



THE TALE OF "WILLIE

By Maj Allan C. Bevilacqua, USMC (Ret)

"The first rounds hit all around his tailpipe. The glow from his engine went from bright yellow, then to brighter yellow ... then black! Almost instantly, we had debris in the air and something big flew past the cockpit. I lifted my left wing slightly, as we went by the mortally wounded MiG, almost colliding with him."

—Capt Oliver R. Davis, USMC
VMF (N)-513, night of 8 Nov. 1952

Nothing before or since World War II has even approached the magnitude of the combat in the skies above Europe and the Pacific between 1939 and 1945. Massed German bombers—resisted tooth and nail by the Royal Air Force—rained high-explosive and incendiary bombs on British cities during the 1940-41 Battle of Britain. Yet this was only an introduction to what was to come, as American and British air fleets, with their hundreds of bombers, pounded Germany day and night. In the Pacific, the

growing strength of American carrier aviation turned back the Japanese at Midway, then obliterated Japanese naval air strength in the Battle of the Philippine Sea, in "The Marianas Turkey Shoot." It was a war like no other.

In the midst of this, almost unnoticed except perhaps by the relative few who were involved, events were taking place that would change aviation forever. The jet engine, barely off the drawing board, was appearing on the scene. In less than a decade, it would all but supplant the pis-

IN TIME, IT WOULD BE THE ONLY AMERICAN JET AIRCRAFT TO FLY IN COMBAT IN BOTH KOREA AND VIETNAM. EACH TIME IT WOULD BE FLOWN BY MARINES.



Inset: LtCol Robert F. Conley, commanding VMF (N)-513 in the Korean War, tells MSgt Lawrence J. Fortin (left) and Maj Elswin P. Dunn how he downed a MiG-15 while piloting his F3D-2. Fortin and Dunn got a MiG about three weeks earlier in their F3D-2.

Left: The twin-engine Douglas F3D Skyknight jet night fighter earned respect with its state-of-the-art avionics. Mobile arresting gear helped enhance the Skyknight's expeditionary nature as in this 1957 landing at Naval Auxiliary Air Station, Edenton, N.C.

like a whale—a whale that had somehow sprouted wings.

If Willie the Whale looked odd from the outside, the cockpit configuration was more of an oddity. Willie didn't have ejection seats. What Willie had was an escape chute in the floor behind the flight crew. Pulling a lever would blow off the rear half of the escape-chute hatch between Willie's twin engines, while the front half served as a windbreak. Both crewmembers would pivot in their seats, grab a vaulting bar behind the seat, kick open the cockpit exit door and slide out feet first one at a time. It was better than nothing, but not much.

What Willie lacked in glamour it more than made up for in combat capability. Not the fastest jet in the world, with a top speed of just under 600 mph, it could turn on a dime, a capability that would make it more than a match for Russian MiG-15s in Korea. Its search radar could cover a range of 20 miles, not much by today's standards, but phenomenal for that time period. A fire control radar that could "lock" on to a target 4,000 yards out made Willie's four 20 mm guns deadly accurate. Lastly, Willie had something no other fighter in the air could boast: a rear warning radar that gave any unfriendly aircraft attempting to sneak up on Willie's 6 o'clock a bad surprise.

THE WHALE"

ton engine in combat aircraft.

In 1945, the U.S. Navy began studies for a jet-powered, carrier-based night fighter. What the Navy wanted was a two-seat aircraft with good long-range radar, first-class armament and excellent handling and flight characteristics. After considering proposals from four manufacturers, the Douglas Aircraft Company was awarded the contract for the delivery of three prototypes with the designation XF3D-1, "Skyknight." It would be known by the colorful nickname of "Willie the Whale,"

and, in time, it would be the only American jet aircraft to fly in combat in both Korea and Vietnam. Each time it would be flown by Marines.

It wasn't mere happenstance that gave the Douglas Company's new airplane its unique nickname. There was nothing sleek or svelte about the F3D. With its chunky, wide body that accommodated a pilot and radar operator (R/O) sitting side by side and its bulging twin jet engine housings, Willie presented a silhouette reminiscent of aquatic mammals. The F3D looked

By the time the F3D-2 model came into service in late 1951, there was a definite need for a night fighter with these capabilities. By the summer of 1952, Air Force B-29s operating from Yokota Air Base in Japan and Kadena Air Base on Okinawa were suffering disturbing losses in daylight raids over North Korea. Night operations helped, but only for a while. All too soon, Russian-manned ground controlled intercept (GCI) radars were vectoring Russian-piloted MiGs to the bomber formations with increasing effectiveness.

By that autumn, the American loss rate began climbing again, and the need for adequate fighter protection began to climb with it. In all of Korea there was only one squadron that could provide that protection, Marine Night Fighter Squadron (VMF (N)) 513, the "Flying Nightmares" and Willie the Whale. The call went out from Far East Air Forces headquarters to first Marine Aircraft Wing. Could 1st MAW take over the job of escorting the big bombers on their nightly trips over North Korea? Yes, it could. Willie was sent in to do the job for which it was designed.

Success was almost immediate. The first air-to-air victory was on the night of 3 Nov. 1952 and into the early hours of the next morning by Major William T. Stratton Jr. and his R/O, Master Sergeant Hans Hoaglund. While escorting a flight of B-29s deep into North Korea, Hoaglund detected and locked on to a MiG-15 that was closing in on a B-29 for what its pilot probably thought would be an easy kill. Lacking onboard radar, the pilot of

In this series of photos, VMF (AW)-542 took Willie through mobile arresting gear training at Marine Corps Auxiliary Air Station, Mojave, Calif., in 1958. (Photos by TSgt Charles B. Tyler)

the MiG never knew Willie was behind him. His airplane shuddered suddenly from the impact of multiple 20 mm rounds, and smoke filled his cockpit. Maj Stratton had to maneuver quickly to avoid flying debris from the crippled MiG.

Willie's victory that night wasn't a one-airplane show but a well-planned tactical system of engagement. The procedure called for a pair of F3Ds flying a barrier patrol between the bomber formation and the Yalu River, beyond which, in Manchuria, lay the Russian fighter bases. With the

Kovalyov, ejected safely and was recovered. Russian sources indicate that Kovalyov survived the war.

It didn't take long for the commander of the Russian air division in Manchuria to determine there was something in the skies above North Korea besides his MiGs. The Russians switched tactics. While they knew the F3Ds were somewhere in the bomber stream, they didn't know where. The new maneuver sent several MiGs to make a run at the bomber formation in an effort to lure the Marine fighters out, then

THE END OF THE KOREAN WAR SHOULD HAVE BEEN THE END OF WILLIE. NEWER AND FASTER AIRCRAFT WERE COMING OUT OF THE TESTING PROCESS.

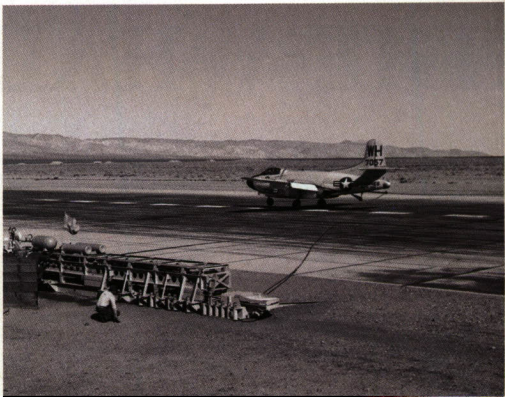
bombers themselves, one F3D would accompany each B-29 element flying a race-track pattern around its assigned bombers. Another F3D would be waiting ahead to pick up the bombers as they came off target. A "spare" fighter loitered on station to the south, ready to fill in for any F3D that might encounter electronic or mechanical problems. The system worked like a charm and produced remarkable results.

The success of that November night was duplicated five nights later by Captain Oliver R. Davis and his R/O, Warrant Officer D. F. "Ding" Fessler, when they were "plugged in" to replace an ailing F3D on an escort mission north of the North Korean capital of Pyongyang. Quickly cleared by ground control to "take care of a customer" at about 20,000 feet, Capt Davis and WO Fessler made short work of another MiG. The stricken MiG, on fire and coming apart, dove into a cloud bank where its pilot, Lieutenant Vasily

turn away. This didn't work too well either.

Maj Jack Dunn described why. "I was able to keep turning tighter and tighter inside the MiG, and this was a distinct characteristic the F3D had over the communist fighter. Finally, on the fourth pass I pulled within range and let him have three short bursts, but nothing happened. A split second later, the MiG initiated a steep dive with me right on his tail. This was followed by two more bursts from my 20 mm. Now, fire was coming from the MiG's wing root and fuselage as he continued the steep dive. We followed him down to a very low altitude and eased up as the MiG hit the ground at full bore, which resulted in a massive fireball and explosion." For his night's work Jack Dunn was awarded the Distinguished Flying Cross.

During the final months of the Korean War, the Flying Nightmares of VMF (N)-513 took down a confirmed six Russian MiGs, with another two or three proba-





TSgt RONALD E. ARMSTRONG

Willie's four deadly 20 mm cannon churned through the rounds keeping ordnancemen busy rearming.

aircraft in the area. An extensive daytime search uncovered no trace of the aircraft or its crew. The cause of the loss was never determined. On 27 July 2001, 48 years after the guns fell silent in "The Forgotten War," a South Korean family vacationing on the beach west of Kunsan came upon a scattering of human remains and a dog tag belonging to Red Harrell. The remains were sent to the Army's Central Identification Laboratory, Hawaii, where they were confirmed as those of Red Harrell. With squadron mates from VMF (N)-513 in attendance, the remains of Red Harrell were laid to rest in Virginia's Arlington National Cemetery 1 Feb. 2002. Sadly, no trace of pilot James Brown has been found.

The end of the Korean War should have been the end of Willie. Newer and faster aircraft were coming out of the testing process. Aircraft with all-weather capabilities were starting to appear. There was no longer any need for a dedicated night fighter, especially not an old and slow night fighter. Willie's next stop should have been the old airplanes' graveyard at Arizona's Davis-Monthan Air Force Base.

But the Marine Corps still had a need for Willie. Radar-controlled and radar-guided antiaircraft artillery and early surface-to-air missiles were making their debut. Electronic countermeasures (ECM) beyond merely scattering aluminum foil to confuse enemy radar would be needed. Soon enough the Marine Corps was going to require electronic equipment capable of performing electronic warfare (EW) and electronic intelligence (ELINT) missions. There would have to be an aerial platform to carry that equipment.

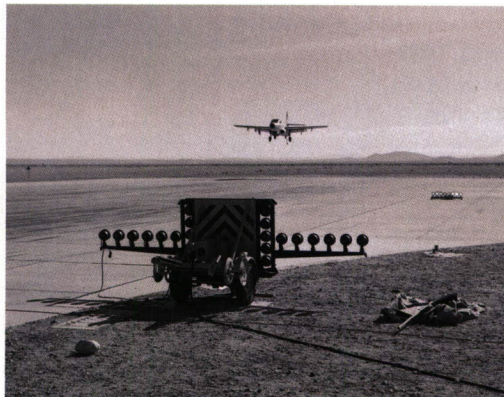
Just such a platform was ready at hand

bles. The significant statistic, though, is zero. That was the number of B-29s lost to enemy action during the time Willie the Whale protected.

"Zero" was also the number of F3Ds lost to enemy action during that period. The sole loss of an F3D was one that would remain a mystery for almost 50 years. In

the early morning hours of 30 May 1953, an F3D, piloted by Capt James B. Brown with R/O Sgt James "Red" Harrell in the right seat, vanished from ground radar while preparing for final approach to its base at Kunsan on South Korea's West Coast.

The weather was clear with no other





BOB HOOPER AND E. LANGSTON

and looking for a new line of work. The F3D-2 was fitted with electronics that would enable it to detect and jam enemy acquisition, to fire control and guidance radars and to record their electronic "signatures" for detailed analysis by technical intelligence ground personnel. The F3D-2 became the F3D-2Q and then the EF-10B. As soon as the existing models were reconfigured, they were placed in newly created Marine composite reconnaissance squadrons (VMCJs), doing duty alongside the new supersonic Vought F8U aerial photo "birds" that were coming into

Communist China, Willie first identified and then pinpointed the locations of China's Soviet-supplied air defense radar sites.

During the Cuban Missile Crisis of October 1962, EF-10Bs of VM CJ-2 confirmed the presence of Russian Spoon Rest and Fan Song target acquisition and fire control radars for the SA-2 surface-to-air missile (SAM) systems being employed in Cuba. Valuable ELINT collected in missions such as those greatly aided the development of new ECM equipment.

These missions proved to be just a pre-

Multitalented enlisted radar operators, working the Skynight's expansive radar suite, see what is ahead, prevent anyone from sneaking up from the rear, and help the pilot stay on target while he is delivering ordnance.

fire that grew in intensity day by day. In the entire Far East, only one squadron could do anything about it. On 17 April 1965, Lieutenant Colonel Otis W. Corman took VM CJ-1 to Da Nang from its home in Iwakuni, Japan, to provide ECM support for Air Force and Navy strikes against North Vietnam.

Willie was old and tired, and keeping it in the air kept ground crews busy. But those dedicated Marines kept Willie flying, and there was much flying to be done. By midsummer, Air Force and Navy attack aircraft were knocked out of the sky with dismaying regularity by an increasingly dense and effective network of SAM sites that were popping up everywhere. The nerve system of the SAM defenses was their highly effective target acquisition, fire control and guidance radars. They were the eyes of the communist air defenses. Something had to be done to blind them. Willie the Whale, an old airplane from an old war, took on the job.

Marine Captain William "Duke" Steinkens flew as an ECMO on the first strike against a pair of North Vietnamese SA-2 sites 40 miles from Hanoi. "As we passed to the west of Thanh Hoa, I intercepted numerous Fire Can fire control radars and commenced jamming them and breaking their radar lock-ons. [The pilot] said, 'Duke, look out here,' and I saw the entire area was black with heavy AAA flak. We got through that and arrived at our IP [Initial Point] right on time as the F-105s began to attack the SAM sites in intervals for over 20 minutes."

On that mission six EF-10Bs from VM CJ-1 provided ECM support for 48 USAF F-105s, none of which were lost to radar-controlled air defense weapons. Flying through ferocious AAA and SAM fire for a nerve-wracking 20 minutes that seemed like an eternity, they effectively blanked out the North Vietnamese fire control system. All of the VM CJ-1 pilots and ECMOs who took part in the raid were awarded the Distinguished Flying Cross.

That first strike was the beginning of what would prove to be a busy year for the "Cottonpickers" of VM CJ-1. Throughout the remainder of 1965 and all of 1966 no day or night strikes into North Vietnam were flown by the 7th Air Force or 7th Fleet without ECM escort by Willie. Beyond supporting raids north of the 17th parallel, Willie supported B-57 Canberra bombers interdicting North Vietnamese

WILLIE CONTINUED TO SERVE IN COUNTRY UNTIL 1969, BUT THE INTRODUCTION OF THE NEW GRUMMAN EA-6A RELEGATED HIM TO AN EVER-DECREASING ROLE.

service. Willie the Whale was back in business at a new location.

It wasn't long before Willie was flying ELINT missions off the coasts of Russia, China and North Korea. Operating over international waters from bases in Japan, Willie still had the ability to "look" inland and record electronic data from communist air defense radars. In 1957 and 1958, when the tension in the Taiwan Strait appeared to be on the verge of another shooting match between the United States and

liminary to Vietnam, and Willie proved to be in the right place at the right time. As early as 1965 the North Vietnamese, lavishly supplied by their Soviet patrons, were putting together one of the most sophisticated and deadly air defense systems ever devised. Soon, every prospective target in North Vietnam was ringed by a shield of 57 mm and 85 mm antiaircraft artillery (AAA) and SA-2 SAMs and their associated radars. Air Force and Navy aircrews were encountering AAA and SAM

truck convoys along the Ho Chi Minh Trail.

Flying in pitch-blackness, with nothing but the faint light of a USAF C-130 gunship to guide, was a white-knuckle experience. Capt Chuck Houseman, one of VMCJ-1's senior pilots, remembered those missions as particularly hairy. "The North Vietnamese air defenses quickly realized these ECM aircraft were ordnance free, and hence, plans were made to intercept us on the long flight home, at the end of a three-to-3½-hour effort. Not infrequently, we had to shut down our engines due to low fuel state. We were always taught to avoid thunderstorms, but they proved to be a safe haven, as the MiGs [the Soviet-supplied MiG-17 and MiG-19] wouldn't come in after us."

The strain on aircrews and ground crews during that year was enough to bring a charging rhinoceros to a staggering, stumbling halt. It wasn't unusual for flight crews to participate in two long missions during the day, with a night mission thrown in for good measure. As Capt Houseman recalled, "We had about six pilots and four or five ECMOs, which meant we were spread pretty thin. I had been out with our RF-8A detachment aboard USS *Coral Sea* [CVA-43], and my move to Da Nang was a stark contrast to the carrier; from hot

showers, clean sheets and good chow to 110 degrees, hot tents, mosquito netting and washing out of our helmets."

For the ground crews that kept old Willie in the air, the pace was no less grueling. For them 18-hour days were the norm. They ate their meals on the run and snatched a few moments of sleep whenever and wherever they could. They were Marines, and they lived with the knowledge that the lives of other Marines depended on them. But sometimes it got comical.

Marine veteran Richard Green remembered: "I was sitting on the truck, revving the generator just like most nights—we had two in the air almost every night—when there was a huge orange light and a great big BOOOOOM! The plane captain and I were in the sandbag hole in the revetment nearly before you could blink your eye. No; no rockets that night. Our pilot had let the fuel collect too long before he hit the igniters. He damn near blew the back end off the airplane!"

During that first year in Vietnam, old Willie the Whale flew an almost unbelievable 9,000 sorties in support of strike missions. Willie continued to serve in country until 1969, but the introduction of the new Grumman EA-6A relegated him to an ever-decreasing role. Finally, in

October 1969, the last EF-10B left Da Nang. Marine veteran Hubert Replogle, a hydraulics man with VMCI-1, watched it go. "I worked the day the last one left Vietnam. The unit was having a party at China Beach, but some of us worked to launch them out."

Willie the Whale, the only American jet of any service to fly in combat in both Korea and Vietnam, left the Marine Corps inventory in May 1970. There are no EF-10Bs in flying condition. But to see an airplane that served honorably in two wars, visit the National Museum of the Marine Corps, Triangle, Va. Willie is there, and if you listen closely, you may hear him reminiscing about nights in the skies above North Korea and North Vietnam.

Well done, Willie.

Editor's note: Al Bevilacqua, a former gunnery sergeant and a retired Marine major whose stories so often appear in Leatherneck, also has written the book, "The Way It Was: A Seabag Full of Marine Humor." His book is available from MCA bookstores. Order online at www.marineshop.net, or call toll-free (888) 237-7683.



KOREA VIETNAM GRENADA

POP A SMOKE

Sign-up / Re-up / Muster

The USMC/Combat Helicopter Association — a.k.a. Pop A Smoke — is an organization dedicated to providing a connection between Marine helo/tilt rotor drivers, crew chiefs, gunners, crewmembers, and mechanics (as well as the corpsmen and support personnel who kept them alive and flying) who served in our nation's conflicts from Korea to Vietnam, to Afghanistan and Iraq, and everywhere in-between. We want to reunite old "Salts" and introduce new "Boots" to keep tight the bonds forged in the rotor wash of Marine helicopter/tilt rotors. Every two years we muster together to trade lies, shake hands, and lift a few. Every three months we produce a newsletter, "Pop A Smoke," to keep us informed.

And every day we can go to the *Pop A Smoke* Web site to check in.

Join Today!

Associate membership is also available to all interested in Marine Aviation.

"When a Marine is in trouble, he looks to the sky — he knows the choppers are coming."

For info and membership details, visit www.popasmoke.com or call 781-337-3239.

Free initial membership available to Active Duty.

IRAQ AFGHANISTAN PERSIAN GULF