

## Project Report Appendices

The following section contains the appendices as listed in the Crown of Maine 2018 LiDAR Project Report.

## Appendix A

# Flight Logs

# 20180512A (SN8237,N9338Z)

LIDAR

KeyW-Aeropic LIDAR FLIGHT REPORT	
Revised Feb. 2014 Sky conditions, light conditions, horizon, shadowing, visibility/haze, cloud types, wind, turbulence, etc.. clear	
Pilot/Operator Martin C. / Kyle O nm/dd/yy	Tail Number N9338Z
Camera System 8237 fwd/aft Fwd	WEATHER clear
UTC DATE 05/12/2018	AIRCRAFT N9338Z
GPS Source Kappa T80	LIDAR S/N 8237
Start-up 19:45 GMT Location Houlton, Me	SSD Drive # 8237_1
Shut-down 23:30 GMT Location Houlton, Me	@ Beginning Space Used 0
LIDAR STARTUP CHECKS	Remaining Space Used 52 During Mission unk
<input checked="" type="checkbox"/> Lens cleaned <input checked="" type="checkbox"/> All fpts uploaded <input checked="" type="checkbox"/> Pilot's screen functional <input checked="" type="checkbox"/> Compact flash drive space <input checked="" type="checkbox"/> SSDs have space Startup beeps & IPAS recording	Initials: DM
Job # 3DEP	Location/ Site/Block 1 S066 2 S065 3 S064 4 S063 5 S062 6 S061 7 S060 8 S059 9 UL001
Flight Dir.	Crab Angle
Remarks unplanned cross line	





# 20180513C (SN8237, N9338Z)

LIDAR

Job #	Location/ Site/Block	Line #	Flight Dir.	Crab Angle	Remarks
3DEP	1	S044			
	2	S043			
	3	S042			
	4	UL001			

LIDAR STARTUP CHECKS

Lens cleaned

All fads uploaded

Pilot's screen functional

Compact flash drive space

SSDs have space

Startup beeps & IPAS recording

Initials: DM

Sky conditions: light conditions, horizon, shadowing, visibility/haze, cloud types, wind, turbulence, etc.
 

clear

Tail Number  
N9338Z

WEATHER

GPS  
 Source  
Kappa T80

Start-up  
 Time  
20:30 GMT  
 Location  
Houlton, Me

Shut-down  
 Time  
23:10 GMT  
 Location  
Houlton, Me

UTC DATE  
05/13/2018

LIDAR S/N  
8237

Camera System  
fwd/bft  
Fwd

Camera Location (Hole)

Crew  
Kyle O

AIRCRAFT

Pilot/Operator  
Kyle O

SSD  
 Drive #  
8237\_2

@ Beginning  
Space Used  
0

Remaining  
Space Used  
17  
 During Mission  
unk

# 20180514A (SN8237,N9338Z)

LIDAR

KeyW-Aeropic LIDAR FLIGHT REPORT		Remarks			
<p>Reviewed Feb. 2014</p> <p>CREW <input type="text" value="Kyle O"/> <input type="text" value="mm/dd/yy"/> <input type="text" value="N9338Z"/> AIRCRAFT <input type="text" value="N9338Z"/></p> <p>UTC DATE <input type="text" value="05/14/2018"/> LIDAR S/N <input type="text" value="8237"/> fwd/aft <input type="text" value="Fwd"/></p> <p>Camera System <input type="text" value=""/> Camera Location (Hole) <input type="text" value=""/></p>		<p>Sky conditions, light conditions, horizon, shadowing, visibility/haze, cloud types, wind, turbulence, etc.. clear</p> <p>WEATHER <input type="text" value="clear"/></p> <p>GPS Source <input type="text" value="Kappa T80"/> Location <input type="text" value="Houlton, Me"/></p> <p>Time <input type="text" value="13:00 GMT"/> <input type="text" value="18:00 GMT"/> Start-up <input type="text" value="Houlton, Me"/> Shut-down <input type="text" value="Houlton, Me"/></p> <p>LIDAR STARTUP CHECKS <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p> <input type="checkbox"/> Lens cleaned  <input checked="" type="checkbox"/> All fids uploaded  <input checked="" type="checkbox"/> Pilot's screen functional  <input checked="" type="checkbox"/> Compact flash drive space  <input checked="" type="checkbox"/> SSDs have space  <input checked="" type="checkbox"/> Startup beeps &amp; IPAS recording                 </p> <p>Initials: DM</p>			
<p>SSD Drive # <input type="text" value="8237_1"/></p> <p>@ Beginning Space Used <input type="text" value="0"/> Remaining Space Used <input type="text" value="50"/> During Mission <input type="text" value="unk"/> Tot Space <input type="text" value=""/></p>					
Job #	Location/ Site/Block	Line #	Flight Dir.	Crab Angle	Remarks
3DEP	1	S041			
	2	S040			
	3	S039			
	4	S038			
	5	S037			
	6	S036			
	7	S035			
	8	S034			
	9	UL001			unplanned cross line























# 20180527A (SN8237,N916WC)

LIDAR

Job #				Location/ Site/Block				Line #		Flight Dir.		Crab Angle		Remarks	
3DEP				1				NG52							
2				2				NG53							
3				3				NG54							
4				4				NG55							
5				5				NG56							
6				6				NG57							
7				7				NG58							
8				8				NG59							
9				9				NG60							
10				10				NG61							
11				11				NG62							
12				12				NG63							
13				13				NG64							
14				14				NG65							
15				15				NG66							
16				16				UL001						unplanned cross	
17				17				UL002						unplanned cross	

**KeyW-Aeroptics**  
**LIDAR FLIGHT REPORT**

Sky conditions, light conditions, horizon, shadowing, visibility/haze, cloud types, wind, turbulence, etc...  
 clear

Pilot/Operator mm/eddy	Tail Number N916WC	GPS Kappa 0	WEATHER
Martin C	N916WC	Kappa 0	
"Mission ID" 20180527_122830	AIRCRAFT N916WC	Source Kappa 0	
LIDAR S/N 8237		Time 12:28 GMT	Location Houlton, Me
Camera System fwd/aft		Start-up 18:16 GMT	Location Houlton, Me
Camera Location (Hole) Fwd		Shut-down	

<b>LIDAR STARTUP CHECKS</b>	<b>SSD</b>		
Lens cleaned <input type="checkbox"/>	Drive # 8237_4	Space Used @ Beginning	Remaining Tot Space
All fpts uploaded <input checked="" type="checkbox"/>		Space Used During Mission	
Pilot's screen functional <input checked="" type="checkbox"/>			
Compact flash drive space <input checked="" type="checkbox"/>			
SSDs have space <input checked="" type="checkbox"/>			
Startup beeps & IPAS recording <input checked="" type="checkbox"/>			
			unk

# 20180527B (SN8237,N916WC)

LIDAR

KeyW-Aeroptic LIDAR FLIGHT REPORT									
Revised Feb. 2014 CREW: <input type="text" value="mm/dddy"/> <input type="text" value="Scott A."/> <input type="text" value="Mission ID'"/>		Tail Number <input type="text" value="N916WC"/>		AIRCRAFT <input type="text" value="N916WC"/>		WEATHER <input type="text" value="Sky conditions, light conditions, horizon, shadowing, visibility/haze, cloud types, wind, turbulence, etc.."/>		clear	
UTC DATE <input type="text" value="0527/2018"/> <input type="text" value="20180527_180527"/>		GPS Source: <input type="text" value="Kappa 0"/>		LIDAR STARTUP CHECKS <input type="checkbox"/>		SSD Drive # <input type="text" value="8237_1"/>		Remaining Space Used @ Beginning of Mission: <input type="text" value="76"/>	
Camera System <input type="text" value="8237"/>		Time Location Start-up: 18:50 GMT Houlton, Me Shut-down: 00:17 GMT next day Houlton, Me		All fpts uploaded <input type="checkbox"/>		Space Used During Mission: <input type="text" value="0"/>		unkn	
Camera Location (Hole) <input type="text" value="fwd/lft"/>		Time Location Start-up: 18:50 GMT Houlton, Me Shut-down: 00:17 GMT next day Houlton, Me		Pilot's screen functional <input type="checkbox"/>		Compact flash drive space <input type="checkbox"/>		SSDs have space <input type="checkbox"/>	
Initials:		DM		Startup beeps & IPAS recording <input type="checkbox"/>		Remarks		unplanned cross	
Job #	Location/ Site/Block	Line #	Flight Dir.	Crab Angle	Remarks				
3DEP	1	NG67							
	2	NG68							
	3	NG69							
	4	NG70							
	5	NG71							
	6	NG72							
	7	NG73							
	8	NG74							
	9	NG75							
	10	NG76							
	11	NG77							
	12	NG78							
	13	NG79							
	14	NG80							
	15	NG81							
	16	NG82							
	17	NG83							
	18	UL001							







# 20180602A (SN8237,N916WC)

LIDAR

Job #		Location/ Site/Block		Line #	Flight Dir.	Craft Angle	Remarks
3DEP	1	NO38					
	2	NO27					
	3	NO28					
	4	NO29					
	5	NO30					
	6	NO31					
	7	NO31					
	8	NO32					
	9	UL001					unplanned cross line

**CREW**  
 Pilot/Operator: Scott A. mmt/dddy  
 "Mission ID": 20180602\_795044

**GPS**  
 Source: Kappa 0

**WEATHER**  
 Sky conditions: clear  
 light conditions, horizon, shadowing, visibility/haze, cloud types, wind, turbulence, etc.

**Camera System**  
8237  
 fwd/aft

**Camera Location (Hole)**  
Fwd

**GPS**  
 Time: 19:45 GMT  
 next day

**Start-up**  
19:45 GMT  
 next day

**Shut-down**  
00:35 GMT  
 next day

**LIDAR STARTUP CHECKS**  
 Lens cleaned  
 All fpts uploaded  
 Pilot's screen functional  
 Compact flash drive space  
 SSDs have space  
 Startup beeps & IPAS recording

**SSD**  
 Drive #: 8237\_1

@ Beginning Space Used	48
Remaining Space Used During Mission	unk



# 20180603B (SN8237,N916WC)

LIDAR

KeyW-Aeroptics LIDAR FLIGHT REPORT					
Sky conditions, light conditions, horizon, shadowing, visibility/haze, cloud types, wind, turbulence, etc... clear					
<b>CREW</b> Pilot/Operator: <input type="text" value="Scott A"/> mmt/dddy "Mission ID": <input type="text" value="20180603_194643"/>	<b>AIRCRAFT</b> Tail Number: <input type="text" value="N916WC"/>	<b>WEATHER</b> Source: <input type="text" value="Kappa 0"/>			
<b>UTC DATE</b> <input type="text" value="06/03/2018"/>	<b>GPS</b> Location: <input type="text" value="Houlton, Me"/>	<b>Start-up</b> Time: <input type="text" value="19:45 GMT"/>			
<b>Camera System</b> <input type="text" value="8237"/>	<b>Shut-down</b> Time: <input type="text" value="00:10 GMT"/>	<b>Initials:</b> <input type="text" value="DM"/>			
<b>Camera Location (Hole)</b> fwd/aft: <input type="text" value="Fwd"/>	<b>LIDAR STARTUP CHECKS</b> <input type="checkbox"/> Lens cleaned <input checked="" type="checkbox"/> All fpts uploaded <input checked="" type="checkbox"/> Pilot's screen functional <input checked="" type="checkbox"/> Compact flash drive space <input checked="" type="checkbox"/> SSDs have space Startup beeps & IPAS recording	<b>SSD</b> Drive #: <input type="text" value="8237_2"/> @ Beginning: <input type="text" value="0"/> Space Used During Mission: <input type="text" value="55"/> Remaining Tot Space: <input type="text" value="unk"/>			
Job #	Location/ Site/Block	Line #	Flight Dir.	Crate Angle	Remarks
3DEP	1	SO19			
	2	SO20			
	3	SO21			
	4	SO22			
	5	SO23			
	6	SO24			
	7	SO25			
	8	SO26			
	9	SO27			
	10	UL001			unplanned line

Page 1



# 20180518B (SN8237,N9338Z)

LIDAR

KeyW-Aeroptic LIDAR FLIGHT REPORT					
<small>Revised Feb. 2014</small> CREW <input type="text" value="mmzaddy"/> Pilot/Operator <input type="text" value="Martin C"/> "Mission ID" <input type="text" value="20180518_180733"/> UTC DATE <input type="text" value="05/18/2018"/>		Tail Number <input type="text" value="N9338Z"/> AIRCRAFT <input type="text" value=""/>			
WEATHER <input type="text" value="Sky conditions, light conditions, horizon, shadowing, visibility/haze, cloud types, wind, turbulence, etc... clear"/>		GPS Source <input type="text" value="Kappa 0"/>			
Camera System <input type="text" value="8237"/>		Location <input type="text" value="Houlton, Me"/>			
Camera Location (Hole) <input type="text" value="Fwd"/>		Time <input type="text" value="18:20 GMT"/> Start-up <input type="text" value="23:00 GMT"/> Shut-down <input type="text" value=""/>			
LIDAR STARTUP CHECKS <input checked="" type="checkbox"/>		SSD Drive # <input type="text" value="8237_4"/>			
<input checked="" type="checkbox"/> Lens cleaned		<input type="checkbox"/> Space Used @ Beginning			
<input checked="" type="checkbox"/> All fpts uploaded		<input type="checkbox"/> Space Used During Mission			
<input checked="" type="checkbox"/> Pilot's screen functional		<input type="checkbox"/> Remaining Tot Space			
<input checked="" type="checkbox"/> Compact flash drive space		<input type="checkbox"/>			
<input checked="" type="checkbox"/> SSDs have space		<input type="checkbox"/>			
<input checked="" type="checkbox"/> Startup beeps & IPAS recording		Initials: DM			
Job #	Location/ Site/Block	Line #	Flight Dir.	Crab Angle	Remarks
3DEP	1	S006			
	2	S005			
	3	S004			
	4	S003			
	5	S002			
	6	S001			
	7	N001			
	8	N002			
	9	N003			
	10	N004			
	11	N005			
	12	N006			
	13	N007			
	14	UL001			
					unplanned line across S006 - S001





# 20180518A (SN3368,N737FT)

**XEOS Imaging Inc**
*LiDAR flight report*

Project : PR2697  
 Mission (yy-mm-dd\_#) : 2018-05-18-1  
 Aircraft : N737FT  
 Pilot : Jeremy Scheggins  
 Operator : Joey Campion

Camera ID : -  
 LIDAR ID : S2233368  
 Density ppm<sup>2</sup> : 2  
 Laser Mode : -  
 MTA Zone : -  
 Pulse Rate (PRR) : 700 → 100%

FOV : 60  
 Pattern : regular  
 Ground Speed : 130 kts  
 AGL Altitude : 6000 ft

Time	Lines		WPT		Sky Condition **	Out T°	Flight notes
	+/- Lines	L,P or C *	FROM	TO			
1247	+54	L	1	58	SKC	-8°	#9 bit high #24 too
1308	-51	L	58	1			Back wind: a bit fast in general #53 too low #52 too, #2 and #1 bit fast
1327	+50	L	1	62	SKC	-5°	Front wind: a bit slow in general
1349	-49	L	63	1			Back wind: 10 kts to 20 kts too fast
1408	+48	L	1	68			
1429	-47	L	70	1	SKC	-10°	80 ft too low at the first wpt(70)
1449	+46	L	1	66	SKC	-8°	#30 bit low #16 too low #2 bit fast #4 bit high, face wind: really slow
1510	-45	L	67	1			#27 too low #63 too high bit fast and high at beginning #58-57 low
1530	+44	L	1	69	SKC	-5°	#29 fast #28 low #20 bit high #15 bit fast #1 high
1556	+82	C	1	14			#31 bit low #60 high

\* L = Line P = Profile C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

Clouds : SKC  
 Haze : ++  
 Turbulence : +  
 Cleaned lense :   
 Aircraft hole open :

UTC Hour  
 AEROctrl ON : 1210  
 AEROctrl OFF : 1620

Time UTC  
 Engine ON : 1150  
 Engine OFF : 1620  
 Departure airport : CYQB  
 Arrival airport : CYSG

Flight time  
 Project 2697 Hrs 4.5

# 20180518B (SN3368,N737FT)

## XEOS Imaging Inc

LiDAR flight report

Project: PR2697  
 Mission (yy-mm-dd\_#): 2018-05-18-2  
 Aircraft: N737FT  
 Pilot: Jeremy Schoggins  
 Operator: Joey Campion

Camera ID: -  
 LIDAR ID: 52233368  
 Density ppm<sup>3</sup>: # 2  
 Laser Mode: -  
 MTA Zone: -  
 Pulse Rate (PRR): 700 → 100%

FOV: 60  
 Pattern: regular  
 Ground Speed: 130 Kts  
 AGL Altitude: 6000 ft

Time	Lines		WPT		Sky Condition**	Out T°	Flight notes
	+/- Lines	L,P or C*	FROM	TO			
1744	+43	L	1	71	Few ↑	-5°	Face wind; really slow, turbulences
1807	-42	L	72	1			#23 too low #17 high and fast #10 too
1828	+41	L	1	72			Back wind: too fast often #3 fast #1 low
1850	-40	L	<del>77</del>	X	Few ↑	-3°	Rough turbulences
1854	-40	L	77	1			Not Good → too low at the beginning
1917	+39	L	1	68			Rough turbulences #5 low
1939	-38	L	67	1			Rough turbulences #23 low
1959	MAN	C	-	-	Few ↑	0°	#22 high and fast rough turb. at #10 LiDAR started early before beginning of line

\* L = Line P = Profile C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

Clouds: Few ↑  
 Haze: ++  
 Turbulence: ++  
 Cleaned lense:   
 Aircraft hole open:

UTC Hour  
 AEROctrl ON: 1724  
 AEROctrl OFF: 2052

Time UTC  
 Engine ON: 1715  
 Engine OFF: 2052  
 Departure airport: CYSG  
 Arrival airport: CYQB

Flight time  
 Project: 2697  
 Hrs: 3.6

# 20180520A (SN3368,N737FT)

**XEOS Imaging Inc**

LiDAR flight report

 Project : PR2697  
 Mission (yy-mm-dd\_#) : 2018-05-20-1  
 Aircraft : N737FT  
 Pilot : Jeremy Schoggins  
 Operator : Joey Campion

 Camera ID : —  
 LIDAR ID : 52233368  
 Density ppm<sup>2</sup> : 2  
 Laser Mode : —  
 MTA Zone : —  
 Pulse Rate (PRR) : 700-100%

 FOV : 60  
 Pattern : reg-  
 Ground Speed : 130 kts  
 AGL Altitude : 6000 Ft

Lines		WPT		Sky Condition **	Out T°	Flight notes
Time	+/- Lines	L,P or C *	FROM			
2030	-76	L	20	1	Few ↑	0° Back wind: 10kts-15kts too fast
2040	Man.	C	—	—		
2059	+15	L	1	22	Few ↑	-2° #8 bit high Face wind: slow
2109	-14	L	21	1		#18 fast and high Back wind: fast #4 bit low
2118	+13	L	1	21	Few ↑	-2° Face wind: we're slow
2128	-12	L	21	1		Back wind: <del>fast</del> fast #2 bit low
2137	+11	L	1	21	Few ↑	-5°
2146	-10	L	21	1		#12 fast
2155	+9	L	1	21	Few ↑	-5° Back wind #9 too fast
2204	-8	L	21	1		
2213	+7	L	1	21		
2223	-6	L	21	1	Few ↑	-5° #1 bit low
2231	+5	L	1	21		#17 bit high
2240	-4	L	21	1	Few ↑	-5° #18 bit fast #14 bit low #12 low
2249	+3	L	1	21		face wind: very slow #12 high #1 low
2258	-2	L	21	1		#19 bit high #17-16 bit fast #15 low #2 low
2308	+1	L	+	21		Very slow <b>NOT GOOD</b>
2316	-1	L	21	1	Few ↑	-5°
2328	+80	C	1	26		#5 bit low #7 too Sun in the face for the pilot, less concentration cause blind #2 high

\* L = Line P = Profile C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

 Clouds : Few ↑  
 Haze : +  
 Turbulence : non  
 Cleaned lense :   
 Aircraft hole open : 

 UTC Hour  
 AEROctrl ON : 1957  
 AEROctrl OFF : 0030

 Time UTC  
 Engine ON : 1944  
 Engine OFF : 0030  
 Departure airport : CYQB  
 Arrival airport : CYQB

 Flight time  
 Project PR2697 Hrs 4.8

XEOS-F25.2018-02-11

 Page 1 to 1

# 20180521A (SN3368,N737FT)

**XEOS Imaging Inc**
*LiDAR flight report*

 Project : PR 2697  
 Mission (yy-mm-dd\_#) : 2018-05-21-1  
 Aircraft : N737FT  
 Pilot : Jeremy Schoggins  
 Operator : Joey, Louis-Philippe

 Camera ID : \_\_\_\_\_  
 LIDAR ID : S2233368  
 Density ppm<sup>2</sup> : 2  
 Laser Mode : \_\_\_\_\_  
 MTA Zone : \_\_\_\_\_  
 Pulse Rate (PRR) : 700 100%

 FOV : 60  
 Pattern : reg.  
 Ground Speed : 130 Kts  
 AGL Altitude : 6000 Ft

Time	Lines		WPT		Sky Condition **	Out T°	Flight notes
	+/- Lines	L,P or C *	FROM	TO			
11:27	+37	L	1	64	SKC	-5°C	#6 bit high. facewind: slow
11:49	-36	L	50	1	SKC	-7°C	#25 fast 70knots #3 fast.
12:06	+35	L	1	All...	SKC	-9°C	facewind: very slow at the beginning #21 Low.
12:27	-34	L	60	1	Few	-8°C	Backwind: fast #10-11-12, 3-2
12:47	+33	L	1	60	SKC	"	
13:08	-32	L	60	1	SKC	-5°C	bit fast #42-43
13:26	+55	L	1	60	SKC	-8°C	
13:47	<del>53</del>	L	60	1	SKC	-8	
14:07	Man.	C	-	-	SKC	-8	

\* L = Line P = Profile C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

 Clouds : Few ↑  
 Haze : +  
 Turbulence : non  
 Cleaned lense :   
 Aircraft hole open : 

 UTC Hour  
 AEROctrl ON : 1051  
 AEROctrl OFF : 14:4

 Time UTC  
 Engine ON : 1035  
 Engine OFF : 14:41  
 Departure airport : CYQB  
 Arrival airport : CY56

 Flight time  
 Project 2697 Hrs 4.1





# 20180524A (SN3368,N737FT)

## XEOS Imaging Inc

LIDAR flight report

Project : PR2697  
 Mission (yy-mm-dd\_#) : 2018-05-24\_1  
 Aircraft : N737FT  
 Pilot : Jeremy Schoggins  
 Operator : Martin L.

Camera ID : \_\_\_\_\_  
 LIDAR ID : 780i  
 Density ppm<sup>2</sup> : 2 ppm<sup>2</sup>  
 Laser Mode : \_\_\_\_\_  
 MTA Zone : \_\_\_\_\_  
 Pulse Rate (PRR) : 700 kHz 100%

FOV : 60°  
 Pattern : R  
 Ground Speed : 130 knots  
 AGL Altitude : 6068 ft

Report translated by Louis-Philippe

Lines		WPT		Sky Condition **	Out T*	Flight notes
Time	+/- Lines	L,P or C*	FROM			
17:49	Test shot					
18:11	+23	L	All	Overcast ↑		Back wind → turbulence
18:35	-24	L	All			Back wind → turbulence..
18:54	+25	L	All			
19:16	-26	L	All			
19:35	+27	L	All			
20:00	crossline	C				* Flight plan parameterized with "max ascent" and "max descent" at 3% instead of 2.5%.
20:07	-28	L				Climbs and descents are very pronounced!  Rain shower and cloud ceiling coming down. We return to Quebec.

\* L = Line P = Profile C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

Clouds : OVC  
 Haze : \_\_\_\_\_  
 Turbulence : ++  
 Cleaned lens :   
 Aircraft hole open :

UTC Hour  
 AEROctrl ON : 17:20  
 AEROctrl OFF : 21:00


Time UTC  
 Engine ON : 17:10  
 Engine OFF : 21:21  
 Departure airport : CYQB  
 Arrival airport : CYQB

Flight time  
 Project : PR2697  
 Hrs : 4.2

# 20180525A (SN3368,N737FT)

## XEOS Imaging Inc

Project : PR297  
 Mission (yy-mm-dd\_#) : 2018-05-25\_1  
 Aircraft : N737FT  
 Pilot : Jeremy Schoggins  
 Operator : Martin

Camera ID :   
 LIDAR ID : Lite Mapper 6800-400 10900  
 Density ppm³ : 2 ppm³  
 Laser Mode :  
 MTA Zone :  
 Pulse Rate (PRR) : 700 kHz 100%

FOV : 60°  
 Pattern : R  
 Ground Speed : 120 knots  
 AGL Altitude : 6068 ft

### LiDAR Flight report

Time	Lines		WPT		Sky Condition **	Out T*	Flight notes
	+/- Lines	L,P or C*	FROM	TO			
12:51	Test shot						x Wet temperature, a lot of haze.
13:01	+16	L	All		OVC ↑		
13:25	-17	L	All		CL		
13:54	+18	L	All		CL		
14:23	-19	L	All		CL		
14:45	+29	L	All		CL		
15:09	crossline	C			CL		

\* L = Line P = Profile C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

Clouds : FEW, SCT  
 Haze : +++  
 Turbulence : -  
 Cleaned lense :   
 Aircraft hole open :

UTC Hour  
 AEROctrl ON : 12:30  
 AEROctrl OFF : 16:06

Time UTC  
 Engine ON : 12:05  
 Engine OFF : 16:16  
 Departure airport : CYAB  
 Arrival airport : CYAB

Flight time  
 Project PR297  
 Hrs 4.1

# 20180526A1 (SN3368,N737FT)

## XEOS Imaging Inc

LiDAR flight report

Project : PR2697  
 Mission (yy-mm-dd\_#) : 2018-05-26-1  
 Aircraft : N737FT  
 Pilot : Jeremy Schoppins  
 Operator : Louis Philippe and Joey

Camera ID :  
 LiDAR ID : 52233368  
 Density ppm<sup>3</sup> : 2  
 Laser Mode :  
 MTA Zone :  
 Pulse Rate (PRR) : 700 kHz 100%

FOV : 60°  
 Pattern : regular  
 Ground Speed : 130 knots  
 AGL Altitude : w 6000 ft

Time	Lines		WPT		Sky Condition **	Out T°	Flight notes
	+/- Lines	L,P or C *	FROM	TO			
15:35	-77	L	25	1	LOVC ↑	35°F	* Flight plan changed with 2.5% max ascent/descent. It is more stable.
	+78	L	1	37	"	35°F	
16:02	-79	L	All...	1	"	35°F	
16:18	+75	L	1	31	"	32°F	
16:31	-71	L			"	32°F	Not good (bad start)
16:35	-74	L	33	1	BKN T	32°F	±30 bit fast #27-26 too fast
16:49	+73	L			"	32°F	At 16:52, all the screens turned off (and the system).
17:03	+73	L	1	36	"	32°F	We start line 73 over.
17:20	-72	L	38	1	"	30°F	Slightly fast: #37, 36, 30, 29, 27, A bit high #2, 1
17:35	+71	L	1	40	"	32°F	
17:55	-70	L	42	1	"	30°F	fast and high #35
18:10	manual	C			"	30°F	

\* L = Line P = Profile C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

Clouds : LOVC  
 Haze : ±  
 Turbulence : -  
 Cleaned lens :   
 Aircraft hole open :

UTC Hour  
 AEROctrl ON : 15:05  
 AEROctrl OFF : 18:35

Time UTC  
 Engine ON : 14:50  
 Engine OFF : 18:35  
 Departure airport : CYSB  
 Arrival airport : CYSB

Flight time  
 Project : PR2697 Hrs : 3.8

# 20180528A (SN3368,N63886)

## XEOS Imaging Inc

LiDA (fig)

Project : PR2697 (west bloc)  
 Mission (yyyy-mm-dd\_#) : 2019-05-28-1  
 Aircraft : N63886  
 Pilot : Brent Roberts  
 Operator : Martin

LIDAR ID : 52223568  
 Density ppm<sup>3</sup> : 2  
 Pulse Rate (PRR) : 200  
 Laser Power : 100  
 FOV : 60

Pattern : R  
 Ground Speed (knt) : 130  
 Flying height AGL : 6068  
 ENOHD : 5166

Time	Lines		WPT		Sky Condition **	Out T°	Comments
	+/- Lines	L,P or C *	FROM	TO			
10:31	Manual	Test			SKC		System ok!
10:42	+1	P					
10:53	+4	L	Alt		SKC		
11:12	Manual	C					
							End 11:16
							1:13

\* L = Line P = Profile C = Crossline

\*\* SKC = FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

\*\*\* L = Light M = Moderate S = Severe

Clouds \*\*: SKC  
 Haze \*\*\*: L  
 Turbulence \*\*\*: /  
 Cleaned lense :   
 Aircraft hole open :

UTC Hour  
 AEROctrl ON : 10:05  
 AEROctrl OFF : 11:28

Time UTC  
 Engine ON : 10:03  
 Engine OFF : 11:16  
 Departure airport : CYQB  
 Arrival airport : CYQB

Flight time  
 Project : PR2697  
 Hrs : 1.2





# 20180529A (SN3368,C-GNZQ)

**XEOS Imaging Inc**
*LiDAR flight report*

Project : PB 2697  
 Mission (yy-mm-dd\_#) : 2018-05-29-1  
 Aircraft : C-GNZQ  
 Pilot : Jos. Raphael Mancera  
 Operator : Jocelyne Champion

Camera ID : —  
 LIDAR ID : S2233368  
 Density ppm<sup>3</sup> : 2  
 Laser Mode : —  
 MTA Zone : —  
 Pulse Rate (PRR) : 700 100%

FOV : 60  
 Pattern : reg  
 Ground Speed : 130 kts  
 AGL Altitude : 6000 ft

Time	Lines		L,P or C*	WPT		Sky Condition**	Out T°	Flight notes
	+/- Lines			FROM	TO			
1523	-22		L	31	1	Few T↓	0°	Back wind: 10 to 15 kts too fast #22 too low #15 bit low
1536	+21		L	1	31			#7 bit low Face wind: too slow
1550	-20		L	31	1	Few T↓	0°	Back wind: Flaps on but still too fast #16 too fast #6 too fast #2-3 too low
1605	-82		C	52	44			
1616	+30		L	1	61	Few T↓	0°	
1637	-31		L	59	1			Back wind: 20 kts too fast #45 bit high #37 bit low #20 bit low
1656	+56		L	1	57	Few T	0°	Rough turbulences
1714	-58		L	55	1			#38 bit low #35-34-33 too fast (back wind) #6-5-4 too fast
1730	+59		L	1	53	SKC	0°	
1748	-61		L	51	1			
1802	+62		L	1	48	SKC	2°	#7-8 too low #16 rough turbulence
1818	-63		L	46	1			#4 bit low #2 bit high
1831	+69		L	1	44	SKC	2°	
1846	MAN.		C	—	—			

\* L = Line P = Profile C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

Clouds : Few T↓  
 Haze : +  
 Turbulence : ++  
 Cleaned lens :   
 Aircraft hole open :

UTC Hour  
 AEROctrl ON : 1440  
 AEROctrl OFF : 1923

Time UTC  
 Engine ON : 1440  
 Engine OFF : 1927  
 Departure airport : CYQB  
 Arrival airport : CYQB

Flight time  
 Project 2697 Hrs 4.8

XEOS-F25.2018-02-11

 Page 1 to 1

# 20180531A (SN3368,N63886)

gging Inc

LiDA

id\_#): PR2697  
2019-05-31.1  
N63886  
Bret Roberts  
Murten

LIDAR ID : 52223368  
 Density ppm<sup>3</sup> : 2  
 Pulse Rate (PRR) : 700  
 Laser Power : 100  
 FOV : 60

Pattern : R  
 Ground Speed (knt): 130  
 Flying height AGL : 6068  
 ENOHD : 5166

Lines		WPT		Sky Condition **	Out T°	Comments
L/P or C *	FROM	TO				
5 Manual	L C	29	49	Sct 4		Good
						end 23:48
						1:05

C = Crossline      \*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC      \*\*\* L = Light M = Moderate S = Severe

Sct 4 L <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	UTC Hour AEROctrl ON : <u>22:45</u> AEROctrl OFF : <u>00:40</u>	Time UTC Engine ON : <u>22:43</u> Engine OFF : <u>23:48</u> Departure airport : <u>CYQB</u> Arrival airport : <u>CYQB</u>	Project Flight time PR2697      1.1
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# 20190601A (SN3368,N63886)

## XEOS Imaging Inc

LiDAR light report

Project: PR2875 LIDAR ID: S 2223368 Pattern: R  
 Mission (yyyy-mm-dd\_#): 2019-06-01-1 Density ppm<sup>3</sup>: 2 Ground Speed (knt): 170  
 Aircraft: N63886 Pulse Rate (PRR): 700 Flying height AGL: 6068  
 Pilot: Drew Roberts Laser Power: 600 ENOHD: 5166  
 Operator: Martin FOV: 60

Time	Lines		WPT		Sky Condition **	Out T*	Comments
	+/- Lines	L,P or C*	FROM	TO			
23:07	+11	L	All		Few		
23:26	-10	L	All		Few		
23:44	+9	L	All		SKC		
00:01	Manual	C					Done!
2:33							

\* L = Line P = Profile C = Crossline      \*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC      \*\*\* L = Light M = Moderate S = Severe

Clouds **: <u>Few ↑</u>	UTC Hour	Time UTC	Flight time
Haze ***: <u>M</u>	AEROctrl ON: <u>22:25</u>	Engine ON: <u>22:20</u>	Project: <u>PR2875</u> Hrs: <u>2.6</u>
Turbulence ***: <u>/</u>	AEROctrl OFF: <u>00:53</u>	Engine OFF: <u>00:53</u>	
Cleaned lense: <input checked="" type="checkbox"/>		Departure airport: <u>CYQB</u>	
Aircraft hole open: <input checked="" type="checkbox"/>		Arrival airport: <u>CYQB</u>	

# 20180608A (SN3368,N63886)

## XEOS Imaging Inc

LiDAR flight report

Project : PR2697  
 Mission (yyyy-mm-dd\_#): 2019-06-08-1  
 Aircraft : N63886  
 Pilot : Bret Roberts  
 Operator : Maxia

LIDAR ID : S2223368  
 Density ppm<sup>3</sup> : a  
 Pulse Rate (PRR) : 200  
 Laser Power : 200  
 FOV : 60

Pattern : R  
 Ground Speed (knt): 130  
 Flying height AGL : 6068  
 ENOHD : 5766

Time	Lines		WPT		Sky Condition **	Out T <sup>o</sup>	Comments
	+/- Lines	L,P or C *	FROM	TO			
11:12	+2	L	15	26	SKC		
11:18	Manual	C					
							End. at 11:18

\* L = Line P = Profil C = Crossline

\*\* SKC - FEW - SCT - BKN - LOVC = light OVC - HOVC = Heavy OVC

\*\*\* L = Light M = Moderate S = Severe

Clouds \*\*: SKC  
 Haze \*\*\*: L  
 Turbulence \*\*\*:   
 Cleaned lense :   
 Aircraft hole open :

UTC Hour  
 AEROctrl ON : 16:18  
 AEROctrl OFF : 13:22

Time UTC  
 Engine ON : 10:19  
 Engine OFF : 11:18  
 Departure airport : CYOB  
 Arrival airport :

Flight time  
 Project : PR2697  
 Hrs : 1