



Payload 3 Daily Flight Report



Date: 2020-07-07

Flight Campaign ID: P3C1

Airport, FBO ID, City: Topeka Regional Airport (KFOE) - Topeka, KS

Domain: 06 (Prairie Peninsula)

Sites Flown: KONZ_KONA (Konza Prairie Biological Station and Relocatable Agricultural Site)

Days left in Domain: 10

Report Author: Mitch Haynes

Lidar Operators: Mitch Haynes

Flight Hours: 01:51

Spectrometer Operators: Elissa Barris

Hours until maintenance: 73.18

Pilots: Justin Eddington, Micah Hoogeveen

GPS Instruments: 06 - FBO_KFOE, U-KSU1

Summary

Initially looked like a promising day for a first day of collect, however some in air troubleshooting of our laser scanner quickly derailed plans. Once issues were resolved, only 3 lines were managed to be collected over KONZ_KONA before rapidly building cumulus clouds forced the crew to abort collect and returning back to Topeka.

Concerns

- Upon attempting to fire the laser (both in test mode and on the line), RiAcquire ALS kept giving error code of "Q780 does not receive echoes. Targets maybe too close or too far away." After trying several different flight plans (2019 version of KONZ_KONA and MCDI) with the same error and a software reboot, a full power cycling of the scanner appeared to resolve the issue. Line 31 was collected twice, once with the error while trying to troubleshoot, and once after a resolution was found.

Comments

- GPS 06 was set up at the KFOE FBO

Daily Coverage

Estimated Cloud Cover Key

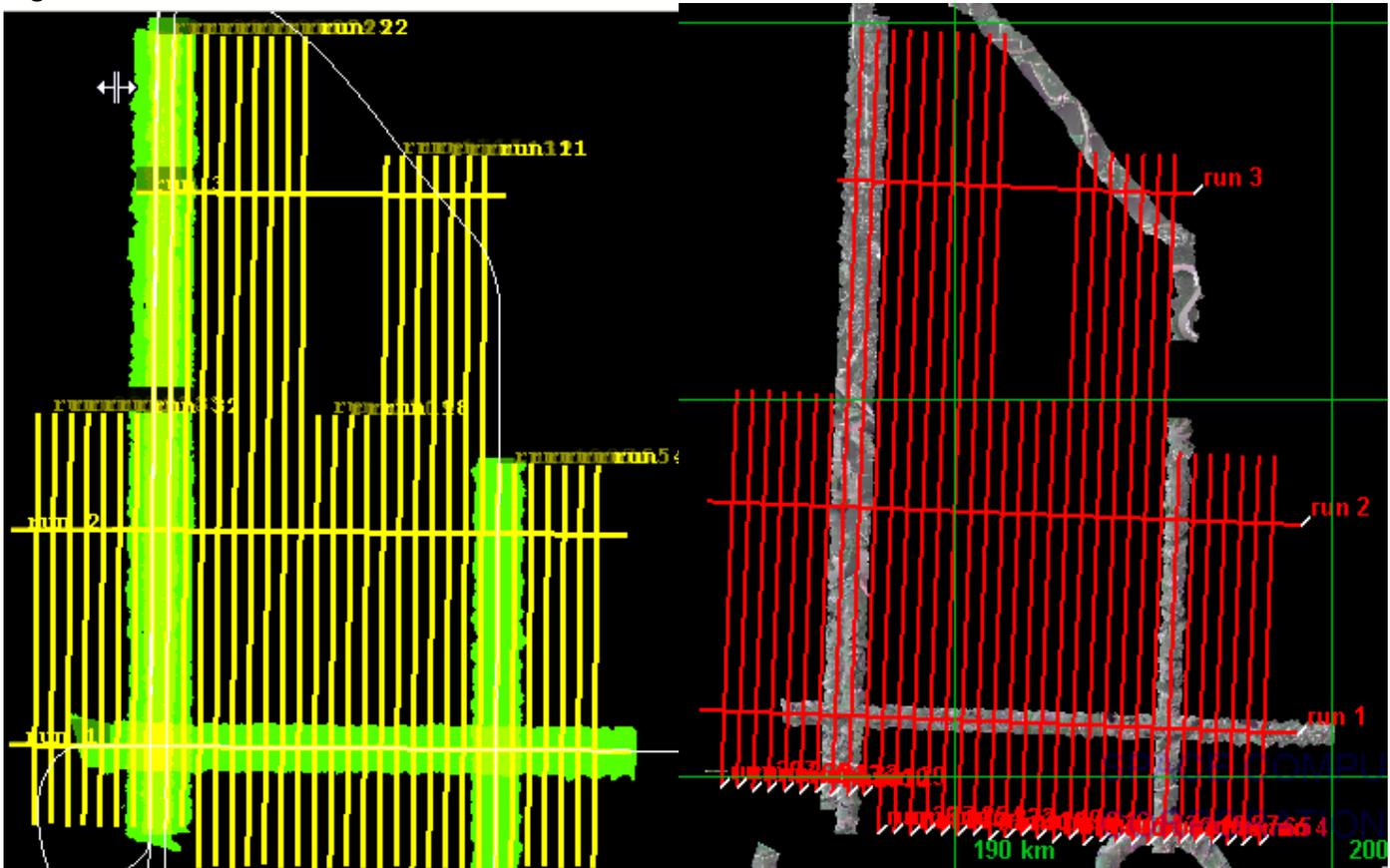
Green:	Yellow:	Red:
0-10%	11-50%	>50%

D06|KONZ_KONA

Line #	1	10	30	31
Lidar	✓	✓	✓	✓
Spectrometer		✓	✓	✓
Camera	✓	✓	✓	✓
Cloud Cover		Yellow	Green	Green

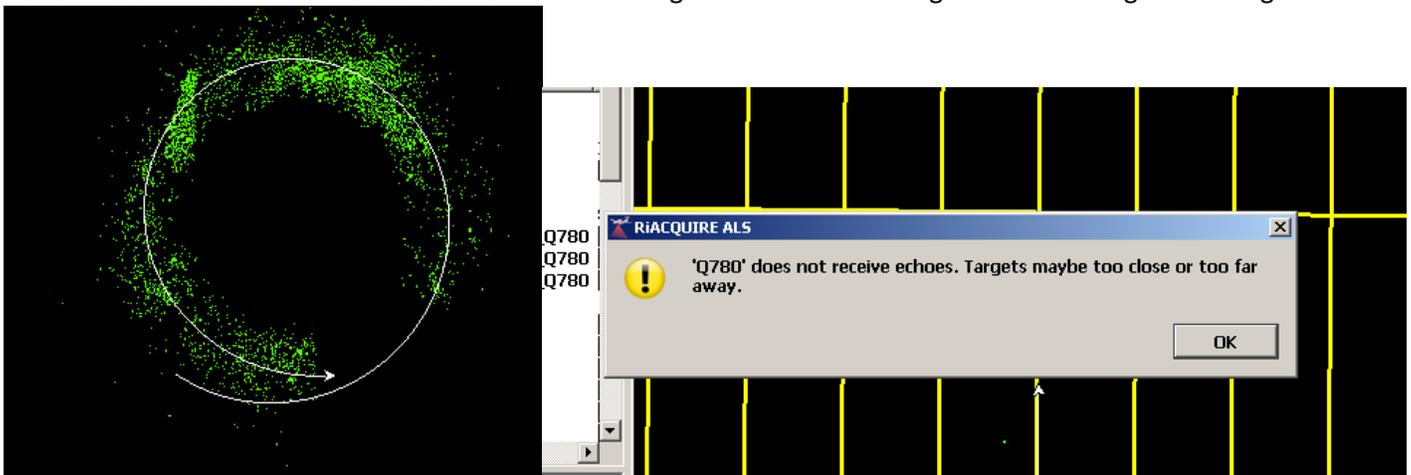
Total number of lines flown: 4

Flight Screenshots



Top Left: Lidar screenshot from today's flight. Top Right: NIS screenshot from today's flight.

Bottom Left: What the returns looked like while receiving the error. Bottom Right: Error message from Riegl ALS



Cumulative Domain Coverage

D06|KONZ_KONA (Konza Prairie Biological Station and Relocatable Agricultural Site)

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		

Flown: 11% (4/38)

Green: 5% (2/38)

Yellow: 3% (1/38)

Red: 3% (1/38)

D06|UKFS (University of Kansas Field Station)

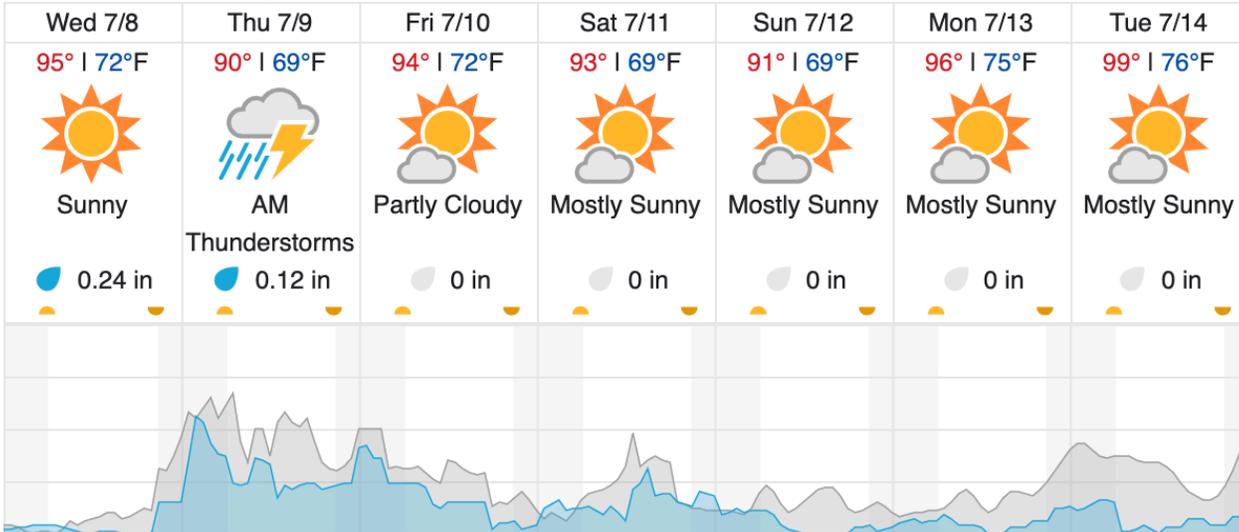
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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21	22	23	24	25	26
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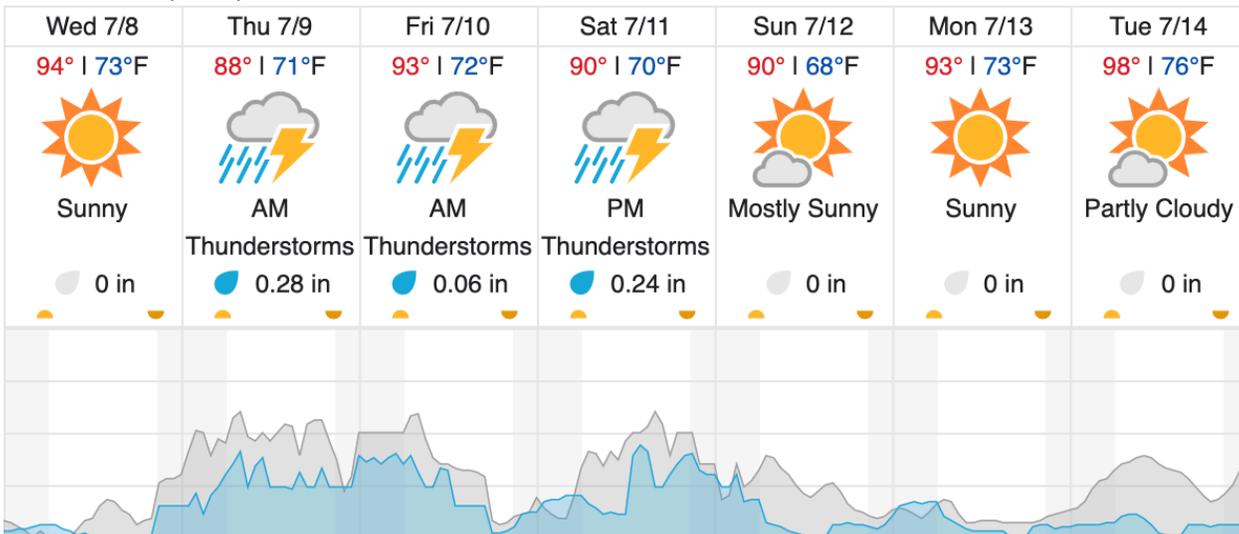
Flown: 0% (0/26)
 Green: 0% (0/26)
 Yellow: 0% (0/26)
 Red: 0% (0/26)

Weather Forecast

Manhattan, KS (KONZ_KONA)



Lawrence, KS (UKFS)



Cloud Cover (%)	Chance of Precip. (%)
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Flight Collection Plan for 08 July 2020

Flyority 1

Collection Area: Konza Prairie Biological Station (KONZ) – Konza Agricultural Site (KONA)
 Flight Plan Name: D06_KONZ_KONA_C1_P1_v4_Q780
 On-station Time: 0950 L / 1450 UTC

Flyority 2

Collection Area: University of Kansas Field Station (UKFS)
 Flight Plan Name: D06_UKFS_R1_P1_v3_Q780
 On-station Time: 0950 L / 1450 UTC

Crew: Elissa Barris (Lidar), Mitch Haynes (NIS/GPS)