



left: VAQ-33's last "Whale" formation at the break over Key West, Fla., September 27.



right: VAdm. Dunleavy pays tribute to the sailors who flew and fixed the A-3.

by LCdr. Rick Burgess

It has finally happened: the Navy's "Whale" is gone.

No need to alert Greenpeace. In fact, this is one whale whose demise it would have cheered years ago.

This "Whale," the Douglas A-3 *Skywarrior*, was finally retired from the Navy on September 30 after 35 years of service. The A-3 was farewelled in a September 27 ceremony at NAS Key West, Fla., where Tactical Electronic Warfare Squadron (VAQ)33, one of the last three Navy units to operate the A-3, hosted the wake. A crew and aircraft (a *Desert Storm* veteran) from Fleet Air Reconnaissance Squadron (VQ) 2 flew in from NS Rota, Spain, to join in the farewell. The third A-3 operator, Naval Weapons Center China Lake, Calif., readied its sole NA-3B for retirement that week.

The A-3 retirement banquet attracted dozens of Whale veterans, including some who introduced the A-3 to the fleet. The guest speaker was retired Captain Paul Stevens, the man whose leadership took the *Skywarrior* through its test phase to the fleet as commanding officer of the first A-3 squadron, Heavy Attack Squadron (VAH) 1. Retired Captain Sid Banney, another VAH-1 C.O. who made the A-3 work, was also there, as were Vice Admiral Julian Lake, president of the Old Crows Association; Captain Jack Taylor, twice C.O. of VQ-2; and Captain James Vambell, with over 6,500 flight hours in A-3s. Vice Admiral Dick Dunleavy, Assistant Chief of Naval operations (Air Warfare), who started out his long career in Whales, presided over the events, conducted by VAO-33 C.O. Commander B. A. Notkke.

Capt. Stevens paid tribute to the A-3's designer, Ed Heinemann, also present for the occasion despite the infirmities of advanced age: "The wizard of El Segundo really designed a fine airplane!" Heinemann, an engineer at Douglas Aircraft's El Segundo division and already a designer of a host of successful warplanes, including the SBD *Dauntless* and AD *Skyraider*, is credited with defying convention with the *Skywarrior* design.

The Navy, embroiled in the post-WW II controversy over division of roles and missions between the armed services in the new nuclear age, called for a jet aircraft that would be able to deliver any but the largest nuclear weapons at a range in excess of 1,000 miles. This aircraft was intended to operate from the proposed *United States* supercarrier, designed to handle airplanes weighing 100,000 pounds. Faced with cancellation of the *United States* in favor of Air Force procurement of the Convair B-36 intercontinental bomber, the Navy's only alternative was to field a jet bomber that could operate from the *Midway-class* carriers, which had a deck weight limit of 68,000 pounds. Heinemann drafted plans for a plane of such limited weight and took them to a Navy captain in Washington, who said, "You know damn good and well you can't build an airplane with that weight. I thought you were an honest engineer."

That captain, John Murphy, took a look at the design anyway, and the rest is history. (See "A Whale of an Airplane," *Naval Aviation News*, Nov-Dec 1987, for Heinemann's own account of the amazing creation of the *Skywarrior*.)

The prototype, designated XA3D-1, first flew on October 28, 1952, at Edwards AFB, Calif., with test pilot George Jensen at the controls. The swept-wing, twin-engined bomber, the first aircraft to be designed as a carrier-based nuclear strike aircraft, was soon to be the largest aircraft to ever regularly take off from and land on aircraft carriers. The A3D (as it was designated under the pre-1962 Navy system) quickly succeeded the North American AJ *Savage*, which was originally designed to operate as a conventional bomber from *Midway-class* carriers and reconfigured for the nuclear strike role.

The A3D-1 entered service on March 31, 1956, when then-Commander Paul Stevens brought five A3D-1s of VAH-1 from NAS Patuxent River, Md., to NAS Jacksonville, Fla. A month later, VAH-2 introduced the *Skywarrior* to the Pacific Fleet. VAH-1 took the A3D on its first major deployment in January 1957, aboard Forrestal to the Mediterranean. The A3D-1 and more definitive A3D-2 (A-3B) went on to equip 13 VAH squadrons (including two replacement training squadrons), giving the Navy a credible nuclear strike force and making the aircraft carrier something for the Soviet Union to reckon with in the maneuvers of the cold war.

The *Skywarrior* took well to the carrier, but all was not roses in its fleet introduction. The lack of carrier experience of many of its initial crews made for difficulties "around the boat," and the reputation of the heavy attack community was seriously jeopardized. Through the efforts of RAdm. J. D. "Jig Dog" Ramage, more jet-experienced pilots filled out the squadrons and carrier operations went more smoothly.

As fine as the *Skywarrior* was, there was always some tension in its relationship with the aircraft carriers it sailed on. Its fuselage shape and sheer size earned it the appellation "Whale," and it became a hated nuisance to air bosses, who cursed it as they tried to move planes about crowded flight decks.

In the early days of its career, when entire squadrons of Whales would deploy aboard large carriers, only the diminutive size of the other aircraft aboard - such as the A-4 *Skyhawk* (another Heinemann design) - made deck handling tolerable.

The Whales also operated in detachments off of the smaller Essex-class (27-Charlie) carriers in the Pacific Fleet; to their pilots, Capt. Stevens saluted, "You guys that flew off the 27-Charlies have to be the greatest pilots in the world."

While very popular with its crews for its flying qualities, the lack of ejection seats earned the Skywarrior another appellation, with A3D grimly denoting "All 3 Dead."

Skywarriors figured prominently by their presence during the cold war crises of the late 1950s and early 1960s, including the Cuban Missile Crisis. The A3D's role in nuclear deterrence began to fade in 1960, however, with the first patrol of the Polaris fleet ballistic missile submarines and the introduction of the supersonic North American A3J (later A-5A) *Vigilante*. (The nuclear mission of the *Vigilante* was short-lived and the aircraft served out its days as the RA-5C reconnaissance aircraft, retiring in 1979, and being out-lived by its A-3 predecessor by 12 years!) A total of 283 Skywarriors of all versions were built by Douglas when production ceased in 1961.

Coincident with the demise of the nuclear mission was the Vietnam War, which was to endear the Whale to countless carrier aviators as an angel of mercy. Long before the war, removable hose reel aerial refueling packages were fitted to A-3Bs. With the grind of daily air operations over Vietnam, the A-3 became extremely valuable as a tanker. Eventually, 85 A-3Bs had bombing equipment removed and permanent tanker packages installed, being redesignated as KA-3Bs. Five more A-3Bs were modified as EKA-3Bs, with electronic countermeasures (replacing the EA-1F *Skyraider*) and aerial refueling missions, with 34 KA-3Bs eventually becoming EKA-3Bs as well. Tanker Whales with VAH and VAQ squadrons were credited with saving over 700 aircraft from loss during the course of the war.

The A-3B did enjoy a brief and littleknown bombing career over Vietnam during 1965 and 1966, with VAHs 2, 4, and 8 dropping "iron bombs" on lightly defended targets. Mining missions were flown as late as March 1967, when one VAH-2 A-3B was shot down over North Vietnam. Another VAH-2 A-3B fell victim to a MiG off China's Hainan Island in April 1966.

Other Whales skulked over Vietnam as well. RA-3Bs of Heavy Photographic Squadrons (VAPs) 61 and 62, many camouflaged with black or multi-shaded paint schemes, conducted infrared reconnaissance of North Vietnamese road networks at night. It was dangerous work: VAP-61 lost four RA-3Bs to ground fire. VQs 1 and 2 operated EA-3B electronic reconnaissance variants throughout the war, providing vital intelligence to the fleet and to high-level commanders.

The wind-down of the Vietnam War saw the KA-3B and EKA-3B replaced by the KA-6D *Intruder* and the EA-6B *Prowler*, respectively, with KA-3B tankers joining the Naval Air Reserve. The EA-3Bs of VQs 1 and 2 soldiered on as the only carrier-based Whales, showing up at every "hot spot," providing a vital perspective on developing events. The EA-313 was withdrawn from carrier use and from VQ-1 in December 1987, with VQ-1 turning over its Whales to VQ-2, which operated them to the very end, taking the Whale to its last war in January 1991 in support of Operation Desert Storm.

Beginning in 1970, the RA-3Bs were retired from their photoreconnaissance role and many were modified into ERA-3B electronic aggressor aircraft for service with VAQ-33 and later VAQ-34. These aircraft ranged throughout the world, providing realistic simulation of potential enemy threats to shipboard radar operators. These units also operated between them a handful of TA-3Bs, KA-3Bs, and at least one each of the EA-3B, EKA-3B, and UA-3B versions. VAQ-34 retired its ERA-3Bs in February 1991, leaving VAQ-33 the last squadron to operate the Whale in the United States.

Among the various modifications of the A-3 were the TA-3B bombing and navigation trainer, some of which were modified as executive transports, joining a single VA-3B in that role. A VAQ-33 TA-3B made the Whale's last carrier landing on August 25, 1989.

Because of its large size, the A-3 lent itself to versatility as a research and development platform, particularly in testing fire control radars.

Throughout its entire career, many variants of the A-3 served at various test establishments, particularly the Pacific Missile Test Center at Point Mugu, Calif. These A-3s sported a wide variety of antennae and radomes in the course of their active lives.

At the retirement ceremony, VAdm. Dunleavy paid tribute to Ed Heinemann, the pioneers who made the Whale a success, and, above all, the sailors that flew and maintained the A-3 over its long career. As for the Skywarrior: "An aircraft of this capability will never go away."

That seems to be the case. Many of the recently retired Whales have joined a few others at civilian defense contractors. Though piped ashore from the Navy, they will be serving the nation in military research projects.