

# Wyoming King Air in RICO

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# Instrumentation

- Wyoming Cloud Radar
  - Four antennas
    - Nadir
    - 30° forward of nadir
    - Side looking or upward, selected with mirror
    - 35° forward of lateral beam
  - Fast switching will allow rapid selection of all four antenna
  - Aircraft communications near 120 MHz interferes with the radar

# State variables

- Temperature
  - Reverse Flow, Rosemount
- Dew Point
  - Cambridge chilled mirror, Licor 6262
- Radiation
  - Up/down pyranometer, up/down pyrgeometer, downward radiative thermometer

- Particle Measurement Probes

- FSSP

- 1-DC

- 2-DC

- 2-DP

# Liquid Water

- Gerber PVM-100
- DMT LWC-100

# Communications

- Radios
  - Frequencies?
- Sat phone
  - Telemeter data
  - Chat room
    - Effectiveness may be limited by small crew

# Flight limitations

- Two pilots
  - Duty cycle should not be an issue
- Each flight limited to four hours

# Concerns

- Air space – notification and coordination with ATC
- LIDAR – eye safe distance and precautions
- Radio frequencies
  - Pilot-pilot
  - Scientist-scientist