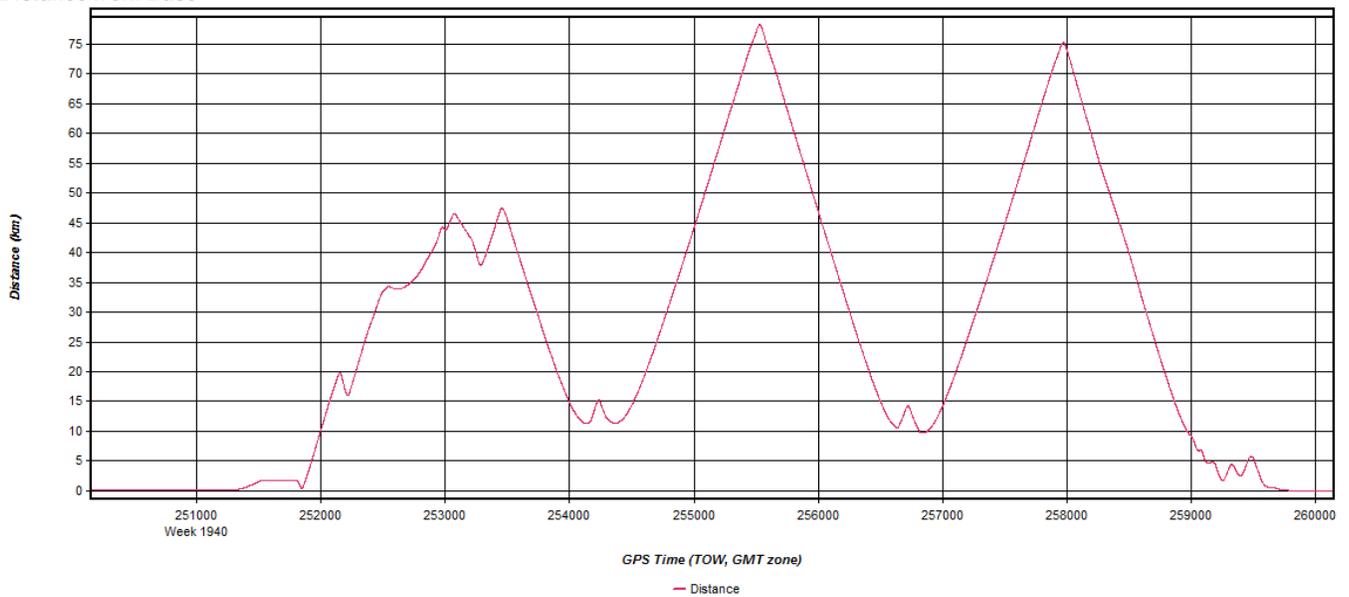
Combined Forward/Reverse Weighting



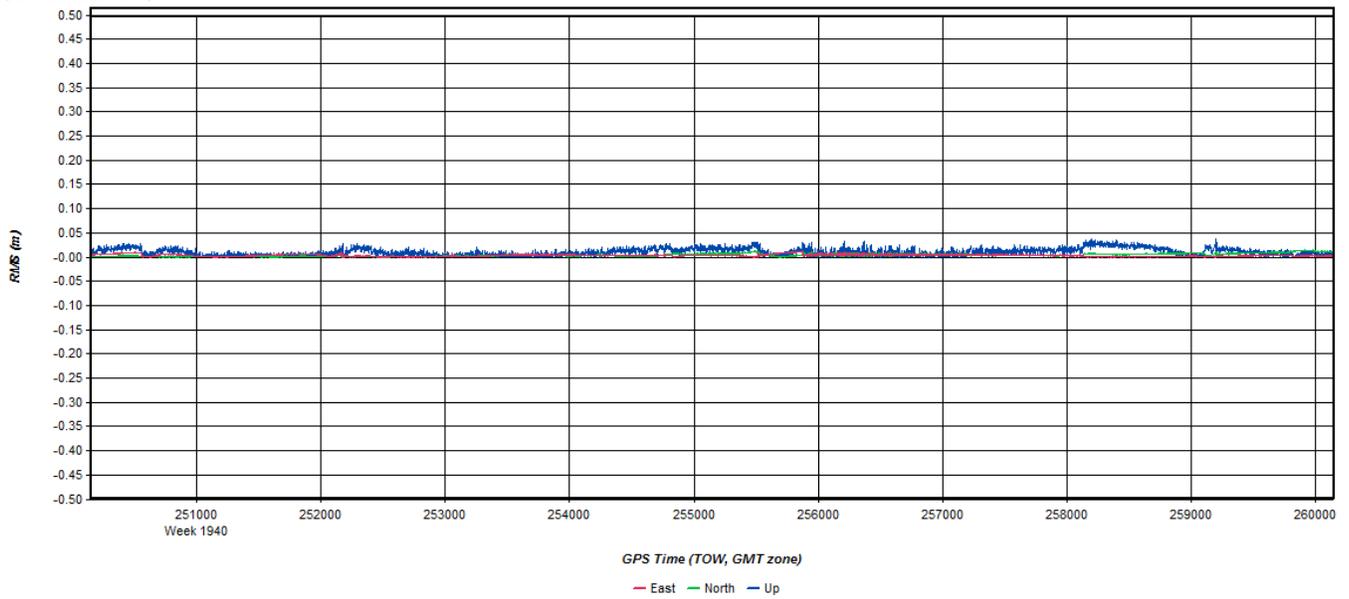
PDOP



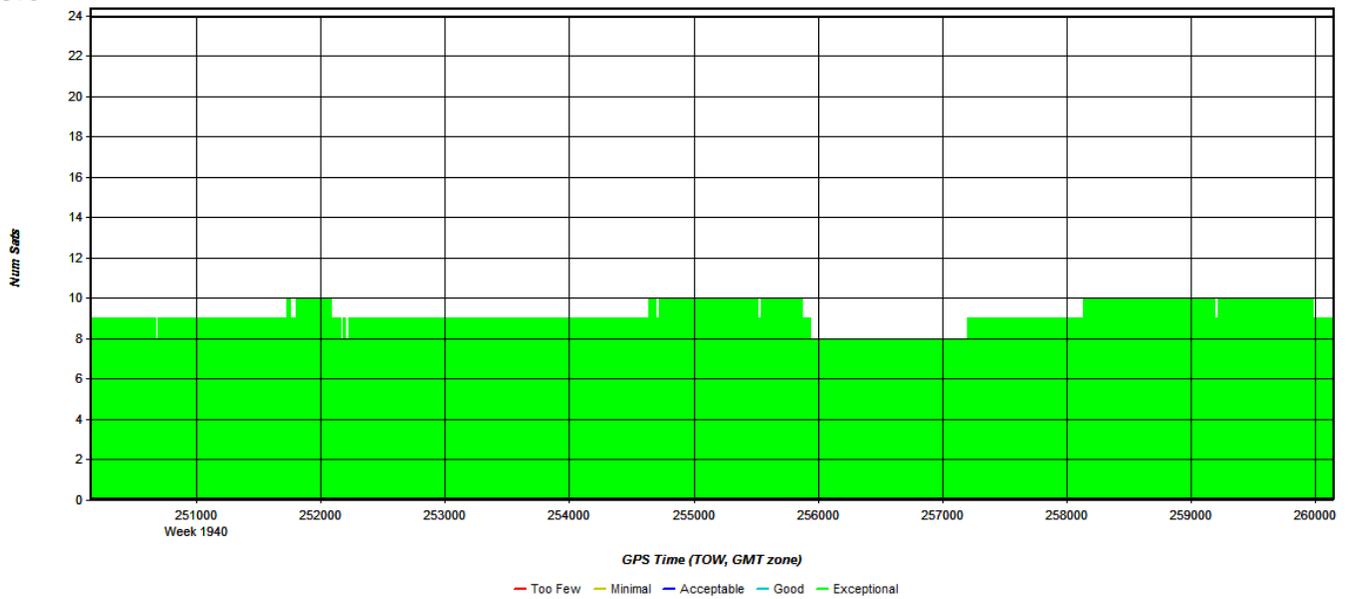
Distance from Base



Combined RMS



SVs



USGS  
COLLECTION REPORT



Acquisition and Processing details ----- Collection 24 (March 14, 2017)

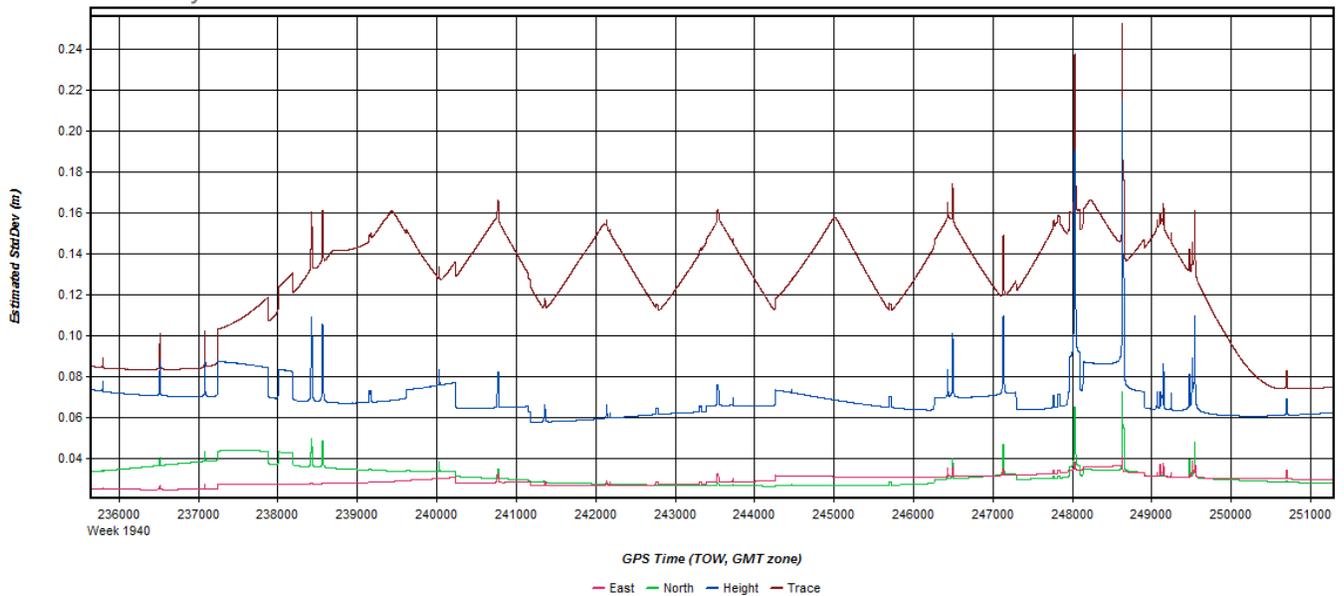
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	12:24	1622.1	KHUM	16:49	1626.0	4:25	4:50	3.9	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Mn Range'	Data Logger Drives			
15004000		Upper Delta				680i	216	LN-200	13.0 16.0		2100				
Flight Date		GPS Day	Lift	Sun*		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Download Drive			
14-Mar-17		17-073	3	N/A		N/A		240k		11.0 12.0		NS1TB-106			
Mission ID (yyymmdd_Gen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170314_216_15004000_03		N88N	KGTU	CCNS 4	-6	2400	145		100	2	0.601	30.23 30.14	60		
Pilot #1		Pilot #2		Operator #1		Operator #2									
Kevin Ellington				Chris Fought											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data						
016	KHUM	GR3-5	GR3-5	1.8	14-Mar-17 18:00	15-Mar-17 01:48	Unit#50314r.tps	Chris Fought	With AB						
Base 3 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data						
Area	Flight #		Wpt		Distance		UTC		Fit	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							17:32:00	17:37:00					GROUND-STATIC @ KHUM		18
							18:12:00	18:15:00					Pre S turn		18
UpDeltaX	3		30	70	17.4	41.5	18:18:52	18:24:59	90	3,200	135	100.0	X line		17
UpDelta3	26		49	1	28.8	0	18:31:46	18:39:23	180	3,200	138	100.0			18
	25		1	50	0	29.4	18:41:32	18:50:44	360	3,200	120	100.0			17
	24		51	1	30	0	18:53:19	19:01:05	180	3,200	137	100.0			19
	23		1	52	0	30.7	19:03:30	19:13:13	360	3,200	122	100.0			21
	22		54	1	31.9	0	19:16:10	19:24:59	180	3,200	138	100.0			21
	21		1	55	0	32.5	19:27:13	19:37:23	360	3,200	120	100.0			23
	20		58	1	34.3	0	19:40:17	19:49:33	180	3,200	135	100.0			22
	19		1	58	0	34.3	19:51:47	20:01:42	360	3,200	118	100.0			22
	18		58	1	34.3	0	20:04:37	20:13:38	180	3,200	135	100.0			20
	17		1	58	0	34.3	20:16:05	20:25:51	360	3,200	117	100.0			19
	16		58	1	34.3	0	20:28:31	20:37:43	180	3,200	134	100.0			19
	15		1	31	0	18	20:43:38	20:48:44	360	3,200	123	100.0			19
	15		31	21	18	12	20:51:10	20:52:55	180	3,200	135	100.0	icalibration line		20
	14		30	1	17.4	0	20:57:46	21:02:40	180	3,200	135	100.0			20
	13		1	29	0	16.8	21:04:59	21:10:26	360	3,200	125	100.0			20
	12		28	1	16.2	0	21:12:32	21:17:10	180	3,200	136	100.0			19
							21:17:00	21:20:00					Post S turn		19
							21:43:00	21:48:00					GROUND-STATIC @ KHUM		19

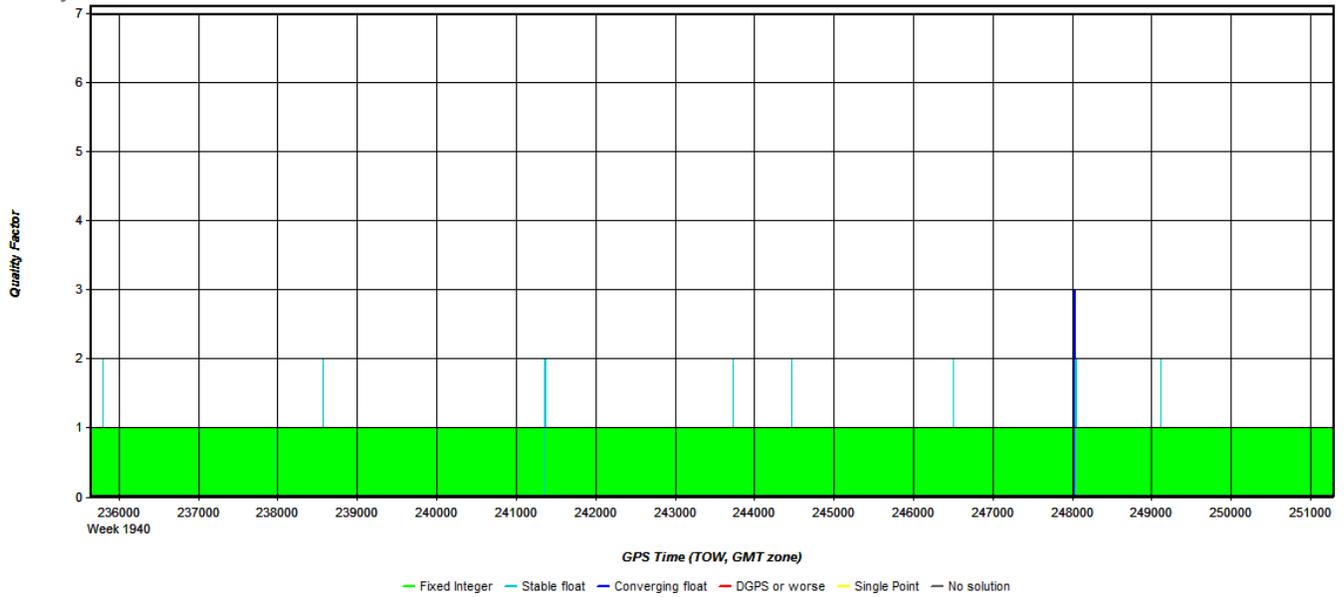
Trajectory and GPS Plots:



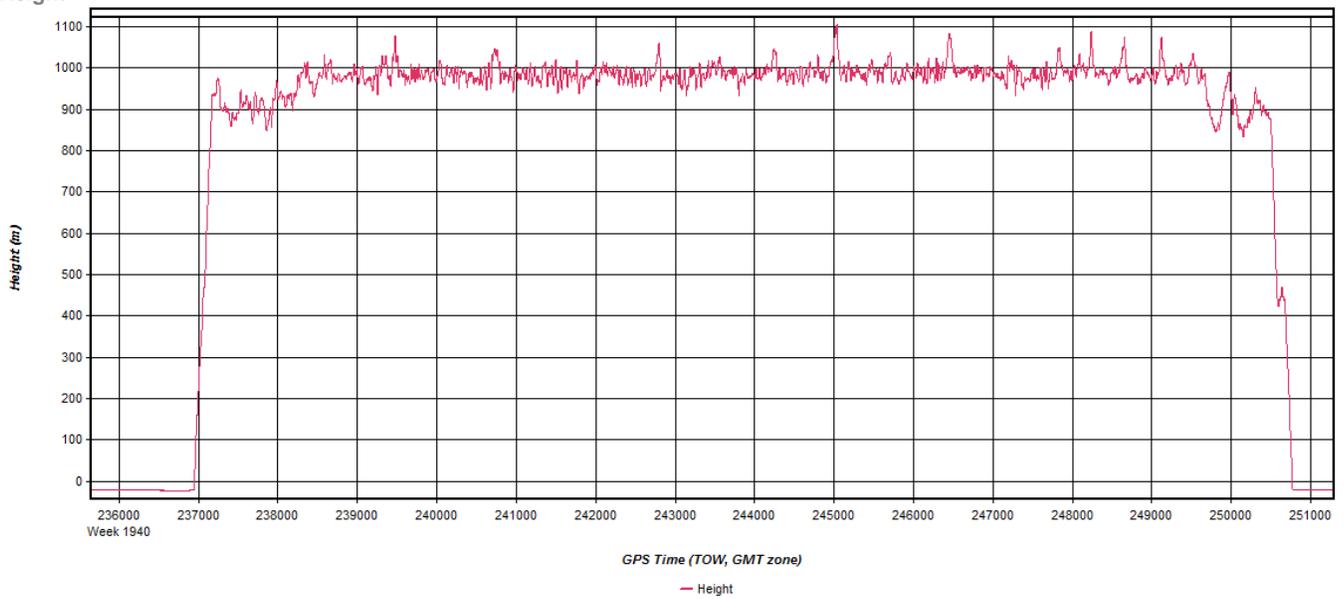
Estimated Accuracy



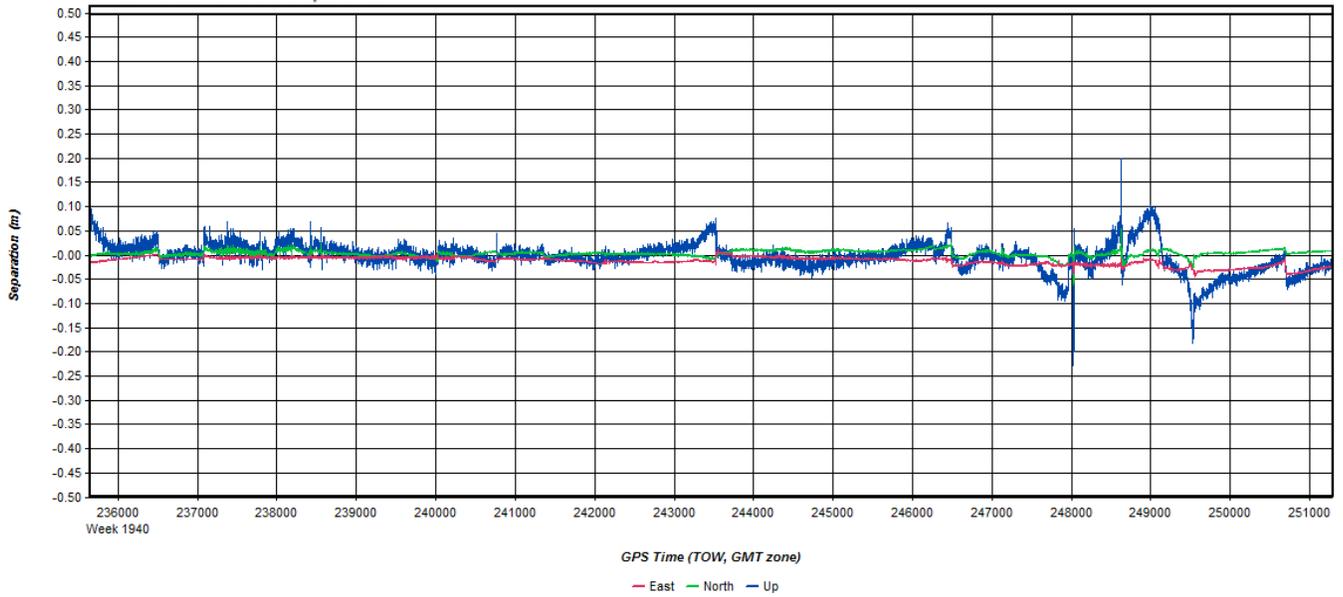
Quality Factor



Height



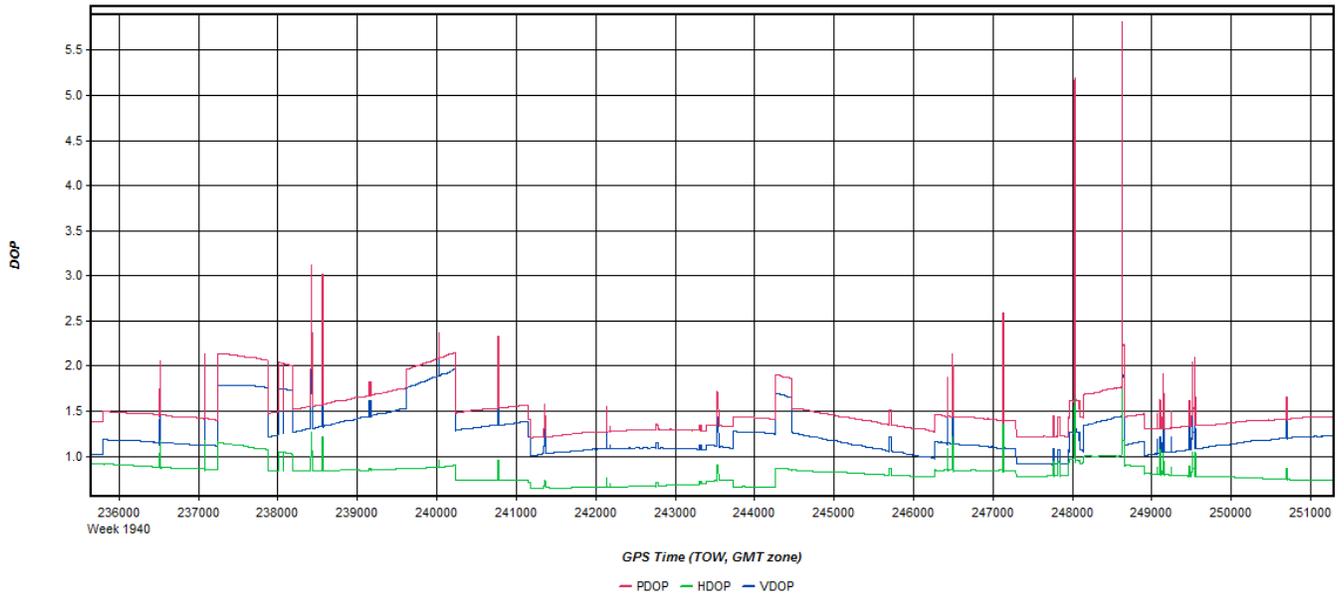
Combined Forward/Reverse Separation



Combined Forward/Reverse Weighting



PDOP

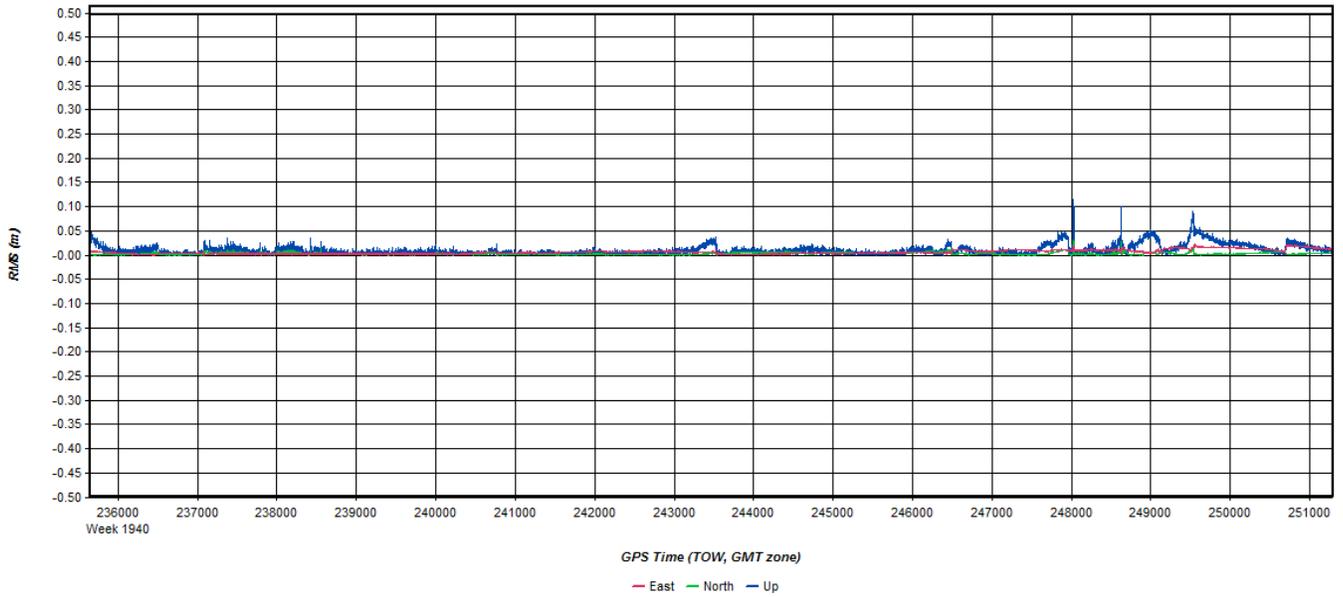


Distance from Base

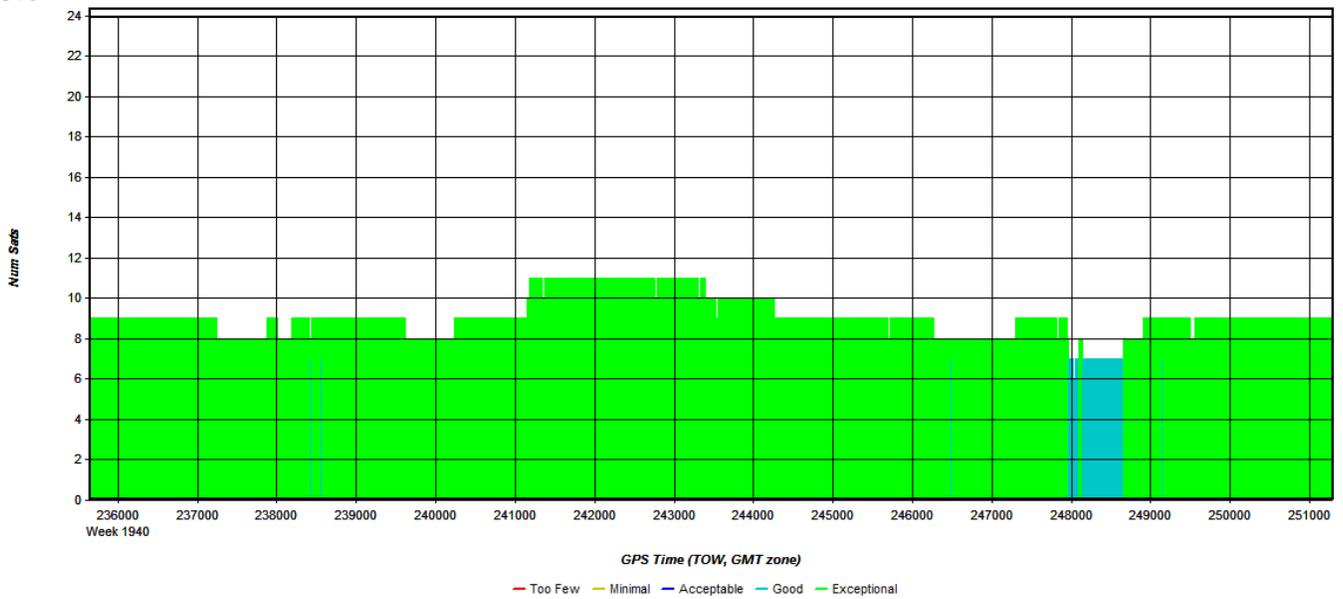




Combined RMS



SVs



USGS  
COLLECTION REPORT

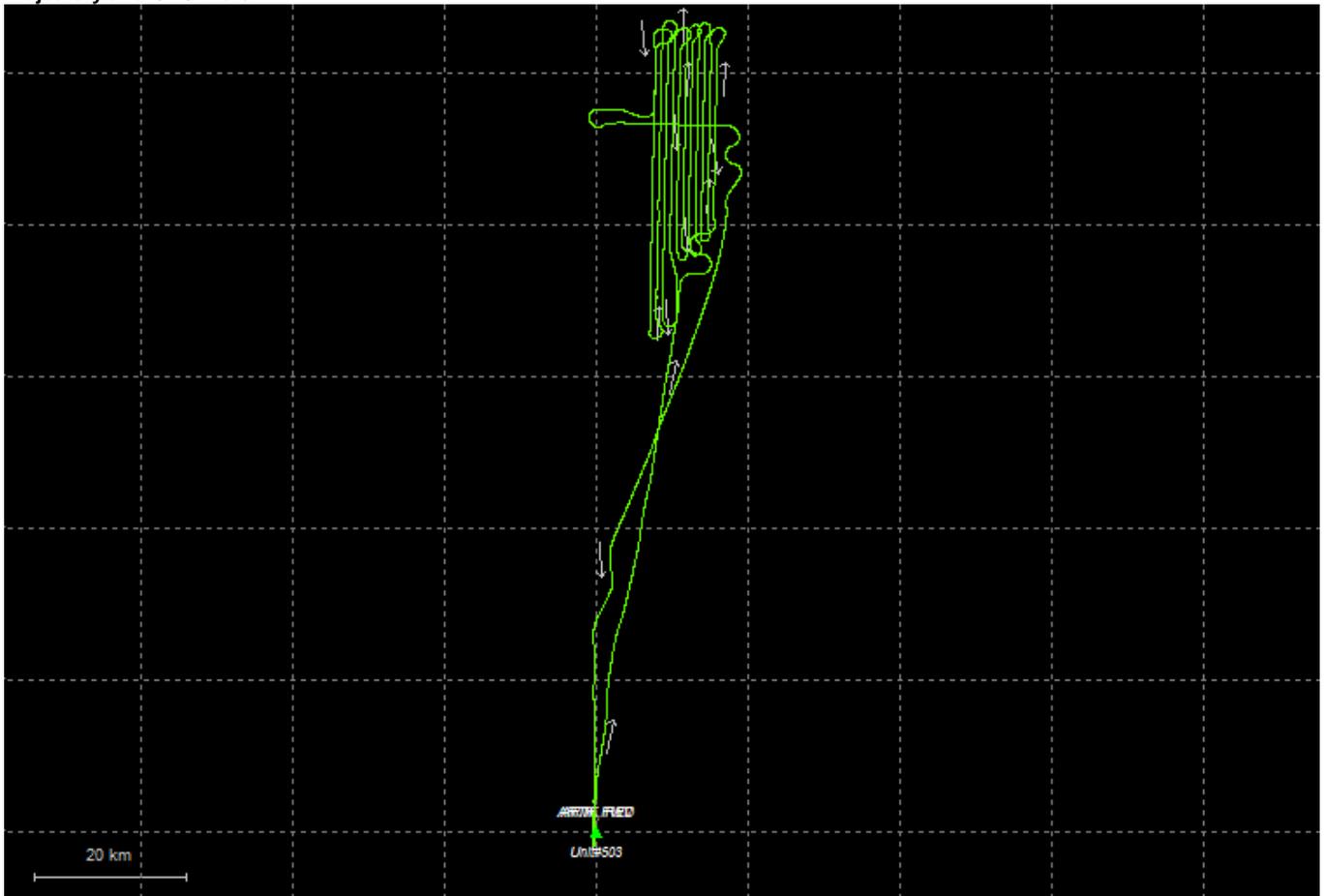


Acquisition and Processing details ----- Collection 25 (March 14, 2017)

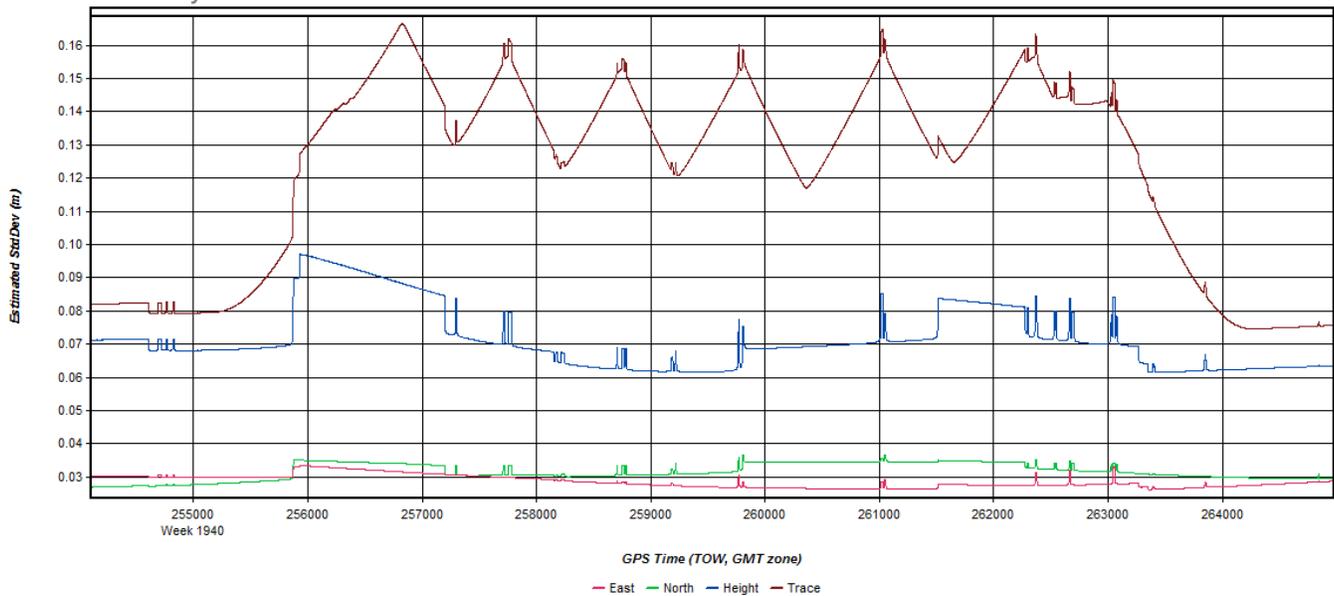
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl		Flight Log		AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity								
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs									
1		KHUM	17:31	1628.0	KHUM	20:37	1628.5	3:06	3.00	2.5	0900-Production								
2																			
3																			
FGI Job #		Project Name				System	Unit	IMU		Ground Temp °C		Min Range'		Data Logger Drives					
15004000		Upper Delta				680i	216	LN-200		17.0 12.0		2100							
Flight Date		GPS Day		Lift	Sun°		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Max Range'		Download Drive				
14-Mar-17		17-073		4	N/A		N/A		240k		13.0 9.0		4052		NS1TB-106				
Mission ID (yyymmdd_Ser_Job_Lift)		Aircraft		Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting		Humidity @ Alt		Shipping Track		
170314_216_15004000_04		N88N		KG TU	CCNS 4	-6	2400	145		100	2	0.601	30.14 30.12		60				
Pilot #1		Pilot #2		Operator #1		Operator #2													
Kevin Ellington				Chris Fought															
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename		Operator		Data								
016	KHUM	GR3-5	GR3-5	1.8	14-Mar-17 18:00	15-Mar-17 01:48	Unit#50314r.tps		Chris Fought		With AB								
Base 3 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename		Operator		Data								
	Flight #	Wpt	Distance		UTC		Fit	Altitude	Speed	Scan	Comments and Conditions					SVs	PDOF		
Area	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate							
							22:37:00	22:42:00					GROUND-STATIC @ KHUM					21	
							23:09:00	23:12:00					Pre S turn					20	
UpDelta3	11	1	30	0	17.4		23:14:05	23:19:04	360	3,200	130	100.0						20	
	10		31	1	18	0	23:21:19	23:26:20	180	3,200	135	100.0						18	
	9		1	32	0	18.6	23:28:57	23:34:18	360	3,200	130	100.0						18	
	8		33	1	19.2	0	23:37:22	23:41:53	180	3,200	133	100.0						18	
	7		1	35	0	20.4	23:44:44	23:50:50	360	3,200	125	100.0						18	
	6		36	1	21	0	23:53:20	23:58:51	180	3,200	138	100.0						18	
	5		1	37	0	21.6	00:01:28	00:08:09	360	3,200	122	100.0						18	
	4		38	1	22.2	0	00:10:30	00:16:06	180	3,200	135	100.0						18	
	3		1	52	0	30.7	00:20:11	00:28:51	360	3,200	125	100.0						18	
	2		53	1	31.3	0	00:31:33	00:39:20	180	3,200	140	100.0						18	
	1		1	53	0	31.3	00:41:48	00:50:37	360	3,200	125	100.0						17	
	1		53	43	31.3	25.2	00:53:19	00:54:45	180	3,200	140	100.0	calibration line					17	
UpDeltaX	3		30	53	17.4	31.3	00:58:50	01:02:27	90	3,200	123	100.0	X line					17	
							01:03:00	01:06:00	180	3,200	135	100.0	Post S turn					17	
							02:30:00	02:35:00	180	3,200	135	100.0	GROUND-STATIC @ KHUM					19	

Trajectory and GPS Plots:

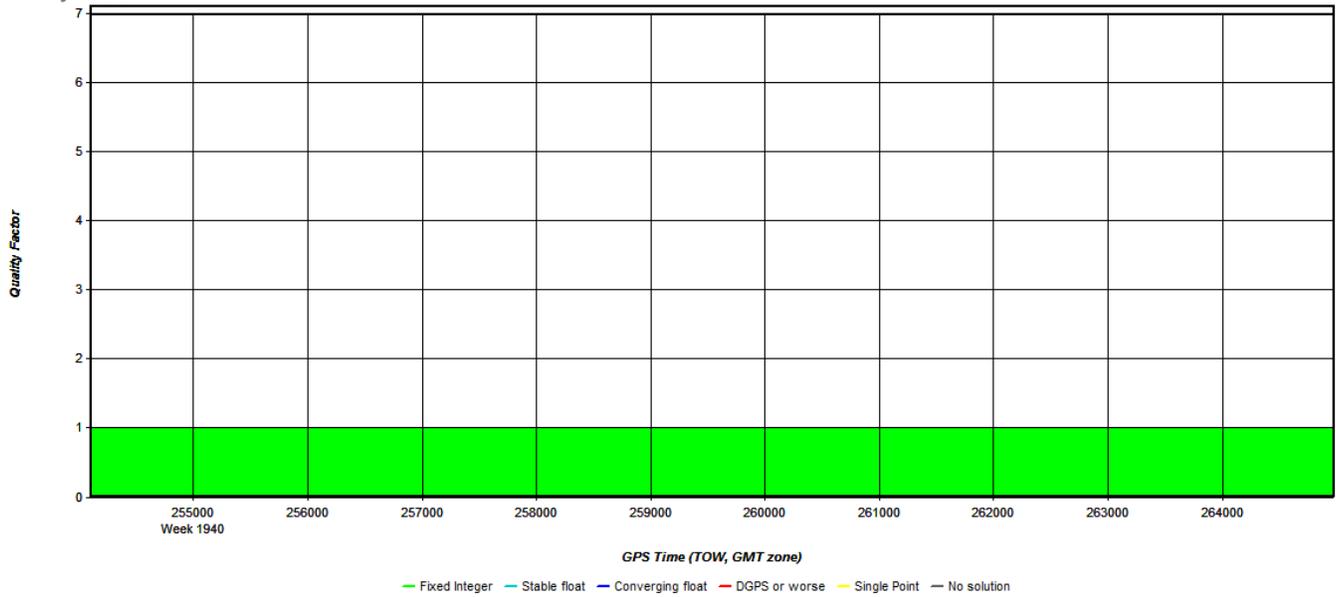


Estimated Accuracy

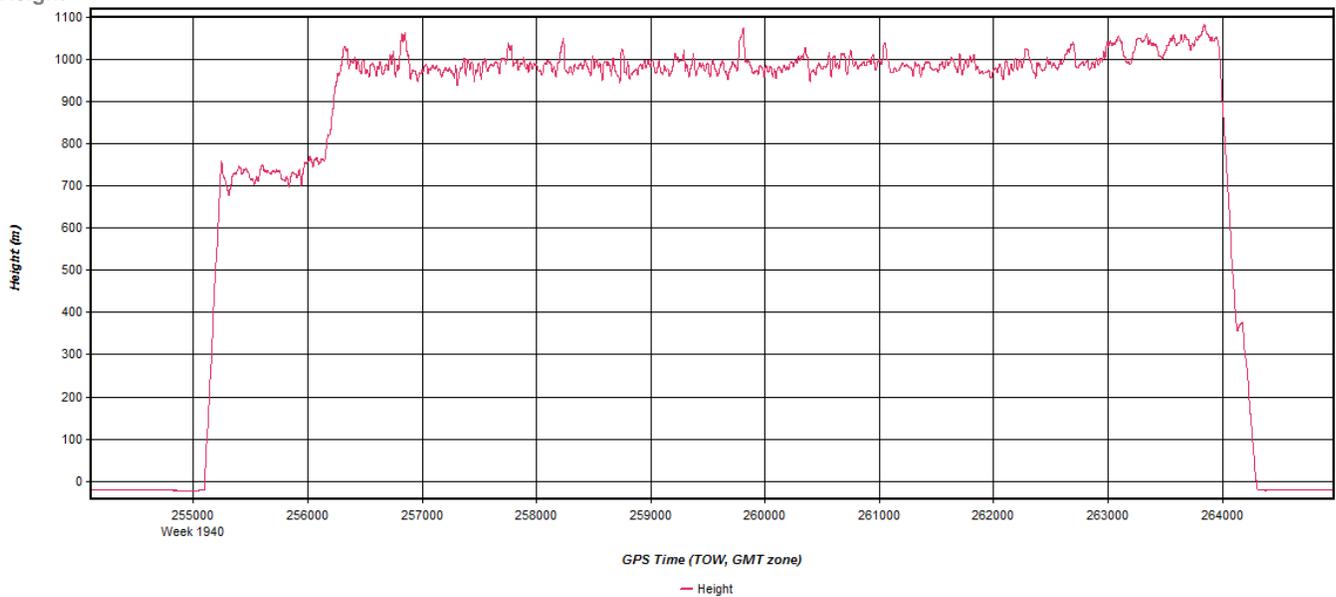




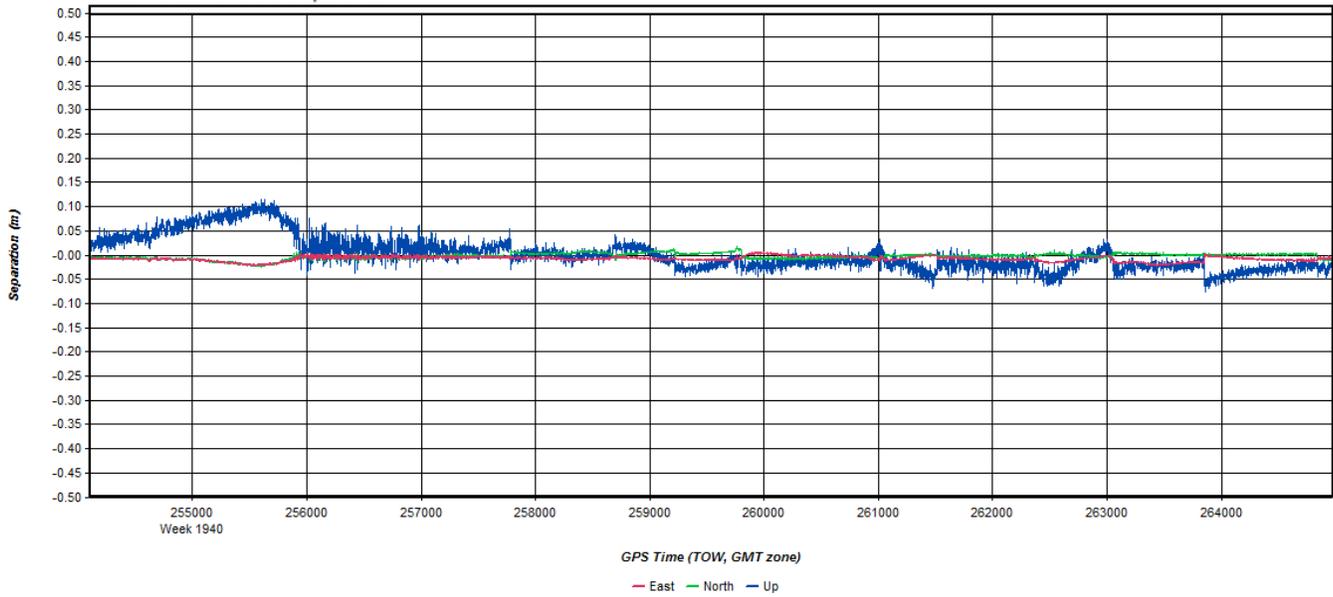
Quality Factor



Height



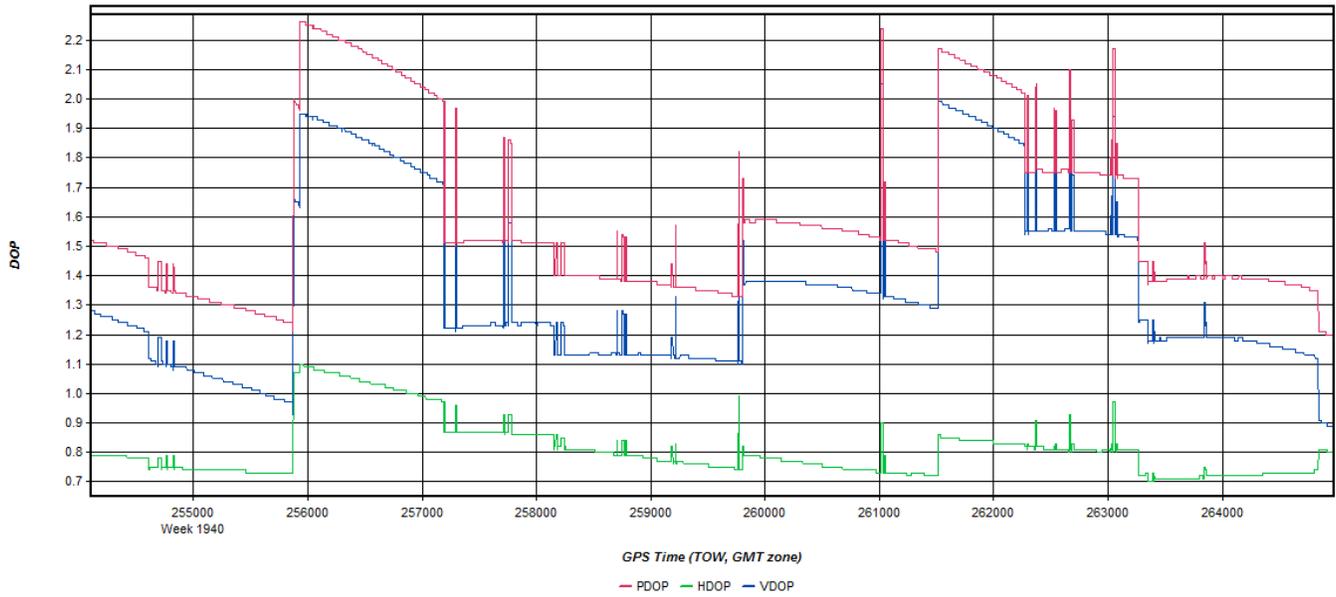
Combined Forward/Reverse Separation



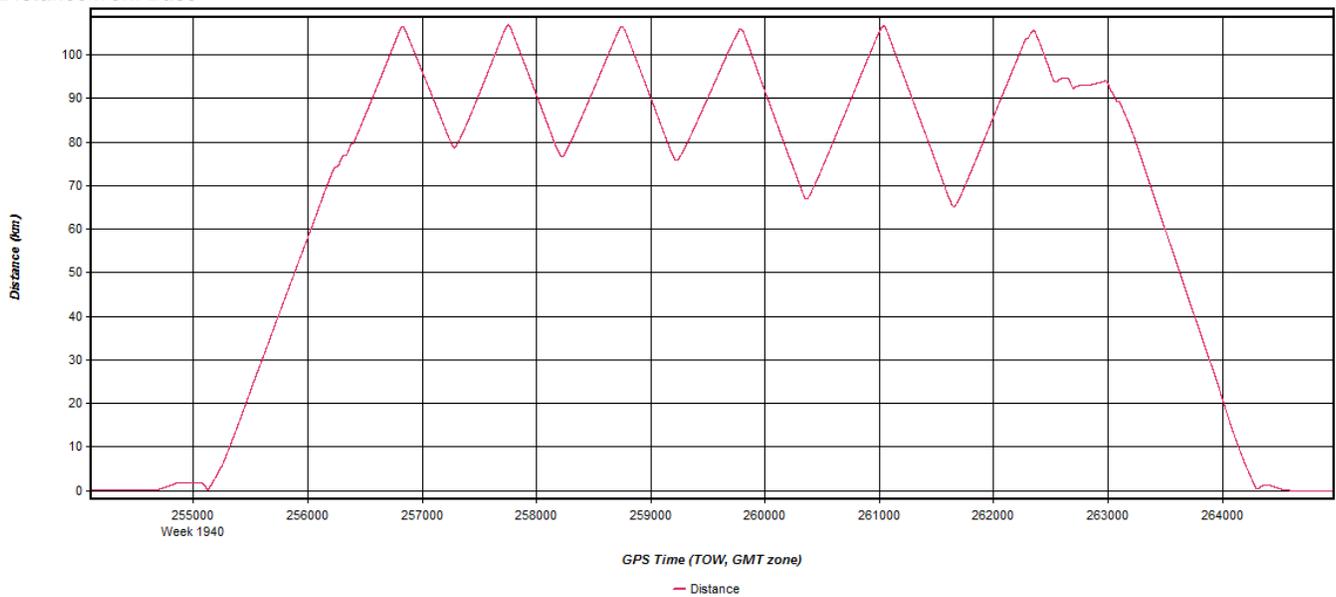
Combined Forward/Reverse Weighting



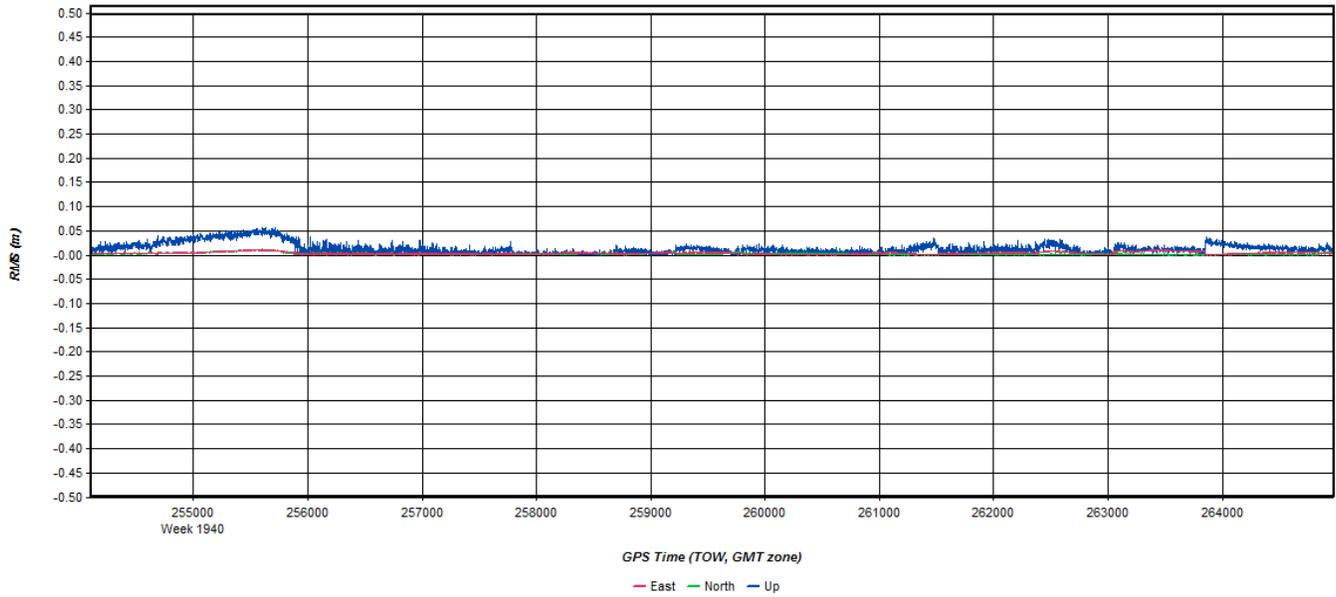
PDOP



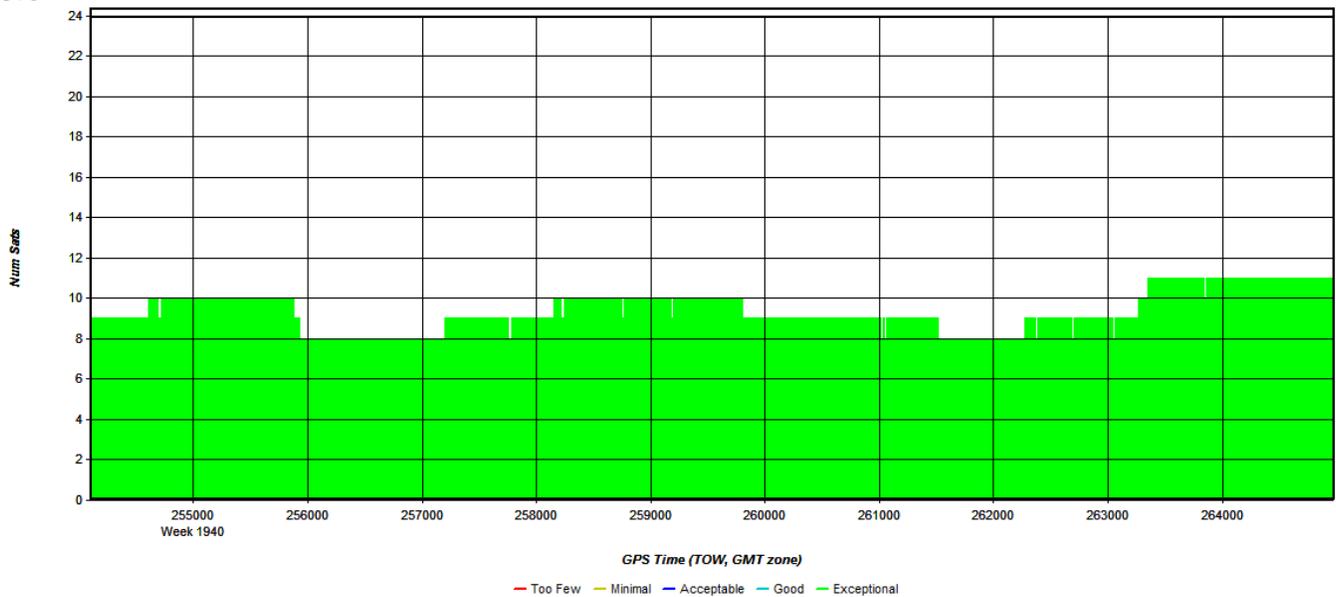
Distance from Base



Combined RMS



SVs





Acquisition and Processing details ----- Collection 26 (March 14, 2017)

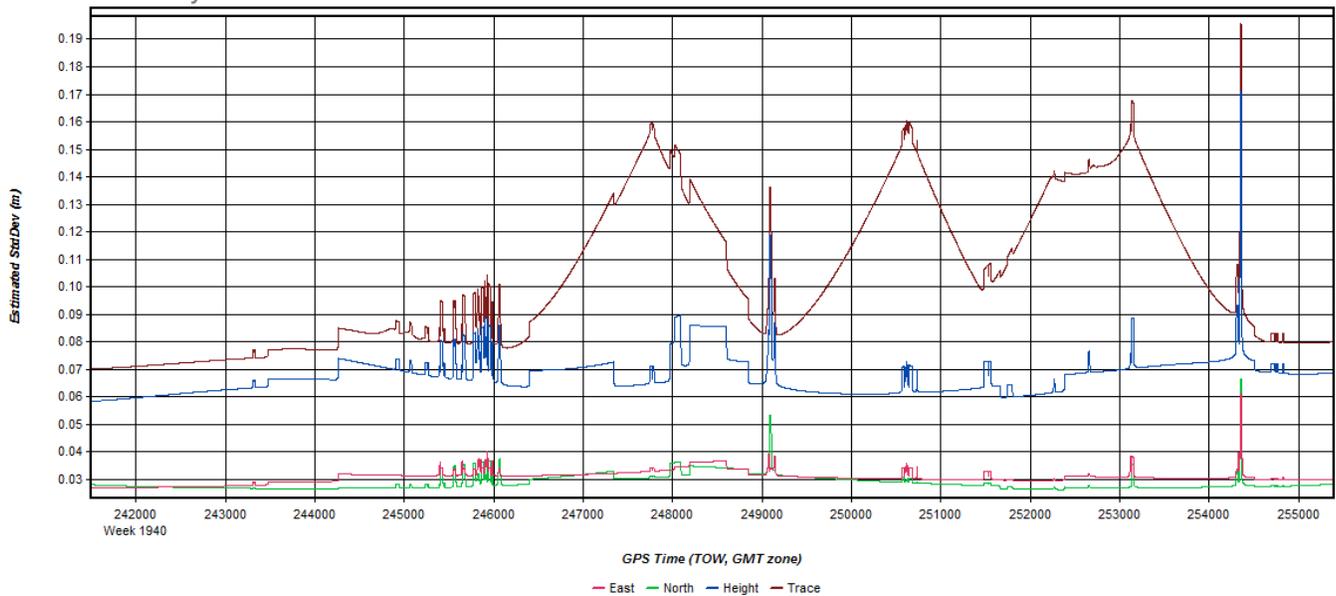
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	18.55	296.4	KHUM	23.03	299.3	4:08	4.25	2.9	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU			Ground Temp °C	Mn Range'	Data Logger Drives		
22.15004000		Upper Delta Plain LA Q780				780	961	FMU-300	-		15.0 19.0	4094	DR680#2		
Flight Date		GPS Day	Lift			Sun*	Solar Times (UTC)	Pulse Rate			Flying Temp °C	Max Range'	Download Drive		
14-Mar-17		17-073	15			-	-	360			9.0 14.0	5246	EP750#25		
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170314_961_15004000_15		N83AR	KHUM	Track	-6	4400	150	60	110		0.806	30.20	53% GND	-	
Pilot #1		Pilot #2		Operator #1		Operator #2									
Phil Schreffler		Ryen Farnworth		Chris Acuña		-									
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data						
016	KHUM	GR3#5	GR3#5	1.8	14-Mar-16 17:11	15-Mar-17 01:20	Unit#50314r	Chris Acuña	With AB						
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
													5 min GND static alignment at KHUM	-	-
													S-Turn in flight alignment	-	-
UpDelta1	67		1	105	0	83.8	13:26:00	13:48:00	001	4,379	124		Reflight	16	1.3
	65		104	1	83	0	13:52:00	14:12:00	182	4,405	140		Reflight	18	1.1
	63		1	102	0	81.4	14:14:00	14:37:00	001	4,404	126			18	1.1
	63		102	92	81.4	73.3	14:40:00	-	181	4,401	143		Calibration Line	17	1.2
UpDeltaX	7		1	10	0	7.3	15:06:00	15:11:00	92	4,395	137		Crossing Line	18	1.1
UpDelta1	62		101	1	80.6	0	15:21:00	15:39:00	182	4,384	144			17	1.3
							15:39:00	15:40:00					S-Turn post in flight alignment	15	1.3
							15:52:00	15:57:00					5 Min post GND alignment at KHUM	18	1.3

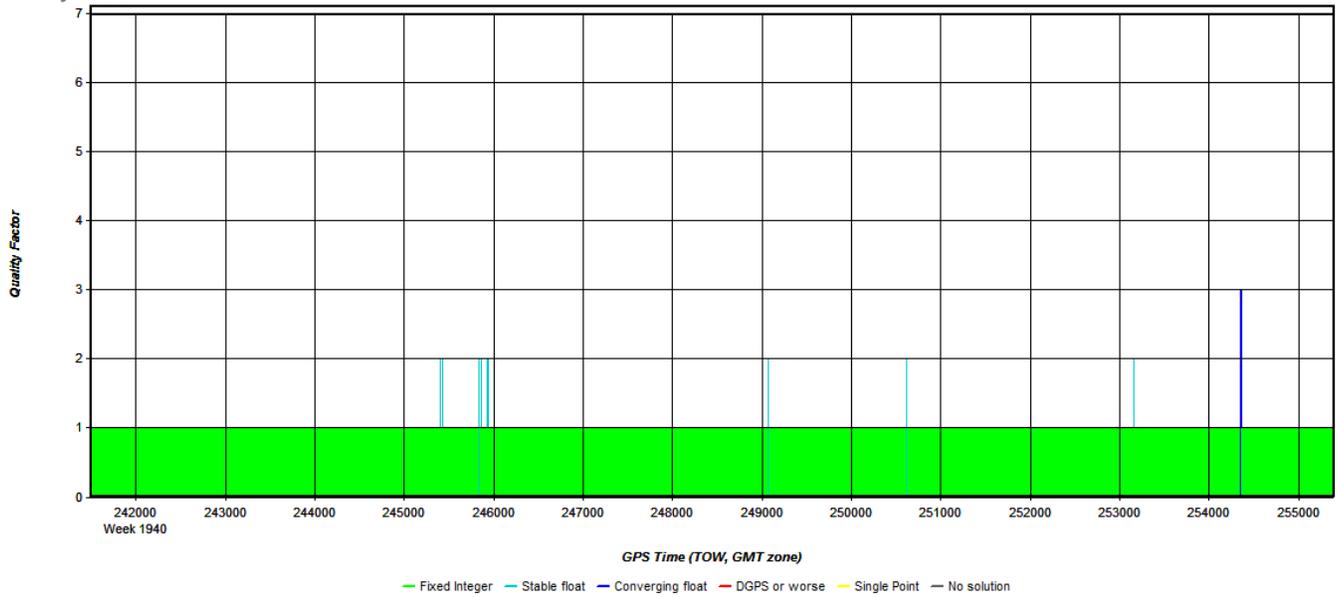
Trajectory and GPS Plots:



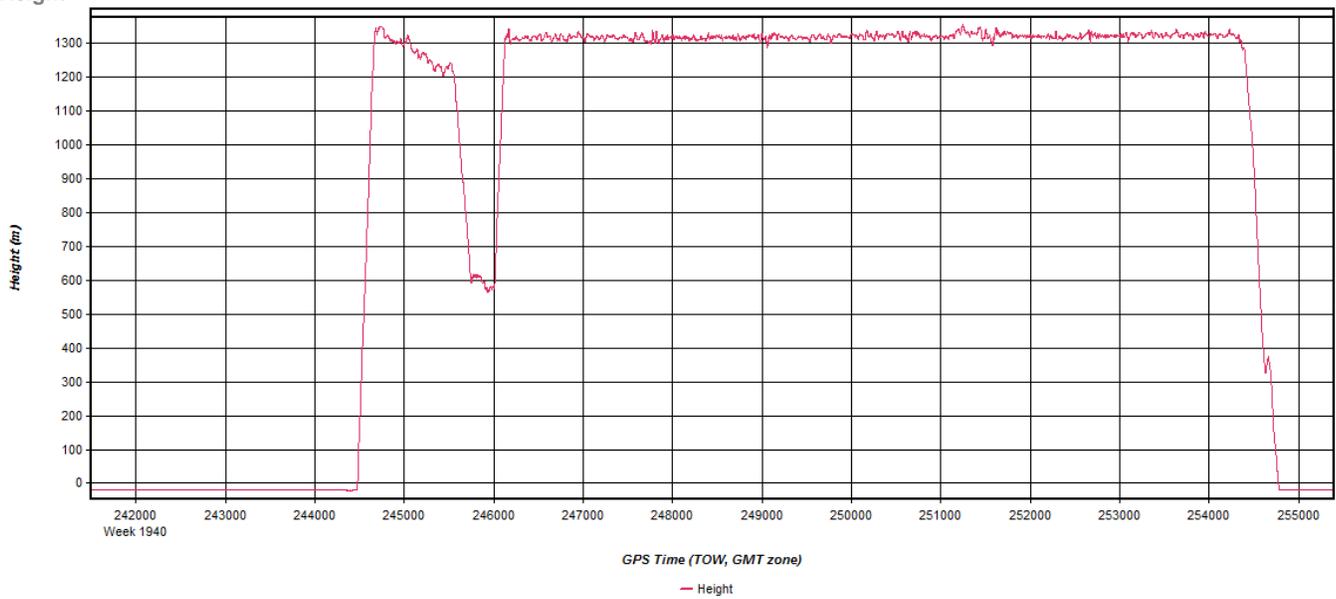
Estimated Accuracy



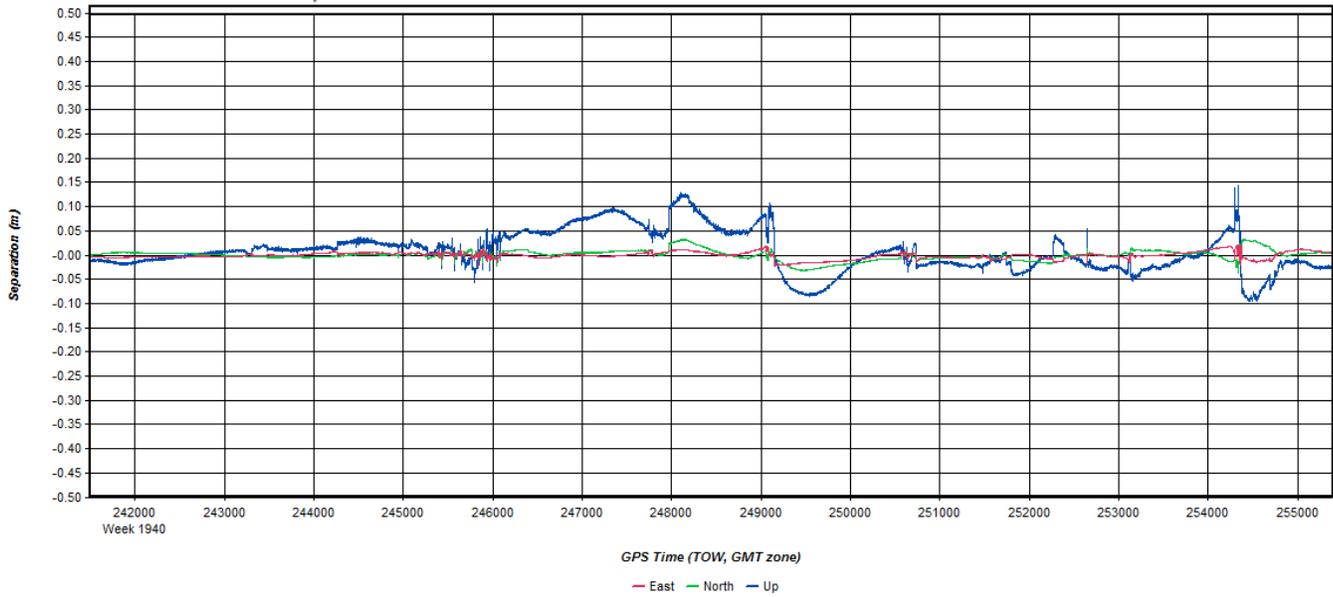
Quality Factor



Height



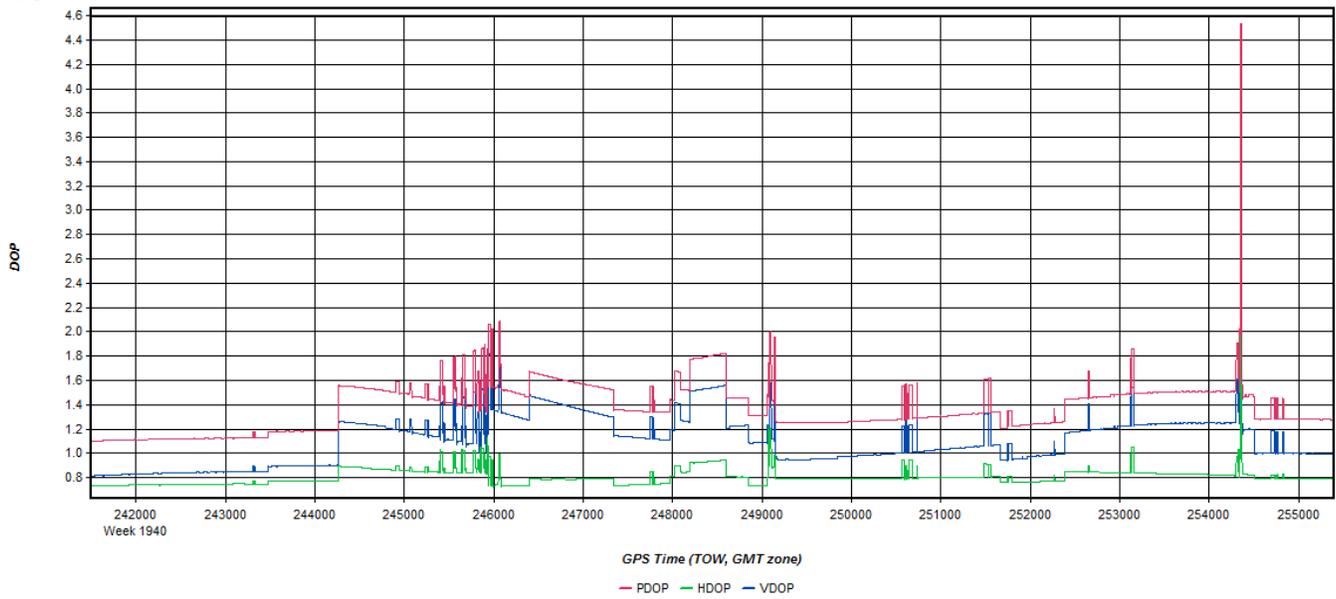
Combined Forward/Reverse Separation



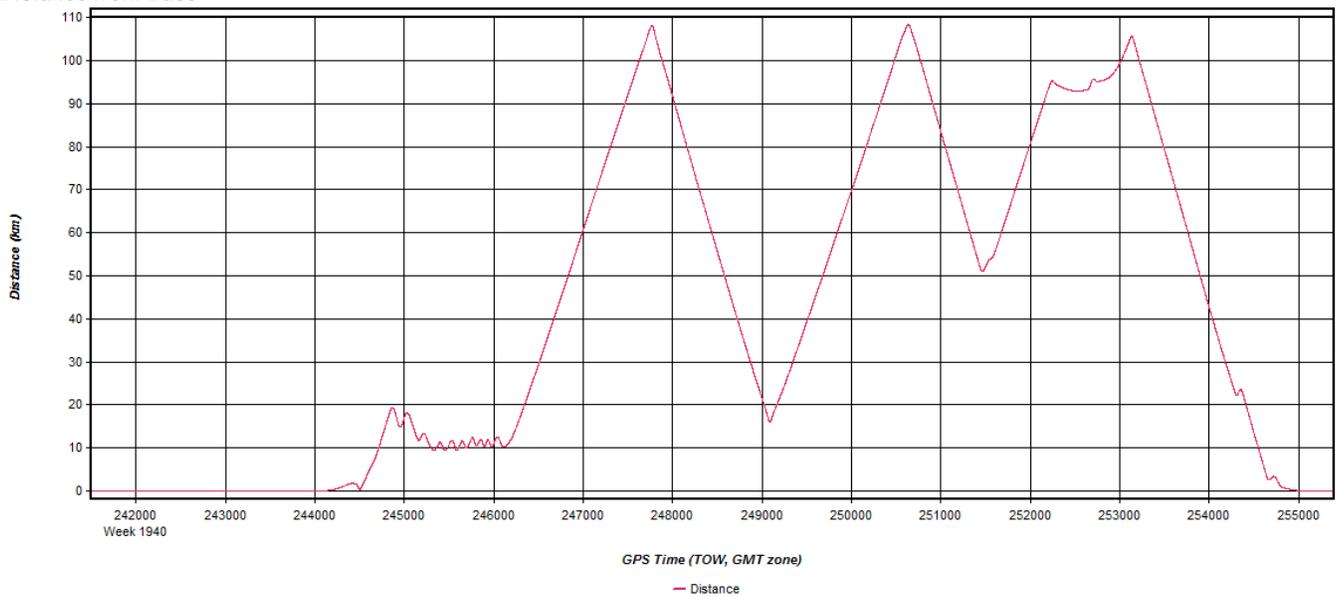
Combined Forward/Reverse Weighting



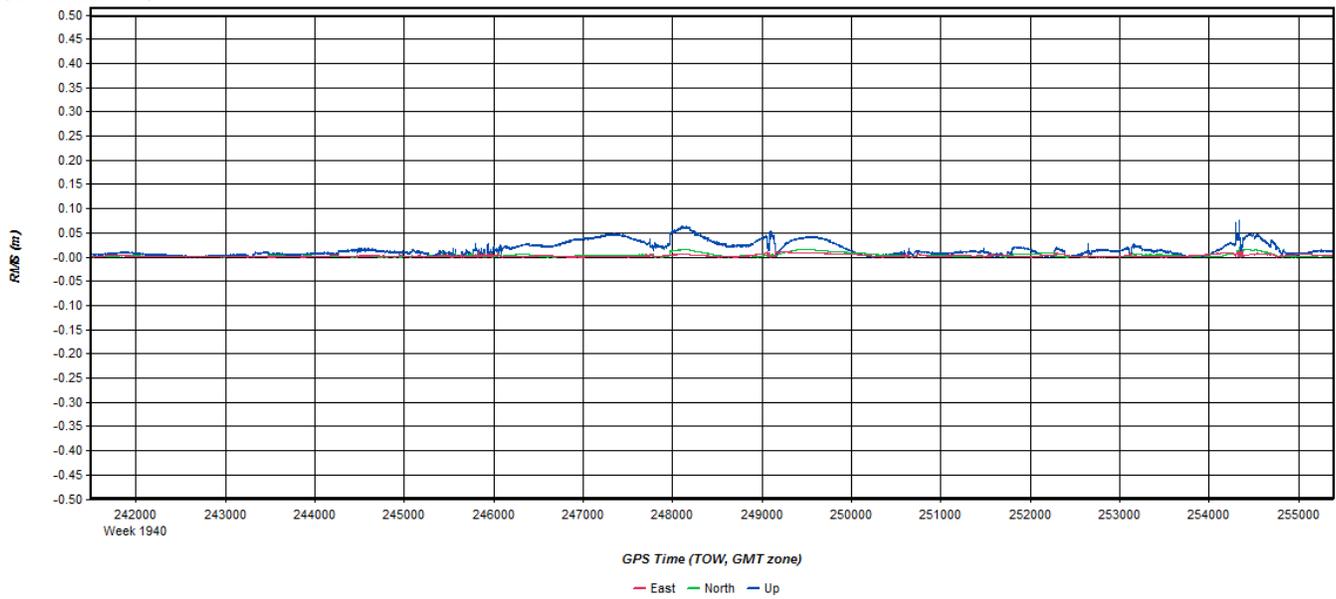
PDOP



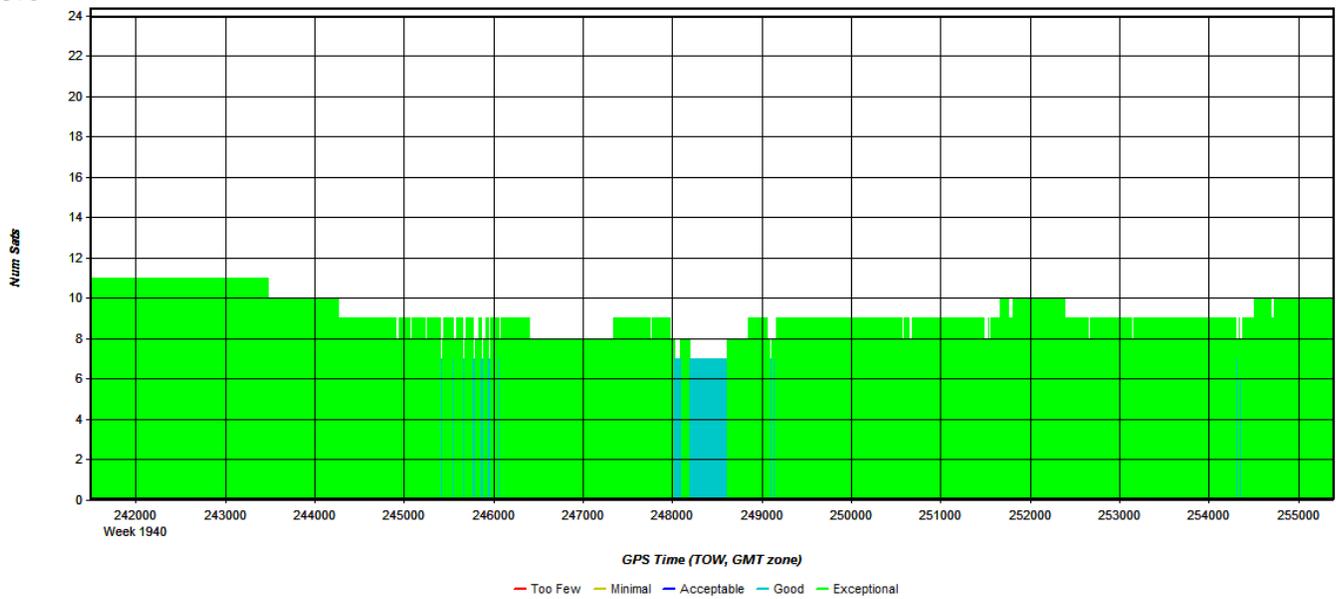
Distance from Base



Combined RMS



SVs



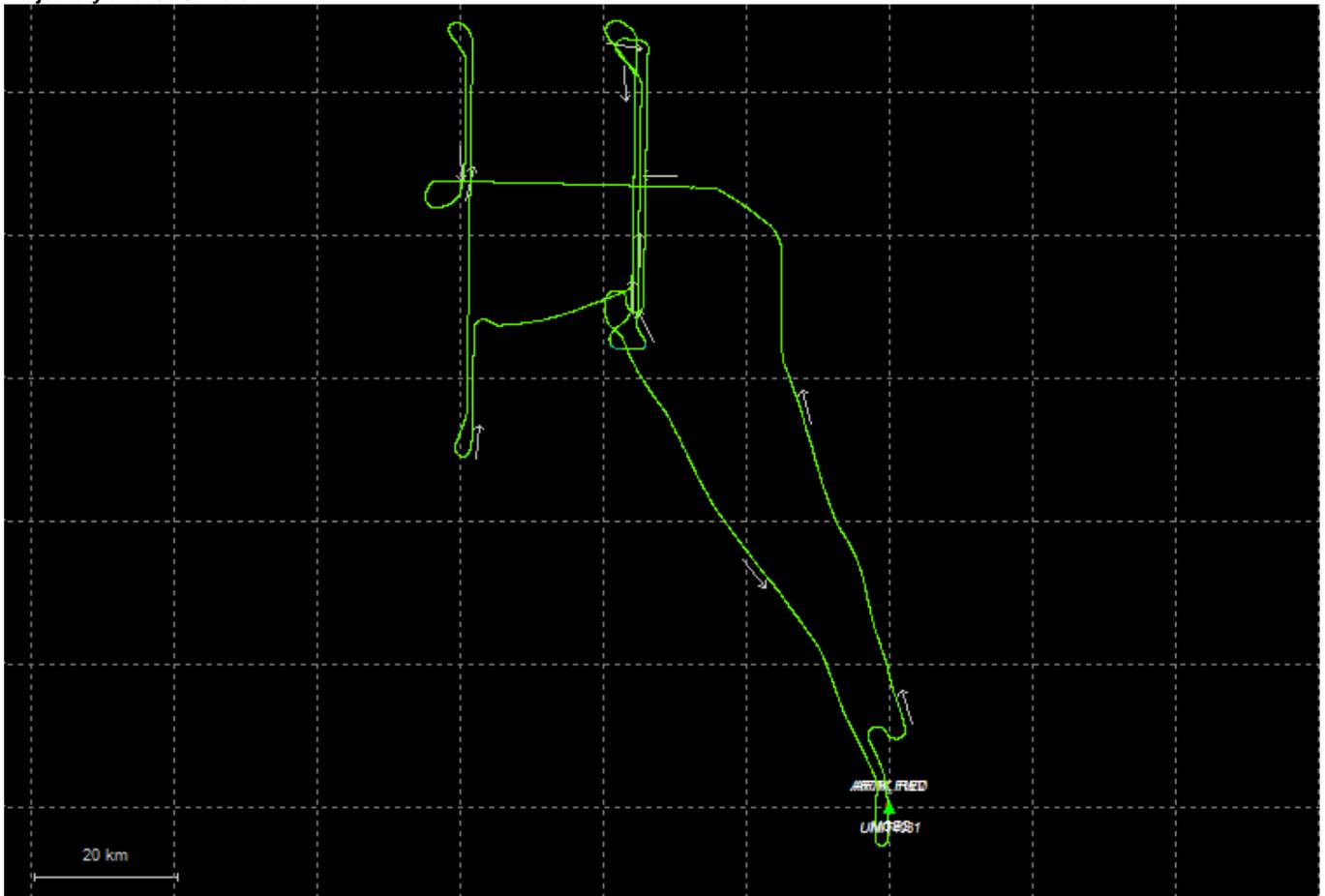


Acquisition and Processing details ----- Collection 27 (March 15, 2017)

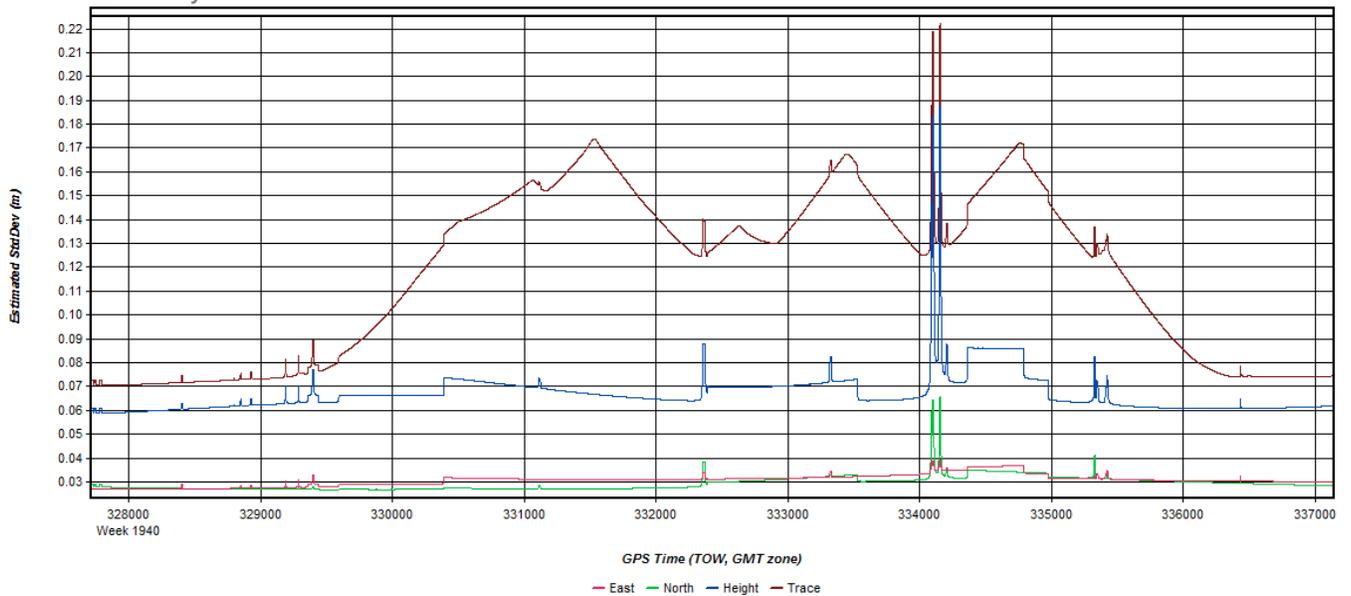
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	18.45	544.8	KHUM	21.39	547.7	2:54	3.00	2.9	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Data Logger Drives				
15004000		Upper Delta				680i	165	FMU-300	6.0	14.0	2100				
Flight Date		GPS Day	Lift	Sun*		Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range*	Download Drive			
15-Mar-17		17-074	8	N/A		N/A		240k	2.0	1.0	4052	NS1TB-110			
Mission ID (yyymmdd_Ser_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	mi/WPT	Altitude Setting	Humidity @ Alt	Shipping Track	
170315_165_15004000_08		N62912	KHUM		-6	3281	145	60	99	2	0.374	30.40	30.16		
Pilot #1		Pilot #2		Operator #1		Operator #2									
Skip Bugh				Eric Mueller											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename	Operator		Data			
016	KHUM	Unit#4	#4	1.8	031517 1330					Eric Mueller		With AB			
Area	Flight #		Wpt		Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							19:10:00	19:15:00					GROUND-STATIC @KHUM		19
							19:27:00	19:29:00			136		PRE ACQUISITION CALIBRATION		19 1.2
UpDeltaX	1		89	41	53	24.1	19:49:00	19:56:00	089	3,200	138		CROSS LINE		19 1.1
UpDelta1	31		70	76	41.5	45.1	20:01:00	20:02:00	001	3,200	131				18 1.2
	32		90	22	53.6	12.6	20:07:00	20:17:00	181	3,200	145				17 1.2
	33		26	38	15	22.3	20:20:00	20:23:00	001	3,200	138				17 1.2
	60		97	133	57.8	79.5	20:28:00	20:34:00	001	3,200	140		CALIBRATION LINE		16 1.4
	60		133	97	79.5	57.8	20:39:00	20:45:00	181	3,200	145				18 1.1
	61		89	131	53	78.2	20:50:00	20:56:00	001	3,200	144				19 1.0
	62		130	88	77.6	52.4	21:01:00	21:07:00	181	3,200	142				18 1.1
							21:08:00	21:10:00			128		POST ACQUISITION CALIBRATION		18 1.2
							21:32:00	21:37:00					GROUND-STATIC @KHUM		17 1.2

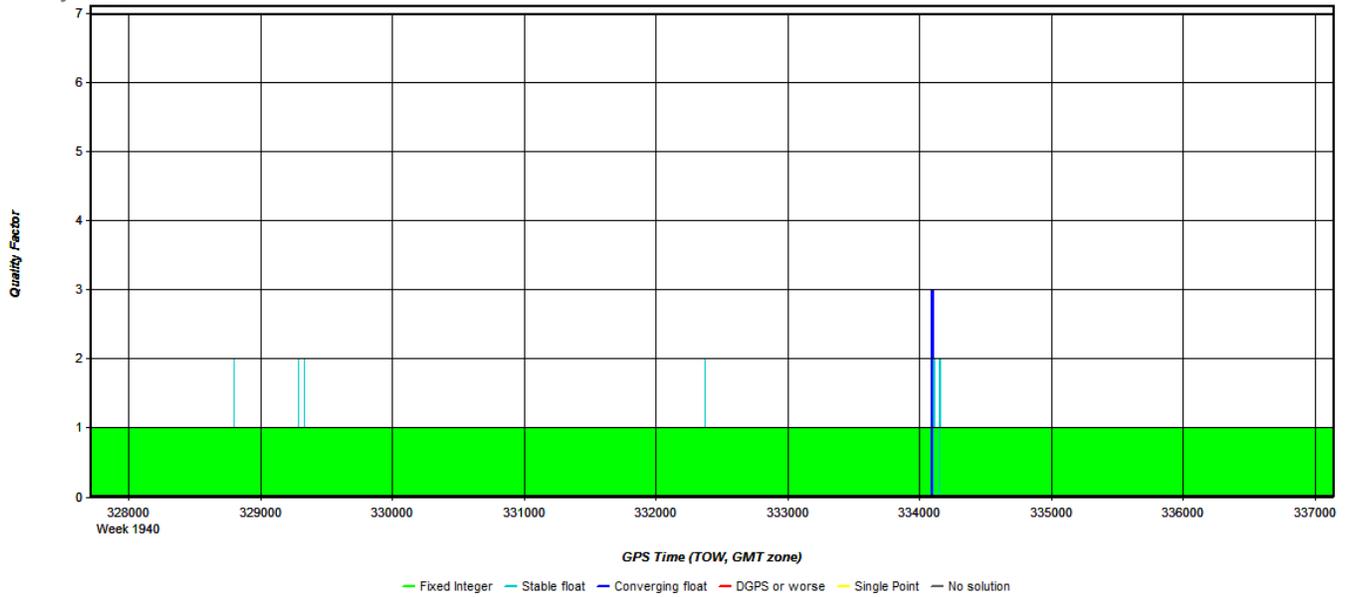
Trajectory and GPS Plots:



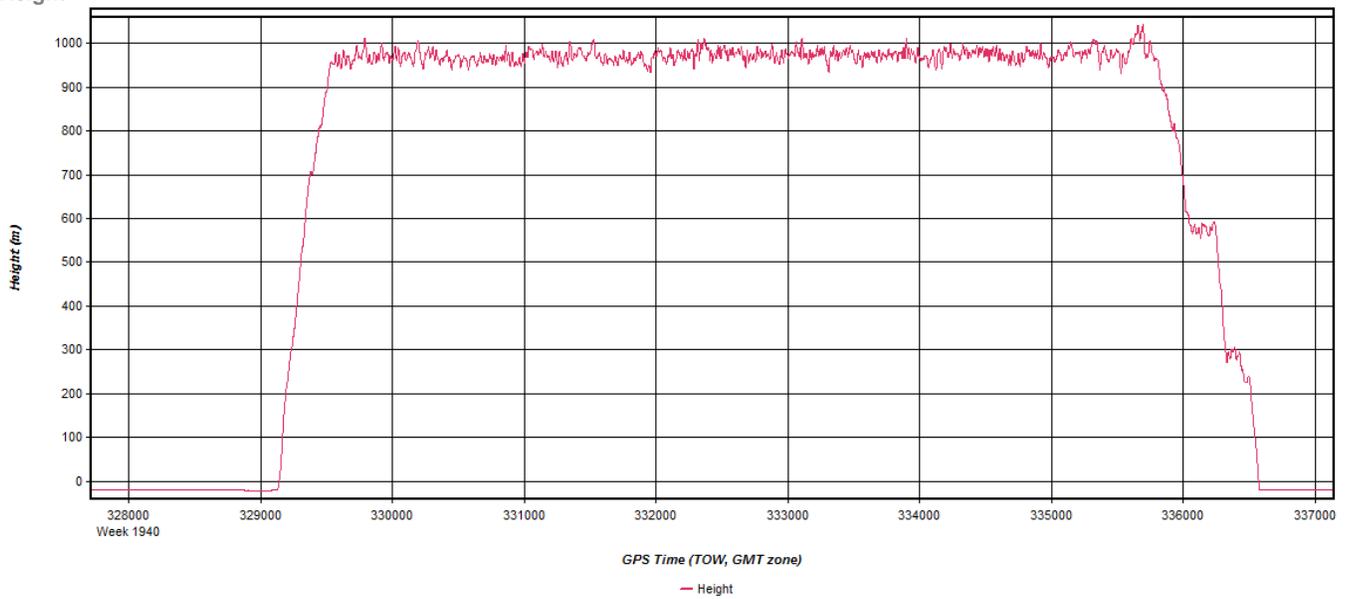
Estimated Accuracy



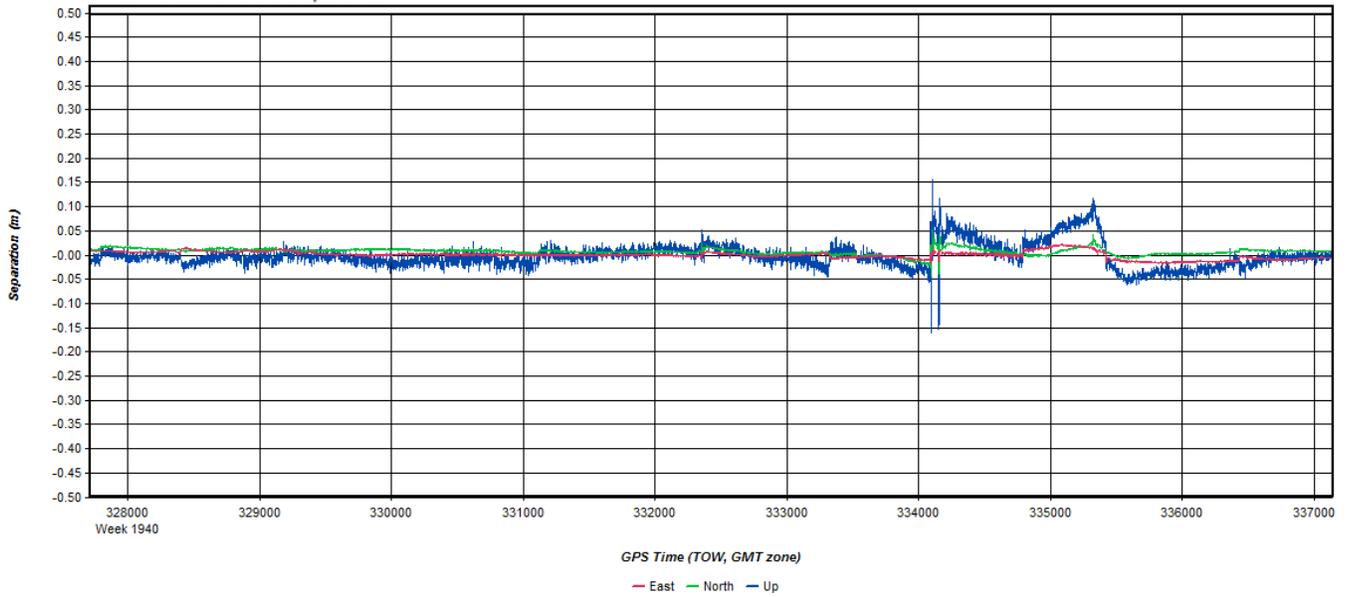
Quality Factor



Height



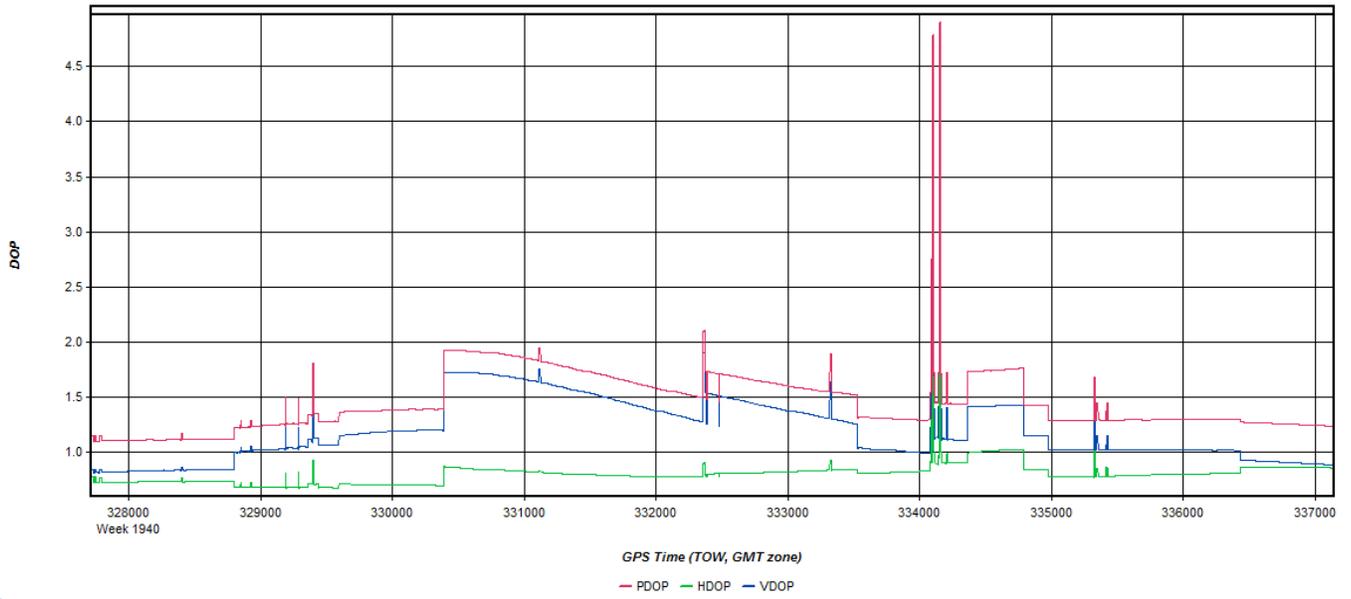
Combined Forward/Reverse Separation



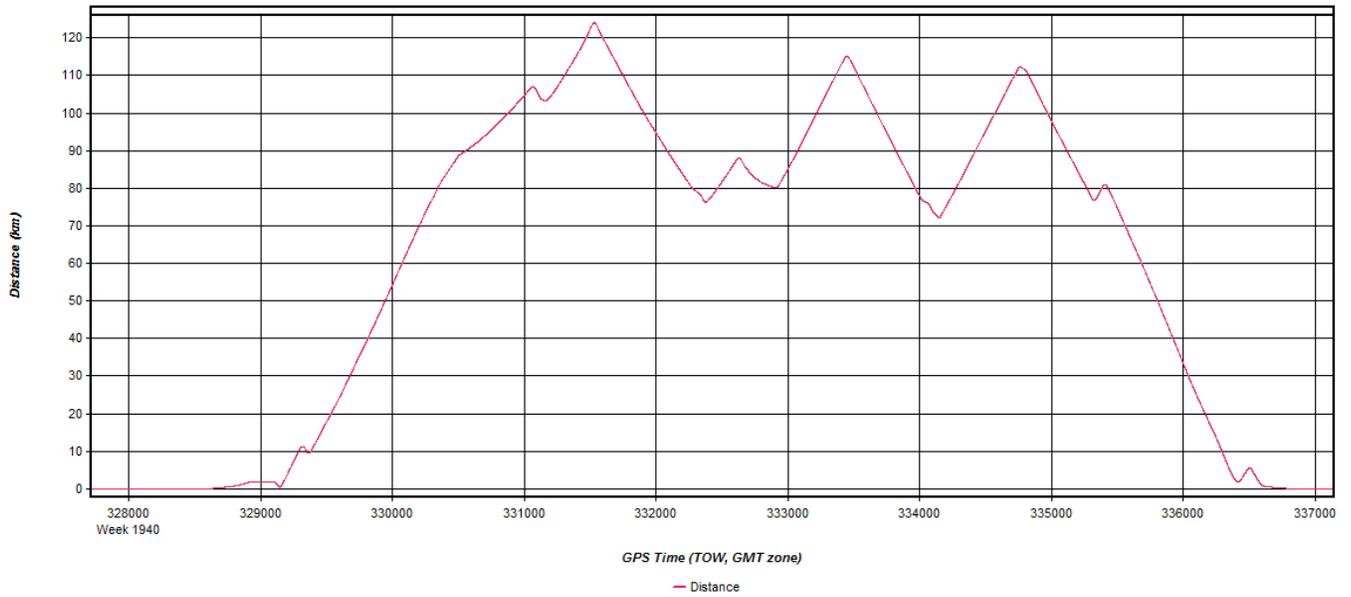
Combined Forward/Reverse Weighting



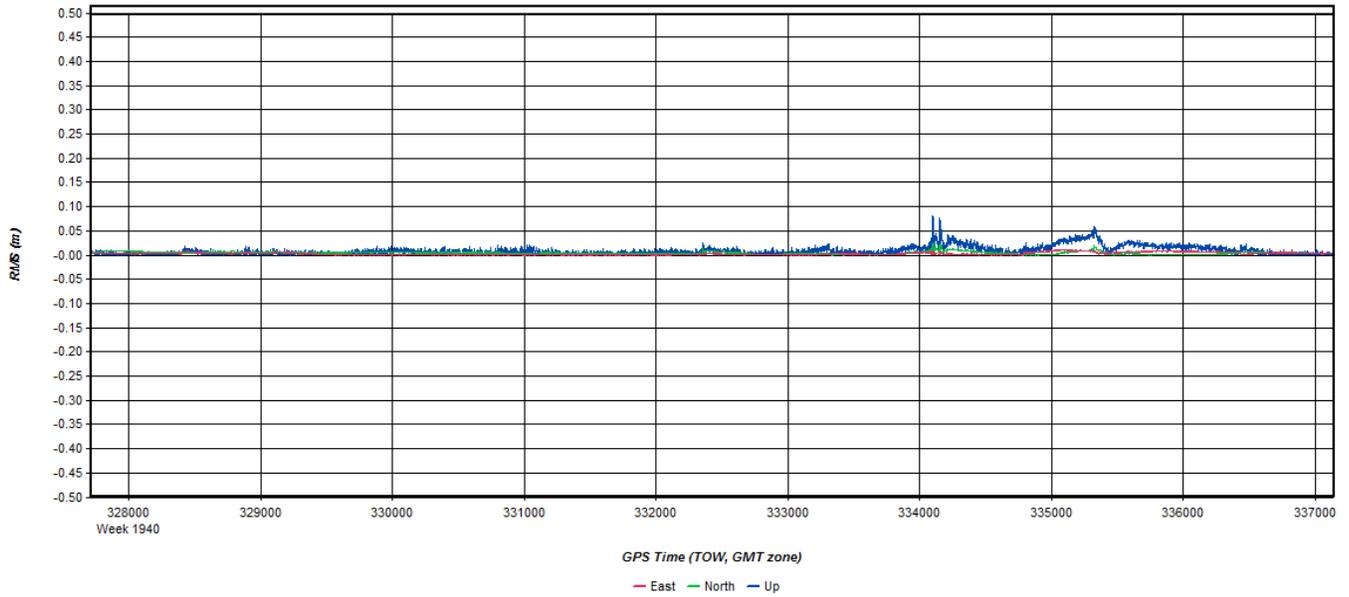
PDOP



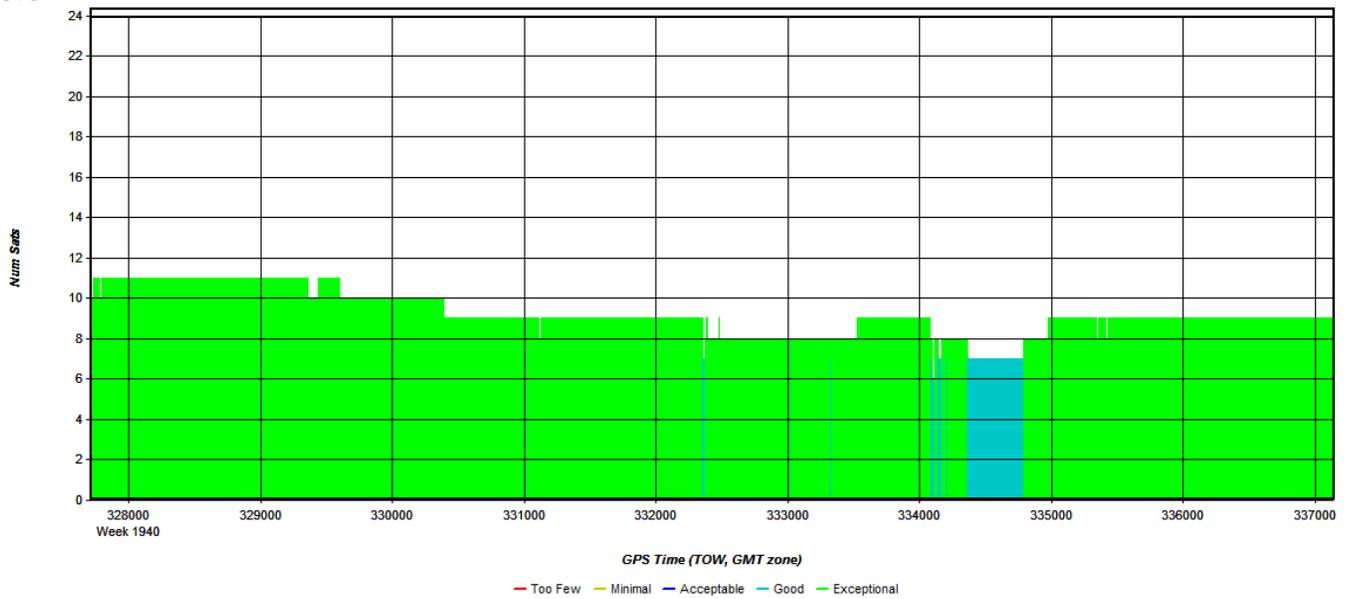
Distance from Base



Combined RMS



SVs



USGS  
COLLECTION REPORT



Acquisition and Processing details ----- Collection 28 (March 15, 2017)

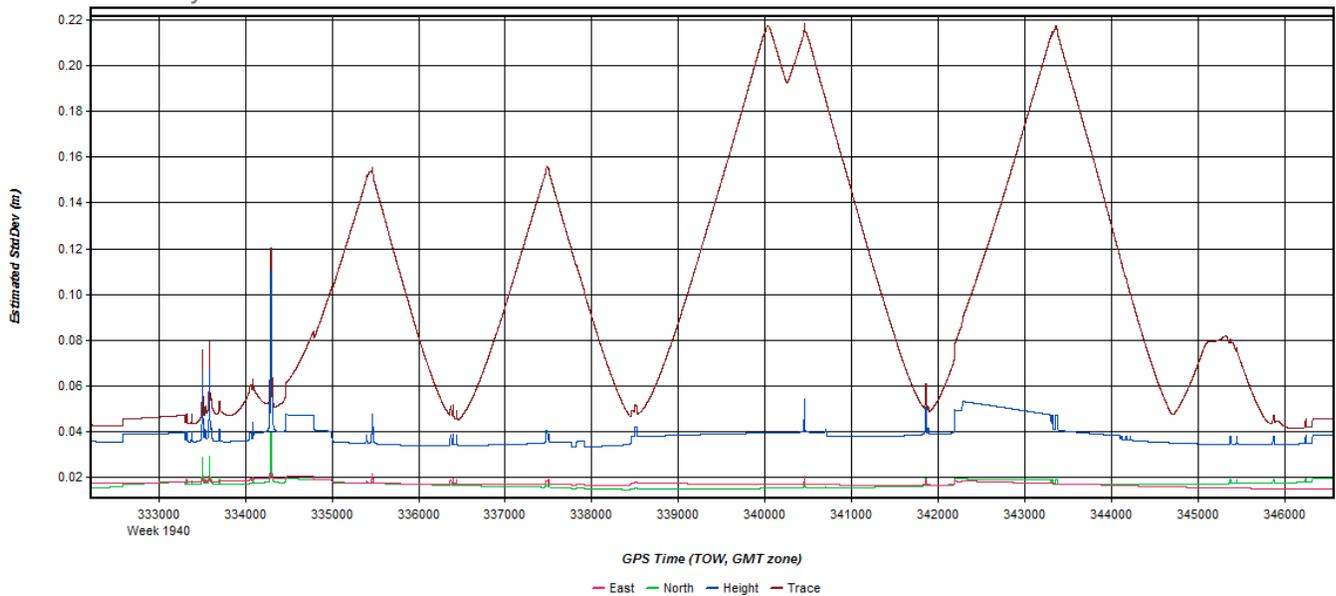
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl				
												Flight Log				
												AO80-50-00-02				
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity					
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1		KHUM	15:13	1628.5	KHUM	19:17	1632.1	4:04	4.00	3.6	0900-Production					
2																
3																
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Mn Range'	Data Logger Drives				
15004000		Upper Delta				680i	216	LN-200	13.0 14.0		2100					
Flight Date		GPS Day	Lift	Sun*			Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive			
15-Mar-17		17-074	5	N/A			N/A		240k	11.0 12.0		4052	NS1TB-106			
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altm Setting	Humidity @ Alt	Shipping Track		
170315_216_15004000_05		N88N	KGTV	CCNS 4	-6	3200	145		100	2	0.601	30.14 30.22	50			
Pilot #1		Pilot #2		Operator #1			Operator #2									
Kevin Ellington				Chris Fought												
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data							
016	KHUM	GR3-5	GR3-5	1.8	15-Mar-17 13:30	16-Mar-17 04:38	Unit40315n.tps	Chris Fought	With AB							
Base 3 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data							
Area	Flight #		Wpt		Distance		UTC		Fit	Altitude	Speed	Scan	Comments and Conditions		SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate				
							20:19:00	20:24:00					GROUND-STATIC @ KHUM		19	
							20:38:00	20:41:00					Pre S turn		20	
UpDelta2	20		1	12	0	6.6	20:44:10	20:46:16	360	3,200	125	100.0	re flight		20	
	19		1	101	0	60.1	20:53:00	21:08:47	360	3,200	128	100.0			20	
	18		96	1	57.1	0	21:11:40	21:25:31	180	3,200	143	100.0			20	
	17		1	97	0	57.7	21:28:20	21:43:05	360	3,200	136	100.0			19	
	16		97	1	57.7	0	21:45:33	22:00:11	180	3,200	144	100.0			20	
	15		1	149	0	88.9	22:03:03	22:25:31	360	3,200	135	100.0			21	
	15		149	139	88.9	82.9	22:28:12	22:30:00	180	3,200	140	100.0	calibration line		19	
	14		148	1	88.3	0	22:35:07	22:56:34	180	3,200	141	100.0			19	
	13		1	146	0	87.1	22:59:09	23:20:57	360	3,200	133	100.0			18	
	12		145	1	86.5	0	23:23:22	23:44:09	180	3,200	140	100.0			17	
UpDeltaX	4		1	16	0	9	23:52:21	23:54:46	90	3,200	125	100.0	X line		18	
							23:55:00	23:59:00					Post S turn		18	
							00:10:00	00:15:00					GROUND-STATIC @ KHUM		18	

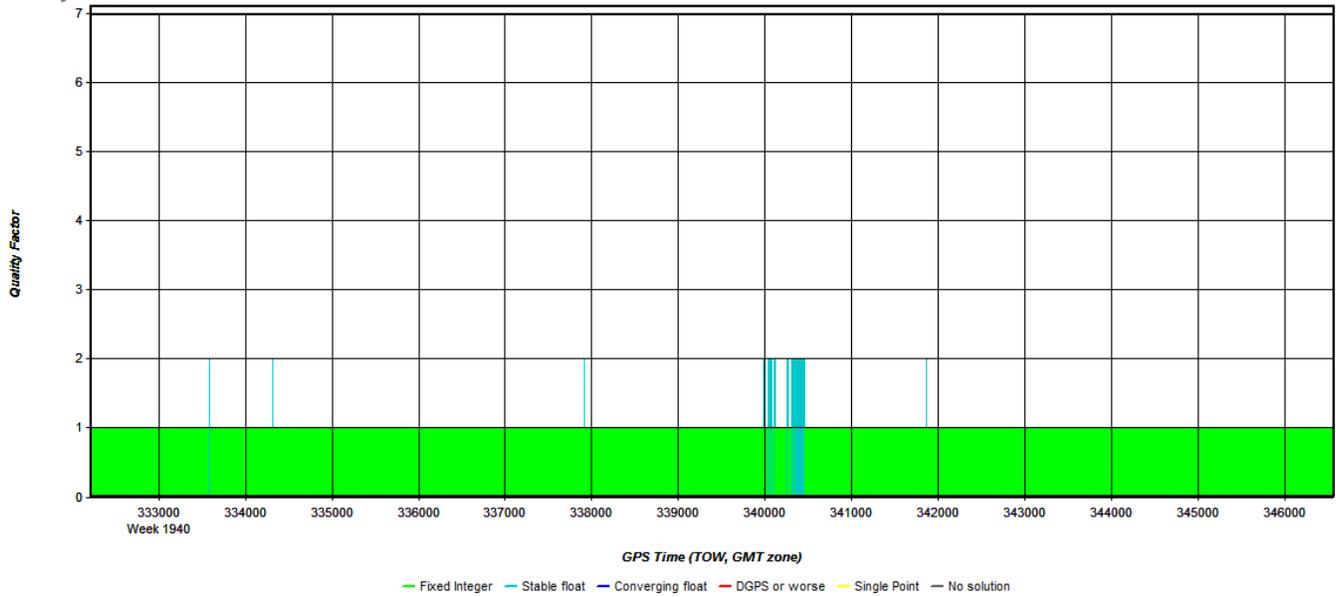
Trajectory and GPS Plots:



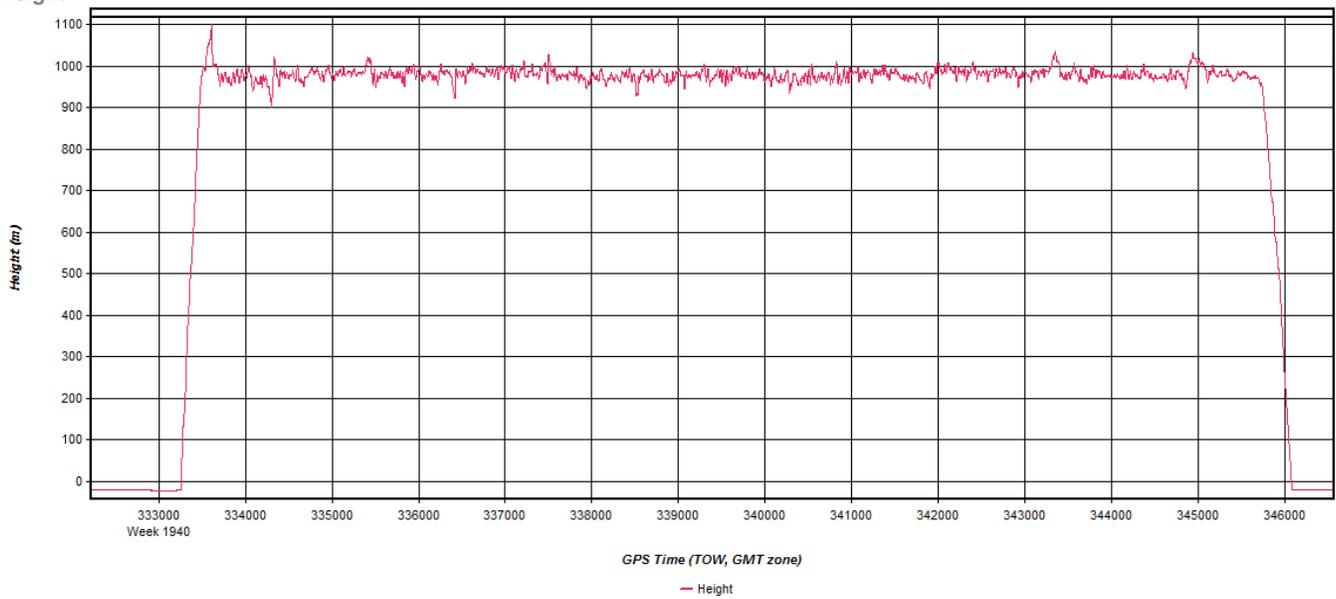
Estimated Accuracy



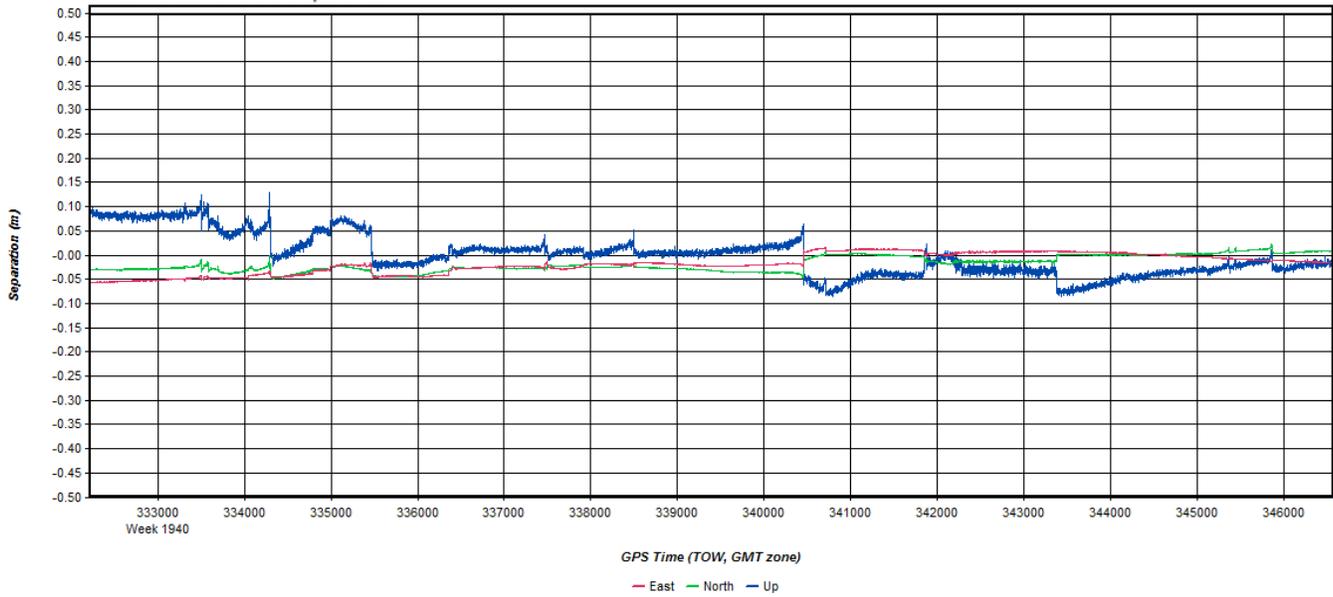
Quality Factor



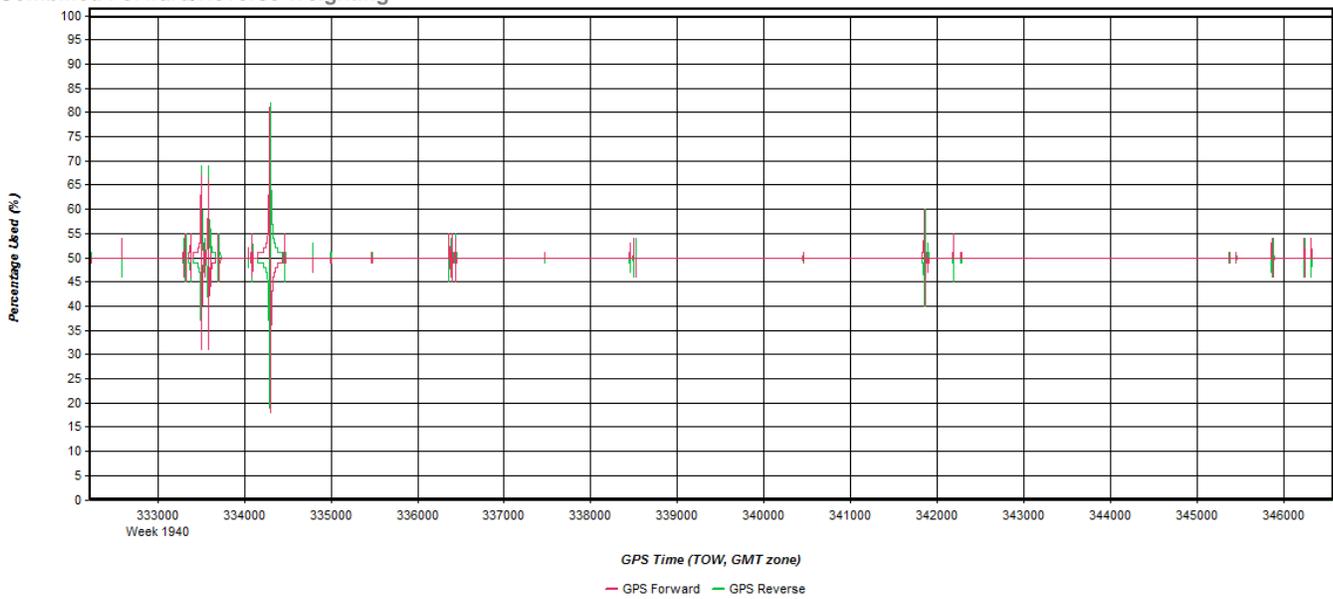
Height



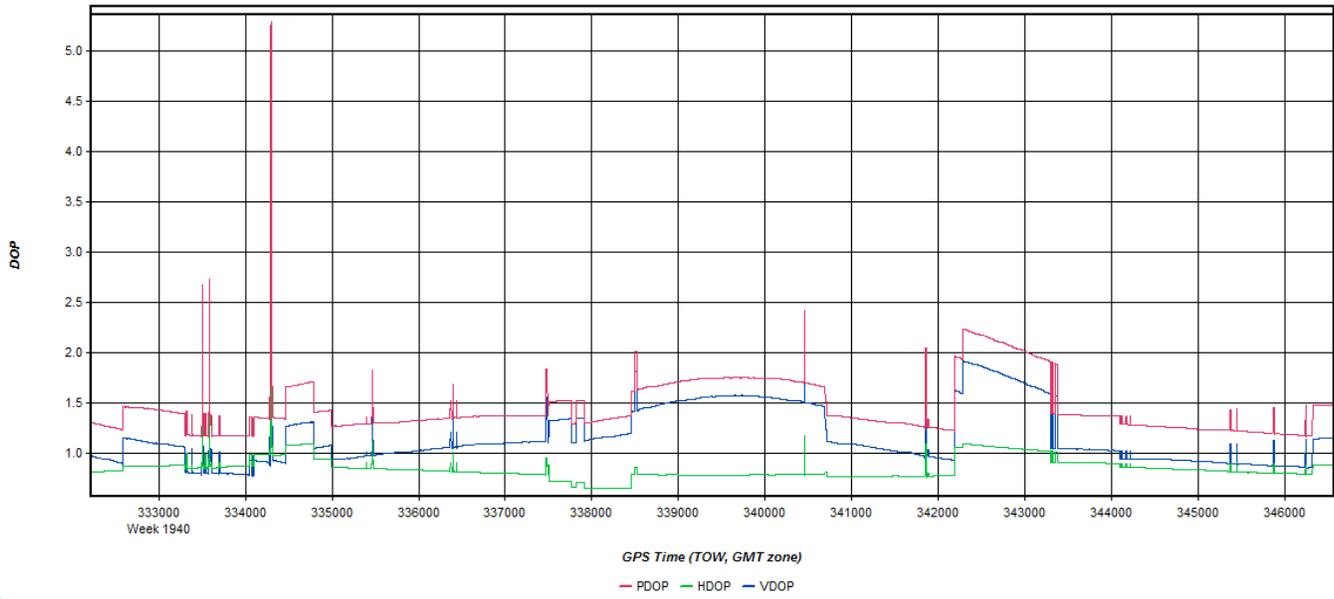
Combined Forward/Reverse Separation



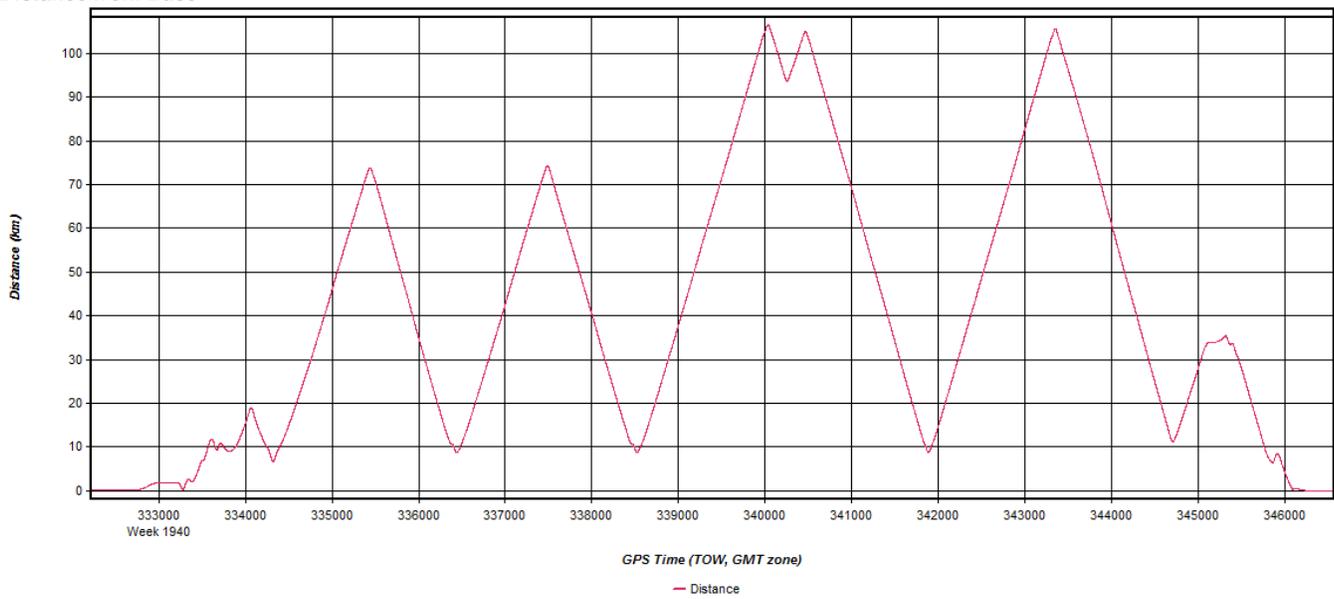
Combined Forward/Reverse Weighting



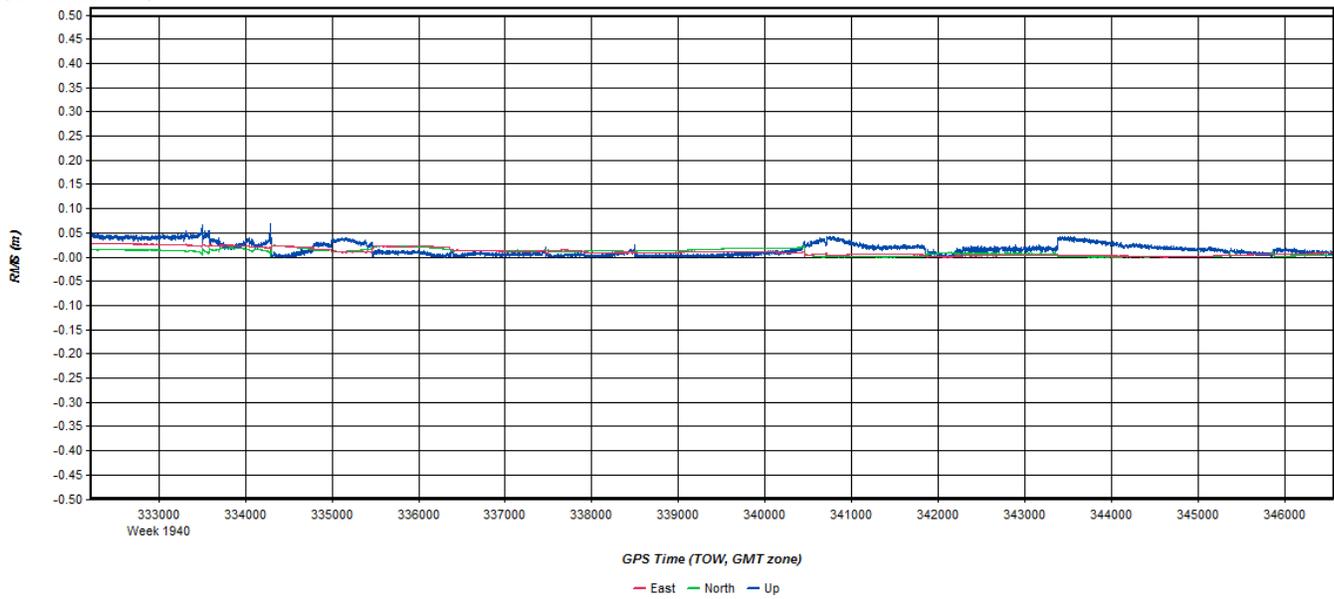
PDOP



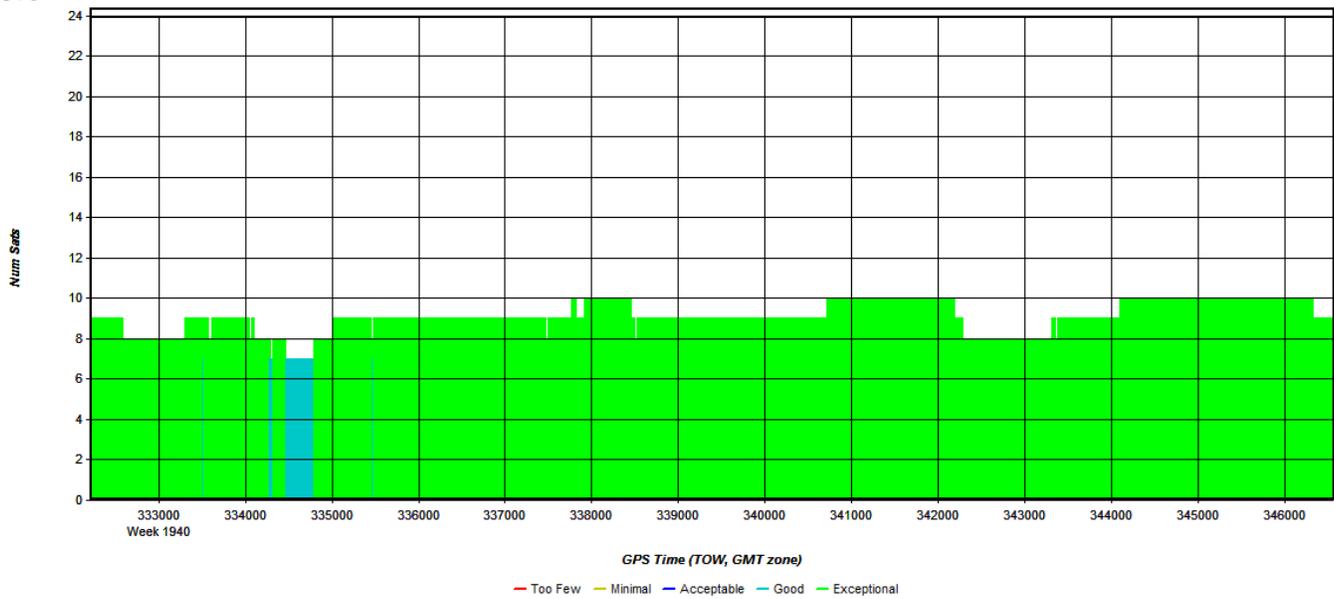
Distance from Base



Combined RMS



SVs



USGS  
COLLECTION REPORT



Acquisition and Processing details ----- Collection 29 (March 15, 2017)

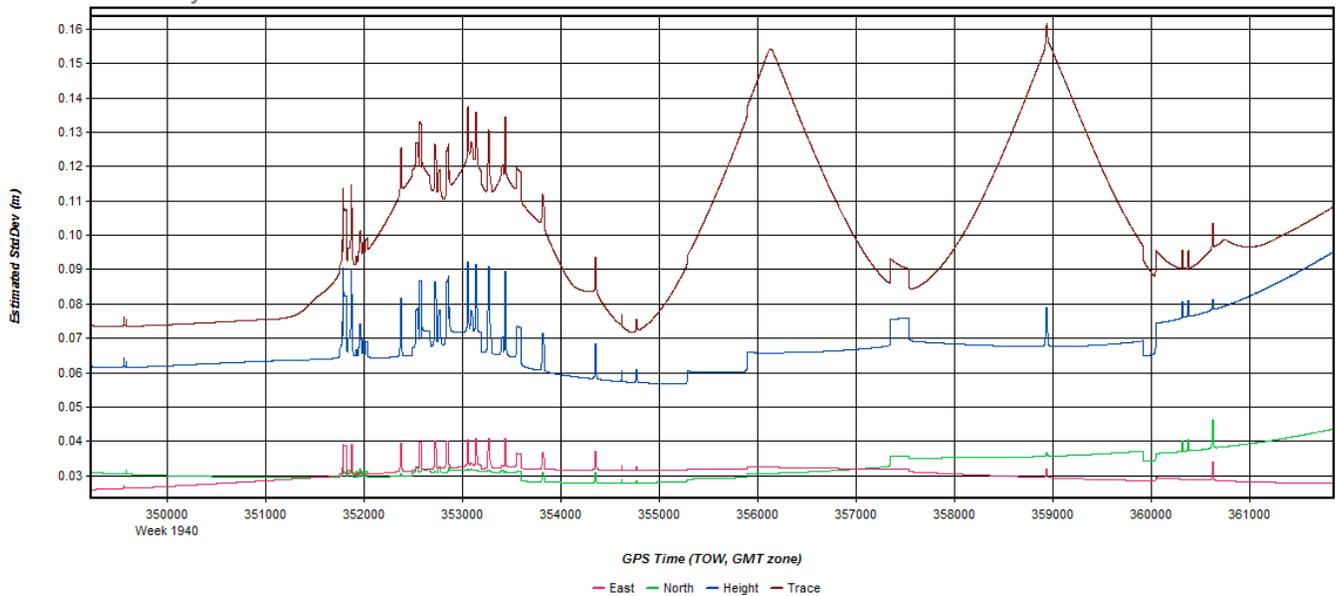
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	20:00	1632.1	KHUM	23:32	1635.0	3:32	3:50	2.9	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Mn Range'		Data Logger Drives		
15004000		Upper Delta				680i	216	LN-200	11.0	7.0	2100				
Flight Date		GPS Day	Lift	Sun°		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Max Range'	Download Drive		
15-Mar-17		17-074	6	N/A		N/A		240k		9.0 6.0		4052	NS1TB-106		
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Alt. Setting	Humidity @ Alt	Shipping Track	
170315_216_15004000_06		N88N	KG TU	CCNS 4	-6	3200	145		100	2	0.601	30.35 30.39	50		
Pilot #1		Pilot #2		Operator #1		Operator #2									
Kevin Ellington				Chris Fought											
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data						
016	KHUM	GR3-5	GR3-5	1.8	15-Mar-17 13:30	16-Mar-17 04:38	Unit40315n.tps	Chris Fought	With AB						
Base 3 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data						
Area	Flight #		Wpt		Distance		UTC		Fit	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End							
							01:13:00	01:18:00					GROUND-STATIC @ KHUM	20	
							01:41:00	01:44:00					Pre S turn	19	
UpDelta2	44		75	105	0	15.6	01:47:11	01:52:09	360	3,200	135	100.0	re flight	19	
	59		82	74	48.7	43.9	01:56:07	01:58:00	180	3,200	130	100.0	re flight	20	
	59		74	82	43.9	48.7	02:01:16	02:03:14	360	3,200	133	100.0	calibration re flight	20	
	63		79	72	46.9	42.7	02:05:31	02:07:07	180	3,200	136	100.0	re flight	19	
	81		27	1	15.6	0	02:10:57	02:16:11	270	3,200	131	100.0	re flight	21	
UpDeltaX	2		102	90	60.7	53.5	02:22:52	02:25:07	270	3,200	135	100.0	X line	21	
UpDelta2	11		1	145	0	86.5	02:33:14	02:53:58	360	3,200	141	100.0		19	
	10		144	1	85.9	0	02:56:29	03:17:05	180	3,200	143	100.0		18	
	9		1	144	0	85.9	03:20:11	03:40:54	360	3,200	141	100.0		19	
	8		143	1	85.3	0	03:43:33	04:04:08	180	3,200	140	100.0		19	
	8		1	10	0	5.4	04:07:26	04:09:06	360	3,200	138	100.0	calibration	19	
							04:10:00	04:13:00					Post S turn	19	
							04:25:00	04:30:00					GROUND-STATIC @ KHUM	19	

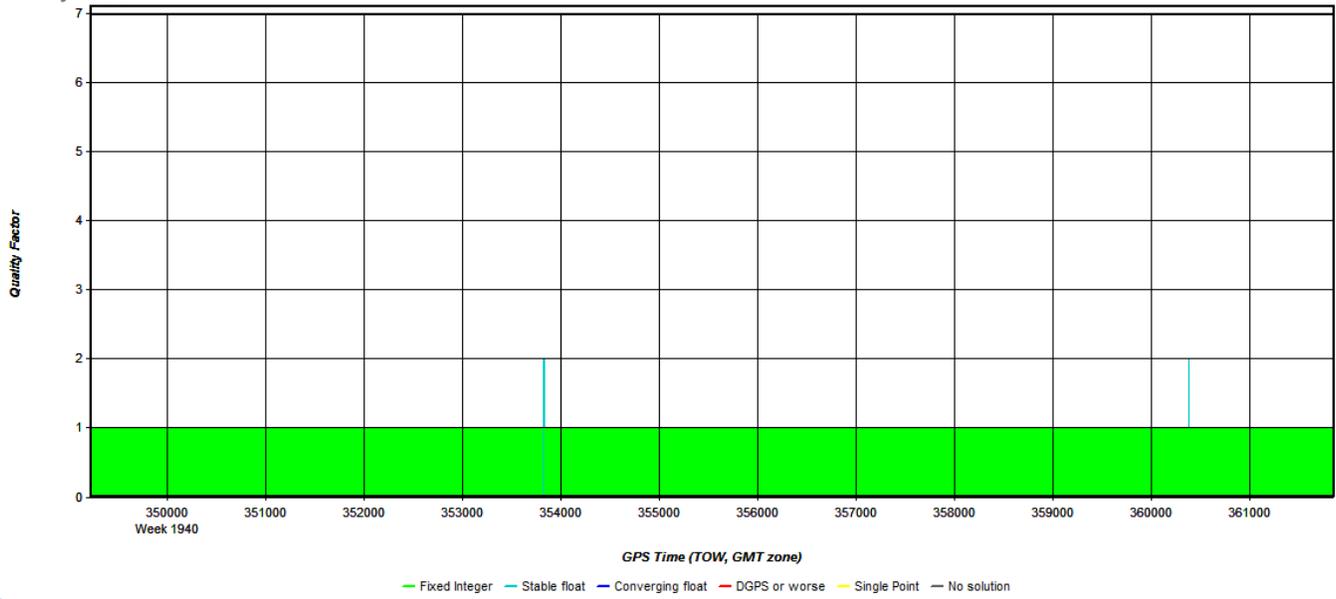
Trajectory and GPS Plots:



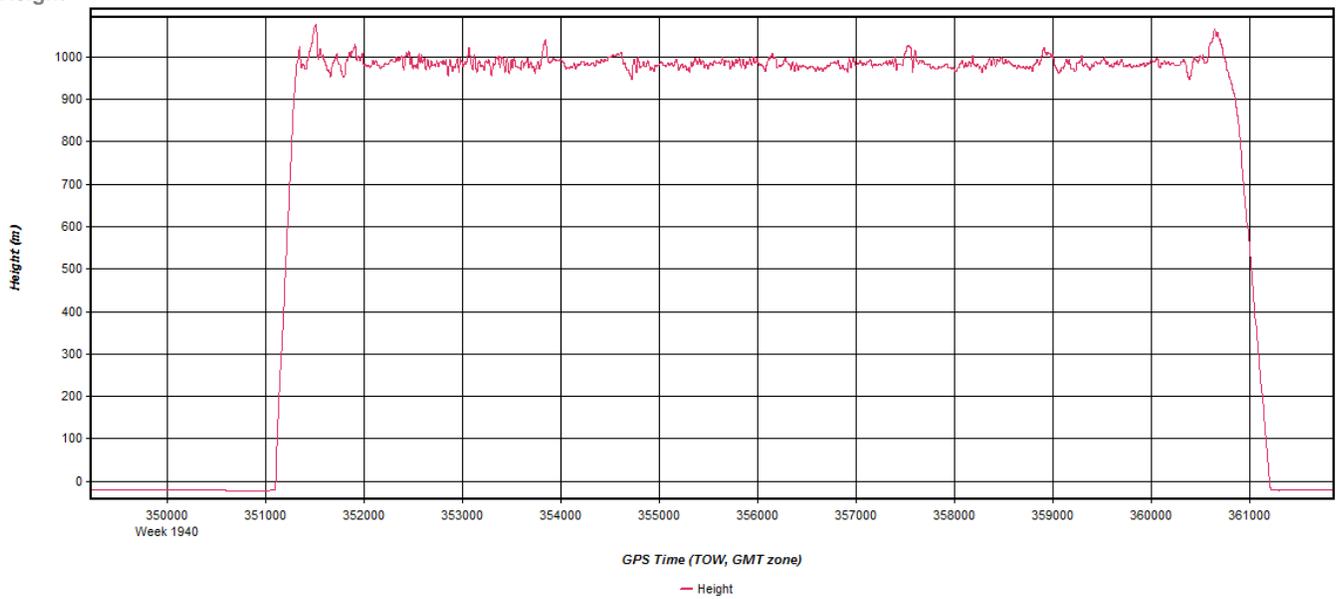
Estimated Accuracy



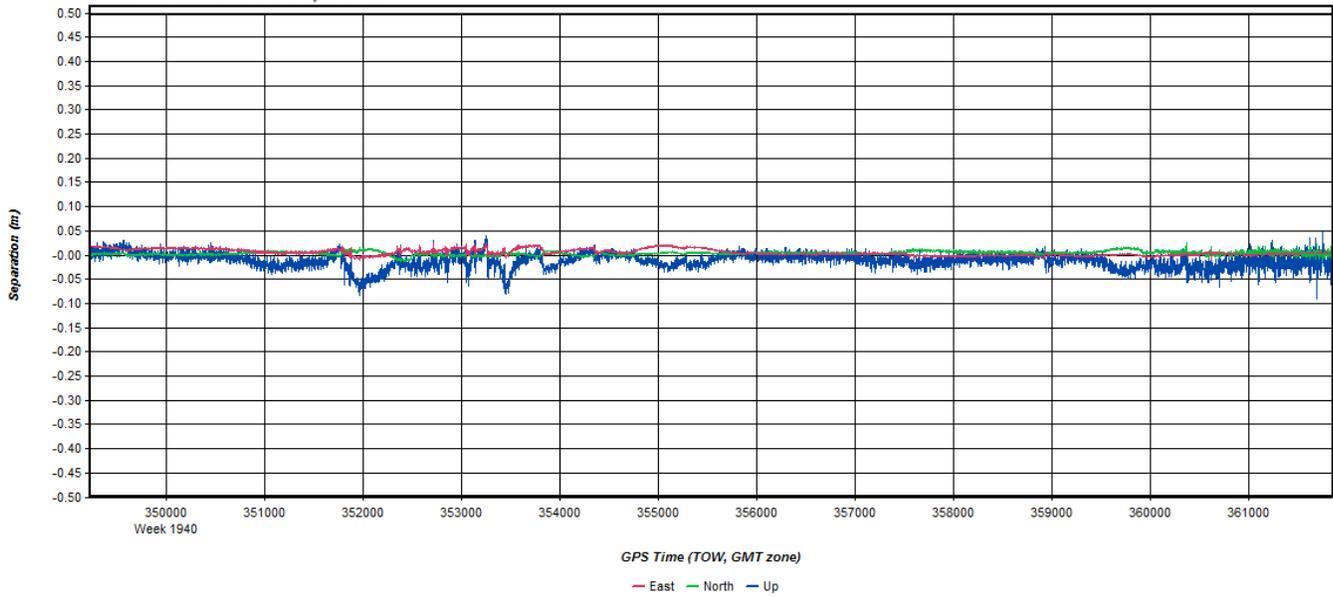
Quality Factor



Height



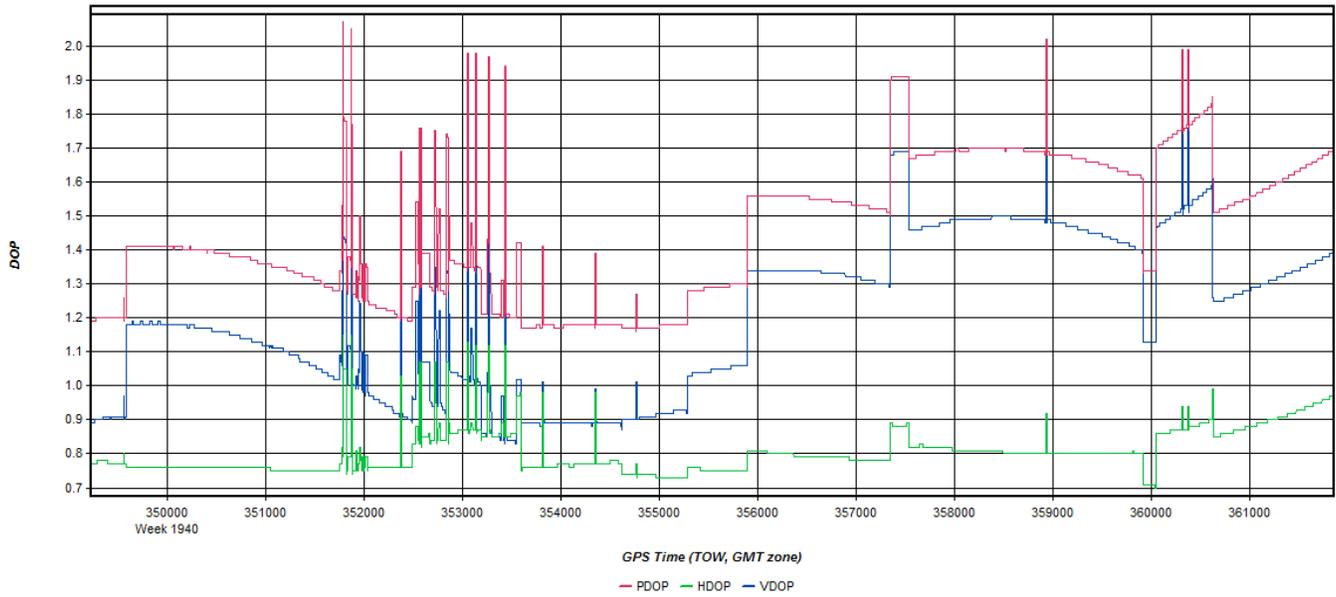
Combined Forward/Reverse Separation



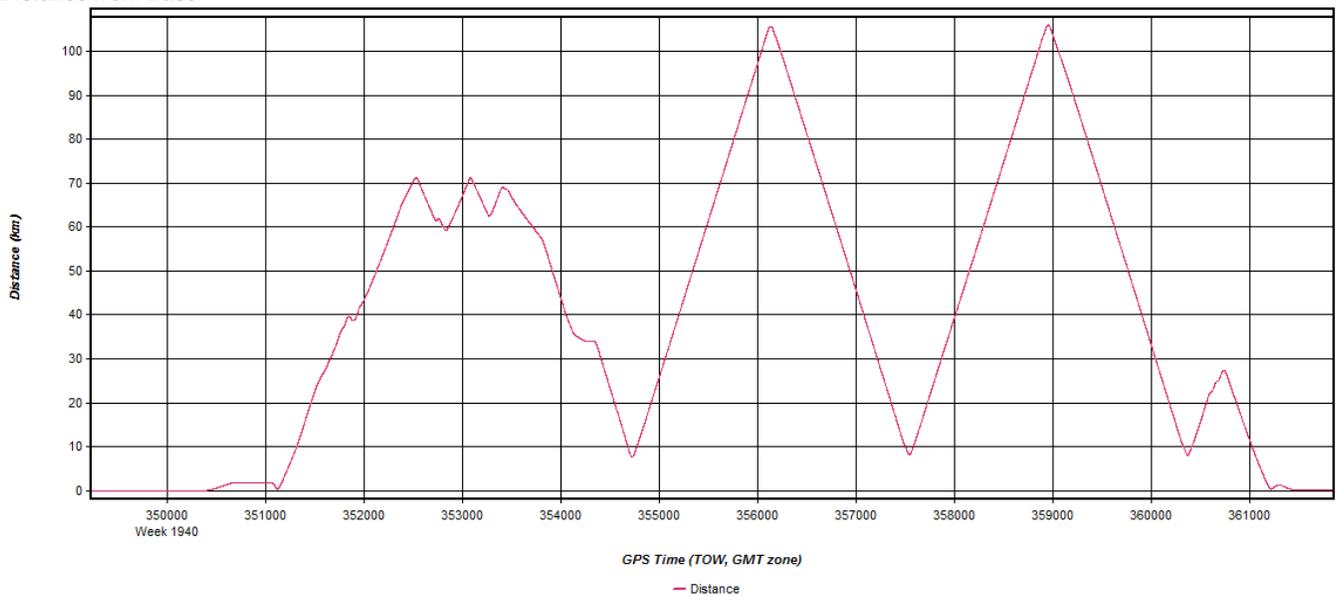
Combined Forward/Reverse Weighting



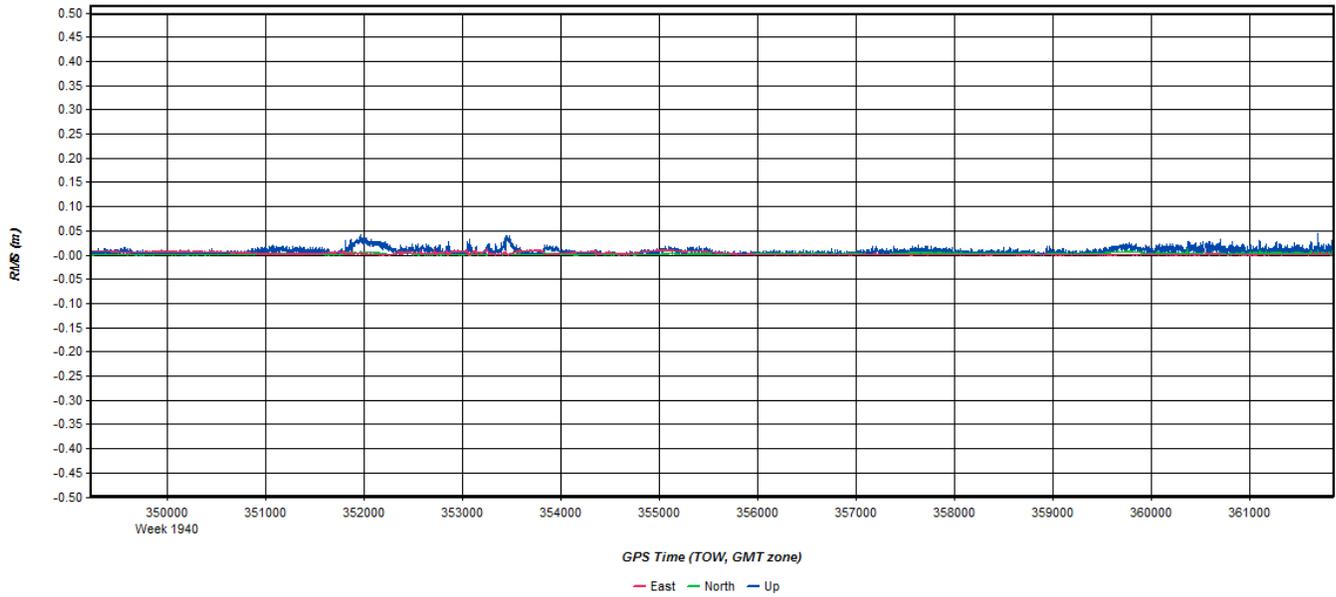
PDOP



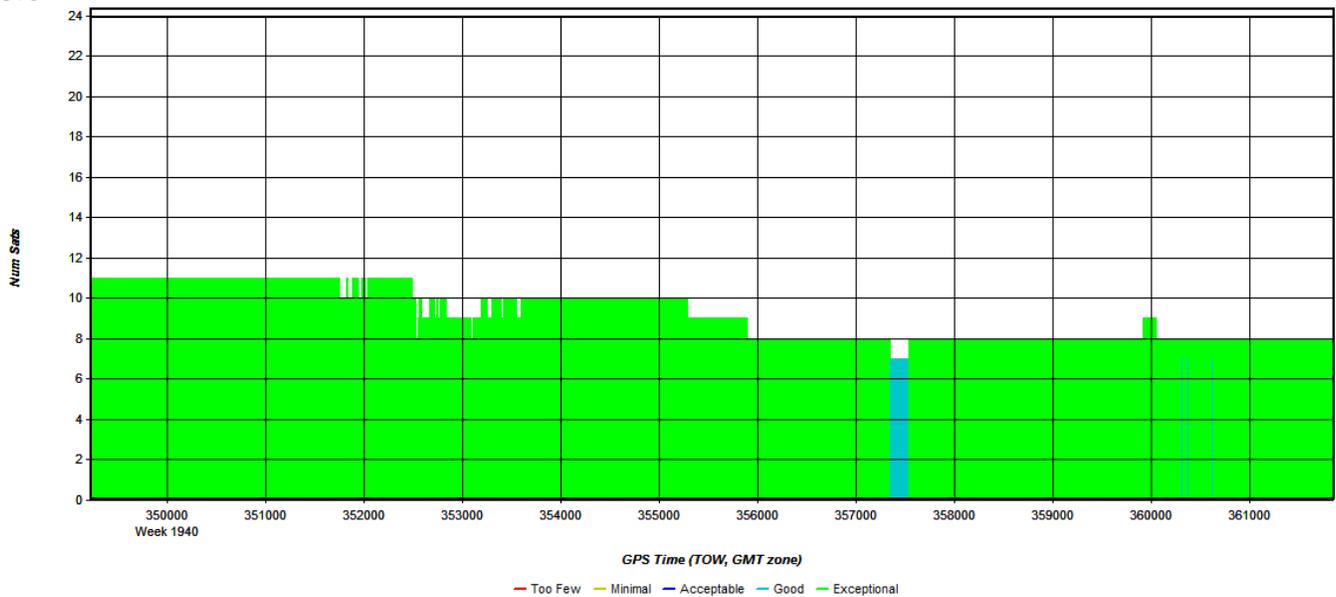
Distance from Base



Combined RMS



SVs



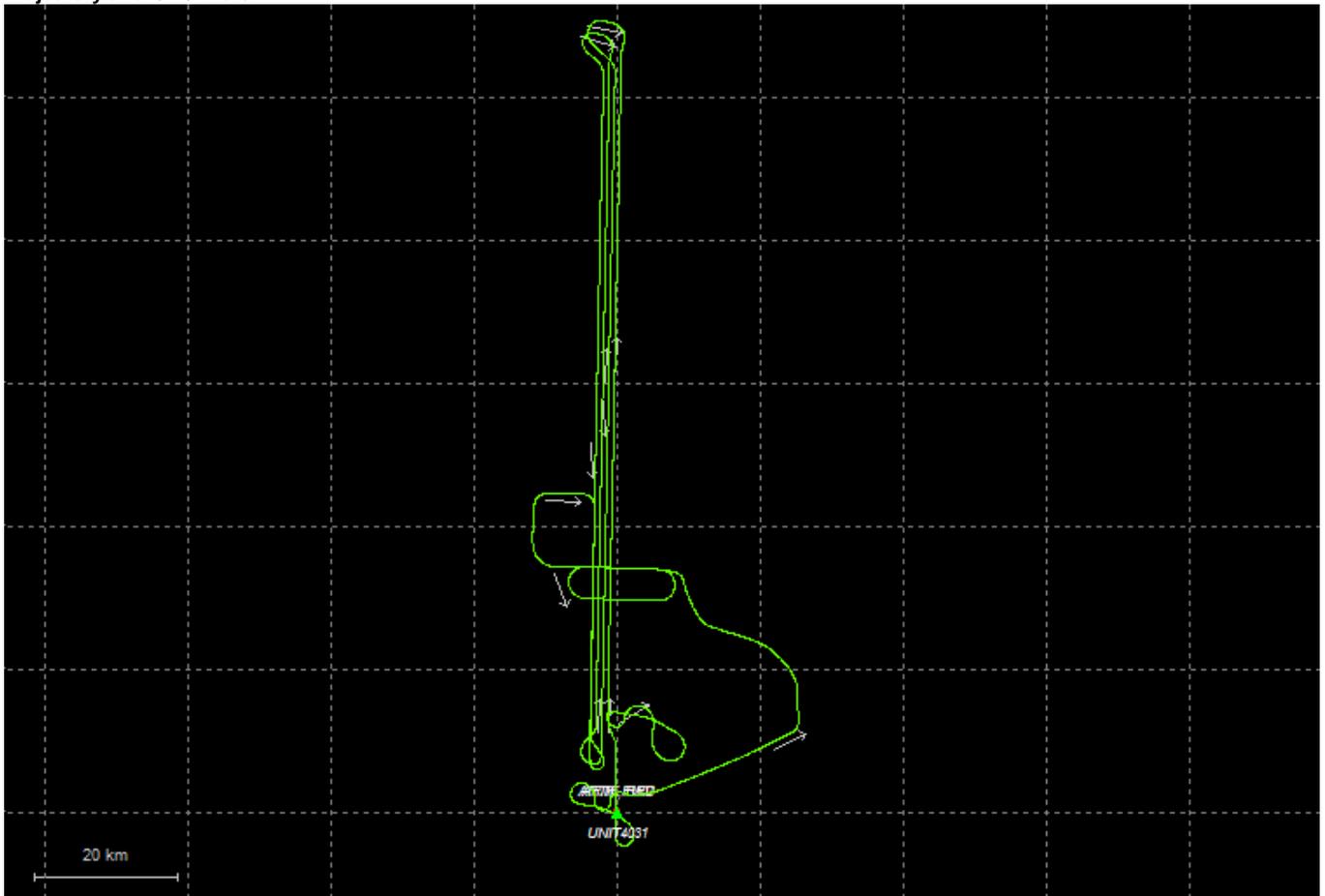


Acquisition and Processing details ----- Collection 30 (March 16, 2017)

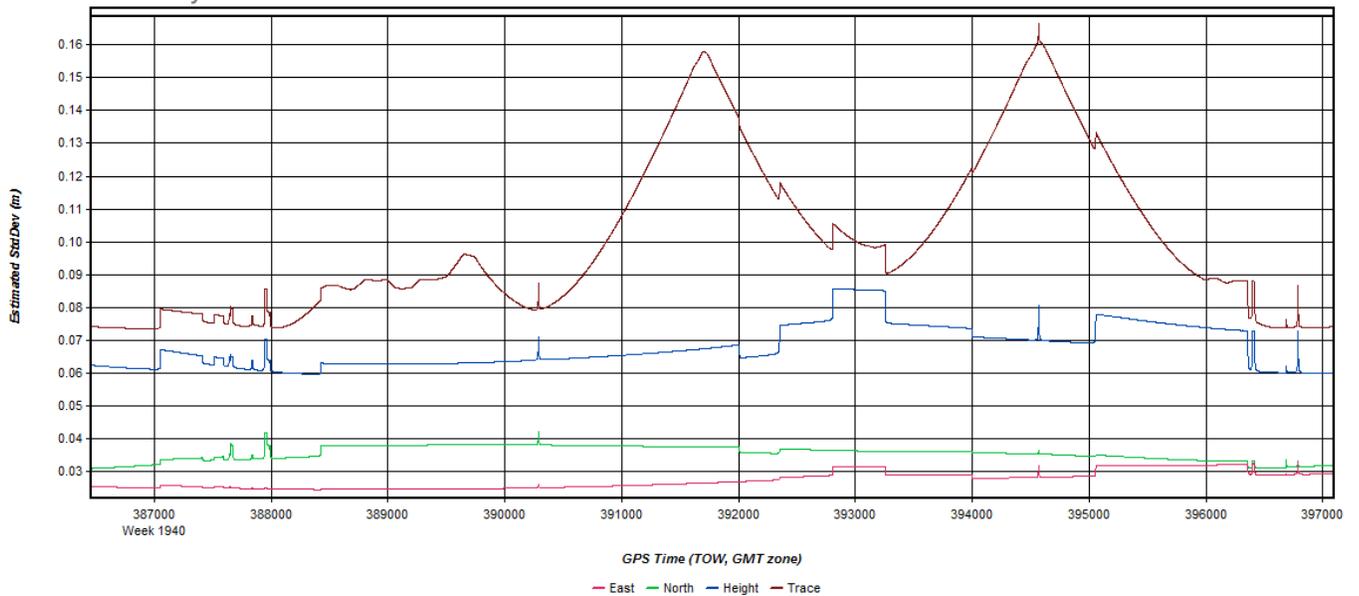
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl				
												Flight Log				
												AO80-50-00-02				
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity					
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs						
1		KHUM	11:18	547.7	KHUM	14:21	550.7	3:03	3.00	3.0	0900-Production					
2																
3																
FGI Job #		Project Name				System	Unit	IMU		Ground Temp °C		Mn Range'	Data Logger Drives			
15004000		Upper Delta				680i	165	FMU-300		6.0 11.0		2100				
Flight Date		GPS Day	Lift	Sun*		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Max Range'	Download Drive			
16-Mar-17		17-075	9	N/A		N/A		240k		5.0 6.0		4052	NS1TB-110			
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	mi/WPT	Altm Setting	Humidity @ Alt	Shipping Track		
170316_165_15004000_09		N62912	KHUM		-5	3281	145	60	99	2	0.374	30.37 30.41				
Pilot #1		Pilot #2		Operator #1		Operator #2										
Skip Bugh				Eric Mueller												
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data							
016	KHUM	Unit#4	#4	1.8	170316 1053	170316 2155	UNIT40316k.tps	Eric Mueller	With AB							
Area	Flight #	Client	Wpt	Distance		UTC		Dir	Altitude (GPS)	Speed (knots)	Scan Rate	Comments and Conditions		SVs	PDOP	
				From	To	Begin	End					Start	End			
UpDeltaX	2		95 80	56.6 47.5	12:08:00	12:10:00	271	3,200	145				GROUND-STATIC @KHUM	18	1.2	
					11:43:00	11:45:00			125				PRE ACQUISITION CALIBRATION	19	1.1	
UpDelta2	4		35 1	20.5 0	12:16:00	12:22:00	181	3,200	145				CROSS LINE	17	1.3	
					12:26:00	12:46:00	001	3,200	142				CALIBRATION LINE	17	1.4	
	4		1 143	0 85.5	12:26:00	12:46:00	001	3,200	142					18	1.3	
	5		143 1	85.5 0	12:49:00	13:10:00	181	3,200	138					20	1.1	
	6		1 143	0 85.5	13:14:00	13:33:00	001	3,200	144					20	1.1	
	7		143 1	85.5 0	13:38:00	13:58:00	181	3,200	138					19	1.1	
					13:59:00	14:01:00			134				POST ACQUISITION CALIBRATION	19	1.0	
					14:13:00	14:18:00							GROUND-STATIC @KHUM			

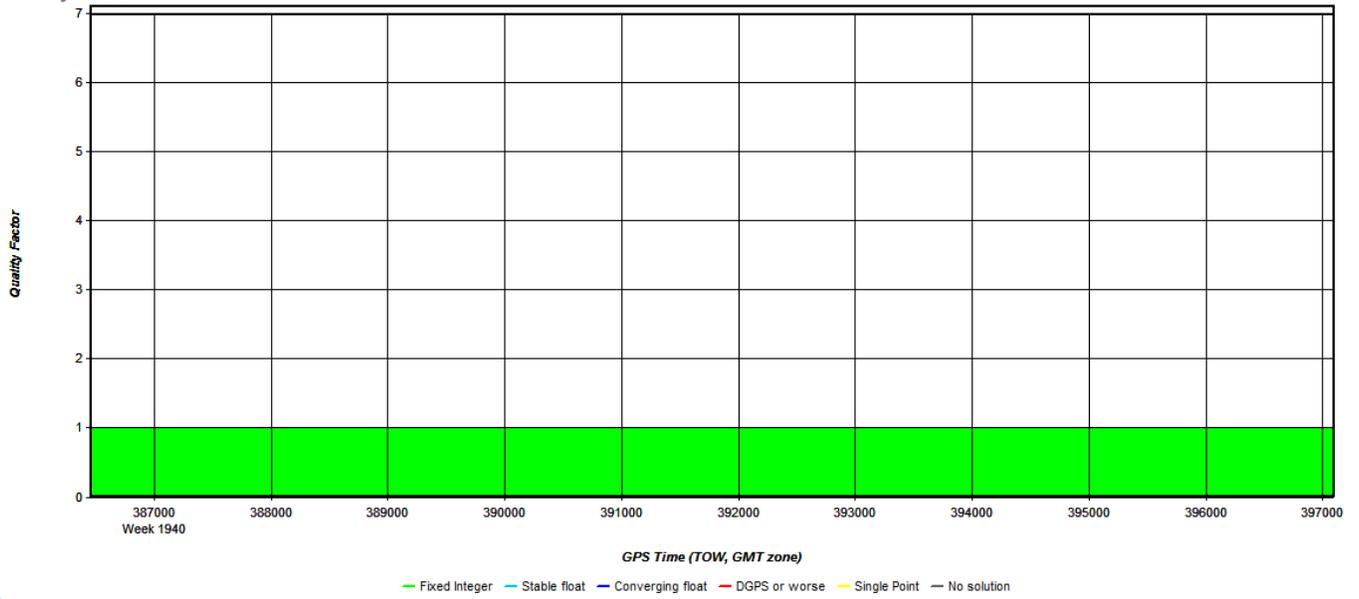
Trajectory and GPS Plots:



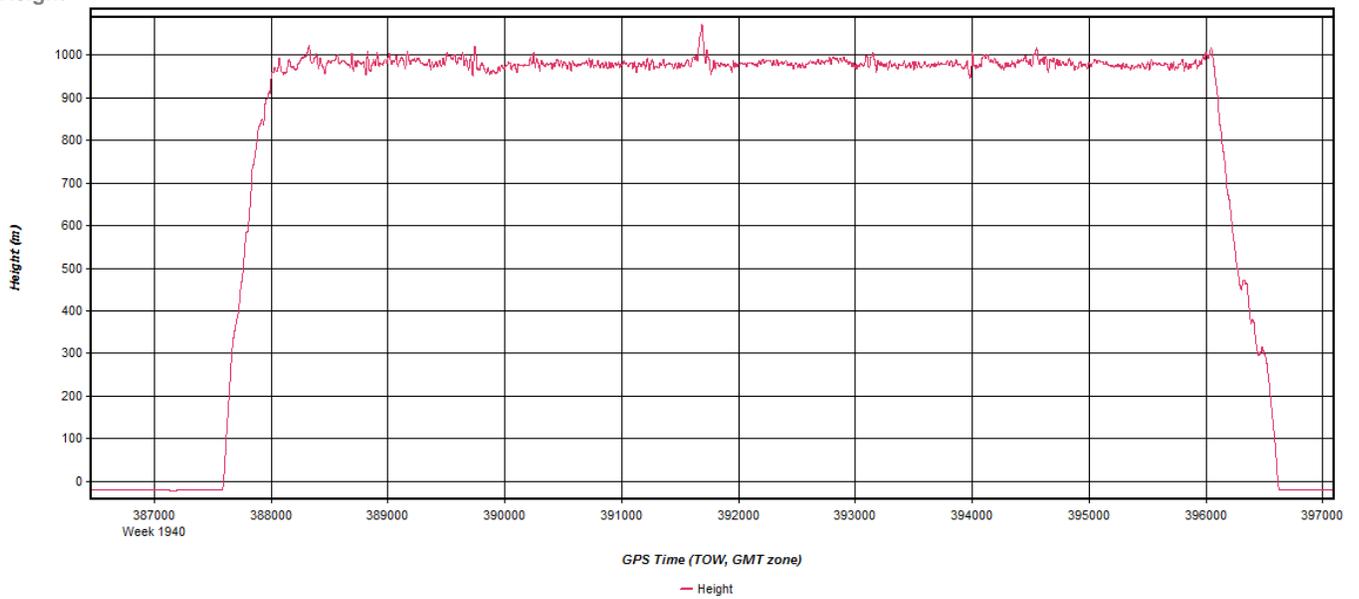
Estimated Accuracy



Quality Factor

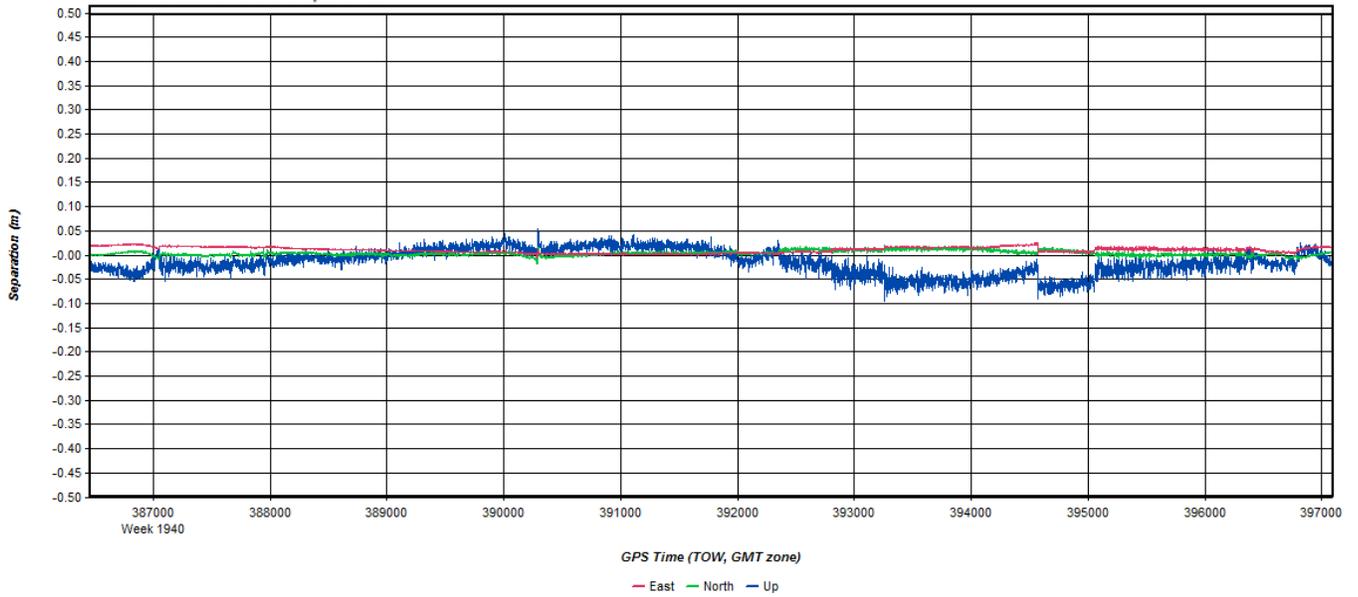


Height

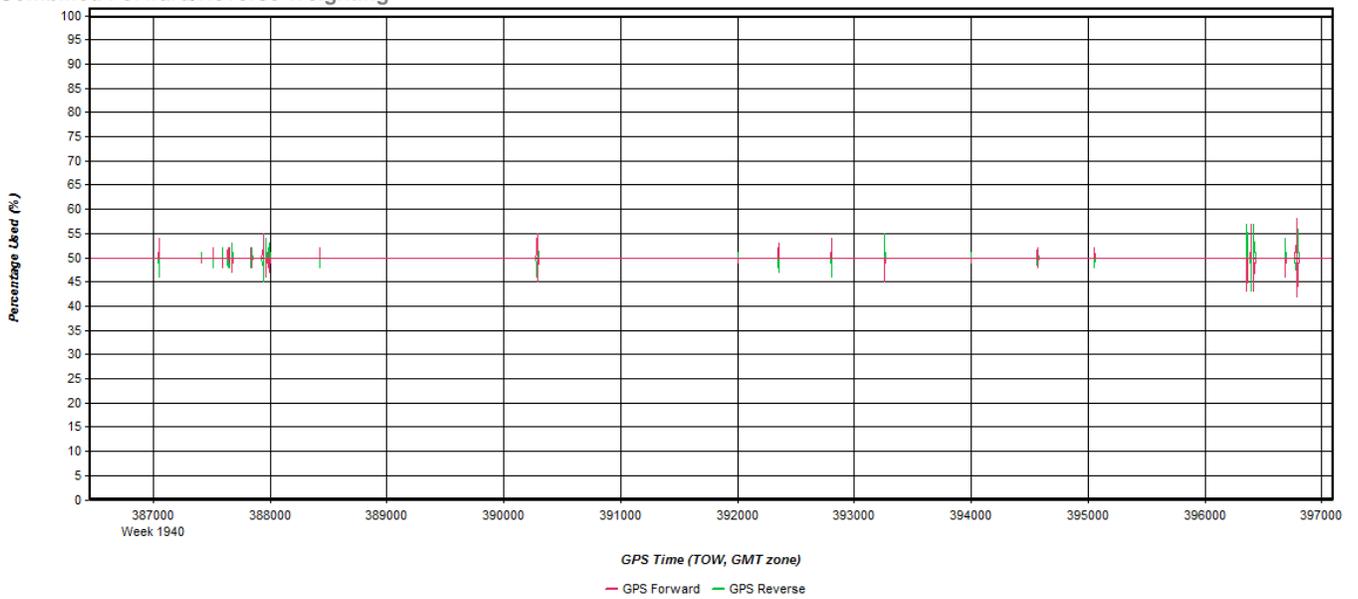




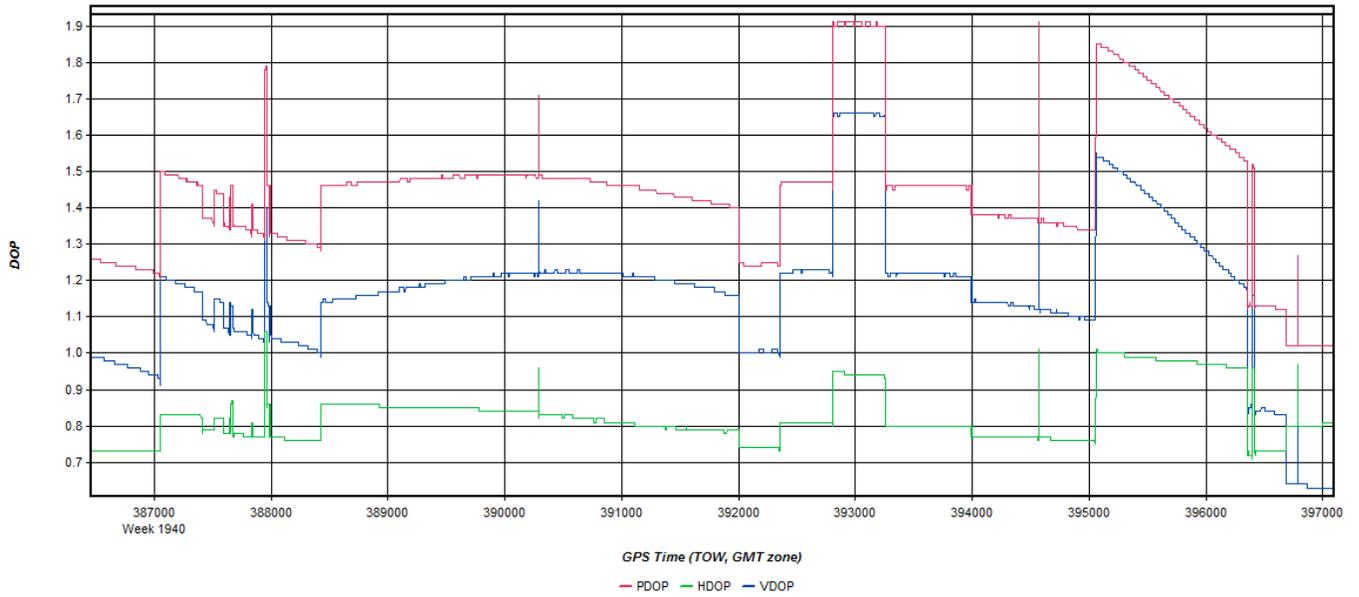
Combined Forward/Reverse Separation



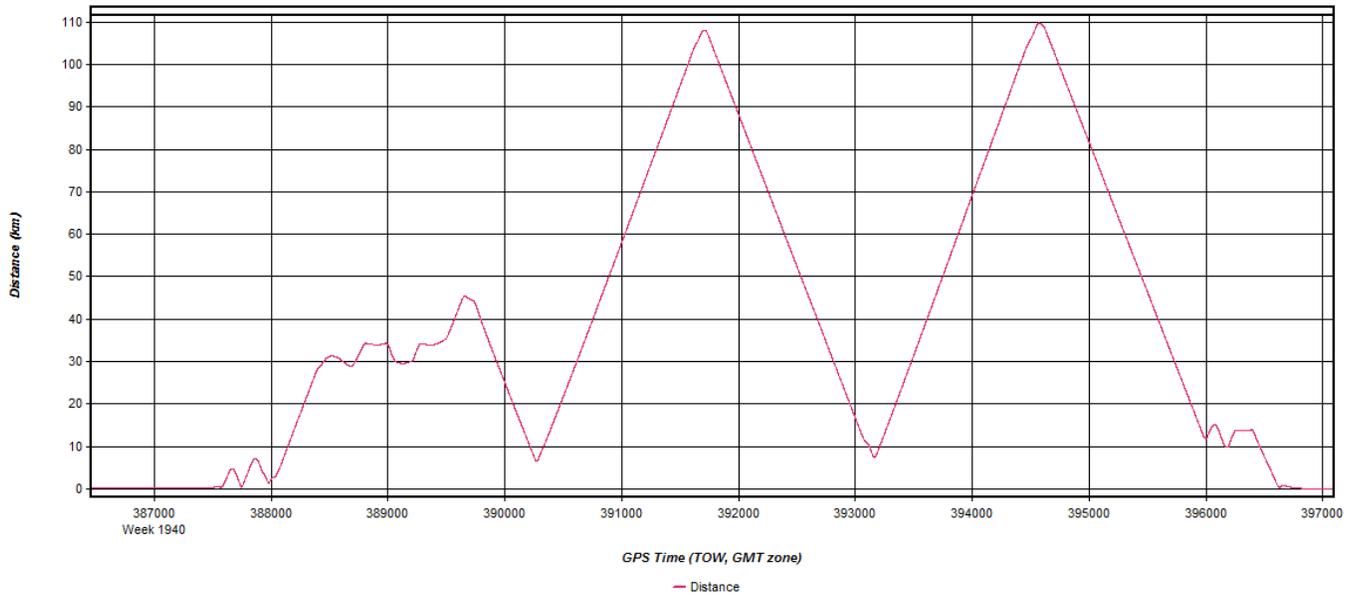
Combined Forward/Reverse Weighting



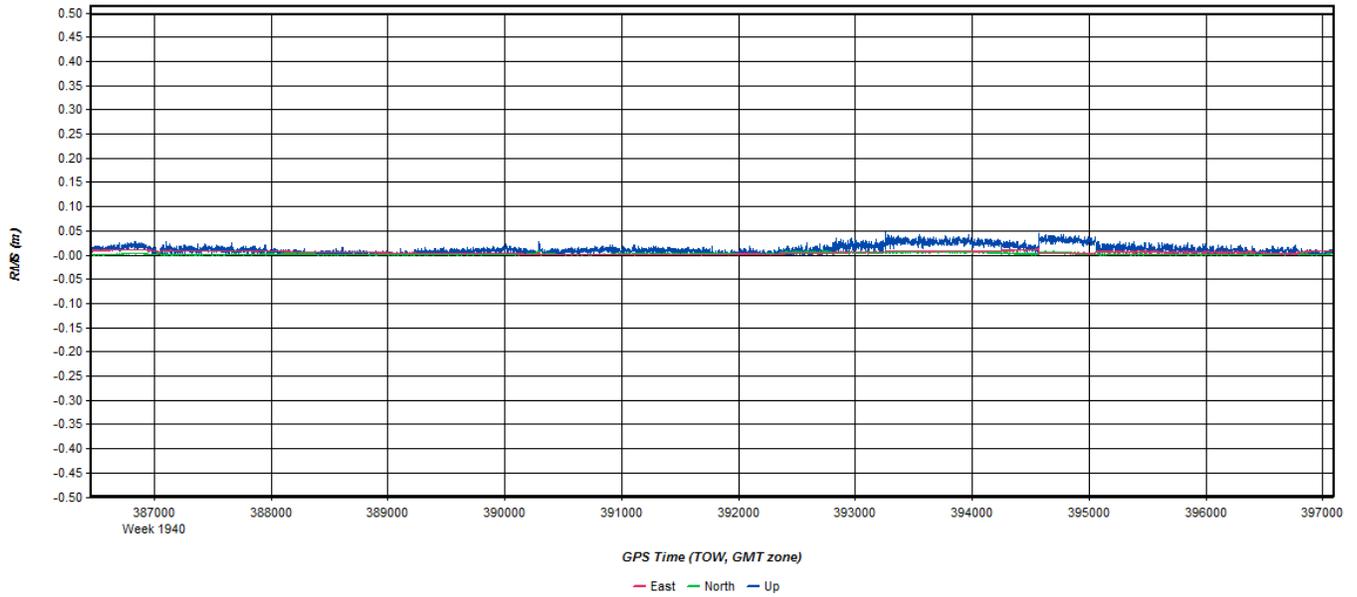
PDOP



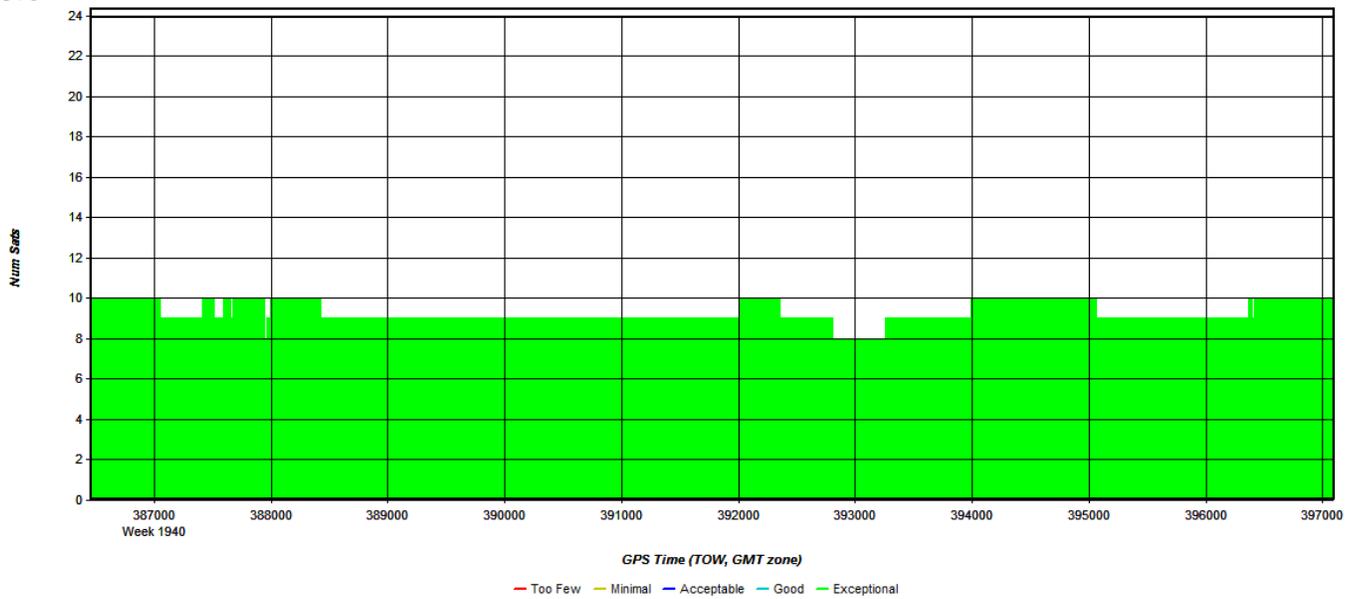
Distance from Base



Combined RMS



SVs





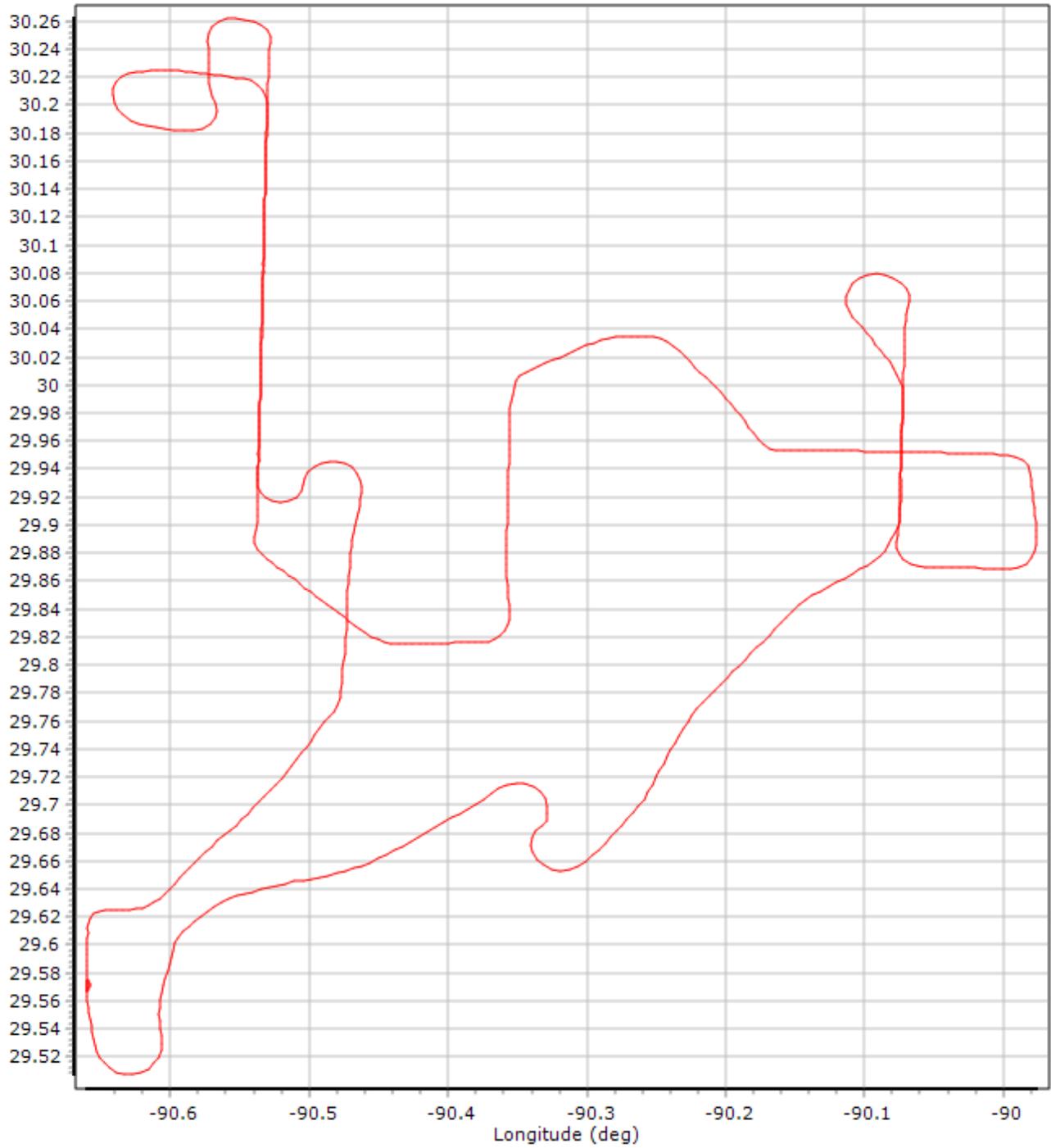
Acquisition and Processing details ----- Collection 31 (March 20, 2017)

Log:

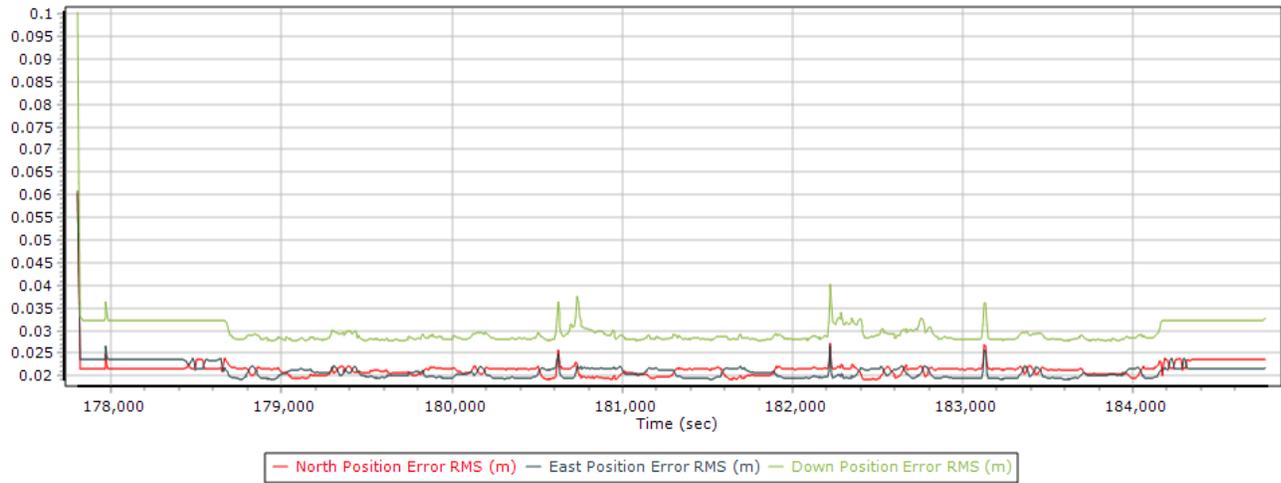
FUGRO		Fugro Geospatial, Inc.										Riegl			
												Flight Log			
												AO80-50-00-02			
16.92		Lift Begin			Lift End			Fit	Fit	Hobbs	Activity				
		Airport	Checks	Hobbs	Airport	Checks	Hobbs	Duration	Hrs	Hrs					
1		KHUM	1:08	552.0	KHUM	3:23	554.2	2:15	2:25	2:2	0900-Production				
2															
3															
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Mn Range'	Data Logger Drives			
15004000		Upper Delta				780	961	FMU-300	69F 18.0		4094				
Flight Date		GPS Day	Lift	Sun*		Solar Times (UTC)		Pulse Rate	Flying Temp °C		Max Range'	Download Drive			
20-Mar-17		17-079	16	N/A		N/A		360	13.0 13.0		5246	EP1TB#32			
Mission ID (yyymmdd_Sen_Job_Lift)		Aircraft	Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	m/WPT	Altm Setting	Humidity @ Alt	Shipping Track	
170320_961_15004000_16		N62912	KHUM		-5	4400	140	60	104		0.501	30.17 30.18			
Pilot #1		Pilot #2		Operator #1		Operator #2									
Skip Bugh		Eric Mueller													
Base 1 ID	Location	Rec ID	Ant ID	ARP (m)	Start Time (UTC)	Stop Time (UTC)	GPS Filename	Operator	Data						
016	KHUM	Unit#4	#4	1.8	170320 2431	170320 0232	UNIT40321a.tps	Eric Mueller	With AB						
Area	Flight #		Wpt		Distance		UTC		Fit	Altitude	Speed	Scan	Comments and Conditions	SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate			
							01:27:00	01:32:00					GROUND-STATIC @KHUM	17	1.2
							01:49:00	01:51:00			165		PRE ACQUISITION CALIBRATION	17	1.1
NORL	1		1	6	0	4	01:58:00	02:00:00	001	4,350	141		CALIBRATION LINE	16	1.1
	1		6	1	4	0	02:06:00	02:08:00	181	4,350	136			16	1.1
	2		6	1	4	0	02:14:00	02:16:00	271	4,400	132			17	1.1
UpDelta2	30		65	59	51.6	46.8	02:23:00	02:25:00	181	4,350	138			16	1.2
	15		51	83	40.3	66.1	02:34:00	02:40:00	001	4,350	138		DEFINITE REFLIGHT FOR COURSE, WILL REFLY NEXT	16	1.2
	15		83	51	66.1	40.3	02:49:00	02:56:00	181	4,350	134			16	1.2
							02:56:00	02:58:00			142		POST ACQUISITION CALIBRATION	15	1.3
							03:13:00	03:18:00					GROUND-STATIC @KHUM	16	1.2

Trajectory and GPS Plots:

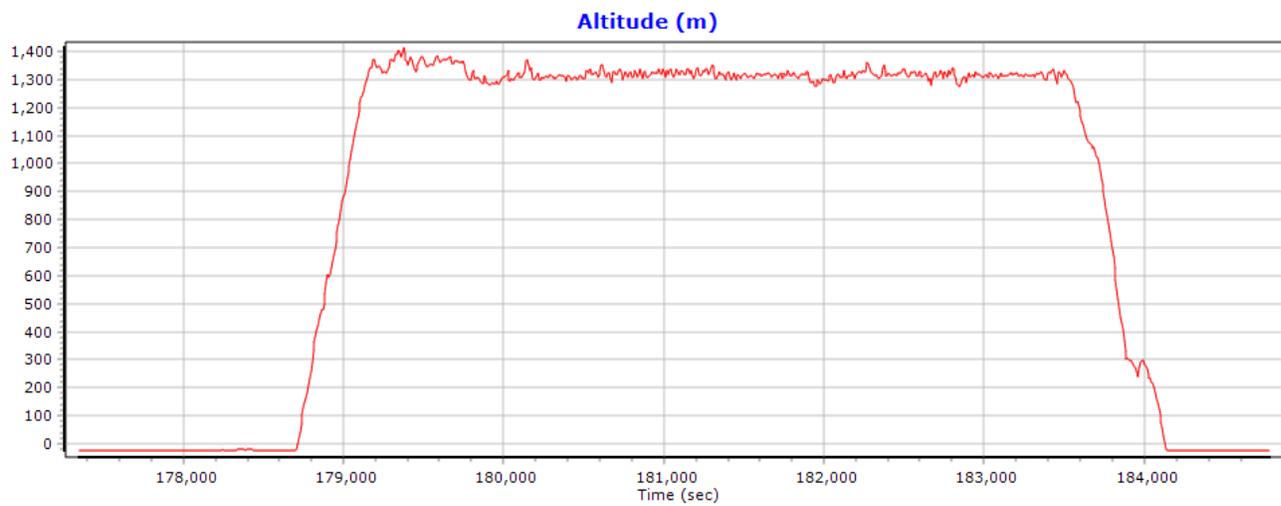
Top View: Latitude (deg)



Estimated Accuracy



Height





Acquisition and Processing details ----- Collection 32 (April 24, 2017)

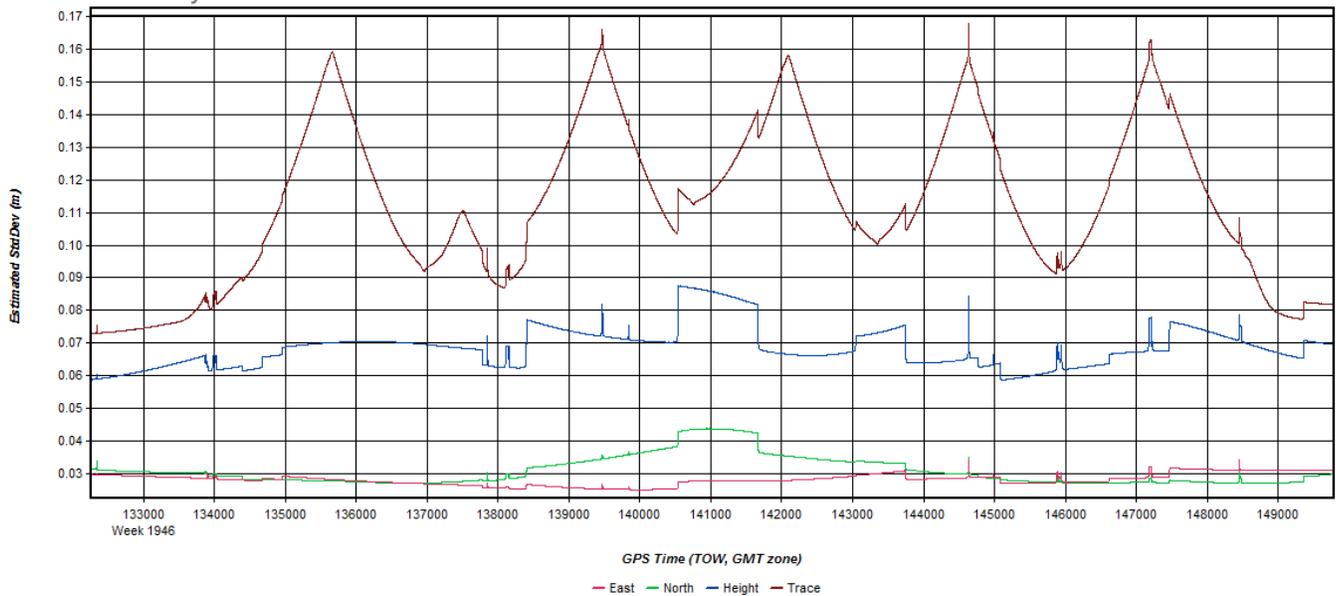
Log:

FUGRO		Fugro Geospatial, Inc.										Riegl				
16.91		Lift Begin			Lift End			Flt	Flt	Hobbs	Activity	Flight Log				
		Airport	Chocks	Hobbs	Airport	Chocks	Hobbs	Duration	Hrs	Hrs		AO80-50-00-02				
1		KHUM	12:32	583.3	KHUM	17:40	588.5	5:08	5.25	5.2	0900-Production					
2																
3																
FGI Job #		Project Name				System	Unit	IMU	Ground Temp °C		Min Range'	Data Logger Drives				
15004000		LA UPPER DELTA				680i	165	FMU-300	14.0 22.0		2100	DR680-12				
Flight Date		GPS Day	Lift	Sun°		Solar Times (UTC)		Pulse Rate		Flying Temp °C		Max Range'				
24-Apr-17		17-114	10	N/A		N/A		240k		8.0 10.0		4052				
Mission ID		Aircraft		Airport ID	FMS	UTC	AMT (ft)	Speed	FOV	Scan Rate (Hz)	MTA	km/WPT	Altitude Setting	Humidity @ Alt	Shipping Track	
170424_165_15004000_10		N62912		KHUM		-5	3281	145		99	2	0.680	29.93	29.94		
Pilot #1		Pilot #2		Operator #1		Operator #2										
George Jordan				Eric Mueller		Lee Scadden										
Base 1 ID	Location		Rec ID	Ant ID	ARP (m)	Start Time (UTC)		Stop Time (UTC)		GPS Filename		Operator		Data		
016	HOUMA, LA		GR3-04	GR3-04	1.8	170424 1213		170424 1745		UNIT40424m.tps		Eric Mueller		With AB		
Area	Flight #		Wpx		Distance		UTC		Flt	Altitude	Speed	Scan	Comments and Conditions		SVs	PDOP
	FGI	Client	From	To	Begin	End	Start	End	Dir	(GPS)	(knots)	Rate				
							12:51:00	12:56:00					GROUND-STATIC @KHUM		19	1.0
							13:12:00	13:14:00		3,200	166		PRE ACQUISITION CALIBRATION		17	1.2
UpDelta1	60	1	133	0	89.8		13:21:00	13:40:00	001	3,200	134				18	1.2
	59		134	1	90.4	0	13:43:00	14:02:00	181	3,200	140				17	1.3
	59		1	10	0	6.1	14:05:00	14:07:00	001	3,200	129		CALIBRATION LINE		17	1.2
UpDeltaX	2		15	35	9.5	23.1	14:14:00	14:17:00	091	3,200	134		CROSS LINE		17	1.2
UpDelta1	58		1	133	0	89.8	14:24:00	14:43:00	001	3,200	136				18	1.0
	57		133	1	89.8	0	14:46:00	15:05:00	181	3,200	137				18	1.2
	56		1	133	0	89.8	15:08:00	15:27:00	001	3,200	134				15	1.3
	55		133	1	89.8	0	15:30:00	15:49:00	181	3,200	144				15	1.4
	54		1	133	0	89.8	15:51:00	16:10:00	001	3,200	134				17	1.1
	53		132	1	89.1	0	16:12:00	16:31:00	181	3,200	140				19	1.0
	52		1	132	0	89.1	16:34:00	16:53:00	001	3,200	145				18	1.2
	51		130	1	87.7	0	16:55:00	17:14:00	181	3,200	132				19	1.1
							17:15:00	17:17:00		3,200	146		POST ACQUISITION CALIBRATION		18	1.1
							17:31:00	17:36:00					GROUND-STATIC @KHUM		17	1.3

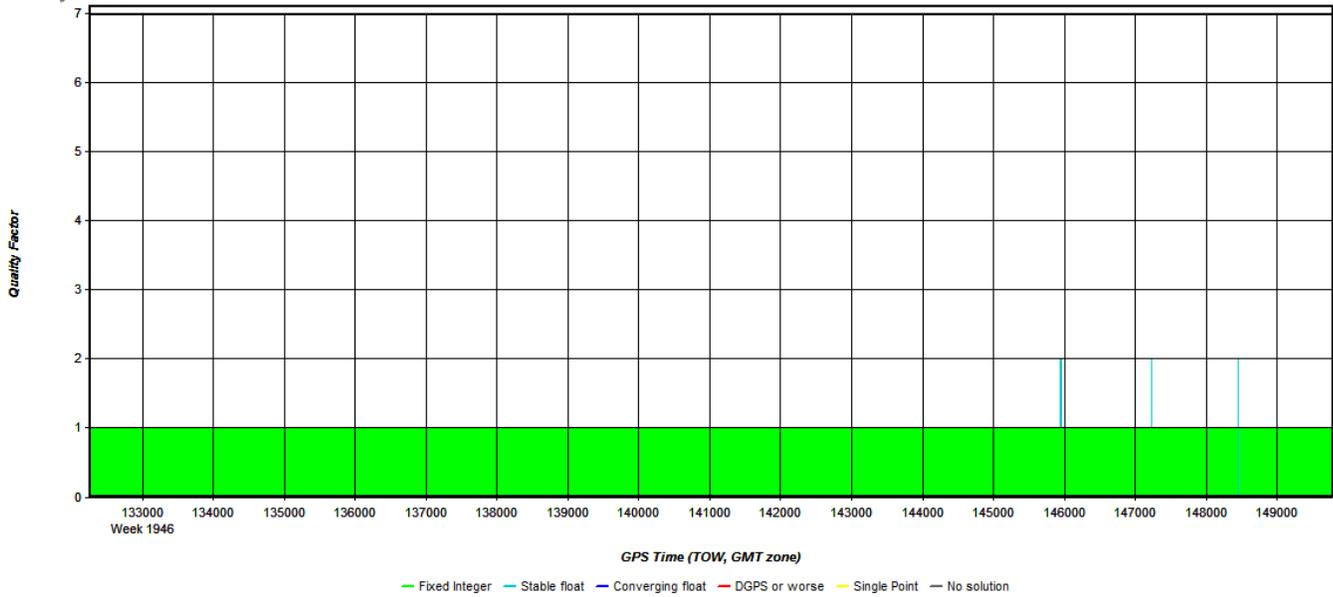
Trajectory and GPS Plots:



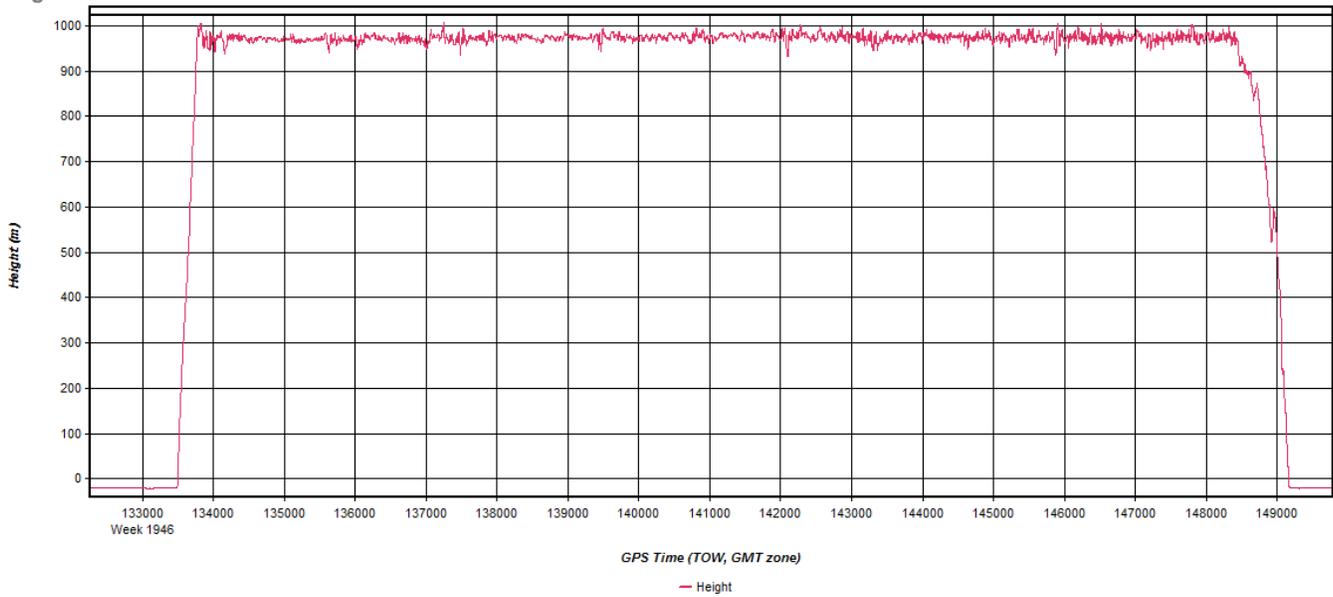
Estimated Accuracy



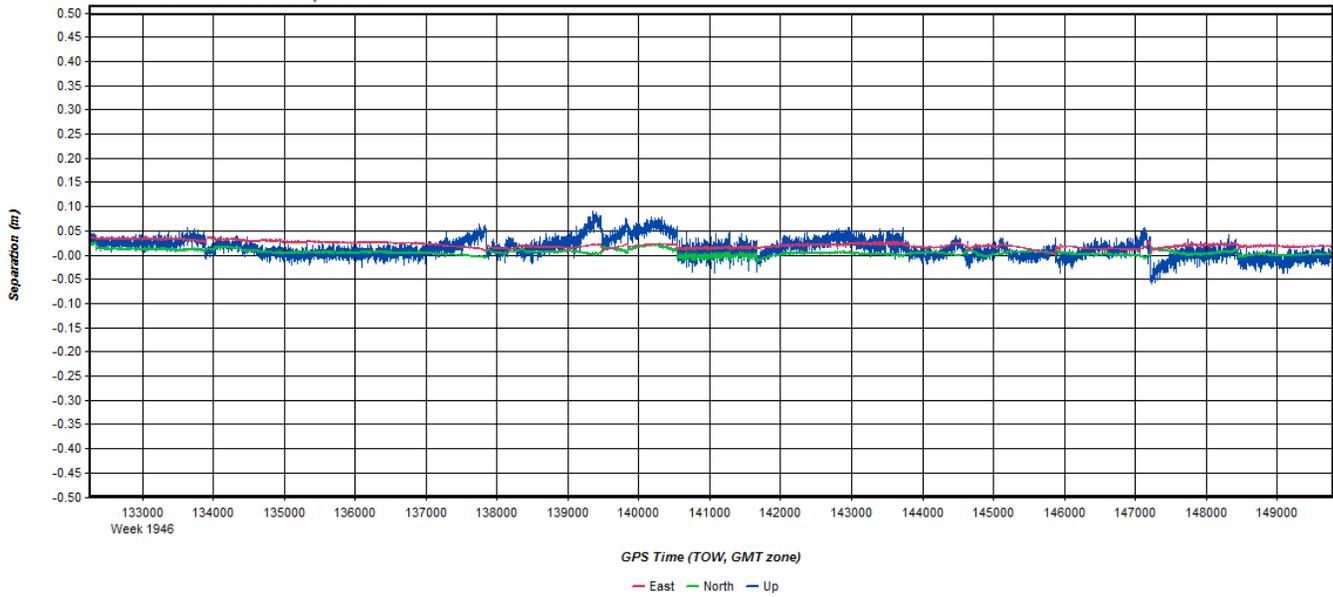
Quality Factor



Height



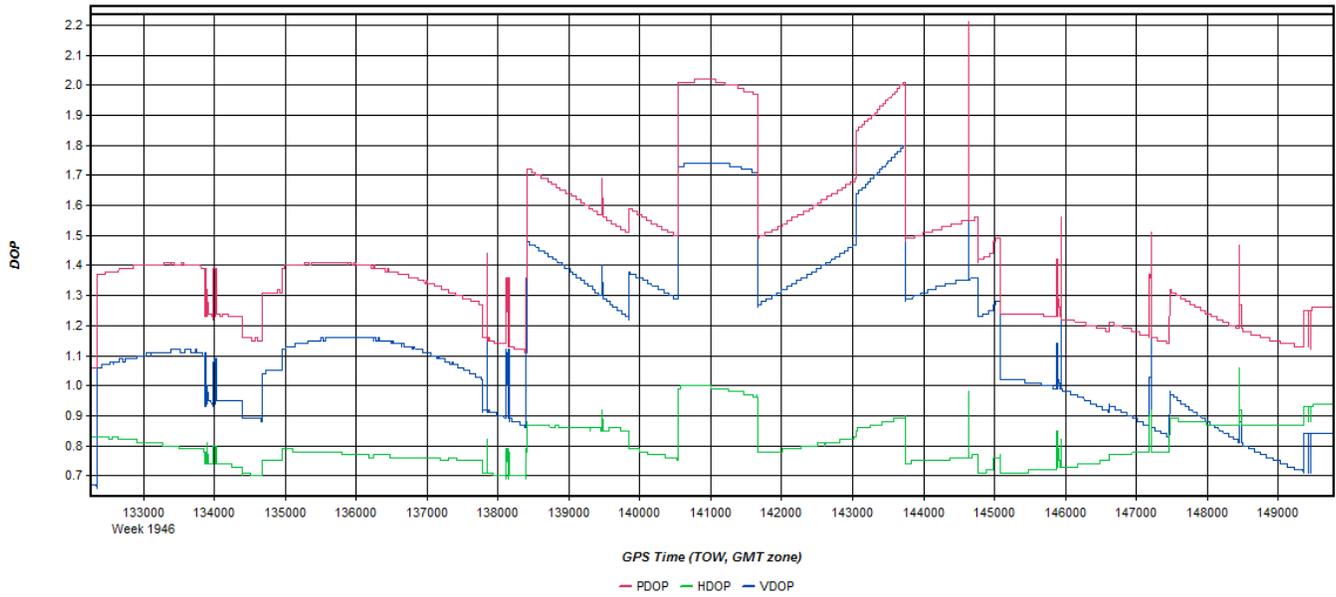
Combined Forward/Reverse Separation



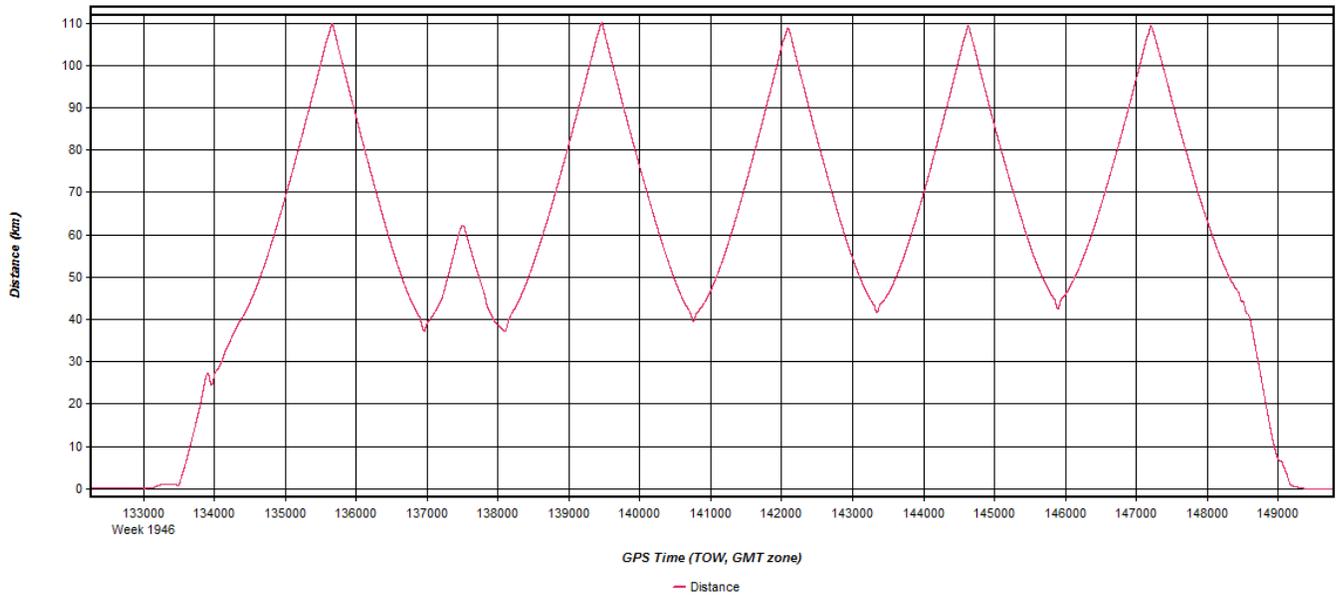
Combined Forward/Reverse Weighting



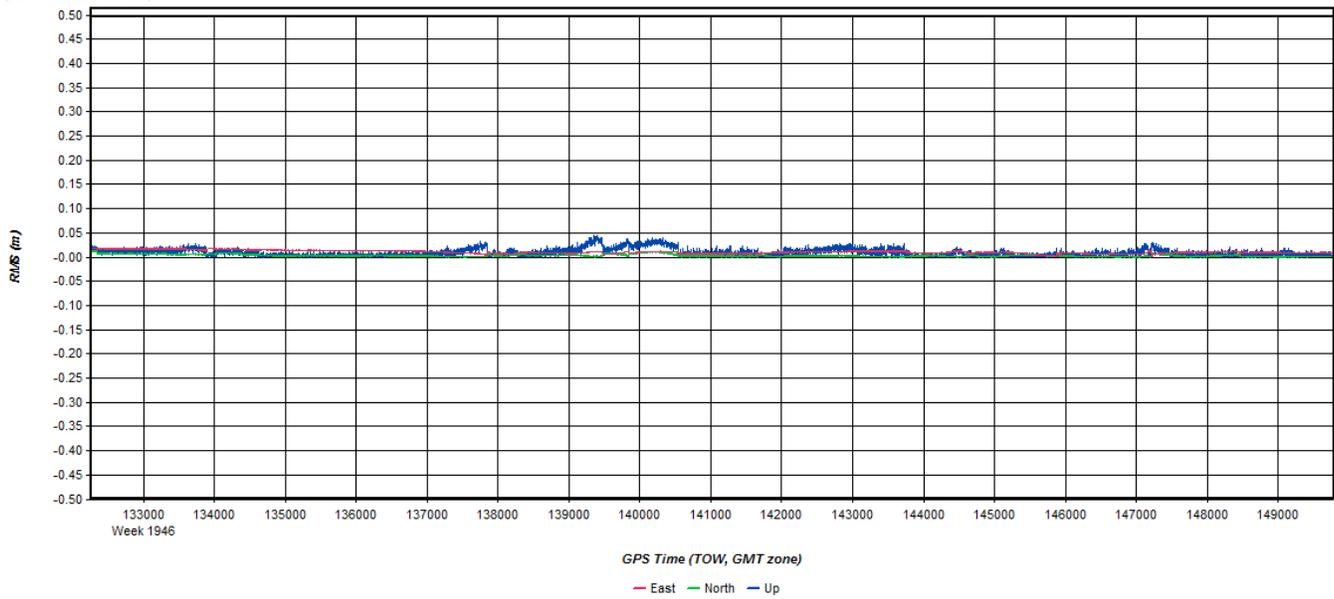
PDOP



Distance from Base



Combined RMS



SVs

