

**NATIONAL WEATHER SERVICE INSTRUCTION 10-310**  
**OCTOBER 18, 2012**

**Operations and Services**  
**Marine And Coastal Weather Services, NWSPD 10-3**  
**COASTAL MARINE FORECAST SERVICES**

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**SUMMARY OF REVISIONS:** This directive supersedes NWSI 10-310, Coastal Marine Forecast Services dated September 9, 2010. This directive includes the following changes:

1. Added language for NWS Volcanic Ash Advisory Center in 2.3.4
2. Changed all mentions of Tropical Prediction Center to National Hurricane Center
3. Moved wording on Tropical Cyclone Headlines from 2.3.5.a to 2.3.5.b
4. Changed wording on listing Severe Thunderstorm and Tornado Watches in 2.3.5.a
5. Moved wording on watches and warnings in 2.3.5.c back to 2.3.5.a
6. Changed some wording on 12 hour periods in 2.3.7
7. Removed 2.5 and moved information both ahead of 2.4.1 and into 2.4.2
8. Added wording of RP.S and BH.S VTEC code in 3.6
9. Removed 3.5.4
10. Moved prior 3.6 and 3.6.2 to the beginning of 3.5
11. New examples provided in Appendix A for Coastal Waters and Surf Zone Forecasts.
12. Moved wording on using CFW and HWO for Rip Currents from 3.6 to 3.5.1
13. Amended wording in 3.5.2 on mention of Rip Currents in Hazardous Weather Outlook.
14. Removed paragraph in 2.3.8 that is duplicated in 10-303.

signed

October 4, 2012

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Director, Office of Climate,  
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Date

**COASTAL MARINE FORECAST SERVICES**

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1. Introduction. This procedural instruction provides product specifications for the main alphanumeric coastal weather products issued by the National Weather Service (NWS) Weather Forecast Offices (WFOs) and selected Weather Service Offices (WSOs).

2. Coastal Waters Forecast (product category CWF).

2.1 Mission Connection. The Coastal Waters Forecast is a text product issued by all coastal WFOs to explicitly state expected weather conditions within their marine forecast area of



the CWF should be issued as soon as reasonably possible, but no later than 1.5 hours after receiving the NHC message.

c. In all forecasts, include forecast periods as shown below. All forecast periods beyond the current day will be described by the day of the week. For example, a forecast issued Sunday evening will include: TONIGHT, MONDAY, MONDAY NIGHT, TUESDAY, TUESDAY NIGHT, WEDNESDAY, THURSDAY, and FRIDAY. Forecast periods of the CWF are shown below:

The early morning forecast will cover:

Today	(Issuance time to 6PM local time)	1st Period
Tonight	(6PM to 6AM)	2nd Period
Day 2	(6AM to 6PM)	3rd Period
Day 2 Night	(6PM to 6AM)	4th Period
Day 3	(6AM to 6AM)	5th Period
Day 3 Night (Optional)	(6PM to 6AM)	6th Period
Day 4	(6AM to 6AM)	Day 4
Day 5	(6AM to 6AM)	Day 5

The last two 24-hour days may be broken up into two 12 hour periods:

Day 4	(6AM to 6PM)
Day 4 Night	(6PM to 6AM)
Day 5	(6AM to 6PM)
Day 5 Night	(6PM TO 6AM)

The late afternoon forecast will cover:

Tonight	(Issuance time to 6AM local time)	1st Period
Tomorrow	(6AM to 6PM)	2nd Period
Tomorrow Night	(6PM to 6AM)	3rd Period
Day 2	(6AM to 6PM)	4th Period
Day 2 Night	(6PM to 6AM)	5th Period
Day 3	(6AM to 6AM)	6th Period
Day 3 Night (Optional)	(6PM to 6AM)	7th Period
Day 4	(6AM to 6AM)	Day 4
Day 5	(6AM to 6AM)	Day 5

The last two 24-hour days may be broken up into two 12 hour periods:

Day 4	(6AM to 6PM)
Day 4 Night	(6PM to 6AM)
Day 5	(6AM to 6PM)
Day 5 Night	(6PM to 6AM)

2.2.4 Valid Time. Coastal Waters Forecasts are valid from the time of issuance until the expiration time.

2.2.5 Universal Geographic Code (UGC). Coastal Waters Forecasts will contain marine-based zone UGC codes.

2.2.6 Product Expiration Time. The CWF product expiration time is not more than 13 hours from the initial valid time, except up to 14 hours for OCONUS WFOs.

2.3 Technical Description. Coastal Waters Forecasts will follow the format and content described in this section.

2.3.1 Mass News Disseminator Broadcast Line. None.

2.3.2 Mass News Disseminator Header. The Coastal Waters Forecast MND Header is “COASTAL WATERS FORECAST [+ Optional Descriptor]”.

2.3.3 Content. Follow the format for the CWF as shown in section 2.4. In each marine zone, include all required forecast periods and forecast parameters. Forecasters may subdivide areas (e.g., NORTHERN HALF, SOUTHERN HALF; WATERS WITHIN 5 NM OF SHORE, OPEN WATERS; etc.) to describe significant differences. If geographical reference points are used in the subdivision, forecasters should ensure they are well known. Forecasters should combine marine zones for which they are responsible if conditions are expected to be homogeneous. However, do not combine one marine zone with just a part of another.

Forecasters should include applicable National Marine Sanctuaries (NMS), as noted in NWSI 10-302, in the appropriate CWF. These National Marine Sanctuary names should be included in the specific zone(s) and/or general area description.

The forecaster may combine forecast periods (beyond the first period) if, in the forecaster’s opinion, the weather elements in each are consistent (Regional supplements should be consulted). Also, the forecaster may subdivide the first period of the forecast to account for rapid weather changes.

2.3.4 Synopsis. The synopsis for the CWF should be a concise, understandable description of surface weather features that may cause significant winds and seas over the forecast area during the forecast period. Areas in the tropics often have significant upper level features which are the dominant cause of the weather (e.g. Tropical Upper Tropospheric Troughs). The synopsis may mention these features. At a minimum, it should identify the strength, trend and movement of each major weather system affecting the area.

The synopsis may be broadcast over the marine radio, and therefore, it should contain complete and grammatically correct sentences. All synopses will be meteorologically consistent with other products issued by the WFO. For consistency, all distances should be in nautical miles.

When ash fall from a volcanic eruption is expected to affect marine areas, a brief statement will be included in the synopsis after coordination with the appropriate NWS Volcanic Ash Advisory Center (VAAC). For example: “WESTDAHL VOLCANO, 70 NM SOUTHWEST OF COLD BAY, IS CURRENTLY ACTIVE.”

If a tropical cyclone with winds of tropical storm force or higher is expected to impact the forecast area, WFOs should include in the synopsis appropriate identification of the tropical cyclone, its last location (local time), and the direction and speed of movement. Give the location as distance (nautical miles) and direction (16-point compass) from a known landmark or breakpoint. The forecaster may use generic terms if a tropical cyclone is expected to develop in later periods of the forecast. See section 2.3.7 for an example.

2.3.5 Headlines. Use headlines to emphasize weather events likely to have a significant impact on mariners or marine operations. Marine warnings and advisories are only mandated in the first 12-hour forecast period. In most situations, to reduce multiple headlines, the forecaster can leave off the hazards after the upgrade or the most severe hazard.

The headlines generated by GHG software are sorted in chronological order by start time, then by action, by significance, and alphabetically by phenomena. These headlines should contain the hazard, and the action and timing phrases. For offices that issue the Marine Weather Message, please refer to NWSI 10-315, Marine Weather Message, NWSI 10-1703, VTEC, NWSI 10-1701, Text Product Formats and Codes, and section 2.3.9 of this instruction for additional details.

Refer to NWSI 10-303, Marine and Coastal Services Standards and Guidelines, for Regionally-defined Small Craft Advisory, Small Craft Advisory for Winds, Small Craft Advisory for Rough Bar, and Small Craft Advisory for Hazardous Seas issuance criteria, as well as definitions for Gale, Storm and Hurricane Force Wind Watches and Warnings.

- a. Non-Tropical Cyclone Related Headlines. Non-tropical cyclone watch and warning marine headlines are included in the CWF.

Watch headlines. WFOs should include watch headlines when criteria are met for the second, third, or occasionally fourth periods, when there is significant chance of a hazardous marine weather event meeting or exceeding warning criteria. In areas where hazardous conditions are climatologically common, watches (other than convective), may be reserved to for advanced notice of unusual or “first of the season” events. The following watch headlines are included in the CWF if a decision has been made by a WFO or SPC as appropriate, to issue one of these watches:

- Tornado Watch
- Severe Thunderstorm Watch
- Gale Watch
- Storm Watch
- Hurricane Force Wind Watch
- Heavy Freezing Spray Watch
- Hazardous Seas Watch (Optional)

Warning Headlines. WFOs will include the following warning headlines when criteria are met for the first period, and may issue warning headlines for events that begin in the second or third periods when forecaster confidence is high.

- Hurricane Force Wind Warning
- Storm Warning
- Gale Warning
- Heavy Freezing Spray Warning
- Ashfall Warning
- Hazardous Seas Warning (Optional)

In situations where winds gust frequently to or above advisory/warning thresholds, forecasters should use discretion in issuing advisories or warnings, as appropriate, to alert users and partners to hazardous marine conditions. Gusts occurring for 2 or more hours during a 12 hour forecast period are considered frequent.

Note: Due to dissemination limitations and climatologically frequent Gale conditions, areas of the Alaska Region may be exempt from including a first period headline as detailed in the Alaska Region Supplement applicable to NWSI 10-310.

b. Tropical Cyclone Related Headlines. WFOs issue tropical cyclone watches and warnings using the Hurricane Local Statement (HLS) in their coastal waters, and will coordinate their issuance with NHC, CPHC or JTWC and adjacent WFOs. Refer to NWSI 10-601, Tropical Cyclone Products, and Section 7 for additional details. Existing headlines for marine zones should be replaced with applicable tropical cyclone headlines. Tropical Cyclone headlines have the highest priority of any headline included in the CWF. Tropical Cyclone headlines listed in priority order are:

1. Hurricane or Typhoon Warning
2. Tropical Storm Warning
3. Hurricane or Typhoon Watch
4. Tropical Storm Watch

Coastal WFOs will include tropical cyclone related warning headlines when criteria are met for the first, second or third periods.

As a tropical cyclone leaves an area, forecasters should headline watch and warning cancellations. A qualitative description of wind conditions in the wake of the tropical cyclone (e.g., gale force winds) should be included in the synopsis. Tropical cyclone cancellation headlines may co-exist with non-tropical warnings and advisories, but are not used for upgrading to higher priority warnings and watches. For example, the headline “Tropical Storm Warning Is Cancelled” is not used simultaneously within the CWF with a “Hurricane Warning In Effect”.

Once the tropical cyclone is no longer impacting the marine zone, forecasters should again headline appropriate advisories or warnings not associated with the tropical cyclone.

b.1. Usage of Small Craft Advisories and Related Cautionary Statements.



When a tropical cyclone warning is in effect, the warning headline should supersede all other headlines.

When a tropical cyclone watch is in effect, or a tropical cyclone is approaching or departing, and conditions warrant, forecasters may include the headline "Small Craft Advisory." In addition, "Small Craft Should Remain in Port" may be manually appended.

c. Small Craft/Brisk Wind Advisory headlines. There are four Small Craft Advisory headlines: Small Craft Advisory, Small Craft Advisory for Hazardous Seas, the Small Craft Advisory for Winds, and the Small Craft Advisory for Rough Bar. See NWSI 10-303 for general definitions of these advisories.

WFOs may issue a Small Craft Advisory for Hazardous Seas (SCAHS) when wind speeds are forecast to be relatively light and seas or waves are expected to be hazardous. WFOs may issue a Small Craft Advisory for Winds (SCAW) when waves are forecast to be below SCAHS criteria, but wind speeds are expected to be above regionally defined thresholds. WFOs may issue a Small Craft Advisory for Rough Bar (SCARB) when waves are expected to be hazardous over specified harbor or river entrances or bars. Regional criteria for these and other advisories are defined in the NWSI 10-303.

Based on Local or Regional policy, WFOs may manually include cautionary statements (e.g., SMALL CRAFT SHOULD EXERCISE CAUTION) in situations below SCA, SCAHS, or SCAW criteria.

Advisory Headlines. WFOs should include the following advisory headlines when criteria are met for the first period, and may issue advisory headlines for events that begin in the second or third periods when forecaster confidence is high.

1. Small Craft Advisory
2. Small Craft Advisory for Hazardous Seas, (Optional)
3. Small Craft Advisory for Winds, (Optional)
4. Small Craft Advisory for Rough Bar, (Optional)
5. Brisk Wind Advisory

When sufficient observational data is available, WFOs should include the following advisory headlines when criteria are met for the first period, and may issue advisory headlines for events that begin in the second or third periods when forecaster confidence is high.

6. Dense Fog Advisory
7. Dense Smoke Advisory
8. Freezing Spray Advisory
9. Ashfall Advisory
10. Low Water Advisory

2.3.6 1-3 Day Forecast Periods. Except as noted below, forecasts of wind and sea state will be included in each discrete forecast period of the CWF. When sufficient (supporting) data exists, forecasters should also include forecasts of other weather significantly impacting the marine

zone(s) (e.g., ice accretion, precipitation, wave periods, low visibilities, ashfall, ice crystals, ice fog, ice coverage, etc.). Always emphasize the most critical conditions.

Exception: The Regions may specify certain bays, inlets, harbors, inland waters, and estuaries for which sea state need not be included in forecasts if complexities in these areas (e.g., fetch, water depth, currents, etc.) make wave forecasts impractical. In these areas, forecasters may use general descriptions of sea conditions (e.g., rough, moderate, etc.).

2.3.7 4-5 Day Forecast Periods. Aside from the two exceptions noted below, always include wind and sea height information in each 24 hour period, or optional 12 hour period. Above that, forecasters should include only the more threatening weather conditions.

Exception 1: When a tropical cyclone threatens to impact a marine zone, indicate the possible tropical cyclone conditions, based on NHC, CPHC, WFO Guam, and/or Hydrometeorological Prediction Center (HPC) guidance, for the specific day(s) impacted. Because large positional and intensity errors are possible in these cases, forecasters should not give specific wind and sea values.

Example:

.FRIDAY...SOUTHEAST WINDS 25 KT INCREASING. SEAS 12 FT.  
.SATURDAY...TROPICAL STORM CONDITIONS POSSIBLE.  
.SUNDAY...HURRICANE CONDITIONS POSSIBLE.

Exception 2: For marine areas heavily influenced by topography, (e.g., Puget Sound, Southeast Alaska) forecasters may give trend forecasts in lieu of specific wind and sea heights.

Example:

TUESDAY AND WEDNESDAY...INCREASING EAST WINDS AND HIGHER SEAS ENHANCED BY A STRONG SOUTHEAST SWELL.”

2.3.8 CWF - Forecast Parameters.

a. Wind. Wind represents predominant conditions 10 meters above the surface of the water. Forecasters should give direction to eight points of the compass. Avoid such phrases as "NORTH TO NORTHEAST WINDS". Forecasters should round speeds to the nearest 5 KT in forecasting specific wind speeds and ranges in wind speed.

In the CWF, include only sustained winds unless there are significant differences between sustained winds and peak gusts (e.g., NORTHWEST WIND 20 KTS WITH GUSTS TO 35 KTS).

Reference 10-303 for more detailed instructions on wording on wind and seas forecasts.

Where there is sufficient open water (ice-free seas) to include a sea state forecast, a Small Craft Advisory, Small Craft Advisory for Winds, or Small Craft Advisories for Hazardous Seas will be issued when appropriate. If sea heights are omitted due to ice coverage, the proper hazard type is

Brisk Wind Advisory. The Brisk Wind Advisory should use the same regionally determined wind thresholds as the Small Craft Advisory.

b. Seas (or Combined Seas). Include sea state as a combined sea height or break it down into appropriate components (e.g., WIND WAVES 2 TO 4 FT, NORTHEAST SWELL 10 FT, or SEAS 12 FT). Whenever a SWELL is specified, include the direction from which the swell is propagating, to 8 points of the compass. Mention of swell period and secondary swell (i.e. height, period, and direction) are a regional option. Forecasters may only use descriptive words such as MODERATE or ROUGH in regionally specified bays, inlets, harbors, estuaries, etc.

Transition terms such as “BUILDING” and “SUBSIDING” should be used to add clarity to forecast trends. Forecast changes in sea state should be meaningful (at least 3 feet in outer coastal waters and at least 2 feet in sheltered bays, inlets, etc.). Trends may be used to express more subtle changes, e.g., “SEAS 4 FT SUBSIDING WED AFTERNOON.”

Sea state forecasts will be included for marine areas or portions of marine areas not covered by ice. For other marine areas where coverage of 7/10 or more of sea ice is expected, forecasts of sea state are usually omitted; however, if the area has at least 10% contiguous open water, sea state forecasts may be given. In these cases, use the phrase “SEAS IN ICE FREE WATERS”.

A Small Craft Advisory a Small Craft Advisory for Rough Bar, or a Small Craft Advisory for Hazardous Seas headline should be included for sea state, even if the wind threshold is not met. Thresholds for a small craft advisory due to rough seas (and winds) are locally and regionally defined based upon expressed user needs specific to the area.

c. Significant Weather/Visibility. When it is expected, forecasters should include significant weather posing a hazard to navigation (i.e., widespread fog or other restriction lowering visibilities to 1 NM or less, or thunderstorms). Forecasters should emphasize thunderstorms in the CWF product. They may include the phrase “WINDS AND WAVES HIGHER NEAR THUNDERSTORMS” for the areas over which significant thunderstorms are anticipated. Based on forecaster discretion, and/or expected impact to users, forecasters may include obstructions to visibility ranging between 1 ½ NM to 5 NM. Forecasters may use precipitation probability terms such as "CHANCE," "OCCASIONAL," etc., as defined in NWSI 10-503, and they may include specific visibility distances. However, do not include sky cover.

d. Icing. The forecaster should include freezing spray or freezing fog in the body of the forecast whenever ice accretion on exposed surfaces is likely. When freezing spray is forecast to meet warning or advisory thresholds, a headline should also be included (e.g., ...HEAVY FREEZING SPRAY WARNING...).

e. Air Temperatures. Air temperatures are optional, and may be included if they are forecast to be at or below freezing and if the forecaster considers this information to be significant.

### 2.3.9 CWF - Forecast Time Phrases.

The selection of the time phrases used in advisory and warning headlines within the CWF is dependent upon the number of hours that have transpired since the time of product creation rather than the product issuance time.

The selection of time phrases used in Watch, Warning, and Advisory headlines also depends upon the type of event.

Timing phrases described in Tables 1, 2 and 3 are included in headlines issued for the following Watches, Warnings and Advisories:

- Gale Watch
- Storm Watch
- Hurricane Force Wind Watch
- Heavy Freezing Spray Watch
- Hazardous Seas Watch
- Hurricane Force Wind Warning
- Storm Warning
- Gale Warning
- Heavy Freezing Spray Warning
- Hazardous Seas Warning
- Small Craft Advisory
- Small Craft Advisory for Hazardous Seas
- Small Craft Advisory for Rough Bar
- Small Craft Advisory for Winds
- Freezing Spray Advisory
- Dense Fog Advisory
- Dense Smoke Advisory
- Ashfall Advisory
- Brisk Wind Advisory
- Low Water Advisory

Headlines for the following Watches and Advisories include explicit times at offices which use VTEC operationally:

- Tornado Watch
- Severe Thunderstorm Watch
- Dense Fog Advisory
- Dense Smoke Advisory
- Ashfall Advisory

Headlines for the following Watches and Warnings do not include explicit times or timing phrases:

- Hurricane, Typhoon, or Tropical Storm Warnings
- Hurricane, Typhoon, or Tropical Storm Watches

a. First Period. An advisory or warning event in effect for the first period will use explicit time phrases. When the issuance time and event start and/or end time occur on the same calendar day, the warning and advisory headline will include the time phrase listed in Table 1, except for products issued from the Pacific and Alaskan WFOs.

Time Period Covered	Time Phrases
Midnight – 5:59 AM	EARLY THIS MORNING
6 AM – 11:59 AM	THIS MORNING
Noon	TODAY
12.01 PM -5:59 PM	THIS AFTERNOON
6 PM – 11:59 PM	THIS EVENING

**Table 1.** Time Phrase Format for Coastal Waters Forecast (CWF) Advisory and Warning Headlines for Events Beginning in First Forecast Period on Same Calendar Day of Issuance.

For products issued with GHG software and VTEC from the Pacific and Alaskan WFOs an advisory or warning event in effect for the first period on the same calendar day of issuance will use time phrases as described in Table 2.

Time Period Covered Time	Time Phrases
Midnight – 2:59 AM	LATE TONIGHT
3:00 AM – 5:59 AM	EARLY THIS MORNING
6:00 AM – 8:59 AM	THIS MORNING
9:00 AM – 11:59 AM	LATE THIS MORNING
12:00 PM – 2:59 PM	EARLY THIS AFTERNOON
3:00 PM – 5:59 PM	LATE THIS AFTERNOON
6:00 PM – 8:59 PM	THIS EVENING
9:00 PM – 11:59 PM	TONIGHT

**Table 2.** Time Phrase Format for Coastal Waters Forecast (CWF) Advisory and Warning Headlines Issued with GHG software (except for WSOs and offices which do not have AWIPS) by Pacific and Alaska Region WFOs for Events Beginning in First Forecast Period on Same Calendar Day of Issuance.

b. Beyond the First Period. A headline for an advisory or warning event in effect not meeting criteria described in part a above will use generic time phrases as described in Table 3.

<b>Time Period Covered</b>	<b>Same Calendar Time Phrases</b>	<b>Day + 1 Time Phrases</b>	<b>Day + n Time Phrases Where <math>1 &lt; n \leq 5</math></b>
Midnight – 5:59 AM		LATE TONIGHT	LATE (Day + (n - 1)) NIGHT
6 AM – 11:59 AM		(Day + 1) MORNING	(Day + n) MORNING
NOON - 5:59 PM	THIS AFTERNOON	(Day + 1) AFTERNOON	(Day + n) AFTERNOON
6 PM – 11:59 PM	THIS EVENING	(Day + 1) EVENING	(Day + n) EVENING

**Table 3.** Time Phrase Format for Coastal Waters Forecast (CWF) Watch, Warning and Advisory Headlines in Effect or Ending Beyond First Period.

2.4 Format. The format of the CWF can be seen in Figure 1. For more detailed product format information consult NWSI 10-1701, *Text Product Formats and Codes*. This product is available in industry standard encoding and languages, and may include, but not limited to, American Standard Code for Information Interchange, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language.

2.4.1 Updates, Amendments and Corrections. CWFs and the appropriate gridded forecast fields will be updated or corrected when the on-duty forecast team believes the current forecast is not representative, or when significant format or content errors are detected. See NWSI 10-303 for detailed information.

```
(WMO ID)(UTC ISSUANCE DATE TIME)
(AWIPS ID)

COASTAL WATERS FORECAST [+ Optional Descriptor]
NATIONAL WEATHER SERVICE (CITY)(STATE)
(ISSUANCE TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

(OVERALL AREA COVERED BY THIS FORECAST)

(SYNOPSIS UGC CODE)-(EXPIRATION TIME)-
(ISSUANCE TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

.SYNOPSIS FOR (WFO MARINE AREA)...TEXT.

$$
(AREAL UGC CODE[S])-(EXPIRATION TIME)-
(FORECAST AREAL DESCRIPTOR[S])
(ISSUANCE TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

...HEADLINES (If needed)...

.PERIOD 1...
.PERIOD 2...
.PERIOD 3...
.PERIOD 4...
.PERIOD 5...
.PERIOD 6 (Optional period for the morning issuance)...
.PERIOD 7 (Optional period for the afternoon issuance)...
.(DAY 4)...
.(DAY 5)...

$$
FORECASTER NAME (Optional)
```

Figure 1. Coastal Waters Forecast (CWF) Format

2.4.2 CWF - Unscheduled Forecasts. As needed, append either "...UPDATED" or "...CORRECTED" to the product header whenever, respectively, an unscheduled CWF is issued or when an error in the CWF is corrected. A short description may be added for the updated or corrected items just below the areal header to highlight the change.

COASTAL WATERS FORECAST...**UPDATED** (or ...**CORRECTED**)  
 NATIONAL WEATHER SERVICE (CITY)(STATE)  
 (VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)  
  
 (REASON FOR CORRECTED/UPDATED/AMENDED). [Optional]  
  
 (OVERALL AREA COVERED BY THIS FORECAST)  
  
 (SYNOPSIS UGC CODE)-(EXPIRATION TIME)-  
  
 (ISSUANCE TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)  
  
 .SYNOPSIS FOR (WFO MARINE AREA)...TEXT.  
  
 \$\$

**Figure 2.** Unscheduled Coastal Waters Forecast (CWF) Format

3. Surf Zone Forecast (product category SRF).

3.1 Mission Connection. The Surf Zone Forecast (SRF) provides valuable and life-saving information, pertaining to hazards in the surf zone, to the beachfront community, including the general public, and providers of beachfront safety services, such as lifeguards.

3.2 Issuance Guidelines.

3.2.1 Creation Software. WFOs may produce the SRF using the AWIPS text editor or any other text editor.

3.2.2 Issuance Criteria. The SRF does not have mandatory National issuance criteria. Issuance criteria will be determined by Regional policy, and user and partner needs.

3.2.3 Issuance Time. Regional policy will govern the issuance of the SRF. Based on user and partner needs and/or requirements, the SRF should be issued, at least, once per day. In addition, the SRF may be issued on a seasonal basis (e.g., Memorial Day weekend through Labor Day).

3.2.4 Valid Time. Surf Zone Forecasts are valid from the time of issuance until the expiration time.



3.2.5 Universal Geographic Code (UGC). SRFs will contain land-based zone UGC codes.

3.2.6 Product Expiration Time. The SRF product expiration time is not more than 24 hours from the initial issuance.

3.3 Technical Description. Surf Zone Forecasts will follow the format and content described in this section.

3.3.1 Mass News Disseminator Broadcast Line. None.

3.3.2 Mass News Disseminator Header. The Surf Zone Forecast MND Header is “SURF ZONE FORECAST”.

3.3.3 Content. SRF content should be developed in coordination with local safety agencies which have responsibility for beachfront safety. NWS Regions and WFOs will determine the parameters to be included in the SRF. The forecast may describe the following hazards of interest to the beachfront community: rip currents, lightning, thunderstorms, waterspouts, and ultraviolet index. It may include weather elements such as: sky condition, precipitation, visibility, air temperature, wind speed and direction; and may include surf elements such as: breaking wave height, water temperature, and tide information.

3.4 Format. The SRF is a segmented, free-form, text product and will comply with the requirements of NWSI 10-1701, Text Product Formats and Codes. A suggested product format follows. Two SRF examples are provided in Appendix A.

This product is available in industry standard encoding and languages, and may include, but is not limited to, American Standard Code for Information Interchange (ASCII), Extensible Markup Language (EML), Wireless Markup Language (WML), and Hypertext Markup Language (HTML).

<u>Product Format</u>	<u>Description of Entry</u>
FPaaai cccc ddhhmm SRFxxx	<b>WMO Heading</b> <b>AWIPS ID</b>
SURF ZONE FORECAST NATIONAL WEATHER SERVICE CITY STATE time am/pm lt day mon dd yyyy	<b>NWS Product Name</b> <b>Issuing Office</b> <b>Issuance Time/Date</b>
.FOR THE BEACHES of state...for day...	<b>Optional Statement</b>
stZXXX-XXX>XXX-ddhhmm- county-county-county-county- INCLUDING THE BEACHES OF city...city...city time am lt day mon dd yyyy	<b>UGC Type(Zone) &amp; Expir.Time</b> <b>County Names</b> <b>City Names</b> <b>Issuance Time/Date</b>
...Long-duration watch/warning(s) or	

<p><i>significant headline(s) as required...</i></p> <p>Hazards  Rip Current Risk...  Lightning Risk...  Waterspout Risk...  UV Index...</p> <p>Weather  Sky Cover/Rain Chance...  Air Temperature...  Wind Speed/Direction...</p> <p>Surf  Wave Height...  Surf Temperature...  Approximate Times for Tides...</p> <p>\$\$</p> <p>stZXXX-XXX&gt;XXX-ddhhmm-  county-county-county-county-  INCLUDING THE BEACHES OF city...city...city  time am lt day mon dd yyyy</p> <p><i>...Long-duration watch/warning(s) or  significant headline(s) as required...</i></p> <p>Hazards  Rip Current Outlook...  Lightning Risk...  Waterspout Risk...  UV Index...</p>	<p><i>Optional parameters s  as determined by  Region/WFO</i></p> <p><i>This code ends zone segment</i></p> <p><i>UGC Type(Zone)&amp; Expir.Time  County Names  City Names  Issuance Time/Date</i></p> <p><i>Optional parameters  as determined by  Region/WFO</i></p>
<p>Weather  Sky Cover/Rain Chance...  Air Temperature...  Wind Speed/Direction...</p> <p>Surf  Wave Height...  Surf Temperature...  Approximate Times for Tides...</p> <p>\$\$</p> <p>FORECASTER ID</p> <p>All times are local.</p>	<p><i>This code ends zone segment</i></p> <p><i>Optional</i></p>

**Figure 3. Surf Zone Forecast (SRF) Format**

3.5 Relationships between the SRF and other WFO products

3.5.1 Advisories or Warnings. Forecasters will not use SRFs to issue Advisories or Warnings.

Coastal Hazard Message (CFW). Current or expected issuance of Coastal Hazard Messages should be referenced within the SRF. For example, High Surf Advisories should be issued using the CFW. Current or expected High Surf Advisories may be referenced within the SRF, as this would interest the beachfront community. See NWSI 10-320 for additional information regarding Coastal Hazard Messages.

When WFOs issue Coastal Flood Warnings, the next scheduled SRF will contain only the Coastal Flood Warning headline and refer users to the CFW product, with a statement such as:

“The regularly scheduled SRF will be discontinued as long as Coastal Flood Warnings are in effect. The SRF will resume in its normal format after the Coastal Flood Warnings are discontinued.” See NWSI 10-320 for additional detail.

To further heighten awareness for a Moderate or High Risk of Rip Currents, Rip Current information may be disseminated using the Coastal Hazard Message (CFW). In many of these situations, the Moderate or High Risk of Rip Currents is coincident with another coastal hazard; one example is high surf. In this case the risk of rip currents may be referenced within the body of the CFW product having VTEC event code /SU.Y/ or /SU.W/.

However, in the situation where the Moderate or High Risk of Rip Currents is not coincident with another coastal hazard requiring an Advisory, Watch, or Warning, then the Informational CFW product with VTEC event code /CF.S/ may be used to heighten visibility of the rip current hazard. In offices that utilize the VTEC event code /RP.S/ and/or /BH.S/ this may also be used according to local practices.

3.5.2 Hazardous Weather Outlook (product category HWO). WFOs forecasting a High Risk of Rip Currents in the Day 1 forecast period will include this information in the Day 1 Marine/Surf portion of the Hazardous Weather Outlook product (HWO). See NWSI 10-517, Multi-purpose Weather Products Specification. WFO’s forecasting a Moderate Risk for the Day 2 period with high confidence, may include this in the Day 2 Marine/Surf portion of the Hazardous Weather Outlook (HWO).

3.5.3 Hurricane Local Statements (product category HLS). When WFOs begin to issue HLSs (NWSI 10-601), the next scheduled SRF will contain only the tropical cyclone headlines and refer users to the HLS, with a statement such as:

“The regularly scheduled SRF will be discontinued as long as tropical cyclone watches and warnings are in effect for the County Warning Area (CWA). Refer to the HLS for the latest watches and warnings in the CWA. The SRF will resume in its normal format after tropical cyclone watches and warnings are discontinued for the CWA.”

Key information normally carried in the SRF, such as surf height and Rip Currents, should be included in the HLS.

3.6 Rip Currents. A Rip Current is a relatively small-scale, surf-zone current moving away from the beach. Rip Currents form as waves disperse along the beach causing water to become trapped between the beach and a sand bar or other underwater structure. Eventually the water converges into a narrow, river-like channel moving away from the shore. Rip Currents may become life-threatening to swimmers under certain combinations of beach shape, bathymetry, tidal action, wind, and wave conditions. Rip Currents are often located in the vicinity of groins, jetties, and piers, but can occur anywhere in the surf zone.

WFOs and Regions will decide if sufficient guidance, observational evidence, and forecaster proficiency is available for providing users with information about Rip Currents.

The SRF is the primary product for providing Rip Current information. That is, if a WFO routinely provides Rip Current information, the WFO issues the SRF. Rip Current information in the SRF will be introduced using the phrase “Rip Current Risk”.

When a Moderate or High Risk of Rip Currents is forecast, refer to section 3.5.1 for the appropriate way to reference in the CFW and section 3.5.2 for the appropriate way to reference in the HWO.

3.6.1 Three-Tiered Qualifiers. Rip Current Outlooks in the SRF will use the following, 3-tiered text qualifiers. WFOs should include the following definitions in their rip current associated text products:

**Low Risk.** Wind and/or wave conditions are not expected to support the development of Rip Currents. However, Rip Currents can sometimes occur, especially in the vicinity of groins, jetties, reefs and piers. Know how to swim and heed the advice of the beach patrol.

**Moderate Risk.** Wind and/or wave conditions support stronger or more frequent Rip Currents. Only experienced surf swimmers should enter the water.

**High Risk.** Wind and/or wave conditions support dangerous Rip Currents. Rip Currents are life-threatening to anyone entering the surf.

3.6.2 Moderate or High Risk. WFOs forecasting a Moderate or High Risk of Rip Currents will headline this information in the SRF. To ensure maximum notification of users, WFO’s forecasting a Moderate or High Risk of Rip Currents will refer back to section 3.5.1 for specifications on how it can be addressed in the CFW and 3.5.2 for how to address in the HWO.

3.6.3 Local safety officials and Rip Current Alerts. Local safety officials responsible for beachfront safety may have jurisdiction to issue Rip Current Alerts. The NWS does not, on its own, issue Rip Current Alerts. Rip Current Alerts should be included in NOAA Weather Radio

(NWR) programming. In any NWS forecast or NWS broadcast containing such an alert, the NWS will reference the local agency issuing the alert. WFOs are encouraged to collaborate closely with their local beachfront safety officials. The safety officials can help pass on NWS Rip Current information to the public, and also relay Rip Current observations back to the WFO.

3.7 Updates, Amendments and Corrections. SRFs will be updated when forecast conditions change significantly, especially when hazardous conditions arise. WFOs will correct SRFs for format and grammatical errors.

**APPENDIX A - Examples of Coastal NWS Forecasts**

Table of Contents:

1.	Coastal Waters Forecasts	A-1
2.	Surf Zone Forecasts	A-11

1. Coastal Waters Forecasts

**Example 1:**

FZUS55 KMOB 211539  
CWFMOB

COASTAL WATERS FORECAST FOR CALIFORNIA  
NATIONAL WEATHER SERVICE MOBILE AL  
1039 AM CDT MON MAY 21 201

GULF COASTAL WATERS DESTIN TO PASCAGOULA OUT 60 NM

SEAS ARE 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.

GMZ600-220345-  
SYNOPSIS FOR DESTIN FL TO PASCAGOULA MS OUT 60 NM INCLUDING  
MOBILE BAY-  
1039 AM CDT MON MAY 21 2012

.SYNOPSIS... A LIGHT TO MODERATE WESTERLY FLOW WILL CONTINUE OVER  
THE  
MARINE AREA THROUGH MIDWEEK AS SURFACE HIGH PRESSURE BUILDS  
ACROSS  
THE WESTERN GULF OF MEXICO. AN APPROACHING UPPER LEVEL DISTURBANCE  
WILL BRING A SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS THROUGH  
TUESDAY. DRY WEATHER WILL RETURN DURING THE MIDDLE TO LATTER HALF  
OF  
THE WEEK AS UPPER LEVEL HIGH PRESSURE BUILDS FROM THE WEST. A LIGHT  
TO MODERATE EASTERLY FLOW IS EXPECTED TO DEVELOP LATE THIS WEEK  
INTO THE WEEKEND AS SURFACE HIGH PRESSURE SHIFTS FROM THE EASTERN  
GULF OF MEXICO THROUGH THE WESTERN ATLANTIC OCEAN.

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GMZ630-220345-  
MOBILE BAY-  
1039 AM CDT MON MAY 21 2012

.TODAY...NORTHWEST WINDS AROUND 10 KNOTS BECOMING SOUTHWEST 10 TO 15 KNOTS IN THE AFTERNOON. BAY WATERS A LIGHT CHOP. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS IN THE AFTERNOON.

.TONIGHT...WEST WINDS 10 TO 15 KNOTS BECOMING NORTHWEST AROUND 10 KNOTS AFTER MIDNIGHT. BAY WATERS A LIGHT CHOP. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS.

.TUESDAY...WEST WINDS 10 TO 15 KNOTS...BECOMING SOUTHWEST IN THE AFTERNOON. BAY WATERS A LIGHT CHOP. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS.

.TUESDAY NIGHT...SOUTHWEST WINDS 10 TO 15 KNOTS BECOMING NORTHWEST TO NORTH 5 TO 10 KNOTS LATE. BAY WATERS A LIGHT CHOP...BECOMING SMOOTH LATE.

.WEDNESDAY...NORTHWEST WINDS 5 TO 10 KNOTS BECOMING SOUTHWEST 10 TO 15 KNOTS IN THE AFTERNOON. BAY WATERS A LIGHT CHOP.

.WEDNESDAY NIGHT...SOUTHWEST WINDS 10 TO 15 KNOTS DIMINISHING TO 5 TO 10 KNOTS AFTER MIDNIGHT. BAY WATERS A LIGHT CHOP...BECOMING SMOOTH LATE.

.THURSDAY...SOUTHWEST WINDS 5 TO 10 KNOTS BECOMING SOUTH 10 TO 15 KNOTS IN THE AFTERNOON. BAY WATERS A LIGHT CHOP.

.THURSDAY NIGHT...SOUTH WINDS 10 TO 15 KNOTS DIMINISHING TO 5 TO 10 KNOTS AFTER MIDNIGHT. BAY WATERS A LIGHT CHOP.

.FRIDAY...EAST WINDS 10 TO 15 KNOTS. BAY WATERS A LIGHT CHOP.

.FRIDAY NIGHT...EAST WINDS 10 TO 15 KNOTS. BAY WATERS A LIGHT CHOP.

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GMZ650-655-220345-  
COASTAL WATERS FROM PENSACOLA FL TO PASCAGOULA MS OUT 20 NM-  
COASTAL WATERS FROM DESTIN TO PENSACOLA FL OUT 20 NM-  
1039 AM CDT MON MAY 21 2012

.TODAY...NORTHWEST WINDS AROUND 10 KNOTS...BECOMING SOUTHWEST 10 TO 15 KNOTS IN THE AFTERNOON. SEAS 1 TO 2 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP.

.TONIGHT...SOUTHWEST WINDS 10 TO 15 KNOTS...BECOMING NORTHWEST AFTER MIDNIGHT. SEAS 2 TO 3 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS.

.TUESDAY...WEST WINDS 10 TO 15 KNOTS...BECOMING SOUTHWEST IN THE AFTERNOON. SEAS 2 TO 3 FEET. BAYS AND COASTAL WATERWAYS A LIGHT

CHOP. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS THROUGH THE DAY.

.TUESDAY NIGHT...WEST WINDS 10 TO 15 KNOTS BECOMING NORTHWEST 5 TO 10 KNOTS AFTER MIDNIGHT. SEAS 2 TO 3 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP.

.WEDNESDAY...NORTHWEST WINDS 5 TO 10 KNOTS BECOMING SOUTHWEST 10 TO 15 KNOTS IN THE AFTERNOON. SEAS 2 TO 3 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP.

.WEDNESDAY NIGHT...SOUTHWEST WINDS 10 TO 15 KNOTS. SEAS 2 TO 3 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP.

.THURSDAY...SOUTHWEST WINDS 5 TO 10 KNOTS BECOMING SOUTH 10 TO 15 KNOTS IN THE AFTERNOON. SEAS 2 TO 3 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP.

.THURSDAY NIGHT...SOUTH WINDS 10 TO 15 KNOTS BECOMING SOUTHEAST 5 TO 10 KNOTS AFTER MIDNIGHT. SEAS 1 TO 2 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP.

.FRIDAY...EAST WINDS 10 TO 15 KNOTS. SEAS 2 TO 3 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP.

.FRIDAY NIGHT...EAST WINDS 10 TO 15 KNOTS. SEAS 2 TO 3 FEET. BAYS AND COASTAL WATERWAYS A LIGHT CHOP.

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GMZ670-675-220345-

WATERS FROM PENSACOLA FL TO PASCAGOULA MS FROM 20 TO 60 NM-  
WATERS FROM DESTIN TO PENSACOLA FL FROM 20 TO 60 NM-  
1039 AM CDT MON MAY 21 2012

.TODAY...NORTHWEST WINDS AROUND 10 KNOTS BECOMING SOUTHWEST 10 TO 15 KNOTS IN THE AFTERNOON. SEAS 2 TO 3 FEET.

.TONIGHT...SOUTHWEST WINDS 10 TO 15 KNOTS...BECOMING WEST AFTER MIDNIGHT. SEAS 2 TO 3 FEET.

.TUESDAY...NORTHWEST WINDS AROUND 10 KNOTS...BECOMING SOUTHWEST 10 TO 15 KNOTS IN THE AFTERNOON. SEAS 2 TO 3 FEET. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS.

.TUESDAY NIGHT...SOUTHWEST WINDS 10 TO 15 KNOTS. SEAS 2 TO 3 FEET.

.WEDNESDAY...SOUTHWEST WINDS 10 TO 15 KNOTS. SEAS 2 TO 3 FEET.

.WEDNESDAY NIGHT...SOUTHWEST WINDS 10 TO 15 KNOTS. SEAS 2 TO 3 FEET.

.THURSDAY...SOUTHWEST WINDS AROUND 10 KNOTS BECOMING SOUTH IN THE AFTERNOON. SEAS 2 TO 3 FEET.

.THURSDAY NIGHT...SOUTH WINDS AROUND 10 KNOTS BECOMING SOUTHEAST 5 TO 10 KNOTS AFTER MIDNIGHT. SEAS 1 TO 2 FEET.

.FRIDAY...EAST WINDS AROUND 10 KNOTS. SEAS 1 TO 2 FEET.

.FRIDAY NIGHT...EAST WINDS AROUND 10 KNOTS. SEAS 1 TO 2 FEET.



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**Example 2:**

FZUS51 KPHI 211616  
CWFPHI

COASTAL WATERS FORECAST  
NATIONAL WEATHER SERVICE MOUNT HOLLY NJ  
330 PM EDT MON MAY 21 2012

SANDY HOOK NJ TO FENWICK ISLAND DE TO 20 NM OFFSHORE AND DELAWARE BAY

ANZ400-220900-  
330 PM EDT MON MAY 21 2012

.SYNOPSIS FOR THE COASTAL WATERS FROM SANDY HOOK NJ TO FENWICK ISLAND DE AND FOR DELAWARE BAY...

A LOW PRESSURE SYSTEM OFF THE MIDDLE ATLANTIC COAST IS FORECAST TO DRIFT SLOWLY NORTHEAST AND REACH THE CANADIAN MARITIMES ON WEDNESDAY. THEREAFTER AN ATLANTIC HIGH PRESSURE SYSTEM WILL BUILD WEST AND PERSIST INTO THE START OF THE MEMORIAL DAY WEEKEND. A BACKDOOR COLD FRONT FROM EASTERN CANADA IS THEN FORECAST TO APPROACH AND STALL NEAR THE REGION ON SUNDAY AND MONDAY.

\$\$

ANZ450-451-220900-  
COASTAL WATERS FROM SANDY HOOK TO MANASQUAN INLET NJ OUT 20 NM-  
COASTAL WATERS FROM MANASQUAN INLET TO LITTLE EGG INLET NJ OUT 20 NM-  
330 PM EDT MON MAY 21 2012

...SMALL CRAFT ADVISORY FOR HAZARDOUS SEAS IN EFFECT THROUGH LATE TUESDAY NIGHT...

.TONIGHT...E WINDS AROUND 10 KT. SEAS 4 TO 5 FT. SHOWERS LIKELY WITH ISOLATED TSTMS EARLY THIS EVENING...THEN A CHANCE OF SHOWERS LATE THIS EVENING AND OVERNIGHT. VSBY 1 TO 3 NM.

.TUE...SE WINDS AROUND 10 KT. SEAS 4 TO 6 FT. A CHANCE OF SHOWERS. VSBY 1 TO 3 NM.

.TUE NIGHT...S WINDS 5 TO 10 KT. SEAS 4 TO 6 FT. A CHANCE OF SHOWERS IN THE EVENING WITH VSBY 1 TO 3 NM.

.WED...S WINDS 5 TO 10 KT. SEAS 4 TO 5 FT. PATCHY FOG IN THE MORNING.

.WED NIGHT...S WINDS 5 TO 10 KT. SEAS AROUND 4 FT.

.THU...SE WINDS 5 TO 10 KT. SEAS 3 TO 4 FT. A CHANCE OF SHOWERS AND TSTMS IN THE AFTERNOON.

.THU NIGHT...E WINDS AROUND 10 KT. SEAS 3 TO 4 FT. A CHANCE OF SHOWERS AND TSTMS IN THE EVENING.

.FRI...E WINDS 5 TO 10 KT. SEAS 3 TO 4 FT. A CHANCE OF SHOWERS AND TSTMS THROUGH THE NIGHT.

.SAT...E WINDS 5 TO 10 KT...BECOMING S AFTER MIDNIGHT. SEAS 3 TO 4 FT.

WINDS AND SEAS HIGHER IN AND NEAR TSTMS.

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ANZ452>455-220900-

COASTAL WATERS FROM LITTLE EGG INLET TO GREAT EGG INLET NJ OUT 20 NM-

COASTAL WATERS FROM GREAT EGG INLET TO CAPE MAY NJ OUT 20 NM-

COASTAL WATERS FROM CAPE MAY NJ TO CAPE HENLOPEN DE OUT 20 NM-

COASTAL WATERS FROM CAPE HENLOPEN TO FENWICK ISLAND DE OUT 20 NM-  
330 PM EDT MON MAY 21 2012

...SMALL CRAFT ADVISORY FOR HAZARDOUS SEAS IN EFFECT THROUGH LATE TUESDAY NIGHT...

.TONIGHT...E WINDS 10 TO 15 KT...DIMINISHING TO 5 TO 10 KT LATE THIS EVENING AND OVERNIGHT. SEAS 4 TO 5 FT. ISOLATED TSTMS EARLY THIS EVENING. A CHANCE OF SHOWERS. VSBY 1 TO 3 NM.

.TUE...E WINDS 5 TO 10 KT. SEAS 4 TO 6 FT. A CHANCE OF SHOWERS. VSBY 1 TO 3 NM.

.TUE NIGHT...S WINDS 5 TO 10 KT. SEAS 4 TO 6 FT. A CHANCE OF SHOWERS IN THE EVENING WITH VSBY 1 TO 3 NM.

.WED...S WINDS 5 TO 10 KT. SEAS 4 TO 5 FT. PATCHY FOG IN THE MORNING. A CHANCE OF SHOWERS IN THE AFTERNOON.

.WED NIGHT...S WINDS 5 TO 10 KT. SEAS 3 TO 4 FT.

.THU...SE WINDS 5 TO 10 KT. SEAS 3 TO 4 FT. A CHANCE OF SHOWERS AND TSTMS IN THE AFTERNOON.

.THU NIGHT...E WINDS 5 TO 10 KT. SEAS 3 TO 4 FT. A CHANCE OF SHOWERS AND TSTMS IN THE EVENING.

.FRI...E WINDS 5 TO 10 KT. SEAS 3 TO 4 FT. A CHANCE OF SHOWERS AND TSTMS THROUGH THE NIGHT.

.SAT...SE WINDS 5 TO 10 KT. SEAS 3 TO 4 FT.

WINDS AND SEAS HIGHER IN AND NEAR TSTMS.

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ANZ431-220900-

DELAWARE BAY WATERS SOUTH OF EAST POINT NJ TO SLAUGHTER BEACH DE-  
330 PM EDT MON MAY 21 2012

.TONIGHT...E WINDS 5 TO 10 KT. SEAS 2 TO 3 FT. ISOLATED TSTMS  
EARLY THIS EVENING. A CHANCE OF SHOWERS. VSBY 1 TO 3 NM.

.TUE...E WINDS 5 TO 10 KT. SEAS 1 TO 2 FT. A CHANCE OF SHOWERS.  
VSBY 1 TO 3 NM.

.TUE NIGHT...SE WINDS 5 TO 10 KT...DIMINISHING TO AROUND 5 KT  
AFTER MIDNIGHT. SEAS 1 TO 2 FT. A CHANCE OF SHOWERS IN THE  
EVENING WITH VSBY 1 TO 3 NM.

.WED...SE WINDS AROUND 5 KT...BECOMING S IN THE AFTERNOON. SEAS  
1 TO 2 FT. PATCHY FOG IN THE MORNING. A CHANCE OF SHOWERS AND  
TSTMS IN THE AFTERNOON.

.WED NIGHT...S WINDS 5 TO 10 KT. SEAS 1 TO 2 FT. A CHANCE OF  
SHOWERS AFTER MIDNIGHT.

.THU...SE WINDS 5 TO 10 KT. SEAS 2 TO 3 FT. A CHANCE OF SHOWERS.  
A CHANCE OF TSTMS IN THE AFTERNOON.

.THU NIGHT...E WINDS 5 TO 10 KT. SEAS 2 TO 3 FT. A CHANCE OF  
SHOWERS AND TSTMS IN THE EVENING.

.FRI...E WINDS 5 TO 10 KT. SEAS 2 TO 3 FT. A CHANCE OF SHOWERS  
AND TSTMS THROUGH THE NIGHT.

.SAT...SE WINDS 5 TO 10 KT...DIMINISHING TO AROUND 5 KT AFTER  
MIDNIGHT. SEAS 2 TO 3 FT.

WINDS AND SEAS HIGHER IN AND NEAR TSTMS.

\$\$

ANZ430-220900-

DELAWARE BAY WATERS NORTH OF EAST POINT NJ TO SLAUGHTER BEACH DE-  
330 PM EDT MON MAY 21 2012

.TONIGHT...E WINDS 5 TO 10 KT. SEAS 1 TO 2 FT. ISOLATED TSTMS  
EARLY THIS EVENING. A CHANCE OF SHOWERS. VSBY 1 TO 3 NM.

.TUE...E WINDS 5 TO 10 KT. SEAS 1 FOOT OR LESS. A CHANCE OF  
SHOWERS. VSBY 1 TO 3 NM.

.TUE NIGHT...SE WINDS 5 TO 10 KT. SEAS 1 FOOT OR LESS. A CHANCE  
OF SHOWERS IN THE EVENING WITH VSBY 1 TO 3 NM.

.WED...S WINDS AROUND 5 KT. SEAS 1 TO 2 FT. PATCHY FOG IN THE  
MORNING. A CHANCE OF SHOWERS AND TSTMS IN THE AFTERNOON.

.WED NIGHT...S WINDS AROUND 5 KT. SEAS 1 TO 2 FT. A CHANCE OF

SHOWERS.

.THU...SE WINDS 5 TO 10 KT. SEAS 1 TO 2 FT. A CHANCE OF SHOWERS.  
A CHANCE OF TSTMS IN THE AFTERNOON.

.THU NIGHT...E WINDS 5 TO 10 KT. SEAS 1 TO 2 FT. A CHANCE OF  
SHOWERS AND TSTMS IN THE EVENING.

.FRI...E WINDS 5 TO 10 KT. SEAS 1 TO 2 FT. A CHANCE OF SHOWERS  
AND TSTMS THROUGH THE NIGHT.

.SAT...SE WINDS 5 TO 10 KT. SEAS 1 TO 2 FT.

WINDS AND SEAS HIGHER IN AND NEAR TSTMS.

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**Example 3:**

FZUS56 KLOX 211529  
CWFLOX

COASTAL WATERS FORECAST  
NATIONAL WEATHER SERVICE LOS ANGELES/OXNARD CA  
829 AM PDT MON MAY 21 2012

POINT PIEDRAS BLANCAS TO SAN MATEO POINT CA OUT 60NM INCLUDING THE  
CHANNEL ISLANDS NATIONAL MARINE SANCTUARY

PZZ600-212300-  
829 AM PDT MON MAY 21 2012

.SYNOPSIS FOR SOUTHERN CALIFORNIA COAST AND SANTA BARBARA CHANNEL  
INCLUDING THE CHANNEL ISLANDS NATIONAL MARINE SANCTUARY AND  
NATIONAL PARK...AT 15Z...OR 8 AM PDT...A RIDGE OF HIGH PRES OVER  
THE EASTERN PAC WILL STRENGTHEN AND BUILD OVER THE PAC NW TUE  
THROUGH WED. STRONG AND WIDESPREAD GALE FORCE WINDS ARE EXPECTED  
TO DEVELOP ACROSS THE OUTER COASTAL WATERS THIS EVENING THROUGH  
TUESDAY NIGHT... AND WILL LIKELY EXTEND THROUGH AT LEAST THURSDAY  
NIGHT. THERE WILL BE THE POTENTIAL FOR WIND GUSTS AROUND 50 KT  
TUESDAY AFTERNOON THROUGH WEDNESDAY NIGHT.

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PZZ670-212300-  
WATERS FROM PT. PIEDRAS BLANCAS TO PT. ARGUELLO AND WESTWARD 60 NM-  
829 AM PDT MON MAY 21 2012

...SMALL CRAFT ADVISORY IN EFFECT UNTIL 6 PM PDT THIS EVENING...  
...GALE WARNING IN EFFECT FROM 6 PM PDT THIS EVENING THROUGH TUESDAY AFTERNOON...  
...STORM WATCH IN EFFECT FROM TUESDAY AFTERNOON THROUGH LATE WEDNESDAY NIGHT...

.TODAY...NW WINDS 15 TO 25 KT WITH LOCAL GUSTS TO 35 KT. COMBINED SEAS 6 TO 8 FT DOMINANT PERIOD 7 SECONDS. PATCHY FOG IN THE MORNING.  
.TONIGHT...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT. COMBINED SEAS 7 TO 9 FT DOMINANT PERIOD 8 SECONDS. PATCHY FOG AFTER MIDNIGHT.  
.TUE...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT...INCREASING TO 25 TO 35 KT WITH GUSTS POSSIBLE TO 50 KT IN THE LATE AFTERNOON...MAINLY SOUTHERN PORTION. COMBINED SEAS 7 TO 10 FT DOMINANT PERIOD 8 SECONDS. PATCHY FOG IN THE MORNING.  
.TUE NIGHT...NW WINDS 25 TO 35 KT WITH GUSTS TO 50 KT. COMBINED SEAS 9 TO 12 FT.  
.WED...NW WINDS 25 TO 35 KT WITH GUSTS TO 45 KT. COMBINED SEAS 10 TO 13 FT.  
.WED NIGHT...NW WINDS 25 TO 35 KT WITH GUSTS TO 50 KT. COMBINED SEAS 10 TO 13 FT...SUBSIDING TO 8 TO 11 FT AFTER MIDNIGHT.  
.THU...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT. COMBINED SEAS 8 TO 11 FT.  
.FRI...NW WINDS 20 TO 30 KT. COMBINED SEAS 10 TO 13 FT.

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PZZ673-212300-  
WATERS FROM PT. ARGUELLO TO SANTA CRUZ ISLAND CA AND WESTWARD 60 NM  
INCLUDING SAN MIGUEL AND SANTA ROSA ISLANDS-  
829 AM PDT MON MAY 21 2012

...SMALL CRAFT ADVISORY IN EFFECT UNTIL 6 PM PDT THIS EVENING...  
...GALE WARNING IN EFFECT FROM 6 PM PDT THIS EVENING THROUGH TUESDAY AFTERNOON...  
...STORM WATCH IN EFFECT FROM TUESDAY AFTERNOON THROUGH LATE WEDNESDAY NIGHT...

.TODAY...NW WINDS 15 TO 25 KT WITH GUSTS TO 30 KT. COMBINED SEAS 6 TO 8 FT DOMINANT PERIOD 7 SECONDS. PATCHY FOG IN THE MORNING.  
.TONIGHT...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT. COMBINED SEAS 7 TO 9 FT DOMINANT PERIOD 8 SECONDS. PATCHY FOG AFTER MIDNIGHT.  
.TUE...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT...INCREASING TO 35 TO 35 KT WITH GUSTS POSSIBLE TO 50 KT IN THE AFTERNOON. COMBINED SEAS 7 TO 10 FT DOMINANT PERIOD 8 SECONDS. PATCHY FOG IN THE MORNING.  
.TUE NIGHT...NW WINDS 25 TO 35 KT WITH GUSTS POSSIBLE TO 50 KT.

COMBINED SEAS 10 TO 13 FT.

.WED...NW WINDS 25 TO 35 KT WITH GUSTS POSSIBLE TO 50 KT.

COMBINED SEAS 9 TO 12 FT...BUILDING TO 11 TO 13 FT IN THE AFTERNOON.

.WED NIGHT...NW WINDS 25 TO 35 KT WITH GUSTS POSSIBLE TO 50 KT.

COMBINED SEAS 10 TO 13 FT.

.THU...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT. COMBINED SEAS  
9 TO 12 FT.

.FRI...NW WINDS 20 TO 30 KT. COMBINED SEAS 11 TO 14 FT.

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PZZ676-212300-

OUTER WATERS FROM SANTA CRUZ ISLAND TO SAN CLEMENTE ISLAND TO 60  
NM OFFSHORE INCLUDING SAN NICOLAS ISLAND-

829 AM PDT MON MAY 21 2012

...SMALL CRAFT ADVISORY IN EFFECT UNTIL 6 PM PDT THIS EVENING...

...GALE WARNING IN EFFECT FROM 6 PM PDT THIS EVENING THROUGH TUESDAY  
AFTERNOON...

...STORM WATCH IN EFFECT FROM TUESDAY AFTERNOON THROUGH LATE  
WEDNESDAY NIGHT...

.TODAY...NW WINDS 15 TO 25 KT WITH GUSTS TO 30 KT NW OF SAN  
NICOLAS ISLAND...OTHERWISE W WINDS 5 TO 15 KT. COMBINED SEAS  
5 TO 7 FT DOMINANT PERIOD 7 SECONDS. PATCHY FOG IN THE MORNING.

.TONIGHT...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT NW OF SAN  
NICOLAS ISLAND...OTHERWISE W WINDS 5 TO 15 KT WITH LOCAL GUSTS TO  
20 KT. COMBINED SEAS 6 TO 8 FT DOMINANT PERIOD 8 SECONDS. PATCHY  
FOG AFTER MIDNIGHT.

.TUE...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT NW OF SAN NICOLAS  
ISLAND...INCREASING TO 25 TO 35 KT WITH GUSTS POSSIBLE TO 50 KT IN  
THE LATE AFTERNOON. OTHERWISE W TO NW WINDS 15 TO 25 KT. COMBINED  
SEAS 7 TO 9 FT DOMINANT PERIOD 8 SECONDS. PATCHY FOG IN THE  
MORNING.

.TUE NIGHT...NW WINDS 25 TO 35 KT WITH GUSTS POSSIBLE TO 50 KT NW  
OF SAN NICOLAS ISLAND. OTHERWISE W TO NW WINDS 15 TO 25 KT COMBINED  
SEAS 9 TO 12 FT.

.WED...NW WINDS 25 TO 35 KT WITH GUSTS POSSIBLE TO 50 KT NW OF  
SAN NICOLAS ISLAND IN THE MORNING. OTHERWISE NW WINDS 15 TO 25 KT.  
COMBINED SEAS 10 TO 13 FT.

.WED NIGHT...NW OF SAN NICOLAS ISLAND...NW WINDS 25 TO 35 KT WITH  
GUSTS POSSIBLE TO 50 KT. OTHERWISE W TO NW WINDS 15 TO 25 KT.  
COMBINED SEAS 8 TO 11 FT.

.THU...NW WINDS 20 TO 30 KT WITH GUSTS TO 40 KT. COMBINED SEAS  
9 TO 12 FT.

.FRI...NW WINDS 20 TO 30 KT. COMBINED SEAS 10 TO 13 FT.

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PZZ650-212300-

EAST SANTA BARBARA CHANNEL FROM PT. CONCEPTION TO PT. MUGU  
INCLUDING  
SANTA CRUZ AND ANACAPA ISLANDS-  
829 AM PDT MON MAY 21 2012

.TODAY...S WINDS 5 TO 10 KT...BECOMING W 10 TO 20 KT WITH LOCAL  
GUSTS TO 25 KT IN THE AFTERNOON. WIND WAVES 2 TO 4 FT. W SWELL  
2 TO 3 FT AT 7 SECONDS...BUILDING TO 3 TO 5 FT AT 7 SECONDS IN  
THE AFTERNOON. PATCHY FOG IN THE MORNING.

.TONIGHT...NW WINDS 15 TO 25 KT WITH GUSTS TO 30 KT WESTERN PORTION  
IN THE EVENING. OTHERWISE W WINDS 5 TO 10 KT. COMBINED SEAS 4 TO  
6 FT DOMINANT PERIOD 8 SECONDS.

.TUE...NW WINDS 10 TO 15 KT IN THE MORNING. SW WINDS 5 TO 10 KT IN  
THE AFTERNOON...EXCEPT NW 15 TO 25 KT WITH LOCAL GUSTS TO 35 KT  
WESTERN PORTION. COMBINED SEAS 5 TO 7 FT DOMINANT PERIOD  
8 SECONDS.

.TUE NIGHT...WESTERN PORTION...NW WINDS 15 TO 25 KT WITH LOCAL  
GUSTS TO 35 KT. OTHERWISE WINDS VARIABLE 10 KT OR LESS IN THE  
MORNING...BECOMING W TO NW WINDS 10 TO 20 KT IN THE AFTERNOON.  
COMBINED SEAS 6 TO 8 FT.

.WED...WESTERN PORTION...NW WINDS 10 TO 20 KT INCREASING TO 15 TO  
25 KT WITH LOCAL GUSTS TO 35 KT. OTHERWISE WIND VARIABLE 10 KT OR  
LESS EARLY...BECOMING W TO NW 10 TO 20 KT IN THE AFTERNOON.  
COMBINED SEAS 6 TO 8 FT.

.WED NIGHT...WESTERN PORTION...NW WINDS 15 TO 25 KT WITH GUSTS TO  
35 KT IN THE EVENING. OTHERWISE...NW WINDS 5 TO 15 KT. COMBINED  
SEAS 6 TO 8 FT.

.THU...NW WINDS 20 TO 30 KT WITH GUSTS TO 35 KT. STRONGEST  
WESTERN PORTION. COMBINED SEAS 6 TO 8 FT.

.FRI...W WINDS 15 TO 25 KT. COMBINED SEAS 7 TO 9 FT.

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PZZ655-212300-

INNER WATERS FROM POINT MUGU TO SAN MATEO PT. CA INCLUDING SANTA  
CATALINA AND SANTA BARBARA ISLANDS-  
829 AM PDT MON MAY 21 2012

.TODAY...WINDS VARIABLE 10 KT OR LESS...BECOMING W 5 TO 15 KT IN  
THE AFTERNOON. EXCEPT NW PORTION...NW 10 TO 20 KT WITH LOCAL

GUSTS TO 25 KT. WIND WAVES 2 TO 4 FT. W SWELL 2 TO 3 FT AT 7 SECONDS. PATCHY FOG IN THE MORNING.  
.TONIGHT...W WINDS 5 TO 15 KT...EXCEPT NW PORTION NW WINDS 10 TO 20 KT WITH LOCAL GUSTS TO 25 KT. WIND WAVES 2 TO 4 FT. W SWELL 2 TO 4 FT AT 8 SECONDS. PATCHY FOG AFTER MIDNIGHT.  
.TUE...WINDS VARIABLE 10 KT OR LESS...BECOMING W 10 TO 20 KT IN THE AFTERNOON. WIND WAVES 2 FT OR LESS. W SWELL 2 TO 4 FT AT 8 SECONDS. PATCHY FOG IN THE MORNING.  
.TUE NIGHT...W WINDS 5 TO 15 KT IN THE EVENING...BECOMING N 10 TO 20 KT WITH LOCAL GUSTS TO 25 KT. WIND WAVES 2 TO 4 FT. W SWELL 3 TO 5 FT.  
.WED...NW WINDS 5 TO 15 KT...BECOMING W 10 TO 20 KT WITH GUSTS TO 25 KT IN THE AFTERNOON. WIND WAVES 2 TO 4 FT. W SWELL 4 TO 6 FT.  
.WED NIGHT...NW WINDS 10 TO 20 KT WITH GUSTS TO 25 KT. WIND WAVES 2 TO 4 FT. W SWELL 4 TO 6 FT.  
.THU...W WINDS 10 TO 20 KT WITH GUSTS TO 25 KT. WIND WAVES 2 TO 4 FT. W SWELL 4 TO 6 FT.  
.FRI...SW WINDS 10 TO 20 KT. WIND WAVES 2 TO 3 FT. W SWELL 6 TO 8 FT.

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2. Surf Zone Forecasts:

**Example 1:**

FZUS52 KMFL 210858  
SRFMFL

SURF ZONE FORECAST  
NATIONAL WEATHER SERVICE MIAMI FL  
458 AM EDT MON MAY 21 2012

...HIGH RISK OF WATERSPOUTS ATLANTIC BEACHES THIS MORNING...

FLZ168-220000-  
COASTAL PALM BEACH-  
INCLUDING THE SURF BEACHES OF PALM BEACH-  
458 AM EDT MON MAY 21 2012

...HIGH RISK OF WATERSPOUTS THIS MORNING...

RIP CURRENT RISK: MODERATE...DURING TIMES OF MODERATE RIP CURRENT RISK,

PERSONS SHOULD ENTER THE WATER ONLY IF THEY ARE



A EXPERIENCED WITH SWIMMING IN THE SURF. IF CAUGHT IN  
RIP CURRENT, DON'T TRY TO FIGHT ITS SEAWARD PULL.  
MOVE ACROSS THE CURRENT IN A DIRECTION FOLLOWING  
THE SHORELINE.

LIGHTNING RISK: LOW  
WATERSPOUT RISK : HIGH  
UV INDEX: EXTREME

SURF TEMPERATURE: 81 DEGREES

THE NEXT FOUR TIDES AT THE LAKE WORTH PIER ARE:  
HIGH TIDE, MONDAY, 8:52 AM.  
LOW TIDE, MONDAY, 2:59 PM.  
HIGH TIDE, MONDAY, 9:27 PM.  
LOW TIDE, TUESDAY, 3:41 AM.

.TODAY...PARTLY SUNNY. SLIGHT CHANCE OF SHOWERS AND ISOLATED  
THUNDERSTORMS IN THE AFTERNOON. HIGHS IN THE MID 80S. NORTHWEST  
WINDS AROUND 5 MPH BECOMING SOUTHEAST IN THE AFTERNOON. CHANCE OF  
RAIN 20 PERCENT.

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FLZ172-173-220000-  
COASTAL BROWARD-COASTAL MIAMI\_DADE-  
INCLUDING THE SURF BEACHES OF FORT LAUDERDALE...MIAMI BEACH-  
458 AM EDT MON MAY 21 2012

...HIGH RISK OF WATERSPOUTS THIS MORNING...

RIP CURRENT RISK: LOW...ALTHOUGH THE OUTLOOK FOR RIP CURRENTS IS LOW  
WEAK RIP CURRENTS CAN SOMETIME FORM. FOR MAXIMUM  
SAFETY, SWIM NEAR A LIFEGUARD.

LIGHTNING RISK: LOW  
WATERSPOUT RISK: HIGH  
UV INDEX: EXTREME

SURF TEMPERATURE: 81 DEGREES

THE NEXT FOUR TIDES AT THE MIAMI HARBOR ENTRANCE ARE:  
HIGH TIDE, MONDAY, 9:03 AM.  
LOW TIDE, MONDAY, 3:16 PM.  
HIGH TIDE, MONDAY, 9:42 PM.  
LOW TIDE, TUESDAY, 3:47 AM.

.TODAY...PARTLY SUNNY. SLIGHT CHANCE OF SHOWERS AND ISOLATED THUNDERSTORMS...THEN CHANCE OF SHOWERS AND ISOLATED THUNDERSTORMS IN THE AFTERNOON. HIGHS IN THE 80S. WEST WINDS AROUND 5 MPH BECOMING SOUTHEAST IN THE AFTERNOON. CHANCE OF RAIN 30 PERCENT.

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FLZ069-220000-  
COASTAL COLLIER-  
INCLUDING THE SURF BEACHES OF NAPLES AND MARCO ISLAND-  
458 AM EDT MON MAY 21 2012

RIP CURRENT RISK: NONE  
LIGHTNING RISK: NONE  
WATERSPOUT RISK: NONE  
UV INDEX: EXTREME

SURF TEMPERATURE: 80 DEGREES

THE NEXT FOUR TIDES AT THE NORTH END OF NAPLES BAY ARE:  
LOW TIDE, MONDAY, 7:35 AM.  
HIGH TIDE, MONDAY, 1:24 PM.  
LOW TIDE, MONDAY, 8:41 PM.  
HIGH TIDE, TUESDAY, 2:57 AM.

.TODAY...PARTLY SUNNY THEN CLEARING. HIGHS IN THE MID TO UPPER 80S.  
SOUTHEAST WINDS 5 TO 10 MPH BECOMING WEST IN THE AFTERNOON.

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**Example 2:**

FZUS51 KBOX 220757  
SRFBOX

SURF ZONE FORECAST  
NATIONAL WEATHER SERVICE TAUNTON MA  
357 AM EDT TUE MAY 22 2012

.FOR THE OCEAN BEACHES OF RHODE ISLAND AND MASSACHUSETTS...

MAZ022-222015-  
BARNSTABLE MA-  
INCLUDING THE BEACHES OF...CHATHAM...EASTHAM...PROVINCETOWN  
357 AM EDT TUE MAY 22 2012

.TODAY...  
EAST COAST RIP CURRENT RISK.....HIGH.  
EAST COAST SURF.....3 TO 5 FEET.  
EAST COAST SWELL.....SOUTHEAST 4 TO 5 FEET.  
EAST COAST PERIOD...9 SECONDS.  
EAST COAST WATER....55 DEGREES.  
SKY/WEATHER.....CLOUDY. AREAS OF FOG UNTIL 2 PM. PATCHY FOG  
AFTER 2 PM. NUMEROUS SHOWERS.  
MAX TEMPERATURE.....AROUND 60.  
BEACH WINDS.....NORTHEAST WINDS 10 TO 11 MPH.  
UVI INDEX.....8 - VERY HIGH.  
LIGHTNING THREAT....NO LIGHTNING EXPECTED.

A HIGH RISK OF RIP CURRENTS MEANS DANGEROUS AND POTENTIALLY LIFE  
THREATENING CONDITIONS EXIST FOR ALL PEOPLE ENTERING THE SURF.

.TONIGHT...CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF SHOWERS. LOWS IN  
THE MID 50S. NORTHWEST WINDS AROUND 8 MPH.  
.WEDNESDAY...CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF SHOWERS. HIGHS  
IN  
THE MID 60S. SOUTHWEST WINDS AROUND 9 MPH.  
.WEDNESDAY NIGHT...MOSTLY CLOUDY. A SLIGHT CHANCE OF SHOWERS. LOWS  
IN  
THE MID 50S. SOUTH WINDS AROUND 9 MPH.  
TIDE INFORMATION...

AT NAUSET BEACH...

LOW TIDE AT 6:15 AM  
HIGH TIDE AT 12:26 PM  
LOW TIDE AT 6:22 PM

AT HYANNISPORT...

HIGH TIDE AT 1:39 AM  
LOW TIDE AT 7:29 AM  
HIGH TIDE AT 2:16 PM  
LOW TIDE AT 7:36 PM

AT BARNSTABLE HARBOR...

HIGH TIDE AT 12:47 AM  
LOW TIDE AT 7:28 AM  
HIGH TIDE AT 1:24 PM  
LOW TIDE AT 7:35 PM

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MAZ024-222015-  
NANTUCKET MA-  
INCLUDING THE BEACHES OF...NANTUCKET  
357 AM EDT TUE MAY 22 2012

.TODAY...

SOUTH COAST RIP CURRENT RISK....HIGH.  
EAST COAST RIP CURRENT RISK.....HIGH.  
SOUTH COAST SURF....6 TO 10 FEET.  
EAST COAST SURF.....6 TO 8 FEET.  
SOUTH COAST SWELL...SOUTHEAST 5 TO 8 FEET.  
SOUTH COAST PERIOD..11 SECONDS.  
EAST COAST SWELL....SOUTHEAST 4 TO 7 FEET.  
EAST COAST PERIOD...10 SECONDS.  
SOUTH COAST WATER...54 DEGREES.  
EAST COAST WATER....51 DEGREES.  
SKY/WEATHER.....CLOUDY. AREAS OF FOG UNTIL 10 AM. AREAS OF FOG  
AFTER 10 AM UNTIL 2 PM...THEN PATCHY FOG.  
NUMEROUS SHOWERS.  
MAX TEMPERATURE.....AROUND 60.  
BEACH WINDS.....NORTHEAST WINDS 14 TO 15 MPH.  
UVI INDEX.....8 - VERY HIGH.  
LIGHTNING THREAT....NO LIGHTNING EXPECTED.

A HIGH RISK OF RIP CURRENTS MEANS DANGEROUS AND POTENTIALLY LIFE  
THREATENING CONDITIONS EXIST FOR ALL PEOPLE ENTERING THE SURF.

.TONIGHT...CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF SHOWERS. LOWS IN  
THE MID 50S. NORTHWEST WINDS AROUND 8 MPH.

.WEDNESDAY...CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF SHOWERS. HIGHS  
IN

THE LOWER 60S. SOUTHWEST WINDS AROUND 10 MPH.

.WEDNESDAY NIGHT...MOSTLY CLOUDY. A SLIGHT CHANCE OF SHOWERS. LOWS  
IN

THE MID 50S. SOUTH WINDS AROUND 8 MPH.

TIDE INFORMATION...

AT NANTUCKET...

HIGH TIDE AT 1:34 AM  
LOW TIDE AT 7:50 AM  
HIGH TIDE AT 2:22 PM  
LOW TIDE AT 7:40 PM

AT GREAT POINT...

HIGH TIDE AT 1:19 AM  
LOW TIDE AT 7:26 AM  
HIGH TIDE AT 1:56 PM  
LOW TIDE AT 7:33 PM

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MAZ023-222015-  
DUKES MA-  
INCLUDING THE BEACHES OF...EDGARTOWN...AQUINNAH  
357 AM EDT TUE MAY 22 2012

.TODAY...

RIP CURRENT RISK....HIGH.  
SURF.....6 TO 10 FEET.  
SWELL.....SOUTHEAST 6 TO 8 FEET.  
PERIOD.....10 SECONDS.  
WATER TEMPERATURE...57 DEGREES.  
SKY/WEATHER.....CLOUDY. AREAS OF FOG UNTIL 10 AM. AREAS OF FOG  
AFTER 10 AM UNTIL 2 PM...THEN PATCHY FOG.  
NUMEROUS SHOWERS.  
MAX TEMPERATURE.....IN THE LOWER 60S.  
BEACH WINDS.....NORTHEAST WINDS AROUND 12 MPH.  
UVI INDEX.....8 - VERY HIGH.  
LIGHTNING THREAT....NO LIGHTNING EXPECTED.

A HIGH RISK OF RIP CURRENTS MEANS DANGEROUS AND POTENTIALLY LIFE  
THREATENING CONDITIONS EXIST FOR ALL PEOPLE ENTERING THE SURF.

.TONIGHT...CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF SHOWERS. LOWS IN

THE MID 50S. NORTHWEST WINDS AROUND 7 MPH.  
.WEDNESDAY...MOSTLY CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF SHOWERS.  
HIGHS IN THE MID 60S. SOUTHWEST WINDS AROUND 10 MPH.  
.WEDNESDAY NIGHT...MOSTLY CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF  
SHOWERS. LOWS IN THE MID 50S. SOUTH WINDS AROUND 8 MPH.  
TIDE INFORMATION...

AT SQUIBNOCKET POINT...

LOW TIDE AT 3:00 AM  
HIGH TIDE AT 8:44 AM  
LOW TIDE AT 2:40 PM  
HIGH TIDE AT 8:49 PM

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MAZ020-222015-  
SOUTHERN BRISTOL MA-  
INCLUDING THE BEACHES OF...WESTPORT...DARTMOUTH...NEW BEDFORD  
357 AM EDT TUE MAY 22 2012

.TODAY...  
RIP CURRENT RISK....HIGH.  
SURF.....6 TO 8 FEET.  
SWELL.....SOUTHEAST 6 TO 7 FEET.  
PERIOD.....10 SECONDS.  
WATER TEMPERATURE...58 DEGREES.  
SKY/WEATHER.....CLOUDY. AREAS OF FOG UNTIL 2 PM. PATCHY FOG  
AFTER 2 PM. NUMEROUS SHOWERS.  
MAX TEMPERATURE.....IN THE MID 60S.  
BEACH WINDS.....NORTHEAST WINDS AROUND 9 MPH.  
UVI INDEX.....8 - VERY HIGH.  
LIGHTNING THREAT....NO LIGHTNING EXPECTED.

A HIGH RISK OF RIP CURRENTS MEANS DANGEROUS AND POTENTIALLY LIFE  
THREATENING CONDITIONS EXIST FOR ALL PEOPLE ENTERING THE SURF.

.TONIGHT...CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF SHOWERS. LOWS IN  
THE UPPER 50S. WEST WINDS AROUND 5 MPH.  
.WEDNESDAY...MOSTLY CLOUDY. PATCHY FOG. A CHANCE OF SHOWERS. HIGHS  
IN  
THE UPPER 60S. SOUTHWEST WINDS AROUND 8 MPH.  
.WEDNESDAY NIGHT...MOSTLY CLOUDY. PATCHY FOG. A SLIGHT CHANCE OF  
SHOWERS. LOWS IN THE UPPER 50S. SOUTH WINDS AROUND 7 MPH.

TIDE INFORMATION...

AT WESTPORT HARBOR...

LOW TIDE AT 3:35 AM  
HIGH TIDE AT 9:38 AM  
LOW TIDE AT 3:15 PM  
HIGH TIDE AT 9:43 PM

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