

ORH

**Station Occupation Report
For Airborne GPS**

Project:

FEMA - MASS

Location:

KIORH (Worcester, MA)

Completed by:

Berry/Young

Project Number: 7556-005

Date: December 11, 2010

Receiver:

Trimble "4"

Receiver Type:

5700

Antenna Type:

Zephyr Geodetic

Station ID:

ORHA Marked "V8"

Start -- H.I. (m):

1.491 1.491

End -- H.I. (m):

1.491

H.I. (ft):

4.89 4.89

Start Time:

1000 AM

End Time:

4:12 PM

Time Zone:

EST

Operator:

Berry/Young

Comments

1012116-246

1012116-247

Reference Mark near ORHA called V8
was setup on!

Opus height: 1.437 for OPUS Submission



LIDAR MISSION RECORD SHEET - Optech

PHOTO SCIENCE

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Project Name: **FERT-MASS**
 Project Number: **7556-005**
 Assignment: **ORH, Charles, pla**

Pilot: **Young**
 Operator: **Berry**
 Aircraft: **N7266Z**

Date Flown: **December 11, 2016**
 Takeoff Time (Z): **1508Z** Local: **1028 AM EST** Airport: **ORH**
 Landing Time (Z): **1946Z** Local: **140 PM EST** Airport: **ORH**

Project Scanning Requirements
 FOV (half-degrees): **± 18°** Altitude AGL (ft): **5000**
 Scan Rate: **3012Hz** (MPIA or SPIA)
 Pulse Rate: **71 kHz** Fixed or (Auto)
 Ground Speed: **116 kts** Samples / 1000 Range: **320**
 A.R.F.: **Range**

Data Information
 LIDAR Unit: **Optech Gemini sn246**
 HD #: **246401**
 POS File Name: **101211a**
 from, to: **000 - 026**

	Ground	Airport
Begin Temp	0°C	
Begin Dewpoint	-4°C	ORH
Begin Pressure	30.21	
End Temp	04°C	
End Dewpoint	-03°C	
End Pressure	30.18	ORH

GPS Base Location(s): **V8 OKH A**
 PDOP Avoidance: **Good all day**
 Static or Flyover? **Static** → if flyovers, times: **-**

101211a-246
 1/2

Flight Line Name#	Start Time	End Time	Alt. (AMSL)	Heading	Speed	Returns	Crab	NOTES (weather, visibility, winds, tide, etc.)
38	1540	1542	5750'	S	116	100%	13	Smooth, some snow on ground; just a dusting
100	1544	1546	5630'	S	116	100%	13	
101	1550	1552	5630'	N	116	100%	-13	
39	1555	1556	5750'	N	116	100%	-14	
40	1600	1602	5750'	S	116	100%	12	
39	1605	1607	5600'	S	116	100%	12	
58	1611	1614	5600'	N	116	100%	-14	
57	1617	1619	5630'	S	116	100%	11	
36	1622	1624	5670'	N	116	100%	-13	
41	1626	1628	5870'	N	116	100%	-14	
42	1631	1632	5910'	S	116	100%	12	
55	1635	1637	5880'	S	116	100%	12	
54	1640	1642	5700'	N	116	100%	-13	
43	1645	1646	5910'	N	116	100%	-14	
44	1650	1651	5850'	S	116	100%	12	
51	1654	1655	5700'	S	116	100%	14	
52	1659	1700	5730'	N	116	100%	-13	
45	1701	1704	6000'	N	116	100%	-16	
46	1707	1710	6050'	S	116	100%	13	
53	1710	1712	5770'	S	116	100%	13	

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Project Name	Fema Mass
Project Number	7560-005
Altitude File	ORH-Orchards.ph

Pilot	Yankin
Operator	BERRY
Aircraft	N7266Z

Date Flown:	December 11, 2010
Takeoff Time (Z):	1638Z
Landing Time (Z):	1847Z
Local:	1038 AM EST
Local:	140 PM EST
Airport	ORH
Airport	ORH

FOV (half-degrees):	± 18°	Altitude AGL (ft):	5000
Scan Rate:	3010 Hz	(MP) or SPIA	
Pulse Rate:	11 kHz	Fixed or Auto	
Ground Speed:	116 kts	Range	300
A.R.F.:		Range	300

LIDAR Unit	Optech Gemini sn246
HD #	246HD1
POS File Name	101211a
from, to	000 - 026

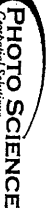
Begin Temp	0°C	Ground	Airport
Begin Dewpoint	-4°C		
Begin Pressure	30.01		
End Temp	4		
End Dewpoint	-3		
End Pressure	30.18		

GPS Base Location(s)	V8 ORH
PDOP Avoidance	Good all day
Static or Flyover?	Static

101211a-246
2/2

Flight Line Name#	Start Time	End Time	Alt. (AMSL)	Heading	Speed	Returns	Crab	NOTES (weather, visibility, winds, tide, etc.)
47	1715	1719	10050	N	116	100%	-12	
48	1722	1724	10100	E	116	100%	13	
49	1727	1730	10170	N	116	100%	-13	
50	1733	1735	10130	S	116	100%	12	
Imperial	1739	1741	5900	E	116	100%	14	
38	1744	1748	5550	N	116	100%	-13	
84	1751	1756	6550	S	116	100%	12	
85	1759	1802	5600	N	116	100%	-13	
86	1804	1808	5515	N	116	100%	11	
87	1810	1813	5530	N	116	100%	-13	
88	1816	1819	5550	S	116	100%	13	
89	1822	1825	5480	N	116	100%	-13	
90	1827	1831	5400	S	116	100%	11	

LIDAR MISSION RECORD SHEET - Optech



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Project Name	TEMP-MAS
Project Number	7556-005
Altitude/Range	OK4 Charles-ph

Pilot	Young
Operator	BERRY
Aircraft	N7266Z

Date Flown:	December 11, 2010
Takeoff Time (Z)	1906Z
Landing Time (Z)	2059Z
Local	8:06 AM EST
Local	3:59 PM EST
Airport	OK4
Airport	OK4

FOV (half-degrees):	± 18°	Altitude AGL (ft):	5000
Scan Rate:	391 Hz	MPA or SPIA	MPA
Pulse Rate:	71 kHz	Fixed or Auto	Auto
Ground Speed:	116 kts	Samples	-
A.R.F.:	-	Range	-

LIDAR Unit	Optech Gemini sn246
HD #	246 HD1
POS File Name	101211b
from, to	000-014

Begin Temp	4°C	Ground	OK4
Begin Dewpoint	-04°C	Airport	OK4
Begin Pressure	30.17		
End Temp	04°C		
End Dewpoint	-04°C		
End Pressure	30.18		

GPS Base Location(s)	OK4
PDOP Avoidance	Good all day
Static or Flyover?	Static

101211b-246

Flight Line Name#	Start Time	End Time	Alt. (AMSL)	Heading	Speed	Returns	Crab	NOTES (weather, visibility, winds, tide, etc.)
31	1936	1939	5500'	N	116	100%	-11	Smooth alt. Snow mostly gone except for lakes
32	1943	1946	5500'	S	116	100%	10	
33	1949	1953	5600'	N	116	100%	-11	
34	1956	1959	5700'	S	116	100%	10	
35	2002	2004	5650'	N	116	100%	-16	
36	2006	2008	5700'	S	116	100%	10	
37	2010	2012	5730'	N	116	100%	-10	
38	2020	2026	5480'	S	116	100%	10	
39	2030	2035	5450'	N	116	100%	-10	
40	2040	2046	5500'	S	116	100%	8	
41	2048	2049	5500'	N	116	100%	-2	

LIDAR MISSION RECORD SHEET - Optech

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Project Name:	DRH - Charles
Project Number:	7556 - 005
ALTIM-NAV .pln file	DRH - Charles .pln

Pilot:	Greenwell
Operator:	Galieti
Aircraft:	N2448G

Date Flown:	12/11/10	#	2
Takeoff Time (Z):	16:37	Local:	11:37
Landing Time (Z):	21:02	Local:	4:06
		Airport	KORH

Project's Scanning Requirements	
FOV (half-degrees):	± 16°
Altitude AGL (ft):	5000
Scan Rate:	30 Hz
Pulse Rate:	70 kHz
Ground Speed:	116 kts
A.R.F.:	Range

Data Information	
LIDAR Unit	Optech Gemini sn247
HD #	1
POS File Name	101211b
from, to	0 → 33

Begin Temp	2 C	Ground		Airport	
Begin Dewpoint	-3 C				
Begin Pressure	30.20				
End Temp					
End Dewpoint					
End Pressure					

GPS Base Location(s)	DRH
PDOP Avoidance	Good all day
Static or Flyover?	Static
	→ If flyovers, times: —

101211b-247

27026

Flight Line Name/#	Start Time	End Time	Alt. (AMSL)	Heading	Speed	Returns	Crab	NOTES (weather, visibility, winds, ride, etc.)
12	1707	1709	5386	179	120	106	12	
11	1713	1717	5420	359	120	100	10	
10	1722	1725	5400	179	120	100	12	
9	1731	1734	5376	359	121	106	11	
8	1739	1743	5400	179	113	100	13	
7	1749	1752	5400	359	118	100	12	
6	1758	1803	5400	179	118	100	13	
5	1808	1813	5370	359	114	100	12	
4	1818	1823	5360	179	118	100	11	
3	1828	1834	5350	359	115	100	12	
2	1839	1845	5390	179	117	100	11	
1	1850	1900	5380	359	117	100	10	
13	1904	1914	5360	179	121	100	13	
14	1919	1929	5380	359	117	100	9	
15	1933	1943	5380	179	117	100	12	
16	1949	1955	5370	359	115	100	10	
17	2011	2018	5410	179	115	100	12	
18	2023	2030	5450	359	110	100	10	
19	2034	2041	5430	179	112	100	12	
Cross line	2043	2046	5430	090	130	160	1	

extra line
missed start.

Mass Area: ORH-Charles

Project No 7556-005

Contact: Photo Science: F Godby at
859 277-8700 or Cell: 859 421-5258

Flight Logs

FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
1	21.7	5370	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
2	12.3	5360	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
3	10.5	5350	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
4	10.5	5360	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
5	10.5	5370	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
6	10.3	5380	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
7	6.6	5380	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
8	6.6	5370	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
9	6.6	5380	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
10	6.6	5390	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
11	6.6	5400	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247		
12	4.7	5400	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247	✓	
13	21.4	5380	ORH A	ORH_Charles. ORH_CHARL	12/11/10	247	✓	

Flight Logs should be FAXED to 859-277-8901 immediately after each days flights with lines and other details noted

Operator: Salich
Pilot: Greenwell

AIRCRAFT Tail Number: K12448G
Sensor Serial Number: 247

Date: 12/11/10
Page 1 of 5

FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
14	20.5	5380	ORH A	ORH_Charles. ORH_CHARL	12/11/10			
15	20.5	5390	ORH A	ORH_Charles. ORH_CHARL	12/11/10			
16	15.0	5370	ORH A	ORH_Charles. ORH_CHARL	12/11/10			
17	14.5	5360	ORH A	ORH_Charles. ORH_CHARL	12/11/10			
18	14.1	5380	ORH A	ORH_Charles. ORH_CHARL	12/11/10			
19	14.1	5420	ORH A	ORH_Charles. ORH_CHARL	12/11/10			
20	13.1	5440	ORH A	ORH_Charles. ORH_CHARL				
21	12.3	5460	ORH A	ORH_Charles. ORH_CHARL				
22	11.1	5490	ORH A	ORH_Charles. ORH_CHARL				
23	9.1	5550	ORH A	ORH_Charles. ORH_CHARL				
24	9.1	5560	ORH A	ORH_Charles. ORH_CHARL				
25	6.7	5590	ORH A	ORH_Charles. ORH_CHARL				
26	6.7	5570	ORH A	ORH_Charles. ORH_CHARL				
27	6.7	5510	ORH A	ORH_Charles. ORH_CHARL				

Flight Logs should be FAXED to 859-277-8901 immediately after each days flights with lines and other details noted

Operator: Salvetti
Pilot: Greenwell

AIRCRAFT Tail Number: N24486
Sensor Serial Number: 247

Date: 12/11/10 Page 2 of 5

FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
14	20.5	5380	ORH A	ORH_Charles. ORH_CHARL	12-11-2010	247	N9	
15	20.5	5390	ORH A	ORH_Charles. ORH_CHARL				
16	15.0	5370	ORH A	ORH_Charles. ORH_CHARL				
17	14.5	5360	ORH A	ORH_Charles. ORH_CHARL				
18	14.1	5380	ORH A	ORH_Charles. ORH_CHARL				
19	14.1	5420	ORH A	ORH_Charles. ORH_CHARL				
20	13.1	5440	ORH A	ORH_Charles. ORH_CHARL	12-11-2010	246	JB	
21	12.3	5460	ORH A	ORH_Charles. ORH_CHARL				
22	11.1	5490	ORH A	ORH_Charles. ORH_CHARL				
23	9.1	5550	ORH A	ORH_Charles. ORH_CHARL				
24	9.1	5560	ORH A	ORH_Charles. ORH_CHARL				
25	6.7	5590	ORH A	ORH_Charles. ORH_CHARL				
26	6.7	5570	ORH A	ORH_Charles. ORH_CHARL				
27	6.7	5510	ORH A	ORH_Charles. ORH_CHARL				

Flight Logs should be FAXED to 859-277-8901 immediately after each days flights with lines and other details noted

Operator: Barry Young
AIRCRAFT Tail Number: N72602
Sensor Serial Number: 246

Date: 12-11-2010
Page 2 of 5

FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
28	6.3	5450	ORH A	ORH_Charles. ORH_CHARL	12-11-2010	246	JB	
29	6.3	5430	ORH A	ORH_Charles. ORH_CHARL				
30	6.3	5420	ORH A	ORH_Charles. ORH_CHARL				
31	6.3	5500	ORH A	ORH_Charles. ORH_CHARL				
32	6.3	5550	ORH A	ORH_Charles. ORH_CHARL				
33	6.3	5600	ORH A	ORH_Charles. ORH_CHARL				
34	6.3	5630	ORH A	ORH_Charles. ORH_CHARL				
35	2.8	5650	ORH A	ORH_Charles. ORH_CHARL				
36	2.8	5660	ORH A	ORH_Charles. ORH_CHARL				
37	2.8	5730	ORH A	ORH_Charles. ORH_CHARL				
38 ✓	2.8	5750	ORH A	ORH_Charles. ORH_CHARL				
39 ✓	2.8	5750	ORH A	ORH_Charles. ORH_CHARL				
40 ✓	2.8	5750	ORH A	ORH_Charles. ORH_CHARL				
41 ✓	2.8	5860	ORH A	ORH_Charles. ORH_CHARL				

Flight Logs should be FAXED to 859-277-8901 immediately after each days flights with lines and other details noted

Operator: Berry
Pilot: Young

AIRCRAFT Tail Number: N7266Z
Sensor Serial Number: 246

Date: 12-11-2010

FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
42 ✓	2.8	5910	ORH A	ORH_Charles. ORH_CHARL	12-11-2016	846	JB	
43 ✓	2.8	5900	ORH A	ORH_Charles. ORH_CHARL				
44 ✓	2.8	5860	ORH A	ORH_Charles. ORH_CHARL				
45 ✓	6.6	5950	ORH A	ORH_Charles. ORH_CHARL				
46 ✓	6.7	6020	ORH A	ORH_Charles. ORH_CHARL				
47 ✓	6.4	6080	ORH A	ORH_Charles. ORH_CHARL				
48 ✓	5.3	6090	ORH A	ORH_Charles. ORH_CHARL				
49 ✓	5.1	6090	ORH A	ORH_Charles. ORH_CHARL				
50 ✓	3.6	6100	ORH A	ORH_Charles. ORH_CHARL				
51 ✓	3.1	5710	ORH A	ORH_Charles. ORH_CHARL				
52 ✓	3.6	5750	ORH A	ORH_Charles. ORH_CHARL				
53 ✓	2.7	5780	ORH A	ORH_Charles. ORH_CHARL				
54 ✓	3.6	5700	ORH A	ORH_Charles. ORH_CHARL				
55 ✓	3.6	5680	ORH A	ORH_Charles. ORH_CHARL				

Flight Logs should be FAXED to 859-277-8901 immediately after each days flights with lines and other details noted

Operator: Berry
Pilot: JB

AIRCRAFT Tail Number: N72662
Sensor Serial Number: 846

Date: 12-12-2016
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FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
56 ✓	3.6	5660	ORH A	ORH_Charles. ORH_CHARL	12-11-2010	246	DB	
57 ✓	3.6	5600	ORH A	ORH_Charles. ORH_CHARL				
58 ✓	4.5	5600	ORH A	ORH_Charles. ORH_CHARL				
59 ✓	4.5	5610	ORH A	ORH_Charles. ORH_CHARL				
60 ✓	4.5	5640	ORH A	ORH_Charles. ORH_CHARL				
61 ✓	4.5	5630	ORH A	ORH_Charles. ORH_CHARL				

Flight Logs should be FAXED to 859-277-8901 immediately after each days flights with lines and other details noted

Operator: Benny
Pilot: Lyons

AIRCRAFT Tail Number: N72602
Sensor Serial Number: 246

Date: 12-11-2010