ADVANCING INFORMATION COLLECTION MANAGEMENT PROFICIENCY IN THE BRIGADE COMBAT TEAM: A CASE FOR AN AUTHORIZED COLLECTION MANAGER



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Name of Candidate: Graham P. Shelly

Thesis Title: Advancing Information Collection Management Proficiency in the Brigade Combat Team: A Case for an Authorized Collection Manager

Approved by:

statement.)

_____, Thesis Committee Chair Candy S. Smith, M.A., MMAS

_____, Member Frank James Jr., DVM

_____, Member Gregory K. Butts, M.S., M.A., MMAS

Accepted this 14th day of June 2019 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

ABSTRACT

ADVANCING INFORMATION COLLECTION MANAGEMENT PROFICIENCY IN THE BRIGADE COMBAT TEAM: A CASE FOR AN AUTHORIZED COLLECTION MANAGER, by Graham P. Shelly, 100 pages.

In an ever-increasing complex world, the United States Army aims to modernize and innovate to meet emerging threats. This modernization is no less apparent than the changes observed in Army Information Collection resources and processes over the last thirty years. During this time, the Army has organized information collection platforms around the Brigade Combat Team without resourcing a collection manager at the Brigade Combat Team. This research seeks to determine the value of authorizing a collection manager position on the Brigade Combat Team Modified Table of Organization and Equipment. Through extensive qualitative analysis of doctrine, force management references, and professional writing from the past thirty years, this research found that the position of a collection manager provided expertise in coordinating information collection processes, producing information collection tools, and integrating information collection systems to support the commander's decision making.

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ACRONYMS

ADP	Army Doctrine Publication
AIDP-ISR	Army Intelligence Development Program-Intelligence, Surveillance, and Reconnaissance
ATP	Army Techniques Publication
BCT	Brigade Combat Team
BICC	Battlefield Information Control Center
CM&D	Collection Management and Dissemination
CMM	Collection Mission Management
СОМ	Collection Operations Management
CRM	Collection Requirements Management
FM	Field Manual
INSCOM	United States Army Intelligence and Security Command
ISR	Intelligence, Surveillance, and Reconnaissance
LSCO	Large Scale Combat Operations
MICO	Military Intelligence Company
MTOE	Modified Table of Organization and Equipment
S-2	Military Intelligence Staff
S-3	Operations Staff
USAICoE	United States Army Intelligence Center of Excellence
UAS	Unmanned Aerial System

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CHAPTER 1

INTRODUCTION

The United States Army is currently undertaking significant efforts to modernize for future threats while continuing efforts to combat existing threats and maintain readiness. These efforts are evident as the Army shifts from counter-insurgency based operations to Large Scale Combat Operations (LSCO) including shifting to near-peer threat emulation at the combat training centers as well as updates to Army doctrine, starting with operations. As such, the Chief of Staff of the Army, General Milley, made readiness and the future Army as two priorities Army-wide.¹ As part of realigning strategy, Lieutenant General Robert Ashley, the Army G-2, developed the *Army Intelligence 2017-2025* to support the modernization efforts across the Army. The intelligence strategy seeks to "integrate the national to tactical intelligence enterprise with multi-domain operations to provide a high degree of situation understanding"² with the vision of "intelligence at the speed of mission command."³

The 2025 intelligence vision, nested with the Army Strategic Plan, lists synchronization of information collection efforts as the first competency of focus.⁴ The vision further highlights the complexity of the future operating environment where nearpeer or peer adversaries have capabilities to combat the US militaries relative dominance in information collection across all operating domains.⁵ The 2025 intelligence vision identifies two major objectives with direct correlation to information collection management: fostering professionalization and manage talent, and fielding superior sensors.⁶ Fostering professionalization and manage talent corresponds to the skills and abilities required for collection managers (CMs) to effectively employ collection platforms to drive operations and support the commander's visualization. The fielding of superior sensors speaks to the growing complexity of the operational environment into a truly multi-domain operational construct where current collection platforms are ineffective against peer adversaries' anti-access and area denial capabilities. The need for knowledgeable integrators through collection management will grow as information collection capabilities continue to advance through the Army's shift from counter-insurgency focus to multi-domain operations against a peer threat. The 2025 strategy provides the framework for how Army intelligence will prepare for the future fight by prioritizing efforts that ultimately drive budgetary decision, such as the fielding of new information collection platforms.

Intelligence collection represents a significant funding investment by the United States Government to answer the critical information requirements of civilian leaders and military commanders. A 2011 Government Accountability Office report highlighted the considerable growth in intelligence collection capabilities and expenditures to the sum of \$80 billion dollars for fiscal year 2010 across the intelligence community.⁷ Of this figure, for fiscal year 2010, "the defense intelligence budget, known as the Military Intelligence Program," comprised \$27 billion in an environment where distinct collection activities and platforms between national and tactical levels were disappearing.⁸ The blurring "between military intelligence consumers demonstrates that tactical consumers benefit from greater access to information collection capabilities than previously available just as national consumers are utilizing intelligence collected from tactical level platforms.⁹

as the Air Forces Reaper, as a collection and strike platform, as well as the military personnel expenses associated with intelligence activities which in some cases significantly underestimates the actual cost.¹⁰ The availability of information collection platforms between echelons is largely a product of protracted counter-insurgency operations from Operations Iraqi Freedom and Enduring Freedom, enabled by advances in communications capabilities to widely disseminate information. The downward push of capabilities to the tactical-level was reinforced by the dynamic shift in Army operational construct from a Corps and Division warfighter to a modular Brigade Combat Team necessary to conduct effective counter-insurgency operations, necessitating significant investment in collection capabilities. As time progressed, terms like "Intelligence, Surveillance, and Reconnaissance (ISR) Soak", came to embody the availability of a multitude of information collection platforms at the Brigade Combat Team-level. Whereas Operations Iraqi Freedom and Enduring Freedom represent the epitome of information collection capability proliferation to meet operational needs, the first true test of highly technical information collection capabilities in support of largescale combat operations came in Operation Desert Storm.

Operation Desert Storm provides context to the development and fielding of collection platforms over the last thirty years as the most recent example of large-scale combat operations. Likewise, this time period is illustrative of the highly technological approach to information collection and justification of significant budgetary investments. Operation Desert Storm saw the introduction of two significant collection platforms, the Unmanned Aerial System (UAS) and the Joint Surveillance and Target Attack Radar System (JSTARS).¹¹ Both systems deployed to Operation Desert Storm as prototypes to

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support the largely imagery dominated campaign.¹² The Pioneer UAS served as a Corps level platform while the JSTARS, an Air Force platform, supported both air component and Field Army targeting and intelligence development.¹³ Further, both systems were praised heavily for their contributions and leaders from 3rd Army encouraged expansion and fielding of these platforms.¹⁴ One conclusion the 3rd Army G-2 made after Operation Desert Storm is that the advancements in collection platforms and the ability of the American Soldier to leverage that technology were critical elements of success.¹⁵ Where Operation Desert Storm demonstrated the ability to leverage new and existing national and tactical intelligence collection platforms in large scale combat operations, it highlighted the need for training in integrating and synchronizing these systems across echelons.

Leaders from Operation Desert Storm reinforced the need for "highly-trained intelligence personnel who can orchestrate multi-echelon collection management and dissemination operations" to provide "synchronized collection, processing, and dissemination of near-real-time, tailored intelligence."¹⁶ This identified need, borne of experience, led to updates in the Army's collection management and tactical exploitation of national capabilities course designed to leverage the new, emerging information collection platforms identified earlier. The three-week collection management and tactical exploitation of national capabilities course represented the United States Army Intelligence Center of Excellence (UASICoE) efforts to fill the capability gap.¹⁷ This Army school solution aimed at training multi-echelon capable collection managers.

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States Army Intelligence and Security Command (INSCOM) sought a smaller education program of depth.

In 1992 INSCOM started the National Systems Development Program as an advanced training program for junior military intelligence officers in integrating national collection systems to support warfighters at the division and below level.¹⁸ INSCOM later changed the name of this program to the Army Intelligence Development Program-ISR (AIDP-ISR).¹⁹ No direct correlation exists in the unclassified literature between lessons learned in Operation Desert Storm with the creation of the National Systems Development Program, later AIDP-ISR. The current twelve-month training program assigns graduates as a collection manager at a U.S. Army Division or Corps for a twelve to twenty-four-month utilization tour to apply skills gained in collection management.²⁰ The program includes a variety of Army, Joint, and national training that covers collection capabilities, collection requirements management systems, collection management fundamentals, and integrating courses.

Collection capabilities focus primarily on distinct courses in the intelligence disciplines of Signals intelligence, Geo-Spatial Intelligence, and Human Intelligence. National-level courses at the Defense Intelligence Agency, the Department of Defense Collection Management proponent, provide exposure to collection management fundamentals and the collection requirements management systems to build proficiency in actually submitting requests for collection to national collection systems. Tactical-level collection management training occurs through USAICoEs Information Collection Planners Course. Integrating courses include examples such as the US Army Space Cadre with thorough orbital dynamics instruction and the Joint Firepower Course providing

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exposure to US Air Force resources and processes. The AIDP-ISR student's instruction culminates with participation in a Division Warfighter Exercise as a member of the Division Collection Management and Dissemination (CM&D) section. This exercise introduces the student to the array of information collection platforms at the Division and BCT levels.

The operational environment grows more complex everyday. The US Army, through INSCOM and USAICoE, continues to innovate through the development and acquisition of collection capabilities. The growth of unmanned and multi-intelligence discipline collection platforms bring more sensors and capabilities to maneuver commanders than previously available.²¹ INSCOM's fielding of four unique manned and unmanned aerial collection platforms, the Enhanced Medium Altitude Reconnaissance and Surveillance System, Airborne Reconnaissance Low-Enhanced, MQ-1B Warrior Alpha, and MQ-1C Gray Eagle represent a sampling of the updated and emerging capabilities at echelons above brigade that collection managers can consider in developing collection plans.²² At the time of the 2011 Government Accountability Office report on the Department of Defense ISR efficiencies, the department was attempting to develop long-term plans for "more than 500 ISR capabilities developed to meet urgent operational requirements in Iraq and Afghanistan" as a further example of the overwhelming collection capability environment.²³ Intelligence leaders foretold of this complex environment in 1992 while contemplating force structure changes.

The evolving force structure calls for a smaller Army, mainly a CONUS-based force. The Army of the future must be able to deter potential regional threats and conflicts globally, instead of focusing primarily on European-based threats. This mission includes deterrence not only of mid- and high- intensity conflict, but also low-intensity conflict. The evolving threats include –

- Nuclear and conventional forces of the Commonwealth of Independent States.
- Multiple regional threats from state and non-state powers in the Middle East, Asia, Africa, and Latin America.
- International drug trafficking.
- International Terrorism.²⁴

The development of the BCT-centric capability came from force modernization plans based on lessons learned from small-scale contingency operations, such as Kosovo, resulting in the desire for a formation between the traditional heavy armor and light infantry.²⁵ In his estimations, Chief of Staff of the Army, General Eric Shinseki, concluded that future fights would require a force structure capable of rapid deployment but enabled with enough mobility and lethality to handle the transition from forced entry to sustained combat.²⁶ Two fundamental components of the BCT development are the Reconnaissance, Surveillance, and Target Acquisition Cavalry Squadron and the Military Intelligence Company (MICO). These organizations were designed to provide the BCT with significant organic information collection capabilities not previously available at the Brigade-level. The Cavalry Squadron included a surveillance troop of a UAS platform, signals intelligence collectors, and chemical reconnaissance to augment the three ground reconnaissance troops.²⁷ Separate from the cavalry squadron, a MICO consisting of human intelligence, ISR analysis, and ISR integration platoons served as the requirements management and analytical element for the BCT's new array of ground reconnaissance, UAS, human intelligence and signals intelligence collection platforms.²⁸ Through further modernization, the surveillance troop disappeared with the UAS and signals intelligence platforms moved to the MICO that now resides in the Brigade Engineer Battalion. The ISR analysis and integration platoons are consolidated into an

information collection platoon adding analysis and synchronization requirements to fewer Soldiers. This increase in responsibilities to fewer Soldiers, coupled with the number of collection platforms within the BCT, results in a lack of integration in the information collection plan. This result is borne out in numerous combat training center rotation feedback and identified trends.

<u>Problem</u>

Brigade Combat Teams have access to vastly more collection platform capabilities than their counterpart formations during Operation Desert Storm as the model of the most recent LSCO. Currently, no authorized collection manager position exists in the BCT to support the integrated operations and intelligence working group responsible for developing a comprehensive information collection plan. To fulfill the requirements of collection management, BCTs designate a collection manager as an additional duty.

<u>Thesis</u>

The Brigade Combat Team needs an authorized, primary duty collection manager on the Modified Table of Organizational Equipment (MTOE) to integrate collection management processes with information collection systems through effective information collection tools to answer the commander's requirements.

Research Purpose

The purpose of this research is to determine the benefit of authorizing a collection manager position in the BCT MTOE with advanced training in information collection management to support the BCTs information collection operations.

Research Question

What is the value of an authorized BCT collection manager in the MTOE as BCTs prepare for offensive and defensive operations with a near-peer threat in LSCO?

Supporting Research Questions

How does the BCT doctrinally execute information collection?

How have organic collection platforms available to the BCT changed over the last three decades?

What institutional and operational knowledge is necessary for a BCT CM?

Background and Bias

The researcher served in a variety of tactical-level positions related to information collection to include reconnaissance platoon leader, surveillance troop executive officer, battalion S-2, and AIDP-ISR student. Author's AIDP-ISR training and education includes the Army's Information Collection Planners Course, Defense Intelligence Agency's Intelligence Collectors Course and Intelligence Collection Management Course. Additionally, the researcher attended in-depth education covering capabilities and requirements management systems in the Geospatial, Signals, and Human Intelligence disciplines. Beyond collection management, the author attended integrating education in joint fires and digital intelligence systems architecture. The researcher acknowledges the inherent possibility of bias towards the role of the collection manager as a graduate of the AIDP-ISR program. In light of this bias, the author intends to show a variety of viewpoints objectively regarding improvements to information collection at the BCT. Lastly, the researcher recognizes that, as a Military Intelligence Officer, the research may appear framed from a military intelligence perspective. However, the researcher has never served as a BCT collection manager or supervised a BCT collection manager. To address the inherent Military Intelligence lean, this research intends to include the reconnaissance communities' perspective wherever possible.

Assumptions

The main assumption of this research is that information collection platforms available to the BCT will continue to grow. This assumption is largely based on lessons learned from Operations Desert Shield, Desert Storm, Iraqi Freedom, and Enduring Freedom. From Operation Desert Storm, "the field Army focused nearly all intelligence collection and production on Corps and Division needs" demonstrating a push of collection platforms to subordinate units.²⁹ The next assumption presumes the audience has a general understanding of the composition of a BCT to the company level, specifically enabler companies such as the Military Intelligence Company. The last assumption is the audience has a general understanding of the information collection capabilities organic to the BCT. This assumption is necessary to keep this research at the unclassified level as discussion of specific collection platform capabilities can quickly elevate the information to higher classification levels unnecessary for this discussion.

Definitions

The primary definition, for the purposes of this research, of Information Collection, is defined in the Army's manual as "an activity that synchronizes and integrates the planning and employment of sensors and assets as well as the processing, exploitation, and dissemination systems in direct support of current and future operations."³⁰ Sensor and asset must be defined for further clarity in the research as no formal definition exists in either Army or Joint doctrine. Oxford Dictionaries defines a sensor as a "device which detects or measures a physical property and records, indicates, or otherwise responds to it."³¹ Given this definition, this research considers a sensor as a technical collection platform that transmits data for processing and analysis. Sensor collection systems associate most closely with the intelligence disciplines of Geospatial (GEOINT), Signals (SIGINT), Measures and Signatures (MASINT).

Assets are more loosely defined with Oxford Dictionaries offering as "a useful or valuable thing or person."³² Given the broad scope of the term asset, this research considers a collection asset as a human dependent collector. Asset collectors are associated with Human Intelligence, Counter-Intelligence, and Cavalry Scouts performing reconnaissance and security operations. To further clarify, Cavalry scouts are capable of utilizing sensors, such as the long-range scout surveillance system, but for this research, the scout is the asset as the data is processed and reported by the scout as combat information.

A collection platform is inclusive of a sensor or an asset or a combination of multiple sensors or assets. A collection platform also includes the means of transportation and data communication. An example of a collection platform would be a Cavalry Scout section consisting of two combat vehicles equipped with long range scout surveillance systems as the sensors and eight Cavalry Scouts as the assets.

Two terms must be clarified in the leveraging of a collection platform against an information requirement. The terms of assigning versus tasking may, at face value, appear similar but, in reality, carry different weight in collection management.

Doctrinally, unless dictated otherwise, the Commander and the S-3 are the two tasking authorities in the BCT. Staff supports the tasking authority through assignment recommendations to free the commander and S-3 to focus on other requirements of the operations process and mission command. This distinction is critical to the base understanding of the role of the collection manager. As a manager, the collection manager is a staff member making assignment recommendations to the Commander and S-3.³³ This distinction reflects in Army Information Collection doctrine as an operations series Field Manual (FM).

The Army definition of information collection is virtually identical to the joint definition of Intelligence, Surveillance and Reconnaissance (ISR) that is "an integrated operations and intelligence activity that synchronizes and integrates the planning and operations of sensors, assets, and processing, exploitation, and dissemination systems in direct support of current and future operations."³⁴ That stated, ISR is also a composition of three sub-elements as the acronym suggests with distinct characteristics differentiating them from one another. To fully understand the concept of ISR, one must first understand that intelligence exists in a product sense and operational sense. The product sense starts with the difference between data, information, and intelligence. Data exists in raw form and can be collected by a sensor or asset becoming information. Intelligence is information that has been processed and exploited by a trained analyst to derive meaning from the information collected. Intelligence in an operational sense are "tasks undertaken by military intelligence units and Soldiers to obtain information to satisfy validated requirements," and associated with one or more intelligence discipline; therefore, a form of collection operation.³⁵ Reconnaissance collection operations are focused on "obtaining information about the threat or the operational environment," whereas surveillance operations are a "systematic observation of places, person, or things."³⁶ Think of reconnaissance as cavalry scouts observing a named area of interest to confirm or deny an aspect of the threat or operational environment and then moving on to the next named area of interest after answering the first. Surveillance in this example would be establishing a longer duration presence by the same cavalry scouts to observe a threats activity and provide continuous reporting. Coupled together, ISR provides a wholistic approach to collecting information with intelligence and non-intelligence related sensors and assets.

Joint Collection Management Functions Defined

The two functions of collection management, as defined by Joint Pub 2-01, is necessary to understand roles and responsibilities associated with collection management as a process. The first is Collection Requirements Management (CRM) where a collection manager is responsible for validating the determined information requirements as necessary for collection.³⁷ The second is Collection Operations Management (COM) where a collection manager is responsible for assigning a collection platform to collect the information determined through the collection requirements management.³⁸ An associated, but not critical function, is Collection Mission Management (CMM) which is the tactical and technical control of a sensor or asset during collection operations. To summarize collection management functions, an analyst recommends a threat's indirect fires equipment as an information requirement that supports the commander's Priority Intelligence Requirements to the senior intelligence analyst in the Brigade Intelligence Support Element. The senior analyst includes the recommended information requirement along with additional information requirements such as location of threat forward observers to the collection manager for assigning a collection platform to collect. In this previous example, the senior analyst performs CRM functions while the collection manager performs COM functions. CMM rests with the organization that has direct command and control of the collection platform, in the example, CMM would be the parent unit of the forward observer. The examples provided to explain the joint collection management functions applied to a brigade are for illustrative purposes to understand the functions since current U.S. Army doctrine does not differentiate the roles in a U.S. Army capacity.

Scope

The intent of this research is to be applicable to all BCT organizations as every construct of the BCT fundamentally maintains an intelligence section, MICO, and cavalry squadron. The primary audience for this research is senior Military Intelligence leaders with influence on intelligence organization force structure and training. Brigade Combat Team Commanders and Division Senior Intelligence Officers are the secondary audience for this research as a means for manning and training of military intelligence within their respective commands. Collection platform diversity over the last three decades highlights the development of technical collection platforms available to the BCT. This timeframe includes LSCO in Operation Desert Storm, and both LSCO and Counter-Insurgency in Operations Iraqi Freedom and Enduring Freedom. The intent of this timeframe is to show that collection platform diversity has grown regardless of the nature of military conflict since 1990.

Limitations

The primary limitation of the research is the Brigade Combat Team as an echelon and combat organization. The purpose of the limitation is to focus the research on primary maneuver forces projected to be engaged in offensive and defensive operations against a near pear threat. The research is further limited to the Brigade Combat Team's intelligence warfighting function, the cavalry squadron, and the brigade operations staff section. Where necessary, the research includes discussion of division level organizations for historical context only.

Delimitations

This research does not discuss operational capabilities of specific collection platforms or intelligence disciplines due to the sensitive or classified nature of specific platforms. Further, this research does not include aggregated details of force management documents to prevent disclosure of unclassified but sensitive information. Force management information is limited to specific references to duty positions and additional skill identifiers indicating authorizations for advanced training.

Significance of the Study

This research examines the BCT information collection organizational structure, operational planning, and employment of BCT assigned collection platforms, including scouts and technical collection platforms. The U.S. Army maintains three types of brigade combat teams, each equipped with the bulk of tactical information collection assets. This research may contribute to justification of personnel decisions for the BCT as well as training recommendations to better support information collection.

Summary

Information collection in the United States Army represents a significant investment in strategy and force management in both material and personnel. The United States Government invests significant resources to staff and equip intelligence organizations to provide information for decision makers from tactical to strategic levels. ¹ Robert P. Ashley, Jr., "Army Intelligence 2017-2025: Intelligence at the Speed of Mission Command," *Military Intelligence Professional Bulletin* 43, no. 3 (July-September 2017): 7.

² Ibid., 6.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid., 7.

⁷ Davi M. D'Agostino, *Intelligence, Surveillance, and Reconnaissance: Actions Are Needed to Increase Integration and Efficiencies of DOD's ISR Enterprise.* Report to Congressional Committees (Washington, DC: U.S. Government Accountability Office, 2011), 1.

⁸ Ibid., 5.
⁹ Ibid.

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¹⁰ Ibid., 11; Ibid., 13.

¹¹ John F. Stewart, Jr., *Operation Desert Storm The Military Intelligence Story: A View From the G-2 3D U.S. Army*, April 1991, in *Operation Desert Storm: Ten Years Later*, ed. William Burr and Jeffrey T. Richelson, document 5, National Security Archive Electronic Briefing Book No. 39 (Washington, DC: George Washington University, April 1991), 1, accessed 16 March 2019, https://nsarchive2.gwu.edu/NSAEBB/NSAEBB39/.

¹² Ibid., 6.

¹³ US Congress, House, Committee on Armed Services (HASC), Oversight and Investigations Subcommittee, *Intelligence Successes and Failures in Operations Desert Shield/Storm*, Report to Congressional Committees (Washington, DC: U.S. Government Printing Office, 1993), 8; "VII U.S. Corps employed the UAV." Stewart, *Operation Desert Storm The Military Intelligence Story*, 31; "[JSTARS] gave the first and continuous signs of Iraqi withdrawal from Kuwait and was the target development instrument we used for the Air Force attack of fleeing Iraqi convoys on the main road north of Al Jahra," Stewart, *Operation Desert Storm The Military Intelligence Story*, 31.

¹⁴ Stewart, *Operation Desert Storm The Military Intelligence Story*, 1; HASC, Oversight and Investigations Subcommittee, *Intelligence Successes and Failures in Operations Desert Shield/Storm*, 8.

¹⁵ Stewart, Operation Desert Storm The Military Intelligence Story, 39.

¹⁶ John H. Black and Kenneth A. Watras, "Collection Management/TENCAP 2000: The Revised CM/TENCAP Course," *Military Intelligence Professional Bulletin* 18, no. 2 (April-June 1992): 44.

¹⁷ Ibid., 45.

¹⁸ US Army Human Resources Command (USAHRC), Military Personnel (MILPER) Message Number 07-202, 03 August 2007, accessed 14 October 2018, https://www.hrc.army.mil/milper/07-202.

¹⁹ US Army Human Resources Command (USAHRC), Military Personnel (MILPER) Message Number 11-191, 16 June 2011, accessed 28 March 2019, https://www.hrc.army.mil/milper/11-191.

²⁰ US Army Human Resources Command (USAHRC), Military Personnel (MILPER) Message Number 18-194, 21 June 2018, accessed 12 April 2019, https://www.hrc.army.mil/milper/18-194.

²¹ Tony K. Verenna, Keith A. Haskin, Trevis C. Isenberg, Stephen A. Gasparek, and Marco A. Garavito, "Innovation and Modernization: INSCOM's Aerial Intelligence, Surveillance, and Reconnaissance," *Military Intelligence Professional Bulletin* 44, no. 3 (July-September 2018): 62.

²² Ibid., 61-62.

²³ D'Agostino, Intelligence, Surveillance, and Reconnaissance, 6.

²⁴ Black and Watras, "Collection Management/TENCAP 2000," 44.

²⁵ Ted L. Martens, "The Brigade Combat Team-The Transformation Process," *Military Intelligence Professional Bulletin* 26, no. 3 (July-September 2000): 4.

²⁶ Ibid.

²⁷ Ibid., 6-7; Kevin C.M. Benson and Dana J.H. Pittard, "Armor, Cavalry, and Transformation: 'New' Cavalry for the Interim Force," *Armor Mounted Maneuver Journal* 110, no. 2 (March-April 2001): 9.

²⁸ Martens, "The Brigade Combat Team," 5-6.

²⁹ Stewart, Operation Desert Storm The Military Intelligence Story, 33.

³⁰ Headquarters, Department of the Army (HQDA), Field Manual (FM) 3-55, *Information Collection* (Washington, DC: Government Printing Office, May 2013), 1-1. ³¹ Oxford Dictionaries, "Sensor," English Oxford Living Online Dictionaries, accessed November 16, 2018, https://en.oxforddictionaries.com/definition/sensor.

³² Oxford Dictionaries, "Asset," English Oxford Living Online Dictionaries, accessed November 18, 2018, https://en.oxforddictionaries.com/definition/asset.

³³ HQDA, FM 3-55, 2-5.

³⁴ Joint Chiefs of Staff (JCS), Joint Publication (JP) 2-0, *Joint Intelligence* (Washington, DC: Government Printing Office, October 2013), GL-10.

³⁵ Headquarters, Department of the Army (HQDA), Army Doctrine Publication (ADP) 2-0, *Intelligence* (Washington, DC: Government Printing Office, September 2018), 2-4.

³⁶ JCS, JP 2-0, I-11.

³⁷ Joint Chiefs of Staff (JCS), Joint Publication (JP) 2-01, *Joint and National Intelligence Support to Military Operations* (Washington, DC: Governemnt Printing Office, July 2017), III-19.

³⁸ JCS, JP 2-0, I-14.

CHAPTER 2

LITERATURE REVIEW

The literature for this research consists of three main categories; doctrine, professional discourse, and personnel management references. The doctrine research covers a wide span of proponents as the nature of information collection is not limited to one single warfighting function responsibility. Therefore, the doctrine literature incorporates contributions from both the intelligence and movement and maneuver warfighting functions. The doctrine literature also includes discussion on joint doctrine since current information collection operations are heavily reliant on joint collection platforms. In short, the majority of literature found for this research was centered on information collection at the BCT which aligns with the overall purpose being to determine the benefit of an authorized collection manager position in the BCT MTOE.

The military professional literature encompasses a variety of sources from the intelligence warfighting function, the movement and maneuver warfighting function, joint observations, and historical observations from Operation Desert Storm. The military intelligence literature comes primarily from *Military Intelligence Professional Bulletin* articles discussing intelligence contribution to information collection and also leader commentary on the AIDP-ISR contributions to corps and division capabilities. Reports on intelligence operations during Operation Desert Storm provides a historical component of the military intelligence literature.

Military professional literature from the movement and maneuver warfighting function includes discussions on expectations of the intelligence warfighting function support to reconnaissance and Cavalry leader involvement in information collection management. In all, the prevailing discussions center around experientially based recommendations to improve Army information collection with specific emphasis at the BCT-level. Further, the literature review is organized based on the supporting research questions of how the BCT doctrinally conducts information collection, collection platform development at the BCT over the last three decades, and necessary knowledge of a BCT collection manager followed by general discussions of the collection manager at the BCT. The literature review concludes with major themes found throughout the literature that informed the overall thesis and drives the research methodology.

Improving Information Collection

The majority of the professional discourse literature focuses on improving the information collection capabilities within respective units based on direct observations and experiences, mostly through combat training center rotations. Most literature made recommendations on improving coordination during collection management activities, information collection tools, or knowledge of information collection systems. None of the literature researched clearly identified a need for standardizing the collection manager position at the BCT on the MTOE. The literature represents a diverse group of contributors with many having served as a BCT collection manager in multiple capacities, although their recommendations focused on training and coordination amongst the staff that is reflected in doctrine. Some recommendations represented fundamental organizational, equipping, and operational changes at the BCT and were the minority.

The dual-hatted capacity is represented in the case with First Lieutenant Anthony Sterioti, an Information Collection Platoon Leader and BCT collection manager. Sterioti offered a concise description of the information collection process in the BCT with specific emphasis on the work of the collection working group and relationship with the S-3 staff.¹

Recent doctrine updates across the Army is represented in Ms. Terri Lobdell's article on "Resetting Intelligence Doctrine". Lobdell, a key Army Civilian in the Doctrine Integration Branch at USAICoE, presents the contextual changes for FM 2-0 brought about from the release of FM 3-0, *Operations*.² Lobdell includes refinement of intelligence tasks, specifically Intelligence Preparation of the Battlefield and collection management, as new focus in the updated FM 2-0 with concerted efforts to maintain fundamentals such as intelligence operations within information collection and integration of national to tactical intelligence.³

In terms of theses, two significant studies appeared related to improving information collection or ISR, depending on the time of publishing. Major Ryan Skaggs, an Air Force officer, authored a thesis of applying mission command principles to improve agility in joint ISR.⁴ As part of this thesis, Skaggs explored a notion of a dichotomy between ISR management and leadership positing the question if ISR should be managed or led.⁵ Skaggs approach and research draws from doctrinal references of ISR being a managed process ultimately leading to a conclusion that ISR can be both managed and led effectively..⁶ Major Aaron Sammons in 2008 focused on doctrinal and organizational changes to better serve the BCT commander's requirements. Sammons' research identified a capability gap at the BCT-level in a qualified manager endowed with the authority to direct ISR. In Sammons conclusion, the BCT needs "truly qualified officers [who] are, preferably, both educated and experienced in the direction of ISR…imbued with both the responsibility and the authority to direct ISR.".⁷ Sammons'

argument directly targets the dichotomy of responsibility for information collection planning with the S-3 overall responsible for publishing orders where the S-2 contributes the lion's share of the plan.

The most consequential intelligence-focused professional discourse came from Combat Training Center Trainer's Major Nathan Adams, Captain Raymond Kuderka, Captain Andrew Eickbush, and Major Michael Childs, whose roles provided the greatest breadth of first-hand observation. Adams observed a total of eleven Combat Training Center rotations as an intelligence trainer at the Joint Readiness Training Center in Fort Polk, Louisiana.⁸ In his experience, Adams provides specific details on numerous challenges within the BCT intelligence warfighting function with the most notable being synchronizing collection efforts across the staff beyond the creation of doctrinal tools.⁹ Adams also identifies challenges in S-2 leadership, intelligence architecture, and asset management as areas for improvement.¹⁰ Childs' experience stems from direct observation of fifteen rotations at the National Training Center in Fort Irwin, California from January 2011 through June 2012.¹¹

Kuderka and Eickbush provided observational experience of Brigade Combat Teams and multi-national partners at the Joint Multinational Readiness Center in Hohenfels, Germany as an intelligence trainer and fires trainer respectively. Without providing context of a number of observed rotations, Kuderka and Eickbush note that, "regardless of unit type or nation of origin, units fail to plan and execute an information collection plan that supports the commander's decision-making process."¹² Kuderka and Eickbush state that ill-defined "operational framework, convoluted information collection overlays, lack of understanding organic information collection capability, prioritization of assets, and inadequate staff coordination" are the fundamental challenges with effective information collection planning and execution.¹³

Childs' observations, as an intelligence trainer, led to a major theme of BCTs failing to "practice effective information collection rehearsals to synchronize the brigade's reconnaissance and surveillance plan inside the intelligence warfighting function."¹⁴ Ultimately the conclusions from Combat Training Center trainers demonstrate clear challenges within Army Information Collection planning and execution. The fact that information collection challenges in planning and execution come from across all the combat training centers cannot be overstated.

The recommendations with the most structural change came from experiences based on the permanent opposing force from the National Training Center at Fort Irwin, California. This article from a former BCT MICO Commander recommends restructuring the BCT MICO with their existing collection platforms and transferring the company to the Cavalry Squadron.¹⁵ Wellsandt argues for transforming the MICO into a "Hunter Company", by stripping out the UAS platoon and augmenting the company with cavalry or infantry Soldiers.¹⁶ Wellsandt's recommendation requires the entire BCT information collection structure to change as well as add material solutions in the form of ground surveillance radar, similar to what is used at the National Training Center.¹⁷

Outside of the Intelligence warfighting function, the cavalry community developed the concept of the Chief of Reconnaissance as a staff advisor role responsible for the integration of reconnaissance into the BCTs plans and operations. Two authors contributed to the Chief of Reconnaissance discussion by recommending a certain position in the BCT as ideal to serve as the Chief of Reconnaissance. The first perspective came from Captain Michael Hefti arguing that the Cavalry Squadron Headquarters and Headquarters Troop Commander is ideal. The second opinion, by Captain John Palmer, suggested the Cavalry Squadron Commander is the best suited to fulfill the role of Chief of Reconnaissance. Both authors acknowledge the lack of any information or defining qualities of the Chief or Reconnaissance in doctrine.

Hefti argues that the Cavalry Squadron Headquarters and Headquarters Troop Commander makes the ideal candidate to serve as the BCT Chief of Reconnaissance because the doctrinal role and position of the Headquarters and Headquarters Troop Commander on the battlefield is obsolete since the Forward Support Commander is now located doctrinally at the forward-trains command post.¹⁸ Given the obsolete location, the Headquarters and Headquarters Troop Commander can serve as an ideal cavalry liaison and integrator of multiple staff sections into the reconnaissance plan dependent on being physically located at the BCT command post.¹⁹ Hefti assumes that the obsolete location of the Headquarters and Headquarters Troop Commander relies completely on doctrinal application of the Forward Support Company Commander assuming the forward-trains command post.

Palmer takes the more common approach to the Chief of Reconnaissance by arguing that the Cavalry Squadron Commander is the best candidate because he or she already exercises command authority, is likely the most experienced reconnaissance leader in the BCT, and has access to upper tactical internet removing the requirement to be located with the BCT command post.²⁰ Palmer's major assumption is the Cavalry Squadron and BCT command posts will have access to upper tactical internet even though a significant planning consideration for units training today is the degradation of communications architecture through enemy electronic warfare employment. Palmer's thesis also assumes that the Cavalry Squadron Commander already has the authority to task all information collection assets within the BCT.²¹ This assumption would likely be a point of contention with the Brigade Engineer Battalion who exercises authority over the BCT MICO. Palmer highlights a key point in information collection discussion that "no staff section is in charge of both the planning and execution of information collection as a collaborative effort amongst multiple participants.²²

Colonel Dwight DuQuensnay and Major Camero Song offer two perspectives on the value that advanced collection management training offers Corps and Division echelons through the auspices of experiences with AIDP-ISR graduates. DuQuensay indicated his experience supervising an AIDP-ISR graduate as the Multi-National Force-Iraq collection manager was able to quickly integrate and synchronize Air Force ISR and Army and contract collection platforms as a "truly joint, aerial ISR force."²³ Drawing on his later Korea experience, DuQuensay likened AIDP-ISR graduates additional collection management experience similar to the planner graduates of the School of Advanced Military Studies.²⁴ Song, as a graduate of the AIDP-ISR program, highlights the hallmarks of the program as advancing collection management knowledge at the joint task force and national levels which is an important factor in integrating collection platforms.²⁵ Song further advocates for expanding the AIDP-ISR to the noncommissioned officer corps as well as bolstering all Military Intelligence professional military education on the principles of collection management.²⁶
Institutional and Operational Knowledge Necessary for a BCT CM

The Army provides advanced training in information collection through two skill identifier producing courses at two different centers of excellence. The USAICoE administers the Intelligence, Surveillance, and Reconnaissance (ISR) Synchronization Managers Course or also referred to as the Information Collection Planners Course. This course consists of five weeks of classroom training for military intelligence officers, warrant officers, and non-commissioned officers on skills to serve as a Brigade ISR Planner/Manager and produces the Q7 information collection Planner additional skill identifier.²⁷ Positions associated with the Q7 additional skill identifier are described as "requiring qualifications in managing the employment of organic and supporting intelligence collection assets, as well as reach back to higher headquarters and intelligence agencies for information, in order to provide the commander with effective intelligence support."²⁸

The U.S. Army Armor School administers the Cavalry Leader course at Fort Benning, Georgia for Armor officer and enlisted military occupational specialties. The Cavalry Leader Course produces the C6 additional skill identifier following three weeks of training in the application of reconnaissance and security operations to include "asset synchronization, Cavalry organization employment, synchronization of operations and intelligence analysis, and tactical techniques in a myriad of reconnaissance and security scenarios."²⁹ The functions associated with the C6 additional skill identifier includes "planning for and employing mounted and dismounted organic assets, employment and integration of various supporting assets including UAS, logistics, Army and Air Force manned aircraft, and SIGINT/MASINT platforms."³⁰ The Defense Intelligence Agency serves as the executive agent for the Certified Collection Management Professional Certification Program while also providing webbased and in-person training on collection management.³¹ Likewise, the National Geospatial Intelligence Agency administers the Geospatial Intelligence Professional Certification Program along with associated intelligence discipline specific training.³² It is also common for intelligence discipline specific courses to include collection management instruction as a means to educate students on how to request collection platforms. Beyond institutional training, the operational force identified training needs amongst the military intelligence force at-large in intelligence synchronization.

An article on the BCT S-2 course by Major Jason Buchanan and Lieutenant Colonel Anthony Covert shows an identified gap in information collection management knowledge in the tactical military intelligence workforce. Summarizing the training efforts to close multiple knowledge gaps, Buchanan and Covert discussed how First Corps, and later the Command and General Staff College, developed a comprehensive training agenda oriented at military intelligence majors and captains.³³ In the model week of training, collection management consists of a full day of training.³⁴ First Lieutenant Kari LaRubio indicated the need for a BCT collection manager to be knowledgeable in the Shadow UAS that includes the systems capabilities and limitations, briefed by the UAS platoon.³⁵ This knowledge, in LaRubio's estimation, enables the BCT collection manager to effectively employ the Shadow UAS "within the brigade's reconnaissance plan."³⁶

How the BCT Doctrinally Executes Information Collection

Three sources of literature provide insight into information collection staffing at the BCT; force management documents, doctrine, and professional discourse. The majority of literature speaks to information collection as a broader team effort versus one individual fulfilling all the functions of collection management.

The definitive force management documentation is the MTOE but unfortunately the current data resides at the official use only-level. Additionally, MTOE data was not available for the brigade or division-level from Operation Desert Storm. More generic Tables of Organization and Equipment provide context to how these organizations were equipped and staffed. Further, the research included the Military Intelligence Battalion organic to the Division for the frame of reference of where the intelligence collection platforms existed during Operation Desert Storm. Intelligence Doctrine active during Operation Desert Storm provides background on intended employment of information collection platforms. To overcome the force management data challenge, doctrine is used to provide context between duty positions and staff proponents through integrating processes. Doctrine from 1986 to 1990 provided context for military intelligence, cavalry, and aviation collection platforms at both the division and brigade-levels. These doctrinal publications included FM 1-111, Aviation Brigades; FM 34-10, Division Intelligence and *Electronic Warfare Operations*; and FM 34-80, *Brigade and Battalion Intelligence and* Electronic Warfare Operations.

The Intelligence and Operations doctrine series are the primary contributors to Army information collection doctrine in the form of FM 3-55, *Information Collection*; FM 2-0, *Intelligence*; and Army Techniques Publication (ATP) 2-01, *Plan Requirements* and Assess Collection. Maneuver doctrine supports information collection through ATP 3-20.96, Cavalry Squadron; FM 3-04, Army Aviation; FM 3-90-2, Reconnaissance, Security and Tactical Enabling Tasks; FM 3-98, Reconnaissance and Security

Operations; and FM 3-96, *Brigade Combat Team.* Joint publications commonly use the term ISR where the Army uses information collection to describe the same activity. Joint Publication 2-0 defines ISR as "an activity that synchronizes and integrates the planning and operation of sensors, assets, and processing, exploitation, and dissemination systems in direct support of current and future operations…this is an integrated intelligence and operations function."³⁷ This definition is identical to the Army definition of information collection presented earlier where there is no clear indicator why the terms are different.

Doctrine informs that Information Collection is a collaborative process of activities and tasks. Information collection consists of planning requirements and assessing collection, tasking and directing collection, and executing collection; which will be referred to as components since doctrine does not define if these are tasks, activities, or the overall process.³⁸ Information collection activities connect the components of information collection with staff responsibility, (see figure 1).³⁹

FM 3-55 identifies staff roles and collaboration responsibilities for the information collection activities. Planning requirements and assessing collection are associated with the intelligence staff collaborating with the rest of the unit staff.⁴⁰ Tasking and direction belong under the purview of the operations officer, supported through the operations staff.⁴¹ Information collection tasks and operations are categorized as reconnaissance, surveillance, security operations and intelligence operations.⁴² FM 3-55 also establishes the concept of the situationally needed, Operations and Intelligence

Working Group. This working group represents an amalgamation of staff sections whose purpose is "coordination and integration of information collection activity and provide recommendations to the commander."⁴³

Conversely, FM 2-0 identifies information collection tasks as collection management, direct information collection, execute collection, and conduct intelligencerelated missions and operations.⁴⁴ FM 2-0 further states that the intelligence warfighting function contributes to all tasks except execute collection.⁴⁵ Executing collection rests with the respective units carrying out the collection tasks of reconnaissance, surveillance, security and intelligence operations. FM 2-0 assumes the responsibility of collection management with the supporting tasks of develop requirements, develop collection management tools, assess collection, and update collection management tools.⁴⁶ Figure 1 below shows the connection between FM 3-55's information collection activities and FM 2-0's collection management tasks as intelligence staff functions.



Figure 1. Information Collection Activities

Source: Headquarters, Department of the Army, Field Manual 3-55, *Information Collection* (Washington, DC: Government Printing Office, May 2013), 1-4.

ATP 2-01 serves as the intelligence series publication to further refine the intelligence warfighting functions role for information collection activities. ATP 2-01 identifies conflicting information collection tasks with FM 2-0 in the form of "plan requirements and assess collection, task and direct collection, and execute collection."⁴⁷

In this case, ATP 2-01 mirrors FM 3-55 with the exception that FM 3-55 does not specifically call these tasks.

FMs 3-98, Reconnaissance and Security Operations, and 3-90-2, Reconnaissance, Security and Tactical Enabling Tasks provide similar descriptions of the responsibilities for information collection at the BCT. The primary focus of these FMs is on the reconnaissance assets, namely the BCT Cavalry Squadron. One major distinction presented is the concept of the BCT Reconnaissance Cell that is not mirrored in any of the other doctrine publications. FM 3-98 further does not discuss how a BCT Reconnaissance Cell works within the context of the Operations and Intelligence Working Group that is mentioned in virtually all of the doctrine publications, except FM 3-0, FM 3-90-2 and FM 3-96. FM 3-98 indicates the purpose of the Brigade Reconnaissance Cell fulfills the employment of sensors and assets part of the information collection definition by "coordinating and synchronizing the BCT's reconnaissance operations."⁴⁸ Not directly stated, the intent of the BCT Reconnaissance Cell appears to serve an enduring function of staff coordination with a smaller cadre of staff members including S-2, S-3 Plans, Brigade Aviation Element, Tactical Air Control Party, and Fire Support Coordinator.⁴⁹ This cell differs from the often mentioned Operations and Intelligence Working Group because the working group is characterized as a "ad hoc" group focused on information collection planning which is the first part of the information collection definition.⁵⁰

Finally, leaders writing about observations and experiences in various positions regarding information collection at the BCT provides context to in how information collection is managed and varies between BCTs. In Lobdell's article, she mentions that even though the previously mentioned Operations and Intelligence Working Group at the BCT and Battalion levels is optional, it does not diminish the need for close coordination between the S-2 and S-3.⁵¹

The concept of staff relationships to support information collection appeared multiple times. LaRubio shared insights on the interactions between BCT staff and the tactical UAS platoon. LaRubio introduced the Brigade Aviation Element as an important participant in the BCT's information collection operations with a variety of capabilities.⁵² LaRubio's conclusion reinforced the common theme of relationships between staff and maneuver elements involved in information collection.⁵³

The importance of relationships is the central argument in Chief Warrant Officer Two David Pierce's article on integrating the BCT S-2 and Military Intelligence Company (MICO). Pierce's assertion of relationships and early integration are important to the information collection discussion as the MICO resources are currently located under the Brigade Engineer Battalion for mission command with their operational design being the bulk of the Brigade's intelligence warfighting function workforce.⁵⁴

Three Decades of Collection Platform Development at the BCT

The last thirty years have seen significant growth in collection platform capabilities at the tactical level. This tactical growth extends beyond the introduction and fielding of UAS to the Brigade and Battalion echelons. The transition of collection platforms in brigades that occurred included structural changes such as the Brigade Reconnaissance Troop during the Force XXI era. The Brigade Reconnaissance Troop, predating the BCT, developed from a reduction in battalion scout formations to create a reconnaissance force organic to the brigade to address a known gap in capability.⁵⁵ Major Todd Poindexter's thesis analyzed the development of cavalry capability at echelon over time and is shown in figure 2 below. The later transition to the BCT brought a cavalry squadron of platoons equipped with combat vehicles and many, depending on the type of BCT, outfitted with the Long-Range Scout Surveillance Systems. The Long-Range Scout Surveillance System at the BCT extended the range that scouts could observe significantly over the analog alternative of binoculars. The integration of military intelligence collection platforms in the MICO brought UAS, signals intelligence collectors, and human intelligence collectors to the BCT as well. This diversity of collection platforms in the BCT created a true ISR capability organic to the BCT.



Figure 2. Example of Collection Platform Transition

Source: Todd L. Poindexter, "Transforming Mechanized Reconnaissance: How the Armored Brigade Combat Team (ABCT) Cavalry Squadron Should Be Structured For Reconnaissance and Security Operations in the near Future" (Master's Thesis, U.S. Army Command and General Staff College, Ft. Leavenworth, KS, 2014), 68.

Several articles allude to how Operations Enduring Freedom and Iraqi Freedom influenced tactical-level information collection. The professionally accepted opinion is that prolonged rotational deployments in Iraq and Afghanistan created an over-reliance on theater collection platforms, particularly aerial.⁵⁶ The manifestation of this reliance is the lack of detailed planning for information collection assets by scheduling long blocks of collection on the Information Collection Synchronization Matrix and approaching collection dynamically.

Discussions of the BCT Collection Manager

Primarily, the literature shows doctrinal and experiential recommendations on how to most effectively employ information collection with the existing BCT force structure. No author addressed or attempted to explain why the BCT is not authorized a collection manager. Three authors addressed expanding collection manager skills to the BCT and spanned recommendations from expanding the existing AIDP-ISR program to non-commissioned officers, assign dedicated officers for ISR, and pass the responsibility to a combat arms officer supported by a subordinate military intelligence officer.⁵⁷ This recommendation came without calling for a position at the BCT but understanding that the majority of non-commissioned officers trained to the AIDP-ISR-level would serve at the BCT.

Within doctrine, there is mixed discussion of the position of the collection manager spread through a variety of publications. The collection manager is typically mentioned in one of three capacities; in Army, Joint, or generic. The preponderance of reference to the collection manager in Army doctrine was in an Army capacity. These references came in ATP 2-01, *Plan Requirements and Assess Collection*; FM 2-0, *Intelligence*; FM 3-55, *Information Collection*; ATP 3-60, *Targeting*; and ATP 6-0.5, *Command Post Organization and Operations*. The most references to the collection manager came in ATP 3-60, *Targeting*, that describes the role of the collection manager in assessing the information collection plan against systems supporting targeting and focusing on "high payoff targets that cannot be covered with available assets.".⁵⁸ Curiously, the collection manager was not mentioned in ADP 2-0, *Intelligence*; and ATP 2-01.3, *Intelligence Preparation of the Battlefield*. Nor was the position mentioned in the operations series manuals of FM 3-96, *Brigade Combat Team*; FM 3-98, *Reconnaissance and Security Operations;* or FM 3-90-2, *Reconnaissance, Security, and Tactical Enabling Tasks*.

Several authors discussed the importance of the BCT collection manager without specifically mentioning a single duty position. Sterioti highlights the importance of the role the collection manager plays to building shared understanding and recommends that a properly trained officer or noncommissioned officer is critical to successful information collection operations.⁵⁹ LaRubio argues that the "Brigade information collection Manager is coordinating the eyes and ears of the BCT commander's assets".⁶⁰ further qualifying the position as requiring "continual planning and changes as the mission changes.".⁶¹ This is an example of the importance of the BCT collection manager as a duty position.

Fighting for Intelligence or Information

Lobdell highlights how the new FM 2-0 reframes intelligence operations as part of the "fight for intelligence.".⁶² Lobdell describes "fighting for intelligence" as an old term renewed to conjure a mental model of the contested nature of ground combat in LSCO, while reiterating the complexity of the multi-domain environment and capable threat profile..⁶³ Information collection plays a prominent role in the identified "key aspects of fighting for intelligence" with three of the six directly associated with the information collection plan and an additional nod to the importance of effective staff integration..⁶⁴

Similarly, Lieutenant Colonel Nathan Palisca offered a cavalry perspective via defining the "Fight for Information."⁶⁵ Palisca's argument focused on formally defining the term with key stipulations of information collection with synchronized platforms in contact with an enemy, emphasizing the eight forms of contact.⁶⁶ Just like Lobdell, Palisca seeks to integrate information collection in the context of LSCO. Ultimately, both Lobdell and Palisca discuss the necessary doctrinal and institutional changes necessary to shift away from the counter-insurgency mindset that has dominated information collection over the last seventeen years.

Literature Review Summary

Ultimately there is no shortage of professional commentary on the challenges units face in conducting information collection. The challenge for Army units to manage information collection grows as the capabilities increase with de-synchronized guidance from doctrine emerging from two centers of excellence. Both the Army Intelligence and Maneuver communities indicate that there are challenges with both developing unique, and sometimes sweeping, recommendations to address the deficiencies.

¹ Anthony J. Sterioti, "Information Collection Management in the BCT," *Military Intelligence Professional Bulletin* 41, no. 4 (October-December 2015): 46.

² Terri M. Lobdell, "Resetting Intelligence Doctrine," *Military Intelligence Professional Bulletin* 44, no. 4 (October-December 2018): 9.

³ Ibid.

⁴ Ryan D. Skaggs, "Increasing Intelligence, Surveillance, and Reconnaissance (ISR) Operational Agility through Mission Command" (Master's Thesis, U.S. Army Command and General Staff College, Ft. Leavenworth, KS, 2006.), 5.

⁵ Ibid., 76.

⁶ Ibid., 114.

⁷ Aaron D. Sammons, "Transforming Doctrine and Organization to Meet the Intelligence, Surveillance, and Reconnaissance Requirements of the Brigade Combat Team Commander" (Master's Thesis, U.S. Army Command and General Staff College, Ft. Leavenworth, KS, 2008), 76-77.

⁸ Nathan Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," *Military Intelligence Professional Bulletin* 43, no. 2 (April-June 2017): 6.

⁹ Ibid., 10.

¹⁰ Ibid., 6.

¹¹ Michael J. Childs, "Information-Collection Rehearsals in the Brigade Combat Team," *Armor Mounted Maneuver Journal* 121, no. 4 (September-October 2012): 30.

¹² Raymond A. Kuderka and Andrew Eickbush, "Information-Collection Failures that Lead to 'Discovery Learning'," *Armor Mounted Maneuver Journal* 125, no. 2 (April-June 2015): 32.

¹³ Ibid.

¹⁴ Childs, "Information-Collection Rehearsals in the Brigade Combat Team," 30.

¹⁵ Bradley M. Wellsandt, "Unifying the Brigade Combat Team Information-Collection Effort," *Armor Mounted Maneuver Journal* 130, no. 1 (Winter-Spring 2018):
25.

¹⁶ Ibid.

¹⁷ Ibid., 25-26.

¹⁸ Michael L. Hefti, "The Headquarters and Headquarters Troop Commander as Brigade Combat Team Chief of Reconnaissance," *Armor Mounted Maneuver Journal* 126, no. 4 (October-December 2015): 67. 39 ¹⁹ Ibid.

²⁰ John F. Palmer, "The Squadron Commander as Chief of Reconnaissance," *Armor Mounted Maneuver Journal* 127, no. 3 (July-September 2016): 15.

²¹ Ibid.

²² Ibid.

²³ Dwight L DuQuesnay, "Army Intelligence Development Program-Intelligence, Surveillance and Reconnaissance (ADIP-ISR): A Senior Leader Perspective," *Military Intelligence Professional Bulletin* 43, no. 3 (July-September 2017): 16.

²⁴ Ibid., 18.

²⁵ Camero Song, "Army Intelligence Development Program - Intelligence, Surveillance, and Reconnaissance: Critical to an Army Corps," *Military Intelligence Professional Bulletin* 44, no. 1 (January-March 2018): 53.

²⁶ Ibid.

²⁷ Army Training Requirements and Resources System (ATRRS), "Information for Course: INTELL, SURVEIL & RECON (ISR) SYNCH MGR," *ATRRS Course Catalog*, 21 March 2019, accessed 21 March 2019, https://www.atrrs.army.mil/atrrscc/ courseInfo.aspx?Fy=2019&sch=301&crs=3A-SI%2fASIQ7%2f243-ASIQ7&crstitle= INTELL%2c+SURVEIL+%26+RECON+(ISR)+SYNCH+MGR&phase=.

²⁸ Headquarters, Department of the Army (HQDA), "Officer and Enlisted Skill Identifiers," in Department of the Army Pamphlet 611-21, *Military Occupational Classification and Structure* (Washington, DC: Government Printing Office, July 2018), Table 4-3, 49-50, accessed 07 March 2019. https://www.milsuite.mil/book/groups/ smartbookdapam611-21.

²⁹ Army Training Requirements and Resources System (ATRRS), "Information for Course: CAVALRY LEADER," *ATRRS Course Catalog*, 21 March 2018, accessed 21 March 2019, https://www.atrrs.army.mil/atrrscc/courseInfo.aspx?fy=2019&sch= 171B&crs=2E-FOA-F134%2f250F46+(MC)&crstitle=CAVALRY+ LEADER&phase=.

³⁰ HQDA, "Officer and Enlisted Skill Identifiers," Table 4-3, 36.

³¹ Department of Defense (DoD), Department of Defense Instruction (DoDI) 3305.02, *DoD General Intelligence Training and Certification* (Washington, DC: Government Printing Office, May 2018), 5.

³² Ibid., 6-7.

³³ Jason Buchanan and Anthony Covert, "The Brigade Combat Team Intelligence Staff Officer Course," *Military Intelligence Professional Bulletin* 43, no. 2 (April-June 2017): 15.

³⁴ Ibid., 16.

³⁵ Kari C. LaRubio, "The Relationship Between the UAS Platoon and the BCT," *Military Intelligence Professional Bulletin* 41, no. 4 (October-December 2015): 53.

³⁶ Ibid.

³⁷ JCS, JP 2-0, I-11.

³⁸ HQDA, FM 3-55, 1-1.

³⁹ Ibid., 1-4.

⁴⁰ Ibid., 1-2.

⁴¹ Ibid., 1-2.

⁴² Ibid., 1-6.

⁴³ Ibid., 2-5.

⁴⁴ Headquarters, Department of the Army (HQDA), Field Manual (FM) 2-0, *Intelligence* (Washington, DC: Government Printing Office, July 2018), 2-12.

⁴⁵ Ibid. Refers to the Non-Intelligence Related Missions and Operations.

⁴⁶ Ibid., 2-13.

⁴⁷ Headquarters, Department of the Army (HQDA), Army Techniques Publication (ATP) 2-01, *Plan Requirements and Assess Collection* (Washington, DC: Government Printing Office, August 2014), 1-1.

⁴⁸ Headquarters, Department of the Army (HQDA), Field Manual (FM) 3-98, *Reconnaissance and Security Operations* (Washington, DC: Government Printing Office, July 2015), 1-11.

⁴⁹ Ibid., 1-11.

⁵⁰ HQDA, FM 3-55, 2-5.

⁵¹ Lobdell, "Resetting Intelligence Doctrine," 16.

⁵² LaRubio, "The Relationship Between the UAS Platoon and the BCT," 52.

⁵³ Ibid., 65.

⁵⁴ David Pierce, "The Keys to Success: Integration between the Brigade Combat Team S-2 and the Military Intelligence Company," *Military Intelligence Professional Bulletin* 43, no. 2 (April-June 2017): 18.

⁵⁵ Robert S. Cameron, "Scouts Out – But Not in HMMWVs!: The Rise and Fall of the HMMWV-equipped Heavy Maneuver Battalion Scout Platoon," *Armor Mounted Maneuver Journal* 116, no. 2 (March-April 2007): 31.

⁵⁶ Kuderka and Eickbush, "Information-Collection Failures that Lead to 'Discovery Learning'," 34-35.

⁵⁷ Song, "Army Intelligence Development Program," 53; Sammons, "Transforming Doctrine and Organization to Meet the Intelligence, Surveillance, and Reconnaissance Requirements of the Brigade Combat Team Commander," 76-77; Brian Gellman, "Improving the Relevance of Tactical Intelligence in the COE" *Military Intelligence Professional Bulletin* 33, no. 2 (April-June 2007): 14-15.

⁵⁸ Headquarters, Department of the Army (HQDA), Army Techniques Publication (ATP) 3-60, *Targeting* (Washington, DC: Government Printing Office, May 2015), F-5.

⁵⁹ Sterioti, "Information Collection Management in the BCT," 48.

⁶⁰ LaRubio, "The Relationship Between the UAS Platoon and the BCT," 53.

⁶¹ Ibid.

⁶² Lobdell, "Resetting Intelligence Doctrine," 10.

⁶³ Ibid., 15, 12.

⁶⁴ Ibid., 15.

⁶⁵ Nathan Palisca, "What Do We Mean When We Say 'Fight For Information'?" *Armor Mounted Maneuver Journal* 128, no. 3 (Summer 2017): 42.

⁶⁶ Ibid., 42-43.

CHAPTER 3

RESEARCH METHODOLOGY

Qualitative Content Analysis Overview

The research approach employed in this thesis is a qualitative document and narrative content analysis utilizing categorization and coding to determine the value of an authorized collection manager on the BCT MTOE as derived from professional opinions and experiences. The analysis focuses on data from a variety of professional discourse covering information collection doctrine, training, and experiences. Qualitative content analysis is ideal for this research because of the breadth of professional writing about improving U.S. Army information collection. There was no data found in a format to support effective quantitative analysis such as human subjects research surveys of leaders and Soldiers on U.S. Army information collection. The content analysis approach lends to an effective way to extract inferences and meaning in professional writing from a wide variety of authors perspectives. Dr. Steve Stemler's "Overview of Content Analysis" in the Journal *Practical Assessment, Research &* Evaluation served as the seminal source for developing this research methodology.¹

Research information was obtained through historical searches of military professional publications, primarily U.S. Army centers of excellence, with additional searches conducted on joint military professional periodicals. The figure below shows the research process employed to answer the fundamental research question of determining the value of a MTOE BCT collection manager. (see figure 2). Specifically, two periodicals representing the intelligence and maneuver centers of excellence provided the bulk of the professional writing. The *Military Intelligence Professional Bulletin* serves as the quarterly forum for U.S. Army Intelligence professional discussion. The *Armor Mounted Maneuver Magazine* represents the U.S. Army reconnaissance community through the maneuver warfighting function. The content analysis supports the research question through the wide variety of perspectives collected. The supporting research questions are minimally supported by the methodology as they are largely answered through the literature review. The professional writing represents a unique perspective and experience from each author in different organizations and in different capacities all focused on improving information collection. Professional discourse falls under two categories of data in this research.² The first represents professional writing that directly relates to information collection at the BCT. The second represents professional writing that relates to information collection in general.



Figure 3. BCT Collection Manager Research Process

Source: Created by author.

Coding is based on *a priori* categorization of qualities necessary for a BCT collection manager, (see figure 4).³ The dependent variable for analysis is the BCT collection manager, annotated in the black square. The independent variables for qualitative analysis derive from the themes identified within the research as well as professional experience in the form of collection management processes, information collection tools, and information collection systems, annotated as white ovals (see figure 4). Essentially, the analytical framework was developed as a mind map from personal experience of twelve months of formal collection management training and grouped into categories of common themes identified from the research literature. Together, these variables provide the analytical framework to determine the value of a MTOE authorized collection manager in the BCT. The gray blocks within the analytical framework represents the component parts of each category theme. In several cases, these component parts consist of additional entities too detailed to graphically represent, but further explained below.



Figure 4. BCT Collection Manager Logic Map

Source: Created by author.

The analytical framework began with knowledge and skills of the collection management processes which is a combination of the Information Collection Activities and the definition of Army information collection from doctrine. The Information Collection Activities clearly include the essential concepts of planning and employment of sensors and assets as the information collection definition states. The next quality is knowledge and skills of tools associated with information collection. These tools are doctrinally defined as the Information Collection Matrix, Information Collection Synchronization Matrix, Information Collection Overlay, and the Information Collection Annex to the Order. The final quality of a collection manager is divided into knowledge and skills of collection systems inclusive of the collection platforms and the requirements management systems for requesting collection platforms. Knowledge of collection platform capabilities includes both assigned equipment and platforms at higher echelon.

Transition of Collection Platforms and Management

Collection platforms have diversified and transitioned over the last thirty years since Operation Desert Storm where collection management personnel and expertise has not. To show this transition, a comparison is used of collection platforms and collection management roles at echelon during Operation Desert Storm and present BCT constructs (see table 1). Overall aggregated collection platform numbers are used to maintain the content at the unclassified level. For this table, a collection platform is considered a single signals intelligence sensor, a human intelligence collection team, a ground scout platoon, attack or reconnaissance aviation platoon, and the ground control station for UAS. The ground control station is the limiting factor for UAS since a unit may only operate as many UAS aircraft as they have ground control stations, such as six RQ-7

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Shadows may be limited to three ground control stations. The echelon relationship is defined based on an assigned and typical operational control status. For example, the Division had an assigned Military Intelligence Battalion and Cavalry Squadron during Operation Desert Storm timeframe. Conversely, the current BCT structure has an assigned Cavalry Squadron and separate Engineer Battalion where the MICO is located.

Collection management roles are qualified as staff or units intended to fulfill collection management. The staff or units associated with collection management functions are identified by the joint collection management function they provide, such as CRM, COM, or CMM. Although this research is focused on the management of BCT organic collection platforms, it is necessary to acknowledge that a component of collection operations management is requesting higher-level collection platforms when organic capabilities are not available. This could be requesting a UAS capable of operating deeper in the area of operations or a collection platform providing an intelligence discipline capability not organic to the BCT. As if managing organic platforms was not challenging enough, the addition of requesting and managing collection operations of non-organic platforms can drastically increase the complexity of collection management, to say nothing of the reality that requesting capabilities requires a thorough knowledge of the capability, as well as the processing, exploitation, and dissemination requirements to make collection timely. The requesting of higher-level collection platforms as a component of collection operations management is deliberately excluded from this research as the context of LSCO presumes the availability of higherlevel collection platforms for subordinate units' requests will be limited. The notion of limited request-able collection platforms is a departure from the experiences of many

units who grew accustomed to the ISR soak in Operations Enduring Freedom and Iraqi Freedom.

Table 1. Collection Platform and Management Transition Model				
Echelon	Era	Pre-Operation Desert Storm	Modular BCT	
	Resource	(1980-1990)	(2003-Present)	
		Aggregate Quantity of Scout Platoons, Air Cavalry		
Division	Collection	Platoons, Attack Aviation Platoons, and UAS ground		
	Platforms	control stations, SIGINT sensors, and HUMINT collection		
		teams		
	CM Roles	Staff or Unit Organizations by joint collection management function		
		Aggregate Quantity of Scout Platoons, Air Cavalry		
Brigade	Collection	Platoons, Attack Aviation Platoons, and UAS ground		
	Platforms	control stations, SIGINT sensors, and HUMINT collection		
		teams		
	CM Roles	Staff or Unit Organizations by joint collection managemen		

Source: Created by author.

The source data for analyzing collection platform and management transition came from Tables of Organization and Equipment for a Heavy Division in 1986 as well as current Army doctrine and additional skill identifier descriptions. Military Intelligence (Combat Electronic Warfare and Intelligence) Battalions as of 1986 were equipped with both collection and jamming capabilities. The analysis focuses on the collection capabilities and excludes jamming systems. The Brigade collection platforms during 1986 assumes the assigned maneuver battalions maintain operational control of their assigned scout platoons. The analysis of the pre-Operation Desert Storm Division focuses on the heavy division assuming there is more collection platform capability than light or airborne divisions. The current organic BCT capabilities are the total number of information collection platforms represented by the Cavalry Squadron and the MICO. Further, the analysis limits UAS consideration to the Shadow, RQ-7B, tactical UAS aircraft. This limit results in the exclusion of the Raven, Small UAS, that is fielded at the company and platoon level. This exclusion regards the Raven as a company and platoonlevel platform versus the Shadow as a BCT-level platform. If the Raven was factored in, the numerical platforms at the Brigade level would certainly increase. Further, the chemical reconnaissance platoon within the brigade engineer battalion is not included as it is generally focused on the chemical threat.

Determining the Value of the Collection Manager

The key to determine the value of the collection manager requires analysis of written material against the identified themes from the literature related to how the material relates to the position of the collection manager. Each of the three major themes identified are valued against how the document or narrative relates to the collection manager by directly relating to the BCT collection manager, relating to the collection manager generically, or relating to collection management in general (see table 2). The literature evaluation criteria are limited to the professional writing from the *Military Intelligence Professional Bulletin* and *Armor Mounted Maneuver Journal*, as doctrinal references to the collection manager are reflected in the word count analysis. In total, fifteen articles serve as the data set for analysis with seven from the *Military Intelligence Professional Bulletin* and eight from *Armor Mounted Maneuver Journal*.

Table 2.Literature Evaluation Criteria				
Literature theme derived framework content valuation:				
	Collection Management Processes Information Collection Tools Information Collection Systems			
Author	Discussion directly related to a BCT Collection Manager	Discussion generically related to a Collection Manager	Discussion related to information collection generically	
Context Valuation				
Author	Single perspective of multiple direct observations or experiences	Multiple perspective direct observation or experience	Single perspective direct observation or experience	

Source: Created by author.

The literature evaluation criteria identified in table 2 is not intended to grade the professional recommendations as good or bad. The evaluation criteria are intended to show how the role of the collection manager relates to the identified themes from the literature and thesis. This evaluation is necessary as no literature clearly identified a MTOE collection manager at the BCT as a recommendation for improving Army information collection. Likewise, the context valuation is designed to show which perspectives on information collection are formed from a single observation or experience, such as performing the position, from the perspective of a combat training

center trainer with multiple direct observations over a period of time. Neither the content nor the context valuations intend to diminish the value of the opinions represented by the authors.

Collection Management Expertise in the BCT

The final method of analysis looks at the intended distribution of advanced collection management training within the BCT. The purpose of analyzing personnel management documents is to determine where positions are associated with advanced information collection training at the BCT level. The BCT level, in this analysis, focuses on positions associated with a BCT collection platform. This analysis intends to show the density of positions coded for either the Q7, Information Collection Planners Course graduate, or C6, Cavalry Leader Course graduate, additional skill identifiers (see table 3). Advanced training in collection management is annotated as the number of C6 and Q7 ASIs based on tables 4-3 and 12-2 of Department of the Army Pamphlet 611-21, *Military Occupational Classification and Structure*.

Table 3. BCT Collection Management Expertise Model				
ASI	Q7 Information Collection Planner	C6 Cavalry Leader		
Officer	Quantity and Distribution			
Enlisted	Quantity and Distribution			

Source: Created by author.

Methodology Summary

The three analytical approaches identified allow for a comprehensive document and narrative analysis to show common themes as they relate to the role of the collection manager, specifically at the BCT. Additionally, the different analytical approaches allow for each type of data to be evaluated against unique criteria. Finally, the use of multiple approaches with different criteria allows the inference of relationships between doctrine, professional writing, and force management documents.

² Ibid., 2.

³ Ibid.

¹ Steve Stemler, "An overview of content analysis," *Practical Assessment, Research & Evaluation* 7, no. 17 (June 2001): 1, accessed 18 March 2019, http://pareonli ne.net/getvn.asp?v=7&n=17.

CHAPTER 4

ANALYSIS

This research analyzes doctrine and professional writing from military intelligence and cavalry perspectives to determine the value of an authorized MTOE position for a BCT collection manager through the variables of collection management processes, information collection tools, and information collection systems. This analysis is accomplished through examining the transition of collection platforms over the last thirty years; content analysis of professional writing as it relates to the BCT collection manager and information collection in general; and the comparison of existing information collection management expertise in the BCT.

Collection Platforms and Management: Past and Present

Analysis of the Heavy Division Table of Organization and Equipment and doctrine from 1986 revealed a multitude of collection platforms located within the Military Intelligence Battalion and Cavalry Squadron. The Military Intelligence Battalion contributed twenty-eight of the pre-Operation Desert Storm collection platforms. These platforms included an array of ground-based communications intelligence, ground-based electronic intelligence, ground surveillance radar, and long-range surveillance teams.¹ The divisional cavalry organization of 1988 consisted of two troops of three platoons for a division total of six reconnaissance platoons that doctrinally existed in the Heavy Division Aviation Brigade.² The Operation Desert Storm Era Aviation Brigade for a heavy division included a cavalry squadron and two attack helicopter battalions. The Cavalry Squadron adds an additional total of four platoons of AH-1 Cobra and OH-58 Kiowa helicopters.³ The Attack Helicopter Battalions provide a total of six more platoons consisting of a mix of OH-58 Kiowa and AH-64 Apache aircraft..⁴ In 1986, the Division Intelligence Section supported the Division Tactical Operations Center Support Element with a staffed Collection Management and Dissemination (CM&D) Section..⁵ The CM&D Section was responsible for mission management that included "collection planning, tasking, and coordination" as well as "dissemination of combat information and intelligence.".⁶ FM 34-10 stipulates that the collection planning "converts priority intelligence requirements and information requirements into collection missions.".⁷ This function demonstrates that the division maintained a dedicated team of collection managers to fulfill what is now considered by joint doctrine as COM and CMM.

Current doctrinal division information collection capabilities exist entirely from the Combat Aviation Brigade. This is not to say that the Division Commander is incapable of composing a ground reconnaissance force, but more so highlights that the Division Cavalry Squadron of the Operation Desert Storm era no longer exist, as evident from Poindexter's diagram of reconnaissance capability by echelon by era mentioned in chapter two.⁸ Certainly, the Division Commander can task a subordinate BCT, as in the case of 1st Stryker Brigade Combat Team, 4th Infantry Division, as a Reconnaissance and Security BCT or a subordinate BCT's cavalry squadron.⁹ A healthy debate exists on how to fill the ground reconnaissance capability at the division-level considering that no dedicated division cavalry formation currently exists and certainly exceeds the scope of this research. This research focuses on the current doctrinal role of the Combat Aviation Brigade as a division capability with the first core competency being "provide accurate and timely information collection.".¹⁰ The Division's reliance on the Combat Aviation Brigade for primary information collection capability is evident from the organizational structure of the Combat Aviation Brigade.

The Combat Aviation Brigade maintains an Aerial Reconnaissance Squadron of twenty-four AH-64 Apache helicopters organized with twelve RQ-7 Shadow UASs. The Attack Reconnaissance Battalion consists of twenty-four AH-64 Apache helicopters with an additional company of twelve MQ-1C Gray Eagle UAS. These MQ-1C Gray Eagle UAS are often reserved for divisional control as dedicated collection platforms.¹¹ The key distinction between the MQ-1C Gray Eagles and the RQ-7 Shadows within the Combat Aviation Brigade lies in the fact that the RQ-7 Shadows are integrated into the Attack Reconnaissance Squadron Troops whereas the MQ-1C Gray Eagles operate as a separate company within the Attack Reconnaissance Battalion.¹² Further, Michael Brake discusses a limiting factor for UAS in his 2004 article on "BCT Intelligence Operations" where the capability of the UAS depends on the number of ground control stations as opposed to the number of aircraft. Using Brake's description of the proposed BCT MICO, this research considers half of the number of UAS as operational at any one time considering there were roughly half the number of ground control stations proposed in 2004.¹³ Therefore, the operational total of UAS in the division Combat Aviation Brigade is considered to be six RQ-7 Shadows and six MQ-1C Gray Eagle UASs. The key point for the division echelon is, barring the deliberate tasking of a subordinate BCT to provide forces for information collection, the division relies primarily on the Combat Aviation Brigade for all organic information collection capabilities. The division G-2 maintains a collection management element led by a Major, as evident from the AIDP-ISR program

who executes COM functions as well as referenced in FM 3-55, *Information Collection*.¹⁴

The Brigade echelon shows a significant difference in capability between the Operation Desert Storm and current BCT eras. Prior to and through Operation Desert Storm, the brigade echelon did not have any dedicated reconnaissance capability, as Poindexter's figure indicated in chapter two.¹⁵ Similarly, FM 34-80, *Brigade and Battalion Intelligence and Electronic Warfare Operations*, provides a very generic description of the intelligence and electronic warfare capability at the Brigade level as the maneuver battalions.¹⁶ Divisional MI BN doctrine serves as a nod to the modularity of the BCT era with conceptual employment of task-organized MI company-teams in a direct or general support role to subordinate brigades..¹⁷ The supporting MI company-team explains why the Brigade maintained a management role over MI platforms through the Battlefield Information Control Center (BICC) even though the Brigade had no organic or permanently assigned platforms.

According to FM 34-80, *Brigade and Battalion Intelligence and Electronic Warfare Operations*, the S-2 was responsible for the reconnaissance and security plan "as the formal collection management tool" supported through the BICC.¹⁸ The BICC fulfilled responsibilities similar to the current Brigade Intelligence Support Element through developing intelligence requirements, the reconnaissance and security plan, and then executing the approved plan.¹⁹ In essence, the BICC served all roles of CRM, COM, and CMM much like a miniature analysis and control element coupled with a current operations element. The key takeaway here is no specific position beyond the Brigade S- 2 is identified as responsible for collection management in the pre-Operation Desert Storm brigade.

Current BCT collection capabilities, both platforms and management responsibilities are difficult to provide in an unclassified setting. Definitive information for numbers of collection platforms and personnel in management roles exists at the official use only level through MTOEs and generically through doctrine. For this research, Brake's article on the proposed BCT MICO provides enough information for overall consideration of capabilities. Without providing the specific numbers of each MI platform, the BCT MICO provides eight collection platforms while the Cavalry Squadron contributes six total reconnaissance platoons.²⁰ The current Cavalry Squadron consists of three reconnaissance troops of two platoons with an additional tank company. This tank company contributes an additional three platoons presuming a hunter-killer capacity when employed with the Cavalry Squadron. Another application of the tank company in the Cavalry Squadron is serving as a brigade reserve which would reduce the overall platform count by three.

Collection management responsibilities in the current BCT vary widely depending on the source documentation. Brake mentions ISR synchronization and requirements management as responsibilities for the MICO's analysis and integration platoon, which exists now as the information collection platoon.²¹ FM 3-98, *Reconnaissance and Security Operations*, discusses the previously mentioned Brigade Reconnaissance Cell which performs COM responsibilities by "allocate[ing] organic, attached, and supporting assets and enablers against the [named areas of interest] to ensure seamless and in-depth reconnaissance operations."²² The Operations and Intelligence Working Group mentioned in both ATP 2-01, *Plan Requirements and Assess Collection*, and FM 3-55, *Information Collection*, is designed to "achieve a fully synchronized and integrated information collection plan" through "validat[ing] information requirements and deconflict the use of organic and attached assets."²³ Regardless of echelon, doctrine states the O&I WG is a temporary group for the sole purpose of information collection integration and coordination.²⁴ A fair argument can be made that the Cavalry Squadron staff itself is a collection management organization through the functions of CRM, COM, and CMM.

The development of the BCT clearly shows how the organic collection platforms available to the brigade and BCT changed over the last three decades, speaking to supporting research question two, (See table 4). This is evident by the clear increase in BCT collection platforms with a corresponding decrease in Division collection platforms that mostly represents Military Intelligence platforms followed by Reconnaissance Platoons. This transition also provides insight on how the brigade-level was and is designed for information collection, which speaks to supporting research question one. Doctrine shows that collection management responsibility rested with the Brigade S-2, and in many ways still exists today. However, current doctrine indicates that many representatives from other warfighting functions are involved in information collection management.

Table 4.Collection Platform and Management Transitions				
Echelon	Era	Pre-Operation Desert Storm	Modular BCT	
	Resource	(1986-1990)	(2003-Present)	
Division	Collection Platforms	44	24	
	CM Roles	CM&D section - COM, CMM Cavalry Squadron Staff – CRM, COM, CMM	CM&D element - COM	
Brigade	Collection Platforms	0	17	
	CM Roles	Brigade S-2 – CRM, COM BICC – CRM, COM, CMM	ICP – CRM, COM Brigade Recon Cell – COM O&I WG – CRM, COM Cavalry Squadron Staff – CRM, COM, CMM	
Note:				
CRM: Collection Requirements Management				
COM: Collection Operations Management				
CMM: Collection Mission Management				
CM&D: Collection Management and Dissemination				
BICC: Battlefield Information Control Center				
ICP: Information Collection Platoon (within the BCT MICO)				
O&I WG: Operations and Intelligence Working Group				

Source: Created by author.

The collection platform data is pretty clear that information collection platforms

increased at the BCT level. What is less clear is who is responsible for the collection

management at the BCT considering the data reflects four staff units or organizations

capable of fulfilling collection management functions. From FM 2-0, collection

management related responsibilities of the S-2 section are:

Developing collection strategies; overseeing the intelligence cell's contributions to collection management; coordinating requirements with higher, lateral, and subordinate units; ensuring ongoing intelligence operations are collecting

information needed for anticipated decisions; and recommending changes to the information collection plan based on changes in the situation or weather.²⁵

Of the aforementioned tasks, each can be categorized as a function of either CRM or COM with the key takeaway being that collection management functions do reside in the S-2 section, which applies at all echelons with an intelligence section. Battalion S-2s provide CRM for their formations, including submitting requests to the BCT for support, and COM of organic and attached collection platforms. The cavalry squadron S-2, as part of the squadron staff, identified in table 4 above, provides significant CRM functions to BCT collection platforms as the cavalry squadron typically crosses the line of departure well before any operations order is finalized, and in many instances, before the information collection plan is finished. From previous discussion in chapter two, the Brigade Reconnaissance Cell and the Operations and Intelligence Working Group are adhoc organizations composed of members with primary responsibilities and only when necessary. This temporary basis poses challenges in the large-scale combat operations environment since most leaders will likely be focused on their primary duties. This focus would presumably make gathering the right leaders together to effectively compose a Brigade Reconnaissance Cell or Operations and Intelligence Working Group. Conversely the information collection platoon and the cavalry squadron staff are permanent organizations, but each is limited in capability to provide collection management functions as they are doctrinally organized. The information collection platoon does not have CMM authority over any of the military intelligence collection platforms. The cavalry squadron staff does not have CMM either unless the military intelligence company is task organized under the cavalry squadron. Acknowledging the lack of a dedicated primary duty collection management responsibility, this research looks to the

professional contributions from leaders within the Army maneuver and intelligence communities for insight in how units approach information collection management.

The Value of the Collection Manager

The professional writing in the Military Intelligence Professional Bulletin and Armor Mounted Maneuver Journal provides insights into how units are approaching information collection within the force. These perspectives are grounded in direct observations or experiences by the authors. Seventeen total articles covering tactical information collection spanning thirty years were evaluated on both content and context, (see table 5). Four of the seventeen articles directly related to a BCT collection manager when discussing the analytical variables of collection management processes, tools, and systems. An additional five articles referenced the BCT collection manager in one of the analytical variables. Of note, not all of the discussions highlighted things that collection managers do well or that units do well with regard to information collection. On the contrary, most articles focused on missing capabilities and skills while presenting possible solutions that span the range of doctrine, organization, training, material, leadership education, and personnel. Throughout the articles, three key points stood out as they relate to information collection and the analytical variables of collection management processes, tools, and systems. These three points are: information collection is a team effort; information collection leaders must know the capabilities and architecture; and most importantly, the purpose of information collection is to support the commander's decision making.

Table 5. Professional Writing Evaluation				
Author	Content Evaluation			Context Evaluation
Autior	Processes	Tools	Systems	Context Evaluation
Adams	1	1	1	S-MDO
Armstrong	3	3	3	S-MDO
Black	3	3	3	S-SDO
Black and Watras	2	2	2	M-DO
Buchanan and Covert	3	3	3	M-DO
Childs	1	1	1	S-MDO
Gellman	1	2	1	S-MDO
Hefti	2	2	2	S-SDO
Kuderka and Eickbush	1	3	3	M-DO
LaRubio	1	1	1	S-SDO
Lobdell	2	3	3	Undetermined
Miseli, McLean, and Bovan	3	3	1	M-DO
Palisca	3	3	3	Undetermined
Palmer	1	3	1	S-SDO
Rudock	2	2	3	S-SDO
Sterioti	1	1	1	S-SDO
Wellsandt	1	3	3	S-MDO
Legend: 1 = Discussion directly related to a BCT Collection Manager 2 = Discussion generically related to a Collection Manager 3 = Discussion related to information collection generically S-MDO = Single Perspective of Multiple Direct Observations				
S-SDO = Single Perspective of Single Direct Observation				

Source: Created by author.

Information Collection is a Team Effort

No authors attempted to argue that a one-person operation could successfully

integrate information collection platforms into the information collection plan. Ten of the
seventeen articles directly addressed the integration of the intelligence warfighting function with other warfighting functions as a necessary component of successful information collection operations. These observations varied in perspective and emphasis but collectively drive to the same point; that integration is key but the leader of the effort matters. The secondary point inferred is that the lack of integration results in divergent, unsynchronized plans of maneuver and intelligence warfighting function collection platforms. The clearest example of describing the lack of integration is the frequent use of the term synchronization. Synchronization appears in most of the articles and refers collectively to the integration of multiple platforms in time and space with the overall BCT operation. As Adams described it, "failure to use information collection planning as an integrating process for multiple staff members risks wasting precious resources or missed opportunities."²⁶ The last contribution of the team effort approach is how units define or align collection management functions with personnel in the BCT. The frequent association of collection management functions without calling them a collection manager is represented in the Chief of Reconnaissance concept.

Palmer highlighted that no single staff section owns the "planning and execution of information collection" further elaborating on a list of personnel; the "S-2, S-3, information collection manager, cavalry squadron, military intelligence company, attached aviation units and attached UAS all have a major role in the information collection process."²⁷ LaRubio also includes the Brigade Aviation Element and the Staff Weather Officer as critical staff members for coordination..²⁸ Integration goes beyond staff members at the brigade-echelon as evident from several authors indicating coordination between echelons was critical. This point was echoed by Palisca in that the "cavalry squadron S-2 and S-3 must maintain a continual dialogue with the BCT S-2 and S-3.".²⁹ Likewise, Sterioti mentions the cross-echelon coordination to identify gaps and ensure understanding between priority intelligence requirements, named areas of interest, and the event template..³⁰ Childs and Stertori both addressed the importance of the information collection rehearsal with Childs offering multiple combat training center observations of units failing to rehearse the information collection plan. Childs perspective of responsibilities mirrors current doctrine with the BCT S-3 or Chief of Reconnaissance chairing the information collection rehearsal with the BCT collection manager leading the rehearsal..³¹ Sterioti further recommends that the intelligence warfighting function collection manager needs a "counterpart" in the BCT current operations cell who understand the plan and the platforms as continuity across the staff..³² This larger team approach necessitates the question of who is in charge?

The easy and often default answer is the commander who does so through planning and reconnaissance guidance which Kuderka and Eickbush observed failures of commanders to drive the information requirement process.³³ Armstrong echoed the need for commander's guidance beyond how to employ the UAS.³⁴ Beyond the commander's role, most authors echo doctrine with the S-3 serving as the orders issuing authority and the S-2 providing the majority of planning tools to the collection plan. Doctrine presents the S-3 as the integrating authority for the information collection effort through the operations and intelligence working group, BCT reconnaissance cell, and the orders process for annex L, *Information Collection*. Kuderka and Eickbush elaborate that observations at the combat training centers extend to failures of operations staffs to fill

the doctrinal information collection integration role by leaving the process to the battalion S-2.³⁵

Two authors approached the integration problem through the lens of effective rehearsals. Childs and Armstrong both recognized that a separate information collection rehearsal was necessary as a synchronization tool following integrated planning. Childs recommends that the information collection rehearsal is conducted prior to the BCT combined arms rehearsal.³⁶ Ultimately both Childs and Armstrong focus on executing a rehearsal that provides a clear shared understanding and identifies intelligence gaps.³⁷ The key consideration for Childs and Armstrong's perspective is through observations from combat training center rotations where units have dedicated time to conduct planning prior to crossing the line of departure. Effective information collection rehearsal becomes significantly more challenging after operations begin, units are in-contact with the threat, and units are out of face-to-face coordination range. Both Childs and Armstrong focused more on just executing information collection rehearsals as opposed to addressing the nature of how to conduct rehearsals after the BCT crosses the line of departure.

Since there is no MTOE BCT collection manager position, units are free to choose who they want, and the results are represented throughout the professional discourse literature. The majority of references to the specific position of the BCT collection manager associate it with a military intelligence lieutenant who often is the information collection platoon leader as evident in nine of eleven training center rotations observed by Adams.³⁸ This assignment to a lieutenant led to the criticism that the collection manager either does not know ground reconnaissance, experience is limited to

technical collection, military intelligence platforms, or is not suited to the demands of the position.³⁹ Adams' observations from the Joint Readiness Training Center led to a conclusion that "understanding when and how to participate in events, such as the operations synchronization meeting, and incorporating collection tasks into a daily order were often beyond the information CM's level of experience."⁴⁰ Gellman recommended the collection manager be filled by a maneuver officer who presumably is best qualified to plan for ground reconnaissance augmented with a subordinate military intelligence officer who brings the technical collection expertise..⁴¹ The other argument for a maneuver leader leading information collection planning is the Chief of Reconnaissance, with an equally diverse recommendation on who should fill that role.

As discussed in chapter 2, Hefti and Palmer offer different recommendations who could fill the non-doctrinal role of Chief of Reconnaissance. Even though the role is non-doctrinal, it is important for the discussion as the arguments center around the fundamental collection management functions defined in chapter one; CRM, COM, and CMM. Hefti's argument for the Cavalry Squadron's Headquarters and Headquarters Troop Commander focuses on the COM functions based on this commander's expectation to understand the BCT's collection platforms and how to integrate ground reconnaissance.⁴² Hefti's perspective infers that the Chief of Reconnaissance operates as a cavalry squadron advisor or liaison to the BCT staff on how to employ scouts. As previously stated, Hefti's approach presumes that the Headquarters and Headquarters Troop Commander would be co-located with the BCT planning effort to be effective. Palmer's argument centers around the Squadron Commander fulfilling COM and CMM functions for the BCT collection platforms.⁴³ Palmer's perspective relies on the Squadron

Commander's command authority for tasking which would presume that the BCT would task organize the information collection platforms under the Cavalry Squadron. In either construct, the Chief of Reconnaissance fulfills COM functions and therefore is a type of collection manager, just by a different name.

Ultimately which duty position fulfills the role of BCT collection manager is for another discussion. What the literature infers through critique of past experiences in combat training center rotations and observations is the need for a BCT collection manager who can coordinate across the BCT staff and between echelons higher and lower. Further, the importance of this relational coordination cannot be stressed enough since synchronization of platforms requires collaboration with battalion, brigade, and division representatives. The professional discussion appears very clear that a military intelligence leader and a maneuver leader cannot be expected to be subject matter experts in the others platform capabilities. That said, authors did stress the need for expertise in collection platforms and architecture as necessary for successful information collection.

Knowledge in Capabilities and Architecture

The need to understand collection platform capabilities and architecture were represented in eight of the seventeen articles. All eight of these articles directly discussed knowledge in collection platforms as important. Three of the eight articles addressed information collection architecture as well as capabilities. Information collection architecture refers to how information gets from the collector to the person who needs it. Think of information collection architecture as the entire system necessary for information to flow from the sensor to processor to analyst to end user. The literature evaluation resembled a single perspective that BCT collection managers were not knowledgeable of the BCT collection platforms capabilities. Beyond the lack of knowledge, a few articles offered insight on how to close the knowledge in capabilities gap.

Sterioti and Lobdell both discussed the need to understand the request process for platforms where Lobdell mentioned that a significant number of platforms exist above the BCT and outside the Army.⁴⁴ LaRubio provides the platoon level perspective by stating that the collection manager needs to know the capabilities and limitations of the RQ-7 Shadow UAS to effectively employ it within the BCT's information collection plan..⁴⁵ The failure to understand information collection platform capabilities was discussed in four of the eight articles, several providing observational experience. Adams attributed an observable disconnect between the collection manager, S-2, MICO, and collectors as a failure to understand the capabilities of the platforms..⁴⁶

Buchanan and Covert addressed the gap of knowledge in capabilities and architecture as they discussed an entire training day of the five-day BCT S-2 course was dedicated to "BCT Intelligence and Electronic Warfare Systems and Architecture."⁴⁷ The emphasis on organic capabilities followed by a day of employment considerations and collection management training sought to address perceptions of BCT S-2s, as the senior intelligence officers of their formations, unable to integrate their capabilities into the BCT fight. Lobdell, quoting Army Doctrine Publication 2-0, *Intelligence*, discusses how the intelligence architecture requires a knowledge of intelligence capabilities..⁴⁸ Adams reiterates the need for understanding intelligence architecture but also stipulates that collection managers must understand maneuver capabilities as a nod to the divergent perspectives between maneuver and intelligence communities..⁴⁹ Kuderka and Eickbush

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placed the blame of failing to utilize organic capabilities on conditioning to the enduring counter-insurgency operations in Iraq and Afghanistan..⁵⁰ Kuderka and Eickbush discussed alternative collection platforms such as Air Force Joint Terminal Attack Controllers and other forward observers, although they seem to gloss over the fact that those positions have other primary duties than information collection..⁵¹

Seven of the total seventeen articles addressed recommendations at closing the knowledge in capabilities gap. These recommendations were wide ranging and encompassed institutional and on-the-job training. Adams correlates units that perform successful information collection are units that also prioritize assigning three to four Soldiers to a collection management team at the BCT which is then capable of covering 24-hour operations..⁵² Likewise, Sterioti recommends that an officer or non-commissioned officer be trained as the collection manager prior to any training center or deployment without providing a recommendation on what type of training..⁵³ Sterioti claims a direct correlation between failures to train collection management in garrison with an ineffective and unsynchronized collection plan.

Although dated, Black and Watras' discussion on the collection management course, precursor to the Q7 Information Collection Planners Course, provides insight in an institutional example of changes made to training to accommodate new requirements. Specifically, Black and Watras mention that following Operation Desert Storm, collection management students would be exposed to new fielded technologies such as UASs and JSTARS as well as integrating between battalion and army component command echelons..⁵⁴ Miseli, McLean, and Bovan propose an alternative through sending military intelligence officers to attend the C6 Cavalry Leader Course to better understand cavalry scout planning and integration.⁵⁵ This approach to diversifying understanding was credited by Bovan for success in a combat training center rotation.⁵⁶ Both the Q7 and C6 additional skill identifiers are discussed in greater detail later in this chapter.

The BCT S-2 course already mentioned earlier serves as another example of training by teaching the leaders of the BCT's intelligence warfighting function. This viewpoint was similarly represented by LaRubio in the form of a capabilities briefing on the RQ-7 Shadow UAS from the subject matter experts to the BCT collection manager.⁵⁷ At face value, the thought of a simple capabilities brief may seem elementary, but it belies a deeper inferred point. Understanding that there is no authorized position for a collection manager means that whoever ends up fulfilling the role has another primary job which is likely where that Soldier's attention goes. As Sterioti said "training the collection manager in garrison" is important to successful information collection management. The humble capabilities brief demonstrates that there is a wealth of resources available to the collection manager beyond formal institution training at USAICoE. After all, the AIDP-ISR program demonstrates that a significant resource exists in distance learning through the Defense Intelligence Agency and National Security Agency. Lastly, a collection manager in garrison needs only pick up the phone or walk down to see subject matter experts in the BCT information collection platforms to gain more exposure to the capabilities available.

Support the Commander's Decision Making

Thirteen of the seventeen articles discussed the purpose of information collection was to facilitate the commander's understanding and visualization to enable the commander to make informed decisions. This analysis does not indicate that the remaining articles argue against supporting the commander's decision making, they simply did not mention it. Two viewpoints were represented in the form of a general reminder of the purpose and an attribution of a product and process focused purpose. The general reminder perspective reiterates the importance of the information collection plan in answering priority intelligence requirements and conditions for decision points.

The attribution of a product or process focus is directed at instances where planners put too much emphasis on creating the perfect information collection plan tools, such as the Information Collection Matrix, Information Collection Synchronization Matrix, or Information Collection Overlay, that comes at the expense of detail to the collection platform. Armstrong attributes reconnaissance failure with units that focus on these products, largely dominated by the S-2 section, with no involvement by the S-3 section.⁵⁸ Childs stressed the importance of displaying the commander's priority intelligence requirements during the information collection rehearsal to remind participants what the plan is working towards..⁵⁹ Adams discusses purpose through accepting that the information collection plan is subject to change and must focus on the commander's priority intelligence requirements..⁶⁰

Adams introduces a concept that is echoed by Palmer and Wellsandt which is the use of mission orders for tasking collection platforms..⁶¹ Both Palmer and Wellsandt use the issue of mission order or task and purpose versus information collection tools as part of the benefit in their proposed organizational changes to place all the BCT collection platforms under the cavalry squadron..⁶² In the end, doctrine provides little guidance on how to task collection platforms other than the information collection plan, which

remains heavily dominated by S-2 produced tools. The simple answer, offered by Armstrong, puts the responsibility back to the S-3 section in the form of the "staff integrated" written Annex L with the attached appendices provided by the S-2.⁶³ The results of the literature evaluation analysis is a firm understanding of the overall purpose for information collection and the need for an integrated planning process through trained leaders.

Collection Management Expertise in the BCT

The final contributor to collection management within the BCT is collection management related additional skill identifiers. Specifically, the Cavalry Leader Course graduate, C6, and the Information Collection Planners Course graduate, Q7. According to officer and enlisted tables in the Department of the Army Pamphlet 611-21, *Military Occupational Classification and Structure*, the C6 additional skill identifier provides for a total of eight qualified positions at the Cavalry Troop and Cavalry Squadron Operations cell..⁶⁴ Likewise, the Q7 describes the position as "requiring qualifications in managing the employment of organic and supporting intelligence collection assets" but does not include density of positions like the C6..⁶⁵ Without providing specifics, the MTOE does reflect a very small number of Q7 positions in the BCT but they are either already factored into an existing staff or unit identified, in table 4, or positioned in a role limiting their ability to doctrinally coordinate the variety of BCT collection platforms.

Table 6. Current BCT Collection Management Expertise Analysis		
ASI	Q7 Information Collection Planner	C6 Cavalry Leader
Officer	0* (Military Intelligence Officers and Warrant Officers)	1 per Cavalry Troop 3 per BCT Cavalry Squadron Operations Cell (Armor Captains or Majors)
Enlisted	0* (Military Intelligence Sergeant through Sergeant First Class)	1 per Cavalry Troop 1 per ABCT and SBCT Cavalry Squadron Operations Cell (Armor Master Sergeants)
*Note: BCT authorization documents provide a different amount of negligible value		

Source: Created by author from data contained in Headquarters, Department of the Army, "Officer and Enlisted Skill Identifiers" in Department of the Army Pamphlet 611-21, *Military Occupational Classification and Structure* (Washington, DC: Government Printing Office, July 2018), accessed 07 March 2019, https://www.milsuite.mil/book/groups/smartbookdapam611-21.

Summary of Analysis

The data clearly shows an increase in information collection platforms at the brigade-level with no primary responsibility for collection management over all of the BCT's information collection platforms. The professional discussions from cavalry and military intelligence leaders provides insight into the value that the collection manager provides through four necessary qualities. Foremost, a collection manager must be an integrator across the staff for effective information collection planning and execution. Secondly, the collection manager must be knowledgeable in organic and external information collection platform capabilities. Third, knowledge in capabilities can create the perfect plan, but understanding the architecture of how the information gets from the sensor to support the fourth quality, the commander's decision making, is key. The

collection manager must always focus information collection planning and execution on the commander's priority intelligence requirements to collect timely information for analysts to produce intelligence that facilitate the commander's understanding, visualizing, and decision making. Lastly, a disparity appears to exist in how the maneuver community trains leaders for collection management functions as opposed to how the Army intelligence community approaches it. The cavalry squadron is strongly represented within the BCT for positions coded with advanced collection management training. The BCT intelligence warfighting function is not enabled with advanced collection management training to its detriment. ¹ Headquarters, Department of the Army (HQDA), "Military Intelligence

Battalion: Combat Electronic Warfare and Intelligence (CEWI) Heavy Division,

34285L000," *Table of Organization and Equipment* (Washington, DC: Government Printing Office, October 1986), II-9 to II-12; Headquarters, Department of the Army (HQDA), Field Manual (FM) 34-10, *Division Intelligence and Electronic Warfare Operations* (Washington, DC: Government Printing Office, November 1986), 2-8 to 2-12.

² Todd L. Poindexter, "Transforming Mechanized Reconnaissance: How the Armored Brigade Combat Team (ABCT) Cavalry Squadron Should Be Structured for Reconnaissance and Security Operations in the near Future" (Master's Thesis, U.S. Army Command and General Staff College, Ft. Leavenworth, KS, 2014), 46; Headquarters, Department of the Army (HQDA), Field Manual (FM) FM 1-111, *Aviation Brigades* (Washington, DC: Government Printing Office, August 1990) 1-8.

³ HQDA, FM 1-111, 1-8.

⁴ Ibid.

⁵ HQDA, FM 34-10, 3-6.

⁶ Ibid.

⁷ Ibid.

⁸ Poindexter, "Transforming Mechanized Reconnaissance," 68.

⁹ Curt Taylor and Joe Byerly, "Fighting for Information in a Complex World: Lessons from the Army's first Reconnaissance and Security Brigade Combat Team" (Raider Brigade White Paper, 1st Stryker Brigade Combat Team, 4th Infantry Division, Fort Carson, CO, September 2017), 2.

¹⁰ Headquarters, Department of the Army (HQDA), Field Manual (FM) HQDA, FM 3-04, *Army Aviation* (Washington, DC: Government Printing Office, July 2015), 1-1.

¹¹ Ibid., 2-7 to 2-8.

¹² Ibid., 2-7.

¹³ Michael A. Brake, "Brigade Combat Team (BCT) Intelligence Operations," *Military Intelligence Professional Bulletin* 30, no. 4 (October-December 2004): 28.

¹⁴ USAHRC, MILPER Message; HQDA, FM 3-55, 2-5 to 2-6.

¹⁵ Poindexter, "Transforming Mechanized Reconnaissance," 68.

¹⁶ Headquarters, Department of the Army (HQDA), Field Manual (FM) 34-80, *Brigade and Battalion Intelligence and Electronic Warfare Operations* (Washington, DC: Government Printing Office, April 1986), 2-15 to 2-17. ¹⁷ HQDA, FM 34-10, 3-24 to 3-25.

¹⁸ HODA, FM 34-80, 3-10.

¹⁹ Ibid.

²⁰ Brake, "Brigade Combat Team (BCT) Intelligence Operations," 28; Headquarters, Department of the Army (HQDA), Army Techniques Publication (ATP) 3-20.96, Cavalry Squadron (Washington, DC: Government Printing Office, May 2016), 1-8 to 1-9.

²¹ Brake, "Brigade Combat Team (BCT) Intelligence Operations," 28.

²² HQDA, FM 3-98, 1-11.

²³ HODA, ATP 2-01, 2-5 to 2-6; HODA, FM 3-55, 2-5 to 2-6.

²⁴ HODA, ATP 2-01, 2-5 to 2-6; HODA, FM 3-55, 2-5 to 2-6.

²⁵ HODA, FM 2-0, 2-1 to 2-2.

²⁶ Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," 9.

²⁷ Palmer, "The Squadron Commander as Chief of Reconnaissance," 15.

²⁸ LaRubio, "The Relationship Between the UAS Platoon and the BCT," 52.

²⁹ Palisca, "What Do We Mean When We Say 'Fight For Information'?" 42.

³⁰ Sterioti, "Information Collection Management in the BCT," 48.

³¹ Childs, "Information-Collection Rehearsals in the Brigade Combat Team," 31.

³² Sterioti, "Information Collection Management in the BCT," 48.

³³ Kuderka and Eickbush, "Information-Collection Failures that Lead to 'Discovery Learning,'" 34.

³⁴ James E. Armstrong, "Information-Collection Plan and Reconnaissance-and-Security Execution: Enabling Success," Armor Mounted Maneuver Journal 127, no. 3 (Summer 2017): 20.

³⁵ Kuderka and Eickbush, "Information-Collection Failures that Lead to 'Discovery Learning," 35.

³⁶ Childs, "Information-Collection Rehearsals in the Brigade Combat Team," 31-32. 78

³⁷ Childs, "Information-Collection Rehearsals in the Brigade Combat Team," 33; Armstrong, "Information-Collection Plan and Reconnaissance-and-Security Execution: Enabling Success," 21.

³⁸ Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," 9.

³⁹ Palmer, "The Squadron Commander as Chief of Reconnaissance," 15; Sterioti, "Information Collection Management in the BCT," 48; Gellman, "Improving the Relevance of Tactical Intelligence in the COE," 14; Hefti, "The Headquarters and Headquarters Troop Commander as Brigade Combat Team Chief of Reconnaissance," 68; Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," 10.

⁴⁰ Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," 9.

⁴¹ Gellman, "Improving the Relevance of Tactical Intelligence in the COE," 14.

⁴² Hefti, "The Headquarters and Headquarters Troop Commander as Brigade Combat Team Chief of Reconnaissance," 67.

⁴³ Palmer, "The Squadron Commander as Chief of Reconnaissance," 16.

⁴⁴ Sterioti, "Information Collection Management in the BCT," 48; Lobdell, "Resetting Intelligence Doctrine," 12.

⁴⁵ LaRubio, "The Relationship Between the UAS Platoon and the BCT," 53.

⁴⁶ Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," 13.

⁴⁷ Buchanan and Covert, "The Brigade Combat Team Intelligence Staff Officer Course," 16.

⁴⁸ Lobdell, "Resetting Intelligence Doctrine," 15; HQDA, ADP 2-0, 5-8.

⁴⁹ Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," 10.

⁵⁰ Kuderka and Eickbush, "Information-Collection Failures that Lead to 'Discovery Learning," 34.

⁵¹ Ibid., 34-35.

⁵² Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," 10.

⁵³ Sterioti, "Information Collection Management in the BCT," 48.

⁵⁴ Black and Watras, "Collection Management/TENCAP 2000," 44-45.

⁵⁵ Jason A. Miseli, Gregory W. McLean, and Jeremy Bovan, "Intelligence Support to a Cavalry Squadron," *Armor Mounted Maneuver Journal* 123, no. 3 (July-September 2014): 42.

⁵⁶ Ibid.

⁵⁷ LaRubio, "The Relationship Between the UAS Platoon and the BCT," 53.

⁵⁸ Armstrong, "Information-Collection Plan and Reconnaissance-and-Security Execution: Enabling Success," 21.

⁵⁹ Childs, "Information-Collection Rehearsals in the Brigade Combat Team," 32.

⁶⁰ Adams, "Observations from a Year as the Brigade S-2 Observer-Coach-Trainer at the Joint Readiness Training Center," 11.

⁶¹ Ibid., 9.

⁶² Palmer, "The Squadron Commander as Chief of Reconnaissance," 16; Wellsandt, "Unifying the Brigade Combat Team Information-Collection Effort," 25.

⁶³ Armstrong, "Information-Collection Plan and Reconnaissance-and-Security Execution: Enabling Success," 21.

⁶⁴ HQDA, "Officer and Enlisted Skill Identifiers" tables 4-3 and 12-2.

⁶⁵ Ibid.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This research sought to determine the value of an authorized BCT collection manager on the MTOE through military intelligence and cavalry doctrine and professional writing. The value of the BCT collection manager was hypothesized as possessing knowledge and skills in collection management processes, information collection tools, and information collection systems. The research and analysis identified recommendations applicable to both senior Army Intelligence leaders and tactical leaders.

Conclusions

This research resulted in four distinct conclusions. First, the growth of information collection platforms at the BCT did not include a corresponding increase in dedicated collection management responsibilities. This increase of platforms and lack of management forces units to treat the collection manager as an additional duty or, less likely, to sacrifice other responsibilities to fill the collection manager responsibilities. It is also a fair conclusion that collection platforms will continue to develop, as stated in the *Army Intelligence 2017-2025* strategic vision, to address gaps identified against peer threats, an example being survivable UAS in a contested airspace environment. Further, it is likely that given growth in capabilities, there is unlikely to be a growth in personnel to accommodate, essentially a do more with the same or less scenario. This would likely require a position for collection management to be taken from an existing role within the staff.

Second, the professional discussions within the Army maneuver and intelligence communities expands the qualities originally hypothesized for this research. As mentioned earlier, the original hypothesis for this research focused more on the knowledge and skills necessary for a BCT collection manager to integrate the BCT collection platforms through collection management processes and tools. Professionals clearly indicated that knowledge and skills across the process, tools, and systems is important, but does not substitute the need for a leader who can integrate multiple staff representatives and orient on the commander's needs. In essence, the professional discussion encompasses the entire thesis as a single component of a larger discussion of necessary qualities. Therefore, a leader who is capable of working across the staff represents the above center mass quality of capabilities for a successful integrator. In the context of integration, the data reflects that successful integration is less about a single person and more about a team working together to achieve an integrated information collection plan. This expansion of necessary BCT collection manager qualities was unanticipated but clearly reflects the experienced perspectives from the data pool. Relationships matter to integration and represents the quality that most leaders identified as necessary to make information collection management and synchronization successful. The challenge with successful integration then returns to how doctrine defines who is responsible for what within the staff. Doctrine leaves the responsibilities with the staff primaries, such as the S-2 and S-3, without clearly identifying the integrator.

The third conclusion is that doctrine for information collection clearly identifies tasks and requirements for information collection and collection management but does little to fix responsibility beyond the staff primary officer. The professional discussions were fairly clear in identifying that without fixing responsibility, the ownership falls up the chain from the staff primary to the commander. Ultimately concluding that when the commander is deep in information collection management, they are not focusing on other necessary operational requirements. This lack of specificity beyond the staff primary invokes the thought that doctrine is intentionally vague to the point of allowing the commander and staff to determine who best fills the role of an integrator for information collection management. The key point for this conclusion is that professional discussion places a high enough priority on integration that, at the very least, doctrine should clarify responsibility for integration.

The final conclusion determined that advanced collection management training is available for both intelligence and maneuver leaders, but a disparity exists in the distribution of positions associated with this advanced training in the BCT. Table six in chapter four identified that the maneuver warfighting function invests significantly more additional training in leaders at the junior officer and senior non-commissioned officer ranks than the military intelligence warfighting function. How can the intelligence warfighting function contribute through three of the four information collection tasks as defined by FM 2-0, Intelligence; as "collection management, direct information collection, and conduct intelligence-related missions and operations;" without providing dedicated requirements for advanced collection management training?.¹ Related to available training, the data demonstrated that opportunities exist in cross training leaders through formal institutional training as well as garrison training.

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Senior Leader Recommendations

There are four recommendations for the Department of the Army G-2, USAICoE Commander, and INSCOM commander in concert with leaders of other centers of excellence. The first is initiate or include a dedicated collection manager position on the BCT MTOE in a force design update. As Sterioti puts it "the Brigade collection manager is the central figure in the collection plan that brings it all together" and Childs expands with "when the collection manager owns the process, develops a simple and logical agenda, compiles the right tools and gathers the right participants together, he sets the brigade up for success."² Further, the BCT collection manager position should be coded for at least the Q7, Information Collection Planner additional skill identifier, as well as the C6, Cavalry Leader additional skill identifier. At a minimum, the BCT staff should be authorized one position coded for each of the Q7 and C6 additional skill identifiers. The Department of the Army Pamphlet 611-21 tables for additional skill identifiers should be updated to specify an ideal number of Q7 positions within the BCT, similar to how the C6 additional skill identifier reflects. After all, the Q7, Information Collection Planner Course is the intelligence warfighting functions solution to provide advanced collection management skills. It seems puzzling that there would not be a position on the BCT staff coded for the Q7 considering this research identified a clear increase in the amount and diversity of collection platforms within the BCT.

Implied in the first recommendation is the need to determine which position on the MTOE should be the collection manager. To that requirement, this research recommends additional research to include surveys of BCT S-2s, Division collection managers, BCT S-3s, and BCT Commanders. The additional research should also explore data from the Information Collection Planners course as to the typical training audience and in what capacity they attend. Discussions of who should fulfill the collection manager role typically include the Information Collection Platoon leader, the MICO Commander, a senior all source warrant officer or non-commissioned officer, an assistant BCT S-2, or someone outside the intelligence warfighting function. Considering the scope of responsibility and necessary experience, a senior staff captain in either the intelligence or operations staffs would be a logical candidate to fill the collection manager role. Understanding that every staff position is likely already task saturated, the collection manager role can be reinforced through distributing requirements by the collection management functions of CRM, COM, and CMM.

The second recommendation is for the USAICoE and Maneuver Center of Excellence commands to develop information collection doctrine and organization updates collaboratively. The diversity of information collection platforms identified in chapter four demonstrates that no single warfighting function can own information collection. The appearance of a silo mentality between the maneuver and intelligence warfighting functions on who best plans their respective collection platforms creates unsynchronized collection plans. Since the release of FM 3-0, *Operations*, in 2017 and FM 2-0, *Intelligence*, in 2018, FM 3-55, *Information Collection*, is in need of an update. Updates to FM 3-55, *Information Collection*, should include incorporation of the collection management functions of CRM, COM, and CMM to highlight the integrated staff approach of planning and executing information collection. Additionally, FM 3-55, *Information Collection*, should include a description of the role of the MTOE BCT collection manager. The third recommendation is for senior Military Intelligence Corps leaders to update tables 4-3 and 12-2 of Department of the Army Pamphlet 611-21, *Military Occupational Classification and Structure*. The updates to the tables should reflect the coding of BCT positions as collection managers. Further, the tables should reflect a desired objective of at least one Q7 Information Collection Planner on the BCT staff. The tables should also adjust to reduce the restriction to military intelligence branches only and allow maneuver leaders to earn the additional skill identifier.

The fourth recommendation is for the INSCOM commander to expand the Army Intelligence Development Program-Intelligence, Surveillance, and Reconnaissance track to include an abbreviated program of instruction for non-commissioned officers for assignment to BCTs for collection management. This expansion already occurred to accommodate warrant officers. If further research on which position best fits the collection manager results in a warrant officer identified, then the AIDP-ISR could easily expand to accommodate more students.

BCT and Division Leader Recommendations

At the tactical-level, BCT leaders should purposefully assign at least one leader as the BCT collection manager if not a small three to four-member collection management team. Absent of a formally authorized position, the BCT CM's appointment should be as a primary duty to allow them to focus on preparing through training and building relationships across the staff. Prospective collection managers should be leaders capable of working effectively between staff sections and able to lead key processes and events at the BCT-level. BCT leaders must prioritize advanced collection management training of either the Q7 Information Collection Planner or C6 Cavalry Leader for any leader filling collection management functions. A staff captain in the S-2 section is a logical starting point for consideration as the collection manager. The S-2 captain likely has the requisite knowledge of information collection platforms, at least the military intelligence systems, as well as basic institutional training in information collection planning tools. The S-2 captain may be better able to integrate with other staff sections for collaborative planning. This recommendation certainly acknowledges that there is not a plethora of extra staff members to easily assign the collection manager role without the risk of losing focus in other requirements. The data reflects how important the collection manager is to enable effective decision making.

BCT S-2s, Division collection managers, and G-2s should develop training plans for subordinate collection managers that includes capabilities, limitations, and employment considerations of information collection platforms at every echelon. collection manager training should also include thorough instruction in mission command system architecture. collection managers should understand how information is moved from collection platform to analyst to the commander. The information collection planning and execution effort should be trained and planned just as the analytical effort within the unit training plan. These training plans should include capabilities briefs, site visits, leader professional development sessions, web-based training, institutional training, and practical exercise application in a field environment.

Lastly, BCT S-2s should build standing operating procedures and counseling within the intelligence staff and influence the entire BCT staff with identifying the collection management functions of CRM, COM, and CMM. By incorporating these collection management functions, the staff may be able to better integrate through better understanding of distributed responsibilities. An example would be specifying that the BCT S-2 operations officer in the command post fulfills COM functions by monitoring and providing awareness to the staff of what collection platforms are active and where they are collecting. Likewise, this position could also be identified to maintain the current information collection matrix to facilitate COM should a tasked collection platform become unavailable and require re-tasking of a different platform. Each staff section could also identify a position to serve as their respective CRM to facilitate the consolidation of generated information requirements.

Ultimately these recommendations represent practical actions that senior leaders and tactical leaders can take to improve information collection within the Army and their formations. The operational environment is only growing more complicated, the architecture to support information movement is growing more complex, and the capabilities to gather the information is increasing. The goal of delivering "intelligence at the speed of mission command" is only achievable effectively if the collected information gets to an analyst to produce intelligence to support the commander's decision making. To do that, information collection must be managed and integrated through a dedicated team effort at the BCT.

² Sterioti, "Information Collection Management in the BCT," 48; Childs, "Information-Collection Rehearsals in the Brigade Combat Team," 34.

¹ HQDA, FM 2-0, 2-12.

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