

*Operation LINEBACKER II: A Retrospective*  
**PART 7: Consequences and Changes in Strategic Thought**  
**With an Introduction to the Series**

**SAC – LSU Shreveport**

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## **STRATEGY ALTERNATIVES CENTER**

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## QUOTES

Every SAM in Hanoi went off—just a fantastic barrage of SAMS!...and then the bombs started to hit...It was a continuous din of noise and shaking of the ground...We had a panoramic view over the courtyard roof of the prison...You could see the flashes of explosions on the overcast... they just keep coming and kept coming!...a constant barrage of sound, flash, and concussion...An awesome display of power...We were just pasting hell out of them for the first time.<sup>1</sup>

*Capt Bob Lilly, Prisoner-of-War (POW), 1965-1973*

The first few times I experienced a B-52 attack it seemed, as I strained to press myself into the bunker floor, that I had been caught in the Apocalypse. The terror was complete. One lost control of bodily functions as the mind screamed incomprehensible orders to get out.<sup>2</sup>

*The Viet Cong Minister of Justice Truong Nhu Tang*

At the heart of warfare lies doctrine. It represents the central beliefs for waging war in order to achieve victory. Doctrine is of the mind, a network of faith and knowledge reinforced by experience which lays the pattern for the utilization of men, equipment, and tactics. It is the building material for strategy. It is fundamental to sound judgment.

*General Curtis Emerson LeMay, 1968*

The purpose of surprise is to strike at a time or place or in a manner for which the enemy is unprepared. Surprise can help the commander shift the balance of combat power and thus achieve success well out of proportion to the effort expended...<sup>3</sup>

*Joint Publication 3.0 Doctrine for Joint Operations*

We have the power to destroy his war making capacity. The only question is whether we have the will to use that power. What distinguishes me from [former President] Johnson is I have the will in spades.<sup>4</sup>

*Richard Nixon to Henry Kissinger*

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<sup>1</sup> Luse Shackelford, and Ray, "Eleven Days in December: Linebacker II" (USAF Southeast Asia Monograph Series, Air University, 1977), V.

<sup>2</sup> Truong Nhu Tang, *A Viet Cong Memoir* (New York: Vintage Books, 1985), 168.

<sup>3</sup> U.S. Joint Chiefs of Staff, *Doctrine for Joint Operations*, Joint Pub 3-0. (Washington: U.S. Joint Chiefs of Staff, 10 September 2001), A-2.

<sup>4</sup> Henry A. Kissinger, *White House Years*, (Boston: Little, Brown and Company, 1979), 1199.

One more observation needs to be made, which goes to the very heart of the matter. Only the commander who imposes his will can take the enemy by surprise....<sup>5</sup>

*Carl von Clausewitz*

The first, the supreme, the most far-reaching act of judgment that the statesman and the commander have to make is [rightly to understand] the kind of war on which they are embarking, neither mistaking it for, nor trying to turn it into, something that its alien to its nature. This is the first of all strategic questions and the most comprehensive.<sup>6</sup>

*Carl von Clausewitz*

The bastards have never been bombed like they're going to be bombed this time.<sup>7</sup>

*President Richard M. Nixon, May 1972*

In any two-week period you mention.<sup>8</sup>

*General Curtis LeMay, July 1986, when asked if the United State could have won in Vietnam.*

I never said we should bomb them back to the Stone Age. I said we had the capability to do it.<sup>9</sup>

*General Curtis LeMay*

In war there is never any chance for a second mistake.

*Lamachus, 465-414 B.C.E.*

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<sup>5</sup> Carl von Clausewitz, *On War* ed. by Michael Howard, Peter Paret. (Princeton, NJ: Princeton University Press, 1984), 200.

<sup>6</sup> Clausewitz, *On War*, 89.

<sup>7</sup> Richard Nixon, statement to White House Chief of Staff H. R. Haldeman and Attorney General John Mitchell, April 4, 1972.

<sup>8</sup> Interview of Curtis LeMay by Manny-Ann Bendel, *USA Today*, July 23, 1986, 9A.

<sup>9</sup> Gen. Curtis Emerson LeMay, in *Washington Post* interview published October 4, 1968.

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## PREFACE

The Strategy Alternatives Consortium at Louisiana State University in Shreveport (SAC LSUS) created a series of essays to commemorate the forty-fifth anniversary of the Operation LINEBACKER II, which, for America, all but ended the Vietnam War. These essays have been combined into a White Paper. All seven essays and the White Paper are available, free of charge, on the SAC LSUS website – [www.lsus.edu/sac](http://www.lsus.edu/sac). The purpose is to assist professors, high school teachers, Air Force Association chapters, and ROTC units understand the campaign and put it in context of the time and the consequence it made in Air Force doctrine and subsequent political/military decisions.

Operation LINEBACKER II marked a seminal point in the Vietnam War. The campaign, sometimes referred to as “The Eleven-Day War,” brought the North Vietnamese, with sincerity, back to the peace talks in Paris and all but destroyed their ability to wage a defensive war against American Airpower. Most historians and strategists agree that LINEBACKER II was a tremendously successful endeavor. There are some dissenters, who point to a lack of significant targets.

This series of essays examines the literature, the role of participants, presidential administrations, and military commanders and planners to provide an overarching examination of LINEBACKER II. They also provide both orthodox and dissenting opinions so that the reader may make up his or her mind concerning the subject.

The chapters cover a brief examination of the campaign, a discussion of the political climate from the end of World War II to through the decisions to execute Operation LINEBACKER and LINEBACKER II, an examination of strategic bombardment theory from World War II to the early years of the Vietnam War, strategic assets and micromanagement of those assets between 1965 and 1972, Operation LINEBACKER I, Operation LINEBACKER II, and, finally, the consequences and change in strategic thought brought forward by the campaigns.

The authors, Gary D. Joiner, Ph.D. and Ashley E. Dean, wish to thank Lane Callaway, the Eighth Air Force Historian, the good folks who handle the Freedom of Information Act (FOIA) requests at Barksdale Air Force Base, Louisiana and Maxwell Air Force Base, Alabama, for their often as for requests, and Lieutenant General Robert Elder (USAF retired) for guidance in this project.

Gary D. Joiner  
Director, SAC LSUS  
Louisiana State University in Shreveport  
November 5, 2017

## ABBREVIATIONS USED IN THE LINEBACKER II SERIES

AAA- Anti-Aircraft Artillery	DIA- Defense Intelligence Agency
AAD- Anti-Aircraft Defenses	DMZ- demilitarized zone
AAF- Army Air Force (United States)	DOD- Department of Defense
AB- Air Base	DOE- Department of Energy
ABM- Anti-ballistic Missile	DRVN- Democratic Republic of Vietnam (North Vietnam)
ACC- Air Combat Command	ECM- electronic counter-warfare measures
ADC- Air Defense Command	ELINT- electronic intelligence
AEC- Atomic Energy Commission	EW- Electronic Warfare
AFA- Air Force Association	EWO- Electronic Warfare Officer
AFB- Air Force Base	FAS- Federation of American Scientists
AFGSC- Air Force Global Strike Command	HE- high explosive
AFM- Air Force Manual	ICBM- Intercontinental Ballistic Missile
ALCM- Air launched cruise missile	IP- Initial Point
ARVN- Army of the Republic of Vietnam (South Vietnamese national army)	IRBM- Intermediate Range Ballistic Missile
BARCAP- Barrier Combat Air Patrols	ISIS (IS, ISIS, ISIL, Daesh) - Islamic State of Iraq and Syria
BDA- Bomb Damage Assessment	JCS- Joint Chiefs of Staff
BW- Bomb Wing (USAF)	LGM- laser guided munitions
CALCM- Conventional air launched cruise missiles	MACV- Military Assistance Command, Vietnam
CENTCOM- Central Command (US)	MAD- Mutually Assured Destruction
CH- CORONA HARVEST	MAJCOM- Major Command
CIA- Central Intelligence Agency	MiG CAP- MiG Combat Air Patrol
CINCPAC- Commander US Military Assistance Command Pacific	MIRVs- multiple independently targeted vehicles
COMUSMACV- Commander US Military Assistance Command Vietnam	MIT- Massachusetts Institute of Technology
CONUS- Continental United States	NATO- North Atlantic Treaty Organization
DEW- Defense Early Warning (radar system)	NSC- National Security Council
	NSM- National Security Memorandum



NVA- North Vietnamese Army (North Vietnamese communist national army)

NVN- North Vietnam

PACAF- Pacific Air Forces

PAVN- People's Army of Vietnam (North Vietnamese communist national army)

PGM- Precision guided munitions

POL- Petroleum Oil and Lubricants

PRC- Peoples Republic of China

PTT- Post Target Turn

ROE- Rules of engagement

RP- Route Package

RT- Radar Troops

RTNAB- Royal Thai Naval / Air Base

SAC- Strategic Air Command

SAM- Surface to Air Missile

SAM-2- Surface to Air Missiles, model 2

SEA- Southeast Asia

SECAF- Secretary of the Air Force (U.S.)

SIOP- Single Integrated Operational Plan

SLBM- Submarine Launched Ballistic Missile

TAC- Tactical Air Command

TACAIR- Tactical Aircraft, Tactical Air, or Tactical Air Forces

TOT- Times on Target

UN- United Nations

UNSC- United Nations Security Council

USAAF- United States Army Air Force

USAF- United States Air Force

USS- United States Ship

USSBS- United States Strategic Bombing Survey

USSR- Union of Soviet Socialist Republics

VC- Viet Cong (guerilla communist force that cooperated with the PAVN/NVA)

WMD- Weapons of Mass Destruction

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## PART 1

### SERIES INTRODUCTION: OPERATION LINEBACKER II

In December 1972, in what was hoped to be the final weeks of the Vietnam War, President Richard M. Nixon ordered a massive bombing campaign against North Vietnam. The military campaign had strictly political origins. The Joint Chiefs of Staff (JCS) recommended in 1964 that North Vietnam be bombed and determined 94 targets that would wreck their ability to wage war.<sup>10</sup> President Lyndon B. Johnson, Secretary of Defense, Robert S. McNamara, and Secretary of State Dean Rusk balked at the idea, fearing a Chinese invasion as in Korea.<sup>11</sup> This set the stage for civilian micromanagement of the military conduct of the war, troop strength, selection of targets, rules of engagement (ROE), and, to many commanders, observers and historians, the primary reason the war descended into the chaos that it became.<sup>12</sup> McNamara, in his position since 1961 and never popular with the military, became a pariah to the JCS and the commanders who followed his orders.<sup>13</sup>

North Vietnam invaded South Vietnam earlier that year using standard military tactics rather than guerrilla warfare. They hoped to take over the South Vietnamese government before U.S. forces, (deep into troop draw-downs) could hold them back. A series of long drawn out negotiations in Paris frustrated the Americans and the South Vietnamese. On December 13, North Vietnam suspended negotiations that attempted to establish a cease-fire agreement and return U.S. prisoners of war.<sup>14</sup> At the same time, the U.S. Congress, tired of the political consequences of the war, determined to cut off funding for Southeast Asia military operations when members returned to Washington D.C. from their holiday recess in January 1973.<sup>15</sup>

The bombing campaign, known as Operation LINEBACKER II, began on December 18 and lasted for 11 days. Air Force Strategic Air Command (SAC) B-52 bombers flew 729 sorties,

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<sup>10</sup> Richard H. Kohn and Joseph P. Harahan editors, *Strategic Air Warfare: An Interview with Generals Curtis E. LeMay, Leon W. Johnson, David A. Burchinal, and Jack J. Catton* (Washington, 1988), 123; Robert F. Futrell, *The United States Air Force in Southeast Asia: The Advisory Years to 1965* (Washington, 1981), 253-256

<sup>11</sup> Futrell, *The United States Air Force in Southeast Asia*, 253-256; Alain C. Enthoven and K. Wayne Smith, *How Much Is Enough? Shaping the Defense Program 1961-1969* (New York, 1971); Charles J. Hitch, *Decision-making for Defense* (New York, 1965).

<sup>12</sup> Kohn and Harahan, *Strategic Air Warfare*, 121.

<sup>13</sup> *Ibid.* 122; William W. Momyer, *Airpower in Three Wars* (Washington, 1978), 90-98; Carl Berger, ed., *United States Air Force in Southeast Asia, 1961-1973: An Illustrated Account* (Washington, 1977), 74-89; U.S. Grant Sharp, *Strategy For Defeat: Vietnam in Retrospect* (San Rafael, Calif., 1978), 94-104; James Clay Thompson, *Rolling Thunder, Understanding Policy and Program Failure* (Chapel Hill, 1980); John Morrocco, *Thunder From Above: Air War 1941-1968* (Boston, 1984), 50-71; U.S. Department of Defense, *The Pentagon Papers: The Senator Gravel Edition*, 4 vols., (Boston, 1972), III, 284-286, 321-324, 332-334, 339-340, IV, 55-56, 68-70, 109-110, 138, 421-422.

<sup>14</sup> Henry Kissinger, *White House Years* (Boston, 1979), 717-744.

<sup>15</sup> In November 1973, Congress enacted the War Powers Resolution, which limited the President's ability to send troops back into the theatre of operations to 90 days without receiving congressional approval. See Guenter Lewy, *America in Vietnam* (New York, 1978), 202-222; John H. Sullivan, *The War Powers Resolution* (Washington, 1982), 31-42, 103-166, 179, 183; W. Hays Park, "Linebacker and the Law of War," *Air University Review* 34 (Jan-Feb 1983): 2-30.

and U.S. Navy and Air Force Tactical Air Command (TAC) fighter-bombers flew 1,000 sorties.<sup>16</sup> The SAC bombers, naval fighter-bombers, and TAC aircraft dropped 20,370 tons of bombs on North Vietnam.<sup>17</sup> They destroyed command and control structures, power generating plants, railroad marshalling yards and trackage, and destroyed military airfields, surface to air missile (SAM) assembly and storage facilities. At the end of the campaign, North Vietnam was largely in the dark, very low on ammunition, and had exhausted its supply of SAMs.<sup>18</sup> Although additional missions were planned and preparations made, President Nixon halted the bombing on December 29.<sup>19</sup> North Vietnam, without replenishment from China and the Soviet Union, agreed to return to negotiations in earnest. The results were merely a formality. The cease-fire agreement was signed on January 23, 1973 by Henry Kissinger for the United States and Le Due Tho for North Vietnam.<sup>20</sup>

Operation LINEBACKER II's strategy and tactics remain the topic of discussion and planning today, forty-five years later. It proved that the Air Force commanders' concept of ending the war in 1965 would work militarily, but largely due to the threat of Chinese intervention, was nullified. Once the JCS and Air Force commanders could set targets themselves and not answer to the White House staff (within reason), destruction of the North Vietnamese will and capacity to wage became evident. The operation also led to unanticipated consequences. SAC lost much of its prestige due to its inflexibility. Beliefs in bomber stream formation from World War II and Korea for conventional bombing missions proved problematic for SAC crews who were trained to follow orders blindly in their nuclear combat roles. Iron bombs soon gave way to precision guided weapons. The vulnerability of the B-52s to SAMs quickly led to changes in tactics, mission concepts, and a reduction in the numbers of the heavy bombers. More senior commanders were chosen from the ranks of the fighter pilots.<sup>21</sup>

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<sup>16</sup> James R. McCarthy and George B. Allison, *Linebacker II: A View From the Rock* (Montgomery, Ala., 1979), 39-89.

<sup>17</sup> *Ibid.*, 91-167.

<sup>18</sup> *Ibid.*

<sup>19</sup> Richard M. Nixon, *RN, The Memoirs of Richard Nixon* (New York, 1978), 717-744.

<sup>20</sup> Henry Kissinger, *White House Years* 740-744.

<sup>21</sup> See Mike Worden, *Rise of the Fighter Generals: The Problem of Air Force Leadership 1945-1982* ((Montgomery, AL, 1988).

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## PART 7

### Consequences and Changes in Strategic Thought

Operation LINEBACKER II, like any major military operation, has been discussed, researched, dissected, argued over, written about, and judged for its worth. Forty-five years after the 11-Day operation, scholars still find it worthy of contemplation. Several questions are at the forefront of LINEBACKER II's legacy. Was it successful? Could the war have been ended earlier without LINEBACKER II? Did it matter considering the political climate at home and abroad? What changes did it bring about in strategic thinking? Was Air Force doctrine influenced by the campaign? Where does the campaign fit in the study the history of aerial warfare? Was the campaign influential in later operations, even today? What were the lessons learned and legacies from LINEBACKER II? This essay will sample the literature and attempt to both answer some of these questions and, hopefully, will shed new light on the legacy of Operation LINEBACKER II.

#### Was LINEBACKER II successful?

Operation LINEBACKER II was successful on the three primary fronts: political, economic, and military. Politically, it forced the North Vietnamese to return to the negotiating table in Paris with no stalling tactics and assured they would come to terms quickly. Finally, after nine years of micromanagement from two presidents, The Air Force was allowed conduct a full-scale conventional air war. It fit in well with the lessons of history, particularly strategic bombing in Europe and the Pacific in World War II.

LINEBACKER II was “a classic example of the use of a well-planned and executed military operation to achieve a political goal.”<sup>22</sup> The relaxation of Rules of Engagement (ROE) allowed the war to be taken to the enemy's heartland, without excessive civilian casualties, and “overwhelm the enemy's military and industrial complex, and, thus, its will to continue the war.”<sup>23</sup>

Economically, as former Presidential advisor and Secretary of State Henry Kissinger described, “Linebacker II cost much less than the continuation of the war, which was the other alternative.”<sup>24</sup> Speaking of the economics and political implications of continuing the war, Kissinger added:

Any other course would almost certainly have witnessed an endless repetition of the tactics of December. Faced with the prospect of an open-ended war and continued bitter divisions, considering that the weather made the usual bombing ineffective, Nixon chose the only weapon he had available. His decision speeded the end of the war; even in retrospect I can think of no other measure that would have.<sup>25</sup>

With prior artificial, sometimes arbitrary, geographic constrictions placed upon American airpower, LINEBACKER II enforced the primary tenant of strategic warfare: it imposed an irrevocable change in the will of the North Vietnamese to continue the war. It became too costly for them to continue.<sup>26</sup> Admiral U. S. Grant Sharp quoted Sir Robert Thompson, the former chief of the British Advisory Mission to Vietnam concerning success of LINEBACKER II:

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<sup>22</sup> Warren L. Harris, *The Linebacker Campaigns: An Analysis* (Maxwell Air Force Base, AL: Air University, 1987), 25.

<sup>23</sup> Harris, “The Linebacker Campaigns,” 23.

<sup>24</sup> Henry A. Kissinger, *White House Years* (Boston: Little Brown and Company, 1979), 1457.

<sup>25</sup> Kissinger, *White House Years*, 1461.

<sup>26</sup> U. S. Grant Sharp, *Strategy for Defeat: Vietnam in Retrospect* (San Rafael, CA: Presidio Press, 1979), 255.

In my view, on Dec 30, 1972, after 11 days of B-52 attacks on Hanoi area, you had won the war. It was over! They had fired 1,242 SAM's; they had none left save for a mere trickle which would come in from China. They and their whole rear base at that point were at your mercy. They would have taken any terms. And that is why, of course, you actually got a peace agreement in January, which you had not been able to get in October.<sup>27</sup>

One view that is not often mentioned is that of Soviet advisors on location in North Vietnam during LINEBACKER II. The most important of these was Colonel-General Anatoliy Ivanovich Khyupenen, who arrived in Hanoi in 1972 to direct the Soviet air defense advisory effort.<sup>28</sup> Colonel-General Khyupenen directed the after-action report entitled *Combat Actions of the Air Defense Forces and Air Forces of the Vietnamese Peoples' Army in December 1972*.<sup>29</sup> Although most statistical information came from the North the Vietnamese, the observational remarks are strikingly accurate.

Operation "Linebacker-2" began on the evening of 18 December 1972 as US aviation simultaneously struck all the principle fighter airbases of the air forces of the DRVN. Throughout the years, the large collection of B-52 strategic bombers conducted the initial combat strike, which developed into the primary combat strike. Participating in the operation were all the B-52 strategic bombers located at Andersen airbase on the island of Guam and at U Tapao airbase in Thailand.<sup>30</sup>

It must be noted that the B-52s were used only during nighttime, their actions were thoroughly planned and they were supported by a significant force of fighters providing cover for the strike force, sealing the airbases, suppressing the air defenses with ordnance and radio-electronic combat and also conducting observation of the airspace over the territory of the DRVN.<sup>31</sup>

Thus, operation "Linebacker-2" planned for the use of massed B-52s, so the American command had to thoroughly organize and support their combat actions. The essence of the combat use of the strategic bombers included: mass force for the strikes; attach tactical aviation for combat support of the B-52s; carefully select the targets; the times to inflict the strikes and the flight routes; use massed electronic combat means.<sup>32</sup>

Massing force to inflict strikes on targets in the DRVN during the operation dictated the necessity of achieving important military-political goals in a short time. Characteristically, up until December 1972, the significant bombing attacks on targets in

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<sup>27</sup> Ibid.

<sup>28</sup> Moscow Russian Television station RTR, 1700 GMT 03 March 2001 in Russian with reporter Natalya Krapivina. Quoted in Dana Drenkowski and Lester W. Grau's, *Patterns and Predictability: The Soviet Evaluation of Operation Linebacker II* (Fort Leavenworth, KS: U. S. Army Defense Technical Information Center, 2007), 4. [www.dtic.mil/dtic/aulimp/citations/gsa/2007\\_117432/142557.html](http://www.dtic.mil/dtic/aulimp/citations/gsa/2007_117432/142557.html)

<sup>29</sup> Colonel-General Anatoliy Ivanovich Khyupenen was overall editor and Marshal of the Soviet Union P. G. Batiskogo. The writers collective consisted of Khyupenen (the director) and D. K. Bedenko, S. A. Varyukhin, V. G. Manukhin, D. I. Fomin and A. K. Reminnogo. The writers collective was assisted by K. S. Babenko, M. I. Fesenko, S.V. Aleshkin, Yu. S. Garnaev and other Soviet military specialists who were serving in the Democratic Republic of Vietnam at the time. A. I. Khyupenen, "Strategicheskaya aviatsiya SShA v operatsii "Laynbeker-2" [US Strategic Aviation in Operation "Linebacker-2", *Voenna-istoricheskii zhurnal* [Military-Historical Journal], February 2005, 30; Drenkowski and Grau, "Patterns and Predictability," 4.

<sup>30</sup> Drenkowski and Grau, "Patterns and Predictability," 4.

<sup>31</sup> Ibid. DRVN refers to the Democratic Republic of Vietnam (North Vietnam).

<sup>32</sup> Ibid.

the DRVN involved only a single B-52 or a small group, while the massed strikes by strategic aviation were carried out only in South Vietnam, Laos and Cambodia where it was necessary for the American command to disrupt the preparations of the patriotic forces of liberation and to conduct powerful offensive operations against them.<sup>33</sup>

The second characteristic peculiar to the use of B-52s was the careful thought and excellent organization of the combat support by tactical aviation. The combat formation of aviation in a mass raid consisted of strike groups of B-52 bombers, groups for passive ECM and blocking airfields, groups for finding and suppressing air defenses and groups to provide direct cover against Vietnamese fighters. The B-52 combat formation, as a rule, consisted of a “column of squadrons” (from two to seven), separated by a time interval of five to seven minutes.<sup>34</sup>

The combat support group constituted 60-70% of the aircraft participating in the raid. Tactical aviation, supporting the strategic bomber raid, provided uninterrupted cover of the B-52 formations throughout their entire flight over the DRVN, particularly during strikes on Hanoi, Hai Phong and targets in the central provinces. F-4 and F-105 fighters, based in Ubon and Udorn, Thailand were attached for this mission. They joined the bomber groups over Laos near the city of Sam Neua. The primary mission of the F-105 was to find and suppress air defense systems along the B-52 flight path and in the strike area. F-4 fighters provided direct cover to every B-52 detachment and they flew close to the B-52 combat formations.<sup>35</sup>

The third characteristic particular to the use of strategic aviation in these operations was the careful selection of the B-52 flight path, the direction of approach to the target and the delivery of the strike. The B-52 flight from U Tapao and Andersen airbase merited particular attention. A B-52 from Andersen airbase carried a bomb load of nine-ten tons (27-29 bombs weighing 340 kilograms each) in the fuselage. The flight to the target passed through a refueling area which was located east of the Philippines. At check point “Lima” (150-200 kilometers southeast of Da Nang), the flight routes were divided with the objective of overcoming the weaker air defense systems of the DRVN. To breakthrough the air defenses from the southwest and west, the operational-tactical flight direction from checkpoint “Lima” proceeded west to the Mekong River, then north to Laos to the vicinity of Sam Neua, [195800 Latitude and 1044100 Longitude–translator] and then into the DRVN to the cities of Phu Tho, Yen Bai or Viet Chi (depending on the designated target and the selection of the combat course) and then the flight path went directly to the target.<sup>36</sup>

In the majority of cases, the breakthrough of the air defenses occurred in the western and southwestern approaches, since it was a shorter approach to the target (particularly from U Tapao), using ground orientation. Having dropped their bombs, the B-52s withdrew over Laos (in the majority of cases) or over the Tonkin Gulf. If the bombers were returning to Andersen Airbase, they had to have a fuel reserve of 56 to 65 tons of fuel remaining after dropping their bombs. If it was necessary, they could conduct an aerial refueling at an altitude of 7000-7,500 meters and a speed of 680-720

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<sup>33</sup> Ibid.

<sup>34</sup> Ibid., 5.

<sup>35</sup> Ibid..

<sup>36</sup> Ibid., 5-6.



kilometers/hour. A B-52 would take on an average of 20 tons of fuel during air refueling. The KC-135 aircraft was used for this mission.<sup>37</sup>

B-52 bombers flying from U Tapao flew over Korat when selecting the southeast breakthrough of the air defenses) or Vientiane and Sam Neua (when selecting the western or southwestern breakthrough of the air defenses). The time from takeoff to landing took 12-13 hours from Andersen Airbase and 4-5 hours from U Tapao Airbase. On the flight route, the B-52s averaged 840-870 kilometers/hour at an altitude of 10,000-11,000 meters. Some 60-70 kilometers from the objective, the B-52 detachment lay on a combat course assuming the height and speed that they would maintain until they released their bombs. Afterward, this course was immediately changed with a turn of not less than 40-50 degrees and the B-52s dropped chaff.<sup>38</sup>

The fourth characteristic particular to the use of strategic aircraft in these operations was the high level of use of radio-electronic combat employed by the American command. Without this radio-electronic combat, the slow-moving B-52s would have been a much easier target for the air defense missiles of the Vietnamese Peoples Army.<sup>39</sup>

Strategic bombers were also used for carrying out single strikes (using one or two detachments) against targets located south of the 20th parallel where the air defense system was weaker. These targets were primarily concentrations of troops and equipment at crossing points, on road marches and in assembly areas. Usually, the sorties for these missions were flown out of U Tapao airbase. The bombing was conducted from a horizontal plane from a height of 10,000-11,000 meters. The combat support, in this case, was simply direct cover by F-4s along the entire flight route and the staging of EB-66 aircraft for jamming which joined them temporarily over Laos and the Gulf of Tonkin.<sup>40</sup>

When flying the air route over the DRVN, the B-52s were covered by special groups of F-4s flying direct protection against the Vietnamese fighters. The F-4s flew 1,000-2,000 meters lower than the main strike groups. During the flight over the DRVN, the F-4s flew the "snake" anti-missile maneuver several times and, in the region of the B-52 strike, they moved 15-20 kilometers away from the formation. If they detected air defense missile battalions, radar companies or command posts, they bombed them, after which the F-4s re-occupied their positions in the formation.<sup>41</sup>

The airborne command post maintained two-way radio traffic with the B-52 raiding aircraft and also the covering F-4s and F-105s as they approached the link-up site. As the mission continued, it became one-way traffic between the airborne command post and the B-52 crews until they completed their mission and exited from DRVN airspace. The fighters providing direct cover used the navigation lights of the strategic bombers for orientation.<sup>42</sup>

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<sup>37</sup> Ibid., 6.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid., 7.

<sup>40</sup> Ibid.

<sup>41</sup> Ibid., 9.

<sup>42</sup> Ibid.

Colonel-General Khyupenen also pointed out weaknesses in Air Force procedures which aided the North Vietnamese in countering the B-52 strikes.<sup>43</sup> He states, “the American command was able to reduce the effectiveness of the electronic equipment of the [People’s Army of Vietnam Anti-Aircraft Defenses].” However, “the jammers were turned on in the entire wave range before the [B-52s] approached the RT [Radar Troops] zones.”<sup>44</sup> When the B-52 EWOs tested their ECM equipment at Andersen AFB and U-Tapao RTNAFB, the North Vietnamese assets saw giant blooms on their radar screens and that provided the warning of the coming missions.<sup>45</sup> Later, the jammers were turned at the range the jammers would be effective and his would alert the missile and AAA batteries of when to expect the attacks.<sup>46</sup> Khyupenen noted: “Premature switching on of EW equipment and continuous jamming (without taking into account the operating time of the target radar) enabled the PAVN’s electronic and air defense forces to detect B-52 strike groups in time, provide target acquisition data to the ADMF, and prepare the necessary initial firing data.”<sup>47</sup> These practices were remedied after five of the LINEBACKER II campaign.

There are opposing opinions of the effectiveness of LINEBACKER II, of course. The most vocal is Kenneth P. Werrell, who asserts:

I disagree. First, the bombing of North Vietnam was fatally flawed by the lack of proper targets. Second, while political restrictions inhibited the airmen, inadequate tactics and equipment contributed significantly to the high losses and lack of results. Third, the bombing did not have decisive political/diplomatic results.<sup>48</sup>

Werrell lists the gamut of thought from 1973 through 1987. He groups them by concepts.<sup>49</sup>

The U.S. should have demanded its own terms as opposed to following the discussions from the previous October.<sup>50</sup>

- a. The U.S. could have used a LINEBACKER II type operation earlier to end the war much sooner.<sup>51</sup>
- b. The campaign was a “classic example” of using a military force to achieve a rapid end to hostilities.<sup>52</sup>

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<sup>43</sup> A. I. Khyupenen, “Organizatsiya VVS SSHA radioelektronikoy bor’by v khode operatsii ‘Laynbeker-2’ [USAF Electronic Warfare During Operation Linebacker II], *Voyenno-istoricheskii zhurnal* [Military-historical journal], July 2005, 36.

<sup>44</sup> Ibid.

<sup>45</sup> Drenkowski and Grau, “Patterns and Predictability,” 12.

<sup>46</sup> Khyupenen, “Organizatsiya VVS...” 36.

<sup>47</sup> Ibid.

<sup>48</sup> Kenneth P. Werrell, “Linebacker II: The Decisive Use of Airpower?” *Air University Review* (January-March 1987): 49-51.

<sup>49</sup> Ibid., 51.

<sup>50</sup> Thomas Moorer, “The Christmas Bombing of Hanoi—or How the POWs Got Home,” Naval Aviation Museum Foundation, March 1981; U. S. Grant Sharp, *Strategy for Defeat*, 258; Alan Dawson, *55 Days: The Fall of South Vietnam* (Englewood Cliffs, N.J.: Prentice-Hall, 1977), 123.

<sup>51</sup> “What Christmas Bombing Did to North Vietnam,” *US News and World Report* (5 February 1973): 18; Alan Gropman, “Air power in Vietnam: Lost Opportunities,” paper delivered 17 January 1986, Raleigh, N.C., 39; George Keegan in *The Lessons of Vietnam*, ed. W. Scott Thompson and Donaldson Frezzell (New York: Crane, Russak, 1977), 143; Barry Goldwater, “Airpower in Southeast Asia,” *Congressional Record*, 93d Congress, 1st session, 1973, pt. 5:5346; *Vietnam Settlement: Why 1973, Not 1969?* (Washington, D.C., 1973), 190; Douglas Pike, “The Other Side,” n. 77, and Alan Gropman, “Commentary: The Air War,” 84 (both in Peter Braestrup, ed., *Vietnam As History: Ten Years After the Paris Peace Accords* (Washington, D.C.: University Press of America, 1984).

<sup>52</sup> Dave R. Palmer, *Summons of the Trumpet: US-Vietnam in Perspective* (San Rafael, Calif.: Presidio Press, 1978), 259.

- c. The campaign was an exercise in futility: morally bankrupt, militarily ineffective, and diplomatically unnecessary.<sup>53</sup>
- d. The bombing alone brought the North Vietnamese back to the Paris peace talks.<sup>54</sup>

At the end of his review Werrell cites his reasons for his beliefs:

Could bombing have been decisive? Those who believe so emphasize the lack of political will by the civilian decision makers, at least up until December 1972. These critics underestimate the power of public opinion in a democracy, both domestically and internationally, and clearly Johnson felt very much constrained in both areas. He also feared, with good reason, the reactions of the Russians and Chinese. Certainly political factors restricted American use of air power.

Nevertheless, strategic bombing of North Vietnam was unable to achieve decisive results for two other reasons. First and foremost, there were no vital strategic targets in the North, with the possible exception of people. Second, American airmen were neither adequately equipped nor tactically ready to carry out decisive nonnuclear operations. Linebacker II was not, and could not be, decisive in the Vietnam War.<sup>55</sup>

Werrell's comments are thoughtful and concerted, however, if strategic air power and tactical airpower were properly used early in the war, the outcome would most likely have yielded positive results. By not allowing the Air Force to do its job in 1964-1966, i.e. bombing the incipient military industrial complexes in and around Hanoi and Haiphong, making the lives of North Vietnamese citizens a nightmarish reality, and convincing the Russians and Chinese to stay out of it, the tables would be turned. The lack of strategic targets did not mean that there was nothing worth bombing north of the 20th parallel. His comments about aircrew training are well taken. SAC crews were solely trained in the nuclear mission role. Crews were forced into extremely short training cycles to learn or re-learn the lessons of World War II-style bombing missions.

Gregory S. Clark authored a paper for the Naval War College on LINEBACKER II.<sup>56</sup> In his "Linebacker II: Achieving Strategic Surprise," he states:

We are analyzing Linebacker II as a military campaign. President Nixon clearly stated his political objective [ends]. Strategic airpower providing the [ways] of achieving

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<sup>53</sup> Gareth Porter, *A Peace Denied: The United States, Vietnam, and the Paris Agreements* (Bloomington, IN: Indiana University Press, 1975), 137, 158-59.

<sup>54</sup> "Moorer on Airpower," *Aviation Week* (September 17, 1973): 7; Gropman, "Airpower," 39; Guenter Lewy, *America in Vietnam* (New York: Oxford University Press, 1978), 414-15; William Momyer, *Air Power in Three Wars* (Washington, D.C.: Department of the Air Force, 1978), 243; R. Mark Clodfelter, "By Other Means: An Analysis of the Linebacker Bombing Campaigns as Instruments of National Policy," Master's thesis, University of Nebraska, 1983, 131-32; Timothy Lomperis, *The War Everyone Lost—And Won: America's Intervention in Viet Nam's Twin Struggles* (Baton Rouge: Louisiana State University Press, 1984), 94; Porter, 136-37, 156-65; *Vietnam Settlement*, 120-21; Allan E. Goodman, *The Lost Peace: America's Search for a Negotiated Settlement of the Vietnam War* (Stanford, CA: Hoover Institution Press, 1978), 161-63.

<sup>55</sup> Werrell, 49-51.

<sup>56</sup> Gregory S. Clark, *Linebacker II: Achieving Strategic Surprise* (Newport, RI: Naval War College, 2002), 2.

this objective. Linebacker II was the plan that provided the [means] by which military power would be employed. The final [cost] was a two percent loss rate. The use of unrelenting and overwhelming force rapidly dominated the battle space producing the synergistic effects of “shock and awe” on Hanoi’s psyche. With the will of the people broken, air defense systems depleted, and the government demoralized, the Paris Accords were signed.<sup>57</sup>

SAC aircraft, including nuclear role attack aircraft, for example, the F-105 Thunderchief, were forced into missions they were not intended to conduct. They became excellent platforms. The B-52D models configured to the “Big Belly” allowed more internal bomb loads of conventional munitions. Without these rapid enhancements, the B-52s, lethal as they were, could not create the damage needed to thwart the elusive targets under the triple-canopy jungle cover.

Werrell’s comments about aircraft sent into battle without adequate upgrades also merit discussion. The B-52G models lost during the first three days of LINEBACKER II did not possess upgraded electronic warfare platforms. Aircraft there were deployed to assist the bombers sometimes caused inadvertent problems. Radio jamming aircraft, especially the EB-66s, designed to degrade the SAM Fan Song radars, also jammed American radio channels.<sup>58</sup>

Over control by SAC headquarters, and using tactics that did not fit the aircraft in the conditions of the jungle war in Southeast Asia, do not dismiss the central fact – LINEBACKER II was a major success.

### **Could the war have been ended earlier without LINEBACKER II?**

Air Force Chief of Staff and former commander of the Strategic Air Command, General Curtis LeMay, stated that the Air Force could have ended it [the war] in any ten-day period you wanted to, but they would never bomb the target list we had.”<sup>59</sup> LeMay wanted to implement a ninety-four-target plan devised to bomb North Vietnam. It was based upon his history as the commander of the 20th Air Force in the Pacific during World War II. The plan was abandoned by President Johnson and his advisers and it was resurrected by the Air Force strategists for Operations LINEBACKER and LINEBACKER II.

The consensus of historians and military leaders, particularly Air Force commanders, is that the war could have been greatly shortened. The Johnson Administration badly mishandled the entire Southeast Asia political and military issue. The Nixon Administration inherited a morass of problems from the previous administration and it still took four years to complete the task. During the Johnson White House, the Joint Chiefs of Staff forcefully argued for “dramatic, forceful, application of air power. Instead the U.S. adopted a strategy of a graduated military response.”<sup>60</sup> The Johnson Administration allowed itself to be hamstrung by a fear that the Soviet Union or the Peoples Republic of China would enter the war militarily as China had done in the Korean War. President Johnson made this fear into a shroud that covered all of this thinking about Southeast Asia.

The graduated approach is analogous to the carrot and stick theory. The Johnson Administration believed that the United States could militarily win the war using conventional tactics. The president and his closest advisors, particularly Secretary of Defense Robert McNamara, did not understand asynchronous warfare, particularly a major guerilla insurgency like that employed by the Viet Cong and the North

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<sup>57</sup> Ibid., 12.

<sup>58</sup> Karl Eschmann, *The Role of Tactical Air Support; Linebacker II* (Maxwell AFB, AL: Air Command and Staff College thesis, 1985), 60, 63; Clodfelter, “By Other Means,” 121.

<sup>59</sup> Curtis LeMay, “Strategic Air Warfare: An Interview with Generals Curtis E. LeMay, Leon Johnson, David A. Burchinal, and Jack J. Catton,” Office of Air Force History, 1988.

<sup>60</sup> Harris, “The Linebacker Campaigns,” 25; Sharp, *Strategy for Defeat*, 268-69.

Vietnamese. This problem was geometrically compounded by a succession of corrupt South Vietnamese regimes. At every juncture when massive military airpower was brought to bear on the enemies, successes were frittered away by bombing halts, refusal to allow the Air Force, Navy, and Marine bombers and ground attack aircraft to punish the North Vietnamese in and around their capital, Hanoi, and their primary port, Haiphong. The “carrot” consistently failed. The North Vietnamese did not negotiate in good faith until late December 1972. The “stick” approach worked.

The North Vietnamese made two attempts to win the war by using conventional military strategy. The first was in the Tet Offensive in 1968 and the second was the Easter Offensive in 1972. In both cases the enemy created mass chaos and captured large amounts of real estate. In both cases airpower caused them huge numbers of casualties. The 1972 Easter Offensive was neutralized by Operation LINEBACKER I, but it took LINEBACKER II to complete task of bringing the North Vietnamese to negotiations with sincerity.<sup>61</sup>

With the earlier major bombing campaigns of ARC LIGHT and, particularly, ROLLING THUNDER, mismanaged under the Johnson Administration, it was General LeMay’s concept, resurrected during the third year of the Nixon Presidency, that finally fulfilled the mission of extricating the United States from the quagmire of Vietnam.<sup>62</sup> Among those disagreeing with LeMay is Mark Clodfelter. In his *The Limits of Air Power: The American Bombing of Vietnam*, the author asserts that strategic bombing did not work in Vietnam.<sup>63</sup> Clodfelter believes because Vietnam was a limited war with few legitimate targets. He does believe LINEBACKER II was a successful military operation, but that it succeeded because it “was based in the campaign’s limited objective of forcing the North Vietnamese to negotiate.”<sup>64</sup>

### **Did the campaign matter considering the political climate at home and abroad?**

Admiral U. S. Grant Sharp, in his treatise *Strategy for Defeat: Vietnam in Retrospect*, was justifiably harsh on the civilian leaders, particularly in the early years of the war. As he termed it, their “strategy of equivocation,” was particularly harmful.<sup>65</sup> He complained bitterly that the “no-win” strategy ultimately eroded and destroyed our national unity.<sup>66</sup>

Huge anti-war protests that continued from the Democratic National Convention in Chicago in 1968 through the end of Nixon’s first term in office split this nation more than since the Civil War. Nixon, like his predecessor, failed to win the war through escalation and coercion.<sup>67</sup> President Nixon’s promise to end the war by preserving “Peace with Honor,” meant that he would use any means to settle the war diplomatically, but with new a coercive initiative to make the peace talks fruitful. The President’s new course of action reflected what the American military learned from Operation LINEBACKER I and reflected the mood of the Congress, the press, and an impatient public to end the war.

President Nixon used an infusion of material and emergency aid to South Vietnam to ensure their seat at the negotiating table. The President’s delicate handling of the wayward ally was essential to ending the war. This was done despite the presence of 150,000 to 200,000 North Vietnamese troops within South

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<sup>61</sup> Robert A. Pape, *Bombing to Win: Air Power and Coercion in War* (Ithaca, NY: Cornell University Press, 1996), 209-210.

<sup>62</sup> Phillip S. Michael, *The Strategic Significance of Linebacker II: Political, Military, and Beyond* (Carlisle Barracks, PA: U.S. Army War College, 2003) 4-14.

<sup>63</sup> Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (New York: Free Press, 1989), 203-10.

<sup>64</sup> Michael, *The Strategic Significance of Linebacker II*, 13.

<sup>65</sup> Sharp, *Strategy for Defeat*, 269-70.

<sup>66</sup> Ibid.

<sup>67</sup> Trong Q. Phan, *An Analysis of Linebacker II Air Campaign: The Exceptional Application of US Air Coercion Strategy* (Lubbock, TX: Texas Tech University, 2002), 21.

Vietnam at the beginning of LINEBACKER II.<sup>68</sup> The presidential administrations from Eisenhower through Johnson miscalculated the political philosophy of the North Vietnamese, who were absolute Marxist-Leninists, closer at that point than even the Soviets. Nathan Leites observed in 1951:

that the Communist code affirms that neither “feelings of distress about retreating,” nor “conceptions of dignity” should be allowed to keep the Party from executing an expedient retreat: And retreat is expedient when the experience gained in attempting to hold an attacked position shows that not to retreat would involve greater losses. In Lenin’s words, “to think we shall not be thrown back is utopian.”<sup>69</sup>

Hanoi believed that the Easter Offensive would have a similar effect on America as the Tet. Anti-war protests would topple a president as it had done with Lyndon Johnson. Their misjudgment was in the difference in the resolve of the presidents. “Although Nixon continued to worry about the antiwar movement and its possible impact on Congress, he had survived the agitation that followed the invasion of Cambodia and the shootings at Kent State University and seemed increasingly likely to win reelection.”<sup>70</sup> General William Momyer wrote of the 1972 Easter offensive and U.S. reactions:

With the U.S. withdrawing, they probably thought the U.S. public wouldn’t permit a bombing campaign against their homeland. The fact that the U.S. sus-pended the peace talks on 4 May as the offensive was in full swing must have also been cause for concern among the North Vietnamese leadership. Surely their miscalculations on the employment of U.S. airpower, both in South Vietnam and against the homeland, were two most significant factors in their turn around in attitude about the negotiations.<sup>71</sup>

It was Richard Nixon, who was the anti-communist’s role model, that broke the mold and reached out to Soviets and Chinese to begin détente. This wedge between the North Vietnamese and their benefactors made LINEBACKER II successful.

Headlines in American and European newspapers, describing LINEBACKER II, decried the “carpet bombing of a densely populated city, an interpretation based principally on the reports of a French journalist at Hanoi.”<sup>72</sup>

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<sup>68</sup> Earl H. Tilford Jr., *Crosswinds: The Air Force’s Setup in Vietnam* (College Station, TX: Texas A&M University Press, 1993), 153.

<sup>69</sup> Nathan Leites, *The Operational Code of the Polit Bureau* (New York: \_\_, 1951), 61, 83-84 quoted in Charles Wolf, Jr., “The Logic of Failure: A Vietnam ‘Lesson,’” (Santa Monica, CA: Rand Corporation paper P-4654-1), 3.

<sup>70</sup> John Schlight, *A War Too Long: The USAF in Southeast Asia 1961-1975* (Washington, D.C.” Air Force History and Museums Program, GPO, 1996), 88.

<sup>71</sup> William W. Momyer, *Airpower in three Wars (WWII, Korea, Vietnam)* (Maxwell AFB, AL: Air University Press, Maxwell Air Force Base, 2003), 372-73.

<sup>72</sup> Schlight, *A War Too Long*, 100.

## What changes did LINEBACKER II bring about in strategic thinking?

Edward E. Rice wrote a remarkable treatise on the effects of Third World warfare in 1988, entitled *Wars of the Third Kind: Conflict in Underdeveloped Countries*.<sup>73</sup> The author penned what could be an obituary of the U.S. involvement in Vietnam:

Wars of the third kind,<sup>74</sup> besides devastating the lands in which they are fought, can pose serious dangers to powers that become involved in them. These risks are of two kinds: they can lead to military disaster, and they can undermine the polity of the state. These dangers arise from initial underestimation of the problems that wars against the weak can pose for the strong, and subsequent inability to bring them to a successful conclusion.

Frustration over inability to bring a war of the third kind to a successful conclusion and unwillingness to cut their losses tend to cause a country's leaders to look beyond the theater in which it is being fought for the root of their difficulties. In doing so they are likely both to extend the geographic scope of the conflict and to enlarge the dimensions of their problem. Leadership implies an ability to choose right paths, whereas turning back would imply admission of error. Because such admissions are seldom willingly made, it is in the democracies, with their freedom of the press, their competition between political parties, and their provisions for the peaceful transfer of power, that there is the best chance of abandoning a wrong course before it ends in disaster.<sup>75</sup>

The Vietnam War remains a perplexing reality to both strategic thinkers and historians. The so-called “wars of the third kind,” that is wars in the Third World, offer many lessons but are not easily observed. Counterinsurgency conflict, such as Vietnam, “remains the forgotten stepchild of strategy.”<sup>76</sup> American politicians and strategists had either never learned about historical parallels, particularly the Philippine Insurrection, fighting Poncho Villa in Mexico, or, most egregiously, forgot the French debacle in Vietnam. Vietnam was considered to be a “one-of” in these circles. It was so painful to the national psyche that it was all but ignored in post war planning. Some lessons are derived from Edward Rice's treatise—never extend local wars to adjacent states and do not make comparative analogies with war scenarios that are more comfortable, conventional wars.<sup>77</sup>

The war offered many questions among war planners, both ground and air, about in what types of scenarios should certain weapons systems be used and whether massive numbers of ground troops should be deployed. In an almost pure guerilla insurgency, can large scale insertion of ground troops control whole areas the sizes of provinces? The Spanish-American philosopher said in an often-repeated quote that “Those who cannot remember the past are condemned to repeat it.” The maxim can be traced back at least to the Crusades, when the Christian kingdoms owned the Holy Land during the day and patrolled from their protected castles in armed sweeps. The Muslims owned the night and eventually swallowed the Christian kingdoms. The United States and its ally South Vietnam did not learn this lesson. Insurgents swarmed by the tens of thousands, even during the major bombing campaigns.

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<sup>73</sup> Edward E. Rice, *Wars of the Third Kind: Conflict in Underdeveloped Countries* (Oakland, CA: University of California Press, 1988).

<sup>74</sup> Wars of the First Kind are nuclear confrontations. Wars of the Second Kind are conventional wars.

<sup>75</sup> Rice, *Wars of the Third Kind*, 118.

<sup>76</sup> Gregory F. Treverton, “Wars of the Third Kind: Conflict in Underdeveloped Countries,” *Foreign Affairs* (Winter 1988/89), review of Edward E. Rice, *Wars of the Third Kind: Conflict in Underdeveloped Countries* (Berkeley, CA: University of California Press, 1988).

<sup>77</sup> Rice, *Wars of the Third Kind*, 119-149.

One question that arose from this was “could coercion from the pure use of airpower work on an enemy who adopted a conventional warfare vulnerable to air power?” The answer is yes. The massive use of air power blunted both the Tet Offensive (1968) and the Easter Offensive (1972). During Hanoi’s switch to conventional warfare in 1972, Hanoi’s capabilities “were severely weakened due to the destruction of their war making materiel and infrastructure.”<sup>78</sup>

The reverse of the above scenario is also pertinent. If an enemy is willing to bear the cost of demoralizing damage, might it be impervious to coercion? Again, the answer in Vietnam was yes, up to a point. The misguided strategies of two American presidents to dangle enticements, with hopes to lure the North to come to the negotiating table actually aided North Vietnam in its quest to unify the Vietnams. The north had little to lose and foreign aid from Russia and China to replenish its materiel losses. It was only the détente begun by President Nixon that separated the Russians and Chinese from the client state that allowed the Linebackers to succeed. Hanoi’s population was largely indifferent to coercion during the Johnson Administration.<sup>79</sup> Only when President Nixon broke with Johnson’s strategy of ARC LIGHT and ROLLING THUNDER missions, and unleashed LINEBACKER I and LINEBACKER II, did the American’s achieve their goal of getting out of Vietnam.<sup>80</sup>

From post-World War II to the beginning of the Vietnam War, strategic bombers existed to execute their missions as part of the Strategic Air Command in a nuclear war. Vietnam changed that. After the “Big Belly” conversion of B-52D models, and use of wing pylons for additional ordnance, strategic bombers delivered massive non-nuclear devastation at a relatively low economic cost. The LINEBACKER II missions allowed planners and designers to allow for such missions with the B-1 Lancer and the B-2 Spirit.<sup>81</sup> Warfare in an environment that is prone to constant cloud cover and monsoonal seasons meant that all-weather bombers could attack the enemy when tactical strike aircraft could not. It also forced Air Force planners to mix ordnance using guided smart weapons and unguided munitions.<sup>82</sup>

The nature of how campaigns are fought and the political landscape behind them is evident in the differences between the Johnson and Nixon administrations. “Unlike President Johnson, who preferred close personal control over individual targets, President Nixon tended, with some exceptions, to authorize strikes against areas or classes of targets and leave the details to his military commanders.”<sup>83</sup>

### **Was Air Force doctrine influenced by the campaign?**

Airpower doctrine evolved directly from both Linebacker campaigns. LINEBACKER I prepared the way for precision engagement and LINEBACKER II proved the concept, first espoused by Giulio Douhet, that airpower is a tool of influence.<sup>84</sup> Since the end of the Vietnam War, airpower doctrine theorists have studied two distinct ideas: precision attack at little cost to aircraft and crews, and the ability to deliver widespread destruction to coerce the enemy to bowing to one’s will.<sup>85</sup> These concepts came to maturity in 1972.

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<sup>78</sup> Phan, “An Analysis of Linebacker II,” 22.

<sup>79</sup> Pape, *Bombing to Win*, 209-210.

<sup>80</sup> Edgar Ulsamer, “The Lessons of Vietnam: USAF Prepares for Future Contingencies,” *Air Force Magazine* (June 1973): 36.

<sup>81</sup> Phan, “An Analysis of Linebacker II,” 22.

<sup>82</sup> Ulsamer, “The Lessons of Vietnam,” 36-38.

<sup>83</sup> Schlight, *A War Too Long*, 91.

<sup>84</sup> Giulio Douhet, *The Command of the Air* (Washington, D.C.: Office of Air Force History, 1983), 126.

<sup>85</sup> Robynn C. Rodman, *Hanoi to Baghdad: Linebacker’s Impact on Modern Airpower* (Maxwell AFB, AL: Air University, 2006), 20.



Technological advances in precision guided munitions (PGM) came into mainstream combat during LINEBACKER I and LINEBACKER II. Tactical attack aircraft, particularly F-4 Phantoms and F-105 Thunderchief “Wild Weasels” hit SAM radars with regularity as soon as they turned on their search radars (“Fan Songs”). During the first three days of LINEBACKER II, tactical escort fighters did not accompany the B-52s. Loss estimates prior to the campaign placed a probability of three percent. The total number of BUFFs lost during the eleven-day was fifteen. The loss of these big bombers, the pride of SAC, and the ultimate extension of airpower to the United States, created many problems in tactics and in morale. The B-52s dropped iron “dumb” bombs, but in massive amounts – 15,000 tons. TAC, Navy, and Marine aircraft dropped the “smart” bombs.

The ultimate questions asked and lessons learned were in what manner and at what time specific weapons systems should be used. Post-Vietnam airpower doctrine can be traced through the Air Force Manual (AFM) 1-1. The role of the Air Force focused on fighting a conventional war in which the opponent is a first or second world nation.<sup>86</sup> The manual showed little change in its 1984 revision, but the 1992 edition published immediately following Operation DESERT STORM, placed strategic bombing at a lower priority.<sup>87</sup> Theorist Raymond W. Leonard believes that this was probably due to the end of the Cold War.<sup>88</sup> The 1992 edition also places airpower in a secondary role in non-conventional wars.<sup>89</sup>

Leonard also asserts that strategic thought about LINEBACKER II changed during the 1980s.<sup>90</sup> Theorists split into two divergent camps. The traditionalists emphasized the success of the massive bombing campaign, devastating North Vietnamese defenses and infrastructure. The revisionists focused on the Air Force’s shortcomings in Vietnam and how strategic air power doctrine failed.<sup>91</sup>

The answer lies somewhere in the middle. The destructive power of strategic bombers is immense. Deployment of B-52s, B-1 Lancers, and B-2 Spirits has been a regular feature of conflicts in Europe, the Middle East and Asia. These weapons platforms can and do carry a wide variety of specialized munitions used in stand-off missions. This allows the bombers to fire their ordnance at targets while at great distances and keep them relatively safe from harm. Air Power did not fail in the Vietnam War, particularly once rules of engagement were relaxed. Proper deployment of strategic bombers in conventional roles brought the North Vietnamese to their knees. At the same time, this could not have been sustained without massive assistance from specialized tactical fighter-bombers and electronic counter-warfare measures (ECM) aircraft.

Prior to Vietnam, SACs mission was to deliver thermonuclear weapons in a war with the Soviet Union. That was the entire reason for its existence. SAC did not want to be part of the Vietnam War. Its air crews were trained for the missions of conventional carpet bombing, as were their predecessors in World War II and Korea. The political whims of three U.S. presidents changed that mission forever. The prestige of the B-52s made them a powerful tool in coercive diplomacy. The loss of some those great bombers opened the door to other views and other missions.

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<sup>86</sup> Michael, “The Strategic Significance of Linebacker II,” 14.

<sup>87</sup> Ibid.

<sup>88</sup> Raymond W. Leonard, “Learning From History: LINEBACKER II and U.S. Air Force Doctrine,” *The Journal of Military History* (April 1994): 267.

<sup>89</sup> Ibid.

<sup>90</sup> Ibid.

<sup>91</sup> Ibid.

### **Where does the campaign fit in the study and history of aerial warfare?**

LINEBACKER II is often referred to as an 11 Day War.<sup>92</sup> It compressed destruction dramatically in time and intensity to achieve political will over the enemy that took years in World War II. General William W. Momyer penned perhaps the best summary of the campaign's place in history:

The 11-day campaign came to a close on the 29th of December 1972 when the North Vietnamese responded to the potential threat of continued air attacks to the economic, political, social, and military life of their country. It was apparent that airpower was the decisive factor leading to the peace agreement of 15 January 1973. The concentrated application of airpower produced the disruption, shock, and disorganization that can be realized only by compressing the attack and striking at the heart with virtually no restraints on military targets which influence the enemy's will to fight.<sup>93</sup>

LINEBACKER II became the gold standard for planners in subsequent campaigns. It ushered in completely new ways of thinking about how to use air assets, both individually and in concert with others. LINEBACKER I and LINEBACKER II illustrated the limitations of thought about what strategic bombers should be used for, how they should be used, what were the limits of supporting them from maintenance, escort aircraft, refueling, and the targets for which they were appropriate. The United States demonstrated, particularly in Iraq and Afghanistan, that bombers from the Continental United States or from forward bases in the western Pacific or Indian oceans, can strike targets anywhere. B-52s and their sisters can use force multiplier weapons, such as air launched cruise missiles (ALCMs) with nuclear or conventional warheads (CALCMs) to deliver pinpoint accuracy precision anywhere. LINEBACKER II was the origin of this capability.

### **Was the campaign influential in later operations, even today?**

Without a doubt. The following list of operations illustrates how later campaigns built upon the knowledge and expertise gained from LINEBACKER II.<sup>94</sup>

#### **1986 – Operation EL DORADO CANYON**

During the fourteen intervening years between LINEBACKER II and the next mission to use the attack principles developed in that operation, the Air Force honed new skills and tactics. The United States intended to make a broad statement about fostering terrorism and perhaps remove one of its principal players. Operation EL DORADO CANYON used several FB-111s, dropping Laser Guided Bombs (LGBs) on a private compound in Libya to either kill President Muammar el-Qaddafi, or to dissuade him from his global terror activities.<sup>95</sup> The Aardvarks flew the entire route to and from the target over water to eliminate the threat

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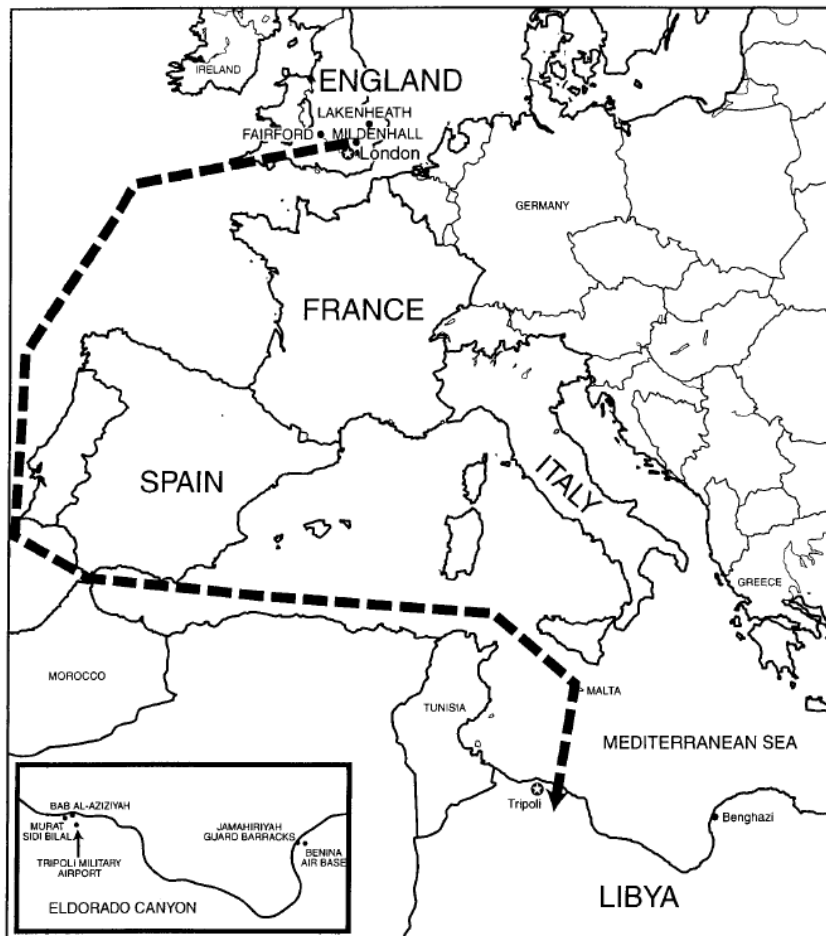
<sup>92</sup> Alan G. Dugard, *When the Wolf Rises: Linebacker II, The Eleven Day War* (Bloomington, IN: AuthorHouse, 2011).

<sup>93</sup> William W. Momyer, *Airpower in three Wars (WWII, Korea, Vietnam)* (Maxwell AFB, AL: Air University Press, 2003), 274.

<sup>94</sup> An excellent list and brief explanation for the following operations is found in Barbara Salazar Torreon, "U.S. Periods of War and Dates of Recent Conflicts," (Washington: Congressional Research Service, October 11, 2017).

<sup>95</sup> Rodman, "Hanoi to Baghdad," 20.

of terror attacks on allies.<sup>96</sup> Although the raid did not kill Qaddafi, it did remove one of his sons and some of his top aides. The raid achieved its purpose in proving that precision airpower can coerce a foe into changing his behavior.<sup>97</sup> EL DORADO CANYON moved airpower to the forefront of military planning and political thinking by the early 1990s.<sup>98</sup>



**Figure 1.** Operation EL DORADO CANYON. Source: Judy G. Endicott, “Raid on Libya: Operation Eldorado Canyon.” <http://www.afhso.af.mil/shared/media/document/AFD-120823-032.pdf>, 147.

### 1990-1991 – Operations DESERT SHIELD and DESERT STORM

Iraq invaded Kuwait in 1990 and the United States and its allies responded by reconquering Kuwait and driving the Iraqis back toward Baghdad. Air Force planners did not want a repeat of the years of problems associated with the Vietnam War. The final plan, after hard-fought ideological battles, was to use

<sup>96</sup> For a more complete examination of Operation EL DORADO CANYON, see Gary D. Joiner, “OPERATION SENIOR SURPRISE: The Secret Squirrels and the opening of Operation Desert Storm,” Report of the Strategy Alternatives Consortium (Shreveport, LA: Strategy Alternatives Consortium, 2016), 10-12.

<sup>97</sup> Marshall L. Michel, *The Eleven Days of Christmas: America's Last Vietnam Battle*, 1st ed. (San Francisco: Encounter Books, 2002), 234.

<sup>98</sup> Rodman, “Hanoi to Baghdad,” 20.

Colonel John Warden's five concentric-ring theory.<sup>99</sup> This turned Clausewitzian theory on his head. Clausewitz, the great strategic thinker of the Napoleonic wars, believed that "Armies would clash on the periphery of each side's territory and then penetrate to the interior. This time, the Air Force would wage war from the inside out, the first truly strategic air war."<sup>100</sup> Warden called his plan INSTANT THUNDER, an homage to ROLLING THUNDER in Vietnam.<sup>101</sup> It was an unfortunate analogy, LINEBACKER would have been better. INSTANT THUNDER became the first portion of Operation DESERT STORM.

Not everyone endorsed Warden's plan. Lt Gen Chuck Horner, the Joint Air Component Commander for Desert Storm, did not personally like Warden or his plan. General Colin Powell, Chairman of the Joint Chiefs, did not like the plan because it did not call for any strikes on Iraqi ground troops that had invaded Kuwait. Navy planners referred to the plan as Distant Blunder. Distant because Warden worked at the Pentagon and Blunder because they believed attacking Baghdad at the beginning of the campaign was a miscalculation.<sup>102</sup>

Warden's plan did indeed work. The opening mission of Operation DESERT STORM was Operation SENIOR SURPRISE. Seven B-52s from Barksdale Air Force Base, Louisiana, carried out the first raid of the war. They used the first weapons of their type – Conventional Air Launched Cruise Missiles (CALCMs). This opening round blinded the Iraqi forces, took out most of their power generating capacity, and eliminated their communication ability.



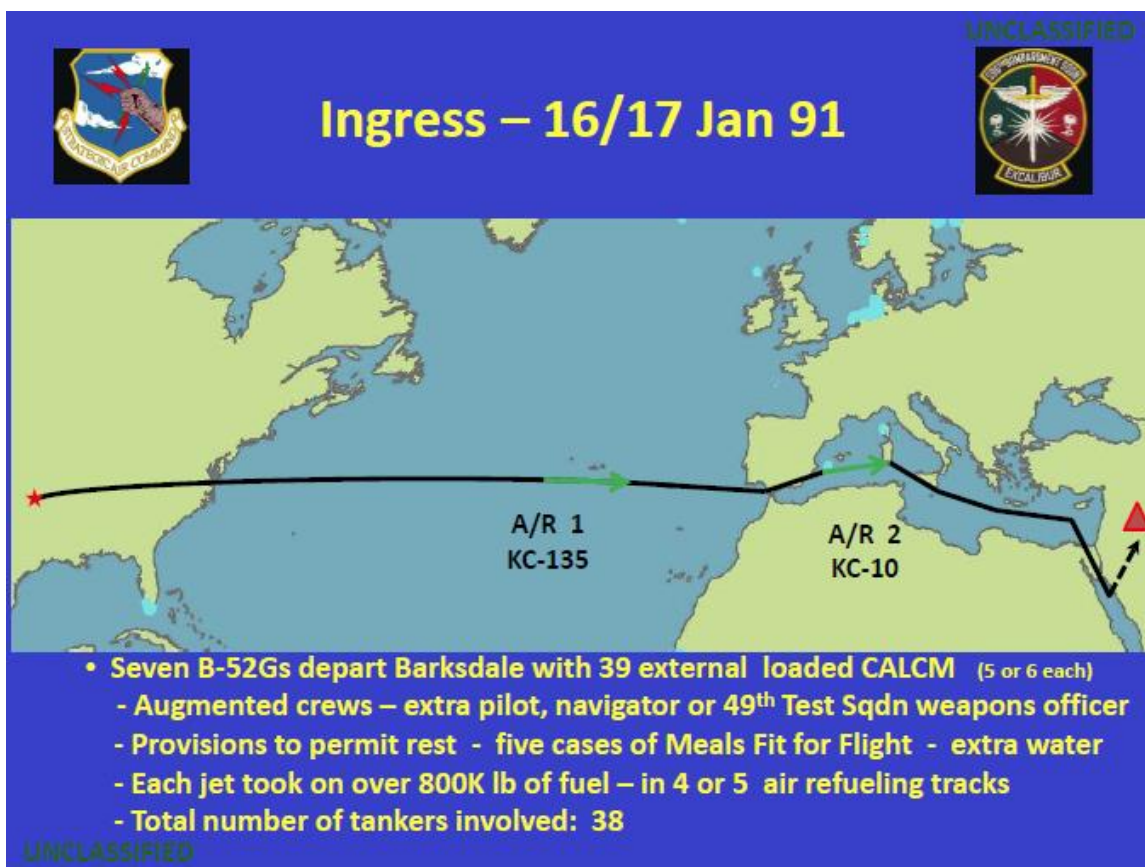
**Figure 2.** Second Bomb Wing B-52 H from Barksdale AIR FORCE BASE launching a AGM-86C CALCM. Source: Federation of American Scientists file photo.

<sup>99</sup> Michael R. Gordon and General Bernard E. Trainor, *The Generals' War* (New York: Little Brown and Company, 1995), 78-79.

<sup>100</sup> *Ibid.*, 80.

<sup>101</sup> Benjamin S. Lambeth, *The Transformation of American Air Power, Cornell Studies in Security Affairs* (Ithaca, NY.: Cornell University Press, 2000), 105.

<sup>102</sup> Michael, "The Strategic Significance of Linebacker II," 15.



**Figure 3.** Map of Ingress, or the mission to the target, for SENIOR SURPRISE. Source: Courtesy of Col (ret) Warren Ward, USAF.

The Iraqi defenders fired blindly into the night of January 16, 1991, not knowing that their adversaries never crossed into their air space. SAC intelligence officers rated the damage assessment between 80 and 91 percent.<sup>103</sup> SENIOR SURPRISE, nicknamed SECRET SQUIRREL due its highly secret status, was the longest combat mission in history until that time. Its planning heritage was LINEBACKER II sorties and the FB-111 mission of EL DORADO CANYON. This time, however, the massive ordnance load capability of the venerable B-52 matched with the long-range destructive nature of the CALCM, gave new life to the both the bomber and increased its necessity as a major weapons platform.

### **1995 – Operation DELIBERATE FORCE**

The former Yugoslavia was wracked by civil strife among its many ethnic groups after the end of the Cold War. Bosnian Serbs all but destroyed the city of Sarajevo. Negotiations continued over three years before the United Nations, NATO, and the United States took action. This was the first time in which air

<sup>103</sup> Report (Unclassified), 2BW/CCE, “Mackay Trophy Mission Narrative,” n.d.; For a complete history of this raid see, Joiner, “OPERATION SENIOR SURPRISE, 16-28.

power, with no troops on the ground, brought about a peace agreement.<sup>104</sup> Coercive air power was the key to bringing the Serbs to the negotiating table.

### **1999 – Operation NOBLE ANVIL / ALLIED FORCE**

The remnants of Yugoslavia, principally Serbia and Herzegovina, continued military operations and attacked its former component state, Kosovo. NATO responded. The action was opposed by China, Russia, and the United States, however, NATO went ahead with the operation. This was the first instance in which NATO conducted an operation without the approval of the United Nations Security Council.<sup>105</sup> The air component in this operation was decisive. A RAND Corporation assessment of the air component validated Clausewitz's concept that war is an extension of diplomacy by other means<sup>106</sup>:

The most remarkable thing about Operation Allied Force is not that it defeated Milosevic in the end, but rather air power prevailed despite a NATO leadership that was unwilling to take major risks and an alliance that held together only with often paralyzing drag... After years of false promises by its outspoken prophets, air power has become an unprecedentedly capable instrument of force employment in joint warfare. Even in the best of circumstances, however, it can never be more effective than the strategy it is intended to support.<sup>107</sup>

### **2002 – Operation ANACONDA**

The first operation on the War on Terror, which began with the suicide aircraft disasters on September 11, 2001, was an attempt to eliminate the terrorist plotters from their hideouts in Afghanistan. Operation ANACONDA was a combined arms affair with U.S. Army troops, CIA operatives, and local allies attempted to destroy al-Qaeda and Taliban forces, fighting high in the Shahi-Kot Valley and Arma Mountains southeast of Zornat.

Army personnel were forced to fight in the high mountains without artillery support and relied upon Air Force bombers for close support. The Taliban evacuated with heavy casualties after heavy fighting. Army generals, particularly the commander in Afghanistan, Major General Franklin Hagenbeck, complained about Air Force response to his forces' needs.<sup>108</sup> Thirty years after LINEBACKER II, the role of close support for ground troops remained controversial.<sup>109</sup> Despite the Army's criticism, it is highly unlikely that the ground forces would have carried the day in the engagement.

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<sup>104</sup> Michael, "The Strategic Significance of Linebacker II," 16.

<sup>105</sup> *"15 years on: Looking back at NATO's 'humanitarian' bombing of Yugoslavia — RT News"*. [www.rt.com](http://www.rt.com).

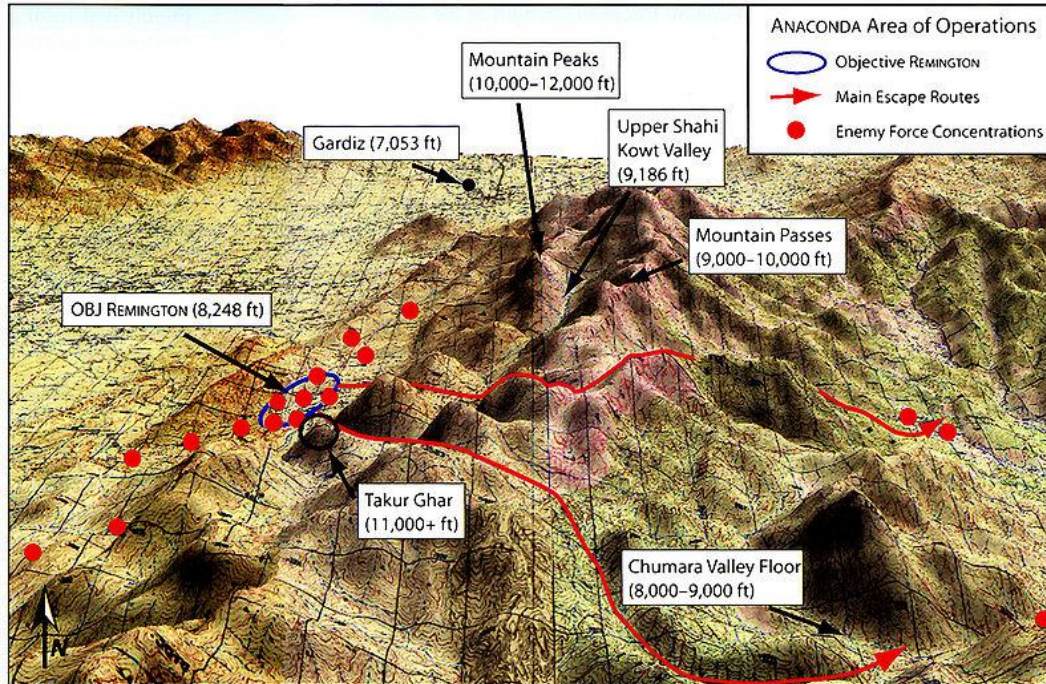
<sup>106</sup> Carl von Clausewitz. *On War*. Edited and Translated by Michael Howard and Peter J. Peret (Princeton, NJ: Princeton University Press, 1976).

<sup>107</sup> Rand Corp, "NATO's Air War Over Kosovo: A Strategic and Operational Assessment" (Santa Monica, CA: RAND Corporation, 2001).

<sup>108</sup> Michael, "The Strategic Significance of Linebacker II," 17.

<sup>109</sup> *Ibid.*





**Figure 4.** Area of operations, ANANCONDA, March 2 – March 10, 2002. Source: ConnecticutMagazine.org via Wikicommons.

### 2003 –2010 – Operation IRAQI FREEDOM

The destruction of Saddam Hussein’s regime in Iraq was the focus of Operation IRAQI FREEDOM. U.S. Central Command (CENTCOM) chose ‘Shock and Awe’ for the name of the pending air operation. As in LINEBACKER II, airpower was envisioned as the means to coerce the enemy to change its behavior.<sup>110</sup> Shock and Awe was indeed impressive, but targeters made great mistakes. They hoped that the aerial assault would be so impressive that the Iraqi people would topple the dictator. Several principal targets in and near Baghdad were intentionally left off the list.<sup>111</sup> One planner at CENTCOM explained, “There was a hope that there would be a complete and utter collapse of the regime early on. In order to let that come to fruition, [air commanders] initially held back those targets.”<sup>112</sup> The Iraqis stood by their dictator in this first crucial action in the war. The crucial lesson from LINEBACKER II was to create target lists that minimized civilian casualties and focus on military units and facilities. The full brunt of aerial bombing fell upon the elite Iraqi Republican Guards Medina, Baghdad, and Hammurabi divisions two weeks after Shock and Awe devastated Baghdad.<sup>113</sup> Following cessation of hostilities, coalition troops remained in Iraq. President Obama declared the mission completed with reduced forces put in place to assist in nation building and to fight ISIS.<sup>114</sup>

<sup>110</sup> Rodman, “Hanoi to Baghdad,” 23.

<sup>111</sup> Williamson Murray and Robert H. Scales, *The Iraq War: A Military History* (Cambridge, MA: Harvard University Press, 2005), 167.

<sup>112</sup> Ibid.

<sup>113</sup> Ibid., 174-75.

<sup>114</sup> The White House, Office of the Press Secretary, “Remarks by the President in Address to the Nation on the End of Combat Operations in Iraq,” August 31, 2010, at <https://obamawhitehouse.archives.gov/the-press-remarks-president-office/2010/08/31/address-nation-end-combat-operations-iraq>

## **2001 – 2014 – Operation ENDURING FREEDOM**

Operation ENDURING FREEDOM was the continuation of Operation ANACONDA. This operation saw massive American ground troop involvement supported by Air Force bombers. The Second Iraq War pulled much of the ground force from Afghanistan, but troop levels increased again in 2009.<sup>115</sup> President Obama announced the end of ENDURING FREEDOM on December 28, 2014, however, combat still continues today.<sup>116</sup> Airpower played a huge part in this operation, particularly blasting away at mountain strongholds held by the Taliban and al-Qaeda. Precision weapons continued to be the weapon of choice, targeting caves and training camps while leaving villages unharmed. Two B-2 bombers from the 509th Bomb Wing in Whiteman Air Force Base, Missouri, conducted the longest bombing mission in history on November 13, 2014.<sup>117</sup>

## **2010 – 2011 – Operation NEW DAWN**

Operation NEW DAWN was the new name for military operations in Iraq effective September 1, 2010.<sup>118</sup> On December 15, 2011, U.S. Armed Forces in Baghdad marked the official end of the war in Iraq.<sup>119</sup>

## **2015 – Present – Operation FREEDOM’S SENTINEL**

Beginning January 1, 2015 and continuing today, Operation FREEDOM’S SENTINEL is the continuation of ENDURING FREEDOM. Basically, this operation is a reduced troop strength training operation for Afghani forces to aid in state building. Air strikes remain to combat Taliban concentrations. As in previous Afghan operations, strategic bombers are deployed from outside bases as needed.<sup>120</sup>

## **2014 – Present Islamic State-Operation INHERENT RESOLVE**

Beginning October 15, 2014 and continuing, Operation INHERENT RESOLVE targets the Islamic State (IS, ISIS, ISIL, Daesh) in Iraq and Syria.<sup>121</sup> Coalition forces are heavily engaged in both

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<sup>115</sup> The White House, Office of the Press Secretary, “Remarks by the President in Address to the Nation on the Way Forward in Afghanistan and Pakistan,” press release, December 1, 2009. <https://obamawhitehouse.archives.gov/the-press-office/remarks-president-address-nation-way-forward-afghanistan-and-pakistan>.

<sup>116</sup> U.S. Department of Defense (DOD), “Obama, Hagel Mark End of Operation Enduring Freedom,” news release, December 28, 2014, at <https://www.defense.gov/News/Article/Article/603860/obama-hagel-mark-end-of-operation-enduring-freedom/> <http://www.defense.gov/news/newsarticle.aspx?id=123887>.

<sup>117</sup> Mel Deaile, “The Longest Bombing Run Ever,” *On Patrol* (Winter 2014-2015), <http://usoonpatrol.org/archives/2014/11/13/b-2-pilot-flew-longest-combat>

<sup>118</sup> U.S. Army, “Operation New Dawn,” August 31, 2010, at [https://www.army.mil/article/44526/operation\\_new\\_dawn](https://www.army.mil/article/44526/operation_new_dawn)

<sup>119</sup> Kenneth Katzman and Carla E. Humud, “U.S. Policy Response to the Islamic State in Iraq,” in CRS Report RS21968, *Iraq: Politics and Governance*.

<sup>120</sup> The White House, Office of the Press Secretary, “Statement by the President on Afghanistan,” October 15, 2015, at <https://obamawhitehouse.archives.gov/the-press-office/2015/10/15/statement-president-afghanistan>

<sup>121</sup> DOD, Operation Inherent Resolve, at <http://www.inherentresolve.mil/About-US/>.



areas in what is, perhaps, the most complex political, military, and ethnic strife since the Yugoslavian issues of the 1990s. U.S. Air Force tactical and strategic bombers provide close air support to allied ground troops. Separately, Russia provides aircraft, advisors, and naval units provide assistance to the Syrian government against the Islamic State. The two sides are not mutually compatible.<sup>122</sup>

### **What were the lessons learned and legacies?**

Military operations always yield results that may be hoped for or feared. In this case, the December 1972 bombing of North Vietnam yielded the desired response. North Vietnam returned to the negotiating table in Paris for the very first time with sincerity. The peace accords were signed less than three weeks after the attacks. If history is that simple, this operation would simply be a marker in a longer list of missions and that would end its study. LINEBACKER II must be considered in multiple contexts.

The first consideration is the timing of the operation, which was launched late in 1972 after the very successful LINEBACKER I missions of earlier that year. President Nixon halted that campaign, just as his predecessor Lyndon Johnson had done many times. The simple reason was to allow the North Vietnamese to see that the United States was sincere about negotiating. Every attempt to use this tactic allowed the North Vietnamese to rest, resupply, and become more entrenched in South Vietnam.

Second, planning from higher command headquarters, the Pentagon, and the White House must be viewed through the lens of commanders in direct contact with the enemy or their immediate superiors. LINEBACKER II made certain “truths” obsolete:

1. World War II saturation bombing was too predictable. Massed heavy bombers without fighter protection and using unchanged paths of ingress and egress yields loss of aircraft and crews.
2. Crew information **MUST** be used in planning upcoming raids.
3. Combined air offensive with TAC and Navy assets **MUST** be used to suppress defensive systems.
4. High Altitude Reconnaissance images (visual and multi-spectral) are required to properly assess damage on infrastructure and must be used real-time.
5. Numbered Air Force level leadership **MUST** be able to alter or interpret higher orders (within reason).
6. The one-day halt on Christmas emboldened North Vietnamese leaders and gave them time to resupply. The following days remedied that.
7. Constant pressure **MUST** be placed on the enemy. No rest. 24-hour raids.

Third, “smart” weapons and “dumb” weapons each have a place in the modern munitions inventory. Precision guided weapons (PGMs) are the weapon of choice for most missions. Targets in densely populated areas or near high value cultural sites can be destroyed without harming (hopefully) civilians.<sup>123</sup>

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<sup>122</sup> The difference in the terms “IS, ISIS, and ISIL” is associated with the speaker’s or writer’s leanings rather than the terror group. IS refers to the so-called Islamic State, a self-imposed caliphate, based in Syria, but with factions in other countries. ISIS refers to the Islamic State in Syria. ISIL refers to the Islam State in the Levant (the eastern Mediterranean coast and hinterland from south of Turkey to the Gaza Strip. This term is used by those who do not want to recognize the State of Israel. Daesh" (or Da'ish) is an Arabic acronym formed from the initial letters of the group's previous name in Arabic - "al-Dawla al-Islamiya fil Iraq wa al-Sham." It does not have a meaning in Arabic. An excellent article on the terms is found in Faisal Irshaid, “Isis, Isil, IS or Daesh? One group, many names” BBC Monitoring <http://www.bbc.com/news/world-middle-east-27994277> posted December 2, 2015.

<sup>123</sup> John J. Nichols, *Three Reasons For Linebacker II's Success* (Montgomery, AL; Air Command and Staff College, Air University, Maxwell Air Force Base, 2006), 2

A significant drawback to PGMs is that although highly accurate, less force lessens the shock factor.<sup>124</sup> The Shock and Awe phase of Operation IRAQI FREEDOM looked great on television and took out command and control centers and defense communications targets, but it did not convince the Iraqi populace to rise up and remove their dictator. One Iraqi commented on the precision weapon attack on the Baghdad telephone exchange: “Speaking logically, they are precise, even if the goal is inhuman...With all the American’s power, we expected the strike to be more devastating, we expected it to be leveled to the ground.”<sup>125</sup> Iron bombs, or “dumb” bombs still have their place in the threat environment. Afghanistan and Syria are recent significant examples.

Fourth, prior to Vietnam, SACs sole purpose was the nuclear mission. When the big bombers were sent to the SEA theatre, crews had to learn a different set of skills, mentally retrofitting to World War II era tactics. This new set of procedures fit well into SACs method of rigid rules. However, the first three days of LINEBACKER II proved that the old bomber formations used over Germany and Japan did not translate to modern defenses, particularly SAMs. Not all crews were trained equally. Although all B-52s in the Vietnam War conducted conventional missions, some crews suffered from this during the First Iraq War.<sup>126</sup> Following that war, Air Combat Command (ACC) replaced SAC, shifting focus from nuclear to conventional. Now, crews trained for either nuclear or conventional roles by Wing and Squadron. The new century brought a revolution in weaponry that increased the flexibility and responsiveness, while the required training time shrunk.<sup>127</sup> This included training for ground crews as well as air crews. An incident in 2007 in which a B-52 from Barksdale Air Force Base accidentally brought a live nuclear warheaded cruise missile back to Louisiana from Minot Air Force Base (where the nuclear stockpiles were stored) illustrated a large gap in attention to rules and defining the seriousness of everyday procedures. The pendulum had swung far toward the conventional side.<sup>128</sup>

Fifth, Dr. Richard Hallion noted in *Storm Over Iraq* that the principal airpower lessons garnered between LINEBACKER II and the First Gulf War were technological.<sup>129</sup> The Air Force still utilizes the now much-upgraded B-52s. Newer bombers have joined the fleet, but it is still the B-52 that has the weapons capacity to delivery massive loads of ordnance.

Sixth, Dr. William P. Head posited perhaps the most telling legacy of the airpower strategy following Vietnam.

In many ways, the Vietnam experience has had a reverse impact on operations. Airpower has been applied in America’s most recent operations (e.g., the Persian Gulf War, Bosnia, and Kosovo) not according to the old theory of tactical aircraft performing only tactical roles and strategic aircraft performing only strategic roles but bomber, fighter, and fighter-bomber air assets—often carrying precision ordnance—accomplishing a variety of tactical and strategic missions. In these cases, circumstances dictate usage. Airmen no longer refer to aircraft as tactical or strategic aircraft, rather tactical or strategic assets that they

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<sup>124</sup> Rodman, “Hanoi to Baghdad,” 25.

<sup>125</sup> Murray and Scales, *The Iraq War: A Military History*, 168.

<sup>126</sup> Ryan E. Gorecki, “Finding Balance for Dual-Role Bombers” Master’s thesis (Maxwell AFB, AL: School of Advanced Air and Space Studies, 2011), v.

<sup>127</sup> Ibid.

<sup>128</sup> Ibid.

<sup>129</sup> Richard P. Hallion, *Storm over Iraq: Air Power and the Gulf War* (Washington: Smithsonian Institution Press, 1992).

realize can perform a variety of missions. Does this suggest that all future air campaigns will be fought under the same conditions as the Persian Gulf? The Bosnian and Kosovan intervention suggests, this will not be the case. Thus, one must ask: What if the United States finds itself in a low-intensity insurgency conflict containing jungle terrain and climate? Will Air Force doctrine and theory provide airmen with the foundation necessary to successfully prosecute such a war?<sup>130</sup>

Seventh, Lee Kennett authored a chapter in *Case Studies in Strategic Bombardment* entitled “Strategic Bombardment: A Retrospective,” in which he pondered the need for strategic bombers.

A half-century has passed since the incineration of Hiroshima and Nagasaki. Although it certainly would be premature to speak of the current epoch as “postnuclear,” the menace of this form of city killing no longer looms so heavily as once it did. During this period, land- and sea-based ballistic missiles largely replaced the bomber in the strategic nuclear role, while fighter-bombers increasingly displaced it in the precision bombardment role. Configured for the contemporary come-as-you-are contingency war, however, the strategic bomber may yet know something of a renaissance and achieve some of the hopes held for it when it was still only an idea. It possesses features and capabilities that promise much: an internal bomb bay offers heavier, more diverse weapon loads; a multiperson crew permits extended, long-range missions; stealth technology masks its presence to the enemy; and by means of air-launched cruise missiles and laser-guided bombs, in recent years it has acquired the ability to direct incredible destructive power with extreme accuracy. We still have a great deal to learn from the Gulf War, but it has offered us a glimpse of a strategic air weaponry of extraordinary “efficacy.”<sup>131</sup>

Eighth, and perhaps the most forward reaching subject from a leadership point, is the transition from bomber commanders to fighter commanders since the end of the Vietnam War. Two of the most prolific thinkers on this legacy are Mark Clodfelter and Mike Worden.

Clodfelter, in his *Limits of Air Power: The American Bombing of North Vietnam*, describes the evolution and chronology of bombing during the Vietnam War. He describes the view from the senior commanders throughout the war as being ham-strung by political restrictions and the final loosening of requirements during 1972 by the Nixon Administration.<sup>132</sup> He compares the Johnson Era war plans to that of the politicians and commanders in 1914, with continued blundering with no end in sight and no firm vision to either win or end war.<sup>133</sup> Clodfelter states: “Difficult to fathom is the air chiefs’ lingering conviction that their doctrine was right throughout Vietnam – and that it is right for the future.”<sup>134</sup> Speaking of bomber general air chiefs in particular, he adds “Unlike generals after World War I, post-Vietnam air commanders have advocated no sweeping doctrinal changes. They parade Linebacker II as proof that bombing will work in limited war, and they dismiss the notion that too much force could trigger nuclear

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<sup>130</sup> William P. Head, *War From Above the Clouds: B-52 Operations during the Second Indochina War and the Effects of the Air War on Theory and Doctrine* (Maxwell AFB, AL: Air University Press, 2002), 91.

<sup>131</sup> Lee Kennett, “Strategic Bombardment: A Retrospective,” in *Case Studies in Strategic Bombardment*, R. Cargill Hall, editor (Washington: Air Force History and Museums Program, GPO, 1998), 631.

<sup>132</sup> Mark Clodfelter, *Limits of Air Power: The American Bombing of North Vietnam* (Lincoln, NE: University of Nebraska Press, 2006), passim.

<sup>133</sup> Clodfelter, *Limits of Air Power*, 209.

<sup>134</sup> *Ibid.*

devastation.”<sup>135</sup> Clodfelter is referring to Air Force Doctrine, which tends to ignore the lessons learned by the Vietnam War except for the conventional war actions by the North Vietnamese.

Rather than seeing a single-minded approach to deploying strategic airpower in every potential limited war, Clodfelter sees five variables that each result in required questions being answered. The result is a sliding scale of appropriateness. His variables are: 1. Nature of the enemy, 2. The type of war waged by the enemy, 3. Nature of the combat environment, 4. Magnitude of military controls, and 5. Nature of political objectives.<sup>136</sup> Using these five variables, it is difficult to agree with the decisions made by the Johnson White House and the early Nixon White House (1968-1971). Winning the Vietnam War by airpower alone was not possible and in many cases, should not have been employed in the jungle warfare of most of the war. Airpower was successful against conventional war scenarios during the Tet Offensive in 1968 and the Easter Offensive in 1972. Richard Nixon’s decision to not win the war, but extricate America from it, made the goals of the two LINEBACKER campaigns successful.

Mike Worden created the most in-depth study of the transition of Air Force leadership from “bomber generals” to “fighter generals.”<sup>137</sup> Although the data is now largely outdated and suffers from realignments of commands and the creation of new Major Commands (MAJCOMs) from 1992 through the present, his points are still relevant.

Worden divides Air Force Air Force leadership by when they graduated from West Point or other universities and their ascension to power during World War II, at the end of World War II, the early Cold War, the early years of Vietnam, and beyond. The strategies and tactics evolved from the 1920s through the Korean War were almost purely created by men who had risen through the ranks in the bomber commands. Their efforts reached a pinnacle of success during the massive campaigns against Germany and Japan. Worden calls these generals “absolutists.” The most stalwart of these leaders was General Curtis LeMay.<sup>138</sup> The development of the Strategic Air Command, largely under LeMay, was designed to do one thing – defend the United States with nuclear weapons while destroying any enemy (the Soviet Union) to the degree that only American would survive an all-out nuclear war. The most visible, and arguably the pinnacle of SACs power came during the Cuban Missile Crisis in October 1962.<sup>139</sup>

SAC all but gutted Tactical Air Command of funds in its quest for more bomber wings, more nuclear weapons, and more bases.<sup>140</sup> The fighter wings under SACs control were all nuclear capable.<sup>141</sup> The SAC commanders believed there would be no reason to have TAC if the enemy was the USSR and the war was thermonuclear.

When the United States became involved in Vietnam, SAC wanted no part of the operations. They were drawn in under the umbrella of Flexible Response.<sup>142</sup> For the first time, B-52s would be used in a type of warfare in which they were not designed to perform. Bombing unseen targets under a triple canopy of jungle could not guarantee results. As Kenneth P. Werrell suggested, the B-52s were not the correct weapon in Vietnam because there were few, or perhaps no, worthy targets.<sup>143</sup> There certainly were viable targets in North Vietnam, particularly in and around Hanoi and Haiphong, but they were out of bounds due to severe political restrictions during the Lyndon Johnson presidency. The senior Air Force commanders, all bomber generals, except for TAC, were overwhelmingly bound by tight ROE.<sup>144</sup>

Following the election of Richard Nixon as president, Air Force leaders were slowly allowed more leeway in ROE. Operations LINEBACKER and LINEBACKER II in 1972, unleashed the power of the SAC

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<sup>135</sup> Ibid., 209-10.

<sup>136</sup> Ibid., 218-21.

<sup>137</sup> Mike Worden, *Rise of the Fighter Generals: The Problem of Air force Leadership 1945-1982* (Maxwell AFB, AL: Air University, 1998), passim.

<sup>138</sup> Worden, *Rise of the Fighter Generals*, 55-89.

<sup>139</sup> Ibid., 103-125.

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<sup>142</sup> Worden, *Rise of the Fighter Generals*, 133-152.

<sup>143</sup> Werrell, “Linebacker II: The Decisive Use of Airpower,” 49-51.

<sup>144</sup> Worden, *Rise of the Fighter Generals*, 57-177.

heavy bombers, and finally ended with North Vietnam coming to the peace talks in earnest in January 1973. LINEBACKER II was such a powerful *coup de grâce*, that it was almost a separate war by itself. This was the vindication of the bomber generals.

Vietnam also saw a great need for TAC to be increased substantially. Funding for tactical fighter and fighter-bomber aircraft increased exponentially and bomber funding was reduced.<sup>145</sup> Within a seven-year period, the need for fighter pilots and ground crews increased with the multitude of new mission types.<sup>146</sup> Fighter pilots were and are trained differently than bomber crews. They are taught to be individual risk takers and make snap judgments. Worden and others believe that is why they have come to preeminence in command positions.<sup>147</sup>

During the two decades between 1973 and 1993, the primacy of bomber generals gave way to fighter generals in drastic fashion. Julie Bird cited the fact that by 1993, seven percent of all officers in the United States Air Force were fighter pilots, while seventy percent of all MAJCOMs were fighter pilots.<sup>148</sup> Simultaneously, all Air Force four-star generals were fighter pilots and more than half of three-star generals were as well.<sup>149</sup> Finally, eighty-five percent of all three- and four-star generals were rated (pilots).<sup>150</sup>

Air doctrine has seemingly ignored the Vietnam War as a “one-of.” Limited war is viewed as the primary threat around the world rather than the Mutual Assured Destruction (MAD) theory of the Cold War. SACs success in LINEBACKER II may have been the beginning of its undoing. The training of the SAC crews and the perception of saving the B-52s from harm allowed mission planners to abort bombing missions if there was a perceived threat from SAMs.<sup>151</sup> When, as early as 1967, B-52s sortied into ground threat environments, Seventh Air Force TAC fighters covered them, suppressed SAM and AAA sites and performed air-to-air protection (MiGCAP).<sup>152</sup>

The preconception among SAC commanders that the B-52s could force their way into the high-threat areas of North Vietnam above the twentieth degree parallel with no fighter suppression and MiGCAP brought disaster to the BUFFs. During the campaign, fifteen of the heavy bombers were lost. Tactics used were simply World War II and Korea vintage carpet bombing techniques which will not work in a hostile environment that can launch hundreds of SAMs at a time. The losses decreased and ended during the middle and particularly the end of the operation. The North Vietnamese Army simply ran out of missiles and their supply lines were cut. The B-52s handled that part beautifully, but it was the tactical aircraft of the Seventh Air Force and the Navy’s Task Force 77’s tactical fighter-bombers, that kept the SAM and AAA fire down.

Another issue was the type of ordnance the B-52s delivered. The typical payload was a combination of 500 lb. and 750 lb. “dumb” bombs for saturation bombing. The fighter-bombers utilized high precision television or laser guided “smart” munitions. This increased accuracy, made the delivery “cheaper,” and changed the minds of military planners and Congress toward the efficacy of all-purpose weapons platforms. If a fighter-bomber could carry the equivalent payload of a World War II B-17 or greater, what is the need for strategic bombing platforms? The days of carpet bombing were thought to be over. The necessities of flying a bomb run straight and level for several minutes before bomb release and then making a sharp predictable turn afterward, invite almost sure death in the modern threat environment.

The next notable mission to use smart weaponry in strategic bombers came in 1986 with FB-111s

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<sup>145</sup> Robert F. Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1961-1984*, vol. 2 (Maxwell AFB, AL: Air University Press, 46, 121.

<sup>146</sup> Worden, *Rise of the Fighter Generals*, 185-20.

<sup>147</sup> *Ibid.*, x-xi; Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore, MD: Johns Hopkins University Press, 1989), 6-8.

<sup>148</sup> Julie Bird, “Fighter Mafia Taking Over,” *Air Force Times*, February 1, 1993: 12-13.

<sup>149</sup> *Ibid.*

<sup>150</sup> *Ibid.*

<sup>151</sup> Momyer, *Air Power in Three Wars*, 283.

<sup>152</sup> Futrell, *Ideas, Concepts, Doctrine*, 288; Jack Broughton, *Going Downtown: The War Against Hanoi and Washington* (New York: Orion Books, 1988), x, 96, 104-5, 194, 233-38, 265, 280; Jack Broughton, , *Thud Ridge* (New York: Bantam Books, 1969), xv, 143; Frederick C. Blesse, *Check Six: A Fighter Pilot Looks Back* (New York: Ivy Books, 1987), 192-93; Robert F. Dorr, *Air War Hanoi* (London: Blandford Press, 1988), 72.

using laser-guided munitions (LGMs) in Operation EL DORADO CANYON. Although imperfect, it led the way for strategic aircraft to deploy stand-off weapons. The opening night of the First Gulf War featured B-52s from Barksdale Air Force, Louisiana, fly from their base on an extremely long mission (Operation SENIOR SURPRISE), deploy Conventional Air Launched Cruise Missiles (CALCMs) and return home to Barksdale.

SAC and TAC were combined following the end of the First Gulf War. The Air Combat Command was believed to be a major cost cutting measure to integrate the two communities (strategic and tactical). The concept did not work as hoped. The styles of training, the philosophies of mission planning, the need for different personality types to command and conduct bomber and fighter missions are too diverse. It was widely perceived that due to cost cutting and a laxity of attitudes, training, and operational awareness reached an all-time low. A new MAJCOM came into existence on August 7, 2009 following an unintended nuclear weapons transfer from Minot Air Force Base to Barksdale Air Force Base in 2007.<sup>153</sup> ACC retained TAC fighter assets as well as tanker aircraft. All B-52s and B-2s were placed under the Air Force Global Strike Command (AFGSC). Recently both B-1 wings were reacquired by AFGSC. Strike Command houses all intercontinental ballistic missile wings, making it the operator of two thirds of the nuclear triad. AFGSC is headquartered at Barksdale Air Force Base, Louisiana and is commanded by a four-star rank general (General Robin Rand.) Without the official moniker attached, “SAC is back.”

Tactical thinking changed the way strategic bombers evolved in the post-Vietnam world. The weapons used by TACAIR saw new life in a changing mission role for the strategic bombers. With the advent of the B-1 Lancer, and later the B-2 Spirit, the United States Air Force now has three different platforms for different missions. The B-52 is still a premier penetrator platform using CALCMs. It can also use nuclear war-headed Air Launched Cruise Missiles (ALCMs) in a nuclear threat environment. The B-1, due to politically enforced design changes (during the Jimmy Carter Administration) lost its penetrator role, but retains the ability to deploy massive amounts of ordnance in a stealthy configuration. The B-2 is a true stealth penetrator platform, but the cost per aircraft forced Congress to limit the number of them. The newly designed B-21 Raider will, theoretically, replace the B-1 and augment the B-52 and B-2 fleets.

Ultimately, the legacy of LINEBACKER II is that strategic bombers are relevant to the doctrine, needs, and duties to the United States Air Force. They operate over extremely long distances that tactical aircraft cannot perform without extensive refueling requirements. They carry geometrically more ordnance than their smaller cousins, can deploy cruise missiles hundreds of miles away and leave before detonation. Ultimately, they project American power and force of will anywhere in the world, as SAC believed. Strategic bomber theory, espoused by Douhet and Mitchell, remains pertinent.

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<sup>153</sup> See [https://en.wikipedia.org/wiki/2007\\_United\\_States\\_Air\\_Force\\_nuclear\\_weapons\\_incident](https://en.wikipedia.org/wiki/2007_United_States_Air_Force_nuclear_weapons_incident) for the details and fallout of the incident.

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