

The Limits of Airpower or the Limits of Strategy

The Air Wars in Vietnam and Their Legacies

By Mark Clodfelter

or most of the world's population,
America's air wars in Vietnam are
now ancient history. The first U.S.
bombing raids against North Vietnam,
conducted in response to attacks by
North Vietnamese patrol boats on the

destroyer USS *Maddox* in the Tonkin Gulf, occurred a half-century ago this August. Seven months later, America began its longest sustained "strategic bombing" campaign, Operation *Rolling Thunder*, against the North. That effort, and the *Linebacker* campaigns that followed, dropped a million tons of bombs on North Vietnam. Three million more tons fell on Laos

and Cambodia—supposedly "neutral" countries in the conflict. Four million tons fell on South Vietnam—America's ally in the war against communist aggression. When the last raid by B-52s over Cambodia on August 15, 1973, culminated American bombing in Southeast Asia, the United States had dropped more than 8 million tons of bombs in 9 years. Less than 2 years

Dr. Mark Clodfelter is a Professor of Military Strategy at the National War College.



later, Cambodia, Laos, and South Vietnam were communist countries.

Did the inability of bombing—and innumerable airlift and reconnaissance sorties—to prevent the fall of South Vietnam demonstrate the limits of airpower, or did it reveal that the strategy that relied heavily on airpower's kinetic application to achieve success was fundamentally flawed? From the perspective of 50 years after the bombing began, and 40 years after the last bomb fell, the answer to both questions remains yes. Yet the two questions are intimately related, and answering them reveals the enormous impact that a political leader can have on the design and implementation of an air strategy, especially in a limited war. Ultimately, Vietnam demonstrates both the limits of airpower and the limits of

a strategy dependent on it when trying to achieve conflicting political goals. The legacies of the air wars there remain relevant to political and military leaders grappling with the prospects of applying airpower in the 21st century.

The reliance on airpower to produce success in Vietnam was a classic rendition of the "ends, ways, and means" formula for designing strategy taught today at staff and war colleges worldwide. Airpower was a key "means" to achieve the desired "ends"—victory—and how American political and military leaders chose to apply that means to achieve victory yielded the air strategy they followed. Much of the problem in Vietnam, though, was that the definition of victory was not a constant. For President Lyndon Johnson, victory meant creating

an independent, stable, noncommunist South Vietnam. His successor, President Richard Nixon, pursued a much more limited goal that he dubbed "peace with honor"—a euphemism for a South Vietnam that remained noncommunist for a so-called decent interval, accompanied by the return of American prisoners of war (POWs).2

Yet those definitions of *victory* were only partial definitions of the term. They defined the *positive* political objectives sought—those that could be achieved only by applying military force. Equally important, though, were the negative political goals—those achievable only by *limiting* military force. To achieve true victory in Vietnam, both the positive and negative objectives had to be obtained—a truism for any conflict. That challenge

was enormously difficult for American political and military leaders in Vietnam because the negative goals often appeared to have an equal, if not greater, weight than the positive goals, especially during the Johnson era of the war.

Johnson's Use of Airpower in Vietnam

President Johnson had a multitude of negative objectives that prevented him from applying massive military force in Vietnam. While he did not intend to lose "that bitch of a war" in Southeast Asia, he also had no intention of surrendering "the woman [he] really loved," the Great Society programs aimed at reducing poverty and achieving racial equality.3 Achieving the Great Society became an important negative objective for Johnson, one that would prevent him from applying extensive military force. Doing so, he feared, would cause the American public to turn away from the Nation's disadvantaged to focus instead on its military personnel in harm's way. Johnson further feared that applying too much force against North Vietnam would cause its two large allies, China and the Soviet Union, to increase their assistance to the North, possibly even with overt intervention. As a U.S. Senator on the Armed Services Committee, he had seen firsthand what could happen when American leaders miscalculated regarding China during the drive to the Yalu River in the Korean War, and he aimed to prevent a similar mistake in Vietnam. Finally, Johnson was concerned about America's worldwide image, with the globe seemingly divided into camps of communism and capitalism. Exerting too much force against North Vietnam would make the United States appear as a Goliath pounding a hapless David, and likely drive small nations searching for a benefactor into the communist embrace.

Those negative objectives combined to produce an air strategy founded on gradual response, particularly for President Johnson's bombing of North Vietnam. American political and military leaders believed that they had to defeat North Vietnam to stop the insurgency

in the South and create a stable government there. Although they knew that the indigenous Viet Cong contributed more manpower to the enemy's cause than did the North Vietnamese army (NVA), they also believed that the Viet Cong (VC) could not fight successfully without North Vietnamese assistance. Accordingly, they designed an air strategy that gradually increased pressure on the North, allowing President Johnson to gauge reactions from the Chinese, Soviets, American public, and other global audiences while he slowly opened the bombing spigot. Rolling Thunder would creep steadily northward until it threatened the nascent industrial complexes in Hanoi and Haiphong, and North Vietnamese President Ho Chi Minh, being a rational man who certainly prized that meager industry, would realize the peril to it and stop supporting the Viet Cong. Denied assistance, the insurgency would wither away, and the war would end with America's high-tech aerial weaponry providing a victory that was quick, cheap, and efficient.

Those assumptions provided the foundation for President Johnson's air strategy against North Vietnam, and all of them were seriously flawed. Battles such as Ia Drang and Khe Sanh, as well as the Tet Offensive, were anomalies during the Johnson presidency; for most of his time in office, the Viet Cong and their North Vietnamese allies rarely fought at all. Together, they fought an average of one day a month from 1965 to 1968, and as a result, their external supply requirements were minimal. VC and NVA forces in August 1967 numbered roughly 300,000, of whom 250,000 were Viet Cong. Yet that combined force needed only 34 tons of supplies a day from sources outside of South Vietnam-an amount that just seven 2½-ton trucks could carry and that was less than 1 percent of the daily tonnage imported into North Vietnam.⁴ No amount of bombing could stop that paltry supply total from arriving in the South. Still, in fighting an infrequent guerrilla war, the VC and NVA could cause significant losses. In 1967 and 1968, 2 years that together claimed 25,000 American lives, more

than 6,000 Americans died from mines and booby traps.⁵

For President Johnson, the real problem was translating the application of military force into a stable, noncommunist South Vietnam, and doing so in a way that minimized American involvement and the chances of a broader war with China or the Soviet Union while also maximizing American prestige on the world stage. While airpower had seemed an ideal means to accomplish those ends, in truth it could not do so. The original Rolling Thunder raids in March and April 1965 bolstered the morale of many South Vietnamese who desired a noncommunist government, but the South's government was in shambles. After enduring seven different regime changes—including five coups—in 1964, South Vietnam's political leadership faced another crisis on the eve of *Rolling Thunder*, delaying the start of the air campaign by 2 weeks before a semblance of order returned to Saigon. The governments that followed—those of presidents Nguyen Cao Ky and Nguyen Van Thieu-were corrupt and out of touch with the Southern populace.6 No amount of American airpower could sustain such regimes. Indeed, less than 6 weeks after the start of Rolling Thunder, National Security Advisor McGeorge Bundy advised President Johnson that South Vietnam would fall to the Viet Cong if Johnson did not shift the focus of America's military involvement to ground power. The President ultimately concurred, and in summer 1965 he embarked on a program that increased American troop totals from 75,000 to more than 200,000 by the end of the year, with further escalations to follow.⁷ The shift in emphasis from airpower to ground power preserved the Saigon government, but did little to assure that it governed competently.

Yet Johnson never completely abandoned his hope that airpower might yield success. In the summer of 1966, he ordered the bombing of oil storage facilities in Hanoi and Haiphong, convinced that trucks were vital to move North Vietnamese men and supplies south and that gasoline was essential to keep the trucks moving. The attacks destroyed



President Nixon meeting with Henry Kissinger in the Oval Office, October 8, 1973 (CIA/Oliver Atkins)

much of the North's oil facilities but failed to affect the pace of the war. A year later, believing that the loss of North Vietnam's meager electrical power production capability and its one steel mill and single cement factory would affect not only its ability to fight but also its will to do so, Johnson bombed those targets. The war continued as it had before, even after intrepid Air Force pilots destroyed the mile-long Paul Doumer Bridge in Hanoi in August 1967. In short, airpower could not affect the outcome of the conflict as long as the VC and North Vietnamese chose to wage an infrequent guerrilla war—and as long as American political leaders chose to back the inept government in Saigon. The rationale for bombing the North became to "place a ceiling" on the magnitude of war that the VC and NVA could wage in the South.8 That goal faded into oblivion with the opening salvos of the January 1968 Tet Offensive, which demonstrated that

American bombing could not prevent the VC and NVA from stockpiling enough supplies to sustain a series of massive conventional attacks.

Despite the failure of Operation Rolling Thunder to achieve success, Johnson monitored it closely and tightly constrained actions that American aircrews could take over the North. His negative objectives led to a long list of rules of engagement (ROE) that did everything from preventing flights through the airspace over Hanoi or Haiphong without his personal approval to limiting how closely aircraft could fly to the Chinese border. Many of those restrictions stemmed from his "Tuesday lunch" sessions at the White House, during which Secretary of Defense Robert McNamara, Secretary of State Dean Rusk, National Security Advisor McGeorge Bundy (or Walt Rostow after 1967), and Press Secretary Bill Moyers (and often joined by

Johnson cronies such as lawyers Clark Clifford and Abe Fortas) met with the President to select Rolling Thunder bombing targets following lunch on Tuesday afternoons. Not until October 1967—after Rolling Thunder had been underway for more than 21/2 years—did a military officer sit in regularly on the lunch sessions, when Johnson asked Army General Earle Wheeler, the Chairman of the Joint Chiefs of Staff, to begin a steady attendance.9

The political restrictions that Johnson placed on the air war over North Vietnam caused military commanders tremendous difficulty in implementing Rolling Thunder, but those constraints were not the only ones they had to overcome. Indeed, military leaders developed their own restrictions that limited airpower's effectiveness. Probably the most onerous of those self-inflicted wounds was the "Route Package" system created in spring 1966 that divided North Vietnam

into seven bombing zones. Ostensibly developed to deconflict the multitude of Air Force and Navy sorties in North Vietnamese airspace, the system soon became a warped way to assess which Service seemingly contributed more toward Rolling Thunder's effectiveness. The Navy received four of the bombing zones, while the Air Force received the other three. Targets in the Navy zones were off-limits to Air Force fighters without approval from the Navy, and those in the Air Force zones were forbidden for Navy aircraft without permission from the Air Force. Such approvals rarely occurred.10 As a result, a competition developed between the Air Force and Navy to determine which Service could fly the most sorties into enemy airspace.11 Much as "body count" became the measure of success for commanders on the ground, "sortie count" became the measure of success for air commanders and often led to promotions. Perhaps the most egregious examples of competition occurred during the bomb shortage of 1966, when increased bombing had expended much of the surplus ordnance from World War II and the Korean War. To maintain the desired sortie rate, Air Force and Navy pilots flew missions with less than a full load of bombs, thereby endangering more aircrews than necessary.12 One Navy A-4 pilot even attacked North Vietnam's famous Thanh Hoa Bridge with no bombs at all, having been told to simply strafe the structure with 20-millimeter (mm) cannon fire.13

"Operational controls" amplified the effects of Rolling Thunder's political and military constraints. Those controls included such factors as environmental conditions and enemy defenses. The North Vietnamese were masters of camouflage and carefully obscured the highways and trails used to send troops and supplies south. Many of those roads were extremely difficult to identify to begin with, given the dense jungle vegetation that covered much of the country. Meanwhile, the North Vietnamese supplemented their deception techniques with an extensive air defense system that guarded lines of communication and the cities of Hanoi and Haiphong. The Soviet Union provided much of the North's hardware, including SA-2 surface-to-air missiles and MiG fighters. By 1966, many analysts considered Hanoi the world's most heavily defended city, an assessment that most Air Force fighter pilots would certainly have endorsed.¹⁴

In contrast to the limited inputs that American military leaders had in selecting targets in North Vietnam, in South Vietnam the military chiefs faced relatively few political restrictions. President Johnson and his advisors deemed that raids against enemy positions in the South would provoke only minor reactions from the Chinese or Soviets, and that the strikes condoned by Southern leaders on their own territory would produce a meager outcry from the American public or world community. Such attacks required approval only from the South Vietnamese province chief who was responsible for the welfare of those living in his province. Yet obtaining that approval did not guarantee a successful mission. American commanders were often uncertain of enemy positions and bombed "suspected" staging areas. In particular, American and South Vietnamese troops created "free fire zones" where they removed the populace and declared that anyone found in the area was hostile.15 The people traversing the zones, though, were often innocent villagers trying to return to their ancestral homes. Raids against such areas that killed civilians inspired hatred against the United States and the Saigon regime and made excellent recruiting vehicles for the Viet Cong. In the effort to win so-called hearts and minds and enhance the stability of the Saigon government, the airpower applied over South Vietnam was frequently a double-edged sword.

Whereas the air war over North Vietnam was a conflict for control waged between the Air Force and Navy, the air war over the South was an even more disparate affair. An array of air forces participated in it—the Marine Corps with its helicopters and jets, the Army with its helicopters and transport aircraft, the Navy with its fighters, the Air Force with its bombers, transport aircraft, and fighters, and the South Vietnamese air

force with its small number of fighters, helicopters, and transports. Retired Air Force General Richard Myers, who flew two tours as an F-4 pilot during the war, afterward lamented the lack of unity of command: "We had seven air forces working over there. Coordination between bombers and fighters was a rarity. Seventh Air Force, Thirteenth Air Force, the Navy, the Marines, bombers, and airlift all did their own thing. It wasn't as well coordinated as it could've—and should've—been." ¹⁶

Much to the chagrin of Air Force leaders, operational control of B-52s in South Vietnam transferred from the Joint Chiefs in Washington, DC, to the commander of U.S. Pacific Command, Admiral Ulysses S. Grant Sharp, Jr., in Hawaii, and finally to Army General William Westmoreland, America's intheater commander, who used the giant bombers as flying artillery to support ground forces. Air Force Chief of Staff General John McConnell believed that B-52s were inappropriate for Vietnam but nevertheless supported their continued employment there, "since the Air Force had pushed for the use of airpower to prevent Westmoreland from trying to fight the war solely with ground troops and helicopters."17 The twisted parochialism and absence of centralized control diminished the prospects that the "airpower means" could make worthwhile contributions to obtaining the desired end of a stable, independent, noncommunist South Vietnam. Instead, such deficiencies significantly increased the likelihood that the aerial means—especially its kinetic component—would work against achieving that positive end. America's subsequent positive goal in the war would prove easier to achieve with airpower, but that was because the negative objectives changed as well, along with the character of the war itself.

Nixon's Use of Airpower in Vietnam

Despite the high-sounding tone of "peace with honor," President Nixon's positive goal in Vietnam was far more circumscribed, and he relied heavily on airpower to help him create a decent

interval for the South's development and to recover American prisoners of war. Soon after taking office in 1969, he decided that bombing was the proper means to curtail the buildup of enemy forces in Cambodia, but since Cambodia was technically a neutral country, he would have to conduct the raids secretly. The raids continued unabated until May 1970, when the New York Times reported on the covert missions that had escaped the knowledge of both the Air Force Secretary and the Chief of Staff.¹⁸ The duplicity suited Nixon with his moniker, "Tricky Dick," given that he had run for President on the platform of ending the war and now was enlarging it, albeit at the request of Cambodian Premier Norodom Sihanouk.19

The war that Nixon inherited, though, was not the same as the one fought by his predecessor. The 1968 Tet Offensive had decimated the VC as a significant fighting force and had also severely impaired the fighting capability of the NVA. Airpower had played a key role in the damage inflicted, with the bombing around the Marine base at Khe Sanh destroying two NVA divisions. Because of the losses suffered, the NVA again reverted to infrequent guerrilla warfare. When it returned to open combat with the "Easter Offensive" at the end of March 1972, it attacked with a fury resembling the World War II German blitzkrieg, minus the air support. More than 100,000 troops, supported by Soviet-supplied T-54 tanks and 130mm heavy artillery, attacked in a three-pronged assault against primarily South Vietnamese forces. (Nixon had by then removed most American troops from the war.²⁰) The fast-paced, conventional character of the offensive, with its heavy requirements for fuel and ordnance, made it ideal for air attack, and the now-vital logistical resupply lines and bridges running back through North Vietnam became prime targets that finally paid dividends. Nixon ordered Air Force and Navy aircraft to pound the supply lines relentlessly in Operation Linebacker. He also mined the port of Haiphong. American aircraft

further provided massive doses of close air support and logistical resupply to South Vietnamese forces that gradually stiffened their resistance.

Nixon could apply liberal amounts of airpower against targets in North Vietnam because he, unlike Johnson, had few negative political goals. Nixon and his savvy National Security Advisor Henry Kissinger, who often acted as Secretary of Defense and Secretary of State as well, had accurately gauged the growing animosity between China and the Soviet Union and decided to make it a centerpiece of their strategy of détente. A key price for securing the promise of diplomatic recognition to China and a strategic arms limitations treaty-and a wheat deal—with the Soviet Union was a free hand in dealing with North Vietnam. To Hanoi's dismay, both China and the Soviet Union ultimately provided Nixon with that freedom.²¹ Nixon also had no equivalent of the "Great Society" to restrain his actions, and he believed that his success in establishing détente with the Chinese and Soviets would only enhance his—and America's—image on the world stage.

Nixon's profound concern for his image—and belief in his own infallibility—often spurred impromptu actions that had dire consequences for his air commanders. Before the North Vietnamese launched the Easter Offensive, evidence of the buildup for it caused Nixon to order a series of air strikes into North Vietnam in late December 1971. Then, in a February 3, 1972, Oval Office meeting with Kissinger and U.S. Ambassador to South Vietnam Ellsworth Bunker, Nixon increased the bombing. The President directed Bunker to notify Army General Creighton Abrams, who had replaced Westmoreland as theater commander in Vietnam, that Abrams could now attack surface-to-air missile (SAM) sites in North Vietnam, given that the North Vietnamese had begun firing SAMs at B-52s.²² Air Force General John D. Lavelle, the commander of Seventh Air Force in Saigon, was responsible for carrying out the President's order. Lavelle's efforts to accomplish it merit

close scrutiny, for they reveal the disastrous impact that presidential ego and complex ROE can have on commanders charged with implementing a desired air strategy.

For Lavelle, the ROE for air attacks against North Vietnam had changed significantly since President Johnson ended Rolling Thunder in October 1968. According to an agreement afterward, seemingly accepted by the North Vietnamese delegation at the Paris Peace Talks, American reconnaissance aircraft could fly over the North but no bombing would occur, provided the North Vietnamese did not engage in hostile actions against those aircraft.²³ Air Force fighters typically escorted those missions in case the North Vietnamese displayed hostile intent. If the pilots received fire or a headset warning tone indicating that a SAM radar was tracking their aircraft, they could respond with a "protective reaction strike."24 In late 1971, the North Vietnamese "netted" their radar systems to allow ground-controlled interception radars to provide extensive information to SAM sites that minimized the need for SAM radar tracking, thereby minimizing—or eliminating—the warning tone pilots received prior to missile launch.25

General Lavelle determined that this move automatically demonstrated hostile intent from the North Vietnamese because by merely tracking an American aircraft with any radar, they could now fire at it with SAMs. For him, this blanket radar activation was sufficient for his pilots to fire on North Vietnamese SAM sites, though he was highly selective in the sites targeted. He received an endorsement of this perspective from Secretary of Defense Melvin Laird when Laird visited Saigon in December 1971. The Secretary told Lavelle to "make a liberal interpretation of the rules of engagement in the field and not come to Washington and ask him, under the political climate, to come out with an interpretation. I should make them in the field," Lavelle recalled, "and he would back me up."26 Kissinger also wanted more intensified bombing, arguing for large raids on SAM sites in one fell swoop rather than attacks across several days that



grabbed sustained attention in the media. The National Security Advisor told Admiral Thomas Moorer, the Chairman of the Joint Chiefs of Staff, "Our experience has been that you get the same amount of heat domestically for a four plane attack as you do for 400."²⁷

At the meeting with Kissinger and Ambassador Bunker on February 3, 1972, Nixon revealed that his understanding of ROE did not exactly match that of Laird and Lavelle, but the President's intent was the same. Nixon declared that against SAMs, "protective reaction strikes" would now become "preventive reaction strikes" and that no one would know if SAMs had been fired at American aircraft first or not. He elaborated, "I am simply saying that we expand the definition of protective

reaction to mean preventive reaction where a SAM site is concerned. . . . Who the hell's gonna say they didn't fire?" The President added, "Do it, but don't say anything. . . . He [Abrams] can hit SAM sites period."²⁸

Nixon's directive reached Lavelle, who then began an assault on SAM sites in the southern panhandle of North Vietnam. Nixon requested to be kept apprised of air attacks on all North Vietnamese targets and received a detailed, daily compilation of the missions. Those reports originated from Lavelle and were in turn passed up the chain of command, with Admiral Moorer, Secretary Laird, and Kissinger reviewing them before they went to the President. On no occasion did Nixon express displeasure with the bombing; in contrast,

on the February 8 report, he scribbled a note in the margin for Kissinger: "K—is there *anything* Abrams has asked for that I have *not* approved?"²⁹

Lavelle's actions did not, however, receive universal endorsement. Lonnie Franks, an Air Force technical sergeant who recorded mission results for computer compilation in Saigon, was baffled when pilots erroneously reported enemy ground fire as the rationale for bombing Northern targets. Lavelle had told subordinates that they could not report "no enemy reaction" after raids, but he had failed to explain that any North Vietnamese radar activation constituted a hostile act that justified a bombing response. The form that Franks used to record data contained only four reasons for expending



ordnance over North Vietnam: fire from antiaircraft artillery, MiGs, SAMs, or small arms—no block existed for "radar activation." Pilots thus chose one of the listed options, and Franks, knowing that the selections were incorrect, thought that the effort to deceive was deliberate and wrote his Senator. An Inspector General investigation ensued and Lavelle was removed from command and demoted to major general following hearings by the House and Senate Armed Services committees.

When Nixon heard of Lavelle's dismissal, the President expressed remorse that the general had been sacked for conducting missions that Nixon had ordered. "I just don't want him to be made a goat, goddammit," Nixon said to Kissinger in June 1972. Kissinger responded, "What happened with Lavelle was he had reason to believe that we wanted him to take aggressive steps," to which Nixon replied, "Right, that's right." The President then stated, "I don't want a man persecuted for doing what he thought was right. I just don't want it done." He then disparaged Sergeant Franks, comparing him to Daniel Ellsberg, who had leaked the Pentagon Papers. Kissinger replied, "Of course, the military are impossible, too," to which Nixon responded, "Well, they all turn on each other like rats." Kissinger offered, "I think that this will go away. I think we should just say a . . . after all we took corrective steps. We could have easily hidden it. I think you might as well make a virtue of necessity." To that, Nixon responded, "I don't like to have the feeling that the military can get out of control. Well, maybe this censures that. This says we do something when they, . . " and he stopped in mid-sentence. Then he added, "It's just a hell of a damn. And it's a bad rap for him, Henry."30

A week later, Nixon decided to take Kissinger's advice. In a June 22 news conference, the President answered questions about Lavelle's dismissal by stating, "The Secretary of Defense has stated his view on that; he has made a decision on it. I think it was an appropriate decision."31 Nixon further stated to the press a week later, "But he [Lavelle] did exceed authorization; it was proper for him to be

relieved and retired. And I think it was the proper action to take, and I believe that will assure that kind of activity may not occur in the future."³²

Lavelle became the highest-ranking American officer to receive a public rebuke for trying to implement his President's air strategy, but he was not the only air commander to suffer from Nixon's callousness and ego. Air Force General John W. Vogt, Jr., who replaced Lavelle, visited the White House on his way to Saigon and described Nixon as "wild-eyed" as he berated commanders for lacking aggressiveness in attacking the Easter Offensive. "He wanted somebody to use imagination—like Patton," Vogt remembered.33 The President elaborated on those thoughts to Kissinger in a memorandum soon after the Linebacker campaign had begun:

I want you to convey directly to the Air Force that I am thoroughly disgusted with their performance in North Vietnam. Their refusal to fly unless the ceiling is 4,000 feet or more is without doubt one of the most pusillanimous attitudes we have ever had in the whole fine history of the U.S. military. I do not blame the fine Air Force pilots who do a fantastic job in so many other areas. I do blame the commanders who, because they have been playing "how not to lose" for so long, now can't bring themselves to start playing "how to win." Under the circumstances, I have decided to take command of all strikes in North Vietnam in the Hanoi-Haiphong area out from under any Air Force jurisdiction whatever. The orders will be given directly from a Naval commander whom I will select. If there is one more instance of whining about target restrictions we will simply blow the whistle on this whole sorry performance of our Air Force in failing for day after day after day in North Vietnam this past week to hit enormously important targets when they had an opportunity to do so and were ordered to do so and then wouldn't carry out the order.34

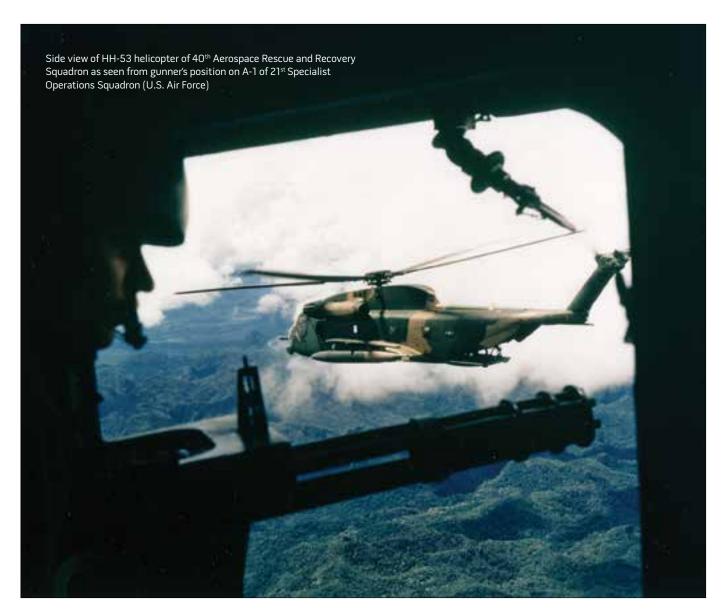
Nixon never followed through on his threat to eliminate Air Force commanders from the air war against North Vietnam, but he continued to berate military leaders as they worked to implement his increasingly effective air strategy. That strategy proved successful partly because the North Vietnamese persisted in waging conventional war. As long as they did so, their troop concentrations in the South were vulnerable to aerial assault, as were their vital supply lines. The strategy was also successful because the positive ends that Nixon sought from it were extremely limited. Besides securing the return of American POWs, he aimed for an agreement assuring South Vietnam's survival for a brief period of time, and personally guaranteed to South Vietnamese President Nguyen Van Thieu that the South would not fall while he was in office.35 Accordingly, Nixon had Kissinger propose an "in-place cease-fire" to Northern negotiators in Paris, which spurred NVA efforts to secure additional territory despite the aerial pounding they sustained. The North Vietnamese responded to Nixon's offer by dropping their demand for Thieu to resign, and a peace accord appeared imminent in late October 1972 when the President ended Linebacker. Neither Nixon nor Kissinger had informed Thieu of the in-place cease-fire offer, however, and once Thieu learned of it, he was incensed.

Thieu's refusal to accept the tentative Paris settlement led to a breakdown in the peace talks and caused Nixon to return to his "airpower means" to secure his positive ends—which now included convincing Thieu that he could depend on Nixon's promise of future military backing. In addition, the President now had a negative political objective that would constrain the amount of force that he could apply. Although he had won a resounding reelection victory in early November, the Democrats seized control of both houses of Congress and threatened to terminate spending for the war when Congress convened in early January. With limited time available to achieve results, Nixon decided to turn to the B-52, with its enormous 30-ton bomb load, to do the job. The President had already shifted more than half of the Strategic Air Command (SAC) fleet of 400 heavy bombers to air bases in Guam and Thailand. He thought that

risking the B-52—a vital component of America's nuclear triad—in raids against targets in the well-defended Northern heartland would demonstrate just how serious his efforts were to end the war. On December 14, in Washington, Nixon gave the order for bombing to begin 3 days later—December 18 in Vietnam. In customary fashion, he told Admiral Thomas H. Moorer, the Chairman of the Joint Chiefs of Staff, "I don't want any more 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 personally responsible."36

For the crews of more than 200 B-52s, the operation dubbed *Linebacker* II marked the first time that any of them had flown against targets in Hanoi; the bombers had raided Haiphong targets only once before, in April 1972. Still, as the influx of bombers in the Pacific had steadily increased, Air Force General J.C. Meyer, the SAC commander, anticipated such an operation and ordered Lieutenant General Gerald Johnson, the commander of Eighth Air Force, on Guam, to design a plan for it. Johnson and his staff submitted the desired plan to Meyer in November 1972.37 Yet when Nixon's order to begin the assault arrived at SAC headquarters, Meyer chose to disregard the Eighth Air Force plan, and had his own staff in Omaha, Nebraska, create one instead.

The short timespan to produce a plan led to a design with minimal ingenuity. Aircraft used the same flight paths to attack targets at the same times for the first 3 nights. The North Vietnamese took advantage of the repetitive routing to mass their SAM batteries in the areas where the B-52s turned off target and then fired their SAMs ballistically, which negated the bombers' defensive capabilities. The initial 3 nights produced the loss of eight bombers, with five more heavily damaged; another two fell to SAMs on the night of December 21. Meyer ended the repetitive routing and, after a 36-hour stand-down for Christmas, turned over planning for the remainder of the operation to Eighth Air Force.



On December 26, General Johnson's staff implemented the plan they had designed, with 120 B-52s attacking targets in Hanoi and Haiphong from nine different directions in a 15-minute timespan. Two bombers fell to SAMs (a loss rate of 1.66 percent), and the next day, in Washington, Nixon received word that the North Vietnamese were ready to resume negotiations in Paris on January 8. The President responded that negotiations had to begin on January 2 and would have a time limit attached. and that the North Vietnamese could not deliberate on agreements already made.38 On December 28, Hanoi accepted Nixon's conditions, and he ended Linebacker II the next day. In 11 days,

the North Vietnamese downed 15 bombers, but in doing so exhausted most of their supply of SAMs. The mercurial Nixon credited the Air Force with success, telling aide Chuck Colson, "The North Vietnamese have agreed to go back to the negotiating table on our terms. They can't take bombing any longer. Our Air Force really did the job."39 The President continued bombing North Vietnam south of the 20th parallel until the initialing of the Paris Peace Accords on January 23, 1973.

For many air commanders, Nixon's dramatic "Christmas Bombing" vindicated their belief that airpower could have won the war had President Johnson employed a comparable operation in

spring 1965.40 Nixon himself made a similar assertion in April 1988 when he appeared on Meet the Press and stated that his greatest mistake as President was not Watergate but the failure to conduct Linebacker II in 1969 after he took office. "If we had done that then," he said, "I think we would have ended the war in 1969 rather than 1973."41 Such assertions demonstrate that the Commander in Chief—as well as many military leaders—never really understood that the character of the war in 1972 had changed dramatically from what it had been for most of the conflict. The change to conventional warfare with the Easter Offensive was a key reason why airpower vielded tangible results.

Moreover, the success that Nixon achieved with airpower stemmed from his pursuit of positive and negative political objectives that differed significantly from those of his predecessor. Nixon had no illusions about pursuing a stable, independent, noncommunist South Vietnam; the shock of the 1968 Tet Offensive turned American public opinion against the war and made leaving Vietnam the new positive goal. Although he labeled that objective "peace with honor," in the end Nixon accepted a settlement that offered South Vietnam a possibility of survival, not a guarantee. He gave South Vietnamese President Thieu an ultimatum to accept that agreement, noting that without Thieu's approval the U.S. Congress would likely cut off all funding to South Vietnam. Whether Linebacker II persuaded Thieu that he could count on Nixon for support after the signing of the Paris Peace Accords remains a matter for conjecture; the agreement that Thieu reluctantly endorsed in January 1973 differed little from what Kissinger had negotiated in October 1972.

Nixon's lack of negative political goals enabled him to apply airpower more aggressively than Johnson. With no conflicting loyalties to a domestic agenda like Johnson, and with détente effectively removing China and the Soviet Union from the equation, Nixon had mainly to worry about the compressed time that Congress gave him to achieve a settlement. Nixon knew that his image would suffer because of the intensified bombing and was willing to accept that tarnishing, though he did not condone indiscriminate attacks. The 20,000 tons of bombs dropped in Linebacker II killed 1,623 civilians, according to North Vietnamese figures—an incredibly low total for the tonnage dropped. 42 Yet in all likelihood, the comparatively unrestrained, nonstop aerial pounding that the NVA received in South Vietnam counted as much, if not more, than Nixon's focused bombing of the North. The attacks in the South directly threatened the NVA's survival, and without that force on Southern soil, the North faced a more difficult path conquering South Vietnam.⁴³ Ultimately, airpower helped to assure that a flawed

South Vietnamese government lasted for a few more years.

Legacies of Airpower in Vietnam In the final analysis, several legacies emerged from airpower's ordeal in Vietnam. The dismal lack of unity of command displayed there spurred development of the joint force air component commander concept, in which a single air commander directs the flying activities of multiple Services to achieve objectives sought by the joint force commander. In terms of Air Force doctrine, Linebacker II's perceived success in compelling the North Vietnamese to negotiate reinforced the belief that airpower could achieve political goals cheaply and efficiently. The 1984 edition of the Air Force's Basic Doctrine Manual noted:

unless offensive action is initiated, military victory is seldom possible.... Aerospace forces possess a capability to seize the offensive and can be employed rapidly and directly against enemy targets. Aerospace forces have the power to penetrate to the heart of an enemy's strength without first defeating defending forces in detail. 44

The manual further encouraged air commanders to conduct strategic attacks against "heartland targets" that would "produce benefits beyond the proportion of effort expended and costs involved," but cautioned that such attacks could "be limited by overriding political concerns, the intensity of enemy defenses, or more pressing needs on the battlefield."

The impact of such "overriding political concerns" on the application of airpower is a key legacy of the air wars in Vietnam. To commanders who had fought as junior officers in World War II, where virtually no negative objectives limited military force, the tight controls that President Johnson placed on bombing North Vietnam chafed those charged with wielding the air weapon. Navy Admiral U.S. Grant Sharp, who directed *Rolling Thunder* as the commander of U.S. Pacific Command, wrote in the preface of his 1977 memoir *Strategy for Defeat*:

Our airpower did not fail us; it was the decision makers. And if I am unsurprisingly critical of those decision makers, I offer no apology. My conscience and my professional record both stand clear. Just as I believe unequivocally that the civilian authority is supreme under our Constitution, so I hold it reasonable that, once committed, the political leadership should seek and, in the main, heed the advice of military professionals in the conduct of military operations.⁴⁶

Many American Airmen from the war likely agreed with Sharp's critique.

Operation Rolling Thunder highlighted how negative political objectives could limit an air campaign. Indeed, in the American air offensives waged since Vietnam—to include the use of unmanned aerial vehicles against "highvalue" terrorist targets-negative goals have continued to constrain the use of military force. Projecting a sound image while applying airpower was difficult enough for American leaders in Vietnam; today's leaders must contend with 24/7 news coverage as well as social media accounts that enable virtually anyone to spin a story and reach a large audience. In the limited wars that the Nation will fight, negative objectives will always be present, and those objectives will produce ROE that limit airpower. "War is always going to have restrictions—it's never going to be [Curtis] LeMay saying 'Just bomb them," stated General Myers, the most recent Air Force Chairman of the Joint Chiefs of Staff.⁴⁷ Against insurgent enemies, the negative objectives may well eclipse the positive goals sought. When that occurs, kinetic airpower's ability to vield success will be uncertain.

Yet because airpower, as a subset of war, is not only a political instrument but also one that is applied by humans, it will be subject to the whims and frailties of the political leader who chooses to rely on it. Richard Nixon saw himself as a Patton-esque figure who could swiftly and efficiently brandish military force to achieve his aims. He felt little compunction in berating his air commanders or—in the case of General Lavelle—casting one adrift when he



thought that doing so might save him embarrassment. Nixon believed that airpower gave him the ideal military tool for threatening an opponent or persuading an ally, and that perspective has gained traction since he left the White House. The last four occupants of the Oval Office, to include President Barack Obama, have all relied heavily on airpower in the conflicts they have fought. The positive goals pursued— "stability," "security," and, on occasion, "democracy"—have proved difficult to achieve with any military force, particularly with airpower. Its siren song is an enticing one, however, as Johns Hopkins Professor Eliot Cohen has astutely observed, "Airpower is an unusually seductive form of military strength, in part because, like modern courtship, it appears to offer gratification without commitment."48 That promise is a dangerous one, as General Myers warns:

The last thing that we want is for the political leadership to think war is too easy, especially in terms of casualties. It's awful; it's horrible, but sometimes it's necessary. [The decision for war] needs to be taken

with thoughtful solemnness—with the realization that innocent people, along with combatants, will get hurt.49

Were he alive today, the Prussian military philosopher Carl von Clausewitz would doubtless nod in agreement at General Myers's observation.

But Clausewitz never saw an airplane; if he had, though, his airpower notions would likely have been unsurprising. Had he examined America's air wars in Vietnam, he would certainly have commented about the difficulty of achieving political objectives in a limited war. In all probability, he would have looked at President Johnson's Tuesday lunch-targeting process, the Route Package system dividing North Vietnamese airspace, the creation of free fire zones in the South, Nixon's condemnation of his air commanders and dismissal of General Lavelle, the repetitive B-52 routing for Linebacker II, and any number of other elements of the U.S. experience in Vietnam and stated simply: "Friction rules." "Everything in strategy is very simple," Clausewitz wrote, "but that does not mean that everything is very easy."50 Perhaps the most enduring legacy of the

air wars in Vietnam is the one that applies to any military strategy—uncertainty, chance, danger, and stress will be certain to limit it. JFQ

This article was originally presented as a lecture at the Royal Australian Air Force's airpower conference in Canberra, Australia, March 2014, and appears as a chapter in the conference proceedings A Century of Military Aviation 1914-2014, edited by Keith Brent (RAAF Air Power Development Centre, 2015).

Notes

¹ Raphael Littauer and Norman Uphoff, eds., The Air War in Indochina (Boston: Beacon Press, 1972), 11, 168-172; and Earl H. Tilford, Jr., Crosswinds: The Air Force's Setup in Vietnam (College Station: Texas A&M University Press, 1993), 109.

² U.S. Foreign Policy for the 1970s: Shaping a Durable Peace—A Report to the Congress by Richard Nixon, President of the United States, May 3, 1973 (Washington, DC: U.S. Government Printing Office, 1973), 59. Nixon commented about the Paris Peace Agreement: "While our essential principles were met, we and the Communists had to make compromises. Many of these were more significant for our ally than for us. . . . Our friends have every opportunity to demonstrate their inherent strength." Two months earlier the President had told Alexander Haig: "The country would care if South Vietnam became Communist in a matter of six months. They would not give a damn if it's in two years." See Tape Subject Log, Conversation 416-43, Nixon Presidential Library and Museum, March 17, 1973 (hereafter, Nixon Presidential Library).

³ Doris Kearns Goodwin, Lyndon Johnson and the American Dream (New York: Signet, 1976), 263.

⁴ "Meeting with Foreign Policy Advisors on Vietnam," August 18, 1967, Meeting Notes File, Box 1, Lyndon Baines Johnson Presidential Library (hereafter, Johnson Library); Headquarters U.S. Air Force, Analysis of Effectiveness of Interdiction in Southeast Asia, Second Progress Report, May 1966, Air Force Historical Research Agency (hereafter, AF-HRA), file K168.187-21, 7. Robert McNamara acknowledged in 1967 that communist forces fought an average of 1 day in 30 and that they needed 15 tons of supplies daily from external sources. The Joint Chiefs of Staff had estimated in August 1965 that the enemy needed 13 tons per day of "external logistical support." See U.S. Congress, Senate, Committee on Armed

Services, Preparedness Investigating Subcommittee, Air War against North Vietnam, 90th Cong., 1st sess., August 25, 1967, pt. 4, 299; and Annex A to JCSM 613-65, August 27, 1965, National Security Files (hereafter, NSF), Country File: Vietnam, Folder 2 EE, Box 75, Johnson Library. The standard military 2½-ton truck could transport 5 tons of goods over roads and 21/2 tons overland. Regarding North Vietnam's import capacity, see Walt Rostow to the President, May 6, 1967, NSF, Country File: Vietnam, Folder 2EE, Box 75, Johnson Library; and The Pentagon Papers: The Defense Department History of United States Decisionmaking on Vietnam, The Senator Gravel Edition, 5 vols. (Boston: Beacon Press, 1971), 4.146

⁵ Guenter Lewy, America in Vietnam (New York: Oxford University Press, 1978), 309.

⁶ Stanley Karnow, *Vietnam: A History* (New York: Penguin Books, 1997), 455–456, 672, 675

⁷ National Security Action Memorandum 328, April 6, 1965, NSF, Boxes 1–9, Johnson Library.

⁸ Memorandum, McNamara for the President, July 28, 1965, NSF, National Security Council History, "Deployment of Major U.S. Forces to Vietnam, July 1965," Vol. 1, Box 40, Johnson Library.

⁹ David C. Humphrey, "Tuesday Lunch at the Johnson White House: A Preliminary Assessment," *Diplomatic History* 8 (Winter 1984), 90.

¹⁰ U.S. Air Force Oral History interview of Major General Robert N. Ginsburgh by Colonel John E. Van Duyn and Major Richard B. Clement, May 26, 1971, AFHRA, file K239.0512-477, 65–68; and interview of Lieutenant Colonel William H. Greenhalgh by the author, Maxwell Air Force Base, May 17, 1985.

¹¹ U.S. Air Force Oral History interview of Lieutenant General Joseph H. Moore by Major Samuel E. Riddlebarger and Lieutenant Colonel Valentino Castellina, November 22, 1969, AFHRA, file K239.0512-241, 17–18.

12 Robert L. Gallucci, Neither Peace nor Honor: The Politics of American Military Policy in Viet-Nam (Baltimore: The Johns Hopkins University Press, 1975), 80–84; Littauer and Uphoff, 38. In July 1966, after a span of poor weather obscured targets over the North, Seventh Air Force Commander General William C. Momyer ordered his fighter pilots not to fly and called for ground crews to perform preventive maintenance on the aircraft. A message then arrived from the Pentagon telling Momyer to fly to prevent the Navy from achieving a higher sortie count. See Greenhalgh interview, May 17, 1985.

¹³ Interview by the author of a Navy A-4 pilot who wished to remain anonymous.

¹⁴ Air Force Colonel Jack Broughton, a veteran F-105 pilot, called North Vietnam "the center of hell with Hanoi as its hub." See Jack Broughton, *Thud Ridge* (New York: Bantam Books, 1969), 24.

¹⁵ Free fire zones were "known enemy

strongholds . . . virtually uninhabited by noncombatants" where any identified activity was presumed to stem from enemy forces and was thus susceptible to immediate air or artillery strikes. See Sean A. Kelleher, "Free Fire Zones," in *Dictionary of the Vietnam War*, ed. James S. Olson (Westport: Greenwood, 1988), 163.

¹⁶ Interview of General Richard Myers by the author, National Defense University, November 26, 2013.

¹⁷ John Schlight, *The United States Air Force in Southeast Asia: The War in South Vietnam: The Years of the Offensive 1965–1968* (Washington, DC: Office of Air Force History, 1988), 82.

¹⁸ Earl H. Tilford, Jr., Setup: What the Air Force Did and Why in Vietnam (Maxwell Air Force Base, AL: Air University Press, 1991), 196. The secret bombing deposited 120,578 tons of bombs on Cambodian soil. See Carl Berger, ed., The United States Air Force in Southeast Asia, 1961–1973: An Illustrated Account (Washington, DC: Office of Air Force History, 1984), 141.

¹⁹ Tilford, 194; and Richard Nixon, *RN: The Memoirs of Richard Nixon*, 2 vols. (New York: Warner Books, 1978), 1: 472.

²⁰ By May 1972, only 69,000 American troops remained in Vietnam, and most of them were not in combat units.

²¹ Hanoi's communist party newspaper *Nhan Dan* described China and the Soviet Union's policy of détente as "throwing a life-



buoy to a drowning pirate . . . in order to serve one's narrow national interests." See Nhan Dan editorial, August 17, 1972, in Gareth Porter, ed., Vietnam: The Definitive Documentation of Human Decisions, 2 vols. (Stanfordville, NY: Earl M. Coleman, 1979), 2: 568.

²² "Conversation Among President Nixon, the President's Assistant for National Security Affairs (Kissinger), and the Ambassador to South Vietnam (Bunker)," Washington, DC, February 3, 1972, in Foreign Relations of the United States, 1969-1976, Vol. VIII: Vietnam, January-October 1972 (Washington, DC: U.S. Government Printing Office, 2010), 71-78.

²³ In addition to agreeing not to fire on American reconnaissance aircraft in return for a bombing halt, North Vietnamese negotiators also seemingly agreed that their forces would not move men and supplies across the DMZ or fire on major South Vietnamese cities. President Johnson was convinced that North Vietnamese subscribed to the "agreement." He wrote in his memoirs: "Before I made my decision [to halt the bombing], I wanted to be absolutely certain that Hanoi understood our position. . . . Our negotiators reported that the North Vietnamese would give no flat guarantees; that was in keeping with their stand that the bombing had to be stopped without conditions. But they had told us if we stopped the bombing, they would 'know what to do.' [American negotiators] were confident Hanoi knew precisely what we meant and would avoid the actions that we had warned them would imperil a bombing halt." Lyndon Baines Johnson, The Vantage Point: Perspectives of the Presidency, 1963-1969 (New York: Holt, Rinehart & Winston, 1971), 518.

²⁴ Aloysius Casey and Patrick Casey, "Lavelle, Nixon, and the White House Tapes," Air Force Magazine, February 2007, 87.

25 Ibid.

²⁶ Quoted in ibid. In a 2007 letter to the editor of Air Force Magazine, Melvin Laird stated, "It was certainly true that in my meetings with Gen. John Lavelle I told him that my order on 'protective reaction' should be viewed liberally. . . . Prior to my order, there was no authorization (under McNamara or [Secretary of Defense Clark] Clifford) to destroy dangerous targets except when fired upon without special permission. Gen. Bus Wheeler [Moorer's predecessor as Chairman of the Joint Chiefs of Staff], Adm. Tom Moorer, and Gen Abrams all agreed with the liberal interpretation on my order on protective reaction. The new orders permitted hitting anti-aircraft installations and other dangerous targets if spotted on their missions, whether they were activated or not." See Melvin R. Laird, "Letter to the Editor," Air Force Magazine, May 2007, 4.

²⁷ "Minutes of a Senior Review Group Meeting, Subject: Vietnam Assessment," Washington, DC, January 24, 1972, Foreign Relations of the United States, 1969-1976, Vol. VIII (Washington, DC: U.S. Government Printing Office, 2010), 25.

²⁸ "Conversation Among President Nixon et al.," 74-75.

²⁹ "Memorandum for the President from Henry A. Kissinger, Subject: Secretary Laird's Daily Report on Southeast Asia Situation," February 8, 1972; Folder: Vietnam, January-February 1972 (2 of 3); Box 158, National Security Council Files, Nixon Presidential Library. Emphasis in original.

30 "Meeting between Henry Kissinger and the President," June 14, 1972, Oval Office, WHT Reference Cassette, C-2240 RC-2, 733-6, Nixon Presidential Library.

31 "Transcript of the President's News Conference Emphasizing Domestic Matters," New York Times, June 23, 1972.

32 "Transcript of President Nixon's News Conference Emphasizing Foreign Affairs," New York Times, June 30, 1972.

³³ Quoted in Seymour M. Hersh, The Price of Power: Kissinger in the Nixon White House (New York: Summit Books, 1983), 506.

34 "Memorandum for Henry Kissinger and Al Haig from the President," May 19, 1972, White House Special Files, Staff Member and Office Files, President's Personal File, Box 4, "Memo-May 1972," Nixon Presidential Library. Emphasis in original.

35 Nixon expressed this commitment to Thieu in a letter dated January 5, 1973, and sent Alexander Haig to Saigon in the middle of the month to convey the President's commitment personally. See Nixon, RN, 2: 245-246; and Henry A. Kissinger, White House Years (Boston: Little, Brown, 1979), 1459-1462, 1469. Yet in forthright conversation with Kissinger during an intense phase of the Paris negotiations, Nixon confessed, "Let's be perfectly cold-blooded about it. If you look at it from the standpoint of our game with the Soviets and the Chinese, from the standpoint of running this country, I think we could take, in my view, almost anything, frankly, that we can force on Thieu. Almost anything. I just come down to that. You know what I mean? Because I have a feeling we would not be doing, like I feel about the Israeli[s], I feel that in the long run we're probably not doing them an in-uh . . . a disfavor due to the fact that I feel that the North Vietnamese are so badly hurt that the South Vietnamese are probably going to do fairly well. But also due to the fact—because I look at the tide of history out there, South Vietnam is never going to survive anyway. I'm just being perfectly candid." The conversation continued, with Kissinger concluding, "So we've got to find some formula that holds the thing together for a year or two, after whichafter a year, Mr. President, Vietnam will be a backwater. If we settle it, say, this October, by January '74 no one will give a damn." See "Conversation between President Richard Nixon and Henry Kissinger," Conversation 760-6, August 3, 1972, Richard Nixon Presidential Materials Project, NARA, Presidential Recordings Program, Miller Center of Public Affairs,

University of Virginia, available at http:// whitehousetapes.net/clips/1972_0803_vietnam/index.htm>.

³⁶ Nixon, RN, 2: 242.

³⁷ Interview of Colonel Clyde E. Bodenheimer by the author, January 7, 1983, Maxwell Air Force Base.

38 Kissinger, White House Years, 1457-1458; and Nixon, RN, 2: 250.

39 Charles W. Colson, Born Again (Grand Rapids, MI: Chosen Books, 1976), 78.

⁴⁰ See, for example, "What Admiral Moorer Really Said About Airpower's Effectiveness in SEA," Air Force Magazine, November 1973, 25; Howard Silber, "SAC Chief: B-52s Devastated Viet Air Defenses," Omaha World Herald, February 25, 1973; U.S. Air Force Oral History Interview of Lieutenant General Gerald W. Johnson by Charles K. Hopkins, April 3, 1973, Andersen Air Force Base, Guam, AFHRA, file K239.0512-831, 11-13; U.S. Air Force Oral History Interview of General John W. Vogt by Lieutenant Colonel Arthur W. McCants, Jr., and Dr. James C. Hasdorff, August 8-9, 1978, AFHRA, file K239.0512-1093, 69; U.S. Grant Sharp, Strategy for Defeat: Vietnam in Retrospect (San Rafael, CA: Presidio Press, 1978), 252, 255, 272; and William W. Momyer, Airpower in Three Wars (Washington, DC: U.S. Government Printing Office, 1978), 339.

41 Richard M. Nixon, statement on NBC's Meet the Press, April 10, 1988.

42 Murray Marder, "North Vietnam: Taking Pride in Punishment," Washington Post, February 4, 1973.

43 Observed General Tran Van Tra, commander of communist forces in the southern half of South Vietnam, after having undergone 9 months of continual bombing: "Our cadres and men were fatigued, we had not had time to make up for our losses, all units were in disarray, there was a lack of manpower, and there were shortages of food and ammunition. . . The troops were no longer capable of fighting." Tran Van Tra, Concluding the 30-Years War (Ho Chi Minh City, 1982 [in Vietnamese]; reprint ed. [in English], Arlington, VA: Joint Publications Research Service, 1983), 33; quoted in Gabriel Kolko, Anatomy of a War: Vietnam, the United States, and the Modern Historical Experience (New York: Pantheon Books, 1985), 444-445.

44 Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force (Washington, DC: Headquarters U.S. Air Force, March 16, 1984), 2-6.

45 Ibid., 2-12.

46 Sharp, xvii.

⁴⁷ Myers interview, November 26, 2013.

⁴⁸ Eliot A. Cohen, "The Mystique of U.S. Airpower," Foreign Affairs 73 (January-February 1994), 109.

⁴⁹ Myers interview, November 26, 2013.

50 Carl von Clausewitz, On War, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 178.