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Chapter 26

ENEMY AIR DEFENSES - ROLLING THUNDER

US officials had acknowledged from the beginning of ROLLING THUNDER that the Soviet Union might, in reaction to US bombings, provide NVN more modern and effective air defense weapons. The Chairman, Joint Chiefs of Staff, advised the Secretary of Defense on 27 March, however, that US intelligence authorities did not believe that any surface-to-air missiles had been deployed to NVN. Should the Soviet Union deploy these missiles, which they could do readily, they would probably provide Hanoi with the SA-2 missile. The SA-2 could be made operational within two or three weeks.<sup>1</sup>

Within ten days, on 5 April, the first NVN SAM site was detected under construction 15 nautical miles south of Hanoi. By the end of July, a total of seven sites had been located in NVN, clustered around Hanoi. These sites, in various stages of readiness, were intended to support SA-2 missiles which had an effective range of 17 nautical miles. The SA-2 could attack targets as high as 90,000 feet and as low as 1,500 feet. Radar to detect and track air targets was associated with all sites.<sup>2</sup>

The appearance of SAMs in NVN caused the Joint Chiefs of Staff serious concern. On 14 April they alerted Secretary of Defense McNamara that it might be necessary to strike at the new enemy capability on short notice. At the same time they instructed CINCPAC to watch for new sites and to plan to attack the one site then identified.<sup>3</sup>

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1. (TS-GP 1) CM-519-65 to SecDef, 27 Mar 65, JMF 9155.3 (19 Mar 65).

2. (S) DIA IB 69-65, 9 Apr 65. (C) Memo, DIA to CJCS, 12 May 65, OJCS File 091 Vietnam May 65. (S) DIA IBs 90-65, 103-65, 117-65, 10 May, 27 May, and 17 Jun 65. (TS-GP 1) JCS 2343/545-6, 2 Jul 65, JMF 9155.3 (19 Mar 65). (TS-GP 3) Msg, JCS 6655 to CINCPAC, 24 Jul 65. (TS-GP 1) J-3, TP-13-65 for JCS, 20 Mar 65, JMF 9155.3 (19 Mar 65).

3. (TS) JCSM-274-65 to SecDef, 14 Apr 65, JMF 9155.3 (12 Apr 65). (TS-GP 4) Msg, JCS 8939 to CINCPAC, 14 Apr 65.

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Secretary McNamara informed the Joint Chiefs of Staff on 19 April that a decision to hit this site required careful analysis of political as well as military considerations. He asked to be kept informed of the status of SAM sites in NVN and directed that forces be alerted to attack them on short notice should it become necessary.<sup>4</sup>

During May, as new sites were detected, planning continued for attacks on the SAMs. The Joint Chiefs of Staff instructed CINCPAC to keep his ROLLING THUNDER aircraft away from the sites and not to attack them. On 27 May they warned Secretary McNamara that the growing SAM menace could threaten US air operations within a considerable area around Hanoi. Because the first site discovered could become operational at any time, the Joint Chiefs of Staff recommended that, despite political factors, the site be destroyed as a matter of "military urgency" and that this attack be coordinated with a B-52 strike on Phuc Yen airfield.<sup>5</sup>

The Joint Chiefs of Staff believed that current intelligence estimates sustained their recommendations. Although they informed the Secretary of Defense of this, he disapproved their recommendations on 15 June, mainly because the SAMs had not interfered with ROLLING THUNDER. He informed the Joint Chiefs of Staff that if such interference occurred he would reconsider their recommendations. He offered also to arrange for them to discuss the matter with the President if they desired.<sup>6</sup>

The Joint Chiefs of Staff did not ask to see the President, but on 26 June they recommended to Secretary McNamara that the SAM sites be destroyed "as they near operational status." In support of their recommendation they reviewed for him the adverse effects that the presence of the SAMs were having on air operations by inhibiting reconnaissance and creating geographic sanctuaries which hindered ROLLING THUNDER. They asked to discuss this matter with him. The Secretary met with

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4. (TS-GP 4) Memo, SecDef to CJCS, 19 Apr 65, JMF 9155.3 (23 May 65).

5. (TS-GP 3) JCSM-415-65 to SecDef, 27 May 65 (derived from JCS 2343/599), same file.

6. (TS-GP 3) JCSM-442-65 to SecDef, 7 Jun 65; (TS) Memo, SecDef to CJCS, 15 Jun 65; same file.

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the Joint Chiefs of Staff on 28 June but did not grant permission to strike the sites. Subsequently, on 3 July the Joint Chiefs of Staff informed the Secretary, in response to a query from him, that striking the SAM sites after they became operational and after their defenses improved would be more costly than striking them while they were uncompleted. And they reiterated their earlier recommendation for destruction of the SAMs.<sup>7</sup>

No action was taken to destroy the sites, however, and on 24 July the United States learned that at least some of them had become operational. On that date a US jet fighter was shot down by a SAM 40 nm west of Hanoi.<sup>8</sup>

On the next day, 25 July, CINCPAC recommended to the Joint Chiefs of Staff attacks on all new SAM sites and submitted plans for striking three of them. Ambassador Taylor told the Secretary of State on the same day that new sites should be destroyed as they were discovered, but opposed "simultaneous" attacks on all known sites. He believed that such attacks would be wrong because: 1) there was no proof that all sites were occupied; 2) friendly aircraft losses would be increased by employment of large numbers; 3) such an attack would appear to the world as an escalation; and 4) a substantial number of Soviet advisors or technicians might be brought under attack.<sup>9</sup>

As the result of a Presidential decision, the Joint Chiefs of Staff, on 27 July, ordered CINCPAC to launch on that day one-time strikes against two SAM sites and their immediate support facilities. Attacking planes were to remain outside the cone of fire of other SAM sites. Armed reconnaissance missions were to be carried out subsequent to the strikes to destroy any mobile SAM installations in the immediate vicinity.<sup>10</sup>

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7. (TS-GP 3) Memo, JCSM-498-65 to SecDef, 26 Jun 65 (derived from JCS 2343/599-4), JMF 9155.3 (23 May 65). (TS-GP 3) Memo, JCSM-529-65 to SecDef, 3 Jul 65 (derived from JCS 2343/545-5), JMF 9155.3 (19 Mar 65).

8. (TS-NOFORN-GP 1) NMCC OPSUM 172-65, 26 Jul 65.

9. (TS-GP 4) Msg, CINCPAC to JCS, 250551Z Jul 65, JCS IN 65596. (TS-GP 3) Msg, CINCPAC to JCS, 252115Z Jul 65, JCS IN 66229. (TS) Msg, Saigon 265 to State, 25 Jul 65, JCS IN 65801.

10. (TS) Msg, JCS 6748 to CINCPAC, 27 Jul 65.

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The strikes were carried out as ordered. Although two US aircraft were lost in the operations, initial post-strike bomb damage assessment (BDA) showed that neither site had been damaged. Pilots asserted, however, that they had struck a SAM site or sites. Exactly what targets were struck and what actual damage, if any, was inflicted on the enemy's air defense system was not determined.

Intensified efforts to detect new sites took place in August. On 3 August the Joint Chiefs of Staff authorized CINCPAC to carry out photo reconnaissance missions to detect, and special strikes to destroy, SAM sites. Sites could not be struck, however, if they lay within 30 nm of the CHICOM border, were in the area around Hanoi bounded by established sites, or were within 10 nm of Haiphong and Phuc Yen airfield. On 11 August the Joint Chiefs of Staff ordered CINCPAC to carry out low-altitude armed reconnaissance within the ROLLING THUNDER area, but outside the forbidden areas, to destroy SAM sites. These missions were given the nickname IRON HAND.<sup>11</sup>

In reaction to the shooting down of another US jet by a SAM about 50 miles southwest of Hanoi on 11 August, a costly and futile attempt was made to locate and destroy the site from which the SAM had been launched. Flying 124 sorties in search of the suspected target area during a 30-hour period on 12-13 August, US planes failed to locate any SAM sites. Two US planes were lost to SAMs and 11 others lost from enemy AAA fire and accident.<sup>12</sup>

Admiral Sharp blamed US inability to locate and destroy SAM sites on the lack of accurate intelligence. "... I consider our tactics as now refined are adequate to destroy the SA-2, provided intelligence can fix the site," he informed the Joint Chiefs of Staff on 24 August.<sup>13</sup>

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11. (TS-GP 3) Msg, JCS 7385 to CINCPAC, 3 Aug 65. (TS-GP 3) Msg, JCS 7691 to CINCPAC, 11 Aug 65. (TS-GP 3) Msg, JCS 8113 to CINCPAC, 12 Aug 65.

12. (TS-GP 3) Msg, JCS 7990 to CINCPAC, 11 Aug 65. (TS-NOFORN-GP 3) Tab E to App 2 to Ann D of JCS PRONG TONG Study Report, vol III, JMF 9155.3 (17 Aug 65). (TS-GP 3) Msg, CINCPAC to JCS, 240238Z Aug 65, JCS IN17417.

13. (TS-GP 3) Msg, CINCPAC to JCS, 240238Z Aug 65, JCS IN 17417.

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The enemy increased the tempo of the SA-2 activity in September, with the pattern of missile firing extending from the Thanh Hoa area in the south to the Cao Nung area, north-east of Hanoi, near the Chinese border. A drone and an F-105 were lost to missiles in September. The heaviest concentration of firings came from the Cao Nung area, where 13 unsuccessful firings occurred on 20 September in reaction to an air strike interdicting the Hanoi-Dong Dang rail line.

Not until mid-October was a SA-2 site attacked successfully. An attack on a site near Kep Ha, within 48 hours of the site's detection, caught the enemy by surprise and resulted in the destruction of missiles, radar vans, and missile transporters.<sup>14</sup>

Fortunately, enemy missiles were largely ineffective against the US pilots. Although Soviet technicians were suspected of assisting NVN, enemy missile crews remained inept during 1965. A combination of their ineptness and the skill of US pilots at evasive measures kept the "kill" ratio between the number of SAMs fired and the number of US planes downed at a very low level. Although 180 SAMs were fired at US planes during 1965, only 11 planes were lost to the missiles.<sup>15</sup>

The Enemy Air Threat

Another potential threat to ROLLING THUNDER operations lay in the additional MIG fighters that the Soviet Union had furnished to Hanoi. At the beginning of March, NVN had 36 MIGs. In less than three months, this inventory had increased to about 60 MIG-15s and MIG-17s based at Phuc Yen airfield.<sup>16</sup>

Because the President, in March, had directed that US planes avoid air combat with MIGs, the Joint Chiefs of Staff stipulated in ROLLING THUNDER and reconnaissance orders that US CAP pilots would engage MIGs only to protect themselves or

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14. (TS-NOFORN-GP 1) Memo, Dir DIA to CJCS, 22 Oct 65, OCJCS File 091 Vietnam Oct 65.

15. (S-GP 1) Encl to DJSM-1077-66, 25 Aug 66, OCJCS File 091 Vietnam Aug 66.

16. (TS-GP 3) Ann F to Draft Report of the Armed Reconnaissance Study Group, 15 Nov 65 (hereafter cited as Armed Recce Study, Nov 65), OCJCS Bulky File, 091 Vietnam Nov 66. (TS-GP 3) Ann B to JCS 2343/599, 27 May 65, JMF 9155.3 (23 May 65).

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other US planes. The President, in his decisions of 1-2 April, directed that ROLLING THUNDER target systems avoid the effective GCI range of MIGs.<sup>17</sup>

In spite of the US policy of avoiding them, MIGs shot down two US jets and damaged another south of the 20th Parallel on 4 and 5 April. CINCPAC advised the Joint Chiefs of Staff on 4 April that the best way to destroy enemy MIGs was to attack their base, Phuc Yen airfield. The Joint Chiefs of Staff fully agreed but realized that such an attack was not "politically feasible" at that time.<sup>18</sup>

Admiral Sharp informed the Joint Chiefs of Staff again on 9 May that the best way to eliminate the MIG threat was to destroy them on the ground at Phuc Yen. The arguments for attacking Phuc Yen were strengthened by the arrival at the NVN base during May of five Soviet light jet bombers. The Joint Chiefs of Staff advised Secretary McNamara on 27 May that the presence of these bombers threatened the US base at Da Nang. They recommended that Phuc Yen be bombed in order to destroy both the bomber threat and the MIG threat. The Secretary of Defense disapproved this recommendation on 15 June. His decision was prompted by opposition to the bombing from Ambassador Taylor and COMUSMACV and by a recent intelligence estimate that NVN probably did not intend to use the bombers in offensive actions.<sup>19</sup>

Less than two weeks later, the Joint Chiefs of Staff made further efforts to secure authorization to bomb Phuc Yen, pointing out to the Secretary in a memorandum on 27 June the military necessity of so doing. They insisted that current intelligence estimates theorizing that the enemy did not intend to use his bombers against RVN were not significant.

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17. (TS) Msg, JCS 0936-65 to CINCPAC, 16 Mar 65, OCJCS File 091 Vietnam Mar 65. (TS) NSAM 328, 6 Apr 65.

18. (TS-NOFORN-GP 1) NMCC OPSUMs 77-65 and 78-65, 4 and 5 Apr 65. (S-NOFORN-GP 1) DIA/JCS, Southeast Asia Military Fact Book, Oct 66, DIAISUP 274-66, pp. B-20, B-21. (TS-GP 3) Msg, CINCPAC to JCS, 040304Z Apr 65, JCS IN 91149. (TS-GP 4) JCS 2343/571, 13 Apr 65, JMF 9155.3 (12 Apr 65).

19. (TS) Msg, CINCPAC to CJCS, 092218Z May 65, OCJCS File 091 Vietnam May 65. (TS-GP 3) JCSM-415-65 to SecDef, 27 May 65 (derived from JCS 2343/599); (TS) Memo, SecDef to CJCS, 15 Jun 65, Att to JCS 2343/599-2, 16 Jun 65; JMF 9155.3 (23 May 65).

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They said ". . . we cannot deal in the estimated intentions of the enemy but must base our actions on enemy capabilities which, from a military point of view, we cannot afford to ignore, particularly when the elimination of the threat can be accomplished at this time by a relatively low cost." The Joint Chiefs of Staff pointed out that by bombing Phuc Yen not only the enemy bomber threat but the increasing MIG threat could be removed. In spite of these arguments, the Secretary did not authorize the bombing of Phuc Yen. More than two years were to pass before he would do so.<sup>20</sup>

The bombers were never used against RVN, however. As for the MIGs, while they had an inhibiting effect on ROLLING THUNDER, they shot down no more US planes during 1965. US pilots, on the other hand, destroyed five MIGs, and possibly destroyed two others.<sup>21</sup>

Enemy AA/AAA

The most effective of the enemy's active defenses against US/VNAF planes operating over NVN were neither the SAMs nor the MIGs, but his automatic small arms and his large number of AA artillery pieces, both manual and radar controlled. By February 1965, 941 AA artillery positions had been detected in NVN by US intelligence. By late September, 1,600 positions had been uncovered, ranging from the 37mm manually-controlled guns to the highly effective radar-directed 85mm pieces. A total of 118 USAF, USN, and VNAF planes had been lost in flying almost 25,000 sorties over NVN by 30 September. Twenty-three US planes had been lost to enemy ground fire in the month of September alone.<sup>22</sup>

Although there was no concrete evidence to prove it, NVN actions suggested a basic understanding of US operational concepts. The enemy placed his heaviest AAA defense around targets of obvious and continuing interest to the United States.

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20. (TS-GP 3) JCSM-498-65 to SecDef, 26 Jun 65, Encl A to JCS 2343/599-4, JMF 9155.3 (23 May 65).

21. (S-NOFORN-GP 1) DIA/JCS, Southeast Asia Military Fact Book, Apr 67, DIAISUP 91-67, p. B-24.

22. (TS-GP 3) Ann D to Armed Recce Study, Nov 65, p. 11, OCJCS Bulky File 091 Vietnam Nov 66.

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He also apparently moved AA weapons into an area after an initial strike, in anticipation of restrike.<sup>23</sup>

Reconnaissance Rules Change

The Joint Chiefs of Staff authorized CINCPAC on 24 August to fly BLUE TREE reconnaissance missions in support of ROLLING THUNDER at his discretion throughout the armed reconnaissance area. They moved the southernmost boundary of armed reconnaissance north to 20° 30' N for this purpose. CINCPAC was restricted to 20 two-sortie missions a week, but missions could be flown at low level. MIG CAP was authorized but the planes would withdraw if MIGs were sighted. MIG CAP could engage the enemy only to protect reconnaissance planes. Flak suppression escort, and any BLUE TREE flights outside the authorized area, would be approved in Washington on a case-by-case basis.<sup>24</sup>

The armed reconnaissance area limits were expanded during RT 28/29 to a line from a point on the Laos border 30 nm from the border of China, extending eastward to 105° 20' E longitude, then south to 20° 30' latitude, then eastward to the coast. Strikes against SAM sites were forbidden within 30 nm of the Chinese border from Laos eastward to 106° E longitude, within 25 nm of the Chinese border from that point eastward to the Gulf of Tonkin; within 30 nm of the center of Hanoi; or within 10 nm of the center of Haiphong. (See map).<sup>25</sup>

Armed reconnaissance boundaries reached another high in RT 30/31 (3-16 September) when new limits were set which ran due west from the coast at a point at 20° 30' N latitude to 105° 20' E longitude then due north to a point 30 nm from the Chinese border, then southwesterly to the Laos border, remaining 30 nm from the Chinese border (the Joint Chiefs of Staff had proposed 25 nm). Another new feature of this package was authority for CINCPAC to assign to strike aircraft returning from BARREL ROLL and STEEL TIGER alternate missions in the ROLLING THUNDER area.<sup>26</sup>

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23. (TS-NOFORN-GP 1) Memo, Dir DIA to CJCS, 22 Oct 65, OCJCS File 091 Vietnam Oct 65.

24. (TS-GP 3) Msg, JCS 8977 to CINCPAC, 24 Aug 65.

25. (TS-GP 3) Msg, JCS 9569 to CINCPAC, 31 Aug 65.

26. (TS) Memo, J-3 to CJCS, 27 Aug 65; Briefing for JCS on RT 30/31, 27 Aug 65; (TS-GP 3) Msg, JCS 9779 to CINCPAC, 2 Sep 65; JMF 9155 (18 Feb 65) sec 5, RT 30/31.

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The Early September Call For Stronger Action

When, on 27 August, the Joint Chiefs of Staff submitted to the Secretary of Defense major recommendations on the basic US strategy for Vietnam, they called for stronger air and naval pressures. Specifically, these included destruction of significant NVN military targets, the NVN supply base, and interdiction of the LOCs supporting the insurgency in South Vietnam. "The physical capability of the DRV to move men and supplies through the Lao Corridor, down the coastline, across the DMZ and through Cambodia must be reduced to the maximum practical extent by land, naval and air actions in these area and against infiltration-connected targets," the Joint Chiefs of Staff asserted.<sup>27</sup>

PP Six days later, on 2 September, the Joint Chiefs of Staff gave the Secretary a list of air actions which they believed to be "in concert" with this strategy. They recommended that the United States should begin air strikes immediately and "as a matter of urgency" against: 1) Phuc Yen airfield, including the aircraft thereon; 2) rail, highway, and waterway routes and traffic between Hanoi and Haiphong and between Hanoi/Haiphong and south China; 3) POL storage facilities at Haiphong; SAM sites and other AA defenses which threatened US air operations.<sup>28</sup>

Their rationale for striking Phuc Yen and the SA-2 sites was the same as that presented in June. Interdiction of the LOCs between the major NVN industrial and shipping centers and between south China was needed the Joint Chiefs of Staff said

. . . to reduce substantially the present freedom of movement into the DRV of major war-making supplies, including heavy and complex equipment such as SA-2 missiles and modern antiaircraft artillery with radar fire control and ammunition. Further, interdiction of principal LOCs around Hanoi would assist in immobilizing and fixing in place the SA-2 defenses, thus impairing present mobile ambush tactics.

The enemy, said the Joint Chiefs of Staff, now had 66 MIGs and 8 IL-28s based at Phuc Yen. A total of 18 SAM sites had

27. (TS-GP 1) JCSM-652-65 to SecDef, 27 Aug 65 (derived from JCS 2343/646-1), JMF 9155.3 (30 Jul 65).

28. (TS-GP 3) JCSM-670-65 to SecDef, 2 Sep 65, App A to JCS 2343/673-1, 2 Sep 65, JMF 9155.3 (28 Aug 65).

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been located, all but two fairly close to Hanoi. Missiles or missile-associated equipment had been noted on only four of these sites, and it was possible that many were only temporary field sites. NVN could move these missiles about in an 85 nm radius of Hanoi without serious difficulty and apparently was doing so. Just how missiles and equipment were entering NVN was not known. Destruction of the POL storage at Haiphong would deprive NVN of nearly half of its remaining national capacity for oil storage. This facility was the only one in NVN capable of receiving POL imports from tankers.

The Joint Chiefs of Staff stated that the strikes should be made as "a concentrated offensive effort, unrestricted by previously prescribed sanctuaries within the DRV, to search out and destroy SAM installations, as required, and to conduct low-level reconnaissance to encourage the maldeployment of AAA resources." B-52s would strike Phuc Yen at night, with the other NVN airfields being attacked at first light the next day. Concurrently, Haiphong POL would be struck, and intensive interdiction of specified routes would follow. Every effort would be made to keep down destruction of nonmilitary installations and no civilian population centers would be targeted.

Failure to initiate air operations against North Vietnam as now recommended . . . to support the over-all strategy for Southeast Asia would result in increased US commitments, costs, and casualties and increasing risks to the security of major elements of US and SVN military forces and facilities. Each day's delay produces increased enemy capability which will have to be destroyed eventually at an increasingly higher cost to the United States.

They asked that their views be brought to the attention of the President "without delay."<sup>29</sup>

The JCS recommendations were incorporated in the draft planning message for RT 32/33, scheduled for 17-30 September. Added to the target list, in addition to the targets and systems cited in their 2 September memorandum, were four thermal power plants generating nearly 50 percent of NVN electrical power. Secretary McNamara refused to approve the proposed ROLLING THUNDER package, saying that he had

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29. Ibid.

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not been persuaded that the military advantages would outweigh the military and political risks. He maintained that while the proposed strikes were for the purpose of reducing the flow of material from NVN to RVN by attacking the LOCs, intelligence estimates showed that such strikes could very well cause the NVN to make "more vigorous efforts" to support the VC. Strikes as proposed by the Joint Chiefs of Staff would not, according to the estimates he had seen, injure the VC or persuade NVN that the price of continued support to them was too high. "More important is the risk of a US-Chinese confrontation, which could well be increased by a program of the kind proposed." Pointing to a JCS warning that NVN might use its IL-28s and MIGs against the US air base at Da Nang, the Secretary cited an intelligence analysis that such an attack was unlikely. On the other hand the analysis had also shown that if the US struck the Hanoi/Haiphong area, NVN might in retaliation attack Da Nang, and that substantial risk existed that a strike program of the weight and kind recommended by the Joint Chiefs of Staff would cause the Chinese Communists to intervene with air from Chinese bases.<sup>30</sup>

The reduced RT 32/33 package finally approved by the Secretary of Defense permitted strikes on a railroad bridge and on a highway bridge NW of Hanoi on routes leading to China. These bridges could only be struck one time. These were the first strikes on a LOC in this area. Apart from these, the package contained relatively unimportant targets, most of them restrikes. CINCPAC was directed not to strike fixed SAM sites located within a 30 nm radius from the center of Hanoi.<sup>31</sup>

The bridges were struck with "limited success." But the net effect of the package was, CINCPAC noted, to leave the entire northeast quadrant of NVN free from harassment.<sup>32</sup>

The directive on RT 30/31 had provided that any JCS numbered target within the currently authorized armed reconnaissance area which had previously been designated for

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30. (TS) Memo, SecDef to CJCS, 15 Sep 65, Att to (TS-GP 3) JCS 2343/673-4, 17 Sep 65, JMF 9155.3 (28 Aug 65).  
31. (TS-GP 3) Msg, JCS 1689 to CINCPAC, 15 Sep 65.  
32. (TS-GP 3) Msg, CINCPAC to JCS, 182215Z Sep 65.

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attack could again be attacked if necessary. This qualification was changed in the rules for RT 32/33 to provide that only LOC targets observed under repair could be so attacked. CINCPAC, on 22 September, asked that the original proviso be restored.<sup>33</sup>

CINCPAC's request was granted and the authority he sought restored in RT package 34/35, carried out between 1-14 October. This package contained only four fixed targets for the US forces, three of them bridges northwest of Hanoi.

Attacks on Dams and Locks

Assistant Secretary of State William P. Bundy, on 16 September, in a memorandum to the Assistant Secretary of Defense (ISA), had called attention to reports that ROLLING THUNDER strikes, probably armed reconnaissance, had damaged several dams and a canal lock in NVN. He cited NVN charges that the United States was attacking dams in its territory. The State Department, Bundy said, understood that dams were not considered targets of opportunity and, at least for the present, were not authorized targets for armed reconnaissance. "We do not believe that it is now appropriate to classify dams, canal locks, or flood control levees as valid targets for the ROLLING THUNDER program," he said. He asked that ROLLING THUNDER instructions be amended specifically to exclude dams, canal locks, hydroelectric power plants and flood control levees unless approved by Washington on a case-by-case basis as regular preplanned strikes. Mr. McNaughton passed Mr. Bundy's memorandum to the Chairman, Joint Chiefs of Staff, and asked for General Wheeler's views.<sup>34</sup>

In his reply General Wheeler disagreed with Mr. Bundy's view that dams and locks were not valid military targets. He stated that he had no information about the dams reportedly damaged, but made clear his distrust of any claim emanating from Hanoi. The NVN inland waterway system, of which dams and locks were a part, had recently become more important to NVN, owing to destruction of its land LOCs. No other types of dams or flood control levees were on the JCS target list,

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33. (TS-GP 3) Msg, CINCPAC to JCS, 220238Z Sep 65.

34. (TS) Memo, AsstSecState for FE Affairs to ASD(ISA), 16 Sep 65, Encl to (TS-GP 3) Memo, ASD(ISA) to CJCS, I-3635-65, 22 Sep 65, OCJCS File 091 Vietnam Sep 65.

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and there was no intention of including them at this time. Since one hydroelectric plant and four thermal power plants had already been struck in ROLLING THUNDER, the Chairman, Joint Chiefs of Staff, was puzzled by Mr. Bundy's questioning of such targets. General Wheeler told McNaughton, "I can assure you that the Joint Chiefs of Staff will strongly oppose the imposition of further restraints upon our air campaign against the DRV."

Then, turning to a matter that apparently concerned him, the Chairman called attention to a recent State Department comment that the United States had made "many prior official indications, public and private, that we intended to respect the special sensitivity of the Hanoi-Haiphong complex." He asked Mr. McNaughton to obtain for the Joint Chiefs of Staff a listing of all such indications other than those possibly contained in statements by the President or the Secretaries of State and Defense.<sup>35</sup>

Mr. McNaughton agreed with General Wheeler in this matter and so informed Mr. Bundy. Further, he asked Mr. Bundy to provide the list of the indications requested by the Chairman.<sup>36</sup> | OSD

In an immediate reply, Mr. Bundy stated to Mr. McNaughton that he was not in a position "to comment further . . . on the question of locks and dams." But he defended his assertion that US officials had consistently given the impression to the enemy and to other nations as well that the United States would continue the policy it had been pursuing, including abstention from attacks on the Hanoi/Haiphong area. He admitted that nothing had been said officially nor was it intended to do so. "I do want to conclude by assuring you and General Wheeler that we have no intention of changing the line we have taken so consistently, basically that we are not excluding this or any other action. Obviously, we must not say anything that could impair our freedom of action or the President's freedom of choice on future actions."<sup>37</sup> | shk

35. (TS-GP 1) CM-876-65 to ASD(ISA), 24 Sep 65, OCJCS File 091 Vietnam Sep 65.

36. (TS-GP 1) Memo, ASD(ISA) to AsstSecState for FE Affairs, I-36222/65, 28 Sep 65, OCJCS File 091 Vietnam Sep 65.

37. (TS-GP 3) Ltr, Bundy to McNaughton, 1 Oct 65, OCJCS File 091 Vietnam, Oct 65.

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De Facto Reduction of Bombing Pressures

On 2 October CINCPAC recommended that RT 36/37 follow the trend established in RT 32/33, with strikes against primary LOC targets in the northeast quadrant. He listed five rail and highway bridges as fixed targets. In the draft planning message, the Joint Staff included all these and added Kep Airfield, Kep POL, and four additional bridges leading to the Chinese border. The Staff also proposed raising sorties from 1,200 to 1,500 and increasing the armed reconnaissance area to coincide with the IRON HAND area. The Joint Chiefs of Staff were briefed on the proposed package on 8 October and apparently accepted the Staff recommendations. The Secretary of Defense on 13 October made substantial changes in the draft planning message. Mr. McNamara struck out all the proposed targets but four bridges for US forces and one target for the VNAF in the southern part of NVN. Thus started a pattern that continued for the remainder of 1965; fixed target authorization for ROLLING THUNDER packages was restricted to four bridge targets in the northeast quadrant and one VNAF target in southern NVN. Exceptions were made on only three occasions when special authorization was granted for attack of SAM support facilities.<sup>38</sup>

In acting on RT 36/37, Mr. McNamara rejected raising the sortie limit to 1,500. He also directed that planes keep their flight paths 20 rather than the earlier 15 miles from the Chinese border, and, in apparent concession to Mr. Bundy's earlier objections, specifically excluded locks and dams from JCS numbered targets that might be restructured by armed reconnaissance to keep them nonoperational.<sup>39</sup>

Review of ROLLING THUNDER

By late October the JCS Target List comprised 240 targets, 126 of which had been struck. Of the remaining 114

38. (TS-GP 3) Draft Planning Msg, unnumbered, w/hand-written notes dated 13 Oct 65, showing changes directed by SecDef; (TS-GP 3) Msg, JCS 3990 to CINCPAC, 13 Oct 65, JMF 9155 (18 Feb 65) RT 36/37. (TS-GP 3) ROLLING THUNDER Chronology, Encl A to JCS 2472/9, 14 Feb 67, JMF 912/323 (30 Jan 67).

39. Ibid.

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HP | targets, 75 lay in the sanctuaries. Only 39 unstruck targets lay outside the sanctuary areas and of these 29 were in the key northeast quadrant.<sup>40</sup>

Over 740 NVN bridges had been attacked, and at least 145 of these had been destroyed or rendered impassable for motor traffic. At about half of these sites the enemy had built readily accessible by-passes for motor traffic. Thirty-one rail or combination rail and highway bridges had been destroyed out only 13 of these remained impassable. The enemy had repaired some of these bridges and at others had built fords, ferries, and alternate bridging using floats and pontoons, or earthen causeways.<sup>41</sup>

By late October, too, ROLLING THUNDER strike forces had flown 6,752 sorties against fixed targets and 11,149 sorties on armed reconnaissance. Of the sorties against fixed targets, over a third had been against military barracks, and about one-sixth against ammunition depots. Supply depots, power plants, maritime ports, RR yards and explosive plants had come in for minor shares of the overall effort. Four airfields, two naval bases, thirteen radar sites, four SAM sites, and two communications installations had been bombed. In addition to other damage inflicted, armed reconnaissance sorties had destroyed 328 vessels, 423 vehicles and 181 RR cars and engines.<sup>42</sup>

Assessing the effects of ROLLING THUNDER on 22 October, the DIA told the Secretary of Defense that the bombing had not affected the enemy's will and determination to persist. Hanoi continued to assert its intent to press on with the war in RVN despite US actions in NVN and RVN. The capabilities of the NVN armed forces had not been greatly affected by the attacks on economic facilities, but military movement was being hampered by damaged transportation facilities.

40. (TS-GP 3) Tab B to App 1 to Ann C of Armed Recce Study, 15 Nov 65, OCJCS Bulky Files 091 Vietnam Nov 66.

41. (S-NOFORN-GP 1) CM-940-65 to SecDef, 30 Oct 65, OCJCS File 091 Vietnam Oct 65.

42. (TS-NOFORN-GP 1) "An Appraisal of the Bombing of North Vietnam," Encl to Memo, Dir DIA to CJCS, 22 Oct 65, OCJCS File 091 Vietnam Oct 65.

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The Director, DIA, noted that efforts to further reduce the NVN capabilities and capacities in some categories were going to be difficult, because 51 percent of all maritime ports and about 60 percent of POL, power plant, and railroad capacities lay within the sanctuary areas.<sup>43</sup>

With the variety and number of fixed targets for US forces reduced to four bridges, and with the armed reconnaissance limits frozen in a static mode, there was a noticeable decrease in the military pressures against NVN. This effect lasted until the stand-down of military operations associated with the Christmas truce, which began on 24 December 1965 (See below). RT packages 38/39, 40/41, 42/43, 44/45 were cautiously crafted, contained little innovation of a worthwhile military nature, and had little real effect on enemy capabilities or determination. A few minor changes in operating rules did relieve some of the restraints. In late November, the Joint Chiefs of Staff attempted to have armed reconnaissance limits lifted slightly to 20° 32' at the west coast to be approximately contiguous with the 30 nm circle around Hanoi. Higher authority allowed the lifting of the armed reconnaissance limits by only one minute, to 20° 31' latitude.<sup>44</sup> The restriction limiting suppression strikes against SAM units firing on US planes to those located outside the 30 nm circle around Hanoi, was also removed in RT 42/43. RT 46/47 expanded authority for coastal armed reconnaissance (see below).<sup>45</sup>

That the program continued at a reduced and relatively ineffective level could not be attributed to lack of effort on the part of the Joint Chiefs of Staff. They tried, determinedly and persistently, to persuade their superiors to reduce the area of sacrosanct territory in NVN and to unleash US air power on fixed targets of greater value, such as the POL storage system. In none of these endeavors were they successful.

Admiral Sharp, had, since midsummer, been calling for destruction of the NVN POL supply and facilities in the

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<sup>43</sup>. Ibid.

<sup>44</sup>. (TS-GP 1) JMF 9155 (18 Feb 65), sec 6, ROLLING THUNDER 42/43, Tabs 1-7.

<sup>45</sup>. (TS-GP 3) Encl A to Att to JCS 2472/9, 14 Feb 67, JMF 912/323 (30 Jan 67).

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Haiphong/Hanoi complex. In his ROLLING THUNDER recommendations and in separate communications he pointed out the wisdom of such strikes. On 15 October the Chairman, Joint Chiefs of Staff, asked the Joint Staff to advise him whether it would be desirable to destroy the Haiphong POL facility in the light of possible attacks by the VC on US POL facilities in reprisal. On 5 November he asked the Staff to examine the desirability of destroying not only Haiphong POL but the entire POL system in NVN. The Staff concluded that the entire NVN bulk POL system should be attacked at once, commencing with an attack on the Haiphong facilities. Whether or not the VC attacked POL in RVN in reprisal should not be a factor in the decision.<sup>46</sup>

On 10 November the Joint Chiefs of Staff recommended that the Secretary of Defense approve immediate attacks on the NVN POL system, starting with Haiphong POL, with subsequent attacks on eight other POL targets. They believed that this would be more damaging than attacks on any other target system; it would cripple the enemy's transportation system to a considerable degree and greatly hamper the flow of supplies southward to communist military forces. They pointed out that Haiphong, with 40 percent of the total storage capacity in NVN, was the most important target involved.<sup>47</sup>

The Joint Chiefs of Staff believed, they told the Secretary of Defense,

that the air operations in DRV/Laos cannot attain more than the limited success now being achieved if they continue to be conducted under the existing constraints. The establishment and observance of de facto sanctuaries within the DRV, coupled with a denial of operations against the most important military and war supporting targets, preclude complete attainment of the objectives of the air campaign. Decisions should be reached to permit an immediate acceleration and increase in

46. (TS-GP 1) JCS 2343/700-2, 7 Nov 65, JMF 9155.3 (15 Oct 65).

47. (TS-GP 1) JCSM-810-65 to SecDef, 10 Nov 65, Encl to JCS 2343/700-2, 10 Nov 65, JMF 9155.3 (15 Oct 65).

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the scale, scope, and intensity of air operations against the DRV, to include attack of military and war supporting targets within the Hanoi-Haiphong area, and to permit aerial mining of North Vietnam ports.<sup>48</sup>

This recommendation was further reflected in the draft planning messages for RT 42/43 approved by the Joint Chiefs of Staff on 19 November but disapproved by higher authority on 22 November. Attacks on POL storage, including Hanoi and Haiphong, were again proposed in the draft for RT 44/45. At a meeting on 1 December the Joint Chiefs of Staff approved the proposed RT 44/45 for submission for Defense-State-White House clearance. They also directed the Joint Staff to prepare a proposed reduction in the size of the sanctuary in the Hanoi/Phuc Yen/Haiphong area to present to the Secretary of Defense. Apparently anticipating another rejection of the POL targets, the Chairman, Joint Chiefs of Staff, also directed the Staff to prepare an alternate proposal which would continue the interdiction of key LOCs to the north and east of Hanoi.

The Staff proposed reducing the sanctuary areas to ten miles around Hanoi, ten miles around Phuc Yen Airfield, and four miles around Haiphong, which would have the effect of uncovering 30 JCS numbered targets, if approved. The Joint Chiefs of Staff approved these proposals for presentation to higher authority on 3 December. Higher authority deleted all POL targets, authorizing only four bridge strikes for US planes, and retained the current size of sanctuary areas.<sup>49</sup>

In drafting proposals for RT 46/47, to take place between 24 December 1965 and 6 January 1966, the Joint Staff again proposed striking the POL system in NVN and reduction of the sanctuary areas to within 20 nm of Hanoi and four nm of Haiphong. The execute order for the package, issued on 21 December, contained authority for four bridge strikes only,

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48. (TS-GP 3) JCSM-811-65 to SecDef, 10 Nov 65 (derived from JCS 2343/655-26), 10 Nov 65, JMF 9155.3 (3 Aug 65) sec 5.

49. (TS-GP 3) JMF 9155 (18 Feb 65), sec 6, ROLLING THUNDER 42/43, Tabs 1-7. (TS-GP 3) same file, sec 7, ROLLING THUNDER 44/45.

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but authorized a restrike of the Uong Bi thermal power plant, if BDA showed a requirement. There was no reduction of the sanctuaries.<sup>50</sup>

In December, intelligence information gave some evidence that NVN might be planning to send its patrol boats out to attack US destroyers standing on SAR station in the Gulf of Tonkin. These destroyers were, of course, essential to the rescue of downed US flyers in the Gulf. Because of this threat, higher authority authorized special instructions to CINCPAC which would allow air operations along the NVN coast from 20° 31' N north and east, an area previously excluded from coastal armed reconnaissance. His planes could now strike "positively identified DRV attack-type naval craft" all along the coast of NVN within 3 nm and not closer than 10 nm of Haiphong and not closer than 25 nm of China. However, such craft found outside the 3-nm limit would not be struck unless they fired first.<sup>51</sup>

22 [ In accordance with the Presidential decision to halt military action against the enemy in Vietnam during Christmas, the Joint Chiefs of Staff instructed CINCPAC to halt all air operations over NVN and Laos effective at 1800 (Saigon time), 24 December 1965. This was modified slightly on 23 December when the Joint Chiefs of Staff authorized BLUE SPRINGS operations over NVN and Laos during the Christmas Truce as long as these operations did not involve "manned support aircraft."<sup>52</sup> Although some reconnaissance activities resumed in late December, the bar on air attacks against NVN was not lifted for more than a month.

<sup>50</sup>. (TS-GP 1) JMF 9155 (18 Feb 65), sec 7, ROLLING THUNDER 46/47, Tabs 1-10.

<sup>51</sup>. (TS-GP 3) Msg, JCS 8930 to CINCPAC, 18 Dec 65.

<sup>52</sup>. (TS-GP 3) Msg, JCS 9198 to CINCPAC, 23 Dec 65;  
(TS-GP 3) Msg, JCS 4991-65 to CINCPAC, 23 Dec 65; OCJCS File 091 Vietnam Dec 65.

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