BookletChart™

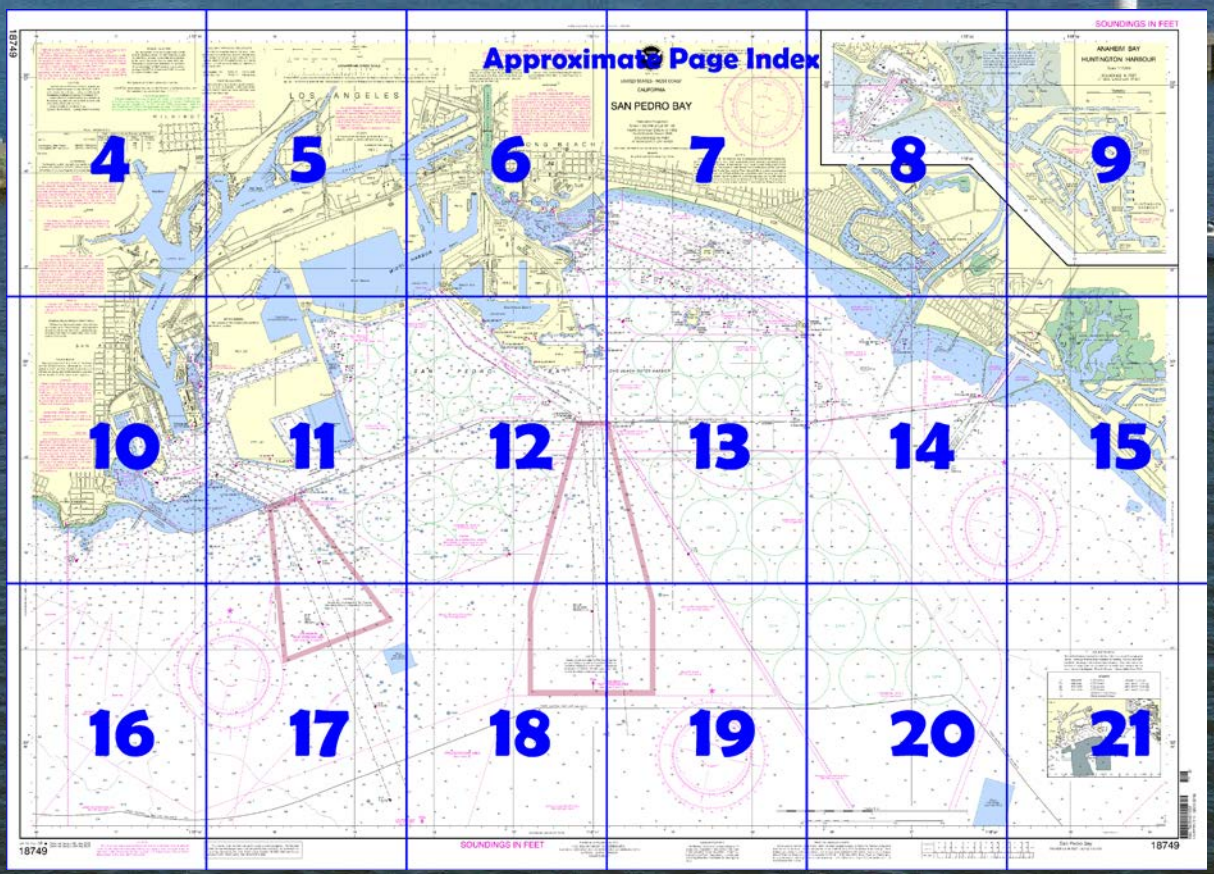
San Pedro Bay

NOAA Chart 18749

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.

- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

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

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=18749.

(Selected Excerpts from Coast Pilot)
San Pedro Bay is between Seal Beach on the E and Point Fermin on the W. On the shores of the bay are the cities and port areas of **Long Beach** and **Los Angeles. Terminal Island**, in the NW part of San Pedro Bay, separates the outer bay from Los Angeles and Long Beach inner harbors.
Long Beach Harbor is in the E part of San Pedro Bay.
Los Angeles Harbor, at the W end of San Pedro Bay.
Long Beach and Los Angeles Harbors are connected by Cerritos Channel. Distance between the seaward entrance to the two harbors is about 4 miles.

The **Port of Long Beach**, one of the largest ports on the Pacific coast, has extensive foreign and domestic traffic. It is a major container cargo port.
The **Port of Los Angeles**, also one of the largest ports on the Pacific coast, has extensive facilities to accommodate all types of traffic.
The **Vessel Traffic Service (VTS) Los Angeles/Long Beach,** operated by the Marine Exchange in cooperation with the U.S. Coast Guard, has been established within the approaches to the ports of Los Angeles and Long Beach. The **VTS Area** consists of Los Angeles and Long Beach Harbors (inside the breakwater), and the waters of San Pedro Bay and San Pedro Channel, excluding Santa Monica Bay, within a 25 nautical mile radius of Point Fermin Light. This includes all of the Precautionary Area and portions of the Traffic Separation Scheme Lanes.
Channels.–Long Beach Channel leads NW from W of Long Beach Breakwater for 2.2 miles to **Middle Harbor**, thence N to **Back Channel** and the **Inner Harbor**. A **restricted harbor** entrance area has been designated in the channel and side areas extending from about 1 mile N of the breakwater to inside Middle Harbor; regulations of the Board of Harbor Commissioners, Port of Long Beach, grant priority to outbound vessels and stipulate a **6-knot speed limit** in this area.
Los Angeles Main Channel leads NW from E of the San Pedro Breakwater for about 1 mile, thence N to the Inner Harbor turning basin, thence NE through **East Basin Channel** and **Cerritos Channel**. About 0.6 mile NW of the breakwater, **Super Tanker Channel** leads W from the Main Channel to the deep-draft facilities at Berths 45–50.
Los Angeles Main Channel is marked by a **296°** lighted range.
The Los Angeles and Long Beach main channels are considered narrow channels. Vessels less than 20 meters in length, sailing vessels, vessels engaged in fishing, or any vessel attempting to cross these channels shall not impede a vessel that can only safely navigate within a narrow channel per Inland Navigation Rules, Rule 9. To obtain information on the movement of deep draft vessels inside the Federal Breakwater, contact the Los Angeles Pilot Station on VHF-FM channel 73 (156.675 MHz) or Long Beach Pilot Station of VHF-FM channel 74 (156.725 MHz).
Dangers.–A shoal area, with a rock covered 3 feet and a rock awash near the outer end, extends about 0.3 mile S of the shore just E of Point Fermin Light. A lighted whistle buoy is about 300 yards SW from the S end of the shoal area.
A **naval restricted area** is in the West Basin off the S shore of Terminal Island inside the jetty of the Naval Base Mole (See 334.990, chapter 2, for limits and regulations.)
A **restricted area** is off the E side of Reservation Point. (See 334.938, chapter 2, for limits and regulations.)
Surge.–Both Los Angeles and Long Beach Harbors are subject to seiche and surge. The most persistent and conspicuous oscillation has a period of approximately 1 hour. In the vicinity of Reservation Point and near the E end of Terminal Island, the hourly surge is very prominent, causing velocity variations which at times may be as great as 1 knot, and which often overcome the lesser tidal current so that the current floods and ebbs at half-hour intervals. Because of the more restricted channel, the surge through Back Channel at the E end of Terminal Island usually reaches a greater velocity than through the channel W of Reservation Point. In Back Channel, the hourly variation may sometimes be 1.5 knots or more. The hourly surge, together with other oscillations of shorter period and of more irregular occurrence, at times causes a very rapid change both in height of the water and the velocity and direction of the current and may endanger vessels tied up at the piers.

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

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

Table of Selected Chart Notes

71 CAUTION

Vessels are prohibited from entering ANCHORAGE G unless bound for a berth in that anchorage 110.214 (see note A).

Scale 1:15,000

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

HEIGHTS

Heights in feet above Mean High Water.

81 78 CAUTION 67 64

Vessels should not enter the Pilot Operating Area unless entering or departing Los Angeles Channel. 76 71

BERTH NUMBERS

The numbers on the land along the waterfront are the berth numbers.

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.

78 CAUTION 80

Vessels should not enter the Pilot Operating Area unless entering or departing Long Beach Channel. Vessels entering Long Beach Channel should pass eastward of lighted whistle buoy "LB," and vessels departing should pass westward. 80

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.

Mercator Projection
Scale 1:20,000 at Lat 33° 43'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

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.

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 0.067" northward and 3.246" westward to agree with this chart.

NOTE J

Floating security barriers have been installed at U.S. Naval Weapons Station Seal Beach in Anaheim Bay. The barriers are marked by alternating orange and white spherical buoys and approximately mark the restricted water space surrounding the facility.

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

nated anchorages (110.214).

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

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.

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

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

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

CAUTION

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

NOTE H

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.

AIDS TO NAVIGATION

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

For Symbols and Abbreviations see Chart No. 1

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey with additional data from the Corps of Engineers, Department of the Navy, City of Los Angeles, City of Long Beach, and U.S. Coast Guard.

55 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: — — — —

ANCHORAGE BERTHS

The anchorage berths shown in green are for the convenience of the Captain of the Port and/or port pilots. Anchorages outside the federal breakwater are assigned by the Captain of the Port through VTMS. Anchorages inside the breakwater are assigned by the applicable port pilot. The Delta anchorages are for the use of the U.S. Navy and U.S. Coast Guard for explosive loadings.

TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Los Angeles, Outer Harbor	(33°43'N/118°16'W)	5.5	4.8	0.9
Los Angeles Harbor, Mormon Island	(33°45'N/118°16'W)	5.4	4.7	1.0

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.

(Mar 2010)

18' 17' 118° 16' 15'

33° 47'

6' 46'

45'

NOTE D

Traffic lanes and Pilot Areas established at approaches to Los Angeles and Long Beach Harbors are shown on Charts 18746, 18740, and 18720.

The normal Pilot Operating Areas are outlined by trapezoidal magenta bands. Mariners are advised to exercise extreme care in navigating within these areas. No vessel may enter this area unless it is entering or departing the Los Angeles or Long Beach main channels. Vessels shall pass directly through without stopping or loitering unless stopping is for taking on a pilot.

To receive information regarding the movement of vessels in the traffic separation schemes and the precautionary area contact the Vessel Traffic Service. The working frequency for the VTS is channel 14 VHF/FM (156.7 MHz) (ph 310-832-6411) and the call sign is "San Pedro Traffic."

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WARNING

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TIDAL INFORMATION

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(Mar 2010)

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey with additional data from the Corps of Engineers, Department of the Navy, City of Los Angeles, City of Long Beach, and U.S. Coast Guard.

NOTE C

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⊙STACK

NOTE B

The Restricted Harbor Area Entrance Regulations are contained in the City of Long Beach Tariff No. 4 (February 2, 1994). Consult Board of Harbor Commissioners, Port of Long Beach.

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 H

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.

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).

BERTH NUMBERS

The numbers on the land along the waterfront are the berth numbers.

W I L M I N G T O N

S A N P E D R O

T E R M I N A L

STACKS

Northwest Slip

West Basin

Slip No 5

Slip No 1

East Basin (Turning Basin)

(use chart 18751)

MORMON I

STACK

Tanks

PIER A

TOWER

Southwest Slip

UNDER CONSTRUCTION

EAST BASIN CHANNEL

TURNING BASIN

MAIN CHANNEL

FIXED BRIDGE

Dock St

Ferry St

Wreckage

Piles

EAST SAN PEDRO

FISH HARBOR

CITY HALL (R TR) (LIGHTED)

PO

SIGN

Fireboat

PIER 300

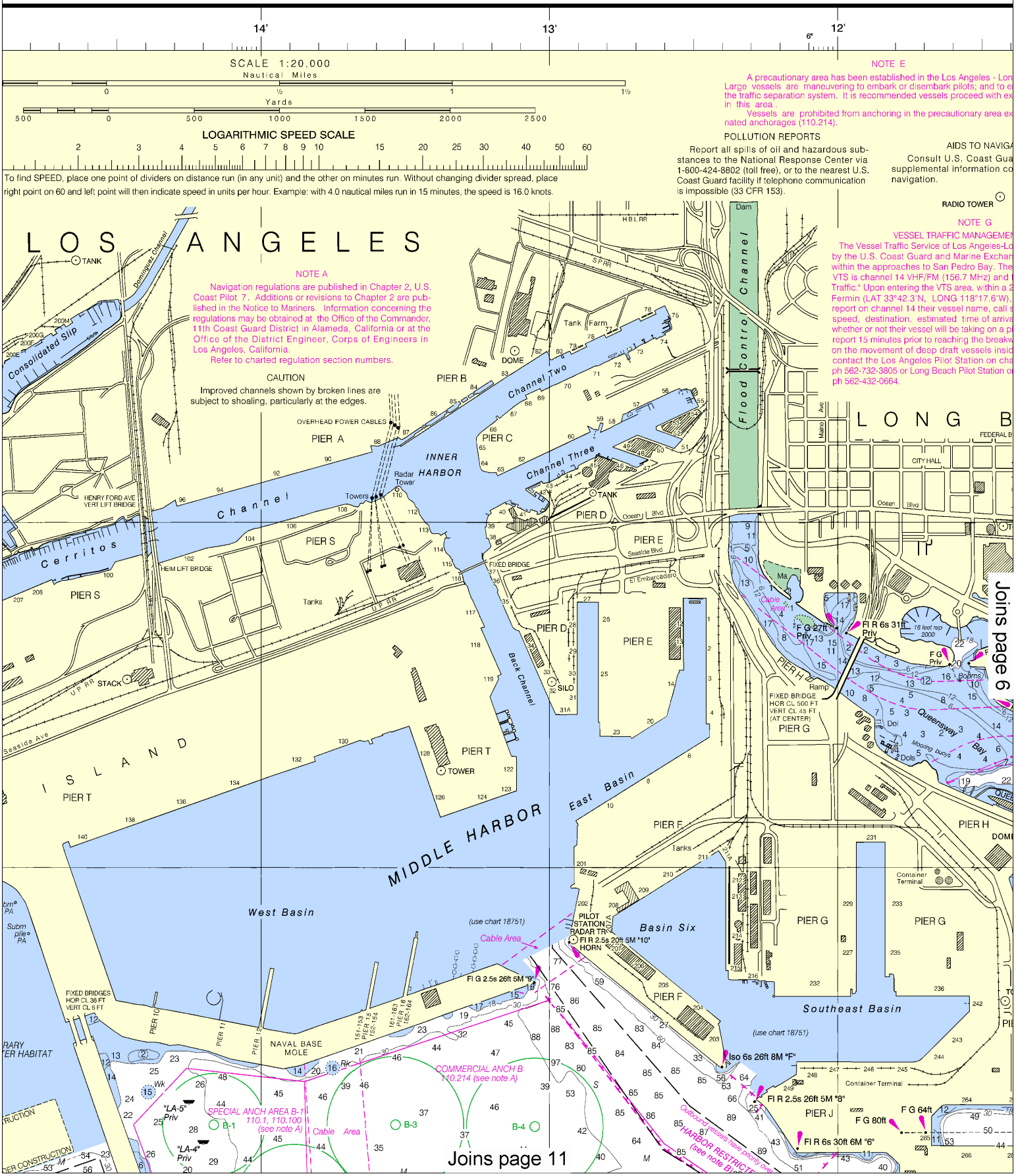
Joins page 10

Printed at reduced scale. ~~SCALE 1:20,000~~ See Note on page 5.

Nautical Miles: 0 — 1 — 1 ½

Yards: 500 — 0 — 500 — 1000 — 1500 — 2000 — 2500

Note: Chart grid lines are aligned with true north.


14'
13'
12'
6"
SCALE 1:20,000
Nautical Miles
0
½
1
1½
Yards
500
0
500
1000
1500
2000
2500
LOGARITHMIC SPEED SCALE
2 3 4 5 6 7 8 9 10 15 20 25 30 40 50 60
To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.
NOTE E
A precautionary area has been established in the Los Angeles - Lon
Large vessels are maneuvering to embark or disembark pilots; and to e
the traffic separation system. It is recommended vessels proceed with ex
in this area.
Vessels are prohibited from anchoring in the precautionary area ex
nated anchorages (110.214).
POLLUTION REPORTS
Report all spills of oil and hazardous sub-
stances 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 NAVIGA
Consult U.S. Coast Gua
supplemental information co
navigation.
RADIO TOWER
NOTE G
VESSEL TRAFFIC MANAGEMEN
The Vessel Traffic Service of Los Angeles-Lo
by the U.S. Coast Guard and Marine Exchan
within the approaches to San Pedro Bay. The
VTS is channel 14 VHF/FM (156.7 MHz) and
Traffic." Upon entering the VTS area, within a 2
Fermin (LAT 33°42.3'N, LONG 118°17.6'W),
report on channel 14 their vessel name, call s
speed, destination, estimated time of arriva
whether or not their vessel will be taking on a pi
report 15 minutes prior to reaching the breakw
on the movement of deep draft vessels insid
contact the Los Angeles Pilot Station on cha
ph 562-732-3805 or Long Beach Pilot Station o
ph 562-432-0664.
LOS ANGELES
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.
CAUTION
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.
Joins page 6
Joins page 11
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.
5

14' 13' 12' 6" 118°11'

SCALE 1:20,000
Nautical Miles
½ 1 1½
Yards
500 1000 1500 2000 2500

LOGARITHMIC SPEED SCALE
4 5 6 7 8 9 10 15 20 25 30 40 50 60

ers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place
dicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

A N G E L E S

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.

CAUTION

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

NOTE E

A precautionary area has been established in the Los Angeles - Long Beach area. Large vessels are maneuvering to embark or disembark pilots; and to enter or depart the traffic separation system. It is recommended vessels proceed with extreme caution in this area.

Vessels are prohibited from anchoring in the precautionary area except in designated anchorages (110.214).

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.

RADIO TOWER

NOTE G

VESSEL TRAFFIC MANAGEMENT SYSTEM

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 breakwater. To obtain information on the movement of deep draft vessels inside the Federal Breakwater, contact the Los Angeles Pilot Station on channel 73 (156.675 MHz) / ph 562-732-3805 or Long Beach Pilot Station on channel 74 (156.6 MHz) / ph 562-432-0664.

L O N G B E A C H

Joins page 5

Joins page 12

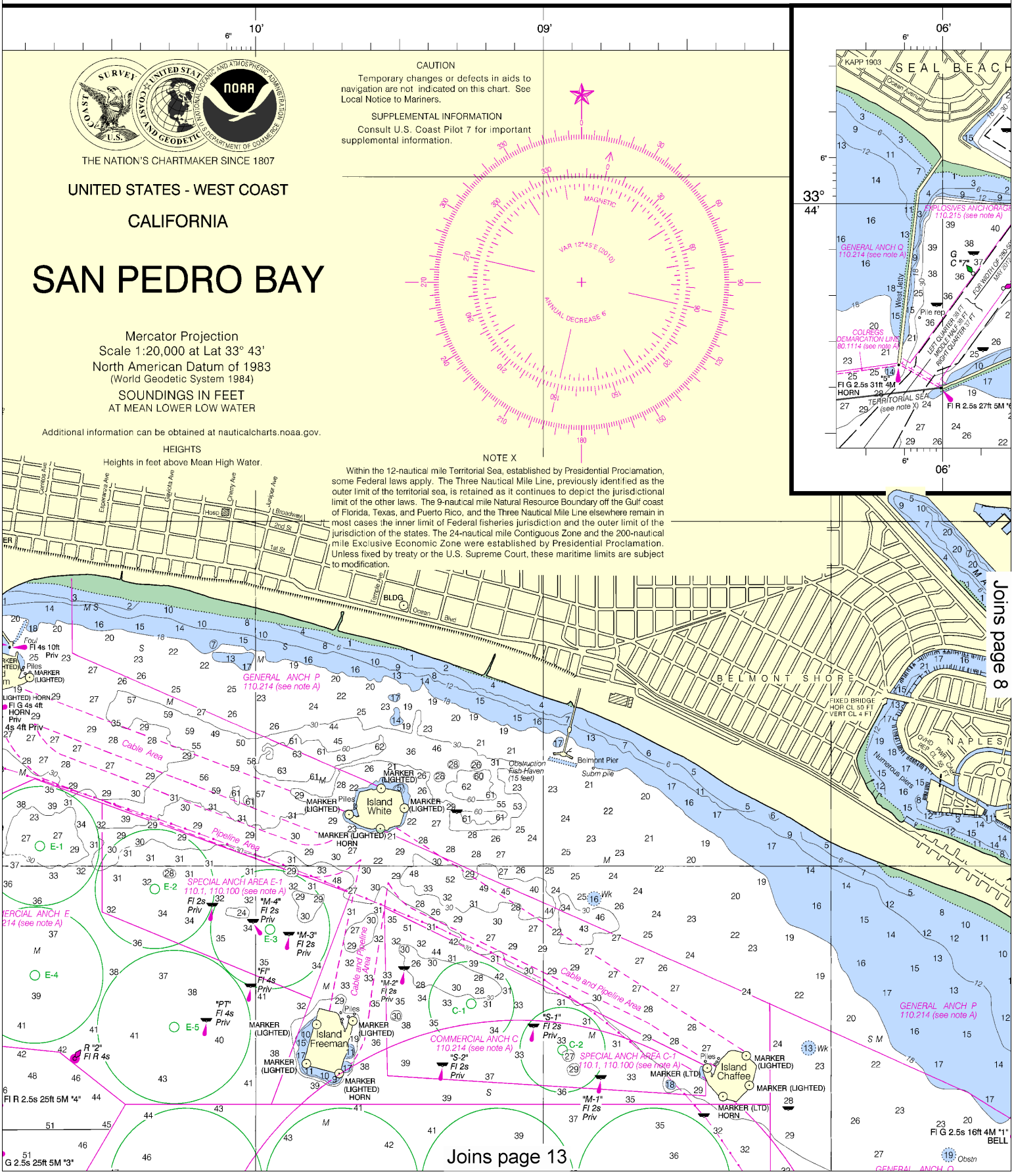
6

Note: Chart grid lines are aligned with true north.

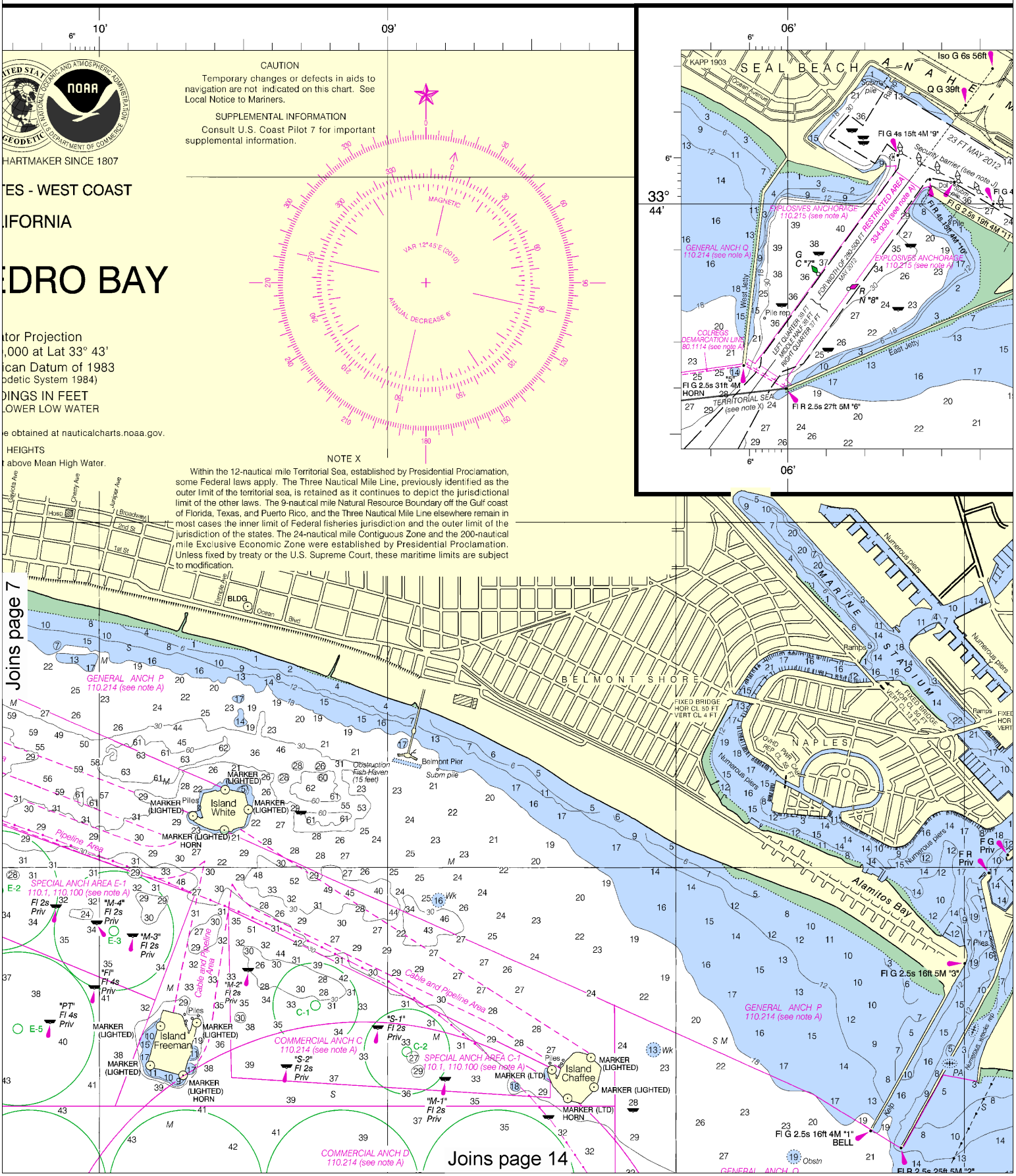
Printed at reduced scale. ~~SCALE 1:20,000~~ See Note on page 5.

Nautical Miles
0 1 1½

Yards
500 0 500 1000 1500 2000 2500



This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 0313 1/15/2013,
NGA Weekly Notice to Mariners: 0413 1/26/2013,
Canadian Coast Guard Notice to Mariners: n/a.



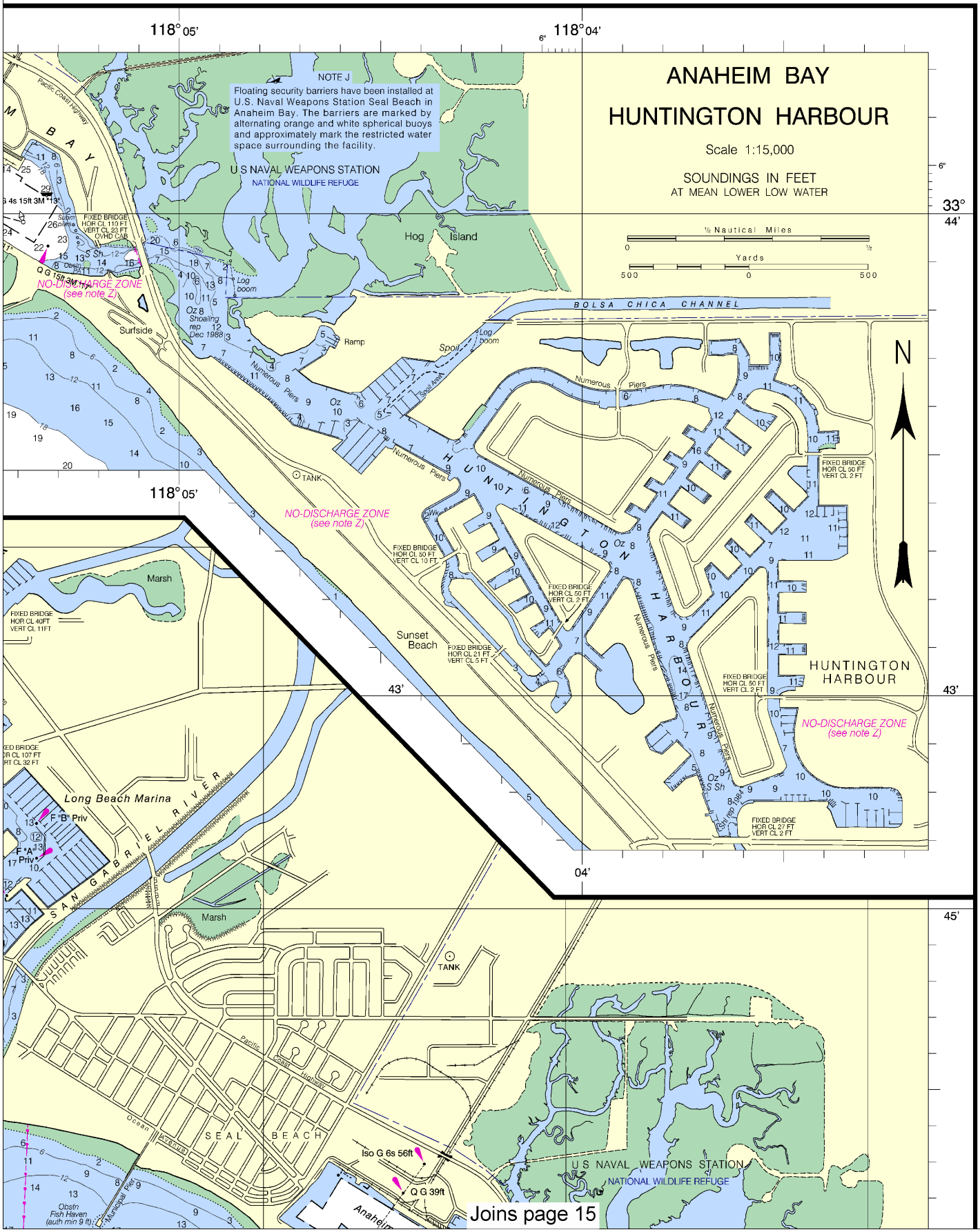
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:20,000~~ See Note on page 5.

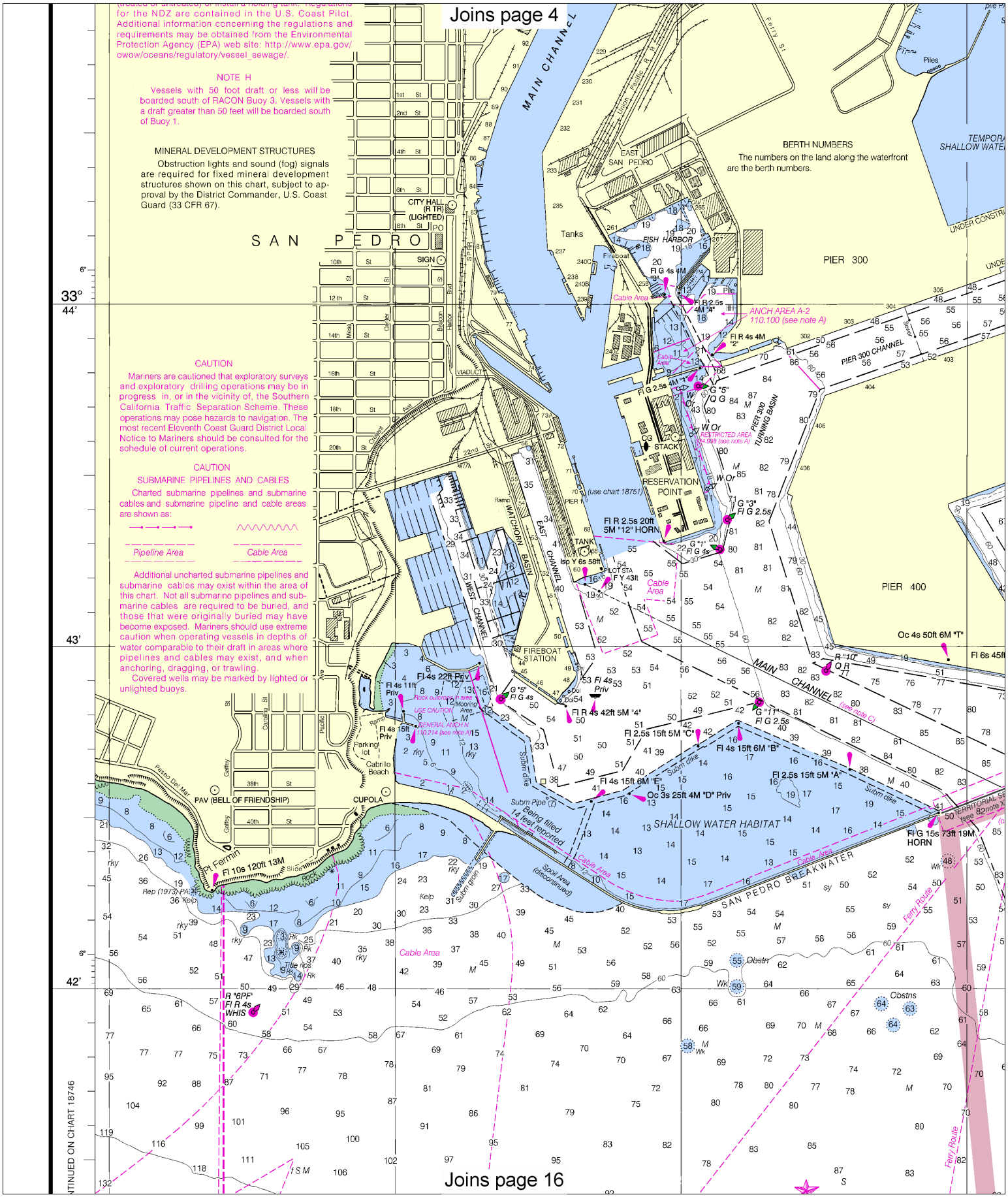
Nautical Miles: 0, 1, 1 ½

Yards: 500, 0, 500, 1000, 1500, 2000, 2500

SOUNDINGS IN FEET



Joins page 15



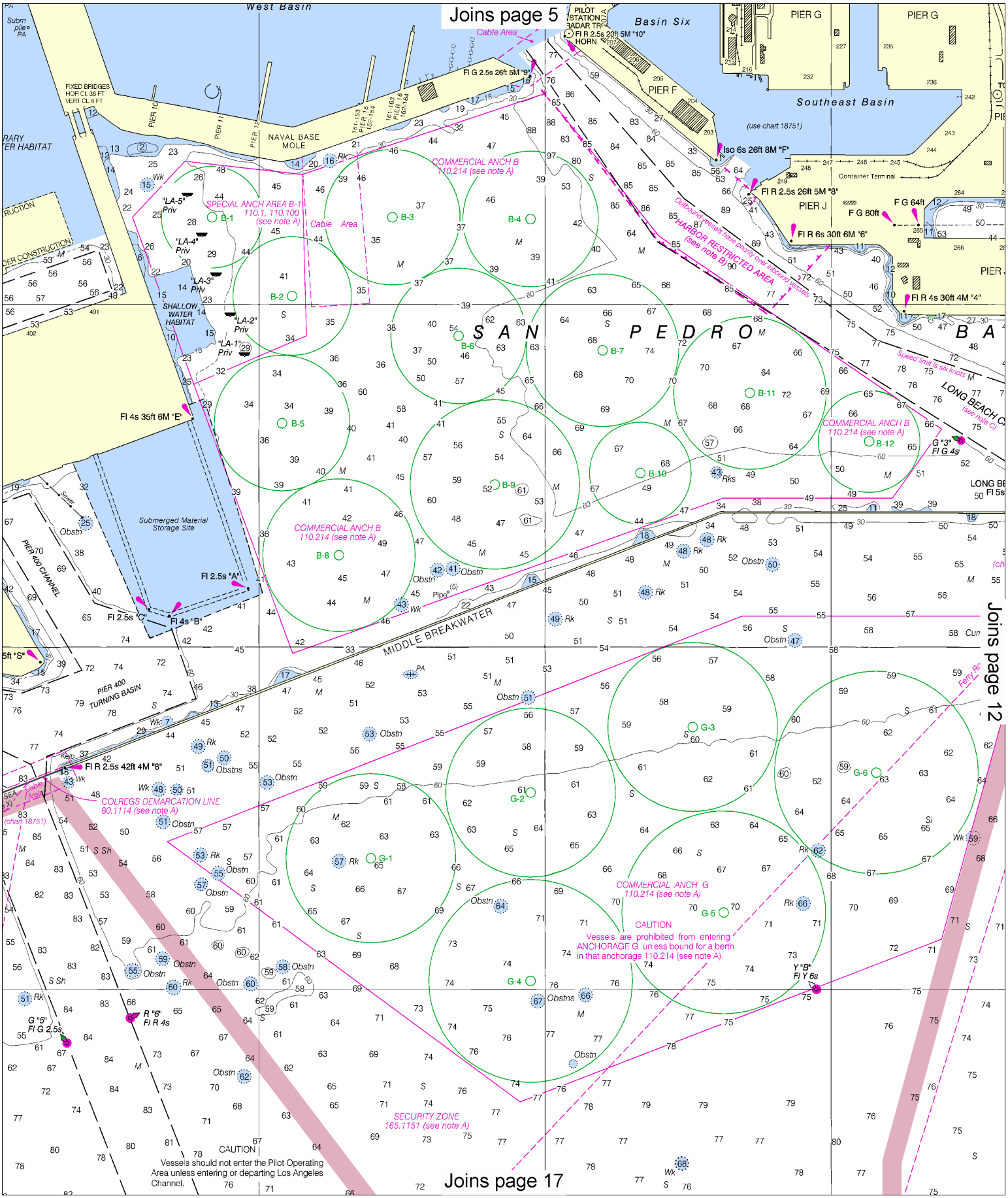
10

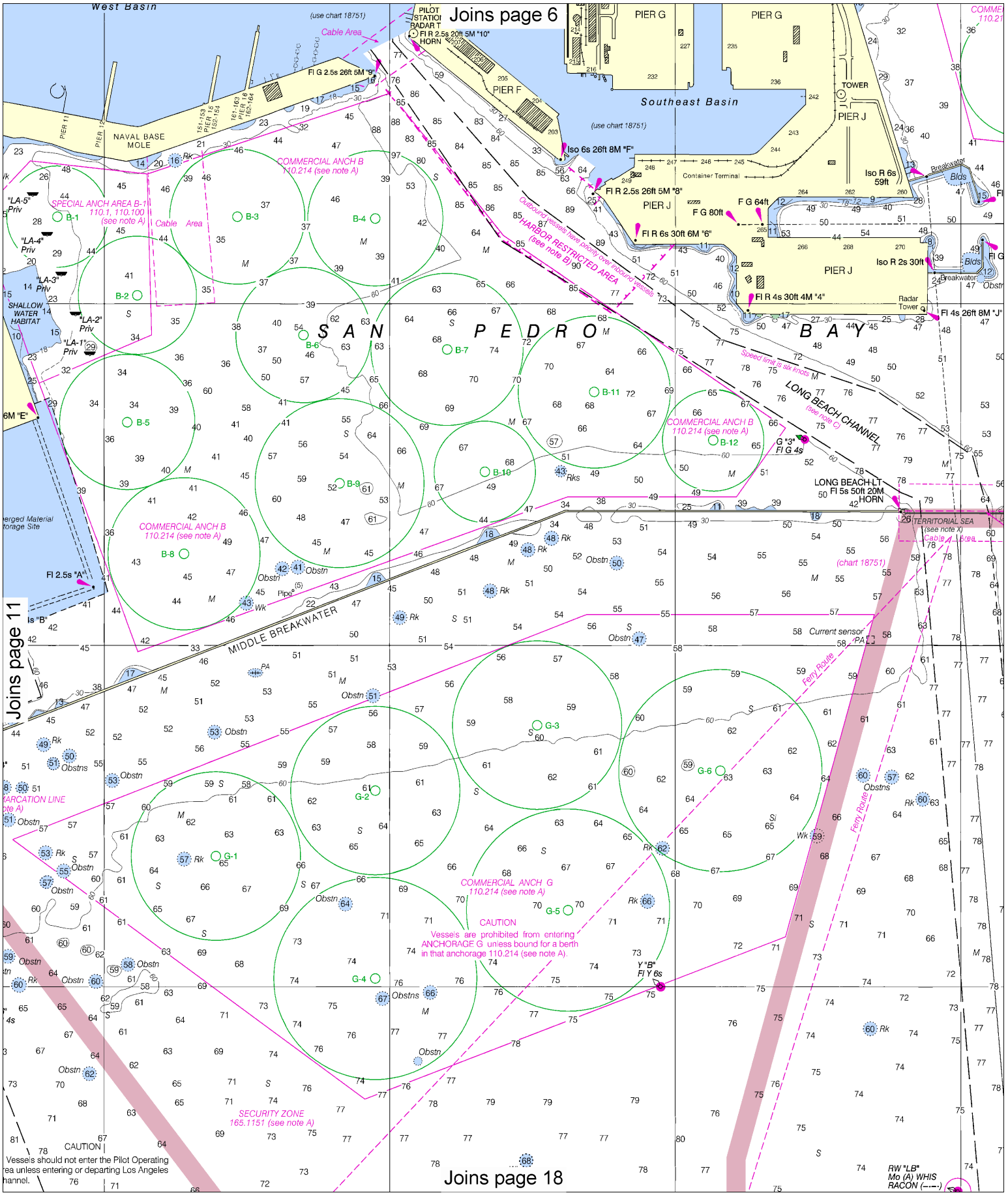
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:20,000~~ See Note on page 5.

Nautical Miles: 0, 1, 1 ½

Yards: 500, 0, 500, 1000, 1500, 2000, 2500


Joins page 5
West Basin
Basin Six
Southeast Basin
PIER G
PIER F
PIER J
PILOT STATION RADAR TRK
Fl R 2.5s 20ft 5M "10" HORN
Fl G 2.5s 26ft 5M "9"
Iso 6s 26ft 8M "F"
Fl R 2.5s 26ft 5M "8"
F G 64ft
F G 80ft
Fl R 6s 30ft 6M "6"
Fl R 4s 30ft 4M "4"
Container Terminal
(use chart 18751)
FIXED BRIDGES HOR CL 36 FT VERT CL 6 FT
NAVAL BASE MOLE
PIER 10
PIER 11
PIER 12
PIER 15
PIER 16
Cable Area
COMMERCIAL ANCH B 110.214 (see note A)
SPECIAL ANCH AREA B-1 110.1, 110.100 (see note A)
Cable Area
"LA-5" Priv
"LA-4" Priv
"LA-3" Priv
"LA-2" Priv
"LA-1" Priv
SHALLOW WATER HABITAT
Outbound vessels have priority over inbound vessels
HARBOR RESTRICTED AREA (see note B)
SAN PEDRO BA
Speed limit is six knots
LONG BEACH C (see note C)
Fl 4s 35ft 6M "E"
Submerged Material Storage Site
PIER 400 CHANNEL
Fl 2.5s "A"
Fl 2.5s "C"
Fl 4s "B"
MIDDLE BREAKWATER
PIER 400 TURNING BASIN
Fl R 2.5s 42ft 4M "8"
COLREGS DEMARCATION LINE 80.1114 (see note A)
COMMERCIAL ANCH G 110.214 (see note A)
CAUTION
Vessels are prohibited from entering ANCHORAGE G unless bound for a berth in that anchorage 110.214 (see note A).
Y "B" Fl Y 6s
R "6" Fl R 4s
G "5" Fl G 2.5s
SECURITY ZONE 165.1151 (see note A)
CAUTION
Vessels should not enter the Pilot Operating Area unless entering or departing Los Angeles Channel.
Joins page 17
Joins page 12
B-1
B-2
B-3
B-4
B-5
B-6
B-7
B-8
B-9
B-10
B-11
B-12
G-1
G-2
G-3
G-4
G-5
G-6
Obstn
Rk
Wk
Rks
Obstns
Pipe
Kelp
Sewer

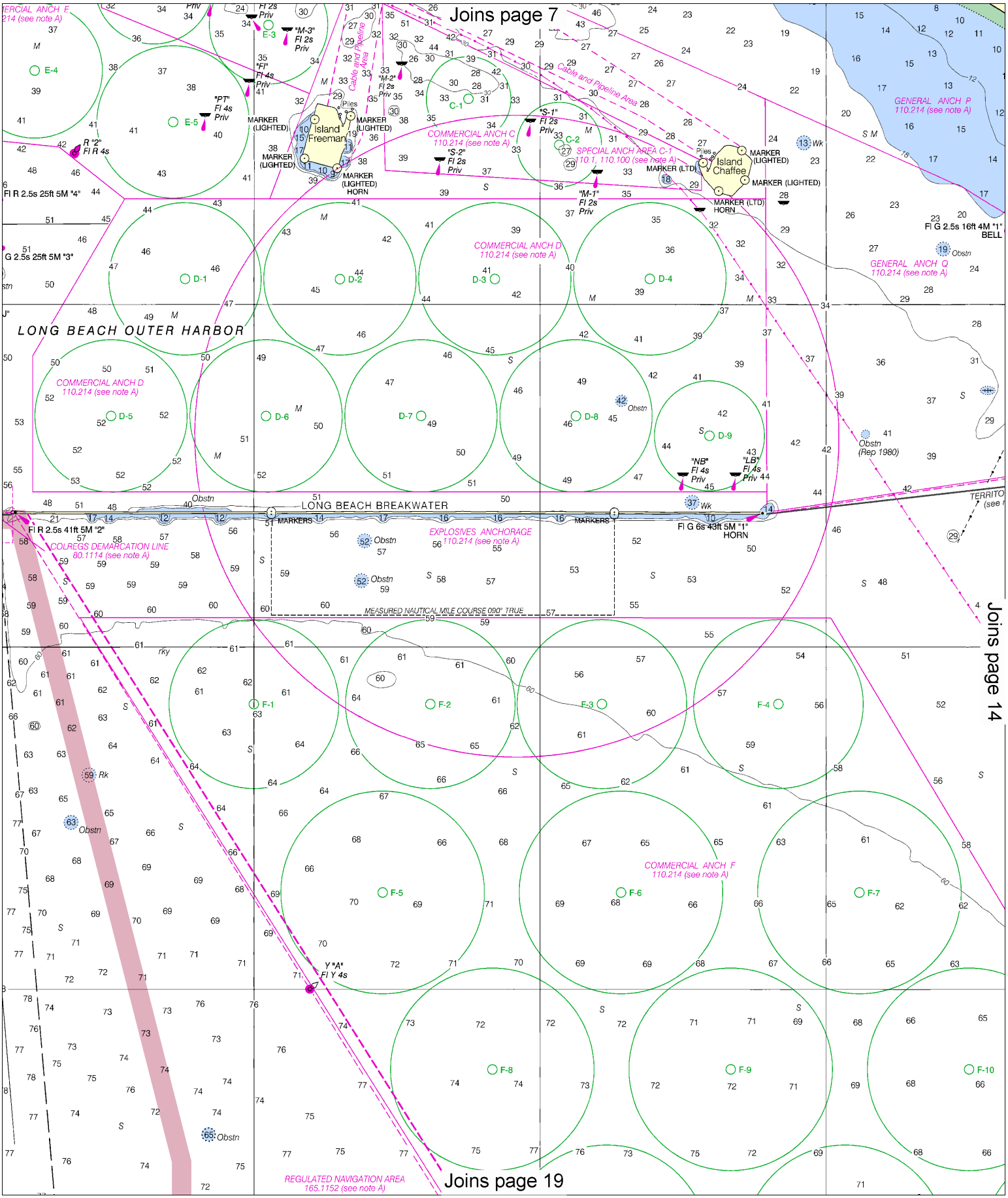


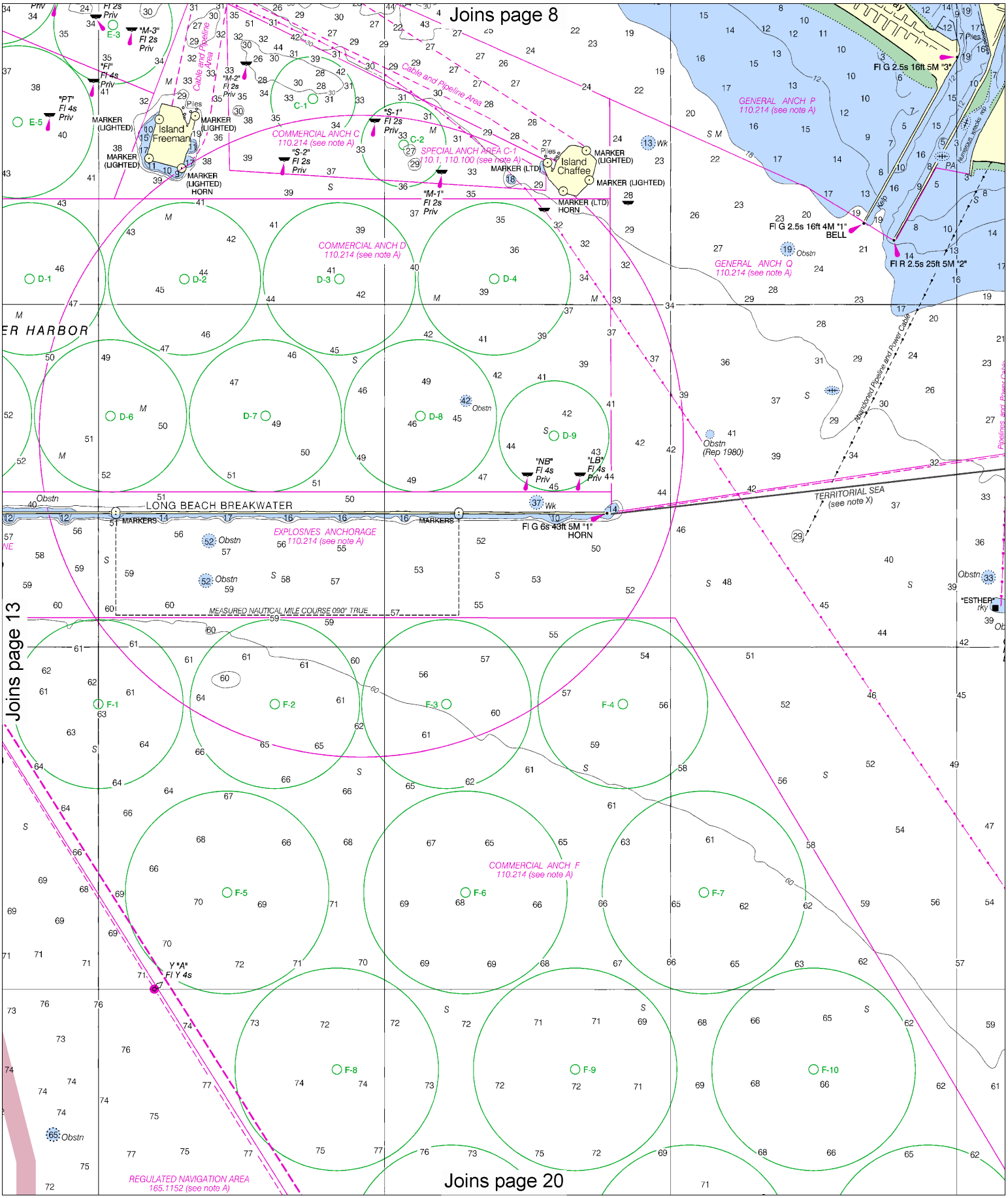
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:20,000~~ See Note on page 5.

Nautical Miles: 0, 1, 1 ½

Yards: 500, 0, 500, 1000, 1500, 2000, 2500


Joins page 7
LONG BEACH OUTER HARBOR
LONG BEACH BREAKWATER
Island Freeman
Island Chaffee
COMMERCIAL ANCH C 110.214 (see note A)
COMMERCIAL ANCH D 110.214 (see note A)
SPECIAL ANCH AREA C-1 110.1, 110.100 (see note A)
GENERAL ANCH P 110.214 (see note A)
GENERAL ANCH Q 110.214 (see note A)
EXPLOSIVES ANCHORAGE 110.214 (see note A)
COLREGS DEMARCATION LINE 80.1114 (see note A)
MEASURED NAUTICAL MILE COURSE 090° TRUE
COMMERCIAL ANCH F 110.214 (see note A)
REGULATED NAVIGATION AREA 165.1152 (see note A)
Cable and Pipeline Area
Fl R 2.5s 25ft 5M "4"
G 2.5s 25ft 5M "3"
Fl R 2.5s 41ft 5M "2"
Fl G 6s 43ft 5M "1" HORN
Fl G 2.5s 16ft 4M "1" BELL
"M-3" Fl 2s Priv
"M-2" Fl 2s Priv
"M-1" Fl 2s Priv
"S-1" Fl 2s Priv
"S-2" Fl 2s Priv
"PT" Fl 4s Priv
"FI" Fl 4s Priv
R "2" Fl R 4s
"NB" Fl 4s Priv
"LB" Fl 4s Priv
Y "A" Fl Y 4s
MARKER (LIGHTED)
MARKER (LTD)
MARKER (LIGHTED) HORN
MARKERS
Obstn
Wk
Rk
Piles
Joins page 14
Joins page 19



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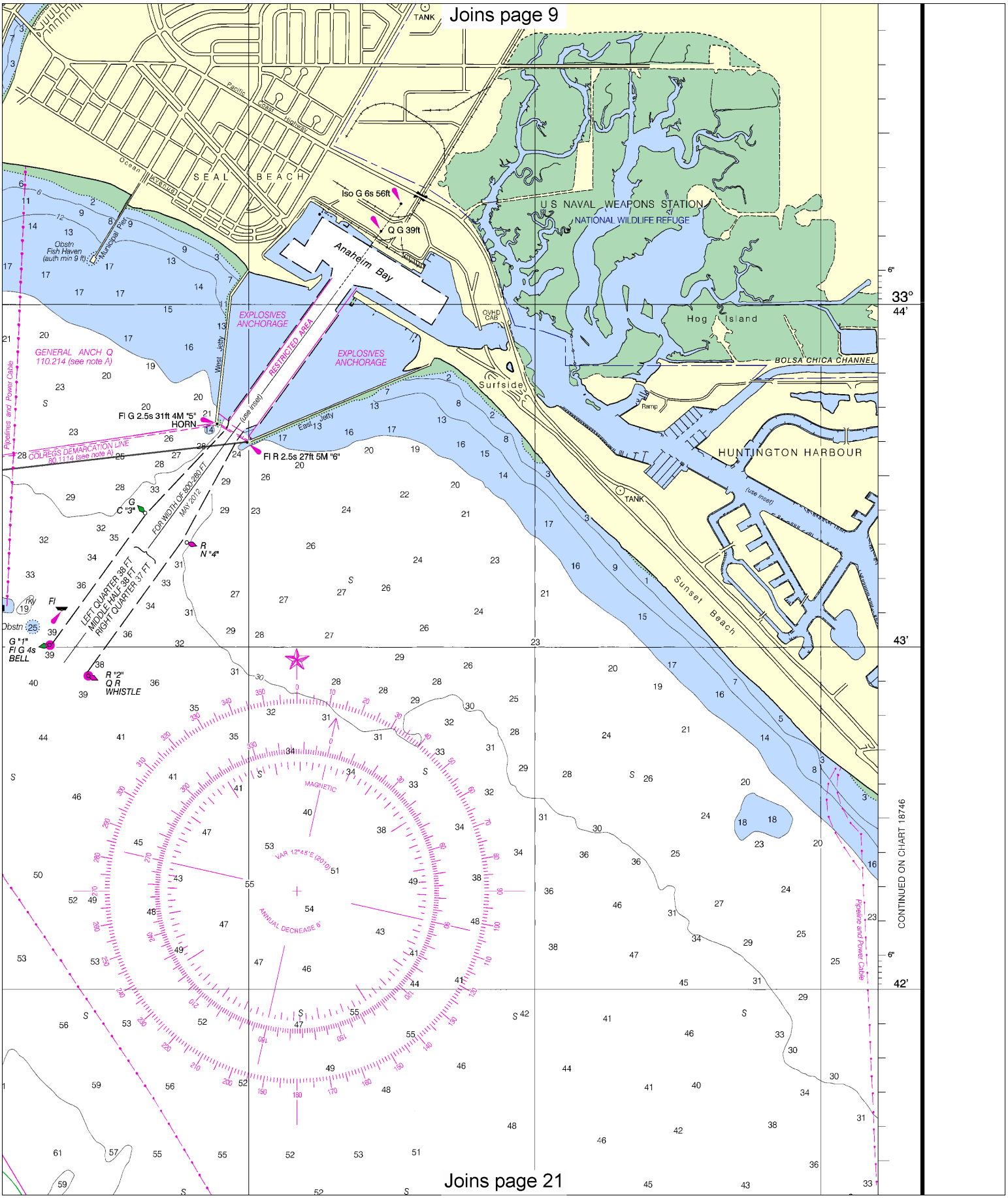
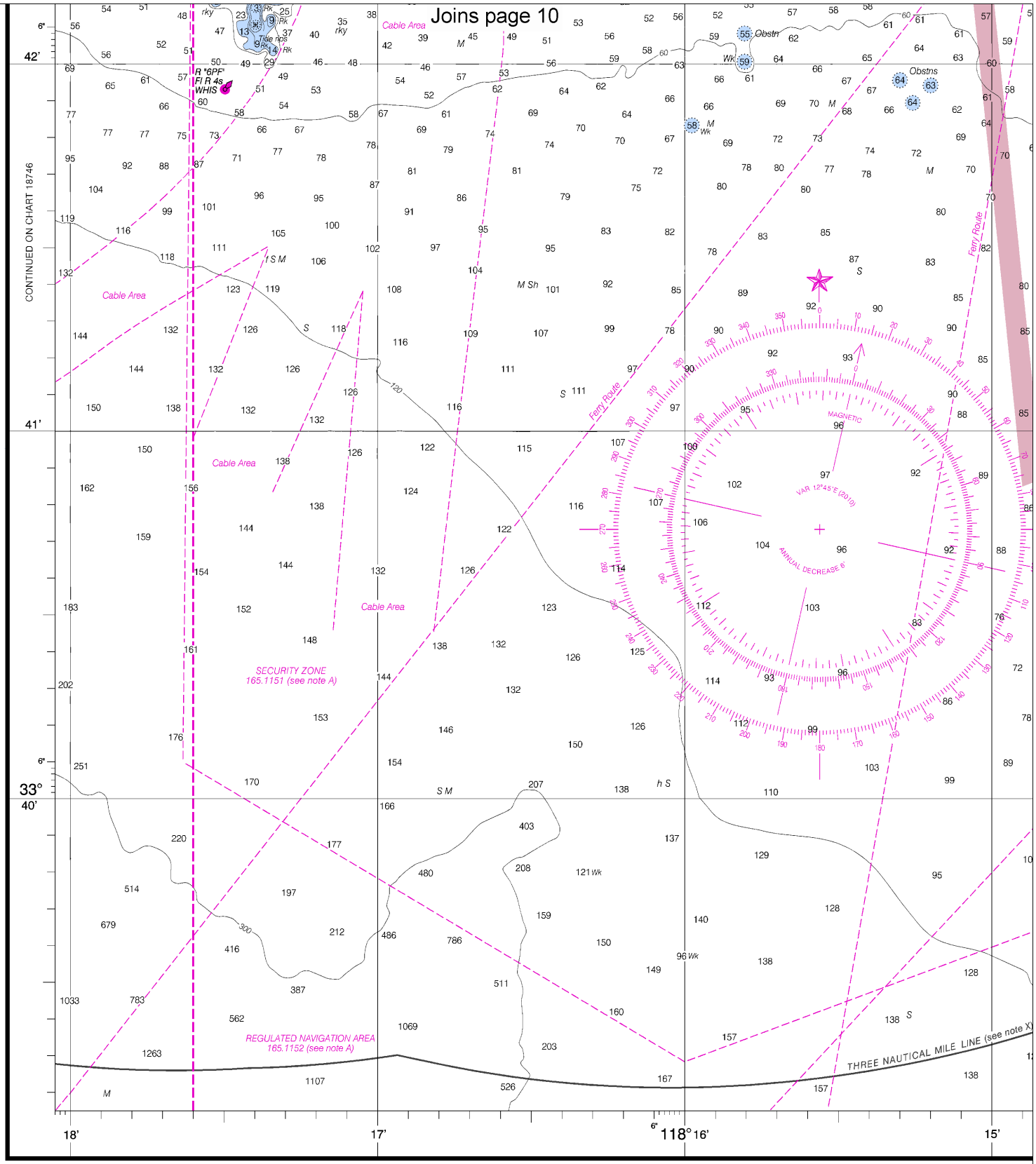
Nautical Miles: 0, 1, 1 ½

Yards: 500, 0, 500, 1000, 1500, 2000, 2500


Joins page 9
SEAL BEACH
Pacific Coast Highway
Ocean Avenue
Municipal Pier
Obstn
Fish Haven
(auth min 9 ft)
Iso G 6s 56ft
Q G 39ft
Anaheim Bay
U S NAVAL WEAPONS STATION
NATIONAL WILDLIFE REFUGE
Hog Island
BOLSA CHICA CHANNEL
EXPLOSIVES ANCHORAGE
RESTRICTED AREA
(use inset)
EXPLOSIVES ANCHORAGE
GENERAL ANCH Q
110.214 (see note A)
West Jetty
East Jetty
OVHD CAB
Surfside
Ramp
HUNTINGTON HARBOUR
TANK
(use inset)
Sunset Beach
Fl G 2.5s 31ft 4M "5"
HORN
Fl R 2.5s 27ft 5M "6"
COLREGS DEMARCATION LINE
80.1114 (see note A)
Pipelines and Power Cable
FOR WIDTH OF 800-280 FT
MAY 2012
LEFT QUARTER 38 FT
MIDDLE HALF 38 FT
RIGHT QUARTER 37 FT
G "3"
R "4"
Fl
Obstn
G "1"
Fl G 4s
BELL
R "2"
Q R
WHISTLE
MAGNETIC
VAR 12°45'E (2019)
ANNUAL DECREASE 6'
Pipeline and Power Cable
33° 44'
43'
42'
CONTINUED ON CHART 18746
Joins page 21



43rd Ed., Apr. / 10 ■ Corrected through NM Apr. 17/10
Corrected through LNM Apr. 06/10

18749

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 nav
Ocean Service encourages users to submit corrections, additio
improving this chart to the Chief, Marine Chart Division (N/C
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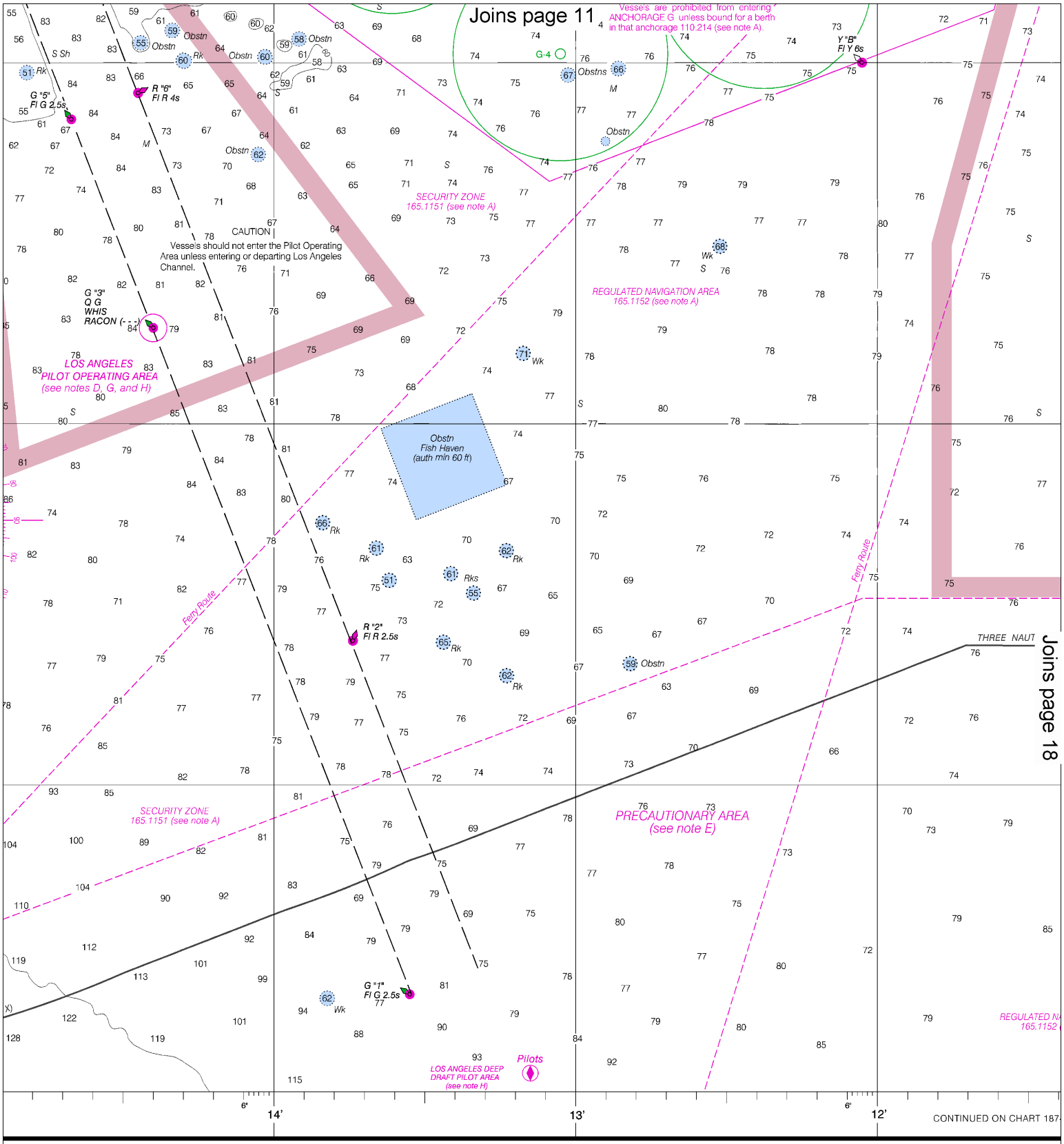
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:20,000~~ See Note on page 5.

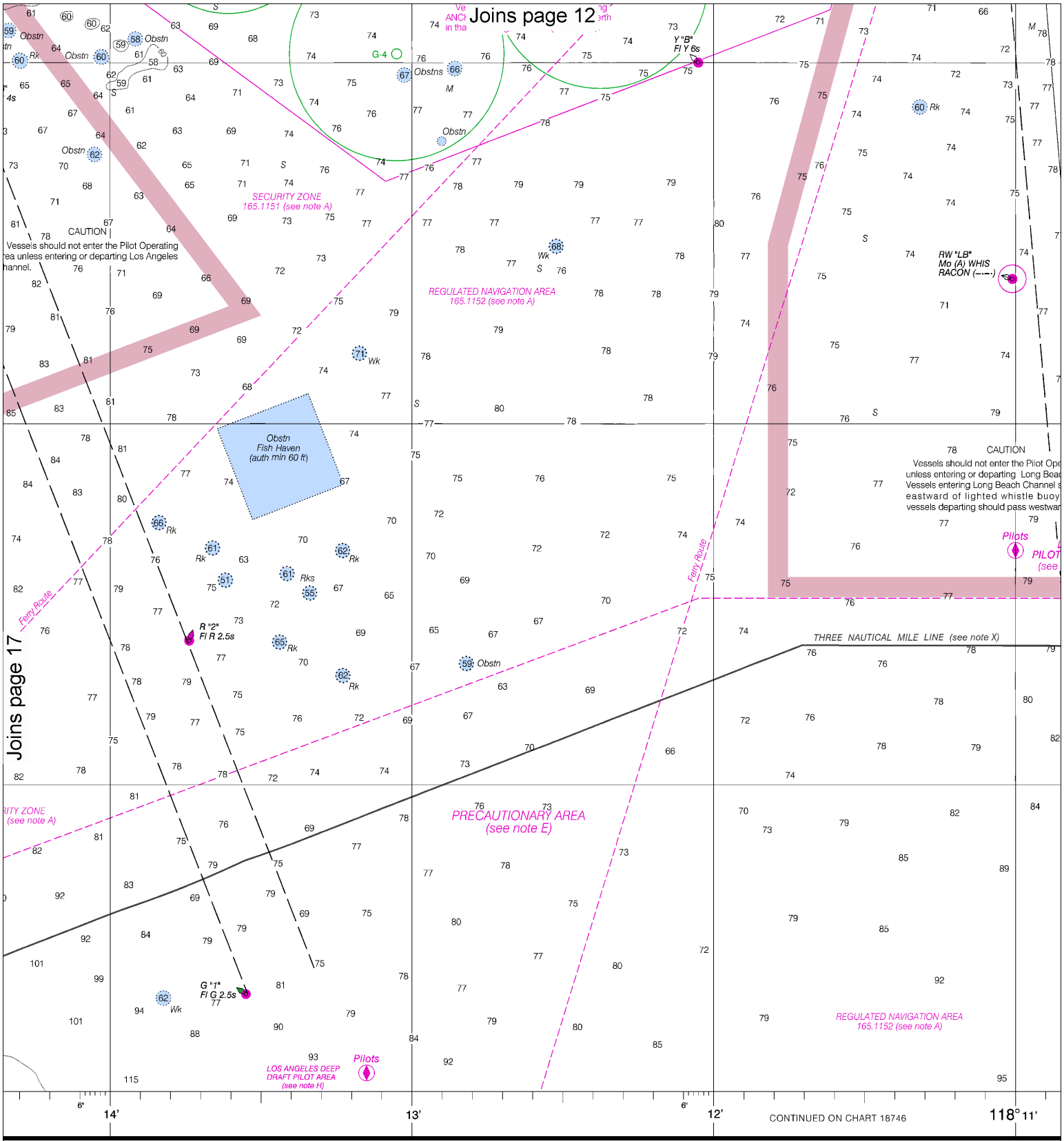
Nautical Miles: 0 — 1 — 1 ½

Yards: 500 — 0 — 500 — 1000 — 1500 — 2000 — 2500



navigation. The National tions, or comments for /CS2), National Ocean

SOUNDINGS IN FEET



SOUNDINGS IN FEET

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COAST SURV

Note: Chart grid lines are aligned with true north.

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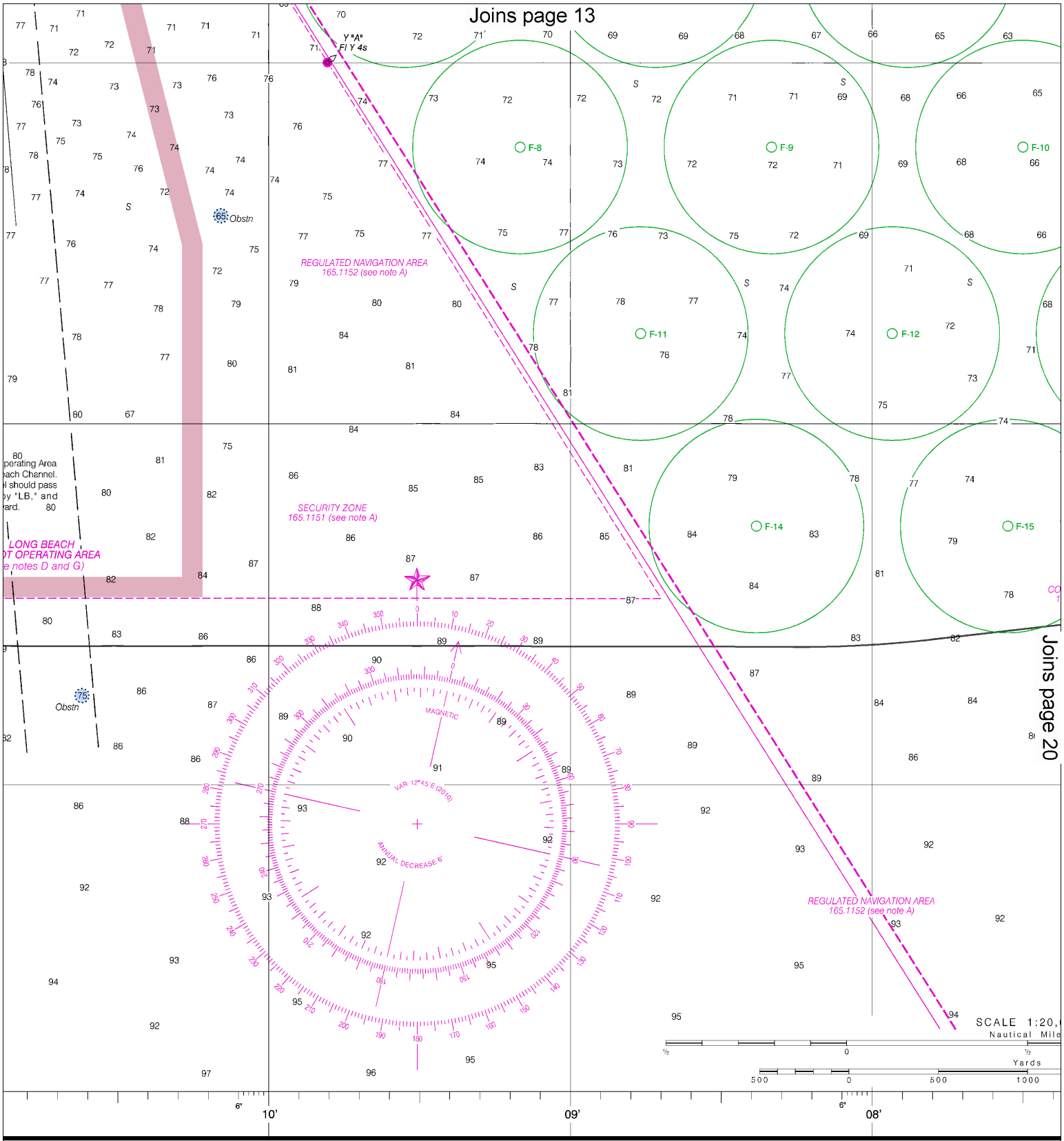
Nautical Miles
0 1 1½

Yards
500 0 500 1000 1500 2000 2500



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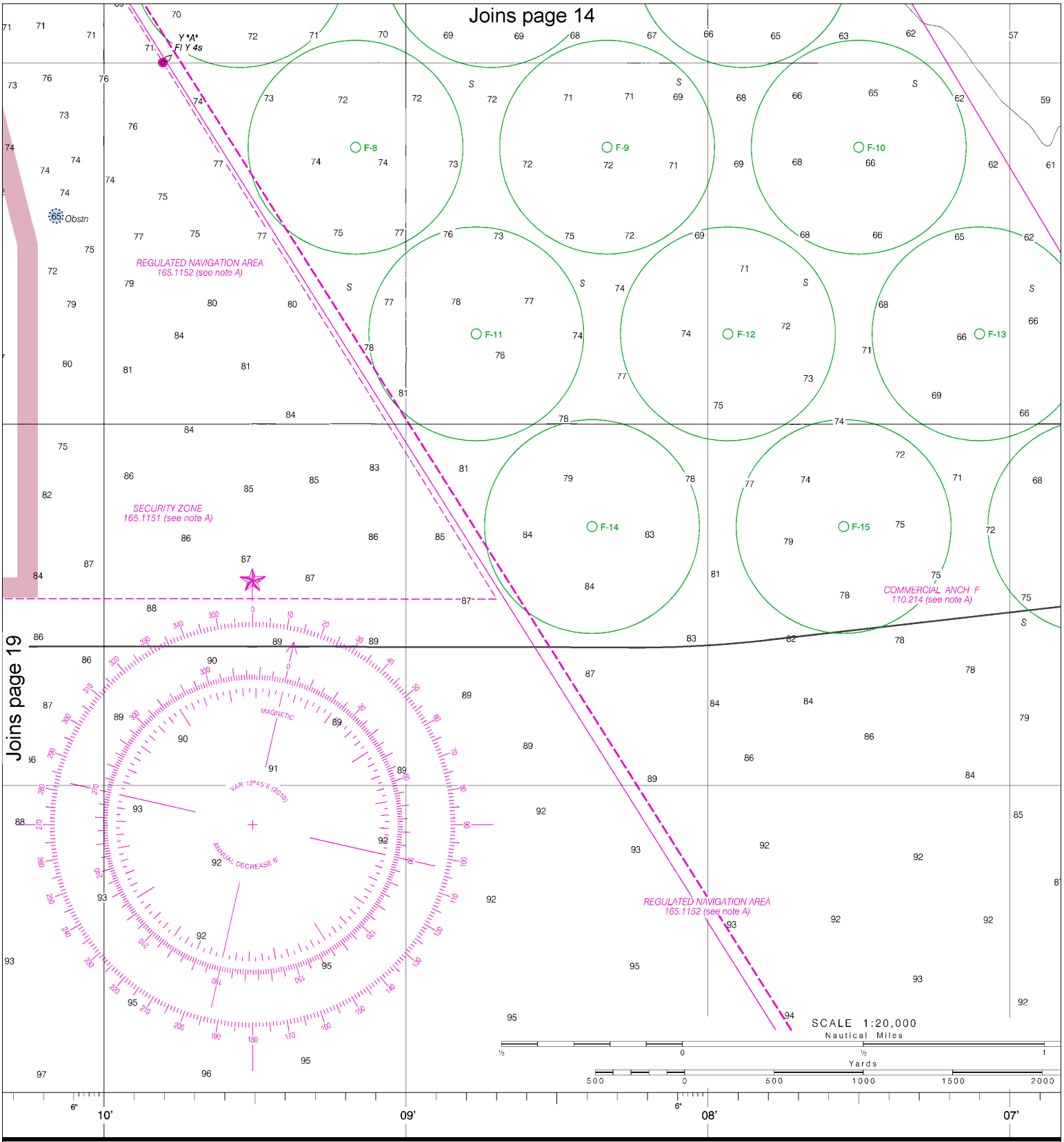

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Nautical Miles: 0 — 1 — 1 ½

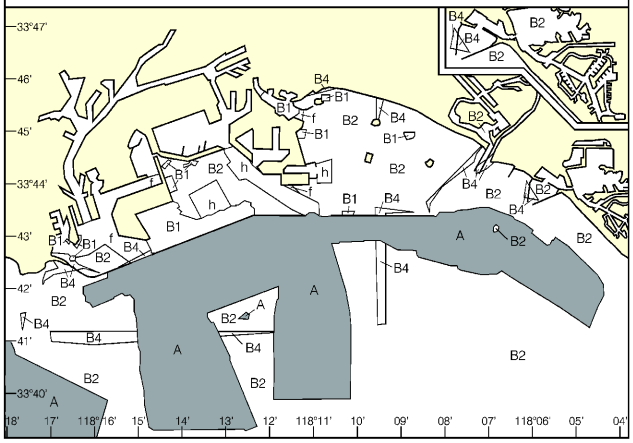
Yards: 500 — 0 — 500 — 1000 — 1500 — 2000 — 2500

Joins page 15

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.

SOURCE			
A	1990-2008	NOS Surveys	full bottom coverage
B1	1990-2001	NOS Surveys	partial bottom coverage
B2	1970-1989	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
f		US Government Surveys	
h		Miscellaneous Surveys	



THREE NAUTICAL MILE LINE (see note X)

Obstn
Fish Haven
(auth min 65 ft)

F-16

118°06'

05'

04'

33° 40'

42'

41'

759.8 X 1099.8 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	18	19	20	21	22	23	24	25	26	27	28	29	30	31

San Pedro Bay

SOUNDINGS IN FEET - SCALE 1:20,000

18749

ED. NO. 43

NSN 7642014011533

NGA REFERENCE NO. 18AHA18749

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!

All Hazards NOAA Weather Radio NOAA's National Weather Service

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/

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National Weather Service	—	**http://www.weather.gov/**
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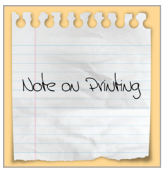

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