Synoptic conditions

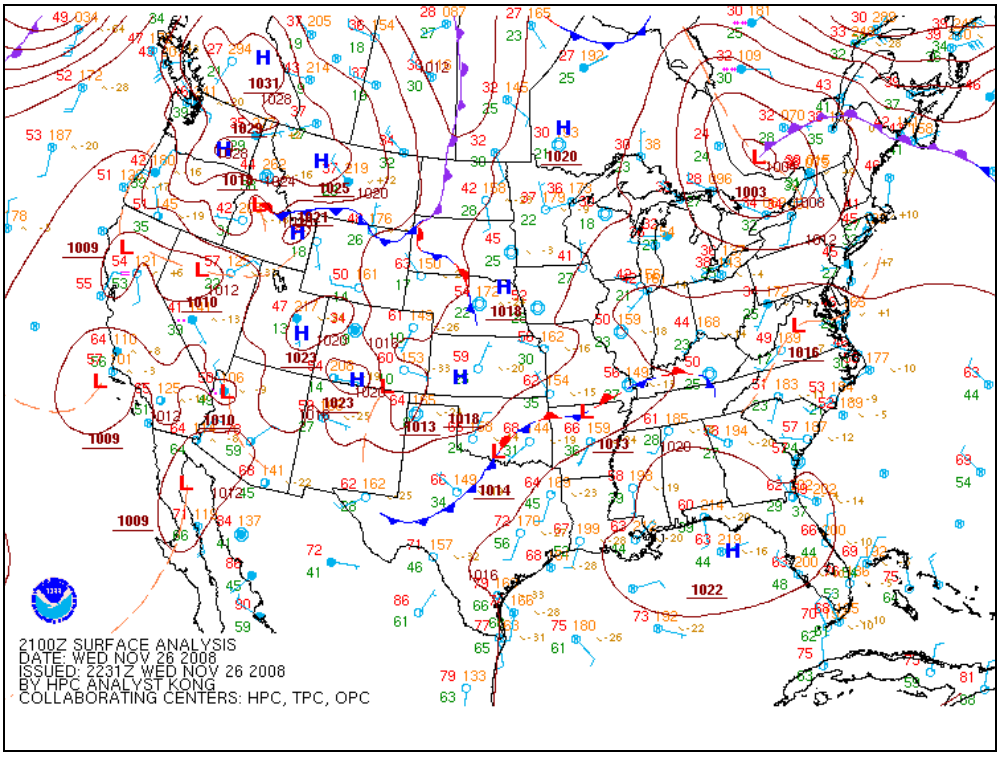

Figure 1 – NWS Surface Analysis for 2100Z on November 26, 2008, depicting a cold front extending east-to-west from Idaho, southern Montana, to South Dakota, where an occluded front extended north across the flight path.

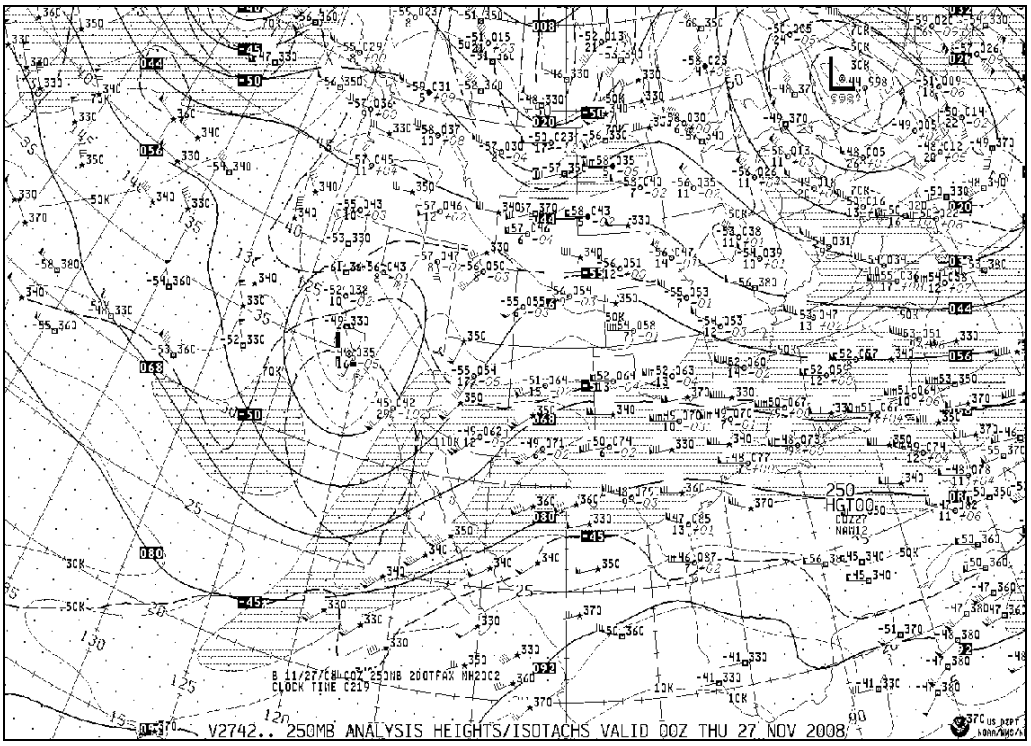

Figure 2 – 250-hPa Constant Pressure Chart for 0000Z November 27, 2008

The 250-hPa constant pressure chart shoed a cut off upper level low over central California Pacific coast, with the flight patch north of the upper level low. Upper level low's like this often lower the tropopause height and pull cold air into the region, which turns to warmer stratospheric air aloft. No strong jet streams (over 120 knots) were identified in the immediate vicinity of the route.

STATION	1200Z NOV 26	0000Z NOV 27
Quillayute, WA (UIL)	TROP 37,884 FT	TROP 36,753 FT
FL370	-61.7 C	-61.0 C
Spokane, WA (OTX)	TROP 36,763 FT	TROP 36,573 FT
FL370	-55.0 C	-63.1 C
FL390	-49.0 C	-58.1 C
Great Falls, MT (TFX)	TROP 35,376 FT	TROP 33,783 FT
FL350	-61.0 C	-56.4 C
FL370	-58.6 C	-56.0 C
FL390	-56.4 C	-55.2 C
Rapid City, SD (RAP)	TROP 37,120 FT	TROP 36,190 FT
FL310	-48.8 C	-49.6 C
FL320	-51.4 C	-52.2 C
FL330	-53.8 C	-54.8 C
FL340	-55.9 C	-57.4 C

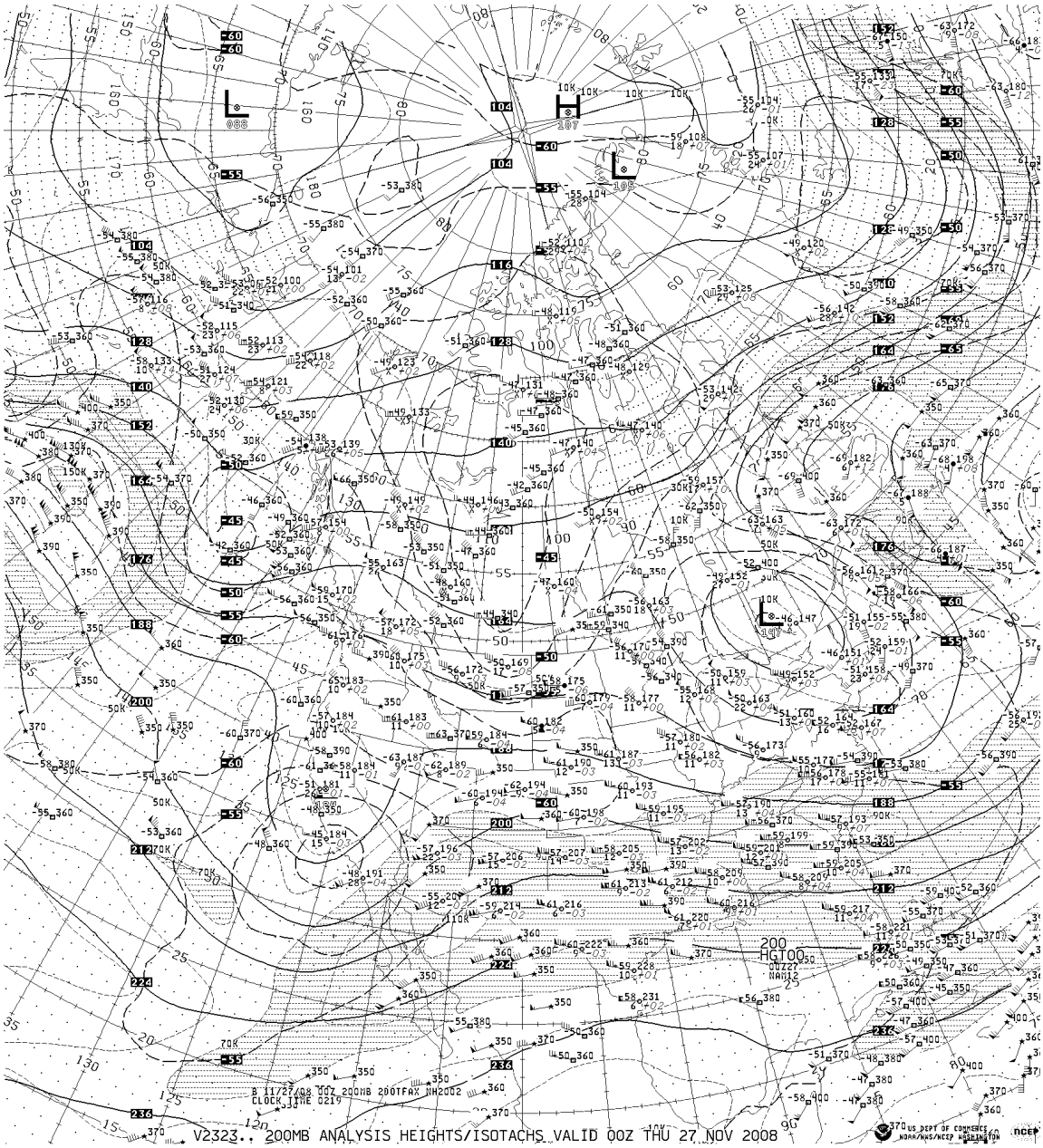

Figure 3 – NWS 200-hPa constant pressure chart (FL390) for 0000Z on November 27, 2008, showing a 165 knot jet stream off the northwest pacific coast and short wave trough along route of flight.