Offshore Waters Forecasts - Tropical Eastern Pacific Ocean

Purpose

The Tropical Analysis and Forecast Branch (TAFB) of the National Hurricane Center (NHC) provides forecast and warning information to vessels transiting along the Pacific coast of Mexico, Central America, Colombia, and Ecuador. These vessels include cruise ships as well as commercial vessels transiting through the Panama Canal that are vital to the economy and security of the United States. The primary alphanumeric product issued by the NHC/TAFB for this purpose is the Offshore Waters Forecast, serving users who operate from the coastal waters out several hundred nautical miles from shore.

Content

The Offshore Waters Forecast for the Eastern Pacific within 250 nm of Mexico (FZPN27 KNHC, MIAOFFPZ7)covers the waters off Mexico south of 30° North including the Gulf of Tehuantepec in the south of Mexico, the Gulf of California, and the Revillagigedo Islands well south of Cabo San Lucas. The forecast also includes the Mexican coast out to 60 nm north of 30° North to the US/Mexico border.



Pacific Offshore Waters Forecast Zones for Mexico

Farther south, NHC/TAFB issues the Offshore Waters Forecast for the Eastern Pacific within 250 nm of Central America and Colombia, and within 750 nm of Ecuador (FZPN28 KNHC, MIAOFFPZ8). This area includes the Gulf of Panama adjacent to the Panama Canal, the Gulf of Papagayo, and the waters around the Galapagos Islands.



Pacific Offshore Waters Forecast Zones for Central America, Colombia, and Ecuador

These Offshore Waters Forecasts provide mariners with a general overview of large scale environmental marine conditions out five days, to include winds, seas, and major weather impacts. Marine warnings such as gale warnings or warnings for tropical storms or hurricanes will be headlined for each affected zone through the first 36 to 48 hours of the forecast period. In addition, brief, plain-language synopses are included in the forecast for the Mexican offshore waters, and the Central American, Colombian and Ecuadorian areas.

Winds represent predominant conditions at 10 meters above the surface of the water. Wind direction is described by the eight points of the compass.

Sea state is described in terms of "significant wave height" which is defined in the NWS Glossary as the mean or average height of the highest one third of all waves in a swell train or in a wave generating region. It approximates the value an experienced observer would report if visually estimating sea height. Seas will typically be expressed in terms of a range (e.g. 2 to 4 ft). This is to represent uncertainty in the forecast, especially considering the large areas of each marine zone. In fact, it is important to emphasize that there is a broad spectrum of wave heights at any given time in any part of the ocean, and individual wave heights may be twice the significant wave height. In addition to significant wave height, dominant swell and direction are described as needed.

The Offshore Waters Forecast also includes weather impacts whenever they are expected to pose a danger to navigation. This may be in the form of widespread areas of fog, smoke, or volcanic ash that limit visibility, or large clusters of moderate to strong thunderstorms.

Marine Zone Names and Universal Geographic Codes (UGC's)

Although not technically marine zones, the Synopsis paragraphs also have assigned UGC's as shown below:

Synopses

UCG	Synopsis Name
PMZ001	Synopsis for the E Pacific within 250 nm of Mexico
PMZ100	Synopsis for the E Pacific within 250 nm of Central America, Colombia, and within 750 nm of Ecuador

Issuance/Transmission

Offshore waters products are transmitted under World Meteorological Organization (WMO) and NOAA Weather Wire Services (NWWS) headers as shown in the following table:

	WMO	NWWS
Mexican Offshore Waters	FZPN27 KNHC	MIAOFFNT7
Central and South American Offshore Waters	FZPN28 KNHC	MIAOFFNT8

Offshore waters products are issued on a regular six hourly schedule as shown below:

Issuance Times							
MIAOFFPZ7	3 a.m. PST	10 a.m. PST	4 p.m. PST	9 p.m. PST			
MIAOFFPZ8	3 a.m. PST	10 a.m. PST	4 p.m. PST	9 p.m. PST			

See table for the latest Offshore Waters Forecast