

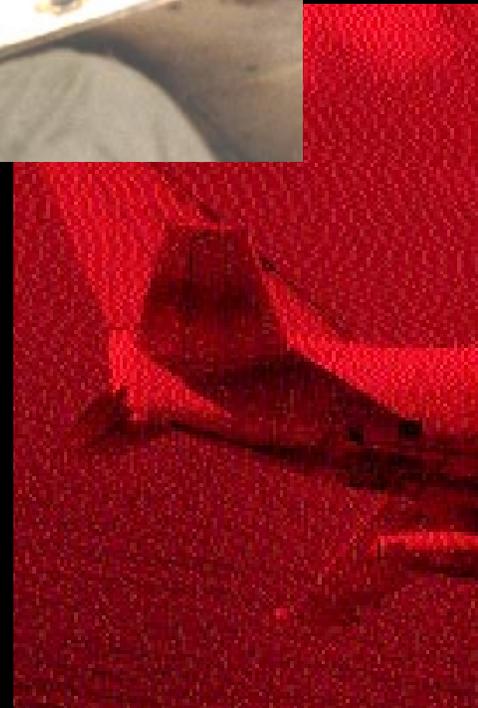
A Hunting We Will Go . . .



JO2 Jerry Knaak

By JO2 Jerry Knaak

I 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 aircrewmembers 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



Opposite left, VS-41's AW2 Steven Zelasco operates both acoustic and nonacoustic antisubmarine warfare equipment aboard an S-3B *Viking* during an ASW hop off the California coast. Above, a VS-22 S-3B *Viking*, carrying a Maverick antiship missile and an in-flight refueling buddy store, takes part in the fast-paced carrier operations that lure many AWs to the S-3 platform.

NAVAL AIRCREWMAN SERIES



Lockheed Martin



Above, VP-48 pilot LCdr. Jeff Smith provides a pre-mission brief to the crew of a P-3C *Orion* before an ASW mission. Right, AW2 Mike Haddus (right) observes as AW3 Jim Richards runs through the preflight checklist prior to a VP-48 ASW training flight.

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 Aircrewman Candidate School (see *NA News*, Sep–Oct 1996, p. 28). Those who volunteer for the even more demanding Aviation Rescue Swimmer School (see *NA News*, Nov–Dec 1996, p. 24) are all but guaranteed an assignment to a helicopter squadron.

If they graduate from these



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“Gotchal!” 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.

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

Fleet Replacement Squadrons for AW Aircrewmembers

Units	Location	Completion Time	Platform	AWs per Aircraft
VP-30	Jacksonville, Fla.	8 months	P-3C	3
VS-41	North Island, Calif.	8 months	S-3B	1
HS-10	North Island, Calif.	7 months	SH-60F	2
HSL-40	North Island, Calif.	8 months	SH-60B	1
HSL-41	North Island, Calif.	8 months	SH-60B	1

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,

who coordinates the entire ASW operation.

In the S-3 *Viking* community, aircrewmembers have the opportunity to fly on jets aboard aircraft carriers that deploy for six months at a time, sailing the world over. This is a major factor when it comes time for an AW to choose the aircraft in which to serve. Accelerating from 0 to 140 miles per hour in 2 seconds provides an adrenalin rush all its own. “I like to call it a kick in the pants,” quipped AW2 Thomas Bell, Sea Control Squadron (VS) 41, NAS North Island, Calif. “It beats any roller coaster you’ve ever been on.”

Assignment to a VS squadron also means greater responsibility aloft, because there is only one sensor operator who must be well versed in both acoustic and non-acoustic sensor equipment. “The platform carries more responsibility with it in regards to the workload. In an S-3, one person does the job of three in a P-3,” Bell said. “There’s



PH1(NAC) M. J. Rinaldi

more adventure. Since we are deployable on a moment's notice, we go where the action is."

AWs in Helicopter Antisubmarine (HS) and Helicopter Antisubmarine 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

Above, an HSL-44 SH-60B *Seahawk* demonstrates its multimission capability as it launches a Penguin missile near Puerto Rico. Below, the Navy's two reserve helicopter ASW squadrons, HSLs 92 and 94, fly the SH-2G *Seasprite*.



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 success-

fully 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. ✈️