

AVE_June2005 Flight Summary

15 June 2005

General Information

Flight date – 15 June 2005

Flight description – Flight 4 AVE mission

Flight duration – 5.0 hours

Crew – Andrew Roberts (x49543), Dom Del Rosso (x49113)

Instruments flown (18): ACAM, Argus, CAFS, CPL, CIMS, FCAS/NMASS/MACS, Harvard Water Vapor, IRIS, JLH, MMS, MTP, Ozone, PANTHER, PT, S-HIS, WAS

Instruments not flown: None

Flight Log

MMS On	12:21	Takeoff	12:48	Begin Descent	17:00
Before Taxi	12:36	Climb/5000	12:49	Landing	17:43

Gear extension/retractions

Gear Up	12:48					
Gear Down	17:35					

Weather Observations

On climb:

- Broken cumulus layer from approximately 8,000 to 12,000 ft. Unavoidably penetrated one cloud about 10,000 for 1,500 ft. No other significant weather on climb.

Cruise:

- Almost the entire track appeared to be covered with the low scattered broken cumulus layer. The only notable exception was very near the coast line onshore and offshore for a short period, where it was free of cloud cover.
- During the first half of the flight, significant vertical development was noted, but only sporadically.
- During the second half of the flight, a more defined front appeared to form, with cumulonimbus obvious over the Houston area.
- A thin cirrus layer (or blow-off from the thunderstorms) appeared near FL470. It was not clear if this layer was overhead or not in the southern area.

On descent:

- On descent, we dropped under a scattered cumulus layer and skirted more solid rain-producing cloud cover.

Flight Profile

We flew the proscribed profile with two notable exceptions:

We were unable to attain the desired altitude of FL410 at waypoint 3 due to air traffic control (ATC). The decision was made to fly the route at FL430 until such time as ATC would allow the descent. This occurred favorably 10 minutes along the route from waypoint 3 to 4.

We attempted to perform the MMS maneuvers at 16:28 (FL530), prior to the planned ascent to FL600 or better. The aircraft experienced significant compressor stalls and required intervention by the aircrew to regain normal flight. This resulted in a loss of altitude to FL500. It was the decision of the crew to return to base at this point. The last planned high-altitude leg of the mission was not accomplished.

Instrument Notes

PANTHER fail light stayed illuminated, on startup, for 10 minutes before a reset was attempted. The first reset was successful.

CAFS Upper fail light stayed illuminated, on startup, for 11 minutes before a reset was attempted. The first reset was successful.

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Expected fail indications:

- S-HIS at FL380 in spoiler final descent
- CIMS at 3,000 ft in final descent
- Harvard water vapor at 6,500 ft in final descent

To ftp for the nav data:

IP address 128.157.138.64

Username: anonymous@wb57f.asds.net

Password: <any email address>

The directory is: WB57F_Processed/AVEJUN05