

Product Description Document (PDD) East Pacific Offshore Waters Forecasts

Part I. Mission Connection

A. Product Description

The east Pacific offshore waters forecast is issued by the National Hurricane Center (NHC)/Tropical Analysis Forecast Branch (TAFB). The offshore waters forecasts provide five-day zone forecasts of 10-m winds, significant wave heights, primary swell direction, dominant wave period, and significant weather for the offshore waters of Mexico, Central America, Colombia and within 750 NM of Ecuador (see Figure 1).

The list of offshore waters zones for within 60 NM of Mexico from the Mexico Border S to 29N and within 250 NM of Mexico S of 29N can be found in Table 1. The list of offshore waters zones for within 250 NM of Central America, Colombia and within 750 NM of Ecuador are listed in Table 2.

Figure 1. Map of TAFB's East Pacific Offshore Waters area of responsibility.

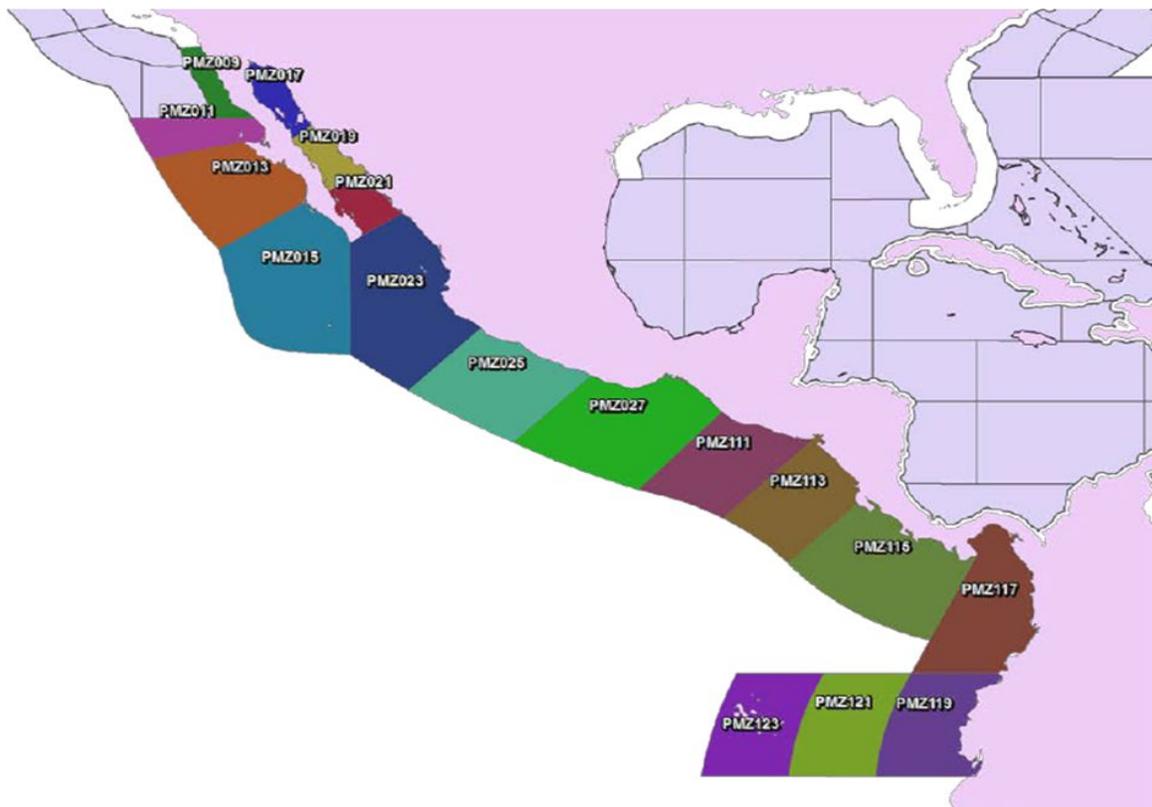


Table 1. List of zones for the East Pacific within 60 NM of Mexico from the Mexico Border S to 29N, and within 250 NM of Mexico S of 29N

PMZ009	Mexico Border S to 29N to 60 NM offshore
PMZ011	Mexico S of 29N to Punta Eugenia to 250 NM offshore
PMZ013	Punta Eugenia to Cabo San Lazaro to 250 NM offshore
PMZ015	Cabo San Lazaro to Cabo San Lucas to 250 NM offshore
PMZ017	Northern Gulf of California
PMZ019	Central Gulf of California
PMZ021	Southern Gulf of California
PMZ023	Entrance to the Gulf of California including Cabo Corrientes
PMZ025	Mexico - States of Michoacan and Guerrero to 250 NM offshore
PMZ027	Mexico – States of Oaxaca and Chiapas including the Gulf of Tehuantepec

Table 2. List of zones for the East Pacific within 250 NM of Central America, Colombia and Within 750 NM of Ecuador

PMZ111	Guatemala and El Salvador to 250 NM offshore
PMZ113	El Salvador to North Costa Rica including the Gulf of Fonseca and Papagayo
PMZ115	North Costa Rica to West Panama to 250 NM offshore
PMZ117	East Panama and Colombia including the Gulf of Panama
PMZ119	Ecuador including the Gulf of Guayaquil to 250 NM offshore
PMZ121	Ecuador Between 250 NM and 500 NM Offshore
PMZ113	Offshore Galapagos Islands

B. Purpose:

The offshore waters forecast provides a 5-day forecast of 10-m winds, significant wave heights, primary swell direction, dominant wave period, and significant weather. The product is intended to provide information assisting in the protection of life and property, and enhancing the nation's economy.

C. Audience:

The target audience for this product primarily includes mariners traversing the offshore forecast waters of Mexico, Central America, Colombia and within 750 NM of Ecuador. This includes United States interests such as pleasure craft traversing from the United States west coast south along the Baja California peninsula and up through the Gulf of California, as well as commercial vessels traveling to and from the Panama Canal. Other potential users of the product include emergency managers and other decision support agencies within the RA IV Regional Specialized Meteorological Center (RSMC) area of responsibility.

D. Presentation Format

The product is available in text format.

E. Feedback Method:

If you have any questions or comments please contact:

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Part II. Technical Description

A. Science Basis and Methodology

The east Pacific offshore waters text forecasts are created through the use of text formatters which sample the gridded marine parameters (10-m winds, significant wave heights, primary wave direction, dominant wave period, and significant weather) for each zone and derive the appropriate wording to describe forecast marine conditions and forecasts for each zone.

B. Availability

The new East Pacific Offshore Waters Forecasts will be available four times daily by 0500, 1100, 1700 and 2300 UTC on the National Hurricane Center website at the following URLs.

<https://www.nhc.noaa.gov/text/MIAOFFPZ7.shtml>

<https://www.nhc.noaa.gov/text/MIAOFFPZ8.shtml>

C. Additional Information

Example of East Pacific Offshore Waters Forecasts text product composed for the East Pacific within 250 NM of Mexico at 1515 UTC 16 November 2018.

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Offshore Waters Forecast  
NWS National Hurricane Center Miami, FL  
715 AM PST Fri Nov 16 2018
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Offshore Waters Forecast for the E Pacific within 250 nm of  
Mexico
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Seas given as significant wave height, which is the average
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height of the highest 1/3 of the waves. Individual waves may be more than twice the significant wave height.

PMZ001-170315-

Synopsis for the E Pacific within 250 nm of Mexico
715 AM PST Fri Nov 16 2018

.SYNOPSIS...Strong gale force winds will continue across the Gulf of Tehuantepec this morning, then gradually diminish below gale force late Sat morning. Strong to near gale force northerly winds will fluctuate there into early next week. Elsewhere modest high pressure and NW flow will generally dominate the regional waters.

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PMZ009-170315-

Mexico Border S to 29N within 60 nm of shore-
715 AM PST Fri Nov 16 2018

.TODAY...W to NW winds 5 to 10 kt. Seas 5 to 7 ft in NW swell. Period 17 seconds.
.TONIGHT...NW to N winds 5 to 10 kt. Seas 5 to 7 ft in W to NW swell. Period 16 seconds.
.SAT...NW winds 5 to 10 kt. Seas 5 to 7 ft in W to NW swell. Period 15 seconds.
.SAT NIGHT...NW to N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 15 seconds.
.SUN...NW to N winds 5 to 10 kt. Seas 3 to 5 ft in W to NW swell. Period 16 seconds.
.SUN NIGHT...NW to N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 16 seconds.
.MON...NW winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 15 seconds.
.MON NIGHT...NW winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 14 seconds.
.TUE...NW winds 5 to 10 kt. Seas 3 to 5 ft in W to NW swell. Period 14 seconds.
.TUE NIGHT...NW winds 5 to 10 kt. Seas 2 to 4 ft. Period 14 seconds.

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PMZ011-170315-

Mexico S of 29N to Punta Eugenia-
715 AM PST Fri Nov 16 2018

.TODAY...NW winds less than 5 kt. Seas 5 to 7 ft in W to NW swell. Period 16 seconds.

.TONIGHT...NW to N winds less than 5 kt. Seas 6 to 8 ft in W to NW swell. Period 16 seconds.

.SAT...N to NE winds less than 5 kt, shifting to W to NW in the afternoon. Seas 5 to 7 ft in W to NW swell. Period 15 seconds.

.SAT NIGHT...N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 15 seconds.

.SUN...N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 16 seconds.

.SUN NIGHT...N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 16 seconds.

.MON...NW winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 15 seconds.

.MON NIGHT...NW winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 14 seconds.

.TUE...NW winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 14 seconds.

.TUE NIGHT...NW winds 5 to 10 kt. Seas 3 to 5 ft in W to NW swell. Period 13 seconds.

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PMZ013-170315-

Punta Eugenia to Cabo San Lazaro to 250 nm offshore-
715 AM PST Fri Nov 16 2018

.TODAY...NW to N winds less than 5 kt. Seas 5 to 7 ft in W swell. Period 17 seconds.

.TONIGHT...NW to N winds less than 5 kt. Seas 5 to 7 ft in W to NW swell. Period 15 seconds.

.SAT...NW to N winds less than 5 kt. Seas 5 to 7 ft in W to NW swell. Period 15 seconds.

.SAT NIGHT...N winds 5 to 10 kt. Seas 5 to 7 ft in W to NW swell. Period 15 seconds.

.SUN...N winds 5 to 10 kt. Seas 4 to 6 ft in W swell. Period 16 seconds.

.SUN NIGHT...NW to N winds 5 to 10 kt. Seas 4 to 6 ft in W swell. Period 17 seconds.

.MON...NW to N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 16 seconds.

.MON NIGHT...NW winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 14 seconds.

.TUE...NW to N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 14 seconds.

.TUE NIGHT...NW to N winds 10 to 15 kt. Seas 4 to 6 ft. Period 13 seconds.

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PMZ015-170315-

Cabo San Lazaro to Cabo San Lucas to 250 nm offshore-
715 AM PST Fri Nov 16 2018

.TODAY...NE to E winds 10 to 15 kt. Seas 4 to 6 ft. Period
16 seconds.
.TONIGHT...NE winds 10 to 15 kt. Seas 5 to 7 ft in W to NW
swell. Period 15 seconds.
.SAT...NE winds 10 to 15 kt. Seas 5 to 7 ft in W to NW swell.
Period 14 seconds.
.SAT NIGHT...N to NE winds 10 to 15 kt. Seas 6 to 8 ft in W to
NW swell. Period 15 seconds.
.SUN...N to NE winds 5 to 10 kt. Seas 5 to 7 ft in W to NW
swell. Period 16 seconds.
.SUN NIGHT...N winds 5 to 10 kt. Seas 5 to 7 ft in W to NW
swell. Period 16 seconds.
.MON...N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell.
Period 16 seconds.
.MON NIGHT...NW to N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW
swell. Period 15 seconds.
.TUE...N winds 10 kt. Seas 4 to 6 ft in W to NW swell. Period
14 seconds.
.TUE NIGHT...N winds 10 kt. Seas 4 to 6 ft in W to NW swell.
Period 14 seconds.

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PMZ017-170315-
Northern Gulf of California-
715 AM PST Fri Nov 16 2018

.TODAY...NW to N winds 5 to 10 kt. Seas 3 ft or less. Period
6 seconds.
.TONIGHT...NW to N winds less than 5 kt, shifting to W in the
late evening and overnight. Seas 3 ft or less. Period 7 seconds.
.SAT...SE winds less than 5 kt. Seas 3 ft or less. Period
9 seconds.
.SAT NIGHT...SE to S winds less than 5 kt, shifting to NE to E
late. Seas 3 ft or less. Period 8 seconds.
.SUN...N winds 5 to 10 kt. Seas 3 ft or less. Period 8 seconds.
.SUN NIGHT...NW to N winds 10 to 15 kt. Seas 3 ft or less.
Period 4 seconds.
.MON...NW to N winds 10 to 15 kt. Seas 2 to 4 ft. Period
4 seconds.
.MON NIGHT...NW winds 10 to 15 kt. Seas 3 ft or less. Period
5 seconds.
.TUE...NW to N winds 10 to 15 kt. Seas 3 ft or less. Period
4 seconds.
.TUE NIGHT...NW winds 5 to 10 kt. Seas 3 ft or less. Period
4 seconds.

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PMZ019-170315-
Central Gulf of California-
715 AM PST Fri Nov 16 2018

.TODAY...NW to N winds 5 to 10 kt. Seas 3 ft or less. Period
13 seconds.
.TONIGHT...NW winds 5 to 10 kt. Seas 3 ft or less. Period
12 seconds.
.SAT...N winds 5 to 10 kt. Seas 3 ft or less. Period 12 seconds.
.SAT NIGHT...NW to N winds 5 to 10 kt. Seas 3 ft or less. Period
9 seconds, becoming 11 seconds late.
.SUN...NW to N winds 10 to 15 kt. Seas 3 ft or less. Period
11 seconds.
.SUN NIGHT...NW winds 10 to 15 kt. Seas 2 to 4 ft. Period
4 seconds.
.MON...NW to N winds 10 to 15 kt. Seas 2 to 4 ft. Period
5 seconds.
.MON NIGHT...NW winds 10 to 15 kt. Seas 3 ft or less. Period
5 seconds.
.TUE...NW to N winds 10 to 15 kt. Seas 3 ft or less. Period
10 seconds.
.TUE NIGHT...NW to N winds 5 to 10 kt. Seas 3 ft or less. Period
10 seconds.

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PMZ021-170315-
Southern Gulf of California-
715 AM PST Fri Nov 16 2018

.TODAY...NW to N winds 5 to 10 kt. Seas 3 to 5 ft in SW swell.
Period 16 seconds.
.TONIGHT...NW to N winds 5 to 10 kt. Seas 2 to 4 ft. Period
15 seconds.
.SAT...N winds 5 to 10 kt. Seas 2 to 4 ft. Period 14 seconds.
.SAT NIGHT...NW to N winds 5 to 10 kt. Seas 2 to 4 ft. Period
18 seconds.
.SUN...NW to N winds 10 to 15 kt. Seas 2 to 4 ft. Period
18 seconds.
.SUN NIGHT...NW to N winds 10 to 15 kt. Seas 2 to 4 ft. Period
17 seconds.
.MON...NW to N winds 10 to 15 kt. Seas 2 to 4 ft. Period
16 seconds.
.MON NIGHT...NW winds 10 to 15 kt. Seas 2 to 4 ft. Period
15 seconds.
.TUE...NW to N winds 5 to 10 kt. Seas 2 to 4 ft. Period

14 seconds.

.TUE NIGHT...NW to N winds 5 to 10 kt. Seas 2 to 4 ft. Period
15 seconds.

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PMZ023-170315-

Entrance to the Gulf of California including Cabo Corrientes-
715 AM PST Fri Nov 16 2018

.TODAY...N to NE winds 5 to 10 kt. Seas 5 to 7 ft in SW swell.
Period 17 seconds.

.TONIGHT...N to NE winds 5 to 10 kt. Seas 4 to 6 ft in SW to W
swell. Period 15 seconds.

.SAT...N to NE winds 10 to 15 kt. Seas 4 to 6 ft. Period
16 seconds.

.SAT NIGHT...N winds 10 to 15 kt. Seas 5 to 7 ft in SW to W
swell. Period 17 seconds.

.SUN...N winds 10 to 15 kt. Seas 5 to 7 ft in SW to W swell.
Period 17 seconds.

.SUN NIGHT...NW to N winds 10 to 15 kt. Seas 5 to 7 ft in SW to
W swell. Period 16 seconds.

.MON...N winds 5 to 10 kt. Seas 5 to 7 ft in SW to W swell.
Period 15 seconds.

.MON NIGHT...NW to N winds 5 to 10 kt. Seas 4 to 6 ft in W
swell. Period 16 seconds.

.TUE...N winds 5 to 10 kt. Seas 4 to 6 ft in W swell. Period
15 seconds.

.TUE NIGHT...N winds 5 to 10 kt. Seas 4 to 6 ft in W swell.
Period 18 seconds.

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PMZ025-170315-

Mexico - States of Michoacan and Guerrero to 250 nm offshore-
715 AM PST Fri Nov 16 2018

.TODAY...N winds 5 to 10 kt. Seas 6 to 9 ft in S to SW swell.
Period 15 seconds.

.TONIGHT...N winds 5 to 10 kt. Seas 6 to 8 ft in SW swell.
Period 14 seconds.

.SAT...N winds 5 to 10 kt. Seas 4 to 6 ft in SW to W swell.
Period 16 seconds.

.SAT NIGHT...N winds 10 to 15 kt. Seas 4 to 6 ft in SW swell.
Period 16 seconds.

.SUN...Within 60 nm of shore, NE winds 5 to 10 kt, shifting to
SW in the afternoon. Elsewhere, N winds 10 to 15 kt. Seas 5 to
7 ft in SW to W swell. Period 16 seconds.

.SUN NIGHT...NW to N winds 5 to 10 kt. Seas 5 to 7 ft in SW to W

swell. Period 15 seconds.

.MON...N to NE winds less than 5 kt Within 60 nm of shore, and N 5 to 10 kt Elsewhere. Seas 5 to 7 ft in SW to W swell. Period 15 seconds.

.MON NIGHT...NW to N winds less than 5 kt Within 60 nm of shore, and NW to N 5 to 10 kt Elsewhere. Seas 4 to 6 ft in SW to W swell. Period 14 seconds.

.TUE...NW winds 5 to 10 kt Within 60 nm of shore, and N 5 to 10 kt Elsewhere. Seas 4 to 6 ft in W swell. Period 14 seconds.

.TUE NIGHT...NW to N winds 5 to 10 kt. Seas 4 to 6 ft in W to NW swell. Period 18 seconds.

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PMZ027-170315-

Mexico -

States of Oaxaca and Chiapas including the Gulf of Tehuantepec-
715 AM PST Fri Nov 16 2018

...GALE WARNING...

.TODAY...N winds 35 to 40 kt Offshore Gulf of Tehuantepec, and N to NE 20 to 30 kt Elsewhere. Seas 9 to 14 ft in NE swell. Period 15 seconds.

.TONIGHT...N winds 30 to 40 kt Offshore Gulf of Tehuantepec, and N to NE 20 to 25 kt Elsewhere. Seas 9 to 13 ft in N to NE swell. Period 14 seconds.

.SAT...Offshore Gulf of Tehuantepec, N winds 25 to 35 kt. Elsewhere, N to NE winds 20 to 25 kt, diminishing to 10 to 15 kt late in the afternoon. Seas 7 to 11 ft in S to SW swell. Period 15 seconds.

.SAT NIGHT...N winds 25 to 30 kt Offshore Gulf of Tehuantepec, and N to NE 15 to 20 kt Elsewhere. Seas 7 to 10 ft in SW swell. Period 16 seconds.

.SUN...N winds 25 to 30 kt Offshore Gulf of Tehuantepec, and N to NE 15 to 20 kt Elsewhere. Seas 7 to 10 ft in SW swell. Period 16 seconds.

.SUN NIGHT...N winds 25 to 30 kt Offshore Gulf of Tehuantepec, and N 15 to 20 kt Elsewhere. Seas 7 to 10 ft in SW swell. Period 15 seconds.

.MON...N winds 25 to 30 kt Offshore Gulf of Tehuantepec, and N 15 to 20 kt Elsewhere. Seas 7 to 10 ft in SW swell. Period 15 seconds.

.MON NIGHT...N winds 25 to 30 kt Offshore Gulf of Tehuantepec, and N 15 to 20 kt Elsewhere. Seas 6 to 9 ft in SW swell. Period 14 seconds.

.TUE...N winds 25 to 30 kt Offshore Gulf of Tehuantepec, and N 15 to 20 kt Elsewhere. Seas 6 to 9 ft in SW swell. Period 14 seconds.

.TUE NIGHT...N winds 25 to 30 kt Offshore Gulf of Tehuantepec,
and N 15 to 20 kt Elsewhere. Seas 6 to 9 ft in SW to W swell.
Period 18 seconds.

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Forecaster Stripling

**Example of East Pacific Offshore Waters Forecasts text product composed for the East Pacific
within 250 NM of Central America, Colombia and within 750 NM of Ecuador at 1516 UTC 16
November 2018.**

Offshore Waters Forecast
NWS National Hurricane Center Miami, FL
716 AM PST Fri Nov 16 2018

Offshore Waters Forecast for the E Pacific within 250 nm of
Central America, Colombia, and within 750 nm of Ecuador

Seas given as significant wave height, which is the average
height of the highest 1/3 of the waves. Individual waves may be
more than twice the significant wave height.

PMZ101-170330-
Synopsis for the E Pacific within 250 nm of Central America,
Colombia, and within 750 nm of Ecuador
716 AM PST Fri Nov 16 2018

.SYNOPSIS...Large swell will spread southward from the Gulf of
Tehunatepec across the offshore waters of Guatemala and El
Salvador through this evening. Strong northeast winds will pulse
across and downstream of the Gulf of Papagayo throughout the
next several days.

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PMZ111-170330-
Guatemala and El Salvador to 250 nm offshore-
716 AM PST Fri Nov 16 2018

.TODAY...NE to E winds 10 to 15 kt. Seas 7 to 11 ft in SW to W
swell. Period 15 seconds.
.TONIGHT...N winds 10 to 15 kt. Seas 6 to 9 ft in SW to W swell.
Period 14 seconds.
.SAT...NE to E winds 10 to 15 kt. Seas 6 to 8 ft in SW swell.
Period 14 seconds.
.SAT NIGHT...N to NE winds 5 to 10 kt. Seas 6 to 8 ft in S to SW

swell. Period 16 seconds.
.SUN...N to NE winds 5 to 10 kt. Seas 5 to 7 ft in S to SW
swell. Period 16 seconds.
.SUN NIGHT...N winds 5 to 10 kt. Seas 5 to 7 ft in S to SW
swell. Period 15 seconds.
.MON...N to NE winds 5 to 10 kt. Seas 5 to 7 ft in S to SW
swell. Period 14 seconds.
.MON NIGHT...N winds 5 to 10 kt. Seas 5 to 7 ft in S to SW
swell. Period 14 seconds.
.TUE...NE winds 5 to 10 kt. Seas 4 to 6 ft in SW swell. Period
14 seconds.
.TUE NIGHT...N to NE winds 5 to 10 kt. Seas 4 to 6 ft in SW
swell. Period 13 seconds.

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PMZ113-170330-
El Salvador to North Costa Rica including the Gulfs of Fonseca
and Papagayo-
716 AM PST Fri Nov 16 2018

.TODAY...NE to E winds 20 to 25 kt Offshore Gulf of Papagayo,
and NE to E 15 to 20 kt Elsewhere. Seas 6 to 9 ft in SW swell.
Period 15 seconds.
.TONIGHT...NE to E winds 20 to 25 kt Offshore Gulf of Papagayo,
and NE to E 15 to 20 kt Elsewhere. Seas 6 to 8 ft in SW swell.
Period 14 seconds.
.SAT...NE to E winds 20 to 25 kt Offshore Gulf of Papagayo, and
NE 15 to 20 kt Elsewhere. Seas 6 to 8 ft in S to SW swell.
Period 14 seconds.
.SAT NIGHT...NE to E winds 20 to 25 kt Offshore Gulf of
Papagayo, and NE 15 to 20 kt Elsewhere. Seas 6 to 8 ft in S to
SW swell. Period 15 seconds.
.SUN...NE to E winds 20 to 25 kt Offshore Gulf of Papagayo, and
NE 15 to 20 kt Elsewhere. Seas 6 to 8 ft in S to SW swell.
Period 15 seconds.
.SUN NIGHT...NE to E winds 20 to 25 kt Offshore Gulf of
Papagayo, and NE 15 to 20 kt Elsewhere. Seas 6 to 8 ft in S to
SW swell. Period 15 seconds.
.MON...NE to E winds 20 to 25 kt Offshore Gulf of Papagayo, and
NE 15 to 20 kt Elsewhere. Seas 6 to 8 ft in S to SW swell.
Period 14 seconds.
.MON NIGHT...NE to E winds 20 to 25 kt Offshore Gulf of
Papagayo, and NE to E 15 to 20 kt Elsewhere. Seas 5 to 7 ft in S
to SW swell. Period 14 seconds.
.TUE...NE to E winds 20 to 25 kt Offshore Gulf of Papagayo, and
NE to E 15 to 20 kt Elsewhere. Seas 5 to 7 ft in S to SW swell.
Period 14 seconds.
.TUE NIGHT...NE to E winds 15 to 20 kt. Seas 5 to 7 ft in S to

SW swell. Period 13 seconds.

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PMZ115-170330-

North Costa Rica to West Panama to 250 nm offshore-
716 AM PST Fri Nov 16 2018

.TODAY...SW winds 5 to 10 kt. Seas 5 to 7 ft in SW to W swell.
Period 15 seconds. Scattered showers and isolated thunderstorms.
.TONIGHT...SW to W winds 5 to 10 kt. Seas 5 to 7 ft in SW swell.
Period 15 seconds.
.SAT...SW to W winds 5 to 10 kt. Seas 5 to 7 ft in S to SW
swell. Period 18 seconds.
.SAT NIGHT...SW to W winds 5 to 10 kt. Seas 4 to 6 ft in S to SW
swell. Period 16 seconds.
.SUN...SW to W winds 5 to 10 kt. Seas 4 to 6 ft in S to SW
swell. Period 16 seconds.
.SUN NIGHT...SW to W winds 5 to 10 kt. Seas 4 to 6 ft in S to SW
swell. Period 15 seconds.
.MON...SW to W winds 5 to 10 kt. Seas 4 to 6 ft in S to SW
swell. Period 14 seconds.
.MON NIGHT...SW to W winds 5 to 10 kt. Seas 4 to 6 ft in SW
swell. Period 14 seconds.
.TUE...SW to W winds 10 to 15 kt. Seas 4 to 6 ft. Period
14 seconds.
.TUE NIGHT...SW to W winds 10 to 15 kt. Seas 4 to 6 ft. Period
13 seconds.

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PMZ117-170330-

East Panama and Colombia including the Gulf of Panama-
716 AM PST Fri Nov 16 2018

.TODAY...W winds 10 to 15 kt. Seas 4 to 6 ft. Period 16 seconds.
Scattered showers and isolated thunderstorms.
.TONIGHT...W winds 10 to 15 kt. Seas 4 to 6 ft. Period
18 seconds. Scattered showers and isolated thunderstorms.
.SAT...W winds 10 to 15 kt. Seas 4 to 6 ft. Period 18 seconds.
Scattered showers and isolated thunderstorms.
.SAT NIGHT...W winds 10 to 15 kt. Seas 5 to 7 ft in S to SW
swell. Period 17 seconds. Scattered showers and isolated
thunderstorms.
.SUN...W winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell.
Period 17 seconds.
.SUN NIGHT...SW to W winds 10 to 15 kt. Seas 5 to 7 ft in S to
SW swell. Period 15 seconds.
.MON...SW to W winds 10 to 15 kt. Seas 5 to 7 ft in S to SW

swell. Period 14 seconds.

.MON NIGHT...SW to W winds 10 to 15 kt. Seas 4 to 6 ft. Period 14 seconds.

.TUE...SW to W winds 10 to 15 kt. Seas 4 to 6 ft. Period 15 seconds.

.TUE NIGHT...SW winds 10 to 15 kt. Seas 4 to 6 ft. Period 14 seconds.

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PMZ119-170330-

Ecuador including the Gulf of Guayaquil to 250 nm offshore-
716 AM PST Fri Nov 16 2018

.TODAY...SW winds 10 to 15 kt. Seas 4 to 6 ft. Period 15 seconds.

.TONIGHT...S to SW winds 10 to 15 kt. Seas 5 to 7 ft in SW swell. Period 16 seconds.

.SAT...SW winds 10 to 15 kt. Seas 5 to 7 ft in SW swell. Period 15 seconds.

.SAT NIGHT...S to SW winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell. Period 15 seconds.

.SUN...S to SW winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell. Period 14 seconds.

.SUN NIGHT...S to SW winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell. Period 14 seconds.

.MON...S to SW winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell. Period 14 seconds.

.MON NIGHT...S to SW winds 10 to 15 kt. Seas 4 to 6 ft. Period 13 seconds.

.TUE...S to SW winds 10 to 15 kt. Seas 4 to 6 ft. Period 16 seconds.

.TUE NIGHT...S to SW winds 10 to 15 kt. Seas 3 to 5 ft. Period 16 seconds.

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PMZ121-170330-

Ecuador between 250 and 500 nm offshore-
716 AM PST Fri Nov 16 2018

.TODAY...S winds 10 to 15 kt. Seas 5 to 7 ft in SW to W swell. Period 16 seconds.

.TONIGHT...S winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell. Period 15 seconds.

.SAT...S winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell. Period 15 seconds.

.SAT NIGHT...S winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell. Period 14 seconds.

.SUN...S winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell.
Period 14 seconds.
.SUN NIGHT...S winds 10 to 15 kt. Seas 5 to 7 ft in S to SW
swell. Period 14 seconds.
.MON...S winds 10 to 15 kt. Seas 5 to 7 ft in S to SW swell.
Period 13 seconds.
.MON NIGHT...S to SW winds 10 to 15 kt. Seas 4 to 6 ft. Period
13 seconds.
.TUE...S winds 10 to 15 kt. Seas 4 to 6 ft. Period 13 seconds.
.TUE NIGHT...S to SW winds 10 to 15 kt. Seas 4 to 6 ft. Period
14 seconds.

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PMZ123-170330-
Offshore Galapagos Islands-
716 AM PST Fri Nov 16 2018

.TODAY...SE to S winds 10 to 15 kt. Seas 6 to 8 ft in W swell.
Period 16 seconds.
.TONIGHT...SE to S winds 10 to 15 kt. Seas 6 to 8 ft in SW to W
swell. Period 15 seconds.
.SAT...SE to S winds 10 to 15 kt. Seas 6 to 8 ft in SW swell.
Period 15 seconds.
.SAT NIGHT...SE to S winds 10 to 15 kt. Seas 5 to 7 ft in SW
swell. Period 14 seconds.
.SUN...S winds 10 to 15 kt. Seas 5 to 7 ft in SW swell. Period
14 seconds.
.SUN NIGHT...SE to S winds 10 to 15 kt. Seas 4 to 6 ft. Period
15 seconds.
.MON...S winds 10 to 15 kt. Seas 4 to 6 ft. Period 16 seconds.
.MON NIGHT...S winds 10 to 15 kt. Seas 4 to 6 ft. Period
16 seconds.
.TUE...S winds 10 to 15 kt. Seas 4 to 6 ft. Period 16 seconds.
.TUE NIGHT...S winds 10 to 15 kt. Seas 4 to 6 ft. Period
15 seconds.

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Forecaster Stripling