

**Jetstream-31 (J31) Flight Report for INTEX-ITCT
Flight 19 – 2 August 2004**

Terra overpass. Profile and legs in clear area. Aerosol gradient 2 ways.

In Cabin: Livingston, Pommier, Schmid.

Overview

This was the thirteenth J31 flight out of Pease. Main target was the Terra overpass (1513 UT).

J31 and its instruments performed well.

Flight Path, Timing, and Measurements

Flight path is shown in Figure 1 below. Takeoff at 1424 UT. J31 was at 60 m altitude at Terra overpass time (1513 UT). The subsequent low altitude legs showed an aerosol gradient in forward and reverse direction (~1515-1545; see AATS data in Figure 2 below), plus very good water albedo measurements (see SSFR data in Figure 3). A radiation leg was flown at 4 km altitude, above the aerosol gradient just discussed.

Landing was at ~1631 UT.

Debrief

J31 encountered significant cirrus even though satellite IR display showed none. However, J31 was able to avoid most of the cirrus.

POS: Similar to previous flights. Position light red at low altitudes. Position accuracies 0.7 to 6 m.

Nav/Met: Good.

SSFR: In great shape.

AATS: Required 6 boots to get control of cold detector temperature.

J-31 Flight 19, August 2

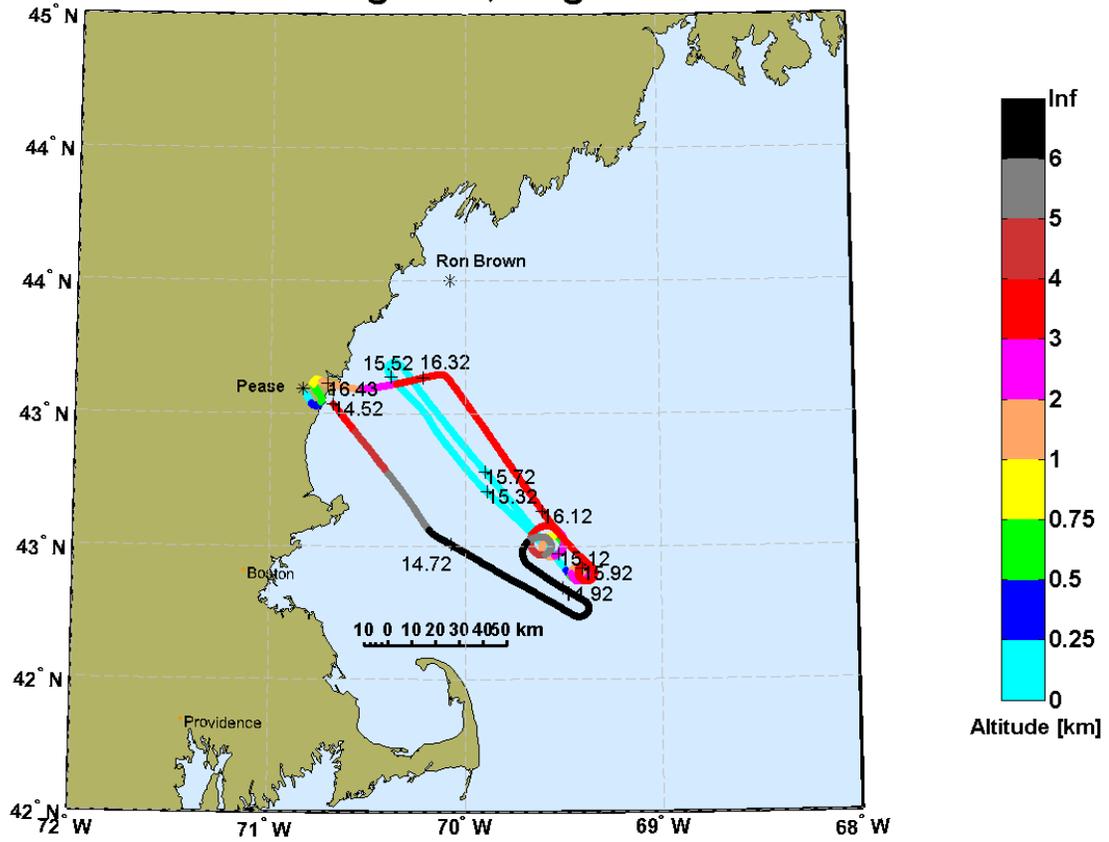


Figure 1. Flight track of J-31 Flight 19, 2 August 2004.

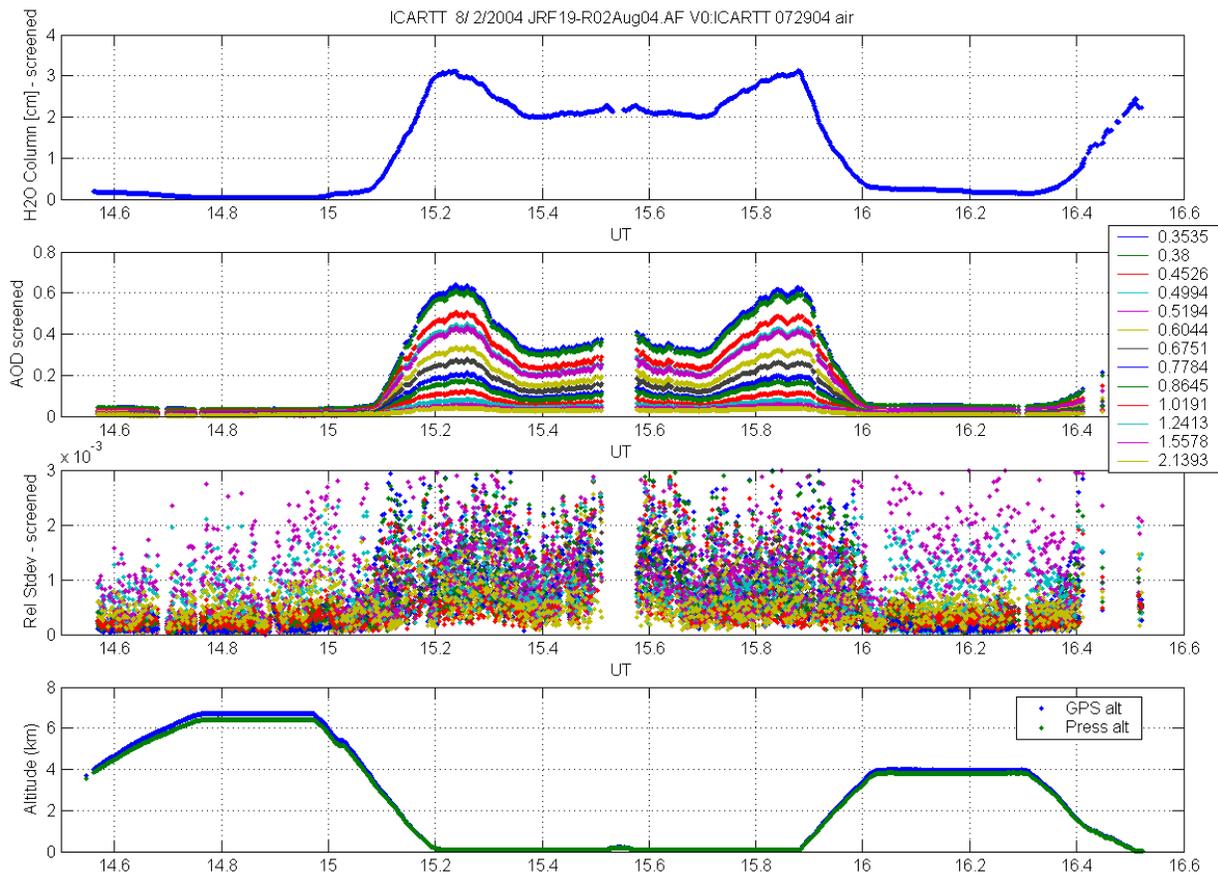


Figure 2. Time series of AATS-14 data for J-31 Flight 19, 2 August 2004.

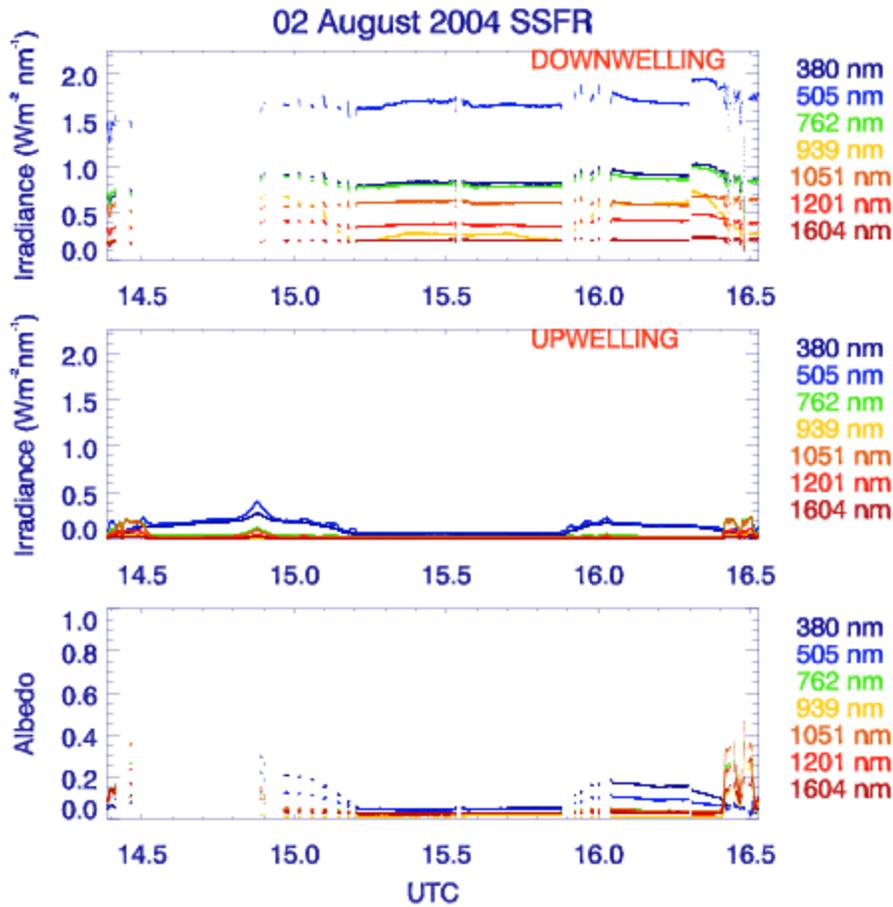


Figure 3. Time series of SSFR-measured downwelling and upwelling irradiance and albedo for J31 Flight 19, 2 August 2004. The downwelling (and albedo) has been filtered to remove data when the aircraft attitude deviated by more than 3% from level.