

NCAR EOL Research Aviation Facility (RAF)



Pavel Romashkin – RAF Manager, *Acting*

Patrick Veres – RAF Science and Instrumentation Group Lead



Research Aviation Facility (RAF)



Our mission is to:



- serve as national resource for the advancement of airborne research in the geosciences
- conduct and improve fundamental airborne measurements
- support specialized applications of airborne research by working with our partners in the NSF community



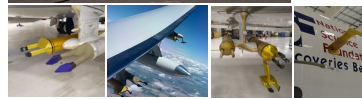
We are committed to **Safety, Service, and Science**

NSF/NCAR RESEARCH AIRCRAFT



NSF/NCAR Gulfstream GV "HIAPER"

Capabilities: 51,000 feet, 10 hours endurance, and 6,000 nm range



Areas of Research: chemistry and climate, chemical cycles, studies of the upper troposphere/lower stratosphere, air quality, and mesoscale weather



NSF/NCAR C130 "Hercules"

Capabilities: 27,000 feet, ~10 hours endurance, and 2,900 nm range

Areas of Research: atmospheric chemistry, climate studies, winter storms, aerosols, cloud physics, and air-sea interaction

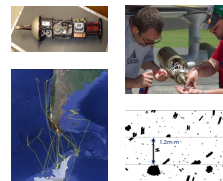
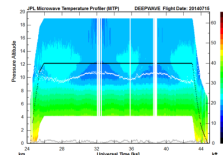
End to End Science Support

NSF Lower Atmosphere Observing Facilities are available to all qualified scientists from US universities, NCAR and US government agencies

- Competitive process driven by scientific merit, capabilities of a specific platform, scheduling and available funding (18–24 month process depending on complexity of campaign)

The Research Aviation Facility provides:

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|--|----------------------------|
| Airborne instrument development | Field support |
| Software development & data processing | Project management |
| Aircraft maintenance & modifications | Aircraft flight operations |
| Observational research | Airborne measurements |



Upcoming Projects - 2024

Cold Air Outbreak Experiment in the Sub-Arctic Region (CAESAR) – C130

February – April 2024

Paquita Zuidema, University of Miami
Bart Geerts, University of Wyoming
Greg McFarquhar, University of Oklahoma

Eclipse Observations with the Airborne Coronal Emission Surveyor (ACES) – GV

April 8, 2024

Jenna Samra, Smithsonian Astrophysical Observatory

Methane Emissions Quantification at scale using the MethaneAIR Imaging Spectrometer (MAIR-E) – GV

May – July 2024

Steven Wofsy, Harvard
Jonathan Franklin, Harvard

Contact Us

If you are unable to attend the FARE RAF facility tour, please contact us to arrange a visit.

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