U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

MARINE WEATHER SERVICE CHART

CAPE HATTERAS, NORTH CAROLINA TO SAVANNAH, GEORGIA

NOT TO BE USED FOR NAVIGATION

MARINE WEATHER REPORTING PROGRAM

The National Weather Service (NWS) has established a Nationwide Mariner Report Program – MAREP – to help improve marine warnings and forecasts. Through this cooperative effort, professional mariners make radio reports of sea and wind conditions to NWS marine forecasters. If you would like to participate or learn more about this volunteer program, please call:

NWS Charleston 843-747-5859

LEGEND

- NOAA WEATHER RADIO TRANSMITTER SITE
- WEATHER REPORT ALONE OR IN COMBINATION WITH OTHER SYMBOL INDICATES A WEATHER REPORT IS INCLUDED IN NOAA WEATHER RADIO (VHF-FM) BROADCAST WHEN ABAILABLE
- TIDE REPORT OR WEATHER AND TIDE REPORT INCLUDED IN NOAA WEATHER RADIO (VHF-FM) BROADCAST
- DATA BUOY
- U.S. COAST GUARD STATION
- U.S. COAST GUARD LIGHT STATION
- MAREP BASE STATION
- AREA OF GOOD NOAA WEATHER RADIO RECEPTION

NEW BERN
VHF-FM KEC-84
162.40 MHz
Antenna elev. 792 ft. m.s.l.

CAPE HATTERAS
VHF-FM KIG-77
162.475 MHz
Antenna elev. 410 ft. m.s.l.

MYRTLE BEACH
VHF-FM KEC-95
162.40 MHz
Antenna elev. 900 ft. m.s.l.

WILMINGTON
VHF-FM KHB-31
162.55 MHz
Antenna elev. 550 ft. m.s.l.

CHARLESTON
VHF-FM KHB-29
162.55 MHz
Antenna elev. 505 ft. m.s.l.

BEAUFORT
VHF-FM WXJ-23
162.475 MHz
Antenna elev. 900 ft. m.s.l.

SAVANNAH
VHF-FM KEC-85
162.40 MHz
Antenna elev. 267 ft. m.s.l.

BAXLEY
VHF-FM WXM-65
162.525 MHz
Antenna elev. 331 ft. m.s.l.

WAYCROSS
VHF-FM WXK-75
162.475 MHz
Antenna elev. 710 ft. m.s.l.

NATIONAL WEATHER SERVICE TELEPHONE NUMBERS

Marine weather forecasts and also Small Craft Advisories, Gale, Storm, and Hurricane warnings, when issued can be obtained by telephone as follows:

NWS OFFICE	TELEPHONE	OFFICE HOURS/LOCAL TIME
Charleston, SC	843-747-5859 Recorded forecast only at other times	9:00am - 5:00pm M-F
Newport, NC	252-223-5737	24 hours
Wilmington, NC	910-762-4289	24 hours

Recorded forecast contains the latest Marine Forecast and Warnings issued.

NOAA WEATHER RADIO

NOAA Weather Radio broadcasts on 162.40, 162.45, and 162.55 MHz can usually be received 20-40 miles from the transmitting antenna site, depending on terrain and the quality of the receiver used. Where transmitting antennas are on high ground, the range can reach 60 miles or more. The VHF-FM frequencies used for these broadcasts require narrow-band FM receivers. The National Weather Service recommends receivers having a sensitivity of one microvolt or less and a quieting factor of 20 decibels.

Some receivers are equipped with a warning alarm device that can be turned on automatically by means of a tone signal controlled by the National Weather Service office issuing the warning. This signal is transmitted for 13 seconds preceding an announcement of a severe weather warning.

The NWR coverage areas indicated on this map are estimates. For these maps, transmitter antenna performance are assumed to be omni-directional. As a result, actual coverage can be different from that depicted on this map. Coverage that is significantly different than depicted on this map should be reported to the local NWS forecast office.

COASTAL MARINE FORECAST AREAS

Coastal marine forecasts are issued for the following areas:

Oregon Inlet to Cape Hatteras, NC out 20 nm
Cape Hatteras to Ocracoke Inlet, NC out 20 nm
Ocracoke Inlet to Cape Lookout, NC out 20 nm
Cape Lookout to Surf City, NC out 20 nm
Albemarle Sound
Pamlico Sound
Surf City to Cape Fear, NC out 20 nm
Cape Fear to Little River Inlet, NC out 20 nm
Little River Inlet to Murrells Inlet, SC out 20 nm
Murrells Inlet to South Santee River, SC out 20 nm
South Santee River to Edisto Beach, SC out 20 nm
Charleston Harbor
Edisto Beach, SC to Savannah, GA out 20 nm
Savannah to Altamaha Sound, GA out 20 nm
Savannah Harbor
Savannah, GA to Altamaha Sound, GA 20 to 60 nm
Altamaha Sound to Fernandina Beach, FL out 20 nm
Altamaha Sound to Fernandina Beach, FL 20 to 60 nm

WAVE FORECASTS APPEARING IN COASTAL MARINE FORECASTS:

Wave height forecasts are for average wave conditions to be encountered in open coastal waters except if otherwise indicated. Values are for waves produced by wind and do not take into account areas of normally higher or steeper waves found near bars, shoals or restricted entrances into sounds or inlets. Occasionally, waves can combine and peak out at twice the forecast value. Where possible, swell waves will be separatly described.

EXPLANATION OF ADVISORIES/WARNINGS

SMALL CRAFT ADVISORY: Issued to alert mariners to sustained (more than two hours) weather or sea conditions, either present or forecast, that might be hazardous to small boats. Boaters/mariners will be able to receive the Small Craft Advisory by keeping tuned to a NOAA Weather Radio Station or the Coast Guard and commercial radio stations that transmit marine weather information. The threshold conditions for the Small Craft Advisory are usually based on 25 knots of wind or hazardous wave conditions. Decision as to the degree of hazard will be left to the boat operator, based on experience and the size and type of boat. There is no legal definition of the term "small craft".

GALE WARNING: Issued to indicate winds within the range of 34 to 47 knots are either present or forecast for the area.

STORM WARNING: Issued to indicate winds of 48 knots or above, no matter how high the speed, are either present or forecast for the area.

SPECIAL MARINE WARNING: Issued whenever a severe local storm, or strong wind of brief duration is imminent and is not covered by existing warnings or advisories.

TROPICAL STORM WARNING: Issued to indicate winds within the range of 34 to 63 knots are either present or forecast in conjunction with a tropical cyclone.

HURRICANE WARNING: Issued to indicate winds 64 knots or more are either present or forecast for the area in conjunction with a tropical cyclone.

NOTE: A "TROPICAL STORM WATCH" or "HURRICANE WATCH" is issued whenever a tropical storm or hurricane becomes a threat to a coastal area. The "WATCH" is not a warning, but indicates that the tropical cyclone is near enough that persons in the area covered by the "WATCH" should listen to their radios for subsequent advisories and be ready to take precautionary action in case tropical storm or hurricane warnings are issued.

LAMBERT CONFORMAL CONIC PROJECTION
NAUTICAL MILES
10 0 10 20 30 40 50

ACAB, APRIL 2000

USCOMM-NOAA-DC-A5741
NOAA-PA-99054

DISCREPANCY REPORTS SOLICITED
Reports of discrepancies in this chart and any other comments are appreciated and will be used in preparing the next edition.

Mail to: National Weather Service (W/OM12)
1325 East-West Highway, Room 14124
Silver Spring, MD 20910

MSC-4—CAPE HATTERAS, NC TO SAVANNAH, GA

MSC-4—CAPE HATTERAS, NC TO SAVANNAH, GA

NOAA WEATHER RADIO BROADCASTS

CITY	STATION	FREQUENCY	BROADCAST TIMES
Baxley, GA	WXM-65	162.525 MHz	Continuously, 24 hrs a day
Beaufort, SC	WXJ-23	162.475 MHz	Continuously, 24 hrs a day
Cape Hatteras, NC	KIG-77	162.475 MHz	Continuously, 24 hrs a day
Charleston, SC	KHB-29	162.55 MHz	Continuously, 24 hrs a day
Jacksonville. FL	KHB-39	162.55 MHz	Continuously, 24 hrs a day
Myrtle Beach, SC	KEC-95	162.40 MHz	Continuously, 24 hrs a day
New Bern, NC	KEC-84	162.40 MHz	Continuously, 24 hrs a day
Savannah, GA	KEC-85	162.40 MHz	Continuously, 24 hrs a day
Wilmington, NC	KHB-31	162.55 MHz	Continuously, 24 hrs a day
Waycross, GA	WXK-75	162.475 MHz	Continuously, 24 hrs a day

These VHF-FM radio stations, locations shown on the map, are managed by the National Weather Service. Broadcast tapes are updated every 3 to 6 hours and amended as required. Broadcast contents vary, but in general contain the following types of information.

1. Descriptions of the weather patterns affecting the eastern United States and coastal waters.
2. Regional and state forecasts with outlook for the third day.
3. Marine forecasts and warnings for coastal waters.
4. Weather observations from selected National Weather Service and Coast Guard stations.
5. Radar summaries and reports.
6. Local weather observations and forecasts.
7. Watches, warnings, statements and bulletins concerning adverse and severe weather.

BROADCASTS OF MARINE WEATHER FORECASTS BY US COAST GUARD RADIO STATIONS

The fifth U.S. Coast Guard District stations listed below announce all Broadcast Notice to Mariners (initial call-up) on 2182 kHz (SSB) and /or 156.8 MHz (channel 16 VHF-FM) and shift to 2670 kHz (SSB) and /or 157.1 MHz (channel 22A VHF-FM) where the complete text is broadcast. These stations broadcast marine information and weather information upon receipt and on the following listed times and frequencies.

STATION	CARRIER FREQUENCY (kHz)	BROADCAST TIMES/UTC
Coast Guard Group, Eastern Shore	Ch. 22A 2670 kHz	0200, 1145 0233, 1403
Coast Guard Group, Hampton Roads	Ch. 22A 2670 kHz	0230, 1120 0203, 1333
Coast Guard Group, Cape Hatteras	Ch. 22A 2670 kHz	0100, 1055 0133, 1303
Coast Guard Group, Fort Macon	Ch. 22A 2670 kHz	0103, 1233 0103, 1233
Coast Guard Group, Charleston	Ch. 22A 2670 kHz	1200, 2200 0420, 1620
Coast Guard Group, Mayport	Ch. 22A 2670 kHz	1215, 2215 0620, 1820
Chesapeake (NMN), CAMSLANT	518 NAVTEX "N"	0130, 0530, 0930 1330, 1730, 2130

HIGH SEAS RADIOTELEPHONE WEATHER BROADCASTS FOR THE ATLANTIC

CITY	STATION	CARRIER FREQ. (kHz)	BROADCAST TIMES/UTC
CHESAPEAKE, VA (USCG)	NMN	4426.0	0330, 0500, 0930
		6501.0	0330, 0500, 0930, 1130 1600, 2200, 2330
		8764.0	0330, 0500, 0930, 1130 1600, 1730, 2200, 2330
		13089.0	1130, 1600, 1730, 2200 2300
		17314.0	1730

HIGH SEAS RADIOTELEX (SITOR) WEATHER BROADCASTS FOR THE ATLANTIC

CITY	STATION	ASSIGNED FREQ. (kHz)	BROADCAST TIMES/UTC
BOSTON, MA (USCG)	NMF	6314.0	0140
		8416.5	0140, 1630
		12579.0	0140, 1630
		16806.5	1630

NOAA NATIONAL WEATHER SERVICE WASHINGTON D.C. RADIOFACSIMILE BROADCAST SCHEDULE PART ONE
TRANSMITTED VIA U.S.C.G. BOSTON, MASSACHUSETTS (NMF) EFFECTIVE 17 NOV, 1999
ASSIGNED FREQUENCIES (kHz): DAY = 6340.5, 9110, 12750 NIGHT = 4235, 6340.5, 12750

TIME	AREA	PRODUCT
0230Z		TEST PATTERN
0233Z	1	00Z PRELIMINARY SURFACE ANALYSIS
0243Z		FAX SCHEDULE PART 1
0254Z		FAX SCHEDULE PART 2
0305Z		REQUEST FOR COMMENTS
0315Z	1	00Z SEA STATE ANALYSIS
0325Z	2	00Z SURFACE ANALYSIS PART 1
0338Z	3	00Z SURFACE ANALYSIS PART 2
0351Z	5	SATELLITE PICTURE
0402Z	2	RETRANSMIT 0325Z
0415Z	3	RETRANSMIT 0338Z
0428Z	4	00Z 500 MB ANALYSIS
0438Z		END TRANSMISSION
0745Z		TEST PATTERN
0755Z	1	06Z PRELIMINARY SURFACE ANALYSIS
0805Z	1	24 HR SURFACE VALID TIME 00Z
0815Z	1	24 HR WIND/WAVE VALID TIME 00Z
0825Z	1	24 HR 500 MB VALID TIME 00Z
0835Z	4	36 HR 500 MB VALID TIME 12Z
0845Z	4	48 HR 500 MB VALID TIME 12Z
0855Z	4	48 HR SURFACE VALID TIME 00Z
0905Z	4	48 HR WIND/WAVE VALID TIME 00Z
0915Z	4	48 HR WAVE PERIOD VALID TIME 00Z
0925Z	2	06Z SURFACE ANALYSIS PART 1
0938Z	3	06Z SURFACE ANALYSIS PART 2
0951Z	6	SATELLITE PICTURE
1002Z	2	RETRANSMIT 0925Z
1015Z	3	RETRANSMIT 0938Z
1028Z		END TRANSMISSION
1430Z		TEST PATTERN
1433Z	1	12Z PRELIMINARY SURFACE ANALYSIS
1443Z	4	96 HR 500 MB VALID TIME 00Z
1453Z	4	96 HR SURFACE VALID TIME 00Z
1503Z	5	SATELLITE PICTURE
1515Z	1	12Z SEA STATE ANALYSIS
1525Z	2	12Z SURFACE ANALYSIS PART 1
1538Z	3	12Z SURFACE ANALYSIS PART 2
1551Z		END TRANSMISSION
1600Z		ICE CHARTS
1720Z		TEST PATTERN
1723Z	2	RETRANSMIT 1525Z
1736Z	3	RETRANSMIT 1538Z
1749Z	4	12Z 500 MB ANALYSIS
1759Z	4	SEA STATE ANALYSIS
1809Z		END TRANSMISSION
1810Z		ICE CHARTS

NOAA NATIONAL WEATHER SERVICE WASHINGTON D.C. RADIOFACSIMILE BROADCAST SCHEDULE PART TWO
TRANSMITTED VIA U.S.C.G. BOSTON, MASSACHUSETTS (NMF) EFFECTIVE 17 NOV, 1999

TIME	AREA	PRODUCT
1900Z		TEST PATTERN
1905Z		FAX SCHEDULE PART 1
1920Z		FAX SCHEDULE PART 2
1935Z		REQUEST FOR COMMENTS
1945Z		PRODUCT NOTICE BULLETIN
1955Z	1	18Z PRELIMINARY SURFACE ANALYSIS
2005Z	1	24 HR SURFACE VALID TIME 12Z
2015Z	1	24 HR WIND/WAVE VALID TIME 12Z
2025Z	1	24 HR 500 MB VALID TIME 12Z
2035Z	1	36 HR 500 MB VALID TIME 00Z
2045Z	4	48 HR 500 MB VALID TIME 12Z
2055Z	4	48 HR SURFACE VALID TIME 12Z
2105Z	4	48 HR WIND/WAVE VALID TIME 12Z
2115Z	4	48 HR WAVE PERIOD VALID TIME 12Z
2125Z	2	18Z SURFACE ANALYSIS PART 1
2138Z	3	18Z SURFACE ANALYSIS PART 2
2151Z	6	SATELLITE PICTURE
2202Z	2	RETRANSMIT 2125Z
2215Z	3	RETRANSMIT 2138Z
2228Z		END TRANSMISSION

AREAS:
1 = 28N – 52N, 45W – 85W
2 = 15N – 65N, 10E – 45W
3 = 15N – 65N, 40W – 95W
4 = 15N – 65N, 10E – 95W
5 = 20N – 55N, 55W – 95W
6 = 00N – 60N, 40W – 130W

Comments on this schedule or quality of charts are invited.

If you have questions or comments please contact:
MARINE DISSEMINATION PROGRAM MANAGER
NATIONAL WEATHER SERVICE/NOAA
1325 EAST-WEST HIGHWAY
SILVER SPRING, MARYLAND 20910
ATTN: TIM RULON AT 301-713-1677 (EXT. 128)
FAX: 301-713-1598
E-Mail: Timothy.Rulon@noaa.gov or marine.weather@noaa.gov

RADIO WWV/WWVH STORM INFORMATION BROADCASTS

HIGH SEAS STORM INFORMATION for the North Atlantic and North Pacific is provided mariners through a cooperative program of two Department of Commerce agencies: the National Weather Service of the National Oceanic and Atmospheric Administration and the National Institute of Standards and Technology. Bulletins are compiled by the National Weather Service and broadcast every hour by the National Institute of Standards and Technology's Frequency and Time Broadcast Services Radio Stations – WWV, Fort Collins, Colorado and WWVH, Kauai, Hawaii. These are the radio stations that sailors and others listen to for daily time checks.

WWV (FORT COLLINS, CO)
FREQUENCIES : 2.5, 5, 10, 15, 20 MHz

The weather broadcast is in 45-second segments separated by a 15-second interval.

TIMES OF BROADCAST	BROADCAST AREA
8 minutes past the hour	Atlantic high seas warnings
9 minutes past the hour	Atlantic high seas warnings

WEATHER RULES FOR SAFE BOATING

Before setting out:

Obtain the latest avaliable weather forecast for the boating area. The NOAA Weather Radio continuous broadcasts (VHF-FM) are the best way to keep informed of expected weather and sea conditions. If you hear on the radio that warnings are in effect, don't venture out on the water unless you are confident your boat can be navigated safely under forecast conditions of wind and sea.

While afloat:

1. Keep a life jacket on and a weather eye out for: the approach of dark, threatening clouds, which may foretell a squall or thunderstorm; any steady increase in wind or sea; any increase in wind velocity opposite in direction to a strong tidal current. A dangerous rip tide condition may form steep waves capable of broaching a boat.
2. Check radio weather broadcasts for latest forecasts and warnings.
3. Heavy static on your AM radio may be an indication of nearby thunderstorm activity.
4. If a thunderstorm catches you while afloat, you should remember that not only gusty winds but also lightning poses a threat to safety.
   - stay below deck if possible.
   - keep away from metal objects that are not grounded to the boat's protection system.
   - don't touch more than one grounded object at the same time (or you may become a shortcut for electrical surges passing through the protection system).
   - Prepare for rough sea conditions.

INTERNET ADDRESSES

National Weather Service Current Weather Data
http://www.nws.noaa.gov
National Data Buoy Center
http://seaboard.ndbc.noaa.gov
U.S. Coast Guard Navigation Center
http://www.navcen.uscg.mil
National Weather Service Eastern Region Headquarters
http://www.noaa.gov/er/hq/index.html
National Weather Service Radiofax Charts
http://www.nws.noaa.gov/fax/marine.shtml
National Weather Service Marine Dissemination
http://www.nws.noaa.gov/om/marine/home.htm
NWS Wilmington, NC
http://nwsilm.wilmington.net
NWS Charleston, SC
http://wchs.csc.noaa.gov
NWS Newport, NC
http://www.nws.noaa.gov/er/mhxl

NATIONAL WEATHER SERVICE PRODUCTS AVAILABLE VIA E-MAIL (FTPMAIL)

National Weather Service radiofax charts broadcast by the U.S. Coast Guard from Boston, New Orleans, and Point Reyes, CA are now available via E-mail. Marine text products are also available. The FTPMAIL server is intended to allow Internet access for mariners and other users who do not have direct access to the World Wide Web but who are equiped with an e-mail system. Turnaround is generally in under three hours, however, performance may vary widely and receipt cannot be guaranteed. To get started in using the NWS FTPMAIL service, follow these simple directions to obtain the FTPMAIL "help" file (6 KBytes).

Address: ftpmail@weather.noaa.gov
Subject: (not required)
Body: help

Direct any questions to 301-713-1677, extension 128,
or 301-713-0882, extension 122,

DIAL-A-BUOY

Mariners can obtain the latest coastal and offshore weather observations through a new telephone service called Dial-A-Buoy. This service provides wind and wave measurements taken within the last hour at stations located in coastal waters around the United States and in the Great Lakes.

To access Dial-A-Bouy, dial 228/688-1948 using a touch tone or cellular phone. Enter the five-digit station identifier in response to the prompt. The Dial-A-Bouy menu tree has a selection for the caller to receive a map of bouy station identifiers via return call fax. Station identifiers also can be obtained at the following web site: **http://seaboard.ndbc.noaa.gov.**

OTHER MARINE WEATHER SERVICES CHARTS AVAILABLE

MSC-1	Eastport, ME to Montauk Point, NY
MSC-2	Montauk Point, NY to Manasquan, NJ
MSC-3	Manasquan, NJ to Cape Hatteras, NC
MSC-4	Cape Hatteras, NC to Savannah, GA
MSC-5	Savannah, GA to Apalachicola, FL
MSC-6	Apalachicola, FL to Morgan City, LA
MSC-7	Morgan City, LA to Brownsville, TX
MSC-8	Mexican Border to Point Conception, CA
MSC-9	Point Conception, CA to Point St. George, CA
MSC-10	Point St. George, CA to Canadian Border
MSC-11/12	Great Lakes
MSC-13	Hawaiian Waters
MSC-14	Puerto Rico and Virgin Islands
MSC-15	Alaskan Waters
MSC-16	Guam and the Northern Mariana Islands

Copies of these charts are available for $1.25 each from:
National Ocean Service
Distribution Division (N/ACC3)
6500 Lafayette Avenue
Riverdale, MD 20737-1199
Telephone: 1-(800)-638-8975

Nautical charts for navigation purposes for these coastal areas are available from local marinas, marine supply stores, and the address to the left.

All of these charts can be viewed at the following web site:
http://www.nws.noaa.gov/om/marine/pub.htm

ACAB, APRIL 2000

USCOMM-NOAA-DC-A5741
NOAA-PA-99054

MSC-4—CAPE HATTERAS, NC TO SAVANNAH, GA

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