

BookletChart™



Kamishak Bay – Cook Inlet

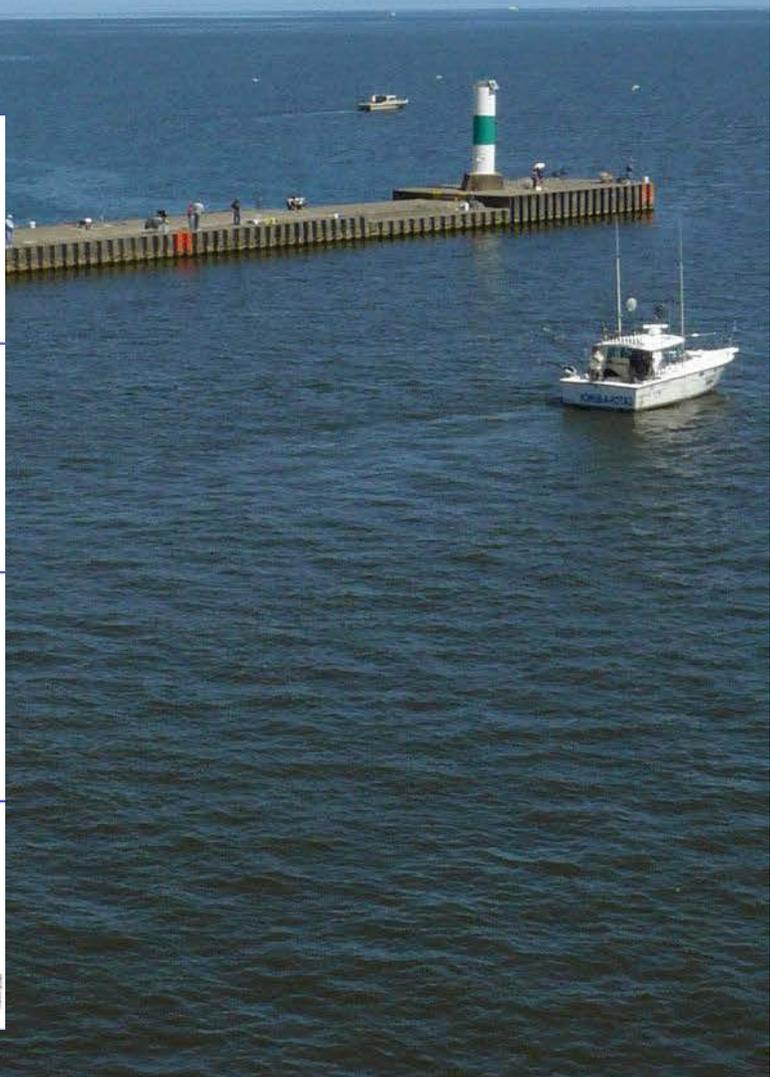
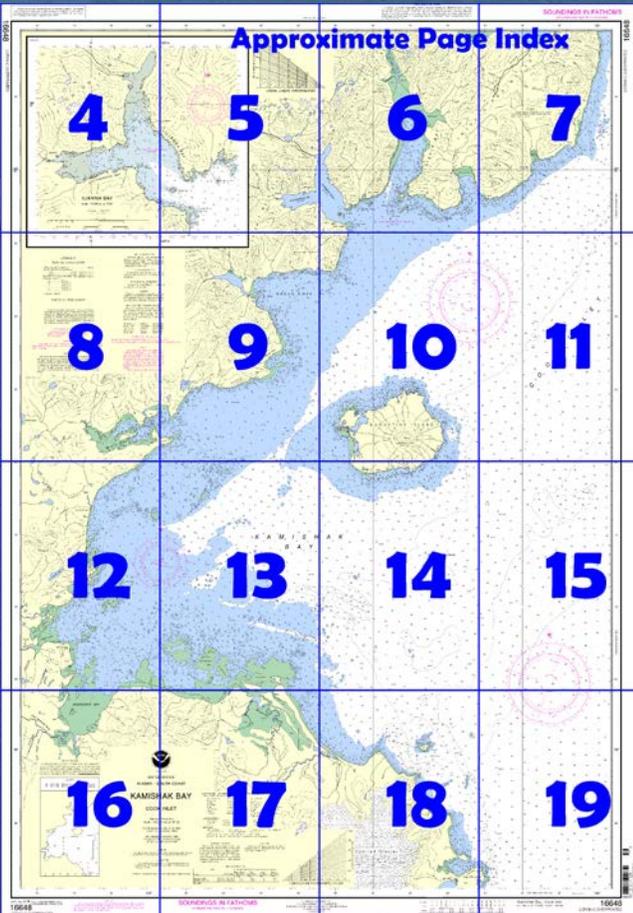
NOAA Chart 16648

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.

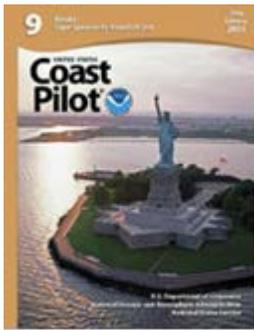
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=16648>.



(Selected Excerpts from Coast Pilot)

Sukoi Bay, on the N side of Cape Douglas, is shoal, and can be used only by small craft with local knowledge. Rocks bare at low water in the middle of the entrance, and a ledge bares at low water between the rocks and the S shore.

Vessels navigating between Cape Douglas and Shaw Island are cautioned to avoid a rocky area with a least depth of 2¾ fathoms about 3.5 miles SE of Shaw Island and a rocky area with a least depth of 3¼ fathoms

2.7 miles SSE of Shaw Island. At the head of the bight is a short valley with a glacier. Just clear of the bluff point on the SE side of the bight is a pinnacle rock as high as the bluff. The bight between this point and the

N point of Sukoi Bay appears shoal.

Kamishak Bay, about 20 miles NW of Cape Douglas, has numerous reefs rising to within a few feet of the surface scattered throughout the area.

Currents.—In the S part of the bay, tide rips occur off **Douglas River** with a flood current and strong W winds. In the N part of the bay, the currents follow the coast, flooding NE and ebbing SW at a rate of about 1 knot at strength. The current is more noticeable near the shore. With a strong W wind, tide rips occur about 2 to 4 miles N of Chinitna Point. The shores of Kamishak Bay are mountainous with bare-faced headlands and palisades of stratified rock. The lower hills are covered with grass and alder brush. There is no timber except for sparsely wooded areas near the mouth of the Kamishak River and N of Iniskin Bay. The shoreline along the S and W sides of the bay is characterized by a low flat bluff, 50 feet above mean high water. The islands in the bay appear to be detached parts of this bluff.

The shore throughout the bay is bordered by dangerous reefs, most of which uncover at low water. The S shore of Kamishak Bay is foul with extensive reefs and ledges and adjoining mudflats. **Akjemguiga Cove, Pinkidulia Cove, Horseshoe Cove, and Akumwarvik Bay** are strewn with boulders and reefs surrounded by mudflats which uncover at low tide. A safe passage to the S shore has not been found. Local small fishing boats do enter Akumwarvik Bay thence Kamishak on high tides but this is not recommended without local knowledge. Tide rips occur in this area and off Douglas River.

It is possible to approach the W shore through a break in the reefs. In the waters N of Chenik Head, this should only be attempted during a rising tide and with local knowledge of the ledges and reefs along the shore. The approach is from the S side of Augustine Island, which is passed from 1.5 to 2.5 miles offshore, on a course of **257°**. Head for Chenik Head, a low flat cape. **Chenik Mountain** (Three Peaks), a high mountain group 3 miles NW of Chenik Head, show slightly on the starboard hand. Avoid **Juma Reef**, it bares at low water and extends NNE from Nordyke Island for at least 1.2 miles. N of this reef is a channel about 3 miles wide and with a least depth of 6 fathoms. As soon as the line of the reefs is passed change course to **215°**. The W part of **McNeil Head** should be dead ahead and the outer tangent of Step Mountain should be dead astern. Anchor 1,100 yards W of Nordyke Island in 5 fathoms, sticky mud bottom. The currents at this anchorage set SSW on the flood and NNE on the ebb.

Anchorage in 3 to 4 fathoms, soft bottom, can be had on a temporary basis 0.8 mile inside the entrance to Iliamna Bay with the N side of White Gull Island in range with the S point at the entrance, and the N point at the entrance bearing **106°**. The anchorage is exposed to E and SE winds and there are heavy williwaws with W winds, but it is regarded as secure during the summer, except during the occasional heavy winds.

Currents.—The currents just inside the entrance to Iliamna Bay have an estimated strength of 1 to 2 knots.

Anchorage is on the range, from 1.0 to 2.5 miles above Scott Island, in 5 to 10 fathoms, clay bottom, where the width of the channel between the 5-fathom curves is about 700 yards. Smaller fishing vessels will anchor either on the SE side about 1 mile NNW of Scott Island or on the NW side 2.5 to 3.5 miles N of Scott Island, in 3 to 6 fathoms. The W side is exposed to swell from strong SE weather, which renders it fair to poor for smaller vessels unless they anchor in the shallower waters on the SE side of the bay.

Currents.—The tidal current averages 1 knot in Iniskin Bay.

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

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

Navigation Managers Area of Responsibility



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

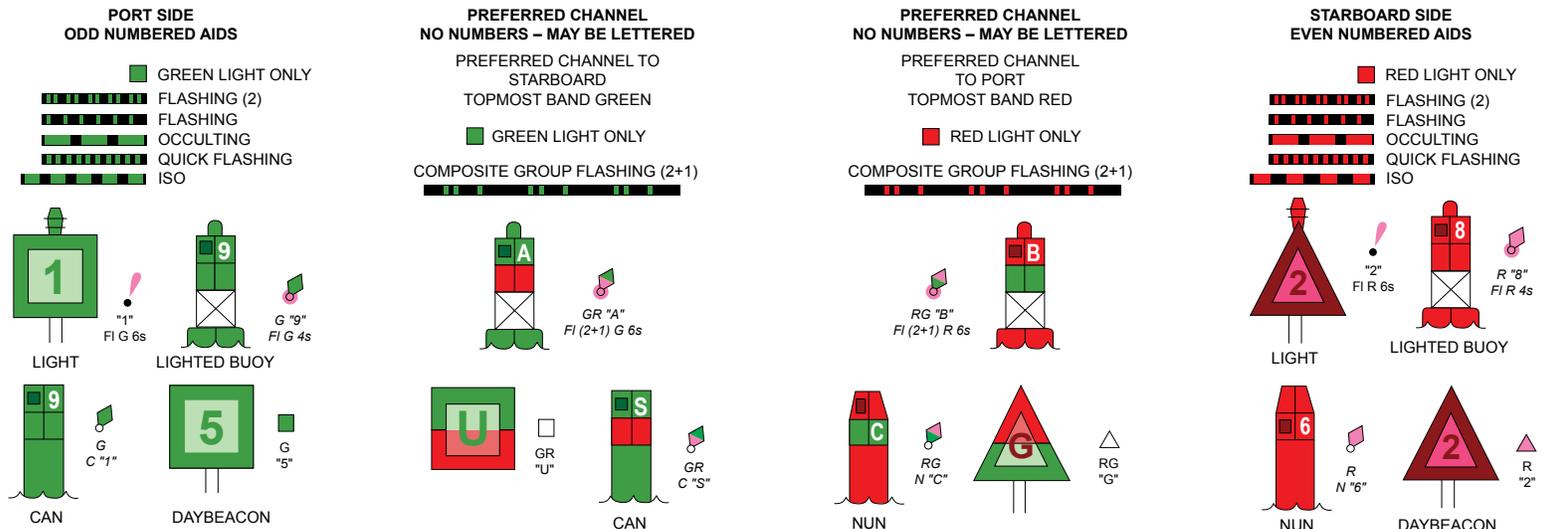
They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

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.

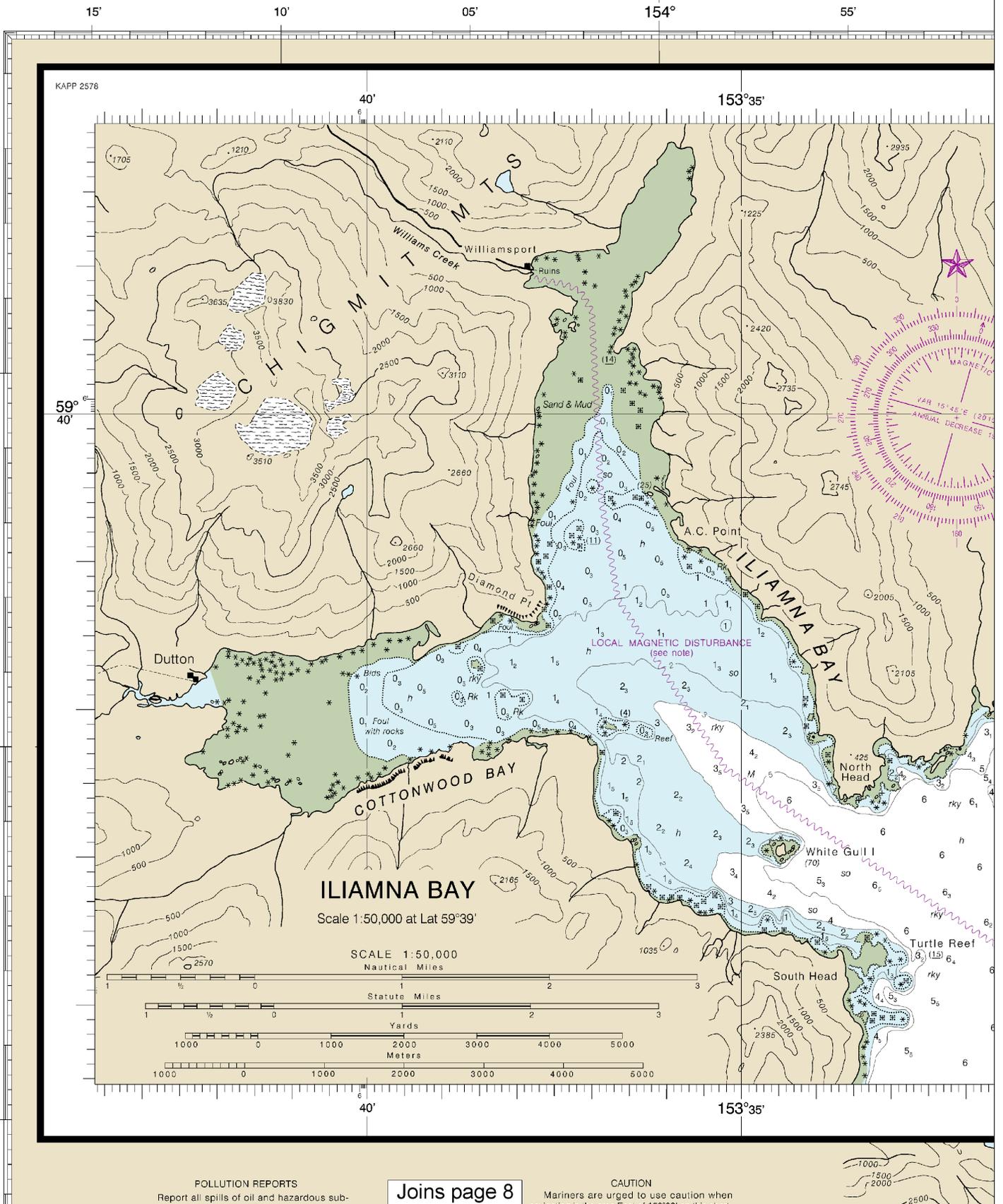
Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



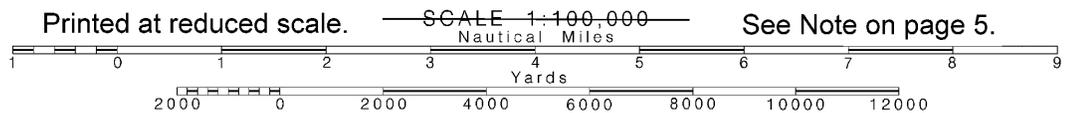
For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area. These volumes are available online at <http://www.navcen.uscg.gov>

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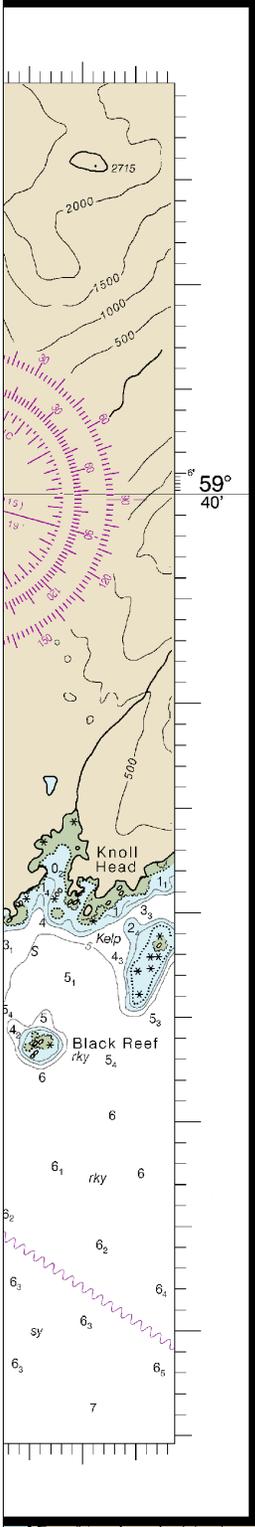


4

Note: Chart grid lines are aligned with true north.

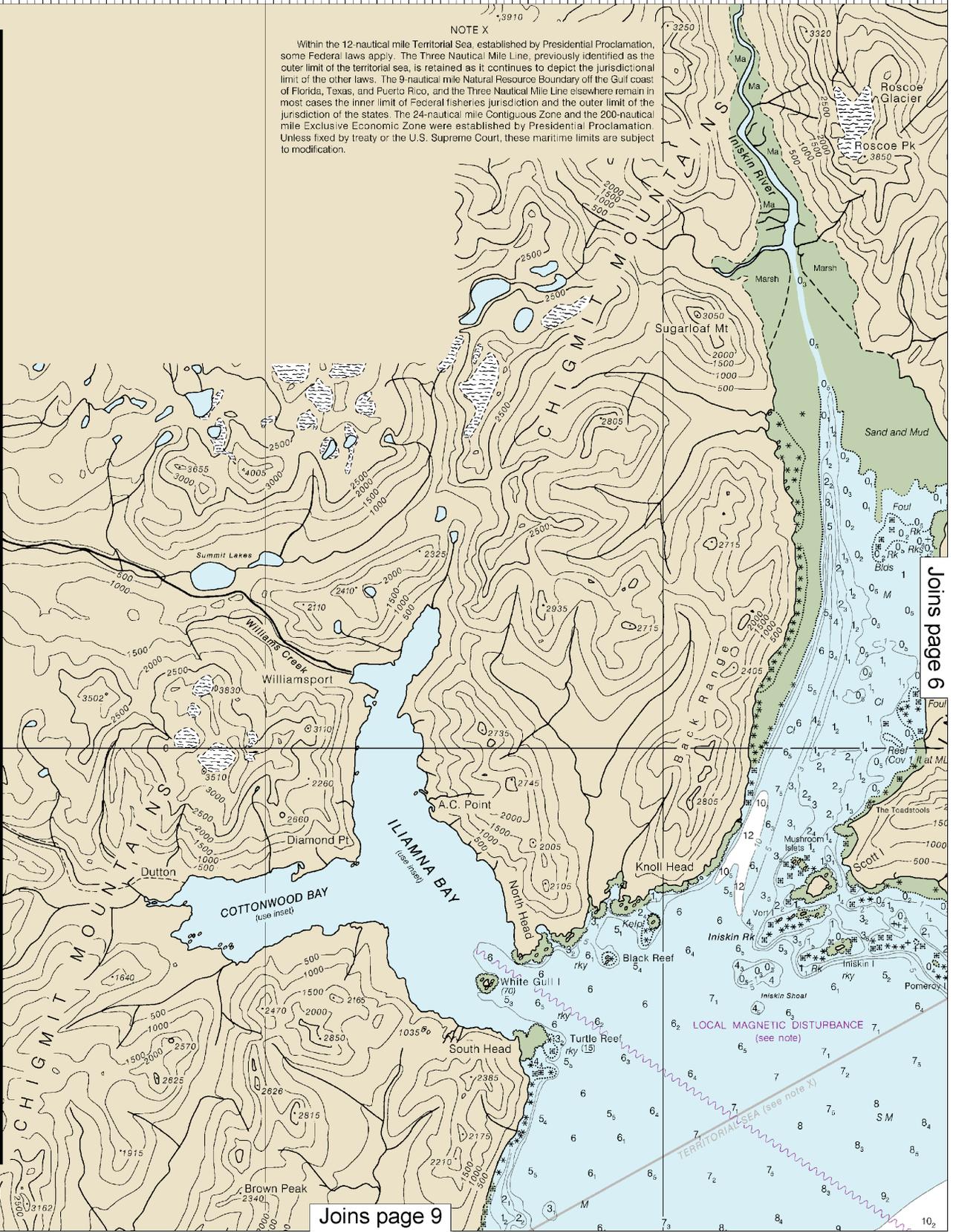


50' 45' 40' 35' 30' 25'



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.



Joins page 6

Joins page 9

LOCAL MAGNETIC DISTURBANCE
(see note)

TERRITORIAL SEA (see note X)

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:133333. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



SOUNDINGS IN FATHOMS

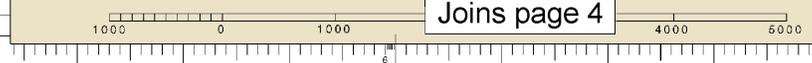
(FATHOMS AND FEET TO 11 FATHOMS)

16648



6th Ed., Apr. 2015. Last Correction: 4/22/2015. Cleared through:
LNM: 4916 (12/6/2016), NM: 5116 (12/17/2016), CHS: 1116 (11/25/2016)





35°
30°
25°
20°

40'

153°35'

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).

AIDS TO NAVIGATION

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

SUPPLEMENTAL INFORMATION

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

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 3° from the normal variation have been observed in Iniskin Bay and Iliamna Bay.

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.

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

The Cook Inlet area is affected by land uplift due to forces such as post-seismic crustal rebound. As a result, the tidal datums including mean lower low water, the plane of reference used for depth soundings, have changed throughout this region. Tidal datums were updated in 1999 and depths of 11% fathoms or less on this chart were adjusted accordingly to account for this uplift. As the uplift rates can only be estimated and areas continue to rise, depths may be shallower than charted. Mariners are urged to exercise caution.

CAUTION

Mariners are urged to use caution when navigating in the area East of 153°03' on this chart, due to possible changes in depths and shoreline as a result of the earthquake of March 27, 1964.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide 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.

Raspberry I, AK	KZZ-90	162.425 MHz
Bede Mt, AK	WNG-528	162.450 MHz
Pillar Mt, AK	WNG-531	162.525 MHz
Ninilchik, AK	KZZ-97	162.550 MHz
Homer, AK	WXJ-24	162.400 MHz

CAUTION

SUBMARINE PIPELINES AND CABLES

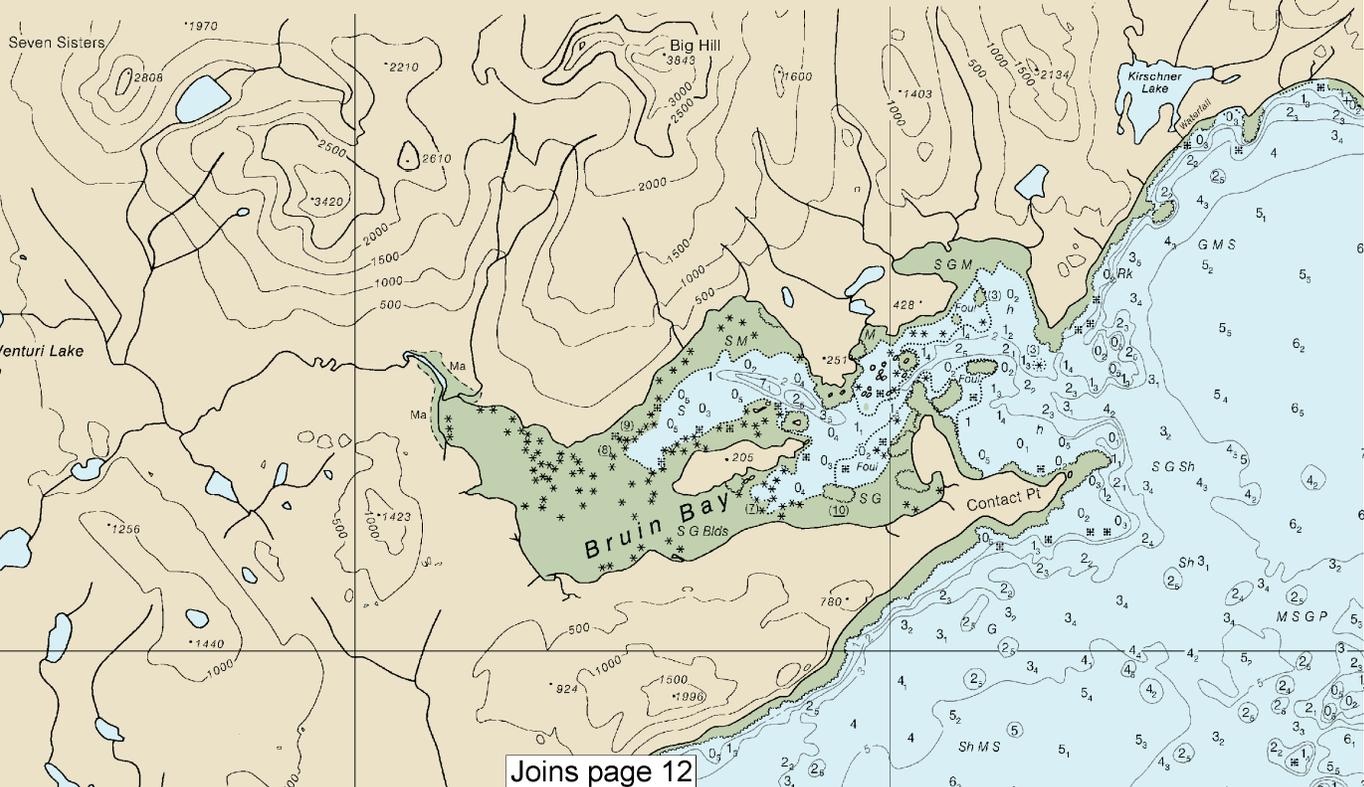
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as



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.

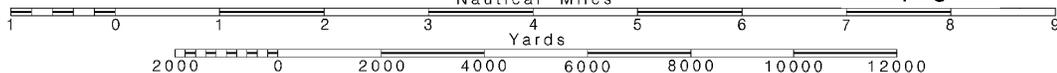


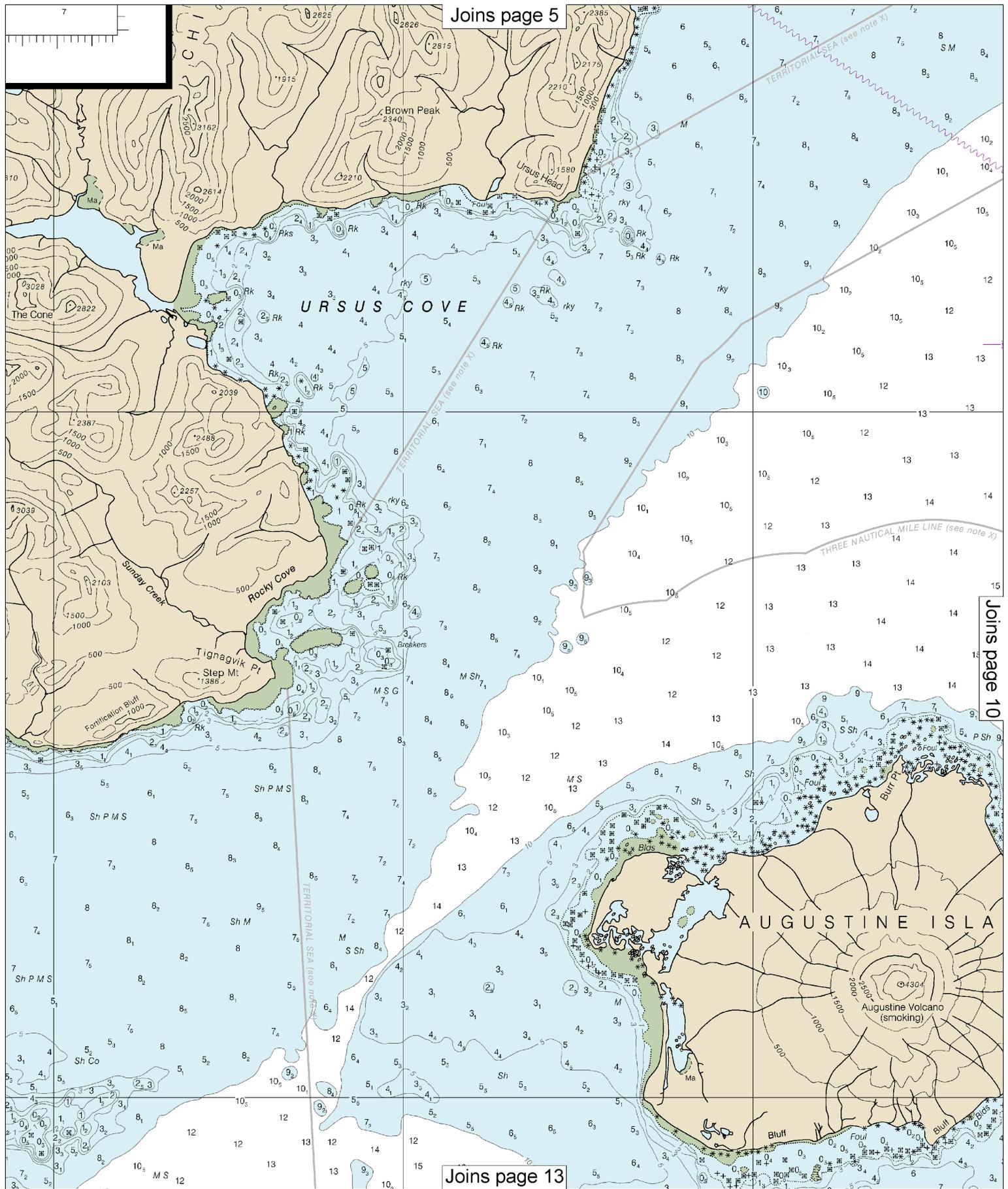
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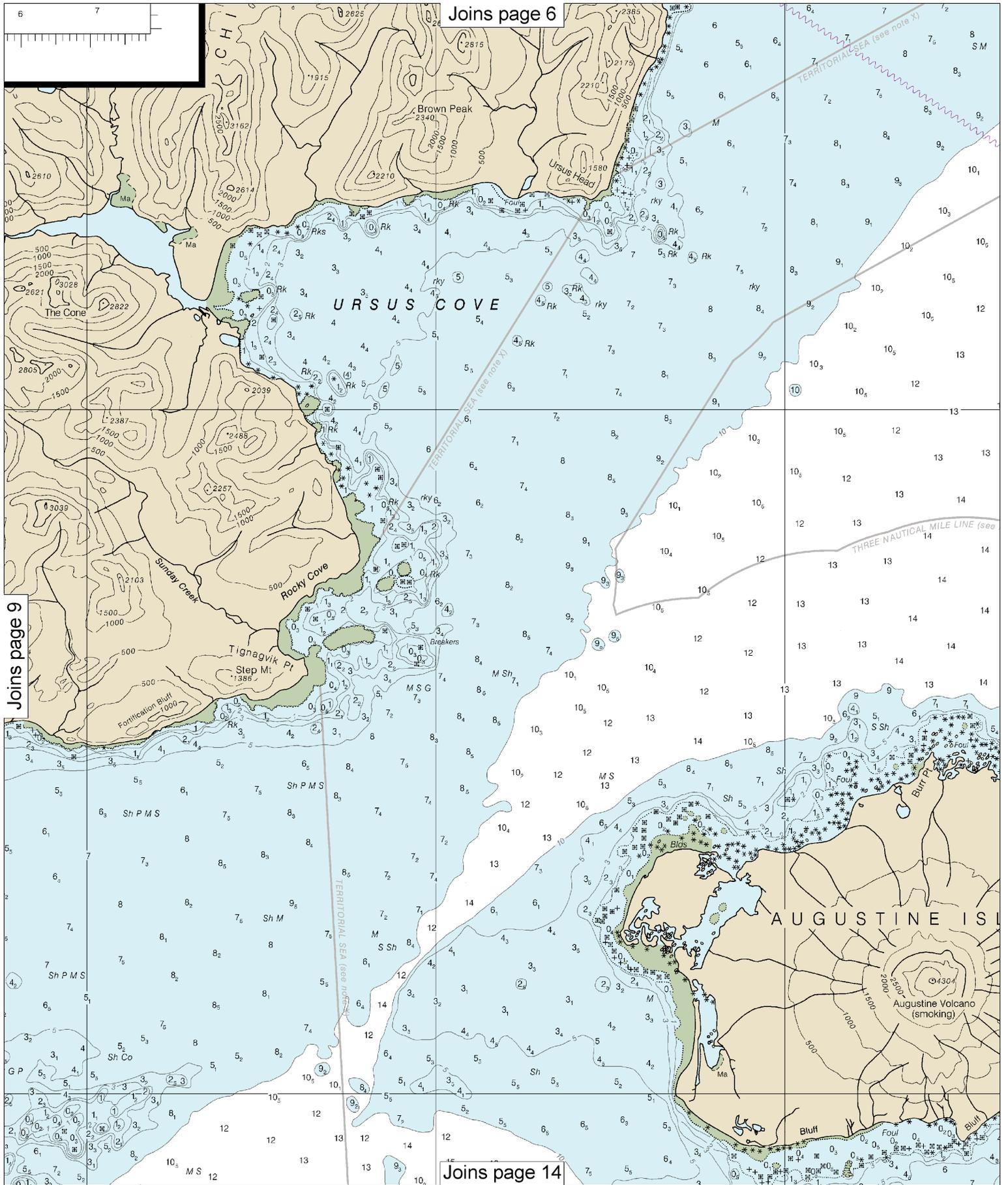
Printed at reduced scale.

SCALE 1:100,000
Nautical Miles

See Note on page 5.

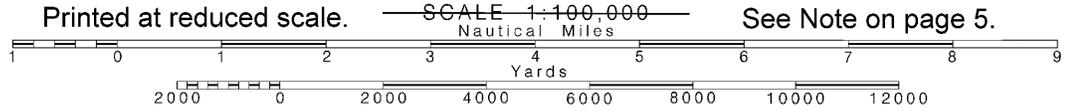




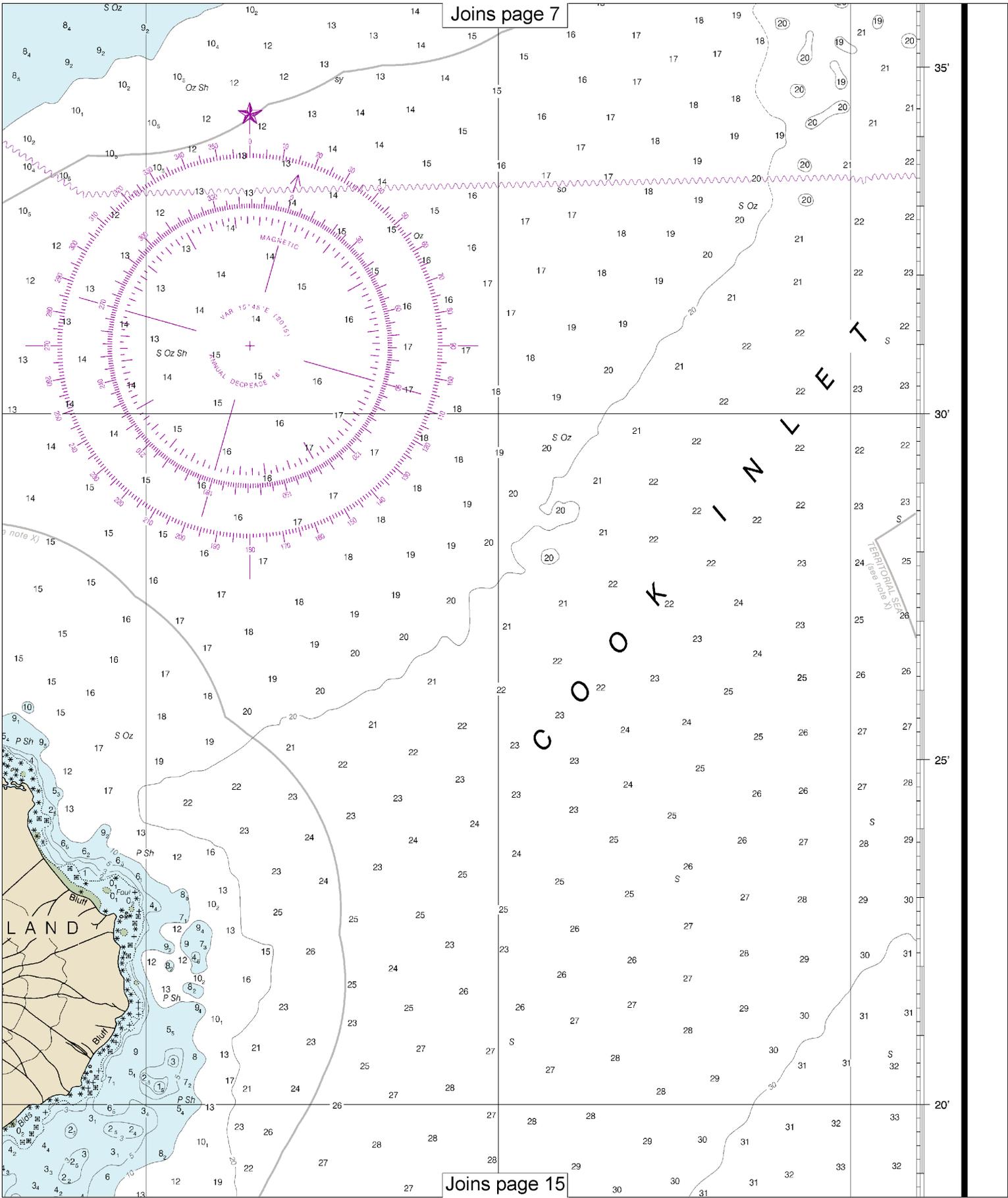


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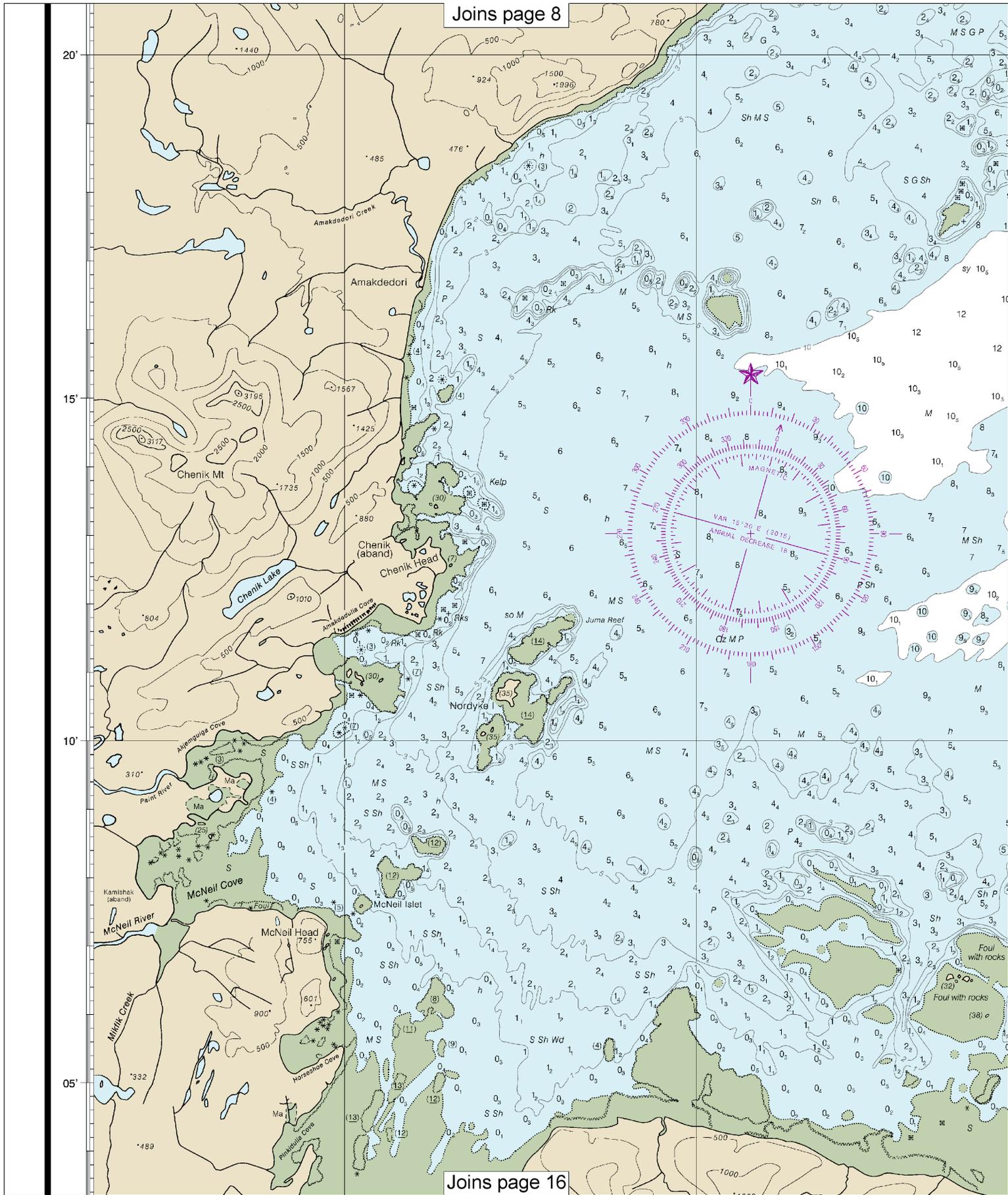
Note: Chart grid lines are aligned with true north.



Joins page 7



Joins page 15



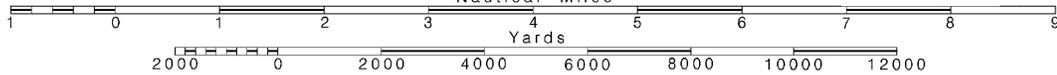
12

Note: Chart grid lines are aligned with true north.

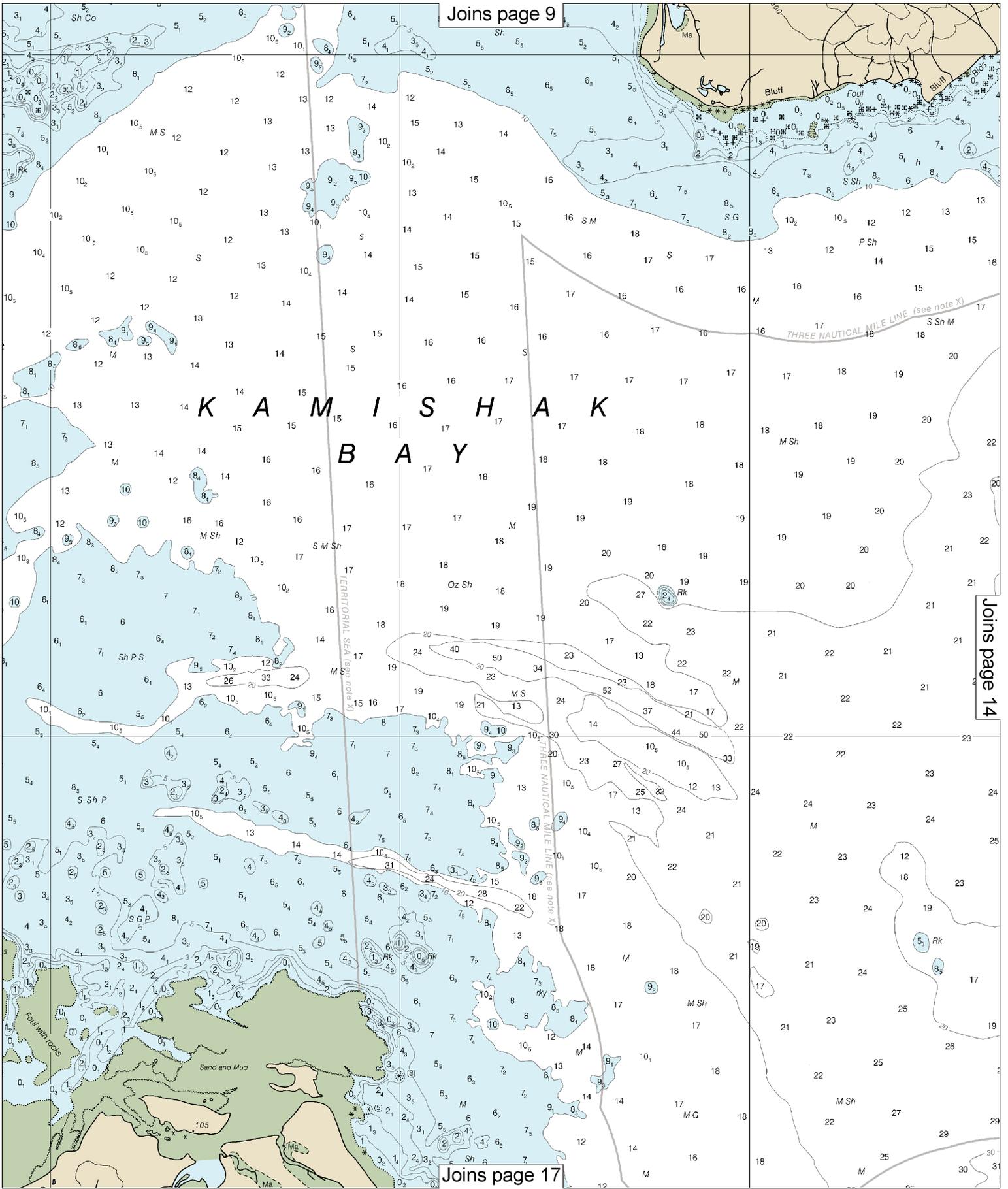
Printed at reduced scale.

SCALE 1:100,000
Nautical Miles

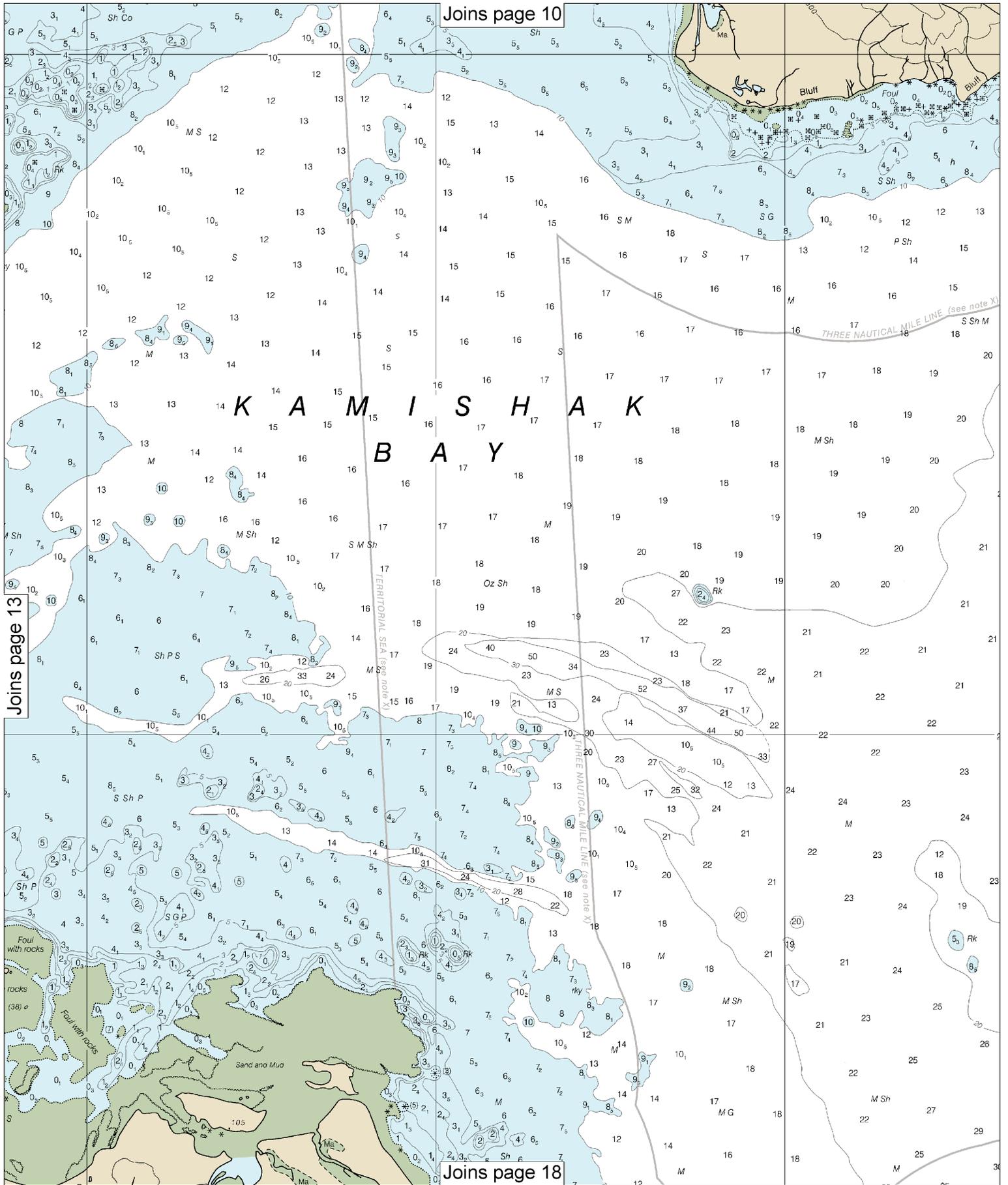
See Note on page 5.



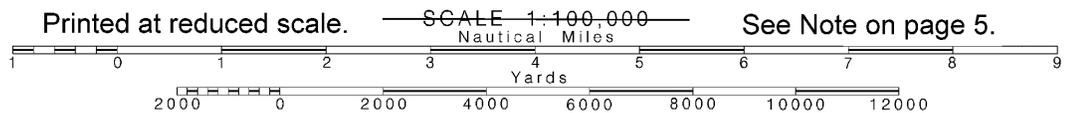
Joins page 9

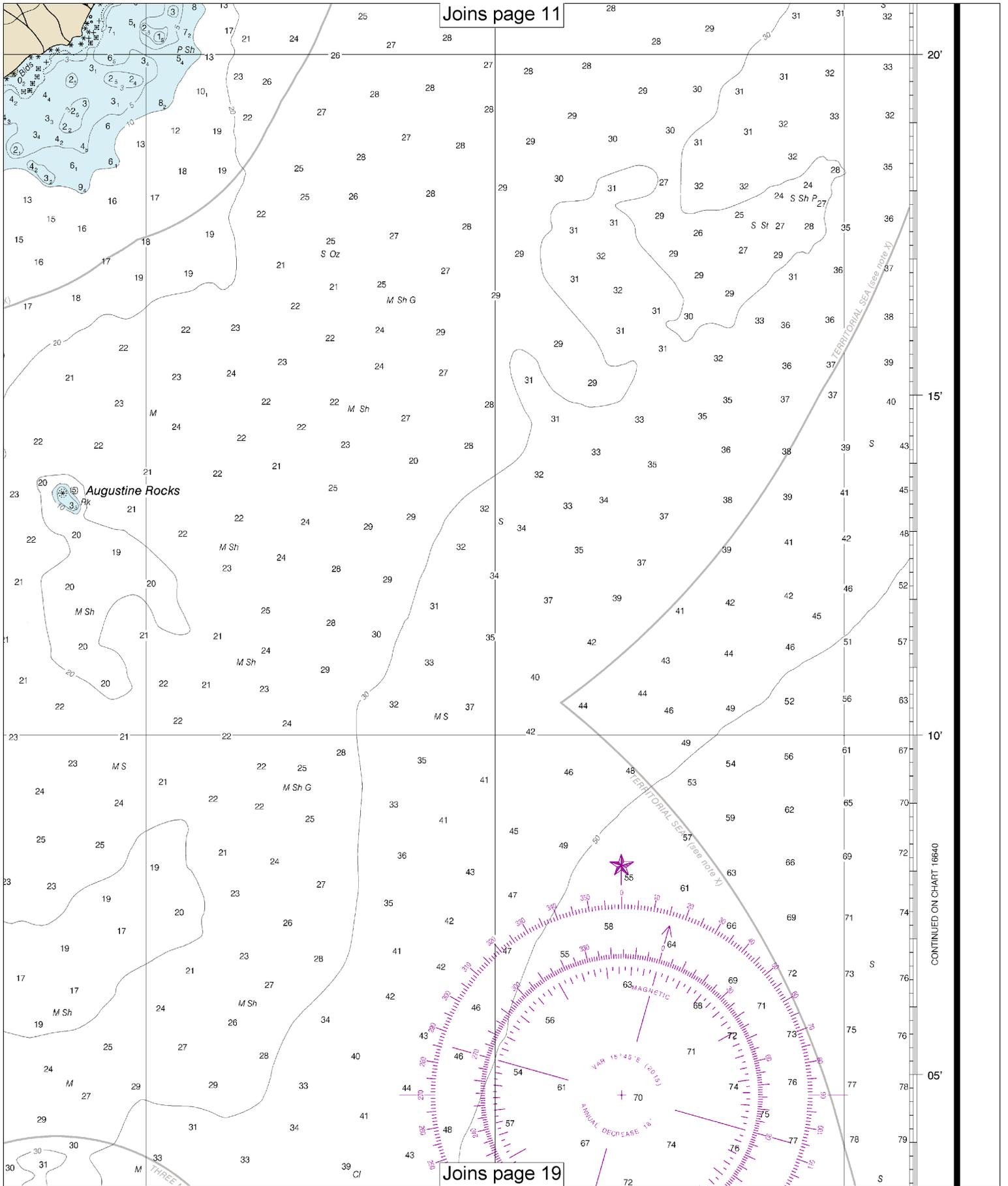


Joins page 14



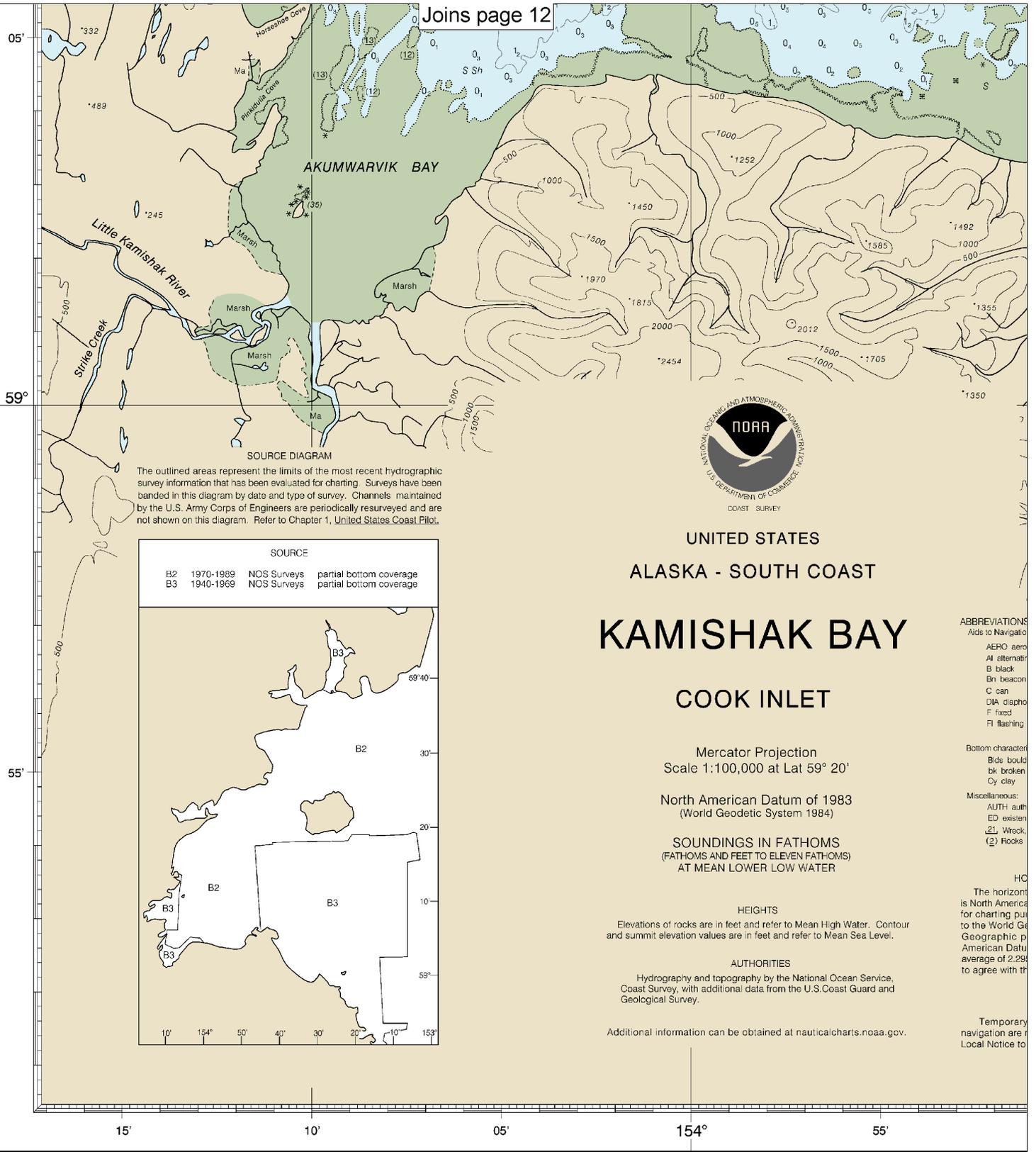
Note: Chart grid lines are aligned with true north.





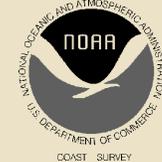
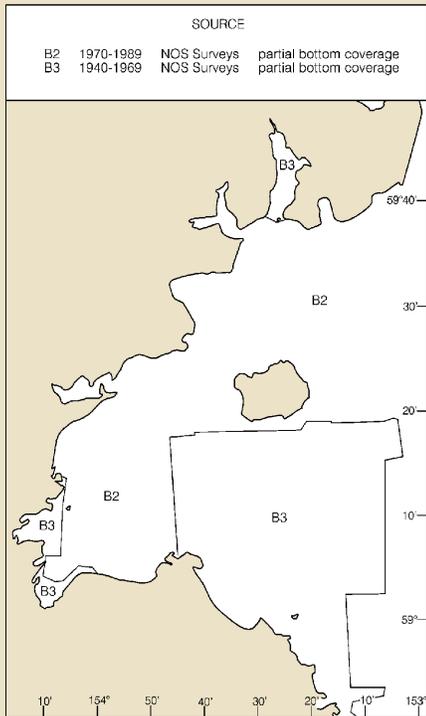
CONTINUED ON CHART 16640

Joins page 12



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.



UNITED STATES
ALASKA - SOUTH COAST

KAMISHAK BAY

COOK INLET

Mercator Projection
Scale 1:100,000 at Lat 59° 20'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
(FATHOMS AND FEET TO ELEVEN FATHOMS)
AT MEAN LOWER LOW WATER

HEIGHTS

Elevations of rocks are in feet and refer to Mean High Water. Contour and summit elevation values are in feet and refer to Mean Sea Level.

AUTHORITIES

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

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

ABBREVIATIONS

- Aids to Navigation
- AERO aero
- Al alternat
- B black
- Bn beacon
- C can
- DIA diapho
- F fixed
- Fl flashing
- Bottom character
- Bld bould
- bk broken
- Cy clay
- Miscellaneous:
- AUTH auth
- ED existen
- (1) Wreck
- (2) Rocks
- HC
- The horizon is North America for charting purposes to the World Geodetic System 1984 Geographic Datum American Datum average of 2.294 to agree with the

Temporary navigation area Local Notice to Mariners

16648

6th Ed., Apr. 2015. Last Correction: 4/22/2015. Cleared through:
LNM: 4916 (12/6/2016), NM: 5116 (12/17/2016), CHS: 1116 (11/25/2016)

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 nauticalcharts.noaa.gov.

SOUNDINGS
(FATHOMS AND FEET)

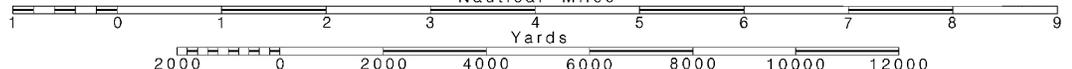
16

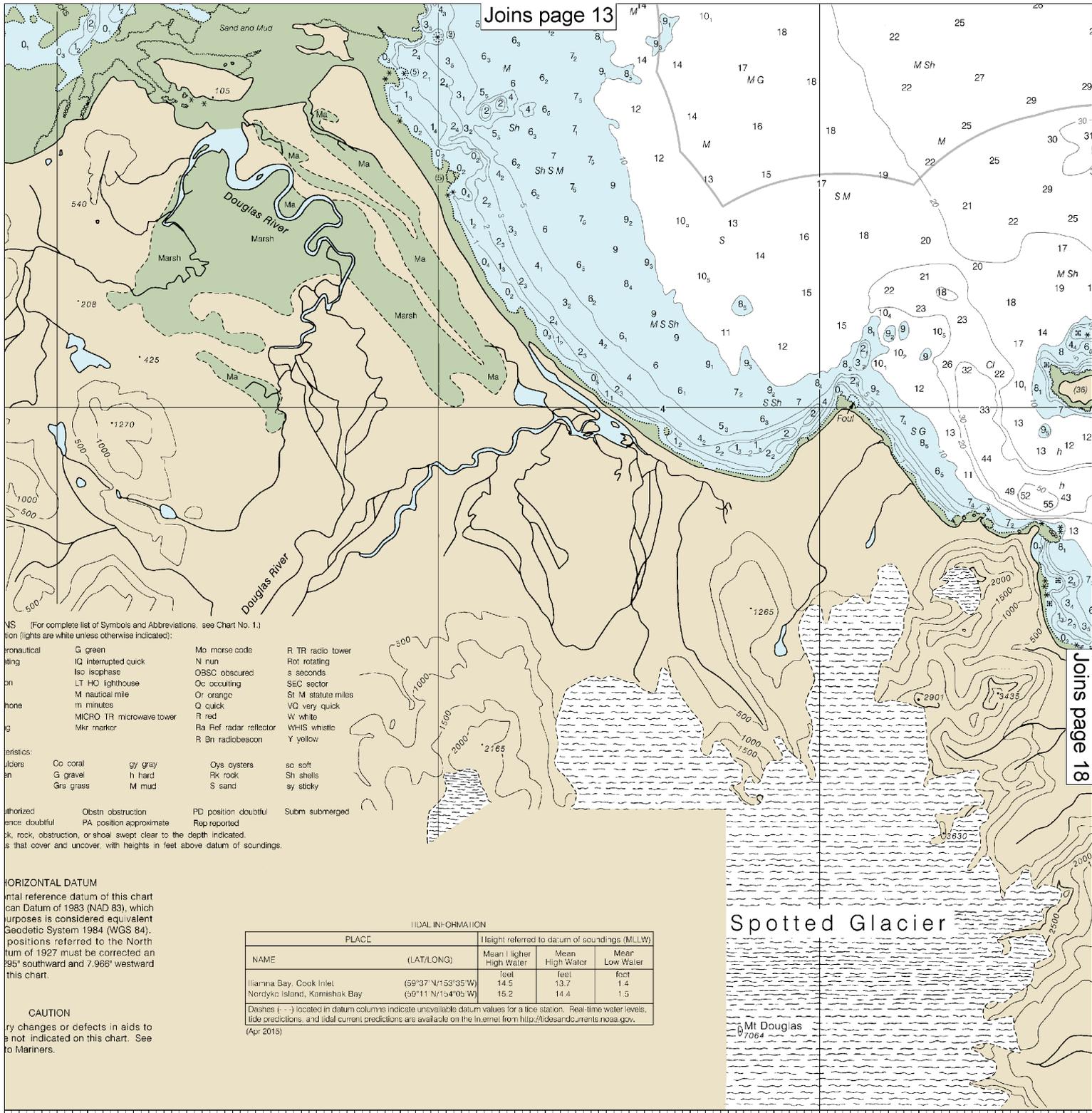
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:100,000
Nautical Miles

See Note on page 5.





- NS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
 (lights are white unless otherwise indicated):
- | | | | |
|---------------|--------------------------|------------------------|--------------------|
| prognautical | G green | Mo morse code | R TR radio tower |
| lighting | IQ interrupted quick | N run | Rot rotating |
| isobath | Is isobath | OBSC obscured | s seconds |
| light | LT LC lighthouse | Oc occulting | SEC sector |
| distance | M nautical mile | Or orange | St M statute miles |
| time | m minutes | Q quick | VQ very quick |
| communication | MICRO TR microwave tower | R red | W white |
| marker | Mkr marker | Ra Ref radar reflector | WHIS whistle |
| | | R Bn radiobeacon | Y yellow |
-
- | | | | | |
|------------|-----------|---------|-------------|-----------|
| materials: | Co coral | gy gray | Oys oysters | so soft |
| bottom | G gravel | h hard | Rk rock | Sh shells |
| vegetation | Grs grass | M mud | S sand | sy sticky |
-
- | | | | |
|-------------------|-------------------------|----------------------|----------------|
| authorized | Obstn obstruction | PD position doubtful | Subm submerged |
| position doubtful | PA position approximate | Rep reported | |
- black, rock, obstruction, or shoal swept clear to the depth indicated.
 dashes that cover and uncover, with heights in feet above datum of soundings.

HORIZONTAL DATUM
 vertical reference datum of this chart is the Mean High Water Datum of 1983 (NAD 83), which for purposes is considered equivalent to the Geoidetic System 1984 (WGS 84). Positions referred to the North datum of 1927 must be corrected an 85' southward and 7.968' westward this chart.

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
	Iliamna Bay, Cook Inlet	(59°37' N/153°35' W)	14.5	13.7	1.4
	Nordyko Island, Kamishak Bay	(59°11' N/154°05' W)	15.2	14.4	1.5

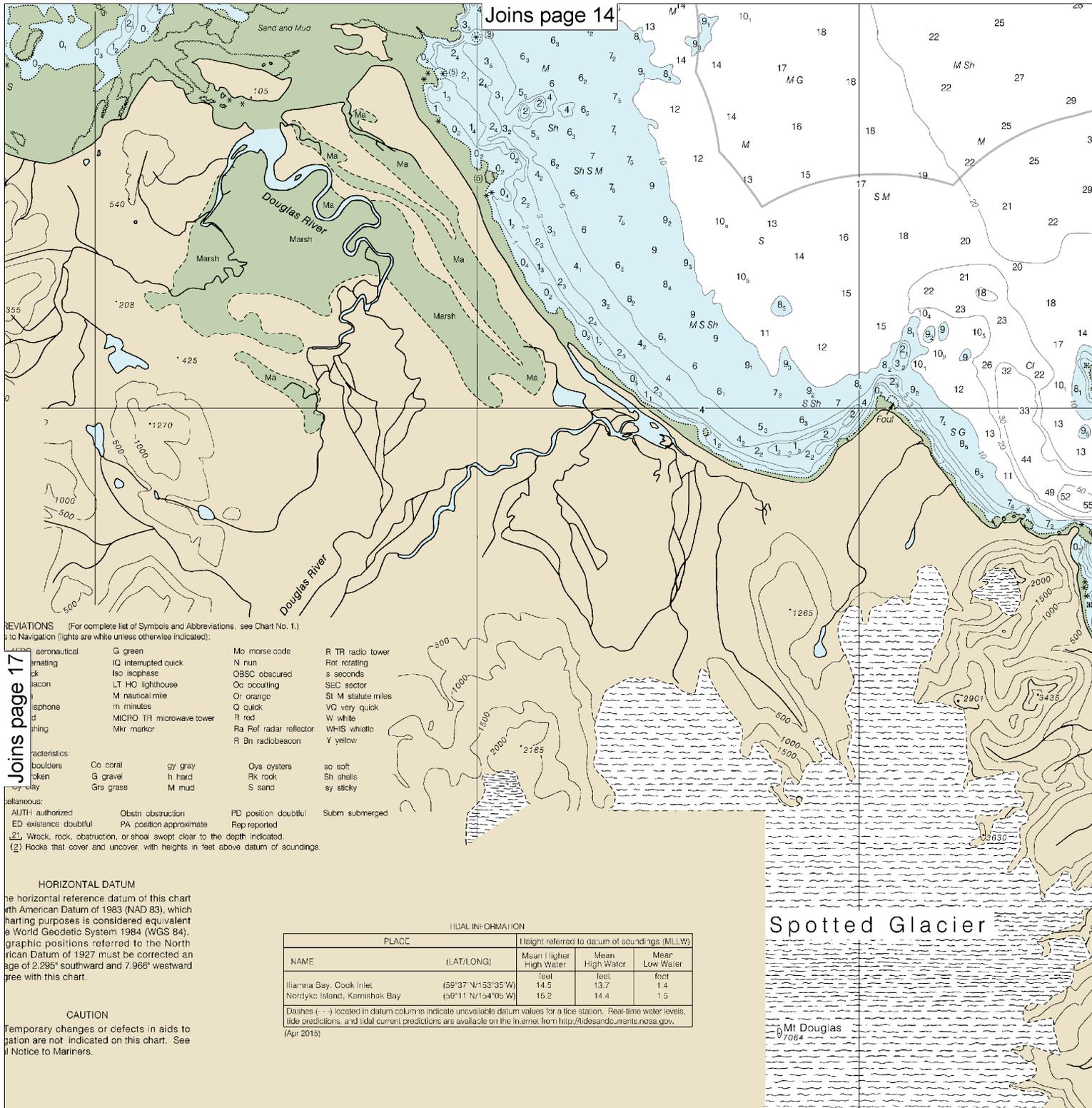
Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Apr 2015)

CAUTION
 any changes or defects in aids to navigation are not indicated on this chart. See Notices to Mariners.

DEPTH IN FATHOMS
 (FEET TO 11 FATHOMS)

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

FATHOM
 FEET
 METER



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

- | | | | |
|--|---|---|---|
| aeronautical
marking
acon
ophone
ding | G green
IG interrupted quick
iso isophase
LT light lighthouse
M minutes
MICRO TR microwave tower
Mkr marker | Mo Morse code
N nun
OSOC obscured
Oc occulting
Q quick
R red
Ra Ref radar reflector
R Bn radiobeacon | R TR radio tower
Ror rotating
s seconds
SSC sector
St M statute miles
VQ very quick
W white
WHIS whistle
Y yellow |
| acteristics:
boulders
oken
ay | Co coral
G gravel
Grs grass | gy gray
h hard
M mud | Oys oysters
Rk rock
S sanc |
| ellaneous:
AUTH authorized
ED existence doubtful
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. | Obstrn obstruction
PA position approximate | PD position doubtful
Rep reported | Subm submerged |

HORIZONTAL DATUM

The horizontal reference datum of this chart is the North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Graphic positions referred to the North American Datum of 1927 must be corrected an age of 2.295' southward and 7.968' westward in accordance with this chart.

CAUTION

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

TIDAL INFORMATION

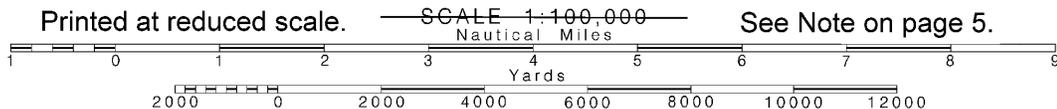
PLACE	Height referred to datum of soundings (MLLW)	Mean Higher High Water		
		Mean Higher High Water	Mean High Water	Mean Low Water
ILLIAMINA BAY, COOK INLET	(59°37' N/153°35' W)	14.5	13.7	1.4
NORDYKO ISLAND, KAMSHAK BAY	(59°11' N/154°05' W)	15.2	14.4	1.5

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>. (Apr 2015)

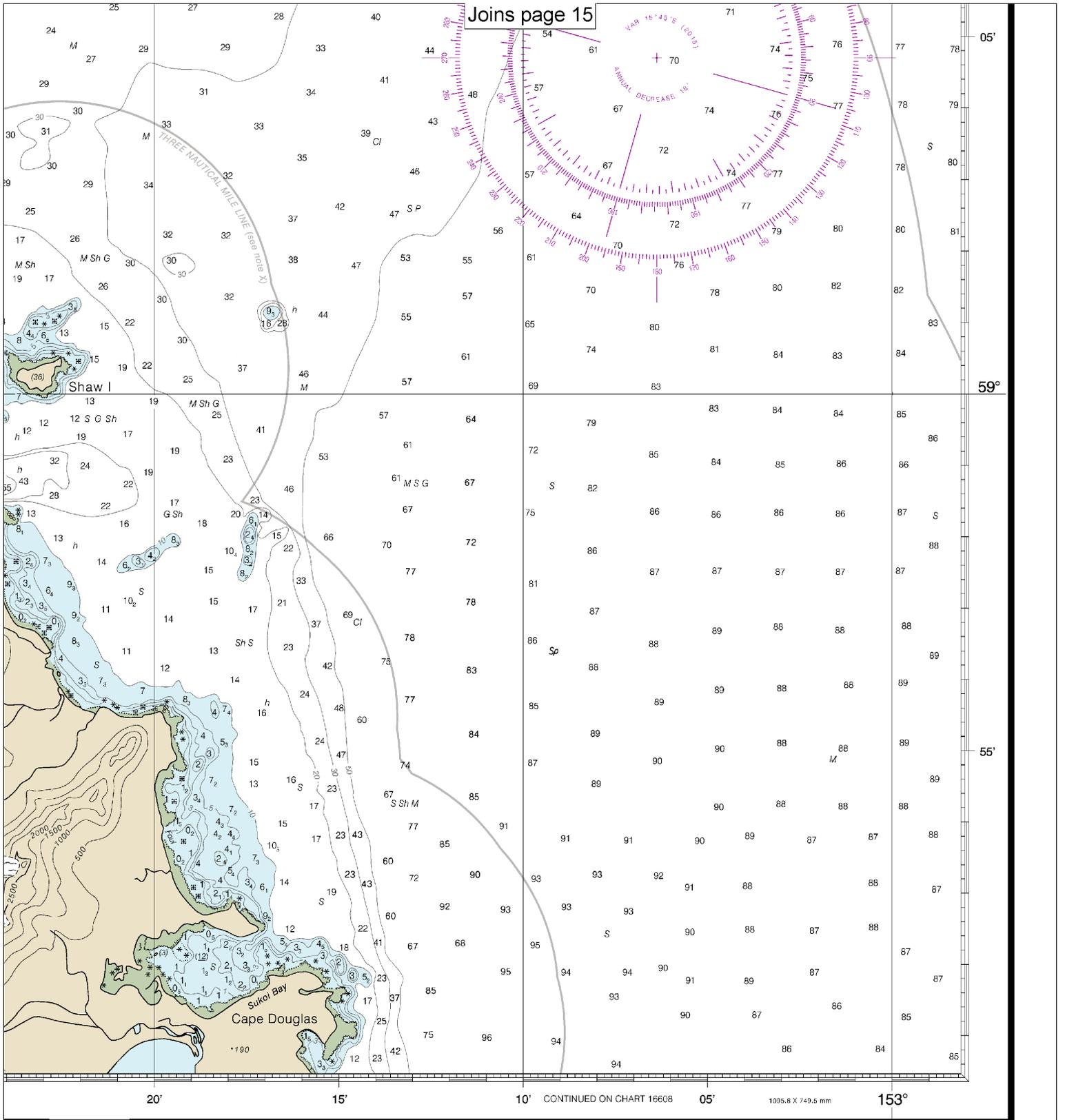
DEPTHS IN FATHOMS
 (AND FEET TO 11 FATHOMS)

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

Note: Chart grid lines are aligned with true north.



Joins page 15



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

Kamishak Bay - Cook Inlet
 SOUNDINGS IN FATHOMS - SCALE 1:100,000

16648



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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