





AIRLAND BATTLE: NEVER FLY SOLO AGAIN

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EXERCISE SOLO FLIGHT – EXERCICE SOLO FLIGHT

AIRLAND BATTLE: NEVER FLY SOLO AGAIN

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INTRODUCTION

In the later years of the Cold War tensions between the communist Warsaw Pact and democratic North Atlantic Treaty Organization (NATO) were on the verge of boiling over. The United States knew that NATO was being outpaced by the Warsaw Pact's growing military might in Europe. Amplifying the problem was the inability to divert additional resources towards the region as it would have adverse impact on economic interests, which had been declared unacceptable by the Harmel Report. The report that had identified economic success as an absolute imperative for a successful conclusion to the Cold War¹ and that some other solution would have to be found to offset the Warsaw Pact's military threat. Initially NATO looked to a strategic solution in nuclear weapons and the concept of Mutually Assured Destruction (MAD); however, the thought of erasing mankind with the click of a button eroded NATO support for the MAD strategy, forcing the strategists back to the drawing board. Fortunately, there was a new hope emerging within the US Army, the Air Land Battle doctrine. The doctrine, developed with the US Air Force, introduced a shift from attrition theory to manoeuvre theory. It also introduced the concept of the operational level, a concept that an intermediate layer of military planning would guide tactical actions towards the accomplishment of strategic aims and by extension, secure democracy in the event of a crisis². Fortunately, tensions did not boil over between NATO and the Warsaw pact and the Cold War ended with the doctrine untested by a major conflict. That did not remain the case for long as the Iraqi invasion of Kuwait, led by the oppressive Saddam Hussein would provide the venue for the Air Land Battle to be tested. This

¹ Centre for Strategic and International Studies, "Technology-Strategy Seminar: NATO's AirLand Battle Strategy and Future Extended Deterrence." Last visited: 10 May 2015, https://www.youtube.com/watch?v=rSukv1CcORk

² Jeffrey W. Long, *The Evolution of U.S. Army Doctrine: From Active Defense to Airland Battle and Beyond* (Leavenworth, KS: US Army Command and Staff College, 7 June 1991), 104.

essay will demonstrate that despite never being adopted by the US Air Force, the coalition success during the Gulf War demonstrated the importance of the key tenets of the Air Land Battle: Initiative, Depth, Agility and Synchronization. Moreover, these tenets influenced the development of Full Spectrum Operations and the Air Sea Battle.

As a methodology for the analysis, this essay will use the strategic goals established by the President of the United States, George Bush, which were developed based on the authority of United Nation Security Council (UNSC) resolutions. The strategic goals were provided to General Norman Schwarzkopf, the Commander In Chief of Central Command (CINCCENT) to develop his operational plan and objectives for the coalition under his command. The essay will review the application of the doctrine of the day, the Air Land Battle, in guiding tactical activities towards the accomplishment of the strategic goals. The analysis will be covered in three sections, followed by a conclusion. The first section is informative and will cover three important elements: the operational level, the development of the Air Land Battle doctrine and the goals of the Gulf War, both strategic and operational. The second section will examine the Gulf War by considering the four tenets of the Air Land Battle: Initiative, Depth, Agility and Synchronization. The third section will review the US Army's Full Spectrum Operations, US Air Force doctrine and the US Navy's Air Sea Battle Order (ASBO). This section will draw out the influence on doctrine that remains from the tenets of Air Land Battle well after it has been superseded. Finally, the essay will provide a conclusion that summarizes the results of the Air Land Battle tenets guiding tactical activities to the accomplishment of strategic goals in the Gulf War and the influence that exists in current doctrine.

SECTION 1 – OPERATIONAL LEVEL, AIRLAND BATTLE AND THE GULF WAR

This section will serve an informative function to provide the necessary background for the case study and continued analysis in subsequent sections. This section will define the operational level, the development of the Air Land Battle doctrine and list the strategic and operational level goals of the coalition in the Gulf War.

The role of the operational level exists to link the political and strategic level with operational goals that are able to guide actions at the tactical level. The operational art is defined by Canadian doctrine as "The skill of employing military forces to attain strategic objectives in a theatre of war or theatre of operations through the design, organization and conduct of campaigns and major operations."³ The operational level establishes a campaign plan that guides tactical actions towards the accomplishment of the strategic aims.⁴ In the US, the operational function is fulfilled by the Combatant Commands (COCOMs) that derive their authority from the Goldwater Nichols Act in 1986.⁵ In the case of the Gulf War, Central Command (CENTCOM) was the operational level command for coalition forces in the Kuwaiti Theatre of Operations (KTO) and was commanded by General Norman Schwarzkopf. His role as Commander In Chief Central Command (CICCENT) was to take the political direction and translate it to the operational level objectives that tactical actions could achieve. CENTCOM was responsible to apply US Air Land Battle doctrine to generate the operational plan that would guide the coalition to achieving political aims.

³ Joint Doctrine Manual B-GJ-005-500/FP-00 – The Canadian Forces Operational Planning Process. Last visited: 9 December 2014. http://publications.gc.ca/collections/collection_2010/forces/D2-252-500-2008-eng.pdf

⁴ Craig Dalton, LCol L., Canadian Army. Systemic Operational Design: Epistemological Bump or the Way Ahead for Operational Design? A Monograph. Fort Leavenworth, Kansas: School of Advanced Military Studies, United States Army Command and General Staff College, AY 05-06.

⁵ National Security Agency. "Goldwater-Nichols Department of Defense Reorganization Act of 1986" Last modified unknown.

In 1967 NATO published the Harmel report, which identified economic prosperity as a strategic imperative for a successful conclusion to the Cold War.⁶ For NATO the reality was setting in that military expenditures could not be made to the detriment of economic interests. This was problematic in Europe as NATO was already facing numerical inferiority to the Warsaw Pact in the event of a large scale conflict broke out in Europe. Active Defence doctrine, the doctrine of the day rooted in attrition theory, required the US meet certain force ratios to ensure success in a large scale conflict. These ratios would no longer be achievable as the Harmel report curtailed military expenditures whilst the Warsaw Pact continued to expand its arsenal.

At the strategic level, this made NATO increasingly dependent on the concept of Mutually Assured Destruction (MAD) and nuclear weapons to compliment the operational doctrine of Active Defense to deter Warsaw Pact aggression in Europe; however, internal pressures in NATO were making MAD less and less palatable as a solution for Europe⁷.

The importance of West Germany to NATO is obvious, but if there was a wedge that could push West Germany towards the Warsaw Pact, it was the concern over the use of nuclear weapons on their soil. The pressure mounting for NATO, and by extension the US, to reduce the strategic dependence on MAD and continue to address the Warsaw Pact's numerical advantage that did not include nuclear weapons.

The solution came in the form a new operational doctrine, the Air Land Battle concept. The doctrine was developed by the US Army in close consultation with the US Air Force. The most notable difference from its predecessor was the shift away from attrition theory found in

⁶ North Atlantic Treaty Organization. "Harmel Report" Last visited 10 May 2014. http://www.nato.int/cps/en/natohq/topics_67927.htm

⁷ Dennis G. Scarborough, "Dettering the Dragon: Air-Sea Battle and the US-Japan Alliance" (Norfolk, VA: National Defense University Joint Warfighting School), 11.

Active Defense doctrine to manoeuvre theory that would allow NATO forces to offset their numerical disadvantage with the application of four key tenets: Initiative, Depth, Agility and Synchronization⁸. These tenets were not designed to replace the principles of war, but rather build on top of them.

The Air Land Battle doctrine was designed to deal with the Soviets and the Warsaw Pact in a large scale conflict in Europe by shifting from theory of attrition to the theory of manoeuvre; fortunately, the doctrine also considered scenarios which included potential conflict in either Korea or the Middle East. The doctrine would be tested for the first time on a large scale against Iraq in the Kuwait Theatre of Operations (KTO) in what became known as the Gulf War.

Following the Iraqi invasion into Kuwait on 2 August 1990, the United Nations Security Council (UNSC) responded with a series of resolutions that established the international authority for a military coalition to achieve the political aims deemed necessary⁹. With the authority derived from the UNSC, President of the United States, George Bush, elaborated on international guidance when he signed United States Security Directive 45. This directive identified that US national interests were threatened by the Iraqi invasion into Kuwait. The directive established the requisite guidance that would shape the operational level plan that would be delegated to CICCENT. The guidance included four critical aims: the complete, immediate and unconditional withdrawal of Iraqi Forces from Kuwait; the restoration of Kuwait's legitimate government to replace the puppet regime installed by Iraq; and a commitment to the security and stability of the Persian Gulf; and the protection of lives of

⁸ Global Security. "FM 7-20 Infantry Battalion, Operations." Last visited: 10 May 14. http://www.delahunty.com/infantry/airland.htm

⁹ United Nations Security Council Resolutions. "Resolution 660: The Situation Between Iraq and Kuwait," Last modified unknown http://www.un.org/docs/scres/1990/scres90.htm

American citizens abroad.¹⁰ This was amplified by Security Directive 54, which expanded theses aims: defend Saudi Arabia and other gulf states of the GCC against attack; preclude Iraqi launch of ballistic missiles against neighboring states and friendly forces; destroy Iraq's chemical, biological, and nuclear capabilities; destroy Iraq's command, control, and communications capabilities; eliminate the Republican Guards as an effective fighting force; and conduct operations designed to drive Iraq's forces from Kuwait, break the will of Iraqi forces, discourage Iraqi use of chemical, biological or nuclear weapons, encourage defection of Iraqi forces, and weaken Iraqi popular support for the current government.¹¹

With the political and strategic aims outlined by the president for General Schwarzkopf, CICCENT, the planning process was underway and used to established the following military operational objectives that would lead to the accomplishment of the political strategic objectives: disrupt Iraqi leadership and command and control; achieve air supremacy; cut adversary supply lines; destroy NBC capability; destroy the Republican Guard; and liberate Kuwait city¹².

The plan would unfold with two major operation, the first being the buildup of forces in Saudi Arabia and other preparations known as Operation DESERT SHIELD and the second the offensive operation known as DESERT STORM. The latter included a four phased plan that would achieve the military operational objectives. Phases 1-3 were focused on the use of Air Power: the strategic air campaign, the establishment of air supremacy in Kuwait and final battlefield preparations setting the conditions for Phase 4; the ground attack.

¹⁰ National Security Directive 45. U.S. Policy in Response to the Iraqi Invasion of Kuwait. (Washington, D.C.: The White House, 20 August 1990), 5.

¹¹ National Security Directive 54. Responding to Iraqi Aggression in the Gulf. (Washington, D.C.: The White House, 15 January 1991), 3.

¹² Federation of American Scientists. "Operation Desert Storm: Evaluation of the Air Campaign, Operation Desert Storm Objectives." Letter Report, 06/12/97, GAO/NSIAD-97-134. http://fas.org/man/gao/nsiad97134/app_05.htm

The operational level is designed to translate political strategic goals into military operational objectives that will guide tactical level execution. The Air Land Battle was specifically designed to reduce the US reliance on nuclear weapons and at the same time be capable of defeating an adversary without the traditionally requisite force ratios for offensive and defensive operations. This doctrine would be tested as the coalition forces prepared for offensive operations against Iraqi forces in the Gulf War without a force ration of three to one. Having clarified the function of the operational level, the context of the Air Land Battle Doctrine and the political strategic and military operational goals, the analysis will shift to the case study to examine the effectiveness of the Air Land Battle tenets as they were applied to the Gulf War.

SECTION 2 – TENETS OF AIRLAND BATTLE IN THE GULF WAR

In this section, the GULF WAR will be analysed as a case study in the application of the tenets of the Air Land Battle including Initiative, Depth, Agility and Synchronization. The analysis will consider how the tenets enabled success at the operational level by guiding tactical activities towards the military objectives that would eventually lead to reaching the strategic aims of the deployment.

The Gulf War provides an excellent example of Initiative being applied at the operational level to guide tactical actions in a manner that achieves strategic objectives. Air Land Battle Doctrine defines initiative as:

the ability to set or change the terms of battle through action. It requires commanders to maintain an offensive spirit. It means that, when an opportunity presents itself, the commanders may depart from planned actions to hasten mission accomplishment. To do this without jeopardizing the higher plan requires that the commander understand and work within the intent of the commander two levels up. This implies a degree of independence and risk. Commanders translate their initiative into action by issuing mission-type orders. These orders in turn give subordinate commanders the flexibility, within the scope of their commander's intent, to improvise and act aggressively to accomplish assigned missions and defeat the enemy. In addition to understanding the scope of their commander's intent, each leader must understand his unit's part in the commander's concept (as the main or a supporting effort), so that he may confidently and boldly exploit success.¹³

An excellent example of the use of initiative was demonstrated during the ground offensive by the US Marines. The Marines applied the concept of initiative down to the tactical level, which translated into tremendous success in the initial advance. The success was partially enabled by limited resistance, but the important aspect is that opportunity was exploited to maintain pressure on the adversary, but to the extent that the higher commander's scheme of manoeuvre was intact. Once the rate of advance was going to compromise the "left hook" CICCENT intended on conducting with US and UK mechanized forces on Kuwait city, the Marines halted allowing the timelines for the "left hook" to be advanced and completed in accordance with the scheme of manoeuvre¹⁴.

There is also an argument to be made that initiative was not effectively applied at the end of the ground offensive. In the later stages, the Iraqi forces were withdrawing from Kuwait by any means available, including the use of civilian vehicles. As photos and videos of what became known as the "highway of death" started appearing in the media pressure began to mount on CICCENT to halt offensive operations and declare military objectives had been met, despite the Republican Guard not having been eradicated¹⁵.

It is important to note that initiative does not preclude subordinates communicating with superiors. In the case of the "highway of death" it became apparent that the second order effect

¹³ Global Security. "FM 7-20 Infantry Battalion, Operations." Last visited: 10 May 14. http://www.delahunty.com/infantry/airland.htm

¹⁴ Major Graig A. Tucker, "Band of Brothers: The 2D Marine Division and The Tiger Brigade in the Persian Gulf War" (Leavenworth, KS: US Army Command and Staff College, 17 December 1994), 85.

¹⁵ H. Norman Schwarzkopf and Peter Petre. *The Autobiography: It Doesn't Take a Hero* (New York, NY: Bantam Books, 1992), 78.

of destroying the Republican Guard could be perceived by Americans at home as a savage act against an enemy that had been rendered defenceless. At this time, the competing strategic imperative of the support of the American citizens outweighed the value of the complete eradication of the Republican Guard and the decision was made to halt hostilities.¹⁶

The example of the Marines draws a concrete link between the tactical level actions, in this case the advance, expediting an operational goal, liberate Kuwait City, which played an important role in completing the political objective to re-establish the legitimate government of Kuwait. While there is a danger that initiative can be stifled, there is still a need for superior and subordinate commander's to communicate and analyse, which may lead to changes in objectives or plans.

The Gulf War provides an excellent example of Depth being applied at the operational level, particularly the deep operations conducted with air power in the initial phases of Operation DESERT STORM. Air Land Battle doctrine defines depth as being:

measured in time, distance, and resources... depth is achieved by positioning forces to deny the enemy the ability to maintain mass, momentum, and mutual support. The battlefield is no longer a one-dimensional or two-dimensional entity. The commander must understand how he and the enemy fit into the higher commander's deep, close, and rear battles. When possible, reserves are employed.¹⁷

The employment of air power by the coalition forces on deep operations was the most powerful and focused use of air power conducted up to that point. The attacks were focused on hitting power stations, radars, airfields and chemical weapons facilities to gain control of the

¹⁶ Schwarzkopf and Petre, *The Autobiography: It Doesn't Take a Hero...*, 85.

¹⁷ Global Security. "FM 7-20 Infantry Battalion, Operations." Last visited: 10 May 14. http://www.delahunty.com/infantry/airland.htm

skies and deny Iraq the ability to coordinate their forces¹⁸. The objectives of disrupting command and control and establishing air supremacy were rapidly achieved and the degradation of Iraqi land forces exceeded projections.

The initial phases were planned to last between 15 and 22 days, depending on the success achieved; however, these phases lasted upwards of five weeks. The target list continued to grow, despite the high levels of success being achieved¹⁹. Eventually, a bunker in Iraq was bombed as a suspected command and control target that was in reality a shelter housing hundreds of civilians in the suburbs of Baghdad²⁰. This unfortunate incident prompted CICCENT to curtail all bombings near cities. The coalition had over-exploited air power and could no longer apply it within Iraqi cities that could be used for command and control, sustainment and other activities in support of Iraqi war efforts. The coalition appeared to have become too reliant on air power and as a result, the threat of air power against Iraqi cities was lost.

It is possible that the ground attack was delayed longer than necessary and that the coalition could no longer apply the threat of air power within urban areas in Iraq; however, the necessary conditions had been set for the remaining military objectives be achieved by the ground offensive. This was clearly evident given the tremendously low number of coalition casualties and the tremendously high number of Iraqi forces who surrendered immediately²¹.

The application of depth, particularly deep operations conducted with air power, was instrumental in achieving operational goals of air supremacy, disrupting leadership, cutting off

¹⁸ Diane T. Putney, *Airpower Advantage: Planning the Gulf War Air Campaign 1989-1991.* (Washington, D.C.: United States Air Force, 2004), 303.

¹⁹*Ibid.*, 260.

 ²⁰ BBC News. "1991: US bombers strike civilians in Baghdad" Last Visited 10 May, 2015.
http://news.bbc.co.uk/onthisday/hi/dates/stories/february/13/newsid_2541000/2541107.stm

²¹ Barry McCaffry, "Lessons of Desert Strom," Joint Force Quarterly. No. 34, Spring 2003.

supply lines and destroying Iraq's chemical weapons threat. The accomplishment of these aims is directly attributed to the speed and low level of casualties encountered on route to accomplishing the strategic objectives of removing Iraqi military forces from Kuwait.

The excellent use of agility at the operational level was demonstrated by the coalition during Gulf war. The ability of the coalition to react to actions taken by Iraqi forces pays testimony to the ability to guide tactical actions towards achieving strategic objectives. Agility is defined in Air Land Battle Doctrine as:

the ability to think and act faster than the enemy. It involves mental, command and control, and organizational abilities to adjust rapidly and to use the situation, terrain, and weather to defeat the enemy. The plan must be simple, yet flexible enough that the commander can react when an opportunity presents itself.

(1) Mobility, flexibility of task organization, timely intelligence, and rapid decision-making enable the commander to cause the enemy to react, which sets the terms of the battle. At the battalion level, these terms are often simplified by positioning the command group well forward so they can see the battlefield, recognize opportunities, and rapidly seize the initiative. The commander and his subordinates rely on (Intelligence Preparation of the Battlefield) IPB²², a sound R& S plan, and accurate reports to quickly understand enemy intentions.

(2) Reaction time is reduced by rehearsing SOPs and drills, by choosing sound initial positions for dismounted units that simplify their ability to maneuver. Assets from CS and CSS are positioned to sustain the main effort and to provide flexibility to the plan. Complexity reduces agility.²³

The coalition demonstrated excellent agility pursuant to the Iraqi Scud attacks against

Israel intended to fracture the cohesion of the coalition. Iraqi President Saddam Hussein

attempted to provoke an Israeli response and create friction between Arab coalition members and

Israel. The coalition adjusted rapidly by deeming mobile Scud launchers a higher targeting

²² Inteligence Preperations of the Battlefield (IPB) is the process used to conduct analysis of adversary and environmental factors that will influence planning.

²³ Global Security. "FM 7-20 Infantry Battalion, Operations." Last visited: 10 May 14. http://www.delahunty.com/infantry/airland.htm

priority, assigned Special Forces to identify their firing locations, and diverted 40% of air sorties to their destruction²⁴. While the success of the Scud hunting is debateable, the desired effect was achieved and Israel was convinced there was not a requirement to join the fight against Iraq, despite having a retaliatory policy against attacks. Unfortunately the focus on Scud mobile launchers detracted the focus from military objectives and extended the battle.

There are other examples where the agility of the coalition could be questioned. In early February, Iraqi forces caught the coalition off guard and were able to move mechanized forces into Khafji, Saudi Arabia. The Iraqi forces had managed to move divisions of armoured forces into Saudi Arabia unopposed. The Iraqi intent was to trigger the ground offensive earlier in an effort to halt the air campaign that was devastating Iraqi infrastructure and front line forces in Kuwait²⁵. The action caught the coalition off guard and they were unable to react and prevent Iraq from seizing Khafji.

While the action and subsequent inability to react or prevent the Iraqi seizure of Khafji certainly identified a weakness amongst the coalition, it was rapidly reversed. The subsequent operation demonstrated operational agility by diverting air assets to soften Iraqi forces in the region and after six days the territory was retaken by US Marines along with Egyptian and Syrian forces.

The coalition demonstrated the requisite agility demanded by the Air Land Battle doctrine. This was not only demonstrated by altering the air campaign to react to the Iraqi threat against Israel and the coalition cohesion, but was also clearly evident in the rapid coordination

²⁴ Putney, Airpower Advantage: Planning the Gulf War Air Campaign 1989-1991..., 350.

²⁵ Scott B. Lasenksy, "Friendly Restraint: U.S.-Israel Relations During the Gulf War Crisis of 1990-199" *Middle East Review of International Affairs*. 1 June, 1999. http://www.cfr.org/middle-east-and-north-africa/friendly-restraint-us-israel-relations-during-gulf-war-crisis-1990-199/p4870

and execution to remove Iraqi forces from Khafji. The rate at which the CENTCOM was able to deploy capabilities into Saudi Arabia was instrumental in allowing the operations and tactical actions of DESERT STORM to work towards strategic objectives. Furthermore, by successfully preventing Israel from joining the war with a series of tactical actions, the strategic concern surrounding the cohesion of the coalition was alleviated.

The early stages of Operation DESERT SHIELD provide an excellent testimonial of the

excellent application of Synchronization during the Gulf War. The successful synchronization of

force deployment demonstrates the accomplishment of operational objectives leading towards

strategic aims. Air Land Battle doctrine defines Synchronization as being:

the arrangement of battlefield activities in time, space, and purpose to produce the greatest possible relative combat power at the decisive point. Synchronization is both a process and a result.

(1) Synchronization extends from planning the maneuver to integrating CS and CSS assets to ensure mission accomplishment.

(2) Leaders at all levels must understand friendly and enemy capabilities. They must know how to relate these capabilities to time and space to produce synchronized plans that satisfy the commander's intent.

(3) Synchronization begins in the mind of the commander with his concept of operations. The concept must clearly focus the main effort at a decisive point and must clearly designate the effects (tasks and purposes) of the subordinates. Understanding and using a common doctrine and military language enhances synchronization.

(4) The commander creates synchronization by developing, issuing, and rehearsing clear, succinct orders supplemented by well-established SOPs. Using SOPs enables the commander to rapidly employ assets and to seize tactical opportunities without lengthy explanations and orders.²⁶

The synchronization of coalition efforts to deploy forces to Saudi Arabia during

Operation DESERT SHIELD was tremendously impressive. Within days, US Navy battleships

²⁶ Global Security. "FM 7-20 Infantry Battalion, Operations." Last visited: 10 May 14. http://www.delahunty.com/infantry/airland.htm

and aircraft carriers had arrived in the Persian Gulf and Air Force units prepositioned in Germany were moved to Saudi Arabia. This allowed air power to be projected from multiple platforms to deter further aggression by Iraqi forces into Saudi Arabia and provided local air superiority securing the conditions required to receive follow on forces as quickly as they could join the coalition and deploy to the KTO. In the end, over half a million troops were deployed to the KTO²⁷. The operational objective was to deter further Iraqi aggression and while deterrence alone did not result in a withdrawal from Kuwait; the synchronized deployment of forces made the accomplishment of subsequent coalition objectives much easier to accomplish.

While the synchronization of forces was done tremendously well during Operation DESERT SHIELD, forces were not well synchronized following the conclusion of the ground offensive, during the period commonly referred to as conflict termination. Although CICCENT's military objectives had all been effectively accomplished, the NSD 45 objective to the legitimate Kuwaiti Government had not yet progressed beyond the liberation of Kuwait City. The problem was not missed in the planning process, as a sequel campaign plan was created for conflict termination by CENTCOM; however, CENTCOM failed to synchronize the mobilization the necessary assets, such as Civil Affairs Battalions, fast enough to keep up with the overwhelming success during the ground offensive²⁸. The result in Kuwait was infrastructure decimated by the bombing campaign and in Iraq an overwhelming number of refugees attempting to flee the country.

Acknowledging that the transition after the ground offensive towards conflict termination left room for improvement, the root cause of the problem was the overwhelming success of the

²⁷ Department of Defense, *Conduct of the Persian Gulf War* (Washington, D.C.: GPO, 1992), 38.

²⁸ William Flavin. "Planning for Conflict Termination and Post-Conflict Success." Parameters 33, no. 3 (Autumn 2003): 106.

ground offensive. The coalition had applied synchronization to ensure friendly weaknesses were shielded from enemy strengths and that the enemy's weaknesses were exploited by friendly strengths²⁹. In the case of the enemy's strength, it was the threat of employing chemical weapons against the coalition during the ground offensive. The air campaign shielded ground forces by destroying chemical weapon capabilities and degrading the enemy physically as well as his will to fight. When the ground offensive did begin, fighting was conducted at night to take advantage of the coalition's night vision capabilities against Iraqi conscripts that did not have the same training or equipment.

The Gulf War had many examples of excellent synchronization and the rapid deployment of forces during Operation DESERT SHIELD was one of the most impressive. The transition to conflict termination faced challenges in synchronizing efforts towards returning the legitimate government of Kuwait, the reality is that the challenges stemmed from excellent synchronization applied during the ground offensive and the resulting overwhelming rate of success.

The Gulf War provides an excellent case study exhibiting the merits of the Air Land Battle doctrine key tenets of Initiative, Depth, Agility and Synchronization. Initiative not only allows for more rapid accomplishment of operational objective amidst the fog of military operations, it still requires subordinates to update commander's and potentially deviate from intended concept of operations, as was the case with the "highway of death" at the end of the ground offensive. Depth and the importance of deep operations played huge role in the success of the coalition, but also provides an excellent reminder of the importance of judicious use of violence and the role of media within a conflict. The agility demonstrated by the coalition was

²⁹ H. Norman Schwarzkopf (speech, "Operation Desert Storm," Joint Session of Congress, Washington, D.C. May 8, 1991).

excellent and along with the deep operations conducted with air power and Special Forces is excellent proof that the required force ratios identified in doctrine rooted in attrition theory are no longer automatically required. Finally, synchronization was instrumental in the early stages, allowing US forces to taper Iraqi aggression whilst political leaders were able to establish a coalition. It is, however, worth remembering that the importance of foresight and synchronization beyond operational objectives all the way to achieving political aims is imperative to avoid the issues seen in the Gulf War after the ground offensive was completed.

SECTION 3 – AIRLAND BATTLE TENETS AND OTHER DOCTRINE

The Air Land Battle Doctrine was replaced by the current doctrine of Full Spectrum Operations that was adopted in 1993. The US Air Force never adopted the Air Land Battle doctrine; however, did work diligently to develop the Air Sea Battle Order (ASBO) adopted by the US Navy. The ASBO is currently under review to potentially incorporate the Army³⁰. This section will review the relevance of the key tenets in current doctrine and their potential for the future doctrine.

The tenets of the Air Land Battle remain verbatim in US Army Full Spectrum Operations (FSO) doctrine, which replaced Air Land Battle in 1993. The key difference is the adoption of Versatility as a fifth tenet. The tenet of versatility does not undermine the original tenets, but it does bring an important concept to the doctrine that is highly applicable to current conflict and the disparate nature of contemporary threats. FSO defines versatility as:

³⁰ United States. Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges, Master Implementation Plan, May 2013. Last Visited 10 may 2015. http://www.defense.gov/pubs/ASB-ConceptImplementation-Summary-May-2013.pdf

Competence in a variety of missions and skills allows Army forces to quickly transition from one type of operation to another with minimal changes to the deployed force structure. Versatility depends on adaptive leaders, competent and dedicated soldiers, and well-equipped units. Effective training, high standards, and detailed planning also contribute. Time and resources limit the number of tasks any unit can perform well. Within these constraints, commanders maximize versatility by developing the multiple capabilities of units and soldiers. Versatility contributes to the agility of Army units.

Versatility is a characteristic of multifunctional units. Commanders can take advantage of this by knowing each unit's capabilities and carefully tailoring forces for each mission. Military police, for example, can provide a mobile, lethal show of force, restore civil order, process detainees, and support peacekeeping operations. Engineer units can rebuild infrastructure, construct ports and base camps, and maintain lines of communications (LOCs). At higher echelons, versatility implies the ability to assume more complex responsibilities. For example, a corps headquarters can serve as an ARFOR headquarters or, with augmentation, a joint task force headquarters.³¹

FSO doctrine embraces the tenets that were demonstrated to be effective in the Gulf War

and with the addition of versatility has broadened the concept to cope with the contemporary operating environment that has been focused on counter-insurgency over the past decade in Afghanistan and Iraq. With the benefit of hindsight, there are elements of the Gulf War that would have been applied. For instance, at the end of the ground offensive had the forces in place been indoctrinated into the concept of multiple capabilities of units and soldiers, the transition from the liberation of Kuwait City to restoring the legitimate government could have been better facilitated.

The US Air Force did not adopt the Air Land Battle doctrine, with a variety of potential explanations that do not undermine the value of its key tenets. It is possible that institutional frictions and the limited nature of the doctrine, which restricts the US Air Force from its broader role beyond joint operations with the Army. While the reason is not clear why the US Air Force

³¹ Global Security. Fundamentals of Full Spectrum Operations – Chapter 4. Last Visited 10 May, 2015. http://www.globalsecurity.org/military/library/policy/army/fm/3-0/ch4.htm

did not adopt the doctrine, it is clear they were involved in the collaborative development with the Army and subsequently with the Navy and the Air Sea Battle.

The Air Sea Battle Order (ASBO) is doctrine developed by a cooperative effort between US Navy and US Air Force adopted in 2010. The doctrine is designed to address emerging antiaccess and area denial (A2AD) capabilities emerging that would hinder the US methods of projecting military power³². The ASBO is not available in its complete form given the security classification of the document; however, the unclassified overview does indicate that parallels exist to the original tenets of the Air Land Battle doctrine.

The premise leading to the creation of the Air Sea Battle doctrine parallels the development of the Air Land Battle, the US Navy is facing reduction in expenditures while the emerging threats to Naval power projection is increasing, not unlike the scenario facing NATO when the US developed the Air Land battle doctrine. The ASBO acknowledges it will need to rely on support from the US Air Force to maintain its current ability to project power; however, the US Air Force is not increasing in size requiring a level of even tighter operational coordination between these two services in order to react to challenges as they appear. This level of coordination relates to the tenet of agility through its insistence that an operational commander, regardless of his environmental uniform, be capable of planning joint effects. The ASBO goes on to outline the importance of coordinating follow-on operations which roughly describes the tenet of synchronization. At the same time, the ASBO espouses the need to disrupt an adversary across all domains of conflict, while defending its own strategic lines of communication. This description is very close to what the Air Land Battle describes as depth.

³² Centre for Strategic and Budgetary Assessments. "AirSea Battle: A Point-of-Departure Operational Concept." Last Updated 10 May 2010. http://csbaonline.org/publications/2010/05/airsea-battle-concept/

Finally, the ASBO describes the critical importance of gaining the initiative through offensive action, which is closely aligned with the remaining Air Land Battle tenet of initiative³³. Essentially, the core elements of the Air Land Battle tenets can all be found within the ASBO.

Earlier this year, the US Department of Defence Joint Doctrine announced in a memorandum to all COCOMs that the title of Air Sea Battle will be replaced in favour of the new title Joint Concept for Access and Maneuver in the Global Commons (JAM-GC)³⁴. The change is currently little more that titular; however, along with change in name the Director of Joint Staff identified that the JAM-GC will endeavour to expand the concept to include a land component, effectively expanding the doctrine rooted in the tenets of Air Land Battle into a more comprehensive doctrine to guide joint operations.

The tenets of the Air Land Battle have clearly shaped the development of current doctrine. In the case of Full Spectrum Operations, the original tenets remain verbatim and the expanded tenet of versatility not only an improvement to deal with a broader scope of conflict, but also lends well to incorporating other departments of the government on Non-Governmental Organizations. The tenets are not reflected verbatim in the ASBO; however, closer inspection clearly shows the tenets have been embraced and incorporated. In the case of the US Air Force, the doctrine does not neatly incorporate the tenets, but is clear that the tenets are embraced to some extent as the US Air Force had input in both the Army and Navy doctrine that exhibits the tenets.

³³ United States. Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges, Master Implementation Plan, May 2013. Last Visited 10 may 2015. http://www.defense.gov/pubs/ASB-ConceptImplementation-Summary-May-2013.pdf

³⁴ USNI News. "Document: Air Sea Battle Name Change Memo" Dated 20 January, 2015. http://news.usni.org/2015/01/20/document-air-sea-battle-name-change-memo

CONCLUSION

The essay began with the first section defining the role of the operational level, then outlining the development of the Air Land Battle doctrine and closed with an overview of the military and political objectives in the Gulf War. The second section of the essay went on to conduct a case study analysis of the application of the Air Land Battle key tenets of Initiative, Depth, Agility and Synchronization as they applied to the Gulf War. Finally, the essay's third section reviewed FSO, US Air Force doctrine and ASBO to identify the influence of the tenets have had on current doctrine.

This essay has found that operational level plays a key role in guiding tactical level activities in a manner that leads to achieving strategic aims. The application of the Air Land Battle, rooted in manoeuvre theory, played a key role in enabling the operational level headquarters activities, CENTCOM, as it guided the coalition to accomplishment of the strategic aims during the Gulf War. Further, this essay has found that the success was greatly aided by the tenets of the Air Land Battle: Initiative, Agility, Depth and Synchronization. Initiative ensured operational objectives were achieved swiftly despite the uncertainty inherent in conflict, but still conformed to the higher commander's intent, as was seen at the end of the ground offensive with the "highway of death". The importance of deep operations was instrumental in the success of the coalition, which is a critical component of depth. Agility was aptly demonstrated by the coalition through the coordination of air power and Special Forces to hunt scuds at the tactical level, which in turn solidified the cohesion of the coalition at the strategic level. The fourth tenet of synchronization during Operation DESERT SHIELD was a tremendous example of rapid force projection and set the conditions for coalition success in the early stages of the conflict.

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Finally, this essay has found that the tenets of Air Land Battle were proven so effective that they continue to be incorporated in contemporary doctrine such as FSO and the ABSO.

Overall, the findings of this essay have shown that the coalition led by CENTCOM in the Gulf War employed the tenets of the Air Land Battle to guide the coalition successfully reach the strategic aims as they were assigned. Moreover, these tenets can still be found in the US Army's FSO and the ABSO. The Air Land Battle doctrine was designed to thwart a potential aggression by the Warsaw Pact against NATO in Europe, but was never called upon to execute. The gauntlet was not laid until Saddam Hussein's Iraqi Regime invaded Kuwait in 1991. The challenge was daunting, but the Air Land Battle answered the call and along with CENTCOM, responded with ardour.

BIBLIOGRAPHY

- "A Conversation with General Schwarzkopf: An Interview by Barbara Walters." YouTube video, 29:47, posted by "cvsrrailfan." December 28, 2012, interview conducted March 1991. https://www.youtube.com/watch?v=A6AN7KTLKNM.
- Adler, Bill. Generals: New American Heroes. New York, NY: Avon Books, 1991.
- Anderson, Jack and Dale Van Atta. *Stormin' Norman: American Hero*. New York, NY: Kensington Pub Corp, 1991.
- Andres, Major Mark C. Adapting the Doctrinal Discourse on Campaign Planning to the Reality of Current Conflicts. Fort Leavenworth, Kansas: School of Advanced Military Studies, United States Army Command and General Staff College, 2010, 44-48. http://www.dtic.mil/dtic/tr/fulltext/u2/a522710.pdf.
- Canada. Department of National Defence. B-GJ-005-500/FP-000, CFJP 5.0 The Canadian Forces Operational Planning Process (OPP), Change 2. Ottawa: Joint Doctrine Branch, April 2008.
- Canada. Ministère de la Défense nationale. B-GJ-005-500/FP-000, PIFC 5.0 Le processus de planification opérationnelle des FC (PPO), Modificatif 2. Ottawa, ON: Service de la doctrine interarmées, avril 2008.
- Bailey, Rhetta Ray. *Operationa Ethics in Decision Making: Commander's Challenge*. Newport, RI: Naval War College, 1997.
- BBC News. "1991: US bombers strike civilians in Baghdad" Last Visited 10 May, 2015. http://news.bbc.co.uk/onthisday/hi/dates/stories/february/13/newsid_2541000/2541107.st m
- Boose, Donald W., Jr. "The Korean War Truce Talks: A Study in Conflict Termination." Parameters 30, no. 1 (Spring 2000).
- Boulé, John R. II. "Operational Planning and Conflict Termination." Joint Force Quarterly, no. 29 (Autumn/Winter 2001-2002).
- Bryan, C. D. B. "Getting to Know the General: Operation Desert Norm," *The New Republic*, March 19, 1991.
- Builder, Carl H., Steven C. Bankes, and Richard Nordin. "Command Concepts: Theory Derived from the Practice of Command and Control." In *Technology's Child: Schwarzkopf and Operation Desert Storm.* Santa Monica, CA: Rand, 1999.

- Centre for Strategic and Budgetary Assessments. "AirSea Battle: A Point-of-Departure Operational Concept." Last Updated 10 May 2010. http://csbaonline.org/publications/2010/05/airsea-battle-concept/
- Clarke, Bruce G. "Conflict Termination: A Rational Model." Studies in Conflict and Terrorism 16, no. 1 (1993): 25-50.
- Chapman, Don D. "Desert Storm and the Triumph of Joint Warfare Planning." Air Power History 52, no. 1 (Spring 2005), 52-65.
- Cohen, Roger, and Claudio Gatti. *In the Eye of the Storm: Life of General H. Norman Schwarzkopf*. New York, NY: Farrar, Straus, and Giroux, 1991.
- Connelly, Owen S. On War and Leadership: Words of Combat Commanders from Frederick the Great to Norman Schwarzkopf. Princeton, NJ: Princeton University Press, 2002.
- Cordesman, Anthony H. Iraq and Conflict Termination: The Road to Guerilla War? Washington, DC: Centre for Strategic and International Studies, 2003. Read: 1-24.

Correll, John T. "The Strategy of Desert Storm." Air Force Magazine 89, no. 1 (January 2006).

- Dalton, LCol L. Craig, Canadian Army. Systemic Operational Design: Epistemological Bump or the Way Ahead for Operational Design? A Monograph. Fort Leavenworth, Kansas: School of Advanced Military Studies, United States Army Command and General Staff College, AY 05-06. http://www.dtic.mil/dtic/tr/fulltext/u2/a451283.pdf.
- Encyclopedia of World Biography. "Norman Schwarzkopf." Last modified 12 November 2004. http://www.encyclopedia.com/doc/1G2-3404705818.html
- Federation of American Scientists. "Operation Desert Storm: Evaluation of the Air Campaign, Operation Desert Storm Objectives." Letter Report, 06/12/97, GAO/NSIAD-97-134. http://fas.org/man/gao/nsiad97134/app_05.htm
- Flavin, William. "Planning for Conflict Termination and Post-Conflict Success." Parameters 33, no. 3 (Autumn 2003): 95-112.
- Garrard, Colonel Mark. "War Termination in the Persian Gulf: Problems and Prospects." Aerospace Power Journal 15, no. 3 (Fall 2001).
- Global Security. "FM 7-20 Infantry Battalion, Operations." Last visited: 10 May 14. http://www.delahunty.com/infantry/airland.htm
- Gonzales, Christopher A. "Internalizing Full Spectrum Operations Doctrine in the US Army." Monterey, California: Naval Post-Graduate School, March 2011.

- Goodwin, Ben B. "War Termination and the Gulf War: Can We Plan Better?" Command and Staff Course Joint Military Operations Paper, Naval War College, 2004.
- James, Glenn E. Chaos Theory: The Essentials for Military Applications. Newport, R.I.: Naval War College, Center for Naval Warfare Studies, 1996. http://www.dtic.mil/cgibin/GetTRDoc?Location=U27doc=GetTRDoc.pdf&AD=ADA293163.
- Jeffery E. Fondaw, "Conflict Termination: Considerations for the Operational Commander." Newport, RI: U.S. Naval War College, 16 May 2001.
- Joint Doctrine Manual B-GJ-005-500/FP-00 The Canadian Forces Operational Planning Process. Last visited: 9 December 2014. http://publications.gc.ca/collections/collection_2010/forces/D2-252-500-2008-eng.pdf
- Kem, Dr. Jack D. "Logical Lines of Operation." Chapter 5 in Campaign Planning: Tools of the Trade, 3rd ed. Fort Leavenworth, Kansas: Department of Joint and Multinational Operations, U.S. Army Command and General Staff College, June 2006, 47-67. http://www.dtic.mil/dtic/tr/fulltext/u2/a550354.pdf.
- Kem, Colonel Jack D. (Ret'd). "Understanding the Operational Environment: The Expansion of DIME." Military Intelligence Professional Bulletin 33, no. 2 (April-June 2007): 49-53.
- Lasenksy, Scott B. "Friendly Restraint: U.S.-Israel Relations During the Gulf War Crisis of 1990-199" Middle East Review of International Affairs. 1 June, 1999. http://www.cfr.org/middle-east-and-north-africa/friendly-restraint-us-israel-relationsduring-gulf-war-crisis-1990-199/p4870
- Long, Jeffrey W. "The Evolution of U.S. Army Doctrine: From Active Defense to Airland Battle and Beyond" Leavenworth, KS: US Army Command and Staff College, 7 June 1991.
- Matthews, Major Richard E. Defining the Operational End State: Operation Desert Storm, a Monograph. Fort Leavenworth, Kansas: School of Advanced Military Studies, United States Army Command and General Staff College, 1996, 1-4, 18-29 and 31-33. http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA314310.
- Morris, M. E. H. Norman Schwarzkopf: Road to Triumph. New York, NY: St. Martin's Paperbacks, 1991.
- Mother of all New Conferences. YouTube video, 57:43, posted by "Richard Mackenzie." December 29, 2012, conference conducted 1991, Saudi Arabia. https://www.youtube.com/watch?v=wKi3NwLFkX4.
- Murray, Williams. "Air War in the Gulf: The Limits of Air Power." Strategic Review 26, no. 1 (Winter 1998): 28-38.

National Security Agency. "Goldwater-Nichols Department of Defense Reorganization Act of 1986" Last modified unknown

https://www.nsa.gov/about/cryptologic_heritage/60th/interactive_timeline/Conten t/1980s/documents/19861001_1980_Doc_NDU.pdf

- National Security Directive 45. U.S. Policy in Response to the Iraqi Invasion of Kuwait. Washington, D.C.: The White House, 20 August 1990, 5 p.
- National Security Directive 54. Responding to Iraqi Aggression in the Gulf. Washington, D.C.: The White House, 15 January 1991, 3 p.
- NATO. AJP-3(B), Allied Joint Doctrine for the Conduct of Operations. Brussels, Belgium: NATO, March 2011.
- Naveh, Shimon. In Pursuit of Military Excellence: The Evolution of Operational Theory, London & Portland, OR: Frank Cass, 1997.
- North Atlantic Treaty Organization. "Harmel Report" Last visited 10 May 2014. http://www.nato.int/cps/en/natohq/topics_67927.htm
- Palmer, Michael A. "Storm in the Air: One Plan, Two Air Wars?" Air Power History 4 (Winter 1992): 24-31.
- Paquin, Maj Robert J, US Army. DESERT STORM: Doctrinal Air Land Battle Success of "The American Way of War? A Monograph. Fort Leavenworth, Kansas: School of Advanced Military Studies, United States Army Command and General Staff College, 1991.
- Pyle, Richard. Schwarzkopf: Man, the Mission, the Triumph. New York, NY: Signet, 1991.
- Public Broadcasting Services (PBS), Frontline. "Oral History: Norman Schwarzkopf," Last accessed November 9, 2014. http://www.pbs.org/wgbh/pages/frontline/gulf/oral/schwarzkopf/1.html
- Putney, Diane T. "From Instant Thunder to Desert Storm: Developing the Gulf War Air Campaign's Phases." Air Power History 41, no. 3 (Fall 1994): 38-50.
- Reed, James W. "Should Deterrence Fail: War Termination in Campaign Planning." Parameters 23, no. 2 (Summer 1993): 41-52.
- Scales, Brigadier General Robert H. Certain Victory: The US Army in the Gulf War. Fort Leavenworth, Kansas: US Army Command and General Staff College, 1994.
- Scarborough, Dennis G. "Dettering the Dragon: Air-Sea Battle and the US-Japan Alliance" Norfolk, VA: National Defense University Joing Warfighting School

- Schwarzkopf, H. Norman and Peter Petre. *The Autobiography: It Doesn't Take a Hero*. New York, NY: Bantam Books, 1992.
- Schwarzkopf, H. Norman. Speech, "Operation Desert Storm," Joint Session of Congress, Washington, D.C. May 8, 1991.
- Soucy, Robert R. II, Kevin A. Shwedo, and John S. Haven II. "War Termination and Joint Planning." Joint Force Quarterly, no. 12 (Summer 1996).
- Tucker, Major Graig A. "Band of Brothers: The 2D Marine Division and The Tiger Brigade in the Persian Gulf War" Leavenworth, KS: US Army Command and Staff College, 17 December 1994.
- United States. Joint Chiefs of Staff. JP 3-0, Joint Operations. Washington, DC: Joint Chiefs of Staff, 11 August 2011. Read: I-8, subparagraph d(4).
- United States. Department of Defense. JP 5-0, Joint Operation Planning. Washington, DC: Joint Chiefs of Staff, 11 Aug 2011. Read: III-18 thru III-19 6(b).
- United States. Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges, Master Impementation Plan, May 2013. Last Visited 10 may 2015. http://www.defense.gov/pubs/ASB-ConceptImplementation-Summary-May-2013.pdf
- USNI News. "Document: Air Sea Battle Name Change Memo" Dated 20 January, 2015. http://news.usni.org/2015/01/20/document-air-sea-battle-name-change-memo
- Van Tol, Jan. "AirSea Battle A Point-of-Departure Operational Concept" Centre for Strategic and Budgetary Assessment. Last Visited 10 May, 2015. http://www.dtic.mil/dtic/tr/fulltext/u2/a522258.pdf
- Welsh, Mark. "Ghoulality in War. The Application of Liddell Hart in Desert Storm," Foundations in Military Thought and Strategy Paper, National War College, 1993.