



HUNTING SOVIET SUBMARINES ON A P-3C CREW

by Commander Don Stanton, USN (Ret.)

Looking back at the many incidents and crises during the Cold War, it is amazing that both the U.S. and the Soviet Union managed to stabilize their superpower stand-off and maintain controls to survive many events which had the potential to escalate into nuclear war. It is a tribute to the professionals on both sides that a tense peace was maintained over 44 dangerous years from 1947-1991. While Americans at home settled in and enjoyed post-World War II prosperity, our defense was guaranteed by millions of young men and women who served on U.S. bases, remote outposts, and manned ships and planes around the world. Many died in service to their country, and their sacrifices—and those of their families—should not be forgotten.

A P-3C Orion of Patrol Squadron (VP) 45, at the time one of the Navy's most advanced aircraft, bearing a state-of-the-art computer and an array of ASW detection equipment operated by crews of 12. USN photo



Just 18 months after the USSR surprised the U.S. by successfully testing an atomic bomb in August 1949, the March 1951 issue of *Popular Science* showed readers how to build a “Family Foxhole” fallout shelter to prepare for nuclear war. Since the U.S. now no longer held an atomic weapons monopoly, the government embarked on extensive programs to upgrade nuclear and conventional military capabilities and to develop civil defense. Eleven years later, President Kennedy initiated the successful naval blockade of Cuba to prevent the Soviets from installing nuclear weapons. Patrol Squadron (VP) 45 flew many missions during the 1962 Cuban Missile Crisis, and over a decade later, in 1976, I joined

that squadron as we deployed to Iceland to hunt Soviet nuclear missile submarines with our new computerized P-3Cs at a time when the USSR was rapidly increasing its naval nuclear capabilities.

In the early years of the Cold War—well before the development of reconnaissance satellites—the U.S. desperately needed timely intelligence, photographs and air samples (to determine atomic testing progress). We were groping to gain real-time information about Soviet capabilities, and Air Force and Navy reconnaissance and patrol aircraft were often sent into “harm’s way,” hem-stitching and sometimes penetrating the Soviet, Chinese and North Korean coasts on patrols and intelligence-gathering missions. According to VP

International's *Book of Remembrance*, "Since 1947, there have been **1,149 American casualties**"¹ on Navy patrol missions, and some crews were shot down by Soviet, Chinese or North Korean fighters.

Every day and night, Navy patrol crews were protecting our nation by tracking and gathering intelligence on Soviet submarines and ships. Our aircraft, the P-3C *Orion*, was part of extensive U.S. and allied navies' anti-submarine warfare (ASW) efforts to locate, track, and potentially destroy Soviet submarines in the event of war.

VP squadrons always operated to support the fleet and evolved to anti-submarine, surveillance and intelligence missions. During the early 1960s, the Navy transitioned its long-range patrol mission from flying boats and Lockheed P-2 *Neptunes* to the P-3A *Orion* (a modified version of the commercial Lockheed L-188 *Electra*). In 1959-1960, several fatal airline *Electra* crashes due to wing failures from harmonic metal fatigue had given it a reputation as a deadly airplane. The Navy heavily modified the *Electra* by taking seven feet out of the fuselage, stiffening the wing, adding a "synchrophaser" for the propellers, a MAD (Magnetic Anomaly Detector), hardpoints, a bomb bay, and all the required ASW equipment/antennas. The result was the P-3A (later the B, C, and Updates II, II.5, and III) which was a versatile and durable aircraft that could spring on station fast and could loiter on two or three powerful engines during eight to eleven-hour missions.

PATROL IN TRANSITION

The 1964 Gulf of Tonkin Incident was used to justify the U.S. build-up in Vietnam which peaked at about 550,000 troops in 1969. P-2s, P-5s and P-3s participated in Operation *Market Time* patrol missions around South Vietnam to effectively cut-off North Vietnamese resupply efforts. In 1967-68, Observation Squadron (VO) 67 conducted dangerous electronic Trail Road Interdiction Missions (TRIM) over the Ho Chi Minh Trail in OP-2E *Neptunes*. In this brave squadron, 20 crewmen perished on three aircraft.

In the 1970s, the Navy transitioned from years of having a large part of the fleet and aircraft deployed for Vietnam duties toward more traditional battle group and ASW missions with the computerized P-3C coming online.

At the time the P-3C cost about \$35 million and was one of the most expensive aircraft in the Navy

inventory. It had taken a decade of dedicated work by leading engineers in the Navy and industry to develop the P-3C into an effective long-range patrol platform to take on the rapidly growing Soviet submarine threat. The P-3C had a max gross take-off weight of 139,760 pounds and was powered by four Allison T-56-14As capable of developing 4,600 shaft horsepower. The first time I pushed the power levers forward and called "Takeoff Horsepower" to the Flight Engineer, I was impressed how quickly the turboprops came up, pushing you back in the seat—you knew that this plane was a rugged workhorse with plenty of extra power and would be very dependable.

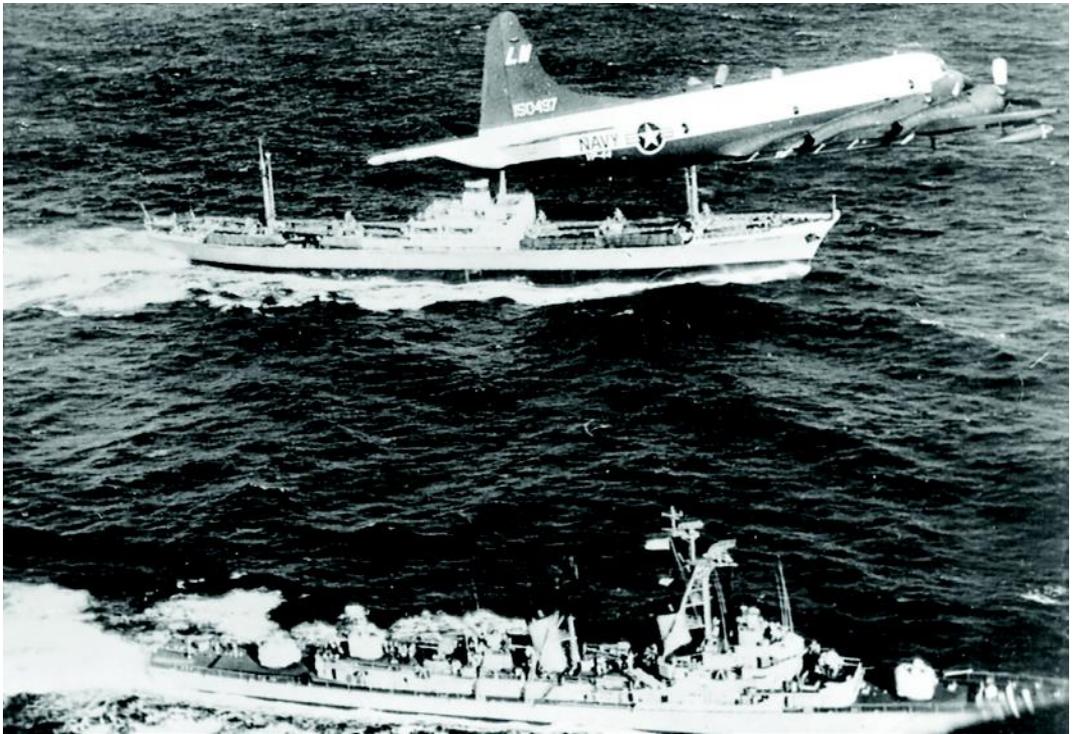
My first contact with a patrol squadron was in 1973, when I was on a destroyer that docked at Subic Bay, Philippines. I stopped by the Cubi Point BOQ and saw a very tired-looking crew checking in, so I asked, "Who are those guys?" and my friend replied, "They're a P-3 crew." I thought, "That's what I want to be in!"

Later, as an OOD aboard USS *Coral Sea* (CVA-43), I was encouraged by P-3 pilots, Assistant Navigators Lieutenant Commanders Don Hickman and Don Hefkin, and my boss, Lieutenant Commander Steve Thiel, who worked with the XO to wrangle me a pilot seat in flight school at a time when the Navy was rapidly downsizing aviators after Vietnam. As it turned out, the Navy had cut too deeply and I got caught up in PTR (Pilot Training Rate) pushes in both Primary T-28 and Advanced S-2 flight training, which helped me get to a deploying P-3C squadron in 18 months.

DEPLOYING TO KEFLAVIK

1976 was the United States' Bicentennial Year; I received my Navy wings in June and checked into VP-30 at NAS Jacksonville (JAX) for five months of ASW tactics and flight training in the P-3C before immediately joining VP-45 around Christmas as the squadron deployed to Keflavik (KEF), Iceland. During 1976-79, VP-45 deployed to KEF and twice to Sigonella (SIG), Sicily, for ASW and surveillance operations against the Soviet Navy. The Soviets had rapidly built-up their nuclear delivery systems—including advanced submarines—and exceeded the U.S. in "throw weight" nuclear capabilities. The *New York Times* reported in late 1977 that the Soviets had built a massive new missile boat named *Typhoon* to rival our upcoming *Trident* boats. The *Typhoon* was huge—563 feet long and carried 20 ballistic missiles—and by 1980 the Soviet Navy had 94 cruise and ballistic missile boats and 71 attack boats, for a total of about 480 submarines.

1. VP International *Book of Remembrance, Accident List-United States*, <http://www.vpinternational.ca/BOR/US.htm>



A VP-44 P-3A Orion flies over the Soviet ship *Metallurg Anosov* and U.S. destroyer *USS Barry* (DD-933) during the Cuban Missile Crisis. P-5B Marlins of VP-45 also provided support during the 13-day confrontation. EBNAL

I was very glad—and apprehensive—about finally joining a deploying operational patrol squadron to fly the new P-3C. Today, I am still amazed by how quickly the squadron could pack-up all its gear into collapsible metal foot-lockers, load aboard three Air Force C-141s, fly nine P-3s and deploy 400 people thousands of miles away to start immediate ASW ops.

We left the live oaks, humidity and morning paper mill smell of JAX for cold and windy Keflavik near the Arctic Circle, where in late December there were only four to five hours of sun hanging low on the horizon. We landed at KEF in the blustery darkness and were towed into an old World War II hangar. The main cabin door opened and in came the cold air, Icelandic Customs, and our squadronmates with a case of beer.

Our sister squadron, VP-49, was in the process of turning over to VP-45, and our arriving crews immediately went on the schedule for operational patrols. As an incoming 45 crew went out on an eight-hour patrol and silently (we were always in EMCON—Emissions Control) relieved a 49 crew with hopefully a “hot turnover” on a Soviet submarine, a 49 crew could be released to return to JAX.

The KEF routine was: briefing; fly an eight-hour mission; debrief; Brass Nut; sleep (sometimes

not much); try to do ground job at hangar; and repeat. While the Brass Nut was only an old BOQ room converted into a bar run by the Ready 2 crew who stocked it and kept it in a constant state of readiness for visitors, the 'Nut provided a very integral and important international hub for ASW crews and visitors.

Admiral James Stavridis, a former NATO Supreme Allied Commander Europe, summarized our efforts:

“What was [the] Cold War like in the Atlantic? First and foremost, it was a battle for control—really complete surveillance and the positioning of strategic and tactical assets—in the Greenland-Iceland-United Kingdom (GIUK) gap. . . . This zone of thousands of miles of empty ocean became critical strategically . . . there was a constant maneuver between the Soviet Union (and its Warsaw Pact allies) and the NATO forces led by the United States for the control of the GIUK gap. This required significant deployments of U.S. combat power to Iceland, Canada, Denmark, and of course the United Kingdom itself. Combat power was also stationed at bases in the Northeast.”²

2. Admiral James Stavridis, *Sea Power*, Penguin Press, New York, 2017, pp. 82-83

Cold War sub hunting was very complex, expensive, and required extensive coordination among many platforms and allies. Attack boats (SSNs) were the main force of ASW operations and carrier-based S-3s, SH-3 helicopters, and surface ships all contributed. VP squadrons provided unique long-range and rapid reaction capabilities to support the Navy's fleet ASW and intelligence gathering efforts, deploying continuously to Keflavik, Bermuda, Lajes (Azores), Rota (Spain) and Sigonella (Sicily).

Norway, the United Kingdom, Canada and the Netherlands all contributed patrol aircraft—and often worked together out of KEF and other bases. Norwegian P-3s tracked Russian subs as they transited around the Kola Peninsula and turned them over to the U.S. Our mission was to locate and track the subs as they headed south to determine whether they were heading toward the G-I gap (Greenland-Iceland), which meant they were headed deep into the Atlantic, or via the I-UK gap (Iceland-United Kingdom) to head towards the eastern Atlantic or possibly by Gibraltar into the Mediterranean.

During our KEF deployment, the Soviet Northern Fleet—which had about 125 submarines—conducted its annual month-long exercise which NATO named *SpringEx*. In 1977, the Soviets had about 33 *Yankee* missile boats (1,300 mile missile range) and 21 newer *Delta* boats (4,200 mile range so they didn't even have to go to sea to reach U.S. targets). The *Yankees* had to operate relatively close in patrol areas east of Bermuda and in the eastern Pacific to target U.S. cities and defense establishments with nuclear ballistic missiles. In peacetime, VP's job was to locate, track and record submarines and be ready in the event of a nuclear war to attack Soviet "boomers" before they launched their nukes or to torpedo Soviet attack boats threatening our submarines. Tragically, throughout this time a spy ring led by John Walker, a retired submariner, was active, and although we didn't know it, many of our ASW efforts were being compromised due to their greed.

P-3C CREWS

Each squadron developed a different personality and reputation depending on a combination of its leadership, personnel, and ASW successes. A squadron had upwards of 400 personnel including crews and hundreds of very skilled sailors in trades ranging from mechanics and avionics technicians to operational support for our nine aircraft. There were 24 active duty and eight reserve squadrons

covering deployments around the world. Since most of the Soviet nuclear missile and attack boats were in the deep Atlantic and diesel boats were in the Med, East Coast VP squadrons from Jacksonville and Brunswick had the best opportunities for tracking of submarines. The squadron was designed to support itself for long periods and be able to shift ASW operations to distant bases within a matter of hours.

VP-45 had 12 Combat Air Crews (CACs). Each crew contained 12 men (five officers and seven enlisted), including two NFOs as Tactical Coordinator (TACCO) and Navigator Communicator (NAVCOM); three pilots—a Patrol Plane Commander (PPC), Second Pilot (2P) and Third Pilot (3P); a Flight Engineer and a Second Mechanic; two acoustic and one non-acoustic sensor operators; an Ordnanceman; and an In-Flight Technician (IFT). The country had invested years in training each crewmember in their position. While you might be the "best" at your position, what really counted was your ability to work smoothly within a team and contribute to the crew's success. For pilots, it was very important to gain the trust of the crew quickly and not scare them by taking risks or throwing the plane around—and hard landings did not help your reputation.

I immediately liked the VP crew concept because everyone was recognized primarily by their professional abilities and we constantly worked to improve and weld ourselves into a close team. Crews were balanced according to skills, experience and personalities; a new PPC might be paired with a senior TACCO who would also be the Mission Commander, or a conservative solid TACCO might be paired with a wilder Plane Commander. New NFOs and pilots were integrated into crews, continuously trained, and watched closely to prepare them for increasing responsibility.

Both NFOs and pilots could become Mission Commanders and attain squadron command. The average squadron tour was three years, so every year between deployments, a third of crewmembers and squadron personnel were replaced, which meant that we were constantly studying and training to upgrade and quickly rebuild crew qualifications to prepare for the next deployment.

While some crews might seem lucky and were more successful at finding and hanging onto subs, it was really all more about the combined individual skills and working as a team. We trained, flew, and went everywhere together—especially on deployment—and we learned how each other thought

and operated. The crew I was assigned to over three years was a constantly changing composite of varying backgrounds as new members rotated in. Some of us had come through Navy ROTC or the Naval Academy, and others off the street via AOCS (Aviation Officer Candidate School). We came from many states and most of us were from small inland towns looking for adventure and to fly to serve the country.

KEF PATROLS

Crews were briefed three hours ahead of takeoff time and then were dropped off to pre-flight the aircraft. As the crew's junior pilot, my job was to pre-flight the outside of the aircraft and I remember trying to do a good job with

16,000 feet. It took quite a while for the buoys to drop and we often had problems with them freezing up on the way down, so it sometimes could be a crap shoot if they would come up. We were constantly racetracking to mark on top of a buoy to maintain plot stabilization so that we knew where the buoy pattern was in order to track a Soviet sub accurately. We carried 84 buoys—36 internal and 48 externally. Each TACCO had different buoy deployment tendencies. For example, when Lieutenant “Stump” started to lose contact, he would let loose a “rain of steel” (sonobuoys) to try to regain contact. I think buoys were about \$100 each for the common LOFAR and about \$500 for a DIFAR. Ordnancemen called the belly sonobuoy tube area “Sherwood Forest.”



A Soviet submarine's periscope and antennas as it crash-dives after being jumped by a P-3C. USN photo

my flashlight in the cold and gusty darkness and wanting to get back into the cozy warmth of the plane. During pre-flight, if any of the critical ASW avionics or mechanical systems went hard down, everyone had to pack up their gear and move quickly over to another aircraft, then work to make up lost time in order to make the assigned takeoff time. Everything was built around getting on station exactly on time to relieve another crew and have a smooth passive turnover on hopefully a hot contact. It took about two hours to get out on station, with four hours on station, and then two hours back to home.

At KEF we flew a “high mission” and dropped sonobuoys from somewhere around 14,000 to

On one patrol out of Iceland, our TACCO and sensor operators determined that a sonar convergence zone condition existed and that we should hop about 100 miles east towards Europe to lay more sonobuoys to catch the sub. As we were putting the new pattern in, our aft observer suddenly told the pilots that they saw an RAF *Nimrod* laying buoys in the same area, which was a very big problem, as we had two ASW aircraft in the same area with neither having been briefed about the other.

During “flaps” on Russian subs, the squadron flew its aircraft around the clock. I was extremely impressed by the entire squadron's determination and total focus on its mission of prosecuting Soviet

submarines aggressively and maintaining contact. After a couple of days of “flapping,” however, the ASW aircraft (and men) began to wear-down and lose effectiveness.

Since we operated EMCON on all missions, often two to three hours from base, if something happened you were on your own. Monitoring activities might not know that you were missing until you failed to return at the end of an on-station period which might delay search and rescue efforts for several hours. We operated with forecast barometric altimeter settings which could be somewhat inaccurate and could be a big problem—especially at night when you were descending IFR (on instruments) below 1,000 feet.

Flying a clover leaf MAD pattern required thinking ahead and smooth hands. The goal was to quickly get back around on top of a submarine so the Sensor 3 non-acoustic operator could get a MAD needle swing to pinpoint the target, enabling the TACCO to attack. You pulled slight “g” as the bank angle increased and the co-pilot would monitor and call out “over 30 (degrees),” and you kept scanning the horizon so that if the autopilot dropped off, you could continue to smoothly fly the aircraft.

KEF was notorious for big storms, winds, and changing weather, so taxiing and taking off could be challenging in high gusting winds on icy concrete. Our linesmen often tied themselves to the “Buddha” (big push-back tractor) to keep them

from being blown into the propellers. Sven, KEF’s “Snow King,” led a crew who used big brushes and plows to keep the runway constantly open in the teeth of winter. White-outs were a threat, especially in the dark of winter, so we had to be careful not to get disoriented and lost in blowing snow.

For our dark early morning return, KEF was reporting deteriorating weather with winds gusting more than 30 knots at over 30 degrees off the runway, turbulence, blowing snow and patches of ice on the runway. The PPC and I were briefing his night approach after our eight-hour patrol, when suddenly he said, “You take the approach.” As the GCA (Ground Controlled Approach) controller talked us onto glide path, I kept telling myself, “Concentrate, stay on the gauges, smooth power changes, don’t peek outside, and scan-scan-scan.” I made tiny corrections with the rudder pedals according to the commands of the controller, who set us up crabbing into the wind down the bumpy approach.

The windshield wipers made a thumping urgent sound and close to minimums we broke out of the clag. I transitioned outside to dazzling driving snow shooting past in the landing lights and saw the approach and runway lights shining up in the night. I fought to stay aligned on centerline, compensating with wing-down/top rudder crosswind corrections, and flared to land smoothly—which was a very big mistake—because the runway was slick and suddenly we were sliding



An aerial view of NAS Keflavik. USAF photo

sideways off centerline. Suddenly, the four power levers started moving magically in my right hand as the PPC applied asymmetric thrust to correct to centerline and compensate for my mistakes. I had maybe 350 flight hours total and my knees were shaking, but the lessons from this experience still remain imprinted on me. Months later, returning from our final mission on the deployment, I landed firmly in driving rain and gusting crosswinds and was able to maintain control as we started to hydroplane on standing water.

When finally designated as a PPC, your papers said you were qualified “to take the P-3C and crew anywhere in the world in all weather” which was quite a commission and responsibility. Our Royal Air Force exchange pilot said “I was shocked to see that you had lieutenants junior grades as PPCs, but they actually do seem to do a very good job.”

INSIDE THE P-3C

The “Tube” (fuselage) was dominated by sensor stations and about 10 feet of CP-901 digital computer bays with blinking lights mounted along the port side. The TACCO managed the tactical picture via the new computer system and had a large 15” round display, a keyboard (as did the three sensor operators), a track ball roughly the size of an orange, and a lot of push-buttons. We had a smaller tactical display in the cockpit. Due to the P-3C seating arrangement, crews had to learn to communicate briefly and effectively via the intercom; some TACCOs used long lead cords to be able to walk back to see sensor displays and talk with the operators. In the mid-’60s, Sperry-Rand’s Univac Defense Systems Division started working with the Naval Air Development Center on a Navy contract to coordinate airborne patrol sensors. Univac developed the first airborne digital ASW computer and initially looked at integrated circuits developed for USAF *Titan II* missile guidance programs, but changed toward building a computer compatible with the new Navy Tactical Data System (NTDS). This effort evolved into the CP-901/ASQ-114 computer in 1968, which formed the avionics backbone of the top-of-the-line P-3Cs.

The In-Flight Technician (IFT) was a new and vital position on P-3C crews to keep the moody CP-901 computer and avionics operating. The CP-901 was notorious for dying at just the wrong time, like during the run-in for an attack or while MAD trapping to maintain contact. It took a

good crew to immediately transition to manual tracking when the CP-901 died.

Retired AVCM Jim Cole, our CAC 2 IFT, recalled that:

“I have 5-10 times the computing power in my iPhone 6, than was in the man-sized CP-901. . . . If getting a hot contact in ASW, it was very rare for a crew of a P-2 or a P-3A/B to still have contact when going OFSTA (off station). The opposite was true of the P-3C. When it got a sniff, with a competent crew, it hung on. I remember a fleet exercise we participated in VP-56, where our services were declined, so we were kept high and out of the way of the fleet’s S-2s and helos. With our sensors, we were able to watch the ‘enemy’ sub (one of our own actually), sneak in through the escorts, and sink (simulated) the task force’s carrier, while the players on the surface hadn’t a clue. The (P-3) ‘Charlie’ was such a quantum leap in ASW—I don’t think we’ll ever see another leap like that in weapon systems again. . . .

I enjoyed watching our TACCO Lieutenant Bob Miller work, as I hung from the overhead handrails, with my back against the bay doors behind the NAV I, like Rear Admiral Tobin, feel really good about the sub-hunting we did, especially in the late ’70s, early ’80s. I lean to the opinion that the later NUDs (Non Updates) were the superior platform for finding subs than some of the follow-on Updates. I think the acquisition process spun a bit out of control, got too far ahead of itself, and bought new systems, utilizing unproven technology, way too quickly. I’ve heard more than one well experienced AW tell me that if they wanted to find a sub, they’d much prefer using one of the later DIFAR sets than the SASP or its follow-ons. The newer stuff sounded great in all the promotional literature, but put it ONSTA (on station), and it couldn’t initially perform like they said it should.”

In 1984, I was a PPC flying in VP-49 when our OTPI (On Top Position Indicator) died just when we were tracking a Russian nuke in the middle of the Atlantic; our IFT tried to fix it, but we had to abort, losing contact, and requested immediate launch of the Ready crew which was over two hours away. I was so upset that I unstrapped from my seat and went back and talked with our IFT. I unbolted the OTPI and asked him he had drop-tested it on the deck mat like this? (yes) Had he put (illegal) Freon on the connections like this? (yes) Had he thrown it into the freezer like this for 10 minutes to re-scramble the electrons? (yes). So I got a cup of coffee, took the OTPI out of the freezer, dropped it on the deck again, slammed it backed into its compartment, and went back to the galley when I heard Flight yell over the PA, “the OTPI is working!” So, we worked to regain our plot stab, regained contact and told the en route Ready crew that we were back in contact!

SIG PATROLS

Sigonella, Sicily, south of Mt. Etna and west of Catania, had been a World War II base, and in 1978 you could still see the “lollipops” of tarmac (with concrete poured around them later) where Italian and German fighters had been positioned. I remember Seabees pouring concrete for new sidewalks as part of the effort to upgrade the Naval Air Facility (NAF) II airbase which was part of NATO Base Sigonella. At NAF II we got to see the Italian F-104 fighters and Breguet *Atlantic* twin-engine patrol planes training and operating. We heard rumors that the Italian Navy practiced *real single engine landings* with an engine actually shut down (we only pulled the engine back to idle) and that they had wine in their inflight meals.

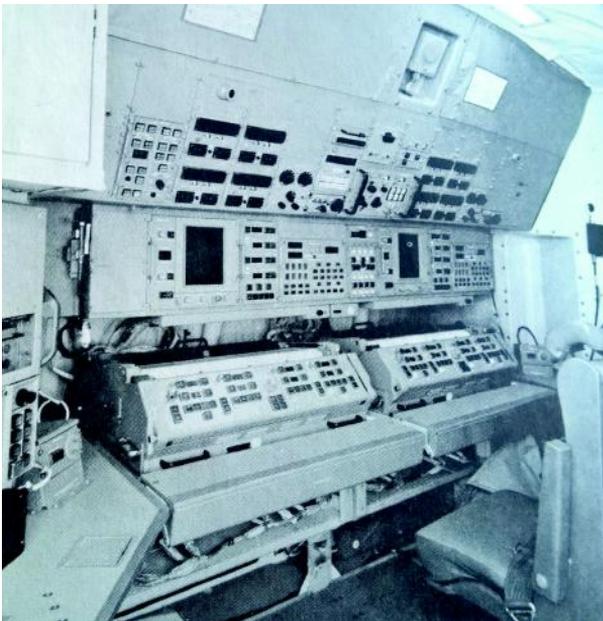
TACCO Warren Tisdale recalls:

“Sigonella, Sicily, operations were a lot different from those in Keflavik. There was considerably less long-term tracking of submarines with hot turnovers to relieving aircraft. Mostly short contact and a lot of surface search/reconnaissance. The missions were more helter-skelter, with an anchorage check either going out or coming in, or both. Rigging ships at Hammamet (Soviet anchorage off Tunisia), Kythira (Greece), and East of Crete anchorages, with the occasional puckering flight near Sollum (Egypt). Short detachments to Souda Bay, Crete. Low level and bumpy flights with a lot of surface traffic. One night we jumped a sub that was submerging right as we roared into Hammamet. We rained down buoys—but were not able to track it because we couldn’t identify the

sub’s acoustic signature amongst all the noise. It was clear afterwards the sub essentially ran over a couple of our buoys, so at least we provided the definitive signature for that particular submarine for future reference. Frustrating though. Mole, my NAVCOM, did a pretty fair imitation of my reaction, pounding on the screen (“Sorry, IFT”) and yelling.”

SIG was a “low altitude” mission; we usually drove around the Med at 1,500 or 2,500 feet on the hunt for mostly diesel submarines and many missions had a “Ham Check” to photograph the Soviet wagon wheel of ships and subs at Hammamet. A typical mission involved shutting down the No. 1 engine at the top of our climb, transiting to on-station, and shutting down No. 4 to loiter on patrol search. If descending below 2,500 feet, we had to light off No. 4 engine, and if we went below 1,000 feet we restarted No. 1.

We flew at lower altitudes to enable use of all sensors—sonar, radar, FLIR, and our observers’ eyes. Sonar ranges were very short due to the shallowness of the Med, muddy bottom, and warm water. Our innovative ops officer, Dave Bennett, worked out a set of tactics for crews to hunt the *Juliett*-class subs. The *Juliett* was a big conventional diesel boat with four nuclear-capable cruise missiles with a range of 300 miles which threatened our Carrier Battle Groups in the Med. Since they had to snorkel or surface at night to keep their batteries charged up, Dave set up a nightly plan to hunt them using over-the-shoulder radar



The two acoustic sensor operators work stations (left) and the man-sized CP-901 computer (right) that made the P-3C one of the most advanced aircraft in the Navy’s inventory at the time. USN photos



The sail of a Soviet Juliett-class cruise missile submarine, common prey for the P-3C. USN photo

and coordinating observers to scan up-moon. On an eight to nine-hour patrol, the TACCO set up a watch schedule to rotate aft observers frequently because their “recognition differential” (RD) ability to alertly scan the ocean declined rapidly after 15 or 20 minutes in the middle of the night.

The Soviets operated extensively in the eastern Med using the port of Tartus, Syria, and also worked in the Gulf of Sidra off Libya. One day we were rigging a *Grisha* picket boat outside Hammamet when it started training and slewing its gun at us. This was illegal according to the U.S.-Soviet Incidents at Sea (INCSEA) Agreement which allowed a ship to slew a gun for maintenance, but it wasn’t supposed to both slew and aim at us. The *Grisha* fired several flares at us and one went up between our No. 3 and 4 engines.

When we got back to Sig and debriefed at the ASWOC, we reported the incident and said we wanted to file an INCSEA report. The debriefing officer suggested that we not do the paperwork since “the flare didn’t hit you,” but we replied we were just lucky that it didn’t, so we did file a report.

Mt. Etna erupted a few times on our SIG deployments. Since we were often downwind of the volcanic ash cloud, maintenance had to “walnut shell” (run pulverized walnut shells) through the engines to clean the turbine blades to prevent them from corroding and weakening. Squadrons invested thousands of manhours on corrosion (caused by ocean salt) control of aircraft surfaces and engines. We went through spraying “bird baths” at the end of each flight and many sailors worked diligently to grind and

repair aircraft to control corrosion; some aircraft became very spotted and were called “leopards.”

NIGHT ATTACK (FROM 20,000’ DOWN TO 300’)

In the mid-1980s, I was a Plane Commander in VP-49 as we practiced new “over the horizon targeting” with F/A-18s from NAS Cecil Field in *War at Sea* exercises; we found ship targets and used data link to call in the F/A-18s. Our squadron also helped test how the P-3C handled with *Harpoon* anti-ship missile shapes hung under the wings.

Our TACCO Ted Klapka recalls how ASW tensions ratcheted-up in the ’80s and influenced the new orders we received:

“In the mid-1980s, tensions peaked between the U.S. and USSR. When [we] placed *Pershing* and cruise missiles in Europe, the Soviets surged many of their submarines and violated the unwritten rules of the game by placing them (like the U.S. missiles in Europe) much closer to our coasts inside of Bermuda and Hawaii. This was termed ‘Analogous Response.’

The Soviet boomers (submarines with nuclear missiles) close to the coast drastically reduced the time of flight to hit their U.S. targets, complicating the U.S.’s ability to make a counter-strike. It shifted the Mutually Assured Destruction calculus and caused the U.S. to raise its nuclear response posture to a hair trigger in order to avoid a “lose ‘em before you can use ‘em” situation.

The U.S. urgently wanted the Soviets subs to fall back to their prior patrol positions. We had been flying for weeks on these ‘close aboard’ submarines, closely monitoring them lest we lose track of these very dangerous and threatening boats. It was unusual to fly missions from JAX and Brunswick on top of Soviets since typically those missions were flown from

KEF(lavik, Iceland), Lajes and Bermuda. But with Analogous Response, we and the (aircraft carrier-based) S-3 *Vikings* were maintaining close track from CONUS (Continental U.S.) bases and Bermuda. I think the same was going on with Hawaii and Moffett ASW airborne forces.

One day, flying out of our home port JAX we were getting ready to fly this new normal when we were given a special and detailed briefing at the ASWOC. We were to load *explosive* SUS (Sound Underwater Signal), rather than the electronic noisemaker SUS. These were essentially hand grenades. Up to this point, all of our prior missions were standard VP anti-SLBM (Submarine Launched Ballistic Missile) covert track missions. We tracked them passively from high altitude so they didn't know we were there. . . this mission was going to be different.

We were told that if we received a message with the code words 'Smoothtouch Active' and a time, that we were to conduct low altitude simulated attacks with the explosive SUS at that time. We were to do the simulated attacks just like we would in wartime. The first attack would be passive, e.g., the sub would never know we were there until the SUS exploded alongside him. We were then cleared for active sonobuoys and MAD tracking, while continuing the explosive SUS attacks, but we were to cease all SUS, MAD and active tracking precisely at 30 minutes after the initially directed time of attack.

This was an ASW crew's dream mission, and it wasn't a solo act, but a group effort. If the 'Smoothtouch' message was sent to all aircraft, all aircraft in the Atlantic would joint join in a covert coordinated SUS attack at the same time. There

were probably six or so aircraft simultaneously on station just off the East Coast.

We thought this was a very interesting briefing, and went to the ordnance magazine to get the SUS, but frankly, we figured there was zero chance of getting 'Smoothtouch' tasking. So we figured it would be another long night at 20,000 feet covertly tracking our assigned boat. As we started our mission, however, things started to go differently.

We weren't relieving another flight and were supposed to pick up a slightly cold track on a Soviet boomer between JAX and Bermuda. As we started to drop our initial search pattern, my Sensor 1 Jim Hesse called 'Contact! Soviet!' and 'Hey TACCO, you better come back here' in quick succession. Yes, we were on station, hot on a Soviet sub, but it wasn't a boomer. Now what? We were supposed to remain covert and in radio silence.

I conferred with my PPC (Patrol Plane Commander) Don Stanton and we decided to place some sonobuoys way in front of the sub and dash over toward Bermuda to call their ASWOC on secure UHF which had a lower chance of detection. After a few minutes of confusion, they finally understood that we had located a Soviet sub, but it wasn't our boomer. They cogitated a bit (and I suspect they pulled some magic from behind the green door) and told us to forget about the sub we had, they would send an S-3 out for that, but to go look in a new location for 'our boomer.'

OK, on to new tasking. It was now dark and it wasn't long until our new pattern went hot with 'our boomer.' We were flying the AQA-7 V10/11/12 sonobuoy signal processor (if I recall correctly) that had the passive tracking algorithm, so once we passively



The author (kneeling, center) with TACCO Ted Klapka, VP-49 Crew 7 and their P-3C loaded with Harpoon shapes, 1985. Don Stanton collection

detected 'our boomer' we had good solid high quality passive track. Our NAVCOM Jim McCrary was religiously copying the VP broadcast on the hope we would get a 'Smoothtouch' message, but we figured was about as likely as a Santa Claus sighting.

Midnight came and went, and our IFT and *Orion* Chef Mike Terry kept the tube humming and us happy with vittles and coffee. And then it happened—'99 (to all) VP SMOOTHTOUCH ALFA TIME XXYY (about 20 minutes in the future).'

Wow! Don came aft from the flight station to look at the message. He and I were both incredulous. We had won the lottery. 'FLIGHT, CREW, TACCO: SET CONDITION ONE FOR ASW ATTACK!'

So, Flight (pilots and cockpit flight engineer) relit the no. 1 engine and we dropped from 20,000 feet to 300 feet and prepared for an attack. We did our best to remain covert while circling this boomer, who was carrying out his mission to remain hidden and ready to end life on Earth, as we placed both passive buoys and active *Cadillac* (most capable and expensive) buoys around our unsuspecting quarry.

Crew 7 was a seasoned crew, we had been together almost three years and we worked as one. Don had the airplane perfectly positioned for us to mark on top the sub on an attack heading exactly at the ordered 'Smoothtouch' time.

'FLIGHT! TACCO: BOMB BAY AND MASTER ARM! SENSOR 3 STANDBY MAD! ORDIE STANDBY SMOKE! JEZ STANDBY ACTIVE!'

As we came up from behind the sub we were at 300 feet and 190 knots, the sub was probably at 300 feet depth and about five knots. I remember his course was to the southwest.

A few seconds of quiet as we thundered forward. We had our SUS bungeed to the racks in the bomb bay. I had fiddled with the torpedo presetter just as if we had real war shot torpedoes (we didn't) and I had a torpedo drop selected online. My finger hovered over the weapons release button; I also had buoys selected.

As we passed over the submarines track, our Sensor 3 'Campy' Pendleton sang out 'MADMAN! MADMAN! MADMAN!' The sub was right where we thought it was.

NAVCOM Jim McCrary smashed the button causing the HSP teletype to rattle away just as my fingers stabbed at Weapons Release and Buoy Release sending an explosive SUS and two buoys. Clunk! The bomb rack released the SUS. Ordie cried out, 'Smoke Away!'

At about this same time, 'our boomer' was jerked from quiet routine and boredom of the midwatch (midnight to 0400) by the 17 and 68 hertz thunder of four P-3 props passing overhead. I imagined thought clouds over Ivans' heads with the Cyrillic equivalent of 'WTF?!'

I had one of the nearby buoys dialed up and heard the explosion of the grenade-sized SUS

IN HARM'S WAY

During the Cold War, thousands of Navy and Air Force aircrew were shot down, killed, captured, or injured in accidents. Well before modern reconnaissance satellites, the U.S. desperately needed real-time intelligence, so crews were sent close to and into Soviet, Eastern European, Korean, and Chinese airspace. Some aircrews actually flew beyond the Iron Curtain into Eastern Europe, over Manchuria, and deep into the Soviet Union.

On my first tour, 1976-79, five P-3s were lost from VP-11, VP-23, VP-8, VP-22 and VP-9. Over 50 men died or were injured and between 1980-83, and another 20 died on two P-3s from VP-50 and VP-1. These were highly-skilled volunteers from all over the U.S. who stepped-up to serve America.

Below are accounts of U.S. patrol and Fleet Air Reconnaissance (VQ) aircraft shot down by hostile forces during the Cold War:

- April 1950: VP-26 PB4Y shot down by Russian fighter while patrolling international waters of the Baltic Sea—10 killed.
- November 1951: VP-6 P2V shot down by Russian fighter aircraft over international waters off the Sea of Japan—10 killed.
- July 1952: VP-731 PBM-5 attacked by Chinese fighters, off West Korea—two killed.
- January 1953: VP-22 P2V badly damaged by anti-aircraft fire from Swatow Island (Red China), forced to ditch—two killed "Eleven of thirteen crewmen were rescued by a U.S. Coast Guard PBM-5 *Mariner*, under fire from Chinese shore batteries on Nan Ao Tao island. Attempting to takeoff in 8-12 foot swells, the PBM crashed. Ten survivors out of nineteen total (including five from the P2V-5) were rescued by the destroyer USS *Halsey Powell* (DD-686)." (United States Naval Aviation 1910-1995, NHHC)
- September 1954: VP-19 P2V shot down by Russian fighter. Ditched, the crew survived except for the navigator—one killed.
- June 1955: VP-9 P2V attacked by Soviet MiG-15s over the Bering Sea and managed to crash-land on St. Laurence Island, Alaska—the crew survived.
- August 1956: VQ-1 P4M shot down by Chinese fighter at night 32 miles off the coast of Wenchow, China—all 16 crewmen killed.
- April 1969: VQ-1 EC-121 was shot down by North Korean MiG-21 90 miles off the coast of Korea—31 crew members were killed, the largest Navy aircrew loss during the Cold War.

explode close aboard the sub. What seemed only nanoseconds later, SS1 Hesse was banging buttons to have the active buoys we laid on him banging away. PING! PING! PING! We had *Cadillac* buoys all around the sub and had him 'suitcased.' Explosive SUS use was rare, and likely they thought it was a real depth charge. Active buoys? Those were never used on boomers. Have these 'Amerikanskis' lost their minds?

The boomer initially responded like it was 'game on,' but then as he could hear the distant BANGs of the other aircraft he reacted like his life depended on it—at this point he probably thought it did. He yanked, he banked, he dived, he spit noisemakers and decoys. We pinged away on our active buoys, and then I heard another bang! The sound of an exploding SUS probably a hundred miles away as another crew did their 'Smoothtouch,' and another and another.

The sub had to believe World War III had started. We banked around for our next simulated attack. 'STANDBY MAD. STANDBY SMOKE.' 'SUS AND BUOYS SELECTED.' 'MADMAN! MADMAN! MADMAN!' Clunk! As the bomb rack under us released another SUS. Bang!

I remembered the phrase 'Nantucket Sleigh Ride' describing when 'iron men in wooden boats' harpooned whales and careened through the sea, their line tethering them to a wounded leviathan. This seemed the same. We treated ourselves as tethered to this writhing beast full of scared men as they tried to break away, one side playing with blank pistols scaring the crap out of the other side carrying nuclear-tipped missiles.

We got off about five or six attacks on a submarine that was desperate to break its pursuer. He probably wondered when we would actually get the next 'depth charge' on him, and he could hear other explosions coming from many directions as well as the distant pinging of our mates. He could probably hear the propellers of his mates as they thrashed to get away.

And then. . . silence. After 30 minutes, we and the other aircraft resumed passive and covert tracking. We climbed back up to altitude and quit actively poking the bear.

I went aft to look at the (sonar)grams. They were quite a sight, and still continued to be for a few moments as the subs at emergency flank bells thrashed away. Then I guess they figured out we had been playing with 'blanks' and slowed down to resume their routine.

Our relief (aircraft) arrived shortly thereafter and we smugly turned over hot contact to them.

Back to JAX and debrief. That cold beer in the Wing parking lot never tasted so good.

A day or two later, the Soviet subs quietly moved to their old patrol positions on the other side of Bermuda. It appears the Soviets got the message, 'that could have been real, and the next time it will be.'

As a young 20-something lieutenant during the Reagan years, that night seemed like the ultimate game. Upon reflection, it all now gives me great pause."

While memories of the Cold War and those who served during it have faded, we need to re-look at this time and remember its lessons. Over almost half a century from 1947-1991, the Cold War affected millions of American, NATO, and allied service personnel (and also our professional counterparts in the Soviet Union), and their families. Many countries committed their blood and treasure to maintain peace and a balance of power during these turbulent and dangerous times. We need to remember their sacrifices.

From the last page of the 1977 VP-45 KEF Cruisebook—"We were there. We were *Patrol Squadron FORTY-FIVE*. Four hundred individuals bound by a common goal; Freedom for all mankind. Those who have never faced the challenge. . .the reality. . .the loneliness will never understand. For who knows better the price of peace, than those who are willing to give their lives for it." ☸

This article is a remembrance and a tribute to those who volunteered to serve and is dedicated to the memories of Lieutenant Mike Hayes (P-3), Lieutenant Commander Bob Moseley (P-3), AMSC J.T. Clark (EA-3B), Captain Barry Applebee (USAF, B-52), CPL Bob Schampier (USMC Quang Nam Province RVN), crews and their families, and all those Americans and allies who died during Cold War operations.

My great thanks to Ellen Stanton; Lieutenant Colonel Bob Chaloux, Canadian Army (Ret.); AVCM Jim Cole, USN (Ret.); and Warren Tisdale for their thoughtful contributions in reviewing this effort.



Commander Don Stanton, USN (Ret.), was commissioned through Cornell University Navy ROTC, served off Vietnam aboard ships, and flew as a P-3C anti-submarine Patrol Plane/Mission Commander/Instructor Pilot deployed to the Atlantic and Mediterranean. After his service, he flew aircraft including the B-747, 757 and 767, served as Aviation Advisor to the Secretary of Transportation and as Deputy Assistant Secretary of Defense for Transportation. He holds Vietnam Service and Combat Action ribbons, an MA from Georgetown University, and teaches for the University of Colorado-Denver.