



## September 12, 2019 Payload 2 Daily Flight Report



**Date:** 2019-09-12

**Flight Campaign ID:** 2019\_P2C1

**Airport, FBO ID, City:** Scottsdale Airport (KSDL) - Scottsdale, AZ

**Domain:** 14

**Sites Flown:** SYCA (Sycamore Creek)

**Days left in Domain:** 2

**Report Author:** Cameron Chapman

**Flight Crew:** Cameron Chapman, Ivana Vu

**Ground/GPS:** Mitch Haynes

**Pilots:** Paul Muth, Micah Hoogeveen

**Additional Personnel:**

**GPS Instruments:** 02 - FBO\_KSDL, 07 - SYCA

**Flight Hours:** 03:47, 01:06

**Hours until maintenance:** 88.15

### Summary

Clear skies today in the Phoenix area allowed for the collection of 36 lines at Sycamore Creek in pristine collection conditions.

### Concerns

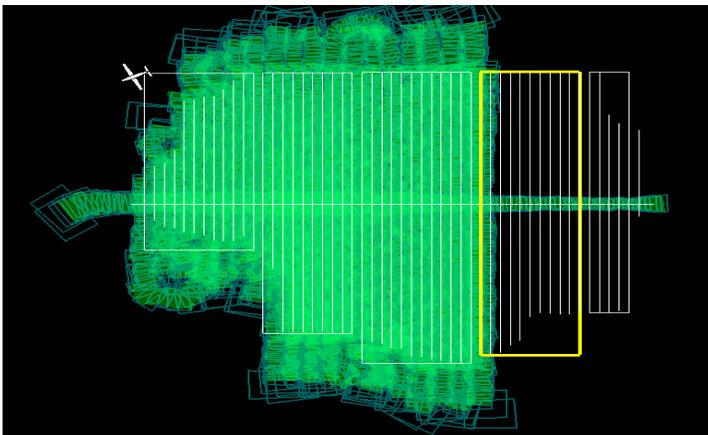
- Extreme desert heat may be the cause of several corrupted GPS batteries.
- The eastern side of the SYCA flight box may prove very difficult to fly. The Phoenix ATC denied us permission to fly higher than 8,000 feet due to inbound PHX traffic.

### Comments

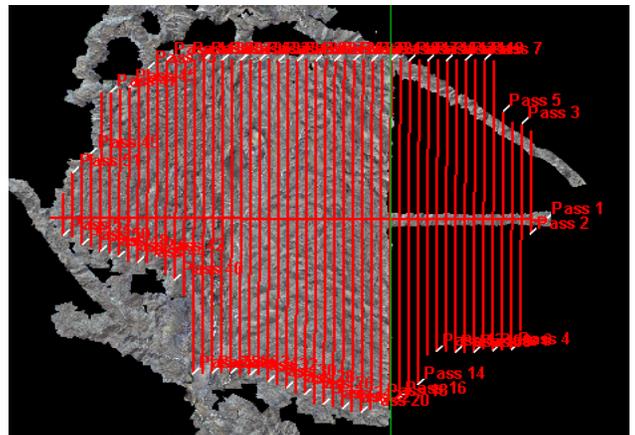
- D14 Hg lamp completed today.
- RAID 21 shipped to Denver datacenter.
- AOP tour for Melissa Wagner who is a PHD research student at ASU.
- Mitch deployed mobile GPS 7 to SYCA during the flights.
- Robb arrived in D14 this afternoon.
- Ivana departs D14 in the morning. Thanks for all of your hard work.
- The payload is scheduled to depart D14 Sunday morning.

### Flight Screenshots

#### Lidar



#### NIS



Pictures



Payload 2 flying over SYCA in "Green" flight conditions



Above: AOP\_GPS7 Temporarily

Below: The flight crew give a tour to Melissa Wagner from ASU.



## Daily Coverage

| D14 SYCA | Line | SpecG | SpecY | SpecR | NIS | Lidar | Camera | Cumulative |
|----------|------|-------|-------|-------|-----|-------|--------|------------|
|          | 1    |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 18   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 19   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 20   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 21   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 22   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 23   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 24   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 25   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 26   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 27   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 28   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 29   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 30   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 31   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 32   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 33   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 34   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 35   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 36   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 37   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 38   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 39   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 40   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 41   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 42   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 43   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 44   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 45   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 46   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 47   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 48   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 49   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 50   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 51   |       |       |       | ✓   | ✓     | ✓      | NLC        |
|          | 52   |       |       |       | ✓   | ✓     | ✓      | NLC        |
| Flown:   | 36   |       |       |       |     |       |        |            |

## Cumulative Domain Coverage

### JORN\_P1

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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: 91% (31/34)

Yellow: 9% (3/34)

Red: 0% (0/34)

### JORN\_P2

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| 55 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Flown: 100% (21/21)

Green: 5% (1/21)

Yellow: 100% (21/21)

Red: 0% (0/21)

### N14A

|   |
|---|
| 1 |
|---|

Flown: 100% (1/1)

Green: 100% (1/1)

Yellow: 0% (0/1)

Red: 0% (0/1)

### SRER\_P1

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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 | 35 | 36 | 37 | 38 | 39 | 40 |

Flown: 100% (40/40)

Green: 88% (35/40)

Yellow: 28% (11/40)

Red: 0% (0/40)

### SRER\_P2

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Flown: 58% (14/24)

Green: 0% (0/24)

Yellow: 58% (14/24)

Red: 0% (0/24)

### SRER\_P3

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 |
| 85 | 86 | 87 | 88 | 89 | 90 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Flown: 38% (10/26)

Green: 38% (10/26)

Yellow: 0% (0/26)

Red: 0% (0/26)

### SYCA

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 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 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |    |    |    |    |    |    |    |    |

Flown: 69% (36/52)

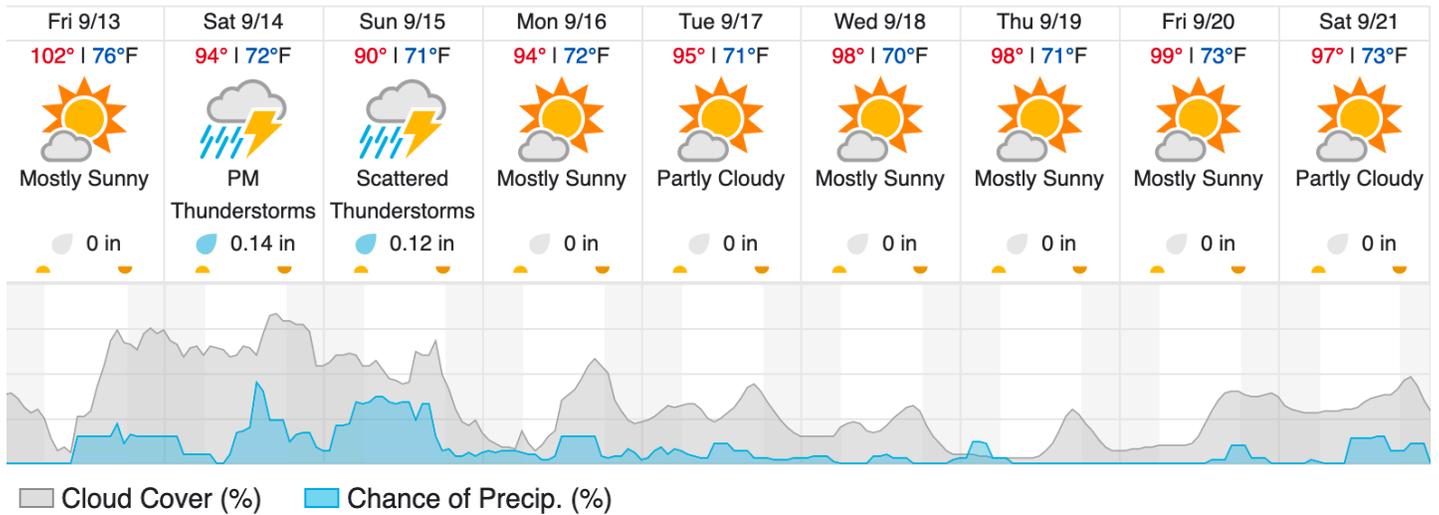
Green: 69% (36/52)

Yellow: 0% (0/52)

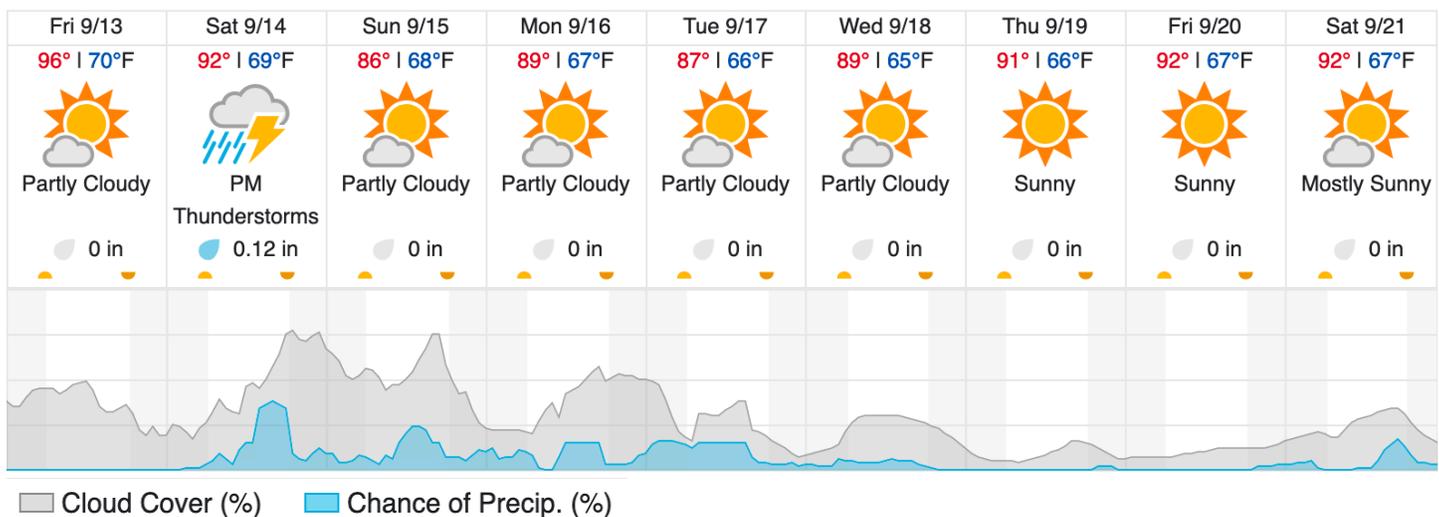
Red: 0% (0/52)

## Weather Forecast

Tucson, AZ (SRER)



Rio Verde, AZ (SYCA)



### Flight Collection Plan for 13 September 2019

#### Flyority 1:

Collection Area: Santa Rita Experimental Range – Priority 1 Flight Box (SRER\_P1), Re-fly lines 30-35 if Green

Flight Plan Name: D14\_SRER\_C1\_P1\_P2\_P3\_v5.pln

On-station Time: 1630 – 2210 UTC / 0930 – 1510 MST

#### Flyority 2:

Collection Area: Santa Rita Experimental Range – Priority 2 Flight Box (SRER\_P2)

Flight Plan Name: D14\_SRER\_C1\_P1\_P2\_P3\_v5.pln

On-station Time: 1630 – 2210 UTC / 0930 – 1510 MST

#### Flyority 3:

Collection Area: Santa Rita Experimental Range – Priority 3 Flight Box (SRER\_P3)

Flight Plan Name: D14\_SRER\_C1\_P1\_P2\_P3\_v5.pln

On-station Time: 1630 – 2210 UTC / 0930 – 1510 MST

#### Flyority 4:

Collection Area: Sycamore Creek – Priority 1 Flight Box (SYCA)

Flight Plan Name: D14\_SYCA\_A1\_P1\_v5\_750\_max.pln

On-station Time: 1630 – 2210 UTC / 0930 – 1510 MST

**Crew:** Mitch Haynes (Lidar), Cameron Chapman (NIS), Robb Walker (Ground/GPS)