

Flotilla 45: Safeguarding Navy Unmanned Underwater Vehicles

by Phillip Ransford FSO-OP

On June 3, 2005, Mike Dunn, FC, 130-04-05, of Bremerton, WA, received a heads-up from a contact at Naval Undersea Warfare Center, Keyport, WA, that they were requesting Auxiliary support for a range safety patrol on June 6-16. NUWC was hosting an Autonomous Underwater Vehicle Festival (AUVFEST) in-water demonstration event during that time and would have numerous submersible and surface vehicles underway in several operations areas within their normal Restricted Area, as well as deploying divers. NUWC resources were otherwise engaged and unable to provide the desired safety patrols needed to safeguard both Naval resources and the boating public. Flotilla 45 immediately started preplanning, while the request wended through Navy and Coast Guard channels.



Figure 1: Phil Ransford's vessel "Lorelei" at Keyport dock

AUVFEST had two primary objectives:

Demonstrate AUV systems emerging from the Organic Mine Countermeasures and Autonomous Operations Future Naval Capabilities programs, in support of mine countermeasures missions and Demonstrate inter-operable communications of data and mission status among various unmanned vehicle systems with a central command node.

AUVFEST vehicles were of several sorts. They ranged from bottom-crawlers to submersible vehicles to surface units (kayaks), which were performing self-coordinated exercises near the Naval Center docks with Navy Seals diving in support of the tests. Some of the underwater vehicles were programmed to surface if data contact was broken by a private boat passing between two communicating units. This could result in damage to the test vehicle, the transiting boat, or both. Of special concern was the safety of the Navy Seals from boaters unaware of their presence.



Figure 2: Phil Ransford and David Erickson with an unknown Keyport employee

In all there were four operating areas, spread along more than three miles of Port Orchard inlet at the conjunction of the routes to and from three major Puget Sound recreational boating objectives: Poulsbo, Port Orchard/Bremerton, and the Seattle area. In order to safeguard all parties, the Navy established a Range Boundary significantly larger than the normal Restricted Area in place at Keyport as shown on navigation charts.

Negotiations between Navy and Coast Guard resulted in approval of one facility per day, and orders were finally received for a start on 9 June. The large protection area, with three entrance routes, coupled with the Navy restricting vessel traffic to the shoreline, and to speeds no greater than five knots, appeared to offer a real challenge for a single facility. It was.

Flotilla 45 had only two facilities available at the time, and one had engine problems, so Facility 363098 (Lorelei), owner Phil Ransford, got the nod. Lorelei is a 36' Uniflite sedan with twin 250 hp Cummins power; top speed about 20 knots. None of the Flotilla 45 coxswains could commit to all operational days,

but the Flotilla did provide all the needed crew members. With help of a coxswain from Flotilla 41, it was a continuously varying crew that answered the call. The first two days were patrolled by Coxswain Mike Dunn, with Phil Ransford and David Erickson as crew. The third patrol saw Coxswain J.B. Hall, with Phil Ransford and Roger Gray crewing; the fourth day was handled by Coxswain Jon Sorenson, with Phil Ransford and Bob Erickson; the fifth day consisted of Coxswain Clyde Snyder (130-04-01, Port Townsend, WA), with Phil Ransford and Ray Bedford; and the last day's patrol was made by Coxswain J.B. Hall, with Phil Ransford and David Erickson.

The daily drill called for a 10-mile morning run from Lorelei's berth at her Port Orchard marina and check-in at Keyport, where we picked up a range radio and any daily instructions from the AUVFEST staff. Our normal station was nearly central, at the confluence of the boating routes, where we could see approaching traffic from all directions. On some days, sensitive operations were underway in certain of the operating areas, and we were asked to stay close by. AUVFEST range safety officers were often able to point out targets, as they had a higher vantage point and more powerful optics. After a couple of days, both Navy and Auxiliary got into the swing, and things smoothed out significantly. Range operations were usually completed by 1500-1630, at which point the radio was turned in and the facility returned to base.

We found the boating public generally cooperative but often uninformed. Notices to Mariners had been published announcing the operations in the Keyport restricted area, but even local marina management seemed unaware. Because the single Facility had to cover distances that were quite extensive, we tried to rely largely on VHF contact. However, many boaters were found either to have no VHF or not to be monitoring Channel 16.

If we could not get the boat's attention via radio, we had to "burn out the carbon" and make a direct approach, hopefully before the boat entered an operations area. After a few days of active patrolling, we found that the word was getting around, and many boats were observing the rules without being challenged.

There are always a few who don't want to cooperate, though, and required an "up close and personal" approach to move them out of danger. These problems averaged less than one a day, and we often contacted twenty boats daily.

Events such as this do wonders for improving the communication among boaters and the Coast Guard, including the Auxiliary. They also point out the opportunity for improvement, perhaps a new program of broadly disseminating word of passage restrictions in the Coast Guard's regular radio broadcasts. Such broadcasts could help educate the public about what our Armed Services and contractors are doing to safeguard our nation, as well as enhancing boating safety. Relying on the "Notice to Mariners" approach to reach the boating public is insufficient, to say the least. We found boaters to be more than willing to cooperate when sufficient effort was made to get the word out.