

BookletChart™

San Pedro Channel

NOAA Chart 18746

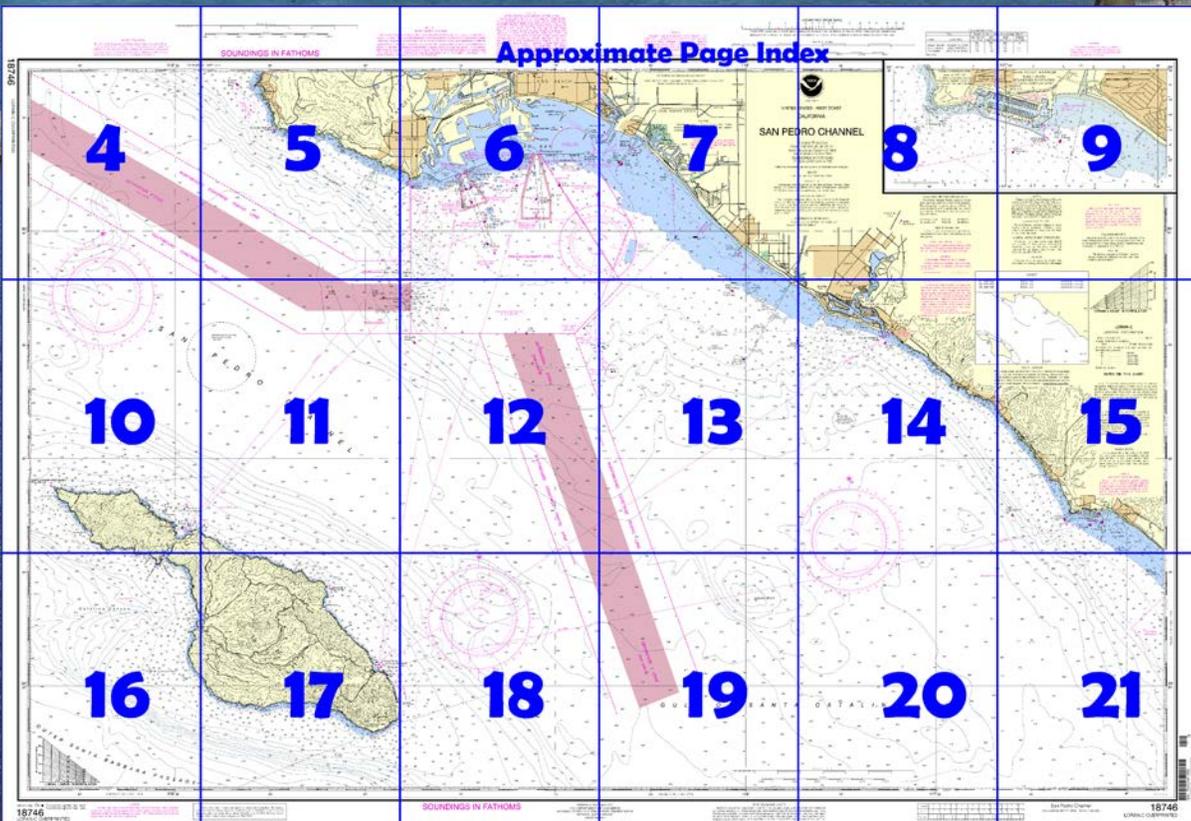


A reduced-scale NOAA nautical chart for small boaters

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



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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.

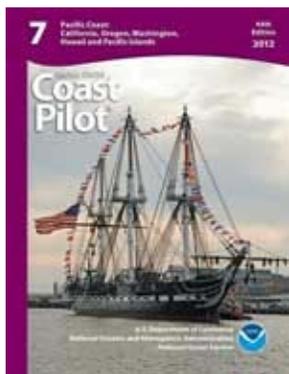
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=18746>.



(Selected Excerpts from Coast Pilot)

From San Mateo Point to Dana Point, 7.5 miles NW, the land is broken by **San Juan Creek** about 1.5 miles E of Dana Point.

San Clemente, 2 miles N of San Mateo Point, has a small pleasure pier at the town; a fish haven covered 10 feet is off its seaward side. A reef that uncovers 3 feet is about 700 yards NW of the pier.

Dana Point is 8 miles NW of San Mateo Point. Outlying rocks and ledges marked by a lighted whistle buoy extend

offshore for 350 yards. **San Juan Rock** is 340 yards S of the highest point, and a rock covered 2 fathoms is 2.4 miles SE of the point.

Dana Point Harbor is a small-craft harbor in the lee of Dana Point. The harbor, administered by the Orange County Harbor, Beaches, and Parks District, is entered from the E between two breakwaters each marked by a light on the seaward end. A sound signal is at the S light. The sound signal can be activated upon request to the Coast Guard by radio-telephone VHF-FM channel 16. A submerged sewer outfall line extends about 0.6 mile from shore, passing about 300 yards E of the S breakwater light. A rock, covered 7½ feet and marked by a lighted buoy, is about 300 yards NE of the S breakwater light. When entering the harbor care should be taken to remain clear of these dangers, especially during low stages of the tide and/or periods of heavy SE swell. Numerous uncharted private racing buoys are off the entrance to the harbor.

The harbor's E and W basins are separated by a fixed highway bridge with a clearance of 20 feet. Berths in the E basin can accommodate over 1,400 vessels, and berths in the W basin can accommodate over 1,000 vessels. A **harbormaster** assigns berths in the harbor.

A **speed limit** of 5 mph is enforced in Dana Point Harbor. A swimming area, marked by private buoys, is in the NW corner of the harbor.

Anchorage.—A **special anchorage** is in the W part of the harbor. (See **110.1 and 110.93**, chapter 2, for limits and regulations.)

No-Discharge Zone.—The State of California, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in Dana Point Harbor. It encompasses the entire harbor (see NOAA chart 18746 or 18774 for the zone limits).

Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited. Outside the NDZ, discharge of sewage is regulated by **40 CFR 140** (see Chapter 2).

Supplies and repairs.—Most supplies and repairs are available at the marinas and service facilities at the harbor. Lifts to 25 tons are available.

San Juan Capistrano, a small town about 4 miles inland from Dana Point, is the site of the old mission founded in 1776. This mission is famous for the return of the swallows each March 19.

The 11.5-mile coast from Dana Point to Newport Bay is bold with rocky cliffs 40 to 100 feet high; these are the seaward ends of ridges separated by narrow, deep valleys. The community of **Laguna Beach** is midway along this stretch. A fishing and pleasure pier is near the mouth of **Aliso Creek** about 3.5 miles NW of Dana Point.

Santiago Peak, 17.5 miles NE of Dana Point and visible 80 miles, is the dominant feature of this part of the coast; the peak is double-headed and dark in contrast with the immediate coastal range.

The 20-mile coast from Newport Bay to Point Fermin is low, and there are several lagoons near the beach. There are no trees near the shore; towns and resorts are almost continuous along the beach.

Huntington Beach State Park is a recreational area that extends 2 miles NW along the coast from the mouth of **Santa Ana River**, which is 4.5 miles NW of Newport Bay entrance. The trestle crossing the mouth of this river is conspicuous. A buoy marks the seaward end of a terminal structure of a water conduit extending from shore 1.4 miles NW of Santa Ana River. The twin stacks of the Southern California Edison Co. plant on shore and a spire about 1 mile back from the beach are conspicuous from any direction.

A submerged oil pipeline extends nearly 1.2 miles seaward, 2 miles NW of Santa Ana River; mooring buoys are off the end of the pipeline.

Huntington Beach, a resort 5 miles NW of Newport Beach, is identified by its many oil derricks. The city has a fishing and pleasure pier which has a fish haven covered 10 feet around its seaward end.

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

RCC Alameda Commander
11th CG District (510) 437-3700
Alameda, CA

Table of Selected Chart Notes

PLANE COORDINATE GRID
(based on NAD 1927)
California State Grid, zone VI, is indicated by dashed ticks at 2,000 foot intervals. The last three digits are omitted.

Scale 1:20,000
SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

HEIGHTS
Heights in feet above Mean High Water.

NOTE E
Vessels with 50 foot draft or less will be boarded south of RACON Buoy 3. Vessels with a draft greater than 50 feet will be boarded south of Buoy 1.

CAUTION
Vessels are prohibited from entering ANCHORAGE G unless bound for a berth in that anchorage (110,214).

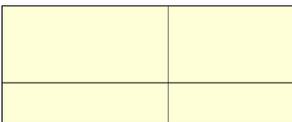
WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION
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.

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

Mercator Projection
Scale 1:80,000 at Lat 33° 31'
North American Datum of 1983
(World Geodetic System 1984)
SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER



NOTE S
Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilot's appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

CAUTION
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
⊙ (Accurate location) ○ (Approximate location)

CAUTION
Mariners are cautioned that exploratory surveys and exploratory drilling operations may be in progress in, or in the vicinity of, the Southern California Traffic Separation Scheme. These operations may pose hazards to navigation. The most recent Eleventh Coast Guard District Local Notice to Mariners should be consulted for the schedule of current operations.

NOTE C
MILITARY EXERCISE AREA
Mariners are cautioned against possible hazards due to military training activities. Normal hours of operation are 0600-2400 local time daily. For extension of operating times and further information consult U.S. Coast Guard 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.

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

For Symbols and Abbreviations see Chart No. 1

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8902 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOTE F
Submerged submarine operations are conducted at various times in the waters contained on this chart. Proceed with caution.

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.

Los Angeles, CA	KWO-37	162.550 MHz
Santa Ana, CA	WWG-21	162.450 MHz

MINERAL DEVELOPMENT STRUCTURES
Obstruction lights and sound (fog) signals are required for fixed mineral development structures shown on this chart, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

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

CABLE AND PIPELINE AREAS
The cable and pipeline areas falling within the areas of the larger scale charts are shown thereon and are not repeated on this chart.

CAUTION
Vessels entering Long Beach Channel should pass eastward of lighted whistle buoy 'LB,' and vessels departing should pass westward of it.

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 Los Angeles, California.
Refer to charted regulation section numbers.

LORAN-C
GENERAL EXPLANATION
LORAN-C FREQUENCY 100KHz
PULSE REPETITION INTERVAL
9940 99,400 Microseconds
STATION TYPE DESIGNATORS: (Not individual station letter designators)
M Master
W Secondary
X Secondary
Y Secondary
Z Secondary
EXAMPLE: 9940-X
RATES ON THIS CHART
9940-X 9940-Y
Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on survey data. Every effort has been made to meet the 1/4 nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

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 D
VESSEL TRAFFIC MANAGEMENT SYSTEM (VTMS)
The Vessel Traffic Service of Los Angeles - Long Beach, jointly operated by the U.S. Coast Guard and Marine Exchange, has been established within the approaches to San Pedro Bay. The working frequency for the VTS is channel 14 VHF/FM (156.7 MHz) and the call sign is "San Pedro Traffic". Upon entering the VTS area, within a 25 nautical mile radius of Pt Fermin (LAT 33°42.3'N, LONG 118°17.6'W), all inbound vessels shall report on channel 14 their vessel name, call sign, position, course and speed, destination, estimated time of arrival to their destination and whether or not their vessel will be taking on a pilot. Outbound vessels shall report 15 minutes prior to reaching the breakerwater. To obtain information on the movement of deep draft vessels inside the Federal Breakwater contact the Los Angeles Pilot Station on channel 73 (156.875 MHz) / ph 562-732-3805 or Long Beach Pilot Station on channel 74 (156.6 MHz) / ph 562-432-0864.

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 0.076" northward and 3.210" westward to agree with this chart.

SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

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

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 Department of the Navy.

VESSEL TRANSITING
The U.S. Coast Guard and the Pacific States/British Columbia Oil Spill Task Force endorse a system of voluntary measures and minimum distances from shore for certain commercial vessels transiting along the coast anywhere between Cook Inlet, Alaska and San Diego, California. See U.S. Coast Pilot 7, Chapter 3 for details.

TIDAL INFORMATION

PLACE	Height referred to datum of soundings (MLLW)		
	Mean Higher High Water	Mean High Water	Mean Low Water
NAME (LAT/LONG)	feet	feet	feet
Newport Bay Ent. (33°38'N/117°53'W)	5.4	4.7	0.9
Catalina Harbor (33°26'N/118°30'W)	5.2	4.5	0.9
Los Angeles (33°43'N/118°16'W)	5.5	4.8	0.9

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)

**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/.

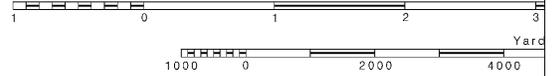
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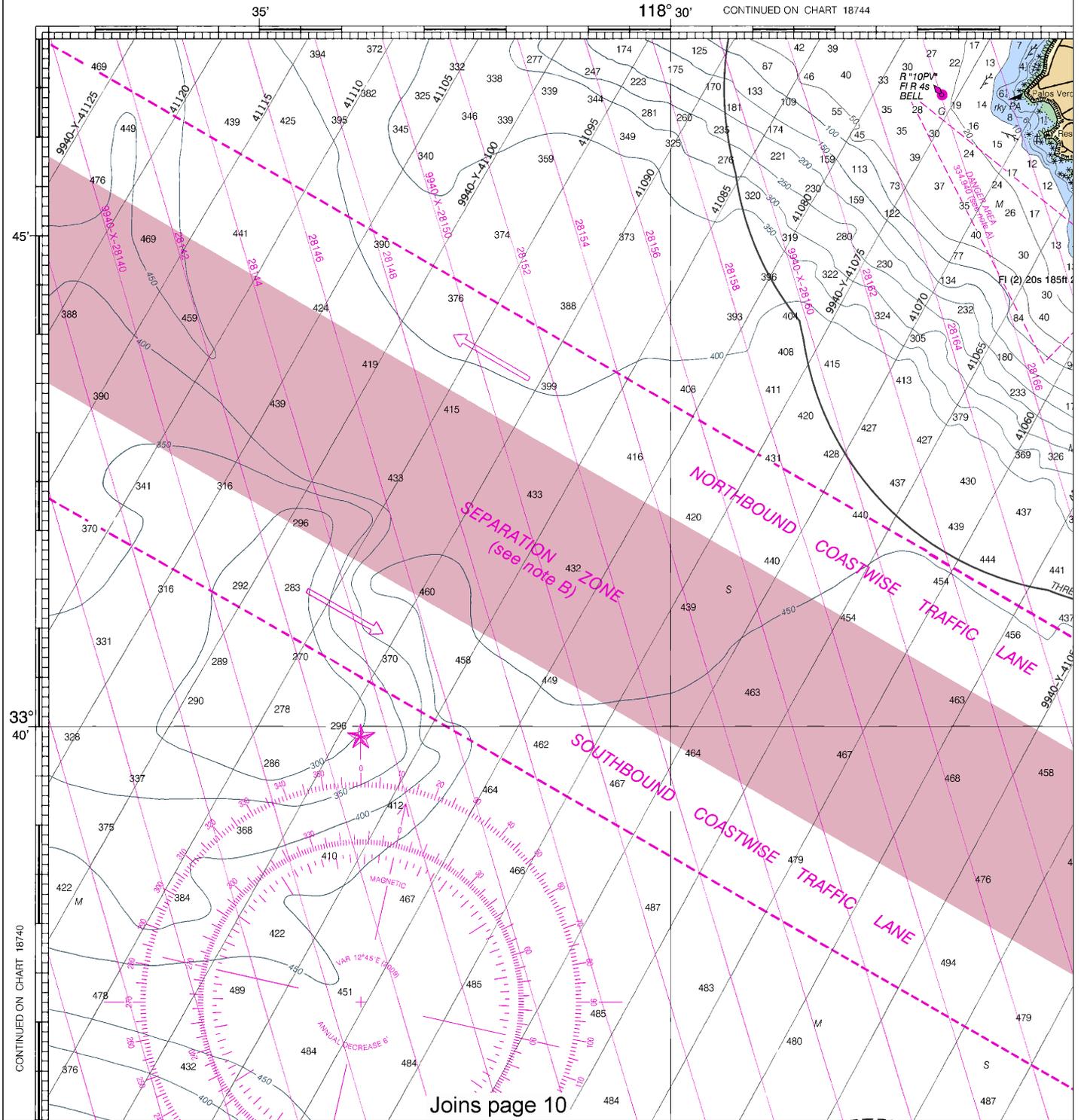
SCALE 1
Nautical



SOUNDINGS

18746

LORAN-C OVERPRINTED

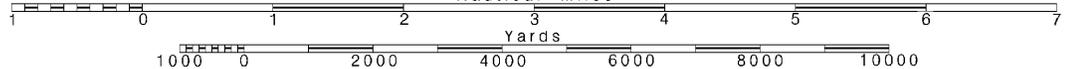


Joins page 10

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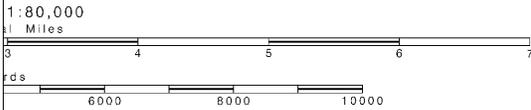
SCALE 1:80,000
Nautical Miles

See Note on page 5.



4

Note: Chart grid lines are aligned with true north.

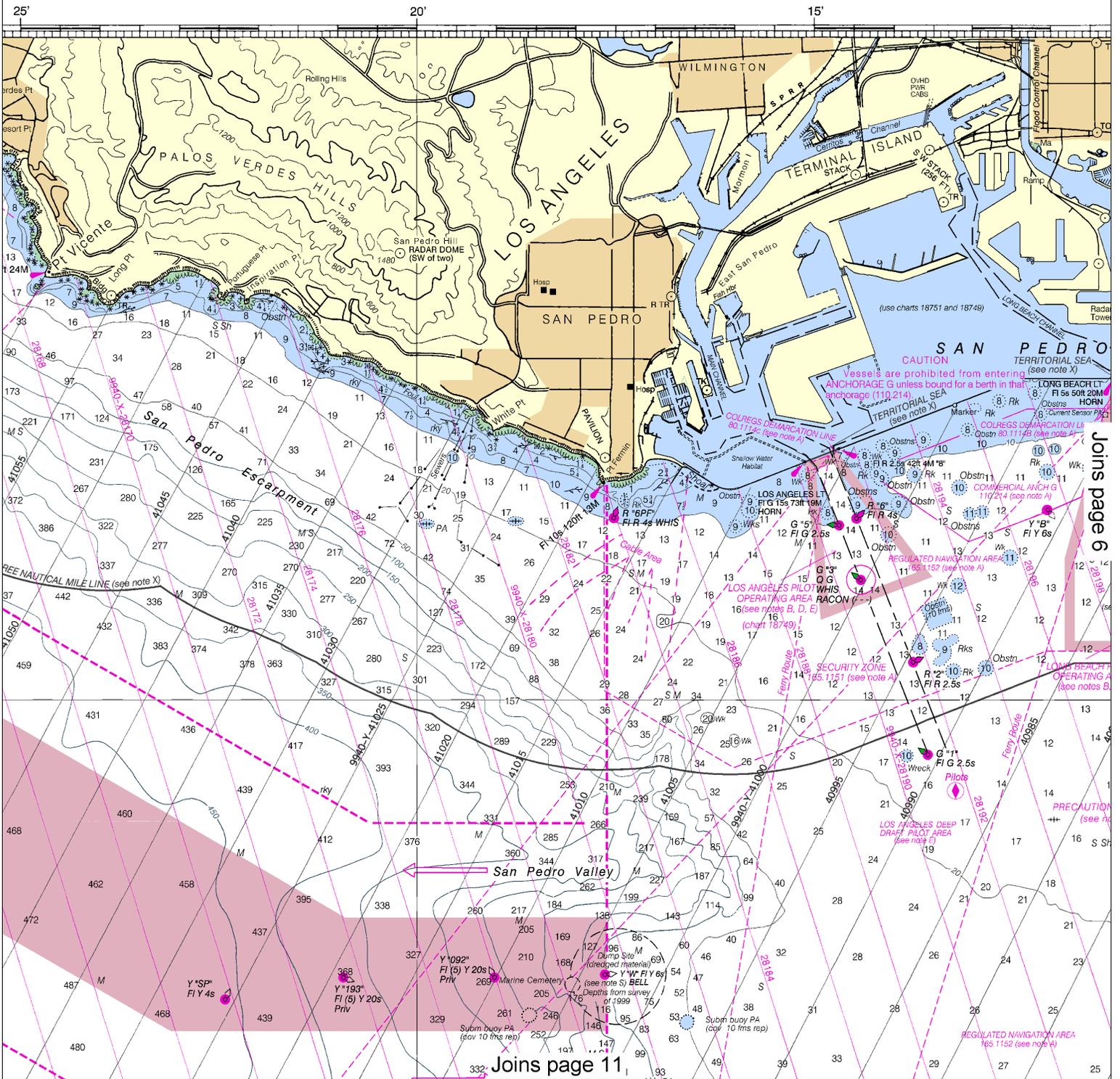


NOTE B
TRAFFIC SEPARATION SCHEME

One-way traffic lanes overprinted on this chart are RECOMMENDED for use by all vessels traveling between the points involved. They have been designed to aid in the prevention of collisions at the approaches to major harbors and along heavily traveled coastal waters, but are not intended in any way to supersede or to alter the applicable Rules of the Road. Separation zones are intended to separate inbound and outbound traffic and to be free of ship traffic. Separation zones should not be used except for crossing purposes. When crossing traffic lanes and separation zones use extreme caution. The normal Pilot Operating Areas are outlined by trapezoidal magenta bands. A Precautionary Area has been established at Los Angeles - Long Beach. It is recommended that vessels proceed with caution in this area.

NOT
VESSEL TRAFFIC MANAGER
The Vessel Traffic Service of jointly operated by the U.S. Exchange, has been established at Pedro Bay. The working frequency VHF/FM (156.7 MHz) and Traffic. Upon entering the VTS radius of Pt Fermin (LAT 33° inbound vessels shall report on call sign, position, course and time of arrival to their destination vessel will be taking on a pilot. 15 minutes prior to reaching information on the movement of Federal Breakwater contact the channel 73 (156.675 MHz) / ph Pilot Station on channel 74 (156

DEPTH IN FATHOMS



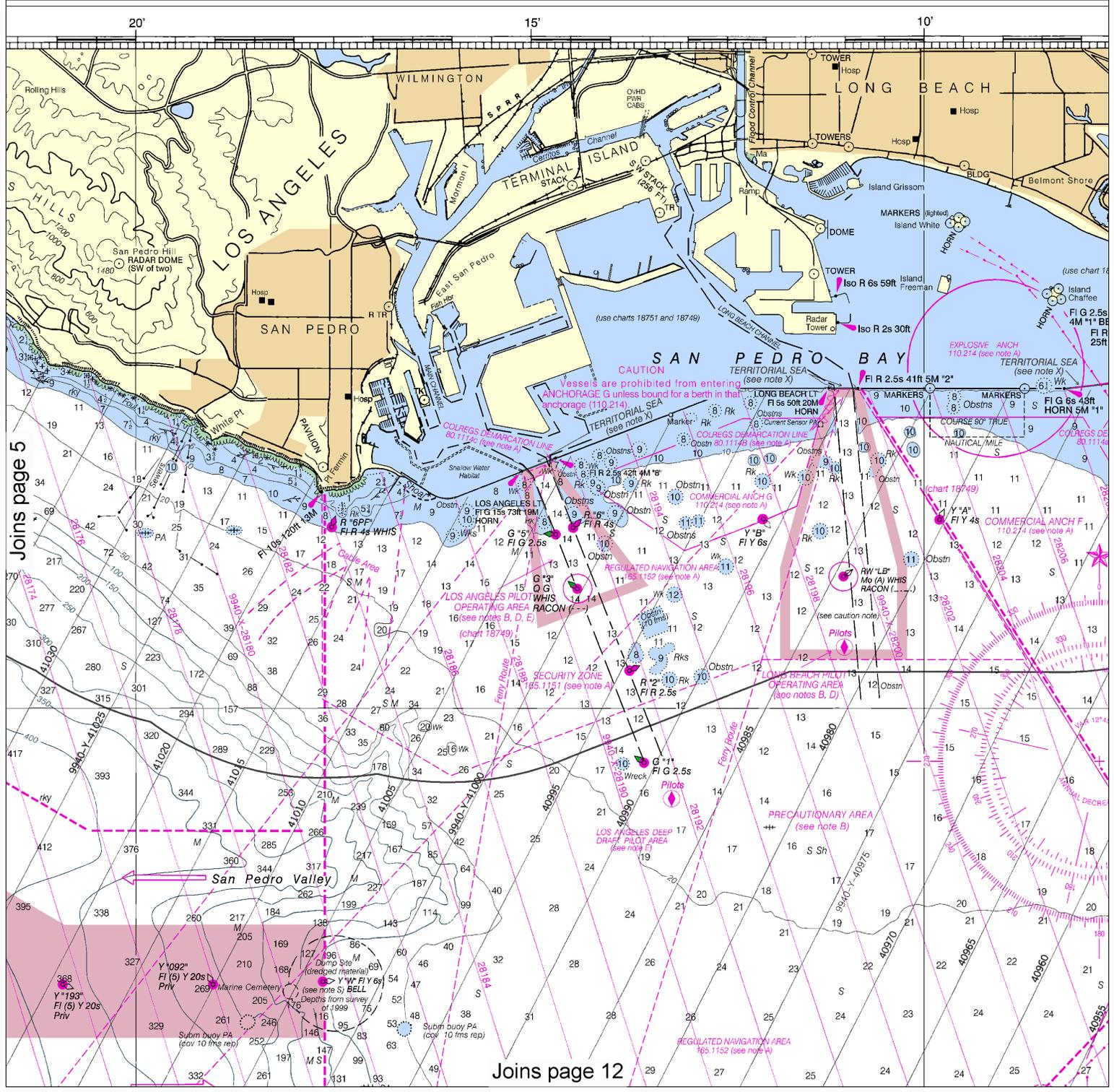
This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:106667. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

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Formerly C&GS 5142, 14



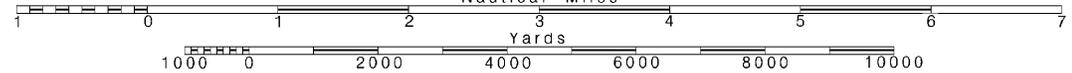
Joins page 5

Joins page 12

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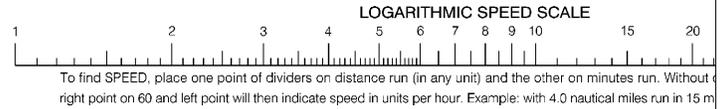
SCALE 1:80,000
 Nautical Miles

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NOTE A
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 Refer to charted regulation section numbers.



1st Ed., Mar. 1951 G-1953-818 KAPP 1897

05' 118° 55'

For Symbols and Abbreviations see Chart No. 1

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



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - WEST COAST

CALIFORNIA

SAN PEDRO CHANNEL

Mercator Projection
 Scale 1:80,000 at Lat 33° 31'
 North American Datum of 1983
 (World Geodetic System 1984)

SOUNDINGS IN FATHOMS
 AT MEAN LOWER LOW WATER

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

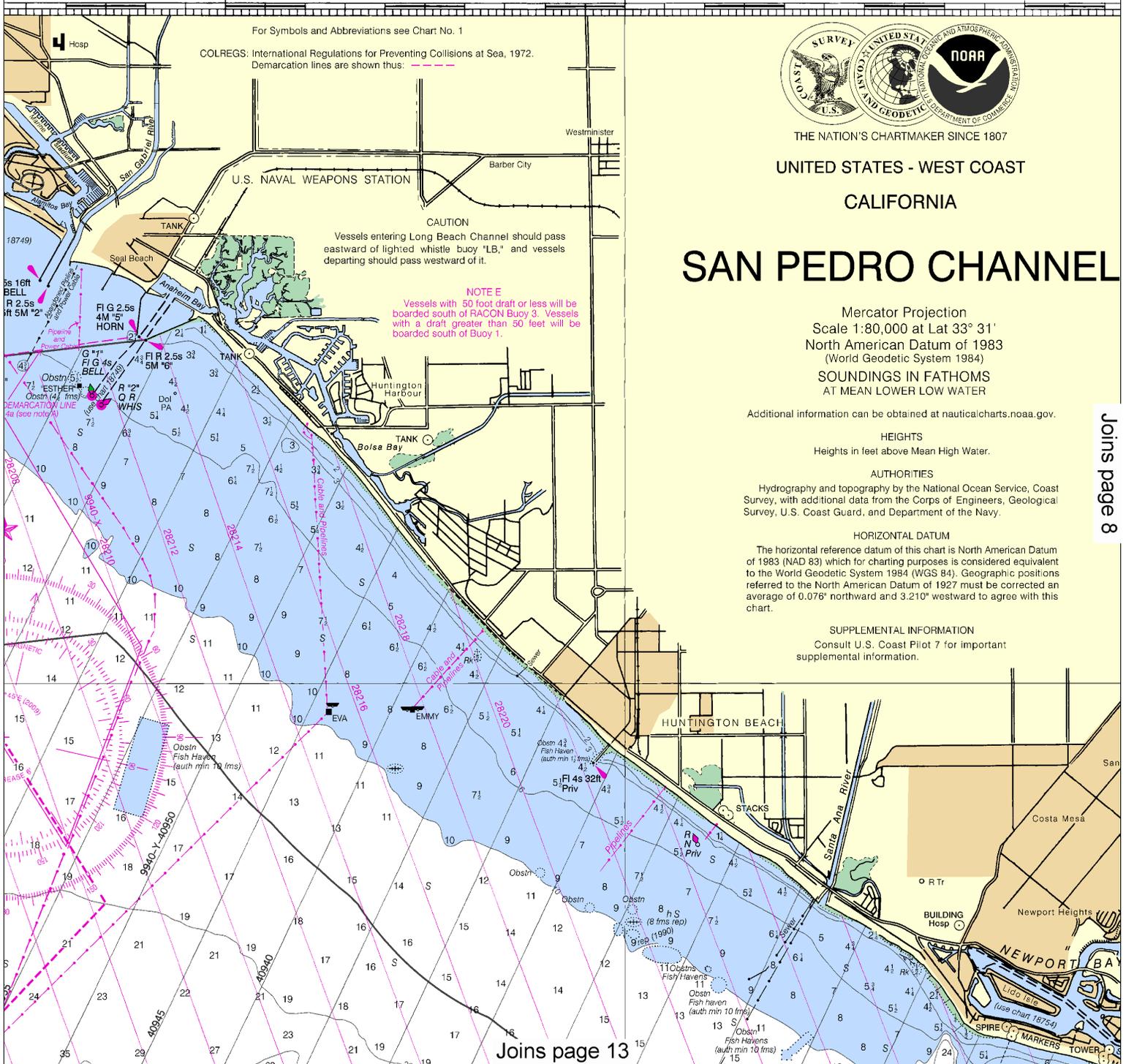
HEIGHTS
 Heights in feet above Mean High Water.

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

HORIZONTAL DATUM
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SUPPLEMENTAL INFORMATION
 Consult U.S. Coast Pilot 7 for important supplemental information.

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Joins page 13

This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 5012 12/11/2012,
 NGA Weekly Notice to Mariners: 5212 12/29/2012,
 Canadian Coast Guard Notice to Mariners: n/a.

7

TIDAL INFORMATION

PLACE	(LAT/LONG)	Height related to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Port Bay Ent.	(33°36'N/117°53'W)	feet 5.4	feet 4.7	feet 0.9
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San Diego	(33°43'N/118°16'W)	5.5	4.8	0.9

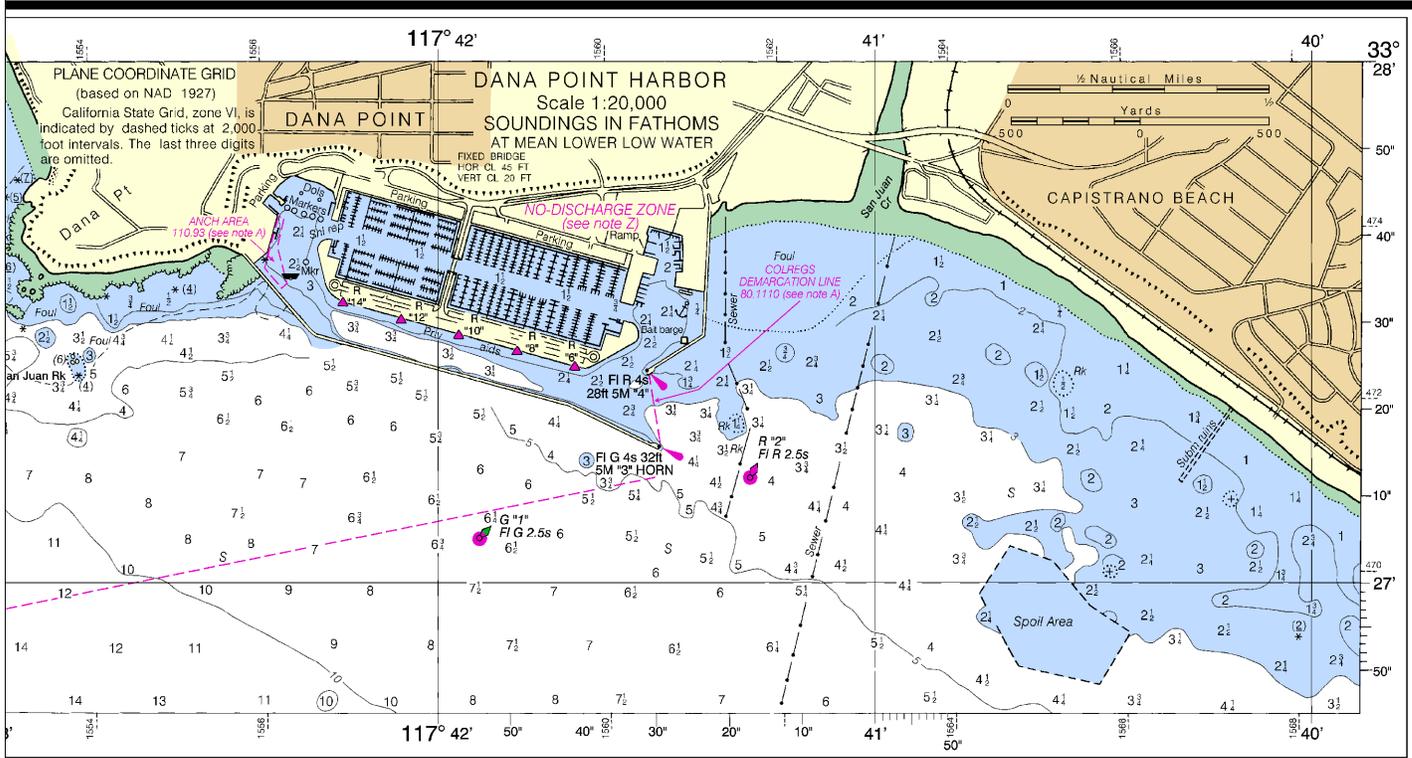
Notes: (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov> (2009)

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 of 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.

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.



WEATHER RADIO BROADCASTS

DAA Weather Radio stations listed provide continuous weather broadcasts. Reception range is typically 20 to 40 miles from the antenna site, but can be as far as 100 nautical miles for stations at sea.

San Diego, CA KWO-37 162.550 MHz
 San Diego, CA WWG-21 162.450 MHz

AIDS TO NAVIGATION

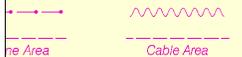
Consult U.S. Coast Guard Light List for additional information concerning aids to navigation.

CABLE AND PIPELINE AREAS

Submarine cable and pipeline areas falling within the limits of the larger scale charts are shown and are not repeated on this chart.

CAUTION

Submarine pipelines and cables and submarine pipelines and submarine cable areas are shown as follows:



Additional uncharted submarine pipelines and cables may exist within the area of this chart. Not all submarine pipelines and 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 comparable to their draft in areas where pipelines and cables may exist, and when dredging, dragging, or trawling. Exposed pipelines and cables may be marked by lighted or unlighted buoys.

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilot's appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

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.

MINERAL DEVELOPMENT STRUCTURES

Obstruction lights and sound (fog) signals are required for fixed mineral development structures shown on this chart, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

CAUTION

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

CAUTION

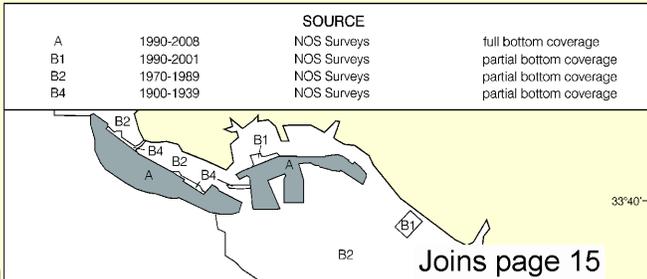
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POLLUTION REPORTS

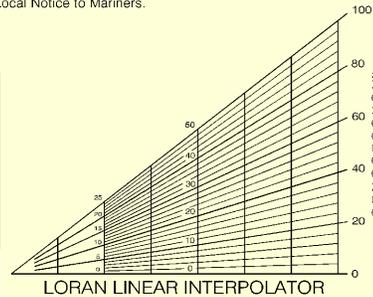
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

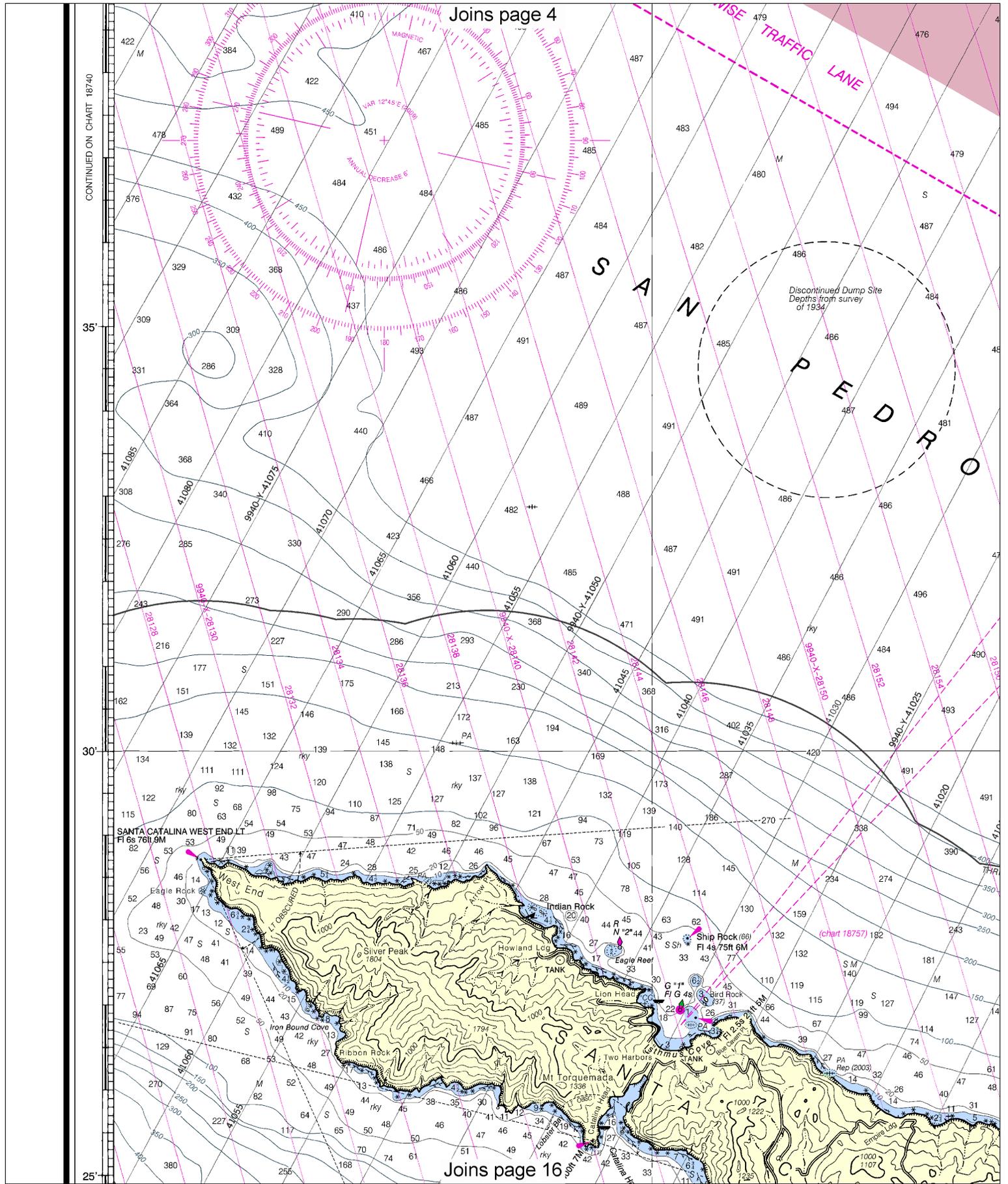
CAUTION

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



Joins page 15





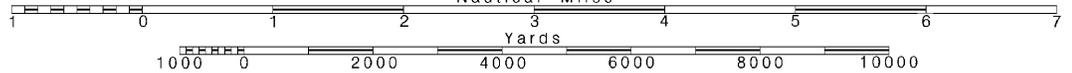
10

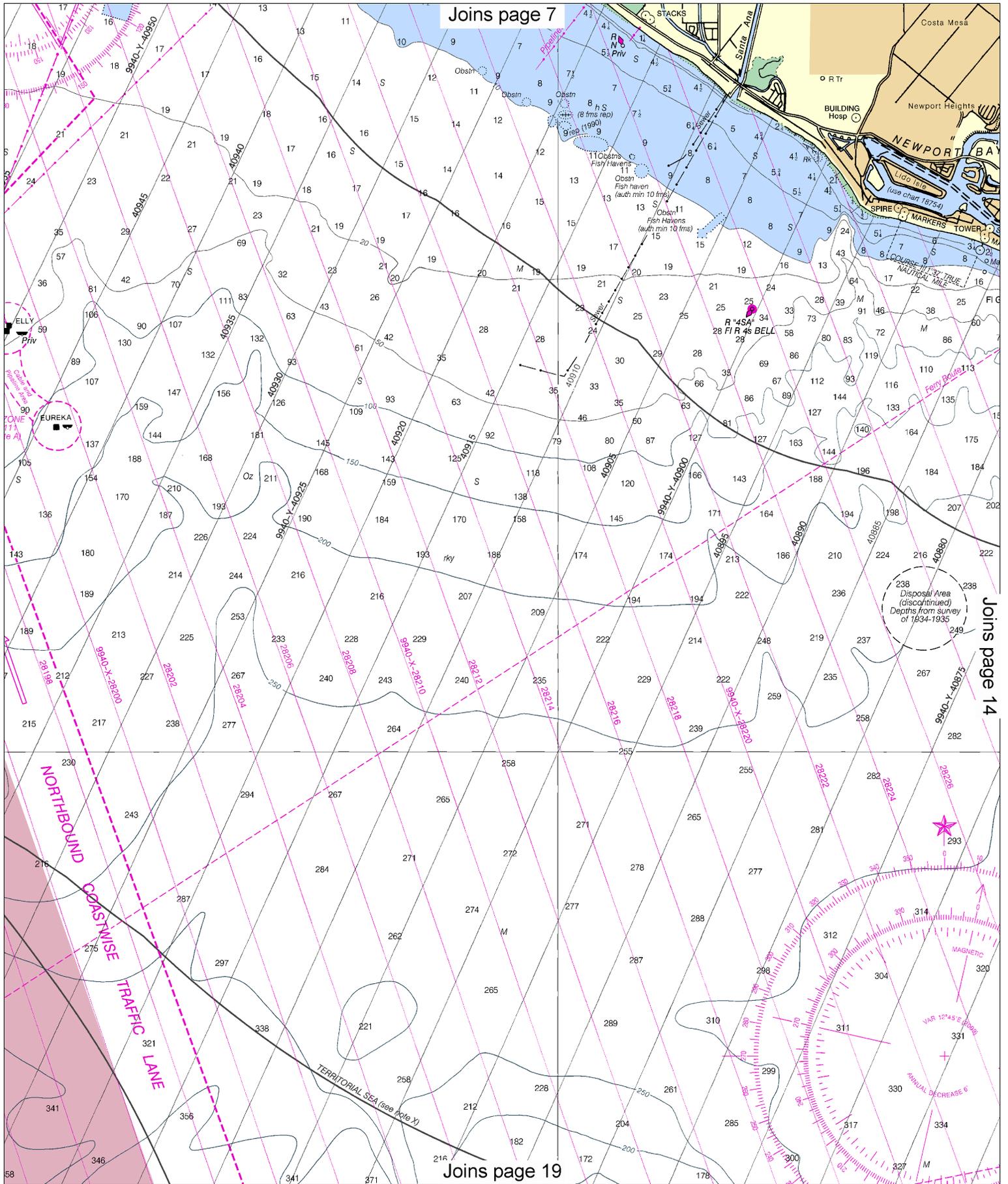
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:80,000
Nautical Miles

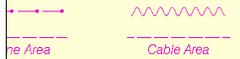
See Note on page 5.





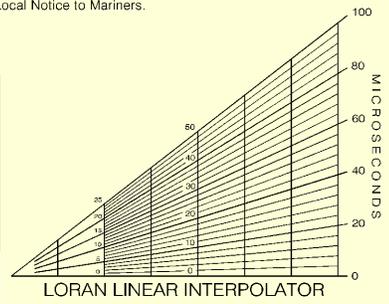
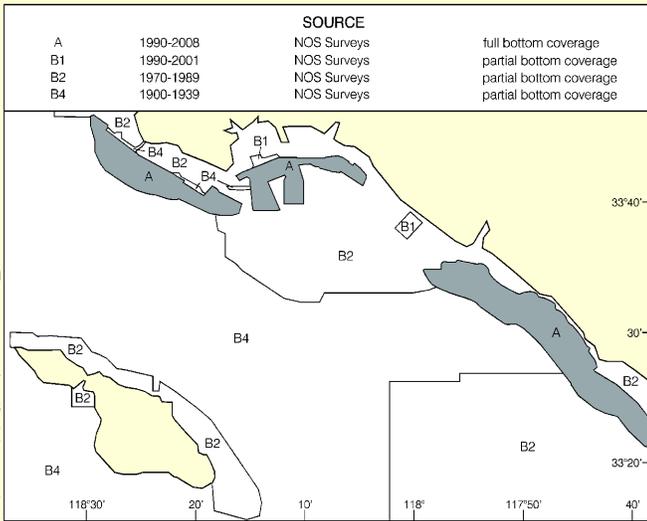
MARINE PIPELINES AND CABLES

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 100 fathoms or less in areas where pipelines and cables may exist, and when dredging, or trawling. Exposed pipelines and cables may be marked by lighted or unlighted buoys.



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navigation are not indicated on this chart. See Local Notice to Mariners.



LORAN-C

GENERAL EXPLANATION

LORAN-C FREQUENCY 100KHz
 PULSE REPETITION INTERVAL
 9940 99.400 Microseconds
 STATION TYPE DESIGNATORS: (Not individual station letter designators)
 M Master
 W Secondary
 X Secondary
 Y Secondary
 Z Secondary

EXAMPLE: 9940-X

RATES ON THIS CHART

9940-X 9940-Y

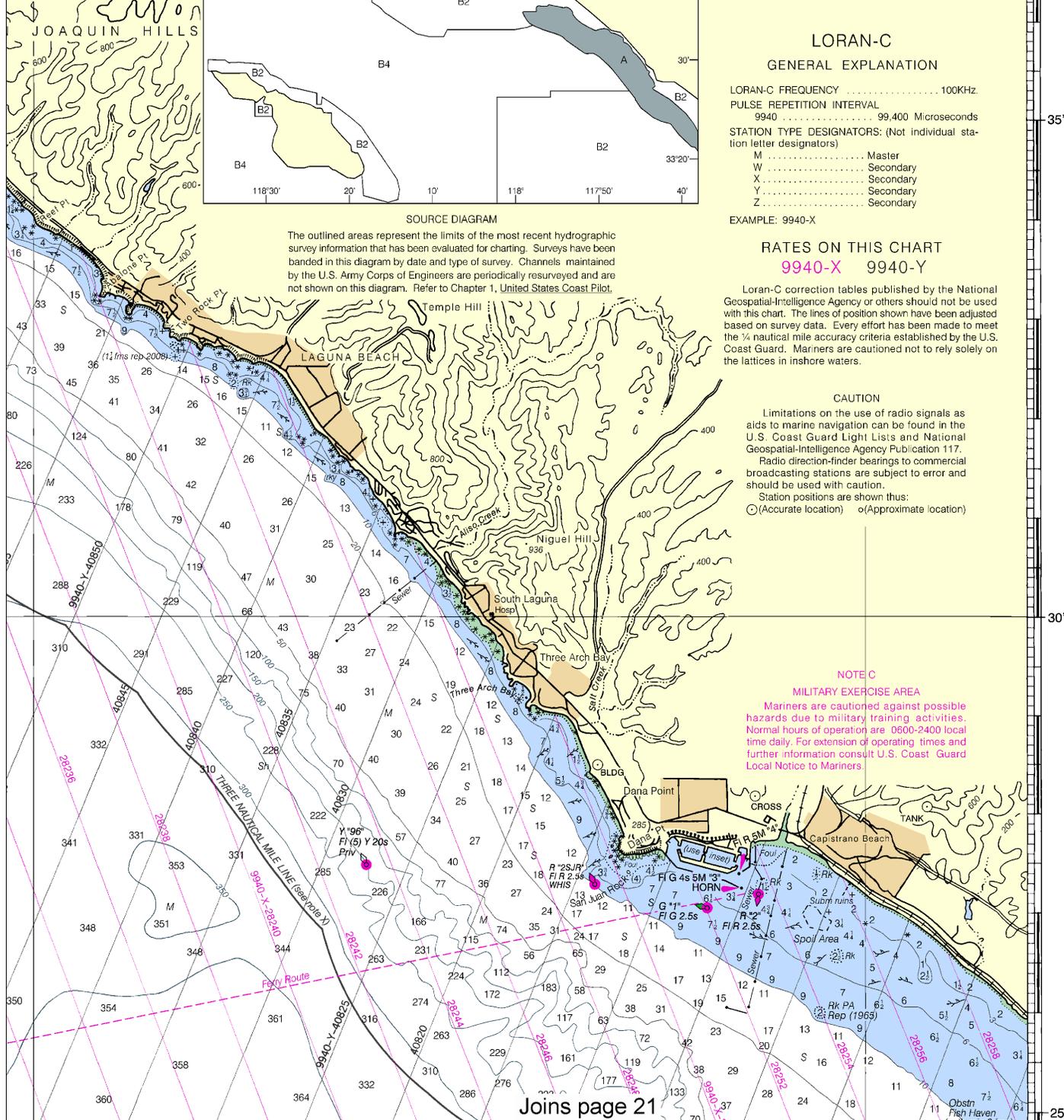
Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on survey data. Every effort has been made to meet the 1/4 nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

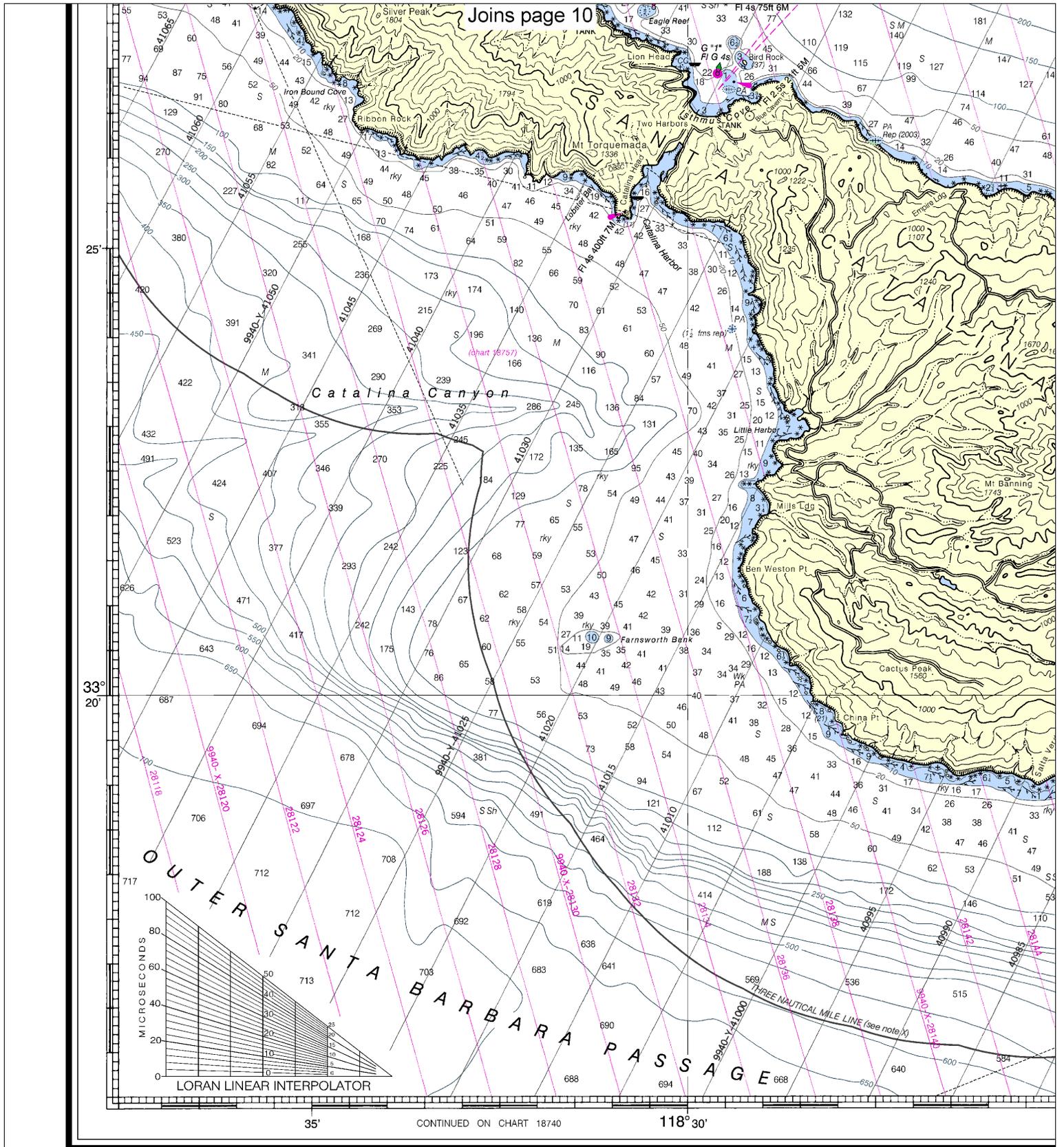
CAUTION

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:
 (O) (Accurate location) (o) (Approximate location)

NOTE C

MILITARY EXERCISE AREA
 Mariners are cautioned against possible hazards due to military training activities. Normal hours of operation are 0600-2400 local time daily. For extension of operating times and further information consult U.S. Coast Guard Local Notice to Mariners.





38th Ed., Nov. / 09 ■ Corrected through NM Nov. 21/09
 Corrected through LNM Nov. 03/09

18746
 LORAN-C OVERPRINTED

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 Ocean Service encourages users to submit corrections, and improving this chart to the Chief, Marine Chart Division (Service, NOAA, Silver Spring, Maryland 20910-3282).

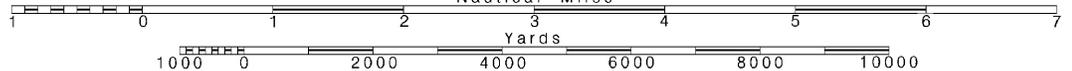
16

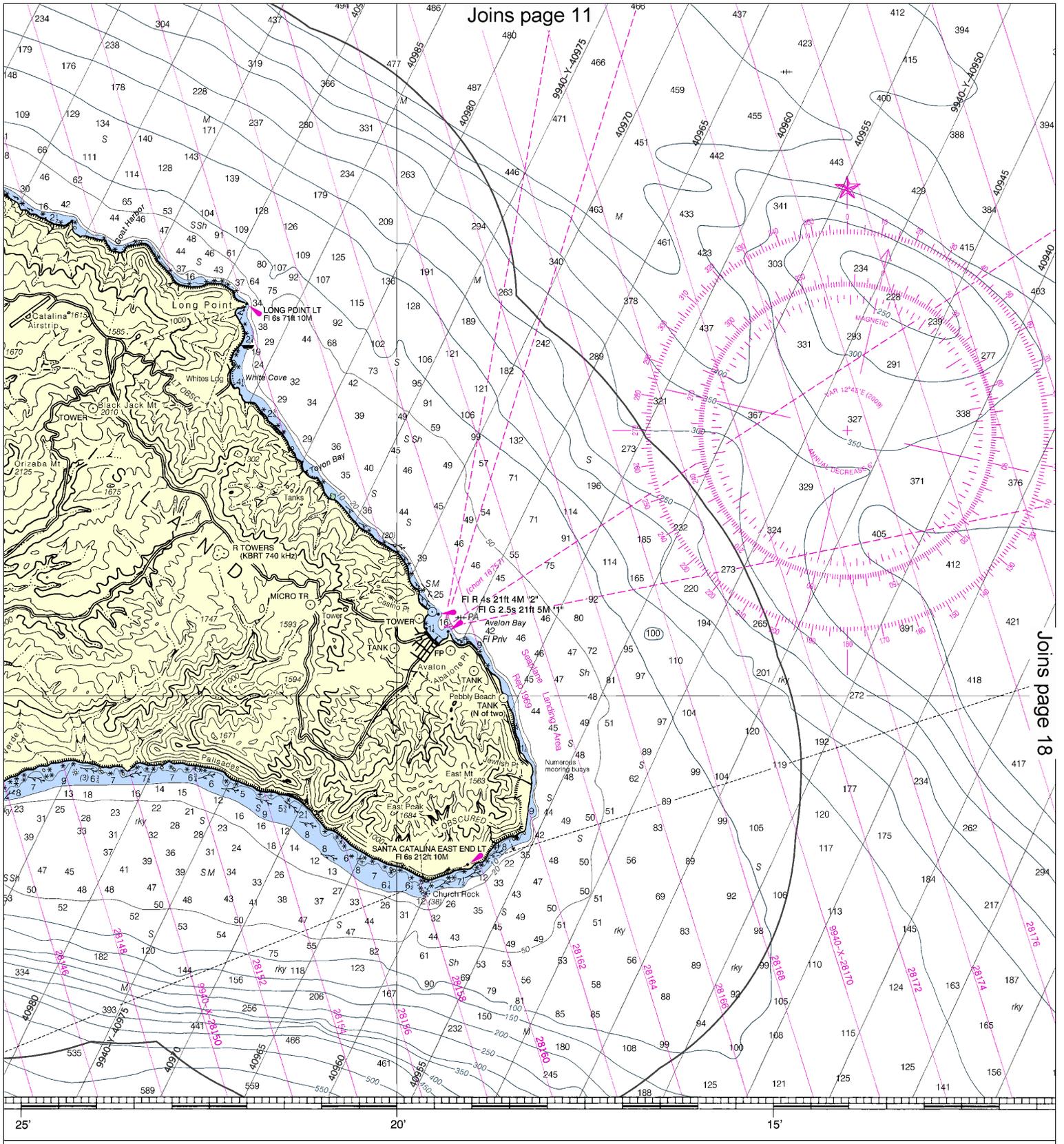
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:80,000
 Nautical Miles

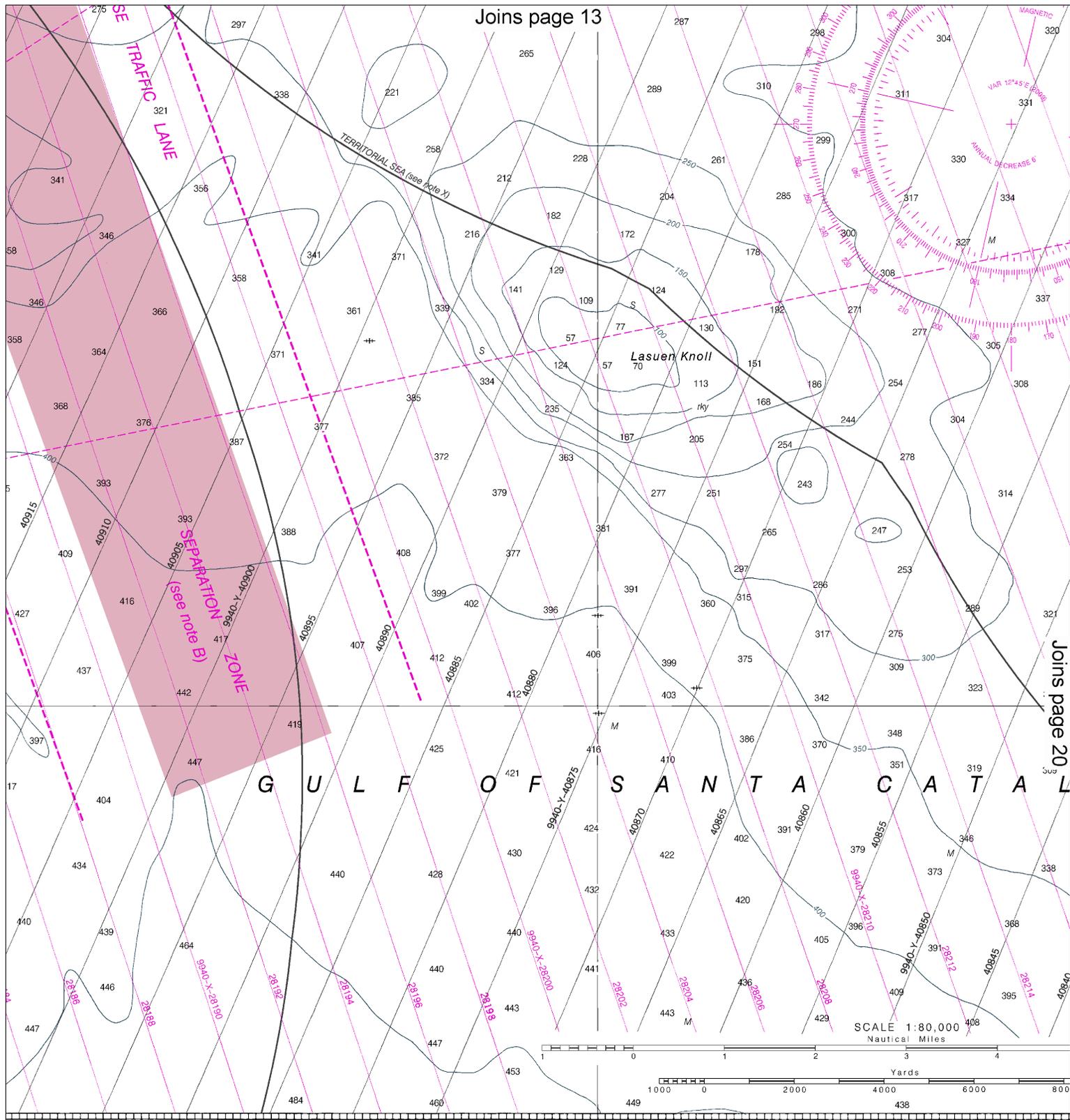
See Note on page 5.





For more information on electronic navigation, The National Ocean Service provides additional information, or comments for (N/CS2), National Ocean Service.

SOUNDINGS IN FATHOMS



05' CONTINUED ON CHART 18774

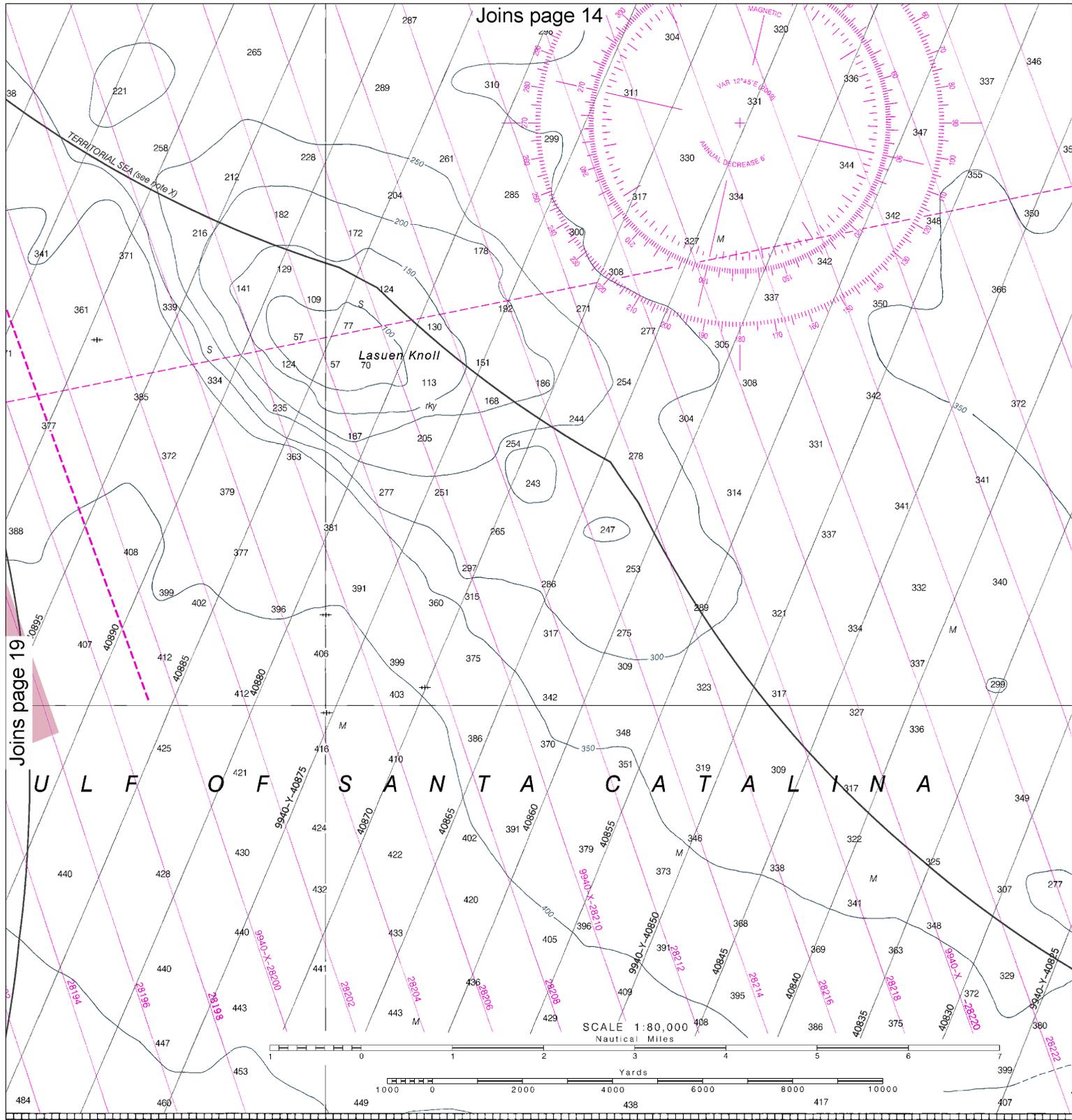
118°

55'

Washington, D.C.
 DEPARTMENT OF COMMERCE
 NAUTICAL ADMINISTRATION
 CHART SERVICE
 SURVEY

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4663, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.



Joins page 19

QUED ON CHART 18774

118°

55'

1

PRINT-ON-DEMAND CHARTS

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FATHOMS	
FEET	
METERS	

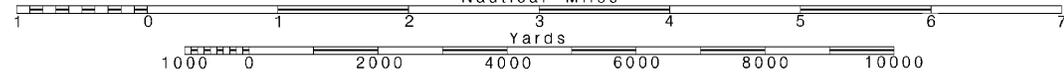


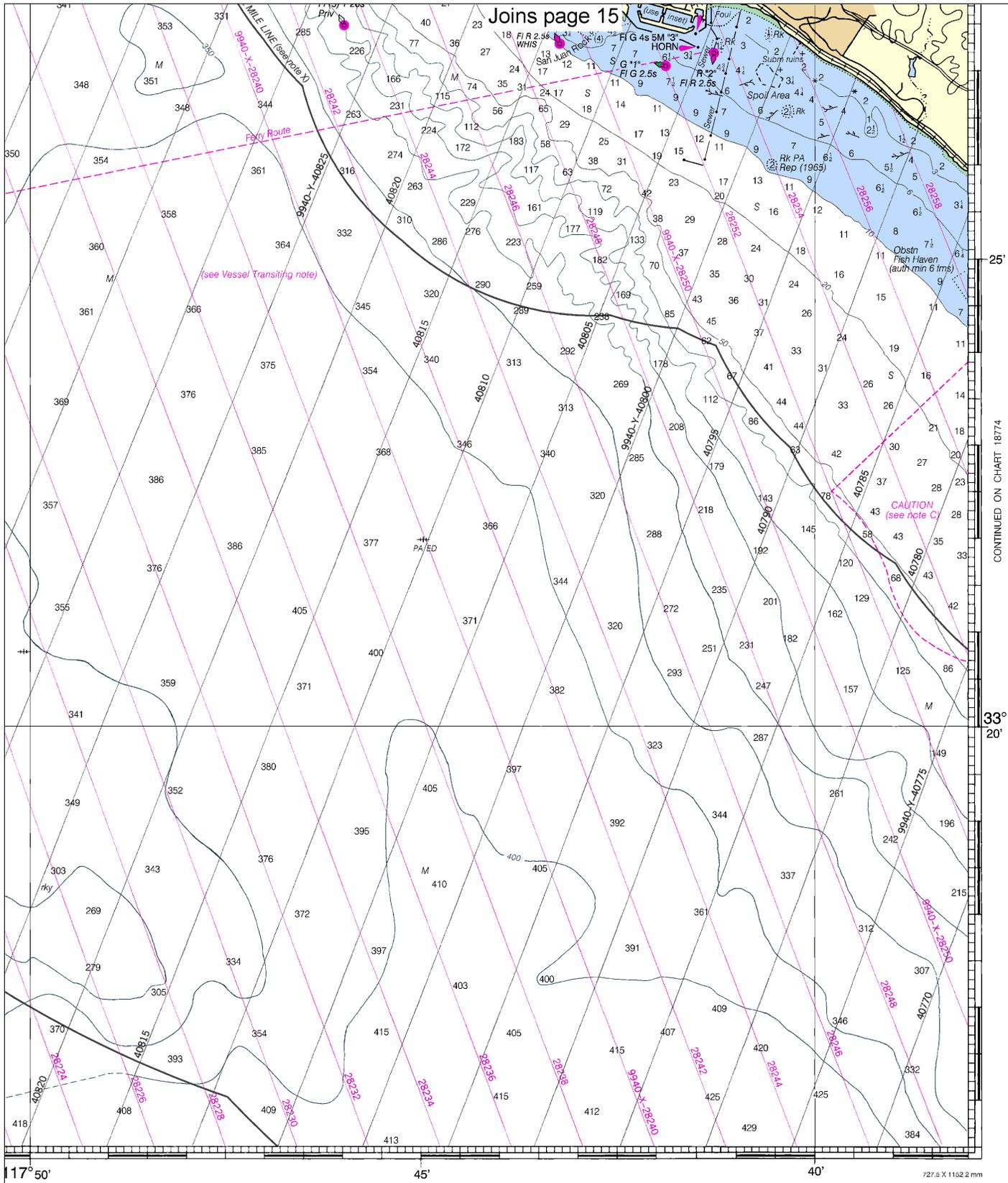
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:80,000
Nautical Miles

See Note on page 5.

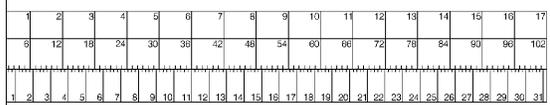




CONTINUED ON CHART 18774

33° 20'

17° 50' 45' 40'



San Pedro Channel
SOUNDINGS IN FATHOMS - SCALE 1:80,000

18746
LORAN-C OVERPRINTED





EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

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

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

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

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

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

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

Distress Call Procedures

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

HAVE ALL PERSONS PUT ON LIFE JACKETS!



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

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

Quick References

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



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



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

NOAA's Office of Coast Survey



The Nation's Chartmaker