Research Aviation Facility :: RAF

EOL's Airborne Program

- Provides unique airborne platforms and airborne measurement capabilities that address scientific needs of the atmospheric research community
- Develops new instrumentation to address gaps in current airborne measurement capabilities
  - NSF/NCAR C-130
  - NSF/NCAR GV

What we do:

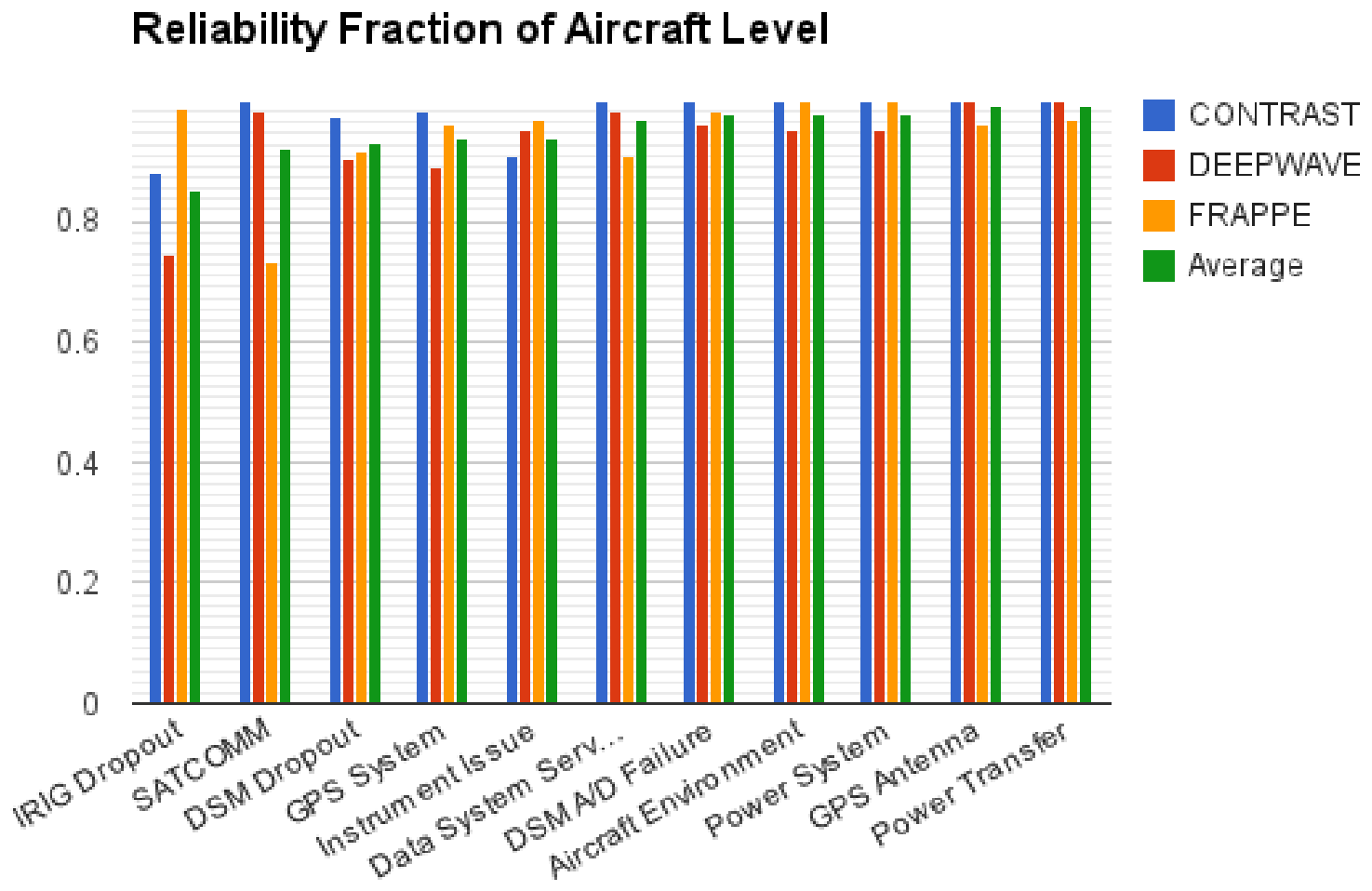
- Airborne Measurements
- Research
- Support for Visiting Scientists and Students
- Software Development and Data Processing (with CDS)
- Field Support and Project Management (with PMO)
- Aircraft Flight Operations
- Aircraft Maintenance and Modifications
- Instrument Development

NSF Gulfstream V: The global scale research platform

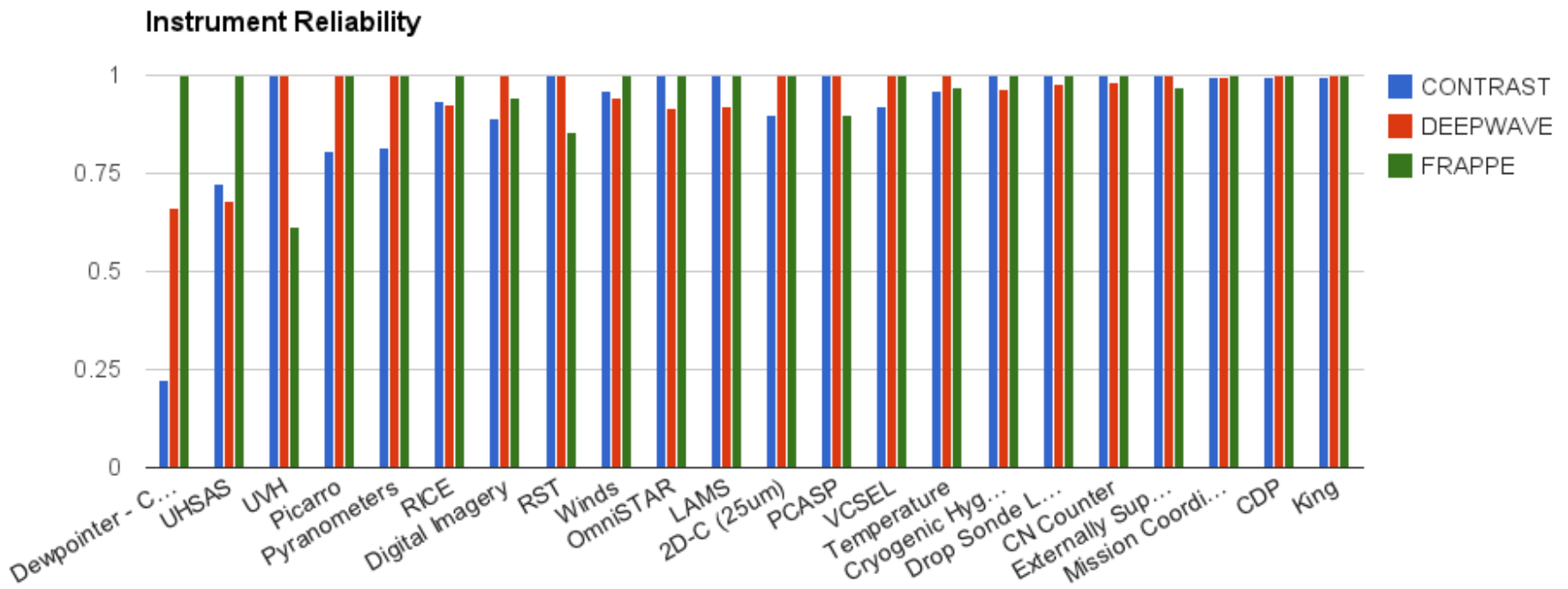
- Long-Range (over 5000 n miles--South Pole and back)
- High Altitude (up to 51,000 feet)
- 6000+ lb payload
- Up to 12 hours endurance (10 hours typical)
- Extensive Modifications and community instrumentation.
- Fully FAA Certified

- Six under-wing hardpoints
- Up and Down (2) Co-Aligned 21 inch optical viewports
- Several Aperture/inlet locations
- Flexible seat/rack system
- New technology data system

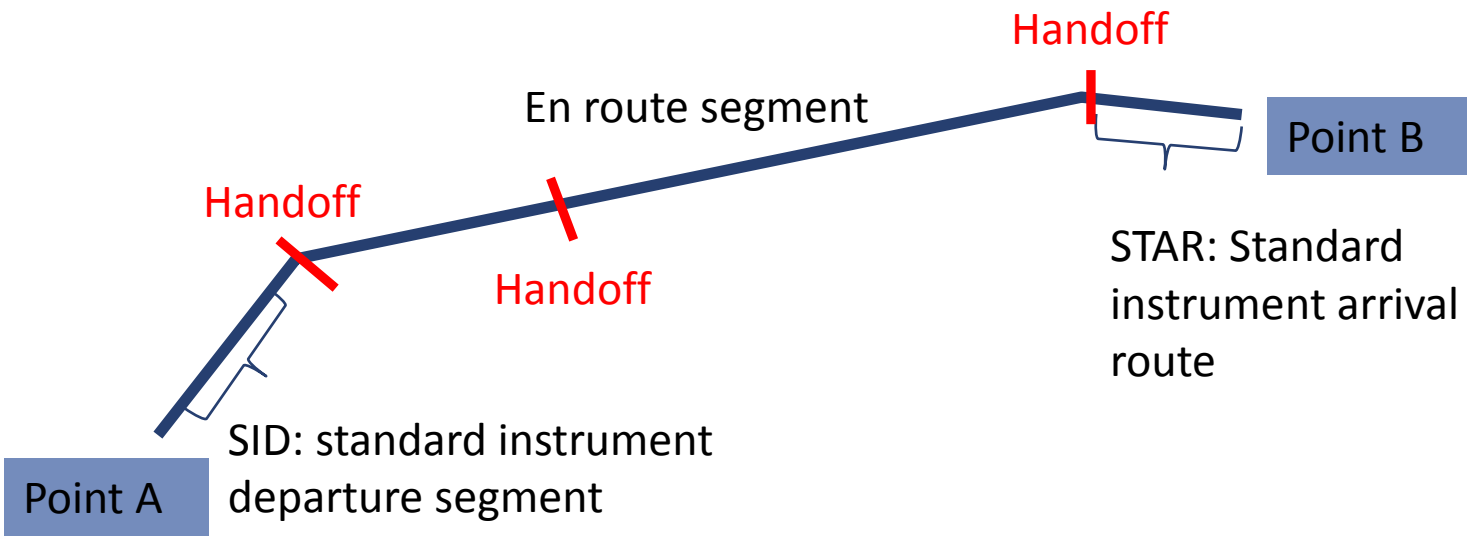
Tracking support system reliability



Tracking instrument performance in recent projects



Concept of flight pattern: ATC



Concept of flight pattern: Scientists

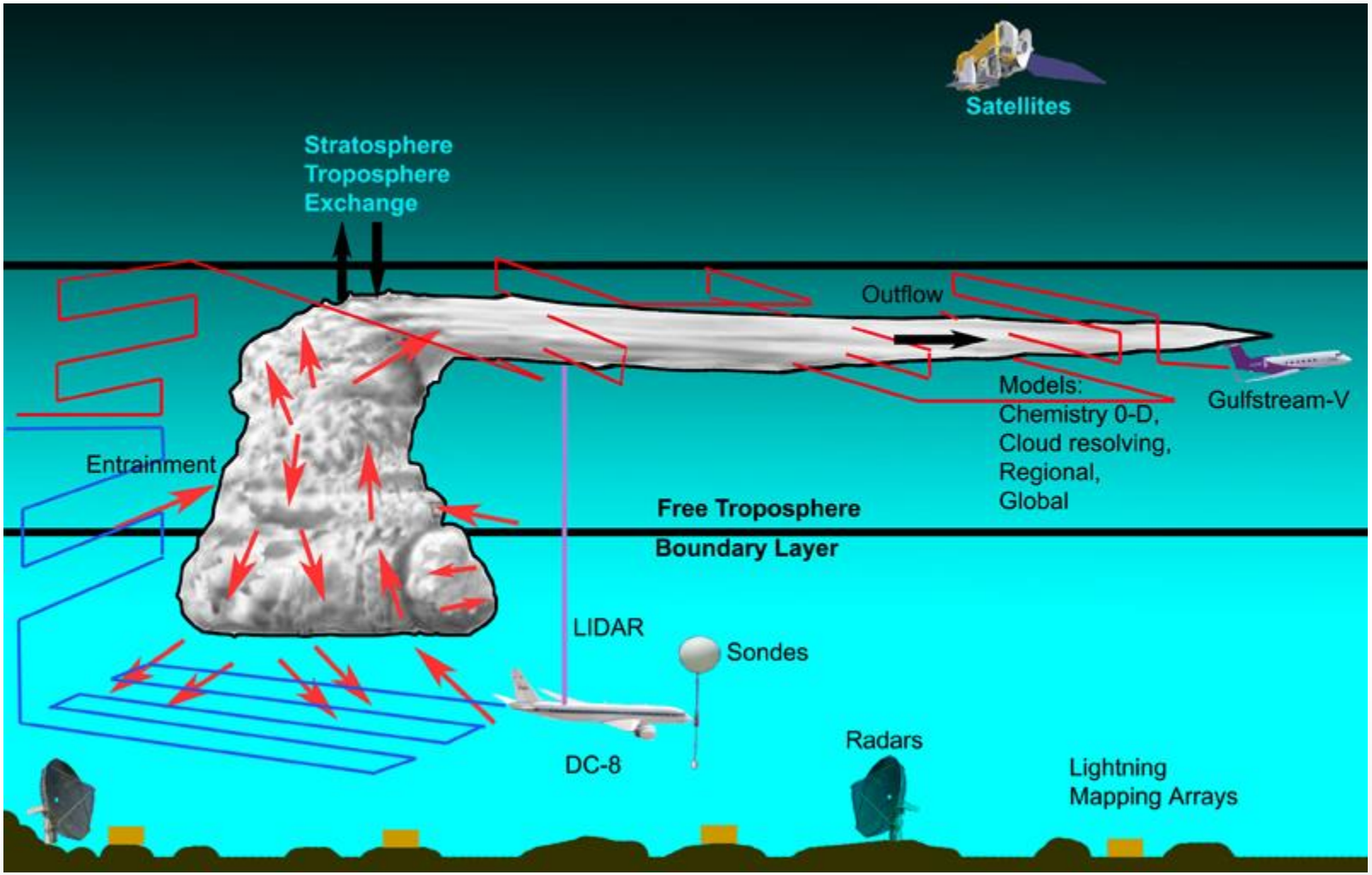
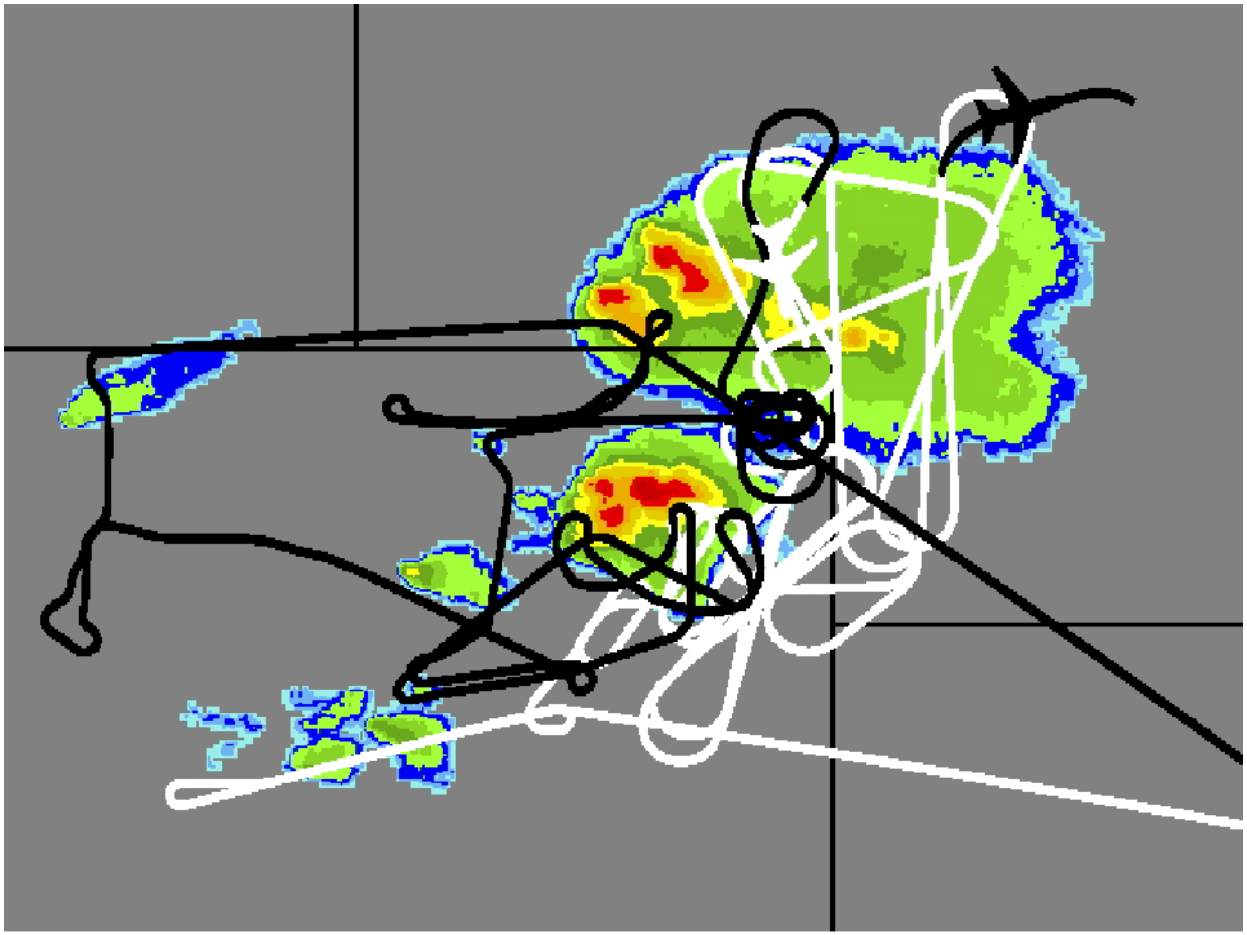


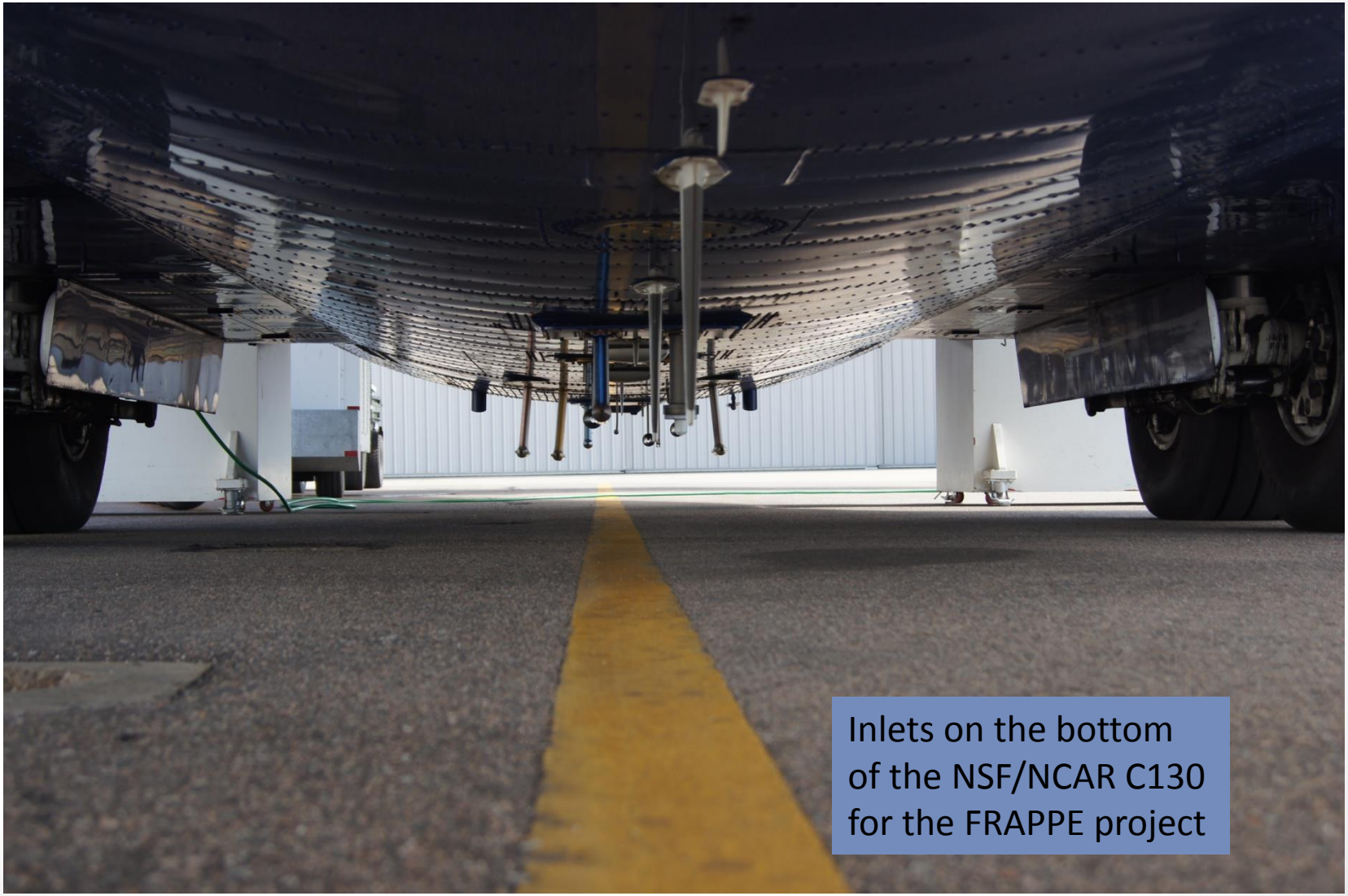
Figure courtesy DC3 home page, UCAR/NCAR

Actual Flight Tracks



Source: Cameron Homeyer, DC3 Field Catalog

Chemists Need Air!!



Inlets on the bottom of the NSF/NCAR C130 for the FRAPPE project

…and mission critical equipment

Questions?