

# BookletChart™



## San Diego to San Francisco Bay

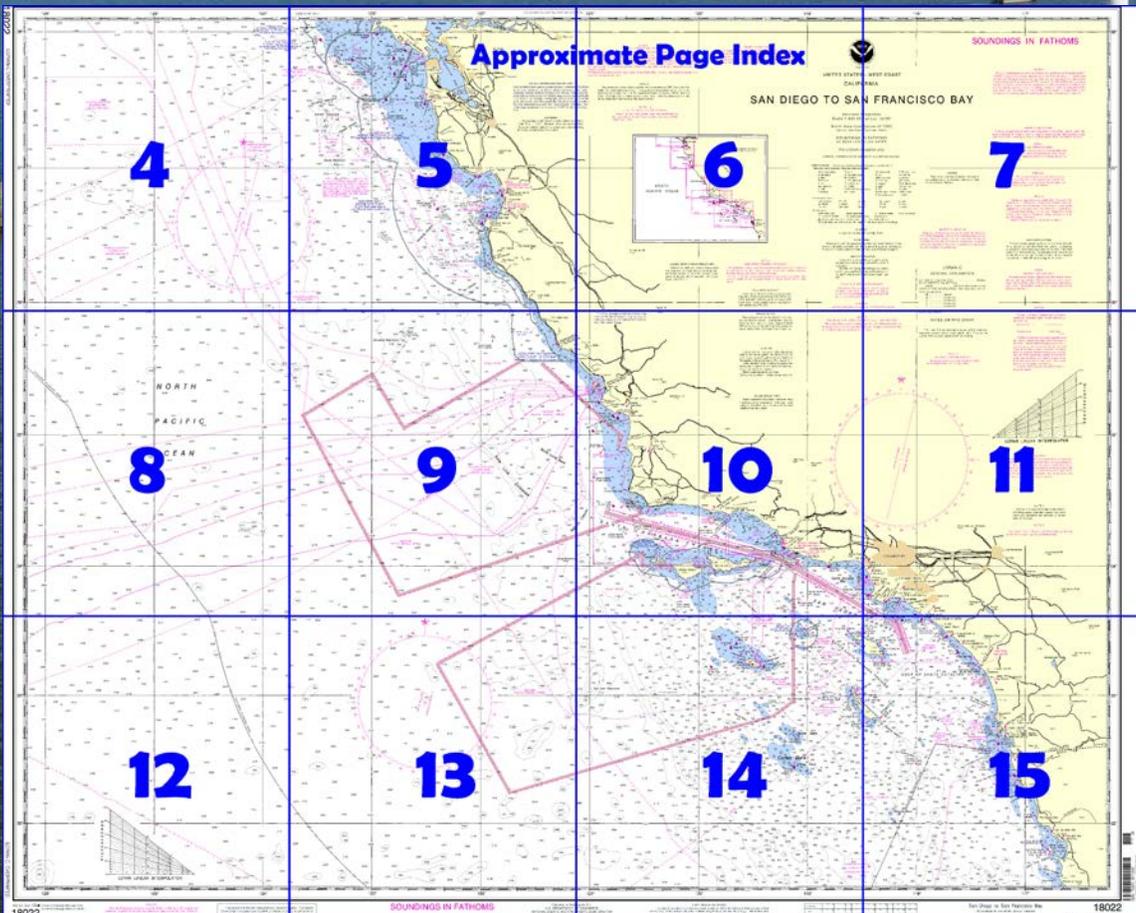
NOAA Chart 18022

*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](http://www.NauticalCharts.NOAA.gov)  
888-990-NOAA**

**What are Nautical Charts?**

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

**What is a BookletChart™?**

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

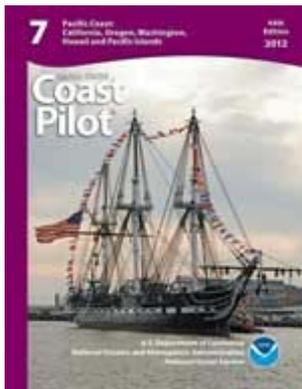
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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

**Notice to Mariners Correction Status**

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

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=18022>.



**(Selected Excerpts from Coast Pilot)**

There are several islands and dangers from 7 to 100 miles off the southern California coast; they are described in chapter 5.

Many restricted and danger areas are in these waters. (See **334.860, 334.870, 334.880, and 334.890**, chapter 2 for limits and regulations.) In addition, missile firing, gunnery, and bombing operations are conducted on and over offshore waters not included in the areas defined in chapter 2, and at times endanger surface vessels.

Information about these areas is published in Local Notice to Mariners

issued by Commander, Eleventh Coast Guard District, Alameda, CA, and Notices to Mariners issued by National Geospatial-Intelligence Agency, Washington, D.C.

Vessels are requested not to tow submerged objects across charted submarine transit lanes in use off the coast of southern California.

**Weather, San Diego to Point Arguello.**—The mild climate from San Diego to Point Arguello is controlled by the Pacific high-pressure system. Aided by the sea breeze, it brings winds from off the water, mainly S through N, which help keep coastal temperatures up in winter and down in summer. Coldest average temperatures range from the middle to upper fifties, while summertime readings are most often in the seventies.

Occasionally a hot dry flow off the land in autumn will cause temperatures to soar into the nineties, and a rare winter outbreak from the E can drop temperatures to below freezing. Winter is the rainy season, although not much rain falls along these coasts.

Strong winds and rough seas, while less frequent than farther N, can be a problem from the middle of fall through late spring. Strong pressure gradients, distant storms, and infrequent close storms account for most of the gales and seas of 12 feet (3.7 m) or more, particularly off Point Arguello and in the Santa Barbara Channel. Strong local winds (Santa Ana) also generate gales along sections of this coast.

Advection or sea fog, formed by warm moist air flowing over cool water, frequently confronts mariners in these waters. It is a persistent and widespread problem, particularly in the summer and fall N of Santa Monica, and in fall and winter S of Santa Monica.

San Clemente, San Nicholas, and San Miguel Islands are military reservations and, except for San Miguel Island, off limits to the public. Santa Barbara, Anacapa, Santa Cruz, Santa Rosa, and San Miguel Islands form **Channel Islands National Park**. The park was created in 1980 to protect the extensive flora and fauna of the islands. The park is under the supervision of the National Park Service, Department of the Interior. In the approach from the S, several banks are encountered before reaching the Channel Islands. **Sixtymile Bank**, 62 miles SSW of Point Loma (32°39.9'N., 117°14.5'W.), has a least depth of 53 fathoms over it.

**Channel Islands National Marine Sanctuary** has been established to protect and preserve the marine birds and mammals, their habitats, and other natural resources in the waters surrounding the northern Channel Islands and Santa Barbara Island. The sanctuary encompasses the waters within 6 miles of Santa Barbara Island and the northern Channel Islands (Anacapa, Santa Cruz, Santa Rosa, and San Miguel Islands), including Castle and Richardson Rocks. Recreational use of the area is encouraged.

**Local Magnetic Disturbance.**—Differences of 4° or more from the normal magnetic variation have been observed within a radius of 8 miles of Sixtymile Bank.

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

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

# Table of Selected Chart Notes

**5** IMO - adopted Recommended Tracks for vessels 300 gross tons and above (except those carrying hazardous cargo in bulk or crude oil)

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

IMO - adopted Recommended Tracks for vessels carrying hazardous cargo in bulk (including ore concentrates, explosives, munitions, chemicals, liquefied gases, refined products, distillates or other non-persistent cargo). Vessels using these tracks should use the Western TSS when entering or leaving San Francisco.

**SEA OTTER REFUGE**  
The State of California Fish and Game Code prohibits the use of bows or firearms and the trapping of birds or mammals in the California Sea Otter Game Refuge.

**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).

**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.

**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 private buoys are not all listed in the U.S. Coast Guard Light List.

**LOCAL MAGNETIC DISTURBANCE**  
Differences of as much as 5° from the normal variation have been observed in the vicinity of San Clemente Island and as much as 4° in the vicinity of Sixymile Bank.

**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)

**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 D  
ACUSTIC RANGE FACILITY**  
Numerous shore connected bottom cables are located within the outlined area.

**AIDS TO NAVIGATION**  
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See National Geospatial-Intelligence Agency List of Lights and Fog Signals for information not included in the United States Coast Guard Light List.

**NOTE I  
NAVAL OPERATING AREA**  
Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location.

**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.

**Mercator Projection**  
Scale 1:868,003 at Lat. 35°00'  
**North American Datum of 1983**  
(World Geodetic System 1984)  
**SOUNDINGS IN FATHOMS**  
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.

**WARNING**  
San Clemente Island is a NAVAL RESERVATION and is closed to the public.

**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 of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 do not require conversion to NAD 83 for plotting on this chart.

**NOTE M**  
See Coast Pilot 7, Chapter 5 for information pertaining to the Naval Operating Area in Bechers Bay.

**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.

**NATIONAL MARINE SANCTUARIES & MARINE PROTECTED AREAS**  
National Marine Sanctuaries are protected areas, administered by NOAA, which contain sensitive and diverse natural and cultural resources. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas. A full description of Sanctuary regulations may be found in 15 CFR 922 and in the U.S. Coast Pilot. A full description of the federal regulations governing the Marine Protected Areas located within Channel Islands National Marine Sanctuary boundaries may be found in 15 CFR 922 and 50 CFR 660. A full description of the state regulations governing the Marine Protected Areas located within Channel Islands National Marine Sanctuary boundaries may be found in Title 14 California Code of Regulations (CCR) section 632.

**MAGNETIC VARIATION**  
Magnetic variation curves are for 2011 derived from 2010 World Magnetic Model and accompanying secular change. If annual change is in same direction as variation it is additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

**NOTE B  
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.

**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 G  
TRAFFIC SEPARATION SCHEME**  
Recommended traffic lanes have been established for the approaches to San Francisco Bay. See charts 18645, 18680, and 18640.

**NOTE E  
CHEMICAL MUNITIONS DUMPING AREA - RESTRICTION**  
Site was formerly used or designated for U.S. chemical munitions dumping. Such use has been discontinued. Designation of such area in no way constitutes authority for dumping.

**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 C  
SUBMARINE PIPELINES AND CABLES**  
Uncharted submarine pipelines and cables may exist in the vicinity of oil well structures, and between such structures and the shoreline. Mariners should use caution when anchoring. Oil well structures, submarine pipelines, and cables are charted only where outside of the indicated limits of charts 18746, 18725, and 18721.

**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.

**NOTE K**  
The U.S. Coast Guard operates an Offshore Vessel Movement Reporting System (OVMS) covering the seaward approaches to San Francisco Bay. All commercial vessels over 300 gross tons and all tugs with tows are requested to contact Vessel Traffic Service San Francisco on VHF-FM channel 12 (156.60 MHz) when entering this area. All vessels in the area are encouraged to listen on channel 12 at fifteen and forty-five minutes past each hour for broadcast reports of known shipping traffic in the area. Additional information on the OVMS is published in Coast Pilot 7 and information concerning specific operating procedures is available from the VTS.

**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.

**AREAS TO BE AVOIDED**  
All ships, except those bound to and from ports on one of the islands within the areas engaged in the trade of carrying cargo, including but not limited to tankers and other bulk carriers and barges, should avoid the areas. (MSC, IMO 59/33 Annex 21)

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

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	iso isophase	Obsc obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VO very quick
F fixed	W/CRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

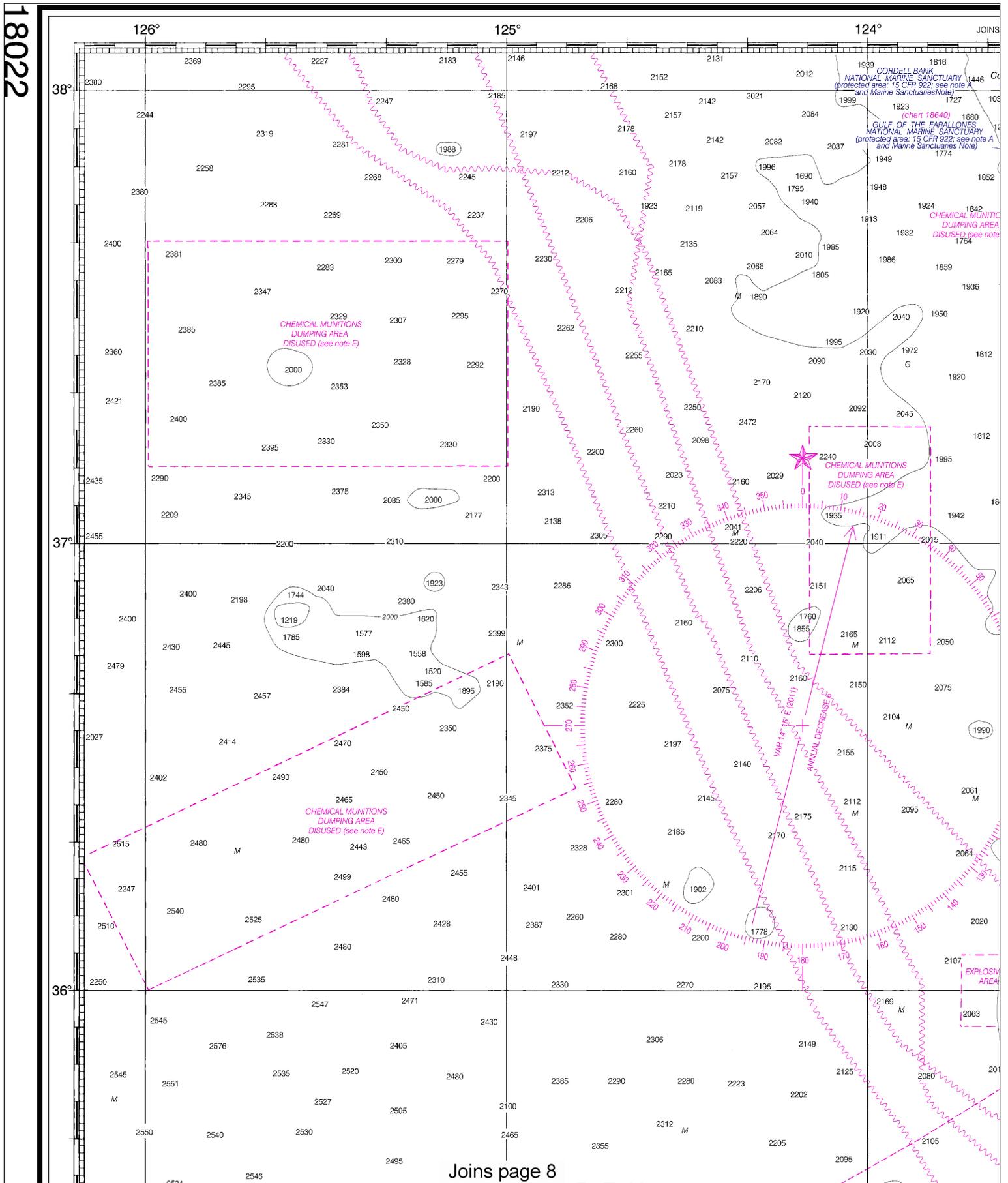
Bds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Gr grass	M mud	S sand	sy sticky

Miscellaneous:

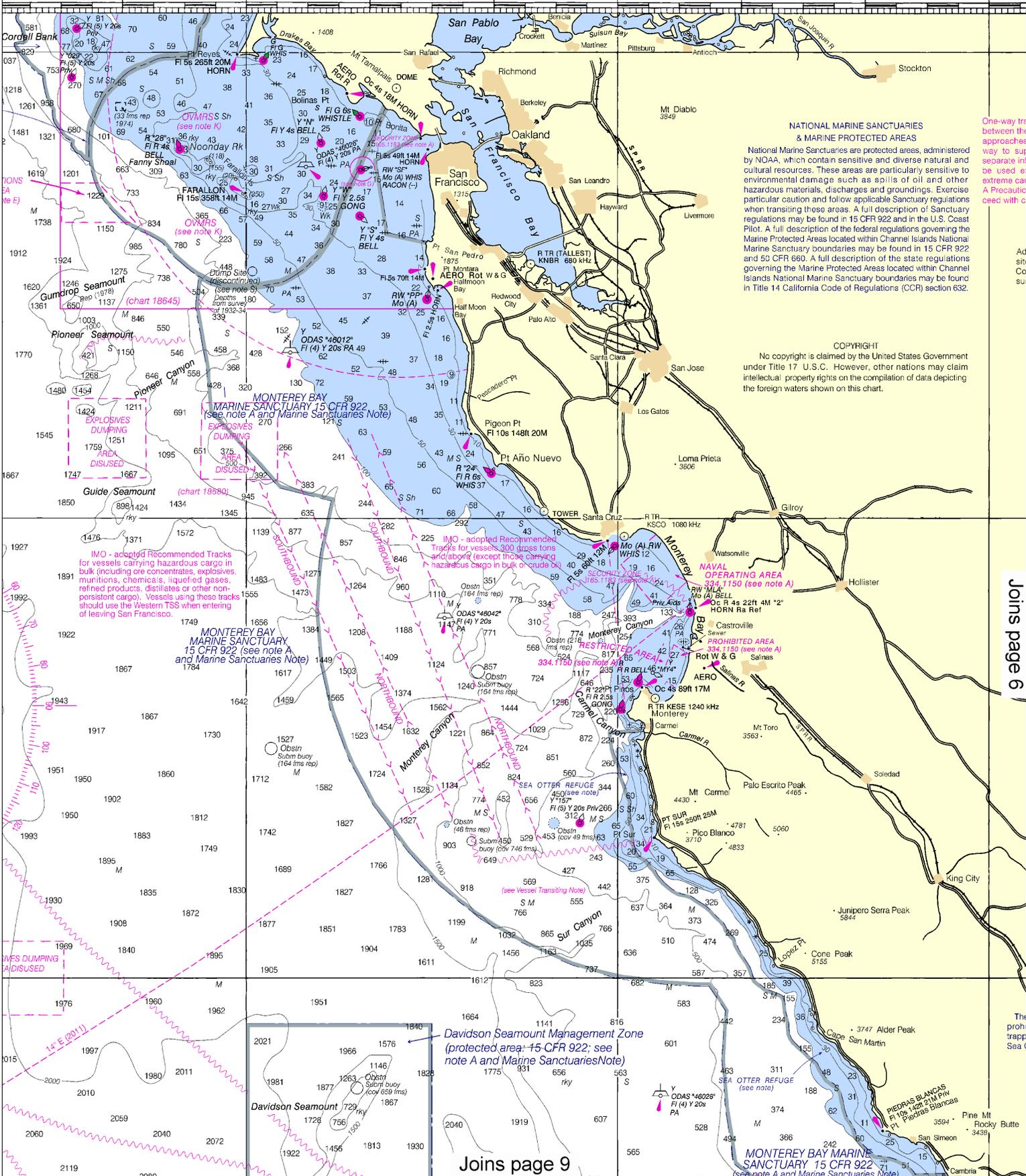
AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

⚓ Wreck, rock, obstruction, or shoal swept clear to the depth indicated.  
(Z) Rocks that cover and uncover, with heights in feet above datum of soundings.

**NOTE F  
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. A Precautionary Area has been established at San Pedro Bay. It is recommended that vessels proceed with caution in this area.



Note: Chart grid lines are aligned with true north.



**NATIONAL MARINE SANCTUARIES & MARINE PROTECTED AREAS**  
National Marine Sanctuaries are protected areas, administered by NOAA, which contain sensitive and diverse natural and cultural resources. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas. A full description of Sanctuary regulations may be found in 15 CFR 922 and in the U.S. Coast Pilot. A full description of the federal regulations governing the Marine Protected Areas located within Channel Islands National Marine Sanctuary boundaries may be found in 15 CFR 922 and 50 CFR 660. A full description of the state regulations governing the Marine Protected Areas located within Channel Islands National Marine Sanctuary boundaries may be found in Title 14 California Code of Regulations (CCR) section 632.

**COPYRIGHT**  
No copyright is claimed by the United States Government under Title 17 U.S.C. However, other nations may claim intellectual property rights on the compilation of data depicting the foreign waters shown on this chart.

IMO - adopted Recommended Tracks for vessels carrying hazardous cargo in bulk (including ore concentrates, explosives, munitions, chemicals, liquefied gases, refined products, distillates or other non-persistent cargo). Vessels using these tracks should use the Western TSS when entering or leaving San Francisco.

**MONTEREY BAY MARINE SANCTUARY**  
15 CFR 922 (see note A and Marine Sanctuaries Note)

**Davidson Seamount Management Zone**  
(protected area: 15 CFR 922; see note A and Marine Sanctuaries Note)

Joins page 6

Joins page 9

This BookletChart was reduced to 70% of the original chart scale. The new scale is 1:1240004. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



Stockton

**SEA SANCTUARIES**  
**PROTECTED AREAS**  
 Protected areas, administered by the U.S. Fish and Wildlife Service, are particularly sensitive to oil spills and other pollutants. Exercise extreme caution. Regulations for these areas are found in 15 CFR 922.10. For a full description of Sanctuary regulations, see 15 CFR 922.10 and in the U.S. Coast Guard regulations governing the Channel Islands National Monument in 15 CFR 922.10. For a full description of Sanctuary regulations, see 15 CFR 922.10 and in the U.S. Coast Guard regulations governing the Channel Islands National Monument in 15 CFR 922.10.

**NOTE F**  
**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.  
 A Precautionary Area has been established at San Pedro Bay. It is recommended that vessels proceed with caution in this area.

**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.

**NOTE G**  
**TRAFFIC SEPARATION SCHEME**  
 Recommended traffic lanes have been established for the approaches to San Francisco Bay. See charts 18645, 18650, and 18640.

**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.



THE NATIONAL  
 UNITED STATES  
 COAST AND GEODETIC SURVEY

# SAN DIEGO TO S

Mercator  
 Scale 1:80,000

North America  
 (World Geodetic System 1983)

SOUNDINGS  
 IN METERS

(For offsets)

Additional information can be found in the U.S. Coast Pilot.

**ABBREVIATIONS** (For complete list of symbols, see U.S. Coast Pilot 7, Chapter 1.)

- Aids to Navigation (lights are white unless otherwise indicated):  
 AERO aeronautical G green  
 Al alternating IQ interred  
 B black ISO isophotal  
 Bn beacon LT light  
 C can M magnetic  
 DIA diaphone m minute  
 F fixed MICRO T  
 Fl flashing Mkr mark

- Bottom characteristics:  
 Bkls boulders Co coral  
 bk broken G gravel  
 Cy clay Grs grass

- Miscellaneous:  
 AUTH authorized Obsn obstruction  
 ED existence doubtful PA post  
 Wreck rock, obstruction, or shoal  
 (?) Rocks that cover and uncover

Heights in feet

Hydrography and topography surveys, with additional data from other sources, U.S. Coast Guard, and other agencies.

Consult U.S. Coast Pilot for supplemental information.  
 See National List of Lights and Aids to Navigation.

**LOCAL M**  
 Differences of magnetic variation have been noted in the vicinity of San Clemente Island.

San Clemente Island is closed to the public.

**CHEMICAL MUNITION**  
 Site was formerly used for chemical munition dumping. Such use has been discontinued in no way constitutes authorization.

RIGHTS reserved by the United States Government. Other nations may claim rights in this compilation of data depicting a hydrographic chart.

Joins page 5

Soledad

King City

San Benito Mt 5258

747 Alder Peak

71 Martin

San Simeon

3594 Pine Mt

3438 Rocky Butte

22 Cambria

11

0

15

25

35

45

55

65

75

85

95

105

**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).

**SEA OTTER REFUGE**  
 The State of California Fish and Game Code prohibits the use of bows or firearms and the trapping of birds or mammals in the California Sea Otter Game Refuge.

Castle Mt 4336

**NOTE C**  
**SUBMARINE PIPELINES AND CABLES**  
 Uncharted submarine pipelines and cables may exist in the vicinity of oil well structures, and between such structures and the shoreline. Mariners should use caution when anchoring.  
 Oil well structures, submarine pipelines, and cables are charted only where outside of the indicated limits of charts 18746, 18725, and 18721.

**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).

**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 private buoys are not all listed in the U.S. Coast Guard Light List.

**CAUTION**  
 Limitations on the use of radio signals as shown on this chart.

San Benito Mt 5258



Note: Chart grid lines are aligned with true north.

Joins page 10

118°

117°

38°

37°

36°



U.S. CHARTMAKER SINCE 1807

PACIFIC WEST COAST  
CALIFORNIA

# SAN FRANCISCO BAY

WGS 84 Projection  
1883,003 at Lat. 35°00'

American Datum of 1983  
(Geodetic System 1984)

SOUNDINGS IN FATHOMS  
TO LOWER LOW WATER

(for *inshore navigation only*)

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

(Symbols and Abbreviations, see Chart No. 1,  
otherwise indicated):

Qn Uninterrupted quick phrase	Mo Morse code N nun	R TR radio tower Rot rotating s seconds
Lighthouse light	OBSC obscured Or orange	SEC sector S M statute miles
Lighted buoys	Q quick R red	VD very quick W white
TR microwave tower marker	Ra Ref radar reflector R Bn radiobeacon	WHIS whistle Y yellow
Gy gray H hard M mud	Oys oysters Rk rock S sand	so soft Sh shells sy sticky

Obstruction PD position doubtful  
position approximate Rep reported  
Total swept clear to the depth indicated.  
with heights in feet above datum of soundings.

HEIGHTS  
in feet above Mean High Water.

AUTHORITIES  
Hydrography by the National Ocean Service, Coast  
and Geodetic Survey, U.S. Department of Commerce,  
and National Geospatial-Intelligence Agency.

AIDS TO NAVIGATION  
U.S. Coast Guard Light List for  
additional information concerning aids to  
navigation.  
National Geospatial-Intelligence Agency  
and Fog Signals for information not  
in the United States Coast Guard Light  
List.

MAGNETIC DISTURBANCE  
Disturbance of as much as 5° from the normal  
has been observed in the vicinity of  
Pointe Island and as much as 4° in  
the vicinity of Sixty Mile Bank.

WARNING  
This area is a NAVAL RESERVATION and is  
restricted.

NOTE E  
This area is a RESTRICTION  
AREA for U.S. chemical munitions  
dumping. Designation of such area  
is subject to change.

## SOUNDINGS IN FATHOMS

### NOTE K

The U.S. Coast Guard operates an Offshore Vessel Movement Reporting System (OVMS) covering the seaward approaches to San Francisco Bay. All commercial vessels over 300 gross tons and all tugs with tows are requested to contact Vessel Traffic Service San Francisco on VHF-FM channel 12 (156.60 MHz) when entering this area. All vessels in the area are encouraged to listen on channel 12 at fifteen and forty-five minutes past each hour for broadcast reports of known shipping traffic in the area. Additional information on the OVMS is published in Coast Pilot 7 and information concerning specific operating procedures is available from the VTS.

### AREAS TO BE AVOIDED

All ships, except those bound to and from ports on one of the islands within the areas engaged in the trade of carrying cargo, including but not limited to tankers and other bulk carriers and barges, should avoid the areas. (MSC, IMO 59/33 Annex 21)

### NOTE L

#### NAVAL OPERATING AREA

Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location.

### 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.

### 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.

### CAUTION

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

### MAGNETIC VARIATION

Magnetic variation curves are for 2011 derived from 2010 World Magnetic Model and accompanying secular change. If annual change is in same direction as variation it is additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

### 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 of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 do not require conversion to NAD 83 for plotting on this chart.

### NOTE B

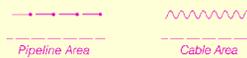
#### MILITARY EXERCISE AREA

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.

### CAUTION

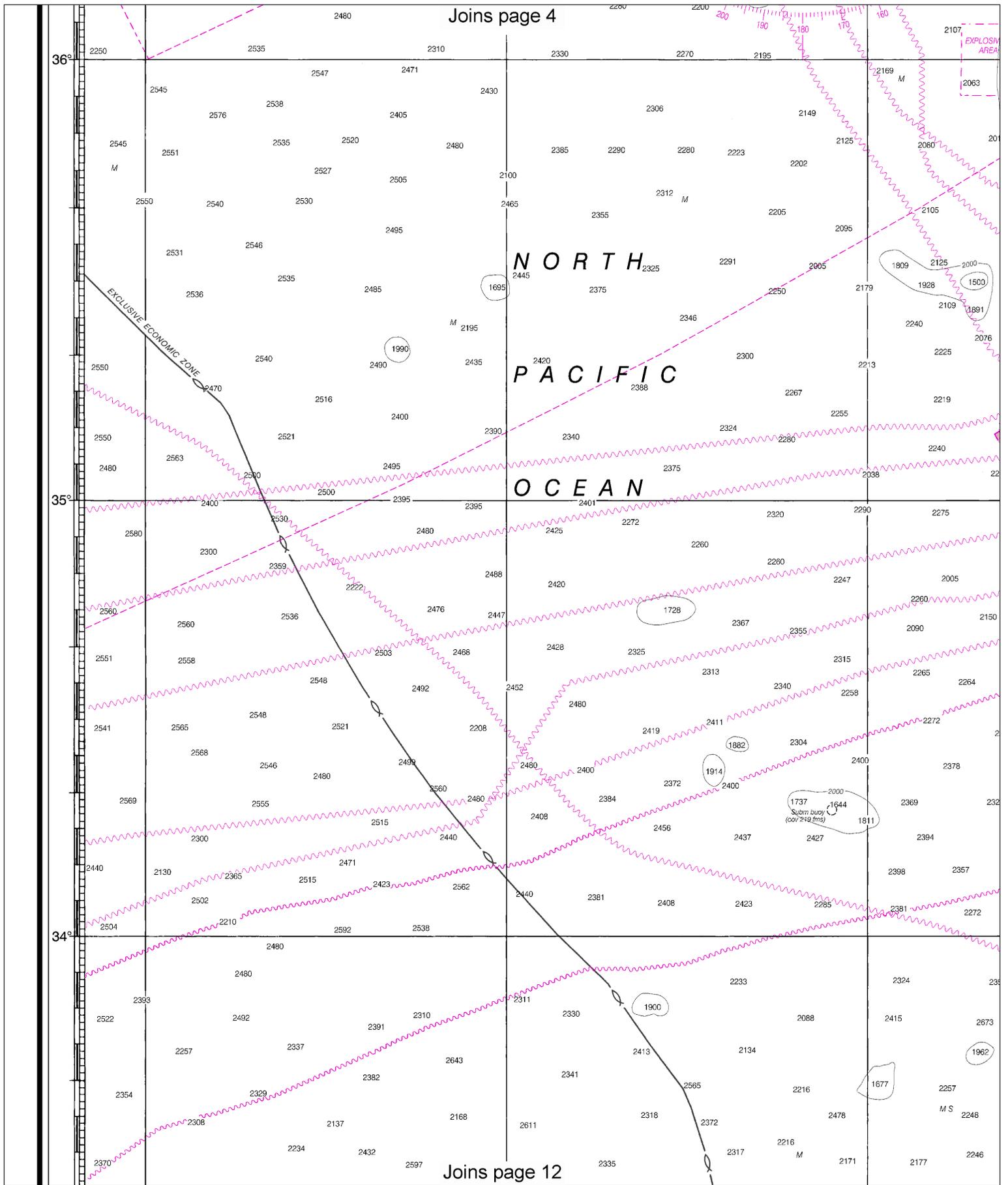
#### SUBMARINE PIPELINES AND CABLES

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 100 meters or comparable to their draft in areas where pipelines and cables may exist and where

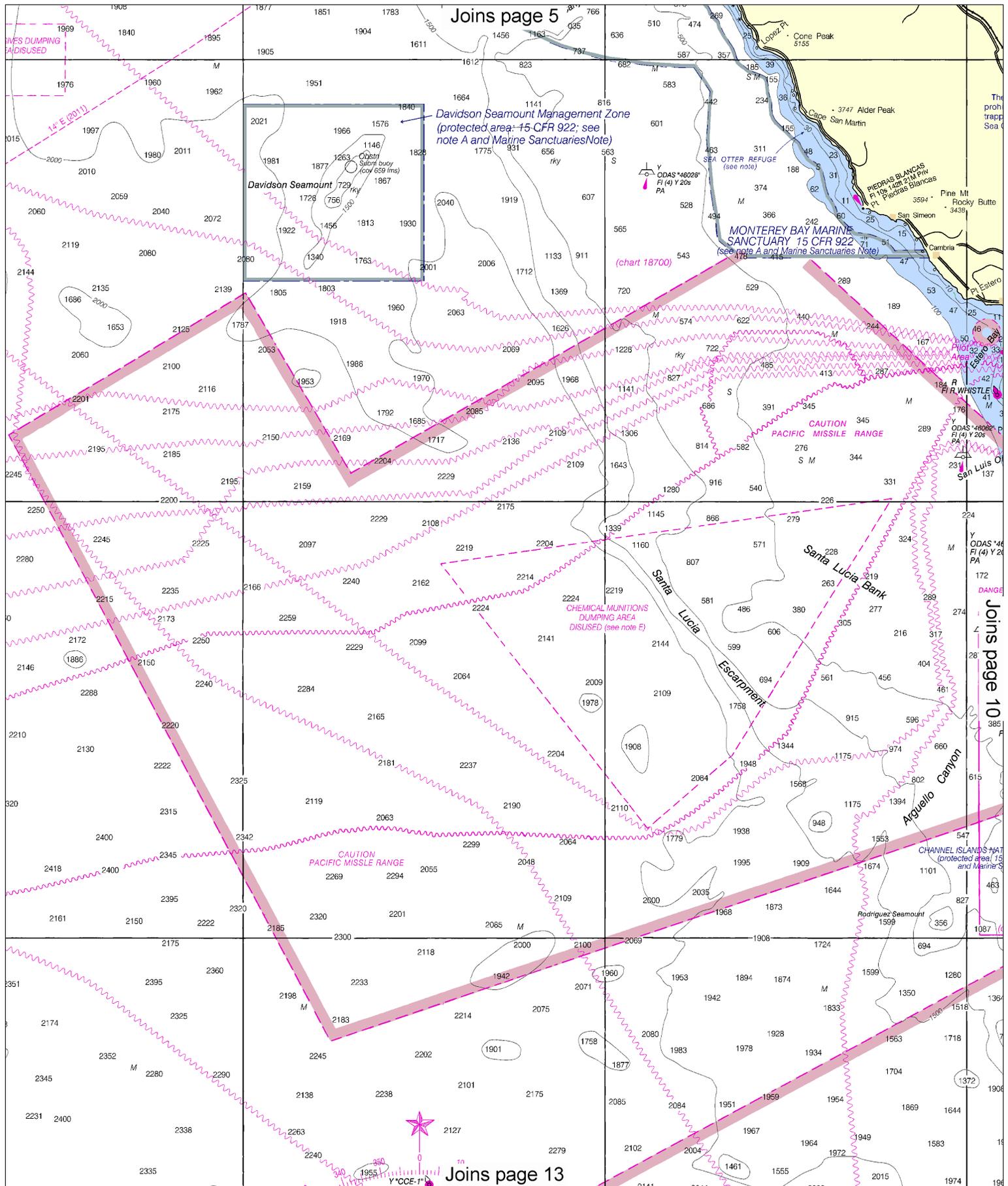
Joins page 11



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Note: Chart grid lines are aligned with true north.

Joins page 5



Davidson Seamount Management Zone  
 (protected area: 15 CFR 922; see  
 note A and Marine Sanctuaries Note)

MONTEREY BAY MARINE  
 SANCTUARY 15 CFR 922  
 (see note A and Marine Sanctuaries Note)

CAUTION  
 PACIFIC MISSILE RANGE

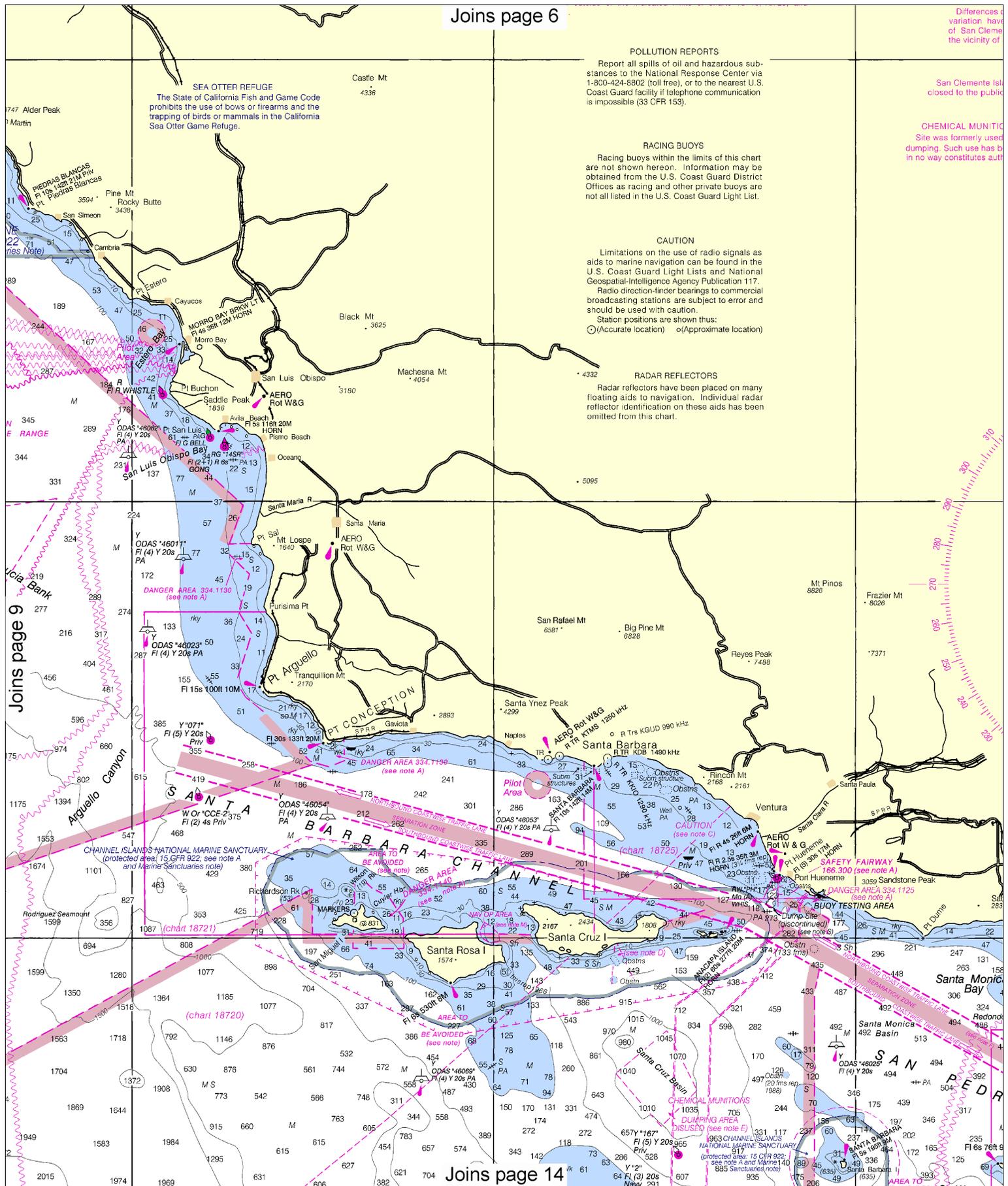
CAUTION  
 PACIFIC MISSILE RANGE

CAUTION  
 PACIFIC MISSILE RANGE

Joins page 13

Joins page 10

Differences variation have of San Clemente the vicinity of



Joins page 9

Joins page 14

10

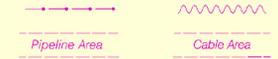
Note: Chart grid lines are aligned with true north.

of as much as 5° from the normal  
ve been observed in the vicinity  
ente Island and as much as 4° in  
f Sixty mile Bank.

**WARNING**  
land is a NAVAL RESERVATION and is  
lic.

**NOTE E**  
IONS DUMPING AREA - RESTRICTION  
ed or designated for U.S. chemical munitions  
been discontinued. Designation of such area  
thority for dumping.

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



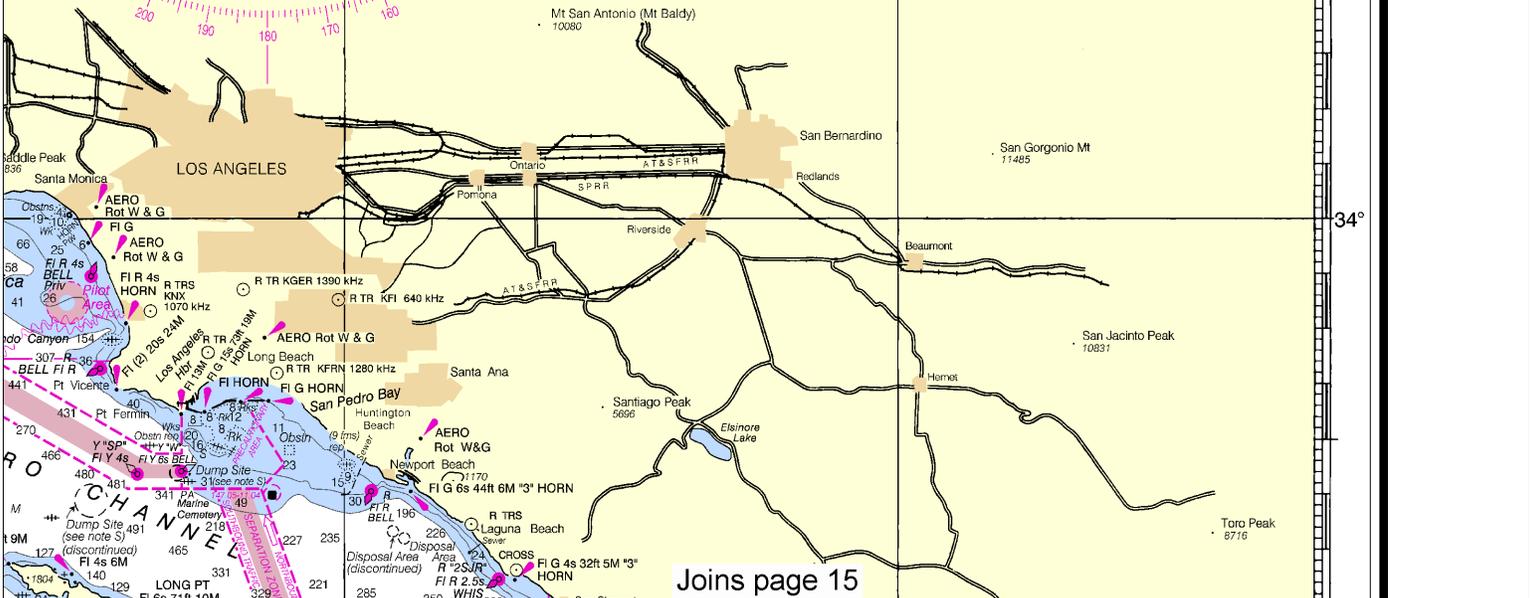
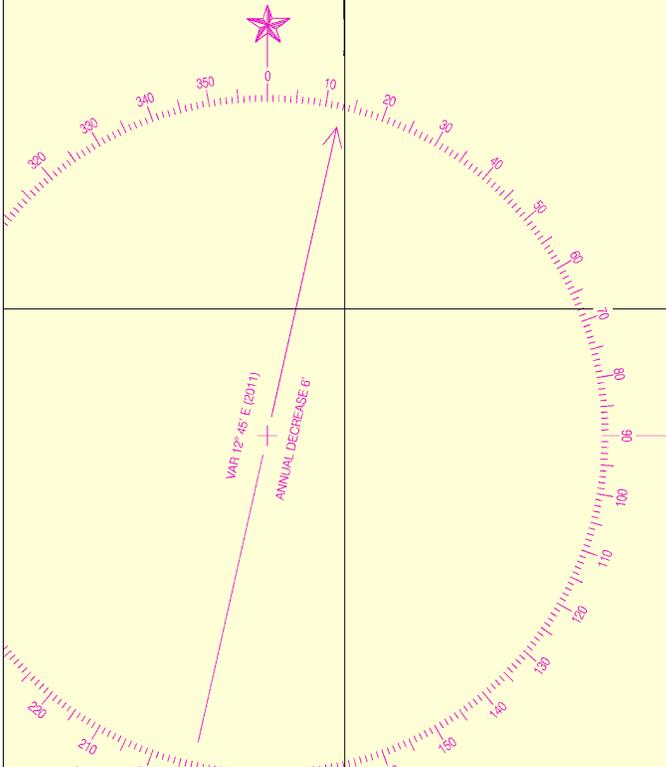
Additional uncharted submarine pipelines and  
submarine cables may exist within the area of  
this chart. Not all submarine pipelines and sub-  
marine cables are required to be buried, and  
those that were originally buried may have  
become exposed. Mariners should use extreme  
caution when operating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

**NOTE D**  
**ACOUSTIC RANGE FACILITY**  
Numerous shore connected bottom cables  
are located within the outlined area.

**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 M**  
See Coast Pilot 7, Chapter 5 for information pertaining  
to the Naval Operating Area in Bechers Bay.



33°

32°

126°

125°

124°

36th Ed., Jun. / 11 ■ Corrected through NM Jun. 04/11  
Corrected through LNM May 24/11

18022

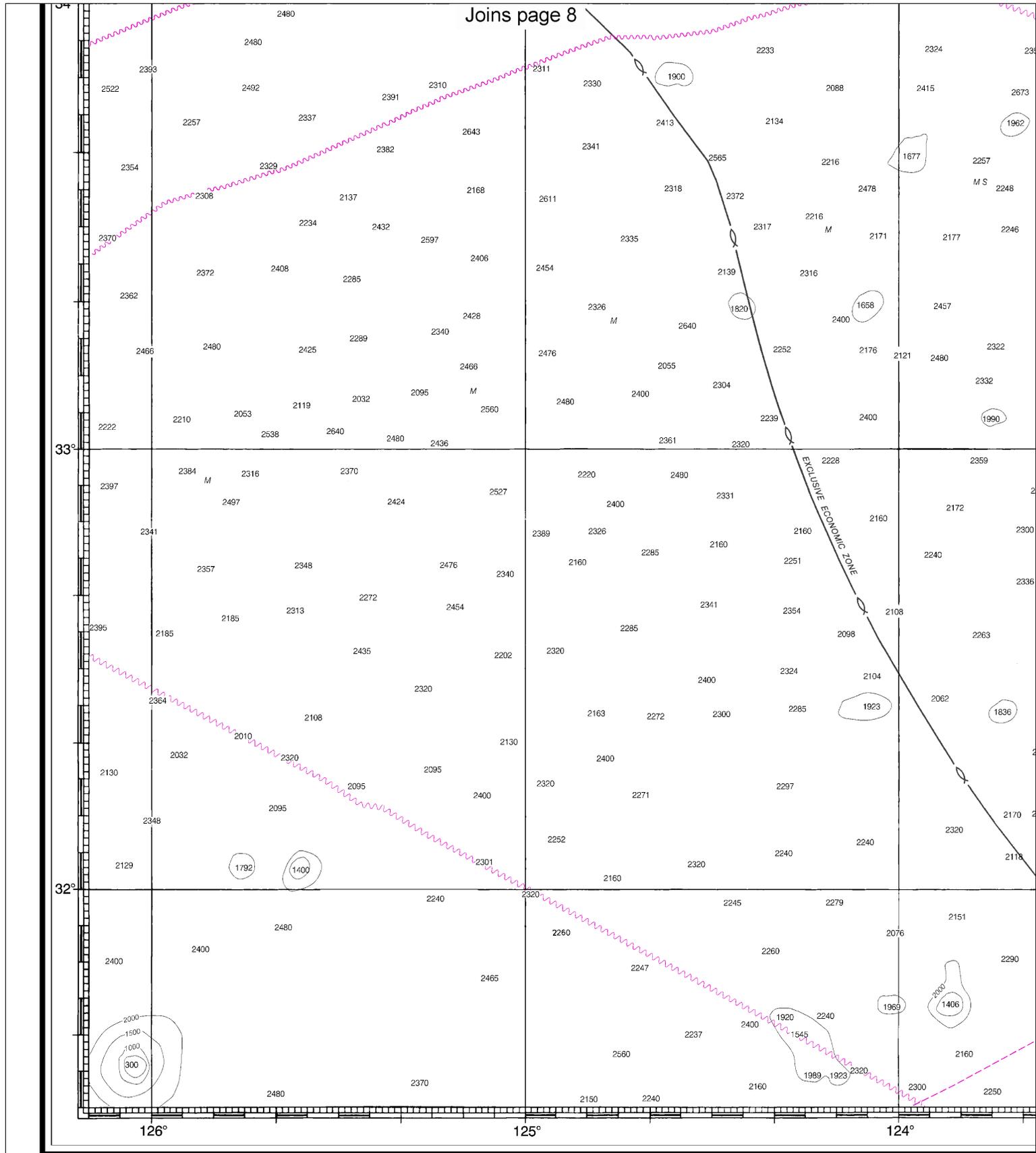
CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

This nautical chart has been designed to print on Ocean Service encourages users to submit correct information to the Chief, Marine Chart Department, NOAA, Silver Spring, Maryland 20910-3226.

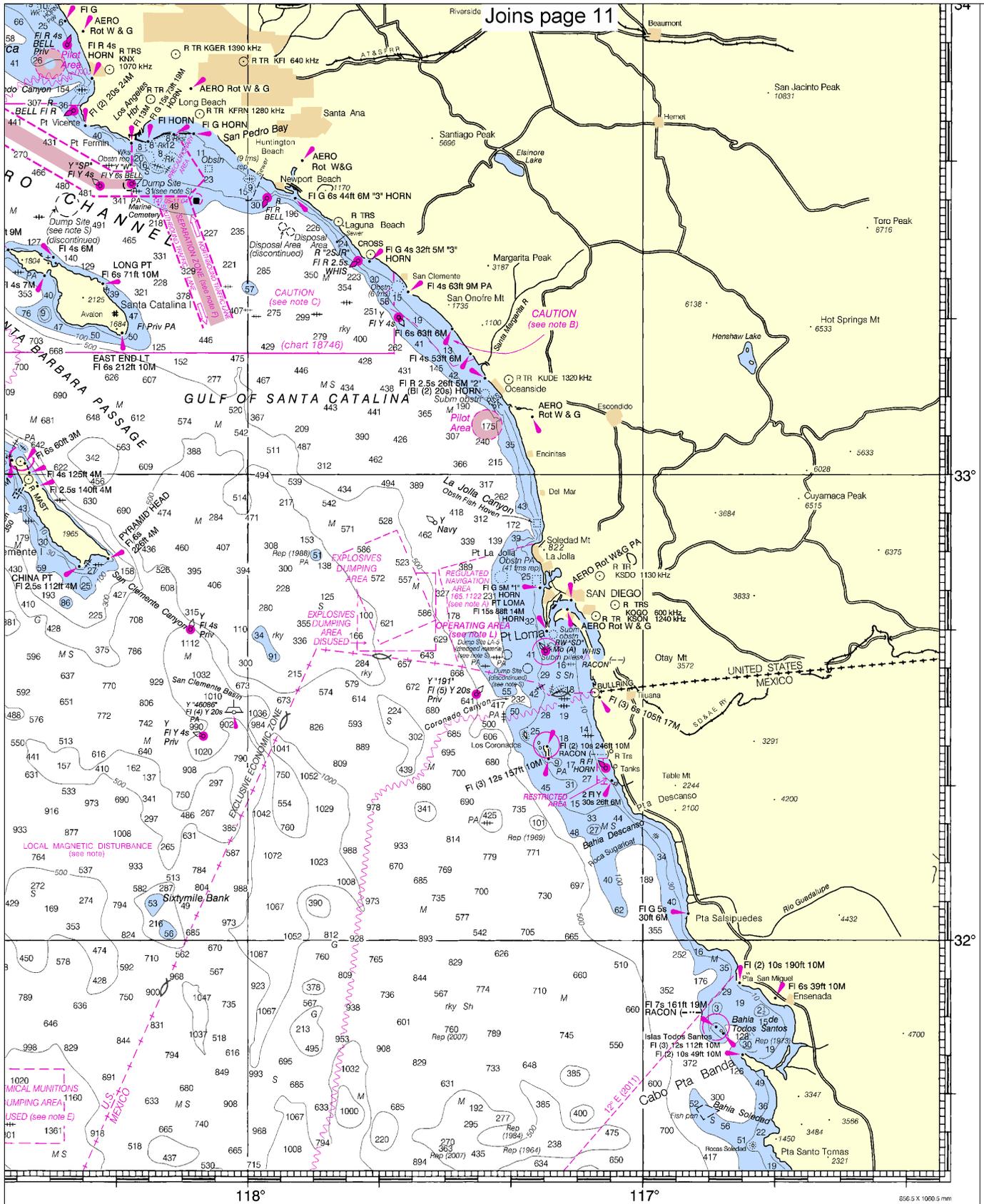
12

Note: Chart grid lines are aligned with true north.









ED. NO. 36  
 NSN 7642014011489  
 NSA REFERENCE NO. 18AC018022

118° 117° 856 S X 1000 S mm

San Diego to San Francisco Bay  
 SOUNDINGS IN FATHOMS - SCALE 1:868,003

18022



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](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.

