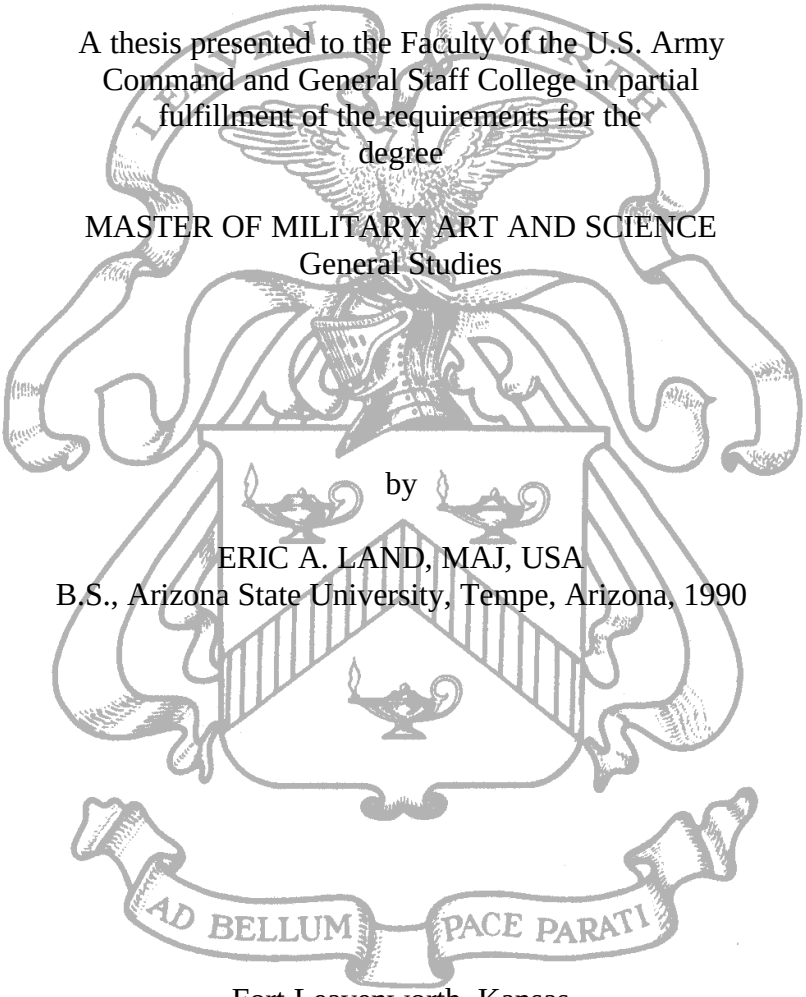
TRAINING INTELLIGENCE ANALYSTS TO MEET THE CHALLENGES OF THE CONTEMPORARY OPERATIONAL ENVIRONMENT

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE
General Studies

by

ERIC A. LAND, MAJ, USA
B.S., Arizona State University, Tempe, Arizona, 1990



Fort Leavenworth, Kansas
2004

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Candidate: Major Eric A. Land

Thesis Title: Training Intelligence Analysts to Meet the Challenges of the Contemporary Operational Environment

Approved by:

_____, Thesis Committee Chair
Jack D. Kem, Ph.D.

_____, Member
LTC David S. Pierson, M.A.

_____, Member
LTC Linda Suttlehan, B.S.

Accepted this 18th day of June 2004 by:

_____, Director, Graduate Degree Programs
Robert F. Baumann, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

TRAINING INTELLIGENCE ANALYSTS TO MEET THE CHALLENGES OF THE CONTEMPORARY OPERATIONAL ENVIRONMENT, by MAJ Eric A. Land, 81 pages.

This thesis examines the methods that the United States Army Intelligence Center (USAIC) uses to train the Army's intelligence analysts. Rapidly changing world conditions require that the Army train its intelligence analysts to correctly identify the right tactical problem when critically analyzing the varied threats and environments that its forces will encounter while conducting a wide range of operations. This study reviews the doctrinal basis for conducting analysis and then compares how the USAIC translates that doctrine into training for its analysts. Using observations from the Army's Combat Training Centers, the Battle Command Training Program and from Operation Iraqi Freedom, the study seeks to determine the adequacy of analyst performance across the Army's formations as a means of measuring the effectiveness of the USAIC training. Tracing substandard analyst performance back to the USAIC training reveals several conclusions. While the overall program of instruction seems adequate, the USAIC does not dedicate sufficient training focused solely on analysis. The USAIC has not updated its training to incorporate critical aspects of the emerging Contemporary Operational Environment, despite acknowledging the rapidly changing world conditions. Finally, USAIC training plans do not indicate any type of formal critical reasoning and creative thinking training.

ACKNOWLEDGMENTS

Completion of this project is directly attributable to the patience, understanding and encouragement of my thesis committee. My thanks to Dr. Jack D. Kem, LTC David S. Pierson, and LTC Linda Suttlehan. Their insight and advice on the matters of intelligence, soldier training and research methodologies contributed immeasurably to the success of this effort. I will not forget the tangential professional development discussions that we had in the course of this project.

I owe special thanks to several others as well. First, my thanks to COL Jerry Tait, LTC Pat Walsh and LTC Fran Mastracchio, my mentors, who truly opened my eyes to the art of conducting analysis. In this same vein, I would not be the analyst that I am today without the patient tutoring of CW3 Donald Sikorski.

Thanks also to the dedicated staffs of the Combine Arms Research Library and the Graduate Degree Programs office. This project would have concluded much differently without their assistance.

Finally, the encouragement and support of my wife, Tracy, made accomplishing this great task much easier.

TABLE OF CONTENTS

ACRONYMS

ASAS	All-Source Analysis System
ASAS-RWS	All-Source Analysis System--Remote Work Station
BCTP	Battle Command Training Program
CALL	Center for Army Lessons Learned
COA	Course of Action
COE	Contemporary Operational Environment
CTC	Combat Training Center (JRTC, NTC)
DGDP	Directorate of Graduate Degree Programs
FM	Field Manual
G2	Intelligence Officer on a General Staff
HUMINT	Human Intelligence
IMINT	Imagery Intelligence
IPB	Intelligence Preparation of the Battlefield
JMIC	Joint Military Intelligence College located at Bolling Air Force Base, Military District of Washington, D.C.
JRTC	Joint Readiness Training Center located at Fort Polk, Louisiana
MASINT	Measures and Signatures Intelligence
MDMP	Military Decision-Making Process
METT-TC	Mission, Enemy, Terrain, Troops Available--Time and Civil Considerations
MI	Military Intelligence
MICCC	Military Intelligence Captains Career Course
NCO	Noncommissioned Officer
NTC	National Training Center located at Fort Irwin, California

OBC	Officer Basic Course
OC	Observer-Controller
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OTC	Officer Transition Course
S2	Intelligence Officer at a Battalion, Brigade, or Group
SIGINT	Signals Intelligence
USAIC	United States Army Intelligence Center located at Fort Huachuca, Arizona

CHAPTER 1

INTRODUCTION

> It is in these five matters that the way to victory is known.
>
> Therefore I say: "Know the enemy and know yourself; in a hundred battles you will never be in peril.
>
> When you are ignorant of the enemy but know yourself, your chances of winning or losing are equal.
>
> If ignorant both of your enemy and of yourself, you are certain in every battle to be in peril."
>
> Sun Tzu, *The Art of War*

The intent of this research study is to assist in assessing the effectiveness of the United Stated Army Intelligence Center (USAIC) intelligence analyst training for current and future threats that the US Army will encounter during its operations throughout the world. This thesis examines the methods that the USAIC uses to train the Army's tactical intelligence analysts--enlisted, noncommissioned officer (NCO), and officer. Rapidly changing world conditions require that the Army train and equip its analysts with the tools and techniques to correctly identify the right tactical problem when critically analyzing the varied threats and environments that its forces will encounter while conducting full spectrum operations throughout the world. This necessity is underscored by the ongoing operations in Afghanistan and Iraq, where the fighting began as conventional forces closing with each other on the battlefield, but quickly devolved into a prolonged campaign against elusive, insurgent forces. The analyst's ability to correctly identify the right tactical problem and analyze threats to discern their doctrine, tactics,

organization, equipment, objectives, and capabilities ultimately leads to ascertaining threat intentions and actions.

This research will determine whether the USAIC's methods for training analysis are effective and sound, thereby meeting the needs of the Army's combat commanders. To accomplish this task, the research examines the doctrinal basis for conducting analysis, how the USAIC translates that doctrine into analyst training and finally, analyst performance in combat units. Throughout the research process, particular attention was paid to current and emerging ideas and theories, as well as to past concepts that might be applicable to the problem.

Background

Throughout the Cold War period, the USAIC trained intelligence analysts using the intelligence preparation of the battlefield (IPB) process as a framework to analyze a single threat model--the fictional Krasnovian mechanized-armor forces, which closely resembled the real threat of the Soviet Bloc. The Krasnovian threat model was well-defined and encompassed a very structured set of weapons, equipment, unit organizations, and tactics with which an analyst could determine the options available to the threat and resulting courses of action for a given situation. Since 1983, the United States Army has been involved in some dozen conventional military operations throughout the world. Of these operations, only two have been fought against a threat that resembles the Krasnovian mechanized-armor threat model instructed by the Intelligence Center (Operation Desert Storm, 1991, and the initial phases of Operation Iraqi Freedom in 2003). The fall of the Soviet Union in the early 1990s and the defeat of the Iraqi

military in Operations Desert Storm and Iraqi Freedom further reinforce the assertion that the Krasnovian threat model has little applicability or similarity to current threats.

With the fall of the Soviet Union and the dissolution of the bipolar world, a new environment with new threats began to emerge. The majority of the threats in this newly emerging Contemporary Operational Environment no longer conform to the Krasnovian model. Lessons learned from the most current operations demonstrate that tactical intelligence analysts experienced difficulty in identifying the correct tactical problem when trying to analyze these new emerging threats. The lack of a well-defined threat in these operations presented a greater challenge for intelligence analysts to determine the threat's courses of action.

Properly training intelligence analysts and equipping them with relevant and current information to identify the right tactical problem in order to decipher a variety of threats is crucial to the success of US Army operations against hostile forces as these operations depend upon a thorough understanding of that force--its doctrine, training, leadership, organization, materiel, personnel, and capabilities. From this understanding of the threat, commanders can then accurately plan and act to counter these threat intentions.

The USAIC at Fort Huachuca, Arizona, has the primary responsibility for instructing the Army's enlisted, NCO, and officer intelligence analysts in the methods to analyze threat forces to determine their intentions and potential courses of action. While the instruction is segregated by rank and is conducted by different military units and instructors, the USAIC uses a common framework to conduct the training. The USAIC relies upon the four-step IPB model to describe the environment and its effects, define the threat, and determine its courses of action. While instructing analysts, the USAIC has

historically relied upon the Krasnovian mechanized-armor threat model, requiring intelligence analysts to memorize its weapons, equipment, organizations, and tactics.

With the dramatic changes in the environment and threats throughout the world, the USAIC is adapting its threat model away from a singular, structured threat and focusing more on the emerging post-Cold War Contemporary Operational Environment. The rapidly emerging and fluid COE increases the importance of arming analysts with the critical reasoning and creative thinking skills that allow them to dissect complex situations, to identify the true tactical problem, and to determine the courses of action available to threats. However, the USAIC's overall course of instruction has changed little to account for this less predictable threat and environment.

Assumptions

This research takes into account several assumptions concerning intelligence analyst training. Professional organizations change with their environment; therefore, this study assumes that the USAIC will constantly update its analyst training to account for changes in the environment and threat. Often, USAIC training updates are in reaction to lessons being learned and observations of current operations. Intelligence analysts will synthesize these observations more rapidly and develop their own techniques and procedures for determining the courses of action for a new threat. The core competency of an intelligence analyst is to identify the right tactical problem upon which to expend analytical energy to answer questions for the commander. This research assumes that critical reasoning and creative thinking are integral to the success of identifying the right problem and then determining predictive solutions. Intelligence analysis is a subjective endeavor; it is the art of combining known facts with assertions to derive a prediction of

threat intentions and actions. Analytic ability rarely results from typical instruction, as it is primarily a skill acquired through experience. While the assertion that true analytic skill can only be gained through experience does hold a certain amount of validity, this thesis focuses on the training and education of analysts so that they are more prepared to assist units as the analysts, themselves, gain experience. Finally, and perhaps the most important assumption, this study assumes that soldiers (enlisted, NCO, and officer) can be trained to become intelligence analysts; that the skills required to be an effective analyst can be developed and sharpened and are not purely innate.

Research Questions

Having stated the purpose and importance of studying Army intelligence analyst training, the premise of this study is best articulated with the primary question: Are the techniques and tools that the US Army Intelligence Center is using to train intelligence analysis enabling the analysts to define current and future threats for their commanders?

Secondary questions derived from the primary question assist in the focusing and limiting the scope of the research by dividing the problem into manageable sections. The secondary questions are:

1. What is the doctrinal basis for conducting analysis?

2. How does the USAIC translate analysis doctrine into analyst training?

3. How does the USAIC train intelligence analysts?

4. What are the techniques and tools that the USAIC currently uses to train analysts?

5. Are the current training methods, techniques, and tools meeting the needs of the combat commanders?

Tertiary questions assist in deriving better conclusions and deny the ability to assume issues and possibilities away. The tertiary questions are:

1. Does the USAIC train critical reasoning and creative thinking?

2. How does the USAIC address analyzing a new threat?

3. Does the USAIC educate analysts to understand the process of analysis?

4. Are intelligence analysts employing USAIC techniques and tools to analyze the current threat?

5. Are intelligence analysts developing their own techniques and tools to analyze the current threat?

6. Are units conducting successful operations against current threats?

7. What is the USAIC doing to incorporate the lessons learned from recent operations into its training?

Definitions

Defining certain terms will assist in establishing a common understanding and comprehending material presented throughout this thesis. To ensure uniformity of understanding, these definitions are taken directly from approved Department of the Army field manuals or joint publications.

All-Source Intelligence. "Intelligence products and/or organizations and activities that incorporate all sources of information, most frequently including human resources intelligence, IMINT, MASINT, SIGINT, and open-source data in the production of finished intelligence" (FM 2-0 2002, Glossary-19).

Analysis. "The procedure for determining facts, patterns, and relationships from information about the threat and environment" (FM 2-01.3 2003, 351). "Analysis is

achieved through the reduction of information to its basic components. Each of these components is then examined to determine its nature, proportion, function, and interrelationships. In conventional analysis the analyst examines, assesses, and compares bits and pieces of raw information, and then synthesizes those findings into an intelligence product reflecting an adversary's capabilities and vulnerabilities. Most intelligence analysis is predictive in nature . . ." (FM 34-130 Draft 2000, 2-1).

Combat Information. "Unevaluated data, gathered by or provided directly to the tactical commander which, due to its highly perishable nature or the criticality of the situation, cannot be processed into tactical intelligence in time to satisfy the user's tactical intelligence requirements" (FM 2-0 2002, Glossary-21).

Combat Intelligence. "Information on the enemy's capabilities, intentions, vulnerabilities, and the environment. Analysts derive combat intelligence from the combat information they receive and analyze" (FM 2-0 2002, Glossary-22).

Course of Action. "Any sequence of acts that an individual or a unit may follow; a possible plan open to an individual or a commander that would accomplish or is related to accomplishment of the mission; a feasible way to accomplish a task or mission that follows the guidance given, will not result in undue damage or risk to the command, and is noticeably different from other actions being considered" (FM 2-0 2002, Glossary-23).

Contemporary Operational Environment (COE). "A framework for analyzing and understanding the nature of the operational environment that exists today and for the clearly foreseeable future. A composite of the conditions, circumstances, and influences that affect the employment of military forces and bear on the decisions of the unit commander. The contemporary operational environment that exists in the world today is

expected to exist until a peer competitor to the United States arises. There are 11 critical variables of the contemporary operational environment: physical environment, nature and stability of the state, sociological demographics, regional and global relationships, military capabilities, technology, information, external organizations, national will, time, and economics" (FM 2-01.3 2003, 357).

Critical Reasoning. "Critical reasoning helps you think through problems. It is the key to understanding situations, finding causes, arriving at justifiable conclusions, making good judgments, and learning from the experience--in short, solving problems. Critical reasoning is an essential part of effective counseling and underlies ethical reasoning, another conceptual skill. It is also a central aspect of decision-making" (FM 22-100 1999, paragraph 4-19). The defining concept behind critical reasoning is finding or identifying the real problem. Critical reasoning integrates into the Military Decision-Making Process during its first phase (Mission Analysis), during which the commander and staff identify and define the true nature of the tactical problem. Critical reasoning is also a critical part of the fourth and fifth steps of the MDMP phase (COA Analysis (war gaming) and COA Comparison, respectively) to ensure that the solutions developed actually address the true problem. Throughout the academic and research worlds, there are many definitions for Critical Reasoning; this thesis uses the Army's doctrinal definition of critical reasoning as specified in Field Manual 22-100, *Army Leadership*.

Creative Thinking. "Sometimes you run into a problem that you have not seen before or an old problem that requires a new solution. Here you must apply imagination; a radical departure from the old way of doing things may be refreshing. Army leaders prevent complacency by finding ways to challenge subordinates with new approaches

and ideas. In these cases, rely on your intuition, experience and knowledge. Creative thinking is not some mysterious gift, nor does it have to be outlandish. It is not reserved for senior officers; all leaders think creatively. You employ it every day to solve small problems" (FM 22-100 1999, paragraphs 4-22, 4-23). The defining concept behind creative thinking is developing new ideas or methods to look at and solve a problem. Creative thinking integrates into the Military Decision-Making Process during its third phase (COA Development), during which the commander and staff determine unique solutions for the tactical problem. As with Critical Reasoning, there are many definitions throughout the academic and research worlds; this thesis uses the Army's doctrinal definition of critical reasoning as specified in Field Manual 22-100, *Army Leadership*.

Fusion. "The combining or blending of data and information from single or multiple sources into information" (FM 2-0 2002, Glossary-26).

Intelligence. "The product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas; information and knowledge about an adversary obtained through observation, investigation, analysis or understanding" (FM 2-0 2002, Glossary-27).

Intelligence Preparation of the Battlefield (IPB). "IPB is a systematic, continuous process of analyzing the weather, terrain, and threat in a specific geographic area for all types of operations. IPB integrates threat doctrine with the weather and terrain as they relate to the mission within a specific battlefield environment. This is done to determine and evaluate threat capabilities, vulnerabilities, and probable courses of action (COAs)" (FM 34-130 2000, vi).

Military Decision-Making Process (MDMP). "A planning tool that establishes techniques for analyzing a mission, developing, analyzing and comparing courses of action against criteria of success and each other, selecting the optimum course of action, and producing a plan or order" (FM 5-0 2002, Glossary-10). As noted in the definitions of Critical Reasoning and Creative Thinking, the MDMP identifies the tactical problem during its Mission Analysis phase, develops a set of solutions during its Course of Action Development phase, and ensures that the selected solution is feasible, acceptable, and suitable during the Course of Action Analysis phase.

Tactical Intelligence Analyst. A soldier holding the occupational specialty of 96B (for enlisted and NCOs) or 35D (for officers) that has graduated from the applicable USAIC entry-level analyst course and is serving at or below the corps level. "Tactical intelligence analysts determine the significance and relationship of incoming reports and message to integrate the information with the current situation. The tactical intelligence analyst assesses and evaluates the situation to determine changes in enemy capabilities, vulnerabilities and probable courses of action. The analyst prepares all-source intelligence products to support the combat commander" (Army Enlisted Job Descriptions & Qualifications 2003).

Threat. A Threat can be defined as "any force, group, person, action event, or condition that would cause a commander to fail to achieve a specified end state and thereby the mission or objective" (FM 34-130 Draft 2000, 2-1).

Delimitations

This thesis examines the effectiveness of the methods, techniques, and tools that the USAIC currently uses to train intelligence analysts for duty in tactical units. The

essential element to this process is the soldier. The process by which the Army selects and accepts recruits into the intelligence analyst fields is worthy of its own thorough research study. This thesis will not address the Army's intelligence analyst selection and accession process. To properly focus this study, research concentrated on the doctrine pertaining to conducting analysis, how the USAIC translated that doctrine into training and finally, the performance of analysts throughout the Army's tactical formations. Within the US Army, intelligence analysts support a variety of units and activities at several different levels, from the strategic level organizations in the Washington, DC area through the operational level units found at the geographic Unified and Subunified Commands down to the tactical units within the Army's corps and divisions. This thesis concentrates on the intelligence analysts supporting the tactical unit commanders. While the IPB process is integral to any discussion of analysis and serves as one framework within which to conduct analysis, this thesis does not examine the IPB process itself. The doctrinal principles of IPB have been found to be sound and can be applied to all situations at all levels. The techniques and procedures for applying IPB may vary according to the mission, enemy, terrain, troops, time available, and the civil considerations (METT-TC). Similarly, this research does not address automation support to analysis in the form of artificial intelligence or the all-source analysis system (ASAS) series of computers--arguably topics for separate research efforts. While this study addresses the intellectual process of analysis--how the USAIC trains analysts to critically examine and dissect the current threat--it will not discuss the various theories of analysis such as Bayes Theorem or the Raven Paradox. The subject of this thesis is how the USAIC conducts its analyst training. This study makes a clear distinction between

"training" and "education." For the purposes of this thesis, training concerns basic instruction with the intent of achieving comprehension. The USAIC trains analysts to apply the models and tools presented. Education, on the other hand, concerns advanced instruction with the intent of achieving a more thorough understanding. Doctrine does not differentiate which organizations are responsible (USAIC or units) for which level of learning. The Army's units recognize the fact that they receive an analyst with a rudimentary comprehension of analysis, and that they must train the analyst to give him the required experience with which to become an effective analyst.

Rapidly changing world conditions require that the Army train and equip its intelligence analysts with the tools and techniques to analyze the varied threats and environments that its forces will encounter while conducting a wide range of operations. The analyst's ability to correctly identify the right tactical problem and analyze threats to discern their doctrine, tactics, organization, equipment, objectives, and capabilities ultimately leads to ascertaining threat intentions and actions. This research examines the effectiveness of the USAIC methods of training analysis, thereby meeting the needs of the Army's combat commanders. To accomplish this task, the research first reviews previous and relevant research on the topic of training, educating, and developing tactical intelligence analysts. Secondly, the research examines the USAIC curriculum, programs of instruction, and doctrine to determine how the USAIC currently conducts its analyst training and education. Finally, the research scrutinizes after action reviews and operational lessons learned from ongoing combat operations in Afghanistan and Iraq as well as Combat Training Center and Battle Command Training Program exercises to ascertain and infer the effectiveness of the USAIC analyst training and education

methods. The observations from professionally trained observer-controllers (OC) and unit lessons learned serve as the primary sources of data to conclude the quality of USAIC analyst training. The following “Literature Review” establishes the background information by reviewing previous research pertaining to training tactical intelligence analysts, examining the doctrinal basis for conducting analysis followed by studying how the USAIC translates this doctrine into analyst training.

CHAPTER 2

LITERATURE REVIEW

The intent of this research study is to assist in assessing the effectiveness of the United Stated Army Intelligence Center intelligence analyst training for current and future threats that the US Army will encounter during its operations throughout the world. This thesis examines the methods that the USAIC uses to train the Army's tactical intelligence analysts – enlisted, NCO, and officer. Rapidly changing world conditions require that the Army train and equip its analysts with the tools and techniques to correctly identify the right tactical problem and analyze threats to discern their doctrine, tactics, organization, equipment, objectives, and capabilities ultimately leads to ascertaining threat intentions and actions. This necessity is underscored by the ongoing operations in Afghanistan and Iraq, where the fighting began as conventional forces closing with each other on the battlefield, but quickly devolved into a prolonged campaign against elusive, insurgent forces. The analyst's ability to correctly identify the tactical problem and analyze threats to discern their doctrine, tactics, organization, equipment, objectives, and capabilities ultimately leads to ascertaining threat intentions and actions. With knowledge of threat objectives, intentions, and capabilities, US forces can accurately plan and act to counter those threat intentions.

This research seeks to determine whether the USAIC's methods for training analysis are effective and sound, thereby meeting the needs of the Army's combat commanders. To accomplish this task, the research first reviews previous and relevant research on the topic of training, educating, and developing tactical intelligence analysts.

Secondly, the research examines the USAIC curriculum, programs of instruction, and doctrine to determine how the USAIC currently conducts its analyst training and education, to include:

1. The doctrinal basis for the instruction

2. Whether or not critical reasoning and creative thinking techniques are taught

3. Whether or not the USAIC trains or educates its analysts to understand the process of analysis

During this phase of the study, subordinate research questions focus on the detail of USAIC analyst training methods. A key component to effectively analyzing the threat and developing courses of action is critical reasoning and creative thinking. This study seeks to determine how the USAIC trains this crucial requirement of the analytic process. Similarly, the research explores the USAIC analyst training methodology to determine if the USAIC trains its analysts to understand the process of analysis versus the rote application of a standard set of rules or steps to arrive at an analytic conclusion. A key supposition of this study is that changes in both the threat and the environment in which the Army operates necessitate changes in the methods the USAIC uses to train its analysts to dissect and analyze events in this new environment.

Finally, the research scrutinizes after action reviews and operational lessons learned from ongoing combat operations in Afghanistan and Iraq as well as Combat Training Center and Battle Command Training Program exercises to ascertain and infer the effectiveness of the USAIC analyst training and education methods. The observations from professionally trained Observer Controllers and unit lessons learned serve as the primary sources of data to conclude the quality of USAIC analyst training.

Previous Research and Relevant Works

Throughout the research phase of this project, a trend revealed that there does not appear to be much material directly pertaining to the training and education of tactical intelligence analysts. The majority of what has been written about analysis deals primarily with the science of analysis--the varied models and techniques--versus the art of analysis – the skills required to synthesize, correlate, and integrate information into relevant, meaningful intelligence for commanders. Most of the scholarly publications concern the national-level intelligence community and how to choose and educate analysts for that level. As recently as May 2003, the Joint Military Intelligence College's (JMIC) Center for Strategic Intelligence Research published a collection of essays focused on capturing and sharing the best practices to select, train, and develop analysts at the national-level intelligence agencies. While the same traits and requirements exist for the tactical level, the methods of selection, analyst experience level, instruction, and scope of responsibility differ greatly. This study concentrates on the training and education of tactical intelligence analysts conducted at the US Army Intelligence Center, leaving other research studies to focus on the Army's methods of analyst selection or their experience level.

The Doctrinal Basis for Conducting Analysis

Any examination of USAIC analyst training and education begins by first reviewing the doctrine governing the intelligence field and analysis specifically. The process by which the USAIC trains its analysts is reliant upon the doctrinal basis for conducting analysis and how the USAIC translates that doctrine into training for its analysts. The US Army outlines the doctrinal basis for conducting analysis in a series of

field manuals, primarily Field Manual 2-0, *Intelligence*; Field Manual 34-3, *Analysis*; and Field Manual 2-01.3, *Intelligence Preparation of the Battlefield.*

Field Manual 2-0 defines analysis as, "the procedure for determining facts, patterns, and relationships from information about the threat and environment" (Field Manual 2-0 2002, Glossary-19). The manual further outlines the changes to the operational environment that require focused attention when training analysts. It identifies eleven "critical variables" that assist in the comprehension of the threat and the operational environment: (1) nature and stability of the state, (2) technology, (3) regional and global relationships, (4) external organizations, (5) economics, (6) national will, (7) demographics, (8) time, (9) physical environment, (10) military capabilities, and (11) information.

These variables must be viewed collectively though some will be of more importance depending upon the situation. Field Manual 2-0 specifically identifies these eleven variables as crucial to analyst understanding, "Only by studying and understanding these variables--and incorporating them into training--will the US Army be able to keep adversaries from using them against the US or to find ways to use them to our own advantage" (FM 2-0 2002, 1-4). Additionally, the manual defines the role of analysis during the military planning process by stating that: "Intelligence Preparation of the Battlefield is an analytical tool which greatly assists the commander and staff during mission analysis" (FM 2-0 2002, 4-29). During the course of action development phase, "Analysis is a primary function in COA development. COA Development requires the analysis of the enemy's relative combat power" (FM 2-0 2002, 4-29).

Field Manual 34-3, *Analysis*, draft dated January 2000, is the Army's preeminent manual for analysis. The manual provides a detailed, scholarly explanation of the analysis process. The manual states that an intelligence analyst converts combat information into intelligence by following a four-step process: observation, assessment, analysis, and synthesis. The analyst first receives an observation report indicating the size of the observed threat force, the force's activity, its location, the identification of the unit (if possible), the time that it was observed, and what equipment the threat force maintained. The analyst then assesses the report to determine its significance in relation to other observation reports and what is known about the threat and environment situations. The assessment phase is subjective. To ensure this subjectivity is properly based, the analyst prepares himself with a thorough knowledge of his unit's mission, operational area, and knowledge of the threat's capabilities, past activities, doctrine, and current situation. The analyst reviews the information from the observation report using a combination of four methods:

1. Qualitative: Viewing the report objectively by determining the different elements of the situation without regard to quantity

2. Quantitative: Ascertaining the elements and measurements of the situation without regard to the quality

3. Functional: Determining how the report relates to a process or system

4. Systems-Related: Assessing the different systems related to the overall situation Integration of each separate report is the key to achieving a comprehensive assessment of a given situation. Integration combines all of the separate assessments of this report into a cohesive and related estimate.

The process's third step is analysis, which subdivides into two components: testing a hypothesis and deduction. Armed with knowledge of his unit's mission, information concerning his unit's area of operations and a detailed awareness of the threat situation, the analyst examines observation reports and develops questions or hypotheses that attempt to explain the threat activity or a lack of activity. The analyst uses deduction to determine how the hypotheses relate to his unit's mission, the area of operations, and the threat situation. Answers to these hypotheses assist in estimating what the threat is doing and predicting the threat's future actions.

Synthesis, the fourth step, requires the analyst to fuse the separate elements regarding the observation report, the unit's mission, the area of operations and the threat situation into a single coherent, meaningful estimate which advances the analyst's situational understanding and with which the analyst can make predictions. The manual describes Step Four of the IPB process (Determine Threat COAs) as an example of synthesis, where the end product is more meaningful and important than the sum of its separate parts.

Four analytical tasks combine to make up the analysis and synthesis process:

1. Identify the problem
2. Conduct background research
3. Identify intelligence production requirements and options
4. Request information

Problem identification is perhaps the most important task--to ensure that the analyst has discerned the problem correctly and is not working an irrelevant aspect of the problem. Generally, an analyst has a working knowledge of the overall situation within which his

detailed problem is a subset. Upon identifying his detailed problem, the analyst becomes more aware of the intricacies surrounding the situation--focusing on all pertinent information. “Thorough background research is essential to successful analysis because it forms the underlying foundation upon which all analysis is conducted” (FM 34-3 2000, 2-6). This holistic approach to knowledge about a particular problem is important to ensure the analyst is cognizant of all the pertinent factors relating to the issue – this is especially important in today’s operational environment where the threats are much different than those of the past and have proven highly adaptive.

Having converted the combat information observer report into intelligence and rendering an assessment, the analyst must deliver his intelligence to the Commander in a format that succinctly conveys the intelligence, but more importantly, the meaning or impact of that intelligence on the unit’s mission and the threat. The final task in the analysis and synthesis process is to identify unanswered questions--gaps in information--and coordinate to have these questions answered, either by organic units or higher headquarters.

The field manual describes a set of dynamic and interactive analytical skills. With a thorough understanding of these skills, how they relate to one another and how to apply them to any given problem, intelligence analysts can effectively arrive at predictive estimates of threat actions to support their Commanders. The analytical skills are:

1. Understanding the analytic objective--the analyst concentrates his efforts toward the desired end-state of reaching a predictive conclusion about the threat.

2. Establishing the baseline--the analyst collects and organizes the pertinent facts about a given situation or problem.

3. Formulating the hypothesis--the analyst develops hypotheses to account for any information gaps and questions resulting from a review of the baseline information regarding the environment, its effects, and the threat. The analyst ensures that his hypotheses address the correct problem.

4. Testing the hypothesis--the analyst will either confirm or deny his hypothesis by developing observable indicators that can be collected.

5. Recognizing uncertainties--an intelligence analyst's primary mission is to decrease uncertainty by confirming or denying hypotheses about the environment or threat.

The field manual provides brief descriptions of several different types of analysis, to include pattern analysis, predictive analysis, formulaic (Bayesian) analysis, psycho historical analysis, and psycholinguistic analysis.

Pattern analysis relies upon the "premise that threat COAs reflect certain characteristic patterns that can be identified and interpreted" (FM 34-3 2000, 4-12). Detailed examination of recurring threat activities assists in determining both threat tactics and practices that play a critical role in predicting future threat actions. When encountering a little-known threat force, pattern analysis often is the primary means by which the analyst develops doctrinal templates and threat models. The challenge is how quickly the analyst can build or discern the patterns. Unfortunately, this requires repeated trial and error during which the unit is at risk. Field Manual 34-3 describes pattern analysis tools in detail and offers illustrative samples. These tools include, but are not limited to coordinate register, pattern analysis wheel, activities matrix, association matrix, and link diagram.

Acknowledging that the operational environment is changing, the manual's Appendix B outlines a guide to dissecting the myriad problems encountered in stability operations. The manual cautions that this guide is not all-inclusive and should be modified to account for the actual circumstances of a given situation. Analysts must continuously apply critical reasoning and creative thinking to determine what factors apply to their problem set.

Appendix D outlines a general analytical training plan, breaking the training into three phases, encouraging practical exercises after each session. The first phase concerns basic analysis concepts, most of which were covered in the previous chapters of the manual. Phase Two exposes the analyst to increasingly more complex analytical methods, many concerning statistical analysis techniques. The third phase integrates the techniques from Phases One and Two with the analyst applying these techniques to a combination of threat topics. The simple application of creative thinking will allow trainers to develop scenarios more relevant to the current operational environment with which they can train their analysts.

The manual's final appendix addresses the emerging "unique environments" or operational environment by identifying the trend that the majority of US military operations in the past 20 years centered on urban areas. This appendix offers a thorough method with which to analyze the urban environment.

To account for the changes in the world environment and threats, the Army modified and updated its doctrine. As a precursor to more relevant and updated manuals, the Army published several primers explaining the changes to the world environment,

now named the Contemporary Operational Environment, and the variety of threats that could exist within that environment. Both the September 2001 *Army Intelligence Transformation Plan* and the 1997 *Army Intelligence Training XXI Plan* address the emerging Contemporary Operational Environment from the Intelligence perspective by highlighting the importance of intelligence analysis and defining the requirement for skilled analysts.

> Analysis is an Army Intelligence core competency. It is the synthesis, correlation, and integration of information to enable commander understanding. (Army Intelligence Transformation Plan 2001, I-1)

> What is required is a pool of analysts who have demonstrated expert skills in critical, creative thinking: analysts who can pull information together into common sense, correct, and relevant bottom-line judgments for the commander. The Army's intelligence training system for Army XXI must energetically embrace the development of analysts to the same degree devoted to the pursuit of technological proficiency on its systems. (Army Intelligence Training XXI 1997, 19)

FM 2-0, *Intelligence*, establishes the Army's doctrinal necessity to conduct analysis by stating,

> One of the most significant contributions that intelligence personnel can accomplish is to accurately predict future enemy events. Although this is an extremely difficult task, predictive intelligence enables the commander and staff to anticipate key enemy events or reactions and develop corresponding plans or counteractions. (FM 2-0 2003, para 1-29)

Having stated the requirement for conducting predictive analysis, FM 2-0 separates the COE into six dimensions that affect how units plan and conduct operations and eleven critical variables, which assist in the understanding of the threat. The manual focuses attention on the importance of understanding the dimensions and variables by highlighting: "Only by studying and understanding these variables--and incorporating them into training--will the US Army be able to keep adversaries from using them against

the US or to find ways to use them to our own advantage" (FM 2-0 2002, 1-4).

Analyzing the threat and developing courses of action is an exercise in problem solving. The most crucial component of the process is correctly identifying the right tactical problem; hence the pivotal importance of Critical Reasoning. Having identified the true tactical problem, the analyst utilizes Creative Thinking to determine the threat's potential courses of action. Finally, Critical Reasoning is used again to ensure that the selected COAs are feasible, acceptable, and suitable.

The Army's primary methodology or tool used to analyze tactical problems is the Military Decision Making Process; the intelligence subset of this process is Intelligence Preparation of the Battlefield (IPB), explained in detail in Army Field Manual 2-01.3, *Intelligence Preparation of the Battlefield*. IPB is the systematic, continuous process of analyzing the weather, terrain, and threat in a specific geographic area for all types of operations. It integrates threat doctrine with the weather and terrain as they relate to the mission within a specific battlefield environment. This is done to determine and evaluate threat capabilities, vulnerabilities, and probable courses of action (COAs) (FM 34-130 2000, vi).

The current IPB manual realizes the critical changes to the operational environment (OE):

> Evaluating the enemy has changed dramatically in the OE. We will no longer face a monolithic enemy. In today's world, the US Army must be prepared to go into any operational environment and perform its full range of missions. It must be ready to do so in the face of a wide variety of possible enemies and at the same time be prepared to deal with third-party actors that may have other interests. Not all enemies are purely military in nature. (FM 2-01.3 2003, para. 1-4)

The IPB manual recognizes that additional techniques and tools are required to analyze the different threats in the COE and provides examples of additional

analytical methodologies (such as time event charts, activity and association matrices, and link diagrams), which can be used to assist in determining threat courses of action. These supplemental techniques are especially relevant to the lesser-defined threats prevalent in many areas of the world today.

The ultimate purpose of the IPB process is to provide commanders with an estimation of the threat's capabilities, vulnerabilities, and all available courses of action. Threat courses of action are ascertained by determining threat force capabilities and the doctrinal principles and tactics, techniques, and procedures threat forces prefer to employ for a given situation. The desired end state is that analysts and commanders understand how the threat will normally execute operations and how they have reacted to similar situations in the past. FM 2-01.3 describes determining the enemy course of action in five steps:

1. Analyze relevant combat power
2. Generate options
3. Array initial forces
4. Develop the scheme of maneuver
5. Prepare ECOA statements and sketches

All of these steps require that analysts possess critical reasoning and creative thinking skills and a thorough understanding of tactics to be successful at determining threat courses of action and then effectively presenting them to their commanders. This is further reinforced by Command Sergeant Major Vivian Diaz and Sergeant First Class (Retired) Michael Ray in their October 1999 article concerning Army NCO analyst

training in which they identified the need for changing the methods of analysis instruction.

> The traditional Instructional Systems Design approach emphasizes identifying skills to be learned and applying a hierarchy of subskills to support terminal learning objectives in a linear, "step-by-step" process. That approach has served us well over the years, but it is too limited to support the training environments necessary to encourage cognitive flexibility, conceptual thinking, and creative decision-making.
>
> Our training strategy will foster critical and adaptive thinking. This kind of thinking involves analysis, synthesis, evaluation, and most importantly, imagination in solving problems and developing courses of action.
>
> NCOs must be able to think critically and creatively, they need to perceive problems in terms of potential solutions. (Diaz and Ray 1999, 4)

In 2000, the USAIC determined that it must modify its methods of instruction to produce an analyst that thinks critically, can creatively determine courses of action for a little-known threat and is mentally adaptable and agile to face the COE threats. In the fall of 2000, the USAIC Deputy Commandant, Brigadier General Richard Quirk III, acknowledged that: "The intelligence soldier of tomorrow will require a professional education. . . . This expertise, this breadth and depth to cover whatever emerges in the world, can come only from education" (Quirk 2000, 30). In the summer of 2002, the USAIC Academic Dean, Dr. George Van Otten, recognized that

> The contemporary operational environment (COE) has far-reaching implications relative to the focus, organization, and methods of military intelligence (MI) instruction and education. It is no longer appropriate for instructors to rely on Soviet-style doctrine, concepts, and equipment as the foundation for the development of lesson plans, exercises, and instructional materials. (Van Otten 2002, 33)

Based upon his lengthy career and his most recent experiences as a senior Army commander in Bosnia and Kosovo, retired General Montgomery Meigs

agrees with Diaz, Van Otten, and Quirk when writing his summer 2003 article concerning asymmetric warfare:

> We must incorporate unorthodox thinkers who probe constantly for the unique and peculiar danger or method of access. This kind of training should be part of the professional development of our planners and commanders. We need to build into the system thinkers who ask the question no one else considered or dared to ask. (Meigs 2003, 14)

The current Director of Central Intelligence, George J. Tenet, summed it up the best in a May 2000 dedication speech, when he defined the requirements for his (and all) intelligence analysts:

> In our [DI] it is not enough just to make the right call. That takes luck. Our analysts have to make the right call for the right reasons. That takes expertise. It is expertise – built up through study and experience- that combines with relevance and rigor to produce something that is very important: insight ... Our analysts blend a scholar's mastery of detail with a reporter's sense of urgency and clarity. At its best, the result is insight. And it is insight that wins the confidence of our customers and makes them want to read our publications and listen to our briefings. (Tenet 2000)

Several experienced intelligence leaders and commanders as well as the USAIC, itself, have determined that analysts require critical and adaptive thinking skills to properly analyze the threats in the COE. This portion of the Literature Review seeks to determine how the US Army Intelligence Center translates the analysis doctrine into its training methodology and techniques to analyze a tactical situation. Information available from the USAIC details how the Center conducts analysis training for each of its courses.

How the USAIC Translates Doctrine into Analyst Training

As the Army and the USAIC began to define the emerging operational environment, the USAIC determined that:

> What is required is a pool of analysts who have demonstrated expert skills in critical, creative thinking. The Army's intelligence training system for Army XXI must energetically embrace the development of analysts to the

> same degree devoted to the pursuit of technological proficiency on its systems. (Intelligence Training XXI 1997, 19)

The USAIC revised its training methodology to reduce the amount of pure platform lecture instruction and increase student exercise time. It also determined that it needed to, "Structure 96B training around analytical thinking" (Intelligence Training XXI 1997, 27).

The USAIC takes the general intelligence doctrine and that of how to conduct analysis and translates them into training and education for its analysts. The purpose of any training and education endeavor is to attain a desired end state, as exhibited by the USAIC training objectives and terminal learning objectives for its various analyst courses. The USAIC developed a multitiered training and education program that delineates the quantity and type of training entry-level soldiers receive (privates and lieutenants) as opposed to the advanced education that the midlevel soldiers receive (captains and NCOs). This study analyzes the training objectives and missions, the course structure, and course content for each of the USAIC analyst courses to determine if it meets the requirements set out in the USAIC 1997 training plan and the doctrinal manuals concerning analysis.

Enlisted Advanced Individual Training. During this course, intelligence analysts focus on developing basic skills in symbology, database operations, and map reading. The course introduces analysts to intelligence automation systems such as ASAS and the RWS. Throughout their training, analysts develop skills to evaluate situations, develop threat courses of action, develop intelligence requirements, coordinate intelligence collection to support the commander, and produce intelligence products to support the

decision-making process. During their training, analysts spend twenty-six days learning basic intelligence requirements, such as map reading, military symbology, and intelligence preparation of the battlefield. Analysts receive training on research and briefing skills, event templating, collection management, situation development, and stability operations during their twenty-eight day advanced phase. Analyst training concludes with a twenty-five day block of instruction dedicated to training on the ASAS intelligence processing system. Enlisted intelligence analyst training includes approximately five days of instruction concerning "analysis" (96B Course Introduction 1998, slides 9-11).

Military Intelligence Officer Basic Course (OBC). The course states that its overarching training mission is to "train Military Intelligence 2LTs to become proficient Analysis Control Team (ACT) Chiefs, Battlefield Intelligence Collection Coordinators (BICCs), and Platoon Leaders" (USAIC Officer Education System 2003, slide 8). OBC accomplishes this through a series of formal blocks of instruction and training on intelligence topics, followed by associated practical exercises and a final collective exercise. MI lieutenants receive instruction on intelligence preparation of the battlefield (six days), stability operations and support operations (five days), the military decision-making process (16 days), and crisis action planning (three days). Analysis is an inherent component to these blocks of training. While a specific block of instruction regarding "How to Conduct Intelligence Analysis," is not an official portion of the curriculum, it is reasonable to assume that the instructor imparts analytical techniques, though probably not in the detail of an actual class on "Analysis."

Officer Transition Course (OTC). The OTC training mission is to provide tactical intelligence qualification training for newly branched company grade MI officers. OTC accomplishes this through a series of formal blocks of instruction and training on intelligence topics, followed by associated practical exercises and a final collective exercise. MI transition officers receive instruction on the Military Decision Making Process, the Intelligence Cycle, Intelligence Preparation of the Battlefield, Threat courses of action, analysis processing, collection management, and targeting.

A two-hour block of instruction focused specifically on "Analysis Processing," encapsulates the basic tenets of conducting analysis. This analysis training is then reinforced in subsequent training blocks and exercises. Referring to *Field Manual 34-3*, the instruction states that intelligence processing is separated into three distinct phases: recording, evaluation, and analysis. The instruction outlines different methods of recording the incoming information to ease the evaluation and analysis processes. Evaluation seeks to ascertain the pertinence, reliability, and credibility of the information. The final phase, analysis, results from assessment, integration, and deduction. Having outlined the components of analysis, the instruction demonstrates how to apply the components to a given situation.

1. Analyze the message by examining it at face value then by extracting what it implies based upon the analyst's knowledge of the threat situation.

2. Once the message is recorded, the analyst identifies any patterns of activity.

3. Compare the reported information to the threat's doctrine, tactics, techniques, and procedures.

4. From this analysis, the analyst should then use his knowledge of the threat to determine its intent and battlefield organization including unit boundaries, committed forces, and reinforcements (MI Officer Transition Course Lesson Plan – Processing 2000, slides 12-14).

MI Captains Career Course (MICCC). MICCC states that its overarching training mission is to "train Military Intelligence CPTs to become proficient S2s, ACE Battle Captains, and Company Commanders" (USAIC Officer Education System 2003, slide 9). MICCC accomplishes this through a series of formal blocks of instruction and training on intelligence topics, followed by associated practical exercises and a final collective exercise. MI captains receive training on Intelligence Support to Brigade Operations (thirty-one days) and Intelligence Support to Division and Corps (twenty days). As with the Officer Basic Course, analysis is an integral component to the practical exercises for these blocks of training. While a specific block of instruction regarding "How to Conduct Intelligence Analysis," does not exist in the curriculum, it is reasonable to assume that the instructor imparts analytical techniques, though probably not in the detail of an actual class on "Analysis."

Throughout analyst training, the USAIC relies upon several methods to determine the effectiveness of its training and education. The first mechanism, testing, occurs during analyst training and resides within each particular block of instruction (or class). At the end of each major block of instruction, the analysts are tested to determine comprehension and retention; if an analyst fails to demonstrate comprehension, the instructors conduct retraining. The second mechanism, an analyst supervisor survey, occurs after the analysts leave the USAIC and join their units. The USAIC sends surveys

to the analyst supervisors six months after graduation. The short surveys query analyst supervisors about their performance in the unit. The USAIC reports up to a 75 percent response rate from the supervisors. The USAIC then takes these results and briefs them at Quarterly Training Briefs presumably to determine the effectiveness of their training and propose changes to account for analyst deficiencies (111th MI Brigade Command Brief 2003, 37). The third mechanism, lessons learned teams, was demonstrated when Major Dan Corey's USAIC survey team visited units to gather lessons learned and initial impressions of how the intelligence system and analysts were performing during Operation Iraqi Freedom.

Chapter 4, "Analysis," will compare and contrast the doctrinal explanation of analysis and the USAIC training methods.

Past research has focused little on the actual process and methods for the training and education of tactical intelligence analysts. However, current assessments of analyst performance during recent combat operations indicate that intelligence analysts are not providing their commanders with the estimates of enemy forces and actions required to conduct decisive operations to defeat the enemy. This research project seeks to address this gap in knowledge by examining the effectiveness of the USAIC methods for training and educating the Army's tactical intelligence analysts. To determine the effectiveness of USAIC training methods, this thesis will first determine the current methods being used at the USAIC to train and education analysts. The efficacy of these current training and education methods will be established largely based upon the insights of professional observers and unit lessons learned during combat operations and Combat Training Center and Battle Command Training Program exercises. The following chapter will explain in

detail how this research approaches the task of examining the effectiveness of USAIC intelligence analyst training and education methods.

CHAPTER 3

RESEARCH METHODOLOGY

The intent of this research study is to assist in assessing the effectiveness of the United Stated Army Intelligence Center intelligence analyst training for current and future threats that the US Army will encounter during its operations throughout the world. This thesis examines the methods that the USAIC uses to train the Army's tactical intelligence analysts--enlisted, NCO, and officer. Rapidly changing world conditions require that the Army train and equip its analysts with the tools and techniques to correctly identify the tactical problem when critically analyzing the varied threats and environments that its units will encounter while conducting full spectrum operations. This necessity is underscored by the ongoing operations in Afghanistan and Iraq, where the fighting began as conventional forces closing with each other on the battlefield, but quickly devolved into a prolonged campaign against elusive, insurgent forces. The analyst's ability to correctly identify the right tactical problem and analyze threats to discern their doctrine, tactics, organization, equipment, objectives, and capabilities ultimately leads to ascertaining threat intentions and actions. With knowledge of threat objectives, intentions, and capabilities, US forces can accurately plan and act to counter those threat intentions.

This research seeks to determi ne whether the USAIC's methods are effective and sound, thereby meeting the needs of the Army's combat commanders. This thesis breaks this process down into three distinct phases. Phase One determined the doctrinal basis for conducting analysis. Phase Two studied the USAIC curriculum and programs of

instruction to determine how the USAIC translates the analysis doctrine into training and education for its analysts. Information gathered from the Intelligence Center addresses training objectives, methods, and instructional techniques. This information establishes the baseline for any comparison of method effectiveness. These first two phases reside in Chapter 2, “Literature Review.”

After establishing the doctrinal and training/education plans in the “Literature Review,” this chapter examines the adequacy of analyst performance in the Army’s combat units to determine if the current USAIC training methods effectively meet the needs of the Army’s combat commanders by scrutinizing after action reviews and lessons learned from ongoing combat operations in Afghanistan and Iraq as well as Combat Training Center and Battle Command Training Program exercises to ascertain and infer the effectiveness of the USAIC analyst training and education methods. The observations from professionally trained Observer Controllers and unit lessons learned serve as the primary sources of data to conclude the quality of USAIC analyst training. Subordinate questions for this phase support a more comprehensive determination of the effectiveness of the USAIC training. One means of determining the effectiveness of USAIC training is whether analysts employ those tools and techniques taught at the USAIC or if they develop their own techniques to analyze the threat. Likewise, another method of ascertaining the effectiveness of USAIC training is if military units require additional training to bring analysts up to a certain standard to suitably support their combat commanders.

Analyst Performance in Combat Units

This chapter represents the "real world" case of analyst training put to the test while executing operations. Examining a single example fails to provide the opportunities and data required to adequately and justly analyze the effectiveness of USAIC analyst training; therefore, this chapter is a compilation of trend analysis conducted by the Center for Army Lessons Learned (CALL) based upon Combat Training Center (Joint Readiness Training Center and National Training Center) trend publications, the Battle Command Training Program (BCTP) trend publications, CALL lessons learned articles and operational lessons learned from the ongoing Operations Enduring Freedom and Iraqi Freedom. For the purposes of differentiating between training and combat operations, the observations are divided to form two case studies: the Combat Training Center (CTC) and BCTP observations form the first case study while the observations and lessons learned from Operations Enduring Freedom and Iraqi Freedom form the second case study.

Case Study One: Combat Training Centers and BCTP Observations

Thesis research surveyed and compiled all available observations from the Army's US-based CTCs--the Joint Readiness Training Center (JRTC) in Louisiana, and the National Training Center (NTC) in California--and the Army's BCTP, which exercises and evaluates the Army's division and corps commanders and staffs. CTC information represents that which the Army has compiled and stored on the CALL website since late 1994. This information equates to approximately 160 unit rotations based upon a formula of ten unit rotations at each center per year. BCTP information represents that which the Army has compiled and stored on the CALL website since

1995. This information reflects yearly trend analysis based upon its exercises schedule for that year.

CTC and BCTP trends indicating that intelligence analysts fail to assist commanders and staffs in visualizing and analyzing the threat and the effects of the battlefield environment on the unit. When describing the threat, intelligence analysts often failed to portray an integrated combined arms threat. Compounded by the omission of basic threat information such as desired end state, objectives that support the end state, purpose, intent, centers of gravity, and high value targets, intelligence analysts were not able to portray the proper threat for units to plan against. Attempts at visualizing and portraying the threat in stability operations and operations in urban environments challenged analysts to conduct a thorough assessment of threat courses of action. BCTP exercises provide an example of the impact of incomplete analysis. From 1996 through 2000, BCTP's annual trend report noted that analysis did not routinely consider threat intentions or decision points. After five years, units reversed this trend as indicated in BCTP's 2001 and 2002 annual trend reports.

Providing Commanders and staffs with timely and relevant information proved difficult for intelligence analysts due to their inability to supply detailed predictive analysis. CTC OCs noted that intelligence analysts usually utilized one or two of the pattern analysis techniques when attempting to identify threat activity trends and perform predictive analysis instead of combining the information and effects from all of the pattern analysis tools. This lack of predictive analysis amplifies the uncertainty when intelligence analysts do not analyze information prior to disseminating it to the Commander, staff, and unit.

Case Study Two: Operations Enduring Freedom and Iraqi Freedom Observations

The Army's official history of Operation Iraqi Freedom, *On Point*, describes how:

> The Army's tactical intelligence system did not produce for tactical units the kind of timely intelligence that would have enabled discrete shaping operations followed by deliberate decisive operations. Instead, every brigade commander interviewed asserted they fought movements to contact. (On Point 2003, Transition chapter, page 5)

This remark is more critical of the theater- and national-level intelligence organizations for their lack of providing the intelligence that combat commanders at all levels required to plan and execute operations. This issue most likely stemmed more from a lack of information distribution to the combat commanders with which their soldiers could conduct analysis. Similarly, Major Dan Corey noted in his report, "Operation Iraqi Freedom Study Group: Intelligence Battlefield Operating System Initial Observations" that intelligence analysts failed to provide their Commanders with predictive analysis when he remarked "analysis did not define the paramilitary threat in a way that commanders would understand its operational and strategic implications" (Corey 2003, 7). This is also more indicative of a failure of the theater- and national-level intelligence organizations to recognize the importance of the paramilitary threat. Corey also determined that training standards such as the CTCs and BCTP impart a false sense of reality to analysts and commanders in terms of unrealistic expectations of near-perfect intelligence and the over-mitigation of uncertainty (Corey 2003, 30).

In his report, "Observations from Operations Iraqi Freedom and Enduring Freedom," Lieutenant Colonel Robert Chamberlain collected observations from units engaged in Operations Iraqi Freedom and Enduring Freedom, providing relevant and timely insights to the performance of analysts in an environment where the threat was not

well defined. Interviews of military intelligence and maneuver commanders disclosed that they thought junior military intelligence officers (lieutenants) and enlisted analysts (private through specialist) were equipped to handle the challenges of tactical assignments and that they demonstrated minimal analytical skills. As an experienced OC, LTC Chamberlain was able to add his own personal observations to those of the field commanders:

> The trend that we observed during OIE and OEF was that lieutenants, who have been serving in units for 6-8 months, and E-1 thru E-4 96Bs appeared not to be prepared for tactical assignments. Captains, serving as battalion S2s, generally possessed the skill needed to be an S2, but lacked any advanced analytical capabilities. (Chamberlain 2003, 5).
>
> - Officers and 96Bs: Very little to no analytical skills. This is also a trend that we have observed at the CTCs for the past ten years.
>
> - Officers and 96Bs: Do not understand their role in the MDMP. This was extremely evident during the COA development and the war gaming process. (Chamberlain 2003, 6)

Adding to the problem of officers and enlisted soldiers not possessing basic analytical skills, LTC Chamberlain's observations confirm past CTC trends that intelligence officers and analysts did not seem to understand their role in the MDMP, particularly in the COA development and war gaming processes. From his position as the Senior Intelligence OC at JRTC, the author stated this was a trend seen at the CTCs over the last ten years. Unfortunately, the report does not address analytical skill shortcomings in any detail. The author's only recommendation in this regard is to "strengthen the foundation of the junior intelligence soldier's education" (Chamberlain 2003, 6).

The crucial requirement for analysts to constantly use critical reasoning and creative thinking was highlighted by the First Marine Division G2 in his report

"Operation Iraqi Freedom Lessons Learned" in which he observed that, "When the enemy 'failed' to act in accordance with common military practice, we were caught flat-footed because we failed to accurately anticipate the unconventional response" (1st Marine Division G2 2003, 9). CALL identified a similar Army requirement in its *Operation Iraqi Freedom Study Group Report* by recommending that

> Junior leaders must be placed in positions and situations where there is sufficient ambiguity to make them respond with something other than the "text book" solution. These situations will require innovative solutions and risk taking and their mistakes must be underwritten. (On Point 2003, Transition chapter, page 2)

The report identifies the ineffectiveness of the Army's tactical intelligence system to provide timely and relevant intelligence that units could act on to execute operations. Every brigade commander interviewed by the Study Group noted that they fought movements to contact versus seeing and understanding the enemy first so that their units could act first to finish the enemy off decisively. The Study Group asserts,

> The Army systems in place now are based on a process to prepare the battlefield that starts from an understanding of the enemy's doctrine and how they intend to fight. That system will remain useful against conventional forces, but must be adjusted to accommodate a rapidly adapting enemy who seeks to avoid generating detectable patterns. (On Point 2003, Transition chapter, page 5)

It is worth mentioning that the Study Group concluded that the Contemporary Operational Environment is valid and on target, based upon the enemy actions observed in Iraq.

Phase Three represents the "real world" case of analyst training put to the test while executing operations. Providing a compilation of trend analysis based upon CTC, BCTP, and operational lessons learned offers a balanced, in-depth view into what is, in effect, the ultimate test of USAIC intelligence analyst training effectiveness.

This chapter opened by outlining the doctrinal approach to conducting intelligence analysis, as defined in the Army's preeminent manual--Field Manual 34-3, *Analysis*. Next, the research reviewed how the US Army's Intelligence Center translates analysis doctrine into actionable training. Finally, this section of the research presented a comprehensive trend assessment as a means to demonstrate the effectiveness of USAIC intelligence analyst training. The following chapter examines the information to derive conclusions about the subordinate research questions that in turn lead to addressing the effectiveness of USAIC analyst training.

CHAPTER 4

ANALYSIS

> Tell me what you know;
> Tell me what you don't know;
> Tell me what you think - in that order.
>
> Colin Powell, General (Retired)

The intent of this research study is to assist in assessing the effectiveness of the United Stated Army Intelligence Center intelligence analyst training for current and future threats that the US Army will encounter during its operations throughout the world. This thesis examines the methods that the USAIC uses to train the Army's tactical intelligence analysts--enlisted, NCO, and officer. Rapidly changing world conditions require that the Army train and equip its analysts with the tools and techniques to correctly identify the right tactical problem when critically analyzing the varied threats and environments that its forces will encounter while conducting full spectrum operations throughout the world. This necessity is underscored by the ongoing operations in Afghanistan and Iraq, where the fighting began as conventional forces closing with each other on the battlefield, but quickly devolved into a prolonged campaign against elusive, insurgent forces. The analyst's ability to correctly identify the true tactical problem and analyze threats to discern their doctrine, tactics, organization, equipment, objectives, and capabilities ultimately leads to ascertaining threat intentions and actions. With knowledge of threat objectives, intentions, and capabilities, US forces can accurately plan and act to counter those threat intentions.

This can only be accomplished by further dissecting the main research topic into secondary and tertiary questions which, when answered, will provide the details necessary to conclude an answer to the primary research question.

The secondary questions approach the problem by seeking to determine:

1. The process by which the USAIC trains its intelligence analysts
2. The content of the training in terms of techniques and tools
3. And finally, how well the intelligence analysts perform once in their units

This chapter of the thesis takes the information gathered in the "Literature Review" and structured in the "Research Design," then analyzes how well the current information answers the research questions in order to draw conclusions in the following chapter. By comparing how the USAIC translates the doctrinal basis for analysis into training and then assessing the effectiveness of this training by reviewing observations from on-going operations and exercises, this thesis establishes the analysis upon which conclusions and recommendations will be made in the next chapter.

Doctrinal Basis for Conducting Analysis

The doctrinal basis for conducting analysis appears sound and complete. The three primary manuals concerning analysis offer a comprehensive exposition of the problem by identifying the emerging operational environment, categorizing critical variables that must be accounted for in this new environment and then offering a detailed explanation of how to conduct analysis.

As the Army's overarching intelligence doctrinal publication, Field Manual 2-0, *Intelligence*, identifies eleven critical variables that it emphasizes, "Only by studying and

understanding these variables--and incorporating them into training--will the US Army be able to keep adversaries from using them against the US or to find ways to use them to our own advantage" (FM 2-0 2002, 1-4). A review of the USAIC instructional material does not indicate that it has incorporated these critical variables into its analyst training programs of instruction.

Field Manual 34-3, *Analysis*, explains the process for conducting analysis in great detail. While it does provide illustrative examples of certain steps during the analytic process, it does not provide an example of conducting analysis for a problem in the new operational environment. The manual's appendices identify the emerging operational environment and offer a guide to dissecting the problems encountered in this new environment. One appendix even provides a general analyst training plan. The USAIC does not appear to use this general training plan appendix as a guide on how it constructs its training or the content within that training. Overall, the doctrine within FM 34-3, *Analysis*, remains valid even in the emerging Contemporary Operational Environment. While the environment is changing and the threats multiplying and adapting, there is not anything so radically different in the COE that it requires a change to the manner in which the Army conducts analysis. That being said, the emerging COE and adapting threats require analysts to look at problems from many different levels (a tactical intelligence analyst may have to determine the threat's strategic goal in order to determine its tactical capabilities and options), from different points of view and to review their knowledge and reported information in more detail.

How the USAIC Translates Doctrine into Analyst Training

Having reviewed the doctrinal basis for conducting analysis, the next step is to determine how the USAIC developed its training methodology in order to train analysts. This research also reviews the content of the USAIC training. Analyzing the threat and developing courses of action is an exercise in problem solving. The most crucial component of the process is correctly identifying the right tactical problem; hence the pivotal importance of Critical Reasoning. Having identified the true tactical problem, the analyst utilizes Creative Thinking to determine the threat's potential courses of action. Finally, Critical Reasoning is used again to ensure that the selected COAs are feasible, acceptable, and suitable. Similarly, this research explores if the USAIC trains its analysts to understand the process of analysis (education) versus training analysts to simply apply a standard set of rules or steps to arrive at an analytic conclusion (training).

All of the four analyst-producing courses studied have as their training objective to train soldiers to become proficient "analysts"--be that an enlisted analyst, an Analysis Control Team chief, a unit S2 Intelligence Officer or an Analysis, and Control Element Battle Captain. The courses accomplish this objective through a series of introductory lectures followed by practical exercises and a final exercise integrating the separate blocks of instruction into one overarching scenario. The primary differences between the courses revolve around instruction specifically dedicated to "analysis" and the amount of time allocated to the different training topics.

The Enlisted soldier Advanced Individual Training and the Officer Transition Course offer specific blocks of formal instruction concerning analysis. The Enlisted training provides five days of dedicated analysis training, while the Officer Transition

Course dedicates eight hours to analysis training. These results seem reasonable based upon the different education and experience levels of the soldiers involved.

The most unexpected finding was the lack of any dedicated analysis training for the Officer Basic Course students. With the Officer Basic Course being a young officer's first introduction into the intelligence field, it seems unwise to omit training dedicated to the conduct of analysis. It is reasonable to assume that instructors informally offer students some direction on how to conduct analysis throughout the execution of the other training and exercises. This method does not seem to be an appropriate procedure for conducting crucial analytical training to any type of standard, especially in light of the course training objectives to prepare these young officers for positions in combat units. The lack of standardized analysis training exacerbates any instructor proficiency shortcomings, as the instructors present what they view as important regarding analysis.

Likewise, the Military Intelligence Captains Career Course does not offer any formal training on analysis, probably based upon the assumption that the entry-level courses (Officer Basic Course and Officer Transition Course) have accomplished this task. At the very least, it seems as though the USAIC misses an opportunity to refresh mid-level officers concerning analysis by reviewing the standards and introducing any new developments in the field. At the other extreme of the spectrum, if the USAIC intends to make an professional investment in its emerging mid-level leaders and analysts, the USAIC is neglecting to further educate them on the art of conducting analysis so that these mid-level analysts can carry their knowledge forward and impart it to the younger, less experienced analysts serving the Army's commanders.

Another research discovery was the lack of Military Decision-Making Process (MDMP) training for the Enlisted Advanced Individual Training analysts. All other analyst training courses provide instruction on how the intelligence analyst and intelligence cycle integrate into the MDMP. Training enlisted analysts on purely intelligence-related topics without demonstrating how they and their products integrate into the greater staff planning process does not seem reasonable. This could account for some of the observations noted below in the analyst performance section.

Common to all the analyst courses was the lack of any critical reasoning or creative thinking training. In 1997, the Intelligence Center created its Intelligence Training XXI plan to meet the training challenges for the emerging operational environment. One of its key concepts was that, "What is required is a pool of analysts who have demonstrated expert skills in critical, creative thinking" (Intelligence Training XXI 1997, 19). This was further emphasized in a 1999 article written by Command Sergeant Major (CSM) Vivian Diaz and Sergeant First Class (SFC) (Retired) Michael Ray in which they identified a critical characteristic for intelligence analysts to be that they "be able to think critically and creatively, they need to perceive problems in terms of potential solutions" (Diaz and Ray 1999, 4). CSM Diaz and SFC Ray outlined a training strategy designed to promote critical reasoning and adaptive thinking.

While the Intelligence Center recognized the requirement to develop critical reasoning and creative thinking skills in its analysts, it is not readily evident in their current training strategies or methods. Neither is it apparent that the USAIC attempts to teach its analysts to understand the process of analysis versus simply executing a checklist of steps required to conduct analysis.

One aspect of confronting the Contemporary Operational Environment (COE) concerns the emphasis on technology solving the challenges of the COE. While much attention has been given to the materiel solutions and the associated research, development and fielding of equipment to meet the challenges of the Contemporary Operational Environment, the complexities of training have not been fully addressed. The Enlisted Advanced Individual Training offers an example of where technology training possibly supercedes analyst training. The enlisted training consists of three phases totaling seventy-nine training days, twenty-five of which are dedicated to training the analysts on the ASAS computer.

Analyst Performance in Units

Observations from units involved in current operations, Combat Training Center rotations and Battle Command Training Program exercises provide the greatest insight into intelligence analyst training effectiveness. These observations indicate that analysts at all levels fail to provide the necessary support to their commanders and staffs in two major areas:

1. Failing to assist the commanders and staffs visualize the environment and the threat

2. Failing to provide predictive analysis during planning and operations

The observations concerning visualizing the environment/battlespace and threat focus on the failure of intelligence analysts to properly analyze and describe the effects of terrain and weather on both the friendly and threat forces, and analysts failing to provide a complete description of how the threat will fight. The observations concerning the lack of predictive analysis can be explained by the fact that most intelligence analysts relied

upon the analysis of their higher headquarters without tailoring it for their unit or area of operations, in addition to failing to utilize all the tools and techniques that assist in predictive analysis.

There are several potential causes for the intelligence analyst inability to describe the effects of terrain and weather on both the friendly and threat forces. While analysts do receive instruction on terrain and weather effects as part of Intelligence Preparation of the Battlefield, the instruction often consists of referencing standard data tables and matrices that indicate general effects on standard units. These tables and matrices are merely a guide to assist in determining the actual effects on a unit. Analysts tend to limit themselves to the information in these charts without extrapolating the data on the charts and applying it to the overall effects on their unit course of action and that of the threat. In this regard, analysts fail to critically reason through the complete problem to arrive at the overall effects of terrain and weather on their units and the threat. Additionally, as the operational environment and the threat continue to change, the importance of applying creative thinking to such circumstances is crucial to the ability of analysts to remain predictive. Experience cannot be overlooked as a significant contributing cause to the inability of analysts to describe the effects of terrain and weather on both friendly and threat forces and to render predictive analysis. Lacking a basic foundation in the principles of combat coupled with the lack of opportunity at the USAIC to gain basic experience places most new analysts at a disadvantage when arriving at their first unit. Experience provides a solid foundation from which analysts can apply critical reasoning and creative thinking to the problems at hand. This issue lends itself to further research concerning the accession of soldiers as intelligence analysts.

During their Intelligence Preparation of the Battlefield instruction, analysts also receive instruction on how to properly describe a course of action in terms of the threat's goals, centers of gravity, decisive points, his strengths and weaknesses, his capabilities, and vulnerabilities, how the threat will fight all of his resources and potential reactions to the evolving situation. All of this information is judgmental in nature, requiring critical reasoning, creative thinking, and experience to determine the proper answers. What the USAIC instruction does not provide are different techniques for reducing the uncertainty of these judgments so that analysts can develop threat information that is feasible, acceptable, and suitable for a given situation. Doctrinally, the manuals and processes include the information and techniques necessary for analysts to succeed at their task. Educationally, critical reasoning and creative thinking assist in bridging this gap in analyst capability.

Two factors influence why intelligence analysts rely so heavily upon the analysis of their higher headquarters without tailoring it for their unit or area of operations. As with determining the effects of terrain and weather on their unit, intelligence analysts often do not know how to extrapolate and infer the implications of the analysis provided by a higher headquarters to their situation. Secondly, analysts fail to utilize all the tools and techniques that assist in predictive analysis. Observers reported analysts using one or two of the predictive analysis tools such as pattern analysis wheels and association matrices; however, these examples only provide a portion of the information required to conduct predictive analysis. Analysts must combine the information from all the tools and techniques in order to provide solid predictive analysis. A thorough understanding of

the analysis process and a solid grounding in critical reasoning and creative thinking is required for analysts to succeed in the new operational environment.

This chapter of the thesis takes the information gathered in the "Literature Review" and structured in the "Research Design," then analyzes how well the current information answers the research questions in order to draw conclusions in the following chapter. By comparing how the USAIC translates the doctrinal basis for analysis into training and then assessing the effectiveness of this training by reviewing observations from on-going operations and exercises, this thesis establishes the analysis upon which conclusions and recommendations will be made in the next chapter.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The intent of this research study is to assist in assessing the effectiveness of the United Stated Army Intelligence Center intelligence analyst training for current and future threats that the US Army will encounter during its operations throughout the world. This thesis examines the methods that the USAIC uses to train the Army's tactical intelligence analysts--enlisted, NCO, and officer. Rapidly changing world conditions require that the Army train and equip its analysts with the tools and techniques to correctly identify the right tactical problem when critically analyzing the varied threats and environments that its forces will encounter while conducting full spectrum operations throughout the world. This necessity is underscored by the ongoing operations in Afghanistan and Iraq, where the fighting began as conventional forces closing with each other on the battlefield, but quickly devolved into a prolonged campaign against elusive, insurgent forces. The analyst's ability to correctly identify the tactical problem and analyze threats to discern their doctrine, tactics, organization, equipment, objectives, and capabilities ultimately leads to ascertaining threat intentions and actions. With knowledge of threat objectives, intentions, and capabilities, US forces can accurately plan and act to counter those threat intentions.

This thesis seeks to determine the effectiveness of USAIC intelligence analyst training regarding the threats and environments that the US Army will encounter during its operations throughout the world. To that end, this final chapter summarizes the discoveries that emerged from the interpretation of the research evidence. This chapter

also answers the research questions and explains the significance of the conclusions to the field of study and makes recommendations for further inquiry.

Conclusions

This research project began by posing the primary research question: "Are the techniques and tools that the US Army Intelligence Center is using to train intelligence analysts enabling the analysts to define current threats?" This question was dissected into smaller, more manageable questions, that when answered, provide an appropriate solution to the primary question. With the problem defined in terms of the subordinate questions, it was necessary to conduct a literature review--a comprehensive, thorough literature review provides a historical and theoretical framework that helps to establish perspective during the research process, determines previous research on the topic, and provides a background for developing and focusing the research question. The literature review also identifies patterns and finds gaps in the current literature that this thesis attempts to fill.

Four notable discoveries emerged from the literature review. One, not much has been written that pertains directly to the training of tactical intelligence analysts. While the US Army maintains three doctrinal manuals that explain the analysis process and its techniques, there does not appear to be much research dedicated toward the goal of how to effectively train tactical intelligence analysts. Two, what is written about analyst training is primarily concerned with the science of analysis--the models and techniques--versus the art of analysis--how to train and develop the skills required to synthesize, correlate, and integrate information into a timely and meaningful picture for the commander. Three, current assessments of intelligence analyst performance during recent

combat operations indicate that intelligence analysts are not providing their commanders with the estimates of threat forces and actions required to conduct decisive operations to defeat the threat. And four, while much has been written about the shortcomings of intelligence analyst training and performance, not much has been documented towards a solution to these problems.

The method this study used to collect, analyze, and interpret information centered around determining the doctrinal basis for conducting intelligence analysis followed by examining how the US Army Intelligence Center translates that doctrine into training plans for it analyst courses. Finally, the study reviewed observations concerning the performance of tactical intelligence analysts in recent operations and exercises as a means of determining the effectiveness of USAIC intelligence analyst training.

The Analysis chapter of this research study then presented, explained, analyzed, and interpreted the evidence collected by the literature review and the research design. The analysis chapter discussed the relationships in the evidence and explains how it relates to the research questions. Finally, the analysis chapter examines the impact of the research of unexpected discoveries, correlations, and research difficulties.

Analyst Performance in Units

To attack the primary research question most directly, this study will address the last subordinate research question first. The ultimate test of the USAIC analyst training effectiveness is borne out by how the analysts perform once at their units. Observations from units involved in current operations, Combat Training Center rotations, and Battle Command Training Program exercises indicate that analysts at all levels fail to provide the necessary support to their commanders and staffs in two major areas:

1. Assisting the commanders and staffs visualize the environment and the threat

2. Providing predictive analysis during planning and operations

The observations concerning visualizing the environment, battlespace, and threat focus on the failure of intelligence analysts to properly analyze and describe the effects of terrain and weather on both the friendly and threat forces, and analysts failing to provide a complete description of how the threat will fight. The USAIC provides analysts basic instruction on these topics during their Intelligence Preparation of the Battlefield training. There are numerous explanations for these failures; this study examines the two most prevalent--a flawed training methodology and lack of analyst understanding. Both of these problems are discussed below in the USAIC section.

The observations concerning the lack of predictive analysis can be explained by the fact that most intelligence analysts relied upon the analysis of their higher headquarters without tailoring it for their unit or area of operations, in addition to failing to utilize all the tools and techniques that assist in predictive analysis. Again, analysts receive basic instruction on tools and techniques to assist with predictive analysis. What is noticeably missing most of the programs of instruction is any type of explanation of how to conduct predictive analysis.

Doctrine

Observers identified several basic problems with analyst performance at their units. To determine factors contributing to these problems, the study first examined the doctrinal basis for conducting analysis. A review of the three manuals that govern analysis (FM 2-0, *Intelligence;* FM 34-3, *Analysis*; and FM 2-01.3, *Intelligence Preparation of the Battlefield*) reveals that the doctrinal basis for conducting analysis is

sound and complete. Taken together, the manuals offer a comprehensive exposition of the challenge to conducting analysis by identifying the emerging operational environment, categorizing critical variables that must be accounted for in this new environment, and then offering a detailed explanation of how to conduct analysis.

A secondary conclusion determined during the doctrine review and unit observations is that IPB remains a valid framework for describing a battlespace, its effects and the threats within that area. However, the current IPB model still has its shortcomings in this new contemporary operational environment--it relies upon a two-dimensional, geographic based template. This is in direct contravention to the COE with its defining characteristic being a threat that does not conform to previously identified patterns or templates.

How the USAIC Translates Doctrine into Analyst Training

Observers identified several basic problems with analyst performance at their units. To determine factors contributing to these problems, the study next examined how the US Army Intelligence Center translates the doctrine into training plans for its analysts. The conclusions from the analyst performance section above indicate that the analyst shortcomings could be based upon two primary explanations--a flawed training methodology and lack of analyst understanding. A review of the USAIC training methodology suggests that the methodology of lecture instruction followed by topical practical exercises and culminating in a comprehensive exercise is a sound and effective methodology. Having eliminated training methodology as a cause, the focus turns to analyst understanding. The information available from the USAIC concerning their analyst training plans indicates several problems.

1. The USAIC does not dedicate enough time to training analysis. While the Intelligence Center's training objectives for all the courses appropriately revolve around training soldiers to become proficient analysts, only two of the four courses offer any specifically identified "analysis" training--the enlisted analyst Advanced Individual Training course and the Officer Transition Course. The most unexpected finding was the lack of any documented analysis training for the Officer Basic Course students. To be fair to the USAIC, it seems reasonable to assume that instructors informally offer students some direction on how to conduct analysis throughout the execution of the training and exercises. However, this does not seem an appropriate method to conduct crucial analytical training to any type of standard, especially in light of the course training objectives to prepare these young officers for positions in combat units.

2. The USAIC does not include Military Decision-Making Process (MDMP) training in its Enlisted Advanced Individual Training. All other analyst training courses provide instruction on how the intelligence analyst and intelligence cycle integrate into the MDMP. Not training enlisted analysts on how they and their products integrate into the greater staff planning process does not seem reasonable. By omitting this instruction, the USAIC is denying the analysts the crucial linkage of how their actions support their commanders. This omission also denies the analyst the ability to exercise initiative capitalizing upon their understanding of how their actions and analysis affect their unit.

3. The USAIC has not updated its training to incorporate critical aspects of the emerging Contemporary Operational Environment. FM 2-0, *Intelligence*, specifically identifies eleven critical variables in the COE that must be studied and understood for analysts to properly present the actual environment to their commanders.

4. The USAIC training plans do not indicate any type of formal critical reasoning and creative thinking training. The USAIC continues to disregard its own findings concerning critical reasoning and creative thinking training for its analysts. The Intelligence Center identified the requirement to develop critical reasoning and creative thinking skills in its analysts in its 1997 *Intelligence Training XXI* plan to meet the training challenges for the emerging operational environment. The education and training communities are split on this particular topic. They do not universally accept the concept that a person can be trained or educated to improve the manner in which they think. However, as long as the Army expects young soldiers and officers to provide their commanders logical, predictive analysis on threat forces, it seems negligent not to provide these analysts the maximum training and education to improve their performance.

Recommendations

This thesis sought to determine the effectiveness of USAIC intelligence analyst training regarding the threats and environments that the US Army will encounter during its operations throughout the world. The primary recommendations below are focused on the USAIC, its programs of instruction and how the instruction is taught.

Based upon the analysis and conclusions, this study recommends the following additions to the USAIC program of instruction for its intelligence analysts.

1. If it can only make one change to its current program of instruction, the USAIC must incorporate critical reasoning and creative thinking into its analyst training programs. The first step in any problem-solving algorithm is to identify the correct problem. Comprehending the true tactical problem is crucial in understanding the threat

and then developing his courses of action. Central to this process are critical reasoning and creative thinking. Being able to think all the way through the problem down to a solution is imperative. The Intelligence Center, itself, identified the requirement to develop critical reasoning and creative thinking skills in its analysts in its 1997 *Intelligence Training XXI* plan to meet the challenges for the emerging operational environment. The lack of critical reasoning and creative thinking training at the USAIC fails to arm analysts with the proper tools to reason through the problem to apply standard terrain and weather information and the analysis of higher headquarters to their own specific situation, unit, and area of operations. A thorough understanding of the analysis process and a solid grounding in critical reasoning and creative thinking is required for analysts to succeed in the new operational environment. Additionally, as the operational environment and the threat continue to change, the importance of applying creative thinking to such circumstances is crucial to the ability of analysts remain predictive.

2. Dedicate more time to training how to conduct analysis. The lack of dedicated training time for how to conduct analysis is a contributing factor to analysts not understanding the process. This is critically important in today's changing operational environment. The Enlisted Advanced Individual Training provides five days for its soldiers; this is appropriate for entry-level soldiers. The officer courses must provide more training to ensure that the officers have the skills and tools required to prepare them to be the proficient analysts that commanders seek.

3. The Enlisted Advanced Individual Training Course must include a familiarization with the Military Decision-Making Process, particularly how the analysts

and their products integrate into the process. The USAIC is denying these smart soldiers the background instruction that will make them more effective in their units.

4. The USAIC must update its training to incorporate critical aspects of the emerging Contemporary Operational Environment as identified by doctrinal publications and emerging lessons learned from on-going operations.

Suggestions for Further Research

This research study only focused on several aspects of the larger problem of training tactical intelligence analysts so they can properly support their commanders. There is much more that needs to be studied in this field. Some suggestions for further research are as follows.

1. The national-level intelligence agencies conduct dedicated research and study on the topic of hiring the person with the optimum personality, skills, and traits to maximize their propensity for conducting analysis. The Army could borrow from this research to determine recruiting criteria so that only the people with the most potential for conducting effective analysis would be placed in the analyst military occupational specialties.

2. To gain a better understanding of what topics should be trained, more research needs to be dedicated to determining the skills required to synthesize, correlate, and integrate information. This could provide focus for future training plan development.

3. There are numerous analysis theories and techniques available; more research should be devoted to exploring the tactical application of these theories and techniques.

4. Tactical intelligence analysis is not exclusive; there are many professions and jobs that require the same type of analysis and prediction skills. More research could be

focused on determining how other professions train their analysts and if these methods are applicable to training tactical intelligence analysts.

5. The USAIC training methodology is effective, but many different training methodologies exist that may compliment the current USAIC techniques to assist in analyst understanding. Some research should be concentrated on exploring innovative training techniques and methods that can enhance analyst understanding.

6. Within the Intelligence Preparation of the Battlefield model's fourth step of determining an enemy course of action, the first requirement calls for analyzing relative combat power. This concept works well when analyzing conventional forces, but does not seem effective when considering guerilla or insurgent forces and lower intensity conflict. With the emerging adaptive COE threats and the Army's current operations in Afghanistan and Iraq, the concept of analyzing relative combat power does not seem relevant. An option worthy of further exploration is the model contained within the Army's standard intelligence estimate format, which includes a section identified as "Enumeration," where a threat force's capabilities are expounded upon and develop into potential options, or courses of action.

Chapter Summary

This research project sought to address a gap in knowledge by examining the effectiveness of the USAIC methods for training the Army's tactical intelligence analysts. The observations of analyst performance in units point to a lack of analyst understanding that results in a failure to visualize and present the environment and threat and a lack of predictive analysis. The doctrine governing how to conduct analysis is comprehensive. The USAIC translation of that doctrine into training plans results in several shortcomings

that directly affect how analysts understand the key aspects of analysis, their role in the planning process and how they understand the new operational environment. The recommendations follow directly from these conclusions and focus on analysts being trained in critical reasoning and creative thinking skills and dedicating more time to train the aspects of analysis so that analysts truly understand the process. This study is not all-inclusive, thus it recommends areas for future research focus on further understanding the skills required of analysts, determining how other professions requiring predictive analysis train their analysts and finally, integrating innovative training methods into the USAIC programs of instruction.

REFERENCE LIST

1st Marine Division G2. 2003. Operation IRAQI FREEDOM (OIF): Lessons Learned. Report, Accessed 12 October 2003. Available from https://call2.army.mil/oif/ docs/lessons/1MarDivOIF.asp. Internet.

Adolph, Robert B, LTC. 1999. Intelligence: The Human Dimension. *Military Intelligence Professional Bulletin* 25-3 (July-September): 34-35.

Battle Command Training Program. 1996. Corps and Division Perceptions, 1996. Report, Ft. Leavenworth, Kansas, July.

_____. 1997. Corps and Division Perceptions, 1997. Report, Ft. Leavenworth, Kansas, June.

_____. 1998. Corps and Division Perceptions, 1998. Report, Ft. Leavenworth, Kansas, July.

_____. 1999. Corps and Division Perceptions, 1999. Report, Ft. Leavenworth, Kansas, June.

_____. 2000. ARFOR/ACSS/JFLCC/JTF Perceptions, 2000. Report, Ft. Leavenworth, Kansas August.

_____. 2000. Corps and Division Perceptions, 2000. Report, Ft. Leavenworth, Kansas, August.

_____. 2001. Corps and Division Perceptions, 2001. Report, Ft. Leavenworth, Kansas, July.

_____. 2002. Report: Corps and Division Perceptions, 2002. Ft. Leavenworth, Kansas, August.

Chamberlain, Robert LTC. 2003. Observations from Operations Iraqi Freedom and Enduring Freedom (31 May-13 June 2003). Report, Ft. Polk, Louisiana, July.

Corey, Daniel MAJ and MAJ David Tohn. 2003. Operation Iraqi Freedom Study Group: Intelligence Battlefield Operating System Initial Observations. Report, Ft. Leavenworth, Kansas, June.

Center for Army Lessons Learned CTC Branch. 1997. Intelligence BOS (TA.5). *CTC Trends--Joint Readiness Training Center Priority Trends--2nd-3rd Quarter FY1997* 97-19 (December): 2-3.

_____. 2000. Intelligence BOS (TA.5). *CTC Trends--Joint Readiness Training Center Priority Trends--4th Quarter FY1998-1st Quarter FY1999* 00-2 (April): 11-12.

_____. 2001. Intelligence BOS (TA.5). *CTC Trends--Joint Readiness Training Center Priority Trends-4th Quarter FY1999-1st Quarter FY2000* 01-6 (May): 4-5.

_____. 2002. TA.5 Intelligence BOS. *CTC Trends--Joint Readiness Training Center--4th Quarter FY2000-1st Quarter FY 2001* 02-5 (April): 10-11.

_____. 2002. TA.5 Intelligence BOS. *CTC Trends--Joint Readiness Training Center--2nd -3rd Quarters FY2001* 02-16 (December): 5-6, 10.

_____. 2003. Intelligence BOS (TA.5). *CTC Trends--Joint Readiness Training Center--2nd-3rd Quarters FY2002* 03-2 (February): 4-5.

_____. 2003. Intelligence BOS. *CTC Trends--Joint Readiness Training Center--4th Quarter FY 2002-1st Quarter FY2003* 03-12 (March): 5-6.

_____. 2003. Intelligence BOS. *CTC Trends--Joint Readiness Training Center--2nd-3rd Quarters FY2003* 03-9 (October): 3.

_____. 2001. Intelligence BOS. *Joint Readiness Training Center Leaders Training Program-Observations* 01-4 (February): 43.

_____. 1997. TA.5 Intelligence. *CTC Trends--National Training Center—Trends Analysis 4th Quarter FY 1994-2nd Quarter FY 1996* 97-3 (August): 1.

_____. 2001. Section IV-Needs Emphasis Trends-Intelligence BOS (TA.5). *CTC Trends--National Training Center--Compendium 3rd Quarter FY 1998-4th Quarter FY 1999* 01-11 (July): 3, 26-27.

_____. 2002. Intelligence BOS. *CTC Trends--National Training Center* 02-11 (October): 1-3, 12-13, 18-19.

_____. 2002. Intelligence BOS. *CTC Trends--National Training Center* 02-17 (December): 20, 22.

_____. 2003. Intelligence BOS. *CTC Trends--National Training Center* 03-10 (March): 17.

_____. 2003. Intelligence BOS. *CTC Trends--National Training Center* 03-11 (March): 17-18.

_____. 2003. Intelligence BOS. *CTC Trends--National Training Center* 03-21 (October): 16-17.

_____. 2004. Intelligence BOS. *CTC Trends--National Training Center* 03-30 (January): 21-24.

Department of the Army. *Army Enlisted Job Descriptions & Qualifications – 96B-Intelligence Analyst.* Accessed 12 December 2003. Available from http://www.goarmy.com/jobs/mos/mos96B.asp. Internet.

_____. 1999. Field Manual (FM) 22-100, *Army Leadership.* Washington, DC: Department of the Army, August.

_____. 2000. Field Manual (FM) 34-3, *Analysis, Initial Draft*. Washington, DC: Department of the Army, January.

_____. 2000. Field Manual (FM) 34-130, *Intelligence Preparation of the Battlefield*. Washington, DC: Department of the Army, July.

_____. 2001. Appendix I: All Source Intelligence. *Army Intelligence Transformation Plan*. Washington, DC: Department of the Army, September.

_____. 2002. Field Manual (FM) 5-0, *Army Planning and Orders Production.* Washington, DC: Department of the Army, July.

_____. 2002. Field Manual (FM) 2-0, *Intelligence, Initial Coordinating Draft.* Washington, DC: Department of the Army, October.

_____. 2003. Field Manual (FM) 2-0, *Intelligence*. Washington, DC: Department of the Army, February.

_____. 2003. Field Manual (FM) 2-01.3, *Intelligence Preparation of the Battlefield*. Washington, DC: Department of the Army, February.

_____. 2003. *Operation Iraqi Freedom Study Group Report: On Point*-Draft. Ft. Leavenworth, Kansas: Center for Army Lessons Learned.

Diaz, Vivian, CSM and SFC(Retired) Michael A. Ray. 1999. NCO Training. *Military Intelligence Professional Bulletin* 25-4 (October-December): 4-8.

Garin, Thomas A. 2003. Appraising Best Practices in Defense Intelligence Analysis. *Bringing Intelligence About: Practitioners Reflect on Best Practices*. Washington, D.C.: Joint Military Intelligence College, (May).

Kinnison, Henry L, COL. 1997. What a Combat Commander Expects of His S2. *Military Intelligence Professional Bulletin* 23-2 (April-June): 28-29.

Krizian, Lisa. 1999. *Intelligence Essentials for Everyone*. Washington, D.C.: Joint Military Intelligence College Occasional Paper Number Six, (June).

Lowenthal, Mark M. 1999. Teaching Intelligence: The Intellectual Challenges. *A Flourishing Craft: Teaching Intelligence Studies*. Washington, D.C.: Joint Military Intelligence College Occasional Paper Number Five, (June).

Marks, James A, BG. 2002. Always Out Front. *Military Intelligence Professional Bulletin* 28-1 (January-March): 2.

Marrin, Stephen. 2003. Improving CIA Analysis by Overcoming Institutional Obstacles. *Bringing Intelligence About: Practitioners Reflect on Best Practices*. Washington, D.C.: Joint Military Intelligence College, (May).

Meigs, Montgomery C. 2003. Unorthodox Thoughts About Asymmetric Warfare. *Parameters*. (summer).

Quinn, Timothy J, LTC. 1998. 96B Training Strategy. *Military Intelligence Professional Bulletin* 24-3 (July-September): 39.

Quirk, Richard J. III, BG. 2000. Training the MI Force for the Future. *Military Intelligence Professional Bulletin* 26-4 (October-December): 30-32.

Smith, John W, BG. 1996. Vantage Point. *Military Intelligence Professional Bulletin* 22-1 (January-March): 2-3.

Smith, John W, BG. 1998. Intelligence Training XXI. *Military Intelligence Professional Bulletin* 24-3 (July-September): 4-5.

Tenet, George J. 2000. Remarks of the Director of Central Intelligence George J. Tenet at The Dedication of the Sherman Kent School. 4 May 2000. Accessed 9 October 2003. Available from http://www.cia.gov/cia/public_affairs/speeches/archives/2000/ dci_speech_05052000.html. Internet.

United States Army Intelligence Center and Fort Huachuca. 1997. *Intelligence Training XXI: Ready Now – 1997 Action Plan*. Fort Huachuca, Arizona: US Army Intelligence Center.

_____. 1998. *96B Course Introduction*. Fort Huachuca, Arizona: US Army Intelligence Center, Slides 9-11.

_____. 2000. *MI Officer Transition Course Lesson Plan – Processing.* Fort Huachuca, Arizona: US Army Intelligence Center, April: slides 12-14.

_____. 2003. *Officer Education System.* Fort Huachuca, Arizona: US Army Intelligence Center, February.

_____. 2003. *111th MI Brigade Command Brief*. Fort Huachuca, Arizona: US Army Intelligence Center, February.

Van Otten, George A., Ph.D. 2002. Educating MI Professionals to Meet the Challenges Of Changing Geopolitical Realities and Modern Asymmetric Warfare. *Military Intelligence Professional Bulletin* 28-3 (July-September): 33-36.

GLOSSARY

All-Source Intelligence. "Intelligence products and/or organizations and activities that incorporate all sources of information, most frequently including human resources intelligence, IMINT, MASINT, SIGINT and open-source data in the production of finished intelligence" (FM 2-0 2002, Glossary-19).

Analysis. "The procedure for determining facts, patterns, and relationships from information about the threat and environment" (FM 2-01.3 2003, 351). "Analysis is achieved through the reduction of information to its basic components. Each of these components is then examined to determine its nature, proportion, function, and interrelationships. In conventional analysis the analyst examines, assesses, and compares bits and pieces of raw information and then synthesizes those findings into an intelligence product reflecting an adversary's capabilities and vulnerabilities. Most intelligence analysis is predictive in nature" (FM 34-130 Draft 2000, 2-1).

Combat Information. "Unevaluated data, gathered by or provided directly to the tactical commander which, due to its highly perishable nature or the criticality of the situation, cannot be processed into tactical intelligence in time to satisfy the user's tactical intelligence requirements" (FM 2-0 2002, Glossary-21).

Combat Intelligence. "Information on the enemy's capabilities, intentions, vulnerabilities, and the environment. Analysts derive combat intelligence from the combat information they receive and analyze" (FM 2-0 2002, Glossary-22).

Course of Action. "Any sequence of acts that an individual or a unit may follow; a possible plan open to an individual or a commander that would accomplish or is related to accomplishment of the mission; a feasible way to accomplish a task or mission that follows the guidance given, will not result in undue damage or risk to the command, and is noticeably different from other actions being considered" (FM 2-0 2002, Glossary-23).

Contemporary Operational Environment (COE). "A framework for analyzing and understanding the nature of the operational environment that exists today and for the clearly foreseeable future. A composite of the conditions, circumstances, and influences that affect the employment of military forces and bear on the decisions of the unit commander. The contemporary operational environment that exists in the world today is expected to exist until a peer competitor to the United States arises. There are 11 critical variables of the contemporary operational environment: physical environment, nature and stability of the state, sociological demographics, regional and global relationships, military capabilities, technology, information, external organizations, national will, time and economics" (FM 2-01.3 2003, 357).

Critical Reasoning. "Critical reasoning helps you think through problems. It is the key to understanding situations, finding causes, arriving at justifiable conclusions, making good judgments, and learning from the experience—in short, solving problems. Critical reasoning is an essential part of effective counseling and underlies ethical reasoning, another conceptual skill. It is also a central aspect of decision-making" (FM 22-100 1999, paragraph 4-19). The defining concept behind critical reasoning is finding or identifying the real problem. Critical reasoning integrates into the Military Decision Making Process during its first phase (Mission Analysis), during which the commander and staff identify and define the true nature of the tactical problem. Critical reasoning is also a critical part of the fourth and fifth steps of the MDMP phase (COA Analysis (war gaming) and COA Comparison, respectively) to ensure that the solutions developed actually address the true problem. Throughout the academic and research worlds, there are many definitions for Critical Reasoning; this thesis uses the Army's doctrinal definition of critical reasoning as specified in Field Manual 22-100, *Army Leadership*.

Creative Thinking. "Sometimes you run into a problem that you have not seen before or an old problem that requires a new solution. Here you must apply imagination; a radical departure from the old way of doing things may be refreshing. Army leaders prevent complacency by finding ways to challenge subordinates with new approaches and ideas. In these cases, rely on your intuition, experience and knowledge … Creative thinking is not some mysterious gift, nor does it have to be outlandish. It is not reserved for senior officers; all leaders think creatively. You employ it every day to solve small problems" (FM 22-100 1999, paragraphs 4-22, 4-23). The defining concept behind creative thinking is developing new ideas or methods to look at and solve a problem. Creative thinking integrates into the Military Decision Making Process during its third phase (COA Development), during which the commander and staff determine unique solutions for the tactical problem. As with Critical Reasoning, there are many definitions throughout the academic and research worlds; this thesis uses the Army's doctrinal definition of critical reasoning as specified in Field Manual 22-100, *Army Leadership*.

Fusion. "The combining or blending of data and information from single or multiple sources into information" (FM 2-0 2002, Glossary-26).

Intelligence. "The product resulting from the collection, processing, integration, analysis, evaluation and interpretation of available information concerning foreign countries or areas; information and knowledge about an adversary obtained through observation, investigation, analysis or understanding" (FM 2-0 2002, Glossary-27).

Intelligence Preparation of the Battlefield (IPB). "IPB is a systematic, continuous process of analyzing the weather, terrain, and threat in a specific geographic area for all types of operations. IPB integrates threat doctrine with the weather and terrain as they relate to the mission within a specific battlefield environment. This is done to

determine and evaluate threat capabilities, vulnerabilities, and probable courses of action (COAs)" (FM 34-130 2000, vi).

Military Decision-Making Process (MDMP). "A planning tool that establishes techniques for analyzing a mission, developing, analyzing and comparing courses of action against criteria of success and each other, selecting the optimum course of action, and producing a plan or order" (FM 5-0 2002, Glossary-10).

Tactical Intelligence Analyst. A soldier holding the occupational specialty of 96B (for enlisted and NCOs) or 35D (for officers) that has graduated from the applicable USAIC entry-level analyst course and is serving at or below the corps level. "Tactical intelligence analysts determine the significance and relationship of incoming reports and message to integrate the information with the current situation. The tactical intelligence analyst assesses and evaluates the situation to determine changes in enemy capabilities, vulnerabilities and probable courses of action. The analyst prepares all-source intelligence products to support the combat commander" (Army Enlisted Job Descriptions & Qualifications 2003).

Threat. A threat can be defined as "any force, group, person, action event, or condition that would cause a commander to fail to achieve a specified end state and thereby the mission or objective" (FM 34-130 Draft 2000, 2-1).

INITIAL DISTRIBUTION LIST

Combined Arms Research Library
US Army Command and General Staff College
250 Gibbon Ave.
Fort Leavenworth, KS 66027-2314

Defense Technical Information Center/OCA
825 John J. Kingman Rd., Suite 944
Fort Belvoir, VA 22060-6218

Dr. Jack Kem
Department of Joint and Multinational Operations
USACGSC
1 Reynolds Ave.
Fort Leavenworth, KS 66027-1352

LTC David Pierson
Center for Army Tactics
USACGSC
1 Reynolds Ave.
Fort Leavenworth, KS 66027-1352

LTC Linda Suttlehan
Executive Officer to the Deputy Commandant, USACGSC
USACGSC
1 Reynolds Ave.
Fort Leavenworth, KS 66027-1352

CERTIFICATION FOR MMAS DISTRIBUTION STATEMENT

1. Certification Date: 18 June 2004

2. Thesis Author: Major Eric A. Land, USA

3. Thesis Title: Training Intelligence Analysts to Meet the Challenges of the Contemporary Operational Environment.

4. Thesis Committee Members: _____

Signatures: _____

_____

5. Distribution Statement: See distribution statements A-X on reverse, then circle appropriate distribution statement letter code below:

(A) B C D E F X SEE EXPLANATION OF CODES ON REVERSE

If your thesis does not fit into any of the above categories or is classified, you must coordinate with the classified section at CARL.

6. Justification: Justification is required for any distribution other than described in Distribution Statement A. All or part of a thesis may justify distribution limitation. See limitation justification statements 1-10 on reverse, then list, below, the statement(s) that applies (apply) to your thesis and corresponding chapters/sections and pages. Follow sample format shown below:

EXAMPLE

Limitation Justification Statement	/	Chapter/Section	/	Page(s)
Direct Military Support (10)	/	Chapter 3	/	12
Critical Technology (3)	/	Section 4	/	31
Administrative Operational Use (7)	/	Chapter 2	/	13-32

Fill in limitation justification for your thesis below:

Limitation Justification Statement	/	Chapter/Section	/	Page(s)
	/		/	
	/		/	
	/		/	
	/		/	
	/		/	

7. MMAS Thesis Author's Signature: _____

STATEMENT A: Approved for public release; distribution is unlimited. (Documents with this statement may be made available or sold to the general public and foreign nationals).

STATEMENT B: Distribution authorized to US Government agencies only (insert reason and date ON REVERSE OF THIS FORM). Currently used reasons for imposing this statement include the following:

1. Foreign Government Information. Protection of foreign information.

2. Proprietary Information. Protection of proprietary information not owned by the US Government.

3. Critical Technology. Protection and control of critical technology including technical data with potential military application.

4. Test and Evaluation. Protection of test and evaluation of commercial production or military hardware.

5. Contractor Performance Evaluation. Protection of information involving contractor performance evaluation.

6. Premature Dissemination. Protection of information involving systems or hardware from premature dissemination.

7. Administrative/Operational Use. Protection of information restricted to official use or for administrative or operational purposes.

8. Software Documentation. Protection of software documentation - release only in accordance with the provisions of DoD Instruction 7930.2.

9. Specific Authority. Protection of information required by a specific authority.

10. Direct Military Support. To protect export-controlled technical data of such military significance that release for purposes other than direct support of DoD-approved activities may jeopardize a US military advantage.

STATEMENT C: Distribution authorized to US Government agencies and their contractors: (REASON AND DATE). Currently most used reasons are 1, 3, 7, 8, and 9 above.

STATEMENT D: Distribution authorized to DoD and US DoD contractors only; (REASON AND DATE). Currently most reasons are 1, 3, 7, 8, and 9 above.

STATEMENT E: Distribution authorized to DoD only; (REASON AND DATE). Currently most used reasons are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.

STATEMENT F: Further dissemination only as directed by (controlling DoD office and date), or higher DoD authority. Used when the DoD originator determines that information is subject to special dissemination limitation specified by paragraph 4-505, DoD 5200.1-R.

STATEMENT X: Distribution authorized to US Government agencies and private individuals of enterprises eligible to obtain export-controlled technical data in accordance with DoD Directive 5230.25; (date). Controlling DoD office is (insert).