

BookletChart™

Unalaska Bay and Akutan Pass

NOAA Chart 16528

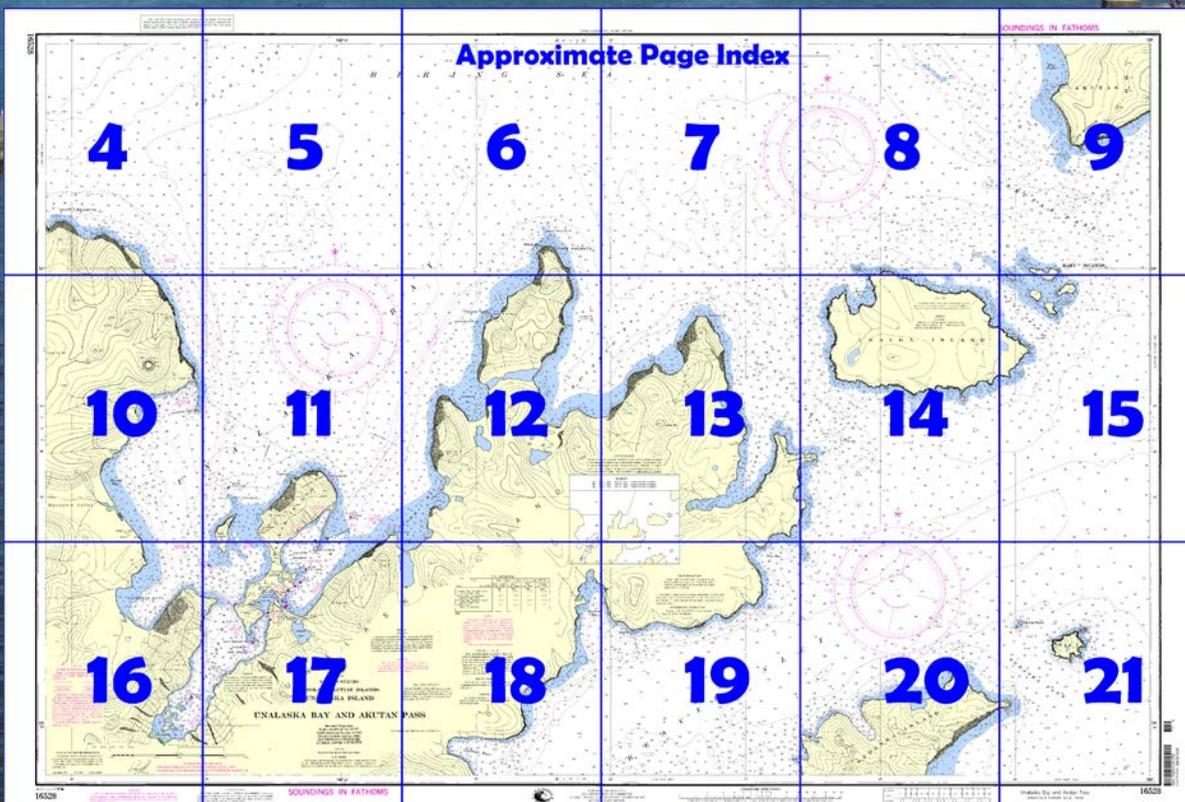


A reduced-scale NOAA nautical chart for small boaters

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=16528>.



(Selected Excerpts from Coast Pilot)
Akutan Pass and Unalga Pass, on either side of Unalga Island, are ship passages, secondary to Unimak Pass, for entering the Bering Sea from the Pacific through the E part of the Aleutian Chain. Akutan Pass is 2.5 miles wide in its narrowest part between the Baby Islands on the SW and Triplet Rocks off Cape Morgan. The depths in the pass are very irregular, but no hidden dangers have been found. Depths less than 10 fathoms extend about 0.4 mile S from

Triplet Rocks, and the tide rips there are intensified, appearing as breakers. Small craft should avoid them. A narrow, crescent-shaped

shoal with a least depth of 7 fathoms is 3.5 miles NW from Cape Morgan. The shoal can be detected by the swirls and tide rips marking it. Akutan Pass is wider than Unalaga Pass, but the currents and tide rips are similar. However, the current is felt over a much greater distance, so that with an adverse current it has been found that better time can be made by using Unalaga Pass. On the larger tides, the flood creates such heavy tide rips N of Unalaga Island, even in calm weather, that it is advisable to be prepared to take seas aboard. Tide rips 15 feet high have been observed. In approaching both Akutan Pass and Baby Pass, fewer rips will be encountered if courses are directed for the area SE of the Akutan Pass, in the daytime and with clear weather and a fair current, furnishes a convenient route for vessels bound to or from Unalaska Bay. From E it is recommended that courses be steered to make land in the vicinity of Tigalda Island and Avatanak Island; then follow the S side of these islands until the course is shaped from Rootok Island to Cape Morgan. A midchannel course through the pass is recommended.

Remarks on currents in Akutan Pass will be found in the first part of this chapter. (See the Tidal Current Tables for predictions for Akutan Pass.) **Baby Islands**, a group of six low islands in Akutan Pass and N of the E end of Unalga Island, have numerous rocks among them. The islands are all tundra covered. On the W island is a large rookery and the ground is very pitted over almost the entire top. The SE island is used as a fox ranch. When seen apart from Unalga Island, the Baby Islands are prominent although they tend to blend together to appear as one island. Numerous submerged rocks, covered 1½ fathoms, in 54°00'13"N., 166°06'05"W., are about 1.0 mile NW of the NW island. Mariners should use extreme caution in this area.

(Strong currents sweep among the Baby Islands. The S end of the passage between the two SE islands is blocked by a reef bare at low water, forming a small protected bay, but strong currents make it a rather uncomfortable anchorage for small boats.

Baby Pass, about 0.8 mile wide, separates Unalga Island from the Baby Islands. Ledges along the shore restrict the navigable width, but depths up to 20 fathoms will be found in midchannel. Less water and numerous rocks, described previously, are found at the N end of the pass. A 3½-fathom depth in 54°00'06"N., 166°07'16"W., is at the NW end of the pass and about 0.65 mile from shore.

On the Unalga shore of Baby Pass is a shallow cove in which small boats may get fair protection from S and W weather; however, a rock awash at low water is a little S of the middle of the cove. Off the N point of the cove is a group of bare rocks that extend into Baby Pass. The outer rock, 12 feet high, is 300 yards from the point. Foul ground extends 400 yards into Baby Pass from the 0.8 mile stretch of shore W of the cove.

Very heavy tide rips occur to the NW of the Baby Islands on the flood, and extend a considerable distance to the SE on the ebb. (See remarks on tide rips in Akutan Pass.) The flood and ebb current velocity is about 4 and 5 knots, respectively. Flood and ebb velocities of 5.5 and 7 knots occur at times of tropic tides. (See the Tidal Current Tables for predictions for Baby Pass.

Unalga Island is separated from Unalaska Island by Unalga Pass. The island is low compared to the neighboring islands, the highest point being a rounded hill of 707 feet SW of the central point. The E end of Unalga Island is a flat-topped hill, 145 feet high.

Malga Bay, on the NW side of Unalga Island, is about 0.6 mile in diameter and affords shelter in S weather. The E shore of the bay is a chain of jagged rocks and islets, the highest being 106 feet.

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

RCC Juneau Commander
17th CG District (907) 463-2000
Juneau, Alaska

Table of Selected Chart Notes

Corrected through NM Sep. 15/12
Corrected through LNM Sep. 04/12

HEIGHTS
Heights in feet above Mean High Water.

Mercator Projection
Scale 1:40,000 at Lat 53° 57'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

CAUTION
Extremely heavy tide rips and strong currents, which at times make control of vessels difficult, may be encountered in the passages between the North Pacific Ocean and the Bering Sea. See Tidal Current Tables for supplemental information.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

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.

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
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.

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

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.

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).

CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:
--- Pipeline Area ---
~~~~~ Cable Area ~~~~~  
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.

**NOAA WEATHER RADIO BROADCASTS**  
The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.  
Unalaska, AK WXX-89 162.550 MHz

**NOTE A**  
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. 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, 17th Coast Guard District in Juneau, Alaska, or at the Office of the District Engineer, Corps of Engineers in Anchorage, Alaska. Refer to charted regulation section numbers.

**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 3.105" Southward and 6.852" Westward to agree with this chart.

**NOTE D**  
**CAUTION**  
Mariners are advised that low flying aircraft may be present over Hog Island Channel in the vicinity of Dutch Harbor Airport. The Federal Aviation Administration (FAA) has requested that vessels transit with caution and not anchor within the area.

**CAUTION**  
Unexploded ordnance (artillery shells) have been discovered in the vicinity of the Crowley Maritime dock. The ordnance are potentially hazardous and mariners are advised not to anchor in the area or use anchors to assist in mooring to the dock.

The contour lines are hill shapes, sketched to afford the navigator a generalized indication of the character of the land forms. They should not be relied upon as lines of equal elevation.

**NOTE B**  
**CAUTION**  
It has been reported that several vessels anchoring in the southwest area of Dutch Harbor have fouled their anchors on ground tackle lost on the bottom of the harbor. Caution should be exercised when anchoring west of a line drawn from Rocky Point to the city pier (53°54'12"N/166°31'40"W). If possible, anchor outside the affected area.

**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. Refer to Chapter 1, United States Coast Pilot.

**COLREGS, 80.1705 (see note A)**  
International Regulations for Preventing Collisions at Sea, 1972. The entire area of this chart falls seaward of the COLREGS Demarcation Line.

**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.

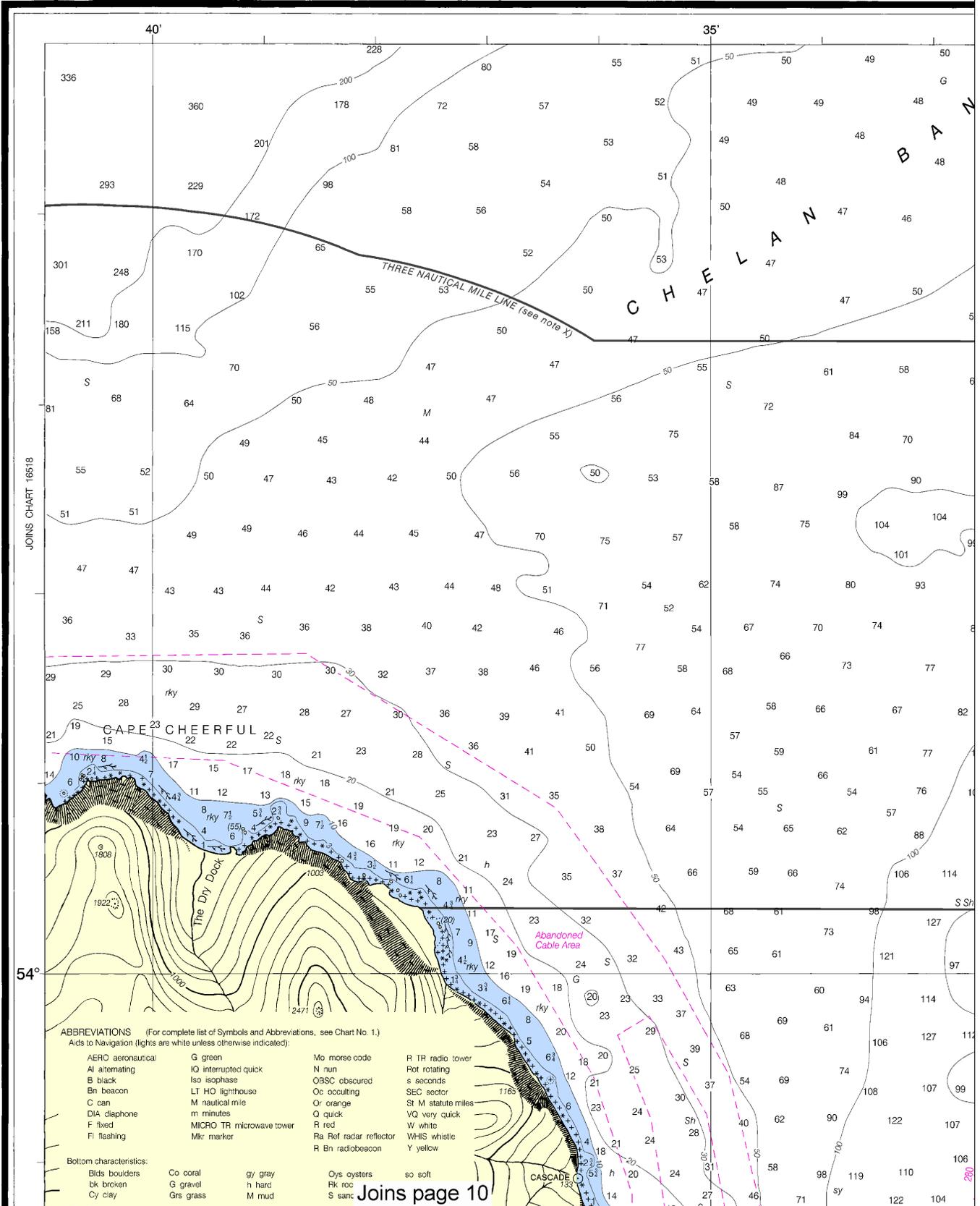
**TIDAL INFORMATION**

| PLACE | NAME         | (LAT/LONG)         | Height referred to datum of soundings (MLLW) |                 |                |
|-------|--------------|--------------------|----------------------------------------------|-----------------|----------------|
|       |              |                    | Mean Higher High Water                       | Mean High Water | Mean Low Water |
|       |              |                    | feet                                         | feet            | feet           |
|       | Maiga Bay    | (53°59'N/166°10'W) | 3.3                                          | 2.9             | 1.1            |
|       | English Bay  | (53°56'N/166°15'W) | 3.0                                          | 2.7             | 0.9            |
|       | Dutch Harbor | (53°54'N/166°32'W) | 3.7                                          | 3.4             | 1.2            |
|       | Udamat Bay   | (53°50'N/166°13'W) | 5.1                                          | 4.6             | 1.3            |

Dashes (- -) located in datum columns indicate unavailable 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>. (Jun 2012)

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 20910-3262.

16528



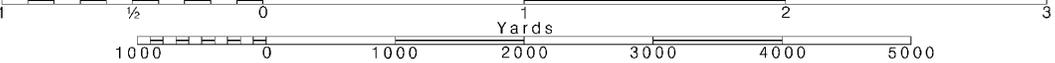
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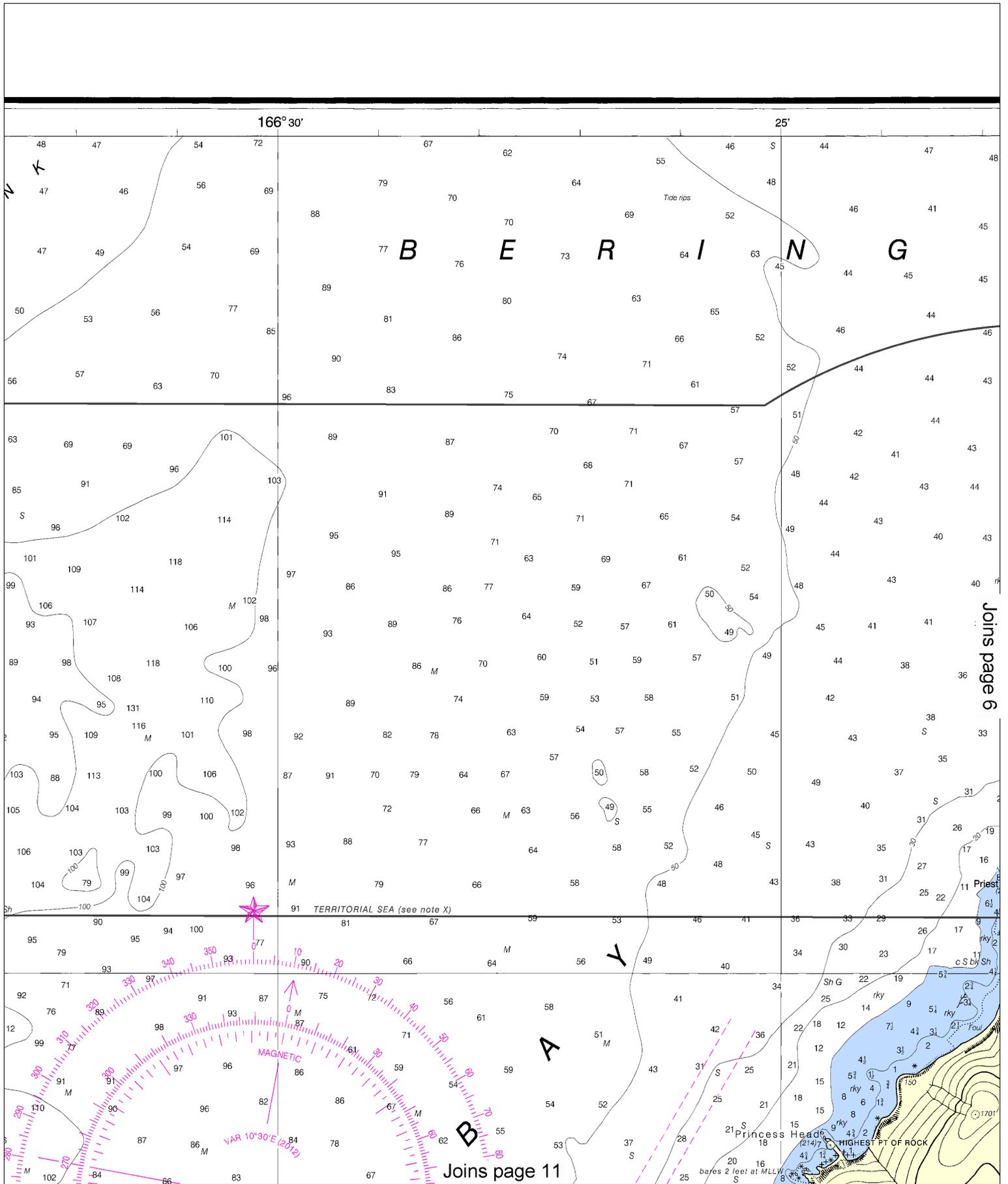
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

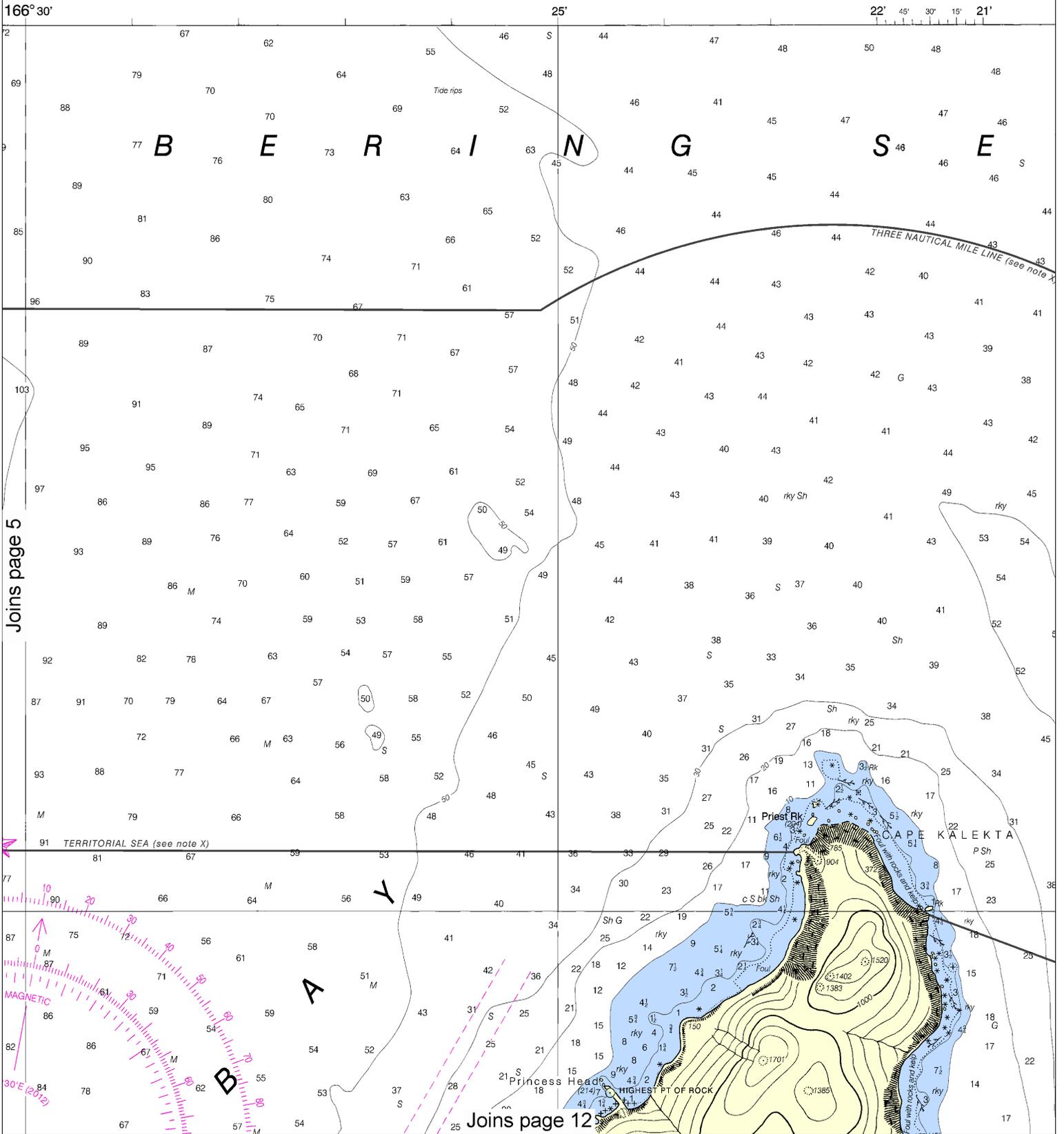
SCALE 1:40,000  
Nautical Miles

See Note on page 5.





This BookletChart was reduced to 75% of the original chart scale.  
 The new scale is 1:53333. Barscales have also been reduced and  
 are accurate when used to measure distances in this BookletChart.



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Joins page 12

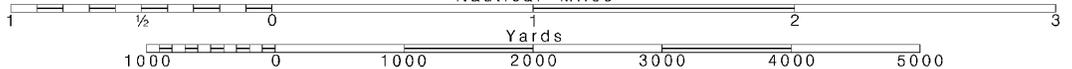
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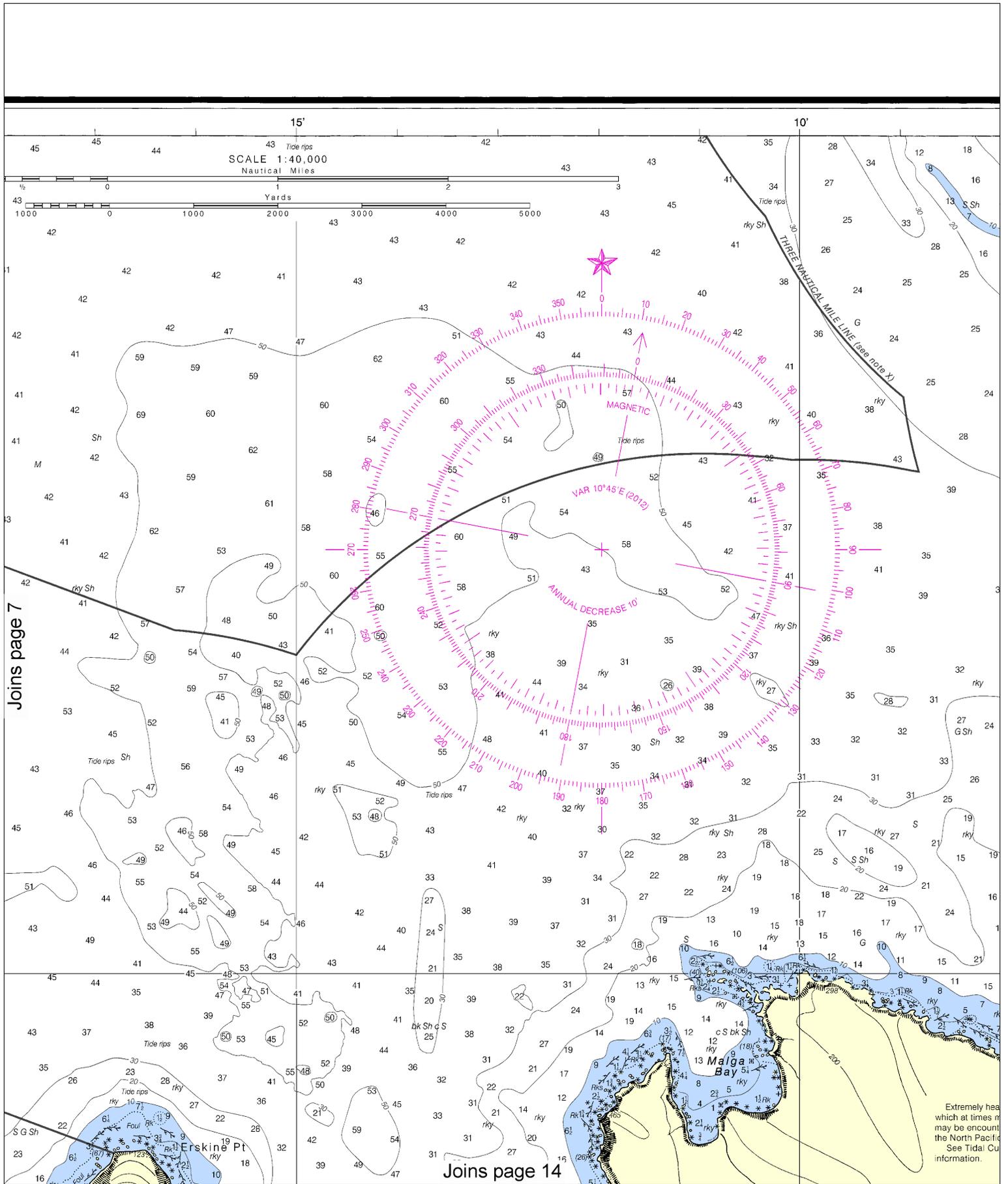
See Note on page 5.



Note: Chart grid lines are aligned with true north.





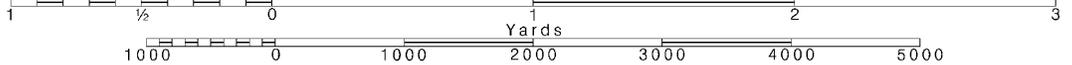


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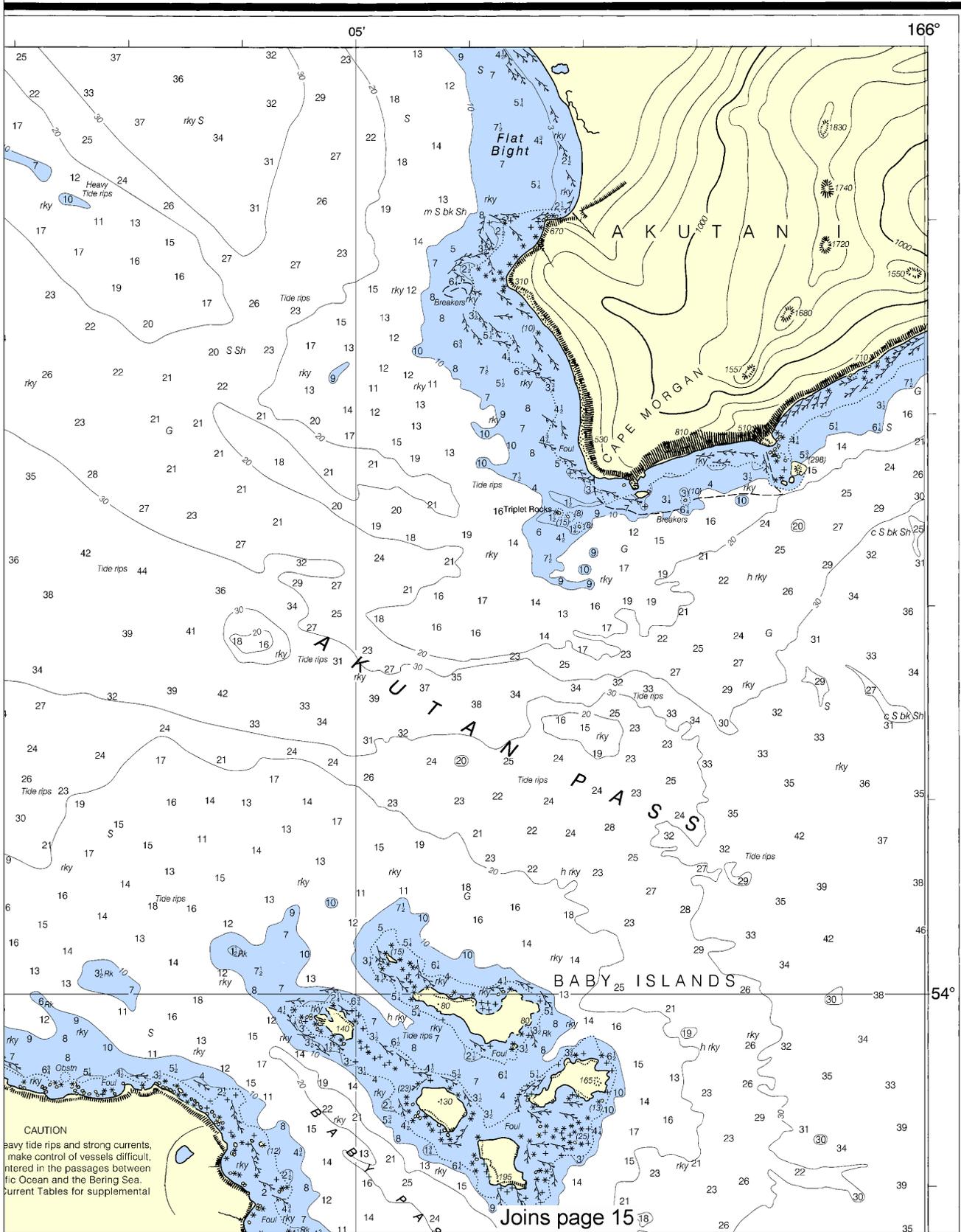
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SCALE 1:40,000  
Nautical Miles

See Note on page 5.



# SOUNDINGS IN FATHOMS



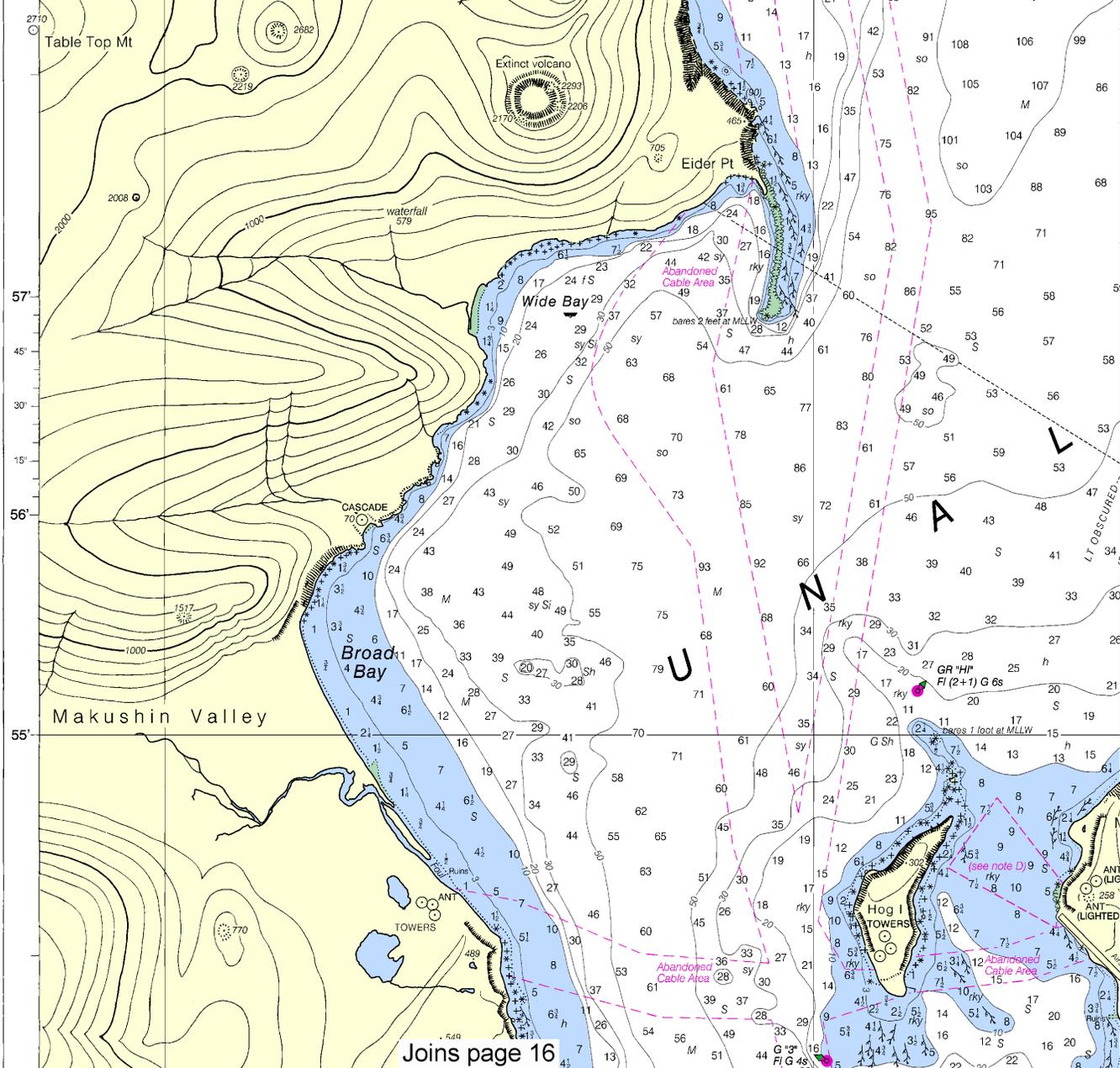
54°

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

- |                   |                          |                        |                    |
|-------------------|--------------------------|------------------------|--------------------|
| AERO aeronautical | G green                  | Mo more code           | R TR radio tower   |
| Al alternating    | IQ interrupted quick     | N nun                  | Rat rotating       |
| B black           | Is isophase              | OBSC obscured          | s seconds          |
| Bn beacon         | LT HO lighthouse         | Oc occulting           | SEC sector         |
| C can             | M nautical mile          | Or orange              | St M statute miles |
| DIA diaphone      | m minutes                | Q quick                | VQ very quick      |
| F fixed           | MICRO TR microwave tower | R red                  | W white            |
| Fl flashing       | Mkr marker               | Ra Ref radar reflector | WHIS whistle       |
|                   |                          | R Bn radiobeacon       | Y yellow           |

- Bottom characteristics:
- |               |           |         |             |           |
|---------------|-----------|---------|-------------|-----------|
| Blds boulders | Co coral  | gy gray | Oys oysters | so soft   |
| bk broken     | G gravel  | n hard  | Rk rock     | Sh shells |
| Cy clay       | Grs grass | M mud   | S sand      | sy sticky |

- Miscellaneous:
- |                       |                         |                      |                |
|-----------------------|-------------------------|----------------------|----------------|
| AUTH authorized       | Obstr obstruction       | PD position doubtful | Subm submerged |
| ED existence doubtful | PA position approximate | Rep reported         |                |
- 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.



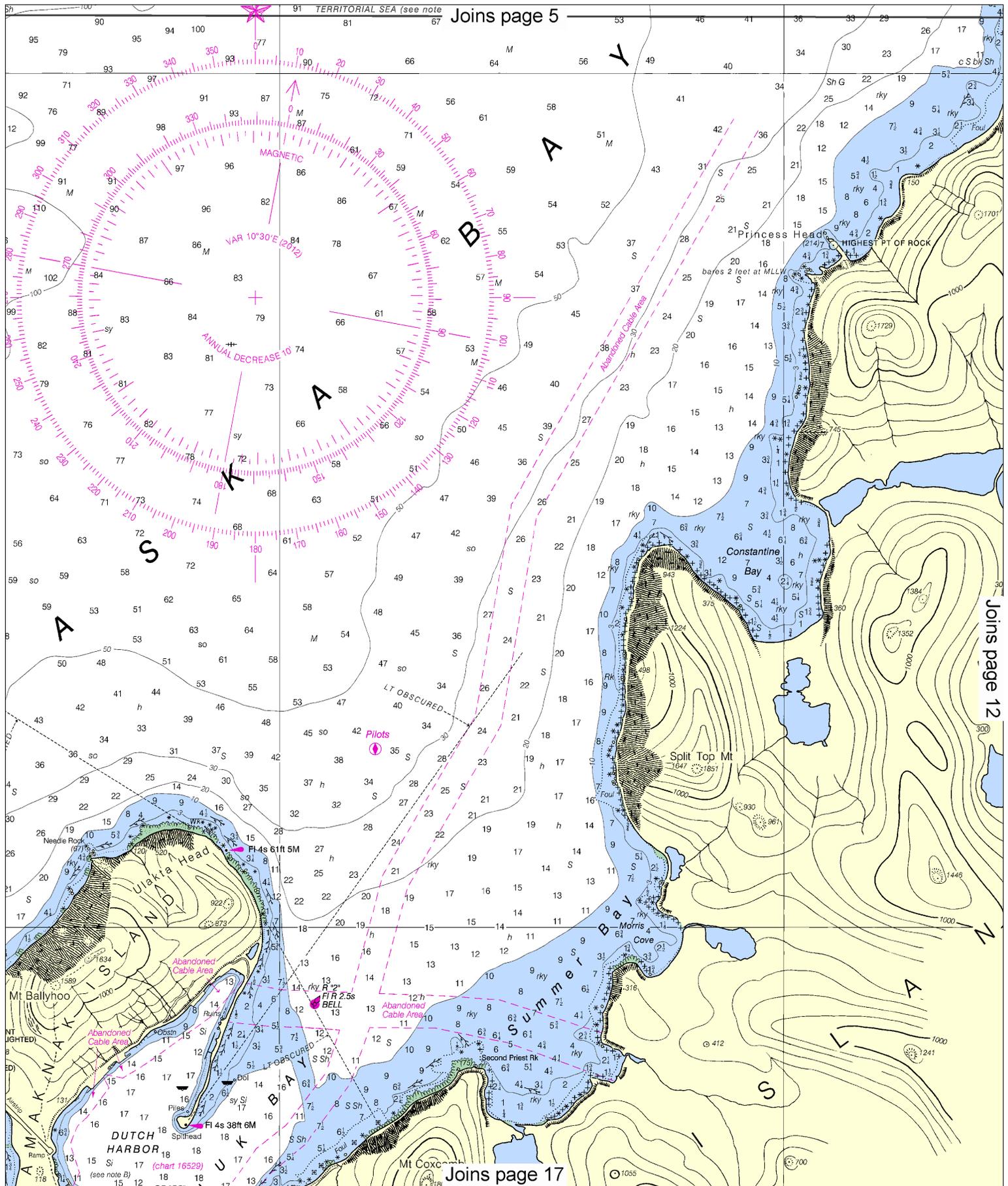
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000  
Nautical Miles

See Note on page 5.



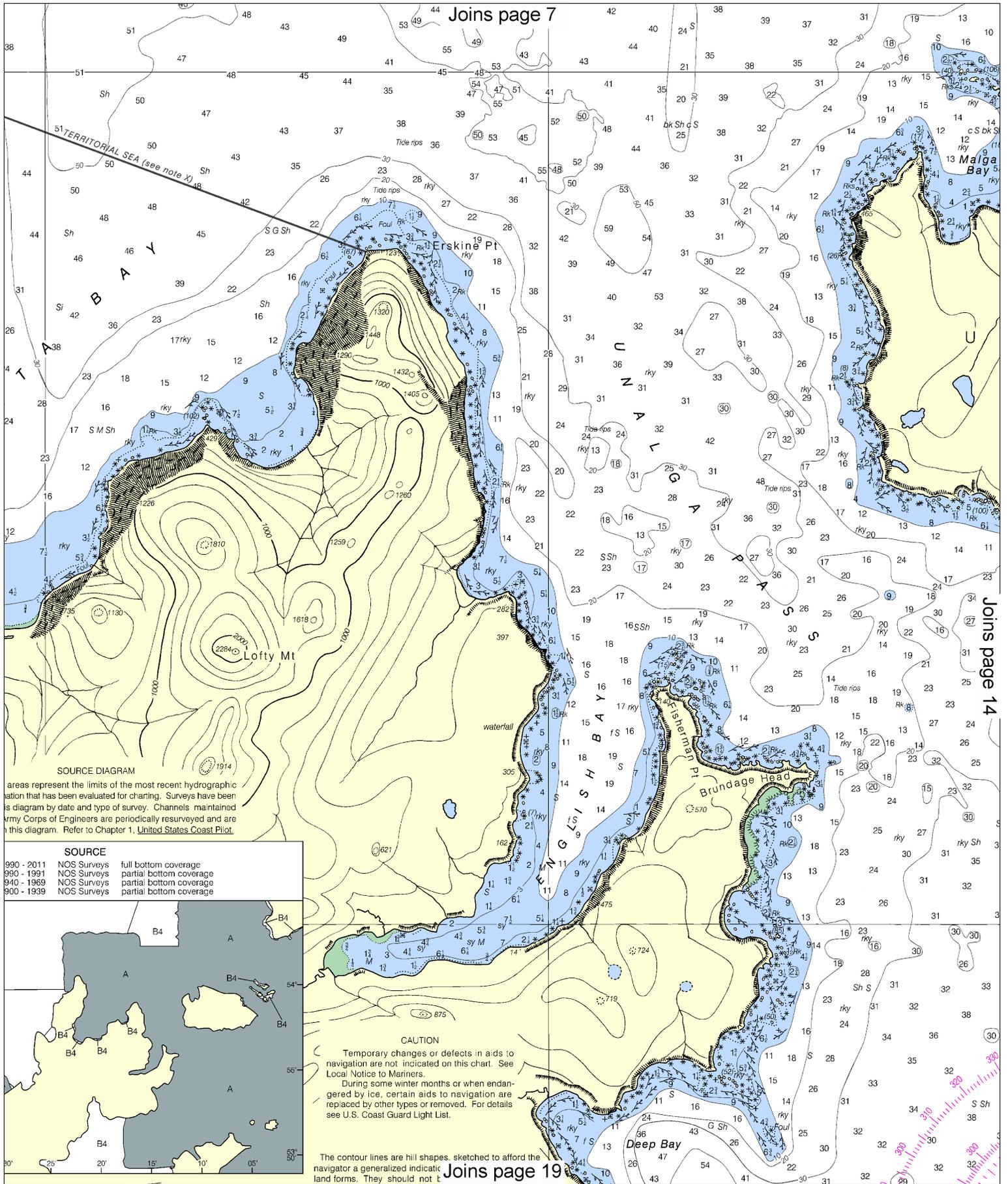


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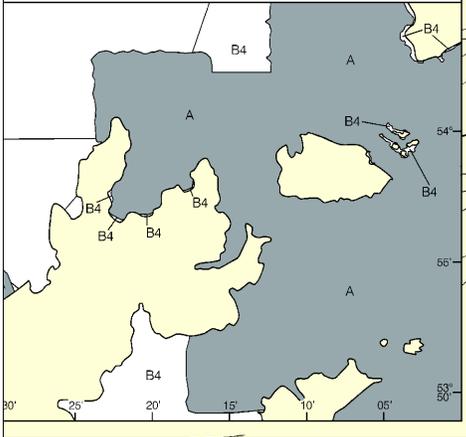
Joins page 19

SOURCE DIAGRAM

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

SOURCE

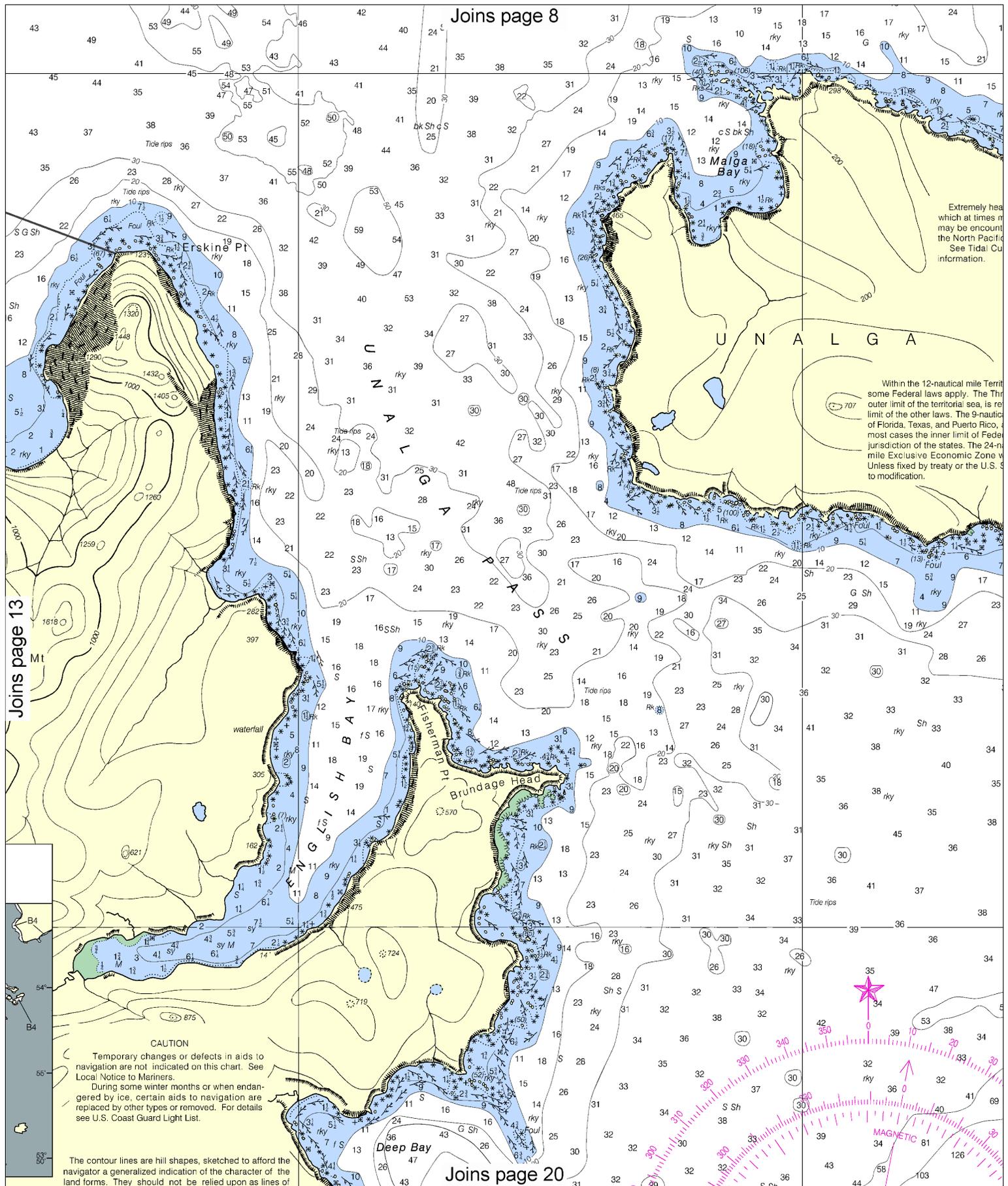
|            |             |                         |
|------------|-------------|-------------------------|
| 930 - 2011 | NOS Surveys | full bottom coverage    |
| 890 - 1931 | NOS Surveys | partial bottom coverage |
| 940 - 1969 | NOS Surveys | partial bottom coverage |
| 900 - 1939 | NOS Surveys | partial bottom coverage |



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.

The contour lines are hill shapes, sketched to afford the navigator a generalized indication of land forms. They should not be used for precise measurements.



**14**

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000  
Nautical Miles

See Note on page 5.



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# BABY ISLANDS

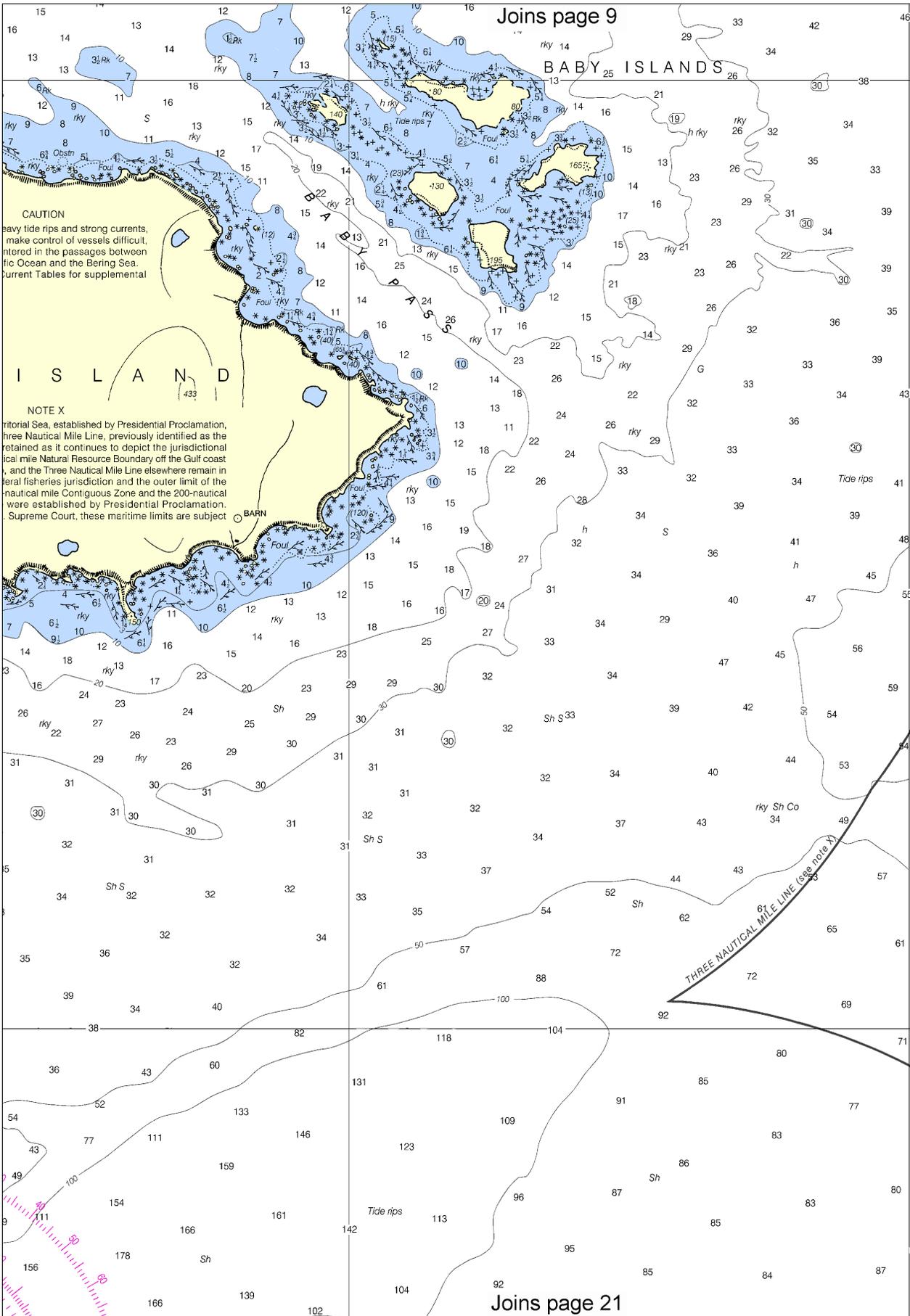
54°

**CAUTION**  
 Heavy tide rips and strong currents, make control of vessels difficult, entered in the passages between the Bering Sea and the Bering Sea. Current Tables for supplemental

# I S L A N D

### NOTE X

territorial Sea, established by Presidential Proclamation, Three Nautical Mile Line, previously identified as the retained as it continues to depict the jurisdictional mile Natural Resource Boundary off the Gulf coast, and the Three Nautical Mile Line elsewhere remain in federal fisheries jurisdiction and the outer limit of the nautical mile Contiguous Zone and the 200-nautical were established by Presidential Proclamation. Supreme Court, these maritime limits are subject



CONTINUED ON CHART 16531

57'

45'

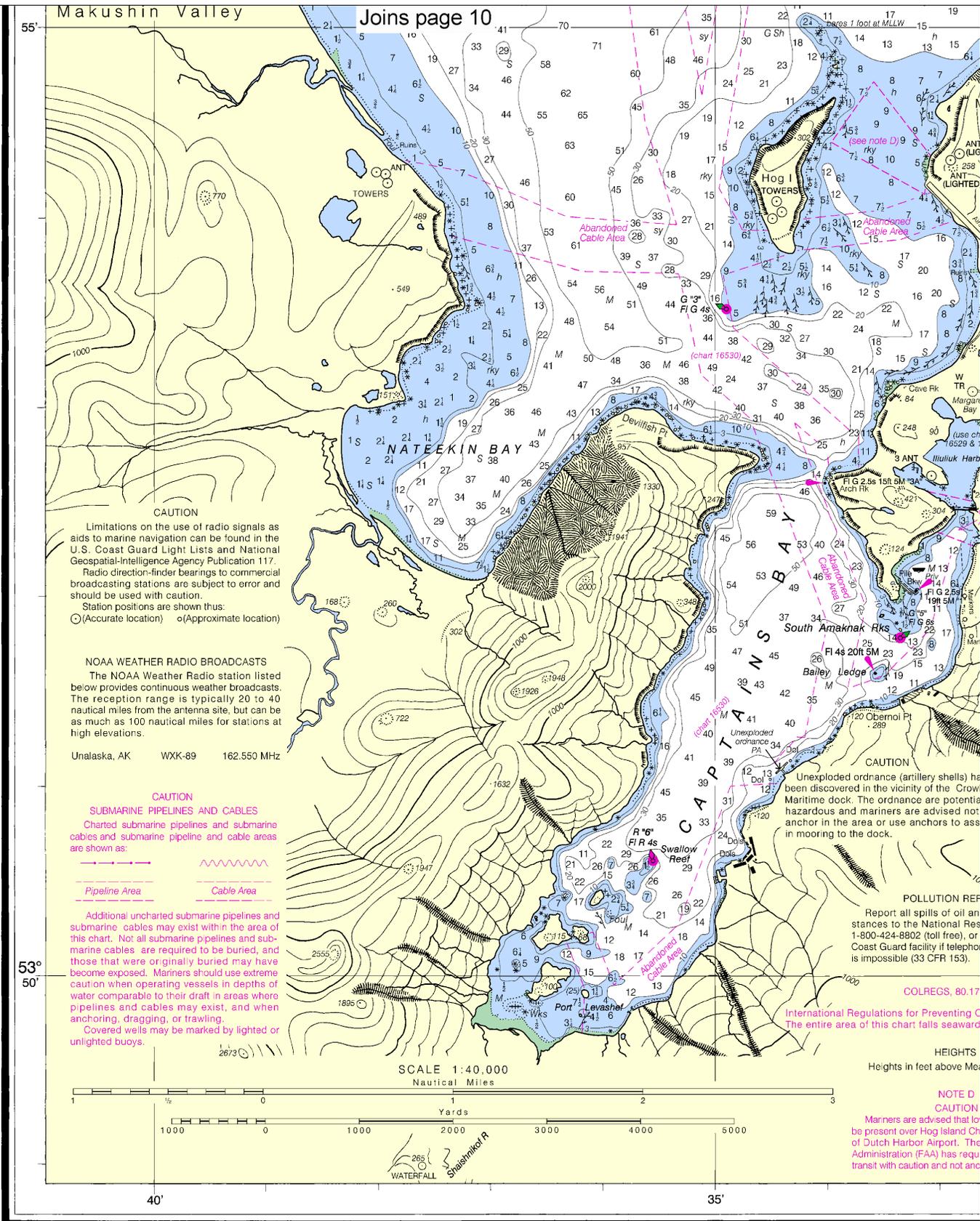
30'

15'

56'

55'

Joins page 21



18th Ed., Sep/12 ■ Corrected through NM Sep. 15/12  
 Corrected through LNM Sep. 04/12

**16528**

**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 [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

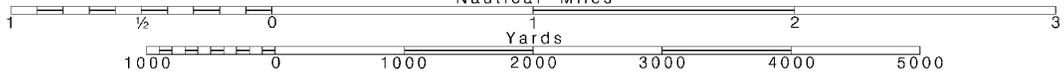
**16**

Note: Chart grid lines are aligned with true north.

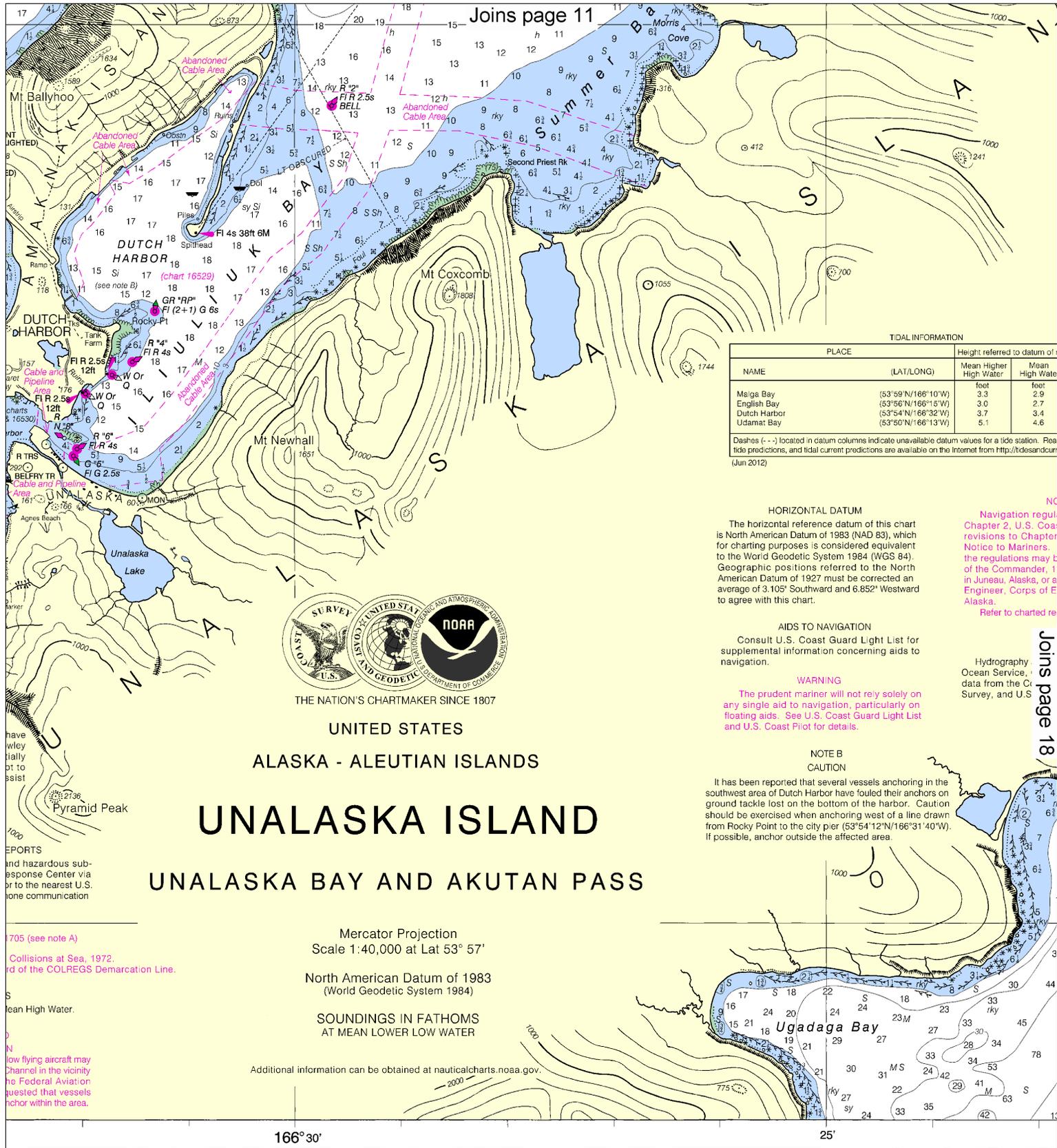
Printed at reduced scale.

SCALE 1:40,000  
 Nautical Miles

See Note on page 5.



Joins page 11



TIDAL INFORMATION

| NAME         | PLACE (LAT/LONG)   | Height referred to datum of |                 |
|--------------|--------------------|-----------------------------|-----------------|
|              |                    | Mean Higher High Water      | Mean High Water |
| Meiga Bay    | (53°59'N/166°10'W) | 3.3                         | 2.9             |
| English Bay  | (53°56'N/166°15'W) | 3.0                         | 2.7             |
| Dutch Harbor | (53°54'N/166°32'W) | 3.7                         | 3.4             |
| Udamat Bay   | (53°50'N/166°13'W) | 5.1                         | 4.6             |

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real time predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov> (Jun 2012)

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 3.105' Southward and 6.852' Westward to agree with this chart.

AIDS TO NAVIGATION

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

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 B

CAUTION

It has been reported that several vessels anchoring in the southwest area of Dutch Harbor have fouled their anchors on ground tackle lost on the bottom of the harbor. Caution should be exercised when anchoring west of a line drawn from Rocky Point to the city pier (53°54'12"N/166°31'40"W). If possible, anchor outside the affected area.



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES  
ALASKA - ALEUTIAN ISLANDS

# UNALASKA ISLAND

## UNALASKA BAY AND AKUTAN PASS

Mercator Projection  
Scale 1:40,000 at Lat 53° 57'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS  
AT MEAN LOWER LOW WATER

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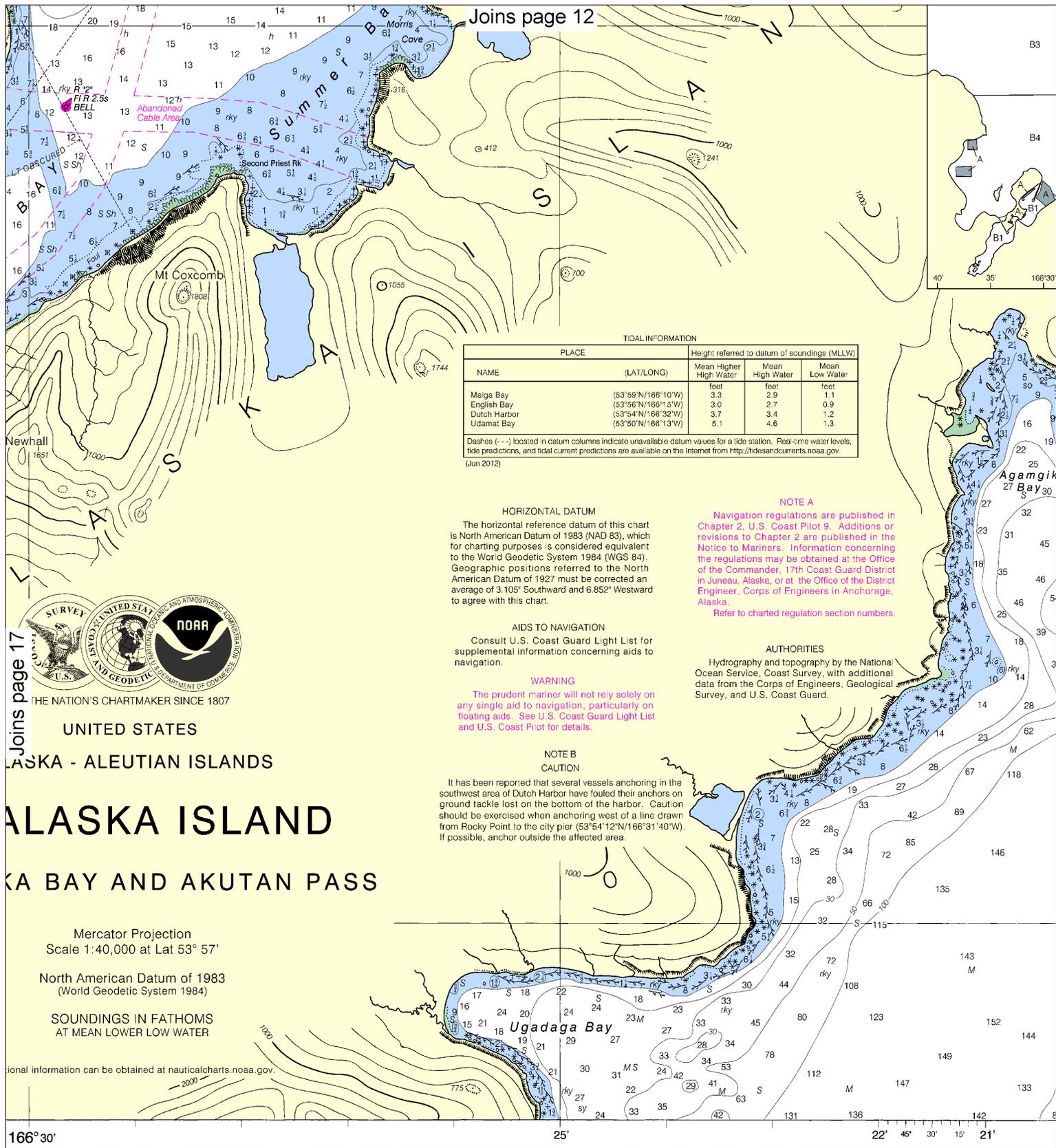
166°30'

25'

# SOUNDINGS IN FATHOMS

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at <http://focsddata.nod.noaa.gov/ldr/inquiry.aspx>, OceanGrafix at 1-877-56CHART or <http://www.oceangrafix.com>.



TIDAL INFORMATION

| NAME         | PLACE (LAT/LONG)   | Height referred to datum of soundings (MLLW) |                 |                |
|--------------|--------------------|----------------------------------------------|-----------------|----------------|
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|              |                    | foot                                         | foot            | foot           |
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| English Bay  | (53°56'N/166°15'W) | 3.0                                          | 2.7             | 0.9            |
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**NOTE B CAUTION**  
 It has been reported that several vessels anchoring in the southwest area of Dutch Harbor have fouled their anchors on ground tackle lost on the bottom of the harbor. Caution should be exercised when anchoring west of a line drawn from Rocky Point to the city pier (53°54'12"N/166°31'40"W). If possible, anchor outside the affected area.



ALASKA - ALEUTIAN ISLANDS  
**ALASKA ISLAND**  
 ALASKA BAY AND AKUTAN PASS

Mercator Projection  
 Scale 1:40,000 at Lat 53° 57'  
 North American Datum of 1983  
 (World Geodetic System 1984)  
 SOUNDINGS IN FATHOMS  
 AT MEAN LOWER LOW WATER

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

**IN FATHOMS**

PRINT-ON-DEMAND CHARTS  
 NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at <http://ocsddata.nod.noaa.gov/ldr/inquiry.aspx>, or OceanGrafix at 1-877-56CHART or <http://www.oceangrafix.com>.

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 U.S. DEPARTMENT OF COMMERCE  
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
 NATIONAL COAST GUARD

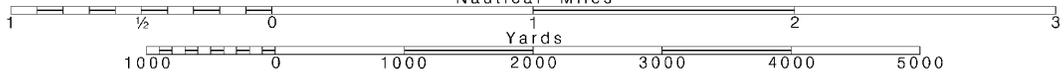
**18**

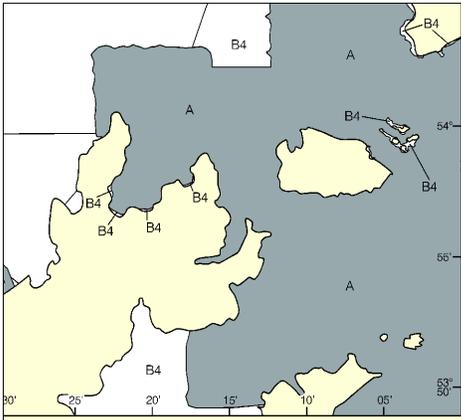
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000  
 Nautical Miles

See Note on page 5.



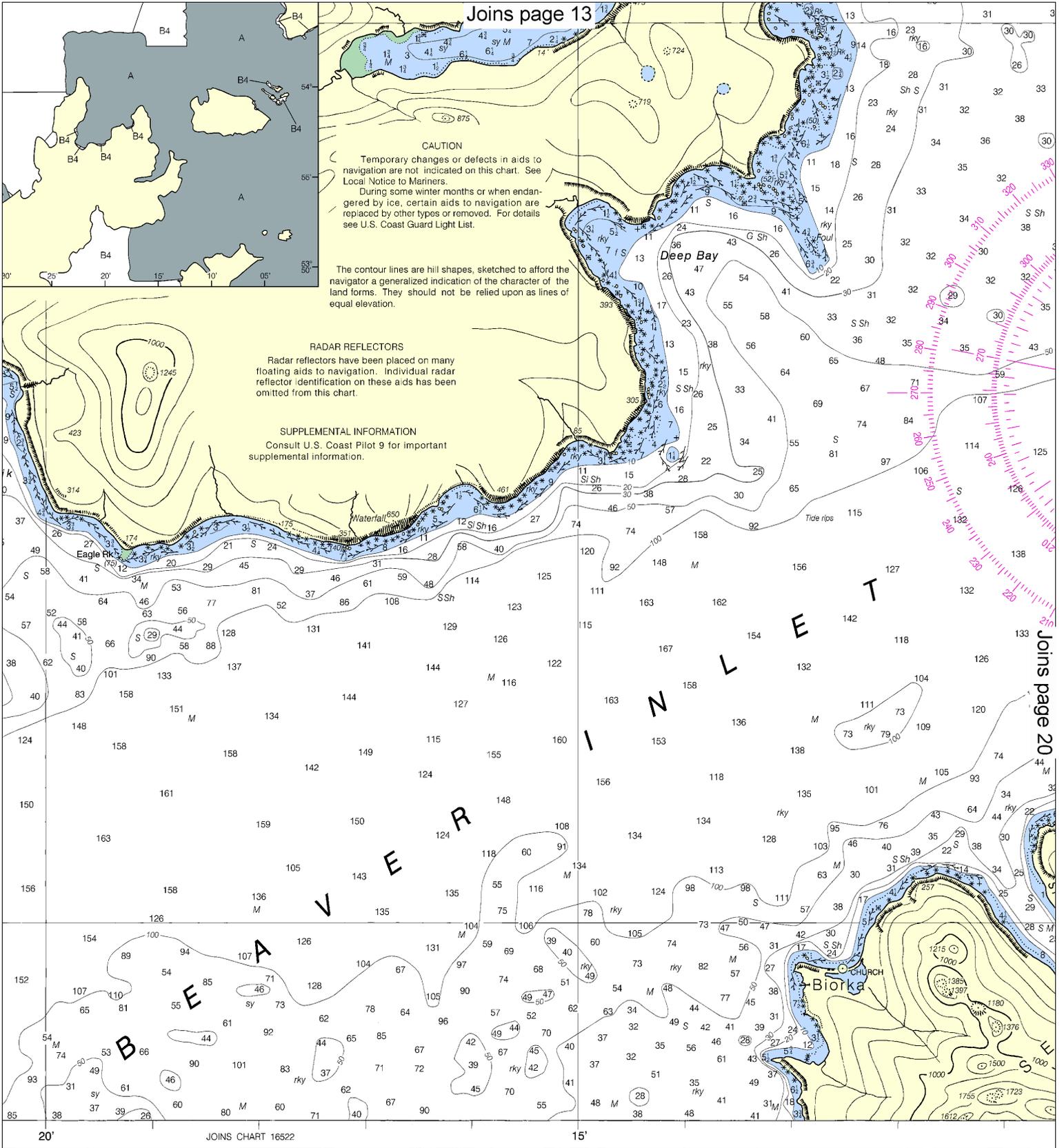


**CAUTION**  
 Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.  
 During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

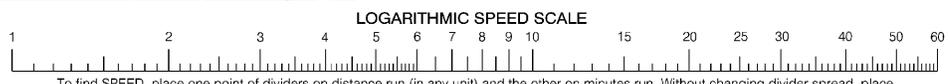
The contour lines are hill shapes, sketched to afford the navigator a generalized indication of the character of the land forms. They should not be relied upon as lines of equal elevation.

**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.

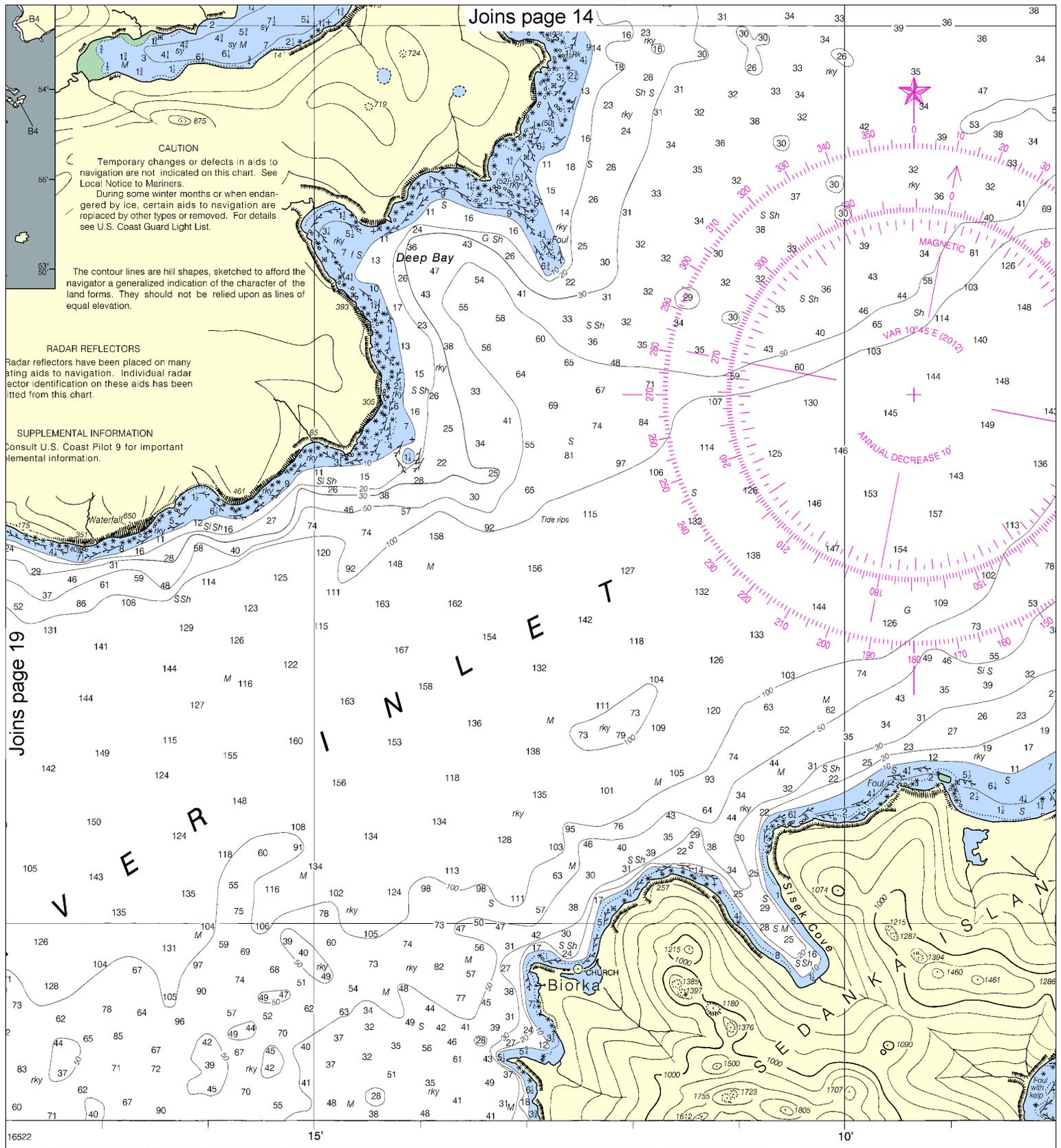
**SUPPLEMENTAL INFORMATION**  
 Consult U.S. Coast Pilot 9 for important supplemental information.



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



To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.



**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.

The contour lines are hill shapes, sketched to afford the navigator a generalized indication of the character of the land forms. They should not be relied upon as lines of equal elevation.

**RADAR REFLECTORS**

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

**SUPPLEMENTAL INFORMATION**

Consult U.S. Coast Pilot 9 for important supplemental information.

Joins page 19

Joins page 14

16522 15' 10'

**LOGARITHMIC SPEED SCALE**



To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

|         |   |    |    |    |    |    |    |
|---------|---|----|----|----|----|----|----|
| FATHOMS | 1 | 2  | 3  | 4  | 5  | 6  | 7  |
| FEET    | 6 | 12 | 18 | 24 | 30 | 36 | 42 |
| METERS  | 1 | 2  | 3  | 4  | 5  | 6  | 7  |

**20**

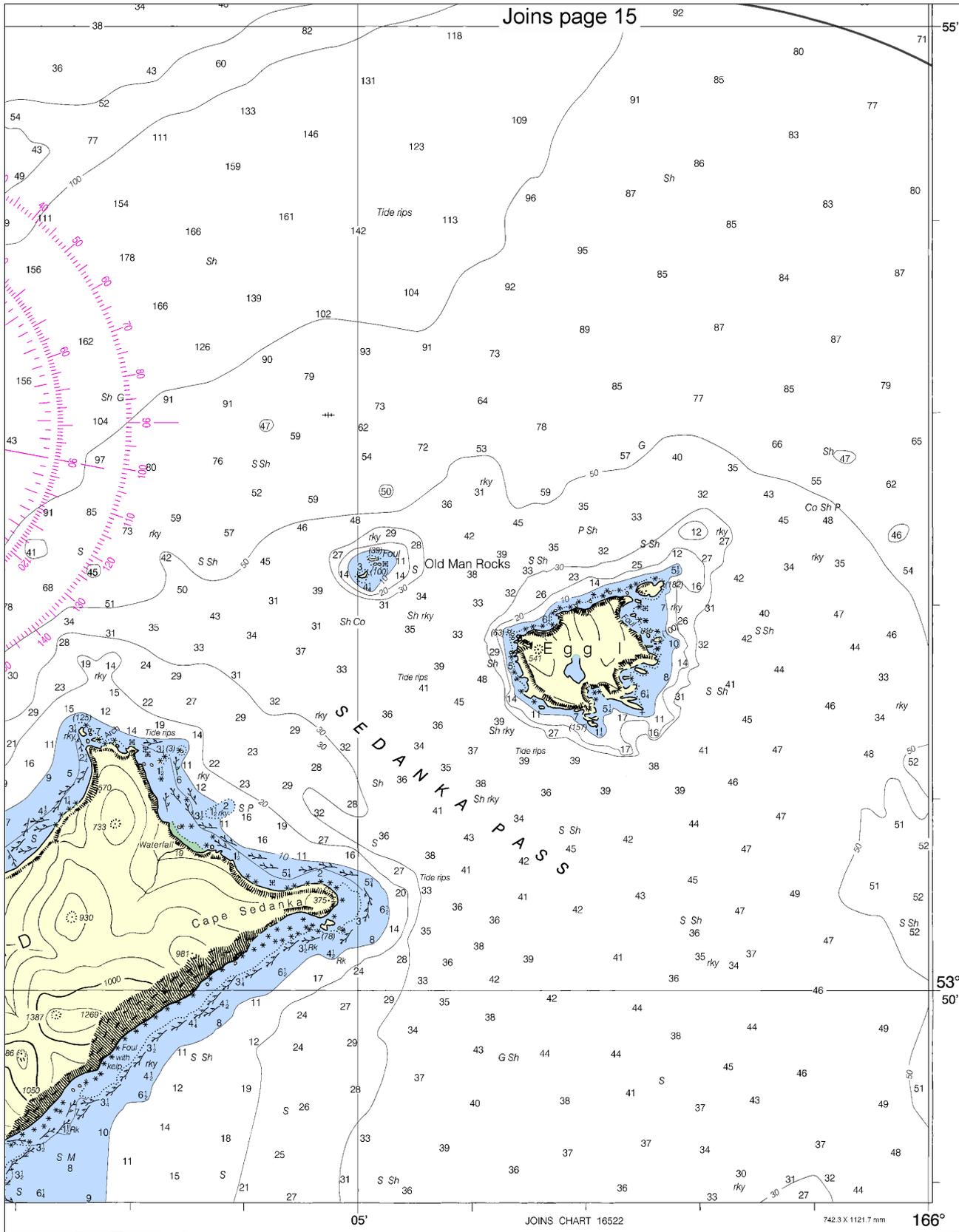
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000  
Nautical Miles

See Note on page 5.





ED. NO. 18

NSN 7642014011258  
 NGA REFERENCE NO. 16AHA16528

|    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|
| 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17  |    |    |    |    |    |    |    |    |
| 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 96 | 102 |    |    |    |    |    |    |    |    |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23  | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

Unalaska Bay and Akutan Pass  
 SOUNDINGS IN FATHOMS - SCALE 1:40,000

16528



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>
- Online chart viewer — <http://www.nauticalcharts.noaa.gov/mcd/NOAChartViewer.html>
- 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](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>



— For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

