

To my knowledge this is the initial attempt to produce a written history of the U.S. Navy's two Fleet Air Reconnaissance Squadrons, VQ-1 and VQ-2. It is the story of a highly dedicated group of men and women who seem to be permanently relegated to second-class citizen status within Naval Aviation even though their product has been repeatedly praised by operational commanders as the "vital force multiplier". Yes, this is the story of the U.S. Navy's own "band of gypsies"; experts in the art of community survival and "midnight small stores", who produce a first-class product with "hand-me-down" aircraft and equipment.

The small size of the airborne electronic reconnaissance community, and the classified nature of its squadron operations, have discouraged past attempts to tell this story. Consequently, little published information could be found for this undertaking. The squadron history summaries were infrequently submitted and were of little value because the "classified mission" waiver usually resulted in a blank narrative section. Fortunately, the few narratives that were completed (now declassified), provided some crucial information. The majority of the information for this VQ-1/2 history, however, came from dusty cruise boxes and the memories of the community's "old timers". The gaps were filled in by the author's personal recollections of 30 years in the reconnaissance business and numerous weekends in the extensive Naval War College library at Newport. Don East, Captain, USN (Ret)

3. The Beginnings

The story of the Navy's airborne electronic reconnaissance squadrons began in the great global struggle of WWII. Just as it was a war of destructive, or "hard kill" weapons, it was also an electronic or "soft kill" war. Sir Winston Churchill recognized the latter and termed it the "Wizard War".

Even before entry into the conflict, America recognized that a combination of the military, civilian industry and scientific communities was urgently needed to conduct research and development for the electronic war. The need became a reality when President Roosevelt directed the creation of the National Defense Research Committee (NDRC) in June 1940. In turn NDRC formed the United States Radiation Laboratory at the Massachusetts Institute of Technology four months later. Since the U.S. had very little information on radar development in Japan or Germany, the radiation laboratory was tasked with development of U.S. radar, as well as countermeasures for enemy radar systems.

The Navy became directly involved in the soft kill solution only four days after the Japanese bombed Pearl Harbor, when a preliminary meeting was held to discuss formation of a U.S. organization devoted solely to the development of radio countermeasures. In short order a formal conference was held between the Navy and NDRC resulting in establishment of the Radio Research Laboratory (RRL) within the Radiation Laboratory at MIT. From these beginnings came the first intercept receiver built for airborne use, the P-540, which later evolved into the SCR-587 and finally the APR-1.

Although considerable progress had been made by the British in their "Wizard War" in Europe, by early 1942, there were no serious studies of enemy radar in the Pacific. But the fortunate capture of a Japanese radar system on Guadalcanal caused great interest and effort to be expended on electronic reconnaissance in the Pacific Theater.

Meanwhile, the Naval Research Laboratory (NRL) at Anacostia had been involved to some degree in radar and radio experiments since the 1920s. By 1942, NRL's efforts had resulted in the production of a few crude crystal-type intercept receivers suitable for airborne use. These receivers, designated XARD, had a frequency coverage of 50-1,000 MHz. In a crash program to get a Navy airborne electronic reconnaissance capability to the Pacific, six radioman petty officers were selected to attend a two-week cram course on the new XARD system in September 1942. These men had just completed the Radio Material School near Anacostia. After their training on the XARD they were formed into a detachment designated Cast Mike Project NR 1 (Cast Mike for countermeasures) and, with their new equipment, transferred to Hawaii. Two of these men, Chief Petty Officer Jack Churchill as POIC and Petty Officer Robert Russell, soon departed Hawaii for the Pacific War Zone. The Cast Mike team arrived at headquarters, Commander Air South Pacific, on Espiritu Santo in the New Hebrides Islands in early October.

The mode of operation at Espiritu Santo for the Cast Mike team was to "hitch hike" themselves and their

experimental electronic reconnaissance equipment on any aircraft large enough for the “extra baggage”, and whose mission profile was generally compatible with that of conducting reconnaissance

4. The Initial Missions

Churchill and Russell soon had their XARD Receiver installed in an Army Air Force B-17 of the 11th Bomb Group. Chief Churchill flew with the first B-17 electronic reconnaissance mission 31 October 1942 from Espiritu Santo to Guadalcanal, Bougainville and return. Unfortunately for such a historic occasion, no Japanese radar signals were intercepted. During the next month seven more B-17 electronic reconnaissance missions were flown to the Solomon's and New Britain but still no enemy radar signals were detected. Whether this lack of signal intercept was a result of the primitive XARD equipment or a paucity of Japanese radars in the region is not clear.

In December 1942 Churchill and Russell began flying their XARD receivers on PBY-5 seaplanes of Patrol Squadron 72. The Navy Catalina's operating in this theater were painted black and primarily flew at night. The Cast Mike team hitchhiked missions with VP- 72 from Guadalcanal and Espiritu Santo, performing electronic recce around the Solomon Islands. Although the Cast Mike gypsies continued their airborne electronic reconnaissance missions throughout the remainder of 1942, using B-17s and PBYs, no Japanese radar signals were intercepted by their XARD receivers.

5. Parallel U.S. Army Air Force Operations

Meanwhile, the Army Air Force was dedicating considerably more funding and personnel to its embryonic electronic reconnaissance effort. Instead of a ragtag band of nomads who hitchhiked on aircraft belonging to other units, the AAF developed a coherent program which would soon pay dividends. While RRL was designing and fabricating the first production airborne electronic reconnaissance equipment in the fall of 1942, the Army established a four-week radio countermeasures course at the Airborne Radar School in Boca Raton, Fla. Upon graduation these officers were designated Radio Observers. At this same time the AAF Chief of Staff, GEN Hap Arnold, directed the initiation of a crash program to develop a dedicated airborne electronic reconnaissance capability. This project, code named Ferret, turned out to be a modified B-24D Liberator equipped with the SCR-587 receiver and a developmental version of a radar pulse analyzer. The pulse analyzer became a vital tool to assist the airborne operators in identifying the type of enemy radar being intercepted.

After its completion in February 1943, the modified B-24 Ferret, with two Boca Raton radio countermeasures course graduates on board, deployed to Adak, Alaska. On 6 March the B-24 flew the first successful AAF electronic reconnaissance mission, gaining valuable data on Japanese radars installed on the Aleutian Island of Kiska. The success of this initial AAF program soon led to a second-generation platform. This time, a few B-17s were acquired and fitted with the latest equipment available from RRL efforts, including the APR-1 and the newer APR-3 wide band receivers, pulse analyzers and most importantly, a direction finding (DF) capability. Although this initial airborne DF capability was crude, it allowed the aircrew to obtain several lines of bearing on the intercepted radar signal so that its location could be determined.

Meanwhile, back state side, on 24 May 1943, the Navy organized Special Project Unit Cast at NAS Squantum, Mass., under a Bureau of Aeronautics directive. The unit was to provide services for flight testing the electronic equipment under development at the Radio Research Laboratory. Perhaps the Navy finally recognized the failure of the XARD in its wartime OpEval and decided to conduct realistic airborne tests on future equipment before deploying to the war zone!

Early in 1943 the Cast Mike team in the Pacific received a few ARC-1 receivers (Navy version of SCR-587); a vast improvement over the experimental XARD system. Chief Churchill and PO Russell had continued their missions with the Catalina squadrons in the South Pacific. On the night of 18 June, while flying with a VP-54 crew, they acquired their first intercept of a Japanese radar. The enemy signal was intercepted while flying near the Shortland Islands, just south of Bougainville. Unfortunately, the Navy had not provided the Cast Mike team with an airborne DF capability like that of the AAF; therefore it was impossible for Churchill to pinpoint the location of his all-important initial radar intercept.

With no prospect of acquiring airborne DF equipment in the near future, Churchill and his team did what VQ squadrons continue to do even today in their “special projects” or “bicycle shops”- improvise their own capability. Assisted by VP-54 metal smiths, they constructed a pair of yagi-type directional antennas which they installed on either side of the Catalina’s nose, pointing forward. The “Rube Goldberg” antennas were then connected through a receiver switching assembly to a cathode ray tube (CRT) display unit where the signal strength could be interpreted by the operator as being to the left or right of the aircraft. Through coordination between the PBY pilot and the Cast Mike operator, the aircraft could be steered until it was pointing directly toward the intercepted radar site. At this point, a line of bearing would be logged. After repeating this procedure at several geographically separated points, a reasonable fix of the radar site could be calculated.

On the night of 8 September 1943, the Cast Mike and VP-54 team obtained three good lines of bearing on the Japanese radar signal and established its position on Poporang Island south of Bougainville. Following this initial successful mission, a photographic reconnaissance aircraft obtained photographs of the enemy radar site, which was then attacked by fighter-bombers. After their long and arduous struggle to prove the concept of USN airborne electronic reconnaissance, Chief Churchill and his Cast Mike Project NR 1 team were disbanded in the fall of 1943. However this unique band of gypsies, operating with begged, borrowed, stolen and improvised equipment, while flying on “other folks” aircraft, had nevertheless performed a major service to their country and to the future of U.S. Navy airborne electronic reconnaissance. Many years later, in recounting his experience as an airborne electronic reconnaissance operator, CDR Jack Churchill commented that he had “started my Navy career in electronic intelligence and when I retired I was still in electronic intelligence.”

In the place of the Cast Mike team, the Navy slightly upped the ante in airborne electronic reconnaissance by organizing several teams of aircrew officers to carry out much the same program accomplished by Churchill and his men. These officer teams continued the marginally-satisfactory procedure of temporarily installing and operating radar intercept equipment in resident Navy patrol (VP) or patrol bomber (VPB) aircraft.

One of those team members was LT Lawrence Heron who, with another officer, reported to Henderson Field, Guadalcanal in November 1943. There they joined VPB-104, flying PB4Y-1 Liberators. Circumstances were not much different for LT Heron than they had been for Churchill. Heron still had to fabricate his own installation rigs to enable the APR-1 receivers and other equipment to be transferred from one aircraft to another. As unbelievable as it may seem, there was still insufficient support within the Navy for the electronic reconnaissance mission to acquire even a few dedicated aircraft solely for the task.

Late in 1943 a major event occurred when a new headquarters unit was formed in the Southwest Pacific Theater for coordination of Allied electronic reconnaissance. The new unit, designated Section 22 of General Headquarters, included personnel of all U.S. military services along with British, Australian, New Zealand and Dutch allies. Section 22 was responsible for collecting information on enemy radar and radio systems, analysis, dissemination of the resulting intelligence and requisitioning and assigning electronic countermeasures/reconnaissance personnel and equipment. The need for such an organization in the theater had been evident for some time. By mid-1943 USAAF B-24 Ferret aircraft had been assigned to the Southwest Pacific Theater, and shortly thereafter Section 22 was beginning to assemble a detailed picture of the Japanese radar network in the area. Section 22 would quickly note the more effective operations of the “dedicated” AAF Ferrets and soon force the Navy into a similar mode of operation.

Meanwhile, as the momentum of the war in the Pacific swung to the Allies and our ground forces began the island-hopping advance toward Japan in early 1944, airborne electronic reconnaissance joined the northward migration. In March 1944 VPB-116, based on recently- captured Eniwetok Atoll, began flying electronic reconnaissance missions around the strategic Japanese naval base at Truk in the Caroline Islands. The VPB-116 PB4Y-1s, with their electronic reconnaissance “hitchhikers”, were tasked to locate and collect information on Truk’s radar installations. This data proved extremely valuable during the following carrier air strikes on the atoll.

6. The Navy is Dragged into the Future

By spring of 1944 it became painfully clear that the AAF's permanently modified Ferret aircraft, entirely dedicated to the mission of electronic reconnaissance, were markedly more effective than the Navy's makeshift installations operated by the "gypsy" air crewmen. In recognition of this glaring fact Section 22 directed the formation of a dedicated Navy unit, where all its personnel, equipment and aircraft would be responsible solely for the electronic recce role.

The Navy selected an old hand to form and lead this new dedicated airborne electronic reconnaissance unit, LT Lawrence Heron. The new unit was temporarily based at the Palm Island seaplane base near Townsville, Australia, and equipped with two PB4Y-1A Black Cats to be modified for electronic reconnaissance.

The Consolidated PB4Y seaplane entered service in 1936 and became the Navy's principal patrol bomber. The amphibious PB4Y-1A was the model primarily employed for electronic, reconnaissance. It was powered by two 1,200-hp engines, cruising at 95 kts with a service ceiling of 13,000 ft and had a crew of 7 to 9.

The installation of the ARC-1 receivers in the Catalina was simple enough, but again, the direction-finding antenna system had to be locally manufactured. Because of the location of the new DF antenna, pointing downward from the rear fuselage gun hatch, the PB4Y could not take off with the system in place. Instead, it had to be manually attached after takeoff, which created some interesting and exciting situations for LT Heron's crews.

After the Navy had been more or less forced to dedicate a few aircraft and men to the function of electronic reconnaissance, on 13 May 1944, CNO directed the Chief of Naval Air Technical Training to establish a training pipeline for the new mission. The facility was to be called the Special Projects School for Air and was assigned to NAAS San Clemente Island, off San Diego, Calif., with training to commence 1 June 1944.

Meanwhile, back in the Pacific, Heron completed the modifications and moved his Black Cats to New Guinea to begin flying electronic reconnaissance missions from the seaplane bases at Port Moresby and Samari Islands. By late 1944 as operations expanded in the Pacific, Heron's Black Cats were flying electronic missions out of the Philip- pines. He and his small group performed with the utmost distinction and courage throughout the remainder of the war in the Pacific, participating in most of the major battles and campaigns.

By autumn of 1944 the navy had been convinced of the merits of electronic warfare in general, and specifically of electronic reconnaissance. Consequently it was ready to begin, employing these air- borne capabilities on a much larger scale. Thirteen of the eighteen land-based VPB squadrons in the Pacific already had some of their aircraft modified to carry the APR-1 radar receiver and the APT-1, APT-5 or APQ-2 radar jamming equipment. In addition, a few Navy Liberators were equipped with the newer APR-5 receiver to search for Japanese radars in the higher frequency spectrum (microwave). Carrier-based aircraft, such as the TBF/TBM Avenger, also received an allocation of the new electronic warfare equipment.

An important addition to the Navy electronic warfare effort was made in the spring of 1945 with arrival in the Pacific of the new PB4Y.2 Privateer in VPB-106. The Privateer was derived from the PB4Y-1 Liberator and was specifically modified for Navy long-range maritime patrol operations with a crew of up to 16. In its conversion from the AAF B-24, the twin tail was changed to a single tail and a seven-foot extension was added to the fuselage for the countermeasures compartment. A large number of radomes were also added to cover the countermeasures antennas. Because of these radomes protruding from its skin the Privateer received the nickname "Wart Hog".

The countermeasures compartment included the following: for electronic reconnaissance there were APR-1, APR-2 and APR-5 radar intercept receivers with associated pulse analyzers and DF equipment. Additionally, APR-5 and APR-7 communications intercept equipment was available. If electronic countermeasures operations were required the PB4Y-2 included the APT-1, APQ-2 and APT-5 jammers. Furthermore, the Privateer's standardized equipment mounting racks allowed the electronic warfare suite

the flexibility to be quickly tailored for each mission. With this new capability, VPB-106 immediately began flying barrier patrols in support of naval forces preparing for the assault on Iwo Jima. Operations continued throughout the closing months of WWII.

7. The Rush to Demobilize

In the post-war era of rapid demobilization, the Navy's fledgling airborne electronic reconnaissance capability suffered accordingly. By the end of 1945, RRL's manpower had decreased dramatically and the Navy pushed hard to complete development of the new APR-9 radar receiver set before the shop doors closed. The APR-9 was in fact completed, later manufactured in large numbers and would be at the heart of the Navy's airborne electronic reconnaissance for many years to follow.

On 31 December 1946 Special Projects Unit Cast was disestablished at NAS Squantum. The unit's personnel, materials and functions were transferred to the Air Support Division of NRL. Even so, the capability would survive. Like most other fields of military endeavor during the post-war period, Navy airborne electronic reconnaissance undoubtedly survived mainly through the dedication of a few "true believers".

It appeared the small group of airborne electronic reconnaissance proponents had finally won an influential following. They now felt secure that the United States would never again be found without the technical skills and equipment necessary to fulfill the airborne electronic reconnaissance mission, unfortunately such was not the case. The severe economy programs between the end of WWII and the Korean War took their toll of the established airborne electronic reconnaissance programs, severely inhibiting the research and development required if the systems, technicians and aircraft were to keep pace with jet-age technology.

Only one year after V-J Day, the massive military demobilization had taken such a toll of technicians and spare parts that a large percentage of all U.S. Navy electronic equipment was inoperative. Since too few technicians remained in the service for electronics repair, and since the radio and radar equipment was fundamentally required for the mission of the aircraft, the second-priority electronic reconnaissance equipment fell into a general stage of disrepair.

8. The New Threat Arises

By 1949 U.S. military planners fully realized they had insufficient information about the location, capabilities and overall technical characteristics of Sino-Soviet Bloc radar systems. Also, the Soviet Union was now involved in the development and testing of high technology weapons such as surface-to-air missiles. Therefore, by the beginning of 1950 the collection of electronic intelligence on these systems became a high priority. Such an ambitious collection program, however, required reasonably sophisticated electronic equipment. Unfortunately for the United States most of the equipment built to conduct electronic reconnaissance during WWII had since been sold to junk and surplus dealers.

When it was decided to equip two patrol squadrons to conduct the electronic reconnaissance mission, the Navy found it had insufficient equipment on hand. The Navy sent two chief electronic technicians to locate and buy back some of the equipment which previously had been sold as surplus. Wearing civilian clothes and carrying large quantities of cash, the two chiefs rooted through war surplus stores in New York City. They purchased all the intercept receivers, direction finders, pulse analyzers and other electronic reconnaissance equipment they could locate. This equipment was then repaired by Navy technicians and installed in Privateers and P2V Neptunes for the high-priority electronic reconnaissance or Ferret (the Air Force term used unofficially by Navy crews) missions around the periphery of the communist nations, particularly Russia.

In order to accomplish the significant airborne electronic reconnaissance requirements of the late 1940s and early 1950s, it appears the U.S. Navy took two separate but coordinated directions.

One direction was oriented toward "mission support" of the aircraft in which the electronic reconnaissance equipment was installed. This evolution was primarily reflected in the VP squadrons where the equipment was usually operated by normal squadron personnel as "just another sensor" to assist the

conduct of the squadron's missions of anti-submarine patrol, surface surveillance, bombing, mining and general area surveillance. This mission support airborne electronic recce effort was fairly significant considering the proliferation of the Privateer (redesignated P4Y in 1951) to patrol squadrons worldwide soon after WWII.

The P4Y-2 was followed shortly by introduction of the P2V series to patrol squadrons. The Lockheed Neptune entered operational service in 1947 and remained the mainstay of U.S. Navy land-based patrol aviation for nearly 20 years. The P2V-1 of the late 1940s evolved into the P2V-7 final production model of 1954. Major design changes were introduced in the P2V-5 which first flew in 1950. A pair of Westinghouse J34 turbojets were added to -5s to boost the takeoff and speed-over-target capabilities of the standard 3,500 hp reciprocating engines. This model, with a ten-man crew, was designated the P2V-5F and was frequently employed in electronic reconnaissance.

Both Privateer and Neptune aircrews performed routine electronic reconnaissance in support of their anti-submarine and surface surveillance missions worldwide. Additionally, their electronic recce operations often paid high dividends in the intercept of information which was of Navy and national interest, well beyond the mission support function. Perhaps it was the Communists' appreciation of this fact that accounted for several of their attacks on "normal" VP aircraft during the 1950s.

The second direction taken by the Navy was oriented toward dedicated electronic reconnaissance, performed by highly specialized and trained personnel who conducted their missions in a few specially-configured aircraft. These special aircraft operated within normal Navy patrol or airborne early warning (VW) squadrons. This "branch" of U.S. Navy airborne electronic reconnaissance operations subsequently gave birth to VQ-1 and VQ-2. From the end of WWII until the early 1950s these "dedicated" electronic reconnaissance assets remained as a part, or detachments, of otherwise normal Navy squadrons. These squadrons, including the electronic reconnaissance detachments, primarily flew the P4Y-1, P4Y-2 or the newer P2V series. The Navy's dedicated airborne electronic reconnaissance units, after getting their rough-hewn start in 1944 with LT Heron's two PBY-5A Black Cats, struggled along in typical "orphan" style.

Although information on these small dedicated units is incomplete, it appears that one each was set up in the Pacific and Europe. By the late 1940s-early 1950s, the European and Pacific airborne electronic reconnaissance detachments had settled in at NAS Port Lyautey, French Morocco, and NAS Sangley Point, Philippines, respectively. From the limited evidence available, it appears that while the detachments remained in place, the parent squadrons would rotate through the two sites on normal operational deployments. For example, Patrol Squadrons 73, 63 and 26 operated at Port Lyautey during this post-war period. Similarly, several VP squadrons rotated through the Philippines during this same time. Thus the Navy's dedicated airborne electronic reconnaissance capability, although still an orphan, hitchhiking on other folk's aircraft with hand-me-down equipment, was at least beginning to take root at fixed sites in the two major theaters of operations.

9. A Dangerous Occupation

Both the Navy's dedicated and mission support electronic recce aircraft soon became involved in surveillance missions of the Communist periphery and just as quickly found this to be a dangerous undertaking. In fact, to crewmembers of the Navy's Ferret aircraft, the "cold war" appeared to be a serious misnomer! During this era U.S. airborne electronic reconnaissance missions became involved in a bloody series of clashes in which they were victims of Soviet, North Korean and Communist Chinese aggression while in international airspace.

This series of incidents lasted from 1950 until 1969, costing the Navy approximately a dozen electronic reconnaissance aircraft and the loss of at least 79 lives. But the Navy was not the only victim of Communist airborne aggression during the post-war period; the U.S. Air Force also was involved in more than a dozen incidents, wherein at least 46 of its airmen were killed between 1949 and 1964. This sequence of deadly incidents clearly indicates the dangers faced by Navy airborne electronic reconnaissance crews on their daily missions, while emphasizing the importance the Communists place on thwarting enemy aerial reconnaissance in any way possible.

During this tense and turbulent inter-war period of increased Communist military preparedness and attempted forceful territorial expansion, it was imperative to maintain U.S. reconnaissance coverage. Electronic reconnaissance was one of the most effective methods of maintaining coverage and most of the operations were done by fixed-wing aircraft of the U.S. Navy and U.S. Air Force. These Ferrets operated around the periphery of the Communist states while intercepting, analyzing and recording electromagnetic signals of interest. Such peripheral airborne reconnaissance missions were entirely legal as long as they remained over international waters. At the same time, they were always exceedingly dangerous because the record has shown that Communists do not always observe international law.

In this regard it has been suggested by some that there may have been a trend in international law toward the emergence of a right, especially of Communist states, to proclaim and enforce a contiguous zone for the prevention of "passive" electronic reconnaissance by foreign ships or aircraft during peacetime. An examination of the evidence, however, does not support such a theory. Instead, the seizure or destruction of foreign electronic reconnaissance ships or aircraft by Communist nations has consistently been justified as "legal" by the assertion that such units had penetrated their territorial seas or national airspace. The evidence further indicates that Communist governments do not appear to have ever officially asserted that electronic reconnaissance from international waters is a violation of international law. In summary of this point, international law does not forbid passive electronic reconnaissance from the high seas during peacetime and does not empower the coastal state to interfere. Such reconnaissance is nevertheless likely to be resented and resisted by the coastal state.

Although the Communist states exacted a toll of U.S. electronic reconnaissance flights during this turbulent period, the U.S. has never responded in kind. Despite the fact that Communist electronic reconnaissance aircraft have made hundreds of flights along the borders of Canada, Alaska and the Continental U.S., and have occasionally strayed from international areas, the U.S. has never attempted to shoot one down.

10. Korea, a New Need for Electronic Reconnaissance

The five short years of peace following WWII were characterized by an unsteady era usually termed the "cold war". During this period tensions between the United States and the Sino-Soviet Bloc increased steadily until June 1950 and the outbreak of hostilities in Korea. Shortly after U.S. forces entered that conflict it became readily apparent their need for airborne electronic reconnaissance would be even greater than during WWII.

Korea was the first in a series of new conflicts called "limited wars", wherein political and military considerations were equally important. In this new limited war each decision was evaluated in terms of diplomatic consequences and such considerations drove the need for intelligence to new highs. With the dramatic rise in electronics and particularly in communications, sensor and navigations systems, the requirements for military electronic reconnaissance rose correspondingly. The Navy satisfied its airborne electronic reconnaissance requirements in the same pattern developed during the closing months of WWII with both mission support and dedicated approaches.

The mission support assets remained primarily in the patrol community. In addition to the routine anti-submarine patrols, weather reconnaissance, coastal and open-ocean surveillance missions, Pacific VP squadrons during the Korean War conducted other "special functions", which apparently included electronic reconnaissance.

Probably while involved in one of these special missions on 6 November 1951 a VP-6 P2V Neptune was lost to hostile fire. The Neptune was operating in international waters in the Sea of Japan off Russia's eastern coast when it reported that it was being fired on by Soviet aircraft. The Neptune and its ten-man crew then disappeared off Vladivostok, 32 miles outside soviet claimed waters.

11. The Development of a Dedicated Pacific Unit

In 1950 the Navy began the modification of an aircraft specifically for the electronic reconnaissance role. The XP4M-1 Mercator was designed in 1944 and delivered to VP-21 in 1950 as the P4M-1 by the Martin Company, Modified as the P4M-1Q (Q for countermeasure). it could carry a heavy payload of

electronic reconnaissance equipment and a large crew of intercept operators over extremely long distances. The P4M-1Q had an operating range of 2,000 miles and a ceiling of over 17,000 feet. There were two engines in each of its twin nacelles; a reciprocating engine in front and a turbojet to the rear and underneath. With this arrangement the Mercator could cruise at 150 kts to monitor target electronic signals but could bring the two jet engines on line if attacked by enemy aircraft, and accelerate up to 340 kts.

In October 1951 a dedicated Navy airborne electronic reconnaissance capability came into focus again for the Pacific Theater. The Special Products Division of the Air Operations Department was established at Naval Station Sangley Point, P.I. The division, under OinC LCDR J.T. Douglas, employed four of the latest P4M-1Qs and was assigned the primary mission of airborne electronic countermeasures for the U.S. Pacific Fleet. The in flight operators assigned to accomplish the "back end" of the aircraft functions were members of Naval Communications Unit 38C, who reported TAD to the Special Projects Division for flight operations. The Special Projects Division continued airborne electronic recce operations throughout 1952, with LCDR A.W. Sweeten assuming OinC duties in December. Some sources refer to this unit as the 'Special Electronic Search Project'.

During the Korean War one of the primary Seventh Fleet tasks was to protect Formosa from attack by the Communist Chinese. At the same time the presence of Seventh Fleet was required hundreds of miles to the north in Korean waters to conduct missions in support of the United Nations forces engaged there. Thus, employment of dedicated and mission support electronic reconnaissance to keep watch over Formosa, freed Seventh Fleet units to conduct the more pressing combat operations in Korean waters. These reconnaissance operations made it impossible for the Chinese Communists to mount a surprise attack on Formosa without a timely recall of the Seventh Fleet.

During such operations on 18 January 1953 a VP-22 P2V-5 was shot down by Red Chinese anti-aircraft fire off Swatow in the Formosa Strait. Rescue operations were hampered by fire from Communist shore batteries and high seas. A U.S. Coast Guard rescue PBM-5 crashed on takeoff in the rough seas after conducting rescue operations for the survivors. Total losses in this incident were eleven; seven from the P2V crew and four from the Coast Guard rescue aircraft.

12. Reassignment for the Dedicated Unit

The Special Projects Division at Sangley Point was reassigned 12 May 1953 to Airborne Early Warning Squadron One (VW-1) as Detachment Able. The electronic reconnaissance complement remained at four P4M-1Qs. About a year later, in June 1954, VW-1 returned to NAS Barbers Point, while the electronic recce assets remained as Detachment Able and were reassigned to VW-3. At the time the det had a complement of 22 officers and 110 enlisted men.

The mission support half of the Navy airborne electronic reconnaissance team also continued to collect intelligence to supplement the four Det Able Mercators. On 4 September 1954 a VP-19 P2V flying from Atsugi flew a routine mission in the Sea of Japan. The mission was flown over international waters off the Russian coast.

The Neptune departed its base shortly before 1400 local time, conducting a normal mission until shortly after 1812. At that time the aircraft was at 8,000 ft, speed 180 kts, on a heading of 067. The aircraft was over international waters southeast of Cape Ostrovnoi, 33 nautical miles from Soviet territory. Suddenly and without warning two Soviet MiG-15 jet aircraft approached the lumbering Neptune from the rear and opened cannon fire. The P2V pilot immediately went into a sharp right turn away from the Soviet landmass and entered a steep dive of 2,000-3,000 feet per minute in an attempt to evade the attackers. The skilled Navy pilot finally reached a protective cloud bank after suffering at least three more firing passes from the Soviets. After the attacking jets turned back toward land the Neptune, with its port wing burning, was ditched into the sea.

Nine of the ten crewmembers made their way from the doomed aircraft and into a survival raft. Tragically, ENS Roger H. Reid was trapped in the sinking P2V while attempting to put out an additional raft. The nine survivors remained afloat in the area where they had been shot down, while the government of the USSR made no attempt whatsoever to rescue them. As a result of an emergency radio message sent

from the Neptune during the attack, U.S. rescue aircraft located the survivors shortly before dawn 5 September. They were immediately rescued and returned to Japan but the body of ENS Reid was never found.

The United States submitted the case, along with a damage claim of \$1,355,650.52 against the Soviet government, to the International Court of Justice. The Soviet Union refused to submit the dispute to the court, thus closing out the case.

Another attack on a U.S. Navy electronic reconnaissance mission occurred 22 June 1955. A VP-9 P2V-5 was fired on by two Soviet MiG-15s while operating in the Bering Sea. The MiG cannon attacks set fire to the Neptune's starboard engine and forced it to crash-land on St. Lawrence Island. Seven of the ten crewmen were wounded.

13. A New Navy Squadron

Three weeks earlier, on 1 June, the Pacific's dedicated airborne electronic reconnaissance capability in VW-1 Detachment Able was reorganized into an independent command. The unit was redesignated Electronic Countermeasures Squadron One, with the alphanumeric designator VQ-1. This marked the first Navy squadron to bear the "overt" electronic countermeasures designation, and the electronic reconnaissance function was now out of the closet. LCDR E.R. Hall, who had been OinC of the detachment, then assumed command as the first commanding officer of VQ-1. At about this same time VQ-1 took receipt of two additional P4M-1Qs, bringing the total complement to six.

In September VQ-1 was directed to relocate to NAS Iwakuni, on the southern end of the Japanese island of Honshu. The move was completed by October and the squadron was soon back to business as usual.

In June 1956 CDR William H. Huff relieved Hall as VQ-1's CO. By that time the complement had grown to 28 officers and 220 enlisted men. Some early milestones set in 1956 were: 289 flight hours for the month of June, and the 1,000th P4M-1Q landing since the squadron's commissioning, flown 20 July by LCDR F.E. Struthers.

Also in July a catastrophic P4M-1Q accident was prevented by the flying skills of LT J. Edixion. While in flight one of the Mercator's reciprocating engines fell completely from the aircraft, sending the plane into a flat spin. Through a display of aeronautical skill and determination Edixion was able to recover from the spin at 3,000 ft with the aid of the auxiliary jet engines. He then limped the crippled P4M for 100 miles into Naha AFB at Okinawa. The only crewman injured during the freak incident was LT Edixion-who sprained his ankle as he stepped from the aircraft after making the successful landing.

On the darker side, the squadron suffered its first loss from hostile fire in the Taiwan Strait 22 August 1956. A P4M-1Q on a night mission and its entire crew of 16 men were lost 32 miles off the China coast after reporting an attack by hostile aircraft. Carrier and land based air, along with surface ships, subsequently conducted a search. They found aircraft wreckage, empty life rafts and the bodies of two crewmen. Those losing their lives in this shoot down were: LCDRs Milton Hutchinson and J.W. Ponsford; LTJGs F.A. Flood and J.B. Dean; PO1/c W. Haskins, H. Lonnsbury and A. Mattin; PO2/c C.E. Messinger, D. Barber, W. Caron and W. Powell; PO3/c J. Curtis, w. Humbert, D. Sprinkle, L. Strykowski and L. Young.

14. A New Capability Arrives

CDR Harvey Larson assumed command of VQ-1 late in August and shortly afterwards, on 7 November, two Douglas A3D-1Qs were added to the squadron inventory. A Navy news release of 8 November set the tone for the arrival of the all-jet Skywarriors at Iwakuni. The report stated these A3D-1Qs were the first of their type in the Far East and their arrival marked the first time a deceleration chute had been used on the Iwakuni airstrip.

The new aircraft were flown in by LCDRs John H. McIlmoil and Lee T. McHugh; navigators were LTJGs Gary W. Grau and Karle F. Naggs; crew chiefs were ADC Robert J. Tallen and ADI Morris B. Nelson, and the radio-electronics were handled by AT1 James G. Luse and AT2 Young W. Rown. The

news release described a crowd of 500 station personnel cheering the arrival of the new aircraft and provided excerpts from addresses by the VQ-1 CO and NAS Iwakuni XO CDR C.B. Starkes. CDR Larson noted that he was "mighty proud of our new addition and I might add that we are still very proud of our old P4Ms, they have been a reliable and faithful old gal." Since their delivery to the their delivery to the Navy the P4Ms had in fact performed faithfully and many of the pilots had a sentimental feeling toward the Mercator even though it would now be in the fast company of the sleek, modern Skywarrior.

On 27 November 1957 CDR N.P. Byrd Jr. relieved Larson as commanding officer. The VQ-1 aircraft complement at this time was two A3D-1Qs and five P4M-1Qs. In May 1958 a Lockheed TV-2 Shooting Star was acquired as a two-place instrument trainer. During CDR Byrd's tenure as CO, other than the general heating up of the China-Taiwan conflict, the majority of squadron flight operations were logged as routine electronic reconnaissance missions, along with the usual intensive crew training evolutions.

15. The Year of Bad Luck

CDR R.C. James assumed command of VQ-1 30 November 1958, as the squadron entered a year-long period of misfortune. The series of tragedies began with the crash of an A3D-1Q (BuNo 130352) in the inland sea near Iwakuni 28 May 1959. The Skywarrior was piloted by LCDR Decker, with aircraft commander LTJG Al Dewitt in the right seat. The big jet was on a nighttime practice Tacan approach to Iwakuni when it apparently stalled at about 5,000 ft during the inbound turn. All three aircrew were killed.

Next, on 16 June, a VQ-1 P4M-1Q was on a routine recce mission over the Sea of Japan off the North Korean coast. While the Mercator was at 7,000 ft off Wonsan, North Korea, two MiGs attacked with cannon fire. A few moments later, the tail gunner, 20-year-old PO2/c Eugene Corder, collapsed with more than 40 shrapnel wounds. Now totally unarmed, the Mercator continued to be attacked by the MiGs as LCDR Donald Mayer dove for the deck in an attempt to escape. By the time Mayer reached 50 ft altitude above the Sea of Japan, the P4M's two starboard engines and rudder had been shot away. On the way down the copilot, LCDR Vince Anania, could see the red stars painted on the fuselages of the North Korean fighters as they made six more passes at the crippled P4M.

The Mercator was barely able to limp back to Japan and make an emergency landing at Miho Air Base. LCDR Anania was a former All-American football player at the Naval Academy and his extraordinary strength was a significant factor in keeping the crippled plane airborne. Petty Officer Corder recovered from his wounds, receiving a Purple Heart. VQ-1 records show DFCs were presented to the pilot and copilot, while Air Medals went to the remainder of the crew.

The 16 June 1959 North Korean attack on the VQ-1 Mercator was the 33rd incident involving United States and Communist aircraft since the early 1950s. This bloody, one-sided air war would continue through the 1960s.

By late summer of 1959 VQ-1 had acquired a P2V-5F and a second TV-2. Then more bad luck plagued the squadron when in November the unit's first A3D-2Q was lost at sea near Wake Island during the trans-Pacific delivery. The pilot of the lost Skywarrior was CDR F.J. 'Frenchy' Surre, who had just reported aboard as operations officer. No trace was ever found of the four crewmen.

CDR W.R. Knopke assumed command of the squadron 20 October 1959 and shortly afterwards Lady Luck again frowned on VQ-1. This time, in December, a severe windstorm struck the squadron detachment at Shemya, Alaska. Heavy damage was caused to the VQ-1 hangar and strike damage was incurred by a P2V-5F. The squadron (lower right) had received two P2V-5Fs in August and September and later acquired a third in January 1960. The pilots of these aircraft were attached to VP-22 and the remainder of the crew were VQ-1 personnel. The P2V-5Fs were transferred from VQ-1 in March 1960.

16. A New Name and New Aircraft

The new year was begun on a brighter note in 1960 when the official name of the squadron was changed from Electronic Countermeasures Squadron One to Fleet Air Reconnaissance Squadron One. The Q designation remained unchanged. As new personnel began reporting aboard to man and maintain the new aircraft that were soon to arrive, they attended schools to obtain the skills that would soon be needed in

upgrading the squadron. The squadron's first two A3D-2Qs delivered (BuNos 144855 and 146450) were flown to Iwakuni 22 January 1960, piloted by LT Jack Taylor, a future two-term CO of VQ-2 and LT Chuck Weitrach. The first Grumman F9F-8T Cougar arrived 12 February, and the first WV-2Q Super Constellation 21 February.

The two-place F9F-8T Cougar was used by VQ-1 only as a trainer, since it had no electronic reconnaissance capabilities. The squadron acquired a second of the swept-wing Grummans before the Cougars were transferred in 1962.

The original design of the Constellation was begun in 1939 to meet the requirements of Trans World Airlines. Modifications for the Navy's WV-2 version were begun in 1949, originally intended as a high-altitude radar early warning aircraft. In the late 1950s eight of these old WV-2s were pulled out of retirement from NAF Litchfield Park, Ariz., and modified extensively by the Martin Company of Baltimore to perform the electronic reconnaissance mission. These eight aircraft were designated WV-2Q and fondly known as "Willie Victors" or simply "Willies". Four each of these, redesignated EC-121M in 1962, were assigned to VQ-1 and VQ-2 and remained electronic reconnaissance work-horses for many years.

The progenitor of the A3D-2Q had begun life in the post-WWII era when naval strategists began to think in terms of carrier-based heavy attack bombers. By 1947 the basic specifications were set forth for the XA3D-1, which first flew in October 1952. After some modifications this new aircraft entered naval service in March 1956 with a nuclear strike capability. In September some of the Skywarrior prototype aircraft were modified to the A3D-1Q for electronic reconnaissance. These were as close to "new aircraft" as the VQ-1/2 community would ever receive. The fourplace1Qs served from 1956 until the arrival of the A3D-2Q in 1960. However, the A3D-1Q was never flown from aircraft carriers by the VQ squadrons.

The A3D-2Q provided a substantial boost in capability with an increase in crew size from four to seven and a corresponding increase in electronic equipment. This added capability was accomplished by sealing off and pressurizing the large bomb bay and converting it into space for four sensor operators. A total of 24 of these aircraft were modified for the two VQ squadrons. The A3D-2Q was redesignated EA-3B in October 1962. The "Electric Whale", powered by two Pratt and Whitney J57 engines, has a maximum speed of 520 kts at 30,000 ft, a maximum altitude of 43,000 ft and maximum endurance of 5 hours 30 minutes. The normal takeoff weights are 78,000 lbs ashore and 73,000 lbs for carrier operations.

17. A New Home and the Building Storm

While receiving the new aircraft, VQ-1 began the move to a new homeport at NAS Atsugi, Japan. The move was completed by July 1960 and the last P4M-1Q was retired in ceremonies held at Atsugi on the 23rd. The squadron now had nine A3D-2Q, four WV-2Q and two F9F-8Ts, with 62 officers and 373 enlisted personnel.

During the last week of CDR Knopfe's command, an A3D-2Q was lost while conducting a routine training mission at Atsugi. LT H.P. Sams spun in on the runway after wave off during an aircraft commander check ride. The cause of the accident was undetermined. Other fatalities in this crash were LCDR A.R. Hodge, AMI E. Taylor and AO3 O.J. Cladry.

CDR T.E. Moore assumed command of VQ-1 25 January 1961. During his tenure VQ-1 grew to a total complement of 75 officers, 383 enlisted and 10 civilian personnel. Then in 1961 ominous developments began to unfold with a civil war in Vietnam. The crisis there would continue to build with the assassination of President Diem in 1963, the coup in January 1964 and finally the Tonkin Gulf incident in August. This action would prove the beginning of a long-term U.S. involvement in Southeast Asia during the Vietnam War -one in which VQ-1 would play a major part in the Navy's role. In fact, VQ-1 began flying missions in Southeast Asia as early as the spring of 1962.

With the building storm in Southeast Asia VQ-1 continued electronic reconnaissance missions in support of both Navy and national intelligence collection requirements through the early 1960s. Commanders J.W. Jenkins, W.J. Wacker and A.T. Holt led VQ-1 through the period December 1961-November 1964.

While the conflict in Southeast Asia heated up, VQ-1 began preparations for establishment of EA-3B detachments on board Seventh Fleet aircraft carriers. According to aviation history summaries, aircrew carrier proficiency qualifications began in late 1962 and the first detachment embarked in USS Kitty Hawk (CVA-63) in May 1964. Records available through September 1966 show VQ-1 dets operating from these other carriers off Vietnam: Bon Homme Richard (CVA-31), Constellation (CVA-64), Coral Sea (CVA-43), Enterprise (CVA(N)-65), Hancock (CVA-19) Independence (CVA-62), Midway (CVA-41), Oriskany (CVA-34), Ranger (CVA-61), Franklin D. Roosevelt (CVA-42), and Ticonderoga (CVA-14). During one of these EA-3B dets the seven members of LCDR Cunningham's crew won the Navy Unit Commendation for their part in the U.S. response to North Vietnamese aggression during the Tonkin Gulf incident of August 1964. However, for most of the Vietnam War, the EA-3Bs were primarily land-based at DaNang because of the lack of deck space on the war-loaded carriers and better facilities at the South Vietnamese base.

On 25 November 1964 CDR F. Carment Jr. assumed command of VQ-1 as the United States began to enter the Vietnamese War in earnest. During the next nine years VQ-1 would operate its land-based EC-121Ms and EP-3Bs from DaNang AB, RVN; NAS Cubi Point, P.I.; Bangkok, Thailand; Tainan, Taiwan; and several other bases, while the EA-3Bs flew primarily from Seventh Fleet carriers and DaNang. These missions were flown in support of USN and USAF air strikes, U.S. Army and Marine Corps land campaigns and national intelligence collection requirements.

Specific types of support provided by the VQ-1 aircrews were MiG and SAM warning services, electronic order of battle (EOB) updating and electronic intelligence collection in support of combat contingency planning. The VQ-1 SAM warning services were especially crucial to the survival of Navy carrier aircrews flying over North Vietnam because of the lack of deceptive ECM (DECM) systems on tactical aircraft at that time.

In recognition of these vital electronic reconnaissance missions, VQ-1 aircrews were presented innumerable awards of the Distinguished Flying Cross, Bronze Star, Air Medal, Navy Commendation Medal, various campaign medals and two Navy Unit Commendations (NUC). In the citation to the Navy Unit Commendation presented to VQ-1 for the period 1 December 1965 through 30 November 1967 the squadron was cited as "carrying out an extremely broad program of electronic warfare and special intelligence collection of national importance". The citation further stated that VQ-1 "provided invaluable direct tactical support to combat commanders prosecuting the war against communist subversion in Southeast Asia, VQ-1 has won unqualified praise from all branches of the United States Armed Services, and from national intelligence agencies, and is widely considered the unquestioned leader in the field of electronic warfare tactical support under combat conditions". Finally, the citation acknowledged that VQ-1 "has been directly instrumental in saving countless lives of U.S. air combat pilots and crewmen over North Vietnam".

Although no VQ-1 aircraft were shot down in the hostilities in Southeast Asia there were instances of damage to squadron aircraft on the ground during enemy rocket attacks at DaNang. Outside the war zone however, in April 1969, a VQ-1 EC-121M and crew of 31 were lost to hostile fire from North Korean MiG fighters. On 14 April the Super Connie, with LCDR James Howard Overstreet as mission commander, took off from Atsugi and headed northeast for a routine electronic reconnaissance mission off the North Korean coast. The flight plan called for the crew to proceed to a point off Musu Peninsula where they were to fly elliptical orbits, each about 120 miles long.

At 1350, a little less than seven hours after takeoff, a U.S. Air Force tracking station monitoring the flight detected two new blips as a pair of North Korean MiGs rapidly closed on the unarmed VQ-1 aircraft. Although a prearranged message was sent to Overstreet ordering him to abort his mission, as the lumbering EC-121M turned away it was shot down southeast of Chongjin, North Korea, with a loss of all thirty crewmen. Only two bodies were subsequently recovered, those of LTJG Joseph R. Ribar and AT1 Richard E. Sweeney. In addition to Overstreet, Ribar and Sweeney, those lost in the shoot down were: LTs John Dzema, Dennis B. Gleason, Peter P. Perrottet, John H. Singer and Robert F. Taylor; LTJGs Robert J. Sykora and Norman E. Wilkerson; CPOs Laverne A. Greiner, Marshall H. McNamara and Richard E.

Smith; PO1s Steven C. Chartier, Bernie J. Colgin, Bailard F. Connors Jr., James L. Roach and John H. Potts; PO2s Louis F. Balderman, Dennis J. Horrigan, Richard H. Kincaid, *Timothy H. McNeil*, Frederick A. Randall and Stephen J. Tesmer; PO3s Gene K. Graham, David M. Willis, Gary R. Ducharme, John A. Miller Jr. and Philip D. Sundby; AN Richard T. Prindle and SSGT Hugh M. Lynch. Immediately after the incident President Nixon ordered a halt to reconnaissance missions in the Sea of Japan. The frequency of these missions had been averaging more than 60 per month until this time. President Nixon ordered the electronic reconnaissance resumed three days later, however, but this time with the protection of Task Force 71.

18. New Capabilities Arrive

During the Vietnam War CDR Carment was followed as commanding officer of VQ-1 by CDR M.E. Klein (Nov 1965-Nov 1966), CDR R.F. Dreesen (Nov 1966-Dec 1967) and CAPT R.M. DeLorenzi (Dec 1967-Feb 1970).

In this era VQ-1 acquired additional aircraft capabilities. In November 1968 a TA-3B was acquired for training and logistics purposes. Shortly afterwards, on 17 March and 21 June 1969, two EP-3Bs converted from P-3A Maritime Patrol Orion airframes, were delivered to supplement the aging EC-121M. These two Batrack aircraft would serve as the "informal" electronic reconnaissance prototypes for ten P-3As that would subsequently be modified to the EP-3E Aries. And finally the first of the EA-3B avionics updates, named Seawing, was received in August 1969.

With the continuing increase in size of VQ-1 and the importance of the squadron's role in Southeast Asia, CAPT DeLorenzi was followed by another 0-6 as commanding officer, CAPT C.L. Chute. Shortly after CAPT Chute's assumption of command in February 1970, VQ-1 lost an EC-121M (BuNo 145927). On 16 March the Super Constellation crashed while landing at DaNang, with the loss of 23 lives. LCDR "J .D." Meyer, who would later command both VQ-1 and VQ-2, was the senior member of the investigation board for this accident. Those perishing in this crash were: LCDRs Harvey C.K. Aiuva and Harry C. Martin; LTs Robin A. Pearce and George L. Morningstar; LTJGs James M. Masters Jr., Charles E. Pressler and Jean P. Souzon; CPO William J. Risse; POs Larry O. Marchbank, Arthur D. Simmons and Donald W. Wilson; PO2s Floyd E. Andrus III, Gregory J. Asbeck, William P. Bletsch, Guy T. Denton, Joseph S. Saukaitis, John S. Schaefer, Stuart J. Scruggs and Barry M. Searby; PO3s John M. Birch, Thurlie E. Case, Ben A. Hughes and Ralph S. Purdum.

A brighter moment came when, in recognition of superior actions during the 1967-1970 period, the squadron was awarded its third NUC and a Meritorious Unit Commendation (MUC).

19. Growth, Another Change of Homeport and the EP-3E

In June 1971 VQ-1 changed homeport from Atsugi to NAS Agana, Guam. In addition the squadron was assigned the missions of weather reconnaissance and airborne photography when Airborne Early Warning Squadron One (VW-1) and Heavy Photographic Squadron 61 (VAP-61) were disestablished. For a brief time VQ-1 shouldered the mission of typhoon and general weather reconnaissance from the international dateline to the Malay Peninsula. The weather mission was discontinued at the end of the 1971 typhoon season but the squadron retained the photographic reconnaissance mission and continued worldwide photographic and cartographic mapping capabilities until the RA-3B was retired in July 1974.

CAPT Joe Akins relieved CAPT Chute as CO in July 1971 to continue the series of 0-6 skippers that would last until December 1982.

The airborne electronic reconnaissance community was about to receive an improved aircraft capability in the form of the EP-3E Aries. Design of the P3V-1 Orion began in 1957-58 to provide an ASW replacement for the widely-used P2V Neptune. The Lockheed Company won the contract and converted its commercial Electra turboprop airliner into the P3V. The name Orion was adopted in late 1960 and the P3V designation changed to P-3 in 1962. The P-3A began arriving in VP squadrons during the summer of 1962. Ten of these older P-3As were converted to EP-3E electronic recce configuration for VQ-1 and VQ-2 in the early 1970s as replacement for the EC-121Ms. The EP-3E carried a special radar, radomes in long fairings

above and below the central fuselage and an additional ventral radome forward of the wings. The EP-3E is powered by four turboprop engines, has a maximum speed of 350 kts and a service ceiling of 28,500 ft. With its 28-man crew and a 142,000 lb maximum takeoff weight, the all-weather Aries has a maximum endurance of 12 hours. VQ-1 received its initial EP-3E in September 1974 and after the delivery of the fourth Aries in the fall of 1976, the last squadron EC-121M was retired. The added capabilities of the EP-3E contributed significantly to the squadron winning another MUC award for the period 1 April 1972-27 January 1973.

The squadron experienced another aircraft loss when an EA-3B crashed at sea in 1973. Fortunately, in this case there was no loss of life. The EA-3B with five crewmen was on an over water navigational training flight from Guam to the Philippines. At some point en route a combination of navigation equipment malfunctions and human error resulted in total disorientation. Unable to locate land, the crew was forced to bailout at the fuel exhaustion point. The entire crew was picked up by a helicopter from the Japanese destroyer Haruna.

At the end of U.S. combat operations in Vietnam in 1973 VQ-1 began a move back to providing open-ocean tactical electronic support to Seventh Fleet carrier battle groups. The first regular Indian Ocean cruise made by VQ-1 EA-3B Whales occurred in early 1974 with a two-aircraft detachment on board Kitty Hawk. By this time the leadership of VQ-1 had passed from CAPT Akins to CAPT T.W. Connolly. Soon after the Kitty Hawk deployment a single EA-3B detachment embarked in Midway for a three-year cruise throughout WestPac, deploying to the I0 once during that period. This action signaled the start of a regular VQ-1 EA-3B presence on board Seventh Fleet carriers.

CAPT W.V. "pooch" Patterson assumed command Of VQ 1 16 August 1976. At that time the squadron had 16 aircraft (EP-3E, EP-3B, EA-3B, TA-3B and a P-3A for flight training and logistics), with more than 700 personnel assigned.

20. Two Individuals Make VQ History

In November 1978 CAPT D.N. Hagen assumed command, the first person to command both VQ-1 and VQ-2. Additionally, CAPT Hagen was the first Naval Flight Officer to command VQ-1; all preceding COs had been aviators.

In October 1979, CAPT "J.D." Meyer relieved CAPT Hagen. CAPT Meyer was the second and last person to date who had commanded both VQ-1 and VQ-2. Shortly after Meyer's assumption of command, the Iranian crisis of 1979 resulted in an increased U.S. presence in the Indian Ocean. Accordingly, the Navy was committed to maintaining at least one carrier battle group in the vicinity of the northern Arabian Sea. Both VQ-1 and VQ-2 shared this commitment with CV-embarked EA-3B and Diego Garcia EP-3E detachments to provide crucial electronic reconnaissance services to the area. VQ-1 was awarded a fourth MUC for these Indian Ocean contingency operations covering the period 23 January to 1 May 1980. Also, participating aircrews and ground support personnel from both VQ-1 and VQ-2 were awarded the Navy Expeditionary Medal.

CAPT Jim Brightman relieved CAPT Meyer in August 1981. A year later, on 4 August 1982, the squadron suffered its first fatal aircraft accident in more than a decade and its first EA-3B loss while operating from an aircraft carrier. The Skywarrior, piloted by LT Frank N. Kercher, disappeared over the Indian Ocean near Diego Garcia, while operating from Ranger. The subsequent rescue and debrief of a single surviving crewmember. PO2 Robert Lee Huff, indicated the EA-3B may have broken up in flight after control failure. The remaining crewmen were LTs Michael F. Brown and David A. Pies; POs William B. Snider, Brian S. Watson and Airman Terry D. Smith. They were presumed killed or lost at sea. A subsequent JAG investigation blamed the accident on a zero-gravity maneuver.

After CAPT Brightman held command from August 1981 until December 1982 the squadron reverted to an 0-5 skipper for the first time since 1967. CDR Ivan E. Hughes resumed this 0-5 series which holds true at this writing.

During CDR Hughes' tour, Arabian Sea contingency operations. the KAL 007 airliner shoot down and

the large-scale FleetEx 83 exercise occupied center stage for the squadron. VQ-1 received another MUC for 1983 for superior airborne reconnaissance operations, and the CNO Safety Award for 1983 during Hughes' tour.

21. The Death of a Commanding Officer

CDR John T. Mitchell assumed command of VQ-1 in March 1984. Ten months later, on 23 January 1985, he and eight other VQ-1 personnel were killed when the squadron VIP aircraft was lost at sea en route to Guam from Atsugi. CDR Mitchell was piloting the VA-3B when it disappeared from a radar tracking screen approximately 125 nautical miles north of Guam.

The subsequent JAG investigation, completed in September, reported the Skywarrior took off from Atsugi at about 1000 Guam time. Twenty minutes later the crew contacted the VQ-1 detachment at Atsugi and reported an air turbine motor (ATM) was malfunctioning. The VA-3B continued on its course and stayed in radio contact with Navy officials, first on Iwo lima, and then on Guam. At 1230 Guam time the navigator reported the starboard ATM was shut down and the port one was heating up. Seventeen minutes later the aircrew requested permission to descend from 33,000 to 20,000 ft. Four minutes later, at 1251, radar contact was lost with the stricken aircraft.

A massive air and sea search and rescue effort failed to locate any trace of the VA-3B or its crew and passengers. Presumed dead were CDR Mitchell; LCDR Robert E. Delateur; LTs Marshall M. Laird and Carlos A. Miller, LTJG Richard A. Thomson; Senior Chief John T. Clark; Chief David K. Nichols; POs Thomas J. Jorgensen and Thomas J. Degryse. Thus, CDR Mitchell became the first incumbent VQ-1 commanding officer to be killed in the line of duty.

An endorsement to the accident investigation by VADM James E. Service, Commander Naval Air Pacific, summed up by saying: "Although the exact cause of the mishap cannot be determined from available information, dual ATM failure with resultant flight control problems is the conclusion best supported by the circumstantial evidence." The ATMs provide power for the hydraulic pumps, which in turn power the flight control surfaces.

CDR R.E. "Bob" Claytor, the executive officer at the time of CDR Mitchell's tragic death, became the new CO and led the squadron through the next 16 months until relieved in May 1986 by CDR Earl Smith. At this writing, CDR Smith is scheduled to relinquish command to CDR Marcus Williams in August 1987.

Thus began the U.S. Navy's airborne electronic reconnaissance efforts in the Pacific, which resulted in the establishment of VQ1, the Navy's first dedicated squadron for the mission. Part two will examine the European Theater missions and VQ-2.