

Payload 3 Daily Flight Report



Date: 2021-09-12

Flight Campaign ID: P3C1

Airport, FBO ID, City: Scottsdale Municipal Airport (KSDL) - Scottsdale, AZ, Yuma International Airport (KNYL) - Yuma, AZ

Aircraft: N615AR

Domain: Cottonwood AA Project

Sites Flown: CTWD_1, CTWD_2, CTWD_3

Days left in Domain: TBD

Report Author: Matt Devoe

Lidar Operators: Matt Devoe Flight Hours: 02:42:00, 01:44:00
Spectrometer Operators: Abe Morrison Pilots: Will Mathews, Scott Hayward GPS Instruments: 06 - KSDL

Summary

Clear skies over the Cottonwood assignable asset project allowed the crew to collect the majority of the Yuma loop in green conditions. Lines 8 and 9 were flown under yellow conditions

Concerns

None

Comments

Lines 8 and 9 will be attempted at the end of the Aqua Fria loop per the PI's guidance.

Daily Coverage

Estimated Cloud Cover Key

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

CTWD_3

| Line # | 1 | 2 | 3 | 4 |
|--------------|----------|----------|----------|----------|
| Lidar | \ | / | \ | \ |
| Spectrometer | √ | ✓ | √ | √ |
| Camera | ✓ | ✓ | √ | √ |
| Cloud Cover | | | | |

Total number of lines flown: 4

CTWD_1

| Line # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------|---|----------|---|----------|----------|---|----------|----------|----------|
| Lidar | > | / | > | / | \ | > | \ | \ | / |

| Spectrometer | √ | √ | √ | √ | ✓ | √ | √ | √ | √ |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Camera | √ | √ | √ | √ | √ | √ | / | \ | ✓ |
| Cloud Cover | | | | | | | | | |

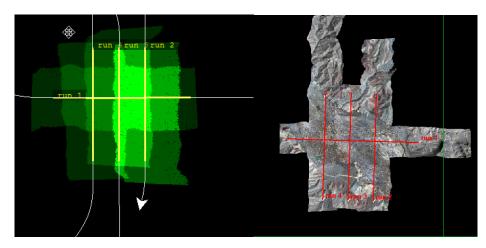
Total number of lines flown: 9

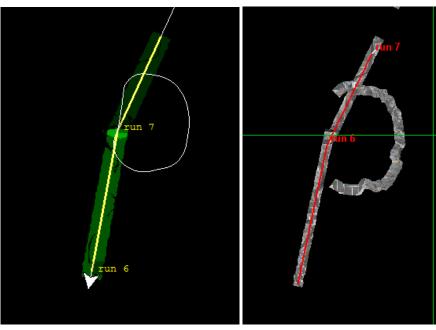
CTWD_2

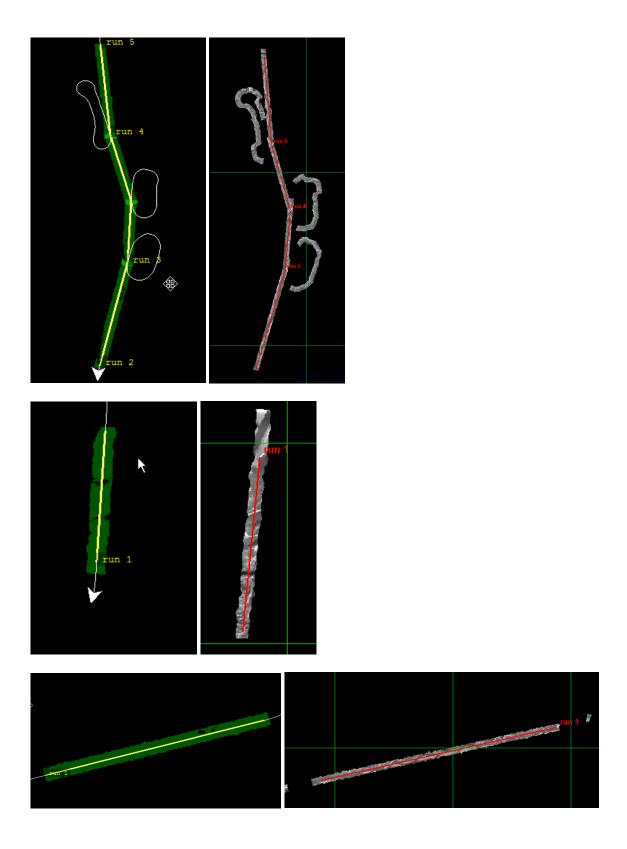
| Line # | 1 |
|--------------|----------|
| Lidar | / |
| Spectrometer | √ |
| Camera | √ |
| Cloud Cover | |

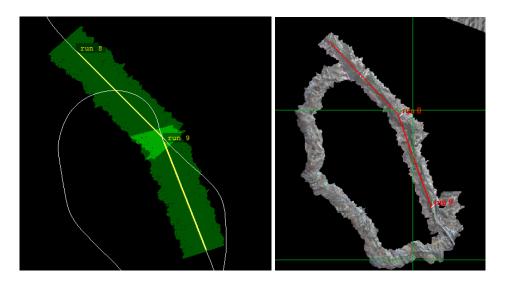
Total number of lines flown: 1

Flight Screenshot







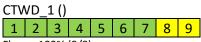


Pictures



Colorado River near Yuma

Cumulative Domain Coverage



Flown: 100% (9/9) Green: 78% (7/9) Yellow: 22% (2/9) Red: 0% (0/9)

<u>CTW</u>D_2 ()

1

Flown: 100% (1/1) Green: 100% (1/1) Yellow: 0% (0/1) Red: 0% (0/1)

CTWD_3 () 1 2 3 4

Flown: 100% (4/4) Green: 100% (4/4) Yellow: 0% (0/4) Red: 0% (0/4)

CTWD_4 ()

| | | <u>. ,,</u> | | | | | | | | |
|---|---|-------------|---|---|---|---|---|---|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

Flown: 0% (0/11) Green: 0% (0/11) Yellow: 0% (0/11) Red: 0% (0/11)

CTWD_5 ()

| 1 | 2 | 3 | 4 |
|---|---|--------|------|
| | | 20/ /0 | 1/41 |

Flown: 0% (0/4) Green: 0% (0/4) Yellow: 0% (0/4) Red: 0% (0/4)

CTWD_6 ()

| - | | - 17 | | | |
|---|---|------|---|--|--|
| 1 | 2 | 3 | 4 | | |
| | | | | | |

Flown: 0% (0/4) Green: 0% (0/4) Yellow: 0% (0/4) Red: 0% (0/4)

Weather Forecast

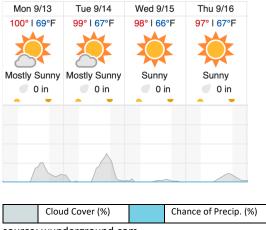
Luke AFB, AZ (Yuma flt. plan, Lines 8 and 9)

| Mon 9/13 | Tue 9/14 | Wed 9/15 | Thu 9/16 |
|-------------|-------------|-------------|-------------|
| 109° I 79°F | 107° I 77°F | 106° I 76°F | 105° I 76°F |
| | | | |
| | | | |
| Sunny | Sunny | Sunny | Sunny |
| 0 in | 0 in | 0 in | 0 in |
| • | _ | • | • |
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| | | | |
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| | | | |
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Scottsdale, AZ (Agua Fria South Flight Box)

| | , , (, .0 5.5. | | |
|-------------|----------------|-------------|-------------|
| Mon 9/13 | Tue 9/14 | Wed 9/15 | Thu 9/16 |
| 108° I 80°F | 107° I 79°F | 106° I 78°F | 105° I 78°F |
| | | | |
| | | | |
| | | | |
| Sunny | Sunny | Sunny | Sunny |
| 0 in | 0 in | 0 in | 0 in |
| • | | | |
| | | | |
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Camp Verde, AZ (Agua Fria North Flight Box)



source: wunderground.com

Flight Collection Plan for September 13th 2021

Flyority 1

Collection Area: Agua Fria 1000m Flight Line Flight Plan Flight Plan Name: D14_CTWD_AguaFria_FL_1000m_v1

Solar Angle Time: 16:40 UTC

Flyority 2

Collection Area: Agua Fria 500m Flight Box South Flight Plan Flight Plan Name: D14_CTWD_AguaFria_FBS_500m_v1

Solar Angle Time: 16:40 UTC

Flyority 3

Collection Area: Agua Fria 500m Flight Box North Flight Plan Flight Plan Name: D14_CTWD_AguaFria_FBN_1000m_v1

Solar Angle Time: 16:40 UTC

Flyority 4

Collection Area: Yuma 1000m Flight Box North Flight Plan-Lines 8-9

Flight Plan Name: D14_CTWD_YUMA_FB_N_1000m_v3

Solar Angle Time: 16:40 UTC

Crew: Abe Morrison, Matt DeVoe