

# ACAT: Jump Plane Flight Test



October 18, 2018

October 9<sup>th</sup>: request to fund modifications of Cessna 182 from Skydive Truckee Tahoe to be used in 2019

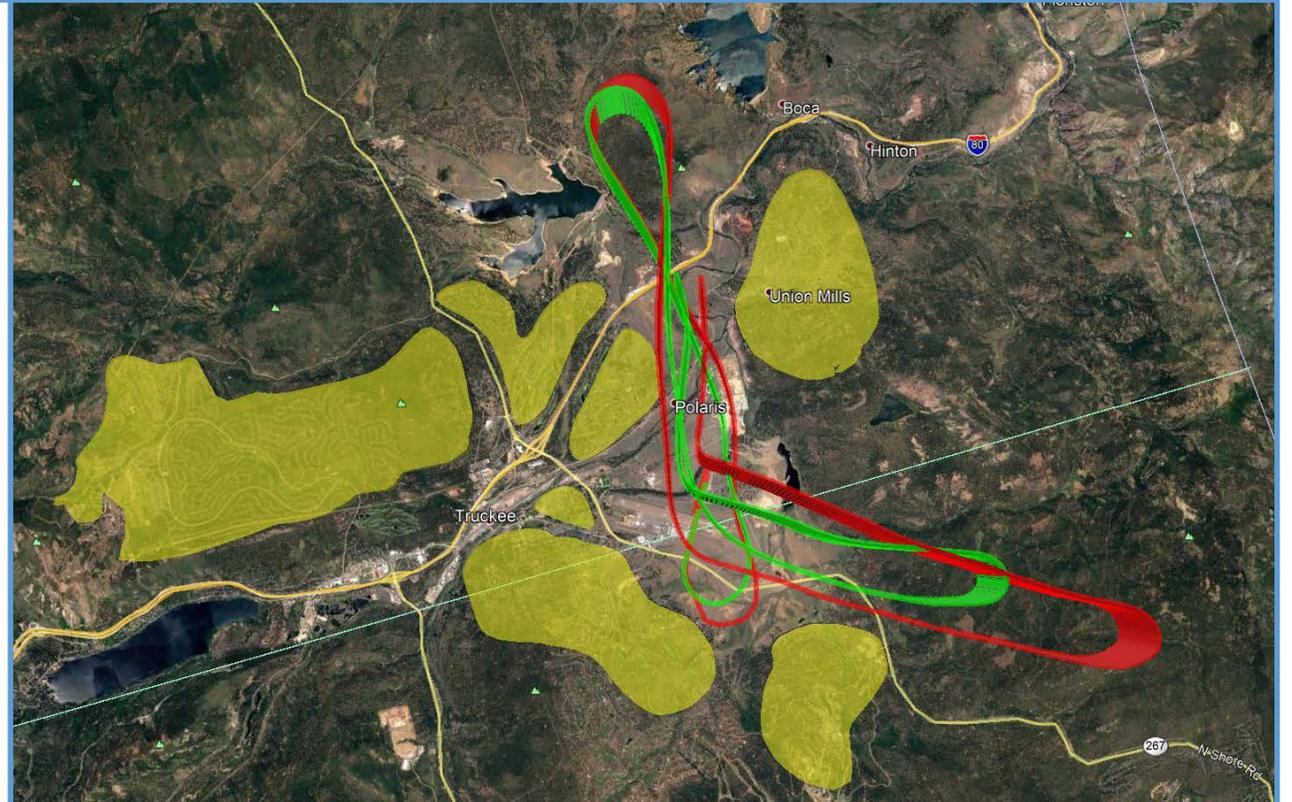
Preflight meeting, Groups sent to test sites, Flight Tests, Post-flight briefing

Test Aircraft: current 206 & proposed 182 for 2019  
1966 C206 N775P, Cont IO-520 Motor, current aircraft  
1956 C182 N5620B, Cont O-470 Motor, proposed acft

Weather:

Clear skies, winds lights & variable, 37 – 43 F

Monitoring from Glenshire, Olympic Heights, Prosser & TRK using Apple devices and Decibel X Pro app.

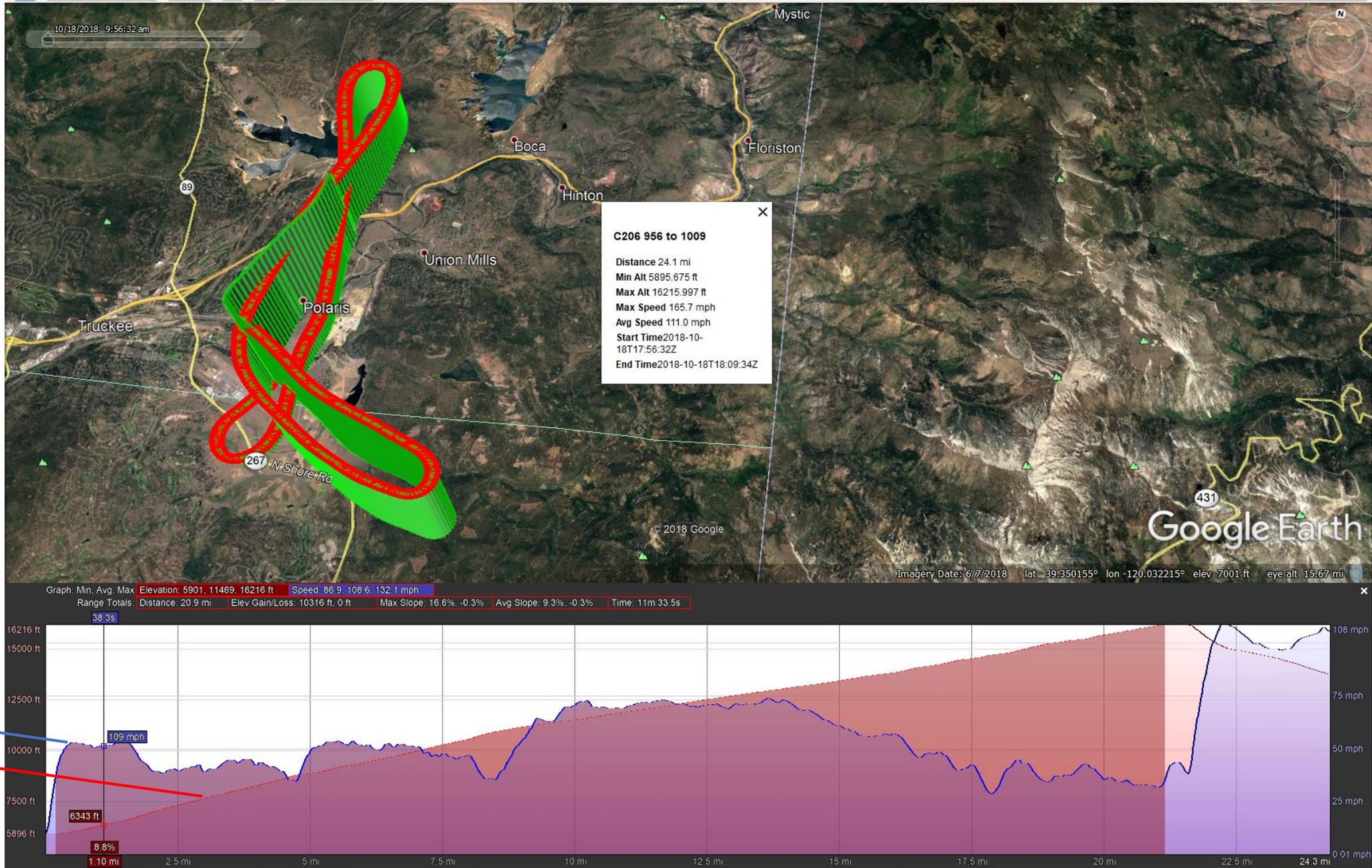


During both flights, tracks remain over non-residential areas. C182 is in Red, C206 in Green. 1 jumper aboard each flight.

**Cessna 206:**  
**N775P - current**  
**jump plane**

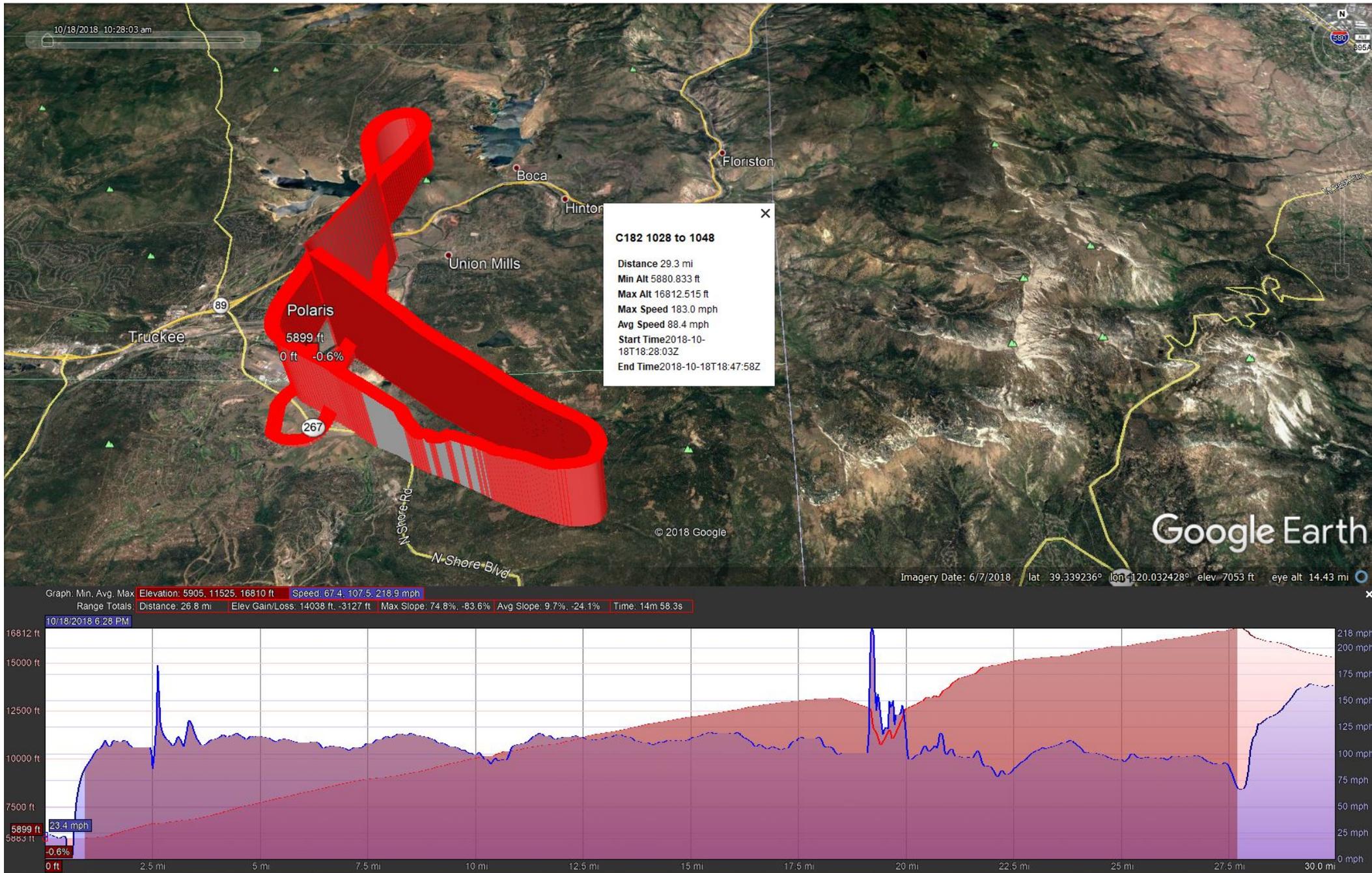
- 11 min 33 sec from rotation to max altitude
- 16,216' max altitude
- 20.9 mile track length

*Flight tracks depicted are from the Garmin App generated from an iPad carried on both flights. Blue = Speed Red = Altitude*



# Cessna 182 N5620B - proposed jump plane

- 15 min from rotation to max altitude
- 16,812' max altitude
- 26.8 mile track length

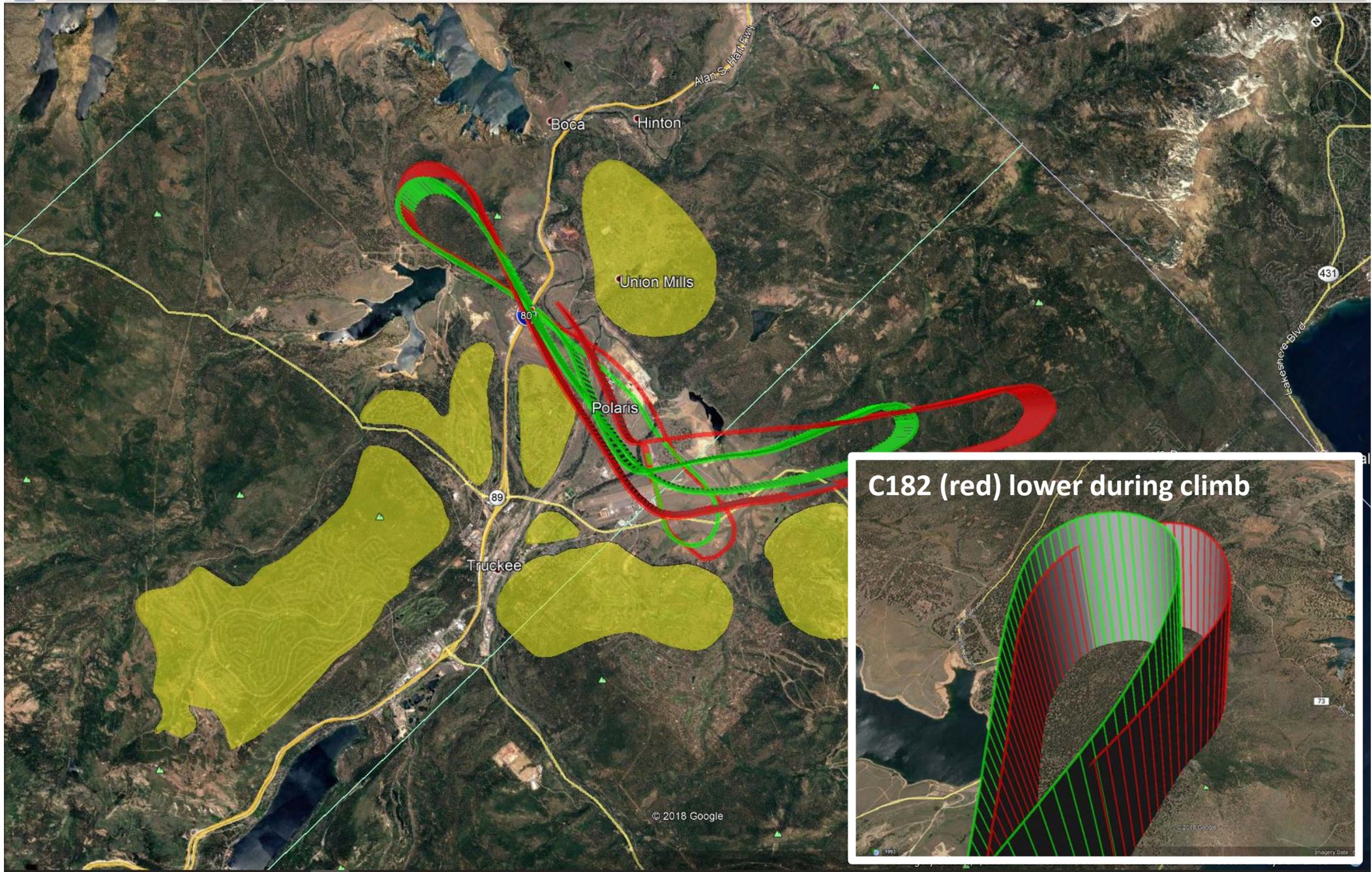


### ***Flight Deltas***

- 3:27 time difference
- 596' max altitude difference
- 5.9 mile track length difference

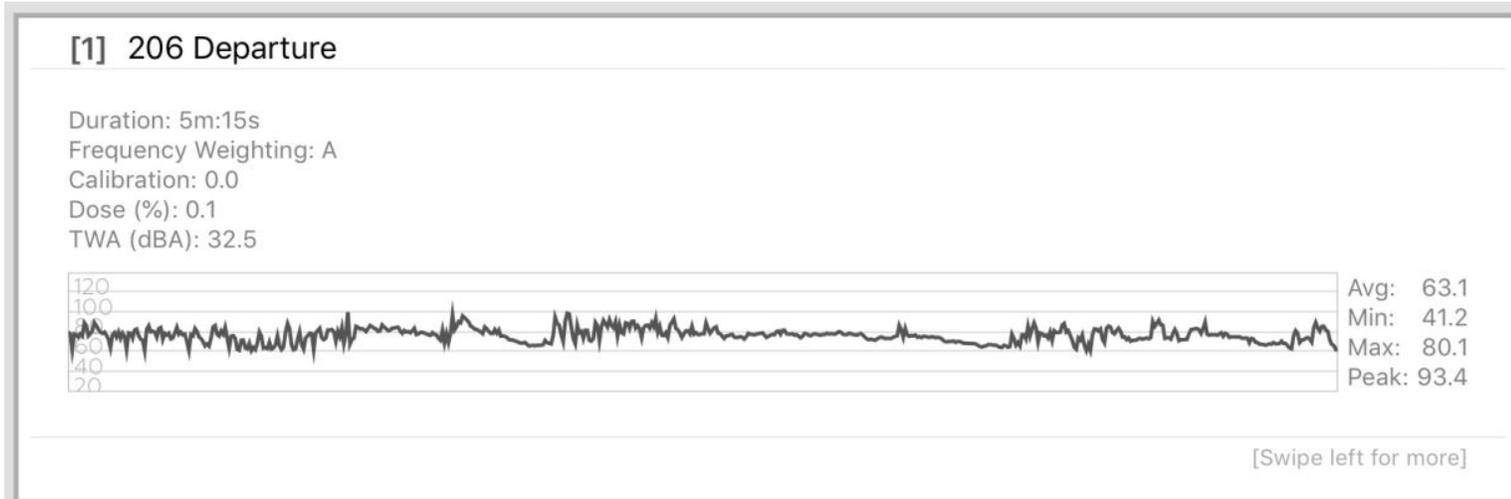
*which equates to*

- 30% time increase
- 28% distance increase



# Jump Plane Flight Test: Sound Recordings

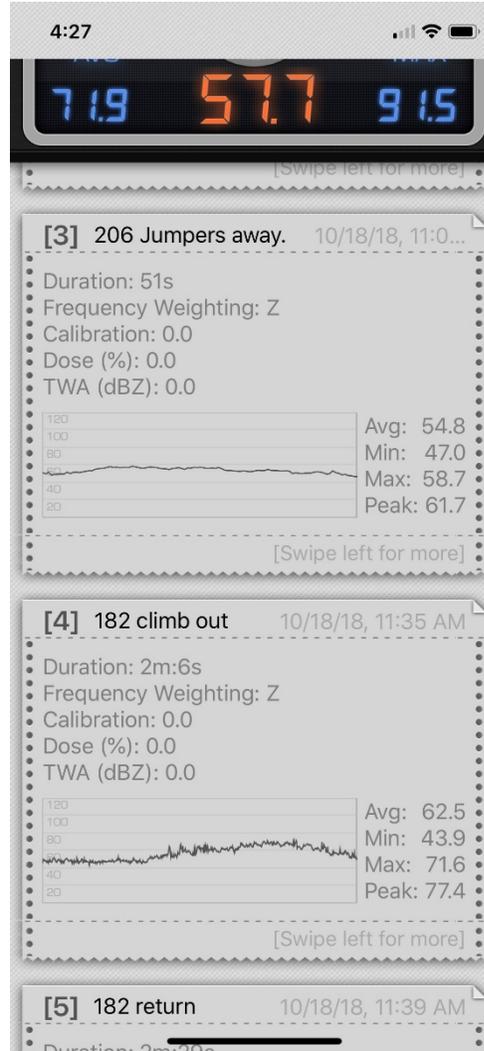
Based on the lack of environmental controls, expedited nature of the testing and equipment variables, the measurement data is not deemed professionally accurate.



Data from Mike's iPad:  
182 shows up 7dBA louder  
but slight location change  
occurred and an EAA project  
with an air compressor likely  
affected the recording.  
Samples from the runway  
intersection during  
departure. Both aircraft  
were in the mid-50 dBA  
range after the north-bound  
turn. Subjective: similar  
loudness until northbound  
then 182 was slightly louder

# Jump Plane Flight Test: Sound Recordings

Based on the lack of environmental controls, expedited nature of the testing and equipment variables, it is the opinion of staff that these measurements are not reliable.

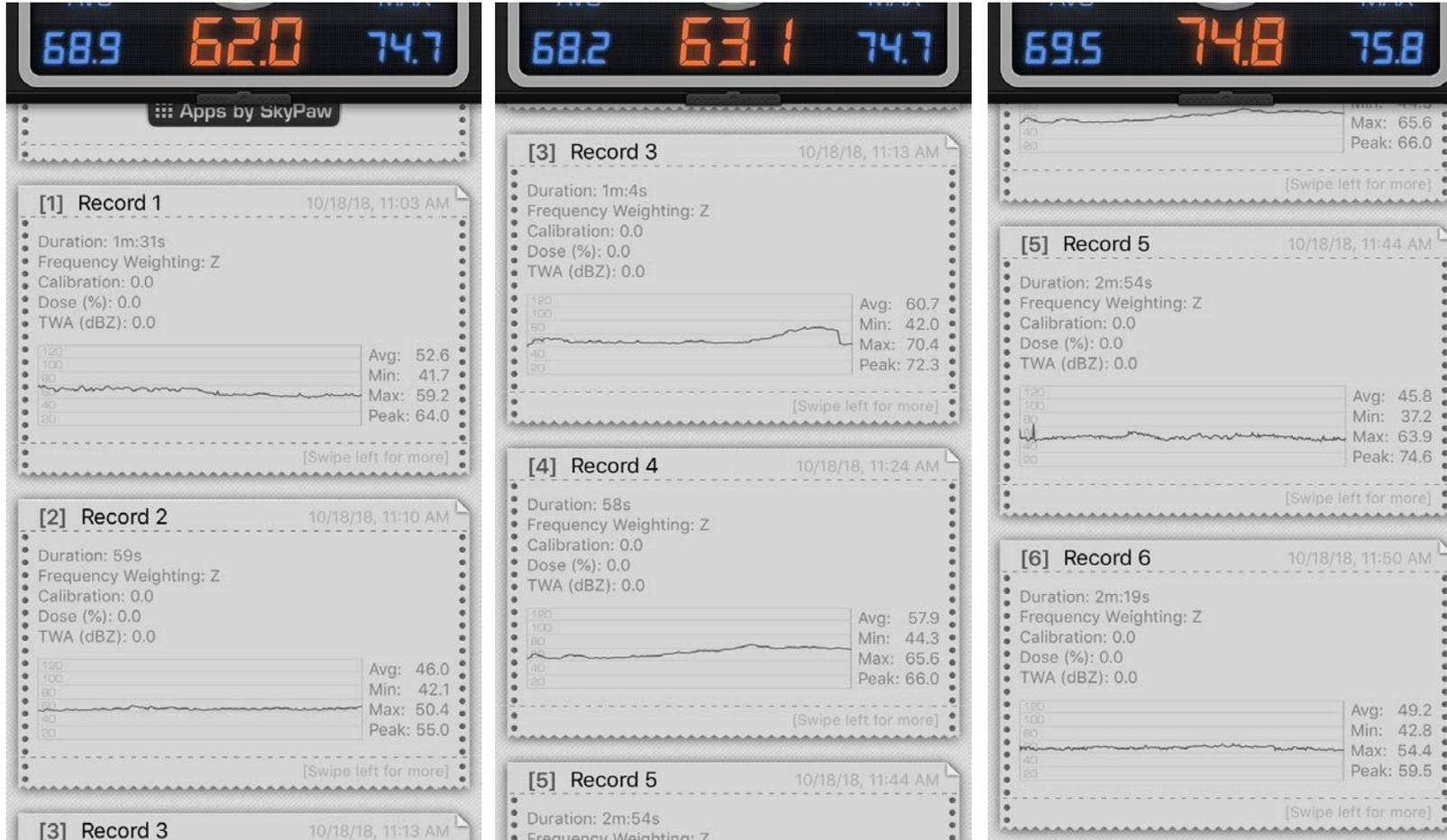


Data from Marc's Phone:  
*Z weighting used in test so data would need professional decoding for full comparison.*

Test samples at east end of Olympic Heights.

# Jump Plane Flight Test: Sound Recordings

Based on the lack of environmental controls, expedited nature of the testing and equipment variables, the measurement data is not deemed professionally accurate.



C206

other

C182

Data from Jill's Phone:  
*Z weighting used in test so data would need professional decoding for full comparison.*

Test samples from Prosser Lakeview.

Middle records are other air traffic in between test subjects.

# Jump Plane Flight Test: Sound Recordings

Based on the lack of environmental controls, expedited nature of the testing and equipment variables, the measurement data is not deemed professionally accurate.

## C182

Min (dBZ): 47.1  
Max (dBZ): 68.1  
Peak (dBZ): 74.2  
Avg (dBZ): 58.6  
TWA (dBZ): 0.0  
Dose (%): 0.0

## Data from Lauren's Phone:

*Z weighting used in test so data would need professional decoding for full comparison.*

Test site: Glenshire

Subjective comment:

Lauren stated that the 182 seemed louder

## C206

Min (dBZ): 45.9  
Max (dBZ): 64.3  
Peak (dBZ): 71.6  
Avg (dBZ): 57.4  
TWA (dBZ): 0.0  
Dose (%): 0.0

Questions? Discussion



Thank You!  
Mike Cooke

