

**Jetstream-31 (J31) Flight Report for INTEX-ITCT  
Flight 13 - 22 July 2004**

Aerosol profiles and near-surface legs with Ron Brown, Terra and DC-8 in MISR Local Mode swath.

Overview

This was the seventh J31 flight out of Pease. Goals focused on the Terra overpass of 1131 EDT (1531 UT), its MISR Local Mode swath, and coordination with the DC-8 and Ron Brown.

J31 and its instruments performed well.

Flight Path, Timing, and Measurements

Flight path is shown in Figure 1 below. Engines on ~1342-1629 UT. Takeoff at 1358 UT..

Found a clear area starting at 70.5 W beyond coastal fog. Made survey runs. Talked to R/V Ron Brown, directed them to clear spot at 42 deg 50' N, 69 deg 50' W.

Spiral descent to 200 ft at 42 deg 30' N, 69 deg 30' W. AOD at 200 ft was ~0.52 and variable (see Figure 2 below).

DC-8 was delayed in its intercomparison with P-3, so J31 proceeded with its L-shape pattern, retraced it (in 7-minute leg including Terra overpass of 1531 UT), and then started profile up before the DC-8 at 42 deg 50' N, 69 deg 50'. DC-8 followed J31 up in spiral. J31 flew level leg for SSFR at 6600 m over ship. Headed home.

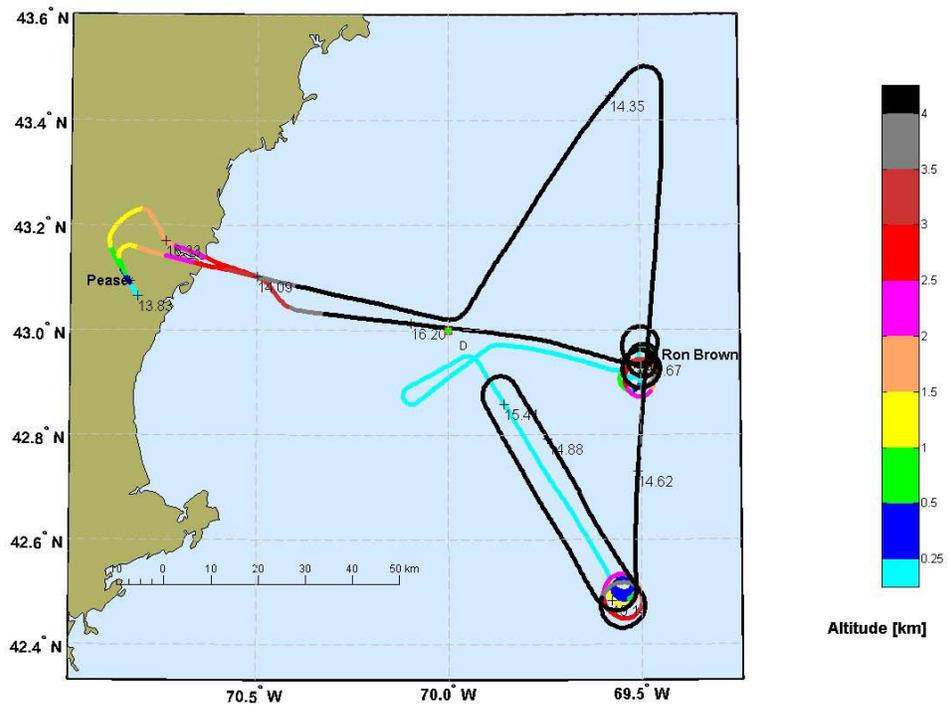


Figure 1. Flight track of J-31, Flight 13, July 22, 2004.

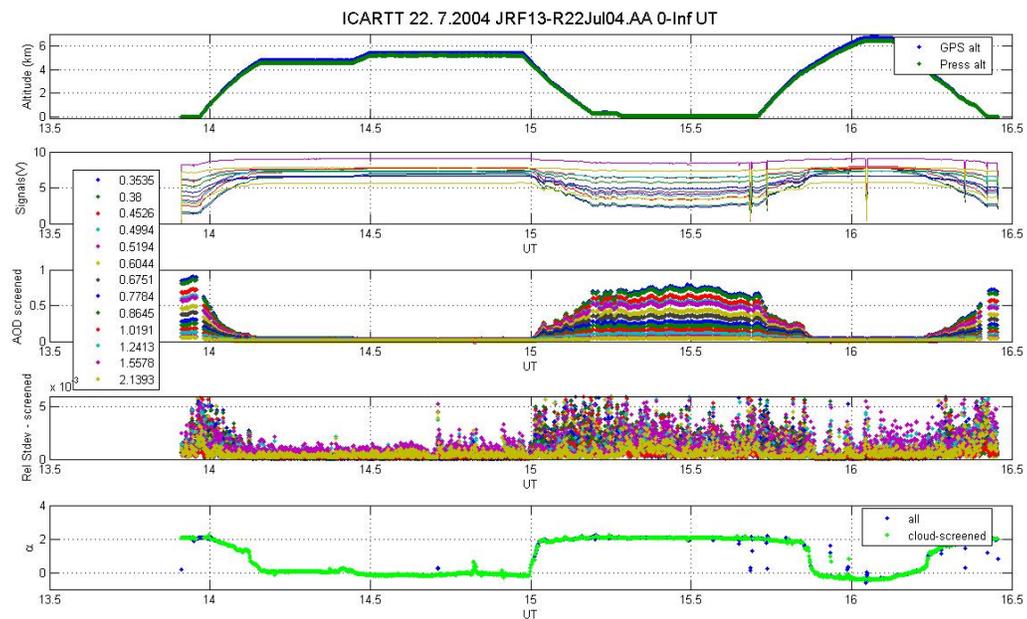


Figure 2. Time series of flight altitude, AATS-14 signals, derived aerosol optical depths, standard deviation of signals, and modified Ångström exponent for J-31, Flight 13, July 22, 2004.