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EXERCISE NEW HORIZON

AIR POWER EMPLOYMENT AS A COERCIVE INSTRUMENT:

THE REQUIREMENT FOR A NEW DOCTRINAL APPROACH

By Major O.N. McDermid

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AIR POWER EMPLOYMENT AS A COERCIVE INSTRUMENT:
THE REQUIREMENT FOR A NEW DOCTRINAL APPROACH

EXERCISE NEW HORIZON ABSTRACT

BY

MAJOR O.N. MCDERMID

Air power has come to be the weapon of choice for political leaders in the application of military force as a coercive instrument. Until now U.S. military leaders have used strategic doctrine to guide them in the application of this force. Difficulties (indeed confusion) in the application of air power during Operation Allied Force has highlighted the deficiencies with the current doctrine in terms of force application as a coercive instrument during limited conflict. This paper examines the two most prevalent theories for air power application (John Warden's and Robert Pape's theories on air power employment) as well as coercive theory in general. The application of these theories during Operation Allied Force is examined, and the limitations of these theories are discussed. In particular it is argued that they are both too rigid in their approach and pre-suppose the strategic and operational centers of gravity. A more flexible doctrinal approach is suggested that is based on Rand analyst Daniel Byman and associate's work.

Air Power Employment as a Coercive Instrument:
The Requirement for a New Doctrinal Approach

The use of air power during Operation Allied Force has focussed attention on the use of air power as a coercive instrument. It is perhaps the first example of air power alone being responsible for the successful imposition of one nation's or coalition's will on an opponent.¹ Operation Allied Force demonstrated the potential of air power to effectively coerce opponents while minimizing risk of difficult and lengthy foreign entanglements to the coercer, collateral damage, and combatant and non-combatant casualties. For these reasons air power will increasingly become the weapon of choice for nations seeking to exert power in pursuit of political and humanitarian goals.

Notwithstanding the success of Operation Allied Force in forcing Serbia to withdraw from Kosovo, there are some very serious questions to consider in the aftermath of this operation. For the purposes of this paper the question of whether the strategy employed was effective and efficient needs to be considered since western coalitions, most probably under the leadership of the U.S.A., will employ air power again in similar circumstances. Therefore, the proper employment of air power as an effective coercive instrument needs to be understood by political and military leaders.

Operation Allied Force represents the most current and comprehensive case study with respect to air power employment in coercive operations. All the elements of the current doctrine and strategies for air power employment in coercive operations were evident in the execution of

¹ Group Captain Gray notes that military historian John Keegan has conceded that air power, alone, imposed NATO's will upon Milosevic. There are still doubters that air power can have this effect, however the USAF is making great efforts to field a force that can effectively target fielded forces in all terrain and in all weather. They recognize that successes such as Allied Force will breed increasing demands for the sole application of air power in conflicts short of full scale war. Peter W. Gray, "Air Operations for Strategic Effect – theory and practice in Kosovo." The Royal Air Force Air Power Review, Vol. 3 No. 1 (Spring 2000) pp.17

this operation. It serves as an excellent basis for consideration of the current state of readiness to properly employ air power in coercive operations.

The current debate over air power employment is not new; it is simply a continuation of the century long debate over the most effective use of air power in pursuit of national goals. Essentially the debate centers around whether air power employed against strategic targets can persuade an opponent to capitulate or whether air power needs to be focussed on denial of the enemy's military strategy to be effective.

The current most prominent voices in this debate are Colonel (Ret'd.) John Warden, author of "The Air Campaign" and Robert Pape author of "Bombing to Win: Air Power and Coercion in War". Warden's theories form the basis for USAF strategic doctrine and formed the foundation for Lieutenant-General Short's preferred plan to execute the air portion of Operation Allied Force. Pape's theory fits in well with the U.S. Army's AirLand Battle doctrine that basically incorporates USAF air power into the overall Army operations in a joint campaign. General Clarke as SACEUR during the Kosovo operation insisted on an air employment strategy that emphasized such an approach to air power employment. Operation Allied Force offers enough evidence to support both these theories and therefore, provides an ideal case study with which to examine the issue of coercive air power doctrine and strategy. The critical similarity to the two approaches is that there is an assumption that the preferred approach will work in all scenarios without careful consideration of the circumstances of each situation.

Notwithstanding increases in air power capabilities, air power will not be able to successfully resolve all situations that will concern nations and their leaders. There are limitations. As well, air power must be efficiently used in order to minimize the length of the conflict, thereby saving lives and maintaining the credibility of air power as an effective

instrument of military power. Given the likelihood of more coercive air operations such as Allied Force, there can not be a continuing disruptive debate over the use of air power for coercive operations in limited conflict scenarios as was witnessed during this operation. There must be a clear understanding of not only how to employ air power as a coercive instrument, but also when to employ this instrument.

Current air power theories do not address today's political realities, especially those of casualty and collateral damage aversion, as well as the increased capabilities that technology is providing. Warden's and Pape's theories while being the most accepted approaches to air power employment are too dogmatic while focussing on a single approach to attaining operational level objectives. There is a requirement for a doctrine on the use of air power as a coercive instrument, during limited conflict, that is more pragmatic and flexible than current approaches to air power employment.

An examination of this issue of the future doctrinal requirements for air power employment must begin with an appreciation of why air power is the instrument of choice. Numerous commentators have chronicled the end of the cold war and the consequences for peace and stability that the end of this confrontation has produced. It is sufficient to say that, the revolutionary move from a Bi-Polar to Uni-Polar world has resulted in increased nationalist movements leading to civil wars and conflicts between emerging states wishing to solidify their status. Commentators such as Huntington have painted an increasingly unstable and troubled picture of the future. In particular, the proliferation of Weapons of Mass Destruction (WMD) and ballistic missile technology will increase the requirement for, and danger of, forceful intervention to ensure peace and stability throughout the world.

As well, the west in general, and the US in particular, freed from the threat of confrontation with the Soviet Union, have been increasingly drawn into military intervention to deal with breaches of international peace under pressure from their own citizens or the world community. They have been willing to undertake these interventions for humanitarian reasons as well as traditional national interests. While the Persian Gulf intervention in support of Kuwait involved very definitive strategic interests for most of the participants, there were less obvious strategic interests involved in the intervention in Bosnia and Kosovo for NATO in general, and the U.S.A. in particular. In support of these interventions there is an evolving body of thought that justifies the intervention inside sovereign states for humanitarian purposes as being legitimate.² In short, the recent increase in international intervention by western nations for obvious national strategic interests as well as humanitarian reasons will likely continue.

Assuming that Western nations will intervene militarily to foster peace and security the question is: what can they do and how will they do it? Given air power's increasing capabilities and the desire to intervene with minimal cost in lives, if not material to the intervening powers, air power will increasingly become the weapon of choice for western nations. They will attempt to employ this air power to effectively coerce opponents while minimizing collateral damage and casualties on both sides.

Air power's dramatic increase in precision capability over the past decade has matched perfectly with the changing strategic environment. While the west is increasingly drawn in to conflicts that are not in their critical strategic interests, air power offers the possibility to

² See the exchange of letters between Ignatieff and Skidelsky over the legal and humanitarian basis for the intervention in Kosovo. It sums up the opposing arguments quite well. Ignatieff, Michael, "Virtual War". Penguin Books, Harmondsworth England, (2000) p. 71-87. See also Robert Tomes, "Operation Allied Force and the legal basis for humanitarian interventions", Parameters, Carlisle Barracks, (Spring 2000) for natural law argument supporting intervention in Kosovo.

intervene with minimal footprint in the region while presenting the possibility of coercing opponents to change their behavior. It is able to do this with the prospects for minimal collateral damage to the opponent and casualties to both sides through increasing precision and force protection measures such as stealth.³ This factor is critically important for the continued employment of air power in coercive operations as the more removed the issue is from the coercer's critical interests, the less tolerance there is for own force casualties.⁴

At the same time there is misconception that the U.S. public is intolerant of casualties to American forces. However, recent studies show that the U.S. public will tolerate own force casualties when: the issue is clear and in the national interest, the conflict is winnable, and the intervention enjoys the support of national political leadership and media. Long interminable wars or conflicts with indifferent political support that show little sign of ending successfully will not be supported. The U.S. public wants to win big and in minimal time.⁵ Paradoxically the use of air power, as a substitute for other forms of force, in the wrong conflicts or with the wrong strategy, may lengthen the conflict and reduce public tolerance for the intervention even though casualties may be very low.

While nations must be concerned with national public support they must also be concerned with the impact that these operations will have with respect to their international position.

³ In the HRW report on the NATO bombing of Serbia they only cite 9 instances of what they refer to as questionably legal (in their opinion illegal) targets. They consider the 500 civilian deaths excessive even with 26000 bombs dropped. What is remarkable about his report is the precision of the NATO bombing not its indiscrimination. <http://www.hrw.org/reports/2000/nato/Natbm.htm#P39> 994 "Human Rights Watch Report on bombing during Allied Force"

⁴ Eric Victor Larson, "Casualties and Consensus: The Historical Role of Casualties in Domestic Support for U.S. Military Operations." Rand, Santa Monica, Ca., (1996) p. 101

⁵ Larson, p. 99-103

Intervention when there are no issues of national survival, or even paramount humanitarian issues, require minimal collateral damage and non-combatant casualties to retain as much legitimacy as possible in the eyes of the rest of the world. The report on Operation Allied Force prepared by Human Rights Watch focussed on Serb and Kosovar non-combatant casualties, even while acknowledging the human rights atrocities committed by the Serbs.⁶ In essence, the policeman is required to operate at a much higher standard than does the criminal, and in a transparent manner in order to retain moral legitimacy. The coercive means employed must be in keeping with the spirit of the intervention.

Coercive military power must be carefully employed in selective operations. Factors such as the length of time required to gain results, the impact to civilian population, and the desired end-state are some of the factors that must be well considered in planning any operation. However, the most important factor is the adversary and understanding how he will respond to the coercion.⁷ Before any coercive operation is considered coercers must understand these dynamics otherwise the coercion will be ineffective and future threats of force will not be credible. Air power theories and doctrine that do not properly account for these factors, as well as the other factors previously discussed, may be adequate for warfighting strategies but not necessarily for coercive operations when trying to avoid extensive combat operations.

Air Power will be used as a coercive instrument. If Canada participates in such operations, undoubtedly it will be as part of a U.S. led coalition. The U.S. will seek partners in any operation both to lend legitimacy to the operation and to provide bases and other diplomatic and material support. Therefore, if air power is to be used properly as a coercive instrument,

⁶ HRW Report NATO 2000, summary – principal findings

⁷ Byman gives specific examples of miscalculation of coercers of their adversary's resolve or intent including western under-estimations of Hussein's resolve. Daniel L. Byman, et. al., "Air Power As A Coercive Instrument". Prepared for the U.S. Air Force by RAND Project Air, Washington, (1999) p. 48-51

U.S. employment strategies will form the basis for air operations. Current U.S strategies do not properly address coercive employment issues. Specifically, reliance on Warden’s leadership and Pape’s denial based strategies hinder U.S efforts to deal with coercive operations due to a lack flexibility and presupposition of the operational center of gravity. These strategies also have serious problems with respect to collateral damage and non-combatant casualties. Deficiencies with these issues can threaten the legitimacy of the operation and the survival of any coercive coalition. An understanding of the arguments for both Warden’s and Pape’s approaches is required to appreciate the weaknesses of current strategies and also allow for a consideration of the requirement for an improved strategy and doctrine for the employment of air power in coercive operations.

Unfortunately, study of coercive theory and the use of air power in coercive operations is lacking in the professional military education of senior air force leaders. As an example, this subject is not covered during senior level courses at the Canadian Forces Command and Staff College. Coercion theory is not discussed formally and exercises are joint in nature and do not address air power employment in coercive operations. Similarly, while there are officers studying this issue in the U.S., most education effort is on warfighting strategies and USAF doctrine continues to exhibit a very strong strategic emphasis that follows Warden’s theory very closely.⁸ Lack of a clear appreciation or coherent approach to air power employment exhibited during Operation Allied Force demonstrates the need for more professional attention to coercive operations.

⁸ USAF Basic Doctrine uses terms such as :“parallel attack”, and “organizational paralysis” throughout the document as well in the strategic portion of the doctrine it talks about attacking the enemy’s will to continue resistance by “attacking his entire war effort” including demoralizing the leadership. All these concepts are at the heart of Warden’s thesis. USAF Basic Doctrine <http://www.doctrine.af.mil/Library/Doctrine/afdd1.pdf>

Any discussion of the use of air power as a coercive instrument must start with an understanding of the definition of coercion. Robert Pape in his work, “Bombing to Win: Air Power and Coercion in War”, defines coercion as:

“coercion involves persuading an opponent to stop an ongoing action or to start a new course of action by changing its’ calculations of costs and benefits. Accordingly, coercion occurs whenever a state must choose between making concessions or suffering the consequences of continuing with its present course of action.”⁹

Daniel Byman in his work: “Air Power as a Coercive Instrument”, offers a more simplified definition of coercion as:

“ Coercion is the use of threatened force, including the use of actual force to back up the threat, to induce an adversary to behave differently than it otherwise would”.¹⁰

There are two factors important to any discussion about how we employ air power as a coercive instrument that are imbedded in both these definitions. These two factors are: that the threat must be credible, in that the coercer is prepared to actually expend force to induce concessions on the opponent; the other is that this applied force must be effective. The applied force must be capable of inducing a sufficient cost on the adversary such that continued resistance will outweigh any possible benefits of continuing resistance.

While these two deductions may seem elemental, they strike at the heart of the debate on the use of military force in general, and air power in particular, as a coercive instrument by western nations. The will to use sufficient force must be present before threats are made and there must be a capability and strategy to effectively wield this force against the opponent.

⁹ Robert Pape, “Bombing to Win: Air Power and Coercion in War.” Cornell University Press, Ithica N.Y., (1996) p. 12

¹⁰ Byman et. al., p. 10

Both of these factors are prominent in any discussion of coercion, in general, and Operation Allied Force, in particular. The lack of a threat to use ground forces has been recognized as a severe impediment to providing a credible threat to deployed troops in Kosovo. Similarly, if air power is to be used to coerce an opponent, without resort to ground troops, then credibility must be maintained by not ruling out any possibility for its' employment as a coercive instrument. Using Operation Allied Force as a case in point, no one really knows why Milosevic pulled his forces out of the Kosovo. Neither Clarke's or Short's approaches to the operation can be assessed as ineffective.

The reluctance by political leaders to commit to ground forces and the improvements in air powers' capabilities have increased the pressure on Air Force leaders to field a credible and effective coercive instrument. In support of this requirement, current air power theories as articulated by John Warden and Robert Pape are too dogmatic in their application of air power as a coercive instrument. The world is a complicated place and single strategy approaches to very different circumstances do not lead to effective employment of air power. A more flexible approach is required.

Operation Allied Force provides an example for these two approaches for the employment of air power in a coercive operation. Lt. Gen. Michael Short attempted to employ a strategy based on isolating the leadership from the population and mechanisms of power as advocated by Colonel (Ret'd.) John Warden. Conversely, General Clarke insisted on a strategy of attacking fielded forces. This strategy reflected traditional army preference for attacking the enemy's troops and deployed military forces and is part of the U.S. Army AirLand Battle

doctrine.¹¹ Robert Pape's theory that only strategies focussing on denying the opponent his military strategy by targeting fielded forces and their supporting forces and structures matches well with this Army doctrine on the employment of air power. As this approach is contrary to both Warden's views and current USAF strategic doctrine, it helped set the stage for the confused application of air power during this operation.

Both theories, while suited to large-scale conflict such as the Gulf War where variations of each approach were employed, are not the sole answer to the effective employment of air power in coercive operations. Both pre-suppose the operational center of gravity; while Warden's assumes that the opposition's leadership is the operational center of gravity, Pape's believes only operations focussed on fielded forces associated with the opponent's military strategy will result in operational success. Since both approaches pre-suppose the operational center of gravity, they are incapable of fully considering the realities of each specific situation. The withdrawal of Serb forces from Kosovo cannot be exclusively ascribed to either air power employment approach. Until it can be definitively explained why Milosevic pulled his forces out of Kosovo a case can be made supporting either theory as the approach that forced the Serb withdrawal. However, even while the disciples of both approaches to air power employment can use Operation Allied Force to support their position, this operation highlights apparent limitations in these two approaches with respect to coercive operations during limited conflict.

The decision by NATO to rule out the possibility of using ground forces to help force Serbia to accept the conditions of the Rambouillet Accord presented both an opportunity and challenge to the military leaders responsible for employing force. Lieutenant-General Mike

¹¹ Pape notes that the US Army AirLand doctrine "assigns air power a supporting role during intense ground engagements but does not explore how air power can exploit the vulnerabilities of enemy ground forces not in contact with friendly units." Pape, p. 331

Short (USAF) as the Combined Force Air Component Commander (CFACC) was a disciple of Warden whether he would publicly say so or not. Not surprisingly, his approach to the military issue of the application of air power during Operation Allied Force, followed very closely USAF doctrine which emphasizes strategic attacks on the opponents leadership and a separation of the opposition leadership from their forces and the public. This doctrine had worked during the Gulf War and would be applied in Serbia. As well, Short had an airman's appreciation that stopping Serbs troops from conducting ethnic cleansing operations within Serbia with air power alone was an extremely difficult task. He was convinced that pressure on the leadership was the proper way to achieve compliance with NATO aims.¹² The problem was that his targeting beliefs were not shared by his military superior and they failed to recognize, or address the real political differences between this conflict and the one in the Gulf ten years previously.

As discussed previously, coercive operations in limited conflicts must be effective but they also must address the issue of moral as well as legal legitimacy. The policeman will be held to a higher standard than the criminal. From the beginning of Operation Allied Force NATO was faced with the issue of legitimacy. This was an operation to enforce international will on a nation dealing with an issue, territory and people that lay within their own national borders. Attacks on leadership targets in the face of a lack of definitive and prompt results are difficult if not impossible to sustain in today's media glare, especially when there are debatable moral and legal issues surrounding the intervention. This was certainly the case with Kosovo. One only needs to recall the daily media questions posed to NATO representatives and the rising tension

¹² Short is quoted as saying that he was tasked by General Clarke to attack Serb forces in Kosovo. At the same time he also said that he hoped that punishing the Serb people by cutting off their power and electricity would cause them to question their political leadership. To quote Short: , "At the same time that I am executing Saceur's No. 1 priority -- killing the army in Kosovo -- I also need to strike at the leadership and the people around Milosevic to compel them to change their behavior in Kosovo and accept the terms NATO has on the table." See ;Michael R. Gordon, "Allied Air Chief Stresses Hitting Belgrade Sites", New York Times, New York, (May 13, 1999) for a discussion of the issue of targeting leadership vs troops in the field.

between the media and the NATO responders as the lack of apparent results stretched what was originally planned to be a three day operation to a 78 day one. Warden's approach even while it may have eventually succeeded was unsustainable, as the sole form of air power application, in the face of this pressure. Extensive bombing of downtown Belgrade or of Serb infrastructure over an extended period was not acceptable. This kind of restriction imposed severe limitations on the application of Warden's theory.

Notwithstanding these limitations in the application of the doctrine, there is the issue of effectiveness. There is no evidence that Short's attacks on the leadership were effective. While the initial attacks punished the military and the leadership within Serbia, Serb troops increased the pace of ethnic cleansing within Kosovo. Also, to be truly effective there must be an acceptance among the participants of the targeting philosophy. This was not the case during this operation. There were disagreements about dual use targets such as radio stations and target lists were vetted and approved at the participant's strategic military and political level.¹³ A watered down approach to targeting is ineffective and ultimately not credible. Another approach to coercion was required in the face of these operational and political challenges.

General Clarke's approach to targeting during Allied Force was not surprising given his Army background. He directed strikes against fielded forces in Kosovo. It is debatable whether this approach to the air operation was a political response based on the desire and requirement to minimize collateral damage in Serbia, or whether it was judged by Clarke that a direct attack on Serb army and police forces in Kosovo would produce better results. A direct attack on fielded forces matches Pape's theory on the proper use of Air Power as a coercive instrument and

¹³ One example of this problem was the targeting restrictions regularly imposed by France. See Greg Seigle, "USA claims France hindered raids." *Jane's Defence Weekly*, Horley, (Oct 27 1999)

matches U.S. Army doctrine for the most effective employment of air power. However, this approach suffers the same problem as General Short's preferred course of action. Both approaches assume the adversary's center of gravity will be vulnerable to the preferred targeting strategy. In the case of Operation Allied Force, there is a continuing debate over the effectiveness of air power as it was employed against fielded forces in Kosovo.¹⁴ It has been argued that the critical moment of the conflict was the targeting of Serb troops by B-52s as they came out of hiding to engage KLA forces in Kosovo but to reiterate a previous point, no one really knows why Milosevic capitulated.¹⁵

Clarke's targeting approach suffered from its' own set of political difficulties. Attacks on Serb vehicle columns ultimately resulted in casualties to Kosovar civilians interspersed within these columns or in refugee convoys misidentified as military formations. However, these incidents, though relatively few, were unacceptable and led to calls by some to minimize the collateral damage and potentially increase targeting effectiveness, by lowering fighter operational flight levels. This would have posed an unnecessarily increased risk to aircraft and their crews and the loss of pilots was considered politically unacceptable for a potentially negligible increase in effectiveness.¹⁶ Clarke and Short were committed to targeting strategies that pitted U.S. national concerns against coalition and other international concerns and interests. These strategies while being perhaps sound warfighting strategies also suffered from a lack of

¹⁴ Stephen Aubin in an article in *Air Force Magazine* in July 2000 refutes claims by Newsweek that only 13 Serb tanks were destroyed in Kosovo. The debate will continue over air power effectiveness in Kosovo, but this article is a good starting point for anyone investigating this issue. Stephen Aubin, "Newsweek and the 14 Tanks", *Air Force Magazine*, Washington, (July 2000) p. 59-61

¹⁵ Stephen Blank of the Strategic Studies Institute is quoted in an article written by Paul Mann, "Kosovo's Lessons Called Ambiguous." *Aviation Week & Space Technology*, New York, (June 28, 1999) Vol. 150, Issue 26, pp. 32, making this point.

¹⁶ See Paul Robinson's article on the war. He presents the argument that the NATO policy of high level attacks were ineffective, inaccurate, lacking discrimination and were therefore immoral. On Nato's behalf it can be said that Mr. Robinson understates or does not appreciate the capabilities of modern sensor systems. Flying lower would not have increased effectiveness but only led to the unnecessary loss of aircraft. Paul Robinson,, "Ready to Kill but not to die". *International Journal*, (Autumn 1999) pp. 671-682

commitment to employ the proper amount of air and ground forces in a conflict with restrictive political boundaries to force application. Given the likelihood of similar interventions in the future there should be a doctrine developed that accounts for these conditions to force application.

The political realities of modern limited interventions and the requirement to intervene as members of a coalition mitigates against the adoption of an all or nothing targeting strategy. Political leaders demand a more flexible yet effective response that minimizes collateral damage and non-combatant and friendly combatant casualties. The apparent incompatibility of Pape's and Warden's theories with risk based escalatory strategies mitigates against their unmodified adoption as effective and acceptable coercion strategies for limited coercive operations when an escalatory strategy is selected as the preferred approach.¹⁷ Pape accepts this premise as he recognizes that military force does not always provide cheap solutions to complex political problems. Military force should be used sparingly and only when one is fully prepared to exercise the amount of force required while achieving militarily attainable goals.¹⁸ This debate over an escalatory strategy or an all or nothing approach is a central point of contention with respect to the application of military power in coercive operations. Other academics argue that escalatory strategies can work.

The political reality is that western nations are more likely to employ force in coercive operations than during our more recent past. As air power is the preferred method of employing this force for reasons previously mentioned, what employment strategies are available to govern

¹⁷ Pape in his book provides an extensive analysis of escalation strategies. Essentially he believes that they are just poor forms of punishment or denial strategies and therefore are ineffective. Pape p. 28 Interestingly Short would agree as noted in his interview with Michael Gordon "Allied Air Chief Stresses Hitting Belgrade Sites." New York Times, New York, (May 13, 1999) pp. 1

¹⁸ Pape p. 330

the effective utilization of air power? Daniel Byman and associates at the Rand Institute have done some recent work to address this question. The most important aspect of their studies is the acknowledgement that there is no one solution to all coercive situations. The solution can not be based on a single approach; the adversary and the specific conditions germane to the issue at hand need to be considered.¹⁹ This is in contrast to Pape's and Warden's approaches that have a single targeting strategy for all situations in which air power could be applied.

This Rand study identified three factors as key to the successful employment of air power as a coercive instrument: "escalation dominance, threatening to defeat adversary's military strategy and magnifying third party threats".²⁰

Escalation dominance refers to the "ability to escalate credibly against the adversary – that is, to threaten imposition of a greater and greater price of defiance...".²¹ Byman and associates recognize that "escalation dominance is a product of three elements: "the capacity and will for higher levels of coercive force, the ability to prevent an adversary from escalating, and the ability to neutralize an adversary's counter-coercive measures".²² The impact of various adversarial strategies are recognized such as: simply "waiting out the coercion until the coercer is tired of the effort or is forced by mounting public opinion to abandon the operation, as well as simply inflicting an unacceptable level of casualties on the coercer."²³ The strength of this work is to recognize the subtleties of the problem with employing coercive force. Byman's work recognizes the political need for escalatory strategies and identifies the essential elements with this approach. In this respect he is in conflict with Pape and Warden.

¹⁹ Byman et al., p.17-18

²⁰ Byman et al., p. 29

²¹ Byman et. al., p. 30

²² Byman et al., P. 36

²³ Byman et al., p. 34-36

Threatening to defeat an adversary's strategy is focussed on a denial strategy as proposed by Pape.²⁴ While there is a subtle but important difference between denial strategies in coercive operations and denial strategies for warfighting operations, for coercion to be effective the coercer must be prepared to escalate from a coercive strategy to a warfighting one if required. Byman, by accepting Pape's analysis of denial strategy,²⁵ presupposes the center of gravity as do Pape and Warden. The complexity of the coercive problem and the capabilities of modern weapons, as well as the intricacies of modern states requires an open mind when considering strategies. While there is no evidence that Warden's approach will work, there is also no evidence or definitive reason that it would not be effective under the right conditions. Byman recognizes the importance of considering the psychology and governing mechanisms within the coerced state when devising strategy. Therefore, Warden's theory may have application both as a method to pressure the leadership directly as well as supporting denial strategies by separating the leadership from the deployed forces. Undoubtedly, dictatorships rely on direct control of military forces even more so than democracies. Breaking the link between the leadership and the deployed forces' higher headquarters will hinder effective resistance of these forces to the coercive strategies being employed.

In considering the third factor, namely "the magnification of third party threats", Byman considers both external and internal threats to the adversary. While there are obvious successful examples of support to external threats there is an acknowledged lack of similarly clear examples of successful support to internal threats.²⁶ This is particularly true with respect to the

²⁴ Byman et al., p. 37

²⁵ Byman et. al., p. 37

²⁶ External threats that have successfully aided coercive operations include the Bosnian Serbs and the threat posed by NATO air operations support for the Bosnian Muslim forces. Examples of magnification of internal threats include the Israeli operations against the Palestinians in Jordan, and the threat to internal security to the Jordanians that this conflict posed. The result was the Palestinian expulsion from Jordan. Byman et. al. p. 39-43

magnification of third party threats inside totalitarian regimes. Since there are no obvious successful examples for this situation occurring within totalitarian states it is curious that Byman feels the need to consider the possibility. Byman does not seem to be ready to dismiss the possibility that attacks on leadership, as advocated by Warden, may be an effective strategy.

With respect to Operation Allied Force, all elements of Byman's work on coercion may be represented. NATO did demonstrate escalation dominance. After a short period of limited bombing NATO escalated force and denied the Serbs the ability to inflict casualties on NATO forces. Two planes and no pilots were lost. Pape would argue that the military strategy of the Serbs was denied; NATO demonstrated the resolve to continue operations against Serb military and police forces, and supporting infrastructure, as long as was required. The Serbs would not be allowed to remain in Kosovo without continued costs. Lastly, there is an argument that the presence of NATO air forces over Kosovo prevented the Serbs from massing to deal effectively with KLA forces.²⁷ NATO, in effect, had magnified the third party threat posed by the KLA. In terms of an internal threat, it has been argued that attacks on Milosevic's economic base and that of his internal allies threatened the ending of their support for his leadership when there were leadership alternatives available within Serbia.²⁸ All the strategies can be supported as effective but there is no definitive answer as to which one triggered the capitulation (if any).

The problem with this shot gun approach to coercive strategies is that coercive operations may be commenced without a sense of what is required to be effective or even if air power can be effective. The lack of a consistent approach to operational strategy during Allied Force exemplifies the problem. What was the Serb center of gravity? There is no definitive answer to this question. The lack of an identified center of gravity will result in a diluted approach to the

²⁷ Michael Hanlon quoted by Paul Mann, "Kosovo's Lessons Called Ambiguous." Aviation Week & Space

application of force. Any application of force to the center of gravity will only result through a shotgun approach that applies force across the spectrum of potential centers of gravity hoping that the correct one is targeted. The resultant casualties and collateral damage through inefficient application of force will reduce world and home support, threaten the perceived legitimacy of the intervention during operations with contested legal basis, and reduce the credibility of future coercive threats. While the USA may be inclined to use coercive force more readily than its allies, the issue of moral and legal legitimacy and what constitutes acceptable application of force is critical due to the coalition nature of these operations. Notwithstanding the requirement for favourable world opinion and the resultant moral and legal legitimacy for the intervention, there is also a practical matter of the requirement for access to overseas bases and airspace to support these operations. With respect to Operation Allied Force, Italian support for both the intervention itself and the manner with which it was conducted was critical. A coherent and effective operational approach that minimizes casualties and collateral damage is critical to maintaining coalition support, especially when critical allies (i.e. host nations) do not share the same aggressive operational philosophies as coalition leaders. The targeting disagreements among NATO allies during Allied Force simply reinforce this point. A coherent and effective approach is required.²⁹

The disagreements within NATO and the NATO military command structure about how best to coerce Serbia into accepting NATO demands provides ample proof that western nations and coalitions do not yet understand how to employ force in coercive operations. Byman and his associates' work provides a starting point for a better understanding among military and political

²⁸ Gray, p. 29

²⁹ Stephen Aubin outlines the escalatory nature of the operation and the political factors involved. He argues against what he calls gradualism and presents a very U.S. centric view of the need for an aggressive targeting approach to

leaders about how to apply force in an effective and credible manner. More importantly it may allow for a better understanding about when and when not to employ force in a coercive operation. His emphasis on better intelligence and a proper center of gravity analysis seems obvious for those officers educated in the operational planning process.³⁰ Dogmatic focus on a single approach to air power employment, as exhibited by Clarke and Short, as well as the political imperative to use air power alone, without the option for other force options, precluded proper strategic and operational analysis and planning. A more mature approach that properly assesses the applicability of air power to the strategic problem, as well as the consideration of all force employment options, is required to effectively administer coercive force, thereby retaining force credibility.

The past successes of air power, and in particular the promise of force application with minimal human cost and collateral damage to the adversary, has caused politicians to look to air power to give the impression of action when such action may not generate the desired results. At the same time, the rapid advances in air power's precision targeting capabilities has outstripped the understanding of military leadership to properly apply this power and to advise the political leadership. There is no USAF doctrine that addresses coercion operations. USAF doctrine remains very strategically oriented. Similarly, schools such as the CF Command and Staff College do not address coercion theory and do not exercise coercive operations within their courses. Given the prospects of increased propensity for the use of air power in coercive operations, this is a critical deficiency that needs addressing.

military interventions. Stephen P. Aubin, "Operation Allied Force: War or "Coercive Diplomacy"?" Strategic Review, (Summer 1999) pp. 4-12

³⁰ Byman, p. 47

While there is a requirement to continue to educate officers on how to prepare for, and conduct full scale warfighting, there is also the requirement to prepare ourselves to serve our countries during limited coercive operations. Study of coercive th

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