

## **Flight Summary Report: AVE 2004 Mission, Data Flight #2, 31 October 2004**

**Aircrew:** Andrew Roberts and Brian Barnett

**Duration:** 5.4 hrs

**Takeoff:** 11:04

**Gear Up:** 11:04

**Gear Down:** 16:04

**Landing:** 16:11

**Point A:** N29° 51.6' W89° 15.0'

**Point B:** N22° 01.8' W87° 19.2'

**Point C:** N25° 02.4' W88° 02.4'

### **Flight Profile:**

- We took off and briefly flew through a broken layer at 3,000'.
- We had absolutely horrible ATC handling, and were forced to level off at FL 090, 150, 210, 220, and 230 totally more than 20 minutes.
- At 11:27, we were finally cleared up to FL 570, flying over several broken layers.
- At 12:01, we were at FL 565 at Point A, and turned south flying over a low scattered layer. There was no cirrus at any altitude.
- At 12:38 we arrived at Point C flying at FL 570 over a low scattered layer.
- At 12:50, we started a climb up to FL 590. We leveled off at FL 590 at 12:57, which put us 55 miles north of Point B.
- At 13:00, we started a left turn back to the north, 36 miles north of Point B.
- By 13:05, we were on the satellite track flying north, FL 590, over a low scattered layer.
- At 13:18, satellite overhead, we were still flying over a low scattered layer. This continued for the 15-minute leg after the overpass.
- At 13:42, we started our spiral down using spoilers, and decided for fuel concerns not to stop at any altitudes on the way down. We were still over flying a scattered layer that gave ~20% ocean coverage.
- ATC made us level off at FL 430 at 13:49. The spoilers were closed.
- At 13:54, we experienced compressor stalls on the left engine, which vibrates the aircraft some, but not violently.
- At 13:55, we continued our descent down to FL 250 using spoilers.
- We arrived at FL 250 at 14:06 and flew straight and level for 1 minute.
- At 14:09, we started a spiral up to FL 290, as ATC would not give us FL 300. We leveled off at 14:14 for 1 minute and then continued up.
- At FL 350, we leveled off for 1 minute at 14:19, and continued up.
- At 14:24, we experienced more compressor stalls on the left engine, again vibrating the aircraft.
- At FL 400 we leveled off for 1 minute at 14:25.
- We leveled off at FL 450 at 14:32, FL 500 at 14:38, and FL 550 at 14:46.
- We then continued our climb up to FL 590 heading north toward Point A.
- We arrived at Point A at 15:04, FL 590 and turned toward the west.

- Once we completed the turn, we started a zoom climb at 15:06, reaching FL 610, and holding that altitude for 1 minute. Due to our compressor stalls occurring at slow speeds, we opted to slowly descend to build our airspeed back up.
- At 15:31, we started our final descent using spoilers, and landed at 16:11.

**Instrument Issues:**

- **CAFS** – The Upper fail light stayed on after initial start-up. Upper – OFF, 11:15. Upper – ON – 11:16, fail light stayed on.
- CAFS Upper – OFF, 11:22. Upper – ON, 11:24, fail light stayed on.
- CAFS Upper – OFF, 11:31. Upper – ON, 11:32, fail light went out.
- At the end of flight, Upper failed again at 15:50 at FL 140. Due to our proximity to the ground, I did not try to reset.
- I manually reset both Upper and Lower at 13:45 and 15:14.
- **SHIS Sound** – failed during the descent at 14:04. I reset at 14:05.
- SHIS Sound – failed during the final descent at 15:35. I reset at 15:55 when the ride smoothed out some.