

Project Report Appendices

The following section contains the appendices as listed in the Utah 2016 - Utah Lake AOI Interim Project Report.

Appendix A

Flight Logs

There were six total lifts. Flight logs are found on the following pages.

Oct 26, 2016-A (N22GE, SN7161)	2
Oct 26, 2016-B (N22GE, SN7161)	5
Oct 29, 2016-A (N22GE, SN7161)	7
Nov 2, 2016-A (N208NR, SN8227)	8
Nov 3, 2016-A (N208NR, SN8227)	11
Nov 18, 2016-A (N208NR, SN8146)	13

Oct 26, 2016-A (N22GE, SN7161)

or 15:03
 off 19:29

Date: 10/26/2016
 Lift: (A) B C D E Pg 1 of 3

Project: UTAH LIDAR 2016 Proj #: 29083 Flight Mgmt File: FMSL-UTAH-LK-011 SN7161-22-GE
Aircraft: N22GE Begin Hobbs: 87144 End Hobbs: 8918.4 Total: 40 Pilot: G. Chittenden Co-Pilot: Gary Tao
Dep Apt: KOGD Dep Time (Lcl): 9:21 (Z): 15:21 Arr Apt: KPVU Arr Time (Local): 1:25 (Z): 19:23 Tot Time Aloft: 4:02
CORS: (Y) N Sta 1: UTL2 Sta 2: UTOC Flyovers: Y / N IF Y, times: Sta 1) Sta 2)
GPS Unit: Y / N Sta 1: Sta 2: Flyovers: Y / N IF Y, times: Sta 1) Sta 2)

Line #	Hdg	Start (UTC)	End (UTC)	Gd Spd	POD/# sats	GPS Altitude	Crab	Temp (°C)	Alt AMSL	Pulses In Air	Altimeter begin:			Mag On	Storage Number	
											Ave Terr. Ht	Max Gdspd	Avg Pt Spacing			
LIDAR	Type	Serial #	Alt AGL	OAT beg:	°C	End:	°C	Alt AMSL	Pulses In Air	MPIA	Y / N	Pulse Rate	Power	IPSPM	End On	Tot On
	FOV	40	53Hz	15	15	15	15	7161	710	4500'	145	24844	45%	8	250	21
UL001		15:16	15:52													
1064	166	15:54	15:57	144	11/18	7800	0°									
1065	348	16:01	16:04	154	13/16	7750	2°									
1066	166	16:08	16:11	140	12/17	7730	0°									
1067	346	16:15	16:18	157	11/18	7704	2°									
1068	166	16:22	16:25	150	11/18	7720	0°									
1069	346	16:30	16:33	151	11/18	7755	2°									
1070	166	16:36	16:40	148	11/18	7700	1°									
1071	346	16:44	16:46	142	12/17	7730	0°									
1072	166	16:49	16:50	142	12/17	7471	1°									
UL002		16:54	16:56	156		7715	0									
1088	166	17:08	17:08	139	11/18	7712	1°									
1101	498	17:13	17:14	148	11/18	7750	0°									
1100	328	17:17	17:18	142	11/18	7706	2°									

UTAH Lake AOI
 Initial Fly8
 Test Shot
 161026-155351
 161026-16051200 high @ start
 - 160755
 - 161502
 VOPD - shutter was opened through external control error - will refly 161026-162203
 161026-162917
 161026-163619
 161026-164421
 161026-164925
 6 ROSSIE
 refly of 1068, 33° on roll in, 161026-170415
 - 171332
 - 171739

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

Total Proj Lines: 23 Lines Flown: 23 Lines Remain: 0 Online Time: 2:3 Mob Time: 7 Notes:

Alrborne LIDAR Data Collection Log Sheet :: Quantum Spatial, Inc
(email Log daily to flight_log_distribution_list@quantumspatial.com)

Project: UTAH - LIDAR 2016 **Flight Mgmt File:** **Date:** 10/26/2016
UIC: A B C D E Pg 2 of 3

Aircraft: N22BE **Begin Hobbs:** 8714.4 **End Hobbs:** 8718.4 **Total:** 4.0 **Pilot:** Carl Christopher **Co-Pilot:** **Tech:** Gary Fa. **Stn 1:** **Stn 2:**

Dep Apt: KOGD **Dep Time (Lof):** 9:21 (Z): 15:21 **Arr Apt:** KFM **Arr Time (Local):** 19:23 (Z): 19:23 **Tot Time Aloft:** 4:02

CORS: Y/N **Sta 1:** Y/N **Sta 2:** Y/N **Flyovers:** Y/N **IF Y, times: Sta 1** **IF Y, times: Sta 2**

GPS Units: Y/N **Sta 1:** **Sta 2:**

Gd Temp beg:	°C	End:	°C	OAT beg:	°C	End:	°C	Altimeter begin:	end:
LIDAR	Type: ALS 70	Serial #: 7161	Alt AGL: 3200'	Alt ANSL: 7710	Avg Terr Ht: 4500'	Misc Glgnd: 145	Avg Pt. Speeding: 7700'	Mag CB: 250	Storage Namefile: MM70
	FOV: 40°	Scan Freq: 53Hz	Mp/A: Y/N	Pulse In Air: 1	Pulse Rate: 248KHz	Power: 450W	Power: 8	Bar CB: 271	Tic CB: -017

Line #	Hdg	Start (UTC)	End (UTC)	Gd Spd	Foot/Sec	GPS Altitude	Crab	Turb (ft/s)
1099	148°	17:22	17:23	125	11/19	7721'	3°	-
1098	328°	17:26	17:26	140	11/19	7706'	1°	0
UL003	60°	17:30	17:32	135	11/19	7700'		
				146	11/19	7756'	3°	0
1084	321°	17:36	17:39	146	11/19	7700'	2°	-
1085	151°	17:41	17:45	127	11/19	7737'	4°	0
1086	339°	17:48	17:51	144	11/19	7740'	4°	0
1087	151°	17:54	17:57	125	11/18	7700'	5°	0
1088	351°	18:00	18:03	137	11/18	7750'	4°	0
1089	151°	18:07	18:10	130	11/18	7800'		
UL004	248°	18:13	18:15	131	11/18	7700'	6°	0
1083	98°	18:19	18:23	136	11/19	7705'	7°	-
1082	278°	18:26			12/8	7720'		
UL005	187°	18:36	18:37	145	11/18	7710'		
1082R	278°	18:43	18:46	150	11/18	7700'	6°	0

FLIGHT LINE NOTES - visibility, clouds, smoke, partial, etc.
 UTAH LAKE AOI 161026-172210
 161026-172556
 CROSS TIE
 161026-173618
 161026-174143
 161026-174749
 161026-175409
 - 180018
 32° on collia due to restricted area to NW, 161026-18658
 CROSS TIE
 missed line, trying again
 161026-181944
 beside of hole to traffic, reflying all
 CROSS TIE much over water, refly later
 - 184321

Total Proj Lines: 23 **Lines Flown:** 23 **Online Time:** 3:33 **Mob Time:** 7 **Notes:**

Project: UTAH LIDAR 2016

Altcraft: N22GE

Dep Apt: KOGD

COORS: Y/N

GPS Unit: Y/N

Gd Temp beg: °C End: 15 °C

LIDAR

Type	Serial #	Alt AGL	Alt MSL	Phase in Air	Phase in Alt	Turb (0-1)
FOV	40	5342	MPIA Y/N	1		

Date: 10/26/2016

Flight Mgmt File: FMSL-Utah-LK-QL1-SNT16-22GE

Proj #: 29083

End Hobbs: 89144

Arr Apt: KPVU

COORS: Y/N

GPS Unit: Y/N

Gd Temp beg: °C End: 15 °C

LIDAR

Line #	Hdg	Start (UTC)	End (UTC)	Gd Spd	ROPM Sess	GPS Altitude	Crab	Yrb (0-1)
1081	98°	18:50	18:53	142	1/9	7700	7	
1080	28°	18:56	18:59	145	1/8	7730	50	
11006	7°	19:07	19:09	153				
		19:09	19:14					

Altcraft: N22GE **Begin Hobbs:** 89144 **Total:** 4.0 **Pilot:** Carl Christopher **Co-Pilot:** Tech: Gary Lee

Dep Time (Lcl): 9:21 **Arr Time (Local):** 1:23 **Tot Time Aloft:** 4:02

COORS: Y/N **Sta 1:** YTOC **Flyovers:** Y/N **Sta 2:** Y/N **IF Y, times: Sta1)** **Sta2)**

GPS Unit: Y/N **Sta 1:** **Flyovers:** Y/N **IF Y, times: Sta1)** **Sta2)**

Gd Temp beg: °C **End:** 15 °C **OAT beg:** °C **End:** °C

LIDAR

Line #	Hdg	Start (UTC)	End (UTC)	Gd Spd	ROPM Sess	GPS Altitude	Crab	Yrb (0-1)	Max Gdspd	Avg Pt Spd	Power	Alt	Phase	Phase in Alt	Turb (0-1)
1081	98°	18:50	18:53	142	1/9	7700	7		161026	185015	4570	14500	1		
1080	28°	18:56	18:59	145	1/8	7730	50		161026	185617	4590	14500	1		
11006	7°	19:07	19:09	153							4590	14500	1		
		19:09	19:14												

FLIGHT LINE NOTES - visibility, clouds, emote, particl, etc.

crossTIE along shore

Descent Fig 8

landing in KPVU for fuel

Total Proj Lines: 23 **Lines Flown:** 23 **Lines Remain:** 0 **Oblique Time:** 33 **Mobile Time:** 17 **Notes:**

Oct 26, 2016-B (N22GE, SN7161)

Project: **UTAH-LIDAR 2016** Proj #: **29083** Flight Mgmt File: **FMSL Utah Lake AOI - SN7161-22GE**
 Aircraft: **N22GE** Begin Hobbes: **8918.4** End Hobbes: **8921.3** Total: **2.9** Pilot: **Carl Christopher** Co-Pilot: **Tech: Greg Tice**
 Dep Apt: **KPVU** Dep Time (Lcl): **2:30 (Z)** Arr Apt: **KOGD** Arr Time (Local): **5:12 (Z)** Tot Time Aloft: **2:52**
 COBS: **(Y) N** Sta 1: **Sta 2:** Flyovers: **Y (N)** If Y, times: **Sta 1)** **Sta 2)**
 GPS Unit: **Y (N)** Sta 1: **Sta 2:** Flyovers: **Y / N** If Y, times: **Sta 1)** **Sta 2)**
 Gd Temp beg: **°C** End: **2.0** °C OAT beg: **°C** End: **77.6** °C Altimeter begin: **30.23** end: **30.19**
 LIDAR Type: **ALS70** Serial #: **7161** Alt AGL: **350'** Alt AHB: **776'** Avg Temp: **145.65** Max OASD: **145.65** Avg Pt Spacing: **8**
 FOV: **40°** Scan Freq: **53.4** Mps: **(Y) N** Pulse Rate: **248kHz** Power: **45.9%** PPM: **8**

Line #	Hdg	Source (UTC)	End (UTC)	Gd Spd	POB/Pass	GPS Altitude	Crsb	Turb (0-+)	Initial	Final	Storage Number
1009	334°	20:50	20:53	147	11/18	7780'	1°	+	161026	205027	211
1008	541°	20:56	20:59	119	9/20	7700'	3°	-	161026	205555	289
1007	334°	21:01	21:01	142	1/18	7700'	5°	+	161026	210119	18
1006	154°	21:06	21:10	128	12/16	7700'	3°	-	-	210649	
1005	334°	21:12	21:15	145	1/18	7700'	3°	+	-	211232	
1004	154°	21:18	21:21	122	1/18	7700'	4°	-	-	211808	
1003	334°	21:24	21:26	146	1/18	7700'	2°	+	-	212346	
1002	154°	21:29	21:31	130	1/18	7720'	4°	-	-	212854	
1001	334°	21:33	21:35	150	1/18	7704'	3°	-	-	211338	
1000	63°	21:39	21:41	151	12/17	7700'		-	-	213836	
1097	26°	21:42	21:44	155	12/17	7800'	2°	-	-	214209	
1096	26°	21:46	21:49	140	12/17	7700'	1°	-	-	214634	
1095	26°	21:53	21:57	138	13/18	7700'	1°	-	-	215308	
1094	26°	22:00	22:05	134	13/17	7750'	1°	-	had to descend @ South end for traffic - partial refueling - send		
1093	26°	22:07	22:09	158	13/17	7750'	2°	-	refueling south 3.5 n miles - 220726		

FLIGHT LINE NOTES - visibility, clouds, smoke, partial, etc.
 Initial Fly8
 Total Prof Lines: **17** Lines Flown: **17** Online Time: **2** Mob Time: **9** Notes:

Alberne LIDAR Data Collection Log Sheet :: Quantum Spatial, Inc

Date: 10/26/2016
 UTM: A B C D E
 Proj: 2016_2

Project: UTAH - LIDAR 2016
 Flight Mgmt File: FMSJ_Utah_Lake_QL1_SNT161-22GE
 Alcraft: N22GE
 Begin Hobbs: 8918.4
 End Hobbs: 8921.3
 Total: 2.9
 Pilot: Carl Christophers
 Co-Pilot: Tech: Gary Jones
 Dep Apt: KRVU
 Dep Time (Lcl): 2:30 (Z): 20:30
 Arr Apt: KOGD
 Arr Time (Local): (Z):
 Tot Time Aloft: 2:52

CORS: Y/N Sea 1:
 GPS Unit: Y/N Sea 1:
 Flyovers: Y/N (if Y, times: Sea 1)
 Flyovers: Y/N (if Y, times: Sea 2)

Alt	Temp	OAT	°C	End	°C	Alt	End	Alt	End	Alt	End	Alt	End	Alt	End	Alt	End	Alt	End
7161	7161	3150	77°	77°	4550	145kt	4570	8	3019										

Line #	Hdg	Scat (UTC)	End (UTC)	Gd Spd	Rough/Est	GPS Altitude	Onb	Turb	Alt	APHL	Max	Avg Pt	Power	Power	Power	Power	Power	Power	Power	Power
1093	200°	22:15	22:19	151	14/16	7750'	2°	-	161026	221458										
1092	200°	22:22	22:26	145	12/17	7710'	0°	0	222153											
1091	210°	22:29	22:33	154	11/18	7730'	2°	-	222353											
1090	200°	22:36	22:41	144	11/18	7750'	0°	0	2223609											
10002	280°	22:45	22:47	147	12/19	7700'	0	0	CROSS-TIE											
		22:49	22:53						Closeout Fig 8											
									RTB KOGD											

FLIGHT LINE NOTES - visibility, clouds, smoke, particl, etc.
 Total Proj Lines: 17
 Lines Flown: 17
 Lines Remain: 0
 Chlino Time: 2
 Mob Time: 9
 Notes:

Oct 29, 2016-A (N22GE, SN7161)

on 15:50
off 18:52

Airborne LIDAR Data Collection Log Sheet :: Quantum Spatial, Inc
(Email log entry to flight_log_distribution_list@quantumspatial.com)

Date: 10/29/2016
Project: UTAH LIDAR 2016 Proj #: 29083
Flight Mgmt File: FMSEL UTAH_LK_N22GE
Aircraft: N22GE Begin Hobbs: 8782 End Hobbs: 89308 Total: 2.6 Pilot: Carl Christopher Co-Pilot: Todd Goyette
Dep Apt: KOGD Dep Time (Local): 10:06Z Arr Apt: KOGD Arr Time (Local): 12:41Z Tot Time (Moist): 2:38
CORR: Y/N Sea 1: UTLZ/UTOC Sea 2: UTSZ/UMBE Flyovers: Y/N IF Y, (class: Sea 1) Sea 2:
GPS Units: Y/N Sea 1: Sea 2: Flyovers: Y/N IF Y, (class: Sea 1) Sea 2:
Gd Temp bag: °C End: °C OAT bag: °C End: °C Altimeter height: end:
Type ALS70 Serial: 7161 Alt: 3238' Alt: 770' High Temp Pressure: 145
FOV 40° Scan Rate: 53 Hz MPAA Y/N Pulse Rate: 45% Power: 8

Line #	Hdg	Start (UTC)	End (UTC)	Alt (ft)	Alt (ft)	MPAA	Y/N	Pulse Rate	Power	Type (R, S, I)	GPS Altitude	Cob	Notes
1079	98	16:26	16:32	1217	7700	40	-	-	-	-			Initial Fig 8
1078	28	16:39	16:47	1211	7700	30	-	-	-	-			Departure delayed by VX
1077	98	16:51	16:59	1217	7650	40	+	-	-	-			
1076	28	16:57	17:00	1070	7650	40	-	-	-	-			
1075	98	17:03	17:06	1119	7700	40	-	-	-	-			
1074	28	17:08	17:11	1120	7650	40	-	-	-	-			
1073	98	17:14	17:16	1119	7670	50	+	-	-	-			
UL002	206	17:24	17:26	1220	7700								
1037	188	17:26		129	7800	20	+	-	-	-			range very low on North end
1036	8	17:44	17:49	153	7900	10	+	-	-	-			close to mountain
1035	188	17:53	17:59	126	7800	30	+	-	-	-			a little fast @ end
UL003	70	18:01	18:03	149	7700								CROSS TIE 1 close display; Turb
		18:03	18:08										Close out fig 8; R T B KOGD

Total Proj Lines: 10 Lines Flown: 10 Lines Remaining: 0 Online Time: 14 Min Mob Time: 12 Min Notes:

Nov 2, 2016-A (N208NR, SN8227)

Date: 11/2/2016	Aircraft: 208NR	Sensor: 8227
Project: Utah 2016 LiDAR		Project #: R029083
Flight Mgmt File: FAGL_Utah_Lk_8227_QL1_1 Unplanned-20161102153610_1		
Pilot: Travis Peden		Sensor Operator: Aaron Mallon

	Flight 1	Flight 2	Flight 3	Flight 4
Wheels Up	9:45:00 AM			
Wheels Down	1:00:00 PM			
Begin Hobbs	4384.5			
End Hobbs	4387.7			
On-line Hobbs: 3.1		Mob Hobbs: 0.1		

Notes

Today we had wheels up at 0945 and targeted the Utah lake block. We completed A09-A37 but were unable to complete the block due to clouds. Today we utilized the UTOC, UTS2, and UTNE CORS.

Flt Mgmt File: FAGL_Utah_Lk_8227_QL1_1

Name	AltStart	TimeStart	SunAngStrt	AltEnd	TimeEnd	SunAngEnd
A21	2777.124 m	16:04:37	19.99105077	2730.886 m	16:05:35	20.11399215
A20	2733.760 m	16:06:49	20.29226130	2736.826 m	16:08:19	20.52821124
A19	2743.602 m	16:10:41	20.88312385	2773.036 m	16:13:48	21.26797934
A18	2779.135 m	16:15:08	21.45277756	2744.718 m	16:18:31	21.97215818
A17	2764.583 m	16:20:02	22.18280645	2738.529 m	16:23:57	22.64694258
A16	2735.310 m	16:25:43	22.88138384	2742.286 m	16:29:34	23.45403061
A15	2753.844 m	16:30:53	23.62808011	2722.084 m	16:34:50	24.06440009
A14	2716.295 m	16:38:02	24.44561426	2759.795 m	16:43:21	25.20506606
A13	2696.180 m	16:44:41	25.36993060	2743.555 m	16:50:58	25.99895862
A12	2762.413 m	16:52:28	26.17007404	2739.058 m	16:58:55	27.04633946
A11	2786.119 m	17:00:09	27.18790948	2805.734 m	17:06:49	27.77624219
A10	2723.509 m	17:08:35	27.96639542	2817.960 m	17:14:58	28.76578327
A09	2816.212 m	17:16:17	28.90331017	2834.812 m	17:22:42	29.39492428
A22	2782.251 m	17:26:11	29.74391170	2821.110 m	17:30:14	30.12658360
A23	2801.519 m	17:31:39	30.24947676	2786.979 m	17:35:45	30.59752802
A24	2757.225 m	17:37:58	30.78252057	2827.601 m	17:42:21	31.14935629
A25	2817.257 m	17:43:32	31.23984520	2786.026 m	17:48:42	31.63769315
A26	2790.524 m	17:50:17	31.75280116	2806.283 m	17:55:49	32.14785297
A27	2832.145 m	17:57:10	32.23640848	2780.794 m	18:02:16	32.58174454
A28	2828.419 m	18:04:21	32.70975676	2790.687 m	18:09:39	33.01361887
A29	2825.747 m	18:11:03	33.08890303	2786.035 m	18:13:42	33.24407127
A30	2789.569 m	18:15:39	33.34214294	2818.928 m	18:18:11	33.46086865
A31	2816.799 m	18:19:49	33.53676336	2797.507 m	18:21:13	33.61034065
A31	2798.022 m	18:21:14	33.61114612	2772.420 m	18:21:58	33.64866403
A32	2812.298 m	18:24:28	33.75637653	2875.021 m	18:26:14	33.82277271
A33	2860.575 m	18:27:45	33.88181634	2791.469 m	18:29:24	33.95860075
A34	2776.160 m	18:30:53	34.01200723	2854.323 m	18:32:31	34.06172484
A35	2873.252 m	18:33:48	34.10498492	2831.713 m	18:35:11	34.16295173
A36	2776.440 m	18:36:22	34.19829391	2831.460 m	18:37:47	34.23345329
A37	2869.089 m	18:39:33	34.28593387	2845.185 m	18:40:01	34.30352010
A31	2825.985 m	18:43:46	34.41757966	2761.412 m	18:45:49	34.48692765

Flt Mgmt File: Unplanned-20161102153610_1

Name	AltStart	TimeStart	SunAngStrt	AltEnd	TimeEnd	SunAngEnd
UL001	2774.785 m	16:02:15	19.69499975	2768.417 m	16:02:27	19.71629348
UL003	2890.170 m	18:49:59	34.54093949	2823.370 m	18:52:15	34.65227210

Nov 3, 2016-A (N208NR, SN8227)

Date: 11/3/2016	Aircraft: 208NR	Sensor: 8227
Project: Utah 2016 LiDAR		Project #: R029083
Flight Mgmt File: FAGL_Utah_Lk_8227_QL1_2 Unplanned-20161103191748_2		
Pilot: Travis Peden		Sensor Operator: Aaron Mallon

	Flight 1	Flight 2	Flight 3	Flight 4
Wheels Up	9:10:00 AM			
Wheels Down	3:35:00 PM			
Begin Hobbs	4387.7			
End Hobbs	4394.1			
On-line Hobbs: 3.9		Mob Hobbs: 2.5		

Notes

Today we were out at the airport ready to take off at 0630 but the deicing trucks broke down so we were not able to take off until 0910. We then flew to the Forge area and completed the remaining lines as well as some reflies. After that we flew back to the Utah Lake area and completed the remaining lines in that block. We eventually had wheels down in Ogden UT and are currently based there.

Flt Mgmt File: FAGL_Utah_Lk_8227_QL1_2

Name	AltStart	TimeStart	SunAngStrt	AltEnd	TimeEnd	SunAngEnd
A08	2805.189 m	20:07:37	33.06162067	2786.441 m	20:10:34	32.99374536
A01	2737.933 m	20:12:37	32.86910274	2771.421 m	20:14:02	32.74068791
A02	2763.981 m	20:15:20	32.65983290	2830.405 m	20:16:55	32.61320223
A03	2860.674 m	20:18:08	32.53805006	2849.299 m	20:18:22	32.51526322
A03	2843.658 m	20:20:32	32.38290593	2746.426 m	20:23:33	32.08279844
A04	2728.785 m	20:24:38	32.00903753	2852.097 m	20:27:46	31.88788943
A05	2827.718 m	20:28:51	31.81021493	2747.560 m	20:31:54	31.48555659
A06	2738.571 m	20:33:04	31.39839973	2775.906 m	20:36:07	31.26221055
A07	2780.488 m	20:37:15	31.17292879	2779.368 m	20:40:15	30.83350440
A08	2797.725 m	20:41:11	30.76080938	2792.610 m	20:44:04	30.61341480

Flt Mgmt File: Unplanned-20161103191748_2

Name	AltStart	TimeStart	SunAngStrt	AltEnd	TimeEnd	SunAngEnd
UL001	2980.487 m	20:46:29	30.39635269	2677.139 m	20:49:16	30.13082254

Nov 18, 2016-A (N208NR, SN8146)

Date: 11/18/2016	Aircraft: 208NR	Sensor: 8146
Project: Utah 2016 LiDAR		Project #: R029083
Flight Mgmt File: FAGL_Forge_2PiA_8227_8ppsm_1550m_1 Unplanned-20161026140711_1		
Pilot: Tyler Cousins		Sensor Operator: Ian Romansky

	Flight 1	Flight 2	Flight 3	Flight 4
Wheels Up	12:50:00 PM			
Wheels Down	4:20:00 PM			
Begin Hobbs	4405.3			
End Hobbs	4408.8			
On-line Hobbs: 0.4		Mob Hobbs: 2.9		

Notes

We arrived at the airplane this morning right as it was being loaded into the hangar. TacAir Centennial said they'd have it hangar'd by 8:30am and we arrived around 10:30am. We got online in Utah and received GNSS/IMU errors on our sensor (SN8146). I performed a system restart and continued to have issues. I contacted BM and LR, they provided some helpful knowledge, but TC and I figured it all out. The Shoreline Reflies were quick and easy. We finished up and landed in Ogden. TODAY WE USED UTAH TURN CORS STATION "UTS2"

Flt Mgmt File: FAGL_Extra_Shoreline_8146_1

Name	AltStart	TimeStart	SunAngStrt	AltEnd	TimeEnd	SunAngEnd
B40	2916.330 m	22:25:02	15.57309299	2874.053 m	22:25:33	15.51476228
B39	2860.444 m	22:27:26	15.25349280	2870.131 m	22:28:06	15.14185628
B38	2850.059 m	22:29:43	14.91248650	2847.978 m	22:30:34	14.81574759
B37	2839.875 m	22:32:05	14.60093640	2846.719 m	22:33:03	14.43691528
B36	2868.350 m	22:34:23	14.24426069	2864.432 m	22:35:26	14.12149104
B35	2835.517 m	22:36:54	13.90830890	2849.173 m	22:37:55	13.73486196
B39	2859.018 m	22:42:48	13.05618329	2853.593 m	22:43:29	12.93840786
B34	2881.136 m	22:48:10	12.05799921	2881.894 m	22:48:41	11.97443923
B33	2858.366 m	22:50:31	11.70614754	2868.821 m	22:51:03	11.63378522
UL002	2863.890 m	22:39:47	13.47012268	2838.980 m	22:40:56	13.32447760

Flt Mgmt File: Unplanned-20161118220426_1

Name	AltStart	TimeStart	SunAngStrt	AltEnd	TimeEnd	SunAngEnd
UL002	2863.890 m	22:39:47	13.47012268	2838.980 m	22:40:56	13.32447760
UL003	2865.765 m	22:52:29	11.42382347	2885.999 m	22:53:08	11.30776790

