AVE Flight for June 13, 2005

Takeoff:	1230LT (1730 UT)
Nominal Duration:	5.5 hrs
Landing	1800 LT (2300 UT)

AVE Flight Objective:

Provide: 1) make *in situ* observations for the MLS satellite instrument at points along the Aura satellite track, and 2) conduct a vertical profile of trace gases at two MLS observation points.

Specific objectives:

- Provide coincident measurements at the Aura MLS sampling points with the Argus, Ozone, and CIMS aircraft instruments
- Conduct spiral profiles at the end of the flight profile to provide high vertical resolution in the *in situ* observations
- Aura overpass will occur at **2002 UT (1502 local).**

Flight Profile: The plane will takeoff at 1230 CDT (1730 UT), fly SSW and pick up the Aura-MLS track near Brownsville, TX (point 3 on the plot). The 57 will initially fly at 41,000 feet (12.5 km) and hold at that altitude as it moves northward along the track. Midway across Texas the plane will ascend to about 55,000 feet (16.8 km) and hold at that altitude until it reaches a point on the Texas-Oklahoma border (point 7 on the plot). The plane will then descend in a spiral to 41,000 feet. The Aura overpass time is about 1502 CDT (3 pm) during the spiral. The plane will head south at 41,000 feet along the same track as it came northward. The plane will ascend to maximum altitude (near 60,000 feet) and continue southward to point 3. At point 3, the plane will do a spiral descent to 41,000 feet and then return to Ellington. The plane will land at about 1800 CDT (6 pm).