Flight Plan Tampa to Denver (v. 2.3)
Flight date: March 28th or 29th, 2008
7 A.M. EDT aircraft access, 11 A.M. departure, 1-hour postflight access w/ power. Arrival at NCAR Research Aviation Facility at approximately 4 P.M. CDT.

Transfer from MacDill AFB, Tampa to Rocky Mountain Metropolitan Airport (KBJC), Denver.

Flight plan assumes VFR conditions.
Elapsed time (no wind): 6.4 hrs.

Waypoints:
WPT A) MacDill AFB: 27.85N, 82.5W
WPT B) SW Georgia: 31.0N, 84.5W
WPT C) Dept. of Energy Atmospheric Radiation Measurement (ARM) site: 36.62N, 97.50W
WPT D) Denver Centennial Airport (KAPA): 39.57N, 104.85W
WPT E) Rocky Mountain Metro Airport (KBJC): 39.91N, 105.12

Assumed winds are calm
Default climb and descent rates 1500 ft/min.
Calculation TAS will be 220 kts below 10,000 ft; 240 kts at or above 10,000 ft

Leg 1: A→B (1.1 hr)
En-route climb to 10,500 ft; level for 20 min for calibration (FltSci ok’s end of level leg)
En-route climb to 16,500; level for 15 min for calibration (FltSci ok’s end of level leg)
En-route descent to arrive at WPT B at 1500’ AGL

Leg 2: B→C (3.3 hr)
Maintain approx. 1500’ AGL for 30 min to sample haze, rural emissions, agricultural burning
En-route climb to approx. 9000’ AGL (5 min)
Maintain approx. 9000’ AGL for 10 min to sample clean air above boundary layer
En-route descent to approx. 1500’ AGL (5 min) . . .

. . .repeat two more times, ending level at 1500’ AGL then. . .

En-route continuous climb to FL 200 or higher; cross WPT C at approx. 10,000’.

Leg 3: C→D (1.7 hr)
Maintain level flight at FL200 for 20 min., then altitude at pilot’s discretion.
Descend to reach 1500’ AGL approx. 50 miles prior to WPT D (KAPA); maintain 1500’ AGL.
Perform missed approach at KAPA.

Leg 4: D→E (0.2 hr)
Direct to WPT E (KBJC) at minimum safe altitude. Approach and land at KBJC.

Science crew: Tom Ryerson-C3X Dan Lack-STA 2
Roya Bahreini-STA 3 John Holloway-Galley Jim Roberts-Galley