

Using the Targeting Process to Synchronize Information Operations at the Tactical Level

**A Monograph
by
Major Paul L. Yingling
U.S. Army**



**School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas
AY 01-02**

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

Major Paul L. Yingling

Title of Monograph: Using the Targeting Process to Synchronize Information Operations at the Tactical Level

Approved by:

LTC Robert C. Johnson, FA

Monograph Director

COL James K. Greer, MMAS

Director, School of
Advanced Military
Studies

Philip J. Brookes, Ph.D.

Director, Graduate Degree
Program

Abstract

Using the Targeting Process to Synchronize Information Operations at the Tactical Level by Major Paul L. Yingling, U.S. Army, 56 pages.

The U.S. Army's new capstone doctrine, Field Manual (FM) 3-0, *Operations*, recognizes that information is a powerful weapon in the conduct of full-spectrum operations. Like other weapons, the effects of information must be synchronized with the effects of other systems to produce optimal results. Unfortunately, current U.S. Army doctrine does not provide a single coherent method for integrating the effects of maneuver, fires and information.

This monograph seeks to remedy that flaw by analyzing the utility of the targeting process as a means of synchronizing information with the other elements of combat power at the tactical level. The decide-detect-deliver-assess (D³A) methodology of the targeting process is a useful conceptual tool for synchronizing effects on hostile forces. However, in practice the targeting process contains a bias towards lethal effects. With minor modifications, the targeting process could become a far more effective synchronization tool.

The most important doctrinal modification required to target information effectively is to fully integrate the targeting process into the military decision making process (MDMP). Current U.S. Army doctrine does not make clear the scope of the targeting process, or the relationship between the targeting process and the MDMP. These flaws often lead to a targeting process that is too 'fires-centric.' This monograph remedies these flaws by providing a framework that fully integrates the 'effects based' targeting process into the MDMP.

A second important doctrinal modification required to target information effectively is the development of a single doctrinal lexicon that applies to the effects generated by maneuver, fires and information. U.S. Army doctrine currently permits each of these elements of combat power to have its own language of effects. This flaw often leads to confusion, as battlefield operating system (BOS) representatives use the same words to describe different effects, or different words to describe the same effects. This monograph remedies that flaw by providing a single set of doctrinal terms that applies equally to maneuver, fires and information.

The final modification required to target information effectively is an organizational shift that charges the G3/S3 with overall responsibility for effects coordination. U.S. Army battle staffs currently have both a targeting process dominated by fire supporters and information operations (IO) processes dominated by IO representatives. This bifurcated effort produces unnecessary duplication and wasted effort. This monograph remedies these flaws by charging the G3/S3 with effects coordination under the rubric of an effects coordination cell (ECC).

By adopting these modifications, the U.S. Army can achieve a synergistic combination of maneuver, fires and information that is far greater than the sum of its parts.

TABLE OF CONTENTS

TABLE OF CONTENTS.....	1
CHAPTER ONE	2
INTRODUCTION.....	3
STRUCTURE OF THE MONOGRAPH.....	3
KEY TERMS AND CONCEPTS	4
CHAPTER TWO	6
THE OPERATIONAL ENVIRONMENT	6
ACTIVE DEFENSE	6
AIRLAND BATTLE	8
FULL SPECTRUM OPERATIONS	10
CHAPTER THREE	14
INFORMATION DOCTRINE	14
FM 3-0, <i>OPERATIONS</i>	14
FM 100-6, <i>INFORMATION OPERATIONS</i>	15
FM 3-13, <i>INFORMATION OPERATIONS (DRAFT)</i>	19
SYNCHRONIZATION DOCTRINE	23
CHAPTER FOUR	26
OPERATION DESERT STORM: MISSED OPPORTUNITIES	26
STRATEGIC AND OPERATIONAL SETTING	26
INFORMATION OPERATIONS IN THE GULF WAR	28
LESSONS LEARNED FROM INFORMATION OPERATIONS IN THE GULF WAR ...	32
CHAPTER FIVE	34
INFORMATION OPERATIONS IN BOSNIA: MAKING IT UP AS WE GO	34
POLITICAL AND DIPLOMATIC BACKGROUND	34
U.S. MILITARY OPERATIONS IN BOSNIA.....	35
TASK FORCE EAGLE IN BOSNIA	38
INFORMATION OPERATIONS IN BOSNIA	38
LESSONS LEARNED FROM INFORMATION OPERATIONS IN BOSNIA	41
CHAPTER SIX	44
CONCLUSIONS AND RECOMMENDATIONS	44
CONCLUSIONS	44
RECOMMENDED CHANGES TO ARMY DOCTRINE	44
RECOMMENDED CHANGES TO ORGANIZATION AND TRAINING	52
APPENDIX ONE - GLOSSARY	57
BIBLIOGRAPHY.....	60

CHAPTER ONE

INTRODUCTION

Themistocles picked the fastest Athenian ships and made his way around to the various places where there was drinkable water, where he cut a message in the rocks for the Ionians to read when they came around to Artemisium the next day. The message was:

‘Men of Ionia, it is wrong for you to enslave your ancestral line and enslave Greece. Ideally, you should join us; failing that, even now adopt a position of neutrality and ask the Carians to do the same. If neither of these courses of action is feasible, and the Persians have too great a hold on you for you to revolt, in the battle you can remember that you are descended from our stock and that you were the original cause of the enmity between us and Persia, and deliberately fight below your best.’

Themistocles was covering both alternatives with this message. Either Xerxes would not get to hear about it and it would induce the Ionians to change sides, or if somebody informed and he was told about it, he would stop trusting the Ionians and keep them out of any battles.¹

By cleverly combining fraud and force, Themistocles led the Greek city-states to victory over the Persian Empire at the Battle of Salamis. In the example above, Themistocles disrupted the commitment of the Ionian fleet at Salamis. He did not attempt to destroy the enemy’s ships, but instead targeted the minds of enemy commanders. With one brief message he caused the Ionians to doubt the justice of their alliance with Persia and the Persians to doubt the loyalty of their allies. In 479 B.C., Themistocles was engaged in information warfare, defined as “actions taken to achieve information superiority by affecting a hostile’s information, information-based processes, and information systems, while defending one’s own information, information-based processes, and information systems.”²

The U.S. Army can learn a great deal from Themistocles. Information is a powerful

¹ Herodotus, *The Histories*, trans. Robin Waterfield (Oxford: Oxford University Press, 1998): 495-496.

² U.S. Army. FM 101-5-1, *Operational Terms and Graphics* (Washington DC: Department of the Army, 1997): 1-82.

weapon of war. Like any weapon, the effects of information must be targeted and synchronized with the effects of other systems to produce optimal results. The purpose of this monograph is to analyze the utility of the targeting process as a means of synchronizing information with the other elements of combat power at the tactical level. The basic findings of this monograph can be summarized as follows:

- The military decision-making process (MDMP) must be revised to be more fully integrated with an 'effects based' targeting process. The current targeting process is far too 'fires centric.'
- The Army must operate from a single lexicon of tactical effects that applies to maneuver forces, fires and information operations.
- Information operations doctrine unnecessarily duplicates many targeting functions, and must be revised to eliminate these duplications

Structure of the Monograph

To support these findings, this monograph examines the evolution of Army synchronization and information doctrine, with special emphasis on the Gulf War and stability operations in the Balkans. Chapter two explores the evolution of the operational environment over the past twenty-five years. The single greatest change in this period was the disappearance of the Soviet Union. Important and related changes included the growing importance of information and the increasing lethality of American firepower. These developments demand that information and fires be carefully synchronized.

Chapter three describes how Army doctrine adapted to changes in this environment, with special emphasis on the evolution of the 'deep battle' concept and information operations. This chapter shows that the targeting process evolved as part of the deep battle response to the Soviet threat. Similarly, information operations evolved in response to the U.S. Army's increased participation in stability operations. Unfortunately, these efforts developed in 'stovepipe' fashion and have yet to be integrated into a single coherent synchronization process.³

³ The term 'stovepipe,' refers to processes that develop in a narrow, linear manner, without considering the effects of that process on other processes.

Chapter four addresses the use of the targeting process in synchronizing information operations during offensive operations in the Gulf War. Information operations in the Gulf War can largely be described as 'missed opportunities.' Information operations never achieved the level of synchronization with the other elements of combat power that existing targeting doctrine provided for. This observation was especially true in the case of psychological operations (PSYOP).

Chapter five examines the use of the targeting process in synchronizing information operations during stability operations in the Balkans. These efforts can largely be described as 'making it up as you go.' U.S. Army forces in the Balkans quickly recognized the importance of information operations, but lacked the doctrinal tools to target information effectively. The result has been a hodgepodge of well meaning but ultimately unsynchronized efforts.

Finally, chapter six recommends changes to current U.S. Army doctrine based on the lessons learned from the historical case studies. These recommendations fall into three categories:

- 1) Revising the MDMP to better integrate an 'effects based' targeting process;
- 2) Developing a single lexicon to describe effects directed against enemy forces, regardless of the source of those effects; and⁴
- 3) Charging the G3/S3 with leading an effects coordination cell (ECC) that synchronizes all effects directed against enemy forces, regardless of the sources of those effects.

Key Terms and Concepts

This monograph will employ several key terms and concepts. The 'targeting process' refers to the 'decide, detect, deliver, assess' (D³A) methodology described in U.S. Army Field Manual (FM) 6-20-10, *Tactics, Techniques and Procedures for the Targeting Process*. This monograph will define tactical units as corps and below, when the corps is not serving as an

⁴ Because this monograph is focused at the tactical level, the lexicon recommended in chapter six applies only to Army forces. However, this lexicon will defer to the definitions found in joint doctrine whenever it is feasible to do so. Narrowing the differences between joint and Army doctrine helps ensure interoperability.

Army Forces (ARFOR) or Joint Force Land Component Command (JFLCC) Headquarters. This definition is consistent with the doctrinal definition of the tactical level of war as “the level of war at which battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces. Activities at this level focus on the ordered arrangement and maneuver of combat elements in relation to each other and to the enemy to achieve combat objectives.”⁵ This monograph will not focus lower than battalion level because company level units rarely possess the assets to plan information operations. Finally, ‘synchronization’ is “the arrangement of military actions in time, space and purpose to produce maximum relative combat power at the decisive place and time.”⁶

⁵ U.S. Army. FM 101-5-1, *Operational Terms and Graphics* (Washington DC: Department of the Army, 1997): 1-151.

⁶ Ibid, 1-149.

CHAPTER TWO

THE OPERATIONAL ENVIRONMENT

Army doctrine does not evolve in a vacuum, but rather as a consequence of the environment in which Army forces operate. The operational environment that produced the Army's targeting and information operations doctrine was one of the most dynamic periods in the Army's history. In the twenty-five year period beginning in 1976, Army doctrine underwent three important evolutions. The first of these evolutions was the development of the "Active Defense" doctrine of 1976. This evolution was driven by the growing Soviet conventional threat to U.S. forces in Europe. The second was the development of "Airland Battle" doctrine in 1982, and the revisions of that doctrine in 1986. This evolution was driven by the recognition that the Active Defense doctrine did not adequately deal with Soviet second echelon forces. The third and perhaps most significant evolution was the development of the "full-spectrum" doctrine of 2001.⁷ The U.S. Army's increased participation in stability operations as well as dramatic advances in information and weapons technology drove this evolution. This chapter argues that targeting doctrine evolved from the deep battle concept and information operations doctrine evolved from the Army's experience in stability operations. Because of the 'stove pipe' nature of these evolutions, targeting and information operations are not well integrated.

Active Defense

The Active Defense doctrine of 1976 refocused the Army's attention on the defense of Central Europe from attack by Warsaw Pact forces. Emerging from Vietnam, Army leaders identified significant shortcomings in the Army's conventional warfighting doctrine. Army leaders feared that the early successes of Soviet-equipped forces in the 1973 Arab-Israeli War

⁷ The U.S. Army revised FM 100-5 *Operations* in 1993 as well. This version of the Army's capstone doctrine was a less significant revision than the 1976, 1982, 1986 or 2001 revisions. The 1993 manual did place increased emphasis on operations other than war and the so-called 'CNN effect.' These issues will be dealt with both later in the chapter and in chapter four.

could be repeated in Central Europe. Under the leadership of General W.E. Dupuy, the Army's newly established Training and Doctrine Command (TRADOC) re-wrote the Army's capstone doctrine to address these concerns. According to the 1976 version of FM 100-5, *Operations*, "Battle in Central Europe against the forces of the Warsaw Pact is the most demanding mission the U.S Army could be assigned. Because the U.S. Army is structured primarily for that contingency and has large forces deployed in that area, this manual is designed mainly to deal with the realities of such operations."⁸

The 1976 version of FM 100-5, *Operations*, focused the Army on winning the "first battle" when fighting numerically superior Soviet forces. The Warsaw Pact deployed fifty-seven and one-third divisions in Europe, while NATO fielded only twenty-eight and one-third.⁹ While NATO divisions possessed both quantitative and qualitative advantages over their adversaries, the numerical disparity was disconcerting to many senior Army leaders. To overcome these material disadvantages, FM 100-5, *Operations*, provided detailed "how to fight" guidance, even going so far as to discuss the characteristics and employment of particular weapons systems. Military analyst Simon Naveh criticized Active Defense for attempting to create "a tactical recipe guaranteeing victory under conditions of strategic inferiority."¹⁰

The reception of the new doctrine was mixed. Many Army leaders welcomed the renewed emphasis on conventional warfighting. Others applauded the manual's recognition of the increased range and lethality of modern weapons systems. However, some senior field commanders were less enthusiastic. Lieutenant General Don Starry, while commanding the U.S. Army's V Corps, became acutely aware of his limited ability to attack Soviet follow-on echelons. Starry recognized that victory could not be achieved in a decisive "first battle." Soviet forces

⁸ U.S. Army, FM 100-5 *Operations* (Washington, DC: Department of the Army, 1976): 1-2.

⁹ John J. Mearsheimer, *Conventional Deterrence* (Ithica, NY: Cornell University Press, 1983): 167.

¹⁰ Simon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (London: Frank Cass, 1997): 255.

were arrayed in depth to conduct successive operations; defeating the first echelon would only leave exhausted defenders with another fresh echelon to face.

Airland Battle

To address the challenge of second echelon Soviet forces, the Army again revised FM 100-5 *Operations* in 1982. The resulting doctrine was dubbed “Airland Battle.” The commanding general of TRADOC, General Glenn K. Otis, introduced the new doctrine in a letter in *Military Review*:

“Airland battle is now the doctrine of the United States Army. It states that the battle against the second echelon forces is equal in importance to the fight with the forces at the front. Thus, the traditional concern of the ground commander with the close-in fight at the forward line of own troops (FLOT) is now inseparable from the deep attack against the enemy follow-on forces. To be able to fight these simultaneous battles, all of the armed forces must work in close harmony with each other. If we are to find, to delay, to disrupt and to kill the total enemy force, we will need the combined efforts of the Army-Air team.”¹¹

Writing in the same edition of *Military Review* as General Otis, Lieutenant Colonel Don Holder argued, “deep attack complements the central concept of operations.”¹²

Few would dispute Holder’s claim that deep operations should complement the close fight. Indeed, one of the four tenets of Airland Battle doctrine was synchronization.¹³ Unfortunately, Airland Battle did not provide a clear definition of synchronization. To remedy this defect, the 1986 version of FM 100-5, *Operations*, defined synchronization as “the arrangement of battlefield activities in time, space and purpose to produce the maximum relative combat power at the decisive point... [C]oordination is no guarantee of synchronization unless the commander first visualizes the consequences to be produced and how activities must be sequenced to produce them.”¹⁴

¹¹ Gen. Glenn K. Otis, USA, “The Airland Battle” (letter for distribution), *Military Review*, 5 (1982): 2.

¹² Lt. Col. L.D. Holder, USA, “Maneuver in the Deep Battle,” *Military Review*, 5 (1982): 55.

¹³ J.B. Rogers “Synchronizing the Airland Battle,” *Military Review* 4 (1984): 61-62, in Simon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (London: Frank Cass, 1997): 302.

¹⁴ U.S Army, FM 100-5 *Operations* (Washington, DC: Department of the Army, 1986): 17, in Simon

The deep battle concept described by Otis and Holder was the genesis for the D³A targeting methodology described in FM 6-20-10, *Tactics, Techniques and Procedures for The Targeting Process*.¹⁵ First published in 1990, this manual defined targeting as “the process of selecting targets and matching the appropriate response to them on the basis of operational requirements and capabilities.”¹⁶ FM 6-20-10 claims that targeting is applicable across the spectrum of conflict and incorporates both lethal and non-lethal means into the commander’s overall plan. However, in practice the manual is focused almost exclusively on the deep battle described by Otis and Holder. Appendix C, “Example Reports and Formats” of FM 6-20-10 illustrates the fires bias of the targeting process. This appendix contains several dozen references to lethal effects against mechanized systems, but never once mentions enemy perceptions as a target or PSYOP as a delivery system.¹⁷ The entire manual contains exactly one paragraph on ‘operations other than war,’ the thrust of which is the difficulty of locating targets in a non-conventional environment.¹⁸ In short, the targeting process described in FM 6-20-10 is focused on a battlefield that is conventional, linear and mechanized.

Many saw the United States’ stunning success in Operation Desert Storm as a validation of Army doctrine. In its final report to Congress on the conduct of the war, the Department of Defense stated, “The basis of ARCENT operations was Airland Battle doctrine.”¹⁹ Chief of Field Artillery Major General Fred F. Marty stated, “Desert Storm confirmed two things we already knew about targeting. First, D³ is difficult, particularly

Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (London: Frank Cass, 1997): 309.

¹⁵ U.S Army, FM 6-20-10, *Tactics, Techniques and Procedures for The Targeting Process* (Washington DC: Department of the Army, 1990).

¹⁶ *Ibid*, 1-1.

¹⁷ *Ibid*, C-1-C-14.

¹⁸ *Ibid*, 4-2.

¹⁹ Department of Defense, *Conduct of the Persian Gulf War: Final Report to Congress* (Washington, DC, April, 1992): vi-ix, in Simon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (London: Frank Cass, 1997): 326.

at echelons division and above. Second, D³ works.”²⁰ Long after the Soviet Union ceased to exist, the Army’s Combat Training Centers (CTCs) were using a Soviet-style opposing force (OPFOR) to train Army tactical forces.

Full Spectrum Operations

However, political and technological developments would call into question the utility of Airland battle doctrine. Politically, the absence of a peer competitor challenged the underlying assumptions of Army doctrine. Contrary to the assumptions of senior U.S. policy makers, no peer competitor emerged to replace the Soviet Union after its collapse in 1991.²¹ America’s overwhelming economic and military power made a symmetric challenge to the United States almost unthinkable. By 1995, America led the world in military spending, accounting for 35% of global arms expenditures. The U.S. outdistanced its nearest rival (Russia) by a factor of three, and seven of the ten top spenders were U.S. allies.²²

American primacy did not produce peace but rather different forms of war. Instead of confronting states in symmetric conflicts on linear battlefields, U.S. forces often found themselves confronting non-state actors in asymmetric conflicts on non-linear battlefields. U.S. forces intervened in internal conflicts in Somalia, Bosnia-Herzegovina, Haiti, Rwanda, East Timor and Kosovo. Although usually operating as part of the United Nations, NATO or another international organization, U.S. forces usually played a key role in international coalitions. International relations scholars Donald M. Snow and Eugene Brown cite two reasons for the central role of U.S. forces:

²⁰ Maj. Gen. Fred F. Marty, USA, “Targeting and the D³ Methodology,” *Field Artillery* 2 (February 1992): 1.

²¹ The Pentagon’s Office of Net Assessment argued in 1991 that the greatest risk to U.S. security would be German or Japan breaking away from existing security arrangements and pursuing an independent strategic role. See the Undersecretary of Defense (Policy), *1991 Summer Study*, organized by the Director, Net Assessment, held at Newport, R.I., August 5-13 1991, p. 17, referenced in Christopher Layne, “The Unipolar Illusion,” *International Security* 17 (Spring 1993).

²² Eugene Golz, Daryl G. Press, and Harvey M. Sapolsky, “Come Home America,” *International Security* 21 (Spring 1997): 8.

“First, the United States not only possesses the world’s most powerful military forces, but also is also among the most trusted as peacemaker and hence is in great demand when the peace is breached. Moreover, the United States has the world’s only logistics capability that can rapidly insert forces and equipment into conflicts worldwide, meaning U.S. support is necessary for the system to count a sizeable response in much of the world.”²³

Forces hostile to the U.S adopted asymmetric tactics to offset America’s unique advantages in firepower and mobility. Somali forces hostile to the U.S shot down two U.S helicopters Using rocket propelled grenades and small arms fired from the midst of Mogadishu’s crowded city streets. Three days after the raid in which eighteen U.S military personnel were killed, the United States announced its intention to withdraw American forces from Somalia.²⁴ Anti-American forces in Haiti manipulated a crowd of civilians to compel the withdrawal of the U.S. Harlan Country from the Port-au-Prince harbor.²⁵ American forces in Bosnia and Kosovo have repeatedly been confronted with hostile civilian crowds inspired by anti-American elements in the former warring factions. Despite the diverse geographical and political circumstances of these interventions, a clear pattern emerged among factions hostile to American forces. Using relatively simple communications and weapons technology, these factions attacked U.S forces protected by a shield of civilians.

These dramatic changes in the political landscape were accompanied by two equally dramatic technological changes. First, sweeping advances in communications technology allowed near real-time reporting of Army operations from any point on the globe. National Defense University Senior Fellow Martin Libicki argues that “[t]hanks to cyberspace – which can be understood as the sum of the globe’s communications links and conceptual nodes – any piece

²³ Donald M. Snow and Eugene Brown, *International Relations: The Changing Contours of Power* (New York: Longman, 2000): 107.

²⁴ William J. Durch, “Introduction to Anarchy: Humanitarian Intervention and ‘State-Building’ in Somalia,” *UN Peacekeeping, American Policy and the Uncivil Wars of the 1990s* (New York: St Martin’s Press, 1996): 347.

²⁵ Walter E. Kretchik, Robert F. Baumann, and John T. Fichel, *Invasion, Intervention, Intervasion: A Concise History of the U.S. Army in Operation Uphold Democracy* (Fort Leavenworth, KS: U.S. Army

of data can show up almost anywhere almost instantaneously.”²⁶ The 1993 edition of FM 100-5, *Operations*, recognized that the so-called “CNN effect:”

"[media] can rapidly influence public - and, therefore, political - opinion so that the political underpinnings of war and operations other than war may suddenly change with no prior indication to the commander in the field."²⁷

A second related and equally important change was the growing lethality and range of American firepower. To engage a point target in World War II required 2,000 bombs; by Vietnam, the number had dropped to 50; by the Gulf War, the same target could be engaged by a single laser guided bomb.²⁸ This increased capability is a mixed blessing. The increasing range of weapons allows U.S forces to strike the enemy deeper, but also taxes intelligence assets required to acquire targets and conduct battle damage assessment (BDA). The increasing lethality of American weapons increases the harm done to the enemy when U.S forces hit the right targets, as well as the magnitude of collateral damage if they hit the wrong ones.

This paradox was demonstrated during the Gulf War when U.S aircraft bombed the Al-Firdos bunker in Baghdad. Although intelligence sources described the target as a command and control facility, CENTCOM later admitted that the bunker was “packed with civilians” when it was attacked by U.S aircraft.²⁹ This bombing was widely reported in the press, including dramatic visual images on CNN. As a result of this error, the Bush Administration restricted further attacks on bunkers in built-up areas.³⁰ This incident is but one example of how swiftly and dramatically the global information environment can influence military operations.

Command and General Staff College Press, 1998): 39.

²⁶ Martin Libicki, “The Emerging Primacy of Information,” *Orbis* 40 (Spring 1996):261.

²⁷ U.S Army, FM 100-5 *Operations*, (Washington, DC: Department of the Army, 1993): 1-3, in “INFORMATION OPERATIONS: IO in a Peace Enforcement Environment,” *Center for Army Lessons Learned NEWSLETTER NO. 99-2*, accessed on line <http://call.army.mil/call.html> 7 November 2001.

²⁸ Martin Libicki, “The Emerging Primacy of Information,” *Orbis* 40 (Spring 1996):262.

²⁹ Gen. H. Norman Schwarzkopf, USA (Ret.) and Peter Petre, *It Doesn't Take a Hero* (New York: Bantam Books, 1992): 435.

³⁰ Robert A. Pape, *Bombing to Win* (Ithica and London: Cornell University Press): 231.

The Army recognized the need to revise its doctrine to incorporate the full spectrum of military operations and the growing power of information. These doctrinal changes are addressed in chapter three below.

CHAPTER THREE

DOCTRINAL FOUNDATIONS

Information Doctrine

Several U.S. Army doctrinal publications address the synchronization of combat power, the targeting process and information operations in great detail. Any exploration of doctrine must begin with the Army's capstone doctrinal manual, FM 3-0, *Operations*. The Army's information doctrine is still in the early stages of evolution. The Army's first attempt at a doctrinal statement on the subject was FM 100-6, *Information Operations*, published in 1996. This manual may soon be replaced by FM 3-13, *Information Operations* (Draft), which appeared in 2001. The military decision making process (MDMP) is the Army's analytical method for synchronizing combat power, and is described in FM 101-5, *Staff Organization and Operations*. The Army's definitive statement on targeting is found in FM 6-20-10, *Tactics, Techniques and Procedures for The Targeting Process*.

FM 3-0, Operations

The appearance of FM 3-0, *Operations*, in 2001 broke new ground in information operations. The Army's previous capstone doctrinal manual, FM 100-5, *Operations*, recognized four elements of combat power – maneuver, firepower, protection and leadership.³¹ FM 3-0 added information as a fifth element.³² The Army's capstone doctrine states “information enhances leadership and magnifies the effects of maneuver, firepower, and protection.”³³ The Army's newest doctrinal statement recognizes that the effects of information are not applied in isolation, but in combination with the other elements of combat power. FM 3-0 states, “just as fires are synchronized and targeted, so is information.”³⁴

³¹ U.S. Army, FM 100-5, *Operations* (Washington DC: Department of the Army, 1993): 2-10.

³² Ibid, 4-3.

³³ Ibid, 4-10.

³⁴ Ibid, 4-10.

FM 3-0, *Operations*, devotes an entire chapter to information superiority. The manual defines information superiority as “the operational advantage derived from the ability to collect, process and disseminate an uninterrupted flow of information while exploiting or denying an adversary’s ability to do the same.”³⁵ FM 3-0 describes three operational advantages derived from information superiority:³⁶

- better, faster friendly decisions
- degraded enemy decisions and actions
- friendly impacts on enemy and other perceptions

Three contributors enable commanders to achieve information superiority: intelligence, surveillance and reconnaissance (ISR), information management (IM) and information operations (IO).³⁷ Targeting information is largely focused on IO, defined as “actions taken to affect adversary, and influences others’, decision making processes, information and information systems while protecting one’s own information and information systems.”³⁸ FM 3-0, *Operations*, states, “IO are primarily shaping operations that create and preserve opportunities for decisive operations . . . Effective IO allow commanders to mass effects at decisive points more quickly than the enemy.”³⁹ Like any shaping operation, IO must be synchronized with the decisive operation in order to mass effects at the right time and place. While recognizing the importance of synchronization, the manual does not specify the process through which synchronization will take place.

FM 100-6, Information Operations

While vital, FM 3-0, *Operations*, was not the Army's first or only effort to integrate information into military operations. In 1996, the Army published FM 100-6, *Information Operations*. Like FM 3-0, *Operations*, FM 100-6, *Information Operations*, recognizes the

³⁵ Ibid, 11-2.

³⁶ Ibid, 11-5.

³⁷ Ibid.

³⁸ Ibid, 11-15.

³⁹ Ibid.

operational advantages of information dominance. This manual states the Army uses three distinct but interrelated operations to gain information dominance: command and control warfare (C²W), civil affairs (CA) and public affairs (PA). C²W includes both actions intended to attack hostile information systems (C²W - attack) and protect friendly information systems (C²W-protect). Civil affairs activities "establish, maintain, influence, or exploit relations among military forces, civil authorities, and the civilian populace in an AO to facilitate military operations."⁴⁰ Public affairs "monitors public perceptions and disseminates clear, objective messages about military operations."⁴¹ These messages shape public opinion to build domestic and international public support for U.S. military operations.

While FM 100-6, *Information Operations*, addresses all three aspects of IO, the majority of the chapter on operations is devoted to C²W. The manual states "C²W is the warfighting application of IW [information warfare] in military operations. The aim of C²W is to influence, deny information to, degrade or destroy adversary C² capabilities while protecting friendly C² capabilities against such actions."⁴²

The manual describes five 'building blocks' for C²W:

- Operational Security (OPSEC)
- Military Deception
- Psychological Operations (PSYOP)
- Electronic Warfare (EW)
- Physical Destruction"⁴³

The manual makes clear that these activities are mutually supporting, and must be synchronized with the commander's overall plan.

Unlike FM 3-0, *Operations*, FM 100-6, *Information Operations*, defines a process for integrating information operations with the commander's intent for the overall operation.

Recognizing that IO is not conducted in isolation, FM 100-6, *Information Operations*, charges the

⁴⁰ U.S. Army FM 100-6, *Information Operations* (Washington DC: Department of the Army, 1996): 2-5.

⁴¹ Ibid.

⁴² Ibid, 2-4.

⁴³ Ibid, 3-2.

G3 with overall staff responsibility for coordinating the IO effort. The manual states that the G3 "within his overall staff responsibility for integrating IO into the OPLAN, usually designates one individual accountable for all IO actions. Key staff members participating in IO coordination and integration include intelligence, signal, fire support, PA, CA, EW, deception, OPSEC, PSYOP, and logistics personnel."⁴⁴ FM 100-6 describes this "ad hoc" group as similar to that used for targeting and deep attack."⁴⁵

Therein lies the problem with the synchronization process described in FM 100-6, *Information Operations*. Instead of integrating information operations within existing synchronization procedures, the manual establishes new procedures with significant overlaps with existing procedures. For example, the manual states that the IO planning process consists of five steps:⁴⁶

1. mission analysis
2. prioritization
3. concept of the operations
4. execution
5. feedback

While mission analysis is the cornerstone of the military decision making process (MDMP), FM 100-6, *Information Operations* makes no mention of the MDMP in its discussion of synchronization. Indeed, the acronym "MDMP" is not even listed in the manual's glossary.

The overlaps with the targeting process are even more overt. For example, FM 100-6, *Information Operations*, lists seven C2-Attack Planning Steps⁴⁷

Table 3-1 C² Attack Planning Steps

Step	Action	Product
1	Identify how C2-attack could support the overall mission and concept of operations.	C2W mission
2	Identify enemy C2 systems whose degradation will have a significant impact on enemy C2.	Enemy potential C2 target list.

⁴⁴ Ibid, 6-7.

⁴⁵ Ibid, 6-6.

⁴⁶ Ibid, 6-8.

⁴⁷ Ibid.

3	Analyze enemy C2 systems for critical and vulnerable nodes.	High-Value Target (HVT) list
4	Prioritize the nodes for degradation	Prioritized High Payoff Target List (HPTL)
5	Determine the desired effect and how the C2W elements will contribute to the overall objective.	C2W Concept of the Operation
6	Assign assets to each targeted enemy C2 node.	Subordinate unit taskings
7	Determine the effectiveness of the operation.	Battle Damage Assessment (BDA)

These steps essentially replicate the decide-detect-deliver-assess steps of the targeting process (see below). Indeed, many of the terms employed in the targeting process - such as high value target (HVT) and high payoff target list (HPTL) are duplicated. Furthermore, as table 3-2 demonstrates, many of the same staff agencies that are involved in the targeting process are involved in the IO battle staff.

Table 3-2 Targeting and IO Cell Overlap

FM 6-20-10, <i>The Targeting Process</i> ⁴⁸	FM 100-6, <i>Information Operations</i> ⁴⁹	FM 3-13, <i>Information Operations</i> ⁵⁰
Chief of Staff G2 G3 G3 Air G5/Civil Affairs G6 Air Defense Officer Air Liaison officer Chemical Officer Engineer Rep Electronic Warfare Officer Field Artillery Intelligence Officer Fighter Liaison Officer FSCoord/DFSCoord PSYOP Liaison Officer Subordinate unit liaison officers	G2 G3 G5/Civil Affairs G6 C2W Officer Electronic Warfare Officer FSCoord LIWA Rep Military Deception Rep OPSEC Program Rep Public Affairs Officer (PAO) PSYOP Rep Staff Judge Advocate Targeting Rep	G1 G2 G3 Operations G4 G5 G6 G7 Chemical Operations Officer Deception Officer Electronic Warfare Officer FSCoord OPSEC Officer PSYOP Officer Public Affairs Officer (PAO) Staff Judge Advocate

⁴⁸ U.S. Army FM 6-20-10, *Tactics, Techniques and Procedures for the Targeting Process* (Washington, DC, 8 May 1996): 4-1-4-15. This table was taken from the section on Corps targeting; lower echelons' targeting personnel may be less robust. The entries below the line participate in the targeting process on an as-needed basis.

⁴⁹ U.S. Army FM 100-6, *Information Operations* (Washington DC: Department of the Army, 1996): D-0.

⁵⁰ U.S. Army FM 3-13, *Information Operations: Doctrine, Tactics, Techniques, and Procedures* (Washington, DC, [date pending]): F1-F8.

Targeting Officer ----- Staff Judge Advocate Deception Officer Navy and or Marine Rep		
---	--	--

These overlaps create the potential for both inefficient use of limited resources and a breakdown in synchronization. Because the targeting and IO cells require the participation of many of the same personnel, these cells cannot meet simultaneously. Meeting separately, these cells may duplicate efforts or make mutually exclusive claims on the same resources. For example, since both the targeting and IO cells have requirements for BDA, these cells may create mutually exclusive requirements for limited intelligence assets. Of course, it is the G3's responsibility to de-conflict such claims. However, it seems perverse for Army doctrine to create requirements for de-confliction by already busy G3s.

FM 3-13, *Information Operations* (Draft)

FM 3-13 *Information Operations* (Draft), improves on FM 100-6, *Information Operations*, by clarifying what activities are involved in information operations, and how those activities are integrated into the commander's overall plan.⁵¹ FM 3-13, *Information Operations*, eliminates the sub-category of C²W, and instead lists the following elements of information operations:⁵²

- Operations security
- Psychological operations
- Counterpropaganda
- Military deception
- Counter deception
- Electronic warfare
- Computer network attack
- Physical destruction
- Information assurance
- Computer network defense
- Physical security
- Counterintelligence

⁵¹ Ibid, 1-14.

⁵² Ibid, 1-12.

These operations are intended to destroy, disrupt, degrade, deny, deceive, exploit or influence adversary or other behavior. These effects are defined as follows:⁵³

Table 3-3 Information Effects

Effect	Definition
Destroy	damage a combat system so badly that it cannot perform any function or be restored to a usable condition without being entirely rebuilt
Disrupt	disruption involves breaking or interrupting the flow of information between selected C2 nodes. It may be desired when attack resources are limited, to comply with rules of engagement, or to create certain effects. Electronic attack is a common means of disrupting adversary C2 systems.
Degrade	lethal or temporary means to reduce the effectiveness or efficiency of adversary command and control systems and information collection efforts or means. Offensive IO can also degrade the morale of a unit, reduce the target's worth or value, or reduce the quality of adversary decisions and actions.
Deny	withholding information about Army force capabilities and intentions that adversaries need for effective and timely decision-making. Effective denial leaves opponents vulnerable to offensive capabilities. Operations security (OPSEC) is the primary nonlethal means of denial. It applies throughout the spectrum of conflict.
Deceive	cause a person to believe what is not true. Military deception seeks to mislead adversary decision makers by manipulating their understanding of reality. Successful deception causes them to believe what is not true.
Exploit	covertly gaining access to adversary C2 systems to collect information or to plant false or misleading information
Influence	[cause] adversaries or others to behave in a manner favorable to Army forces. It results from applying perception activities to affect the target's emotions, motives, and reasoning. Perception activities also seek to influence the target's perceptions, plans, actions, and will to oppose Army forces. Targets may include noncombatants and others in the AO whom commanders want to support friendly force missions or not resist friendly force activities. Perception activities accomplish the influence mission by conveying or denying selected information to targets.

Perhaps the most important progress in FM 3-13, *Information Operations*, lies in the area of synchronization. The manual establishes a G7 staff officer at division and corps responsible for "all matters concerning IO."⁵⁴ The G7 supervises the IO cell at division and corps, and ensures that IO are integrated into the planning process. FM 3-13 states "commanders and staff

⁵³ Ibid.

planners consider IO throughout the MDMP. Planning IO requires integrating it with two other important processes: intelligence preparation of the battlefield (IPB) (see FM 34-130, *Intelligence Preparation of the Battlefield*) and targeting (see Appendix E of FM 3-13, *Information Operations*, and FM 6-20-10, *Tactics, Techniques and Procedures for the Targeting Process*). G2 and fire support representatives participate in IO cell meetings and work with IO cell members as required to synchronize IO with their activities and the overall operation.”⁵⁵

For all the important progress made by FM 3-13, *Information Operations*, the manual perpetuates many of the flaws of FM 100-6, *Information Operations*. Like FM 100-6, the new doctrine duplicates many steps involved in the targeting process, placing competing demands on personnel and other resources. Also, as Table 3-2 makes clear, many of the same personnel are involved in both information operations and the targeting process. Despite these duplications, the new doctrine makes clear that IO is not a function of targeting. “Targeting guidance is developed separately from IO objectives. IO objectives are generally broad in scope. They encompass both offensive and defensive IO and often require both lethal and nonlethal means to accomplish. The G7 develops recommendations for IO targeting guidance that support achieving IO objectives.”⁵⁶

FM 3-13, *Information Operations* (Draft), views targeting as a fires-centric process separate and distinct from IO. “Targeting guidance describes the desired effects of lethal and nonlethal fires. It is expressed in terms of targeting objectives—limit, disrupt, delay, divert, or destroy—or IO effects—destroy, degrade, disrupt, deny, deceive, exploit.”⁵⁷

This rather confusing discussion of IO and fires effects points to a larger problem in U.S. Army doctrine. Army doctrine has developed four different vocabularies to describe effects. Table 3-4 shows the confusing and contradictory vocabulary that various doctrinal manuals use to describe effects.

⁵⁴ Ibid, F-1.

⁵⁵ Ibid, 5-2.

⁵⁶ Ibid, E-4.

⁵⁷ Ibid. E-4

Table 3-4 Task and Effects Lexicon

Tactical Tasks ⁵⁸	Fires Effects ⁵⁹	Targeting Effects ⁶⁰	Information Objectives ⁶¹
Ambush Attack by Fire Block Breach Bypass Canalize Clear Contain Counterattack Counterattack by fire Defeat Delay Destroy Disrupt Fix Follow and assume Follow and support Interdict Isolate Neutralize Occupy Penetrate Relief in place Retain Retirement Secure Seize Support by fire Withdraw	Destroy Neutralize Suppress	Damage Delay Destroy Disrupt Divert Limit	Destroy Degrade Disrupt Deny Deceive Exploit Influence

In some cases, these manuals use the same word to describe different effects. Consider the various definitions of “destroy.”

- FM 101-5-1, *Operational Terms and Graphics*- **1.** A tactical task to physically render an enemy force combat-ineffective unless it is reconstituted. **2.** To render a target so damaged that it cannot function as intended nor be restored to a usable condition without being entirely rebuilt.⁶²

⁵⁸U.S. Army FM 101-5-1, *Operational Terms and Graphics* (Washington DC: Department of the Army, 1997): C-8.

⁵⁹ U.S. Army FM 6-20-10, *Tactics, Techniques and Procedures for The Targeting Process* (Washington DC: Department of the Army, 1996): 1-1.

⁶⁰Ibid.

⁶¹ U.S. Army FM 3-13, *Information Operations: Doctrine, Tactics, Techniques, and Procedures* (Draft) (Washington, DC, [date pending]): E-4.

⁶² U.S. Army FM 101-5-1, *Operational Terms and Graphics* (Washington DC: Department of the Army, 1997): 1-51.

- FM 6-20-10, *Tactics, Techniques and Procedures for the Targeting Process* – ruining the structure, organic existence, or condition of an enemy target that is essential to an enemy capability.⁶³
- FM 3-13 *Information Operations: Doctrine, Tactics, Techniques, and Procedures* - damage a combat system so badly that it cannot perform any function or be restored to a usable condition without being entirely rebuilt.⁶⁴
- Field Artillery Doctrine – 30% of the target is unusable.⁶⁵

These and other confusing and overlapping terms exacerbate the very problem doctrine is meant to resolve. Instead of creating synergy and synchronization among the battlefield operating systems, the current effects doctrine seems more likely to create confusion and duplication.

Synchronization Doctrine

To avoid confusion and duplication, the U.S. Army has developed an elaborate doctrine for synchronizing combat power. The Army's primary method for synchronization is the military decision making process (MDMP) described in FM 101-5, *Staff Organization and Operations*. The MDMP is a seven step analytical process that guides a staff from receipt of a mission from a higher headquarters to the production of an order to be issued to subordinate units. Step four of this process is course of action (COA) analysis (war gaming). During this process, "special staff officers help the coordinating staff by analyzing the COAs in their own areas of expertise, indicating how they could best support the mission."⁶⁶ Results of the war game are typically recorded on a synchronization matrix, in which each battlefield operating system (BOS) representative provides input.

Another useful tool for synchronizing combat power is the targeting process described in FM 6-20-10 *Tactics, Techniques and Procedures for The Targeting Process*. This manual defines

⁶³ U.S. Army. *FM 6-20-10, Tactics, Techniques and Procedures for The Targeting Process* (Washington DC: Department of the Army, 1996): 1-2.

⁶⁴ U.S. Army, *FM 3-13 Information Operations: Doctrine, Tactics, Techniques, and Procedures* (Washington, DC, [date pending]): E-4.

⁶⁵ U.S. Army *FM 6-20-10, Tactics, Techniques and Procedures for The Targeting Process* (Washington DC: Department of the Army, 1996): 1-2.

⁶⁶ U.S. Army *FM 101-5, Staff Organization and Operations* (Washington DC: Department of the Army, 1997): 5-17.

targeting as “the process of selecting targets and matching the appropriate response to them on the basis of operational requirements and capabilities.”⁶⁷

The manual establishes the ‘decide, detect, deliver, assess (D³A)’ methodology for targeting. The “decide” function takes place during the planning process, and is the most important step in targeting. The decide function “sets priorities for intelligence collection and attack planning.”⁶⁸ The staff develops four key products to guide the execution of targeting:⁶⁹

- High-payoff target list (HPTL) – a list of high-payoff targets (HPTs) whose loss to the enemy will contribute to the success of a friendly course of action.
- Intelligence collection plan – answers the commander’s priority intelligence requirements (PIRs), to include those HPTs designated as PIR.
- Target selection standards (TSS) – defines criteria (such as accuracy and/or timeliness) that must be met before a target can be attacked.
- Attack guidance matrix (AGM) – addresses which targets will be attacked, how, when and the desired effects.

The “detect” function occurs during execution of the mission under the direction of the G2/S2. At corps and division, the analysis and collection element (ACE) publishes the collection plan to ensure optimal use of limited target acquisition assets. At brigade and battalion, the S2 expresses collection requirements in the reconnaissance and surveillance (R&S) plan. Once detected, friendly forces “deliver” desired effects against HPTs. Tactical delivery considerations include the time of attack, the desired effects and the attack systems to be employed. Following delivery, sensors designated in the collection plan assess the effectiveness of the attack. This assessment provides the commander and staff with essential information for battle tracking the enemy, evaluating the effectiveness of delivery systems and determining which targets require re-attack.⁷⁰

While the MDMP and the targeting process have both proven to be useful tools for the synchronization of combat power, the relationship between these processes remains ill defined.

⁶⁷ U.S. Army FM 6-20-10, *Tactics, Techniques and Procedures for The Targeting Process* (Washington DC: Department of the Army, 1996): 1-1.

⁶⁸ Ibid, 2-1.

⁶⁹ Ibid.

⁷⁰ Ibid, 2-10-2-16.

In a White Paper entitled “Fire Support Planning for Brigade and Below” the U.S. Army Field Artillery School argues, “FM 6-20-10 (pg. 1-3) states that ‘targeting is integral to the planning process’ and FM 101-5, *Staff Organization and Operations*, states that ‘targeting is closely related to the MDMP’, but they do not always clearly show where and how they are integrated or related.”⁷¹ This lack of clarity is especially unfortunate, because the two methods have complimentary strengths. The MDMP brings together the entire staff prior to the beginning of the operation, thus soliciting the widest possible collaboration among the staff. However, FM 101-5 makes clear that the synchronization done in the planning phase may be overcome by events and require adjustment during execution.⁷² Conversely, the targeting process does not always command the full attention of the entire battle staff early in the planning process. However, targeting is an ongoing process with a built-in assessment mechanism to measure progress and make adjustments to the plan in the course of the operation.⁷³ Unfortunately, the U.S. Army’s synchronization doctrine has not integrated the complementary strengths of the two processes into one coherent doctrine for synchronizing combat power.

⁷¹ “White Paper: Fire Support Planning for the Brigade and Below.” (Fort Sill, OK: Fire Support Division, Fire Support and Combined Arms Department, 16 September 1998): 4.

⁷² FM 101-5, *Staff Organization and Operations* (Washington DC: Department of the Army, 1997): 5-19.

⁷³ See Lt. Col. William E. Harner, USA, “Brigade Targeting,” *Infantry* 6 (November-December 1996): 15-17, for an excellent discussion of the use of the targeting process at brigade level.

CHAPTER FOUR

OPERATION DESERT STORM: MISSED OPPORTUNITIES

The Persian Gulf War of 1991 provided a valuable testing ground for Army doctrine, and is therefore a useful test case for examining the application of targeting and information operations doctrine. This chapter first summarizes the strategic and operational setting leading up to the war. Next, this chapter examines the conduct of information operations during the conflict. This chapter concludes that despite the existence of doctrine for integrating IO into targeting, most units failed to do so.

Strategic and Operational Setting

The Persian Gulf War was precipitated by Iraq's invasion of Kuwait. On 2 August 1990, three heavy divisions from Iraq's Republican Guard Forces Command (RGFC) attacked across the Kuwaiti border. Simultaneously, Iraqi special operations forces conducted heliborne and amphibious operations against targets in Kuwait City. Brushing aside light resistance from Kuwait's armed forces, the Iraqi divisions reached the Saudi Arabian border on 3 August 1990. By 6 August 1990, 11 Iraqi divisions consisting of 200,000 troops and more than 2,000 tanks occupied Kuwait.⁷⁴

The U.S. response to Iraq's action was swift and significant. Just three days after the invasion, President George Bush declared "this [the Iraqi aggression against Kuwait] will not stand."⁷⁵ The next day, Secretary of Defense Dick Cheney and United States Central Command (U.SCENTCOM) Commander General H. Norman Schwarzkopf arrived in Saudi Arabia to coordinate the deployment of American troops to defend the threatened kingdom. By August 7th,

⁷⁴ U.S. Department of Defense, *Conduct of the Persian Gulf War, Final Report to Congress*, (Washington, DC: April 1992): 43, <http://www.fas.org/man/dod-101/ops/docs/cpgw.pdf> (15 Jan 02).

⁷⁵ George Bush and Brent Scowcroft, *A World Transformed* (New York: Alfred A. Knopf, 1998): 333.

the first American forces were moving into the region.⁷⁶

Troops from XVIII Airborne Corps were the first to ground forces deploy to the Gulf region. The corps had a total force of just over four divisions at its disposal – the 82^d Airborne Division, 101st Airborne (Air Assault) Division, 24th Infantry Division (Mechanized), 1st Cavalry Division and the 3^d Armored Cavalry Regiment, plus the necessary combat support and service support units.⁷⁷ These forces closed in theater by October 30th, and were primarily focused on deterring Iraqi forces from attacking Saudi Arabia, or defending the kingdom if deterrence failed.⁷⁸

To expand the coalition's offensive options, the U.S. placed a second corps under Army Central Command (ARCENT). The U.S. VII Corps consisted of the 1st Infantry Division (Mechanized), 1st and 3^d Armored Divisions, 1st United Kingdom (U.K.) Armored Division and 2^d Armored Cavalry Regiment, plus associated support troops. President Bush gave the order to deploy this force on October 31st, 1990. However, given the enormous logistical requirements inherent in such a deployment, VII Corps did not reach its attack positions in Saudi Arabia until mid-February 1991.⁷⁹ The air war began on 17 January 1991, while VII Corps was still receiving its equipment from Saudi Arabian ports of debarkation.

By February 20th, the coalition had assembled a force of 540,000 ground troops from 31 countries.⁸⁰ Iraq's defensive force consisted of approximately 540,000 troops organized in 11

⁷⁶ Michael R. Gordon and Bernard E. Trainor, *The Generals' War* (Boston: Little, Brown, and Company, 1995): 51-52.

⁷⁷ Richard M. Swain, *Lucky War* (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1994): 31. The deployment of XVIII Airborne Corps occurred simultaneously with the deployment of Navy, Marine Corps, Air Force and coalition forces. However, because this monograph is focused on Army tactical information operations, the deployment of other elements of the joint and combined force will not be addressed in detail.

⁷⁸ Richard M. Swain, *Lucky War* (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1994): 53.

⁷⁹ Michael R. Gordon and Bernard E. Trainor, *The Generals' War* (Boston: Little, Brown, and Company, 1995): 194.

⁸⁰ Thomas A. Keaney and Elliot Cohen, *Gulf War Air Power Survey Summary Report* (Washington, DC: U.S. Government Printing Office, 1993): 7.

armored and mechanized divisions and 24-25 infantry divisions (including 1 special forces division).⁸¹

CENTCOM's concept for the ground war exploited the coalition's considerable advantages. Prior to the commencement of the ground war, the coalition air campaign would isolate and weaken Iraqi forces. The heavy forces of VII Corps were designated as the main effort, with the task of destroying Republican Guard forces in theater. XVIII Airborne Corps task was to attack in the west to block forces attempting to escape northward to Iraq. In the east, coalition and U.S. Marine forces were given the mission of fixing Iraqi forces in Kuwait to prevent their use against VII Corps. The CENTCOM plan set the conditions for the rapid liberation of Kuwait from Iraqi occupation and the restoration of the legitimate Kuwaiti government.

Information Operations in the Gulf War

Although "information operations" was not a doctrinal term in 1991, such operations were an important part of CENTOM's and ARCENT's plans for the Gulf War. Both headquarters employed deception extensively. CENTCOM's deception plan included an amphibious feint along with supporting attacks on the Kuwaiti border in order to fix Iraqi forces.⁸² ARCENT's deception plan further encouraged the Iraqis to believe that the coalition main attack would come in the east. This goal was accomplished primarily by keeping coalition ground forces in the eastern portion of the theater until the air war began. After hostilities commenced, both of ARCENT's corps moved hundreds of miles west to their attack positions.

⁸¹ U.S. Department of Defense, *Conduct of the Persian Gulf War, Final Report to Congress*, (Washington, DC: April 1992): 133, <http://www.fas.org/man/dod-101/ops/docs/cpgw.pdf> (15 Jan 02). The *Gulf War Air Power Survey Summary Report* argues that Iraq had 35-26 divisions in the Kuwaiti Theater of Operations, but argues that many were undermanned when deployed and were further weakened by desertion. Coehn and Keaney therefore estimate Iraqi strength at 336,000.

⁸² Maj. Stuart H. Schwark, USA, "Command and Control Warfare and the Deliberate Targeting Process," MMAS Thesis (Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1997): 40, from U.S. Department of Defense, *Conduct of the Persian Gulf War, Final Report to Congress*, (Washington, DC: April 1992): 75.

However, due to coalition air power, Iraqi forces were unable to reposition forces in response. CENTCOM's also employed an aggressive PSYOP campaign. Coalition aircraft dropped more than 21 million leaflets on Iraqi forces encouraging them to surrender.⁸³ CENTCOM's 8th Psychological Operations Task Force (POTF) also broadcast messages to Iraqi forces aimed at degrading the Iraqi will to fight.⁸⁴

The ARCENT deception plan limited the degree to which tactical units could shape the battlefield with information operations. Since neither corps could move into its attack position until after the air war began, Army forces had limited time to employ information operations. The energies of both corps were focused on the operational and logistical challenges of their extensive movement into the western portion of the theater.

Despite these limitations, both corps put their limited information operations assets to good use. The primary tactical PSYOP instruments were loudspeaker teams from the 4th Psychological Operations Group's 6th and 9th PSYOP Battalions, as well as the 18th, 244th, 245th and 362^d PSYOP companies.⁸⁵ These loudspeaker teams reinforced the ARCENT and CENTCOM themes encouraging Iraqi forces to surrender. The 101st Airborne Division (Air Assault) used an *ad hoc* loudspeaker team formed only three days before the start of the ground war to encourage an entire Iraqi infantry battalion to surrender without ever firing a shot. Another Iraqi infantry battalion surrendered to a helicopter-borne loudspeaker team attached to the 1st Cavalry Division when the team broadcast a message that "attack from above was imminent."⁸⁶ The 1st Cavalry Division also employed fires and limited attacks to reinforce the ARCENT deception story that the coalition's main attack would come from the Wadi Al Batin area. The division's assistant division commander for maneuver, Brigadier General Tommy R.

⁸³ U.S. Department of Defense, *Conduct of the Persian Gulf War, Final Report to Congress*, (Washington, DC: April 1992): 188, <http://www.fas.org/man/dod-101/ops/docs/cpgw.pdf> (15 Jan 02).

⁸⁴ Maj. Jack N. Summe, USA, "PSYOP Support to Operation Desert Storm," *Special Warfare* (October 1992): 8.

⁸⁵ Maj. Robert B. Adolf Jr., USA, "PSYOP: Gulf War Force Multiplier," *Army* (December 1992): 18-19.

⁸⁶ *Ibid.*

Franks, credited these operations with setting the conditions for the success of VII and XVIII Airborne Corps.⁸⁷

Despite these successes, neither corps consistently used the targeting process or the MDMP to synchronize information operations. XVIII Airborne Corps, in direct contradiction of both FM 100-5, *Operations*, (1986 version) and FM 6-20-10, *Tactics, Techniques and Procedures for the Targeting Process*, placed PSYOP under the control of the G5. The corps later corrected its error and placed PSYOP in its proper sphere under the G3. However, both the 82^d Airborne Division and the 101st Airborne Division (Air Assault) left PSYOP under the control of the G5 for the duration of the war.⁸⁸ As the 24th Infantry Division (Mechanized) crossed the line of departure in the Gulf War, the PSYOP annex to the division OPORD was still “to be published.”⁸⁹ In VII Corps, the corps’ failure to assess (the final step in the D³A Targeting Process) Iraqi psychological vulnerability contributed to the corps’ slow rate of advance.⁹⁰ Both the 1st Infantry Division (Mechanized) and the 1st Armored Division delayed night attacks due in part to a failure to assess accurately the psychological vulnerability of Iraqi troops.⁹¹

Archival material suggests that tactical units employed the targeting process inconsistently during the Gulf War. While the archival material for XVIII Corps is limited

⁸⁷ Patrecia L. Hollis, “Deception, Firepower and Movement” *Field Artillery* (June 1991): 31-32.

⁸⁸ Maj. Robert B. Adolf Jr., USA, “PSYOP: Gulf War Force Multiplier,” *Army* (December 1992): 20.

⁸⁹ 24th Mechanized Infantry Division Combat Team Operation Desert Storm Attack Plan Oplan 91-3, 17 January 1991.

⁹⁰ The controversy over the speed of VII Corps’ attack remains a subject of debate even today. For competing views on the subject, see Gen. H. Norman Schwarzkopf’s *It Doesn’t Take a Hero* (New York: Bantam Books, 1992) and Gen. Fred Franks’ and Tom Clancy’s *Into the Storm: A Study in Command* (New York: C.G. Putnam’s Sons, 1997). For an excellent discussion on the incorporation of enemy psychological vulnerability into Army doctrine, see Lt Col. Peter J. Schifferle’s “Incorporating Enemy Psychological Vulnerability into U.S. Army Heavy Division IPB Doctrine” SAMS Monograph, Fort Leavenworth, KS, 1993.

⁹¹ For an alternative viewpoint on the use of the targeting process for non-lethal effects, see Maj. Stuart H. Schwark, “Command and Control Warfare and the Deliberate Targeting Process,” MMAS Thesis (Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1997). Schwark argues that the D³A methodology was apparent in the decision-making processes used to employ command and control warfare in VII Corps. While the logic of D3A may have been present, the processes clearly were not. This observation is especially clear in the “assess” function, as VII Corps was very late to appreciate the psychological vulnerability of Iraqi forces.

primarily to the 24th ID (M), the records available show a ‘fires-centric’ approach to targeting.⁹² The 24th Infantry Division (Mechanized) did not include PSYOP in its attack guidance matrix. Indeed, as mentioned above, the division did not even publish a PSYOP annex. The 24th Infantry Division (Mechanized) Attack Guidance Matrix (AGM) does incorporate EW, but the overwhelming majority of delivery assets are lethal fires. While this outcome may be justified due to the tactical situation, the 24th Infantry Division (Mechanized) must still be taken to task for not following targeting doctrine regarding PSYOP. Throughout the remainder of the corps, the exclusion of PSYOP planners from G3 channels hindered the effective synchronization of PSYOP with in the overall plan.

VII Corps’ extensive archival materials present a similarly bleak picture regarding the synchronization of information operations. The VII Corps attack guidance mentions electronic warfare only twice, deception just once, and PSYOP not at all.⁹³ The corps’ PSYOP annex contains only vague guidance of little use in focusing and synchronizing PSYOP with the corps scheme of maneuver, such as the following statement: “At the tactical level, psychological operations will encourage first, second, and third echelon Iraqi forces to surrender or desert.”⁹⁴ The 1st Infantry Division (Mechanized) OPORD had neither a high-payoff target list nor an attack guidance matrix. The division’s electronic warfare guidance was not included in the Fires annex, and contained no doctrinal description of the desired effects. The division’s only references to deception were the 1st ID (M)’s forces supporting the 1st Cavalry Division’s deception efforts. The 1st Infantry Division (Mechanized) “Lessons Learned” from the Gulf War made no mention

⁹² 24th Mechanized Infantry Division Combat Team Operation Desert Storm Attack Plan Oplan 91-3, 17 January 1991. For a discussion of the issues relating to the XVIII Corps archives, see Richard M. Swain, *Lucky War* (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1994): 369.

⁹³ Appendix D (Fire Support) to VII Corps OPLAN 1990-2 (Operation Desert Sabre) VII Corps Archives VII Corps Archives (Fort Leavenworth, KS, 1991): SG HST AAR3-033.

⁹⁴ Annex H (Psychological Operations) to VII Corps OPLAN 1990-2 (Operation Desert Sabre) VII Corps Archives (Fort Leavenworth, KS, 1991): SG HST AAR3-033.

of PSYOP or deception. The 3^d Armored Division's attack guidance matrix refers to EW, but not PSYOP. Finally, the 3^d AD's OPORD contains no PSYOP annex.⁹⁵

Lessons Learned from Information Operations in the Gulf War

There were remarkable similarities in the conduct of targeting and information operations by both U.S. Army corps deployed to the Persian Gulf. First, very few tactical units conducted information operations in accordance with doctrine. Doctrine called for information operations such as PSYOP to come under the purview of the G3. However, most PSYOP troops received their guidance either from the G5 or from stovepipe PSYOP channels leading back to ARCENT and CENTCOM. Doctrine called for information operations to be synchronized using the targeting process. However, most non-lethal effects were neglected in targeting, with the occasional exception of EW. Second, despite the lack of synchronization, information operations were very effective at the tactical level. Both corps had battalion-sized Iraqi forces surrender as the result of information operations. These units were effectively 'destroyed' by information, in the sense that they were so weakened by desertion and surrender that they were incapable of performing their assigned missions. Finally, the targeting efforts of both corps were heavily weighted toward lethal effects. Despite the success of information operations, lethal fires were the 'default setting' for most tactical units.

These shortcomings reflected the limitations of targeting doctrine as it had evolved from the deep battle concept of the 1980s. Targeting doctrine evolved as a means of defeating Soviet second-echelon forces if they attacked Western Europe. This challenge required the attrition of a fast-moving force not especially vulnerable to information-based attacks. Furthermore, targeting doctrine evolved in fire support channels. Naturally, fire supporters were most confident in and experienced with lethal effects. This bias, while understandable, was not offset by similar

⁹⁵ Tab C (Attack Guidance Matrix) to Appendix D (Fire Support) to 3AD OPLAN 91-1 (Operation Desert Spear) VII Corps Archives (Fort Leavenworth, KS, 1991): SG HST AAR4-332.

expertise in non-lethal effects. The typical division staff that deployed to Desert Storm had a full colonel as a fire support coordinator/ Division Artillery (DIVARTY) Commander, a lieutenant colonel as a Military Intelligence (MI) Battalion Commander, and nobody uniquely qualified in PSYOP. Given this distribution of expertise, it's not surprising that fires dominated the targeting process, EW was a distant second, and PSYOP was ignored entirely. This failure should not be attributed to any sort of branch parochialism on the part of commanders or staffs. Instead, the failure is organizational. Without adequate representation, non-lethal effects were often simply overlooked.

The U.S. Army's experience in Desert Storm points to several important lessons. First, information operations belong in operational channels. Simply put, IO is G3/S3 business. Information is an element of combat power, and the synchronization of all elements of combat power is a G3/S3 responsibility. Second, targeting is not exclusively or even primarily a fire support process. Even in conventional high-intensity conflicts, fires represent only some of the effects available to the commander. To generate maximum combat power, G3/S3s need to take control of the targeting process and incorporate all 'effects generating' players into that process.

CHAPTER FIVE

INFORMATION OPERATIONS IN BOSNIA: MAKING IT UP AS WE GO

The U.S. Army's experience in stability operations in the Balkans had a profound impact on information operations doctrine. The purpose of this chapter is to analyze that experience and trace the evolution of information operations doctrine over the last ten years. This chapter first provides a brief summary of the political and diplomatic issues at work in the former Yugoslavia. Next, this chapter examines U.S. Army operations in Bosnia, with special emphasis on information operations. This chapter concludes that information operations in Bosnia were an essential part of the overall mission, but were often conducted in a doctrinal void. Individual units attempting to fill that void often produced well-meaning but incomplete and inefficient methods for synchronizing IO within the overall operation.

Political and Diplomatic Background

The roots of the conflict in the former Yugoslavia remain a source of debate among scholars and policy makers, and are certainly too complex to explore in this paper. Throughout its turbulent history, Yugoslavia's many ethnic groups – Serbs, Croats, Bosniacs, Macedonians, Montenegrins and Slovenians – have enjoyed at best an uneasy peace. It is sufficient to note that by the late 1980s nationalism among Yugoslavia's rival ethnic groups and the declining effectiveness of the country's economic and political institutions created a highly combustible situation. The sparks that set Yugoslavia ablaze were the election of ultra-nationalist Slobodan Milosevich as president of the Serb Republic in 1989, the secession of Croatia in June 1991 and the secession of Bosnia in October 1991. Each rival ethnic group struggled to consolidate its hold on as much territory as possible, with the Serbs in the strongest position, followed by the Croats, and the Bosniacs by far and away in the weakest position. U.S. Ambassador Richard Holbrooke

summed up the dilemma facing the rival ethnic groups in 1991. “Each ethnic group would ask, ‘Why should I be a minority in your state when you can be a minority in mine?’”⁹⁶

Politically, there was limited domestic support in the U.S military involvement in the Balkans. In the early 1990s, the U.S. was coping with the aftermath of the Gulf War, the dissolution of the Soviet Union and a stagnant domestic economy. In the 1992 presidential election, democrat Bill Clinton criticized President Bush for a lack of leadership in the face of a humanitarian catastrophe in Bosnia. President Bush responded by describing calls for U.S. intervention in Bosnia as “reckless.”⁹⁷ However, once in the White House, President Clinton demonstrated a similar reluctance to become involved in Bosnia. As late as 1995, public opposition to the deployment of U.S forces to Bosnia was as high as 70%.⁹⁸

The acrimonious debate over Bosnia occurred not only within the United States, but also between the U.S and her NATO allies. France and Great Britain deployed peacekeeping forces as part of the United Nations Protection Force in 1992. These states attempted to maintain an even-handed approach in dealing with the factions in Bosnia. Both were very sensitive to any approach that would display partiality or place their peacekeeping forces in jeopardy. The United States took a harder anti-Serb line, insisting that the Serbs must not occupy lands belonging to Bosnia. Some in Washington even favored lifting the arms embargo and supplying weapons to the Bosniacs. However, the U.S. didn’t have any forces on the ground, a fact that the Europeans never hesitated to point out.⁹⁹

U.S. Military Operations in Bosnia

By 1995, the United States and her NATO allies were prepared to intervene militarily to put

⁹⁶ Richard Holbrooke, *To End A War* (New York: Random House, 1998): 31.

⁹⁷ Ibid, 42.

⁹⁸ Ibid, 316.

⁹⁹ William J. Durch and James A. Schear, “Faultlines: UN Operations in the Former Yugoslavia” in *UN Peacekeeping, American Policy and the Uncivil Wars of the 1990s*, ed. William J. Durch, (New York: St. Martin’s Press, 1996): 199-211.

and end to the Bosnian conflict. The Western powers were spurred on by public horror at the televised images of suffering in Bosnia, as well as a shared frustration that all previous diplomatic efforts to end the war had failed. On August 30, 1995, NATO aircraft began attacking Serb positions around Sarajevo. Dubbed “Operation Deliberate Force,” the air campaign soon expanded to supporting a Bosnian-Croat offensive to drive Serb forces out of western Bosnia. This offensive produced significant gains for the Bosnian-Croat coalition, and set the conditions for a cease-fire on October 5th.

These military operations paved the way for the negotiation of the Dayton Peace Accords. The treaty was a delicate balancing act that offered each of the factions within Bosnia – the Bosniacs, the Bosnian Serbs and the Bosnian Croats – some, but not all of what they wanted. The Bosniacs had finally won their long sought independence from Serb domination. The Bosnian Serbs would have an autonomous Republika Srpska within the new Bosnian state. The Croats would be represented as part of the Bosnian-Croat confederation, the counterpart to the Republika Srpska. The treaty provided for elections, the repatriation of refugees, de-mining activities, the apprehension of accused war criminals, economic reconstruction and a host of other matters.¹⁰⁰

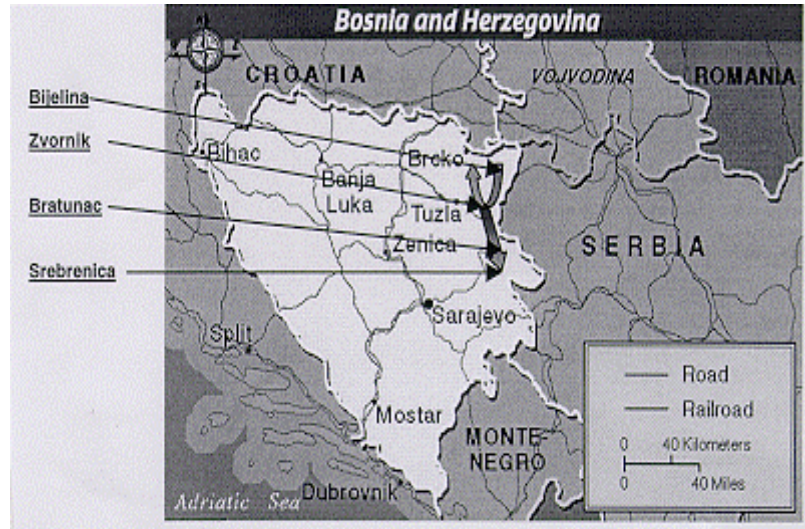
Some issues were so contentious that they could not be resolved, but only deferred. First and foremost among these issues was the status of Brcko. As the map in figure 4-1 indicates, Brcko was a vital city for all concerned.¹⁰¹ Brcko was important to the Bosnian Serbs because it dominated the narrow corridor connecting the two wings of the Republika Srpska. Brcko was important to the Bosnian-Croat Federation because it provided a connection across the Sava River

¹⁰⁰ Larry K. Wentz, “Lessons From Bosnia: The IFOR Experience” <http://call.army.mil/> (11 Dec 2001).

¹⁰¹ Cpt. David S. Jones, USA, and Cpt. Paul J. McDowell, USAF, “To Catch a War Criminal: The United Nations Apprehension of an Indicted War Criminal” Center for Army Lessons Learned <http://call.army.mil/> (11 Dec 2001).

to Croatia and the rest of Europe. Unable to decide the status of Brcko, the negotiators at Dayton agreed to arbitration of the final status of Brcko in one year.

Figure 5-1 Map of Bosnia



To implement the provisions of the accord, Dayton's Military Annex required the deployment of an Implementation Force (IFOR). This force consisted of 60,000 troops from both NATO and non-NATO states, and included 20,000 Americans.¹⁰² IFOR's primary tasks included:¹⁰³

- ensure continued compliance with the cease-fire;
- ensure the withdrawal of forces from the agreed cease-fire zone of separation back to their respective territories, and ensure the separation of forces;
- ensure the collection of heavy weapons into cantonment sites and barracks and the demobilization of remaining forces;
- create conditions for the safe, orderly, and speedy withdrawal of UN forces that have not transferred to the NATO-led IFOR; and
- maintain control of the airspace over Bosnia-Herzegovina.

¹⁰² Larry K. Wentz, "Lessons From Bosnia: The IFOR Experience" <http://call.army.mil/> (11 Dec 2001).

¹⁰³ Ibid.

Task Force Eagle in Bosnia

The early focus of Task Force Eagle was aimed at separating the former warring factions and securing heavy weapons systems. Along with other IFOR forces, Task Force Eagle established a 4-kilometer wide “zone of separation” between the former warring factions (FWF). Under IFOR supervision, the FWF withdrew their forces to their respective sides of the zone of separation. This task was complete by January 19, 1996. Task Force Eagle next turned its attention to the collection of heavy weapons into cantonment areas. This task was accomplished by April 29, 1996. By the end of April, all provisions of the military annex of the Dayton Accords were accomplished, yet popular support for the Dayton Accords, and the peace such support could bring, remained elusive.

Task Force Eagle soon turned to the more complex task of building popular support for the provisions of the Dayton Accords. Task Force Eagle Artillery Commander Colonel Mark T. Kimmitt described the unique challenge faced by U.S. forces in Bosnia. “In peace enforcement, the goal is not to defeat, destroy or delay things (except *in extremis*). The goal is to persuade, compel, or moderate behaviors.”¹⁰⁴ This challenge was made more difficult by the efforts of some FWF leaders to discredit IFOR and the Dayton Accords. In a June 1996 letter to President Clinton, U.S. Ambassador Richard Holbrooke stated, “[Bosnian Serb Leader] Karadzic uses television and controlled media to prevent local reconciliation efforts.”¹⁰⁵

Information Operations in Bosnia

Task Force Eagle undertook the task of building support for the Dayton Accords in a doctrinal void. The Army’s first doctrinal manual on Information Operations did not appear until six months after the deployment of U.S. forces to Bosnia. The Center for Army Lessons Learned (CALL) found that, “in NATO peace operations in Bosnia, U.S. forces in Task Force Eagle have

¹⁰⁴ Col. Mark T. Kimmitt, USA, “Fire Support in Bosnia-Herzegovina: An Overview,” *Field Artillery* 4 (July-August 1998): 30.

¹⁰⁵ Richard Holbrooke, *To End A War* (New York: Random House, 1998): 340.

had to use a ‘trial-and-error’ approach to IO planning.”¹⁰⁶ Several Task Force Eagle officers noted “the need for non-lethal attack options revealed the void in existing tactics, techniques and procedures (TTP).”¹⁰⁷ To help fill this doctrinal void, the Land Information Warfare Agency (LIWA) deployed a field support team (FST) to Bosnia.

Task Force Eagle had to determine how to organize the battle staff to integrate information operations within the overall operation. The lack of a clearly defined and well-understood doctrine hampered Task Force Eagle’s efforts. Eventually TFE set up an Information Operations Working Group chaired by the LIWA FST commander. The IOWG met weekly to coordinate IO efforts, and consisted of representatives from the following agencies:

- Division Public Affairs Officer
- Coalition Press Information Center Director (a senior PAO officer)
- Provost Marshal
- SOCCE (representing the JCOs)
- Staff Judge Advocate
- G-5 Civil Affairs
- G-2 Plans
- G-3 Plans
- Allied Brigade Liaison Officers
- Task Force Liaison Officers Joint Military Commission Representative
- PSYOP, DPSE Commander
- Political Advisor (POLAD)

Under the auspices of the IOWG, Task Force Eagle conducted a wide variety of information operations. The IOWG had a critical role to play because IO were Task Force Eagle’s primary means of influencing popular acceptance of the Dayton Accords. On 1 September 1997, TFE forces seized a Bosnian-Serb controlled radio tower to halt the dissemination of anti-IFOR propaganda. Bosnian Serb leaders had been using the station to inflame public opinion about the status of Brcko. TFE returned radio tower to Bosnian Serb control after Republika Srpska leaders

¹⁰⁶Center For Army Lessons Learned, "IO in a Peace Enforcement Environment" Newsletter no. 99-2 <http://call.army.mil/call.html> (7 November 2001).

¹⁰⁷ Lt. Col. Steven Curtis, USA, Cpt. Robert A.B. Curtis, USA, and Maj. (Ret.) Marc J. Romanych, USA, “Integrating Targeting and Information Operations in Bosnia,” *Field Artillery* 4 (July-August 1998): 32.

promised to refrain from spreading inflammatory propaganda.¹⁰⁸ PSYOP loudspeaker teams were often used as a non-violent means to disperse angry demonstrators. TFE often improvised means for limiting the intensity of anti-IFOR demonstrations. For example, TFE troops staged false “broken down” combat vehicles along the routes to demonstration sites. When confronted with such an immovable object, busloads of demonstrators had to either go by foot or find another route.¹⁰⁹ Task Force Eagle also communicated with the Bosnian public directly about the benefits of the Dayton Accords through print and electronic media.

The IOWG was a necessary, but very imperfect, solution to the problem of integrating IO into Task Force Eagle operations. Despite the fact that IO were the commander’s *primary* means of accomplishing the Task Force mission, these operations were planned by an ad hoc committee acting with limited doctrinal guidance and led by an officer not assigned to the Task Force. Task Force Eagle leaders recognized the weaknesses in these arrangements and made great progress into “normalizing” IO into the established divisional battle rhythm.

The fire support community played a significant role in efforts to synchronize information with the other elements of combat power. Writing in *Field Artillery*, Lt. Col. Steven Curtis, Cpt. Robert A.B. Curtis, and Maj. (Ret.) Marc J. Romanych argued that “For IO to be embraced fully at the tactical level, it first must become an integral part of corps and division battle rhythms and planning cycles and be compatible with doctrine. One cannot expect a division planning staff to speak in one language for conventional operations and transition to another for the sake of information operations.”¹¹⁰ These officers argued that IO should be incorporated into the targeting process in order to synchronize IO with the other elements of combat power. JRTC

¹⁰⁸ Maj. Arthur N. Tulak, USA, “The Application of Information Operations Doctrine in Support of Peace Operations,” CGSC MMAS Thesis, (Fort Leavenworth, KS: U.SACGSC, 1999): 89.

¹⁰⁹ Ibid, 87.

¹¹⁰ Lt. Col. Steven Curtis, USA, Cpt. Robert A.B. Curtis, USA, and Maj. (Ret.) Marc J. Romanych, USA, “Integrating Targeting and Information Operations in Bosnia,” *Field Artillery* 4 (July-August 1998): 31.

observer-controllers argued, “The fires paragraph written in the battalion order uses the task, purpose, method, effect method. Write the IO paragraph in much the same way the Fires paragraph is written....The only changes between the fires and IO paragraphs are terminology.”¹¹¹ Such suggestions soon found their way into practice. The Center for Army Lessons Learned observed “the Commander of TFE and MND-N placed IO under the control of the [Deputy Fire Support Coordinator], and used the Division [Fire Support Element] as its base structure. The IO Cell Chief had tasking authority through the G-3 to synchronize IO actions in accordance with the commander's vision.”¹¹²

Lessons Learned from Information Operations in Bosnia

Several common themes emerged from the Army's early efforts to conduct information operations in Bosnia. The first of these themes is the all-encompassing nature of the information environment. Given the revolutionary growth in the speed and scope of global communications, it is no exaggeration to state that the information environment affects everything, and everything is included in the information environment. Colonel James Greer, a former task force commander in Bosnia and now the director of the Army's School of Advanced Military Studies, cites several illustrative examples. “Even seemingly small things, like leave and pass policy or uniform wear, convey information to potential adversaries and have an operational effect.”¹¹³ Indeed, what happens in the information environment can influence whether those ‘on the fence’ perceive U.S. forces as adversaries or allies. Curtis, Curtis and Romanych note that an adversary can be “anyone, military or civilian, who can prevent the friendly force from accomplishing the mission.”¹¹⁴ The logical corollary of this definition is that information can

¹¹¹ Maj. Matt Anderson, USA, Cpt. Joel Hamby, USA, and Cpt. Frank O'Donnell, USA, “Battalion/Task Force Targeting and the Military Decision-Making Process (MDMP) in the Information Operations (IO) Environment,” <http://call.army.mil/call.html> (7 November 2001).

¹¹² Tactics, Techniques and Procedures for Information Operations (IO) NEWSLETTER NO. 99-15 Center for Army Lessons Learned, “Civil Affairs and Public Affairs Support to IO,” <http://call.army.mil/call.html> (7 Nov 2001).

¹¹³ Interview with Col. Greer, 26 November 2001.

¹¹⁴ Lt. Col. Steven Curtis, USA, Cpt. Robert A.B. Curtis, USA, and Maj. (Ret.) Marc J. Romanych, USA,

influence those actors who are tempted, but not committed, to interfere with U.S. forces. Another important lesson was the need for a common set of doctrinal terms and concepts to conduct information operations. As Table 3-4 pointed out above, the separate evolution of targeting and information doctrine has led to a proliferation of confusing and contradictory terms. Well-meaning efforts from the field to resolve these contradictions have only made matters worse. Curtis, Curtis and Romanych have attempted to use translate targeting effects – limit, disrupt, divert, delay, destroy, damage – into informational effects. However, these terms are of limited utility when attempting to describe operationally desirable effects on individual behavior, especially the behavior of civilians. Recognizing these limitations, the same authors came up with a second set of effects – inform, warn, co-opt, influence, disorganize, co-opt and deceive – to describe the effects desired from IO in peace operations.¹¹⁵ Writing in *Field Artillery* about the 3^d Infantry Division’s recent experience in Bosnia, Captain Timothy LaBahn changes the list above by adding “isolate” and “promote” while subtracting “deceive.”¹¹⁶ However, LaBahn’s use of “isolate” employs the same term but a different meaning than the one found in current doctrine. While these authors and others are to be praised for their initiative, the time has clearly come for a clear doctrinal definition of *all* effects – lethal and non-lethal alike.

A final important lesson was both the difficulty and the importance of delineating clear responsibilities for the conduct of information operations. The difficulty in assigning such responsibility derives from the all-encompassing nature of IO. Because there is an informational component to nearly every military activity, IO do not fit neatly under any one staff element. While difficult, the importance of assigning clear responsibilities for IO is clear. Relying on ad hoc organizations may be a recipe for disaster. For example, the Center for Army Lessons Learned states that an IO working group “is appropriate to peace enforcement operations where

“Integrating Targeting and Information Operations in Bosnia,” *Field Artillery* 4 (July-August 1998): 32.

¹¹⁵ Lt. Col. Steven Curtis, Cpt. Robert A.B. Curtis, and Maj. (Ret.) Marc J. Romanych, “Integrating Targeting and Information Operations in Bosnia,” *Field Artillery* 4 (July-August 1998): 31-36.

¹¹⁶ Cpt. Timothy D. LaBahn, “Information Operations in Bosnia,” *Field Artillery* (Nov-Dec 2001): 28-33.

the optempo is somewhat more predictable than in combat operations. If the peace operation should move to open conflict, FM 100-6 states that it may be more appropriate to stand up an Information Operations Battle Staff (IOBS), to integrate information operations in the staff.”¹¹⁷ It is preposterous for Army doctrine to expect commanders to have one kind of organization for peace operations, another for combat operations, and for the reorganization of the staff to take place during an escalation of the conflict. The battle staff must be organized to provide timely and accurate information and recommendations to the commander, regardless of the circumstances. Ad hoc organizations and on-the-fly reorganizations are not sufficient for these tasks. CALL correctly notes, “During peacekeeping operations where IO may assume a prominent role, it is particularly important to avoid assigning missions, themes and messages outside of the G3-S3 channels.”¹¹⁸

¹¹⁷ Center for Army Lessons Learned, “IO in a Peace Enforcement Environment” Newsletter no. 99-2, <http://call.army.mil/call.html> (7 November 2001).

¹¹⁸ Center for Army Lessons Learned, “Tactics, Techniques and Procedures for Information Operations (IO)” Newsletter no. 99-15, <http://call.army.mil/call.html> , (7 Nov 2001).

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

Conclusion

This monograph analyzed the utility of the targeting process as a means of synchronizing information with the other elements of combat power at the tactical level. Based on the evidence examined, the best that can be said is that the targeting process has unrealized potential to achieve this goal. That potential exists because the D³A methodology offers a coherent model for identifying and attacking critical enemy vulnerabilities. That potential is unrealized because targeting doctrine is far too 'fires centric,' while IO doctrine unnecessarily duplicates efforts already performed in targeting. To remedy this problem, the Army must make significant doctrinal, organizational and training reforms.

Recommended Changes to Army Doctrine

The most important doctrinal change required to target information effectively is to fully integrate the targeting process into the MDMP. Targeting begins in step fifteen of mission analysis with the commander's guidance. FM 101-5, *Staff Organization and Operations*, states that commander's guidance describes "in broad terms when, where and how [the commander] intends to mass his combat power to accomplish the mission according to his higher commander's intent."¹¹⁹ However, FM 101-5 organizes the format for commander's guidance by battlefield operating systems.¹²⁰ The manual makes clear that commanders need not address every item in the format. However, the use of the BOS provides a mental model for commanders to "stovepipe" their guidance. This model requires the commander to determine not only *what* must be done, but also *how* it is to be done. Such a model encourages commanders to

¹¹⁹ U.S. Army FM 101-5, *Staff Organization and Operations* (Washington DC: Department of the Army, 1997): 5-10. B-1-B-3.

¹²⁰ Ibid, B-1-B-3.

“weaponeer” tasks. For example, a commander conducting a defense is encouraged to specify not only that he wants the enemy’s second echelon forces disrupted at a certain place and/or time; he is also encouraged to specify how that task is to be accomplished – family of scatterable mines (FASCAM), EW, attack aviation, etc. This level of specificity is not only unnecessary but also counterproductive. Highly specific commander’s guidance stifles the initiative of planners to develop innovative means of accomplishing the commander’s goals.

A far better approach is for commanders to tell their staffs what to do, and allow planners to figure out how to do it. When a commander issues effects guidance, he describes only the effects he wishes to have on the enemy. Planners then take this guidance and determine what systems are best suited to accomplish the commander’s goals. Commanders become involved in the ‘how’ questions only by exception. For example, a commander concerned about mobility for follow on offensive operations may tell his staff not to use long-duration FASCAM in the defense. However, unless he has good reasons for doing so, the commander must not limit the means available to the staff for accomplishing his goals. Accordingly, the BOS specific commander’s guidance model in FM 101-5, *Staff Organization and Operations*, must be replaced with an “effects guidance” model that covers fires, air defense, mobility and counter-mobility, and information operations.

A second change must occur in the development of the course of action statement. The current course of action statement in FM 101-5, *Staff Organization and Operations*, calls for specific guidance for fires. Many units also specify particular roles for close air support (CAS), IO and other combat multipliers. A far better approach would be to develop a single statement of essential effects for a particular COA, without specifying the means by which those effects will be achieved. The essential effects tasks, just like the tasks of shaping/supporting

efforts, clearly state how they contribute to the success of the decisive operation/main effort.¹²¹

Of course, as with any COA, the G3/S3 ensures that the effects described were feasible. This approach would integrate all effects generating BOS into the COA. For example, disrupting the commitment of the enemy's reserve might best be accomplished by a combination of fires, IO and counter-mobility effects. In this situation, the BOS representatives from these areas would begin synchronizing their efforts during COA development. In other words, the staff holds its first targeting meeting during COA development, not after execution begins.

This synchronization effort continues during war gaming. The G3/S3 describes how essential effects support the decisive and shaping operations, to include the identification of high payoff targets. Following this statement, BOS representatives describe how the HPT's would be detected, what effects will be delivered against them, and how those effects will be assessed. This approach both simplifies and strengthens the synchronization process of the war game. The war game is simplified because all BOS representatives are focused describing how they contribute to a common set of essential effects. This focus discourages BOS representatives from including activities or processes that do not require cross-BOS synchronization. The war game is strengthened because the entire staff is able to visualize how each BOS contributes to a common set of essential effects. The results of such a war game are recorded on a decision support matrix. However, with essential effects now described in detail, the DSM yields not only the base order but also the targeting support matrix. (TSM)

A third important doctrinal change required is a common doctrinal lexicon that applies to all elements of combat power. As noted above, allowing different BOS to develop their own

¹²¹ Lt. Col Robert C. Johnson, USA, has proposed a similar approach at the operational level of war. Johnson argues that joint force commanders must visualize and describe operations in terms of the *effects* desired against the enemy's center of gravity. Furthermore, this process occurs in the development of the concept of operations. See "Joint Campaign Design: using a Decide-Detect-Attack (DDA) Methodology to Synchronize the Joint Force's Capabilities Against Enemy Centers of Gravity," SAMS Monograph, (Fort Leavenworth, KS: U.S.ACGSC, 1994): 37-38.

lexicon to describe the effects we generate against adversaries is a recipe for disaster. To use only the most obvious example, having a tactical unit operate with three different meanings for the effect ‘destroy’ can only produce chaos. Army forces can have only one set of effects that apply to all battlefield operating systems. The tactical tasks listed in FM 101-5-1, *Operational Terms and Graphics*, forms the baseline for these effects. A proposed set of effects and their definitions is proposed below.

Table 6-1, Tactical Effects

Task	Effect
Breach *	A tactical task where any means available are employed to break through or secure a passage through an enemy defense, obstacle, minefield, or fortification.
Clear *	To remove all enemy forces and eliminate organized resistance in an assigned zone, area, or location by destroying, capturing, or forcing the withdrawal of enemy forces such that they cannot interfere with the friendly unit's ability to accomplish its mission.
Compel **	To use force to cause an enemy force to stop doing something they have already undertaken, or to cause enemy forces to do something that they have not yet undertaken.
Contain *	To restrict enemy movement.
Defeat*	A tactical task to either disrupt or nullify the enemy force commander's plan and subdue his will to fight so that he is unwilling or unable to further pursue his adopted course of action and yields to the will of his opponent.
Delay ***	An operation in which a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage on the enemy without, in principle, becoming decisively engaged.
Destroy **	1. A tactical task to physically render an enemy force combat-ineffective unless it is reconstituted. 2. To render a target so damaged that it cannot function as intended nor be restored to a usable condition without being entirely rebuilt. Artillery requires 30 percent incapacitation or destruction of enemy force.
Deter **	To use force to prevent an enemy force from undertaking an action by threatening unacceptable punishment.
Disrupt *	A tactical task or obstacle effect that integrates fire planning and obstacle effort to break apart an enemy's formation and tempo, interrupt the enemy's timetable, or cause premature commitment of enemy forces, or the piecemealing of his attack.
Fix *	A tactical task in which actions are taken to prevent the enemy from moving any part of his forces either from a specific location or for a specific period of time by holding or surrounding them to prevent their withdrawal for use elsewhere.
Interdict *	To seal off an area by any means; to deny use of a route or approach. 2. A tactical task which is oriented on the enemy to prevent, hinder, or delay the use of an area or route by enemy forces.
Isolate *	A tactical task given to a unit to seal off (both physically and psychologically) an enemy from his sources of support, to deny an enemy freedom of movement, and prevent an enemy unit from having contact with other enemy forces. An enemy must not be allowed sanctuary within his present position.
Neutralize *	To render enemy personnel or material incapable of interfering with a particular operation.
Occupy *	A tactical task in which a force moves onto an objective, key terrain, or other man-made or natural terrain area without opposition, and controls that entire area. 2. To remain in an area and retain control of that area.
Persuade **	The employment of military assets short of the use of force in order to alter the behavior of a hostile or potentially hostile force.
Secure *	A tactical task to gain possession of a position or terrain feature, with or without force, and to deploy in a manner which prevents its destruction or loss to enemy action. The attacking force may or may not have to physically occupy the area.
Seize *	A tactical task to clear a designated area and obtain control of it.

* - Indicates no change to the Army definition in FM 101-5-1, *Operational Terms and Graphics*

** - Indicates a term added or modified by the author, with the justification for the addition or modification below

*** - Indicates a term in which the joint definition has been adopted over the Army definition, with the justification provided below.

This all-inclusive list describes sixteen tactical effects that apply to maneuver, fire support and information operations forces. This consolidated list is far simpler than the that the Twenty-eight tactical tasks, three field artillery missions, six targeting effects and seven IO objectives (42 in all) now found in current doctrine.

Several terms from the current list of tactical tasks have been eliminated. Ambush, canalize, attack by fire, bypass, counterattack, counterattack by fire, follow and assume, follow and support, relief in place, retirement, support by fire and withdraw were eliminated. These terms do not describe what effect a commander is to have on the enemy or terrain. Instead, they describe how the commander is to achieve an effect. For example, if a commander is to destroy an enemy force, that task may be accomplished through a variety of means, to include an ambush, attack by fire, counterattack by fire, etc. While these terms may have a valid place elsewhere in doctrine, they are far too restrictive to have a place in an effects based doctrine. Several other terms are eliminated due to redundancy. Block has essentially the same meaning as interdict. Breach and penetrate are also essentially the same effect. 'Breach' is a better term because 'penetrate' is used to describe a form of maneuver. Finally, the meaning of 'retain' is incorporated in 'occupy,' so retain is eliminated.

Three new terms appear on the list – compel, deter and persuade.¹²² The addition of these terms recognizes that Army forces operating at the lower end of the spectrum of conflict often seek to change an adversary's behavior. Compel requires an enemy to change his behavior by taking some positive action. For example, the effect of "compel faction Y to surrender its weapons" requires that faction to take the positive step of handing over weapons. Deter requires an enemy to refrain from taking an action he may be contemplating. Deterrence is different from

¹²² For an excellent discussion on the uses of force, see Robert J. Art's "The Four Functions of Force" in *The Use of Force* (Robert J. Art and Kenneth Waltz, eds., Lanham, MD: University Press of America, 3-11.) Art's argument originally appeared in "To What Ends Military Power," *International Security* 4

compulsion because the aim is essentially negative. Deterrence encourages an adversary not to alter the status quo. For example, the task of “deter faction X from disrupting civilian movement” assumes that faction X is contemplating disrupting movement, but is not currently taking any steps to achieve that goal. A unit achieves a deterrent effect if it maintains the status quo – i.e. faction X continues to do nothing to disrupt movement. Both ‘compel’ and ‘deter’ empower the commander to use force, lethal and non-lethal, to accomplish the assigned task. The effect of ‘persuade’ is different in that it seeks to moderate an adversary’s behavior, but is not backed by force. For example, the effect of “persuade faction Z to participate in local elections” does not authorize a commander to use force to achieve that effect. A task of ‘persuade’ is therefore very restrictive, but is appropriate when the situation clearly does not call for the use of force.

This list of effects incorporates or eliminates the Field Artillery missions of “destroy, neutralize or suppress.” The Field Artillery currently defines ‘destroy’ as achieving 30% casualties against an enemy force.¹²³ This definition contradicts the maneuver definition, which sets the threshold for destruction at 70%. For the sake of clarity, the Field Artillery is far better off adopting the definition used by the maneuver arms it supports. Similarly, Field Artilleryman should drop the definition of ‘neutralize’ as inflicting 20% casualties. The entire combined arms team must operate from the single definition of “[rendering] enemy personnel or material incapable of interfering with a particular operation.”¹²⁴ If the entire force adopts the doctrinal definition of neutralize, ‘suppress’ can be eliminated from the Field Artillery’s mission. The current definition of suppress is “a tactical task to employ direct or indirect fires, electronic countermeasures (ECM), or smoke on enemy personnel, weapons, or equipment to prevent or degrade enemy fires and observation of the friendly forces.” This definition is objectionable

Spring 1980): 4-35.

¹²³ U.S. Army, FM 101-5-1, *Operational Terms and Graphics* (Washington DC: Department of the Army, 1997): 1-51.

¹²⁴ Ibid, 1-109.

because it is restrictive and redundant. The ‘suppress’ definition is restrictive because it proscribes *how* a certain effect is achieved. The definition is redundant because the revised definition of ‘neutralize’ incorporates the effects described in ‘suppress.’

The list of effects also incorporates or eliminates the terms employed in the targeting process. Damage is eliminated because destroy and neutralize are more descriptive. An attack ought to be aimed at either rendering a target combat ineffective until reconstituted (destruction) or rendering a target incapable of interfering with a particular operation for a given period of time (neutralization). Delay, destroy and disrupt are retained as tasks, but the doctrinal definitions in FM 101-5, *Staff Organization and Operations*, are adopted for the reasons described above. Divert is eliminated because its definition – tying up critical enemy resources so they cannot be employed elsewhere – is essentially the same as fix. Finally, limit is dropped because its definition is incorporated in interdict and neutralize.¹²⁵

Finally, the list of effects incorporates or eliminates the terms employed in information operations. Destroy and disrupt are retained as tasks, but the doctrinal definitions in FM 101-5, *Staff Organization and Operations*, are adopted for the reasons described above. Degrade is dropped as a task because the effect it describes is better captured in neutralize. The term deny ought to be retained in IO doctrine because it is useful in OPSEC. However, the term deny does not have broader applicability and therefore is not suited for use in the targeting process. Deceive and influence are eliminated because they essentially describe an adversary’s thoughts rather than his behavior. However, to produce effects that we can assess, targeting doctrine must focus not on thoughts but on behaviors. Finally, the term exploit is eliminated because it describes how a particular effect is achieved rather than what that effect is on the enemy.

¹²⁵ U.S. Army, FM 6-20-10, *Tactics, Techniques and Procedures for The Targeting Process*, defines limit as “reducing the options or courses of action available to the enemy commander.” (1-2) However, the vagueness of this definition requires further elaboration, so the examples of denying use of an avenue of approach or reducing the availability of fire support assets are given. These tasks are essentially interdiction and neutralization, respectively.

These recommendations are consistent with the emerging literature on ‘effects based’ targeting in joint operations. A recent Air Force study defined effects based targeting as “identifying and engaging an adversary’s key capabilities in the most efficient manner to produce a specific effect consistent with the commander’s objectives.”¹²⁶ The U.S. Navy has recently embraced “effects based operations” as one of the four pillars of its ‘Network Centric Operations’ concept.¹²⁷ Both services hold that effects based operations are as valuable at the tactical level as they are at the operational and strategic levels. One common theme that emerges in this literature is the focus on the *effect* a certain action has on the enemy, rather than *how* that effect is created. This theme certainly resonates with the Army’s experience in recent operations. Those entire Iraqi battalions that were influenced to surrender by PSYOP were essentially destroyed not by fire and maneuver, but instead by information.

Recommended Changes to Organization and Training

The most important organizational change required to target information is the creation of an ‘effects coordination cell’ at the division and corps levels. This ECC is led by the G3, who is already charged in current doctrine with “synchronizing tactical operations with all staff sections.”¹²⁸ The G3 appoints a deputy effects coordinator (DEC) based on which staff section or unit will have the preponderance of effects in a particular operation. For example, in a peacekeeping operation, the preponderance of effects will probably be delivered by information operations. In such a situation, the G7 and not the fire support coordinator (FSCOORD) serves as the DEC. If the operation transitions to high intensity combat, the FSCOORD will likely deliver the preponderance of effects and therefore assumes the duties of DEC. Because both fire support

126 T. W. Beagle, *Effects-Based Targeting: Another Empty Promise?* School of Advanced Air Power Studies Thesis (Maxwell Air Force Base, Alabama: School of Advanced Air Power Studies, June 2000): 5. See also Maj. Jay M. Kreighbaum, “Force Application Planning: A Systems-and-Effects-Based Approach,” (Unpublished thesis, School of Advanced Airpower Studies (SAAS), 1998).

¹²⁷ Navy Warfare Development Command, http://www.nwdc.navy.mil/concepts/capstone_concept.asp , (27 Jan 02). The other three pillars are gaining information and knowledge advantage, assured access and forward sea bases.

¹²⁸ U.S. Army, FM 101-5, *Staff Organization and Operations* (Washington DC: Department of the Army, 1997): 4-12.

and information operations contribute to effects based targeting, neither is always the best choice to synchronize the delivery of effects. The preponderance of effects in any given operation will be dependent upon the mission, enemy, terrain and weather, troops and support available, time available and civil considerations (METT-TC).¹²⁹ Therefore, primacy in the synchronization of effects should also be METT-TC dependent.

In the more austere manning environment at brigade and battalion, the solution lies not in organization but in training. While battalion and brigade sized units may be charged with conducting information operations, they are unlikely to be staffed with a dedicated 'S7' trained in IO. However, just as in corps and divisions, brigade and battalion operations officers (S3s) must be the effects coordinators at their levels respectively. Just as in corps and divisions, these officers would have responsibility for synchronizing effects for their units, aided by a deputy who brings the preponderance of effects to the operation. Just as in corps and divisions, the FSCOORD would assume DEC responsibilities in offensive and defensive operations. In stability and support operations, the DEC could be an attached PSYOP or other IO officer, or an officer taken 'out of hide' to focus on IO tasks. These responsibilities demand that combat arms officers must be trained to synchronize information based effects with the other elements of combat power by employing the targeting process. The ideal forums for this training are the Command and General Staff Officer's Course (CGSOC), and to a lesser extent, the Captains Career Courses (CCC).

These recommendations do not fit cleanly into our current rank structure. For example, a brigade engaged in a stability operation might have a major as the S3/effects coordinator, an 'out of hide' captain as the DEC, while the FSCOORD is a lieutenant colonel and battalion commander. While awkward, this situation is permissible when three factors are taken into account. First, the accomplishment of the mission is the primary consideration, and the staff must be organized along those lines most likely to contribute to mission accomplishment. The current

¹²⁹ U.S. Army, FM 3-90, Tactics (Washington, DC: Department of the Army, 2001): 2-4.

'fires centric' targeting approach has proven ineffective in integrating IO into combined arms operations. Second, field artillery units are often used as maneuver elements in stability operations. Even in high intensity operations, the FSCOORD must split his time between command and fire support coordination issues. Finally, tactical units are focused primarily on their war-fighting role, and in this role the FSCOORD certainly brings the preponderance of effects to the battlefield. Only in the exceptional cases of stability operations do FSCOORDs forfeit this primacy in order to focus on other tasks.

The Initial Brigade Combat Teams (IBCTs) have taken important but ultimately incomplete steps towards effects synchronization. The IBCTs have “fires and effects coordination cells” to synchronize all effects into combined arms operations.¹³⁰ While a step in the right direction, the FECC is still a ‘fires centric’ organization under the leadership of the fire support coordinator (FSCOORD), who has been given the additional title of effects coordinator (ECOORD). However, FSCOORDs are already hard pressed to perform both command and fire support coordination responsibilities. Adding IO synchronization to those responsibilities would in all likelihood result in those responsibilities being delegated to a subordinate, such as the brigade FSO, with far less clout to direct the battle staff.

A second important organizational change is to eliminate the duplications between information operations and targeting. The targeting meeting must be the *only* forum used by the battle staff to synchronize effects directed against adversaries or potential adversaries. Battle staffs in tactical units have neither the time nor the personnel to conduct redundant meetings. Of course, BOS representatives including the G7 and FSCOORD will continue to hold internal meetings focused on internal business. However, the targeting meeting is the ideal forum to synchronize the effects of all 'effects generating' units and staff sections. The following personnel should attend the targeting meeting at division and corps:

¹³⁰ See Col. Steven L. Bailey, USA, “Fires for the IBCT,” *Field Artillery* (November-December 2001, 5-7) and Cpt. Kevin S. Finch, Lt. Col. Henry S. Larsen III, USA, and Cpt. Vincent J. Bellisario, USA,

- G2
- G3 (chairs the meeting in the role of effects coordinator [ECOORD])
- G5
- G6
- G7 (possible DEC, especially in stability and support operations)
- Air Defense Officer
- Air Liaison Officer
- Engineer Officer
- FSCOORD (possible DEC, especially in offensive and defensive operations)
- Staff Judge Advocate

Obviously, the list must be modified for brigade and battalion sized units, but the same functions must be considered at every level. Of course, other personnel may attend the meeting as 'back benchers' or as needed on a case-by-case basis as determined by the G3/S3.

This list of targeting personnel differs from those in FM 6-20-10, *Tactics, Techniques and Procedures for the Targeting Process*, FM 100-6, *Information Operations*, and FM 3-13, *Information Operations: Doctrine, Tactics, Techniques, and Procedures* (Draft), in several respects. First, unlike FM 6-20-10, the list above does not include the chief of staff in the targeting meeting. Certainly the chief of staff and/or commander must be briefed on the products resulting from the targeting meeting. However, the time of these senior leaders is not well spent in the minutiae of the targeting process. Second, the list of personnel above is smaller than any of the three doctrinal manuals proscribe. All three manuals include not only the 'principals' from units and staff sections, but also many of their subordinates. For example, FM 6-20-10 includes in the targeting meeting not only the FSCOORD but also the DFSCOORD, artillery intelligence officer and targeting officer. Similarly, FM 3-13 includes in the IO cell meeting not only the G7, but also the deception officer, electronic warfare officer, OPSEC officer and PSYOP officer. The more austere list proposed above is based on the assumption that each principal attends the targeting meeting prepared to speak for his unit or staff section. While subordinates may be called upon in 'backbencher' roles, the targeting meeting will run far more smoothly by limiting participation to senior officers who possess decision making authority.

“Counterfire for the IBCT,” *Field Artillery* (November-December 2001,14-18).

One important caveat must be kept in mind when reviewing these recommendations. While the targeting process should synchronize all effects directed at the enemy, it should not assume control over all information operations. Many information operations, such as public affairs and OPSEC, fall well outside the purview of targeting. Indeed, virtually everything a unit does or fails to do generates some information effect. These matters are best left in the domain of the G7, reporting directly to the chief of staff.

By adopting the measures described above, the U.S. Army can simplify and strengthen its ability to synchronize information with the other elements of combat power. By adopting a single lexicon that describes all effects, regardless of their source, the Army can achieve far greater clarity than current doctrine allows for. By making the targeting meeting the sole forum for synchronizing those effects, the Army can achieve far greater efficiency than current doctrine permits.

APPENDIX ONE – GLOSSARY OF TERMS

ACE – analysis and collection element

AGM - attack guidance matrix

ARCENT - U.S. Army Central Command

ARFOR - Army Forces

BOS - battlefield operating systems

BDA - battle damage assessment

C²W - command and control warfare

CA - civil affairs

CALL - Center for Army Lessons Learned

CAS - close air support

CCC - Course Captains Career Course

CGSOC - Command and General Staff Officer's Course

CTCs - combat training centers

D³A - decide, detect, deliver, assess

DEC - deputy effects coordinator

DFSCoord - deputy fire support coordinator

DIVARTY - division artillery

DoD - Department of Defense

ECC - effects coordination cell

ECOORD - effects coordinator

EW - Electronic Warfare

FASCAM – family of scatterable mines

FM – field manual

FLOT - Forward Line of Own Troops

FSCoord - fire support coordinator

FST - field support team

G2 - intelligence, general staff

G3 - operations (division); operations and plans (corps), general staff

G4 - logistics, general staff

G5 - civil-military operations, general staff

G6 - communications, general staff

G7 - information operations, general staff

HPT - high-payoff target

HPTL - high-payoff target list

HVT - high value target

IFOR - Implementation Force

IBCT - Initial Brigade Combat Team

IO - information operations

IOBS - information operations battle staff

IM - information management

ISR - intelligence, surveillance and reconnaissance

JFLCC - Joint Force Land Component Command

LIWA - Land Information Warfare Agency

MDMP - military decision-making process

METT-TC - mission, enemy, terrain and weather, troops and support available, time available
and civil considerations

MI - military intelligence

NATO - North Atlantic Treaty Organization

OPFOR - opposing force

OPSEC - operational security

PA - public affairs

PIR - priority intelligence requirement

PSYOP - psychological operations

RGFC - (Iraqi) Republican Guard Forces Command

R&S - reconnaissance and surveillance

S3 - operations and training, brigade and battalion staff

SJA - Staff Judge Advocate

TSS - target selection standards

TTP - tactics, techniques and procedures

TRADOC - Training and Doctrine Command

U.K - United Kingdom

U.SCENTCOM - United States Central Command

BIBLIOGRAPHY

Books

- Bush, George and Brent Scowcroft. *A World Transformed*. New York: Alfred A. Knopf, 1998.
- Durch, William J. ed. *UN Peacekeeping, American Policy and the Uncivil Wars of the 1990s*. New York: St. Martin's Press, 1996
- Franks, Fred, Gen., USA (Ret.) and Tom Clancy. *Into the Storm: A Study in Command*. New York: C.G. Putnam's Sons, 1997.
- Gordon Michael R. and Bernard E. Trainor. *The Generals' War*. Boston: Little, Brown, and Company, 1995.
- Herodotus. *The Histories*. Translated by Robin Waterfield. Oxford: Oxford University Press, 1998.
- Holbrooke, Richard. *To End A War*. New York: Random House, 1998.
- Keaney Thomas A., and Elliot Cohen. *Gulf War Air Power Survey Summary Report*. Washington, DC: U.S. Government Printing Office, 1993.
- Kretchik, Walter E., Robert F. Baumann, and John T. Fichel. *Invasion, Intervention, Intervasion: A Concise History of the U.S. Army in Operation Uphold Democracy*. Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1998.
- Mearsheimer, John J. *Conventional Deterrence*. Ithica, NY: Cornell University Press, 1983.
- Naveh, Simon. *In Pursuit of Military Excellence: The Evolution of Operational Theory*. London: Frank Cass, 1997.
- Snow, Donald M. and Eugene Brown. *International Relations: The Changing Contours of Power*. New York: Longman, 2000.
- Pape, Robert A. *Bombing to Win*. Ithica and London: Cornell University Press, 1996.
- Schwarzkopf, H. Norman, General, and Peter Petre. *It Doesn't Take a Hero*. New York: Bantam Books, 1992.
- Swain, Richard M. *Lucky War*. Fort Leavenworth, Kansas: U.S. Army Command and General Staff College Press, 1994.

Articles and Periodicals

- Adolf, Robert B. Jr., Maj., USA. "PSYOP: Gulf War Force Multiplier," *Army* (December 1992): 18-20.

- Caldwell, Warren Jr. "Promises, Promises: The Technical Revolution in Military Affairs May Not Live up to All the Promises." *Proceedings of the U.S Naval Institute* (January 1996): 54-57.
- Cosby, William N., Cpt, USA. "BCTP (Battle Command Training Program) Lessons Learned – Battlefield Air Interdiction." *Field Artillery* (April 1990): 40-42.
- Crews, Fletcher, Maj. "PSYOP (Psychological Operations) Planning and the Joint Targeting Process." *Special Warfare* 11 (Winter 1998): 16-21.
- Curtis, Steven, Lt. Col., USA, et. al. "Integrating Targeting and Information Operations in Bosnia." *Field Artillery* (Jul-Aug 1998): 31-36.
- DeGroat, Arthur S. and David C. Nilse. "Information and Combat Power on the Force XXI Battlefield." *Military Review* (November-December 1995): 56-62.
- Durch, William J. "Introduction to Anarchy: Humanitarian Intervention and 'State-Building' in Somalia." *UN Peacekeeping, American Policy and the Uncivil Wars of the 1990s*. New York: St Martin's Press, 1996, 311-366.
- "EW Expands into Information Warfare." *Aviation Week & Space Technology* (10 October 1994): 47-48.
- Gloriod, John A., Col, USA, and Scott E. Nahrwold, Lt. Col., USA, "Targeting - Keeping It Simple." *Field Artillery* (Feb 1992): 11-14.
- Golz, Eugene, Daryl G. Press, and Harvey M. Sapolsky. "Come Home America." *International Security* 21 (Spring 1997): 5-48.
- Harner, William E., Lt. Col. "Brigade Targeting." *Infantry* 86 (Nov-Dec 1996): 15-17.
- Holder, L.D., Lt. Col., USA. "Maneuver in the Deep Battle," *Military Review*, 5 (1982): 54-56.
- Hollis, Patrecia L. "Deception, Firepower and Movement" *Field Artillery* (June 1999): 31-34.
- Ingram, Bernd L., Lt. Col. USA, (Ret.) "Joint Targeting For Time-Sensitive Targets: To Boldly Go Where No Army Has Gone Before." *Field Artillery* (May-Jun 2001): 28-31.
- "IO in a Peace Enforcement Environment" Center For Army Lessons Learned Newsletter no. 99-2 <http://call.army.mil/call.html>. 7 November 2001.
- Jablonsky, David. "U.S Military Doctrine and the Revolution in Military Affairs." *Parameters* (Autumn 1994): 18-36.
- Jones, David S., Cpt., USA, and Paul J. McDowell, Cpt., USAF. "To Catch a War Criminal: The United Nations Apprehension of an Indicted War Criminal" Center for Army Lessons Learned <http://call.army.mil/>. 11 Dec 2001.
- Jones, William A. Lt. Col., USA. "A Warfighting Philosophy," *Field Artillery* 4 (April 1993): 47-53.

- Kimmit, Mark T. Col., USA. "Fire Support in Bosnia-Herzegovina: An Overview," *Field Artillery* 4 (July-August 1998): 29-31.
- Layne, Christopher. "The Unipolar Illusion," *International Security* 17 (Spring 1993): 5-51.
- Lee, David A., Maj., USA, and John A. Yingling, Col. "Fire Support Planning for the Brigade And Below," *Field Artillery* (Mar-Apr 1999): 15-19.
- Libicki, Martin. "The Emerging Primacy of Information." *Orbis*, (Spring 1996): 261-76.
- McEvoy, Richard P., Lt. Col., USA. "Targeting for the Maneuver Task Force." *Infantry* 86 (Nov-Dec 1996): 12-14.
- Mann, Edward Col., USA. "One Target, One Bomb - Is the Principle of Mass Dead?," *Military Review*(Sep 1993): 33-41.
- Marty, Fred F., Maj. Gen., USA. "Targeting and the D3 methodology." *Field Artillery* (Feb 1992): 1.
- Nock, Richard E., Capt. "High Payoff Targets: When to Engage." *Military Intelligence* 19 (Apr-Jun 1993): 19-23.
- Otis, Glenn K. Gen., USA. "The Airland Battle" (letter for distribution), *Military Review* 5 (1982): 1.
- Phillips, John, Lt.Col. Intelligence targeting in Korea." *Military Intelligence* 20 (Jan-Mar 1994): 22-23.
- Ralston, David C., Col, and Rodney L. Lusher, Capt. "Exploiting the Effects of Fires: Synchronized Targeting and Execution." *Field Artillery* (Jan-Feb 1996): 30-31.
- Rogers, J.B. "Synchronizing the Airland Battle," *Military Review* 4 (1984): 61-62.
- Starry, Michael D. and Charles W. Arneson. "FM 100-6: Information Operations." *Military Review* (November-December 1996): 2-15.
- Summe, "Jack N. Maj. U.S.A. PSYOP Support to Operation Desert Storm." *Special Warfare* (October 1992): 9-10.
- Larry K. Wentz, "Lessons From Bosnia: The IFOR Experience" <http://call.army.mil/>. 11 Dec 2001.

Government Documents

- 24th Mechanized Infantry Division Combat Team Operation Desert Storm Attack Plan Oplan 91-3, 17 January 1991.
- Department of Defense, *Conduct of the Persian Gulf War: Final Report to Congress*. Washington, DC, April, 1992.

_____. "Undersecretary of Defense (Policy), 1991 Summer Study." Newport, R.I.: Office of the Director of Net Assessment, 1991.

U.S. Army. FM 3-0, *Operations*. Washington DC: Department of the Army, 2001.

_____. FM 3-13, *Information Operations* (Draft). Washington DC: Department of the Army, 2001.

_____. FM 5-0 (101-5), *Army Planning and Orders Production* (Initial Draft) Washington DC: Department of the Army, 01 August 2001

_____. FM 6-0 (100-34): *Command and Control*, (DRAG Edition) Washington DC: Department of the Army, March 2001.

_____. FM 6-20-10, *Tactics, Techniques and Procedures for The Targeting Process*. Washington DC: Department of the Army, 1990.

_____. FM 90-2, *Military Deception in Army Operations* (working draft). Washington DC: Department of the Army, 20 March 1997.

_____. FM 100-5, *Operations*. Washington DC: Department of the Army, 1976.

_____. FM 100-5, *Operations*. Washington DC: Department of the Army, 1982.

_____. FM 100-5, *Operations*. Washington DC: Department of the Army, 1986.

_____. FM 100-5, *Operations*. Washington DC: Department of the Army, 1993.

_____. FM 100-6, *Information Operations*. Washington DC: Department of the Army, 1996.

_____. FM 101-5, *Staff Organization and Operations*. Washington DC: Department of the Army, 1997.

_____. FM 101-5-1, *Operational Terms and Graphics*. Washington DC: Department of the Army, 1997.

_____. "INFORMATION OPERATIONS: IO in a Peace Enforcement Environment," *Center for Army Lessons Learned NEWSLETTER NO. 99-2*, accessed on the internet at <http://call.army.mil/call.html>, 7 November 2001.

VII Corps Archives. Annex H (Psychological Operations) to VII Corps OPLAN 1990-2 (Operation Desert Sabre) VII Corps Archives (Fort Leavenworth, KS, 1991): SG HST AAR3-033.

_____. Appendix D (Fire Support) to VII Corps OPLAN 1990-2 (Operation Desert Sabre) VII Corps Archives (Fort Leavenworth, KS, 1991): SG HST AAR3-033.

_____. Tab C (Attack Guidance Matrix) to Appendix D (Fire Support) to 3AD OPLAN 91-1 (Operation Desert Spear) (Fort Leavenworth, KS, 1991): SG HST AAR4-332.

“White Paper: Fire Support Planning for the Brigade and Below.” Fort Sill, OK: Fire Support Division, Fire Support and Combined Arms Department, 16 September 1998.

Monographs, Reports, Theses, and Unpublished Works

Boslego, David V., Maj. USA. “Relationship of Information to the Relative Combat Power Model in Force XXI Engagements.” Monograph, School of Advanced Military Studies. Fort Leavenworth, KS, U.S Army Command and General Staff College, 1995.

Eisen, S. Network Warfare: “It’s Not Just for Hackers Anymore.” Thesis, Newport, RI: Joint Military Operations Department, Naval War College, June 1995.

Metz, Steven. “The Future of Insurgency.” Thesis, Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 10 December 1993.

Johnson, Robert C., Lt. Col., U.S.A. “Joint Campaign Design: Using a Decide-Detect-Attack (DDA) Methodology to Synchronize the Joint Force’s Capabilities Against Enemy Centers of Gravity,” Monograph, School of Advanced Military Studies, Fort Leavenworth, KS: U.S Army Command and General Staff College, 1994.

Schifferle, Peter J., Lt. Col., U.S.A. “Incorporating Enemy Psychological Vulnerability into U.S. Army Heavy Division IPB Doctrine” SAMS Monograph, Fort Leavenworth, KS: U.S Army Command and General Staff College, 1993.

Schwark, Stuart H. Maj., USA. “Command and Control Warfare and the Deliberate Targeting Process,” MMAS Thesis. Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1997.

Smith, Kevin B., Maj., USA. “Crisis and Opportunity of Information War.” Monograph, School of Advanced Military Studies. Fort Leavenworth, KS, U.S Army Command and General Staff College, 1994.

Sullivan, M.P. “Revolution in Military Affairs: Operational Fires on the Future Battlefield.” Strategy Research Report, Carlisle Barracks, PA: U.S. Army War College, 5 April 1996.