



Prince William Sound RCAC Annual Drill Monitoring Report

2017

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Prince William Sound Regional Citizens' Advisory Council**

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2017 Exercise Summary

Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) staff observed and evaluated 17 drills and exercises in 2017. In addition to the drills and exercises, staff also participated in Alyeska's Ship Escort Response Vessel System (SERVS) 2017 fishing vessel trainings. All of these reports fall into the categories described below.

Tanker Towing Exercises

Six tanker towing exercises were conducted in 2017. The goal for SERVS is to conduct eight of these exercises on an annual basis, but meeting this goal is dependant on tanker schedules and the willingness of the tanker captains to take the time to participate. These exercises consist of a tanker simulating a rudder and engine failure, having the primary escort tug maneuver to its stern, passing the tether line of the tanker, and then bearing down via indirect and direct forces to turn the tanker and stop its forward momentum. The secondary escort tug then passes a towline to the bow of the tanker, and begins to tow the tanker to safety for five minutes at a steady heading. The exercise requires significant teamwork and communication from all vessels as this series of events unfolds very quickly.

Open-Water Response Exercises

Open-water exercises are conducted using one of the four TransRec barges, the Barge 450-6 with the Crucial skimmer, or the Valdez Star skimming vessel. These exercises typically include fishing vessels to tow boom in a U and/or gated U configuration in order to concentrate the oil for the skimming system. The tug Alert also conducted an open water U/J oil recovery deployment this year. Four open-water exercises were covered by the PWSRCAC staff.

Nearshore Response and Sensitive Area Protection Exercises

SERVS nearshore response system requires the most coordination because of the geographic area it must cover and the number of fishing vessels involved. Each nearshore task force generally has 27 fishing vessels assigned to it and there are eight task forces expected to be on scene in the first 72 hours, for a total of 216 fishing vessels. This does not include the fishing vessels associated with the wildlife and sensitive area protection task forces, which incorporate another 29 vessels that are managed by the Nearshore Group Supervisor. The management and logistical support for this many vessels can be challenging and complex.

Staff attended five exercises that were associated with the nearshore and sensitive area protection response system. Two of those exercises were in Port Valdez and focused on sensitive area protection at the Solomon Gulch Hatchery and Valdez Duck Flats. Whittier hosted an exercise, which was conducted in Shotgun Cove and which used the spill equipment staged at SERVS Whittier response center. The Whittier exercise in December included a logistical component of moving all of the needed equipment from the connex staging area

to the docks to be loaded on the fishing vessels. The other two exercises were conducted near Cordova at Nelson Bay and Simpson Bay.

SERVS also conducted a series of Geographic Response Strategy (GRS) deployments in the Valdez Arm area in September, but PWSRCAC staff was unable to participate in these deployments. GRS tactics are developed prior to a response to protect highly sensitive areas and include information on both booming and recovery strategies. When SERVS deploys these sensitive area protection strategies, they evaluate the potential effectiveness of these sites and provide input to Alaska Department of Environmental Conservation (ADEC) via the GRS evaluation report. ADEC hosts these GRS sites and deployment information online for the benefit of all, and these strategies are meant to provide sensitive area information for any event or operator, not just Alyeska/SERVS. As such, they are referenced in AK regional plans and the general PWS area plans in addition to Alyeska contingency plans.

Valdez Marine Terminal Drills

The Valdez Marine Terminal (VMT) conducted four exercises in 2017. Three of these were equipment deployment exercises, including an oil recovery demonstration at Drainage 58 by Berth 1, a large and small vessel decontamination demonstration, and assembly of the Otter Hospital at the VMT's Emergency Response Base. Alyeska also conducted their annual incident management team tabletop drill.

The highlight of these VMT exercises for PWSRCAC staff was the training event associated with the Otter Hospital. Many years had passed since the last time the Otter Hospital had been assembled (staff did not observe any of this set-up). It is a large and expensive effort to assemble this facility and contingency plans speak to a 72 hour timeframe to do so. Alyeska provided an excellent training and demonstration and the sea otter rescue and rehabilitation contractors that Alyeska has on contract were brought in to deliver this training and conduct the walkthrough. This group of contractors included the same veterinarians and sea otter researchers that developed the facility and were involved with the program during the Exxon Valdez spill.

Annual Prince William Sound Shipper's Exercise

Polar Tankers and ConocoPhillips conducted the Prince William Sound Shipper's exercise for 2017 on October 3-5. This exercise scenario was a spill near Glacier Island and Point Freemantle. The simulated spill's trajectory initially went towards the Village of Tatitlek and Ellamar, which facilitated the involvement and activation of the Regional Stakeholders Committee. This exercise also included the issue of having ice mixed in with the oil spill response operations.

SERVS Fishing Vessel Training

PWSRCAC staff attended several in- and out-of-region fishing vessel trainings. There are 400+ contracted fishing vessels participating in SERVS' program. Trainings were held in Kodiak, Homer, Seward, Whittier, Cordova, and Valdez.

Suggested Focus for Future Exercise Activity

Many of the drill and exercise issues that need to be considered remain consistent from past years. The list of exercise types below does not include all of the areas that could be focused on, but should be considered a good place to begin.

Edison Chouest Offshore (ECO) Transition and Post-Transition

Many exercises have occurred, and will continue to occur, that involve the new equipment and crews brought into the Alyeska and Prince William Sound Shippers oil spill prevention and response system. This is the largest transition of equipment, boot-on-the-ground responders, and management that the Prince William Sound system has seen since it was first developed in the early 1990s. Everyone must recognize that when complex equipment such as the new tugs and barges are built, and these assets begin work, there will be mechanical issues and other complications. This is the same with new crews, and there will be a learning curve, as responders gain proficiency and get to the point that they fully understand the prevention and response system, the geographic area, the equipment they are using, and their roles and responsibilities. More training and exercises will have to be conducted to test the equipment and crews' ability to work in all of the conditions in which they are required to operate in Prince William Sound and the Gulf of Alaska.

Tanker-Towing Exercises

Six tanker-towing exercises were conducted in 2017 and all of these were during periods of daylight in the summer. As mentioned above, SERVS has a goal to conduct eight of these exercises a year. This is twice the number required in the tanker contingency plan and shows SERVS is committed to keeping the tug and tanker crews proficient for operations. We would like to see some of these exercises conducted during different times of the year and in periods of darkness to help crews prepare for an event we all work hard to prevent.

Open-Water Response

In many ways, the open-water response assets are becoming less complicated thanks to the duplication and standardization of the new ECO OSRB barges and the equipment they carry. This standardization will allow crews to transfer between platforms easier, for SERVS leadership to conduct exercises, and for contracted FVs to work with these platforms as well. In addition, new skimmers and the Ocean Buster boom systems are simply more advanced and represent faster and more efficient clean-up technology. One suggestion for building further competence into the system is that vessels and crews from Cordova and Whittier should be provided more opportunity to work with these new platforms. The bulk of the recent open-water deployments have centered around Port Valdez and have used Valdez fishing vessels and it's important to remember there are Tier 1 vessels on contract in both Cordova and Whittier.

Operating in Darkness and Dense Fog

Operating in darkness has been included in this list for the last several years. Exercise in periods of reduced visibility provided valuable training for those participating and, since most of the winter is in darkness, this was good practice for those crews. Alyeska should continue to include more fishing vessels and response crews so proficiency of working in the dark throughout the system is improved. In addition, the new tug fleet brings more advanced spill tracking equipment (FLIR cameras and Rutter Radar spill processing) and this gear should be incorporated into training activities as well.

Valdez Marine Terminal

The Valdez Marine Terminal's oil spill prevention and contingency plan just went through the approval of a major amendment and will be up for a new plan review and approval in another year. While the inclusion of the new ECO resources did not impact the VMT plan as much as the Prince William Sound Tanker Plan, these new systems still must be incorporated and used within the VMT's operations. Exercises using the ECO equipment should be conducted during all of the conditions that will be required to respond to potential oil spills at the VMT.

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 components 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 and 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 new addition to the Valdez boat harbor will change the Valdez Duck Flats protection scheme. This will cause the need for more training of the local response crews as they determine the best tactic for protecting one of Port Valdez's most sensitive areas. The sensitive area protection task forces established in the last tanker contingency plan approval should be exercised more, so as to better refine and work through the associated logistical challenges and determine if enough resources are dedicated to this critical task.

Nearshore Response

Nearshore response exercises will always be addressed as needed future work simply because of the sheer volume of fishing vessels associated with this response area. All of these vessels need to be proficient with the equipment and equipment does continue to change to some degree;

take the internalized mini barge pumps or new 13 disc Crucial skimmers for example.

Nearshore response as described in the PWS Tanker Contingency Plan will operate for twelve hours a day. Therefore, many of those hours will require operating in reduced visibility during the months of October to March. This aspect of the operation is rarely practiced and is not very well defined as to what operations can be safely conducted in periods of darkness. More exercises are needed to refine this aspect of the spill response.

Dispersant/ISB related

Dispersant, SMART monitoring, and ISB related exercises tend to be practiced as individual components, and while practice is always good, the separation of these components does not necessarily 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 this would need to be in conjunction with SMART monitoring and the spotter aircraft. Rather than run an individual aircraft based event, and a SMART monitoring training separate, perhaps these training events could be piggy-backed to complement one another and offer a more complete picture of operations.

Unannounced Exercises

Unannounced drills provide the only real measure of a planholder'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. While there are benefits to having announced exercises, PWSRCAC recommends that an unannounced drill be conducted each year. There could even be unannounced aspects to a known event, such as working PPE and Decon, and asking that responders truly demonstrate they have this needed gear and can work in it.

Technical Manual Tactics

Both the Prince William Sound Tanker and VMT contingency plans utilize technical manuals to define tactics expected during a spill response. These technical manuals are well laid out and identify equipment and personnel needed to perform each tactic. The transition to ECO has changed several of the tactics that were used in the past. 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 five years of each planning cycle.

Fishing Vessels

The SERVS Fishing Vessel Program is the backbone of the oil spill response system in Prince William Sound. While the SERVS fishing vessel program appears to be healthy in regards to the number of participating vessels, PWSRCAC recommends exercises be conducted to verify availability of vessels

and crews during periods when most fishing vessels are inactive in the winter months.

Most fishing vessel crews only receive the annual training and do not get called out for additional drills. It is difficult to maintain proficiency when only practicing with the equipment once a year. There are many aspects of the open-water, nearshore, and sensitive area protection systems that have limited opportunities for even the Tier 1 vessels to practice and become proficient with these tasks. 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 opportunities are needed for fishing vessels to become, and remain, response proficient.