A Hunting We Will Go . . .

By JO2 Jerry Knaak

Imagine this. Leaders in the former Soviet Union, strapped for cash, decide to sell one of their older nuclear missile-capable submarines. Diplomats from the third world nation purchasing the sub are, in fact, a front for a fanatical, well-organized, well-funded group of international terrorists. It’s your job to help locate the sub and stop them. You are an Aviation Warfare Systems Operator (AW), an enlisted Naval Aircrewman and all of 20 years old. You must rely on your training, resolve and dedication to locate the deadly sub. A daunting task, but you meet the challenge head on as you and your flight crew walk out to the aircraft for the preflight inspection. A lump forms in your throat and butterflies take flight in your stomach as you board and the engines whine to life. This is the real thing, and you’re ready.
It’s true that sub hunting isn’t what it used to be. The fall of communism in the former Soviet Union caused a revolution in antisubmarine warfare (ASW). The threat is no longer easily defined, but it still exists. Policy makers, doctrine writers and high-level military officers must constantly evaluate possible threats to national security and interests. And Navy enlisted personnel must also adapt to changes in the global political and military climates.

ASW dates back to before WW I when tests were conducted (as early as 1912) to see whether submarines could be spotted from the air. During WW I, German U-boats terrorized shipping lanes and jeopardized the safe passage of critical supplies needed by Allied forces fighting for their lives in Europe. U.S. seaplanes patrolled coastal European waters searching for enemy submarines.

Throughout WW II, German and Japanese subs were responsible for countless American and Allied shipping losses on the high seas. The enormous threat was recognized very early in the war. In May 1941, Patrol Wing Support Force was established at Argentia, Newfoundland, to conduct patrols over North Atlantic convoy routes. On 10 December 1941, aircraft from Enterprise (CV 6) attacked and sank a Japanese submarine, which had been part of the task force that attacked Pearl Harbor, Hawaii, on the 7th.

Taking the lead in ASW operations during the war, the Navy assumed command and control of all ASW aircraft and efforts in March 1942, including all Army aircraft involved in antisubmarine warfare. Aircraft and aircrews based at Naval Air Station (NAS), Key West, Fla., and other bases, played a major role in reducing American shipping losses to German submarines, which had destroyed 49 ships off the coast of Florida in May 1943 alone. The Navy established Hunter-Killer groups in 1943 to escort shipping convoys across the Atlantic Ocean. Sailors flew aboard various ASW aircraft—ranging from PBY Catalinas to lighter-than-air craft—to search for, track and destroy enemy submarines. (See “The Battle Between the Blimp and the Sub,” pp. 26–29.)

After WW II, the arms race with the Soviet Union affected national policy, defense and the well-being of the people of the United States. The cold war also impacted enlisted aircrewmen in the ASW arena as the Soviets continued to build more capable submarines. In 1953, the Navy responded to the escalating threat by redesignating the first of many attack carriers as Antisubmarine Warfare Aircraft Carriers. New aircraft, with sophisticated avionics, were built to combat the ever-increasing threat.

P2V Neptunes were used extensively throughout the 1950s until being replaced by the P-3 Orion during the early 1960s. Introduced in 1954, the S-2 Tracker utilized two enlisted ASW equipment operators, and could carry nuclear and conventional depth charges, rockets, torpedoes and missiles. The Tracker was replaced in 1975 by the S-3 Viking which serves the fleet today. Utilizing a vast arsenal, each aircraft was designed to locate and track an enemy submarine. Along the way, the SH-60B, with its magnetic anomaly detection (MAD) and the SH-60F, with its dipping sonar equipment, became valuable assets to ASW units. Today, the SH-60 Seahawk is a mainstay of the active duty ASW community, while the reserves fly the Light Airborne Multipurpose System (LAMPS) MK I SH-2G Seasprite.

ASW is the primary mission of the Aviation Warfare Systems Operator. The rating was established on 1 September 1968 as Antisubmarine Warfare Operator. Prior to the creation of a specific ASW rating, radiomen, electronics technicians and various other ratings hunted submarines. The name was changed on 16 November 1993 to reflect shifts in war-fighting tactics.
and the changing global threat. Over 2,500 strong, AWs constitute the largest single rating among Naval Aircrewmen and conduct ASW operations aboard three main aircraft platforms: the P-3C, S-3B and SH-60.

AWs are unique in many ways, and it all begins right after boot camp. Instead of attending “A” school immediately, aspiring AWs must first complete Naval Aircrewmman Candidate School (see NaNews, Sep–Oct 1996, p. 28). Those who volunteer for the even more demanding Aviation Rescue Swimmer School (see NaNews, Nov–Dec 1996, p. 24) are all but guaranteed an assignment to a helicopter squadron.

If they graduate from these
schools, potential AWs then attend a 16-week “A” school at Naval Air Technical Training Center, Pensacola, Fla. This school focuses on the theory and practice of ASW as well as the nature of the threat. Choice of aircraft platform depends on the individual’s class standing upon completion of “A” school and aircraft availability. Then it’s off to Survival, Evasion, Resistance and Escape training.

Reporting to a Fleet Replacement Squadron (FRS) is the next step (see sidebar). Here, fledgling AWs learn the specifics of their aircraft and the operation of its ASW gear. Successful completion of the FRS—which, in addition to classroom instruction, includes simulator training and check flights—results in the long awaited awarding of those coveted Naval Aircrewman wings.

Training is far from complete, however, and continues as the students transfer to a fleet squadron, where the AWs must complete a demanding Personnel Qualification Standards (PQS) syllabus while flying missions as trainees.

The length of time needed to complete the PQS varies with the community, but it can take up to 12 months and hundreds of flight hours to finish the program. Aircrew coordination, airborne communication and knowledge of aircraft safety procedures must also be learned and demonstrated in order to receive the all-important “qualification.”

Even after AWs receive their qualifications, training is ongoing. AWs must stay abreast of world events and keep track of their own professional development. “Most people don’t realize that we are always studying—keeping track of the threat, maintaining our qualifications, plus constantly training,” said AW2 Shawn Rothstein, HS-10, NAS North Island, Calif.

In the P-3 Orion community, three AWs are required to operate the ASW gear aboard the Navy’s largest dedicated maritime patrol aircraft. The two acoustic operators, Sensor 1 and 2, use sonobuoys placed in a strategic pattern to locate and classify submarines. “We can tell what type or class of submarine it is by its acoustic signature,” said AW2 Ed Kender of Patrol Squadron (VP) 46, NAS Whidbey Island, Wash.

Sonobuoys send out a sonar “ping” much like an aircraft’s radar pulse and actively search for targets. Or, the sonobuoys can be passive receivers, picking up any sound within range because water is an efficient medium for carrying sound waves. Sensor 3 operates the non-acoustic equipment, such as radar and MAD gear. All of the sensor operators aboard the Orion work very closely with the tactical officer...

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**Fleet Replacement Squadrons for AW Aircrewmen**

<table>
<thead>
<tr>
<th>Units</th>
<th>Location</th>
<th>Completion Time</th>
<th>Platform</th>
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<td>P-3C</td>
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<tr>
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<td>S-3B</td>
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<tr>
<td>HS-10</td>
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<td>SH-60F</td>
<td>2</td>
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<tr>
<td>HSL-41</td>
<td>North Island, Calif.</td>
<td>8 months</td>
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“Gotcha!” A VP-5 P-3C Orion swoops low over a U.S. submarine during a recent ASW training mission. Because of the changing threat, finding enemy subs has become increasingly difficult. U.S. subs often play “target” so AWs can hone their skills.
more adventure. Since we are deployable on a moment’s notice, we go where the action is.”

AWs in Helicopter Anti-Submarine (HS) and Helicopter Anti-Submarine Light (HSL) squadrons must maintain both their flight qualifications and their rescue swimmer qualifications. Since the SH-60F can be loaded with various weapons, including the GAU-17 mini-gun, M-60 machine gun and eventually Hellfire missiles, HS AWs must also know the intricacies of the Seahawk’s onboard weapon systems, while HSL AWs must be familiar with the LAMPS MK III equipment inside the SH-60B. The missions are as varied as the ships these squadrons serve aboard. The HS community deploys primarily aboard aircraft carriers and are responsible for plane guard and combat search and rescue. HSL squadrons deploy aboard small surface combatants, such as frigates and destroyers, and perform a multitude of tasks—ranging from ASW to vertical replenishment.

Sea control and surface combat air patrol are new priorities for fixed-wing ASW aircraft. Operation Sharp Guard in the Adriatic Sea showed the P-3C Orion’s ability to locate and track surface contacts while enforcing a United Nations embargo against the former Yugoslavia. Patrol squadrons (VP), armed with Maverick missiles and/or Rockeye bombs, provided 24-hour surveillance and air coverage of all surface vessels operating in the Adriatic.

The Orion has also proven capable during search and rescue efforts, often simultaneously coordinating several ships and aircraft from different nations at the same time.

In Operation Desert Shield, the P-3 Orion and S-3 Viking were invaluable during interdiction operations. The aircraft were used to help enforce the economic sanctions put in place by the United Nations against Iraq. Searching for cargo vessels carrying contraband destined for Iraq was a unique challenge that the VP and VS communities accomplished with great success. During Operation Desert Storm, the S-3 was used as a strike aircraft for the first time when on 20 February 1991 VS-32 successfully engaged and disabled an armed Iraqi ship using three 500-pound bombs.

Although ASW is still the primary mission for AWs, they must be ready for new challenges, and constantly train for diverse missions. ASW may not be what it once was, but the mission remains as vital to the defense of the nation as ever. Regardless of the challenge, AWs will continue to man the aircraft and maintain a constant vigil over the open seas.