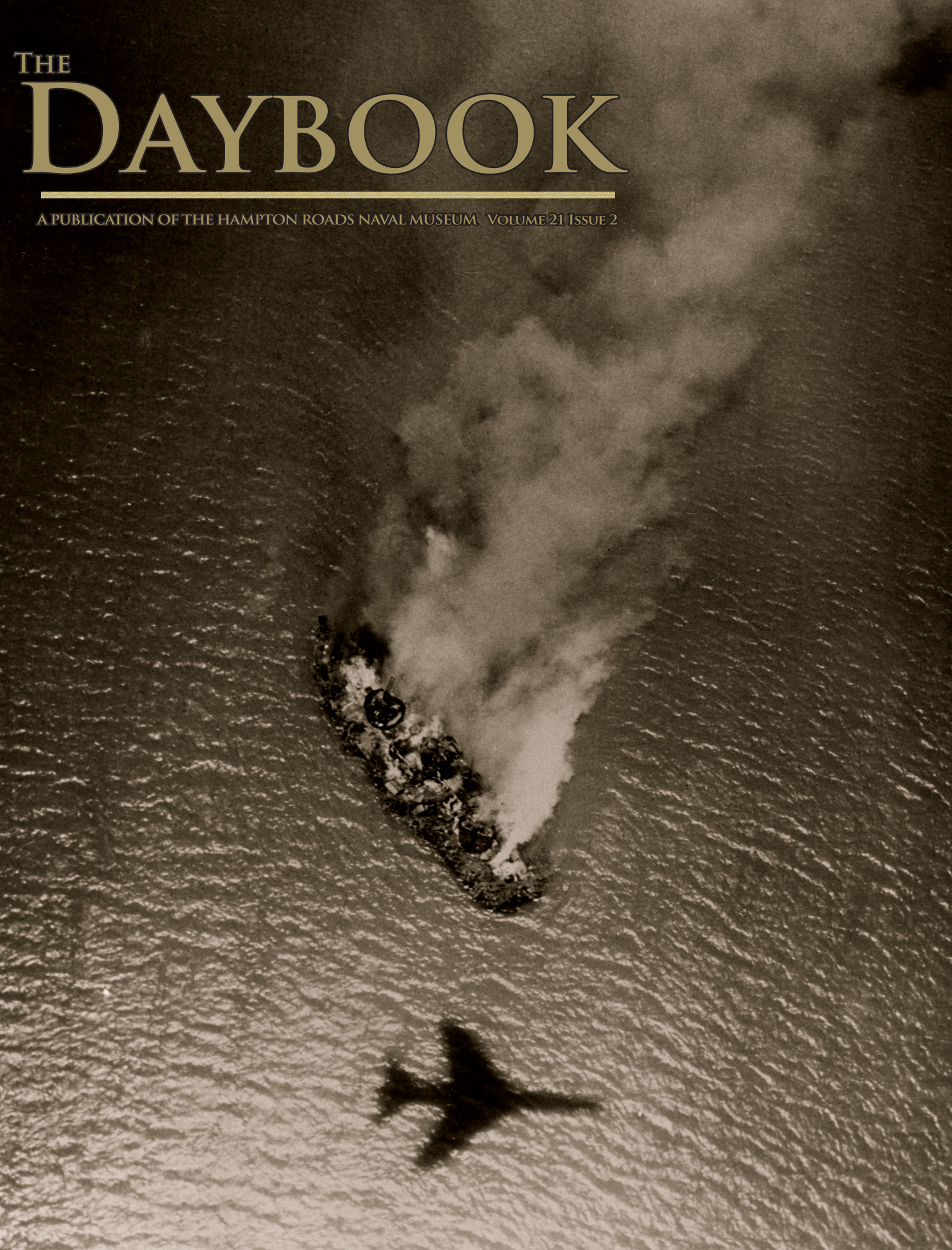


THE DAYBOOK

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COVER: A burning motor torpedo boat in the Rao Nay river, 12 miles north of Dong Hoi, North Vietnam, after an attack by USS *Midway* (CVA 41) planes on April 28, 1965. Note shadow of RF-8 reconnaissance aircraft. (*Naval History and Heritage Command image*)

THE DAYBOOK

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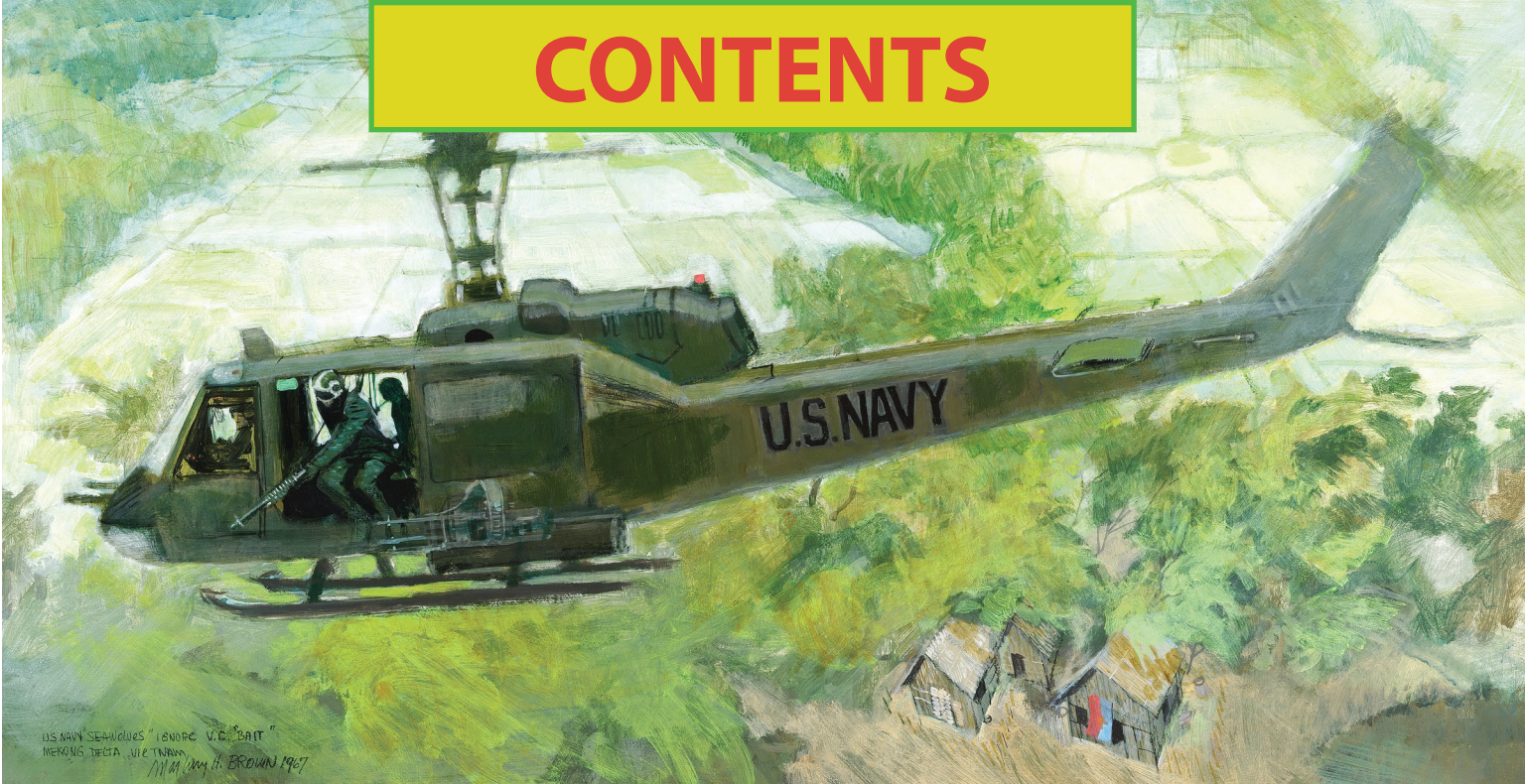
The Daybook's purpose is to educate and inform readers on historical topics and museum-related events. It is written by staff and volunteers.

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CONTENTS



"U.S. Navy Seawolves Ignore VC Bait," an oil-on-board painting by Marbury H. Brown, depicts a UH-1B "Huey" from Helicopter Attack Light Squadron 3 on a mission over South Vietnam in 1967. (Courtesy of the Navy Art Collection)

FEATURES

THE 10,000-DAY WAR AT SEA: FLYING FIREPOWER

The Campaigns:

- 3 PRESIDENT JOHNSON AND ROLLING THUNDER
- 7 PRESIDENT NIXON AND LINEBACKER

THE AIRCRAFT:

- 8 A IS FOR ATTACK
- 10 F IS FOR FIGHTER
- 14 BROWN WATER AIR POWER
- 22 LESSONS OF ROLLING THUNDER AND LINEBACKER

DEPARTMENTS

- 2 FROM THE DIRECTOR: "SOMETHING IN THE AIR"
- 18 HRNM VIETNAM ORAL HISTORY PROJECT, PART II:
THROUGH A SAILOR'S EYES: FLIGHT OF AN INTRUDER

Something in the Air

The Hampton Roads Naval Museum is proud to announce the upcoming exhibition *The 10,000-Day War at Sea: The U.S. Navy in Vietnam, 1950-1975*. Comprising half of our permanent gallery, the exhibition will immerse visitors in the immense role played by the United States Navy in the Vietnam War. Using the U.S. Navy's rich historical collections, multi-media presentations, and interactive components, the exhibit will encourage family learning, thoughtful discourse, and recognition of the war's naval activities.

The current issue, focusing on the role of naval aviation, is the second of five *Daybook* issues concentrating on the Navy in Vietnam. The featured articles are edited treatments of the recently published nine-volume series: *The U.S. Navy and the Vietnam War*. We thank the Naval History and Heritage Command and the Naval Historical Foundation for their permission and assistance.

Air power was a crucial element of the American strategy to disrupt North Vietnam's ability to infiltrate the South. During the course of the war, American planes dropped over twice as many bombs in Southeast Asia than were used in all of World War II, with the Navy's planes dropping 25 percent of American ordnance (1.5 million tons). U.S. pilots provided direct air support for friendly troops, attacked key supply routes such as the Ho Chi Minh Trail, and bombed North Vietnam's infrastructure to weaken the enemy's campaign against South Vietnam.

The aircraft carrier provided the U.S. military with one of its most important capabilities: to project power ashore. With carriers positioned off the coast of Vietnam, the Navy coordinated with the Air Force in the air campaign against North Vietnam. This mobile striking force was centered around Task Force 77, the aircraft carrier group of the U.S. Pacific Fleet. The Navy's sustained effort in the air campaign was evident by the fact that from 1964 to 1972, twenty-one different aircraft carriers served in the waters off of Southeast Asia, with nine carriers deploying six or more times to the region. Task Force 77 generally operated from an area off of North Vietnam called "Yankee Station," allowing for round-the-clock




strikes against the enemy. Thousands of Sailors performed their duties every day, ensuring that the task force was successful in its mission. The aerial mining of North Vietnamese harbors in 1972 brought Hanoi back into negotiations. Though tactical victories were nearly always achieved, American military might did not ultimately prevent South Vietnam's fall to Communism.

This issue also includes excerpts from the museum's oral history interview with Vietnam veteran Ted Been. A bombardier/navigator aboard an A-6 Intruder, Been's unique perspective on the dangers of night missions over North Vietnam is a must-read for students of the war. We wish to thank all of our Vietnam veterans who served in the United States Navy. If you or someone you know wants to participate in the Vietnam oral history program, please call 757-322-3108 for more information.

The exhibit is scheduled to open on Memorial Day 2019. Until then, Happy Reading!





The Campaigns: **PRESIDENT JOHNSON AND ROLLING THUNDER**

By Edward J. Marolda
and Norman Polmar

President Lyndon B. Johnson observes flight operations from the bridge of USS *Enterprise* (CVAN-65) during a demonstration off the California coast in November 1967. Also present are Secretary of Defense Robert S. McNamara (lower right) and the Chief of Naval Operations, Admiral Thomas H. Moorer (upper left). As a lieutenant commander during the Second World War, Johnson served as an observer of aerial bombardments against the Japanese. (*Naval History and Heritage Command image*)

The U.S. Navy and Marine Corps strongly influenced the conduct and outcome of the Vietnam War. Naval aviation—Navy and Marine Corps—figured prominently in air operations against the Democratic Republic of Vietnam (North Vietnam) and Communist forces in Laos, and in support of U.S. and allied troops fighting in the Republic of Vietnam (South Vietnam).

President Lyndon B. Johnson ordered the March 1965 bombing campaign against North Vietnam—Operation Rolling Thunder—to discourage the Hanoi regime’s direction and support of an insurgency that threatened to destroy the Republic of Vietnam. Bombing operations during 1964 in Laos, through which passed the main enemy supply line to South Vietnam—the Ho Chi Minh Trail—had failed to curtail or even slow Hanoi’s



Airman Paul M. Neighbors and Seaman Manuel T. Martinez of Attack Squadron 72 jockey their deadly load of ordnance to waiting launch-ready A-4 Skyhawks aboard USS *Franklin D. Roosevelt* (CVA 42) in September 1966. (Seaman Apprentice T. L. MacBride/ Hampton Roads Naval Museum file)

war effort. The U.S.-sponsored Operation 34 Alpha, a clandestine maritime campaign of sabotage and naval bombardment along the coast of North Vietnam, had proven even less successful. Indeed, the attack by North Vietnamese torpedo boats on the destroyer *Maddox* (DD 731) in August 1964, and the killing of U.S. servicemen by Viet Cong guerrillas at bases in Bien Hoa, Saigon, Pleiku, and Qui Nhon in South Vietnam in late 1964 and early 1965, demonstrated the enemy's determination to stay the course. Onetime U.S. strikes against targets in North Vietnam in retaliation for these attacks failed to alter the enemy's long-term plan to unite all of Vietnam under Ho Chi Minh's Communist regime.

The Johnson administration decided that a concerted bombing campaign could convince North Vietnam's leaders that they would pay too high a price to achieve

their goal. Washington concluded that allied air forces operating from bases in South Vietnam, Thailand, and aircraft carriers in the Gulf of Tonkin could accomplish this mission without provoking intervention into the war by North Vietnam's nuclear-armed allies, the Soviet Union and the People's Republic of China.

U.S. leaders drew a bombing line across the southern part of North Vietnam and envisioned "rolling" the line of "thunder" very slowly northward. They believed that as the bombing moved closer to Hanoi, the Ho Chi Minh government would capitulate to save the country from massive destruction. U.S. Navy and U.S. Air Force operational planners initially focused on 94 targets that included bridges and railways, military installations, and industrial sites in North Vietnam. The Joint Chiefs of Staff selected these targets months prior to the start of the campaign, and the White House approved some of them.

In early 1965, few American civilian or military leaders believed that North Vietnam had the will or capacity to resist the bombing campaign. When it became clear that the U.S. strategic analysis had erred on both counts, American leaders parted ways on how to proceed. Some members of the Joint Chiefs of Staff and other military leaders advocated an overwhelming, no-holds-barred air assault on North Vietnam to achieve victory. President Johnson, however, feared that a major war in Southeast Asia would derail his Great Society and other domestic programs. Secretary McNamara persuaded the President that a judicious, carefully controlled application of military force would bring success as it had in the Cuban Missile Crisis of 1962. Both men believed they could compel Hanoi to give up the fight through military pressure and diplomacy without triggering Chinese or Soviet intervention. Admiral Ulysses S. Grant Sharp Jr., Commander in Chief, U.S. Pacific Command (CINCPAC), who was the commander directing the Rolling Thunder campaign, initially tried to steer a middle course. He pushed for powerful military strikes, but in his bombing plans he accommodated Washington's wishes to avoid provoking



Photographed from a following A-4 Skyhawk, a Skyhawk from USS *Constellation* (CVA 64), possibly from Attack Squadron 146, goes on a bombing run against an enemy army barracks at Dong Hoi, North Vietnam, in October 1967. (National Archives and Records Administration)

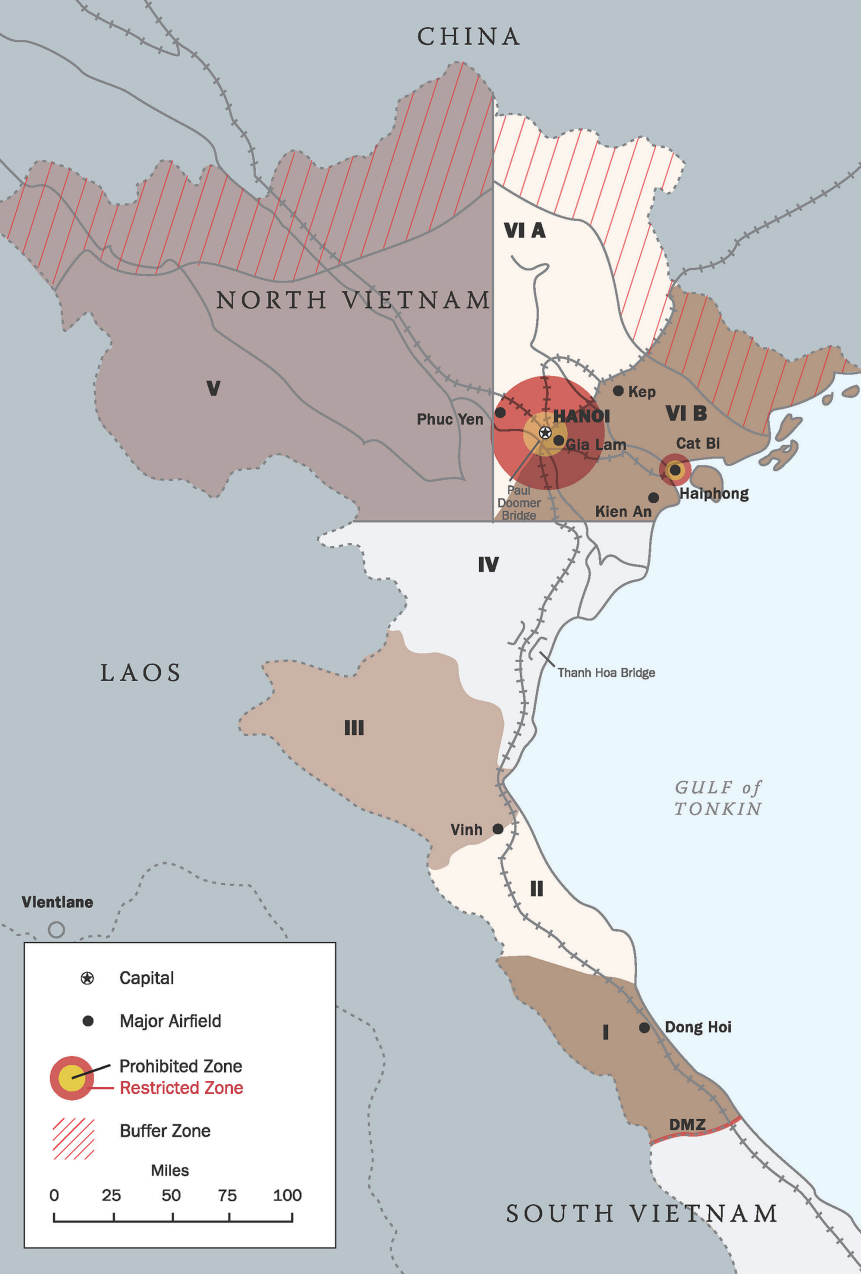
Hanoi's allies or arousing war fever in the United States. By the end of Rolling Thunder, however, Sharp's often heated advocacy of strong measures, including the mining of North Vietnam's ports and the destruction of all major military targets, had negated his influence with Johnson and McNamara. The admiral especially loathed Washington's micromanagement of operations. President Johnson once boasted that the military could not "bomb an outhouse without my permission." Significant technological improvements in military communications since the Korean War enabled President Johnson, unlike his predecessors, to exercise direct control of military operations thousands of miles from Washington. He often selected targets to be struck in North Vietnam at Tuesday luncheons in the White House. McNamara and his civilian deputies not only dictated which targets could be struck but at times stipulated specific days and times for attacks, the number and types of aircraft to be

employed, and the kinds of ordnance to be used. Vice Admiral Malcolm "Chris" Cagle, a noted naval aviator, likened this unwieldy process to "targeting by remote control." While constrained by the tight control of operations from afar, the Navy, Marine Corps, and Air Force officers charged with executing Rolling Thunder adapted as best they could and brought significant airpower to bear against enemy forces in North Vietnam, Laos, and South Vietnam. The bombing campaign failed to compel Hanoi's surrender or to cut the Ho Chi Minh Trail, but Rolling Thunder operations did force North Vietnam to pay a heavy price in terms of lost lives; destroyed roads, railways, bridges, and power generating plants; and a devastated economy. The American air forces also saved the lives of thousands of allied soldiers and Marines fighting in South Vietnam by delaying the start of enemy offensives and starving them of supplies and reinforcements. The U.S. Navy proved essential to


Campaign Coordination

Air Force and Navy leaders tried a number of approaches to dividing the bombing responsibility in North Vietnam, but different service operating methods compelled Admiral Ulysses S.G. Sharp, commander in chief of the Pacific Command from 1964 to 1968, to establish separate areas, or “route packages,” for each service. The Air Force flew the attacks in Route Packages V and VIA, the areas closest to their bases in Thailand. The U.S. Military Assistance Command, Vietnam (MACV) under General William C. Westmoreland was responsible for Route Package I, just north of the Demilitarized Zone. The Navy carriers focused their strike efforts on the coastal regions in Route Packages II, III, IV, and VIB.

Few service leaders liked the divided command and control structure employed for the Vietnam air war. The Air Force, Navy, and Marine Corps each had different operational requirements, resources, and warfighting cultures that precluded centralized control. Nonetheless, leaders and commanders in the operational theater routinely cooperated with one another to fashion a powerful offensive force, and combat units from the different services routinely worked together. For example, Navy warships used their advanced air search radars to warn Air Force planes of approaching enemy fighters; Air Force search and rescue (SAR) aircraft plucked downed naval aviators from the sea; and Marine ground forces prevented Viet Cong guerrillas from overrunning Air Force bases in South Vietnam. (J.M. Caiella/ Naval History and Heritage Command illustration)



the conduct of Rolling Thunder. Exploiting the inherent flexibility and mobility of naval forces, the Seventh Fleet operated with impunity for three years off the coast of North Vietnam. With existing airfields under attack and new, jet-capable airfields under construction in South Vietnam during the early years, Task Force 77 carriers complemented the Air Force’s air support responsibilities. Cruisers, destroyers, frigates, and for a period in 1968 the battleship *New Jersey* (BB 62) shelled targets along the North Vietnamese coast. Other warships, with advanced radars, monitored the skies over North Vietnam to warn U.S. aircraft of approaching enemy planes. Naval replenishment ships enabled the fleet to remain off Vietnam night and day, seven days a week, throughout Rolling Thunder.

Nonetheless, the Navy that entered the fight in Vietnam did so with many ships, aircraft, weapons, and equipment that first saw service in the Korean War, or even World War II, and with tactics inadequate for aerial warfare in the 1960s. The Navy overcame those deficiencies with the development and testing in battle of advanced aircraft, munitions, and electronic gear. Naval officials, combat commanders, and enlisted personnel learned in the hard school of combat the best tactics for overcoming North Vietnam’s increasingly lethal air defenses. The success with which the Navy executed the Linebacker campaign against North Vietnam in 1972 revealed how much the service had learned from and exploited the Rolling Thunder experience of 1965–1968. 



The Campaigns: **PRESIDENT NIXON AND LINEBACKER**

By John Darrell Sherwood

President Richard M. Nixon (left), with Chief of Naval Operations Admiral Thomas H. Moorer observe air and sea power demonstrations from the flight deck of USS *Saratoga* (CVA 60), in the Atlantic Ocean, May 1969. (Photographer's Mate 3rd Class Philip J. Fraga/ *Naval History and Heritage Command* image)

On January 31, 1968, the North Vietnamese Army (NVA) and Viet Cong (VC) guerrillas launched a spectacular offensive in South Vietnam. Five of the country's six major cities, 36 of its 44 provincial capitals, and 64 of its 245 district capitals were attacked that day. A sapper squad even penetrated the grounds of the U.S. Embassy in Saigon. The media broadcast images of combat at the embassy and in other key cities, causing tremendous psychological shock for the American

Linebacker
Continued on page 16

The Aircraft:

A is for Attack

By Norman Polmar



A Douglas A-4 Skyhawk fires 15 2.75-inch rockets at Viet Cong targets in South Vietnam. Photo is dated October 28, 1965. (RG-330, National Archives and Records Administration)

The Douglas A-1 Skyraider (originally AD, redesignated in 1962), designed during World War II and a mainstay of strike operations in the Korean War, served the Navy, the Air Force, and the Vietnam Air Force during the conflict in Southeast Asia. The propeller-driven Skyraider, called a “Spad,” was known for its ability to carry a heavy load of ordnance and stay aloft for many hours. A-1s took part in strike operations during the early years of Rolling Thunder. Naval leaders eventually considered the planes too vulnerable to the enemy’s sophisticated air defenses in the heart of North Vietnam and subsequently employed them for close air support missions in South Vietnam and as armed escorts for search and rescue missions in the less heavily defended regions of Indochina.

The workhorse of Task Force 77’s attack arm during Rolling Thunder was the Douglas A-4 Skyhawk. The A-4s, fondly called “Scooters” by pilots who considered them easy to handle and a joy to fly, formed the core of the Alpha strikes against targets in North Vietnam. The

A-4s carried bombs and rockets on attack missions and Shrike antiradar missiles to suppress enemy air defenses. Skyhawks flew more attack sorties than any other Navy plane and performed well in that role, but they also suffered heavy losses. Enemy air defenses shot down 195 A-4s, and operational accidents claimed another 77, representing almost one-third of all Navy aircraft lost in the war. A-4 pilots who fell victim to enemy fire early in the war included Lieutenant (j.g.) Everett Alvarez Jr., Commander James B. Stockdale, and Lieutenant Commander John S. McCain III. These men figured prominently in the prisoner-of-war (POW) experience. By the end of Rolling Thunder, the fleet had begun limiting the use of Skyhawks over the high-risk areas of North Vietnam.

As the air war over Vietnam escalated, new aircraft and weapons entered the fight. On July 4, 1965, USS *Independence* (CVA 62) launched the first A-6A Intruders on a combat mission. The Grumman Intruder (originally A2F) was the first aircraft designed specifically to strike targets obscured by bad weather or darkness. It was a



Navy Ordnancemen load five-inch rockets on an AD-5 Skyraider belonging to Attack Squadron 85 aboard USS *Forrestal* (CVA 59). (Photo by Chief Photographer's Mate Ralph Seghers/ Hampton Roads Naval Museum file)

two-seat, twin-turbojet aircraft capable of carrying up to 15,000 pounds of conventional or nuclear weapons on five pylons; this capability outpaced that of even the celebrated prop-driven Skyraider series.

A key feature of the early Intruders was the digital integrated attack system (DIANE) that combined search and track radars; navigation, communications, and identification equipment; a cockpit display system; and a high-speed digital computer. DIANE enabled the pilot to preselect a target, guide the aircraft, release the weapons, and leave the target area automatically. From the time an Intruder catapulted from a carrier's flight deck to its return from a mission over Vietnam, the pilot had no need for visual references.

The debut of the first Intruder squadron—Attack Squadron (VA) 75—was marred by several losses. On the night of September 17, 1965, the squadron's commanding officer, Michael C. Vogt, and his bombardier navigator were killed when their aircraft, apparently hit by anti-aircraft fire, went down at sea.

The Ling-Temco-Vought (LTV, formerly Chance Vought) A-7 Corsair II first saw combat in December 1967, when *Ranger* entered the Gulf of Tonkin for her third Western Pacific deployment of the war. The Navy intended the Corsair to replace the A-4 Skyhawk as a light attack aircraft for daytime operations. Its designers anticipated the plane conducting deep interdiction strikes, with nuclear or conventional weapons, and providing close air support to ground forces.

When *Ranger* arrived in the South China Sea with VA-147, the first operational Corsair attack squadron, included in its ranks were 24 Air Force personnel—three of them carrier-qualified pilots—to evaluate the aircraft for their service, which later procured the A-7D variant. The Corsair could carry up to 15,000 pounds of weapons and drop tanks (or refueling equipment) on six wing pylons; two cheek pylons held Sidewinder air-to-air missiles. Initially the attack plane boasted a pair of 20mm M12 cannon, and the later A-7C and A-7E versions had a single 20mm multi-barrel Gatling gun.





The Aircraft:

F is for Fighter

Two outstanding fighters flew from U.S. carrier decks during Operation Rolling Thunder—the McDonnell Douglas F-4 Phantom II (formerly F4H) and the Ling-Temco-Vought F-8 Crusader (formerly F8U). Both aircraft were designed specifically for shipboard operation. The Phantom also flew from British carriers and was flown by the Royal Air Force ashore. The French Navy launched Crusaders from their carriers. The U.S. Air Force and several foreign air arms employed Phantoms from land bases. The Phantom and the Crusader proved to be lethal adversaries of the Soviet-built MiG fighters during the Vietnam conflict.

More Phantoms were produced than any other U.S. post-World War II military aircraft except for the F-86 Sabre/FJ Fury, and the P-80/T-33 Shooting Star. During the 1960s and 1970s, Phantoms were the mainstay fighter aircraft of the U.S. Navy, Marine Corps, and Air Force and were operated by the air forces of ten foreign nations, some well into the 21st century.

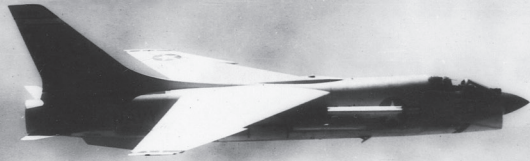
The McDonnell Aircraft Company initially designed the Phantom as a single-seat, fighter-attack aircraft, at one point designated AH-1. During the plane's development the Navy changed its requirements to a long-range, high-

A McDonnell Douglas F-4 Phantom II belonging to the Naval Air Station Oceana-based Fighter Squadron (VF) 102 "Diamondbacks" flies over the aircraft carrier *Independence* (CVA 62). (Hampton Roads Naval Museum file)

altitude interceptor designated F4H (F-4 after 1962). The Phantom was the Navy's first fighter not armed with guns, but had an all-missile armament. A radar operator sat behind the pilot to operate the complex electronics systems. The first Phantom flew in 1958, and it soon became known as a winner.

The F8U-3 Crusader III competed with the Phantom as the Navy's advanced fighter. It was a single-engine, single-pilot, specialized interceptor compared with the two-engine, two-man F4H-1 multimission aircraft. Both planes could reach level speeds in excess of Mach 2. In 1958 the Navy selected the Phantom, with its speed of Mach 2.2, over the advanced Crusader as its standard carrier-based fighter. And in 1962 Secretary of Defense Robert McNamara directed the Air Force to procure Phantoms instead of additional F-105 Thunderchiefs, a specialized attack aircraft.

The Phantom relied on armament of six Sparrow radar-homing missiles or four Sparrows and four



An F-8 Crusader lets loose a barrage of 2.75-inch rockets. (National Archives and Records Administration)

Sidewinder heat-seeking missiles for intercepts. In the attack role a Phantom could carry a payload of almost eight tons—nearly double the maximum load of a World War II B-17 Flying Fortress. The weapons load could include eleven 1,000-pound bombs or eighteen 750-pounders or four Bullpup air-to-surface missiles. The Phantom could carry four Sparrows with any of these attack loads.

Entering U.S. Navy service in 1962, Phantoms first saw combat in August 1964, when F-4s from *Constellation* (CVA 64) escorted attack aircraft that bombed targets in North Vietnam following the Gulf of Tonkin incident. The first air-to-air encounter came on June 17, 1965, when two Phantoms from *Midway* (CVA 41) tangled with four North Vietnamese MiG-17 fighters. The Phantoms used Sparrow missiles to down two of the MiGs and suffered no losses. After that, Navy and Air Force Phantoms regularly engaged and defeated MiG-17s.

All five U.S. fighter aces of the Vietnam War (two Navy and three Air Force) scored their aerial victories with the aircraft. F-4s were responsible for 36 of the Navy's Vietnam aircraft kills. Overall, the Phantom demonstrated a marked superiority over the MiG-21 and lesser aircraft encountered in Vietnam. Air Force and Marine squadrons also flew the RF-4, a photo reconnaissance variant of the versatile jet. The F-4 Phantom merited the numerous accolades heaped upon the plane during its 35-year career with the U.S. armed forces.

The F-8 Crusader, first flown in 1955 and designated F8U prior to 1962, served as the Navy's single-seat, high-performance, day fighter. Faced with the problem of developing a Mach 1.8 fighter with good carrier-landing characteristics, Vought designers created a plane

whose wing raised up seven degrees during launches and recoveries, thus providing the angle-of-attack necessary for a 130-mph landing speed and still have the fuselage in a near-horizontal attitude for maximum pilot visibility.

The Crusader had four 20mm cannon, a Sidewinder missile rail on each side of the fuselage, and a rocket pack that opened from the bottom of the fuselage to fire thirty-two 2.75-inch, unguided, air-to-ground rockets. The Navy deleted the rocket pack from later models and modified the missile rails so that each could launch two Sidewinder air-to-air missiles. The first F8Us entered Navy and Marine fighter squadrons in 1957. In June of that year, a pair of Crusaders launched from *Bon Homme Richard* (CVA 31) off the California coast and with in-flight refueling, recovered on board *Saratoga* (CVA 60) off the Florida coast; the flight spanned the continent in three and a half hours. A month later, Marine Major John H. Glenn Jr. piloted an F8U-1P photo variant from California to New York in 3 hours, 28 minutes, 50 seconds for an average speed of 723.5 mph, a cross-continent record.

By 1960, more than half of the Navy's 30 carrier-based fighter squadrons and most of the Marine Corps fighter squadrons flew the Crusader, as did the French Navy. At that time unarmed F8U-1P Photo Crusaders served in two- and three-plane detachments on all Navy attack carriers and in the three Marine reconnaissance squadrons. Like the Phantom, the Crusader first saw combat during the Gulf of Tonkin incident of August 1964, when they flew from *Ticonderoga* (CVA 14) as part of the Pierce Arrow retaliatory strike operation. Crusaders flew throughout the Vietnam conflict and shot down 18 MiGs. The F-8 claimed one of its victims with 20mm cannon fire and all the others with Sidewinders or a combination of guns and missiles.

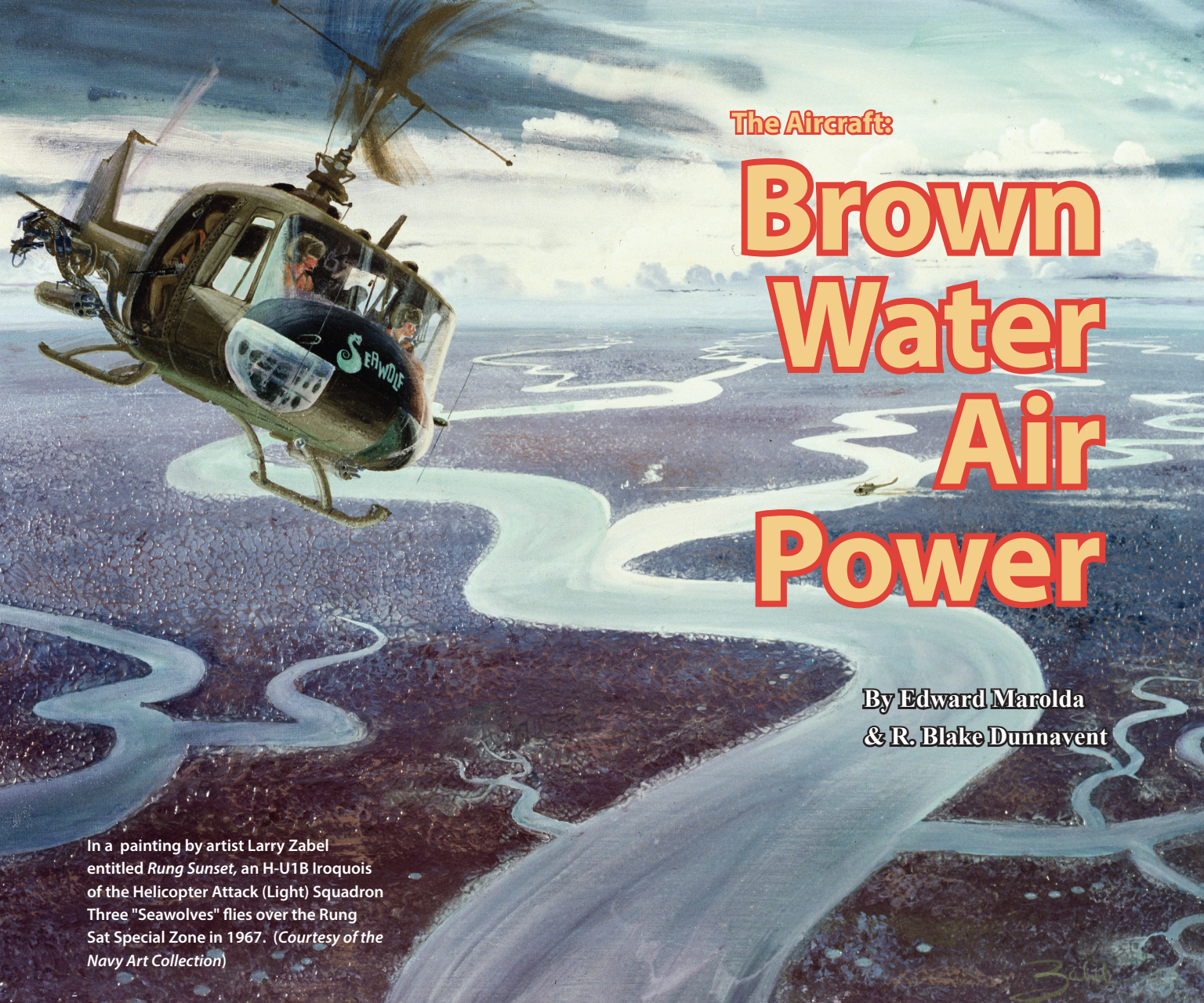




Launch, by Robert G. Smith, 1969. (Courtesy of the Navy Art Collection)



RESNIK



The Aircraft:

Brown Water Air Power

By Edward Marolda
& R. Blake Dunnivant

In a painting by artist Larry Zabel entitled *Rung Sunset*, an H-1B Iroquois of the Helicopter Attack (Light) Squadron Three "Seawolves" flies over the Rung Sat Special Zone in 1967. (Courtesy of the Navy Art Collection)

In March 1965, Military Assistance Command, Vietnam established the Coastal Surveillance Force designated Task Force 115 to interdict seaborne infiltration from North Vietnam along South Vietnam's 1,200-mile coastline in Operation Market Time. Commander Task Force 115, initially reporting to Chief Naval Advisory Group and later to Commander Naval Forces, Vietnam, deployed U.S. forces to three interdiction areas: Navy patrol planes to an outer barrier far out in the South China Sea; U.S. Navy, U.S. Coast Guard, and Vietnam Navy (VNN) oceangoing ships to a barrier beginning 12 miles offshore; and allied patrol craft and junks to an inner barrier just offshore. On December 18, 1965, the U.S. Navy established the River Patrol Force, designated Task Force 116, to conduct Operation

Game Warden in the Mekong Delta in cooperation with the VNN's River Force.

The Helicopter Attack (Light) Squadron 3 (HAL-3) "Seawolves" provided the dedicated air support for Task Force 116, employing UH-1B Iroquois helicopters, commonly called Hueys, acquired from the Army. Two-helicopter detachments operated in close support of individual river sections. Yet Navy attack helicopters carried only so much ordnance, and they could not operate for long periods on patrol.

In late-1968, Naval Forces, Vietnam staff officers developing the Southeast Asia Lake, Ocean, River, Delta (SEALORDS) campaign recognized that naval forces needed additional resources for air support to execute the barrier patrol operations on the Cambodian border and



Robert G. Smith's 1969 painting *Special Delivery* shows Light Attack Squadron 4 Broncos engaging enemy positions with 5-inch Zuni rockets. (Courtesy of the Navy Art Collection)

penetrate the enemy's most heavily defended strongholds. They concluded that they needed another aircraft type "that would bridge the gap between the helicopter gunship, which was accurate but slow, and jet aircraft support, which could deliver a large amount of ordnance in a short period but with questionable accuracy." Thus the Navy commissioned Light Attack Squadron 4 to meet these mission requirements, featuring OV-10A Bronco fixed-wing aircraft capable of carrying 2,400 pounds of ordnance, remaining on patrol for two to three hours, and speeding at close to 200 knots to reach a trouble spot.

Light Attack Squadron (VAL) 4 deployed in April 1969 from Naval Air Station, North Island, California, to the middle of the Mekong Delta at Binh Thuy and Vung Tau south of Saigon. The naval aviators of VAL-4, who called their squadron the Black Ponies, brought with them 14 fixed-wing, twin-engine, propeller-driven OV-10A Broncos. The plane carried a powerful arsenal of aerial weapons. The six revolving barrels of the SUU-11 Gatling-type mini gun could fire a prodigious 6,000 7.62 rounds per minute. The Bronco's 5-inch Zuni rocket capability, called the "big stick" by VAL-4 crews, enabled the plane to destroy tunnel and bunker complexes, clear swaths of jungle, and neutralize enemy troop formations in close contact with allied ground troops. The plane's 20mm guns could fire 400 rounds a minute, and its M-60 machine guns and 2.75-inch rockets complemented that firepower.

A light attack fire team (LAFT) of two Broncos could scramble from Binh Thuy and within 25 minutes reach any spot in the Mekong Delta to provide air support. Other missions involved flying over enemy territory looking for targets of opportunity or flying in direct overhead support of river patrols. The two crewmen of each Bronco had specific tasks. The pilot in the lead seat selected and fired the weapons. The back-seater handled navigation, communications, and getting clearance to fire the weapons. Neither naval aviator wanted to kill friendly troops or innocent civilians.

The OV-10A's ability to operate in foul weather and at night resulted in more than 60 percent of VAL-4's missions taking place at night. Often, because heavy weather produced low cloud ceilings, the Black Ponies flew their Broncos below 100 feet. One nighttime tactic called "chumming" entailed one plane operating with its lights on to draw enemy fire while the other flew nearby ready to pounce on the rash attacker. On eight out of ten missions, the Broncos took fire, and it was not unusual for the aircraft to return to base punctured by AK-47 rounds.

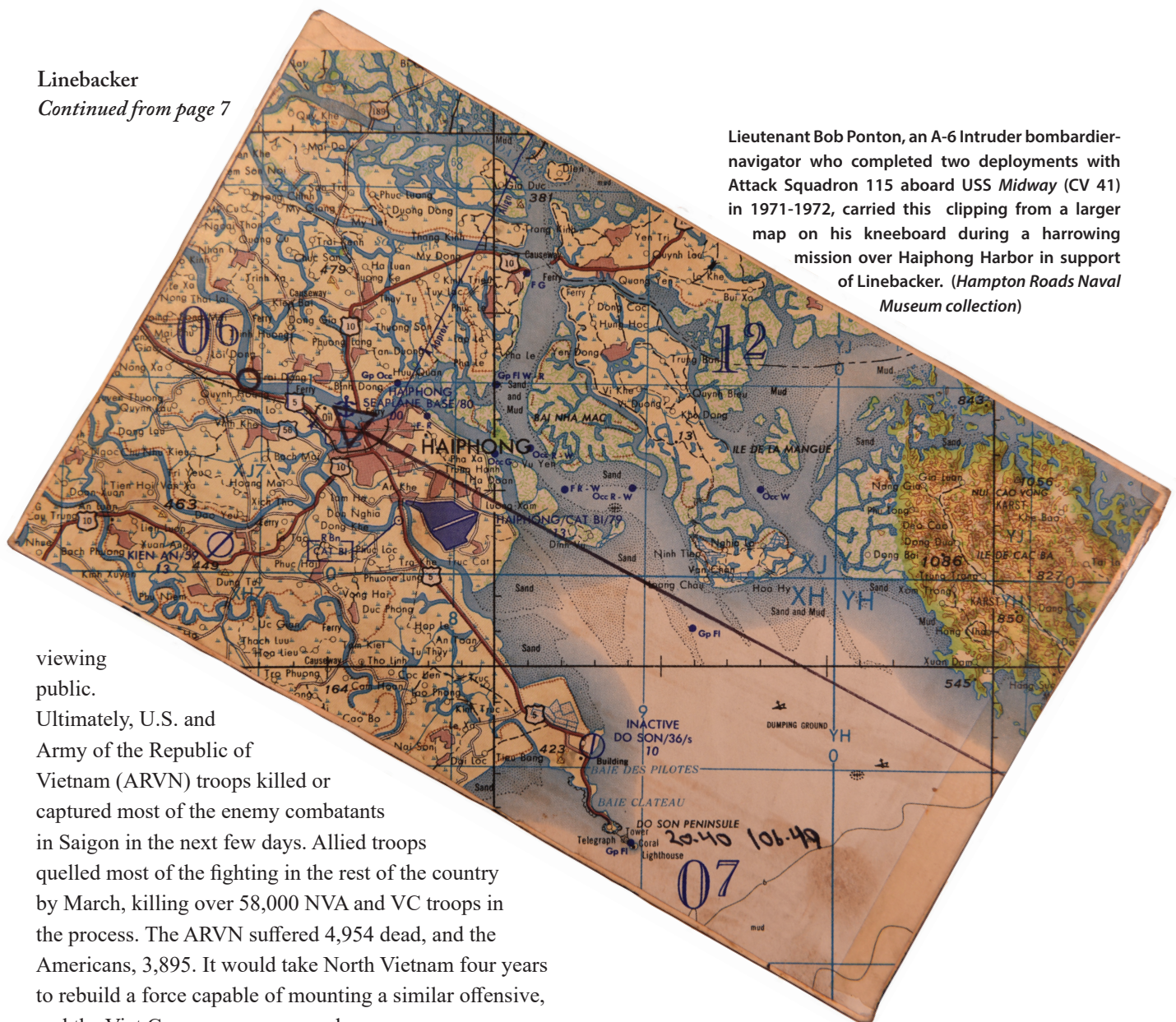
Pilot Donald J. Florcko observed that a "dark night in August 1969" had "all the elements for disaster—torrential rain, thunder, and extremely poor visibility." His LAFT was scrambled to assist an ARVN outpost in Tay Ninh Province northwest of Saigon when a North Vietnamese unit threatened to overrun it. Hearing the Black Ponies overhead, the ARVN troops popped flares to identify their position. The two Broncos dove on the enemy's positions with guns blazing and in short order drove off the attackers. VAL-4 fought on in Vietnam long after most U.S. military forces had been withdrawn from the war.



Linebacker

Continued from page 7

Lieutenant Bob Ponton, an A-6 Intruder bombardier-navigator who completed two deployments with Attack Squadron 115 aboard USS *Midway* (CV 41) in 1971-1972, carried this clipping from a larger map on his kneeboard during a harrowing mission over Haiphong Harbor in support of Linebacker. (Hampton Roads Naval Museum collection)



viewing
public.

Ultimately, U.S. and Army of the Republic of Vietnam (ARVN) troops killed or captured most of the enemy combatants in Saigon in the next few days. Allied troops quelled most of the fighting in the rest of the country by March, killing over 58,000 NVA and VC troops in the process. The ARVN suffered 4,954 dead, and the Americans, 3,895. It would take North Vietnam four years to rebuild a force capable of mounting a similar offensive, and the Viet Cong never recovered.

Despite suffering over five times as many military casualties as the allies, North Vietnam won the Tet Offensive in a strategic sense. The shock and intensity of the surprise attack created a tragic sense of defeatism for many members of the American public and especially for President Lyndon B. Johnson. It was, as Army historian S.L.A. Marshall later explained, “a potential major victory turned into a disastrous defeat through mistaken estimates, loss of nerve, and a tidal wave of defeatism.” After Tet, Johnson looked for a way out of Vietnam that did not involve further major combat operations against North Vietnam. Announcing in March that he would not run in the upcoming election, Johnson called for peace talks with Hanoi to end the war. He also halted naval and air attacks on North Vietnam, except in the area just north of the Demilitarized Zone (DMZ), the border area

between North and South Vietnam. On October 31, 1968, he ordered a cessation of all bombing operations against North Vietnam.

Richard M. Nixon, elected to the presidency that same November, also wanted to end American involvement in Vietnam. But he did not want to be the first American president to lose a war. Once elected, he sought to achieve this goal of “peace with honor” through Vietnamization—a program designed to withdraw U.S. ground forces from South Vietnam and turn over the country’s defense to the Vietnamese. American air and naval power would cover this withdrawal by providing the ARVN with air and naval gunfire support. American air power would also limit the flow of Communist supplies to the south through Laos in a campaign called Commando Hunt. During Commando Hunt and the interdiction

efforts that preceded it, U.S. Air Force and Navy aircraft dropped nearly three million tons of bombs on this small, landlocked country. In the history of warfare, only Germany and Japan in World War II had been the target of more bomb tonnage.

Although offensive bombing against North Vietnam officially stopped between 1968 and 1972, the United States conducted numerous “protective reaction” strikes against North Vietnamese air defenses when these defenses fired upon or otherwise threatened U.S. aircraft conducting aerial reconnaissance or passing over North Vietnam in transit to Laos.

Over 1,000 protective reaction strikes were launched in 1970 alone. During one such operation in December 1971, 200 Air Force and Navy planes struck targets as far north as the 20th parallel (just 75 miles from Hanoi) in the biggest bombing raid of that period—Proud Deep Alpha.

The most intense year of the air war was 1972. During that year, North Vietnam launched a major attack that employed masses of regular ground troops, tanks, and artillery against South Vietnam. In the so-called Easter Offensive, the enemy hoped to crush the South Vietnamese armed forces and bring the war to a sudden, violent conclusion.

Only a small number of Air Force fighter planes, a handful of Army and Marine advisors, and the Navy carriers in the

Gulf of Tonkin were on hand to aid the South Vietnamese in stemming the Communist onslaught. In the end, naval air power proved vital in stopping the offensive because of the Navy’s ability to concentrate carriers off Vietnam. In a matter of a few short weeks, the Navy’s carrier presence in the Gulf of Tonkin jumped from two to six flattops. Navy aircraft flew the majority of strikes during the critical early days of the offensive. Navy surface ships also offered beleaguered South Vietnamese ground forces

near the DMZ critical gunfire support against North Vietnamese armored columns moving down the coast. Once the invasion was effectively halted, naval aircraft and warships carried the war to North Vietnam. During Operation Pocket Money (May 1972–January 1973), naval aviators mined Haiphong Harbor and other major ports in North Vietnam. In Linebacker I (April–October 1972), Navy planes and warships resumed combat against North Vietnam and struck many formerly off-limit targets for the first time in the war. Naval aviators fought their most intense air-to-air duels with enemy MiGs

during 1972, and warships braved fierce enemy fire to attack targets of significance along the North Vietnamese coastline, including targets in Haiphong. In all, enemy fire hit 16 U.S. Navy ships during 1972—the deadliest year of the war for the Navy’s gunfire support force. The final large-scale air/surface operation of the war was Linebacker II—Nixon’s famous B-52 bomber assault against Hanoi and Haiphong in December 1972. This operation ultimately convinced the North Vietnamese to agree to a peace settlement. As in nearly every earlier air campaign of the war, naval aviators took to the skies during Linebacker II, bombing targets in Hanoi and Haiphong as well as paving the way for Air Force B-52s by attacking surface-to-air missile (SAM) sites

and other air defense positions in North Vietnam. Naval aircraft also reseeded North Vietnamese harbors with mines during Linebacker II and destroyed enemy patrol boats. Finally, naval gunfire support ships struck a variety of important targets along the heavily defended North Vietnam coastline. This naval power proved critical during the end game of the Vietnam War and contributed mightily towards the achievement of the President’s goal of “peace with honor.”



An anti-aircraft emplacement near Haiphong Harbor photographed on June 22, 1967, by an RA-5C Vigilante from Reconnaissance Attack Squadron 12, operating from USS Constellation (CVA 64). (*National Archives and Records Administration*)





Through a Sailor's eyes: **FLIGHT OF AN INTRUDER**

By Laura Orr

In the South China Sea, an A-6 "Intruder" awaits its turn for launching aboard the USS Kitty Hawk (CVA 63) in March, 1967. (Chief Journalist R.D. Moeser./ Naval History and Heritage Command image)

As part of the Hampton Roads Naval Museum's Vietnam commemoration, staff members are conducting oral history interviews with Navy veterans who served in Vietnam. Those interviews will help to shape an exhibit slated to open in May 2019. This issue of The Daybook features portions of an interview conducted in August 2017 with Ted Been, who deployed twice to Vietnam and flew 189 missions as a Bombardier/Navigator aboard the A-6 Intruder. Then-Lieutenant Been deployed aboard USS Kitty Hawk (CV 63) from January to June 1966, and again from November 1966 to July 1967. In this excerpt from the interview, Been discusses several of his missions in Vietnam—including a mission that could have ended his career.

Question: Would you mind telling us about a couple of the missions that you remember?

Answer: One of them was a night strike on the airfield at Kep [less than 40 miles northeast of Hanoi].... We launched with four airplanes, and one went down, so he went back to the ship. We launched about 1 o'clock in the morning. We started coming down through the mountains, towards Kep. We were flying below the mountains' ridgelines, but they picked us up [on radar] anyway. On the way in, Ron Hayes [my pilot] had a bad habit of, whenever anything bad happened he would tap me on the knee, because we were only six inches apart. He would tap me on knee and I would come out and go, "Oh geez!" You could see a ripple of what looked like lightning off on the horizon, and sure enough a few seconds later, we hear BOOM! They [the flak] all went off overhead, and you could hear the shrapnel on the airplane. It sounded like rain on a tin roof. We just kept flying low—we were flying at like 100 feet below the mountains. A lot of it you could navigate through there if your radar was valid, which in those days, it was a touchy thing. But it was working this night. So we got to within about five miles of Kep.

It was a bright moonlit night. It was night at this time and Ron Hayes kept picking up the runway. We were coming down parallel to the runway. Ron Hayes says, "Okay, Ted, I'm taking it visually now." I could pick it up on the radar. The MiGs were lined up in revetments alongside the runway. We had Snake Eyes; this is the first deployment of [these modified bombs] in combat. We weren't really sure how they would work, but [the North Vietnamese] were used to us, because we had to pull up to 1500 feet in order to release stick bombs, or regular bombs. The Mk82's blasting yield, if you didn't pull up to 1500 feet, you would get caught in the blast debris from the bomb. So [the enemy] was used to us climbing up to



Lieutenants Ted Been and Ron Hayes (Courtesy of Ted Been)

1500 feet, and they would cut the fuses on the AAA to 1500 feet. So we would go in at 500 feet with the Snake Eyes. The Snake Eye was a retarded bomb—when you would drop the bomb, the fins on it retarded to slow down the bomb. It would drop behind you, and you would be out of the spray of the bomb. So we went right down the revetments, dropping twenty-eight Mk82s. That was kind of fun, but the one thing they deployed that surprised the hell out of us was radar-guided search lights. They would pick us up on radar and turn on the search lights; now the AAA could single us out and pick us off. The problem was, we were so surprised by the search lights because they were pretty powerful and pretty close, we would just look directly into it and BOOM, there went your night vision. So now Ron Hayes is flying blind, so I'm looking at the instruments (that's one good thing about the A-6). We flew the same instruments as the pilot did. I could see every one of them, and I would say, "Okay, you're lined up on the revetments now, and you're starting to come in on them now, 500 feet, level." His vision slowly started returning, and he finally got night vision back after a while. I'd say, "Okay, you can start releasing now." So

we hit the button and we started releasing, and we left a lot behind. But the number three airplane, when he got hit with the search lights, he tried to evade them. In doing so, he flew through some trees, and it ripped off some of his [bomb] racks, so he aborted and came back to the ship. That's the good thing about the A-6; it was tough, it was a tough airplane. Grumman Ironworks. So he went back to the ship, and they were pulling pine boughs out of his racks and everything else. So it's just the two of us, Roger Brook and Eric Stallman, the number two airplane. We had separated. I looked back over my shoulder, and procedure in those days was to call off target. That way the A-2 could accompany us. Radio silence at that point was gone; there was no point in it. So we called off target, and I looked over my right shoulder. We saw explosion after explosion. I didn't see if Roger Brook and Eric Stallman made it through that. But anyway, they didn't call off target. So I thought, one of those explosions was Roger and he probably went in. We kept calling him, and calling him, and finally they responded, saying, "We're off target but we're hit pretty bad." We said okay, and of course trying to join up at night over North Vietnam is basically impossible. We kept in radio range and kept talking to him. He made it back to the ship and landed okay, but the airplane never flew again. They just pulled everything out of it and threw it to the side. I think there were well over 200 holes in the airplane, wings, and fuselage. They had shot off the main stringer in there, the main part of the wing, and a couple of the stringers in the fuselage. That was Grumman Ironworks for you again. They flew it back to the ship, but it never flew again. But they made it back to the ship.

Question: What was it like doing these night flights?

Answer: In the monsoons over there, none of the rest of the air wing wanted to fly at night, none of them were night people, the A-4s, the F-4s, and so on. So it was not uncommon to hear, "Cancel the flight schedule; launch the A-6s and the A-2." And that was it. And often, the A-4s and A-6s would be the only aircraft to launch. We would launch...and all we would have were the formation lights on the airplane, which were little dinky slits of light on the fuselage, very disorienting for the wingman. And often times, we would hit the beach and go ahead and split, and go to our assigned targets. One night we were

assigned the Phu Ly Dam, about 35 miles south of Hanoi. As we were running in on it, all of a sudden the skipper said, "Jesus, Ted, look at that." I pulled my head out and looked out at Highway 1, which was the main highway stretching through North Vietnam. Highway 1 was lit up all the way to Hanoi with truck lights. They never did that at night; they never moved the trucks. We said, "Let's get those trucks; our target will still be there tomorrow."

We left death and destruction like you wouldn't believe. They could see it from the ship, truckloads of ammo exploding. We got back to the ship. It was about 3 o'clock in the morning, and we were debriefing with the AI [air intelligence officer]. He asked us, "Where did you go?" We said, "You would never believe what we found!" We were so high, so excited about it. "We were across Highway 1, and there were all these trucks heading north to Hanoi on Highway 1. We left all that stuff behind, really bad." The AI went kind of pale, and he said, "Do you remember yesterday, Johnson and McNamara created a 30-mile safe zone around Hanoi, and we're not supposed to bomb within 30 miles of Hanoi?" Oh shoot... We looked at each other, and he said, "Guys, I don't know what we can do here. You told me, so I've got to report this. I don't know what I can say." That we violated this policy, Ron and I could see our careers just going earthward. All of a sudden, this tall, very distinguished-looking gentleman in civilian clothes stepped out of the corner of the IOIC [Integrated Operational Intelligence Center]. He had been listening to the debriefing, and we had never noticed him. He came up and put his arm around each of our shoulders, and said, "Gentlemen, you did excellent work, that was fine work." He said, "I commend you, and don't worry about it, no one will say a thing about it." It was Barry Goldwater—Senator Barry Goldwater. He saved our careers!

Another time, we had one daylight flight; they had these targets they called "truck parks." They weren't really significant targets....They would park three or four trucks somewhere and we'd launch Alpha strikes of thirty airplanes against these. It was so frustrating, but anyway, we were going against this truck park through Banana Valley, heading northeast towards Hanoi. SAMs [Surface-to-Air Missiles] are going off all over the place—we got a direct SAM hit right in front of us. It crazed my



The Grumman A-6 could carry 18,000 pounds of ordnance. (Hampton Roads Naval Museum Collection)

windshield, to the point that I was completely blind out of it. Some of the shrapnel came into the cockpit, zinging around the cockpit. I still have my helmet where it got hit. Neither of us got hit, but it did shoot out all of our communication equipment. Anyway, we still went out and rolled in. Dropped our bombs, and pulling out, coming back, we took a direct hit to our starboard wing with an 85-mm [anti-aircraft round]. It left a hole about the size of a large platter, and in those days, the whole fuel system of the A-6 was connected, so we were siphoning fuel out of the wing tank, which was also pulling fuel out of the main bladder. We didn't know what the hell to do. We even got separated from the flight, and now we're lost. Word goes back to the ship that we had gone down, nobody could find us, couldn't hear us, and everything else. The radar was still working, but...all our communication equipment was shot out. I could see four ships lined up parallel, because it was a multi-ship Alpha strike. I grabbed the first ship I saw and said, "Take this heading to the ship." We finally got within visual range, and we aimed straight

in. They were recovering at the time, but fortunately the air boss was sharp enough. He saw us coming straight in. We were wagging the wings, so he lifted the whole recovery and did what's called a "dog pattern." We just went straight in. But when Ron Hayes put the clutch down, we didn't have enough fuel to slow-flight the airplane, so when we put the flaps down, the screw jack in the starboard wing had been shot up. The left flap came down and the starboard side stayed up, so the airplane started in a roll. So he pulled up the flaps, and came level again. Then about five seconds later we landed, hit the deck close. Just after we landed, the engines quit from fuel starvation....We were light enough at that point—we had no ordnance and no fuel. So we were just basic weight, and we went past [the normal landing zone] but not out of the limits....We were lucky to be alive. 🚢

Laura Orr is director of education for the Hampton Roads Naval Museum



LEARNING FROM ROLLING THUNDER AND LINEBACKER

By Edward J. Marolda and Norman Polmar

Napalm Along the Buffer Strip by Larry Zabel,
1967. (Courtesy of the Navy Art Collection)


The Rolling Thunder campaign did not fail for lack of effort or resources. During the three-and-a-half-year aerial assault, Navy and Marine aircraft flew 152,399 attack sorties against North Vietnam, just short of the Air Force total of 153,784 attack sorties. These U.S. strikes dropped 864,000 tons of bombs and missiles on North Vietnam. This total compared with 653,000 tons of conventional bombs unleashed during the three years of the Korean War, and the 503,000 tons dropped in the Pacific theater during more than three years of World War II.

In the Vietnam War, enemy action and accidents claimed 1,125 Navy and Marine fixed-wing aircraft and helicopters, the greatest number during Rolling Thunder. Six hundred Navy and 271 Marine aviators were lost during the war, most of them in the three and a half years of the air campaign. The North Vietnamese and Chinese captured 170 naval aviators and aircrew, 160 of whom Hanoi released in 1973.

The Navy emerged from the Vietnam conflict, and in particular from Rolling Thunder, as a combat-hardened force prepared to fight limited, nonnuclear wars and to project naval power ashore. The carriers and surface warships of Task Force 77 had become potent instruments of national power. The Navy that executed the Linebacker operations against North Vietnam only

three and a half years after the close of Rolling Thunder, demonstrated that the service had learned well from the experience. The service benefited from the actions of military leaders in Washington and Pearl Harbor, including Admiral Thomas H. Moorer, Chairman of the Joint Chiefs of Staff, and Admiral John S. McCain Jr., CINCPAC, who worked with the White House to set clear objectives for the Linebacker campaign. In 1972, the National Command Authority directed the U.S. military to help the South Vietnamese armed forces defeat the Communist Easter Offensive, to continue the defense of the Republic of Vietnam, and to compel North Vietnam to seriously negotiate an end to the war.

In contrast to earlier operations, in Linebacker, naval commanders had much greater freedom to select targets and to use the tactics, planes, and ordnance that they believed would be the most effective. President Richard M. Nixon, who took office in January 1969, finally authorized an action that naval leaders had unsuccessfully advocated throughout Rolling Thunder—the isolation of North Vietnam from seaborne supply. On the morning of May 8, 1972, carrier-based aircraft mined North Vietnam's primary port, Haiphong, and in the weeks afterward mined the other ports through which the North Vietnamese imported 85 percent of the munitions they



Landing Signal Officers guide an A-4 Skyhawk coming in for a landing aboard USS *Constellation* (CVA 64) in October 1966. (Photographer's Mate 2nd Class Robert K. Drudge/ National Archives)

The Navy emerged from the Vietnam conflict, and in particular from Rolling Thunder, as

a combat-hardened force prepared to fight limited, nonnuclear wars and to project naval power ashore

needed to fight the war. For the duration of the conflict, no merchant ships steamed into or out of the country.

For Linebacker, the Navy concentrated an unprecedented number of aircraft carriers—six—in the Gulf of Tonkin.

Aircraft from these ships mounted around-the-clock strikes against the enemy's supply lines in the panhandle of North Vietnam. Commander Task Force 77 put more emphasis on surgical strikes by state-of-the-art A-6 Intruder attack planes using laser-guided bombs, electro-optical glide bombs, and other smart weapons, rather than the previous, large-scale Alpha strikes. In the campaign, Navy and Air Force planes smashed bridges that the services had failed for years to destroy with precision guided munitions and iron bombs. New, upgraded air-to-surface missiles with electronic and optical guidance devastated enemy radar

and surface-to-air missile sites.

The operational experience of Rolling Thunder spurred the Navy to reinforce its carrier air wings with more advanced fighter, attack, and reconnaissance aircraft, and to redirect the older aircraft to missions in the less heavily

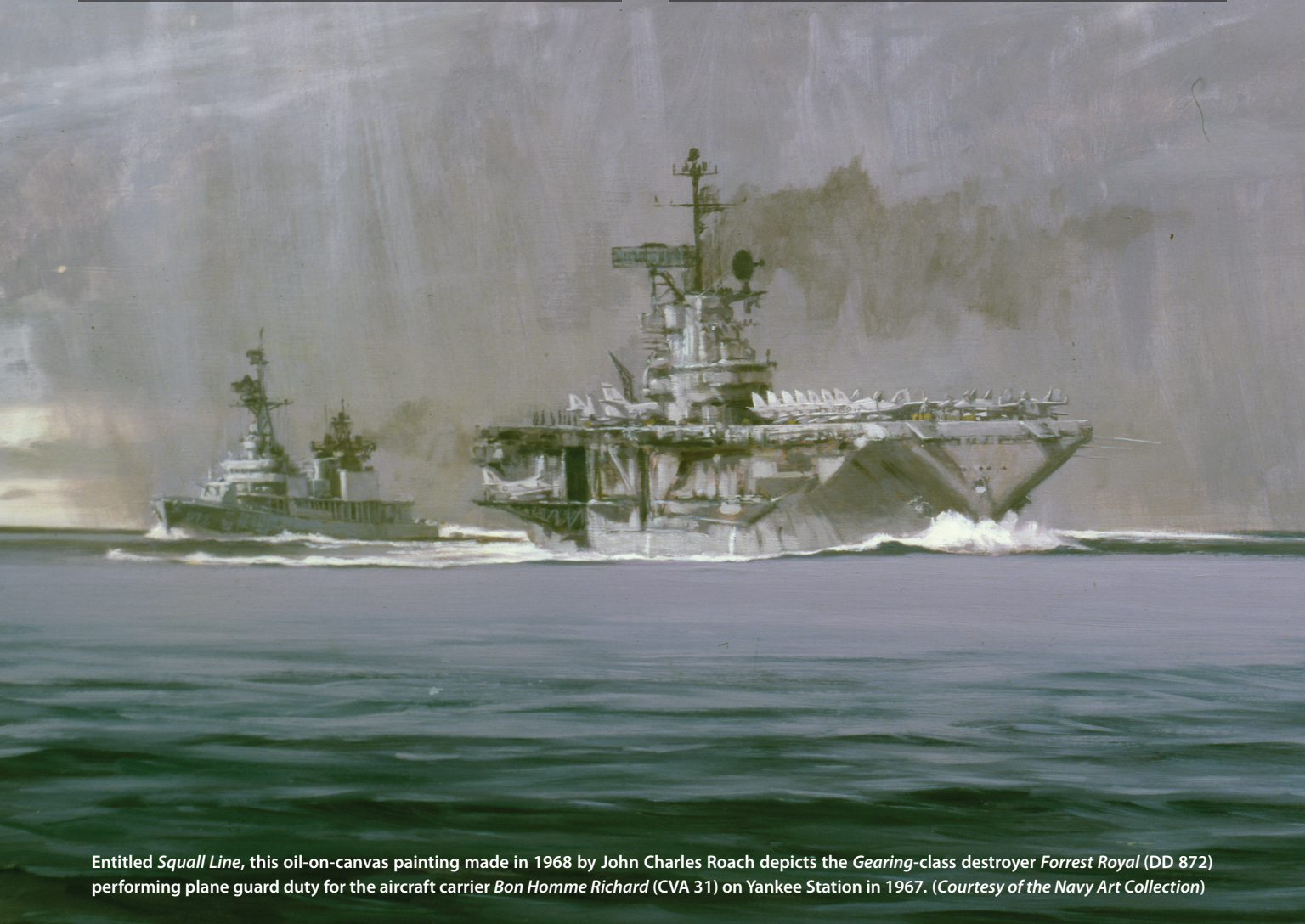
defended skies over South Vietnam. F-4 Phantom IIs, A-6 Intruders, A-7 Corsair IIs, and RA-5C Vigilantes became the primary aircraft for operations over the Red River Delta of North Vietnam, while the Navy assigned bombing and SAR support missions in the South and in Laos to the older A-4 Skyhawks and propeller-driven A-1 Skyraiders. The EA-6B Prowler electronic countermeasures aircraft helped reduce Navy air losses. By the start of Rolling Thunder, the Navy had deployed improved air-to-air missiles, including upgraded Sidewinders and so-called dogfight Sparrow radar-guided

weapons. The bombardment of North Vietnam's coastal installations, highways, and waterways by the Seventh Fleet's cruisers and destroyers added to the enemy's woes. By 1972, these warships and their sailors on the gun line had become skilled at putting timely, accurate, and coordinated fire on targets along the coast of North Vietnam. These ships badly hurt North Vietnamese armor and infantry units moving south along the coast to attack Hue during the Easter Offensive. The same day the carrier force mined Haiphong harbor, three destroyers neutralized the enemy's coastal batteries on the Do Son Peninsula while guided missile cruisers *Oklahoma City* (CLG 5) and *Providence* (CLG 6) defended them against air attack. Heavy cruiser *Newport News* (CA 148) then moved close inshore and her 8-inch guns bombarded military sites 17 miles away on the transportation routes to Hanoi. Seventh Fleet ships firing Talos surface-to-air

missiles shot down MiGs far inland, and with Terrier missiles, brought down MiGs that ventured out to sea.

Throughout the Cold War, the Navy was concerned about the threat posed by the Sino-Soviet bloc's large fleet of missile and torpedo-armed fast attack craft similar to those that attacked the destroyer *Maddox* (DD-731) in August 1964. The destruction, by naval aircraft, of such enemy combatants at sea, along the coast, and at shore bases in August 1964, July 1966, and later during Rolling Thunder put many of those fears to rest.

The Linebacker campaign also marked the first test of the Navy's "Top Gun" school. Displeased by the at-times 2-to-1 ratio of Navy aerial victories-to-losses during Rolling Thunder, the Navy directed Captain Frank Ault, a veteran naval aviator, to investigate the situation. His study made clear that the prewar focus of F-4 Phantom crews—unlike F-8 Crusader pilots—on preparing for air



Entitled *Squall Line*, this oil-on-canvas painting made in 1968 by John Charles Roach depicts the *Gearing*-class destroyer *Forrest Royal* (DD 872) performing plane guard duty for the aircraft carrier *Bon Homme Richard* (CVA 31) on Yankee Station in 1967. (Courtesy of the Navy Art Collection)

combat at long ranges and with radar-guided missiles had dramatically reduced their skills for close-in dogfighting. Armed with Ault's report, the Navy established the Fighter Weapons School at Naval Air Station Miramar in California. The school spent the next three years training pilots who honed their abilities in air combat at close quarters. The air-to-air tally by the end of Linebacker operations confirmed the wisdom of the Navy's foresight; Task Force 77's fighters registered a 12-to-1 ratio of victories to losses.

By 1972 the Navy had posted in the northern Gulf of Tonkin positive identification radar advisory zone ships crewed by highly trained personnel and fitted with the most advanced radar and communications equipment available. Linebacker reaffirmed the value of the Positive Identification Radar Advisory Zone (PIRAZ) concept. For example, Senior Chief Radarman Larry Nowell, in the cruiser *Chicago* (CG 11), earned the Navy Distinguished Service Medal for enabling the air-to-air destruction by U.S. planes of 12 MiGs over North Vietnam.

The *Oriskany* (CVA 34), *Forrestal* (CVA 59), and *Enterprise* (CVAN 65) fires during and in the year after Rolling Thunder reaffirmed the knowledge of the importance of damage control on board these warships loaded with volatile fuel and munitions. Without the bravery and professional skill of the damage control parties in these ships, the carriers might have been lost. The fires also served as learning tools in the Navy for years afterward. No similar conflagrations have occurred in the Navy since the end of the Vietnam War.

Hence, despite the Johnson administration's mismanagement of the Rolling Thunder campaign that ended in failure—at great cost in American lives and resources—the Navy professionally executed its mission to project naval power ashore. Task Force 77's attack squadrons supported by fighters, reconnaissance aircraft, electronic warfare planes, and the ships of the fleet almost always got through to hit their targets with devastating effect. Entering the war with—in some cases—inadequate aircraft, weapons, equipment, and tactics, the Navy expedited the dispatch to Task Force 77 of new, advanced equipment and better trained aviators. Naval leaders, combat commanders, and sailors of all ranks learned from their mistakes to hone a superior instrument of war that helped compel the enemy to negotiate an end to the long, costly Vietnam War.



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A Douglas A-1 Skyraider closes in for the kill in a chalk-on-sandpaper drawing by Philip Jenkins. (Courtesy of the Navy Art Collection)

*Jenkins
88*