



Prince William Sound RCAC Annual Drill Monitoring Report

2021

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2021 Exercise Summary

Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) staff observed and wrote six exercises and training reports in 2021. Due to the COVID-19 restrictions Alyeska exercises were reduced in number and scale and had Covid-19 restrictions. These restrictions included having no one on the vessels and barges except for the crew members.

Tanker Towing Exercises

PWSRCAC staff chartered a vessel to observe the LA Spirit tanker towing exercise. This exercise was significant because it involved a foreign flagged tanker operated by TeeKay Shipping. PWSRCAC has encouraged Alyeska and the PWS Shippers to conduct exercises with the foreign flagged charter vessels as part of their normal towing exercise schedule. This exercise went very well with no equipment or communication issues. The crew onboard the LA Spirit appeared to appreciate getting the opportunity to participate in this exercise.

Open-Water Response Exercises

The majority of the exercises conducted by Alyeska consisted of open water barge exercises where the barge crews passed the toelines to the fishing vessels or workboats without the crew having to physically interact with each other. PWSRCAC staff chartered a vessel to observe an unannounced open water exercise with the SERVS Rapid Response fishing vessels from Cordova near Johnstone Point. This deployment went well but it took longer to deploy the equipment from the barge than the one-hour goal.

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 did not observe these exercises.

Nearshore Response and Sensitive Area Protection Exercises

Nearshore and sensitive area protections exercises were greatly reduced in 2021 because of the number of vessel crew interactions required for these types of deployments. Elements of the nearshore and sensitive area protection were conducted during the Valdez Marine Terminal exercise and the annual fishing vessel program trainings. Alyeska also deployed several geographic response strategies around Port Valdez.

Valdez Marine Terminal Drills

The Valdez Marine Terminal (VMT) conducted a worst-case scenario exercise on May 25 and 26 consisting of equipment deployments on the first day and a tabletop exercise on the second day. Originally these activities were planned to be conducted on the same day but an uptick in Covid-19 cases during that time created a need to reduce the interactions of participants. The tabletop exercise was conducted both physically in the Valdez Emergency Operations Center (VEOC) and virtually using the Teams application. Both portions of this exercise went well.

The VMT also conducted a deployment of boom on the settlement ponds for Drainage 51 at the VMT on August 19.

Annual Prince William Sound Shipper's Exercise

Polar Tankers and ConocoPhillips held the annual Prince William Sound Shipper's exercise on March 23-25, 2021. However, COVID-19 caused this exercise to be conducted entirely virtually using the Teams platform with people participating worldwide. This was a challenging exercise because of time zones and the use of the virtual command post. There were numerous lessons learned from this exercise, but the bottom line was that, while it is not ideal, a full-scale spill response can be managed through a virtual platform. However, personnel and equipment are still required to physically be on scene to contain, recover, and protect sensitive areas during an oil spill.

The Andeavor and Marathon Prince William Sound Shipper's exercise that was postponed in 2020 was planned to be conducted in October of 2021. However, due to the surge of the Covid-19 cases in the fall of 2021 in Alaska the exercise was canceled. Andeavor and Marathon proposed to conduct a series of workshops and trainings for the response community in 2022 instead of doing an all-virtual exercise. There will be a workshop on Alaska Wildlife response and one for a Regional Stakeholders Committee. Training will be conducted for the Incident Command System and the IAP software used to manage the PWS Shipper's spill responses.

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. The annual fishing vessel training activities were adjusted for the year. SERVS did require the vessel crews to take an online 8-hour hazwoper refresher course and submit their completion certificates. SERVS also conducted modified trainings in each port with two on-water days rather than the usual equipment hands-on training and one on-water day. While this training was not the ideal setup, it was much improved from last year because the vessel crews were allowed to regain their familiarization with the response equipment and tactics.

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 due to the COVID-19 precautions.

Large and Small Vessel Decontamination

Alyeska and the PWS Shippers have changed contractors for vessel decontamination in 2021. The new contractor is TCC which is one of Alyeska's primary contractors for other spill response activities. The timely decontamination of vessels both large and small is critical during a large spill response. Vessels moving personnel, equipment and supplies between the various harbors and staging areas may become oiled and need to be cleaned before returning to non-oiled areas. Additionally, vessels working on the response in the spill area need to be cleaned to keep oil from contaminating other clean areas or their own crews. This function needs to be established early in the response and work around the clock. This is a new function for TCC and will likely require additional people and equipment to support this part of the response. This function needs to be exercised soon to ensure that TCC has the capabilities to fulfill this function along with all of their other responsibilities.

Dispersant/ISB related

Alyeska and the PWS Shippers have recently 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 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 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.

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.

PWSRCAC has been requesting that some of the foreign flagged spot charter vessels that have increased in number the past year be used in the emergency towing exercises that SERVS conducts. This year the LA Spirit participated in a towing exercise and the exercise went very well. PWSRCAC encourages more of these spot charter vessel exercises when the opportunities exist. Emergency tether and towing exercises should be conducted to ensure equipment compatibility and communications ability.

Open-Water Response

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 OSRB deployments were the one part of the exercise program that was able to be exercised the most during 2021 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:

- Covid-19 precautions have limited the interface and training between SERVS Response Coordinators on the OSRBs and on other vessels with the PWS response system. This reduced amount of face-to-face interaction has likely reduced equipment deployment efficiencies. One of the results of the reduced training time is increased deployment times. Once the barges arrive on scene at a spill it is critical

for their recovery systems to begin working as fast as safely possible because oil in open water only gets harder to recover through time.

- 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.

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 is 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.

Fishing Vessels

The SERVS 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. In 2021, Alyeska had to make some modification to their fishing vessel training but did an excellent job of getting vessel

crews trained. Hopefully, more hands-on training with the spill response equipment will be possible in 2022.

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 COVID-19.

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 the 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.
- 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.
- 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. Some examples of changing equipment were internalized mini-barge pumps or the new 13-disc Crucial skimmers.

- 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.

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.