

BookletChartTM

San Francisco Bay – Angel Island to Point

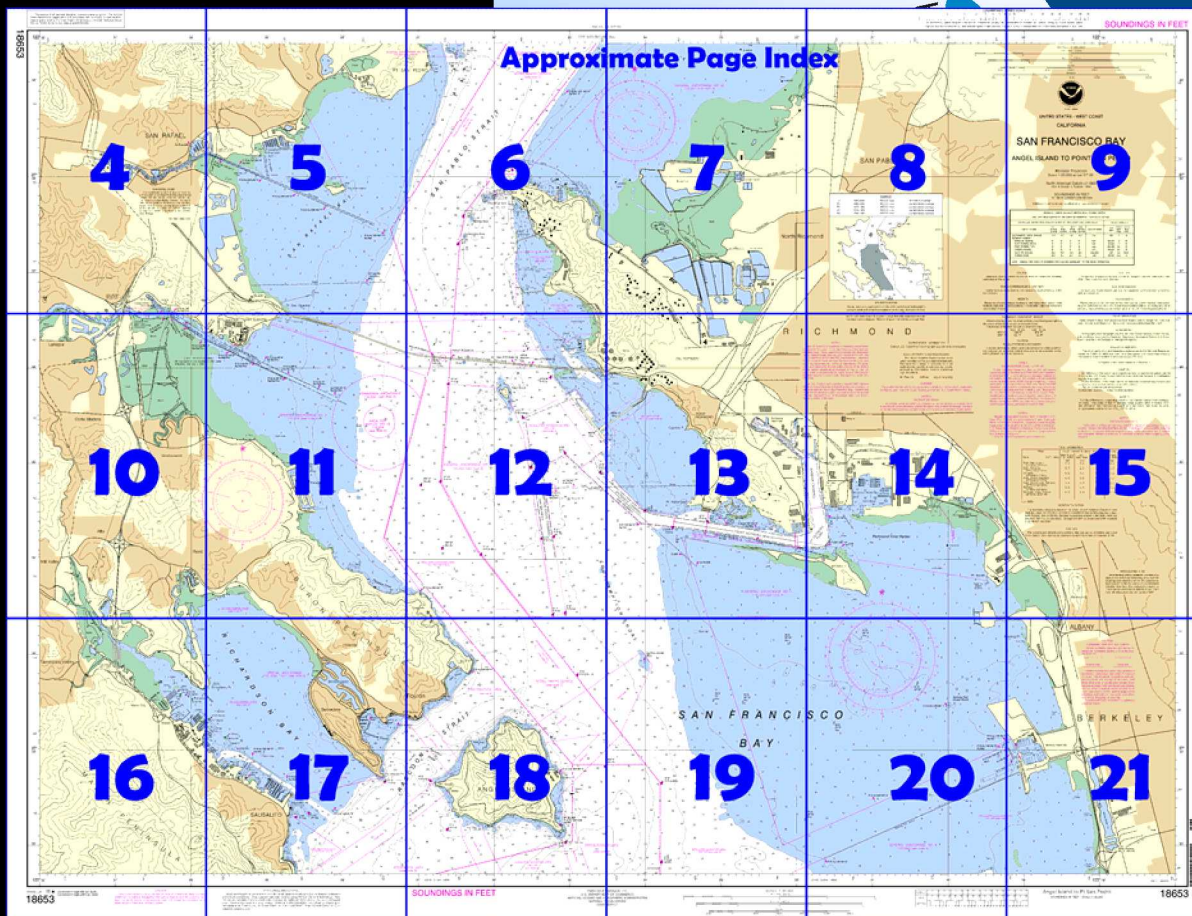
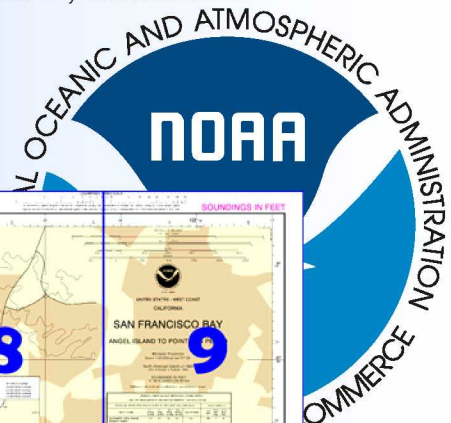
San Pedro

(NOAA Chart 18653)



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 all Notices to Mariners
- ✓ United States Coast Pilot excerpts
- ✓ Compiled by NOAA, the nation's chartmaker.



Home Edition (not for sale)



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™?

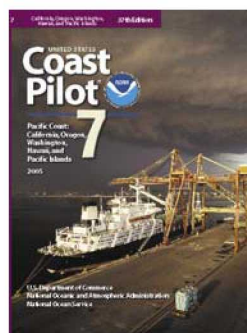
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this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



[Coast Pilot 7, Chapter 7 excerpts]

(418) **Berkeley**, the site of the University of California, adjoins Oakland and Emeryville to the N. The long pier extending into the bay is marked by a light; the 1.7-mile offshore section of the pier is in ruins, and the inshore 3,000-foot section is used for fishing. In clear weather the Campanile (bell tower) at the university shows prominently from the bay.

(419) **Berkeley Yacht Harbor**, on the N side of the long pier, is protected at the entrance by two detached breakwaters. The S

breakwater is marked by a light on the S end, a light at the center, and a light and fog signal at the N end. The N breakwater is marked by a light on the NE and SW ends.

(425) **Richmond Harbor**, on the E shore of San Francisco Bay 1.5 miles N of Southampton Shoal Light, includes the port facilities to Point San Pablo.

(447) Some small-craft facilities are along Santa Fe Channel. A marina and yacht club are in **Richmond Marina Bay**, and a private yacht harbor is on the E side of Point Richmond.

(450) **Invincible Rock**, 1.3 miles N of Richmond-San Rafael Bridge, is covered 7 feet. **Whiting Rock**, covered 13 feet, is 0.2 mile NNE of Invincible Rock. Both rocks are buoyed. The buoy marking Whiting Rock is reported to submerge during strong ebb currents caused by the heavy spring runoffs in the area.

(451) **The Brothers**, 1.7 miles N of Richmond-San Rafael Bridge, are two small low flat-topped islands. **East Brother Island Light** (37°57.8'N., 122°26.0'W.), 61 feet above the water, is shown from a white square tower on dwelling on the E island. A seasonal fog signal is at the station.

(452) **Point San Pablo**, 0.3 mile NE of East Brother Island Light, is the NW extremity of a low ridge of hills on the E shore of San Francisco Bay at its junction with San Pablo Bay. The point rises abruptly to a height of 140 feet. A dredged channel off the NE shore of the point is used by commercial and sport fishermen.

(456) **Golden Gate Coast Guard Station** is located at the entrance to Horseshoe Bay.

(458) **Richardson Bay**, 2 miles N of the Golden Gate Bridge, is shoal except for the S part fronting Sausalito. In the N part of Richardson Bay, a wildlife sanctuary, established by the National Audubon Society, provides safe refuge for migratory fowl that arrives each fall. The sanctuary is closed to marine traffic from October to March. Seasonal buoys N of a line approximately 097° True from Strawberry Point to Belvedere, mark the perimeter of the sanctuary.

(460) **Sausalito** harbors some commercial fishing boats and many pleasure craft. Several boatbuilding and repair yards have marine ways, the largest of which can handle craft up to 350 tons.

(464) **Point Blunt**, the SE extremity of Angel Island, terminates in a 60-foot-high knob, and is connected with the island by a low neck of land.

Point Blunt Light (37°51.2'N., 122°25.2'W.), 60 feet above the water, is shown from a white house on the point; a fog signal is at the station. A shoal with visible and covered rocks extends SSE for 0.1 mile. Tide rips and swirls are heavy around the point, especially with a large falling tide.

(466) A lighted buoy is off **Point Stuart**, the W extremity of Angel Island. A shoal area covered 14 to 30 feet, extending SW from **Point Knox**, is marked by a lighted buoy.

(468) **Raccoon Strait**, nearly 0.5 mile wide between Angel Island and the mainland, is used by ferry boats and pleasure craft. The tidal currents in the strait have considerable velocity, and rips and swirls are heavy at times. A midchannel course can be followed. **Raccoon Shoal**, covered 29 feet, is 500 yards N of Raccoon Strait Lighted Buoy 4. A strong ebb current sets directly across the channel at the E entrance.

(469) The charted **recreation area** extending SW of Angel Island and including all of Raccoon Strait and Richardson Bay is intended primarily for use by recreation vessels.

(470) **Bluff Point**, on the mainland and marked by a light, is the E extremity of Tiburon Peninsula 1.2 miles N of Point Stuart. Point Chauncey, 0.8 miles NW of Bluff Point, is the site of the University of San Francisco Romberg Fisheries Laboratory as well as the National Oceanic and Atmospheric Administration's Tiburon Fisheries Laboratory. Pier ruins at the site are marked by lights.

(475) **Point San Quentin**, at the W end of the Richmond-San Rafael Bridge, has low land on either side. The buildings of the State Prison S of the bridge and the long wharf N of it are prominent. A State **security zone** extends off the SE side of Point San Quentin. The buoys are orange and white and display the words "San Quentin Prison."

(476) **San Rafael Creek**, 1.8 miles NW of Point San Quentin, is used by many small craft basing at the city of **San Rafael**. A dredged channel leads across the flats in **San Rafael Bay** into San Rafael Creek to a turning basin about 1.1 miles above the mouth, thence for another 0.2 mile above the turning basin.

Table of Selected Chart Notes

Corrected through NM Oct. 24/09
Corrected through LNM Oct. 13/09

Mercator Projection
Scale 1:20,000 at Lat 37° 55'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

For Symbols and Abbreviations see Chart No. 1

SAN RAFAEL CREEK

The controlling depth was 3 feet for a mid-width of 50 feet from the channel entrance 37° 57' 30" N, 122° 27' 34" W, to the mouth of San Rafael Creek; thence 2 feet for a mid-width of 30 feet to the turning basin, 2 feet in the turning basin centered at 37° 58' 09.6" N 122° 31' 04.8" W, thence 1 foot for a width of 60 feet to the Grand Ave. Bridge, except for shoal to bare for the last 125 feet.

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.

Mt. Pise, CA KHB-49 162.40 MHz WX2

NOTE F

High speed ferries operate in the San Francisco Bay. Mariners are cautioned that these craft move very rapidly and may transit waterways at angles to the normal direction of traffic. Ferries may deviate from these routes if necessary. Mariners should exercise caution when transiting between the origin or terminus of a chartered ferry route and the actual ferry docking facility. Go to www.sfmv.org for additional information on the Ferry Traffic Routing Protocol.

CAUTION

SUBMARINE PIPELINES AND CABLES

Chartered 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.

ARTICULATED AIDS

An articulated aid to navigation consists of a pipe structure that oscillates around a universal coupling connected to a sinker. The structure is kept upright by the buoyancy of a submerged flotation chamber. It is designed primarily to mark narrow channels in depths of up to 60 feet. All articulated aids are labelled "Art".

NOTE Z

NO-DISCHARGE ZONE, 40 CFR 140

Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

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 VTSF on Channel 12 at 15 and 45 minutes past each hour for broadcast reports of known shipping traffic in the area.

SUPPLEMENTAL INFORMATION

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

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

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

PLANE COORDINATE GRID (NAD 1927)

California State Grid, Zone 3, is indicated by dashed ticks at 5,000 foot intervals.

HEIGHTS

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

CAUTION

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

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](#).

CAUTION

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

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.

NOTE E

PRECAUTIONARY AREA

Traffic within the Precautionary Area consists of vessels maneuvering on various courses. Vessels transiting the Precautionary Area should, when possible, keep the centerline of the area to port providing for a counterclockwise movement of vessels within the area. Mariners are advised to use extreme caution when navigating within this area.

NOTE D

The City of Richmond is requesting vessels to use extreme caution when turning or anchoring in the vicinity of their 72" diameter sewer pipeline which is located 4700 feet offshore of Point Richmond at a depth of 26 feet below mean lower low water in approximate position 37° 54' 47" N, 122° 25' 08" W.

RACING BUOYS

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

AUTHORITIES

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

NOTE B

RECREATION AREAS

Recreation areas are intended primarily for use by recreation vessels. Such areas should not be utilized by vessels 300 gross tons or more for through passage or for any other purpose, except in case of emergency or special circumstances.

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.

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 0.269" southward and 3.899" westward to agree with this chart.

WARNING

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

CAUTION

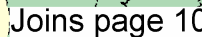
The currents are variable and uncertain, tide rips, swirls, or eddies may occur in the Golden Gate and as far eastward as Alcatraz Island and Racon Strait.

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.

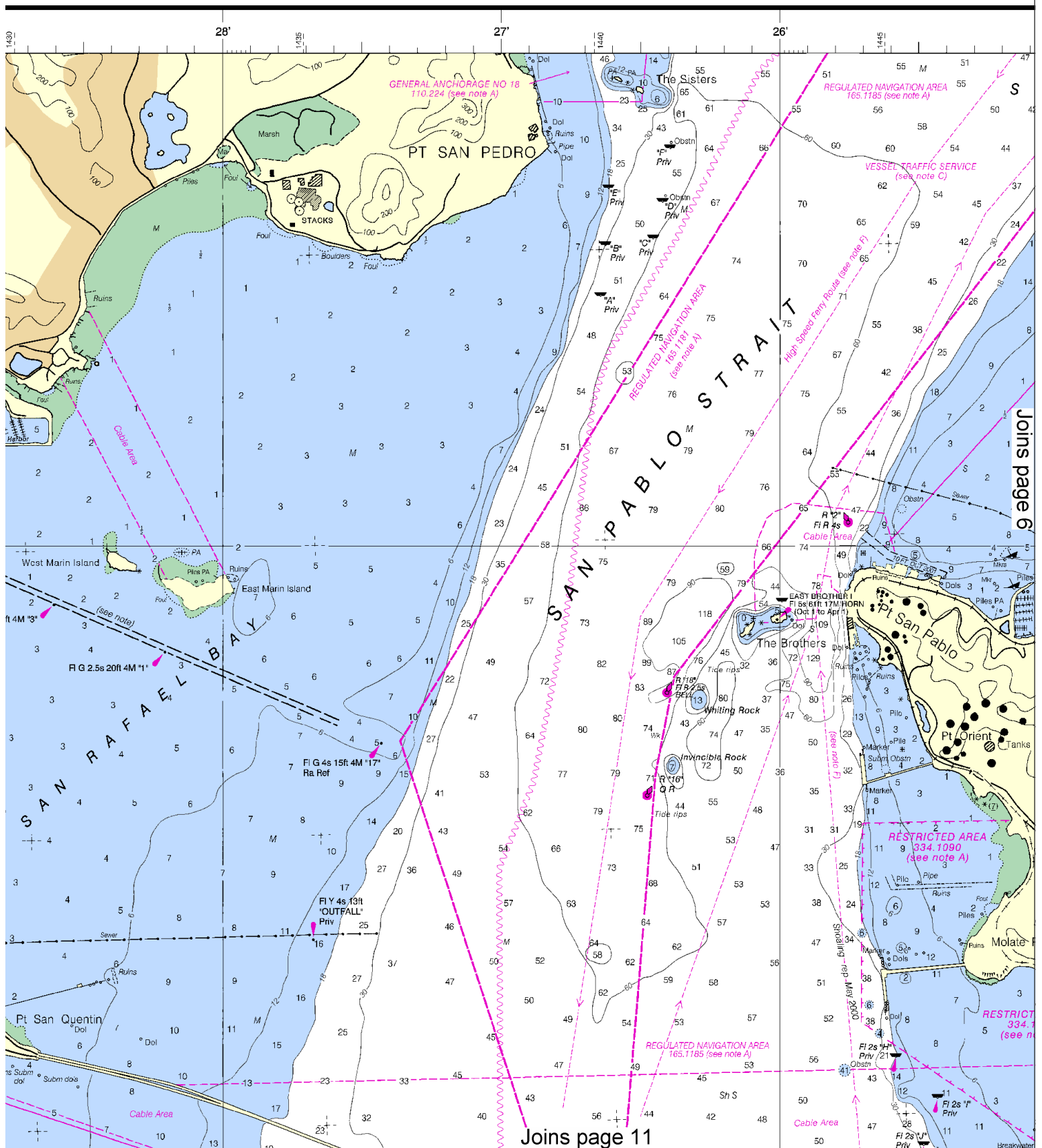
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

18653

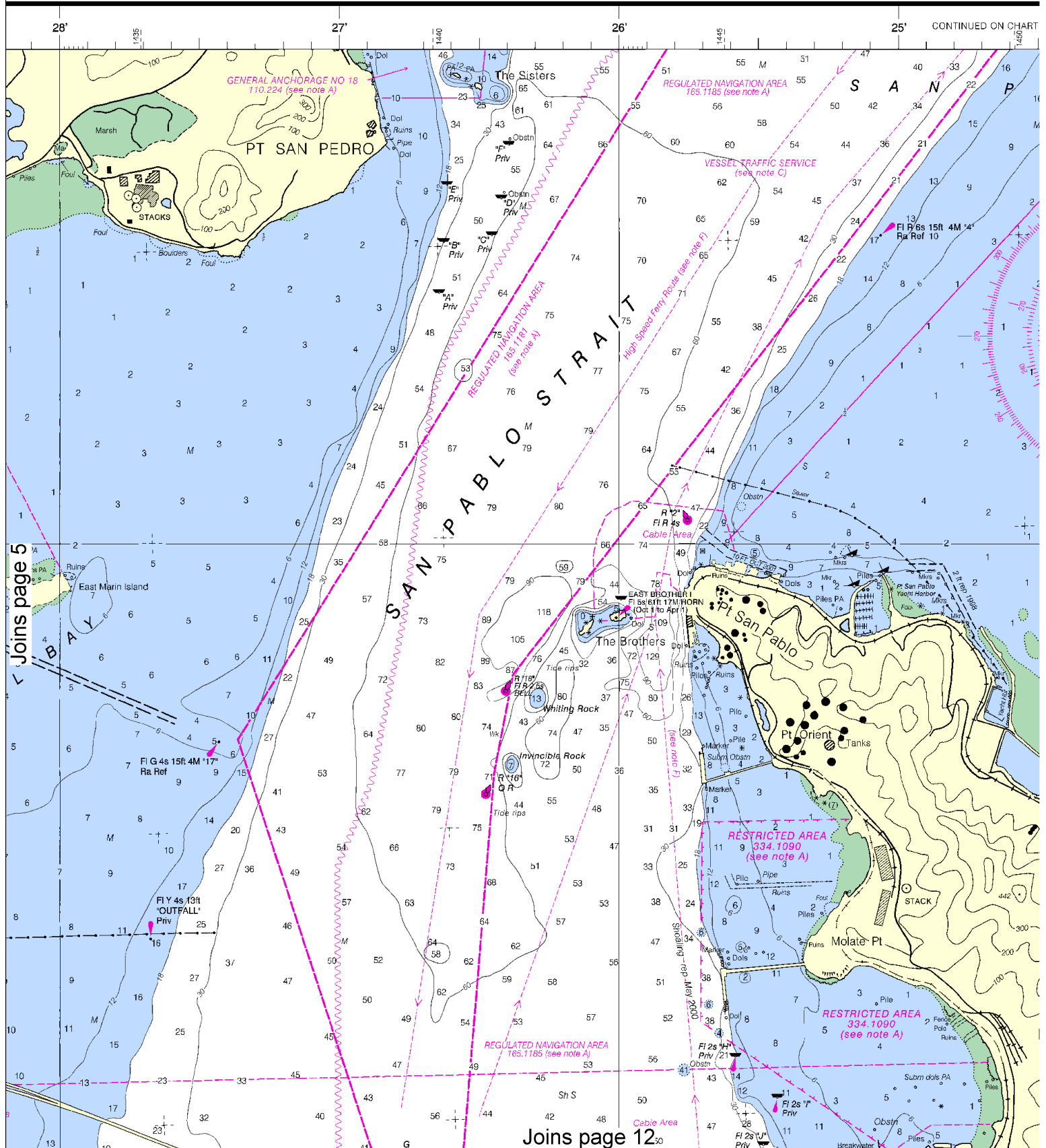


See Note on page 5.





This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:26667. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



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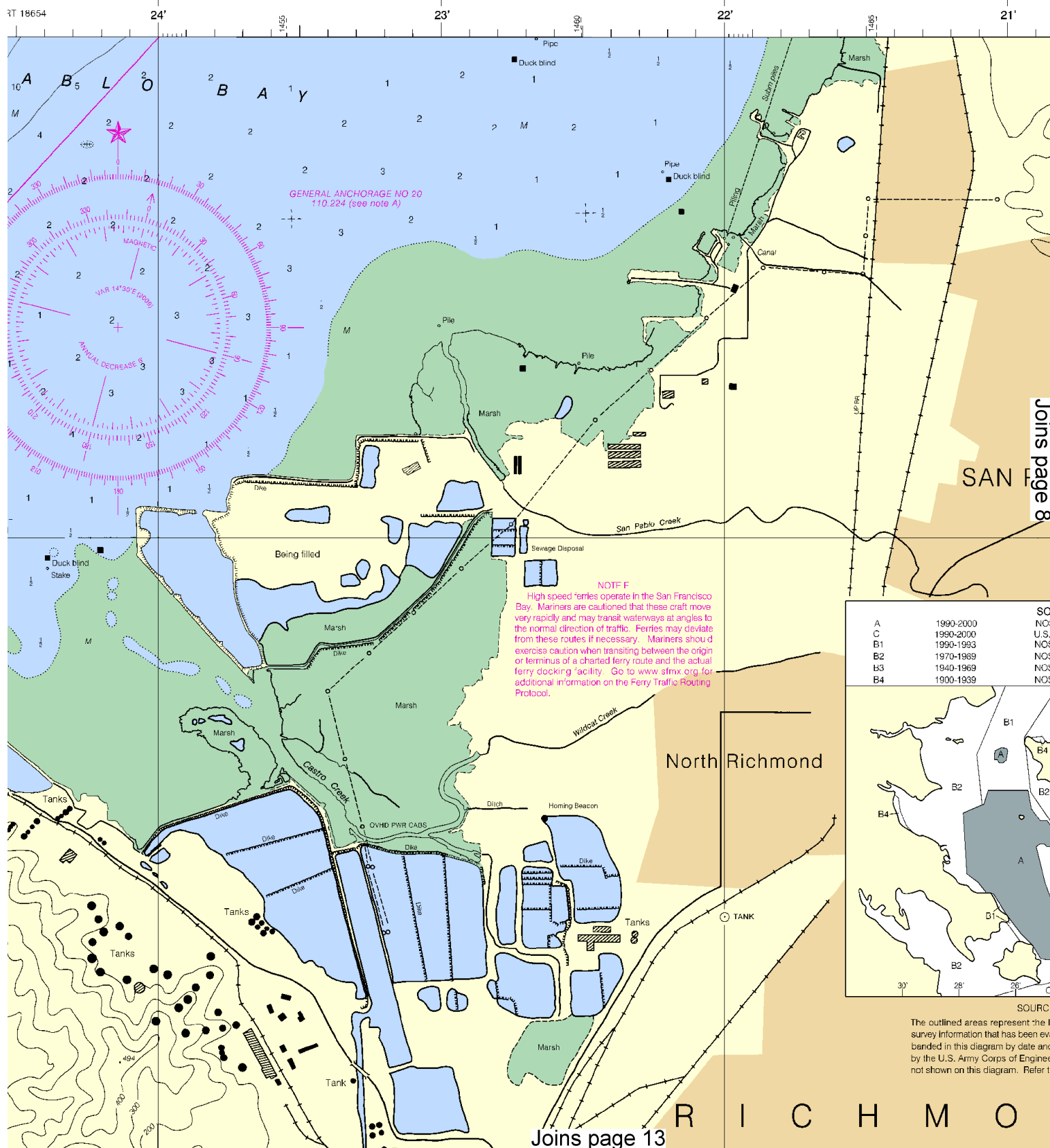


Printed at reduced scale.

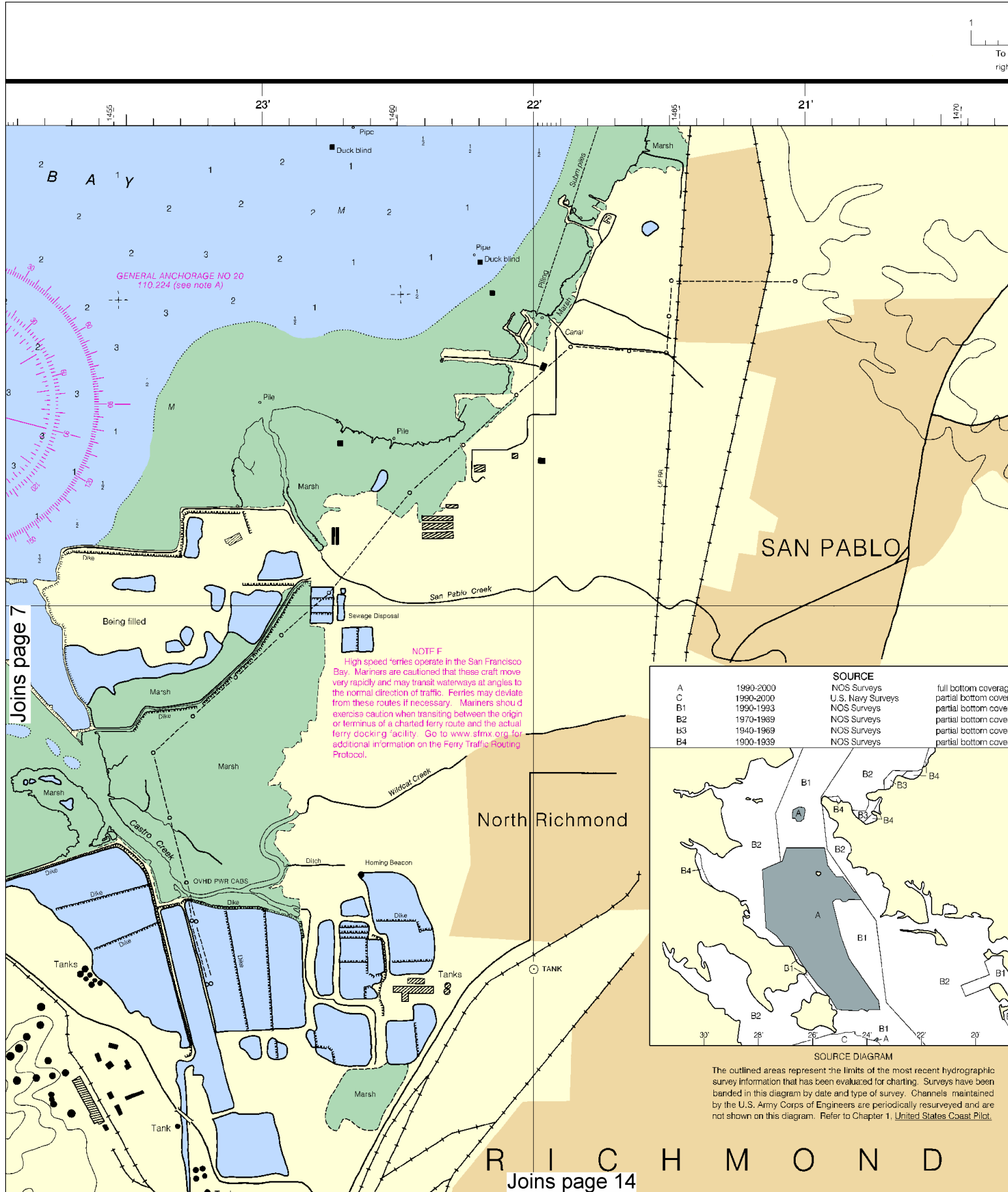
SCALE 1:20,000
Nautical Miles

See Note on page 5.

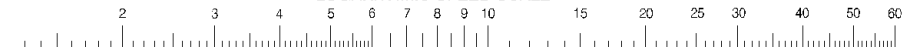




This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 4811 11/29/2011,
 NGA Weekly Notice to Mariners: 5011 12/10/2011,
 Canadian Coast Guard Notice to Mariners: n/a .

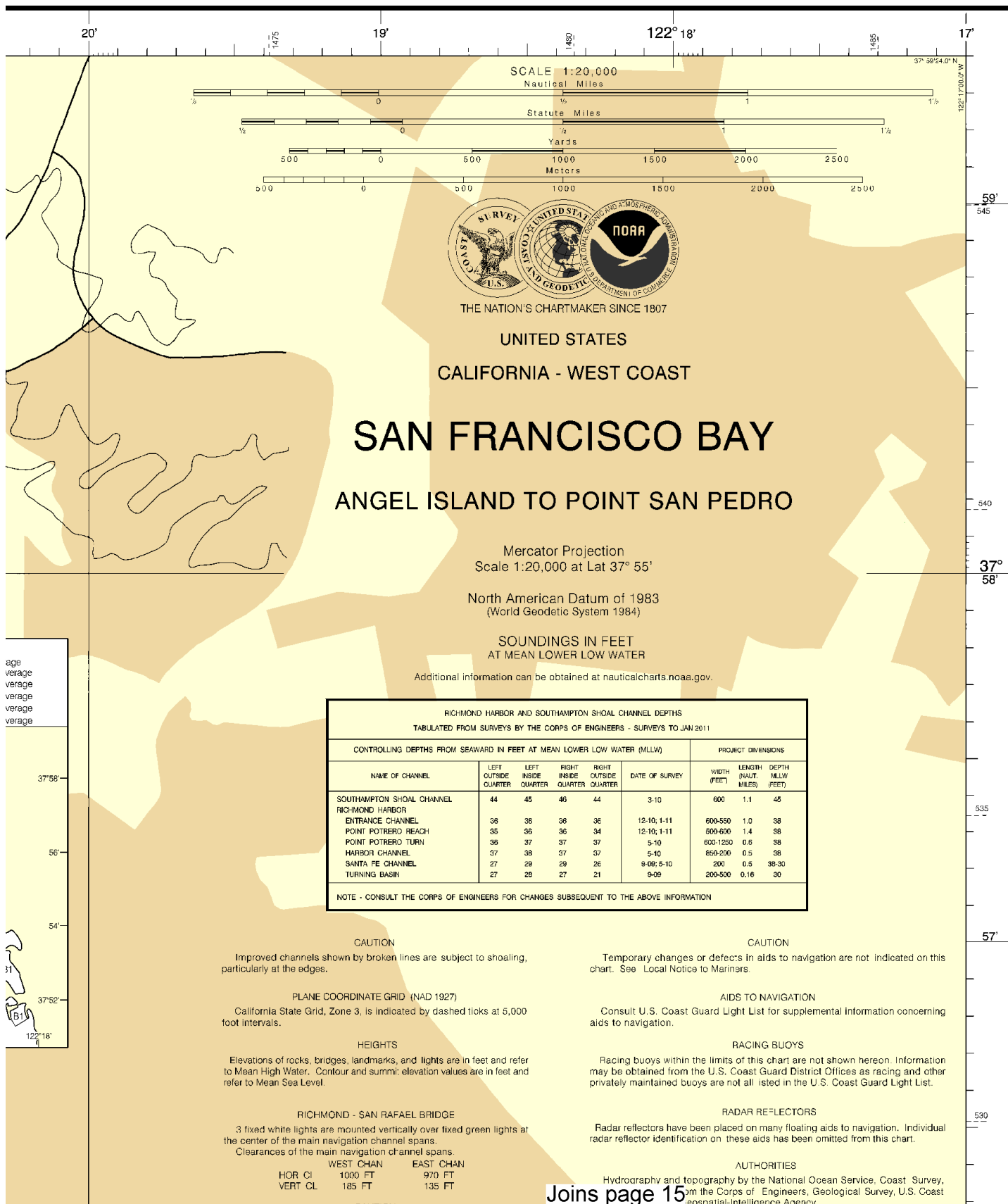


LOGARITHMIC SPEED SCALE

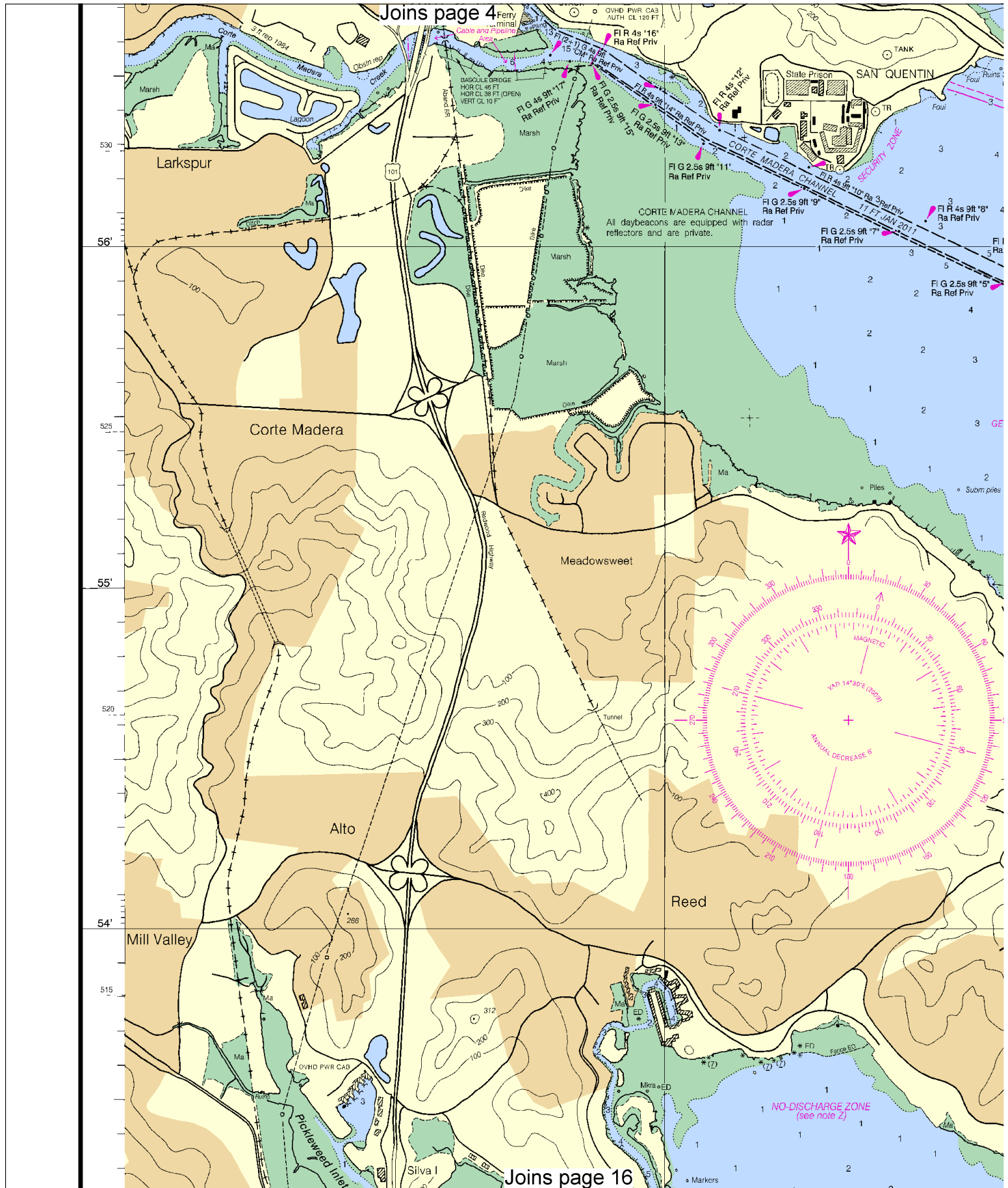


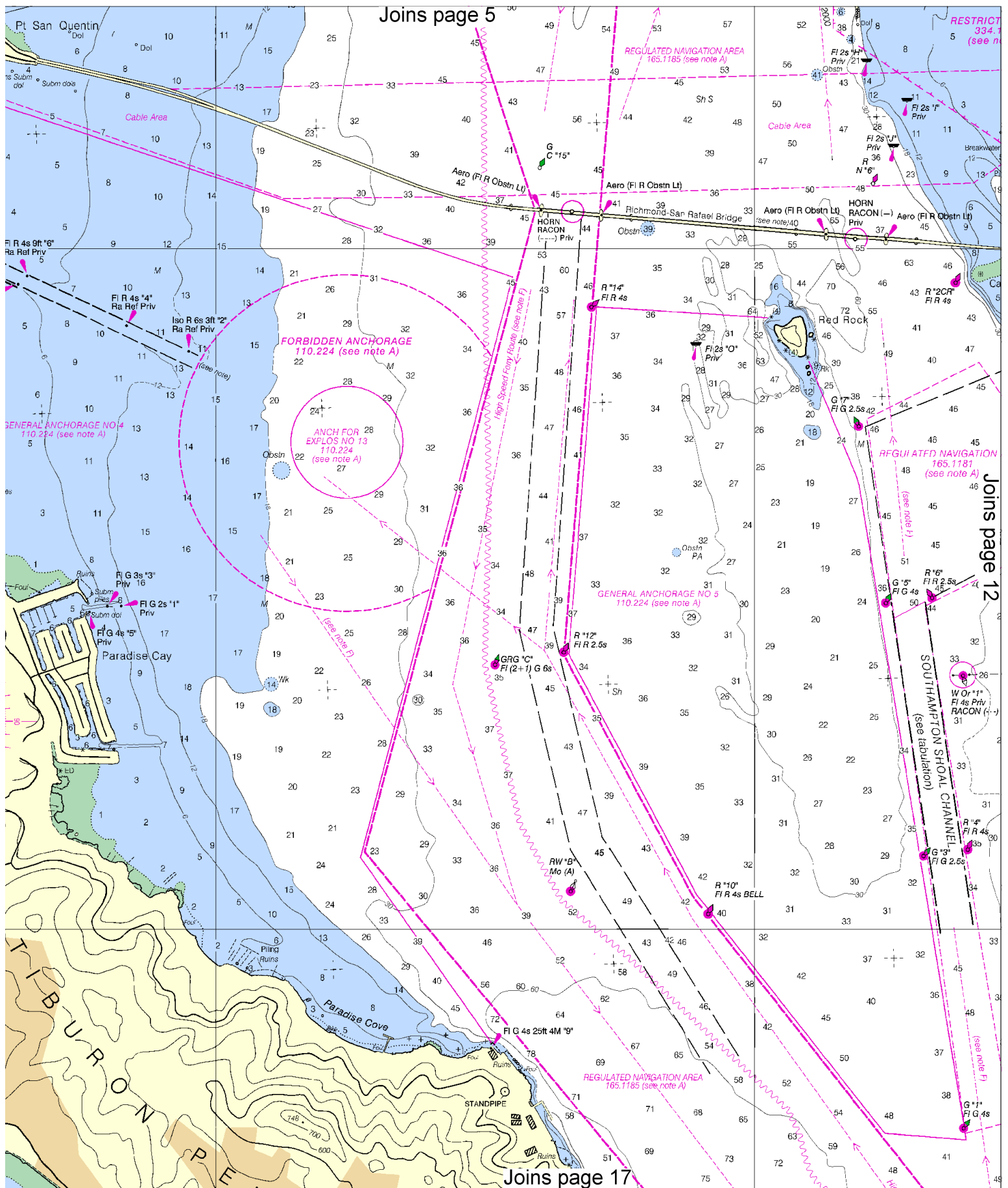
To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place left point on 60 and right point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the spread is 16.0 knots

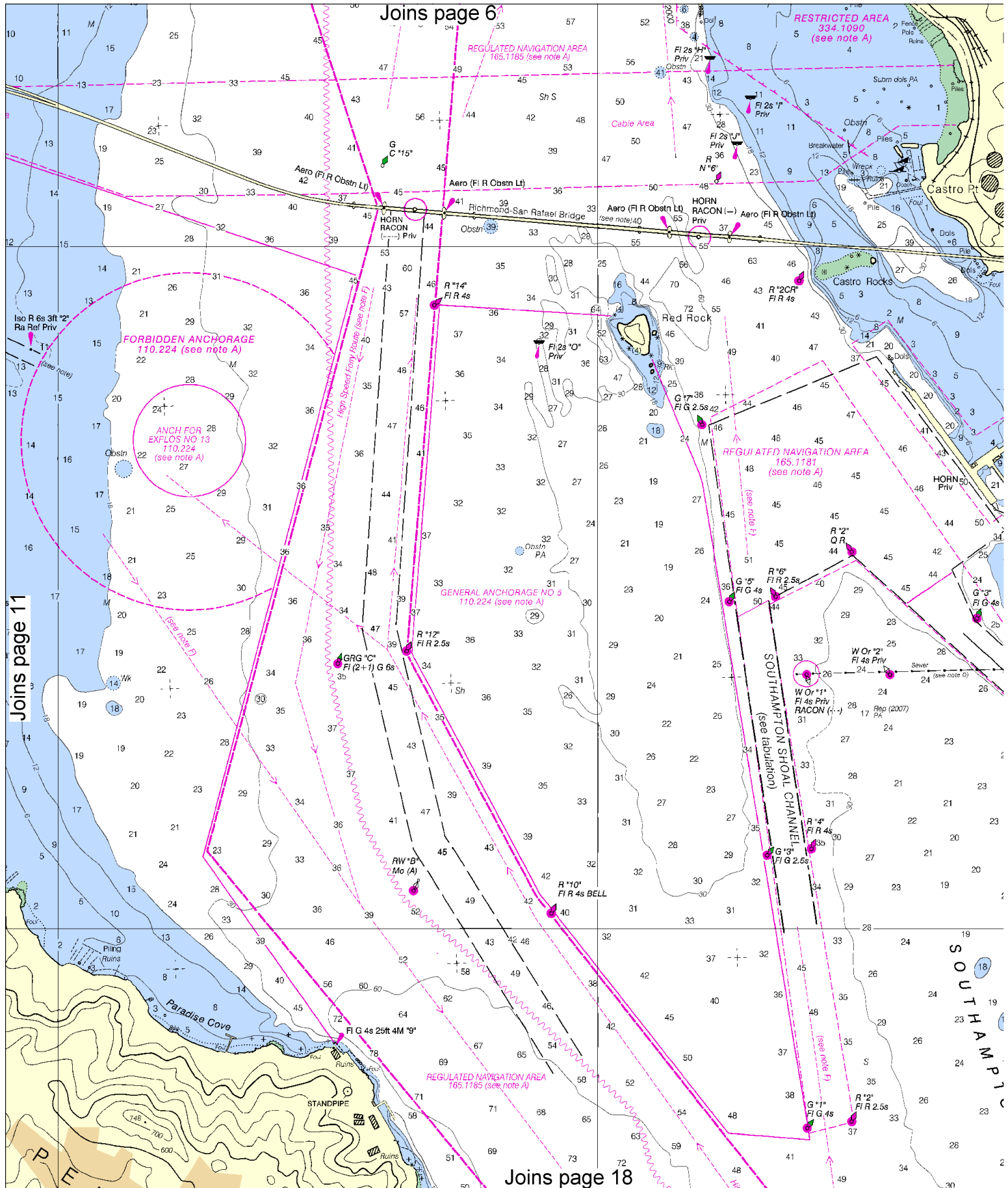
SOUNDINGS IN FEET



Joins page 15







Joins page 7

SOURCE

The outlined areas represent the information that has been surveyed in this diagram by date and by the U.S. Army Corps of Engineers not shown on this diagram. Refer to

R I C H M O

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 VTSS on Channel 12 at 15 and 45 minutes past each hour for broadcast reports of known shipping traffic in the area.

Joins page 14

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Consult U.S. Coast Pilot 7 for impo

The NOAA Weather Radio broadcasts below provides continuous weather information. The reception range is 25 nautical miles from the antenna, or as much as 100 nautical miles at high elevations.

Mt. Pise, CA KHB-49

WARNING

The prudent mariner will not rely so particularly on floating aids. See U.S. Coast Pilot for details.

NOTE

Recreation areas are intended primarily for recreational purposes. These areas should not be utilized by vessels 300 gross tons or greater, or for any other purpose, except in case of

NOTE C

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North

Printed at reduced scale.

~~SCALE 1:20,000~~
~~Nautical Miles~~

See Note on page 5.

Yards

Age Group	Number of People
13-17	~1000
18-24	~2400
25-34	~2000
35-44	~1800
45-54	~1600
55-64	~1400
65-74	~1200
75-84	~1000
85+	~800

1 1/2

Elevations of rocks, bridges, landmarks, and Joins page 9
to Mean High Water. Contour and summit elevations are in feet and
refer to Mean Sea Level.

RICHMOND - SAN RAFAEL BRIDGE
3 fixed white lights are mounted vertically over fixed green lights at
the center of the main navigation channel spans.
Clearances of the main navigation channel spans.
WEST CHAN EAST CHAN
HOR CL 1000 FT 970 FT
VERT CL 185 FT 135 FT

CAUTION
BASCULE BRIDGE CLEARANCES
For bascule bridges, whose spans do not open to a full upright or
vertical position, unlimited vertical clearance is not available for the
entire charted horizontal clearance.

NOTE Z
NO-DISCHARGE ZONE, 40 CFR 140

Under the Clean Water Act, Section 312, all vessels
operating within a No-Discharge Zone (NDZ) are completely
prohibited from discharging any sewage, treated or
untreated, into the waters. All vessels with an installed
marine sanitation device (MSD) that are navigating, moored,
anchored, or docked within a NDZ must have the MSD
disabled to prevent the overboard discharge of sewage
(treated or untreated) or install a holding tank. Regulations
for the NDZ are contained in the U.S. Coast Pilot.
Additional information concerning the regulations and
requirements may be obtained from the Environmental
Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

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.

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

RADAR REFLECTORS

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

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Hydrography and topography by the National Ocean Service, Coast Survey,
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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).

For Symbols and Abbreviations see Chart No. 1

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 D

The City of Richmond is requesting vessels to use extreme caution when turning or
anchoring in the vicinity of their 72" diameter sewer pipeline which is located 4700
feet offshore of Point Richmond at a depth of 26 feet below mean lower low water
in approximate position 37° 54' 47" N, 122° 25' 08" W.

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this area.

TIDAL INFORMATION

PLACE	NAME (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Sausalito	(37°51'N/122°29'W)	5.7	5.1	1.1
Barkley	(37°52'N/122°18'W)	5.9	5.3	1.1
Angel Island (west side)	(37°52'N/122°27'W)	5.6	5.0	1.1
Angel Island (East Garrison)	(37°52'N/122°25'W)	5.9	5.3	1.2
Point Chauncey	(37°54'N/122°27'W)	5.7	5.1	1.1
Richmond (Inner Harbor)	(37°55'N/122°21'W)	6.0	5.4	1.1
Point San Quentin	(37°57'N/122°29'W)	5.8	5.2	1.1

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/>.
(Sep 2009)

HORIZONTAL DATUM

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(NAD 83), which for charting purposes is considered equivalent to the World Geo-
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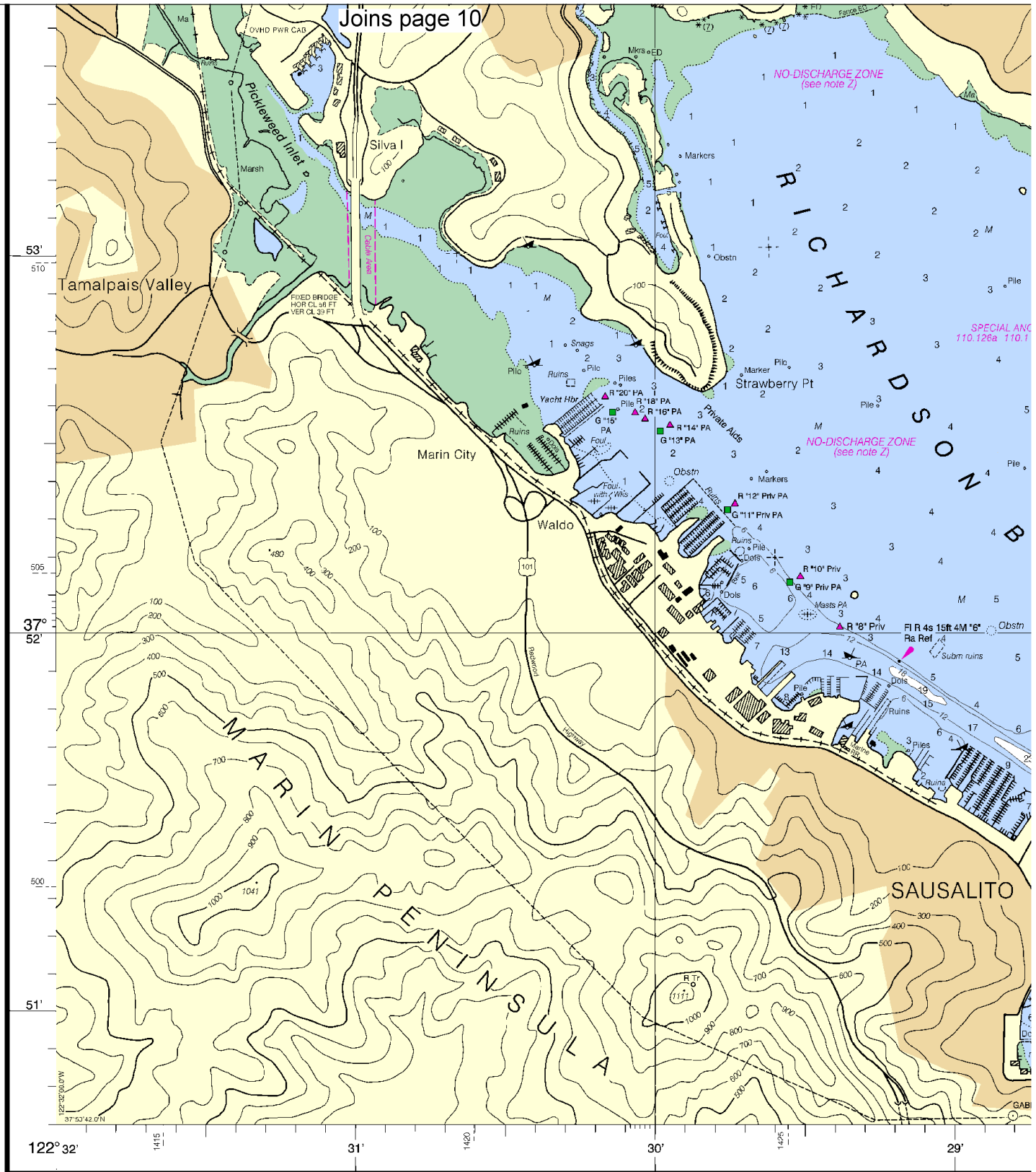
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Joins page 21

Joins page 10/



11th Ed., Oct./ 09 ■ Corrected through NM Oct. 24/09
Corrected through LNM Oct. 13/09

18653

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PRINT-ON-DEMAND

NOAA and its partner, OceanGrafix, offer this chart in print and critical corrections. Charts are printed when order Editions are available 5-8 weeks before their release as about Print-on-Demand charts or contact NOAA at help@NauticalCharts.gov, or OceanGrafix at 1-8 help@OceanGrafix.com.

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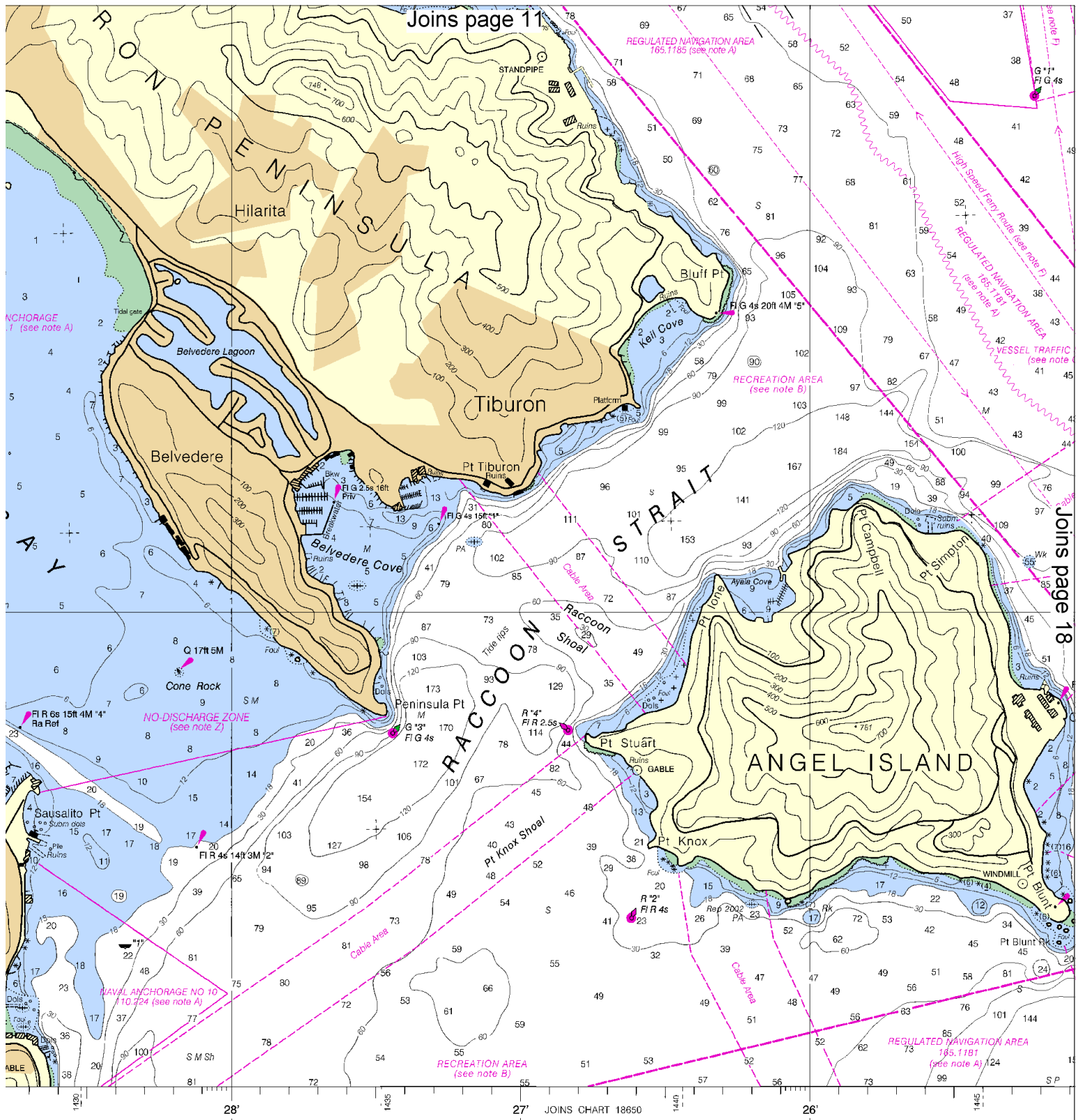


Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

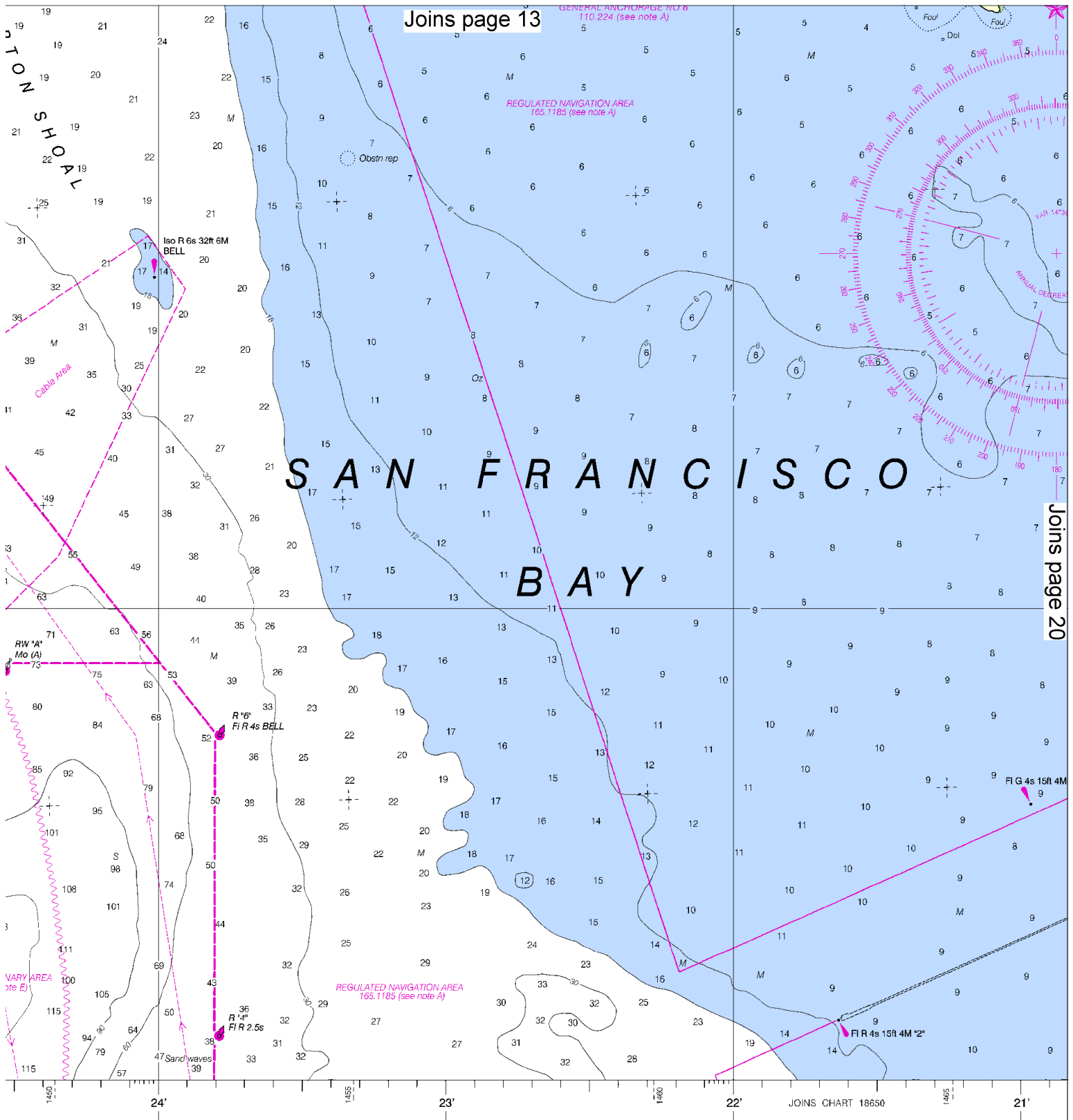
See Note on page 5.



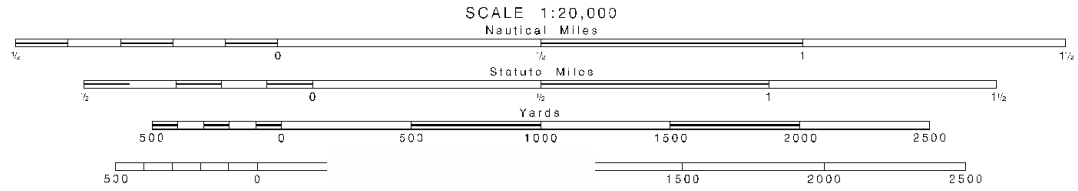


NOAA CHARTS
 Updated weekly by NOAA for Notices to Mariners
 derived using Print-on-Demand technology. New
 as traditional NOAA charts. Ask your chart agent
 at 1-800-584-4683, <http://NauticalCharts.gov>,
 or 877-56CHART, <http://OceanGrafix.com>, or

SOUNDINGS IN FEET



Washington, D.C.
 NT OF COMMERCE
 TMOSPHERIC ADMINISTRATION
 OCEAN SERVICE
 T SURVEY



REGULATED NAVIGATION AREA
165.1185 (see note A)

SAN FRANCISCO BAY

R 6s 32ft 6M
LL

R 16' FI R 4s BELL

R 14' FI R 2.5s

FI R 4s 15ft 4M*3"

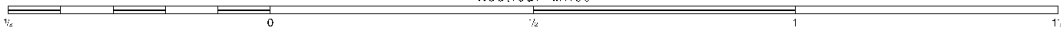
FI R 4s 15ft 4M*2"

GENERAL ANCHORAGE NO 1
110.224 (see note A)

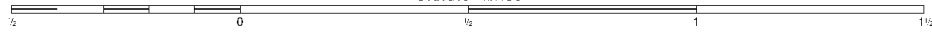
Berkeley Pier (Subm ruins)

SCALE 1:20,000

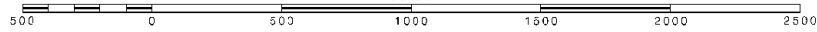
Nautical Miles



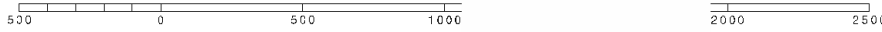
Statute Miles



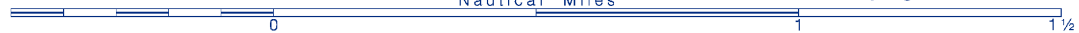
Yards



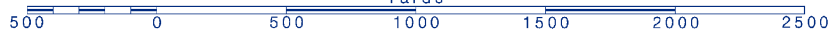
Meters



FATHOMS
FEET
METERS



Yards





18653

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

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

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 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.

Coast Guard Search & Rescue – 510-437-3700

Coast Guard San Francisco – 415-399-3479

Commercial Vessel Assistance – 1-800-367-8222

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

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.



NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S., including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENC[®]) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNC[™]) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts[™] – BookletCharts[™] are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts[™] – PocketCharts[™] are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot[®] – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.