

The Cognitive Battlefield: A Framework for Strategic Communications

**A Monograph
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Abstract

THE COGNITIVE BATTLEFIELD: A Framework for Strategic Communications by Major Michael C. Nicholson, U.S. Army Public Affairs Officer.

Over the past ten years, addressing what Strategic Communications is has been a challenge for the military community. It is at times referred to as a process, referred to in the context of the strategic level of war, and referred to in the context of anyone communicating at any level. The joint community has provided a definition of Strategic Communications and there has been a large amount of non-doctrinal discussions, but very little substance other than the recognition of the need to synchronize actions. Terms like inform, influence and persuade are referred to but have never been doctrinally defined leaving their interpretation up to each individual. This paper proposes a communication framework under which the military practitioner can visualize and verbalize intended cognitive effects desired upon a specified audience. It utilizes a modified version of John Boyd's OODA-Loop, combined with a classic communication model, in order to visually depict the cognitive process that occurs starting with the introduction of new information from one individual to the desired effect that is intended upon another. It also constructs a written format borrowing from the Field Artillery Task-Purpose-Method-Effect construct and applies the framework to three case studies. The cognitive model proposed meets the intent of the 2011 U.S. National Security Strategy, which calls for the better understanding of attitudes, opinions, grievances and concerns of others in order to develop better plans.

Table of Contents

INTRODUCTION	1
Literature Review	4
COGNITIVE BATTLEFIELD FRAMEWORK.....	9
CONTEXT	14
Visual Model	14
Task	16
Method.....	18
Purpose	22
Effect	23
CASE STUDIES	26
Operation DELIBERATE FORCE and JOINT ENDEAVOR (NATO)	27
Operation PHANTON FURY (US).....	30
Operation CAST LEAD (Israel).....	35
CONCLUSION	40
APPENDIX A: Relevant Terms.....	43
APPENDIX B: Cognitive Framework Terms	46
BIBLIOGRAPHY	47

INTRODUCTION

Over the past ten years, addressing what Strategic Communications (SC) is has been a challenge for the military communications community. It is sometimes referred to as a process, referred to in the context of the strategic level of war, and sometimes used to discuss communications conducted by anyone at any level. The evolution of SC over the years has produced “little beyond the huge volume of PowerPoint slides, issue papers, and studies, with few actual measures taken to develop a synchronized, coordinated interagency national program.”¹ The result has been a joint definition and a wide range of non-doctrinal discussions which all attempt to create more value and meaning from the SC concept. While the lack of an actual SC process has not necessarily restricted the communications practitioner in the field, it certainly has not improved the military contribution to SC. In addition, the inability to accurately articulate doctrinally defined cognitive intent across the various organizations within both the Department of Defense and other U.S. government agencies has limited the development of SC beyond just the definition.

There are multiple reasons for the lack of substantial SC guidance. SC currently draws on a number of different, though related, disciplines, but does not provide a common foundational framework. Terms like inform, influence, persuade, and educate are referred to in doctrine, but are never actually defined, leaving their interpretation up to the individual. Mass communication models provide alternate ways of visualizing, understanding and explaining the communications process. While there are a number of communication models that would fit various circumstances, not one has been adopted by the military to serve as the foundation for communication efforts. There has been a continuous professional discourse on the centralization of information activities, resulting in ad-hoc SC-type organizations. These organizations attempt

¹ William M. Darley, “The Missing Component of U.S. Strategic Communications,” *Joint Force Quarterly*, Issue 47 (2007), 109.

to bring order to chaos. They run the risk, however, of legal, doctrinal, and public examination by combining one functional area that deals with the truth to one audience with another functional area that is capable of dealing in deception to another under one organization.² Identifying who the SC thinkers and organizational leaders are is something that is not standardized across the various military structures and needs to be better addressed for the profession at large.³ Finally, the joint and service doctrine are unsynchronized. Taken as a whole, they are contradictory and not useful. While joint doctrine has at least been updated to define SC, the Army's Field Manual 46-1 *Public Affairs Operations* was last updated in 1997 and has not been updated to account for any lessons learned during the last ten years of war, or provide any further information on the Army's role in SC.

This paper proposes an approach to Strategic Communication called the Cognitive Battlefield Framework under which military practitioners are able to visualize and verbalize the intended effects desired upon a specified audience. It approaches SC from a similar perspective that the military approaches the four elements of national power represented in the acronym DIME (Diplomacy-Information-Military-Economics). In DIME, the military supports and in some cases conducts activities within the other elements of national power, but is not the primary contributor. SC has been approached similarly, proposing that the military conducts Military Communications (MC), which is a part of a larger yet-to-be solidified SC framework. The Cognitive Battlefield Framework seeks to provide a process that helps address the functional stove-piping and doctrinal confusion that currently exist within the military, and help work within the evolving SC concept. While no one model can ever universally apply to every

² The Smith-Mundt Act of 1948 specified the ways in which the U.S. government is legally allowed to engage global audiences. The language, which pre-dates the Internet and a large number of communication technologies, can lead to modern-day challenges when information intended for one audience can now easily be transmitted to another.

³ James G. Stavridis, "Strategic Communication and National Security," *Joint Force Quarterly*, Issue 46 (2007), 7.

conceivable situation, a comprehensive framework can provide a foundation for dialog between military functional areas and a useful starting point for the communications practitioner. It is likely that the Cognitive Battlefield Framework might not appeal to those SC-related areas outside of the military due to the “Battlefield” label. While the process could easily be utilized outside of the military, the framework is primarily targeted for the military practitioner who intends to participate in the SC process.

Advancing the concept of SC beyond just the definition is important for military communication practitioners and leaders alike. Since “peace programs are so much cheaper than military programs,” there will likely be an increased desire to achieve national goals and objectives through less expensive and potentially non-kinetic methods as the wars in Iraq and Afghanistan wind down and there is greater focus on the U.S. national debt.⁴ The U.S. military deterrence ability is strongly linked to its capability to inflict violence; it does, however, have other elements to contribute to SC efforts that may be called upon more due to the U.S. government’s fiscal restraints. Talk about achieving goals militarily using terms like persuading or influencing cannot be left to individual interpretation. Furthermore, if the military community is unable to accurately articulate internally the effect we intend to achieve on a specific audience, there is no way that it can be articulated correctly to an external, non-military audience. This scenario makes it all the more urgent to address the notion of cognitive effects, and attempt to delineate the intended effects in conjunction with the military functional areas that are charged to execute these operations. As stated in the 2011 National Security Strategy, we must be “more effective in our deliberate communications and engagements and do a better job of understanding the attitudes, opinions, grievances, and concerns of people – not just elites – around the world” in

⁴ Michele Kelemen, “Hillary Clinton: U.S. Diplomacy Is Stretched Thin,” National Public Radio, August 16, 2011, <http://www.npr.org/2011/08/16/139678323/hillary-clinton-u-s-diplomacy-is-stretched-thin> (accessed August 24, 2011).

order to develop better plans that support our policy aims.⁵

All of the military functional areas related to SC involve some form of communicating, educating, informing, and persuading. While these types of terms have been discussed in doctrine but have never actually been defined, common definitions are required prior to moving forward with any framework to be applied across multiple SC-related disciplines. Those terms that are regularly used within the context of a SC discussion have been included in Appendix A.⁶ Those terms that are utilized within the proposed Cognitive Battlefield Framework, terms like informing, influencing and persuading, have been included in Appendix B.

The paper begins by reviewing some of the more influential pieces of literature that helped in the formulation of the model. Following the literature review, the Cognitive Battlefield Framework will be presented and briefly explained. The framework includes a visual model as well as a written format utilizing the pre-defined terms. The concepts of cognitive tasks, method, purpose and effects will then be further explained in more detail using historical references and the research literature to support the frameworks structure. Finally, the framework will be applied to three case studies in an attempt to determine if it is useful and able to be applied in a variety of scenarios. The case studies that will be utilized will be NATO's operations in the Balkans from 1995 to 1996, the U.S. Marine's second operation into the city of Fallujah, Iraq in 2004, and Israel's operation in the Gaza strip at the end of 2008.

Literature Review

The U.S. military has a considerable body of doctrinal manuals, both joint and service specific, which are related (some more than others) to the concept of SC. It is necessary to briefly

⁵ Barack Obama, *National Security Strategy* (Washington DC: The White House, May 2010),16.

⁶ In Appendix A, if the current doctrinal definition is inconsistent with the methodology applied in this paper, it has been altered and identified with an asterisk (*) followed by an explanation. If the definition is undefined in military doctrine, an external source was used and the definition has been annotated with a pound sign (#).

survey those publications before addressing the other literature, which influenced this work. There are currently Army and Joint field manuals devoted to Public Affairs, Information Operations and Psychological Operations, as well as manuals like Field Manual 3.0 *Operations* that discusses the topic. The recent change of Psychological Operations to Military Information Support Operations has not yet been reflected in doctrine, which by its nature takes some time to be updated.⁷

Joint doctrine has the most recently updated documents, which also best reflect the ongoing evolution of SC. The current joint definition of SC is, “Focused United States Government efforts to understand and engage key audiences to create, strengthen, or preserve conditions favorable for the advancement of United States Government interests, policies, and objectives through the use of coordinated programs, plans, themes, messages, and products synchronized with the actions of all instruments of national power.”⁸ Joint Publication 3-53, *Psychological Operations* manual was last updated in 2003 and does not refer to SC, a topic which had not yet become mainstream, but does refer multiple times to strategic PSYOP.⁹ Joint Publication 3-13, *Information Operations*, was last updated in 2006 and refers to SC only in the context of needing to ensure coordination and synchronization. Joint Publication 3-61, *Public Affairs*, most recently updated in 2010, defines SC and explains that Public Affairs is a primary SC capability and that activities are to be “coordinated and synchronized with all other activities (visual information [VI], defense support to public diplomacy [DSPD], IO, and operational

⁷ Secretary of Defense Robert Gates initiated the change with a memorandum dated December 3, 2010.

⁸ Department of Defense, Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*. (Washington DC: Joint Chiefs of Staff, November 8, 2010, As Amended through July 15, 2011), 348. Cited hereafter as JP 1-02.

⁹ Department of Defense, Joint Publication 3-53, *Psychological Operations* (Washington DC: Joint Chiefs of Staff, September 5, 2003), ix. Cited hereafter as JP 3-53.

actions).”¹⁰ These documents reflect the rise of the SC concept that seemed to occur between 2004 and 2006, and show that while they have defined the term, the only military participation identified is the need to coordinate and synchronize activities.

Of the Army doctrinal publications, FM 3-0, *Operations* is one of the capstone doctrinal publications and is currently going on its fourth rewrite since 2001. The February 2008 version saw the introduction a new Chapter 7, a chapter specifically focused on Information Superiority with topics covered such as information engagement, SC, military deception and operations security. Chapter 7 of this version was likely the result of the rise of the SC concept as well as the Iraq insurgency, decreased public support for Operation Iraqi Freedom, and the subsequent troop surge in the years 2006 through 2009. The next update to this field manual eliminated the separate chapter, placing some of the discussion into the previous chapter titled *The Science of Control*, and adding other elements related to information activities into the discussion of operational art and design.¹¹ The current ongoing rewrite of FM 3-0 attempts to provide operational focus through the concept of Unified Land Operations similar to the way that the Air-Land Battle concept provided focus to the Army in the 1970’s and 1980’s, but has left the SC discussion to other doctrinal documents.

The Army’s SC-related doctrinal manuals have had less attention paid to them and have not reflected some of the lessons learned from ten years at war. Army Field Manual 46-1, *Public Affairs Operations*, was last updated in 1997 and references some initial communication initiatives that were discussed in the 1993 version of Field Manual 100-5, *Operations* and the 1996 version of Field Manual 100-6, *Information Operations*. Since these versions were published, FM 100-5 is now called FM 3-0 and is going on its third update. FM 100-6 is now

¹⁰ Department of Defense, Joint Publication 3-61, *Public Affairs* (Washington DC: Joint Chiefs of Staff, August 25, 2010), I-9. Cited hereafter as JP 3-61.

¹¹ Department of the Army, Field Manual 3-0, *Operations* (Washington DC: Army Chief of Staff, February 22, 2011), vi. Cited hereafter as FM 3-0, February 2011.

called FM 3-13 and was last updated in 2003. Additionally since its publication, the concept of SC has been introduced and officially defined in Joint doctrine, but the concept is not found in the Army's SC-related doctrinal documents.

The now closed U.S. Joint Forces Command did produce a pre-doctrinal document titled the *Commander's Handbook for Strategic Communications and Communication Strategy* last updated in 2010. It attempted to serve as a bridge between current practice in the field and the migration of those tactics, techniques and procedures into future doctrine.¹² It does a good job at centralizing much of the SC discussion, both in doctrine and external, within one document. It provides PowerPoint charts depicting the analogy of SC and an orchestra, the infamous 'loop' diagrams that represent overlapping relationship areas, and numerous examples of products used by various headquarters. What it lacks is a clear, overarching SC or MC construct that this monograph is attempting to provide.

Besides the Joint and Army field manuals, a variety of communication-related books were used in conducting the research for this monograph. Of note are those that provided a historical survey of U.S. government attempts to manage information and communication in both war and peace, and which provided a good foundation for establishing the context. One of the most informing regarding the historical context of strategic communications was Christopher Simpson's *The Science of Coercion*. Simpson looked at the government-funded psychological warfare research conducted during the Cold War that gave rise to the mass communication theories and academic field that we now know of today. This perspective allowed for a better appreciation of the original intent of some of today's mass communication models that were originally intended to serve a government role, and have over the years been adapted and adopted

¹² U.S. Joint Forces Command, *Commanders Handbook for Strategic Communication and Communication Strategy* (Suffolk, VA: Joint Warfighting Center, June 24, 2010), i. Cited hereafter as USJFCOM Commander's Handbook for STRATCOM.

for use in the private sector.¹³ Kenneth Osgood's *Selling War in a Media Age* also provided excellent examples of previous U.S. government attempts at synchronizing words and deeds from the U.S. Civil War through modern times.

The most influential references for the creation of the actual framework came through the synthesis of a number of readings. Frans Osinga's book on John Boyd's OODA-Loop helped make Boyd's concepts a bit user-friendlier, enabling the adaptation of the idea of a person's internal decision-cycle and helping inspire a cognitive framework.¹⁴ Christopher Paul's *Information Operations* was an excellent reference handbook on the topic military information and the "war of ideas." His categorization and discussion on information content, information systems and related military-capabilities helped provide an alternative way of looking at current IO doctrine.¹⁵ Sissela Bok's *Lying, Moral Choice in Public and Private Life* proved to be a great source of content on the shades between truth and deception. Her focus was on when lying may and/or may not be appropriate, interpretations, excuses and the noble lie all provided great non-military insight into the eventual military-focused monograph.¹⁶ Robert Cialdini's *Influence* examined what he coined the principle "weapons of influence." His research provided excellent sources of the psychological aspects of control and influence.¹⁷ These books and publications served as the core documents for the research in this monograph.

¹³ Christopher Simpson, *Science of Coercion: Communication Research and Psychological Warfare 1945-1960* (New York: Oxford University Press, 1994).

¹⁴ Frans P.B. Osinga, *Science, Strategy and War: The Strategic Theory of John Boyd* (New York: Routledge, 2007).

¹⁵ Christopher Paul, *Information Operations: Doctrine and Practice* (Westport, CT: Praeger, 2008).

¹⁶ Sissela Bok, *Lying: Moral Choice in Public and Private Life*. (New York: Random House, 1995).

¹⁷ Robert B. Cialdini, *Influence: Science and Practice* (Boston, MA: Pearson Education, 2009), xiii.

COGNITIVE BATTLEFIELD FRAMEWORK

The Cognitive Battlefield Framework is both a visual and written model using a series of terms organized in such a way as to consistently communicate intended cognitive effects. The visual model modifies John Boyd's Observe-Orient-Decide-Act model, which is essentially a cognitive decision cycle. Boyd's model is combined with a basic communication model in order to depict the inputs and intended effects of a sender, labeled as 'A,' with a receiver labeled as 'B.'

The upper half of the visual depicts the cognitive cycle, while the lower half depicts the arrangement of those terms that accompany each step of the process.

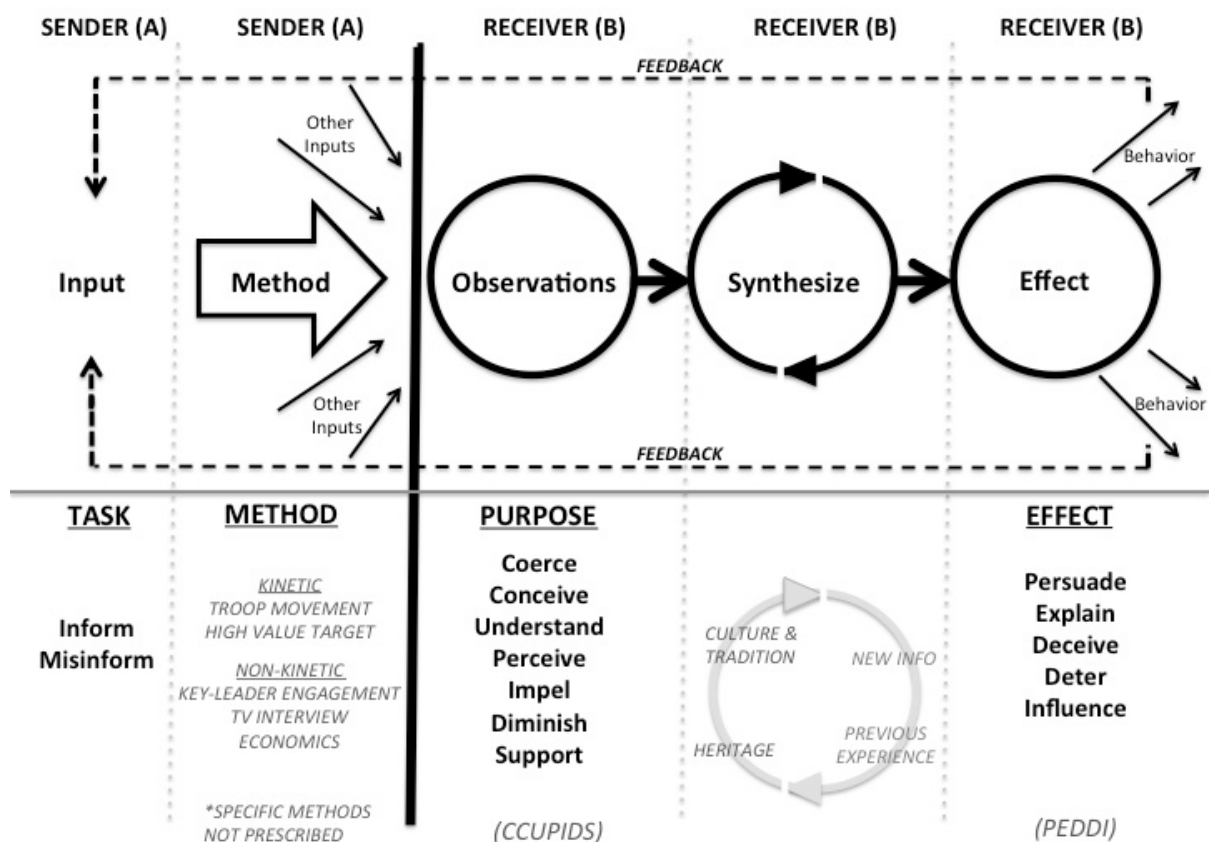


Figure 1: The Cognitive Battlefield Framework

This model differs from current Information Operations doctrine in that it separates those actions that occur in the mind with those effects that occur in the physical world. For example,

doctrine identifies the following as information effects: destroy, disrupt, degrade, deny, deceive, exploit, and influence.¹⁸ The effects of destroy, disrupt, degrade, deny and exploit all occur in the physical realm while the effects of deceive and influence occur within the mind, or the cognitive realm. The Cognitive Battlefield Framework focuses exclusively on cognition, leaving the physical actions of attacking or protecting a communication system via electronic warfare, computer network operations and operations security to the realm of lethal and/or non-lethal fires.

John Boyd authored “A Discourse on Winning and Losing” which consisted of four briefings and an essay, the core idea being the Observe-Orient-Decide-Act (OODA) loop.¹⁹ Boyd’s cycle is essentially a narrative and graphical depiction of a person’s cognitive decision-making and implementation process. In his model, a person begins in the Observing phase by observing outside information and interacting with his environment and then the process moves forward to the Orientation phase. Within Orientation is a person’s cognitive decision making where he takes into account his cultural traditions, heritage, previous experience, and any new information in order to synthesize and feed into the Decision portion. A person then takes his intellectual process and converts it into a decision, which then feeds into the final stage of an Act.

The Cognitive Battlefield Framework visual modifies the Boyd cycle and combines it with a basic communication model utilizing the Sender-Message-Channel-Listener (SMCL) construct. In the SMCL model, the sender (A) attempts to pass a message through a medium to a listener (B) where the message is then interpreted.²⁰ In the Boyd cycle, the end result is a physical action where as in the SMCL communication model the end result is understanding. The intent of the monograph is to focus on cognitive intent alone. The connection between cognitive effect and

¹⁸ Department of the Army, Field Manual 3-13: *Information Operations* (Washington DC: Army Chief of Staff, 2003), 1-16.

¹⁹ Osinga, *Science, Strategy and War*, 1-3.

²⁰ Pamela S. Perkins, *The Art and Science of Communication* (New Jersey: John Wiley and Sons, 2008), 67.

physical action is beyond the scope of this paper.

The visual model of the Cognitive Battlefield Framework depicts the sender (A) injecting either true or untrue information via a kinetic or non-kinetic method into the receiver's (B) cognitive decision cycle. As that information is observed and then synthesized by the receiver, the result is a cognitive effect that occurs within the mind of the receiver. It is this effect that is ultimately the desired end state that the sender is hoping to achieve. This social model exists in an open-system, where the senders inputted information is also competing with a variety of other inputs being received by the receiver. Additionally, as the receiver synthesizes any new information, he or she is doing so in combination and within the context of his or her own previous experiences, heritage, culture and traditions similar to Boyd's cycle. The receiver could also be called an audience where the cognitive effect is intended upon more than one individual. The audience could be as narrow as a single individual, for example a foreign government key leader, or as wide as a targeted demographic or that which is most appropriate to the user.

The narrative portion of the Cognitive Battlefield Framework utilizes a similar method that is used in the Field Artillery to communicate fires and intended effects. The Essential Fire Support Task (EFST) is a task for fires to accomplish that is required to support the combined arms operation, and which may require the commander to alter his tactical or operational plan if the EFST fails.²¹ A complete and fully developed EFST has a Task, Purpose, Method and Effect. The EFST method seemed useful in this cognitive framework because of the recognition of the importance of the Method to the overall end state. In this case, the order has been modified so that the task and method, both selected by the sender (A), occur prior to the intended purpose and effect that are subject to the receiver (B).

Utilizing this format, a sample cognitive task would be written as follows:

²¹ Department of the Army, Field Manual 3-09.31: *TTPs for Fire Support for the Combined Arms Commander* (Washington DC: Army Chief of Staff, October, 2002), 1-3. Cited hereafter as FM 3-09.31.

(A) TASK: Inform

(A) METHOD: Leaflets drops

(B) PURPOSE: Diminish

(B) EFFECT: Influence

The cognitive task is divided into either two choices, inform or misinform. A minimalist approach to the theory of truth is used for information being passed where there is a dichotomy of only two types of information: true or false.²² True information is given the cognitive task of *Inform* and false information is given the cognitive task of *Misinform*. This dichotomy of information is not only useful at the beginning stage of this model, but also when attempting to communicate and delineate audience and effect to a non-military audience. For example, regardless of the military functional area, any effect intended upon a friendly audience would likely never begin with false information.

Following the Task is identifying the Method, which is extremely important in achieving the intent. Similar to the Field Artillery EFST, the Method “describes how the task and purpose will be achieved.”²³ In attempting to achieve cognitive effects, the method can thus be categorized into either kinetic or non-kinetic methods. An example of a kinetic method might be the visible movement of a unit to a specific location such as a Heavy Brigade Combat Team positioned on a nation’s border, and a non-kinetic method might be a Public Affairs campaign utilizing key-leader televised interviews. Either of these two examples could achieve a cognitive effect of persuasion, but each would have different second- and third-order effects.

The Purpose should explain the cognitive purpose desired from each task. In this framework, seven terms have been identified as possible choices in order to achieve the majority of the potential cognitive effects: *Coerce*, *Conceive*, *Understand*, *Perceive*, *Impel*, *Diminish* and

²² Paul Horwich, *Truth* (New York: Oxford University Press, 1998), 4-5.

²³ FM 3-09.31, 1-4.

Support. These terms are all written as verbs in order to consistently apply them in the narrative, and were seen as achieving the widest variety of different cognitive effects. It is possible that with further research, additional terms could be added or deleted if it is found that there is a desired effect that does not fit within these seven terms.

The Effect enables the quantification of the successful accomplishment of the task and purpose. In the Artillery definition, the effect determines if the purpose was met and helps clarify the accomplishments of each different delivery method.²⁴ The cognitive effects proposed are: *Persuade, Explain, Deceive, Deter* and *Influence*. The drawback to conducting an entirely cognitive framework is the issue of measurement. In kinetic battle, it is easier to measure effectiveness by conducting a Battle Damage Assessment (BDA). In short, if a tank was supposed to be destroyed and it was, then validation can occur visually. In a purely cognitive framework, when the ultimate effects are persuasion, explanation, deception or influence, it may be much harder to validate if the desired effect was achieved. In the field of Marketing in the business world, this effect is measured in terms of increased sales, but government and military effects must be measured in terms of future action or inaction, which may or may not be directly attributable.

The Cognitive Battlefield Framework, while not perfect, does several things. First, it clearly articulates the intent and meaning of words that are commonly used today subjectively resulting in emotionally charged rhetoric and unclear end states. It attempts to synchronize terms across all information-related functional areas and distinguishes between actual communications and communication mediums. It provides a framework for delineating yet including aspects like diplomacy, non-kinetic actions, and military deception. Finally, it presents a way of communicating the goals of all the SC-related functional areas like Public Affairs, MISO and Information Operations that allows for better synchronization and common understanding.

²⁴ FM 3-09.31, 1-4.

CONTEXT

The purpose of this section is to further explain the reasoning behind the decisions made in the development of the Cognitive Battlefield Framework. The section will examine the visual model and the four parts of the verbal framework—task, method, purpose, and effect—in greater detail, explain the rationale and utilize historical examples to help better illustrate the concept. The three case studies were chosen because of the different nations involved, the different circumstances and the variety of cognitive effects that were to be achieved. The framework was created specifically for a military audience, and by further explaining the research rationale, it may allow for future development by others to improve upon this basic construct.

Visual Model

Currently, there are a number of mass communication theories being taught in the academic world. Three of the primary models being taught are the Agenda-Setting, Diffusion, and Cultivation communication theories. The Agenda-Setting theory proposes that those topics that the media covers are pushed to the top of the national agenda over other topics. The effects of the Agenda-Setting Theory are said to be seen in a population within a matter of weeks or months.²⁵ The Diffusion theory proposes that ideas are spread throughout the population in a society. It identifies mass media, as being the most effective for transferring knowledge and while interpersonal communication is most effective in changing attitudes.²⁶ The Cultivation theory proposes that the media helps shape, or cultivate, people's perception of reality. The effects of this theory are to be seen within a matter of years or decades.²⁷ These mass communication

²⁵ Krishnamurthy Sriramesh and Dejan Vercic, eds, *The Global Public Relations Handbook: Theory, Research, and Practice* (Manwah, NJ: Routledge, 2003), 66-67.

²⁶ Richard M. Perloff, *The Dynamics of Persuasion: Communication and Attitudes in the 21st Century* (New York: Routledge, 2010), 327-331.

²⁷ Sriramesh and Vercic, *The Global Public Relations Handbook: Theory, Research, and Practice*, 67.

theories essentially rely on different methods and message repetition in order to achieve cognitive change. There is not one theory that fits every circumstance, but each of these may be useful in a variety of situations.

Government and businesses tend to migrate towards those theories that enable one to affect an outcome rather than merely analyze the impact of media. The appeal of the Boyd model is that it takes cognitive thought and transfers it into physical action, something that would appeal to anyone wishing to move a population out of harm's way or cause a group to choose a side of conflict that advances our own national interests. The ultimate effect desired for those types of scenarios is the achievement of not only cognitive change, but for that change in mentality to result in some kind of positive supporting action. As discussed in the Cognitive Battlefield Framework, there are also other things that the receiver is synthesizing, and being able to draw a line from one's own task all the way to a change in physical action was thought to be a step too far. Boyd's cycle was created within the context of a pilot fighting another pilot, in a limited timeframe and by someone who likely did not have a number of other things on his mind other than flying in the current dogfight he was in. The Cognitive Battlefield is assuming that the process is taking place over a longer period of time and that the receiver is synthesizing a large number of old and new pieces of information in order to reach the effect.

The Cognitive Battlefield Framework communicates intent rather than trying to predict behavior. It begins with a sender's two-step process that injects true or false information via a chosen method into the open-system of the receiver. The model then allows for the accurate and consistent communication of the 3-step process that the sender intends the receiver or audience to go through. The receiver takes in the new information, synthesizes it along with all the other inputs, and results in a cognitive effect. The sender then displays some form of behavior, which provides feedback and allows the sender to interpret if the intended effect was achieved.

Task

Through the years, terms that were once politically and socially acceptable have taken on new meanings. The term “psychological warfare” first entered English in 1941 as a translation of the Nazi term *Weltanschauungskrieg*, which literally meant “Worldview Warfare” and was the scientific application of propaganda, terror and diplomacy as a method of achieving victory.²⁸

Eisenhower’s experience as a military commander in World War II led him to appreciate the tremendous importance of psychological operations as an instrument of total war and credited it as being crucial to the wars success.²⁹ Because of that experience, he campaigned for President using psychological operations as one of his main points and upon becoming President, helped usher in the era of mass communications as both an industry and an academic field to be studied with a massive amount of government funding over the next fifteen years.

Another example of a term taking on a new meaning is the word “Propaganda” which originates from the term “propagate” and by current definition means to disseminate, communicate or make known. Following the propaganda machines of World War I and II, the term has taken on a negative context in most English-speaking cultures. Even today in 2010, the U.S. Special Operations Command decided to change the name of the Psychological Operations branch to Military Information Support to Operations in order to reduce the negative stigma.³⁰ It is because of the nature of the nuanced English language, the notorious actions that get attached to certain words and the potential for subjective interpretations that any framework that attempts to synchronize across multiple fields must have defined terminology.

²⁸ Christopher Simpson, *Science of Coercion: Communication Research and Psychological Warfare 1945-1960* (New York: Oxford University Press, 1994), 24.

²⁹ Kenneth Osgood, *Total Cold War: Eisenhower’s Secret Propaganda Battle at Home and Abroad* (Lawrence, KS: University Press of Kansas, 2006), 48.

³⁰ Marc Ambinder, “Original Document: Making PSYOPS Less Sinister,” *The Atlantic*, June 30, 2010, <http://www.theatlantic.com/politics/archive/2010/06/original-document-making-psyops-less-sinister/58947/>, (accessed August 29, 2010).

The true/false dichotomy provided a concrete starting point for the framework. The perceived blurring of the levels of war and audience and message spillover as a result of ideas like Thomas Friedman's "flattened world" concept has resulted in SC-related organizations that have attempted to mirror that concept. The result has been various attempts to bring all information-related functional areas under one organizing body in order to coordinate effects. Different levels of command have experimented with various types of organizing structures including Theater Information Cells, Information Operations Coordinating Boards, they have named an existing staff leader to serve as the primary information coordinator, created a new staff leader, assigned direct planning teams, and attempted other variations of the board and working group concept.³¹ The decision to start by have a person choose between either true or false information as a task clearly impacts the remainder of the model and allows the military professional to appropriately delineate future roles and responsibilities.

The adaptation of a true/false information input resulted in choosing the terms 'inform' and 'misinform' as the appropriate terms. These two verbs constitute an action taken by the sender, and clearly define what it is that is being delivered to the receiving audience. In either the "flattened" world or the political world, there is the potential for some to adhere to a more nuanced language that allows for greater flexibility within those lines of thought. By being vague, it allows one greater opportunity to change his or her position at a later stage when convenient. The difference between the flat world and those working in the political world is that the military planner does not have the luxury of being purposely vague. The two tasks clearly articulate the starting point of the first step in this cognitive process.

While some of these organizations have had success in synchronizing functional area actions, many have had trouble due to a lack of understanding. In February of 2011, LTC Michael Holmes publically accused LTG William Caldwell in a high-profile *Rolling Stone* article of

³¹ USJFCOM, *Commander's Handbook for STRATCOM*, III-1 – III-7.

illegally ordering him to conduct Psychological Operations on congressional members visiting Afghanistan.³² Caldwell was later cleared of any wrongdoing by a Defense Department investigation, and Holmes' actions came under greater scrutiny.³³ Holmes accusations were that because he had been trained in Psychological Operations and Information Operations in order to "play with people's heads" (which was also found to be false), that it was illegal for him to be ordered to do any work on the visiting delegation. Holmes fundamentally misunderstood a number of things, but the topic of cognitive intent and the true/false information dichotomy may have helped communicate roles and responsibilities. Any previous training a Soldier receives does not legally bind him to only working in that field nor does it mean that some of those communication skills cannot be put to use in other areas. Holmes was asked to provide a briefing packet to inform senior military leaders on the incoming delegation, a practice that commonly occurs by those in the political and military profession alike. There was no false information that had been ordered with the intent to achieve a deceptive effect, Holmes was merely asked to perform the duties of an Army staff officer. The ability to accurately and consistently communicate cognitive intent internally is just as important as our ability to communicate and action that intent externally.

Method

The examination of the Method portion of the framework began by researching previous actions used by militaries, which had the intent of achieving a cognitive end state. If war really is an act of force to compel the enemy to do ones will, then one could argue that all war aims to

³² Michael Hastings, "Another Runaway General: Army deploys PsyOps on US Senators," *Rolling Stone*, February 23, 2011, <http://www.rollingstone.com/politics/news/another-runaway-general-army-deploys-psy-ops-on-u-s-senators-20110223> (accessed August 29, 2011).

³³ Elias Groll, "William Caldwell, 'psy-op' general, cleared by Pentagon report," *Politico.com*, July 27, 2011, <http://www.politico.com/news/stories/0711/60084.html> (accessed on August 29, 2011).

achieve a cognitive end state.³⁴ The scope of this paper is obviously not to examine what war or warfare is, but to provide a method under which one can accurately and consistently explain the cognitive effects that one wishes to achieve on another. In order to accomplish this, a wide range of previous actions needed to be researched in order to be able to appropriately categorize potential methods. The original intent was to be able to provide a list of options similar to the task, purpose and effect areas that categorized various methods to some level of detail. As will be discussed, this portion of the framework proved to be the most challenging to categorize which forced an alternative option.

Two method categories initially emerged: kinetic and non-kinetic. The discussion of utilizing kinetic methods to achieve an end state is an old one and goes as far back as Sun Tzu. Non-kinetic methods and evidence of preventing violence through the threat of violence was seen as early as the Peloponnesian Wars when the Athenians and Spartans attempted to deter and compel each other through various non-kinetic methods³⁵. The methods primarily utilized at the time were the visual display of force, such as a naval fleet stationed off the enemy's coast, as a means of deterring future conflict. There appeared to be an increase in the quantity of non-kinetic options during the U.S. Civil War when a number of different communication technologies were beginning to appear.

The Civil War provides a great historical starting point for U.S. cognitive effects because the amount of technology advancements such as the photograph, newspaper and telegraph, increased the potential options available to commanders. GEN Robert E. Lee was known to both monitor the newspapers of the North and manipulate the newspapers of the South in order to gain a tactical advantage³⁶. He arranged for southern newspapers to print false information regarding

³⁴ Carl von Clausewitz, *On War* (New York: Alfred A. Knopf Publishers, 1993), 83.

³⁵ Richard Ned Lebow, "Thucydides and Deterrence," *Security Studies*, 16:2, 163-188.

³⁶ Brayton Harris, *Blue & Gray in Black & White* (Washington DC: Brassey's Inc., 1999), 169.

troop strength and locations knowing his counterpart in the north were reading them as well. His recognition of the impact of these technologies enabled him to increase the number of potential non-kinetic options available to him. During the same time period, MG William T. Sherman was experimenting with a new, kinetic option for achieving cognitive effects on the enemy's population. In a deliberate manner, his forces marched from Atlanta to Savannah stripping or consuming that land of all its resources, burning and pillaging along the way in order to destroy the peoples will to resist.³⁷

There were a number of deception operations that occurred during World War 2, the primary Allied one being *Operation Fortitude*. *Operation Fortitude* was an attempt to deceive the Germans into believing that the Allied landing would occur in the northern Europe either via Norway or in northern France at Pas-de-Calais instead of in the south at Normandy. Taking advantage of the need to somewhat discipline one of his subordinate military commanders for being too longwinded in the press, GEN Dwight D. Eisenhower took MG George S. Patton, who was well respected and known by the Nazi's, and put him in command of a false Army in order to deceive the Germans.³⁸ In addition to the major deception operation, the 23rd Headquarters and Headquarters Special Detachment, Special Troops, also known as the Ghost Army, was created in order to implement tactical deception operations throughout the war. Utilizing 1100 men with various specialty backgrounds including actors, set designers, photographers, and artists, this unit was emplaced a number of times in order to deceive the German forces into believing a small unit was actually a large Army.³⁹ They used physical tactics like inflatable tanks, dummies, simulators and loud speakers playing engine sounds, as well as informational tactics like sending false radio

³⁷ Richard Wheeler, *Sherman's March: An Eyewitness History of the Cruel Campaign That Helped End a Crueler War* (New York: Harpers Perennial, 1978), 54-58.

³⁸ Roger Hesketh, *Fortitude* (London: St. Ermin's Press, 1999), 181.

³⁹ Jack Kneece, *Ghost Army of World War II* (Gretna, LA: Pelican Publishing Company, 2001), 35.

traffic for the Germans to overhear, both with great success. The Ghost Army examples illustrated how the choice of a Method was only limited by the creative mind of the planner, and subsequently made it much harder to provide a narrow list of categories.

Deterrence theory is predicated on the threat of a massive response in order to persuade a government to do something without actually initiating violence. Deterrence theory is based on three principles: (1) in order for deterrence to succeed, a deterrer should have sufficient capability, (2) its threat should be credible, and (3) it should be able to communicate the threat to its opponent.⁴⁰ Throughout the Cold War, the concept of deterrence was central to containing the Soviet Union, which increased its popularity among scholars.⁴¹ The concept was essentially the same theory conducted centuries earlier by the Athenians and Spartans. One of the differences between the armies of the Peloponnesian Wars and those of the Cold War (other than nuclear weapons) was the ability to mass communicate. It was during this time that the government and the military began to look at “sending a message” to an adversary in an attempt to manipulate actions or deter violence, and thus helped further develop deterrence theory in the context of the mass communication mediums.

With the rapid advancements in communications technologies over the last decade, the number of methods has greatly increased. Social media, digital photos, broadband and cellular Internet connections are just a few of the large number of communication technologies now available. Because of the numerous options available, the alternative option mentioned prior was the decision to leave this portion of the framework up to the user. The model therefore identifies the need to make a choice between kinetic and/or non-kinetic methods, but articulating the specific method is up to the individual utilizing the framework. Just as with the Ghost Army

⁴⁰ T.V. Paul, Patrick M. Morgan and James Wirtz, eds., *Complex Deterrence: Strategy in the Global Age* (Chicago: The University of Chicago Press, 2009), 2.

⁴¹ Lawrence Freedman, *Deterrence* (Malden, MA: Polity, 2008), 10-23.

planners, this decision allows one to only be limited by his or her own creative thought. Arguably, if one left an area of the EFST format up to the individual, it would likely be the weakest link in the system and allow for subjective inputs into a process that is designed to minimize subjectivity. Yet the Field Artillery has only a limited amount of munitions while the cognitive realm has a seemingly infinite amount, and attempting to structure this area was thought to be more harmful than helpful to the process.

Purpose

Utilizing the similar EFST framework, the cognitive purpose would have to communicate why the task was contributing to the operation and the effect would be the quantification of that accomplishment. Army Field Manual 3-09.31, *TTPs for Fire Support for the Combined Arms Commander* describes the purpose as normally being articulated “in terms of the maneuver purpose” and should identify the friendly maneuver formation that will benefit from the objective described in terms of time and space. Both of these definitions pose a challenge in creating relevant terms and a system that is consistent with the cognitive framework.⁴²

The purpose terms chosen are meant to articulate an intermediate stage that represents a cognitive change and provides a pathway to the eventual effect. The term *Coerce* was defined as a forcing function to get another to behave in an involuntary manner, with the actual force being unspecified. It was seen as the pathway to achieve deception, deterrence or influence. The term *Conceive* was thought of with regards to deception operations where a friendly force is attempting to get an enemy force to begin planning something that is counter to what will actually take place. *Conceive* was viewed as a pathway towards the effects of *Persuade*, *Deceive*, *Deter* or *Influence*. The term *Understand* was seen from primarily from a Public Affairs perspective, allowing for a

⁴² Department of the Army, Field Manual 3-09.31: *TTPs for Fire Support for the Combined Arms Commander* (Washington DC: Army Chief of Staff, October 2002), 1-3.

pathway in achieving the effect of *Explain*. This pathway is critical in allowing for those times when one has to communicate with friendly audiences and the intent is nothing other than informing the general public of an event. The term *Perceive* could potentially be a pathway to any of the effects, because its definition of “becoming aware of something that may or may not be true” allows for multiple outcomes. The terms *Impel* and *Diminish* were the result of numerous books and journals on the topic of will and morale. When discussing areas such as the battle for hearts and minds, being able to articulate an intent, which is focused on achieving positive or negative effects, was seen as crucial. Finally, the term *Support* was required when addressing items such as the support of a program, and whose pathway is to the effects of *Persuade* or *Explain*.

The difference between the purpose and effects terms is small, and with slight modifications to the definitions, some of the terms could easily be moved from one group to another. There are also no concrete pathways in achieving the proposed five effects. The intent was merely to provide some context as to the initial line of thought, and provide an appropriate pathway to get from either informing or misinforming to one of the five effects. After working through a number of variations in the current categories, it was concluded that while not perfect, the chosen terms allowed for the maximum number of variations in reaching an effect. Any welcome criticism will likely come from examples where one intends to achieve an effect that is either not covered by the current terms, or does not have an associated purpose that allows for the appropriate pathway in reaching that effect.

Effect

The effect is the ultimate goal of the framework – persuasion, explanation, deception, deterrence or influence. The cognitive effect is the area that one would naturally expect military leadership to have a majority of the focus on. It is expected that most information-related tasks would start with the a senior leader communicating to a subordinate that he or she would want to

influence a person or population which would require the subordinate to work the framework from the end state backwards. It is also the effect that is the source of the majority of any legal, moral and social angst as it pertains to the communications conducted by military organization. It is these sources of anxiety that the decisions made relating to the effects portion of the framework will be analyzed.

As stated previously, current SC practices include different variations of the centralized communications board or working group. Ironically, it is the centralized information bureau's of World Wars I and II that helped serve as a catalyst for some of the current regulations that those communicators in the U.S. government and military face. The Committee on Public Information was created during World War I, was headed by George Creel and combined censorship and propaganda functions under one civilian leader.⁴³ Creel utilized all mediums of communication to include newspapers, radio, print and movies to provide a systematic drumbeat of coverage. It was during this time that Secretary of State Robert Lansing had issue with the efforts of the Creel Committee overlapping with his diplomatic efforts.⁴⁴ It would be one of many instances where the organizational structure contributed to what we today call information fratricide. The Committee was eventually dissolved following the end of World War I due to public concerns with the government controlling all methods of communication.

During World War II, President Franklin D. Roosevelt would also focus on information, censorship and the ability to influence. He created a number of compartmentalized information offices at the onset of the war to help counter the German propaganda machine. The Office of Censorship was established in 1941, which served as more of an administrative and coordination body, with Roosevelt stating, "It is necessary to the national security that military information

⁴³ Robert T. Davis II, *The US Army and the Media in the 20th Century* (Fort Leavenworth, Kan.: Combat Studies Institute Press, 2009), 16.

⁴⁴ George Creel, *Rebel at Large: Recollections of Fifty Crowded Years* (New York: G.P. Putnam's Sons, 1947), 158-159.

which might be of aid to the enemy be scrupulously withheld at the source.”⁴⁵ This worked at the time because of the type of war being waged and because the American press collectively believed they were a part of the team fighting with the government for their American way of life. He would ultimately have to centralize his information efforts and created the Office of War Information in 1942 to help consolidate government information services and focus on the morale of the American public. The context of total war undoubtedly helped. Roosevelt need for a centralized information bureau, but it too would also be dissolved at the end of the war for similar concerns held by the American public in World War I.

These and other American experiences helped evolve our national character, which are then reflected in the rules and regulations that get passed by Congress. Operating above all else within U.S. military communication efforts is the idea that we are acting on behalf of the people of the United States and are being directed by those whom they have elected. The current laws that provide guidance for military communication efforts are fragmented to say the least. The US Code is the “codification by subject matter of the general and permanent laws of the United States,” is divided into 50 titles, and is periodically updated and published by the House of Representatives. Within the U.S. Code are three areas that could potentially impact U.S. military communication efforts: Title 10 (Armed Forces), Title 22 (Foreign Relations and Intercourse) and Title 50 (War and National Defense). The Smith-Mundt Act of 1948, which is commonly referenced when dealing with how the U.S. engages global audiences, falls within Title 22, Chapter 18 titled “United States Information and Educational Exchange Programs.”

The limitations of these governing laws are threefold. First, the laws are outdated referring to organizations such as the United States Information Agency, another information agency, which was disbanded in 1999. Second, there are no definitions for cognitive terminology

⁴⁵ Quoted in Gabriel Schoenfeld, *Necessary Secrets* (New York: W.W. Norton and Company, 2010), 145-146.

used within the law resulting in common understanding of words like propaganda, influence and persuasion. Finally, there is no clear code for military communication and support to public diplomacy efforts by the Army engaged in persistent, long-term conflict. The Smith-Mundt Act falls within Title 22, Foreign Relations and Intercourse, and includes 91 Chapters on everything from diplomacy and foreign assistance, to passports, to international travel. While the legal gaps can provide the ammunition for much discourse, the basic intent of the laws reflect the notion that the American military cannot engage in deceptive information practices against the American public which make the true/false dichotomy of the proposed framework such an appealing starting point.

As a result of this context, the effects chosen reflect those things that have been prominent throughout military history and reflect the current legal, moral and social norms. Ultimately, the military has to be able to both inform friendly audiences without the intent of changing beliefs or attitudes, and manipulate those foreign audiences in the interests of the military or national security. The effects *Persuade* and *Explain* would typically be used in the context of American or a friendly nation while the effects of *Deceive*, *Deter* and *Influence* would typically be used in the context of an adversarial nation. These effects cannot be divided between good or bad because there is always the potential for a unique situation, but the intent is what was generally considered when categorizing and defining the effects.

CASE STUDIES

The next section focuses on the application of the Cognitive Battlefield Framework to three historical case studies. The methodology for all four case studies will be a brief explanation of the context for the operation, an application of the Cognitive Battlefield Framework, and some analysis. One inevitably has challenges when applying a new framework to historical case studies. In these cases, the actual cognitive intent is not known, but an attempt has been made to retroactively apply the framework in order to explain a potential example. In some examples, the

desired intent may be overly generic and the actual intent could of course be subject to debate. The purpose of the framework application on these historical case studies is not to prove a hypothesis about any previous battle, but rather to examine if the framework is a useful construct in order to explain and use in future operations.

Operation DELIBERATE FORCE and JOINT ENDEAVOR (NATO)

The strategic context of *Operation Joint Endeavor* was that of the breakup of the former Yugoslavia in 1991, the fighting primarily between the Serbian, Croatian and Bosnian ethnic groups between 1992 and 1995, and the subsequent Dayton Accords that laid out a framework for peace, which was to be implemented by NATO. NATO created the 60,000 strong Implementation Force (IFOR) which consisted of 32 nations and was to be that organizations first out-of-theatre land operation.⁴⁶ Along with the complexity of the mission involving peacekeeping between three nations and multiple ethnic minorities, IFOR was a challenge because it was a unified command with both NATO and non-NATO countries participating, it included hundreds of civilian specialists and Non-Government Organizations, and had varied rules of engagement.⁴⁷

With the collapse of the Soviet Union in 1991, many countries began to question the validity of an organization whose reason for creation was now gone.⁴⁸ Once it became clear that NATO would handle the conflict, it undoubtedly raised numerous questions within the Alliance not the least of which was how it would handle its information campaigns. Previously, NATO was an organization that was prepared for total war and the nuclear battlefield with the Soviet Union. In that context, informing, influencing and persuading were likely not a high priority. The

⁴⁶ Steven L. Burg and Paul S. Shoup, *The War in Bosnia-Herzegovina* (New York: M.E. Sharpe, 2000), 377-379.

⁴⁷ Larry Wentz, ed., *Lessons From Bosnia: The IFOR Experience* (Washington DC: National Defense University, 1998), 26-31.

⁴⁸ Joyce P. Kaufman, *NATO and the Former Yugoslavia* (New York: Rowman and Littlefield Publishers, 2002), 16-18.

IFOR mission had to examine how it informed and influenced the various battlefield audiences, as well as inform its contributing member-nations as one unified organization.⁴⁹

Politically and militarily, the United States was the world's lone superpower. With its recent overwhelming win in *Operation Desert Storm* in 1991, it was internationally viewed as militarily superior to all other countries. President Clinton was inaugurated into his first Presidential term in 1993 with a heavy focus on the economy, and ushered in an era of reduced military spending. NATO migrated towards a strategy of compellence, which seemed to bargain with adversaries through the use of a gradually escalated use of force in order to change ones behavior.⁵⁰ It was this outlook, and the U.S. being the primary military power within NATO at the time, that likely led to the decision to focus on periodic and then sustained bombing campaigns as the solution to coercing Milosevic into compliance.

This case study focuses on the move from kinetic to non-kinetic attempts at influencing an audience. It will propose one hypothetical cognitive framework that would have been in place during the bombing campaign of *Operation Deliberate Force* prior to the Dayton Accords, and another that would have gone into effect during *Operation Joint Endeavor* during the implementation of the Dayton Accords. The audience for the first framework would be primarily Slobodan Milosevic and the key leadership that controlled the military power such as the Bosnian Serb Army, and the second audience would be the civilian population within the Bosnia and Herzegovina.

The framework applied to *Operation Deliberate Force* might have been as follows:

(A) TASK: Inform (To communicate correct information to)

(A) METHOD: Sustained and gradually escalated bombing campaign (Kinetic)

(B) PURPOSE: Coerce (Force another person or group to behave in an involuntary

⁴⁹ Wentz, *Lessons From Bosnia: The IFOR Experience*, 167-169.

⁵⁰ Wesley K. Clark, *Waging Modern War* (New York: Public Affairs, 2002), 5.

manner, either through action or inaction)

(B) EFFECT: Influence (To alter the actions, behaviors, opinions or beliefs due to pressure)

The framework applied to *Operation Joint Endeavor* might have been as follows:

(A) TASK: Inform (To communicate correct information to)

(A) METHOD: Sustained Psychological Operations and local media campaigns (Non-kinetic)

(B) PURPOSE: Understand (To know the truthful significance, explanation or cause)

(B) EFFECT: Persuade (To convince with truthful information to alter actions, behavior, opinions or beliefs)

In *Operation Deliberate Force*, the intent was to continue to bomb the military forces in the area of operations in order to eventually coerce them to the negotiation table. The intended effect was ultimately to influence their behavior and force them to sign a peace treaty. One of the issues during the bombing campaign was that NATO began to issue threats that it was not able to fulfill. Pushed into action by the U.S. State Department and National Security Council, once the threats were made publically, its own credibility immediately became both an issue and a powerful political force all its own.⁵¹ In this instance, the political level may have been attempting to misinform the intended audience in hopes that it would comply with threat alone. The trouble with attempting to misinform utilizing public methods of communication is that credibility then became an issue and eventually forced the kinetic hand to be played either intentionally or unintentionally.

In the *Operation Joint Endeavor*, NATO would be communicating with the wide array of

⁵¹ Dag Henriksen, *NATO's Gamble: Combining Diplomacy and Airpower in the Kosovo Crisis, 1998-1999* (Annapolis, MD: Naval Institute Press, 2007), 176.

ethnic and national civilian audiences in attempt to merely inform in order to persuade them not to act violent or interfere with its peacekeeping mission. In this case, the purpose would be modified from the previous purpose of *Coerce* to the updated purpose of *Understand*. The intended effect is to *Persuade* because ultimately NATO would want the public to willingly embrace the mission, not forcibly change their behavior due to exerted pressure. In this case, it might take longer to persuade than it would to influence, but the positive long-term effects associated with a public who is convinced because of truthful information would outweigh the ability to more rapidly alter actions due to pressure. Prior to the Dayton Accords, NATO would not have cared about Milosevic and the other military leadership being convinced, only that the effect occurred in order to then enable other NATO kinetic and non-kinetic operations.

This case study illustrates how utilizing the same cognitive model with pre-defined cognitive terms, one can communicate the different intents of both kinetic and non-kinetic actions. Both examples are intentionally generic in order to illustrate the intent of the framework. For example, after some analyzing of the various audiences that would have to be communicated with during *Operation Joint Endeavor*, there could theoretically be multiple frameworks with different methods of delivery for each audience. The intent is not to produce one generic framework for an entire operation, but rather provide a framework that can be applied at multiple levels. As long as commanders intent is clear and the definitions are pre-defined, it should be clear when an operation at one level is achieving the intended effects of its higher level by utilizing the correct methods.

Operation PHANTON FURY (US)

The strategic context of *Operation Phantom Fury* was one of increasing insurgencies growing across the Iraqi area of operations in 2004. The invasion of Iraq had occurred the year prior, and while post-invasion Iraq initially looked manageable, the last few months of 2003 began to indicate signs of discontent amongst the populace. The early months of 2004 saw

numerous bombings, the rise of power of Abu Musab al-Zarqawi, and the photos from the Abu Ghraib prison scandal making headlines in the news. Politically, it was an election year for the Bush administration with John Kerry emerging as the Democratic frontrunner.

In March 2004, four American Blackwater contractors were killed and international media showed images of their mutilated bodies being burned and drug through the streets of Fallujah. A week later, American businessman Nick Berg's body was found and the video of his beheading was being played in its entirety on the Internet with portions of it being played by international news organizations.⁵² As a result, *Operation Vigilant Resolve* was initiated in April in order to take the city back from the insurgents who had taken over in that area.⁵³ That battle ended in an agreement with the local population with an understanding that the population would keep insurgents out of the city, but over the next several months the insurgents within Fallujah grew in strength and influence.⁵⁴

The city of Fallujah historically had an impact on legal and illegal trade and commerce because of its strategic geographic location. Its road networks connected Saudi Arabia with Syria and Turkey, and Baghdad with Jordan, and because of this, people and travelers of all backgrounds inhabited the city. The diverse population combined with densely packed buildings also made it "meaner than a junkyard dog" and hostile towards outsiders.⁵⁵ Fallujans practiced an extreme form of Wahhabism, a religious movement that taught non-tolerance towards anyone not Wahhabi, jihad against foreign invaders, and martyrdom in the name of its goals.⁵⁶

As the U.S. Presidential election drew closer, the summer of 2004 witnessed both

⁵² Vincent L. Foulk, *The Battle for Fallujah: Occupation, Resistance and Stalemate in the War in Iraq* (Jefferson, NC: MacFarland and Co., 2007), 56-58.

⁵³ Dick Camp, *Operation Phantom Fury: The Assault and Capture of Fallujah, Iraq* (Minneapolis, MN: Zenith Press, 2009), 55.

⁵⁴ Foulk, *The Battle of Fallujah*, 43-46.

⁵⁵ Camp, *Operation Phantom Fury*, 13.

⁵⁶ Camp, *Operation Phantom Fury*, 16.

political and military challenges. On the American political front, the American public watched the introduction of things like Michael Moore's movie *Fahrenheit 9/11*, John Kerry's Swift Boat controversy, the forged Killian documents which claimed President George W. Bush's Air National Guard service was falsified, and increasingly heated political rhetoric by both sides leading up to the U.S. Presidential election in November. American military operations in Iraq were also not going well. The U.S. death toll in Iraq reached the 1,000 mark in September and the military was struggling with a growing insurgency.

Operation *Phantom Fury* is also known as *Operation al-Fajr*, or "the dawn," and as the Second Battle of Fallujah. It occurred in November and December of 2004, after the presidential election. It was considered one of the highest kinetic battles of the Iraq War and November was considered the deadliest month of the war thus far with 137 U.S. casualties.⁵⁷ The city of Fallujah had not had any coalition forces present in the city since the conclusion of the first invasion, so it was littered with mines, IED's and other explosive devices in an attempt to deter any invasion by U.S. or Allied forces.

The 1st Marine Expeditionary Force (I MEF), the largest force in the invasion, starting planning around mid-September for an attack into the city. LTG John Sattler's initial order to initiate the planning process was: "On order, Multination Force-West attacks to destroy the Anti-Iraqi forces and insurgent forces in Fallujah-Ramadi in order to deny the use of Fallujah-Ramadi as their safe haven and to facilitate the restoration of legitimate governance, security, and reconstruction."⁵⁸ Clearly at this late stage, there was no intent to achieve cognitive effects in the insurgents. Multiple attempts at influencing the insurgent population had occurred prior and all but failed, leaving a course of action best explained by MG James Mattis: "There's only one way

⁵⁷ Foulk, *The Battle of Fallujah*, 224.

⁵⁸ Camp, *Operation Phantom Fury*, 123.

to disarm the Fallujah Brigade, kill it.”⁵⁹

In order to prepare for the battle, the city was isolated and surrounded with checkpoints around the perimeter preventing any insurgent from entering or leaving the city limits. The city sustained weeks of bombardments by air and artillery causing enemy forces to hole up, while US intelligence gathered information about the road networks and fortified defense structures. A majority of the 300,000 civilian populations fled the city, leaving the hardcore insurgents within the city limits. Prior to entering the city, I MEF conducted multiple deception operations in order to trick the insurgents into perceiving an attack was going to come from an area other than that of the eventual main effort. It is this deception effort at the beginning of the battle that will be primarily focused on.

The application framework in this context can be applied during the initial shaping phase of the battle. A series of kinetic feints were conducted with the intent of causing the insurgent forces to prepare defense positions in areas other than where the primary attack would eventually occur. In this instance, the framework application would read as follows:

(A) TASK: Misinform (To purposely lead astray; give incorrect information)

(A) METHOD: Operations Black Bear 1 & 2, Diamond Cutter, Diamond Grinder

(B) PURPOSE: Conceive (To form a notion or idea; to begin planning)

(B) EFFECT: Deceive (To cause to accept as true or valid that which is false or invalid)

The series of kinetic feint operations were, according to Regimental Combat Team 1 Commander COL Mike Shupp, a success and likely contributed to a reduced presence along the main avenue of approach.⁶⁰ The item that will be offered as a method of further testing the application is a non-kinetic attempt at deception. On October 14, 2004, 1LT Lyle Gilbert went on

⁵⁹ Camp, *Operation Phantom Fury*, 117.

⁶⁰ Camp, *Operation Phantom Fury*, 141.

camera and stated, “troops had crossed the line of departure” on CNN alluding to the fact that the battle of Fallujah had begun.⁶¹ The *Los Angeles Times* later reported that Gilbert, a Public Affairs Officer, made the statement as a part of a larger Information Operations plan in order to identify what the reaction of the insurgents would be if they believed the attack had begun.⁶² There has been no indication that this one instance was a pre-planned part of the larger deception effort at the I MEF level of planning, but for the sake of explanation, this instance will be used to help illustrate the cognitive framework. If utilizing the framework, the application would have read as follows:

(A) TASK: Misinform (To purposely lead astray; give incorrect information)

(A) METHOD: International news interview with Public Affairs Officer

(B) PURPOSE: Conceive (To form a notion or idea; to begin planning)

(B) EFFECT: Deceive (To cause to accept as true or valid that which is false or invalid)

In this instance, it would have been apparent that the method for achieving this desired effect would have been inappropriate. The Public Affairs Officer is charged with informing U.S. and friendly audiences with truthful information and in this case, while they may have succeeded in misinforming the intended audience, the military through the spokesperson also misinformed U.S. and friendly audiences as well. Offering a hypothetical substitute, if an Information Operations Officer who does possess the tenet of deception in his or her job description replaced the Public Affairs Officer, the method would have still been inappropriate. In this case, the method is not only the individual spokesperson, but also more importantly the international news agency whose

⁶¹ CNN, “Pentagon debate rages over ‘information operations’ in Iraq,” December 2, 2004, http://articles.cnn.com/2004-12-02/us/pentagon.media_1_cnn-falluja-pentagon?s=PM:US, (accessed August 31, 2011).

⁶² Mark Mazzetti, “PR Meets Psy-Ops in War on Terror,” *Los Angeles Times*, December 1, 2004, <http://articles.latimes.com/2004/dec/01/nation/na-warinfo1> (accessed August 31, 2011).

primary audience is the American public among others. While the interview may or may not have reached its intended audience, the several hundred holed up insurgents within the city limits, it most definitely reached a much larger friendly audience.

In this instance, several methods were utilized in order to accomplish the effect of deception. The majority of the methods were kinetic feints with one event utilizing a non-kinetic interview. If Gilbert's statement was indeed a component of a larger IO campaign being waged in conjunction with the kinetic feints, use of the framework may have helped in identifying inappropriate methods in order to achieve the desired effect during the planning stage. Regardless, both the actual and hypothetical event helps illustrate the need to doctrinally define the intended cognitive effects like persuade and influence, not merely refer to those effects in military field manuals. The case study also emphasizes the importance that the method has in relation to the task, purpose and effect.

Operation CAST LEAD (Israel)

The strategic context of *Operation Cast Lead* would have to include a long history of the Israeli-Palestinian relations as well as Israel's relations with many of its neighbors. Israel was recognized as an independent state by the United Nations in 1948 following a decade of atrocities during the holocaust of World War II. Because of that background, the Israeli narrative at the time was likely a more sympathetic one than it would be considered today. In 1948, Egypt, Syria, Lebanon and Iraq all declared war starting the yearlong Arab-Israeli War that ended in a cease-fire with temporary borders established. Throughout the 1950's and early 1960's there were relatively smaller military clashes with its border states, but the 1967 "Six-Day War" was the time when Israel emerged as a superpower in the Middle East.⁶³ The Egyptian and Syrian armies

⁶³ George W. Gawrych, *The 1973 Arab-Israeli War: The Albatross of Decisive Victory*, Leavenworth Papers no.21 (Fort Leavenworth, KS: Combat Studies Institute, 1996), 1.

launched a surprise attack in 1973 in what is now referred to as the Yom-Kippur War, which ultimately led to the Israeli-Egyptian peace treaty in 1978, and the U.N. taking control of the Sinai Peninsula.⁶⁴

Throughout the 1980's and 1990's, Israel continued to battle both the kinetic fight as well as a changing international narrative. Narratives develop in response to political events, conflict, violence and destruction and the increased quantity of these events increased the quantity of the narratives being discussed.⁶⁵ From the Israeli perspective, the memories of the holocaust have not faded and repeated attacks from its neighbors have likely only reinforced the importance of defending its territory. With limited geographic depth and a history of attacks by its neighbors, Israel has focused on a pre-emptive defensive posture that has also presented the opportunity for different external perceptions and greater interpretations of the Israeli narrative. It is also attempting to balance that narrative with the information warfare activities of other players like Hamas and Hezbollah who may be militarily inferior but possess the same information warfare capabilities that Israel does. The battle over perception is seen as not only important, but as the heart of the matter.⁶⁶

Israel today is at a crossroads. It is a state attempting to balance itself between a democracy and theocracy. The size of Israel was at times considered less important than "how Jewish it was," but given the increased number of kinetic attacks that opinion may be fading.⁶⁷ While Israel and the U.S. do share common experiences, they are by no means identical. Some of the cognitive tactics that Israel has used in its recent wars would not be appropriate in the U.S.⁶⁸

⁶⁴ Gawrych, *The 1973 Arab-Israeli War: The Albatross of Decisive Victory*, 3.

⁶⁵ Robert I. Rotberg, ed., *Israeli and Palestinian Narratives of Conflict: History's Double Helix* (Bloomington, IN: Indiana University Press, 2006), 31-36.

⁶⁶ Scott C. Farquhar, ed., *Back to Basics: A Study of the Second Lebanon War and Operation Cast Lead* (Fort Leavenworth, KS: Combat Studies Institute Press, 2009), 104.

⁶⁷ John R. Gee, *Unequal Conflict* (New York: Olive Branch Press, 1998), 68.

⁶⁸ Farquhar, *Back to Basics: A Study of the Second Lebanon War and Operation Cast Lead*, 106.

Because of its history and national context, it may be more appropriate to view Israel similarly to how Americans approached their information campaigns during World Wars I and II. In the context of total war and a fight for a nation's existence, a country's public generally allows for greater latitude especially when it comes to cognitive topics of influence and persuasion.

The context in 2008 was one of continuous attacks, cease-fires agreements, and broken cease-fire agreements between Israel and Hamas. Israel celebrated the 60th Anniversary of its founding earlier that year and in September, its Prime Minister Ehud Olmert announced his intention to resign. From the U.S. perspective, the Iraq surge of 2007 was implemented and was now seen as a success. The Democrats nominated Barack Obama as their nominee in September, winning the general election in November, and there was speculation about the less “hawkish” Obama administration and questions on how the U.S.-Israel relations would change.⁶⁹ As major political changes were expected in the coming months with a new U.S. administration and a new Israeli Prime Minister on the horizon, *Operation Cast Lead* was initiated at the end of the year.

Operation Cast Lead started December 27, 2008. It was a three-week bombing and invasion campaign of the Gaza strip in response to repeated rocket fire originating from Gaza into Israel. The operation began with air strikes against Hamas's High Value Targets (HVTs) in order to decapitate its leaders, and a ground invasion began on January 3, 2009. The intention of the operation was “to force Hamas to stop its hostile activities against Israel” and to target Hamas key leaders, rocket-firing ability, munitions and tunnels across the border used for smuggling.⁷⁰

There are numerous audiences that could potentially be the target of Israeli cognitive effects: Hamas leadership, Hamas Soldiers, U.S. political leadership, internal Israeli population, or the various national and international narrative to name just a few. In this instance, the

⁶⁹ Jeff Zeleny, “Obama Asks Jewish Voters to Judge Him on His Policies,” *New York Times*, May 23, 2008. <http://www.nytimes.com/2008/05/23/us/politics/23obama.html> (accessed September 1, 2011).

⁷⁰ Farquhar, *Back to Basics: A Study of the Second Lebanon War and Operation Cast Lead*, 89-90.

framework application will be applied to two different audiences: the first being U.S. political leadership and the second being those nations of the international community who were marginally supportive. The second audience is admittedly broad and generic, but which will serve a useful purpose in making a distinction between two external audiences.

For the audience of U.S. political leadership, the cognitive framework might read as follows:

(A) TASK: Inform (To communicate correct information to)

(A) METHOD: Key leader interviews on U.S. television (Non-kinetic)

(B) PURPOSE: Support (Strengthen or support physically or mentally)

(B) EFFECT: Persuade (To convince with truthful information to alter actions, behavior, opinions or beliefs)

For the audience of the international community, the cognitive framework might read as follows:

(A) TASK: Inform (To communicate correct information to)

(A) METHOD: Key leader interviews with wire services (Non-kinetic)

(B) PURPOSE: Understand (To know the truthful significance, explanation or cause)

(B) EFFECT: Explain (To make known)

In this case, a hypothetical circumstance is proposed where Israel was attempting to help influence the views and actions of the new U.S. administration in the first instance, and to explain or make known the Israeli narrative in the international community in the second instance. In both instances, they would naturally want to do this by truthfully informing both their U.S. ally and any other supportive or neutral government. What might change between these audiences are both the purpose and the effect. The purpose desired for the U.S. was to support, as in to strengthen physical or morally their support for the current operation being waged. The purpose for the international community would be to truthfully understand. In both instances, the same task of informing was utilized, but the desired effect for each audience is slightly different so the purpose

gets altered. The effect desired for the U.S. political audience is to persuade them to act in order to continue to build an effective Alliance, while the effect on the other international government would be to explain the Israeli narrative. In this instance, the most important aspect was the different purposes, which ultimately led to different intended effects for each audience.

CONCLUSION

The lack of a Strategic Communications framework, which can be applied across multiple SC-related disciplines and government agencies, hinders the further development of the SC field. The increased funding and importance that has been placed upon the topic of SC towards the beginning of the last decade has created a field that still remains mired in subjective terminology. In the 1960's, the U.S. Army was involved in counterinsurgency operations in Vietnam and the wave of intellectual thought on the subject left the military "awash with buzzwords" and it was not until 1967 when the lexicon began to be clarified and codified.⁷¹ The U.S. military faces a similar predicament today when it comes to the topic of SC. The variety of undefined terms and the varied interpretations has complicated the professional discourse rather than contributed to it. Further, the merging of both cognitive effects like "influence" and kinetic effects like "computer network attack" under the umbrella of Information Operations have contributed to leaders and practitioners unable to correctly define and distinguish between non-lethal fires and cognitive effects.

This paper began by defining its terms, a basic and essential part of any professional discourse on a given topic. Topics such as influence, persuasion and informing are referred to in doctrine but never actually defined. It is essential for the joint community to establish a foundation of defined doctrinal definitions for these terms in order for the individual services to consistently discuss and then apply them. The definitions proposed in this monograph could be subject to scrutiny, but may provide a good starting point for establishing cognitive terminology consistency across the Department of Defense and potentially other U.S. government agencies as well.

This monograph provides an overarching communication framework under which the

⁷¹ Andrew J. Birtle, *U.S. Army Counterinsurgency and Contingency Operations Doctrine* (Washington DC: Defense Dept., Army, Center of Military History, 2007), 422.

military practitioner can visualize and verbalize the intended cognitive effects desired upon a specific audience. For the visual learners, the graphic provides a way that clearly divides the “friendly” actions of the sender, with those of the receiver. The model also shows that while we may inform or misinform via a selected method, that our information is in competition with a number of other aspects that may or may not affect the eventual outcome. The social sciences are at times a challenge to explain to others, but the visual at least assists in that explanation.

The written portion of the framework does a good job at first providing a starting point of true or false information with the inform/misinform task. This would clearly and unequivocally contribute to understanding at all levels. The EFST-type format provides a consistent way to articulate intent and frames the conversation in a manner that most in the military are used to. It also allows for the correct identification of the appropriate functional area to conduct a specified task. As an example utilizing the definitions provided, a Public Affairs Officer could inform an audience with a desired effect of either persuading or explaining without doing anything that would be legally, morally or socially incorrect. Persuading, or getting an audience to alter their opinions with truthful information, is something that PAOs do all the time.

No model or theory is completely accurate, and this model is not an exception. While applying the framework to the three case studies, it became obvious that leaving the phrasing of the *Method* up to the individual user might hinder its use when used by a wider audience. The *Method* could change according to the level of war the framework was applied at, and the ability to choose everything from the generic “non-kinetic” as a method to the prescriptive “leaflet drop at a specified time and place” might lead to confusion. In order to correct this, additional research in specific method classifications, the utilization of the EFAT/EFST construct for further description, and better ways to nest cognitive effects with ones higher command would be recommended. Another disadvantage in the model is that the behavior exhibited by the receiver may or may not be directly attributable to the information introduced by the sender. This would theoretically cause the sender to evaluate his choice of task and method based off the effects that

may or may not have been caused by the sender's input.

In conclusion, there must be better definitions and models within the SC-related fields that are focused on cognitive effects. There must also be a better distinction between intended cognitive effects and those lethal and non-lethal actions targeted at communication systems. The cognitive battlefield is more art than science, but that doesn't alleviate the need to better define the terms and improve upon the ways we communicate our intent internally and externally. As defense budgetary constraints are seen on the horizon, the militaries non-kinetic options and ability to influence may draw greater focus from our political leadership. Discussion and debate over the terms and model utilized in this monograph would be a welcome debate. As stated in the latest National Security Strategy, we must do a better job in our communications and engagements and in order to do so, we must get beyond just a SC definition and develop processes and models that can be collectively utilized by all who are working within the Strategic Communications field.

APPENDIX A: Relevant Terms

Where possible, the use of existing doctrinal definitions has been used and any modifications were noted. If the current doctrinal definition is inconsistent with the methodology applied in this paper, it has been altered and identified with an asterisk (*) followed by an explanation. If the definition is undefined in military doctrine, an external source was used and the definition has been annotated with a pound sign (#).

Battlespace: The environment, factors, and conditions that must be understood to successfully apply combat power, protect the force, or complete the mission. This includes the air, land, sea, space, and the included enemy and friendly forces; facilities; weather; terrain; the electromagnetic spectrum; and the information environment within the operational areas and areas of interest.⁷²

Cognitive Battlefield: (#) Those actions and inputs that occur within the mind of a person or group of people's decision-making processes during a time of concurrent violent conflict between two or more enemies, armies or the like.

Cognitive Sphere: (#) Those actions and inputs that occur within the mind of a person or group of people's decision-making processes. Also called Cognitive Realm or Cognitive Theatre.

Cognitive Warfare: (#) Cognitive conflict between two or more enemies, armies or the like during a time of concurrent violent conflict.

Electronic Warfare: Military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. Electronic warfare consists of three divisions: electronic attack, electronic protection, and electronic warfare support. Also called

⁷² Department of Defense, *Joint Publication 3-13, Information Operations* (Washington DC: Joint Chiefs of Staff, 2006), GL-4.

EW.⁷³

Grand Strategy: The art and science of employing national power to achieve national security objectives under all circumstances to exert desired types of degrees of control over the opposition by applying force, the threat of force, indirect pressure, diplomacy, subterfuge, and other imaginative means to attain national security objectives.⁷⁴

Information Operations: (*) The employment of the core capabilities of electronic warfare, computer network operations and operations security in concert with specified supporting and related capabilities, to affect or defend information systems. (The JP 3-13, 2003, definition has been modified by deleting psychological operations, military deception and influencing decision-making).

Information Warfare: actions taken to achieve information superiority by affecting adversary information, information-based processes, information systems, and computer-based networks while defending one's own information, information-based processes, information systems and computer-based networks.⁷⁵

Military Communications: (#) Focused United States Military efforts to understand or inform friendly or enemy audiences, and/or mislead enemy audiences, in order to explain, persuade, influence or deceive through the use of coordinated methods that are synchronized with United States Government Strategic Communication efforts.

Military Strategy: The art and science of employing military power under all circumstances to attain national security objectives by applying force or the threat of force.⁷⁶

⁷³ JP 1-02, 120.

⁷⁴ John M. Collins, *Grand Strategy, Principles and Practices* (Annapolis, MD: Naval Institute Press, 1973), 269.

⁷⁵ Department of Defense, *FM 100-6, Information Operations* (Washington, DC: Army Chief of Staff, 1996), GL-8.

⁷⁶ Collins, *Grand Strategy, Principles and Practices*, 272.

Propaganda: Any form of adversary communication, especially of a biased or misleading nature, designed to influence the opinions, emotions, attitudes, or behavior of any group in order to benefit the sponsor, either directly or indirectly.⁷⁷

Psychological Operations: Planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the originator's objectives. Also called Military Information Support to Operations.⁷⁸

Strategic Communications: (*) Focused United States Government efforts to understand, inform, explain, persuade, or influence key audiences in order to create, strengthen, or preserve conditions favorable for the advancement of United States Government interests, policies, and objectives through the use of coordinated methods that are synchronized with other actions of all the instruments of national power. Also called SC. (The JP 1-02, 2011, definition has been modified to include specific cognitive terms utilized in this paper and deleted "programs, plans, themes, messages and products" to say just "methods.")

⁷⁷ JP 1-02, 295.

⁷⁸ JP 3-53, GL-4.

APPENDIX B: Cognitive Framework Terms

TASK

Inform: To communicate correct information to.

Misinform: To purposely lead astray; give incorrect information.

METHOD

There can be a variety of both kinetic and non-kinetic methods identified, and each method will likely be tailored to an audience and to the operational level that it is being applied at.

PURPOSE (CCUPIDS)

Coerce: Force another person or group to behave in an involuntary manner, either through action or inaction.

Conceive: To form a notion or idea; to begin planning.

Understand: To know the truthful significance, explanation or cause.

Perceive: To become aware of something directly through the sense that may or may not be true.

Impel: To drive or urge forward; increase one's will.

Diminish: Make or seem less valuable; to decrease one's will.

Support: Strengthen or support physically or mentally.

EFFECT (PEDDI)

Persuade: To convince with truthful information to alter actions, behavior, opinions or beliefs.

Explain: To make known.

Deceive: To accept as true or valid that which is false or invalid.

Deter: To prevent by instilling doubt or fear of consequences.

Influence: To alter actions, behaviors, opinions or beliefs due to pressure.

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