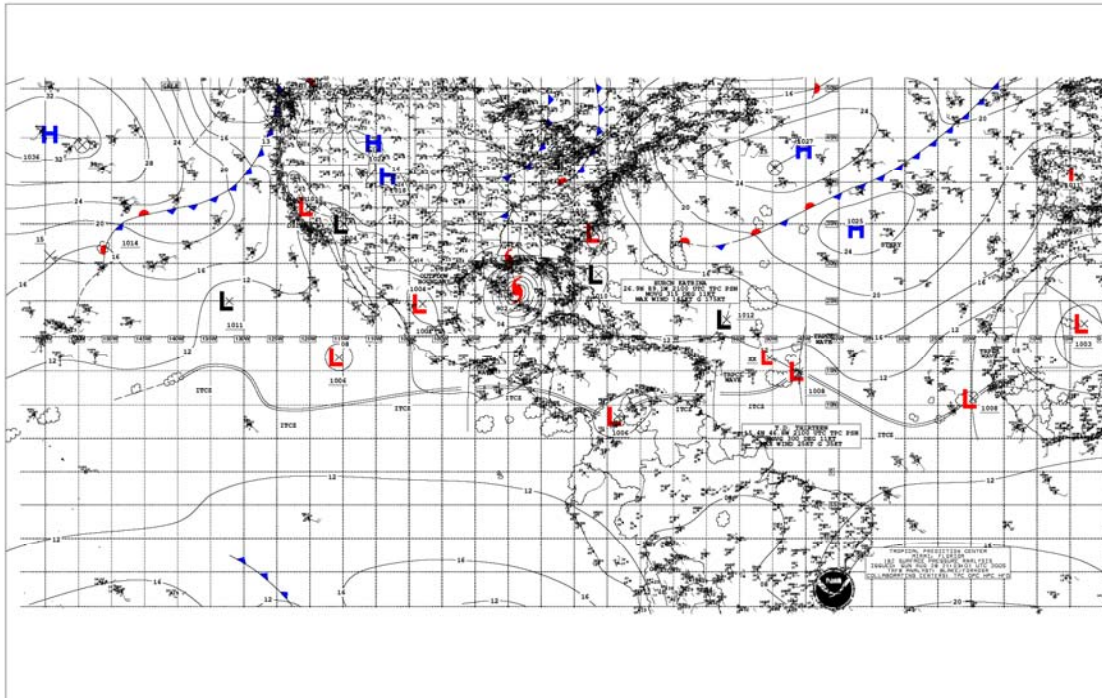




TROPICAL SURFACE ANALYSIS / NWS UNIFIED SURFACE ANALYSIS



- **Purpose**

The Tropical Surface Analysis is created every six hours to depict the current state of atmosphere, specifically the surface pressure field and any relevant synoptic surface features. The Tropical Surface Analysis is attached to surface analyses over North America, the North Atlantic Ocean, the North Pacific Ocean, and the Western Pacific Ocean to create the National Weather Service Unified Surface Analysis.

- **Content**

The Tropical Surface Analysis and NWS Unified Surface Analysis depict the surface isobaric field by showing lines of equal pressure, usually in increments of four millibars (mb) but often in increments of two millibars where the pressure gradient is weaker (especially in the tropics). The analysis also depicts important surface features that affect the weather, including areas of high and low pressure, frontal systems (cold, warm, stationary, and occluded), troughs, tropical cyclones, tropical waves, the Intertropical Convergence Zone (ITCZ), drylines, and squall lines.

• Coverage

The Tropical Surface Analysis is created by the National Hurricane Center and covers the area approximately from 30°N to 20°S between 0° and 140°W. This area includes the tropical and subtropical areas of the Atlantic and East Pacific Oceans, Mexico, Florida, the Caribbean, South America, and West Africa. For radiofax purposes, the analysis is split into three different areas:

1. **Atlantic (East Half)** from 5°S to 50°N between 0° and 70°W)
2. **Atlantic (West Half)** from 5°S to 50°N between 55°W and 125°W)
3. **Eastern Pacific** (from 20°S to 40°N between 70°W and 150°W)

The NWS Unified Surface Analysis is created by merging the separate surface analysis produced by the National Hurricane Center, the Hydrometeorological Prediction Center, the Ocean Prediction Center, and the Honolulu Weather Forecast Office. The total area spans from the equator northward nearly to the North Pole, from 20°E westward to 130°W. This covers the area from Europe and Central Africa westward across North and South America to East Asia.

• Issuance / Transmission

The Tropical Surface Analysis is transmitted by radiofax via New Orleans, Pt. Reyes, and Honolulu according to the following table:

	New Orleans, LA (E Half)		New Orleans, LA (W Half)		Pt. Reyes, CA		Honolulu, HI	
Valid Time (UTC)	Transmission Time (UTC)	Filename	Transmission Time (UTC)	Filename	Transmission Time (UTC)	Filename	Transmission Time (UTC)	Filename
0000	0620	PYEA86.TIF	0605	PYEB86.TIF	0408	PYFA96.TIF	0356	PYFA96.TIF
0600	1220	PYEA87.TIF	1205	PYEB87.TIF	0945	PYFA97.TIF	0954	PYFA97.TIF
1200	1820	PYEA85.TIF	1805	PYEB85.TIF	1608	PYFA98.TIF	1556	PYFA98.TIF
1800	0020	PYEA88.TIF	0005	PYEB88.TIF	2150	PYFA99.TIF	2154	PYFA99.TIF
latest		PYEA11.TIF		PYEB11.TIF		PYFA90.TIF		PYFA90.TIF

The analyses are also updated on the NHC webpage by 0300, 0900, 1500, and 2100 UTC for the 0000, 0600, 1200, and 1800 UTC surface analyses, respectively.