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COMPELLENCE THEORY

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Abstract

This paper analyses the dynamics of coercion and counter-coercion and argues that, for compellence to be successful, the opponent's counter-coercive strategy must be undermined. Existing theories rely on a cost-benefit model in which the target state is expected to give in when its costs outweigh the benefits. The problem with the existing model is that it neglects strategic interaction. This paper presents an improved model by including an interaction term that represents the effect of the target's counter-coercion. Because of the importance of this interaction term, it can be shown that the cost benefit model only holds if the level of counter-coercion is very low. If the level is high, the target state can win the coercive contest even if the costs outweigh the benefits. As a result, the target will hold out in situations where existing theories predict it will give in. This is possible even if the compeller has lowered its demands to acceptable terms for the target, if the target believes that its counter-coercion might cause it to achieve better terms. The new model is tested using Operation LINEBACKER II as a crucial case. The findings of this analysis provide strong evidence for the new model. No supporting evidence can be found for the main rival hypothesis, but supporting evidence can be found for the strategic interaction hypothesis. Although inferences drawn from a single case must necessarily be tentative, the fact that a crucial case was selected offers a certain measure of confidence in the conclusions drawn.

Keywords: coercion, compellence, counter-coercion, Linebacker II, airpower

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Max Weber Fellow, 2010-2011

Introduction

Recent operations in Iraq and Afghanistan demonstrate the limitations of military strategies aimed at taking control of a country. In future conflicts policymakers are therefore likely to restrict the use of force to coercive air power, which seems to offer a far less risky foreign policy option.¹ Indeed, the current intervention in Libya appears to confirm this tendency. But compellence is not without dangers and attempts at compellence regularly fail. One of the reasons why compellence is difficult is that target states always respond to pressure from the compeller. They not only implement countermeasures to negate the effect of military operations, they also use counter-coercion to force the compeller to stop its coercive action.²

In future conflicts counter-coercion will be particularly important. Given the military preponderance of the Western powers over most potential adversaries, opponents will often be much weaker. Since these weak adversaries cannot expect to win in a head-on military contest, they often rely on counter-coercion to impose costs upon the compeller and alter its position. Weak adversaries do so by seeking to inflict military casualties, fracture the compeller's coalition, exploit collateral damage incidents,³ or rely on powerful allies to exert diplomatic pressure to force the compeller to stop its coercive action. Because of domestic pressures compellers are often vulnerable to these strategies. In order to successfully compel an asymmetric opponent the compeller therefore needs to undermine the opponent's counter coercive strategy.

The literature on compellence fails to account for the importance of counter-coercion. All existing theories rely on a simple cost-benefit model in which the target state is expected to give in when its costs outweigh the benefits. Different theories emphasise attacks on different target sets through which the risk of costs is increased or by which the chance of benefits is decreased, thus forcing the target state to give in. The central problem with these theories is that they neglect the strategic interaction that results from the target state's counter-coercion. To solve this problem, this paper modifies the traditional rational choice equation by including an interaction term that represents the effect of the target's counter-coercion. Because of the importance of this interaction term, it can be shown that the cost benefit model only holds if the level of counter-coercion is very low. If the level is high, then the target state can still win the coercive contest even if its simple cost benefit calculation is negative. As a result, the target will hold out in situations where existing theories predict it to give in. This is possible even if the compeller has lowered its demands to acceptable terms for the target, if the target believes that its counter-coercion might cause it to achieve better terms.

A crucial case study is conducted to test this argument. A case study is chosen because it allows an examination of the causal processes of the two rival explanations. The findings of this analysis provide strong evidence for the importance of counter-coercion. No supporting evidence can be found for the main rival hypothesis, but supporting evidence can be found for the strategic interaction hypothesis. Although inferences drawn from a single case must necessarily be tentative, selecting a crucial case offers a certain measure of confidence in the conclusions drawn.

This paper proceeds in five steps. First the weakness of the current theories is discussed and an alternative hypothesis is developed. Second, a short overview of the campaign is provided. Subsequently, two sections report the evidence that allows the two rival explanations to be compared. The last section draws conclusions regarding this case and what can be learned regarding compellence theory as a whole.

Compellence and Strategic Interaction

Traditional theories of compellence focus on the target set that needs to be attacked in order to force the opponent to concede. These theories assume a linear relationship between destruction of a target set and the decision by the opponent to give in. What they neglect is the strategic interaction that

¹ Eliot A. Cohen, 'The Mystique of U.S. Air Power,' *Foreign Affairs* 73, no. 1 (January-February 1994); Colin McInnes, 'Fatal Attraction? Air Power and the West,' *Contemporary Security Policy* 22, no. 3 (2002).

² Daniel Byman and Matthew Waxman, 'Defeating U.S. Coercion,' *Survival* 41, no. 2 (1999).

³ Ibid.

determines the outcome of the conflict. This section explains the logic underlying existing compellence theories and outlines an improved theoretical model that incorporates strategic interaction. Hypotheses are derived from the best of the existing theories as well as the new theoretical model to enable empirical testing.

Compellence success is generally explained using a rational choice model involving costs and benefits. According to this model, the target state will continue resistance (R) as long as the benefits (B) outweigh the costs (C). In a more sophisticated version of this model the costs and benefits are not taken as absolute values but depend on the target's estimated probability of obtaining benefits ($p(B)$) or incurring costs ($p(C)$), which means that the target's decision to resist is given by

$$R = Bp(B) - Cp(C)$$

Several different theories explain how the costs to the target state are best raised. Giulio Douhet, one of the earliest air power theorists, believed a target state could be forced to concede after bombing its civilian population centres. This bombing would cause such terror that the people would rise up against the government and demand an end to the hostilities.⁴ A different bombing strategy was advocated by British major Lord Tiverton and US Army Air Corps officer William C. Sherman. These theorists believed that the industrial infrastructure of modern states consisted of a vulnerable web of industries and that air power could lead to compellence success by destroying its key nodes because the subsequent economic collapse would force the opponent to give in.⁵ More recently, US air force colonel John Warden has argued that airpower should aim directly at the enemy leadership.⁶ For this decapitation or regime jeopardising strategy to have coercive effect, air power must undermine the regime's hold on power. The main problem with all these cost-incurring theories is that very little supporting evidence can be found for them.⁷ Only the regime jeopardising strategy has some supporting evidence.⁸

An alternative to raising costs is to deny the opponent the benefits of resistance. This is the approach advocated by Robert Pape. The central idea of his denial theory is that the opponent's strategy for controlling the issue at stake must be undermined. Once the opponent realises that it cannot obtain benefits from continued resistance it will give in to the demands made.⁹ Unlike the cost-incurring strategies, denial theory does have substantial empirical support and as such it most merits further inquiry.¹⁰

Denial theory predicts that compellence success is most likely when four conditions are met. First of all, to undermine the opponent's strategy, military targets must be attacked instead of civilian targets.¹¹ Suitable target sets include the opponent's ground forces, its military industry and associated

⁴ Giulio Douhet, *The Command of the Air* (Dehradun: Natraj Publishers, 2003), pp. 22, 52.

⁵ Tami Davies Biddle, *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas About Strategic Bombing, 1914-1945* (Princeton: Princeton University Press, 2002), p. 141.

⁶ John A. Warden, III, 'The Enemy as a System,' *Airpower Journal* 9, no. 1 (1995).

⁷ Pape, *Bombing to Win*.; Robert A. Pape, 'Coercion and Military Strategy: Why Denial Works and Punishment Doesn't,' *Journal of Strategic Studies* 15, no. 4 (1992).; M. Horowitz and D. Reiter, 'When Does Aerial Bombing Work? Quantitative Empirical Tests, 1917-1999,' *Journal of Conflict Resolution* 45, no. 2 (2001), p. 162.; Susan Hannah Allen, 'Time Bombs: Estimating the Duration of Coercive Bombing Campaigns,' *Journal of Conflict Resolution* 51, no. 1 (2007), pp. 125-126.; British Bombing Survey Unit. 'The Strategic Air War against Germany 1939-1945, Report of the British Bombing Survey Unit.' (London, 1998), pp. 77-78, 167.; United States Strategic Bombing Survey, 'Summary Report (Pacific War),' in *The United States Strategic Bombing Survey*, ed. David MacIsaac (New York: Garland Publishing, 1976), p. 21.; United States Strategic Bombing Survey, 'Over-All Report (European War),' in *The United States Strategic Bombing Survey*, ed. David MacIsaac (New York: Garland Publishing, 1976), pp.72, 99.

⁸ Frank "Scott" Colin Douglas, IV, 'Hitting Home: Coercive Theory, Air Power and Authoritarian Regimes' (Columbia University, 2006).

⁹ Pape, *Bombing to Win*, p. 1.

¹⁰ *Ibid.*, pp. 51-53.; Horowitz and Reiter, 'When Does Aerial Bombing Work?,' p. 160.; Allen, 'Time Bombs,' pp. 125-126.

¹¹ Pape, *Bombing to Win*, pp. 51-53.

infrastructure, and its ‘tactical supply networks, reinforcements and command-and-control facilities.’¹² Second, undermining the opponent’s military strategy is only feasible if it uses a mechanised ground warfare strategy. According to Pape ‘modern nation-states employ two main types of strategy in conflicts with other states: mechanized (or “conventional”) war and guerrilla (or “unconventional”) war.’¹³ The distinctive feature of mechanised warfare is that it ‘is highly dependent on logistics and communications networks, and guerrilla war is not.’¹⁴ If the compeller’s air campaign cuts off the logistics flow or destroys the centralised command and control system the target state’s forces are rendered ineffective.¹⁵ This makes mechanized forces vulnerable to air attack in a way that guerrilla forces are not.

Furthermore, undermining the target’s military strategy requires a continuous high level of air attacks. Air campaigns with a high operational tempo allow for as much destruction of enemy forces as possible and do not provide the target with intervals in which it can recuperate and negate the effect of the bombing.¹⁶ Finally, denial theory predicts that, compellence success is most likely when the demands made are limited.¹⁷ In particular, the compeller can only obtain concessions regarding the territory that has actually been denied to the target.¹⁸ Demanding more will inevitably fail because the target state has no incentive to give up more than it will lose by continued resistance.¹⁹ Denial theory therefore comprises four independent variables: the targets attacked, the opponent’s ground warfare strategy, the operational tempo of the air campaign, and the demands made. These four variables must have the right values for compellence to be successful.

In the causal structure of denial theory, an important role is played by the three coercive mechanisms of battlefield breakthrough, equipment shortages, and operational paralysis, as it is these mechanisms ‘by which the destruction of a target set is supposed to translate into changed enemy behaviour.’²⁰ Denial theory predicts that, when continuous high tempo attacks on military targets take place in conjunction with mechanised ground combat, one or more of these three mechanisms will come about.²¹ These mechanisms in turn undermine the opponent’s military strategy but they do so in different ways. The battlefield breakthrough mechanism relies on air attacks on frontline forces in conjunction with a ground offensive. If employed correctly, air forces can shatter defensive positions and disrupt lateral movement behind the front, thus delaying reinforcement and counter-concentration. By doing so, air power facilitates battlefield breakthrough, which makes the target state’s battlefield position indefensible.²² The second mechanism relies on bringing about equipment shortages. If a target state’s military industry is attacked, production will be disrupted and reduced. With high demand for new equipment from forces at the front, this creates a gap between demand and supply, resulting in critical shortages that undermining the target state’s military position.²³ Lastly, operational paralysis exploits the reliance of the opponent’s forces on central command and control and re-supply with fuel and ammunition. If air attacks destroy the target state’s command and control facilities and

¹² These three military target sets are associated with the mechanisms battlefield breakthrough, equipment shortages, and operational paralysis respectively. *Ibid.*, pp. 70-72.

¹³ *Ibid.*, p. 30.

¹⁴ *Ibid.*

¹⁵ *Ibid.*, pp. 30-31.

¹⁶ *Ibid.*

¹⁷ *Ibid.*, p. 31 onwards.

¹⁸ *Ibid.*, p. 31.

¹⁹ *Ibid.*

²⁰ *Ibid.*, p. 56.

²¹ Note that the variable ‘demands made’ has a direct impact on the outcome of the conflict, see the arrow diagram below.

²² *Ibid.*, p. 70.

²³ *Ibid.*, pp. 71-72.

logistics networks, its forces become paralysed and incapable of conducting coherent operations, again undermining its prospects of military victory.²⁴

Figure 1 depicts denial theory's causal model, showing its four independent variables as well as three intervening variables. The targets attacked and the operational tempo of the air campaign cause the bomb damage, which combined with the ground combat situation causes one or more coercive mechanisms. These mechanisms in turn undermine the target state's military strategy. A high level of military vulnerability combined with limited demands persuades the target state that it is better to give in.

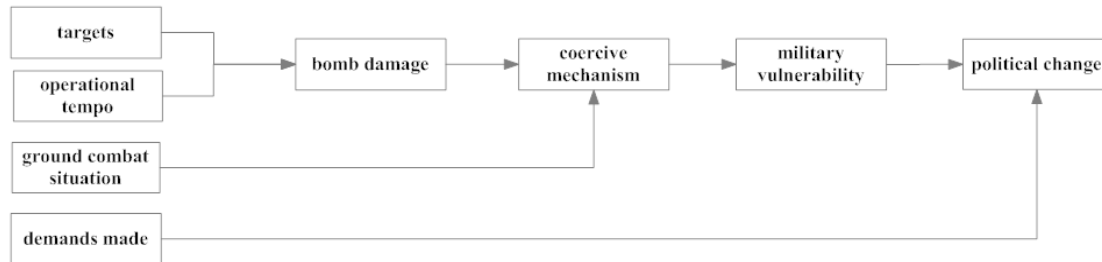


Figure 1. Arrow Diagram of Denial Theory.

From this arrow diagram an important empirical implication can be derived.

Denial Hypothesis: The target state will give in as a result of high military vulnerability caused by one or more of the three coercive mechanisms.

By looking for evidence of the target's military vulnerability and the presence of at least one of the three coercive mechanisms, denial theory can be tested. If denial theory's independent variables have the right values and compellence success is forthcoming but no evidence can be found of military vulnerability or any of the coercive mechanisms, it must be concluded that denial theory cannot explain the outcome of the case.

Although denial theory offers an empirically supported critique of the cost-based strategies, it suffers from the same weakness as it is also unidirectional. In *On War* Clausewitz has pointed out that 'in war, the will is directed at an animate object that reacts.'²⁵ As a result, armed conflict is defined by strategic interaction. This means that, as Byman and Waxman rightly indicate, in coercive encounters, it is not just the compeller but also the target state that can use coercion.²⁶ This strategic interaction can be illustrated using a simple game theory model. In its most elementary form, a coercive conflict can be modelled by two players that each have two options: to behave in an aggressive manner, or to behave in a non-aggressive manner, that is either to defect or to cooperate. This leads to the two-by-two table shown in Figure 2.

²⁴ Ibid., p. 72.

²⁵ Ibid., p. 149, italics as in original.

²⁶ Byman and Waxman, 'Defeating U.S. Coercion.'; Daniel Byman and Matthew C. Waxman, *The Dynamics of Coercion: American Foreign Policy and the Limits of Military Might*, Rand Studies in Policy Analysis (Cambridge: Cambridge University Press, 2002), pp. 37-38.

		Target	
		defect	cooperate
Compeller	defect	war	coercive success
	cooperate	coercive failure	negotiated solution

Figure 2. Compellence as a Game.

What is of crucial importance is that Figure 2 illustrates that the outcome of the conflict does not depend only on the behaviour of the target, but also on the behaviour of the compeller. Since the compeller's decisions also influence the outcome, the target can seek to influence these decisions by conducting counter-coercion. The unidirectional theories only focus on the target's reaction and by doing so they neglect the lower half of the two-by-two table, or two of the four possible outcomes.

To account for strategic interaction Byman and Waxman emphasise the importance of escalation dominance, which they define as 'the ability to increase the threatened costs to the adversary while denying the adversary the opportunity to negate those costs or to counterescalate.'²⁷ Although a useful step in the right direction, as an analytical concept, escalation dominance is problematic. First of all, escalation dominance encompasses two conceptually distinct abilities: the ability to impose costs on the opponent,²⁸ and the ability to deny the opponent the opportunity to counter-escalate or impose costs in turn. These are two different variables and their values need not be correlated as the notion of escalation dominance would suggest. Furthermore, by using escalation dominance Byman and Waxman suggest that strategic interaction can be reduced to relative capability. This seems to be confirmed by the statement that escalation dominance 'requires a preponderance that is relevant to every form of possible escalation: no matter where the adversary chooses to increase pressure, the coercer is always able to overwhelm the adversary in that area.'²⁹ An exclusive focus on capability is misleading because in the vast majority of conflicts the military, economic and diplomatic balance is strongly in favour of the compeller, enabling it to consider compellence in the first place. What is key to understanding the dynamics of counter-coercion is not relative capability but the willingness to incur costs. Finally, the notion of escalation itself is problematic because to overcome the counter-coercion of the opponent, it is often counter-productive to escalate the conflict. Compellers usually have limited objectives and only limited domestic support for military operations. Keeping the conflict limited is therefore often important to maintain domestic support. For this reason escalating the conflict might in fact be a very effective counter-coercive strategy. This means that the compeller's ability not to escalate is at least as important as the ability to escalate.

A more accurate concept to represent the target's counter moves is counter-coercive effect (E). This is the level of costs that the target state is able to inflict upon the compeller. The higher the costs the compeller has to incur, the bigger the chances that it will terminate its coercive action. This means that if the target is able to impose high costs upon the compeller its chances of obtaining benefits (p(B)) go up, and its chances of incurring costs (p(C)) go down. This fundamentally alters the target's cost benefit equation. In other words, there is an interaction effect between E and p(B) and p(C) as the

²⁷ Byman and Waxman, *The Dynamics of Coercion*, p. 38.

²⁸ Which itself consists of the ability to impose costs and the ability to overcome the opponent's countermeasures.

²⁹ Byman and Waxman, *The Dynamics of Coercion*, p. 39.

target's cost benefit calculation is different for different values of E. The simple cost benefit equation, and by extension the upper half of the two-by-two table, only holds for values of E that are so low they do not affect the compeller's behaviour. But if E is high enough, the compeller will reconsider its course of action, and anticipating this, the target will not give in. This is true even if the costs outweigh the benefits.³⁰

By introducing E to represent counter-coercive effect, the dynamics of strategic interaction can be included in the cost-benefit equation. If p(B) denotes the target's chances of obtaining the issue at stake, then the compeller's chances of doing so are represented by 1 - p(B). If we further assume that E can vary between 0 (nonexistent) and 1 (astronomically high), then the target's resistance is given by the following model

$$R = B (1 - (1 - E)(1 - p(B))) - C ((1 - E)p(C))$$

This model shows that if E is very high (close to 1), the simple cost benefit equation does not hold because p(B) is increased to the level of near certainty (close to 1) and p(C) is reduced to a near impossibility (close to 0). As the value of E decreases towards 0 the interaction effect declines and the probabilities of costs and benefits are much less affected. In sum, the model displays an interaction effect where the impact of the chances of costs and benefits on the target state's decision making varies with the level of counter-coercive effect.

To increase its counter-coercive effect and raise the costs to the compeller the target state can use different instruments. Byman and Waxman distinguish three of these strategies. Civilian suffering based strategies are aimed at exploiting collateral damage incidents and civilian suffering resulting from the air attacks.³¹ Coalition fracturing strategies aim to exploit differences between coalition members in order to break up the coalition aligned against the target state.³² Casualty-generating strategies aim to erode domestic political support for the compeller's operations by inflicting as many military casualties as possible.³³ Historically, Western countries have been very sensitive to this kind of pressure if conflict was fought for only limited stakes. Another important strategy, not mentioned by Byman and Waxman is enlisting diplomatic support from allies. Powerful allies can put diplomatic pressure on the compeller to stop its coercive bombing or they can seek to broker a suitable deal for their smaller ally.

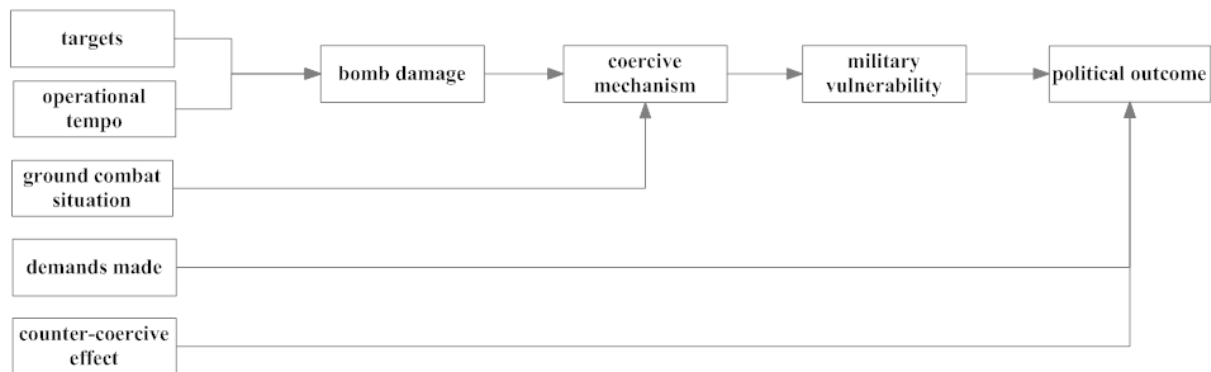


Figure 3. Arrow Diagram of Strategic Interaction³⁴

³⁰ Assuming B > 0, which will always be the case.

³¹ Byman and Waxman, 'Defeating U.S. Coercion,' p. 111.

³² Ibid., p. 113.

³³ Ibid., p. 114.

³⁴ Further variables could be included to represent costs and the risk of costs and positive inducements or carrots.

By including counter-coercive effect in the causal model an improved arrow diagram can be drawn. As Figure 3 shows, counter-coercive effect is another intervening variable, while the four strategies that cause this effect are included as independent variables.

From this arrow diagram a second hypothesis can be derived.

Strategic Interaction Hypothesis: the target state will only give in if it can no longer impose sufficient costs upon the compeller as a result of the failure of its counter-coercive strategies.

By looking for evidence of the failure of the four counter-coercive strategies, it is possible to establish whether the target was unable to generate counter-coercive effect. Since the denial model can be seen as nested within the strategic interaction model, the predictions of the two models do not necessarily conflict. The inability to cause substantial counter-coercive effect can therefore coincide with an undermining of the opponent's military vulnerability. The two hypotheses do, however, point to different supporting evidence that must be found if they are not to be rejected. If no supporting evidence can be found to indicate the presence of any of the three coercive mechanisms or high military vulnerability but evidence can be found of the failure of the counter-coercive strategies, then the denial model must be rejected in favour of the strategic interaction model.

Why Examine LINEBACKER II?

In this paper a case study approach is used to test the empirical implications of the two models set out. A case study is chosen because only this research method allows for a detailed tracing of causal processes that is necessary to examine the coercive mechanisms and the counter-coercive strategies. These mechanisms and strategies are very difficult to accurately represent using quantitative measures only, making quantitative analysis infeasible. A case study design, however, has inherent weaknesses regarding external validity. To overcome this problem as much as possible a crucial case is selected to test the two competing hypotheses. A crucial case study involves a case that provides ideal circumstances for a theory to hold.³⁵ If the theory is shown not to hold in this case, then it is unlikely to hold in other cases less favourable to the theory. Following this logic, a certain level of confidence is possible in the inferences drawn based on the analysis of only one case.

For LINEBACKER II to be accepted as a crucial case for denial theory, it must be shown that the theory's four independent variables have values that correspond with denial theory's prediction for compellence success. The rest of this section seeks to establish this.

Demands Made

The demands the United States made of North Vietnam during LINEBACKER II were relatively limited in scope because they did not include territorial concessions. This conforms to denial theory's assumption that coercive success is more likely to occur when demands do not include control over key territory under dispute.³⁶ The US demanded 69 changes to the text of the October draft and these included fundamental issues such as a reduction in North Vietnamese Army (NVA) strength in South Vietnam, concentration of NVA units in specific areas that allowed for inspection, and a bar on all military movement across the demilitarized zone that separated North and South Vietnam.³⁷ Other issues concerned the introduction of the international committee to supervise the implementation of the agreement, the timing of ceasefires in Laos and Cambodia and the status of the National Council of Reconciliation.³⁸

³⁵ Harry Eckstein, 'Case Study and Theory in Political Science,' in *Handbook of Political Science, Vol. 7, Political Science: Scope and Theory*, ed. F. Greenstein and N. W. Polsby (Reading, MA: Addison-Wesley: Addison-Wesley, 1975), p. 118.

³⁶ Pape, *Bombing to Win*, p. 20.

³⁷ Haig, *Inner Circles*, p. 305.

³⁸ Kissinger at October 26 press conference in Kissinger, *Ending the Vietnam War*, pp. 594-595.

Although the US proposed all these changes on behalf of South Vietnam its goals were actually less ambitious and US president Nixon himself thought it very unlikely that the October agreement could be improved upon in renewed negotiations.³⁹ Nixon therefore warned the South Vietnamese president Thieu not to expect major changes to the draft agreement, which were already considered to be excellent.⁴⁰ The US goals remained the same as they had been in May 1972, when President Nixon explained the conditions for halting Operation LINEBACKER I in his address to the nation:

First, all American prisoners of war must be returned.
Second, there must be an internationally supervised cease-fire throughout Indochina.
Once prisoners of war are released, once the internationally supervised ceasefire has begun, we will stop all acts of force throughout Indochina, and at that time we will proceed with a complete withdrawal of all American forces from Vietnam within 4 months.⁴¹

These US goals contained two key demands: return of all prisoners of war and an internationally supervised ceasefire throughout Indochina. To this Nixon added a proviso concerning continued support for the Thieu regime which he had expressed in a speech in January 1972.⁴²

These less ambitious goals, rather than the 69 changes demanded by Thieu and implemented by the US, were reflected in the US demands made during Operation LINEBACKER II. The only concrete demand made of North Vietnam was to 'make a serious final effort to reach a settlement.'⁴³ The US proposed that the November draft, which was only slightly different from the October text, would be used as the basis for these renewed negotiations.⁴⁴ As such the US did not insist on any of the changes proposed by the Saigon government and, most importantly, North Vietnam would not be asked to give up the territory it held in the South. The US simply demanded an exit that assured 'that the South did not face imminent collapse after the United States' departure.'⁴⁵

Targets Attacked

The pattern of targets attacked during LINEBACKER II closely conforms to denial theory's predictions for compellence success. The vast majority of them concerned military facilities or logistics complexes supporting military operations and fall into the categories of strategic interdiction and operational interdiction targets, such as rail yards, bridges and storage facilities. During LINEBACKER II, a total of 59 targets were attacked in North Vietnam above the 20th parallel.⁴⁶ Because the poor weather prevented visual identification most of the time, targeting primarily relied on radar aiming.⁴⁷ This meant that for the vast majority of missions only large targets with sufficient radar return could be chosen, and these targets also had to be big enough to allow for area bombing.⁴⁸ Twenty-nine of these targets were identified prior to LINEBACKER II, 16 targets around Hanoi and

³⁹ Ibid., p. 385.

⁴⁰ Richard Nixon, *RN: The Memoirs of Richard Nixon* (New York: Grosset & Dunlap, 1978), p. 718.

⁴¹ Address to the nation on the situation in Southeast Asia, May 8, 1972 in *Public Papers of the Presidents of the United States: Richard Nixon: 1973*, (Washington, D.C.: U.S. Government Printing Office), p. 585.

⁴² Davidson, *Vietnam at War*, p. 713.

⁴³ Kissinger, *Ending the Vietnam War*, p. 416.

⁴⁴ Ibid., pp. 415-416.

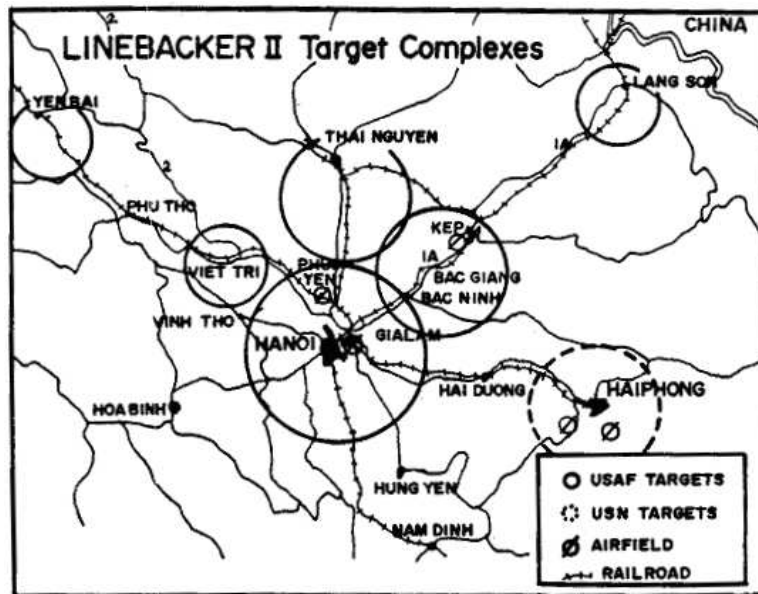
⁴⁵ Clodfelter, *The Limits of Air Power*, p. 174.

⁴⁶ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 20.

⁴⁷ Smith, *The Linebacker Raids*, p. 203. Smith explains: 'Of the 20,000 tons of bombs dropped in the course of 'LINEBACKER' 90 per cent were dropped using radar aiming, 7 per cent used LORAN, 2.6 per cent were aimed visually and 0.2 per cent were laser-guided.'

⁴⁸ Tilford, *Crosswinds*, p. 164.

13 around Haiphong.⁴⁹ In the vicinity of North Vietnam's two capital cities many large target complexes could be found because the two cities had previously been only sporadically attacked. Map 1 shows the locations of the LINEBACKER II target complexes.



Map 1. Locations of LINEBACKER II Target Complexes⁵⁰

The targets attacked during Operation LINEBACKER II fall into four categories. Interdiction targets formed the primary target category comprising 62 percent of the strike sorties flown.⁵¹ Of these, 36 percent were sorties directed against rail yards, 25 percent were directed at storage facilities, and 1 percent of all strike missions was flown against bridges.⁵² In total 13 rail yards, 14 storage facilities, and 3 bridges were attacked, accounting for 30 targets in this category or more than half of the total number of targets.⁵³ North Vietnamese radio communications facilities formed the second biggest target category, including attacks on five separate targets and involving a total of 14 percent of strike sorties flown.⁵⁴ Most of these strike sorties were conducted by USAF tactical fighter and attack aircraft, of which a small number equipped with laser-guided bombs that allowed very precise targeting because these bombs were equipped with a target seeker that locked on to a beam of laser light reflected off the target. The last two target categories were power facilities and enemy air defences. Each accounted for 12 percent of bombing sorties.⁵⁵ Attacks on power facilities included six separate targets.⁵⁶ Strikes against air defences involved both enemy airfields and surface to air missile (SAM) sites, comprising 5 and 13 targets respectively.⁵⁷ This amounts to 10 percent of sorties against

⁴⁹ Ibid. For the first time since the American involvement in Vietnam, Hanoi and Haiphong would be subjected to heavy bombing. Marshal L. Michel, III, *Clashes: Air Combat over North Vietnam, 1965-1972* (Annapolis: Naval Institute Press, 1997), p. 271.

⁵⁰ Source: Headquarters PACAF. 'Linebacker Operations: September - December 1972. Project C.H.E.C.O. Report.' (Office of History, 31 December 1978), p. 56.

⁵¹ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 3.

⁵² Ibid.

⁵³ Ibid., p. 20.

⁵⁴ Ibid., pp. 3, 20.

⁵⁵ Ibid., p. 3.

⁵⁶ Ibid., p. 20.

⁵⁷ Ibid.

air fields and two percent of strike missions against SAM sites.⁵⁸ Although attacks on enemy airfields were conducted right from the start of the campaign to suppress North Vietnamese MiG operations, a clear shift in emphasis can be seen towards attacks on SAM sites and SAM support facilities from Day Six onwards.⁵⁹ Attacks on enemy air defences were mainly conducted by F-111 tactical attack aircraft as these low flying aircraft were able to conduct independent operations against heavily defended targets.

Ground Combat Situation

The assessment of the ground combat situation during LINEBACKER II must be broken down into measurement of three different elements. These components are the 'occurrence of ground combat' simultaneous with the air campaign, the 'type of ground combat' resulting from the ground warfare strategy chosen by the North Vietnamese and the 'fluidity of the battlefield' during Operation LINEBACKER II. To measure these three components of the ground combat situation one needs to take into account the number and type of forces involved as well as the equipment used and the number of fatalities resulting from ground combat. Further indicators are the number of close air support sorties (air attacks in close support of ground forces) and the logistics effort needed to support the forces in the field.

Occurrence of Ground Combat

Ground combat took place in South Vietnam in December 1972, alongside the air attacks of Operation LINEBACKER II on the North. Although the Easter Offensive had come to a halt, North Vietnamese forces were still involved in large-scale operations and between 125,000 to 150,000 North Vietnamese combat troops were still occupying disputed territory in the South.⁶⁰ After the North Vietnamese Easter Offensive had come to a halt in late summer, the ground combat situation in December remained generally stable. Some offensive operations, however, were still taking place just prior to, and simultaneous with, Operation LINEBACKER II. In Quang Tri province, from 21-29 November South Vietnamese forces conducted an offensive that pushed up to Route 556 and led to the recapture of the fire support bases Anne and Barbara.⁶¹ This resulted in intense fighting with heavy North Vietnamese artillery and mortar fire.⁶² By the end of the year, in Military Region III the 5th and 7th Army of the Republic of Vietnam (ARVN) Divisions advanced north along the Saigon River and moved into the Iron Triangle. North Vietnamese forces offered limited resistance concentrating on artillery bombardment, which allowed the 7th Division to secure the lines of communication to Saigon.⁶³ Both sides were evenly matched and the coming of the monsoon in December made the intensity of the fighting decrease.⁶⁴

A good measure of the occurrence of ground combat is also provided by available statistics. Two noteworthy indicators on which data are available are the number of military personnel that were killed in action (KIA) and the number of US close air support sorties flown in December 1972. Both

⁵⁸ Ibid., p. 3.

⁵⁹ PACAF Headquarters, 'Linebacker Operations.' pp. 96-101.

⁶⁰ The estimated number of 125,000 is taken from United States Military Assistance Command Vietnam Headquarters. 'Command History, 1972-1973, Vol. I.' (June 1973), figure A-27, p. A32. This number includes a small number of Viet Cong forces. James H. Willbanks, *Abandoning Vietnam: How America Left and South Vietnam Lost Its War* (Lawrence: University Press of Kansas, 2004), pp. 185-186 provides the number of 150,000. In his press conference on January 24 Kissinger estimated 145,000 NVA troops to be in South Vietnam at the time. U.S. Department of State, 'The Department of State Bulletin: Agreement Concluded on Ending the War and Restoring Peace in Viet-Nam,' p. 164. William E. Le Gro, *Vietnam from Cease-Fire to Capitulation* (Washington, D.C.: U.S. Army Center of Military History, 1981), p. 28 provides a number of 148,000 communist combat troops, of which 25,000 Viet Cong.

⁶¹ Le Gro, *Vietnam*, p. 8.

⁶² Edward W. Knappman and Hal Kosut, eds., *South Vietnam: U.S.-Communist Confrontation in Southeast Asia, 1972-1973*, Vol. 7 (New York: Facts on File, 1973), pp. 200-201.

⁶³ Le Gro, *Vietnam*, pp. 13, 15.

⁶⁴ Ibid., pp. 8, 11.

these statistics show that ground combat was taking place alongside the air campaign. As a result of ground combat, the ARVN for instance sustained 685 fatal casualties during December. North Vietnamese and Viet Cong casualties sustained in South Vietnam are much higher and are estimated at approximately 7,100 KIA.⁶⁵ In the same period US Air Force, Navy, and Marine Corps fixed wing aircraft flew 5,429 attack sorties against targets in South Vietnam. Of the USAF attack sorties, 67 percent were close air support sorties.⁶⁶ This amounts to 1,100 close air support sorties by the US Air Force alone.⁶⁷ These measures clearly show that considerable ground combat was taking place during December 1972.

Type of Ground Combat

It is important to recognize that the type of ground combat taking place during LINEBACKER II was mechanized warfare between regular units, rather than guerrilla warfare. This is evident from the North Vietnamese combat units facing the South Vietnamese Army and from the supplies needed to sustain them. In the spring of 1972, North Vietnam had invaded South Vietnam with no less than 14 regular army divisions.⁶⁸ This large combined arms force consisted of infantry, tanks, artillery, engineers, air defence units, and signals and transportation troops.⁶⁹ This force included more than 11 field artillery regiments and between 575 and 600 tanks.⁷⁰ Equipment included T-34 and T-54 medium tanks, 122 mm field guns, SA-2 surface to air missiles (SAM), and 100 mm anti-aircraft artillery.⁷¹ Although North Vietnamese forces sustained a high attrition rate as a result of ARVN counter offensives and US bombing during the earlier LINEBACKER I campaign, the type of units that this invasion force comprised remained largely the same. In October 1972, regular North Vietnamese forces in the South were estimated to comprise ten divisions.⁷² Furthermore, the North Vietnamese quickly reinforced their forces after the 23 October bombing halt.⁷³ In December, communist forces in South Vietnam still comprised 77 battalions including some armour and engineers units⁷⁴ and upon the signing of the peace agreement communist forces had some 160,000 soldiers in South Vietnam, comprising 13 division headquarters and 75 regiments.⁷⁵ The size, equipment, and composition of this force all indicate that ground combat in December 1972 involved regular mechanized forces.

⁶⁵ U.S. Congress House Armed Services Committee, *Statement by Dennis J. Doolin, Deputy Assistant Secretary of Defense for East Asia and Pacific Affairs*, 28 February 1973, p. 5.

⁶⁶ The MACV History does not provide percentages for USN and USMC close air support sorties out of the total number of attack sorties flown. But given its doctrine with an emphasis on support of marine ground forces it can be assumed that the vast majority of USMC attack sorties consisted of close air support. It therefore seems reasonable to assume that the average ratio of all US air services would be roughly 2/3, thus making a total of nearly 3600 close air support sorties, or 120 sorties per day of December 1972.

⁶⁷ Computed from MACV Headquarters. 'Command History,' figure 1-1, p. 12. Note that this sortie rate is maintained despite the simultaneous increased sortie rate required for Operation LINEBACKER II.

⁶⁸ Randolph, *Powerful and Brutal Weapons*, p. 5.

⁶⁹ United States Military Assistance Command Vietnam Headquarters. 'Command History,' p. 1; Military History Institute of Vietnam, *Victory in Vietnam*, p. 289.

⁷⁰ Military History Institute of Vietnam, *Victory in Vietnam*, pp. 289, 309; Embassy of Viet-Nam, 'Viet-Nam Bulletin: The Easter Offensive,' Vol. VII, no. 9 & 10 (May 1972), p. 17.

⁷¹ Embassy of Viet-Nam, 'Viet-Nam Bulletin,' p. 2.

⁷² Vien, *The Final Collapse*, p. 19. Vien reports that these ten divisions comprised 60 to 80 percent of total Communist strength in the South.

⁷³ U.S. Grant Sharp, *Strategy for Defeat: Vietnam in Retrospect* (San Rafael, CA: Presidio, 1978), pp. 248-249.

⁷⁴ MACV Headquarters. 'Command History,' pp. A-12-A-30.

⁷⁵ Le Gro, *Vietnam*, p. 2; Vien, *The Final Collapse*, p. 34 reports 167,000 combat troops comprising 17 divisions including 14 infantry divisions, 1 sapper division, 1 field artillery division, and 1 antiaircraft division.

The increased North Vietnamese logistics effort reflects this force structure and also indicates that ground combat between regular mechanized units took place.⁷⁶ North Vietnamese Transport Group 559 for instance received an additional 2,000 trucks prior to the Easter Offensive, bringing its total to 8,000.⁷⁷ This allowed the North Vietnamese to double the amount of supplies sent to the battlefield during the 1971-1972 dry season compared to the year before, transporting amongst others 10,000 tons of petrol, oil and lubricants (POL).⁷⁸ According to official North Vietnamese sources in 1972 North Vietnam managed to transport 275,000 tons more supplies than in 1968, the year of the Tet Offensive.⁷⁹ Both the composition of the force, and the logistics effort needed to support it show that at the time of LINEBACKER II the North Vietnamese were waging large-scale regular warfare in South Vietnam.

Battlefield Fluidity

At the start of Operation LINEBACKER II the frontlines in South Vietnam were relatively stable. The reduced battlefield fluidity resulted from the stalemate that followed after the North Vietnamese Easter Offensive came to a halt. During the spring and early summer the frontlines in South Vietnam shifted rapidly as a result of the North Vietnamese advance. By the end of June, however, the Spring Offensive had come to a halt and the battlefield was stabilizing.⁸⁰ In July the battlefield became more fluid again as the ARVN launched a counteroffensive to regain lost territory.⁸¹ In late October and November the frontlines moved again as North Vietnamese forces sought to secure as much territory as possible in anticipation of a ceasefire. South Vietnamese forces consequently countered to neutralize territorial losses.⁸² From November onwards the battlefield stabilized 'as the republic [of South Vietnam] sought to solidify its position...'⁸³ By December the frontlines had become almost completely rigid as:

[t]he onset of the rainy season in Military Region 1 hampered both ground and air movement, slowing the pace of military operations. Sporadic enemy attempts at population control were beaten back by the ARVN and Territorial Force. Pleiku and Kontum Provinces in Military Region 2 saw the enemy thwarted in his attempts to capture more land, while the remainder of the region was quiet. Military Region 3 experienced a continued low level of military activity with most Territorial Force casualties falling to booby traps. The Delta [Military Region 4] experienced an upsurge in enemy attacks of rather low intensity.⁸⁴

The stabilization of the frontlines coincided with the stalemate resulting from the failure of Hanoi's Easter Offensive. Although ground combat still took place with substantial losses on both sides, the total of South Vietnamese KIA in December was reduced to some 25 percent of its maximum sustained during April, when the offensive was still in full swing.⁸⁵ The number of US air strikes on targets in South Vietnam in November was also down by 33 percent from its highpoint in May 1972.⁸⁶

⁷⁶ Randolph, *Powerful and Brutal Weapons*, p. 29. Randolph comments on the logistics requirements of the North Vietnamese force: 'The use of mechanized forces would multiply logistical requirements, with demands for fuel, munitions, and equipment all increasing to support the armour and massed artillery that would lead the offensive.'

⁷⁷ Military History Institute of Vietnam, *Victory in Vietnam*, p. 285.

⁷⁸ Ibid.

⁷⁹ Ibid., p. 301.

⁸⁰ MACV Headquarters. 'Command History,' p. 33; Le Gro, *Vietnam*, p. 5.

⁸¹ MACV Headquarters. 'Command History,' p. 67.

⁸² Le Gro, *Vietnam*, p. 8.

⁸³ MACV Headquarters. 'Command History,' p. 103.

⁸⁴ Ibid., p. 104.

⁸⁵ The number of ARVN KIA during April is 2,724, over December the number is 685. Ibid., figure C-4, p. C19.

⁸⁶ The total number of fixed wing attack sorties in South Vietnam by USAF, USN, and USMC aircraft numbered 8,442 in November 1972 (November is chosen instead of December as the LINEBACKER II bombing effort also required a large

Both indicators show a significant reduction in fighting intensity and indicate the onset of a stalemate on the battlefield and a much reduced battlefield fluidity. Although the battlefield had thus largely stabilized by December 1972, substantial forces were still fighting for territorial control in South Vietnam in conjunction to the LINEBACKER II air campaign. Moreover, the kind of ground warfare consisted of mechanized combat between large-scale regular units. This means that two out of three measures relating to the ground combat situation are in line with denial theory's predictions for compellence success.

Operational Tempo

The operational tempo of LINEBACKER II was in line with the high tempo predicted by military denial theory to contribute to compellence success. With the exception of a 36 hour bombing halt over Christmas, attacks were executed consecutively for 12 days. The short bombing pause was used to conduct the maximum number of sorties on 26 December, which kept up the pressure on the North Vietnamese. Although LINEBACKER II was a high intensity operation overall, the operational tempo was not constant and a distinction must be made between three phases with differences in bombing intensity.⁸⁷ The first phase encompassed a maximum effort involving a total of 314 B-52 sorties. The heavy bomber sorties flown in this period were the maximum possible given the number of planes available in theatre and maintaining only the smallest possible reserve for emergency operations in South Vietnam, Laos and Cambodia.⁸⁸ This first phase lasted from 18 December until after the night attacks on 20 December. The B-52 attacks were divided into three similar sized waves each night, the first night comprising three force packages of approximately 40 B-52s each. These waves were separated by a four hour interval to allow for maximum psychological impact of sustained bombing throughout the night.⁸⁹ This pattern of bombing raids was specifically designed to disturb the sleep of the Hanoi and Haiphong population.⁹⁰ Daylight strikes by tactical fighter and attack aircraft accompanied these night bombardments, with strikes occurring from 19-21 December.

The second phase started on the night of 21 December and lasted until 24 December. This phase constituted a reduced effort as a result of more careful tactics introduced in the light of high B-52 losses. During the first phase of operations all bomber waves had used the same flight path and altitude and on 20 December losses were 6 B-52s out of 93, or a loss rate of 6.45%.⁹¹ These losses were attributed to the repetitive approaches to the targets over three nights (9 strikes in total), sharp post target turns, ineffective chaff cover and use of B-52G aircraft with unmodified Electronic Counter Measures (ECM) equipment.⁹² The USAF therefore introduced more variation in approach routes to target and in the altitude at which the B-52s flew.⁹³ Radar jamming tactics were altered as well and chaff, small metal strips that cause a multitude of fake targets to appear on the enemy's radar screens, was also no longer dropped in approach corridors that gave away the intended approach route but in a wide screen covering the whole target area.⁹⁴ To reduce losses during this phase no targets within the Hanoi area were attacked and only 120 B-52 sorties were flown, striking in a single wave each night.⁹⁵

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number of fighter and attack sorties for escort, SEAD and daylight attack. Using this number would thus present a deflated picture.), while it numbered 12,625 in May of that year. In December this number is 5,129 (with the caveat that this number is perhaps lower than desired because of the LINEBACKER II effort). Totals computed from *Ibid.*, figure 1-1, p. 12.

⁸⁷ PACAF Headquarters, 'Linebacker Operations.' p. 57; See also Eschmann, *Linebacker* who uses the same distinction in three different phases.

⁸⁸ PACAF Headquarters, 'Linebacker Operations.' p. 58.

⁸⁹ Eschmann, *Linebacker*, p. 80.

⁹⁰ Head, *War from above the Clouds*, p. 78.

⁹¹ Werrell, 'Evaluation of Linebacker II,' pp. 9-10.

⁹² Eschmann, *Linebacker*, p. 138.

⁹³ Werrell, 'Evaluation of Linebacker II,' pp. 9-10.

⁹⁴ Eschmann, *Linebacker*, pp. 138-139.

⁹⁵ PACAF Headquarters, 'Linebacker Operations.' p. 59.

Furthermore, on 24 December towards the end of phase two, B-52 bombers first struck SAM sites⁹⁶ and simultaneously the SAM suppression effort was increased by deploying F-4 fighters equipped with cluster munitions.⁹⁷ As during phase one B-52 night attacks were complemented by tactical fighter strikes during the day.

The change in tactics was maintained throughout the campaign while the increased effort against SAM sites roughly coincided with the start of phase three.⁹⁸ Phase two ended on 24 December as Nixon ordered a 36 hour Christmas bombing pause which started from 2400 hours on 24 December and lasting till 1200 hours on 26 December.⁹⁹ Hanoi did not respond to Nixon's proposal to reopen negotiations and Nixon therefore ordered bombing to resume on 26 December.¹⁰⁰ At noon that day, US tactical fighters and attack aircraft attacked targets in Hanoi, Haiphong and Thai Nguyen.¹⁰¹ This air strike marked the beginning of the third phase and was followed by a single wave night attack comprising 120 B-52s.¹⁰² This raid again constituted a maximum possible effort given the number of B-52s available in South-East Asia. On 27 and 28 December this raid was followed by smaller but substantial B-52 attacks on Hanoi and Haiphong. After Hanoi indicated a willingness to resume negotiations on 27 December, the campaign was halted and the third phase ended on 29 December. In total, 295 B-52 strike sorties were flown during the third phase of the operation, which clearly raised the operational tempo of the campaign after the Christmas bombing halt. This maintained the high overall operational tempo that military denial theory predicts is necessary for compellence success.

Overview and Outcome of the Case

Operation LINEBACKER II was part of US president Richard Nixon's strategy to achieve "peace with honour" in Vietnam.¹⁰³ To Nixon an honourable peace meant a negotiated settlement with the North Vietnamese that would allow for continued US support for the South Vietnamese regime and the return of all US prisoners of war.¹⁰⁴ To achieve this goal President Nixon, aided by his National Security Advisor Henry Kissinger, devised a dual track strategy.¹⁰⁵ The first component of this strategy or Vietnamization involved substitution of US ground troops by South Vietnamese forces, allowing the number of US forces in South Vietnam to be rapidly reduced. The second component consisted of a combination of public and private peace negotiations with North Vietnam.¹⁰⁶ Vietnamization proved quite successful as by late 1971 the Saigon government controlled more than two-thirds of the South Vietnamese countryside¹⁰⁷ and the number of US troops had been reduced by 70 percent.¹⁰⁸

⁹⁶ Ibid., pp. 96-101.

⁹⁷ Ibid., p. 59.

⁹⁸ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 1.

⁹⁹ Military History Institute of Vietnam, *Victory in Vietnam*, pp. 324-325.

¹⁰⁰ Head, *War from above the Clouds*, p. 83.

¹⁰¹ Military History Institute of Vietnam, *Victory in Vietnam*, p. 325.

¹⁰² The Joint Chiefs of Staff History reports 116 planes. Webb, *Joint Chiefs of Staff*, p. 298.

¹⁰³ Charles E. Neu, *America's Lost War: Vietnam: 1945-1975* (Wheeling, Illinois: Harlan Davidson, 2005), p. 157.

¹⁰⁴ Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (New York: The Free Press, 1989), p. 148; Jeffrey Kimball, *Nixon's Vietnam War* (Lawrence: University Press of Kansas, 1998), p. 301.

¹⁰⁵ Henry Kissinger, *Ending the Vietnam War: A History of America's Involvement in and Extradition from the Vietnam War* (New York: Simon & Schuster, 2003), p. 104.

¹⁰⁶ In 1968 peace talks began in Paris between representatives of all four sides to the conflict: North Vietnam, the National Liberation Front (Viet Cong), the Saigon government, and the US. Parallel to these public talks, Kissinger and North Vietnamese politburo member Le Duc Tho met in secret bilateral meetings starting in April 1969. Ibid., p. 112; Tran Van Don, *Our Endless War* (London: Presidio, 1978), p. 194.

¹⁰⁷ Alexander M. Haig, Jr. with Charles McCarry, *Inner Circles: How America Changed the World: A Memoir* (New York: Warner Books, 1992), p. 279.

The success of the US Vietnamization strategy forced the North Vietnamese to undertake an ill-timed offensive, which eventually resulted in the October draft agreement.¹⁰⁹ The offensive aimed to undermine the Vietnamization policy and started on 30 March 1972, when North Vietnam invaded South Vietnam by striking at the population centres Quang Tri, Hue, Kontum, and An Loc.¹¹⁰ Without the support of US ground forces, the Army of the Republic of Viet Nam (ARVN) was rapidly driven back. By 1 May, the North Vietnamese had captured the provincial capital Quang Tri and most of the surrounding province.¹¹¹ To stop the North Vietnamese advance Nixon ordered a large scale air campaign¹¹² codenamed LINEBACKER to start on 10 May.¹¹³ This air campaign had effect because over the summer the communist offensive stalled and on 19 July the North Vietnamese negotiator Le Duc Tho accepted the US proposal to reopen negotiations.¹¹⁴ In September 1972, the South Vietnamese army recaptured the provincial capital Quang Tri and on 8 October 'Tho dropped the demand for a Southern coalition government and agreed to an in-place ceasefire followed by the withdrawal of American troops.'¹¹⁵ This meant that Tho basically accepted Nixon's April proposal for a ceasefire.¹¹⁶ A peace agreement could now be reached and by 11 October the US and North Vietnam had agreed on all major issues,¹¹⁷ including a ceasefire in place, withdrawal of all US forces from Vietnam, return of US prisoners of war, and a three-partite national council of reconciliation to organize South Vietnamese elections as well as implement the agreement. Furthermore, until the elections President Thieu would remain in power in South Vietnam and the US would be allowed to continue economic and military aid to South Vietnam. The remaining political issues would be settled by the Vietnamese parties amongst themselves.¹¹⁸ So by October 1972, the US and North Vietnam were very close to reaching a peace agreement.

The US, however, were unable to gain South Vietnamese support for the October draft agreement and this caused the talks to collapse.¹¹⁹ South Vietnamese President Thieu had a number of major objections including the large number of North Vietnamese Army (NVA) troops that would remain in South Vietnam and the legitimization this would provide for the communist Provisional

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¹⁰⁸ By December 1971, the number of US troops in South Vietnam was brought back to 158,119 from its maximum of 543,000 in March 1969. Willard J. Webb, and Walter S. Poole, *The Joint Chiefs of Staff and the War in Vietnam, 1971-1973* (Washington, D.C.: Office of Joint History, Office of the Chairman of the Joint Chiefs of Staff, 2007), p. 68; Richard W. Stewart, *American Military History: The United States Army in a Global Era, 1917-2003*, Vol. II, *Army Historical Series* (Washington, D.C.: U.S. Army Center of Military History, 2005), p. 342.

¹⁰⁹ Karl J. Eschmann, *Linebacker: The Untold Story of the Air Raids over North Vietnam* (New York: Ivy Books, 1989), pp. 9-10; Military History Institute of Vietnam, *Victory in Vietnam: The Official History of the People's Army of Vietnam, 1954-1975*, translated by Merle L. Pribbenow (Lawrence: University Press of Kansas, 2002), p. 283; Stephen P. Randolph, *Powerful and Brutal Weapons: Nixon, Kissinger, and the Easter Offensive* (Cambridge, Massachusetts: Harvard University Press, 2007), p. 26.

¹¹⁰ Don, *Our Endless War*, p. 197; Clodfelter, *The Limits of Air Power*, pp. 152-153.

¹¹¹ Kissinger, *Ending the Vietnam War*, p. 261.

¹¹² *Ibid.*, p. 272; Eschmann, *Linebacker*, p. 16; Clodfelter, *The Limits of Air Power*, p. 158.

¹¹³ 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, Fairchild Paper* (Maxwell Air Force Base: Air University Press, 2002), p. 65. One day earlier Haiphong harbour was also mined for the first time.

¹¹⁴ Clodfelter, *The Limits of Air Power*, p. 160.

¹¹⁵ *Ibid.*, p. 162.

¹¹⁶ Henry Kissinger, *Diplomacy* (New York: Simon & Schuster, 1994), p. 691.

¹¹⁷ Gareth Porter, *A Peace Denied: The United States, Vietnam, and the Paris Agreement* (London: Indiana University Press, 1975), p. 124.

¹¹⁸ Allen E. Goodman, *The Lost Peace: America's Search for a Negotiated Settlement of the Vietnam War*. (Stanford: Hoover Institution Press, 1978), p. 129.; Earl H. Tilford, Jr., *Crosswinds: The Air Force's Setup in Vietnam* (College Station: Texas A&M University Press, 1993), pp. 152-153; Henry Kissinger, *White House Years* (Boston: Little, Brown, 1979), p. 1344.

¹¹⁹ Don, *Our Endless War*, p. 208.

Revolutionary Government (PRG).¹²⁰ Thieu's objections also involved the three party National Council of National Concord and Reconciliation, which was perceived as a communist attempt to install a coalition government in South Vietnam.¹²¹ These problems forced Nixon to seek further changes to the October text¹²² and the North Vietnamese publicly blamed the US for sabotaging the talks. The negotiations went on into December, but as both sides were unwilling to compromise Kissinger decided to end the talks on 13 December.¹²³

The failure of the negotiations gave a greater emphasis to the force option and on 15 December Nixon sent Hanoi an ultimatum giving the North Vietnamese 72 hours to yield on the unresolved issues or they would face the bombing of Hanoi and Haiphong.¹²⁴ The North Vietnamese, however, failed to respond and on 17 December the ultimatum expired. As a result, Operation LINEBACKER II commenced on the night of 18 December, lasting for 12 days from the night of 18 December until the night of 29 December. During this period B-52 heavy bombers flew a total of 729 sorties over the North, dropping some 49,000 bombs for a total weight of 15,237 tons.¹²⁵ Navy and Air Force tactical fighter and attack aircraft such as F-4s and A-6s flew a total of 1,216 sorties, dropping another 5,000 tons of ordnance.¹²⁶ This brings the total bomb load dropped on North Vietnam above the 20th parallel to just over 20,000 tons.¹²⁷ In comparison, during Operation LINEBACKER I a total of 155,548 tons of bombs was dropped from 10 May until 23 October 1972,¹²⁸ while during the earlier US air campaign code named ROLLING THUNDER a total of 643,000 tons of bombs were dropped over the three year period from 1965-1968.¹²⁹ This amounts to daily averages of 487 tons, 1,037 tons, and 1,667 tons for ROLLING THUNDER, LINEBACKER I and LINEBACKER II respectively.¹³⁰ This clearly indicates the intensity of the LINEBACKER II air campaign.

To show the North Vietnamese the extent of his resolve, Nixon decided to send in B-52 bombers for the first time to play the decisive role in air strikes against targets deep inside North Vietnamese territory. Previously these heavy bombers were only used against lightly defended targets, mostly in South Vietnam. The B-52 fleet in 1972 still formed a vital pillar of the American nuclear triad, consisting of ballistic missile submarines, land-based intercontinental ballistic missiles, and long-range bombers. Since the B-52 was no longer in production, these planes could not be put at risk lightly as losing a substantial number of them would undermine the US nuclear deterrent. The anticipated monsoon rains over North Vietnam in December, however, required the use of all-weather platforms that could find and bomb their targets under conditions of severe overcast. This meant that

¹²⁰ Haig, *Inner Circles*, p. 300.

¹²¹ Tilford, *Crosswinds*, p. 161.

¹²² Kissinger, *Ending the Vietnam War*, p. 385; Clodfelter, *The Limits of Air Power*, p. 178 argues that it was 'Nixon's commitment to "honor" [that] prevented him from completely ignoring Thieu's proposed changes to the October draft accord.'

¹²³ Phillip B. Davidson, *Vietnam at War: The History, 1946-1975* (London: Sidgwick & Jackson, 1988), p. 724.

¹²⁴ Porter, *A Peace Denied*, p. 156; Davidson, *Vietnam at War*, p. 726.

¹²⁵ Head, *War from above the Clouds*, p. 84; John T. Smith, *The Linebacker Raids: The Bombing of North Vietnam, 1972* (London: Cassell, 1998), p. 138.

¹²⁶ Head, *War from above the Clouds*, p. 84. Of these F-111s accounted for 140 sorties, A-7s for 226 sorties, and F-4s for 274. PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' (April 1973), p. 30.

¹²⁷ Smith, *The Linebacker Raids*, p. 138.

¹²⁸ *Ibid.*, p. 166.

¹²⁹ Clodfelter, *The Limits of Air Power*, p. 134.

¹³⁰ During ROLLING THUNDER 643,000 tons of bombs were dropped over a period of 44 months from 2 March 1965 until 1 November 1968 (643,000 divided by (44 months multiplied by approx. 30 days)), during LINEBACKER I 155,548 tons were dropped in approximately 5 months (155,548 tons divided by (5 months multiplied by approx. 30 days)), during LINEBACKER II 20,000 tons of bombs were dropped in 12 days. The LINEBACKER II bombing raids were also concentrated in a relatively small area around Hanoi and Haiphong whereas ROLLING THUNDER and LINEBACKER I attacks were spread out over a much larger area of North Vietnamese territory, thus making the LINEBACKER II strikes per target much more intense.

only a few platforms in the US inventory could be used for the air strikes with the B-52 being one of them.¹³¹ The desire to achieve maximum psychological effect was another major reason the B-52 was made the centrepiece of the campaign. These heavy bombers could carry up to twelve times the bomb-load of a fighter bomber.¹³² Deploying the B-52 would also send a powerful message to Hanoi. Risking the bomber force that was a vital part of the US nuclear deterrent would send out a strong signal of resolve. James Gibson reports that 'At the time the U.S. Air Force had approximately 400 B-52 bombers in the Strategic Air Command. Half were used in five nights of B-52 attacks over Hanoi and Haiphong. *Three-fourths of all B-52 crews* in the air force flew these missions.'¹³³ This shows that the US deployed more than half of its strategic nuclear bomber fleet for Operation LINEBACKER II, indicating the high risk the US were willing to take. Bigger bomb-loads, combined with the B-52's status and reputation were intended to maximize the psychological impact of the bombing campaign.¹³⁴

At the height of the bombing effort President Nixon initiated a diplomatic initiative and requested new meetings to start on 3 January. As a sign of goodwill, President Nixon ordered a 36 hour bombing pause over Christmas,¹³⁵ with the offer of an additional bombing pause to start on 31 December if North Vietnam agreed to renewed negotiations.¹³⁶ Hanoi, however, did not respond and on 26 December the air attacks resumed with very heavy air strikes, involving 120 B-52s in a single attack.¹³⁷ This seemed to have effect as the next morning North Vietnam informed Washington that the negotiations could resume on 8 January.¹³⁸ Furthermore, Hanoi appeared to want negotiations to start quickly as on 28 December it also agreed that preliminary meetings should begin on 2 January.¹³⁹ Productive negotiations seemed to be possible again and in response Nixon announced that all bombing above the 20th parallel would be halted starting 30 December.¹⁴⁰ A quick breakthrough was achieved and the US and North Vietnam agreed on a settlement on the basis of the October terms.¹⁴¹ By 13 January the text of the peace agreement was completed and on 15 January Nixon halted all bombing of North Vietnam.¹⁴² Under heavy American pressure South Vietnamese President Thieu agreed to support the new accord¹⁴³ and on 27 January the foreign ministers of the United States and the Democratic Republic of Vietnam formally signed a peace agreement in Paris.

The achievement of a peace agreement means that the outcome of Operation LINEBACKER II should be classified as compellence success because after the US bombing Hanoi had given in to all major US demands.¹⁴⁴ In particular, the agreement accepted by Hanoi comprised a ceasefire in place

¹³¹ Tilford, *Crosswinds*, p. 164; Thompson, *To Hanoi and Back*, p. 259.

¹³² Ricky J. Drake, 'The Rules of Defeat: The Impact of Aerial Rules of Engagement on U.S.A.F. Operations in North Vietnam, 1965-1968' (School of Advanced Airpower Studies, Air University, 1992), p. 16.

¹³³ James William Gibson, *The Perfect War: Technowar in Vietnam* (New York: The Atlantic Monthly, 1986), p. 415 [emphasis as in original].

¹³⁴ Kenneth P. Werrell, 'Evaluation of Linebacker II,' (University of California, Indochina Archive, c. 1986), p. 8.

¹³⁵ Head, *War from above the Clouds*, p. 83.

¹³⁶ Clodfelter, *The Limits of Air Power*, p. 188.

¹³⁷ Head, *War from above the Clouds*, p. 83.

¹³⁸ Clodfelter, *The Limits of Air Power*, p. 188.

¹³⁹ Head, *War from above the Clouds*, p. 83; Smith, *The Linebacker Raids*, p. 137.

¹⁴⁰ *New York Times*, Sunday 30 December 1972, p 1; Clodfelter, *The Limits of Air Power*, p. 189.

¹⁴¹ Kissinger, *White House Years*, p. 1464.

¹⁴² Clodfelter, *The Limits of Air Power*, p. 198.

¹⁴³ General Haig was sent to Saigon to hand Thieu a letter by Nixon in which the US president said that he had decided to sign the agreement with or without Saigon. Webb, *Joint Chiefs of Staff*, p. 304.

¹⁴⁴ Nixon in a television address to the nation, in U.S. Department of State, 'The Department of State Bulletin: Agreement Concluded on Ending the War and Restoring Peace in Viet-Nam,' (Government Printing Office, February 2, 1973), p. 153; Kissinger in a news conference in U.S. Department of State, 'The Department of State Bulletin: Agreement Concluded on Ending the War and Restoring Peace in Viet-Nam,' p. 163.

and withdrawal of all US and allied forces within sixty days. The armies of South Vietnam and North Vietnam would remain in possession of the territories under their control at the start of the ceasefire. Both North Vietnam and the US were forbidden to send additional troops or equipment to the South. These terms meant that the Thieu regime could stay in power. Furthermore, all prisoners of war would be released within 60 days. Elections would be held in South Vietnam under the auspices of the National Council of National Reconciliation and Concord, which was comprised of members of the Thieu regime, the communist Provisional Revolutionary Government (PRG), and a neutralist party. Finally, an International Commission of Control and Supervision would oversee the agreement's implementation.¹⁴⁵ The dependent variable 'political outcome' should therefore be classified as compellence success.

Evidence on the Denial Hypothesis

With the values of the dependent and independent variables established the key question now is whether denial theory's hypothesized causal link between the independent and dependent variables can be observed in the case of Operation LINEBACKER II. To address this question three sequential steps must be taken. First, the bomb damage caused by the air campaign must be measured. Second, it must be established whether the damage done brought about one or more of denial theory's coercive mechanisms. Finally, the impact of these coercive mechanisms on Hanoi's military strategy must be assessed by estimating its military vulnerability. An analysis of the intervening variables in LINEBACKER II indicates that none of the causal processes hypothesized by denial theory can be observed as predicted.

Bomb Damage

To explain what, if any, coercive effect was caused by Operation LINEBACKER II, an assessment needs to be made of the bomb damage inflicted. It is only when the extent and kind of bomb damage resulting from the air campaign are measured that the causal link between kinetic effect and coercive effect can be studied. During LINEBACKER II four different target categories were attacked and damage to each of these categories is discussed in turn. For a complete overview of the kinetic effect resulting from the bombing, the number of civilian and military casualties North Vietnam sustained must also be included in the bomb damage assessment.

Interdiction targets constituted the most important category of targets attacked during Operation LINEBACKER II. This category included 30 target complexes. These 30 targets consisted of 13 rail yards, 14 storage facilities, and 3 bridges. The official US bomb damage assessment reports the average damage done to these targets as 55 percent, 35 percent, and 33 percent respectively.¹⁴⁶ This amounts to the destruction of 191 warehouses and 372 pieces of rolling stock.¹⁴⁷ Furthermore, 500 rail cuts were made, millions of gallons of petroleum were destroyed, and the bridge over the Canal des Rapides was rendered inoperable.¹⁴⁸ In all, North Vietnam incurred very substantial damage to storage facilities and rail transportation. The second target category was radio communications. Average damage done to the 5 targets in this category is estimated at 32 percent.¹⁴⁹ One target is

¹⁴⁵ U.S. Department of State, 'The Department of State Bulletin: Agreement Concluded on Ending the War and Restoring Peace in Viet-Nam,' pp. 169-174. See also Larry Berman, *No Peace, No Honor: Nixon, Kissinger, and the Betrayal in Vietnam* (New York: Touchstone, 2002), pp. 240-241; Randolph, *Powerful and Brutal Weapons*, pp. 333-335.

¹⁴⁶ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 20.

¹⁴⁷ Head, *War from above the Clouds*, p. 84; Lon O. Nordeen, Jr., *Air Warfare in the Missile Age* (Washington, D.C.: Smithsonian Institution Press, 1985), p. 74; Smith, *The Linebacker Raids*, p. 138. Head reports 383 pieces of rolling stock destroyed, while Nordeen and Smith both report 372 pieces destroyed.

¹⁴⁸ PACAF Headquarters. 'Linebacker II USAF Bombing Survey'; Head, *War from above the Clouds*, p. 84; Nordeen, *Air Warfare*, p. 74; Henry Kissinger, *Years of Upheaval* (London: Weidenfeld & Nicolson, 1982), p. 24; Smith, *The Linebacker Raids*, p. 205.

¹⁴⁹ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 20.

reported 90 percent destroyed while another target sustained no damage at all.¹⁵⁰ North Vietnamese radio communications proved very difficult to destroy as the central transmitter building of each facility was surrounded by a concrete blast wall, thus requiring a direct hit to be destroyed.¹⁵¹

Enemy air defences constituted the third target category. This category comprised five airfields and thirteen SAM sites. Several SAM logistics facilities were also targeted but data on these targets is included in the bomb damage estimate of general storage facilities. Damage done to airfields is estimated at 9 percent overall while average damage done to SAM sites was reported as 10 percent.¹⁵² Of the five airfields attacked, four airfields received 10 percent damage and one airfield sustained 5 percent damage. Damage done to airfields included destruction of several helicopters and transport aircraft on the ground as well as damage to three MiG-21s.¹⁵³ Two of the SAM sites targeted sustained 50 percent damage. Eight SAM sites received no observable damage, while the damage done to three sites remains unknown.¹⁵⁴ The fourth target category comprised power generating facilities. In this category four thermal power plants and two transformer stations were attacked. Average destruction of these six targets was 29 per cent.¹⁵⁵ With 60 percent, the Hanoi thermal power plant sustained most damage. This caused the plant to temporarily shut down. Damage to other power plants and transformer stations was less, ranging from approximately 50 to 15 percent.¹⁵⁶

With regard to civilian and military personnel losses, the number of casualties resulting from LINEBACKER II bombing is reported as 1,623 dead and 1,216 wounded in Hanoi and Haiphong alone.¹⁵⁷ The number of casualties in other areas is not accurately provided but it is estimated at around the four hundred mark.¹⁵⁸ This makes a total of 2,000 fatal casualties and as this number concerns the North Vietnamese estimate of the body count, this can be taken to be a maximum number with actual casualties resulting from American bombing perhaps somewhat lower. This is because North Vietnam would have had an incentive to overestimate the death toll to influence international public opinion. In comparison to the bombing intensity these casualties are relatively light and this fits well with the US aim to avoid collateral damage.¹⁵⁹

The number of military casualties resulting from the bombing is difficult to establish. A reported eight MiGs were shot down during LINEBACKER II, which could have led to the death of their pilots.¹⁶⁰ Furthermore, casualties could have been sustained as a consequence of attacks on airfields and SAM sites. Other military casualties could have resulted from attacks on rail yards and storage facilities. The North Vietnamese reported that the 1,300 fatal casualties sustained in Hanoi included both military and civilian personnel.¹⁶¹ It is therefore likely that military casualties resulting directly from the bombing are included in the overall casualty count of approximately 2,000. During the LINEBACKER II air attacks, North Vietnamese military casualties in South Vietnam are

¹⁵⁰ Smith, *The Linebacker Raids*, p. 205.

¹⁵¹ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 10.

¹⁵² *Ibid.*, p. 20.

¹⁵³ Werrell, 'Evaluation of Linebacker II,' endnote 43, p. 22.

¹⁵⁴ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 16.

¹⁵⁵ *Ibid.*, p. 20.

¹⁵⁶ *Ibid.*, pp. 12-13.

¹⁵⁷ *Statement by Dennis J. Doolin*, pp. 4-5; Smith, *The Linebacker Raids*, p. 202; Head, *War from above the Clouds*, p. 84.

¹⁵⁸ Thompson, *To Hanoi and Back*, p. 255, fn. 252. In this footnote Thomson explains: 'North Vietnam's official statements on casualties for Linebacker II were published in a single volume by the DRVN Commission for Investigation of the U.S. Imperialists' War Crimes in Viet Nam, *The Late December 1972 U.S. Blitz on North Vietnam* (Hanoi, 1973). These statements give the number killed at Hanoi (1,318) and Haiphong (305). The number killed in other cities and villages is not always rendered so precisely but appears to be about 400. In this volume the only total figure for North Vietnamese killed by Linebacker II is "thousands," which was probably thought to be the most impressive way of rendering "two thousand."'

¹⁵⁹ Head, *War from above the Clouds*, p. 84.

¹⁶⁰ Peter Macdonald, *Giap: The Victor in Vietnam* (New York: W.W. Norton, 1993), p. 314.

¹⁶¹ *Statement by Dennis J. Doolin*, p. 4.

estimated at around 7,100.¹⁶² Since precise data on North Vietnamese military casualties resulting directly from LINEBACKER II air attacks is unavailable, this number of 7,100 will be maintained as the number of military casualties sustained during the air campaign.

Table 1 presents an overview of LINEBACKER II bomb damage. This table shows that significant damage to military and military related targets was done during Operation LINEBACKER II. This is in accordance with military denial theory’s predictions for compellence success. It remains to be seen whether this bomb damage also caused the systemic effects predicted by denial theory.

Damage Assessment		
Category	Targets attacked	Average damage
<i>Interdiction targets</i>		
Rail yards	13	55%
Storage facilities	14	35%
Bridges	3	33%
<i>Radcom facilities</i>	5	32 %
<i>Power facilities</i>	6	29%
<i>Air defences</i>		
Airfields	5	9%
SAM sites	13	10%
<i>Totals</i>	59	32%
<i>Civilian casualties</i>	2,000	
<i>Military casualties</i>	7,100	

Table 1. LINEBACKER II Bomb Damage Assessment¹⁶³

Coercive Mechanisms

The next step in comparing denial theory’s predictions with the case evidence is to establish if any of the three coercive mechanisms came about. If denial theory is to hold then at least one of the three mechanisms—operational paralysis, battlefield breakthrough, or equipment shortages—should be observed. The evidence on each of these coercive mechanisms will therefore be examined in turn to establish whether the bomb damage inflicted during LINEBACKER II brought about the predicted causal process.

Operational Paralysis

The first systemic effect predicted by denial theory is operational paralysis. Denial theory maintains that destruction of logistics and communications networks can cause enemy forces to stop functioning

¹⁶² Ibid., p. 5.

¹⁶³ Source: adapted from PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 20.

as coherent fighting forces because of a lack of direction and shortages of POL. The LINEBACKER II air attacks did indeed target logistics and command and control facilities but interpretation of available data shows that these attacks did not cause any operational paralysis. That North Vietnamese forces kept their ability to conduct coherent operations is demonstrated by the North Vietnamese offensives following only four weeks after the conclusion of LINEBACKER II. US air strikes damaged four radio communications facilities, with damage ranging from very light to very severe. The destruction done caused some minor disruptions in radio operations, both civilian and military. For example, the Hanoi radio transmitter was 'off the air for nine minutes'¹⁶⁴ and some frequency drifting occurred.¹⁶⁵ The capacity for redundancy within North Vietnamese radio communications enabled the North Vietnamese 'to maintain all necessary operations,' despite the damage done.¹⁶⁶ The very limited bombing impact on radio communications therefore did not have any impact on the operational effectiveness of North Vietnamese forces.

Air attacks on logistics targets were more extensive and had a greater effect. The damage done to rail yards, railways, and rolling stock,¹⁶⁷ caused all 'train movement [to be] effectively halted in the Hanoi and Haiphong area.'¹⁶⁸ Damage to rolling stock also 'seriously hampered movement of supplies by rail.'¹⁶⁹ However, as a result of the LINEBACKER I bombing, over the course of the summer the North Vietnamese switched from rail transport to truck-based transport.¹⁷⁰ By the start of LINEBACKER II their transportation network had dispersed and this dispersed truck based system was much harder to dislocate.¹⁷¹ The interruption of rail transport during LINEBACKER II therefore did not have a major impact on transportation of supplies within North Vietnam, nor did it affect the resupply of North Vietnamese forces in the South. POL targets were also attacked and an estimated 25 percent of North Vietnamese oil reserves were destroyed.¹⁷² POL refining capacity was even reduced by 75 percent.¹⁷³ Because the battlefield had stabilized by December, fuel demands were much lower than in previous months, partially compensating for the reduction of influx of new POL supplies from the North. Nevertheless, by North Vietnam's own admittance, the destruction of rail traffic and POL reserves combined with the heavy fighting over the summer did cause some supply shortages to forces operating in the south.¹⁷⁴ Based on the available evidence it is, however, not clear how much the LINEBACKER II bombing contributed to these shortages. Since precise data are unavailable, it is possible that the supply shortages were the result of heavy fighting and overextension during the Easter Offensive, not LINEBACKER II interdiction.

Whatever shortages were experienced by the North Vietnamese forces, these did not cause operational paralysis. This is evident from the offensive actions launched by North Vietnamese forces shortly after LINEBACKER II ended. On 3 January the number of communist attacks was the highest it had been in a month and with 116 attacks the number of attacks launched on 4 January was even higher still.¹⁷⁵ The number of attacks carried out between 5 and 7 January was even double that of the

¹⁶⁴ Military History Institute of Vietnam, *Victory in Vietnam*, p. 320.

¹⁶⁵ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 10.

¹⁶⁶ Ibid.

¹⁶⁷ Smith, *The Linebacker Raids*, p. 138; Head, *War from above the Clouds*, p. 84. Smith reports the destruction of 372 pieces of rolling stock, Head reports 383 pieces of rolling stock destroyed.

¹⁶⁸ *Statement by Dennis J. Doolin*, pp. 5-6.

¹⁶⁹ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 6.

¹⁷⁰ Ibid.; Thompson, *To Hanoi and Back*, p. 276.

¹⁷¹ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' pp. 6, 34.

¹⁷² Smith, *The Linebacker Raids*, p. 138.

¹⁷³ Head, *War from above the Clouds*, p. 84.

¹⁷⁴ Military History Institute of Vietnam, *Victory in Vietnam*, p. 328; Head, *War from above the Clouds*, p. 84; Clodfelter, *The Limits of Air Power*, p. 196; Le Gro, *Vietnam*, p. 15.

¹⁷⁵ Knappman and Kosut, eds., *South Vietnam*, pp. 221, 229.

average number over the previous two months.¹⁷⁶ These attacks resulted in 385 South Vietnamese killed in action and 1,449 wounded, the highest South Vietnamese losses in six weeks.¹⁷⁷ The attacks in early January were primarily attacks by fire (or shelling) and did not involve large scale maneuvers.¹⁷⁸ But later in January, as the ceasefire approached, North Vietnamese forces launched offensives with the aim to conquer as much territory as possible before the ceasefire took effect.¹⁷⁹ Several of these operations were combined arms operations including deployment of heavy artillery and armour.¹⁸⁰ These North Vietnamese operations therefore provide strong evidence that despite the bomb damage done during LINEBACKER II, North Vietnamese forces maintained their coherence and operational effectiveness.

Based on the data on hand it must be concluded that the LINEBACKER II air campaign did not result in operational paralysis. No evidence can be found to suggest that NVA forces lost their organizational integrity or were unable to conduct effective operations due to shortages in POL supplies or due to ineffective command and control. In fact, some evidence exists indicating that shortly after the air campaign North Vietnamese forces were able to conduct offensive operations in a coherent and effective manner. Despite heavy bombing of North Vietnamese radio communications, railway targets, and warehouse complexes no significant systemic effect on the operational capability of North Vietnamese forces followed.

Battlefield Breakthrough

The second systemic effect predicted by denial theory is battlefield breakthrough. An assessment of the available evidence indicates that no battlefield breakthrough occurred during Operation LINEBACKER II. By late November 1972 the frontlines in South Vietnam had almost completely stabilized. This situation did not change throughout December 1972 as the position of the frontlines remained virtually frozen and both sides stayed in possession of territory previously occupied. Between 21 and 29 November ARVN forces conducted a limited offensive in Quang Tri province. This led to very modest South Vietnamese territorial gains.¹⁸¹ On 27 December the ARVN 3rd Division launched an offensive into the Hiep Due base in Military Region I. Two days later the 3rd Division terminated its attack and a strong North Vietnamese counterattack prevented it from gaining more ground.¹⁸² Further offensives took place just prior to the ceasefire—*after* the Paris agreement was signed—as North Vietnamese forces launched an effort to secure as much territory as possible.¹⁸³ At first this led to modest communist conquests, but soon ARVN forces recaptured lost territory and the situation quickly stabilised again as both sides remained evenly matched throughout this period.¹⁸⁴ The stabilized frontlines in January 1973 are shown on Map 5.3. These positions had changed very little since October 1972. North Vietnamese forces had permanently secured Loc Ninh and the buffer zone along the Cambodian border, as well as the 'entire western fringe of II Corps from Southern Quang Duc Province to the northern edge of the parrot's Beak.'¹⁸⁵

The bomb damage done by the LINEBACKER II air raids did not bring about a battlefield breakthrough and no major shift in frontlines occurred during December 1972. Nor was the chance of

¹⁷⁶ Ibid., p. 229.

¹⁷⁷ Ibid., p. 230.

¹⁷⁸ Ibid.

¹⁷⁹ Le Gro, *Vietnam*, pp. 24, 26; Nguyen Duy Hinh, *Vietnamization and the Cease-Fire, Indochina Monographs* (McLean, Virginia: General Research Corporation, 1976), pp. 127, 135.

¹⁸⁰ Knappman and Kosut, eds., *South Vietnam*, p. 231; Hinh, *Vietnamization and the Cease-Fire*, p. 135.

¹⁸¹ Knappman and Kosut, eds., *South Vietnam*, pp. 200-201.

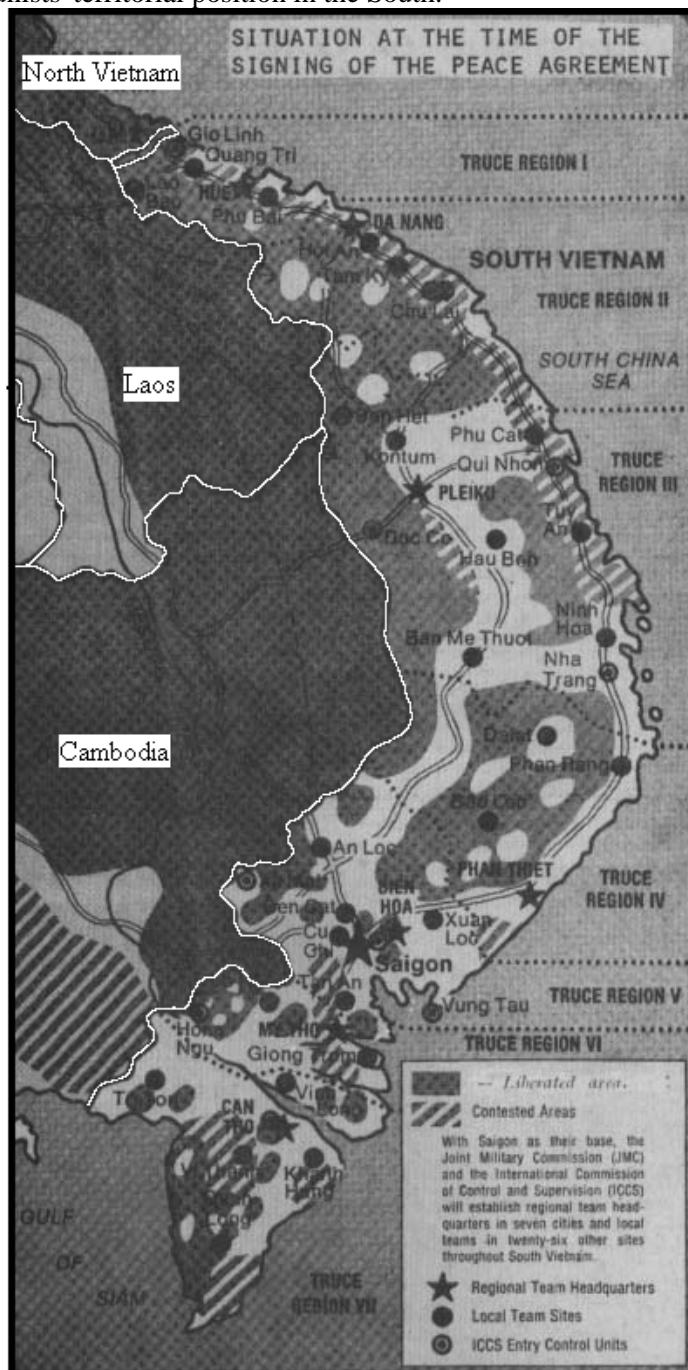
¹⁸² Le Gro, *Vietnam*, p. 23.

¹⁸³ Ibid., p. 21.

¹⁸⁴ Ibid., pp. 21, 25-26, 31; Hinh, *Vietnamization and the Cease-Fire*, pp. 134, 136, 138.

¹⁸⁵ Dale Andradé, *America's Last Vietnam Battle: Halting Hanoi's 1972 Easter Offensive* (Lawrence, KS: University Press of Kansas, 2001), p. 456.

a battlefield breakthrough significantly increased as a result of the bombing. By 30 December the frontlines were as stable as they were at the start of the air campaign and South Vietnamese forces did not indicate any ability to launch an offensive that would cause a battlefield breakthrough and jeopardize the communists' territorial position in the South.



Map 2. Territorial Division of South Vietnam, January 1973¹⁸⁶

Equipment Shortages

With regard to the third coercive mechanism hypothesized by denial theory—equipment shortages—there is again no evidence to suggest that this systemic effect came about during the LINEBACKER II air campaign. No data can be found to suggest that Operation LINEBACKER II caused additional

¹⁸⁶ Source: Adapted from *Newsweek*, February 5, 1973

equipment shortages on top of any shortages North Vietnamese forces experienced prior to the start of LINEBACKER II. Importantly, in early January, shortly after the LINEBACKER II air attacks, heavy weapons such as tanks and artillery were still widely available to North Vietnamese forces and were used in large numbers in the land grab operations preceding the ceasefire. Since North Vietnam depended on the Soviet Union and China to supply it with military equipment, its forces were vulnerable to strategic interdiction of the rail and water transport carrying this equipment.¹⁸⁷ Heavy equipment can only be transported by water or rail and if the US managed to destroy the important water ways and rail networks, then this equipment could no longer be transported to the front. Bombing during Operation LINEBACKER II did target rail yards and caused a substantial disruption of rail traffic in the North.¹⁸⁸ Bombing of North Vietnamese logistics also targeted equipment repair facilities and caused significant damage. Of the five vehicle repair facilities targeted, three could no longer operate, while operations at the other two were reduced. In addition, one armoured vehicle overhaul workshop was completely destroyed.¹⁸⁹ Still, this bomb damage caused little systemic effect. Because of the short duration of operation LINEBACKER II strategic interdiction aimed at disrupting the flow of equipment to the frontlines was difficult to achieve.¹⁹⁰ For strategic interdiction to be effective, high attrition must be coupled with a significant reduction in the influx of new equipment for a long period of time. Only when all three of these conditions are present will such severe equipment shortages come about that military operations are forced to a halt. Since Operation LINEBACKER II lasted only 12 days and because ground combat in South Vietnam in December 1972 was less intense than during the spring and summer, the disruption of rail traffic and destruction of repair facilities did not have any lasting effect.¹⁹¹

The availability of heavy equipment to North Vietnamese forces also indicates that no equipment shortages occurred. Shortly after the ceasefire and only three weeks after the end of LINEBACKER II, North Vietnamese forces were able to deploy large quantities of new equipment to South Vietnam.¹⁹² Among the equipment introduced were 430 pieces of 122 mm and 130 mm artillery and 655 armoured vehicles, including bridge layers and armoured personnel carriers.¹⁹³ Smaller numbers of artillery-tractors, 100 mm antitank guns, 152 mm howitzers, and SA-7 heat seeking missiles were also introduced to South Vietnam.¹⁹⁴ These figures unmistakably show that the North Vietnamese had ample material reserves and did not suffer any equipment shortages.

The offensives carried out by North Vietnamese forces shortly after LINEBACKER II also demonstrate that North Vietnamese forces did not suffer from any serious equipment shortages. Two days after the ceasefire, a large North Vietnamese force including artillery and tanks was able to push

¹⁸⁷ C. Dale Walton, *The Myth of Inevitable U.S. Defeat in Vietnam*. With a foreword by W.W. Rostow, *Cass Series: Strategy and History* (London: Frank Cass, 2002), p. 114.

¹⁸⁸ PACAF Headquarters. 'Linebacker II USAF Bombing Survey.' p. 6.

¹⁸⁹ *Statement by Dennis J. Doolin*, p. 6.

¹⁹⁰ Interestingly Pape himself acknowledges that 'strategic interdiction is an effective denial strategy only in protracted wars of attrition.' Pape, *Bombing to Win*, p. 75. Pape, however, fails to explain how the short LINEBACKER II campaign that attacked precisely strategic interdiction targets brought about coercive success.

¹⁹¹ Le Gro, *Vietnam*, p. 15. Does mention that North Vietnamese forces experienced some supply shortages: 'As of the end of the year, few replacements had been received to make up for those losses [suffered by North Vietnamese forces during the Easter offensive], and ammunition stocks were probably very low, both factors contributing to the decline in enemy activity during the last part of December.' It is also very plausible that the equipment available to NVA forces had sustained significant wear-and-tear during the Easter Offensive and that the quality and effectiveness of the available equipment was much reduced. There is, however, no evidence to suggest that possible shortages experienced by North Vietnamese troops during December were the result of the LINEBACKER II bombings taking place in the second half of the month. It is very likely that the intense fighting during the summer months and overextension of supply lines by itself caused the shortages experienced by NVA forces. Moreover, North Vietnam still possessed a substantial stockpile of new equipment.

¹⁹² Vien, *The Final Collapse*, pp. 34-35

¹⁹³ *Ibid.*

¹⁹⁴ *Ibid.*

the South Vietnamese marines out of Cua Viet in Military Region I.¹⁹⁵ Elsewhere in South Vietnam, communist forces also deployed heavy howitzers and rocket artillery during their land grab operations.¹⁹⁶ This shows that the North Vietnamese still had the military equipment needed to conduct offensive operations and experienced no serious equipment shortages. As the available evidence indicates, the bombing did not bring about the three causal mechanisms as predicted by denial theory. Throughout Operation LINEBACKER II and during its immediate aftermath, North Vietnamese forces kept their cohesion and operational effectiveness and did not suffer equipment shortages. Nor did any battlefield breakthrough occur. Even though none of the coercive mechanisms can be observed as predicted, it remains to be examined whether LINEBACKER II undermined North Vietnamese military strategy in any other way.

Military Vulnerability

Military denial theory asserts that the enemy must be deprived of the belief that it is possible to obtain benefits from continued resistance. Targeting military capabilities will increase the opponent's military vulnerability and denial theory predicts that compellence will be successful when the opponent's military vulnerability becomes high or very high.¹⁹⁷ That is, the opponent will give in once its strategy for controlling the disputed territory is undermined.¹⁹⁸ In other words, the variable 'military vulnerability' in denial theory only refers to control over the disputed territory as the theory predicts that if a compeller demonstrates the capacity to control the territory at stake, the opponent will lose confidence in its strategy for maintaining possession of this territory.¹⁹⁹ As denial theory's independent variables are in line with its prediction for compellence success and as Pape himself argues that LINEBACKER II demonstrates the importance of undermining the opponent's military strategy,²⁰⁰ this leads to the question whether Operation LINEBACKER II indeed jeopardised North Vietnam's territorial position in the South. The evidence shows that this was not the case. The LINEBACKER II campaign did not demonstrate the ability of the US and South Vietnamese forces to regain the territory lost during the Easter Offensive. Nor did the air campaign demonstrate their ability to hold on to the remaining territory because South Vietnamese forces were already in firm control of the rest of South Vietnam *prior to* LINEBACKER II.

To establish the extent of North Vietnam's military vulnerability, its military goals must be identified first. North Vietnam aimed to achieve two military objectives with its Easter Offensive in the spring of 1972. First of all, Hanoi sought to reverse the advances of the South Vietnamese pacification program. Second, it wanted to change the military balance in South Vietnam in its favour. The North Vietnamese wanted to be in possession of as much territory as possible before a peace agreement with the US was reached.²⁰¹ To achieve these goals North Vietnam had to infiltrate large numbers of forces into South Vietnam and these forces had to occupy substantial parts of South Vietnamese territory, especially in the rural districts in the Highlands and along the borders with Laos and Cambodia.

The events in South Vietnam during the second half of 1972 demonstrate that North Vietnam was able to achieve its primary military objectives. As the Easter Offensive unfolded South Vietnam rapidly lost substantial parts of its territory to the advancing communist forces. But by the end of May 1972 the offensive came to a halt and a counteroffensive followed that succeeded in retaking part of

¹⁹⁵ Hinh, *Vietnamization and the Cease-Fire*, pp. 135-136; Vien, *The Final Collapse*, p. 32.

¹⁹⁶ Le Gro, *Vietnam*, p. 23; Knappman and Kosut, eds., *South Vietnam*, p. 231.

¹⁹⁷ Pape, *Bombing to Win*, p. 51.

¹⁹⁸ *Ibid.*, p. 10.

¹⁹⁹ *Ibid.*, pp. 17, 19, 32. Also see the discussion on this point in the section on denial theory's intervening variables in chapter 3.

²⁰⁰ Pape, *Bombing to Win*, p. 202; Pape, 'Coercive Air Power in the Vietnam War', p. 140.

²⁰¹ Andradé, *America's Last Vietnam Battle*, pp. 25-26; Vien, *The Final Collapse*, pp. 29-31; Frank Snepp, *Decent Interval: An Insider's Account of Saigon's Indecent End* (New York: Random House, 1977), p. 55; Gibson, *The Perfect War: Technowar in Vietnam*, p. 422.

the territory lost, resulting in the division of territory as shown on Map 5.3 above. The battlefield stabilized thereafter and the frontlines remained virtually the same throughout the duration of LINEBACKER II. During the Easter Offensive Hanoi had gained control of substantial parts of South Vietnam, especially in the northern provinces and along the western border.²⁰² This provided the North with a resupply corridor along the Lao and Cambodian border.²⁰³ From mid-summer onwards, the key objective for North Vietnam was to maintain control of these territories. It therefore had to maintain sufficient forces in the South to defend against ARVN counter-offensives. Examining the available evidence reveals that throughout December the North Vietnamese maintained a large number of forces in South Vietnam, comprising more than 160,000 combat troops organised in 14 infantry divisions.²⁰⁴ Furthermore, there is no evidence to suggest a weakening of these forces of such a magnitude as to threaten the North's control over the territory it held in the South. The discussion of the coercive mechanisms showed that LINEBACKER II did not bring about any of the three hypothesized mechanisms to a sufficient degree. Consequently, there was no urgent threat to North Vietnamese military strength in South Vietnam and North Vietnamese forces remained in possession of the territory under their control at the start of LINEBACKER II. Available statistics on casualties even indicate that at the conclusion of LINEBACKER II the tables on the battlefield were slightly turning in favour of North Vietnam. South Vietnamese losses in the first week of January were the highest in six weeks. A total of 1,834 casualties were sustained by the ARVN with 385 killed in action and 1,449 wounded. In the same week, North Vietnamese fatal casualties dropped by 365 to 923.²⁰⁵

Throughout LINEBACKER II North Vietnamese forces remained firmly in control of the territory they possessed at the beginning of the air campaign. At no time did Operation LINEBACKER II demonstrate that US and South Vietnamese forces had the ability to take control of lost terrain. The US and their South Vietnamese allies were therefore unable to threaten North Vietnamese control over the disputed territory. Although the air attacks did do significant damage to North Vietnamese military forces around Hanoi and Haiphong, denial theory specifies that the variable 'military vulnerability' only relates to the vulnerability of the forces that are used to control the disputed territory. With their ground forces still in place and still in firm possession of the conquered areas in South Vietnam the vulnerability of these critical forces was not increased and North Vietnam had no reason to doubt the effectiveness of its military strategy.²⁰⁶ As a result, North Vietnam's military vulnerability remained low.

Evidence on the Strategic Interaction Hypothesis

The evidence on the military denial hypothesis demonstrates that an undermining of North Vietnamese military strategy cannot explain the outcome of the cases. None of the three predicted coercive mechanisms can be observed and as a result North Vietnam's military vulnerability remained low. The question is now how the strategic interaction hypothesis holds when compared to the evidence on LINEBACKER II. In order to test the strategic interaction hypothesis evidence must be evaluated on two of the four counter-coercive strategies: casualty inflicting and diplomatic pressure. Since the US did not conduct the air campaign in a coalition it was not vulnerable to a coalition fracturing strategy. Civilian suffering was also only a limited concern to the US, due both to the relatively low number of civilians killed and the important goal of US withdrawal from Vietnam. When the other two strategies are analysed, the evidence shows that North Vietnam did not succeed in inflicting sufficient casualties

²⁰² Andradé, *America's Last Vietnam Battle*, p. 456.

²⁰³ CIA. 'Short-Term Prospects for Vietnam.' In *National Intelligence Estimate*, (12 October 1973), figure 1, p. 8.

²⁰⁴ Vien, *The Final Collapse*, table 1, p. 34.

²⁰⁵ Knappman and Kosut, eds., *South Vietnam*, p. 230.

²⁰⁶ A clear distinction must be made here between Operation LINEBACKER I and Operation LINEBACKER II. During LINEBACKER I the ARVN undertook a counteroffensive and regained much of the territory lost during the Easter Offensive. LINEBACKER I thus helped demonstrate the coercer's ability to control the territory under dispute. This was however not the case during LINEBACKER II because no further counteroffensives were mounted and no further territorial gains were made.

or exerting diplomatic pressure through its allies. As a result, North Vietnam was in no position to counter-coerce the US to stop the bombing.

Casualty Inflicting Strategy

Throughout the Vietnam War, North Vietnam had sought to inflict casualties on the US to erode political support for the war. This strategy failed for two reasons during LINEBACKER II. First, by late 1972, the vast majority of American forces had left the country.²⁰⁷ Since almost all US ground forces had left and no ground combat was taking place between US and North Vietnamese forces, North Vietnam was unable to attack American ground troops. Second, US bombers were becoming less vulnerable as Operation LINEBACKER II continued because North Vietnamese air defence units ran out of surface to air missiles.

When LINEBACKER II commenced, US forces were met by well-prepared North Vietnamese air defences.²⁰⁸ Air defence units in the Hanoi area included seven anti-aircraft artillery regiments and 13 missile battalions.²⁰⁹ These heavy air defences caused substantial US losses. Overall American aircraft losses totalled 26, of which 15 B-52s.²¹⁰ Nevertheless, the 2.1 percent B-52 loss rate was below the anticipated 3 percent attrition rate.²¹¹ Significantly, the attrition rate varied over the duration of LINEBACKER II, and the losses sustained during the first three nights of the operation were by far the highest. B-52 losses during the first three nights were 9 aircraft, or 2.9 percent of the sorties flown.²¹² This high attrition rate shocked US commanders as is evident from the Commander in Chief Pacific Command Air Forces' (CINCPACAF) appreciation of the situation: 'Events of the past 4 days produced significant B-52 losses which obviously are not acceptable on a continued basis ...'²¹³ Nixon himself was furious about the losses sustained and about the repetitive tactics used by the B-52s.²¹⁴ In a meeting with Kissinger and his Chief of Staff Haldeman on 20 December Nixon observed that if the B-52 losses were to continue to average 3 aircraft per day 'it's going to be very tough to take.'²¹⁵

As a result, for the next three days of Operation LINEBACKER II, the B-52s were directed to strike targets in low threat zones well away from the heavy air defences in the Hanoi area. Furthermore, major changes in tactics were also made, including changes in sortie timing, operating altitudes, ingress and egress routes, and chaff dispersal patterns.²¹⁶ North Vietnamese air defences proved effective at diverting B-52 attacks from Hanoi for three days. This period was then followed by the Christmas bombing pause. As Hanoi had not been bombed for four days and the overall B-52

²⁰⁷ Webb, *Joint Chiefs of Staff*, p. 204. Webb and Poole report that on 30 November 1972 US forces in South Vietnam numbered 25,500 men and at the end of December force levels had dropped to 24,069 troops. These forces primarily consisted of staff, support, and advisor forces. They did not include any US ground combat troops.

²⁰⁸ Military History Institute of Vietnam, *Victory in Vietnam*, p. 316.

²⁰⁹ *Ibid.*, pp. 323, 325.

²¹⁰ Total losses were: USAF: 15 B-52s, 2 F-4s, 2 F-111s, and 1 HH-53 helicopter; USN and USMC: 2 A-7s, 2 A-6s, 1 RA-5, and 1 F-4. Seventeen of these losses were due to SA-2 SAMs, 3 were due MiG attacks, and 3 were due to anti-air artillery. PACAF Headquarters, 'Linebacker Operations.' p. 57; see also *Statement by Dennis J. Doolin*, p. 4. Here the US statistics on aircraft losses will be used for estimating the effectiveness of North Vietnamese air defences. The North Vietnamese claim to have shot down 81 US aircraft, including 34 B-52s. Military History Institute of Vietnam, *Victory in Vietnam*, p. 327.

²¹¹ PACAF Headquarters, 'Linebacker Operations.' p. 57; Thompson, *To Hanoi and Back*, p. 272; Sharp, *Strategy for Defeat*, p. 254; *Statement by Dennis J. Doolin*, p. 14. For the period 17 December 1972 to 10 January 1973 Doolin even reports a lower loss rate of 1.25 percent.

²¹² PACAF Headquarters, 'Linebacker Operations.' p. 95.

²¹³ *Ibid.*, p. 62.

²¹⁴ Head, *War from above the Clouds*, p. 80.

²¹⁵ Nixon quoted in Asselin, *A Bitter Peace*, p. 147.

²¹⁶ Thompson, *To Hanoi and Back*, p. 264; Eschmann, *Linebacker*, pp. 138-139.

sortie-rate was much reduced, the North Vietnamese had good reason to believe their air defences provided adequate protection against further US bombing of the Hanoi area.²¹⁷

The US Air Force changed tactics and on 26 December the B-52s returned to Hanoi in a single massive attack. Losses during this raid amounted to only 2 B-52s out of 116, or 1.7 percent of the sorties flown.²¹⁸ Average attrition rates during the last three days of the operation were even lower at 1.4 percent of sorties flown. Compared to the first three days of LINEBACKER II US losses were reduced by half. Besides improved bombing tactics, degradation of North Vietnamese air defences also contributed to this reduction in loss rate. Following the attacks on 26 December, SAM sites and storage depots were added to the target list.²¹⁹ These attacks on North Vietnamese SAM facilities, coupled with resupply problems due to damage to rail transport, resulted in a shortage of SAMs available.²²⁰ Because North Vietnam had expected the bombing to last only three days, it had ordered its air-defence batteries to fire as many missiles as needed to inflict the maximum number of US casualties. As a result, during the 12 day campaign, North Vietnamese air defence units fired between 884 and 1,242 missiles.²²¹ Because of the large number of SAMs fired, the North Vietnamese were unable to assemble and distribute new SAMs at the same rate as they were being expended.²²²

At the end of Operation LINEBACKER II US aircrews therefore reported far fewer SAM launches.²²³ On 27 December 73 launches were still reported, but on 28 December this had dropped to 48 SAM launches, while on 29 December only 25 SAMs were sighted.²²⁴ By 29 December North Vietnamese air defence units had run out of SAMs, making North Vietnam defenceless against further US bombing.²²⁵ The urgency of the North Vietnamese missile scarcity is also indicated by the emphasis in the *Official People's Army History* on measures taken to increase the number of missiles available to missile battalions in the Hanoi area.²²⁶ As MiG fighters posed only a minor threat to US air operations²²⁷ the shortage of SAMs meant a severe undermining of North Vietnamese air defence strategy. Without an adequate supply of SAMs North Vietnam was unable to inflict casualties upon the US, which is reflected in the dramatic reduction of US losses at the end of the campaign.²²⁸ Being unable to inflict casualties, Hanoi lost a substantial part of its counter-coercive leverage. Moreover, North Vietnam could no longer defend itself against air attacks, which greatly increased the risk to its industrial base if the attacks continued.

²¹⁷ This also seems to be indicated by the timing of Hanoi's reply to the US. 'On 22 December Nixon had asked the North Vietnamese for a resumption of talks to begin on January 3 1973 but had received no response.' Smith, *The Linebacker Raids*, p. 134. This indicates that very little coercive effect had been created during the first 4 days of bombing, thus suggesting that the North expected to be able to outlast and ward off the US air attacks. Interestingly, however, the *Official History of the People's Army* does not celebrate this feat as a victory. Instead, it regards the attacks outside the Hanoi area as '[...] an effort to force us to disperse our anti-aircraft forces [...]', and thus merely as a US tactical ploy. Military History Institute of Vietnam, *Victory in Vietnam*, p. 323.

²¹⁸ PACAF Headquarters, 'Linebacker Operations.' p. 95.

²¹⁹ Ibid., pp. 100-101; Thompson, *To Hanoi and Back*, p. 266; McCarthy, *A View from the Rock*, p. 98.

²²⁰ John Schlight. 'A War Too Long: The U.S.A.F. In Southeast Asia 1961-1975.' (Air Force History Office, United States Air Force, 1996), p. 99.

²²¹ Macdonald, *Giap*, p. 314 reports that North Vietnamese air defence units fired 1,242 SAMs at US aircraft; Asselin, *A Bitter Peace*, p. 152 reports a total of 884 SAM's launched.

²²² Sharp, *Strategy for Defeat*, p. 254; Asselin, *A Bitter Peace*, p. 147.

²²³ Nordeen, *Air Warfare*, p. 72.

²²⁴ Thompson, *To Hanoi and Back*, pp. 269-270.

²²⁵ Clodfelter, *The Limits of Air Power*, p. 198; Werrell, 'Evaluation of Linebacker II,' p. 13; Goodman, *The Lost Peace*, p. 161; Asselin, *A Bitter Peace*, p. 151.

²²⁶ Military History Institute of Vietnam, *Victory in Vietnam*, p. 325.

²²⁷ MiG fighters were generally unsuccessful during Operation LINEBACKER II, with only one B-52 shot down by a MiG and two MiGs shot down by B-52s. This meant that without their SAMs the North Vietnamese would have no effective countermeasure at all.

²²⁸ PACAF Headquarters, 'Linebacker Operations.' p. 62.

Diplomatic Pressure Strategy

The second pillar of North Vietnam's counter-coercive strategy constituted diplomatic pressure by its communist allies. North Vietnam relied upon the USSR and China to harshly condemn US bombing and diplomatically force the US to stop its offensive actions.²²⁹ The Sino-Soviet split escalating towards the late 1960s and skilled diplomatic manoeuvring by Nixon and Kissinger in the years preceding LINEBACKER II prevented this from happening. Neither the Soviet Union nor China came to Hanoi's aid and without the support of the Soviet Union and China, North Vietnam was diplomatically isolated. Hence, the second component of Hanoi's counter-coercive strategy failed as well. By late 1972 '...Nixon and Kissinger, by focusing their diplomatic efforts on bettering relations with the Soviet Union and China, had isolated North Vietnam politically.'²³⁰ Improved relations between the US and the two major communist powers were evident from the US arms reduction talks with Russia and Nixon's historic visit to China. This had become possible as a result of the Sino-Soviet split following border clashes between the two communist powers in 1969. As a result of the hostility between Russia and China neither country could afford conflict with the US and both wanted good relations with the US as a balance against each other. Both the USSR and China sought détente with the US, precluding severe reactions to increased US pressure on Hanoi.²³¹

When LINEBACKER II started China and the Soviet Union did not react harshly to the US bombing.²³² Nixon demonstrated that he could take 'unprecedented military measures against North Vietnam without jeopardising détente'²³³ This was something the North Vietnamese had not expected.²³⁴ In fact, 'as recently as April 1972, unidentified DRVN officials had boasted that Nixon "would never dare bomb Hanoi or Haiphong for fear of Soviet reaction to such attacks."²³⁵ Commenting on the mellow Soviet and Chinese reactions to the earlier LINEBACKER I bombing the communist party newspaper *Nhan Dan* likened them to 'throwing a life-buoy to a drowning pirate . . . in order to serve one's narrow national interests.'²³⁶ The North Vietnamese disillusionment following the mild Soviet and Chinese reactions after the US air attacks on Hanoi was even greater and there is no doubt North Vietnam perceived these weak reactions as betrayal.²³⁷ Despite their weak diplomatic reactions in response to the US bombing, both the Soviet Union and China did increase their military aid to North Vietnam.²³⁸ In 1972, military aid from China and the Soviet Union stood at an all-time high of \$750 million.²³⁹ For Hanoi this aid was vital as over the years Soviet and Chinese financial support had largely offset bomb damage to the North Vietnamese economy, its infrastructure, and its military equipment.²⁴⁰ At the same time, however, pressure was mounting from both countries to decrease offensive actions in South Vietnam and seek a peace settlement.²⁴¹ North Vietnam understood that 'If the war dragged on, Hanoi would sooner or later suffer from diminished support

²²⁹ Asselin, *A Bitter Peace*, p. 38.

²³⁰ Willbanks, *Abandoning Vietnam*, p. 165.

²³¹ Clodfelter, *The Limits of Air Power*, p. 150; Daniel S. Papp, *Vietnam: The View from Moscow, Peking, Washington* (Jefferson: McFarland, 1981), p. 136.

²³² Gibson, *The Perfect War: Technowar in Vietnam*, pp. 411-412; Asselin, *A Bitter Peace*, p. 39.

²³³ Porter, *A Peace Denied*, pp. 102-103.

²³⁴ Arnold R. Isaacs, *Without Honor: Defeat in Vietnam and Cambodia* (London: Johns Hopkins University Press, 1983), p. 20; Porter, *A Peace Denied*, p. 113.

²³⁵ Asselin, *A Bitter Peace*, p. 50.

²³⁶ Head, *War from above the Clouds*, p. 86.

²³⁷ Isaacs, *Without Honor*, pp. 21-23.

²³⁸ Young, *The Vietnam Wars*, p. 268.

²³⁹ Joint Report CIA/DIA. 'Communist Military and Economic Aid to North Vietnam, 1970-1974.' (1975), p. 1.

²⁴⁰ U.S. Congress. Senate. 'Bombing as a Policy Tool in Vietnam: Effectiveness.' p. 10.

²⁴¹ Young, *The Vietnam Wars*, p. 268; Knappman and Kosut, eds., *South Vietnam*, p. 184.

from Moscow and Beijing.²⁴² With the extensive damage done to its economy and industry during LINEBACKER II, this was a dim prospect for North Vietnam as it needed Soviet and Chinese aid to rebuild. If communist military and economic aid decreased Hanoi could not rebuild its industry and military capabilities, which would compromise its goal of the unification of Vietnam.

The US were able to effectively undermine North Vietnam's counter-coercive strategy during Operation LINEBACKER II as a result of détente and a change in bombing tactics. With both its air defence strategy and diplomatic strategy undermined, Hanoi lacked the ability to inflict casualties and bring diplomatic pressure to bear. Consequently, Hanoi did not possess any counter-coercive leverage and without this ability North Vietnam had no way to force the US to stop the bombing. This lack of counter-coercive leverage did make a settlement more urgent, as North Vietnam had no way to improve its bargaining situation.

Alternative Explanations

Sceptics might point to a number of alternative explanations that seem to explain the outcome of Operation LINEBACKER II. If these alternative explanations are correct, North Vietnam's inability to cause counter-coercive effect might not have been decisive. One plausible alternative explanation points to the US change in demands, which could be taken to mean that coercion in fact failed as it was the US who met North Vietnamese demands and not vice versa. It might also be argued that LINEBACKER II was a rare instance in which costs or the prospect of costs had a decisive effect. Lastly, North Vietnam might have decided to settle because of the carrot of US economic aid. These alternative explanations are, however, at odds with the case evidence and cannot by themselves explain North Vietnam's decision to settle.

Compellence Failed

One alternative explanation points to the US change in demands between early December and early January and argues that the reduced US demands gave North Vietnam everything it wished for. As a result, Hanoi would have been foolish not to settle in January 1973. The evidence shows that the US did in fact lower their demands between December and January and that this made a settlement acceptable to Hanoi. At the start of 1972 North Vietnam had, however, set out three strategic goals ranging from a most desired maximum option to a minimally acceptable option. The revised US demands of January 1973 enabled North Vietnam to achieve only its minimum option. Although this outcome was acceptable, Hanoi's strategic aims were initially set much higher. It was Hanoi's inability to cause counter-coercive effect which made it realize that it did not have the required leverage over the US to achieve more than its minimally acceptable option. Although the US change in demands made an agreement in principle possible, North Vietnam's lack of counter-coercive effect was therefore crucial as Hanoi only decided to give in once it realised that its counter-coercive strategies had failed.

In 1972 North Vietnam's strategy was to seek a negotiated settlement, but this did not mean that Hanoi had given up on its main strategic objective: reunification of Vietnam under the rule of the Lao Dong party.²⁴³ As Kissinger argues: 'North Vietnam still aimed for the union of Vietnam under its rule, and a piece of paper signed in Paris was not going to alter Hanoi's permanent goals.'²⁴⁴ By the start of 1972, North Vietnam had developed a strategy centred on a large scale offensive to greatly enhance its position at the Paris peace negotiations. The Easter Offensive aimed to destroy a substantial part of ARVN forces, take large parts of South Vietnamese territory and thereby destroy

²⁴² Asselin, *A Bitter Peace*, p. 66.

²⁴³ Douglas Pike, 'North Vietnam in the Year 1972,' *Asian Survey* 13, no. 1 (1973), p. 47; Kissinger, *Years of Upheaval*, p. 11; MACV Headquarters. 'Command History,' p. 2. Lao Dong was at the time the name of the North Vietnamese communist party.

²⁴⁴ Kissinger, *Years of Upheaval*, p. 697. The events after the ceasefire proved Kissinger right. North Vietnam immediately set out to reinforce its forces in the South in preparation of renewed warfare. Kissinger, *Years of Upheaval*, pp. 32, 317, 696. In 1975 a new large-scale offensive was launched that finally led to the conquest of South Vietnam.

the pacification program.²⁴⁵ By defeating the US Vietnamization policy and drastically shifting the balance on the battlefield the North hoped to ‘...win a significant victory obligating the US to end the war in a losing position through a political solution that the US must and can accept, but advantageous to us.’²⁴⁶ The North thus had a clear grand strategy when launching the Easter Offensive as ‘the offensive was an essential component of the endgame negotiations, a huge investment in improving the DRV’s negotiating position.’²⁴⁷ The offensive was intended to alter the situation on the battlefield decisively in Hanoi’s favour so that the US would be forced to abandon its support for Thieu and a settlement on Hanoi’s terms could be obtained.²⁴⁸

Consequently, in 1972 a settlement was a fundamental part of North Vietnam’s strategy. Although it meant a temporary postponement of Vietnamese unification, an agreement did not mean the end of the North’s unification plans. The North had come to the conclusion that the US Vietnamization and pacification policies were too successful to make reunification by protracted guerrilla war possible.²⁴⁹ A conventional invasion would be needed to topple the Thieu regime. During the Easter Offensive the North, however, realized that its conventional forces were very vulnerable to US air power. Hanoi therefore needed all US forces to withdraw before it could achieve its goal of conquest of South Vietnam.²⁵⁰ This made an agreement an important part of North Vietnam’s strategy. A settlement that led to US withdrawal from South Vietnam would open up the possibility of a decisive military victory.²⁵¹ As a result, ‘to Le Duc Tho and his Politburo colleagues the Paris agreement was only a stop along the way to their ultimate goal.’²⁵²

The North envisioned three possible negotiating outcomes of its Easter Offensive, depending on the offensive’s degree of success.²⁵³ Each of these possible outcomes formed a step towards the ultimate goal of reunification. Hanoi’s maximum negotiating goal was an agreement that included US withdrawal from Vietnam and replacement of the Thieu regime with a coalition government. This coalition government was to be made up by supporters of the Thieu regime (but excluding Thieu himself), the communist People’s Revolutionary Government (PRG), and a neutralist component. If this maximum option proved impossible to achieve, Hanoi would settle for the next best outcome. This second option involved a loose coalition government at the national level that included Thieu, combined with recognition of the PRG as the legitimate government of communist held territory at the local level. It would also involve complete US withdrawal.²⁵⁴ If this second option also proved

²⁴⁵ Military History Institute of Vietnam, *Victory in Vietnam*, pp. 283-284; Randolph, *Powerful and Brutal Weapons*, pp. 336-337.

²⁴⁶ Politburo resolution issued shortly before the Easter Offensive, quoted in Randolph, *Powerful and Brutal Weapons*, p. 26.

²⁴⁷ Ibid.

²⁴⁸ An article in *Tien Phong*, the Viet Cong’s official press organ, quoted in Dale Andradé, *Trial by Fire: The 1972 Easter Offensive America’s Last Vietnam Battle* (New York: Hippocrene Books, 1995), p. 535.; *New York Times*, Wednesday, January 24, 1973.

²⁴⁹ Andradé, *America’s Last Vietnam Battle*, p. 10.

²⁵⁰ Porter, *A Peace Denied*, p. 115. Asselin, *A Bitter Peace*, pp. 72, 79; see also Asselin, *A Bitter Peace*, p. 56 who mentions that the possibility of a continued US garrison in South Vietnam was an obstacle during previous peace negotiations.

²⁵¹ Clodfelter provides some insight into the urgency of a decisive military victory for North Vietnam when he writes that ‘Communist leaders hoped for success in less time. All were over sixty and had pursued the goal of unification for most of their lives. The prospect of dying with the dream unfulfilled, as had Ho Chi Minh, loomed before them.’ Clodfelter, *The Limits of Air Power*, p. 168.

²⁵² Isaacs, *Without Honor*, p. 68. On the same page Isaacs provides an example of this way of thinking: ‘In November during the Kissinger-Tho talks, the party’s theoretical journal, *Hoc Tap*, rationalized a settlement that fell short of final victory: “There is a time for us to advance, there is also a time for us to step backward temporarily in order to advance more steadily later. We cannot exterminate imperialism at one time and in a single battle. We drive it back step by step and destroy it part by part.”’ Isaacs, *Without Honor*, p. 68.

²⁵³ Kimball, *Nixon’s Vietnam War*, p. 326; Porter, *A Peace Denied*, pp. 115-116.

²⁵⁴ Kimball, *Nixon’s Vietnam War*, p. 326; Porter, *A Peace Denied*, pp. 115-116.

unattainable, the North's minimum goal was simply legal recognition of the PRG plus US withdrawal. The war with South Vietnam would then continue without the US.²⁵⁵

As becomes evident from comparing the terms of the October agreement with the North's three settlement options, the October agreement met Hanoi's second option. It provided for US withdrawal, recognition of the PRG as the government in control of substantial parts of South Vietnam and a loose kind of coalition government at the national level. The October draft was therefore acceptable to the North as it provided the basis for future conquest of South Vietnam, leaving large numbers of North Vietnamese troops below the demilitarized zone.²⁵⁶ When informed by the US of the October draft agreement, South Vietnamese President Nguyen Thieu strongly objected to its terms. His objections concerned exactly those points that were vital to the North: a coalition government at the national level and legitimate communist possession of substantial parts of South Vietnam including the continued deployment of large numbers of North Vietnamese forces in the South. The changes Thieu proposed were unacceptable to the North. When the US sought to renegotiate the October agreement based on these demands the negotiations inevitably stalled once more.

Over December 1972, an important change in US demands did occur. When Kissinger and Tho met again after LINEBACKER II, the US was willing to forego most of Thieu's principal objections.²⁵⁷ The final settlement was therefore very similar to the October draft.²⁵⁸ Some minor changes were made, most importantly with regard to the position of the National Council of National Reconciliation and Concord, which lost its status of governing body. But even with these changes the agreement strongly resembled the October text and importantly it met the North's minimum goals.²⁵⁹ This meant that an agreement became possible again.²⁶⁰ The US did not force a shift in the North's negotiating position. In fact, the US shifted their own negotiating position, accepting 'the very terms which they had rejected in October, November and December.'²⁶¹ Nixon admitted as much in a letter he wrote to Thieu after LINEBACKER II had ended. Commenting on the crucial issue of North Vietnamese forces holding territory in South Vietnam Nixon concedes:

With respect to the question of North Vietnamese troops, we will again present your views to the Communists as we have done vigorously at every other opportunity in the negotiations. The result is certain to be once more the rejection of our position.²⁶²

What made a settlement possible was therefore a combination of alignment of US demands with North Vietnam's minimum goals and failure of Hanoi's attempts to achieve a better settlement. Failure of its counter-coercive strategies meant that the North lacked the means to improve its negotiating position

²⁵⁵ Kimball, *Nixon's Vietnam War*, p. 326; Porter, *A Peace Denied*, pp. 115-116.

²⁵⁶ Head, *War from above the Clouds*, p. 73. Thompson acknowledges that '... Hanoi could have got these terms in 1970 except that at that time ... its forces were not sufficiently 'in-place' to make acceptance attractive.' Robert Thompson, *Peace Is Not at Hand* (London: Chatto & Windus, 1974), p. 126.

²⁵⁷ Gibson, *The Perfect War: Technowar in Vietnam*, p. 417.

²⁵⁸ Robert K. Brigham, *Guerrilla Diplomacy: The N.L.F.'s Foreign Relations and the Viet Nam War* (London: Cornell University Press, 1999), pp. 111-112; Goodman, *The Lost Peace*, p. 163; Isaacs, *Without Honor*, p. 61; Young, *The Vietnam Wars*, p. 279.

²⁵⁹ The January Agreement was slightly different from the October agreement and fell somewhat in between Hanoi's second and third options. But it still more than met Hanoi's minimum goals.

²⁶⁰ The importance of the US shift in negotiating position is demonstrated by the comments in the communist party newspaper *Nhan Dan* on 7 and 9 January 1973: 'There are no signs showing any intention by the American government to abandon its demands nor any will to sign the [October 1972] accord on the cessation of the war and the establishment of peace in Vietnam.' And on 9 January: 'There is no indication that the negotiations may achieve results.' Knappman and Kosut, eds., *South Vietnam*, p. 227. These comments clearly indicate that before the US shift in demands, North Vietnam did not believe a settlement was possible.

²⁶¹ Porter, *A Peace Denied*, p. 165; see also Smith, *The Linebacker Raids*, p. 174.

²⁶² Nixon in a letter to Thieu, January 3, 1973 in Gareth Porter, ed., *Vietnam: A History in Documents* (New York: Meridian, 1981), p. 424.

by forcing the US to offer better terms. Crucially, between December and January the US lowered its demands so that they fitted Hanoi's ultimate goal of Vietnamese unification. When US demands once more met Hanoi's minimum objectives an agreement became possible again.²⁶³ But as Hanoi's maximum aims went beyond the US concessions laid down in the October draft agreement it only changed course once its counter-coercive strategies failed. Without the possibility of reaching a better settlement, the North Vietnamese acted pragmatically and seized the opportunity to reach an agreement similar to the October draft and thereby take a major step towards their long term goal of conquest of South Vietnam.²⁶⁴

High Costs

It might also be argued that LINEBACKER II was a rare case in which Douhetian terror bombing caused such severe punishment that North Vietnam was forced to give in.²⁶⁵ Indeed, the US deployed a large number of B-52 bombers and these dropped a high bomb load on targets in the vicinity of Hanoi and Haiphong. Per day, the LINEBACKER II air attacks were also more intense than earlier campaigns such as LINEBACKER I and ROLLING THUNDER. Still, this argument is at odds with the evidence and neither costs nor the risk of future costs were decisive in Hanoi's decision to settle. To understand why costs were not decisive, a comparison needs to be made between the damage done during LINEBACKER II and the demonstrated North Vietnamese willingness to sustain costs during previous air campaigns.

One important measure of the level of costs incurred by the air campaign is the number of casualties sustained. The LINEBACKER II bombings resulted in approximately 2,000 North Vietnamese deaths. Although amounting to a considerable number of casualties this number pales in comparison to the casualties North Vietnam sustained before the start of Operation LINEBACKER II. The number of North Vietnamese civilians killed as a result of Operation ROLLING THUNDER is estimated at about 52,000.²⁶⁶ Yet, the North did not seek a peace agreement as a result of ROLLING THUNDER.²⁶⁷ Furthermore, the October 1972 draft agreement only came about after the North lost approximately 132,000 troops as a result of its Easter Offensive.²⁶⁸ The total number of North Vietnamese casualties sustained throughout the war is even much higher. Based on a low estimate approximately 882,000 North and South Vietnamese men, women and children died during the war.²⁶⁹ High estimates put the death toll at as much as 3.1 million.²⁷⁰ Assuming that the majority of these casualties were of South Vietnamese origin perhaps some 25 percent of these were actually North Vietnamese deaths. This still amounts to more than 220,000 dead during the war prior to LINEBACKER II.

²⁶³ An added benefit for North Vietnam was that after LINEBACKER II the chances of the US forcefully upholding the agreement were slim. The media and international outrage over the bombing made it virtually impossible for Nixon to reorder bombing in the case of North Vietnamese non-compliance. In fact Hanoi had timed its agreement just right. It had waited until American will was too eroded to effectively enforce any agreement reached. Thompson, *Peace Is Not at Hand*, p. 126; Smith, *The Linebacker Raids*, p. 164.

²⁶⁴ Macdonald, *Giap*, p. 314; Brigham, *Guerrilla Diplomacy*, p. 111; Lee and Haynsworth, *The Abandonment of South Vietnam*, p. 50.

²⁶⁵ See Douhet, *Command of the Air*.

²⁶⁶ Committee on Foreign Relations. U.S. Congress. Senate. 'Bombing as a Policy Tool in Vietnam: Effectiveness.' (Washington D.C., October 12 1972), p. 14.

²⁶⁷ The Jason report by the special study group examining the effect of ROLLING THUNDER even concluded that "*The Bombing has not discernibly weakened the determination of the North Vietnamese leaders to continue or direct and support the insurgency in the South.*" Quoted in Raphael Littauer and Norman Uphoff, eds., *The Air War in Indochina*, Revised ed., *Cornell University Air War Study Group* (Boston: Beacon Press, 1972), p. 46. Emphasis as in original.

²⁶⁸ CIA. 'Assessment of Vietnam War: February, 1973.' (n.d.).

²⁶⁹ Charles Hirschmann, Samuel Preston and Vu Manh Loi, 'Vietnamese Casualties During the American War: A New Estimate,' *Population and Development Review* 21, no. 4 (1995), p. 806.

²⁷⁰ *Ibid.*, p. 807.

The question is why North Vietnam would give in after suffering 2,000 casualties in December 1972 while it did not give in after suffering 52,000 dead as a result of ROLLING THUNDER and at least 220,000 dead throughout the war. Moreover, Hanoi only agreed to the October draft after suffering 132,000 losses during its Easter Offensive. From the numbers of casualties suffered it is clear that the death toll of its own citizens was never a decisive factor in North Vietnam's decision making. There is no reason to believe why the comparatively light casualties resulting from Operation LINEBACKER II suddenly changed this attitude.

This is not to suggest that the damage done by the bombing did not have any effect on the North Vietnamese political leadership. As the North Vietnamese commander-in-chief General Giap acknowledged, to secure its long term goal of unification of Vietnam, North Vietnam needed a strong industrial base.²⁷¹ North Vietnam's shortage of electrical power and its poor transport infrastructure did, however, form a critical weakness within its economy.²⁷² It was exactly these two targets that were attacked extensively during LINEBACKER II. Before the air campaign, North Vietnam still imported 160,000 tons of goods per month, after LINEBACKER II, these imports had gone down to 30,000 tons per month.²⁷³ Concurrently, bomb damage to power plants reduced the North's electric power generation capability from 115,000 to 29,000 kilowatts, or a quarter of maximum capacity.²⁷⁴ These statistics illustrate the extensive damage the bombing caused to North Vietnam's industry.²⁷⁵

More than this direct physical damage it was the risk of future damage that must have been on the minds of Politburo members. Although not decisive by itself, the heavy bombing during LINEBACKER II seemed to demonstrate that Nixon, with the election won, was willing to escalate the war to cataclysmic proportions.²⁷⁶ In his memoirs Nixon indicated his hopes that after the 1972 election he would have 'an enormous mandate ... for bringing the war to a successful conclusion, and the enemy then either has to settle or face the consequences of what we could do to them.'²⁷⁷ The North Vietnamese had reason to believe that these consequences would be severe. Nixon had already bombed Cambodia in 1969 and supported the South Vietnamese incursions into Cambodia and Laos in 1970 and 1971, indicating his willingness to expand the war. Furthermore, Nixon explicitly tried to create an image of himself as a madman.²⁷⁸ As Nixon's chief of staff Bob Haldeman later recalled:

We were walking along a foggy beach after a long day of speechwriting. He said, "I call it the Madman Theory, Bob. I want the North Vietnamese to believe I've reached a point where I might do *anything* to stop the war. We'll just slip the word to them that, 'for God's sake, you know Nixon is obsessed about Communism. We can't restrain him when he's angry—and he has his hand on the nuclear button'—and Ho Chi Minh himself will be in Paris in two days begging for peace."²⁷⁹

²⁷¹ General Vo Nguyen. Preface by Jean Lacouture and introduction by George Boudarel Giap, *Banner of People's War, the Party's Military Line* (London: Pall Mall Press, 1970), p. 55.

²⁷² Bernard B. Fall, *The Two Viet-Nams: A Political and Military Analysis*, Second revised ed. (New York: Praeger, 1967), p. 174.

²⁷³ James R. McCarthy with George B. Allison, *Linebacker II: A View from the Rock*. (Washington, D.C.: Office of Air Force History, United States Air Force, 1985), p. 171.

²⁷⁴ Head, *War from above the Clouds*, p. 84; Clodfelter, *The Limits of Air Power*, p. 194.

²⁷⁵ North Vietnam did possess many small power generators that could compensate for power lost as a result of the bombing. Porter, *A Peace Denied*, p. 160. Heavy industry however cannot run on small back-up generators and for industry to flourish electric power supplies need to be available.

²⁷⁶ See Schelling, *Arms and Influence*.

²⁷⁷ Nixon, *Memoirs*, p. 701.

²⁷⁸ Kimball, *Nixon's Vietnam War*, pp. 81-82.; Michael Maclear, *The Ten Thousand Day War: Vietnam, 1945-1975* (New York: St. Martin's Press, 1981), pp. 282-284.

²⁷⁹ H. R. Haldeman with Joseph DiMona, *The Ends of Power* (New York: NYT Books, 1978), p. 83.

This “Madman Theory” was incorporated in a top-secret 1969 national security memo.²⁸⁰ In line with this policy, Kissinger, in his negotiations with the North Vietnamese, depicted the US president as unbalanced and unpredictable and willing to do anything to satisfy his ambition.²⁸¹ The evidence suggests that the Democratic Republic of Vietnam (DRV) picked up on these signals. In his dealings with the North Vietnamese Kissinger noted that they were keen to sign an agreement before Nixon’s re-election²⁸² and Nixon himself believed the election deadline to be a reason for the North Vietnamese attempt to settle.²⁸³ The North insisted on a negotiating schedule that would lead to an agreement before the US Presidential Election²⁸⁴ and even ‘regarded the late October date for signing as an integral aspect of the draft agreement.’²⁸⁵

With the elections passed Hanoi stalled and negotiations broke down. Although Nixon’s massive electoral victory made Hanoi anxious because it signalled US staying power,²⁸⁶ the North seemed to have thought that it made sense to wait and see what Nixon would do. The LINEBACKER II bombing strongly reaffirmed to Hanoi Nixon’s willingness to see the war through to a satisfactory end. Furthermore, the bombing had done substantial damage to North Vietnam’s economy, thereby threatening to undo the reconstruction of its heavy industry that had taken place since 1968. Destruction of its industrial power not only undermined Hanoi’s long term goal of conquest of South Vietnam, but even jeopardised North Vietnam’s socialist foundation and thereby threatened the revolution itself.²⁸⁷ After LINEBACKER II, Nixon warned Hanoi that the new round of negotiations would be his final attempt to seek an agreement and that Kissinger would only be in Paris for four days. If no settlement could be reached within that time Hanoi risked a collapse of the talks and resumed bombing.²⁸⁸

The available data imply that North Vietnam believed Nixon’s signals were credible and wanted to avoid the risk of escalation. But North Vietnam did not want to avoid this risk at any price. In December, when Nixon had just obtained his new mandate, the North decided to stall the

²⁸⁰ David K. Scott, 'The "Madman" Rhetoric of Richard Nixon: An Alternative Means to Establish Geopolitical Ethos,' in *Annual Meeting of the Central States Communication Association* (Kansas City, 2005), p. 10. Scott writes: ‘There is clear evidence that Nixon’s musings were codified as national security policy. A 1969 National Security top-secret memorandum entitled, “Another Vietnam option,” contained elements of Nixon’s madman approach. The memo observed that the North Vietnamese “will continue to bide its time until we change the ground rules.” The memo argued that the US should: “Offer Hanoi terms almost as favorable as what they rationally calculate they’ll get by waiting, and convey in the process that we really care so deeply about a humiliation that we would first act irrationally toward the Soviets as well as North Vietnam.”’ Scott also notes that the memo was written by two members of Kissinger’s national security staff.

²⁸¹ Edward J. Lee and H. C. "Toby" Haynsworth, *Nixon, Ford and the Abandonment of South Vietnam* (London: McFarland, 2002), p. 50; Pierre Asselin, *A Bitter Peace: Washington, Hanoi, and the Making of the Paris Agreement* (London: University of North Carolina Press, 2002), pp. 71-72.

²⁸² Kissinger, *White House Years*, p. 1305; Kimball, *Nixon’s Vietnam War*, p. 334.

²⁸³ Nixon, *Memoirs*, p. 689.

²⁸⁴ On 4 October, North Vietnamese negotiators Tho and Thuy had received explicit instruction from the politburo to seek an agreement before the US elections. Asselin, *A Bitter Peace*, p. 79.

²⁸⁵ Porter, *A Peace Denied*, p. 125. Kissinger later explained this North Vietnamese assessment as a rare occasion of a severe Politburo miscalculation. In Kissinger’s words: ‘The decisive factor [in agreeing to US demands] was probably that in assessing the consequences of the 1972 presidential election, the careful calculators in Hanoi had for once made a major miscalculation. Hanoi seemed to believe that Nixon’s all-but-certain overwhelming electoral victory would give him a free hand in the prosecution of the war. The Nixon Administration knew that the new Congress would be no more friendly to Nixon’s Vietnam policy, and probably even more personally hostile to him. One of the literally scores of Congressional resolutions for cutting off funding for the war was likely to pass...’ Kissinger, *Diplomacy*, p. 692; see also Kissinger, *White House Years*, p. 1329.

²⁸⁶ Asselin, *A Bitter Peace*, p. 109 writes: ‘That he [Nixon] overwhelmed the peace candidate, McGovern, in one of the most lopsided victories in American history, unnerved Hanoi. ... This suggested a prolonged status quo, something the DRVN and its forces in the South could not endure.’

²⁸⁷ *Ibid.*, pp. 50, 55, 57, 156.

²⁸⁸ *Ibid.*, p. 151.

negotiations despite the risk perceived. The North seemed to have decided that the risk of escalation was not worth settling for less than the October draft. Furthermore, the North also accepted the risk of high costs as long as it still had a chance of gaining a settlement that improved upon the October draft. Throughout the war North Vietnam had demonstrated a willingness to suffer tremendous punishment and, in the absence of clear evidence to the contrary, there is no reason to believe this position changed in December 1972. It is therefore very likely that Hanoi was willing to run the risk of escalation in order to secure as many of its strategic objectives as possible. The costs and risk of escalation associated with LINEBACKER II therefore cannot have been decisive by themselves and can only be seen as a contributory cause of Hanoi's decision to give in.

Economic Aid

Another explanation for Hanoi's willingness to settle could be the promise of US economic aid. After many years of war and severe US bombing the North Vietnamese economy could use all the economic aid it could get and receiving US aid could have been a strong incentive to settle. There is some evidence that indicates that economic aid was indeed part of the North Vietnamese decision-making calculus but as with the threat of costs, economic aid by itself was not sufficient to change North Vietnam's mind.

On several occasions, the US promised large-scale post-war economic aid to Indochina. In total, a package of \$7.5 billion over a five year period was promised.²⁸⁹ Some \$3 billion of these funds were intended for North Vietnam.²⁹⁰ Kissinger recollects that Hanoi seemed very eager to receive as much as possible of these funds:

By [January 1973] Hanoi's interest in the proposition had quickened. It would not admit that it would end the war for economic reasons. But once it had decided on a cease-fire out of military necessity, it was ready, if not eager, to extract the maximum aid from us. [...] Le Duc Tho simply demanded for Hanoi the entire package of \$7.5 billion that we had earmarked for *all* Indochina.²⁹¹

During earlier meetings North Vietnam had also demanded large sums of financial aid. On 1 August 1972 Hanoi demanded \$8 billion in reparations, of which \$4.5 for North Vietnam itself, while during the 15 September meeting North Vietnam even claimed \$9 billion, split equally between the North and the South.²⁹² Furthermore, post-war American assistance to North Vietnam was a major issue at the signing ceremony on 23 January, taking up three of the four hours that the meeting lasted as Tho insisted on written guarantees of the \$3 billion that the US had promised.²⁹³ There is evidence that indicates that the North Vietnamese saw this economic aid package as war reparations to which they were entitled.²⁹⁴

Although US aid to North Vietnam was discussed as part of the peace negotiations, this carrot did not have a decisive effect on North Vietnamese decision making. The North Vietnamese knew that if they broke the agreement they would not receive any aid at all. Furthermore, Congress had to approve any aid package and North Vietnam could have known that Congress was unlikely to do so.²⁹⁵ Moreover, the North was still receiving considerable economic aid from the Soviet Union and China and had previously shown a great willingness to suffer hardship to further its goal of Vietnamese

²⁸⁹ Kissinger, *Years of Upheaval*, p. 38.

²⁹⁰ Asselin, *A Bitter Peace*, pp. 162-163; Marilyn B. Young, *The Vietnam Wars 1945-1990* (New York: Harper Perennial, 1991), p. 279.

²⁹¹ Kissinger, *Years of Upheaval*, pp. 38-39.

²⁹² Asselin, *A Bitter Peace*, pp. 62, 69.

²⁹³ *Ibid.*, p. 175.

²⁹⁴ Randolph, *Powerful and Brutal Weapons*, p. 335.

²⁹⁵ It is not entirely clear if the North Vietnamese were aware of Congressional authority in this matter and Congress only spoke out against aid to North Vietnam six months after the peace agreement was signed. Kissinger, *Years of Upheaval*, p. 696.

unification. Receiving US economic aid therefore cannot have been decisive and at most constituted a contributory cause.

None of these alternative explanations can account for the outcome of Operation LINEBACKER II. The US change in demands was certainly necessary to achieve an agreement but by itself was not sufficient as Hanoi still had hope of achieving a better settlement. Likewise, avoiding further costs and obtaining economic aid made a settlement more attractive to Hanoi, but without the failure of its counter-coercive strategies, North Vietnam would not have given in because the chance of achieving more of its strategic aims was worth incurring the costs and forgoing the carrot.

Conclusion

Case analysis of Operation LINEBACKER II offers strong support for the strategic interaction hypothesis. The available data demonstrate that denial theory cannot explain the outcome of the campaign. Even though attacks on military targets were followed by a change in North Vietnam's attitude towards a settlement, denial theory's hypothesized causal process cannot be observed. Denial theory predicts that the target state will give in as a result of high military vulnerability caused by one or more of the three coercive mechanisms. During LINEBACKER II none of the coercive mechanisms came about and as a result North Vietnam's military vulnerability remained low. As North Vietnam's possession of the South Vietnamese territory it held at the start of LINEBACKER II was not threatened, coercion through denial was not accomplished and denial theory cannot explain the outcome of this case. Nor can alternative explanations such as the US change in demands, the high costs of the bombing, or the carrot of US economic aid account for the outcome of the case.

Close examination of the available evidence shows that a combination of two factors caused North Vietnam to settle in January 1973. First, due to a US change in demands, the demands made were now in line with North Vietnam's minimum goals of US withdrawal and maintaining a foothold in South Vietnam. Second, as a result of the failure of its counter-coercive strategies North Vietnam no longer had a chance of obtaining a better settlement. Until 29 December North Vietnam had held out because it believed it was able to force the US to agree to more favourable terms. When Hanoi understood that it was no longer able to inflict losses upon US air forces and that its last counter-coercive strategy had thereby failed, it decided to act pragmatically and accept the terms offered. LINEBACKER II therefore demonstrates the crucial importance of strategic interaction as it was the combination of a US change in demands and failure of its counter-coercive strategies that persuaded the North to give in.

Although the inferences that can be drawn from a single case are necessarily limited, these findings carry additional weight because LINEBACKER II can be seen as a crucial case for denial theory. In the case of Operation LINEBACKER II the values of the independent variables are congruent with denial theory's predictions of successful compellence: only limited demands are made, military targets are attacked, simultaneous ground combat takes place, and the air campaign is conducted in a high operational tempo. In the light of these values on the independent variables, denial theory predicts compellence to be successful. Since close scrutiny of the causal processes in Operation LINEBACKER II reveals that military denial is not successful, the results of this case study test provide strong evidence for the added explanatory value of the interaction hypothesis.

These findings have important policy implications. In future conflicts Western states will most likely face much weaker opponents that cannot expect to win militarily. These weaker opponents will therefore turn to counter-coercion to force Western powers to withdraw or offer better terms. They will do so by exploiting the particular weaknesses of liberal democracies at war: casualty sensitivity, concern for civilian suffering, the desire to maintain coalition consensus and wide international support. What the strategic interaction hypothesis indicates is that Western states are more vulnerable than their military preponderance would suggest. Denial theory's emphasis on undermining the target state's military strategy could therefore give decision makers a false sense of confidence in a successful outcome.

In the end it is the opponent's grand strategy for victory that must be undermined, and this includes undermining the target's counter-coercive strategy. For, if a target state can gain enough counter-coercive leverage over the compeller, it can force the compeller to stop its coercive action.

The compeller therefore needs to minimize the counter-coercive effect that the target state can generate. This means that the compeller actively needs to prevent its alliance or coalition from falling apart, it needs to isolate the target diplomatically, and it needs to prevent the target from causing military casualties or exploiting civilian suffering to its advantage. Sound force protection and strict rules of engagement are therefore as important as the damage done to the target's military forces.

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