



## Payload 3 Daily Flight Report



**Date:** 2020-08-16

**Flight Campaign ID:** P3C1

**Airport, FBO ID, City:** Rhinelander-Oneida County Airport (KRHI) - Rhinelander, WI

**Domain:** 05 (Great Lakes)

**Sites Flown:** CHEQ (Chequamegon-Nicolet National Forest), LIRO (Little Rock Lake)

**Days left in Domain:** 2

**Report Author:** Cameron Chapman

**Lidar Operators:** Cameron Chapman

**Flight Hours:** 01:19

**Spectrometer Operators:** Elissa Barris

**Hours until maintenance:** 43.35

**Pilots:** Mike Francis, Lane Taylor

**GPS Instruments:** WISCORS-LYNE, WISCORS-MAWA

**Ground Crew:** Mitch Haynes

### Summary

Skies initially appeared promising this morning for a “green” collect however conditions rapidly deteriorated prior to the solar angle. Crew decided to go for initial coverage since very few days remaining and a variable weather forecast. Low clouds at CHEQ only allowed for the collection of a cross-strip before clouds developed beneath the aircraft. Crew was able to pivot to LIRO and collect initial coverage in “Red” conditions.

### Comments

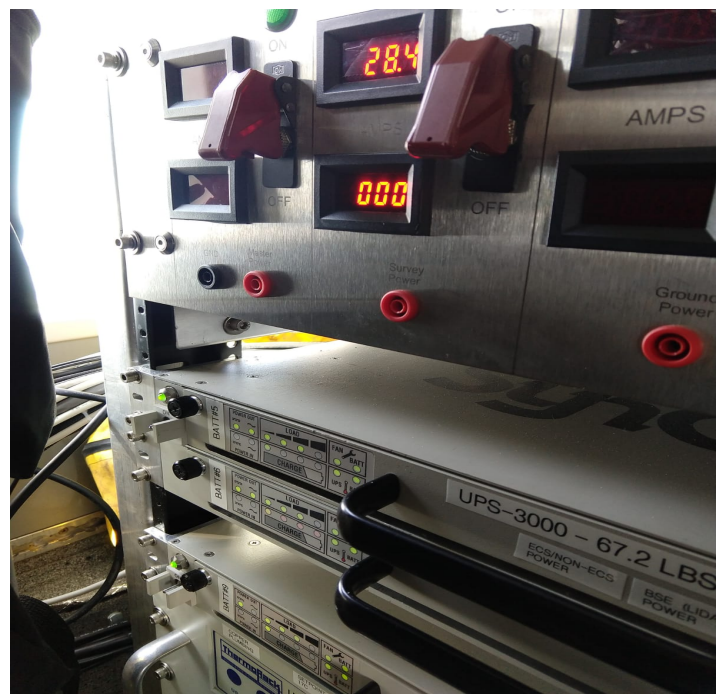
- None

### Concerns

System experienced several drops in power which started prior to takeoff during taxi and was intermittent throughout the flight. The issue appears to be isolated to survey power. At this point we are unsure of the cause but have deduced many theories. We will keep monitoring the situation and conduct more test/troubleshooting if the problem reoccurs.



Left shows the graph of the power drops during flight.



Right shows that the AXE was reviving voltage but no amps

## Daily Coverage

### Estimated Cloud Cover Key

Green:	Yellow:	Red:
0-10%	11-50%	>50%

### D05|CHEQ

Line #	1
Lidar	✓
Spectrometer	✓
Camera	✓
Cloud Cover	Yellow

Total number of lines flown: 1

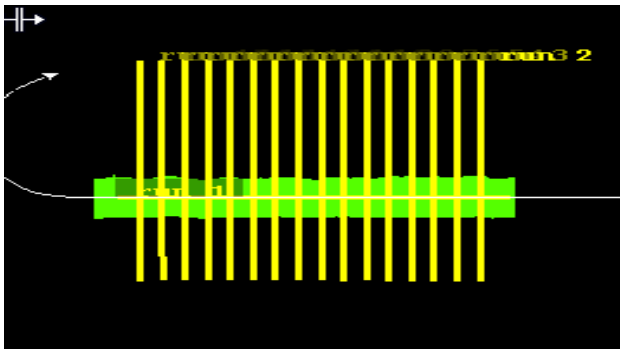
### D05|LIRO

Line #	1	2	3	4	5	6	7	8
Lidar	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover	Red	Red	Red	Red	Red	Red	Red	Red

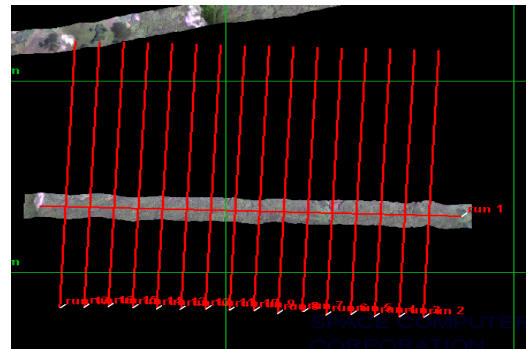
Total number of lines flown: 8

## Flight Screenshots

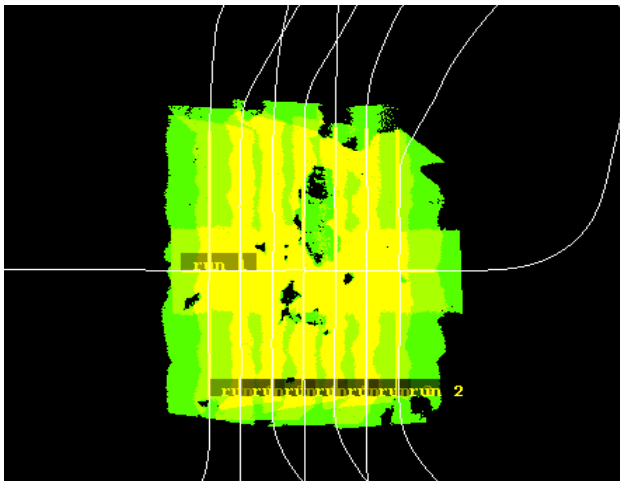
### CHEQ Lidar



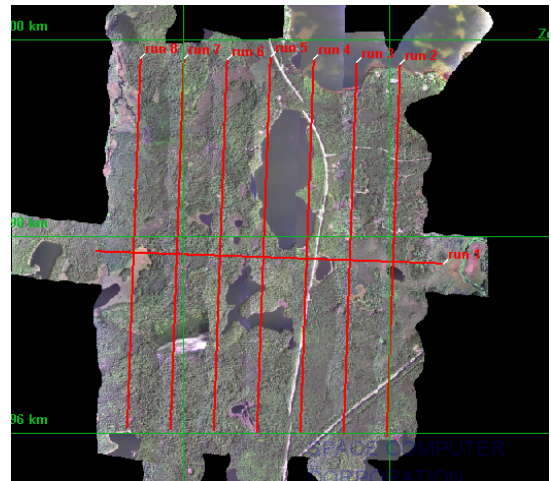
### CHEQ NIS



### LIRO Lidar



### LIRO NIS



## Pictures



Photo captured during transit back to KRHI near CHEQ. Low cumulus and high cirrus clouds stretched across the sky.

### Cumulative Domain Coverage

#### D05|STEI\_TREE\_P1 (Steigerwaldt Land Services and Treehaven Priority 1)

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
22	23	24	25	26															

Flown: 100% (25/25)

Green: 100% (25/25)

Yellow: 0% (0/25)

Red: 0% (0/25)

#### D05|UNDE (University of Notre Dame Environmental Research Center)

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
22	23	24	25	26	27	28	29												

Flown: 100% (28/28)

Green: 100% (28/28)

Yellow: 0% (0/28)

Red: 0% (0/28)

#### D05|LIRO (Little Rock Lake)

2	3	4	5	6	7	8
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Flown: 100% (7/7)

Green: 0% (0/7)  
 Yellow: 0% (0/7)  
 Red: 100% (7/7)

**D05 | STEI\_TREE\_P2 (Steigerwaldt Land Services and Treehaven Priority 2)**

27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
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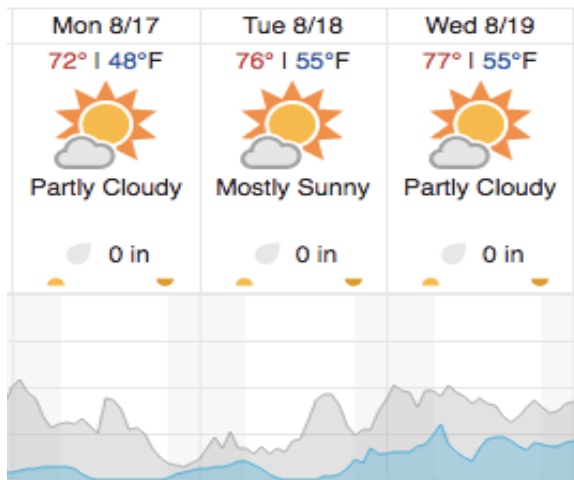
Flown: 100% (18/18)  
 Green: 0% (0/18)  
 Yellow: 0% (0/18)  
 Red: 100% (18/18)

**D05 | CHEQ (Chequamegon-Nicolet National Forest)**

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
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Flown: 0% (0/16)  
 Green: 0% (0/16)  
 Yellow: 0% (0/16)  
 Red: 0% (0/16)

**Weather Forecast**



Cloud Cover (%)	Chance of Precip. (%)
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**Flight Collection Plan for 17 August 2020**

**Flyority 1**

Collection Area: Chequamegon-Nicolet National Forest (CHEQ)

Flight Plan Name: D05\_CHEQ\_R2\_P1\_v3\_Q780

On-station Time: 1000 L / 1500 UTC

**Flyority 2 (If Green)**

Collection Area: Little Rock Lake (LIRO)

Flight Plan Name: D05\_LIRO\_A1\_P2\_v2\_Q780

On-station Time: 1000 L / 1500 UTC

**Flyority 3 (If Green)**

Collection Area: Steigerwaldt Land Services – Treehaven (STEI-TREE) Priority 2 Flight Box

Flight Plan Name: D05\_STEI\_TREE\_R1\_P2\_v3\_Q780

On-station Time: 1000 L / 1500 UTC

**Crew:** Elissa Barris (Lidar) Mitch Haynes (NIS) Cameron Chapman (Ground/GPS)