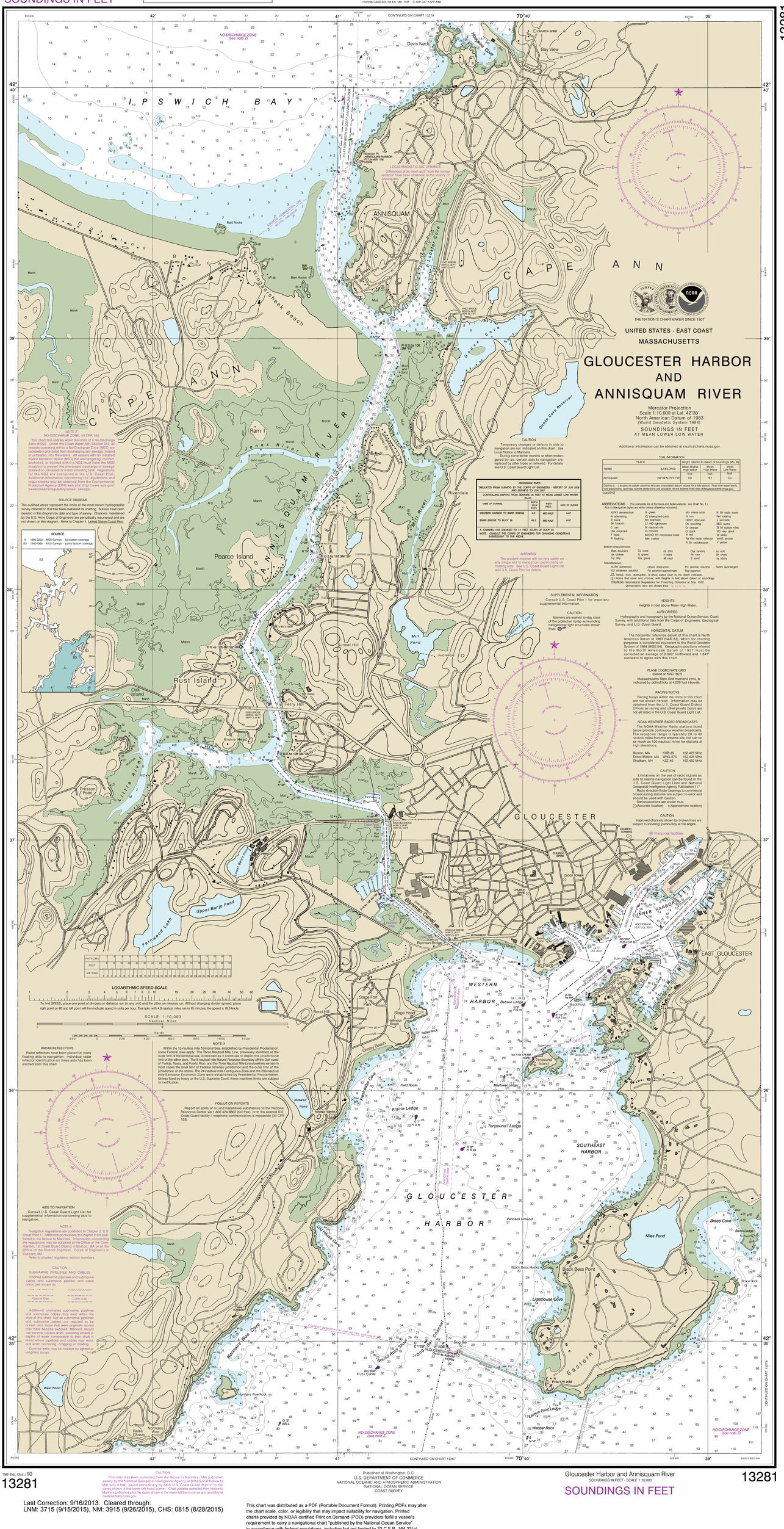
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Formerly C&GS 233, 1st. Ed., Mar. 1931 C-1931-347 NAPP 2056



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST

MASSACHUSETTS

GLOUCESTER HARBOR AND ANNISQUAM RIVER

Mercator Projection
Scale 1:10,000 at Lat. 42°38'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

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

TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)			
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water	Mean Lower Low Water
		feet	feet	feet	feet
Annisquam	(42°39'N/70°41'W)	9.6	9.3	0.1	0.2

Daylight (---) = located in daylight hours; nonexistent datum values for a tide station. Real time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):
AERO aeronautical; Al alternating; B black; Bn beacon; C can; DIA diaphone; F fixed; Fl flashing; G green; GO inner/outer/quick; Iso isophase; M nautical mile; m minutes; MICRO TR microwave tower; Mkr marker; Mo morse code; N non; OBSC obscured; Oc occulting; Or orange; Q quick; R red; Ra Ref radar reflector; R Bn radiobeacon; R TR radio tower; Rot rotating; s seconds; SEC sector; St M statute miles; VQ very quick; W white; WHIS whistle; Y yellow

Bottom characteristics:
Blds boulders; Co coral; Cy clay; Gravel; G gravel; gr gritty; M mud; Oys oysters; S sand; sh shelly; sy silty; sc soft; st stiff; v volcanic

Miscellaneous:
AuTH authorized; Obstn obstruction; PD position doubtful; Submerg submerged; ED existence doubtful; PA position approximate; Rep reported; Wreck, rock, obstruction, or shoal swept clear to the depth indicated; (1) Rocks that cover and uncover, with heights in feet above datum of soundings.

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus:

HORIZONTAL DATUM
Horizontal datum for this chart is North American Datum of 1983 (NAD 83).

PLANE COORDINATE GRID
Massachusetts State Grid, mainland zone, is indicated by dotted ticks at 4,000 foot intervals.

RACING BUOYS
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio stations noted below provide continuous weather broadcasts. Reliable reception may be limited to 40 to 50 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Boston, MA	KHB-35	162.475 MHz
Essex Marine, MA	WNG-574	162.425 MHz
Stratham, NH	KZZ-40	162.400 MHz

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.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
(Accurate location) (Approximate location)

CAUTION
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

Pump-out facilities

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U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

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LNM: 3715 (9/15/2015), NM: 3915 (9/26/2015), CHS: 0815 (8/28/2015)

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If the line does not measure as stated, the copy is not certified safe for navigation.