

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

Harbor Safety Committee of the San Francisco Bay Region Thursday, November 10, 2016 Port of San Francisco, Pier 1 Conference Center The Embarcadero, San Francisco, CA

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), CA Dungeness Crab Task Forced; **John Berg** (M), Pacific Merchant Shipping Association; **Ted Blanckenburg** (A), AmNav Maritime Services; **Capt. Bob Carr** (M), San Francisco Bar Pilots; **Capt. Tony Ceraolo** (M), United States Coast Guard; **Capt. Scott Cooper** (A), Chevron Shipping Company; **Capt. Tom Dougherty** (M), Blue & Gold Fleet; **Jeff Ferguson** (M), NOAA; **Aaron Golbus** (M), Port of San Francisco; **Benjamin Huber** (M), Westar Marine Services; **Phil Kipper** (A), San Francisco Bay Keeper; **LTC John Morrow** (M), US Army Corps of Engineers; **Linda Scourtis** (A), Bay Conservation and Development Commission; **Griffin Patrick** (M), Tesoro Refining and Marketing; **Jeff Robbins** (M), General Steamship Corp; **Marina Secchitano** (A), Inlandboatmen's Union.

The meetings are always open to the public.

Approval of the Minutes-

A motion to accept the minutes of the October 13, 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. Tony Ceraolo

- Advised of new pier configuration changes being requested by Pasha at Pier 80 that should help alleviate concerns.
- Advised of an October 26th response by Air Station San Francisco to a sinking dry dock that was being towed offshore from Seattle to Mexico. More of these types of vessels are expected to transit through our AOR in the future for decommissioning and will be monitored.
- Advised that the Port Recovery Team will be meeting for charter approval on November 16th at the MSSC in Richmond.



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- Advised that in the USCG is increasing public service announcements for maritime events and taking an increasingly proactive approach towards recreational boating safety as a result of the recent Fleet Week capsize incident. The USCG Auxiliary will be involved.
- LT Marcia Medina read from the October- 16 Prevention/Response Report (attached).

Army Corps of Engineers Report- Lt. Col. John Morrow

- Thanked veterans for their service in honor of Veteran's Day.
- Jim Mazza read from the US Army Corps of Engineers, San Francisco District Report (attached). A Suisun Bay survey is planned for next week and will continue to be monitored closely.
- Capt. Griffin Patrick asked if additional dredging will be scheduled for Pinole Shoal Channel based on the recent survey showing increased shoaling. The Corps advised that no work is planned but emergency dredging will be performed if necessary.

Clearing House Report- Alan Steinbrugge (report attached)

OSPR Report- David Mighetto

- Advised that Capt. Atanas Atanasov has been reappointed as Alternate HSC Member representing dry cargo vessel operators. Term ends on October 11, 2019.
- Gave a progress report to the HSC regarding SB 414. SB 414 requires regional HSC's to asses tug and towing capability to respond to offshore maritime casualties within their AOR. HSC Work Groups were formed on May 1, 2016 and the assessment must be completed by the end of June, 2017. Over the course of many Work Group meetings, six years of USCG casualty statistics were reviewed and an industry asset analysis was performed. The Bar Pilots were tasked with evaluating AOR boundaries and emergency anchoring locations. Weather, tide and current patterns were also examined in addition to other factors. Notification and emergency tug dispatch issues were of primary concern. Best Maritime Practices already in the regional Harbor Safety Plans contributed to the towing assessments. The SF HSC assessment is currently 85% complete and should be finished ahead of schedule.
- Advised that the Tug Work Group met on October 27th regarding SB 414 and will meet again on December 8th.
- Announced that the California Maritime Leadership Symposium will be held on February 15-16,
 2017 in Sacramento. Register for the event online at maritimesymposium.com.
- Tom Cullen, OSPR Administrator, thanked the HSC for their work on SB 414.



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NOAA Report- Jeff Ferguson

- Advised that NOAA's 2017 Tide Table book is available.
- Advised that very high/low tides are expected on November 13-17 with flooding possible depending on weather conditions.
- Advised that the NWS is still on the fence regarding the possibility of La Nina this winter. Our region's precipitation is currently two inches above average.

State Lands Commission Report-Rollie Caabay (report attached)

Work Group Reports-

Tug Work Group- Ted Blanckenburg advised that the next meeting will be held on December 8th at Bay Delta.

Navigation Work Group- Capt. Robert Carr advised that a meeting was held on October 31st to review a 2014 report by a Towing Safety Advisory Committee (TSAC) subcommittee titled Recommendations for Evaluating Placement of Structures Adjacent to or Within the Navigable Channels. The report is available on the SFMX website and recommends burial depth standards and inspection requirements. A letter from New York's HSC issued to the Army Corps addresses many of the same issues relating to buried cables and was also reviewed. The Work Group is drafting a letter on their findings regarding submerged cables to be submitted to the USCG. The Richmond Ferry Terminal project was reviewed with respect to CMA's and no safety concerns were found with the planned route. Introduced Capt. Joe Long, new Bar Pilot President, to the committee. Announced that the Bar Pilot's holiday party will be on December 8th, 12:00 – 16:00.

Ferry Operations Work Group- Capt. Tom Dougherty advised that ferry ridership continues to increase and that new boats will be added to the fleet in January, 2017. A meeting is scheduled for November 16th to review Best Maritime Practices and routes for new terminals being planned. VMAP 2017 exercise planning is underway.

Dredge Issues Work Group- Capt. Griffin Patrick advised that a Work Group meeting will be held directly after today's HSC meeting.

PORTS Work Group- Nothing to report.

Prevention through People Work Group- Nothing to report.



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PORTS Report- Alan Steinbrugge

- Advised of ongoing issues with the Richmond buoy mounted current sensor possibly caused by sea lions. Service on all buoy mounted current sensors is scheduled for the week of January 9, 2017.
- Advised that NOAA is in the process of servicing regional tide stations.
- Advised that planning is ongoing for a Pier 27 weather station.

Public Comment- None

Old Business- None

New Business-

• Capt. Korwatch advised that the SF Marine Exchange is in the process of updating their website and requested a current list of members and participants in each of the HSC Work Groups.

Next Meeting-

1000-1200, January 12, 2017 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 10:55.

Respectfully submitted:

nn Korwatch

PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS							
October 2016							
PORT SAFETY CATEGORIES*	Oct-2016	Oct-2015	**3yr Avg				
Total Number of Port State Control Detentions:	0	2	0.78				
SOLAS (0), STCW (0), MARPOL (0), ISM (0), ISPS (0)							
Total Number of COTP Orders:	0	3	4.47				
Navigation Safety (0), Port Safety & Security (0), ANOA (0)							
Marine Casualties (reportable CG 2692) within SF Bay:	13	7	10.81				
Allision (0), Collision (0), Fire (0), Capsize (0), Grounding (0), Sinking (1)							
Steering (1), Propulsion (3), Personnel (6), Other (2), Power (0)							
Total Number of (routine) Navigation Safety issues/Letters of Deviation:	2	5	4.25				
Radar (0), Gyro (1), Steering (0), Echo Sounder (1), AIS (0)							
AIS-835 (0), ARPA (0), Speed Log (0), R.C. (0), Other (0)							
Reported or Verified "Rule 9" or other Navigational Rule Violations:	0	0	0.61				
Significant Waterway events/Navigation related Cases:	0	0	0.39				
Total Port Safety (PS) Cases opened	15	17	21.31				
MARINE POLLUTION RESPONSE							
Pollution Discharge Sources (Vessels)	Oct-2016	Oct-2015	**3yr Avg				
U.S. Commercial Vessels	1	0	0.89				
Foreign Freight Vessels	0	0	0.11				
Public Vessels	1	0	0.56				
Commercial Fishing Vessels	1	0	0.56				
Recreational Vessels	1	1	4.39				
Pollution Discharge Sources (Facilities)							
Regulated Waterfront Facilities	0	2	0.25				
Regulated Waterfront Facilities - Fuel Transfer	0	0	0.00				
Other Land Sources	0	0	1.58				
Mystery Spills - Unknown Sources	3	3	4.56				
Number of Pollution Incidents within San Francisco Bay							
Spills < 10 gallons	3	3	5.75				
Spills 10 - 100 gallons	1	0	1.31				
Spills 100 - 1000 gallons	0	0	0.19				
Spills > 1000 gallons	0	0	0.06				
Spills - Unknown Size	3	3	5.69				
Total Pollution Incidents	7	6	13.00				
Oil Discharge/Hazardous Materials Release Volumes by Spill Size							
Estimated spill amount from U.S. Commercial Vessels	0.50	0.00	11.22				
Estimated spill amount from Foreign Freight Vessels	0.00	0.00	8.42				
Estimated spill amount from Public Vessels	1.00	0.00	1.32				
Estimated spill amount from Commercial Fishing Vessels	10.00	0.00	10.10				
Estimated spill amount from Recreational Vessels	50.00	5.00	43.09				
Estimated spill amount from Regulated Waterfront Facilities	0.00	2.00	3.00				
Estimated spill amount from Regulated Waterfront Facilities - Fuel Transfer	0.00	0.00	0.00				
Estimated spill amount from Other Land Sources	0.00	0.00	33.12				
Estimated spill amount from Unknown Sources (Mystery Sheens)	unk	0.00	1.33				
Total Oil Discharge and/or Hazardous Materials Release (Gallons)	61.50	7.00	111.58				
Penalty Actions							
Civil Penalty Cases	0	0	0.11				
Notice of Violations	0	2	0.64				
Letters of Warning	3	1	3.08				
Total Penalty Actions	3	3	3.83				
* NOTE: Values represent all cases within the HSC jurisdiction during the period. Significant c	ases are detail	ed in the narrat	tiv e.				
** NOTE: Values represent an average month over a 36 month period for the specified cate	gory of informat	tion.					

SIGNIFICANT PORT SAFETY AND SECURITY CASES (OCT 2016)

MARINE CASUALTIES

Allision (13OCT16): A U.S. flag passenger vessel allided with a Pier. The vessel was voluntarily taken out of service until repairs were made and witnessed by an attending Marine Inspector. Case Closed.

Loss of Propulsion (17OCT16): A foreign flag container vessel secured main engine to fix lube oil leak approximately 6NM offshore in the vicinity of Half Moon Bay. The vessel was able to re-establish propulsion and was supported by two tugs on an in-bound transist. Loss of propulsion was not attributed to fuel switching. Case Closed.

Loss of Propulsion (18OCT16): A foreign flag tank vessel experienced a loss of propulsion while arriving at berth. The main engine RPMs were set for Heavy Fuel Oil and not Marine Gas Oil, which resulted in an engine stall. Loss of propulsion was not attributed to fuel switching. Case Closed.

Loss of Propulsion (200CT16): A foreign flag tank vessel experienced a 4-5 minute delay leaving port due to a stuck main starting air valve actuator. Issue was identified and corrected immediately. A Port State Control exam verified proper operation. Loss of propulsion was not attributed to fuel switching. Case Closed.

VESSEL SAFETY CONDITIONS

Operation Control (24OCT16): A U.S. flag passenger vessel was issued a restriction requiring the vessel to repair and prove proper operation of the vessel's fixed bilge system prior to carrying passengers for hire. Coast Guard verified correction and lifted the restriction. Case Closed.

GENERAL SAFETY CASES

Nothing Significant to Report

NAVIGATIONAL SAFETY

Letter of Deviation (LOD) Inop Echo Depth Sounder (01OCT16): Vessel issued inbound and outbound LOD (valid until 27NOV16).

Letter of Deviation (LOD) Inoperational Gyro Compass (23OCT16): Vsl issued inbound LOD.

SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES

Letter of Warning (04OCT16): A 34' recreational vessel capsized and sunk near a pier in San Francisco. All 30 passengers were safely rescued. Response teams conducted a pollution assessment and determined 80 gallons of fuel was onboard. The owner contracted salvers to refloat the vessel and remove the pollution. The cause of capsizing is under CG and SFPD investigation.

Sunken Crane Barge (17OCT16): Sector San Francisco received multiple reports of a sunken crane barge. The owner was unsuccessful at conducting pollution remediation. Sector San Francisco opened the Oil Spill Liability Trust Fund for \$110,000 and hired a contractor for assessment, removal, and cleanup of all petroleum products onboard. Enforcement Pending.

Harbor Safety Committee Of the San Francisco Bay Region

Report of the U.S. Army Corps of Engineers, San Francisco District November 10, 2016

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 2016 DREDGING

- a. SF Main Ship Channel Started 18 May 2016, completed 1 June 2016, by government hopper.
- **b. Richmond Outer Harbor (and Richmond Long Wharf)** Started 1 June 2016, completed 14 June 2016, by government hopper. A second dredging episode occurred from 4 to 10 October 2016.
- **c. Richmond Inner Harbor** Contract awarded to Curtin Maritime on 1 September 2016. Actual dredging started on 18 October 2016, estimated completion end of November 2016, by contracted clamshell, with placement at Cullinan Ranch.
- **d.** San Pablo Bay (Pinole Shoal) Actual start on 26 September 2016, actual completion 3 October 2016, by government hopper.
- e. Redwood City Harbor Contract awarded to Manson Construction on 8 September 2016.

 Actual dredging started on 14 October 2016, with estimated completion end of November 2016.

 San Bruno Shoal will not be dredged this year.
- **f.** Oakland Harbor Dredging in the Outer Harbor started on 11 August 2016, estimated completion end of November 2016, contracted clamshell.
- g. Suisun Bay Channel (and New York Slough) The Suisun Bay Channel dredging solicitation was cancelled and the channel will not be dredged this season. We are conducting monthly hydrographic surveys to closely monitor shoaling conditions. The next survey will be conducted the week of 14 November 2016.
- **h.** Napa River Channel Contract awarded to Ahtna Construction on 6 September 2016. Dredging started on 18 September 2016 in the upper reaches of the river, with estimated completion end of November 2016, hydraulic pipeline.
- **2. DEBRIS REMOVAL** Debris removal for October 2016 was 53 tons. Dillard: 13 tons, including 3 abandoned vessels; Raccoon: 25 tons; other boats: 15 tons, including 6 abandoned vessels. Average for October from 2006 to 2015 is 35 tons. (Range: 12 89 tons).

BASEYARD DEBRIS COLLECTION TOTALS:

MONTH	RACCOON	DILLARD	MISC	TOTAL
2016	TONS	TONS	TONS	TONS
JAN	0	61	12	73
FEB	0	62	15	77
MAR	0	34.5	3	37.5
APR	0	42	75	117
MAY	0	18	4	22
JUN	5	54	3	62
JUL	24	9	12	45
AUG	22	48.5	16	86.5
SEP	5	13	4	22
OCT	25	13	15	53
NOV				
DEC				

YR TOTAL
595

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 FY15 and FY16. However, the Tentatively Selected Plan (TSP) milestone for Phase I (Western Reach) of the project was held on 29 June 2016

utilizing FY14 carryover funds. The recommended plan is to deepen the Phase I reach of the project from a depth of -35 feet to -38 feet MLLW. The final report is scheduled to be approved in February 2019.

HYDROGRAPHIC SURVEY UPDATE

Address of Corps' web site for completed hydrographic surveys:

http://www.spn.usace.army.mil/Missions/Surveys,StudiesStrategy/HydroSurvey.aspx

The following surveys are posted:

Alameda Point Navigation Chanel: Condition survey of November 2, 2016.

Berkeley Marina (Entrance Channel): Condition survey of September 23, 2014.

Islais Creek Channel: Condition survey of May 12, 2016.

Larkspur Ferry Channel: Condition survey of November 14, 2014.

Main Ship Channel: Post-dredge survey of June 6, 2016. Mare Island Strait: Condition survey of September 24, 2014.

Marinship Channel (Richardson Bay): Condition survey of September 21, 2014.

Napa River: Condition survey of early March 2-7, 2016.

Northship Channel: Condition survey of late July 29-31, 2015.

Oakland Entrance Channel: Post-dredge survey of September 28 & 30 and October 10, 2016.

Oakland Inner Harbor (Reach 2): Post-dredge survey of October 21 & 31, 2016.

Oakland Inner Harbor (Reach 3): Condition survey of July 7-13, 2016. Oakland Inner Harbor (Reach 4-6): Condition survey of July 7-13, 2016.

Oakland Outer Harbor (Reach 7-9): Post-dredge survey of September 10 & 12, 2016.

Oakland Outer Harbor (Reach 10): Post-dredge survey of September 10 & 12, 2016.

Petaluma River (Across-the-Flats / Main Channel): Condition survey of September 12-14, 2014.

Pinole Shoal Channel: Condition survey of October 17-20, 2016.

Redwood City Harbor: Condition survey of July 20, 2016.

Richmond Inner Harbor: Condition survey of July 26-27, 2016.

Richmond Outer Harbor (Longwharf): Post-dredge survey of June 28-29, 2016.

Richmond Outer Harbor (Southampton Shoal): Post-dredge survey of June 20-27, 2016. **Sacramento River Deep Water Ship Channel:** Condition survey of February 9-12, 2016.

San Bruno Shoal: Condition survey of August 4, 2016.

San Leandro Marina (and Channel): Condition survey of March 30 and April 1, 2015.

San Rafael Across-the-Flats / San Rafael Creek: Condition surveys of May 9-10, 2013.

Stockton Ship Channel: Condition survey of February 22-25, 2016.

Suisun Bay Channel: Condition survey of August 8, 22-23, and 31, 2016.

Suisun Bay Channel (New York Slough): Condition survey of August 16-17, 2016.

Disposal Site Condition Surveys:

SF-08 (Main Ship Channel Disposal Site): Condition survey of March 12, 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**): Condition survey of October 24, 2016.

SF-16 (Suisun Bay Disposal Site): Condition survey of September 1, 2016.

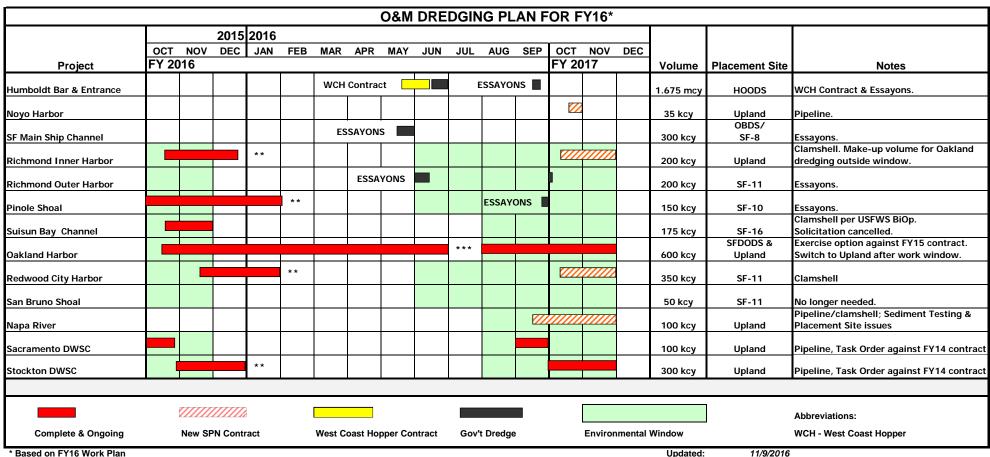
SF-17 (Ocean Beach Disposal Site): Condition survey of March 20, 2013.

Requested Surveys:

SF-9 (Carquinez) scheduled, but on-hold. SF-10 (San Pablo Bay) scheduled, but on-hold. Suisun Bay Channel (Bulls Head) scheduled for week of 14 November 2016.

NEW WEB ADDRESS – USACE WORK PLAN:

http://www.usace.army.mil/Missions/Civil-Works/Budget/



^{*} Based on FY16 Work Plan

^{**} Environmental Window Extension Granted



Harbor Safety Committee of the San Francisco Bay Region Clearing House

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San Francisco Clearinghouse Report

November 10, 2016

- In October the clearinghouse did not need to contact OSPR regarding any possible escort violations.
- In October the clearinghouse did not receive any notifications of vessels arriving at the Pilot Station without escort paperwork.
- The Clearinghouse contacted OSPR 1 time in 2016 about possible escort violations. The Clearinghouse contacted OSPR 3 time in 2015 about possible escort violations. The Clearinghouse contacted OSPR 5 times regarding possible escort violations in 2014. The Clearinghouse contacted OSPR 1 time in 2013. The Clearinghouse contacted OSPR 3 times in 2012 regarding any possible escort violations, 3 times in 2011, 6 times in 2010, 8 time 2009; 4 times 2008; 9 times in 2007; 9 times in 2006; 16 times in 2005; 24 times in 2004; twice in 2003; twice in 2002; 6 times in 2001; 5 times in 2000.
- In October there were 79 tank vessel arrivals; 12 ATB's, 2 Chemical Tankers, 20 Chemical/Oil Tankers, 18 Crude Oil Tankers, 11 Product Tankers, and 16 Tugs with Barges.
- In October there were 283 total arrivals.

San Francisco Bay Clearinghouse Report For October 2016

San Francisco Bay Region Totals

	2016		2015	
Tanker arrivals to San Francisco Bay	51		61	
ATB arrivals	12		13	
Barge arrivals to San Francisco Bay	16		24	
Total Tanker and Barge Arrivals	79		98	
Tank ship movements & escorted barge movements	289		339	
Tank ship movements	161	55.71%	201	59.29%
Escorted tank ship movements	127	43.94%	133	39.23%
Unescorted tank ship movements	34	11.76%	68	20.06%
Tank barge movements	128	44.29%	138	40.71%
Escorted tank barge movements	41	14.19%	52	15.34%
Unescorted tank barge movements	87	30.10%	86	25.37%

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

Escorts reported to OSPR

0

0

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	164		275		0		134		573	
Unescorted movements	57	34.76%	112	40.73%	0	0.00%	64	47.76%	233	40.66%
Tank ships	42	25.61%	80	29.09%	0	0.00%	50	37.31%	172	30.02%
Tank barges	15	9.15%	32	11.64%	0	0.00%	14	10.45%	61	10.65%
Escorted movements	107	65.24%	163	59.27%	0	0.00%	70	52.24%	340	59.34%
Tank ships	90	54.88%	122	44.36%	0	0.00%	59	44.03%	271	47.29%
Tank barges	17	10.37%	41	14.91%	0	0.00%	11	8.21%	69	12.04%

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

	<u> 2016</u>		2015	
Tanker arrivals to San Francisco Bay	581		691	
ATB arrivals	113		108	
Barge arrivals to San Francisco Bay	153		256	
Total Tanker and Barge Arrivals	734		1,055	
Tank ship movements & escorted barge movements	3,206		3,617	
Tank ship movements	1,843	57.49%	2,088	57.73%
Escorted tank ship movements	1,343	41.89%	1,304	36.05%
Unescorted tank ship movements	500	15.60%	720	19.91%
Tank barge movements	1,363	42.51%	1,529	42.27%
Escorted tank barge movements	301	9.39%	572	15.81%
Unescorted tank barge movements	1,062	33.13%	1,105	30.55%

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

Escorts reported to OSPR

1

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	1,900		2,956		0		1,407		6,263	
Unescorted movements	808	42.53%	1,366	46.21%	0	0.00%	701	49.82%	2,875	45.90%
Tank ships	586	30.84%	941	31.83%	0	0.00%	505	35.89%	2,032	32.44%
Tank barges	222	11.68%	425	14.38%	0	0.00%	196	13.93%	843	13.46%
Escorted movements	1,092	57.47%	1,590	53.79%	0	0.00%	706	50.18%	3,388	54.10%
Tank ships	971	51.11%	1,321	44.69%	0	0.00%	559	39.73%	2,851	45.52%
Tank barges	121	6.37%	269	9.10%	0	0.00%	147	10.45%	537	8.57%

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.

HARBOR SAFETY COMMITTEE MONTHLY REPORT - OCTOBER COMPARISON

VESSEL TRANSFERS

	Total Transfers	Total Vessel Monitors	Total Transfer Percentage	
OCTOBER 1 - 31, 2015	221	70	31.67	
OCTOBER 1 - 31, 2016	207	84	40.58	

CRUDE OIL / PRODUCT TOTALS

	Crude Oil (D)	Crude Oil (L)	Overall Product (D)	Overall Product (L)	GRAND TOTAL
OCTOBER 1 - 31, 2015	12,234,846	0	18,504,994	6,975,561	25,480,555
OCTOBER 1 - 31, 2016	9,144,000	0	17,104,000	6,221,608	23,325,608

OIL SPILL TOTAL

OCTOBER 1 - 31, 2015	Terminal	Vessel	Facility	Total	Gallons Spilled
	0	0	0	0	0
OCTOBER 1 - 31, 2016	0	1	0	1	DIESEL - 1 Gallon

Disclaimer:

Please understand that the data is provided to the California State Lands Commission from a variety of sources; the Commission cannot guarantee the validity of the data provided to it.