1st Ed., Nov. 2001 KAPP 2991

SOUNDINGS IN FEET

Nautical Chart Catalog No. 2, Panel N

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

UNITED STATES - WEST COAST
CALIFORNIA

SUISUN BAY

MIDDLE GROUND TO NEW YORK SLOUGH

Mercator Projection
Scale 1:10,000 at Lat. 38°03'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

For Symbols and Abbreviations see Chart No. 1

TIDAL INFORMATION

Place		Height referred to the datum of soundings (MLLW)			
Name	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water	Extreme Low Water
		feet	feet	feet	feet
Mallard Island Ferry Wharf	(38°03'N/121°55'W)	4.1	3.6	0.6	-2.0
Montezuma Slough	(38°05'N/121°53'W)	4.1	3.7	0.6	----
Pittsburg	(38°02'N/121°53'W)	4.1	3.6	0.6	-1.5

(701)

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, and U.S. Coast Guard.

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 Sacramento, California.
Refer to charted regulation section numbers.

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. The entire area of the chart falls within the Vessel Traffic Services (VTS) system.

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

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

CAUTION
Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Imagery and Mapping 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
Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

PLANE COORDINATE GRID
(based on NAD 1927)
The California State Grid (Zone II) is indicated on this chart at 4,000 foot intervals thus:
The last three digits are omitted.

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

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-49 162.40 MHz WX2
Sacramento, CA KEC-57 162.55 MHz WX1

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

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

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 0.289" southward and 3.858" westward to agree with this chart.

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.

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	1990-2012	NOS Surveys	full bottom coverage
B1	1990-1999	NOS Surveys	partial bottom coverage
B2	1970-1989	NOS Surveys	partial bottom coverage

SUISUN BAY
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2016
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)

NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
MIDDLE GROUND CHANNEL							
WEST REACH	36	37	36	6-16	350	1.29	35
EAST REACH	36	37	36	6-16	350	1.09	35
NEW YORK SLOUGH							
WEST REACH	33	34	36A	8-16	400	1.3	35
EAST REACH	34	35	33	8-16	400	1.7	35

A. AN OBSTRUCTION WITH A DEPTH OF 36 FEET IS LOCATED AT 38° 02'41.2"N 121°53' 21.32"W.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

SOUNDINGS IN FEET

18666

CAUTION
This chart has been corrected from the Notice to Mariners published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners issued periodically by each U.S. Coast Guard district to the date shown in the lower left hand corner.

1st Ed., Nov. 2001. Last Correction: 10/26/2016. Cleared through:
LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016)

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.

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

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U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

Suisun Bay, Middle Ground to New York Slough
SOUNDINGS IN FEET - SCALE 1:10,000