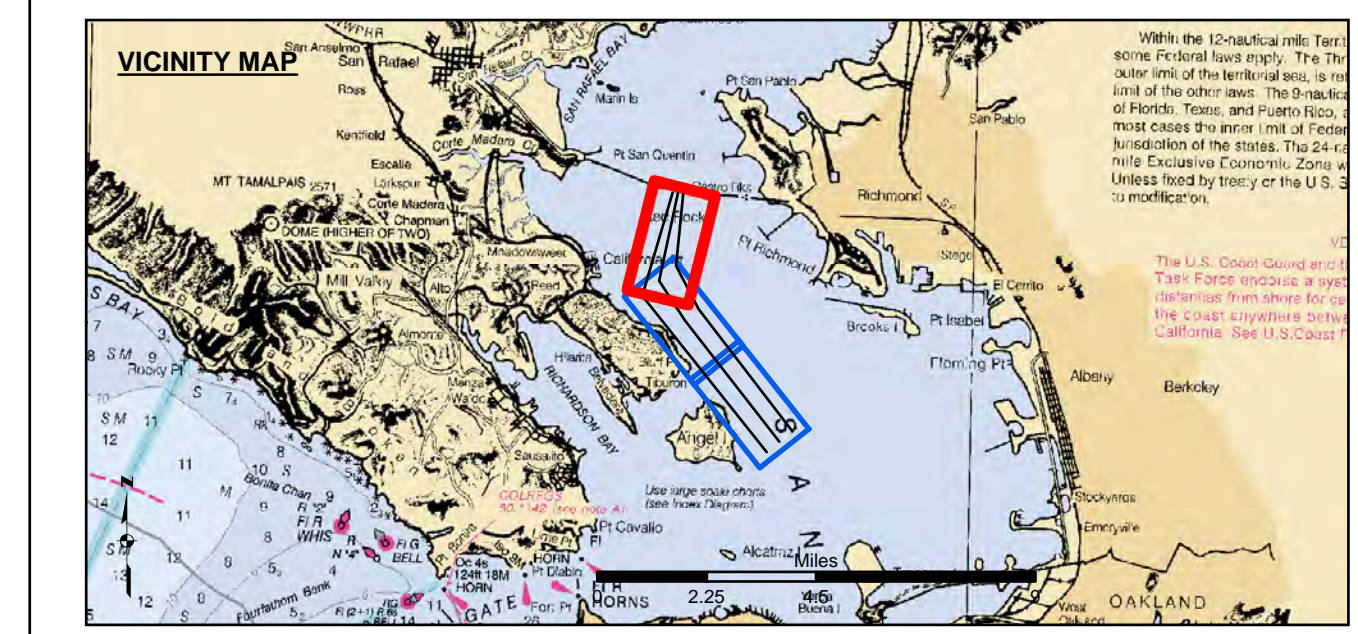


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Surveyed By:	Plotted By:	Checked By:	Chart Date:
PTD	PTD	PTD	Nov 01, 2017
Designed By:	Drawn by:		
PTD	PTD		

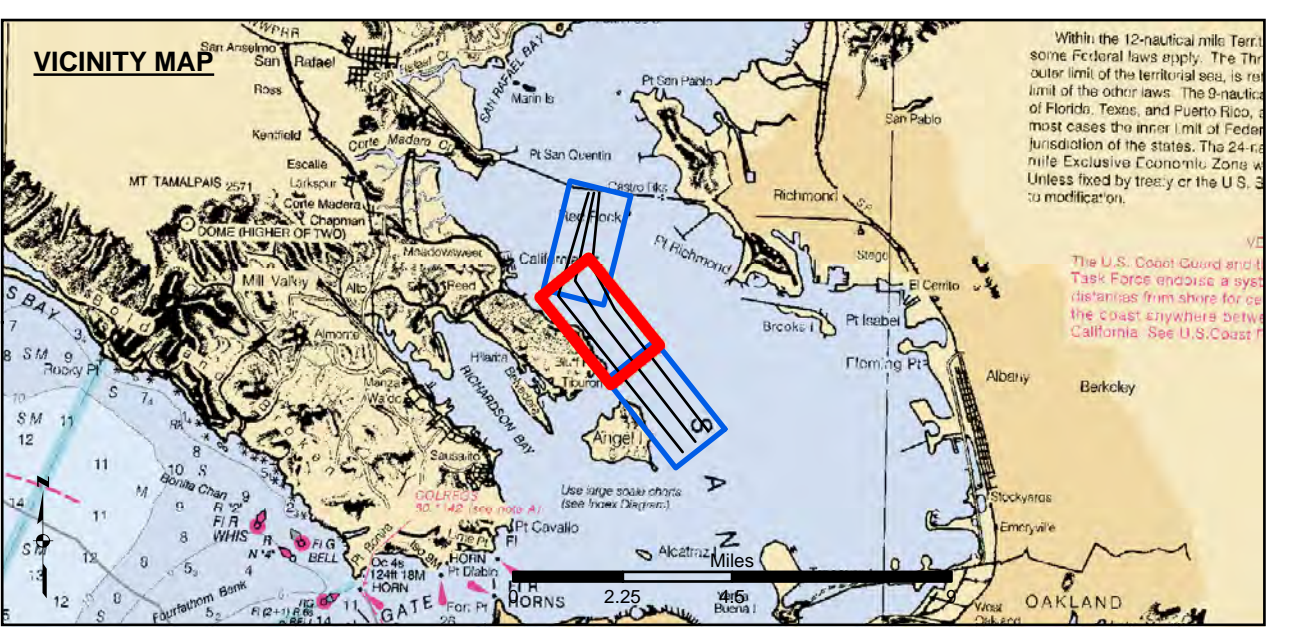
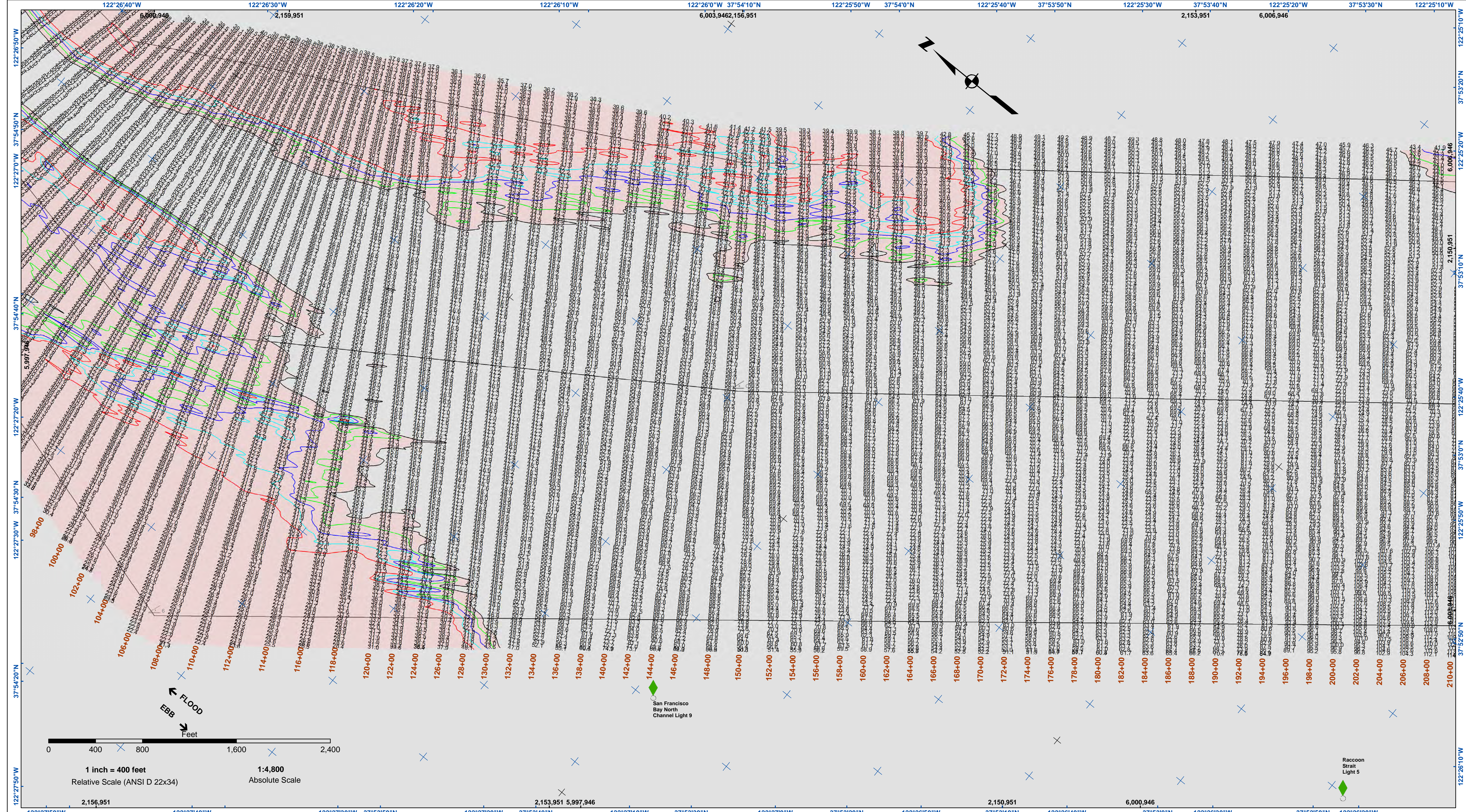


Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-45
Placement Area	Navigation Buoy	-44
Anchorage Area	Navigation Buoy	-43
Wreck Area	Shoalest Sounding*	-42
Submerged Wreck		-41
Angle Point		

**NOTES:**  
 HORIZONTAL COORDINATE SYSTEM:  
 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
 VERTICAL DATUM:  
 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
 THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY CONDUCTED ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED TO REPRESENT THE GENERAL CONDITION EXISTING AT THAT TIME.  
 BASE MAPS ARE USDA NAIP 2010.  
 \*SHOALEST SOUNDING PER QUARTER PER REACH

DRAWING NOT TO BE USED FOR NAVIGATION. ONLY CHANNEL CONDITION AT DATE OF SURVEY. THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.  
 SURVEYED BY THE CORPS OF ENGINEERS.  
 THE PROJECT DEPTH IS -45 FEET AT MLLW.  
 PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.  
 SOUNDINGS ARE BASED ON THE TIDE GAUGE LOCATED AT TIBERON NET DEPOT.  
 HORIZONTAL CONTROL:  
 COAST GUARD D-BEACON  
 VERTICAL CONTROL:  
 BENCHMARK "10" (1937) ELEV. 15.86 FT. MLLW.  
 BENCHMARK "11" (1946) ELEV. 15.47 FT. MLLW.

CONTRA COSTA COUNTY  
 CALIFORNIA  
**NORTH SHIP CHANNEL**  
**CONDITION SURVEY**  
**27 OCTOBER 2017**  
**Sheet Reference Number 1 of 3**



	Federal Navigation Channel		Beacon, General		Contours
	Shoaling Area		Obstruction Point		-45
	Placement Area		Navigation Buoy		-44
	Anchorage Area		Navigation Buoy		-43
	Wreck Area		Shoalest Sounding*		-42
	Submerged Wreck				-41
	Angle Point				

NOTES:  
 HORIZONTAL COORDINATE SYSTEM:  
 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
 VERTICAL DATUM:  
 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
 THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY CONDUCTED ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED TO REPRESENT THE GENERAL CONDITION EXISTING AT THAT TIME.  
 BASE MAPS ARE USDA NAIP 2010.  
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 SURVEYED BY THE CORPS OF ENGINEERS.  
 THE PROJECT DEPTH IS -45 FEET AT MLLW.  
 PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.  
 SOUNDINGS ARE BASED ON THE TIDE GAUGE LOCATED AT TIBERON NET DEPOT.  
 HORIZONTAL CONTROL:  
 COAST GUARD D-BEACON  
 VERTICAL CONTROL:  
 BENCHMARK "10" (1937) ELEV. 15.86 FT. MLLW.  
 BENCHMARK "11" (1946) ELEV. 15.47 FT. MLLW.

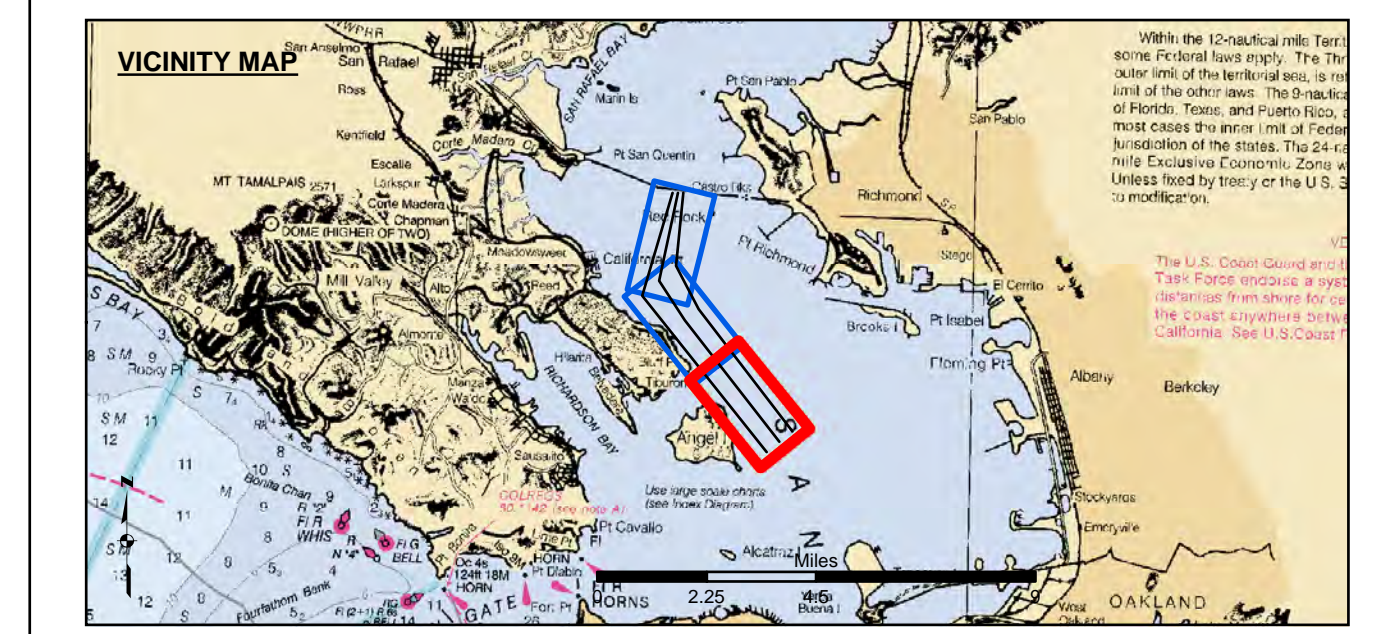
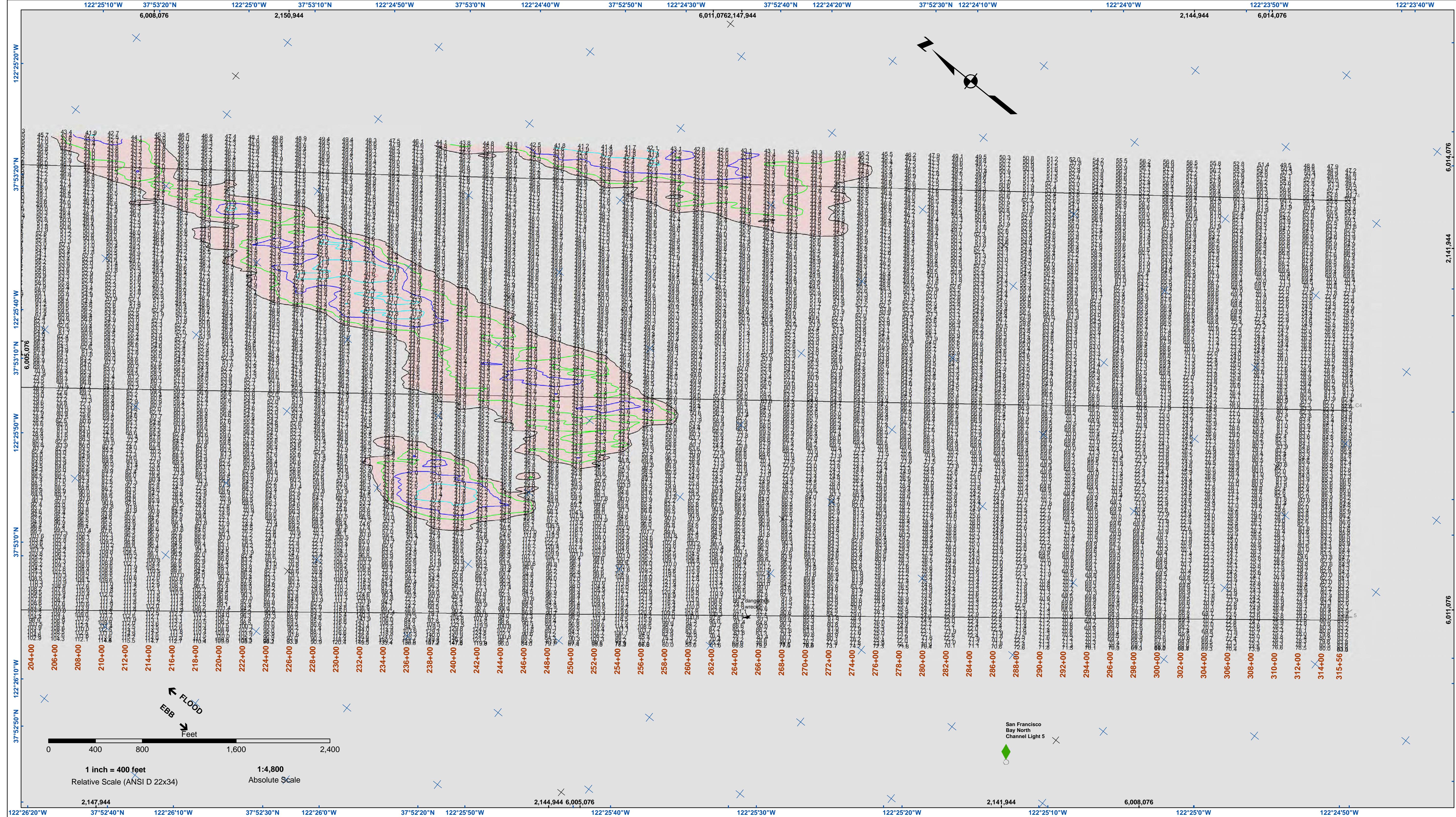
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Surveyed By:	Nov 01, 2017
Plotted By:	PDT
Checked By:	PDT
Drawn by:	PDT

CALIFORNIA  
**NORTH SHIP CHANNEL**  
 CONDITION SURVEY  
 27 OCTOBER 2017

Sheet Reference Number  
**2 of 3**



- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding\*
- Contours
- 45
- 44
- 43
- 42
- 41

NOTES:  
 HORIZONTAL COORDINATE SYSTEM:  
 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
 VERTICAL DATUM:  
 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
 THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY CONDUCTED ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED TO REPRESENT THE GENERAL CONDITION EXISTING AT THAT TIME.  
 BASE MAPS ARE USDA NAIP 2010.  
 \*SHOALEST SOUNDING PER QUARTER PER REACH

DRAWING NOT TO BE USED FOR NAVIGATION. ONLY CHANNEL CONDITION AT DATE OF SURVEY. THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.  
 SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT. SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY, NAVD 88. THE PROJECT DEPTH IS -45 FEET AT MLLW.  
 SURVEYED BY THE CORPS OF ENGINEERS.  
 PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.  
 SOUNDINGS ARE BASED ON THE TIDE GAUGE LOCATED AT TIBERON NET DEPOT.  
 HORIZONTAL CONTROL:  
 COAST GUARD D-BEACON  
 VERTICAL CONTROL:  
 BENCHMARK "10" (1937) ELEV. 15.86 FT. MLLW.  
 BENCHMARK "11" (1948) ELEV. 15.47 FT. MLLW.

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Prepared by:	FRANCOIS-JEROME FIELD OF	Surveyed By:	Nov 01, 2017
Checked by:	LT COLONEL C.E. DISTRICT ENGINEER	Plotted By:	PDT
Recommended by:	Hydro Survey Team Leader	Checked By:	PDT
Approved:	Chief, Hydro Survey Section	Drawn by:	PDT
	Chief, Construction Branch		

CALIFORNIA  
 CONTRA COSTA COUNTY  
**NORTH SHIP CHANNEL**  
 CONDITION SURVEY  
 27 OCTOBER 2017  
 Sheet Reference Number  
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