Capt. Lynn Korwatch (M), Marine Exchange of the San Francisco Bay Region (Marine Exchange), Chair of the Harbor Safety Committee (HSC); called the meeting to order at 10:05.

Alan Steinbrugge (A), Marine Exchange, confirmed the presence of a quorum of the HSC.

Committee members (M) and alternates (A) in attendance with a vote: Jim Anderson (M), California Dungeness Crab Task Force; John Berge (M), Pacific Merchant Shipping Association; Margot Brown (M), National Boating Federation; Capt. Bob Carr (M), San Francisco Bar Pilots; Chad Culbertson (M), Chevron Shipping Company; Capt. Tom Dougherty (M), Blue & Gold Fleet; William Fairchild (A), Starlight Marine Services; Brian Garcia (M), NOAA; Aaron Golbus (M), Port of San Francisco; Jim McGrath (M), Bay Conservation and Development Commission; Lt.Col. John Morrow (M), US Army Corps of Engineers; Capt. Patrick Nelson (M), United States Coast Guard; Griffin Patrick (M), Tesoro Refining and Marketing; Chris Peterson (M), Port of Oakland; Jeff Robbins (M), General Steamship Corp.; Capt. Ray Shipway (M), International Organization of Masters, Mates & Pilots; Jeff Vine (A), Port of Stockton.

The meetings are always open to the public.

Approval of the Minutes-

A motion to accept the minutes of the May 12, 2016 meeting was made and seconded. The minutes were approved without dissent.

Comments by Chair- Capt. Lynn Korwatch

Welcomed the committee members and audience.

Coast Guard Report- Capt. Patrick Nelson

- Announced that Sector San Francisco Change of Command will take place on July 19, 2016.
- Advised that the Coast Guard is working with PG&E and other agencies to address power line issues after vessel strikes at the Port of Stockton. Solutions to power line height issues near Sacramento are being discussed.
- Advised of a recent unannounced exercise with Bay Ship and Yacht.
Advised that the Coast Guard participated in the multi-agency Operation Clean Sweep on Richardson Bay. Jim McGrath asked if abandoned vessels were removed. The USCG advised that local jurisdictions are responsible for vessel removal while the Coast Guard is more focused on pollution.

Advised that the container vessel CMA GGM Benjamin Franklin and other ultra large vessels are no longer planning to call West Coast ports.

LT Marcia Medina read from the May-16 Prevention/Response Report (attached).

Sean Kelley, USCG VTS, advised of a May 20, 2016 LOP offshore involving the M/V Ultra Lascar which required a three tug escort into Anchorage 9 (timeline of events attached). The LOP occurred in fair water on approach to the pilot station and the vessel drifted as the crew attempted repairs until instructed to anchor. A review of the incident has led to questions regarding how long vessels should be allowed to troubleshoot before intervention. The depth for safe anchorage and the activation of Vessel Response Plans are also pertinent issues. A primary concern is the length of time it took for tugs to reach the scene once dispatched. The Tug Work Group discussed this incident during their last meeting and intends to incorporate it into an exercise for the HSC Plan.

The USCG advised of a FCC Public Notice released on May 19, 2016 regarding the Coast Guard’s request to allow Class D VHF radios in lieu of Class A equipment.

The USCG advised of Marine Safety Alert 04-16 issued on May 19, 2016 regarding a potentially dangerous issue with a distress signal.


Advised of recent changes in Army Corps personnel.

Jessica Burton Evans read from the US Army Corps of Engineers, San Francisco District Report (attached). Suisun Bay dredge equipment type has not yet been determined due to issues involving delta smelt.

Jim Anderson asked if there has been increased sediment due to the rain this year. The Corps advised that shoaling patterns are very difficult to gauge. Shoaling can also be caused by tidal currents.

Clearing House Report - Alan Steinbrugge (report attached)
• Introduced Annie Nelson, OSPR Senior Environmental Scientist focusing on prevention and response equipment.
• Advised that Capt. Bob Carr, Jeffery Vine, Randy Scott, Capt. Ray Shipway, Marina Secchitano and Margot Brown have been reappointed as Members/Alternates of the HSC for their respective groups. Scott Grindy has been appointed as Alternate representing pleasure boat operators. Terms end on June 8, 2019. The position for Alternate representing commercial fishing is currently open.
• Advised that he attended the Tug Work Group meeting on June 7, 2016 chaired by Bob Gregory. Requirements of SB 414 were discussed as well as the recent LOP.
• Advised of a State Fire Marshals meeting that he attended on May 24, 2016 regarding mobile fueling.
• Tom Cullen, OSPR Administrator, discussed SB 414 and announced that the national HSC meeting will be held in September, 2016.
• Capt. Korwatch welcomed the new HSC members and recognized Margot Brown for being the longest serving member on the committee. Capt. Korwatch thanked Capt. Bruce Horton, Bar Pilots, for his work with the HSC. Capt. Paul Ruff will be taking over the Alternate HSC position representing the Pilots.

NOAA Report- Brian Garcia

• Advised that reproductions of NOAA’s Coast Pilot are being illegally produced and sold. These knockoffs may not meet carriage requirements and could be incomplete.
• Advised that El Nino is officially over. A La Nina watch is in effect at the NWS which is currently predicting a 75 percent chance of La Nina conditions developing possibly leading to drier weather this winter.

State Lands Commission Report- (report attached)

Work Group Reports-

HSC Plan Work Group- Linda Scourtis advised that the annual HSC Plan Update and Executive Summary are complete and ready to be voted on by the committee (attached). A motion to put the Plan Update up for a vote was made and seconded. The committee members voted and the HSC Plan Update was approved without dissent.
Tug Work Group- Bill Fairchild advised that a work group meeting was held on June 7, 2016 to discuss SB 414 and the emergency towing assessment. A rough draft is being formed which will be put up for a vote by the committee.

Navigation Work Group- Capt. Robert Carr advised that a recent meeting was held regarding the depth of marine cables and pipelines. Information and standards are being gathered and next meeting will take place on July 7, 2016 at Pier 9. Jessica Burton Evans advised that marine cables are an issue at the federal level relating to dredging and that she will look for more information on the subject.

Ferry Operations Work Group- Capt. Tom Dougherty advised that WETA ferry ridership is up prompting expansion of the summer schedule. Long term expansion plans are underway with a new Richmond ferry terminal slated for 2018 and Treasure Island ferry terminal slated for 2021. Several new boats will also be added to the fleet in upcoming years.

Dredge Issues Work Group- Chad Culbertson advised that a Dredge Work Group meeting was held on May 12, 2016 and that the next will be held directly after today’s HSC meeting.

PORTS Work Group- Chris Peterson advised that the new Oakland current sensor will be installed soon.

Prevention through People Work Group- Margot Brown advised that there was nothing to report.

PORTS Report- Alan Steinbrugge

- Advised that installation of the new current sensor on Buoy 4 in the Oakland Channel is slated for July, 2016.
- Advised that the Oakland Middle Harbor Park weather station should be upgraded and back online in July, 2016.
- Advised that planning is underway with the Port of San Francisco to install a Pier 27 weather station.

Public Comment-

- Catherine Hooper, Port of San Francisco consultant, advised of a recent fatal accident involving the Blue Angels. It is currently unknown how this incident will affect the Fleet Week airshow in October.

Old Business- None
Harbor Safety Committee of the SF Bay Region

Mandated by the California Oil Spill Prevention and Response Act of 1990

New Business- None

Next Meeting-

1000-1200, July 14, 2016
California Maritime Academy
Richmond Maritime Safety & Security Center
756 West Gertrude Street, Richmond, CA

Adjournment-

A motion to adjourn was made and seconded. The motion passed without dissent and the meeting adjourned at 11:12.

Respectfully submitted:

[Signature]
Capt. Lynn Korwatch
## PORT SAFETY CATEGORIES*

<table>
<thead>
<tr>
<th>May-2016</th>
<th>May-2015</th>
<th>**3yr Avg</th>
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<tbody>
<tr>
<td>Total Number of Port State Control Detentions:</td>
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<td>2</td>
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<tr>
<td>SOLAS (0), STCW (0), MARPOL (0), ISM (0), ISPS (0)</td>
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<td></td>
</tr>
<tr>
<td>Total Number of COTP Orders:</td>
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<td>9</td>
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<tr>
<td>Navigation Safety (2), Port Safety &amp; Security (1), ANOA (0)</td>
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<td></td>
</tr>
<tr>
<td>Marine Casualties (reportable CG 2692) within SF Bay:</td>
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<td>11</td>
</tr>
<tr>
<td>Allision (1), Collision (0), Fire (0), Capsize (0), Grounding (0), Sinking (0)</td>
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<td></td>
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<tr>
<td>Steering (1), Propulsion (3), Personnel (4), Other (1), Power (0)</td>
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<td></td>
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<tr>
<td>Total Number of (routine) Navigation Safety issues/Letters of Deviation:</td>
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<td>15</td>
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<td>Radar (3), Gyro (0), Steering (0), Echo Sounder (1), AIS (0)</td>
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<tr>
<td>AIS-835 (0), ARPA (0), Speed Log (0), R.C. (0), Other (0)</td>
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<td>Reported or Verified &quot;Rule 9&quot; or otherNavigational Rule Violations:</td>
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<td>0</td>
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<tr>
<td>Significant Waterway events/Navigation related Cases:</td>
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<td>0</td>
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<tr>
<td>Total Port Safety (PS) Cases opened</td>
<td>20</td>
<td>37</td>
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### MARINE POLLUTION RESPONSE

#### Pollution Discharge Sources (Vessels)

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<th>**3yr Avg</th>
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<tr>
<td>U.S. Commercial Vessels</td>
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<td>0</td>
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<tr>
<td>Foreign Freight Vessels</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Public Vessels</td>
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<tr>
<td>Commercial Fishing Vessels</td>
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<td>0</td>
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<tr>
<td>Recreational Vessels</td>
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<td>4</td>
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#### Pollution Discharge Sources (Facilities)

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<th>May-2016</th>
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<tr>
<td>Regulated Waterfront Facilities</td>
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<td>0</td>
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<tr>
<td>Regulated Waterfront Facilities - Fuel Transfer</td>
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<td>0</td>
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<tr>
<td>Other Land Sources</td>
<td>0</td>
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<tr>
<td>Mystery Spills - Unknown Sources</td>
<td>3</td>
<td>10</td>
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#### Number of Pollution Incidents within San Francisco Bay

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<th>May-2016</th>
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<tr>
<td>Spills &lt; 10 gallons</td>
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<td>4</td>
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<tr>
<td>Spills 10 - 100 gallons</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Spills 100 - 1000 gallons</td>
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<tr>
<td>Spills &gt; 1000 gallons</td>
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<tr>
<td>Spills - Unknown Size</td>
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<td>10</td>
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<tr>
<td>Total Pollution Incidents</td>
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#### Oil Discharge/Hazardous Materials Release Volumes by Spill Size

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<tr>
<th></th>
<th>Estimated spill amount from U.S. Commercial Vessels</th>
<th>Estimated spill amount from Foreign Freight Vessels</th>
<th>Estimated spill amount from Public Vessels</th>
<th>Estimated spill amount from Commercial Fishing Vessels</th>
<th>Estimated spill amount from Recreational Vessels</th>
<th>Estimated spill amount from Regulated Waterfront Facilities</th>
<th>Estimated spill amount from Regulated Waterfront Facilities - Fuel Transfer</th>
<th>Estimated spill amount from Other Land Sources</th>
<th>Estimated spill amount from Unknown Sources (Mystery Sheens)</th>
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<tr>
<td></td>
<td>21.00</td>
<td>0.00</td>
<td>0.00</td>
<td>15.00</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>Total Oil Discharge and/or Hazardous Materials Release (Gallons)</td>
<td>40.00</td>
<td>27.00</td>
<td>121.58</td>
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#### Penalty Actions

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<tr>
<th>May-2016</th>
<th>May-2015</th>
<th>**3yr Avg</th>
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</thead>
<tbody>
<tr>
<td>Civil Penalty Cases</td>
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<tr>
<td>Notice of Violations</td>
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<td>0</td>
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<tr>
<td>Letters of Warning</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Total Penalty Actions</td>
<td>3</td>
<td>6</td>
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</table>

*NOTE: Values represent all cases within the HSC jurisdiction during the period. Significant cases are detailed in the narrative.

**NOTE: Values represent an average month over a 36 month period for the specified category of information.
Equipment Failure (01MAY16): A foreign flag vehicle carrier experienced a malfunction of the vessel’s AIS in the vicinity of Alcatraz on an inbound course. The AIS header display was showing course over ground and not rudder angles. The vessel was able to safely moor. CG issued a deficiency requiring the vessel to repair the AIS prior to departing port. Technician found a faulty cable with the heading signal convertor and made proper repairs. Coast Guard cleared deficiency. Case Closed.

Allision (05MAY16): A foreign flag bulk freight vessel damaged a live power line while line hauling along the dock within the berth. Vessel was moving aft to line up the number one cargo hold with the facility's fixed cargo loader. The vessel's cranes were in the upright position and struck the power line, causing a power outage at the port and surrounding areas. The power company completed repairs for the damaged power line; there was no damage to the vessel. Case Pends.

Other (12MAY16): A foreign flag bulk freight vessel had two absconders run down the gangway and jump the fence surrounding the facility. A COTP Order was issued requiring the vessel to create a security plan to be approved by CG/CBP and to implement of additional security measures for the duration of the vessel's port call to the COTP zone. Vessel met all requirements in the COTP order and was cleared to depart. Case Closed.

Loss of Propulsion (20MAY16): A foreign flag bulk freight vessel experienced a loss of propulsion while offshore en route to San Francisco. The loss of propulsion occurred while the vessel was testing its backing bell and was then unable to restart. A COTP Order was issued requiring the vessel to have a three tug escort from their position to Anchorage 9. A Class Surveyor attended the vessel and witnessed satisfactory operation of the propulsion system. LOP was not attributed to fuel switching. COTP Order was lifted. Case Closed.

Allision (25MAY16): A U.S. flag towing vessel allided with the Highway 37 Bridge while transiting on the Napa River. Damage was noted to the fendering system only; no damage to the bridge structure was observed. Cause of allision is unknown, but towing vessel responsible has been identified. Case Pends.

Other (26MAY16): A foreign flag bulk carrier was moored at Benicia when the vessel’s messman deserted the ship. The individual broke into the Captain’s cabinet and obtained his passport and shore pass. The vessel agent notified local PD and the terminal, but the individual has a valid passport and shore pass so the incident was not treated as a security breach. CBP has not located the individual. Case Pends.
Other (27MAY16): A foreign flag tank vessel experienced a slow response of the engine when transiting inbound. The engine was not responding appropriately under low sulfur fuel oil. The vessel was able to moor safely. A COTP order was issued requiring documentation from Classification Society Surveyor attesting to the causative factors and proper operation of the vessel’s main propulsion system. A Class Surveyor attended the vessel and witness satisfactory operation of the vessel’s main propulsion system. COTP Order was lifted. Case Closed.

VEssel SAFETY CONDITIONS

Operational Control (19MAY16): A U.S flag passenger vessel was issued a CG-835 No-Sail requiring the vessel to repair its fixed fire fighting system and enroll their deck hand in the Drug/Alcohol Program. Coast Guard witnessed corrected deficiencies and No-Sail has been lifted. Case Closed.

Operational Control (31MAY16): A U.S flag passenger vessel was issued a CG-835 No-Sail requiring the vessel to complete an annual inspection. Case Pends.

Operational Control (31MAY16): A U.S flag passenger vessel was issued a CG-835 No-Sail requiring the vessel to complete a credit dry-dock inspection. Case Pends.

Rule 9 Violation (28MAY16): A foreign flag container vessel was outbound in the Oakland Estuary when the vessel repeatedly tacked in the way of the container vessel. The vessel reported that her engine was inoperable and the operator had limited sailing experience.

GENERAL SAFETY CASES

Nothing Significant to Report

NAVIGATIONAL SAFETY

Letter of Deviation (LOD), Inop Radar No. 2, (03MAY16): Vsl issued inbound LOD.

Letter of Deviation (LOD), Inop Echo Depth Sounder, (26MAY16): Vsl issued inbound & outbound LOD.

Letter of Deviation (LOD), Inop S-Band Radar, (27MAY16): Vsl issued inbound LOD.

Letter of Deviation (LOD), Inop S-Band Radar, (29MAY16): Vsl issued inbound LOD.

SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES

Letter of Warning (13MAY16): A passenger vessel discharged 20 gallons of diesel due to valve misalignment. The vessel service hired NRCES who determined that the product was unrecoverable. Case closed.
1. CORPS O&M DREDGING PROGRAM
The following is this year’s O & M dredging program for San Francisco Bay. The FY16 O&M dredging program is subject to change, please refer to the Local Notice to Mariner for details of dredge operations.

FY 2015 DREDGING
a. SF Main Ship Channel – Completed 29 May 2015.


c. Richmond Outer Harbor (and Richmond Long Wharf) – Completed 21 October 2015.

d. Suisun Bay Channel (and New York Slough) – Completed 22 November 2015.

e. Richmond Inner Harbor – Completed 15 December 2015.


g. San Pablo Bay (Pinole Shoal) – Completed 2 February 2016.

h. Oakland Harbor – Expected completion extended to 15 June 2016.

FY 2016 DREDGING
a. SF Main Ship Channel – Started 18 May 2016, Completed 1 June 2016, government hopper.


d. San Pablo Bay (Pinole Shoal) – Estimated start late September 2016, estimated completion end of September, government hopper.

e. Redwood City Harbor – Estimated start mid- August 2016, estimated completion early November 2016. San Bruno Shoal will also be dredged in Oct 2016, contingent on sediment suitability and environmental approvals. Work to be accomplished by either government hopper or contracted clamshell.

g. **Suisun Bay Channel (and New York Slough)** – Estimated start mid-October, estimated completion end of November 2016 (if contracted clamshell). Estimated start early October 2016, estimated completion mid-October 2016 (if government hopper). *Dredge type pending completion of Endangered Species Consultation with USFWS.*

h. **Napa River Channel** – Estimated start August, estimated completion end of November 2016, hydraulic pipeline.

2. **DEBRIS REMOVAL** – Debris removal for May 2016 was 22 tons. Dillard: 18 tons, including 2 abandoned vessels; other boats: 4 tons, includes 1 abandoned vessel. Average for May from 2006 to 2015 is 42.4 tons. (Range: 13 – 98.5 tons).

**BASEYARD DEBRIS COLLECTION TOTALS:**

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<thead>
<tr>
<th>MONTH</th>
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<th>DILLARD</th>
<th>MISC</th>
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<tr>
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<td>TONS</td>
<td>TONS</td>
<td>TONS</td>
<td></td>
</tr>
<tr>
<td>JAN</td>
<td>0</td>
<td>61</td>
<td>12</td>
<td>73</td>
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<td>FEB</td>
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<td>MAR</td>
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<td>MAY</td>
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<tr>
<td>DEC</td>
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</table>

| YR TOTAL | 326.5 |

3. **UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS**
None to report.

4. EMERGENCY (URGENT & COMPELLING) DREDGING

No urgent dredging in 2016.

5. OTHER WORK

San Francisco Bay to Stockton – No funds were received in 2015. The Tentative Selected Plan milestone is to be reached in FY16 with the use of carryover funds (from FY 14). A request is in progress for additional time and funding to complete the study in late 2018 (FY 19).

HYDROGRAPHIC SURVEY UPDATE


The following surveys are posted:

Alameda Point Navigation Channel: Condition survey of Nov. 2014.
Islais Creek Channel: Condition survey of May 12, 2016.
Main Ship Channel: Post-dredge survey of May 27, 2015.
Mare Island Strait: Condition survey of September 24, 2014.
Marinship Channel (Richardson Bay): Condition survey of September 21, 2014.
Napa River: Condition surveys of early March 2016.
New York Slough: Condition survey of 18-19 May 2016.
Northship Channel: Condition survey of late July 2015
Oakland Inner Harbor (Reach 4-6): Post-dredge survey of mid-April and early May 2016.
Oakland Inner Harbor (Reach 3): Post-dredge survey of late-March 2016.
Oakland Inner Harbor Turning Basin: As above.
Petaluma River: Condition survey of mid-September 2014.
Redwood City Harbor: Condition survey of April 5-6, 2016.
Richmond Inner Harbor: Condition survey of April 14, 2016.
Richmond Outer Harbor (Southampton Shoal): Condition Survey of May 9, 2016.
San Leandro Marina (and Channel): Condition survey of March 30 – April 1, 2015.
San Rafael Across-the-Flats / San Rafael Creek: Condition surveys of May 2013.
Suisun Bay Channel: Condition survey of May 25 and June 1, 2016.

Disposal Site Condition Surveys:

SF-08 (Main Ship Channel Disposal Site): Condition survey of March 2013
SF-09 (Carquinez): Condition survey of March 2, 2015.
SF-10 (San Pablo Bay): Condition survey of March 2, 2015.
**SF-11 (Alcatraz Island):** May 5 condition survey is now posted.
**SF-16 (Suisun Bay Disposal Site):** Condition survey of May, 2012.
**SF-17 (Ocean Beach Disposal Site):** Condition survey of March 2013.

**Requested Surveys:**

- **Redwood City Harbor** scheduled June 14 thru June 21
- **Suisun Bay Channel/New York Slough** scheduled for mid to late July
- **Alcatraz Disposal Site:** July 3
- **Richmond Inner Harbor** scheduled July 11 thru July 18
- **SF-9 (Carquinez)** scheduled August 15
- **SF-10 (San Pablo Bay)** scheduled August 16

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<th>Project</th>
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<td>Stockton DWSC</td>
<td>FY 2017</td>
<td></td>
<td>***</td>
</tr>
</tbody>
</table>

**based on FY16 Work Plan**
**Plan A - Dredging by Essayons, Back-up Plan - Dredging by New SPN Contract**
***Environmental Window Extension Granted**
In May the clearinghouse did not need to contact OSPR regarding any possible escort violations.

In May the clearinghouse did not receive any notifications of vessels arriving at the Pilot Station without escort paperwork.


In May there were 102 tank vessel arrivals; 11 ATB’s, 5 Chemical Tankers, 20 Chemical/Oil Tankers, 1 LPG, 25 Crude Oil Tankers, 21 Product Tankers, and 19 Tugs with Barges.

In May there were 324 total arrivals.
San Francisco Bay Clearinghouse Report For May 2016

**San Francisco Bay Region Totals**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanker arrivals to San Francisco Bay</td>
<td>72</td>
<td>67</td>
</tr>
<tr>
<td>ATB arrivals</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Barge arrivals to San Francisco Bay</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>Total Tanker and Barge Arrivals</td>
<td>102</td>
<td>99</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank ship movements &amp; escorted barge movements</td>
<td>339</td>
</tr>
<tr>
<td>Tank ship movements</td>
<td></td>
</tr>
<tr>
<td>Escorted tank ship movements</td>
<td>160</td>
</tr>
<tr>
<td>Unescorted tank ship movements</td>
<td>103</td>
</tr>
<tr>
<td>Tank barge movements</td>
<td>179</td>
</tr>
<tr>
<td>Escorted tank barge movements</td>
<td>54</td>
</tr>
<tr>
<td>Unescorted tank barge movements</td>
<td>125</td>
</tr>
</tbody>
</table>

Percentages above are percent of total tank ship movements & escorted barge movements for each item.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Escorts reported to OSPR</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Movements by Zone</th>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 4</th>
<th>Zone 6</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total movements</td>
<td>196</td>
<td>318</td>
<td>0</td>
<td>156</td>
<td>670</td>
<td>48.51%</td>
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<tr>
<td>Unescorted movements</td>
<td>89</td>
<td>159</td>
<td>0</td>
<td>77</td>
<td>325</td>
<td>48.51%</td>
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<tr>
<td>Tank ships</td>
<td>63</td>
<td>111</td>
<td>0</td>
<td>58</td>
<td>232</td>
<td>34.63%</td>
</tr>
<tr>
<td>Tank barges</td>
<td>26</td>
<td>48</td>
<td>0</td>
<td>19</td>
<td>93</td>
<td>13.88%</td>
</tr>
<tr>
<td>Escorted movements</td>
<td>107</td>
<td>159</td>
<td>0</td>
<td>79</td>
<td>345</td>
<td>51.49%</td>
</tr>
<tr>
<td>Tank ships</td>
<td>97</td>
<td>134</td>
<td>0</td>
<td>62</td>
<td>293</td>
<td>43.73%</td>
</tr>
<tr>
<td>Tank barges</td>
<td>10</td>
<td>25</td>
<td>0</td>
<td>17</td>
<td>52</td>
<td>7.76%</td>
</tr>
</tbody>
</table>

Notes:
1. Information is only noted for zones where escorts are required.
2. All percentages are percent of total movements for the zone.
3. Every movement is counted in each zone transited during the movement.
4. Total movements is the total of all unescorted movements and all escorted movements.
## San Francisco Bay Clearinghouse Report For 2016

### San Francisco Bay Region Totals

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanker arrivals to SF Bay</td>
<td>323</td>
<td>691</td>
</tr>
<tr>
<td>ATB arrivals</td>
<td>65</td>
<td>108</td>
</tr>
<tr>
<td>Barge arrivals to SF Bay</td>
<td>90</td>
<td>256</td>
</tr>
<tr>
<td>Total Tanker and Barge Arrivals</td>
<td>413</td>
<td>1,055</td>
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</table>

### Tanker ship movements & escorted barge movements

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank ship movements</td>
<td>896</td>
<td>2,088</td>
</tr>
<tr>
<td>Escorted tank ship movements</td>
<td>625</td>
<td>1,304</td>
</tr>
<tr>
<td>Unescorted tank ship movements</td>
<td>271</td>
<td>720</td>
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<tr>
<td>Tank barge movements</td>
<td>719</td>
<td>1,529</td>
</tr>
<tr>
<td>Escorted tank barge movements</td>
<td>153</td>
<td>572</td>
</tr>
<tr>
<td>Unescorted tank barge movements</td>
<td>566</td>
<td>1,105</td>
</tr>
</tbody>
</table>

Percentages above are percent of total tank ship movements & escorted barge movements for each item.

### Escorts reported to OSPR

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>Total movements</td>
<td>947</td>
<td>1,441</td>
</tr>
</tbody>
</table>

### Movements by Zone

<table>
<thead>
<tr>
<th></th>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 4</th>
<th>Zone 6</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unescorted movements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tank ships</td>
<td>439</td>
<td>695</td>
<td>0</td>
<td>359</td>
<td>1,493</td>
<td>48.33%</td>
</tr>
<tr>
<td>Tank barges</td>
<td>317</td>
<td>461</td>
<td>0</td>
<td>255</td>
<td>1,033</td>
<td>33.44%</td>
</tr>
<tr>
<td>Escorted movements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tank ships</td>
<td>508</td>
<td>746</td>
<td>0</td>
<td>342</td>
<td>1,596</td>
<td>51.67%</td>
</tr>
<tr>
<td>Tank barges</td>
<td>452</td>
<td>618</td>
<td>0</td>
<td>254</td>
<td>1,324</td>
<td>42.86%</td>
</tr>
</tbody>
</table>

Notes:
1. Information is only noted for zones where escorts are required.
2. All percentages are percent of total movements for the zone.
3. Every movement is counted in each zone transited during the movement.
4. Total movements is the total of all unescorted movements and all escorted movements.
The State’s Harbor Safety Committees are required to annually update their plans for submittal to the OSPR Administrator. The Administrator subsequently determines whether to accept the individual updated Harbor Safety Plans.

The Committee will vote today whether to adopt an updated Executive Summary (enclosed with this memo), which highlights Committee activities since June 2015.

Additionally, the following chapter and appendices were updated and will be included in the plan upon its acceptance by the Administrator:

1. Chapter IV, Anchorages and Appendix A were updated to include the new berthing schemes for Anchorages 7 and 8, previously adopted by the HSC.
2. Appendix C: Annual Work Group Reports
3. Appendix D: Tug Escort Violations Summary for 2015
4. Appendices E, F and G: Clearing House reports for 2015
5. Appendix J: Vehicular Bridge Inventory
6. Appendix K and L: USCG Bay Port Safety (with LOP data) and Pollution Statistics for 2015

A few minor, non-substantive changes were applied, such as highlighting headings of adopted Best Maritime Practices within the body of the plan.
Executive Summary 2015/2016

The Harbor Safety Committee continued its collaborative process to engage the maritime community in working to increase navigation safety in the Bay. The Dredging Work Group coordinated with USACE, SF Bar Pilots, and involved stakeholders prior to the start of dredging to ensure results in all navigation channels were beneficial to users. The Navigation Work Group worked with crab fisherman and USCG to remedy visual interference to large vessels created by boat working lights and the need for timely radio communication. The Tug Work Group initiated an assessment of emergency towing capabilities in the HSC AOR, per SB 414.

Also during 2015-2016:

- The Dredging Work Group authored a letter to Senator Dianne Feinstein requesting her support for FY 2016 appropriations for dredging.
- The Ferry Operations Work Group presented ferry system operating reports and growth plans for discussion among HSC members and others.
- The Navigation Work Group worked with VTS to create berthing schemes for Anchorages 7 and 8.
- The Tug Work Group received approval from the OSPR Administrator to use the Tanker Escort Matrix for ATBs.

See Appendix C, Annual Work Group reports, for additional actions over the past year.
Organization of the Harbor Safety Committee of the San Francisco Bay Region

The San Francisco Harbor Safety Committee consists of representatives from the following: ports (four), dry cargo vessel operators (two), tank ship operators (two) or one ship operator and one oil marine terminal operator, and one tug operator, one tank barge operator, a passenger ferry or excursion vessel operator, the regional pilot organization, a vessel labor union, a commercial fishing representative, a recreational boater, an environmental organization, the U.S. Coast Guard Captain of the Port, the U.S. Army Corps of Engineers, the National Oceanic and Atmospheric Administration and the San Francisco Bay Conservation and Development Commission. A complete list of committee members is found in Appendix B.

Chair .............................................Captain Lynn Korwatch
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Vice Chair ....................................John Berge
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cpeterson@portoakland.com

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mjbjhb@aol.com
Tugs................................................Bob Gregory, Chair
Foss Maritime Co.
1316 Canal Blvd.
Richmond, California 94804
Ph: 510.301-7825 Fax: 510.307-7821
bob@foss.com

For a list of all Committee members, see:
http://www.sfmx.org/support/hsc/hscmembers.php

To review the regulations governing the Harbor Safety Committee, see:

Highlighted headings in this Safety Plan indicate Best Maritime Practices (BMPs) that have been adopted by the SF Harbor Safety Committee. For a compilation of BMPs, please see Appendix A.
IV. Anchorages

Due to the extent of the Bay, a number of federally designated anchorages have been established in the San Francisco, San Pablo, and Suisun Bays and the San Joaquin and Sacramento Rivers. The Coast Pilot lists the area’s anchorages and limitations. See 33 CFR 110.224 for regulations governing anchorages in the San Francisco Bay region. The regulations can be found in the Code of Federal Regulations at http://www.ecfr.gov.

Anchorage 9 is the only anchorage designated by the U.S. Coast Guard Captain (COTP) of the Port where lightering of tankers and bunkering of vessels is allowed. Several explosive anchorages also exist, primarily within Anchorages 5 and 9 (see Map below). Explosive Anchorage 14, within Anchorage 9, was realigned in 1997 to provide deeper water in order to allow vessels laden with explosives, and with drafts of 38 feet or greater, to safely anchor. This also minimized potential overcrowding of vessels anchored within the northern portion of Anchorage 9. Notice of activation of an explosive anchorage is made in the Coast Guard Notice to Mariners to advise vessels not to anchor within the area while vessels are laden with explosives within the Anchorage.

The Vessel Traffic Service (VTS), working in conjunction with the SF Bar Pilots (SFBP) developed an anchorage berthing scheme in anchorage 9 in South San Francisco Bay. This berthing scheme is intended to provide more efficient and organized use of available anchorage space and leverage AIS technology to manage the anchoring of vessels.

The scheme creates twenty-four anchor berths laid out in three north-south columns and eight east-west rows. At the center of each berth is a .1 nautical mile (NM) (200 yards) “drop bucket” inside which vessels are to drop anchor. The layout provides for .6 NM (1200 yards) of north-south separation and .45 NM (900 yards) of east-west separation between vessels, allowing more than sufficient room for vessels to swing with the current without colliding. The western-most column lays .25 NM from the western anchorage boundary and the northern-most row lays .35 NM from the northern anchorage boundary, also allowing vessels to swing with the current while remaining inside the anchorage.
Following successful implementation of the Anchorage 9 scheme, VTS adopted similar schemes for Anchorage 7 west of Treasure Island, and Anchorages 8 and 8A, west of the island of Alameda.

Anchorage 7 can accommodate two vessels requiring temporary anchorage while waiting to proceed to pier facilities or other anchorage grounds. Vessels may not remain for more than 12 hours without COTP authorization, and must be prepared to move within one hour of notification by the COTP. No dangerous cargo or combustible liquids may be loaded unless authorized by the COTP.

Anchorage 8 accommodates up to five vessels, though two smaller drop buckets with 0.2nm swing circles (8E1 and 8E2) are intended for smaller, lighter draft vessels such as ATBs, Tug/Tow and USCG Cutters.

Anchorage 8A can accommodate a single vessel and is activated by VTS when additional space is needed.
See Appendix A, Anchorages 7-9 Berthing Protocols, for coordinates.
X. Bridges

The San Francisco Bay Area is crossed by a number of bridges that carry automotive and rail traffic. Most shipping traffic transits through moveable or fixed bridges with adequate vertical clearance for normal passage.

Geographic Boundaries

The boundaries of the area in this chapter are set in the West by the COLREGS Demarcation Line (Between Pt. Bonita and Mile Rocks), and in the East to include the Rio Vista Highway Bridge in the Sacramento River and the Antioch Highway Bridge in the San Joaquin River.

Schedule of Bridge Openings

Oceangoing vessels may transit under two vertical lift bridges, the Benicia-Martinez Railroad Drawbridge and the Rio Vista Highway Drawbridge. Both bridges are operated 24 hours a day and open for vessel traffic upon request. Approximately 30-minute notice is beneficial and the bridges may be contacted by VHF or telephone.

For vessels intending to transit through the Benicia-Martinez Railroad Drawbridge, there is a well-established protocol for requesting a lift. Copies of the protocol are available at the VTS website, www.uscg.mil/D11/vtssf/.

<table>
<thead>
<tr>
<th>BRIDGE</th>
<th>VHF CHANNELS</th>
<th>PHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benicia-Martinez RR Bridge</td>
<td>13</td>
<td>(925) 228-5943</td>
</tr>
<tr>
<td>Rio Vista</td>
<td>9, 13, 16</td>
<td>(707) 374-2134</td>
</tr>
</tbody>
</table>

Adequacy of Ship-to-Bridge Communications

Ship to bridge communications takes place via VHF radio on designated channels or as required by drawbridge regulations (Title 33 CFR 117). Communications are considered to be adequate by the local maritime community.
Physical Characteristics of Bridges

When required by the Eleventh Coast Guard Bridge Office, under the provisions of Title 33 Code of Federal Regulations, Part 118, bridges over navigable waterways in the Eleventh Coast Guard District, are lighted and marked as permitted obstructions on the waterway. Standard markings include a range of two green lights marking the center of the bridge, which in the case of drawbridges, will shift from green to red when the drawspan is in anything but the full open-to-navigation position. Bridge piers in or adjacent to the navigational channel may be lighted at night with fixed red lights to identify them as obstructions. When required, bridges are equipped with sound producing devices that are used during periods of reduced visibility.

The region now has 12 Racons mounted on bridges. A racon is a radar sensor (radar beacon) that sends out a radar emission that shows up as a distinctive mark on a ship’s radarscope. The racons were installed because there is a high volume of vessel traffic transiting under bridges and the Bay Area has the highest number of foggy days in the nation when visibility is less than one-half mile.

Racons are located on the following Bay Area bridges:

- Rio Vista Bridge (1)
- Antioch Bridge (1)
- Benicia-Martinez (1)
- I-80 Crocket-Vallejo (2)
- Richmond-San Rafael Bridge (2)
- Golden Gate Bridge (1)
- SF-Oakland Bay Bridge (3)
- San Mateo-Hayward Bridge (1)

Bridge Clearances  (See Appendices for most recent list of bridge clearances.)

Benicia-Martinez Railroad Drawbridge

To improve navigational safety for all vessels sailing through the relatively narrow opening of the drawbridge at Benicia, the Coast Guard has completed a number of initiatives:

Established a Regulated Navigational Area (RNA) at the bridge, which prohibits deep-draft vessel transits when visibility is less than 1000 yards. The Coast Guard revised the RNA to change the name of the bridge to the Benicia-Martinez RR Bridge, added a third visibility checkpoint, and clarified the procedures for downbound vessels that are moored or anchored between the Railroad Drawbridge and New York Point (that intend to transit the RNA once underway).
Installed white lights on the main channel piers to better identify the primary navigation channel. The white pier lights recommended for installation on the main channel piers have provided better visibility in foggy conditions and have been made permanent.

Asked the Union Pacific Railroad (UPRR) to change the working frequency of the bridge radiotelephone to VHF Channel 13, to allow vessels and bridge operators to communicate directly instead of using Vessel Traffic Service Channel 14. This change went into effect in 2001.

Investigated bridge malfunctions and created natural working group to find solutions to process and equipment problems.

Had Caltrans make modifications to the RACON on the adjacent highway bridge, which has improved the signal to downbound vessels.

Most of the recommended bridge improvement items have been completed by UPRR. UPRR has installed a new auxiliary power system including a new generator and transformers, along with a new signal system. New enhancements include replacement of the bridge lift motors, installation of a computerized system to monitor train locations and track conditions and a computer system to track vessels upbound or downbound for the bridge.

To preserve the solutions implemented as a result of the natural working group (2000-2005), concerning the operation of the Benicia-Martinez Railroad Drawbridge, rail and waterway industry representatives and the Coast Guard continue to meet semi-annually to discuss problems with the bridge and to develop solutions. In addition to the elimination of near miss ship events with the bridge, there has been a significant reduction in rush-hour commuter rail and Amtrak traffic delays, due to the coordination by the SF Bar Pilots to make minor adjustments in ship arrival times at the bridge, when possible, to avoid impacting scheduled commuter rail traffic.