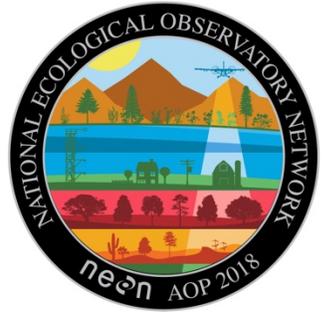




## May 13, 2018 Payload 2 Daily Flight Report



**Date:** 2018-05-13

**Flight Campaign ID:** 2018\_P2C1

**Airport, FBO ID, City:** Fernando Luis Ribas Dominicci Airport (TJIG) - San Juan, Puerto Rico

**Domain:** 04

**Sites Flown:** GUAN (Guanica Forest), LAJA (Lajas Experimental Station)

**Days left in Domain:** 12

**Report Author:** Michael Wussow

**Flight Crew:** Michael Wussow, Heather Rogers

**Ground/GPS:** Mitch Haynes

**Pilots:** Stephen Brawders, Wesley Wyatt

**Additional Personnel:**

**GPS Instruments:** 01 - FBO\_TJIG, 02 - GUAN, C-PRGY, C-PRMI

**Flight Hours:** 03:32

**Hours until maintenance:** 83.30

### **Summary**

Scattered clouds above and throughout the survey areas lead to a challenging flight over GUAN and LAJA today. GUAN has now been completed under initial conditions and will only be re-flown if clear conditions are present. LAJA is near initial coverage completion with 4 lines remaining.

### **Concerns**

The pilot display not functioning properly is continuing to cause operational problems. Loiter and troubleshooting time continues, as well a line needing to be re-flown as a result. We hope that the new cable being delivered will solve the problem.

Extraction and QAQC of previous flights data is still ongoing with Fernando, Andrew and others helping to resolve Waveform extraction failures, QAQC hangups, and SVN update issues. QAQC from 2018051112 is currently running with extraction of today's data scheduled for tomorrow.

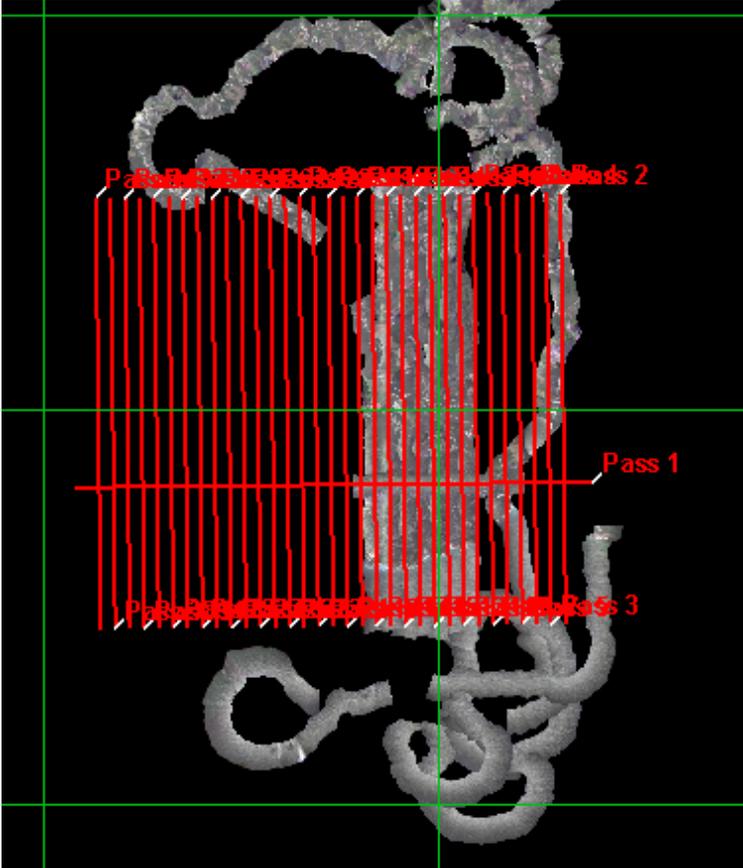
### **Comments**

Today 8 lines were flown at GUAN and 8 at LAJA with some re-fly's and partial attempts due to low cloud diversion, restricted airspace avoidance, and pilot display issues.

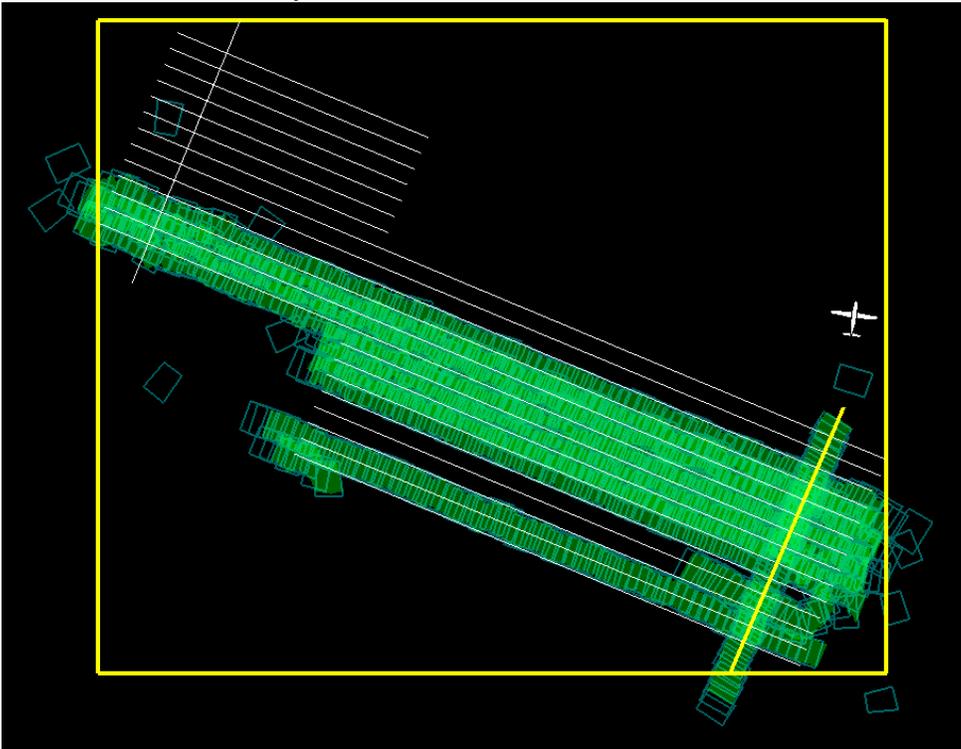
The flight crew had the pleasure of meeting with Battelle Ecology Inc and NEON leader, Rich Leonard this evening as he was en-route to visit the Domain 4 office and staff.

## Flight Screenshots

### NIS Screenshot of completion at GUAN



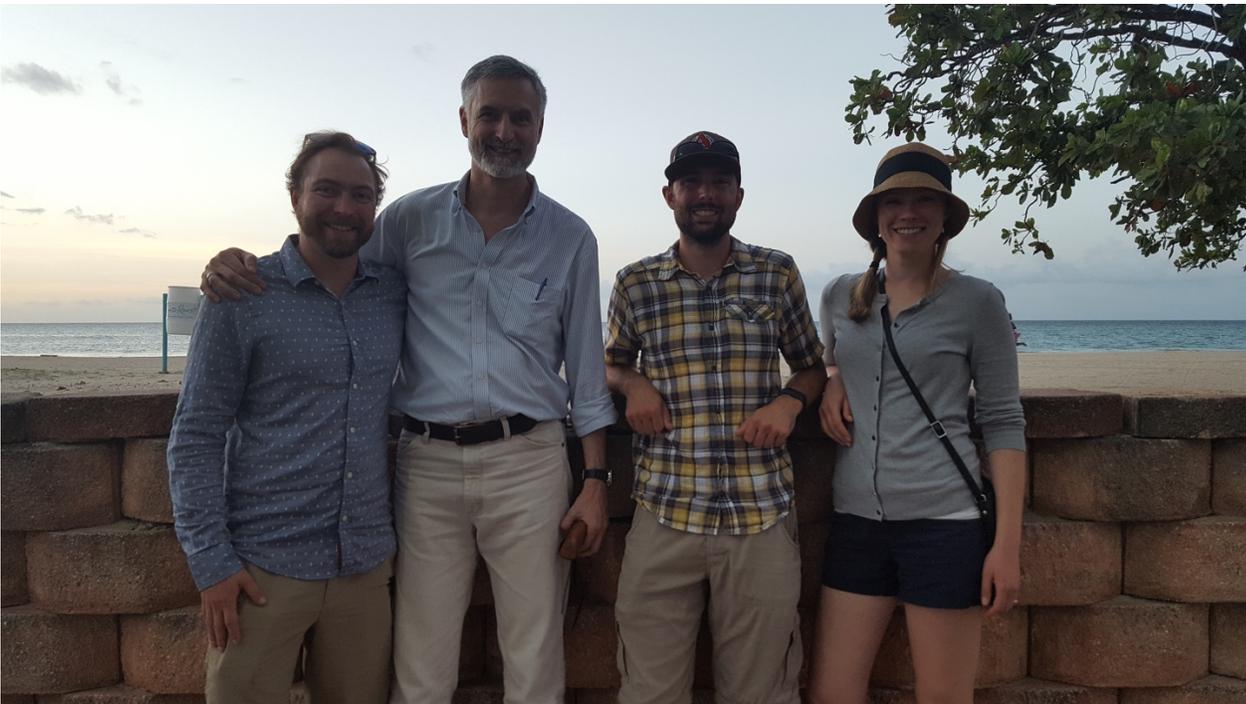
### Lidar Screenshot of completion at LAJA



## Pictures



Taking advantage of the rare opportunity to fly under the clouds over the central mountains.



Timing worked out perfectly for the flight crew and Rich to meet in San Juan

### Daily Coverage

D04   GUAN	Line	SpecG	SpecY	SpecR	NIS	Lidar	Camera	Cumulative
	1				✓	✓	✓	NLC
	9				✓	✓	✓	NLC
	10				✓	✓	✓	NLC
	11				✓	✓	✓	NLC
	12				✓	✓	✓	NLC
	13				✓	✓	✓	NLC
	14				✓	✓	✓	NLC
	15				✓	✓	✓	NLC
Flown:	8							
D04   LAJA	Line	SpecG	SpecY	SpecR	NIS	Lidar	Camera	Cumulative
	11				✓	✓	✓	NLC
	12				✓	✓	✓	NLC
	13				✓	✓	✓	NLC
	14				✓	✓	✓	NLC
	15				✓	✓	✓	NLC
	16				✓	✓	✓	NLC
	17				×	×	✓	C
	18				×	×	✓	C
	20				✓	✓	✓	NLC
	21				×	✓	✓	LC
Flown:	10							

### Cumulative Domain Coverage

#### GUAN

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	27	28	29	30	31	32	33	34						

Flown: 100% (34/34)

Green: 0% (0/34)

Yellow: 3% (1/34)

Red: 97% (33/34)

#### CUPE

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Flown: 0% (0/10)

Green: 0% (0/10)

Yellow: 0% (0/10)

Red: 0% (0/10)

#### GUIL

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----

Flown: 0% (0/15)

Green: 0% (0/15)

Yellow: 0% (0/15)

Red: 0% (0/15)

#### LAJA

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23																	

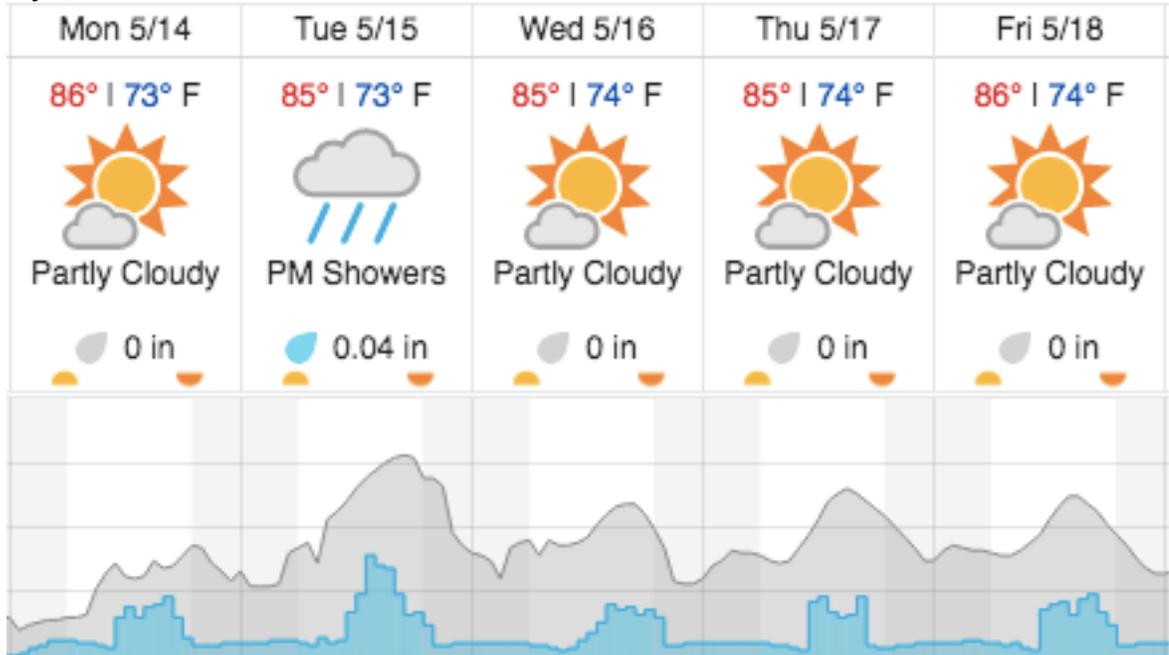
Flown: 83% (19/23)

Green: 0% (0/23)

Yellow: 48% (11/23)

Red: 35% (8/23)

**Weather Forecast**  
Lajas, PR



**Flight Collection Plan for 14 May 2018**

**Flight Priority (Flyority) 1:**

Collection Area: Guanica Forest (GUAN)  
 Flight Plan Name: D04\_GUAN\_C1\_P1\_v1.pln  
 On-station Time: 1300 UTC / 0900 L  
 Lines 1-34 (100%) complete under non-green, priority if green

**Flyority 2:**

Collection Area: Lajas Experimental Station (LAJA)  
 Flight Plan Name: D04\_LAJA\_R1\_P1\_v3.pln  
 On-station Time: 1300 UTC / 0900 L  
 Lines 1-16,20,22-23 complete under non-green

**Flyority 3:**

Collection Area: Rio Cupeyes (CUPE)  
 Flight Plan Name: D04\_CUPE\_A1\_P1\_v1.pln  
 On-station Time: 1300 UTC / 0900 L

**Flyority 4:**

Collection Area: Rio Guilarte (GUIL)  
 Flight Plan Name: D04\_GUIL\_A2\_P1\_v1.pln  
 On-station Time: 1300 UTC / 0900 L

**Crew:** Mitch Haynes (Lidar), Michael Wussow (NIS), Heather Rogers (Ground/GPS)

## On-Going Issues

Fault: Displays	Open Date: 2018-05-10
<p>2018051012 - Pilot Display was flickering and losing signal for first line of flight. Loitered in air to try to resolve issue. Seems to be a cable issue. Pilot display working after adding more electrical tape to ALTM end, and unkinking cable on pilot display end. Pilot display end looking weak at kink. Will continue to monitor</p> <p>2018051112 - Pilot Display continued to be a nuisance, flickering on and off throughout the flight. Red power light remains on, so it's unclear what the root issue is. Not sure if troubleshooting methods of reseeding the cable at both the display and the Lidar rack are actually doing anything.</p> <p>2018051313 - PD error on ground before engine start. Tightened midpoint joint of cable plugs and in and out stopped. Did not solve problem when at site. Error occurred most frequently on the S-N lines at the beginning of the line with flickering, and then completely off by last third of line and would only come back on with re-seating the ALTM ended plug. Had to abort line because off course due to error. Occurred only twice on LAJA flight plan. When pilot display down for more than 10 secs re-seating would re-initialize and maintain for 5-10 minutes. Re-seated three times during flight.</p>	