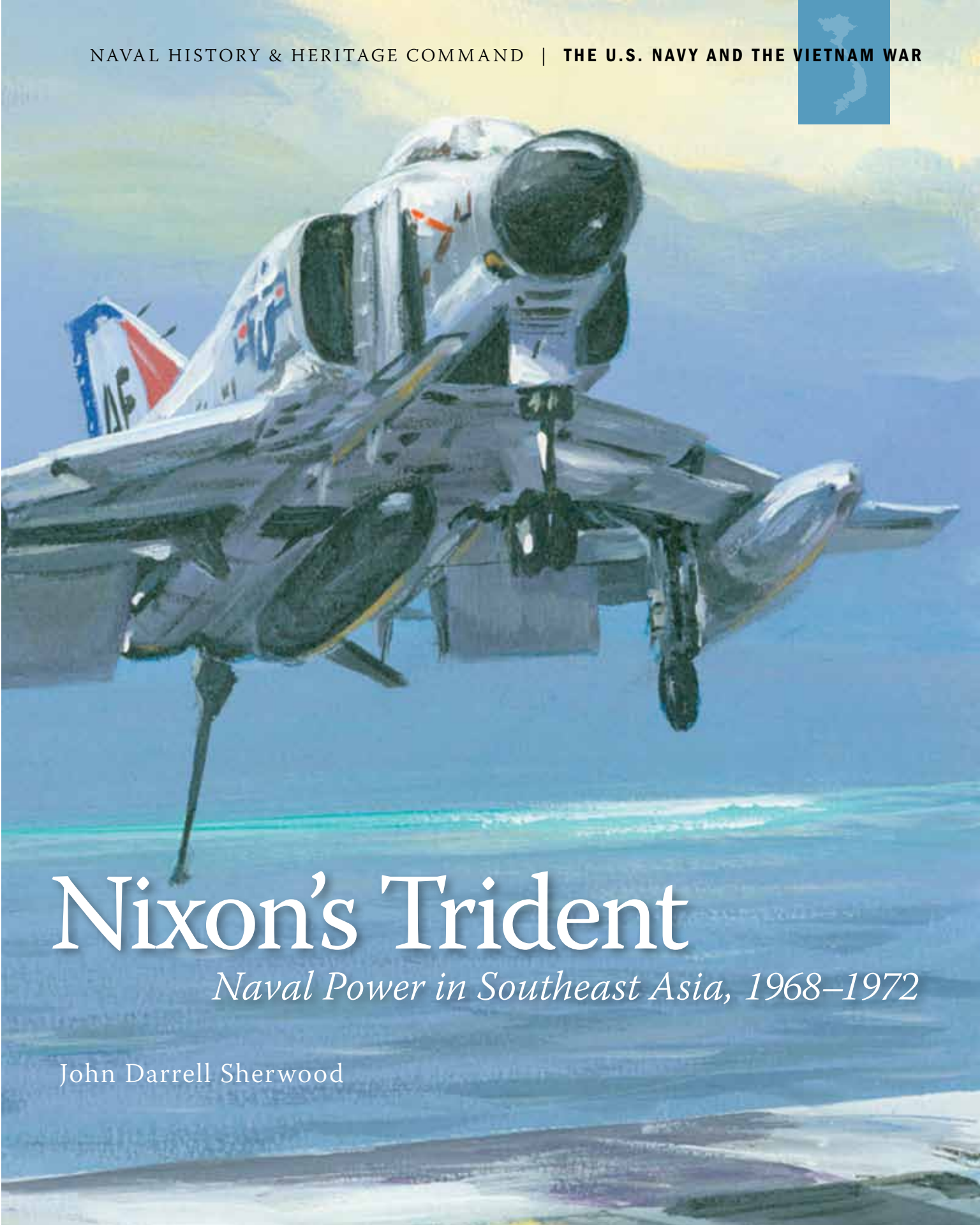

Nixon's Trident

Naval Power in Southeast Asia, 1968–1972

John Darrell Sherwood

Front Cover: Detail from *Wheels Down–Hook Down* by John Steel. Acrylic on illustration board. Navy Art Collection.

THE U.S. NAVY AND THE VIETNAM WAR
Edward J. Marolda and Sandra J. Doyle, *Series Editors*

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John Darrell Sherwood

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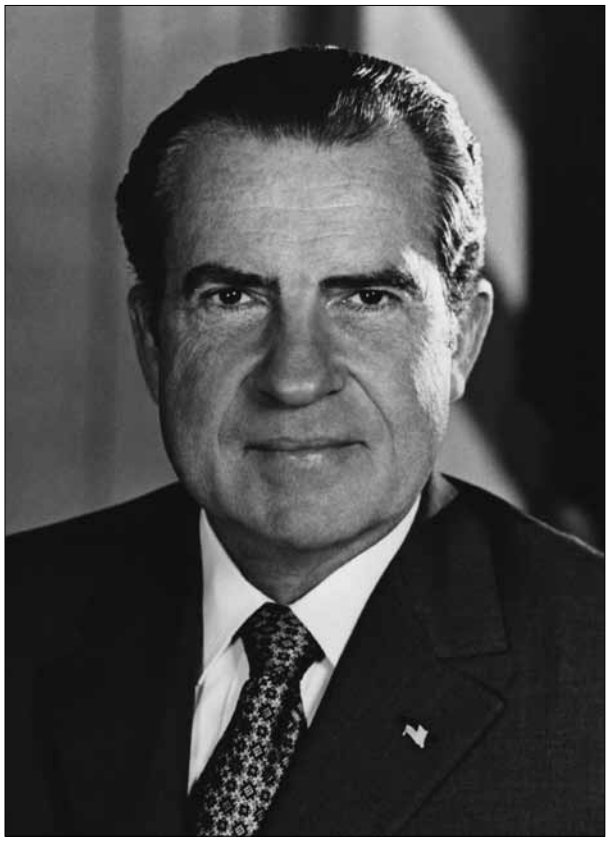
Southeast Asia.

INTRODUCTION

On 31 January 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 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.



NHC L File

President Richard M. Nixon, 16 June 1972.

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 31 October 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

Navy Art collection

A-7 Line Maintenance by Trella Koczwara, 1976. Oil on masonite. Considered one of the Navy's workhorses of the Vietnam War, the light attack A-7 aircraft played a key role in both Linebacker operations and the mining of Haiphong harbor. Armament consisted of one 20-mm multibarreled cannon and up to 15,000 pounds of bombs, rockets, or missiles.

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." ⚓

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A B-52 takes off from Guam.

Ho Chi Minh Trail.

AIR OPERATIONS IN LAOS

The course of the Vietnam War changed dramatically for the U.S. Navy between 31 March and 31 October 1968. During that period, President Johnson drastically scaled back and then halted all air, naval, and artillery bombardment of North Vietnam. His 31 October order halted offensive operations not only against North Vietnam proper but against targets within the DMZ along the 17th parallel between North and South Vietnam and waters 12 nautical miles from the coast.

The Joint Chiefs of Staff (JCS) immediately directed that all naval gunfire support ships in the Gulf of Tonkin be withdrawn south of the 17th parallel. The surface action force included three cruisers and 22 destroyers. Since October 1966, these ships had attempted to stem the flow of munitions and supplies to South Vietnam by bombarding roads and bridges ashore and destroying waterborne logistics craft as part of Operation Sea Dragon.

After the bombing halt, the JCS authorized only two types of warships to operate north of the 20th parallel: search and rescue (SAR) destroyers (to rescue downed aviators) and positive identification radar advisory zone (PIRAZ) ships. The original function of the PIRAZ system was to maintain constant surveillance of the air space over the eastern regions of North Vietnam and track all hostile and friendly aircraft in this space. By 1967, the Seventh Fleet's Task Force 77 operated three PIRAZ ships—Red Crown, situated 25 miles from the mouth of the Red River; Harbormaster, located south of Red Crown; and a third ship to the north of the Red River delta—and began using these ships to direct Navy and Air Force fighters against North Vietnamese MiGs. With the new SPS-48 radars, PIRAZ ships could cover not only the Gulf of Tonkin but much of the overland areas of North Vietnam and could vector U.S. fighters from all services to hostile aircraft practically from the moment of a MiG's takeoff. These ships, in short, provided the U.S. Navy and Air Force with significant situational awareness with respect to enemy aircraft movement, and would be a thorn in the enemy's side for the remainder of the war.

The Navy, however, would be forbidden from striking targets in North Vietnam for most of the 1968–1972 period. Instead, it would focus the bulk of its aviation assets on interdicting the flow of troops and supplies through Laos to South Vietnam—a campaign designed to facilitate an eventual American withdrawal from South Vietnam. As historian James H. Willbanks explained the situation, Johnson's bombing halt made it "clear that there was no light at the end of the tunnel," and that it was "time to end the war in South Vietnam one way or the other."

As an interdiction zone, Laos had been in the Navy's crosshairs since early 1964 when Navy RF-8 aerial reconnaissance planes began flying over the country in Operation Yankee Team. Laos had been used as a supply route for the North Vietnamese since 1959 when workers started constructing a series of trails through the country to provide logistical support for the war in the South. The transportation system, which Americans dubbed the Ho Chi Minh Trail, began as a series of linked trails for porters, pack animals, and bicycle riders. During its first year of operation, 2,000 personnel and over 31 tons of military equipment had made the 100-mile trip down the trail.

Beginning in 1964, the North Vietnamese transformed the Ho Chi Minh Trail from a system of foot and bike paths into a network of roads capable of handling motorized vehicles. As a consequence, throughput quadrupled between 1963 and 1964, and by 1966, the trail consisted of 820 miles of fair-weather roads. Two years later in 1968, up to 10,000 trucks were moving down the system at any one time. Almost all movement was by a series of short shuttles rather than long-distance hauling. Drivers maneuvered their trucks over the same routes night

after night, becoming intimately familiar with the terrain. They often drove the Soviet-manufactured GAZ-63, a small four-wheel drive truck with a 70-horsepower engine and a maximum speed of just 41 miles per hour. To operate, maintain, and defend the flow of traffic on the trail, North Vietnam ultimately stationed over 100,000 truck drivers, bike riders, porters, engineers, laborers, antiaircraft gunners, and medical technicians in Laos.

The first concerted air interdiction campaign against the trail began in December 1964. In a joint Navy–Air Force operation named Barrel Roll, American aircraft flew over likely infiltration routes and attacked Communist supply vehicles or other targets of opportunity. By March 1965, Seventh Fleet aircraft had carried out half of the 43 Barrel Roll missions. That same month, the southern Laotian panhandle was separated from the Barrel Roll operational area in northeastern Laos and designated Steel Tiger. The Steel Tiger interdiction zone was a rugged area dominated by jungles and steep mountains, ranging from 1,800 to more than 5,000 feet in height. Because vehicles could access this region only from Vietnam via a limited number of passes (Ban Karai, in lower North Vietnam; Mu Gia, in the northern panhandle of North Vietnam; and Ban Raving, just east and slightly north of the DMZ), planners believed these areas represented the best places to focus interdiction efforts, and by mid-1965 Navy and Air Force pilots were flying over 1,000 Steel Tiger sorties a month against targets in these so-called chokepoints.

Despite America's increasing commitment to air interdiction in Laos, the North Vietnamese continued transporting supplies through that country, often infiltrating over 4,500 men and 300 tons of supplies a month to forces fighting in South Vietnam. "We were hit frequently by American airplanes," recalled Than Minh Son, a North Vietnamese driver. "If ten out of a hundred trucks arrived safely, that was a great victory." To put even more pressure on the North Vietnamese logistics system, the United States launched a new campaign called Tiger Hound in 1965. It was designed to concentrate more air power on a section of the Ho Chi Minh Trail contiguous with South Vietnam. By May, Tiger Hound strikes had destroyed an estimated 3,000 buildings, 1,400

Vietnam Archive, Texas Tech University

Bicycles captured on the Ho Chi Minh Trail. Cyclists regularly hauled 300-pound loads.

trucks, numerous bridges, and more than 200 antiaircraft sites. Still, supplies continued to flow south. The Air Force introduced new technologies such as gunships (first the AC-47 and later the AC-130) capable of loitering for long periods of time over areas and unleashing massive amounts of firepower on targets.

But as U.S. interdiction technology improved so too did the North Vietnamese transportation effort. Road construction mushroomed from 80 kilometers during the 1966–67 dry season to more than 306 kilometers by August 1968. Conscripted Laotian laborers did most of the construction, using hand implements and working at night to avoid bomb attacks. Wherever possible, the Vietnamese constructed roads under tree canopies, making good use of natural camouflage.

They also planted bushes and constructed trellis works of bamboo saplings to cover exposed portions of roads. Finally, in a climate plagued by monsoon weather from May to October, these laborers became masters in solving drainage problems via corduroying, graveling short sections, installing culverts, and creating drainage ditches.

To counter these and other measures, the U.S. developed a system of sensors called Igloo White. The idea originated from a collection of classified reports authored by a distinguished group of scientists known as the Jason Defense Advisory Panel. The Jason study pointed out that the American bombing campaign against North Vietnam from March 1965 to November 1968, known as Rolling Thunder, was having no real effect deterring North Vietnam's support of the war in the South and advised that air assets instead be focused more on military interdiction. In particular, the Jasons recommended the construction of a $1 billion barrier consisting of barbed wire fences, minefields, fire support bases, and sensors along the DMZ and a lesser barrier of mines and sensors only along the border between South Vietnam and Laos. President Johnson took an immediate liking to the idea. Interdiction offered him and Defense Secretary Robert McNamara a limited and carefully controlled operation designed to change the policy of North Vietnam rather than destroy that country's infrastructure (that the program might lay waste to Laos did not deter McNamara and his planners).

Vietnam Archive, Texas Tech University

Hidden Storage Area on the Ho Chi Minh Trail. This underground storage area was so well camouflaged that it was not found until a road-widening bulldozer sliced into the bank. Note the ruined bicycle wheel in front of the opening; Hanoi used every available means of transport, from bicycles to trucks.

Work on the barrier system began in the summer of 1967. The job of creating the DMZ barrier fell to the U.S. Marines. Many Marine leaders resented having to devote scarce combat resources to building what some considered a modern Maginot Line that the enemy could bypass. Enemy attacks against Marine positions, the siege of Khe Sanh (one of the line's strongpoints), and ultimately the Tet Offensive of 1968 continually disrupted the construction project and eventually caused it to grind to a halt.

NHC L File

OP-2E Neptune. Between February 1967 and July 1968, the Navy deployed these aircraft to Thailand to lay sensors along the Ho Chi Minh Trail.

The Laotian operation, however, endured because the sensors could be laid by aircraft alone and did not require a large commitment of ground forces.

Navy OP–2E patrol planes, Navy helicopters, and Air Force helicopters (later F-4s) dropped over 20,000 sensors along parts of the Ho Chi Minh Trail network. Most sensors were either acoustic or seismic. The acoustic sensors, derived from the Navy's antisubmarine sonar buoy, could detect vehicle sounds and human voices. Seismic sensors detected ground vibrations from vehicles. All the sensors came in cylindrical housings and contained low-powered radios for transmitting the information via relay planes to the Infiltration Surveillance Center (Task Force Alpha) at Nakhon Phanom Air Base in northern Thailand—an intelligence fusion center manned by about 400 Air Force personnel. The average sensor lasted about 45 days and cost approximately $619, with more expensive models costing as much as $2,997.

Air Force EC-121s and later QU-22Bs flew tracks 24 hours a day above the Ho Chi Minh Trail, picking up signals from the sensors and relaying the information to the surveillance center in Thailand. Two IBM 360-65 computers collected and stored the sensor data for use by the target analysts. These analysts queried the database constantly, and when worthwhile targets were found, they contacted an airborne battlefield command and control center, a modified C-130. This plane in turn directed Air Force or Navy planes guided by on-site forward air controller (FAC) aircraft to the targets. By May 1970, seventy-two sensor strings monitored the roads and trails of Laos. "We wired the Ho Chi Minh Trail like a drugstore pinball machine, and we plug it in every night," explained one Air Force officer assigned to Task Force Alpha. "Before, the enemy had two things going for him. The sun went down every night, and he had trees to hide under. Now he has nothing." When the system worked correctly, strike aircraft might be on the scene five minutes after being detected by the sensors.

The first major test of the sensor system occurred not in Laos but at Khe Sanh, South Vietnam. During the enemy's 1968 siege of the Marine base, the Air Force dropped sensors to monitor troop movements around the area and used the Nakhon Phanom surveillance center to analyze the data. The system worked better than expected. For instance, on the night of 3–4 February, sensors indicated the presence

of over 2,000 troops near Marine hill outposts outside of the base. Using this information, artillery and air power pounded the area, thwarting an intended attack on the Marines. Overall, sensors helped direct the employment of over 100,000 tons of munitions at Khe Sanh and kill an estimated 1,288 North Vietnamese troops. The success of the Khe Sanh sensor network prompted planners to develop a more comprehensive system of sensors in Laos and make it the centerpiece of the air war after President Johnson ordered an end to the bombing of North Vietnam in November 1968.

The resulting campaign, Commando Hunt, lasted through April 1972. It was the longest air interdiction campaign in the history of warfare. The most intensive portions of the multiyear campaign fell during the November–April dry season because it was then that the North Vietnamese moved the most trucks along the narrow dirt roads of the Ho Chi Minh Trail. Lesser campaigns were mounted during the May–October wet season.

The first phase of the program, Commando Hunt I, officially began during the November 1968–April 1969 dry season and sought to close major choke-points such as the roads leading to the Mu Gia or Ban Karai passes. In the first ten days of December 1968, there were over 2,000 trucks moving towards the Mu Gia Pass. The trucks would stop 1,200 meters from the border and enter Laos at night. Navy and Air Force aircraft attempted to impede this flow of traffic by either attacking the trucks directly after they entered Laos or blocking the road with debris caused by bomb blasts.

Since most trucks moved at night, the Navy's sophisticated night, all-weather A-6 attack plane was vital to the campaign. The Seventh Air Force, which had responsibility for all Commando Hunt targeting, authorized the Navy's A-6s to participate in an operation called Commando Nail on 13 December 1968. Seventh Air Force presented the Navy's Seventh Fleet carrier force, Task Force 77, with a list of targets approved by the U.S. Embassy in Laos. TF-77 then selected specific targets for its Commando Nail missions and ordered A-6s to take radarscope photography of the targets. The A-6s then conducted a daylight raid on the targets (usually stretches of roads) to verify the accuracy of the measurements taken by photography and confirm that they could achieve bomb hits within 1,000 meters of a target. Only after these steps were taken could A-6s begin launching Commando Nail strikes in the target areas at night or in bad weather. The system, however, was not without its flaws. The rigorous target confirmation process delayed the execution of missions, which caused the Seventh Air Force to assign less desirable targets to TF-77. Multiple raids on the same locations also alerted the North Vietnamese to the program, giving them plenty of time to come up with alternate routes and bypasses.

A more flexible approach to night targeting involved the use of the A-6's airborne moving target indicator (AMTI). The AMTI radar could detect targets moving at speeds greater than five miles per hour and in theory represented the perfect tool for night armed reconnaissance missions. Strict rules of engagement, however, prevented the Navy from taking full advantage of the system. A-6s first needed to confirm visually the existence of the target by dropping flares before they, or the accompanying "pouncer" A-7 Corsair II or F-4 Phantom II planes, could attack the trucks. These flares, of course, alerted North Vietnamese trucks to the presence of the A-6s and caused them to stop immediately. Once stopped, a truck could no longer be detected by AMTI, rendering the whole system useless.

A third night and all-weather targeting system was Combat Skyspot. Using ground-based radars, Skyspot controllers vectored Air Force and Navy attack planes to their targets and told the pilots exactly when and where to drop their ordnance. Smoke, haze, dust, darkness, and foliage, however, often obscured the target zones, making bomb damage assessment difficult. By June 1969, more than 10 percent of the Navy's overall strike effort against Laos consisted of Combat Skyspot sorties.

Interservice coordination improved over time as the Navy began equipping its Skyspot aircraft with Air Force APN-154 beacons, making it easier for Air Force ground controllers to track the Navy

continued on page 12

Intruder

IN THE STEPHEN COONTS NOVEL *Flight of the Intruder*, pilot Jake Grafton apologizes for the A-6's ungainly appearance when he first shows it to his new girlfriend, Callie: "Not exactly beautiful, with that blunt nose," he remarks. "Flies great though." Other naval aviators were less complimentary, calling it a "tadpole" or a "flying drumstick." In part, because of its distinct lack of visual appeal, the A-6 is one of the least acclaimed aircraft of the Vietnam War. Yet, this pioneering plane proved its worth for the Navy many times over, not only in Vietnam but in Desert Storm two decades later. With its tremendous bombload, its ability to operate at night and in poor weather, and its capacity to loiter for long periods of time over targets, this aircraft excelled in aerial interdiction, mine-laying operations, and many other strike missions.

The requirements for the A-6 grew out of the Navy and Marine Corps experiences during the 1950s. During the Korean War, slower propeller-driven attack aircraft, such as the AD-1 Skyraider, were much more effective in the close air support and battlefield air interdiction role than faster jet fighters because they had more endurance and could carry bigger payloads. Though the Skyraider would continue flying in Vietnam, the Navy recognized it needed a new attack plane that could fly as fast as a jet, loiter over targets for a long time, carry lots of ordnance, and operate in all weather and at night.

Most of the major U.S. military aircraft builders competed for the contract, but the Navy chose Grumman. The company's model had a 53-foot wingspan and a 54-foot, 9-inch length. A fully loaded A-6 could carry as much ordnance as a World War II–era B-17 bomber. However, with its wings folded, the plane's wingspan could be cut in half for relatively easy storage on a carrier.

A second unique design trait of the A-6 was its side-by-side seating configuration for the pilot and bombardier navigator (BN). Unlike the F-4, where the navigator sat behind the pilot, the A-6's side-by-side seating arrangement made the BN more of a team equal as opposed to "the guy in the backseat." And this equality was vital, for the pilot depended on the navigator not only to accurately deliver ordnance but also to help him control the aircraft.

Another unique feature was DIANE (Digital Integrated Attack and Navigation Equipment). The system included ground-mapping radar, track radar, an analog computer, and an inertial navigation system. The A-6 could attack preselected locations or targets of opportunity without the crew having to look outside the cockpit. The BN managed DIANE and, without talking, could relay steering instructions to the pilot through a Visual Display Terminal (VDT). As Charlie Carr, a Marine A-6 BN, said, "DIANE really put the BN into the game." Not surprisingly, the A-6 emerged as one of the Navy's most popular aircraft for naval flight officers. Roger Lerseth even created a special cover for his notebook in Naval Flight Officer School that read: "Think A-6!!!"

The power plant of the A-6 consisted of two Pratt and Whitney J-52 turbojet engines. While the plane could not exceed the speed of sound, its engines produced 9,300 pounds of thrust, enough to fly the plane at speeds of 648 miles per hour (0.851 Mach). The J52-P0408, introduced in 1972, increased the thrust to 11,200 pounds with no significant change in engine size, shape, or weight.

Grumman delivered the first production A-6s to the Navy in February 1963. The first A-6s to see action in Vietnam belonged to Attack Squadron (VA) 75. During its 1965 tour, the squadron dropped 25 percent of Air Wing 7's ordnance, despite the fact that the wing had greater numbers of A-4s and F-4s.

A crowning achievement for the A-6 occurred on 18 April 1966. On that night, a flight of two A-6As from VA-85 executed a surprise attack on the Uong Bi thermal power plant located approximately 12 miles northeast of the seaport of Haiphong. Making radar system deliveries, the Intruder placed 26,000 pounds of ordnance on target. So many bombs landed on the target that Hanoi Radio claimed that B-52s were responsible.

Like many new aviation technologies, the A-6 suffered from a variety of maintenance ailments early on in its combat history. Heat, humidity, salt air, and the shock of catapult assisted launches and tailhook arrested landings all took a toll on the sophisticated avionics package of the A-6A, leading to frequent "downings" of aircraft. "Almost without exception, an A-6 would make one flight and have to go to the hanger for maintenance," recalled Kent L. Lee, the skipper of *Enterprise* (CVAN 65) in 1967.

Naval leaders questioned whether the A-6s should be employed en-masse in large daytime air attacks, the so-called Alpha strikes, or be used in ones and

Two *Constellation* A-6 Intruders.

NARA K-54021

NHC L File

A *Constellation* A-6 Intruder drops a load of Snakeye bombs on targets in North Vietnam. The retarder tail of these bombs allowed low-level, high-precision attack while avoiding bomb-fragment damage to delivery aircraft.

twos at night or in bad weather against high value, heavily defended targets. Ultimately, those arguing for the piecemeal approach won out. "We prefer goo" (night and bad weather conditions) became one of the slogans of the A-6 community.

Following the 1968 bombing halt against North Vietnam, the emphasis of A-6 operations shifted to Laos, where the aircraft proved itself as an interdiction workhorse for night and bad weather missions in search of enemy vehicles. The fliers called it "trolling for trucks" and often boasted of getting "saddle sores like old cavalrymen" from flying such long missions.

A-6s proved particularly effective during the 1972 battle of An Loc. With their ability to loiter at length over the target area and their sizable bombloads, the A-6 became a favorite of Air Force forward air controllers over the battlefield. After hearing that an inbound flight of A-6s from VA-75 was carrying 42 Mk-82 500-pound bombs (14 per aircraft), one FAC exclaimed, "Jesus Christ, I'm in heaven. I've got my own B-52 raid!"

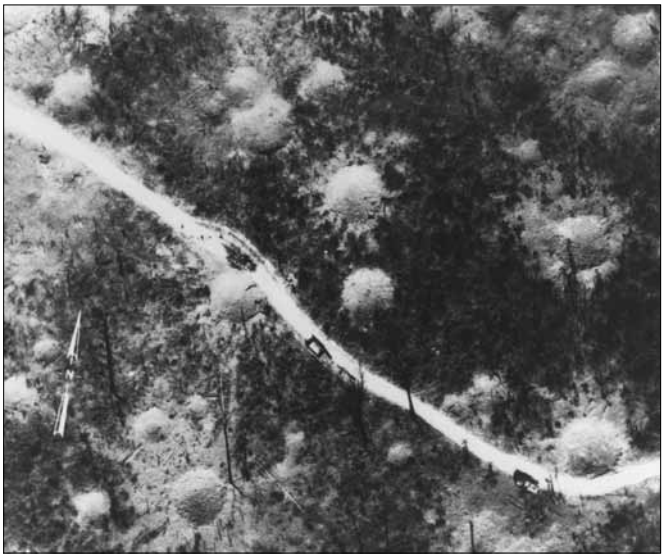
The precision delivery capability of the A-6 was also vital during the mining of Haiphong harbor in 1972. The Navy intended to sweep the mines after the war, so accurate delivery was of paramount importance. The four Mk-52 mines carried by each A-6 in the operation added 8,000 pounds of extra weight, but they still delivered their ordnance with great precision. In Linebacker II, A-6s attacked enemy surface-to-air missile (SAM) sites, paving the way for the massive Air Force B-52 raids.

A-6s flew 35,443 combat sorties during the Vietnam War and suffered 51 losses—a relatively high loss/sortie ratio when compared to other Navy aircraft. Overall, 1.4 Intruders were lost for every 1,000 sorties flown compared to 1.0 for A-4s, 0.7 for F-4s, and 0.6 for A-7s. Maintenance problems were partly to blame. As one flier explained, "Nothing can touch the Intruder when all the black boxes are working," but in Vietnam it was a rare day indeed when an A-6 flew with all systems functioning perfectly. Another factor was the difficulty of its mission. Intruders flew some of the Navy's most dangerous missions, often against SAM sites and other heavily defended targets.

During the First Gulf War, the A-6 continued to serve as one of the Navy's workhorse strike aircraft, flying over 4,071 sorties and scoring a number of successes, including sinking several Iraqi minelayers and patrol boats. The Navy retired its last A-6 in 1997. ⚓

planes. The radio communications link between the carrier task groups and Seventh Air Force also became more effective over time, allowing for more coordination with respect to ordnance loads and mission changes.

The Navy aircraft operated primarily under direction of Air Force FACs and entered and departed Laos via a special Navy flight corridor



USN 1144308

An aerial view of a heavily bombed portion of the Ho Chi Minh Trail in Laos, 16 January 1970.

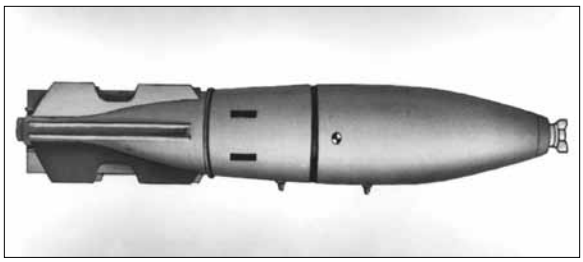
established just below the DMZ in South Vietnam. In the beginning, aircrews were not assigned targets prior to launch and instead checked in with an Air Force airborne control plane in Laos to be given targets of opportunity. Over time, coordination procedures were worked out between TF-77 and the Seventh Air Force, and a scheduling system developed that facilitated the exchange of data on targets, routes, and weapons. After 1 November 1968, TF-77 normally assigned two or three attack carriers (CVAs) to Yankee Station in support of the interdiction campaign. During Commando Hunt I, Navy aircraft flew approximately 24 percent of all strike sorties for the campaign, which translated to more than 3,282 strike sorties per month.

Commando Hunt II, which began in May 1969 and coincided with the onset of the wet season, sought to hamper North Vietnamese efforts to repair bombed and washed out roads. For the first time, fighter-bombers conducted armed reconnaissance attacks in designated free-fire zones—areas determined to be uninhabited by civilians. Navy aircraft continued to seed rivers and land routes with 500-pound Mk-36 and 1,000-pound Mk-40 mines. Depending on the firing mechanisms employed, these air dropped bottom mines could be set to respond to magnetic influences, seismic vibrations, or both.

In addition to mining operations, Navy planes flew 89 AMTI sorties in June 1969, but the program was discontinued in July as a result of an almost complete lack of identifiable moving targets on the Laotian road system. During Commando Hunt II, Navy planes flew approximately 2,000 attack sorties a month into Laos, which represented 32 percent of all U.S. sorties.

As the dry season in Laos commenced in late 1969, planners began to scale down Commando Hunt operations. The November 1969–April 1970 Commando Hunt III campaign emphasized daytime strikes against roads and night attacks against antiaircraft sites. Navy A-6 aircraft participated in a subordinate operation of Commando Hunt III called Commando Bolt. An array of four sensor strings, each with three to six sensors spaced 660 feet apart, deployed along heavily used roads, monitored traffic. As trucks traveled along the roads, the surveillance center estimated the speed and size of the convoy and used a computer to determine when the trucks would pass by the next sensor string. The strike controller then radioed this information to A-6s, and a Navy bombardier navigator fed the information into the A-6's computer, which in turn told him the course, altitude, and speed necessary to lay the plane's bombs right on the convoy. The effectiveness of Commando Bolt remains unclear due to difficulties in obtaining good, post-strike intelligence for night operations.

Throughout Commando Hunt, the best interdiction weapon was the Air Force AC-130 gunship, a converted cargo plane armed with 7.62-mm miniguns, 20-mm Vulcan Gatling-style guns, 40-mm Bofors automatic guns, and on the PAVE AEGIS model, a 105-mm howitzer. The sensor array and massive firepower of the plane simply dwarfed



NHC L File

Mk-36 Destructor Mine. These magnetic-influence mines detonated when trucks drove near them.

those of the typical Air Force or Navy tactical jet. During Commando Hunt III, for instance, AC-130s demolished 822 out of the 2,562 vehicles destroyed during the campaign, or 32 percent—almost the same number of vehicles destroyed by all Navy A-4s, A-6s, and A-7 combined.

During Commando Hunt III, B-52s deposited 380,000 bombs on the Laotian landscape, causing tremendous landslides, altering the course of rivers, flattening mountains, and transforming rugged jungles into moonscapes. Chemical defoliants stripped huge swaths of rain forest bare. Yet despite this destruction and technological wizardry, the number of enemy antiaircraft sites actually increased during the campaign from 445 sites in November 1969 to 607 in April 1970. Air Force Chief of Staff Michael Ryan lamented that "however great the toll in vehicles on the trail, trucks parked on docks at Haiphong or some other North Vietnamese port presented an easier target than those skittering underneath a jungle canopy." Admiral Ulysses S. Grant Sharp, Commander in Chief, Pacific (CINCPAC), during the earlier campaign in Laos, expressed similar concerns: "Although it could most certainly slow down North Vietnamese infiltration into the South by making their lines of communication longer, it could not stop the flow altogether. There were too many other lines of communication available." Sharp instead recommended intensive mining of Haiphong and other minor ports along the coast of North Vietnam—an idea that political authorities rejected until 1972.

Recognizing that the Laotian campaign was a "loser," the Navy began to slowly scale down its commitments there in 1970. During the course of the campaign, the average number of CVAs on the line at Yankee Station dropped from 3.0 to 2.7 and finally 2.0. The Navy also began to assign its oldest, least capable ships to the effort to save its more modern ships for other Cold War commitments.

The story of the *Shangri-La* (CVS 38) typified the Navy's desire to deploy its older platforms to Southeast Asia after 1968. Originally commissioned in 1944, *Shangri-La* received two major overhauls during the course of the Cold War but by 1970 suffered from many ailments and idiosyncrasies. While training off Jacksonville for a Vietnam deployment in January 1970, the ship suffered a fire that killed one Sailor and injured two. In Vietnam, one of its propeller shafts stopped functioning, compelling it to leave the line for nearly a month of repairs. Five days after its return to Vietnam, on 29 July, it suffered a steering casualty with 14 of its aircraft airborne. The aircraft had to divert to Danang to land, and the ship ceased launching strikes for another day while repairs were made. *Shangri-La*'s many troubles helped reduce the number of Navy strike sorties in Laos in June 1970 to just 1,286.

NHC L File

Shangri-La (CVS 38), commissioned in 1944, was one of the Navy's oldest carriers in 1970.

Almost as soon as *Shangri-La* arrived on station in March 1970, demand for Navy strike assets began to increase. During the night of 31 March–1 April, South Vietnam witnessed some of the heaviest fighting in six months. Communist forces shelled more than 150 targets, including three provincial capitals, and overran two ARVN outposts. A third

carrier, *America* (CVA 66), joined *Shangri-La* and *Bon Homme Richard* (CVA 31) in April to augment the carrier presence in the Gulf of Tonkin, and then in May, a fourth, *Oriskany* (CVA 34), arrived on station.

On 1 May 1970, U.S. and South Vietnamese forces launched a three-pronged attack into Cambodian border regions northwest of Saigon that the Communists had been using as sanctuaries for many years. By 4 May, the allied offensive had killed or captured over 3,000 NVA and VC troops. More significantly, it "gained much-needed time for the allies," according to historian James H. Willbanks. Communist forces were unable to launch significant attacks from Cambodia into South Vietnam for two years. Seventh Air Force fighter-bombers and B-52s provided most of the tactical air support for the Cambodian incursion while Navy assets based in the Tonkin Gulf focused on Laos.

NHC L File

An A-4 Skyhawk launches from the deck of *Shangri-La*.

Lieutenant James McBride, an A-4 pilot on *Shangri-La*, flew his first combat mission during this tense period. The mission was a four-plane strike in the Laotian panhandle, a rugged area dominated by jungles and steep mountains. His flight used the Navy corridor just below the DMZ to enter Laos. By the time the flight crossed the beach, they were spread out in a combat formation with the aircraft 200 feet away from each other, scanning the skies for hostile MiGs. Once over Laos, the lead plane, flown by Lieutenant Ray Lodge, made contact with an Air Force FAC.

The FAC informed the flight that there was a suspected truck storage area below him and that he would mark it with a "Willy Pete" white phosphorus rocket. When it reacts with oxygen, white phosphorus produces large amounts of smoke and toxic garlic-smelling fumes. Air Force FAC planes used white phosphorus throughout the war to mark targets during daylight hours. Because visibility was good on the 11th, Ray spotted the smoke immediately and then led the flight along a ridgeline, coming in towards the target from the north. Lodge "pickled" his bombs off first. McBride then made a run, 40 degrees from his flight path so as not to present a good target for any antiaircraft gunner below.

"I rolled the plane over on its left wing 90 degrees, pointed the nose to a 45 degree angle of dive, and aimed the green circle of the bombing sight slightly down from below where Ray's bombs had hit. With a 45-degree dive angle set, 450 knots of airspeed building, and my altimeter unwinding like crazy, my scan went rapidly between the bombsight and flight instruments. At approximately the desired 7,000 feet of altitude, I pressed the bomb release button on the control stick and felt my load of destruction come off the aircraft. Instantaneously, I pulled back on the stick to get the desired 4g's of forced effort to climb quickly out of danger. When I looked over my

NHC L File

The Skyhawk, or "Scooter," as its pilots often called it, was designed in the early 1950s by the Douglas Aircraft Company with three goals in mind: it had to fly over 500 mph, carry a 2,000-pound bomb load to any target within a 460 mile radius, and cost less than $1 million a piece.

shoulder at the target, I could see where the bombs had hit and exploded. My head went quickly back into the cockpit to check my instruments and then outside again to scan for Ray's aircraft."

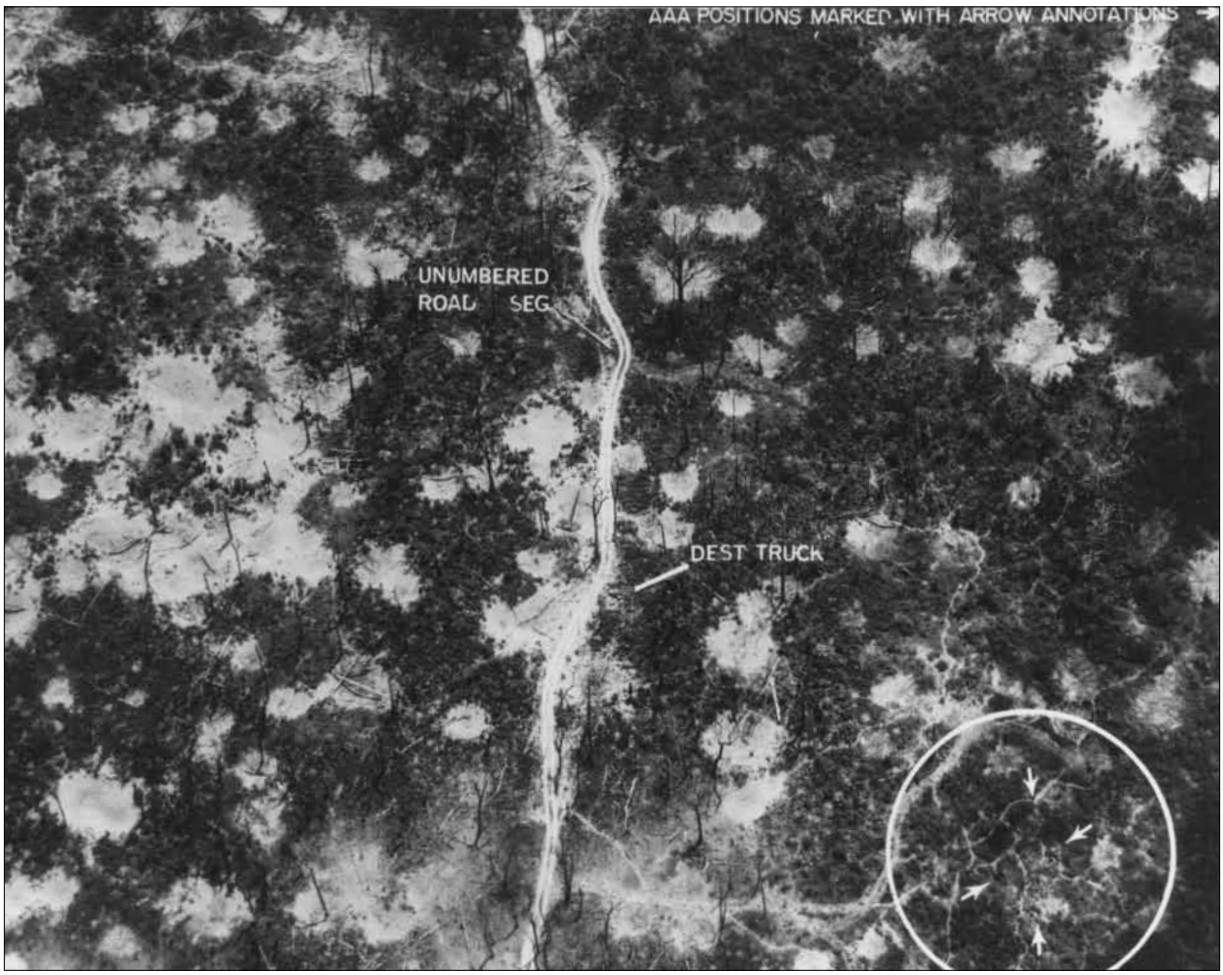
As squadron policy dictated, Ray dropped all of his ordnance on the first pass in order to minimize his exposure over hostile terrain.

Once the A-4s had made their runs, the FAC orbited the target and inspected the results. Much to the pleasure of the Navy pilots, he reported seeing secondary fires, a good indication that the team had hit some trucks. "It felt good coming back to the *Shang*," Jim wrote in his diary that evening. "We reached our target, scored good hits, and found our way back to the ship with plenty of time to spare." The entire mission from start to finish lasted only 1.6 hours.

By the end of Commando Hunt IV (May–September 1970), U.S. tactical air activity had diminished to an average of 417 sorties per day. Poor weather and a lack of targets contributed to this decline, but the main reason for it were cutbacks ordered by the Joint Chiefs of Staff. From mid 1970 to mid 1971, the JCS authorized only 14,000 fighter/attack sorties per month in Southeast Asia: 10,000, Air Force; 2,700, Navy; and 1,300, Marine.

Pilots often found interdiction in Laos to be boring, but as routine as some of these missions became, danger was always present. During Commando Hunt III, enemy gunners scored more than 310 hits on U.S. aircraft and downed 60. Many more aircraft were lost in accidents. During the *Bon Homme Richard's* 1970 cruise, Lieutenant (jg) Lloyd G. Howie, Fighter Squadron (VF) 53's youngest pilot, and Commander Dean E. Kaiser, VF-53's senior pilot and skipper, died in accidents.

The sharp decline in U.S. air activity during the July 1970–June 1971 period spurred the North Vietnamese into a massive road construction effort. Bypasses were built around areas hit hard during Commando Hunt III. The Vietnamese also built new roads, bridges, and transshipment points in North Vietnam proper. One truck park in Haiphong held over 1,200 vehicles while eight others in the



NHC L File

An aerial photograph of antiaircraft positions along the Ho Chi Minh Trail. The guns are marked by arrows (within a circle) in the lower right hand side of the image.

Hanoi-Haiphong area held 5,000 more. Battalion-size convoys of 40 to 60 trucks would move from these areas down the system of roads in Laos. Area bosses directed these convoys through numerous bypasses and subsegments, switching routes at the last possible moment. From an airplane, all an observer could see of this complex system were main roads, not the many, small bypass roads leading into the jungle and back to the main road.

With this new road network in place, Seventh Air Force planners concluded that the North Vietnamese would launch a major resupply effort for their forces in the Republic of Vietnam during the next dry season, thus setting the stage for Commando Hunt V. This campaign focused on similar types of targets as in earlier campaigns—trucks, roads, transshipment points, supply dumps, and repair facilities. The plan allocated 70 percent of the 14,000 authorized tactical air sorties for that month to the Steel Tiger area. This massive investment of air power caused enemy traffic in the Steel Tiger area to come to a virtual standstill during the day. At night, AC-130 and AC-119 gunships came out to hammer the convoys on the move, claiming over 12,000 vehicles destroyed—60 percent of the 20,000 vehicles bombed during the campaign.

Seventh Air Force planners claimed that Commando Hunt V forces prevented 89 percent of material entering Laos from arriving in South Vietnam and reduced the enemy's throughput of supplies to about one third of the previous dry

season. During the campaign, TF-77 pilots often flew over 200 strike sorties a day into Laos and South Vietnam. On a typical day, these pilots might make 30 road cuts, cause a road slide, and destroy two trucks plus an antiaircraft gun site.

But statistics alone fail to tell the whole story of the campaign. It was not uncommon for pilots and their superiors to inflate enemy losses. "It was very difficult," recalled General William Momyer, the Seventh Air Force commander, "to reach a good basis for assessment of damage to the enemy truck inventory, especially when claims were exceeding the total truck inventory by a factor of two at times." Tests conducted in the United States showed that trucks hit by munitions were rarely totally destroyed unless they burned.

USN 1110198

Bombs being brought up to the flight deck just before a strike. Allied aircraft dropped nearly three million tons of bombs on Laos from 1962 to 1973, making that country the third most bombed country in the history of warfare.

Problems encountered by the South Vietnamese forces in the Lam Som 719 operation of February–March 1971 underscored the shortcomings of the air interdiction campaign in Laos. The Lam Som 719 operation was designed to capture Techepone, the primary Communist transshipment hub in the Laotian panhandle. It was a direct reaction to a massive North Vietnamese buildup in Laos that occurred in late 1970 and early 1971 after the enemy lost logistics base areas in Cambodia. During this period, the North Vietnamese moved twenty air defense battalions into Laos and over two hundred larger caliber guns (37-, 57-, 85-, and 100-mm). Over 22,000 combat troops provided security for the trail, which was funneling over 6,000 troops a month into South Vietnam.

Alarmed that this buildup posed a direct threat to Quang Tri Province in South Vietnam, President Nixon and his advisors came up with the Laos invasion idea as a means of cutting the enemy's logistics jugular. South Vietnamese troops invaded Laos on 8 February 1971, building fire support bases along their invasion corridor to provide security for the sustained offensive. Although fog and low overcast along the invasion route made it difficult for American air power to support the ARVN attack, the South Vietnamese made decent progress up until 11 February, when for no apparent reason they stopped attacking. This pause allowed the NVA to bring in reinforcements, including heavy 122- and 130-mm artillery and tanks. American advisors urged the South Vietnamese commander, General Hoang Xuan Lam, to commit more troops and attempt to draw the North Vietnamese into a major battle; never again, they argued, would South Vietnam have so much air power at its disposal. Lam, fearing excessive casualties, opted instead for a token helicopter assault against Tchepone,

NHC L File

An A-7E Corsair II landing on the flight deck of *Ranger* (CVA 61), January 1968. The A-7 proved a highly successful attack aircraft during the final years of the Vietnam War. It could fly up to Mach .94 and featured a sophisticated bombing computer and all-weather navigation system.

followed by a general ARVN withdrawal from Laos. In the end, only half of the original invading force of 15,000 made it out of Laos during a chaotic retreat. Overall, U.S. tactical aircraft and B-52s flew over 10,000 sorties in support of ARVN during Lam Som 719, with the Navy providing 130 strike sorties a day during the two-month long campaign.

The interservice rivalry between the Air Force and Navy over sortie counts often overshadowed the superb cooperation between Air Force and Navy at the warrior level. Air Force pilots depended on Red Crown for situational awareness about MiGs over North Vietnam, and Navy pilots, in turn, depended on the Air Force's elite SAR forces when they were shot down deep in enemy territory. The story of Lieutenant Barton Sheldon Creed typifies the comradeship between the two services. On 13 March 1971, antiaircraft fire in the Steel Tiger section of Laos downed a *Ranger* (CVA 61) A-7 flown by Creed of VA-113. The aircraft caught fire and Creed ejected, breaking an arm and a leg in the process. An Air Force FAC immediately established communications with the pilot. Despite strong evidence of enemy troops in the area, a nearby rescue helicopter decided to rescue Creed. The helicopter hovered over the injured pilot and lowered a parajumper (PJ) within 30 feet of the ground when small arms fire started hitting the helicopter, injuring some of the crew and forcing the aircraft to pull up. Creed's last transmittal was, "Pick me up, pick me up now! They are here!"

SAR forces laid fire on the area, hoping to kill the enemy troops near Creed. Four minutes later, another helicopter went in while a second covered the operation. Ground fire struck both aircraft, seriously wounding one of the copilots. Neither helicopter made it back to base, but both crews were rescued. The Air Force made a third rescue attempt 15–20 minutes later, but could not locate Creed. They tried again after dark, even sending a PJ down in a jungle penetrator to search for Creed on foot, but he found no sign of the pilot. The next morning the original FAC went back and looked again. The FAC found Creed's parachute spread out on the ground about 500 meters from the original ejection site. Since no American pilot trying to evade capture would advertise his presence in this manner, the FAC assumed that the parachute was a decoy and broke off the search. Defense Department investigators learned after the war that Creed probably died from his ejection injuries soon after the first rescue attempt. Overall, ground fire struck three Air Force helicopters during the operation and wounded eight crewmen.

Lam Som 719 only temporarily dislodged the enemy's logistics flow south. After the ARVN withdrawal, sensors actually detected more southbound traffic on the trail than before the campaign. Despite mounting evidence that interdiction was failing, planners in Washington continued to take comfort from statistical measures of success. Late in the Commando Hunt V campaign, President Nixon met with his top military advisors in San Clemente, California, to discuss the issue. The group, whose membership included representatives from the services, the State and Defense departments, the National Security Council, and CIA, concluded that Commando Hunt was indeed successfully stemming

NHC L File

OV-10 Broncos. OV-10 forward air controllers flew low and slow over the jungle in Laos, searching for targets. When they found an enemy convoy, they marked it with smoke rockets and called in Navy or Air Force strike planes to bomb the trucks.

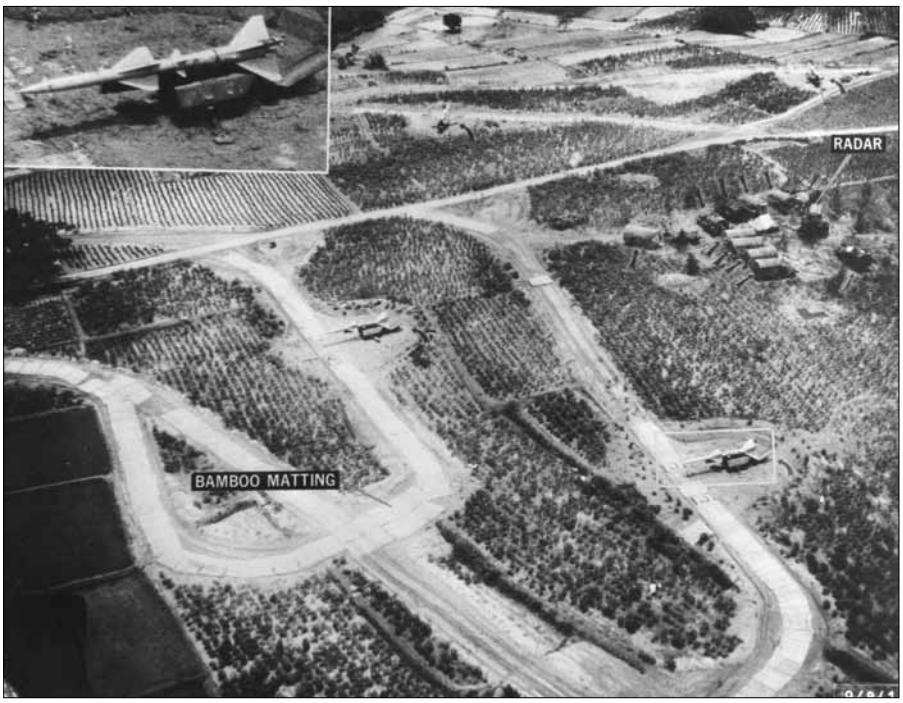
the flow of supplies to South Vietnam and, in so doing, helping to protect Vietnamization and the ongoing withdrawal of U.S. forces from South Vietnam. The group recommended that the effort continue. The major objective of many of these policymakers was to end the American involvement in Vietnam before the next presidential election cycle. They therefore tended to accentuate positive news such as the number of trucks destroyed in Laos.

The last dry season interdiction effort in southern Laos was Commando Hunt VII, a slightly smaller campaign than Commando Hunt V in terms of sorties flown but more sophisticated than any of its predecessors in terms of tactics and technology. During Phase I, B-52s and tactical fighters dropped 14,000 500-pound bombs and 17,100 750-pound bombs primarily on the Mu Gia and Ban Karai passes. This bombing did little to affect the flow of traffic into Laos. After so many years of bombing, these passes no longer contained any vegetation. Bypasses could easily be constructed in the treeless environment, and craters in roads could be quickly filled with soil from other craters. Lack of vegetation also meant that these roads dried more quickly after a rain than those covered in tropical flora.

Phase II involved the creation of three blocking belts: one each near Tchepone, Ban Bak, and Chavane. As in the original sensor seeding effort, U.S. Navy aircraft provided much of the ordnance used in the interdiction effort. Navy A-7s seeded

NHC L File

Ho Chi Minh Trail pulverized by bombs.



USAF 94841

A North Vietnamese SA-2 surface-to-air missile site. The SA-2 had a maximum range of about 31 miles, a maximum operating altitude of 80,000 feet, and speed of Mach 3.5. It usually carried a high explosive warhead of 287 pounds. During the course of the war, the Navy developed various methods for defeating SAMs, including defensive maneuvering, electronic countermeasures, and hunter-killer teams armed with antiradiation missiles.

the belts with Mk-36 magnetic-influence mines that detonated when trucks drove near them. F-4s, in turn, deposited wide-area antipersonnel mines to protect the Mk-36s. The minefields closed some blocking points for as many as 41 days, but others proved useless. The North Vietnamese could clear belts of antipersonnel mines by using rocks attached to strings, and Mk-36s could be defused by hand.

For both phases, enemy air defenses were a much more potent threat than in earlier campaigns. The North Vietnamese fired their first surface-to-air missile in Laos on 4 March 1971 from a site 2.5 miles west of the Ban Karai Pass. On 23 April, a SAM site near the same pass claimed its first U.S. plane over Laos, an Air Force O-2. During Commando Hunt VII (1 November 1971–29 March 1972), the North Vietnamese brought eight SAM battalions into Steel Tiger and increased their antiaircraft batteries from 345 to 545 guns. These improved air defenses effectively put an end to attacks by slower moving planes such as the B-52, AC-119, and AC-130 in the Steel Tiger area of Laos. Beginning in December 1971, even fast-moving jet fighters needed mandatory protection by special hunter-killer SAM teams called Iron Hand flights. On these missions, A-4s or A-7s equipped with Shrike missiles hunted SAM sites by searching for their radar emissions. When a radar signal was picked up, the Shrike

would home in on the beam to destroy the radar. These planes also carried Mk-82 500-pound bombs for a quick visual backup delivery in the event a SAM liftoff was spotted. The Navy often chose its finest pilots for the Iron Hand mission because it required tremendous situational awareness to fly these missions effectively. Iron Hand pilots had to be intimately familiar not only with their own sophisticated weapons systems but with all intelligence related to SAM sites in their area of operations and the flight tracks of the strike aircraft.

In addition to improving their air defenses, the North Vietnamese also began interfering with the sensor strings. They eventually discovered that aircraft dropping sensors dove differently from those on bombing missions. With this information, they began plotting and neutralizing various strings. They also learned to thwart airborne electricity sensors such as Black Crow by shielding ignition systems with aluminum foil and covering engines with mats of banana and bamboo leaves to block hot spots from infrared sensors.

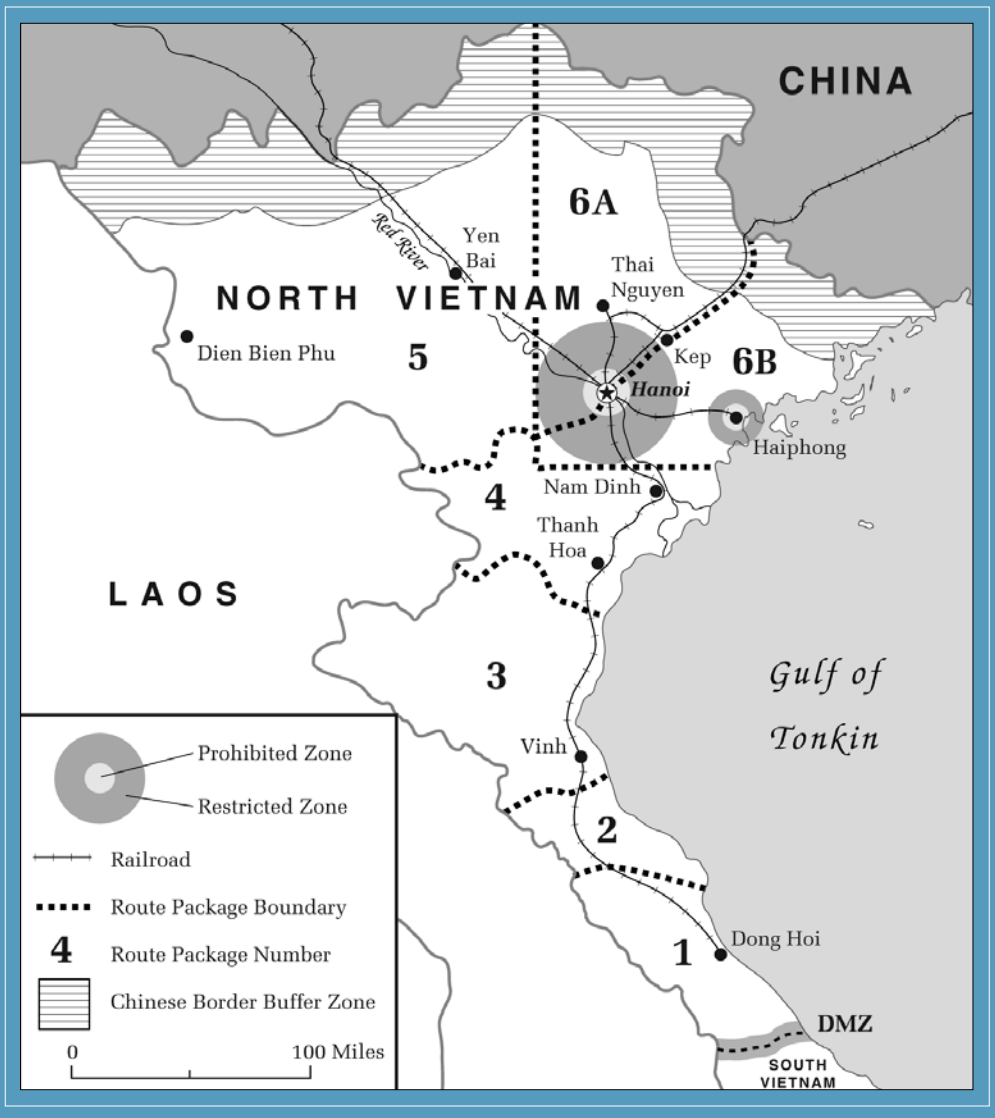
The third phase of Commando Hunt VII never fully got off the ground. On 31 March 1972, the NVA launched a massive spring offensive into South Vietnam—a move that caused the Seventh Air Force to abruptly terminate Commando Hunt and divert all available air assets to thwarting this offensive.

In pure numerical terms, Commando Hunt VII, like most of its predecessors, appeared to be a stunning success. The Seventh Air Force claimed 4,727 trucks destroyed—not nearly as many as the 11,009 claimed to have been destroyed in Commando Hunt V, but still enough to prevent an estimated 84 percent of the 30,947 tons of supplies entering Laos from reaching the Communist forces in South Vietnam. However, even with a mere 5,024 tons of supplies, along with supplies stockpiled during the earlier Commando Hunt campaigns, the North Vietnamese were still able to launch the Easter Offensive, a campaign that nearly defeated the Republic of Vietnam.

Throughout the Commando Hunt campaign, the North Vietnamese thwarted the most sophisticated American technology. They built new roads to bypass choke points and blocking points, employed sappers to diffuse mines as well as sensors, and protected strategically important mountain passes with antiaircraft guns and surface-to-air missiles. Once over the mountains, the North Vietnamese moved supplies along a 12,000-mile maze of roads and trails barely understood by American intelligence officers. Blocking belts only served to slow down traffic, not stop it, because so many bypasses existed in the jungles and forests of the Laotian panhandle. By the end of Commando Hunt VII, the Vietnamese could also move supplies at night with near impunity because enemy air defenses had driven the American gunships and B-52s from most vital areas of the Steel Tiger network. Between 1966 and 1971, U.S. intelligence analysts estimated that 630,000 enemy troops, 100,000 tons of food, 400,000 weapons, and 50,000 tons of ammunition made its way from North Vietnam to South Vietnam via the Ho Chi Minh Trail.

While ultimate responsibility for the strategic failure of Commando Hunt rested with the policymakers in Washington, who believed that an interdiction campaign in Laos could seriously degrade the Communist ability to wage war in South Vietnam, both the Navy and the Air Force deserve a certain degree of blame for some of the campaign's tactical shortcomings. Navy aircraft flew over 10,000 sorties for Commando Hunt VII alone and many more sorties during earlier campaigns. During the 1970 Cambodian incursion, Navy aircraft bore much of the sortie burden for the Steel Tiger region. Navy mining and acoustic technology was widely employed in Commando Hunt, and Navy aircraft deployed a lot of the technology. Despite this firepower and technology, the campaign failed to reduce the flow of Communist supplies enough to prevent a major NVA offensive in 1972.

Initially, Admiral Sharp and other Navy officers opposed interdiction in Laos in favor of a more concentrated mining effort designed to close all of North Vietnam's major ports. Once mining was rejected, however, the Navy agreed to do its share in Laos and contribute large numbers of sorties to what had become America's largest bombing campaign between the fall of 1968 and the spring 1972. ⚓



Chris Robinson

U.S. bombing zones in North Vietnam. Strict rules of engagement stipulated that Navy aircraft could only bomb targets in Route Packages 2 through 4 and 6B for much of the war.

The November 1968 bombing halt ended the Rolling Thunder campaign against North Vietnam, but it did not completely halt all allied air activity there. In 1969 alone, the Seventh Air Force and Task Force 77 conducted over 5,000 reconnaissance missions over North Vietnam, with the Navy flying 40 percent of them. Initially, Navy reconnaissance planes flew these "Blue Tree" missions unescorted. On 7 November 1968, however, the North Vietnamese fired on an RA-3B Skywarrior over central North Vietnam, prompting the Navy to begin escorting these flights with armed fighters. By the end of the month, 29 Navy reconnaissance aircraft had drawn hostile fire over North Vietnam and antiaircraft fire near Vinh downed an RA-5C Vigilante on 25 November. During this same period, the Air Force lost an RF-4 and an F-4. In retaliation for these losses, U.S. aircraft bombed the responsible antiaircraft sites.

In keeping with the spirit of his "peace offensive," President Johnson did not use the attacks as a justification for resuming the bombing campaign against North Vietnam, but he did authorize American planes to retaliate if shot at by antiaircraft sites in North Vietnam. In December, the last month of the Johnson presidency, *Hancock* (CVA 19) A-4s made two separate Shrike attacks on North Vietnamese SAM sites. In the first instance, which occurred on the 14th, an A-4E Iron Hand pilot fired a Shrike at a site after having four SAMs fired at him and his wingman. In the second incident, two A-4Es on a Blue Tree escort flight fired two Shrikes

NHC L File

A camouflaged RA-5C from Reconnaissance Attack Squadron 13 taxis on *Kitty Hawk* (CVA 63) while operating in the South China Sea, 13 April 1966. Originally developed in the late 1950s as a Mach 2 carrier-based attack plane capable of carrying nuclear or conventional ordnance to targets up to 3,000 miles away, the RA-5 was used mainly for photographic reconnaissance of targets in North Vietnam and Laos.

NHC L File

Melvin R. Laird, Secretary of Defense from 1969 to 1973, was a key policymaker during the latter years of the Vietnam War.

after being "illuminated" by a North Vietnamese SAM site radar.

January ushered in a new year and a new president who wanted to take a more aggressive stance towards North Vietnam. Moderate members of the Cabinet, however, fearing criticism from the domestic antiwar movement, persuaded Nixon not to launch an immediate bombing campaign against North Vietnam. Instead, he settled for a secret B-52 bombing campaign against Communist sanctuaries that began in Cambodia in March 1969. A few weeks into the campaign, the *New York Times* exposed it, giving the antiwar movement substantial ammunition with which to attack the new administration.

Nixon's Secretary of Defense, Melvin R. Laird, traveled to South Vietnam in March 1969 to personally assess the situation there. Laird had opposed the Cambodian bombings and urged the President to stay focused on Vietnamization. A former Republican senator from Wisconsin, Laird recognized that domestic support for the war in the U.S. was waning and that a long-term U.S. ground commitment to the war was not politically feasible. During the visit, a *New York Times* reporter asked him why a hundred American Marines had occupied some hills in Laos for a week. Without confirming or denying the episode, Laird said that U.S. military commanders had the power to launch "protective reaction" missions in order to safeguard their troops. Shortly thereafter, this catch phrase would also be applied to air strikes against antiaircraft sites in North Vietnam.

As promulgated on 25 November 1968, the rules of engagement (ROE) allowed the Navy and Air Force to send escorted reconnaissance flights as far north as the 19th parallel, and if fired upon, the escorts were "authorized to destroy these weapons, installations and immediate supporting facilities." American pilots, however, became more aggressive over time, occasionally attacking sites that illuminated them with radars even if no shots were fired. After being "painted" by a Fansong radar near Vinh on 21 April, two A-4Fs from *Bon Homme Richard* fired two Shrike missiles at the suspected site. By the summer of 1969, as many as four Air Force fighters would orbit over suspected SAM sites, ready to attack at a moment's notice if a reconnaissance flight was threatened or attacked.

During one such mission, the North Vietnamese fired two SAMs at a pair of F-105 Wild Weasels (the Air Force equivalent of an Iron Hand) near the Mu Gia Pass on 28 January 1970. The Weasels dropped 12 Mk-82 bombs on the site, which was on the North Vietnamese side of the pass. One Weasel then strafed another site nearby but was hit by ground fire, forcing the pilot and his electronic warfare officer to eject. The Air Force then attempted to rescue the crew with an HH-53 Jolly Green Giant helicopter. The Vietnamese reacted by launching a MiG-21, piloted by Vu Ngoc Dinh of the 921st Fighter Regiment. Dinh, who would end the war with six confirmed kills, crossed over the border in Laos and fired a single Atoll heat-seeking missile at the helicopter, killing its crew of six. The F-105 crew (Air Force Captains Richard J. Mallon and Robert J. Panek) were captured but never returned after the war and are now presumed dead.

The HH-53 shootdown infuriated the allies, but there was little they could do to avenge the killing given the ROE at the time. MiGs would occasionally fly down the southern panhandle of North Vietnam to Vinh, but avoided any contact with American fighters. In an attempt to disrupt these flights, Vice Admiral Fred Bardshar, Carrier Division 5 commander, ordered a series of low-level barrier combat air patrols (BARCAPs). On 27 March, one of these patrols almost bagged a lone MiG from the 921st Regiment, but the enemy pilot spotted the two F-4Js from *Constellation* (CVA 64) and got away before they could line up a shot. The next morning, radar controllers in *Horne* (DLG 30) acquired two MiGs

heading towards Vinh and immediately informed *Constellation*, which launched two F-4s within five minutes of the warning.

One of the planes, crewed by Lieutenant Jerry Beauilier and his radar intercept officer (RIO) Lieutenant (jg) Steve Barkley, experienced a radar failure soon after launch, but *Horne* successfully vectored them to two MiGs airborne near Thanh Hoa. "We gained a visual at about four miles," recalled Barkley, a junior RIO on his first WESTPAC cruise. The whole thing ended in just two turns. The MiGs "split after gaining sight of the F-4s closing at their five o'clock low," and one fired an Atoll at the lead F-4, crewed by Commander Paul Speer and his RIO Lieutenant (jg) John Carter, but the missile missed by a wide margin. Beauilier, a graduate of the first Top Gun class, then split again, and the low MiG reversed. "Bad move," explained Barkley. They fired their first AIM-9D "at less than one mile with about ten degrees off the MiG's tail." Five seconds later a fireball erupted in the vicinity of the MiG's tail. Beauilier then fired a second Sidewinder. "The last view we had of the MiG was that it was in flames going down," explained Barkley. Beauilier, who regretted firing the second missile, later confessed that the MiG was on fire after the first shot, "but I wanted him so badly that I shot him again. There was no way he was going to get away from me." Following the shootdown, the mood on board *Constellation* was "euphoric." This was the first Navy/USAF/USMC MiG kill since the 1968 bombing halt. The Navy's next kill would not come until 19 January 1972.

NHC L File

A MiG-21. Built by the Mikoyan-Gurevich design bureau in the Soviet Union, the MiG-21 was the most advanced fighter fielded by the North Vietnamese. Pilots of these planes preferred hit-and-run, slashing attacks to dogfights. They relied on their supersonic speed and the skill of their ground-control intercept operators to direct them quickly to a target and then help them escape from their pursuers.

NHC L File

An F-4J lands on *Constellation* (CVA 64), 29 July 1974. The F-4 was originally designed as a fleet defense fighter but was utilized extensively in Vietnam as a bomber as well. It could achieve speeds in excess of Mach 2 and carry up to 18,650 pounds of ordnance, including air-to-air missiles and laser-guided bombs. Its powerful pulse-doppler radar was a supreme technological breakthrough at the time. It could identify targets well beyond visual range and direct radar-guided Sparrow missiles at MiGs up to 12 miles away.

NHC L File

Admiral John S. McCain Jr. arrives on the flight deck of *Kitty Hawk* and is met by Vice Admiral Frederic A. Bardshar, Commander Task Force 77, 5 January 1970. McCain served as Commander in Chief, Pacific from 1968 to 1972.

Renewed interest in "protective reaction" came during the spring of 1970 as the Nixon administration began planning for the Cambodian incursion. President Nixon knew that the invasion would cause an uproar on Capital Hill and thought it might be prudent to go "the whole way" and resume bombing North Vietnam as well. Henry Kissinger, his national security advisor, dissuaded him, arguing that "they had a full plate already." Instead, the administration opted for a limited attack against logistics targets in the panhandle of North Vietnam just north of the DMZ and the near the main passes into Laos.

The four-day attack took place during the same period as the initial thrusts into Cambodia: 1–4 May. Seventh Air Force planes struck targets along main supply roads leading into Laos on 1–2 May. TF-77 aircraft joined the effort on 3–4 May, striking supply targets in North Vietnam in the vicinity of the Mu Gia and Ban Karai passes. In all, 708 Air Force and Navy sorties were flown and two Air Force planes were lost in the effort (an F-4 and RF-4). Admiral John S. McCain Jr., CINCPAC at the time, believed that the strikes were the most successful to date against the North Vietnamese logistics system. "The enemy had been caught by surprise at a time of great confusion occasioned by the Cambodian invasion, and in the middle of a last ditch attempt to push supplies south before the rainy season." The attacks destroyed between 10,000 and 50,000 tons of supplies concentrated along the corridors leading into Laos. These losses, along with the attacks on the Cambodian base areas, had a significant impact on North Vietnam's ability to conduct operations in South Vietnam.

Although the Cambodian incursion and the shooting of four students by National Guardsmen at Kent State University on 4 May overshadowed the air offensive in the panhandle of North Vietnam, the press eventually caught wind of the attacks and demanded answers. The administration used Laird's catch phrase, "protective reaction," to justify the attacks, even though Laird was in the proverbial doghouse at the time for speaking out against the Cambodia attacks.

By fall 1970, U.S. reconnaissance flights began compiling evidence of another logistics and air defense buildup in southern North Vietnam. Photos from these flights indicated a shift of antiaircraft artillery (AAA) concentrations from the coastal areas of North Vietnam to the roads and passes leading into Laos. This intelligence also revealed that the North Vietnamese had deployed 12 SAM battalions south of the 20th parallel. To destroy these new defenses, Admiral Thomas H. Moorer, Chairman of the Joint Chiefs of Staff, requested authority from the Secretary of Defense for a protective reaction strike below the 20th parallel. Laird rejected the proposal, claiming that such a raid might damage Nixon's peace efforts.

On 13 November, the North Vietnamese downed an Air Force RF-4C near the Mu Gia Pass. The next day, Admiral McCain requested an immediate protective reaction strike against air defense targets in North Vietnam south of the 20th parallel. This request arrived at the same time that Moorer was

planning a three-day strike against similar targets to coincide with the Son Tay raid (an attempt to rescue allied prisoners of war held at a prison 23 miles west of Hanoi). From the Cambodian experience earlier that year, Nixon had learned that he could diffuse criticism by staging multiple politically unpopular operations at the same time. "Even in failure," noted Air Force historian Wayne Thompson, "the Son Tay raid caught the imagination of many sufficiently to blunt barbs aimed at bombing in the panhandle."

Moorer delegated planning for the raid to McCain, who devised a two-day bombing operation against air defense targets in North Vietnam south of 18 degrees, 15 minutes north. The strikes occurred on 21 November. One hour before the attack began, the United States launched one of the most daring raids in its military history against Son Tay prison. The attack began with a diversionary feint by A-6s flying in low formation towards Haiphong to simulate a B-52 raid. Air Force RF-4s dropped flares over Hanoi, and Navy and Air Force tactical aircraft suppressed enemy air defenses with Shrike missiles. According to historian Earl Tilford, these diversionary moves terrified the North Vietnamese radar controllers. "One even announced that an atomic bomb had been dropped on Hanoi."

Following this air diversion, a U.S. Army Ranger team led by Colonel Arthur "Bull" Simons mistakenly landed at a North Vietnamese sapper school located a quarter mile from the prison. Fifty rangers engaged the enemy in a firefight before realizing that they were attacking the wrong facility. Leaving scores of Vietnamese dead, but taking no casualties themselves, the Rangers remounted their helicopters and arrived at Son Tay just six minutes later. In the meantime, another HH-53 helicopter had crash-landed in the prison. Rangers from both aircraft searched the camp for POWs but found none. Twenty-three minutes later they were back in the air headed to Thailand. The only American casualty was an Air Force flight mechanic who broke his ankle when the HH-53 he was riding made an evasive maneuver to avoid an Atoll missile fired by a MiG. The Vietnamese also downed an F-105 Wild Weasel, but its crew was successfully rescued. While the raid failed to rescue any POWs, it did cause considerable damage to North Vietnamese defenses and demonstrated the prowess of America's special warfare community. It also compelled the authorities to move all prisoners to a handful of prisons in the Hanoi area, giving these men more contact with fellow Americans and boosting morale.

The press reported the raid as a renewed bombing campaign against North Vietnam and not as a rescue. "We are conducting limited protection reaction air strikes against missile and antiaircraft facilities in North Vietnam south of the 19th parallel," Secretary of Defense Laird announced on 21 November—a true statement that obscured the more significant actions taking place outside of Hanoi. The Freedom Bait protective reaction strikes to which he was referring lasted only six hours and caused minimal damage. A total of 210 American aircraft participated in these strikes, including naval air power from *Hancock* and *Ranger*, but poor weather caused by a typhoon compelled the Navy and Air Force to rely heavily on radar and LORAN (long-range radio navigation) bombing during the raid, reducing the accuracy of their bomb deliveries.

Nevertheless, Freedom Bait, along with Son Tay, did reveal America's resolve to strike North Vietnam if necessary. Moreover, the expected hue and cry from Congress over Freedom Bait never materialized, leading Admiral Moorer to conclude that there was little political risk to expanding bombing authorities into southern North Vietnam. "I see no political risks in these authorities," he said, "which are not outweighed by the continuing threat to our current interdiction and reconnaissance operations." Secretary Laird disagreed and did not approve Moorer's subsequent request for standing authority to launch preemptive attacks within 19 miles of the DMZ or the Laotian border. Laird wanted to avoid actions that might endanger the President's peace initiatives or lead to more serious violations of the 1968 bombing halt understandings.

During 1971, American troop levels in South Vietnam dropped from 335,794 to 158,119. As the Military Assistance Command, Vietnam (MACV) history put it, "airpower in 1971 literally took up the

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Admiral Thomas Hinman Moorer

NHC L File

Admiral Moorer listens intently to a briefing at the U.S. Navy River Patrol Force headquarters at Binh Thuy, South Vietnam, 23 September 1969. Moorer served as Chief of Naval Operations from 1967 to 1970 and Chairman of the Joint Chiefs of Staff from 1970 to 1974.

THOMAS MOORER STANDS OUT as one of the few senior American military leaders who fought hard with the political establishment over the conduct of the Vietnam War. As Chairman of the Joint Chiefs of Staff from July 1970 to July 1974, Moorer constantly pushed for the authority to strike targets in the Hanoi area with air power and mine Haiphong harbor. President Nixon finally agreed to Moorer's proposals in the spring of 1972, and the war ended eight months later on terms acceptable to the United States. A hardliner and reactionary to some critics of the war, Moorer is seen as patriot and a hero by many veterans—someone who, in the words of Defense Secretary James Schlesinger, "always put his country's interest before anything else."

Born in Mount Willing, Alabama, in 1912, Moorer graduated from the U.S. Naval Academy in 1933, completed aviator training in 1936, and then flew a variety of aircraft, including fighters, bombers, and patrol planes. He also served on the carriers *Langley* (AV 3), *Lexington* (CV 16), and *Enterprise* (CVAN 65).

Early in World War II, Japanese fighters attacked his PBY-5 patrol plane during a reconnaissance mission in the Southwest Pacific. Although wounded in the thigh, Moorer landed his aircraft in the water and got his crew of seven safely into a life raft. A Philippine merchant ship soon picked up the group but was attacked by Japanese aircraft that same day. One of Moorer's crew died in that attack, but Moorer and the other survivors and many of the ship's crew managed to escape from the vessel in a lifeboat and row to a nearby island. For his gallantry that day, the Navy awarded Moorer a Purple Heart and a Silver Star. He later received a Distinguished Flying Cross for flying supplies into and evacuating wounded from Timor Island in October 1942.

After the war, Commander Moorer continued to serve in both aviation and staff assignments and was promoted to rear admiral in 1957. As a junior flag officer, Moorer worked as a strategic planner for the Chief of Naval Operations. He commanded Carrier Division 6 for 17 months in 1959 and 1960. In 1962, Moorer received his third star and assumed command of the U.S. Seventh Fleet. Two years later, the Navy promoted him to full admiral and appointed him Commander in Chief, U.S. Pacific Fleet. In that position, he commanded U.S. Navy forces in the Pacific during the August 1964 Gulf of Tonkin incident and subsequent retaliatory strikes against North Vietnam. Moorer took command of the Atlantic Fleet the following year, thus becoming the only officer in the Navy's history to lead both fleets.

Vietnam once again became a major focus for Moorer when President Johnson appointed him Chief of Naval Operations in June 1967. Privately, Moorer opposed the land war in Vietnam "for the simple reason that we cannot afford to trade a high school graduate" for a North Vietnamese peasant. Once committed to the endeavor, however, he argued that the United States should focus its efforts on the source of Communist aggression in the region: North Vietnam. Moorer advocated bombing Hanoi, the enemy's center of gravity, and mining North Vietnam's most important port facility, Haiphong. Moorer rejected the idea of limited war, instead favoring a decisive application of force and, with it, the possibility of compelling North Vietnam to end its aggression in South Vietnam.

His arguments fell upon deaf ears in the White House, and over time, frustration set in. President Johnson's bombing halt following the 1968 Communist Tet Offensive and then his failure to retaliate against

NHC L File

Admiral Moorer and President Nixon observe flight operations on *Saratoga* (CVA 60), 17 May 1969. The two men developed a close rapport because of their similar views on American foreign policy, especially as it related to North Vietnam.

NHC L File

Admiral Moorer examines a .50-caliber machine gun at Binh Thuy, August 1969.

North Korea following the seizure of the intelligence-gathering ship *Pueblo* (AGER 2) greatly concerned Admiral Moorer, who was afraid that America was losing global credibility. He also worried about the Navy's aging ships and infrastructure. In January 1969, he testified to Congress that 58 percent of the fleet was at least 20 years old, while only 1 percent of Soviet navy ships were the same age. Finally, he deeply disagreed with Secretary of Defense Robert McNamara's habit of "meddling" in the selection and assignment of flag officers, which, Moorer argued, was the purview of the Chief of Naval Operations.

On 2 July 1970, President Nixon appointed Admiral Moorer as the seventh Chairman of the Joint Chiefs of Staff. Moorer perceived Nixon as a kindred spirit, someone willing to make hard choices and take significant risks to extricate America from Vietnam. Other members of the administration, however, often blocked his efforts to liberalize the rules of engagement and resume the bombing campaign against North Vietnam. In an attempt to counter these opponents and gain an upper hand with the new President, Moorer encouraged Charles Radford, a young yeoman working for the National Security Council, to make copies of pertinent White House policy documents for him. When President Nixon found out about Radford's "spying" in December 1971, he sent Attorney General John Mitchell over to the Pentagon to let Moorer know that "we had the goods" on him. Nixon, however, retained Moorer as chairman because he valued him as a fellow hardliner and a vital counterweight against administration doves, especially Secretary of Defense Melvin Laird.

The Communist Easter Offensive of 1972 finally gave Nixon the justification he needed to relax bombing restrictions and turn up the heat against North Vietnam. One of the first moves he made was to order the mining of Haiphong harbor, an idea that Moorer and others in the Navy had been advocating since the early 1960s. He also initiated the Linebacker bombing raids against North Vietnam. Both operations helped convince Hanoi to agree to a peace settlement acceptable to the United States.

In addition to helping settle the Vietnam conflict, Moorer oversaw the transition of the U.S. armed services from a conscript-based military to an all-volunteer force. He also managed deep cuts in the defense budget. While he did not always prevail in Washington's bureaucratic battles, Moorer managed the services with great strength and confidence during a deeply divided period in the nation's history. Appointed to a second term as JCS Chairman by President Nixon, Admiral Moorer retired in July 1974. He died on 5 February 2004. ⚓

slack in US offensive power." Consequently, CINPAC and the Joint Chiefs of Staff were even more concerned about North Vietnamese air defenses near the infiltration routes into Laos and South Vietnam. The Secretary of Defense, however, continued to strictly limit the protective reaction effort against these targets. In January, Admiral Moorer, in an assessment to the secretary, stated that enemy SAM sites in North Vietnam had forced the U.S. to divert "significant numbers" of fighter aircraft from the interdiction effort to protect B-52s operating in Laos near the border of North Vietnam. Laird finally relented a bit and allowed Moorer to execute extensive strikes against SAM sites in North Vietnam on 20, 21, and 28 February. Sixty-seven sorties destroyed three missiles and a variety of transporters and launchers in an operation called Louisville Slugger.

However, he did not give Moorer carte blanche authority to strike the North Vietnamese any time he pleased. Arguing that limited, single strike reactions gave the enemy a "distinct" advantage, Moorer persisted in pressing for "continuous authorities," but Laird held his ground, stating that such authority would be "inappropriate—or at least premature." He did authorize another large single-strike effort against air defenses in the North Vietnamese panhandle called Fracture Cross Alpha. The operation destroyed eight SAMs and a variety of buildings and other infrastructure.

In addition to SAMs, MiG activity increased in southern North Vietnam during 1971. In November, reconnaissance revealed more MiG deployments to several airfields in lower North Vietnam. This threat spurred Moorer to request an attack against four North Vietnamese air bases below the 20th parallel. The loss of two Air Force planes to SAMs in early December lent urgency to his pleas and persuaded Laird to order Proud Deep Alpha, the largest strike

A *Hancock* Sailor takes a short break while awaiting the return of the ship's aircraft, April 1967. While on patrol, crewmen often worked eight hours on, eight hours off, and deployments could last six months or longer.

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Carrier *Hancock* (CVA 19) in the Gulf of Tonkin, 10 April 1971.

NHC L File

An A-7E Corsair II from VA-146 comes in for recovery on *America* (CVA 66), 11 July 1970.

against North Vietnam since the bombing halt. Over 200 Air Force and Navy planes struck targets as close as 75 miles from Hanoi. Poor weather over the target area, however, compelled the Navy to rely on radar-equipped A-6A systems backed by A-7E pathfinders to deliver ordnance, while the Air Force relied on LORAN bombing. Neither methodology produced good results. Based on bomb damage assessment photography, the Air Force estimated that only 25 percent of the bombs dropped hit anywhere near their targets. The Navy also lost several aircraft. In an attack on Vinh, enemy SAMs downed an A-6A from *Constellation* and an F-4B from *Coral Sea* (CVA 43). A SAR helo rescued the bombardier navigator of the A-6, but the remaining crewmen were killed or captured.

In addition to employing aviation assets, the Navy occasionally used surface ships against the North Vietnamese MiGs and SAM sites. Guided missile destroyers and cruisers possessed excellent tracking radars and typically carried two types of surface-to-air missiles effective against MiG fighters: the Terrier and the Talos. The Terrier was the Navy's first operational medium-range, surface-to-air missile. First deployed in 1956, this 27-foot-long missile had a range of 19.8 miles and was guided by ship-based radar. The 31-foot-long Talos missile was a longer range, radar-guided missile that could hit targets as far as 65 miles from a ship. On 11 January, *Fox* (DLG 33) fired two Terrier missiles at a MiG-21 heading north near Vinh, but missed. This was the first such missile firing by a surface combatant since 1968, when a Talos from *Long Beach* (CGN 9) downed a MiG at a range of 59 miles.

Hoping to get Navy surface combatants more involved in the air war, Admiral Moorer devised a plan that involved using Talos- and Terrier-equipped surface ships in the Gulf of Tonkin "to create a SAM environment in which to lure and destroy hostile MiGs as they proceeded below 20 degrees north." After securing permission from Laird, Moorer executed his plan between 29 January and 5 February. The Navy failed to bag any MiGs, but it did intimidate North Vietnamese radar operators. On 3 February, *Chicago* (CG 11) fired a Talos at an enemy ground radar site near Thanh Hoa, and *Oklahoma City* (CLG 5) launched a similar attack at a site near Vinh. Following this action, American aviators

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Terrier surface-to-air missiles launching from the guided missile destroyer *Biddle* (DLG 34).

NHC L File

Nuclear-powered guided missile cruiser *Long Beach* (CGN 9) fires a Terrier missile.

noticed a "virtual stand-down" of North Vietnamese ground control intercept radar sites for three days.

The enlisted radar operators who manned the scopes on these ships were critical players in the air war. Successfully tracking hostile air targets in skies crowded with friendly aircraft demanded extremely high levels of technical proficiency with radar as well as that intangible skill that aviators call situational awareness. Radarman First Class Bill Bunch of *Sterett* (DLG 31) epitomized these qualities. On the night of 21 February 1972, Bunch vectored two Air Force F-4s from the 555th Tactical Fighter Squadron towards a hostile MiG over Laos. The intercept continued routinely until Bunch noticed a strange blip on the radar screen behind the Air Force F-4, flown by Major Robert Lodge and his navigator Captain Roger Locher. Bunch immediately broke the current intercept attempt and vectored the F-4s towards the new contact. The MiGs had been attempting to trap the section, using one MiG as bait. Instead, the Lodge/Locher F-4D managed to get behind the contact and down it with an AIM-7E Sparrow missile. This was the first USAF MiG kill directed by a Navy controller and the first successful Air Force night intercept of the Vietnam conflict.

The protective reaction effort culminated with the firing of General John D. Lavelle, Commander Seventh Air Force. General Lavelle, former Vice Commander in Chief, Pacific Air Forces, had taken over the Seventh Air Force in November 1971. Under the system in place at the time, American aircraft could only attack a site whose radar was tracking it. Larger, preplanned attacks required preapproval by the Secretary of Defense. Encouraged by Admiral McCain to apply "maximum use" of the current rules, Lavelle developed a new interpretation of the existing authorities. Air defense systems, he rationalized, were "interlocking" networks of radars, communications systems, missiles, guns, and interceptors. Therefore, it was foolhardy for air defense suppressors to wait to be painted by tracking radar from a missile site before attacking. Presumably, the site could get this same information from other radar sites. In other words, it did not have to activate its own radars to track a target until the last minute. Lavelle assumed that this networked air defense system was active 24 hours a day and could be attacked at will under the established rules of engagement.

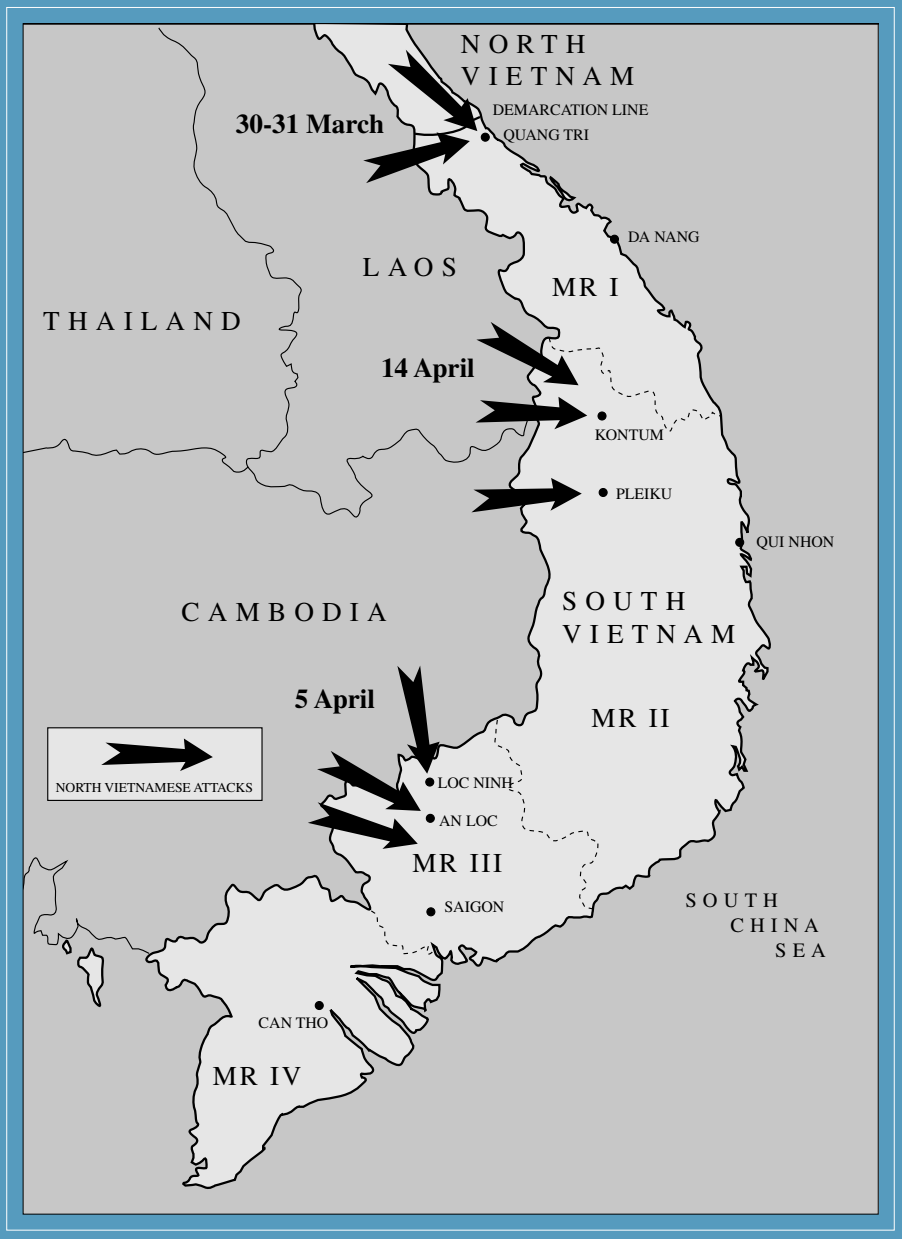
Under this broader interpretation of the ROE, the Seventh Air Force could execute preplanned attacks against SAM sites, and between 8 November 1971 and 8 March 1972, it conducted 28 of these

NHC L File

Guided missile cruiser *Chicago* (CG 11) underway, 11 September 1969.

attacks. The raids were reported as protective reaction strikes even though they were preplanned. Troubled by what he perceived as a violation of the rules of engagement, Sgt. Lonnie D. Franks, an intelligence debriefer at Udorn, Thailand, wrote a letter about the discrepancy to his senator, Harold E. Hughes, an Iowa Democrat opposed to the war. Hughes, in turn, raised the issue with Air Force Chief of Staff John D. Ryan, who dispatched the Air Force Inspector General to Southeast Asia to investigate the matter. Upon discovering that some missions had been flown in violation of the ROE, Ryan summoned Lavelle to Washington to explain the situation. Lavelle admitted that he had authorized the missions and "erroneously" reported them as protective reaction strikes. Ryan then suggested that Lavelle retire for "medical reasons" and replaced him with Lieutenant General John W. Vogt.

But the incident did not end there. Hoping to find evidence of impropriety further up the chain of command, Senator Hughes, a member of the Senate Armed Services Committee, pressed for hearings on the matter. At the June 1972 hearings, Lavelle accepted most of the blame, arguing that he liberally interpreted those rules out of concern for his F-105 crews, who put themselves at much greater risk in reactive style strikes. The Senate found no evidence that any of Lavelle's superiors encouraged him to break the rules. It also found no evidence that TF-77 executed similar unauthorized, preplanned strikes. The Navy typically employed trolling tactics to deal with sites it found threatening. Reconnaissance aircraft would fly over known sites and as soon as that aircraft picked up a tracking radar signal, Iron Hands would dive in and attack the sites with antiradiation missiles. While trolling certainly "stretched" the rules and was dangerous for the reconnaissance planes, it did not violate the ROE as the preplanned Lavelle strikes had. As Air Force historian Wayne Thompson explained, Lavelle's desire to protect his aircrews was admirable, but he risked the reputation of the entire Air Force "for the sake of bombing too slight to make a difference." The Navy's approach, while more dangerous, was certainly more prudent, but the best solution would have been to avoid such strikes altogether. In the end, the protective reaction campaign, for all its political and military risks, hardly made a dent in the enemy's ability to wage war in the South—a point clearly demonstrated by the Easter Offensive of 1972. ⚓



North Vietnamese Easter Offensive, spring 1972.

BLUNTING THE EASTER OFFENSIVE

At the beginning of March 1972, the war in South Vietnam was in a lull. Since 1968, the South Vietnamese armed forces, backed up by regional units, had made some progress in keeping the Communist forces in check. Although guerrillas still harassed the populace in some areas and North Vietnamese regiments remained active in a few border areas, MACV's Hamlet Evaluation Survey estimated that 97 percent of the settled areas of South Vietnam were either "totally or relatively secure." The relative calm state of the South Vietnamese countryside seemed to vindicate the Nixon Doctrine of withdrawing U.S. ground combat forces from the country while also improving the capability of the armed forces of the Republic of Vietnam.

Vietnam Archive, Texas Tech University

General Vo Nguyen Giap.

This calm, however, would prove illusionary. In Hanoi, North Vietnamese Defense Minister General Vo Nguyen Giap was planning a massive invasion designed to destroy the South Vietnamese armed forces and capture South Vietnam. Giap hoped for a knockout blow, or at least to seize enough territory for the Democratic Republic of Vietnam (DRV) to dramatically improve its negotiating position in Paris. This would be the largest offensive ever launched by the DRV and represent a break from its past strategy of employing small units to seize terrain only briefly to achieve a psychological shock effect. Throughout 1971, Hanoi requested and received large quantities of modern weapons from the USSR and China, including MiG-21 jets, T-54 medium tanks, 130-mm artillery, 57-mm self-propelled antiaircraft guns, and shoulder-fired SA-7 antiaircraft missiles. It also stockpiled spare parts, ammunition, and fuel along border areas in unprecedented quantities.

For the allies, South Vietnam was divided into four military regions: MR I, the northern section of the country near the DMZ; MR II, the Central Highlands; MR III, the area between Saigon and the Central Highlands; and MR IV, the Mekong Delta south of Saigon. Giap's plan called for a multidivisional thrust across the DMZ, with other forces moving in from the A Shau Valley in the west. The aim of this northern attack was to force Nguyen Van Thieu, the South Vietnamese president, to commit his reserves in defense of MR I, whereupon Giap would then launch a second thrust from Cambodia towards Saigon in MR III. A third assault would occur in the Central Highlands (MR II) and attempt to cut the country in half. These attacks were aimed at causing a total collapse of South Vietnam, or a peace treaty highly favorable to Hanoi.

At noon on Good Friday, 30 March 1972, the 308th NVA Division plus two independent regiments struck the ARVN fire support bases along the DMZ. From the west, the NVA's 304th Division rolled out of Laos striking past Khe Sanh toward Quang Tri City. The North Vietnamese onslaught quickly overran the ARVN's 3d Division elements defending the northern fire support bases, wiping out its artillery support and leaving the road to Quang Tri wide open to continued attacks.

Vietnam Archive, Texas Tech University

A North Vietnamese PT-76 Tank.

As the South's artillery posts fell like dominoes during the first 48 hours of the attack and heavy monsoon rains made air support difficult, naval gunfire support (NGFS) became the only reliable source of supporting arms along the highway leading to Quang Tri City. Because of this, U.S. Marine gunfire observers began flying with Air Force forward air controllers to direct naval gunfire. The destroyers *Buchanan* (DDG 14), *Joseph Strauss* (DDG 16), *Waddell* (DDG 24), and *Hamner* (DD 718) worked day and night hurling shells at North Vietnamese targets moving anywhere in the coastal region and around the town of Dong Ha. In one instance, naval gunfire support destroyed four PT-76 light tanks spearheading an effort to capture the Dong Ha bridge, the main link over the Cua Viet (river) leading to Quang Tri. Captain John Ripley, a Marine advisor who later received a Navy Cross for his exploits during this chaotic period, wrote in his after action report, "When the tanks were hit and burning, both COs were surprised and elated in seeing the potential of NGF. I was to receive many requests for NGF after this remarkable demonstration of its rapid, destructive power." While providing naval gunfire support in defense of South Vietnam, units of Task Unit 70.8.9 (*Waddell*, *Buchanan*, *Joseph Strauss*, and *Hamner*) received 58 rounds of counterbattery fire from positions near the area of the mouth of the Cua Viet, but sustained no damage.

By 2 April, the North Vietnamese had stormed all 12 South Vietnamese fire support bases in the border area and paused to regroup. Three weeks later they attacked again, pushing within 1.5 kilometers of Quang Tri City. Improved weather, however, allowed Air Force FACs to begin calling in air strikes. Major W. T. Sweeney, USMC, an advisor posted with a South Vietnamese marine unit, reported: "During the three day period on about 20 April when the enemy was putting in about 400 rounds of artillery and hitting other positions with direct fire weapons and antiaircraft guns, I had available through the FACs nearly unlimited close air support."

Prior to the start of the offensive, *Coral Sea* and *Hancock* were on Yankee Station conducting strikes in the Steel Tiger area of Laos. On 3 April, Admiral McCain ordered *Kitty Hawk* (CVA 63) and *Constellation* to join them. Poor weather hampered the effectiveness of Navy TACAIR (tactical air) during the first week of the offensive, but by the end of the month, it was beginning to have an impact on ground operations. Just off the coast, Navy destroyers continued to provide gunfire support for the beleaguered ARVN troops and also tried to stem the flow of NVA reinforcements coming across the DMZ. By 6 April, *Lockwood* (DE 1064), *Lloyd Thomas* (DD 764), *Waddell*, and *Everett F. Larson* (DD 830) were providing naval gunfire support south of the DMZ, and *Joseph Strauss*, *Richard B. Anderson* (DD 786), *Buchanan,* and *Hamner* began striking targets in North Vietnam south of the 20th parallel as part of a combined air and naval operation called Freedom Train. On the first day of Freedom Train, *Chicago* fired a missile at a North Vietnamese radar site for a probable kill. South of the DMZ, Navy destroyers struck the DMZ's Ben Hai bridge and eight other targets between the DMZ

and the Cua Viet. *Waddell* fired on a previously engaged coastal defense site at 18,000 yards and immediately received extremely accurate counter fire. Shrapnel was later found on her weather decks.

In a desperate attempt to defend its coastline from Navy surface attacks, the North Vietnamese again struck back on 19 April. On that day, *Oklahoma City*, *Higbee* (DD 806), and *Lloyd Thomas* shelled targets along the North Vietnamese coast near Dong Hoi while *Sterett* provided air cover and spotting services for the three naval gunfire support ships. Around 1700, *Sterett*'s radars picked up three hostile aircraft in the vicinity of Dong Hoi just as the three naval gunfire support ships were beginning to withdraw from the area. One of the planes, a MiG-17 flow by Nguyen Van Bay, made a low-level attack on *Higbee*, dropping a 550-pound bomb on the ship's aft 5-inch turret.

Fortunately, the turret had just been evacuated due to a hot round in the chamber, so no one was killed. However, four Sailors were injured in the explosion and ensuing fire. As the MiG completed its pass, *Sterett* launched a Terrier missile, but it missed the target. *Sterett* then fired a second missile, downing the MiG. The action continued. After the first MiG started its bomb run, a second MiG flown by Le Xuan Di executed a 180-degree turn and headed back into the mountains. *Sterett* fired two more Terrier missiles at this MiG and assumed a kill when the missile and plane disappeared from radar simultaneously.

Higbee, *Sterett*, *Oklahoma City*, and *Lloyd Thomas* then departed the area to the northeast. Ninety minutes later, *Sterett* registered a couple of high-speed surface contacts on its radar. The targets were nine miles away and were paralleling *Sterett*'s course and speed of 32 knots. After tracking the targets for 30 minutes, *Sterett* fired on them with her 5-inch guns. The contacts, a pair of P-6-type boats, disappeared from radar and were presumed destroyed. This was one of the largest surface engagements by naval ships during the Vietnam War.

That same day in the waters off Vinh, shrapnel from a North Vietnamese 122-mm shell burst in the air above *Buchanan*, killing one Sailor and wounding another seven. During the same action, two *Shanghai*-class gunboats emerged near Hon Matt island and were immediately fired upon by *George K. Mackenzie* (DD 836). The destroyer may have damaged one of the boats, which retreated soon after the shelling commenced. Eight days later, Freedom Train NGFS ships again battled North Vietnamese boats off the waters of North Vietnam. On the night of 27 April, four oceangoing

NHC L File

Destroyer *Everett F. Larson* (DD 830) fires her forward 5-inch guns while supporting South Vietnamese troops in Vietnam's Military Region I, 1972.

NHC L File

Light guided missile cruiser *Oklahoma City* (CLG 5) fires her 6-inch guns off the coast of Vietnam.

NHC L File

Destroyer *Higbee* (DD 806). On 19 April 1972, a MiG-17 flow by Nguyen Van Bay made a low-level attack on *Higbee*, dropping a 550-pound bomb on the ship's aft 5-inch turret.

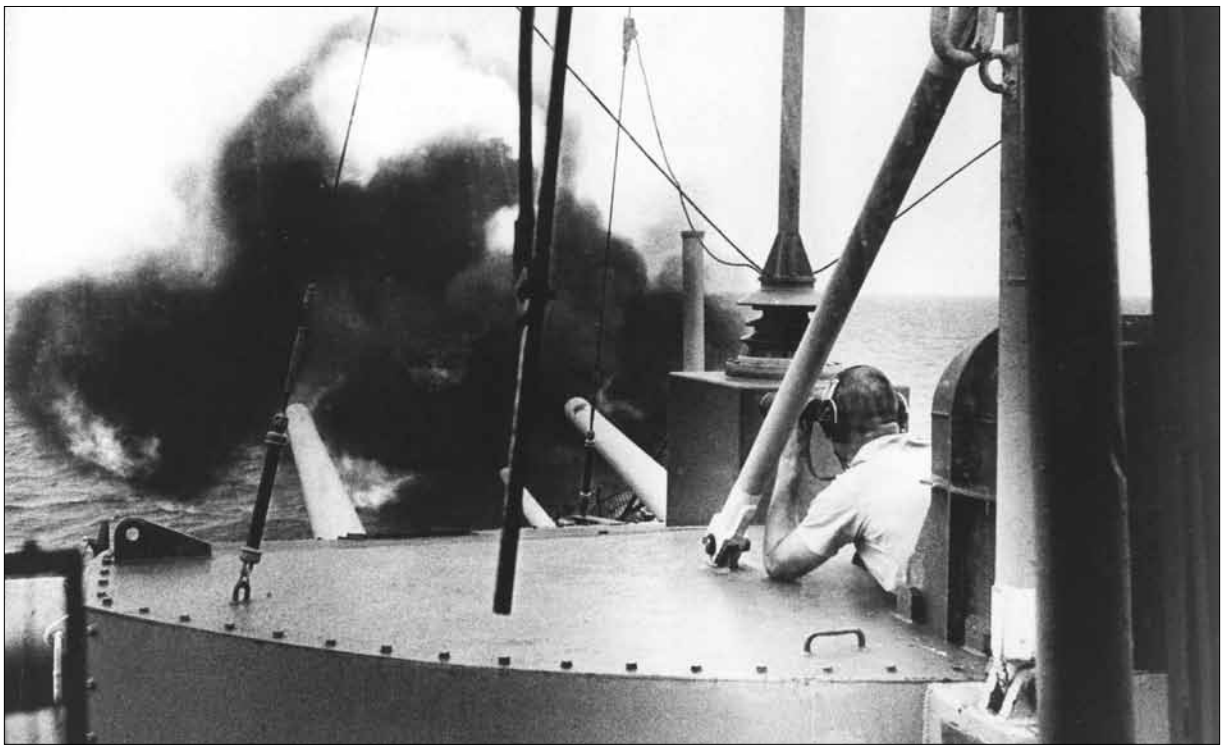
NHC L File

Guided missile frigate *Sterett* (DLG 31) underway in the Pacific, 28 January 1972.

junks closed to 8,000 yards and fired at several naval gunfire support ships in the vicinity of Hon Me island, North Vietnam. *Richard B. Anderson* returned fire, sinking three and heavily damaging the fourth.

The culmination of the MR I battle occurred on 28 April. During the night, 40,000 NVA troops with 50 tanks made their final advance into Quang Tri against an ARVN force of only 13,000. Marine advisor Major James Joy observed, "In one of the most timely and most devastating air shows ever witnessed, tactical air, guided by a FAC with flare light, put in air strike after air strike on the enemy on the north side of the bridge. The attack was beaten off and resulted in five tanks destroyed to the northwest of the bridge."

Still, air power alone could not save Quang Tri. On 1 May, the Air Force's 37th Aerospace Rescue



NHC L File

Destroyer *Richard B. Anderson* (DD 786) fires her 5-inch/38-caliber guns at targets on the North Vietnam coastline, February 1966. On the night of 27 April 1972, this destroyer sank three oceangoing junks off North Vietnam.

and Recovery Squadron at Danang launched a rescue task force of HH-53 Jolly Green Giant helicopters to evacuate the 132 American advisors still in the besieged city, as allied F-4s delivered every type of ordnance in a desperate bid to stall the North Vietnamese advance. The ARVN troops then fell back towards the old imperial city of Hue.

To salvage the situation, President Thieu replaced his MR I general, Hoang Xuan Lam, with one of South Vietnam's ablest generals, Ngo Quang Truong, the commander of Hue during the 1968 Tet Offensive. Truong ordered air power to take down every bridge between the DMZ and the My Chanh River. He then directed strikes against 130-mm artillery, tanks, and trucks. This classic battlefield interdiction campaign helped slow the NVA assault and purchased Truong enough time to mount a limited counterattack north of My Chanh as well as stave off the final NVA thrust on 20 May. During this final NVA attack, the Communist forces succeeded in crossing the My Chanh River but were ultimately pushed back after several days of intense fighting. Tactical air destroyed 18 tanks and killed 300 enemy soldiers during this battle.

Because of the quick surge capability of the U.S. Seventh Fleet's carrier force, naval aviation proved instrumental in preventing a total collapse of MR I during the first month of the invasion. On 30 April, *Midway* (CVA 41) arrived on Yankee Station, bringing the Navy's total to five carriers. A sixth carrier, *Saratoga* (CVA 60), received orders to deploy from the Atlantic on 8 April and arrived on Yankee Station on 17 May. Overall, the Navy launched 2,023 tactical air strikes into Military Region I during the early weeks of the campaign. The Air Force, by comparison, flew 1,950. During the entire 1 April–August 1972 period, Navy and Marine air flew 30 percent of the 18,000 tactical air sorties in MR I while the Air Force flew 45 percent; and VNAF, 25 percent.

The second phase of the Easter Offensive occurred in MR III, 65 miles north of Saigon at the town of An Loc. For the first time in the war, the South Vietnamese regime confronted the possibility of losing a provincial capital near the

NHC L File

Attack aircraft carrier *Midway* (CVA 41) underway, 5 June 1971.

USN 1154673

A South Vietnamese marine, with an M-79 grenade launcher in his hands, maintains lookout on top of the citadel in Quang Tri City, September 1972. The South Vietnamese re-took the city that month.

national capital. The Communist attack in this area began on 2 April with a series of feints, but it soon became clear that the main objective of the North Vietnamese was An Loc. On 5 April, NVA forces overwhelmed Loc Ninh, opening up a direct route down Highway QL-13 to Saigon through An Loc.

Intense attacks on An Loc, held by the ARVN's 5th Infantry Division, continued for another three days. During this time, three Air Force FACs operated over An Loc at all times. This system allowed the "King" FAC to run four or five strikes simultaneously over the city and be extremely responsive to the changing situation on the ground. For example, on the 15th, the NVA began a new drive on the city, and allied tactical air power responded immediately, destroying nine out of the ten tanks employed in the assault. This attack ended the first phase of the An Loc struggle; thereafter, the battle degenerated into a classic siege.

On 16 April, enemy artillery fire hit an ammunition storage area at Lai Khe, south of An Loc, resulting in the destruction of 8,000 artillery rounds. Heavy

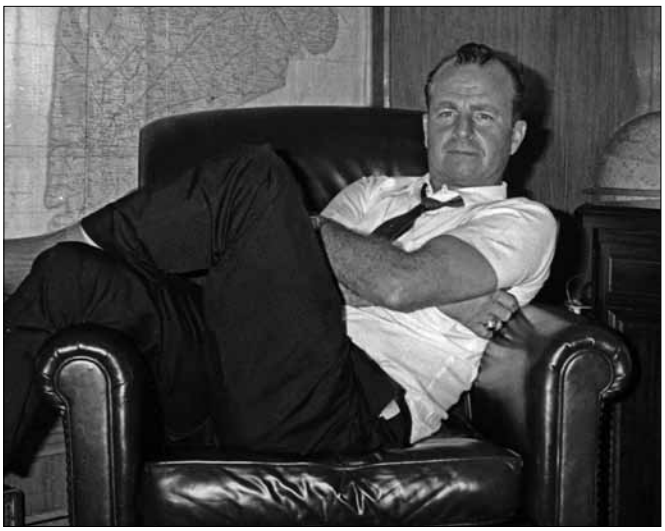
NHC L File

Marine A-4 Skyhawks were instrumental in the defense of Military Regions II and III during the Easter Offensive.

artillery fire had also destroyed all but one of the 105-mm howitzers in An Loc. These shortfalls compelled the beleaguered defenders to rely mainly on air power for fire support. By way of contrast, the NVA had enough heavy artillery to fire 1,000 rounds a day. Air units attempted to silence these weapons when they could spot them, but the enemy proved very effective at hiding and camouflaging their artillery.

The NVA began its final push against An Loc on 11 May. Over 8,000 rounds of artillery slammed into An Loc that day. An Army advisor on the scene said "it sounded like somebody was popping popcorn—shaking it just all over the city." At 0430, the North Vietnamese shelling stopped, but before the enemy could launch ground assaults, U.S. and South Vietnamese tactical jets and U.S. Army Cobra helicopters ferociously attacked North Vietnamese positions. Finally, at 0500, forty NVA tanks and numerous infantry struck An Loc from all sides. The U.S. advisors responded by scheduling B-52 strikes every 55 minutes. ARVN troops then began tearing apart the enemy tanks with their M-72 light antitank weapons (LAWs), destroying seven of these behemoths early in the fight. Army Cobras equipped with 2.75-inch rockets took down another four. From above, the forward air controllers continued directing sorties against NVA positions, at one point immobilizing a 500-man battalion with a single "daisy cutter"—a 750-pound bomb with a fuse extender that detonated just prior to hitting the ground, thereby dramatically increasing the weapon's blast radius. In another instance, a flight of four F-4s put 22 out of 28 bombs on an NVA concentration, killing 150 enemy troops in the process. To the west, AC-130 Specter gunships rained shells from their 105-mm howitzers on Communist troops hiding in bunkers.

Extremely poor weather kept TACAIR away from the battlefield during the night of 12–13 May, a factor which convinced the Communist forces to make one last ditch effort to take the city. Fortunately, the Air Force had enough B-52s available to launch six strikes on the attacking forces, effectively blunting this final thrust. During this night, the Air Force also used a large 15,000-pound bomb and fuel air explosives,



Vietnam Archive, Texas Tech University

John Paul Vann, senior U.S. advisor in Military Region II.

which asphyxiate soldiers in the blast zone, even if they are in bunkers, buildings, vehicle shelters, or other protected spaces.

Enemy shelling remained heavy for the next three days, and NVA forces attacked an ARVN relief column trying to fight its way up Highway 13 from Saigon. Fortunately, with the arrival of *Saratoga* off South Vietnam and Marine Aircraft Group 12 at Bien Hoa, additional air resources began flying over MR III early in May. The Marine A-4 pilots, in particular, worked extremely well with their Air Force counterparts. In their first 13 days at Bien Hoa, Marines flew 441 attack sorties. In June, they tripled that amount, flying over 1,300 sorties in MRs III and IV.

Most operations were from 5 to 50 miles from Bien Hoa, which meant ground crews at the base felt the detonations of Marine ordnance. This proximity to the battle gave everyone an incentive to work extremely hard to defend An Loc.

Early in the evening of 16 May, the NVA assault launched on 11 May finally ground to a stop. By 12 June, the ARVN 5th Division had driven the last of the NVA out of the city and could finally begin evacuating the 1,000 wounded soldiers trapped there. Enemy forces would remain active in the region for months, but the direct NVA threat to An Loc was over. ARVN forces defending An Loc fought long and hard to hold the town, but success there was due primarily to the extraordinary air attacks by all four U.S. military services.

Three days after the initial attack along the DMZ, clashes began occurring at 8 of the 10 fire support bases in the forested highlands of Military Region II—the area of South Vietnam near the juncture with Laos and Cambodia. In 1972, NVA probes in the region kept the ARVN guessing about where the main North Vietnamese attack would come. It finally became clear in the second week in April when the NVA 2d Division attacked two regiments of the 22d ARVN Division at the town of Tan Canh and the nearby Dak To firebase. The South Vietnamese force quickly disintegrated and fled towards Kontum.

Inexplicably, North Vietnamese forces paused at Dak To for almost three weeks, giving the ARVN time to regroup at Kontum. John Paul Vann, the senior U.S. advisor in the area, thus had an opportunity to call in relentless air strikes on the enemy. During the entire month of April, over 3,400 Air Force, Marine, and Navy sorties struck targets in the MR II area.

The NVA juggernaut began moving again towards Kontum during the first half of May and hit the city on 14 May. The Air Force's Strategic Air Command sent Vann three-plane flights of B-52s at hourly intervals, and he used these strikes judiciously to lay blankets of bombs in target boxes within 700 yards of friendly positions. "Anytime the wind is blowing from the north where the B-52 strikes are turning the terrain into moonscape, you can tell from the battlefield stench that the strikes are effective," Vann said. "Outside of Kontum, wherever you dropped bombs, you scattered bodies."

Joining the B-52s and the tactical air components defending Kontum was a small task force of U.S. Army helicopters equipped with antitank missiles. The extremely accurate wire-guided "TOW" missiles took out 26 tanks between late April and 12 June. One tank purportedly tried to duck into a house to hide. A TOW nailed the tank by shooting a missile through a window.

Bruised and battered by air power as well as confronted with stiffening defenses on the ground, the NVA pulled out of Kontum during the first half of

June. South of Kontum along the roadway to Pleiku, Communist forces held a fortified position astride Highway 14 at Kontum Pass called the "rockpile." In actions similar to the Monte Cassino battle in Italy during World War II, allied tactical fighters and B-52s pounded the rockpile until the pass was cleared on 30 June, and armed convoys once again began traveling between Pleiku and Kontum.

As on the northern front, the Navy's most significant contribution to the air effort in MR II occurred during the vital first weeks of the attack. In April, Navy aircraft launched 1,118 sorties into MR II, compared with 739 for the Air Force. Between 8 April and 30 April, the Navy effort built gradually from about 240 sorties a day to a peak day with over 300 sorties—a comparable figure to the Air Force's during the same period.

Marine air also played a dramatic role in the defense of MR II. On 30 March, the U.S. Marine Corps had no planes in the Republic of South Vietnam, but by 11 April, two squadrons of F-4s (28 aircraft) were operating out of Danang, and two days later a third squadron joined the group. In mid-May, the Marines transferred two squadrons of A-4s from Iwakuni, Japan, to Bien Hoa, Vietnam. In April, May, and June, the Marines flew 1,386 sorties in MR II.

In the end, U.S. air power proved decisive during the Easter Offensive. During the battles of An Loc, Kontum, and to some extent Quang Tri, ARVN depended heavily on air strikes as a substitute for heavy artillery abandoned or destroyed in the Communist offensive. Without air power, the South Vietnamese would have been defeated on every front, as would happen three years later when American air power was no longer available. Air power destroyed half of the estimated 100,000 NVA and VC soldiers killed and 459 tanks.

While the Air Force ultimately delivered larger numbers of tactical air sorties during the crisis, the Navy and Marine Corps made a vital contribution, especially at the onset of the invasion when few Air Force assets were available in Southeast Asia to rapidly respond to the changing tactical situation. The Navy and Marines flew nearly as many tactical sorties in South Vietnam in April as did the Air Force.

NHC L File

A Sailor prepares 8-inch shells for firing.

The Navy's contribution also included naval gunfire support. During the enemy invasion of South Vietnam, the Navy deployed 60 surface combatants along the coasts of North and South Vietnam. Organized into small units of three destroyers or a cruiser and two destroyers, these units made an average of three strikes a night against military installations, transshipment points, supply choke-points, and other lines of communication. This naval bombardment support was critical to the South Vietnamese defenders, especially during the pivotal first days of the offensive in MR I, when bad weather severely hampered tactical aviation. ⚓

NHC L File

Lieutenant Commander Richard M. Nixon, USNR. During World War II, Nixon served as a Reserve officer and remained in the Reserves until 1966.

MINING HAIPHONG HARBOR

On 1 May 1972, South Vietnam's military situation was extremely bleak. After a month of heavy fighting, the North Vietnamese now occupied the country's entire northernmost province and were threatening Hue, Kontum, and An Loc. "The South Vietnamese were close to breaking," writes historian James Willbanks. "Saigon entered a dark hour, and national morale fell to an all-time low." A continuous stream of refugees, including many deserters, flowed into Hue, making the situation more desperate for the city's defenders. The deteriorating military situation, especially in Military Region I, threatened not only the peace negotiations but the entire Vietnamization program and the very survival of South Vietnam as an independent country. Clearly, bold measures were needed, but the introduction of large numbers of U.S. ground troops to Vietnam was not an option. Instead, President Nixon gravitated towards two responses: the resumption of a broad air interdiction campaign against North Vietnam, and a naval blockade of the entire North Vietnamese coast, including mining actions against Haiphong and other major harbors. In a memorandum to Kissinger, Nixon wrote: "I have determined that we should go for broke. . . . We must punish the enemy."

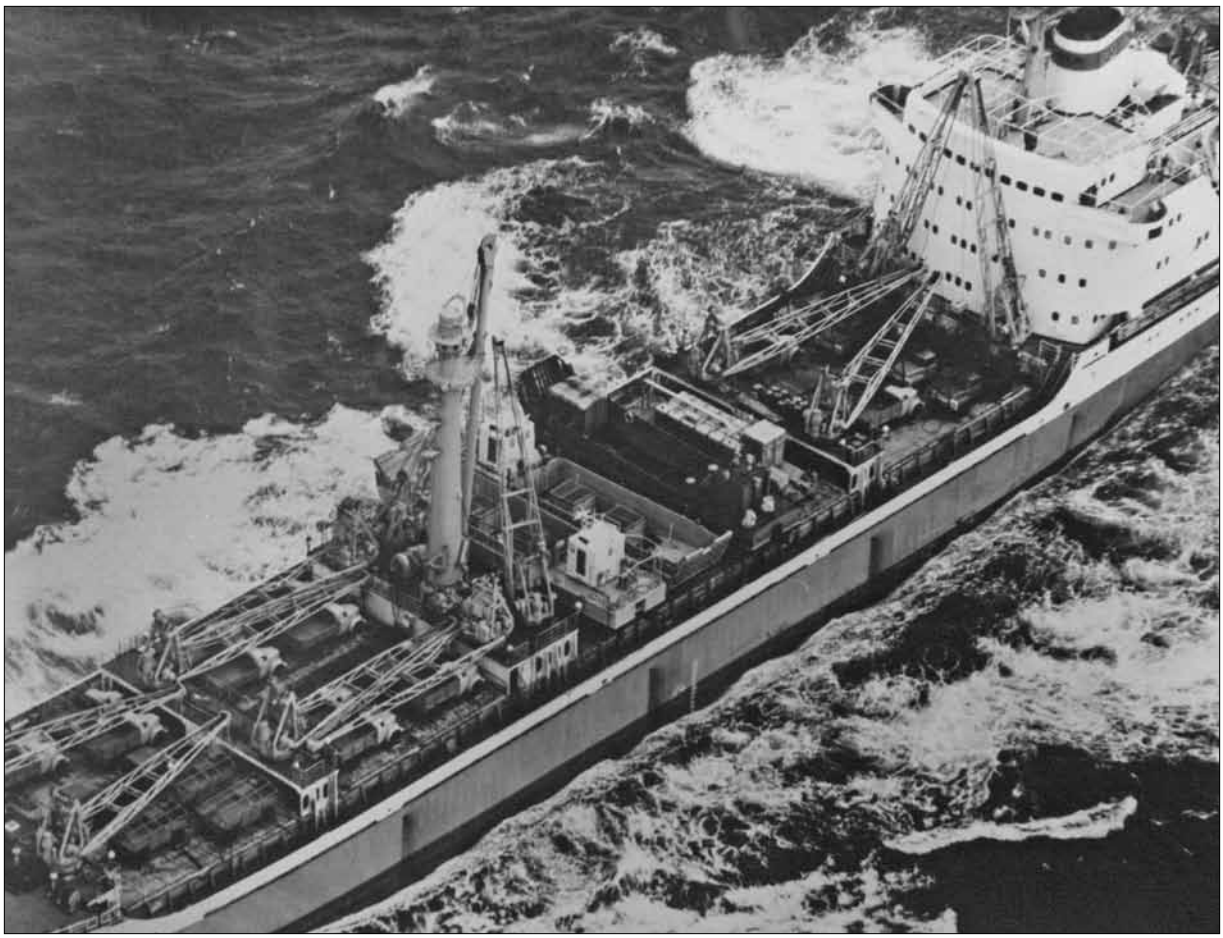
NHC L File

As Chairman of the Joint Chiefs of Staff from 1970 to 1974, Admiral Thomas Moorer advocated an aggressive stance towards North Vietnam and was one of the principal architects of Pocket Money, the Navy's 1972 mining campaign.

The idea of mining Haiphong was not a new Navy concept in 1972. Admiral Sharp had advocated mining almost from the onset of the war. After his retirement in 1968, he made his views on the subject public in his memoirs: "Of all the things we should have done but did not do, the most important was to neutralize Haiphong."

The Johnson administration opposed a mining campaign, doubting its efficacy and fearing it could trigger Chinese or Soviet intervention. However, it did authorize the Navy to mine key supply routes in the panhandle area of North Vietnam as part of the Rolling Thunder interdiction campaign (1965–1968). These operations impeded movement around ferry crossings, bridges, storage areas, fuel dumps, and truck parks. Carrier aircraft seeded rivers and riverbanks with Mark 36 Destructor mines. These mining efforts, for the most part, were ineffectual. The North Vietnamese had little difficulty clearing the mines or detouring logistical traffic around heavily mined areas. As Sharp had argued, only by mining Haiphong, the country's major sea link with the greater world, would mining have a dramatic impact on the enemy's ability to supply its forces in the South.

The Navy gained a more sympathetic ear when Richard Nixon became president. Unlike Johnson,



USN 1154673

A Soviet freighter bound for Haiphong. The Pocket Money mining operation was designed to prevent ships like this one from delivering war materials to North Vietnam.

Nixon was willing to take bold risks to end the war in Southeast Asia—especially after North Vietnam's aggressive invasion in the spring of 1972. The Sino-Soviet split and the President's recent trip to China in February 1972 also paved the way for a more aggressive U.S. policy in Southeast Asia. The rift between China and the Soviet Union, which peaked in 1969, allowed Nixon to play one nation against the other and lessen their commitments to North Vietnam through "linkage" diplomacy. Nixon's trip to China and the resulting Shanghai Communiqué further isolated Hanoi and made the Nixon administration very confident that China would not intervene militarily in Vietnam.

The idea of a mining operation against Haiphong had a strong, well-placed advocate in the military hierarchy: JCS Chairman Admiral Thomas Moorer, who had developed an interest in the subject during World War II when he worked as a mine warfare observer for the British Admiralty. Immediately after the war he prepared a report on mining operations against Japan for the Strategic Bombing Survey. In conducting research for the project, he learned that the Navy actually mined Haiphong during 1943–44, forcing the Japanese to abandon the port for anything larger than a junk for the remainder of World War II. As Chief of Naval Operations from 1967 to 1970 and JCS Chairman after 1970, Moorer's intimate understanding of this earlier operation prompted him to petition the Johnson and Nixon administrations, repeatedly and unsuccessfully, for a similar campaign. Moorer believed that if the Navy mined Haiphong, the North Vietnamese would be forced to rely on its

more vulnerable rail system to transport supplies from China. None of Moorer's superiors considered the option seriously until 4 April 1972.

North Vietnam's invasion of South Vietnam clearly violated the Geneva agreements and established basic justification for a strong retaliatory move by the United States. With President Nixon's blessing, Admiral Moorer requested a detailed plan from the Navy's Mine Warfare Office for a Haiphong mining operation. This small staff immediately set to work developing a plan from the Navy's mine warfare command's existing mining folder on North Vietnam.

From an operational perspective, Haiphong presented numerous challenges. The mine warfare planners decided that Mk-52 magnetic mines would be the most effective against large oceangoing, steel-hulled merchant ships. Magnetic mines would also be easier to sweep when U.S. forces cleared the mines as part of an eventual peace settlement. As Admiral Moorer explained in his reminiscences,

NHC L File

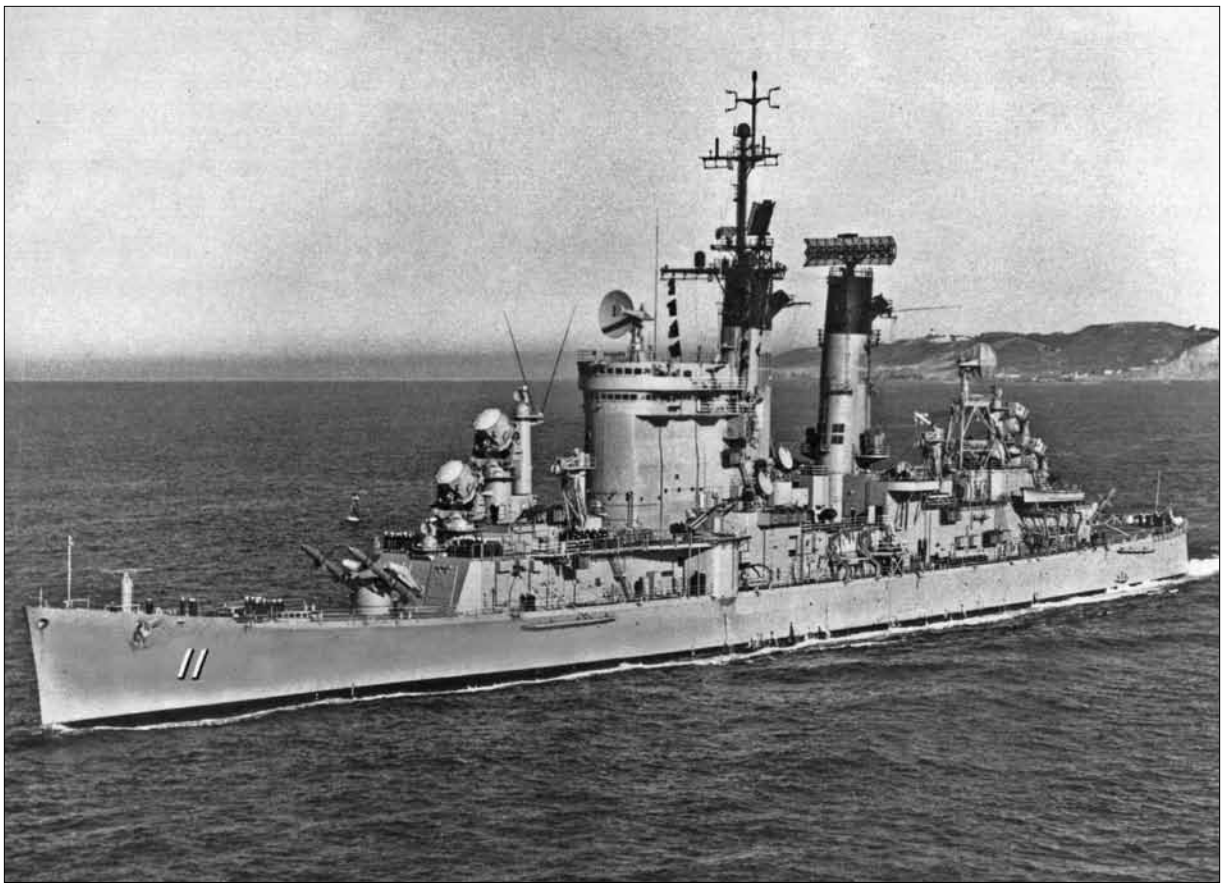
A drawing of an Mk-52 mine.

"We deliberately laid it down so we could get it up. I could have put a minefield in there they'd never get up and it would still be there."

Mk-52s also allowed for a longer arming delay than other mines—an important diplomatic factor that gave the 36 neutral vessels in Haiphong harbor a grace period in which to leave after the mines were sown. In the end, however, only one British and four Soviet vessels actually took advantage of the delay and escaped from the harbor.

Roger Sheets

Commander Roger Sheets led the *Coral Sea* (CVA 43) strike force that mined Haiphong harbor on 9 May 1972.



NHC L File

On 9 May 1972, a Talos missile fired from *Chicago* downed a North Vietnamese MiG.

Despite the political advantages of the Mk-52, the system was not without disadvantages. Although the flight crews were highly experienced combat aviators, none had done actual mining. The political importance of this mission, and the results that the Navy expected it to achieve, dictated that Commander Roger Sheets, *Coral Sea*'s air wing commander who led the attack, eliminate as many areas for error as possible prior to the mission. The official estimate was that the Navy would sustain a minimum of 30 percent losses, so he did not want anyone to fail to properly arm the mines. He therefore ordered the mine loaders to "positive arm" the mines. Once Sheets launched, there was no way that those mines could come off the aircraft without becoming active.

One limitation of the Mk-52 was its size and weight. Four 80-by-19-inch, parachute-retarded mines would add 8,000 pounds of weight to the A-6 and slow its speed down to 375 knots. It also did not allow the aircraft to carry an auxiliary fuel tank. This meant that not only would the A-6s be much more vulnerable to MiGs, SAMs, and AAA, but *Coral Sea* would have to come within 100 miles of the coast of North Vietnam to ensure that the aircraft would have enough fuel for a round trip.

To protect *Coral Sea* and the mining force from air and surface threats, *Chicago*, *Long Beach*, and *Sterrett* stationed themselves between the port of Haiphong and *Coral Sea*. Another surface group consisting of *Berkeley* (DDG 15), *Myles C. Fox* (DD 829), *Richard S. Edwards* (DD 950), and *Buchanan* shelled coastal antiaircraft sites on the Do Son Peninsula about six miles west of the Haiphong channel with their 5-inch guns. Finally, the carrier *Kitty Hawk*'s planes pounded diversionary targets at Thanh Hoa and Phu Qui at the same time as the mining operation.

NARA K-99976

Coral Sea Sailors affix sea mines to a VA-94 A-7E Corsair II.

Even with these precautions, Sheets and his A-6 crews still sweated every detail of the tough assignment. In a meeting the night before the mission, he briefed the admirals in charge of Task Force 77 and Task Force 75 (the cruiser and destroyer task force). At that meeting, the admirals decided to bring the guided missile cruiser *Chicago* close enough to the shoreline to protect the strike force with its Talos antiaircraft missiles. Commander TF-75 requested that Sheets keep his aircraft below 1,000 feet so that anything above that altitude could be declared hostile. "The admirals looked at me and said, 'Is that okay with you, CAG?' and I said, 'No, I want anything above 500 feet to be declared as hostile. We'll be well below that.'"

On the morning of 9 May, *Coral Sea* launched its mining strike force: three A-6As and six A-7Es. The *Coral Sea* strike circled the ship until 0840 and then headed toward Haiphong. Like a tightly choreographed ballet, the diversionary strike from *Kitty Hawk* struck Thanh Hoa and Phu Qui at 0845, and a destroyer group comprising *Myles C. Fox*, *Richard S. Edwards*, and *Buchanan* began firing rounds of 5-inch shells at antiaircraft positions on the Do Son peninsula about six miles west of the Haiphong channel.

All seemed to be going splendidly until 0849, when a radar operator on board *Chicago* picked up three MiGs departing Phuc Yen airfield and heading directly towards the mining aircraft. Within seconds, *Chicago* launched two Talos missiles at the MiGs, now 48 miles away. The 7,000-pound, 31-foot-long missile, the largest SAM in the Navy's inventory, downed one of the MiGs. The others promptly turned tail and retreated.

The A-6 flight from Marine All-Weather Attack Squadron VMA (AW) 224 headed for Haiphong's inner channel, and A-7s from VA-94 and VA-92

NHC L File

Marine A-6 Intruders from VMA(AW)-224 fly over *Coral Sea*.

approached the outer channel. The inner channel was only 1,000 feet wide so navigation remained critical throughout. The A-6s flew down the channel and released the mines at the predetermined point. Marine Captain William D. Carr, the lead navigator, timed the release with his wristwatch rather than trusting the intervalometer. The first mine fell free of Carr and Sheet's A-6 at 0859. "There was one ship that was exiting the harbor," recalled Sheets, "that was in our mine pattern so we had to delay just slightly the release of one mine to keep from putting it on top of this ship, although it was a temptation not to skip it."

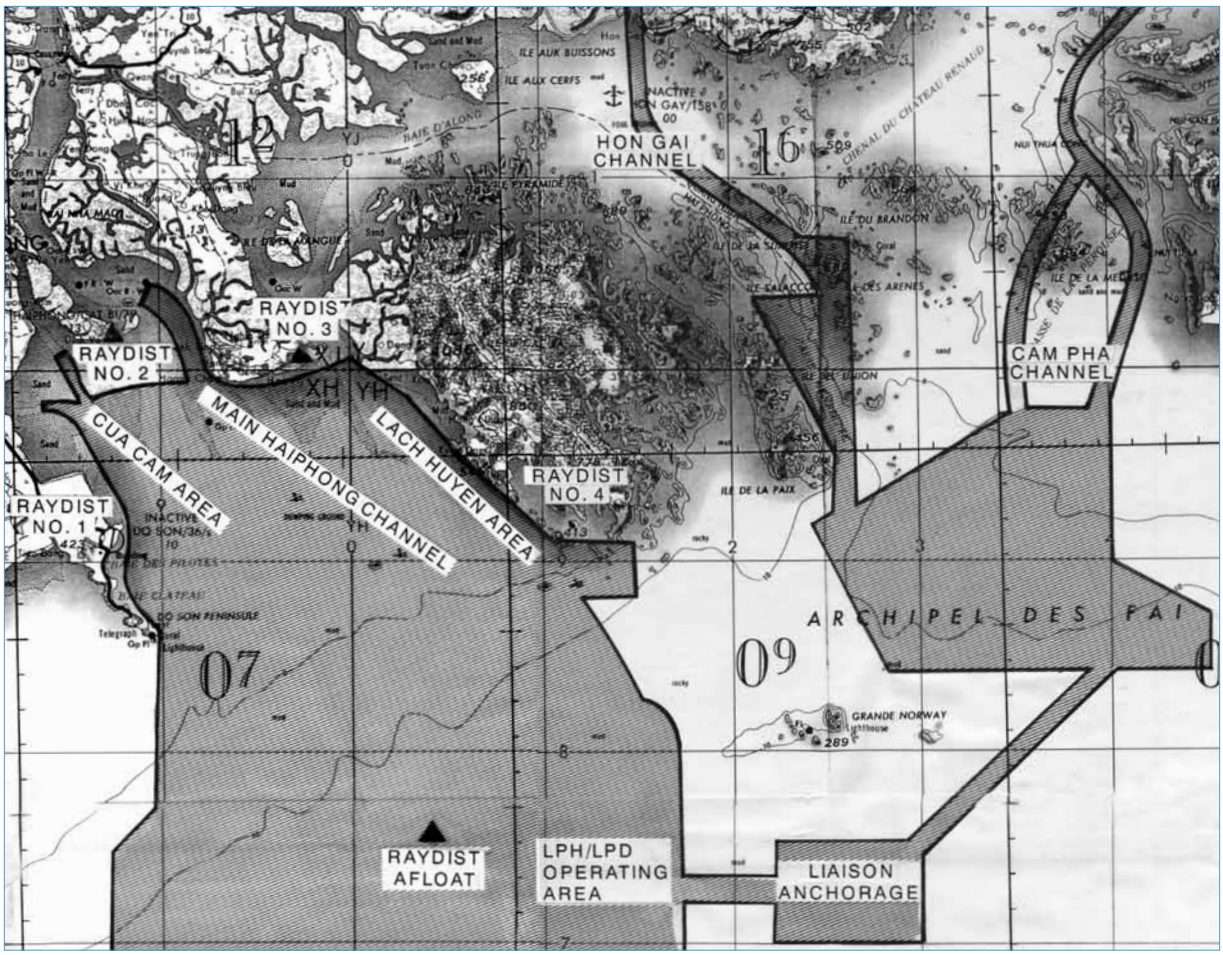
By 0901, the A-6s had placed 12 mines in the inner channel and the A-7s, 24 in the outer channel. Of these 36 mines, three failed to arm. One A-7 failed to drop on the initial pass, so the pilot came around and dropped his mines on a reverse pass. As Sheets later explained, "We looked at this as a one shot deal. If we didn't get it right this time, they would put everything they had in our way on the next go around."

As soon as all the mines were laid, Sheets radioed *Coral Sea* to inform Admiral Howard Greer, the commander of Carrier Division 3, of the news. *Coral Sea* then sent off a flash cable to the White House, announcing that the mines were in the water. Nixon, who had already begun his speech, had been speaking slowly to allow the A-6s to retire from the target area safely. With a stern face, he discussed three courses of action with the American public: immediate withdrawal of all U.S. forces from Vietnam, continued negotiation, or direct and decisive military action. As soon as he received the signal that the mines were in the water, he announced that he had reluctantly chosen the mining option. Despite the apparent strength of the antiwar movement, a Gallup poll reported that 74 percent of Americans interviewed supported President Nixon's hard line against North Vietnam.

During the remaining eight months of mining operations against North Vietnam, Navy and Marine aircraft laid 11,700 mines in major ports as

well as inland waterways. In 1972 dollars, mining cost the U.S. Treasury $9,506,314 (over $49 million in 2008 dollars). What kind of return did America get for its investment? Mining closed the port of Haiphong for 300 days, reduced total imports by 30 percent, inactivated 27 foreign supply ships for 8,000 ship days, reduced coastal shipping from 800 tons a day to 150, and halted all North Vietnamese exports (eliminating an important source of foreign exchange). The magnitude of road and rail traffic required to overcome the blockade proved nearly insurmountable and almost certainly influenced the North Vietnamese decision in January of 1973 to come to a peace settlement. For example, a tug pulling four medium-size barges can move 1,000 tons of freight. To move the same amount by land would require 250 trucks or 40 railway cars. "When we mined Haiphong," explained Admiral Moorer, "the traffic on the railroads just mushroomed and consequently we got all kinds of wonderful targets in the railroads."

The closure of Haiphong harbor also contributed to the difficulty that North Vietnam had in resupplying its stockpile of SAMs during the 1972 Christmas bombing campaign. Whereas on day one of that campaign the NVA had been able to fire 200 SAMs at the U.S. B-52 force, by day 11 it could get only 23 missiles in the air. The Christmas bombing alone, in short, did not convince the North Vietnamese to return to the negotiating table in January of 1973; rather, it was the combination of all factors, including mining, coastal bombardment, and blockade, that ultimately led to a peace agreement and the end of the war in 1973. ⚓



NHC

Mining areas in Haiphong harbor for Pocket Money.

Istvan Toperzer

A North Vietnamese MiG-17F. The MiG-17 flew much slower than the Navy's F-4, but in the hands of a competent pilot, the highly maneuverable airplane could be a fierce adversary.

As the Nixon administration began easing restrictions against bombing targets in North Vietnam during the spring of 1972, B-52s as well as tactical fighters struck many targets in North Vietnam for the first time in years. The strength of this American effort triggered a strong defensive response from the MiGs, and dogfights once again erupted over North Vietnam.

The Vietnamese People's Air Force (VPAF) order of battle in 1972 consisted of four regiments of fighters located at Phuc Yen, Kep, Yen Bai, and Lam Son airfields. Although Navy aircraft occasionally tangled with MiG-21s based out of Phuc Yen, 15 miles north of Hanoi, or the MiG-19s based at Yen Bai, 50 miles northwest of Hanoi, their main foes were usually the MiG-17s of the 923d Fighter Regiment based at Kep, 30 miles northeast of Hanoi. These aircraft patrolled the eastern and northeastern parts of the country.

The MiG-17 Fresco, first developed in 1953 by the Soviet Union and based heavily on the Korean War–era MiG-15, was not as fast or technologically advanced as the F-4. It could barely fly 716 miles per hour whereas the Phantom could easily hit speeds in excess of 1,500 mph. Generally, it did not carry air-to-air missiles, but instead relied on two 23-mm and one 37-mm cannon as its main armament—weapons suitable only for close-in fighting. Despite its obvious deficiencies, the MiG-17 was a formidable adversary for the F-4. In a slow, close-in dogfight, the MiG's turning advantage, excellent visibility, and gun armament made it difficult for a fast F-4 armed only with long-range missiles to defeat. To entice American planes into close-in scuffles, two or more MiG-17 pilots would fly in tight defensive circles, with each plane flying a different direction separated by 800 feet of altitude. The only way a Phantom could get behind a MiG in one of these patterns would be to slow down and enter the circle, whereupon the MiG's wingman would turn into the F-4 and blast it out of the sky.

NHC L File

A flight deck director signals an F-4 Phantom II into position on the starboard catapult, in preparation for launching, 5 August 1970.

Clearly, attacking MiGs on the ground represented a better way to neutralize this threat. However, during much of the war, strict rules of engagement usually prevented Navy and Air Force planes from bombing the MiG bases and the ground control intercept (GCI) radar stations located there. Immune from attack and equipped with intelligence from ground controllers on the location of every American aircraft entering North Vietnam, the VPAF could attack American planes at will. Because American pilots tended to be better trained and more experienced than the Vietnamese pilots, the VPAF generally chose to avoid U.S. fighters in favor of more vulnerable attack planes.

Determined not to make the same mistakes as his predecessor, President Nixon permitted attacks on these airfields after the start of the Easter Offensive, hurting the enemy GCI effort and compelling the MiGs to take to the air to defend their bases. In fact, by the end of 1972, all airfields in North Vietnam except Gia Lam, Hanoi's international airport, were extensively damaged, and after the war, Noi Bay, Kep, Yen Bai, and Kien An had to be completely rebuilt.

There were seven Navy MiG kills between the end of Rolling Thunder in 1968 and the beginning of Nixon's Linebacker offensive on 10 May 1972. Five of them occurred in the three months leading up to Linebacker, and two were achieved by a single fighter team, Lieutenant Randy "Duke" Cunningham and his RIO Lieutenant (jg) William "Irish" Driscoll. This team would ultimately become the first aces of the war on 10 May 1972.

A University of Missouri graduate and a high school swimming coach before the war, Cunningham left his home in Shelbina, Missouri, in 1967 to pursue a dream of becoming a naval aviator. He did not enter the Navy through the U.S. Naval Academy or ROTC, but through Officer Candidate School. Cunningham flew during an uneventful cruise in 1969–1970. He then went through the Top Gun curriculum at Naval Air Station Miramar in California, returning to the fleet in October 1971.

Cunningham scored his first MiG kill on 19 January 1972 while escorting an RA-5 Vigilante engaged in photoreconnaissance over Quang Lang air base south of Hanoi. In that episode, he surprised two MiG-21s from the rear. Willy Driscoll, his NFO, urged him to take a Sparrow shot from long range, but Duke, skeptical about radar-guided missiles and their performance, chose to get closer and use a heat-seeking missile instead. The MiG discovered Cunningham just as he launched his first Sidewinder, which missed. Duke ultimately downed the MiG with a second Sidewinder shot from the rear. Bagging the first MiG since Jerome Beaulier and Steven Barkley's kill on 28 March 1970 transformed Cunningham and Driscoll overnight into celebrities.

Between 19 January and 8 May, the Navy as a whole scored four more aerial victories. On 6 March, Foster "Tooter" Teague and Dave Palmer of VF-51 blasted off *Coral Sea* as part of a photoreconnaissance strike force. Rear Admiral James Ferris, the carrier group commander, warned Teague in the preflight brief that MiGs might be in the air, and Teague hoped to get one. "This attitude that there's nothing worth my ass is wrong. If you're gonna kill MiGs, you gotta go trolling. You gotta get out there and get among them," Teague explained. His flight got a bandit call from the Red Crown PIRAZ ship just as the RA-5 finished its photo run over Quang Lang.

"I got one at 11 o'clock low," shouted Teague's back-seater Ralph Howell. Teague veered into the MiG and launched a Sidewinder. "It guided like a champion," explained Tooter. "All sorts of crap came off the guy." The MiG flew straight up, and Teague tried to follow but overshot it. He then saw another MiG at 12 o'clock high. He fired another Sidewinder at close range—too close for the missile to arm—and the shot whizzed by the MiG. "I had buck fever. No question. When somebody is in your sights . . . it's probably the most massive amount of adrenaline you'll ever have." The MiG dove and Teague stuck with it, but then another MiG pulled into his 3 o'clock, forcing Teague to give up the chase. Teague made one more pass over the field, hoping to catch another MiG, but none showed. Teague did not receive a kill credit for the actions that day because no one knew whether the first MiG went down. The North Vietnamese claim no MiGs went down during the engagement.

In the meantime, *Coral Sea* launched Gary Weigand and Jim Stillinger of VF-111 in an attempt to intercept the MiGs as they returned home. With the help of Red Crown, Stillinger found a MiG-17 and got into a nasty turning fight with the scrappy little plane. "Jim couldn't get enough nose-to-tail to shoot," recalled Weigand, and the MiG began to gain the advantage. "The adrenaline kicked in and all of a sudden it hit me, 'Hey, this is for real. Somebody is going to die if you don't get your butt in gear and do what you're supposed to do.'" Weigand told Stillinger he was coming in and asked Jim to drag the MiG south. Weigand rolled in on the MiG and fired

a Sidewinder right up its tailpipe. He could hear Stillinger yelling, "You got him! You got him!" as he flew through the MiG's debris only 150 feet above the ground.

The Navy lost an F-4 flown by Al Molinare and James B. Souder on 27 April and evened the score and then some with three kills on 6 May. Jerry Houston and his RIO Kevin Moore of VF-51 got the first MiG of the day over Bai Thuong airfield, and later that day, Pete Pettigrew and wingman Robert Hughes scored again while covering a second strike against the same airfield. Pettigrew's radar intercept officer, Michael McCabe, got an image on his radar as four MiG-21s approached the strike from 25 miles away. On the radar, the box V formation of four MiGs appeared as a single aircraft, but when the MiGs passed underneath Pettigrew, he immediately spotted the others. Since Hughes had the best shot, Pettigrew ordered him and his RIO Adolph Cruz to engage first. Hughes turned into the MiGs and took an out-of-envelope shot at the formation. Amazingly, the missile turned into one of the MiGs, knocking it out of the formation and into the ground.

Hughes salvoed two more Sidewinders at the lead MiG, but they failed to guide and went ballistic. Pettigrew then eased in beside him and got a "horrendous tone" on his Sidewinders. He took a shot, and just as he did, Hughes squeezed another missile off. Hughes' shot took a little piece off the MiG's tail, and Pettigrew's rammed up its tailpipe, blowing the plane into debris and forcing the MiG pilot to eject. The two men decided to each claim one kill for that day. During World War II, if two pilots shot up a plane, only the pilot who finished the job got credit for the kill, and the Navy decided to adhere to this policy during the Vietnam War.

Randy Cunningham finally nailed his second MiG just two days before he became an ace. On 8 May, the Navy staged a large multiplane strike on a truck staging area near Son Tay. Cunningham and his wingman Brian Grant were part of the MiG patrol for that strike. The two planes launched just before the main strike group. As they neared the strike area, they received word from Red Crown that a flight of MiGs was coming from the direction

James B. Souder

Lieutenant Commander James B. Souder, a naval flight officer with VF-51, says goodbye to his son Jason before leaving for his third Vietnam cruise. On 27 April 1972, a MiG-21 flown by First Lieutenant Hoang Quoc Dung shot down Souder's F-4 over North Vietnam. The North Vietnamese released Souder from the Hanoi Hilton on 28 March 1973, Jason's third birthday.

of Yen Bai. Then Red Crown lost contact with the MiGs. Frustrated, Cunningham made a 180-degree turn back toward the target to give coverage to the force. "There was no telling where they [MiGs] were," and he could not afford to leave the strike group vulnerable unless he knew the exact location of the MiGs.

Before he completed the turn, Red Crown chimed in again, "Bandits closing at your 6 o'clock and 20 miles." Now more confident he had a contact, Cunningham reversed back into the approaching flight. Red Crown made another call but the transmission garbled before it reached Cunningham.

Suddenly, Grant called out, "Duke, in place, port!"

Fearing an ambush, Cunningham made a hard 90-degree port turn to check Grant's 6. Seeing no MiGs, Cunningham hit the afterburners and pulled

abeam of Grant. A MiG-17 then came screaming out of the haze at 10,000 feet, peppering Grant with shells from the rear.

"Brian, MiG-17 at 7 o'clock."

Grant punched off his fuel tank and pulled away from the MiG.

"Brian, Atoll . . . break port!"

Grant jammed his F-4 into a mind-numbing six-G turn, narrowly missing the missile. The MiG continued to pursue him.

"Brian, he's closing again . . . unload and go again."

"Duke, look up! Two MiG-17s meeting us head-on."

Cunningham ignored the threat. "My concentration was bore-sighted," he later explained, "on the fighter chasing Brian. . . . I still had 60 degrees off the MiG's tail, but I fired anyway. The missile tracked and strained for its quarry, finally giving up to fall below." Frightened by the missile, the MiG pilot broke hard and ran, but Cunningham stuck with his prey. "I had a tone on the fleeing MiG, so I squeezed the trigger—it was a classic shot. The missile came off the rail, did a little wiggle, and flew right into him." The fighter then crashed into a mountain.

As soon as Duke launched his Sidewinder, he became acutely aware that the MiGs that had crossed in front of him a moment ago were now bearing down on his 6 o'clock and alerted Grant.

"Alright, Brian, I'm going to pull hard down into your port turn and drag the MiGs out in front of you . . . shoot them off my tail."

Antiaircraft bursts sparkled over Duke's canopy.

"Brian, get in here! I'm in deep trouble!" Cunningham cried out as he swerved back and forth.

As a last ditch move, he plunged his F-4 into a screaming 120-degree dive. "I put a good 12Gs on the aircraft, tearing wing panels, popping rivets, and breaking a flap hinge." Cunningham pulled out of the dive, lit his afterburners, and soon accelerated into a vertical climb at 550 knots. He called "Tallyho" to Brian, hoping to set him up for a kill, but the MiGs were nowhere in site. Apparently, they had bugged out and headed back to Gia Lam.

The war against the MiGs escalated significantly on 10 May 1972, when Nixon initiated Linebacker I. The major goals of the new air campaign were to disrupt Communist supply lines from the DMZ to the Chinese buffer zone and destroy military supplies inside of North Vietnam. Three things made Linebacker different from Rolling Thunder. First, theater commanders were given much more latitude to choose targets and determine the tactics and weapons for missions. Second, precision-guided munitions and LORAN made it possible to attack targets with greater accuracy and less collateral damage. Third, targets in and around Hanoi and Haiphong, including air defense targets, were hit on nearly a daily basis, again raising the stakes for North Vietnam and forcing its leadership to risk their precious MiGs to defend the two major cities. By the close of the day, American pilots would down 11 MiGs in the most intense day of air-to-air combat of the Vietnam War. Eight of those victories would go to naval aviators, three to the Cunningham/Driscoll team.

Randy Cunningham did not know he would be flying on 10 May until shortly before he took off at 12:19 pm. In the hours before that fateful day, Cunningham found himself brooding over a "Dear John" letter he had just received from his wife requesting a divorce. Hoping to get Randy's mind off his family problems, Gus Eggert, *Connie's* air wing commander, assigned him at the very last moment to fly flak suppression for a big Navy strike against the Hai Duong railroad yards and authorized Cunningham to fly Egert's personal plane, "Showtime 100." Snapping out of his malaise, Cunningham strapped into the F-4 and catapulted off towards Hai Duong, with Brian Grant again as his wingman.

Once over the target, they could find no muzzle flashes to hit so they jettisoned their cluster bombs on warehouses beside the main target. After releasing his bombs, Cunningham pulled the F-4 out of the dive, and his RIO Willie Driscoll glanced back at the target. "I looked over my shoulder to see where the bombs had gone and saw a lot of black dots on the horizon. I looked back at the ground, looked back at the dots and caught the flash of MiG-17s coming up the left side."

"Duke, you have MiG-17s at your 7 o'clock shooting."

NHC L File

An F-4 begins its launch.

Caught by surprise, Cunningham reversed to port and saw two MiGs bearing down on him with guns blazing. "I don't know why they didn't hit me, I could see tracers flying by the canopy. He had a lot of closure, he was hauling, so I broke down into him and he overshot. I reversed and his wingman split over the top and shot past me. I reversed course, put my nose on his tailpipe and squeezed the trigger." The Sidewinder shot right into the MiG a thousand feet away and exploded. This entire engagement lasted 15 seconds.

A moment later another MiG-17 eased up behind Cunningham, but he spotted it and transmitted to his wingman, "MiG-17, MiG-17, MiG-17, Brian, he's on my tail. . . . Brian, I got MiGs on my tail!"

"I can't help you, Duke, I've got two on my tail."

Cunningham decided to hit his burners and try to outrun his pursuer. Grant did the same and both planes surged away from the MiGs.

Once beyond the range of their MiG pursuers, Cunningham and Grant pulled into a steep zoom climb to 12,000 feet and then banked steeply to check out the battle raging below. There were eight MiG-17s flying in a defensive wheel. The two pilots went into steep diving turns, hoping to get a missile lock on one of the circling MiGs from above, but then Dwight Timm, the executive officer of VF-96, whizzed by with two MiGs on his tail and one flying under his belly.

"XO, reverse starboard. If you don't, you're going to die."

Cunningham needed Timm to break hard starboard to avoid being shot by one of Randy's heat-seeking missiles.

"Duke," Driscoll broke in, "we have four MIG-17s at our 7 o'clock."

He then called out two MiG-19s at 12 o'clock. Cunningham, after making sure the MiGs were in no

USN 1169272

Lieutenant Randy "Duke" Cunningham and his RIO, Lieutenant (jg) William P. Driscoll, discuss their recent MiG kills with Secretary of the Navy John W. Warner and Admiral Elmo R. Zumwalt Jr., Chief of Naval Operations. Cunningham and Driscoll became the first aces of the Vietnam War after they downed five enemy aircraft during the spring of 1972.

position to hit him, held his position and continued to implore Timm to break starboard. Unaware of the MiG underneath him, Timm held his port turn, thinking that this would make him less vulnerable to the MiGs coming at him from behind.

"Showtime 112, reverse starboard. Goddamnit, reverse starboard!"

Timm finally broke starboard, and Duke yelled, "Fox Two" as he released a Sidewinder. The missile went right up the MiG's tailpipe and exploded, forcing the pilot into a violent ejection.

Following his second kill, Cunningham started to egress. According to Gus Eggert, "The attack planes were now safely clear of the target, the melee was breaking up, and the F-4s were running out of gas and missiles. We didn't have any reason to stick around—we had to get ourselves back. People had separated from each other. They headed for the beach in ones and twos." Moving south from Hai Duong, Cunningham picked up the dot of a MiG-17 on the horizon about 20 degrees to the right. "I tried to meet this guy head-on, and all of a sudden he opened fire with tracers. I pulled straight up into the vertical, going up through fifteen thousand feet, pulled 6Gs going over the top. I looked back, I expected to see him moving straight through and running. But we were canopy to canopy, maybe four hundred or five hundred feet apart!"

As Cunningham reached the top of his climb and began to pull over the top, the MiG fired. Randy then engaged the MiG in a rolling scissors maneuver. "I pitched my nose up, pulled over the top, and rolled in behind his 6 o'clock. As soon as I dropped my nose he pulled straight up into the vertical again. I overshot, he rolled up over the top, pulled through and rolled in behind me." The fight was going advantage, disadvantage; and then it started going disadvantage, disadvantage.

Randy then opted to make a last ditch maneuver he often practiced in training. "The MiG was sitting at my 7 o'clock. When he got his nose just a little too high, I pulled sharply down into him and met him head-on. Then I lit the burners and accelerated away from him." Cunningham went into another vertical climb, but the MiG followed. The Phantom broke out and then pulled into another zoom climb. Still, the MiG followed. "Each time I had gone up with this guy in the vertical, I had out-zoomed him and gone higher than he had. And each time I went in front he shot at me. I figured that one time he was going to get lucky. So this time we were going up, canopy to canopy, and I pulled the throttles back to idle and selected speed brakes."

The F-4 rapidly decelerated, and the MiG eased in front. "I think that caught him by surprise because he shot way out in front of me. But a Phantom on full afterburner at one hundred fifty knots with the nose straight up in the air is not really flying, it is standing on thirty-six thousand pounds of thrust. We were hanging behind him but we were not really in a position of advantage. At those speeds a MiG-17 had about two and a half to three more Gs available than we had."

When the MiG reached the top of its climb, Cunningham applied his rudder. "I . . . got the airplane to move to his blind side, where he couldn't see us. He rolled over the top and started down, and then he made his first mistake. His nose fell through, he tried to get it out. He didn't."

The MiG stopped wing rocking and dove for the deck.

"I guess he thought he could outrun me. I started pushing forward on the stick, trying not to bury the nose, and I actually had to stand on the rudder a little bit to hold the nose up. I unloaded and squeezed the trigger as I got the tone. I knocked off a little piece of the tail but he didn't alter his flight path at all, and I thought he was going to get away. He was still running. I followed him down and started to squeeze again when a little fire erupted." The MiG descended to the ground. No chutes were observed. With this final kill under their belts, Cunningham and Driscoll became the first aces of the Vietnam War and the only Navy aces. At the time, however, Randy had other concerns. His fuel situation was desperate, and he still had to make it back to the ship in one piece.

Randy pulled out of the dive and flew toward *Constellation* at 15,000 feet. Suddenly, an EP-3 electronic warfare plane from Fleet Air Reconnaissance Squadron One called out, "SAM! SAM! Vicinity of Haiphong." Cunningham looked to his right just as the missile exploded 500 feet above him. The aircraft shuddered, but all gauges appeared normal, and Cunningham continued to climb out. At 25,000 feet, the aircraft pitched up. "It was not very violent though, it just started a climb and I pushed the stick forward, but nothing happened. I remember kicking the bottom rudder and I thought, 'OK, roll this son of a bitch out.'" The plane's hydraulic system had apparently been hit, causing Randy to slowly but surely lose control of the plane. He managed to keep the aircraft pointed towards the coast by making several awkward barrel rolls.

"We're on fire," Driscoll suddenly announced.

The plane then went into a spin, forcing both crewmembers to eject. After spending about 15 minutes in the water, a Marine helicopter from *Okinawa* (LPH 3) successfully rescued both Cunningham and Driscoll.

In total, Navy pilots shot down eight MiGs on 10 May without losing a single plane to MiGs. All but one of these kills involved dogfights with MiG-17s, and in each case, Navy pilots scored their victories with the AIM-9 Sidewinder, heat-seeking missile. The Air Force, by comparison, shot down three MiGs but lost two F-4s as well.

What surprised pilots of both services who later studied the Air Force's performance on 10 May as part of the Air Force's Red Baron analysis of air-to-air combat in Vietnam was that one loss involved an experienced fighter pilot/RIO combination. Major Robert Lodge had not only flown 100 missions over North Vietnam earlier in the war in F-105s but graduated from the Air Force Fighter Weapons School at Nellis Air Force Base. He was the tactics officer for the 432d Tactical Reconnaissance Wing and a superb pilot with three kills to his credit. His radar intercept officer, Captain Roger Locher, was on his second Southeast Asia tour, had over 400 missions under his belt, and was generally considered the best Air Force backseater in Thailand. How could the Air Force lose such a pair of stars while the Navy emerged from the Turkey shoot relatively unscathed?

Again, the Navy's emphasis on mutual support during dogfights certainly helped to explain the disparity. Air Force pilots were not as well trained in the art of close-in combat as Navy pilots were. As much as Cunningham wanted to get MiG kills, he always put his wingman's security first and vice versa. During both the 8 and 10 May kills, Cunningham's actions helped prevent other members of his flight from getting shot down. According to the Red Baron analysis of the 8 May kill, "Excellent teamwork and radio calls enabled Newarks 01 and 02 [Cunningham and Grant] to effectively defend against MiG attacks. Their knowledge of air combat tactics and proficiency in performing these maneuvers was a major factor in the successful completion of the mission." With respect to the 10 May kills, an Air Force study later concluded that "this event illustrates the results that can be attained by well trained aircrews that are knowledgeable and proficient in their own aircraft, as well as thoroughly cognizant of the capabilities of the enemy." ⚓

NA KN-20292

Oklahoma City (CLG 5) fires her 6-inch/47-caliber guns.

From 1968 until April 1972, targets in North Vietnam had for the most part been off-limits to American air power. The Easter Offensive, of course, changed the rules of the game considerably. It gave President Nixon the moral authority to ease bombing restrictions enacted by President Johnson in 1968 and finally take the war to the enemy.

During April, Navy and Air Force pilots flew over 2,000 tactical strikes against North Vietnam, the bulk of which hit targets in the panhandle region of the country. On 13 April, 18 Air Force B-52s struck Bai Thuong airfield in North Vietnam, and three *Kitty Hawk* A-6As conducted diversionary strikes against two SAM sites. Overall, enemy air defenders fired 12 SAMs at Navy aircraft that day, but no aircraft was hit.

The next day, the Seventh Fleet received authorization from the JCS to widen the area for naval gunfire support missions from 19 degrees to 20 degrees north. During the first strike on the Vinh area, *Strauss* fired on two SAM sites while *Higbee* and *Bausell* (DD 845) provided suppression fire. By 14 April, nine destroyers operated north of the DMZ as Task Unit 77.1. These surface combatants, joined on occasion by the cruiser *Oklahoma City*, fired over 11,679 rounds at numerous bridges and road junctions, barracks, SAM and AAA sites, radar installations, and coastal defense batteries from the DMZ north to Vinh during the first half of April 1972.

Meanwhile back in Washington, the JCS considered even larger air and NGFS attacks against North Vietnam. On 14 April, Admiral Moorer received authorization from the Secretary of Defense to launch a strike against petroleum storage facilities in the Hanoi-Haiphong area. Navy and Air Force aircraft struck a variety of targets ranging from air defenses to storage warehouses in an operation code-named Freedom Porch Bravo. In concert with these attacks, *Oklahoma City* and four destroyers fired over 600 rounds against shore gun emplacements on the Do Son peninsula. During the attack, North Vietnamese coastal guns fired at the warships, and SAM batteries launched 100 missiles at Navy and Air Force aircraft.

Immediately after the raid, the Soviet Union alleged that Navy aircraft had damaged four of its ships in Haiphong harbor, but the United States refused to accept blame. Secretary of State William Rogers told the Senate Foreign Relations Committee that "the bombing was justified to protect the 85,000 U.S. troops still in Vietnam, to guarantee the continuing troop withdrawal program, and to give the South Vietnamese a chance to defend themselves."

Following the mining of Haiphong harbor on 9 May, President Nixon announced that the United States would continue air and naval strikes against logistics targets in North Vietnam. The expanded air campaign against transportation and supply targets, initially called Rolling Thunder Alpha, became Linebacker on 10 May.

Linebacker had three major objectives: (1) to destroy military supplies within the borders of North Vietnam, (2) to isolate North Vietnam from outside suppliers, and (3) to stop the flow of supplies to the troops in the South. What made this campaign different from Rolling Thunder is that local commanders had much more authority to choose targets and the tactics and weapons most appropriate to destroy them. Technological advances in precision-guided munitions (PGMs) and navigation systems also made it possible to attack targets closer to civilian populations without the threat of widespread collateral damage.

Linebacker began on 10 May with a joint Navy–Air Force attack on the Paul Doumer railroad bridge (Long Bien Bridge) in Hanoi. During the next few days, Air Force and Navy aircraft destroyed additional bridges along the northeast railroads and highways leading into China, using PGMs for the most part. Many of these bridges spanned gorges in the steep Annamite Mountains and could not be repaired quickly. As supplies stacked up near broken

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From Thanh Hoa to Sarajevo: The Odyssey of Admiral Leighton W. Smith

WHEN LEIGHTON WARREN "SNUFFY" SMITH was commander of Attack Squadron 86 on board the carrier *America* in 1972, an intelligence officer approached him and suggested he claim a target he had not hit. The officer said, "I'm not allowed to put down that you missed the target. I've got to say you cratered the approaches to the bridge or something." Smith responded, "I didn't crater the approaches; I put the damn bombs in the water. I didn't do any damage at all. Now you put that down." The officer still refused to write a truthful report, so Smith told him to remove his name from the report and walked out. Smith remembered episodes like that more than his successes, which included helping destroy the famous "Dragon's Jaw" bridge at Thanh Hoa. He's an example of a young officer from the Vietnam War who helped lead the Navy with great integrity many years later.

Leighton Warren Smith

From left to right: Lieutenant (jg) Jim Brisster, Lieutenant (jg) Marv Baldwin, Commander Don Sumner, and Lieutenant Commander Leighton Warren Smith. On 6 October 1972, these men knocked down the Thanh Hoa Bridge.

NHC L File

Admiral Leighton Warren Smith in Bosnia, 1995.

Smith was born at the end of the Great Depression and spent much of his youth in the environs of Mobile, Alabama. The son of a delivery truck driver, he grew up living near or below the poverty line. A "terrible" student, Smith barely graduated from Murphy High School in Mobile. Smith attended the University of Alabama for a year in 1957–58 and then transferred to the U.S. Naval Academy. From that point on, Smith's sole goal was survival. "My English professor warned me before leaving Alabama that I would never make it through the academy because I couldn't write." With a great deal of perseverance, Smith eventually graduated in 1962 and became an attack pilot.

Smith flew three tours and 280 missions in Vietnam, but his most memorable experience was the attack on the Thanh Hoa Bridge. The Dragon's Jaw was one of the strongest and best defended targets in North Vietnam. Completed in 1964, the 540-foot-long bridge was first attacked by the Air Force in April 1965. Thereafter, Air Force and Navy aircraft struck the bridge dozens of times, but to no avail. On 12 March 1967, three A-4s from VA-121 carrying one Walleye television-guided bomb apiece hit Thanh Hoa. All three bombs hit the bridge within five feet of a spot determined by the U.S. Army Corps of Engineers to be the most vulnerable point on the bridge. Nevertheless, the Dragon's Jaw endured. Rolling Thunder's finale against the bridge occurred on 28 January 1968. On that day, 44 Navy and Air Force planes dropped three tons of bombs every 4.5 minutes during a 3.5-hour attack. Although some girders were twisted and bent and the southern approach severely damaged, the bridge remained standing and would soon be repaired.

The 1968–1972 bombing halt prevented American pilots from attacking the bridge again until the spring of 1972. On 13 May, a 14-plane Air Force strike finally knocked down two spans with laser-guided bombs. While the attack took the bridge out of commission, the bombing campaign against it did not end on that date. In order to hinder repair efforts, the Air Force flew two more missions against the target; and the Navy, 11, before Nixon finally ended Linebacker I on 23 October.

Smith's mission occurred on 6 October 1972. The plan called for four Navy aircraft to hit one point on the bridge simultaneously with 8,000 pounds of high explosives while other aircraft from the wing launched a diversionary strike against the nearby rail yards. Smith and his wingman Marv Baldwin carried two "Fat

NHC L File

An A-7E Corsair II comes in for recovery on the carrier *America*, 11 July 1970.

NHC L File

Thanh Hoa Bridge with broken spans.

Albert" 2,000-pound Walleyes, and the other pilots, Don Sumner and Jim Brewster, carried standard 2,000-pound bombs. "We rolled in simultaneously, pulled the power back, popped the speed breaks and we got our scopes locked-on to the bridge and I said, 'Lock-on.' Once everyone confirmed that they had locked-on, I counted 'three, two, one, launch,' and Marv and I both pickled them at the same time. Then Don and Jim popped up and they began their roll-in. They hit the bridge on the west side of the center piling and that's where it broke in half. In fact there was so much smoke and crap around there, we didn't know whether we'd hit it and done any damage or not. Later that afternoon, an RA-5 Vigilante came through and took a picture, and when we looked at them, we finally knew that the bridge was down for good."

After the war, Smith went on to command Carrier Air Wing 15, Light Attack Wing 1, and *America*. Selected to flag rank in 1986, he commanded Carrier Group 6 and, with it, deployed to the North Arabian Sea, Mediterranean, and North Atlantic. As Director of Operations for the U.S. European Command from 1989 to 1991, he oversaw operations in support of Desert Shield and Desert Storm, including combat operations initiated from Turkey.

In his final military assignment as Commander in Chief, Allied Forces Southern Europe in 1995, Smith initiated Operation Deliberate Force in the Balkans—a politically sensitive NATO air operation against Serb forces. Throughout the campaign Smith carefully balanced competing political and military interests. This air campaign, complementing a ground offensive by Croat and Bosnian Muslim troops, convinced the Serb leadership to agree to peace talks that ultimately led to the formation of the modern Bosnian state.

At one point in the campaign, U.S. Ambassador Richard Holbrook, who was negotiating with the Serbs, wanted Smith's forces to keep employing the Tomahawk missiles and air strikes, even if it meant hitting targets twice. Smith did not concur. Recalling his Vietnam experience, Smith observed, "You don't go back and hit old targets. You don't bomb holes in the ground. You lose all kinds of credibility with the forces you lead if you say, 'Hey, guys, we got to keep up this charade, this facade. Let's go bomb some more targets. And oh, by the way, don't worry about that exposure out there.'"

Smith held firm, and as a result of the air strikes and a coincidental offensive by Bosnian Muslim and Croat forces, the Serbs acceded to U.N. terms for ending the conflict. The 22-day air campaign delivered 1,026 air-launched weapons against 48 targets in a strategically limited, tactically intense coalition air campaign. Every diplomat and senior commander interviewed by the Air Force's Balkan Air Campaign Study "believed that the air campaign distinctly affected the moral resistance of the Serb leaders and, consequently, the pace of negotiations."

Smith paid a price for his principled stand. Despite leading an especially successful air campaign, Smith was retired from the Navy in 1996. Smith's run-in with Holbrook ended his promotion prospects in the Clinton administration. What mattered more to Smith, however, was that he had obeyed his political directives and kept faith with his troops. As in Vietnam, Smith never let pressure from above undermine his integrity. ⚓

bridges, American air power pummeled these targets with less expensive, conventional munitions. By the end of June, over 400 bridges were inoperable, including the venerable Thanh Hoa and Doumer bridges.

In addition to bridges, Linebacker also targeted POL (petroleum, oil, and lubricants), power-generating plants, military barracks, and air defense targets. Again, PGMs improved the effectiveness of this campaign because they allowed American planes to bomb targets previously off-limits within densely populated areas. The most effective weapons were Air Force laser-guided bombs. LGBs worked by following a laser beam to a target. After releasing the bomb, F-4s operating first generation LGBs had to fly straight ahead while beaming a laser at a target. The newer PAVE KNIFE system, however, had its laser emanate from an independently swiveling gimbal, thereby allowing the plane to engage in evasive maneuvers during an attack. The other major PGM system was the Walleye television-guided bomb, which the Navy developed and employed with great success during the course of the war.

While the Air Force dropped most of the PGMs expended during Linebacker I, naval air contributed mightily to the campaign. The Navy flew twice as many sorties as the Air Force during Linebacker I's first three months, and in almost every category of bombing destroyed more targets than its sister service. Moreover, the Navy mined all the significant North Vietnamese harbors and reseeded these harbors as necessary—perhaps the most critical component of the entire operation, next to the expanded use of precision-guided munitions. Navy A-6s also were the principal night bombers of the campaign. Overall, the Navy generated 66 percent of the sorties in North Vietnam during Linebacker I and 85 percent of the sorties in and around the vital effort in Route Package 6 (the Hanoi-Haiphong region). The Air Force, by comparison, flew fewer sorties, but did provide America with many vital capabilities during Linebacker I, such as forward air control, laser-guided strikes, extremely long-range search and rescue, and heavy bombing.

Naval force projection was not limited to air power but also included significant contributions

Walleye TV-Guided Bomb

THE WALLEYE WAS THE FIRST of a family of precision-guided munitions designed to hit urban targets with minimal collateral damage. This "smart bomb" had no propulsion system, but it could be maneuvered via a television-assisted guidance system during its glide from an aircraft to the target. As a pilot dove towards a target, a television camera in the nose of the bomb transmitted images to a monitor in the cockpit. Once the pilot acquired a sharp image of his target on his screen, he designated an aim point and released the bomb, which continued flying towards the illuminated target on its own. The bomb was a true "fire-and-forget" system because once a plane launched the weapon, it could immediately turn away from the aim point. The Walleye maneuvered itself using four large fins. Later versions of the weapon employed an extended range data link that allowed pilots to continue flying the weapon after its release, and even change aim points in mid-flight.

The idea of a TV-guided bomb came out of discussions between an eclectic group of civilian engineers at the Naval Ordnance Test Center (later the Naval Weapons Center) at China Lake, California. One of the engineers, Norman Kay, built televisions in his home as a hobby. Kay built an iconoscope camera in 1958 that could do a "funny thing," recalled fellow project engineer William H. Woodworth. "It occurred to him that he could build a little circuit into there that would put a little blip in the picture, and he could make the little blip track things that would move in the picture." The two engineers, soon joined by Dave Livingston, Jack Crawford, George Lewis, Larry Brown, Steve Brugler, and several others, decided to research the idea further and quickly secured some seed money from the Navy to run with the concept. Adopting some technology from the Sidewinder surface-to-air missile project and fabricating other components from scratch, the group developed the bomb in just four years. The engineers also made other revolutionary breakthroughs such as the world's first solid-state television camera with no vacuum tubes and the first zero-input-impedance amplifier.

The team worked at nights and on weekends to keep the project on track and convince the Navy of its worthiness. Woodworth went so far as to take a year off from work and attend graduate school at his own expense to gain some additional theoretical

NHC L File

Walleye television-guided bomb, September 1969.

NHC L File

A Walleye being loaded on an A-4.

knowledge necessary for the project. Larry Brown worked tirelessly to analyze the bomb's flight characteristics, using an analog-computing instrument. Jack Crawford had an amazing "intuitive feel for physical phenomenon" and could envision many of the flying characteristics of the bomb before it had been built.

In January 1963, a YA-4B Skyhawk pilot dropped the first Walleye at China Lake. The bomb scored a direct hit. Martin Marietta received the first production contract for the Walleye in 1966, and the bomb entered service with both the Navy and the Air Force the following year. The original Walleye I carried a 1,100-pound shaped charge and had a range of 16 nautical miles. By May 1967, Navy pilots had dropped several bombs in Vietnam with great success. On 19 May 1967, Ho Chi Minh's 77th birthday, a Navy aircraft scored a direct hit against the Hanoi power plant with a Walleye. The Navy hit the plant again with the bomb two days later, knocking out Hanoi's major source of power.

While softer targets such as power plants proved quite vulnerable to the Walleye, sturdier ones such as North Vietnam's well-constructed railroad bridges could not be downed even with a 1,100-pound weapon. Direct hits by the Walleye against the Thanh Hoa Bridge south of Hanoi in 1967 failed to take down a single span of this notoriously strong structure.

To correct this major deficiency, China Lake developed a 2,000-pound version of the bomb and deployed it to Vietnam in time for Nixon's Linebacker raids against Hanoi and Haiphong. The new Walleye II, or "Fat Albert" as it was nicknamed after the "Cosby Show" character, had an extended range data link and could hit targets up to 45 nautical miles from its launch point. On 27 April 1972, a flight of eight Air Force fighters, two carrying 2000-pound laser-guided bombs and two carrying Walleye IIs, attacked the Thanh Hoa Bridge. Cloud cover prevented the LGBs from being used, but five of the Walleyes locked on, causing heavy damage to the bridge, even though failing to bring down a span. On 13 May, the Air Force finally brought down the bridge with 3,000- and 2,000-pound LGBs. The Vietnamese, however, quickly repaired the bridge, compelling the Navy and Air Force to fly 13 more missions against the target. On one such mission on 23 October, four A-7 pilots from the carrier *America* took down the bridge with a combination of Walleye IIs and conventional 2,000-pound bombs.

While Walleyes accounted for less than 6 percent of the precision-guided munitions employed by the U.S. armed services during the Vietnam War, the weapons system achieved excellent results under the right circumstances. The Navy often used the Walleye against the most important, hardest to hit targets. After the war, the Navy continued to employ upgraded versions of Walleye through Operation Desert Storm. ⚓

from gunfire support ships. During the first two days of Linebacker, warships struck targets at Vinh Ly, Haiphong/Do Son, Qui Vinh, Vinh, and Dong Hoi. In the attack against the Do Son peninsula, which marks the main approach to Haiphong harbor, the Navy employed the cruisers *Newport News* (CA 148), *Providence* (CLG 6), and *Oklahoma City*. By 19 May, surface units had fired 41,689 rounds at interdiction targets in North Vietnam and another 83,529 in support of ground troops south of the DMZ. Surface, or "black shoe," Sailors frequently confronted hostile fire in carrying out their vital mission. During strikes against the Ha Trung petroleum storage area on 26 May, for instance, 175 rounds of artillery were fired at U.S. Navy ships.

By June 1972, the combination of harbor mining, close air support, bombardment from surface ships, and air interdiction attacks had weakened North Vietnam's forces in the South to such an extent that a ground victory for the North was no longer likely. By September, a peace agreement acceptable to both sides was beginning to take shape. Therefore, on 23 October, President Nixon ended Linebacker I by ordering a bombing halt north of the 20th parallel. While it would take two more months and another bombing campaign to secure a peace accord, most air power historians still perceive Linebacker I as a major success because, for the most part, it achieved its objective of hobbling the North Vietnamese offensive in South Vietnam.

The North Vietnamese conquest of Quang Tri Province on 2 May represented the high-water mark of the Easter Offensive. After that, the tide began to turn in favor of the allies. During the latter part of May, South Vietnamese troops recaptured some positions lost in MR I during the offensive. In MR II, ARVN troops recaptured much of the territory lost in and around the provincial capital of Kontum City by 8 June. In MR III, the North Vietnamese assault on An Loc ground to a halt on 19 May, and by 11 June the siege was broken.

While tactical air power and U.S. advisors on the ground proved vital in helping ARVN stem the Communist onslaught, Linebacker was equally important because it reduced Hanoi's ability to sustain the offensive. These strikes reduced exports from China from 160,000 tons a month to just 30,000 tons. According to a Defense Intelligence Agency estimate written in June, the 14,621 Linebacker air strikes and 836 naval gunfire attacks on North Vietnam between 9 May and 15 June closed the northeast and northwest rail lines from China, destroyed 1,000 boats and other waterborne logistics craft, and severely disrupted road traffic on the country's major thoroughfares. Linebacker also destroyed North Vietnam's major fuel storage depots, reducing petroleum stocks from 103,000 metric tons to 40,000 metric tons, and shut down 40 percent of the country's power plant capacity for an extended period of time. According to Army General Frederick C. Weyand, the MACV commander, it is "unlikely the South Vietnamese forces could have stopped the invasion without the tremendous effectiveness of air power."

Linebacker I succeeded where Rolling Thunder failed for a number of reasons. First, PGMs allowed planners to knock out targets previously off-limits or difficult to hit. Second, wing- and squadron-level commanders also had much more latitude to choose targets, tactics, and weapons than they had in the Rolling Thunder campaign. Third, the tank and artillery heavy nature of the Easter Offensive meant that the NVA was much more vulnerable to a conventional interdiction campaign than it had been in the past: the 14 divisions in the South required 1,000 tons of supplies a day to sustain the offensive. Finally, President Nixon utilized air power in a much more decisive manner than did his predecessor. President Johnson constantly fretted over the prospect of a Chinese or Soviet intervention, the political ramifications of using too much force against North Vietnam, and his need to achieve political consensus among his advisors. Nixon, on the other hand, did not worry about upsetting the political left with his bombing or achieving consensus within his staff. His only political concerns were with the Republican right—a voting block generally in favor of a more aggressive approach to the war. Moreover, the Sino-Soviet split effectively ended the serious prospects of an intervention by either power. In short, Nixon had

Navy Art Collection, Courtesy Sharilyn Marsh

Launch by R. G. Smith, 1969. Oil on canvas.

much more freedom of action than Johnson had and, more importantly, was not afraid to exercise this freedom. On the eve of the Linebacker campaign, he wrote that the enemy "has gone over the brink and so have we. We have the power to destroy his war-making capacity. The only question is whether we have the will to use that power. What distinguishes me from Johnson is that I have the will in spades."

Still, there were many targets off-limits to Linebacker attacks. In mid-June, the Joint Chiefs requested authorization to hit 44 targets previously off-limits in the restricted areas around Hanoi and Haiphong. On the 12th, the Secretary of Defense approved 28 of these targets but refused to authorize strikes against such critical targets as the Gia Lam airfield in Hanoi and the North Vietnamese dam and dike system. This tug of war between Secretary Laird and the Joint Chiefs would continue until Linebacker ended on 23 October.

In October 1972, U.S. peace negotiators in Paris thought a deal was imminent that would finally end the war on terms agreeable to both sides. Le Duc Tho, the North Vietnamese negotiator, agreed to allow the Thieu government in South Vietnam to remain in place after a cease-fire and to release the American POWs. While National Security Advisor Henry Kissinger, the American negotiator, had several objections to the agreement (namely, its failure to establish the DMZ as a secure border), he nevertheless endorsed a bombing halt as a reward for the North Vietnamese willingness to make concessions and as a signal to the South that it was time to settle. As a consequence, President Nixon officially ended Linebacker I strikes north of the 20th parallel on 23 October 1972.

Two days after the bombing halt, the North Vietnamese spoiled the goodwill by unilaterally broadcasting the tentative terms of the treaty on

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Naval Bombardment: Into the Lion's Den

"THERE WASN'T EVEN A SHED there, and she was shelling the bush," ruminated the character Marlow in Joseph Conrad's *Heart of Darkness*. "Pop, would go one of the six-inch guns; a small flame would dart and vanish, a little white smoke would disappear, a tiny projectile would give a feeble screech--and nothing happened." Although Conrad was writing about a French warship off the coast of Africa in the late 19th century, his words also might have described the thoughts of many destroyer and cruiser Sailors during the Vietnam War. Firing at far away targets obscured by thick tropical foliage, these Sailors rarely saw the effects of their efforts. The only visible sign of success was an incoming round from an enemy shore battery or the occasional secondary explosion. Their actions, however, were strongly felt by the enemy.

NHC L File

Rear Admiral James L. Holloway III, 7 August 1968.

During the Sea Dragon naval bombardment campaign (25 October 1966–31 October 1968), Navy surface ships struck a variety of coastal targets along the North and South Vietnamese coast, ranging from surface-to-air missile sites and coastal gun emplacements to bridges and boat repair facilities. Sea Dragon forces also sank or damaged over 2,000 enemy logistics boats plying the coastal waters of North Vietnam. In response, enemy coastal gunners often dueled with American destroyers and cruisers. During the summer of 1967, Communist batteries fired on American NGFS ships an average of 10–15 times per month. By the end of the campaign, hostile fire had damaged 29 surface ships, killed five Sailors, and wounded another 26.

With the exception of a small number of "protective reaction" strikes against enemy air defense sites, bombardment against North Vietnam ceased in late October 1968 and did not resume until the Communist Easter Offensive in 1972. During the early days of that campaign, surface combatants provided beleaguered South Vietnamese troops in the Quang Tri Province with 24-hour artillery when bad weather prevented aircraft from providing much in the way of close air support. After President Nixon resumed bombing attacks against North Vietnam on 10 May 1972, Navy cruisers and destroyers again began launching strikes against North Vietnam. One of the largest of these attacks occurred on 27 August 1972 in the Haiphong–Cat Bi area.

The purpose of the raid was to knock out coastal defense and SAM sites as well as other military targets in Haiphong harbor, or the "Lion's Den," as Sailors often called it. The Navy plan called for *Newport News* (CA 148), *Providence* (CLG 6), *Rowan* (DD 782), and *Robison* (DDG 12) to enter the area under the cover of night. About ten miles off the coast, *Providence* and *Robison* would peal off to hit targets southwest of Cat Bi, and the other two ships would enter Haiphong channel. With its 8-inch/55 guns, *Newport News* would be the pair's heavy hitter, focusing on the nine most significant targets. *Rowan* was to screen *Newport News* and take out coastal defense sites with her 5-inch/38 guns. *Rowan* also possessed an antisubmarine rocket launcher that had been converted to fire Shrike missiles—an antiradiation weapon designed to silence SAM site radars.

Captain John Renn, the commander of Destroyer Squadron 25, led the raid from *Robison*. Vice Admiral James L. Holloway III, the Seventh Fleet commander, also participated as an observer on *Newport News*. Neither officer worried too much about North Vietnamese shore batteries. "The guns being used were field artillery pieces and not designed to track moving targets," Holloway later explained. However, if a ship became immobilized within range of one of those guns, it would take only a few minutes for enemy gunners to completely decimate it. Both pairs of attackers would be well within range of these guns as they attacked their targets at Haiphong and Cat Bi.

At 2200, *Newport News* went to general quarters as it approached the area in column with the other ships. Holloway joined the ship's skipper, Captain Walter F. Zartman, on the bridge, but assured the captain that he was just an observer and "would stay out of his hair." The ship approached the channel at 25 knots and began firing on targets two and a half miles southeast of the Do Son light.

Shore batteries soon returned fire, giving the U.S. ships excellent aim points for counterbattery fire.

NHC L File

***Newport News* (CA 148) fires her guns towards North Vietnam. On 27 August 1972, the heavy cruiser participated in a daring raid against targets in Haiphong harbor, North Vietnam.**

Unlike U.S. Navy projectiles, which employed flashless powder, the powder in the North Vietnamese rounds caused brilliant muzzle flashes. Sailors in the rigging reported the enemy's gun positions and fire. It was later estimated that enemy gunners fired approximately 300 rounds at American ships that night, but none found its mark.

At one point, Holloway stepped outside the pilothouse to experience the full sensation of the battle. "The rush of wind, the hot blast of the guns, and the acrid smell of gunsmoke differed little from what I had experienced on board the destroyer *Bennion* (DD 662) in World War II," he recalled. During the Battle of Leyte Gulf, Holloway had served as the *Bennion's* gunnery officer when she torpedoed a Japanese battleship and sank an enemy destroyer.

Newport News ceased firing at 2333 and prepared to egress from the harbor. Captain Zartman informed Holloway that all of the ship's targets "had been covered" and that secondary explosions were noted at Cat Bi airfield and an ammunition dump. Overall, the four American ships expended 700 rounds, causing five secondary explosions. *Rowan* also fired two Shrikes at a radar site east of Haiphong.

As the two men went over the night's target list, a telephone talker tugged the captain's sleeve. "Captain," he said. "Combat Information Center [CIC] reports a surface target, designated Skunk Alpha, at 10,000 yards bearing 088, heading for us at high speed." According to Holloway, intelligence sources "seemed to agree that torpedo- or missile-equipped high-speed patrol craft would not be a problem," so this contact came as a bit of a surprise.

The P-6-class, Soviet-manufactured fast patrol boat had waited to ambush *Newport News* in the vicinity of Ile de Norway. Numerous rocks and pinnacles near the island made it difficult for *Newport News* radars to lock onto the patrol boat. Its relative bearing was also dead ahead, making it impossible for the cruiser's 8-inch guns to fire a low angle shot (an electronics antenna on the forecastle blocked such shots). *Newport News* swung hard to the starboard to unmask the battery and commence firing. Within minutes, the contact appeared to be on fire. CIC then informed the bridge of two additional patrol boats 16,000 yards dead ahead. *Newport News* came hard port to bring its guns to bear on the new targets—a heading that now put the ship on a collision course with the shoals of Ile de Norway.

The zigzagging approach of the patrol boats combined with darkness and the confusing effect of the cruiser's own fire made it difficult for the 21,000-ton behemoth to sink these tiny targets. When a call came in from *Providence* about a possible fourth contact, Holloway told Zartman that he was going to call in air support. "Attention any Seventh Fleet aircraft in the vicinity of Haiphong," Holloway announced on a special Navy frequency reserved for such emergencies, "This is Jehovah himself aboard USS *Newport News* with a shore bombardment force in Haiphong Harbor. We are engaged with several surface units and need some illumination to help us sort things out."

"Jehovah, this is Raven Four Four, inbound with a flight of two Corsairs. We have flares and Rockeye [cluster bombs] aboard," Lieutenant (jg) William W. Pickavance of Attack Squadron 93 replied. Holloway cleared the two planes to attack. One of the A-7s illuminated the area with a flare while the other dropped a Rockeye, which, along with gunfire from the cruiser and *Rowan*, finished off the targets. Later, intelligence analysts credited *Newport News* with destroying one boat, *Rowan* with damaging a second, and the A-7 with "possibly sinking" a third.

Following the engagement, *Newport News* rendezvoused with *Providence* and *Robison* and steamed down the coast to Quang Tri Province to provide ARVN troops with gunfire support. A little over a month later on a similar mission south of the DMZ, one of *Newport News'* 8-inch gun barrels exploded, eventually killing 20 Sailors and injuring another 36. The accident represented the single largest loss to the NGFS squadron during the Vietnam War. The cause of the explosion was a faulty detonating fuse. ⚓

NHC L File

Presidents Nixon and Nguyen Van Thieu of South Vietnam at Midway Island, 8 June 1969.

Hanoi Radio and accusing Kissinger of dragging his heels. In an attempt to salvage the situation, Kissinger went on national television on 26 October and announced, "We believe that peace is at hand. We believe that an agreement is within sight." Shortly after this announcement, President Nixon relaxed restrictions on B-52 strikes near the DMZ in an aim to let the North Vietnamese realize how serious he was about a settlement.

Talks ultimately stalled over concessions demanded by South Vietnam. In particular, President Thieu demanded that North Vietnam withdraw all of its soldiers from South Vietnam. North Vietnam's chief negotiator, Le Duc Tho, rejected this demand.

On 6 November, Nixon won reelection by a landslide. With this victory in hand, he now believed he could use B-52s in controversial ways without worrying about their impact on his political situation. At the same time, he understood that he had only about two months before Congress returned from recess and began cutting defense spending, so he felt compelled to act quickly and decisively.

By 23 November, intransigence by both the North and the South had convinced Nixon and Kissinger that only two options existed for the United States:

- Break off talks at the next meeting and dramatically step up the bombing while the U.S. reviewed its negotiating strategy in order to decide what kind of agreement it was prepared to accept with or without the South Vietnamese.
- Decide upon fall-back positions on each of South Vietnam's major objections and present them as a final offer.

Kissinger favored option one from the outset, and Nixon gradually came to realize that his national security advisor really could not negotiate effectively without the threat of additional bombing as a bargaining chip.

By 13 December, it became patently clear to the President that the North Vietnamese had no intention of reaching an agreement. Fed up, Nixon decided to "go for broke" and resume air and naval gunfire attacks against North Vietnam. The plan also called for the Navy to reseed the principle deep-water ports of North Vietnam with mines.

A massive bombing campaign against Hanoi and Haiphong, reasoned Nixon, might not only punish North Vietnam into agreeing to concessions but also hurt the DRV's war-making capacity enough to give Thieu some vital breathing room in the South. He also hoped it would provide a clear signal to Hanoi that if it continued to intervene in the South after the treaty was signed, the U.S. might be willing to retaliate again with air power.

On a more personal level, Nixon detested the idea of exiting the war "whimpering." He wanted the military and the country at large to depart with some degree of honor still intact. On 18 December, the day the bombs started falling on Hanoi, Nixon called Admiral Moorer and said, "I don't want any more of this crap about the fact that we couldn't hit this target or that one. This is your chance to

use military power effectively to win this war, and if you don't, I'll consider you responsible." Moorer, in response, implemented a plan, originally called Priming Charge but later renamed Linebacker II, designed to "impose maximum damage on the enemy's war-making capability while also producing a mass shock effect in a psychological context."

Admiral Moorer and the JCS had been contemplating B-52 attacks against Hanoi and Haiphong since mid-1972, and the bombers were in fact used in a raid against Haiphong in April 1972. During this 16 April raid, the North Vietnamese fired over 100 SAMs against the 17 B-52s. No B-52s went down, but the raid did highlight the challenges of hitting the heavily defended Hanoi-Haiphong area with heavy bombers. Planners feared huge losses from SAMs as well as from MiGs. With so many large aircraft operating within a confined space, air strategists also worried about the potential of mid-air collisions with friendly aircraft. Finally, the northeast monsoon rolled over Hanoi in December, making this one of the worst weather months of the year. The only planes in the U.S. inventory truly capable of operating in all-weather situations besides the B-52s were the Navy's A-6s and the Air Force's F-111s, and there were not enough of both tactical aircraft to maintain a high level of bombing intensity should the mission prove too dangerous for the B-52s.

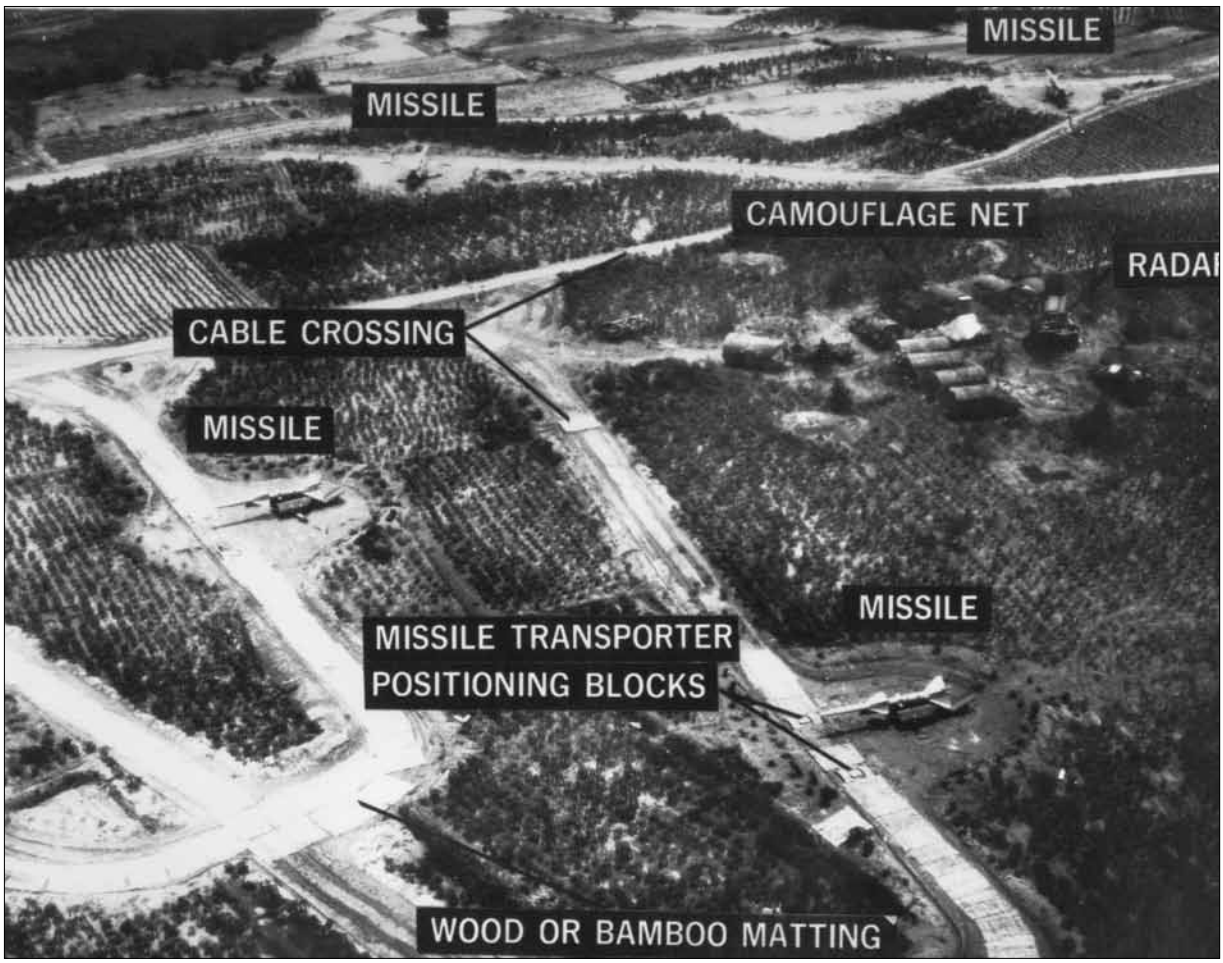
A final concern was civilian casualties. While the press often referred to Linebacker II as a "carpet bombing" campaign against North Vietnam's urban centers, in actuality, air planners took great pains to avoid unnecessary civilian casualties. According to North Vietnam's own figures, the entire 11-day campaign killed only 1,312 people in Hanoi and another 300 in Haiphong—hardly comparable to Dresden in World War II, where over 25,000 people were killed. The reason for such low collateral damage was that most of the targets for Linebacker II were airfields, POL storage sites, and railroad yards on the outskirts of Hanoi and Haiphong away from the urban core.

Linebacker II commenced on 18 December. At 1945, three waves of B-52s struck targets in North Vietnam. Other Air Force and Navy aircraft flew sorties against air defense targets in Haiphong. Overall, aircraft from *Midway*, *America*, and *Ranger* launched 53 strike sorties against North Vietnam, causing 51 secondary explosions and 38 fires. Additionally, naval gunfire from the destroyers of Task Unit 77.1 hit a variety of targets in and around Thanh Hoa. This pattern of heavy support of Linebacker II by tactical aircraft and naval gunfire would continue for the remainder of the campaign and become even more crucial as the North Vietnamese air defense system emerged as the main target of the offensive.

North Vietnamese SAMs downed one F-111 and three B-52s during the first night of Linebacker II. The Air Force blamed this 3 percent loss rate on high winds over Hanoi, which slowed the B-52s down as they egressed from their target and also made chaff (used to foil enemy radars) less effective. The next evening, 93 B-52s struck the Thai Nguyen thermal power plant and the Yen Vien rail yard. This time SAMs damaged two B-52s but none was lost, giving planners a false sense of hope that their strategy was succeeding. That optimism would be severely tested on the 20th. That night, aircraft from *Ranger* and *America* hit 10 SAM sites in the Haiphong area. Three waves of B-52s then struck the Thai Nguyen thermal power plant and the Yen Vien rail yard again and got clobbered. SAMs knocked down six B-52s and damaged a seventh.

Although a 6 percent loss rate was acceptable in World War II, the Air Force could not sustain such losses in 1972. The basic cause of the heavy losses was the predictability of their attack pattern. Each wave of bombers attacked basically the same targets, using the same routes, at the same time of day or night. The four-hour intervals between the waves gave surface-to-air missile crews ample time to reload and prepare for the next wave.

As a quick fix, the Strategic Air Command (SAC) ordered B-52s on the fourth night of the campaign to attack their targets from different directions and at different altitudes. Only B-52s with upgraded electronic countermeasures (the B-52Ds based in Thailand) would be employed during the next three



NHC L File

North Vietnamese surface-to-air missile site.

nights. General John C. Meyer, the SAC commander, made the North Vietnamese air defense system the top priority for these raids. Navy A-6s as well as Air Force F-111s augmented the B-52 efforts by attacking SAM sites prior to the arrival of each wave. Although unspoken at the time, the purpose of the F-111 and A-6 raids was not simply to destroy SAM sites but to lure the operators to shoot at them with their precious missiles rather than at the B-52s.

Despite these precautions, enemy SAMs still managed to down one A-6 and two more B-52s on the 21st, forcing the Air Force to cancel all raids on Hanoi during the next three nights and focus instead on targets in lower threat areas. Nixon suspended the bombing altogether over the next 36 hours to mark the Christmas holiday. "My major concern during the first week of bombing," wrote Nixon in his diary, "was not the sharp wave of domestic and international criticism, which I had expected, but the high losses of B-52s."

Complimenting the air assault was fleet bombardment. Between 18 and 21 December, surface units of Task Unit 77.1 struck highway ferries, coastal defense sites, army barracks, storage facilities, truck parks, and bridges in all weather, day and night. Hostile fire was a normal occurrence on these missions. On 20 December, for example, artillery fire struck *Goldsborough* (DDG 20) near Thanh Hoa. One round slammed into the ship's chief petty officer quarters, killing a chief and a first class petty officer and wounding three other Sailors.

In addition to conducting bombing raids against surface targets, Navy aircraft reseeded harbors with mines and attacked surface vessels. On 19

December, *Enterprise* aircraft sank one *Komar*-class patrol boat and damaged two others near Hon Gai. These vessels were of great concern to the Navy because each one carried two Styx antiship missile launchers. The Soviet-manufactured Styx missile was a radar-guided cruise missile with a maximum effective range of 80 kilometers.

By Christmas day, most major military targets in North Vietnam had been destroyed. Yet, Hanoi still refused to sign an agreement. North Vietnamese leaders held out the hope that if they could destroy enough B-52s, the U.S. Congress might force Nixon to throw in the towel when it reconvened in January. Nixon and his military planners, however, believed that if air power could completely obliterate the North Vietnamese air defenses over the capital, it would leave Hanoi vulnerable to subsequent attacks, including raids on irrigation dikes, and might finally scare the negotiators back to the peace table. "I remember Churchill's admonition in his book on World War I," Nixon wrote, "that one can follow a policy of audacity or one can follow a policy of caution, but it is disastrous to follow a policy of audacity and caution at the same time. It must be one or the other. We have now gone down the audacious line and we must continue until we get some sort of break."

The stage was set for a dramatic showdown. On 26 December, Nixon decided to launch a maximum effort raid against Hanoi. Unlike in previous maximum effort missions where launches of B-52s were spread over a 6- to 10-hour window, all the B-52s launched in one time block so that all 10 targets scheduled to be hit that night would be struck during the same 15-minute period.

The "maximum effort" raid was one of the most successful days of bombing in the history of American air power. Over a 15-minute period, 120 B-52s hit the Hanoi rail yards, the Hanoi POL storage facility, Duc Noi, Kin Ho, the Haiphong rail yard, and the Haiphong transformer station. An additional 100 aircraft, including Air Force F-111s, A-7s, and F-4s as well as Navy A-6s, struck a variety of SAM and radar sites. Four hundred eighty-six rounds of naval gunfire support from three destroyers hit a variety of targets near Dong Hoi, Thien Ki, Tho Vinh, and Ha Tinh. Hanoi sent a message to Washington the next day that condemned the "extermination bombing" and proposed that peace talks resume in Paris on 8 January. Nixon replied that he wanted the talks to begin on 2 January, and offered to stop bombing above the 20th parallel. On 28 December, following two more nights of bombing, the North Vietnamese gave in and agreed to talks on 2 January. Nixon wrote in his diary, "Henry always looked at it in terms of the merits, and on the merits we know this is a very stunning capitulation by the enemy to our terms."

Indeed, Nixon was correct in his assessment. By the end of Linebacker II, North Vietnam was essentially defenseless against further B-52 assaults. Its SAM supply was depleted, its largest SAM assembly facility was destroyed, and most of its MiG bases were out of commission. With few military options left, North Vietnam signed a peace agreement in Paris with the allies on 27 January 1973. The agreement called for an immediate cease-fire and for North and South Vietnamese forces to stay in place. It also demanded that all foreign troops leave Vietnam within 60 days and that North Vietnam release the 591 American prisoners of war. Finally, it required negotiations between South Vietnamese parties for a settlement that would "end hatred and enmity" and allow the South Vietnamese people to decide their political future. Although North Vietnam would ultimately violate the treaty by attacking ARVN positions with soldiers that "remained in place" after the truce, the agreement did enable the Nixon administration to withdraw from the war.

For the American military, the "11-day war" clearly demonstrated that the Vietnam War had not left it emasculated, and that if allowed to fight in the manner it saw fit, there were few reasonable political goals that the force of U.S. arms could not achieve. In particular, the 26 December strike demonstrated what the military arm could achieve with such weapons as the B-52, tactical aircraft, and naval warships. ⚓

F-4 Phantoms Over-flying Enterprise by Robert McCall. Oil on board.

Navy Art Collection.

CONCLUSION

Many of the naval air operations during the post-Tet years reflected the diminishing American role in the war. The prohibition against bombing North Vietnam, which went into force on 1 November 1968, limited the number of targets available to Task Force 77 to those in Laos, South Vietnam, and eventually Cambodia. Aerial operations in those countries also were limited by the seasonal heavy weather, which lasted from May to September. Beginning in 1970, the Navy mandated stringent measures to conserve fuel, ammunition, and aircraft to cut operating costs. To save resources, it often deployed its oldest, least capable carriers and aircraft to Southeast Asia during this period—carriers like *Shangri-La*, and aircraft like the aging A-4 Skyhawks.

As a result, the 1968 monthly average of three CVAs deployed at Yankee Station decreased to two carriers from 1969 to 1971, and sortie rates declined from 6,000 a month to less than 4,000. While the air campaign in Southeast Asia tapered off, however, the fleet continued to concentrate forces against the Communists in critical areas. The great weight of effort was directed toward interdiction of the Ho Chi Minh Trail in Laos, the primary supply route for Communist forces fighting in South Vietnam. The Navy also engaged in protective reaction strikes against North Vietnamese air defenses during the post–1968 period—a controversial program that rarely caused much damage to North Vietnam's war-making potential.

The ability of the U.S. Navy to rapidly increase its carrier presence in Southeast Asia to meet emerging threats proved to be one of America's most important military capabilities during the waning days of the Vietnam War. In May 1970, for instance, three attack carriers deployed to Yankee Station in order to free the Air Force from some bombing responsibilities in Laos and allow it to focus on Cambodia. Again, in March 1971, Task Force 77 deployed *Ranger, Kitty Hawk*, and *Hancock* to the Gulf of Tonkin to back up the South Vietnamese advance into Laos in Operation Lam Son 719.

This "surge capability" of Navy carrier aviation was particularly vital during the surprise North Vietnamese invasion of South Vietnam in April 1972. Soon after it became apparent that a major Communist effort was underway, President Nixon ordered his Pacific forces to strike the regions of North Vietnam nearest to the DMZ by air and sea. One moth later, the entire country, excluding a buffer zone 30 miles deep along the Chinese border and a number of sensitive targets, had been opened to Navy and Air Force attack. Task Force 77 swelled to include six carriers, the largest concentration of carriers in the Gulf of Tonkin during the war.

Navy surface ships also contributed mightily to the defense of South Vietnam during the Easter Offensive. Each day, between 15 and 20 U.S. ships provided artillery support for beleaguered ARVN forces in MR I, occasionally knocking out enemy tanks and troop formations moving on roads near the coast. "Expending thousands of rounds each month, 117,000 in June alone," writes historian Edward J. Marolda, "the fleet surface force was a prime factor in the successful South Vietnamese defense of Quang Tri Province and the subsequent counterattack to retake overrun areas."

The Easter Offensive fundamentally changed the nature of the air war. Many bombing restrictions were lifted and American air power once again began attacking targets in North Vietnam—targets that had been formally off limits since 1968. For the first time in the long Southeast Asian conflict, all of the Navy's conventional resources were brought to bear on the enemy. In Operation Pocket Money, *Coral Sea*'s A-6 Intruders and A-7 Corsairs dropped magnetic-acoustic sea mines in the river approaches to Haiphong, North Vietnam's chief port. Shortly thereafter, the other major ports were mined as well.

The massive air and naval gunfire offensive by the U.S. Navy and U.S. Air Force named Linebacker I,

Navy Art Collection

LCDR Caldwell V.F. 213 After Mission by John Steel. Oil on board.

in contrast to the earlier Rolling Thunder campaign, gave operational commanders authority to choose when, how, and in what order to strike and restrike targets. Freed from the presidential micromanagement that characterized Rolling Thunder, commanders in Linebacker I could quickly adjust to changing weather and the enemy's defenses and concentrate their aerial firepower to best effect. As a result, American air squadrons interdicted the road and rail lines from China and devastated North Vietnamese war-making resources.

Using Boeing B-52 bombers and new, more accurate ordnance, the Air Force and the Navy hit targets with great precision and destructiveness. For instance, American air power destroyed the Thanh Hoa and Paul Doumer bridges, long impervious to American bombing, and the Hanoi power plant deep in the heart of the populated capital city. Between 9 May and the end of September, the Navy flew an average of 4,000 day-and-night attack sorties each month, reaching a peak of 4,746 in August. This represented over 60 percent of the American combat support sorties during the same five-month period.

The North Vietnamese attempted to counter the American onslaught. Employing thousands of antiaircraft weapons and firing almost 2,000 surface-to-air missiles in this period, the enemy shot down 28 American aircraft. In one day alone, the Communist air force challenged U.S. aerial supremacy by sending up 41 interceptor aircraft. On that day, 10 May, Navy pilot Lieutenant Randy Cunningham and his radar intercept officer Lieutenant (jg) William Driscoll became the war's only Navy "aces," adding three kills to the two already credited to them. American air units destroyed 11 North Vietnamese aircraft that day, but lost six of their own. During the Linebacker campaigns, the fleet's search and rescue units recovered 30 naval air crewmen downed for various reasons in the theater of operations. As in the Easter Offensive, Navy surface ships also earned high marks during the campaign, firing over 111,000 rounds at targets along the North Vietnamese coastline.

By the end of September 1972, the North Vietnamese diplomats in Paris were much more amenable to serious negotiation than they were at the end of March. Allied air, naval, and ground forces had repulsed the Communist offensive in South Vietnam and even regained much lost ground. After drastically reducing the enemy's reinforcements and munitions infiltrated into the South, the U.S. air and naval campaign in the North gradually destroyed Hanoi's ability to prosecute the war. However, it would take one more massive air operation, Linebacker II in December 1972, to finally compel the Vietnamese to sign an agreement ending the war.

During that campaign, American forces employed the most advanced precision-guided weapons, electronic countermeasures, target-finding radar, and other equipment. They also concentrated on the destruction of the enemy's missile defense network, including command and control facilities, missile assembly and transportation points, and the missile batteries themselves. To spread thin Communist defenses, the American command broadened the operational arena to include areas in Hanoi. By 29 December, North Vietnamese leaders had had enough and agreed to end the war on terms acceptable to the United States.

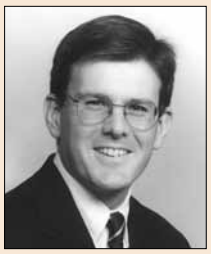
Overall, the U.S. Navy contributed a total of 17 carriers to the air war in Vietnam during the

NHC L File

Carrier Sailors take advantage of a lull in flight operations.

1968–1972 period. Those carriers made 73 cruises lasting a total of 8,248 days. Of the 1,626 Navy personnel killed in action during the war, 317 were aviators. The Navy lost 538 fixed-wing aircraft in combat and suffered another 316 losses through in-flight accidents. Task Force 77 often included 4 carriers, 400 aircraft, 25 supporting ships, and 30,000 Sailors and naval air crewmen. This task force, which included Marine air units, dropped 1.5 million tons of bombs during the course of the war—approximately 24 percent of the total tonnage dropped by America in the air war.

Despite the Navy's massive investment in the various bombing campaigns of the war, air power never proved strategically decisive. Within three years after the Christmas bombing, Saigon fell. Air power was least effective when trying to interdict the flow of supplies through Laos. Air power and, by extension, naval gunfire support, were more effective when employed against high value military targets near the enemy's centers of gravity—Hanoi and Haiphong. It did not win the war, but it did, in the case of the Linebacker campaigns, help convince the North Vietnamese leadership to agree to President Nixon's terms for a U.S. withdrawal from America's longest war. ⚓



The Author

John Darrell Sherwood is a historian in the Histories and Archives Division of the Naval History and Heritage Command and is the author of *Black Sailor, White Navy: Racial Unrest in the Fleet during the Vietnam War Era* (2007). His next book for the Command, *The Fight for the Delta*, will look at the brown-water navy in Vietnam and the Sailors who fought in the Mekong River Delta. Other works by Dr. Sherwood include *Afterburner: Naval Aviators and the Vietnam War* (2004); *Fast Movers: Jet Pilots and the Vietnam Experience* (1999); and *Officers in Flights Suits: The Story of American Air Force Fighter Pilots in the Korean War* (1996). He earned a BA and MA in history from Columbia University and a PhD in history from The George Washington University.

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For permission to reproduce images of R. G. Smith's paintings, please contact SharlynMarsh@aol.com.

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