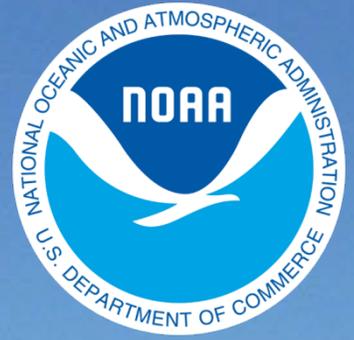


BookletChart™

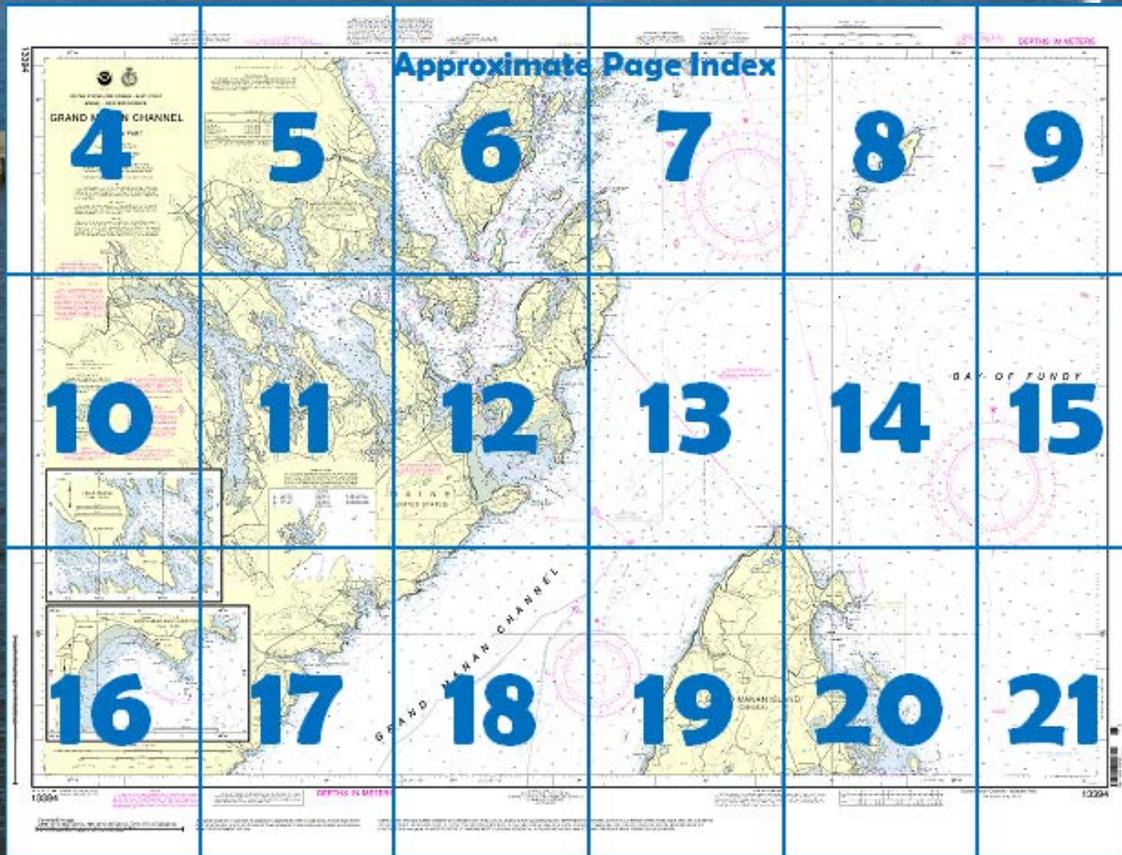
Grand Manan Channel – Northern Part NOAA Chart 13394



*A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

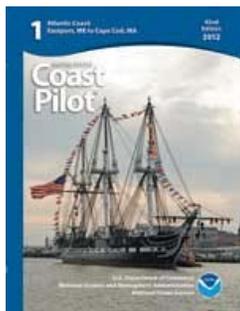
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=13394>.



(Selected Excerpts from Coast Pilot)

The approaches to St. Croix River include Quoddy Narrows, Lubec Channel, Friar Roads, Head Harbour Passage, Western Passage, and Passamaquoddy Bay. The principal entrance is around the northern end of Campobello Island through Head Harbour Passage. This passage is deep and generally clear of dangers. The channel through Lubec Narrows is also used, especially at high water. The tidal currents are strong in both passages.

West Quoddy Head, the easternmost point of the United States, is bold and wooded. **West Quoddy Head Light** (44°48'54"N., 66°57'02"W.), 83 feet above the water, is shown from a 49-foot red and white horizontally banded tower on the eastern edge of the headland. A sound signal is at

the light. The abandoned Coast Guard lookout tower near the summit of the ridge westward of the light is the most conspicuous landmark in the approach to Quoddy Narrows from seaward.

Between West Quoddy Head and Calais, fluorescent red pyramidal markers define straight line segments and turning points of the United States-Canada boundary.

Quoddy Narrows (Quoddy Roads), between West Quoddy Head and Canada's Campobello Island, is the usual anchorage for vessels seeking shelter or waiting for a favorable tide to pass through Lubec Narrows. The entrance, between West Quoddy Head and The Boring Stone, is about 0.8 mile wide and has a depth of 28 feet near the middle. Winds from east to south generate rough seas in the entrance.

The anchorage affords shelter from northerly and westerly winds in depths of 12 to 25 feet, but is open to winds from the east and south, and protection from northeast gales is reported poor. The northern and western parts of Quoddy Narrows between West Quoddy Head and Lubec are full of shoals which partly uncover.

Sail Rock and **Little Sail Rock** are two bare rocks on a ledge about 0.2 mile southeastward of West Quoddy Head Light. The ledge extends more than 100 yards east of the two rocks. As swirls form just southward and eastward of Sail Rock during the strength of the tidal current, the rock should be given a good berth. A lighted whistle buoy is about 0.4 mile southeastward of Sail Rock, about in line with the rock and West Quoddy Head Light. A fairway bell buoy, about 0.5 mile north-northeastward of the light, marks the entrance to Quoddy Narrows and the approach to Lubec Channel.

Round Rock, which uncovers, and **The Boring Stone**, 5 feet high and bare, are 500 yards southwest of **Liberty Point**, a bold headland, which is the southern extremity of Campobello Island. Vessels should pass at least 300 yards off the southernmost rock. An islet about 200 yards off Liberty Point is conspicuous, as is **Ragged Point** about 0.4 mile northeastward of it.

Wormell Ledges, which partly uncover, are about 400 yards northward of West Quoddy Head, and are marked at their northern end by a buoy. **Middle Ground**, covered 4 feet, is a shoal in the middle of Quoddy Narrows, 0.7 mile north-northwest of West Quoddy Head, and is marked on its southwestern side by a buoy.

Lubec Channel and **Lubec Narrows**, between Quoddy Narrows and Friar Roads, have been improved by dredging. In 2002, the controlling depth was 9 feet (11.7 feet at midchannel). The channel is marked by a light and buoys. At spring tides the low water may be 3 or 4 feet below the average. Lubec Narrows has strong tidal currents and eddies. It is not advisable to use this passage without local knowledge.

Shoals bare on both sides of Lubec Narrows at low water. A breakwater extends from **Short Point** on the west side of the channel about 300 yards northward of **Mowry Point**, on the southwest side of the narrows. The **Franklin D. Roosevelt Memorial Highway Bridge** crosses the narrows from Lubec to Campobello Island at a point about 400 yards southward of the abandoned lighthouse on **Mulholland Point**. The fixed span has a clearance of 47 feet.

Currents.—For current predictions see the Tidal Current Tables. Tidal ranges within the area can be affected by atmospheric pressure. Low pressure days can result in tides up to 3 feet higher than predicted.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Boston Commander
1st CG District (617) 223-8555
Boston, MA

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.

To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area. These volumes are available online at <http://www.navcen.uscg.gov>

13394

COPYRIGHT
No copyright is claimed by the United States Government under Title 17 U.S.C. However, other nations may claim intellectual property rights on the compilation of data depicting the foreign waters shown on this chart.

COLREGS, 80.105 (see n
International Regulations for Preventing Collision
The entire area of this chart falls seaward of the



UNITED STATES AND CANADA - EAST COAST
MAINE - NEW BRUNSWICK

GRAND MANAN CHANNEL NORTHERN PART

Mercator Projection
Scale 1:50,000 at Lat. 44°50'

North American Datum of 1983
(World Geodetic System 1984)

DEPTHS IN METERS AND DECIMETERS
AT MEAN LOWER LOW WATER IN U.S. WATERS AND
AT LOWEST NORMAL TIDE IN CANADIAN WATERS

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

HEIGHTS

In U.S. waters, elevations of rocks, bridges, landmarks and lights are in meters and refer to Mean High Water while contour and summit elevations are in meters and refer to Mean Sea Level. In Canadian waters, elevations and clearances are in meters above Higher High Water Large Tides while spot elevations in italic figures and contours are in meters above Mean Sea Level.

AUTHORITIES

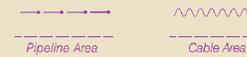
Hydrography and topography by the Canadian Hydrographic Service with additional data from the National Ocean Service, Coast Survey, International Boundary Commission, U.S. Geological Survey, Corps of Engineers, U.S. Coast Guard and Canadian Ministry of Transport.

DEPTHS

Depths in U.S. waters are referred to Mean Lower Low Water Datum; depths in Canadian waters are referred to Lowest Normal Tide. The difference in datums means that depths in Canadian waters will appear shallower by approximately 1 meter than in U.S. waters. Refer to the tides and Current Tables of the appropriate country when crossing the International Boundary Line. Also see Note B for depth information concerning Lubec Channel and south of Quoddy Narrows.

CAUTION

SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

For Symbols and Abbreviations see Chart No. 1

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 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.286' northward and 2.088' eastward to agree with this chart.

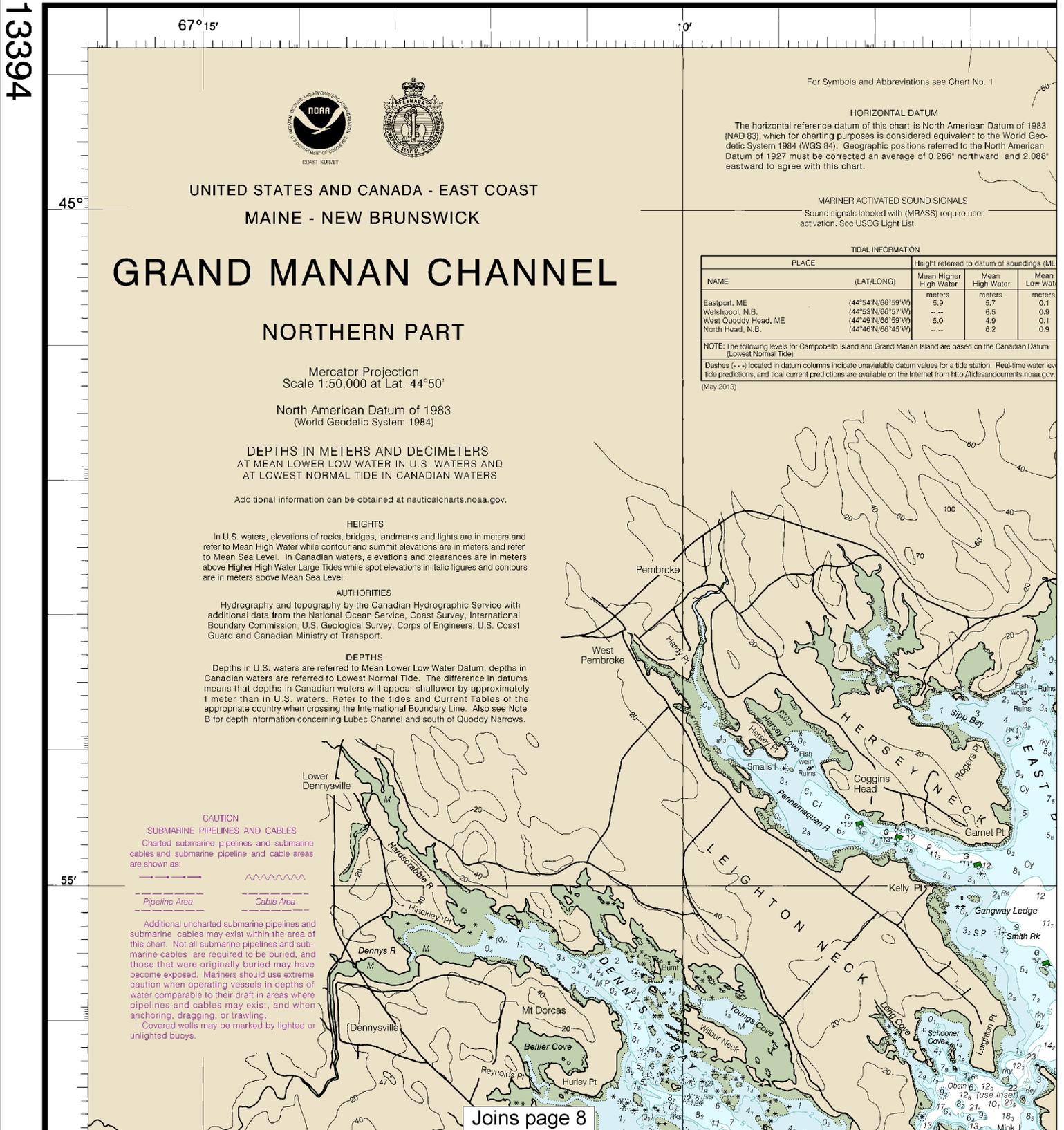
MARINER ACTIVATED SOUND SIGNALS

Sound signals labeled with (MRASS) require user activation. See USCG Light List.

TIDAL INFORMATION

NAME	PLACE (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water meters	Mean High Water meters	Mean Low Water meters
Eastport, ME	(44°54'N/66°59'W)	5.9	5.7	0.1
Wellsport, N.B.	(44°53'N/66°57'W)	---	6.5	0.9
West Quoddy Head, ME	(44°49'N/66°59'W)	5.0	4.9	0.1
North Head, N.B.	(44°46'N/66°45'W)	---	6.2	0.9

NOTE: The following levels for Campobello Island and Grand Manan Island are based on the Canadian Datum (Lowest Normal Tide)
Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water level predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (May 2013)



Joins page 8

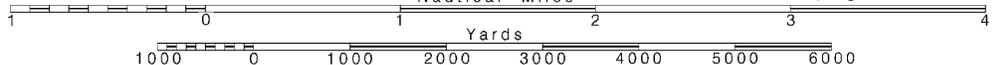
4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:50,000
Nautical Miles

See Note on page 5.



NOTE X

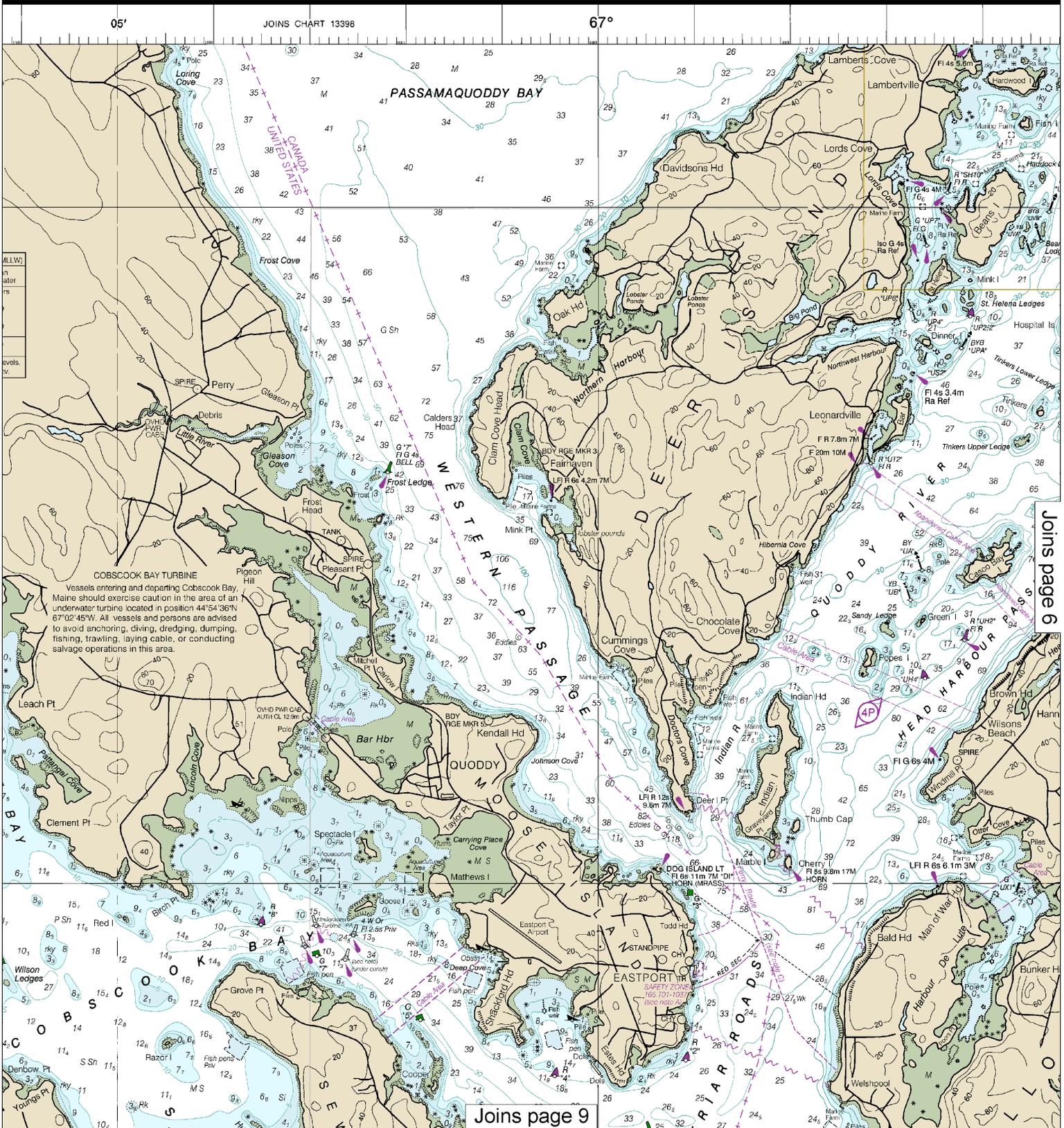
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

note A)
ions at Sea, 1972.
e COLREGS Demarcation Line.

TIDE TABLES

U.S. TIDE TABLES should be used in UNITED STATES WATERS and CANADIAN TIDE TABLES in CANADIAN WATERS.

1st Ed., Dec. 1992



Joins page 9

Joins page 6

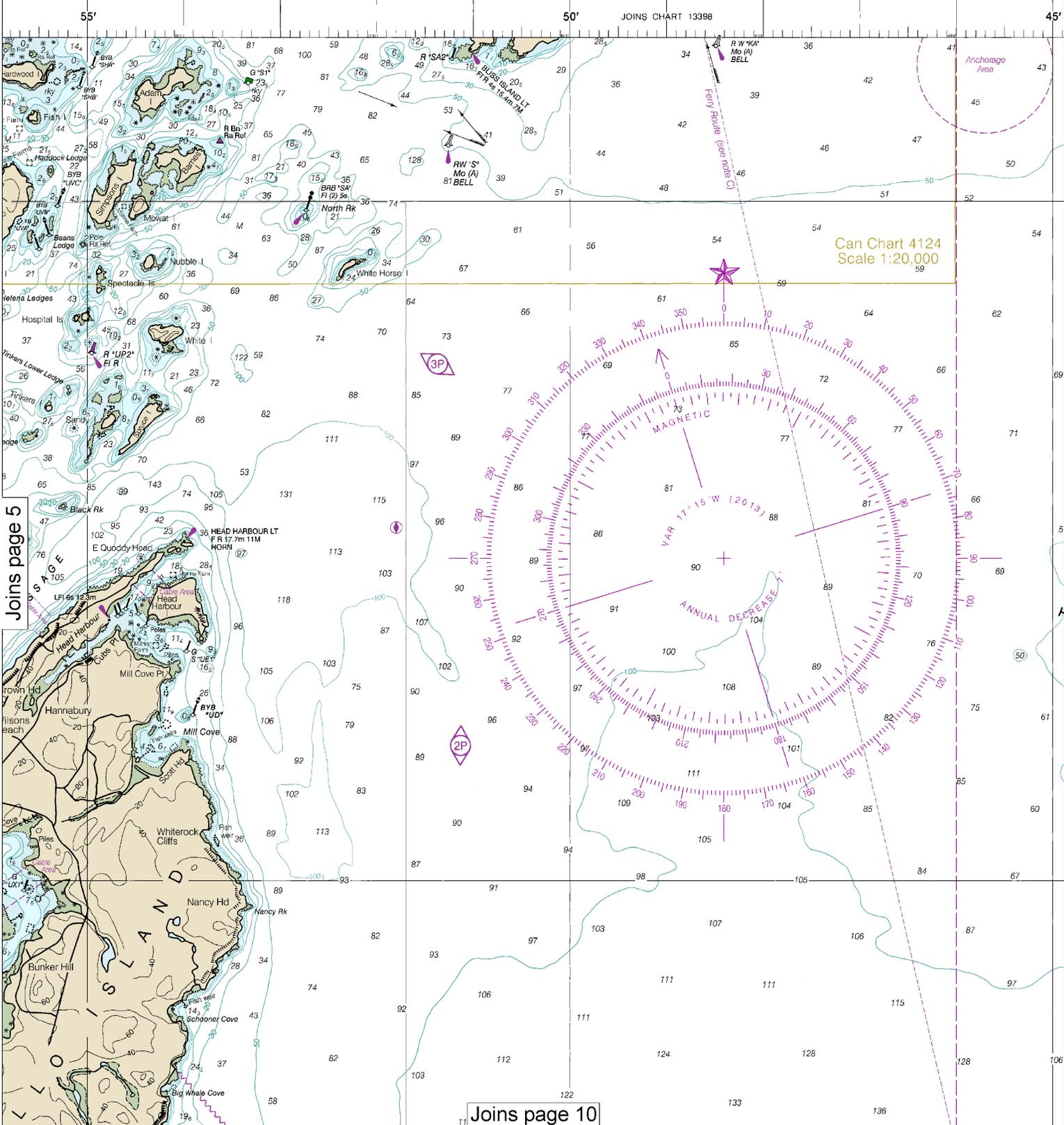
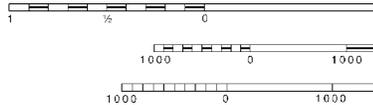
This BookletChart was reduced to 70% of the original chart scale. The new scale is 1:71428. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



st Ed., Dec. 1992 KAPP 2895

SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 1 and Canadian Sailing Directions, Nova Scotia (SE Coast) and Bay of Fundy, for important supplemental information.

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).



Joins page 5

Joins page 10

Can Chart 4124
Scale 1:20,000

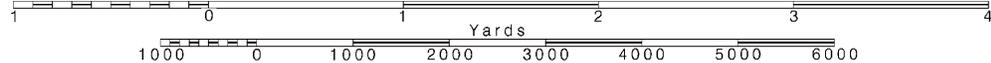


Note: Chart grid lines are aligned with true north.

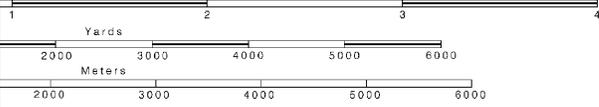
Printed at reduced scale.

SCALE 1:50,000
Nautical Miles

See Note on page 5.

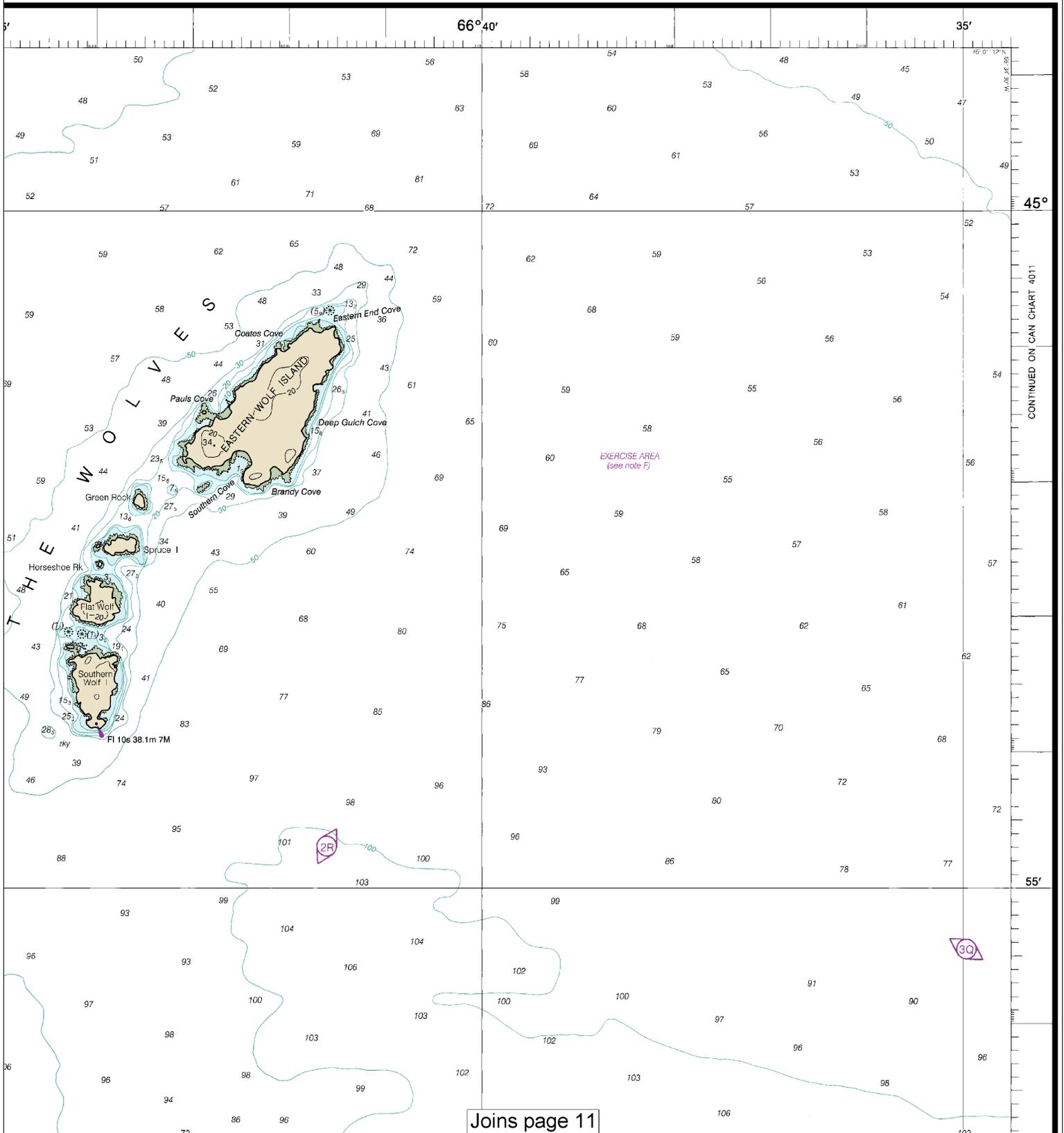


SCALE 1:50,000
Nautical Miles



NOTE F
FIRING PRACTICE AND EXERCISE AREAS
Limits of Canadian Firing Practice and Exercise
Areas. See Canadian Notice to Mariners No. 35 of
each year.

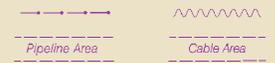
DEPTHS IN METERS



hand corner are available at nauticalcharts.noaa.gov.
Last Correction: 6/14/2016. Cleared through:
LNM: 4616 (11/15/2016), NM: 4816 (11/26/2016), CHS: 1016 (10/28/2016)



CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling. Covered wells may be marked by lighted or unlighted buoys.

FISH TRAPS
Numerous uncharted fish traps may exist shoreward of the 10 meter curve.

AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.
See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

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.

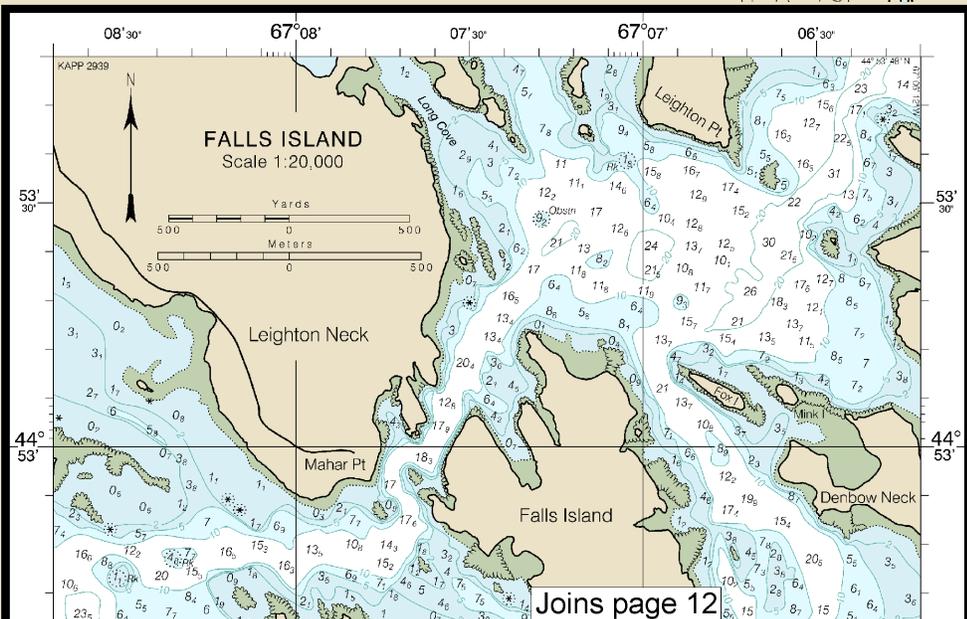
WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 1. 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, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in Concord, MA.
Refer to charted regulation section numbers.

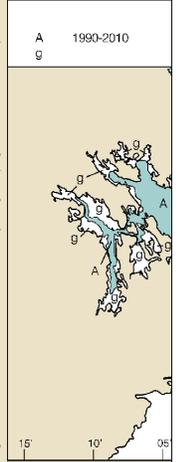
BAY OF FUNDY VESSEL TRAFFIC SERVICES
Traffic Services calling-in point with number; arrow indicates direction of vessel movement.
The international boundary is the outer limit of Canada's Bay of Fundy Vessel Traffic Services zone. Vessels must report on entering or leaving the zone.

For additional information concerning these services see the Canadian publication *Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg and Eastern Arctic)*, Part 3.

NOTE C
Mariners are cautioned that ferries may deviate from their published standard routes due to inclement weather, traffic conditions, navigational hazards, or other emergency situations.



The outlined survey information bordered in this by the U.S. and not shown on

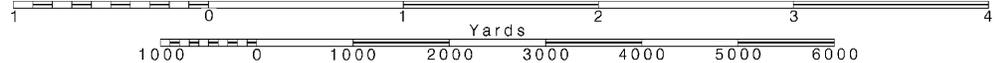


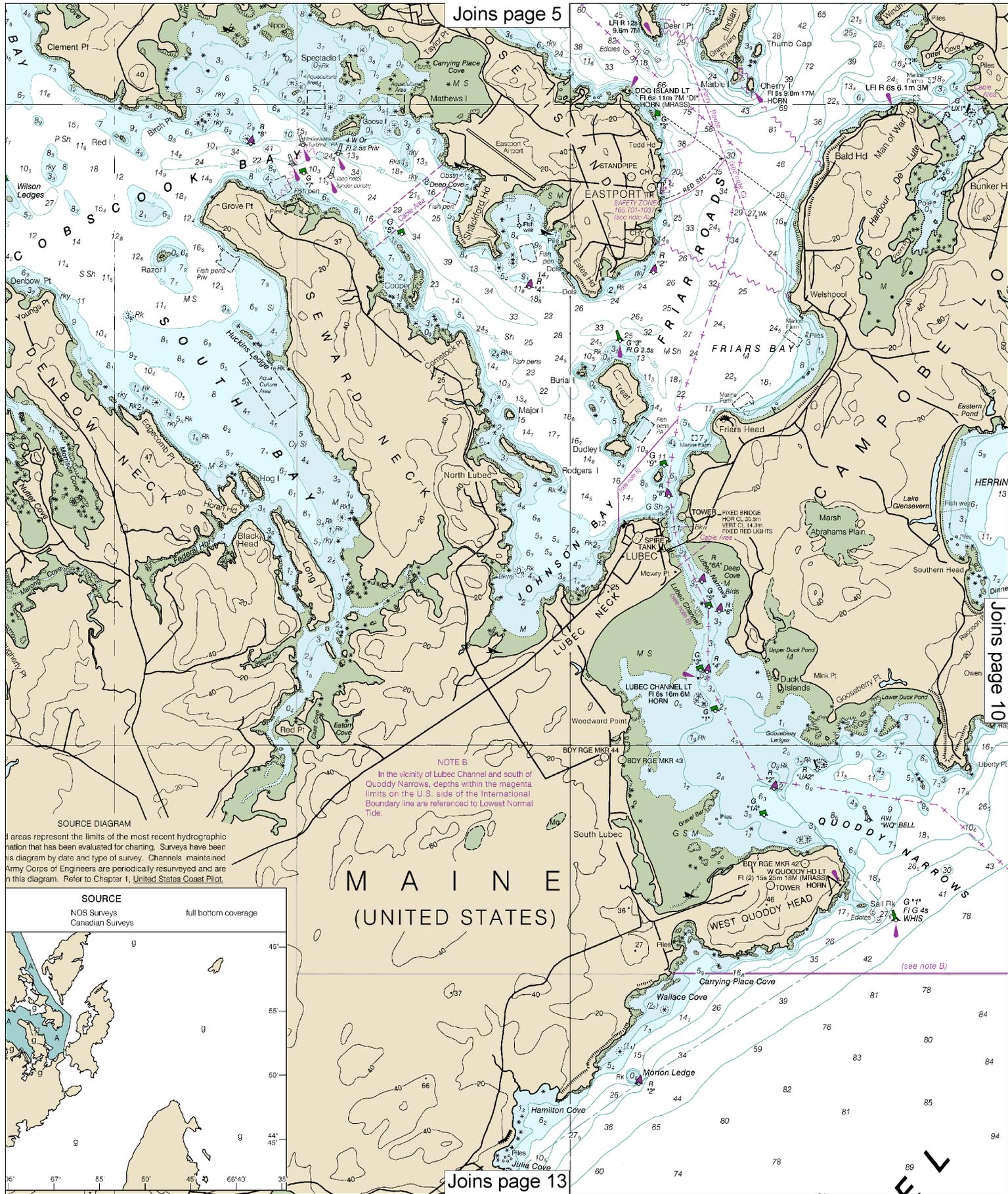
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

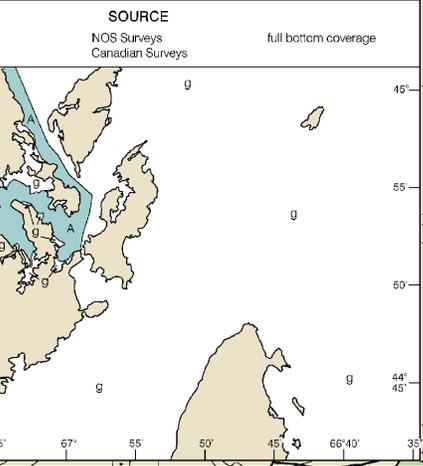
SCALE 1:50,000

See Note on page 5.





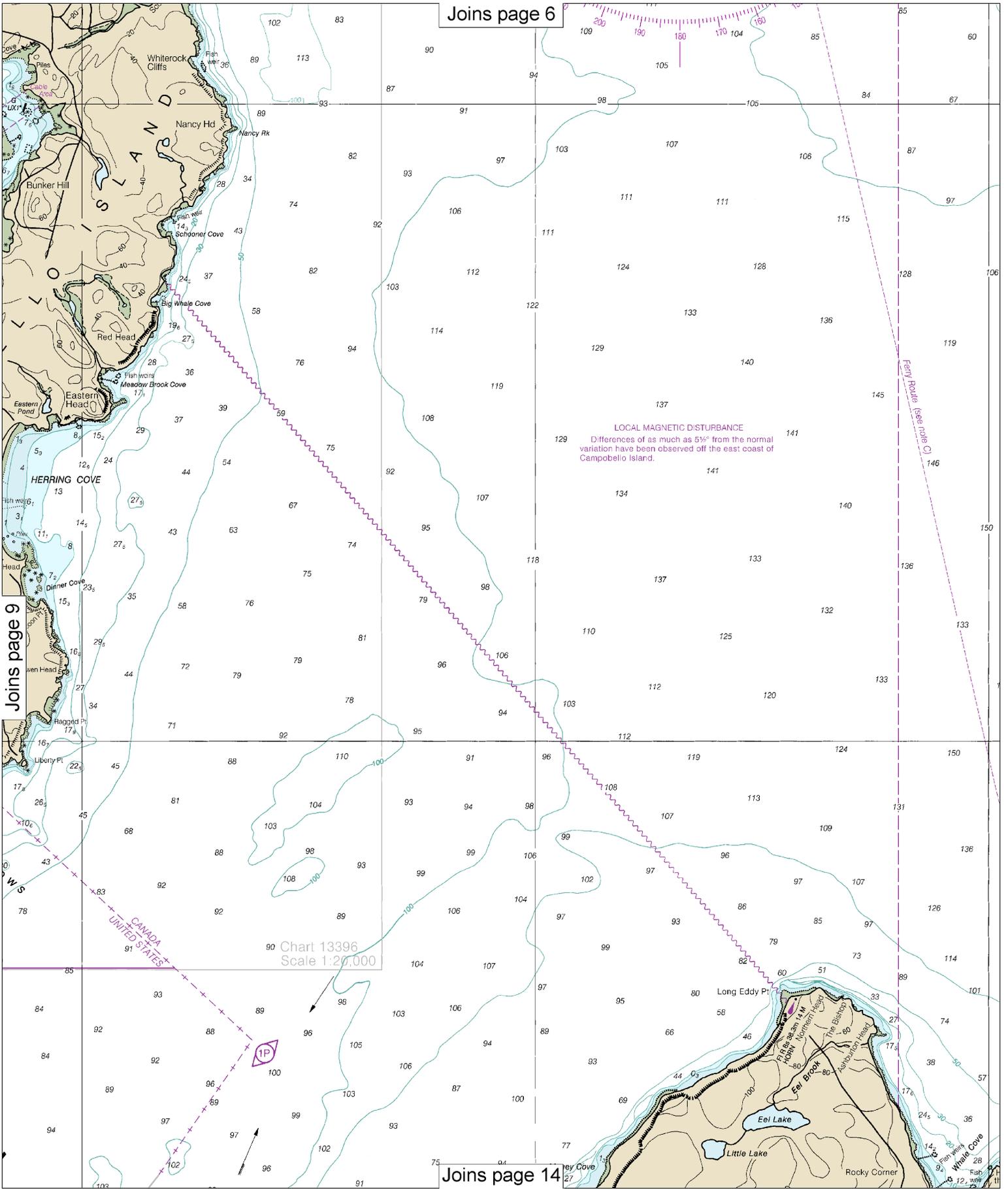
SOURCE DIAGRAM
 Areas represent the limits of the most recent hydrographic nation that has been evaluated for charting. Surveys have been in diagram by date and type of survey. Channels maintained Army Corps of Engineers are periodically resurveyed and are in this diagram. Refer to Chapter 1, United States Coast Pilot.



NOTE B
 In the vicinity of Lubec Channel and south of Quoddy Narrows, depths within the magenta limits on the U.S. side of the International Boundary line are referenced to Lowest Normal Tide.

M A I N E
(UNITED STATES)

Joins page 6



Joins page 9

Joins page 14

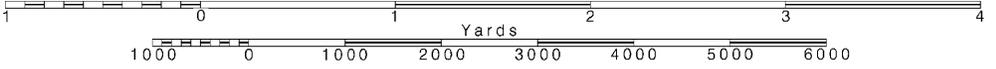
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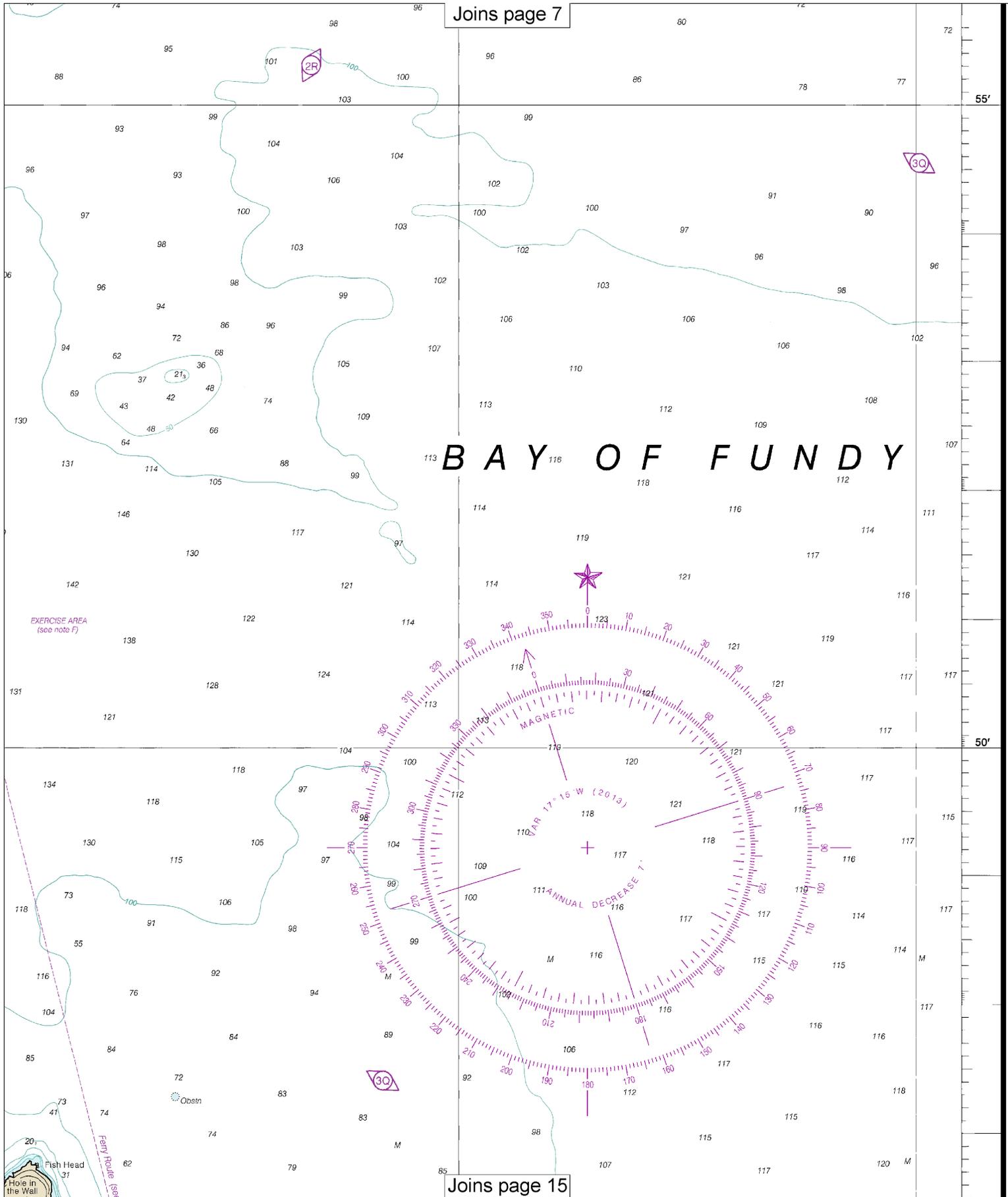
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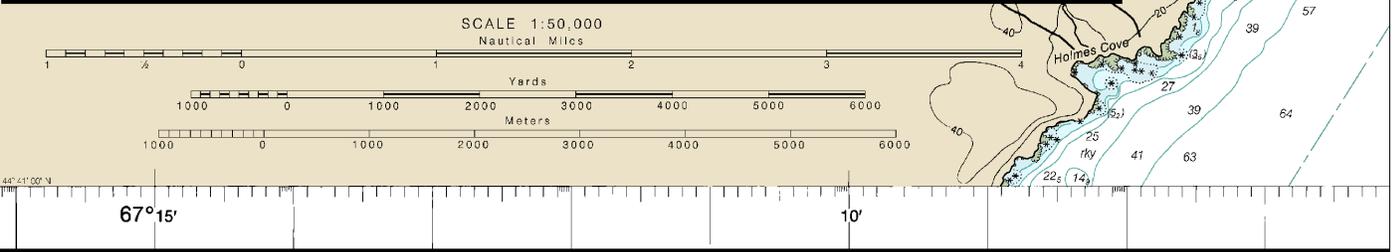
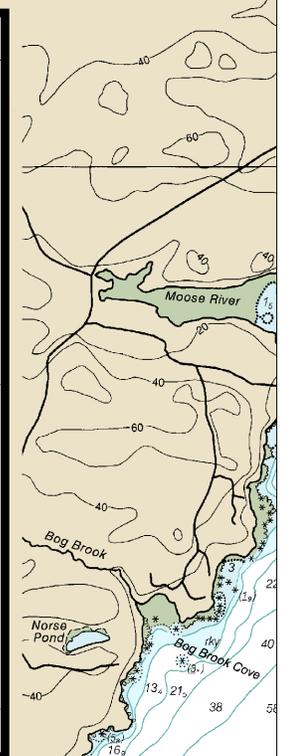
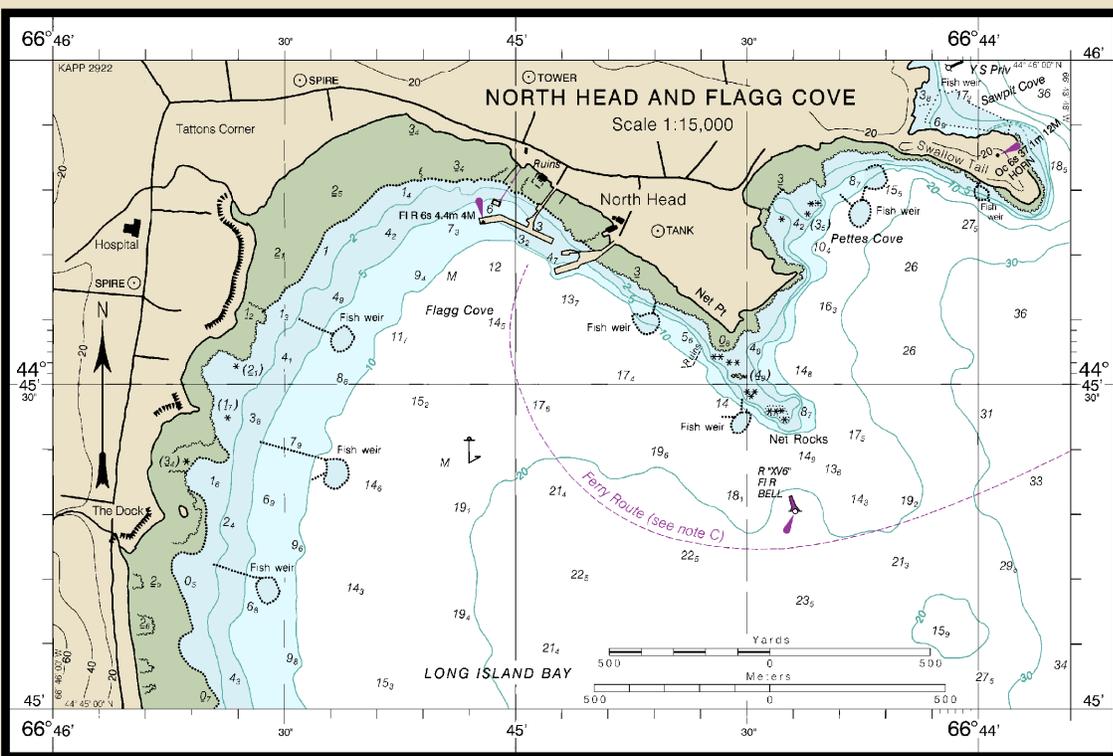
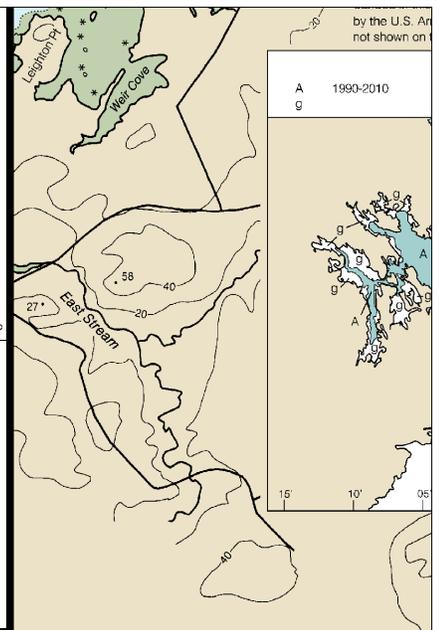
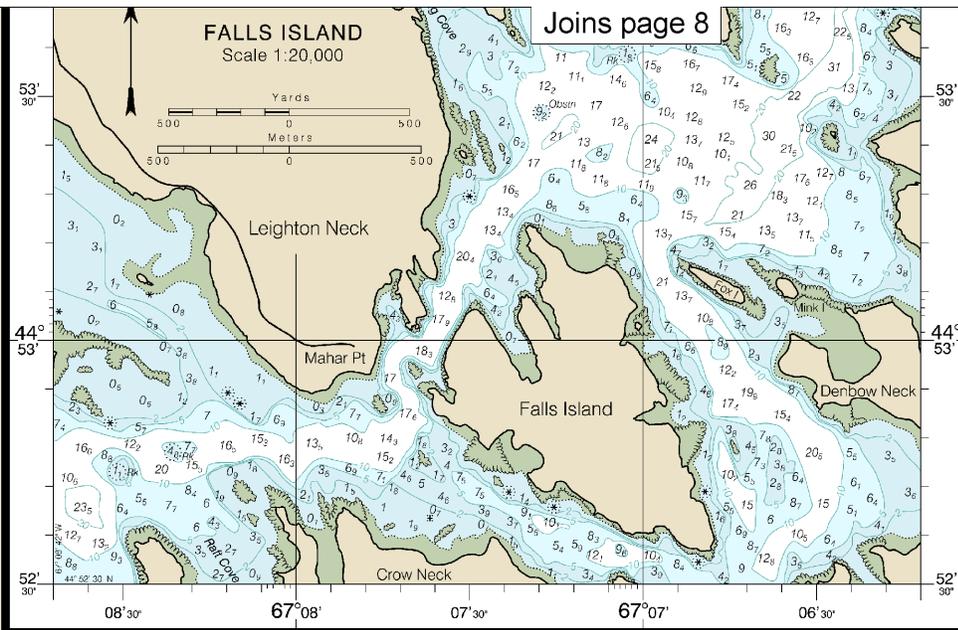
Printed at reduced scale.

SCALE 1:50,000

See Note on page 5.







5th Ed., Aug. 2013
13394

Last Correction: 6/14/2016. Cleared through:
 LNM: 4616 (11/15/2016), NM: 4816 (11/26/2016), CHS: 1016 (10/28/2016)

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 to 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 nauticcharts.noaa.gov.

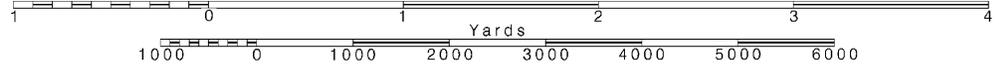
12

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:50,000
 Nautical Miles

See Note on page 5.



Army Corps of Engineers are periodically resurveyed and are shown in this diagram. Refer to Chapter 1, United States Coast Pilot.

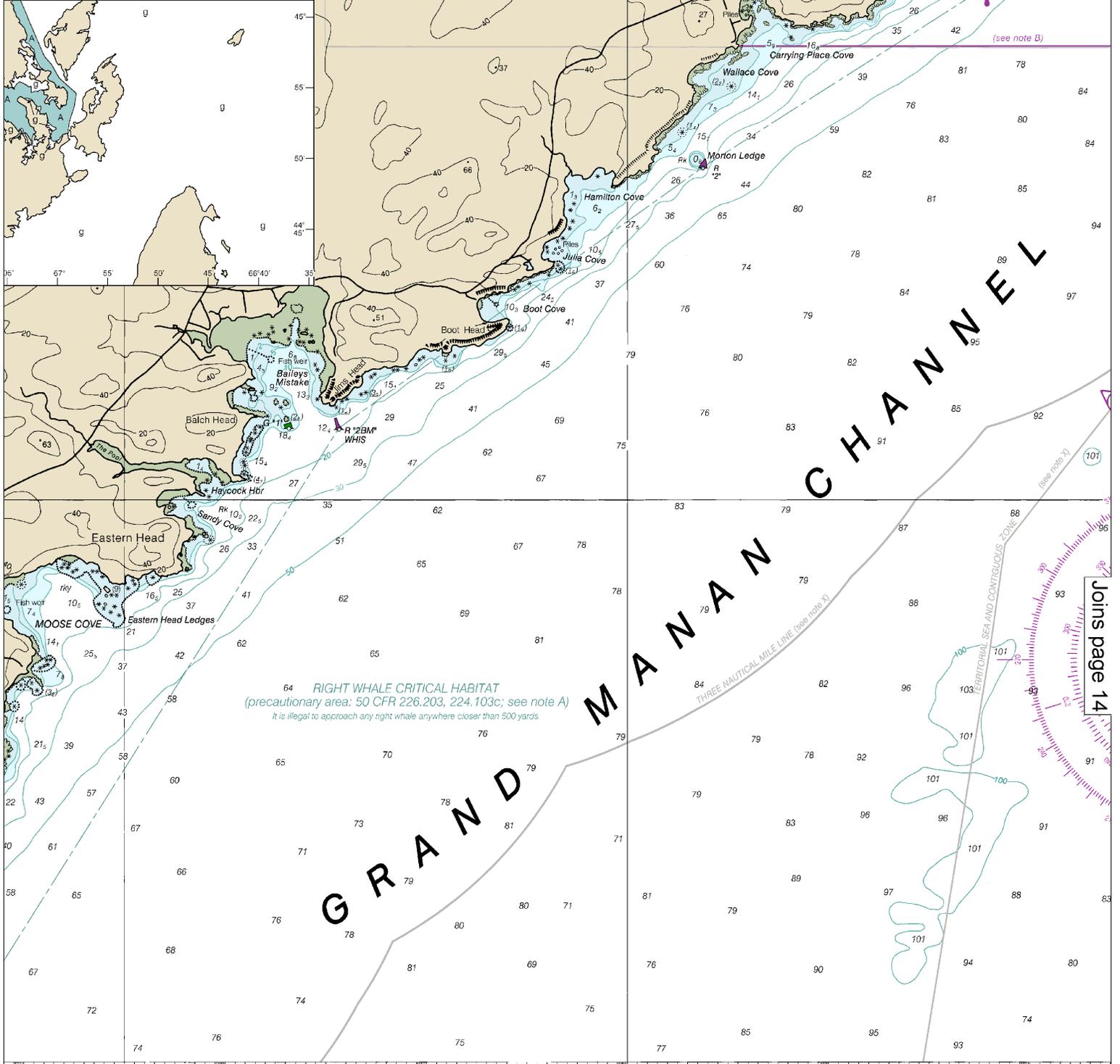
Joins page 9

M A TINELE
(UNITED STATES)

SOURCE

NOS Surveys
Canadian Surveys

full bottom coverage



(see note B)

(see note Y)

Joins page 14

05'

CONTINUED ON CHART 13325

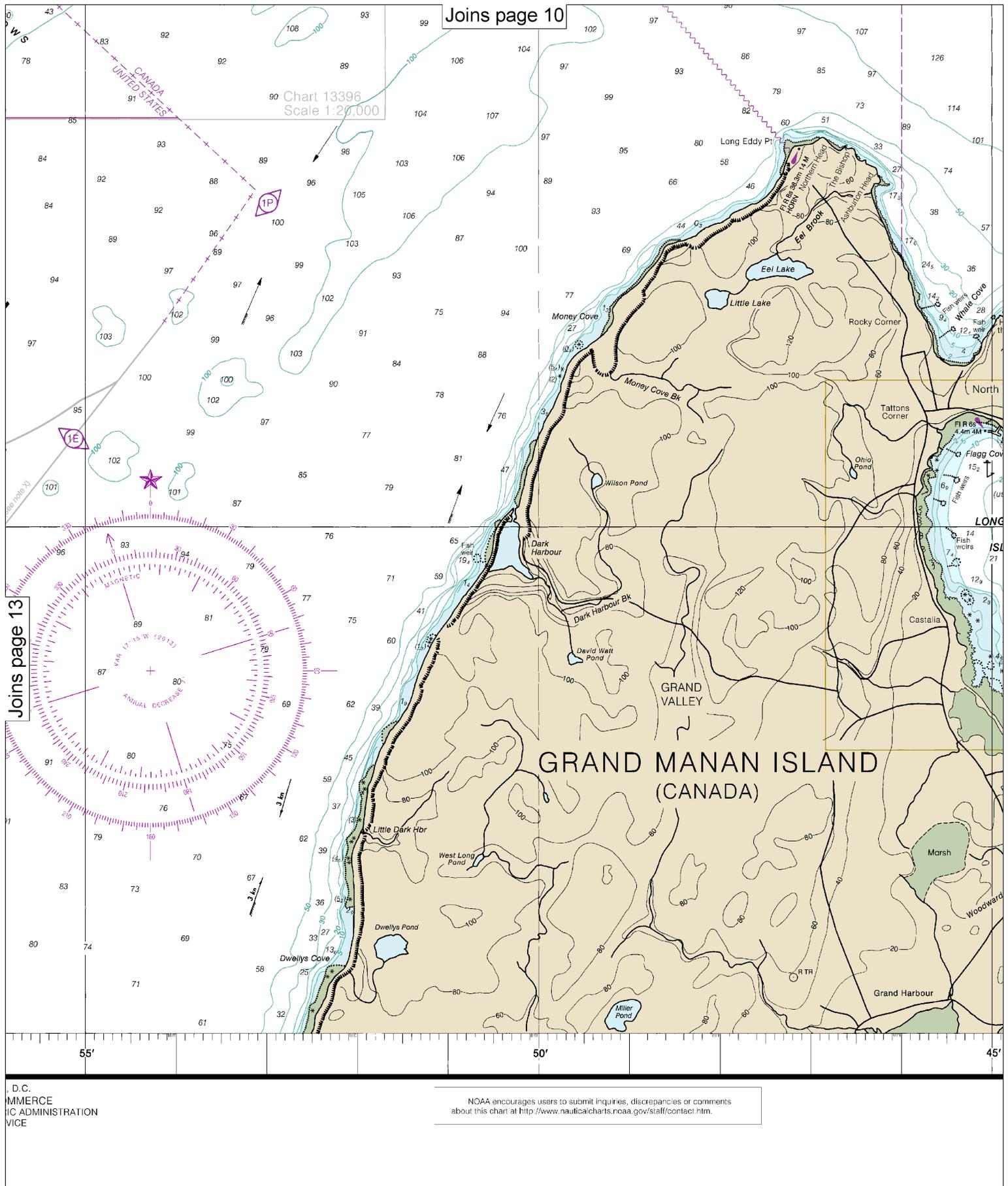
67°

JOINS CHART 13392

DEPTHS IN METERS

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

13



Joins page 10

Chart 13396
Scale 1:20,000

Joins page 13

GRAND MANAN ISLAND
(CANADA)

D.C.
HYDROGRAPHIC OFFICE
COMMERCE
ADMINISTRATION
VICE

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

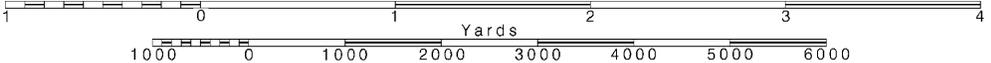
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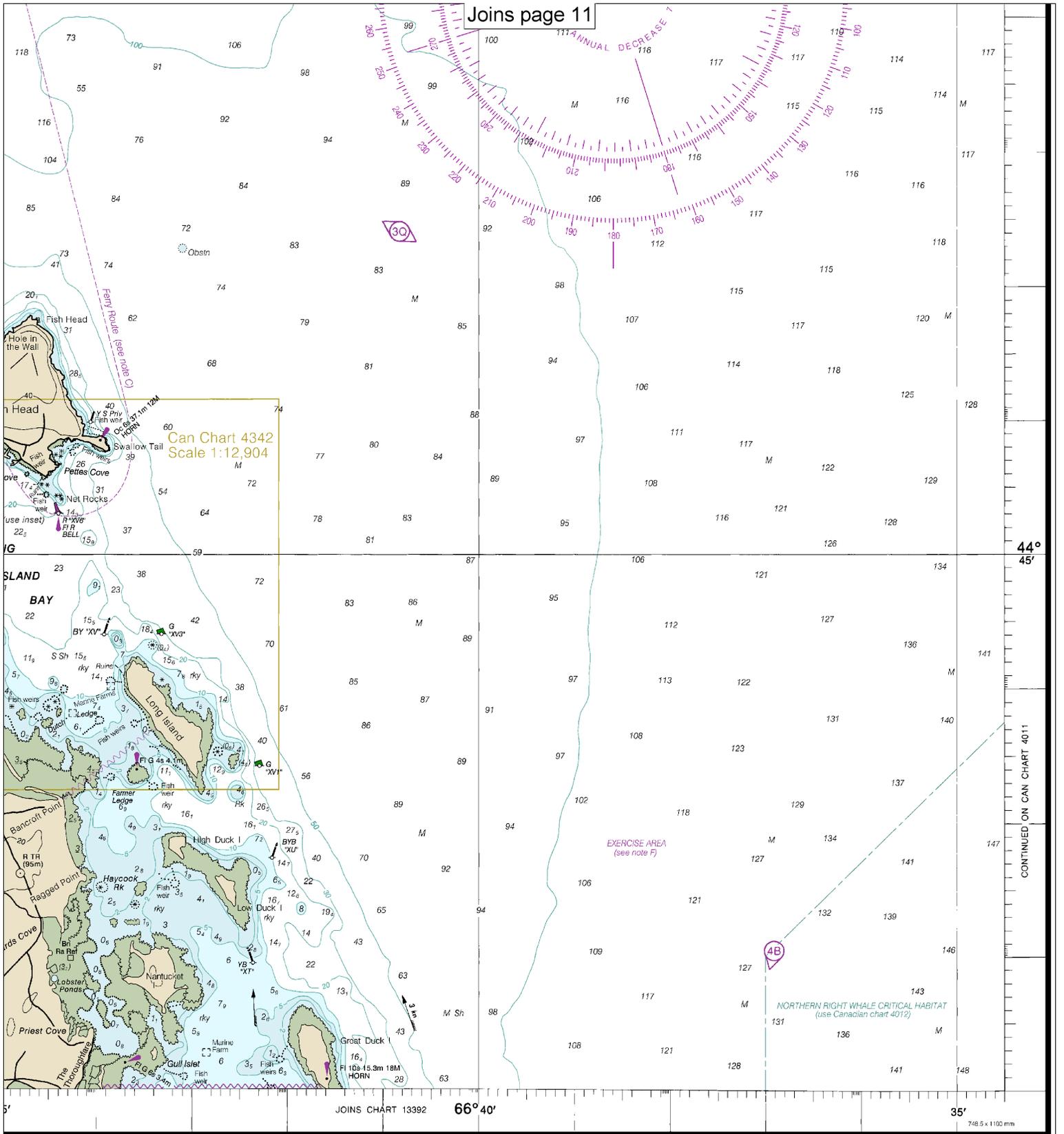
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:50,000
Nautical Miles

See Note on page 5.





44° 45'

CONTINUED ON CAN CHART 4011

JOINS CHART 13392

66° 40'

35'

748.5 x 1100 mm

Grand Manan Channel - Northern Part
 DEPTHS IN METERS - SCALE 1:50,000

13394

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17



EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

- Nautical chart related products and information — <http://www.nauticalcharts.noaa.gov>
- Interactive chart catalog — <http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml>
- Report a chart discrepancy — <http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx>
- Chart and chart related inquiries and comments — <http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs>
- Chart updates (LNM and NM corrections) — http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
- Coast Pilot online — <http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm>
- Tides and Currents — <http://tidesandcurrents.noaa.gov>
- Marine Forecasts — <http://www.nws.noaa.gov/om/marine/home.htm>
- National Data Buoy Center — <http://www.ndbc.noaa.gov/>
- NowCoast web portal for coastal conditions — <http://www.nowcoast.noaa.gov/>
- National Weather Service — <http://www.weather.gov/>
- National Hurricane Center — <http://www.nhc.noaa.gov/>
- Pacific Tsunami Warning Center — <http://ptwc.weather.gov/>
- Contact Us — <http://www.nauticalcharts.noaa.gov/staff/contact.htm>



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