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Formerly C&GS 1110, 1st Ed., July 1914 C-1914-142 KAPP 377

THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST

CAPE HATTERAS TO CHARLESTON

Mercator Projection
Scale 1:432,720 at Lat 34°

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

(For offshore navigation only)

Additional information can be obtained at nauticalcharts.noaa.gov.

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
Aids to Navigation (lights are white unless otherwise indicated)

ABRO aeronautical
Al alternating
Bn beacon
Bk blinking
C can
DIA diaphone
F fixed
Fl flashing
G green
Gp group(ed) quick
Hp heliport
LT HO lighthouse
M nautical mile
m minutes
MICRO TR microwave tower
Mkr marker
Mo morse-code
N non
Obscd obscured
OC occulting
Or orange
Q quick
R red
Ra Ref radar reflector
R Bn radiobeacon
R TR radio tower
Rot rotating
s seconds
SL slack water
St M statute miles
VQ very quick
W white
WHS whistle
Y yellow

Bottom characteristics:

Bds boulders
bk broken
Cy Clay
Co coral
gr gray
Gy gravel
h hard
Gns grass
m mud
Oys oysters
Rk rock
S sand
sc soft
Sh shells
sy sticky

Miscellaneous:

AUTH authorized
ED (wreckmore doubtful)
Obstn obstruction
Ph position approximate
PD position doubtful
Rep reported
Subm submerged
(2) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

HEIGHTS
Heights in feet above Mean High Water.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the U.S. Coast Guard, Geological Survey, and National Geospatial-Intelligence Agency.

HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 do not require conversion to NAD 83 for plotting on this chart.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 4. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia and the 7th Coast Guard District in Miami, Florida, or at the Office of the District Engineer, Corps of Engineers in Wilmington, North Carolina.
Refer to charted regulation section numbers.

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

HURRICANES AND TROPICAL STORMS
Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris and shifted buoys.
Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved.
Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

NOTE Z
NO-DISCHARGE ZONE, 40 CFR 140
Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or unmeated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Consult larger scale charts for survey information in areas outlined in magenta. Refer to Chapter 1, United States Coast Pilot.

SOURCE

A	1990-2015	NOS Surveys	full bottom coverage
B1	1940-1989	NOS Surveys	full bottom coverage
B2	1943-1989	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
B5	Pre-1900	NOS Surveys	partial bottom coverage

NOTE D
PRECAUTIONARY AREA
Traffic within the Precautionary Area may consist of vessels operating between Cape Fear River and one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area.

NOTE E
TRAFFIC SEPARATION SCHEME
One-way traffic lanes overprinted on this chart are RECOMMENDED for the separation of traffic between the points involved. They have been designed to aid in the prevention of collisions at the approaches to Cape Fear River, but are not intended in any way to supersede or alter the applicable Rules of the Road. The separation zone is intended to separate inbound and outbound traffic and to be free of ship traffic. The separation zone should not be used except for crossing purposes. When crossing traffic lanes and the separation zone use extreme caution.

CAUTION
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. The accuracy of bearings from commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
(A)(Accurate location) o(Approximate location)

NOTE B
DANGER AREA
Area is open to unrestricted surface navigation but all vessels are cautioned neither to anchor (except in an emergency), dredge, trawl, lay cables, bottom, nor conduct any other similar type of operation because of residual danger from mines on the bottom.

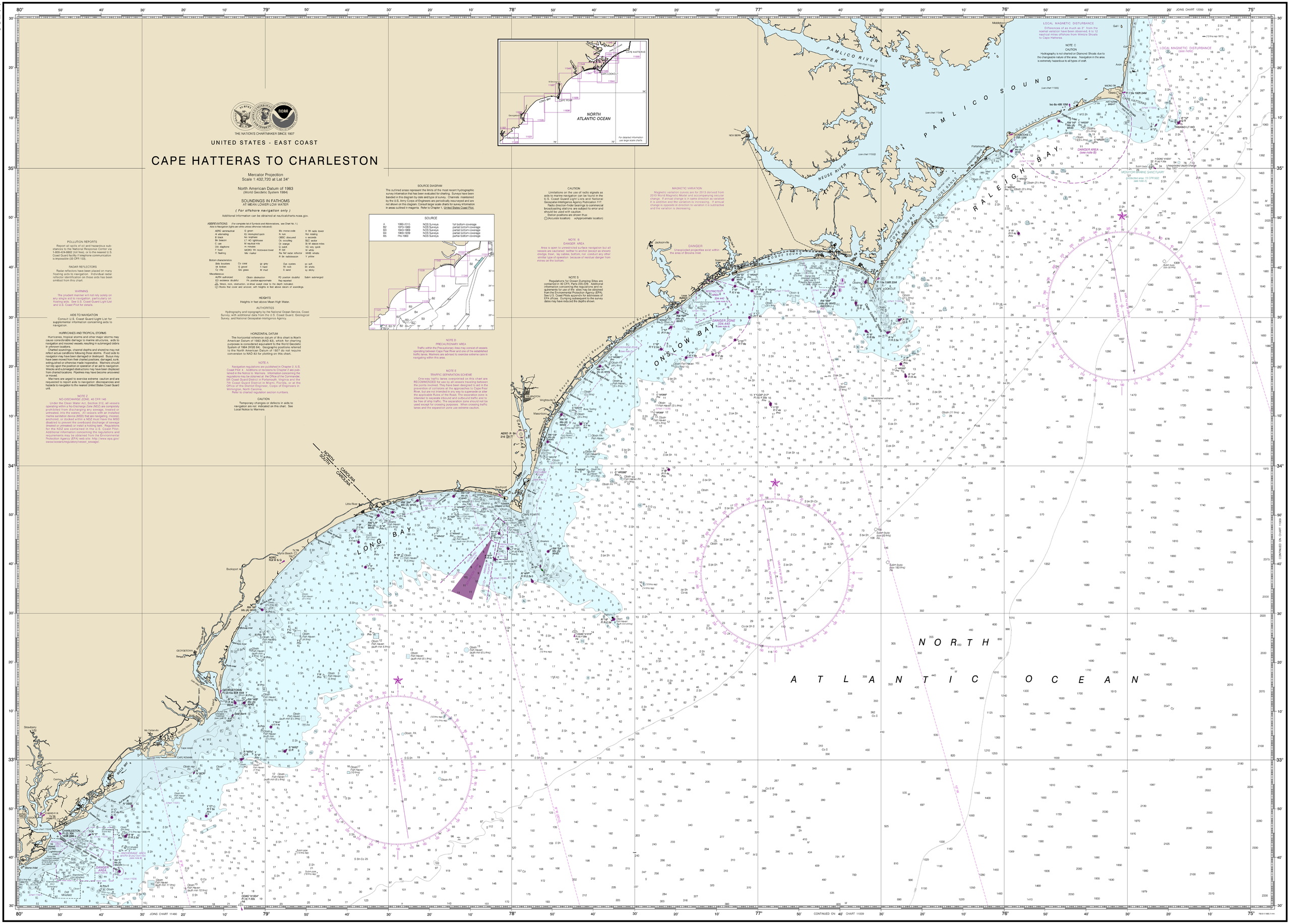
NOTE S
Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information on the ocean dumping sites and the requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

MAGNETIC VARIATION
Magnetic variation curves are for 2013 derived from 2010 World Magnetic Model and accompanying secular change. The annual change is in same direction as variation if the additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

DANGER
Unexploded projectiles exist within the area of Browns Inlet.

LOCAL MAGNETIC DISTURBANCE
Differences of as much as 3° from the normal variation have been observed, 8 to 12 nautical miles offshore from Wimble Shoals to Cape Hatteras.

NOTE C
CAUTION
Hydrography is not charted on Diamond Shoals due to the changeable nature of the area. Navigation in the area is extremely hazardous to all types of craft.



CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district for the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at http://www.nauticalcharts.noaa.gov/staff/contact.htm.

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at http://www.nauticalcharts.noaa.gov/staff/contact.htm.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

SOUNDINGS IN FATHOMS

FATHOMS	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
FEET	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300
METERS	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100

Cape Hatteras to Charleston
SOUNDINGS IN FATHOMS - SCALE 1:432,720

11520

45th Ed., Sep. 2013. Last Correction: 12/2/2016. Cleared through:
LNM: 4716 (11/22/2016), NM: 4816 (11/26/2016)

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