

ER-2 Flight Summary

Mission: ferry flight

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Sortie: 02-945

Date: Monday, 1 July 2002

Pilot: J. Barrilleaux

Takeoff: 0925 PDT (1625 UTC)

Landing: 1855 EDT (2255 UTC)

Duration: 6:30

Objectives:

ER-2 ferry flight from NASA Dryden Flight Research Center to Key West Naval Air Facility. Overfly six NWS radiosonde sites enroute for MTP calibration. Overfly western and eastern CRYSTAL-FACE ground sites for communication checks and science of opportunity. Route out of Dryden planned for overpass of forest fires in north central Arizona as authorized and paid for by the Dryden airborne sciences program.

Western ground site:

PARSL, Everglades National Park, Gulf Coast Visitor's Center
25 50.0 N, 81 23.4 W (25.83, -81.39)

Eastern ground site:

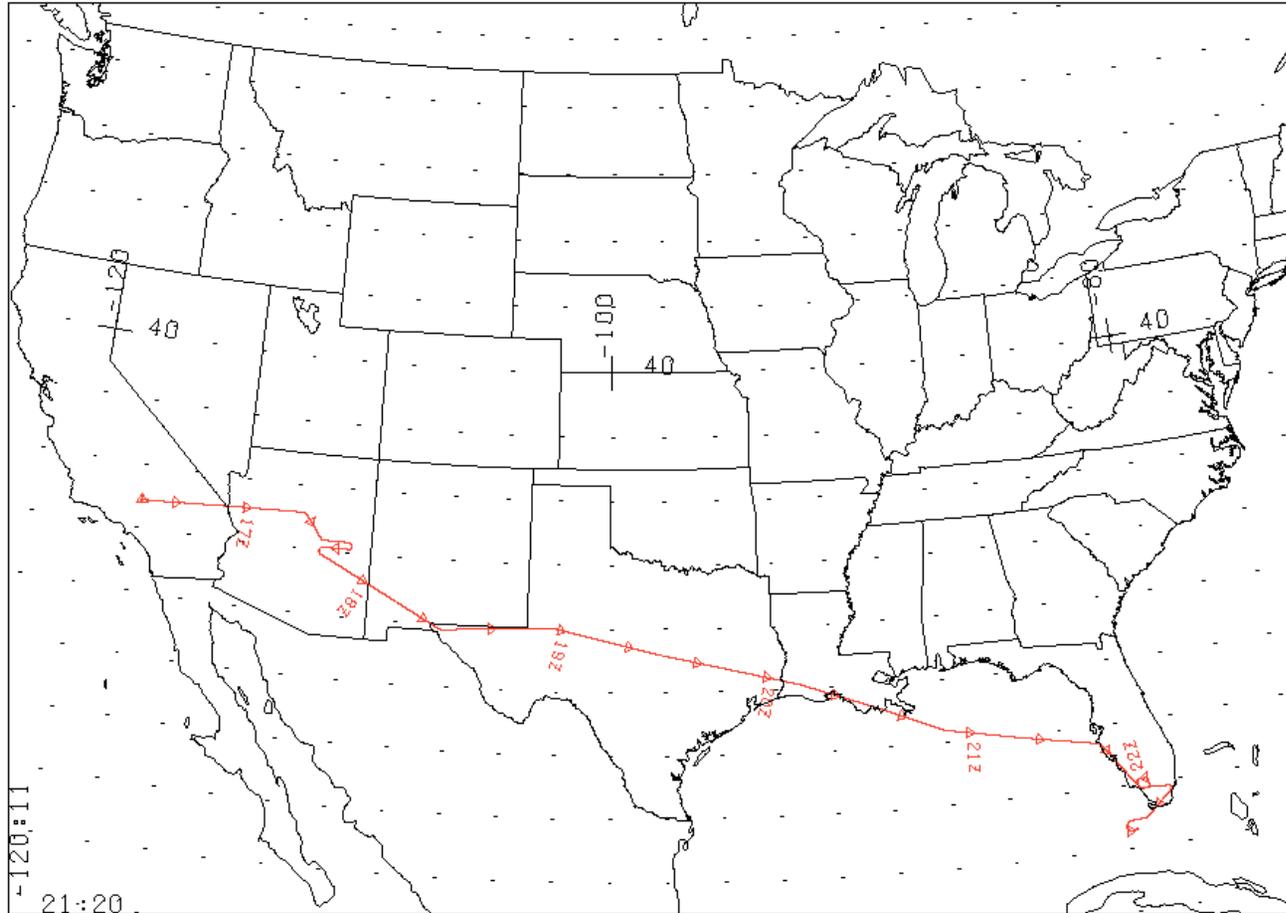
Kendall-Tamiami Airport
25 39.3 N, 80 25.9 W (25.66, -80.43))

Summary/highlights:

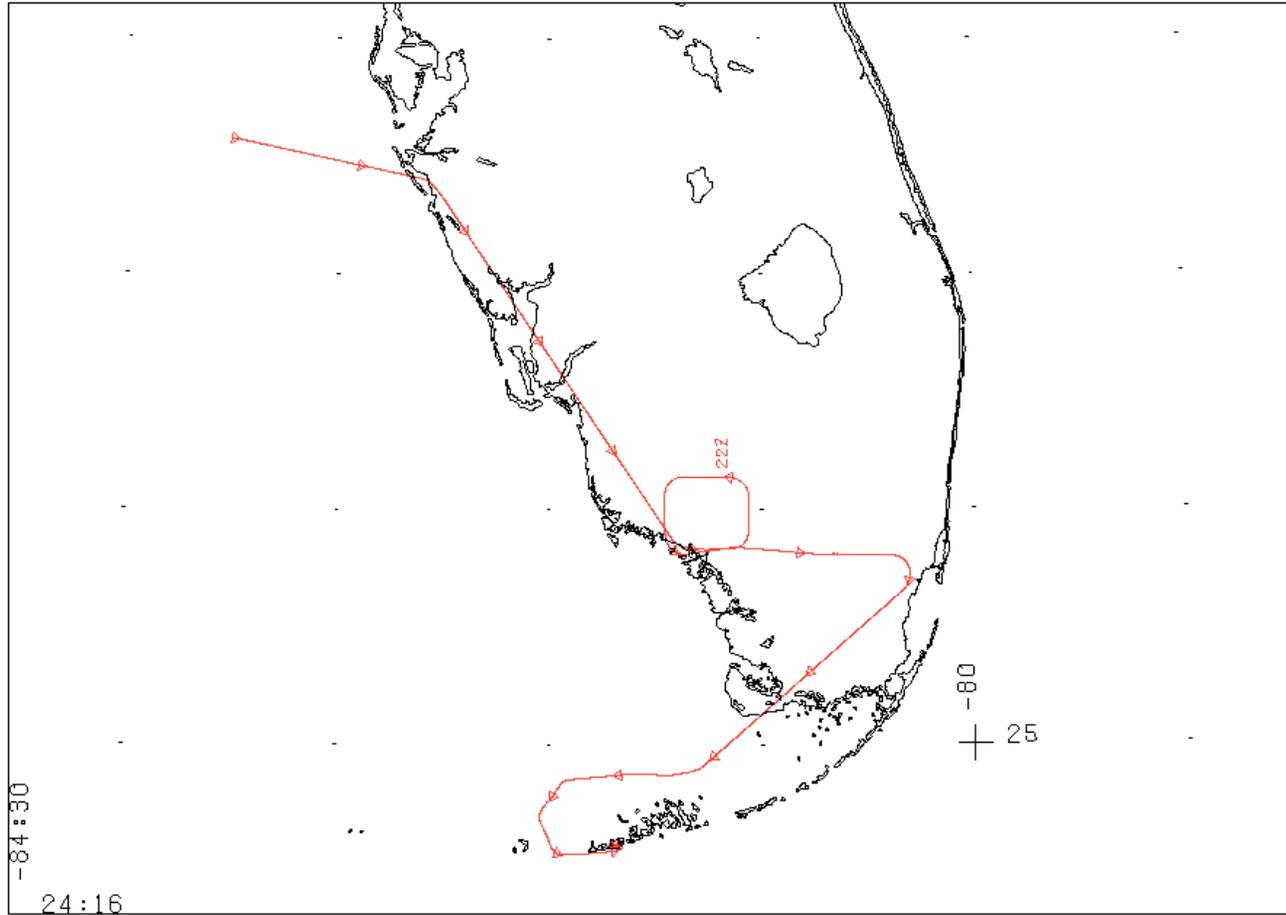
- Arizona fires (pilot reported ~50% cloud cover over the 2 runs, with thin cirrus)
- Extensive thunderstorms around Texas.
- Western ground site overpass at: 2155 UTC, communication established out to 100 nautical miles, pilot reported undercast skies. Eastern ground site overpass at: 2209 UTC, communication established out to 30 nautical miles, pilot reported undercast skies. MMS roll, pitch, box maneuver was made between sites.

ER-2 science instrument payload and status:

Instrument	Status
CoSSIR Conical Scanning Sub-mm wave Imaging Radiometer	Worked well
CPL Cloud Physics Lidar	Worked well w/exception of a detector failure (1 μm, replaced for next mission)
CRS Cloud Radar System	Worked well fault light procedure will be modified to recycle CoSSIR power
EDOP ER-2 Doppler Radar	Worked well
JLH JPL Laser Hygrometer	Worked well
MAS MODIS Airborne Simulator	Worked well
MMS Meteor. Meas. System	Worked well
MTP Microwave Temperature Profiler	Worked well
RAMS Radiation Meas. System	Radiometers not on aircraft
SSFR Solar Spectral Flux Radiometer	Worked well
Vaisala Dropsonde	No sondes dropped



FLIGHT 02-945 1 JULY 2002 A/C 809 CYRSTAL/FACE FERRY (RODEO/CHEDISKI FIRE AZ)
 LAMBERT CONFORMAL PROJECTION: SP1 = 22.8 SP2 = 39.4 CM = -99.1 ROTATED BY 0.0
 16:20:30 TO 22:58:45 UT SCALE 1:1.85E+07 TIME TICK EVERY 20.00 MINUTES



FLIGHT 02-945 1 JULY 2002 A/C 809 CRYSTAL/FACE FERRY (JUST PRIOR TO AND INCLUDING DESCENT)
 LAMBERT CONFORMAL PROJECTION: SP1 = 24.0 SP2 = 27.1 CM = -81.9 ROTATED BY 0.0
 21:30:00 TO 22:58:45 UT SCALE 1:2.50E+06 TIME TICK EVERY 5.00 MINUTES