Harbor Safety Committee

of the San Francisco Bay Region

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

Draft Minutes
Harbor Safety Committee of the San Francisco Bay Region
Thursday, May 13, 2021
Remote Meeting Via Zoom
10 Commodore Drive, Emeryville, 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. Marie Byrd** (M), United States Coast Guard; **Capt. Sean Daggett** (M), Sause Bros. Inc.; **Ben Eichenberg** (A), San Francisco Baykeeper; **Jeff Ferguson** (M), NOAA; **Scott Grindy** (M), San Francisco Small Craft Harbor; **Troy Hosmer** (M), Port of Oakland; **Capt. Thomas Kirsch** (M), Blue and Gold Fleet; **Steve Longoria** (M), Port of Redwood City; **Dominic Moreno** (M), Port of San Francisco; **Julian Rose** (M), Marathon Petroleum; **Capt. Paul Ruff** (M), San Francisco Bar Pilots; **Linda Scourtis** (M), Bay Conservation and Development Commission; **Mariah Swenson** (M), AMPORTS; **Jessica Vargas** (A), US Army Corps of Engineers; **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 April 8, 2021 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 HSC is tentatively planning to resume in-person meetings in September but will continue to provide Zoom access.

- Advised that the HSC drafted, remotely approved, and submitted a letter to the City of Oakland detailing maritime concerns with the Oakland A's Howard Terminal stadium proposal DEIR (attached). Mike Jacob, PMSA and Ben Eichenberg contributed.

Coast Guard Report- Capt. Marie Byrd

- Introduced Capt. Jordan Baldueza, new Deputy Sector San Francisco Commander.

- Advised of USCG MSIB 21-01 regarding IMO recommended tracks in Monterey Bay National Marine Sanctuary issued in response to ongoing anchorage congestion (attached).
- Advised that emergency dredging of Bulls Head Channel has been requested and will be addressed later in the meeting.
- Advised that the Coast Guard is reviewing plans to move the sunken dredge barge in the Petaluma River.
- Advised that April was a busy month with an increased number of port safety and security cases.
- Presented a USCG Certificate of Merit to the crew of Centerline Logistics tug Kestrel. On November 29, 2020, the tug Kestrel reported humanitarian concerns regarding the lack of food aboard a foreign flag vessel. Action was taken and assistance provided to the mariners.
- LT Solares read from the April- 2021 Prevention/Response Report (attached).
- Referring to the April 8th case, Capt. Korwatch asked how many times vessels have required assistance due to Covid-19 infections. Capt. Byrd advised that it has been relatively rare with approximately 5-7 cases in the past year.
- Jim Anderson thanked the Coast Guard for their assistance with whale risk assessment work and recent response to a fishing vessel in distress.
- Capt. Korwatch asked about the recent east coast pipeline cyber-attack and if west coast infrastructure is vulnerable. Capt. Byrd advised that issue will be addressed by the AMSC and that CISA cybersecurity resources are available.

Army Corps of Engineers Report- Jessica Vargas

- Read from the US Army Corps of Engineers, San Francisco District Report (attached). The 2021 dredge season contract process is ongoing. Richmond Outer Harbor dredging will be deferred this year and Pinole Shoal Channel will be dredged with a government hopper. Emergency dredging of Bulls Head Channel has been requested. Debris removal numbers for April were below average. A study is being conducted on the feasibility of widening the Oakland Turning Basin. Surveys have been posted and a channel condition report is included. The USACE Work Plan is available at: www.usace.army.mil/Missions/Civil-Works/Budget/.
- Julian Rose asked if intermediate condition surveys of Bulls Head Channel are planned. Shoaling in the region can be dynamic. Jessica Vargas advised that new surveys have not been scheduled.

Clearinghouse Report- Marcus Freeling (report attached)

OSPR Report- Mike Caliguire

- Advised that an HSC membership vacancy announcement was distributed (attached). Submit applications to Mike Caliguire. Expiring members are encouraged to re-apply.
- Advised that California AB 339 has been proposed regulating public virtual meetings including the HSC. Capt. Korwatch advised that the HSC plans to return to in-person meetings but will continue to provide Zoom access as well. Ted Mar, OSPR, advised that the HSC's plan complies with the bill.
- Tom Cullen, OSPR Administrator, introduced Ed Westfall, Cal OES Regional Administrator.

NOAA Report- Jeff Ferguson

- Read from the NOAA HSC Report for May 2021 (attached). The NOAA ship Fairweather will be conducting SF Bay surveying operations in August and September. Surveying site suggestions are welcome. Vessel Speed Reduction (VSR) for whale protection starts on May 1st and runs through November 15th. NOAA is reviewing a recent legal petition to make VSR mandatory. Raster chart services are being discontinued and users should transition to ENC products. The NWS predicts cooling temperatures, but dry conditions are expected to continue.

State Lands Commission Report- Robert Booker (report attached)

Report on Pioneer Canyon Deep Sea Footage- Jan Roletto, NOAA

- Jan Roletto, NOAA Greater Farallones National Marine Sanctuary, gave a presentation to the committee on deep sea video footage taken in Pioneer Canyon off California. The footage is from a ROV survey that took place October 7-8, 2020. Two 24-hour dives were conducted at depths of 800-1300 meters. Coral and sponges were found on varying substrates. Historic munitions were also encountered. Many species of fish were recorded in the water column and on the sea floor but not in large quantities. Octopi, squid, crabs, snails, and other invertebrates were also observed in habitat provided by coral often hundreds of years old. Studying the impact of bottom trawling is a priority. Additionally, samples were taken for climatology, ocean acidification, eDNA, and microplastic research. The Pioneer Canyon dives incorporated virtual participation with the public. Additional dives are planned in the eastern portion of Pioneer Canyon. More information is available at: https://farallones.noaa.gov

Report on a WOC/CeNCOOS Marine Information Sharing Program- Fred Meitz, WOC

- Fred Meitz and Paul Holthus, World Ocean Council (WOC), gave a presentation to the committee on a proposed WOC/CeNCOOS program to increase marine data collection and information sharing (slides attached). The maritime community is asked to participate. The program seeks to include all maritime industries including shipping, fishing, tourism, energy development, and environmental organizations. Data collection from vessels and marine infrastructure is especially useful. The program aims to be comprehensive, scalable, and efficient. The goal is to recruit companies to host various scientific instruments to collect ocean data. Facilitating relationships is a priority as is determining specific data collection methods. Weather sensors, buoy deployment and water sampling are examples of data collection methods available.
- Capt. Korwatch advised that a follow up meeting will be held directly after the HSC meeting for those interested in participating in the WOC/CeNCOOS program.
- Henry Ruhl, CeNCOOS, advised that his organization is part of a global system collecting ocean observation data and providing ocean modeling products (slides attached). High frequency radar is used to measure ocean currents in addition to other regional sensors. The WOC/CeNCOOS program seeks to increase data collection by partnering with industry. One data collection method example is the Continuous Plankton Recorder (CPR) which can be towed behind a partner vessel. The proposed program is similar to the NOAA Ship of Opportunity Program which uses volunteer ships to collect climate data. Participation in the WOC/CeNCOOS program is encouraged.

Work Group Reports-

Tug Work Group- Capt. Sean Daggett advised that there was nothing to report.

Navigation Work Group- Capt. Paul Ruff advised of Vessel Speed Reduction (VSR) and introduced Jessica Morton, NOAA, to detail the program. Jessica Morton advised that VSR is in effect from May 1st through November 15th in northern California. Vessels are requested to reduce speed to 10 knots to protect whales from ship strikes. Compliance with the voluntary program has increased with 64 percent of vessels cooperating in 2020. A Navigation Work Group meeting will be held after the June HSC meeting to address VSR best management practices. Capt. Ruff advised that the range of the East Brothers Light ATON may be reduced due to power issues. Comments and concerns from the maritime community are welcome.

Ferry Operations Work Group- Capt. Tom Kirsch advised that reducing the range of East Brothers Light should not be an issue for ferry operators.

Dredge Issues Work Group- Julian Rose advised of Bulls Head Channel shoaling and reduced depth similar to what occurred in the same location last year. Bulls Head Channel is a Critical Maneuvering Area and shoaling presents navigation concerns. Vessel transit windows are affected, and congestion could become an issue. Marathon Petroleum has drafted a letter to the USCG requesting support for emergency dredging of Bulls Head Channel due to shoaling (attached). The HSC is asked to support this letter. Ben Eichenberg suggested beneficial reuse of the dredge material and recommended the use of clamshell as opposed to suction dredging. A motion was made and seconded to support the Marathon letter requesting emergency dredging of Bulls Head Channel and to send it to both the USCG and USACE. The motion passed without dissent.

PORTS Work Group- Troy Hosmer advised that there was nothing to report.

Prevention through People Work Group- Scott Grindy advised that a Work Group meeting was held yesterday.

PORTS Report- Marcus Freeling

- Advised that the Southampton Shoal LB6 and Oakland LB4 buoy-mounted current meters are offline. New profilers are being acquired and maintenance will be scheduled. Power issues continue to affect the Richmond Tide Station and monthly battery replacement is required. Maintenance is planned for the Amorco current meter including windlass chain replacement. San Francisco and Oakland visibility sensors have required more frequent cleaning than usual.
- PORTS data is publicly available through NOAA's Tides and Currents website: https://tidesandcurrents.noaa.gov/ports/index.html?port=sf

Public Comment-

- Dennis Deisinger, Mare Island Drydock, advised that the Cal Maritime golf tournament has been scheduled for August 30th at Silverado Country Club. Capt. Korwatch advised that graduation is this Saturday.
- A member of the audience commented on the American Challenger grounding near Dillion Beach. Funds for removal of the vessel are limited. Regulation is needed to prevent commercial fishing vessels from being classified as recreational vessels. It is reported that sheening is still visible near the vessel. California AB 1539 has been introduced mandating vessel insurance and should be supported. Capt. Korwatch agreed that abandoned and derelict vessels are an

important issue. Capt. Cullen advised that the situation is challenging due to safety concerns. Removal of all hazardous material is planned. Capt. Byrd advised that vessel recovery is ongoing and is under USCG jurisdiction. Funding is an issue.

Old Business- None

New Business-

- Cody Aichele-Rothman, BCDC, advised that the 2021 Harbor Safety Plan Update is underway. Work Group annual reports are needed.

Next Meeting-

1000-1200, June 10, 2021
Remote Meeting via Zoom

Adjournment-

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

Respectfully submitted:

Capt. Lynn Korwatch

Harbor Safety Committee

of the San Francisco Bay Region

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

April 27, 2021

Transmitted Via Electronic Mail

City of Oakland Planning and Building Department
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Oakland, CA 94612
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RE: Harbor Safety Committee Comments on the Waterfront Ballpark District at Howard Terminal Draft Environmental Impact Report

Dear City of Oakland,

These comments are respectfully submitted on behalf of the Harbor Safety Committee of the San Francisco Bay Region regarding the Draft Environmental Impact Report (DEIR) for the Oakland A's proposed Stadium and Development at the Howard Terminal in the Port of Oakland. [Harbor Safety Committee description boilerplate here] [Harbor Safety Committee mission boilerplate]

We are pleased that the DEIR has acknowledged the potential impacts that the proposed project may have on maritime operations and harbor safety. We agree with the DEIR when it concludes that the impacts of the A's Howard Terminal development "could result in a fundamental conflict between the proposed Project and adjacent or nearby water-based uses, including maritime navigation and ferry transit, resulting in the need for mitigation." (DEIR 4.10-36)

DEIR Alternatives #1 and #2 Eliminate the Maritime Safety Risks Posed by the Project

The DEIR identifies and discusses various project Alternatives to the proposed Oakland A's stadium and development project at Howard Terminal. Alternative #1 and Alternative #2 will eliminate the significant impacts associated with conflicts between vessels, result in increased maritime safety, and minimize risk.

Alternative #1 concludes accurately that "[w]ith no change in use, impacts on the Seaport and land use compatibility concerns between Project uses and nearby industrial uses, there would be no need for mitigation of these impacts." (DEIR 6.2.1)

Alternative #2 likewise concludes that "potential impacts of the proposed Project related to land use compatibility under CEQA would not occur at the Coliseum site, because the Coliseum site is not adjacent to maritime uses like the proposed Project at Howard Terminal, and no mitigation would be required." (DEIR 6.2.2)

Maritime safety under these two project alternatives is enhanced and preserved to the greatest degree. For purposes of minimizing risks in the maritime domain, the Harbor Safety Committee encourages the City to seriously consider these two alternatives.

Fundamental Conflicts with Maritime Navigation Addressed in DEIR

The DEIR identifies and discusses the need for mitigation to avoid the risks posed by these fundamental conflicts in several respects, including:

- **Project Impacts on Safe Vessel Operations in the Navigational Channels and Turning Basin Adjacent to Howard Terminal**
- **Stadium Lighting Impacts on Safe Vessel Operations**
- **Building Glare Impacts on Safe Vessel Operations**
- **Fireworks Impacts on Safe Vessel Operations**
- **Inner Harbor Turning Basin Expansion (the "Maritime Reservation Scenario")**

This letter addresses each of these DEIR discussions in turn.

- **Regarding potential impacts on safe vessel operations in navigational channels and the turning basin adjacent to Howard Terminal, the Harbor Safety Committee believes that the conflict between the project and water-based uses is significant.**

The project is likely to invite loitering, congregation, and other recreational vessel activity. These activities will increase the risk of a maritime casualty and represent safety hazards. We agree with the DEIR's conclusion that the presence of these impacts results "in the need for mitigation." (DEIR 4.10-36)

In order to address the likely significant increases of risks in the maritime domain in this regard, the DEIR includes Mitigation Measure LUP-1a, which is "intended to minimize conflicts with maritime navigation resulting in safety hazards and ship delay." LUP-1a would require a protocol to be developed with the Harbor Safety Committee, Water Emergency Transportation Authority (WETA), and the United States Coast Guard, in addition to the Oakland A's, City of Oakland, and Port of Oakland. The Protocol would require installation of signage, water patrols by the Oakland Police Department (OPD), procedures for response to event emergencies, and communications regarding the protocol. All costs, including of the OPD patrols, would be born solely by the Oakland A's.

This Mitigation Measure as proposed is a good start, however the Harbor Safety Committee is concerned that LUP-1a may be inadequate to fully mitigate conflicts with maritime navigation resulting in safety hazards and ship delay.

While the Harbor Safety Committee, WETA, and the Coast Guard are mentioned as part of the approval process to "develop a protocol" in the opening paragraph of LUP-1a, when it comes to actual approval of the

requirements necessary to achieve the protocol, the "Approving Parties" only include the Oakland A's, the City of Oakland, and the Port of Oakland. The "Approving Parties" may then subsequently amend the protocol, reduce patrols, and eliminate safety measures in the protocol. Because the Harbor Safety Committee, WETA, and the Coast Guard are primarily focused on, tasked with, or responsible for enforcing maritime safety standards, the Harbor Safety Committee believes that for LUP-1a to be effective these groups should also be included as "Approving Parties."

The Harbor Safety Committee is also concerned with the risk of recreational vessel interactions. Protocol condition number 1 is focused primarily on anchoring and docking with respect to public notifications. The Harbor Safety Committee recommends that full mitigation include measures to keep all vessels in the inner harbor moving, thus reducing potential conflicts from loitering and vessel congregation.

The Harbor Safety Committee recommends that OPD water patrols described in protocol condition number 2 be expanded to include all potential additional conflicts, not just those that take place during scheduled baseball games. Patrol of the shipping channel around the project area by OPD should be dictated by maritime safety needs. OPD patrols will likely need additional resources for specific events, including concerts, which will draw both the highest concentration of vessels and highest concentration of vessels after dark.

Protocol condition number 3 should not be limited to water-related emergencies during baseball games and events but should be focused on maritime safety considerations for the entire area. This should include evaluations of procedures for the imposition of safety zones, security zones (including navigational security needs under all MARSEC levels), and restricted navigational areas. These evaluations should include the Ferry terminal, ferry routes, and the OPD and Oakland Fire Department (OFD) pier.

The Harbor Safety Committee recommends that Protocol condition number 4 include appropriate safety measures for any recreational boating or water-based activities. As indicated earlier, congestion and loitering have the potential to pose navigational safety risks, which should be taken into account.

- **Regarding stadium lighting impacts on safe vessel operations, the Harbor Safety Committee believes that more lighting impact analysis needs to be conducted to ensure that these impacts are less than significant.**

We are pleased that the Port of Oakland requested a lighting study to ensure that safe vessel navigation would not be impaired, and that the City and A's conducted a quantitative light analysis. (DEIR 4.10-39 – 4.10-43; Appendix AES).

However, the Harbor Safety Committee is concerned that the lighting study was inadequate and did not address or evaluate a number of potential lighting impacts on vessel operations in the inner harbor. As shown in Figure 4.1-21, there was only one Light and Glade Receptor Location which was included in the study on the water. And, as shown in Figure 4.10-7, the DIER's conclusions were reached on the sole basis of this receptor location on the bridge of the vessel being turned. As such, the DEIR is focused on the direct impact of these factors on one single position and point in time – when the bridge of a vessel is at the center of the turning basin

facing the stadium – in reaching the conclusion that "the anticipated glare at the turning basin receptor sites from the proposed ballpark lighting is not anticipated to exceed recommended limits per available glare standards."

The Harbor Safety Committee recommends that lighting impacts include impacts on all safety aspects and components of vessel turning, including tug assets and various additional members of the crew not on the bridge – especially during narrow margin transits in the turning basin. Further, impact analysis should also include vessels in the turning basin which transit into the reach beyond the turning basin in order to accommodate periods where multiple vessels are arriving or departing berths at the Oakland Inner Harbor Terminal. The Ferry Terminal and approach should also be included as Receptor Location points. Finally, impacts of reflected light from the water surface should also be considered.

- **Regarding building glare impacts on safe vessel operations in navigational channels and the turning basin adjacent to Howard Terminal, the Harbor Safety Committee believes that the potential impact of substantial new daytime glare could be significant.**

The project finds that "adjacent buildings under Phase 1 and Buildout could create new sources of daytime glare." (DEIR 4.10-30) The DEIR proposes that the building glare impacts on vessels will "be minimized through implementation of Mitigation Measure BIO-1b, Bird Collision Reduction Measures, as described in Section 4.3 Biological Resources, which would reduce the amount of reflective glass and polished surfaces on proposed buildings." (DEIR 4.10-30). BIO-1b, subsection v. is the provision of that mitigation measure which deals with glare reductions by restricting the use of reflective glass and polished surfaces, but those measures require these restrictions only to "windows and glass between the ground and 60 feet above ground or to the height of existing adjacent landscape or the height of the proposed landscape."

The buildings authorized for construction in this project are up to 600 feet tall, leaving potentially 90% of the tallest buildings' surfaces unmitigated under this measure. Further, there is no evaluation of Glare impacts in the Inner Harbor, including in the turning basin. The Harbor Safety Committee believes that these glare impacts should be evaluated for all of the building scenarios in the DEIR.

- **Regarding fireworks impacts on safe vessel operations, the Harbor Safety Committee believes that the DEIR should study the matter and mitigate any potential impacts.**

While the DEIR acknowledges that pyrotechnic events and fireworks may impact navigational safety and maritime operations (DEIR 4.10-43), it nevertheless concludes that "the Project would not result in a fundamental conflict in this regard" and therefore there are no significant impacts and no mitigation measures are necessary. Fireworks could distract the crew of a vessel or the crew of the tugs assisting the vessel, including ferry masters and ferry crews. The DEIR should formally evaluate these potential impacts.

The Harbor Safety Committee is also concerned that the creation of a 500-1,000-foot safety zone for the use of a fireworks barge could hinder and reduce access to the Navigational Channel, a Rule 9 waterway. The reach beyond the Turning Basin and in front of Howard Terminal is the only location for a commercial vessel to go

when more than one vessel is transiting the channel and needing to be turned at one time, so this area cannot be blocked by a fireworks safety zone. The DEIR should conduct an additional evaluation of these impacts.

Due to these concerns, the Harbor Safety Committee recommends that the City consider the benefits of terrestrially based fireworks. The potential for marine debris should also be taken into consideration. Based on these considerations, the Harbor Safety Committee recommends that fireworks displays not take place over the estuary.

- **Regarding the Maritime Reservation Scenario, the Harbor Safety Committee observes that this scenario, which expands the turning basin, increases vessel safety and minimizes vessel risk, with or without construction of the A's proposed development at Howard Terminal.**

As maritime safety is enhanced with increased margins of clearance for vessels, the Maritime Reservation Scenario is the Harbor Safety Committee's preferred scenario for a Howard Terminal Alternative.

Captain Lynn Korwatch
Chair of the Harbor Safety Committee of the San Francisco Bay Region

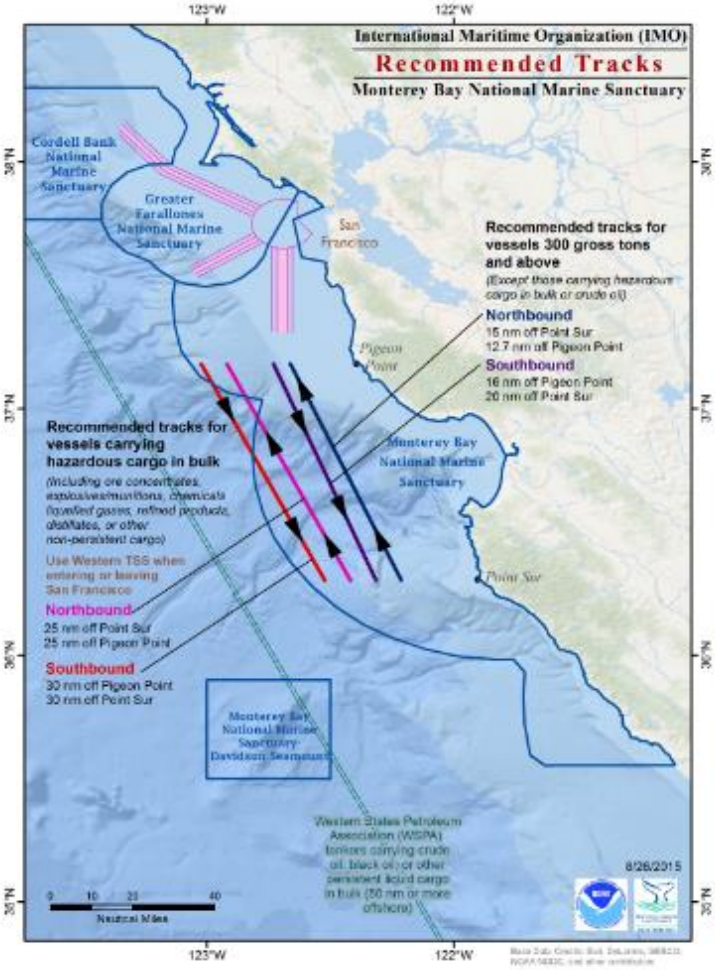
MARINE SAFETY/SECURITY INFORMATION BULLETIN (MSIB) 21-01

10 May 2021

U. S. Coast Guard Sector San Francisco
Department of Homeland Security

IMO Recommended Tracks in Monterey Bay National Marine Sanctuary

US Coast Guard, NOAA and the International Maritime Organization (IMO) established Recommended Tracks in NOAA's Monterey Bay National Marine Sanctuary (MBNMS) in 2000 to enhance the safety and navigation of large vessels (over 300 gross tons) and oil tankers transiting through the sanctuary, as well as to protect sensitive marine environments. Use of the IMO Recommended Tracks will reduce the risk of a spill or collision in a national marine sanctuary and allow a rescue tug to respond should the ship have an emergency. It is recommended that laden tankers transit 50 miles offshore and use the western TSS when entering or leaving San Francisco.



Exceptions may occur including avoidance of buoys, inclement weather and mechanical issues, yet without extenuating circumstances, USCG and NOAA anticipate oil tankers and cargo vessels are aware of and use the IMO Recommended Tracks.

If a vessel is not permitted to enter the Port of San Francisco (SF) for anchorage immediately, it's strongly encouraged vessels stay offshore and west of the IMO Recommended Tracks while waiting for entry into the SF Traffic Separation Scheme (TSS).

Compliance with the IMO Recommended Tracks and this Bulletin will reduce the risk of an incident or marine casualty occurrence in a sensitive marine environment. If you have any questions, please contact the Sector San Francisco Waterways Safety Branch Chief, LT Anthony Solares, at (415) 399-3585.

M. B. BYRD
Captain, U. S. Coast Guard
Captain of the Port

SIGNIFICANT PORT SAFETY AND SECURITY CASES (APRIL 2021)

MARINE CASUALTIES

Equipment Failure & Flooding (03APR21): A U.S. flag commercial fishing vessel experienced a loss of propulsion and flooding through a shaft seal leak. The sister ship of the vessel commenced a tow of the vessel to shore. However, the tow broke during the transit. The CGC ACTIVE boarded the vessel, employed a dewatering pump and towed the CFV towards shore. The vessel was then transferred to the CGC HAWKSBILL and towed to the nearest safe haven.

Equipment Failure (06APR21): A foreign flag container ship experienced an engine failure, during attempted departure from Oakland, Berth 32. The vessel returned to Oakland, Berth 32 to determine the causative factors. Case pends.

Grounding (06APR21): A U.S. flag towing vessel ran aground East of the I-780 bridge while transiting from Pittsburgh to Benicia. After investigation there was no reported damage to the vessel and they proceeded to moor at Benicia. Case pends.

Crewmember Injury (08APR21): A foreign flag container ship experienced a boiler accident which left two crewmembers burned. The two crewmembers received basic first aid on board the vessel and then were taken to the hospital. Case closed.

Fire (08APR21): A foreign flag container ship experienced a fire on the main engine while transiting inbound towards the Golden Gate Bridge. The fire was extinguished and the vessel crew restarted the main engine and transited to Anchorage 9 with four tugs alongside. The initiating event for the main engine casualty was a hole in the No. 9 MDE cylinder indicator valve. Class attended the vessel. After Coast Guard verification the vessel was cleared to safely depart. Case closed.

Crewmember Injury (08APR21): The master onboard a foreign flag container ship reported that he was gravely ill and unable to command his vessel. The vessel was escorted to Anchorage 8A where the master was taken off the vessel. Once taken to the hospital, the master tested positive for COVID-19. The rest of the crew was tested for COVID-19 and were all replaced by a new crew who had negative COVID-19 test results. The vessel was disinfected IAW Alameda County Public Health Department expectations prior to boarding the new crew. The vessel was able to remain at Anchorage 8A until they were due to shift to berth at Oakland, CA. Case closed.

Equipment Failure (14APR21): A foreign flag container ship experienced a reduction in propulsion prior to entering San Francisco. The no. 8 exhaust valve for the main engine caused a misfire in the no. 8 cylinder, but the main engine was still fully operational and continued to respond to all commands. No deficiencies were issued to the vessel upon notification of the reduction in propulsion. The vessel will be monitored for repair completion prior to departure. Case pends.

Crewmember Injury (20APR21): A contractor aboard a U.S. flag training vessel suffered a laceration on his leg from a grinding wheel disk. The contractor was taken to the hospital where he was treated. Case pends.

Equipment Failure (21APR21): A foreign flag bulk carrier experienced an engine failure when there was no response to the astern command, during inbound transit to Redwood City, CA. The cause of the casualty was determined to be 02 failed M/E start air distributer valves. The valves were overhauled. Class attended the vessel. The class survey report was reviewed and vessel was cleared. Case closed.

Grounding (22APR21): A foreign flag bulk carrier was reported to have touched bottom near Light 36 in the San Joaquin River. Port State Control conducted an in-service inspection in Sacramento, CA. No damage or defects were found. Case closed.

VESSEL SAFETY CONDITIONS

Operational Control (01APR21): A U.S. flag small passenger vessel was issued an operational control (code 60- prior to movement) because the vessel failed to schedule the drydock and internal structural examination within two years of the last drydock. Vessel completed the credit drydock on 13APR21. Case closed.

Operational Control (01APR21): A U.S. flag small passenger vessel was inspected in San Francisco, CA and issued an operational control (code 17- prior to departure) because 02 fuel shutoff valves were seized and not operational. Case pends.

Operational Control (07APR21): A U.S. flag small passenger vessel was issued an operational control (code 701 -prior to carrying passengers) because the vessel experienced a reduction in propulsion as a result of a missing retaining clip on piping that lead to coolant circulation pump. Satisfactory repairs were conducted. Case closed.

Operational Control (08APR21): A foreign flag container ship was issued 02 operational controls (code 17- prior to departure) for damaged fire insulation in the vicinity of a boiler and excessive leaking from a jacket water cooling pipe in the engine room. Class attended the vessel. Port State Control verified all deficiencies were corrected. Case closed.

Operational Control (13APR21): A U.S. flag small passenger vessel was inspected in Redwood City, CA and issued an operational control (code 17- prior to departure) because the fire extinguishing system onboard had not been serviced by a USCG approved facility in over a year. The operator provided satisfactory evidence of required servicing of pre-engineered fire extinguishing system. Case closed.

Operational Control (20APR21): A foreign flag tank vessel was issued an operational control (code 60 - prior to movement) due to: (1) failure to maintain proper oxygen content in 02 cargo tanks and (2) International Safety Management Code deficiencies. Class and Port State Control attended the vessel, rectified the operational controls and lifted the COTP order. Case closed.

Deserter (22APR21): A crewmember from a foreign flag bulk carrier stole his passport and left the vessel. Case pends.

Operational Control (28APR21): A U.S. flag small passenger vessel was inspected in Incline Village, NV and issued an operational control (code 17- prior to departure) because the vessel's fire suppression system kill switch would not reset. The engine can only run with the system disconnected. Case pends.

NAVIGATIONAL SAFETY

Letter of Deviation (LOD), Inop S-Band Radar (03APR21): A foreign flag tank vessel was issued an inbound LOD for an inoperable secondary marine radar. Satisfactory repairs were conducted. Case closed.

Letter of Deviation (LOD), Inop speed indicating device (17APR21): A foreign flag bulk carrier was issued an inbound LOD for an inoperable speed indicating device. Satisfactory repairs were conducted. Case closed.

Letter of Deviation (LOD), Inop S-Band Radar (30APR21): A foreign flag vehicle carrier was issued an inbound LOD for an inoperable secondary marine radar. Case pends.

SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES
Letter of Warning (06APR21): A recreational vessel capsized and discharged approximately 1 gallon of gasoline into Monterey Bay. The owner hired a towing company to remove the vessel from the water. The source of pollution was secured with no further discharge. Case Closed.
Letter of Warning (08APR21): A recreational vessel sank at the pier in Santa Cruz Harbor. Approximately 1 gallon of gasoline was discharged into the water. Boom was deployed around the vessel and it was dewatered and floated. The owner was able to successfully remove the vessel from the water and the pollution source was secured. No further discharge. Case Closed.
Letter of Warning (21APR21): A recreational vessel sank and discharged an unknown amount of oil into the San Francisco Bay. Local Park Rangers and CG Station Vallejo responded. The owner was able to refloat and remove the vessel. No Further Discharge. Case Closed.
Letter of Warning (22APR21): A recreational vessel discharged approximately one gallon of oily water into Bodega Bay. The vessel's bilge pump kicked on, which pumped an oily water mixture into the bay. The Harbor Master and owner immediately responded and began their own cleanup. No Further Discharge. Case Closed.
Letter of Warning (26APR21): A Regulated Waterfront Facility discharged approximately 1 gallon of hydraulic oil into the San Francisco Bay. The facility immediately began their own cleanup from both land and water. The source of the leak was found and secured with no further discharge. Case Closed.
Letter of Warning (27APR21): A Commercial Fishing Vessel discharged approximately 1 gallon of hydraulic oil into the Santa Cruz Harbor. The spill occurred while the crew was performing maintenance, therefore, they were able to secure it quickly. Absorbent pads were deployed and there was no further discharge. Case Closed

PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS

April 2021

PORT SAFETY CATEGORIES*	Apr-2021	Apr-2020	**3yr Avg
Total Number of Port State Control Detentions:	0	0	0.14
SOLAS (0), STCW (0), MARPOL (0), ISM (0), ISPS (0)			
Total Number of COTP Orders:	2	2	3.44
Navigation Safety (0), Port Safety & Security (2), ANOA (0)			
Marine Casualties (reportable CG 2692) within SF Bay:	0	13	7.89
Allision (), Collision (), Fire (), Capsize (), Grounding (), Sinking ()			
Steering (), Propulsion (), Personnel (), Other (), Power ()			
Total Number of (routine) Navigation Safety issues/Letters of Deviation:	3	3	2.08
Radar (2), Gyro (0), Steering (0), Echo Sounder (0), AIS (0)			
ARPA (0), Speed Log (1), R.C. (0), Other (0)			
Reported or Verified "Rule 9" or other Navigational Rule Violations:	0	0	0.53
Significant Waterway events/Navigation related Cases:	0	0	0.11
Total Port Safety (PS) Cases opened	5	18	14.19

MARINE POLLUTION RESPONSE

Pollution Discharge Sources (Vessels)	Apr-2021	Apr-2020	**3yr Avg
U.S. Commercial Vessels	0	0	0.94
Foreign Freight Vessels	0	1	0.19
Public Vessels	0	0	0.61
Commercial Fishing Vessels	1	1	0.89
Recreational Vessels	5	6	5.72
Pollution Discharge Sources (Facilities)	**Apr-2021**	**Apr-2020**	****3yr Avg**
Regulated Waterfront Facilities	1	1	0.44
Regulated Waterfront Facilities - Fuel Transfer	0	0	0.06
Other Land Sources	0	2	3.75
Mystery Spills - Unknown Sources	4	3	5.14
Number of Pollution Incidents (By Spill Size)	**Apr-2021**	**Apr-2020**	****3yr Avg**
Spills < 10 gallons	7	10	9.83
Spills 10 - 100 gallons	0	2	1.03
Spills 100 - 1000 gallons	0	0	0.33
Spills > 1000 gallons	0	0	0.00
Spills - Unknown Size	4	2	6.56
Total Pollution Incidents	11	14	17.75
Oil Discharge/Hazardous Materials Release Volumes by Spill Size	**Apr-2021**	**Apr-2020**	****3yr Avg**
Estimated spill amount from U.S. Commercial Vessels	0.00	0.00	12.36
Estimated spill amount from Foreign Freight Vessels	0.00	1.00	0.25
Estimated spill amount from Public Vessels	0.00	0.00	6.26
Estimated spill amount from Commercial Fishing Vessels	1.00	5.00	27.89
Estimated spill amount from Recreational Vessels	29.00	237.00	58.30
Estimated spill amount from Regulated Waterfront Facilities	1.00	2.00	22.83
Estimated spill amount from Regulated Waterfront Facilities - Fuel Transfer	0.00	0.00	0.11
Estimated spill amount from Other Land Sources	0.00	2.00	23.01
Estimated spill amount from Unknown Sources (Mystery Sheens)	unk	unk	0.00
Total Oil Discharge and/or Hazardous Materials Release (Gallons)	31.00	247.00	151.02
Penalty Actions	**Apr-2021**	**Apr-2020**	****3yr Avg**
Civil Penalty Cases	0	1	0.11
Notice of Violations	0	3	0.69
Letters of Warning	6	4	4.42
Total Penalty Actions	6	8	5.22

* 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
May 13, 2021

1. CORPS O&M DREDGING PROGRAM

The following report covers the FY 2021 dredging program for San Francisco Bay. The FY21 Work Plan was released to the public on January 19 and the Corps team is currently working on the planning phase for all dredging projects that received funding. The attached 2021 O&M Dredging Plan contains the list of funded projects, estimated procurement milestones, and dredging timelines.

FY 2021 DREDGING

a. **Oakland Harbor –** Planning for the FY21 dredging episode is currently underway with the contract award on April 29 and dredging estimated to start beginning of June.

b. **Redwood City Harbor –** Planning for the FY21 dredging episode is currently underway with contract award tentatively scheduled for May 10 and dredging estimated to start mid-June.

c. **San Pablo Bay (Pinole Shoal) –** Planning for the FY21 dredging episode is currently underway with dredging tentatively scheduled for first half of June by Government Hopper Dredge Essayons. We continue to be limited to only one hopper dredge project per year by the Water Quality Certification. Pinole Shoal is being dredged this year while Richmond Outer Harbor will be deferred until FY22.

d. **San Joaquin River (Port of Stockton) –** Planning for the FY21 dredging episode is currently underway with contract award tentatively scheduled for early July and dredging estimated to start mid-August.

e. **Sacramento River Deep Water Ship Channel** – Planning for the FY21 dredging episode is currently underway with contract award tentatively scheduled for second late June and dredging estimated to start early July.

f. **SF Main Ship Channel –** Planning for the FY21 dredging episode is currently underway with contract award on April 16. The work will be advertised via the West Coast Hopper Contract managed by the Portland District. Dredging is estimated to start beginning of August. Placement of sand will be by pump-ashore to the Ocean Beach site.

g. **Suisun Bay Channel (and New York Slough) –** Planning for the FY21 dredging episode is currently underway with contract award tentatively scheduled for first half of July and dredging estimated to start mid-August.

h. **Richmond Inner Harbor –** Planning for the FY21 dredging episode is currently underway with contract award tentatively scheduled for end of July and dredging estimated to start mid-September.

i. **Richmond Outer Harbor (and Richmond Long Wharf) –** We continue to be limited to only one hopper dredge project per year by the Water Quality Certification. Pinole Shoal is being dredged this year while Richmond Outer Harbor will be deferred until FY22.

2. DEBRIS REMOVAL – Debris removal for April 2021 was 41.5 tons. Dillard: 12.5 tons, including 2 abandoned vessels; Raccoon: 19 tons, including 1 abandoned vessel; other boats: 10 tons, including 4 abandoned vessels. Average for April from 2011 to 2020 is 121 tons (Range: 20-530).

BASEYARD DEBRIS COLLECTION TOTALS:

MONTH	RACCOON	DILLARD	MISC	TOTAL
2021	TONS	TONS	TONS	TONS
JAN	37	48	14	99
FEB	29	30.5	65	124.5
MAR	10	52.5	28	90.5
APR	19	12.5	10	41.5
MAY				
JUN				
JUL				
AUG				
SEP				
OCT				
NOV				
DEC				

YR TOTAL
355.5

3. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS

Oakland Harbor Turning Basins Widening Study: This study will investigate and determine if there is a technically feasible, economically justifiable, and environmentally acceptable recommendation for federal participation in a navigation improvement project to the existing -50-foot Oakland Harbor Federal Navigation Project. The existing federal navigation channel was designed for a 6,500 twenty-foot equivalent units (TEU) capacity ship with a 1,139-foot length overall, 140-foot beam, and 48-foot draft as part of the Oakland Harbor Navigation Improvement (-50-Foot) Deepening Project. The vessels routinely calling on the harbor today are longer and wider. The Port of Oakland and the San Francisco District are investigating inefficiencies currently experienced by vessels in harbor where the current fleet exceeds the maximum dimensions of the constructed project. The investigation includes alternatives to improve both the inner and the outer turning basins.

4. EMERGENCY (URGENT & COMPELLING) DREDGING

None to report.

5. OTHER WORK

Regional Dredge Material Management Plan: Comments have been received on the draft final Project Management Plan (PMP) and the Corps is working to incorporate these comments into the final PMP. Information on the RDMMP and draft final PMP can be found on our website: https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Regional-Dredge-Material-Management-Plan/.

USACE Work Plan Web Address: http://www.usace.army.mil/Missions/Civil-Works/Budget/

Water Resources Development Act (WRDA) of 2020:
https://transportation.house.gov/imo/media/doc/BILLS-116s1811-SUS.pdf
As the U.S. Army Corps of Engineers, Civil Works (USACE CW) begins to work on implementation guidance for applicable WRDA provisions, five partner sessions were held March 16 through April 13. The partner sessions and the public comment period were used to gather input on WRDA provisions and implementation guidance. For more information on WRDA 2020 and the work on implementation guidance visit: https://www.usace.army.mil/Missions/Civil-Works/Project-Planning/Legislative-Links/wrda_2020/

6. 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 Naval Navigation Channel: Condition survey of November 23 and 24, 2020.
Berkeley Marina (Entrance Channel): Condition survey of April 22, 2021.
Islais Creek Channel: Condition survey of April 15, 2020.

Larkspur Ferry Channel: Condition survey of April 8, 2020.
Mare Island Strait: Condition survey of June 24, 2020.
Marinship Channel (Richardson Bay): Condition survey of June 23, 2020 and April 20, 2021.
Napa River: Condition survey of March 11-15, 2021.
Northship Channel: Condition survey of April 21-24, 2020.
Oakland Inner Harbor: Condition survey of February 24, 2021.
Oakland Inner Harbor (Brooklyn Basin): Condition survey of 15-20 January 2021.
Oakland Outer Harbor: Condition survey of February 25, 2021.
Petaluma River (Across-the-Flats): Post-dredge condition survey of December 15, 2020.
Petaluma River (Main Channel): Post-dredge survey of October 10, 12, and 16 2020.
Petaluma River (Extended Channel): Post-dredge survey of October 10, 12, and 16 2020.
Pinole Shoal Channel: Condition survey of March 24, 2021.
Redwood City Harbor: Condition survey of March 10-11, 2021.
Richmond Inner Harbor: Condition survey of March 2, 2021.
Richmond Inner Harbor (Santa Fe Channel): Condition survey of December 20, 2016.
Richmond Outer Harbor (Longwharf): Condition survey of March 17, 2021.
Richmond Outer Harbor (Southampton Shoal): Condition survey of March 16, 2021.
Sacramento River Deep Water Ship Channel: Condition Survey of April 8-11, 2021.
San Bruno Shoal: Condition survey of February 26, 2021.
San Francisco Main Ship Channel: Condition survey of 20-21 Jan 2021.
San Leandro Marina (and Channel): Condition survey of March 30 and April 1, 2015.
San Rafael (Across-the-Flats): Condition survey of February 9, 2021.
San Rafael (Creek): Condition survey of February 9, 2021.
Stockton Ship Channel: Condition survey of April 12-16, 2021.
Suisun Bay Channel: Condition survey of April 26-27, 2021.
Suisun Bay Channel (Bullshead Reach): Condition survey of April 26-27, 2021.
Suisun Bay Channel (New York Slough): Condition survey of April 12-16, 2021.

Disposal Site Condition Surveys:

SF-08 (Main Ship Channel Disposal Site): Condition survey of April 14, 2020.
SF-09 (Carquinez): Condition survey of March 29, 2021.
SF-10 (San Pablo Bay): Condition survey of March 29, 2021.
SF-11 (Alcatraz Island): Condition survey of April 1, 2021.
SF-16 (Suisun Bay Disposal Site): Condition survey of May 17, 2020.
SF-17 (Ocean Beach Disposal Site): Condition survey of April 14, 2020.

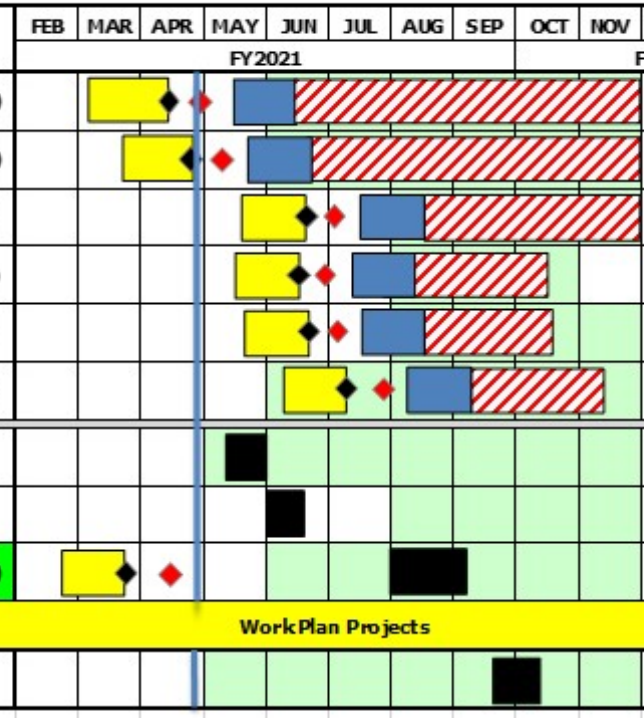
Requested Surveys:

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 FY21.

Channel Condition Report (CCR):

Attached is the Channel Condition Report (CCR) for all Corps maintained channels dated 10-11 MAY 2021. The CCR is generated by the USACE eHydro database and is not a substitute for the controlling depths set by the SF Bar Pilots. Please see the respective bathymetric plots for locations (highlighted in red) of the shoaliest soundings reports in the CCR.

2021 O&M DREDGING PLAN*



Project	Bid Open	Award	Estimated CY	Dredge Type	Placement Site
Oakland Harbor	15-Apr (A)	29-Apr (S)	1000kcy	Contract Clam Shell	SF-DODS
Redwood City Harbor	26-Apr (A)	10-May (S)	350kcy 125kcy	Contract Clam Shell	SF-11 Upland
San Joaquin River (Port of Stockton)	21-Jun (S)	6-Jul (S)	300kcy	Contract Pipeline	Various Upland
Sacramento River (30 Foot Project)	14-Jun (S)	28-Jun (S)	150kcy	Contract Pipeline	Various Upland
Suisun Bay Channel	24-Jun (S)	8-Jul (S)	175kcy	Contract Clam Shell	SF-16
Richmond Inner Harbor	10-Jul (S)	23-Jul (S)	250kcy	Contract Clam Shell	SF-DODS
Humboldt Bar & Entrance Channels	N/A	N/A	1100kcy	Govt Hopper	HOODS
San Pablo Bay (Pinole Shoal)	N/A	N/A	250kcy	Govt Hopper	SF-9/ SF-10
SF Main Ship Channel	22-Mar (A)	16-Apr (A)	350kcy	WCHC (Portland)	Ocean Beach
Work Plan Projects					
Humboldt Interior Channels	N/A	N/A	150kcy	Govt Hopper	HOODS

Solicitation
Bid Opening
Contract Award
Hopper Dredging
Environmental Window
Mobilization
New SPN Contract
Funded for P&S only

* Program execution is based on the FY21 Workplan plus FY20 Carryover.

Date of Last Update: 4/27/2021

REPORT OF CHANNEL CONDITIONS
400 FEET WIDE OR GREATER

Date 5/10/2021

To: Navigation Interests	From:	US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE SUISUN BAY CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
Suisun Bay Channel Suisun Bay Channel	04-27-2021	300 350	13.86	6	32.7	33.3	32.7	30.7
Suisun Bay Channel Anchorage Suisun Bay Channel Anchorage	04-27-2021	400	0.90	6	33.8	No Data	No Data	No Data
New York Slough Stockton Ship Channel	04-12-2021	400 411	4.42	6	33.4	34.1	35.3	34.4

REPORT OF CHANNEL CONDITIONS
400 FEET WIDE OR GREATER

Date 5/11/2021

To: Navigation Interests	From:	US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE NAPA RIVER CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
Mare Island Strait Causeway to Asylum Slough	03-12-2021	75 245	3.19	6	No Data	9.6	9.2	No Data
Napa River Asylum Slough to Napa City	03-12-2021	102 183	9.92	6	No Data	2.6	2.1	No Data

REPORT OF CHANNEL CONDITIONS
400 FEET WIDE OR GREATER

Date 5/11/2021

To: Navigation Interests	From:	US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE OAKLAND HARBOR CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
Brooklyn Basin Brooklyn Basin	01-15-2021	147 1501	0.94	35	6.2	8.0	17.3	7.2
Brooklyn Basin Brooklyn Basin	01-15-2021	250 1010	2.74	35	8.4	3.9	No Data	No Data
Oakland Harbor Oakland Outer Channel	05-04-2021	296 1761	2.52	6	48.3	48.8	49.2	48.4

REPORT OF CHANNEL CONDITIONS
400 FEET WIDE OR GREATER

Date 5/11/2021

To: Navigation Interests	From:	US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE OTHER CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
San Bruno Shoal San Bruno Shoal	02-26-2021	500	5.66	30	28.9	31.1	31.6	30.5
Richardson Bay/Marinship Richardson Bay/Marinship	06-23-2020	300 1069	2.11	20	No Data	6.0	6.4	No Data
Islais Creek Islais Creek	07-17-2018	500 1424	1.71	40	30.6	38.7	39.2	24.8
Alameda Naval Air Alameda Naval Air	12-27-2019	1000 4178	2.90	37	12.0	No Data	19.5	17.7
Mare Island Strait Mare Island Strait	06-24-2020	400 606	3.37	6	26.7	28.6	31.3	31.7
Larkspur Channel Larkspur Channel	07-11-2019	231 542	2.37	13	6.5	10.0	9.7	8.0
Northship Channel Northship Channel	06-27-2019	3576 4769	5.97	45	23.3	39.1	39.0	36.1
Berkeley Marina Berkeley Marina	04-22-2021	100 142	1.36	6	3.5	3.8	4.3	4.3
Bodega Bay Bodega Bay	08-11-2020	100 400	3.46	12	3.6	11.0	11.0	7.5
Moss Landing Moss Landing	03-31-2021	120 405	0.98	6	13.2	12.3	11.1	10.9

REPORT OF CHANNEL CONDITIONS
400 FEET WIDE OR GREATER

Date 5/11/2021

To: Navigation Interests	From:	US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE PETALUMA RIVER CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
Petaluma River Main Channel	08-28-2020	100 361	4.06	8	+2.8	+1.1	+3.7	+3.8
Petaluma River ATF Across the Flats	12-15-2020	200 206	5.68	8	6.3	8.8	8.3	8.2

REPORT OF CHANNEL CONDITIONS
400 FEET WIDE OR GREATER

Date 5/11/2021

To: Navigation Interests	From:	US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE PINOLE SHOAL CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
Pinole Shoal Channel		600						
Pinole Shoal Channel	03-24-2021	1644	10.36	6	30.2	35.2	36.1	32.5

REPORT OF CHANNEL CONDITIONS
400 FEET WIDE OR GREATER

Date 5/11/2021

To: Navigation Interests	From:	US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE REDWOOD CITY CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
Redwood City Harbor		300						
Redwood City Harbor	03-10-2021	943	3.94	6	18.1	26.4	26.2	23.7

REPORT OF CHANNEL CONDITIONS
400 FEET WIDE OR GREATER

Date 5/11/2021

To: Navigation Interests	From:	US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE RICHMOND HARBOR CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
Richmond Inner Harbor Entrance Channel	03-02-2021	809 1021	0.96	38	36.1	36.1	36.4	35.9
Richmond Inner Harbor Approach Channel	03-02-2021	809 1201	3.09	38	33.7	35.0	35.7	35.2
Richmond Inner Harbor Santa Fe Channel	02-26-2019	195 509	0.37	38	33.7	35.4	36.4	No Data
Richmond Outer Harbor Richmond Outer Harbor	03-16-2021	600 1291	3.25	6	41.5	44.5	44.6	42.5

ENG FORM 4020-R, NOV 1990 EDITION OF JUL 59 IS OBSOLETE (Proponent: CECW-OM)

Office of Spill Prevention and Response

Harbor Safety Committee of the
San Francisco Bay Region Clearing House
c/o Marine Exchange of the San Francisco Bay Region
10 Commodore Drive
Emeryville, California 94608
415-441-6600 -- hsc@sfmx.org

San Francisco Clearinghouse Report

May 13, 2021

- In April the clearinghouse did not contact OSPR regarding any possible escort violations.

- In April 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 2021 regarding any possible escort violations. The clearinghouse contacted OSPR 1 time in 2020 regarding a possible escort violation. 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 April there were 89 tank vessel arrivals; 15 ATBs, 9 Chemical Tankers, 7 Chemical/Oil Tankers, 24 Crude Oil Tankers, 2 LPGs, 20 Product Tankers, and 12 Tugs with Barges.

- In April there were 221 total vessel arrivals.

San Francisco Bay Clearinghouse Report For April 2021

San Francisco Bay Region Totals

	2021		2020	
Tanker arrivals to San Francisco Bay	62		70	
ATB arrivals	15		13	
Barge arrivals to San Francisco Bay	12		10	
Total Tanker and Barge Arrivals	89		93	
Tank ship movements & escorted barge movements	299		331	
Tank ship movements	164	54.85%	166	50.15%
Escorted tank ship movements	123	41.14%	127	38.37%
Unescorted tank ship movements	41	13.71%	39	11.78%
Tank barge movements	135	45.15%	165	49.85%
Escorted tank barge movements	24	8.03%	16	4.83%
Unescorted tank barge movements	111	37.12%	149	45.02%

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	173		294		0		124		591	
Unescorted movements	75	43.35%	152	51.70%	0	0.00%	49	39.52%	276	46.70%
Tank ships	60	34.68%	111	37.76%	0	0.00%	42	33.87%	213	36.04%
Tank barges	15	8.67%	41	13.95%	0	0.00%	7	5.65%	63	10.66%
Escorted movements	98	56.65%	142	48.30%	0	0.00%	75	60.48%	315	53.30%
Tank ships	89	51.45%	119	40.48%	0	0.00%	67	54.03%	275	46.53%
Tank barges	9	5.20%	23	7.82%	0	0.00%	8	6.45%	40	6.77%

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 2021

San Francisco Bay Region Totals

	2021		2020	
Tanker arrivals to San Francisco Bay	205		723	
ATB arrivals	51		165	
Barge arrivals to San Francisco Bay	44		143	
Total Tanker and Barge Arrivals	300		1,031	
Tank ship movements & escorted barge movements	1,025		3,467	
Tank ship movements	515	50.24%	1,774	51.17%
Escorted tank ship movements	381	37.17%	1,383	39.89%
Unescorted tank ship movements	134	13.07%	391	11.28%
Tank barge movements	510	49.76%	1,693	48.83%
Escorted tank barge movements	95	9.27%	253	7.30%
Unescorted tank barge movements	415	40.49%	1,440	41.53%

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	605		997		0		413		2,015	
Unescorted movements	306	50.58%	536	53.76%	0	0.00%	198	47.94%	1,040	51.61%
Tank ships	248	40.99%	404	40.52%	0	0.00%	172	41.65%	824	40.89%
Tank barges	58	9.59%	132	13.24%	0	0.00%	26	6.30%	216	10.72%
Escorted movements	299	49.42%	461	46.24%	0	0.00%	215	52.06%	975	48.39%
Tank ships	269	44.46%	371	37.21%	0	0.00%	189	45.76%	829	41.14%
Tank barges	30	4.96%	90	9.03%	0	0.00%	26	6.30%	146	7.25%

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.

5/11/2021

-OSPR HSC Membership Vacancy Announcement-

OSPR is seeking applicants for several open HSC member/alternate positions. Expiring members who wish to remain on the committee are encouraged to re-apply.

Open HSC positions are available representing the following groups:

1 - Non-Profit Environmental Organization
2 – Commercial Fishing Representative
3 – Pleasure Boat Operators
4 – Tanker Ship Operators
5 – Pilots Organizations – Vacant

Contact Mike Caliguire, OSPR, for more information and to submit membership applications: michael.caliguire@wildlife.ca.gov

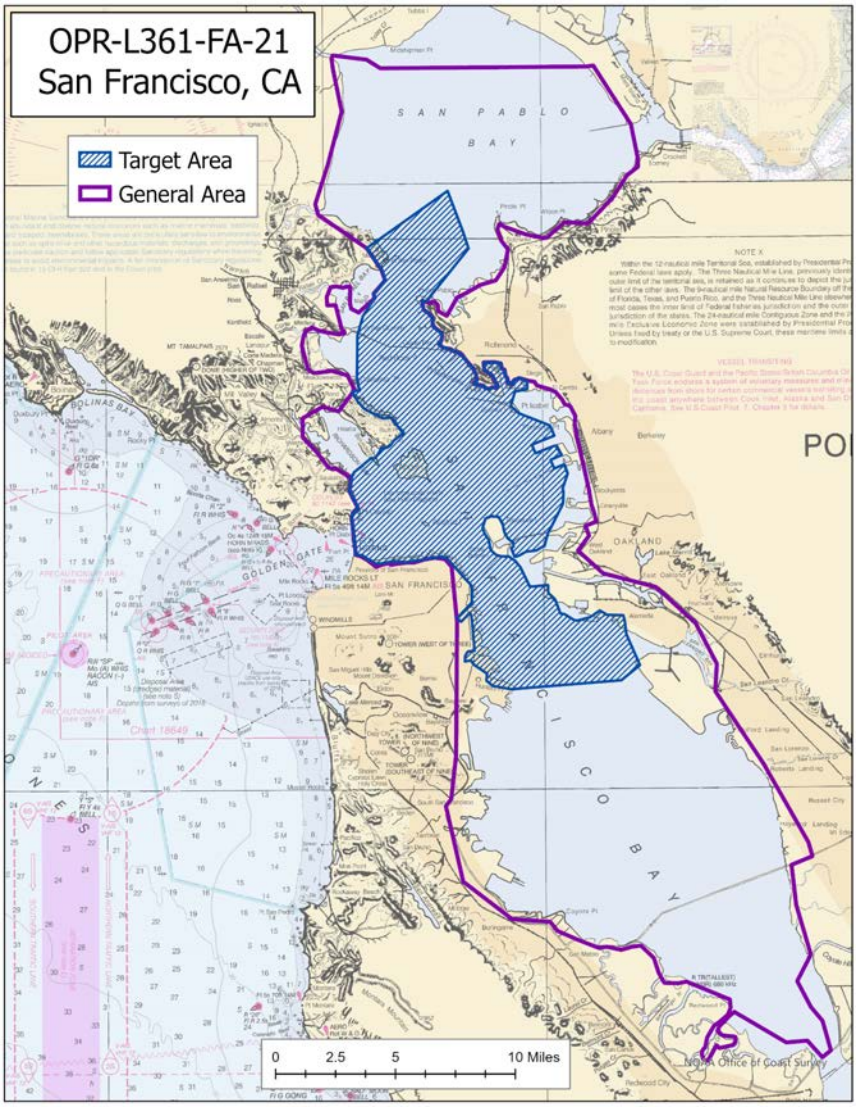
Mike Caliguire
Northern California Field OSPS
Oil Spill Prevention Specialist
Prevention Branch
California Dept. of Fish and Wildlife
Office of Spill Prevention and Response
2825 Cordelia Rd. Suite 200
Fairfield, CA 94534
Mobile: 916-500-2369
Office: 707-428-2144
michael.caliguire@wildlife.ca.gov

NOAA report to the San Francisco Bay Harbor Safety Committee
May 2021

NOAA Ship FAIRWEATHER to survey in San Francisco Bay

Due to a scheduling change, the NOAA Ship FAIRWEATHER is now planning to be in San Francisco Bay in August and September of 2021 to conduct hydrographic survey operations. These surveys will be used to update the nautical charts and will provide high resolution sounding data for users.

The FAIRWEATHER is a 230 foot vessel that carries four 28 foot survey launches.
The purple outline shows the area within which the ship will operate. The blue “target area” is the current first priority. However, we want to prioritize based on user input.



If you have a concern about any area within the purple outline, please contact me with your suggested survey area.

We don’t plan to survey areas under COE responsibility (main channels, etc.) but that leaves a lot of other areas (anchorages, approaches, gaps between the channel and a facility, etc.)

Please contact Jeffrey Ferguson, the CA Navigation Manager if you have specific areas you think need to be surveyed (email: jeffrey.ferguson@noaa.gov).

Voluntary Vessel Speed Reduction (VSR) Zones in California

Reminder that the voluntary speed reduction program began on May 1 and runs through November 15. The slower speeds help reduce lethal ship strikes of endangered whales. See the minutes from last month's meeting which include the USCG/NOAA letter with details.

Raster Sunset

NOAA will shut down its Raster Navigational Chart (RNC) Tile Service and the online RNC Viewer on 1 October 2021. The NOAA Seamless Raster Navigational Chart Services will be shut down on 1 January 2022. This is part of a larger NOAA program to end the production and maintenance of all NOAA traditional paper and raster nautical charts that was announced in the Federal Register in November 2019.

This does not impact the individual paper charts or PDF raster charts available from the website, but it may impact some navigation apps or chartplotters that use the Raster Tile Service as their charting source.

Another reminder that users should be transitioning to ENC products.

National Weather Service

The return of the marine layer will bring more widespread cooling. This cooling trend will continue through the remainder of the week, with an increase in night and morning low clouds and patchy fog. Near to slightly below normal daytime temperatures will then persist into the upcoming weekend, along with mainly dry weather conditions.

The marine forecast: As the next system approaches the waters late Thursday/early Friday, winds will increase over the northern outer waters generating steep, fresh swell making for hazardous conditions for smaller vessels into the weekend.

NOAA Ship FAIRWEATHER

END OF REPORT

Submitted by
Jeffrey Ferguson
California Navigation Manager
NOAA's Office of Coast Survey
jeffrey.ferguson@noaa.gov

CALIFORNIA STATE LANDS COMMISSION

HARBOR SAFETY COMMITTEE MONTHLY REPORT - APRIL COMPARISON

VESSEL TRANSFERS

	Total Transfers	Total Vessels Monitored	Total Transfers Percentage
APRIL 1 - 30, 2020	195	42	21.54
APRIL 1 - 30, 2021	195	37	18.97

CRUDE OIL / PRODUCT TOTALS

	Crude Oil (D)	Crude Oil (L)	Overall Product (D)	Overall Product (L)	GRAND TOTAL
APRIL 1 - 30, 2020	10,821,900	150,000	14,804,347	8,915,842	23,720,189
APRIL 1 - 30, 2021	10,955,100	142,000	17,549,379	5,386,646	22,936,025

OIL SPILL TOTAL

	TERMINAL	VESSEL	Total	Gallons Spilled
APRIL 1 - 30, 2020	0	1	1	1 Gallon - Gasoline
APRIL 1 - 30, 2021	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.

Generated by: MRA 5/12/2021
CSLC NCFO

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

SMART Ocean – SMART Industries:

Ocean, Weather and Climate Observations from Commercial Vessels and Infrastructure

Paul Holthus, CEO

World Ocean Council

paul.holthus@oceancouncil.org

www.oceancouncil.org

WOC – the Global "Blue Economy" Business and Investment Organization

World Ocean Council (WOC)

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

International, Cross-Sectoral Business Leadership Alliance

- **Bringing together the global ocean private sector**, e.g. shipping, tourism, fisheries, aquaculture, offshore energy, ports, legal, insurance, investment, etc.
- **Catalyzing leadership, collaboration and action for "Corporate Ocean Responsibility"**
- Formal recognition by UN and business entities, e.g. UNESCO IOC, WMO, IHO, ISA, ICC
- **35,000+ in global network; 75+ members globally; 100's of actively engaged companies**
- *"Ocean Investment Platform"* brings together industry, investors and innovators

Goal: Healthy, productive global ocean and its sustainable use and stewardship by responsible ocean business community

Creating business value for responsible companies

- Access and social license for responsible ocean use
- Synergies and economies of scale in addressing issues
- Stability and predictability in ocean operations

WOC – the Global "Blue Economy" Business and Investment Organization

Global Ocean Industry Leadership:

SMART Ocean - SMART Industries

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

Ensure a **wide range of industry vessels and platforms** are:

- **Providing routine, sustained, standardized information** on the ocean and atmosphere
- Contributing to describing the **status, trends and variability** of oceanographic and atmospheric conditions
- **Improving the understanding, modeling and forecasting** of oceanic ecosystems, resources, weather, climate variability and climate change

Establish a program to:

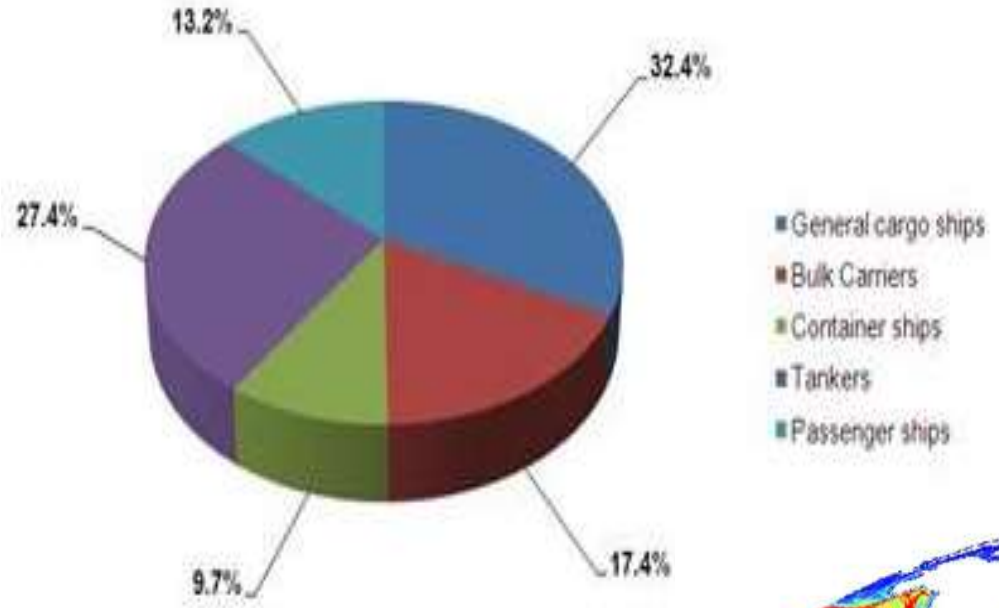
- **Expand the number of vessels and platforms** that collect standardized ocean, weather and climate data
- **Improve the coordination and efficiency of data sharing** and input to national/international systems
- Build on existing “ships/platforms of opportunity” programs

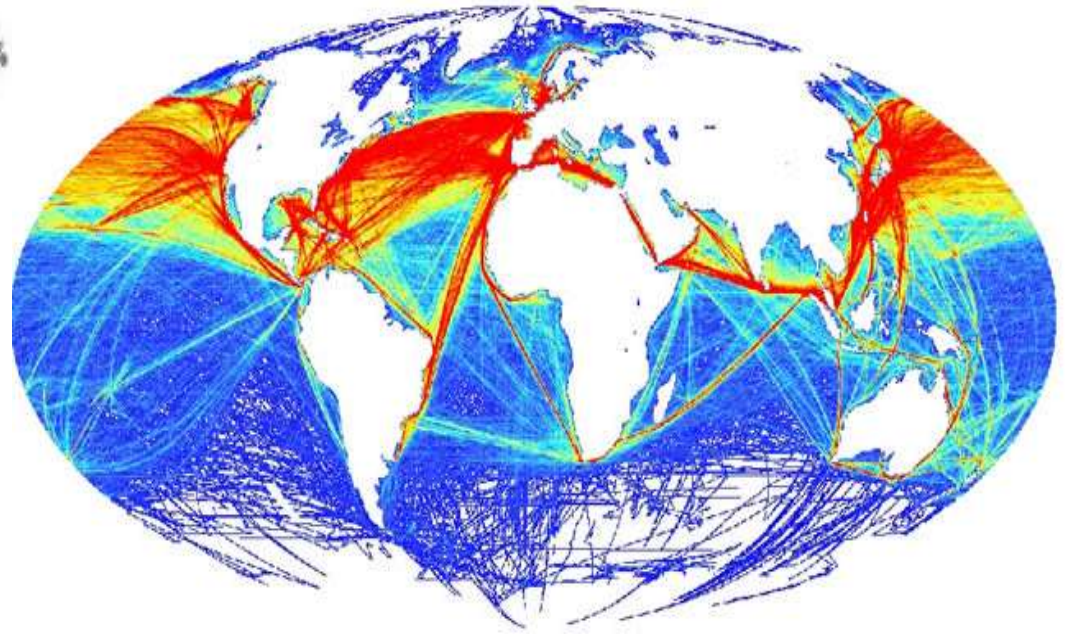
Opportunities of Ships

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

50,054 ships (Oct 2010)

- Tankers: 13,175
- Bulk Carriers: 8,687
- Container ships: 4,831
- Passenger ships: 6,597



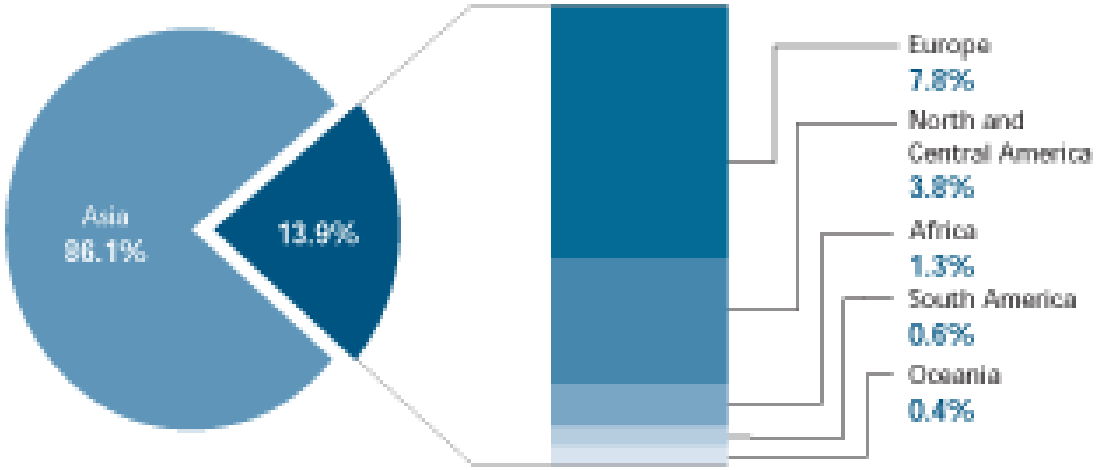


Opportunities of Fishing Vessels

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

- 3-4 million vessels
- Many operating in less well know ocean areas, e.g. Southern Ocean
- Over 85% of world fishing fleet is in Asia

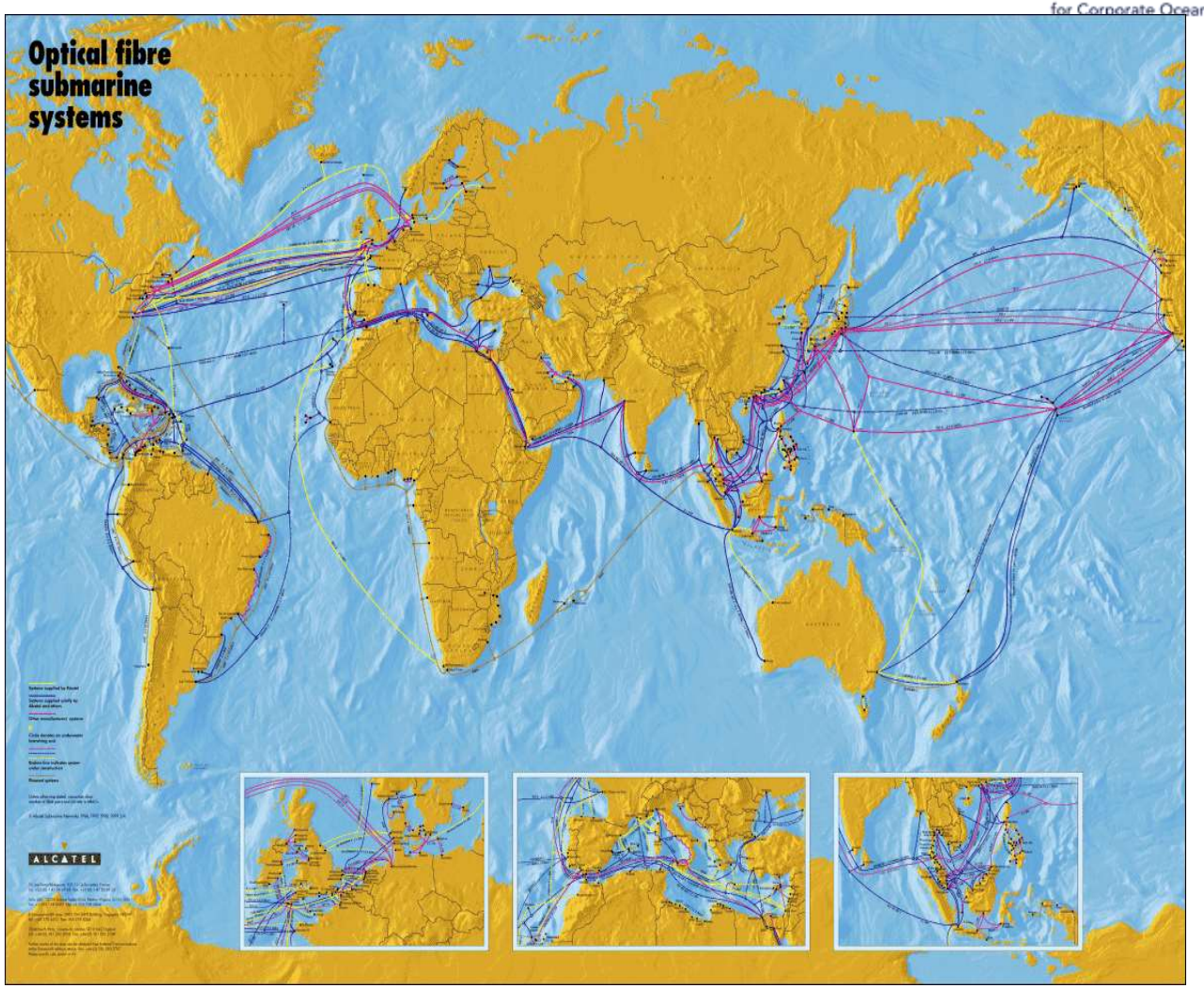
Distribution of decked fishing vessels by continent



Opportunities of Submarine Cables

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

- More than 1 million km of telecom cables
- Subsea power cables increasing for grids, platforms and renewables



Other Ship and Platform Opportunities

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

Oil and gas

Aquaculture

Ferries

Offshore wind energy

Wave/tidal energy

International Ship/Platform Data Collection

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

Comprehensive
- Incorporates needs and opportunities from different industries
- Addresses ocean, weather and climate data needs

Scaleable
- Within industries
- Across industries
- Upgradeable over time

Entry Options
- Retrofit – existing vessels and platforms
- New builds

Cost-Efficient
- Synergies – within and between industries
- Economies of scale

SMART Ocean-SMART Industries: How it works

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

- WOC engages scientific institutions to identify:
  - Priority data collection needs and areas and appropriate technology
- WOC identifies and recruits companies:
  - With vessels/platforms operating in the priority areas
  - Interested/capable of hosting/deploying instruments or hosting scientists
- WOC engages with the technology developers/providers to:
  - Verify the appropriate technology, costs, deployment considerations, etc.
  - Identify technology/business development opportunities
- WOC instigates and facilitates working relationship between the company, the scientific institution and the technology provider
- WOC monitors, coordinates and supports interaction among the parties
- WOC ensures industry data collection efforts are efficient, cost effective and contribute to national and international public science programs

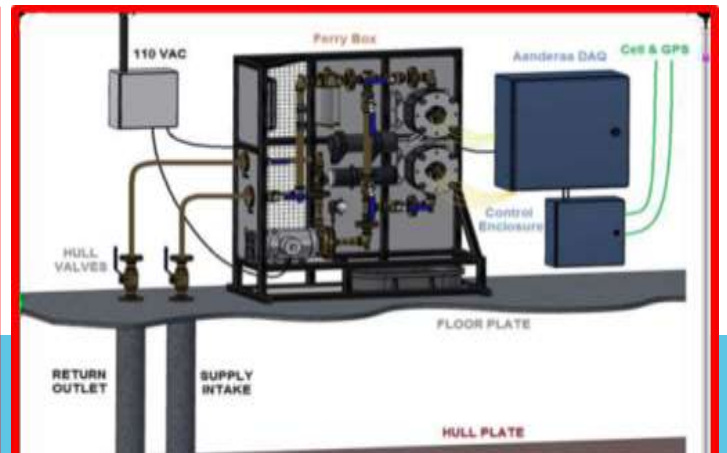
How Companies can Participate

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

- **Engage in the WOC SMART Ocean-SMART Industries program**
- **Evaluate the information collecting/sharing that would be a good fit for the company**, e.g. ocean, weather or climate data

There are options to participate, e.g.:

- Deploying instruments
- Hosting sensors on vessels
- Installing instruments to test water from engine intake
- Storing and sharing bathymetric data
- Sharing data from previous studies, EIAs, permits, etc.

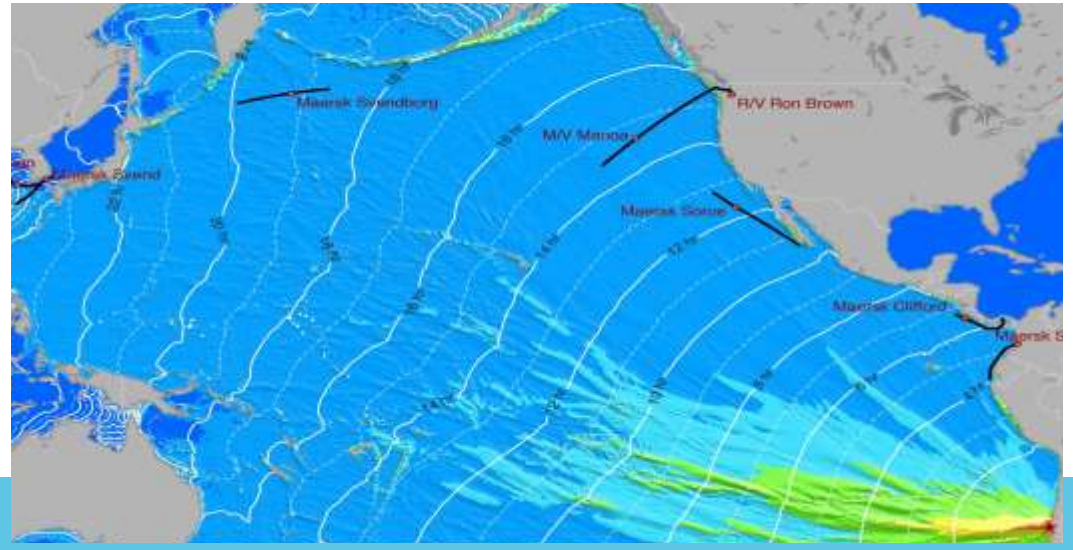


SMART Ocean-SMART Industries example

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

Project: Installing Tsunami Detection Instruments on Ships Traversing Pacific

- University of Hawaii scientists approach WOC SO-SI program for help
- WOC reaches out to shipping industry with information and call to assist
- Within weeks, Maersk and Matson volunteer 8 ships for an initial 2 year project
- Within a few months, ships are equipped with prototype real-time geodetic GPS systems and satellite communications links
- Data begins streaming via satellite to a land-based data center for processing and analysis for tsunami signals in a ground-breaking, far-reaching pilot project



SMART Ocean-SMART Industries: Next Steps

WORLD OCEAN COUNCIL
The International Business Alliance for Corporate Ocean Responsibility

Continue engaging leadership companies

- **Facilitate company's making a commitment to:**
  - SDG 14.a – "Increase ocean knowledge"
  - U.N. Decade of Ocean Science for Sustainable Development
- **Identify startup level participation**, e.g. on one vessel, less complicated data types
- **Evaluate fleet level potential to participate in data collection**

Develop pilot projects to put "SMART Industries" to work with companies

- Key parameters, e.g. ocean pH, bathymetry, microplastics
- Extreme weather or ocean events, e.g. tsunamis
- Regional scaling up, e.g. Caribbean, Arctic, California

Continue to build overall SMART Ocean-SMART Industries program

- Inventory existing ships / platforms of opportunity programs
- Define the "menu of options" for voluntary observations
- Develop principles, practice and platform for industry data sharing

The Central and Northern California Ocean Observing System: World Ocean Council and Industry Projects in SF Bay

Harbor Safety Committee Meeting
May 13 2021

IOOS Integrated Ocean Observing System

CENTRAL & NORTHERN CALIFORNIA OCEAN OBSERVING SYSTEM

CeNCOOS – A Regional Association of IOOS

Ocean observing via:

- 31 high-frequency radars (HFR), with recapitalization of 7% of our infrastructure;
- Three glider lines;
- 15(+) Coastal Observing Network stations;
- Four HAB sampling sites;
- Zooplankton, bird and ship sampling;
- Elephant seal and shark tagging.

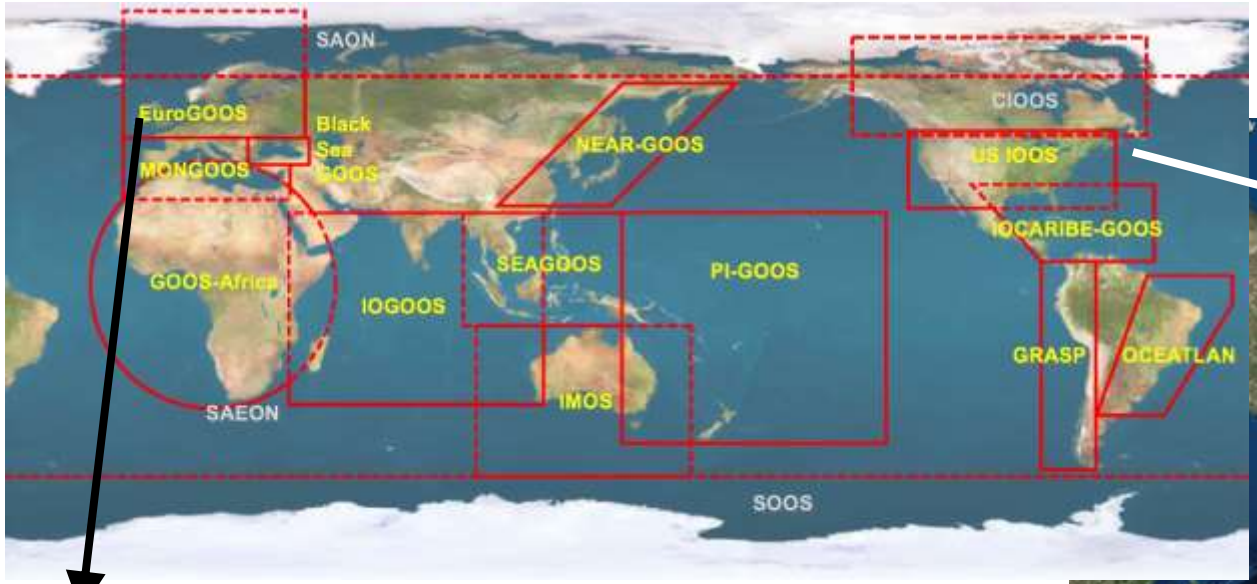
Hindcast, nowcast and forecast **models** with new biogeochemistry and biology outputs

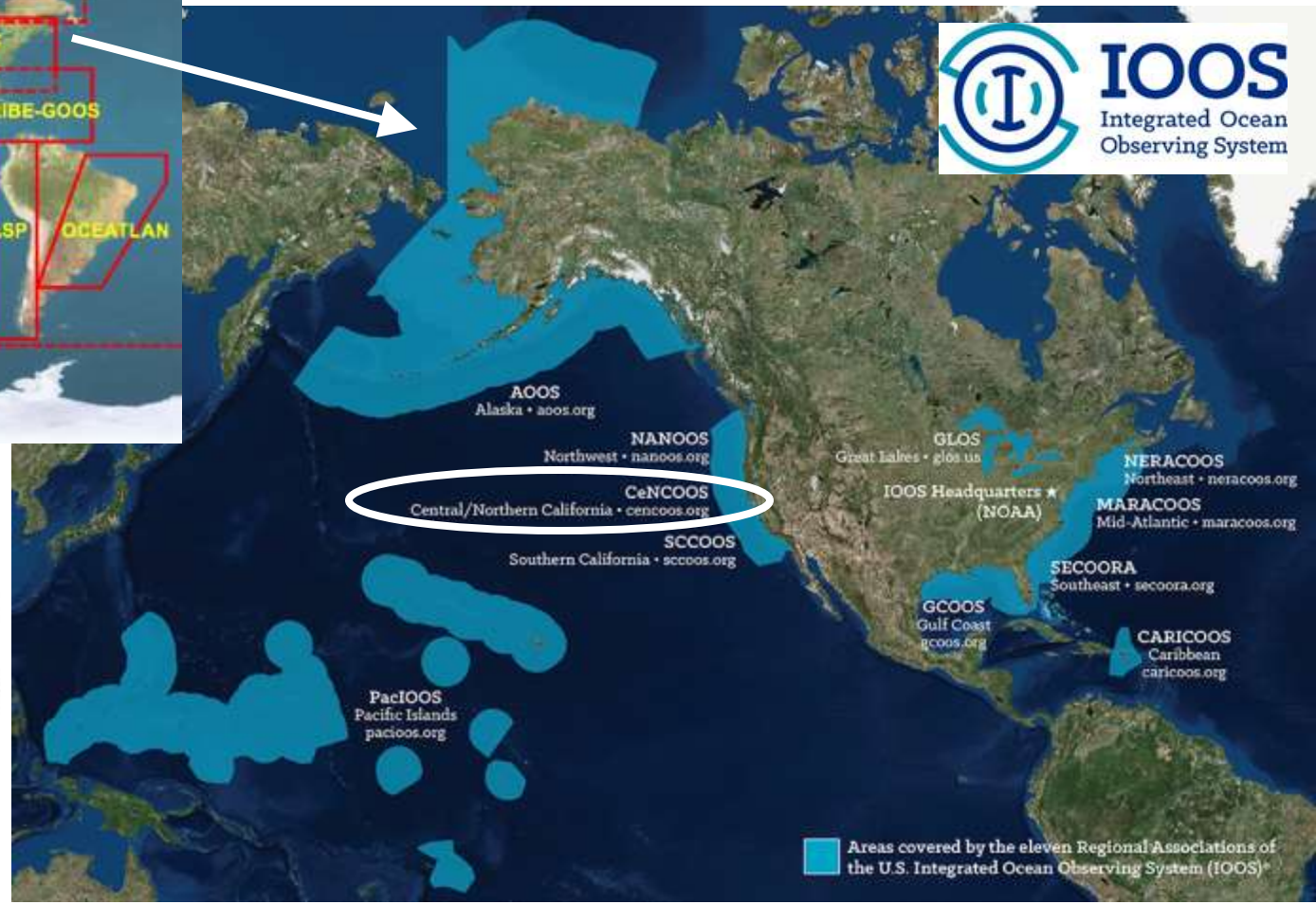
Data Management and Cyberinfrastructure

>250 data **products**; >1000 live sensor feeds

CENTRAL & NORTHERN CALIFORNIA OCEAN OBSERVING SYSTEM

Global Ocean Observing System





CENTRAL & NORTHERN CALIFORNIA OCEAN OBSERVING SYSTEM

UN Decade for Ocean Science

The science we need for the ocean we want

IOOS Integrated Ocean Observing System

CENTRAL & NORTHERN CALIFORNIA OCEAN OBSERVING SYSTEM

emso ERIC

DEEP OCEAN OBSERVING STRATEGY

SUSTAINABLE DEVELOPMENT GOALS

DECADE OUTCOMES

"THE OCEAN WE WANT"

- A clean ocean
- A healthy & resilient ocean
- A productive ocean
- A predicted ocean
- A safe ocean
- An accessible ocean
- An inspiring & engaging ocean

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

- Initiative is aligning global efforts to common goals and outcomes
- Many, many organizations planning how they can contribute

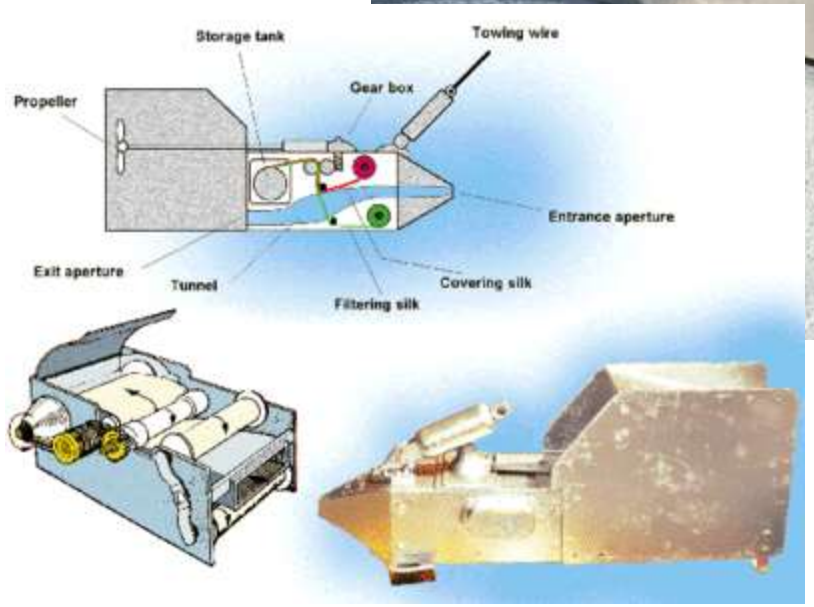
CENTRAL & NORTHERN CALIFORNIA OCEAN OBSERVING SYSTEM

Continuous Plankton Recorder (CPR)

- Ideally suited as a premium long-term ocean monitoring tool
- Cost effective, proven and reliable
- 500nm tow-leg transits
- Optimum > 9 knots
- Seven million miles of ocean surveyed
- > 17,500 tows
- Successfully used since 1931
- Platform for instrumentation

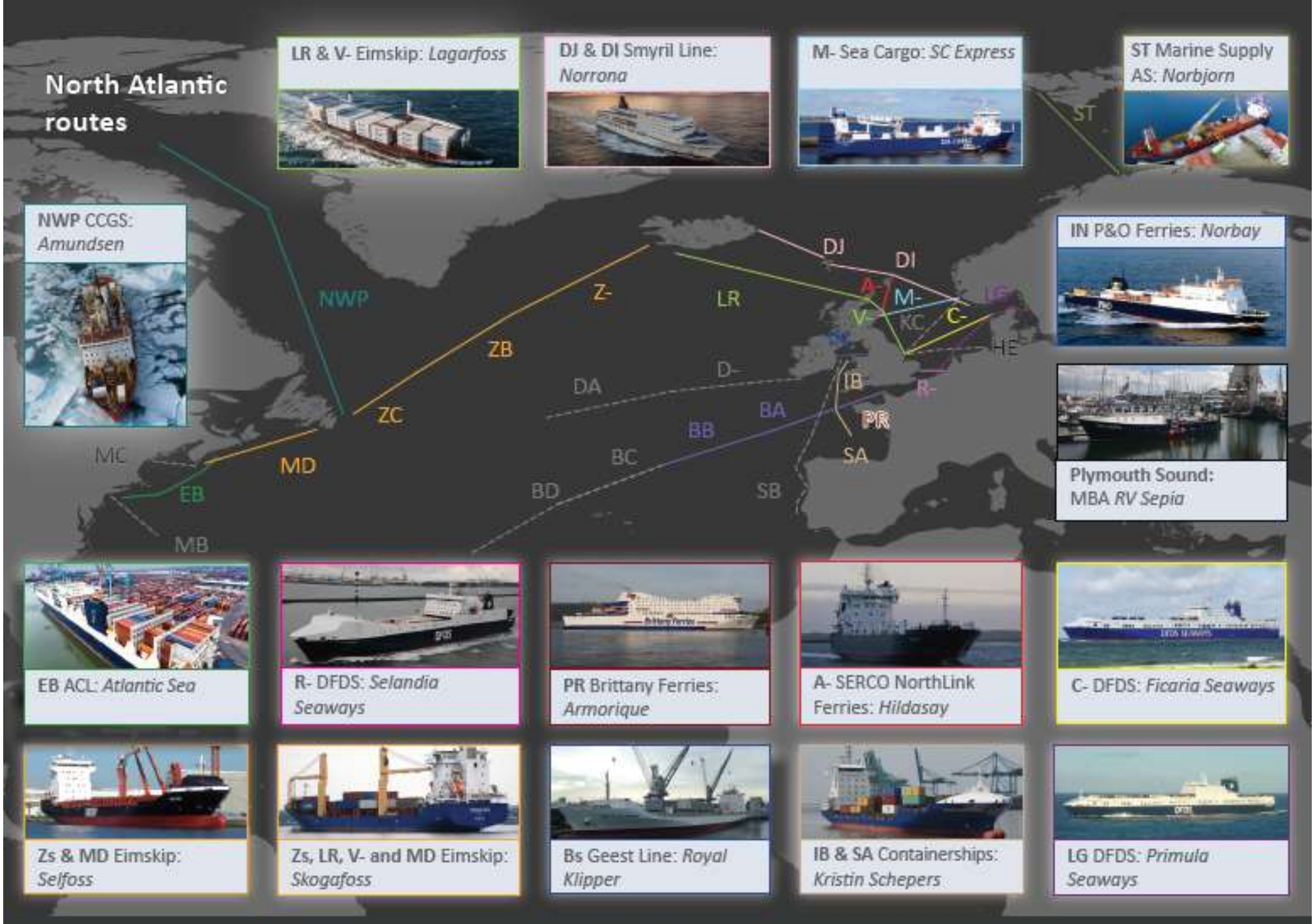
THE MARINE BIOLOGICAL ASSOCIATION

CONTINUOUS PLANKTON RECORDER SURVEY



https://www.cprsurvey.org/

North Atlantic routes



LR & V- Eimskip: *Lagarfoss*

DJ & DI Smyril Line: *Norrona*

M- Sea Cargo: *SC Express*

ST Marine Supply AS: *Norbjorn*

NWP CCGS: *Amundsen*

IN P&O Ferries: *Norbay*

Plymouth Sound: MBA *RV Sepia*

EB ACL: *Atlantic Sea*

R- DFDS: *Selandia Seaways*

PR Brittany Ferries: *Armorique*

A- SERCO NorthLink Ferries: *Hildasay*

C- DFDS: *Ficaria Seaways*

Zs & MD Eimskip: *Selfoss*

Zs, LR, V- and MD Eimskip: *Skogafoss*

Bs Geest Line: *Royal Klipper*

IB & SA Containerships: *Kristin Schepers*

LG DFDS: *Primula Seaways*

Our network of ships and tow routes

Pacific routes

SWL

AT

VJ

The CPR Survey would not be physically or economically possible without the generous support of ships, owners, charterers, managers, port operatives and agents. We are incredibly grateful to all those involved, helping in our operational activities - we could not do it without your continuing support.

AT Matson Shipping:
Matson Kodiak

SWL CCGS:
Sir Wilfrid Laurier

- - - - Routes seeking funding

Routes deploying Planktag Instrument: A-, C-, IN, LG, LR, M-, PR, R-, V-

Routes deploying Minilog Instrument: A-, BA, C-, IB, LG, R-, SA

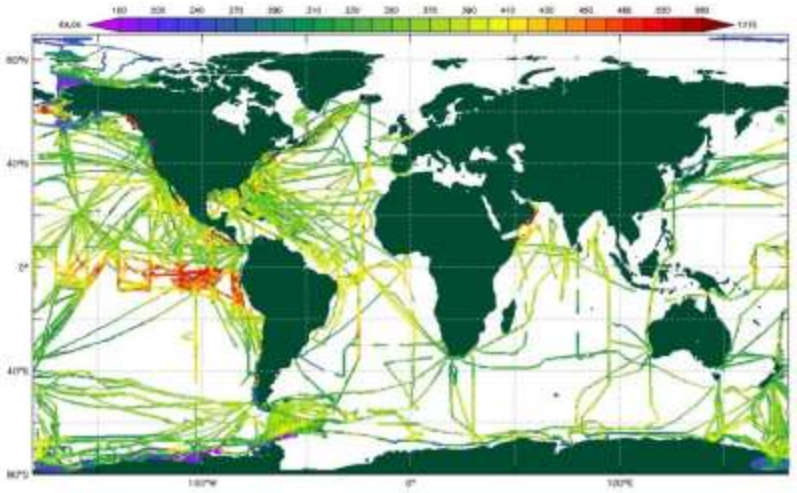
Routes deploying RBR Instrument: AT, VJ

See page 6-7 for instrument details

VJ APL Shipping:
APL Qingdao

NOAA Ship Of Opportunity Program (SOOP)

- Aka Volunteer Observing Ships
- Mostly meteorology
- Produce CO_2 data at sufficient accuracy to constrain sea-air CO_2 fluxes
- Facilitate capacity building through instrumentation and data reduction guidance to attain a global network of SOOP-CO2.
- Create CO_2 flux maps and related data products.
- Surface Ocean Carbon Atlas (www.socat.info), a group endorsed by the International Carbon Coordination project (www.ioccp.org)



- https://www.aoml.noaa.gov/phod/soop/index.php
- https://www.pmel.noaa.gov/co2/story/SOOP -
- https://www.pmel.noaa.gov/co2/story/Volunteer+Observing+Ships+%28VOS%29

A European Counterpart

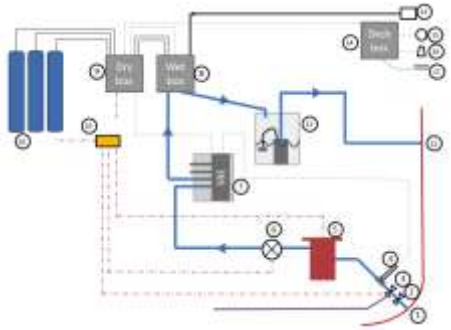
European Commission

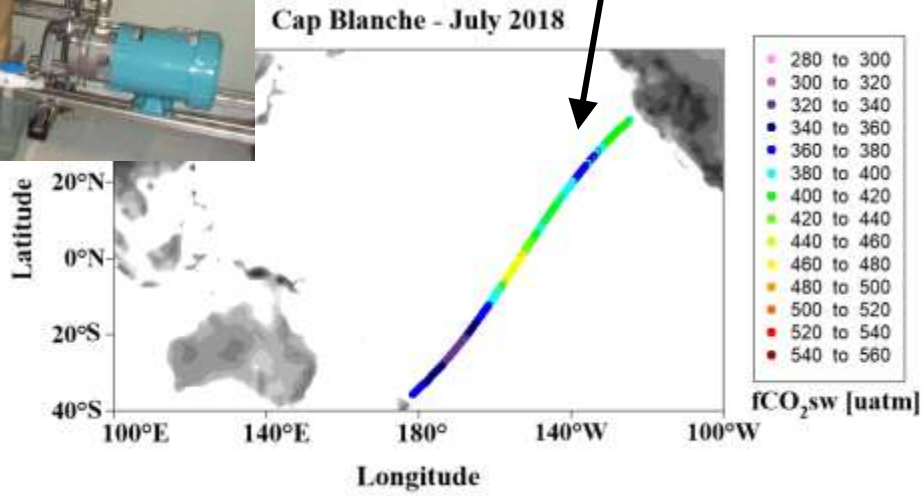
ICOS INTEGRATED CARBON OBSERVATION SYSTEM

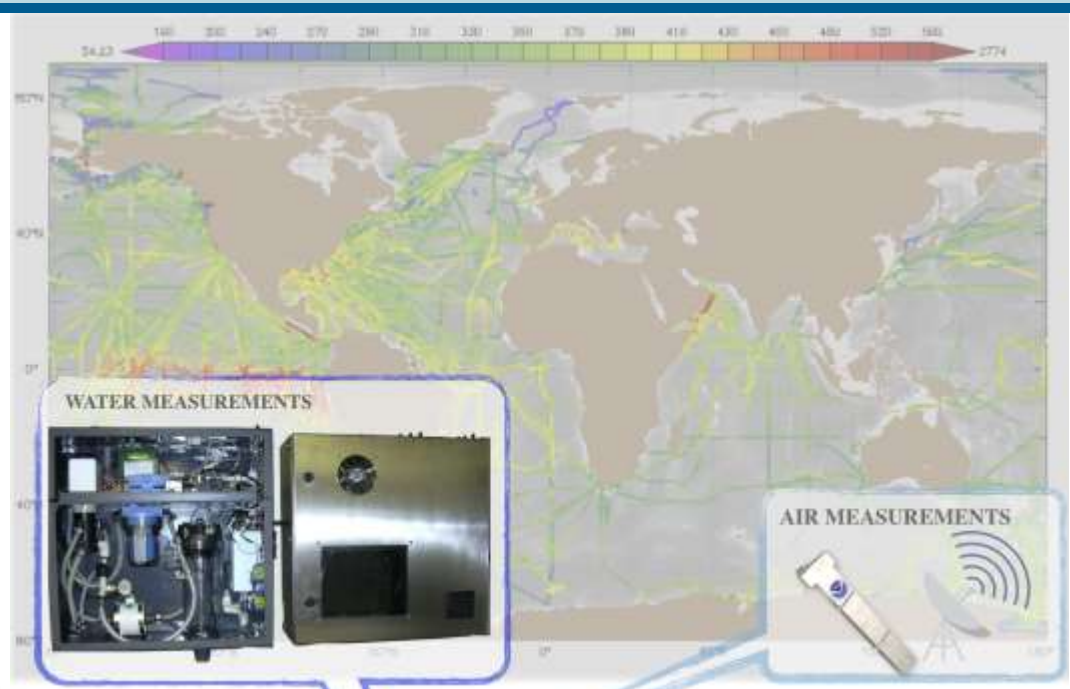
CENTRAL & NORTHERN CALIFORNIA OCEAN OBSERVING SYSTEM

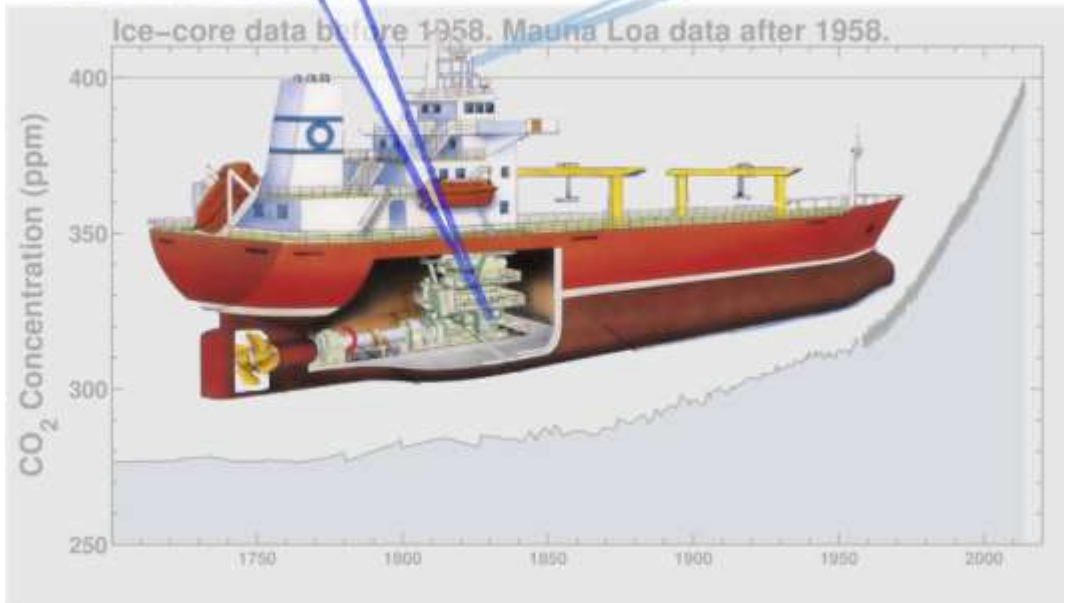
NOAA Ship Of Opportunity Program (SOOP)

- Standard Operating Procedures are available
- Can contribute to global network
- Current Routes include Long Beach to Hong Kong and New Zealand









Pierrot, D., and T. Steinhoff, 2019: Installation of autonomous underway pCO2 instruments onboard ships of opportunity. NOAA Technical Report, OAR-AOML-50 (doi:10.25923/ffz6-0x48), 31 pp.

Tie in STEM to Deliver UN Outcomes

- Operations and maintenance of kit on vessels transiting through SF Bay can be managed by regional CeNCOOS partners, e.g. Cal Maritime
- This can be tied to Science Technology Engineering and Math (STEM) education objectives that build workforces
- Address issues of diversity, equity and inclusion
- Regional effort contributing to GOOS and UN Sustainability outcomes

https://www.csum.edu/ & https://www.sfsu.edu/

CENTRAL & NORTHERN CALIFORNIA OCEAN OBSERVING SYSTEM

Next Steps…

- Let us know your potential interest and prospective ideas needs
- We will organize a virtual roundtable discussion(s) (e.g. in June 22 or 23)
- Exchange ideas and identify common goals
- The value proposition for industry is key and the UN Decade and related initiatives can serve as a uniting framework to harmonize priorities across various board rooms.

- Fred Meitz, WOC (niners@meitzfamily.com)
- Paul Holthus, WOC (paul.holthus@oceancouncil.org)
- Henry Ruhl, CeNCOOS (hruhl@mbari.org)

Marathon Martinez
150 Solano Way
Martinez, CA 94553

7 May 2021

LCDR Hale Allegretti
Chief, Waterways Management Division
USCG Sector San Francisco
Phone: (415) 399-7401

Subj: BULLS HEAD CHANNEL EMERGENCY DREDGING

Ref: (a) USCG Memorandum Bulls Head Channel Emergency Dredging November 29, 2016
(b) USCG Memorandum Bulls Head Channel Emergency Dredging July 2, 2020
(c) U.S. Army Corps of Engineers Condition Survey, April 27, 2021

Dear LCDR Allegretti,

As a Member of the Harbor Safety Committee and stakeholder in the Suisun Bay area Marathon would like to express our concern regarding the reduction of the controlling depth of Bulls Head Channel to 32.5 feet. This concern is shared by the San Francisco Bar Pilots.

Navigation Hazard

A 2016 Coast Guard memorandum, reference (a), regarding a similar but less severe shoaling event in Bulls Head Channel states:

"Coast Guard considers the shoaling in the Bulls Head Channel to be a hazard to navigation for deep draft vessels transiting Suisun Bay. The area of shoaling, with recorded depths less than 33 feet, presents a significant hazard to tank vessels carrying petroleum products or other hazardous cargo which require a minimum under keel clearance of three feet. […] The Coast Guard will consider any future shoaling above the project depth in this navigationally critical area to be a hazard to navigation."

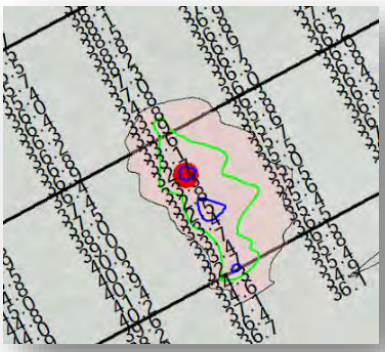


Image No. 1, Shoaling at station 68+00

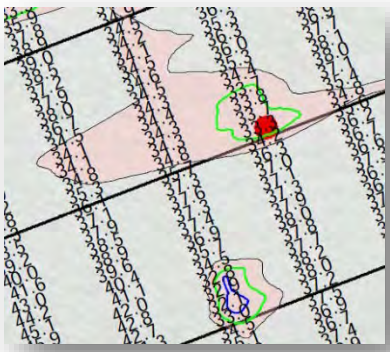


Image No. 2, Shoaling at station 153+00

The project depth for the channel is 35.0 feet. Reference (c) and Image No. 1 and 2 above show survey stations 68+00 and 153+00 with significant shoaling in the center of the channel, reducing the minimum controlling depth to 32.5 feet.

U.S. Army Corps of Engineers publication EP 1130-2-520, Sec. 9, describes notification to the U.S. Coast Guard of "Hazardous Shoals" defined as: “Less than project depth."

The San Francisco Harbor Safety Plan designates the Union Pacific Bridge area in which the shoaling is located as a Critical Maneuvering Areas (CMA), defined as follows:

“*Locations within the San Francisco Bay and Delta Region where additional standards of care are required due to the restrictive nature of the channel, proximity of hazards, or the prevalence of adverse currents. The dynamic and unpredictable nature of visibility conditions in the San Francisco Bay can introduce uncertainty and additional risk when transiting these areas.*”

Economic Hardship

The controlling depth was reduced from 34.8 to 32.5 feet for a total loss of 2.3 feet. This is requiring vessel operators to mitigate the hazard, creating a significant economic hardship consistent with 33 CFR 335.7, “Definition: Emergency.” Marathon utilizes three marine terminals affected by the reduction: TransMontaigne Martinez, Avon Wharf, and B.A.B.T. Pittsburg.

The loss of cargo carrying capacity is approximately 4,000 metric tons per transit for a Medium Range sized vessel (50k DWT) and 5,000 metric tons for a Panamax sized vessel (74k DWT). A secondary economic impact resulting from the channel depth reduction is significant narrowing of vessel sailing windows. This increases demurrage and idle time alongside, compounding the unprecedented economic hardship continuing to unfold due to COVID-19.

Action

Based on the above we strongly encourage the emergency dredging of Bulls Head Channel.

Sincerely,

Julian Rose
Marathon
Port Captain
Office 925-370-3340
Mobile 415-217-9994
jcrose@marathonpetroleum.com

U.S. Department of Homeland Security
United States Coast Guard

Commander
Eleventh Coast Guard District

Coast Guard Island, Bldg. 52
Alameda, CA 94501-5100
Staff Symbol: d
Phone: (510) 437-3968
Fax: (510) 437-5793

16670

MEMORANDUM

From: T. A. Sokalzuk, RADM
CGD ELEVEN (d)

To: Commander, U.S. Army Corps of Engineers, San Francisco District

Subj: BULLS HEAD CHANNEL EMERGENCY DREDGING

Ref: (a) U.S. Army Corps of Engineers Condition Survey, dated November 29, 2016

1. Based on the results of reference (a), the Coast Guard considers the shoaling in the Bulls Head Channel to be a hazard to navigation for deep draft vessels transiting Suisun Bay. The Area of shoaling, with recorded depths less than 33 feet, presents a significant hazard to tank vessels carrying petroleum products or other hazardous cargo which require a minimum under keel clearance of three feet.

2. Bulls Head Channel is within the Benicia-Martinez Railroad Drawbridge Regulated Navigation Area where it is critical for vessels to be in the center of the 350 foot wide channel to safely pass under the bridge. Shoaling in the channel has adverse effects on handling characteristics of deep draft vessels and severely impacts their ability to safely transit through the 291 foot wide railroad drawbridge opening. As a result of the current shoaling, the San Francisco Bar Pilots reduced the controlling depth in this area from 36.1 feet to 33.8 feet. I encourage you to dredge this area as soon as practical to restore the channel to the project depth of 35 feet. The Coast Guard will consider any future shoaling above the project depth in this navigationally critical area to be a hazard to navigation.

3. My point of contact for any questions concerning this memo is Mr. Tyrone Conner at (510) 437-2968, email: Tyrone.L.Conner@uscg.mil.

#

Copy: Commander, Coast Guard Sector San Francisco

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eleventh Coast Guard District

Coast Guard Island, Bldg. 52
Alameda, CA 94501-5100
Staff Symbol: d
Phone: (510) 437-3968

16670

JUL 0 2 2020

MEMORANDUM

From: P. W. Gautier, RADM
CGD Eleven

To: Commander
U.S. Army Corps of Engineers, San Francisco District

Subj: REQUEST EMERGENCY DREDGING IN BULLS HEAD CHANNEL

Ref: (a) U.S. Army Corps of Engineers (USACE) Suisun Bay Channel Condition Survey, dtd 26 June 2020

1. Per reference (a), the Coast Guard has determined that the shoaling in Bulls Head Channel is a hazard to the safe navigation of deep draft vessels transiting Suisun Bay.

2. The area of shoaling, with recorded depths less than 33 feet, presents a significant hazard to tank vessels carrying petroleum products or other hazardous cargo which require a minimum under keel clearance of three feet. The authorized project depth at this location is 35 feet. Per reference (a), survey station 66+00 indicates significant shoaling in the center of the channel of 30.8 feet. As a result of the current shoaling, the San Francisco Bar Pilots reduced the controlling depth in this area from 35.8 feet to 30.8 feet.

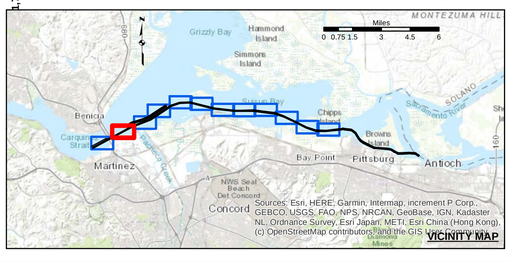
3. I encourage USACE to authorize emergency dredging of the shoaling area as soon as practicable to restore the channel to the project depth of 35 feet.

4. For any questions, please contact Mr. Tyrone Conner, Deputy Chief, District 11 Waterways Management Branch at (510) 437-2968 or via email at Tyrone.L.Conner@uscg.mil.

#

Enclosures: (1) Marathon Petroleum Port Captain Letter, dtd 26 June 2020
(2) USACE Suisun Bay Channel Post-Dredge Survey, dtd 10 October 2017

Copy: CG Sector San Francisco



- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding*

Contours

-35
-34
-33
-32
-31

NOTES:

HORIZONTAL COORDINATE SYSTEM:
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE II. DISTANCE UNITS IN U.S. SURVEY FEET.

VERTICAL DATUM:
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY CONDUCTED ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED TO REPRESENT THE GENERAL CONDITION EXISTING AT THAT TIME.

PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION,
ZONE II NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY.
BASE MAPS ARE USDA NAIP 2010.

*SHOALEST SOUNDING PER QUARTER PER REACH

DRAWING NOT TO BE USED FOR NAVIGATION, ONLY CHANNEL CONDITION AT DATE OF SURVEY.
THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON
INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT
THE POSITION OF THE SINKER ONLY.

SURVEYED BY THE CORPS OF ENGINEERS.

SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT. SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.

THE PROJECT DEPTH IS 35 FEET.

VERTICAL CONTROL:
SUISUN BAY CHANNEL
(LINES 00+00 TO 160+00) BENCHMARK "9" (1948), USC&GS DISK
ELEV 14.875 FT MLLW,
TIDE GAUGE LOCATED AT PORT OF BENICIA DOCK.

(LINES 150+00 TO 500+00) BENCHMARK "5144-P" (1990 RESET 1997),
(LINES 500+00 TO 660+00) BENCHMARK "5144-P" (1990 RESET 1997),
USC&GS DISK, ELEV 11.83 FT MLLW,
TIDE GAUGE LOCATED AT CONCORD NAVAL WEAPONS STATION TUG DOCK, NOAA STATION.

(LINES 660+00 TO 733+45) BENCHMARK "5096-B",
USC&GS DISK, ELEV 21.76 FT MLLW,
TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.

HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers activity and indicates the general existing conditions. As such, it is not intended for navigation purposes, and does not meet accuracy specifications. The user is responsible for the results of any of the application of the data for other than its intended purpose.

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Chart Date: Apr 29, 2021
Surveyed By:
Designed by:
Plotted By: PDT
Drawn by: PDT
Checked By: PDT

PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E. DISTRICT ENGINEER

Submitted:
Hydro Survey Team Leader

Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CONTRA COSTA COUNTY
CALIFORNIA

SUISUN BAY CHANNEL
CONDITION SURVEY
26-27 APRIL 2021

Sheet Reference Number 2 of 13

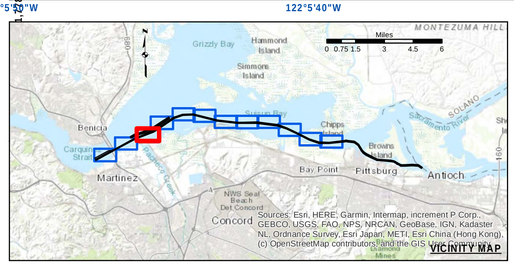
PRELIMINARY ISSUE
THIS PLAN ISSUED FOR ADVANCE INFORMATION ONLY

122°5'50"W 122°5'40"W 122°5'30"W 122°5'20"W 122°5'10"W 122°5'0"W 122°4'50"W 122°4'40"W
38°3'20"N 38°3'10"N 38°3'0"N 38°2'50"N
6,533,661 6,536,661 6,539,661
1,781,706 1,778,706

FLOOD
EBB

Avon Wharf East Light
Point Edith Crossing South Range Front Light
Avon Wharf West Lights
Avon Turning Basin South Light
Point Edith Crossing South Range Rear Light

Feet
0 200 400 800 1,200
1 inch = 200 feet
Relative Scale (ANSI D 22x34)
1:2,400
Absolute Scale



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PREPARED UNDER THE DIRECTION OF
JOHN D. CUNNINGHAM
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader
Recommended: Chief, Hydro Survey Section
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CONTRA COSTA COUNTY CALIFORNIA

SUISUN BAY CHANNEL
CONDITION SURVEY
26-27 APRIL 2021

Sheet Reference Number 3 of 13