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AUGUST 22, 2008

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, dated July 5, 2006. This directive includes the following changes:

1. Removed all mention and inclusion of Valid Time Event Codes (VTEC) in this directive.
2. Modified the CWF headlines Section 2.3.5 to account for the new NWSI 10-315
3. Added the list of new marine watches to the Coastal Waters Forecast section.
4. Modified the Tropical Cyclone headline rules for marine zones based on changes to the Hurricane Local Statement policy.
5. Modified the CWF issuance times for HFO and Guam.
6. Made minor wording changes in Sections 2.3.3, 2.3.6.
7. Changed from mandatory to recommended inclusion of moderate or high risk of rip current information in the Day 1 portion of the Hazardous Weather Outlook product (HWO) in Sections 3.5.3, 3.6 and 3.6.2.
8. Added two new SRF examples in Appendix A.

signed
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August 8, 2008
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 responsibility through Day 5. The CWF is used by a wide variety of marine users and partners such as the media, emergency managers, and the general public. It is primarily used as a tool for planning purposes to support and promote safe transportation across the coastal waters.

2.1 Issuance Guidelines. Forecasters should ensure the values included within the CWF are consistent with the values from the associated gridded forecast elements.

2.2.1 Creation Software. WFOs will produce the CWF using the Advanced Weather Interactive Processing System (AWIPS) software formatters. The Interactive Forecast Preparation System (IFPS) Graphical Forecast Editor (GFE) application formatting tools will be used for generation of product content. All WFOs with exception of Alaskan and American Samoa offices will use the Graphical Hazard Generator (GHG) to produce hazard headlines and VTEC. Alaska and American Samoa offices will use regionally approved software.

2.2.2 Issuance Criteria. The CWF will be issued twice a day with updates as necessary. Regions, as dictated by user requirements, may require scheduled updates.

2.2.3 Issuance Time. Coastal Waters Forecasts are routinely-scheduled products. Forecasters should make the CWF available to users by the scheduled issuance time, but no earlier than 1 hour before this issuance time. The issuance time is expressed in Coordinated Universal Time (UTC), while the mass media header is expressed in local time. The issuance time in the mass media header is the same time the product is issued by the WFO. WFOs should issue Coastal Waters Forecasts based on the following, except during tropical cyclone events, when the routine issuance time may be delayed:

a. <u>Region/Office</u>	<u>Scheduled Issuance Time (UTC)</u>			
Eastern (Standard/Daylight)	0830/0730	2030/1930		
Southern (EST/CST)	0930/0930	2130/2130		
(EDT/CDT)	0830/0930	2030/2130		
WFO San Juan	0830	2030		
Western (Standard/Daylight)	1100/1000	2300/2200		
Alaska (Standard/Daylight)	1300/1200	0100/0000		
WFO Honolulu	0145	0800	1345	2200
	0800-1000	2000-2200		
WFO Guam (Marianas/Guam)	0700	2000		
WFO Guam (East Micronesia)	0500	1700		
WFO Guam (West Micronesia)	0700	1900		

WSO Pago Pago

0200

0900

1700

b. During a tropical cyclone event, WFOs may delay the “scheduled” issuance of the CWF until after the Tropical Prediction Center (TPC) issues its advisories. In these circumstances, the CWF should be issued as soon as reasonably possible, and no later than 1.5 hours after receiving the TPC message.

c. In all forecasts, include forecast periods as shown below. Use the day of the week to describe all forecast periods beyond the current day. 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)	1 st Period
Tonight	(6PM to 6AM)	2 nd Period
Day 2	(6AM to 6PM)	3 rd Period
Day 2 Night	(6PM to 6AM)	4 th Period
Day 3	(6AM to 6AM)	5 th Period
Day 3 Night (Optional)	(6PM to 6AM)	6 th Period
Day 4	(6AM to 6AM)	Day 4
Day 5	(6AM to 6AM)	Day 5

The late afternoon forecast will cover:

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

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. Regional

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. For example: “WESTDAHL VOLCANO, 70 NM SOUTHWEST OF COLD BAY, IS CURRENTLY ACTIVE.”

If a hurricane or tropical storm 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. The most significant headline generally should stand alone. However, forecasters may use more than one headline to indicate multiple threats.

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. 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 10-301, Marine and Coastal Services Abbreviations and Definitions, 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 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. The following watch headlines should be included in the CWF if appropriate criteria are occurring or forecast to occur:

- 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
- Hazardous Seas Warning (Optional)

Coastal WFOs will include tropical cyclone related warning headlines when criteria are met for the first and second periods.:

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 TPC and adjacent WFOs. Refer to NWSI 10-601, Tropical Cyclone Products, 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

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 10-301 for 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 10-301.

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

In situations where winds gust frequently 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 on a time-scale greater than 2 hours are considered frequent.

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. 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 TPC, 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, and Chesapeake Bay), 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. Winds. Winds represent 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., EAST WINDS TO 70 KTS WITH GUSTS TO 120 KTS).

Forecast changes in wind direction should be for changes of 45 degrees or more, and forecast changes in wind speed should be for changes of 10 knots or more. Locally smaller wind speed and/or direction changes may be established for small marine areas based upon user needs. Wind speed transition terms such as "INCREASING" and "DIMINISHING" and direction transition terms such as "BECOMING" and "SHIFTING" should be used to add clarity to the forecast trends. The terms "VEERING, BACKING, BECOMING, SHIFTING," or "RISING" may be used when appropriate, but **not** "DECREASING."

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 in the body of the forecast whenever ice accretion on exposed surfaces is likely. When freezing spray is forecast to meet warning 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

Time Period Covered	Same Calendar Time Phrases	Day + 1 Time Phrases	Day + n Time Phrases Where $1 < n \leq 5$
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.

(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

2.4.1 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. Add a short description of 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

2.5 Updates, Amendments and Corrections. CWFs will be updated 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 additional information.

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, severe 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: wave height, surf 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	WMO Heading AWIPS ID
SURF ZONE FORECAST NATIONAL WEATHER SERVICE CITY STATE time am/pm lt day mon dd yyyy	NWS Product Name Issuing Office Issuance Time/Date
.FOR THE BEACHES of state...for day...	Optional Statement
stZXXX-XXX>XXX-ddhhmm- county-county-county-county- INCLUDING THE BEACHES OF city...city...city time am lt day mon dd yyyy	UGC Type(Zone)& Expir.Time County Names City Names Issuance Time/Date
...Long-duration watch/warning(s) or significant headline(s) as required...	
Hazards Rip Current Risk... Lightning Risk... Waterspout Risk... UV Index...	Optional parameters s as determined by Region/WFO
Weather Sky Cover/Rain Chance... Air Temperature... Wind Speed/Direction...	
Surf Wave Height... Surf Temperature... Approximate Times for Tides...	
\$\$	This code ends zone segment
stZXXX-XXX>XXX-ddhhmm- county-county-county-county- INCLUDING THE BEACHES OF city...city...city time am lt day mon dd yyyy	UGC Type(Zone)& Expir.Time County Names City Names Issuance Time/Date
...Long-duration watch/warning(s) or significant headline(s) as required...	
Hazards Rip Current Outlook... Lightning Risk... Waterspout Risk... UV Index...	Optional parameters as determined by Region/WFO

```

Weather
Sky Cover/Rain Chance...
Air Temperature...
Wind Speed/Direction...

Surf
Wave Height...
Surf Temperature...
Approximate Times for Tides...

$$                                This code ends zone
                                segment

FORECASTER ID                    Optional

All times are local.
    
```

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.

3.5.2 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.

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.

3.5.3 Hazardous Weather Outlook (product category HWO). WFOs forecasting a Moderate or High Risk of Rip Currents in the first or second forecast periods should 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.

3.5.4 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 must be issuing the SRF. Rip Current information in the SRF will be introduced using the phrase “Rip Current Outlook”.

Whether or not a WFO issues a SRF, forecasting a Moderate or High Risk of Rip Currents should be included in the HWO, as specified in Section 3.6.2.

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.

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 to users, WFOs forecasting a Moderate or High Risk of Rip Currents should include this information in the Day 1 portion of the Hazardous Weather Outlook product (HWO). Forecasters should use the Informational Coastal Hazard Message (CFW) with VTEC significant level S for Statement, to increase visibility when there is a high risk of rip currents, and may use it for a moderate risk.

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-6

1. Coastal Waters Forecasts

Example 1:

FZUS56 KEKA 160959
CWFEKA

COASTAL WATERS FORECAST FOR CALIFORNIA
NATIONAL WEATHER SERVICE EUREKA CA
300 AM PDT SAT APR 16 2005

POINT ST GEORGE TO POINT ARENA AND OUT 60 NM

PZZ400-161600-
300 AM PDT SAT APR 16 2005

.SYNOPSIS FOR NORTHERN CALIFORNIA WATERS...LOW PRES OFFSHORE WILL MOVE SLOWLY INLAND TODAY INTO TONIGHT. HIGH PRES WILL BUILD FROM THE W SUN AND MON. A WARM FRONT WILL APPROACH FROM THE S ON TUE. A COLD FRONT WILL CROSS NORTHERN CALIFORNIA ON WED.

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PZZ450-470-161600-
PT. ST. GEORGE TO CAPE MENDOCINO 20 TO 60 NM-
PT. ST. GEORGE TO CAPE MENDOCINO OUT 20 NM-
300 AM PDT SAT APR 16 2005

...SMALL CRAFT ADVISORY FOR HAZARDOUS SEAS IN EFFECT FROM THIS EVENING TO SUNDAY MORNING..

.TODAY...SE WIND 5 TO 15 KT. WIND WAVES 2 FT OR LESS. W SWELL 6 TO 7 FT AT 10 SECONDS. SCATTERED MORNING SHOWERS.
.TONIGHT...N WIND 5 TO 15 KT. WIND WAVES 2 TO 4 FT. W SWELL 8 TO 10 FT AT 10 SECONDS. CHANCE OF SHOWERS.
.SUN...NW WIND 10 TO 15 KT. WIND WAVES 3 FT. NW SWELL 8 TO 10 FT AT 10 SECONDS. CHANCE OF SHOWERS.
.SUN NIGHT...NW WIND 10 TO 15 KT. WIND WAVES 2 FT. NW SWELL 6 TO 8 FT. CHANCE OF SHOWERS.
.MON...W WIND 10 TO 15 KT. WIND WAVES 2 FT. NW SWELL 6 TO 7 FT. CHANCE OF SHOWERS.
.TUE...W WIND 10 KT. WIND WAVES 2 FT. NW SWELL 9 FT BUILDING TO 12 FT.
.WED...NW WIND 15 KT. WIND WAVES 3 FT. NW SWELL 13 TO 14 FT.

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PZZ455-475-161600-
CAPE MENDOCINO TO PT. ARENA 20 TO 60 NM-
CAPE MENDOCINO TO PT. ARENA OUT 20 NM-
300 AM PDT SAT APR 16 2005

.TODAY...S WIND 5 TO 15 KT. WIND WAVES 1 TO 3 FT. W SWELL 6 TO 7 FT
AT 10 SECONDS. ISOLATED MORNING SHOWERS.
.TONIGHT...N WIND 5 TO 15 KT. WIND WAVES 1 TO 3 FT. NW SWELL 5 TO 7
FT AT 10 SECONDS. CHANCE OF SHOWERS.
.SUN...NW WIND 15 TO 20 KT. WIND WAVES 3 TO 5 FT. NW SWELL 6 TO 8 FT AT 10
SECONDS. CHANCE OF SHOWERS.
.SUN NIGHT...NW WIND 15 TO 20 KT...WITH GUSTS TO 25 KT. WIND WAVES 3
TO 5 FT. NW SWELL 5 TO 7 FT. CHANCE OF SHOWERS.
.MON...NW WIND 10 TO 15 KT. WIND WAVES 2 TO 3 FT. NW SWELL 6 TO 7 FT.
.TUE...NW WIND 10 TO 20 KT. WIND WAVES 3 TO 4 FT. NW SWELL 7 FT
BUILDING TO 10 TO 11 FT LATE.
.WED...NW WIND 15 TO 20 KT. WIND WAVES 4 TO 5 FT. NW SWELL 12 TO 13
FT.

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Example 2:

FZUS54 KCRP 190909
CWFCRP

COASTAL WATERS FORECAST
NATIONAL WEATHER SERVICE CORPUS CHRISTI TX
430 AM CDT THU MAY 19 2005

MIDDLE TEXAS COASTAL WATERS FROM BAFFIN BAY TO MATAGORDA SHIP CHANNEL OUT TO
60 NAUTICAL MILES.

IMPORTANT NOTICE TO MARINERS...MARINE FORECASTS ARE ISSUED AT LEAST
FOUR TIMES A DAY. BOATERS ON EXTENDED TRIPS SHOULD ROUTINELY MONITOR
SUBSEQUENT FORECAST ISSUANCES AND UPDATES FOR THE LATEST MARINE WEATHER
INFORMATION.

GMZ200-191530-
409 AM CDT THU MAY 19 2005

.SYNOPSIS FOR BAFFIN BAY TO MATAGORDA SHIP CHANNEL OUT 60 NM...LOW PRESSURE
OVER WEST TEXAS WILL MAINTAIN A WEAK TO MODERATE ONSHORE FLOW TODAY THROUGH
FRIDAY. A COLD FRONT WILL APPROACH THE COASTAL WATERS ON SATURDAY THEN STALL
OVER THE WATERS. THIS
WILL PROVIDE A SLIGHT CHANCE FOR RAIN THROUGH MONDAY. HIGH
PRESSURE WILL BUILD ALOFT AND DRIER AIR WILL MOVE INTO THE AREA...
PRECLUDING THE CHANCE FOR PRECIPITATION.

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NWSI 10-310 AUGUST 22, 2008

GMZ230-235-191530-

BAYS AND WATERWAYS FROM BAFFIN BAY TO PORT ARANSAS-
BAYS AND WATERWAYS FROM PORT ARANSAS TO PORT O'CONNOR-
409 AM CDT THU MAY 19 2005

.TODAY...SOUTH WIND 10 TO 15 KNOTS...BECOMING SOUTHEAST. BAYS
SLIGHTLY CHOPPY TO OCCASIONALLY CHOPPY. AREAS OF FOG IN THE MORNING
FOLLOWED BY AREAS OF HAZE IN THE AFTERNOON.

.TONIGHT...SOUTHEAST WIND 10 TO 15 KNOTS. BAYS SLIGHTLY CHOPPY TO
OCCASIONALLY CHOPPY. AREAS OF FOG OVERNIGHT.

.FRIDAY...SOUTHEAST WIND 5 TO 10 KNOTS...INCREASING TO 10 TO 15
KNOTS. BAYS SLIGHTLY CHOPPY TO OCCASIONALLY CHOPPY. AREAS OF FOG IN
THE MORNING.

.FRIDAY NIGHT...EAST WIND 10 TO 15 KNOTS...BECOMING NORTHEAST AND
DIMINISHING TO 5 TO 10 KNOTS. BAYS SLIGHTLY CHOPPY TO OCCASIONALLY
CHOPPY. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS.

.SATURDAY...NORTHEAST WIND 10 TO 15 KNOTS. BAYS SLIGHTLY CHOPPY TO
OCCASIONALLY CHOPPY. CHANCE OF SHOWERS AND THUNDERSTORMS.

.SUNDAY...NORTHEAST WIND INCREASING TO 10 TO 15 KNOTS. BAYS
SLIGHTLY CHOPPY TO OCCASIONALLY CHOPPY. CHANCE OF SHOWERS AND
THUNDERSTORMS.

.MONDAY...NORTHEAST WIND 10 TO 15 KNOTS. BAYS SLIGHTLY CHOPPY TO
OCCASIONALLY CHOPPY. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS.

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GMZ250-255-270-275-191530-

COASTAL WATERS BAFFIN BAY TO PORT ARANSAS OUT 20 NM-
COASTAL WATERS PORT ARANSAS TO MATAGORDA SHIP CHANNEL OUT 20 NM-
WATERS BAFFIN BAY TO PORT ARANSAS 20 TO 60 NM-
WATERS PORT ARANSAS TO MATAGORDA SHIP CHANNEL 20 TO 60 NM-
409 AM CDT THU MAY 19 2005

.TODAY...SOUTHEAST WIND 10 TO 15 KNOTS. SEAS 3 TO 4 FEET. AREAS OF
HAZE.

.TONIGHT...SOUTHEAST WIND 10 TO 15 KNOTS. SEAS 3 FEET.

.FRIDAY...SOUTHEAST WIND 5 TO 10 KNOTS. SEAS 3 TO 4 FEET.

.FRIDAY NIGHT...EAST WIND 5 TO 10 KNOTS...BECOMING NORTHEAST. SEAS 2
TO 4 FEET. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS.

.SATURDAY...NORTHEAST WIND 10 TO 15 KNOTS. SEAS 3 TO 5 FEET. CHANCE
OF SHOWERS AND THUNDERSTORMS.

.SUNDAY...NORTHEAST WIND 10 TO 15 KNOTS. SEAS 3 TO 5 FEET. CHANCE
OF SHOWERS AND THUNDERSTORMS.

.MONDAY...NORTHEAST WIND 10 TO 15 KNOTS. SEAS 3 TO 5 FEET. SLIGHT CHANCE OF
SHOWERS AND THUNDERSTORMS.

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Example 3:

FZUS51 KGYX 251410
CWFGYX

COASTAL WATERS FORECAST
NATIONAL WEATHER SERVICE GRAY ME
1010 AM EDT TUE OCT 25 2005

COASTAL WATERS FROM STONINGTON ME TO MERRIMACK RIVER MA OUT TO 25 NM

ANZ100-251930-
1010 AM EDT TUE OCT 25 2005

.SYNOPSIS FOR STONINGTON ME TO MERRIMACK RIVER MA OUT TO 25 NM...THE REMNANTS OF WILMA ARE LOCATED WELL SE OF THE WATERS THIS MORNING. LOW PRES IS DEVELOPING RAPIDLY S OF LONG ISLAND NEW YORK AND WILL MOVE SLOWLY NE INTO THE GULF OF MAINE TONIGHT AND INTO THE CANADIAN MARITIMES WED.

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ANZ150-251930-
STONINGTON ME TO MERRIMACK RIVER MA OUT TO 25 NM-
1010 AM EDT TUE OCT 25 2005

...STORM WARNING REMAINS IN EFFECT UNTIL 8 PM EDT THIS EVENING...
...HEAVY FREEZING SPRAY WARNING REMAINS IN EFFECT UNTIL 8 PM EDT THIS EVENING...

.REST OF TODAY...NE WINDS 35 TO 45 KT WITH GUSTS UP TO 60 KT. SEAS 8 TO 13 FT...BUILDING TO 11 TO 16 FT THIS AFTERNOON. RAIN. VSBY 1 NM OR LESS.
.TONIGHT...NE WINDS 25 TO 35 KT. GUSTS UP TO 50 KT IN THE EVENING. SEAS 14 TO 19 FT. RAIN. VSBY 1 TO 3 NM.
.WED...NW WINDS 25 TO 35 KT. SEAS 13 TO 18 FT...SUBSIDING TO 10 TO 15 FT IN THE AFTERNOON. RAIN IN THE MORNING
.WED NIGHT...NW WINDS 20 TO 25 KT...DIMINISHING TO 15 TO 20 KT AFTER MIDNIGHT. SEAS 7 TO 10 FT...SUBSIDING TO 5 TO 8 FT AFTER MIDNIGHT.
.THU...N WINDS 10 TO 15 KT...BECOMING NW 5 TO 10 KT IN THE AFTERNOON. SEAS 3 TO 5 FT.
.THU NIGHT...NW WINDS 10 TO 15 KT. SEAS 2 TO 4 FT.
.FRI...NW WINDS 10 TO 15 KT...DIMINISHING TO 5 TO 10 KT AFTER MIDNIGHT. SEAS 2 TO 3 FT.
.SAT...NW WINDS 5 TO 10 KT...BECOMING S IN THE EVENING...THEN BECOMING NE AFTER MIDNIGHT. SEAS 2 TO 3 FT.

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Example 4:

FZUS51 KOKX 251330
CWFOKX

COASTAL WATERS FORECAST
NATIONAL WEATHER SERVICE UPTON NY
930 AM EDT TUE OCT 25 2005

MONTAUK POINT NEW YORK TO SANDY HOOK NEW JERSEY OUT 20 NM OFFSHORE INCLUDING
LONG ISLAND AND NEW YORK HARBOR

ANZ300-251930-
930 AM EDT TUE OCT 25 2005

.SYNOPSIS FOR LONG ISLAND WATERS AND NEW YORK HARBOR..
INTENSIFYING LOW PRES TO THE SOUTHEAST OFF LONG ISLAND WILL TRACK NE THIS
AFTERNOON...MOVING INTO THE GULF OF MAINE TONIGHT. THE PRESSURE GRADIENT
BETWEEN THE LOW AND HIGH PRES OVER QUEBEC WILL PRODUCE STORM FORCE WIND GUSTS
OVER THE COASTAL WATERS INTO EARLY THIS AFTERNOON. MEANWHILE...HURRICANE WILMA
WILL RACE NE AND AWAY FROM THE EASTERN SEABOARD...LIKELY NEARING THE CANADIAN
MARITIMES BY LATE TONIGHT. AS BOTH THESE SYSTEMS DEPART...HIGH PRES WILL BUILD
OVER THE WATERS LATE WED NIGHT THROUGH FRI. ANOTHER DISTURBANCE MAY BRING
SOME RAIN TO THE AREA ON SAT. PLEASE REFER TO THE LATEST TPC ADVISORIES FOR
DETAILS ON HURRICANE WILMA.

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ANZ355-251930-
SANDY HOOK NJ TO FIRE ISLAND INLET NY OUT 20 NM-
930 AM EDT TUE OCT 25 2005

...STORM WARNING REMAINS IN EFFECT UNTIL 3 PM EDT THIS AFTERNOON..
...GALE WARNING REMAINS IN EFFECT FROM 3 PM EDT THIS AFTERNOON TO 10 PM EDT THIS
EVENING...

.REST OF TODAY...NE WINDS 25 TO 30 KT. GUSTS UP TO 50 KT EARLY THIS AFTERNOON.
SEAS 11 TO 16 FT. PERIODS OF RAIN. VSBY 1 TO 3 NM.
.TONIGHT...N WINDS 20 TO 25 KT WITH GUSTS UP TO 35 KT...BECOMING NW AND
DIMINISHING TO 15 TO 20 KT AFTER MIDNIGHT. SEAS 7 TO 10 FT...SUBSIDING TO 5 TO
8 FT AFTER MIDNIGHT. SHOWERS.
.WED...WEST WINDS 20 TO 25 KT WITH GUSTS UP TO 30 KT. SEAS 6 TO 9 FT...SUBSIDING
TO 3 TO 5 FT IN THE AFTERNOON. CHANCE OF SHOWERS...MAINLY IN THE MORNING.
.WED NIGHT...NW WINDS 15 TO 20 KT WITH GUSTS UP TO 25 KT. SEAS 2 TO 4 FT.
.THU...NW WINDS 10 TO 15 KT WITH GUSTS UP TO 20 KT...DIMINISHING TO 5 TO 10 KT IN
THE AFTERNOON. SEAS 2 TO 3 FT.
.FRI...N WINDS 5 TO 10 KT. SEAS 1 TO 2 FT...BUILDING TO 2 TO 3 FT AFTER MIDNIGHT.
SAT...NE WINDS 10 TO 15 KT. SEAS 2 TO 4 FT. CHANCE OF RAIN.

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(rest of segments in this CWF)

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2. Surf Zone Forecasts:

Example 1:

FZUS52 KILM 210857
SRFILM
SURF ZONE FORECAST
NATIONAL WEATHER SERVICE WILMINGTON NC
445 AM EDT TUE AUG 21 2007

FOR THE BEACHES OF SOUTHEAST NORTH CAROLINA AND NORTHEAST SOUTH CAROLINA FOR TODAY.

NCZ097-100-101-SCZ034-046-212245
GEORGETOWN-HORRY-BRUNSWICK-NEW HANOVER-PENDER
INCLUDING THE BEACHES OF SURF CITY...TOPSAIL BEACH...WRIGHTSVILLE BEACH...
CAROLINA BEACH...KURE BEACH...FORT FISHER...BALD HEAD ISLAND...OAK ISLAND...
HOLDEN BEACH...OCEAN ISLE BEACH...NORTH MYRTLE BEACH...MYRTLE BEACH...SURFSIDE
BEACH...GARDEN CITY...MURRELLS INLET...LITCHFIELD...PAWLEYS ISLAND

.HAZARDS...

RIP CURRENT RISK:	SURF CITY TO EAST BALD HEAD ISLAND...	HIGH RISK
	SOUTH BALD HEAD ISLAND TO LITTLE RIVER...	HIGH RISK
	LITTLE RIVER TO MURRELLS INLET...	MODERATE RISK
	MURRELLS INLET TO SOUTH SANTEE RIVER...	MODERATE RISK

UV INDEX AT NOON: 9 - VERY HIGH

LIGHTNING RISK: NONE - NO CLOUD TO GROUND LIGHTNING EXPECTED.

WATERSPOUT RISK: LOW - ATMOSPHERIC CONDITIONS DO NOT SUPPORT THE FORMATION OF WATERSPOUTS.

&&

.WEATHER...

SKY/WEATHER: SUNNY.

AIR TEMPERATURE: THE HIGH TEMPERATURE WILL CLIMB TO AROUND 90 DEGREES.

WIND: THE WIND WILL BE SOUTHWEST AT 10 MPH BECOMING SOUTH 10 TO 20 MPH.

&&

.SURF...

SURF HEIGHT:	SURF CITY TO EAST BALD HEAD ISLAND...	3 TO 4 FEET
	SOUTH BALD HEAD ISLAND TO LITTLE RIVER...	3 FEET
	LITTLE RIVER TO MURRELLS INLET...	2 FEET
	MURRELLS INLET TO SOUTH SANTEE RIVER...	2 FEET

SURF TEMPERATURE: MID 80S.

&&

NWSI 10-310 AUGUST 22, 2008

.TIDES...
TIDE CHANGES FOR:

MASONBORO INLET NEAR WRIGHTSVILLE BEACH ON TUESDAY,
HIGH TIDE OF 2.9 FEET AT 1:42 AM.
LOW TIDE OF 0.8 FEET AT 7:44 AM.
HIGH TIDE OF 3.7 FEET AT 2:39 PM.
LOW TIDE OF 1.2 FEET AT 9:16 PM.

LOCKWOODS FOLLY INLET NEAR HOLDEN BEACH ON TUESDAY,
HIGH TIDE OF 3.4 FEET AT 1:44 AM.
LOW TIDE OF 1.1 FEET AT 7:54 AM.
HIGH TIDE OF 4.2 FEET AT 2:34 PM.
LOW TIDE OF 1.6 FEET AT 8:58 PM.

SPRINGMAID PIER AT MYRTLE BEACH ON TUESDAY,
HIGH TIDE OF 4.1 FEET AT 1:40 AM.
LOW TIDE OF 1.1 FEET AT 7:39 AM.
HIGH TIDE OF 5.0 FEET AT 2:30 PM.
LOW TIDE OF 1.6 FEET AT 8:43 PM.

&&

SPECIFIC BEACH RISK/UVI OUTLOOK FOR TODAY:

LOCATION	RIP CURRENT	LIGHTNING	WATERSPOUT	UVI
SURF CITY	HIGH	NONE	LOW	9
TOPSAIL BEACH	HIGH	NONE	LOW	9
FIGURE EIGHT ISLAND	HIGH	NONE	LOW	9
WRIGHTSVILLE BEACH	HIGH	NONE	LOW	9
MASONBORO ISLAND	HIGH	NONE	LOW	9
CAROLINA BEACH	HIGH	NONE	LOW	9
KURE BEACH	HIGH	NONE	LOW	9
FORT FISHER	HIGH	NONE	LOW	9
BALD HEAD ISLAND EAST	HIGH	NONE	LOW	9
BALD HEAD ISLAND SOUTH	HIGH	NONE	LOW	9
OAK ISLAND	HIGH	NONE	LOW	9
CASWELL BEACH	HIGH	NONE	LOW	9
LONG BEACH	HIGH	NONE	LOW	9
YAUPON BEACH	HIGH	NONE	LOW	9
HOLDEN BEACH	HIGH	NONE	LOW	9
OCEAN ISLE BEACH	HIGH	NONE	LOW	9
SUNSET BEACH	HIGH	NONE	LOW	9
CHERRY GROVE BEACH	MODERATE	NONE	LOW	9
NORTH MYRTLE BEACH	MODERATE	NONE	LOW	9
ATLANTIC BEACH	MODERATE	NONE	LOW	9
WINDY HILL BEACH	MODERATE	NONE	LOW	9
MYRTLE BEACH GRANDSTRAND	MODERATE	NONE	LOW	9
SURFSIDE BEACH	MODERATE	NONE	LOW	9
GARDEN CITY	MODERATE	NONE	LOW	9
MURRELLS INLET	MODERATE	NONE	LOW	9
LITCHFIELD BEACH	MODERATE	NONE	LOW	9
PAWLEYS ISLAND	MODERATE	NONE	LOW	9
DEBIDUE BEACH	MODERATE	NONE	LOW	9
NORTH ISLAND	MODERATE	NONE	LOW	9
CAT ISLAND	MODERATE	NONE	LOW	9

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Example 2:

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FZUS52 KCHS 282352
SRFCHS

SURF ZONE FORECAST
NATIONAL WEATHER SERVICE CHARLESTON SC
752 PM EDT FRI OCT 28 2005

FOR THE BEACHES OF SOUTH COASTAL SOUTH CAROLINA AND NORTH COASTAL
GEORGIA

SCZ048>051-291000-
BEAUFORT-CHARLESTON-COASTAL COLLETON-COASTAL JASPER-
INCLUDING THE CITIES OF...CAPE ROMAIN...FOLLY BEACH...
ISLE OF PALMS...KIAWAH ISLAND...SULLIVANS ISLAND...EDISTO BEACH...
HILTON HEAD ISLAND...HUNTING ISLAND
752 PM EDT FRI OCT 28 2005

RIP CURRENT OUTLOOK...FOR SATURDAY. LOW RISK. WIND AND OR WAVE
CONDITIONS ARE NOT EXPECTED TO SUPPORT THE DEVELOPMENT OF RIP
CURRENTS. HOWEVER...RIP CURRENTS CAN STILL OCCUR...ESPECIALLY IN THE
VICINITY OF GROINS...JETTIES...AND PIERS. KNOW HOW TO SWIM AND HEED
THE ADVICE OF THE BEACH PATROL.

SATURDAY AND SUNDAY WILL FEATURE PLENTY OF SUNSHINE...WITH AFTERNOON HIGHS IN
THE LOWER 60S ON SATURDAY AND UPPER 60S ON SUNDAY. WINDS BOTH DAYS WILL BE
NORTH TO NORTHEAST AROUND 15 MPH.

THE FORECAST ULTRAVIOLET INDEX FOR ^{A-13} Y IS 4...IN THE MODERATE
CATEGORY.

SEA WATER TEMPERATURES ARE IN THE UPPER 60S.

THE SURF ZONE FORECAST WILL BE SUSPENDED AFTER OCTOBER 31 AND RESUME AGAIN ON
MARCH 15 2006.

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Example 3:

FZHW50 PHFO 121845
SRFHFO

SURF ZONE FORECAST
NATIONAL WEATHER SERVICE HONOLULU HI
900 AM HST MON MAY 12 2008

HIZ005>011-130100-
OAHU-
900 AM HST MON MAY 12 2008

SURF ALONG SOUTH FACING SHORES WILL BE 2 FEET OR LESS THROUGH TUESDAY.

SURF ALONG WEST FACING SHORES WILL BE 2 FEET OR LESS THROUGH TUESDAY.

SURF ALONG NORTH FACING SHORES WILL BE 1 TO 3 FEET THROUGH TUESDAY.

SURF ALONG EAST FACING SHORES WILL BE 2 TO 4 FEET...DECREASING TO 1 TO 3 FEET TUESDAY.

OUTLOOK THROUGH SUNDAY MAY 18:

A SMALL NORTHWEST SWELL WILL ARRIVE WEDNESDAY FOLLOWED BY A LARGER ONE WEDNESDAY NIGHT. SURF MAY RISE TO HIGH SURF ADVISORY HEIGHTS ALONG NORTH AND WEST FACING SHORES BY THURSDAY. THE NORTHWEST SWELL WILL GRADUALLY SUBSIDE FRIDAY THROUGH SUNDAY.

SURF HEIGHTS ARE FORECAST HEIGHTS OF THE FACE OR FRONT OF WAVES. THE SURF FORECAST IS BASED ON THE SIGNIFICANT WAVE HEIGHT IN THE ZONE OF MAXIMUM REFRACTION. SOME WAVES MAY BE MORE THAN TWICE AS HIGH AS THE SIGNIFICANT WAVE HEIGHT. EXPECT TO ENCOUNTER RIP CURRENTS IN OR NEAR ANY SURF ZONE.

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COLLABORATIVE NEARSHORE SWELL AND WIND FORECAST FOR OAHU
NWS/NCDDC HONOLULU HI
300 PM HST FRI MAY 9 2008

THIS COLLABORATIVE FORECAST WILL BE UPDATED MONDAY THROUGH FRIDAY AT 300 PM WHEN PAT CALDWELL IS AVAILABLE. WHEN PAT CALDWELL IS NOT AVAILABLE...THE LATEST COLLABORATIVE FORECAST WILL REMAIN POSTED FOR 4 DAYS.

FORECAST DATE	SWL HGT	DMNT DIR	DMNT PD	H 1/3	H 1/10	HGT TEND	PROB	WIND SPD	WIND DIR	SPD TEND
1 PM 05/09	8	E	8	4	6	SAME		22-27	E	SAME
SAT 05/10	8	E	8	4	6	DOWN	MED	17-21	E	DOWN
SUN 05/11	2 6	NNW E	9 8	2 2	4 4	UP DOWN	LOW LOW	11-16	E	DOWN

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MON	2	N	9	2	4	DOWN	LOW	11-16	E	SAME
05/12	5	E	8	2	4	SAME	LOW			
TUE	2	NNW	11	2	4	UP	LOW	7-10	ESE	DOWN
05/13	4	E	8	2	4	DOWN	LOW			
WED	3	N	10	4	6	DOWN	LOW	4-6	VRB	SAME
05/14	3	E	8	2	2	DOWN	LOW			

LEGEND:

SWL HGT OPEN OCEAN SWELL HEIGHT MEASURED FROM TROUGH TO CREST
IN FEET LOCATED 20 NAUTICAL MILES OFFSHORE

DMNT DIR DOMINANT DIRECTION TYPICALLY +/-10 DEGREES IN 16 COMPASS
POINTS

DMNT PD DOMINANT PERIOD IN SECONDS

H1/3 SIGNIFICANT WAVE HEIGHT IN THE SURF ZONE

H1/10 AVERAGE HEIGHT OF THE HIGHEST ONE-TENTH WAVES IN THE SURF
ZONE

HGT TEND HEIGHT TENDENCY OF SWELL (VALID VALUES: UP/DOWN/SAME)

PROB PROBABILITY OF OCCURRENCE (VALID VALUES: HIGH/MED/LOW)

WIND SPD OPEN WATER WIND SPEED MEASURED IN KNOTS LOCATED
20 NAUTICAL MILES OFFSHORE

WIND DIR WIND DIRECTION IN 16 COMPASS POINTS

SPD TEND WIND SPEED TENDENCY (VALID VALUES: UP/DOWN/SAME)

SURF HEIGHTS WILL VARY BETWEEN DIFFERENT BEACHES AND AT THE SAME
BEACH AT DIFFERENT BREAK AREAS.

DISCUSSION:

SUMMARY...

EASTERN SHORES TOPPING THE HEIGHTS THROUGH THE WEEKEND.

DETAILED...

MID FRIDAY ON EASTERN SHORES HAS MODERATE SURF UNDER FRESH TO STRONG
TRADES...BOTH FROM 70-90 DEGREES. WEAKENING HIGH PRESSURE TO THE
NORTH OF THE ISLANDS SHOULD LEAD TO A SLOW DOWNWARD TREND IN TRADE
WIND SPEEDS AND ASSOCIATED WINDSWELL STARTING SATURDAY INTO TUESDAY.

MID FRIDAY ON NORTHERN SHORES HAS FLAT TO TINY CONDITIONS WITH SMALL
BREAKERS AT SELECT LOCATIONS RECEIVING THE EASTERLY WINDSWELL. A
SLIGHT INCREASE IS EXPECTED ON SUNDAY.

THE JET STREAM HAS A ZONAL...WEST TO EAST...PATTERN ACROSS THE NORTH
PACIFIC BETWEEN 40-50N LATITUDE. A PAIR OF FAST-MOVING...COMPACT
GALES SHOULD GIVE SHORT-LIVED...TINY TO SMALL EPISODES LOCALLY
STARTING SUNDAY INTO MONDAY...THEN AGAIN LATE TUESDAY INTO WEDNESDAY.

MID FRIDAY ON SOUTHERN SHORES HAS SMALL TO MODERATE BREAKERS FOR
LOCATIONS FULLY EXPOSED TO THE EASTERLY WINDSWELL...AND TINY TO
SMALL BREAKERS FOR LOCATIONS RECEIVING THE REFRACTED WINDSWELL.
SURF SHOULD TREND DOWN OVER THE WEEKEND AS THE WINDSWELL DROPS. NO
LONG PERIOD ENERGY FROM SOUTHERN HEMISPHERE SOURCES IS EXPECTED
THROUGH THE PERIOD.

INTO THE LONG RANGE...THE SOUTHERN HEMISPHERE SHOWS AN UNFAVORABLE
PATTERN FOR HAWAII SURF WITH SMALL TASMAN SEA SWELL...213
DEGREES...FOR THE WEEKEND OF 5/17 AND A SMALL NEW ZEALAND SWELL FOR

NWSI 10-310 AUGUST 22, 2008

ROUGHLY 5/20. BELOW AVERAGE CONDITIONS FOR SOUTHERN SHORES EXPECTED THROUGH THE WEEK OF 5/19.

IN THE NORTHERN HEMISPHERE...ABOVE AVERAGE SURF EXPECTED LATER NEXT WEEK OUT ABOUT 5-7 DAYS. MODELS SHOW A LONG WAVE JET STREAM TROUGH SETTING UP NORTH OF THE ISLANDS. THIS IS THE FACTOR ASSOCIATED WITH THE WIND DECLINE MID NEXT WEEK. GALES FROM 325-345 DEGREES ARE EXPECTED TO NOSE TO WITHIN 900 NM OF HAWAII BY TUESDAY...BRINGING UP MODERATE TO NEAR HIGH BREAKERS FOR THURSDAY. TYPHOON RAMMASUN EAST OF THE PHILIPPINES COULD SEND LOW...LONG PERIOD SWELL FROM 250-270 DEGREES FOR THE WEEKEND OF 5/17...AND THE REMNANT OF THIS SYSTEM AS IT RECURVES BACK TOWARD THE EAST...COULD GENERATE NW SURF FOR AROUND 5/18 OUT A FEW DAYS. LIGHT TRADES FOR THE WEEKEND OF 5/17...TRENDING UP AS THE WEEK OF 5/19 PROGRESSES. THE NEXT COLLABORATIVE FORECAST WILL BE ISSUED ON MONDAY...MAY 12.

THIS FORECAST WAS PRODUCED THROUGH THE COLLABORATIVE EFFORTS OF NWS AND NCDDC. PLEASE SEND SUGGESTIONS TO W-HFO.WEBMASTER@NOAA.GOV OR CALL THE WARNING COORDINATION METEOROLOGIST AT 808-973-5275.

ADDITIONAL RESOURCES:

SEE /IN LOWERCASE/ [HTTP://WWW.PRH.NOAA.GOV/HNL/PAGES/MARINE.PHP](http://www.prh.noaa.gov/hnl/pages/marine.php)

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NWS FORECASTER DONALDSON AND NCDDC PAT CALDWELL