

CVO EVENTS FOR 990817 - TUESDAY.

Due to the 1730 Z time limit on the availability of W93 today an early flight as planned. Decision to launch was made on the basis of the NRL 'lowcloud' product which showed an extensive deck off shore. Clouds spilling over the mountains to the W by daylight confirmed the situation. NPT profiler also indicated a strong inversion, N winds blow and S above. Decision was an easy one and we were not disappointed.

In CVO skies were clear at sunrise, winds null.

Reminder: PVM was repaired yesterday

FLIGHT – 13:13Z T/O; 17:53 L/D. Crew: Hoshor, Vali, Gill

Cloud cover was solid at the beginning of the flight in in N corner of W93, and appeared to thin toward the S. At the S end of the first pass noted even thinner clouds visible to the W, so went to explore that. From that leg, and from one later that extended to 126°W it was clear that deck became thin and broken toward the W. This gave an opportunity to explore a variety of cloud depths.

A fairly large number of porpoising maneuvers were done at various cloud densities at widely spaced locations.

Level flights at various altitudes, some adjusted by small steps to allow for rising cloud tops.

Cloud bases ranged from about 800' to 1100', tops from 2400' to 2700'. Inversion was about 6°C, dry above. Maximum LWC of 0.6 g m⁻³ (PVM) and about 0.45 g m⁻³ (DMT). R_e values of 8-10 um. Drop concentrations 40 – 80 cm⁻³. Reflectivities to –5 dBZ.

Significant drizzle observed in the NE, some along the whole E boundary of W93.

FSSP LWC seemed suspiciously low. Spectral shapes appeared all right.

PVM 2000 Hz recording failed – data logger hung.

Radar altimeter vs. pressure alt. difference seems more than usual. Even at 200' radar altimeter is about 50' too high.

Realtime radar display has double images displaced by about 5 profiles in time.

Processing: Radar quick look available. K/A quick-look files from 1 Hz data done; 25 Hz processing in progress.

FSSP bead check OK. Strobe to reset ratio off by nearly factor two. Probe was dismantled and calibrated on the bench. Another bead check run. Probe reinstalled.

Hermann Gerber ordered new data logger; to be delivered tomorrow.