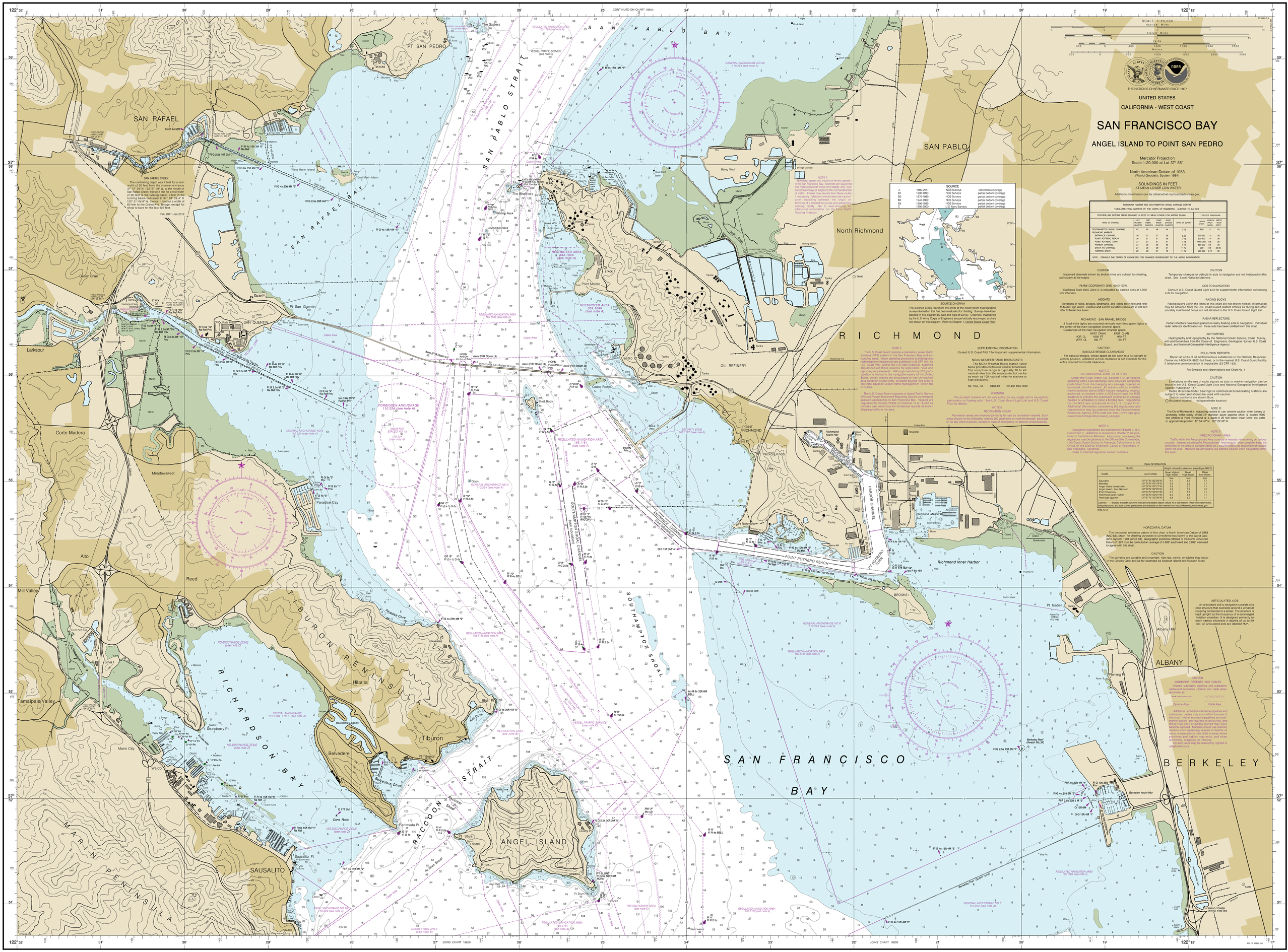
NOAA encourages users to submit inquiries, discrepancies or comments about this chart at http://www.nauticalcharts.noaa.gov/staff/contact.htm.

1st Ed.: Dec. 1968 KAPP 1939

SOUNDINGS IN FEET



SOURCE			
A	1990-2011	NOS Surveys	full bottom coverage
B1	1990-1993	NOS Surveys	partial bottom coverage
B2	1970-1989	NOS Surveys	partial bottom coverage
B3	1940-1969	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
C	1990-2000	U.S. Navy Surveys	partial bottom coverage

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.

RICHMOND HARBOR AND SOUTHAMPTON SHOAL CHANNEL DEPTHS

TABULATED FROM SURVEYS IN THE CORPS OF ENGINEERS - SURVEYS TO JULY 2015

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS	
NAME OF CHANNEL	LEFT OUTER QUARTER	LEFT INNER QUARTER	RIGHT INNER QUARTER	RIGHT OUTER QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT MILES) / DEPTH (MLLW) (FEET)
SOUTHAMPTON SHOAL CHANNEL	42	45	46	42	7-15	600	1.0 45
RICHMOND HARBOR							
ENTRANCE CHANNEL	36	37	37	36	2-15	600-650	1.0 38
POINT POTRERO REACH	36	37	37	37	7-15	450-600	1.4 38
POINT POTRERO TURN	37	37	37	37	7-15	600-1250	0.6 38
HARBOR CHANNEL	37	38	39	38	7-15	800-200	0.5 38
SANTA FE CHANNEL	27	29	29	27	11-12	200	0.5 39-30
TURNING BASIN	26	28	27	18	11-12	200-300	0.18 30

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CAUTION

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

PLANE COORDINATE GRID (NAD 1927)

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

HEIGHTS

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

RICHMOND - SAN RAFAEL BRIDGE

3 fixed white lights are mounted vertically over fixed green lights at the center of the main navigation channel spans.
Clearances of the main navigation channel spans.

	WEST CHAN	EAST CHAN
HOR CL	1000 FT	970 FT
VERT CL	185 FT	135 FT

CAUTION

BASCULE BRIDGE CLEARANCES

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

POLLUTION REPORTS

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

For Symbols and Abbreviations see Chart No. 1

CAUTION

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

NOTE C

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

The U.S. Coast Guard operates a Vessel Traffic Service Offshore Vessel Movement Reporting System covering the seaward approaches to San Francisco Bay. Vessels are requested to monitor VTSSF on Channel 10 at 15 and 45 minutes past each hour for broadcast reports of known shipping traffic in the area.

SUPPLEMENTAL INFORMATION

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

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Mt. Pleas, CA KHB-49 162.400 MHz WX2

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 B

RECREATION AREAS

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

NOTE D

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), regardless of whether anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additional regulations in 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.

NOTE E

PRECAUTIONARY AREA

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

TIDAL INFORMATION

PLACE NAME	(LAT/LONG)	Height referred to datum of soundings (MLLW) Mean Higher High Water feet	Mean High Water feet	Mean Low Water feet
Sausalito	(37°51'N/122°29'W)	5.8	5.1	1.1
Berkeley	(37°52'N/122°18'W)	5.5	5.0	1.1
Angel Island (west side)	(37°52'N/122°27'W)	5.6	5.0	1.1
Angel Island, East Garrison	(37°52'N/122°26'W)	5.8	5.3	1.1
Point Chauncey	(37°54'N/122°27'W)	5.7	5.1	1.1
Richmond Inner Harbor	(37°54'N/122°22'W)	5.7	5.1	1.1
Point San Quentin	(37°51'N/122°28'W)	5.2	4.7	1.1

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

(Sep 2012)

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.269' southward and 3.899' westward to agree with this chart.

CAUTION

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

ARTICULATED AIDS

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

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 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.

12th Ed. Oct. 2012
18653

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.

SOUNDINGS IN FEET

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

SCALE 1:20,000
Nautical Miles
Statute Miles
Yards
Meters

FATHOMS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
FEET	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54
METERS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Angel Island to Pt San Pedro
SOUNDINGS IN FEET - SCALE 1:20,000

18653

Last Correction: 10/19/2015. Cleared through:
LNM: 4115 (10/13/2015), NM: 4315 (10/24/2015)

To ensure that this chart was printed at the proper scale, the line below should measure six inches (152 millimeters).
If the line does not measure six inches (152 millimeters), this copy is not certified safe for navigation.

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