



# ROLLING THUNDER AND THE LAW OF WAR

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ON 2 March 1965, 104 United States Air Force and 19 South Vietnamese Air Force aircraft attacked a small military supply depot and the minor naval base at Quang Khe in North Vietnam. This effort marked the inauspicious beginning of the 43-month bombing of North Vietnam known as "Rolling Thunder," one of the most controversial military campaigns in United States history. In the face of denials by senior civilian officials in the Johnson administration, USAF pilots and their military leaders complained of unwarranted restrictions imposed on them by those civilian leaders, not only with respect to target selection but as to strike parameters.<sup>1</sup> Simultaneously, downed and captured U.S. pilots were denied prisoner-of-war status by their North Vietnamese captors and for a time were threatened with trial as war



criminals for their alleged intentional bombing of the civilian population.

The controversy has not abated with the passage of time, and participants have written books with conflicting views of the campaign.<sup>2</sup> During the U.S. hostage crisis in Iran, the mercurial government of the Ayatollah Ruhollah Khomeini announced its intention to try one of the hostages, Lieutenant Colonel David M. Roeder, USAF, as a "wartime criminal and mercenary spy," owing to his having flown 100 missions in F-105s over North Vietnam during the Rolling Thunder campaign. Although Colonel Roeder's trial did not occur in part due to Vietnamese failure to provide witnesses and evidence, the recent return by the Hanoi regime of the bodies of three U.S. pilots emphasizes its intention to prolong the agony for the families of the missing in action until some resolution is reached regarding reparations for war damage in North Vietnam. In contrast, Ronald Reagan vowed during his successful presidential campaign that he would never allow the U.S. military to engage in combat under restrictions such as those experienced in fighting the Vietnam War.

The focal point for much of the controversy over both targeting and bombing is that area of international law known as the law of war. Whereas the Johnson administration declined to authorize the attack of certain targets and imposed unprecedented restrictions on U.S. strike forces ostensibly to protect the civilian population of North Vietnam, the North Vietnamese were quick to allege that the United States was engaged in a campaign of indiscriminate bombing in violation of the law of war. Confusion over the state of the law persists. Draft contingency and operations plans I have seen routinely contain unwarranted restrictions apparently derived from the drafter's experience in Vietnam, misperceived to be based on the law of war. While lecturing at the U.S. military staff colleges, I have noted definite confusion among professional military officers regarding the source of many of the

operational restrictions of the Vietnam War. While some of these restrictions may have been the result of law-of-war obligations accepted by the United States, most were not.

THE United States is a nation of rule by law. Every member of the military is bound by oath to discharge his or her duties in accordance with the law, including the law of war. While some may question whether this measure of confidence in the law in the international sphere is warranted, it is essential to understand what the law provides and to distinguish the rights and responsibilities of the law of war from other restrictions.<sup>3</sup> Rolling Thunder provides an excellent vehicle for this comparison.

Rolling Thunder was planned as a program to deny the government of the Democratic Republic of Vietnam a sanctuary from which to carry out its military operations in the Republic of Vietnam. Its objectives were threefold: to reduce the flow and increase the cost of the continued infiltration of men and supplies from North to South Vietnam; to raise the morale of the South Vietnamese people who at the time Rolling Thunder began were under severe military pressure; and to make clear to the North Vietnamese political leadership that so long as they continued their aggression against South Vietnam, they would pay the price in North Vietnam.

Simultaneously, Rolling Thunder was to be an interdiction campaign, a punitive expedition, and a test of will. As part of the then-prevalent United States theory of limited war, however, it was viewed as a limited campaign to avoid widening the war beyond the two Vietnams. Both in published statements and the selective use of air power, the United States made it clear that it had no intention of invading North Vietnam; nor did it intend to destroy the Hanoi regime, compel the North Vietnamese people to adopt another form of government, nor devastate North Vietnam. Nuclear

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*Led by an EB-66, a formation of F-105s (above) unloads its 750-pound general-purpose bombs in a radar-directed drop over southern North Vietnam in early 1966. . . . The care taken to avoid collateral damage to civilians and property in built-up areas is graphically illustrated by the postattack photograph (left) of an attack on 29 June 1966 of a petroleum storage area near Hanoi.*



*Denied access to logistical buildup areas by political considerations, USAF and Navy tactical air power concentrated on chokepoints along lines of communication (LOC). The Xom Ca Trang highway bridge (above, right) and the Qui Vinh railroad bridge (right) were successfully attacked in April of 1965. However, note the vehicle tracks leading away from the bridge in the upper photo, almost surely heading toward a concealed ferry or underwater ford.*



ONE SPAN DROPPED



DESTROYED SPAN

*The utter frustration of Rolling Thunder implicit in a single photograph (below): For lack of better targets, tactical air power went for bridges—and generally got them. But all too often the resultant chokepoints were easily bypassed. Here, USAF fighters had dropped the main span, but North Vietnamese engineers simply bulldozed two dry fords across the river and added an underwater ford downstream. Note the numerous bomb craters around the main bridge and the antiaircraft emplacements near the upper ford.*





weapons would not be used; targets in populated areas would not be attacked. Tactical rather than strategic assets would be used in the attacks to emphasize the limited nature of the campaign. Otherwise lawful targets, such as political offices responsible for the direction of the war, would not be attacked. As an interdiction rather than strategic bombing campaign, Rolling Thunder had three broad objectives: to reduce the flow of external assistance being provided North Vietnam; to reduce those military and industrial resources that contributed most to the support of North Vietnamese aggression against South Vietnam; and to harass, disrupt, and impede the movement of men and materials from North to South Vietnam. There was early recognition by the Johnson administration that while the main purpose of the air effort would be interdiction, nonetheless complete interdiction was not likely.

The Joint Chiefs of Staff (JCS) were unwavering in their support of the administration's objectives for Rolling Thunder. To implement the campaign's basic tasks, the JCS proposed a bombing program interdicting the North Vietnamese supply system as a whole:

- interdiction of all lines of communication (LOCs) south of 20° north latitude (2 weeks);
- severing of all rail and highway links with China (6 weeks);
- attack of port facilities, mining of Haiphong harbor, and destruction of supply and ammunition dumps (2 weeks); and
- attack of industrial targets outside populated areas (2 weeks).

In support of the proposed bombing program, the JCS identified 94 key fixed targets for destruction, most of them in the northeast sector of North Vietnam. The JCS 94-target list recognized that, rather than being a major manufacturer of war materials, North Vietnam was a conduit for war supplies en route to South Vietnam. The 94-target list was consistent with White House objectives, attacking

the heart and arteries of the North Vietnamese military supply system while eschewing political targets, objects necessary for the survival of the civilian population, and otherwise legitimate targets in populated areas. This JCS list was forwarded to Secretary of Defense Robert S. McNamara, who referred it to his General Counsel for legal review. The General Counsel approved it as consistent with United States obligations under the law of war. Despite this legal clearance, Secretary McNamara and President Johnson accepted neither the recommendations of the JCS as to the stages of the bombing program nor the 94-target list, choosing instead to embark on a limited interdiction campaign that passed through six separate phases and seven bombing halts prior to its conclusion on 31 October 1968.

White House disapproval of the 94-target list revealed areas of fundamental disagreement between the Johnson administration and the military. While the JCS saw the war as a single conflict integrated militarily, geographically, psychologically, and socially, the administration viewed Rolling Thunder as supplementary to rather than complementary of the war in South Vietnam. Whereas Rolling Thunder was represented to be an interdiction campaign, President Johnson used it as a campaign of coercion, a subtle diplomatic orchestration of signals and incentives, of carrots and sticks, of the velvet glove of diplomacy backed by the mailed fist of air power. Rolling Thunder was not a military campaign in the classical sense but a not-so-clearly defined program of "signals" evolving from a politico-military strategy in which the political, including psychological, factors were not only predominant but oftentimes exclusive. Never carefully or fully thought out by the White House, Rolling Thunder became a campaign of on-the-spot adaptation and intermittent intensity.

There were several reasons for this evolution. President Johnson's basic discomfort with the military caused him to rely less on military advice than any U.S. President since Woodrow



Wilson. Vietnam — “that bitch of a war,” in his words — drained money from “the woman I loved,” The Great Society. Committed to a program of guns and butter without raising taxes or calling up the reserves, he fought the war accordingly. In the eyes of Lyndon B. Johnson and his principal advisers, Rolling Thunder was not a military campaign but “an economical way to impose an awkward inconvenience,” though nonetheless one they expected would produce early results.<sup>4</sup> Johnson entrusted the conduct of the war to his Secretary of Defense McNamara, who, though perhaps brilliant in fiscal management, proved anything but efficient in his conduct of Rolling Thunder. In the preceding four years of his tenure as Secretary of Defense, McNamara had substantially downgraded the role of professional military advice in the planning and decision-making process. He not only failed to establish a relationship of trust and confidence with his military subordinates, he created an adversarial relationship with them. He encouraged his civilian subordinates — most of them young academicians with no military experience — to make decisions on military questions without seeking professional advice that was readily available to them. This was particularly true within the office of the Assistant Secretary of Defense for International Security Affairs (ASD/ISA), which was given the responsibility for the management of Rolling Thunder.<sup>5</sup>

The McNamara-Johnson program for execution of Rolling Thunder manifested its predominately political character by calling for the graduated application of military power over an unspecified period of time, managed internally through geographic prohibitions, target denial, and stringent strike restrictions and rules of engagement. The former ignored principles of war such as mass and surprise and existing military doctrine regarding air power employment, calling instead for a phased campaign — the phases again undefined and unestablished — of air power creeping north from

the demilitarized zone (DMZ) that separated North and South Vietnam. Gradualism, rather than campaign objectives, was the first divisive point between the military and McNamara-Johnson. Gradualism provided no benefits in the conduct of Rolling Thunder but had several adverse effects. To the international community, it indicated a lack of capability on the part of the United States to halt blatant acts of aggression by a less-developed nation against its neighbor. It allowed communist-socialist elements in many nations the time to organize their opposition to the U.S. “imperialist aggression” against a nation portrayed as fighting for its survival, leading many nations traditionally friendly to the United States to withdraw their support of the U.S. war effort as the campaign dragged on. Gradualism enabled the North Vietnamese to mobilize and organize a force of more than 500,000 civilians to handle LOC damage and movement of supplies; mobilize an additional quarter-million civilians to man antiaircraft defenses; organize and construct a sophisticated, highly integrated air defense system; disperse its military supplies to offset the bombing; and import essential stores to counter anticipated bombing effects (e.g., 2000 generators to offset the loss of power plants). To the North Vietnamese, it manifested a lack of will on the part of the United States leadership. As a people with experience in extended campaigns, the North Vietnamese concluded that their patience was greater than that of their opponent.

The greatest effect of gradualism was to occur in the area President Johnson believed he knew best, the domestic arena. While bombing causes no greater suffering among noncombatants than any other means of war — more innocent civilians died as the result of acts of terrorism by the Vietcong and North Vietnamese during the 1968 Tet offensive than in all of Rolling Thunder — the self-agonizing that has been experienced since the World War II strategic bombing campaigns indicates that the average U.S. citizen has not yet come



to grips from a standpoint of morality with the superiority the United States enjoys in air power. Certainly this was true at the top; gradualism reflected the almost apologetic manner in which President Johnson elected to undertake a major military campaign. Communist propaganda campaigns against U.S. air power in Korea and Vietnam, as well as current Soviet efforts against the enhanced radiation weapon, were and are exploitations of American morality and aversion to war in general in an effort to overcome technological advantages enjoyed by the United States. Gradualism permitted this exploitation; the Johnson administration's distrust of the military led it to believe much of it — or at least to seek to counter it through increased strike restrictions in order to hold together the disintegrating domestic support for the campaign and the war in general. The worst effect of gradualism, however, was that it sought from the American public the one virtue it lacks: patience. Against virtually every principle of war and the unanimous advice of those with the greatest experience, the elected leaders of a nation whose people are accustomed to resolution of any crisis in the length of a thirty-minute television program (including commercials) chose to surrender technological and military superiority and engage in a conflict with a nation accustomed to protracted campaigns and on that nation's terms.

Emphasis throughout Rolling Thunder on LOC interdiction in Route Packages I and II reflected the second area of dispute between the Secretary of Defense and the JCS. The JCS plan and its 94-target list recognized the necessity for attack of all parts of the interdicted target. This was not revolutionary thinking but the application of long-established air power doctrine. Marshal of the Royal Air Force Sir Hugh Trenchard commented in a memorandum of 2 May 1928:

... air attacks will be directed against any objective which will contribute effectively towards the destruction of the enemy's means of resistance and the lowering of his determination to

fight. . . . By attacking the sources from which [the] armed forces are maintained infinitely more effect is obtained. In the course of a day's attack upon the aerodromes of the enemy perhaps 50 aeroplanes could be destroyed; whereas a modern industrial state will produce 100 in a day — and production will far more than replace any destruction we can hope to do in the forward zone. On the other hand, by attacking the enemy's factories, then output is reduced by a much greater proportion.

In the same way, instead of attacking the rifle and the machinegun in the trench where they can exact the highest price from us for the smallest gain we shall attack direct the factory where these are made. We shall attack the vital centres of transportation and seriously impede these arms and munitions reaching the battlefield and, therefore, more successfully assist the Army in its direct attack on the enemy's Army.<sup>6</sup>

Secretary McNamara did not accept this line of thinking, stating that "Physically, it makes no difference whether a rifle is interdicted on its way into North Vietnam, on its way out of North Vietnam, in Laos or in South Vietnam."<sup>7</sup> There was not a consensus within the Johnson administration on Secretary McNamara's approach to interdiction. Secretary of the Air Force Harold Brown, for example, argued with McNamara:

It can be argued that because the flow into South Vietnam is a larger fraction of what passed through Route Packages I-III than it is of what passes through Route Packages IV-VI, an amount of material destroyed in the former area has more effect than the same amount destroyed in the latter. This is true, but to argue that sorties in the northern region are therefore less important overlooks the fact that this very gradient is established largely by the attrition throughout the LOC. In analogous transport or diffusion problems of this sort in the physical world (e.g., the diffusion of heat) it is demonstrable that interferences close to the source have a greater effect, not a lesser effect, than the same interferences close to the output. If the attacks on the LOCs north of 20° stopped, the flow of goods past 20° could easily be raised by far more than 20% and the 20% increase of attack south of 20° would nowhere compensate for this.<sup>8</sup>



The arguments of Secretary Brown and the JCS were only partially successful over the course of the campaign. Rather, the civilian leadership embarked on a long-term campaign emphasizing armed reconnaissance of lines of communication in the lower Route Packages, expecting more from these limited efforts than the history of aerial interdiction in protracted campaigns promised.<sup>9</sup> The costs were high. For example, in 1966, of 106,000 sorties over North Vietnam, only 1000 were against the 22 fixed targets authorized for attack by the White House; the balance were devoted to the armed reconnaissance interdiction campaign, with two-thirds of the strikes occurring in Route Packages I and II. This highly uneconomical misuse of expensive, high-performance aircraft to seek out and destroy individual trucks prompted this response by one Air Force pilot to Senator (and former Secretary of the Air Force) W. Stuart Symington:

I am a regular. Nobody drafted me, and I expect to risk my life for my country. But I'll be darned if I like to do it in a multimillion dollar airplane a couple of times a week bombing an empty barracks or a bus.<sup>10</sup>

Additional restraints were imposed on strike forces by the White House. Notwithstanding repeated justification of Rolling Thunder as a campaign for denial of sanctuaries to North Vietnam,<sup>11</sup> the White House established a series of political, military, and geographic sanctuaries throughout North Vietnam in which attacks of otherwise legitimate targets were prohibited. Attacks on targets within populated areas were to be avoided, a restriction that was quickly changed into a prohibition by subordinate commanders fearful of the repercussions of any incident (real or fabricated by the North Vietnamese). Restricted areas of 30 and 10 miles were established around Hanoi and Haiphong, respectively. Targets within these areas could not be attacked without specific White House approval; once authorized, there was limited restrike authority. Prohibited areas of 10 and 4 miles were placed within the

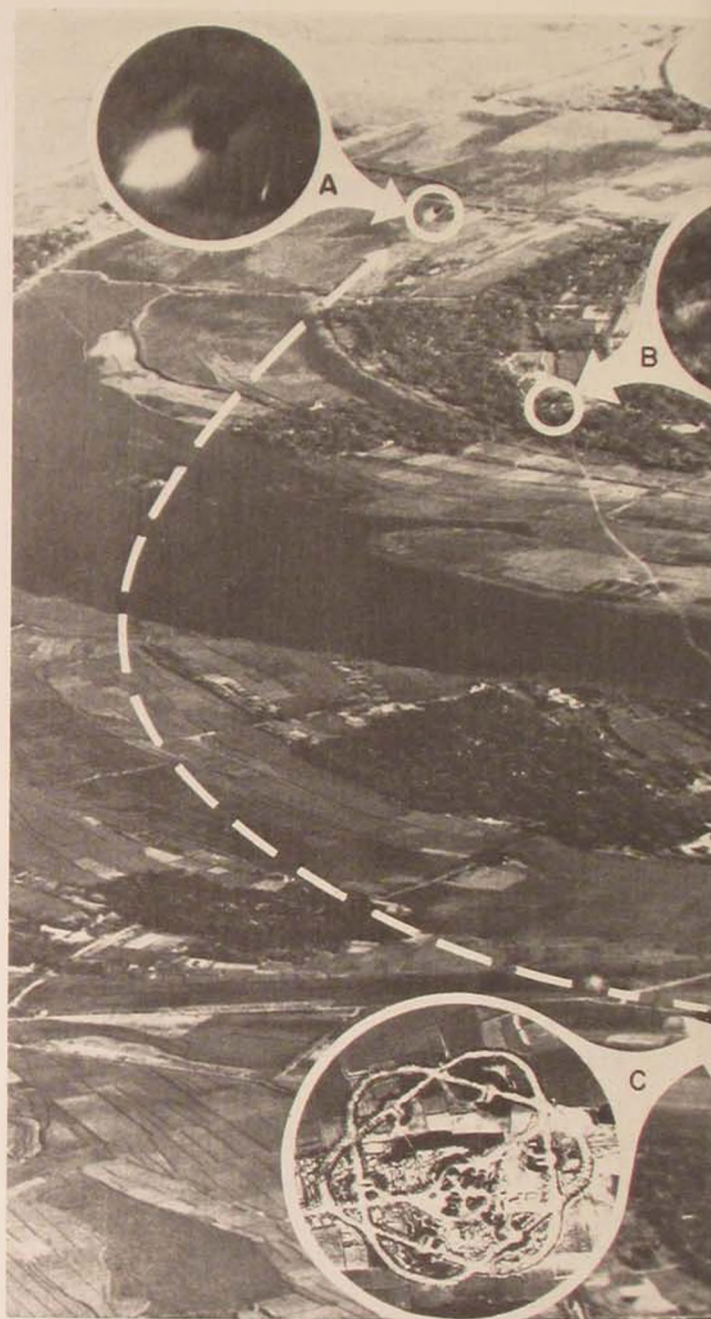
restricted areas of Hanoi and Haiphong. Attack of targets within those areas also required White House authorization, which was less likely than for targets within the restricted areas. There was no restrike authority for targets within prohibited areas.

A buffer zone extended south from the Chinese border for 30 miles from the Laos-North Vietnam border to 106° longitude; 25 miles from 106° east to the Gulf of Tonkin. The 106° longitude line also marked the western boundary of Route Package VI, the geographic area containing the most valuable interdiction targets. In addition to the geographic sanctuaries surrounding Hanoi and Haiphong and within the buffer zone, strike forces were restricted in their attack of targets of opportunity within Route Package VI. When the first U.S. aircraft was lost to a surface-to-air missile (SAM) on 24 July 1965, a 10-mile prohibited strike area was placed around Phuc Yen airfield, the principal North Vietnamese military jet air base. Despite repeated JCS requests, Phuc Yen was not authorized for attack until 24 October 1967.<sup>12</sup> There were other restrictions. Fishing boats, dikes and levees, locks and dams, and hydroelectric plants were not authorized targets. Bridges, including bridges on LOCs, were considered fixed targets requiring White House strike authorization. The White House also discouraged the preparation of a comprehensive plan for attainment of Rolling Thunder objectives by approving target packages a week at a time in the initial phases of the campaign, and subsequently in monthly increments.

**I**N April 1965, SAMs and SAM sites were first detected. Although requested by the JCS, attack on them was not immediately authorized.<sup>13</sup> When the first aircraft was lost to a SAM, President Johnson authorized strikes against those SAM sites south of 20° north, which actually were firing at U.S. aircraft. The SAM threat was permitted to expand without significant interference through early



1966. During that time, SAM sites were developed as ambush positions along the anticipated flight paths of strike forces — a tactic forced upon the North Vietnamese by the limited availability of SAMs but facilitated by the White House decision to select weekly target packages. By the end of 1965, more than sixty sites had been identified around the vital Hanoi-Haiphong military-industrial-transportation complex. Authorization for their attack was limited. Sites were authorized for attack only after photographic evidence had established that they were occupied, an impractical criterion during the 1965-66 period of SAM mobility. As SAMs increased, the threat to U.S. aircraft similarly increased. Altitudes for ingress decreased from the preferred 25,000-30,000 feet to 12,000-15,000 feet, which required more fuel and placed strike aircraft within range of North Vietnamese antiaircraft. Strike forces had to adopt echeloned operations by small groups. Strike forces per se were reduced significantly as aircraft were diverted for MiG Combat Air Patrol (MIGCAP) and SAM suppression missions. Restrictions on attack of SAM sites remained, however, particularly with regard to those sites in and about Hanoi and Haiphong. SAMs within the prohibited areas of those cities could not be attacked. With their range of seventeen nautical miles, the SAMs were able to offer protection to the key portions of the North Vietnamese military transportation and supply system while themselves immune from attack. SAMs within the restricted areas (but beyond the prohibited areas) could be attacked if they were preparing to fire upon U.S. forces and if they were not located in populated areas. The North Vietnamese became aware of this last restriction and offset the U.S. SAM suppression threat by placing their SAM and antiaircraft (AA) sites adjacent to or within populated areas whenever possible. Screening their SAM and AA positions from counterattack, rather than locating them immediately adjacent to high-value targets, appeared to be the prevailing



*Repeated strikes at extended supply lines exposed U.S. airmen to sophisticated Soviet defensive systems. The above photograph, taken near Hanoi in late 1966, shows the launch smoke of two SA-2 missiles; arrow "C" conceals the characteristic pattern of a six-launcher site (enlargement "C"). Missile "A" unsuccessfully tracks the USAF RF-101 that brought the photo back. The other has misfired—note the erratic smoke trail—and is about to detonate in a populated area, "B."*

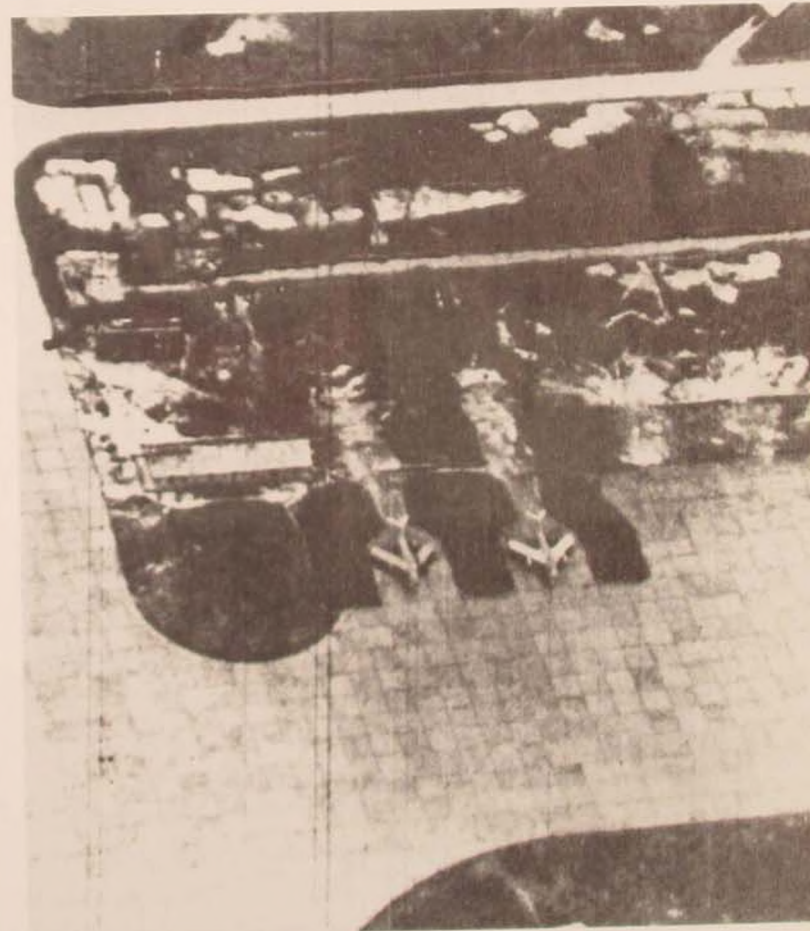
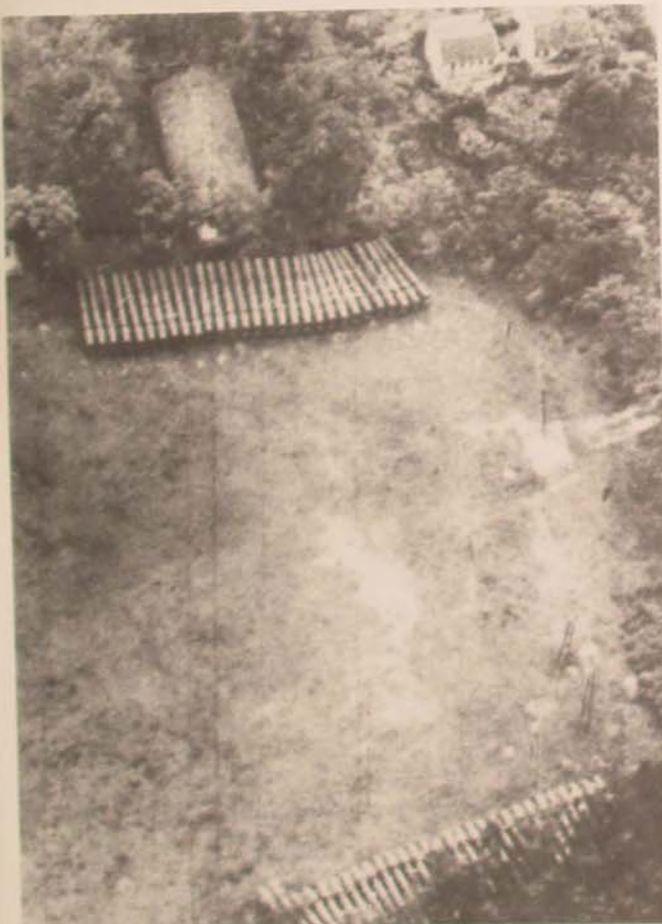


criterion for North Vietnamese positioning of their SAM and AA defenses. SAMs located in populated areas could be attacked only if they actually were firing at U.S. forces. Despite repeated requests by the JCS, the White House refused to relax restrictions on the attack of SAM sites. Authorization to attack the entire SAM system was never granted during the course of Rolling Thunder.

The North Vietnamese were not reluctant to take advantage of the restrictions imposed on U.S. forces. Gradualism permitted them time to organize, coordinate, and refine their

defenses; sanctuaries and restrictions on attack of the defenses enabled them to undertake optimum utilization of SAMs, MiGs, and AA. The greatest concentration of their defenses was in the Red River Valley area extending southeast from Yen Bai to the Gulf of Tonkin, with a substantial portion in a 60-mile by 36-mile wide ring with Hanoi as its hub. Like their MiG defenses, SAMs frequently were used to force strike aircraft to jettison their ordnance during the course of evasive maneuvers. Alternatively, they forced aircraft taking evasive action into the fire of the more than 5000 antiaircraft

*Rolling Thunder's gradual escalation enabled the North Vietnamese regime, with Chinese and Soviet assistance, to stockpile and husband their air defense assets. The late 1966 photographs below show a soccer field containing more than 130 missile canisters with no attempt at concealment (left) and MiG-17 interceptors on a North Vietnamese airfield (right).*





weapons that ringed the area. While electronic countermeasures (ECMs) substantially degraded the North Vietnamese SAM and radar-controlled AA capability, the excellent AA optical gunsights and massed AA fire were capable of offsetting the ECM efforts of the United States. Throughout this area, civilians by the thousands had been issued small arms ranging from .22 to .50 caliber with instructions to fire directly into the air or at individual aircraft whenever they were present. The North Vietnamese advantage was further enhanced by the White House requirement for visual identification of targets; if attacking pilots had to eyeball their targets, it assured them that they were capable of being eyeballed by their less-than-congenial hosts.

The North Vietnamese were quick to seize upon other weaknesses in the manner in which the campaign was waged by the United States. None was more controversial than the issue of the dikes. The Red River delta, the most populated area of North Vietnam, is little more than a marshland and rice paddies broken up by dams and dikes to permit controlled irrigation and prevent flooding. The earthwork dikes require continuous maintenance. As the North Vietnamese called on the local population to maintain the military lines of communication, labor was drawn away from dike maintenance. The problem was exacerbated by the placement of air defense equipment (AA and GCI) on the dikes and the resulting deterioration caused by the vibration of the guns. North Vietnamese SAMs that missed their mark often fell back to earth before exploding, causing additional damage to the dikes. Given the North Vietnamese tactic of forcing U.S. aircraft to jettison their bombloads and abort their missions, the dikes undoubtedly were their point of impact on occasion, as well they may have been for some downed U.S. aircraft. As the dikes deteriorated, however, the North Vietnamese sought a way to continue to fight the war and maintain the dikes. In order to extract a greater effort from their population, they turned the

issue into one that would rally the people, alleging that the United States was bombing the dikes intentionally in order to flood the entire delta. Foreign visitors were provided tours of damaged dikes — photographic coverage indicates that most visitors were taken to the same “damaged” dike over a period of several years — to exploit the issue in the foreign press.

In some circumstances, dikes can be legitimate targets from either a military or law of war standpoint, as evidenced by the successful campaign by the Royal Air Force Bomber Command and the USAAF Eighth Air Force against key points in the Dortmund-Ems and Mittelland canals as part of the attack on German lines of communication in late 1944.<sup>14</sup> Throughout the course of the Vietnam War, however, both in Rolling Thunder and the subsequent Linebacker I and II campaigns, breach of the Red River delta dams and dikes with the intention of flooding North Vietnam was never seriously raised by either the military or its civilian leaders. The North Vietnamese allegations were vigorously denied by the White House. Continued strong emphasis by the Johnson administration of the point that U.S. forces would not bomb the dikes was met by their increased use by the North Vietnamese for military purposes. In addition to increasing the number of AA positions, petroleum, oil, and lubricant (POL) drums were stored along their length. Little was done to counter the North Vietnamese actions until Linebacker I commenced in April 1972, when AA and GCI sites were attacked with antipersonnel munitions (napalm, cluster bomb units, and strafing) that were effective in neutralization of the personnel and military equipment while avoiding structural damage to the dikes.

The greatest restraints were exercised through the targeting process, which was closely controlled by the White House. Targeting was subject to the concept of graduated pressure. Although interdiction (in the limited sense defined by Secretary McNamara) was the prin-



principal criterion for target *selection*, it was the intent of the White House to execute an interdiction campaign that would minimize international and domestic political repercussions in the methods used. As a result, minimization of civilian casualties became the principal criterion for target *approval*.

Target recommendations were initiated by TF-77 and Seventh Air Force, where they were coordinated by the Rolling Thunder Coordinating Committee prior to their submission (via PACFLT and PACAF) to CINCPAC. CINCPAC conducted a separate review before each list was forwarded to the JCS. The JCS undertook its own review based on the guidance previously provided by the Secretary of Defense or the President.<sup>15</sup> The political ramifications of attack were weighed, targets were justified from the standpoint of military value, and priority established in their attack. Targets that the JCS realized were not likely to be approved often were not included in order to give greater emphasis to targets that were equally important.<sup>16</sup> The recommended target list was submitted by the JCS to Secretary McNamara, who turned it over to his civilian staff in ASD/ISA. The list underwent substantial metamorphosis at that point. Whereas the TF-77/Seventh Air Force, CINCPAC, and JCS recommendations of a target were based on general targeting principles, such as the value of that target as a part of an overall target system, or the lack of cushion with regard to a critical supply component, ASD/ISA would evaluate each target on an individual basis, mirror-imaged against U.S. production capabilities. Thus a North Vietnamese tire plant, which produced 11,000 tires per year for the 15,000 trucks used on the lines of communication, was recommended for attack because it was an essential cog in the North Vietnamese transportation system. There was little depth of supply and minimal ability to absorb the loss of its production capacity. The ASD/ISA revaluation downplayed its importance as an *individual* target (rather than being part of a sys-

tem), noting that it produced only thirty tires per day or substantially less than any U.S. tire manufacturer.<sup>17</sup> Likewise, military estimates of probable civilian casualties and U.S. aircraft losses were revised *upward* without consultation with military targeting experts and without an opportunity for reclamation by the JCS.<sup>18</sup> Finally, strike restrictions were recommended in the event the target was authorized by the White House for attack. Once approved by the Secretary of Defense, the revised target list was forwarded to the Department of State, where it went through yet another review process to ensure that it did not interfere with pending peace initiatives and for consistency with the President's desire to induce, rather than force, a satisfactory settlement to the conflict. After discussion between the Secretaries of Defense and State, the proposed list was sent to the White House.

Target lists were reviewed at the White House in the informal atmosphere of the Tuesday lunch, attended principally by President Johnson, his press secretary, the Secretaries of State and Defense, and the President's special assistant for national security affairs. (Although the Chairman of the Joint Chiefs of Staff is by law the senior military adviser to the President and General Earle G. Wheeler was one of the few military men Johnson liked, Wheeler attended an average of three Tuesday luncheons per quarter during the course of Rolling Thunder.) After dining, the target list for the coming week was discussed. Each proposed target had been reduced to a single sheet of paper and categorized on four bases (as revised by ASD/ISA): the military advantage for striking the target; the risk to U.S. aircraft and pilots; estimated civilian casualties; and danger to third-country nationals.<sup>19</sup> Each luncheon attendee individually graded each target on the basis of his appraisal of the four standards. Their grades were then combined and averaged. President Johnson reviewed the averaged grades, then personally selected the targets for attack. Parameters of attack were deter-



mined. These included the number of aircraft authorized for strike of the target, date/time of attack, routes of ingress or egress, weapons authorized or prohibited, and restrike authority. For example, when the Hanoi and Haiphong POL storage facilities were authorized for attack in June 1966, the following conditions were specified by the White House:

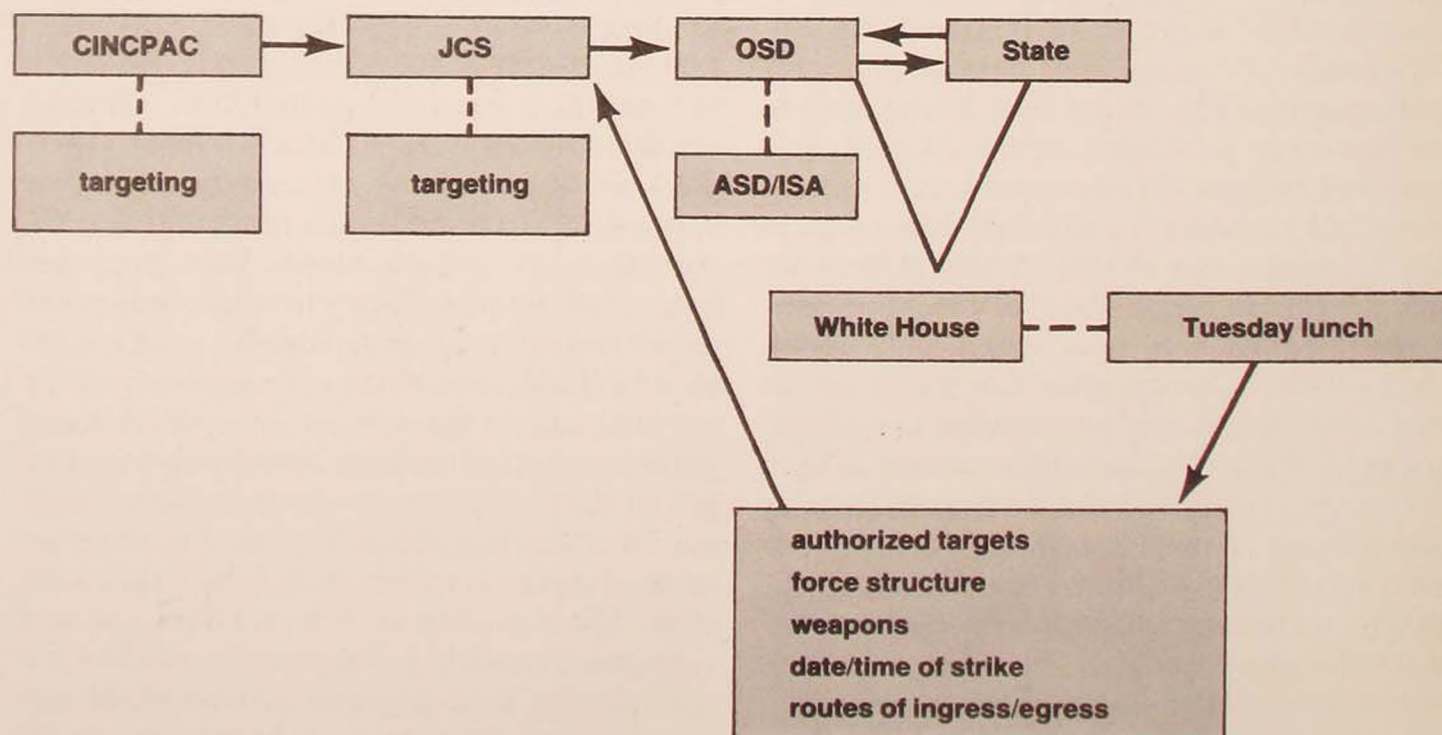
- execute strikes only under optimum weather conditions, with good visibility and no cloud cover;
- make maximum use of experienced Rolling Thunder pilots;
- stress the need to avoid civilian casualties in detailed briefing of pilots;
- select a single axis of attack that would avoid populated areas;
- make maximum use of ECM to hamper SAM and AA fire control, in order to limit

pilot distraction and improve bombing accuracy;

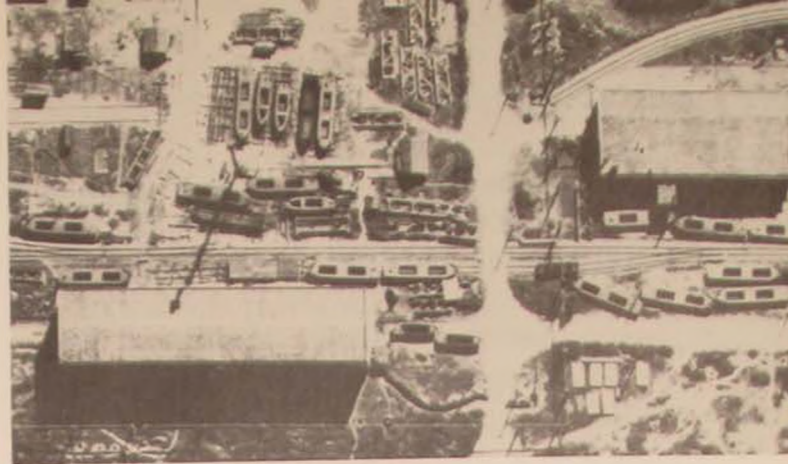
- make maximum use of high-precision delivery munitions consistent with mission objectives;
- ensure minimum risk to third-country nationals and shipping; and
- limit SAM/AA suppression to sites outside populated areas.<sup>20</sup>

Given the myriad criteria for target authorization and attack, it is appropriate to ask: to what degree did the White House base its decisions on the law of war? The answer: very little, and then more by coincidence than choice. Except for the prohibition against attack of coastal fishing boats, the cited White House criteria and prohibitions/restrictions have little basis in the law of war. With the exception of the General Counsel's approval of the JCS

### Targeting authorization procedures in Rolling Thunder

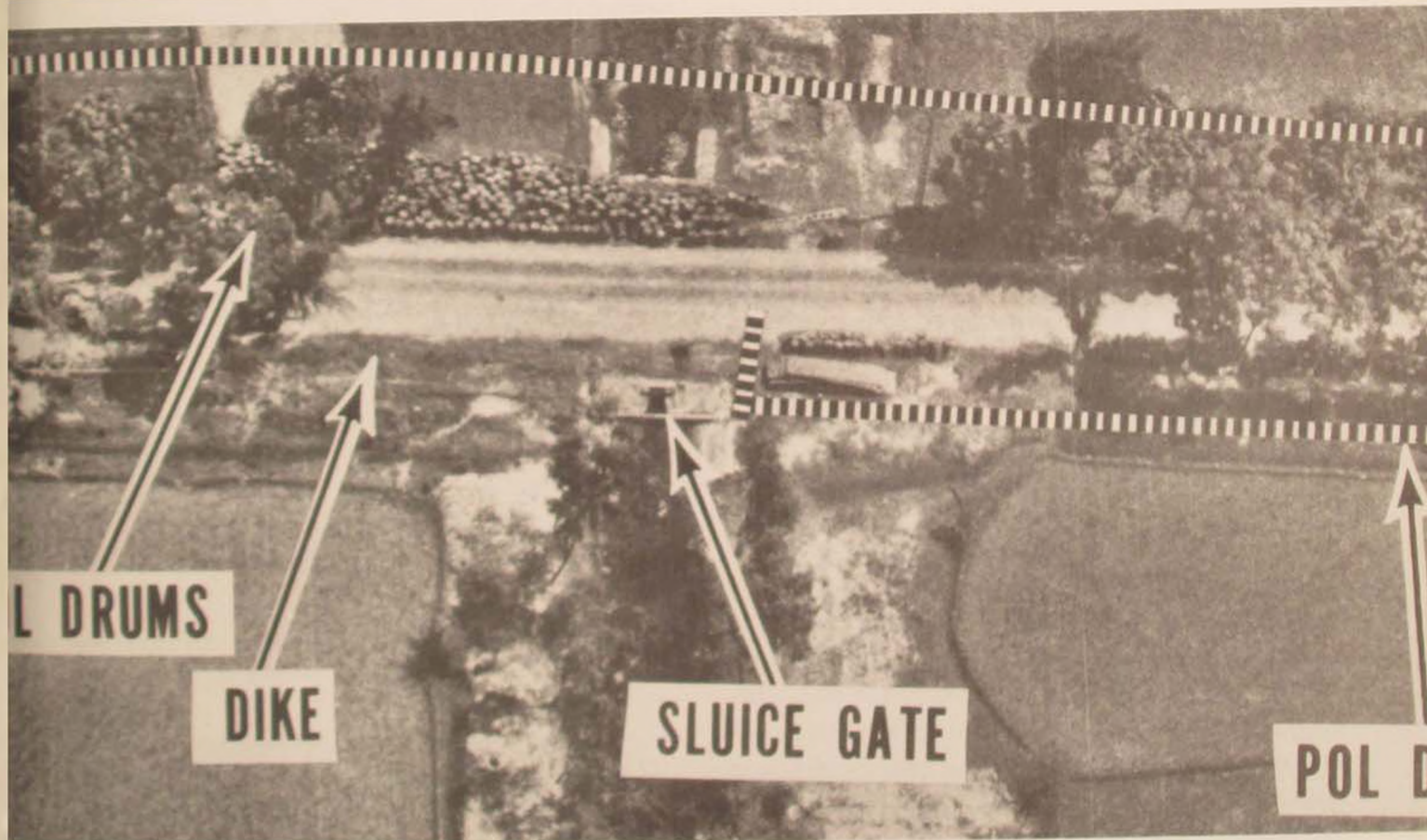






*The systematic Communist approach to keeping critical LOCs open and the key importance of the small North Vietnamese steel industry are illustrated by this January 1967 photograph of the Thai Nguyen barge construction area (above). In addition to some 25 barges, many loaded on flat cars, numerous bridge sections and petroleum storage tanks are shown.*

*The North Vietnamese were fully aware of our restrictions against attacking irrigation dikes and military targets in populated areas and took full advantage of them. The 1968 photo at left shows petroleum, oil, and lubricant (POL) drums stocked in a fishing village near Haiphong; the 1972 photo below shows POL drums stacked along a dike.*





94-target list, the record is rather clear that Secretary McNamara and the White House never sought advice with regard to U.S. responsibilities *and rights* under the law of war with respect to the conduct of Rolling Thunder. Had they done so and heeded that advice, Rolling Thunder undoubtedly would have concluded in a manner favorable to the United States and at a substantially lower cost.

The law of war constitutes a balancing of national security interests, expressed in legal terms as *military necessity*, against the desire of the United States and other members of the international community to limit to the extent practically possible the effects of war to those individuals and objects having a direct effect on the hostilities, which is expressed as the avoidance of *unnecessary suffering* by those not taking part in the conflict. The Air Force manual on the law of war defines military necessity as justifying "measures of regulated force not forbidden by international law which are indispensable for securing the prompt submission of the enemy, with the least possible expenditures of economic and human resources."<sup>21</sup> The compatibility of military necessity with the principle of war of *economy of force* is readily apparent in the Air Force's definition of the latter: "... no more — or less — effort should be devoted to a task than is necessary to achieve the objective. . . . This phrase implies the correct selection and use of weapon systems, maximum productivity from available flying effort, and careful balance in the allocation of tasks."<sup>22</sup> In contrast, unnecessary suffering has been defined to mean that "all such kinds and degrees of violence as are not necessary for the overpowering of the opponent should not be permitted to the belligerent."<sup>23</sup> The concepts of military necessity and unnecessary suffering are weighed both in the target value analysis and target validation process of a prospective target, as well as in force application once a target has been validated for attack.

**W**HAT, then, are lawful targets? In practice, any object which by its nature, location, purpose, or use makes a contribution to a nation's war effort and whose total or partial destruction, capture, or neutralization would offer a military advantage to the attacker, is a lawful target. In a less legalistic way, Air Marshal Trenchard defined military targets as "objectives which will contribute effectively towards the destruction of the enemy's means of resistance and the lowering of his determination to fight."<sup>24</sup> Lawful targets are not limited to military facilities and equipment but may include economic targets, geographic targets, transportation, power, and communications systems, and political targets. The inherent nature of an object is not controlling; its value to the enemy or the perceived value of its destruction is the determinant. A comparison of the target systems recommended for attack in the JCS 94-target list with those target categories recognized by the law of war as permissible targets will illustrate their consistency:

JCS	Law of War
1. Power	1. Economic
2. War-related industry	a. Power
3. Transportation	b. Industry (war supporting /import/export)
4. Military equipment, supplies	c. Communications
5. POL	d. Transportation (equipment/LOCs/POL)
6. Air defense	2. Military
	a. Complexes (bases/airfields)
	b. Equipment and supplies
	c. Air defenses
	3. Political
	4. Geographic
	5. Personnel
	a. Military personnel
	b. Others taking part in the conflict

The JCS eschewed the attack of political targets, although their attack would have been lawful. Under White House direction, the orig-



inal 94-target list did not include targets in population centers. The latter restriction was not a law of war requirement; a legitimate target may be attacked wherever it is located.<sup>25</sup>

The law of war recognizes the inevitability of collateral civilian casualties; what it prohibits is the intentional attack of the civilian population per se or individual civilians not taking part in the conflict, or the employment of weapons or tactics that result in *excessive* collateral civilian casualties. Historically, this standard has enjoyed a high threshold—requiring collateral civilian casualties that shock the conscience of the world because of their vast number—condemning only acts so blatant as to be tantamount to a total disregard for the safety of the civilian population, or to amount to the indiscriminate use of means and methods of warfare. Such latitude has been provided in recognition of the fluidity of civilians on the battlefield and the necessity for decision-making by military commanders in the fog of war—including “fog” created by the enemy in the way of lawful ruses and deceptions. Naturally, this latitude or benefit of the doubt is qualified by the expectation that military commanders will make a good faith effort to minimize collateral civilian casualties, consistent with the security of their own forces.

It was on this point that the Johnson administration made one of the more egregious errors of Rolling Thunder. It selected the hortatory admonishment to minimize civilian casualties as the campaign standard, rather than the law of war prohibition of *excessive collateral* civilian casualties. Although other reasons were cited on occasion, the buffer zones around Hanoi and Haiphong were placed there primarily to reduce to an absolute minimum civilian casualties among the enemy population. In practice, the criterion for White House selection of targets slipped farther from approving only those targets that would *minimize* civilian casualties to one of authorizing attacks against only such targets as would result in a *minimum* of civilian casualties. This criterion

was incorrect for several reasons. Whereas the question of whether a nation has utilized illegal means and methods of warfare generally is measured against an overall campaign or war, the Johnson administration elected to apply it against each individual fixed target; it chose to slide the standard to an increasingly stringent level, i.e.,

excessive → minimize → minimum,  
to the extent that it became the basis for *target denial*; and when a target was approved for attack, minimization of civilian casualties remained the paramount criterion, to the substantial disregard of the security of the attacking forces and the accomplishment of the mission in as efficient a manner as possible. While such humanitarianism is laudable, it ignored not only the law of war but fundamental concepts of warfare. As Euripides wrote in *Heracles*, “. . . in war the greatest skill, independent of chance, [is] to harm the enemy while sparing oneself.”

The standard was not applied without criticism. The JCS, in responding to a 14 October 1966 McNamara memorandum on Rolling Thunder, argued that if it were to be effective, “the air campaign should be conducted with only those minimum constraints to avoid *indiscriminate* killing of population,” which would have been consistent with the law of war.<sup>26</sup> President Johnson, in a response of 18 December 1967, to an October 1967 memorandum by Secretary McNamara on the course of the war, stated that “with respect to bombing North Vietnam, I would wish for us to authorize and strike those remaining targets which, after study, we judge to have significant military content but which would not involve *excessive* civilian casualties.”<sup>27</sup> In the ensuing delay brought about by the Christmas 1967 bombing halt, the January-February 1968 northeast monsoon season, and the 1968 Tet offensive, the point was raised once more. On 4 March 1968, Secretary of the Air Force Harold Brown wrote to Deputy Secretary of Defense Paul Nitze, proposing that “the present restrictions on bombing North Vietnam . . . be lifted





*The North Vietnamese dikes hosted a wide variety of military hardware, ranging from 122 mm coastal defense guns south of Haiphong (above) to a SIDE NET height finder ground-controlled intercept radar (right) with generator van near Hanoi.*





so far as to permit bombing of military targets without the present scrupulous concern for collateral civilian damage and casualties,"<sup>28</sup> and for completion of the program recommended by the JCS in 1965. The series of events that followed in the next week, including Johnson's marginal victory over challenger Eugene McCarthy in the New Hampshire Primary on 12 March, foreclosed any action on Brown's proposal as President Johnson on 31 March announced the cessation of all bombing north of 19° north latitude and announced his decision not to seek reelection. Rolling Thunder drew to a close six months later.

There were other errors with respect to the application of the law of war in Rolling Thunder. The first lay in the failure to distinguish

between civilian casualties as such and the law of war prohibition against excessive *collateral* civilian casualties. Casualties among civilians working in a facility that is a legitimate target cannot prevent attack on that facility; their injury or death as a result of the attack of that target is an occupational hazard and the exclusive responsibility of the defender. Moreover, a serious error was made with respect to the determination of who was entitled to protection as a "civilian." The law of war limits protection to individuals not taking a direct part in the hostilities. Individuals supporting the war effort by moving military supplies and personnel down lines of communication into South Vietnam or repairing the roads and bridges making up those LOCs were taking a

*North Vietnamese cultural facilities did double duty during Rolling Thunder. Analysis of a March 1968 photograph of a Haiphong open air amphitheater revealed a military truck park and numerous industrial supplies stockpiled nearby.*





direct part in the hostilities and therefore were subject to attack. Personnel who manned AA sites, including those individuals trained in the "Hanoi habit" to run into the street with small arms to fire into the air during air raids, were similarly subject to attack while they participated in the conflict. However, the North Vietnamese classified all of these individuals as protected "civilians" and included them in their civilian casualty reports, without challenge by the White House. Rather, casualties among civilians within military targets and among these unprotected civilians erroneously were included in civilian casualty estimates reviewed at the Tuesday lunch.

The law of war is not a one-way street, imposing obligations on the attacker while absolving the defender of any responsibility for collateral civilian casualties. It expects each to act in good faith with respect to the minimization of collateral civilian casualties. To the extent that the defender elects to disregard the law of war, he is responsible for the civilian casualties that flow from his actions. For example, civilian casualties or damage to civilian objects resulting from intentional actions by the defender to screen targets from attack are the responsibility of the defender exclusively. Knowing U.S. restrictions on the attack of targets in population centers, the North Vietnamese sought refuge from attack by parking military convoys in residential areas, dispersing POL along its earthwork dikes and in villages, and siting SAM and AA positions in populated areas. Similarly, MiG aircraft dispersals were placed in villages adjacent to airfields to screen the aircraft from attack. A military target does not change its character by being situated in a populated area. The law of war does not prohibit their attack but places the responsibility on the defender for civilian casualties caused by its deliberate acts.<sup>29</sup>

Similarly, the defender rather than the attacker is accountable for damage or injury accruing from actions taken to thwart the attack of legitimate targets. Passes by MiG aircraft,

the firing of air-to-air missiles, or the launching of SAMs to force attacking aircraft to jettison their ordnance may lead to civilian casualties for which the defender alone is accountable. Likewise, antiaircraft traditionally has had two roles: to destroy attacking aircraft, or to force them to higher altitudes and/or to take evasive action during the critical phases of the bomb run, either of which will result in less accurate bombing of the target — but, by corollary, in the likelihood of increased civilian casualties. The North Vietnamese utilized all these actions to screen and protect their military targets from attack, without response from the Johnson administration. The longer the White House neglected to point out the North Vietnamese actions, the more the North Vietnamese exploited their enemy's weakness.

Like limited war, the law of war depends on both parties to a conflict adhering to agreed standards. Whereas the United States considered the Vietnam War to be a limited struggle, to the North Vietnamese the conflict was total. To the extent the United States undertook Rolling Thunder to induce the North Vietnamese to limit the conflict, it was singularly unsuccessful. The United States might have been more successful in enforcing the law of war, for the law of war provides specific sanctions to induce compliance. Again, however, apparent ignorance of the law resulted in inaction when transgressions occurred. In addition to parking military convoys in civilian residential areas and storing military supplies in such places as the Haiphong cultural center, normally a civilian object protected from attack, the North Vietnamese maximized for military purposes their use of objects enjoying special protection under the law of war. Not the least of these was the utilization of hospitals as AA sites. In relating his experience in attacking the rail facilities and associated equipment at Viet Tri, one pilot noted sardonically:

They had one large complex of buildings just north of town that was billed as a hospital, and [it] was naturally off limits. If it was in fact a



hospital, it must have been a hospital for sick flak gunners, because every time we looked at it from a run on the railhead, it was one mass of sputtering, flashing gun barrels.<sup>30</sup>

The 1949 Geneva Convention relating to the protection of the wounded and sick is explicit in providing for discontinuance of protection for hospitals when they are used for "acts harmful to the enemy."<sup>31</sup> Specific steps are provided for discontinuance of protection and subsequent attack of the facility, requiring a warning to the offending party and a reasonable time limit for him to remedy his violation prior to discontinuance of its protected status — subject to the taking of immediate defensive measures such as flak suppression to protect one's own forces. Given the insistence on widespread photographic coverage of air strikes over North Vietnam, U.S. demands could have been made for cessation of the use of hospitals as AA sites, accompanied by the publication of photographs of the sites. Had the North Vietnamese ignored the demands, appropriate action could have followed. Again, however, the North Vietnamese succeeded in placing the United States on the defensive early in the Rolling Thunder campaign by alleging that the United States was bombing hospitals intentionally. Apparently lacking the capacity for sparring with the North Vietnamese in the world public opinion arena, the White House never entertained any thought of availing itself of its legal remedies.<sup>32</sup>

ROLLING Thunder was one of the most constrained military campaigns in history. The restrictions imposed by this nation's civilian leaders were not based on the law of war but on an obvious ignorance of the law — to the detriment of those sent forth to battle. But *ignorantia juris neminem excusat* (ignorance of the law excuses no one). The law of war evolves through one of two processes or a combination thereof. First, it is the product of

the widespread practice of nations over an extended period of time and in numerous conflicts. Alternatively, a rule may be drafted and codified in a treaty by virtue of multilateral negotiations. History reflects that these rules have been honored only to the extent that they are practical, capable of universal acceptance, and therefore do not conflict with a nation's national security interests. History also records that where such rules have not accurately codified customary practice or met the preceding requirements, they have been disregarded in the ensuing conflicts. If one accepts these lessons, then recognition should be provided the corollary that while the law of war generally is considered to be the minimum standard of conduct acceptable from a nation at war, those laws relating to the use of force may very well also reflect the *maximum* limitations a nation may accept and still succeed. One may exceed the minimum legal ration for a prisoner of war by feeding him the very best and have no effect on the war except to repatriate a healthy, overweight prisoner of war on the cessation of hostilities. However, to the extent that a nation exceeds those minimum standards through such unreasonable restrictions as those imposed on the Hanoi POL strike forces, it does so to its peril.

In his commencement address at West Point on 27 May 1981, President Reagan wisely cautioned against an overreliance on negotiation of treaties and agreements to the detriment of military strength. Given the performance of our opponents in past conflicts, President Reagan's admonishment should apply not only to arms control agreements but to new law of war treaties as well.<sup>33</sup> Yet the greater error is to ignore those legal *rights* to which a nation is entitled in the conduct of war, to the detriment of those tasked with executing those combat assignments and missions. The latter was the folly of Rolling Thunder.

Alexandria, Virginia



## Notes

1. The pilot's perspective is well presented by Colonel Jack Broughton, USAF, in *Thud Ridge* (New York, 1969). The objections of the military leaders are contained in the August 1967 hearings of the Preparedness Investigating Subcommittee of the Senate Armed Services Committee, entitled *Air War against North Vietnam* (hereinafter Rolling Thunder Senate hearings [RTSH]).
2. General William W. Momyer, USAF, *Air Power in Three Wars* (Washington, 1978); Admiral U.S.G. Sharp, USN, *Strategy for Defeat* (San Rafael, California, 1978); and J.C. Thompson, *Rolling Thunder: Understanding Policy and Program Failure* (Chapel Hill: University of North Carolina Press, 1980). General Momyer commanded the Seventh Air Force during Rolling Thunder, while Admiral Sharp was Commander in Chief, Pacific. Professor Thompson describes himself as a DOD intelligence analyst at the time of Rolling Thunder, but his precise position or association with the campaign, if any, is not made clear. His book is an apologia for McNamara based largely on McNamara's testimony before the RTSH on 25 August 1967.
3. International law may be used to a nation's advantage, as exemplified in U.S. statements following the downing of two Libyan Su-22 Fitter F aircraft by U.S. Navy F-14 aircraft in international airspace on 19 August 1981.
4. Henry F. Graff, *The Tuesday Cabinet* (New York, 1972), p. 142. A reading of the myriad unclassified documents associated with the campaign provides a reasonably clear indication that Johnson's concern for his domestic programs played a greater part in the way he managed Rolling Thunder and the Vietnam War as a whole than did the often publicly stated concern of avoiding a wider war. The latter posed no viable threat after 1965, if it ever did.
5. ASD/ISA was headed initially by Robert McNaughton and subsequently by Paul C. Warnke. Although a lawyer, McNaughton had no international law or law-of-war background. Nonetheless, he declined to consult the law-of-war experts in OSD General Counsel on the basis that a lawyer does not need to talk to other lawyers.
6. Sir Charles Webster and Noble Frankland, *The Strategic Air Offensive against Germany*, vol. IV (London, 1961), pp. 74-75.
7. *Pentagon Papers* (Gravel Edition), vol. IV (Boston, 1971), p. 28.
8. *Ibid.*, p. 194.
9. Lieutenant Colonel James L. True, USAF, "The Tourniquet and the Hammer," *Air University Review*, July-August 1981, pp. 2-17; Colonel Herman L. Gilster, USAF, "Air Interdiction in Protracted War: An Economic Evaluation," *Air University Review*, May-June 1977, pp. 2-18; and "On War, Time, and the Principle of Substitution," *Air University Review*, September-October 1979, pp. 2-19; G.A. Carter, *Some Historical Notes on Air Interdiction in Korea*, The Rand Corporation, P-3452, September 1966; F.M. Sallagar, *Operation "Strangle" (Italy: Spring 1944): A Case Study of Tactical Air Interdiction*, The Rand Corporation, R-851-PR, February 1972. Ironically, McNamara attached the Carter study to his testimony before the RTSH to defend gradualism and his approach to interdiction. A separate study for ASD/ISA in the course of Rolling Thunder was critical of the administration's approach to the campaign while supporting the JCS point of view. Oleg Hoffding, *Bombing North Vietnam: An Appraisal of Economic and Political Effects*, The Rand Corporation, RM-5213-ISA, December 1966.
10. RTSH, p. 72. The pilot subsequently was lost on his seventy-seventh mission attacking a single truck. It cost \$100,000 to destroy each North Vietnamese truck on the LOCs during Rolling Thunder.
11. Graff, pp. 36-37 (McNamara), p. 56 (Johnson), and p. 107 (White House press secretary Bill Moyers). Letter of 1 March 1967 from President Johnson to Senator Henry Jackson (*Department of State Bulletin*, March 27, 1967, pp. 514-15); and address by Presi-

dent Johnson before a joint session of the Tennessee State Legislature, 15 March 1967 (*Department of State Bulletin*, April 3, 1967), p. 536.

12. Secretary McNamara was somewhat disingenuous in his sworn testimony on 25 August 1967 before the RTSH regarding the rationale for White House denial of authorization to attack Phuc Yen. He stated (RTSH, p. 305):

... at various times in between 1965 and today, Phuc Yen has not been on the recommended list for the very good reason that the MIGs were completely inactive. For example, in the 9 months from June of 1965 through March of 1966 we didn't lose a single airplane to MIGs. There wasn't any pressure to strike Phuc Yen airfield in that period for the very good reason that we wouldn't have accomplished anything.

The evidence is to the contrary. Four U.S. fighters were lost to MiGs during the time frame cited. R.F. Futrell et al., *Aces and Aerial Victories* (Washington, 1976), p. 26. The period selected by Secretary McNamara was a major standdown/training period for the North Vietnamese Air Force. Phase II of Rolling Thunder (18 May 1965 to 26 December 1965) was limited primarily to targets south of 20° north latitude. It was followed by the 37-day "Christmas" bombing halt (27 December 1965 to 30 January 1966). Phase III of Rolling Thunder (31 January 1966 to 31 March 1966) was limited to no more than 300 sorties per day, primarily south of 20° north latitude. Most sorties were flown against targets within 40 to 60 miles of the demilitarized zone, in part owing to the northeast monsoon season from late January through March.

During the period used by Secretary McNamara, MiG engagements averaged less than one per month but increased to twelve per month in the period that followed (July to December 1966). When MiGs were scrambled, it was to prevent the destruction of vital transportation and other war-supporting industrial facilities in Route Package VI. The MiGs were used primarily to force U.S. strike aircraft to jettison their ordnance and abort their mission or to force the aircraft into AA or SAM threat areas. The greatest losses during Rolling Thunder were to AA. Forcing aircraft to jettison ordnance resulted in civilian casualties; forcing aircraft into SAM or AA threat areas resulted in inaccurate bombing and generated the need for additional sorties, thereby increasing the probability of additional civilian casualties and U.S. aircraft losses. The JCS occasionally did not place Phuc Yen on their weekly list of recommended targets because of its repeated denial by the White House. It was always on the CINCPAC list of recommended targets.

13. General William C. Westmoreland, Commander, United States Military Assistance Command, Vietnam, during Rolling Thunder, relates this conversation with the ASD/ISA at the time of the discovery of the SAMs:

... at a time when my air commander, Joe Moore, and I were trying to get authority to bomb SAM-2 sites under construction in North Vietnam, McNamara ridiculed the need. "You don't think the North Vietnamese are going to use them?" he scoffed to General Moore. "Putting them in is just a political ploy by the Russians to appease Hanoi."

Westmoreland, *A Soldier Reports* (New York, 1976), p. 120.

14. Webster and Frankland, vol. III, pp. 244-48.

15. Such guidance was limited. Neither the JCS nor subordinate commanders were provided any rationale for White House denial of authorization of a target.

16. For example, Phuc Yen airfield was deleted from some weekly lists during Phases II and III as it had been repeatedly denied by the White House, and most strikes were within 60 miles of the DMZ. Moreover, the northeast monsoon season precluded its attack during Phase III, particularly given the administration's



demand for optimum weather conditions in the attack of any fixed target. This led to the argument by Secretary McNamara during his RTSH testimony that Phuc Yen apparently lacked military value, as the JCS did not always request its strike. (See footnote 13.)

17. This example is cited by McNamara in his RTSH testimony (p. 301).

18. JCS predictions were of collateral civilian casualties, whereas ASD/ISA would add the civilians working in a target. As will be noted, the latter are not protected by the law of war while within the target.

19. That the North Vietnamese knew of and exploited the fourth criterion is evidenced by their heavy utilization of the areas around foreign embassies and consulates for storage of military supplies and equipment, as noted in John Colvin's "Hanoi in My Time," *The Washington Quarterly*, Spring 1981, p. 150. Colvin served as the British consul general in Hanoi during 1966 and 1967.

20. *Pentagon Papers*, vol. IV, pp. 105-6, and Colonel James H. Kasler, USAF, "The Hanoi POL Strike," *Air University Review*, November-December 1974, pp. 19-28. Many authorizations included stringent time restrictions. Targets not struck within the time frame specified (usually owing to bad weather) could not be recycled but had to be revalidated by the White House.

21. Air Force Pamphlet 110-31, *International Law—The Conduct of Armed Conflict and Air Operations*, 1976, paragraph 1-3a(1).

22. Air Force Manual 1-1, *Functions and Basic Doctrine of the United States Air Force*, 1979, p. 5-5.

23. H. Lauterpacht, editor, *International Law*, vol. II, *Disputes, War, and Neutrality* (London, 1952), p. 72.

24. Webster and Frankland, vol. IV, p. 74.

25. M.W. Royse, *Aerial Bombardment and the International Regulation of Warfare* (New York, 1928), pp. 158, 172-73, 241; Royse, in *La Protection des Populations Civiles Contre Les Bombardements* (Geneva: International Committee of the Red Cross, 1930), pp. 104, 115; and C.C. Hyde, *International Law Chiefly as Interpreted and Applied by the United States*, vol. III (Boston, 1945), pp. 1825-26. There is little treaty law applicable to aerial warfare and, as may be noted by the dates of the references, a dearth of writing by experts on international law on the subject. The development of the law of war as it relates to bombing is discussed by the author in "Conventional Aerial Bombing and the Law of War" in the forthcoming *Naval*

*Review* (1982).

26. JCSM-672-66 dated October 14, 1966, *Pentagon Papers*, vol. IV, p. 357. (Emphasis added.) At no time did the JCS recommend attack of the civilian population.

27. Lyndon B. Johnson, *The Vantage Point* (New York, 1971), p. 600. (Emphasis supplied.)

28. *Pentagon Papers*, vol. IV, p. 261.

29. North Vietnam was a party to the Geneva Convention Relative to the Protection of Civilian Persons in Time of War of August 12, 1949, which provides (Article 28) that "The Presence of a Protected Person [i.e., civilian] may not be used to render certain points or areas immune from military operations." North Vietnamese use of its civilian population for military purposes and to screen targets from attack led to a warning from the International Committee of Red Cross that such activities might result in the entire civilian population losing its protected status. The warning was ignored.

30. Broughton, p. 223. The infamous Bac Mai hospital on the outskirts of Hanoi was used as an AA site to defend Hanoi RADCOM Station No. 11 South, Hanoi/Bac Mai airfield, and the Hanoi/Bac Mai military storage area.

31. Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field of August 12, 1949, Article 21. Both the United States and North Vietnam were parties to this convention throughout U.S. involvement in Vietnam.

32. Likewise, though specific remedies are available under the law of war for a captor's mistreatment of prisoners of war, the Johnson administration elected not to pursue those remedies and to ignore evidence in its hands that U.S. prisoners of war were being tortured by the North Vietnamese.

33. The United States participated in two separate negotiations resulting in new law of war treaties during the past few years. The first, the Protocols to the Geneva Convention of August 12, 1949, was signed by the United States in 1977. The second resulted in the 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons. It has not been signed by the United States. These treaties are undergoing comprehensive review within the Department of Defense and the military services prior to their submission by the President to the Senate for its advice and consent to ratification.

Our national involvement in Southeast Asia became an emotional public controversy and hence a political issue. This new and traumatic experience by our nation should provide lessons for our people, our leadership, the news media, and our soldiers.

General William C. Westmoreland  
"A Military War of Attrition" from  
*The Lessons of Vietnam* edited by

W. Scott Thompson and Donaldson D. Frizzell  
(New York, 1977)