

Mass Area: OWD-Quincy

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	7.9	5010	OWD-A	OWD_QUINC OWD_QUINC	12-17-2006	246	93	
2	8.6	5010	OWD-A	OWD_QUINC OWD_QUINC				
3	9.6	5010	OWD-A	OWD_QUINC OWD_QUINC				
4	9.6	5000	OWD-A	OWD_QUINC OWD_QUINC				
5	10.1	5000	OWD-A	OWD_QUINC OWD_QUINC				
6	11.7	5010	OWD-A	OWD_QUINC OWD_QUINC				
7	7.9	5010	OWD-A	OWD_QUINC OWD_QUINC				
8	5.1	5010	OWD-A	OWD_QUINC OWD_QUINC				
9	11.3	5010	OWD-A	OWD_QUINC OWD_QUINC				
10	8.6	5010	OWD-A	OWD_QUINC OWD_QUINC				
11	8.9	5010	OWD-A	OWD_QUINC OWD_QUINC				
12	8.4	5010	OWD-A	OWD_QUINC OWD_QUINC				
13	8.2	5010	OWD-A	OWD_QUINC OWD_QUINC				

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

Operator: Berry Young

AIRCRAFT Tail Number: N7260Z

Pilot: 246

Sensor Serial Number: 12-17-2006

FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
8	14	7.0	5010	OWD-A OWD_QUINC OWD_QUINC	12-17-2010	246	QB	
8	15	8.1	5020	OWD-A OWD_QUINC OWD_QUINC				
8	16	8.4	5020	OWD-A OWD_QUINC OWD_QUINC				
9	17	9.6	5010	OWD-A OWD_QUINC OWD_QUINC				
7	18	6.2	5010	OWD-A OWD_QUINC OWD_QUINC				
7	19	5.8	5020	OWD-A OWD_QUINC OWD_QUINC				
7	20	5.3	5020	OWD-A OWD_QUINC OWD_QUINC				
6	21	3.6	5030	OWD-A OWD_QUINC OWD_QUINC				
5	22	2.0	5000	OWD-A OWD_QUINC OWD_QUINC				
5	23	2.9	5000	OWD-A OWD_QUINC OWD_QUINC				
6	24	2.9	5010	OWD-A OWD_QUINC OWD_QUINC				
5	25	2.7	5010	OWD-A OWD_QUINC OWD_QUINC				
6	26	2.2	5030	OWD-A OWD_QUINC OWD_QUINC				
5	27	2.2	5030	OWD-A OWD_QUINC OWD_QUINC	✓	✓	✓	

Flight Logs should be FAXED to 859-277-8903 immediately after each days flights with lines and other details noted

2.04 miles 3.5 hours.

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

Date: 12-17-2010
Page 2 of 2

Mass Area: SFZ Blackstone 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	12.9	5250	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
2	12.9	5250	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
3	12.9	5250	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
4	12.9	5250	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
5	12.9	5240	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
6	12.9	5250	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
7	12.9	5260	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
8	12.9	5280	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
9	12.9	5270	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
10	12.9	5250	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
11	12.9	5260	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	Clouds possible @ S end
12	12.9	5280	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	
13	12.9	5290	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	35mi S of N end possible clouds

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

Operator: Greenwell

AIRCRAFT Tail Number: N14486

Sensor Serial Number: 247

Date: 12/16/2010

FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
14	10.7	5320	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	Clouds possible on line
15	10.7	5320	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/16	247	✓	Clouds possible on line
16 ✓	10.7	5310	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
17	10.7	5330	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
18	8.1	5310	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
19	8.1	5340	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
20	8.1	5360	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
21	8.1	5360	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
22	8.1	5390	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
23	6.2	5430	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
24	6.2	5450	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
25	6.2	5430	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
26	6.2	5370	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			
27 ✓	6.2	5290	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	—			

Flight Logs should be FAXED to 859-277-8904 immediately after each days flights with lines and other details noted

Operator: Galich
Pilot: Greenwell

AIRCRAFT Tail Number: N2448G
Sensor Serial Number: 247

Date: 12/16/2010

FLIGHT LINE	FL MILES	ALTITUDE	BASE STATION	FLIGHT FILES	DATE FLOWN	S/N	FIELD QC	Comments
28	6.5	5560	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	247	✓	
29	5.0	5580	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
30	5.0	5580	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
31	4.7	5570	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
32	4.8	5590	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
33	5.1	5650	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
34	6.5	5680	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
35	6.5	5670	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
36	6.8	5650	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
37	7.0	5640	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
38	7.0	5620	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
39	4.3	5810	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	
40	4.3	5750	SFZ_Blac	SFZ_Blacksto SFZ_BLACKS	12/17	"	✓	

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

Operator: Callie
Pilot: Creaswell

AIRCRAFT Tail Number: N1448G
Sensor Serial Number: 247

Date: _____

Station Occupation Report For Airborne GPS

Project: Fenna MASS

Location: K SFZ (N. Central State RI) Project Number: 7556-005

Completed by: Berry / Galieti Date: _____

Receiver: Trimble "2"

Receiver Type: 5700

Antenna Type: Zephyr

Station ID: CENTRAL

Start -- H.I. (m): 1.482 / 1.481 / 1.482 m

End -- H.I. (m): 1.482

H.I. (ft): 4.86 ft

Start Time: 920 AM

End Time: 1048 AM

Time Zone: EST

Operator: Berry

Comments: 101215a-246 (void)

101215a-247



2670 Wilhite Drive - Lexington KY - 40503 - 859.277.8700 - www.photoscience.com

Date Flown:	December 15, 2010		
Takeoff Time (Z):	447Z	Local:	Airport 3-2
Landing Time (Z)	526Z	Local:	Airport SF2

	Ground	Altport
Begin Temp	-8.0	5FZ
Begin Dewpoint	-15.0	
Begin Pressure	29.53	
End Temp		
End Dewpoint		
End Pressure		

[illegible]

2670 Wilhite Drive - Lexington KY - 40503 - 859.277.8700 - www.photoscience.com

Date Flown:	12/15/2010		
Takeoff Time (Z):	1445	Local:	airport KSFZ
Landing Time (Z)		Local:	airport

Begin Temp	Ground	Airport
Begin Dewpoint	-9 °C	KSFZ
Begin Pressure	19.55	
End Temp	-9 °C	
End Dewpoint	-16 °C	KSFZ
End Pressure	19.55	

Station Occupation Report For Airborne GPS

Project: FEMA MASS

Location: KSFZ

Project Number: 7556-005

Completed by: Berry / Galati

Date: December 16, 2010

Receiver: Trimble "4"

Receiver Type: 5700

Antenna Type: Zephyr Geodetic

Station ID: CENTRAL

Start -- H.I. (m): 1.569 / 1.565 / 1.565 m

End -- H.I. (m): 1.565m

H.I. (ft): 5.135ft

Start Time: 9:20 AM

End Time: 2:04 PM

Time Zone: EST

Operator: Berry

Comments 101216a-246

101216a-247



LIDAR MISSION RECORD SHEET - Optech



2570 Wilshire Drive - Lexington KY - 40503 - 859.277.8700 - www.photoscience.com

Project Name	Force - MPSS
Project Number	7556-025
Altitude/NAV - pin file	SF2 Blackstone 020

Pilot	Yankin
Operator	Beckley
Aircraft	N7266Z

Date Flown:	December 16, 2010
Takeoff Time (Z):	1440Z
Landing Time (Z):	1655Z
Local:	0400 AM EST
Local:	0500 PM EST
Altitude	SF2
Altitude	SF2

Project Scanning Requirements	
FOV (half-degrees):	± 18°
Altitude AGL (ft):	5000'
Scan Rate:	30 Hz
Pulse Rate:	71 kHz
Ground Speed:	116 kts
A.R.F.:	Range

Data Information	
LIDAR Unit	Optech Gemini sn246
HD #	246 HD 1
POS File Name	101816a
from, to	000 - 019

Begin Temp	-3°C	Ground	Altitude
Begin Dewpoint	-10°C		SF2
Begin Pressure	29.75		
End Temp	-1		
End Dewpoint	-10		
End Pressure	29.74		SF2

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

Flight Line Name/#	Start Time	End Time	Alt. (AMSL)	Heading	Speed	Returns	Crab	NOTES (weather, visibility, winds, tide, etc.)
09	1453	1454	5500'	W	116	100%	-	Wind refight Atmospheric returns/Clouds
19	1502	1507	5350'	N	116	100%	-9	Smooth Clouds around
20	1510	1514	5350'	S	116	100%	10	"
21	1517	1521	5300'	N	116	100%	9	"
22	1525	1529	5350'	S	116	100%	10	"
23	1533	1536	5450'	N	116	100%	-9	"
24	1541	1543	5400'	S	116	100%	9	"
27	1545	1549	5310'	N	116	100%	-9	"
26	1552	1555	5410'	S	116	100%	9	"
25	1559	1602	5450'	N	116	100%	-10	"
18	1605	1609	5210'	S	116	100%	10	"
17	1613	1619	5220'	N	116	100%	-9	"
16	1622	1627	5350'	S	116	100%	10	"
Empire	1634	1637	5800'	W	116	100%	3	"

2670 Wilshire Drive - Lexington KY - 40503 - 859.277.8700 - www.photoscience.com

Date Flown:	10/16/10		
Takeoff Time (Z):	1430	Local:	9:00 AM
Landing Time (Z):		Local:	Airport
			KSFZ

	Ground	Airport
Begin Temp	-7 °C	K8ED
Begin Dewpoint	-11 °C	
Begin Pressure	29.75	
End Temp	6 °C	
End Dewpoint	-11 °C	
End Pressure	29.73	

light set clouds in area @ 41K 15004

Flight Line Name#	Start Time	End Time	Alt. (AMSL)	Heading	Speed	Returns	Crab	NOTES (weather, visibility, winds, tide, etc.)
1	1453	1459	5270	358	101	~100	10	
2	1503	1510	5260	174	116	100	13	
3	1514	1521	5260	358	118	100	7	
4	1525	1531	5240	178	117	100	12	
5	1535	1541	5250	358	119	100	7	
6	1546	1552	5360	178	117	106	11	
7	1556	1603	5230	358	114	100	8	
8	1607	1613	5330	178	118	100	12	
9	1617	1624	5270	358	116	100	8	
10	1629	1635	5360	178	121	100	11	
11	1646	1646	5230	358	118	100	5	Clouds possible @ S end.
12	1650	1656	5310	178	120	100	13	
13	1701	1707	5270	359	117	100	7	
14	1712	1717	5280	178	120	~100	12	3.5 mi S of N. end possible clouds
15	1720	1726	5330	358	113	~100	7	clouds very possible on line
cross line	1729	1732	5160	090	133	100	4	



Station Occupation Report For Airborne GPS

Project: SFZ-Blackstone

Location: SFZ-Blackstone (PAc)

Project Number: 7556-005

Completed by: Northan Galieh

Date: 12/17/10

Receiver: Trimble 2

Receiver Type: Trimble 5700

Antenna Type: Zephyr Geodetic

Station ID: SFZ-Blackstone

Start -- H.I. (m): ~~1.574~~ 1.574 / 1.573 m

End -- H.I. (m): 1.574 m

H.I. (ft): 5.16 ft.

Start Time: 9:33 AM

End Time: 12:14 PM

Time Zone: EST

Operator: Galieh



Comments 10/217a-247

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Date Flown: 12/17/10	
Takeoff Time (Z): 1445	Local: 9:45 EST
Landing Time (Z):	Local: Airport

Ground	Airport
Begin Temp	-11 °C
Begin Dewpoint	-13 °C
Begin Pressure	29.80
End Temp	0 °C
End Dewpoint	-9 °C
End Pressure	29.81

12/10/06
note wrong
data entered

	Ground	Airport
Begin Temp	-11 °C	KSFZ
Begin Dewpoint	-13 °C	
Begin Pressure	29.88	
End Temp	0 °C	
End Dewpoint	-9 °C	KSFZ.
End Pressure	29.81	

[illegible]



Station Occupation Report For Airborne GPS

Project:

FEMA - MASSACHUSETTS

Location:

KBED @ Bedford Municipal

Project Number: 7556-005

Completed by:

Berry / Galich

Date: 12-17-2010

Receiver:

Trimble "4"

Receiver Type:

5700

Antenna Type:

Zephyr Geodetic

Station ID:

KBED (BED A)

Start -- H.I. (m):

1.499 1.496

End -- H.I. (m):

1.497

H.I. (ft):

4.92

Start Time:

7:08 AM EST

End Time:

12:11 PM EST

Time Zone:

EST

Operator:

Berry



Comments

101217a-246

LIDAR MISSION RECORD SHEET - Optech

SN 1215

PHOTO SCIENCE

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Project Name	Fema - Massachusetts
Project Number	756.005
Alt/NAV/Pln File	020-Quincy.ph

Pilot	Younis
Operator	BERAY
Aircraft	N7266Z

Date From:	December 17, 2010
Takeoff Time (Z)	14:52
Landing Time (Z)	15:15

FOV (half-degrees):	± 18.0°	Altitude AGL (ft):	5000
Scan Rate:	30.1 Hz	(MPL) or SPIA	
Pulse Rate:	71 kHz	Fixed or Auto	
Ground Speed:	116 kts	Samples	1000
		A.R.F. Range	300m

LIDAR Unit	Optech Gemini sn246
HD #	046 HD1
Pos File Name	10217a
from, to	000 →

Begin Temp	-12°C	Ground	Altport
Begin Dewpoint	-14°C		
Begin Pressure	29.79		
End Temp			
End Dewpoint			
End Pressure			

GPS Base Location(s)	BEA
PDOP Avoidance	1045-1215 (SN246 backonline @ 921 AM)
Static or Flyover?	Static

Flight Line Name/#	Start Time	End Time	Alt. (AMSL)	Heading	Speed	Returns	Crab	NOTES (weather, visibility, winds, tide, etc.)
Improv	1258	1301	5000'	NE	116 kts	100%	-8	Clear and smooth
24	1301	1303	5000'	NE	116 kts	100%	-8	"
23	1308	1309	5000'	SW	116 kts	100%	7	"
22	1313	1314	5000'	SW	116 kts	100%	-6	"
21	1318	1320	5000'	SE	116 kts	100%	0	"
20	1325	1328	5000'	SW	116 kts	100%	-4	"
19	1332	1335	5000'	SE	116 kts	100%	0	"
18	1339	1342	5000'	SW	116 kts	100%	-4	"
17	1345	1350	5000'	SE	116 kts	100%	2	"
16	1353	1358	5000'	SW	116 kts	100%	-4	"
15	1401	1405	5000'	SE	116 kts	100%	3	"
14	1409	1413	5000'	SW	116 kts	100%	-7	"
13	1417	1421	5000'	SE	116 kts	100%	4	"
12	1424	1429	5000'	SW	116 kts	100%	-5	"
11	1432	1436	5000'	SE	116 kts	100%	4	"
10	1439	1443	5000'	SW	116 kts	100%	-5	"
9	1446	1448	5000'	SE	116 kts	100%	3	Need to redo (ARF not set to ON)
8	1455	1501	5000'	SW	116 kts	100%	-5	
7	1504	1510	5000'	SE	116 kts	100%	3	
6	1514	1518	5000'	SW	116 kts	100%	-5	

LIDAR MISSION RECORD SHEET - Optech

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Project Name	Tennamper
Project Number	1500-000
ASTM/NAV/DOJ File	000-000000

Project's Scanning Requirements

FOV (half-degrees):	± 18.5 °	Altitude AGL (ft):	5000
Scan Rate:	301 Hz	MPIA or SPIA	
Pulse Rate:	71 kHz	Fixed or Auto	
Ground Speed:	116 kts	Samples	1600
		Range	465

Pilot	Y. Jones
Operator	B. Baker
Aircraft	N7266Z

Data Information

LIDAR Unit	Optech Gemini sn246
HD #	246HD1
POS File Name	101217a
from, to	000 → ✓

Date Flown:	December 17, 2010				
Takeoff Time (Z)	1045	Local:	7:55 AM EST	Airport	RED
Landing Time (Z)	1045	Local:	11:45 AM EST	Airport	RED

Begin Temp	-02°	Ground		Airport	
Begin Dewpoint	44°				RED
Begin Pressure	29.79				
End Temp	-11°				
End Dewpoint	-9°				
End Pressure	29.83				RED

GPS Base Location(s)	Central
PDOP Avoidance	See sheet 1
Static or Flyover?	Static

→ if flyovers, times: -

Flight Line Name#	Start Time	End Time	Alt. (AMSL)	Heading	Speed	Returns	Crab	NOTES (weather, visibility, winds, ride, etc.)
3	1501	1506	5000'	88	116 kts	100%	5	
2	1506	1514	5000'	88	116 kts	100%	5	
1	1514	1541	5000'	88	116 kts	100%	5	
7	1541	1547	5000'	88	116 kts	100%	5	
8	1547	1554	5000'	88	116 kts	100%	5	
35	1554	1558	5000'	88	116 kts	100%	5	
26	1558	1604	5000'	88	116 kts	100%	5	
27	1604	1608	5000'	88	116 kts	100%	5	
9	1608	1614	5000'	88	116 kts	100%	5	Ref. 1, 4, 11, 12, 13, 14, 15, 16, 17, 18, 19