Formerly C&GS 5531, 1st Ed., July 1906 KAPP 1826

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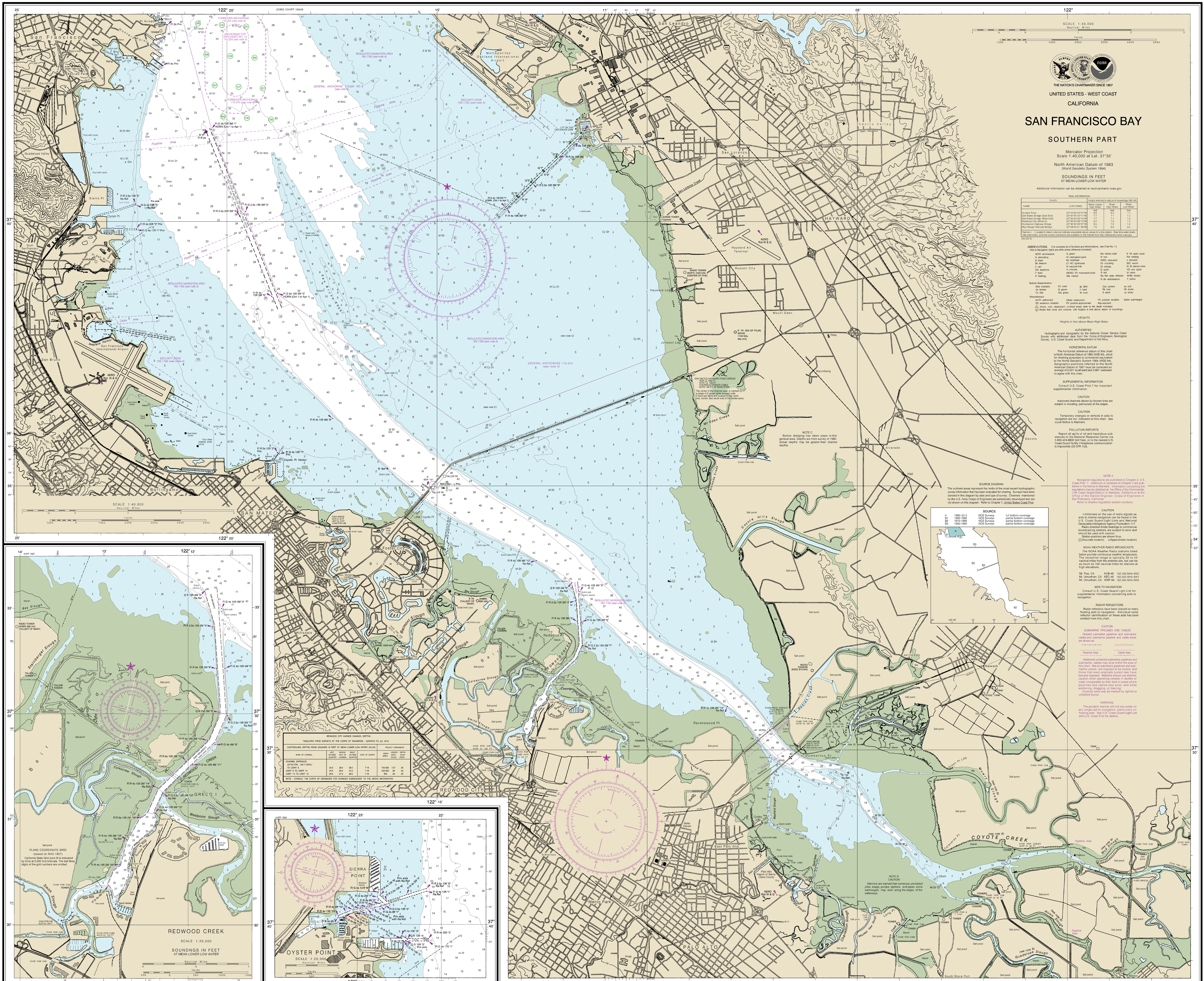

TIDAL INFORMATION

NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Hunters Point	(37°44'N/122°21'W)	6.8	6.2	1.1
San Mateo Bridge (East End)	(37°37'N/122°11'W)	7.7	7.1	1.2
San Mateo Bridge (West End)	(37°35'N/122°15'W)	7.7	7.1	1.2
Redwood City (Wharf 5)	(37°30'N/122°13'W)	8.2	7.6	1.2
Dumbarton Highway Bridge	(37°30'N/122°07'W)	8.5	7.9	1.2
Mud Slough Railroad Bridge	(37°28'N/121°59'W)	7.5	6.9	0.5

Place; Height referred to datum of soundings (MLLW).

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. (Oct 2013)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

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

Bottom characteristics: Blds boulders, bk broken, Cy clay, Co coral, G gravel, Grs grass, gy gray, h hard, M mud, Oys oysters, Rk rock, S sand, so soft, Sh shells, sy sticky

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

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

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
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 0.241" southward and 3.881" westward to agree with this chart.

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

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.

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).

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.

NOTE B
CAUTION
Mariners are warned that numerous uncharted piles, snags, pumps, siphons, and pipes, some submerged, may exist along the edges of the waterways.

NOTE C
Borrow dredging has taken place in this general area. Depths are from survey of 1980. Actual depths may be greater than charted depths.

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	1990-2013	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

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) o(Approximate location)

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.

Mt. Pise, CA	KHB-49	162.400 MHz	WX2
Mt. Umunhum, CA	KEC-49	162.550 MHz	WX1
Mt. Umunhum, CA	WWF-64	162.450 MHz	WX5

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

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
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.

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.

REDWOOD CITY HARBOR CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JUL 2016
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW); PROJECT DIMENSIONS

NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
CHANNEL ENTRANCE (37°33'10"N., 122°11'43"W.) TO LIGHT 8	30.0	28.0	26.0	7-16	700-300	1.07	30
LIGHT 8 TO LIGHT 14	24.0	26.0	24.0	7-16	300-350	.90	30
LIGHT 14 TO LIGHT 15	26.0	27.0	28.0	7-16	300	.28	30

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

843.9 X 1030.3 mm

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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.

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

45th Ed., Dec. 2013. Last Correction: 11/4/2016. Cleared through:
LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016)

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

SOUNDINGS IN FEET

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 1–31

San Francisco Bay, Southern Part
SOUNDINGS IN FEET - SCALE 1:40,000

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