

# Satellite

WIND TURBULENCE INDICATORS  
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While analyzing a DMSP morning simultaneous visual/infrared photo pair over Florida and surrounding area (Figure 1), I decided to expand the visual (Figure 2) in the southern part of the state because of the low and high level wind/turbulence indicators presented.

First, a cirrus jet shadow is seen south of Cape Canaveral. The 1100 GMT sounding for the Cape had 100 to 102 knot winds from 268 to 275 degrees at 37,000 to 44,000 foot altitudes.

Second, billow clouds (high level) with wave lengths of near 5nm indicate wind speeds from 270 degrees at 105 knots.

Third, with northwesterly surface and gradient level winds behind a small scale squall line, low level wave clouds are seen off the southeast coastline and were probably induced by the island chain of the Florida Keys.

All of the above locales probably had significant turbulence.

Simultaneous visual and infrared imagery as well as expanded views can help the satellite analyst glean a wealth of NEAR REAL TIME significant weather parameters.

Reference: Brandli, H.W., Satellite Meteorology, Air Weather Service TR-264, 1976, pp 106, 110, 114.

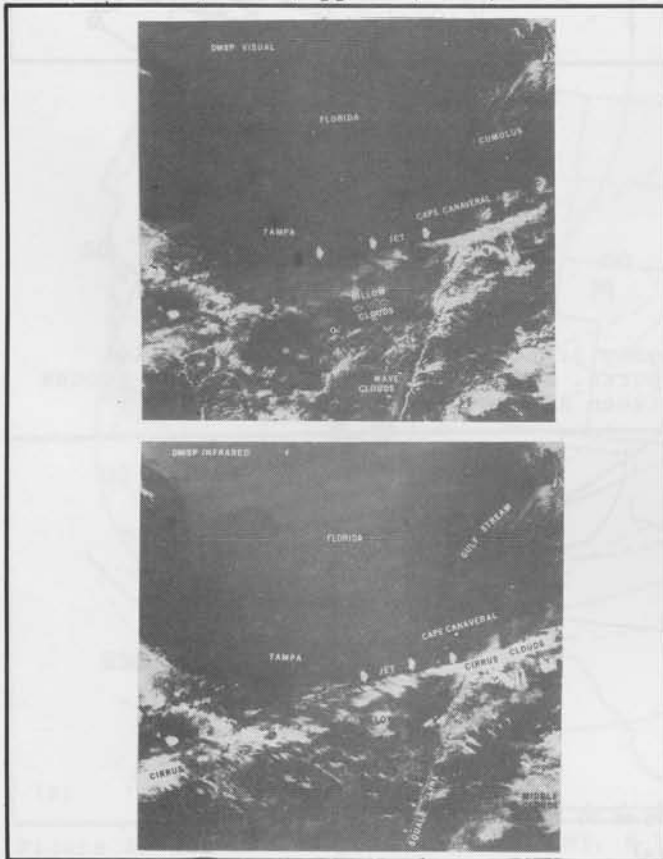


Figure 1. Analyzed DMSP simultaneous visual/infrared.

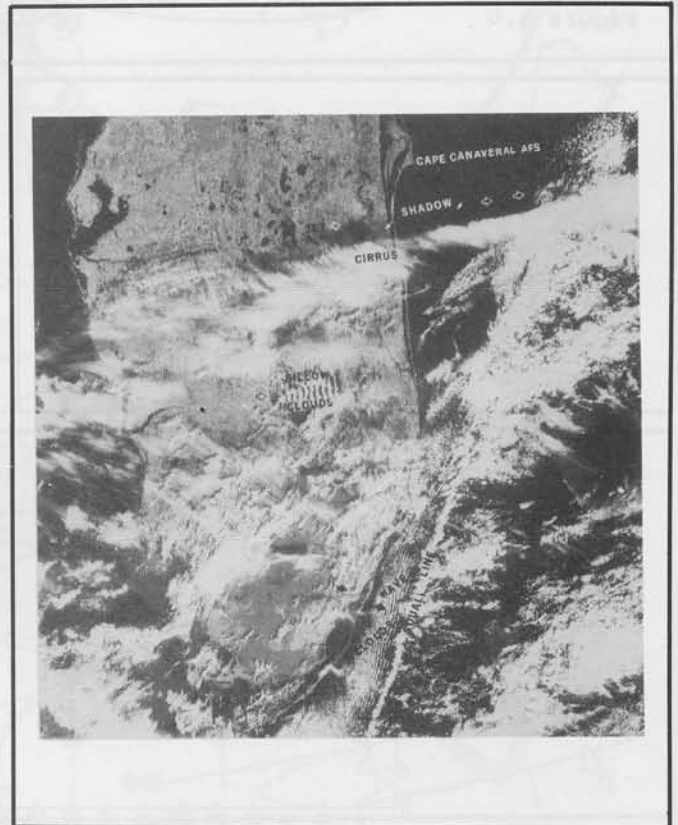


Figure 2. Expanded DMSP visual image over south Florida showing wind/turbulence indicators.