

It was our best chance to knock North Vietnam out of the war, but it was doomed to failure.

Rolling Thunder

By John T. Correll

ROLLING Thunder, the air war against North Vietnam, began on March 2, 1965. The first mission was an indication of things to come.

The targets, timing of the attack, and other details of the operation were all decided in Washington, D.C. There were only two targets. Both were relatively minor, located just north of the Demilitarized Zone separating North and South Vietnam. The enemy's real strength around Hanoi and Haiphong was not touched, not even threatened. It was a strange way to begin a war.

Air Force F-105s, F-100s, and B-57s struck an ammunition depot at Xom Bang, 10 miles north of the DMZ. Meanwhile, Navy and South Vietnamese aircraft bombed a naval base at Quang Khe, 65 miles from the DMZ.

It would be almost two weeks before the next Rolling Thunder missions took place, again against minor targets not far above the DMZ.

Maxwell D. Taylor, the ambassador to South Vietnam (and former Chairman of the Joint Chiefs of Staff), doubted that the enemy was impressed. "I fear that to date Rolling Thunder in their eyes has merely been a few isolated thunderclaps," Taylor said.

"The North Vietnamese probably didn't even know the planes were

there," said Adm. U.S. Grant Sharp, commander in chief of US Pacific Command.

Rolling Thunder would last for more than three years, making it the longest air campaign in US history to that point. More bombs would be dropped on Vietnam than were dropped on all of Europe in World War II.

The campaign ended in 1968 without achieving any strategic results. It did not persuade the North Vietnamese to quit the war, nor did it stop



Thud and Thunder. The F-105—Thunderchief, Lead Sled, Thud—flew 75 percent of Rolling Thunder strikes and took more losses over North Vietnam than any other kind of aircraft. Here, an F-105D gasses up at a KC-135 tanker.



Tight Leash. Gen. William Momyer, 7th Air Force commander, meets President Johnson. LBJ was heard to boast, "I won't let those Air Force generals bomb the smallest outhouse without checking with me."

Hanoi's infiltration of troops and equipment into South Vietnam.

From beginning to end, Rolling Thunder was hampered by a policy of gradual escalation, which robbed air strikes of their impact and gave North Vietnam time to recover and adjust. For various reasons—including fear of provoking a confrontation with North Vietnam's Russian and Chinese allies—all sorts of restrictions and constraints were imposed.

US airmen could not attack a surface-to-air missile site unless it fired a missile at them. For the first two years, airmen were forbidden to strike the MiG bases from which enemy fighters were flying. Every so often, Washington would stop the bombing to see if Hanoi's leaders were ready to make peace.

"In Rolling Thunder, the Johnson Administration devised an air campaign that did a lot of bombing in a way calculated *not* to threaten the enemy regime's survival," Air Force historian Wayne Thompson said in *To Hanoi and Back*. "President Johnson repeatedly assured the communist rulers of North Vietnam that his forces would not hurt them, and he clearly meant it. Government buildings in downtown Hanoi were never targeted."

Drift to War

Rolling Thunder was not the first combat for USAF airmen in Vietnam. Air Force crews deployed there in 1961 to train and support the South Vietnamese Air Force. By

1962, they were flying combat missions in response to emergency requests. However, Gen. William W. Momyer said in *Airpower in Three Wars*, they were "not authorized to conduct combat missions without a Vietnamese crew member. Even then, the missions were training missions although combat weapons were delivered."

The conflict became overt in August 1964 when communist patrol boats attacked US Navy vessels in the Gulf of Tonkin. In response, Congress passed a resolution authorizing the President "to take all necessary steps, including the use of armed force" to repel any attack, prevent further aggression, and assist allies.

The Navy promptly launched reprisal strikes, dubbed Pierce Arrow, against North Vietnamese PT boat bases, and the Air Force moved into Southeast Asia in force. B-57s, F-100s, and F-105s deployed to bases in South Vietnam and Thailand. The presence of the newly arrived aircrews was soon challenged.

In November, a Viet Cong mortar attack at Bien Hoa killed four Americans, wounded 72, and destroyed five B-57s. In February 1965, eight Americans were killed and more than 100 wounded in a sapper attack on Pleiku. Navy and Air Force aircraft flew reprisal strikes, called Operation Flaming Dart, against North Vietnam Feb. 7-11.

The Johnson Administration decided that these reprisal missions

were not sufficient. A Presidential directive on Feb. 13 called for "a program of measured and limited air action" against "selected military targets" in North Vietnam. It stipulated that "until further notice" the strikes would remain south of the 19th parallel, confining the action to the North Vietnamese panhandle.

In his memoir, *The Vantage Point*, Lyndon B. Johnson said the decision for sustained strikes was made "because it had become clear, gradually but unmistakably, that Hanoi was moving in for the kill." The Vietnam Advisory Campaign (Nov. 15, 1961, to March 1, 1965) was over. The Vietnam Defensive Campaign was about to begin. The first Rolling Thunder mission was readied.

Doubts and Redirection

The conventional wisdom, often repeated at the time, was that the United States must not get bogged down in a land war in Asia. Nevertheless, that was exactly what was about to happen.

On March 8, 1965, marines deployed to Da Nang to defend the air base there. They were the first US ground combat forces in Vietnam. "President Johnson's authorization of Operation Rolling Thunder not only started the air war but unexpectedly triggered the introduction of US troops into ground combat as well," McNamara said.

By the middle of March, Rolling Thunder consisted of one mission a week in the southern part of North Vietnam. Apparently, the White House expected this to produce fast results and was disappointed when it did not.

"After a month of bombing with no response from the North Vietnamese, optimism began to wane," said the *Pentagon Papers*, a secret history of the war written in the Office of the Secretary of Defense and leaked to the *New York Times* in 1971.

Although President Johnson had decided to use ground troops in Vietnam, there was no public announcement. The decision was embodied in an April 6 National Security Action Memorandum. The President ordered that "premature publicity be avoided by all possible precautions."

The fighting forces were told of the change in strategy at an April 20 Honolulu conference, when McNamara

announced that US emphasis from then on would be the ground war in the south. Targets in the south would take precedence over those in the north, and sorties would be diverted from the north to fill the requirement.

“This fateful decision contributed to our ultimate loss of South Vietnam as much as any other single action we took during our involvement,” Sharp later charged in his book, *Strategy for Defeat*.

The President on May 12 called a weeklong halt to the bombing—the first of many such halts—to see if North Vietnam was ready to negotiate. It wasn’t.

Micromanagement of the air war continued. “I was never allowed in the early days to send a single airplane north [without being] told how many bombs I would have on it, how many airplanes were in the flight, and what time it would be over the target,” said Lt. Gen. Joseph H. Moore, commander of the 2nd Air Division and its successor organization, 7th Air Force. “And if we couldn’t get there at that time for some reason (weather or what not) we couldn’t put the strike on later. We had to ... cancel it and start over again.”

Thuds, Phantoms, and Others

In Rolling Thunder, the US attacked the North with all sorts of aircraft, but the worst of the fighting was borne by the F-105s and the F-4s.

The F-105—Thunderchief, Lead Sled, Thud—flew 75 percent of the strikes and took more losses over North Vietnam than any other kind of aircraft. When Rolling Thunder ended, more than half of the Air Force’s F-105s were gone.

The F-4 Phantom, better able to handle North Vietnam’s MiGs, flew both strike missions and air cover for the F-105s. As the war churned on, the F-4 became the dominant USAF fighter-bomber. The F-4 also accounted for 107 of the 137 MiGs shot down by the Air Force.

Pilots were credited with a full combat tour after 100 missions over North Vietnam. That was not an easy mark to reach. “By your 66th mission, you’ll have been shot down twice and picked up once,” F-105 pilots said. A report from the Office of the Secretary of Defense in May 1967 said, “The air campaign against heavily defended areas costs us one pilot in every 40 sorties.”

F-105s and F-4s flew mostly from bases in Thailand and worked the northern and western “route packs” in North Vietnam. Navy pilots from carriers at Yankee Station in the Tonkin Gulf flew mainly against targets nearer the coastline.

Notable among the Navy aircraft was the A-6 Intruder, an excellent all-weather medium bomber. The Air Force did not have an all-weather capability in the theater except on its B-52 bombers, which were not permitted to operate more than a few miles north of the DMZ.

Among those flying north or supporting the operation were tankers, escort jammers, defense suppression airplanes, rescue aircraft, and reconnaissance systems, as well as command and control airplanes.

One of the big operational changes in the Vietnam War was the everyday refueling of combat aircraft. Fighters on their way into North Vietnam topped up their tanks from KC-135 tankers, which flew orbits above Thailand, Laos, and the Gulf of Tonkin, then met the tankers again on the way out to get enough fuel to make it home. Aerial refueling more than doubled the range of the combat aircraft.

USAF fighters flying from Thailand bases were part of a strange organization called 7th/13th Air Force. It was created for several reasons, one of which was to let US Pacific Command keep control of the air war in the north rather than turning it over

to the Army-dominated Military Assistance Command Vietnam.

When the aircraft and pilots were on the ground, they were in 13th Air Force, with headquarters in the Philippines. When they were in the air, they were controlled by 7th Air Force in Saigon—which, for these missions, reported to Pacific Air Forces and US Pacific Command, not to MACV.

MiGs, SAMs, and AAA

When Rolling Thunder began, North Vietnam’s air defense system did not amount to much and could have been destroyed easily. US policy, however, gave the North Vietnamese the time, free from attack, to build a formidable air defense.

The system consisted of anti-aircraft artillery, SA-2 surface-to-air missiles, MiG fighters, and radars, all of Soviet design, some supplied by the Soviet Union and some by China.

Although the SAM and MiG threats got more attention, about 68 percent of the aircraft losses were to anti-aircraft fire. By 1968, North Vietnam had 1,158 AAA sites in operation, with a total of 5,795 guns deployed.

The first SAM site in North Vietnam was detected April 5, 1965, but US airmen were not permitted to strike it.

In a memo to McNamara, John T. McNaughton, assistant secretary of defense for international security affairs, said, “We won’t bomb the sites, and that will be a signal to



Photo Bob Plelin via Warren Thompson

First In. In late 1964, USAF moved in force into Southeast Asia, and the F-105s (such as this “bombed-up” Thud) were among the first into Vietnam and Thailand. By war’s end, more than half the F-105 force was gone.

North Vietnam not to use them.” On a visit to Vietnam, McNaughton told Moore at 2nd Air Division, “You don’t think the North Vietnamese are going to use them! Putting them in is just a political ploy by the Russians to appease Hanoi.”

McNaughton must have been surprised on July 24 when a SAM, fired by a Soviet missile crew, shot down an Air Force F-4C.

Almost 5,000 SAMs were fired during Rolling Thunder, bringing down 101 US aircraft. The fighters could avoid the SAMs by dropping to lower altitude, but that put them into the lethal shooting gallery of the guns.

By the rules of engagement, US airmen could attack a SAM site only if it was actually shooting at them. In one instance, Navy pilots discovered 111 SAMs loaded on railcars near Hanoi, but were denied permission to bomb them. “We had to fight all 111 of them one at a time,” one of the pilots said.

The Air Force had two ways of dealing with the SAMs: jammers and “Wild Weasels.”

EB-66 jamming aircraft accompanied Air Force strike flights. Eventually, fighters got their own jamming pods to disrupt the radars that guided the SAMs and the AAA.

A more direct solution was the fielding of the Wild Weasels, fighter aircraft especially equipped to find and destroy the Fan Song radars that directed the SAMs. The original Wea-



Restricted and Prohibited Zones

On US maps, Hanoi and Haiphong were surrounded by large, doughnut-shaped areas. The doughnut “rings” (green stripes) were restricted zones; strikes there required permission from Washington. The doughnut “holes” (red) were prohibited zones. There, limitations on air strikes were even more severe. Also, a buffer zone was established to prevent violations of the Chinese airspace. US aircraft could use it only to maneuver when positioning themselves to attack targets outside the buffer zone. They could not attack within this zone.

sels, which demolished their first SAM site in December 1965, were F-100Fs. Subsequently, they were

replaced by two-seat F-105Gs in the Weasel role.

The enemy fighters that operated over North Vietnam were MiG-17s and MiG-21s. There were some obsolete MiG-15s around, but they were used mostly for training. The MiG-19, imported from China, did not make its appearance in Vietnam until Rolling Thunder had ended.

The MiG-17 was no longer top of the line, but it performed well as an interceptor, especially effective at lower altitudes where it used its guns to good advantage. Three of North Vietnam’s 16 aces flew MiG-17s.

The MiG-21 was North Vietnam’s best fighter and a close match in capability with the F-4. It was equipped with a gun but relied primarily on its Atoll missiles.

“The North Vietnamese were able to expand and develop new airfields without any counteraction on our part until April 1967 when we hit



Safe Harbor. LBJ shied away from bombing Haiphong, and, for most of the war, it remained open to shipments of Soviet war materiel used to fight US forces. This photo shows merchant ships at anchor in Haiphong harbor.

Hoa Loc in the western part of the country and followed with attacks against Kep,” Momyer said. “The main fighter base, Phuc Yen, was not struck until October of the same year. Gia Lam remained free from attack throughout the war because US officials decided to permit transport aircraft from China, the Soviet Union, and the International Control Commission to have safe access to North Vietnam. The North Vietnamese, of course, used Gia Lam as an active MiG base.”

The best known air battle of the war was Jan. 2, 1967, when pilots of the 8th Tactical Fighter Wing from Ubon, Thailand, led by Col. Robin Olds in the famous MiG Sweep, shot down seven MiG-21s over the Red River Valley in North Vietnam.

“MiG killing was not our objective,” said Maj. Gen. Alton D. Slay, deputy chief of staff for operations at 7th Air Force. “The objective was to protect the strike force. Any MiG kills obtained were considered as a bonus. A shootdown of a strike aircraft was considered ... a mission failure, regardless of the number of MiGs killed.”

Lines on the Map

Key parts of North Vietnam were off limits to US air strikes. For the first month of Rolling Thunder, the operations were confined to a stretch of the panhandle south of the 19th parallel, which runs just below Vinh. The first targets around Hanoi and Haiphong were not approved until October and November.

The boundary line for “armed reconnaissance”—the area in which such targets as trucks and trains could be hit when they were found—gradually crept north but very slowly.

“This east-west bomb line was joined by a north-south line at 105 degrees 20 minutes east that permitted armed reconnaissance in northwestern North Vietnam (so long as the bombs stayed at least 30 nautical miles south of the Chinese border),” said Air Force historian Thompson. “The two lines fenced off Route Package 6 (the ‘northeast quadrant’ containing the major cities of Hanoi and Haiphong) from armed reconnaissance until the spring of 1966, when rail and road segments were targeted there.”

Even after that, Hanoi and Haiphong



Don't Fly, Don't Die. Washington decreed that US fighters could not attack Vietnamese aircraft until they were airborne. Communist airfields were also put off limits. Pictured here are two MiG-17s at Phuc Yen, an airfield near Hanoi.

were surrounded by large doughnut-shaped areas on the map which were protected from air strikes by US policy. The outer sections—the “doughnuts” themselves—were restricted zones, in which strikes required special permission (which was seldom given) from Washington. The “holes” in the doughnuts were prohibited zones, in which the limitations were more severe.

At Hanoi, the restricted zone was 60 miles wide, encircling a 20-mile prohibited zone. The restricted zone at Haiphong was 20 miles wide and the prohibited zone, eight miles.

“Knowing that US rules of engagement prevented us from striking certain kinds of targets, the North Vietnamese placed their SAM sites within these protected zones whenever possible to give their SAMs immunity from attack,” Momyer said. “Within 10 miles of Hanoi, a densely populated area that was safe from attack except for specific targets from time to time, numerous SAM sites were located. These protected SAMs, with an effective firing range of 17 nautical miles, could engage targets out to 27 miles from Hanoi. And most of the targets related to the transportation and supply system that supported the North Vietnamese troops fighting in South Vietnam were within 30 miles of Hanoi.”

The White House held firm control of the targeting.

“The final decision on what tar-

gets were to be authorized, the number of sorties allowed, and in many instances even the tactics to be used by our pilots was made at a Tuesday luncheon in the White House, attended by the President, the Secretary of State, the Secretary of Defense, Presidential Assistant Walt Rostow, and the Presidential Press Secretary (first Bill Moyers, later George Christian),” Sharp said. “The significant point is that no professional military man, not even the Chairman of the JCS, was present at these luncheons until late in 1967.”

Taking obvious pride in the process, LBJ said, “I won’t let those Air Force generals bomb the smallest outhouse ... without checking with me.” On another occasion, he said that “I spent 10 hours a day worrying about all this, picking the targets one by one, making sure we didn’t go over the limits.”

The President and his advisors were reluctant to bomb the ports and supply centers around Hanoi and Haiphong, preferring to target the infiltration routes farther south. That was the hard way to do it.

“To reduce the flow through an enemy’s supply line to zero is virtually impossible, so long as he is willing and able to pay an extravagant price in lost men and supplies,” Momyer said.

“To wait until he has disseminated his supplies among thousands of trucks, sampans, rafts, and bicycles

and then to send our multimillion-dollar aircraft after those individual vehicles—this is how to maximize our cost, not his,” he said.

The POL Strikes

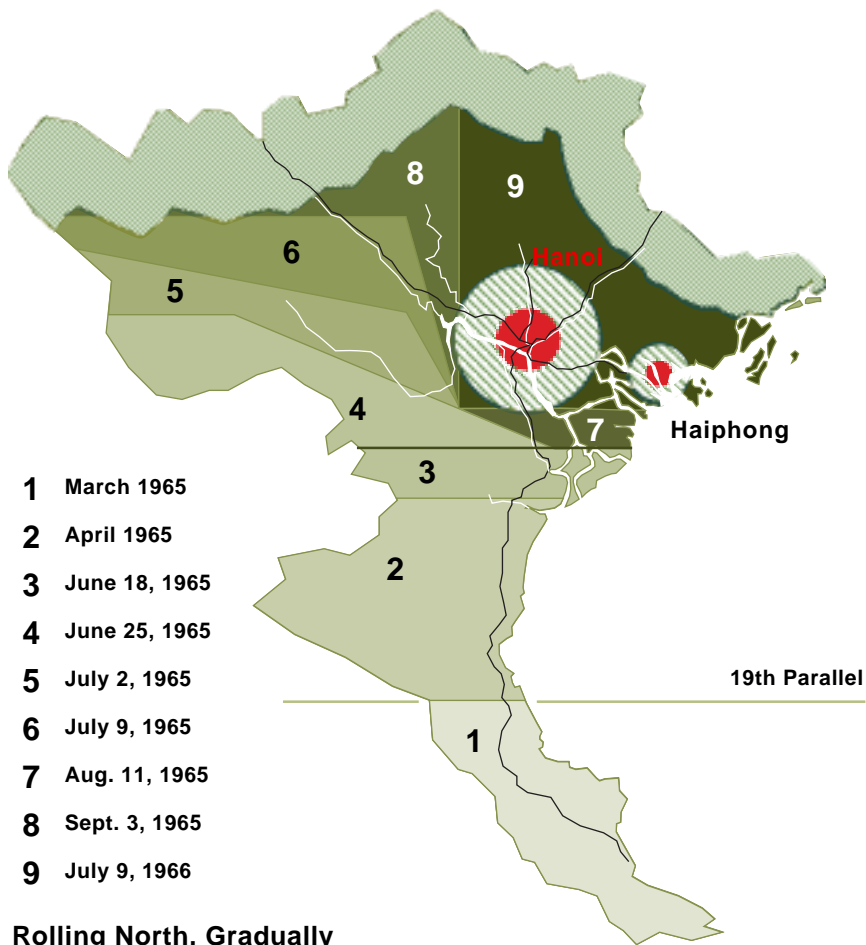
McNamara’s growing unhappiness with Rolling Thunder was hardened by the results of the POL (petroleum, oil, and lubricants) strikes in the summer of 1966.

North Vietnam had no oil fields or refineries. All of its petroleum products were imported, mostly from the Soviet Union, and arrived through the port at Haiphong. From there, they were taken by road, rail, and waterways to large tank farms, only a few of which had been bombed.

On June 29, 1966, US aircraft attacked the Hanoi and Haiphong POL complexes for the first time. The Air Force struck at Hanoi, the Navy at Haiphong. More than 80 percent of the storage facilities were destroyed.

It was a strong operation, but it had come too late. North Vietnam, anticipating that the POL facilities would eventually be struck, had dispersed some of its supplies and had developed underground storage facilities.

“It became clear as the summer wore on that, although we had destroyed a goodly portion of the North Vietnamese major fuel-storage capacity, they could still meet requirements through their residual dispersed capacity, supplemented by



Rolling North, Gradually

By White House order, initial Rolling Thunder operations were confined to the North Vietnamese “panhandle” south of the 19th parallel. The boundary line for “armed reconnaissance” moved gradually north to North Vietnam’s heartland.

continued imports that we were not permitted to stop,” Sharp said. “The fact that they could disperse POL stores in drums in populated areas was a great advantage to the enemy.

We actually had photos of urban streets lined with oil drums, but were not allowed to hit them.”

According to the *Pentagon Papers*, “Bulk imports via oceangoing tanker continued at Haiphong despite the great damage to POL docks and storage there. Tankers merely stood offshore and unloaded into barges and other shallow-draft boats, usually at night, and the POL was transported to hundreds of concealed locations along internal waterways. More POL was also brought in already drummed, convenient for dispersed storage and handling and virtually immune from interdiction.”

“The bombing of the POL system was carried out with as much skill, effort, and attention as we could devote to it, starting on June 29, and we haven’t been able to dry up those supplies,” McNamara later told the Senate Armed Services and Appropriations Committees, adding that “I don’t believe that the bombing up to the present has significantly reduced, nor any bombing that I



MiG Killer. The F-4 Phantom flew air-to-air and strike missions. As the war went on, it became the dominant USAF fighter, accounting for 107 of USAF’s 137 MiG kills. Here, an RB-66 leads a flight of F-4Cs releasing bombs.

could contemplate in the future would significantly reduce, the actual flow of men and materiel to the South.”

Hanoi Hangs On

One of many snide observations in the *Pentagon Papers*—written at the behest of Assistant Secretary McNaughton, the official who had seen no threat in the SAMs—was that “1967 would be the year in which many of the previous restrictions were progressively lifted and the vaunting boosters of airpower would be once again proven wrong. It would be the year in which we relearned the negative lessons of previous wars on the ineffectiveness of strategic bombing.”

A number of important targets were struck for the first time in 1967. Among them were the Thai Nguyen steel complex (in March), key MiG bases (in April and October), the Doumer Bridge, over which the railroad entered Hanoi (in August and December), and several other targets inside the Hanoi and Haiphong restricted areas (in July).

As always, though, political considerations were trumps. An approved strike on Phuc Yen air base was called off in September because the State Department had promised a visiting European dignitary that he could land there without fear of bombing.

“In 1967, we were allowed better targets than in ’66 and were allowed to use more strike sorties, so that the air war progressed quite well,” Sharp said later. “Of course, ships were still allowed to come into Haiphong, and we weren’t allowed to hit close to the docks. We were able to cut the lines of communication between Haiphong and Hanoi so that it was difficult for them to get materiel through. If we had continued the campaign and eased the restrictions in 1968, I believe we could have brought the war to a successful conclusion.”

For his part, McNamara had already given up on the air war, and in cooperation with McNaughton and a group of civilian consultants, was pursuing plans—later abandoned—to build a 160-mile barrier of minefields, barbed wire, ditches, and military strong points across Vietnam and Laos.



Failure. Secretary of Defense Robert McNamara (right, with Sen. John Stennis, D-Miss.) told the Senate the bombing campaign had not produced results. Its failure, however, stemmed from McNamara's own policies.

Disheartened, McNamara left office Feb. 29, 1968. In his memoir, *In Retrospect*, he said, “I do not know to this day whether I quit or was fired.”

End of the Thunder

President Johnson visited the war zone in December 1967, spent a night at Korat, Thailand, where he met with aircrews and commanders, and seemed buoyed by the contact.

In January, however, North Vietnam launched its Tet Offensive, the biggest attack of the war, striking bases and cities all over the South. The offensive was not a military success, but it jolted the American public. Support for the war fell severely.

Challenged by fellow Democrats in the Presidential primaries and losing ground in the opinion polls, Johnson at last decided that he had had enough. On March 31, he announced that he would neither seek nor accept his party’s nomination for another term as President.

He also announced a partial bombing halt, which ended Rolling Thunder operations north of the 19th parallel. The partial halt merged into an overall halt of bombing in North Vietnam on Nov. 1.

Rolling Thunder was over. During

its course—over three years and eight months—the Air Force and the other services had flown 304,000 fighter sorties and 2,380 B-52 sorties.

Earl H. Tilford Jr., writing in *The Encyclopedia of the Vietnam War*, stated one view of the campaign, saying that: “Rolling Thunder stands as the classic example of airpower failure.”

A Senate Armed Services subcommittee, which held hearings on Rolling Thunder in August 1967, reached a different conclusion.

“That the air campaign has not achieved its objectives to a greater extent cannot be attributed to inability or impotence of airpower,” the panel said. “It attests, rather, to the fragmentation of our air might by overly restrictive controls, limitations, and the doctrine of ‘gradualism’ placed on our aviation forces, which prevented them from waging the air campaign in the manner and according to the timetable which was best calculated to achieve maximum results.”

The campaign’s failure is beyond dispute, but laying the fault to airpower is questionable. There is no way to know what an all-out bombing effort in 1965 might have achieved. Perhaps no amount of bombing would have done the job, but when Rolling Thunder ended, our best chance of knocking North Vietnam out of the war was gone. Rolling Thunder had not been built to succeed, and it didn’t. ■

John T. Correll was editor in chief of Air Force Magazine for 18 years and is now a contributing editor. His most recent article, “The Strategic World of Russell E. Dougherty,” appeared in the February issue.