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OPERATION LINEBACKER II: AN ANALYSIS IN OPERATIONAL DESIGN

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Joint Military Operations Department.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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OPERATION LINEBACKER II: AN ANALYSIS IN OPERATIONAL DESIGN

CHAPTER I

INTRODUCTION

"I fear that in the past our political objectives have not been achieved because of too much caution on the military side. I don't want any more of this crap about the fact that we couldn't hit this or that one. This is your chance to use military power to win this war, and if you don't I'll consider you responsible."

- President Richard Nixon to CJCS Admiral Moorer (December 1972)

With these words began the final air operation that would ultimately end America's involvement in the Vietnam War. Operation Linebacker II, the "11 day war" or more commonly referred to as the Christmas Bombings began on December 18, 1972 and finished 11 days later. Linebacker II involved B-52s from the 8th Air Force, and tactical air assets from the 7th Air Force and carrier aviation from TF-77. The targets were of a strategic nature located in and around Hanoi and Haiphong.

This paper will examine the operational design of Linebacker II with emphasis on the planning and execution of the operation. While Linebacker II is credited with bringing the North Vietnamese back to the negotiating table and America's eventual withdrawal from the conflict, the operation itself was flawed with poor to nonexistent operational planning and a lack of proper operational design.

Sequence of Events Leading up to Linebacker II

Mar 1972:	North Vietnamese Army launches Easter offensive into South Vietnam. Linebacker I is implemented authorizing minimal B-52 strikes against targets in North Vietnam for the first time in the war.
Aug 1972:	CINCSAC tasks General Johnson (8th Air Force) with planning a major bombing offensive against North Vietnam.
20 Oct 1972:	Bombings north of the 20th parallel are halted as peace talks improve.
26 Oct 1972:	National Security Advisor Henry Kissinger informs reporters that "Peace is at Hand."[1]
7 Nov 1972:	President Nixon is reelected in a landslide victory over George McGovern.
20 Nov 1972:	21st session of the secret Paris peace talks begin.
25 Nov 1972:	Peace talks have stalled and are scheduled to resume on 4 December.
4 Dec 1972:	Peace talks resume but the North Vietnamese have changed their positions on numerous key points already agreed upon during the November talks.
13 Dec 1972:	American linguistic experts discover that the North Vietnamese have inserted 17 changes into the agreed upon peace accords.
14 Dec 1972:	Kissinger informs President Nixon that future talks are pointless and that pressure needs to be put on the North Vietnamese.
14 Dec 1972:	President Nixon gives the North Vietnamese government 72 hours to resume serious negotiations or face severe consequences.
15 Dec 1972:	JCS sends advance warning to CINCPAC and CINCSAC to prepare for strikes into North Vietnam.
16 Dec 1972:	Henry Kissinger publicly announces that the peace talks in Paris have failed.
17 Dec 1972:	JCS sends warning order to CINCPAC, CINCSAC, and 7th Air Force to commence at 1200Z, 18 December 1972, a maximum sustained three day effort against targets around Hanoi and Haiphong.
18 Dec 1972:	Operation Linebacker II commences with 120 B-52s attacking targets in Hanoi and Haiphong.
18 Dec 1972:	White House Press Secretary announces that the bombings will end only when all U.S. POWs are released and a cease fire is in effect.

19 Dec 1972:	President Nixon extends Linebacker II indefinitely.
26 Dec 1972:	North Vietnamese notify the White House that they are willing to resume negotiations once the bombings north of the 20th parallel have stopped.
29 Dec 1972:	President Nixon halts Linebacker II after Hanoi accepts terms for renewed peace talks.
31 Dec 1972:	Hanoi issues a statement asserting that the bombings did not succeed in "subjugating the Vietnamese people."[2]
2 Jan 1973:	House Democratic caucus votes to cut off all funds for the war in Vietnam.
4 Jan 1973:	Senate Democratic caucus votes to cut off all funds for the war in Vietnam.
31 Jan 1973:	Paris Peace Accords brings America's involvement in the war to an end and a return of POWs.

CHAPTER II

PREPARATIONS AND PLANS

Strategic Guidance. The successful use of airpower during Linebacker I, and the pressure bombings in November that brought the North back to negotiating, gave President Nixon the impetus to apply airpower in order to bring America's involvement in the war to an end.[1] Henry Kissinger, President Nixon's National Security Advisor, warned the President that the North Vietnamese were deliberately stalling at the peace table and "playing for a clean cut victory through our split with Saigon or our domestic collapse rather than run the risk of a negotiated settlement."[2] Assured that strategic airpower employed against strategic targets would bring the Government of North Vietnam back to the negotiating table, President Nixon implemented Linebacker II in hopes of achieving "Peace with Honor."

Where Linebacker I was aimed at interdicting lines of communication, Linebacker II would focus on attacking the will of the people and creating the maximum psychological hardship upon the North Vietnamese in the shortest amount of time. "The bastards have never been bombed like they're going to be bombed this time."[3] President Nixon wanted it made clear to the North Vietnamese that he would not stand for an indefinite delay in the negotiations.[4] Acutely aware that when Congress reconvened in January, funding for the war in Southeast Asia would more than likely be terminated, President Nixon was determined to achieve his "Peace with Honor" before Congress could act. The White House felt if the war could be terminated rapidly and Americans troops brought home, the American public would forgive the perceived excessive use of airpower to bring the North to their senses.

Unlike previous air plans that had called for a gradual escalation, Linebacker II would be an all out air bombardment from beginning to end. The President and the Chairman of the Joint Chiefs of Staff, Admiral Thomas Moorer, expressed their concern for the success of the operation. "It was abundantly clear -- U.S. forces were expected, indeed obligated, to

produce the desired results."[5] While ensuring that the bombings had a profound psychological impact on the populace, the President made clear that damage to the civilian population must be minimized.[6]

Strategic Objective. President Nixon's stated strategic objectives were to bring the North Vietnamese back to the conference table so that the United States could exit the war in a face-saving way.[7] The necessity for the imposed time constraints was to forestall the potential premature funding halt being considered by Congress. "The last argument of kings was being employed to bring home to the vacillating North Vietnamese (NVN) that our national interest was to bring an end to the conflict under the terms which had been painstakingly developed at the negotiating table."[8]

Operational Objectives. Linebacker II "stressed a maximum effort in minimum time against the most lucrative and valuable targets in North Vietnam."[9] While many of the targets selected during Linebacker II were the same targets that had been attacked during Linebacker I, the psychological impact of the non-stop bombings, it was hoped, would adversely affect Hanoi's persistence to refuse serious negotiations. A secondary objective of Linebacker II was to destroy as much of their war-making capability as possible.

Operational Planning. As President Nixon stated, " we'll take the same heat for big blows as for little blows. If we renew the bombing, it will have to be something new, and that means we will have to make the big decision to hit Hanoi and Haiphong with B-52s. Anything less will only make the enemy contemptuous."[10] In August of 1972, CINCSAC had tasked General Gerald Johnson (8th AF) with planning a major air operation against North Vietnam in anticipation of a renewed bombing offensive. The actual plan for Linebacker II, devised by CINCSAC in December, bore no resemblance to the original plan conceived by the 8th Air Force staff months prior.[11]

The warning order arrived on 17 December and CINCSAC was instructed to prepare for a three day maximum sustained around-the-clock bombing effort. The method of attack would

be night high altitude radar bombing by the B-52s against area targets with tactical aircraft going after precision targets and those close to populated areas during daylight hours.[12]

Target selection criteria was based on minimizing civilian casualties and collateral damage. If it was determined that the target could not be attacked without causing casualties or collateral damage, the targets were rejected or left for precision munitions.[13] President Nixon noted in his dairy that the initial bombing plan and the target selections sent to him by the Pentagon "could at best be described as timid."[14] Unlike his predecessor, President Nixon offered only general guidance on target selection, but the Joint Chiefs still reviewed all selected targets submitted by CINCSAC for approval.[15]

Enemy Critical Factors. The enemy's center of gravity rested with the will of the people and the government of Hanoi. For the first time during the war, strategic bombers were going after strategic targets in an attempt to influence the government of North Vietnam. Prior to Linebacker II, B-52s were restricted to operations in South Vietnam out of concerns for protecting a primary nuclear delivery platform and out of fear of escalation.[16] President Nixon's diplomatic success in achieving Détente with the Soviet Union and China, alleviated his concerns regarding the ramifications of bombing North Vietnam and the potential for starting World War III.[17]

Of the 60,000 American troops in Vietnam during 1972, only 9000 were combat forces. This lack of ground forces left the White House with the only option of using airpower to pressure Hanoi into negotiating. Consequently, as the North Vietnamese Army shifted from unconventional warfare into large scale conventional engagements, their lines of communications became increasingly vulnerable to air attacks. Using B-52s and risking America's primary nuclear capable platform against targets in North Vietnam signified President Nixon's resolve and determination to bring the war to an end and do so on terms favorable to the United States and South Vietnam.[18]

Operational Scheme. The operational plan for Linebacker II devised by CINCSAC and 8th Air Force was devised to be very simple initially and then build up as aircrew's experience grew.[19] Simplicity in the early stages of the operation was considered paramount for the operation to succeed. The overriding desire to keep the plan simple and a failure to adapt different tactics to the changing environment led to the bombers becoming predictable, the missions repetitive, and eventually resulted in more aircraft and aircrew lost. A closer analysis of the fundamental elements of the operational scheme will clearly demonstrate shortcomings in the overall operational design.

Method of Defeating the Opponent. Linebacker II was not designed nor intended to defeat the North Vietnamese. The operation focused on 'indirectly' attacking the North's center of gravity, which in 1972 was the will of the people to support the Government of Hanoi. Impressing upon Hanoi the cost of stalling and to what extent President Nixon was willing to go for an honorable withdrawal, it was hoped North Vietnam would return to the peace table.

The primary targets were railroad yards, storage areas, power plants, command and control centers, and airfields around Hanoi and Haiphong.[20] The psychological impact of the strikes in the vicinity of the two most populated areas of North Vietnam, coupled with the destruction of vital logistical capabilities was hoped to be sufficient to convince the Hanoi government that it was in their best interest to negotiate.

Application of Forces and Assets. During the winter monsoon months in Vietnam, the continuously overcast skies virtually negated the effectiveness of tactical air and precision munitions. Considering the limitations imposed by weather, the plan called for B-52s, F-111s and carrier based A-6s to conduct the majority of the bombings. The B-52's all weather radar bombing capability would be crucial to the success of the operation.[21] Assets included B-52s of the 8th Air Force based at Andersen AFB, Guam and U-Tapao, Thailand. Tactical air assets came from TF-77's Carriers in the Gulf of Tonkin and from squadrons of the 7th Air Force located throughout Thailand.

Operational Deception. Hanoi had been warned several times that if they continued to stall the negotiations, they would face the severest bombardment of the war. Consequently, the Government of North Vietnam was certain that these attacks would focus on the cities of Hanoi and Haiphong which to date had survived the war virtually unscathed. One explanation for such an insignificant number of civilian casualties can be attributed to the evacuation of a large segment of the civilian population of Hanoi and Haiphong prior to the air offensive. Furthermore, a Soviet intelligence ship (AGI) remained stationed off the coast of Guam throughout the operation and was continuously giving the North Vietnamese a seven hour advance warning of the impending B-52 airstrikes. In an air operation such as Linebacker II, with a very limited number of targets to attack, the ability to achieve operational deception is extremely difficult.

Operational Fires. The mining of Haiphong harbor in May 1972 (Operation Pocket Money) and the subsequent reseeding in December, coupled with the destruction of major rail lines had a tremendous impact on the North's ability to wage war and counter the air attacks. Virtually all of the SA-2 surface-to-air missiles (SAMs), and 67% of North Vietnam's external support came from the Soviet Union and China into Haiphong harbor. The mining and rail interdiction operations eventually eliminated the SA-2 threat entirely. In the end, American air forces were able to operate, in what had been the most heavily defended area of North Vietnam, totally devoid of MIG, SAM, or AAA threats.[22]

Operational Protection. Since the raids were being conducted at night, General Meyer (CINCSAC), General Johnson (8th AF) and General Vogt (7th AF) felt that the air threat would be negated.[23] Consequently, there was no attempt to achieve air superiority over North Vietnam prior to commencing Linebacker II which was to have a serious impact as the operation proceeded.

Over 600 SA-2s were fired in just the first three nights resulting in nine out of a total of 15 B-52s lost for the entire operation. While the MIG threat was nonexistent and escort

aircraft negated the few that were airborne, the SAM threat was not taken serious until after six B-52s were lost on 20 December. Prior to the B-52s conducting strikes, the SAM sites in the vicinity of Hanoi and Haiphong should have been targeted more aggressively to ensure a greater degree of protection for the bombers. The political restraints imposed on minimizing civilian casualties and collateral damage limited attacks on the majority of SAM sites by virtue of their close proximity to civilians.[24]

The planners were aware that the culminating point for the Americans would be when the B-52 losses exceeded acceptable limits or when the majority of strategic targets in and around Hanoi and Haiphong had been destroyed. Two days prior to the end of the operation, attacks into Haiphong were excluded for a lack of worthy targets and by the end of Linebacker II all of the selected targets around Hanoi had been destroyed.

B-52 losses became excessive early in the operation and plans were immediately revised to decrease the threat centered on the bombers. "A heavy loss of B-52s--America's mightiest warplanes--would create the antithesis of the psychological impact that Nixon desired."[25] It was not until after the B-52 losses reached an unacceptable limit that the operational emphasis shifted to destroying the defenses around Hanoi and Haiphong. "Had B-52 losses continued to mount, it might have been necessary to abdicate the campaign to North Vietnam's defenses--in other words, accept defeat."[26]

Hanoi was well aware that the B-52s could become a critical vulnerability for the Americans if they were able to continue inflicting heavy losses on the bombers and aircrew. Overconfidence in the B-52's ability to penetrate such a formidable air defense network led planners to dismiss the essential task of achieving air superiority prior to conducting the bombing operation.

Phasing. Linebacker II was divided into three phases. Phase I consisted of the initial plan for three days of sustained bombings from 18-20 December. Weather and initial losses resulted in the operation being extended indefinitely on 19 December.

Phase II started on 21 December and lasted until the Christmas pause on 24 December. Phase II differed from Phase I in that the emphasis shifted to protecting the bombers by reducing the number of B-52s to 30 aircraft and doubling the amount of support aircraft (ECM, escorts, and AEW) to 85 on each raid. SAM storage and assembly areas were aggressively targeted and tactics were changed to conduct simultaneous attack in order to saturate the command and control networks. Ingress and egress routes now varied from strike to strike.

Phase III was implemented on 26 December after the Christmas pause and lasted until the bombing halt on 29 December. SAC finally approved many of the suggestions regarding tactics that the aircrews had requested. Additionally, planning for the rest of the operation was relinquished to the 8th AF staff on Guam.[27] The number of bombers each night varied from 60 to 120 with attacks occurring simultaneously on numerous targets. Multi-axis attacks were used throughout phase III and the lack of SAMs coupled with the amount of bombers in each raid had a tremendous psychological effect on the populace.

Operational Pause. The Christmas pause was implemented out of tradition and to give Hanoi time to consider the effects of the bombing while realizing the futility of continuing the conflict. After failing to receive a response from the government of North Vietnam, the bombing recommenced on 26 December with the most ambitious strike of the operation.[28] During this strike, it was evident that the North Vietnamese Army had made good use of the Christmas pause by resupplying SAM sites, and relocating AAA emplacements. Although it would have been politically difficult to continue the bombings through Christmas, the pause benefited only the North Vietnamese who had reached their culminating point with a lack of SA-2s and adequate air defense. The Americans, on the other hand, were able to continue the operation unimpeded as fresh aircrew were arriving in theater and logistical limitations never became a factor. As Clausewitz properly noted, "Now if every action in war is allowed

its appropriate duration, we would agree, at least at first sight, any additional expenditure of time -- any suspension of military action -- seems absurd."[29]

Coordination. Unity of effort was achieved through cooperation and not command. B-52s remained under the operational control of SAC in Nebraska who personally supervised the operation. TACAIR assets were under the control of the 7th Air Force and TF-77 with no common commander or JFACC. "Not surprisingly, with one headquarters controlling the bombers and another the support aircraft, there was a lack of coordination between the bombers and their escorts, including two instances in which B-52s fired on US aircraft."[30]

> SAC picked the targets to be struck by its B-52s from the master-target list formulated by JCS. Meanwhile, 7th AF picked the targets for Tacair, including the F-111 strikes, and provided support packages for the B-52 strikes. Changes in B-52 targets or TOTs created enormous problems. A single authority for targeting and strike timing would have provided tremendous advantages in effectiveness as well as in improved force survivability.[31]

Extensive delays in receiving plans from SAC prevented 7th Air Force and carrier air assets from providing adequate escorts on numerous occasions. General Vogt (7th AF) demanded the basic airplan 18 hours prior to time on target. On one instance, the target list from SAC arrived just 3.5 hours prior to takeoff.[32] In retrospect, all of the planning should have been done by the 8th Air Force staff in Guam had the concept of a Joint Forces Air Component Commander been considered.

CHAPTER III

EXECUTION

Summary of Events. At 1945 on 18 December, 48 B-52s attacked storage facilities, railroad yards and major airfields around the city of Hanoi. These same targets were again attacked by 30 B-52s at 0000 and finally by 51 B-52s at 0500. Three B-52s were lost with 94% of the bombers hitting their assigned targets.

Formations for the initial strike stretched out over 70 miles long with each aircraft attacking the same target area utilizing the same ingress and egress routes, altitude, and airspeed.[1] This predictability allowed the SAM operators to fire missile barrages ballistically without the use of their radars, thereby negating the effect of ECM from the bombers. Lessons learned during Linebacker I that highlighted the need to avoid repetitive tactics were totally ignored.[2]

During the first phase of the operation (18-20 December) the plan was executed exactly as written with no provision for change to conform to the present environment.[3] The reason for the repetitive plan was because SAC felt the lead time needed to develop a new plan and implement it was too prohibitive. Additionally, it was believed that utilizing the same route in and out of the target area as before would benefit the more inexperienced crews.[4] This misconception was strengthened on day two when B-52s reported no losses. On day 3, six B-52s were lost causing President Nixon to question SAC's logic for going after the same targets repeatedly. General Meyer's Deputy Chief of Staff for Intelligence stated that "Many senior Air Force people were concerned that if the bombing continued, we would lose too many bombers and airpower doctrine would have proven fallacious. Or if the bombing were stopped, the same thing would occur."[5]

Convinced that the tactics were flawed and their leaders were unwilling to change them, aircrew's morale suffered.[6] Many pilots were openly critical of tactics employed and the repetitiveness of the strikes. "SAC was an extremely centralized operation with a tightly

regimented chain of command. The idea of bomber crews suggesting changes in tactics was heresy in a service whose training emphasized the strict guidelines and controls essential to their primary function as a nuclear deterrent force."[7]

Aircrews were prohibited from conducting SAM avoidance maneuvers from the initial point of their bomb run until bombs were released which totaled approximately four minutes of predictable flight. The 8th Air Force Commander went so far as to threaten court-martialing any pilot that maneuvered his aircraft. The three reasons for this restriction were: To reduce the chance of a mid-air collision between maneuvering bombers at night; to afford the most stable bombing platform to decrease the probability of bombs not hitting the target or causing excessive collateral damage; and to increase the ECM capability of a three plane formation.[8]

After the third day of the operation, intelligence indicated that SA-2 reserves were low. SAM storage and assembly areas were now aggressively targeted to afford a greater degree of protection for the bombers.[9] Air superiority had now become as essential task by default. TACAIR focused on neutralizing the SAM threats around Hanoi and Haiphong, and although not strategic targets and would not impact on the will of the people, CINCPAC was acutely aware that if the B-52s were not protected, the operation would fail.

Throughout the entire operation, weather severely limited the effectiveness of TACAIR in the operating area. During the 11 day operation, there were only 12 hours of good daylight weather for strike aircraft to attack their assigned targets utilizing visual deliveries or precision munitions.

On day 4 (21 December), clear weather allowed TACAIR to target the more sensitive areas around Hanoi including SAM sites, and Hanoi's thermal power plant. Furthermore, in order to minimize losses, B-52 raids were reduced to a single wave of 30 aircraft while bomber cells were compressed to limit time in the target area. These changes in tactics resulted in the loss of only two bombers.

The weather on days 5 and 6 (22-23 December) precluded pre-strike attacks on airfields and SAM sites. The fact that only 43 SA-2s were launched on day 5 and five were launched on day 6 tends to point out that the gunners were caught off guard by not being afforded the pre-strike tipper that the B-52s were soon to follow.[10]

Day 8 (26 December) was the most ambitious strike of the operation. Four waves, totaling 120 B-52s, attacked 10 separate targets within 10 minutes along four separate attack axes while only losing two bombers. This same plan was continued for the next three days with the last two B-52s being shot down on 27 December. At 1900 EST on 29 December, President Nixon halted Linebacker II after North Vietnam accepted the terms for renewed peace talks.

For the entire operation, 729 B-52 sorties had been flown against 34 targets with 15,237 tons of bombs dropped. TACAIR assets flew 1216 sorties while dropping 5000 tons of ordnance.[11] Bomb damage assessment showed 1600 military structures were damaged or destroyed, 500 cuts in rail lines, 191 storage facilities destroyed, electrical power generating capabilities reduced by 80%, and POL supplies reduced by 25%. Civilian casualties amounted to 1318 killed in Hanoi and 305 in Haiphong which, considering the amount of ordnance dropped in and around populated areas, was minuscule. In the end, the desired damage level had been achieved in just 11 days with no more suitable targets around Hanoi or Haiphong left to attack and the North Vietnamese unable to repair the damage caused by the air raids.[12]

Linebacker II cost 15 B-52s, 11 tactical aircraft, and 93 airmen listed as MIA, KIA, or POW. It was estimated that between 884-1242 SA-2s were launched during the 11 day operation achieving a 1.7% kill ratio. As the SA-2 had been designed specifically to target the B-52, this was a boost to SAC as it proved the B-52 could penetrate Soviet defenses and accomplish its nuclear mission with acceptable losses. MIGs accounted for no losses but two enlisted B-52 tail gunners achieved MIG kills.

CHAPTER IV

CONCLUSION

Lessons Learned. Although the Linebacker II Operation is commonly referred to as a campaign, it was in fact a major operation that achieved strategic objectives. Linebacker II extended the operational reach and was instrumental in bringing the war to the North Vietnamese and imparting a tremendous psychological impact on the people of Hanoi and Haiphong. Hotly debated is whether the Christmas Bombings *destroyed* the will of the North Vietnamese and if the operation had continued longer, would the North Vietnamese have conceded defeat. It is fair to say that the 11 days of intense bombing did bring the North Vietnamese back to the peace table. Nevertheless, it was in the North's best interest to negotiate a settlement as the war in the South had basically been won and the sooner the Americans could be extracted, the better it would be. Ultimately, the bombings did not produce a settlement much different from previous ones the United States had rejected.

Despite the damage inflicted by Linebacker II, the raids actually did more to help the North Vietnamese achieve their objective of extracting U.S. forces by weakening America's commitment to the war. The loss of 15 state of the art front line strategic bombers to inferior forces coupled with public and international disdain for what was perceived as a morally objectionable air operation did little to bolster support.[1] "Even after achieving tactical success, the strategic and operational endstates suffered from the public disapproval of the techniques employed."[2]

Many theorists believe that if the political and military planners had understood that North Vietnam's centers of gravity were its war industry and civilian will to carry out the fight, and had applied strategic airpower against them in 1964, the war would have been won decisively.[3] This theory fails to take into consideration that the vast majority of the North's war supplies were imported from the Soviet Union and China which the United States was not willing to interdict at the source. Secondly, for a populace that had been fighting against

colonialism and occupation for over 25 years and accustomed to severe hardships, it is hard to believe that their will to continue the fight could be stifled in such a short period of time.

This analysis of Linebacker II highlights the problems associated when operational planners fail to adequately apply proper operational design. The following lessons learned are provided to emphasize this point.

- Unity of effort must be accomplished through unity of command and not through cooperation. The overall effectiveness of Linebacker II, was greatly reduced with three separate commands conducting air operations independently. In future conflicts with separate services conducting air operations, a Joint Force Air Component Commander must be designated to coordinate the effort.
- Conducting an air offensive without having first achieved air superiority is unsound.
- Inability to provide adequate operational protection can result in friendly forces achieving their culmination point prematurely.
- Air Force doctrine mistakenly led leaders to believe that North Vietnam, which was predominately an agrarian society, could be affected by strategic bombing the same way that Germany and Japan were during WWII.[4]
- Strategic bombing may impact the will of the people but is unlikely to break it and often serves only to strengthen their resolve.
- Providing an operational pause when the enemy can best benefit from it, while offering no substantial gains to friendly forces is counterproductive.
- While simplicity is a principle of war, the plan can not be so simple and repetitive that the enemy can easily defend against it or defeat it.
- Superiority in quantity and technology can not be relied upon to compensate for a failure to adequately apply proper operational design.

NOTES

CHAPTER I - INTRODUCTION

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