
Drill Monitoring Annual Report

2007

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2007 Drill Report Index

Date	Report Number	Drill Description – Author
31-Jan	752.431.070131	Cordova U/J Oil Recovery Tactic Training - Roy Robertson
2-Feb	752.431.070202	Cordova Rapid Response Drill - Roy Robertson
25-Apr	752.431.070425	Nanuq/Attentive/Polar Endeavour Tether Exercise – Dan Gilson
1-May	752.431.070501	BP Prince William Sound 809 Scenario Exercise – Roy Robertson
28-June	752.431.070628	Valdez Marine Terminal Settlement Pond Exercise – Dan Gilson
17-Jul	752.431.070717	Port of Valdez Aerial Dispersant Exercise - Roy Robertson
26-Sept	752.431.070926	Cordova Nearshore Task Force 5 Exercise – Roy Robertson
29-Sept	752.431.070929	Naked Island Rapid Response Fleet Drill – Chris Jones
24-Oct	752.431.071024	Valdez Marine Terminal Sensitive Area Protection Exercise - Roy Robertson
18-Nov	752.431.071118	Tan'erliq/Aware/Sierra Emergency Towing Assist Exercise – Chris Jones

2007 Drill Summary

Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) staff observed and evaluated 10 drills and exercise in 2007. In addition to the drills and exercises, the PWSRCAC staff also participated in Alyeska's Ship Escort/Response Vessel System (SERVS) 2007 spring and fall fishing vessel trainings. All of these reports fall into the categories described below.

Tanker Towing Exercises

SERVS normally conducts four tanker-towing exercises per year. These towing exercises are usually divided between the four shippers (SeaRiver, Polar Tankers, Alaska Tanker Company, and Seabulk) calling on the Valdez Marine Terminal. In 2007 SERVS conducted eight towing exercises that included not only the usual stop the advance tactic but also towing the tanker with the Prevention and Response Tug's (PRT - yellow tugs) emergency tow package. The reason for doubling the number of exercise was to allow all of the PRT captains a chance to practice this exercise.

Open Water Response Exercises

The PWSRCAC staff attended three open water exercises in 2007. Two of these exercises were conducted with the Cordova Rapid Response Fleet. A TransRec barge was deployed during the BP drill in May along with part of a nearshore task force.

SERVS' primary response option for the initial boom deployment of the open water barges at Seal Rocks is the Cordova Rapid Response Fleet that consists of eight bowpickers. These vessels are expected to be underway from the Cordova boat harbor within one hour. SERVS must have four of these vessels to meet their initial operational requirements for the Open Water Task Forces.

The February open water exercise was another semi-no-notice drill conducted on February 2 to test the responsiveness of the Cordova Rapid Response Fleet. This drill consisted of SERVS calling out the Rapid Response vessels and conducting a briefing onboard the Valdez Star. Four of the vessels were sent to Port Etches to check in with the PRT *Alert* and the other four vessels were used to tow boom for the *Valdez Star*. All of the vessels in the Rapid Response Fleet met their one-hour callout time.

The other exercise with the Rapid Response Fleet vessels occurred on September 27th and consisted of four of the bowpickers being sent to Naked Island to tow boom for the barge stationed in Outside Bay but this exercise was called off and the vessels turned around due to weather. The only relevant buoy to compare wind speeds and wave heights to for this exercise is the West Orca bay buoy that was reading 10-15 knot winds with gusts to 14-18 knots and seas 1.6 - 2.3 feet. Fishing vessels involved in the exercise at Outside Bay were reporting 20-25 knot winds gusting to 30 knots with 3 foot seas.

Nearshore Response Exercises

Nearshore exercises continued to be a focus of SERVS during 2007. Most of these nearshore exercises focused on the nearshore “U/J” oil recovery tactic and the use of the Current Busters. In addition to the normal operational exercises, a nighttime drill was conducted on Cordova with the new nearshore Task Force 5 equipment.

The fishing vessels continue to have trouble effectively operating with the “U/J” tactic. More training and practice is still needed for these vessels to become proficient in the deployment of the “U/J” tactic. The fishing vessels have become very proficient using the Current Busters.

The darkness exercise in Cordova proved to have mixed results with most of the new equipment working well after a few kinks were worked out. The new Task Force 5 equipment consists of Harbor Busters (smaller Current Busters), 100 bbl Micro-barges, and 100bbl Canflex bladders. The darkness portion of this exercise consisted of the vessel holding in place as it became dark. Many of these tactics would not have been very effective as they were totally dependent on the oil coming to where the equipment was being held in place.

SERVS is continuing to use of fishing vessel captains as Task Force and Strike Team Leaders. The fishermen assigned as Task Force Leaders have done a great job. However, only limited amount of the responsibilities of a Taskforce Leader can be practiced during a four to six hour exercise.

Valdez Marine Terminal Drills

The Valdez Marine Terminal (VMT) conducted two exercises that were observed by PWSRCAC staff during 2007. The VMT settlement pond deployment exercise in June consisted of blocking culverts, settlement pond booming and deploying portable skimmers. In addition to deploying the equipment the responders also demonstrated the proper use of their personal protection equipment (PPE) and the decontamination procedures. This drill went very well.

The second VMT exercise in 2007 focused on sensitive area protection in the Port of Valdez. This exercise consisted of both a tabletop element in the Valdez Emergency Operation Center (VEOC) and field deployments in the Port of Valdez. Three Geographic Response Strategies were deployed that had not previously been tested. The focus of the tabletop was to demonstrate that the VMT’s Incident Management Team (IMT) could identify sensitive areas that needed to be protected prior to them being contaminated by oil. This exercise also went very well.

Other Exercises

BP conducted a three-day exercise in May of 2007 that included a field deployment of most of a nearshore task force with some Tier III vessels that are not part of the SERVS fishing vessel program. The first two days of this exercise primarily consisted of both the Alyeska and BP IMT members working in the VEOC responding to an 809 Scenario spill, 300,000 bbls in the first 24 hour and an additional 165,000 bbls through day three. In addition to the activities in Valdez, BP also conducted Tier III fishing vessel training in Cordova and Homer and placed Community Liaisons in Chenega, Homer, and Cordova.

The third day of the BP exercise consisted of a partial nearshore Task Force in Two Moon Bay with Tier I, II, and III fishing vessels. Two of these fishing vessels were trained in Homer during the day of the exercise and traveled from Homer to Two Moon Bay for the deployment and were a couple of hours late because of the weather in the Gulf of Alaska. This exercise had some very good elements to it but was too scripted as it followed the 809 Scenario from the Prince William Sound Tanker Contingency Plan.

SERVS also conducted an aerial dispersant exercise in July that was part of a dispersant training held in Valdez. This exercise included a C-130 and spotter plane working together to spray water on a section of boom being towed as a target. In addition to the aircraft, the Valdez Star was used as a platform to practice monitoring the water using fluorometers.

SERVS Fishing Vessel Training

SERVS, TCC and OSHA have combined to develop a 24-hour marine HAZWOPER training program that focuses on marine oil spill response. In 2007 SERVS conducted these three-day spring fishing vessel training programs in Kodiak, Homer, Seward, Cordova, Whittier, Chenega, and Valdez. SERVS also held a fall fishing vessel training in Cordova. More than 350 vessels and over 1,000 spill responders were trained by SERVS in 2007.

Focus of Future Drills and Exercises

There are several areas that should be included in future exercises. The Prince William Sound Tanker Contingency Plan was rewritten in 2007 and many areas of this new plan need to be tested. In addition, the Valdez Maine Terminal Contingency Plan is also required to be resubmitted in 2008.

Operating in the Dark

One of the recommendations of the PWS Response Gap Analysis that PWSRCAC commissioned was to improve SERVS' ability to respond in the dark would help to close the response gap. One darkness exercise was conducted in 2007 and additional darkness exercises should continue for all components of the Prince William Sound response system.

Quantifying the Response Gap

A workgroup should be initiated that involves PWSRCAC, the Alaska Department of Environmental Conservation, SERVS and the shippers to help quantify the response gap. Recommendations from the PWSRCAC board approved response gap reports should be reviewed and incorporated into exercises where possible. A first step could be to develop agreed upon monitoring tools and methods designed to measure the limits of the equipment and vessels in various weather conditions.

Nearshore Tactics

The nearshore operations are now relying on the Current Busters and the U/J boom configuration for free oil recovery. The Current Busters have proven to be a valuable addition to the nearshore operation. The U/J tactic still needs more work for this to become a reliable oil recovery tactic. Most of the vessels deploying this tactic have difficulty maintaining the proper speed and formation while simultaneously conducting many operational responsibilities. For example, the skimming vessels must tow boom, operate the skimmer, load the mini-barge, and decant the mini-barge while trying to stay in the oil, in formation with other vessels, and keep the lines and hoses out of its wheel.

While the U/J tactic can be effective for oil recovery, it is more complex than the previous “U” or Teardrop tactics. Many of the fishermen have voiced that they prefer the other tactics for safety and operations considerations. The vessels need to be properly matched and many of the vessels have trouble towing the heavier Ro-Boom. Using the smaller CSI boom reduces the sea states in which this tactic can be implemented effectively. Since this tactic is not going to be changed, much more training and practice time is needed for the fishing vessels.

SERVS Technical Manual Tactics

The new SERVS Technical Manual provides a detailed description of most of the tactics that would be used during a response to a spill. These tactics include a listing of both personnel and equipment needed to implement the various tactics. These tactics need to be tested to determine if the proper levels and types of equipment and personnel are identified to accomplish the tactic.

Fishing Vessel Training

As the fishing vessels and crews are asked to perform more roles each year, the training must keep up for them to be successful. The number of training opportunities needs to be increased. This is the same recommendation from last year's report and still remains to be validated.

SERVS has come to rely on the fishing vessel captains to fill the roles of Task Force Leaders and Strike Team Leaders with very little specific training to help them learn the responsibilities of these roles. Spending part of the day acting as a Task Force Leader does not prepare them for all of the responsibilities required to perform this role during a response. SERVS should develop a criteria based program to ensure the Task Force and Strike Team Leaders are adequately trained to perform these roles.

Additional exercises need to be conducted to allow the fishing vessels to become proficient in operating in a “U/J” oil recovery formation. SERVS also needs to determine which vessels can be used to deploy this tactic and which vessels should be assigned other tasks. Operating in darkness should also be included in the fishing vessel training.

Deployment of all of the SERVS’ Response Resources

I am not inferring to deploying all of SERVS’ assets at the same time. However, there is equipment in the SERVS inventory that rarely if ever gets deployed. As SERVS and TCC personnel turn over it is likely that the operational knowledge is being lost over time. Equipment such as the Ocean Buster, Sea Skimmer 50’s, and other equipment that is not intended to be part of the initial response should still be deployed to ensure all of the responders are proficient with the operation of this equipment.

Scenario Variations for Drills and Exercises

Using the scenario written in the both the VMT and PWS tanker contingency plans provide limited training value. This value is limited because once the drill or exercise participants read the scenarios that are included in the plans it leads them down a predictable path. The plan scenarios are meant to demonstrate that the plan holders can meet their response planning standards. However, by following these scripted scenarios the responders are not required to think as much as they would be if they had not been able to read how the response is supposed to unfold.

Tanker-Towing Exercises

The shippers and SERVS conducted two of the four towing exercises during the winter months in 2006. In 2007, none of the towing exercises were conducted in the winter. It is good to see SERVS increasing the number of towing exercises and including elements that are usually not tested. However, the towing exercises should be conducted throughout the year so the tug crews can practice responding in all of the conditions that occur during normal tanker transits in both summer and winter.