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LINEBACKER II--A STRATEGIC AND TACTICAL CASE STUDY

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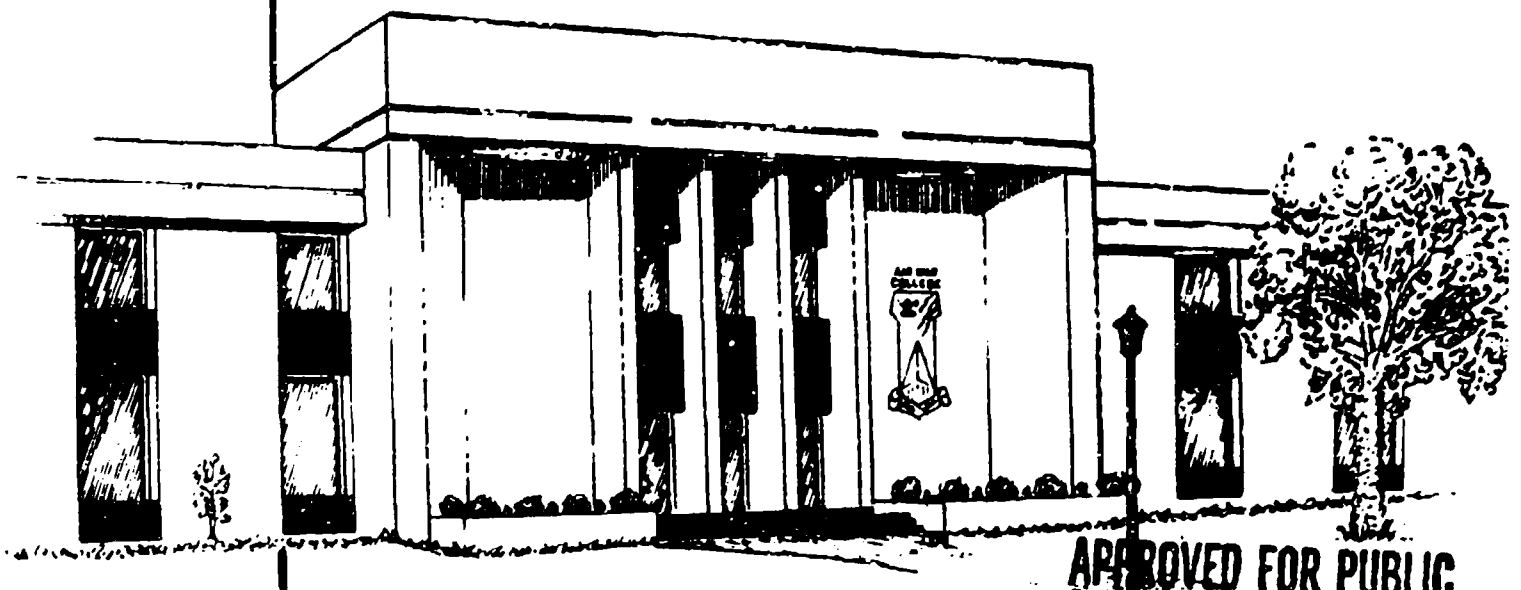

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AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

AIR WAR COLLEGE

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LINEBACKER II: A STRATEGIC AND TACTICAL CASE STUDY

by

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Lt Col, USAF

A DEFENSE ANALYTICAL STUDY SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE CURRICULUM

REQUIREMENT

Advisor: Lt Col Harvey J. Crawford

MAXWELL AIR FORCE BASE, ALABAMA

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EXECUTIVE SUMMARY

Linebacker II was the name given to the strategic bombing campaign aimed at the will and war fighting capability of the North Vietnamese. This case study can be used to examine the applicability of strategic bombing doctrine, and the importance of creative tactical employment for strategic airpower.

In December, 1972, President Nixon was confronted by an intransigent enemy and a Congress that was ready to end the war. Strategic bombing doctrine would once again be tested as a strategy for achieving the President's political objectives. The President used B-52s in a massive bombing operation intended to force North Vietnam back to the bargaining table, and obtain what he described as an honorable end to the war.

The tactical employment of B-52s during the initial phase of Linebacker II was tightly controlled by HQ SAC, and was flawed with predictability and inflexibility. After three days, B-52 losses were deemed unacceptable and threatened the operation. A change to decentralize control of mission preparation and tactics for the bomber force resulted in improved effectiveness and dramatically reduced losses. Tactical employment of strategic bombers should be considered, at least in conventional campaigns, part of mission execution, and thus decentralized. Future planners can learn from the problems that resulted from over-centralization of strategic airpower in the context of 11 days in December 1972.

BIOGRAPHICAL SKETCH

Lieutenant Colonel Leonard D.G. Teixeira is a Master Navigator with over 3,000 hours in B-52D,G and H model aircraft. He flew 63 combat sorties out of Andersen AFB, Guam, and U-Tapoa RTAFB, Thailand from Mar-Dec 1973. Lt Col Teixeira has had several B-52 related assignments including Combat Crew Training School Instructor, Weapon System Trainer Test Director, HQ SAC Training Devices Manager, Bomb Wing Operations and Operations Plans Division Chief. He served as a Maintenance Supervisor in the 410th Organizational Maintenance Squadron and Commander of the 410th Avionics Maintenance Squadron. He has a MS degree in Systems Management from the University of Southern California, and is a graduate of Squadron Officers School, Air Command and Staff College, National Security Management and the Air War College , class of 1990.

LINEBACKER II - A STRATEGIC & TACTICAL CASE STUDY

CHAPTER I : INTRODUCTION

Linebacker II was the name given to a strategic bombing campaign directed at the will and war making capability of the North Vietnamese. For the first time in the ten year war, heavy bombers and tactical fighter/bombers would test strategic bombing doctrine as the basis of a strategy to force the North Vietnamese to negotiate an end to the war. In December, 1972, President Nixon was confronted by an intransigent enemy, and a Congress, reflecting the mood of the American public, which was ready to end the war in Southeast Asia (SEA). The President believed his best option was to attack strategic targets in Hanoi and Haiphong, using conventionally armed B-52 strategic bombers.

The Strategic Air Command B-52 bombers had been used in SEA since the beginning of ARC Light operations in 1965. However, this was the first time the big bombers would attack targets in the Hanoi/Haiphong area, regarded as one of the most heavily defended areas of the world. There was a tremendous controversy about the tactics the bombers used during the initial phase of the campaign. Aircrews, Wing staff and HQ SAC planners disagreed on the tactical plan. Changes in mission profiles and tactics were too slow in coming. HQ SAC was making all the decisions on targets and tactical employment for the B-52 strike force. As B-52 losses became unacceptable after the third day, a dramatic change in combat tactics began to unfold. In the end, the decentralization of B-52 employment planning resulted in a rapid change in sophistication and diversification of tactics which significantly reduced losses.

Even though this analysis focuses on B-52 tactical operations and strategic employment, the contributions of TACAIR, maintenance and numerous support personnel should never be overlooked. Without the sacrifices and dedication of these behind the scenes professionals, Linebacker II would never have gotten off the ground.

This case study will examine the following points within the context of 11 days in December, 1972. First, did the strategic bombing campaign aimed at the enemy will and warfighting capability achieve U.S. political goals? Second, what were the tactical problems, how did they change and what were the results?

As strategic and tactical planners of the future wrestle with "the threat", they should learn from the experiences of Linebacker II. The strategic application of air power and the tactical employment of critical air assets can make a difference in winning or losing in war. If we are to be successful in achieving future U.S. national security objectives, without unnecessary loss of life and resources, we must continue to improve our strategic and tactical thinking.

CHAPTER II : POLITICAL/MILITARY SITUATION PRIOR TO LINEBACKER II

> The first, the supreme, the most far-reaching act of judgement that the statesman and commander have to make is to establish by that test the kind of war on which they are embarking; neither mistaking it for, nor trying to turn it into something that is alien to its nature. (17:88)
>
> Carl Von Clausewitz

After the election of Richard Nixon in November, 1968, President Johnson ordered the U.S. to halt bombings in North Vietnam (Rolling Thunder, Mar 65-Oct 68). Two months later, newly inaugerated President Nixon had among his national goals the withdrawal of U.S. forces from the Republic of Vietnam, return of American POWs and an honorable end to U.S. involvement in the war. Peace talks, that began in Paris in May, 1968, were restructured and the President announced his program for Vietnamization of the war and withdrawal of U.S. forces. From an authorized high of 545,000 in 1969, U.S. personnel in South Vietnam were to be drawn down to 69,000 by 1 May, 1972. However, President Nixon promised the North Vietnamese leadership that he would react strongly to an overt North Vietnamese offensive (1:4). The North Vietnamese ignored President Nixon's warning and launched their 1972 Easter Offensive using twelve of Hanoi's thirteen regular combat divisions against South Vietnam (120,000 soldiers, 200 tanks, mobile AAA and SAMs) (1:2). This was the second full scale invasion of South Vietnam by North Vietnamese regular forces, who had been decimated in their first, the Tet Offensive of 1968, but had scored a resounding propaganda success .

Against this powerful force, the President chose to rely on strategic bombing to stem the offensive. He ordered massive air strikes against North Vietnam, to include for the first time Hanoi and Haiphong.

Operation Bullet Shot, which began in February, 1972, was a "systematic buildup of B-52s and support forces to counteract the increased infiltration pressure which North Vietnam was putting on the South" (2:12). The president also announced the mining of Haiphong (Operation Pocket Money) and other key harbors to help stem the logistics flow into North Vietnam from outside sources. This was the beginning of Linebacker I.

The objective of Linebacker I was to destroy the war fighting resources and supply lines of North Vietnam by attacking tactical targets. Strategic assets were used to interdict supply and movement of forces, and to destroy and disrupt military formations. The air attacks proved successful and the North Vietnamese offensive stalled in June, 1972. The peace talks resumed, but President Nixon had learned from his predecessor's experience and continued the military pressure of bombing North Vietnam to help ensure that meaningful negotiations took place (1:12). As in the past, however, the North Vietnamese willingness to continue meaningful negotiations was directly related to their successes or failures on the battlefield. When the South Vietnamese made gains on the battlefield, the North Vietnamese would be more accommodating to American proposals. On the contrary, when the North Vietnamese made advances, the negotiations would become less substantive because of Hanoi's perceived political gains and stronger bargaining position (3:12-13).

Linebacker I air operations, combined with South Vietnamese ground and air counter-offensives, had severely crippled the North Vietnamese. By early October, 1972, significant progress had been made at the Paris

peace talks and a limited cease-fire agreement was expected. The North Vietnamese chief negotiator had surprised Kissinger by accepting virtually all of the American cease-fire terms (4:10). After some difficulty in coordinating the draft agreement with South Vietnamese President Thieu, Kissinger resumed the Paris peace talks on 23 October. As a sign of good faith, President Nixon suspended all bombing attacks above the North Vietnamese 20th parallel (5:87). "On 26 October 1972, the North Vietnamese announced that they and the U.S. had reached an agreement on a nine point peace plan." Dr. Kissinger issued his statement that "...'we believe peace is at hand,'...and that only a single three or four day negotiating session remains to work out the final unresolved details" (6:175).

The bombing halts gave the North Vietnamese the opportunity they needed to rebuild and resupply their military forces, to include the key areas around Hanoi and Haiphong. When the final session began on 4 December, the mood and substance had changed dramatically. The North Vietnamese rejected all the progress made during November, and differences between the two sides mounted (4:10). Kissinger returned to Washington and told the President "it was time to turn hard on Hanoi and increase pressure enormously" (15:182).

CHAPTER III : LINEBACKER II IS BORN

Frustrated by Hanoi's uncompromising demands, and fearing the U.S. Congress might soon cut off funds for the war, President Nixon was ready to use strategic airpower as the key instrument of national policy. Nixon told Kissinger, "[The enemy] has now gone over the brink and so have we. We have the power to destroy his war-making capability. The only question is whether we have the will to use that power? What distinguishes me from Johnson is that I have the will in spades" (7:60). He would increase the bombing pressure by sending B-52s against Hanoi and Haiphong in a massive strategic air operation. "The President was determined to bomb the bastards as they had never been bombed before" (18:241).

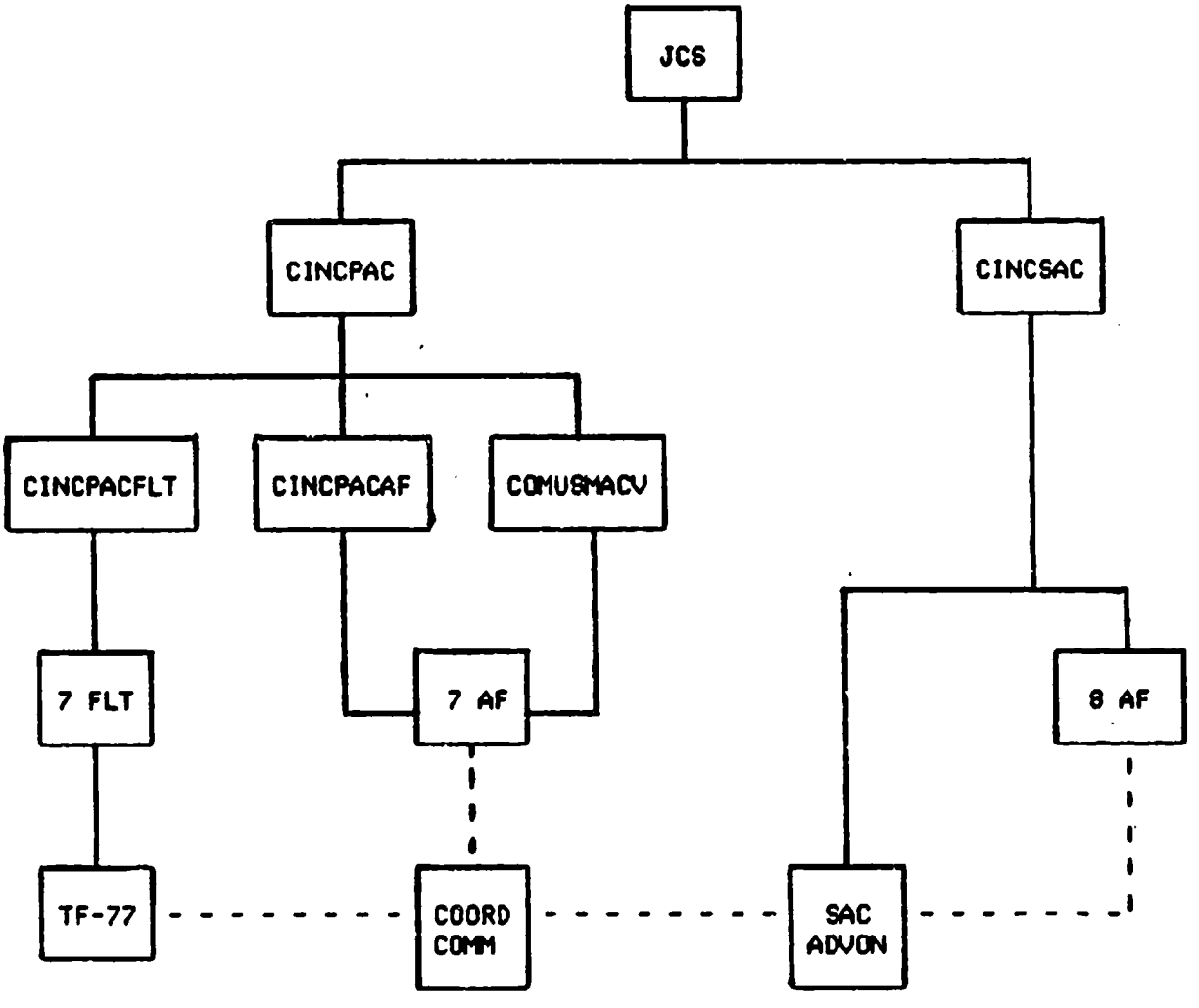
The objectives of Linebacker II were similar to those of Linebacker I. However, the target selection was less politically constrained, and B-52s would be used over Hanoi for the first time in a truly strategic air operation. The President was determined to bring the North Vietnamese back to the negotiating table and thus bring the war to an end as soon as possible (6:175-176). On the afternoon of the 14th, the President ordered a three-day series of raids against Hanoi, to begin on 18 December. The President told the Chairman of the Joint Chiefs of Staff (JCS), Admiral Thomas Moorer, "This is your chance to use military power effectively to win this war and if you don't I'll consider you personally responsible."

CHAPTER IV : B-52 TACTICS/EMPLOYMENT

The final Linebacker II plan stressed a maximum effort in minimum time against "the most lucrative and valuable targets in North Vietnam." While many of these targets matched ones raided in Linebacker I, Linebacker II was no interdiction campaign, but attacked the enemy's warfighting capability and his will. Although seeking to avoid civilian casualties, the Air Force structured Linebacker II to inflict the utmost civilian discomfort in a psychological sense. "I want the people of Hanoi to hear the bombs," the chairman told SAC's Commander, General Meyer, "but minimize the damage to the civilian populace" (8:107). Linebacker II was an American expression of determination aimed squarely at the enemy's will to fight. The initial concept of operations as directed by the JCS, called for around the clock bombing of the Hanoi-Haiphong area. Tactical fighters and fighter-bomber forces from 7th AF and comparable aircraft from the 7th Fleet would strike during the day, and SAC B-52s would strike at night (2:41). SAC's all weather, day/night B-52s from Andersen AFB, Guam, and U-Tapao Royal Thai AFB, Thailand would attack at night against area targets such as rail yards, storage areas, power plants, communication centers and airfields located around Hanoi. Seventh Air Force and Navy fighter-bombers would use "smart" bombs in precision day bombing against targets in populated areas (9:20).

Linebacker II also suffered the lack of unity of command that caused problems throughout air operations in Southeast Asia. The command arrangements for the employment of air power did not reside with a single air commander. Targeting responsibilities for Linebacker II

LINEBACKER II COMMAND STRUCTURE



Illust-1

Source: (19:68)

Support was then arranged with MACV, 7th AF, Task Force 77 and SAC ADVON through the Coordinating Committee. By day four of the operation, 11 B-52s had been downed by SAMs and PACOM assumed sole responsibility for conduct of air operations over North Vietnam. SAC and PACOM shared responsibility for target selection under JCS guidance, with the Coordinating Committee integrating the plans (19:53-56,64-69). [redacted] however, SAC was making all the decisions on targets, mission profiles and tactics.

When the Linebacker II operations order finally arrived at Andersen AFB, the 8th Air Force Commander, Lieutenant General Johnson was upset. SAC Headquarters had directed 8th AF to plan for striking targets in North Vietnam with B-52s back in August, and this order bore little resemblance to the plan developed at Andersen. SAC determined targets and weight of effort, subject to JCS approval, as well as axis of attack and routes in the high threat area north of the demilitarized zone (DMZ). Eighth Air Force planned the remainder, coordinating with the KC-135 tanker Wing at Kadena Air Base, Okinawa, and 7th AF, which provided fighter support packages for the B-52 raids. Seventh Air Force Commander John Vogt and Navy commanders "were furious that the B-52s had taken over the primary role, and that SAC was selecting its own targets" (15:21). This [redacted] proved inflexible, and required long lead times for planning and coordination efforts. Gen. Johnson was also concerned about the lack of versatility in routing his bombers to their targets, and "blew his cork" when SAC wouldn't change the axis of attack. The general's staff estimated losses would be much higher than the three percent predicted by SAC Headquarters (10:108).

??? This is unclear. Maybe if you said [redacted]

were initially split between CINCSAC and CINCPAC with JCS coordination (See Illust-1). Support was then arranged with MACV, 7th AF, Task Force 77 and SAC ADVON through the Coordinating Committee. By day four of the operation, 11 B-52s had been downed by SAMs and PACOM assumed sole responsibility for conduct of air operations over North Vietnam. SAC and PACOM shared responsibility for target selection under JCS guidance, with the Coordinating Committee integrating the plans (19:53-56,64-69). Initially however, SAC was making all the decisions on targets, mission profiles and tactics.

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attack. The general's staff estimated losses would be much higher than the three percent predicted by SAC Headquarters (10:108).

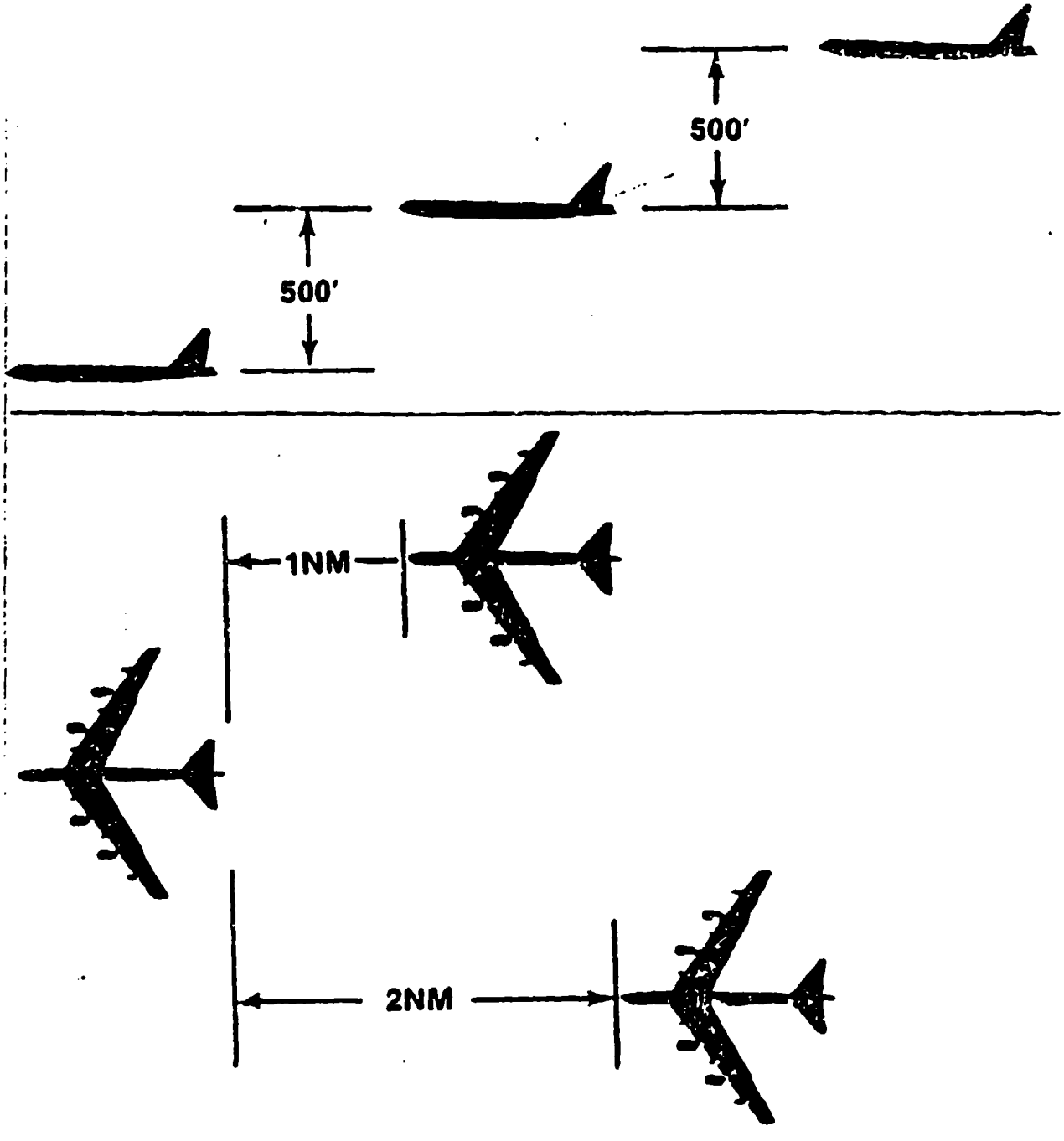
Eighth Air Force staff, bomber aircrew and TACAIR folks all questioned the strike tactics: route of flight, axis of attack, strict rules prohibiting B-52 manuevers against visually acquired SAMs and post target turns back over the target area. It seemed that the lessons learned by TACAIR during Linebacker I (just 8 months earlier) emphasizing avoidance of stereotyped tactics which could aid enemy defenses, were ignored. The SAC tactics appeared to violate two basic tenets of warfare. Attacks would be made in a piecemeal fashion by using three distinct waves over a single target area, and they would originate from the same points since all of the B-52 cells flew basically the same paths and altitudes (11:50). Despite the controversy, planners at 8th AF and the two bomb wings at Andersen and U-Tapao had the missions ready for the initial phase of the operation.

PHASE I - THE BEGINNING

Day One (18 Dec 72)

The pre-mission briefing in the ARC Light Center was given by Colonel James R. McCarthy, Commander of the 43rd Strategic Wing, and began with, "Gentlemen, your target for tonight is HANOI" (2:50). Shock, excitement, disbelief and numerous other emotions raced through the various aircrews. It had finally happened. The B-52 bomber force was finally going to be used to attack strategic targets in the heart of North Vietnam. The goal of this new operation was to force the enemy to negotiate by attacking his will and war making capability. During the crew and specialized briefing to follow, it was stressed that this operation was a maximum effort using "press-on" rules. Press-on rules involved missions in which aircraft would continue to the target despite enemy SAM or MIG activities in particular, and aircraft systems degradation in general. Aircraft would be flown if they were capable of delivering bombs and recovering at U-Tapoa. "The loss of two engines enroute or complete loss of bombing computers, radar systems, defensive gunnery, or ECM capability were not legitimate grounds for abort" (2:32).

Tactics for the first mission consisted of night, high altitude, radar bombing, using three bomber waves about four to five hours apart. Each wave was made up of several three ship cells, ten minutes apart. There was one to two miles between aircraft within each cell, with lateral spacing, and 500 feet of altitude separation (See Illust-2). HQ SAC selected the cone of the attack out of the Northwest to ensure



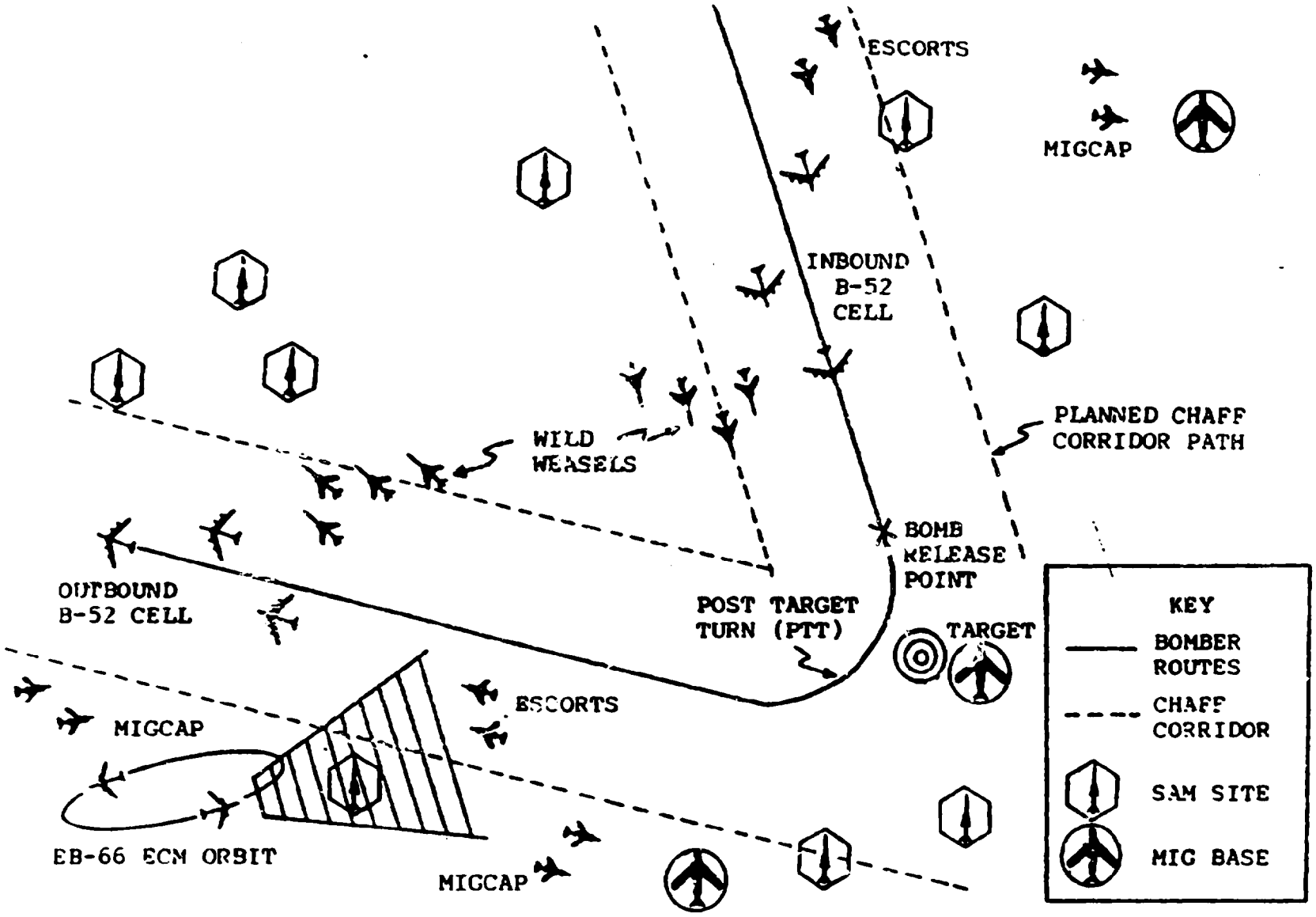
Illust - 2
Enroute Cell Formation. The enroute cell formation consisted of three aircraft in two-mile trail. The second and third aircraft each stacked up 500 feet vertically to provide aircraft altitude separation. This same formation was used during "MSC" bomb releases.

Source: B-52 Technical Order

positive identification of the radar aiming points and minimum exposure to SAMs (2:41). This included a post target turn that took the crews back over the target area. Each aircraft, of each cell, of each wave attacked the same target area from the same northwest axis, using the same initial point (IP), bomb run track, airspeed, altitude and post target turn (PTT). Additionally, no manuevering from the initial point (IP) on the bomb run to target was allowed despite the fact that the target tracking radar (TTR) manuever was part of standard ARC Light operations. The rationale for this was concern over possible mid-air collisions, the need for mutual electronic countermeasures support, and stabilizing the bombing platforms for bombing accuracy to minimize collateral damage. Crews were directed to use the upper rotating light periodically to aid in keeping formations together. If any MIGS were reported, then the lights were turned off (2:46-47).

TACAIR played a major role in supporting the nighttime half of the Linebacker II campaign (See Illust-3). Their job was to protect the bombers and attack enemy airfields, antiaircraft artillery (AAA) and SAM batteries. A typical Linebacker support package consisted of around 30 to 100 plus aircraft, depending on the mission, weather and aircraft availability: F-4s would lay down chaff to degrade the enemy radar scopes; EB-66, EA-3 and EA-6 aircraft would provide stand off ECM jamming; F-4, F-111, and A-7 aircraft would attack enemy airfields and SAM sites along with F-105 hunter-killer missions; and other F-4s would providing MIG CAP protection.

Finally, the first of 129 B-52s (54 Gs and 33 Ds, out of Andersen and 42 Ds from U-Tapoa) started for their targets over Hanoi. "A few



Illust -3 Typical LINEBACKER II Night Strike Package Plan (Days 1-3).

Source : Eschmann, Karl J., Linebacker, The Untold Story of the Air Raids Over North Vietnam.

hours later, the first crisis came after the prestrike refueling of Wave I, when the bombers had 20,000 pounds less fuel than planned." This was the exact amount of reserves required at Andersen. A decision was quickly made to execute a post target refueling using Kadena AB, Okinawa tankers. This required a quick turn of tanker assets as follow-on waves would also use the Kadena tankers. The forecast weather had not predicted the stronger headwinds that caused the shortfall. A larger pre-target refueling onload was planned, so future missions would not need a post target refueling (2:55-56). About 15 minutes before the B-52s arrived at the IP, the support package started attacking enemy SAM sites and airfields, jamming enemy radars, and providing protection from enemy aircraft (11:56). As cell after cell of the bomber force made its run on the targets, the enemy fired over 200 SAMs. The threat from antiaircraft artillery (AAA) was almost non-existent at the altitudes the B-52s were flying and the MIG threat was less than expected, a welcomed surprise. Although all the targets were struck successfully, three B-52s were lost, two severely damaged and one F-111 was lost (2:65). The loss rate of 2.3 percent was below the three percent the strategic planners anticipated.

Crew debriefings indicated a strong criticism of the stereotyped tactics used by the bombers. Long bomber formations resembling a "baby elephant walk" stretched for over 70 miles back through the three waves (5:86-91). The bombers all used the same ingress and egress routes with identical airspeeds and altitudes. However, the PTT was the most vulnerable point for the bombers. After flying straight and level throughout the bomb run, the bombers made PTTs of 100 degress or more

back through the threat area. While in the turn the ECM jammers on the B-52 were turned away from the radar sites, and the big wing and undercarriage of the bomber made a large radar reflector. It didn't take the North Vietnamese gunners long to recognize the approach and withdrawal tracks to the target areas, and locate the B-52s in their vulnerable PTT.

Day 2 (19 Dec 72)

Ninety-three bombers would take their loads of 500 and 750 pound bombs north over Hanoi on another maximum effort day. As on Day 1, crew emotions were mixed and ran the full spectrum from fear to eager excitement. Time compression made it impossible to clear changes in tactics through the higher headquarters. By the time the Day 1 missions had completed debriefing, the Day 2 crews had left the ARC Light Center for their aircraft. The need to complete SAC mission planning 42 hours prior to initial take-off precluded routing changes for the next days mission. Except for different targets, Day 2 was to be Day 1 all over again (2:67).

Crews were disturbed about similar entry and exit routes as the night before, as well as the same PTT as Day 1. Wave I was again briefed not to manuever from the IP to the target. Colonel McCarthy was convinced that mutual ECM protection was the key to reducing losses. "He issued an unpopular warning that any 43rd Strategic Wing aircraft commander who disrupted cell integrity to evade SAMs would be considered for court martial" (2:68). After Wave I had struck its targets, the first of the tactical changes were permitted. The TTR maneuver was

again authorized from IP to target, provided the cell maintain formation and was straight and level prior to bombs away (2:77).

Another crew concern was when to open the doors. Between the IP and target, the EW's scope became saturated with strong SAM lock-on signals. With about 30 seconds to go to bombs away, the doors were opened. There had been, and would continue to be, quite a bit of discussion by the staff and crews as to whether opening the bomb doors and exposing the doors as a radar reflector for the SAM site gave the enemy an even brighter target to shoot (2:74). The enemy again fired about 200 SAMs, many of them as multiple barrages. Despite the large numbers of SAMs, there were no losses and it appeared that the routing and tactics were working. "Partly because there were no losses, and because of the long lead time from planning to execution, CINCSAC decided to keep the same attack plan" for day three (2:77). Aircrew debriefings and mission critiques again contained recommendations and suggesions about maneuvering just prior to bombs away and changes in ingress and egress routes. Anything to change the pattern so the enemy could not make accurate predictions.

Day 3 (20 Dec 72)

Day three missions could best be described as a composite of routes, targets and tactics from the two previous days. Ninety-nine B-52s in three waves struck a rail yard, power plant and POL storage area around Hanoi. All attacks on Hanoi were again from a narrow wedge out of the northwest. Discussions continued on the desirability of PTTs after bombs away and other tactics. Many of the crews and staff were in

favor of pressing on straight ahead after bombs away. They preferred racing for "feet wet" over the Gulf of Tonkin, and the safety of the Navy if worse came to worse. Other advantages of exiting the target area straight ahead were reduced exposure to the threat in the PTT and mutual ECM support. The mission orders, or frags as they were called, were later than normal from HQ SAC because of last minute changes to targets, tactics and assessments of the enemy air order of battle (2:79). Crews had little time to go over critical threat avoidance procedures and target materials. Continued delays brought further complaints from General Vogt to General Meyer, that late information from SAC Headquarters prevented 7th AF from providing proper escort. Many crewmembers remained critical of SACs "long-distance" direction of the war.

The North Vietnamese very often did not engage the first cell over the target, but used it to determine flight paths and turning points (20:138-139). The MIGs were for the most part not attempting to engage the bombers, but were used to provide altitude and airspeed information. Once the gunners had this information, subsequent cells would experience multiple salvos near the release points, where they were committed to straight and level flight, or in the critical PTT (2:83).

This was a disastrous day with enemy gunners claiming their greatest triumph with four B-52Gs and two B-52Ds downed and another B-52D seriously damaged. President Nixon was furious and General Meyer knew that something had to change (10:111). All the B-52G's lost were unmodified and did not have the updated ECM system. Four of the losses

and the one battle damage occurred after bomb release. A new battle plan had to be developed if the bombers were to continue their attack in the Hanoi area (2:89). The first three days and phase I of the air campaign were over with mixed results, but phase II would tell a different story.

PHASE II - CHANGE AND MORE CHANGE

Day 4 (21 Dec 72)

The second phase of Linebacker II would incorporate several changes to tactical and operational procedures. Planned sortie rates were reduced to 30 aircraft per day as General Meyer revamped the Linebacker operation. U-Tapoa's D-models had the capability to handle all the strikes. Logistics considerations favored conducting strikes from only one base, and U-Tapoa's four hour missions negated the need for air refueling. Thirty B-52s from Andersen would strike targets in the south.

Crew debriefings, crossfeed and staff suggestions provided invaluable information on improving current tactics. There was finally unanimous agreement that tactics and routes should be varied so that the enemy defenders could not establish a pattern and predict routes of flight or altitudes. Several suggested changes were already in effect for the Day 4 strikes. Release time intervals between cells were compressed from ten to four minutes and then again to 90 seconds. Base altitude and altitude between cells were changed. Also, for the first time, the cells attacking Hanoi were to fly on across the high threat area without making the PTT, thereby flying "feet wet" to the Gulf of Tonkin for egress routing. Target selection for the bombing campaign was initially focused on maximum pyschological and logistic impact. Now, with greater concern for the losses of Day 3, something had to be done about the SAMs. SAM storage sites finally became a prime target. Additionally, the TACAIR support force was doubled in size (2:91-99).

All the targets were struck within 15 minutes, a significant change from previous missions, with excellent bombing results. Although two B-52Ds were lost, the overall success of the new tactics and support package was encouraging. The perception among the bomber aircrew members was that things were finally changing for the better, and that the strategic bombing missions were back on track.

Day 5 (22 Dec 72)

The loss of two B-52s on 21 Dec caused CINCSAC to shift targets from Hanoi to Haiphong with the 30 B-52Ds out of U-Tapoa and 65 support aircraft. Twenty-eight Andersen B-52s would again strike the enemy in the south where the threat was reduced and ECM not as critical (See Illust-4). Discussion continued on tactical recommendations and included aircraft aborting prior to the IP and continuation of two or the formation of five ship cells to increase ECM support. This question was to take a long time to resolve and cost aircraft and lives.

At Haiphong, the ingress and egress routing would both come from the water. Every one of the 30 aircraft was bearing in off the Gulf of Tonkin from the south, but the cells were fanning out on three different tracks. They were spread out across the whole southern quadrant. As they approached their targets, they abruptly split again and attacked on six different tracks which were staggered in time, distance and altitude. This combined with the greatly expanded chaff corridors laid by F-4s; preemptive Navy strikes against SAM sites and the sudden concentration of strike force all combined to overwhelm the enemy and his defensive system. This combination of tactics seemed very effective

22 DEC 72

LEGEND

- CHINESE BUFFER ZONE
- APPROXIMATE SAM COVERAGE
- TARGETS
- BOMBER ROUTE IN
- BOMBER ROUTE OUT

COLOR — CALL SIGN OF CELL

TARGETS

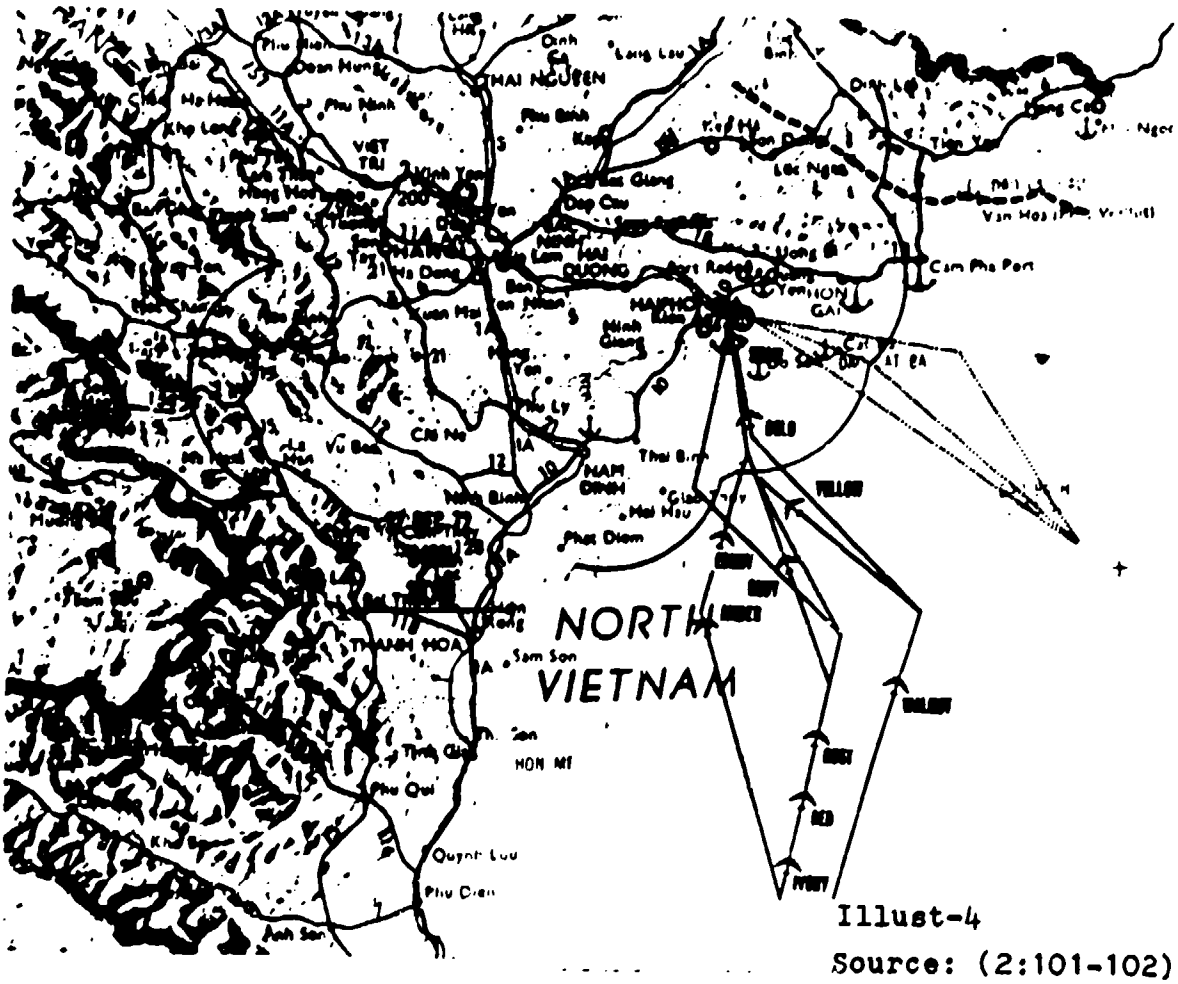
1 HAIPHONG RAILROAD	12
2 HAIPHONG PPS	18
	30

B-52 CELLS/TARGET TIMES

"B" GUAM	"G" GUAM	"D" U-TAPAO	
NONE	NONE	SNOW	0450
		GOLD	0452
		YELLOW	0456
		EBONY	0459
		CINDY	0501
		AMBER	0503
		WALNUT	[illegible]
		DUST	[illegible]
		RED	0514
		IVORY	0516

US SUPPORT AIRCRAFT

- EB-66 & EA-6B (NAVY) ECM
- F-4 CHAFF
- F-4 CHAFF ESCORT
- F-4 MIG CAP
- F-4, B-52 ESCORT
- F-105 WOOD HARD
- F-4 HUNTER/KILLER



Illust-4

Source: (2:101-102)

because only 43 SAMs were observed with no hits. The bombers were again on target, and damage assessment testified to the success of the mission (12:41-42).

Day 6 (23 Dec 72)

The tactics for Linebacker II were in a rapid state of change, and the experience and maturity of the crews were also increasing to meet the demands of the various missions. Eighteen U-Tapao B-52Ds were joined with 12 B-52Ds out of Andersen for a very unusual mission. The targets for tonight were railyards and for the first time, SAM sites near the Chinese border. When an aircraft flew close to a SAM site, the sites target tracking radar could "burn through" the ECM jamming. Since the cells would have to fly directly over the SAM sites to bomb them, mutual ECM protection would be greatly reduced. "Unfortunately, weather, communications and command problems were working against the night's activities to prevent most of the TACAIR force from accompanying the B-52s." (11:81-82) For this strike only, the bomber cells split up into separate aircraft. The first aircraft of each cell would strike the same targets, and the same with the second and third aircraft. Enemy gunners were holding back and "going to school" on the first cells so that they could zero in on follow-on cells. Hopefully, by the time the SAM sites realized they were the targets, it would be raining bombs. After bombs away, the cells intermingled at various altitudes and maneuvered using small changes in heading. The combination of no pre-strike activity, a feint attack on Hanoi and last minute turn toward their targets caught the North Vietnamese gunners off-guard. Only five

SAMs were fired with no hits and all targets successfully struck (2:107-111; 13).

Day 7 (24 Dec 72)

The day before Christmas 30 U-Tapoa B-52Ds would again strike railyards north of Hanoi and Haiphong. The diversity of the strikes kept the North Vietnamese guessing. After two days of penetrating from the Gulf, the bomber stream would again strike from the northwest, breaking into two waves and attacking targets on a southerly track. Each wave split in half during the post target maneuver, and exited by varied headings and turn points. Time compression, combined with multiple attack axis allowed the bombers to strike their targets within ten minutes.

Despite moderate defensive activity over both targets, no aircraft received SAM damage, making the third consecutive day without losses or missile damage. It appeared that the new tactics of both bombers and support forces were staying well ahead of the enemy defenses. So came to an end phase II and a brief break in the war. Following the mission on 24 December, Nixon directed a 36 hour bombing pause for Christmas (2:113-116).

Nixon sent a message to Hanoi requesting a meeting on 3 January. If the North Vietnamese accepted, Nixon said he would stop bombing north of the 20th parallel on 31 December for the talk's duration. Hanoi did not respond to the President's "truce," and so he ordered the massive bombing continued against both Hanoi and Haiphong (10:112-113).

PHASE III - THE KNOCKOUT PUNCH

Day 8 (26 Dec 72)

The third and final phase of the Linebacker II operations would start on the night of 26 December. The mission was going to be the most ambitious raid to date (See Illust-5). Unfortunately, the enemy had three days plus the Christmas break to rebuild and resupply his defenses around Hanoi. Many of the suggestions the crews and staff had made earlier to improve tactics were finally approved by SAC Headquarters. SAC further delegated authority to 8th AF to plan axis of attack and withdrawal routes. This greatly improved mission flexibility and preparation time. Eighth Air Force also delegated intercell and intracell procedures to the two Bomb Wings to adopt those tactics they thought best for the missions. The result was a sweeping change in concept. The basic plan for the raid was a single mass assault of 120 aircraft striking 10 different targets in separate waves and axis. All the waves had the same initial time-over-target (TOT) and would be complete within 15 minutes. Additionally, 114 TACAIR aircraft struck numerous targets in the Hanoi/Haiphong area and provided SAM and airfield suppression, massive chaff corridors, ECM jamming and fighter protection. The plan was to oversaturate the enemy command and control system and get in and out before he could react (2:121).

All waves would strike their targets from different directions using simultaneous TOT. This meant that 72 bombers would be converging on a relatively small area around Hanoi with three mile separation. Precise navigation and timing were critical to mission success if

26 DEC 1972

LEGEND

- CHINESE BUFFER ZONE
- APPROXIMATE SAM COVERAGE
- TARGETS
- BOMBER ROUTE IN
- BOMBER ROUTE OUT
- COLOR — CALL SIGN OF CELL

TARGETS

1 TRAN HUNGYEN	10
2 KINH BO COMPLEX	8
3 DOC NOI RAILROAD	8
4 HANOI RAILROAD	8
5 HANOI PETROLEUM STORAGE	9
6 GIAP NHI RAILROAD	10
7 SAM VU SAO	3
8 VAN DIEN VEHICLE	15
9 HAIPHONG RAILROAD	15
10 HAIPHONG TRANSFORMER	15
	120

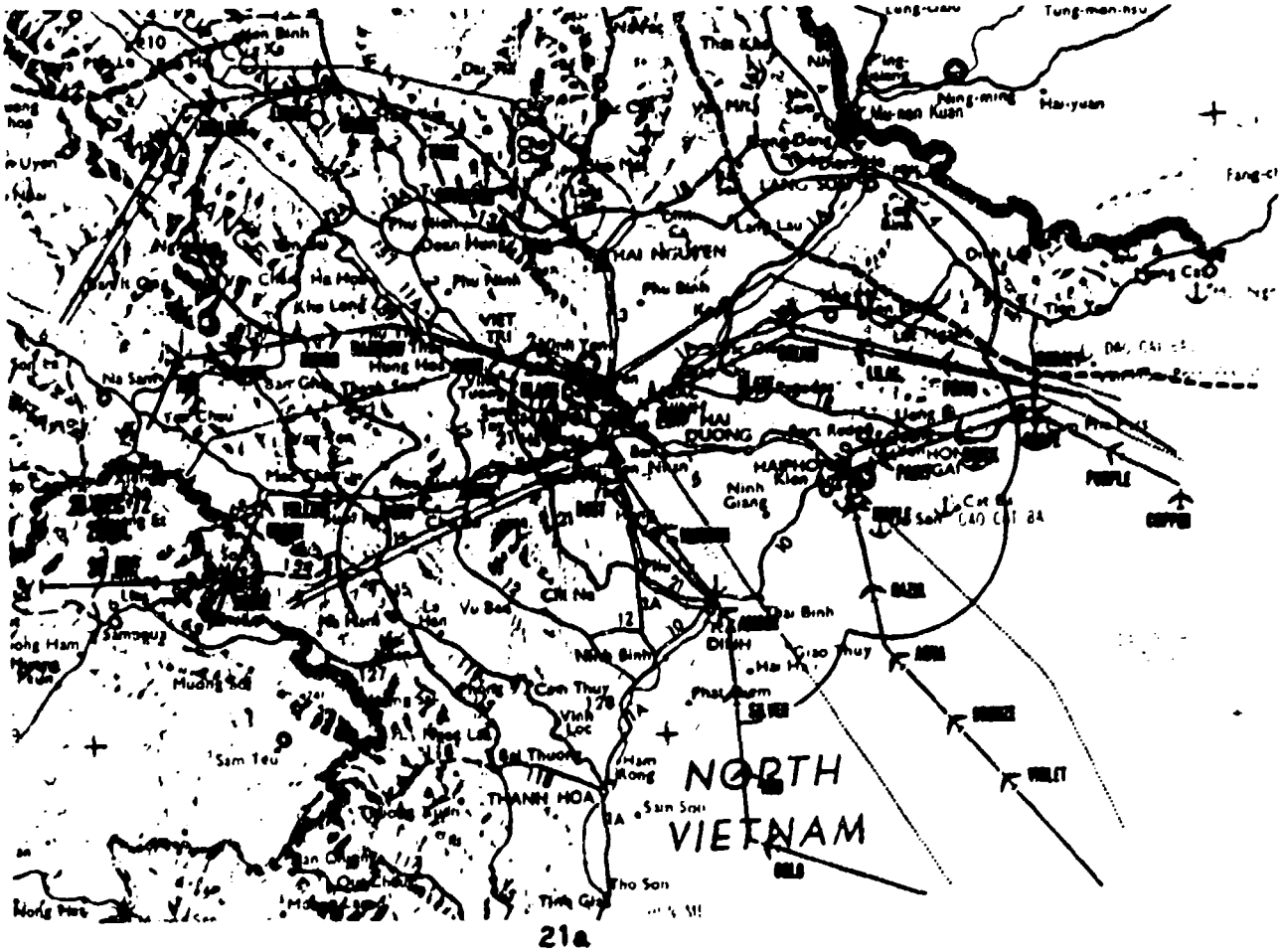
B-52 CELLS/TARGET TIMES

'B' GUAM		'E' GUAM		'D' U-TAPAO	
SNOW	2230	OPAL	2230	BLACK	2230
SLATE	2232	LAVENDER	2232	BODY	2232
CREAM	2230	WINE	2235	RAINBOW	2235
LILAC	2230	SABLE	2230	WOOD	2237
PUTTY	2242	LEMON	2241	BROWN	2240
COBALT	2245			ASH	2244
		PAINT	2230		
RUST	2230	ROSE	2233	PINK	2230
MAROON	2232	GRAPE	2236	WHITE	2232
AMBER	2236	PURPLE	2238	IVORY	2235
SILVER	2238	COPPER	2242	YELLOW	2230
RED	2241			EBONY	2242
		MAPLE	2236	SMOKE	2245
		HAZEL	2233		
		AQUA	2236	GOLD	2245
		BRONZE	2230		
		VIOLET	2242	WALNUT	2245

113 SUPPORT AIRCRAFT

- EB-66, EA-3A & EA-6B (NAVY), EA 6A (MARINE) ECM
- F-4 CHAFF
- F-4 CHAFF ESCORT
- F-4 (AF & NAVY) MIG CAP
- F-4, B-52 ESCORT
- F-105 & A-7 (NAVY) SAM BAND
- F-4 HUNTER/KILLER

Illust-5
Source: (2:124-125)



conflict and disaster were to be avoided. These were the most complex and demanding bomber tactics developed thus far during the war. Many of the crews were seasoned veterans and had helped develop these new tactics. However, several crews were relatively new and would get their first baptism from experienced SAM gunners. Hanoi, still one of the most heavily defended complexes in the world, was ready and had been warned by the Russian trawler off of Guam that the B-52s were on the way. Although SAMs claimed two D-models, the mission was once again judged successful with 9,932 bombs on target (11:89-92).

On the morning of the 27th, Hanoi notified President Nixon that talks could resume in Paris on 8 January, after the cessation of bombing. The communists were willing to settle the remaining questions and signaled that Hanoi had had enough (10:113-114). Nixon did not back-off on the bombing, despite the North Vietnamese expressing their willingness to negotiate. He had fallen into that trap with past "gestures of goodwill" and wasn't going to make the same mistake again.

Day 9 (27 Dec 72)

From the debriefing of the crews on the 26th, more lessons were learned. For example, two-ship cells weren't "hacking it" over a target defended with the intensity encountered around Hanoi. Both aircraft lost on the 26th were D-models and part of a two-ship cell because of aborting aircraft enroute. The decision was made that if an airplane dropped out of formation enroute to the target, then the remaining two aircraft would join the cell ahead or behind and form a five-ship cell (2:145). Minimum post-target turns, expanded altitude separation,

selective deployment of chaff, simultaneous TOTs, varied axis of attack and turning points all contributed to preventing the enemy from anticipating what we were going to do next.

Tactics on Day 9 used six waves hitting seven targets, again using simultaneous initial TOT. B-52Gs were to be used over Hanoi, for the first time since Day 3. The B-52 strike force of 60 aircraft (30 U-Tapoa Ds and 21-Gs/9-Ds from Andersen) was to further compress its bomb drops to ten minutes, instead of the 15 minutes planned the night before. Another new tactic was to split the wave, attacking Hanoi, from the northeast into three small streams, attacking separate targets.

Three of the seven targets were SAM sites. "General Meyer, CINCSAC, wanted to insure that the SAM sites were destroyed as quickly as possible, even if it meant using Stratofortresses to do it. He was still feeling pressure associated with the loss of our strategic bombers, and was being pressed into what was, to him, a violation of basic air doctrine." One of the "first commandments" for the employment of strategic air power is to initially destroy enemy air defenses and gain air superiority. Military and industrial targets can then be struck with little loss to the attacker (2:149). TACAIR, with their precision guided munitions, was ideal for this type of target, but the lack of good weather to visually identify, acquire and destroy the SAM missiles necessitated using B-52s against these pinpoint targets. B-52s are more effective against softer area targets than hard precise ones (2:145-150).

Another advantage to the decentralization in planning was that the frag orders started coming in on time from HQ SAC. Eighth Air Force was

doing most of the enroute planning and coordination needed between the bombers, TACAIR and the Navy. Things were finally coming together prior takeoff. The crews now actually had sufficient time to study target materials during briefings, rather than at the aircraft. The 8th AF and Wing staff were working closely together using crew debriefings and recommendations to continually improve and refine mission tactics.

One of the surprises throughout Linebacker II air operations over the north was the lack of MIGs. The TAC fighters and Navy attack aircraft kept the enemy airfields pretty well under control from start to finish. With very few exceptions, the crews were more concerned with keeping the formations together than with worrying about MIGs. The value of that one fact alone cannot ever be measured, since an integral formation proved to be such an essential element in the successful B-52 assault (2:151).

The TACAIR support package consisted of 101 aircraft blanketing the target area. On Day 9 the final losses of Linebacker II were recorded. TACAIR lost two F-4s to SAMs and SAC lost one B-52D to a SAM (12:45).

Day 10 (28 Dec 72)

On the 28th, Hanoi answered Nixon's proposal and accepted the President's provisions and serious negotiations ultimatum. Nixon ordered a halt to the bombing north of the 20th parallel 36 hours later at 1900 hours, Washington time, on the 29th.

Debriefing of the crews who flew on the 27th indicated that some of the formations were still spreading out too much. For missions on the 28th, the intracell spacing was decreased. The pilot would reduce

spacing until they could see the exhaust gases from the engine tailpipes of the aircraft ahead of him. This helped in coordinated turns and roll-outs, as well as spacing. As this new tactic was being added, the procedure to vary hold time after bomb release was being removed. The procedure was causing a loss of cell integrity by putting aircraft out of position.

Sixty B-52s and 99 support aircraft would strike targets around Hanoi. Three of the four targets were SAM sites. Unfortunately, SAM attrition rates had never reached the desired levels, due mainly to the constant poor tactical bombing weather over Hanoi. "Throughout the whole course of Linebacker II, there were only 12 hours of good daylight visual bombing weather in 12 days." (14:4) Since the SAM sites were basically intact, the B-52s had to go after them on a continuing basis.

Unlike the bomber tracks on previous missions, those on the 28th crossed each other on egress from the various targets, some waves making sharp breakaway turns and others executing flyovers. Simultaneous intitial TOTs were again used and 27 aircraft would criss cross within five miles of each other. Another innovation was the use of reciprocal tracks which require precise timing and navigation (2:155-159). All targets on the 28th were struck successfully and enemy defensive activity was much lighter than expected.

Day 11 (29 Dec 72)

The tactics employed on day 11 were nearly a carbon copy of the double-wave strike and withdrawal that had been performed the day before. On the last day of Linebacker II operations, 60 B-52s, with 102

support aircraft would attack their final targets. Three waves of three cells each with the same release time of each cell exactly matched those of its counterpart cells in the other two waves. Post target routing involved crossing tracks, separated only by altitude. A post target turn to a withdrawal route resulted in each cell being superimposed over its counterpart cell during the withdrawal phase (See Illust-6).

The combination of chaff dropped by F-4s, mutual ECM support provided by B-52s in close proximity, a consolidated point attack from three widely separated axis of attack, and the varied post-target maneuvers performed by each wave added up to maximum ordinance on target in minimum exposure time. The defenses, already suffering from low SAM supplies, were overwhelmed in this coordinated attack, and could only react with 23 SAMs being launched (2:163).

On 29 December, 72, the strategic bombing campaign against North Vietnam had ended. CINCPAC received instructions to terminate military actions north of 20 degrees latitude and later that same day President Nixon announced the resumption of peace talks.

29 DEC 1972

LEGEND

- CHINESE BUFFER ZONE
- APPROXIMATE SAM COVERAGE
- TARGETS
- BOMBER ROUTE IN
- BOMBER ROUTE OUT
- COLOR — CALL SIGN OF CELL

TARGETS

1 PHUC YEN SAM SUPPORT	27
2 LANG BANG RAILROAD	18
3 TRAI CA SAM STORAGE	15
	60

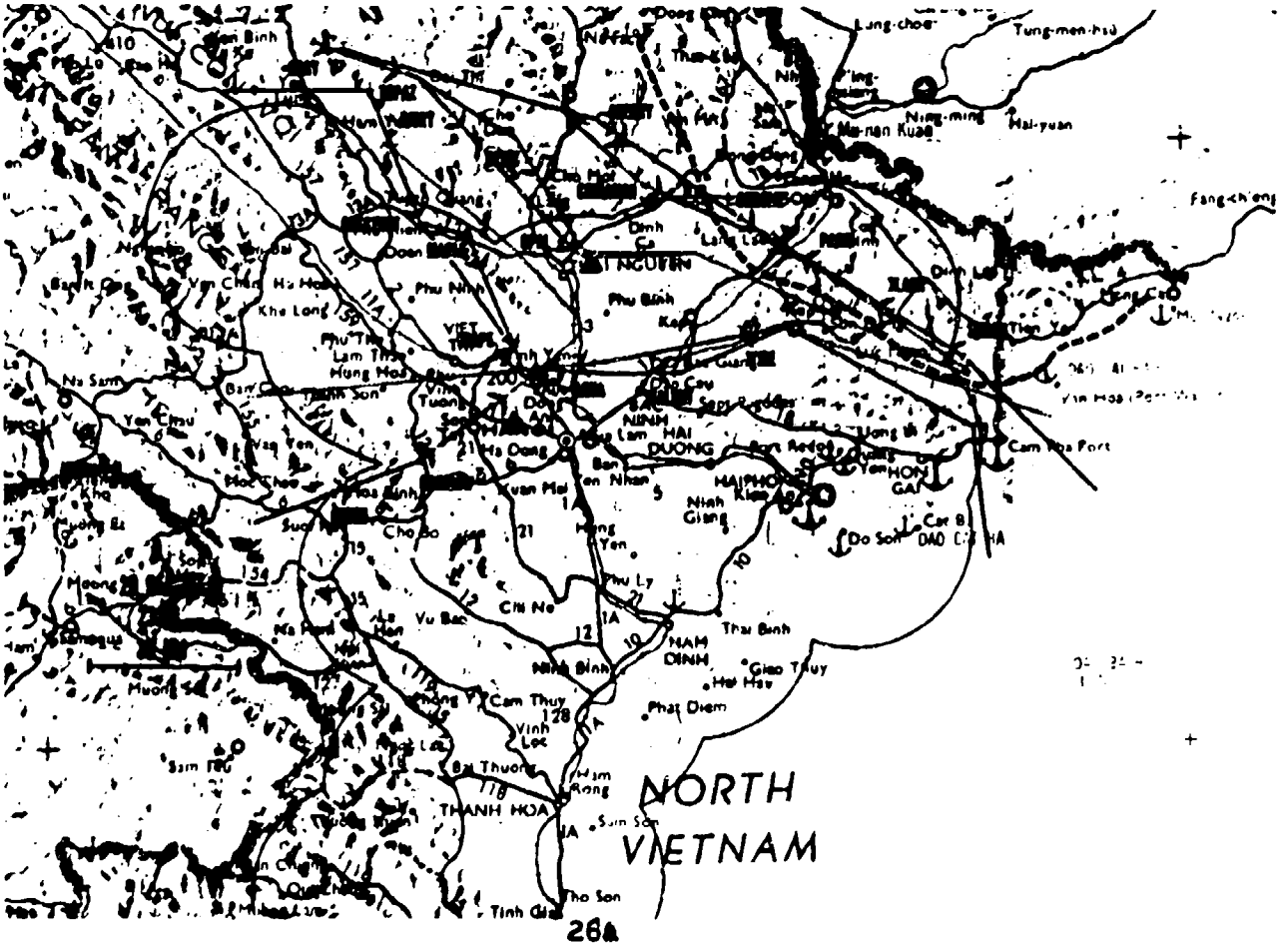
B-52 CELLS/TARGET TIMES

'D' GUAM		'G' GUAM		'D' U TAPAO	
AQUA	2320	PAINT	2320	GRAPE	2320
WALNUT	2323	BLACK	2322	MAPLE	2323
WIRE	2326	LEMON	2324	CHESTNUT	2326
RED	2320	CHERRY	2330	OPAL	2330
RAINBOW	2323			BEIGE	2330
GREEN	2326			IVORY	2340
				TOPAZ	2342
				GRAY	2344
				CHROME	2334
				CINNAMON	2336

102 SUPPORT AIRCRAFT

- EB-66 & EA-6B (NAVY) ECM
- F-4 CHAFF
- F-4 CHAFF ESCORT
- F-4 (AF & NAVY) MIG CAP
- F-4, B-52 ESCORT
- F-105 & A-7 (NAVY) IRON HAND
- F-4 HUNTER/KILLER

Illust-6
Source: (2:164-165)



CHAPTER V : CONCLUSION

Linebacker II was an example of using the military application of power to achieve a political goal. President Nixon decided that the massive use of strategic airpower, aimed at critical strategic targets in the heart of North Vietnam, was the only acceptable way to end the war. Strategic bombers and tactical fighters combined in an air campaign to achieve the political objective of returning the North Vietnamese to the bargaining table on U.S. terms. To test the success and validity of the strategic bombing campaign we must first examine the extent to which the objectives of the operation were met. Asked another way, did the strategic application of airpower achieve the President's political goal of ending U.S. military involvement in the war?

One of the objectives of the air campaign was to destroy the enemy's capability to fight. During the short 11 day operation, 729 B-52 sorties were flown against 34 targets in North Vietnam. Additionally, Air Force and Navy fighters flew 1,041 day and 1,082 night sorties. More than 20,000 tons of ordinance were dropped against targets such as SAM sites, airfields, warehouses, storage areas, railyards, communication facilities, and power plants. Bomb damage included: 1600 military structures damaged or destroyed; 500 rail interdictions; 372 pieces of rolling stock damaged or destroyed; about one-fourth of petroleum reserves destroyed; and 80 percent of electrical power production destroyed. Estimates put logistics flow reduced from 160,000 to 30,000 tons per month. It would take the North Vietnamese over a year to restore the capability (15:194-195).

Another objective was to attack the will of the enemy and his refusal to seriously negotiate an end to the war. Before Linebacker II, the North Vietnamese refused to negotiate the remaining issues and withdrew previous concessions. After Linebacker II, they were shaken, demoralized and anxious to reach an agreement (1:20). Less than four weeks after the bombing halt, a nine point cease-fire agreement was signed and our American prisoners-of-war (POW) would be coming home. After a long string of B-52 bombs started going off, one POW saw a guard "trembling like a leaf, drop his rifle,and wet his pants." (2:174) Colonel John P. Flynn, the senior POW, recognized the psychological and destructive effects of Linebacker II: "When I heard the B-52 bombs go off, I sent a message to our people. I said, 'Pack your bags--I don't know when we're going home--but we're going home'." (2:175) Dr. Kissinger had this to say about Linebacker II, "...there was a deadlock...then in the middle of December, there was a rapid movement when negotiations resumed on January 8. These facts have to be analyzed by each person for himself..." (16). The North Vietnamese will had been badly bent, and they quickly returned to negotiations to reach an agreement to end the bombing.

Minimizing civilian casualties was a prime consideration in selecting targets and what type aircraft would be used. Several proposed B-52 targets were reassigned to precise, laser guided munitions dropped from tactical fighters. Despite the heavy damage to military targets, there were only 1,318 North Vietnamese casualties. The rate was less than two lives lost per B-52 sortie--a very low figure by any standard (8:45).

B-52 tactics for Linebacker II operations were severely criticized by both 8th AF and 43rd Strategic Wing staffs and aircrew members. The enemy gunners fired over 1000 SA-2 missiles, shooting down 11 of the eventual 15 B-52s lost in the first four days of the operation. These unacceptable losses forced a dramatic change in bomber tactics, and a decentralization of their control. The changes in tactics and their execution during the 11 days of Linebacker II were significant achievements of the campaign. As the raids progressed, so too did the sophistication of the tactics. No one during the first days could visualize the dramatic changes in combat tactics which would unfold by the end of the bombing. Tactics changed from a "business as usual" set of procedures to a new revolutionary way of employing strategic air power. Predictability and inflexability in tactical planning had been reduced dramatically by the end of the air campaign.

Finally, the Linebacker II operation proved that the use of strategic air power can be an effective means of achieving political and national objectives. Many leaders believed that Linebacker II vindicated not only strategic bombing as a political tool but also the tenets of Air Force bombing doctrine. Senator Barry Goldwater declared in February, 1973, "Let us hope that the strategic bombing lesson of the 12 days in December does not escape us as we plan for the future. Airpower, specifically strategic airpower, can be decisive when applied against strategic targets--industrial and military--in the heartland of the enemy regardless of the size of the nation" (10:131-132).

Linebacker II, the 11 day war, ended on the 29th of December 1972. The North Vietnamese agreed to a cease fire after massive strategic

attacks threatened to destroy the economic, political, social, and military life of their country. Strategic airpower was a decisive factor in achieving a settlement, and ending U.S. involvement in the war.

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