NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

BY FORCE OR BY FRAUD: OPTIMIZING U.S. INFORMATION STRATEGY WITH DECEPTION

by

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June 2016

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REPORT DOCUMENTATION PAGE			*Form Approved OMB No. 0704-0188*
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.			
1. AGENCY USE ONLY ***(Leave blank)***	**2. REPORT DATE** June 2016	**3. REPORT TYPE AND DATES COVERED** Master's thesis	
4. TITLE AND SUBTITLE BY FORCE OR BY FRAUD: OPTIMIZING U.S. INFORMATION STRATEGY WITH DECEPTION			**5. FUNDING NUMBERS**
6. AUTHOR(S) Ryan Q. Flaherty and Andrew R. Phillips			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943–5000			**8. PERFORMING ORGANIZATION REPORT NUMBER**
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			**10. SPONSORING / MONITORING AGENCY REPORT NUMBER**
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number ____N/A____.			
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited			**12b. DISTRIBUTION CODE**

13. ABSTRACT (maximum 200 words)

Military deception (MILDEC) operations have a long and illustrious place in America's battlefield history. To great effect, MILDEC has enabled countless victories in every U.S. conflict since the Revolutionary War. However, the United States has allowed its deception capability to atrophy. Possible explanations for our MILDEC divestiture range from structural insufficiencies to an ethical framework that emphasizes truth and transparency. Simultaneously, the onset of the Information Age has leveled the playing field between state and non-state actors (NSA) and proved that lasting victory cannot be achieved by force alone. Yet, due in part to the difficulty involved in quantifiably measuring information strategy, the contemporary military's acceptance and understanding of information warfare has been limited. This necessitates the re-examination of U.S. information strategy formulation to address more effectively the challenges and complexities encountered in the human domain. To overcome this impediment, this thesis examines the intangible aspects of information warfare and proposes a structured decision-making tool capable of generating precise computations of optimal information strategies. "By Force or by Fraud" is a quantitative assessment of MILDEC's utility on the modern battlefield that is qualitatively tested against historic cases of information warfare.

14. SUBJECT TERMS deception, MILDEC, influence, psychological operations, PSYOP, MISO, information operations, IO, counterinsurgency, special operations forces, game theory, analytical hierarchy process, non-state actors, human domain, Dhofar Rebellion, Irish War of Independence, Israel-Lebanon Conflict, Vietnam War, information age, information strategy			**15. NUMBER OF PAGES** 115
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	**18. SECURITY CLASSIFICATION OF THIS PAGE** Unclassified	**19. SECURITY CLASSIFICATION OF ABSTRACT** Unclassified	**20. LIMITATION OF ABSTRACT** UU

NSN 7540-01-280-5500 Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. 239-18

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BY FORCE OR BY FRAUD: OPTIMIZING U.S. INFORMATION STRATEGY WITH DECEPTION

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Submitted in partial fulfillment of the
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MASTER OF SCIENCE IN DEFENSE ANALYSIS

from the

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ABSTRACT

Military deception (MILDEC) operations have a long and illustrious place in America's battlefield history. To great effect, MILDEC has enabled countless victories in every U.S. conflict since the Revolutionary War. However, the United States has allowed its deception capability to atrophy. Possible explanations for our MILDEC divestiture range from structural insufficiencies to an ethical framework that emphasizes truth and transparency. Simultaneously, the onset of the Information Age has leveled the playing field between state and non-state actors (NSA) and proved that lasting victory cannot be achieved by force alone. Yet, due in part to the difficulty involved in quantifiably measuring information strategy, the contemporary military's acceptance and understanding of information warfare has been limited. This necessitates the re-examination of U.S. information strategy formulation to address more effectively the challenges and complexities encountered in the human domain. To overcome this impediment, this thesis examines the intangible aspects of information warfare and proposes a structured decision-making tool capable of generating precise computations of optimal information strategies. "By Force or by Fraud" is a quantitative assessment of MILDEC's utility on the modern battlefield that is qualitatively tested against historic cases of information warfare.

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LIST OF ACRONYMS AND ABBREVIATIONS

AHP	Analytical Hierarchy Process
ARVN	Army of the Republic of Vietnam
CIA	Central Intelligence Agency
COIN	Counterinsurgency
CORDS	Civil Operations and Revolutionary Development Support
CPS	Counter-Prudential Strategy
CR	Consistency Rating
DLF	Dhofar Liberation Front
DOD	Department of Defense
DoS	Department of State
GWOT	Global War on Terror
IDF	Israeli Defense Forces
IO	Information Operations
IPB	Intelligence Preparation of the Battlefield
IRA	Irish Republican Army
JIPOE	Joint Intelligence Preparation of the Battlefield Environment
JSC	Joint Security Control
MILDEC	Military Deception
NSA	Non-State Actor
NVA	North Vietnamese Army
OSI	Office of Strategic Influence
PFLOAG	Popular Front for the Liberation of the Occupied Arabian Gulf
PLO	Palestinian Liberation Organization
PMESSII-PT	Political, Military, Economic, Social, Information, Infrastructure, Physical Environment, Time
PS	Prudential Strategy
PSYOP	Psychological Operations
PSYWAR	Psychological Warfare
RIC	Royal Irish Constabulary
SLA	Southern Lebanese Army

SOF	Special Operations Forces
SOG	Studies and Observations Group
USIA	United States Information Agency
VC	Viet Cong

ACKNOWLEDGMENTS

The Defense Analysis Department's faculty and staff have our sincerest gratitude for providing a truly mind opening and personally enriching experience. We would like to take this opportunity to give special thanks to our advisor, Dr. Hy Rothstein, and our second reader, Dr. Robert Burks, for their time and mentorship during this process. Additionally, we would like to acknowledge the Soldiers, NCOs, and Officers of the Psychological Operations Regiment whose creativity and professionalism inspired this thesis. Finally, we must thank our wonderful families for their encouragement and support during this endeavor.

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I. EXAMINATION OF THE U.S. DIVESTITURE FROM DECEPTION OPERATIONS

> Every kind of service necessary to the public good becomes honorable by being necessary.
>
> —Nathan Hale

Military Deception (MILDEC) operations are tightly woven into the fabric of America's battlefield history. Examples of U.S. deception operations first appear in the Revolutionary War, championed by a man famed for his inability to tell a lie, George Washington. These shadowy and sometimes controversial operations played a critical role in securing countless victories in such conflicts as World War II and Desert Storm. Despite a 250-year track record of demonstrated utility, however, today's U.S. military has allowed this critical capability to atrophy.

A. THE PROBLEM

The complexities of the Information Age have altered the nature of conflict. Large-scale, state-on-state battles have transitioned to smaller, localized conflicts against irregular ideologically aligned groups. These changes, combined with an increasingly restrictive international system, have severely limited the manner in which U.S. combat power is now employed. Compounding the difficulty, force reductions threaten to expose a dangerous capability gap in the United States' effectiveness and ability to respond, which inevitably emboldens adversaries.[1]

Conflict in the Information Age transcends traditional notions of the "battlefield," occurring largely among civilian populations and is conducted almost exclusively in the human domain, necessitating innovative, low-cost, small-footprint approaches to

[1] Jennifer Griffin and Lucas Tomlinson, "Army Chief Odierno, in Exit Interview, Says U.S. could have 'Prevented' ISIS Rise," Fox News, July 22, 2015, http://www.foxnews.com/politics/2015/07/22/exclusive-army-chief-odierno-in-exit-interview-says-us-could-have-prevented/.

national-security objectives.[2] Despite a need for the agile and savvy employment of limited resources, the modern U.S. military machine favors a strict ideal of truthful-information campaigns. While current social-science research attempts to explain why deception has fallen into disuse, very little recent research examines the utility of deception operations against the threats encountered on today's battlefield.

B. PURPOSE

This thesis assesses the efficacy of deception as a tactic against the asymmetrical threats characteristic of the Information Age. The goal is to provide commanders and practitioners with qualitative examples and quantifiable metrics on deception operations, for use in optimizing military effectiveness. Proposed is a model by which all the capabilities of the U.S. information arsenal may be leveraged—including deception as appropriate.

C. RESEARCH QUESTIONS

This research asks the following:

1. In the context of contemporary warfare, what is the optimal combination of truthful and deceptive information to employ in achieving military objectives?

2. What conditions are necessary to maximize Military Deception effectiveness?

D. LITERATURE REVIEW

In examining the causes of U.S. divestiture from deception operations, two polarized viewpoints have emerged. One group attributes the deterioration of MILDEC capability to structural problems—poorly funded or undermanned institutions, burdened by bureaucracy, are no longer able to provide adequate support to MILDEC. Others point to the rise of a modern ethical framework that stresses American moral integrity as paramount and rejects short-term gains at the expense of long-term credibility.

[2] Leon Panetta, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Washington, DC: Department of Defense, 2012), http://archive.defense.gov/news/Defense_Strategic_Guidance.pdf.

1. Institutional Frameworks

Before World War II, the United States lacked an institutional framework for the systematic undertaking of deception operations. Deception was planned and executed by geographic combatant commanders who had no mechanism for tracking the development, deconfliction, or resourcing of the "black arts." As fighting intensified in the early years of World War II and more theater commands found themselves in the deception business, a series of operational missteps revealed the need for an organization dedicated to planning, executing and synchronizing MILDEC operations.[3]

In November 1942, the Joint Security Control (JSC) was established by the Joint Chiefs of Staff; one of its first missions was to coordinate strategic deception operations for pending Allied operations in North Africa.[4] Throughout the remainder of World War II, the JSC directed the planning, execution, and implementation of highly effective deception operations that contributed significantly to the victory over Germany and Japan. Despite its many achievements, however, the organization did not survive the war, and many highly valuable tactics, techniques, and procedures, defined and refined in battle, were lost.

In 1953, the U.S. acknowledged the need for an organization that could effectively employ information operations. Spurred largely by a need to counter Russian propaganda, president Dwight D. Eisenhower created the U.S. Information Agency (USIA). While not dedicated to MILDEC, the USIA effectively resynchronized U.S. information strategy.[5] The organization enjoyed a successful 44-year run before its dissolution in 1999 by President Bill Clinton. The agency had become closely identified with the Cold War, and few saw a need to maintain an institutional framework for information strategy and deception against an enemy that no longer existed.[6]

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[3] Katherine L. Herbig, "American Strategic Deception in the Pacific: 1942–44." *Intelligence and National Security* 2, no. 3 (July 1987): 261.

[4] Ibid.

[5] Shawn J. Parry-Giles, "The Eisenhower Administration's Conceptualization of USIA: The Development of Overt and Covert Propaganda Strategies," *Presidential Studies Quarterly* 24, no. 2 (Spring 1994): 265.

[6] Ibid.

USIA departments and capabilities were absorbed by a number of agencies within the departments of defense and state, among them the Undersecretary of State for Public Affairs and Public Diplomacy and the Office of the Director of National Intelligence. Unfortunately, the resulting compartmentalization and communication challenges among departments reduced formerly coordinated programs to independent operational efforts which were severely limited in collaboration and synchronization.

In the aftermath of the 9/11 attacks, former secretary of defense Donald Rumsfeld championed the creation of the Office of Strategic Influence (OSI). Charged primarily with supporting the war on terrorism through the targeted employment of psychological operations against U.S. adversaries, the OSI was America's first dedicated attempt at institutionalizing information warfare since World War II. However, the OSI was immediately besieged by negative publicity and accused of deceiving the public by presenting false information, images, and statements in the media.[7]

Despite Pentagon assurances that OSI would not use news media outlets to conduct deception operations, criticism mounted.[8] Ultimately, less than five months after its establishment, the OSI was deactivated by the Department of Defense over concerns that it undermined U.S. credibility because it was perceived as lying to the public.[9]

In *Deception: Appeal for Acceptance; Discourse on Doctrine; Preface to Planning,* retired Air Force general officer Walter Jajko makes a pointed prediction about the future of deception operations in an environment without an institutionalized structure:

> Without a permanent apparatus to create, conduct, control and contemplate deception operations, resources will be wasted, security will be jeopardized, operations will be amateurish, and the probability of failure will be increased. A permanent organization can ensure that

[7] Jon Krakauer, *Where Men Win Glory* (New York: Doubleday, 2009), 206.

[8] CNN, "New Pentagon Office to Spearhead Information War," February 20, 2002 http://www.cnn.com/2002/U.S./02/19/gen.strategic.influence/index.html?_s=PM:U.S.

[9] Susan L. Gough, "The Evolution of Strategic Influence," Strategy Research Project, U.S. Army War College, 2003.

operations can conform to policy and are mutually supporting with other activities, or at least not conflicting, and may even be made synergistic.[10]

2. Philosophical Constraints

As a nation, the United States has long prided itself on principles of honesty, integrity and transparency; yet the employment of deception operations is seen as standing in overt contradiction to the country's ethical foundations. Many American philosophical ideals are grounded in the works of Immanuel Kant, the architect of "principled ethics," also known as deontology. In his 1785 work, *Grounding for the Metaphysics of Morals,* Kant identifies the social categorical imperative, which is, in essence, the duty not to lie,[11] and posits that this imperative is a morally binding contract grounded in shared reasoning that applies to all persons at all times.[12]

Michael I. Handel builds upon Kantian ethics in his work, *Intelligence and Deception,* noting that "those who frequently deceive lose credibility."[13] While short-term gains can be achieved through deception, there are long-term credibility issues that must be weighted. Although the U.S. military retains an appreciation for MILDEC and an ability to conduct tactical level deception operations, it recognizes that sustained use has the potential to erode U.S. credibility on the international stage and undermine our ability to enter, forge, and maintain key alliances.[14]

Perhaps the most compelling argument supporting divestiture is that expressed by the American philosopher Sissela Bok. In *Lying: Moral Choice in Public and Private Life,* Bok examines the pitfalls of deception and the moral dilemmas associated with deliberately misleading others. Deceit inevitably erodes credibility; and as mistrust, anxiety, and other dysfunctions follow, social functioning, which requires some degree of

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[10] Walter Jajko, "Deception: Appeal for Acceptance; Discourse on Doctrine; Preface to Planning," *Comparative Strategy* 21, no. 5 (December 2002): 355.

[11] "Duty and Reason as the Ultimate Principle: Immanuel Kant, Groundwork of the Metaphysic of Morals," In G. Lober DA 471 Critical Thinking and Ethical Decision Making course handout Monterey, CA: Naval Postgraduate School.

[12] Ibid.

[13] Michael I. Handel, "Intelligence and Deception," *The Journal of Strategic Studies* 5, no. 1 (March 1982): 139.

[14] Ibid.

truth in words and actions, is impaired.[15] "Some level of truthfulness has always been essential to human society, no matter how deficient the observance of other moral principles. Even the devils themselves, as Samuel Johnson said, do not lie to one another, since society of Hell could not subsist without truth any more than others."[16]

Similarly, in *Winning Hearts and Minds: A Social Influence Analysis,* social psychologist Anthony Pratkanis observes, "Americans have a strong dislike of and aversion to the use of influence tactics to promote national goals,"[17] asserting that the deeds and words of democracies must be synchronized. It follows that the long-term effect of propagating a truthful narrative compliant with democratic values greatly outweighs the short-term value achieved through deception operations. The discipline on the leading edge of influence operations, Psychological Operations (PSYOP), approaches deceptive manipulation with a great amount of trepidation. "Credibility is key to successful products because the use and discovery of untruthful information irrevocably damages or destroys their and their originator's credibility."[18]

E. HYPOTHESES

The hypotheses of this research are as follows:

1. Deception is a viable tool of warfare, and this can be quantitatively demonstrated.

2. Optimal truthful–deceptive informational ratios can be identified and modified when the critical conditions of narrative, unity of effort, target audiences, commitment, information dominance, and timing are met.

F. METHODOLOGY

This study examines the efficacy of deception operations against the irregular threats of the Information Age. Using the Analytic-Hierarchy Process (AHP), game-theoretical modeling, and case studies, the optimal combination of truthful and deceptive

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[15] Sissela Bok, *Lying: Moral Choice in Public and Private Life* (New York: Vintage, 2011), 18.

[16] Ibid.

[17] Anthony R. Pratkanis, "Winning Hearts and Minds: A Social Influence Analysis," in *Information Strategy and Warfare,* ed. John Arquilla and Douglas A. Borer (New York: Routledge, 2007), 78.

[18] Department of the Army, *Psychological Operations* (FM 3–05.30) (Washington, DC, 2005), A-1.

information is assessed in the context of modern non-standard threats and conditions necessary to maximize MILDEC effectiveness.

Starting with the understanding of MILDEC as a historical component of American warfare and a categorical information task defined by current doctrine, its role in contemporary conflicts is examined. The Information Age, with its new technologies, has altered the traditional role of deception operations. This study investigates the conditions, factors, and circumstances that tend to optimize the use of MILDEC in military operations.

Game theory is used to model an interactive competition between the U.S. and a hypothetical non-state threat, where both sides employ information capabilities and kinetics. These capabilities are defined and isolated as potential courses of action to determine the likely outcome of a synthesized conflict.

Next, the AHP, a comprehensive, quantitative framework for structuring decision problems and evaluating alternative solutions, will be used to prioritize those army information tasks (i.e., information engagement, command and control warfare, information protection, operations security and military deception) best suited for the hypothetical battle.[19] These tools will be analyzed in relationship to the specifically determined operational factors (narrative, unity of effort, target audiences, commitment, information dominance, and timing) and prioritized in a rational and consistent manner. The numerical values that result from this process determine which alternatives are best able to meet the decision goal. This procedure provides a mathematical framework for the creation of a follow-up game model in which the adversaries compete exclusively in the realm of information.

This research presents a second game, in which the categories of information are reduced to truth or lies to yield an idealized ratio of truthful to deceptive informational strategies. The outcome of the game is employed as a tentative theory to be tested against historical case studies.

[19] Department of the Army, *Operations* (FM 3–0) (Washington, DC, 2008), 7–2.

The case-study analysis in this research offers qualitative scenarios in which to validate the quantitative findings. The studies address the effectiveness of deception and the operational factors that may make it the desirable course of action. The cases are chosen to illustrate the variations on truth and deception contained in the information campaigns of both state and non-states. Each case is analyzed using a combination of AHP and game theory to identify the truth–deception ratio on both sides.

Whether there is empirical evidence, through mathematical modeling and historical case studies, that MILDEC may in certain circumstances be the optimal tool against modern threats is the central investigation of this research. Given the nature of modern conflict, it is imperative that Special Operations Forces (SOF) seek low-cost, small-footprint solutions to lethal problems. The optimization tool offered by this research addresses this requirement and may be manipulated and refined for other aspects of special warfare, such as recommendations on SOF resourcing, advocacy, and prioritization.

II. REDEFINING INFORMATION STRATEGY ANALYSIS

> The most dangerous asymmetry is the inadequacy of conception in policy and strategy.
>
> —Brigadier General Walter Jajko

Impervious to the ravages of time and technological advancement, MILDEC transcends the technological evolution of weaponry and equipment. Yet deception operations, once an indispensable tool in the U.S. arsenal, have been underused in modern conflicts, despite the reality that under constrained resources and military options and a casualty-adverse polity, the military may gain considerable advantage from a revival of military deception.

Today's asymmetrical threats have demonstrated that victory is not assured through the unilateral application of traditional forms of combat power. This new reality obviates "the perceived need to approach every crisis by invoking the Powell doctrine's mantra of "overwhelming force."[20] The onset of rapidly advancing multimedia technologies has leveled the playing field within the international system, challenging many long-held military paradigms. This revolution in warfighting has significant implications for mission planning and analysis tools, which, when executed according to Clausewitizian-based theories of warfare, have failed to decisively defeat weaker adversaries.

"It is already readily apparent that the importance of information strategy is growing relative to that of military strategy. In such a world, skillful information strategy is likely to prove the difference between victory and defeat."[21] This shift has exposed critical insufficiencies in the current military-information strategy and associated doctrine regarding combating threats that possess an asymmetrical informational advantage. To optimize information warfare, an analysis tool for information strategy that integrates the

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[20] John Arquilla, "Introduction," in *Information Strategy and Warfare*, ed. John Arquilla and Douglas A. Borer (New York: Routledge, 2007), 12.

[21] Ibid., 9.

fundamentals of operational art, information operations, psychological operations, and counterinsurgency (COIN) principles is required. Using this model to analyze historical cases may yield quantifiable metrics for use in decision-making tools, as well as support decision makers seeking informational solutions today and in the future.

A. DOCTRINAL INSUFFICIENCIES

The use of operational art during the intelligence preparation of the battlefield (IPB) or joint intelligence preparation of the operational environment (JIPOE) processes are at best a collaborative, creative process that provides a realistic assessment as to how a force will "employ its capabilities to achieve the military end state."[22] At worst, this process can become an oversimplified staff exercise that lacks the depth of systematic assessment needed in combating Information-Age threats. The tenets of operational art (time, space, and force) and of the political, military, economic, social, information, infrastructure-physical environment, and time (PMESSII-PT) are too broad to use in engaging abstract concepts such as the ideologies and behaviors fueling modern conflict.[23] Having been developed and refined in conventional warfare, these legacy tenets fail to address the complexities of the human domain, which limit their effectiveness of information-strategy formulation.

American military doctrine, over-reliant on the tenets of Clausewitizian combat power, has not sufficiently adapted to confront the ideologically aligned threats that operate in the human domain. For example, FM 3–24, *Counterinsurgency,* and FM 3–0, Chapter 7, *Information Superiority,* superficially addresses the concept of information asymmetry but provides insufficient guidance on attacking this imbalance. FM 3–24 states:

> Insurgents have an additional advantage in shaping the information environment. Counterinsurgents seeking to preserve legitimacy must stick to the truth and make sure that words are backed up by deeds; insurgents,

[22] Joint Publication 5–0, *Joint Operation Planning* (JP 5–0) (2011), III-1.

[23] Brian M. Ducote, "Challenging the Application of PMESII-PT in a Complex Environment" (master's thesis, Kansas University, 2010), 5.

> on the other hand, can make exorbitant promises and point out government shortcomings, many caused or aggravated by the insurgency.[24]

In most cases, the insurgent begins with the advantage of initiative. However, as FM 3–24 states, "Ironically, as insurgents achieve more success and begin to control larger portions of the populace, many of these asymmetries diminish. That may produce new vulnerabilities that adaptive counterinsurgents can exploit."[25] In other words, the more state-like an insurgent becomes, the more accountable it becomes and the more susceptible it is to public opinion. Therefore, the ability to "conquer" the information environment is nested in the exploitation of environmental conditions that change constantly, thus requiring more accurate assessment principles. Needed is a flexible system of assessment and fluid improvisation, a concept that David Kilcullen describes as "adaptation battle."[26] Adaptation, by its very nature, is a bottom-up process that takes its cues from reality rather than doctrine. Adaptation is a necessity in COIN and IO due to their roots in the human domain.

Contemporary examples of information warfare, as found in the Global War On Terrorism (GWOT), reflect over-reliance on truthful, population-centered messaging.[27] Very little attention is given to MILDEC, owing to its negative connotations and the fear that it may produce accidental civilian casualties.[28] Yet ignoring MILDEC over perceived ethical constraints severely limits the tools in the informational arsenal. Rather, MILDEC, which has traditionally focused on targeting enemy decision-makers, may be exactly what is needed to mitigate enemy information asymmetries.

B. INFORMATION STRATEGY ANALYSIS

Effective information strategy requires the identification and analysis of those factors necessary for achieving a decisive advantage, which are categorized as narrative,

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[24] Department of the Army, *Counterinsurgency* (FM 3–24) (Washington, DC, 2006), 1–3.

[25] Ibid.

[26] David Kilcullen, *Counterinsurgency* (New York: Oxford University Press, 2010), 2.

[27] Department of the Army, *Counterinsurgency*, 1–3.

[28] Ibid.

unity of effort, target audiences, commitment, information dominance, and timing.[29] These factors provide a basis for advocacy, prioritization, and resourcing of information solutions and must be assessed internally and externally for a clear picture of how psychological factors affect the achievement of objectives, for both sides.

In this thesis, the concepts of narrative, unity of effort, target audiences, commitment, information dominance, and timing have been refined and repurposed from FM 3–24, *Counterinsurgency*; FM 3–05.301, *Psychological Operations*; FM 3–10, *Information Operations*; and other scholarly works on counterinsurgency. This research examines these factors to formulate the hypotheses tested in the case-study analysis and the evaluation of multiple-criteria decision-making tools.

1. Narrative

Defined in FM 3–24 as, "the central mechanism, expressed in story form, through which ideologies are expressed and absorbed,"[30] narrative is the inspiration of popular support through the application of words and deeds. Essential to the successful exploitation of narrative is a bottom-up intelligence process, coupled with an accurate assessment of how the counterinsurgency's methods are perceived in relation to their message:

> Higher headquarters usually establishes the COIN narrative. However, only leaders, Soldiers, and Marines at the lowest levels know the details needed to tailor it to local conditions and generate leverage from it. Company-level leaders apply the narrative gradually. They get to know local opinion makers, win their trust, and learn what motivates them. Then they build on this knowledge to find a single narrative that emphasizes the inevitability and rightness of the COIN operation's success. This is art, not science.[31]

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[29] Barton Whaley, *Stratagem: Deception and Surprise in War* (Cambridge: Center for International Studies, Massachusetts Institute of Technology, 1969), 87.

[30] Department of the Army, *Counterinsurgency*, glossary.

[31] Ibid., A-7.

a. Measuring Narrative

Drawing from Robert Thompson's "five principles of counterinsurgency," based on the experience of the British army in the Malayan insurgency, John A. Nagl emphasizes that "the government must have a clear political aim" and a unified message, supported by a plan of action that must "function in accordance with law," that is accepted by the populace.[32] Narrative is measured according to the presence or absence of three sub-factors: a unified message, aligned actions, and the perception of justice.[33] A unified message is a single narrative that is nested throughout the counterinsurgent organization; aligned actions are the physical manifestations of the narrative; and the perception of justice is the perceived agreement of words and deeds as seen through the eyes of the people. The various combinations of these sub-factors create strengths and weakness for both friendly and enemy forces, and understanding this dynamic aids in course-of-action development.[34]

b. Narrative: Hypotheses

This topic features two hypotheses:

1. States: For counterinsurgents to achieve legitimacy for their cause, their stated narrative and actions must be aligned, unified, and in support of a state that is perceived as just in the eyes of the populace.

2. Non-State Actors: The further the distance between the state's narrative and perceived actions, the more legitimate the insurgent's narrative and the righteousness of their actions in the eyes of the population.

2. Unity of Effort

FM 3–24, *Counterinsurgency*, states "all organizations contributing to a COIN operation should strive, or be persuaded to strive" toward a singular goal through "unity of effort."[35] In achieving a unified effort, it is critical to identify which entity is taking the lead, whether the host nation, the Department of State (DOS), Special Forces, or

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[32] John A. Nagl, *Learning to Eat Soup With a Knife* (Chicago: University of Chicago Press, 2005), 29.

[33] Ibid.

[34] Ibid.

[35] Department of the Army, *Counterinsurgency*, 2–3.

conventional forces, as this entity will ultimately guide the information strategy and shape its purposes. Each participant has its own perspectives and organic capabilities, but united efforts are necessary to avoid conflicting messages, also known as information fratricide. As stated in *Principles, Imperatives, and Paradoxes of Counterinsurgency*, "all actions, kinetic or non-kinetic, must be planned and executed with consideration of their contribution toward strengthening the host government's legitimacy and achieving the U.S. Government's political goals."[36] In information operations, it is important for messaging to originate with the host nation. Until this can been done effectively in any instance, other entities (e.g., DoS, SOF) must coordinate with the host nation to arrange a desirable attribution. Likewise, an insurgent's ability to conduct information warfare must be assessed to determine the breadth of its capabilities and closeness to the population.

a. Measuring Unity of Effort

To achieve unity of effort, Cohen et al. advise the following: "Manage information and expectations" (the government's ability to fulfill promises to the people), "use measured force" (avoid civilian casualties, collateral damage, and the associated informational consequences they lead to), and "learn and adapt" (quickly assess and target insurgent vulnerabilities).[37]

Unity of effort is measured according to the degree of political attunement, military competency, and asymmetric capabilities exhibited.[38] Political attunement refers to the actor's ability to connect with the populace and provide needed public services. Military competency is determined by assessing the demonstrated ability of both sides to conduct population-centric warfare. Asymmetric capabilities are those elements within each force structure devoted to rapidly learning and targeting enemy weaknesses.[39]

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[36] Eliot Cohen, Conrad Crane, Jan Horvath, and John Nagl, "Principles, Imperatives, and Paradoxes of Counterinsurgency," *Military Review* (March-April 2006): 49–53.

[37] Ibid., 51.

[38] Ibid.

[39] Ibid.

b. Unity of Effort: Hypotheses

This topic has two hypotheses:

1. States: The closer the counterinsurgent forces are to the indigenous population, in terms of cultural composition and understanding, the more effective their messaging will be.

2. Non-State Actors: The further counterinsurgent forces are from a population's cultural composition and understanding, the easier for insurgent forces to exploit their messaging.

3. Target Audiences

A target audience is defined in FM 3–05.301 as "an individual or group selected for influence or attack."[40] While counterinsurgents may use the full informational spectrum, from truth to lies, they must avoid blowback, or the unintentional casualties of deceptive information. It is never advisable for a state or host nation seeking legitimacy to deceive the population. However, this maxim has been misinterpreted as meaning "thou shalt not lie." It must be understood that the enemy is always a prime target for any lies or deceptions that create initiative and the space needed to positively engage the population.

Insurgents are not bound by the same truth constraints as counterinsurgents. As the field manual notes, "Insurgents, on the other hand, can make exorbitant promises and point out government shortcomings, many caused or aggravated by the insurgency."[41] Such a strategy focuses on short-term benefits. As the insurgency seeks greater legitimacy, its words and deeds must begin to align, lest popular support deteriorate.

a. Measuring Target Audiences

In "Psychological Operations: A New Variation on an Age Old Art: Hezbollah versus Israel," Ron Schleifer states that target audiences, which are the primary focus of psychological warfare, "can be divided into three groups: the home audience, enemy

[40] Department of the Army, *Psychological Operations Tactics, Techniques and Procedures* (FM 3–05.301) (Washington, DC: Department of the Army 2003), 8–18.

[41] Department of the Army, *Counterinsurgency*, 1–3.

audience, and neutrals."[42] Each audience must be approached differently: the home audience must be convinced of the justness of the cause, the enemy must be persuaded that its efforts are futile, and neutrals and outside supporters must be convinced to support or not support the opposition.[43] With Schleifer's definition as a guide, the factor "target audiences" is measured by determining the presence or absence of population interaction, enemy engagement, and international support.[44] Population interaction indicates how population-centric messaging efforts are coordinated at the operational level. Enemy engagement refers to tactical-level messaging targets. International support refers to how audiences outside the conflict zone perceive the strategic campaign.[45]

b. Target Audiences: Hypotheses

This advances two hypotheses:

1. States: A state seeking to gain or maintain legitimacy should seek to use deceptive information against the enemy only, and never against the population or international audiences.

2. Non-State Actors: Insurgents may use deceptive information against all target audiences, but may lose this ability as they become closer to resembling a legitimate counter-state.

4. Commitment

The analysis factor "commitment" evaluates the time, manpower, and money applied to achieving an objective. Cohen et al. state, "Counterinsurgency always demands considerable expenditures of time and resources. People will not support the government until they are convinced the counterinsurgent has the means, ability, stamina, and will to win."[46] Comparing the commitment levels of adversaries enables planners to appreciate the level of production needed (and possible) within an area of operations.

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[42] Ron Schleifer, "Psychological Operations: A New Variation on an Age Old Art: Hezbollah versus Israel," *Studies in Conflict & Terrorism*, no. 29 (May 2006): 1–19.

[43] Ibid.

[44] Ibid.

[45] Ibid.

[46] Cohen et al., "Principles, Imperatives, and Paradoxes of Counterinsurgency," 51.

a. Measuring Commitment

Measuring the analysis factor "commitment" entails determining the presence or absence of time, personnel, and financial investment.[47] Time refers to the planned duration of information operations—whether for limited engagements or protracted operations. "Personnel" is the number of individuals conducting information warfare. Financial investment is the funding allocated to the production and sustainment of information campaigns.[48]

b. Commitment: Hypotheses

This advances two hypotheses:

1. States: A high commitment of manpower and funding for the counterinsurgents will mean a higher level of message penetration, but can become unsustainable over time.

2. Non-State Actors: A low commitment of manpower and funding for counterinsurgents will mean a higher level of insurgent message penetration.

5. Information Dominance

As a factor for analysis, information dominance is the media sophistication of the insurgent and counterinsurgent, the quality of their connections with the people, and the ease of information flow they achieve. While both high- and low-tech approaches have been used successfully, it is a mistake to assume that the side with the most dominant or advanced information technology has the edge, or to view its suppression as the goal. Kilcullen claims this is "akin to treating the symptoms of an illness, and just as microbes develop drug resistance, so insurgents evolve and adapt to deal with these forms of attack."[49] Whether conveyed through face-to-face interaction or high-production-value television programming, the quality and acceptability of the narrative remains the key element. Nevertheless, identifying the most effective media and delivery mechanisms is important in both the propagation and disruption of messaging.

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[47] Ibid.

[48] Ibid.

[49] Kilcullen, *Counterinsurgency*, 197.

a. Measuring Information Dominance

FM 3–13, *Information Operations*, describes information superiority as the "operational advantage derived from the ability to collect, process, and disseminate an uninterrupted flow of information while exploiting or denying an adversary's ability to do the same."[50] To measure the conditional factor "information dominance," the presence or absence of media options, connectivity, and interference must be determined.[51] Media options are the situation-dependent strengths and weaknesses associated with each form of media available. Connectivity is the type and reliability of the network over which the message travels to reach the intended audience. Interference refers to physical obstacles and the means by which either side may distort the other's message.[52]

b. Information Dominance: Hypotheses

This advances two hypotheses:

1. States: If the counterinsurgent uses media options with the highest level of connection to the target audiences and delivers a quality message, the probability of a narrative's acceptance greatly increases.

2. Non-State Actors: The population's acceptance of the insurgent's narrative increases when the counterinsurgents choose forms of media that can be interfered with, does not reach the intended target audiences, or is of poor quality.

6. Timing

Timing, as opposed to time in the sense of a finite resource (as discussed under the factor of commitment), should be understood as the current phase of the engagement, ranging from peacetime to post-conflict nation-building, and the level of weariness or resiliency of the state's security forces in relation to the insurgent's. Mao Zedong's *Theory of Protracted War* describes a three-phased approach for insurgencies: a strategic offensive (in which the goal is survival), strategic stalemate (in which guerrilla warfare is

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[50] Department of the Army. *Information Operations* (FM 3–13) (Washington, DC, 2003), 1–10.

[51] Ibid.

[52] Ibid.

used against a conventional army), and strategic offensive (transition to conventional).[53] This description should not be viewed as a template for expected adversarial behavior within phases, but could enhance phase awareness which may indicate opportunities for disruption of insurgent plans.

Seizing and maintaining the initiative should be the goal of a counterinsurgency; a surefire way to achieve this is through "operational surprise," where "measures are introduced in which the insurgents cannot adapt in time to survive."[54] Deception is a proven means by which to achieve surprise and gain the initiative.[55] Assessing the consequences of timing choices may reveal informational opportunities and signal when an initiative may be lost due to counterproductive messaging efforts.

a. Measuring Timing

FM 3–24, *Insurgent Vulnerabilities*, cites the need for momentum as a critical factor and recommends assessing the phasing and timing of an insurgency to determine whether the insurgent has control over the pace of operations and detect opportunities that may arise as strength is waning.[56] Measuring the analysis factor "timing" entails determining the presence or absence of phase awareness, resiliency, and opportunity.[57] Phase awareness refers to either side's ability to understand and exploit the current phase of the conflict. Resiliency is the speed with which either side can recoup from operational losses and unforeseen disasters. Opportunity refers to the recognition and leveraging of information events as they unfold.[58]

b. Timing: Hypotheses

This advances two hypotheses:

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[53] Department of the Army, *Counterinsurgency*, 1–6.

[54] Kilcullen, *Counterinsurgency*, 204.

[55] Barton Whaley, "The One Percent Solution: Costs and Benefits of Military Deception," in *Information Strategy and Warfare*, ed. John Arquilla and Douglas A. Borer (New York: Routledge, 2007), 127.

[56] Department of the Army, *Counterinsurgency*, 1–19.

[57] Ibid.

[58] Ibid.

1. State: If the counterinsurgents can recognize informational vulnerabilities and are prepared to exploit these weaknesses the insurgents will struggle to adapt.

2. Non-State Actor: Insurgents will make information a cornerstone of their strategy when they are physically weaker than the state, so as to seize and maintain the initiative when conditions are most favorable.

7. Conclusion

The population-centric conflicts of the future will often be fought exclusively in the human domain, necessitating innovative, low-cost, small-footprint approaches to national-security objectives.[59] Given the complexity of the information environment, a refined approach to conditional analysis is vital to U.S. military success. Advances in multiple-criteria decision-making tools such as the AHP and game-theoretical modeling, long associated with operations research, provide a comprehensive framework for structuring a decision problem reliably. The addition of conditional-factor analysis, as offered in this research, provides the quantitative foundation necessary to determine which information strategies are optimal in the circumstances and best support overall strategy. The result is a decision-making model that can identify the precise truth-to-deception messaging ratios necessary to gain an operational advantage and to test their efficacy.[60]

[59] Panetta, *Sustaining U.S. Global Leadership.*

[60] Whaley, *Stratagem*, 79.

III. A QUANTITATIVE DECISION MODEL

> The ultimate goal of stratagem is to make the enemy quite certain, very decisive, and wrong.
>
> —Barton Whaley

"It is clear that in an era in which traditional nation-states are increasingly pitted against loosely affiliated terrorist networks at the local, regional, and global levels, terrorist organizations currently have an information advantage over states."[61] This imbalance effectively obviates the Clausewitzian principles of war and underscores the premise that skillful information strategy may spell the difference between victory and defeat.[62] The battle within the information realm requires the rejuvenation of psychologically based concepts such as deception, so that the United States may regain its comparative advantage.[63]

The difficulty of generating quantitatively precise information strategies poses a complex problem. Unlike kinetic operations, information is difficult to measure and challenging to use—and its success is difficult to predict.[64] The military establishment has been slow to embrace information warfare because its effectiveness "will always be more obscure than that of kinetic weapons."[65] The decision model generated in this research addresses this concern by providing a tool for calculating optimal information strategies.

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61 Douglas A. Borer, "Conclusion: Why is information strategy difficult?," in *Information Strategy and Warfare: A Guide to Theory and Practice*, ed. John Arquilla and Douglas A. Borer (New York and London: Routledge, 2007), 237.

62 John Arquilla, "Introduction: Thinking about information strategy," in *Information Strategy and Warfare: A guide to theory and practice*, ed. John Arquilla and Douglas A. Borer (New York and London: Routledge, 2007), 9.

63 Borer, "Conclusion," 237.

64 Ibid., 236.

65 Hy S. Rothstein, "Strategy and Psychological Operations," in *Information Strategy and Warfare: A guide to theory and practice*, ed. John Arquilla and Douglas A. Borer (New York and London: Routledge, 2007), 167.

Complex decisions such as strategy formulation require the support of a logical, real-world way to quantify and synthesize an assortment of variables.[66] Structured decision-making tools such as the AHP and game-theoretical modeling offer a scientific approach to priorities and strategies, which is currently not found in conventional information-planning processes. These tools may facilitate effective, efficient, and sound strategies that can "better anticipate and master the challenges posed by adaptable and deceptive opponents."[67]

A. GAME THEORY

Developed in 1928 by John von Neumann, game theory is the study of strategic decision making among two or more opponents—specifically, "the study of mathematical models of conflict and cooperation between intelligent rational decision makers."[68] Game theory is widely employed in economics, political science, and psychological analysis, and particularly in military-strategy formulation, where it can describe, predict, and explain adversarial behaviors within a conflict.[69]

The classic example of game theory is Albert W. Tucker's "prisoner's dilemma" (1950), which illustrates of the intractable nature of competitions that blend conflict and cooperation.[70] The prisoner's dilemma explains why individuals will not cooperate towards mutually beneficial outcomes that serve their self-interest. The premise of the game is as follows:

Two men are accused of a crime and arrested. Both are held in solitary confinement, unable to communicate. The state lacks sufficient evidence to convict them for the principle crime and hopes to win a conviction on lesser charges. During

66 Thomas L. Saaty and Kirti Peniwati, *Group Decision Making: Drawing Out and Reconciling Differences* (Pittsburgh, PA: RWS Publications, 2013), 1.

67 Whaley, "The One Percent Solution," 154.

68 William Fox, "Introduction to Game Theory" (lecture, Naval Postgraduate School, Monterey, CA, July 30, 2015).

69 Colin Camerer, *Behavioral Game Theory: Experiments in Strategic Interaction* (Princeton, NJ: Princeton University Press, 2003), 5.

70 Lynn Arthur Steen and Joseph Malkevitch, *For All Practical Purposes: Introduction to Contemporary Mathematics* (New York: WH Freeman, 1991), 583.

interrogation, the prosecutors offer each suspect two choices: a) maintain your innocence (or stay silent) or b) rat the other out. "Now it is in each suspect's best interest to implicate the partner and thereby receive a reduced sentence. Yet when both suspects confess, they ensure a bad outcome—namely, they are both found guilty. What is best for the prisoners as a pair—to deny having committed the crime, leaving the state with insufficient evidence to convict them—is frustrated by their pursuit of their own individual rewards."[71] Tucker's prisoner's dilemma is presented in Table 1.

Table 1. The Prisoner's Dilemma.

	Prisoner B (remains silent)	Prisoner B (betrays)
Prisoner A (remains silent)	Both serve 1 year	Prisoner A: 3 years Prisoner B: released
Prisoner A (betrays)	Prisoner A: released Prisoner B: 3 years	Each serves 2 years

Conflict in war unfolds much as in the prisoner's dilemma. Self-interest, incomplete information, and lack of cooperation collide to the detriment of sound decision making. Using game-theoretical modeling to show the interplay between friendly and enemy forces helps decision makers formulate viable strategies with the best chance of achieving dominance. Built upon rational choice, apart from morality or ethics, game theory anticipates course-of-action selection to maximize the chances of victory. It is thus an ideal mechanism for finding cogent strategies for warfighting in the information age.[72]

B. THE ANALYTIC-HIERARCHY PROCESS

Developed by Thomas L. Saaty in the late 1970s, the analytic-hierarchy process (AHP) is a structured mathematical framework that enables the pairwise comparison of

[71] Ibid.

[72] Philip D. Straffin, "*Game Theory and Strategy*" (Washington, DC: Mathematical Association of America, 1993), 27.

decision-making criteria to evaluate potential solutions to a problem in a qualitative manner. These potential solutions are assigned a numerical weight, which enables diverse and often incommensurable elements to be compared in a rational, consistent way.[73] Its ability to measure the influence of intangible factors in decision making has gained AHP widespread use in corporate and governmental settings for 40 years.[74]

Applying AHP to a problem set involves five steps:

1. Structure the problem as a hierarchy, beginning with the decision goal, followed by the potential alternatives for reaching it. Conclude by listing the criteria for evaluating the identified alternatives.

2. Rank the decision criteria by determining which elements are most important to the decision maker. For example, when comparing automobiles, a buyer might prioritize paint color over horsepower.

3. Synthesize the criteria to generate a set of overall priorities for the hierarchy. Continuing the example, this step combines the driver's judgments about price, color, gas mileage and horsepower for cars A, B and C into overall priorities for each automobile.

4. Ensure the consistency of the criteria rankings across the spectrum of options.

5. Determine the best alternative for the decision, based on the results of the process.[75]

The AHP process is represented in Figure 1.

[73] Saaty and Peniwati, "*Group Decision Making*,"1.

[74] Burak O. Saracoglu, "Selecting Industrial Investment Locations in Master Plans of Countries," *European Journal of Industrial Engineering* 7, no. 4 (January 2013): 425.

[75] Thomas L. Saaty, *Decision Making for Leaders: the Analytic Hierarchy Process for Decisions in a Complex World* (Pittsburgh, PA: RWS Publications, 1999), 25.

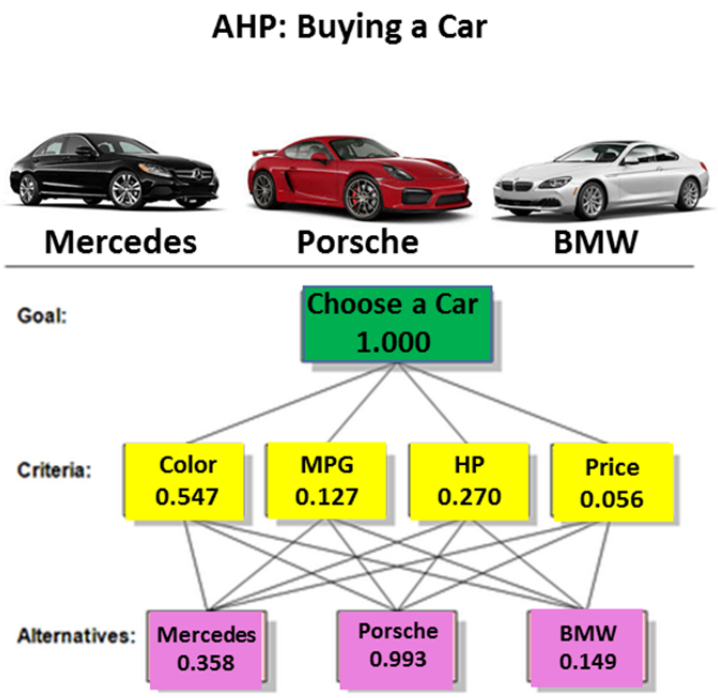


Figure 1. The Analytical-Hierarchy Process (AHP).

In the example, the process of buying a car was subjected to AHP. Three premier vehicles were evaluated for potential purchase and screened according to four decision criteria: color, miles per gallon, horsepower and price. Note that despite one factor's being a subjective element of the problem (color), AHP was able to assign a numerical value based on the buyer's ranking of criteria, by which it is the most significant factor. The result is a pairwise comparison of otherwise incommensurable factors across the entirety of the problem. In this case, the Porsche was determined the most suitable solution.

The AHP's capacity to account for any aspect of a problem, whether tangible or intangible, makes it an ideal mechanism for evaluating the myriad influence factors found within the human domain. Information-strategy analysis conducted without scientific rigor will result in arbitrary measurements of no value in optimization. Employing AHP yields quantitatively precise measurements in the information realm, which strategists

can use to equip military leaders with concrete, discernable plans for greatest battlefield impact.

C. THE CONTROL MODEL

Information strategy formulation is not a standalone process—it should be a well-integrated and synchronized aspect of a larger operational plan. While AHP and game theory can produce independent solutions to a wide variety of problems, they have not previously been jointly applied to generate information-based strategies. To accommodate the novel approach this thesis offers, a three-phased control model is developed to predict the likely outcome of an information-age battle, using suitable Army information tasks as defined in Field Manual 3–0, *Operations*, to generate an optimal information strategy.

1. Phase 1: Game Theoretical Model—Information vs. Kinetics

Social-science theory has strong and well-documented qualitative reasons for regarding information as a critical component of modern warfare. However, quantitative representations of Information Age conflict have rarely been used to test this premise. The Phase 1 game-theoretical model developed in this thesis quantifies the likely outcome of a war between the U.S. military and a hypothetical non-state adversary (reflecting the conflicts typical of the last decade). Two broad, yet distinctive, capabilities of the modern military are employed: information and kinetics.

Phase 1 assumes that the United States and a hypothetical threat are the primary interactive players. Within the game, only two variables are available to the players, information and kinetics. Information is defined as the effective use of information in shaping opinions and perspectives, while kinetics is the employment of lethal combat power. An ordinal ranking system (4 to 1) weights the payoffs, with 4 representing the best outcome and 1 the worst. Each player attempts to achieve the best possible payoff for himself. The construction of Phase 1 is depicted in Table 2.

Table 2. United States vs. Non-State Actor (Information vs. Kinetics).

		Non-State Actor (NSA)	
		Information	Kinetics
U.S.	Information	(3,3)	(2,2)
	Kinetics	(1,4)	(4,1)

Given:	Combinations:	Payoffs:	
		U.S.	NSA
	U.S. Information vs. NSA Information	(3,3)	
	U.S. Information vs. NSA Kinetics	(2,2)	
	U.S. Kinetics vs. NSA Information	(1,4)	
	U.S. Kinetics vs. NSA Kinetics	(4,1)	

Scoring:	4 = Best	3 = Next Best	2 = Next Worst	1 = Worst

The United States has a military advantage over non-state actors. For this reason, the preferred strategy of the U.S. is to engage in a purely kinetic fight, resulting in a score of 4 (best outcome), while the asymmetric threat, lacking military might, receives a score of 1 (worst outcome). Conversely, the adversary's preferred strategy is to use its information advantage, which undercuts U.S. dominance. In game theory, dominant strategies are always employed by rational actors because they consistently yield the best outcomes. [76]

As annotated in the darkened region of Table 2, the outcome of Phase 1 is resolved with a pure-strategy solution to the conflict. A pure-strategy solution defines every possible choice a player might have to make and results in the highest payoff possible.[77] In other words, Phase 1 demonstrates that a purely kinetic solution to an Information Age conflict with a non-state actor is unlikely to result in victory. The employment of information is the only way to achieve optimal results.

[76] Avinash K. Dixit and Barry J. Nalebuff, *Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life* (New York and London: WW Norton & Company, 1993), 119.

[77] William Fox, "Introduction to Game Theory" (lecture, Naval Postgraduate School, Monterey, CA. 11 August 2015).

2. Phase 2: AHP—Information Task Prioritization

Adversaries will always attempt to oppose the United States with every informational weapon at their disposal.[78] Effectively employed, information multiplies battlefield effectiveness and conceals weaknesses. Thus it is important to identify those information tools that can best achieve decisive results. Chapter 7 of Army Field Manual 3–0, *Operations*, identifies five information tasks that shape the operational environment: information engagement, command-and-control warfare, information protection, operational security (OPSEC) and MILDEC.[79]

Table 3. Army Information Tasks.

Task	*Information Engagement*	*Command and Control Warfare*	*Information Protection*	*Operations Security*	*Military Deception*
Intended Effects	•Inform and educate internal and external publics •Influence the behavior of target audiences	•Degrade, disrupt, destroy, and exploit enemy command and control	•Protect friendly computer networks and communication means	•Deny vital intelligence on friendly forces to hostile collection	•Confuse enemy decision-makers
Capabilities	•Leader and Soldier engagement •Public affairs •Psychological operations •Combat camera •Strategic Communication and Defense Support to Public Diplomacy	•Physical attack •Electronic attack •Electronic warfare support •Computer network attack •Computer network exploitation	•Information assurance •Computer network defense •Electronic protection	•Operations security •Physical security •Counterintel-ligence	•Military deception

Using AHP identifies those information tasks that are best suited for gaining information superiority. In this case, the goal is to prioritize the Army information tasks

[78] Department of the Army, *Operations*,7–2

[79] Ibid.

listed in FM 3–0. The criteria by which decisions are made are the analysis factors described in Chapter II. They are prioritized as timing first, then target audience, unity of effort, commitment, narrative and information dominance (these rankings are for illustrative purposes only). Rankings and prioritization for operational decision models must reflect command guidance, changes in operational environment, and the erosion of resources, which can and will alter the outcome. Therein lies the secondary value and relevance of AHP: it can be tailored to fit any situation.

An essential aspect in criteria ranking is the degree to which one factor is prioritized over another—in other words, exactly how much more important is one factor over the next? The goal is to be as consistent as possible across all criteria, which enables the AHP to assign numerical weights to each factor, thereby enabling a qualitative output. Table 4 lays out this process. Column A lists the decision criteria according to the order of importance assigned for use in the control model. Column B further sub-categorizes the factors as they are compared with one another. Finally, "intensity" refers to the degree to which one factor is more important than the next. This is an arbitrary process, but for operational examples, observable data drives intensity ratings. In AHP, intensity is ranked on a scale of 1–9, with 1 representing equal importance between two criteria and 9 representing extreme importance in that one element is of the highest possible importance. If prioritized consistently, the AHP algorithm will result in a consistency rating (CR) that is less than 0.1, which indicates an effective plan. In this case, the CR of the control model is 0.011, indicating a strong ranking consistency within the criteria.

Table 4. AHP Criterion Ranking.[80]

Element A		Element B	More Important	Intensity (1-9)
Timing	vs	Target Audiences	A	2
		Unity of Effort	A	3
		Commitment	A	5
		Narrative	A	7
		Info Dominance	A	9
			A	
			A	
Target Audiences	vs	Unity of Effort	A	2
		Commitment	A	4
		Narrative	A	6
		Info Dominance	A	8
			A	
			A	
Unity of Effort	vs	Commitment	A	3
		Narrative	A	5
		Info Dominance	A	7
			A	
			A	
Commitment	vs	Narrative	A	3
		Info Dominance	A	5
			A	
			A	
Narrative	vs	Info Dominance	A	4
			A	
			A	

Table 5 is an illustration of the consistency outcome associated with the AHP prioritization process.

Table 5. AHP Criterion Weights and Consistency Rating.[81]

	Criterion Name	Weight
1	Timing	0.436
2	Target Audiences	0.247
3	Unity of Effort	0.153
4	Commitment	0.079
5	Narrative	0.050
6	Info Dominance	0.035
7	NA	0.000
8	0	0.000

CR= 0.011 Consistent <0.10

[80] AHP weights were calculated by Microsoft Excel-based spreadsheet developed by Dr. William Fox, "Multi-Attribute Decision Making and Mathematical Decision Making" (lecture, Naval Postgraduate School, Monterey, CA. 7 July 2015).

[81] Ibid.

The weights displayed in Table 5 are transposed onto the AHP graphic in Figure 2. This process happens automatically once rankings and priorities are set by the information strategist. For brevity, this AHP computation will not be addressed in future iterations. The AHP construct is depicted in Figure 2.

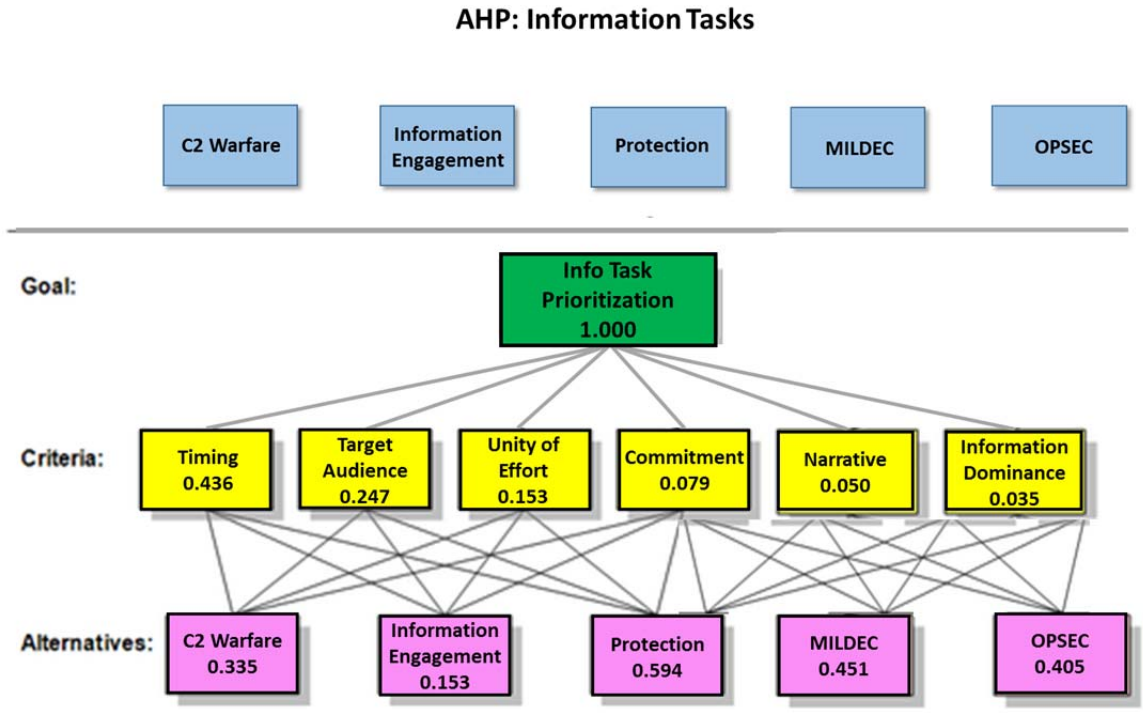


Figure 2. AHP Information Tasks.[82]

The AHP prioritized outcome identifies two information tasks as most likely to alter the operational environment: protection and MILDEC. Per Army regulation, information protection is "active or passive measures that protect and defend friendly information and information systems to ensure timely, accurate, and relevant friendly information."[83] Information protection lies within the scope of computer-network defense, electronic protection, and information assurance, and while critical, it has no offensive capabilities or influence potential—it is a purely defensive measure. Thus

[82] Ibid.

[83] Department of the Army, *Operations*, 7–7.

MILDEC emerges as the most significant offensive information task for assuring information superiority and maximizing operational effectiveness.

3. Phase 3: Game-Theoretical Model—Truth vs. Lies

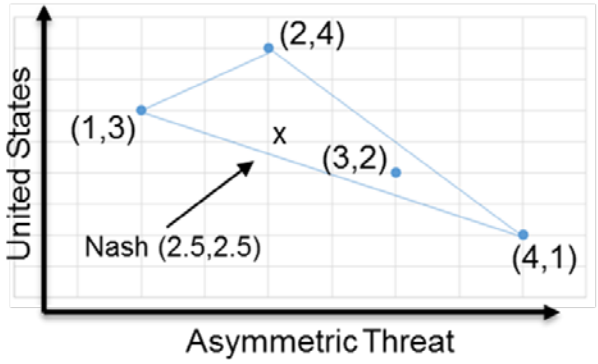
Examination of the Army information tasks reveals two distinct activities that fall within the offensive mission parameters of the Psychological Operations Regiment: information engagement and MILDEC. Information engagement refers to the various methods of achieving behavioral influence against target audiences by leveraging truthful information.[84] MILDEC, by contrast, has the goal of creating disequilibrium and the unique charge of purveying lies to the adversary to obtain an operative advantage. Therefore, Phase 3 of the control model subjects the U.S. and its non-state adversary to a conflict that employs truth and lies to identify the ratio of truth to deception that will best meet strategic goals.

Phase 3 is limited to a two-by-two construct so as to yield sound yet manageable outcomes (larger constructs would yield results beyond the scope of this format). The two weapons employed are truth and lies, where truth is any information based in fact and lies are any deceptive information intended to mislead. Chapter 7 of Army Field Manual 3–0 states that truth is the most influential aspect of information.[85] Therefore, the Phase 3 payoffs assign truth as the best outcome (resulting in a score of 4) and lies as the worst outcome (resulting in a score of 1) for the United States. The non-state adversary receives converse payoff values. This construct is shown in Table 6.

[84] Ibid., 7–3.

[85] Ibid., 7–11. While Army FM 3–0 does state that truth is the most influential aspect of information, this cannot be viewed as an absolute and should be considered a doctrinal insufficiency. Under certain conditions, truthful information will be unable to effectively influence a target audience and help achieve victory. These conditions will be identified in Chapter IV of this thesis.

Table 6. U.S. vs. NSA (Truth vs. Lies).

		Non-State Actor (NSA)	
		Truth	**Lies**
U.S.	**Truth**	(4,1)	(2,4)
	Lies	(1,3)	(3,2)
Given:	**TT:** US Truth vs NSA Truth **TL:** US Truth vs. NSA Lies **LT:** US Lies against vs. NSA Truth **LL:** US Lies vs. NSA Lies 4=Best 3=Next Best 2=Next Worst 1=Worst		

In Table 6, the movement diagram reveals that no pure-strategy solution exists for Phase 3. That is, neither player can achieve an optimal outcome by employing a one-dimensional strategy (i.e., a wholly truthful or deceptive information campaign). Going a step further, by transposing the game onto a payoff polygon, which plots each player's pure-strategy solutions on X and Y axes, the convex region (everything inside the boundaries) displays every possible solution to the game inside the figure.[86] Next, the derivation of the Nash equilibrium, which identifies an equilibrium value for each player, reveals that point (2.5, 2.5) is a sub-optimal outcome.[87] This means the possibility of achieving a better result is available to each player and the hypothetical conflict will continue until that maximum value is reached.

To determine the optimal solution, computations that simulate a series of unilateral actions and reactions, known as strategic moves, will be assessed.[88] While there are numerous strategic moves that can be synthesized in an effort to determine

86 Miroslav Feix, "Game Theory: Toolkit and Workbook for Defense Analysis Students" (master's thesis, Naval Postgraduate School, 2007): 61.

87 William Fox, "Nash Equilibriums: Non-Cooperative Solutions" (lecture, Naval Postgraduate School, Monterey, CA 13 August 2015).

88 Feix, "Game Theory," 33.

game resolution, the remainder of this section focuses only on those tactics that improve values beyond the Nash equilibrium result of (2.5, 2.5)—that is, first moves and prudential and counter-prudential strategies.

"First moves" refers to a player's ability to employ a strategy before the adversary commits to playing his strategy.[89] This reduces the game to a series of actions and counteractions that examine the utility of striking first or conceding the first move to improve the outcome. The first-moves chart in Table 7 illustrates that the United States will achieve the best outcome by conceding the first-mover advantage and countering with MILDEC, receiving a payoff of (3,2).

Table 7. Strategic Moves Diagram.

First Moves		Outcomes	
		US	NSA
If US initiates with TRUTH	ENY will react with LIES	(2,4)	
If US initiates with LIES	ENY will react with TRUTH	(1,3)	
If NSA initiates with TRUTH	US will react with TRUTH	(1,4)	
If NSA iniaites with LIES	US will react with LIES	(3,2)	

Prudential strategies (PS) are an individual player's best possible outcome, irrespective of the other player. Counter-prudential strategies (CPS) are the opposition's best response to a prudential strategy.[90] In deriving the various outcomes of multiple strategies, the United States can achieve its maximum outcome by employing a counter-prudential strategy against the enemy's prudential strategy, resulting in the payoff of (3, 2.5), as shown in Table 8.

89 Ibid.

90 Straffin, G*ame Theory and Strategy,* 65.

Table 8. Mixed-Strategy Solutions.

Strategies			
	US	Asymmetric	Outcome
Equalizing	1/4 TRUTH ,3/4 LIES	1/4 TRUTH,3/4 LIES	(2.5,2.5)
Prudential	1/2 TRUTH ,1/2 LIES	1/2 TRUTH ,1/2 LIES	(2.5,2.5)
PS vs CPS	1/2 TRUTH ,1/2 LIES	LIES	(2.5,3)
CPS vs PS	TRUTH	1/2 TRUTH ,1/2 LIES	(3,2.5)
CPS vs CPS	TRUTH	LIES	(2,4)

D. CONCLUSION

Phase 3 analysis reveals that the pre-emptive dissemination of truthful information is advantageous to the United States. Yet the military response to non-traditional threats has been overwhelmingly reactive. The mathematics of the control model demonstrate that MILDEC used as a reactive measure in conflict achieves the best outcome. Therefore, from a strategy-optimization standpoint, the U.S. will achieve its best payoff by implementing an equalizing, mixed-strategy solution of 25 percent truthful and 75 percent deceptive information. While adoption of a counter-prudential strategy can achieve an improved outcome, it relies on adversarial cooperation—which has been discarded as unlikely.

To solidify the validity of this strategy, the findings of the control model are qualitatively tested against historical case studies in Chapter IV.

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IV. CASE-STUDY ASSESSMENTS

> In this battlefield, popular perceptions and rumor are more influential than the facts and more powerful than a hundred tanks.
>
> —David Kilcullen

No two insurgencies are exactly alike, and the methods and means required to defeat non-state adversaries are as various as they are complex. Analysis of state-based strategies in failed and successful conflicts reveals invaluable details from which countless lessons may be derived.[91] Of particular interest to this research is the examination of optimal or "winning" information strategies. Is a right mix of truthful and deceptive information found as a common characteristic among victors? If so, was it a fortunate accident or an intuitively constructed, well-integrated aspect of the information plan? Conversely, does a flawed or imprecise information strategy indicate an inability to assess the effects of narrative, unity of effort, target audience, commitment, information dominance, and timing?

This chapter introduces four case studies selected as conflicts between state and non-state actors in which information warfare is well-documented. The analysis factors from Chapter II are applied and tallied, from the perspective of the state, to prioritize the decision-making criteria required for the AHP. The AHP outcome identifies the preferred influence tool (whether truth or lies) to be employed in each case. The results are used to populate a game-theoretical model, which synthesizes an optimal ratio of truthful and deceptive information for each case study. Finally, each conflict is assessed based on the results obtained from the application of game theory and real-world outcomes to determine the validity of control-model hypotheses of optimal information strategy.

A. CASE 1 OVERVIEW: THE DHOFAR REBELLION, 1965–1975

The sultan of Oman's epic COIN comeback during the Dhofar rebellion shows that positive leadership supported by effective messaging can change even the most

[91] Kilcullen, Counterinsurgency, 1.

doomed circumstance. Dhofari separatists appeared to have every reason to rebel against the oppressive rule of Sultan Said Ibn Taimur, and their movement succeeded due to support from a sympathetic population. But when the sultan's son, Qaboos, took over by force and began addressing the grievances of the people, he turned the insurgent narrative upside-down by aligning the government's words and deeds. Both sides attempted to employ mostly truthful information strategies, but in the end, it was the "better" truth, as seen through the eyes of the populace, that prevailed.

In 1965, the Dhofar Liberation Front (DLF) launched a guerrilla war against the sultan of Oman, Said Ibn Taimur, to liberate Dhofari tribes from his oppressive rule.[92] DLF grievances against the Omanis were exacerbated by the sultan's failure to provide adequate civil-capacity infrastructure, unemployment, a poor economy, and heavy-handed governmental over-reach, which fueled widespread distrust.[93] The Sultan's fear of modernization and unwillingness to engage with the people would be to his downfall. With no rival messaging to counter, the DLF seized control of the uncontested information environment and won broad support for their cause by exploiting the unpopularity of the Omani armed forces' COIN strategy, which was marked by brutal reprisals and mass detentions.[94]

By 1970, the DLF, re-named the Popular Front for the Liberation of the Occupied Arabian Gulf (PFLOAG), controlled nearly 80 percent of Dhofar. Their overwhelming success attracted support from China, the Soviet Union, and Iraq, which brought a great influx of kinetic combat power, but also shifted the narrative, which became focused solely on the creation of a new communist state.[95] At the same time, the systematic defeat of the Sultan's power base spawned a British-supported coup d'état, during which the Sultan's son Qaboos seized power.[96] "Qaboos, who was educated at Sandhurst and

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[92] Christopher Paul, Colin P. Clarke, Beth Grill, and Molly Dunigan, *Paths to Victory: Detailed Insurgency Case Studies* (CA: Rand Corporation, 2013), 275.

[93] Darrell F. Vaughan, "The Integration of Information Operations Into Army Operations During Periods of Unstable Peace and Insurgency" (master's thesis, Kansas University, 2011), 55.

[94] Paul et al., *Paths to Victory*, 275.

[95] Vaughan, *The Integration of Information Operations*, 61.

[96] Paul et al., *Paths to Victory*, 278–280.

deeply committed to modernization, immediately launched a five-point program of social and military reform that addressed the inadequacies of his father's regime."[97] Along with much-needed reforms came Oman's first newspaper and radio and television stations, demonstrating positive steps towards reconciliation with disaffected Dhofaris. Moreover, "the new Sultan insisted on fair and balanced reporting by requiring that all perspectives and viewpoints be presented in the news."[98] Rather than attacking the flaws of the PFLOAG's communist narrative directly, the Omani government endeavored to show that grievances were being answered and that supporting the legitimate government was the better option.

Ultimately, the PFLOAG strayed too far from its original purpose and lost popular support by abandoning its Islamic foundations in favor of an imported communist ideology. The populace became convinced that their supposed liberators were as harsh as Sultan Taimur, and rejected PFLOAG efforts to abolish Islam in favor of a communist regime.[99] Having damaged its popular support, the PFLOAG attempted to retake the initiative and launched a series of conventional offensives against the Omani armed forces in 1972 and 1974. This resulted in irreparable losses for the PFLOAG, who faced a modernized conventional military with an effective information campaign under the leadership of a popular sultan.[100] Despite attempts to destabilize the state through a return to guerrilla warfare, the PFLOAG never again posed a significant threat to the Omani government.[101] Table 9 presents the quantitative compilation of analysis factors compiled during case-study research.

[97] Ibid., 280.

[98] Vaughan, *The Integration of Information Operations*, 70–73.

[99] Paul et al., *Paths to Victory*, 278.

[100] Ibid., 283.

[101] Ibid.

Table 9. The Dhofar Rebellion, State Analysis Factors Chart.

Factor	Sub-Factor	State	Score
Narrative	Unified Message	+	3
	Aligned Actions	+	
	Perception of Justice	+	
Unity of Effort	Political Attunement	+	3
	Military Competency	+	
	Asymmetric Capabilities	+	
Target Audiences	Population Interaction	+	3
	Enemy Engagement	+	
	International Support	+	
Commitment	Time	-	2
	Personnel	+	
	Financial Investment	+	
Information Dominance	Media Options	+	3
	Connectivity	+	
	Interference	+	
Timing	Phase Awareness	+	3
	Resiliency	+	
	Opportunity	+	

In-depth, qualitative explanations of the six factors summarized in this table can be found in Appendix A. The analysis-factor scores were used to prioritize decision criteria, and this rating was entered into the AHP model.

1. Application of the Analytic-Hierarchy Process

Figure 3 shows the AHP quantitative outcome associated with the analysis factors.

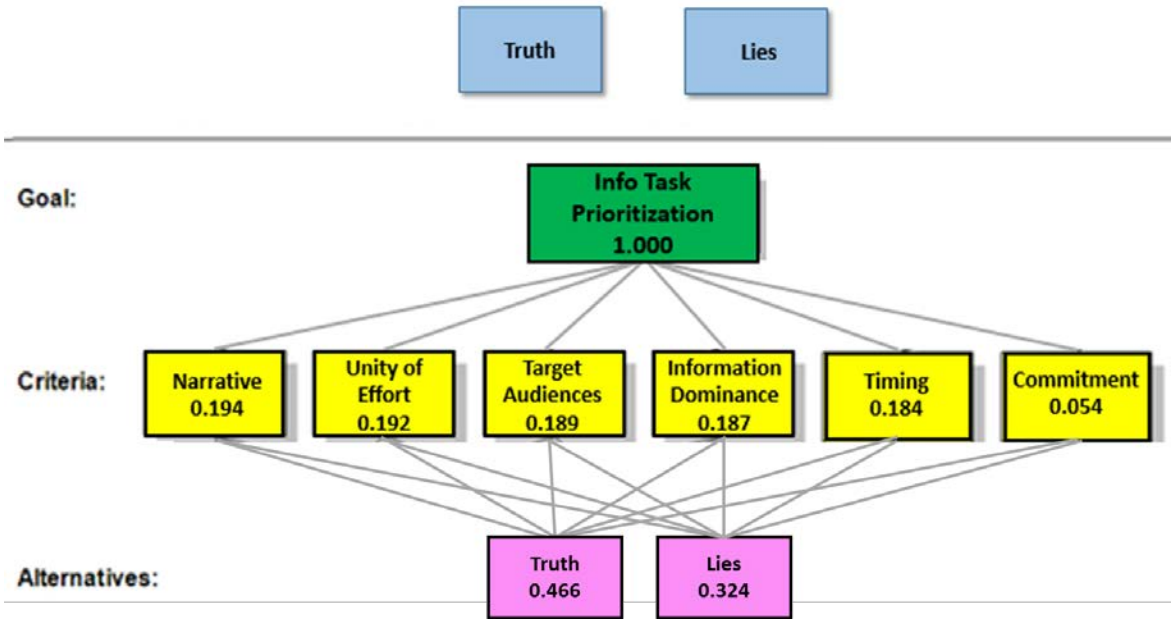

Figure 3. AHP Diagram, the Dhofar Rebellion.

Based upon the criteria prioritization taken from the analysis chart, the AHP model indicates that truth is the preferred informational tool to be employed by the Omani state. This matched the operational plan implemented by the Omani state once Qaboos seized power.

2. Game-Theory Result

The construct of Case 1 (depicted in Table 10) synthesizes the battle between the Omani state and its non-state adversary, the PFLOAG. Only two variables are available to the players: truth and lies. The payoffs were determined by the outcome of the AHP computations, in which the state received a score a 4 (best outcome) for truth and 1 (worst outcome) for lies. The NSA, assuming interests that run counter to those of the state, received an inverse payoff score. The construct of Case 1 is shown in Table 10.

Table 10. The Dhofar Rebellion: Game Theory Model.

Case 1: Dhofar Rebellion		Non-State Actor (NSA)	
		Truth	**Lies**
State	**Truth**	(4,1)	(3,4)
	Lies	(2,2)	(1,3)

	Combinations:	Payoffs:	
		U.S.	NSA
Given:	State Truth vs. NSA Truth	(4,1)	
	State Truth vs. NSA Lies	(3,4)	
	State Lies vs. NSA Truth	(2,2)	
	State Lies vs. NSA Lies	(1,3)	

Scoring:	4 = Best	3 = Next Best	2 = Next Worst	1 = Worst

Case 1 is resolved with a pure-strategy solution to the conflict (that is, one that defines every possible choice a player might have to make and results in the highest payoff possible).[102] Thus Case 1 demonstrates that the Omani state achieved the optimal result by employing a proactively truthful information campaign.

3. Case 1 Analysis

Subjecting the Dhofar Rebellion to the control model demonstrated several consistencies. First, the AHP result determined that the most effective tool in the conflict was truth, and history reinforces this finding—the Omani state turned the tide of the rebellion by employing a truthful information campaign, focusing on active communication with the population. Secondly, the game-theoretical model resulted in a pure-strategy solution to the Dhofar Rebellion; the mathematics identified the state's use of a truthful strategy to be the optimal outcome (3,4), predicting the success of the real-world strategy employed by the Omani state.

B. CASE 2 OVERVIEW: ISRAEL IN LEBANON, 1982–2000, 2006

The "Lebanese quagmire" was a trap designed for the Israeli Defense Forces (IDF), laid by the Palestinian Liberation Organization (PLO) and continued by

[102] Fox, *Introduction to Game Theory*.

Hezbollah, with the understanding that military force may count for little in the information environment.[103] Israel's reactionary methods and low commitment to dominating the battle of ideas led to failed objectives and withdrawal in two iterations of the Lebanese conflict. Meanwhile, the militarily outmatched and undermanned Hezbollah recognized Israel's weaknesses and employed an aggressive information strategy focused mainly on achieving psychological effects through skillful representation of the facts.[104] Israel's attempt to counter Hezbollah's "guerrilla war, psychologically waged," based mostly on truthful lines of persuasion, was too slow and ultimately lacked the resources needed to win the war of ideas.[105]

The IDF invaded Syrian-occupied Lebanon in 1982, after being bombarded by rockets and artillery shells for ten days.[106] The intent was to thwart aggression from Syria and the PLO, who military intelligence believed were amassing arms against Israel.[107] What was meant to be a quick campaign turned into an 18-year effort, for which the IDF was unprepared. After signing an uneasy peace treaty with Syria, the IDF withdrew to a security zone on the border.[108] The unintended consequences of the invasion included the "radicalization of the Shiites, which contributed to the establishment of the Iranian-backed Hezbollah."[109]

Hezbollah, a small guerrilla force numbering just in the hundreds at the time, used their brand of psychological operations to analyze the weaknesses of IDF strategy and influence various audiences both in and outside the conflict. Hezbollah successfully portrayed the Israelis as foreign invaders, exploiting divisions within the Southern Lebanese Army (SLA) and community by providing financial incentives to Hezbollah

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[103] Charles D. Freilich, "Israel in Lebanon-Getting It Wrong: The 1982 Invasion, 2000 Withdrawal, and 2006 War," *Israel Journal of Foreign Affairs* VI, no. 3 (September 2012): 41.

[104] Schleifer, "Psychological Operations," 8.

[105] Ron Schleifer, "Psyoping Hezbollah: The Israeli Psychological Warfare Campaign During the 2006 Lebanon War," *Terrorism and Political Violence*, no. 21 (April 2009): 235.

[106] Freilich, Israel in Lebanon, 43.

[107] Ibid.

[108] Ibid.

[109] Ibid., 44.

loyalists, regardless of ethnicity or religion.[110] Capturing military clashes on video "allowed Hezbollah to focus on specific incidents allotting them a significance beyond their actual battlefield worth."[111] Hezbollah's reach extended even to the Israeli home front, with messages designed to elicit feelings of guilt. "Many Israelis came to feel that they had nothing to gain and much to lose from staying in Lebanon, feelings that soon filtered up from the public to the political arena, and was one of the reasons Israel quit Lebanon in 2000."[112]

After 6 years of relative peace, the IDF were provoked into another Lebanese conflict by several Hezbollah kidnappings, murders, and rocket attacks.[113] This time, however, the IDF waged a psychological-warfare campaign, which was not without merit. It was, however, under-prepared, under-resourced, and ultimately at a distinct disadvantage, given little military success on which to capitalize and weak lines of effort.[114]

In both iterations of the Lebanese conflict, Israel played into Hezbollah's plans, and while the IDF did improve their psychological warfare, they ultimately failed against an adept and unrestrained opponent with a better understanding of the factors likely to influence target audiences.

[110] Schleifer, "Psychological Operations," 7.

[111] Ibid., 6.

[112] Ibid., 15.

[113] Freilich, "Israel in Lebanon," 45.

[114] Schleifer, Psyoping Hezbollah, 235.

Table 11. Israel in Lebanon, State Analysis Factors Chart.

Factor	Sub-Factor	State	Score
Narrative	Unified Message	-	0
	Aligned Actions	-	
	Perception of Justice	-	
Unity of Effort	Political Attunement	-	1
	Military Competency	+	
	Asymmetric Capabilities	-	
Target Audiences	Population Interaction	-	0
	Enemy Engagement	-	
	International Support	-	
Commitment	Time	-	2
	Personnel	+	
	Financial Investment	+	
Information Dominance	Media Options	-	0
	Connectivity	-	
	Interference	-	
Timing	Phase Awareness	-	1
	Resiliency	+	
	Opportunity	-	

Table 11 is a quantitative compilation of the analysis factors found in researching this case study. Qualitative explanations of the six factors are found in Appendix B. The analysis-factor scores were used to prioritize decision criteria, and this prioritization was entered into the AHP model.

1. Application of the Analytic-Hierarchy Process

Figure 4 shows the AHP quantitative outcome associated with the analysis factors.

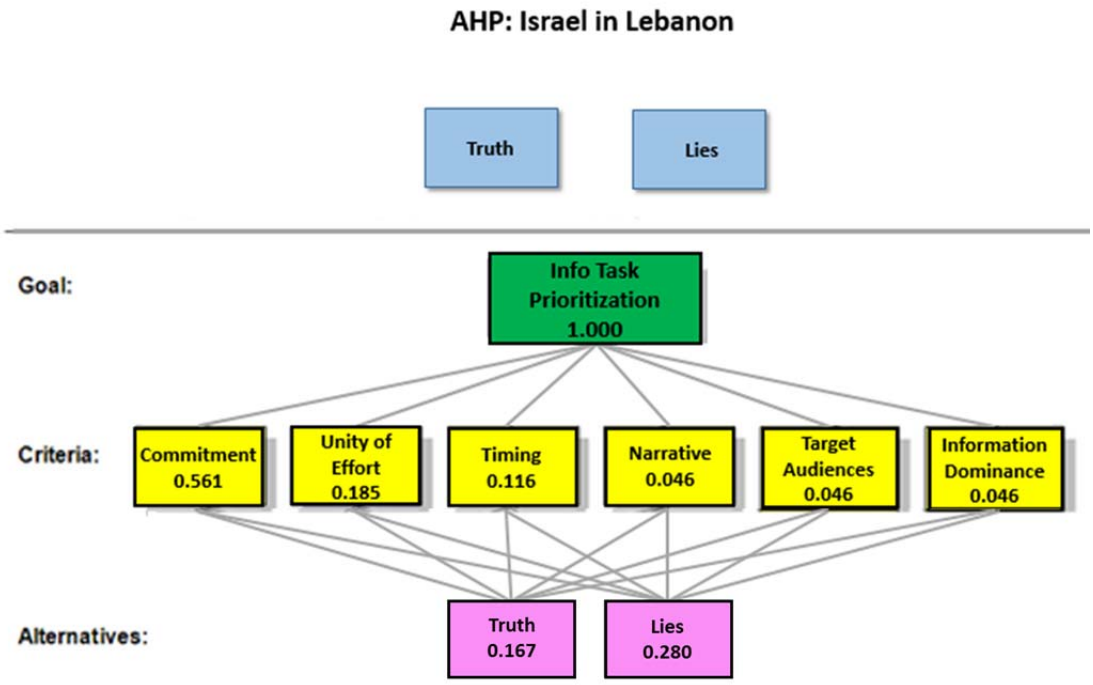


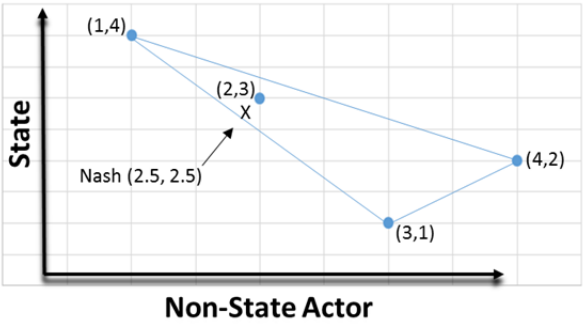
Figure 4. AHP Diagram, Israel in Lebanon.

Based on the criteria prioritization in the analysis chart, the AHP model indicates that lies were the preferred informational tool for Israel, which does not match the tactics actually used by the IDF. Israel's over-reliance on truthful messaging ultimately contributed to its withdrawal from Lebanon.

2. Game-Theory Result

The setup of Case 2 simulates the battle between the Israeli state and its non-state adversary, Hezbollah. Only two variables are available, truth and lies. The payoffs used in this construct are taken from AHP computations, which identified lies as the most effective informational tool for the IDF. The state received a score a 4 (best outcome) for lies and 1 (worst outcome) for truth. The NSA, assuming interests that run counter to those of the state, received an inverse payoff score. The construct of Case 2 is displayed in Table 12.

Table 12. Israel in Lebanon: Game Theory Model.

Case 2: Israel in Lebanon		Non-State Actor (NSA)	
		Truth	Lies
State	Truth	(1,4)	(3,1)
	Lies	(4,2)	(2,3)
Given:	**TT:** State Truth vs NSA Truth **TL:** State Truth vs. NSA Lies **LT:** State Lies vs. NSA Truth **LL:** State Lies vs. NSA Lies 4=Best 3=Next Best 2=Next Worst 1=Worst		

Case 2 cannot be resolved with a pure-strategy solution. This means that neither player can achieve an optimal outcome by employing a one-dimensional strategy. Transposing the game onto a payoff polygon and computing its Nash equilibrium confirms that Israel must employ a mixed strategy to achieve optimal results.

The derivation of Israel's optimal strategy necessitates a strategic-moves analysis (Figures 4–7). The IDF achieves its best outcome by initiating with lies, resulting in an outcome of (4,2). Finally, computation of an equalizing strategy reveals the exact ratio of truthful to deceptive information that Israel would need to achieve victory. In this case, the ratio is 25 percent truthful information and 75 percent deceptive. Table 13 displays this matrix.

Table 13. Israel in Lebanon: Strategic Moves Diagram.

First Moves		Outcomes	
		State	NSA
If State initiates with TRUTH	NSA will react with LIES	(3,1)	
If State initiates with LIES	NSA will react with TRUTH	(4,2)	
If NSA initiates with TRUTH	State will react with TRUTH	(1,4)	
If NSA iniaites with LIES	State will react with LIES	(2,3)	

3. Case 2 Analysis

The IDF's uninformed pursuit of a truthful messaging campaign to reactively correct Hezbollah propaganda ultimately enabled an outnumbered and outmanned Hezbollah to dominate the technologically and militarily superior IDF. Factor analysis and AHP shows lies being the preferred solution to the Israeli problem set, a course rejected in historical events. Game theory indicates that Israel might have achieved a better outcome by proactively employing an information strategy consisting of 25 percent truthful information and 75 percent deceptive information. While it is impossible to know whether this ratio would have led to IDF victory, it does suggest a more concrete, discernible plan for more effective MILDEC against Hezbollah.

C. CASE 3 OVERVIEW: THE IRISH WAR OF INDEPENDENCE, 1917–1921

While the brief Easter Rising of 1916 failed to achieve its objective of ending British occupation of Ireland, it served as the symbolic start of the Irish war of independence. With martyrs for the cause and a renewed enthusiasm for independence, the defeated Irish Volunteers transitioned from a conventional force to the guerrilla Irish Republican Army (IRA) backed by a political wing, Sinn Fein ("We Ourselves").[115] Embroiled in the final years of WWI, the British were war-weary and unable to adapt their techniques for a population-centric war. Their suppression of the IRA included the use of undisciplined foreign conscripts, reprisals against civilians, and deceptive news media. Fanned by the IRA's *Irish Bulletin* newspaper, these heavy-handed measures

[115] Max Boot, *Invisible Armies: An Epic History of Guerrilla Warfare from Ancient Times to the Present* (New York: Liverlight Publishing Corporation, 2013), 247.

gained the undivided attention of a once-apathetic population and the international community.[116]

The IRA's first target of opportunity was the Royal Irish Constabulary (RIC), the British police force in Ireland. The RIC's main purpose was to prevent and detect crime, but they also repressed political unrest.[117] The RIC's tactics included the murder or imprisoning of elected republican leaders under unproven charges such as treasonous collaboration with Germany.[118] In retaliation, the IRA conducted a "widespread series of assaults on RIC barracks, a sabotage campaign, and the employment of ad hoc fighting units known as 'flying columns' to conduct guerrilla warfare."[119] These activities were met with severe reprisals against Irish civilians, which only served to increase the legitimacy of the IRA narrative, which cast British forces as an "invading army."[120]

Britain declined to address Irish grievances and sought to demonize the independence movement by characterizing the IRA as criminals and terrorists. Instead of launching a hearts-and minds campaign, the British reinforced the RIC with mercenary forces (known as black and tans, or auxiliaries), sanctioned reprisals against civilians, and used their own newspaper *The Weekly Summary* to "feed the faithful and influence the ignorant."[121] The best-known example of this strategy was the reprisal for the assassination of fourteen British intelligence officers on 21 November 1920, known as "Bloody Sunday." The British-employed black and tans and auxiliaries opened fire on a crowd of civilians viewing a soccer match, killing twelve and wounding sixty.[122]

Due to these brutal measures and the Irish republicans' adept use of guerrilla tactics and news media, by 1921 the majority of the Irish openly supported or

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[116] Mike Rast, "Tactics, Politics, and Propaganda in the Irish War of Independence, 1917–1921" (master's thesis, Georgia State University, 2011), 4–8.

[117] Boot, *Invisible Armies,* 248.

[118] Rast, "Tactics, Politics, and Propaganda," 33.

[119] Ibid., 12.

[120] Ibid., 49.

[121] Michael Elliott-Bateman, John Ellis, and Tom Bowden, *Revolt to Revolution.* (Manchester, UK: Manchester University Press, 1974). 241–250.

[122] Boot, *Invisible Armies,* 252–253.

sympathized with the IRA and British forces were rendered ineffective.[123] The British initiated a truce, providing the impetus behind the Anglo–Irish Treaty, which was instrumental in legitimizing the IRA's cause as something beyond mere criminal activity.[124] The British pursued an ineffective strategy both militarily and psychologically by clinging to reprisals and policing actions and a deceptive media campaign that disregarded the population's knowledge and perceptions. Mindful of the value of public support, the IRA acted aggressively in leveraging instances of British injustice.

[123] Ibid., 255.

[124] Rast, "Tactics, Politics, and Propaganda," 144.

Table 14. Irish War of Independence, State Analysis Factors Chart.

Factor	Sub-Factor	State	Score
Narrative	Unified Message	-	0
	Aligned Actions	-	
	Perception of Justice	-	
Unity of Effort	Political Attunement	-	0
	Military Competency	-	
	Asymmetric Capabilities	-	
Target Audiences	Population Interaction	-	0
	Enemy Engagement	-	
	International Support	-	
Commitment	Time	-	2
	Personnel	+	
	Financial Investment	+	
Information Dominance	Media Options	+	1
	Connectivity	-	
	Interference	-	
Timing	Phase Awareness	-	0
	Resiliency	-	
	Opportunity	-	

Table 14 presents a quantitative compilation of analysis factors compiled during case-study research. In-depth, qualitative explanations of the six factors are found in Appendix C. The analysis-factor scores were used to create decision-criteria prioritization, which was entered into the AHP model.

1. Application of the Analytic-Hierarchy Process

Figure 5 shows the AHP quantitative outcome associated with the analysis factors.

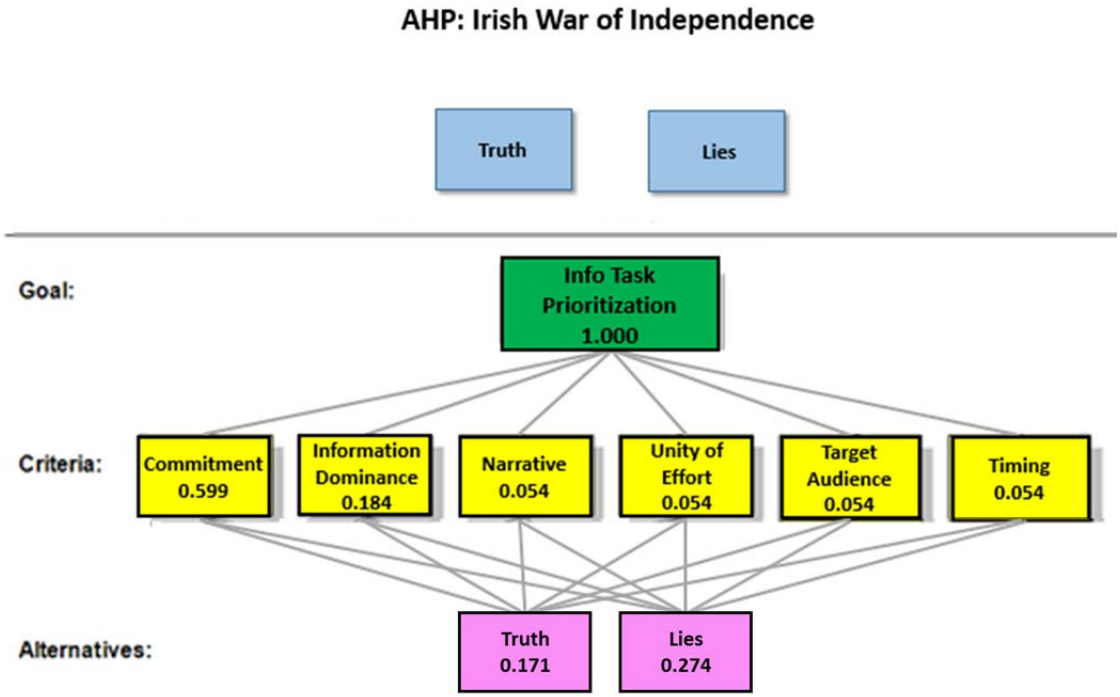

Figure 5. AHP Diagram, the Irish War of Independence.

Based upon the criteria prioritization in the analysis chart, the AHP model indicates that lies were the preferred informational tool to be employed by the British during the Irish war of Independence. While case analysis reveals that the British did attempt to use deception during the conflict, history notes that the operations were ill conceived, poorly executed, and targeted an unsympathetic audience.

2. Game-Theory Result

The setup of Case 3 synthesizes the battle between Great Britain and the Irish Republican Army. Two variables are available to the players: truth and lies. The payoffs were determined by the outcome of the AHP computations; the state received a score a 4 (best outcome) for truth and 1 (worst outcome) for lies. The NSA, assuming interests that run counter to those of the state, received an inverse payoff score. The construct of Case 3 is shown in Table 15.

Table 15. Irish War of Independence: Game Theory Model.

Case 3: Irish War of Independence		Non-State Actor (NSA)	
		Truth	**Lies**
State	**Truth**	(1,4)	(2,1)
	Lies	(4,2)	(3,3)

	Combinations:	Payoffs:	
		State	NSA
Given:	State Truth vs. NSA Truth	(1,4)	
	State Truth vs. NSA Lies	(2,1)	
	State Lies vs. NSA Truth	(4,2)	
	State Lies vs. NSA Lies	(3,3)	

Scoring:	4 = Best	3 = Next Best	2 = Next Worst	1 = Worst

Case 3 is solved using a pure-strategy solution to the conflict, suggesting that Great Britain would have achieved a better outcome by employing a more robust and effective deception campaign targeted at the IRA's decision makers instead of the Irish people.

3. Case 3 Analysis

British COIN strategy, in the form of a population-centered hearts-and-minds approach, was nearly nonexistent during the Irish war of independence. Instead a brutal policing effort, reinforced by foreign mercenaries and a misguided and deceptive information campaign, were employed. The results of both AHP and game theory show that while deception may have been the preferred method for the British, its flawed execution and poor choice of target audiences undermined success. This lesson was not lost on the British, as evident in their effective use of MILDEC during Northern Ireland conflicts in the 1970s.[125]

D. CASE 4 OVERVIEW: THE VIETNAM WAR, 1960–1975

The conflict in Vietnam has been described as the battle of the elephant and the tiger. After the French defeat in Vietnam (1946–1954), the United States became the

[125] Roy Godson and James J. Wirtz, *Strategic Denial and Deception: The Twenty-First Century Challenge* (New Brunswick: Transaction Publishers, 2011), 155.

elephant: a massive, unparalleled force lumbering through the jungle and destroying all that lay in its path. The combined North Vietnamese Army (NVA) and Viet Cong (VC) guerrillas were the tiger, a stealthy, elusive killer hiding and waiting to strike, then sneaking back into the shadows. For all the elephant's strength, it was only a target to the tiger, which patiently bled it dry. Ho Chi Minh, the leader of the North Vietnamese, applied this metaphor as the foundation of his strategy. President John F. Kennedy (JFK) understood this reality as well and worked to increase civil-action programs and bring U.S. tigers to the fight in the form of the Studies and Observations Group (SOG), a joint Central Intelligence Agency (CIA)–U.S. military unit that conducted covert actions, psychological warfare (PSYWAR), and unconventional warfare (UW) against North Vietnam.[126] These efforts, undermined by counterproductive conventional operations, were shut down prematurely.[127]

Spanning over 15 years, the tempo of the Vietnam War was generally controlled by the NVA. Composed of conventional army and guerrilla forces known as the Viet Cong, Vietnamese fighting units were distinguished by their ability to shift gears rapidly from fighting conventionally to unconventionally, seemingly at will, to devastating effect on U.S. forces.[128] It is estimated that the NVA, not the U.S., initiated 90 percent of engagements during the war.[129] This strategy was complemented by a deceptive information campaign, which targeted audiences in South Vietnam and the American home front, exacerbating low morale and distrust between the civilians and U.S. forces.[130] Having seized the initiative and demonstrating commitment to unlimited war, the NVA choose when, where, and how to fight, with great success. This strategy forced the U.S. into a reactionary posture and reinforced reliance on conventional solutions able to produce fast results, but of little strategic value.[131]

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[126] Robert M. Gillespie, *Black Ops Vietnam* (Annapolis: Naval Institute Press, 2011), 11.

[127] Richard H. Shultz, *The Secret War Against Hanoi* (New York: Harper Collins, 1999), 125.

[128] Paul et al. *Paths to Victory*, 186.

[129] Guenter Lewy, *America in Vietnam* (Oxford: Oxford University Press, 1978), 83.

[130] Bobby Lee. Horton, "A Content Analysis of Viet Cong Leaflets as Propaganda, 1963–68" (master's thesis, Texas Tech University, 2003), 35–50.

[131] Boot, *Invisible Armies*, 421–422.

The prevailing mindset of American senior leaders was that it was necessary to destroy the NVA on the battlefield before winning hearts and mind.[132] This strategy proved backward. While the NVA was often defeated in the battle, the VC flourished in the villages and took control of a disaffected population. Massive operations by U.S. forces and the indigenous army of the Republic of Vietnam (ARVN) undermined public support due to high civilian casualties and the more urgent threat posed by embedded guerrillas.[133] The United States invested in population-centric civil programs coordinated by Civil Operations and Revolutionary Development Support (CORDS) and enemy-centric MILDEC, but did not spend sufficient time and effort to understand the information environment.[134] Reports discovered in 1997 from North Vietnam's interior ministry showed that Hanoi believed there to be upward of 2,000 infiltrators sent north during SOG operations, when in reality there were 500. This was a direct acknowledgement that SOG's efforts, particularly operations Humidor and Forae, were effective in diverting the NVA's attention inwards, massively increasing their paranoia. If continued, these initiatives might have provided the breathing room necessary for mission success.[135]

Despite the significant capabilities of the SOG and other special warfare and civilian-centric programs, they were regarded as low priority by conventionally minded senior leaders, who defended the merits of a search-and-destroy strategy despite its failure to bring results.[136] Ho Chi Minh, JFK, and SOG understood the Vietnam conflict as a war of the people, in which results tended to be less immediate and tangible as body counts and territory held, but were deeper rooted and longer term. A more coordinated effort on the part of the U.S. might have revealed that conventional operations, supported by civil programs led by CORDS and unconventional SOG actions, were a winning strategy.

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[132] Paul et al., *Paths to Victory*, 186–189.

[133] Ibid., 177.

[134] Boot, *Invisible Armies*, 419.

[135] Shultz, *The Secret War*, 127.

[136] Andrew Krepinevich, *The Army and Vietnam* (Baltimore: The Johns Hopkins University Press, 1986), 176.

Table 16. Vietnam War, State Analysis Factors Chart.

Factor	Sub-Factor	State	Score
Narrative	Unified Message	-	0
	Aligned Actions	-	
	Perception of Justice	-	
Unity of Effort	Political Attunement	-	1
	Military Competency	+	
	Asymmetric Capabilities	-	
Target Audiences	Population Interaction	-	1
	Enemy Engagement	+	
	International Support	-	
Commitment	Time	-	2
	Personnel	+	
	Financial Investment	+	
Information Dominance	Media Options	+	2
	Connectivity	-	
	Interference	+	
Timing	Phase Awareness	+	2
	Resiliency	+	
	Opportunity	-	

Table 16 presents the quantitative compilation of analysis factors compiled during case-study research. In-depth, qualitative explanations of the six factors are found in Appendix D. The analysis-factor scores were used to create decision-criteria prioritization, which was entered into the AHP model.

1. Application of the Analytic-Hierarchy Process

Figure 6 shows the AHP quantitative outcome associated with the analysis factors.

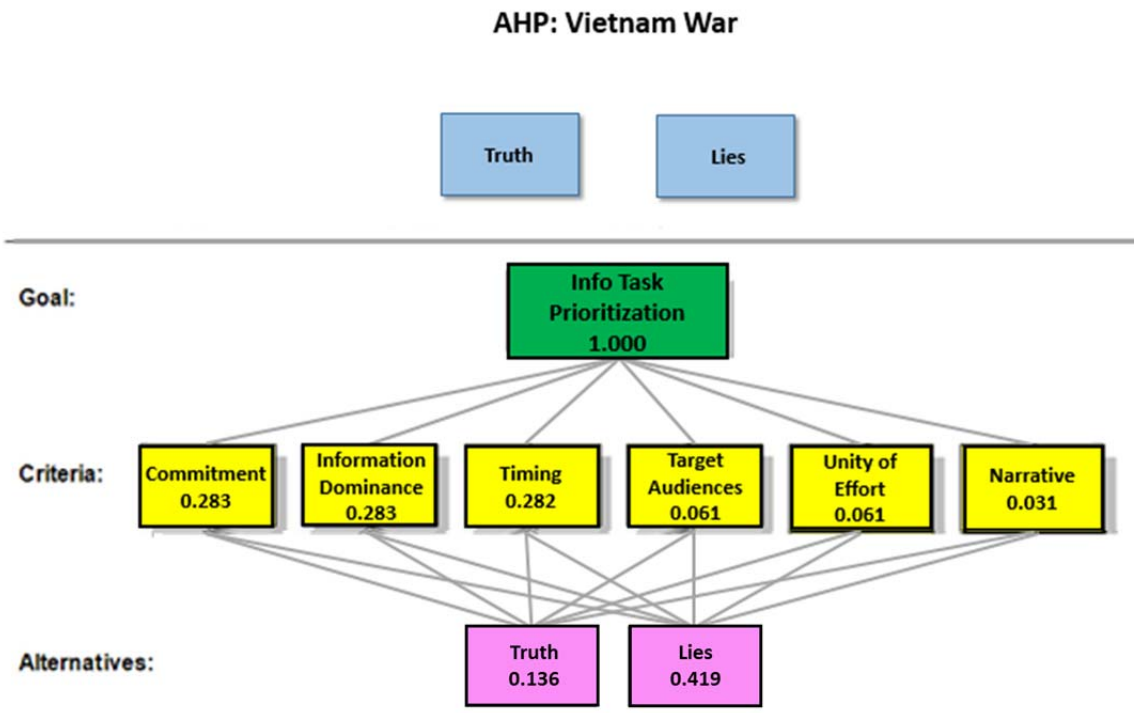

Figure 6. AHP Diagram, Vietnam War.

Based on the criteria prioritization in the analysis chart, the AHP model indicates that lies were the preferred informational tool to be employed by the United States during the Vietnam War. This finding deviates from the actual information strategy generally employed during the conflict.

2. Game-Theory Result

The setup of Case 4 reenacts the Vietnam War by employing the prevailing informational tool identified by the AHP. Two variables are available to the players: truth and lies. The payoffs were determined by the outcome of the AHP computations. The state received a score a 4 (best outcome) for truth and a score of 1 (worst outcome) for lies. The NSA, assuming interests that run counter to those of the state, received an inverse payoff score. The construct of Case 3 is shown in Table 17.

Table 17. Vietnam War: Game Theory Model.

Case 4: Vietnam War		Non-State Actor (NSA)	
		Truth	**Lies**
State	**Truth**	(1,4)	(3,1)
	Lies	(4,3)	(2,3)

	Combinations:	Payoffs:	
		State	NSA
Given:	State Truth vs. NSA Truth	(1,4)	
	State Truth vs. NSA Lies	(3,1)	
	State Lies vs. NSA Truth	(4,3)	
	State Lies vs. NSA Lies	(2,3)	

Scoring:	4 = Best	3 = Next Best	2 = Next Worst	1 = Worst

The Case 4 game is resolved with a pure-strategy solution to the conflict. The United States achieved its optimal result (4,3) by employing a deceptive information campaign against the NVA and VC.

3. Case 4 Analysis

Analyzing the U.S. strategy in Vietnam through the lens of the quantitative model reveals both consistencies and deviations from historical occurrence. The AHP indicates that lies were the preferred informational tool for the United States. While their efforts were not prioritized, the successful deception operations conducted by SOG demonstrate the effectiveness of these operations against the enemy. The game-theoretical model, which synthesized the war by prioritizing the AHP outcome, ultimately resulted in U.S. victory—a premise that can never be fully supported. Nonetheless, the U.S. reliance on search-and-destroy operations achieved little strategic success, but effectively widened the gap between the people and U.S.-led forces—a vulnerability successfully leveraged by the NVA. Unfortunately, the Tet Offensive and subsequent peace talks curtailed the gains achieved by innovative SOG operations. Had the U.S. prioritized an enemy-centric, deception-heavy strategy from the beginning, the outcome might have been much different.

E. CONCLUSION

Four general conclusions may be drawn from the case-studies examined. First, the proactive use of truthful information is a viable course of action. However, purely truthful strategies require a proactive and unwavering commitment to consistency that must endure over the duration of a conflict, however long. Given the current non-existence of state-based grand strategies that could facilitate consistency, entirely truthful campaigns are unlikely to achieve goals in the Information Age.

Second, the reactive use of deception is the most effective information tool against non-state actors. As states continue to be drawn into conflicts reactively, MILDEC provides an ideal mechanism for achieving results. However, successful MILDEC must be well synchronized, nested within an overall operational plan, and given sufficient time to work.

Third, pure-strategy solutions that promote deception as the 100 percent informational solution to a conflict are an unlikely premise. Yet the prevalence with which deception contributes to mathematical victories offers tremendous insight into its efficacy in Information Age warfare.

Finally, case-study analysis indicates that states lose the information battle when they neglect the factors of narrative and target audience. Matching words and deeds and crafting messages that engage the appropriate audience is of utmost importance in formulating an effective information strategy.

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V. FINDINGS AND IMPLICATIONS

> He who overcomes the enemy by fraud is as much to be praised as he who does by force.
>
> —Niccolo Machiavelli

This thesis examines the prevailing theories that attempt to explain America's divestiture from deception operations. Whether institutional shortcomings are the root cause or, rather, that contemporary ethical standards dictate a stricter adherence to moral factors, it is clear that a once-robust and effective capability has atrophied significantly. The dawn of the information age has challenged longstanding military paradigms and leveled the playing field between state and non-state actors. In an era defined by increasingly constrained resources, a casualty-averse polity, and the realization that force cannot guarantee victory, the United States may regain its comparative advantage by reinvigorating military deception operations.

Legacy principles of mission planning, counterinsurgency doctrine, and analysis tools do not effectively address the challenges and complexities of the human domain. The foundations of information-strategy formulation must be updated to address abstract concepts such as the behaviors and ideologies found in modern conflict.[137] Drawing broadly from existing doctrine, this thesis finds six factors that account for the intangible aspects of information warfare: narrative, unity of effort, target audiences, commitment, information dominance, and timing.

Unlike kinetic operations, information strategies are difficult to quantify and measure. This problem has limited the acceptance and understanding of information warfare, ultimately hamstringing the U.S. in fighting weaker but more agile adversaries. To resolve this problem, this research repurposes two structured decision-making tools, the analytic-hierarchy process and game-theoretical modeling, to provide a means of

[137] Ducote, *"Challenging the Application of PMESII-PT,"* 5.

generating precise computations of optimal information strategies. The control model yielded three findings:

1. Kinetic solutions to a conflict with a non-state actor are not conducive to victory.

2. MILDEC is the information task best capable of maximizing operational effectiveness.

3. The optimal information strategy ratio is 25 percent truthful information and 75 percent deceptive information.

To verify these findings, the control model was tested against the historical outcomes of four case studies: the Dhofar Rebellion, Israel in Lebanon, the Irish War of Independence, and the Vietnam War. Four trends emerged from this analysis.

1. Truthful information campaigns can result in victory. However, truth wins only when used proactively and with an unwavering commitment and consistency that lasts the duration of a conflict. It is a long-term solution.

2. When reactively drawn into battle, deception is the only tool able to overcome information asymmetry and achieve the best possible outcome in the short term.

3. A deception-heavy information strategy resulted in mathematical victories in 75 percent of the case studied. In each conflict, the state lost when its strategies did not include effective deception operations.

4. In the states examined, the analysis factors of narrative and target audience were the most overlooked components of information-strategy formulation. In each case, the state lost a conflict to a lesser opponent when these factors were neglected.

A. PRECEPTS

As discussed in Chapter II, one of the major flaws of FM 3–24, *Counterinsurgency*, is its failure to address the interplay between truth and lies in COIN operations. Promoting the truth to a population while deceiving the enemy is not as simple and intuitive as it may seem. As shown in the case analyses, COIN forces have struggled with this concept and achieved success only when they have understood the art and science of aligning friendly actions and managing target-audience perceptions. The virtues of COIN are adaptation and consistency; those who accurately assess their

environment and devise workable and committed strategies have a better chance of winning.

The following precepts emerged from this research.

1. Be Proactive with Truth, Reactive with Lies

This research finds that a state may engage a non-state adversary either proactively or reactively. When fighting proactively, the most effective weapon is to engage with truth, as exemplified by Sultan Qaboos' strategy during the Dhofar Rebellion of creating radio and television stations to unveil critical reforms. His command of the operational environment was strengthened by an effective and consistent truthful information campaign, in which he clearly demonstrated a commitment to addressing grievances. The Sultan's adversaries, lacking information savvy, were unable to engage their target audiences and gradually lost support and relevance.[138]

Conversely, when a state is drawn into a conflict, the most effective weapon is deception. The Vietnam War, though a far from perfect example, illustrates this concept. The NVA and VC dominated the information environment, skillfully manipulating lies and truth while the U.S. and South Vietnamese forces struggled with a counterproductive strategy that valued body counts over hearts and minds. To overcome this asymmetry, the SOG's inventive MILDEC operations, aimed at undermining NVA leadership, eroding morale, and inducing paranoia, achieved devastating effects in short order.[139] These efforts were terminated prematurely; nonetheless, the evidence shows that MILDEC achieved important goals and hints at what might have been had operations been allowed to proceed.

2. Tighten Definitions within the Information Spectrum

The extremes of truth or lies were chosen to quantify deception operations while maintaining simplicity. However, the authors note that an information strategy cannot be categorized as purely black or white. Shades and combinations always exist, and these

[138] Paul et al., *Paths to Victory*, 275–280.

[139] Shultz, *The Secret War*, 125–127.

should be more specifically defined—doctrine has yet to adequately articulate some key distinctions. FM 3–0, Operations, introduces information superiority by advising leaders to, "tell the truth, stay in your lane, and get the message out fast," and the manual guiding psychological operations, FM 3–05.301, advises that, "truth is always the most powerful tool," which dismisses the myriad situations that must consider: narratives, exigencies, audiences, and events that might require various ratios and types of information to overcome the adversary. Current doctrine presents a polarized view of messaging, while the reality of conflict calls for specifically tailored ratios of information. Information should be understood to reside on a continuum from outright falsehood (pseudo operations) and selective truth (MILDEC) to diplomacy and complete candor, as shown in Figure 7. All these choices require balance and conditional awareness.

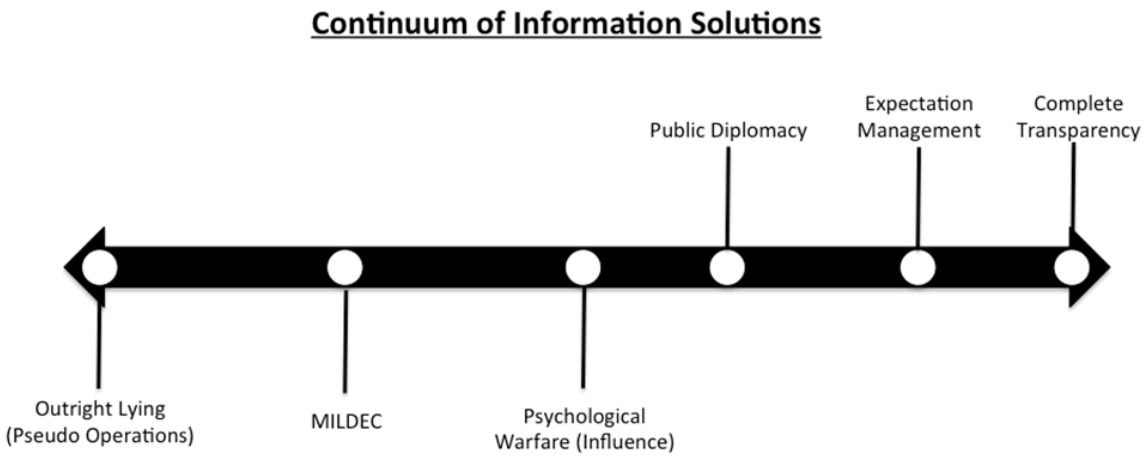

Figure 7. The Continuum of Information Solutions.

3. Complex Environments Call for Simple Decision-Making Tools

Weaponized information is no longer the exclusive tool of the state. The global diffusion of technology has allowed the instantaneous exploitation of information by anyone. Despite our prowess on the kinetic battlefield, the U.S. military's information-warfare capability has not evolved to effectively combat emergent adversaries in the

information realm.[140] This difficulty, compounded by the absence of a U.S. information grand strategy, has fostered the development within various organizations of independent information strategies that lack cohesion, and thus potential effectiveness.

The size and scope of the modern military has become so bloated that an internal focus has been favored at the expense of external effectiveness. In other words, the U.S. has over-complicated all aspects of warfighting, to where the contemporary military relies inordinately on short-term strategies that lack scientific rigor and consistency and, most importantly, are transparent to our adaptable and deceptive opponents. Short of a complete overhaul of our political–military structure, the revival of deception operations offers a viable, battle-tested method to regain advantage.

"Warfare is not just a matter of hurling mass and energy at one's enemies; it is also about gaining an 'information edge.'"[141] Perhaps now, after a decade of struggle against terrorism, the simple decision-making tool presented here may offer first steps towards a reliable and consistent benchmark with which to evaluate operational plans. There is no reason information dominance cannot be a reality for the United States. The innovative solution suggested by the application of AHP and game theory to informational strategy holds promise in ending the information advantages of non-state adversaries.

B. THE WAY AHEAD

Recommendations for deploying the insights in this thesis are offered below.

1. Operationalize the Decision Model

The mathematics presented in this thesis demonstrates the efficacy of deception, though it must be noted that the optimal information-strategy ratio generated by our decision model is purely illustrative. Nevertheless, the decision model offered herein is

[140] Daniel Kuehl and Dennis Murphy, "The Case for a National Information Strategy," *Military Review* 95, no.5 (September-October 2015): 77.

[141] John Arquilla, "From Blitzkrieg to Bitskrieg: The Military Encounter with Computers," *Communications of the ACM* 54, no. 10 (October 2011): 58.

able to generate operationally relevant information strategies. The authors recommend research in three follow-up areas to exploit and operationalize this tool:

a. Subject the analysis factors to mathematical hypothesis-testing procedures such as linear-regression modeling.

This is an excellent method to determine the statistical strength between the multiple variables introduced in Chapter II and further solidify their linkage to the information environment, while more accurately prioritizing the criteria-ranking system in AHP.

b. Apply a non-ordinal ranking system to the game-theoretical construct.

The use of cardinal numbers, which denote quantities as opposed to rankings, will enable the model to generate more precise and operationally relevant statistics.

c. Expand the game model to include all the tools of information warfare.

Inclusion of all six tools (pseudo operations, MILDEC, psychological operations, public diplomacy, expectation management, and complete transparency, as opposed to only truth and lies) will dramatically increase the number of outcomes generated by the model, but the results will be much more precise and yield a full spectrum, optimal ratio to be employed in a given scenario.

APPENDIX A. CASE 1, THE DHOFAR REBELLION—HYPOTHESIS ASSESSMENT

The in-depth qualitative explanations of the six factors assessed in the Dhofar Rebellion case study are discussed below.

A. NARRATIVE

State Narrative: For the counterinsurgents to achieve legitimacy for their cause, their stated narrative and actions must be aligned, unified, and in support of a state that is perceived as just in the eyes of the populace.

Assessment: Proved. Both Sultan Taimur and Qaboos's narratives could be seen as aligned and unified—where they differed was in their perception of justice. Sultan Taimur never made concessions with the Dhofaris, publicly stated that he wanted them destroyed, and carried out a brutal COIN campaign that included mass detentions and reprisals.[142] On the other hand, Sultan Qaboos initiated a campaign that admitted the former regime's failings and through words and deeds showed it was both different from and better than the old. With his five-point plan, he not only told the people his intentions, his civil reforms echoed them.[143] The people responded positively to Sultan Qaboos' narrative because of its unified message, aligned actions, and perceived justice.

NSA Narrative: The further the distance between the state's narrative and perceived actions, the more legitimate the insurgent's narrative and the righteousness of their actions in the eyes of the population.

Assessment**:** Proved. Under Sultan Taimur's regime, the DLF's narrative and cause were seen as righteous in the eyes of the population, who sought liberation. While Sultan Taimur's message and actions were aligned, they were viewed as repressive and unjust. By the time Sultan Qaboos initiated his five-point plan of reform, it became nearly

[142] Vaughan, "*The Integration of Information Operations,"* 63.

[143] Paul et al., *Paths to Victory,* 280.

impossible for the DLF, who had changed their motivations from liberation to the establishment of a communist state, to convince the people of its righteousness.[144]

B. UNITY OF EFFORT

State Unity of Effort: The closer the counterinsurgent forces are to the indigenous population, in terms of cultural composition and understanding, the more effective their messaging will be.

Assessment: Proved. Sultan Qaboos sought to rectify this problem; his first reform was to allow amnesty for disillusioned Dhofari rebels, which led to the establishment of *firqats* or tribal militias, who worked with the British Special Air Service (SAS).[145] These forces grew to nearly 1,800 and served as invaluable cultural experts who were perceived as being of the people.[146]

NSA Unity of Effort: The further counterinsurgent forces are from a population's cultural composition and understanding, the easier for insurgent forces to exploit their messaging.

Assessment: Proved. Under Sultan Taimur's rule, the Omani armed forces were led by British officers and composed entirely of non-Dhofaris and Baluchi mercenaries.[147] This put Omani forces at a significant cultural disadvantage that resulted in heavy-handedness and the perception that foreign invaders were doing the Sultan's bidding.[148]

C. TARGET AUDIENCE

State Target Audiences: A state seeking to gain or maintain legitimacy should seek to use deceptive information against the enemy only, and never against the population or international audiences.

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[144] Ibid., 278.

[145] Ibid., 280.

[146] Ibid., 281.

[147] Ibid., 277.

[148] Ibid.

Assessment: Proved. Sultan Qaboos insisted on truthful information campaigns when dealing with the population, and with the aid of British Army training teams (BATT), created the country's first fair and balanced newspapers, radio, and television stations.[149] However, there are several instances of MILDEC operations, such as Operation Jaguar, that successfully misled the PFLOAG, that through disinformation and false information—without the need to lie to the public or international community.[150]

NSA Target Audiences: Insurgents may use deceptive information against all target audiences, but may lose this ability as they become closer to resembling a legitimate counter-state.

Assessment: Proved. Initially, no deception against the population or international community was needed by the rebels to win support, other than the types of enemy-centric MILDEC inherent in most guerrilla forces. However, when the PFLOAG gained control of 80 percent of Dhofar, its original intentions of liberation were replaced with the the imposition of communism, which may have been seen as an inadvertent deception to the people.[151] Also, Radio Aden, the preferred media delivery system of the PFLOAG, quickly began to be seen as one-sided propaganda as it was marginalized by the state's "fair and balanced" stations.[152]

D. COMMITMENT

State Commitment: A high commitment of manpower and funding for the counterinsurgents will mean a higher level of message penetration, but can become unsustainable over time.

Assessment: Proved. At the height of Oman's success at the time of the insurgency, military forces had grown from 3,000 to 11,700 troops, with support from the British (SAS and BATTs) and the integration of nearly 2,000 Dhofari firqats. Committing

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[149] Vaughan, "The Integration of Information Operations," 71.

[150] Ibid., 75.

[151] Paul et al., *Paths to Victory*, 278.

[152] Vaughan, "The Integration of Information Operations," 71.

personnel and investing in the country's first media outlets aided greatly in achieving message penetration.[153]

NSA Commitment: A low commitment of manpower and funding for counterinsurgents will mean a higher level of insurgent message penetration.

Assessment: Proved. At first, Sultan Taimur attempted to propagate his COIN strategy with ill-equipped and understaffed forces devoid of both Dhofari representation and options to communicate with the populace.[154] This left the information environment uncontested; it took little effort from the communist-supported PFLOAG to influence the Dhofari population.

E. INFORMATION DOMINANCE

State Information Dominance: If the counterinsurgent uses media options with the highest level of connection to the target audiences and delivers a quality message, the probability of a narrative's acceptance greatly increases.

Assessment: Proved. In addition to the country's first newspapers, radio, and television stations, the Omani government used notice boards, leaflets, and word of mouth to promote their civil actions. Their messages included pro-government and Islamic imagery, which, in concert with the visible positive changes to Dhofari, aided their acceptance.[155]

NSA Information Dominance: The population's acceptance of the insurgent's narrative increases when the counterinsurgents choose forms of media that can be interfered with, does not reach the intended target audiences, or is of poor quality.

Assessment: Proved. Under Sultan Taimur's regime, very little attention was paid to the use of media in the COIN campaign. Dhofari rebels communicated easily with the population through word of mouth and Radio Aden. When new channels of media

[153] Paul et al., *Paths to Victory,* 282.

[154] Ibid., 277.

[155] Vaughan, "The Integration of Information Operations," 72.

became available, it became easier for Omani forces to interfere with PFLOAG's communications by intercepting their messages and creating false ones.[156]

F. TIMING

State Timing: If the counterinsurgents can recognize informational vulnerabilities and are prepared to exploit these weaknesses, the insurgents will struggle to adapt.

Assessment: Proved. The DLF's transformation to the PFLOAG exemplified by the changing of their narrative from liberation to communism was the first opportunity seized by Sultan Qaboos. Capitalizing on this while admitting the mistakes of the past regime, enacting positive reforms, and offering amnesty to the PFLOAG, the Omani government forced the PFLOAG to rely on their new military strength to maintain territorial gains.[157]

NSA Timing: Insurgents will make information a cornerstone of their strategy when they are physically weaker than the state, so as to seize and maintain the initiative when conditions are most favorable.

Assessment: Proved. A cornerstone of the DLF's original strategy was a truth-based information campaign that supported its guerrilla efforts. After initial success and territorial gains, they began to misinterpret the operational environment, precipitating massive mistakes. In changing their stated goals and transitioning to conventional warfare, they allowed the new regime opportunity to amend past failings and definitively seize the initiative.[158]

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[156] Ibid., 76.

[157] Paul et al., *Paths to Victory*, 278.

[158] Ibid., 283.

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APPENDIX B. CASE 2, ISRAEL IN LEBANON—HYPOTHESIS ASSESSMENT

The in-depth qualitative explanations of the six factors assessed in the Israel in Lebanon case study are discussed below.

A. NARRATIVE

State Narrative: For the counterinsurgents to achieve legitimacy for their cause, their stated narrative and actions must be aligned, unified, and in support of a state that is perceived as just in the eyes of the populace.

Assessment: Proved. The narrative driving Israel's 1982 invasion of Lebanon was to seek the destruction of the PLO and the withdrawal of Syrian forces.[159] During the second Lebanese war, Israel attempted to exploit divisions in Lebanon by presenting Hezbollah's leader Hassan Nasrallah as a liar whose poor judgment resulted in Israel's military reaction.[160] Both narratives did little to achieve support from the populace, since collateral damage and civilian casualties caused by Israeli bombing undermined the message and kept Israel planted squarely as the barbaric enemy perpetrating the attacks.[161]

NSA Narrative: The further the distance between the state's narrative and perceived actions, the more legitimate the insurgent's narrative and the righteousness of their actions in the eyes of the population.

Assessment: Proved. Hezbollah's narrative was strengthened by turning the seemingly indiscriminate IDF military campaign into community-building opportunities that strengthened the ties between all ethnic groups (Sunni, Christian, and Shi'a) against the "Little Devil" Israel. Hezbollah "took care to rebuild any house, whether owned by a

[159] Freilich, "Israel in Lebanon," 47.

[160] Schleifer, "Psyoping Hezbollah," 230.

[161] Ibid., 232.

Christian or Muslim, damaged by Israeli military action."[162] This also allowed Hezbollah to hide their religious agenda of establishing an Islamic Republic under the cloak of Lebanese nationalism.[163]

B. UNITY OF EFFORT

State Unity of Effort: The closer the counterinsurgent forces are to the indigenous population, in terms of cultural composition and understanding, the more effective their messaging will be.

Assessment: Proved. The IDF failed to recognize the importance of representative security-force personnel when building the South Lebanese Army, which consisted primarily of Christian soldiers.[164] "Low morale and fear that Hezbollah would make good its threats produced serious manpower problems within the SLA, forcing its high command to bully the local population, including its Shi'a component, into joining its ranks."[165]

NSA Unity of Effort: The further counterinsurgent forces are from a population's cultural composition and understanding, the easier for insurgent forces to exploit their messaging.

Assessment: Proved. Shi'a soldiers in the SLA were often deemed untrustworthy and were subject to harsh policies by the SLA command, such as taking their families hostage. "Pressganged into service, and extremely disgruntled, these SLA soldiers became easy prey for Hezbollah and a source of invaluable military, political, and psychological information about the SLA and its patron Israel."[166]

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[162] Schleifer, "Psychological Operations," 7.

[163] Ibid., 10.

[164] Ibid., 4.

[165] Ibid., 5.

[166] Ibid., 5.

C. TARGET AUDIENCE

State Target Audiences: A state seeking to gain or maintain legitimacy should seek to use deceptive information against the enemy only, and never against the population or international audiences.

Assessment: Unclear. The IDF attempted to stick to a largely truthful campaign that focused on pointing out the shortcomings of Hezbollah's leader, Nasrallah, and to correct exaggerated claims made by Hezbollah. These efforts may have begun exposing Nasrallah's flawed policies and hidden agenda, but were unrealized in the course of the conflict and undermined by civilian casualties caused by the IDF.[167]

NSA Target Audiences: Insurgents may use deceptive information against all target audiences, but may lose this ability as they become closer to resembling a legitimate counter-state.

Assessment: Proved. Hezbollah used MILDEC successfully against the IDF, but, aside from exaggerations and embellishments, did not rely on a purely deceptive campaign to influence other target audiences.[168] There were several contradictions and weaknesses in Hezbollah's messaging that the IDF failed to exploit. Most stemmed from the incompatibility of Hezbollah's militant ideology with the Lebanese nationalism they pretended to promote.[169]

D. COMMITMENT

State Commitment: A high commitment of manpower and funding for the counterinsurgents will mean a higher level of message penetration, but can become unsustainable over time.

Assessment: Proved. The MALAT (Mercaz L'Mitzaei Toda'a: The Center for Consciousness Perception Operations) was the IDF's answer to Hezbollah's propaganda

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[167] Schleifer, "Psyoping Hezbollah," 229–230.

[168] Schleifer, "Psychological Operations," 5–10.

[169] Reuven Erlich and Yoram Kahati, *Hezbollah as a Case Study of the Battle for Hearts and Minds* (Ramat Hasharon: Intelligence and Terrorism Information Center at the Israel Intelligence Heritage & Commemoration Center, 2007), 32–40.

machine. Created in 2005, the unit was hastily assembled to combat Hezbollah's psychological warfare and included intelligence officers and psychologists.[170] "The MALAT as part of a conventional army was hamstrung by unwieldy administrative processes and, operating in the context of a democracy, was unable to respond quickly, creatively to events: all qualities that are essential to the waging of a successful PSYOP campaign."[171]

NSA Commitment: A low commitment of manpower and funding for counterinsurgents will mean a higher level of insurgent message penetration.

Assessment: Proved. During the first Lebanon war, Hezbollah took advantage of its ability to reach various audiences inside and outside Lebanon with tremendous effect. The IDF was incapable of stopping Hezbollah videos and photographs from airing on Israeli television with the message that Lebanon was not worth the price that Israel would have to pay.[172]

E. INFORMATION DOMINANCE

State Information Dominance: If the counterinsurgent uses media options with the highest level of connection to the target audiences and delivers a quality message, the probability of a narrative's acceptance greatly increases.

Assessment: *Disproved*. In 2006, the MALAT attempted to reach the people of Lebanon through media such as radio, television, leaflets, the Internet, and mobile phones. As an informational campaign, the MALAT did well, "The combination of leaflets and radio messages convinced a large number of civilians to evacuate prospective danger zones, which in turn allowed the army to operate relatively freely and with a minimum of civilian casualties."[173] However, this did little to create acceptance of their

[170] Schleifer, "Psyoping Hezbollah," 223

[171] Ibid., 235.

[172] Schleifer, "Psychological Operations," 7–9.

[173] Schleifer, "Psyoping Hezbollah," 233.

overarching narrative that Hezbollah was the root cause of Lebanese strife, since the IDF's actions caused the majority of civilian casualties and collateral damage.[174]

NSA Information Dominance: The population's acceptance of the insurgent's narrative increases when the counterinsurgents choose forms of media that can be interfered with, does not reach the intended target audiences, or is of poor quality.

Assessment: Proved. Hezbollah saturated Lebanese audiences and the Israeli home front with weekly journals, video recordings, and websites that seemed to overwhelm the IDF's attempts at a counter-narrative. The messages were not constrained by truth; rather they were designed to elicit an emotional response. "Showing pictures of innocent civilians maimed or killed by Israeli action helped ignite strong feelings of guilt within Israeli society, so much so that the fact that most Israeli engagements were the result of Hezbollah provocations was forgotten."[175]

F. TIMING

State Timing: If the counterinsurgents can recognize informational vulnerabilities and are prepared to exploit these weaknesses, the insurgents will struggle to adapt.

Assessment: Proved. The MALAT recognized the potential for exploiting the divisions within Lebanese society, but ultimately did not have time to see it through. IDF did not have the speed of effort or HUMINT necessary to exploit Hezbollah's exaggerations and embellishments effectively. The MALAT and conventional IDF were unable to coordinate military actions with their PSYOP campaign to achieve desired effects.[176]

NSA Timing: Insurgents will make information a cornerstone of their strategy when they are physically weaker than the state, so as to seize and maintain the initiative when conditions are most favorable.

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[174] Ibid., 232.

[175] Schleifer, "Psychological Operations," 15.

[176] Schleifer, "Psyoping Hezbollah," 235.

Assessment: Proved. Hezbollah masterfully integrated information into their guerrilla operations by attaching a cameraman to every unit. Every action was filmed and the most symbolically impressive ones were presented to the public as quickly as possible for maximal effect. The story accompanying the images was often exaggerated to elicit strong emotional responses from the target audiences. This coordinated effort proved to be both Hezbollah's strength and the Achilles heel of IDF's advanced military technologies.[177]

[177] Schleifer, "Psychological Operations," 6.

APPENDIX C. CASE 3, THE IRISH WAR OF INDEPENDENCE—HYPOTHESIS ASSESSMENT

The in-depth qualitative explanations of the six factors assessed in the Irish War of Independence case study are discussed below.

A. NARRATIVE

State Narrative: For counterinsurgents to achieve legitimacy for their cause, their stated narrative and actions must be aligned, unified, and in support of a state that is perceived as just in the eyes of the populace.

Assessment: Proved. The British attempted to label the IRA and Sinn Fein as a "murder gang" and to avoid legitimizing their claims to independence by reducing them to criminals and terrorists.[178] While pursuing this narrative, the British sanctioned reprisals against innocent civilians, showed a disregard for the importance of the public's role in the conflict.

NSA Narrative: The further the distance between the state's narrative and perceived actions, the more legitimate the insurgent's narrative and the righteousness of their actions in the eyes of the population.

Assessment: Proved. The IRA and Sinn Fein's narrative of fighting an "invading army" was further legitimized by the British's strategic missteps, including reprisals against civilians, the employment of foreign paramilitary forces, and the RIC's murder and false imprisonment of elected republicans.[179]

B. UNITY OF EFFORT

State Unity of Effort: The closer the counterinsurgent forces are to the indigenous population, in terms of cultural composition and understanding, the more effective their messaging will be.

[178] Rast, "Tactics, Politics, and Propaganda," 9.

[179] Ibid., 49.

Assessment: Proved. The RIC was composed of Irish citizens, and in the beginning the IRA had to explain the targeted killings of these individuals and how they were linked to British oppression. Very little messaging was done on the side of the RIC beyond the typical local relationship-building of police work, which was hindered greatly due to the IRA's influence in rural areas and the brutal attacks on the RIC.[180]

NSA Unity of Effort: The further counterinsurgent forces are from a population's cultural composition and understanding, the easier for insurgent forces to exploit their messaging.

Assessment: Proved. The complication of explaining the IRA's aggression towards the RIC was completely erased when the British chose to employ the black and tans and auxiliaries from all over the UK. They were easily labeled as foreign invaders and their message was marginalized as British propaganda.[181]

C. TARGET AUDIENCE

State Target Audiences: A state seeking to gain or maintain legitimacy should seek to use deceptive information against the enemy only, and never against the population or international audiences.

Assessment: Proved. The British government often published false or discrediting information in the press about IRA and Sinn Fein members, such as the fabricated justification for arresting elected republicans for colluding with Germany.[182] Also, the British used the Weekly Summary to propagate cover-ups of reprisals, show progress made by pseudo anti-Sinn Fein forces, and false stories meant to boost the morale of the British forces serving in Ireland.[183] The deceptive efforts were evidence that the British had "given up on winning Irish hearts and minds," but instead, "wanted British support for strong measures against them."[184]

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[180] Ibid., 81–84.

[181] Ibid., 108–110.

[182] Ibid., 33

[183] Bateman et al., *Revolt to Revolution*, 242–250.

[184] Rast, "Tactics, Politics, and Propaganda," 108.

NSA Target Audiences: Insurgents may use deceptive information against all target audiences, but may lose this ability as they become closer to resembling a legitimate counter-state.

Assessment: Proved/Unclear. The IRA used the typical enemy-centric deception inherent in guerrilla activities, but also used the *Irish Bulletin* to publicize many truthful accounts, point out British aggression, and develop the legitimacy of their cause with the Irish people and international audience. The republicans were particularly sensitive to their material's being labeled as "propaganda" and insisted that the correct word was "publicity" for what they believed to be the reality of the situation. [185]

D. COMMITMENT

State Commitment: A high commitment of manpower and funding for the counterinsurgents will mean a higher level of message penetration, but can become unsustainable over time.

Assessment: *Disproved*. The British deployed 50,000 troops to reinforce the 14,000 strong RIC against the 5,000 Irish republicans who were deemed as mere criminals. Despite these numbers and an investment in the *Weekly Summary*, the British failed to match their words and deeds or even condemn the brutal reprisals inflicted on civilians.[186]

NSA Commitment: A low commitment of manpower and funding for counterinsurgents will mean a higher level of insurgent message penetration.

Assessment: Disproved. The British strategy of policing through mass punishment did not gain popular support and played directly into the IRA and Sinn Fein's narrative of resisting foreign aggression.

[185] Bateman et al., *Revolt to Revolution*, 243.

[186] Boot, *Invisible Armies,* 256.

E. INFORMATION DOMINANCE

State Information Dominance: If the counterinsurgent uses media options with the highest level of connection to the target audiences and delivers a quality message, the probability of a narrative's acceptance greatly increases.

Assessment: Proved. The *Weekly Summary* was the British counterpart to the *Irish Bulletin* and both were widespread across Ireland. However, the understaffed *Weekly* was designed to promote the RIC and British forces as "keepers of the peace" and reduce the Irish republicans to "evil-doers" with little to address the validity of their grievances.[187]

NSA Information Dominance: The population's acceptance of the insurgent's narrative increases when the counterinsurgents choose forms of media that can be interfered with, does not reach the intended target audiences, or is of poor quality.

Assessment: Proved. The *Irish Bulletin* was the main source of republican messaging during the war of independence. The British recognized this and made great attempts to forge copies and distribute them with divisive information about republican leadership, the IRA's cowardly tactics, and articles eliciting sympathy for the RIC.[188] In most cases, these deceptive efforts were obvious and had little effect.

F. TIMING

State Timing: If counterinsurgents can recognize informational vulnerabilities and are prepared to exploit these weaknesses, the insurgents will struggle to adapt.

Assessment: Proved. The British never seemed to recognize these types of opportunities and chose instead to reactively defend the indiscriminate reprisals conducted by their forces sometimes to the point of outright lying. In an attempt to pursue a potential division in the republican network, The Weekly Summary attempted to promote a supposed "Anti-Sinn Fein Society." This was later exposed as a cover-up for "off-duty policeman conducting reprisals against republican suspects."[189]

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[187] Bateman et al., *Revolt to Revolution,* 247–248.

[188] Ibid., 249.

[189] Rast, "*Tactics, Politics, and Propaganda,"* 111.

NSA Timing: Insurgents will make information a cornerstone of their strategy when they are physically weaker than the state, so as to seize and maintain the initiative when conditions are most favorable.

Assessment: Proved. From the beginning, the IRA and Sinn Fein always integrated information into their guerrilla strategy. Starting with issuing a declaration of independence and appeal to the "free nations of the world" and then using newspapers to win support and sympathy from those inside and outside the conflict, the Irish republicans showed they were acutely aware of the importance of public opinion in the fight for political legitimacy.[190]

[190] Boot, *Invisible Armies*, 249.

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APPENDIX D. CASE 4, THE VIETNAM WAR—HYPOTHESIS ASSESSMENT

The in-depth qualitative explanations of the six factors assessed in the Vietnam War case study are discussed below.

A. NARRATIVE

State Narrative: For counterinsurgents to achieve legitimacy for their cause, their stated narrative and actions must be aligned, unified, and in support of a state that is perceived as just in the eyes of the populace.

Assessment: Proved. The U.S. committed fully to the war after the Gulf of Tonkin Resolution in 1964, with the stated intent "to bolster South Vietnamese morale, prevent the infiltration of fighters and materiel, and punish the insurgents to the point that they would sue for peace."[191] This narrative was pursued through a flawed belief that firepower could make it a reality, when actually all it seemed to do was "create lots of casualties, and lots of refugees, thereby alienating the population of the south."[192]

NSA Narrative: The further the distance between the state's narrative and perceived actions, the more legitimate the insurgent's narrative and the righteousness of their actions in the eyes of the population.

Assessment: Proved. Any disparities between the U.S. intentions and actions helped gain support for the NVA's narrative of "reunifying the nation."[193] Leaflets and slogans created by the NVA capitalized on any U.S. misstep with messages like, "Let's kick the U.S. imperialists out of South Vietnam, win back sovereignty and independence for our country, and freedom for our people."[194]

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[191] Paul et al., *Paths to Victory,* 185.

[192] Boot, *Invisible Armies,* 418.

[193] Paul et al., *Paths to Victory,* 193.

[194] Guenter, *America In Vietnam,* 40.

B. UNITY OF EFFORT

State Unity of Effort: The closer the counterinsurgent forces are to the indigenous population, in terms of cultural composition and understanding, the more effective their messaging will be.

Assessment: Proved. Counterinsurgency programs that integrated indigenous forces such as the Montagnards and ARVN had some of the greatest impacts of the U.S. strategy. Locally recruited forces had the "ability to maintain close ties with the population an essentiality when seeking to root out the VC embedded in the villages.[195] "These programs produced more enemy kills and fewer casualties among American forces and Vietnamese civilians than more-conventional operations."[196] However, they were vastly under-resourced, as the majority of support went to the conventional war.

NSA Unity of Effort: The further counterinsurgent forces are from a population's cultural composition and understanding, the easier for insurgent forces to exploit their messaging.

Assessment: Proved/Unclear. Despite efforts to connect and integrate with the South Vietnamese, as seen in the Combined Action Programs (CAP) and Civilian Irregular Defense Groups (CIDG), the conventional conduct of the war undid many gains.[197] Conventional forces would typically move through an area, conduct operations, and depart soon after. The VC maintained their grip by staying in the villages and often used the line of persuasion that, "the government forces will soon leave, but we will be here forever."[198]

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[195] Krepinevich, *The Army and Vietnam*, 219.

[196] Boot, *Invisible Armies*, 419.

[197] Ibid., 420.

[198] Krepinevich, *The Army and Vietnam*, 216.

C. TARGET AUDIENCE

State Target Audiences: A state seeking to gain or maintain legitimacy should use deceptive information against the enemy only, and never against the population or international audiences.

Assessment: Proved. SOG employed a variety of successful enemy-focused MILDEC operations against the NVA by forcing their focus inward to ruthlessly search for infiltrators and spies within their own ranks.[199]These secret efforts were shut down in order to pursue honest negotiations with the north.[200] However, MILDEC was not the full extent of perceived U.S. deception, as it failed to prepare for the exposure of overly optimistic reporting and the Saigon government's corruption. This lack of expectation management led to a belief among the civilian population of the south and the American home front they were being lied to, which turned them against the war.[201]

NSA Target Audiences: Insurgents may use deceptive information against all target audiences, but may lose this ability as they become closer to resembling a legitimate counter-state.

Assessment: Proved/Unclear. "North Vietnam was a dictatorship impervious to public opinion," and likewise the NVA and VC used this advantage to influence various target audiences through a mostly deceptive campaign. The north's focus on American public opinion and encouragement of anti-war protests was famously exemplified by Jane Fonda's visit in 1972, which convinced many Westerners that "the Viet Cong were independent of the North and that Ho Chi Minh and other leaders were not communists."[202]

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[199] Shultz, *The Secret War,* 83.

[200] Ibid., 124.

[201] Paul et al., *Paths to Victory,* 192–195.

[202] Boot, *Invisible Armies,* 420.

D. COMMITMENT

State Commitment: A high commitment of manpower and funding for the counterinsurgents will mean a higher level of message penetration, but can become unsustainable over time**.**

Assessment: Proved. "Counterinsurgency came to be referred to as 'the other war,' and it was little more than a minor adjunct to the lumbering search-and-destroy missions that consumed 95 percent of American resources."[203] The U.S. invested heavily in the Vietnam War, but the thousands of lives and billions of dollars spent were misallocated to a lopsided conventional strategy that did little to sway the populace with a motivating or unifying message.

NSA Commitment: A low commitment of manpower and funding for counterinsurgents will mean a higher level of insurgent message penetration.

Assessment: Proved. The U.S. commitment to COIN was very low and the VC took advantage of this by embedding themselves within the village and pointing out the failings of the government's forces. The heavy-handed nature of the U.S. strategy had the effect of "increasing antigovernment sentiment in the countryside and creating a reservoir of potential recruits for the Viet Cong."[204]

E. INFORMATION DOMINANCE

State Information Dominance: If the counterinsurgent uses media options with the highest level of connection to the target audiences and delivers a quality message, the probability of a narrative's acceptance greatly increases.

Assessment: *Disproved*. While various forms of media, such as radio broadcasts and leaflets, were used by the U.S. to propagate an "IO campaign that emphasized the truth," insufficient attention was paid to aligning the message with the reality the

[203] Ibid., 419.

[204] Paul et al., *Paths to Victory,* 183.

populace was experiencing."[205] "Civilians often became the targets of American firepower, a circumstance aided and abetted by the guerrillas."[206]

NSA Information Dominance: The population's acceptance of the insurgent's narrative increases when the counterinsurgents choose forms of media that can be interfered with, does not reach the intended target audiences, or is of poor quality.

Assessment: Proved/Unclear. More than any specifics of media choices, the insurgent's narrative was aided by the indiscriminate firepower from U.S. forces and lack of positive governance from Saigon. Accusations of atrocities and corruption in the government dominated the VC's lines of persuasion and greatly hindered the American and Saigon government's ability to connect with the population.[207]

F. TIMING

State Timing: If the counterinsurgents can recognize informational vulnerabilities and are prepared to exploit these weaknesses, the insurgents will struggle to adapt.

Assessment: Proved. Recognition of the north's fear of infiltration gave rise to some of the SOG's best efforts. One VC leader was quoted as saying, "We never feared a division of troops, but the infiltration of a couple of guys into our ranks created tremendous difficulty for us."[208] The results of SOG's MILDEC Operation Forae were "North Vietnamese newspapers and radio broadcasts from 1968 revealed a great deal of worry over agents, spies, espionage, and subversion. The articles and radio commentary had become much more alarmist and far more extensive." However, this success was short-lived as the shocking message came from Washington to cease all operations crossing the border in order to pursue negotiations with the north.[209]

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[205] Joseph C. McAlexander, "Hearts and Minds: Historical Counterinsurgency Lessons to Guide the War of Ideas in the Global War on Terrorism," *The Wright Flyer Papers,* December 2007, 13.

[206] Krepinevich, *The Army and Vietnam,* 199.

[207] Lewy, *America In Vietnam,* 44.

[208] Boot, *Invisible Armies,* 419.

[209] Shultz, *The Secret War,* 124.

NSA Timing: Insurgents will make information a cornerstone of their strategy when they are physically weaker than the state, so as to seize and maintain the initiative when conditions are most favorable.

Assessment: Proved. The NVA and VC regarded information warfare, in the form of leaflets, slogans, and word of mouth, as an important weapon in their arsenal. Focusing on the emotional content of the message rather than the form of technology that delivered it proved to be a strength for the low-tech VC. Unrestrained by the truth, they distributed messages about made-up U.S. atrocities committed, which were influential and caused irreparable rifts to form.[210]

[210] Lewy, *America In Vietnam,* 49.

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