

Briefing for PWSRCAC Board of Directors – May 2023

ACTION ITEM

Sponsor: Roy Robertson and the Oil Spill Prevention and Response Committee
Project number and name or topic: 7520 - 2022 Drill Monitoring Annual Report

1. **Description of agenda item:** Staff will provide a briefing on the 2022 Drill Monitoring Annual Report that summarizes the drills and exercises that were attended and evaluated by PWSRCAC staff in 2022. Staff is requesting Board acceptance of this report.
2. **Why is this item important to PWSRCAC:** OPA 90 and the PWSRCAC/Alyeska Contract address the requirements for drill monitoring activities by PWSRCAC, and PWSRCAC monitors drills and exercises whenever possible. These reports have great value in tracking the history of spill preparedness and response by Alyeska/SERVS/PWS Shippers, and are important in tracking lessons learned to avoid the reoccurrence of the same issues and challenges in the prevention and response system. These reports have proven to be valuable tools in improving the prevention and response system, assisting contingency plan workgroups, and in planning large unannounced drills.
3. **Previous actions taken by the Board on this item:** The Board accepts the annual drill monitoring reports while the OSPR Committee accepts the individual reports throughout the year. This is an ongoing program specifically identified in OPA 90 and the Alyeska contract with PWSRCAC.
4. **Summary of policy, issues, support, or opposition:** See above.
5. **Committee Recommendation:** The OSPR Committee reviewed this report at its February 17, 2023 meeting and recommended Board acceptance of the 2022 Annual Drill Monitoring Annual Report.
6. **Relationship to LRP and Budget:** Project 7520 – Preparedness Monitoring is in the approved FY2023 budget and annual work plan.

7520 - Preparedness Monitoring
As of March 20, 2023

Original Budget	\$30,400.00
Revised Budget	\$24,500.00
Actual & Commitments	\$4,137.66
Amount Remaining	\$20,362.34

Report Acceptance: 2022 Drill Monitoring Annual Report 4-7

7. **Action Requested of the Board of Directors:** Accept the 2022 Annual Drill Monitoring Report for distribution.
8. **Alternatives:** None recommended.
9. **Attachments:** Draft 2022 Annual Drill Monitoring Report.



Prince William Sound RCAC Annual Drill Monitoring Report

2022

**Prepared by: Roy Robertson
Prince William Sound Regional Citizens' Advisory Council**

2022 Exercise Report Index

Date	Report Number	Description
3/12/22	752.431.220312.NNrapidOB.pdf	Orca Bay Rapid Response Vessel Deployment
3/23/22	752.431.220323.VMTdeployOLtact.pdf	VMT Field Deployment - On-Land Tactics
3/31/22	752.431.220331.CdrEmerTowEx.pdf	Tug Commander Emergency Towing Exercise
4/7/22	752.431.220407.OSRB1deploy.pdf	OSRB-1 Deployment in Port Valdez
4/18/22	752.431.210819.D51deploy.pdf	VMT Drainage 51 Settlement Pond Deployment
4/29/22	752.431.220429.CDVopsReadyEx.pdf	Operational Readiness Exercise in Cordova
5/9/22	752.431.220509.MClighteringEx.pdf	Mineral Creek Lightering Training Exercise
5/14/22	752.431.220514.VdzStarDeploy.pdf	Valdez Star Deployment
5/17-19/22	752.431.220517.CATshipperEx.pdf	Crowley Alaska Tankers Exercise
6/18/22	752.431.220618.HatcheryDeploy.pdf	Solomon Gulch Hatchery Deployment
6/29/22	752.431.220629.DuckFlatsDeploy.pdf	Valdez Duck Flats Training & Deployment
7/29/22	752.431.220729.ContendEmTowEx.pdf	Tug Contender Emergency Towing Exercise
8/11/22	752.431.220811.VMTsecConCOA2cEx.pdf	VMT Secondary Containment COA 2C Exercise
10/11-12/22	752.431.221011.VMTimtFieldEx.pdf	VMT IMT & Field Exercise
10/17/22	752.431.221017.SERVSwtTraining.pdf	Notes on SERVS Wildlife Training in Valdez 2022
Multiple	752.431.220101.FVrespTrainings.pdf	Notes on Fishing Vessel Response Training – Multiple Dates in 2022

2022 Exercise Summary

Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) staff observed and wrote fifteen exercises and training reports in 2022. This is up from six exercises from 2021, which were reduced due to the COVID-19 restrictions for most Alyeska exercises.

Tanker Towing Exercises

PWSRCAC staff observed two tanker emergency towing exercises in 2022. The Prince William Sound Shippers and SERVS conduct at least one emergency towing exercise per quarter each year. Both emergency towing exercises that PWSRCAC observed were with Polar Tankers ships and were well done. Staff attempted to observe a third exercise but it was called off in mid-sound due to delays and darkness.

Open-Water Response Exercises

Three open-water oil recovery exercises reports were developed by staff in 2022. The Valdez Star skimmer conducted a deployment in Port Valdez and the Oil Spill Recovery Barge (OSRB-1) also conducted a deployment in the Port. PWSRCAC chartered a vessel to observe a no-notice Rapid Response Vessel exercise with OSRB-3 and the tug INGOT on March 12, 2022, in Orca Bay.

Nearshore Response and Sensitive Area Protection Exercises

Nearshore and sensitive area protections exercises were greatly reduced in 2020 and 2021 because of the number of vessel crew interactions required for these types of deployments and Covid-19 precautions. During the annual fishing vessel trainings in the spring and fall of 2022, SERVS began conducting operational readiness exercises (ORE) again that focused on nearshore response tactics. Staff wrote two reports on these OREs. SERVS also conducted training and deployments for the Valdez Duck Flats and the Solomon Gulch Hatchery. These are two of the key sensitive area protection (SAP) sites in Port Valdez for the Valdez Marine Terminal's oil discharge contingency plan. Staff attended both of these training deployments. The training and deployment for the Valdez Duck Flats SAP site was especially good for a complex SAP tactic.

Valdez Marine Terminal Drills

The Valdez Marine Terminal (VMT) conducted three exercises specific to the terminal in 2022. There was winter on-land spill response tactics exercise in March. Alyeska also conducted a presentation describing how they would respond to a loss of a complete tank of crude oil within the secondary containment dike at the VMT as a requirement of the condition of approval for the VMT oil discharge contingency plan. In October, Alyeska conducted their annual incident management team exercise that included an on-water skimmer deployment at the VMT.

Annual Prince William Sound Shipper's Exercise

The annual Prince William Sound Shipper's exercise was conducted by Crowley Alaska Tankers in May of 2022. This was a hybrid exercise with both a physical (SERVS Valdez Emergency Operations Center (VEOC)) and virtual command post using the Teams platform. This drill lasted was held over three days and covered the first 36 hours of a response to a 140,000-barrel crude oil spill in central Prince William Sound.

This exercise also included a field demonstration of a small vessel decontamination station in Port Valdez's Anderson Bay. In addition to the vessel decontamination activities, the Alaska Department of Environmental Conservation use its drone to record and broadcast the field demonstration to the command posts and that allowed responders in Florida and other sites to view those activities live and recorded later.

SERVS Annual Fishing Vessel Training

PWSRCAC staff attends in- and out-of-region annual fishing vessel trainings. Normally, 400+ contracted fishing vessels participate in SERVS' program and trainings in Kodiak, Homer, Seward, Whittier, Cordova, and Valdez. These trainings were changed during the pandemic with more online components and a reduced number of on-water exercises. In 2022, the trainings increased to two on-water days but still no hands-on equipment training or other activities that required vessel crews to physically interact with each other. Alyeska recognized the value of the hands-on stations that allow all the vessel crews to see and be instructed on how to run the various spill response equipment at different stations prior to going out on the water. PWSRCAC staff have been told that the hands-on stations are coming back in 2023.

Other exercises and trainings

PWSRCAC staff also attended a lightering barge exercise in May that allowed the crew of the barge MINERAL CREEK to practice using the equipment that would be employed to remove oil cargo from a tanker in distress, if needed.

SERVS held its oiled wildlife training in Valdez and Cordova in 2022. SERVS rotates this training yearly between Kodiak, the Kenai Peninsula communities of Homer and Seward, and the Prince William Sound communities of Cordova and Valdez. The oiled wildlife

training includes hazing, the capture of oiled birds and sea otters, and the process of stabilizing them and transporting to care facilities.

Suggestions for Future Exercises

The list of exercises and other suggestions below is not meant to be an exhaustive list of all areas that need further focus and attention, but PWSRCAC would suggest it is a good place to begin. It should be noted that many of the concerns and exercise issues that PWSRCAC have noted through the years have remained consistent across time.

Tanker Towing / Tanker Arrest Exercises

SERVS and the Prince William Sound Shippers have committed to quarterly emergency towing exercises throughout the year. This practice is better than the previous process of performing the towing exercises primarily during the summer. These exercises provide valuable training that is required for the tug crews and is beneficial to the tanker crews.

An improvement to the quarterly schedule would be to rotate shipping companies and their vessels through these exercises. It appears that Polar Tankers volunteers for these exercises much more often than the other shipping companies. The exercises do require extra time on the transit out but each of the tanker crews should participate in these exercises for the training benefit. There are at least four exercises per year and four tanker companies. There would be a training benefit to having each shipping company participate in one towing exercise each year. Having the tug crews working with the different ships would be an improvement to their training.

Large and Small Vessel Decontamination

SERVS demonstrated their small vessel decontamination process during the Crowley Alaska Tankers drill in May. While the basic function of getting oil off the boat was demonstrated, the process used would have likely resulted in releasing some oil into the water and eventually out of containment. The process used by SERVS needs to be refined and practiced in additional exercises.

Fishing Vessels

The SERVS Fishing Vessel Program is the backbone of the oil spill response system in Prince William Sound. In 2021, Alyeska had to make some modifications to their fishing vessel training to keep the vessel crews separated due to Covid-19 concerns. In 2022, SERVS still used an online format to the usual classroom portions of the training but also included two on-water days working with the oil spill equipment. SERVS recognized the value of going back to hands-on stations during last year's annual training. The hands-on stations allow vessel crews to be shown how to use the various spill equipment and, eventually, give them

a chance to operate it themselves. PWSRCAC has been told that the hands-on stations will be part of the 2023 annual training.

Often during the SERVS spring and fall annual fishing vessel program training, the weather will hinder the vessels that participate in the training from going out and exercising with the response equipment. When this situation occurs, SERVS conducts radio exercises in the harbor where they are conducting the training. The process that SERVS uses is to simulate the activities that would have occurred that day over the radios with the vessels. This includes simulating the loading of the equipment from the barge to the vessel and the first day of a response. This is what the actions would be if the weather had not precluded the actual deployments. The time and training during the radio exercises could be better spent, if instead of simulating the first day of operations including the load out of equipment, the response is moved forward a few days. This would allow vessel crews to simulate response actions and management of task forces for periods of the response that most of the vessel crews do not get to see or think about during a one-day exercise. This type of simulation could offer out-of-region vessels a way of becoming more familiar with the areas within Prince William Sound and the vessel crews to exercise resupply and waste management procedures for their vessels, the process of gross decontamination of their vessels, familiarization of geographic response strategies around Prince William Sound, and the identification of equipment needs for operations based on a list of equipment given to them as a inject. Many other areas could also be put into play as part of this type of training.

Dispersant/ISB related

Alyeska and the PWS Shippers have switched contractors for aerial dispersant applications, if they are needed and approved. The new contractor is MSRC, based out of Washington State, and they replaced the Anchorage-based Lynden. There are still some questions about the ability of the MSRC planes and how this new system should be exercised.

Dispersant, SMART monitoring, and ISB-related exercises usually are practiced as individual components, and this separation of components may not reflect how these tactics would be employed in a real event. For example, it's possible that both aircraft and tug-based spray dispersant spray system would be in play at the same time, and both these efforts would need SMART monitoring from a vessel on the water as well as spotter aircraft.

- The MSRC dispersant system should be exercised to verify the overall system including the spotter plane, aircraft and spray system, and dispersant monitoring capabilities.

- Council suggests that, during an exercise or training, more of the various components of dispersant application be run simultaneously and managed as they could occur in a real event, versus as separate components.

Open-Water Response

The SERVS open-water oil recovery task forces consist of four Oil Spill Response Barges (OSRB) and the skimming vessel VALDEZ STAR.

The four open-water Oil Spill Response Barges (OSRB), despite minor differences, are now all essentially standardized. This consistency across platforms allows crews to transfer between barges easier, make training back-up personnel easier, and simplify working with the contracted FV fleet.

The VALDEZ STAR (VS) is a JBF skimming platform that is set up to work with two boom towing boats from the SERVS fishing vessel program. The barge ALLISON CREEK is usually connected to the VS for additional storage if the VS was used in a large response operation. However, the ALLISON CREEK is currently laid up and a new barge is being built to replace it. SERVS is now operating the VS with various smaller oil storage devices as mitigation measures until the new barge is built and available for use.

Specific open water related suggestions:

- Over the last few years, the open-water response barges and VALDEZ STAR have been primarily exercised during the day and generally for short durations of only a few hours. During the winter months there are more hours of darkness than daylight and the fishing vessel crews working with these skimming platforms need to practice working in hours of darkness to become proficient.
- Exercises for the VALDEZ STAR should be conducted with the various primary storage devices it is expected to use while the barge ALLISON CREEK is not available.

Lightering Barge

The current lightering barge MINERAL CREEK is about to be replaced with a new barge that is designed to be similar to the current OSRB barges. This will be an improvement to the overall response system as the current barge needs an upgrade. The new barge is supposed to arrive in Prince William Sound in the spring of 2023. While the new barge will be like the OSRBs, the function will be different since it will now carry the ship-to-ship fenders and the lightering pumps, hoses, and other equipment. In addition, the new lightering barge will also be set up to be a nearshore support barge to provide storage for the nearshore task forces and resupply for those vessels. All of these functions will need to be exercised to ensure its functionality.

Operating in Darkness and Dense Fog

Operating in darkness and foggy situations has been included in this list for many years because much of the winter in Alaska is darkness, and long periods of fog or reduced visibility due to weather is not uncommon for the Prince William Sound area in either summer or winter.

Recognizing that darkness and limited visibility are a reality, PWSRCAC suggests that more training and exercise activity take place in darkness or periods of limited visibility, and include more fishing vessels and their respective crews so proficiency of working in the dark is improved. In addition, the ECO tug fleet has specific capabilities (FLIR cameras and Rutter Radar spill processing) that allow them to better see oil in limited visibility. More exercises using this improved technology should be conducted with the use of targets on the water for the tugs to practice tracking and positioning the barges correctly.

The PWS Tanker Plan calls for nearshore recovery operations to occur for twelve hours a day even during winter when there are only six hours of daylight. In the past there have been a few exercises to work on tactics for oil recovery in the nearshore environment. Operating in reduced or no visibility presents risks to vessels, crews and equipment that must be addressed to safely perform recovery operations during these times. Specific tactics for operating in these low or no visibility conditions are not included in the current response plan. Structured exercises should be conducted to determine what tactics can and should be used to safely recover oil during darkness or fog.

Valdez Marine Terminal

In a broad sense, PWSRCAC would suggest that all tactics in the VMT technical manual be exercised in a 5-year plan cycle and that exercises take place over a variety of seasons and conditions.

Specific VMT-related suggestions include:

- This past year, Alyeska put a lot of effort in planning and preparing for the secondary containment exercise for the total loss of a tank. This was a valuable effort and allowed Alyeska to think through how such a response could be conducted. However, that exercise was more of a tabletop presentation. Components of that response should be tested in the field to confirm those proposed actions could work if needed.
- Continue with the multi-day Duck Flats training and conduct a similar intensive training for the Solomon Gulch Hatchery. The current training for the deployment of the Duck Flats by Alyeska is excellent and should continue. Much attention has been given to the Duck Flats deployment over the past several years, and Council

staff have observed the general proficiency level of responder increase. The connection of boom ends under tension in particular has been a responder safety concern, and SERVS has done a good job addressing this topic. Continue this work on the Duck Flats, but also conduct a similar training for the Solomon Gulch Hatchery.

- Over the last several years, PWSRCAC has pointed out the failure of the boom ends at the Drainage 58 containment site at the Fluor dock and jetty by the settlement pond outflow. Alyeska installed a stout tidal slider for connecting the boom to the Fluor dock. This is great improvement to the system. The other side of the containment strategy can still be improved by the addition intertidal boom and evaluating the best boom placement for that beach.

Sensitive Area Protection & Nearshore Response

There is a difference between nearshore response and sensitive area protection components in spill response. The missions of these two elements are not the same, though response equipment, vessels, asset management, and training are very similar and overlap. Nearshore response systems should be designed to intercept and recover oil, as that oil gets close to shore, by working the leading edge of the spill. The mission of the sensitive area protection function is to get out ahead of the spill, and boom sensitive areas prior to oil reaching or threatening those areas. The management and logistical support for both of these operations can be challenging and complex, but it's important to realize that they have different goals despite similar and/or shared resources and management.

Sensitive Area Protection

- The testing for the various GRS sites throughout Prince William Sound has been excellent and these exercises should continue.

Nearshore Response

Nearshore response exercises will always be high on the Council's priority list simply because of the sheer volume of fishing vessels associated with this response area. The crews of all these vessels need to be proficient with the equipment, and equipment does continue to change over time.

- The nearshore response will likely be one of the large response areas during a major oil spill response. Over that last few years, PWSRCAC staff have noticed the number of turnovers in the response crews for SERVS, TCC, and in the fishing vessel captains and crews. A lot of knowledge and history is retiring or leaving and are now having to be replaced. The newer people need more exercises to learn and become proficient with the response tactics and response equipment.

- The PWS Tanker Contingency Plan notes that nearshore will perform recovery operations for twelve hours a day, which means it's inevitable that many of those hours will require operating in reduced visibility during winter months, or foggy days in summer. As nearshore operations generally do not take place during these situations, we do not have very good benchmarks regarding what operations can safely be conducted, or how to adjust tactics accordingly. More exercises are needed to refine these limited visibility nearshore parameters.
- SERVS has been working to ensure responder safety by taking air reads at open hatch covers while offloading mini-barges. The open hatches are necessary to some degree so that responders can watch liquid levels drop and adjust or turn off pumps accordingly. SERVS should consider mounting air monitoring sniffers on a longer pole, or using a hose or tube to get responders farther away from the hatches they are opening. PWSRCAC has concerns that vapor levels could be elevated by concentrating the oil in a mini-barge as mentioned previously. It's good that SERVS is working to quantify vapors in this potentially hydrocarbon-rich atmosphere, and ultimately protect responder health, but the process still needs some refinement and practiced.

Unannounced Exercises

Unannounced drills provide the only real measure of a plan holder's ability to respond at a point in time and at a moment's notice. These drills have the ability to test areas of a response that cannot easily be tested otherwise, such as personnel readiness and resupply capabilities. There could even be unannounced aspects to a known event, such as verifying responders have proper PPE once they arrive on scene or discussing what an elevated and unsafe air read would mean for responders and given process, etc.

- No-notice exercises are valuable and should be continued periodically to help ensure readiness. SERVS uses these types of exercises to good effect to monitor their rapid response fleet.