

***NATIONAL WEATHER SERVICE SOUTHERN REGION SUPPLEMENT 04-2003
APPLICABLE TO NWSI 10-310
SEPTEMBER 28, 2006***

***Operations and Services
Marine and Coastal Weather Services, NWSPD 10-3
Marine Weather NWSI 10-310***

SOUTHERN REGION COASTAL MARINE FORECAST SERVICES

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SUMMARY OF REVISIONS: This supplement supersedes Southern Region Supplement 04-03 dated September 30, 2004, filed with NWSI 10-310.

The following changes were made to this issuance:

1. Expanded guidance on headlines of the CWF.
2. Expanded SCA guidance.

< Signed by >

September 14, 2006

Bill Proenza

Date

Director, Southern Region

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1. Introduction.

This supplement provides additional guidance and instructions for the Coastal Waters Forecast (CWF). Written instructions cannot address every situation. Operational personnel must exercise initiative and professional judgment to minimize risk to public safety and property in instances when written instructions do not provide appropriate guidance.

2. Coastal Waters Forecasts.

2.1 Issuances.

- a. Product Issuance. (Reference Section 2.2.2 and 2.2.3 of NWSI 10-310.) Southern Region (SR) Weather Forecast Offices (WFOs) will issue four scheduled CWFs daily, per the schedule below, and issue unscheduled update forecasts as necessary. Scheduled product issuance times will be no more than 1 hour earlier than this schedule or more than 30 minutes after this schedule. Issuance times are dependent on time zones:

CDT: 4:30 AM; 10:30 AM; 4:30 PM; 10:30 PM,
CST: 3:30 AM; 9:30 AM; 3:30 PM; 9:30 PM,
EDT: 4:30 AM; 10:30 AM; 4:30 PM; 10:30 PM,
EST: 4:30 AM; 10:30 AM; 4:30 PM; 10:30 PM, and
AST: 4:30 AM; 10:30 AM; 4:30 PM; 10:30 PM.

- b. Abbreviations. Abbreviations and contractions will not be used in the main body of the forecast. This will allow our products to be read with ease by customers and partners. Additionally, the information can be easily heard on NOAA Weather Radio All Hazards.

2.2 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. The synopsis should describe not only the synoptic situation, but can also specifically describe the features driving advisories, warnings, and watches and their timing. While the forecast provides the *what*, the enhanced synopsis can help customers better understand *why* we are forecasting certain parameters.

For information about tropical events in the synopsis, see NWSI 10-310, Section 2.3.4.

2.3 Forecast Periods.

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,

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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 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)	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

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)

2.4 Forecast Content. (Reference Section 2.3.5 of NWSI 10-310.)

- a. Headlines. Headlines are used to emphasize warnings and watches for weather and sea state conditions likely to jeopardize the safety of mariners or marine operations. In Southern Region, WFOs will issue Advisories or Warnings when criteria are met, or expected to be met, for the first period, and may issue Advisories/Warnings that will begin in the second and third periods when forecaster confidence is high. Advisories/Warnings beginning in the first, second, or third period may extend beyond the third period as conditions warrant. Advisories or Warnings will not be initiated beyond the third period.

Forecasters may use more than one headline to indicate multiple threats or worsening conditions. The headlines generated by Graphical Headline Generator (GHG) software, and the corresponding Valid Time Event Code (VTEC), will be sorted in chronological order by start time, then by action, by significance, and alphabetically by phenomena. These headlines will contain the hazard, and the action and timing phrases. Refer to NWSI 10-1703, VTEC, NWSI 10-1701, Text Product Formats and Codes, and section 2.3.9 of NWSI 10-310 for additional details.

- b. Tropical Cyclone Related Headlines. (Reference Section 2.3.5.b of NWSI 10-310.)

If an official watch or warning has not been issued by the National Hurricane Center (NHC) **and** the NHC 72 hour forecast radii falls within your CWA, include the headline “HURRICANE CONDITIONS POSSIBLE (specify when)” or “TROPICAL STORM CONDITIONS POSSIBLE (specify when)” only for Day 2 Night (i.e. only for periods 4 or 5, depending on when the forecast was issued). For Days 4 and 5 (reference section 2.3.7 of NWSI 10-310), when a tropical cyclone threatens to impact a marine zone, indicate the possible tropical cyclone conditions, based on TPC guidance, for the specific day(s) impacted in the forecast text (not as a headline). Large positional and intensity errors are possible in these cases, therefore forecasters should not give specific wind and sea values. For example:

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

- c. Regional Definitions. (Reference Section 2.3.5.c of NWSI 10-310.)

(1) SMALL CRAFT ADVISORY

The criteria for issuing a SMALL CRAFT ADVISORY (SCA) in Southern Region are average wind speeds of 20 knots or greater, and/or forecast seas of 7 feet or greater. **Either condition must occur for two or more hours to validate an SCA forecast.** SCAs will be headlined when criteria are met, or expected to be met, for the first period, and SCAs may be issued that begin in the second and third periods when forecaster confidence is high. SCAs beginning in the first, second, or third period may extend beyond the third period as conditions warrant. SCAs will not be initiated beyond the third period.

(2) SMALL CRAFT SHOULD EXERCISE CAUTION

The cautionary statement “SMALL CRAFT SHOULD EXERCISE CAUTION” (SCEC) will be headlined for conditions forecast just below SCA criteria **during the first period only.** Specifically, the criteria for headlining SCEC in Southern Region are a wind forecast of 15 TO 20 knots (with the assumption that any 20 knot winds will not occur for two hours) **and/or** seas forecast at 6 feet. If the seas forecast is the reason for the SCEC, WFOs may include in the SCEC headline that reasoning. For

example, “SMALL CRAFT SHOULD EXERCISE CAUTION UNTIL SEAS SUBSIDE.”

2.5 Forecast Parameters and Elements.

- a. Wind. (Reference Section 2.3.8.a of NWSI 10-310.)
Normally, a single prevailing wind direction should be used in the CWF; however during certain situations (e.g. a wind shift) forecasters may use a small range of wind direction (e.g., 45 degrees, “WEST NORTHWEST” or “WEST TO NORTHWEST”).
- (1) It is best to use a range of sustained wind speed in the CWF. For example, NORTHEAST WINDS 20 TO 30 KNOTS, or NORTHWEST WINDS 10 TO 15 KNOTS.
 - (2) Significant differences between sustained winds and peak wind gusts of at least 15 knots should be specifically stated. For example, EAST WINDS 40 KNOTS WITH GUSTS TO 60 KNOTS.
 - (3) Use the term “AND GUSTY” for expected gusts of 5 to 10 knots above the sustained wind speed (e.g. 10 TO 20 KNOTS AND GUSTY).
 - (4) To add clarity to forecast trends, use terms such as “RISING,” “INCREASING,” “DIMINISHING,” “BECOMING” or “SHIFTING.” Do not use “DECREASING.”
- b. Seas. (Reference section 2.3.8.b of NWSI 10-310.)
- (1) Inland waters and bays exempted from having detailed sea state predictions should use a general description of sea conditions (i.e., rough, choppy, etc.) when it helps convey the severity of a given situation.
 - (2) It is best to use a range of seas in the CWF. For example, SEAS 8 TO 10 FEET or SEAS 10 to 15 FEET.
 - (3) To add clarity to forecast trends, use terms such a “BUILDING” and “SUBSIDING.”
- c. Weather. (Reference Section 2.3.8.c of NWSI 10-310.)
When mentioning precipitation, either areal coverage terms or probability terms may be used in the CWF.

3. Surf Zone Forecasts (SRF). (Reference Section 3.0 of NWSI 10-310.)

An office issuing rip current information routinely should use the SRF product as the dissemination vehicle. The “surf zone” is the very narrow area of water between the high tide level on the beach and the sea-ward side of breaking waves. Breaking wave heights, water level set up, and rip currents, are a few parameters WFOs can include in their SRFs. SRF content, dissemination times, seasonal or not, etc., is a local WFO option and should be developed in coordination with local safety agencies who have responsibility for beachfront safety. Local policy should be noted in local office instructions.

3.1 Rip Currents. (Reference Section 3.6 of NWSI 10-310.)

Developing a rip current program for a WFO’s surf zone area of responsibility is a collaborated effort between beachfront safety personnel (lifeguards, associations, beach patrol, etc.) and WFO personnel.

a. Rip Current Information in the SRF Product.

WFOs that issue rip current information routinely must mention the rip current hazards in the SRF product. See section 3.6.1 of NWSI 10-310 for the rip current qualifier definitions for low, moderate and high risks.

b. 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, whether or not a WFO issues a SRF product, forecasting a Moderate or High Risk of Rip Currents will be included in the Day 1 portion of the Hazardous Weather Outlook product (HWO).

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.

c. Rip Current Call to Action Statements.

WFOs that issue rip current information in their SRF product will always include a call to action statement, even when the risk is low. See Appendix B for examples.

4. Graphical Forecasts.

In addition to narrative products, WFOs will issue marine weather information in graphical format from GFE.

APPENDIX A – Examples of CWF Forecast

1. SCEC conditions expected to develop within 12 hrs

...SMALL CRAFT SHOULD EXERCISE CAUTION...

.TODAY...SOUTHEAST WIND 10 TO 15 KNOTS...INCREASING TO 15 TO 20 KNOTS DURING THE AFTERNOON. SEAS 3 TO 5 FEET.

.TONIGHT...SOUTHEAST WIND 10 TO 15 KNOTS. SEAS 2 TO 4 FEET.

.FRIDAY...SOUTHEAST WIND AROUND 10 KNOTS. SEAS 2 TO 4 FEET.

.FRIDAY NIGHT...SOUTHEAST WIND AROUND 10 KNOTS. SEAS 2 TO 4 FEET.

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2. SCA conditions expected to develop within 12 hrs

...SMALL CRAFT ADVISORY IN EFFECT FROM THIS AFTERNOON THROUGH EARLY FRIDAY MORNING...

.TODAY...SOUTHEAST WIND 10 TO 15 KNOTS...INCREASING TO 20 TO 30 KNOTS DURING THE AFTERNOON. SEAS 5 TO 6 FEET...BUILDING TO 8 FEET.

.TONIGHT...SOUTHEAST WIND 15 TO 25 KNOTS. SEAS 6 TO 8 FEET.

.FRIDAY...SOUTH WIND 15 TO 20 KNOTS. SEAS 5 TO 7 FEET.

.FRIDAY NIGHT...SOUTHEAST WIND 15 TO 20 KNOTS. SEAS 5 TO 7 FEET.

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APPENDIX B – Examples of Rip Current Call to Action Statements

Low Risk of Rip Currents

- Although the outlook is for a low risk, rip currents can sometimes occur suddenly and unexpectedly, especially near piers, jetties, or sand bars. For maximum safety, swim near a lifeguard.
- Although the outlook for rip currents is low, weak rip currents can sometimes form. Always supervise those who cannot swim.
- When possible swim near lifeguards.

Moderate Risk of Rip Currents

- During times of moderate rip current risk, persons should enter the water only if they are experienced with swimming in the surf. If caught in a rip current, don't try to fight its seaward pull. Move across the current in a direction following the shoreline.
- If caught in a rip current, stay calm and swim in a direction following the shoreline until the current weakens, then swim toward shore. Call or wave your hands to get the attention of the lifeguards. If you are not an experienced swimmer and cannot keep yourself afloat for extended periods, do not enter the water. Heed the advice of the beach patrol.
- Never fight a rip current. If you find yourself being pulled out to sea, do not fight the current by trying to swim back to shore. Stay calm and go with the flow. Keep yourself afloat by treading water or swimming parallel to the beach. If no help is available and you need to get back to the beach on your own, swim with the waves back toward the beach.

High Risk of Rip Currents

- When the rip current risk is high, the surf is dangerous for all levels of swimmers. Even those using surf or boogie boards are urged to use extreme caution.
- Rip currents are life-threatening to anyone entering the surf.

Examples of General Call To Action Statements Recommended for Use

For maximum safety, swim near a lifeguard.

Obey all instructions and orders from lifeguards.

Be cautious for possible rip currents at all times.

If in doubt, don't go out.

Don't fight the current; stay calm.

Escape the current by swimming in a direction following the shoreline. When free of the current, swim at an angle -away from the current- toward shore.

If you are unable to escape by swimming, float or tread water. When the current weakens, swim at an angle away from the current toward shore.

If at any time you feel you will be unable to reach shore, draw attention to yourself: face the shore, call or wave for help.

Never swim alone.

Check with the lifeguard before swimming.

APPENDIX C – Forecast Ranges for issuing SCAs and Gale Storm Warnings

If SCAs are being issued based on forecast wind speeds (not sea heights), the accepted forecast wind speed ranges in the CWF are:

15 to 25 knots,
20 knots,
20 to 25 knots, 25 knots, 20 to 30 knots
25 to 30 knots, 30 knots.

Accepted forecast wind speed ranges for Gale Warnings:

25 to 35 knots, 30 to 35 knots, 35 knots, 35 to 40 knots, 30 to 40 knots, 40 knots,
35 to 45 knots, 40 to 45 knots, 45 knots