

April 13, 2011 – Science Flight

Takeoff: 1705 UT, Landing: 2245 UT

This flight provided ample sampling of subtropical cirrus streaming into west Texas. The aircraft initially headed WNW and ascended to 48 kft. After descending into cirrus tops, approximately east-west legs were flown at 38, 33, and 31 kft in easternmost TX. The aircraft was in cirrus most of the time during the flight (see the infrared satellite image with flight path overlaid below).

After the cirrus sampling, the aircraft ascended to 59 kft en route back to EFD and spiraled down southeast of Houston to 45 kft. The spiral was coordinated with an FPH frostpoint hygrometer balloon launch.

Preliminary 2DS data indicated considerable numbers of small crystals in the cirrus sampled on this flight.

Table 1: Instrument performance

SID3	Worked well
VIPS	Worked well
2DS	Worked, but noisy
CDP	Worked well
HVPS	Worked well
CIN	Not flown
NMASS	Not flown
FCAS	Minor problem
PALMS	Minor problem
MMS	Worked well
ALIAS	Minor problem
CLH	Worked well
JLH	Potential problem
ULH	Worked well
DLH	Reconfigured; worked well
Harvard Water Vapor	Worked well
HHH	No data
Harvard Total Water	Not flown
Harvard Halogens	Minor problems
FISH	Worked well
CIMS	Worked well
O3	Worked well
O3Lite	Worked well

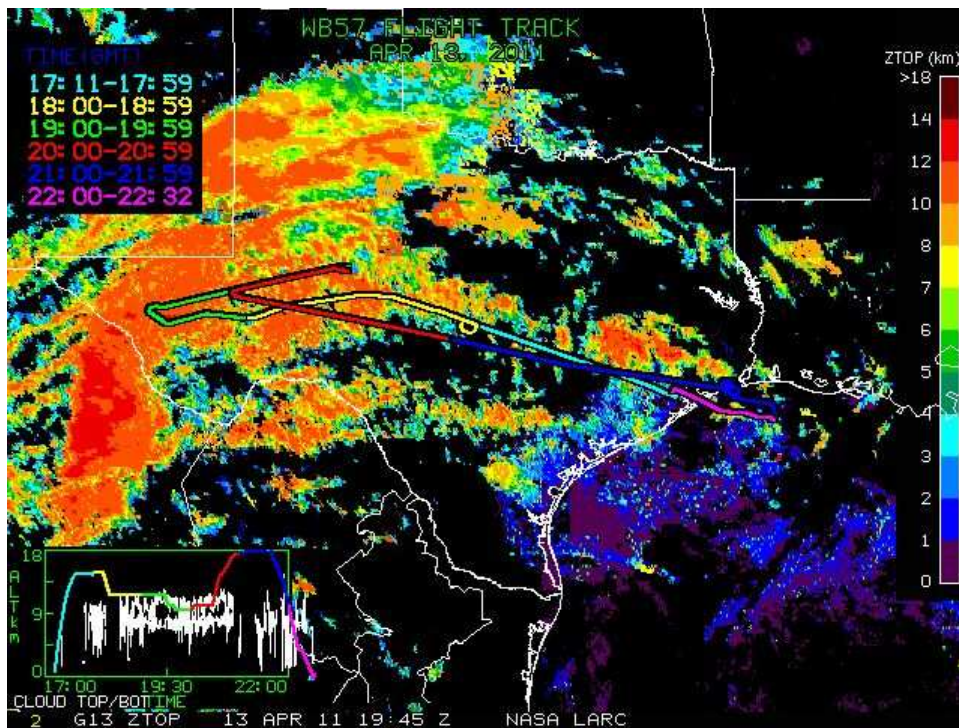


Figure 1: WB57 flight track plotted on cloud-top height retrieval at 1945 UT. Courtesy P. Minnis et al. (LaRC).