
**Prince William Sound RCAC
Annual Drill Monitoring Report**

2016

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

2016 Exercise Report Index

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April 1	752.431.160401.Ow450-3VDZ.pdf	Barge 450-3 Open Water Operational Readiness Exercise
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May 18	752.431.160518.VMTfieldDepEx.pdf	Valdez Marine Terminal Field Exercise
June 21	752.431.160621.PolarResTowEx.pdf	POLAR RESOLUTION Towing Exercise
July 8	752.431.160708.OWrapidNaked.pdf	SERVS Rapid Response Vessel Exercise
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October 4	752.431.161004.SheepBayOWex.pdf	Sheep Bay Open Water Operational Exercise
October 13	752.431.161013.VMTwlEx.pdf	Valdez Marine Terminal Wildlife Exercise
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2016 Exercise Summary

Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) staff observed and evaluated nine drills and exercises in 2016. In addition to the drills and exercises, staff also participated in Alyeska's Ship Escort Response Vessel System (SERVS) 2016 fishing vessel trainings and Geographic Response Strategies (GRS) deployments. All of these reports fall into the categories described below and many of these exercises have response objectives that include several of these categories in the same exercise.

Tanker Towing Exercises

Six tanker towing exercises were conducted in 2016. SERVS is committed to conduct four emergency tanker towing exercises a year but SERVS' goal is to conduct eight of these exercises on an annual basis. However, the exercises are reliant on tanker schedules and willingness of the captains to take the time to participate. Emergency tanker towing exercises consist of a tanker calling the drill, having the primary tug maneuver to its stern and pass the tether line of the tanker, and then having the primary tug either assist in turning the tanker or pulling directly astern to stop its forward momentum. The second tug, usually a Prevention and Response Tug (PRT), then passes a towline to the bow of the tanker and begins to tow the tanker to safety for five minutes. These exercises are almost always conducted in the summer when the weather is best. Staff observed two emergency towing exercises in 2016.

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. Four open water exercises were covered by the PWSRCAC staff.

Nearshore Response and Sensitive Area Protection Exercises

Nearshore and sensitive area protection exercises typically require more coordination because of the geographic areas that are covered and the number of fishing vessels involved. Each nearshore task force has 27 fishing vessels assigned to it and there are 8 task forces expected to be onscene in the first 72 hours for a total of 216 fishing vessels. Sensitive area protection is not as well defined with regards to number of fishing vessels and amounts of equipment but this portion of an oil spill response could easily become the most extensive given the amount of resources that would need to be protected during a large incident. This does not include the fishing vessels associated with the wildlife task forces, which incorporate another 21 vessels that are also being managed by the Nearshore Group Supervisor. The management and logistical support for this many vessels can be challenging and complex.

Staff attended four exercises that were associated with the nearshore and/or sensitive area protection response system. Two of these exercises focused on sensitive area protection in Port Valdez from spill scenarios associated with the Valdez Marine Terminal. Whittier

hosted the other exercise, which was conducted in Shotgun Cove and used the spill equipment off the nearshore barge 500-2. The Tesoro and VMT IMT exercise also included elements of the nearshore and sensitive area protection response system. A wildlife exercise was conducted in October by the Valdez Marine Terminal.

SERVS conducted a series of Geographic Response Strategy (GRS) deployments in Port Valdez and PWSRCAC staff participated in the evaluation of these sites and provided input to the GRS evaluation report that was sent to the Alaska Department of Environmental Conservation (ADEC) for making suggested improvements to the deployed GRS sites. The GRS tactics are developed prior to a response to protect highly sensitive areas. GRS includes information on both booming and recovery strategies. However, SERVS GRS deployments typically focus on the booming strategies. These deployments are used to test the GRS tactics and determine if changes are needed to ensure the effectiveness of those tactics in protecting sensitive areas.

Valdez Marine Terminal Drills

The Valdez Marine Terminal (VMT) conducted three exercises in 2016. Two of these exercises were field equipment deployment exercises. The May field exercise was in response to an uncontained spill from the VMT's East Metering building that was unable to be secured and challenged the response crew's ability to stay ahead of the moving oil. The VMT also conducted a wildlife task force deployment at Gold Creek in the Port of Valdez. The other exercise combined incident management team tabletop with Tesoro from a scenario of a tanker spill while still at the dock in October.

Annual Prince William Sound Shipper's Exercise

Tesoro and Alyeska held a tabletop exercise that exercised both the Prince William Sound Tanker and the Valdez Marine Terminal's contingency plans. This was a unique scenario of a tanker spill while loading that escaped initial containment. This is first time the PWSRCAC staff remembers a scenario for an exercise of a tanker spill at berth since the actual Eastern Lion spill in 1995. This exercise also was the first time staff can remember that one tabletop exercise was used to satisfy the exercise requirement for both plans. The October exercise included objectives for sensitive area protection, oil movements associated with having a spill at the terminal that impacted the loading of other tankers, and a regional stakeholders' committee.

SERVS Fishing Vessel Training

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

Focus of Future Drills and Exercises

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

Exercises for all components of the eventual transition from Crowley Marine to ECO will rise to the top in importance. Towing exercises need to continue to ensure that Crowley's performance does not slip and to document the standard that the ECO personnel and equipment must meet or exceed. ECO will be conducting exercise and training in the Gulf of Mexico, Puget Sound, and in Prince William Sound. These transition exercises will be critical for demonstrating the enhancement of the new technologies that ECO will bring to the prevention and response system in Prince William Sound and ensuring no loss of capabilities occur as the transition takes place.

Tanker-Towing Exercises

Six tanker-towing exercises were conducted in 2016 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 double what SERVS is committed to complete and shows SERVS' commitment to keeping the tug and tanker crews proficient for operations. We would like to see some of these exercises conducted at least quarterly and in periods of darkness or moderate sea states to help crews prepare for an event we all hope does not happen.

Open-Water Response

More exercises with the Barge 450-6 in all seasons and weather conditions, including darkness, need to be conducted. The 450-6 is the prototype for all of the barges that will be coming in from ECO so more time exercising the 450-6 during all conditions can provide valuable lessons on potential improvements for these barges' design and operation. Additionally, fishing vessels and crews from Cordova and Whittier should be provided more opportunities to work with the open-water recovery systems.

Operating in Darkness and Dense Fog

Operating in darkness has been included in this list for the last several years. Exercising in periods of reduced visibility would provide valuable training for those participating, since most of the winter is in darkness. Alyeska should continue to include more fishing vessels and response crews so proficiency of working in the dark throughout the system is improved.

Valdez Marine Terminal

The Valdez Marine Terminal's oil spill prevention and contingency plan was reapproved in 2014. As part of the approval, ADEC required some of the plan's spill scenarios be reworked so the changes in the scenarios will need to be exercised. A tabletop exercise for the Alyeska incident management team that focuses on responding to potential spill scenarios from the VMT plan needs to continue on a yearly basis.

Sensitive Area Protection

There is a difference between nearshore response components and sensitive area protection components in oil spill response. The missions of these two components are not the same. Nearshore response systems should be designed to intercept and recover oil as the oil gets close to shore by working the leading edge of the spill. The mission of the sensitive area protection function is to get ahead of the spill in time to be able to boom sensitive areas prior to oil reaching these areas. Boom deployments can be complex and take many hours and hundreds of feet of boom to properly protect these areas.

Sensitive area protection exercises have also been conducted in Whittier with great success. 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 should be exercised more to better refine that system and the logistic challenges to determine if enough resources are dedicated to this critical task.

Nearshore Response

Nearshore response exercises will always be on this list 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 few have worked with newly modified mini-barges since they have been upgraded. 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.

Unannounced Exercises

Unannounced drills provide the only real measure of a planholder's ability to respond at a point in time. 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 unannounced drills be conducted each year.

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. 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 again with regard 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 I vessels to practice and become proficient with the 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. SERVS has begun producing many quality videos of equipment operation and instructions on their spill response tactics. SERVS gives these videos to the fishing vessels during their annual training so they can refresh themselves when they had time. This is a very good practice and should be followed up with field exercises that require the fishing vessel crews to operate the equipment without instruction to see what areas of training need to be emphasized.