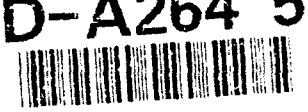


(2)

Division MI Battalion Restructure: Can Change Coupled with Technology Help Clear the Fog from the Brigade Battle?

A Monograph
by

Major A. G. Smart
Military Intelligence

School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

First Term AY 92-93

DIVISION MI BATTALION RESTRUCTURE : CAN CHANGE COUPLED WITH TECHNOLOGY HELP CLEAR THE FOG FROM THE BRIGADE BATTLE ?

MAJOR A.G. SMART , US ARMY

SCHOOL OF ADVANCED MILITARY STUDIES
ATTN : ATZL-SWV
FORT LEAVENWORTH, KANSAS 66027-6900
COMM (913) 684-3437 DSN 552-3437

SEE ATTACHED.

BRIGADE INTELLIGENCE & ELECTRONIC WARFARE, TACTICAL INTELLIGENCE, CEWI, MI BRANCH CONCEPT, INTEL SYSTEM OF SYSTEMS, MI REDOOK, IEW MASTER PLAN, USTARS GSM, CGS, UAV-CLOSE 66

UNCLASSIFIED UNCLASSIFIED UNCLASSIFIED UNCLASSIFIED

ABSTRACT

DIVISION MI BATTALION RESTRUCTURE: Can Change Coupled with Technology Help Clear the Fog from the Brigade Battle?

By Major A. G. Smart, USA, 66 pages.

This monograph examines the impact of the heavy division MI battalion restructure on Intelligence and Electronic Warfare (IEW) support to the maneuver brigade. This restructure gains significance due to the fielding of a new family of systems present in the objective architecture. The monograph seeks to determine if the provision of a direct support (DS) company from the divisional MI battalion will provide the brigade an improved capability to see and understand the battlefield. Additionally, it suggests possible implications of the restructure in the areas of doctrine, training and leader development.

This monograph begins by briefly describing the origins of the current heavy division MI battalion. It describes Combat Electronic Warfare Intelligence (CEWI) and delineates the reasons for this concept and organizational structure at the tactical level. It addresses the information and intelligence requirements of the heavy brigade and required capabilities to perform the functions of Army intelligence.

This monograph then examines current MI doctrine and organization for providing IEW support to the heavy maneuver brigade. It addresses capabilities and shortfalls. Planned evolutionary change to improve IEW support is discussed. This monograph highlights the force development and modernization processes that led to the MI battalion restructure with DS companies for maneuver brigades. It describes the objective DS company and analyzes its capability to perform the IEW functions to support brigade requirements. Implications for doctrine, training and leader development are addressed.

This monograph concludes that the objective DS company provides more balanced and responsive brigade IEW support. The brigade must continue to leverage higher echelon capabilities to satisfy requirements. Collection management and communications connectivity gain increased significance.

Division MI Battalion Restructure: Can Change Coupled with Technology Help Clear the Fog from the Brigade Battle?

A Monograph
by

Major A. G. Smart
Military Intelligence

School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

First Term AY 92-93

School of Advanced Military Studies

Monograph Approval

Major A. G. Smart

Title of Monograph: Division MI Battalion Restructure: Can Change Coupled with Technology Help Clear the Fog from the Brigade Battle?

Approved by:

Ben L Elley
LTC Ben L. Elley, MS — Monograph Director

James R McDonough
COL James R. McDonough, MS — Director, School of Advanced Military Studies

Philip J Brookes
Philip J. Brookes, Ph.D. — Director, Graduate Degree Program

Accepted this 19th day of December 1992

TABLE OF CONTENTS

I. INTRODUCTION

> We are on the verge of a revolution in Military Intelligence: A revolution in capabilities incorporated in the new family of systems we will field between now and 1997; and a revolution in how we do business to best use those new capabilities to support commanders at all echelons on the fast tempo, extended battlefield of the future.[1]
>
> MG Paul E. Menoher, Jr.
> MI Branch Chief, June 1992

The message is clear - technology is changing the way Army Military Intelligence (MI) does its business to support the commander. The mission of MI remains unchanged, but the execution of the mission is evolving to take advantage of technology. MI is still responsible for providing commanders at all echelons across the continuum of military operations with timely, accurate and relevant intelligence and electronic warfare support.[2]

Intelligence helps tactical commanders win battles and conduct successful operations in three ways. First, it reduces uncertainty about the enemy and the environment; next, it allows the commander to focus combat power at the decisive time and location; and lastly, it enables the commander to construct a realistic vision of future events so time becomes an ally.[3]

Although intelligence helps reduce uncertainty, it can never completely eliminate it. Today's senior

combat commanders seem to take a more realistic approach to intelligence. Many express the awareness that intelligence is not always available, complete or correct and that leaders must train to operate in the midst of limitations.[4] The caution is against over-expectation of intelligence and electronic warfare (IEW) capabilities.

The Combat Commander's Handbook on Intelligence reinforces the notion that commanders will never have a perfect picture of the battlefield, but the more they know about the intelligence system and how to focus it, the better the picture will be.[5] The emerging operations doctrine found in FM 100-5 echoes this idea. The onus is on the commander to understand both the capabilities and the limitations of the intelligence system so it can be exploited to its full effectiveness without carrying the albatross of unrealistic expectations.[6] The "fog of war" discussed by Clausewitz will always be present because of variables beyond the capability of technology to control -- mainly a thinking, reacting enemy.

In the mid-1970's, the separate Signals Intelligence (SIGINT) units of the Army Security Agency (ASA), merged with tactical intelligence organizations to form what is known today as MI Combat Electronic Warfare Intelligence (CEWI). The impetus for this

change was the recognized need to improve support to the tactical commander.[7] Domestic and international political realities, the threat and technological advances, continue to change the way the Army thinks about conducting military operations.

Just as the Army's thought process on the conduct of operations evolves with the ongoing revision of FM 100-5, the concept for IEW support is also evolving. The final coordinating draft of the MI Branch Concept describes how the intelligence system will support combat commanders through the year 2000. More importantly, "it establishes the basis for a necessary, disciplined evolution in Army Intelligence doctrine, training, leadership development, organization, and materiel development."[8]

This paper examines current and future IEW support to the heavy division maneuver brigade. The United States Army Intelligence Center, Combat Developments (CD) Directorate, is drafting a revised organizational structure for the MI battalion (CEWI) in the heavy division. The objective battalion structure provides an all-source intelligence direct support (DS) company to each of the three ground maneuver brigades and an all-source general support (GS) capability to the division.[9] The organizational restructure solidifies a support relationship currently practiced between the

ad hoc task organized MI (CEWI) company team and the heavy division maneuver brigade.

The modernization timeline for implementation of the new organizational structure projects a Department of the Army approved Table of Organization and Equipment (TOE) in Fiscal Year (FY) 95 with a unit establishment date in FY 97.[10] This timeline corresponds with programmed fielding dates for the new family of heavy division IEW systems.

One of the key lessons learned by the MI community in Desert Storm/Desert Shield is the absolute requirement to focus intelligence downwardly to the brigades and battalions that fight the war.[11] This theme is embedded in the revised MI Branch Concept and design. Focusing intelligence downwardly is stated as the single most important objective of Army intelligence support to military operations.[12] This paper examines the capability of the objective DS company and its improved systems' capabilities to provide the conduit for that focused intelligence support to the maneuver brigade commander.

The origin of the current division IEW structure is described to provide the background for examining capabilities and the ongoing planned evolution. Today's divisional MI battalion (CEWI) structure and doctrine is a product of the significant change that

occurred in the MI community in the mid-1970s. The Army developed MI (CEWI) units in an effort to alleviate the shortfalls in required support to tactical commanders.[13] This paper begins with a brief historical perspective on that change and describes the current division IEW structure as a product of that change.

The maneuver brigade currently relies on the division's MI battalion (CEWI) for a preponderance of IEW support. This paper describes the Army intelligence functions emphasizing their relative importance in supporting the maneuver brigade commander's requirements. It addresses brigade required IEW capabilities in terms of information and intelligence requirements relating to the critical functions of situation development and target development/targeting. While the focus of this paper is on the brigade IEW system, the "intelligence system of systems" concept is explained to give an appreciation for the holistic approach to IEW support.

This paper transitions to a description of the current organization and doctrinal method of performing critical IEW functions to support the maneuver brigade commander. Shortfalls are identified in both systems' capabilities and the current doctrinal method of supporting the brigade.

This paper examines the planned solutions developed to eliminate documented shortfalls and highlights the evolution of thought on brigade IEW support. This evolution leads to the division restructure to provide direct support companies to maneuver brigades. The DS company is analyzed in terms of its capability to conduct critical intelligence functions at the brigade level. This review indicates possible vulnerabilities and impacts of the organizational restructure.

II. HISTORICAL PERSPECTIVE

The rationale and structure of the MI battalion (CEWI) rose from the ashes of the 1973 Middle East War. This war demonstrated the devastating effects achieved by integration of intelligence, electronic warfare and fires.[14] Senior Army leaders recognized that numerous challenges barred the way toward integrating intelligence with electronic warfare at the tactical level. The fragmented Army intelligence structure fostered ineffective support to the tactical commander. US Army Security Agency (USASA) units and tactical intelligence units from other MI commands comprised the Army tactical intelligence system. Furthermore, the division commander did not have operational control of the various ASA and MI units located with the division.

Since the parent headquarters of each ASA and MI unit maintained operational control, division commanders experienced difficulties generated by this lack of centralized control. Uncoordinated intelligence products coupled with unnecessary and dysfunctional duplication of effort and competition among the different units were common.[15] In many cases, the perception of lack of support to the tactical commander was a structurally and organizationally induced reality.

In December 1974, the Army Chief of Staff directed the Intelligence Organization and Stationing Study (IOSS) to determine a more efficient and effective way to support the tactical commander. The primary features of this study dealt with: how the Army accomplishes its intelligence missions; the problematic perceptions of uncoordinated efforts and unnecessary duplication; and improved future intelligence support through revisions to the intelligence structure.[16] The Chief of Staff instructed the members of the IOSS to consider USASA and MI tactical unit integration.[17] The emerging recognition of the requirement to provide the tactical commander a balanced, integrated IEW force under one command provides the historical precedent for today's concept of restructuring the battalion to provide a DS company for each maneuver brigade.

IOSS results highlighted deficiencies in the intelligence structure. More importantly, the IOSS proposed a transition to an alternative structure that tactical Army intelligence units continue to operate under today. The structure consolidated tactical ASA units and other Army intelligence units into integrated organizations assigned, and under the full command of, the tactical commander at corps and division level.[19]

This structure, known as the MI Combat Electronic Warfare Intelligence (CEWI) concept, integrated all-source intelligence collection, production and electronic warfare under one command at both the corps and division level. It embodied the idea that commanders fighting the battle should direct tactical intelligence requirements rather than an MI echelon above corps (EAC) headquarters.[19] This restructure provided division and corps commanders with the organic IEW organizations to accomplish their missions.

Implementation of the IOSS proposed structure was a major step in the evolution of MI to provide required support to the tactical commander. The MI (CEWI) concept eliminated the vertical command structure of supporting intelligence units that were segregated based on intelligence disciplines.[20] However, the organizational structure of the MI battalion (CEWI) at division perpetuated the separation by discipline.

Although the previously separate companies now came under the command of a single battalion headquarters. the battalion's companies retained their distinct intelligence discipline orientation.

The current heavy division MI battalion (CEWI) is structured with four companies and one detachment and maintains operational control of the QUICKFIX platoon. Appendix 1 shows the current organizational structure and major IEW assets of the battalion and its subordinate units. The structural significance of the heavy division's MI battalion (CEWI) is the discipline oriented nature of the subordinate companies and detachment. The MI battalion (CEWI) provides a mixture of human intelligence/counterintelligence (HUMINT/CI), imagery intelligence (IMINT) and signals intelligence (SIGINT) capabilities to the division commander. Each company and the detachment is organizationally structured and equipped to conduct single discipline operations, in the case of SIGINT, or dual discipline operations, in the case of HUMINT/CI and IMINT.

The MI battalion (CEWI) contribution to the heavy division's HUMINT/CI operations resides in the intelligence and surveillance company and the long range surveillance detachment.[21] HUMINT provides the commander with the ability to identify enemy intentions and capabilities and to confirm technically acquired

intelligence.[22] Information is acquired from friendly forces, captured enemy documents and personnel and directed operations. Counterintelligence identifies enemy all-source intelligence collection efforts and assists the commander in protecting information and activities from detection or compromise.[23]

IMINT is intelligence gained through the collection and analysis of radar, photographic, infrared and electro-optic imagery.[24] The MI battalion's austere organic IMINT capability consists of moving target detection radars located in the intelligence and surveillance company.[25]

In comparison to HUMINT and IMINT, the heavy division has a significantly more robust SIGINT capability. SIGINT provides information derived from intercepted enemy communications (voice) and non-communications (radar) emissions as well as the technical data required to conduct jamming operations.

In the MI battalion (CEWI), voice and radar collection assets and voice jamming assets are located in both the collection and jamming company and the electronic warfare company.[26] The mission of these two companies - to provide the division with SIGINT and EW support - highlights their single discipline orientation.[27] The QUICKFIX Platoon organic to the division's Combat Aviation Brigade (CAB) provides

aerial voice collection and jamming under the operational control of the MI battalion (CEWI).

The organizational structure of the MI battalion (CEWI) makes it apparent that although separate ASA and MI units were integrated under one battalion headquarters, they maintained their separate ASA and MI distinction by company organization. This structure takes on increased significance when compared to the doctrinal method of employing these capabilities either in general support of the division or in direct support of the maneuver brigade.

III. INTELLIGENCE FUNCTIONS/REQUIRED CAPABILITIES

The heavy maneuver brigade commander needs responsive, all-source IEW support to successfully conduct the mission of closing with and destroying the enemy using mobility, firepower and shock effect.[28] Intelligence functions or tasks provide a logical framework for discerning the brigade commander's IEW support requirements. Current doctrine divides the IEW mission into the major tasks of situation development, target development, electronic warfare and counterintelligence. The revised MI Branch Concept and the Combat Commander's Handbook on Intelligence expand these IEW functions to: indications and warning (I & W); intelligence preparation of the battlefield

(IPB); situation development; target development/ targeting (target acquisition); battle damage assessment (BDA); and force protection.[29] The addition of I & W, IPB and force protection accentuates their importance as the Army transitions to a CONUS-based, deployable force. Recent conflicts, especially Desert Storm, highlighted the need for increased emphasis on targeting and BDA.[30] The maneuver brigade performs all IEW functions to a varying degree based on the function's criticality to brigade operations.

Effective I & W prevents surprise and detects enemy actions that conflict with planning assumptions formulated during the decision-making process.[31] Brigade commanders must maintain the ability to continuously grasp the enemy situation in their area of interest (AI) to conduct effective I & W.

Current joint and Army doctrine defines the AI as that area outside of the unit's assigned zone or sector where the occurrence of enemy action could affect future operations.[32] That area encompasses length, width, height and time. Current doctrinal responsibilities define the brigade AI as a distance out to 70 kilometers from the forward line of troops (FLOT).[33]

Intelligence Preparation of the Battlefield (IPB) provides a continuous, systematic approach to analyzing

the terrain, weather and the enemy in relation to the friendly mission and the concept of the operation. Sun Tzu recognized the value of this type of systematic approach to the integration of the terrain, weather and enemy in about 400 B.C. He said, "Know the enemy, know yourself; your victory will never be endangered. Know the ground, know the weather, your victory will then be total."[34] IPB helps the commander understand the battlefield and synchronize the application of combat power.[35]

The focal point for IPB at the brigade is the Battlefield Information Coordination Center (BICC) assigned to the brigade S-2. Brigade BICCs require IPB product support from higher echelons since they are not adequately resourced to perform the formal IPB process without this assistance.[36] IPB provides the basis for performing the key function of situation development.

Situation development confirms or denies enemy courses of action predicted during IPB and helps the commander focus his combat power at the decisive place and time. Due to the increased tempo of the brigade battle, as noted during Desert Storm, situation awareness may more appropriately describe this function at the brigade level.[37]

Doctrine delineates specific information and intelligence requirements associated with situation

development at the brigade. Appendix 2 lists these requirements for offensive operations against an attacking and defending enemy force. The brigade commander requires similar information when conducting defensive operations with added emphasis on rear area threats and their expected targets.

In both the offense and defense, the brigade commander is concerned with the enemy's capability to synchronize operations. The brigade commander requires locations of enemy command and control, fire direction, air defense and reconnaissance nodes.[39] Appendix 2 lists specific requirements.

Timely and accurate situation development is key to brigade operations. The IEW system must provide situation development information to the brigade tactical operations center (TOC) within 15 minutes of acquisition and to within 500 meters of the actual target location to meet accuracy and responsiveness objectives.[39]

Situation development integrates all-source intelligence into concise, preferably graphic products depicting the current situation. It contains predictive judgements on the current situation and highlights implications for planning and conducting future operations.[40]

IPB and situation development establish the basic

for the critical function of target development/ targeting at the brigade level. This function provides targets and targeting data for attacks by fire, maneuver and electronic means.[41] It addresses all-source collection efforts to locate and acquire high value targets that directly contribute to application of combat power at decisive points on the battlefield.[42] Target development/targeting requires more responsive and accurate information than situation development. To meet accuracy and responsiveness criteria, the IEW system must acquire targets with an 80 meter accuracy and disseminate these targets to the brigade tactical operations center in five minutes for target development, or to the fire support element (FSE) in three minutes for targeting.[43]

Battle Damage Assessment (BDA) gives the commander an indication of military operation's effectiveness in terms of destruction and degradation of enemy combat power. Since BDA collection requirements compete with situation development and target development/targeting requirements, the commander must prioritize the BDA effort by what he needs to know and when he needs to know it.[44] During the fight, the brigade commander's collection priorities focus on situation awareness and targeting rather than BDA.

At the brigade level, force protection

concentrates on identification of friendly vulnerabilities and risk to the force from enemy multi-discipline intelligence collection. It counters identified enemy collection capabilities primarily by operations security (OPSEC) and counter-reconnaissance. Since the intelligence threat is multi-discipline, the effort to identify and counter the threat must also be multi-discipline.

The heavy maneuver brigade needs a responsive, all-source intelligence collection and processing capability to perform the IEW functions described above. Brigade commander's need to ". . . see over the next hill and beyond with timely, accurate target resolution."[45] The force protection function gains added significance given the Army's worldwide force projection role.[46] The maneuver brigade has no organic MI capability beyond its S-2 and BICC to contribute to the performance of these intelligence functions.

To successfully execute its mission, the brigade relies on supporting assets to perform the key functions of situation development and target development/targeting. These functions contribute directly to the brigade battle and may consume the supporting IEW asset capability.[47] Leverage gained from access to the "intelligence system of systems"

must be brought to bear to perform the functions of I & W, force protection and BDA.

The "intelligence system of systems" is the architecture developed to deal with required IEW capabilities at each echelon and fiscal realities of limited budget and systems' availability. The maneuver brigade commander recognizes that organic or direct support capabilities alone cannot satisfy all of the brigade's IEW requirements. Connectivity into higher echelon's IEW capabilities complements and reinforces the organic capabilities at each echelon."[48] However, this architecture recognizes the maneuver brigade commander's requirements for some organic or DS capabilities to perform essential intelligence functions.

Maneuver brigade commanders expressed their thoughts on required IEW capabilities during a series of interviews conducted after Desert Storm. The commanders emphasized the requirement for responsive, balanced IEW support. Many comments focused on the brigade's requirement to "see the battlefield" with a viable and controllable IMINT capability. The commanders stated that the increased tempo of the close fight necessitates IMINT and SIGINT downlinks to the brigade. Additionally, the commanders recognized intelligence as the key piece in the "decide, detect,

deliver" process. As such, they felt that brigades must be able to receive and deliver timely, accurate intelligence to support target development/ targeting.[49]

These perceptions represent the reality of how brigade commanders view requirements for MI IEW support. They provide a paradigm for maneuver brigade IEW support. Brigade commanders need an organic or DS IEW unit which gives them the capability to see the battlefield -- both the area of operations and the area of interest; balanced support across the disciplines; and connectivity into the "system of systems."[50] Although MI (CEWI) initiated progress in IEW support to the tactical commander, significant shortfalls continue to exist in IEW capabilities at the maneuver brigade.

IV. BRIGADE SUPPORT TODAY: THE MI COMPANY TEAM

To provide IEW support to the division, the MI battalion (CEWI) generally finds it assets spread throughout the maneuver brigades' sectors. This is caused by line-of-sight and range limitations of the ground-based SIGINT systems and the ground surveillance radars (GSRs). Doctrinally, MI battalion assets are task organized into IEW company teams when sufficient assets operate in the same brigade area. Company teams are not formed expressly to provide direct support to

maneuver brigades but rather to enhance MI battalion command and control and sustainment of deployed elements.[51]

No standard configuration exists for an MI company team. This provides the MI battalion commander with maximum flexibility to structure the teams based on the mission, enemy, terrain, troops and time available (METT-T). The MI battalion commander assigns the company teams standard tactical missions. Company teams usually operate in general support to the division or in direct support to the maneuver brigade. The major difference is responsiveness to requirements.

The company team contains assets from the three different TOE companies in the divisional MI battalion. The organization and major assets of a typical company team in direct support are shown in Appendix 3. This ad hoc organization is integrated under the command of one of the three TOE company commanders whose assets are usually divided among three different company teams.

In a direct support role to the brigade, the company team responds to the requirements of the brigade as a first priority and then to the requirements of the force as a whole. When the company team remains in general support, it responds to the requirements of the force as a whole and not to those

of any particular subordinate unit. Even with a company team deployed in a maneuver brigade's sector or zone, the brigade commander may still lack dedicated MI assets to respond to his requirements. One brigade commander noted that the relationship between the brigade and the MI battalion was tenuous with elements operating in the brigade area and only indirectly contributing to the brigade IEW effort.[52]

The IEW support element (IEWSE) is the one MI asset that the MI battalion always provides to the ground maneuver brigades.[53] The officer in charge of the IEWSE is the MI battalion liaison officer to the brigade commander and staff. The IEWSE is attached to the company team when it is deployed in the brigade sector. Regardless of the company team's tactical mission, the IEWSE advises the commander and staff on the integration and use of IEW assets as a combat multiplier in the brigade battle.

The philosophy underlying the doctrinal employment of direct support company teams to maneuver brigades recognizes the brigade's required capability to perform key IEW functions. This support is not assured either doctrinally or organizationally. When a company team is provided DS to the brigade, the fielded systems only partially address required capabilities. Based on Desert Storm experience, a maneuver brigade commander

commented that intelligence received from higher was good for the deep fight but the shortfall for the brigade existed in awareness of the situation in the close fight.[54] The company team's ability to support the brigade is restricted by line of sight SIGINT systems that cannot keep pace with the maneuver force. IMINT systems are ground-based and limited in range; and HUMINT/CI assets become available only when the GS requirements are satisfied. In 1984, an MI battalion (CEWI) commander commented that widespread support existed for the company team concept. Unfortunately, the battalion's force structure and old, unreliable IEW systems precluded its full implementation.[55] Today, maneuver brigade commanders believe that the direct support MI company team is a good concept but that improved equipment is still required.[56] Vision, technology and a realistic force development and modernization strategy are working to eliminate existing shortfalls in maneuver brigade IEW support.

V. PLANNED EVOLUTIONARY CHANGE

In Winning the Next War, Stephen Peter Rosen analyzes the phenomenon of military change and innovation. He offers paradigms for peacetime, wartime and technological innovation. The restructure of the heavy divisional MI battalion to provide DS companies

to maneuver brigades falls within Rosen's definition of a limited peacetime innovation or reform. Rosen states that reform occurs when an organization makes adjustments to remedy failure to achieve agreed on standards of performance.[57] The MI community recognized shortfalls in the capability to provide required support to brigade commanders after the introduction of MI (CEWI). The first systematic approach to remedying these shortfalls began with the Army Intelligence Electronic Warfare Target Acquisition Master Plan (AIMP).

The AIMP, also known as the Master Plan, was initiated in August 1986 as a joint effort between the Department of the Army staff elements responsible for IEW and force development. The Deputy Chief of Staff for Intelligence (DCSINT), in cooperation with the Deputy Chief of Staff for Operations and Plans (DCSOPS), established a task force to develop the Master Plan. The task force was to examine the force development process for IEW systems and organizations and determine how and who could do it better.[58] The process developed by the task force was as innovative as the product.

The first Master Plan was published in September 1987. This became the initial step taken by the Army MI community to promulgate ". . . a single, coherent

strategy for the planned evolution of Army IEW/TA systems and organizations to a clearly articulated future objective."[59] The Master Plan process includes the provision of an annual update to ensure that the product remains flexible and dynamic to account for changes in the mission, threat, technology and fiscal constraints. The Master Plan was not produced by the MI community in isolation from the Army it supports. Adherence to the MI motto of "Intelligence is for the Commander," was apparent in the coordination process for the first Master Plan and all others to follow. Prior to its official publication, every Army major command and every Unified and Specified Command was briefed on the overall plan and how it effected their IEW capabilities over time.[60] This Army-wide coordination paid great dividends in the form of combat commander support for the Master Plan. This aspect remains a hallmark of the Master Plan process.

The Master Plan has gone through four iterations since it was first published in 1987. Each new edition builds on the previous one and attempts to address the unresolved issues recognized in past efforts. (Appendix 4 provides a recap of the subjects addressed in each iteration).

The "future architectures" in the 1987 Master Plan established the framework for development of

organizations and systems to support the maneuver brigade commander in a heavy division. The scope of the architectures for the division and brigade levels delineates IEW/target acquisition (TA) missions, requirements, capabilities and the transition to an objective force designed and equipped to meet required capabilities.[61]

The IEW/TA structure envisioned for the heavy maneuver brigade in the 1987 Master Plan provided organic resources under the control of the brigade S-2 to perform the basic tasks of situation and target development, electronic warfare and counterintelligence. (More specific requirements are listed in Appendix 5). Warfighting doctrine and the Combined Arms Command Consolidated Commander's Information Requirements provided the basis for developing the commander's IEW/TA requirements.[62] A balanced structure containing HUMINT/CI, IMINT, and SIGINT and automated processing and analysis capability would be required to satisfy these requirements.

The IEW/TA organization for the maneuver brigade included an expanded S-2 section and the organic HUMINT/CI, IMINT, and SIGINT assets shown in Appendix 6. Organic IEW/TA units would include a brigade reconnaissance platoon, an unmanned aerial vehicle (UAV) section with the common ground station (CGS) and

an elevated sensor system (ESS) section.[63] The 1987 Master Plan delineated specific requirements and capabilities associated with brigade operations. A key structural change was the significant increase in organic capabilities to allow a degree of self-reliance in satisfying requirements.[64] The division MI battalion objective architecture did not address the provision of its resources in a direct support relationship to the brigade.

The 1987 Master Plan envisioned the transition of the divisional MI battalion to a three company organization shown in Appendix 7.[65] The organization's all-source vice discipline-oriented design supports the division commander's IEW/TA requirements to conduct tactical operations.[66] There is no mention of a requirement for companies or assets from the divisional MI battalion to provide direct support IEW/TA for the maneuver brigade. The unanswered issue in supporting the maneuver brigade's IEW/TA requirements is force structure and resource cost vice total reliance on support from the divisional MI battalion.[67] The Master Plan does not indicate a planned restructure of the divisional MI battalion to provide DS companies to maneuver brigades.[68] In a fiscally unconstrained environment, brigade capabilities would come from organic assets added to

the brigade force structure.

The "IEW Modernization Plan (Mod Plan)" provides the fiscally constrained strategy to achieve the future vision articulated in the Master Plan.[69] The Master Plan and "Mod Plan" comprise the overarching strategy of senior MI leaders to evolve the IEW system to best support the commander. The two plans coalesce to form a "single, coherent plan for the future."

The August 1992 "Mod Plan" describes the restructure and resourcing of the divisional MI battalion. The heavy and light division MI battalion structures will change to provide a DS company to three ground maneuver brigades while retaining a GS capability to support division level requirements.[70] The objective architecture for the DS company provides organic HUMINT/CI; IMINT from UAV and joint surveillance target attack radar system (JSTARS); and processing, analysis, display and dissemination with common ground station (CGS).[71]

The force modernization strategy recognizes the requirement for dedicated, albeit non-organic support to the maneuver brigade delineated in the Master Plan. The organizational restructure of the divisional MI battalion is an achievable way of satisfying those requirements without additional and unaffordable force structure added to the brigade.

"Military Intelligence 2000: Identification of Military Intelligence Missions, Organizations and Functions thru[sic] the Year 2006 (MI 2000)," was a quick reaction update to the Master Plan in recognition of the significant changes in the international environment and their impact on the Army in both the near-term and the future. Published in January 1991, it recognized the Army's transition to a CONUS-based, deployable force, articulated the current IEW/TA structure and provided the philosophical framework for the development and transition to the future structure.[72]

In "MI 2000," the MI battalion supporting a heavy division retains the current discipline-oriented structure.[73] There is no indication that the heavy division MI battalion would reorganize to provide DS companies to maneuver brigades. The numbers of new systems in the EW company and the intelligence and surveillance company provide the capability to form ad hoc company teams that could be used in DS to brigades in accordance with current doctrine. A diagram of the MI battalion depicted in "MI 2000" is at Appendix 8. In contrast, the MI battalion supporting an airborne division is organized with all-source DS companies to support maneuver brigades and a GS company for divisional support.[74]

The maneuver brigade IEW/TA structure in "MI 2000" reiterates the Master Plan requirement for a brigade scout element to enable the commander to conduct continuous, all weather reconnaissance into his area of interest for extended periods.[75] Beyond this, "MI 2000" does not address organic brigade IEW/TA force structure requirements delineated in the Master Plan.

Without the addition of organic HUMINT/CI, IMINT and SIGINT assets to the force structure, "MI 2000" delineates a full plate of required intelligence capabilities for the maneuver brigade. These required capabilities are listed in Appendix 5. The only force structure change to support the required capabilities consists of increased manning in the brigade S-2.[76] This increased manning accounts for the complex technology of new IEW systems and increased collection management responsibility due to the envisioned connectivity to the all-source analysis system (ASAS) and ground station module/common ground station (GSM)/CGS through a smart workstation with automated analysis capabilities.[77] Significant required capabilities overlaid on a limited force structure increase implied that brigades would continue to rely on company teams from the division MI battalion. Information collected and processed above brigade level will be accessed by brigade through the smart

workstation. MI 2000 refined the architecture delineated in the Master Plan but did not propose the restructure of the heavy division MI battalion.

A functional review of the Master Plan by the MI Relook Task Force in 1991 generated further refinement. The MI Relook charter included a review of the current intelligence system and recommendations to improve support to combat commanders.[78] The Task Force examined improved support in context of impending force reductions and programmed systems' fieldings through 1997.[79] The goal was to meld budget realities and improved technology with experiences gained in recent military operations to ensure fiscally supportable corrective action addressed documented deficiencies.[80]

MI Relook identified critical issues that continued to impact on intelligence support to the commander. Inadequate communications and automation, lack of ability to "see the battlefield" and a lack of proper balance across disciplines and all echelons surfaced as three key issues.[81]

The Task Force derived the analytical support for the key issues by wargaming a series of scenarios with the Fiscal Year 97 IEW systems and organizations as described in the most recent Master Plan and "Mod Plan." The scenarios portrayed various operations in conflict environments ranging from low to high

intensity in geographic areas in Central America, the South Pacific, the Middle East and Europe.[82] The wargaming results confirmed communication, ability to "see the battlefield" and a balanced force as primary challenges to the IEW system's ability to effectively support combat commanders.[83]

Further, the MI Relook Task Force avoided parochial results by conducting interviews with key commanders and staffs. The results of the interviews generally supported the issues identified by the MI Relook Task Force.

The MI Relook results provided the analytical and operational foundation for the revision of the MI Branch Concept. This concept delineates required capabilities for each echelon within the "intelligence system of systems" and explains how MI operates to support commanders at all levels. The MI Branch Concept, in turn, provides the philosophical basis for revising the Master Plan and "Mod Plan."

The requirement for a new concept to keep the evolution expressed in the Master Plan on track with the current contextual framework emerged from an assessment of the national security environment. This assessment emphasized: changes in regional threats; the Army's power projection mission; the downsized Army force structure; lessons learned; and technology and

new Army and other service intelligence systems.[94]

Given the constraints and opportunities recognized in the assessment, the MI Branch Concept describes commander's IEW needs common to all echelons. First, critical reports and products must be available to the commander when he needs them. These reports must be in graphic form, supported by narrative analysis only if required. Second, commanders must see the width and depth of the extended battlefield. Third, sensor systems must have reliable targeting accuracy with real time dissemination to commanders and their staffs. Last, the commander must have control of supporting and organic assets and exert influence over the "intelligence system of systems" when his assets cannot satisfy his priority requirements.[95] These criteria support the paradigm previously delineated in this paper as well as specify required systems' capabilities.

The MI Branch Concept created the framework for satisfying these needs through revisions in doctrine, training, leader development, organization and materiel. This concept became the first official promulgation of the heavy division MI battalion restructure to provide DS companies to maneuver brigades. The current "Mod Plan" incorporates the restructure of the heavy division MI battalion as part

of the overall force development strategy.

Since the advent of the Master Plan in 1987, MI has made a concerted effort to evolve the IEW system to better support the combat commander at all levels. The vision in the Master Plan remains tempered by the fiscally constrained strategy for evolving MI organizations and systems found in the "Mod Plan." Significant changes in the national security environment caused MI to reassess how it will operate to support the future Army. "MI 2000" was a quick reaction update to the Master Plan while MI Relook provided an in-depth functional area review and became the basis for the revised MI Branch Concept.

Department of Defense downsizing efforts make the original Master Plan vision of additional force structure for brigade organic IEW assets an unrealistic expectation. The importance of improving the heavy maneuver brigade IEW capability did not diminish even though the resources with which to accomplish this had. With emphasis on required capabilities vice additional force structure, the MI battalion restructure, outlined in the revised MI Branch Concept, provides the brigade with the dedicated IEW support of an all-source company expressly organized for that purpose.

VI. THE DIRECT SUPPORT COMPANY

The DS company will provide improved intelligence support to the heavy maneuver brigade commander. The heavy division MI battalion restructure provides the maneuver brigade with assured, responsive support by organizational design. Technology is the key to this improved support. The new systems being fielded this decade address the other elements of the established paradigm that, to date, have gone unanswered. Even when ad hoc company teams operated in direct support, equipment capabilities fell short of brigade required capabilities to "see the battlefield" and perform timely and accurate situation development and target development/targeting. Although the concept of reorganizing the division MI battalion to provide DS companies to maneuver brigades is not new, the technology to meaningfully implement this concept is just being fielded.

The objective DS company provides the heavy maneuver brigade with limited, dedicated HUMINT/CI support and greatly expanded and capable IMINT support. When the JSTARS GSM transitions to the CGS, the company gains the additional capability of receiving targetable SIGINT from division and above systems for correlation with IMINT.[86] The brigade will not have an organic SIGINT collection or jamming capability unless

augmented with GBCS from the division's general support assets. The organization for this company is at Appendix 9.

With the exception of the reconnaissance platoon and organic SIGINT collection, the required all-source intelligence capability for the heavy brigade first envisioned in the 1987 Master Plan is available within the objective DS company. Asset capabilities support the brigade in performing the key IEW functions of situation development/assessment and target development/targeting and limited force protection. The MI Branch Concept states that the purpose of echeloning the "intelligence system of systems" is due to the critical nature of rapid situation and target development/targeting.[87] This basic requirement for the brigade is satisfied by the capabilities under brigade control in the objective organization.

The baseline support provided by assets in the organizational structure will always be available to the maneuver brigade commander. The DS company also provides the structure for additional IEW augmentation. That is important given the context of a CONUS-based, deployable force. Rapid expansion of IEW support to the deploying maneuver brigade will potentially be easier to accomplish because of the baseline support structure available in the DS company.

The DS company's IMINT capability is based on technological advances demonstrated by prototype systems during the recent Gulf War. The JSTARS-GSM and the unmanned aerial vehicle-close range (UAV-C) will provide the brigade commander with the capability to "see the battlefield" - both the area of operations and the area of interest.

JSTARS is configured on an Air Force E-8 aircraft and is designed to detect, locate and track moving targets and locate stationary targets.[88] JSTARS transmits wide-area, targetable moving-target-indicator (MTI) and synthetic aperture radar (SAR) for fixed-target-indicator (FTI) data to the GSM.[89] The GSM operator can manipulate the screen image to focus on the area of JSTARS coverage corresponding to the commander's specific requirements.

JSTARS demonstrated its value to combat commanders during the recent Gulf War. Information from JSTARS which was downlinked to the GSM directly supported situation development and target development/ targeting.[90] The GSM is scheduled for fielding to all force package one (first to fight) units during the FY 94-99 timeframe.[91]

The GSM will transition to the common ground station (CGS) after the year 2000.[92] The CGS will provide the brigade with single platform access to

direct support, division general support, corps, theater and national IMINT and SIGINT collection systems.[93] This access underscores the necessity for dynamic collection management to satisfy the brigade commander's requirements. The GSM/CGS allows the brigade to see into the area of interest and the area of operations with IMINT and SIGINT collection assets. It supports I & W, situation development and target development/targeting. Information from the GSM can be used to cue other collection assets, like the UAV-C, for close-in target identification and verification.

The brigade commander will not control the station time of this theater aerial sensor platform, but he will have near-real-time access to information through the GSM when JSTARS is airborne and collecting. JSTARS collection capability remains vulnerable to adverse weather, especially during take-off and landing, and to enemy air defense efforts. The significant confluence of intelligence capabilities in one shelter makes the GSM/CGS a high value target for enemy collection and destruction.

The UAV-C, launched by the division MI battalion, will be controlled by the brigade through the ground control station (GCS) when flying in support of brigade requirements. The UAV-C objective design provides near-real-time imagery and targeting support to the

brigade.[94] The sensor payload is being designed with day/night, electro-optical/infrared downlink capability to locate targets with 80 meter accuracy out to 30 kilometers from the GCS.[95] It is programmed for fielding to all force package one units in the FY 94-99 timeframe.[96]

The UAV-C provides the commander with a responsive capability to perform situation development and target development/targeting in the area of operations. Enemy air defense efforts against UAVs during the Gulf War did not significantly degrade their mission accomplishment capability.[97] However, adverse weather and restrictive terrain could affect when and where the UAV-C flies.

The ground based common sensor (GBCS) system provides all-weather, continuous SIGINT, targeting and jamming capability in a tracked carrier that meets mobility and survivability requirements of heavy forces.[98] Although the GBCS replaces all ground SIGINT and EW assets currently fielded in the division MI battalion, the six systems fielded to the heavy division will belong to the GS company of the restructured MI battalion.[99] Without this system in the DS company or in direct support to the brigade, IEW support to the maneuver brigade commander has evolved from SIGINT heavy to IMINT heavy. Without GBCS

augmentation, balanced support exists only through access to the "intelligence system of systems."

Technology present in the systems described above will significantly increase the brigade commander's ability to access and leverage capabilities throughout the entire "intelligence system of systems." The DS company commander, like today's DS company team commander, is the MI battalion's IEW support coordinator for the maneuver brigade.[100] Unlike the company team commander, the DS company commander will not have the assistance of an IEWSE or the officer in charge of this element to function as the company's liaison officer in the brigade TOC.[101] The DS company team commander faces the dual challenge of leading, training, fighting and sustaining the company and providing effective liaison to the maneuver brigade.

The restructure to provide DS companies to maneuver brigades increases capabilities and access to the "intelligence system of systems" at the brigade and, in doing so, impacts on doctrine, training and leader development. The MI Branch Concept delineates these impacts and provides guidance to ensure that doctrine, training and leader development support the implementation of the concept and organizational design.[102]

The MI Branch Concept provides the basis for MI

input to the revision of FM 100-5.[103] Implementation of the concept also requires the revision of most MI series of field manuals including the MI keystone doctrine, FM 34-1, IEW Operations. FM 34-10, Division IEW Operations and FM 34-80, Brigade and Battalion IEW Operations, are the field manuals primarily affected by the restructure. Communicating how MI thinks about conducting operations at these levels is important to successful implementation of the DS company concept. Training the force to use the "intelligence system of systems" to its full advantage in support of the brigade commander's requirements is critical.

Military intelligence training is currently geared to support implementation of the DS company concept. The training strategy for the MI Officer's Advance Course (MIOAC) focuses on training company commanders, battalion and brigade S-2s and all-source intelligence officers.[104] The majority of MIOAC training emphasizes: brigade operations and intelligence; IEW organization, equipment and operations; the "intelligence system of systems"; and company command.[105] As the GSM evolves to the CGS, it may be appropriate to send brigade S-2s through the Collection Management Course to gain a more thorough understanding of national capabilities.

In the area of MI leader development, current

field grade officers have a tremendous self-education challenge to stay current with doctrinal, organizational and materiel changes embodied within the MI Branch Concept and the resulting organizational design. The Intelligence Center is working to identify required resources to institute a post-MIOAC course of instruction to update field grade officers on the dynamic changes affecting the branch.[106] The significant increase in IEW capabilities at the brigade level demands an S-2 that understands how to leverage intelligence to support the brigade commander's requirements.

A key leader development opportunity exists in educating combat commanders on their role in making intelligence work for them. The Combat Commander's Handbook on Intelligence, provides the commander with a basic self-education reference manual. The Tactical Commanders Development Course emphasizes the synchronization of the battlefield operating systems at battalion and brigade level. This course, taught at Fort Leavenworth, may be the appropriate forum for focused training on new brigade capabilities. This could take place during the Pre-Command Course for unit commanders and reinforced during unit rotations. More importantly, brigade commanders and staffs must be fully aware of the capabilities and limitations

inherent in the "intelligence system of systems" so they will not harbor unrealistic expectations.

VII. CONCLUSIONS, IMPLICATIONS

Technology is changing the way MI operates to support the heavy maneuver brigade commander. Most aspects of the improved brigade IEW support first envisioned in the Master Plan and refined because of changes in the national security environment are becoming reality. The fielding of new systems and the change in organizational structure to focus the systems' capabilities at the brigade level will provide the maneuver brigade with a significantly enhanced capability to "see the battlefield."

The paradigm for improved brigade support is addressed by the objective DS company and its organic systems' capabilities. First, the restructure of the division MI battalion to provide a DS company to the maneuver brigade gives the brigade assured, responsive intelligence support. Next, a greatly expanded IMINT architecture provides the brigade with systems that allow the commander to "see to the width and depth of the extended battlefield." The systems will provide targeting accuracy with near-real-time dissemination to the commander and staff. Finally, the objective architecture gives the brigade access to and leverage

of the all-source collection capabilities from the division through the national level. Implementation of the concept hinges on the communications necessary to support connectivity requirements.

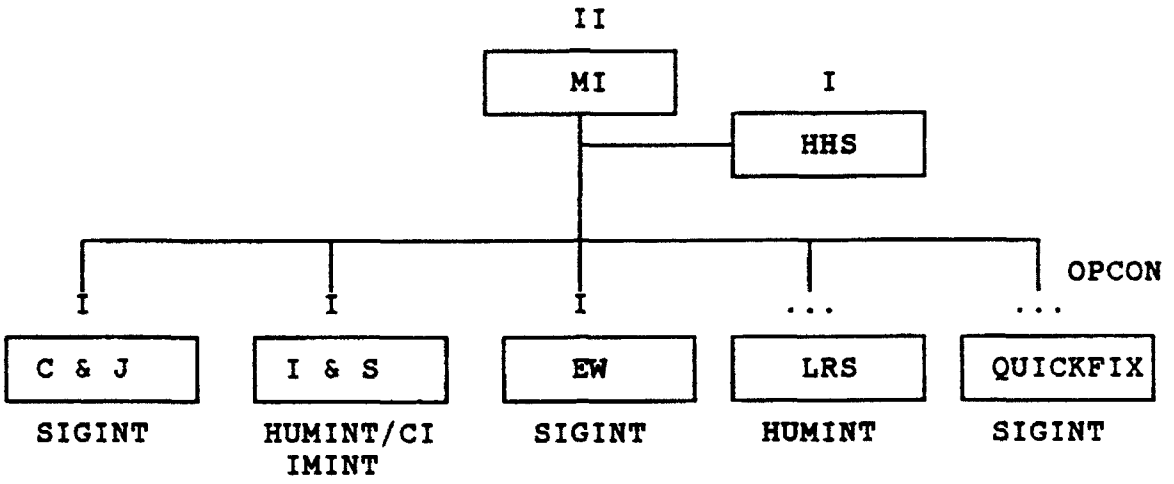
The paradigm for improved support also requires balance across the intelligence disciplines. The objective DS company will provide the maneuver brigade with a relatively robust IMINT capability, but a limited SIGINT and HUMINT/CI capability and no jamming capability unless augmented by GBCS. Since GBCS will likely operate in the brigade area due to line-of-sight requirements, it may be useful to place a GBCS in each DS company and assign that section a tactical mission dependent on METT-T. The baseline support structure will allow for rapid augmentation based on the situation. Additionally, the GSM/CGS will provide the brigade with access to both SIGINT and IMINT which will help achieve more balance across the disciplines.

The DS company will provide the maneuver brigade with improved, albeit IMINT-heavy, support. Adverse weather and a viable enemy air defense umbrella could degrade air platform freedom of action and responsiveness. The GSM/CGS will become the centerpiece of the intelligence capability at the brigade level. As such, it takes on the distinction of becoming a high value target to the enemy. The DS

company will not provide a ground reconnaissance capability envisioned in the first Master Plan because of force structure limitations.

Implementation of the DS company concept requires focus on doctrine revision, training and leader development to best use the expanded brigade capabilities and the capabilities of the entire "intelligence system of systems" to support the brigade commander's requirements. More importantly, it requires a concerted effort, from the combat commander and MI soldier alike, to understand how to make MI work to support the commander.

Appendix 1 (MI Battalion, Heavy Division)



Collection and Jamming Company (C & J Co):
- 3 x AN/TRQ-32(V)2 (TEAMMATE)
  - HF/VHF/UHF intercept; VHF DF when netted with other TRQ-32s
  - HMMWV
- 3 x AN/TLQ-17A(V)3 (TRAFFICJAM)
  - HF/VHF ECM; HF/VHF intercept
  - HMMWV
- 3 x AN/MLQ-34 (TACJAM) To be phased out
  - High power VHF ECM; HF/VHF intercept
  - M1015 Track

Intelligence and Surveillance Company (I & S Co):
- 2 x CI Teams
- 2 x Interrogation Teams
- 12 x AN/PPS-5B Radar Sets
  - Moving Target Indicator (MTI), Range: 6 km for personnel, 10 km for vehicles
  - M113 Track

Electronic Warfare Company (EW Co):
- AN/TSQ-138 (TRAILBLAZER) with 5 x Master Control Stations
  - Automated radio DF; VHF DF; HF/VHF/UHF intercept
  - M1015A1 being changed to 5T truck IAW HQDA Directive

Long Range Surveillance Detachment (LRSD):
- 6 x LRS teams
- 2 x Base radio stations

QUICKFIX Platoon:
- 3 x AN/ALQ-151(V)1 mounted on EH-60A Blackhawk
  - HF/VHF intercept; HF/VHF ECM; VHF DF (can net with TRAILBLAZER for DF)

Reference: FM 34-10, 2-6 through 2-12
FM 34-8, Appendix B.

Appendix 2 (Doctrinal Intelligence Requirements)

Brigade intelligence requirements for offensive operations against an attacking enemy:

* Composition, equipment, strengths and weaknesses of advancing enemy forces;
* Location, direction and speed of enemy first echelon battalions and their subordinate companies;
* Locations and activities of enemy second and follow-on echelons capable of reinforcing their first echelon forces in the close operations area;
* Location of enemy indirect fire weapon systems and units;
* Location of gaps, assailable flanks and other tactical weaknesses in the enemy's order of battle (OB) and OPSEC posture;
* Air threat;
* Enemy use of NBC;
* Effects of weather and terrain on current and projected operations;
* Anticipated timetable or event schedule associated with the enemy's most likely course of action.[107]

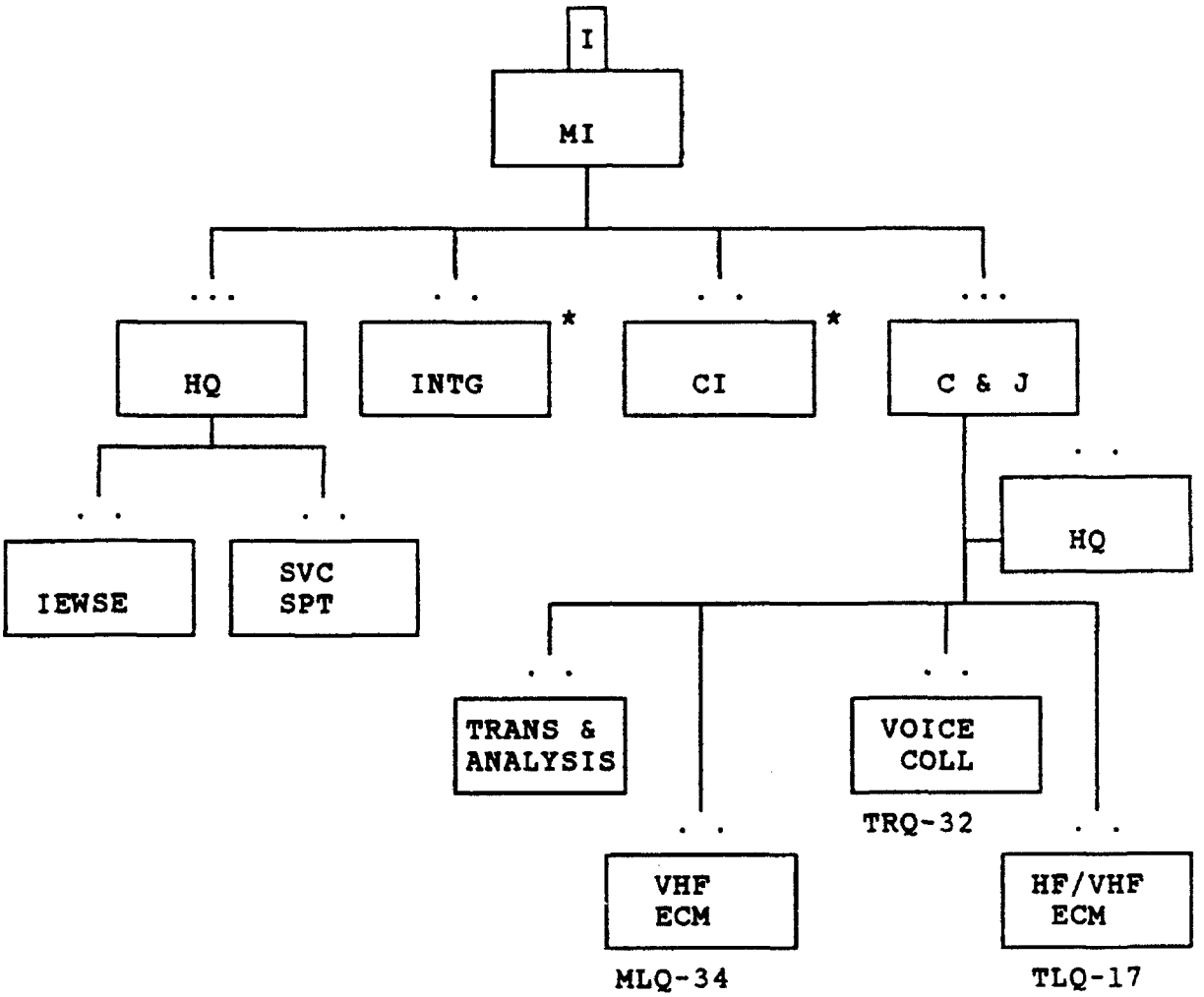
Brigade intelligence requirements for attack against a defending enemy:

* Barriers, obstacles, fire sacks and antitank (AT) strong points;
* Locations of antiaircraft and missile artillery units;
* Locations of surface-to-air missile (SAM) units;
* Location of radio electronic combat (REC) units;
* Location of reserve maneuver forces;
* Enemy ability to conduct deep attack into friendly rear area.[108]

Brigade intelligence requirements for locating command, control, communications and intelligence facilities in all operations:

* Division forward and main command posts (CPs);
* Regimental and battalion CPs;
* Fire direction control (FDC) centers;
* Command observation posts (COPs);
* Radio and radar reconnaissance sites;
* Radioelectronic combat sites;
* Target acquisition sites.[109]

Appendix 3 (Company Team, Direct Support)



* When sufficient augmentation is received from Corps

NOTE: GSR squad (4 x PPS-5B) attached to the brigade and not depicted in the company team organization.

References: FM 34-1, 6-5; FM 34-10, 3-28.

Appendix 4 (Master Plan Summary)

1987 AIMP

Volume III: Future Architectures
- CH 1 Research
- CH 2 Concept
- CH 3 Battalion/Brigade
- CH 4 Division
- CH 5 Corps
- CH 6 Generic EAC
- CH 7 EAC Europe
- CH 8 EAC Pacific
- CH 9 EAC Korea
- CH 10 EAC Central and South America
- CH 11 EAC Southwest Asia
- CH 12 Reserve Components
- CH 13 Space
- CH 14 EAC CONUS
- CH 15 National and Theater Aircraft Systems
- APP 1 Statement of Required Capabilities
- APP 2 Notional System Descriptions

Volume IV: Roadmaps (strategy prior to the initiation of the "IEW Mod Plan")
- CH 1 Methodology
- CH 2 I Corps
- CH 3 III Corps
- CH 4 V Corps
- CH 5 VII Corps
- CH 6 XVIII ABN Corps
- CH 7 EAC Europe
- CH 8 EAC Pacific
- CH 9 EAC Korea and 2D ID
- CH 10 EAC Central and South America
- CH 11 EAC Southwest Asia
- CH 12 EAC CONUS
- CH 13 Reserve Components
- CH 14 Systems Summary
- CH 15 Functional Area Summary

1988 AIMP

Volume III: Future Architectures
- CH 16 SOF (BASE)
- CH 17 Separate Brigade/ACR
- CH 18 Field Stations
- CH 19 Signals Intelligence
- CH 20 Electronic Warfare
- CH 21 Imagery Intelligence
- CH 22 Human Intelligence
- CH 23 Measurements and Signatures Intel

Appendix 4 (Master Plan Summary) (Continued)

1988 AIMP

Volume III: Future Architectures (Continued)
- CH 24 Technical Intelligence
- CH 25 Counterintelligence
- CH 26 Weather
- CH 27 Terrain
- APP 3 Collection Requirements

1989 AIMP

Volume III: Future Architectures
- CH 13 Space
- CH 16 SOF (Base)
- CH 18 Signals Intelligence
- CH 21 Imagery Intelligence
- CH 22 Human Intelligence
- CH 23 Measurements and Signatures Intel
- CH 25 Counterintelligence
- CH 28 Low Intensity Conflict
- CH 29 Technology Assessment
- CH 31 Training

1990-1991 AIMP

Volume III: Future Architectures
- CH 16 SOF
- CH 19 Counter-Narcotics
- CH 26 Weather
- CH 28 Low Intensity Conflict

NOTE: The "IEW Mod Plan" replaced the "Roadmaps" Volume of the AIMP beginning in 1989.

Reference: AIMP, Volume I: Executive Summary, June 1992, I-2.

Appendix 5 (Brigade IEW Requirements, Master Plan and "MI 2000")

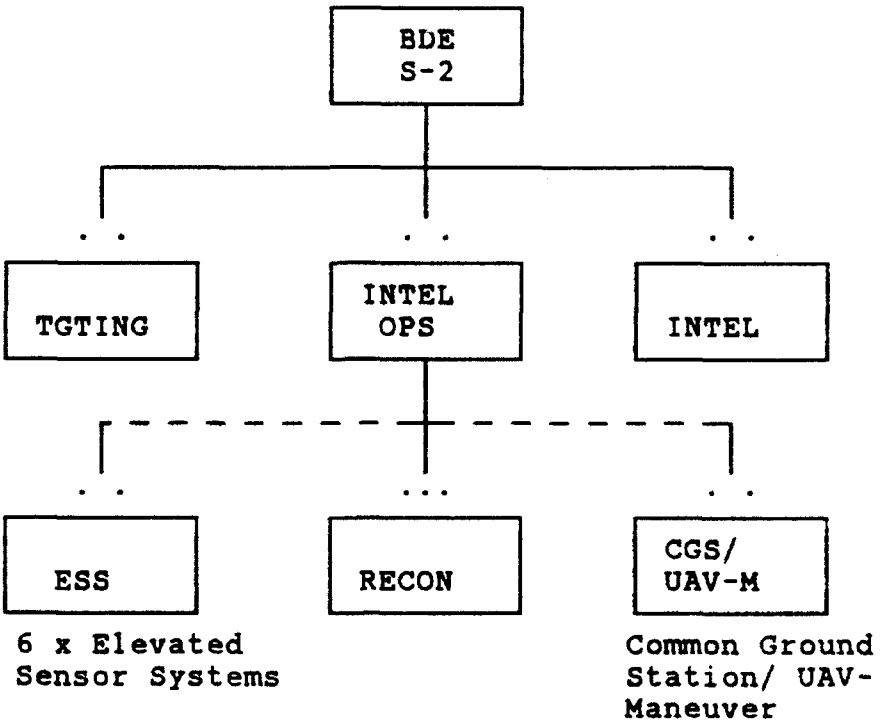
Master Plan:

* rapidly detect, identify and locate enemy units with a sufficient accuracy for combat action;
* project enemy intentions to assist the commander in force allocation;
* provide immediate information on enemy vulnerabilities or indicate where vulnerabilities can be created;
* determine the effects of weather and terrain on fire and maneuver;
* protect the friendly force from hostile intelligence exploitation.[10]

"MI 2000":

* Conduct surveillance of the brigade Area of Operation (AO);
* Conduct reconnaissance into the brigade Area of Interest (AI);
* Plan for and manage the employment of IEW assets;
* Intelligence analysis and estimation of hostile capabilities;
* Detect, identify, locate, and track for situation and target development;
* Receive and disseminate information and intelligence to and from higher, lower, and adjacent units to include allies;
* Protect the force.[11]

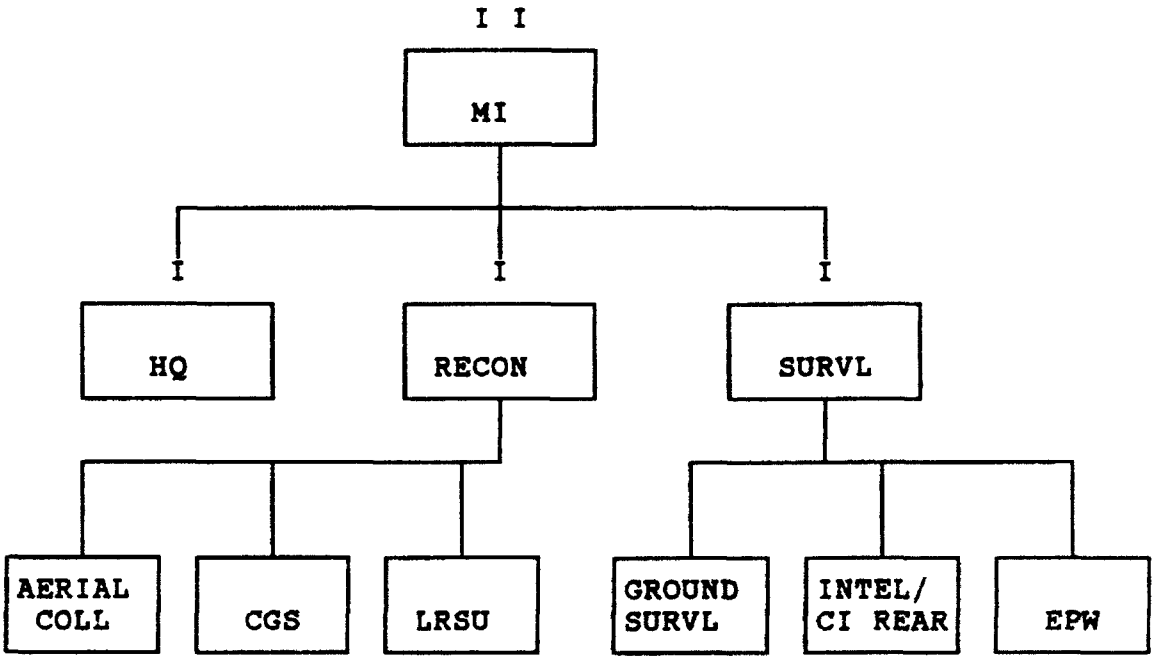
Appendix 6 (Heavy Maneuver Brigade IEW Organization, Master Plan)



NOTE: The brigade architecture increases the current level of organic support in an unconstrained resource environment. The ESS, recon platoon and CGS/UAV-M work under OPCON of the brigade S-2 and come under the brigade HHC TOE. But, ESS is not affordable and the manning for the recon platoon is not available.

Reference: AIMP, Volume I: Executive Summary, 1-47.
AIMP, Volume III: Future Architectures, 3-33.

Appendix 7 (MI Battalion Structure, Master Plan)

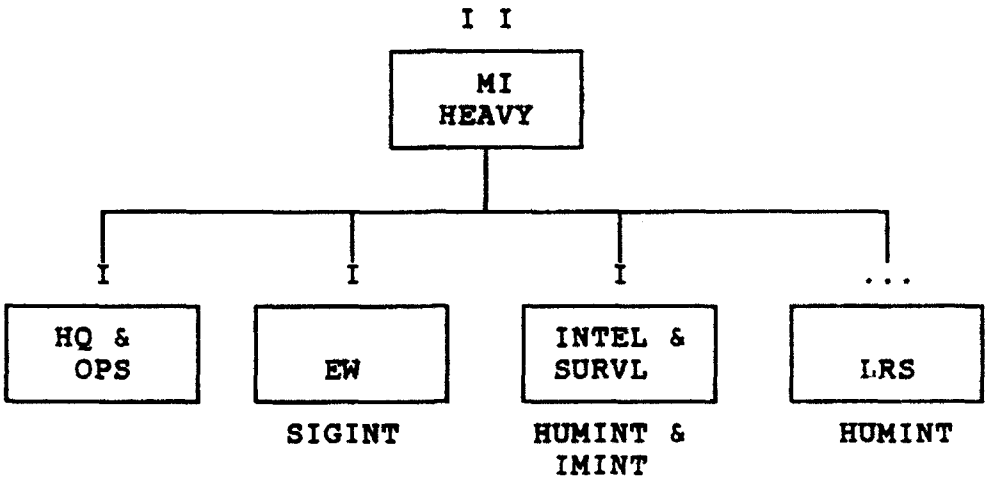


Reconnaissance Company:
- Aerial Collection - multi-discipline
- Common Ground Station (CGS) - SIGINT and IMINT downlink and corps UAV control
- Long Range Surveillance Unit (LRSU) Base station and surveillance teams with acoustic, seismic and magnetic sensors

Surveillance Company:
- Ground Surveillance - manned and tele-optical multi-discipline sensors
- Rear Area Intelligence/CI multi-discipline
- EPW - interrogation, document exploitation

Reference: AIMP, Volume III: Future Architectures, 4-38, 4-39, 4-41.

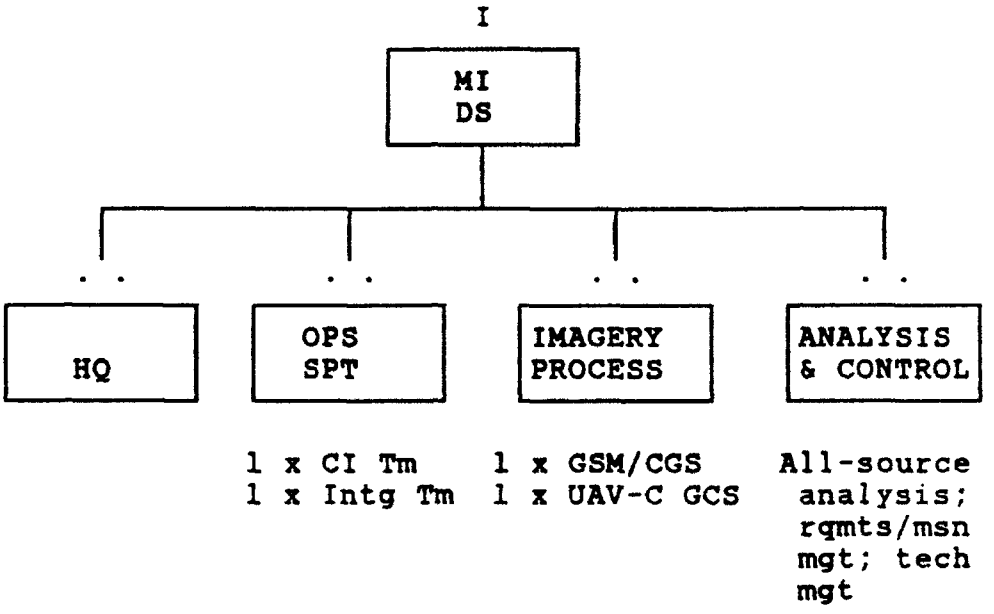
Appendix 8 (MI Battalion Structure, "MI 2000")



Electronic Warfare (EW) Company:	6 x Ground-based common sensor Advanced QUICKFIX
Intel and Surveillance (I & S): Company	UAV platoon Remote sensing section 2 x Interrogation teams
Long Range Surv Det (LRSD):	4 x LRS teams 2 x Base radio stations

Reference: "MI 2000", A-5.

Appendix 9 (Direct Support Company)



Reference: Military Intelligence Force Design Update (FDU) Decision Briefing to General Franks, 69.

Notes

1. Major General Paul E. Menoher, Jr., US Army, "Vantage Point," Military Intelligence, April-June 1992, 2.

2. US Army Intelligence Branch Concept, Final Coordinating Draft (MI Branch Concept), Fort Huachuca, Arizona: US Army Intelligence Center (Combat Developments), 15 June 1992, 1.

3. US Army Field Manual 100-5, Operations,Preliminary Draft (Washington, D.C.: US Government Printing Office, 21 August 1992), 2-19.

4. US Army White Paper, "Combat Commander Interview Results" from Military Intelligence Relook, 6 September 1992. Summarized from interview comments found in Tabs A through H of the Executive Summary.

5. US Army Field Manual 34-8, Combat Commander's Handbook on Intelligence, Final Approved Draft (Washington, D.C.: US Government Printing Office, July 1992) 1-1.

6. FM 100-5, Preliminary Draft, 2-18.

7. Department of the Army, (S) Intelligence Organization and Stationing Study (IOSS) (U),Volume I, August 1975, 16.

8. MI Branch Concept, 2.

9. Base Paragraph Structure Report 34285S000, Military Intelligence Battalion, Heavy Division (MI Relook), 7 October 1992, 1.

10. US Army Intelligence Center, "Military Intelligence Force Design Update (FDU) Decision Briefing" to the TRADOC Commander, undated, 13. Gen Franks approved the recommendations of the FDU but stated that some minor changes may be required to ensure compatibility with the emerging operations doctrine.

11. Brigadier General John F. Stewart, US Army, "Operation Desert Storm , The Military Intelligence Story: A View from the G-2, 3D U. S. Army," Riyadh, Saudi Arabia: 3rd US Army, April 1991, 11.

12. MI Branch Concept, 20.

13. IOSS, 16.

14. Lieutenant Colonel Don E. Gordon, US Army, "The CEWI Battalion: A Tactical Concept that Works," Military Review (January 1980): 4.

15. Ibid., 5.

16. IOSS, 1.

17. Ibid. 3.

18. Ibid., 16.

19. Lieutenant Colonel Don Gordon, US Army, "CEWI Battalion: Intelligence and Electronic Warfare on the Battlefield," Military Intelligence (October-December 1979): 23.

20. Office of the Deputy Chief of Staff for Operations and Plans, "Annex I (Intelligence and Electronic Warfare)" (IEW Mod Plan) to The Army Modernization Plan, August 1992, I-42.

21. Table of Organization and Equipment (TOE) 34288L0, Intelligence and Surveillance Company, MI Battalion (CEWI), Heavy Division, 1 October 1986, I-1 and TOE 07209L0, Long Range Surveillance Detachment, MI Battalion (CEWI), 1 April 1991, I-1.

22. US Army Intelligence Center, "FM 100-5, Chapter 8, Intelligence," Draft, Working Papers, 2 June 1992, 8-10.

23. US Army Field Manual 34-80, Brigade and Battalion Intelligence and Electronic Warfare Operations, (Washington, D.C.: US Government Printing Office, April 1986), 2-28 and 2-29.

24. US Army Field Manual 34-1, Intelligence and Electronic Warfare Operations (Washington, D.C.: US Government Printing Office, July 1987), 2-14.

25. Table of Organization and Equipment (TOE) 34288L0, Intelligence and Surveillance Company, MI Battalion (CEWI), Heavy Division, 1 October 1986, I-1.

26. Table of Organization and Equipment 34287L0, Collection and Jamming Company, Military Intelligence Battalion (CEWI), Heavy Division, 1 October 1986, I-1.

27. Ibid.

28. US Army Field Manual 71-3, Armored and Mechanized Infantry Brigade (Washington, D.C.: US Government Printing Office, 11 May 1988), 1-1.

29. MI Branch Concept, 2-3. The expanded functions are also delineated and explained in FM 34-8, Combat Commander's Handbook on Intelligence, 1-1 to 1-2.

30. Stewart, 17-21.

31. US Army Intelligence Center, "FM 100-5, Chapter 8, Intelligence," Working Papers, 8-4.

32. US Army Field Manual 100-5, Operations (Washington, D.C.: US Government Printing Office, May 1986), 35.

33. "IEW Mod Plan," I-12.

34. Sun Tzu, The Art of War, translated by Samuel B. Griffith (New York: Oxford University Press, 1971), 129.

35. FM 34-8, Combat Commander's Handbook on Intelligence, 1-1.

36. FM 34-1, IEW Operations, 4-11.

37. Telephone conversation with LTC Trauth, Deputy Director, Directorate of Combat Developments, US Army Intelligence Center and Fort Huachuca, 1 September 1992.

38. FM 34-80, Brigade and Battalion IEW Operations, 1-5.

39. "IEW Mod Plan," I-12.

40. MI Branch Concept, 3.

41. FM 100-5, "Chapter 8, Intelligence," Working Papers, 8-5.

42. Ibid.

43. "IEW Mod Plan," I-12.

44. FM 100-5, "Chapter 8, Intelligence," Working Papers. 8-5.

45. US Army White Paper, "Combat Commander's Interview Results," MI Relook Task Force (Washington, D.C.: ODCSINT, 6 September 1991), Tab E.

46. MI Branch Concept, 3.

47. Ibid., 25.

48. FM 100-5, "Chapter 8, Intelligence," Working Papers, 8-7.

49. "Combat Commander's Interview Results," Tab E.

50. Ibid.

51. FM 34-1, IEW Operations, 3-24.

52. "Combat Commander's Interview Results," Tab E.

53. US Army Field Manual 34-10, Division Intelligence and Electronic Warfare Operations (Washington, D.C.: US Government Printing Office, November 1986), 3-26.

54. "Combat Commander's Interview Results," Tab E.

55. Lieutenant Colonel Douglas M. Sheldon, US Army and Captain Ronald A. Grahek, Jr., US Army, "Support of Electronic Warfare Intelligence for Light Forces," Army (January 1987): 30.

56. "Combat Commander Interview Results," Tab E.

57. Stephen Peter Rosen, Winning the Next War (Ithaca: Cornell University Press, 1991), 30.

58. Office of the Deputy Chief of Staff for Intelligence, (S) US Army Intelligence Electronic Warfare Target Acquisition Master Plan (1992-2008) (U), Volume I: Executive Summary, June 1992, I-1.

59. Office of the Deputy Chief of Staff for Intelligence, (S/NF) US Army Intelligence Electronic Warfare Target Acquisition Master Plan (1988-2004) (U), Volume I: Executive Summary, 11 September 1987, cover memorandum.

60. Ibid., I-32.

61. Office of the Deputy Chief of Staff for Intelligence, (S/NF) US Army Intelligence Electronic Warfare Target Acquisition Master Plan (1988-2004) (U), Volume III: Future Architecture, Sep 87, 3-1 to 3-2.

62. AIMP, Volume I: Executive Summary, 11 September 1987, 1-44.

63. AIMP, Volume III: Future Architecture, September 1987, 3-32.

64. Ibid., 3-35.

65. Ibid., 4-36.

66. Ibid., 4-38, 4-39, 4-41.

67. Ibid., 3-35.

68. The 1991-1992 Master Plan Executive Summary continues to express the requirement for an organic ground reconnaissance capability in the form of a Brigade Reconnaissance Element. However, there is no mention of any other organic IEW/TA organizational element at brigade level. Additionally, there is no mention of the divisional MI battalion reorganization. This reorganization should appear in Volume III as a change to the future architecture.

69. "IEW Mod Plan," I-2.

70. Ibid., I-8.

71. Ibid.

72. US Army White Paper, "MI 2000: Identification of Military Intelligence Missions, Organizations and Functions Thru[sic] the Year 2006" (Washington, D.C.: ODCSINT, 25 January 1991), 1.

73. Ibid, B-5. The MI battalion, heavy division, is depicted with three companies (Headquarters, Headquarters and Operations Company, the Electronic Warfare Company, the Intelligence and Surveillance Company) and the Long Range Surveillance Detachment (LRSD).

74. Ibid., B-6.

75. Ibid., B-10.

76. Ibid.

77. Ibid.

78. AIMP, Volume I: Executive Summary, June 1992, I-6.

79. Menoher, "Vantage Point," Military Intelligence (April-June 1992): 2.

80. AIMP, Volume I: Executive Summary, June 1992, I-6.

81. Major General Paul E. Menoher, Jr., US Army, "Vantage Point," Military Intelligence (January-March 1992): 2.

82. AIMP, Volume I: Executive Summary, June 1992, I-8.

83. AIMP, Volume I: Executive Summary, June 1992, I-8.

84. MI Branch Concept, 1.

85. Ibid., 9.

86. "IEW Mod Plan," I-37.

87. MI Branch Concept, 20.

88. FM 34-8, Combat Commander's Handbook on Intelligence, B-17.

89. "IEW Mod Plan," I-37.

90. Stewart, 31.

91. "IEW Mod Plan," I-52.

92. Ibid.

93. Ibid., I-19.

94. Ibid., I-35.

95. Ibid., I-34 and 35.

96. Ibid., I-52.

97. Major Brian A. Keller, US Army, "Seeing the Airland Battlefield: Can the Heavy Division Military Intelligence Battalion do its Job?" Monograph, School of Advanced Military Studies (Fort Leavenworth, KS: US Army Command and General Staff College, 31 December 1991), 40.

98. "IEW Mod Plan," I-36.

99. Ibid.

100. FM 34-80, Brigade and Battalion IEW Operations, 2-67.

101. US Army Intelligence Center, Combat Developments, "MI Force Design Concept," Unpublished Paper, 8.

102. MI Branch Concept, 59-69.

103. Menoher, "Vantage Point," Military Intelligence (April-June 1992): 2.

104. Colonel Robert B. Mangold, US Army, "The New Military Intelligence Officer Advanced Course," Military Intelligence (January-March 1992): 32.

105. US Army Intelligence Center and Fort Huachuca, Program of Instruction (POI) for Course Number 3-30-C22-35, "Military Intelligence Officer Advance Course," 12 February 1992, 4.

106. Menoher, "Vantage Point," Military Intelligence (April-June 1992): 2.

107. FM 34-80, Brigade and Battalion IEW Operations, 1-5.

108. Ibid.

109. Ibid., 1-5 to 1-6.

110. AIMP, Volume III: Future Architecture, September 1987, 3-12.

111. "MI 2000," B-10.

Bibliography

U. S. Government Documents, Manuals and Reports

Base Paragraph Structure Report 34285L000, Military Intelligence Battalion, Heavy Division, 7 October 1992.

Base Paragraph Structure Report 34285S000,Military Intelligence Battalion, Heavy Division (MI Relook), 7 October 1992.

Department of the Army. (S) Intelligence Organization and Stationing Study (U), Volume I, August 1975.

Office of the Assistant Chief of Staff for Intelligence. (S) The Army Intelligence Master Plan (U), 19 October 1981.

Office of the Deputy Chief of Staff for Intelligence. (S/NF) US Army Intelligence Electronic Warfare Target Acquisition Master Plan (1988-2004) (U), Volume I: Executive Summary, 11 September 1987.

_____. (S/NF) US Army Intelligence Electronic Warfare Target Acquisition Master Plan (1988-2004) (U), Volume III: Future Architecture. September 1987.

_____. (S) US Army Intelligence Electronic Warfare Target Acquisition Modernization and Master Plan (1989-2006) (U), Volume I: Executive Summary. December 1988.

_____. (S) US Army Intelligence Electronic Warfare Target Acquisition Master Plan (1992-2008) (U), Volume I: Executive Summary, June 1992.

Office of the Deputy Chief for Operations and Plans. "Annex I (Intelligence and Electronic Warfare)" (IEW Mod Plan) to The Army Modernization Plan, August 1992.

Table of Organization and Equipment 34287L0, Collection and Jamming Company, Military Intelligence Battalion (CEWI), Heavy Division, 1 October 1986.

Table of Organization and Equipment 34289L0, Electronic Warfare Company, Military Intelligence Battalion (CEWI), Heavy Division, 1 October 1986.

Table of Organization and Equipment 34288L0, Intelligence and Surveillance Company, Military Intelligence Battalion (CEWI), Heavy Division, 1 October 1986.

Table of Organization and Equipment 07209L0, Long Range Surveillance Detachment, Military Intelligence Battalion (CEWI), Heavy Division, 1 April 1897.

Table of Organization and Equipment 342851000, Military Intelligence Battalion (CEWI), Heavy Division, 1 October 1986.

US Army Field Manual 34-1, Intelligence and Electronic Warfare Operations. Washington, D.C., US Government Printing Office, July 1987.

US Army Field Manual 34-2, Collection Management. Washington, D.C., US Government Printing Office, October 1990.

US Army Field Manual 34-3, Intelligence Analysis. Washington, D.C., US Government Printing Office, March 1990.

US Army Field Manual 34-8, Combat Commander's Handbook on Intelligence (Final Approved Draft). Washington, D.C., US Government Printing Office, July 1992.

US Army Field Manual 34-10, Division Intelligence and Electronic Warfare Operations. Washington, D.C., US Government Printing Office, November 1986.

US Army Field Manual 34-80, Brigade and Battalion Intelligence and Electronic Warfare Operations. Washington, D.C., US Government Printing Office, April 1986.

US Army Field Manual 34-130, Intelligence Preparation of the Battlefield. Washington, D.C., US Government Printing Office, May 1990.

US Army Field Manual 71-3, Armored and Mechanized Infantry Brigade. Washington, D.C., US Government Printing Office, 11 May 1988.

US Army Field Manual 100-5, Operations. Washington, D.C., US Government Printing Office, May 1986.

US Army Field Manual 100-5, Operations. (Preliminary Draft) Washington, D. C., US Government Printing Office, 21 August 1992.

US Army Intelligence Center and Fort Huachuca. Program of Instruction (POI) Course Number 3-30-C22-35, "Military Intelligence Officer Advance Course." 12 February 1992.

Books and Monographs

Bellamy, Chris. The Future of Land Warfare. New York: St. Martin's Press, 1987.

Clausewitz, Carl von. On War. Edited and translated by Michael Howard and Peter Paret. Princeton: Princeton University Press, 1984.

Demchak, Chris C. Military Organizations, Complex Machines: Modernization in the U. S. Armed Services. Ithaca: Cornell University Press, 1991.

Elder, James E., Major, US Army. "The Tactical IEW System and Intelligence on the AirLand Battlefield." Monograph, School of Advanced Military Studies. Ft. Leavenworth, KS: US Army Command and General Staff College, 16 December 1988.

Halbleib, Richard C., Major, US Army. "Can the Air Assault CEWI Battalion be Better Organized to Fulfill its Mission?" Thesis. Ft. Leavenworth, KS: US Army Command and General Staff College, 31 May 1989.

Keller, Brian A., Major, US Army. "Seeing the Airland Battlefield: Can the Heavy Division Military Intelligence Battalion do its Job?" Monograph, School of Advanced Military Studies. Ft. Leavenworth, KS: US Army Command and General Staff College, 31 December 1991.

Rosen, Stephen P. Winning the Next War: Innovation and the Modern Military. Ithaca: Cornell University Press, 1991.

Tzu, Sun. The Art of War. Translated by Samuel B. Griffith. New York: Oxford University Press, 1971.

Wilson, Terry B., Major, US Army. "Brigade Intelligence Operations: Implications for the Nonlinear Battlefield." Monograph, School of Advanced Military Studies. Ft. Leavenworth, KS: US Army Command and General Staff College, 6 March 1991.

Articles and Papers

Black, John H., Colonel, US Army and Major Kenneth A. Watras. "Training Notes. Collection Management/TENCAP 2000: The Revised CM/TENCAP Course." Military Intelligence (April- June 1992): 44-45.

Campi, Anthony V. and Samuel G. Livecchi. "Seamless System of Systems for the Future Battlefield." Army 40 (April 1990): 58-65.

Cook, Donald R., Major, US Army. "The Army Intelligence Master Plan: A Path to the 21th[sic] Century." Military Intelligence 15 (January-March 1989): 12-15.

Gordon, Don, Lieutenant Colonel, US Army. "CEWI Battalion: Intelligence and Electronic Warfare on the Battlefield." Military Intelligence (October-December 1979): 22-28.

_____. "The CEWI Battalion: A Tactical Concept that Works." Military Review (January 1980): 3-12.

Harmon, William E., Colonel, US Army. "Some Personal Observations on the CEWI Concept." Military Intelligence. (January-March 1983): 4-7.

Mangold, Robert B., Colonel, US Army. "The New Military Intelligence Officer Advanced Course." Military Intelligence (January-March 1992): 32-36.

May, Joseph C., Captain, US Army and First Lieutenant David C. Erickson. "CEWI in Direct Support to a Brigade at the NTC." Military Intelligence (October 1988): 38-39.

Menoher, Paul E., Jr., Major General, US Army. "Vantage Point." Military Intelligence (January-March 1992): 2 and 46.

_____. "Vantage Point." Military Intelligence (April-June 1992): 2 and 46.

_____. "Vantage Point." Military Intelligence (July-September 1992): 2 and 34.

Paluska, A. J., Jr., Major, US Army. "The Divisional CEWI Battalion: A Case for Reorganization." Military Intelligence (January-March 1983): 9-11.

Rosello, Victor M., Major, US Army. "Operation Just Cause: The Divisional MI Battalion, the Nonlinear Battlefield, and AirLand Operations-Future." Military Intelligence (July-September 1991): 28-31.

Sheldon, Douglas M., Lieutenant Colonel, US Army and Captain Ronald A. Grahek, Jr., US Army. "Support of Electronic Warfare Intelligence for Light Forces." Army (January 1987): 28-35.

Stewart, John F., Brigadier General, US Army. "Operation Desert Storm, The Military Intelligence Story: View from the G-2, 3rd Army." Riyadh, Saudi Arabia: 3rd US Army, April 1991.

US Army Command and General Staff College, School of Advanced Military Studies. "FM 100-5, Chapter 8, Intelligence." Working Papers, 29 June 1992.

US Army Intelligence Branch Concept, Final Coordinating Draft. Fort Huachuca, Arizona: US Army Intelligence Center (Combat Developments), 15 June 1992.

US Army Intelligence Center, Combat Developments. "MI Concept Force Design." Unpublished Paper.

US Army Intelligence Center. "FM 100-5, Chapter 8, Intelligence." Working Papers, 2 June 1992.

US Army White Paper. "Combat Commander Interview Results." Military Intelligence Relook Task Force. Washington, D.C.: ODCSINT, 6 September 1991.

US Army White Paper. "MI 2000: Identification of Military Intelligence Missions, Organizations and Functions Thru[sic] the Year 2006." Washington, D.C.: ODCSINT, 25 January 1991.

Telephone Interviews and Briefings

Trauth, Lieutenant Colonel, Deputy Director DCD at the Intelligence Center. Telephone conversation on 1 September 1992.

US Army Intelligence Center (Combat Developments). "Military Intelligence Force Design Update (FDU) Decision Briefing." Undated briefing to Commander, TRADOC.

US Army Intelligence Center (Combat Developments). "Future Warfare and Intelligence Support." Briefing, 8 January 1992.