



May 30, 2018 Payload 2 Daily Flight Report



Date: 2018-05-30

Flight Campaign ID: 2018_P2C1

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

Domain: 06

Sites Flown: KONZ_KONA (Konza Prairie Biological Station and Relocatable Agricultural Site), N06A (D06 Nominal Runway)

Days left in Domain: 8

Report Author: Mitch Haynes

Flight Crew: Mitch Haynes, John Adler

Ground/GPS: Heather Rogers

Pilots: Stephen Brawders, Chad Evans

Additional Personnel:

GPS Instruments: 01 - FBO_KFOE, U-KSU1

Flight Hours: 02:56

Hours until maintenance: 57.27

Summary

Clear conditions were present west of Topeka while remnant clouds from last night's convective system still persisted in eastern Kansas near priority 1 UKFS. Crew focused on western site Konza Prarie Biological Station collecting 13 airshed and TOS lines under green conditions before quickly forming cumulus clouds pushed sky conditions passed the 10% threshold needed for green collect. The nominal runway lidar validation flight plan was collected over KFOE on the return from Konza.

Concerns

None

Comments

- Completed lines 1, 17-21, and 26-32 under green conditions at KONZ-KONA.
- Completed Nominal Runway over KFOE.

Daily Coverage

D06 KONZ_KONA	Line	SpecG	SpecY	SpecR	NIS	Lidar	Camera	Cumulative
	1				✓	✓	✓	NLC
	17				✓	✓	✓	NLC
	18				✓	✓	✓	NLC
	19				✓	✓	✓	NLC
	20				✓	✓	✓	NLC
	21				✓	✓	✓	NLC
	26				✓	✓	✓	NLC
	27				✓	✓	✓	NLC
	28				✓	✓	✓	NLC
	29				✓	✓	✓	NLC
	30				✓	✓	✓	NLC
	31				✓	✓	✓	NLC
	32				✓	✓	✓	NLC

Flown:	13							
D06 N06A	Line	SpecG	SpecY	SpecR	NIS	Lidar	Camera	Cumulative
	1				✓	✓	✓	NLC
Flown:	1							

Cumulative Domain Coverage

KONZ_KONA

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		

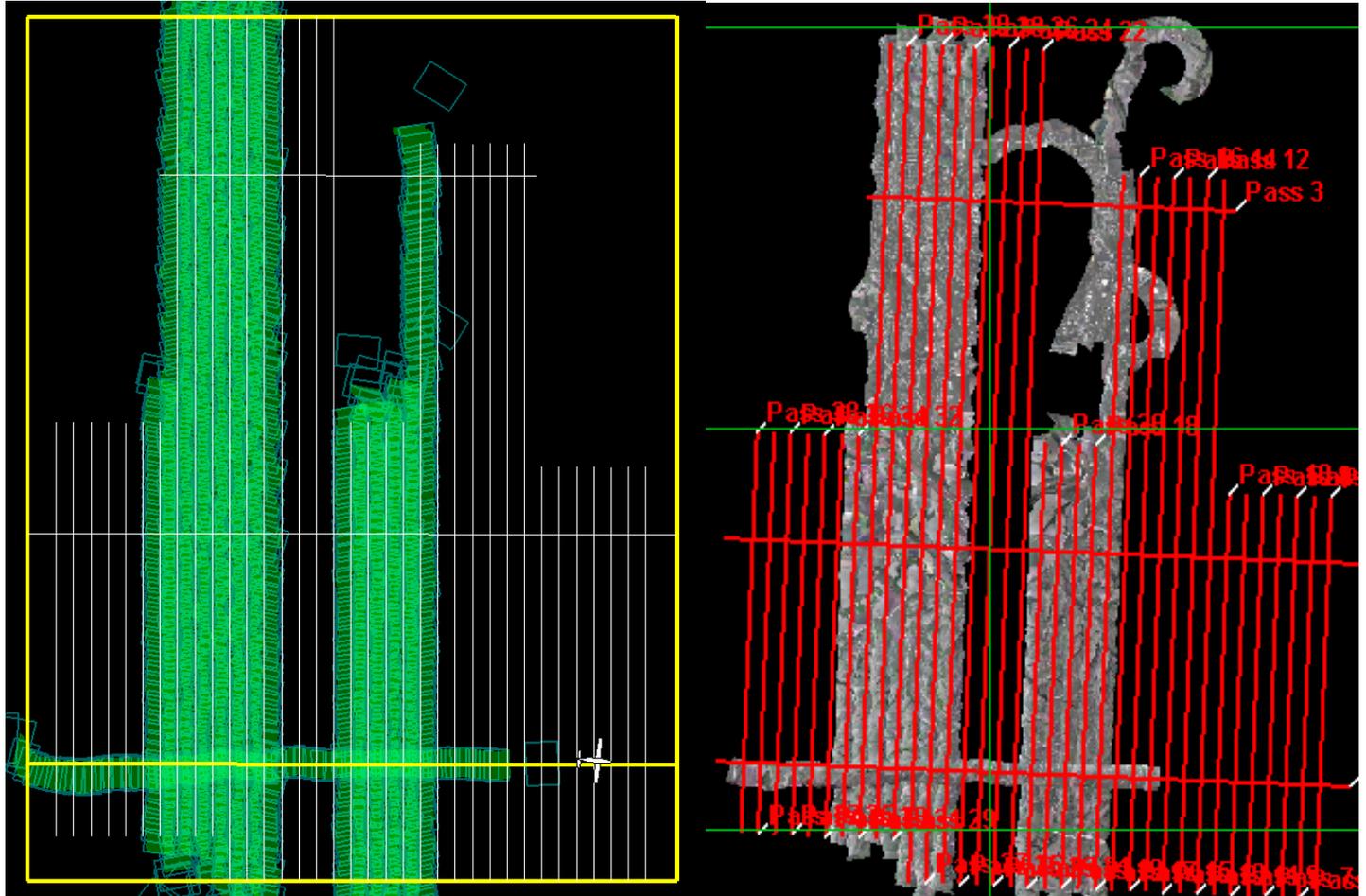
Flown: 34% (13/38)
 Green: 34% (13/38)
 Yellow: 0% (0/38)
 Red: 0% (0/38)

UKFS

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														

Flown: 0% (0/26)
 Green: 0% (0/26)
 Yellow: 0% (0/26)
 Red: 0% (0/26)

Flight Screenshots



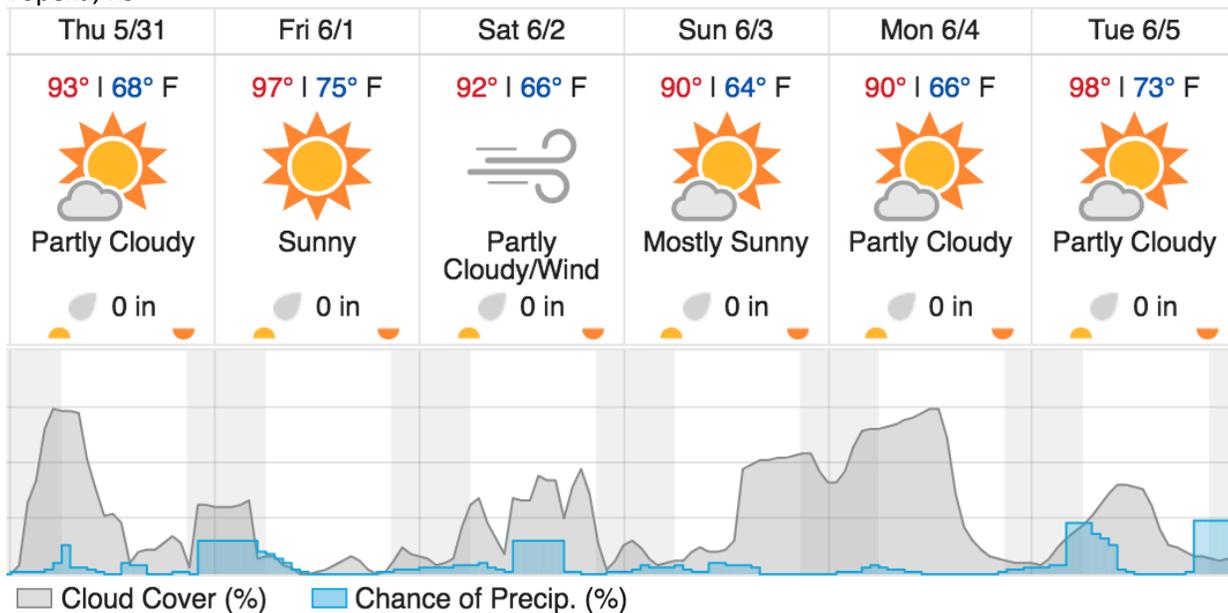
Pictures

Below: Conditions during today's flight over the Konza Prairie Biological Station and Relocatable Agricultural Site.



Weather Forecast

Topeka, KS



Flight Collection Plan for 31 May 2018

Flight Priority (Flyority) 1:

Collection Area: University of Kansas Field Station (UKFS)

Flight Plan Name: D06_UKFS_R1_P1_v2.pln

On-station Time: 1440 UTC / 0940 L

Flyority 2:

Collection Area: Konza Prairie Biological Station (KONZ) – Konza Agricultural Site (KONA)

Flight Plan Name: D06_KONZ_KONA_C1_P1_v3.pln

On-station Time: 1450 UTC / 0950 L

Lines 17-21 and 26-32 completed under green conditions

Crew: Heather Rogers (Lidar), Mitch Haynes (NIS), John Adler (Ground)

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 50-10 minutes. Re-seated three times during flight.</p> <p>2018052012 - Had to swap out the display as the original display would not show images. In flight the display then had a significant lag, but after two reboots of ALTM Nav, it worked fine. Completed the mission.</p> <p>2018053013- Pilot display was fine for the entire flight till the very end, flying the nominal runway over KFOE where it began flicking on and off (maybe 3-4 times) during the line.</p>	