



## Payload 3 Daily Flight Report



**Date:** 2024-09-04

**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:** 2

**Report Author:** Cameron

**Lidar Operators:** Cameron

**Flight Hours:** 04:07

**Spectrometer Operators:** Mitch

**Hours until maintenance:** 64.13

**Pilots:** Manning, Vince

**GPS Instruments:** 03 - KTUS, AOP\_SRER

### Summary

The crew took advantage of another clear day over the Santa Rita Experimental Range and collected 30 total lines in nominal atmospheric conditions.

### Concerns

- GPS (AOP\_SRER) may have experienced a temporary power outage this morning during our flight. We will monitor the GPS upload and determine if alternative measures are necessary for GPS data.

### Comments

- We conducted a tour this afternoon with members from Battelle and NEONs D14 field staff. Thanks for coming out!
- Line 64 was started 2 minutes prior to 40 degree solar angle.

### Daily Coverage

Estimated Cloud Cover Key

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

Solar Angle Less Than 40 degrees

Line #
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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	63	64
Lidar	✓	✓	✓

Spectrometer	✓	✓	✓
Camera	✓	✓	✓
Cloud Cover			

Total number of lines flown: 23

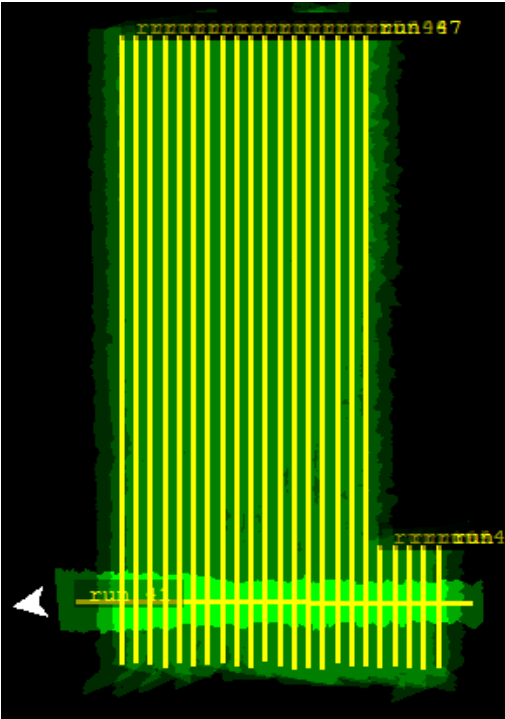
D14|SRER\_P3

Line #	65	85	86	87	88	89	90
Lidar	✓	✓	✓	✓	✓	✓	✓
Spectrometer		✓	✓	✓	✓	✓	✓
Camera	✓	✓	✓	✓	✓	✓	✓
Cloud Cover							

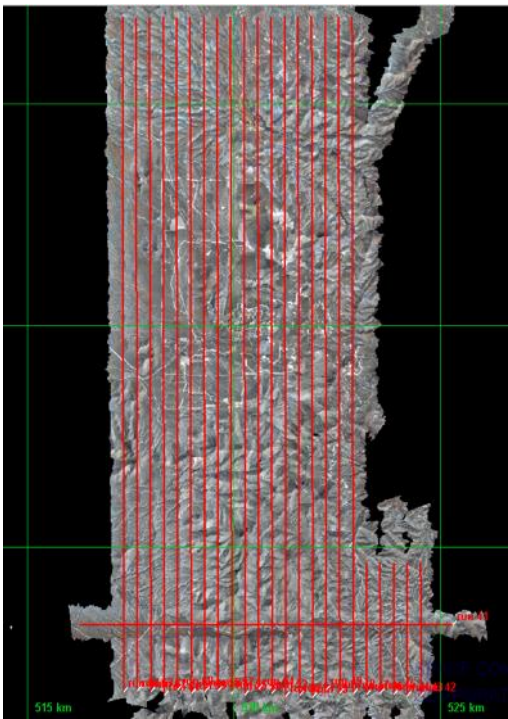
Total number of lines flown: 7

### Flight Screenshots

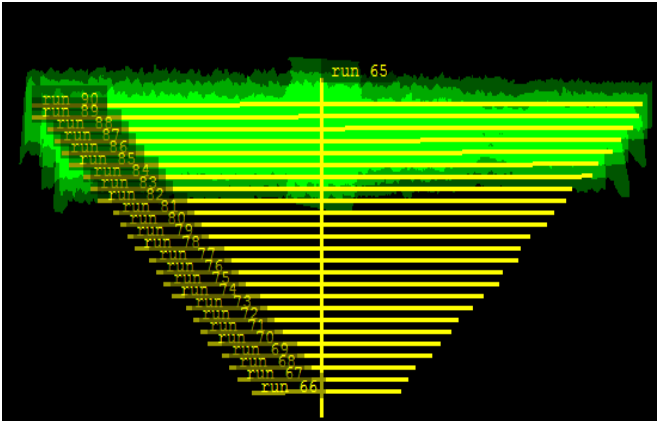
Lidar SRER P2



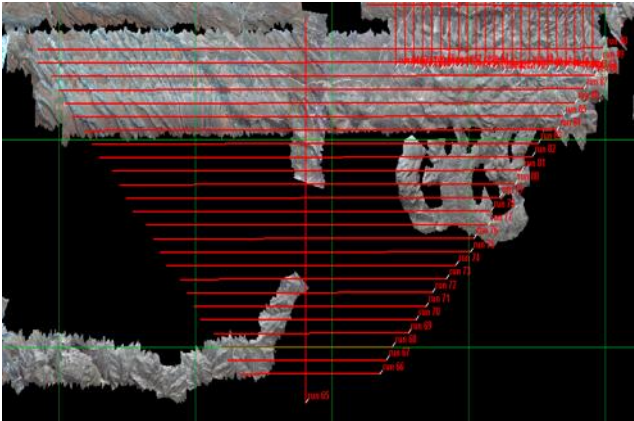
NIS SRER P2 GeoPaint



Lidar SRER P3



NIS SRER P3 GeoPaint



## Pictures



Top: Clear sky this morning over SRER!

Bottom: A captivated audience looks on as ASO Mitch explains the different sensors and components of the AOP.



Cumulative Domain Coverage

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)

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: 100% (23/23)  
Yellow: 0% (0/23)  
Red: 0% (0/23)

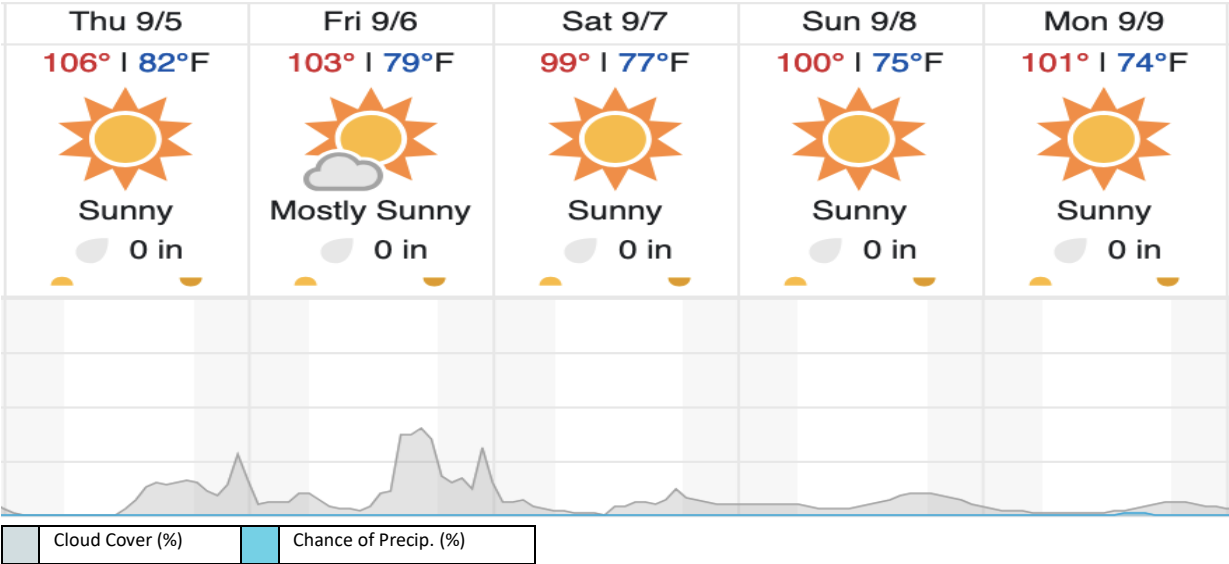
D14|SRER\_P3 (Santa Rita Experimental Range Priority 3 )

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: 24% (6/25)  
Green: 24% (6/25)  
Yellow: 0% (0/25)  
Red: 0% (0/25)

Weather Forecast

Tucson, AZ



source: wunderground.com

Flight Collection Plan for 05 September 2024

Flyority 1 (Lines 66 – 84)  
Collection Area: Santa Rita Experimental Range (SRER) – Priority 3 Box  
Flight Plan Name: D14\_SRER\_C1\_P3\_v5\_Q780  
40° On-station Time: 16:20 UTC / 09:20 MST

Crew: Mitch (Lidar), Cam (NIS)