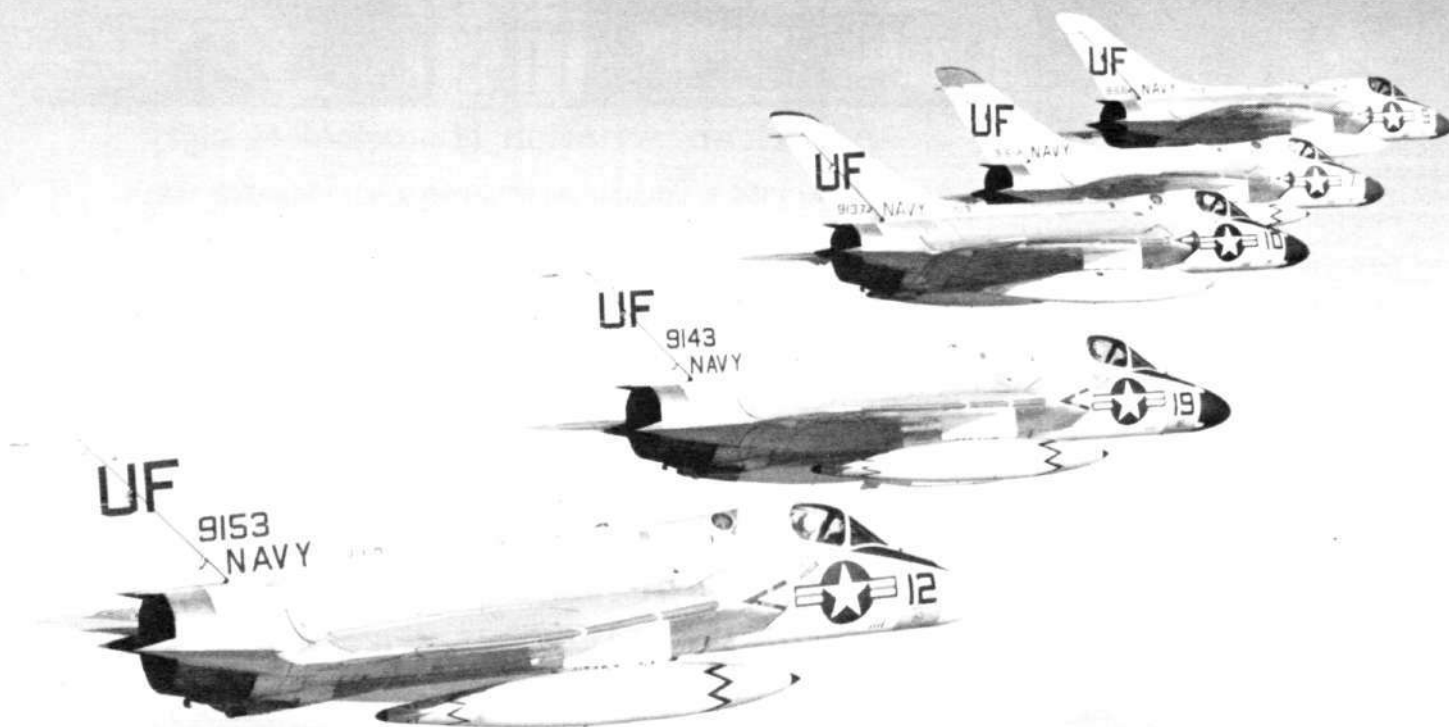




These Skyraiders of VU-3 illustrate the extreme diversity squadron markings could have: although operating with the same squadron at the same location and at the same time, no two aircraft are alike when considering the areas of da-glo, drop tank markings, fin cap and radome color, and location of serial number and squadron insignia.
(Navy 1095737)

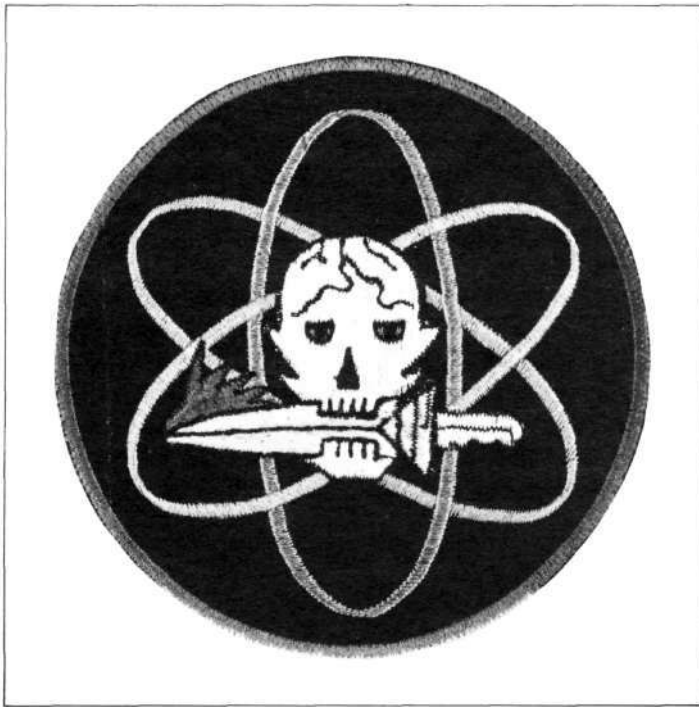
THE DOUGLAS SKYRAY IN FLEET COLORS PART II

by Nicholas M. Williams

As was pointed out in the first installment to this series (AAHS Journal, Summer 1978), the more than 35 Navy and Marine Corps squadrons that operated the F4D-1 Skyraider seldom retained consistent marking schemes during their two-to-eight-year use of this airplane. Within each unit, an evolution in markings often progressed along a basic theme, from elaborate designs to more simplified ones. Just as often, many squadrons adopted new and entirely different schemes. This article is an attempt to provide background information for these markings variations.

Mention should be made of several operational peculiarities of the SKYRAIDER which affected its markings. The design's large J-57 engine coupled with a small internal fuel capacity made drop tanks a practical necessity. The SKYRAIDER rarely flew without them. Installation delays with the SKYRAIDER'S APQ-50 radar resulted in the airplane's early use within a carrier air group as a day fighter only. Hence, it initially appeared in the fleet in yellow markings with 200-series nose numbers, rather than with the red markings and 100-series numbers often associated with many all-weather fighter aircraft. Finally, the F4D-1's detachable fiberglass vertical stabilizer cap, which housed the UHF antenna, was a convenient location to add squadron markings. However, when it was left unpainted, its basic gray, black or white coloring can be confused today in black and white photographs for the intended tail markings.

The following is not intended to be a definitive "markings article," for complete official information on unit colors, histories, insignia and even squadron nicknames has often been nonexistent or contradictory. Likewise, the surviving photographic record is surprisingly small, considering that less than 25 years have elapsed since the events covered in this article took place. In any event, it is hoped that the historian and modeler alike will find interest in this account of a somewhat neglected era in the colorful history of naval aviation.



VF-23

NAS Moffett Field's VF-23 began its association with the F4D-1 SKYRAY in December 1956, having returned three months earlier from an Air Task Group Four Western Pacific cruise aboard the USS YORKTOWN (CVA-10). The squadron began replacing its F2H-3s with the F4D-1 on December 11, and soon painted the SKYRAYS' tails yellow (except for the fin cap) with ATG-4's "ND" tail code in black bordered by two horizontal black bands. In a unique departure from other Navy SKYRAY outfits, each airplane's entire serial number was painted in large black numerals below the lower black band. The squadron insignia, a white skull with a flaming dagger in its mouth, superimposed over blue electron rings, had been adopted in June 1955,¹ but was not carried on the SKYRAYS.

VF-23 spent the next year in a hectic training schedule before a planned February WestPac cruise. Thirteen squadron F4D-1s

were brought aboard the USS HORNET (CVA-12) on September 20, 1957, for carrier qualifications with ATG-4.² VF-23 returned to Moffett Field on October 11, and on the 29th was detached from ATG-4 and transferred to Carrier Air Group 15. The squadron was at NAS Miramar from November 3-7 for practice firing of the SIDEWINDER missile, aboard the USS HANCOCK (CVA-19) on December 3-13 for further carrier qualifications,³ again aboard the HANCOCK from January 7-24, 1958, for night carquals, and finally spent Jan. 26-31 at NAAS Fallon, Nevada, for gunnery practice.⁴

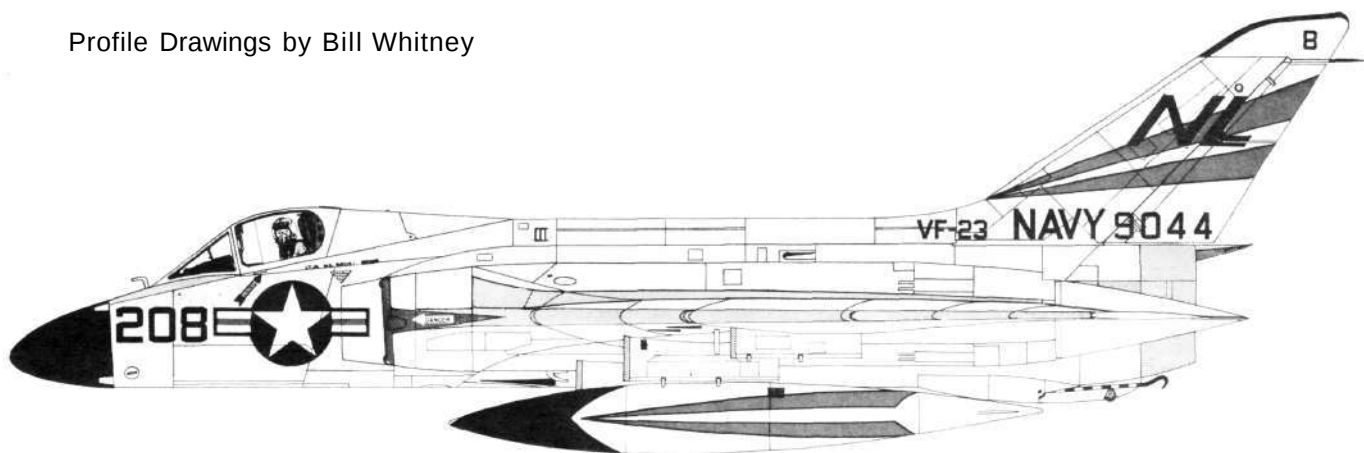
On February 15, 1958, VF-23 began its first—and last—deployment with the F4D-1 when it sailed westward aboard the HANCOCK. Their SKYRAYS now were colorfully painted with two yellow "rays" bordered in black on the tail, CVG-15's "NL" tail code in slanted black letters, and two similar black-bordered yellow rays on each drop tank, which also sported black noses. The area separating each pair of yellow rays was painted gloss white. The last four digits of each airplane's serial number was painted in large numbers at the base of the tail and rudder, and 200-series nose numbers were carried.

While aboard the HANCOCK, VF-23 participated in a weapons demonstration for Asian military leaders from May 20-23, 1958, and "Knockout," a one-week exercise from June 9-17 in which fleet units simulated conventional and nuclear warfare in the



VF-23 Skyrays carried ATG-4's "ND" tail code and the airplane's serial number within the yellow tail band. Note that the national Insignia overlaps onto the intake baffle plate.
(William T. Larkins)

Profile Drawings by Bill Whitney



VF-23 used these markings for its only WestPac in 1958: yellow rays on tail and drop tanks with black nose markings on tanks.

Western Pacific. On July 2, VF-23 SKYRAYS provided convoy and task force Combat Air Patrol (CAP) to defend against strikes launched from the USS SHANGRI-LA (CVA-38) during exercise "Rex 58 Oscar." Finally, the F4Ds of VF-23 acted as Combat Air Patrol and sweep aircraft on July 12 and August 9 in "Blue Sky," a joint U.S.-Nationalist Chinese exercise. After returning to NAS Moffett Field on October 3, 1958, VF-23 received a commendation for outstanding performance during the cruise by the Commander of Carrier Division One, Rear Admiral Paul H. Ramsey.⁵

Upon its return, VF-23 almost immediately began transition training to the F3H-2. By January 1959 the squadron had ceased operations with the SKYRAY. VF-23 was redesignated as VF-151 in mid-February, and began preparing for another WestPac with its new DEMONS.⁶



VF-74

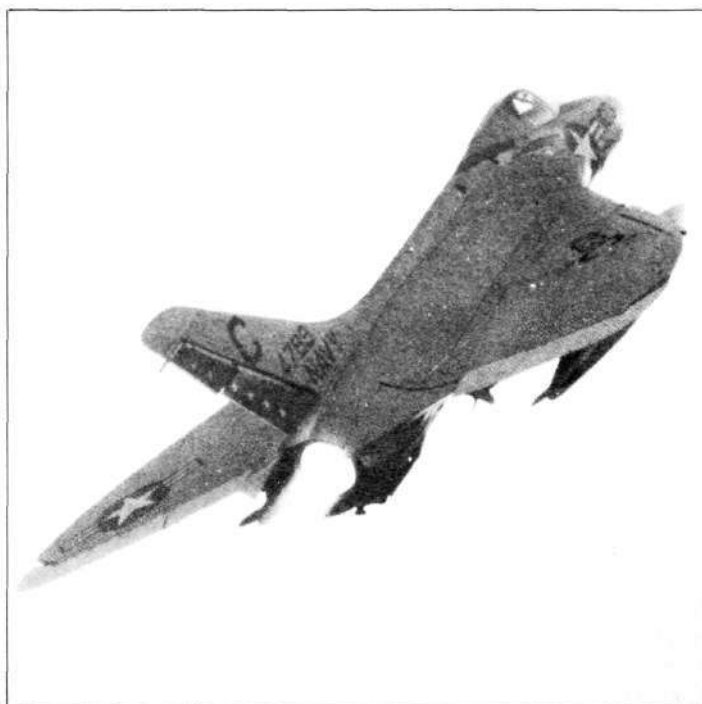
The "Be-Devilers" of Fighter Squadron 74 was one of the most active of Navy SKYRAY squadrons, operating the airplane for five years on three Mediterranean cruises. The squadron also was instrumental in the development of inflight refueling procedures with the F4D-1.

VF-74 became one of the first fleet units to receive the F4D-1, as a small number of officers from the squadron had participated in the Fleet Introduction Program early in 1956. These men served as a nucleus for further training of VF-74 pilots. The first SKYRAY arrived at the squadron facilities at NAS Oceana, Virginia, on April 17, 1956.⁷ For several months, VF-74 SKYRAYS carried only the "C" tail code of Carrier Air Group Six. By the fall of 1956, these aircraft were given red rudder surfaces with six white stars (signifying CVG-6), a black-bordered red lightning bolt streaking downward across the forward fuselage, and 100-series nose numbers.

In April 1957, VF-74 went aboard the newly commissioned USS SARATOGA (CVA-60), for carrier qualifications. Lt. Bill

Davis, a pilot with the squadron now flying Boeing 737s, remembers, "President Eisenhower came down to Mayport, Florida, to view the Fleet [on June 6].⁸ The SARATOGA was tied up alongside the pier with the bow out, and with two VF-74 SKYRAYS stationed on the deck. The COLUMBINE landed at Mayport and taxied right up to the pier. As Eisenhower left his airplane, the Navy band played 'Hail to the Chief,' and the two SKYRAYS were launched from the SARATOGA. It was quite impressive!"⁹

On July 9, 1957, VF-74 deployed aboard the USS ROOSEVELT (CVA-42) for a Mediterranean cruise with the Sixth Fleet. As part of Carrier Air Group 17, these 12 VF-74 SKYRAYS carried CVG-17's "AL" tail code, a black-bordered yellow tail band, a black-bordered yellow lightning bolt on the forward fuselage, and 200-series nose numbers. As this was the SKYRAYS first deployment with the Sixth Fleet, and its all-weather capabilities

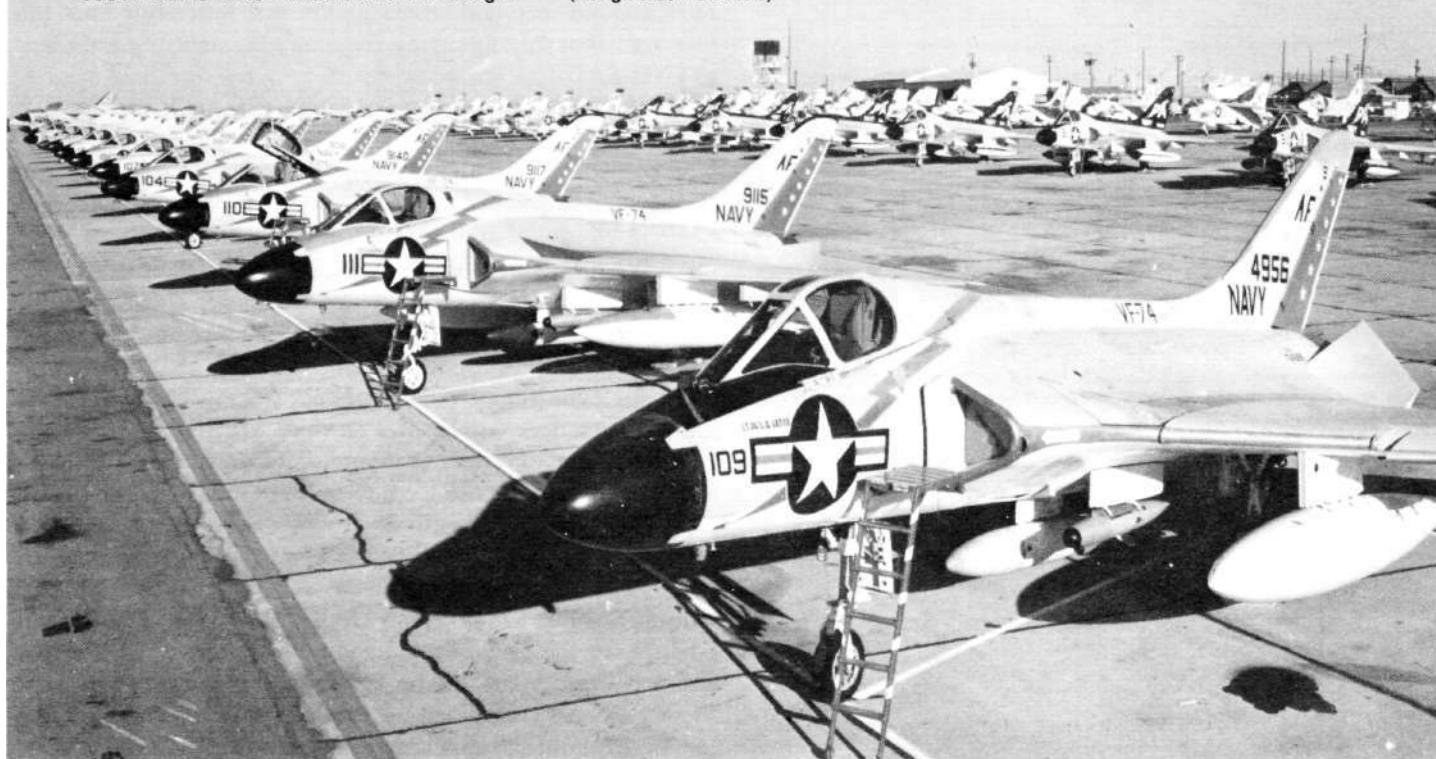


Markings carried by VF-74 Skyrays late in 1956 included CVG-6's "C" tail code, a red rudder with six white stars, and red lightning bolt on forward fuselage. (Navy via Bill Davis)

were untested, this change in color and nose numbers signified VF-74's status as the Air Group's "day fighter" squadron. The squadron's insignia of a purple devil's head squinting through a target sighting grid was carried on the rear portion of the canopy.

The SKYRAYS of VF-74 participated in many exercises while deploying aboard the Roosevelt to the Atlantic and Mediterranean. As part of NATO exercise "Strikeback," the squadron took part in exercise "Counter Punch" on September 19-21 and "Deepwater" on September 25-28.¹⁰ Further NATO operations included participation in exercises "Flip-Flop" from September 29 to October 30, and "Red Epoch" from October 31 to November 2.¹¹ Final CVG-17 exercises "Ascendex" on January 22 and 27 and "Strikex" on February 10 required the squadron to form the Air Group's HI-CAP, or High Altitude Combat Air Patrol. Bill Davis recalls, "During these CAP exercises, we would fly on a radial out to 100 miles from the ship in 10 or 20-mile racetrack patterns, in flights of two at 35,000 feet. One was outbound all the time so that we could effectively extend the

These VF-74 Skyrajs at the annual Naval Air Weapons meet display red fuselage lightning bolts with yellow borders and CVG-6's "AF" tail code, as well as "USS INTREPID" in red letters on the aft fuselage. (Douglas EST-C-1632B)



ship's radar coverage. Once during exercises over Crete, I was sent out to investigate a bogey. He was a high flyer, a British VULCAN bomber. I was on trail with a couple of FJs. We had a chain behind him, so I stroked it into burner, which got me past the FJs. I got under the bogey enough to do a pitch-up to his altitude. The air is pretty thin up there and the sudden rotation was enough to disrupt the airflow, and I got compressor stalls. I eased out to let the air go straight in and she motored on up to the VULCAN, which was cruising at about 54,000 feet!"¹²

The ROOSEVELT and CVG-17 returned to port on February 28, 1958, and VF-74 settled in at NAS Oceana. The squadron was reattached to Carrier Air Group Six on March 3, when it participated in "Intex," a simulated ballistic missile attack on NAS Norfolk.¹³

On February 13, 1959, VF-74 embarked aboard the USS INTREPID (CVA-11) for its second Med cruise. As part of CVG-6, the SKYRAJS carried the air group's "AF" tail code in small letters, a red rudder with six white stars, a yellow-bordered red lightning bolt on the forward fuselage, 100-series nose numbers, and, somewhat unusually, "USS INTREPID" on the rear fuselage in red block letters. During this time period, some VF-74 SKYRAJS carried red lightning bolts pointing rearward on each drop tank, with six white stars within each bolt.

From February 25 to March 1, VF-74 participated in "Big Deal," a combined Second Fleet-Sixth Fleet exercise conducted in the western Mediterranean Sea. Other exercises in which VF-74 SKYRAJS participated were "Top Weight" (April 13-16), when VF-74 flew CAP missions against opposing NATO bombers; "Greenswing" (April 20-22), where VF-74 flew CAP during a combined Sixth Fleet-Italian Armed Forces exercise; an unnamed exercise on May 7-8 when VF-74 flew CAP missions over the landing area for a U.S. Marine amphibious landing on

Crete; and "White Bait" (June 21-26), a combined American, British and Libyan amphibious exercise on the coast of Libya, where VF-74 flew CAP against opposing NATO bombers over the force and landing area.¹⁴

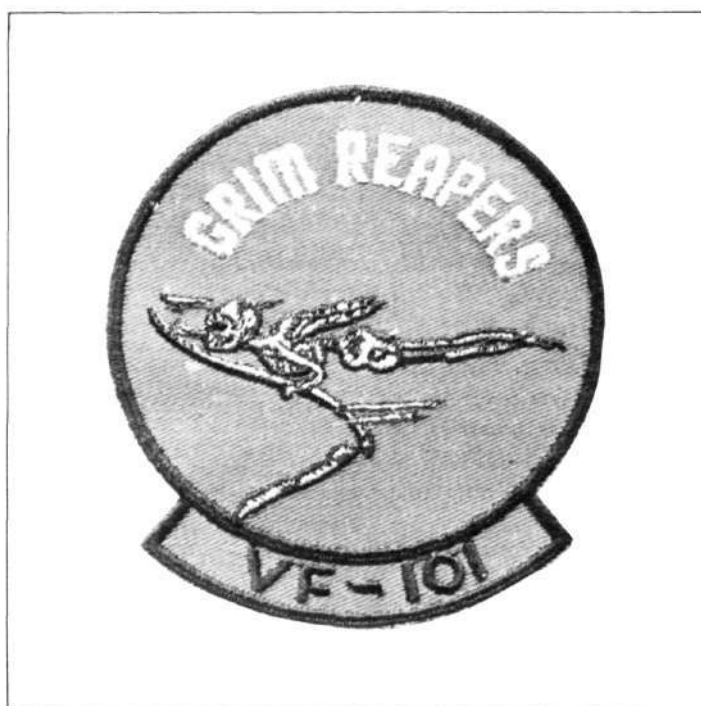
VF-74 returned to NAS Oceana on August 30, 1959, and began intensive training in all-weather air-to-air intercepts.¹⁵ During January and February 1960, a detachment of VF-74 SKYRAJS went aboard the USS FORRESTAL (CVA-59) for air defense exercises. After a short carrier qualification cruise in May, and participation in "Lantflex 60" in July, the Be-Devilers boarded the INTREPID on August 4 and departed Norfolk once again for a Sixth Fleet Med cruise with Carrier Air Group Six. Sporting the same colors as their previous deployment, VF-74 SKYRAJS participated in the NATO exercise "Flashback-Strikeback" from September 19-26, 1960, providing all-weather interception of simulated attacks, and night and day Combat Air Patrol.¹⁶

This last Med cruise provided a Navy "first" for VF-74 SKYRAJS, as the first operational inflight SKYRAY refueling was made on August 13. The squadron maintenance officer had earlier proposed to ComNavAirLant a simple, inexpensive air refueling system for the F4D-1. The proposal was approved, and an A4D probe was attached to an F4D drop tank by O&R Jacksonville. Although only two test flights could be made with the new tank before deployment, by October all squadron pilots had qualified in aerial refueling, and the system was subsequently approved for use in the fleet.¹⁷

In January 1961, VF-74 provided all-weather fighter support for the Sixth Fleet in exercise "Right Hook." The Be-Devilers of VF-74 returned from their last Med cruise with the F4D-1 on February 17, 1961, and, on July 8, the squadron received its first F4H-1 PHANTOM II.¹⁸



VF-74 Skyrays were given a black-bordered yellow tail band and lightning bolt for their Med cruise aboard the *USS Roosevelt* in 1957-1958. Note squadron insignia on aft portion of canopy. (Bill Davis)



VF-101

The *Grim Reapers* of VF-101 operated the SKYRAY in a variety of functions from 1956 to 1962. Commissioned at NAS Cecil Field, Florida, on May 1, 1952, VF-101 adopted the nickname and insignia of the famous WWII-era VF-10, while flying the F2H-3 BANSHEE.

The unit's F4D-1 SKYRAYS began arriving at Cecil Field in August 1956. Familiarization check-out flights began immediately, followed by an "intensive program in all-weather tactics such as broadcast control."¹⁹ The eventual arrival of radar-equipped SKYRAYS enabled the squadron to develop radar intercept procedures and practice early in 1957. In May 1957, while aboard the *USS ROOSEVELT* (CVA-42), VF-101 became the first Atlantic Fleet SKYRAY equipped squadron to completely day qualify, while night qualifications were completed aboard the *USS SARATOGA* (CVA-60) in July.

These early VF-101 SKYRAYS carried only a "J" tail code,

signifying Air Task Group 201, and 100-series nose numbers. The squadron apparently did not add any color until early 1957, when their F4Ds were given a small red tail band with four white stars, and red drop tank markings also with four white stars, the four stars probably signifying the unit's permanent attachment to CVG-4.

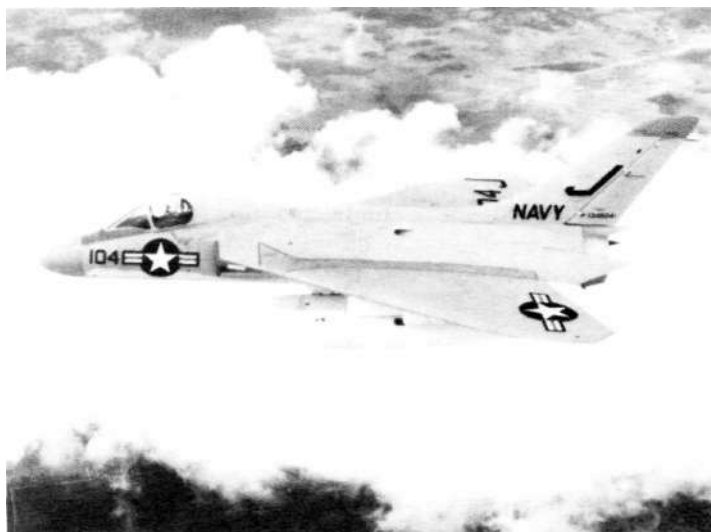
VF-101 made its only carrier deployment with the SKYRAY when it departed aboard the *SARATOGA* on September 3, 1957. Now carrying ATG-201's two-letter code, "AP," the squadron participated in a joint NATO exercise, "Operation Strikeback," while in North Atlantic waters. During this operation, VF-101 SKYRAYS joined in crossdeck exercises with the British carrier *HMS ARK ROYAL*. One F4D-1, piloted by Lt. Max K. Morris, landed on the *ARK ROYAL* after having lost its catapult holdback fitting during the previous launch. By using afterburner with internal fuel only (and 580 feet of deck space!), Lt. Morris made the first free deck launch of a SKYRAY when he departed the *ARK ROYAL* off the coast of France on October 13.²⁰ The *Grim Reapers* returned to NAS Cecil Field on October 22, 1957. From November 1-16, the squadron was deployed on the *USS FORRESTAL* (CVA-59) for a VIP cruise, during which they participated in exercise "Lantflex 257."²¹

In April 1958, VF-101 moved to NAS Key West, Florida, and on June 10 the squadron merged with the Fleet All Weather Training Unit, Atlantic. The new squadron, while retaining its VF-101 identity, combined the combat readiness training of the old VF-101 with the all-weather intercept procedures developed by FAWTULANT. Its new mission was to train replacement pilots for duty with fleet units, using the F3H DEMON and F4D SKYRAY to provide training in all-weather intercept tactics.²² VF-101 now boasted a total of 36 squadron aircraft: 11 each of the F3D SKYKNIGHT and F3H DEMON, and 14 F4D SKYRAYS,²³ although by spring 1959 this total would reach a high of 64, including two Lockheed TVs and a Douglas R4D.

VF-101's first class of fully qualified all-weather pilots completed their day and night carrier qualifications in the first week of December 1958. From January to March 1959, VF-101 pilots participated in a series of "Big Blast" exercises, intercepting Air Force B-47 raids coming through their warning area.²⁴

VF-101 was instrumental in developing many training aids used in all-weather interceptor practice with the SKYRAY: the

Air Task Group 201's "J" tail code was the only marking carried by VF-101 F4D-1s late in 1956. (National Archives 80G-1019538)





In the early 1960s, VF-101 Skyrays used CVG-4's "AD" tail code, with no change in markings from previous years. (W.L. Swisher courtesy of William T. Larkins)

Dart target one-way tow reel, the Del Mar target tow rig, a four-shot reusable rocket pod, radar optic scorer recording camera installation, and a Sidewinder adaptor on the SKYRAYS Aero 20-A bombrack. The target towing services provided by VF-101 were an important part of the squadron's mission. For example, from June 4-6, 1959, three VF-101 SKYRAYS were used to tow the Del Mar target for a CVG-3 Operational Readiness Inspection (ORI) aboard the USS SARATOGA, and on June 24-25, a similar service was provided for an ORI for the USS INDEPENDENCE (CVA-62).²⁵ In August, squadron pilots tendered Del Mar towing services and officiated as ComNavAirLant judges for various squadron gunnery competitions and the competitive shoot-offs, in preparation for the annual Naval Air Weapons Meet.²⁶ Finally, from November 25 to December 4, 1959, VF-101 SKYRAYS provided Del Mar tow services for the F3H competition during Operation Topgun at NAS Pt. Mugu, California.

VF-101 SKYRAYS continued to be used in the training of all-weather replacement pilots throughout 1960-1961, the unit maintaining several carrier qualification detachments aboard the

VF-101 F4D-1 with ATG-201's "AP" tail code. Red tail and drop tank markings presumably signify CVG-4. Note reusable four-shot rocket pod developed by the squadron. (W.L. Swisher courtesy of William T. Larkins)

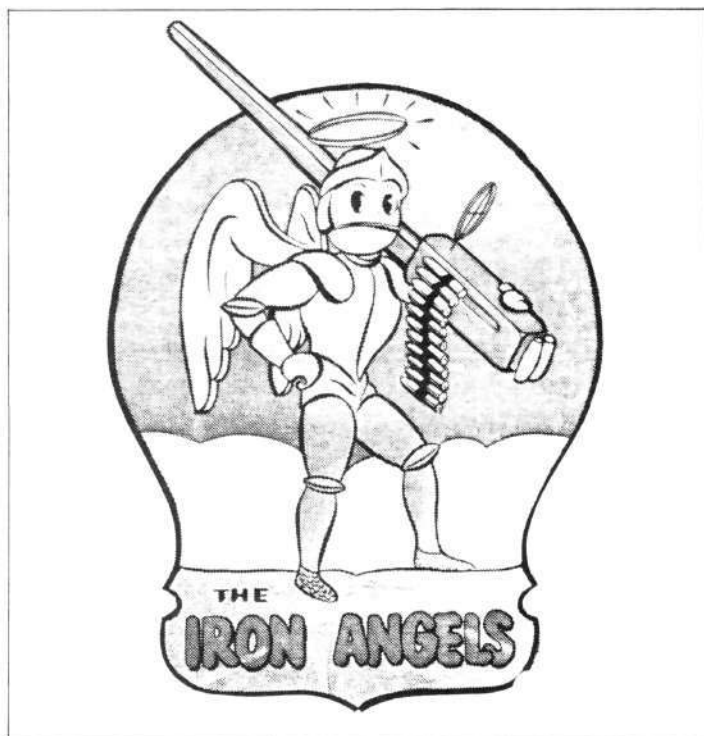


carriers INDEPENDENCE and FORRESTAL. As part of Replacement Carrier Air Group 4, VF-101's F4D-1s displayed the RAG's "AD" tail code and the traditional squadron colors of a red tail band and drop tank noses, each with four white stars. There is evidence that the squadron insignia of a winged skeleton carrying a scythe was displayed on the rear portion of the canopy of some SKYRAYS. By 1962, the *Grim Reapers* of VF-101 had transitioned to the F4H PHANTOM II, ending their relatively long use of the F4D-1 SKYRAY.

VF-141

NAS Miramar's VF-141 began transition training from F2H-3s to the F4D-1 after returning from a WestPac cruise aboard the USS KEARSARGE (CVA-33) in May 1956. The squadron's first SKYRAY arrived on June 26, and over the next year VF-141 underwent three carrier qualification cruises aboard the carriers ESSEX, LEXINGTON, and BON HOMME RICHARD. The squadron's Training Officer, Capt. Bob Hazlett, an Air Force exchange officer, recalls one frightening incident during carquals aboard the LEXINGTON: "One of the men in the squadron, Lt. Sothan, made the first successful underwater ejection from an F4D. As he taxied forward he hit the brakes—not knowing he had lost his right brake—and taxied off the port side. The F4D hit the water inverted. Lt. Sothan was sinking in the inverted F4D, and at an estimated depth of 70 feet he ejected. He pulled the emergency oxygen and was surfacing mostly butt first, as his seat pack retained a lot of air. He saw what he thought was the ship's prop and tried to swim down, but was pulled up by the seat pack. Luckily, what he thought was the prop was actually foam in the wake of the carrier, and he surfaced about 1000 feet aft of the ship. He was unhurt, but decided he no longer wanted to fly F4Ds."²⁷

For these cruises, squadron F4D-1s appeared in Carrier Air Group 5's "S" tail code contained within a large yellow pennant painted on their tails, and with 200-series nose numbers.



VF-141's insignia, the IRON ANGEL, was the same as adopted by VF-14 during World War II, but apparently this was never carried on the squadron's SKYRAYS.

On July 12, 1957, VF-141 embarked aboard the USS BON HOMME RICHARD (CVA-31) for a WestPac cruise.²⁸ While aboard the BONNIE DICK, some VF-141 SKYRAYS carried their "S" tail code and some CVG-5's new two-letter tail code, "NF," in a black-bordered yellow pennant with 200-series nose numbers. As this was the first deployment of a West Coast F4D-1 equipped squadron, the IRON ANGELS experienced the usual headaches of introducing a new aircraft into the fleet, although losing only one SKYRAY with no fatalities. Carrier life is not all humorless, as Bob Hazlett relates: "On a night flight during our WestPac deployment, Lt. Berringer made seven unsuccessful passes at the deck. We thought we might have to shoot him down, but on the eighth attempt he landed. However, he stuck a main gear through the teakwood deck, and put a six-inch dent in the steel panel under the teak. The F4D received minor damage . . . a real tough airplane! The deck was patched with a zinc chromated steel panel.

"Mr. Berringer wanted to fly again right away, so he was launched as soon as the deck was repaired. He made three passes at the deck before landing on his fourth pass. He again punched a hole in the teakwood deck with minor damage to the F4D. When the deck was repaired this time, someone painted on the repair panel: 'Where will the Phantom strike next?' On Mr. Berringer's next flight, he blew a nose tire on launch. He stayed in the 'dog' pattern until everyone else had recovered. Mr. Berringer was not noted for his sense of humor, but called in the pattern as 'Phantom at the 180.'"²⁹

Upon its return to NAS Miramar on December 9, 1957, all but three of VF-141's pilots were ordered elsewhere, and the process of reforming an almost completely depleted squadron fell to these three "old-timers" who indoctrinated the "new blood." Squadron training progressed rapidly; in March 1958 alone VF-141 pilots flew 507 hours with only nine aircraft avail-

able. When called upon for Joint Exercises in May, 100% of the assigned missions were completed, although the squadron was only in Phase I of its training cycle. The first three weeks of June were spent at NAAS El Centro, when 10 F4D-1s were flown during the Phase II firing portion of the weapons syllabus. In July, VF-141 practiced intensively on day and night mirror landings in preparation for carquals, in addition to its normal all-weather training missions. The unit participated in "Bluebolt" from July 9-11, 1958, making several successful day and night intercepts.³⁰

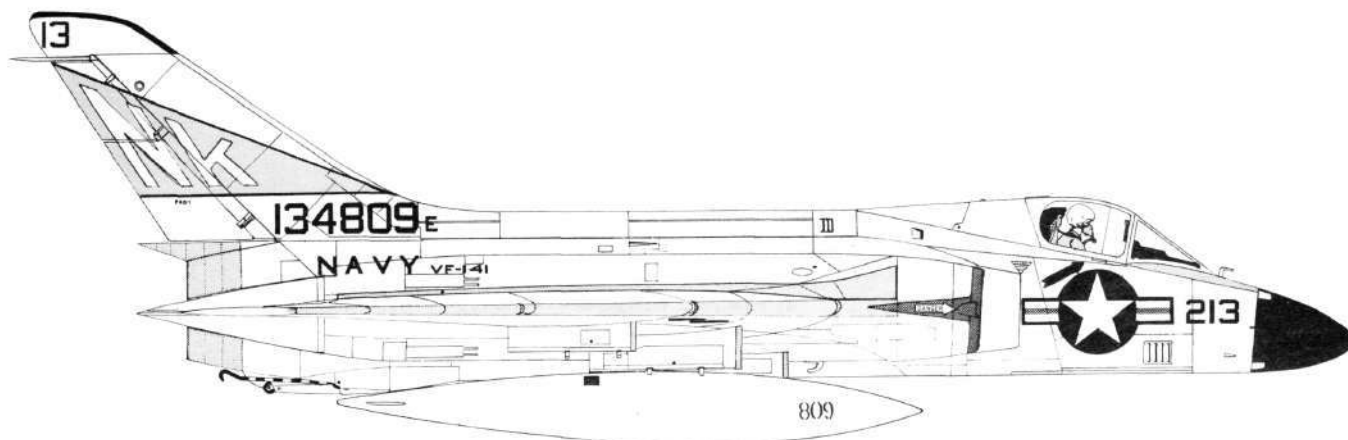
The IRON ANGELS of VF-141 were assigned to Carrier Air Group 14 on August 29, 1958. On September 8-13, the squadron participated in "Phibex" as Combat Air Patrol, making two successful intercepts out of two assigned. During this period, it is believed the squadron adopted a short-lived markings scheme for its SKYRAYS: CVG-14's "NK" tail code painted in slanted white letters within a black-bordered orange ray on the tail, and 200-series nose numbers. Although photos *do* exist showing these markings, virtually nothing has been uncovered concerning their use.

From September 21-27, 1958, VF-141 went aboard the USS RANGER (CVA-61) for day carrier qualifications, the squadron making 154 traps in 3.5 days. IRON ANGEL SKYRAYS operated aboard the RANGER twice again, on October 11-17 and November 7-14, 1958, for day and night carquals. Finally, on December 28, the squadron left aboard the RANGER for their second WestPac with the SKYRAY.³¹ For this cruise, VF-141 SKYRAYS carried only the Air Group's "NK" tail code in large letters, a thin yellow tail stripe, and 200-series nose numbers.

VF-141 completed night carquals aboard the RANGER from January 9-14, participated in CVG-14's operational readiness training from January 26-30, and the final Operational Readiness Inspection from February 9-13, 1959.³² The squadron spent March 16-28 at NAS Atsugi, Japan, boarding the RANGER once again on the 28th for operations at sea. On June 25-30, VF-141 SKYRAYS participated in exercise "Granite Creek" as CVG-14's day, night and all-weather fighter squadron.³³ The VF-141 IRON ANGELS returned to NAS Miramar on July 27, 1959, and immediately relinquished their F4D-1 SKYRAYS for the F3H-2 DEMON.³⁴

VF-141 took the Skyray aboard the USS Bon Homme Richard in 1957, its aircraft displaying CVG-5's "NF" tail code in a black-bordered yellow pennant. (Navy courtesy of Robert L. Lawson)





(Drawing by Bill Whitney)

F4D-1 134809 carried a little-known color scheme of VF-141, believed used during 1958. Tail ray is orange with white CVG-14 "NK" tail code.



This VF-141 Skyray is shown aboard the USS Essex in 1956, while the squadron used CVG-5's "S" tail code on a yellow pennant. (L. Fairley via W. Thompson)



VF-141 markings used aboard the USS Ranger in 1959 consisted of a large CVG-14 "NK" tail code and a thin yellow tail band. (Navy)

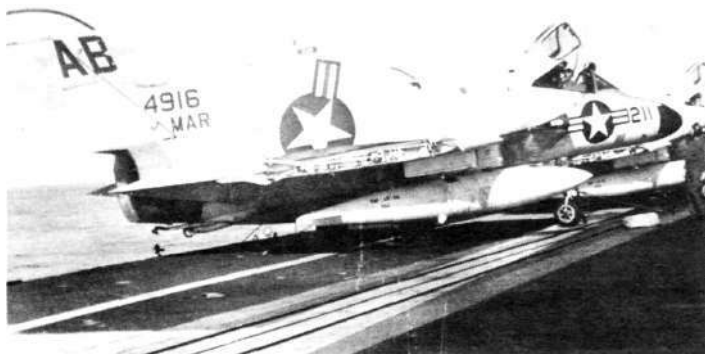
VMF(AW)-114

The *Death Dealers* of VMF(AW)-114 flew the F4D-1 SKYRAY for six years in an amazing variety of colorful paint schemes, although one of these is subject to further verification. Originally commissioned at MCAS El Toro in 1943, VMF-114 operated throughout the war flying F4U CORSAIRS as a day-fighter squadron, being transferred to MCAS Cherry Point, North Carolina, in February 1946. Between August 1947 and June 1953, the squadron operated as a night-fighter unit, and on May 1, 1957, VMF-114 was redesignated as an all-weather outfit and began converting from the F9F-8 to the F4D-1.³⁵

VMF(AW)-114 received its first SKYRAY at Cherry Point in June 1957,³⁶ and applied the squadron's "EK" tail code as part of the 2nd Marine Aircraft Wing, Fleet Marine Force, Atlantic. After undergoing extensive training ashore and aboard ship for carrier qualifications, VMF(AW)-114 sailed aboard the USS ROOSEVELT (CVA-42) on February 13, 1959, for a Mediterranean cruise with Carrier Air Group One. For this deployment, VMF(AW)-114's SKYRAYS carried CVG-1's "AB" tail code in slanted black letters over a yellow tail band, the motto "Primus Principes" in black letters painted within a yellow scroll on their tails, and 200-series nose numbers. The squadron participated in several Sixth Fleet exercises, losing one aircraft and pilot, finally returning to MCAS Cherry Point on September 1, 1959. Curiously, despite the above incident, in November 1959,

VMF(AW)-114 received the Marine Corps Commandant's Annual Aviation Efficiency Trophy, given for flying efficiency and safety. During this time the unit became the only 2nd





While aboard the *USS Roosevelt* in 1959, VMF(AW)-114 displayed CVG-1's "AB" tail code over a yellow band, and the motto "Primus Principes" within a yellow scroll on the tail.
(Courtesy of Ken Buchanan)



VMF(AW)-114 F4D-1 in September 1960 with da-glo design on spine and tail. Note squadron insignia behind cockpit and aircraft nose number on rudder.
(Marine Corps DAF-1167 courtesy of R.W. Peterson)



F4D-1 139158 on August 2, 1962, immediately after VMF(AW)-114 arrived at NAS Atsugi, Japan. Note large tail code letters and absence of markings.
(T. Matsuzaki via T. Toda)



F4D-1 139158 on August 8, 1962, after VMF(AW)-114 had applied squadron markings: black-bordered white rudder stripe with card suits and red lightning bolt on drop tank.
(T. Matsuzaki via T. Toda)

Marine Aircraft Wing squadron to become day and night carrier qualified.

VMF(AW)-114 SKYRAYS remained at MCAS Cherry Point throughout 1960, sporting a new paint scheme of a bright fluorescent red-orange design on the spine and lower tail and fuselage, and the squadron's "EK" code carried high on the tail. This design was the same as that carried on VMF(AW)-115 SKYRAYS (see *AAHS Journal*, Summer 1978, page 133), but there is no evidence that VMF(AW)-114's SKYRAYS carried any similar markings on their drop tanks, as did their sister squadron. The *Death Dealer* insignia also was carried on the rear portion of the canopy: a gray skull over crossed black and white bands, which had the black spade and club and red heart and diamond designs.

In February 1961, VMF(AW)-114 was attached briefly to Provisional Marine Aircraft Group 10 at NAS Roosevelt Roads, Puerto Rico, in support of 24th Marine Expeditionary Unit amphibious operations on Vieques Island, Puerto Rico. The unit's SKYRAYS became the first jet aircraft to land on the island's Short Expeditionary Landing Field on February 6, 1961.³⁷

VMF(AW)-114 remained at MCAS Cherry Point throughout the remainder of 1961, but by the summer of 1962 the squadron

had deployed to NAS Atsugi, Japan, where they were attached to Marine Air Group 11, 1st Marine Aircraft Wing, Fleet Marine Force, Pacific. Some evidence indicates that the squadron aircraft initially carried the tail code "EK" in large block letters, as was the Marine Corps custom at the time. However, VMF(AW)-114 quickly painted its SKYRAYS in markings representative of its *Death Dealer* nickname: each rudder was given a slanted white strip bordered in black showing the four card suits of a black spade and club, and red heart and diamond. Also, each drop tank nose was given a red lightning bolt, often with a dark blue or black anti-glare upper surface blended in above the bolt.

VMF(AW)-114 remained based at NAS Atsugi from 1962 to 1963, while making short deployments to NAF Naha, Okinawa, and Ping Tung, Taiwan.³⁸ On July 1, 1963, the squadron reportedly was disbanded at Atsugi. However, there is evidence that the unit reformed once again at MCAS Cherry Point. Photos dated October 1963 show VMF(AW)-114 SKYRAYS with entirely new markings: an "EK" tail code with da-glo rudder and upper and lower elevon surfaces, a da-glo spine, and da-glo designs on the drop tanks. Unfortunately, the circumstances surrounding these colorful markings and the squadron's apparent reactivation remain a mystery as of this writing.



This photo dated 19 Oct. 1963 shows VMF(AW)-114 Skyray in striking da-glo markings. Note that letters on da-glo are bordered in white.
(Marine Corps DAF-1617 courtesy of R.W. Peterson)

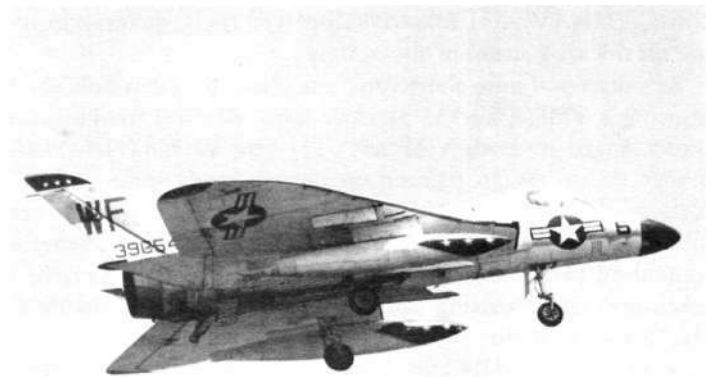


use of the aircraft. As far as is known, the squadron insignia of a flying owl was never carried on its F4D-1s.

On October 16, 1961, after returning from a Yuma training deployment, squadron personnel of VMF(AW)-513 boarded the USS NOBLE (APA-218) for duty in Japan. The squadron arrived at NAS Atsugi on November 4, and was attached to the 1st MAW, MAG 11, Fleet Marine Force, Pacific. Over the next year, VMF(AW)-513 pilots and SKYRAYS stood hot pad alerts at NAS Atsugi, and on deployment to other Western Pacific airfields.⁴⁰ While at NAS Atsugi, the squadron apparently employed a colorful marking scheme for their SKYRAYS: black or dark blue tail and elevon tips with three gold or silver stars, with similar markings on each drop tank. These colors remain to be confirmed, however.

VMF(AW)-513's only long-term deployment with the F4D-1 ended on November 1, 1962, when the unit left NAS Atsugi for the States. The squadron was reestablished once again at MCAS El Toro to begin a new training cycle with the F-4B PHANTOM II.

The most commonly seen markings on VMF(AW)-513 Skyrays consisted of their "WF" tail code and red tail and wingtips. (Marine Corps A147150/LAM-6182)



VMF(AW)-513 Skyray in June 1962 while squadron was deployed to NAS Atsugi, Japan. Colors are thought to be dark blue with gold or silver stars. Note thin light-colored borders to drop tank markings. (T. Matsuzaki via T. Toda)

VMF(AW)-513

On July 26, 1958, the *Flying Nightmares* of VMF-513 returned to MCAS El Toro, California, from a three-year deployment to NAS Atsugi, Japan. The squadron traded in its F3D-2s for the F4D-1, becoming an all-weather squadron of the 3rd Marine Aircraft Wing, Marine Air Group 15.³⁹

VMF(AW)-513 operated the SKYRAY at El Toro throughout 1959-1961, making many short deployments to training fields in the southwest. During March 1960, for example, the squadron deployed to MCAAS Yuma, Arizona, for practice in air-to-air gunnery, lead collision rocket firings with the 2.75-inch *Mighty Mouse* at 30,000 and 50,000-foot altitudes, and *Sidewinder* missile runs, in addition to cross-country and close air support flights. In December 1960, VMF(AW)-513 competed in the annual Operation Top Gun competition held at Yuma.

Markings then carried by these *Flying Nightmare* SKYRAYS were spartan: the squadron tail code "WF" painted in large block letters on the tail, "VMF(AW)-513" on the aircraft's spines, and nose numbers reaching into the low 20s. Quite often, these SKYRAYS were seen with red or black tail and wingtips, but it is uncertain whether these were true squadron colors, or markings retained from a previous Marine squadron's



VMF(AW)-531

Commissioned on November 16, 1942, as the Marine Corps' first night fighter squadron, VMF(N)-531 adopted the nickname *The Gray Ghosts*. The unit operated the PV-1, F7F, and the F3D-1 before receiving its first F4D-1 at MCAS Cherry Point, North Carolina, on February 22, 1958.⁴¹

VMF(AW)-531 spent the next year in training at Cherry Point, in preparation for its first Far East deployment with the SKYRAY. By March 1959, operations had ceased, orders were cut, and families and personal effects began the relocation to NAS Atsugi, Japan. In April, the squadron took over the SKYRAYS left previously by the departing VMF(AW)-115, and joined MAG 11, 1st MAW at Atsugi. In September 1959, the squadron underwent carrier qualifications aboard the USS LEXINGTON (CVA-16), and again in December on the USS MIDWAY (CVA-41). For these deployments, VMF(AW)-531

SKYRAYS carried only their "EC" tail code, squadron nose number, and the usual unit designation on the spine.

From January to May 1960, the squadron deployed to NAS Cubi Point, Philippines, and in late March made a short deployment to Ping Tung North, Taiwan, to participate in Operation Blue Star. During this exercise, VMF(AW)-531 SKYRAYS operated off of the Short Expeditionary Landing Field, making Mostert landings and steep afterburner takeoffs from the field, which had been constructed of pierced steel matting in less than two days.⁴²

VMF(AW)-531 left NAS Cubi Point late in May 1960, returning to NAS Atsugi briefly before being "cadred" late in June and reformed at MCAS Cherry Point. At Cherry Point the squadron was reassigned to MAG 24, 2nd MAW, and the slow process of training virtually a new squadron was begun. The squadron painted its newly acquired SKYRAYS as before, although slanting their smaller "EC" tail code. While aboard the USS INTREPID (CVA-11) for a short summer carrier qualification cruise, VMF(AW)-531 SKYRAYS displayed their squadron insignia on the aft portion of the canopy.

As a matter of pure conjecture, one photo has been published showing a VMF(AW)-531 SKYRAY with identical markings to those carried by both VMF(AW)-114 and VMF(AW)-115: an orange da-glo design painted on the airplane's spine and tail surfaces. Although the date and circumstances of this photo are unknown, it must be assumed that the scheme represents a short-lived period after reassignment when VMF(AW)-531 had taken over the departing squadron's aircraft, most probably at MCAS Cherry Point.

In July 1961, VMF(AW)-531 once again deployed to NAS Atsugi, replacing VMF(AW)-115 and taking over its SKYRAYS. Its F4D-1s now were painted only with an orange da-glo nose on each drop tank, with the "EC" tail code reverting to the earlier, larger upright block letters. There is no evidence that VMF(AW)-531 SKYRAYS were painted more extensively, or that they again carried the unit's insignia of a shroud-covered skeleton. The *Gray Ghosts* of VMF(AW)-531 ended this second Japan deployment with the F4D-1 in July 1962,⁴³ reforming at MCAS Cherry Point around their new mount, the McDonnell F-4B PHANTOM II.



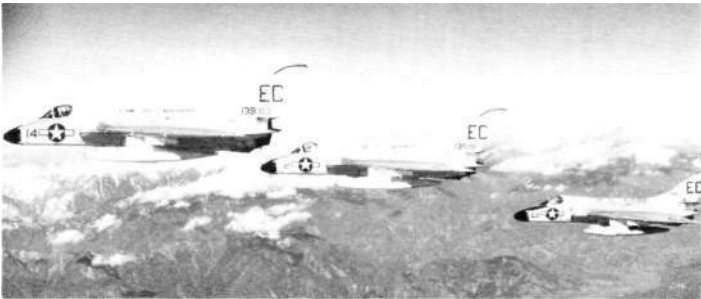
VMF(AW)-531 Skyray in 1961 with slanted "EC" tail code. The significance of colored tail and wingtips is not known. (R.W. Harrison/Candid Aero-Files)



VMF(AW)-531 took its Skyrays aboard the carriers *Lexington* and *Midway* in the fall of 1959, the aircraft carrying only the unit's "EC" tail code for these carquals. (USN via Col. Bruce Martin, USMC and Harry Gann)



These orange da-glo markings on spine and fuselage, which are identical to those carried on Skyrays of VMF(AW)-114 and VMF(AW)-115, are believed to be a short-lived scheme used by VMF(AW)-531. Note that drop tank carries the inscription, "VMF(AW)115 19." (Navy courtesy Tom Foxworth and Aero Album)



These VMF(AW)-531 Skyrays in trail formation all have their drop tank noses painted orange da-glo. Aircraft are shown over Japan in January 1962. (Navy 39552)

VMF(AW)-542 did little in the way of squadron markings from mid-1958 to 1960, its Skyrays displaying only the unit's tail code "WH" on their rudders. (Marine Corps via Clay Jansson)



VMF(AW)-542

Originally organized in March 1944 as a night fighter squadron at MCAS Cherry Point, North Carolina, VMF(N)-542 moved to MCAS El Toro in July 1947 and was redesignated as an all-weather outfit in October 1948, flying F7F-3Ns.⁴⁴ VMF(AW)-542 joined MAG 33, 3rd MAW, on August 1, 1957, with the F3D-2. The squadron received its first F4D-1 on May 12, 1958,⁴⁵ and joined Marine Aircraft Group 15 on July 1.

VMF(AW)-542 remained at El Toro over the next year while training with the F4D-1, boarding the USS *BON HOMME RICHARD* (CVA-31) in late July 1959 for carrier qualifications. At this time, the squadron painted its "WH" tail code on the SKYRAYS in small connected letters on the rudders. At least one F4D-1 was given special treatment with the addition of a red "arrow" on the tail containing three white stars, signifying the 3rd MAW, with each elevon tip painted red with a single white star on both upper and lower surfaces.

On August 20, 1959, VMF(AW)-542 sailed westward for duty in Japan. The squadron replaced VMF(AW)-314, being assigned to MAG 11, 1st MAW at NAS Atsugi on August 28. The unit deployed to NAS Cubi Point, Philippines, from January to May 1960. While based at Cubi Point, VMF(AW)-542 SKYRAYS made a two-week deployment to Taiwan to participate in Operation Blue Star, a joint American-Nationalist Chinese amphibious exercise.⁴⁶

After being replaced by VMF(AW)-314 at Atsugi, VMF(AW)-542 returned to El Toro on November 2, 1960, where it rejoined MAG 15, 3rd MAW. Over the next two years, the squadron embarked on a new training program with the SKYRAY, making several temporary deployments to Yuma, Arizona, and Pt. Mugu and El Centro, California. At this time, the unit's SKYRAYS carried a larger "WH" tail code, while the front portion of each drop tank and the tail and wingtips were painted a very dark blue. By late 1962, these markings were modified by the addition of many small white stars painted on each drop tank nose in a spiral pattern. Each aircraft's nose



F4D-1 134806 is the only VMF(AW)-542 Skyray known to be painted in these markings, believed to be red with white stars. Four other squadron aircraft on ramp all have plain markings. (Marine Corps via Robert L. Lawson)

number was painted on the lower tip of each pitch trimmer, and the wingtip color was deleted.

On October 30, 1962, squadron personnel boarded government aircraft for their second Far East deployment with the F4D-1 (now redesignated F-6A), arriving at NAS Atsugi on November 1.⁴⁷ VMF(AW)-542 SKYRAYS now apparently reverted back to the "plain" dark-blue drop tank markings, although their pitch trimmer numbers were retained. During the following year, VMF(AW)-542 made short deployments to Okinawa and Taiwan. The squadron returned to MCAS El Toro in the fall of 1963, and was redesignated VMFA-542 on November 2 in preparation for its new role with the F-4B.



During 1960-1961, VMF(AW)-542 Skyrays were painted with larger "WH" tail code and black designs on drop tanks, tail and wingtips. (Marine Corps)



VMF(AW)-542 Skyrays in September 1962. Note pattern of white stars on drop tank and nose number repeated on pitch trimmer and tail. (Douglas Olson)



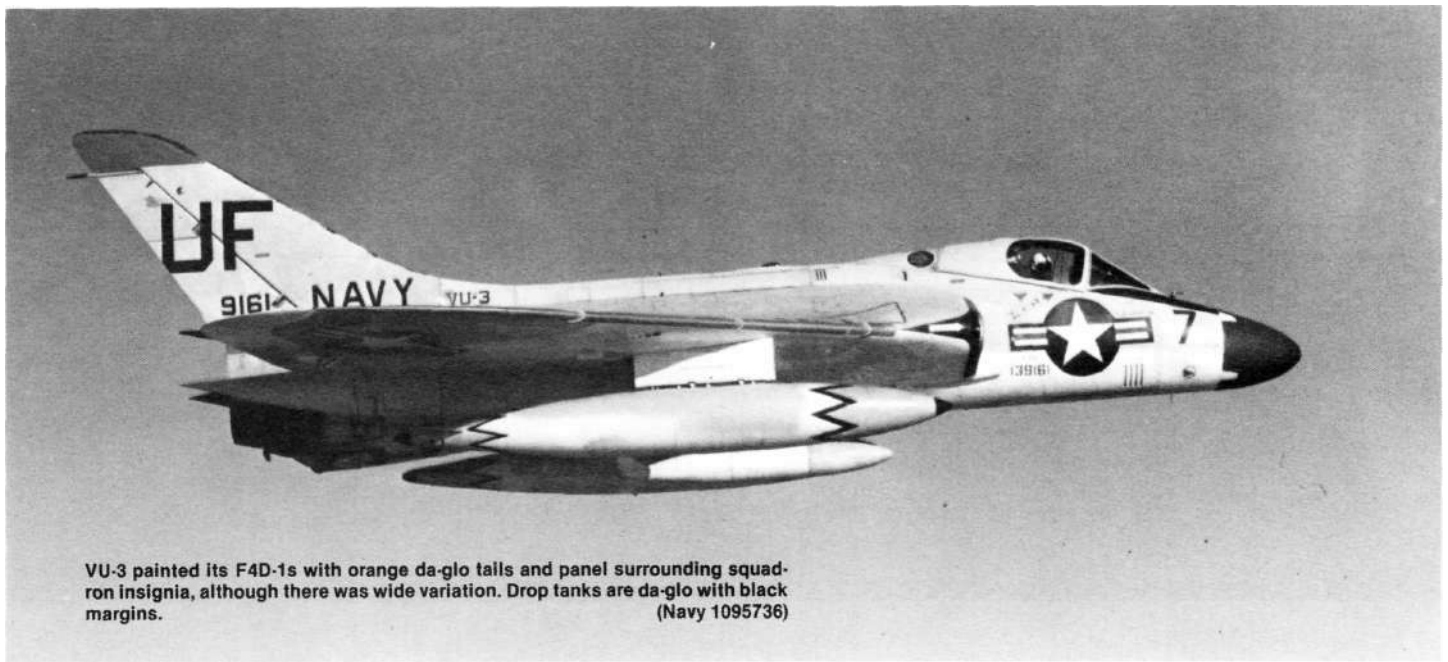
VU-3

Utility Squadron Three was commissioned in December 1948 at NAS Santa Ana, California, and assigned the mission of furnishing radio-controlled drone aircraft for fleet target practice. After moves to NAS Miramar in 1950, NAAS Ream Field, Imperial Beach, in 1951, and NAAS Brown Field, San Ysidro, in 110

1956, VU-3 settled in at NAS North Island, San Diego, in 1961.⁴⁸

When the squadron's aging KDA jet targets and FJ-3D2 control aircraft were unable to keep pace with modern fleet missile requirements, they were replaced by the high-performance Q2C pilotless aircraft targets, with the F4D-1 serving as the new drone control and chase aircraft.⁴⁹ The first SKYRAYS began arriving early in 1962, and were reconfigured to provide airborne drone control capability. Due to these modifications, the SKYRAYS were redesignated as DF-6As, although this change was not painted on the aircraft. In addition to drone control, these VU-3 SKYRAYS were used "to provide Air Intercept Controller training for personnel on board fleet destroyers, cruisers, carriers, and personnel in training at the Fleet Anti-Air Warfare Training Center."⁵⁰

At the time of VU-3's acquisition of the SKYRAY, the squadron insignia was that originally approved in March 1949: a yellow drone bee with black stripes on its back, red wings and tail, and brown feet, operating a white control box.⁵¹ This insignia was replaced in October 1962 with a design "based on the consideration that manpower is the predominant asset even in a technological climate. The reservoir of knowledge of the trained manpower is represented by the book. The trustworthiness and dedication of these men is depicted by the Nordic fidelity symbol in the left hand. The scope of the mission of UTRON-3 includes such task assignments as the operation of five types of pilotless aircraft targets, high-performance intercept services, and the Fleet Introduction of the DASH weapons system; therefore, the large red "V" denotes the Versatility of Utility."⁵² This squadron insignia was often displayed on the SKYRAYS' aft canopy surfaces. Markings carried on VU-3 SKYRAYS included a dark



orange da-glo tail, outer wings and nose band, and da-glo designs on each wing tank nose and tail, although these markings varied considerably on each of the squadron's F4D-1s.

As the last operational Navy squadron to use the F4D-1, VU-3

performed an honorary retirement ceremony for the SKYRAY on October 16, 1964. After flying one last operational mission, squadron pilots ferried the aircraft to NAF Litchfield Park, Arizona, for a well-earned rest.⁵³



VX3

Air Development Squadron Three was formed on November 20, 1948, by merging two squadrons of CVLG-1, VF-1L and VA-1L, and was placed under the operational control of Commander Operational Development Force.⁵⁴ VX-3's main mission was threefold: to evaluate new and already existing naval aircraft, airborne equipment and methods; recommend methods for the most effective tactical employment of aircraft and equipment; and to recommend training procedures and countermeasures for

these aircraft and methods. Based at NAS Atlantic City, New Jersey, VX-3 boasted some of the Navy's most experienced aviators, and from 1948 until decommissioning flew nearly every new model of carrier-based aircraft in the fleet.

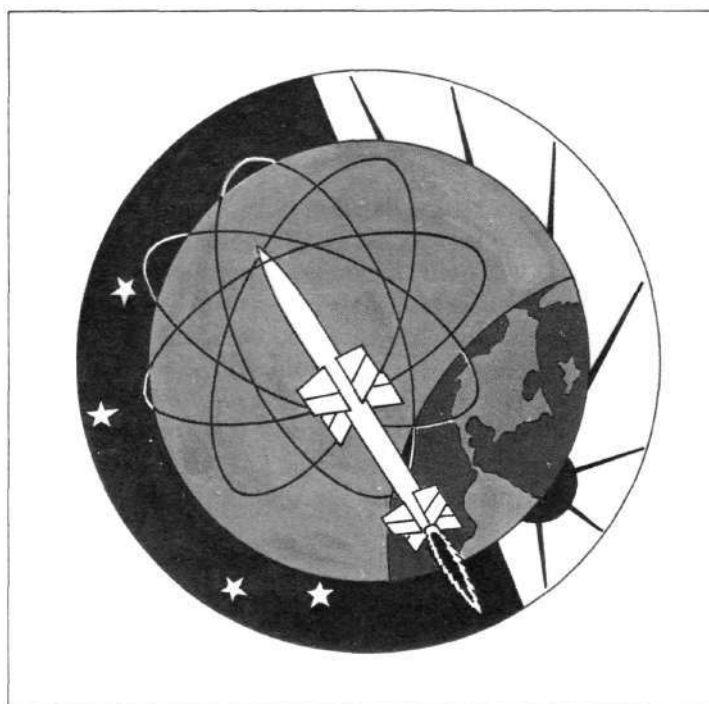
The squadron received its first SKYRAY on January 8, 1957, and began an extensive operational evaluation program with the F4D-1, its weapons and equipment." In April 1957, VX-3 took the SKYRAY aboard the USS ROOSEVELT (CVA-42) for carrier qualifications and advanced work on the TACAN project (OP/V 175), and in June moved aboard the USS SARATOGA (CVA-60) for carquals and all-weather evaluations on the TACAN project. By the fall of 1957, VX-3 operated seven SKYRAYS on its various projects.

VX-3 pilots spent two weeks aboard the USS FORRESTAL (CVA-59) in April 1958 for carrier qualifications with the F4D-1 and more TACAN project flights. In May 1958, VX-3 transferred operations to NAS Oceana, Virginia Beach, Virginia. Still more carrier qualifications with the SKYRAY were flown by squadron pilots aboard the USS INDEPENDENCE (CVA-62) in August 1959.

Initial markings carried on VX-3 SKYRAYS consisted only of the unit's "XC" tail code, "VX-3" on the spine, and a squadron identification number on the nose. In mid-1957, the squadron's tail code was changed to "JC." As far as is known, the squadron's insignia was never carried on their SKYRAYS. This insignia, approved in April 1949, featured a gray sundial (an instrument of time denoting progress and growth), gold wings (denoting flight), a light-blue aircraft with red exhaust (denoting fast progress over time), and black Roman numerals on a black background with red outer circle.⁵⁶

VX-3 planned to move operations to NAS Roosevelt Roads, Puerto Rico, in February 1960. The squadron instead was decommissioned on March 1, 1960, and its SKYRAYS were transferred elsewhere in the fleet.

VX-3 apparently never gave its Skyrays extensive markings. Note nose number repeated on tail.
(Peter M. Bowers' Collection)



VX-4

Air Development Squadron Four was commissioned on September 15, 1952, when the Commander Naval Air Force, Pacific Fleet directed Cdr. James G. Sliney to form and command the squadron at the Naval Missile Center, Point Mugu, California. The squadron's mission was to conduct projects dealing with the evaluation of air-launched guided missiles, namely the SPARROW I. VX-4's mission evolved into the development of a missile or missile component and its best use as a weapon, to conduct tests and evaluations of aircraft weapons systems and support systems in an operational environment, and to develop all-weather intercept tactics for air-launched guided missiles.⁵⁷

The *Vanguards* of VX-4 initially were equipped with the F7U and F3D, but with the advent of the BULLPUP and SPARROW III missiles, the squadron acquired the FJ, A4D, F3H, F8U and F4D-1 for advanced missile test programs. The first SKYRAY

arrived at VX-4 late in June 1959, reportedly being used "to evaluate new weapons and missiles, and to develop new methods of attack."⁵⁸ VX-4 apparently never operated more than two SKYRAYS, serial numbers 134952 and 134963. These aircraft carried only the squadron's "XF" tail code, "VX-4" on the rear fuselage, and nose numbers 12 and 15 respectively. Although exact dates of the retirement of VX-4's SKYRAYS are not known, it is assumed that these aircraft did not last with the squadron beyond 1961.

VX-4 flew two Skyrays from 1959 to 1963, giving them the squadron's "XF" tail code.
(Navy KN-832)





Fleet Air Gunnery Unit, Pacific

The Fleet Air Gunnery Unit, Pacific, was commissioned on May 22, 1952, at NAAS El Centro, California, to provide aerial gunnery training for Navy and Marine pilots. By the late 1950s, FAGU operated a small number of SKYRAYS as target tugs and gunnery aircraft, in addition to the F8U-1, FJ-4B, and A4D-2.⁵⁹

During a five-week postgraduate course, each student spent 60 hours in the classroom and 40 hours in the cockpit, flying all-weather, air-to-air and air-to-ground training missions in weapons delivery and tactics. The FAGU SKYRAYS, which began arriving in January 1958, were painted in the squadron's distinctive

scheme: the unit's "TR" tail code superimposed over a red and white checkerboard pattern, and two black bands encircling the airplane's nose and drop tanks with a diagonal red lightning bolt arcing forward on each, the latter being clever reproductions of the squadron insignia. At some later date the checkerboard tail design was reduced to a small band running horizontally, high on the tail. The squadron's insignia, a black and white target circle with a lightning bolt stabbing the bull's-eye, apparently never was carried on FAGU SKYRAYS. It is interesting to note, however, that this insignia has appeared below the windshields of *other* squadron's F4D-1s [VF-51 and VF(AW)-3], probably indicating the pilot's graduation from the FAGU course. FAGU continued to operate the F4D-1 at NAAS El Centro until the unit moved to MCAAS Yuma, Arizona, in the summer of 1959. By the end of the year, the SKYRAYS were replaced by more modern equipment.



The red and white checkerboard pattern on FAGUPAC Skyrays was eventually reduced to a narrow band on their tails. F4D-1 134749 has the Del Mar high-speed target mounted on left wing. (Navy)

The Fleet Air Gunnery Unit, Pacific markings consisted of a red and white checkerboard pattern on tail, black "TR" tail code, black and gray target circles on nose and drop tanks with red lightning bolts.

(Navy LAP-1898L)





NACA/NASA

While not a fleet unit, the National Advisory Committee for Aeronautics acquired a single F4D-1 to conduct a flight test program for the Navy. This SKYRAY, serial number 134759, was flown from the El Segundo plant to NACA's Ames Research Center at NAS Moffett Field, California, in April 1956.⁶⁰ The flight program included evaluations of the SKYRAY's handling qualities at low speeds, and investigations into high-altitude roll coupling and reductions in transonic trim changes.⁶¹

During its initial use with NACA, the SKYRAY carried the organization's traditional yellow tail band with black borders, featuring the winged NACA shield in black, "Ames" on the tail in large letters, and "TEST" in even larger letters on the upper and lower wing fillet surfaces. When NACA became the National Aeronautics and Space Administration in October 1958, the F4D-1 was repainted in a striking da-glo scheme, retaining the black-bordered yellow tail band but now featuring the letters "NASA" within the band and "Ames" in smaller letters below this on the tail. SKYRAY 759 remained with NASA until approximately September 1959, when the airplane was transferred to NAS Patuxent River's research and development facility for additional test assignments.⁶²

REFERENCES

1. *The Moffett Field News*, June 2, 1955.
2. *Aviation Historical Summary*, Fighter Squadron Twenty-Three, 1 July 1957 to 30 Sept. 1957.
3. *Aviation Historical Summary*, Fighter Squadron Twenty-Three, 1 Oct. 1957 to 31 Dec. 1957.
4. *Aviation Historical Summary*, Fighter Squadron Twenty-Three, 1 Jan. 1958 to 31 March 1958.
5. *Aviation Historical Summary*, Fighter Squadron Twenty-Three, 1 July 1958 to 30 Sept. 1958.
6. *The Moffett Field News*, Feb. 13, 1959.

7. *Aviation Historical Summary*, Fighter Squadron Seventy-Four, 1 July 1957 to 30 Sept. 1957.
8. *Flat-Tops and Fledglings—A History of American Aircraft Carriers*, by Gareth L. Pawlowski, A.S. Barnes and Co., Inc., Cranbury, NJ, 1971, p. 359.
9. Taped interview with Bill Davis, former VF-74 pilot.
10. *Op. cit.* *Aviation Historical Summary*, Fighter Squadron Seventy-Four, 1 July 1957 to 30 Sept. 1957.
11. *Aviation Historical Summary*, Fighter Squadron Seventy-Four, 1 Oct. 1957 to 31 Dec. 1957.
12. *Op. cit.* Bill Davis interview.
13. *Aviation Historical Summary*, Fighter Squadron Seventy-Four, 1 Jan. 1958 to 31 March 1958.
14. *Aviation Historical Summary*, Fighter Squadron Seventy-Four, 1 April 1959 to 30 June 1959.
15. *Aviation Historical Summary*, Fighter Squadron Seventy-Four, 1 July 1959 to 30 Sept. 1959.
16. *Aviation Historical Summary*, Fighter Squadron Seventy-Four, 1 Oct. 1960 to 31 March 1961.
17. *Refueling the FAD*, by Lt. A.J. DaRozda, *Naval Aviation News*, May 1961, p. 25.
18. *From the Catwalk (VF-74 History)*, by Peter Kilduff, *The Hook*, The Tailhook Association, Vol. 5, No. 4 (Winter 1977); p. 7.
19. *VF-101*, Narrative History, undated, Aviation History Unit, Washington, DC.
20. *Skyray Scores a First in HMS Ark Royal Free Deck Launch*, Public Information Office, Fighter Squadron 101, undated.
21. *Aviation Historical Summary*, Fighter Squadron One-Hundred-One, Sept. 30, 1957, to Dec. 31, 1957.
22. *Aviation Historical Summary*, VF-101, 1 April 1958 to 30 June 1958.
23. *Aviation Historical Summary*, VF-101, 1 Sept. 1958 to 31 Dec. 1958.
24. *Aviation Historical Summary*, VF-101, 1 Jan. 1959 to 31 March 1959.
25. *Aviation Historical Summary*, VF-101, 1 April 1959 to 30 June 1959.
26. *Aviation Historical Summary*, VF-101, 1 July 1959 to 30 Sept. 1959.
27. Letter to Author from Bob Hazlett, Sept. 18, 1978.
28. *Aviation Historical Summary*, Fighter Squadron One Hundred Forty-One, 1 July 1957 to 30 Sept. 1957.
29. *Op. cit.* Letter to author from Bob Hazlett.
30. *Aviation Historical Summary*, VF-141, 1 July 1958 to 30 Sept. 1958.
31. *Aviation Historical Summary*, VF-141, 1 Oct. 1958 to 31 Dec. 1958.
32. *Aviation Historical Summary*, VF-141, 1 Jan. 1959 to 31 March 1959.
33. *Aviation Historical Summary*, VF-141, 1 April 1959 to 30 June 1959.
34. *Aviation Historical Summary*, VF-141, 1 July 1959 to 30 Sept. 1959.
35. *VMF-114*, Squadron Historical Narrative, dated July 7, 1958.
36. "Aircraft History Cards," NAVAER 1925, obtained from microfilmed *Record of Aircraft Stricken from January 1950 Through November 1962*, Defense Printing Service—Washington, Microfilm Section.
37. News Release, Informational Services Office, 24th Marine Expeditionary Unit, Camp Garcia, Vieques, Puerto Rico, dated Feb. 8, 1961.
38. *VMF(AW)-114 Cruise Book, 1962-1963*, Maj. J.W. Lazzo, Editor.
39. *Chronology, Marine Fighter Attack Squadron 513*, via John Elliott, undated.
40. *The Flying Nightmares—A History of VMFA-513, 1944-1966*, by Maj. H.D. Bradshaw, USMC, Dec. 1966.
41. *Op. cit.* "Aircraft History Cards."
42. *VMF(AW)-531 Far East Cruise, 1959-1960*, undated.
43. *Lineage, Marine Fighter Attack Squadron 531*, dated May 14, 1975.
44. Narrative History, *VMF(N)-542*, prepared by Maj. Edna Loftus Smith, USMCR-W, History Office, Division of Aviation, Headquarters Marine Corps, Washington, DC; dated March 26, 1953.
45. *Op. cit.* "Aircraft History Cards."
46. Narrative History, *Marine Attack Squadron 542*, via John Elliott, undated.
47. *Chronology of Marine Fighter Attack Squadron 542*, via John Elliott, undated.
48. *Fleet Composite Squadron Three History*, Aviation History Unit, Washington, DC, undated.
49. *Aviation Historical Summary*, Utility Squadron Three, 1 Oct. 1961 to 31 March 1962.

F4D-1 134759 was used by the National Advisory Committee for Aeronautics at the Ames Research Center. Tail band is yellow with black borders.
(NACA A-21626)





50. *Op. cit.* Fleet Composite Squadron Three History.
51. Letter, *Proposed Insignie—Forwarding of*, Chief of Naval Operations to Commanding Officer, Utility Squadron Three, dated March 9, 1949.
52. Letter, *Proposed Squadron Insignia; Submission of*, Commanding Officer, Utility Squadron Three to Chief of Naval Operations, dated Oct. 5, 1962.
53. News Release, *Utility Squadron Three Retires "Fords,"* by I. Lewis, A01, USN. Utility Squadron Three, dated Oct. 14, 1964.
54. *Air Development Squadron Three—Squadron History*, Public Information Office, Air Development Squadron Three, undated.
55. News Release, *Another "First" for VX-3*, by Denny R. Albright, AM3, USN, Air Development Squadron Three, Jan. 8, 1957.
56. VX-3 Squadron Insignia File Sheet, via Aviation History Unit, Washington, DC, dated April 15, 1949.
57. Narrative History, *Air Development Squadron Four*, dated Jan. 28, 1969. via Aviation History Unit, Washington, DC.
58. "Air Development Squadron Four Gets New Douglas F4D Skyrajs," *The Missile Missives*, Headquarters, Pacific Missile Range, Pt. Mugu, Calif., July 3, 1959.
59. "Navy Graduate School of Weapons Training." *Naval Aviation News*, March 1959, pp. 18-19.
60. *Op. cit.* "Aircraft History Cards."
61. Letter to author from Stanley A. Miller, Public Affairs Officer, Ames Research Center, National Aeronautics and Space Administration, Moffett Field, Calif.; dated March 3, 1976.
62. *Op. cit.* "Aircraft History Cards," serial number 134759.

ACKNOWLEDGMENTS

Thanks are extended to the following individuals for their generous sharing of information, advice and support over the decade it has taken to accumulate the many facts presented in this article: Bob Burns, Robert Carlisle, Bill Davis, John M. Elliott, Lowell Fairley, Harry Gann, Thomas F. Gates, Bob Hazlett, William T. Larkins, Robert L. Lawson, Mark Nankivil, Doug Olson, Dominik Paisano, Ralph W. Peterson. G.W. Pryce of the Office of Naval Aviation History, Paul Stevens, Arnold Swanberg, Warren Thompson, Clarke Van Fleet and Adrian O. Van Wyen of the Aviation History Unit, and artist Bill Whitney.

When NACA became the National Aeronautics and Space Administration, F4D-1 134759 was painted extensively in da-glo, although retaining the yellow tail band.
(William T. Larkins)

ABOUT THE AUTHOR

Nick Williams was born and raised in El Segundo, California, a mile from Los Angeles International Airport and the Douglas factory. which probably accounts for his obsession with the Skyray. He received an A.A. degree in 1965, later serving as an electronics technician (ATN2) with VR-21 on C-118B and C-130F aircraft throughout the Pacific area.

After earning his B.A., Nick began teaching in Anaheim, California, schools. He is a past member of the Board of Directors, and has served as Chairman of the Editorial Committee, Research Project Coordinator, and Newsletter Advertising Manager. Nick soon will be moving with his wife Linda and daughter Lauren to northern Iowa, where he hopes to resume his teaching career and writing projects in rural bliss.

One additional installment to this "Douglas Skyray in Fleet Service" series is planned, as well as articles on the Aero Commander 520/560/680 series, the Douglas R6D-1/C-118B in Navy service, and the history of VR-21, the "Pineapple Airlines." Anyone having corrections or additional information on these subjects can contact Nick at: P.O. Box 751, Cypress, CA 90630.

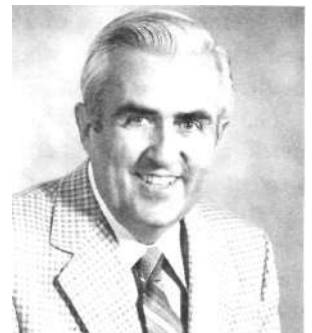


ABOUT THE ARTIST

Bill Whitney is a native of Springville, Utah, now living in Ogden. He graduated from the University of Utah with a degree in Mechanical Engineering, and served in the U.S. Air Force as a B-47E Maintenance Officer with the 43rd Bomb Wing of SAC.

Bill's work career has been mainly within the aerospace industry, most notably with Marquardt in the development of ramjet engines for the X-7, Q-5, IM-99A/B, and MQM-42A programs. He presently works at Williams Research on small turbojet engines for Navy target drones, APUs for the S-3A aircraft, and turbofan engines for the cruise missile.

Bill is a member of IPMS, AAHS, and the Tailhook Association, and has had a prime interest in researching the composition of carrier air wings for deployments made since Korea, and the markings carried by the aircraft of each squadron during these cruises. He would like to solicit the help of members in this research, and can be contacted at: 3749 Van Buren, Ogden, UT 84403.



Moving?

If you contemplate moving please send us your change of address as soon as possible. We cannot get your JOURNAL to you if we do not know where you live. To ensure uninterrupted service please let us know at least six weeks in advance. And to be sure that it is *your* address we change, include your current mailing label.

CHANGE OF ADDRESS

INCLUDE CURRENT LABEL