

# BookletChart™

## Bodega and Tomales Bays

NOAA Chart 18643

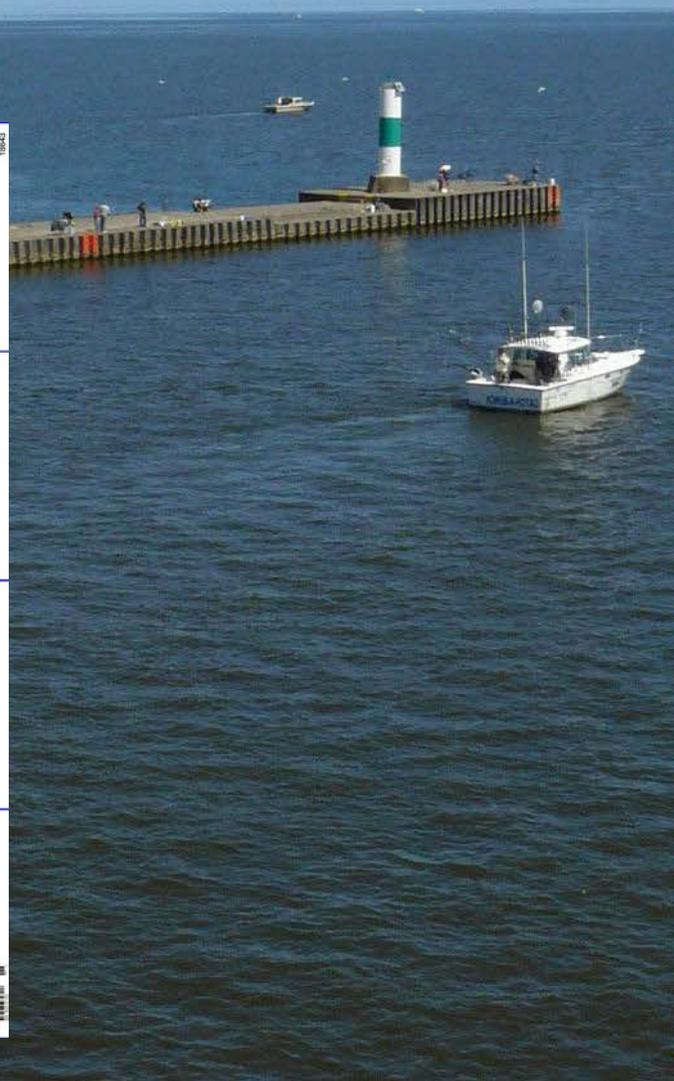
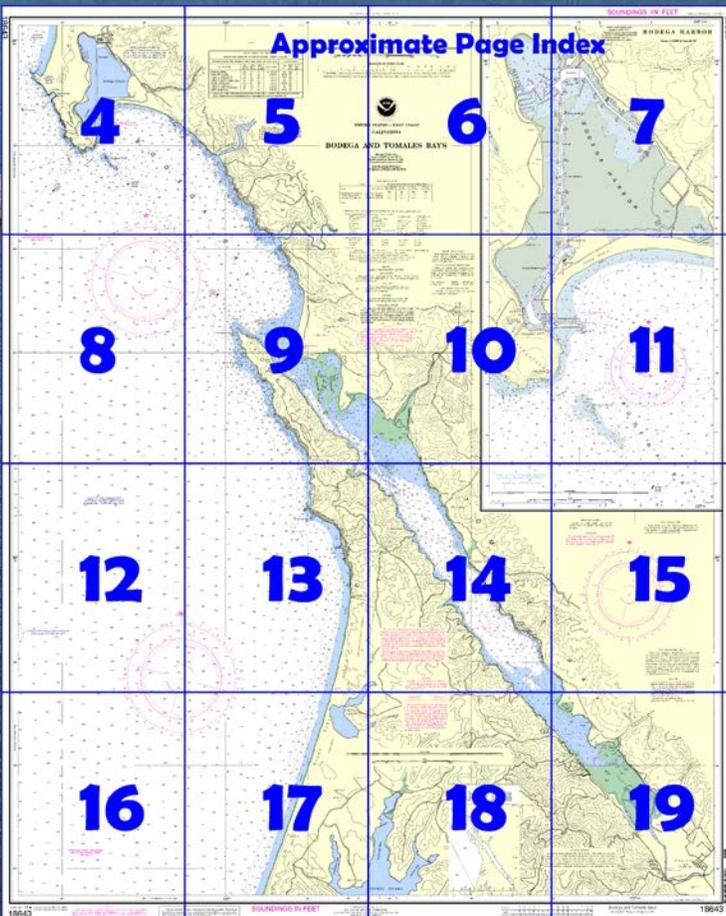


*A reduced-scale NOAA nautical chart for small boaters*

*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](http://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.

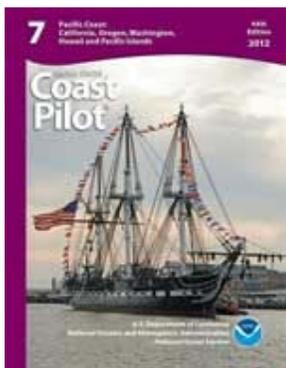
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=18643>.



**(Selected Excerpts from Coast Pilot)**

From Point Reyes, the coast trends in a general N direction for 10 miles as a broad white sand beach backed by high grassy sand dunes, and then curves NW for 6 miles in high yellow cliffs, terminating in **Tomaes Point**. The large white building at the radio station, 7 miles NE of Point Reyes, is prominent. The **Gulf of the Farallones National Marine Sanctuary** has been established to protect and preserve the marine birds and mammals, their habitats, and other

natural resources in the waters surrounding the Farallon Islands and Point Reyes, and to ensure the continued availability of the area as a

research and recreational resource. The sanctuary encompasses the waters off Bodega Head and Point Reyes, and the waters surrounding Farallon Islands. The sanctuary includes Bodega Bay but not Bodega Harbor. Recreational use of the area is encouraged. (See **15 CFR 922**, chapter 2, for limits and regulations.)

(9) The Gulf of the Farallones National Marine Sanctuary regulations prohibit operation of any vessel engaged in carrying cargo – including but not limited to tankers and other bulk carriers and barges – or engaged in the trade of servicing offshore installations within 2 miles from the Farallon Islands, Bolinas Lagoon, or any Area of Special Biological Significance (ASBS). Exception: vessels transporting persons or supplies to or from islands or mainland areas adjacent to Sanctuary waters, or fishing, recreational or research vessels.

Areas within the sanctuary include:

– **Farallon Island ASBS**, San Francisco County; waters within 1 mile of Southeast Farallon (including Maintop Island), Middle Farallon, North Farallon, and Noonday Rock.

– **Duxbury Reef Reserve and Extension ASBS**, Marin County; waters 2,000 feet beyond the mean high tide line.

– **Point Reyes Headland Reserve and Extension ASBS**, Marin County (including areas off the Point Reyes lighthouse and Chimney Rock); waters 2,000 feet beyond the mean high tide line.

– **Double Point ASBS**, Marin County; the area enclosed by the 5-fathom contour and the mean high tide line, N and S along the shore about 1,900 feet from the point where Pelican Lake Creek enters the Pacific.

– **Bird Rock ASBS**, Marin County; waters 1,000 feet in all directions from Bird Rock, W of Tomales Point.

**Bodega Bay**, a broad opening between Tomales Point and Bodega Head, affords shelter from NW weather at its N end, but is dangerous in S or W weather. The summit of **Bodega Head** is rounding and grassy, with steep rocky cliffs on the S and W ends. Low **Bodega Rock** and foul ground extend from 0.2 to 0.7 mile SE of the S face of Bodega Head.

**Bodega Marine Life Refuge** is just north of Bodega Head. Its sea perimeter begins at 38°18'40"N., 123°04'04"W. and extends offshore around **Mussel Point** to 38°19'23"N., 123°04'22"W. The refuge extends from the shoreline, at the line of mean high water (tide), a distance of 1,000 feet offshore.

**University of California Bodega Marine Laboratory is on Horseshoe Cove** about 1.3 miles NW of Bodega Head Light. Two large white buildings at the site are reported to be prominent and lighted at night. **Bodega Head Light** (38°18'01"N., 123°03'14"W.), 110 feet above the water, is shown from a post with a red and white diamond-shaped daymark on the SE end of Bodega Head.

Lighted buoys mark the entrance to Bodega Bay.

**Danger.**—In good weather small boats having local knowledge sometimes use the passage between Bodega Head and Bodega Rock. The passage is unsafe whenever breakers from heavy ground swells reduce the width of the passage. Large breaking waves can occur inside the 30-foot depth contour line NW and SW of Bodega Rock. The safest part of the passage between Bodega Head and Bodega Rock is along the deeper part of the passage. When the width of the passage is reduced by breakers, mariners entering Bodega Bay should pass S of Bodega Harbor Approach Lighted Gong Buoy BA.

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

RCC Alameda      Commander  
11<sup>th</sup> CG District      (510) 437-3700  
Alameda, CA

# 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](http://nauticalcharts.noaa.gov/service/navmanagers)

To make suggestions or ask questions online, go to [nauticalcharts.noaa.gov/inquiry](http://nauticalcharts.noaa.gov/inquiry).

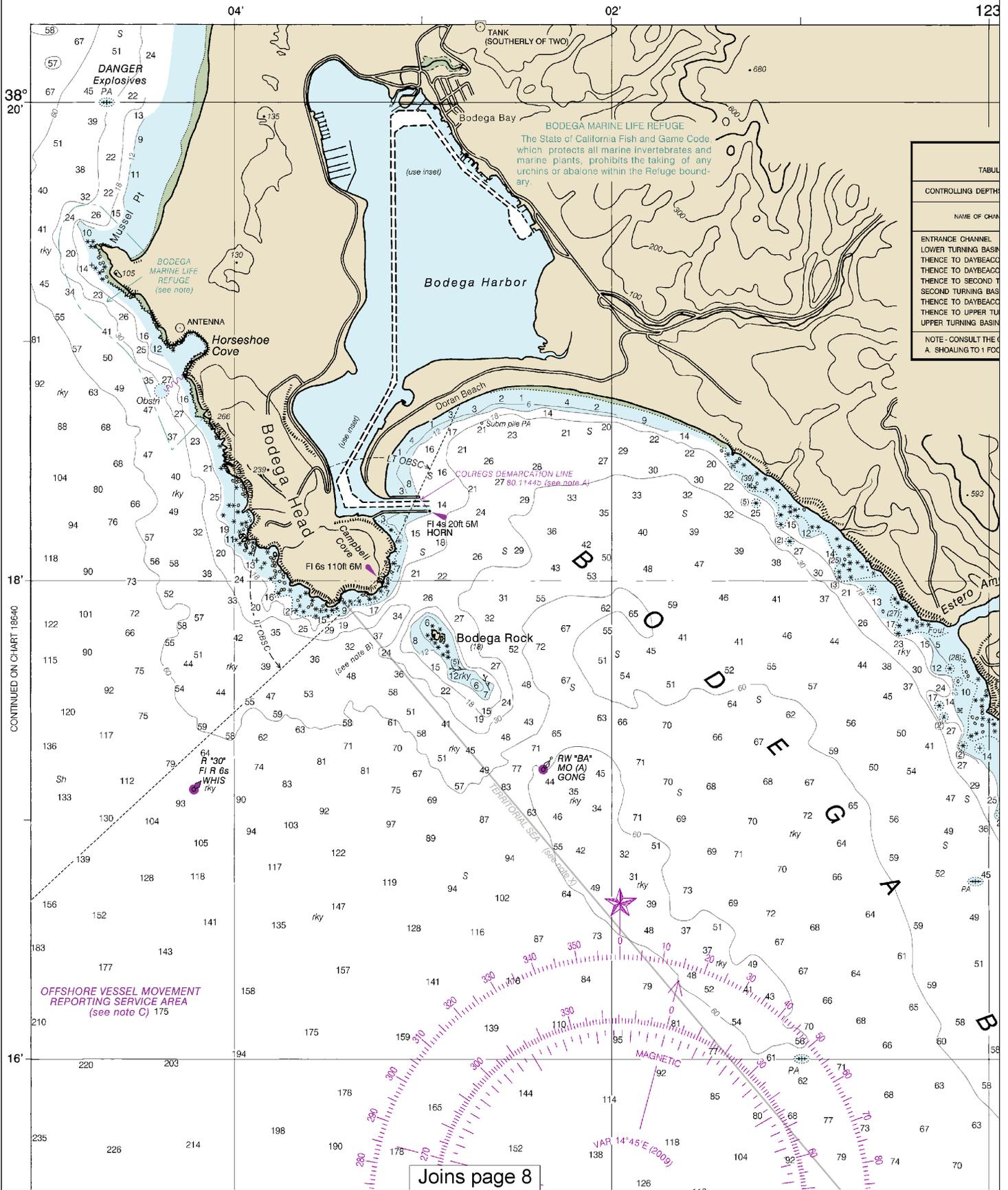
To report a chart discrepancy, please use [ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx](http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx).

## 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>

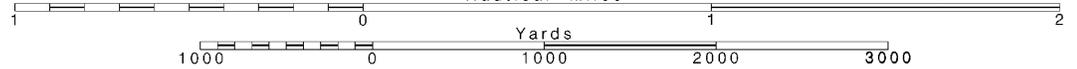


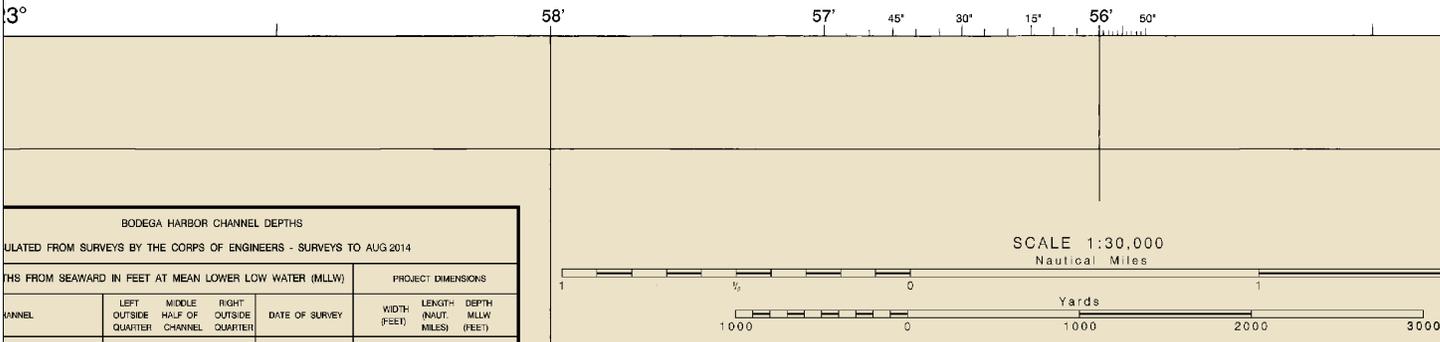
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:30,000 Nautical Miles

See Note on page 5.





**BODEGA HARBOR CHANNEL DEPTHS**  
 DERIVED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2014

CHANNEL	DISTANCES FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)			DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER		WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
SIN	14	12	11	8-14	100	0.28	12
CON 15	11	11	6	8-14	100-300	0.19	12
CON 23	6	8	11	8-14	100-130	0.42	12
TURNING BASIN	10	10	11	8-14	100	0.43	12
ASIN	12	12	11	8-14	100	0.80	12
CON 44	A10	11	11	8-14	100-400	0.20	12
TURNING BASIN	13	14	13	8-14	100	0.21	12
SIN	11	12	13	8-14	100	0.27	12
SIN	3	8	8	8-14	100-400	0.15	12

SEE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION  
 POINT AT: 38°19'57.9"N 123°03'01.81"W



UNITED STATES  
 CALIFORNIA - WEST COAST

# BODEGA AND TOMALES BAYS

Mercator Projection  
 Scale 1:30,000 at Lat. 38°12'

North American Datum of 1983  
 (World Geodetic System 1984)

SOUNDINGS IN FEET  
 AT MEAN LOWER LOW WATER

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



**TIDAL INFORMATION**

PLACE	Height referred to datum of soundings (MLLW)	Mean Higher High Water		Mean Low Water	
		Mean High Water	Mean Low Water	Mean High Water	Mean Low Water
Tomales Bay Entrance	(38°14'N/122°59'W)	5.2	4.5	1.0	
Inverness, Tomales Bay	(38°06'N/122°51'W)	5.3	4.6	0.9	
Bodega Harbor Entrance	(38°18'N/123°03'W)	5.7	5.0	1.2	

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>. (Nov 2009)

**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 morse code          | R TR radio tower   |
| Al alternating    | IQ interrupted quick     | N nun                  | Rot rotating       |
| B black           | IsC 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 radio-beacon      | Y yellow           |

- Bottom characteristics:**
- |              |           |         |             |           |
|--------------|-----------|---------|-------------|-----------|
| Bls boulders | Co coral  | gy gray | Oys oysters | so soft   |
| bk broken    | G gravel  | h 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         |                |
- (1) 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.  
 COLREGS: International Regulations for Preventing Collisions at Sea, 1972.  
 Demarcation lines are shown thus: - - - - -

**HEIGHTS**  
 Heights in feet above Mean High Water.

**AUTHORITIES**  
 Hydrography and topography by the National Ocean Service.

Joins page 6

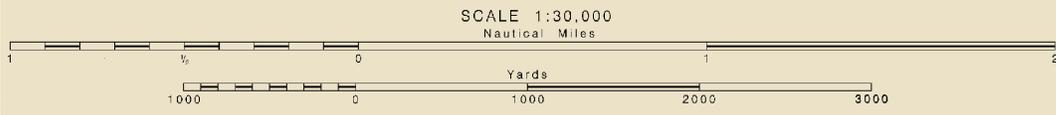
Joins page 9

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:40000. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



58' 57' 45' 30' 15' 56' 50' 54'

AUG 2014		
PROJECT DIMENSIONS		
WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (MLLW) (FEET)
100	0.28	12
100-300	0.19	12
100-130	0.42	12
100	0.43	12
100	0.60	12
100-400	0.20	12
100	0.21	12
100	0.27	12
100-400	0.15	12
FORMATION		



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES  
CALIFORNIA - WEST COAST

# BODEGA AND TOMALES BAYS

Mercator Projection  
Scale 1:30,000 at Lat. 38°12'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

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

TIDAL INFORMATION

PLACE	Height referred to datum of soundings (MLLW)	Mean Higher High Water		
		Mean High Water	Mean High Water	Mean Low Water
Tomales Bay Entrance	(38°14'N/122°59'W)	5.2	4.5	1.0
Inverness, Tomales Bay	(38°06'N/122°51'W)	5.3	4.6	0.9
Bodega Harbor Entrance	(38°18'N/123°03'W)	5.7	5.0	1.2

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>. (Nov 2009)

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 morse code	R TR radio tower
Aj alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LT 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 faxed	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:

Bls boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:  
 AUTH authorized      Obsn obstruction      PD position doubtful      Subm submerged  
 ED existence doubtful      PA position approximate      Rep reported  
 (1) 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.  
 COLREGS: International Regulations for Preventing Collisions at Sea, 1972.  
 Demarcation lines are shown thus: ---

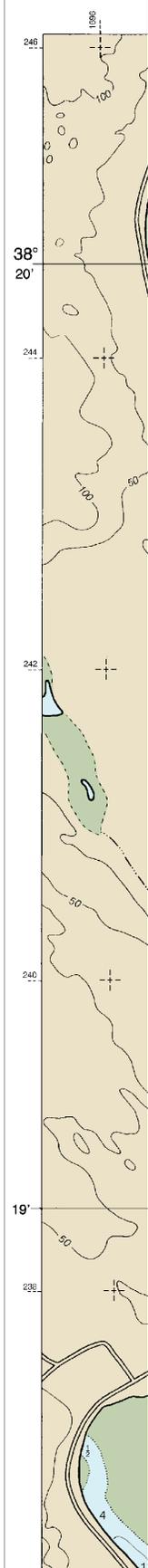
**RADAR REFLECTORS**  
 Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

**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

HEIGHTS  
Heights in feet above Mean High Water.

NOTE B  
 of the passage between  
 Bega Rock is reduced by  
 is unsafe and mariners  
 from the sea should pass  
 hite buoy 'BA' located  
 Rock.

Joins page 5



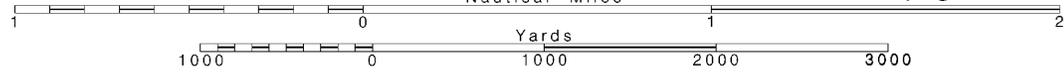
Hydrography and topography Service.

Joins page 10

Printed at reduced scale.

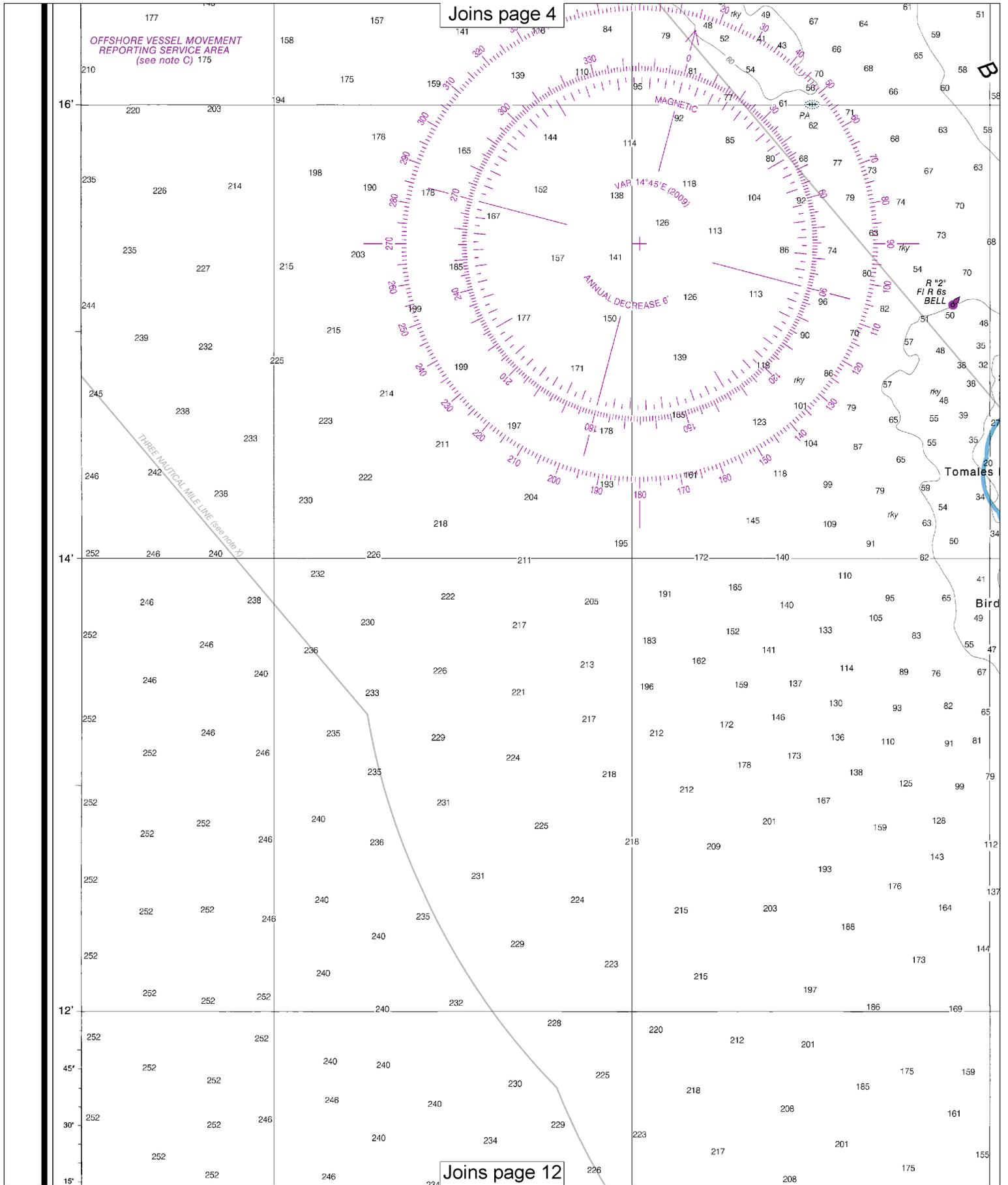
SCALE 1:30,000  
Nautical Miles

See Note on page 5.



Note: Chart grid lines are aligned with true north.



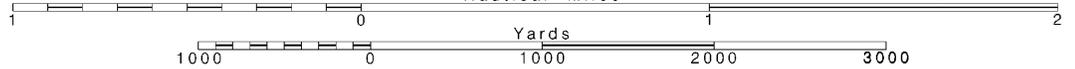


Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:30,000

See Note on page 5.



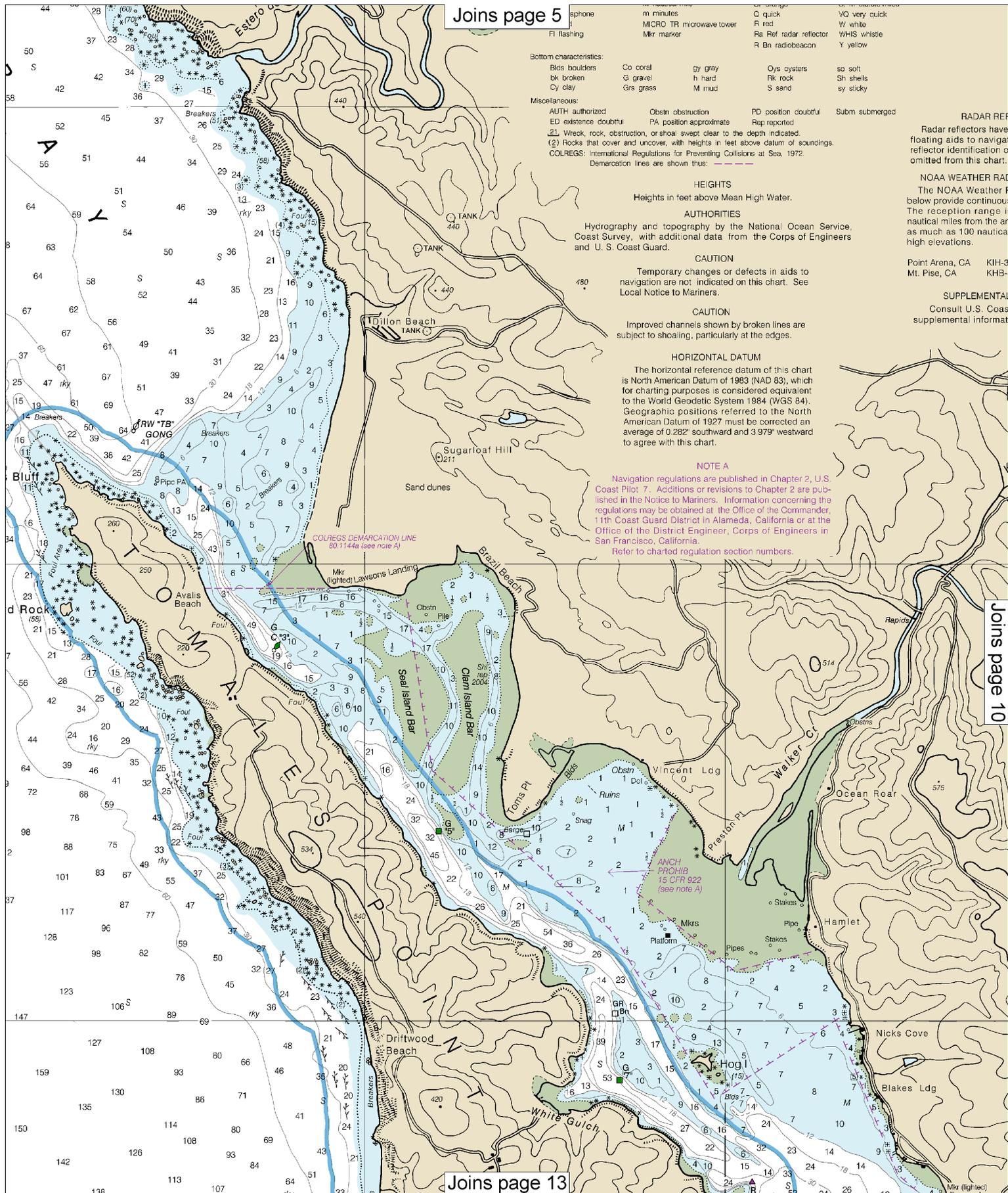
Fl flashing	m minutes	Q quick	VG very quick
	MICRO TR microwave tower	R red	W white
	Mkr marker	Ra Ref radar reflector	WHS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:			
Bls boulders	Co coral	gy gray	Oys oysters
Bk broken	G gravel	h hard	so soft
Cy clay	Grs grass	M mud	Sh shells
			sy sticky

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



HEIGHTS

Heights in feet above Mean High Water.

AUTHORITIES

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

CAUTION

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

CAUTION

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

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 0.282' southward and 3.979' westward to agree with this chart.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. 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, 11th Coast Guard District in Alameda, California or at the Office of the District Engineer, Corps of Engineers in San Francisco, California. Refer to charted regulation section numbers.

RADAR REF

Radar reflectors have floating aids to navigation reflector identification omitted from this chart.

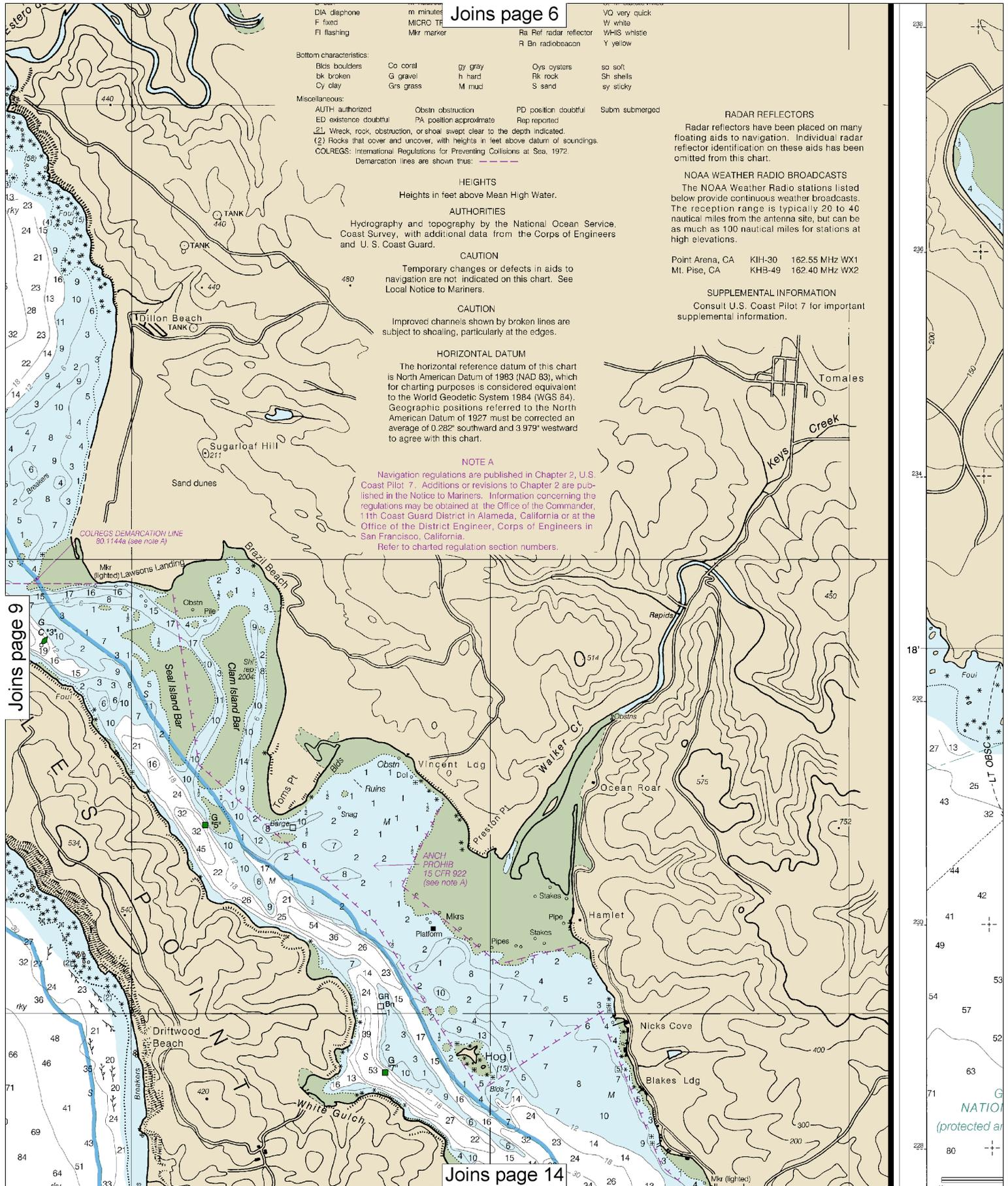
NOAA WEATHER RA

The NOAA Weather Radar provides continuous reception range in nautical miles from the antenna as much as 100 nautical high elevations.

Point Arena, CA KIH-3 Mt. Pisic, CA KIH-3

SUPPLEMENTAL

Consult U.S. Coast supplemental information



Joins page 6

DIA diaphone  
F fixed  
Fl flashing

m minutes  
MICRO TR  
Mkr marker

Ra Ref radar reflector  
R Bn radiobeacon

VO very quick  
W white  
WHIS whistle  
Y yellow

Bottom characteristics:  
Blc boulders  
bk broken  
Cy clay

Co coral  
G gravel  
Gr grass

gy gray  
h hard  
M mud

Oys oysters  
Rk rock  
S sand

so soft  
Sh shells  
sy sticky

Miscellaneous:  
AUTH authorized  
ED existence doubtful

Obst obstruction  
PA position approximate

PD position doubtful  
Rep reported

(1) 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.

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

**HEIGHTS**

Heights in feet above Mean High Water.

**AUTHORITIES**

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

**CAUTION**

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

**CAUTION**

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

**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 0.282' southward and 3.979' westward to agree with this chart.

**NOTE A**

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. 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, 11th Coast Guard District in Alameda, California or at the Office of the District Engineer, Corps of Engineers in San Francisco, California.  
Refer to charted regulation section numbers.

**RADAR REFLECTORS**

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

**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.

Point Arena, CA KIH-30 162.55 MHz WX1  
Mt. Pisic, CA KHB-49 162.40 MHz WX2

**SUPPLEMENTAL INFORMATION**

Consult U.S. Coast Pilot 7 for important supplemental information.

Joins page 9

Joins page 14

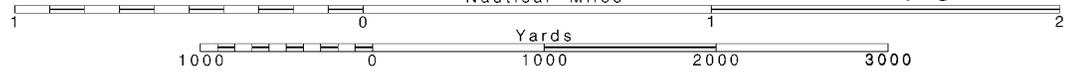
**10**

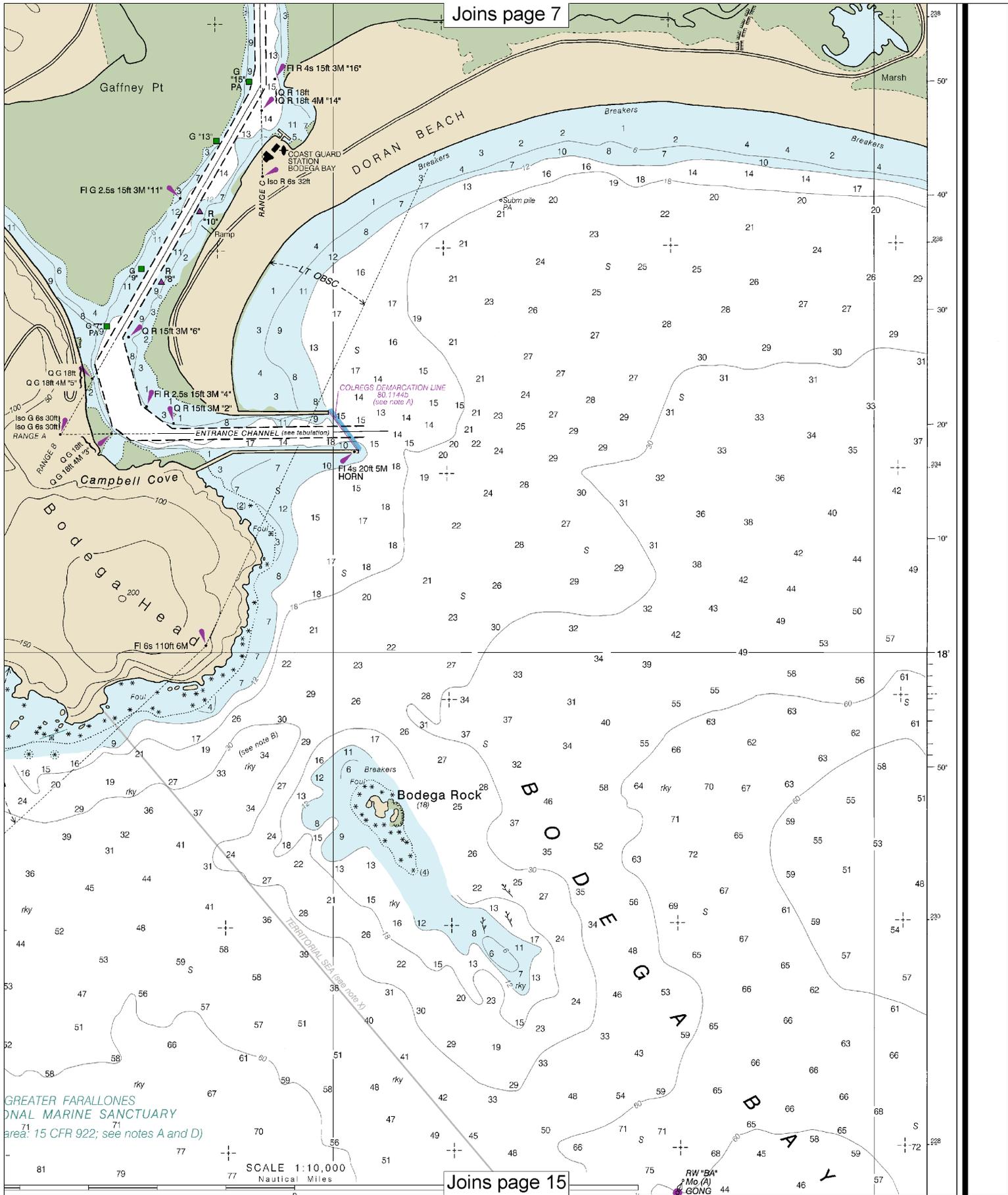
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:30,000  
Nautical Miles

See Note on page 5.

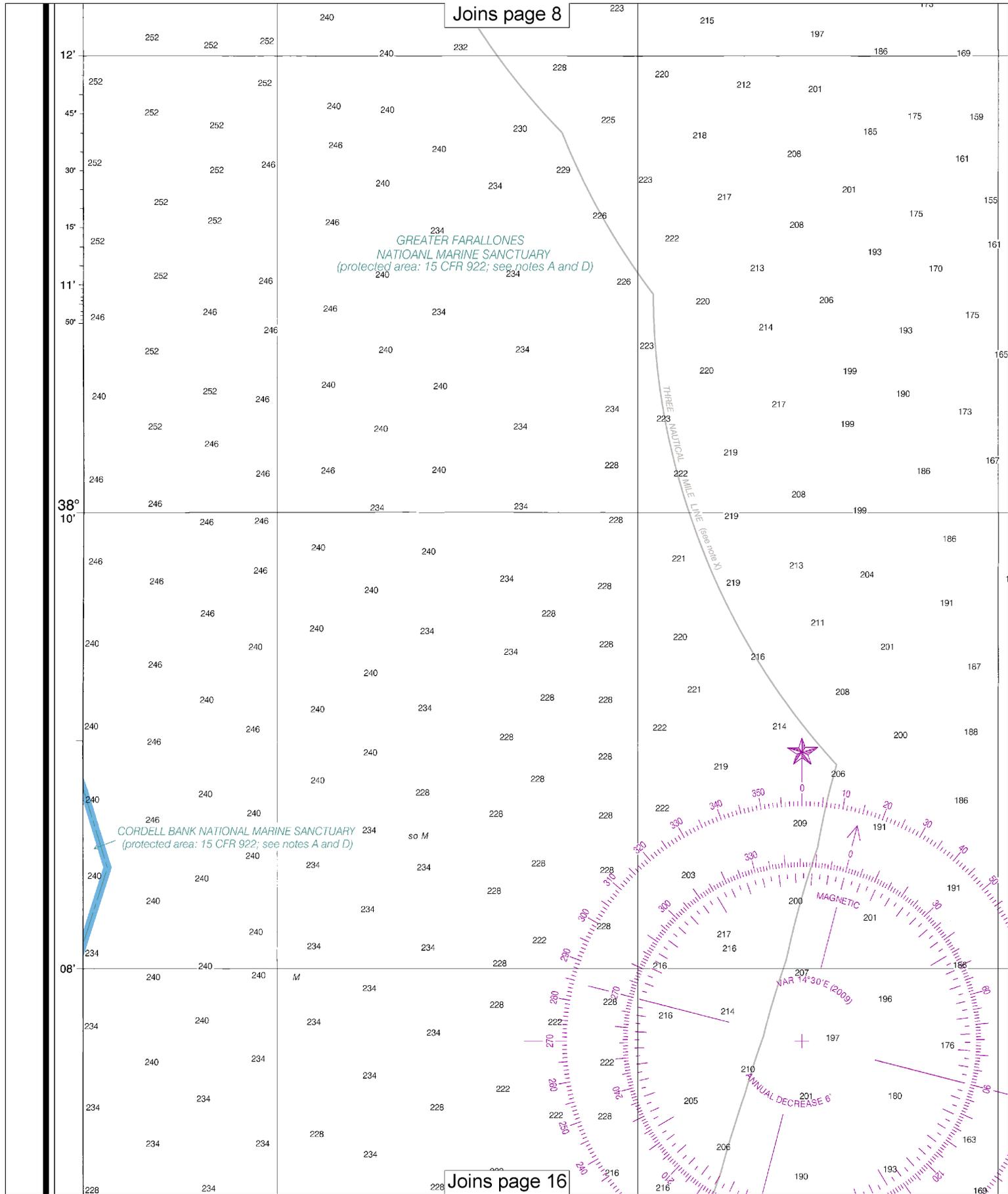




GREATER FARALLONES  
 NATIONAL MARINE SANCTUARY  
 area: 15 CFR 922; see notes A and D)

SCALE 1:10,000  
 Nautical Miles

Joins page 8



GREATER FARALLONES  
NATIONAL MARINE SANCTUARY  
(protected area: 15 CFR 922; see notes A and D)

CORDELL BANK NATIONAL MARINE SANCTUARY  
(protected area: 15 CFR 922; see notes A and D)

THREE NAUTICAL MILE LINE  
(See note X)

MAGNETIC  
VAR 14° 30' E (2009)  
ANNUAL DECREASE 6'

Joins page 16

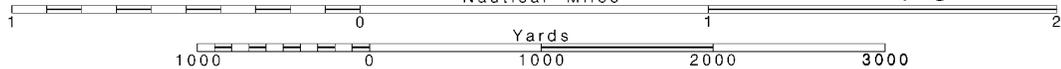
# 12

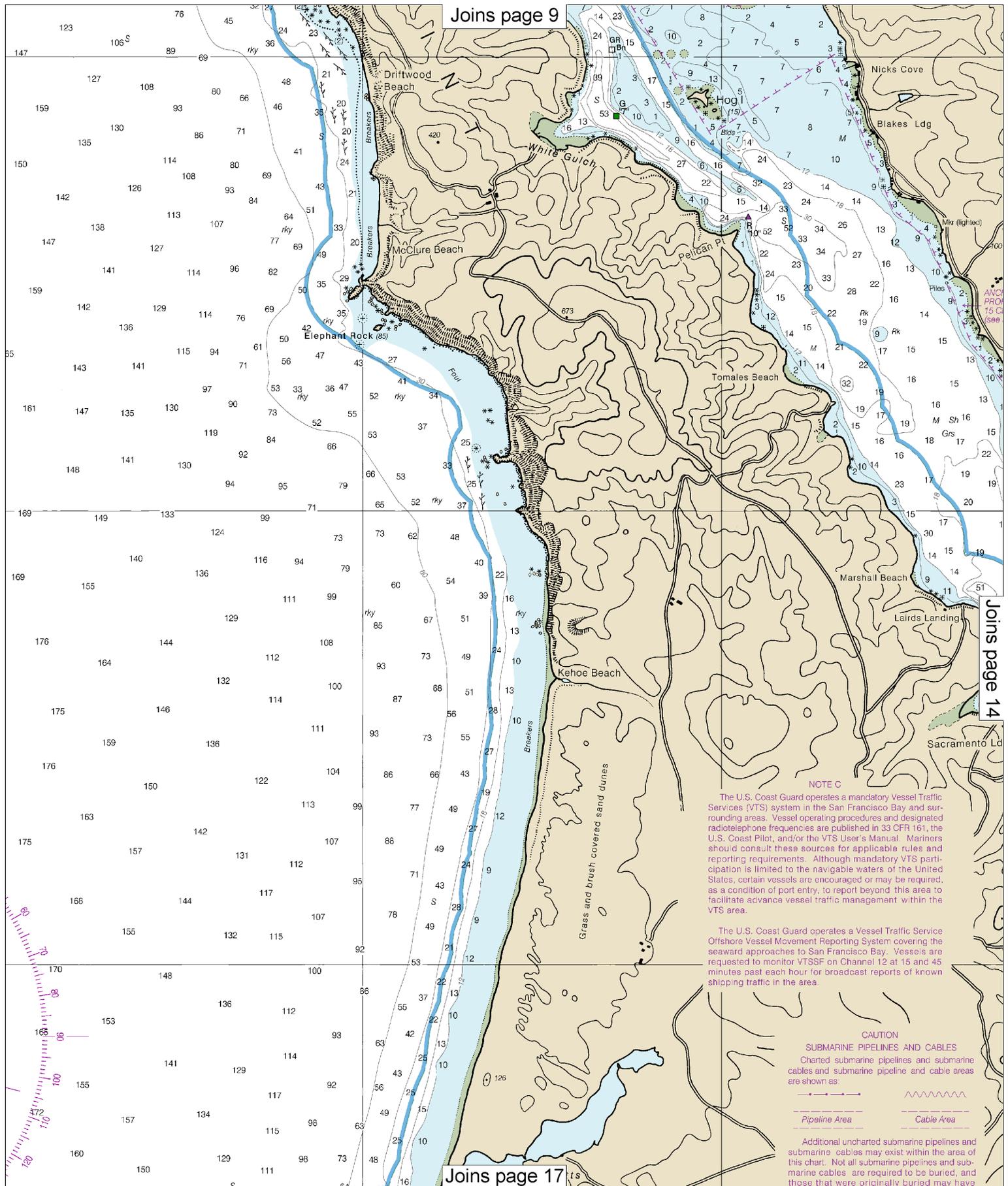
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:30,000  
Nautical Miles

See Note on page 5.





**NOTE C**

The U.S. Coast Guard operates a mandatory Vessel Traffic Services (VTS) system in the San Francisco Bay and surrounding areas. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. Mariners should consult these sources for applicable rules and reporting requirements. Although mandatory VTS participation is limited to the navigable waters of the United States, certain vessels are encouraged or may be required, as a condition of port entry, to report beyond this area to facilitate advance vessel traffic management within the VTS area.

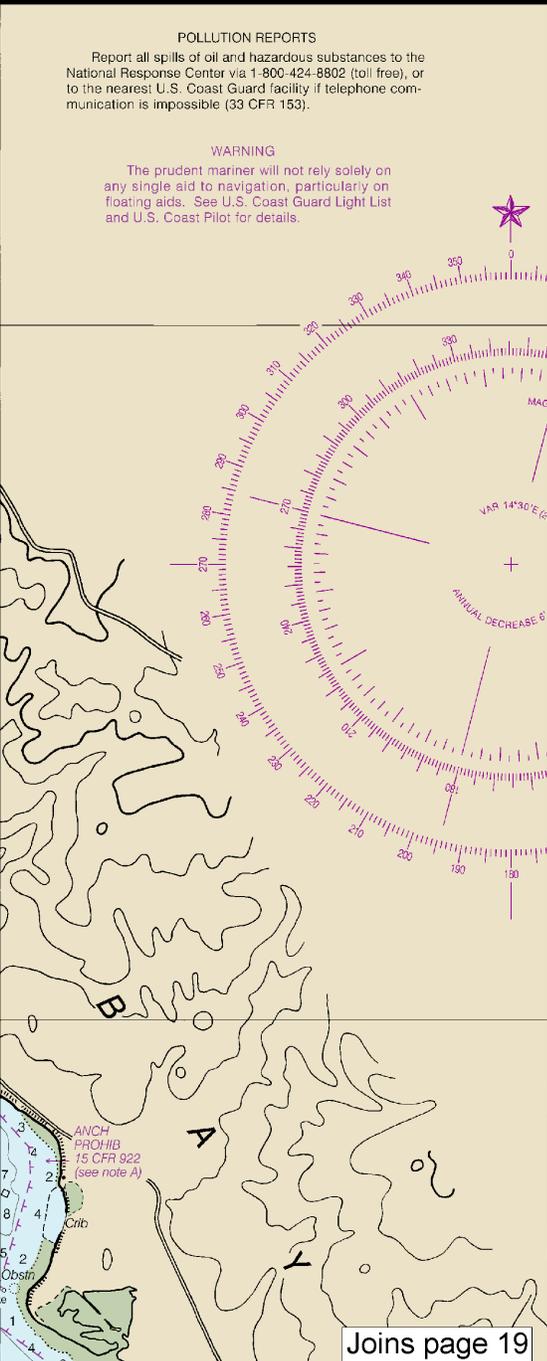
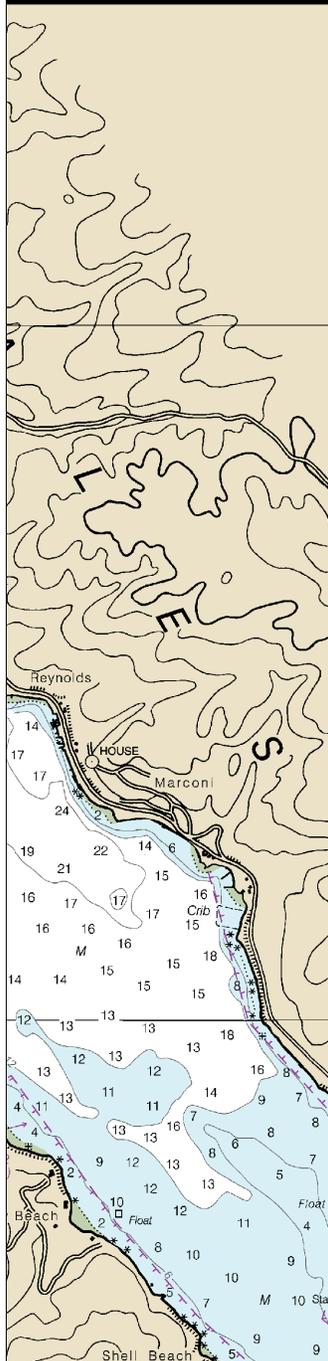
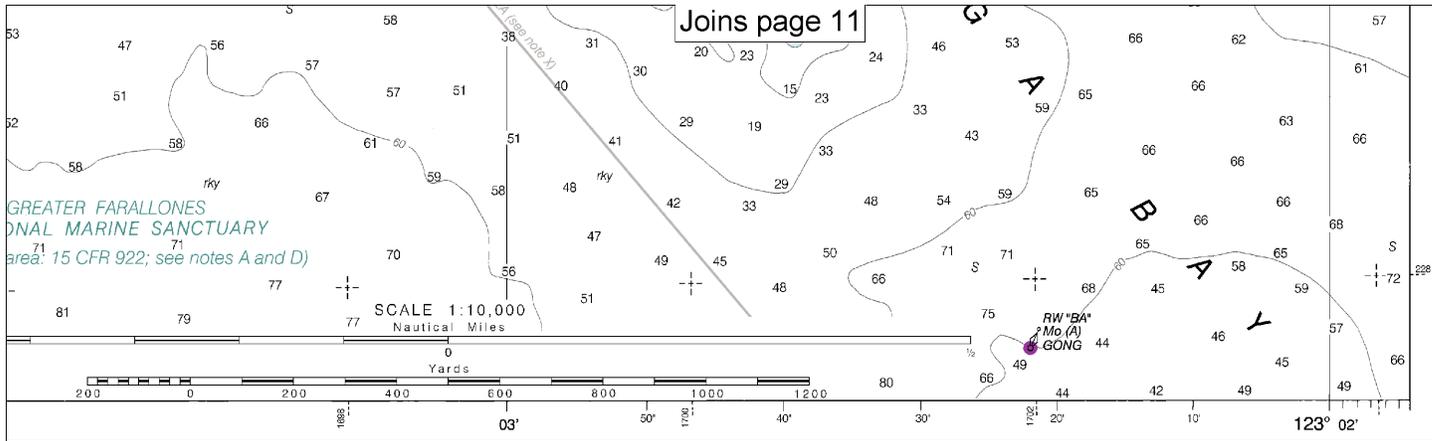
The U.S. Coast Guard operates a Vessel Traffic Service Offshore Vessel Movement Reporting System covering the seaward approaches to San Francisco Bay. Vessels are requested to monitor VTSSF on Channel 12 at 15 and 45 minutes past each hour for broadcast reports of known shipping traffic in the area.

**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





**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).

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

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

**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)

**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 D**  
**NATIONAL MARINE SANCTUARIES**  
National Marine Sanctuaries are protected areas, administered by NOAA which contain abundant and diverse natural resources such as marine mammals, seabirds, fishes, and tidepool invertebrates. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges, and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas to avoid environmental impacts. A full description of Sanctuary regulations may be found in 15 CFR Part 922 and in the Coast Pilot.

CONTINUED ON CHART 18640

06'

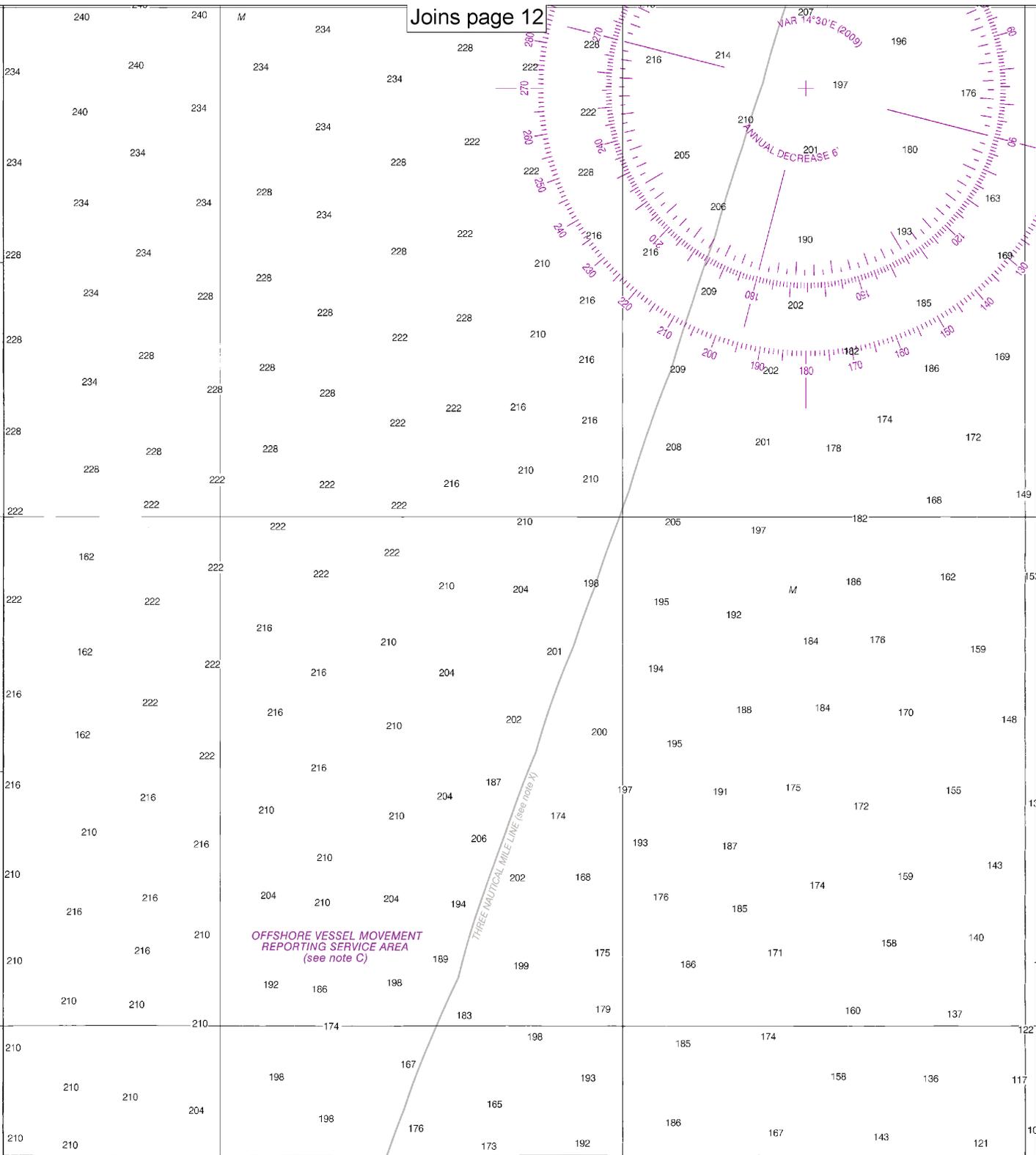
04'

04'

02'

CONTINUED ON CHART 18640

123



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).

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

18643

18th Ed., Dec. 2009. Last Correction: 6/19/2015. Cleared through:  
LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016)

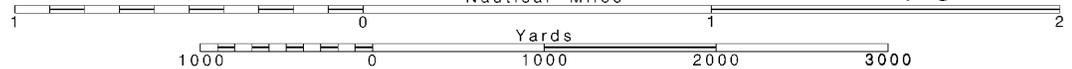
16

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:30,000  
Nautical Miles

See Note on page 5.

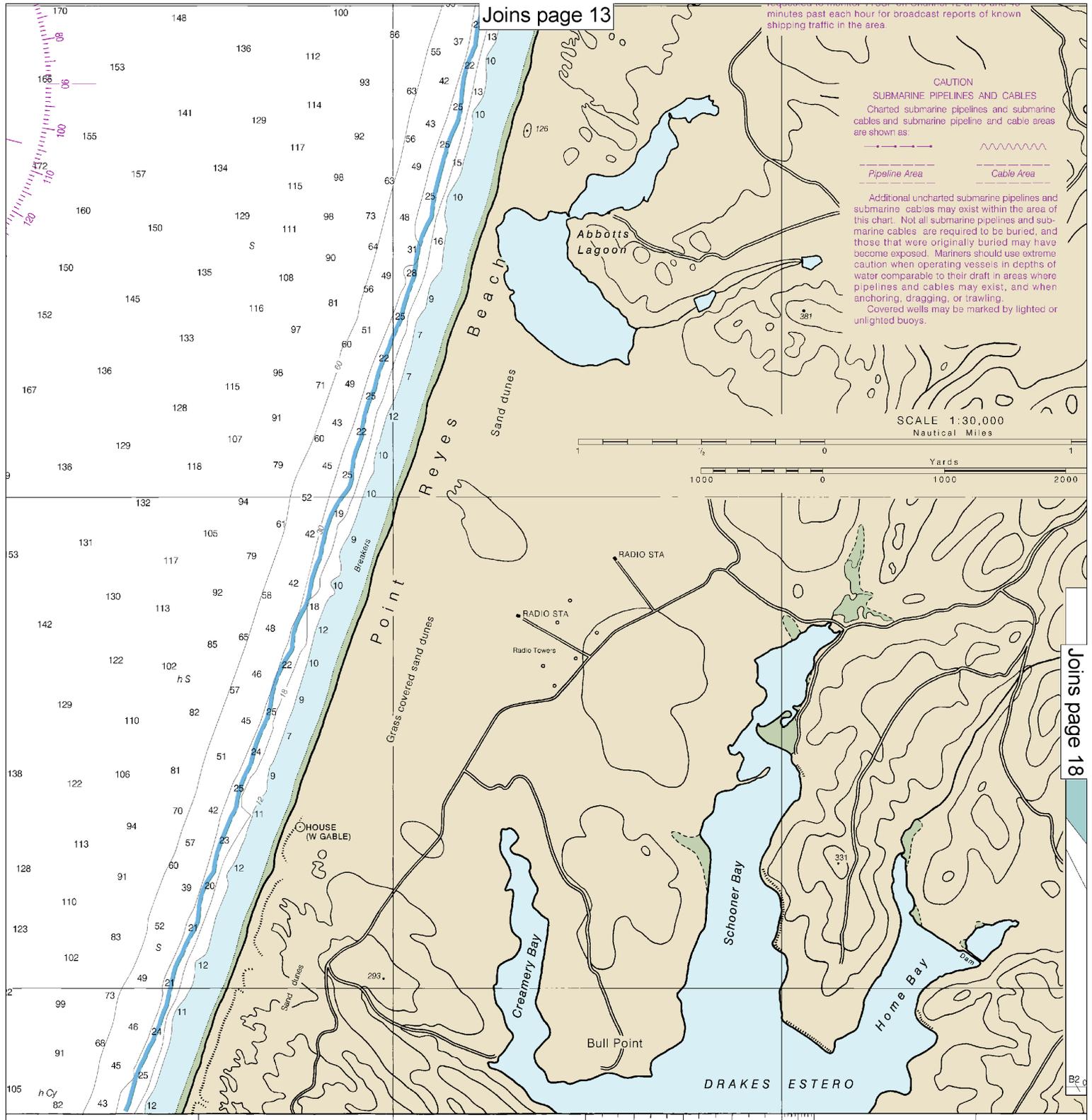
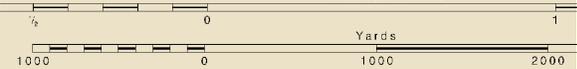


**CAUTION**  
**SUBMARINE PIPELINES AND CABLES**  
 Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

— 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.

SCALE 1:30,000  
 Nautical Miles



# SOUNDINGS IN FEET

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

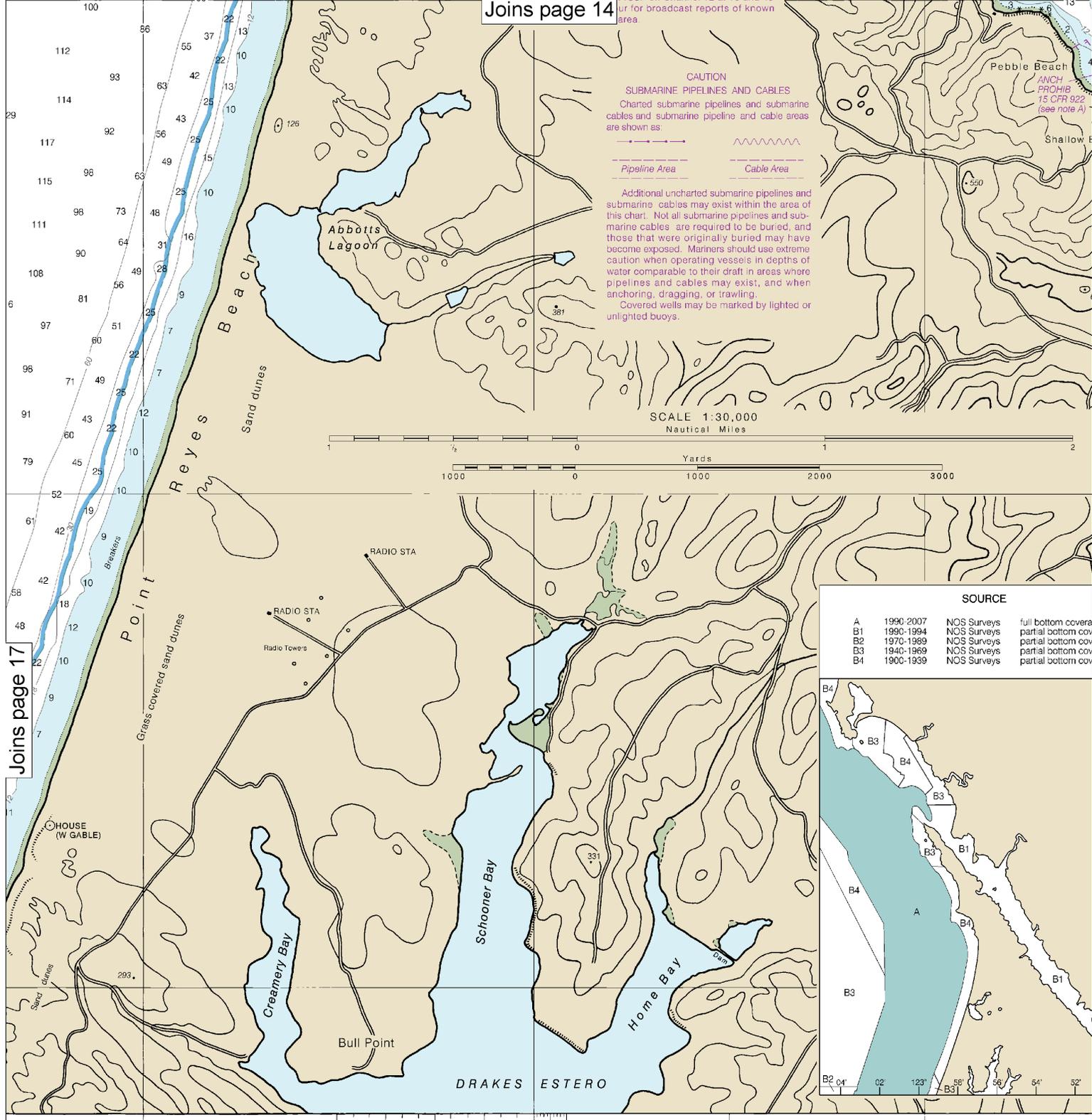
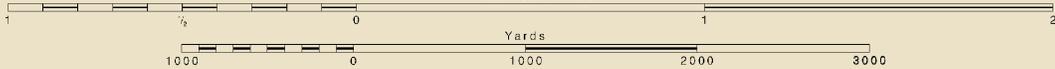
ur for broadcast reports of known area.

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



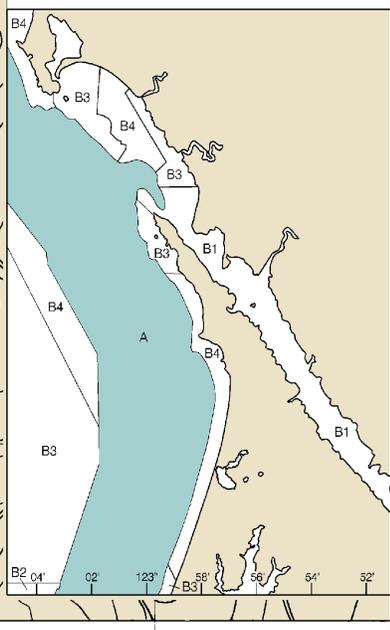
Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels 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.

SCALE 1:30,000  
Nautical Miles



Joins page 17

SOURCE		
A	1990-2007	NOS Surveys full bottom cover
B1	1990-1994	NOS Surveys partial bottom cov
B2	1970-1989	NOS Surveys partial bottom cov
B3	1940-1969	NOS Surveys partial bottom cov
B4	1900-1939	NOS Surveys partial bottom cov



# NGS IN FEET

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

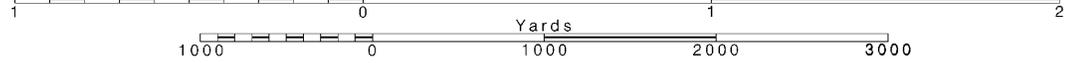
# 18

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:30,000  
Nautical Miles

See Note on page 5.

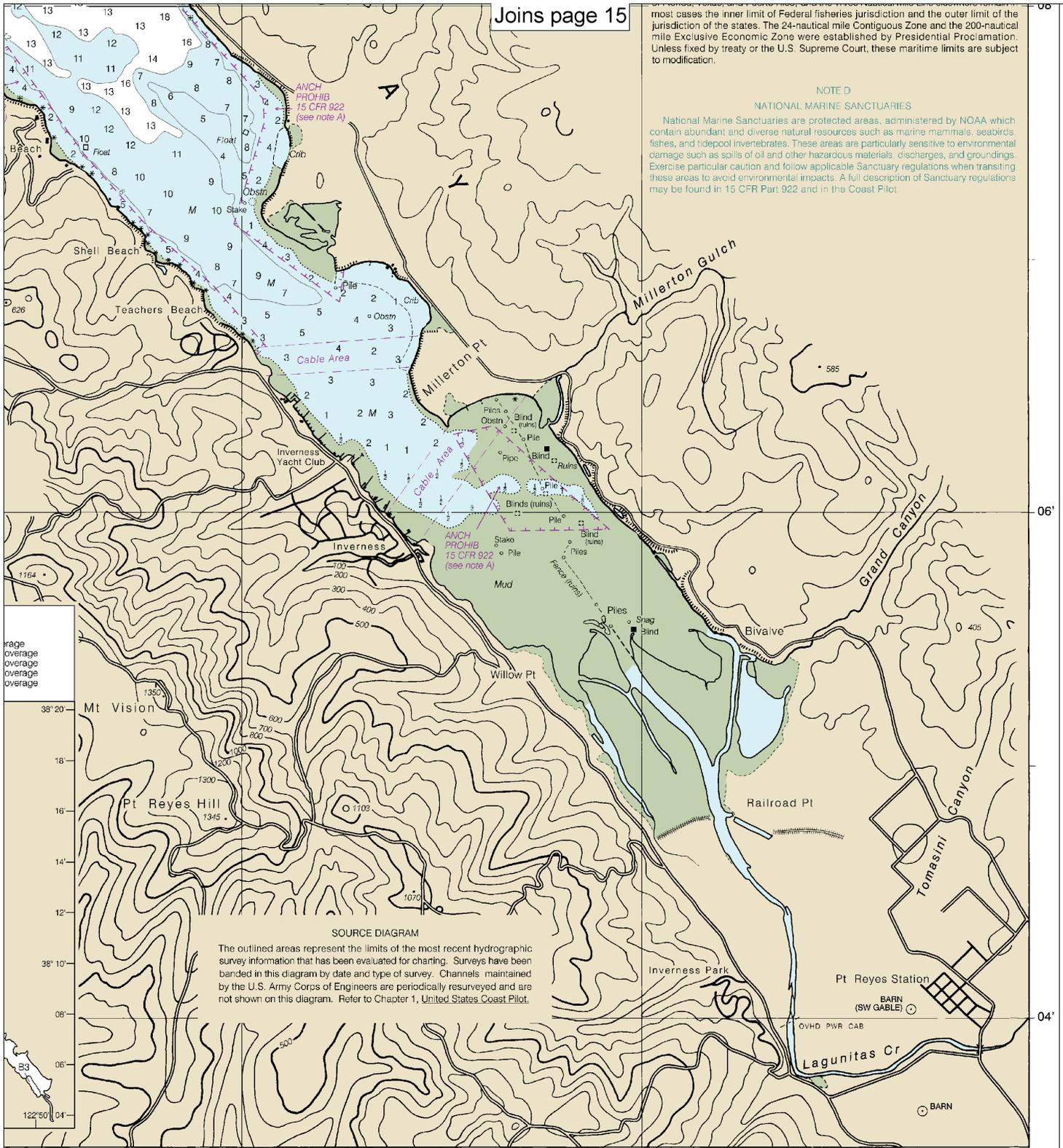


most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

NOTE D

NATIONAL MARINE SANCTUARIES

National Marine Sanctuaries are protected areas, administered by NOAA which contain abundant and diverse natural resources such as marine mammals, seabirds, fishes, and tidepool invertebrates. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges, and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas to avoid environmental impacts. A full description of Sanctuary regulations may be found in 15 CFR Part 922 and in the Coast Pilot.



**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.

verage  
overage  
overage  
overage

38° 20'  
18'  
16'  
14'  
12'  
10'  
08'  
06'  
04'  
122° 50'

52'

122° 50'

1038.0 X 827.3 mm

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

Bodega and Tomales Bays  
SOUNDINGS IN FEET - SCALE 1:30,000

18643



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](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 @NOAAcharts



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.