



## Payload 3 Daily Flight Report



**Date:** 2025-09-15

**Flight Campaign ID:** P3C1

**Airport, FBO ID, City:** Tucson International Airport (KTUS) - Tucson, AZ

**Aircraft:** N821AR

**Domain:** 14 (Desert Southwest)

**Sites Flown:** SRER\_P2 (Santa Rita Experimental Range Priority 2), SRER\_P3 (Santa Rita Experimental Range Priority 3 )

**Days left in Domain:** 1

**Report Author:** Mitch

**Lidar Operators:** Mitch

**Flight Hours:** 04:07

**Spectrometer Operators:** Matt

**Hours until maintenance:** 50.77

**Pilots:** Vince, Greg

**GPS Instruments:** AOP\_SRER, C-PIMA

### Summary

The crew successfully took off over the Santa Rita Experimental Range (SRER) this morning to conduct a full collection, completing the Priority 2 flight box and beginning work on the Priority 3 box. As the flight progressed, weather conditions deteriorated due to the continued development of cumulus clouds. Although the crew considered a second flight to finish the box, increasing convective activity made flying along the ridgeline unsafe. The team will look to finish collects tomorrow and depart Tucson on Wednesday.

### Concerns

None

### Comments

None

### Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees: (\*)

D14|SRER\_P2

Line #	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover																			*	*

Line #	62
Lidar	✓
Spectrometer	✓

Camera	✓
Cloud Cover	*

Total number of lines flown: 21

\* Flown within 35deg solar angle

D14|SRER\_P3

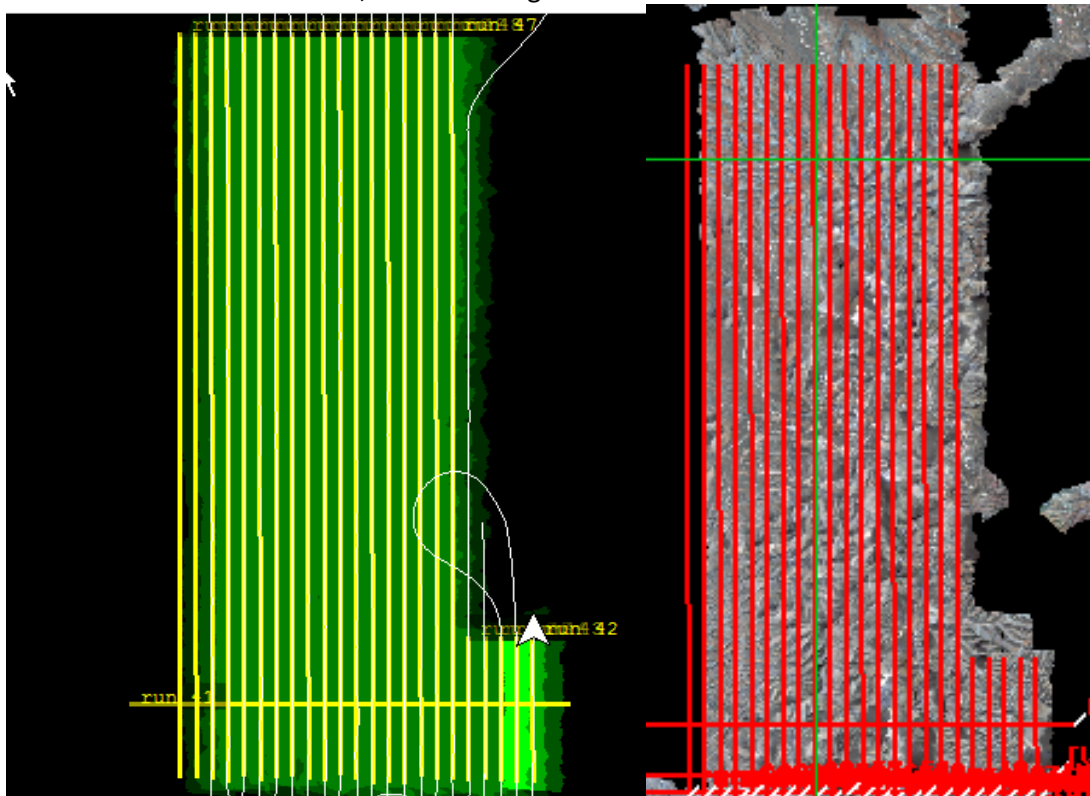
Line #	82	83	84	85	86	87	88	89	90
Lidar	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spectrometer	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Cover									

Total number of lines flown: 9

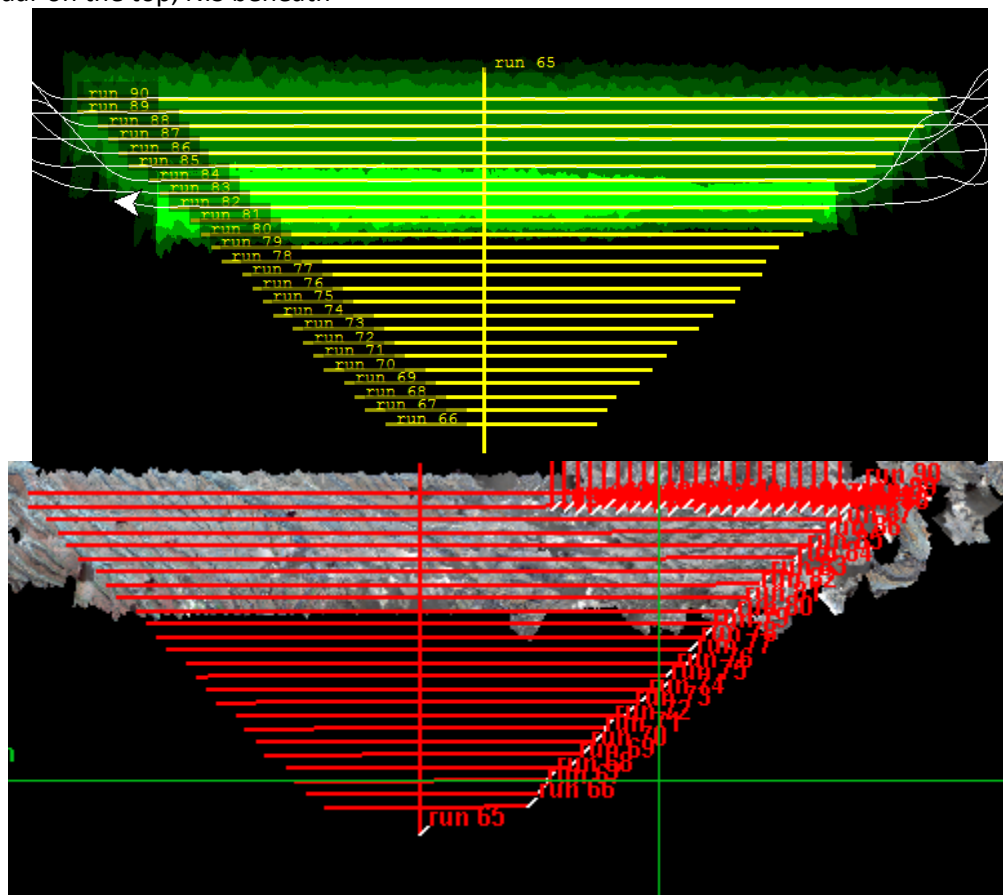
**Pictures:** Heavy cloud building and shadowing as the flight progressed.



Flight Screenshots: SRER P2 Lidar on the left, NIS on the Right



Below: SRER P3 Lidar on the top, NIS beneath



## Cumulative Domain Coverage

### D14|JORN\_P1 (Jornada Priority 1)

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: 79% (27/34)

Yellow: 12% (4/34)

Red: 9% (3/34)

\* Flown within 35deg solar angle

### D14|JORN\_P2 (Jornada Priority 2)

35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
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Flown: 100% (20/20)

Green: 0% (0/20)

Yellow: 45% (9/20)

Red: 55% (11/20)

\* Flown within 35deg solar angle

### D14|SRER\_P1 (Santa Rita Experimental Range 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	27	28	29	30	31	32	33	34	35	36	37	38	39	40	

Flown: 100% (39/39)

Green: 100% (39/39)

Yellow: 0% (0/39)

Red: 0% (0/39)

\* Flown within 35deg solar angle

### D14|SRER\_P2 (Santa Rita Experimental Range Priority 2)

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

Flown: 100% (23/23)

Green: 30% (7/23)

Yellow: 17% (4/23)

Red: 52% (12/23)

\* Flown within 35deg solar angle

### D14|SRER\_P3 (Santa Rita Experimental Range Priority 3)

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: 36% (9/25)

Green: 0% (0/25)

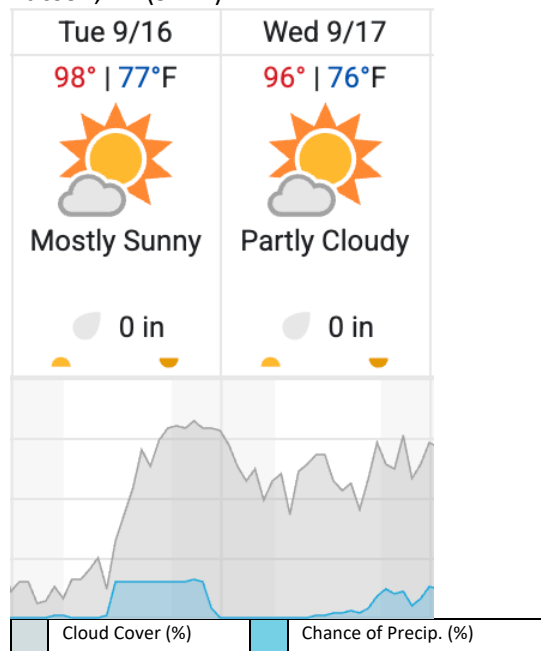
Yellow: 0% (0/25)

Red: 36% (9/25)

\* Flown within 35deg solar angle

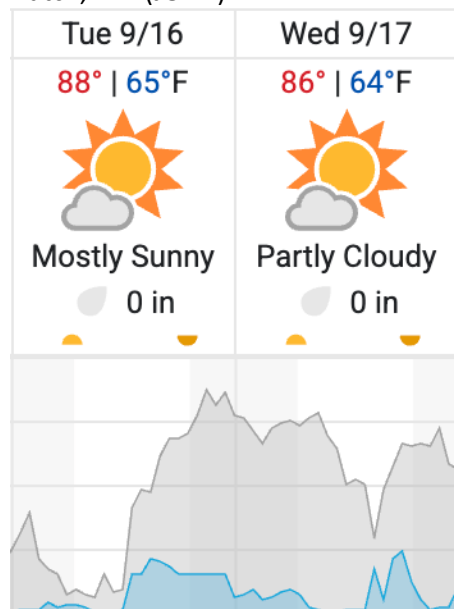
## Weather Forecast

Tucson, AZ (SRER)



source: wunderground.com

Hatch, NM (JORN)



## Flight Collection Plan for 16 September 2025

### Flyority 1

Collection Area: Santa Rita Experimental Range (SRER) P2

Flight Plan Name: D14\_SRER\_C1\_P2\_v8\_Q780

On-Station Time: 1630 UTC / 0930 L

### Flyority 2

Collection Area: Santa Rita Experimental Range (SRER) P3

Flight Plan Name: D14\_SRER\_C1\_P3\_v8\_Q780

On-Station Time: 1630 UTC / 0930 L

**Crew:** Matt (Lidar), Mitch (NIS)