

Briefing for PWSRCAC Board of Directors – January 2021

ACTION ITEM

Sponsor: Roy Robertson

Project number and name or topic: 7520 - 2020 Drill Monitoring Annual Report

1. **Description of agenda item:** Staff will provide a briefing on the 2020 Drill Monitoring Annual Report that summarizes the drills and exercises that were attended by PWSRCAC staff in 2020. Staff is requesting Board acceptance of this annual report.

2. **Why is this item important to PWSRCAC:** PWSRCAC monitors drills and exercises as much as possible. OPA 90 and the PWSRCAC/Alyeska Contract address the requirements for drill monitoring activities by PWSRCAC. 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 problems in the prevention and response system in place. 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.

4. **Summary of policy, issues, support or opposition:** Project 752 - Preparedness Monitoring is in the FY2021 budget and annual work plan. This is an ongoing project.

5. **Committee Recommendation:** The OSPR committee will review this report at its January 12, 2021 meeting and a recommendation from OSPR on the 2020 Annual Drill Monitoring Annual Report will be provided at the Board meeting.

6. **Relationship to LRP and Budget:** Project 7520 – Preparedness Monitoring is in the approved FY2021 budget and annual workplan.

**7520–Preparedness Monitoring
As of December 14, 2020**

FY-2021 Budget	\$42,500.00
Modifications	(\$17,050.00)
Revised Budget	\$25,450.00
 Actual and Commitments	 \$0.00
 Amount Remaining	 \$25,450.00

7. **Action Requested of the Board of Directors:** Accept the 2020 Annual Drill Monitoring Report for distribution.

8. **Alternatives:** None recommended.
9. **Attachments:** Draft 2020 Annual Drill Monitoring Report.



Prince William Sound RCAC Annual Drill Monitoring Report 2020

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

2020 Exercise Report Index

Date	Report Number	Description
6/10	752.431.200610.SheepBayOSRB2.pdf	OSRB-2 Sheep Bay deployment
11/9	752.431.201109.FtLiscumEx.pdf	Ft. Liscum skimmer exercise

2020 Exercise Summary

Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) staff and contractors observed and wrote two exercises and training reports in 2020. Due to the COVID-19 restrictions Alyeska and the Prince William Sound Shippers exercises were postponed or reduced in number and scale. These restrictions included having no one on the vessels and barges except for the crew members.

Tanker Towing Exercises

Alyeska and the Prince William Sound Shippers continued doing emergency tanker towing and tether exercises in 2020. These exercises help train the crews on the tugs and tankers but they were conducted without observers due to COVID-19 concerns.

Open-Water Response Exercises

The vast majority of the exercises conducted by Alyeska and the PWS Shippers consisted of either open water barge exercises where the barge crews passed the towlines to the fishing vessels or workboats without the crew having to physically interact with each other. The escort tugs also conducted self-supported U/J oil recovery exercises in the Port of Valdez. All of these exercises had the common goal of limiting the vessel crew interaction with other vessel crews. PWSRCAC chartered a vessel to observe one of the barge exercises near Sheep Bay in Prince William Sound.

Nearshore Response and Sensitive Area Protection Exercises

Nearshore and sensitive area protections exercises were greatly reduced in 2020 because of the number of vessel crew interactions required for these types of deployments.

The Valdez Marine Terminal's Sump 58-SU-3 spill required elements of a nearshore response and sensitive area protection response so they were conducted in actual spill conditions over many days.

Valdez Marine Terminal Drills

The Valdez Marine Terminal (VMT) normally conducts an annual incident management drill along with multiple field deployments over the course of the year. However, due to COVID-19 considerations many of these exercises were either not held or were restricted to limit the interaction of the people.

The Alaska Department of Environmental Conservation credited Alyeska with satisfying the requirement for an incident management team exercise because of the response to Sump 58-SU-3 spill response. This response clearly demonstrated Alyeska's ability to work within a unified incident command system, deploy resources on land and in the nearshore environment, protect sensitive areas, and conduct wildlife operations.

Annual Prince William Sound Shipper's Exercise

The annual Prince William Sound Shipper's exercise was initially planned for Marathon to conduct in October of 2020. However, COVID-19 caused this exercise to be postponed. As a result, two PWS Shipper exercises will now be conducted in 2021; ConocoPhillips and Polar Tankers will be holding their exercise in March and Marathon will be holding one in October.

Non-Mechanical Exercises

There was an aerial dispersant exercise conducted in Cook Inlet on October 19, 2020. Again, this exercise was limited to crew only due to COVID-19 restrictions.

SERVS Annual Fishing Vessel Training

PWSRCAC staff usually attends several in- and out-of-region fishing vessel trainings. Normally, 400+ contracted fishing vessels participate in SERVS' program and trainings in Kodiak, Homer, Seward, Whittier, Cordova, and Valdez. This year was not normal. All of the usual annual fishing vessel training activities were postponed for the year. SERVS did require the vessel crews to take an online 8-hour hazwoper refresher course and submit their completion certificates. SERVS is currently planning on conducting the annual trainings in 2021 but the scale and format will likely be different than in the past due to the ongoing COVID-19 concerns.

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. Most of these suggestions have not changed as drills and exercises have been restricted to the COVID-19 precautions.

Tanker Towing / Tanker Arrest Exercises

SERVS's goal has been to conduct eight tanker arrest exercises per year, though the tanker contingency plan technically requires only one to be conducted each quarter of the year.

Changes in the oil markets, precautions due to COVID-19, and changes in the PWS Shipper's fleet have resulted in more foreign flagged tankers coming into Prince William Sound and loading at the Valdez Marine Terminal. The shippers and the Alaska Department of Environmental Conservation vet the foreign tankers prior to allowing them to load at the Valdez Marine Terminal. However, the foreign tanker crews will be less familiar with the prevention and response systems in Prince William Sound and there could be language barriers depending on their proficiency with the English language. Additionally, most of the ships that normally call at the Valdez Marine Terminal have strengthened stern bits made to withstand the extreme forces that can be applied by the escort tugs during exercises or responses while arresting the tanker. Spot-chartered ships will likely not be fitted with these strengthened stern bits.

Emergency tether and towing exercises should be conducted with these spot-chartered vessels to ensure equipment compatibility and communications ability.

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. 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 is only six hours of daylight. In the past there has 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.

Fishing Vessels

The SERV'S Fishing Vessel Program is the backbone of the oil spill response system in Prince William Sound. Alyeska made the proper decision to not conduct the annual fishing vessel trainings during 2020 because of the response to COVID-19.

While the crews were able to conduct their 8-hour Hazwoper refreshers online, most of the vessel crews were not able to spend any time using the response equipment during the year. The reality is that most fishing vessel crews only receive the annual training

and do not get called out for additional drills. It's simply difficult to build and maintain proficiency when only practicing with the equipment once a year. There are many aspects to the open-water, nearshore, and sensitive area protection elements, and even as a Tier 1 vessel, opportunities for practice and becoming proficient with these tasks are limited. These activities include working in periods of darkness with open-water barges and in the nearshore environment, managing nearshore task forces for more than a single day exercise, and implementing sensitive area protection strategies ahead of the response area. More exercise opportunities are needed for fishing vessels to become, and remain, response ready. Having missed a year of exposure to working with the equipment and the crews that operate SERVS assets will make it even more important to provide additional exercise opportunities for the vessels within this program, when it can be done safely. These exercises may require restructuring to allow less physical interaction during this time of COVID-19 but training between the SERVS vessels and crews and the vessels in this program needs to occur in 2021.

Safety

Safety is always the top priority during exercise and responses. Alyeska constantly emphasizes their safety culture during trainings and exercises and this has carried over on many of the fishing vessels that are part of the SERVS fishing vessel program. We have cited two exercises over the last few years that had safety concerns that should be addressed. One was the ability for the OSRB crews to wear a respirator and be able to communicate via radio to other vessels working with them. The other concern is ability to check vapor levels of the mini-barge tanks while offloading without having to lean over the open hatch. PWSRCAC has not been able to observe that these concerns have been addressed because of the lack of exercises and restrictions due to the response to COVID-19.

Open-Water Response

The four open-water barges, despite minor differences, are now all essentially standardized. This consistency across platforms will allow crews to transfer between barges easier, make training back-up personnel easier, and simplify working with the contracted FVs fleet.

The OSRB deployments were the one part of the exercise program that was able to be exercised the most during 2020 because they allowed separation of the vessel crews. These exercises were conducted with the Tier 1 vessels because they are the ones that would be called out to work with the barges in an actual incident.

Specific Open Water-related suggestions:

- Work to verify that four barge crewmembers are truly enough to support 18 hours of operations prior to relief crews arriving. PWSRCAC has voiced concerns through the years that a crew of four is not sufficient.
- Continue to build back-up crew bench strength so that ECO crews can be assured back-up support in a real event. Alyeska has been training TCC responders to work on the barges and we think that should continue.

- As discussed above, more work in darkness and limited visibility.
- As discussed above, the PPE element and radio communications are still unresolved.

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:

- 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 Duck Flats, but also conduct a similar training for the Solomon Gulch Hatchery.
- Drainage 58 and Scenario 5 improvements. Exercises to address additional recovery capacity options for Drainage 58 and scenario 5. Discharge rates in this scenario far overwhelm the two Crucial skimmers expected to perform recovery. Exercise to focus on complete containment booming at Drainage 58, as the boom needs to be better anchored on its ends to prevent the large gaps observed in the past.

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.
- The new Valdez boat harbor is now operational and changes need to be made the Valdez Duck Flats protection scheme. Exercises will need to be conducted to test the new boom configurations.

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 of these vessels need to be proficient with the equipment, and equipment does continue to change over time. One example of changing equipment was internalized mini-barge pumps or new 13-disc Crucial skimmer.

- The 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.

Dispersant/ISB related

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

Dispersant, SMART monitoring, and ISB-related exercises tend to be 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 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.

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.

Technical Manual Tactics

Both the Prince William Sound Tanker and VMT contingency plans have technical manuals to define and explain how specific tactics and equipment would be expected to be employed during a spill.

- While some of these tactics are deployed frequently, others have not been exercised very often, if at all. A concerted effort should be made to systematically exercise each of the tactics in the technical manuals within the five years of each planning cycle.