

# King Air Research (n2uw)



## *UWKA basing:*

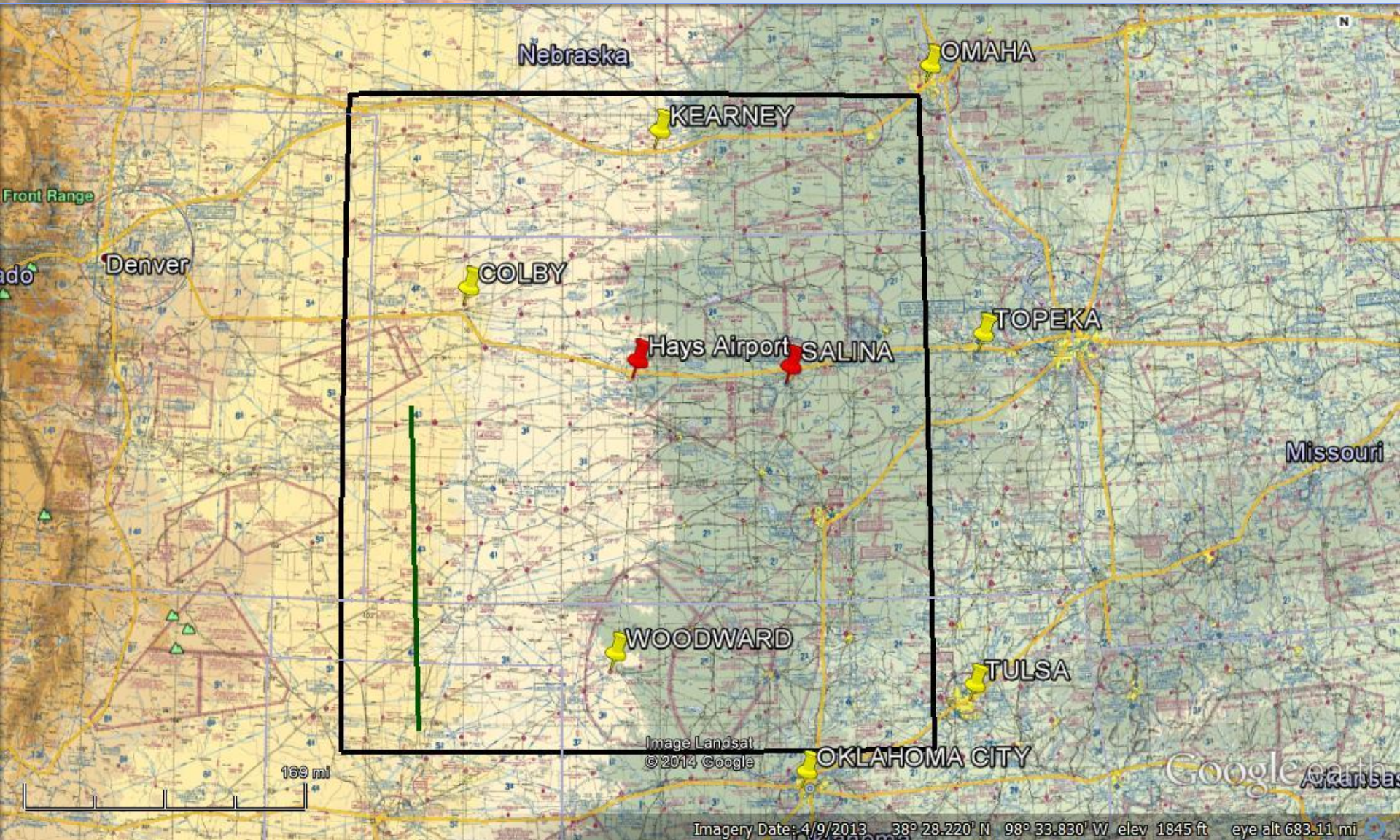
- KHYS (Hays, KS) *preferred*
  - KSLN (Salina, KS) *backup*
- site visit expected this summer*

*~ expect maximum 4 hour flight time w/ 90-120 minute startup (from the time go/no-go decision)*

## *Double crew in field should allow:*

- *Multiple research flights per night (based out of KHYS or KSLN)*
- *Back to Back to Back..... days of operation*
- *No hard-down days*

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Imagery Date: 4/9/2013 38° 28.220' N 98° 33.830' W elev 1845 ft eye alt 683.11 mi

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## *Possible Flight Scenarios:*

- Takeoff from KHYS, ferry→on-station research→ferry back to KHYS (4 hour max). Switch crew (~90 minute turnaround). Conduct another 4 max. research flight.
- Takeoff from KHYS, ferry→on-station research→return to re-fueling airport. ~60 minute turnaround, ferry back to KHYS (no research) {expect total 6-7 hours KHYS→KHYS}

## WE CANNOT:

- Conduct research mission from secondary airport
- Change crews from secondary airport
- Exceed crew duty or switch day-night schedule for planning



## Operations

- UWKA will rely on NCAR to provide initial coordination with FAA/ATC. Our lead pilot and PM will work with NCAR/EOL staff in this regard.
- Operations for UWKA will require a dedicated mission coordinator to provide guidance on leg endpoints, locations of convection/new growth, etc. This person must have experience guiding aircraft in vicinities of severe storms and knowledge of aircraft rules and flight limitations. There should exist a dedicated radio channel for communications.
- The UWKA will require real-time data products available to the crew in flight for positioning the aircraft. Expect that these should include near real-time geo-referenced radar and lightning.



## Operations/Low Altitude at night

- 500 ft minimum for fixed track locations (mission 4) is possible. UWKA will require close consultation with PI (Parish) to set tracks and pre-fly during daytime in good VMC.
- 1000 ft minimum for variable track locations (missions 1-3) is possible. This will require negotiation with FAA— Anticipate lowest allowable altitudes will be based on minimum off-route altitudes for a given location. In general, this will be between 1000 and 3000 ft AGL



## Operations/Ground-based Assets

- UWKA will require locations, operating wavelength, and eye-safety of any ground-based LIDARS operating within the PECAN domain.
- UWKA will require locations, heights of any fixed and mobile towers and/or tethered balloons within the PECAN domain.