

# Harbor Safety Committee

of the San Francisco Bay Region

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

## Harbor Safety Committee of the San Francisco Bay Region

Thursday, February 13, 2020

Port of San Francisco, Pier 1, Bayside Conference Room

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 10:00.

Marcus Freeling (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 Force; **John Berge** (M), Pacific Merchant Shipping Association; **Capt. Sean Daggett** (M), Sause Bros. Inc.; **CDR Dave Dixon** (A), United States Coast Guard; **Ben Eichenberg** (A), San Francisco Baykeeper; **Jeff Ferguson** (M), NOAA; **Scott Grindy** (M), San Francisco Small Craft Harbor; **Ben Huber** (M), Westar Marine Services; **Capt. Thomas Kirsch** (M), Blue and Gold Fleet; **Jim McGrath** (M), Bay Conservation and Development Commission; **Dominic Moreno** (M), Port of San Francisco; **Major Stephanie Radford** (A), US Army Corps of Engineers; **Jeff Robbins** (M), General Steamship Corporation; **Julian Rose** (M), Marathon Petroleum; **Capt. Paul Ruff** (A), San Francisco Bar Pilots; **Justin Taschek** (A), Port of Oakland; **Jeff Vine** (M), Port of Stockton.

The meetings are always open to the public.

### Approval of the Minutes-

A motion to accept the minutes of the January 9, 2020 meeting was made and seconded. The minutes were approved without dissent.

### Comments by Chair- Capt. Lynn Korwatch

Welcomed the committee members and audience. Advised that the meeting agenda has been rearranged and will begin with a presentation.

### Report on an Air Quality UAV Project- Alex Spataru, The ADEPT Group

- Alex Spataru, The ADEPT Group, gave a presentation to the committee on planned UAV monitoring of vessel emissions (slides attached). The California Air Resources Board (CARB) regulates vessel emissions in CA waters and requires the use of low Sulphur fuel, 0.1% maximum. The European Union also regulates emissions and conducts both fixed and aerial

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monitoring to test compliance. EU emissions monitoring has found a 5-15% non-compliance rate for vessels at sea and enforcement has effectively reduced air pollution in the region. It is estimated that non-compliance with fuel regulations by vessels transiting California waters is substantial. There is a monetary incentive to cheat and CARB inspection is limited. Aerial emissions monitoring of vessels at sea is effective and necessary. Air pollution is a major concern and disadvantaged communities are often affected most. A project is being conducted using UAV (drones) to monitor offshore vessel emissions in California. UAV operation is regulated by the FAA which restricts flying over vessels or more than 12 miles offshore. Launching UAV from a chase boat is permitted. The project will start with testing off San Francisco to establish the UAV emissions detecting capabilities. More testing will then be conducted followed by trials off San Pedro and Los Angeles. The UAV sensor package will include four sets of certified instruments to compare results. Accuracy is paramount. Contact: [aspataru@adeptgroup.net](mailto:aspataru@adeptgroup.net)

- Richard Hernandez, SLC, asked at what altitude the drones will measure emissions. Alex Spataru advised that the ideal altitude and distance from the vessel's stack will be determined through testing. John Berge asked about agency involvement with the project. Alex Spataru advised that the EPA and the Bay Area Air Quality Management District are providing funding in addition to help from MARAD. CDR Dixon asked about safety. Alex Spataru advised that safety is a priority and precautions will be taken regarding electromagnetic issues. The locations of offshore testing are yet to be determined and all regulations will be followed. Permission from vessel operators is not required for emissions testing but in Europe, enforcement is announced prior to being conducted. It was advised that chase boat conflict with fishing operations and National Marine Sanctuaries are concerns. Alex Spataru advised that they will work with industry and relevant agencies to determine the best testing locations and procedures. Capt. Korwatch advised that a Work Group meeting will be scheduled on the issue.

## **Coast Guard Report- CDR Dave Dixon**

- Advised that a USCG MSIB has been issued on coronavirus precautions (attached). Arriving vessels are being contacted and are required to inform of medical cases. No concerns have been reported. A meeting was held by the Port of San Francisco with stakeholders regarding a recent cruise ship arrival.
- Advised of a high wind event on January 9<sup>th</sup>. 35 knot winds were reported in Anchorage 9 and 53 knot winds at the UPRR Bridge. As a result, four vessel transits were postponed, ferry service was disrupted and two marine events were impacted.
- Advised that the USCG is working with USACE on waterways assessment.

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- Advised of a recent USCG Safety Advisory regarding hemp products and drug tests for licensed mariners. The use of hemp products is not accepted as a legitimate excuse for a positive drug test.
- LT Cotton read from the January- 2020 Prevention/Response Report (attached).
- LT Cotton advised that a Work Group meeting will be held directly after today's HSC meeting on Sail GP 2020.

## **Army Corps of Engineers Report- Major Stephanie Radford**

- Read from the US Army Corps of Engineers, San Francisco District Report (attached). After significant delays, Redwood City Harbor has been dredged to 29 feet which is short of the target depth of 30 feet. Debris removal numbers were near average. Additional funding has been approved for dredging in Petaluma, San Rafael and Sacramento. Public review of the San Francisco to Stockton study is ongoing. The USACE Work Plan is available at: [www.usace.army.mil/Missions/Civil-Works/Budget/](http://www.usace.army.mil/Missions/Civil-Works/Budget/)
- Scott Humphrey, USCG VTS, asked USACE to look into installing AIS on their vessels. Non AIS equipped vessels are a safety concern. Major Radford advised that they will consider the issue.
- Julian Rose asked about Pinole Shoal survey timeframes. Major Radford advised that surveys are scheduled based on funding availability and information will be provided.

## **Clearinghouse Report- Marcus Freeling (report attached)**

### **OSPR Report- Mike Zamora**

- Announced new HSC membership appointments. Capt. Frank Strasheim, MOL Chemical Tankers, is the new alternate member representing tanker ship operators. Term ends on February 12, 2023.

### **NOAA Report- Jeff Ferguson**

- Advised of NOAA's Office of Coast Survey five-year process of ending paper nautical chart production. ENC charts will replace paper and raster products. NOAA is seeking feedback from chart users: <https://nauticalcharts.noaa.gov/customer-service/assist>.
- Advised that Coast Pilot 7 hardcopy will be coming out in May covering California only. Coast Pilot 10 will cover Oregon, Washington and the Pacific Islands.
- Advised that the NAVTEX system will not be discontinued at this time. Public comment was made in support of the system.

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- Advised that the NWS predicts a dry February due to high pressure offshore.
- Capt. Ruff asked if the new NOAA charts will be printable. Jeff Ferguson advised that printed charts will not meet carriage requirements. The USCG is addressing the carriage issue.

## **State Lands Commission Report- Richard Hernandez (report attached)**

- Announced that he is leaving SLC and joining OSPR. Prevention First will be held on September 29-30 in Long Beach.

## **Work Group Reports-**

**Tug Work Group-** Capt. Sean Daggett advised that a Work Group meeting will be held directly after today's HSC meeting regarding tug compatibility for emergency response.

**Navigation Work Group-** Capt. Paul Ruff advised that there was nothing to report.

**Ferry Operations Work Group-** Capt. Tom Kirsch advised that there was nothing to report.

**Dredge Issues Work Group-** Julian Rose advised of ongoing concern regarding Pinole Shoal Channel depth and dredging deferment.

**PORTS Work Group-** Justin Taschek advised that there was nothing to report.

**Prevention through People Work Group-** Scott Grindy advised that the San Francisco Marina will be the host site for Sail GP 2020. Youth races are also being considered for the event. The USCG Notice of Proposed Rulemaking is expected to be issued soon.

## **PORTS Report- Marcus Freeling**

- Advised that divers were recently hired to service the Amorco current meter. The sensor can now be raised but is not functioning properly. The sensor will be replaced with a backup.
- Advised that the Oakland LB3 current meter is offline. Data issues persist and the problem is being investigated.
- Advised that the Oakland 34 weather station stand needs additional anchoring. It was damaged during high winds.
- Advised that PORTS data is publicly available through NOAA's Tides and Currents website.
- Scott Humphrey asked about the feasibility of putting a visibility sensor on the UPRR Bridge. Marcus Freeling advised that visibility sensors require regular maintenance and access to the bridge is difficult. There is a visibility sensor nearby at the Amorco dock.

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## Public Comment-

- It was announced that the 34<sup>th</sup> Annual Mariners' Sunday will be held on March 1<sup>st</sup>, 10:00am, at St. Luke Presbyterian Church.

## Old Business-

- Capt. Korwatch advised that the proposed Anchorage 9 vessel stay time limit should be addressed. Capt. Ruff advised that the issue is being worked on.

## New Business-

- Capt. Korwatch advised that the City of Oakland EIR for the proposed Howard Terminal Oakland A's stadium is scheduled to be released on February 21<sup>st</sup>. There will be a comment period and the HSC will convene a Work Group to consider the EIR.
- Capt. Korwatch announced that the Cal Maritime Woman in Maritime Leadership Conference 2020 will be held on February 28-29.
- Justin Taschek advised that the Port of Oakland is reviewing air and water drafts with an eye to the future. Turning basins are also being looked at to accommodate larger vessels. HSC Work Group involvement is requested.

## Next Meeting-

1000-1200, March 12, 2020  
Port of Oakland, Exhibit Room  
530 Water Street, Oakland, CA

## Adjournment-

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

Respectfully submitted:



Capt. Lynn Korwatch

# *San Francisco Harbor Safety Committee Presentation* Enhanced Monitoring of Emission Control Areas (ECAs) & the California Sulfur Rules with UAV and Sensor Pack enforcement tools

Thursday, February 13, 2020



**THE ADEPT GROUP, INC.**

# There is an urgent need for Enhanced Aerial Monitoring of ECAs & CA Sulfur Rule

**It is useless to have a regulation if it cannot be reliably, rapidly and impactfully enforced.**

**It is wise and essential to adopt self-paying tools to fully enforce existing regulations.**

# Background Information

Report prepared by a UCLA Institute of the Environment and Sustainability (IoES) 2018- 2019 Practicum team can be found at:

<https://www.ioes.ucla.edu/wp-content/uploads/Aerial-Sniffer-System-for-Ocean-Going-Vessels.pdf>

Subsequently, UCLA NewsRoom issued an article:

<https://www.ioes.ucla.edu/article/drone-monitoring-of-ship-emissions-could-save-lives-protect-health/>



# Background Information (cont'd)

- \* A follow-on Practicum – with student and faculty participation from UCLA IoES, the UCLA School of Engineering, and UC Riverside Bourns College of Engineering (BCOE) – started in academic year 2019 - 2020.
- \* This Practicum is in support of 7.5 months long project led by the UCR BCOE that starts on February 17, 2020.

# Worldwide Impact of shipping air pollution:

- \* 13% of global SO<sub>2</sub> emissions;
- \* 15% of global NO<sub>x</sub> emissions: and
- \* 3% of global CO<sub>2</sub> emissions.

Source: IMO 2014

# Marine Fuels:

- \* High Sulfur Fuel Oil (HSFO) content 3.5% max. S
- \* Low Sulfur Fuel Oil (LSFO) content 1.0% max. S
- \* Ultra-Low Sulfur Fuel Oil (ULSFO) content 0.1% max. S

# Regulatory Environment:

- \* SECA/ECA's:

- \* 0.10 % Max. Sulfur Content in Fuel
- \* IMO MARPOL Annex VI Regulation 14: USA is signatory
- \* USCG responsible for SECA enforcement (via MOU w/US EPA)

- \* California Sulfur Rule:

- \* 0.10 % Max. Sulfur Content in Fuel + Only Distillate Fuel
- \* CARB's Enforcement Division responsible for enforcement
- \* Omits enforcement of OGV's only sailing through CA waters

# EU Experience:

- \* 10+ yrs. w/fixed monitoring stations
- \* 6+ yrs. w/aerial monitoring
- \* 30 + Millions of Euros spent by EU Members States (MS) to address SECA enforcement
- \* Aerial Monitoring has effectively reduced number of violations each year
- \* Aerial Monitoring + Fixed RS has effectively reduced air pollution in MS.

## **Project Objective:**

**To build on and adapt to US needs the EU experience.**

# EU Study Outcomes:

- \* 5 – 15% non-compliance rate at sea;
- \* ~5% non-compliance in port; and
- \* Non-compliance is higher:
  - \* off shore, and
  - \* at SECA borders

# EU Stdy Conclusions & Recommended Next Steps

## Conclusions:

- \* Aerial Monitoring and Targeting of most likely violating OGV's works
- \* Aerial Monitoring and Targeting of OGV's improves efficiency of at-pier inspections
- \* There's a real need to conduct at sea enforcement

## Recommended Next Steps:

- \* Validate sensor package data to gain legal status;
- \* Continue field work to:
  - ✓ Enhance reliability & process cost-effectiveness; and
  - ✓ Facilitate efforts to achieve standardization

# European Safety Concerns

- \* Medium & Large Vertical Take Off & Landing (VTOL) and Radio Line of Site (RLOS) fall under aviation regulations (e.g. Skeldar V200) – EMSA requires 50-100 m from OGV's stern.
- \* Denmark Rule: 50 m from stern of vessel for rotary wing aircraft.
- \* France practice - 20 m from stern.
- \* US – no rule in place yet (s/m/l UAV's).
- \* Cannot fly over manned vessel at all times.

Note: Small UAV = less than 55 lbs.

## Dialog highlights with Mr. Scott Harris, FAA Security and Hazardous Materials Safety, Special Agent, Law Enforcement Assistance Program (LEAP)

- \* Cannot fly over any vessels.
- \* OK to launch & retrieve an UAV from a chase boat.
- \* Stay out of SFO air space when working near the Bay of San Francisco.
- \* FAA authority extends only 12 miles out at sea.
- \* Pilot must be properly certified (comply with Part 107)
- \* Would like to be kept current with project progress.

# California Situation:

## Exceptionally Strong Financial Motivation for OGV's calling in CA ports to violate California's Sulfur Rule:

Reward for 7-8,000 TEU carrier:	\$ 60 – 70 K/call (est.)
Risk for 7-8,000TEU carrier:	\$ 2.5 K to \$ 10 K/day (from CARB reports)
Reward/Risk:	> <b>6:1</b>
% of CARB inspected OGV's:	~ 7% (< 600 inspections/yr)
% inspected by USCG:	< 1% (est.)
# of Ports of Call in CA/yr:	> 8,000/yr
% CARB caught violators: (via at pier inspections only)	~1.5% (~9/~600) (98.5% = “waste of time”)
% violators Best Guess Estimate:	<b>10 - 25%</b> (>800 to >2,000 port visits)
(to be compared with 5% violators caught in the EU via at-pier inspections)	

# California Situation (Cont'd):

## **Implications:**

- \* Target at sea to improve hit rate in ports, and
- \* Target at sea to monitor “passing” OGV’s.

## **Conclusions:**

- \* There’s clear merit to adapt remote aerial monitoring to CA waters conditions.
- \* Develop a path toward such timely adaptation.

# Disadvantaged Communities Impact:

In or near port communities impacted by:

- \* Greater morbidity & mortality due to violating OGV's;
- \* Non-monitoring of OGV's traveling through CA waters;
- \* Air quality modelers erroneously assuming all OGV's comply.

Aerial monitoring & targeting can correct such impacts via:

- \* Enhanced quantification of OGV violations; and
- \* Material air pollution relief to in or near port communities.

**Aerial monitoring and targeting of OGV's violating California Sulfur Rule is fully aligned with intent and letter of AB 617 (2017).**

# Projects Timing and Locations :

**Project I Start Date:** Feb 17, 2020  
**Project I End Date:** September 30, 2020

**Project I:**

<b>Field Work:</b>	~March 15 - 21, 2020
<b>Laboratory Work:</b>	~March 26–31, 2020
<b>Analytical Work:</b>	~April 7 – September 30, 2020
<b>Location:</b>	Outside Bay of San Francisco

**Project II:**

<b>Field Work:</b>	~October 12 - 23, 2020
<b>Analytical Work:</b>	~November 23 – March 8, 2021
<b>Location:</b>	Outside bay of San Francisco

**Project III:**

<b>Field Work:</b>	~October 26 – November 12, 2020
<b>Analytical Work:</b>	~November 19 – ~March 22, 2020
<b>Location:</b>	Outside Bay of San Pedro

**Project IV:**

<b>Analytical Work:</b>	~April 16 – August 15, 2021
<b>Field Work:</b>	~June 5, 2021 – August 3, 2021
<b>Location:</b>	Port of LA

# Project I Work Outline:

\* Vessel: MARAD's MV Cape Henry (RoRo).

Conduct parallel emissions measurements and XRF instruments measurements to quantify Sulfur Content in two fuels burned by the vessel.

Four (4) sets of instruments are used:

1. CE- CERT certified instrumentation;
2. UAV borne sensor package (e.g. AEROMON BH-12 device);
3. Portable XRF Instrument;
4. CARB Certified Lab XRF Bench Instrument.

Emission measurements are taken while the vessel:

1. Sails in a straight line + at steady speed (12 - 15 knots.)
2. Burns low Sulfur & high Sulfur fuels.

# Phase I Work Outline (cont'd):

- \* CE-CERT measures emissions via probe located inside main engine stack.
- \* UAV carries sensor packages into the plume from the deck of the MV Cape Henry.
- \* Measured in-stack and in-plume emissions include: PM, Air Pressure, SO<sub>2</sub>, NO<sub>2</sub>, NO, CO<sub>2</sub>, Temperature & Humidity.
- \* Time and date stamped “Sister” fuel samples are drawn every 30 minutes. Half are subsequently tested for sulfur content w/portable XFR instrument. Other half is submitted for sulfur content analysis to CARB certified lab.
- \* S concentration results from four testing methods are analyzed and reported.

Based on the above work derived findings – sensor package/s & aerial platform/s are selected for deployment in Projects II and III.

Thank you!

Q&A



# Marine Safety Information Bulletin

Commandant  
U.S. Coast Guard  
Inspections and Compliance Directorate  
2703 Martin Luther King Jr Ave SE, STOP 7501  
Washington, DC 20593-7501

MSIB Number: 02-20  
Date: February 2, 2020

E-Mail: [OutbreakQuestions@uscg.mil](mailto:OutbreakQuestions@uscg.mil)

## Novel Coronavirus

This MSIB cancels MSIB 01-20 “[Novel Coronavirus Precautions](#)”, dated January 24, 2020.

An outbreak of respiratory illness caused by a novel coronavirus (2019-nCoV) may affect mariners and maritime commerce. 2019-nCoV was first detected in Wuhan, People’s Republic of China and has since spread globally (see <https://go.usa.gov/xdbS9>). There are several known coronaviruses that infect people, usually causing only mild respiratory symptoms similar to the common cold. However, 2019-nCoV appears capable of causing illness that is more serious. Signs and symptoms include fever, cough, and difficulty breathing.

On January 30, 2020, the World Health Organization (WHO) declared the outbreak of 2019-nCoV constituted a Public Health Emergency of International Concern. On January 31, 2020, U.S. Health and Human Services (HHS) declared the 2019-nCoV situation to be a Public Health Emergency in the United States. HHS issued a quarantine order for specific airline passengers returning to the United States from the Hubei Province of China. On January 31, 2020, the President of the United States then issued a proclamation on the Suspension of Entry as Immigrants and Non-immigrants of Persons Who Pose a Risk of Transmitting 2019 Novel Coronavirus and Other Appropriate Measures to Address This Risk. This proclamation includes temporary suspension of foreign nationals (with some exceptions such as vessel crewmembers) who were physically present in the People’s Republic of China (excluding Hong Kong and Macau), during the 14-day period preceding their entry or attempted entry into the United States, to enter in effect February 2, 2020 at 5:00 pm Eastern Standard Time.

The U.S. Centers for Disease Control and Prevention (CDC) issued a Level 3 Travel Health Warning to avoid all nonessential travel to China (see <https://go.usa.gov/xdbSN>) and the U.S. Department of State increased its Travel Advisory for all of China to Level 4 “Do not travel to China” (see <https://go.usa.gov/xdbVd>). The CDC Travel Health Warning contains precautions to protect travelers and others if one must travel to China.

Illness of a person onboard a vessel that may adversely affect the safety of a vessel or port facility is a hazardous condition per 33 CFR 160.216 and must be immediately reported to the U.S. Coast Guard Captain of the Port (COTP) under 33 CFR 160.206. Cases of persons who exhibit symptoms consistent with 2019-nCoV must be reported to the COTP. Such persons will be evaluated and treated on a case by case basis.

Per 42 CFR 71.21, vessels destined for a U.S. port are required to report to the CDC any sick or deceased crew/passengers during the 15 days prior to arrival at a U.S. port. Guidance to vessels on reporting deaths and illnesses to the CDC can be found at: <https://go.usa.gov/xdjmj>. U.S. flagged commercial vessels are also advised to report ill crewmembers in accordance with the requirements of each foreign port called upon.

Vessel owners/operators and local stakeholders should be aware of the following:

- Passenger vessels or any vessel carrying passengers that have been to China (excluding Hong Kong and Macau) or embarked passengers who have been in China (excluding Hong Kong and Macau) within the last 14 days will be denied entry into the United States. If all passengers exceed 14 days since being in

China (excluding Hong Kong and Macau) and are symptom free, the vessel will be permitted to enter the United States to conduct normal operations. These temporary measures are in place to safeguard the American public.

- Non-passenger commercial vessels that have been to China (excluding Hong Kong and Macau) or embarked crewmembers who have been in China (excluding Hong Kong and Macau) within the last 14 days, with no sick crewmembers, will be permitted to enter the U.S. and conduct normal operations, with restrictions. Crewmembers on these vessels will be required under COTP authority to remain aboard the vessel except to conduct specific activities directly related to vessel cargo or provisioning operations.
- The Coast Guard considers it a hazardous condition under 33 CFR 160.216 if a crewmember who was in China (excluding Hong Kong and Macau) within the past 14 days is brought onboard the vessel during transit. This requires immediate notification to the nearest Coast Guard Captain of the Port.
- The Coast Guard will continue to review all “Notice of Arrivals” in accordance with current policies and will communicate any concerns stemming from sick or deceased crew or passengers to their Coast Guard chain of command and the cognizant CDC quarantine station, who will coordinate with local health authorities.
- Vessel masters shall inform Coast Guard boarding teams of any ill crewmembers on their vessel prior to embarking the team and Boarding Teams should verify the type of illnesses with CDC if concerns arise.
- Local industry stakeholders, in partnership with their Coast Guard Captain of the Port, should review and be familiar with section 5310 Procedures for Vessel Quarantine and Isolation, and Section 5320 - Procedures for Security Segregation of Vessels in their Area Maritime Security Plan.
- Local industry stakeholders, in partnership with their Coast Guard COTP, should review and be familiar with their Marine Transportation System Recovery Plan.
- For situational updates, please check with the CDC at <https://go.usa.gov/xDdSW>

Ms. Dana S. Tulis, SES, U.S. Coast Guard, Director, Emergency Management (CG-5RI) sends.

<b>SIGNIFICANT PORT SAFETY AND SECURITY CASES (JANUARY 2020)</b>
<b>MARINE CASUALTIES</b>
Loss of propulsion (04JAN2020): A U.S. flag bulk freight vessel experienced a loss of propulsion while conducting sea trials. The pneumatic governor on the MDE had a malfunction while coming down in speed and, instead, tried to give the engine full power. Class attended the vessel and witnessed satisfactory operation of the governing system. Case closed.
Loss of propulsion (18JAN2020): A foreign flag tank vessel experienced a loss of propulsion while transiting inbound to Stockton. The governor on the MDE had a malfunction while coming down in speed. Class attended the vessel and witnessed satisfactory operation of the governing system. Case closed.
Equipment failure (18JAN2020): A foreign flag container vessel experienced a failure of the MDE to start while moored in Oakland. Two three-way valves on the air start system were found to be inoperable. Both valves were replaced. Class and Coast Guard attended the vessel and witnessed satisfactory operation of the MDE. Case closed.
Loss of propulsion (20JAN2020): A foreign flag tank vessel experienced a loss of propulsion while transiting inbound from the main ship channel to Anchorage 9. The causative factor was found to be an inoperable MDE rpm sensor. Class and Coast Guard attended the vessel and witnessed satisfactory operation of the MDE. Case closed.
Loss of propulsion (23JAN2020): A U.S. flag small passenger vessel experienced a loss of propulsion while transiting inbound San Francisco Bay. The causative factor was found to be the loss of the 12V battery power. Coast Guard attended the vessel and witnessed satisfactory operation of the propulsion and electrical generation plant. Case closed.
Loss of propulsion (24JAN2020): A foreign flag tank vessel experienced a loss of propulsion while transiting inbound to San Francisco. The causative factor was found to be air in the fuel pump. Vessel was able to regain power within minutes and was granted permission to continue their transit. Case closed.
Loss of propulsion (27JAN2020): A foreign flag bulk freight vessel experienced a loss of propulsion while transiting inbound to Anchorage 9. The causative factor was found to be a rag within the coupling of the lubricator. Vessel was able to remove the rag. Class attended the vessel and witnessed satisfactory operation of the MDE. Case closed.
<b>VESSEL SAFETY CONDITIONS</b>
Operational Control (04JAN2020): A U.S. flag bulk freight vessel was issued an operational control (code 701) due to loss of propulsion. Technicians attended the vessel and reset the settings associated with the control system. Class witnessed satisfactory operation of all associated systems. Case closed.
Operational Control (06JAN2020): A U.S. flag small passenger vessel was inspected at Pillar Point Harbor in Half Moon Bay and was issued an operational control (code 17) due to structural damage on the stern and noncompliance with navigation lights. Case pends.
Operational Control (06JAN2020): A U.S. flag small passenger vessel was inspected at Pier 50 in San Francisco and was issued an operational control (code 17) due to an inoperable bilge pump, crew competency, and non-operational high water level alarms. Case pends.
Operational Control (15JAN2020): A U.S. flag small passenger vessel was inspected at Pier 40 in San Francisco and was issued an operational control (code 17) due to an inoperable bilge pump, crew competency, and non-operational high water level alarms. Case pends.
Operational Control (15JAN2020): A U.S. flag towing vessel was inspected at Richmond Long Wharf #1 in Richmond and was issued an operational control (code 705) due to a fire in the engine room. All damaged equipment was replaced. Class and Coast Guard attended vessel and witnessed satisfactory operational test of starboard engine. Case closed.
Operational Control (22JAN2020): A U.S. flag Ro-Ro cargo vessel was issued an operational control (code 17) due to an inoperable fire detection system. Class attended the vessel and witnessed satisfactory operation of the fire detection system. Case closed.
Operational Control (28JAN2020): A U.S. flag small passenger vessel was inspected at Pillar Point Harbor in Half Moon Bay and was issued an operational control (code 17) due to a fire extinguisher without adequate charge. Case pends.
<b>SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES</b>
Letter of Warning (LOW), 03JAN2020: A U.S. commercial vessel discharged approximately 5 gallons of hydraulic fluid into a U.S. navigable waterway near Moss Landing, CA, after experiencing a hydraulic line failure. A NOFI and LOW were issued. Case closed.
Letter of Warning (LOW), 07JAN2020: A land-based facility in Richmond, CA, discharged vegetable oil into a canal with access to U.S. navigable waters creating a sheen on the surface of the canal. The facility hired a local contractor to conduct cleanup before any product spread out of the canal. A NOFI and LOW were issued. Case closed.
Letter of Warning (LOW), 15JAN2020: A recreational vessel discharged approximately 1 gallon of diesel into a U.S. navigable waterway in Alameda, CA, after partially sinking at the dock. A NOFI and LOW were issued. Case closed.
Notice of Violation (NOV), 25JAN2020: A U.S. commercial fishing vessel discharged approximately 1 gallon of diesel into a U.S. navigable waterway near Bodega Bay, CA, after sinking at the dock. The vessel owner funded the removal of the vessel and cleanup of the discharged product. After investigation, IMD determined that the owner did not give timely notification of discharge. A NOFI and NOV were issued. Case closed.

<b>PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS</b>			
<b>January 2020</b>			
<b>PORT SAFETY CATEGORIES*</b>	<b>Jan-2020</b>	<b>Jan-2019</b>	<b>**3yr Avg</b>
<b>Total Number of Port State Control Detentions:</b>	<b>0</b>	<b>0</b>	<b>0.25</b>
SOLAS (0), STCW (0), MARPOL (0), ISM (0), ISPS (0)			
<b>Total Number of COTP Orders:</b>	<b>4</b>	<b>1</b>	<b>4.08</b>
Navigation Safety (0), Port Safety & Security (4), ANOA (0)			
<b>Marine Casualties (reportable CG 2692) within SF Bay:</b>	<b>10</b>	<b>6</b>	<b>9.58</b>
Allision (0), Collision (0), Fire (1), Capsize (0), Grounding (0), Sinking (0)			
Steering (0), Propulsion (7), Personnel (1), Other (0), Power (1)			
<b>Total Number of (routine) Navigation Safety issues/Letters of Deviation:</b>	<b>0</b>	<b>3</b>	<b>1.75</b>
Radar (0), Gyro (0), Steering (0), Echo Sounder (0), AIS (0)			
ARPA (0), Speed Log (0), R.C. (0), Other (0)			
<b>Reported or Verified "Rule 9" or other Navigational Rule Violations:</b>	<b>0</b>	<b>1</b>	<b>0.64</b>
<b>Significant Waterway events/Navigation related Cases:</b>	<b>0</b>	<b>0</b>	<b>0.31</b>
<b>Total Port Safety (PS) Cases opened</b>	<b>14</b>	<b>11</b>	<b>16.61</b>
<b>MARINE POLLUTION RESPONSE</b>			
<b>Pollution Discharge Sources (Vessels)</b>	<b>Jan-2020</b>	<b>Jan-2019</b>	<b>**3yr Avg</b>
U.S. Commercial Vessels	1	0	0.97
Foreign Freight Vessels	0	1	0.11
Public Vessels	2	1	0.69
Commercial Fishing Vessels	1	0	0.64
Recreational Vessels	2	7	5.00
<b>Pollution Discharge Sources (Facilities)</b>			
Regulated Waterfront Facilities	0	1	0.36
Regulated Waterfront Facilities - Fuel Transfer	0	0	0.06
Other Land Sources	1	8	3.14
Mystery Spills - Unknown Sources	1	12	4.75
<b>Number of Pollution Incidents within San Francisco Bay</b>			
Spills < 10 gallons	6	15	7.42
Spills 10 - 100 gallons	0	3	1.11
Spills 100 - 1000 gallons	0	0	0.14
Spills > 1000 gallons	0	0	0.00
Spills - Unknown Size	2	12	7.06
<b>Total Pollution Incidents</b>	<b>8</b>	<b>30</b>	<b>15.72</b>
<b>Oil Discharge/Hazardous Materials Release Volumes by Spill Size</b>			
Estimated spill amount from U.S. Commercial Vessels	5.00	0.00	12.90
Estimated spill amount from Foreign Freight Vessels	0.00	0.00	0.17
Estimated spill amount from Public Vessels	2.00	0.00	3.16
Estimated spill amount from Commercial Fishing Vessels	1.00	0.00	7.40
Estimated spill amount from Recreational Vessels	2.00	60.00	25.88
Estimated spill amount from Regulated Waterfront Facilities	0.00	10.00	1.94
Estimated spill amount from Regulated Waterfront Facilities - Fuel Transfer	0.00	0.00	0.11
Estimated spill amount from Other Land Sources	1.00	24.00	14.62
Estimated spill amount from Unknown Sources (Mystery Sheens)	unk	unk	0.00
<b>Total Oil Discharge and/or Hazardous Materials Release (Gallons)</b>	<b>11.00</b>	<b>94.00</b>	<b>66.19</b>
<b>Penalty Actions</b>			
Civil Penalty Cases	0	0	0.00
Notice of Violations	1	0	0.44
Letters of Warning	3	4	3.42
<b>Total Penalty Actions</b>	<b>4</b>	<b>4</b>	<b>3.86</b>
* 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.			

**Harbor Safety Committee  
Of the San Francisco Bay Region**

**Report of the  
U.S. Army Corps of Engineers, San Francisco District  
February 13, 2020**

**1. CORPS O&M DREDGING PROGRAM**

The following report covers the planned FY 2020 dredging program for San Francisco Bay. While this program is subject to change based on a number of variables, it is based on actual FY 20 appropriations including the FY 2020 Work Plan. Please refer to the Local Notice to Mariners for details of dredge operations.

**FY 2020 DREDGING**

- a. **SF Main Ship Channel** – The FY20 dredging for SF Main is being planned with expected work forecast to be started in early June 2020 by the Essayons.
- b. **Richmond Inner Harbor** – The FY20 dredging for Richmond Inner is being planned with an expected award in early May 2020.
- c. **Richmond Outer Harbor (and Richmond Long Wharf)** – As Richmond outer was deferred in FY19 it is planned to be dredged in FY20. This is in alignment with the decision to alternate Hopper dredging between Pinole Shoals and Richmond Outer. Dredging for Richmond Outer is expected to commence in June 2020.
- d. **Oakland Harbor** – The FY20 dredging for Port of Oakland is being planned with an expected award in April 2020.
- e. **Redwood City Harbor** – The 2019 dredging contract was planned as a partnership with the Coastal Conservancy in order to place material at a beneficial reuse site. All Environmental coordination including confirmatory sediment testing and analysis for suitability of planned upland placement has been approved. Contract awarded on 17 June to R.E. Staite. A public meeting was held on 26 July and was well received by the community. The NTP was issued on 1 July and dredging is underway. **Significant delays were incurred and a modification was completed to continue dredging with placement at SF-DODS. Final Dredging has been completed to an estimated depth of -29 feet.**
- f. **San Pablo Bay (Pinole Shoal)** – In alignment with the decision to alternate Hopper dredging between Pinole Shoal and Richmond Outer, this year's dredging will be deferred to 2021.
- g. **Suisun Bay Channel (and New York Slough)** – The FY20 dredging for Suisun Bay Channel is being planned with an expected award in July 2020.

**2. DEBRIS REMOVAL** – Debris removal for January 2020 was 130 tons. Dillard: 57 tons; Raccoon: 45 tons including 3 abandoned vessels; other boats: 28 tons including 1 abandoned vessel. Average for January from 2010 to 2019 is 136 tons (Range: 35-417 tons).

**BASEYARD DEBRIS COLLECTION TOTALS:**

<b>MONTH</b>	<b>RACCOON</b>	<b>DILLARD</b>	<b>MISC</b>	<b>TOTAL</b>
2020	TONS	TONS	TONS	TONS
JAN	45	57	28	130
FEB				
MAR				
APR				
MAY				
JUN				
JUL				
AUG				
SEP				
OCT				
NOV				
DEC				

YR TOTAL
130

**3. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS**

None to report.

**4. EMERGENCY (URGENT & COMPELLING) DREDGING**

None to report.

## 5. OTHER WORK

**San Francisco Bay to Stockton** – The Draft Report & EIS was released on 10 MAY 19 and is going through concurrent public review, policy review and Agency Technical Review (ATR) through 24 JUN 19. USACE, the NFS, and related stakeholders held a public meeting on 11 JUN 19 for public comment. Concurrent Review comments are being addressed and a final draft is being developed.

**Regional Dredge Material Management Plan:** On July 19, 2019, the Corps held a public meeting to discuss a Regional Dredge Material Management Plan for the Bay in which many people expressed concern about studies being conducted by the Corps related to the San Francisco Bay to Stockton Navigation Improvement Project. The U.S. Army Corps of Engineers San Francisco District hosted a public meeting on Wednesday, Nov. 13th to present an overview of the District's Navigation Program. The meeting is part of an effort by the Corps to evaluate the agency's San Francisco Bay navigation program in order to best position the program for success over the next several decades. The meeting took place from 6-8 p.m., at the Pinole Library located at 2935 Pinole Valley Rd, Pinole, Calif., 94585. The meeting was held as an opportunity for the public to provide further input about those studies and our navigation program in general.

The draft can be found at:

<http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx>

## 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 Channel:** Condition survey of December 27, 2019.

**Berkeley Marina (Entrance Channel):** Condition survey of July 17, 2019.

**Islais Creek Channel:** Condition survey of July 12, 2019.

**Larkspur Ferry Channel:** Condition survey of July 11, 2019.

**Main Ship Channel:** Condition survey of August 8 & 9, 2019.

**Mare Island Strait:** Condition survey of September 30, 2019.

**Marinship Channel (Richardson Bay):** Condition survey of August 6, 2019.

**Napa River:** Condition survey of July 10, 2019.

**Northship Channel:** Condition survey of June 27, 2019.

**Oakland Inner Harbor:** Post-dredge survey of October 9, and December 4 & 9-11, 2019.

**Oakland Outer Harbor:** Post-dredge survey of September 18, and November 13 & 21, 2019.

**Petaluma River (Across-the-Flats):** Condition survey of December 19, 2017.

**Petaluma River (Main Channel):** Condition survey of December 12-13, 2017.

**Petaluma River (Extended Channel):** Condition survey of March 19-26, 2018.

**Pinole Shoals Channel:** Condition survey of November 14, 19-21, & 25, 2019.

**Redwood City Harbor:** Post-dredge survey 3&14 September, 10, 18-19 December 2019 and 6&18 January 2020.

**Richmond Inner Harbor:** Condition survey of December 18, 2019.

**Richmond Inner Harbor (Santa Fe Channel):** Condition survey of December 20, 2016.

**Richmond Outer Harbor (Longwharf):** Condition survey of January 8, 2020.

**Richmond Outer Harbor (Southampton Shoal):** Condition survey of January 7, 2020.  
**Sacramento River Deep Water Ship Channel:** Post-Dredge survey of August 22&29, September 11&19, 2019.  
**San Bruno Shoal:** Condition survey of September 26, 2019.  
**San Leandro Marina (and Channel):** Condition survey of March 30 and April 1, 2015.  
**San Rafael (Across-the-Flats):** Condition survey of September 24, 2019.  
**San Rafael (Creek):** Condition survey of September 24, 2019.  
**Stockton Ship Channel:** Post-Dredge survey of October, November, December 2019.  
**Suisun Bay Channel:** Post-dredge survey of October – December 2019.  
**Suisun Bay Channel (Bullshead Reach):** Condition survey of September 13-17, 2019.  
**Suisun Bay Channel (New York Slough):** Post-dredge survey of September 30, and October 17, 22, & 26, 2019.

Disposal Site Condition Surveys:

**SF-08 (Main Ship Channel Disposal Site):** Condition survey of June 11, 2019.  
**SF-09 (Carquinez):** Condition survey of January 3, 2020.  
**SF-10 (San Pablo Bay):** Condition survey of January 3, 2020.  
**SF-11 (Alcatraz Island):** Condition survey of February 5, 2020.  
**SF-16 (Suisun Bay Disposal Site):** Condition survey of October 2, 2019.  
**SF-17 (Ocean Beach Disposal Site):** Condition survey of October 24, 2019.

### **Requested Surveys:**

Pre/Post-dredge and condition surveys are scheduled to occur throughout the year for all of San Francisco District's in-bay projects which are planned to be dredged in FY20.

**NEW WEB ADDRESS – USACE WORK PLAN:**

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





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## San Francisco Clearinghouse Report

February 13, 2020

- ✎ In January the clearinghouse did not contact OSPR regarding any possible escort violations.
- ✎ In January the clearinghouse did not receive any notifications of vessels arriving at the Pilot Station without escort paperwork.
- ✎ The clearinghouse has not contacted OSPR so far in 2020 regarding possible escort violations. The clearinghouse did not contact OSPR in 2019 regarding possible escort violations. The clearinghouse contacted OSPR 1 time in 2018 about a possible escort violation. The clearinghouse did not contact OSPR in 2017 about possible escort violations. The clearinghouse contacted OSPR 1 time in 2016 about a possible escort violation. The clearinghouse contacted OSPR 3 times 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 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 January there were 108 tank vessel arrivals; 19 ATBs, 8 Chemical Tankers, 16 Chemical/Oil Tankers, 28 Crude Oil Tankers, 1 LPG, 22 Product Tankers, and 14 Tugs with Barges.
- ✎ In January there were 281 total vessel arrivals.



# San Francisco Bay Clearinghouse Report For 2020

## San Francisco Bay Region Totals

	<u>2020</u>		<u>2019</u>	
Tanker arrivals to San Francisco Bay	75		878	
ATB arrivals	19		185	
Barge arrivals to San Francisco Bay	14		164	
Total Tanker and Barge Arrivals	108		1,227	
Tank ship movements & escorted barge movements	387		1,047	
Tank ship movements	197	50.90%	2,258	55.79%
Escorted tank ship movements	153	39.53%	1,807	44.65%
Unescorted tank ship movements	44	11.37%	451	11.14%
Tank barge movements	190	49.10%	1,789	44.21%
Escorted tank barge movements	33	8.53%	235	5.81%
Unescorted tank barge movements	157	40.57%	1,554	38.40%

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

Escorts reported to OSPR 0 0

<b>Movements by Zone</b>	<b>Zone 1</b>	<b>%</b>	<b>Zone 2</b>	<b>%</b>	<b>Zone 4</b>	<b>%</b>	<b>Zone 6</b>	<b>%</b>	<b>Total</b>	<b>%</b>
Total movements	223		381		0		172		776	
Unescorted movements	110	49.33%	200	52.49%	0	0.00%	85	49.42%	395	50.90%
Tank ships	93	41.70%	157	41.21%	0	0.00%	77	44.77%	327	42.14%
Tank barges	17	7.62%	43	11.29%	0	0.00%	8	4.65%	68	8.76%
Escorted movements	113	50.67%	181	47.51%	0	0.00%	87	50.58%	381	49.10%
Tank ships	104	46.64%	150	39.37%	0	0.00%	75	43.60%	329	42.40%
Tank barges	9	4.04%	31	8.14%	0	0.00%	12	6.98%	52	6.70%

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.



## CALIFORNIA STATE LANDS COMMISSION

### HARBOR SAFETY COMMITTEE MONTHLY REPORT - JANUARY COMPARISON

#### VESSEL TRANSFERS

	Total Transfers	Total Vessels Monitored	Total Transfers Percentage
JANUARY 1 - 31, 2019	231	84	36.36
JANUARY 1 - 31, 2020	241	61	25.31

#### CRUDE OIL / PRODUCT TOTALS

	Crude Oil ( D )	Crude Oil ( L )	Overall Product ( D )	Overall Product ( L )	GRAND TOTAL
JANUARY 1 - 31, 2019	15,728,000		20,311,616	8,438,046	28,749,662
JANUARY 1 - 31, 2020	16,371,000	100,000	20,781,932	10,418,512	31,200,444

#### OIL SPILL TOTAL

	<u>TERMINAL</u>	<u>VESSEL</u>	<u>Total</u>	<u>Gallons Spilled</u>
JANUARY 1 - 31, 2019	0	0	0	0
JANUARY 1 - 31, 2020	0	0	0	0

**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.*