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MISSION COMMAND CENTER OF EXCELLENCE

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Army Unified Exploitation Concept of Operations 2012-2018

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Army Unified Exploitation Concept of Operations 2012-2018

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EXECUTIVE SUMMARY

Development of the Army Exploitation Concept of Operations (AEC) was directed by Headquarters, Department of the Army Execution Order 268-11, dated 23 August 2011. This document is designed to address the Army's lack of a "systems approach" to effectively integrate multiple organizations, disciplines, functions, and processes that support exploitation through their application of tactical, technical, and scientific capabilities.

This CONOPS describes an overarching concept of operations for the 2012-2018 timeframe that provides a framework for "Unified Exploitation (UE)" operations and the basis to develop supporting capabilities. It establishes linkages to other Army concepts and describes how UE enables decisive action in support of unified land operations. This CONOPS describes the operational context and how commanders integrate supporting UE capabilities through Mission Command to produce an operational advantage. This CONOPS addresses the central military problem: the Army lacks a systematic approach to effectively integrate multiple organizations, disciplines, functions, and processes that support exploitation through their application of tactical, technical, and scientific capabilities. The absence of an organized exploitation framework to develop facts, actionable information or intelligence from collected enemy information, materials, or people, results in a knowledge void. This lack of knowledge may compromise our ability to execute commander directed, follow-on actions and represents tactical and perhaps even strategic opportunities lost.

Unified Exploitation (UE) is the synchronization and integration of unit operations with technical and scientific capabilities to develop facts, actionable information, or intelligence from information, materials, or people collected from an objective, point of occurrence, or event. UE supports tactical, operational, or strategic objectives. This includes support to targeting, criminal prosecution, identification of and engagement with friendly, neutral and threat networks and improving force protection. It is complementary rather than additive in the employment of supporting capabilities from different warfighting functions. UE provides the Army with an enterprise approach. The UE Framework provides commanders and staffs with a technique and basic conceptual structure for visualizing and describing UE operations. The UE Framework consists of the five UE Core Activities: detect, collect, process, analyze, and disseminate.

This CONOPS is consistent with The Army Capstone Concept (ACC), TRADOC Pam 525-3-0. UE supports operational adaptability and enhances the Army's ability to understand the situation in breadth, depth, and context. It is also consistent with The Army Operating Concept (AOC), TRADOC Pam 525-3-1. UE enhances the Army's ability to interdict the enemy decision cycle and act faster than the enemy. The Army Functional Concepts (AFC) describe how Army forces, as part of unified action, exercise the six Army warfighting functions. The Army conducts UE, supported by the capabilities resident across the six warfighting functions.

An integrated UE enterprise provides the Joint Force Commander with synchronized and integrated capabilities that support unified land operations as part of unified action. To ensure success, UE is an enduring capability enabled through doctrine, organization, training, material leadership and education, personnel, and facilities (DOTMLPF) and institutionalized with other

Army capabilities in the 2012-2018 timeframe. UE is nested within Army capstone guidance and UE capabilities are methodically assessed and developed through the Joint Capabilities Integration Development System (JCIDS) process. Each Army warfighting function implements UE through an enterprise infrastructure that is adaptable to their unique requirements.

PREFACE

The Unified Exploitation (UE) Concept of Operations (CONOPS) describes the capabilities required to execute UE in support of decisive action in unified land operations, and how a commander, using military art and science, might employ UE capabilities to achieve desired objectives. The UE CONOPS supports all Army agencies and activities involved in the development of UE capabilities. It functions as the conceptual basis for developing UE capabilities through the Joint Capabilities Integration and Development System (JCIDS) process. The UE CONOPS provides the operational context needed to examine and validate current supporting capabilities and examine new and/or proposed capabilities required to solve related shortfalls or issues related to UE within the domains of doctrine, organization, training, material, leadership and education, personnel, and facilities (DOTMLPF). It supports development of an enterprise solution that will help the Army maintain capabilities developed during Operation Enduring Freedom and Operation Iraqi Freedom, and continue to nurture, and institutionalize, UE capabilities.

For the purpose of this CONOPS, the term "UE operations" describes the sum of UE activities and their capabilities available for employment. The Army will conduct UE operations as part of offensive, defensive, stability, or DSCA operations. When conducted as a part of a named operation or mission the Army will execute the "UE Core Activities" described in the CONOPS.

The CONOPS reflects the culmination of observations, insights, and lessons gained from interviews with operational units, participation as core members in related Integrated Concept Development Teams (ICDT), and the collaborative support of an Army community of interest that spans multiple warfighting functions, branches, and Centers of Excellence. In developing the CONOPS, a comprehensive literature review was conducted of Joint, Army, and multi-national concepts and doctrine, support to and participation in the development of related Capability Based Assessments, and other studies. It included a review of Joint and Army Universal Tasks, Joint Capability Areas, Training Support Packages (TSP), and Programs of Instruction (POI) from the many functions and capabilities that support exploitation. Finally, it reflects the input, staffing, and review of the community of interest, subject matter experts' (SME). This multi-dimensional approach to developing the CONOPS led to the central idea, framework, and vignettes presented in this document.

The UE CONOPS uses joint terms where applicable. Most terms with joint or Army definitions are in both the glossary and the text. Terms created within the UE CONOPS have an asterisk in the glossary. Definitions created within the UE CONOPS are in boldfaced text for the first use.   Upon approval of the CONOPS, the new terms and their proposed definitions will be provided to the US Army Combined Arms Doctrine Directorate for suggested inclusion in the next revision of FM 1-02, Operational Terms and Graphics. For other definitions in the text, the term is italicized and the number of the proponent publication follows the definition. For terms with multiple Army, Joint, or Department of Defense (DOD) definitions, the CONOPS will provide a gloassary entry with the acknowledged definition used in the document. For example, the UE CONOPS uses the second definition for "intelligence" found in FM 1-02, Operational Terms and Graphics, Change 1 (2 FEB 2010), "Information and knowledge about an adversary obtained through observation, investigation, analysis, or understanding."

The UE CONOPS follows the regulatory guidance set forth in TRADOC Regulation 71-20, Concept Development, Experimentation, and Requirements Determination (5 JAN 2011). The document also follows the newly published TRADOC Pamphlet 71-20-3, The U.S. Army Training and Doctrine Command Concept Development Guide (6 DEC 2011).

Chapter 1 - Introduction

Unified Exploitation (UE) is the synchronization and integration of unit operations with technical and scientific capabilities to develop facts, actionable information, or intelligence from information, materials, or people collected from an objective, point of occurrence, or event. UE supports tactical, operational, or strategic objectives. This includes support to targeting, criminal prosecution, identification of and engagement with friendly, neutral and threat networks, and improving force protection.

UE enables friendly forces to interdict the enemy decision cycle. Enabled by Mission Command:

- UE supports the understanding of the Operational Environment (OE) required by the commander to successfully execute decisive action
- UE achieves synergy across the warfighting functions.
- UE is complementary rather than additive in the employment of supporting capabilities.
- UE supporting capabilities employ their own set of approved processes, integrated and synchronized through the UE Framework
- Each capability enhances the effectiveness and compensates for the shortfalls of the others
- UE achieves an effect on the enemy that is greater than if the supporting capabilities are used individually or in sequence

UE Operations enable unified action, the organization, synchronization, coordination, and integration of supporting activities of military and non-military entities, to achieve unity of effort.

1-1 Purpose

This document describes an overarching concept in the 2012-2018 timeframe that provides a framework for UE operations and the basis to develop supporting capabilities. It establishes linkages to other Army concepts and describes how UE is an enabler to decisive action in support of unified land operations. This CONOPS describes the operational context, military problem, and how commanders integrate supporting UE capabilities using Mission Command to produce an operational advantage.

1-2 Background

The term "Sensitive Site Exploitation" (SSE) emerged during Operation Iraqi Freedom (OIF). SSE was associated with the efforts to collect information on Iraqi weapons of mass destruction (WMD) programs. As OIF matured, the operational force used the term SSE to describe any operation whose purpose was to search for and collect enemy information, material, and people. Army schools and centers developed new training and doctrine to meet the demands of the operational force, but without integration and synchronization, resulting in ambiguous if not conflicting terms such as Site Exploitation (SE), Tactical Site Exploitation (TSE), and Military Search. Army organizations used all of these terms to describe exploitation actions executed in relationship to combating IEDs, targeting insurgent networks, and support to host nation (HN) rule of law.

As Operation Enduring Freedom (OEF) and OIF progressed, Army, Joint, and Coalition forces established ad hoc capabilities (Task Force Troy, Task Force Paladin, the Combined Explosive Exploitation Cell (CEXC), etc.) to meet tactical and operational requirements for more sophisticated analysis of collected information, materials, and people. In 2007 the Asymmetric Warfare Group (AWG) observed that the BCT's ability to effectively understand, visualize, and target irregular forces in complex environments was immature and highly dependent on integrating unique, unfamiliar, and non-organic capabilities/enablers at the BCT level. AWG recognized that pre-deployment training did not adequately develop the agility, responsiveness and proficiency necessary for BCTs to capitalize on fleeting opportunities to attack threat networks or enable friendly networks in a counterinsurgency. In response AWG developed "Focused Operations Training" to partially mitigate capability gaps. In 2010, BCTs deployed to Afghanistan task organized "Focused Targeting Forces" or FTFs from organic and assigned assets. These specialized organizations were composed of maneuver elements, Multi-Functional Teams (MFT), HUMINT and SIGINT assets along with interpreters and Female Engagement Teams (FET). The FTFs were tasked with the planning, preparation and execution of site exploitation operations in the BCT's prescribed area of operation. In 2010, the Army published ATTP 3-90.15, Site Exploitation Operations, to fill a need for supporting doctrine. Army Schools and Centers of Excellence unilaterally developed related capabilities to support the needs of the deployed force. Although beneficial, these efforts suffered from a lack of a unifying and integrating framework. Furthermore, the lack of a clearly defined military problem resulted in multiple asynchronous DOTMLPF solutions, developed in relative isolation and without complete integration.

In 2011, the Army recognized the need for a central unifying concept to assist commanders in achieving unity of effort for the synchronized application of tactical, technical, and scientific capabilities. The adjective "site" was dropped in an effort to convey that these activities transcended the physical location and an overarching concept known as "Exploitation" emerged. In 2011, the Commander, US Army Combined Arms Center, approved the term "Unified Exploitation" to distinguish it from the offensive task described in FM 3-90, Tactics, and with similar activities containing the word "exploitation".

1-3 Linkage to the Army Capstone Concept (ACC)

TRADOC Pam 525-3-0, The Army Capstone Concept, "Operational Adaptability—Operating Under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict", describes the broad capabilities required by the Army in the 2016-2028 timeframe. The ACC provides the foundation for future force development and modernization efforts, as well as a common framework for future joint land operations. The capstone concept "establishes operational adaptability as its central idea and asserts success in future armed conflict depends on the ability of Army leaders and forces to understand the situation in breadth, depth, and context; then develop the situation through action in close contact with enemies and civil populations" (TP 525-3-0). UE develops facts, actionable information, or intelligence that informs the operations process and other integrating processes and enhances commander and staff understanding of the OE. The UE CONOPS establishes a linkage to the ACC by describing the

capabilities required to overcome an adaptive enemy, protect people, and enhance commander and staff understanding of the OE.

1-4 Linkage to the Army Operating Concept (AOC)

"TRADOC Pam 525-3-1, *The Army Operating Concept*, describes how future Army forces conduct operations as part of the joint force to deter conflict, prevail in war, and succeed in a wide range of contingencies in the future operational environment." (TP 525-3-1, Page iii) The AOC identifies the supporting ideas, operational, and tactical level actions required to address future operational challenges. Fundamental to meeting these challenges, the AOC states, "Army forces must act and respond faster than the enemy." (TP 525-3-1, Para 3-4.a) UE provides the synergy through the UE Framework by which the commander and staff organize, synchronize, coordinate, and integrate the supporting activities of military and non-military entities. This increased synergy enhances the Army's ability to interdict the enemy's decision cycle and respond faster than the enemy.

1-5 Linkage to the Army Functional Concepts (AFC)

The Army Functional Concepts, describe how Army forces, as part of unified action, exercise the six Army warfighting functions (Mission Command, Movement and Maneuver, Intelligence, Fires, Protection, and Sustainment), and support decisive action in support of unified land operations. The AFCs identify the capabilities required to apply the warfighting functions in the future OE. The Army conducts UE through the capabilities resident across the six-warfighting functions. UE represents the unity of effort enabled by the integrated and synchronized application of supporting capabilities. Each of the six AFCs will address UE based on the capabilities of their respective warfighting functions.

Chapter 2 - Unified Exploitation

UE provides the Army with an enterprise approach, enabled by supporting capabilities, for the integration and synchronization of unit operations with technical and scientific capabilities to detect, collect, process, and analyze information, materials, or people and disseminate the developed facts, actionable information, or intelligence. As depicted in Figure 1, UE establishes a framework as a technique to understand, visualize, describe, direct, and organize supporting forces. The purposeful organization and employment of these forces achieves an effect that is greater than if supporting capabilities are employed individually or in sequence. UE operations provide the Joint Force Commander (JFC) with a powerful tool that will enhance his ability to understand the situation and act faster than the enemy can react.

Figure 1, Unified Exploitation

2-1 Operational Context

The Army employs forces within the operational context defined by the OE. The Army conducts unified land operations as a part of unified action as illustrated in Figure 2. The Army executes decisive action, characterized by simultaneous offensive, defensive, stability operations, and Defense Support of Civil Authorities (DSCA) as a part of unified land operations to prevent or deter conflict, prevail in war, and create the conditions for favorable conflict resolution.

Unified Action
Central idea: synchronization, coordination, and/or integration of the activities of governmental and non-governmental entities with military operations to achieve unity of effort

Anticipated Operational Environment
- US must project power into region, opposed
- US must seize at least one base of operations (maybe more)
- Threat of WMD will require dispersal of US forces and decentralized operations
- Size of theater (space and population) will exceed US ability to control

To cope with these, we must...

Unified Land Operations
Seize, retain, and exploit the initiative to gain and maintain a position of relative advantage in sustained land operations in order to create the conditions for favorable conflict resolution

Executed through...
Decisive Action
offensive defensive stability DSCA

By means of...
Army Core Competencies
combined arms maneuver   wide area security

Guided by...
Mission Command

─────────────────── *To do this we must...* ───────────────────

Develop operations characterized by flexibility, integration, lethality, adaptability, depth, and synchronization

Cognitively link tactical actions to strategic objectives

Organize effort within a commonly understood construct

Operations Structure

Provide a broad process for conducting operations

Provide basic options for visualizing and describing operations

Provide intellectual organization for common critical tasks

Tenets	**Operational Art**	**Operations Process**	**Operational Framework**	**Warfighting Functions**
Flexibility Integration Lethality Adaptability Depth Synchronization	The pursuit of strategic objectives, in whole or in part, through the arrangement of tactical actions in time, space, and purpose	Plan - Army Design Methodology - MDMP - TLP Prepare Execute Assess	Decisive-Shaping-Sustaining Deep-Close-Security Main and Supporting Efforts	Mission Command Movement and Maneuver Intelligence Fires Sustainment Protection

DSCA defense support of civil authorities   MDMP military decisionmaking process   TLP troop leading procedures   WMD weapons of mass destruction

Figure 2, Unified Land Operations – Underlying Logic (ADP 3-0)

UE supports unified land operations as illustrated in Figure 3. UE operations support the full range of military operations by increasing the ability of Army leaders and forces to comprehend the situation in breadth, depth, and context, and then develop the situation through decisive action. It also supports the commander's ability to comprehend and act faster than the enemy in the future OE.
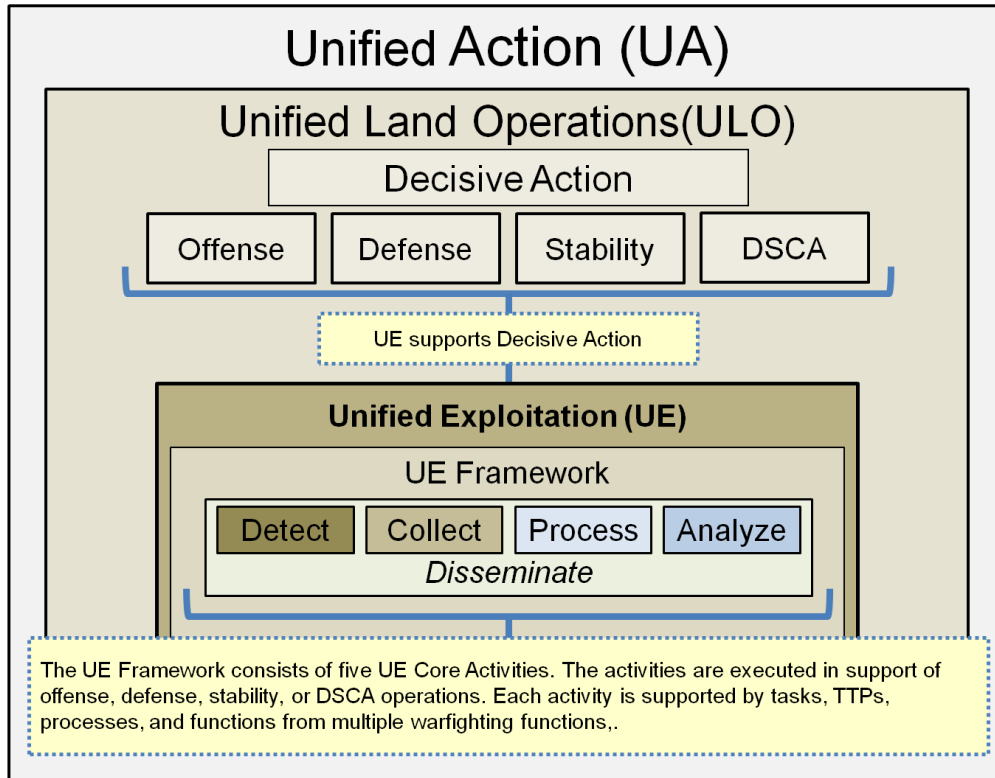
Figure 3, Unified Exploitation Operations within Unified Action

2-2 Operational Environment

Successful operations are predicated on a thorough understanding of the OE, "a composite of the conditions, circumstances, and influences which affect the employment of military forces and bear on the decisions of the unit commander" (FM 1-02). Commanders and staffs use the operational variables (political, military, economic, social, infrastructure, information, physical environment, and time) and mission variables (mission, enemy, troops, terrain, time, and civil considerations) to analyze the OE and through the operations process, "plan, prepare, execute, and assess" operations. The OE is dynamic and constantly changing. For the commander and staff to maintain their understanding of the OE requires an ability to continuously acquire information and update their understanding, including the implications of changes relative to ongoing operations.

UE is consistent with the current and projected OE. The involvement of the US in conflict over the next quarter century is uncertain, but is expected to be an era of persistent conflict. Leaders must anticipate potential threats, the capabilities they may possess, and prepare our forces to be more adaptive in the face of these intelligent and adaptive enemies. The OE influences planning, preparation, and execution of UE. UE links information, material and people obtained through multiple detection and collection modalities to develop, facts, actionable information and intelligence that contribute to friendly forces information dominance over an enemy.

The UE CONOPS supports the development of future capabilities by deriving future force requirements from an examination of the Army's current mission, emerging threat capabilities,

and characteristics of the future OE. UE development goals tie to the actual and prospective capabilities of future enemies and the availability of evolving technologies.

To define the problem of future-armed conflict, it is important to begin with a consideration of the range of enemies to US vital interests as well as key environmental factors. Over the last decade, the Army has focused on counterinsurgency operations. Future unified land operations will involve nation state and non-state actors with near peer, standing military forces. Additionally, rogue states will continue to threaten the interests of the United States. It is likely that hybrid combinations of nation state and non-state actors globally linked by an information network will combine to expand their ability to influence our strategic and national interests.

Though recent experience has shown the effectiveness of UE in counterinsurgency, the Army must be prepared to conduct operations across the range of military operations within our future anticipated OE. Under those conditions, UE capabilities must be adaptable to any military contingency. UE in major combat is as effective in developing facts, actionable information, and intelligence as in counterinsurgency. Commanders and staffs plan for the integration of UE capabilities during the operations process facilitating the introduction of UE capabilities and enablers into military operations at the time and place of the commanders' choosing. UE operations provide the critical links enabling the commander to stay one-step ahead of the enemy decision cycle.

2-3 Military Problem

The Army lacks a comprehensive approach to effectively integrate and synchronize multiple organizations, disciplines, functions, and processes that support exploitation through their application of tactical, technical, and scientific capabilities. The absence of an organized exploitation framework to support the development of facts, actionable information, or intelligence from collected information, materials, or people, results in a knowledge void. This lack of knowledge may compromise our ability to execute commander directed, follow-on actions and represents tactical and perhaps even strategic opportunities lost.

2-4 UE Required Capability

Future Army forces must integrate and synchronize exploitation activities to derive facts, actionable information, or intelligence, to enable decisive action, targeting, or criminal prosecution in support of unified land operations.

2-5 Assumptions

The UE CONOPS uses the following assumptions:
- The Army requires UE capabilities to support unified land operations in the 2012-2018 timeframe.
- Commanders and staffs require a comprehensive understanding of the functional capabilities composing UE.
- The Army measures the effectiveness of UE by the output of useable products that represent facts, actionable information, or intelligence.

- Knowledge gained through the execution of UE activities will assist the commander and staff to synchronize and integrate supporting enablers into the plan, and optimize exploitation products.
- Army Centers of Excellence and branches develop UE solutions that enable the organization, synchronization, coordination, and integration of supporting activities to achieve unity of effort.
- The Army develops UE capabilities using the framework of the DOTMLPF domains.

2-6 Risks

The UE CONOPS identifies three distinct risks.

Asynchronous Approach: UE spans multiple Centers of Excellence, branches, and warfighting functions. UE operations enable the organization, synchronization, coordination, and integration of supporting activities to achieve unity of effort. Unity of effort is dependent on fully developed DOTMLPF solutions for UE developed through the participation of the Army and Joint communities of interest. Failure of a Center of Excellence, branch, or warfighting function to support UE capability development will result in incomplete solutions that lack full DOTMLPF integration.

Loss of Capabilities: Many of the capabilities currently supporting UE are not programs of record nor are they institutionalized in the Generating Force training base. These capabilities are not integrated or supported by the full range of DOTMLPF requirements. Failure to develop UE solutions through the Joint Capabilities Integration Development System (JCIDS) process will result in the loss of capabilities that support UE Core Activities.

Inefficient Use of Resources: The Army lacks a UE framework that guides the efficient use of resources in the development and delivery of supporting tactical, technical, and scientific capabilities through the JCIDS process. Failure to develop UE will result in the continuation of stove-piped, ad hoc, and asynchronous solutions at a greater cost, not only in resources but in the loss of critical battlefield capabilities.

Chapter 3 - Unified Exploitation Operations

Unified Exploitation Operations describes the technique of executing military operations that synchronize and integrate the tactical, technical, and scientific means to develop facts, actionable information, intelligence from an objective, point of occurrence, or event, for tactical, operational, or strategic purposes. The term "UE operations" describes the sum of UE activities and their capabilities available for employment. The Army will conduct UE operations as part of offensive, defensive, stability, or DSCA operations. When conducted as a part of a named operation or mission the Army will execute the "UE Core Activities" described in the CONOPS. When conducted as a part of a named operation or mission the Army will conduct UE Core Activities described later in the CONOPS. As a whole, UE operations enable the organization, synchronization, coordination, and integration of supporting activities of military and non-military entities, to achieve unity of effort. UE operations nest within the overarching campaign and the major operations aimed at achieving strategic and operational objectives within a given time and space.

UE operations are enabled through mission command. Commanders and staffs deliberately plan for the integration of UE operations within the supported campaign plan. This ensures that the capabilities required to execute and support UE are identified, postured, resourced, and integrated into the overall concept of operations. Roles, responsibilities, and procedures for the integration of UE are based on METT-TC.

3-1 Vision

The Army employs a fully integrated UE enterprise that provides the Joint Force Commander with synchronized capabilities to detect, collect, process, and analyze information, materials, or people and disseminate the resulting facts, actionable information, or intelligence in unified land operations in support of unified action. UE is an enduring Army capability enabled through DOTMLPF domains. UE is fully institutionalized and integrated with other Army capabilities in the 2012-2018 timeframe. UE is nested within Army capstone concepts and emerging guidance and capabilities are methodically assessed and developed through the JCIDS process. Each Army warfighting function will determine how to use and implement UE through an enterprise infrastructure that is adaptable to its unique requirements.

3-2 Information Collection

"Information collection is an activity that synchronizes and integrates the planning and employment of sensors and assets, as well as the processing, exploitation, and dissemination of systems in direct support of current and future operations." (Final Approved Draft (FAD), FM 3-55, Information Collection) The draft manual currently identifies four tasks or missions that aid in the development of the information collection plan: reconnaissance, surveillance, security, and intelligence operations. The Joint community will continue to use the phrase Intelligence, Surveillance, and Reconnaissance (ISR) to define information collection. UE supports information collection by providing commanders with facts, actionable information, or intelligence that feed related processes and help to answer information requirements.

3-3 Actionable Information and UE

The UE CONOPS establishes the term "actionable information" as raw data, provided directly to the commander for action due to its highly perishable nature or the criticality of the situation. Typically, this raw data cannot be processed into intelligence in time to satisfy the user's priority intelligence requirements to support the full range of decisive action. Actionable information supports offense, defense, stability, and DSCA operations. For the UE CONOPS, actionable information is more appropriate than the existing term "combat information". Upon approval of the CONOPS, the term and definition for actionable information will be provided to the U.S. Army Combined Arms Doctrine Directorate (CADD) as a recommended replacement for combat information.

Commanders use professional military judgment, developed by experience and a thorough knowledge of the art of command and science of control, to review actionable information and react without going through the intelligence process. Mission command provides the commander the means to exercise operational adaptability, "a quality that Army leaders and forces exhibit based on critical and creative thinking, comfort with ambiguity and uncertainty, a willingness to accept prudent risk, and their adaptability to rapidly adjust to changing

circumstances." (FM 6-0.1) The commander then provides direction using mission orders to enable disciplined initiative (within the commander's intent) to empower agile and adaptive leaders in their conduct of decisive action in unified land operations.

The commander leverages UE capabilities such as biometrics, forensics, and Document and Media Exploitation (DOMEX) to develop facts or actionable information. The commander constantly evaluates the information provided by UE to enhance his understanding of the OE, inform subsequent UE activities, and answer information requirements.

3-4 Knowledge, Understanding, and Risk

The UE CONOPS uses the definition of "information" found in FM 6-0, Mission Command (13 September 2011). FM 6-0 defines information as the "meaning that a human assigns to data by means of the known conventions used in their representation." Knowledge is information analyzed to provide meaning and value or evaluated as to implications for the operation. Understanding is knowledge that has been synthesized and had professional military judgment applied to develop situational understanding. However, time may preclude achieving perfect understanding before acting on the information.

Effective mission command requires developing raw data into knowledge so commanders can achieve understanding. Leaders synthesize the actionable information gained through UE activities with their understanding of the common operational picture to develop knowledge and understanding.

One of the principles of mission command is to accept prudent risk. "*Prudent risk* is a deliberate exposure to potential injury or loss when the commander judges the outcome in terms of mission accomplishment as worth the cost" (FM 6-0). There is inherent risk in executing a branch or sequel to a mission based on actionable information. However, waiting for the intelligence process to vet the information may create unacceptable delays that jeopardize successful execution of the branch, sequel, or commander directed follow-on mission.

For example, tactical operations at the company level highlight the effectiveness of mission command. A maneuver company currently has very limited organic intelligence assets and relies on its parent battalion for the production of most intelligence. Mission orders provide the company commander with the freedom to execute a branch or sequel based on his understanding of the actionable information produced by UE activities in order to act within the enemy's decision cycle.

3-5 The Application of Mission Command In UE

 "The philosophy of mission command—the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent— guides leaders in the execution of unified land operations…Under this philosophy, commanders drive the operations process through their activities of understand, visualize, describe, direct, lead, and assess." (ADP 3-0)

Mission command is fundamental to the execution of UE. Through mission command, the commander creates synergy among the different warfighting functions within his command. The

UE capabilities each enhance the effectiveness and compensate for the shortfalls of the others in some combination – to fulfill successful execution of UE.

UE operations require the knowledge and comprehension of multiple supporting capabilities, their outputs, and the focused employment of those capabilities. Mission command fosters synergy among multiple supporting capabilities. Commanders, guided by the ideas of mission command, provide purpose and direction to integrate supporting military and non-military capabilities. This ensures that the capabilities required to execute UE activities are identified, postured, resourced, and integrated into the overall concept of operations. Staff sections execute their own tasks, processes, and functions in support of UE activities, integrated and synchronized through mission command. Commanders and staffs deliberately plan for the integration of UE within the supported campaign plan, named operation, or mission.

To exercise mission command, commanders at every echelon are supported by the mission command system, "the arrangement of personnel, networks, information systems, processes and procedures, and facilities and equipment that enable commanders to conduct operations" (FM 6-0). UE is consistent with mission command philosophy and current Army processes depicted in Figure 4.
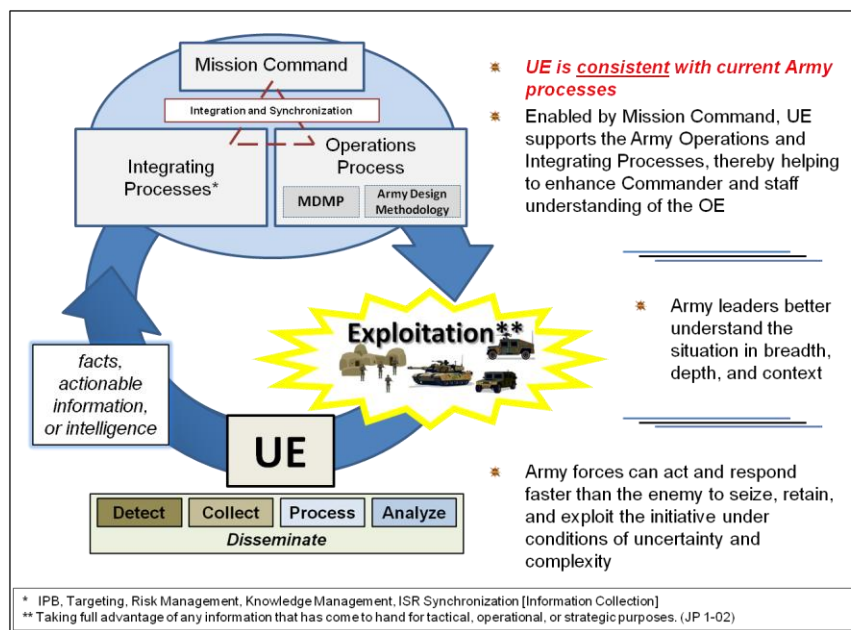
Figure 4, Unified Exploitation and the Army Operations Process

Commanders and staffs continuously monitor and evaluate the situation. During planning, preparation, and execution, commanders assess the probability of answering information requirements on the objective. Once operational planning begins, mission analysis of the operation allows commanders and staffs to identify specific assets required to execute UE. This ensures that forces arrive at the objective, task organized and capable of immediately detecting, collecting, processing, and analyzing information, materials, or people.

UE supports information collection by integrating UE enabling capabilities, which expedites the development of information that will answer information requirements and support the production of intelligence. During execution of operations, commanders continually assess the effectiveness of UE activities in relation to their purpose, value of the information, and the subsequent intelligence produced. Commanders issue mission orders to assign tasks, allocate resources, and issue broad guidance. Mission orders follow the five-paragraph operations order format. Planners consider UE as a potential part of every mission and incorporate it into the order as appropriate. The commander and staff plan the integration and synchronization of UE activities to support the mission and ensure required resources are available.

Mission orders emphasize the desired endstate through the integration of UE activities, not how to attain them. Mission orders provide subordinate commanders the freedom to determine how best to accomplish assigned missions, including optimal use of UE enabling capabilities.

Mission orders provide commanders with guidance for the disposition of information, materials, and people. This supports the dissemination of resulting information into the operations process and integrating processes. The commander and staff assess the resulting information to enable subsequent operations. Figure 5 identifies commander and staff tasks for mission command in UE.

Commanders exercise Mission Command through commander tasks:	**The staff** supports the commander in the exercise of Mission Command by performing staff tasks:
• **Drive the operations process.** – The Commander and staff deliberately plan for the integration of UE within major operations. – UE is consistent with, supports, and informs the Operations Process. • **Understand, visualize, describe, direct, lead, and assess operations.** – The Commander visualizes and imparts guidance for the integration of UE into operations; he continuously assesses and adjusts plans to optimize UE – UE enhances the Commander's understanding of the OE and helps him better visualize, describe, direct, and lead military operations. – UE enables the development of facts, information, and intelligence which helps the Commander in assessing the impact of operations on the threat, friendly forces, and the population. • **Develop teams among modular formations and unified action partners.** – UE Operations require the knowledge and understanding of multiple supporting capabilities, their outputs, and the focused employment of those capabilities. – UE Operations create unity of effort among multiple supporting capabilities to optimize the results of their battlefield application within the UE Framework and enabled by the Mission Command system. • **Lead inform and influence activities.** – Throughout UE Operations, commanders collaborate with the staff, subordinate commanders, and coalition partners to establish, synchronize, and integrate UE with information themes and messages – As commanders engage key actors, they ensure themes and messages consider UE	• **Conduct the operations process: plan, prepare, execute, and assess.** – As a key component of the mission command system, the staff leverages the operations process to fully plan and integrate UE into operations – UE enhances the staff understanding of the OE. Information derived from UE continuously feeds the Operations and Integrating Processes to inform and enable decisive action. • **Conduct knowledge management and information management.** – KM and IM are integral to UE Operations, enabling the dissemination, continuous sharing, and integration of the facts, information, and intelligence developed through UE • **Conduct inform and influence activities.** – Throughout the operations process, staffs assist commanders in developing information, themes, and messages that consider UE and synchronize with operations to inform domestic and global audiences, influence foreign audiences, and affect adversary and enemy decision making. • **Conduct cyber/electromagnetic activities.** – The electromagnetic spectrum is essential for UE Operations. Army forces depend on cyberspace to develop, store, modify, and exchange information and data gained from materials or humans at *an objective*. – Staffs help the commander fully integrate cyber/electromagnetic activities required to support UE within the overall operation.

Figure 5, Commander and Staff Tasks for Mission Command in UE

Chapter 4 UE Framework

A "framework" provides a set of ideas, conditions, or assumptions that determine how something will be approached, perceived, or understood - a basic conceptional structure. (Merriam – Webster online dictionary) Army leaders are responsible for clearly articulating their concept of operations in time, space, purpose, and resources. An established framework and associated vocabulary assist greatly in this task. (ADP 3-0) The UE Framework provides commanders and staffs with a technique for visualizing and describing UE operations. The UE Framework provides a broad overview of the interlinked activities that support UE, and serves as a technique for planning and executing UE. As depicted in Figure 6, the UE Framework consists of the five UE Core Activities: detect, collect, process, analyze, and disseminate.
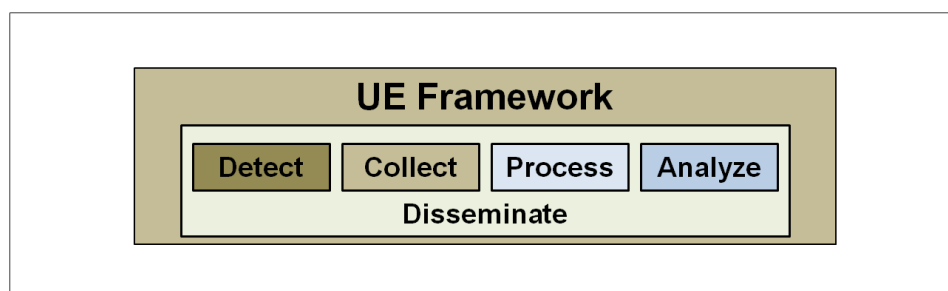
Figure 6, Unified Exploitation Framework

The UE Framework provides a conceptual lens through which the commander and staff view UE operations and exercise mission command. As a technique, the framework guides the commander in organizing, synchronizing, coordinating, and integrating the supporting activities of military and non-military entities to achieve the unity of effort required for successful UE operations. The Army uses the UE Framework to understand and visualize the arrangement of friendly forces and resources in time, space, and purpose with respect to each other and the situation in order to plan, prepare, and execute UE operations. Within the UE Framework, friendly forces leverage a broad range of capabilities (e.g. forensics) and supporting processes to execute UE. Employed as a technique, the UE Framework supports the commander and staff in integrating and synchronizing UE supporting capabilities as they exercise their own processes, tasks, and functions to support development of facts, actionable information, or intelligence. The UE Framework is consistent with and supports the operations and integrating processes.

4-1 UE Core Activities

The UE Core Activities provide an organization for the common critical tasks performed by friendly forces supporting UE (see Figure 7). Each of these core activities are supported by tasks and supporting processes performed by multiple warfighting functions. Through mission command, the commander creates synergy among supporting capabilities to execute the activities. The capabilities each enhance the effectiveness and compensate for the shortfalls of the others in some combination – to fulfill successful execution of UE activities.

The Army conducts UE Core Activities as part of a named operation or mission. The Army uses the core activities to understand, visualize, and describe UE operations. In general, units strive to execute the activities on site to produce timely outputs and allow the commander to

comprehend and act faster than the enemy. The commander balances execution of the UE activities against considerations for METT-TC to determine the extent and viability of actions on the objective and beyond. As technologies evolve, future Army forces are expected to be able to execute more of the UE Core Activities on site.
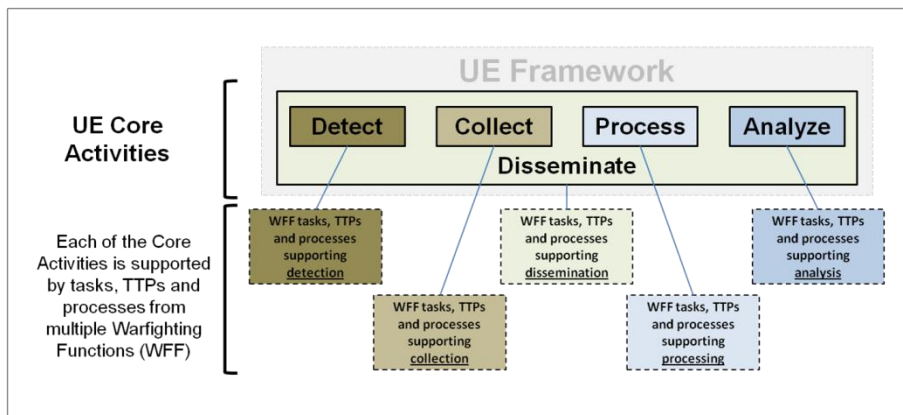
Figure 7, Unified Exploitation Core Activities

4-2 Detect

Detect starts at a point of occurrence, event, site, or objective. Within the core operational activity of "detect", Soldiers use all available means to discover, or determine the existence of information, materials, or people perceived to have military interest. Commanders and staffs develop and maintain information requirements to establish what information, materials, or people to detect.

Soldiers use their natural sensory abilities and cognitive skills, improved through training in detection techniques and procedures. Every Soldier as a Sensor (ES2) training will enhance the Soldier's ability to detect, use of special equipment, and develop tactics, techniques, and procedures (TTP) as required. Soldiers leverage technologies and other means to aid in detection. Detection is validated through concurrent or subsequent actions to confirm that a discovered object matches a set of known attributes.

During the planning process, commanders and staffs integrate and synchronize a broad range of detection capabilities to increase Soldier and unit effectiveness. The detect activity will enable the employment of technologies that enhance Soldier recognition of observables, signatures, and changes in the environment. Detect technologies will support the efforts of Soldiers and will enable subsequent collection of enemy information, materials, or people.

In the 2012-2018 timeframe, detect activities are enabled throughout the full range of expected environmental conditions, and are institutionalized through DOTMLPF. Current capabilities provided through their respective warfighting functions are described in Appendix F.

4-3 Collect

The "collect" core operational activity is dependent on the "detect" activity. The collect operational activity encompasses the means to gather, preserve/protect, organize, document, and control the information, materials, and people detected at an objective. Before information,

materials, or people can be collected, they must be detected. Initial detection and collection activities will occur on the objective. During subsequent processing and analysis, secondary detection of additional information or materials may lead to additional collection. As items are collected, processed or analyzed, Soldiers may discover information that drives them back to detect other related information, materials, or people.

The collect activity encompasses all sources including the actions of individual Soldiers collecting information, materials, and interacting with the population. Collect includes actions to document the site, physically collect information, materials, and people, stabilize, store, and protect collected items.

Collect activities include the specialized capabilities to address the collection of technologies and materials encountered in the OE. Soldiers trained in the use of standardized procedures to mitigate potential hazards and avoid corrupting potential information handle the collected information, materials, and people methodically. The perceived technical or forensic value, chain of custody, standardized procedures, and mission variables all influence which protocols are used. Standardized procedures, Rules of Engagement (ROE), and considerations for host nation rule of law all influence the manner of collection.

Collected information, materials, and people are documented using standard procedures. Documentation includes contextual information, digital photographs, video recordings, site sketches, detailed descriptions of the information, materials, people collected, and a record of the chain of custody.

The procedures used to collect information, materials, and people are dependent upon the available supporting capabilities. The time required to complete UE activities will vary according to the characteristics and properties of the items collected. Some materials encountered at a site may require specialized training specific to the characteristics or properties of the items collected. In such cases, specially trained people or units with the requisite skills and equipment to perform the required tasks may augment organizations. Based upon the broad range of collection requirements, Army organizations will integrate and synchronize the capabilities of multiple organizations to meet operational objectives.

Overseas Contingency Operations (OCO) demonstrate that collected information, materials, and people may support multiple objectives. Facts, actionable information or intelligence, once fused with the Common Operational Picture (COP), will provide support to lethal and non-lethal targeting, key leader engagements, and support to rule of law. The use of this information is not solely an intelligence function. For example, information, materials, or people collected may yield valuable information or intelligence that is immediately actionable at the point of collection. Actionable information and intelligence may not require additional analysis and can be a time-sensitive element within the targeting process. Collected information, material, and people may support warrant-based targeting of threat network members.

In the 2012-2018 timeframe, collect activities are institutionalized through DOTMLPF. Current capabilities provided through their respective warfighting functions are described in Appendix F.

4-4 Process

The "process" core operational activity involves preparing, developing, or converting collected information or materials into a form that is suitable for analysis. Processing is dependent on the results of detect, and collect and serves as a transitional activity in preparation for analysis.

The "process" activity provides the means to organize, sort, translate, extract, and convert data or material previously detected and collected. Information, materials, and people are prioritized, categorized, properly handled, and rapidly transferred to the appropriate location for analysis. This procedure is referred to as triage.

The process activity enables the triage of collected information, materials, and people, extraction of data from electronic media, translation of foreign language documents and media, and the stabilization, storage, protection of processed items, and transfer of collected information and materials for subsequent processing and analysis, maintaining chain-of-custody if required.

Using common formats, standards, and language, the process activity is the means by which information is prepared by supporting organizations for subsequent analysis. For example, a cell phone found at an objective contains a digital Subscriber Identity Module (SIM) memory card with call data. The data on the card must be extracted and entered into suitable databases where it can be compared against a set of known records (phone numbers, email addresses, locations, textual information, etc) in an effort to associate the information to an individual actor, threat network, action or event as part of analysis. Latent prints recovered from the cell phone can be compared to the biometrics registered in the Department of Defense (DoD) biometrics database. The phone may also yield information on spectrum use, technical modifications, or sourcing. Triage helps to determine what information is of the highest value and determine the steps required for follow-on analysis accordingly.

Processing is performed by individuals trained in a wide range of skills and facilitated by specialized equipment and automated systems. Capabilities are diverse and based on functional requirements. Processing can occur on the site if required capabilities are available and mission variables allow. Otherwise, collected items are transferred to an off-site location, where processing can occur, often in conjunction with analysis.

In the 2012-2018 timeframe, the process core operational activity is enabled within the full range of expected environmental conditions. These capabilities are institutionalized through DOTMLPF. Current capabilities provided through their respective warfighting functions are described in Appendix F.

4-5 Analyze

The "analyze" core operational activity is dependent on, and leverages the results of the detect, collect, and process activities. The analyze core operational activity refers to actions by friendly forces to evaluate and deduce the operational significance of information, materials, or people. The analyze activity identifies, links, or attributes information, materials, people, places, things, intentions, activities, and events. Analysis develops facts or actionable information; or when

supported by the intelligence process, produces intelligence. Tasks associated with the analyze activity may be executed on-site if supporting capabilities are available or collected and processed items are transferred to an off-site location where the capabilities can be accessed. The information or intelligence produced through the analyze activity is disseminated to facilitate immediate, commander directed follow-on actions or fused with the COP to provide the commander and staff with an enhanced understanding of the OE.

UE supports Attack the Network (Network Engagement) through analysis. Analysis is a tool used to identify network links, trends, patterns, associations and activities. Through analysis, UE works congruently to support the friendly network while at the same time taking steps to neutralize the threat network.

The ability of Army forces to take advantage of information or intelligence gained through UE is impacted by time. Latency will negatively influence the value of relevant combat information or intelligence. Expeditious employment of the information will increase the probability of the successful engagement of a resulting target. For this reason, analysis should begin as soon and as close to the point of collection as possible. For items with a high probability of yielding information with military value, and when required capabilities are available, analysis may begin even as Soldiers continue to detect, collect, and process other items on the site. Analytical procedures are applied based on the specific nature of the information, materials, or people collected. This requires unit leaders to assess what can be done on the objective when weighed against mission variables.

The analyze activity ranges from the contextual recognition of materials at a site, to in-depth reports by mobile, deployable, or fixed labs, in or out of theater. The results derived from laboratory scientific processing may require further interpretation, the introduction of additional technical and scientific results, or fusion with other information or intelligence to determine their significance. Analysis is supported and enabled by network connectivity to operational, strategic, and national capabilities that may be available in the theater of operations, OCONUS, or CONUS. Network connectivity allows Army organizations to access a comprehensive range of analytical capabilities, in near real time, beyond organically assigned assets. Operational reach back enables real-time access to subject matter experts, typically not available to a deployed unit. Many analytical capabilities cannot be configured for deployment, yet their value to UE is irrefutable. Interoperability between Army mission command systems and those systems used by organizations to support analysis is essential. The ability of knowledge management systems used in analysis to function together should consider joint, interagency, intergovernmental, and multi-national partners. Extending network access down to the tactical level, close to the objective, will reduce latency, improve information sharing, increase accuracy, and demonstrate the full potential of UE. Where analysis-related tasks are performed is dependent on available capabilities, required level of scientific rigor, and mission variables.

In the 2012-2018 timeframe, the ability to support analytical requirements cannot be dependent on ad hoc solutions, but supported by a deliberate structure and associated capabilities. The analysis activity is institutionalized through DOTMLPF. Current capabilities provided through their respective warfighting functions are described in Appendix F.

4-6 Disseminate

The "disseminate" core operational activity is best described as the continuous horizontal and vertical sharing of information and intelligence across supported and supporting organizations. The disseminate activity includes supporting knowledge management tasks. Dissemination occurs continuously as UE activities are conducted. As organizations conduct UE core activities, they share the resulting information with higher headquarters, adjacent units and other affiliated organizations. When UE-related information and materials are transferred to specialized agencies for analysis, it is critical for the analytical results to be made available to the originating organization.

Dissemination depends on an uninterrupted flow of information enabled by mission command and mission command information systems. The information is continuously integrated with other data streams. The information or intelligence is then used by commanders and staffs to influence decision making and execute commander directed follow-on actions. Intelligence derived from UE operations is shared among Army, Joint, and when appropriate, multinational and coalition partners through standardized Army information systems and the DoD global information grid.

Dissemination of information and intelligence can occur at any point during UE activities. Tasks associated with the disseminate activity are executed by tactical and operational units either as a culminating action or executed simultaneously with other UE activities. For example, a Soldier analyzing a cell phone shares data on past calls with a group of associated units within an area of interest. As that information is shared, another organization provides the Soldier with similar data retrieved from another phone found at a separate site. The Soldier compares the two lists and notes similarities in call times, numbers, and locations. Further analysis identifies links between the two cell phones and their users. Dissemination of information throughout UE optimizes the potential for continuous actionable outputs. Rapid follow-on targeting and actions to attack threat networks requires a well-developed and fully integrated capability to share data and disseminate information and intelligence.

Commanders and staffs require the capability to access and share information in near real-time using net-enabled mission command systems, standardized reporting formats, and a common operational "vocabulary" or lexicon. The key to improving information sharing is the standardization of the terms used to describe information, materials, and people. The operational vocabulary standardizes reporting, improves database management and data sharing, enables education and training, and supports information sharing with military and non-military entities. UE dissemination capabilities must support access, sharing, and dissemination of information from the lowest tactical level to national level supporting organizations. Dissemination of UE information must occur in near real-time within a secure and responsive communication network. Tactical and operational units require reach back capabilities for immediate access to sources of information that may be resident in or out of theater of operations.

In the 2012-2018 timeframe, capabilities to support the disseminate activity are institutionalized through DOTMLPF. A more detailed description of current capabilities provided through their respective warfighting functions are described in Appendix F.

Examples of current UE enabling capabilities aligned with the respective core operational activity that each supports are shown in Figure 8.

Example: UE Core Activities and Enabling Capabilities (2012)*

Detect	Collect	Process	Analyze	Disseminate
		Mission Command		
		Knowledge Management (KM)		
		Cyber - Electromagnetic		ABCS
		Multi-Functional Team (MFT)		DCGS-A
		Weapons Technical Intelligence (WTI)		CIDNE
		Weapons Intelligence Team (WIT)		TIGR
		Battlefield Forensics		JTRS
		Biometrics		ABIS
		Explosive Ordnance Disposal (EOD)		
		Chemical, Biological, Radiological, Nuclear (CBRN)		
		Law Enforcement Professional (LEP)		
Search		Technical Intelligence (TECHINT)		
Route Clearance Company		Document and Media Exploitation (DOMEX)		
Electronic Warfare (EW)		Cellular Exploitation (CELLEX)		
Maneuver		Expeditionary Forensics Laboratory (EFL)		
National and Commercial Imagery		Captured Materiel Exploitation Center (CMEC)		
MASINT	TQ		Company Intelligence Support Team (COIST)	
SIGINT		*This graphic is intended to illustrate notional examples of UE enabling capabilities aligned with the UE Core Activity(s) that each supports. **This is not an all-inclusive list.**		
Military Working Dogs				

Figure 8, Example UE Core Activities and Enabling Capabilities (2012)

4-7 UE and the Operations Process

The application of mission command will synchronize UE activities across warfighting functions in support of simultaneous offensive, defensive, stability and DSCA operations.(See Figure 9). UE is integrated through the operations process to support Army forces conducting decisive operations.
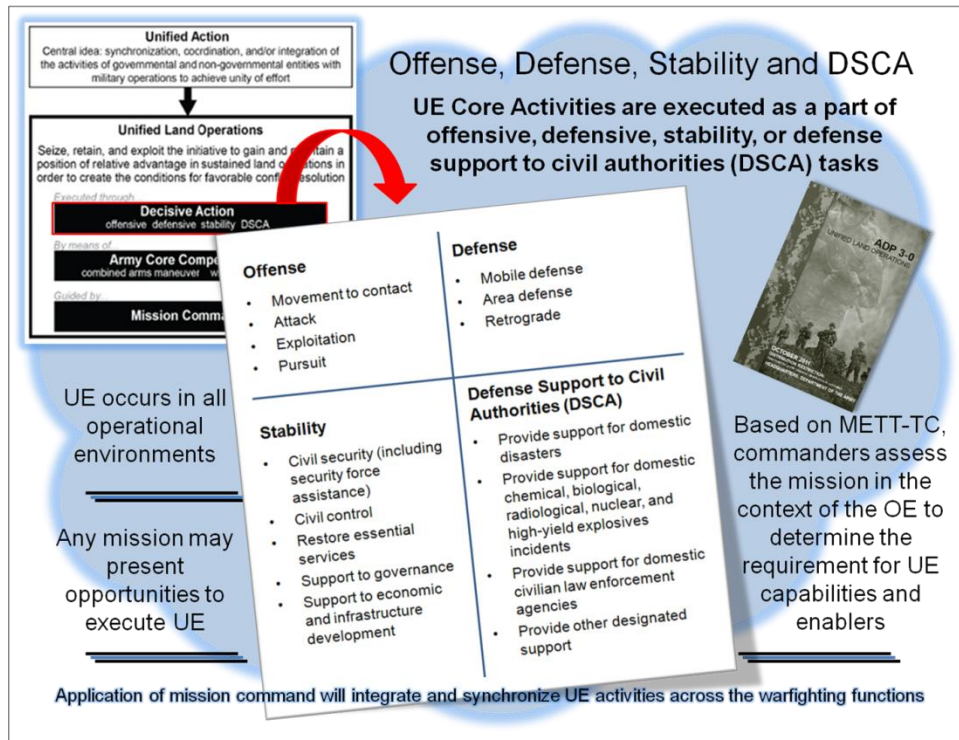
Figure 9, Types of Offensive, Defensive, Stability and DSCA Tasks

Within decisive action, UE occurs as part of a hasty or deliberate operation. Commanders and staffs assess the probability that forces will encounter a site capable of yielding actionable information or intelligence, and plan for the integration of UE capabilities accordingly. Army leaders and staffs apply operational art and the operations process enabled by knowledge management to plan, prepare, and execute UE activities in support of offensive, defensive, stability, or DSCA operations and tasks. By properly applying the operations process, commanders and staffs ensure subordinate elements are organized and equipped to effectively detect and collect information, materials, or people at an objective. When intelligence indicates the likely presence of materials, information, or people of potential military value, commanders and staffs develop deliberate courses of action for the purposeful integration of UE enabling capabilities. UE is integrated into planning from the strategic down to the tactical level. Commanders and staffs, through mission command, integrate UE into mission planning to ensure organic and non-organic capabilities are leveraged and adequate support is available.

UE can occur in all operational environments and any mission may present opportunities to execute UE. Commanders use the mission variables to assess the mission in the context of the OE to determine the requirement for UE capabilities and enablers.

Hasty operations can provide the same UE opportunities as deliberate operations when leaders and Soldiers understand the responsibilities, requirements, and UE Framework. Commanders and their staffs should anticipate UE requirements and task organize accordingly. To ensure subordinate units are able to execute UE during hasty operations, commanders include instructions covering those features of UE which lend themselves to a definite or standardized procedure in their unit Standard Operating Procedures (SOP). The OE may dictate the need for

including UE as a potential branch or sequel for all tactical operations. Based on mission variables, commanders may task-organize UE capabilities within maneuver elements.

4-8 Considerations for Tactical, Operational, and Strategic Planning

The information gained through UE is most valuable when it is used to drive subsequent operations. When forces on an objective rapidly analyze collected information, materials, or people to develop actionable information or intelligence, they enable focused execution of subsequent operations using direct and focused targeting. UE supports targeting with facts and information that informs the "decide, detect, deliver, and assess" steps of the targeting process and allows the staff to develop more comprehensive targeting packages. UE also supports dynamic targeting, when actionable information found on an objective enables a timely branch or sequel to the operation. Therefore, in planning, commanders and staffs use the UE Framework as a means of considering the integration of capabilities that allow forces to act on the information gained in support of current or subsequent operations. Planning and execution of UE operations must consider all of the capabilities required to support the UE Core Activities. This planning and execution must also consider how supported units will access, integrate, and employ these enablers. During preparation, commanders ensure the physical integration of required UE capabilities prior to execution. UE capabilities may be pre-positioned or prioritized to support specified operations. Rehearsals conducted in preparation for the mission, should include UE enablers. Planning must account for UE supporting capabilities that may reside outside the unit area of operations or fall under a different organization. Capabilities not under the command of the supported organization may provide support under a direct support (DS) or general support (GS) role. When conducting a priority mission, commanders and staffs must ensure UE supporting capabilities are postured to provide support with the same level of priority, or risk the loss of key tactical opportunities. During the fourth step of mission analysis, "review available assets," commanders and staffs determine what support is available, either as part of their unit task organization or via augmentation from their higher headquarters. In preparing the operations order for the mission, they designate appropriate command and support relationships to ensure the support will be available when required.

Information, materials, and people are collected and transferred to a designated location. Plans should establish priorities and follow-on requirements for processing and analysis. Operational planning should establish theater support for UE processing and analytical capabilities, such as an expeditionary laboratory. Capabilities are integrated with the theater force and located in the area of operations based on the unique requirements of each element (e.g., a sanctuary or safe-haven location). Operational planning considers where processing and analysis occurs and emplaces procedures for the transfer of information, materials, and people. Commanders and staffs consider how UE can support host nation rule of law through support to warrant-based targeting and criminal prosecution.

Plans and orders must consider the synchronization of supporting capabilities throughout the execution of UE activities. The effectiveness of UE activities is enhanced when commanders and staffs use all available tools to synchronize their employment within the supported operation.

Many of the processing and analytical capabilities that support UE require a level of environmental stability and technical capacity only possible in a facility that provides a stable and controlled environment, such as a laboratory or exploitation center. Support from these facilities is possible through operational "reach" or by transferring collected information, materials, or people to the fixed facility. Operational and tactical planning considers procedures for accessing subject matter expertise through reach back. Planning considers the expertise available and coordination necessary to acquire real-time access. It also establishes which units or subject matter experts outside of the unit task organization are available to augment tactical units on the objective and how to coordinate for those resources. Procedures for requesting augmentation are included in unit SOP and addressed as part of the operations order for unique requirements. Operational planning determines the procedures for triage and transfer of information, material or people that require further analysis by subject matter experts off the objective.

Planning must establish procedures to facilitate feedback to the force using standardized mission command systems. This may be as simple as sending digital information via email or as complex as physically moving the products over great distances. Units require the ability to tag and track information, material, and people transferred or in the queue for analysis. This is especially important when information or materials serve a dual purpose as a source of facts, actionable information, or intelligence and support to prosecution efforts.

Chapter 5 - Conclusion

To achieve success in military operations, the commander and staff must understand the OE. Army organizations must gain information related to friendly, neutral, and enemy activities to support military decision-making.

UE is the synchronization and integration of unit operations with technical and scientific capabilities to develop facts, actionable information, or intelligence from information, materials, or people collected from an objective, point of occurrence, or event. UE supports tactical, operational, or strategic objectives. This includes support to targeting, criminal prosecution, identification of and engagement with friendly, neutral and threat networks, and improving force protection.

UE achieves an effect on the enemy that is greater than if the supporting capabilities are used against the enemy individually or in sequence.

UE operations enable the synchronization and integration of supporting activities of military and non-military entities to achieve unity of effort. Commanders integrate the supporting UE capabilities through mission command to produce an operational advantage. UE enables the operational adaptability of Army forces conducting decisive action in support of unified land operations. UE contributes to success in future armed conflicts by enhancing the ability of Army leaders to understand the situation in breadth, depth, and context and develop the situation in close contact with adversaries and civil populations. UE supports the Army's ability to act and respond faster than the enemy in the future OE. UE develops facts, actionable information, or intelligence required to enhance commanders and staffs understanding of the OE and support

commander directed follow-on operations. UE enables the Army to interdict the enemy decision cycle and respond within their decision cycle.

The Army UE CONOPS provides a near term target, 2012-2018, for institutionalization and development of UE capabilities and describes an overarching concept for UE operations. It establishes linkages to other Army concepts and describes how UE enables decisive action in support of unified land operations. The UE CONOPS presents the operational context and military problem. It describes how commanders integrate supporting UE capabilities through mission command to produce an operational advantage.

An integrated UE enterprise provides the Joint Force Commander with synchronized capabilities to detect, collect, process, and analyze information, materials, or people and disseminate the resulting facts, actionable information, or intelligence in unified land operations in support of unified action. UE capabilities are assessed and developed through the JCIDS process. Each Army warfighting function implements UE through an enterprise infrastructure that is adaptable to their unique requirements. UE integrates with other Army capabilities in the 2012-2018 timeframe as an enduring capability through DOTMLPF that ensures its success.

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Appendix B - Explanation of Abbreviations, Acronyms, and Key Terms

To support a clear understanding and discussion of Unified Exploitation, it is important to establish a common lexicon of terms and the context for their use. The following abbreviations and acronyms used in this document must be understood in order to understand the AEC.

Section I – Abbreviations and Acronyms

ABIS	Automated Biometrics Identification System
ACC	Army Capstone Concept
AEC	Army Exploitation Concept of Operation
APD	Army Publishing Directorate
AFC	Army Functional Concept
AOC	Army Operation Concept
AO	Area of Operation
ASDAT	Aircraft Shoot-Down Assessment Team
ASI	Additional Skill Identifier
ASCC	Army Service Component Command
AtN	Attack the Network
BCT	Brigade Combat Team
BEI	Biometrics Enabled Intelligence
BfSB	Battlefield Surveillance Brigade
BIT	Battlefield Interrogation Teams
BN	Battalion
CAD	Computer Assisted Design
CBA	Capabilities-Based Assessment
CBP	U.S. Customs and Border Patrol
CBRN	Chemical, Biological, Radiological, Nuclear
CBRNE	Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives
CCIAC	Crime and Criminal Intelligence Analyst Course
CCIR	Commander's Critical Information Requirements
CCJO	Capstone Concept for Joint Operations
CELLEX	Cellphone Exploitation
CEM	Captured Enemy Material
CEXC	Combined Explosives Exploitation Cell
CIED	Counter Improvised Explosive Device
COIN	Counterinsurgency
CoIST	Company Intelligence Support Team
COCOM	Combatant Command
COMINT	Communications Intelligence
CONOPS	Concept of Operations
COP	Common Operational Picture
DCGS-A	Distributed Common Ground System-Army
DNA	Deoxyribonucleic Acid
DNI	Director National Intelligence
DoD	Department of Defense
DOMEX	Document and Media Exploitation
DOTMLPF	Doctrine, Organization, Training, Material, Leadership and Education, Personnel and Facilities

DPS	Defense Planning Scenario
DSCA	Defense Support of Civil Authorities
EFD	Expeditionary Forensics Division
EFL	Expeditionary Forensics Laboratory
EOD	Explosive Ordnance Disposal
ELINT	Electronic Intelligence
ES	Electronic Warfare Support
ES2	Every Soldier a Sensor
EW	Electronic Warfare
F2T2EA	Find, Fix, Track, Target, Engage, and Assess
F3EAD	Find, Fix, Finish, Exploit, Assess, and Disseminate
FAA	Functional Area Analysis
FDU	Force Design Update
FIFA	Force Integration Functional Area
FISINT	Foreign Instrumentation Signals Intelligence
FNA	Fuctional Needs Analysis
GCC	Geographic Combatant Command
GEOINT	Geospatial Intelligence
GIG	Global Information Grid
GPO	Government Printing Office
GPS	Global Positioning System
GWOT	Global War on Terrorism
HMEL	Heavy Mobile Expeditionary Laboratory
HN	Host Nation
HUMINT	Human Intelligence
ICD	Initial Capabilities Document
IED	Improvised Explosive Device
IEDD	Improvised Explosive Device Defeat
IMINT	Imagery Intelligence
INSCOM	Intelligence and Security Command
IPB	Intelligence Preparation of the Battlefield
ISR	Intelligence, Surveillance, and Reconnaissance (Joint)
JA/ATT	Joint Airborne/Air Transportability Training
JASP	Joint Aircraft Survivability Program
JCAS	Joint Close Air Support
JCAT	Joint Combat Assessment Team
JCIDS	Joint Capabilities Integration Development System
JFC	Joint Force Commander
JFLCC	Joint Force Land Component Command
JIEDD	Joint Improvised Explosive Device Defeat
JIIM	Joint, Interagency, Intergovernmental and Mulitnational
JNTC	Joint National Training Capability
JTF	Joint Task Force
JUO	Joint Urban Operations
JUON	Joint Urgent Operational Needs
JWICS	Joint Worldwide Intelligence Communication Systems
LEP	Law Enforcement Professional
LOC	Lines of Communication
MASINT	Measurement and Signature Intelligence
MC CBA	Mission Command Capabilities Based Assessment
MDEP	Management Decision Evaluation Package

MDMP	Military Decision Making Process
MEDEX	Media Exploitation
METT-TC	Mission variables: Mission, Enemy, Terrain and weather, Troops and support available, Time available and Civil Considerations
MFT	Multifunctional Team
MICO	Military Intelligence Company
MDD	Mine Detection Dog
MOCS	Military Occupational Classification Structure
MRE	Mission Rehearsal Exercise
MS CoE	Maneuver Support Center of Excellence
MSFD	Multi-Service Force Deployment
MWD	Military Working Dog
NAVEODTECHDIV	Naval Explosive Ordnance Disposal Technology Division
NAI	Named Area of Interest
NAVAIR	Naval Air Systems Command
NGIC	National Ground Intelligence Center
OCO	Overseas Contingency Operations
OE	Operational Environment
NEXSYS	National Exploitation System
NGB	National Guard Bureau
NIP	National Intelligence Program
NMEC	National Media Exploitation Center
NSA	National Security Agency
NSG	National System for Geospatial-Intelligence
NSAnet	National Security Agency net
OCO	Oversea Contingency Operation
OEF	Operation Enduring Freedom
OGA	Other Governmental Agencies
OSINT	Open Source Intelligence
PEDD	Patrol Explosive Detection Dog
PIO	Police Intelligence Operations
PIR	Priority Intelligence Requirements
PME	Professional Military Education
PMESII-PT	Operational Variables: Political, Military, Economic, Social, Information, Infrastructure, Physical Environment and Time
PNDD	Patrol Narcotics Explosive Detection Dog
POI	Program of Instruction
POR	Program of Record
RDD	Requirements Determination Division
RDT&E	Research, Development, Testing and Evaluation
RFF	Request for Forces
ROE	Rules of Engagement
ROMO	Range of Military Operations
SA	Situational Awareness
SE	Site Exploitation
SIGINT	Signals Intelligence
SIM	Subscriber Identity Module
SOP	Standing Operating Procedures
SSD	Specialized Search Dog
SSE	Sensitive Site Exploitation
SUPCOM	Support Command

TCM	TRADOC Capabilities Manager
TDA	Table of Distrobution and Allowances
TECHINT	Technical Intelligence
TEDD	Tactical Explosive Detection Dog
TF	Task Force
TIGRNet	Tactical Integrated Ground Reporting Network
TOE	Table of Organizational Equipment
TQ	Tactical Questioning
TSD	Techical Support Division
TSE	Tactical Site Exploitation
TTP	Tactics, Techniques, and Procedures
UA	Unified Action
UAS	Unmanned Aircraft System
UE	Unified Exploitation
ULO	Unified Land Operations
USACIDC	United States Army Criminal Investigation Division Command
USACIL	United States Army Criminal Investigative Laboratory
USAICoE	United States Army Intelligence Center of Excellence
USAMPS	United States Army Military Police School
UXO	Unexploded Ordnance
WfF	Warfighting Function
WIN-T	Warfighter Information Network Tactical
WIT	Weapons Intelligence Team
WMD	Weapons of Mass Destruction
WMD-CST	Weapons of Mass Destruction Civil Support Team
WTI	Weapons Technical Intelligence

Section II - Glossary of Key Terms

To support a clear understanding and discussion of Exploitation, it is important to establish a common lexicon of terms and the context for their use. The following terms used in this document must be understood in order to comprehend the UE CONOPS.

Actionable Information: Unevaluated data, gathered by or provided directly to the commander, which, due to its highly perishable nature or the criticality of the situation, cannot be processed into intelligence in time to satisfy the user's priority intelligence requirements to support the full range of decisive action. [Derived from the JP 1-02 definition for "combat information"]

Actionable Intelligence: Intelligence information that is directly useful to customers for immediate exploitation without having to go through the full intelligence production process. (JP 2-01.2)

Analysis [Analyze]: The process by which collected information is evaluated and integrated with existing information to produce intelligence that describes the current, and predicts the future impact of the threat and/or environment on operations. In UE, analysis attempts to identify, link, or attribute information, materials, people, places, things, intentions, activities, and events. Analysis produces intelligence or enhanced information that can be fused with the COP to provide the commander and staff with an increased understanding of the operational environment. (FM 1-02)

Asset: Any resource - person, group, relationship, instrument, installation, or supply - at the disposition of an intelligence organization for use in an operational or support role. Often used with a qualifying term such as agent asset or propaganda asset. (JP 1-02)

Audio Forensics: A sub-discipline of D/MM forensics that involves the scientific examination, analysis, comparison, and/or evaluation of audio. (DoDD 5205.15E)

Biometric: Measurable physical characteristic or personal behavior trait used to recognize the identity or verify the claimed identity of an individual. (JP 2-0)

Biometrics: The process of recognizing an individual based on measurable anatomical, physiological, and behavioral characteristics. (JP 2-0)

Collection [Collect]: The acquisition of information and the provision of this information to processing elements (JP 1-02). In UE, the collect function describes the recovery of and accounting for information, materials, or people from a site. Collect includes actions taken to document the items in order to capture contextual information regarding the site and information, materials, or people collected (within parameters afforded by the situation). It also includes actions taken to prepare or preserve an item for subsequent transfer to an external location.

Combat Information: Unevaluated data, gathered by or provided directly to the tactical commander, which, due to its highly perishable nature or the criticality of the situation, cannot be processed into tactical intelligence in time to satisfy the user's tactical intelligence requirements. [JP 1-02]

Computer and Electronic Device Forensics. A sub-discipline of D/MM forensics that involves the scientific examination, analysis, and/or evaluation of digital and electronic materials. (DoDD 5205.15E)

Detection [Detect]: In tactical operations, the perception of an object of possible military interest but unconfirmed by recognition. In UE, Soldiers detect information, materials, or people utilizing technologies and natural sensory abilities. Once an item is detected, it must be confirmed through recognition to determine potential value in answering information requirements. (JP 1-02)

Disseminate: To communicate relevant information of any kind from one person or place to another in a usable form by any means to improve understanding or to initiate or govern action. In simplest terms, the disseminate function gets information derived from Exploitation to the appropriate leader, staff, or organization that can use it to create a follow-on action or influence the decision making process. Dissemination is facilitated by information systems. Dissemination may be specific, automatic, or performed through queries by using organizations. The action or decision may not be immediate. The disseminated information may inform the COP, and when corroborated through other fused data, enable follow-on actions. (FM 1-02)

Document and Media Exploitation (DOMEX): The processing, translation, analysis, and dissemination of collected hardcopy documents and electronic media that are under the U.S. Government's physical control and are not publicly available. (TC 2-91.8)

Evidence: Anything that helps to ascertain the truth of a matter, or gives proof of a fact. Evidence may be physical or testimonial. (AR 195-5)

Exploitation [Exploit]: Taking full advantage of any information that has come to hand for tactical, operational, or strategic purposes. (JP 1-02)

Forensics: The application of multi-disciplinary scientific processes to establish facts. (Capstone Concept of Operations for DoD Forensics, 18 July 2008)

Forensics (Digital and Multimedia, D/MM): The application of computer science and investigative procedures involving the examination of D/MM material. D/MM forensics is derived from a combination of definitions as it applies across the spectrum of computer forensics, audio forensics, image analysis, and video analysis. (DoDD 5205.15E)

Image Analysis: A sub-discipline of D/MM forensics that involves the application of image science and domain expertise to examine and interpret the content of an image and/or the image itself. (DoDD 5205.15E)

Information: The meaning that a human assigns to data by means of the known conventions used in their representation. (JP 3-13.1) (FM 6-0)

Intelligence: Information and knowledge about an adversary obtained through observation, investigation, analysis, or understanding. (FM 1-02)

Information Requirements: In intelligence usage, those items of information regarding the adversary and other relevant aspects of the operational environment that needs to be collected and processed in order to meet the intelligence requirements of a commander. Information requirements establish "questions" regarding the actions of an adversary that friendly organizations must answer by applying the full range of UE capabilities available to the commander. (FM 6-0)

Processing [Process]: A system of operations designed to convert raw data into useful information. UE will often require some type of processing of information, materials, or personnel collected at a site before analysis can occur. Examples include: translating a document so analysts can assess its significance; transferring collected personnel identification data to computer systems capable of performing comparative analysis against a database of known threat operatives; developing a roll of film so that it can be analyzed for contents. (JP 1-02)

Recognition [Recognize]: 1) The determination by any means of the individuality of persons, or of objects such as aircraft, ships, or tanks, or of phenomena such as communications-electronics patterns. 2) In ground combat operations, the determination that an object is similar within a category of something already known; e.g., tank, truck, man. Soldiers use technologies and cognitive skills to determine information, materials, or personnel that may yield information or intelligence that answer information requirements. Technologies, training, and defined information requirements combined with natural cognitive abilities enable a Soldier to recognize items of potential value. These items are collected so they may be confirmed through analysis. (JP 1-02)

Scientific: Of, relating to, or exhibiting the methods or principles of knowledge or a system of knowledge covering general truths or the operation of general laws, especially as obtained and tested through principles and procedures for the systematic pursuit of knowledge involving the recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of hypotheses. [Derived from http://www.merriam-webster.com/dictionary]

Search: A systematic reconnaissance of a defined area, so that all parts of the area have passed within visibility. In UE, Soldiers employ search techniques and supporting technologies in order to detect information, materials, or personnel with the potential to answer information requirements. (JP 1-02)

Site: The place, scene, or point of an occurrence or event. This definition explains what constitutes a site. As a point of occurrence, a site is not necessarily tied to a building, structure, or function. A site can be as simple as a point on the ground or the trunk of a car, or as complex as an industrial facility or an entire city block. (Merriam-Webster Online Dictionary and Thesaurus)

Site Exploitation: Systematically searching for and collecting information, material, and persons from a designated location and analyzing them to answer information requirements, facilitate subsequent operations, or support criminal prosecution (ATTP 3-90.15). A series of activities to recognize, collect, process, preserve, and analyze information, personnel, and/or materials found during the conduct of operations (JP 1-02).

Technical: Having special and usually practical knowledge especially of a mechanical or scientific subject. [Derived from http://www.merriam-webster.com/dictionary]

Technical Intelligence: Intelligence derived from the collection, processing, analysis, and exploitation of data and information pertaining to foreign equipment and materials for the purposes of preventing technological surprise, assessing foreign scientific and technical capabilities, and developing countermeasures designed to neutralize an adversary's technological advantages. Also called TECHINT. See also exploitation; intelligence. (JP 2-0)

Unified Exploitation: UE is the synchronized application of technical and scientific processes to develop actionable information or intelligence from materials, information, or people collected from an objective, for tactical, operational, or strategic purposes, including support to targeting, rule of law, defeating threat networks, and improving force protection for coalition and civilian personnel.

Video Analysis: A sub-discipline of D/MM forensics that involves the scientific examination, comparison, and/or evaluation of video. (DoDD 5205.15E)

Appendix C - Operational View

This overview depicts the Unified Exploitation (UE) Framework and Core Activities (detect, collect, process, analyze, disseminate) at the squad through national level executed through network enabled mission command. The dotted lines in the overview are representative of the collaborative network structure used during Unified Exploitation operations.

This capability is the synchronized application of tactical, technical and scientific capabilities to develop facts, actionable information, or intelligence from information, materials, or people collected from an objective, point of occurrence, or event. UE supports tactical, operational, or strategic objectives, including support to targeting, rule of law, identification of and engagement with friendly, neutral and threat networks, and improving force protection.

Leaders and Soldiers apply the principles of mission command, conduct the operations process, and synchronize and integrate all UE enablers and capabilities. This increases the commanders' situational understanding and supports friendly force information dominance over an adversary. UE operations support the full range of decisive action by increasing the ability of Army leaders and forces to comprehend the situation in breadth, depth, and context, and then develop the situation through decisive action. As the overview depicts, actions on OBJ ANT produced actionable information that drove a follow on operation on OBJ BAT. The company commander executed synchronized UE activities on OBJ BAT which produced actionable information that drove a subsequent operation on OBJ CAT. Once OBJ CAT was secure, UE activities developed facts, actionable information, and intelligence that resulted in the capture and detention of the high value individual. Synchronized and integrated UE activities enable unified land operations in support of unified action.

Unified Exploitation Overview
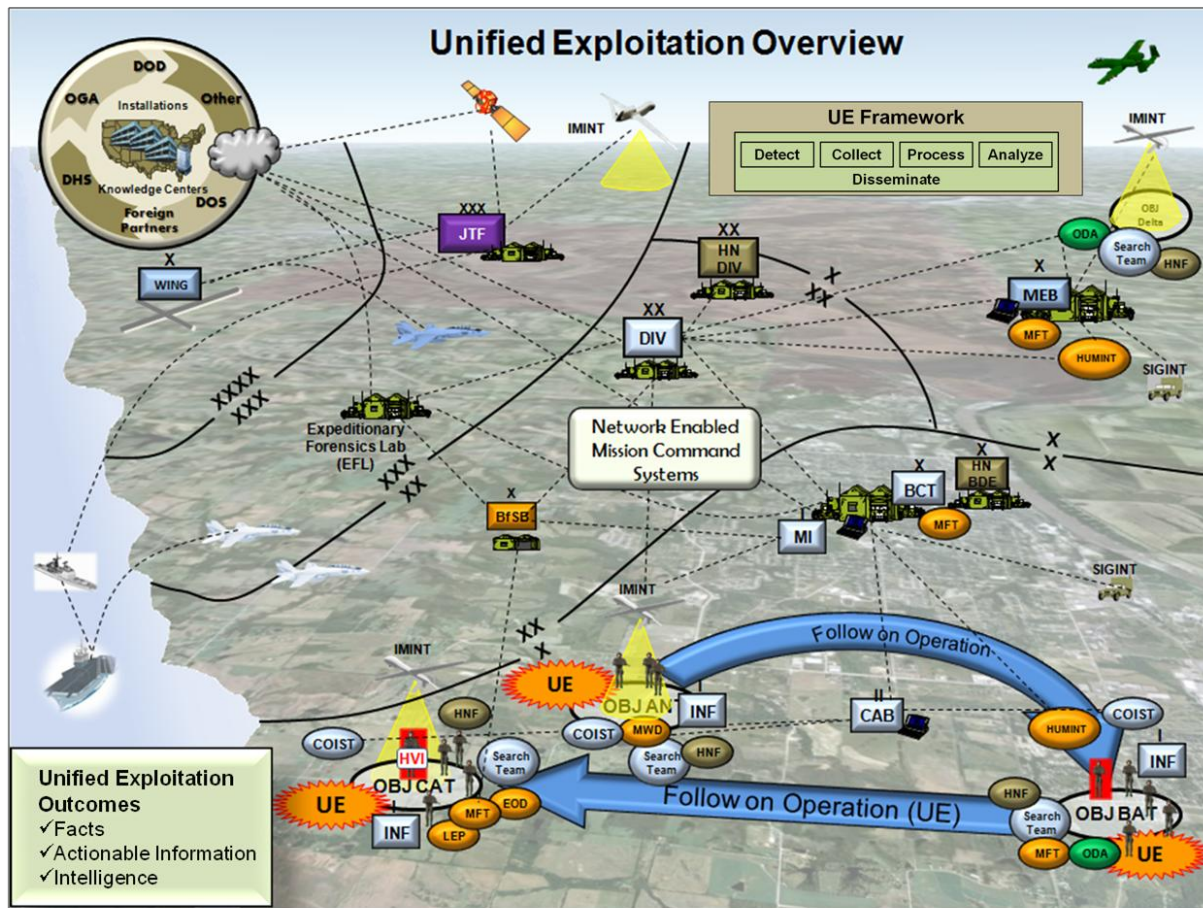
Appendix D - Unified Exploitation Vignette
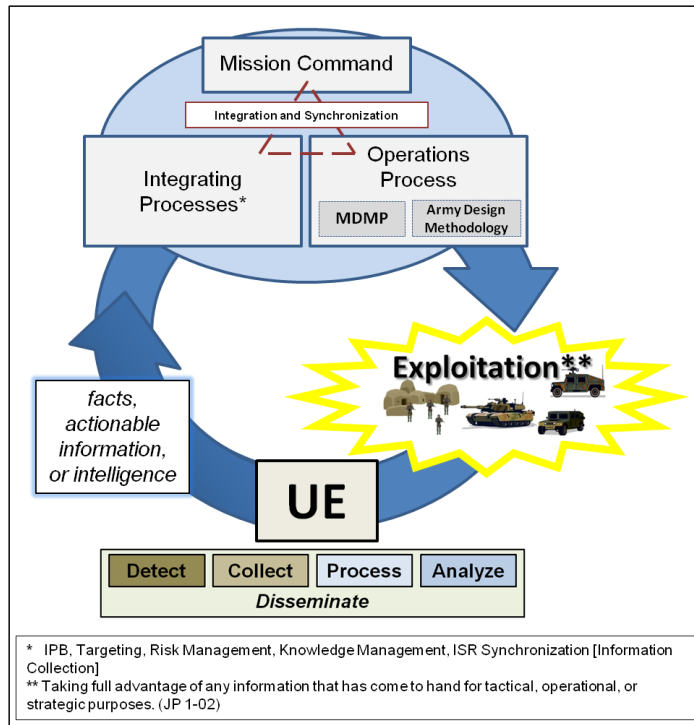
The following vignette describes the integration of Unified Exploitation (UE) operations to illustrate an enterprise approach to providing the Joint Force Commander with synchronized capabilities to detect, collect, process, and analyze information, materials, or people and disseminate the resulting facts, actionable information, or intelligence in unified land operations in support of unified action. The Commander exercises mission command, and employs the UE Framework as a technique to enhance the operations process and associated integrating processes. The vignette depicts concepts described in the CONOPS to a tactical operation where the UE Core Activities are integrated and synchronized resulting in enhanced command and staff understanding of the Operational Environment (OE). It also demonstrates the utility of an Army enterprise for UE that integrates and synchronizes battlefield capabilities and achieves unity of effort. The actions and events depicted are fictitious. Any facsimile to actual operations is purely coincidental. The vignette is intended to highlight the complexity of UE operations in unified land operations and demonstrate many of the capabilities that will be available to the force in the 2012-2018 timeframe.

This vignette uses a visual representation to illustrate UE Core Activities; it is not intended to present an all inclusive picture of the UE activities executed by the organizations involved the operation. Some lines of communication, and military graphics, are intentionally left out to promote brevity and clarity in the visual representation.

Unified Exploitation Vignette
Operational Environment MLS 2.0,
Operational Setting: Fictional "Aegean" Region

Region
- Six-nation region with diverse population.
- Multiple tribes with local goals and different cultural norms.
- Transnational terrorist threat.
- International, regional and non-government organizations complicate the operational environment.

2 IBCT AO BLUE

- Attica/non-state actors
- Neutral state
- State supporting Attica non-state actors
- State supporting Coalition
- ★ Capital

Attica
- Prosperous society with popular support for dictatorship.
- Ethnic and religious diversity unified by political ideology.
- Strong economy: oil/gas, manufacturing, agriculture and mining.
- Popular dislike of Western cultures.
- Extensive economic and diplomatic ties to Laconia and extra-regional countries, to include arms imports.

The scenario used to set the Operational Environment for this Unified Exploitation vignette is the Multi-Level Scenario 2.0 (MLS). It is a Defense Planning Scenario (DPS)/Multi-Service Force Deployment (MSFD) like major combat operation (MCO) scenario in a fictitious Geographic Combatant Command (GCC) area of responsibility. The focus unit for the scenario is a U.S. Corps consisting of three Divisions comprised of three Heavy Brigade Combat Teams (HBCT), five Stryker Brigade Combat Teams (SBCT), five Infantry Brigade Combat Teams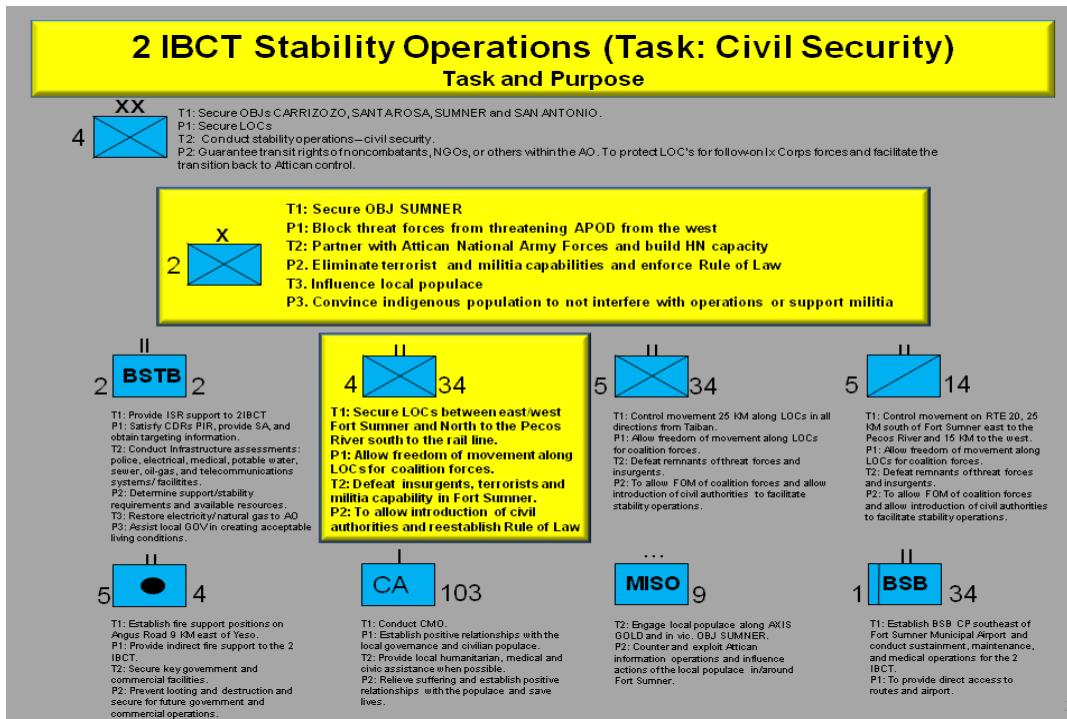 (IBCT), three Maneuver Enhancement Brigades (MEB), four Combat Aviation Brigades (CAB), one Battlefield Surveillance Brigade (BfSB), and additional theater assets. U.S. air and sea assets include a carrier strike group, three air expeditionary forces, two marine expeditionary brigades, eighteen U.S. Air Force fighter squadrons, and six bomber elements. Coalition forces include a United Kingdom (UK) Mech brigade. All Unified Exploitation capabilities and enablers are resident in the force and are available to field commanders executing tactical operations in the Attican theater.

The focus unit for this vignette is the 2nd Infantry Brigade Combat Team (2 IBCT) which is task organized to the 4th Infantry Division (4 ID). The UE Framework described in the vignette provides commanders and staffs with a technique to integrate and synchronize unit operations with technical, and scientific capabilities to develop facts, actionable information or intelligence from materials, information, or people collected within their AO. This enterprise approach provides the 2 IBCT commanders and staffs with a basic conceptual structure for visualizing and describing UE Core Activities in support of their mission. An integrated UE enterprise allows the 2 IBCT commander to synchronize and integrate UE capabilities that support unified land operations in unified action in his assigned AO. Each Army warfighting function in the Brigade Combat Team and subordinate battalion staffs implement UE through an enterprise infrastructure that is adaptable to their unique requirements called for by their operational environment in Attica. The UE Framework of detect, collect, process, analyze, and disseminate is the lens the vignette uses to focus the reader on how UE is integrated and synchronized with other Army processes in execution of tactical operations.

The 2 IBCT is task organized to 4 ID and partnered with the 201st Attican National Army (AtNA) Corps. It will secure one of the four Divisional tactical objectives. On order, 2 IBCT executes the task of civil security as part of 4 ID's stability operations. It secures Lines of Communication (LOCs) to allow freedom of movement of coalition forces, defeats insurgents, terrorists and militia capability in Fort Sumner to allow the re-establish civil control, focused on the rule of law.

2 IBCT Stability Operations (Task: Civil Security)
Task and Purpose

XX 4
T1: Secure OBJs CARRIZOZO, SANTA ROSA, SUMNER and SAN ANTONIO.
P1: Secure LOCs.
T2: Conduct stability operations—civil security.
P2: Guarantee transit rights of noncombatants, NGOs, or others within the AO. To protect LOC's for follow-on Ix Corps forces and facilitate the transition back to Attican control.

X 2
T1: Secure OBJ SUMNER
P1: Block threat forces from threatening APOD from the west
T2: Partner with Attican National Army Forces and build HN capacity
P2. Eliminate terrorist and militia capabilities and enforce Rule of Law
T3. Influence local populace
P3. Convince indigenous population to not interfere with operations or support militia

2 BSTB 2
T1: Provide ISR support to 2IBCT
P1: Satisfy CDRs PIR, provide SA, and obtain targeting information.
T2: Conduct infrastructure assessments: police, electrical, medical, potable water, sewer, oil-gas, and telecommunications systems/ facilities.
P2: Determine support/stability requirements and available resources.
T3: Restore electricity/ natural gas to AO
P3: Assist local GOV in creating acceptable living conditions.

4 34
T1: Secure LOCs between east/west Fort Sumner and North to the Pecos River south to the rail line.
P1: Allow freedom of movement along LOCs for coalition forces.
T2: Defeat insurgents, terrorists and militia capability in Fort Sumner.
P2: To allow introduction of civil authorities and reestablish Rule of Law

5 34
T1: Control movement 25 KM along LOCs in all directions from Taiban.
P1: Allow freedom of movement along LOCs for coalition forces.
T2: Defeat remnants of threat forces and insurgents.
P2: To allow FOM of coalition forces and allow introduction of civil authorities to facilitate stability operations.

5 14
T1: Control movement on RTE 20, 25 KM south of Fort Sumner east to the Pecos River and 15 KM to the west.
P1: Allow freedom of movement along LOCs for coalition forces.
T2: Defeat remnants of threat forces and insurgents.
P2: To allow FOM of coalition forces and allow introduction of civil authorities to facilitate stability operations.

5 4
T1: Establish fire support positions on Angus Road 9 KM east of Yeso.
P1: Provide indirect fire support to the 2 IBCT.
T2: Secure key government and commercial facilities.
P2: Prevent looting and destruction and secure for future government and commercial operations.

CA 103
T1: Conduct CMO.
P1: Establish positive relationships with the local governance and civilian populace.
T2: Provide local humanitarian, medical and civic assistance when possible.
P2: Relieve suffering and establish positive relationships with the populace and save lives.

MISO 9
T2: Engage local populace along AXIS GOLD and in vic. OBJ SUMNER.
P2: Counter and exploit Attican information operations and influence actions of the local populace in/around Fort Sumner.

1 BSB 34
T1: Establish BSB CP southeast of Fort Sumner Municipal Airport and conduct sustainment, maintenance, and medical operations for the 2 IBCT.
P1: To provide direct access to routes and airport.

The 2 IBCT Mission Statement: 2 IBCT secures OBJ SUMNER providing freedom of movement and maneuver for coalition forces along LOCs by partnering with AtNA forces and defeating insurgents, militia and terrorists in AO BLUE. Assist Attican government in restoring essential services, supporting general infrastructure reconstruction programs and reestablishing rule of law in AO BLUE.

Purpose of 2 IBCT Operation in AO BLUE: Reestablish Attican local governance and rule of law in AO BLUE.

2 IBCT Commander's Intent for 4-34 Combined Arms Battalion (CAB): The 2 IBCT Commander's intent for 4-34 Infantry Battalion is to partner with Attican National (AtNA) Army forces, quickly secure OBJ SUMNER and execute civil security operations in support of the BCT's stability operations. Defeat the insurgent, terrorist and militia threat while assisting Attican government in restoring essential services, supporting general infrastructure reconstruction programs and reestablishing rule of law in Fort Sumner.

2 IBCT Key Tasks for 4-34 CAB:

- Secure OBJ SUMNER
- Control movement in and around Fort Sumner
- Reduce insurgent capabilities and neutralize adversary networks in Fort Sumner
- Influence local populace
- Conduct Unified Exploitation activities

2 IBCT Commanders Desired Endstate: 2 IBCT partnered with AtNA force have secured OBJ SUMNER. 2 IBCT controls LOCs preventing movement of insurgent forces in and through AO BLUE. Local government is functional, essential services restored and rule of law reestablished in AO BLUE.

The following Unified Exploitation enablers are available to 2 IBCT for execution of operations in AO BLUE. Echelon above brigade assets have been task organized to 4 ID to enhance unity of effort, in support of the corps main effort. Commander, 4 ID sets the priorities for the support EAB assets.

- Explosive Ordnance Disposal (EOD) Company
- Document and Media exploitation (DOMEX), including cell phone exploitation (CELLEX)
- Battlefield Surveillance Brigade (BfSB) Multi-Functional Teams (MFTs)
- Military Working Dogs (MWD)
- Law Enforcement Professionals (LEPs)
- Expeditionary Forensics Laboratory (EFL) (task organized to 4 ID)

8 December 2018, 0600 hours, AO BLUE

4-34 CAB attacks to secure OBJ Sumner (the city of Fort Sumner) and transitions to the task of civil security partnered with 1st Brigade, AtNA from the 201st AtNA Corps. The initial focus of coalition force operations is to protect civilian infrastructure and public institutions and defeat hostile forces in Fort Sumner. Subsequently, coalition forces build host-nation capacity and Attican forces capacity to enforce rule of law.

The threat consists of the Mynesa Militia Group (MMG) and the Agrissa Fundamentalist Movement (AFM) who are present and active in AO BLUE, making it one of the most dangerous AOs in the Attica theater of war. The MMG is suspected to be the primary IED maker in Attica and has quickly adapted to U.S. forces' IED mitigation measures. Foreign fighters also operate throughout the country and currently enjoy virtually uninterrupted covert freedom of movement through AO BLUE and Attica in general. Intelligence has identified that the mountainous border area between Attica and Laconia is one of the few places in the region where Al Qaeda (AQ) is present and actively operating. AQ fighters easily hide in the mountainous terrain of northern Attica and Southern Laconia. Attica's porous northwest border with Cythera is one of the advantages that MMG and AFM fighters have in the region. Well established LOCs allow the threat freedom of movement from Cythera, through northern Attica and into Laconia. Several cells of the MMG fighters (advised and supplied by AQ) have dramatically increased the volume and severity of IED and small arms attacks in Attica and specifically in the Fort Sumner area. HUMINT reporting indicates that Abu Mansur, a mid-level AQ fighter based out of the northern Attica region, is directing the recent attacks in Fort Sumner. A recent SIGINT report also confirmed Mansur's current location is in AO BLUE.

> **NOTE**: This vignette uses the UE Framework descriptor box to identify the UE activity executed during that phase of the tactical operation. The detect, collect, process, analyze and disseminate boxes highlighted in green are activities critical to the success of that specific phase of the operation. They are also indicated by bolded text in the written body of the vignette. For an example, see the figure below. The "Detect" activity is highlighted green in the descriptor box and is critical to that phase of the operation.
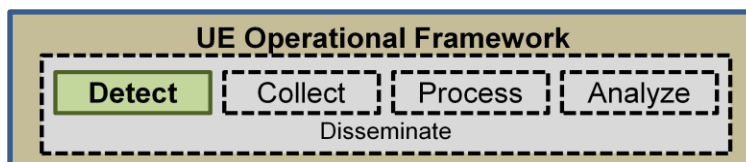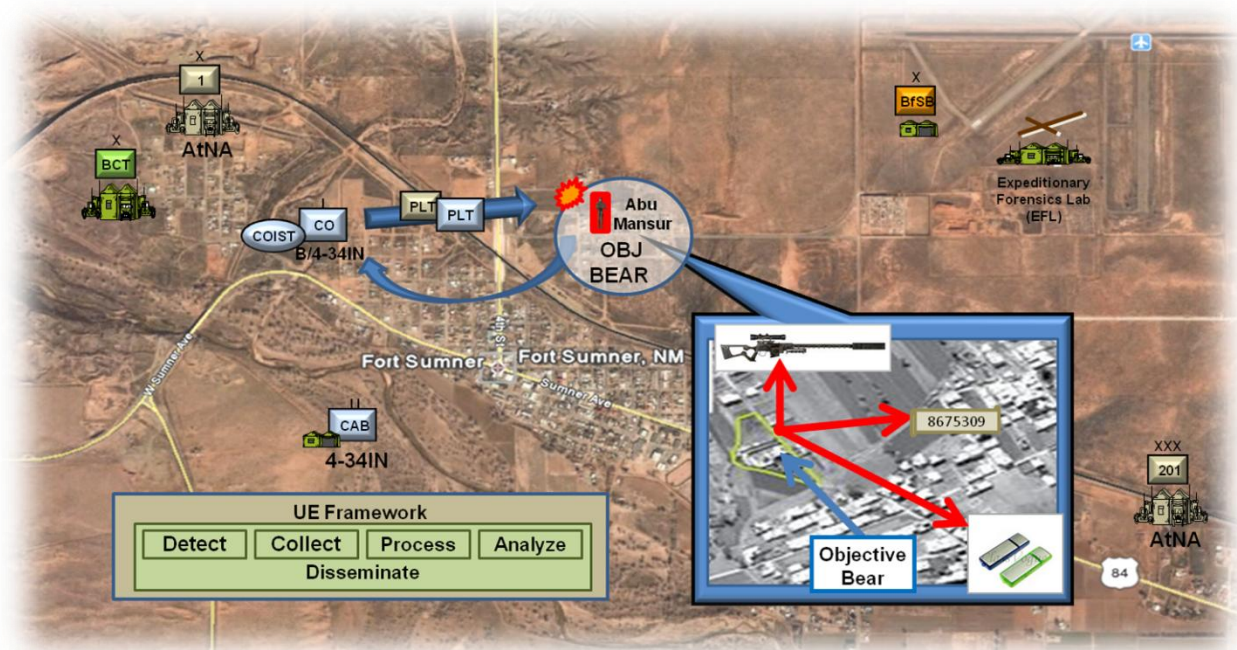
12 December 2018, 0300 hours, City of Fort Sumner, OBJ BEAR

At 0300 hours on 10 December, B/4-34 CAB conducted a raid on OBJ BEAR targeting Abu Mansur. During the operation, 1ˢᵗ platoon discovers a small slip of paper in the pocket of an individual at the objective location. The paper appears to be a note that includes a local phone number **(Detect)**. Although Abu Mansur is not captured, the platoon leader's understanding of the OE compels him to direct his platoon to begin UE activities IAW the BCT's SOP. The platoon leader does a walk-through of the site and formulates a plan for executing UE activities. Mission variables (METT-TC) allow sufficient time on the objective for the platoon to conduct deliberate UE activities. Soldiers don latex gloves and begin conducting systematic search, which uncovers a false wall containing a sniper rifle of unknown make, model, and origin. They also discover a cell phone hidden under a mattress **(Detect)**. Soldiers document the site using the platoon's available UE equipment and gather latent prints from the weapon and site. The platoon employs their ruggedized UE netbook, containing a suite of automated UE tools, to create a unique digital record of the site. The digital file is geo-referenced to the location and a unique alphanumeric designator is assigned to the operation. This identifier is used in the management of all information associated with the site. The digital file includes an inventory and pictures of all information, materials, and people collected at the site. Soldiers rapidly produce a digital sketch of the site using a laser enabled measuring device linked to Computer Aided Design (CAD) software **(Collect)**. The digital sketch includes hyperlinks to the contextual information, including photos, for each item collected. Soldiers collect the slip of paper, the sniper rifle, the cell phone, and two flash drives found in a flowerpot. As each item is collected, Soldiers photograph the item, place it in an appropriate container, and use the netbook to produce a unique bar-coded label that is affixed to the container and includes the unit, objective name, building, room, and floor numbers to assist with the inventory **(Collect)**. Soldiers then conduct on-site triage of the cell phone, flash drives, and the document for time sensitive information and information to support tactical questioning on the objective. The flash drives are placed in an antistatic bag to prevent damage and the cell phone is placed in a Faraday collection bag to ensure electronic signals do not corrupt the contents. The document is packaged to protect it from damage and to preserve the fingerprints or residues. Soldiers clear the weapon and then carefully package it to help maintain the integrity of fingerprints or residues and for transfer back to the unit command post where it can be processed and analyzed in a controlled environment at secure location **(Process)**. As actions on the objective progress, the platoon leader provides SITREPs to the Company Intel Support Team (CoIST) and keeps the company commander informed **(Disseminate)**. The platoon sergeant conducts tactical questioning of all individuals associated with the objective. The information derived from the questioning is documented and helps to provide additional background and contextual information to the site. Soldiers enroll all individuals associated with the objective into the theater wide biometrics database using a portable biometrics device **(Collect)**. One of the individuals positively matches a person on the watch list and is subsequently detained **(Analyze)**. Once the site is fully processed, the platoon departs OBJ BEAR. Back at the command post, the digital site record is published to the theater UE database, where other friendly forces have real time access to the resulting actionable information and intelligence **(Disseminate)**.

12 December 2018, 0500 hours, 2 IBCT and 4-34 CAB command posts

Once the B/4-34 Company Commander briefs his battalion commander, he is directed to immediately transport the collected items directly to the BCT command post for analysis because the commander believes it answers one of the BCT Commander's Priority Intelligence Requirements (PIR). The captured flash drives and unidentified sniper rifle are transported to the BCT command post for DOMEX and Weapons Technical Intelligence (WTI) analysis by the BCT's supporting Multi-Functional Team (MFT). The MFT is unable to identify the sniper rifle and decides to transport the sniper rifle to the Expeditionary Forensics Lab (EFL) for further analysis **(Process)**. The EFL leverages virtual reachback to United States Army Criminal Investigative Laboratory (USACIL) to assist in the identification of the rifle. Back at the company command post, the captured slip of paper is transferred to the military analyst in the CoIST **(Collect)**. The analyst uses computer software to electronically translate the writing and confirm that the numbers are indeed a local phone number **(Process)**. Using a SIPR-database of known phone numbers, the CoIST queries the number on the paper and numbers obtained during cell phone exploitation against other known numbers. The phone number on the slip of paper and the individual possessing that phone number is associated with five known targets, one being Abu Zayd **(Analyze)**. The CoIST lead analyst instantly alerts his battalion and BCT intelligence sections, this fact triggers further parallel analysis at both levels. The 4-34 CAB S2 uses a suite of advanced analytical tools to produce a fused assessment of the target's role in the network, known associates, known activities, and its subsequent targeting value. The BCT S2 simultaneously conducts higher-level analysis using analytical tools resident on National Security Agency net (NSAnet) and the Joint Worldwide Intelligence Communication Systems (JWICS) to provide greater refinement on the target **(Analyze)**. He identifies tasks for further collection and in concert with the BCT S3, updates the BCT's information collection plan. The BCT S3 prioritizes and reallocates BCT information collection assets. DOMEX procedures conducted on the two flash drives produce two documents that link Abu Zayd to the Mynesa Militia Group (MMG) inside the city of Fort Sumner. Meanwhile, the EFL analysts continue to collaborate virtually with USACIL to determine the origin of the sniper rifle.
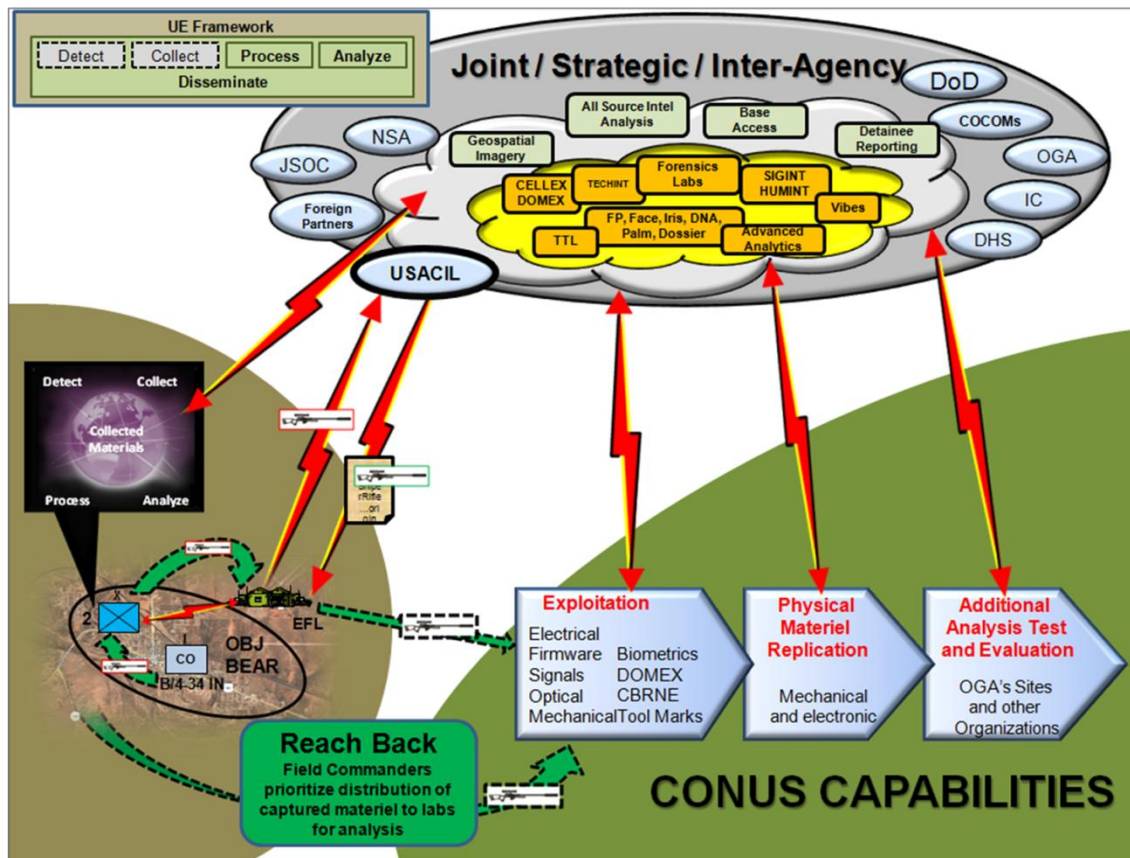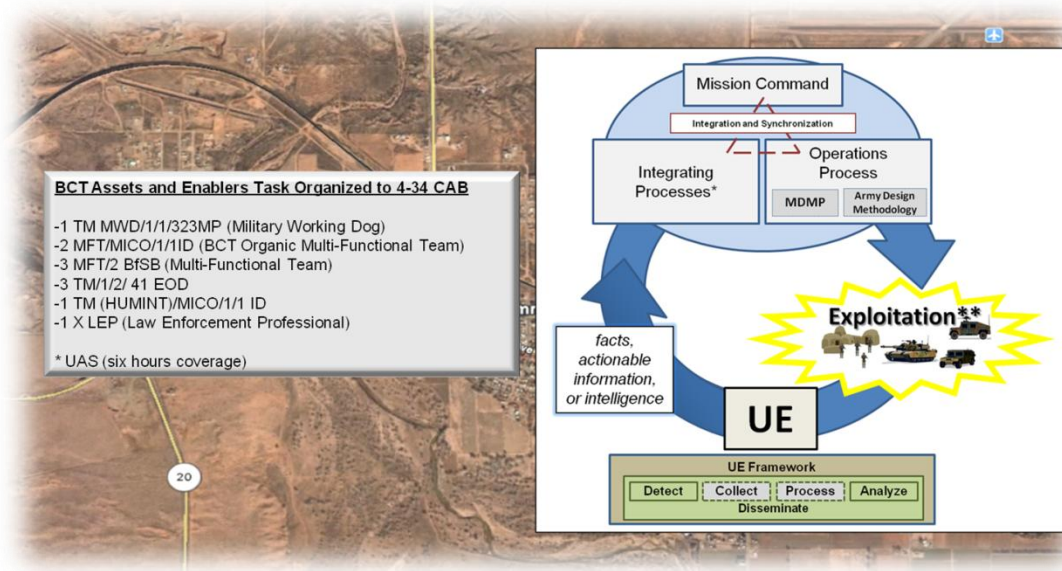
Denotes digital sharing of information

Denotes physical movement of materiel

12 December 2018, 0700 hours, United States Army Criminal Investigative Laboratory (USACIL)

The EFL continues its analysis of the rifle collected during B/4-34's operation on OBJ BEAR **(Analyze)**. The 4 ID Commander's PIR includes "what is the location of key individuals associated with IED networks?" Because of this prioritization from the field commander, the EFL moves the sniper rifle to its highest priority for analysis **(Process)**. The capabilities for analysis of the collected materials (rifle) extend across specialized entities in both CONUS and OCONUS. The data collected on the sniper rifle, through technical analysis by the EFL, is entered into a cloud based data repository **(Disseminate)** The technical data derived requires additional analysis and validation from CONUS analysis capabilities and other agencies are leveraged through the common databases in the cloud. Once the lead lab (USACIL) has completed their analysis and evaluation, all other relevant labs and capabilities analyze the rifle and provide data to the lead lab **(Analyze)**. The priority lab collates the facts, information, and intelligence on the rifle and packages it for dissemination back down to the 2 IBCT Commander.

Completion of the analysis of the rifle by all appropriate disciplines (labs) allows its release for physical material replication, if appropriate. The replication capability will utilize the resulting data in addition to advanced techniques for prototyping to generate quick reaction test objects. Once replication analysis is complete, collected materials will be available to Other Government Agencies (OGAs) and other organizations. As each CONUS based capability validates their data it will then be made available to the community via the cloud to enable strategic national assets and partner nations **(Disseminate)**.

BCT Assets and Enablers Task Organized to 4-34 CAB

-1 TM MWD/1/1/323MP (Military Working Dog)
-2 MFT/MICO/1/1ID (BCT Organic Multi-Functional Team)
-3 MFT/2 BfSB (Multi-Functional Team)
-3 TM/1/2/ 41 EOD
-1 TM (HUMINT)/MICO/1/1 ID
-1 X LEP (Law Enforcement Professional)
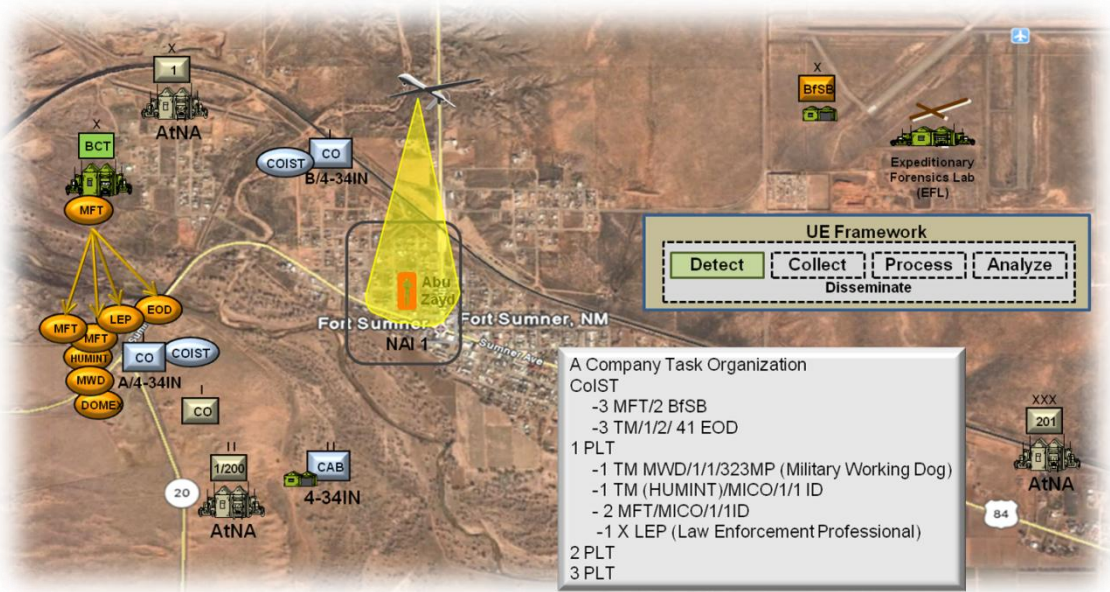
* UAS (six hours coverage)

12 December 2018, 0800 hours, 2 IBCT, 4-34 CAB and Alpha Company command posts

2 IBCT receives a SIGINT report on Abu Zayd indicating his intention to conduct a meeting later that night at approximately 2300 hours. This meeting is consistent with Abu Zayd's previously identified patterns of life. Additionally, the target is positively identified as Abu Zayd through HUMINT sources reporting out of Fort Sumner and a suspected location is determined **(Analyze)**. The BCT SIGINT cell pushes out a SECRET//REL alert broadcast with this key information across the wireless network that is viewed by all subordinate units (down to the squad leader level via their handheld device) **(Disseminate)**.

Based on the evolving situation, the 4-34 CAB Battalion Commander reframes his visualization and updates his Commander's Critical Information Requirements (CCIR) with PIR #1: What is the location of Abu Zayd? The battalion S3 identifies a gap in the battalion's information collection plan and requests UAS coverage **(Detect)** from the BCT in order to observe battalion Named Areas of Interest (NAI) 1 related to Zayd's suspected location. The battalion commander directs a company level raid targeting Abu Zayd and the battalion command post issues a WARNO to prepare Alpha Company to execute the operation in the next 12-24 hours. The operation is named OPERATION PIKE'S PEAK.

During planning the battalion and company commander discuss the operation and determine that UE operations are critical to OPERATION PIKE'S PEAK. They discuss the integration of, and access to, UE capabilities that will allow the agility to rapidly exploit information gained for follow on operations. They consider all of the capabilities required to support the UE Core Activities. As the commanders complete their meeting, the battalion commander directs his staff to identify and provide enablers to support the operation. The battalion commander discusses the operation with his S3 directing him to coordinate for additional assets and capabilities from the BCT to support the operation. While the S3 begins coordination with the BCT staff, the battalion commander meets with the BCT commander via VTC to brief his intent and seek approval for the operation. The BCT commander concurs with the battalion commander's intent and directs his staff to determine enablers required for the mission. The BCT staff issues a FRAGO directing a change to the BCT's task organization (see figure above) which provides UE enablers to support the 4-34 CAB operation.

A Company Task Organization
CoIST
   -3 MFT/2 BfSB
   -3 TM/1/2/ 41 EOD
1 PLT
   -1 TM MWD/1/1/323MP (Military Working Dog)
   -1 TM (HUMINT)/MICO/1/1 ID
   - 2 MFT/MICO/1/1ID
   -1 X LEP (Law Enforcement Professional)
2 PLT
3 PLT

12 December 2018, 1000 hours, Alpha Company command post

The Alpha Company Commander initiates coordination with his partnered AtNA battalion (1/200) to conduct concurrent planning and rehearsals for the upcoming operation targeting Abu Zayd. The AtNA Delta Company Commander is directed to execute the operation. The company commanders agree on the general scheme of maneuver and task organization of forces to meet mission requirements. The plan dictates that the AtNA company, partnered with Alpha Company forces, establish the outer cordon around the objective. The commanders agree that the AtNA Company will lead the raid partnered with Alpha Company's 1st Platoon. The commanders agree that once the objective is secure, Alpha Company will execute the Unified Exploitation Core Activities partnered with the AtNA forces and supported by the LEP to ensure all procedures are executed IAW Attican rule of law.

Once the mission requirements are agreed upon, the Alpha Company Commander establishes his task organization from the assets provided by the battalion (see figure above). He assigns 1st Platoon the raid mission and provides the key UE enablers to the platoon leader.

The Battalion S2 and CoIST maintain persistent surveillance on NAI 1 (tied to PIR #1: What is the location of Abu Zayd?) via their remote terminal **(Detect)**. This allows the two company commanders to continuously update their visualization and ensure they accomplish their assigned mission.
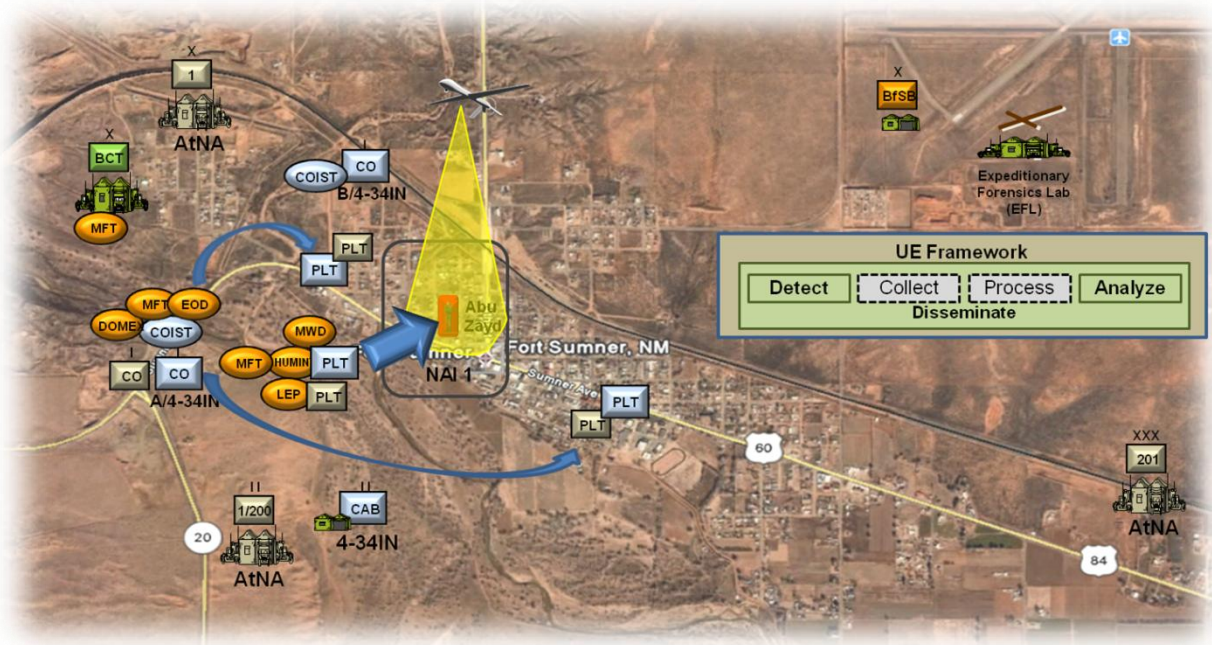
12 December 2018, 1330 hours, 2 IBCT, 4-34 CAB and Alpha Company command posts

As the Alpha Company Commander and his AtNA counterpart conduct hasty mission planning, both the battalion and BCT intelligence sections push their refined target data to the CoIST and their counterpart AtNA Battalion S2. The 4-34 CAB command post requests refinement to the UAS track for the next six hours to provide observation on a specific house on the objective in NAI 1 **(Detect)**. The Alpha Company Commander and the AtNA company commander receive an intelligence update on the target from the CoIST which includes information found on the flash drives confirming the upcoming meeting between Abu Zayd and a Laconian arms dealer at 2300 hours on 12 December **(Analyze)**. USACIL confirms that the sniper rifle is of Laconian origin and provides detailed information on the weapon to the BCT and battalion intel officers via the cloud **(Disseminate)**. These results, coupled with the analysis from the BCT S2 and BCT MFTs, confirm the sniper rifle linkage to Abu Zayd and to MMG operations **(Analyze)**. Following the intelligence update the Alpha and AtNA Company Commanders refine their OPORD to ensure that their plans are synchronized and issue their FRAGOs to their respective platoons.

12 December 2018, 2200 hours, Fort Sumner targeted site and 2 IBCT command post

Alpha Company and its partnered AtNA company depart to establish the outer cordon. Just prior to the conduct of the raid, and because of Zayd's suspected ties to a prominent local tribal chief confirmed by latent prints lifted from OBJ BEAR, the BCT Commander and the AtNA 201st Corps Commander notify the provincial governor of the impending operation and request to detain Abu Zayd . Their request is approved. Once the cordon is established, the partnered U.S. and AtNA companies execute the raid on the targeted site.
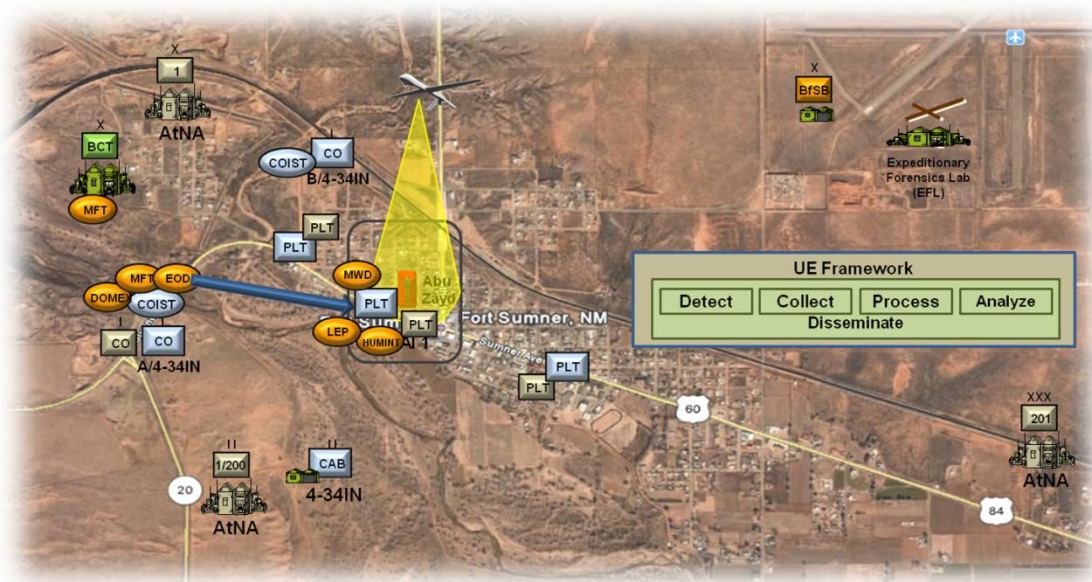
12 December 2018, 2300 hours, Northwest Fort Sumner at the targeted site

The raid is a tactical success. As a result of tactical questioning, the 1st Platoon Leader detains four unidentified males. The two partnered companies quickly transition to UE activities with Alpha Company in the lead. The company search teams working with a military working dog team conduct a systematic search of the objective area. During the search, the dog alerts on an open, unmarked, container with contents that cannot be identified using the platoon's explosives identification kit. The dog handler reports the alert to the platoon leader and CoIST who in turn notifies the EOD team that there is a possible explosive threat on the objective **(Detect)**. The platoon continues to secure and preserve the site until the EOD team responds. The EOD team determines that the container holds parts needed to build an IED and believes the container may have held some type of explosive material at one time. The EOD team determines the container and the rest of the site are safe and the platoon continues UE activities. The container and its contents are collected IAW the BCT SOP. Explosive residue testing executed on the detainees results in a positive test on two of the four individuals. All four individuals are detained. All items are triaged, documented, inventoried, bagged, and bar coded using the platoons UE netbook. Items are prepared for transfer back to the BCT command post for further processing and analysis **(Collect and Process)**.

The Soldiers working with the BCT MFT focus on resolving the identity of other individuals associated with the objective through collection of live scan biometrics using a lightweight handheld device. The device has real-time alerts in association with reachback to the world wide biometric database via wireless network. One of the two detained individuals testing positive for explosive residue is confirmed as Abu Zayd. Another detained individual that tests negative for explosive residue is confirmed to be Abu Bint and is of Laconian origin. The identity of the other two individuals is unknown. The company commander transmits this information to the battalion command post via his handheld device **(Dissemination)**. The BfSB MFT conducts media exploitation on computers collected from the site using a scanning device to scan the hard drive for data of potential value. It also conducts cellular exploitation activities using a small handheld device to extract data from cell phones and SIM cards found at the site. Extracted data is entered directly into a SIPR database of phone numbers and other calling information **(Collect)**. This equipment provides the company with real-time alerting and detention criteria based on known associations **(Process)**. Simultaneously, Battlefield Interrogation Teams (BIT) interview detainees based on earlier collection while collaborating with the BCT Fusion cell via a handheld device (**Analyze**). The AtNA and Alpha company commanders, IAW Attican rule of law, decide to release the two individuals that tested negative for explosive residue, including Abu Bint. They prepare to move Abu Zayd back to the detention facility.
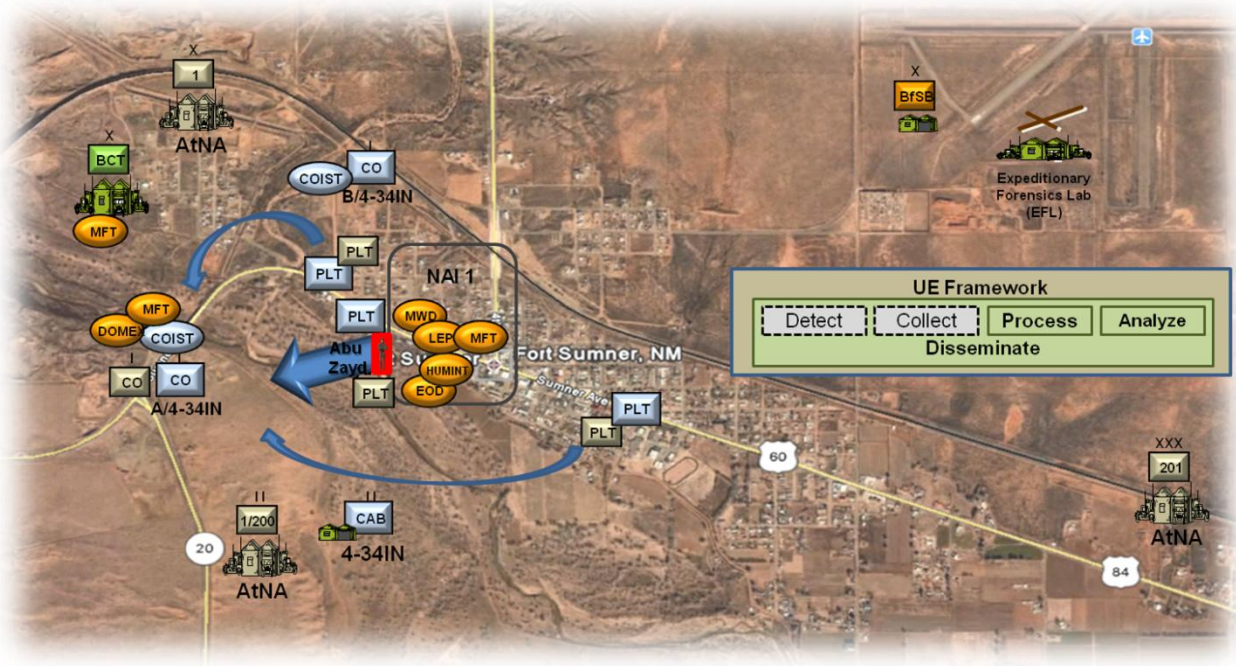
13 December 2018, 0100 hours, 2 IBCT and 4-34 CAB command post, Alpha Company CoIST

Upon return to the company command post, the CoIST begins processing collected data, validating all DOMEX and CELLEX data from the objective and enriching it with intelligence gained from the platoons' patrol debriefs **(Process)**. The battalion S2 section processes the information using analytical toolsets to evaluate and deduce the operational significance of the information, materials, and people **(Analyze)**. The battalion S2 uses biometric data (iris scans, fingerprints, DNA, voice and facial recognition) and CELLEX data to confirm the identity of the primary detainee, Abu Zayd. The intelligence produced on Zayd is disseminated via a collaborative shared network to facilitate immediate follow-on actions and is fused with the Common Operational Picture (COP) to provide the commanders and staffs with an enhanced understanding of the BCT's and the AtNA Corps' OE **(Disseminate)**.

Based on the capture of Abu Zayd, the BCT S2 and S3 collaborate and recommend a change to the 2 IBCT Commander's PIR. The 2 IBCT Commander approves this and begins reframing his understanding of the OE in AO BLUE. He reflects on the tenets of mission command that drove his unit's ability to synchronize the application of tactical, technical, and scientific capabilities that allowed them to develop the facts, actionable information, and intelligence that led to Zayd's capture. He now fully understands that UE achieves an effect on the enemy that is greater than if UE supporting capabilities and enablers were used against the enemy individually. The commander is pleased that his staff and subordinate commanders understood this as well and that they properly focused employment of those UE capabilities. This created a unity of effort across the BCT and optimized their results through the application of the UE Framework (Detect, Collect, Process, Analyze and Disseminate). Abu Zayd is subsequently turned over to the AtNA forces for processing IAW Attican judicial processes and rule of law.
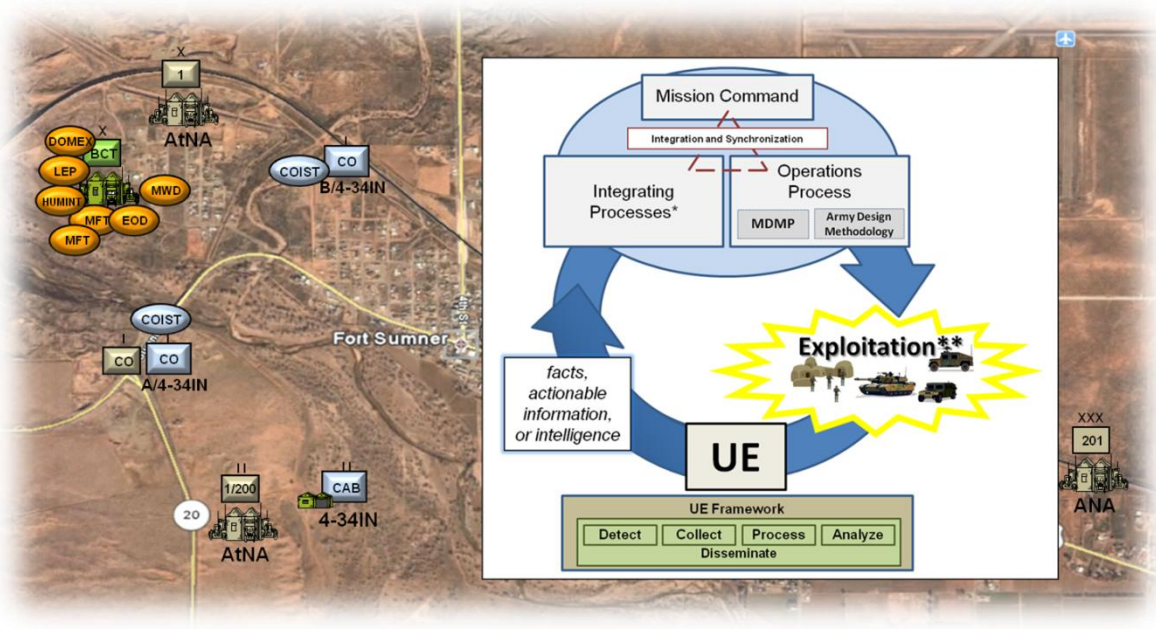
13 December 2018, 0600 hours, 2 IBCT command post

In the conduct of link/pattern analysis the BCT S2 fuses the intelligence gathered from previous engagements **(Collect)**, the information collected from OPERATION PIKE'S PEAK, and the COP. The incorporation of this UE information into the operations process and its supporting integrating processes (i.e. targeting) produces the intelligence that the detainee (Zayd) is the son of a prominent local tribal chief, Muhammad Akbar Hassan **(Process and Analyze)**. The 4-34 CAB analyst immediately confirms the identity of the two individuals and notifies the commander of the situation **(Detect and Analyze)**. Upon confirmation from the BCT S2, the BCT Commander notifies the district governor of Abu Zayd's relationship with Muhammad Akbar Hassan and his decision to conduct an Inform and Influence Activity (IIA) targeting Hassan to determine his intent and alliance.

13 December 2018, 1300 hours, 4-34 CAB command post

Later in the day, and following the IIA with Muhammad Akbar Hassan, analysts at the battalion S2 section enter the information gathered from the IIA into the shared database. This information is shared horizontally and vertically and prepared for release to the BCT's AtNA partners **(Disseminate)**. Based on the outcomes generated by UE activities associated with OPERATION PIKE'S PEAK, the 4-34 CAB S2 identifies several additional targets to focus information collection efforts and subsequently leverage rapid, commander directed follow-on operations to attack threat networks.

5 June 2021, 1400 hours, Location U.S. Customs and Border Patrol Checkpoint

An individual by the name of Luis Ortega possessing a Honduran passport with a U.S. visa who claims to be from La Ceiba, Honduras attempts to enter into the U.S. through the border crossing in El Paso, Texas. All documentation appears to be in order. Through routine questioning a U.S. Customs and Border Patrol (CBP) official detects a potential deception from Mr. Ortega. CBP conducts a routine biometrics enrollment on Mr. Ortega and within minutes, CBP gets a print match from the world wide database from an earlier detention in December 2018, by U.S. forces, in the country of Attica. Mr. Ortega is detained. Further investigation and biometric analysis confirms that Mr. Ortega is really Abu Bint who is of Laconian descent and a member of the MMG, a radical faction suspected of planning attacks on schools in the United States. Additionally, it is determined that Abu Bint obtained his false documents in Venezuela where he stayed for 6 months prior to traveling to Honduras to attempt to enter into the U.S. Abu Bint is taken into custody.

Conclusion

Mission Command was essential to the execution of 2 IBCT's UE operations. It ensured that the capabilities and enablers required to execute UE operations in AO BLUE were identified, postured, resourced, and integrated into the overall concept of operations from platoon to national level. Commanders at all echelons, guided by the tenets of mission command, provided purpose and direction to deliberately integrate supporting military and non-military UE capabilities into their operations. The staffs used the Army Operations Process and Military Decision Making Process (MDMP) to determine the optimal force mix and leveraged mission command systems to maintain and increase their situational understanding. This ensured that both Alpha and Bravo Company, 4-34 CAB, arrived at the objective task organized and capable of immediately collecting and analyzing information, materials, and people. It also expedited the development of information that answered Division, BCT and Battalion information requirements. This facilitated the development of further facts, actionable information, and intelligence and supported the Attican Rule of Law. The information gained through UE operations in AO BLUE was most valuable when it drove subsequent operations. As 2 IBCT operations in AO BLUE depicted, when forces on an objective analyze collected information, materials, or people to develop facts, actionable information, and intelligence, in near real time, they can execute subsequent operations using direct and focused targeting with an immediate and tangible effect. In addition, properly executed UE operations could have strategic and long-term implications as in the case of Abu Bint's detention at the U.S. border entry point.

UE operations enabled the 2 IBCT to synchronize and integrate supporting activities of military and non-military entities to achieve unity of effort. Commanders on the ground integrated available supporting UE capabilities through mission command to produce an operational advantage over the threat. UE enabled the operational adaptability of the 2 IBCT forces conducting decisive action in support of unified land operations. It also contributed to success of future 2 IBCT operations by enhancing the ability of unit leaders to understand their OE in breadth, depth, and context while developing the situation in close contact with their threat and the civil population. UE supports the Army's ability to act and respond faster than the adversary in the future OE.

Appendix E- DOTMLPF Implications and Integrated Question List

E-1. Introduction

a. There are important implications for the Warfighting Functions (WfF) as the Army develops Unified Exploitation (UE) capabilities. The integration and synchronization of UE capabilities across the DOTMLPF domains is required to take advantage of, and be informed by, previous and on-going efforts. While some study issues may go beyond the Army's direct role or responsibility, the ability to influence the design and development of the range of DOTMLPF solutions for the Joint force, as they apply to required capabilities for land operations, is an Army responsibility. Specific UE capabilities, such as requirements for Army expeditionary operations, should be examined and detailed for an integrated effort by the Joint and Army communities.

b. The Army's family of concepts was used in the development of this CONOPS and they include a discussion of associated DOTMLPF implications. Several of the concepts identify implications that directly relate to UE and are explicit enough to generate action for change within the DOTMLPF domains. Responsible proponencies and agencies have identified many of these implications. These DOTMLPF implications must be identified to avoid unnecessary overlaps and redundancies, to support their integration and synchronization to ensure there are no capability gaps, and leveraged to create asymmetric operational advantages by adapting technologies and capabilities across WfFI lines.

E-2. Implications

a. The primary DOTMLPF implications arising from this CONOPS vice an exhaustive list, are described below. The items cited will require additional analysis before comprehensive actionable recommendations emerge. This is intended to be used as one of the starting points for the Army Mission Command Capabilities Based Assessment (MC CBA) UE study area.

b. How will the Army concurrently develop UE doctrine with the unfolding Joint and Army concepts and doctrine as well as emerging Joint and Army UE requirements?

c. What are the most effective organizational designs for implementation of Army UE that support all combatant commanders; and support Army expeditionary operations, and an Army enterprise construct that includes the operating and generating forces, active and reserve components?

d. What is the appropriate balance between DOD, governmental, intergovernmental, nongovernmental, Joint and Army training for UE personnel?

e. How should the Army work with the Joint force in developing robust and responsive UE RDT&E, and acquisition processes?

f. How will the Army keep pace with the rate of technologic advancement, and adapt these advancements to operational advantage?

g. How does the Army develop leaders that understand UE; understand how to integrate and employ UE as part of decisive action; and understand how to recognize and adapt advance technologies into operational advantage?

h. How does the Army best organize to develop the requisite UE personnel skills and capacity?

i. What test and training facilities are required to support UE and the integration of UE into decisive action?

j. What are the public-private partnerships required to secure commercial segments inside and outside the Army?

E-3. Doctrine

a. Emerging Joint and Army doctrine must fully capture the description and implications of UE operations. It must also expand upon the ideas presented in this CONOPS to guide further combat development. What will make the initial UE doctrine development unique is that Joint and Army concepts are still evolving and that Joint and Army doctrine will develop concurrently and likely collaboratively.

b. Doctrine questions include, but are not limited to, the following:

(1) How will the Army concurrently develop UE doctrine with evolving and emerging Joint and Army concepts?

(2) How does Army doctrine address Army UE capabilities and integration with the other Army operations and functions and with Joint operations throughout a Joint campaign?

(3) How does emerging Joint UE doctrine influence the conduct of Army operations?

(4) Does Joint and Army doctrine adequately address the Joint interdependence in the area of UE Operations?

(5) What are the impacts of national and international law on Joint and Army UE doctrine?

(6) How is UE addressed in Army doctrine for the theater, corps, division, and below doctrinal publications?

(7) How do doctrinal publications address current UE operations?

(8) How do proponent doctrinal publications integrate requisite Army UE operations?

(9) What emerging UE technologies, processes and capabilities need to be codified in Army doctrine?

(10) What types of Joint command and control and battle command operations may be impacted by Army UE doctrine?

(11) How does the UE doctrine provide the commander with the foundation to conduct UE operations?

(12) How does the UE doctrine aid the commander on the ground?

E-4. Organization

a. Army organizations must support combatant commander requirements as well as the Army's generating and operating forces' needs. Organizational design requirements include, active, National Guard and reserve components.

b. Organizational questions include, but are not limited to, the following:

(1) What are the appropriate organizational structures to enable an effective Army UE enterprise?

(2) What current Army organizations are adequate to meet UE requirements of the future force?

(3) What augmentation do current organizational structures require to satisfy the capability requirements of Army UE operations?

(4) Is a new organizational structure required to achieve Joint and Army required UE capabilities?

(5) What Army UE capabilities should reside at each echelon in Army tactical and operational forces as well as generating forces?

E-5. Training

a. Army UE personnel must be trained to Joint, DOD, non-governmental and Army standards. There are current training venues and programs already established that can be leveraged and modified to meet UE requirements. Many training requirements will likely be driven by UE enabler requirements and Army specific requirements necessary to support generating and operating force requirements.

b. Training questions include, but are not limited to the following:

(1) How is the integration and application of UE capabilities included in current training and leader development?

(2) How can the Army adapt its training to better integrate UE activities?

(3) How much UE training and what training standards are going to be directed?

(4) How will evolving technologies and ongoing or planned changes in organizations affect the ways in which Army units and leaders operate and what are the training implications of these changes to UE?

(5) How will evolving UE doctrine impact units and leaders?

(6) What training designs will develop units and leaders able to capitalize on the full range of UE capabilities?

(7) What are the UE training requirements for enlisted personnel, noncommissioned officers, officers, DA civilians, and contractors?

(8) What training and education is required for a UE planner and integrator on a combatant command staff, on generating force staffs, and on operational staffs from ASCCs down to company level?

(9) What type, scope, and frequency of Army UE training must the future force conduct to enable effective operations?

(10) What UE test and training ranges are necessary?

(11) What modeling and simulations are required to support Army UE operations at the tactical, operational and strategic levels?

(12) What Joint and Army UE training is necessary and for whom?

(13) What national and commercial agency UE training is necessary and for whom?

(14) What are the impacts of UE training requirements on the schools (that is, growth, resources, and others)?

(15) What training and how can UE training be conducted at the individual and collective levels?

(16) How will UE be trained and evaluated in units prior to deployment?

(17) What are the UE training requirements for every Soldier?

E-6. Material

a. UE operations are technical in nature and material solutions will need to be rapidly developed, tested, evaluated, and acquired. The utility of material solutions will likely be temporal in value due to the rapid technologic advancements and proliferation. Adversary counters to UE tools also result in combat development being a continuous and fast paced process. Material solutions are also expensive and will likely develop using Joint, interagency, and public-private partnerships to take advantage of existing best practices and maximize resource utilization.

b. Some significant material questions include, but are not limited to the following:

(1) How will compatibility and interoperability, as well as operational effectiveness, be measured and evaluated for UE systems?

(2) What technologies are critical to consider and invest in for the development of effective and capable UE material solutions?

(3) Given the technical nature of UE systems, how will the Army develop personnel and organizations capable of effectively executing UE planning, command and control, operations, and maintenance?

(4) How will the Army effectively integrate UE capabilities given the highly interdependent and interrelated nature of UE enabler systems and the current state of using commercial off-the-shelf and non-programs of record?

(5) What is the most effective and efficient way to acquire UE material solutions?

(6) How will commanders and technology unite to enable UE operation to meet future challenges?

E-7. Leadership and Education

a. Commanders, staffs, and Soldiers must be educated to understand employment of UE capabilities and execution. Doctrine will provide the intellectual foundation to prepare leaders for how to think UE in the context of the future OE. Leader development and education will provide leaders with the understanding of how to integrate UE into decisive action.

b. Leader development questions include, but are not limited to, the following:

(1) How does the Army develop adaptive leaders that understand UE?

(2) How do we train and educate leaders to integrate and employ UE as part of decisive action?

(3) How do we train leaders to recognize and adapt advance UE technologies into an operational advantage?

(4) How do we provide collaborative, distributed training aids that support commanders, as well as staffs during planning, preparation, rehearsal, and execution of UE exercises and operation?

(5) How can UE be incorporated into training exercises and leader development to develop UE planning and operations capabilities?

(6) How does the Army best educate leaders and Soldiers to understand UE in the complex and ever-changing future OE?

(7) Should the Army pre-commissioning programs include a UE component?

E-8. Personnel

a. The Army must have sufficient trained personnel with the requisite UE knowledge, skills, and abilities. Emerging Joint and Army requirements warrant a complete analysis of personnel requirements and the most effective way to develop and manage them.

b. Personnel questions relating to UE include, but are not limited to, the following:

(1) How do we recruit and retain the personnel necessary to perform Army UE functions?

(2) What UE skill sets are required in Army officers, non-commissioned officers, Soldiers, civilian and contractor support personnel?

(3) What is the right mix of personnel between UE professionals, generalists and other personnel selected to serve in UE related positions?

(4) What will be the UE personnel impacts as they relate to other proponents?

(5) What will be the personnel end strength impacts as related to required UE capabilities?

E-9. Facilities

a. The ability to effectively and efficiently conduct testing, training, and operations using UE systems will require a robust infrastructure. Such facilities and infrastructure must allow networked and distributed operations as well as multilayered security constructs. The planning and resourcing for facility and infrastructure must be initiated with sufficient lead time to reach maturity synchronous with the future force and anticipated technology developments associated with UE operations.

b. Facilities questions include, but are not limited to, the following:

(1) Are there adequate facilities available to effectively develop, test, and train UE capabilities?

(2) What infrastructure is required at Army and DOD installations to support Army UE programs consistent with Joint, Army, and multinational concepts?

(3) What infrastructure is required in CONUS and theater to support UE missions?

Appendix F - Unified Exploitation Supporting Capabilities

This appendix describes Army capabilities that support Unified Exploitation. The capabilities described are major programs or initiatives.

Current Capabilities	Lead
1st Army Mobilization Training Centers	FORSCOM
20th Support Command (CBRNE); CBRNE Analytical Remediation Activity (CARA) Heavy Mobile Expeditionary Laboratory (HMEL)	MSCoE
Acoustic Threat Detection Technologies	RDECOM
All Source Intelligence	USAICoE
Analytical Laboratory System (ALS) Increment 1	MSCoE
Attack the Network (AtN) (Network Engagement)	MCOE
Attack the Network Mobile Training Team (MTT)	MCOE
Aviation Platform Combat Damage Assessment	USAACE
Biometrics Enabled Intelligence (BEI)	USAICoE
Chemical, Biological, Radiological and Nuclear (CBRN) Dismounted Reconnaissance Course	MSCoE
Combined Explosives Exploitation Cell (CEXC)	NAVEODTEC HDIV
Common Analytical Laboratory System (CALS)	MSCoE
Computed Tomography (CT) Imaging	RDECOM
Counter Improved Explosive Device (CIED) Joint Task Force (JTF) HQ	SCoE
Counterintelligence	USAICoE
Crime and Criminal Intelligence Analyst Course (CCIAC)	MSCoE
Combat Training Center (CTC) Branch	FORSCOM
Data Management	RDECOM
Distributed Common Ground Station-Army (DCGS-A)	USAICoE
Electromechanical Device Replication & Prototyping	AMC-I2WD
Electronic	RDECOM
Electronic Warfare (EW) Countermeasures Technologies	RDECOM
Electronic Warfare (EW) Performance Analysis	RDECOM
Exploitation Radar Technologies	RDECOM
Explosive Ordnance (EOD) Battalion	SCoE
Explosive Ordnance (EOD) Company	SCoE
Firmware	RDECOM
Forensic Material Collection & Exploitation Course	MSCoE

Current Capabilities	Lead
Forensics	USAICoE
FORSCOM Counter IED Integration Cell (CI2C); Home Station Training	FORSCOM
Geospatial Intelligence	USAICoE
Intermediate Search Course	MSCoE
Joint Tactical Radio System (JTRS)	SigCoE
Law Enforcement Professionals (LEP) Site Exploitation Capabilities	MSCoE
Measurement and Signature Intelligence (MASINT)	USAICoE
Mechanical	RDECOM
Military Working Dog	MSCoE
Networked Electronic Warfare (EW) Technologies	RDECOM
Open Source Intelligence (OSINT)	USAICoE
Optical Device Characterization	RDECOM
Radio Frequencies (RF) and Infrared (IF) Threat Signature Library	RDECOM
Signals	RDECOM
Signals Intelligence (SIGINT)	USAICoE
Signatures	DIA
Soft Target Exploitation and Fusion	RDECOM
Technical Intelligence (TECHINT)	USAICoE
Techniques Working Group	USN (Army-PM CREWS)
Threat Working Group	JIEDDO
United States Army Criminal Investigation Command (USACIDC)	CID
United States Army Criminal Investigation Expeditionary Forensics Division (EFD)	OPMG
United States Army Criminal Investigation Expeditionary Forensics Lab (EFL)	OPMG
United States Army Criminal Investigation Lab (USACIL)	OPMG
United States Army Document and Media Exploitation (DOMEX) Program	NGIC
United States Special Operations Command (USSOCOM) Identity Operations	USSOCOM
Warfighter Information Network – Tactical (WIN-T) Increment 2	SigCoE
Weapons Intelligence Team (WIT), Weapons Technical Intelligence (WTI)	USAICoE

1st Army Mobilization Training Centers
- **Capability Description:** Mobilize, train, validate and deploy IAW the in theater combatant commander, Department of the Army, and FORSCOM directives.
- **Service Proponent/Lead COE (Lead Office):** 1st Army and FORSCOM
- **UE Core Activities Supported:** Supports all UE Core Activities (detect, collect, process, analyze and disseminate
- **Status:** Program of record.

20th Support Command (CBRNE); CBRNE Analytical Remediation Activity (CARA) Heavy Mobile Expeditionary Laboratory (HMEL)
- **Capability Description:** Assesses and facilitates the rapid turn-around of on-site (CONUS/OCONUS) sample analyses. Deployable mobile chemical, biological, and radiological analytical laboratory consisting of one 5 Ton FMTV as prime mover and towed 20 foot expandable shelter with HVAC and electrical power distribution. Configuration is modular. There will be two like systems for chemical and biological.
- **Service Proponent/Lead COE (Lead Office):** MSCOE, CBRNE POC: Mr. Robert Davis/Mr. Peter Vega DSN 676-7145/7614 EMAIL: robert.davis9@us.army.mil/peter.j.vega@us.army.mil
- **UE Core Activities Supported:** UE Core Activities (process, analyze, and disseminate) supported by the capability
- **Status:** Funded May 09, Initial funding MIPRed to ECBC Aug 09, T&E Working Group Established 25 Aug 09, CONOPs Approved 13 Oct 09, CBRN FA ICD (Approved) 9 Dec 09, Proposed JCIDS Process for Program of Record.
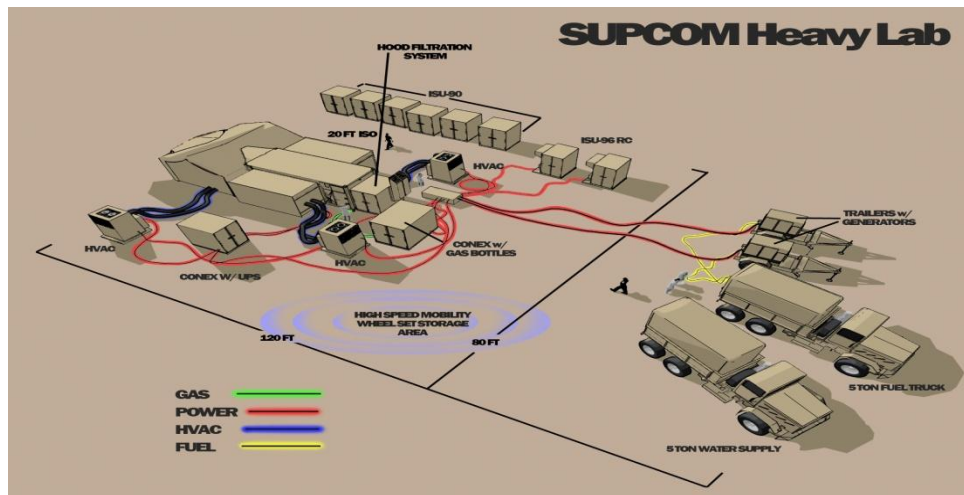
Acoustic Threat Detection Technologies
- **Capability Description:** Provide a means to conduct standoff detection of foam or camouflaged target by the used of Synthetic Aperture Acoustics technology.
- **Service Proponent/Lead COE (Lead Office):** Army / RDECOM CERDEC NVESD
- **UE Core Activities Supported:** UE Core Activities (detect) supported by the capability
- **Status:** In Ongoing Development, TRL 4. Not transitioned to a POR, and funded by RDECOM CERDEC NVESD mission dollars

All Source Intelligence
- **Capability Description:** All-source intelligence is the intelligence discipline responsible for all-source products and the processes used to produce them (FM 2-0). All-source intelligence also refers to intelligence products and organizations, and activities that incorporate all sources of information, most frequently including human intelligence, imagery intelligence, measurement and signature intelligence, signals intelligence, and open-source intelligence data in the production of finished intelligence (JP 2-0). Army forces conduct operations based on the all-source intelligence assessment developed by the intelligence staff. The all-source intelligence assessment is expressed as part of the intelligence estimate. All-source intelligence operations are performed by the intelligence staff. They are continuous and occur throughout the operations process and the intelligence process. Most of the products resulting from all-source intelligence are initially developed during planning (to include design). They are updated as needed, throughout preparation and execution, based on information gathered through continuous assessment.
- Intelligence results from the collection, processing, integration, evaluation, analysis, and interpretation of available information. Intelligence also refers to activities that result in the product and to the organizations engaged in such activities.
- Using information drawn from all disciplines and available sources, all-source analysts perform analysis. They produce timely, relevant, accurate, predictive, and tailored intelligence that satisfies the commander's requirements. All-source analysis provides an overall picture of the threat, terrain and weather, and civil considerations, as well as other aspects of the area of operations (AO). All-source analysis reduces the possibility of error, bias, and misinformation by considering multiple sources of information and intelligence.
- **Service Proponent/Lead COE (Lead Office):** US Army Intelligence Center of Excellence (USAICoE)
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Intelligence discipline

Analytical Laboratory System (ALS) Increment 1
- **Capability Description:** The ALS consists of a self-contained, stand-alone, C-130 transportable, GMC 6500 vehicle with a analytical suite providing CBRNE identification capabilities to WMD-CST Commanders. Provides a mobile field analytical laboratory to facilitate identification of CBRNE substances and provides situational awareness through reach back capability. Provides advance technologies with enhanced sensitivity and selectivity to presumptively identify the full range of biological, chemical, and radiological substances to gain and maintain a complete understanding of the contaminated environment. Provides the ability for the Incident Commander to provide technical and consultative advice to the local authority on managing the effects of a WMD incident; minimizes the impact on the civilian populace.
- **Service Proponent/Lead COE (Lead Office):** MSCOE, CBRNE, POC: Mr. Robert Davis/Mr. Pete Vega, DSN 676-7147/7614 EMAIL: robert.davis9@us.army.mil/peter.j.vega@us.army.mil
- **UE Core Activities Supported:** UE Core Operational Activity (analyze) supported by the capability
- **Status:** New Equipment Training (NET) Complete, Production Complete, Post Fielding Upgrades Complete, PFTEA: Did not complete, lack of PM funding.

Attack the Network (Network Engagement)
- **Capability Description**: Network Engagement operations are defined as lethal and nonlethal actions or operations targeting friendly, neutral, and threat networks conducted continuously and simultaneously at multiple levels. These operations capitalize on supporting friendly networks, influencing neutral networks, and create key vulnerabilities which neutralize the threat networks ability to function and enable success of the operation. AtN operational approach supports activities to: rapidly identify, develop, integrate, deliver and assess capabilities to predict, define, analyze, support, influence and neutralize networks in order to ensure Army units are capable of effectively engaging networks.
- **Service Proponent/Lead COE (Lead Office)**: MCoE, AtN Team, POC: LTC Haimes Kilgore/Mr. Pat Ryan, DSN 835-3532 Email: haimes.a.kilgore.mil@mail.mil / partick.h.ryan6.ctr@mail.mil
- **UE Core Activities Supported: Collect, Process and Analyze**

Attack the Network Mobile Training Team (MTT)
- **Capability Description**: The AtN MTT is a six person team that can travel TDY to individual unit locations for AtN training. The basis of the AtN MTT trainings is the Staff Attack the Network Training (AtN) Support Package (TSP). The AtN TSP reflects the TRADOC Commander's guidance for conducting battle staff training on engaging network activities. TSP consists of lessons and staff exercises. These lessons provide tools and considerations that help units to effectively engage threat networks. Staff exercises assist staff members in understanding the environment and the threat by applying analytical tools. The AtN TSP can be taught as a complete course, or individual modules can be selected that address specific training deficiencies identified by the Commander.
- **Service Proponent/Lead COE (Lead Office)**: MCoE, AtN Team, POC: LTC Haimes Kilgore/Mr. Paul James, DSN 835-8732 Email: haimes.a.kilgore.mil@mail.mil / paul.p.james.ctr@mail.mil
- **UE Core Activities Supported**: Collect, Process and Analyze
- **Status:** Available to dispatch the MTT to provide current and relevant Staff Attack the Network Training Support Package (TSP) that reflects TRADOC Commander's guidance for conducting Staff training on network activities.

Aviation Platform Combat Damage Assessment
- **Capability Description:** The Army's Aircraft Shoot-Down Assessment Team (ASDAT) evaluates the combat damage or loss of Army Aviation platforms, determines the enemy TTP used, and develops friendly TTP to counter current threats. The team executes these specified tasks wherever and whenever Army Aviation operates. Additionally, the team coordinates with aviation training programs, combat developers, and the test and acquisition communities to ensure the observations, insights, and lessons learned are integrated into training, doctrine, requirements, and testing
- **Service Proponent/Lead COE (Lead Office):** U.S. Army Aviation Center of Excellence, TRADOC Program Office-Aviation Brigades (TPO-AB)
- **UE Core Activities Supported:** The ASDAT conducts the full spectrum of UE Core Activities (detect, collect, process, analyze, and disseminate) both as a service centric specialized team and as part of the Joint Combat Assessment Team (JCAT), a multi-service organization conducting service specific UE type missions supporting of Army Aviation UE efforts.
- **Status:** Requirement established by the CG, U.S. Army Aviation Center of Excellence on 24 April 2007 with submission of a Concept Plan to replace the ad hoc combat

assessment capability in place since 2003. This Con Plan was approved by HQDA on 14 October 2007. Effective 1 December 2007 the Army's Aircraft Shoot-Down Assessment Team is embedded in the U.S. Army Aviation Center of Excellence with a HQDA approved TDA and Mission Statement. Composed of rated Aviation Branch officers and Army Civilian personnel the team is actively engaged in the exploitation and assessment of aviation combat damage and loss events, the determination of enemy TTP, and the development of friendly TTP to counter those threats. To execute these tasks/ the team is responsible for maintaining two teams prepared for worldwide no-notice deployment and acts as the Army Element of the Joint Combat Assessment Team. Funding for training and equipping the team is provided by the JASP (Joint Aircraft Survivability Program). The JASP is chartered by the U.S. Army Aviation and Missile Command, Naval Air Systems Command (NAVAIR), Air Force Aeronautical Systems Center, and is funded by Director, Operational Test and Evaluation.

Biometrics: Biometrics Enabled Intelligence (BEI)
- **Capability Description:** Biometrics is the process of recognizing an individual based on measurable anatomical, physiological, and behavioral characteristics (JP 2-0). In contrast, biometric describes a measurable physical characteristic or personal behavior trait used to recognize the identity or verify the claimed identity of an individual (JP 2-0). The term biometrics also describes both a process and a characteristic.   As a process, biometrics consists of the automated methods of recognizing an individual based on measurable biological (anatomical and physiological) and behavioral characteristics. A biometric characteristic is the measurable biological (anatomical and physiological) or behavioral characteristic that can be used for recognition.   Biometrics and its analytic, all-source product, BEI, can be used before, during, and after full spectrum operations. Further, BEI contributes to seizing, retaining, and exploiting the operational initiative. BEI greatly increases opportunities to achieve decisive results because it reduces risk and can be employed in conjunction with lethal or nonlethal missions. BEI contributes positively to a more thorough understanding of all the variables of the operational environment. Biometrics-enabled intelligence is the intelligence information associated with and/or derived from biometrics data that matches a specific person or unknown identity to a place, activity, device, component, or weapon that supports terrorist/insurgent network and related pattern analysis, facilitates high-value individual targeting, reveals movement patterns, and confirms claimed identity.
- **Service Proponent/Lead COE (Lead Office):** US Army/USAICoE/RDD. TCM Biometrics/Forensics
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability. The biometric process comprises four biometric functions and three operational functions. The biometric functions include: Collect, Match, Store, and Share. The operational functions include: Analyze, Reference, Decide or act.
- **Status:** Biometrics: Biometrics Enabled Intelligence, TC 2-22.82, 21 Mar 11

CBRN Dismounted Reconnaissance Course
- **Capability Description:** Purpose: Consolidate training requirements and provide baseline training to the officers and enlisted personnel assigned to a IBCT CBRN reconnaissance platoons, Special Forces Chemical Reconnaissance Detachment (CRD), Heavy (HVY) Chemical Company reconnaissance platoons (HRD), HVY Chemical Company Decontamination platoons (HRD), CS Chemical Company Decontamination platoons (HRD) and other Service components in the areas of Chemical, Biological, Radiological and Nuclear (CBRN) detection, identification and

emergency response as it pertains to Weapons of Mass Destruction (WMD), tactical battlefield hazards, Chemical/Biological/Radiological (CBR) improvised devices and installation CBRN protection. Introduce individuals to the tactics, techniques, and procedures (TTP) when planning, operating, and sustaining the force during tactical operations. Scope: Training will focus on providing the skills and knowledge required to prepare for and respond to battlefield hazards, improvised CBR devices and/or Weapons of Mass Destruction (WMD). The course includes training on a variety of military and/or commercial CBRN equipment, and includes training and familiarization on Personal Protective Equipment (PPE), Self-Contained Breathing Apparatus (SCBA), emergency response In-transit procedures, planning and preparing for tactical reconnaissance operations, the fundamentals of Toxic Industrial Chemicals/Materials (TIC/TIM), sampling and collection procedures, mission abort procedures, and the procedures to set-up, process through and close out a survey team decontamination site. Successful course completion will provide certification to the National Fire Protection Association (NFPA) 472 Hazardous Materials Technician level training.
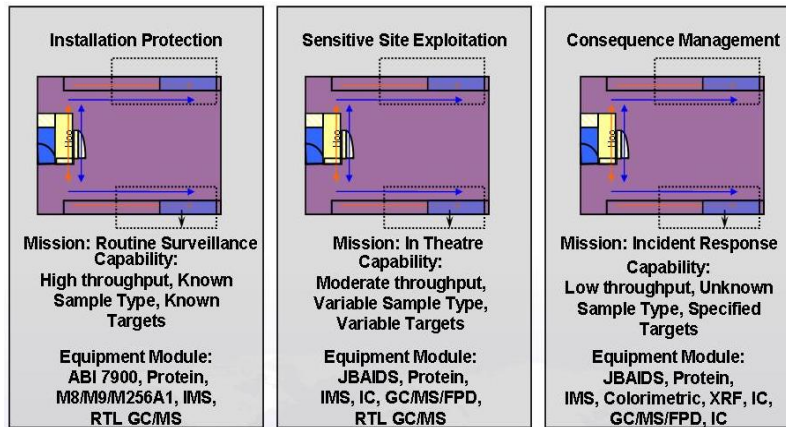
- **Service Proponent/Lead COE (Lead Office):** MSCOE, CBRNE POC: Charles Mceachern, CBRNE Course Manager (573)596-0131 ext. 61938 EMAIL: charles.mceachern@us.army.mil
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process) supported by the capability
- **Status:** ATTRS Course # 4K-F26/494-F31 (G)

Combined Explosives Exploitation Cell (CEXC)

- **Capability Description:** The Combined Explosives Exploitation Cell (CEXC) is a US Navy led, unique joint, combined organization composed of 8 personnel from the military (EOD, Intelligence) and is often augmented by government agencies (FBI, ATF) with subject matter experts in the fields of explosive ordnance, IEDs, post-blast investigation, and terrorism.
- **Service Proponent/Lead COE (Lead Office):** NAVEODTECHDIV Technical Support Detachment (TSD)
- **UE Core Activities Supported:** Collect, process, analyze, and share/disseminate in support of COCOMs at level 1/2 (as defined in the WTI Handbook).
- **Status:** Navy Program of record, POM funded.

Common Analytical Laboratory System (CALS)

- **Capability Description:** Field Modular Analytical Capabilities - One Lab Design with Laboratory Equipment Outfitted to Support Multiple Missions. Production Cost Projected at $2.5M-$5M per System. CALS will replace 20th SUPCOM and NGB ALS current systems along with other services. Will require services to provide their own designated platforms. The Army capability gaps support two modules: Sensitive Site Exploitation (20th SUPCOM) and Consequence Management (NGB).
- **Service Proponent/Lead COE (Lead Office):** MSCOE, CBRNE, POC: Mr. Robert Davis/Mr. Pete Vega, DSN 676-7147/7614   EMAIL: robert.davis9@us.army.mil/peter.j.vega@us.army.mil
- **UE Core Activities Supported:** UE Core Operational Activity (analyze) supported by the capability
- **Status:** Funding: JPM NBC/CM.   MML Experiment Final Report Signed Jun 09, CALS Validation Event 3-5 Nov 09, CBRN FA ICD Approved 9 Dec 09, CALS MDD Approved 25 Jan 10, CALS AoA Results Brief 10 Feb 11, CALS MSA Decision Approved 3 Mar 11, CALS Increment 1 CDD Final 3rd Qtr FY 12, and CALS Increment 1 CPD Final 2nd Qtr FY14.

Installation Protection	Sensitive Site Exploitation	Consequence Management
Mission: Routine Surveillance **Capability:** High throughput, Known Sample Type, Known Targets **Equipment Module:** ABI 7900, Protein, M8/M9/M256A1, IMS, RTL GC/MS	**Mission: In Theatre** **Capability:** Moderate throughput, Variable Sample Type, Variable Targets **Equipment Module:** JBAIDS, Protein, IMS, IC, GC/MS/FPD, RTL GC/MS	**Mission: Incident Response** **Capability:** Low throughput, Unknown Sample Type, Specified Targets **Equipment Module:** JBAIDS, Protein, IMS, Colorimetric, XRF, IC, GC/MS/FPD, IC

Computed Tomography (CT) Imaging

- **Capability Description:** X-ray computed tomography imaging enables the collection of data on sealed or otherwise physically inaccessible devices. This capability allows the user to interrogate and exploit devices while preserving the forensic elements for later analysis. Provides ability to automate reverse engineering of devices and import to CAD programs to increase efficiency of prototyping and replication efforts.
- **Service Proponent/Lead COE (Lead Office):** Army RDECOM CERDEC I2WD
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** OCO funded. CT imager installed and operational at I2WD APG. Currently funded through I2WD's Technical Forensics group via customer funding. Collaboration with the Intelligence Community (IC) will further the capabilities of I2WD's system and provide the IC with reach back capability for forensic data capture and analysis.

Counter Improved Explosive Device (CIED) Joint Task Force (JTF) HQ

- **Capability Description:** The CIED JTF enables unity of effort and integrates CIED, CBRNE, and UE capabilities and capacity throughout a theater area of operations. This is accomplished by providing problem focused expertise, delivering relevant and ready CIED, CBRNE and UE capabilities to battle space owners, and ensuring integration and mission execution by those CIED and UE capabilities. The CIED JTF articulates and prioritizes CIED, CBRNE, UE, and explosive ordnance requirements; integrates DoD and Coalition forces to build CIED, CBRNE, and UE capabilities for the battle space owner; develops and enforces plans, policies, explosive safety and planning standards; and collects and disseminates lessons learned to the generating force and DoD strategic leadership.
- **Service Proponent/Lead COE (Lead Office):** Sustainment Center of Excellence (EOD Directorate)
- **UE Core Activities Supported:** UE Core Activities (Collect, process, analyze and disseminate) supported by the capability.
- **Status:** The Army EOD Group currently serves as a unit-based solution for a CIED JTF HQ (TF Paladin) in the ATO. The D-CIED recommended the Army institutionalize a permanent CIED JTF headquarters solution capable of supporting DA and DoD based on analysis results from a recent theater level CIED organizational assessment.

Counterintelligence
- **Capability Description:** Counterintelligence is information gathered and activities performed to identify, deceive, exploit, disrupt, or protect against espionage, other intelligence activities, sabotage, or assassinations performed for or on behalf of foreign powers, organizations, or persons, or their agents, or international terrorist organizations or activities (Executive Order 12333). CI includes actions taken to detect, identify, track, exploit, and neutralize the multidiscipline intelligence activities of adversaries. It is a key intelligence community contributor to protect U.S. interests. Army CI has four primary mission areas: Counterespionage, Support to protection of the force, Support to research and technology protection, Cyber CI. The CI core competencies include Operations, Investigations, Collection, Technical services and support, Analysis and production.
- **Service Proponent/Lead COE (Lead Office):** US Army Intelligence Center of Excellence (USAICoE)
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Intelligence discipline

Crime and Criminal Intelligence Analyst Course (CCIAC)
- **Capability Description:** The CCIAC has been designed to provide the Maneuver Commander with crime and criminal analytical capabilities, which identifies, investigates, documents, analyzes, generates and disseminates criminal intelligence products regarding criminals and criminal networks for use in support of kinetic targeting, judicial process, and overall Force Protection. Soldiers attending this course will be provided the skill sets and abilities to combat nontraditional asymmetrical threats throughout all theaters of operations to maximize the application of non-classified information/intelligence.
- **Service Proponent/Lead COE (Lead Office):** MSCOE, USAMPS POC: CW2 Angel Miles DSN: 676-1083 EMAIL: angel.miles@us.army.mil
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze) supported by the capability
- **Status:** Funding: USAMPS ATTRS Course # 7H-f75/830-F31

Combat Training Center Branch
- **Capability Description:** Executes oversight and management of the FORSCOM CTC Program IAQ AR 350-50 and the chief of Staff of the Army. Coordinates Joint National Training Capability (JNTC), Joint Airborne/Air Transportability Training (JA/ATT), Joint Close Air Support (JCAS), Joint Urban Operations (JUO) and Joint Improvised Explosive Device Defeat (JIEDD) Training at the CTCs in order to maintain joint war fighting ability. Coordinates Combined and Foreign Training at the CTCs to ensure interoperability with foreign nations
- **Service Proponent/Lead COE (Lead Office):** FORSCOM CTC Branch
- **UE Core Activities Supported:** Collective Training level (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Program of record.

Data Management
- **Capability Description:** Provides browser-based capability for managing data including chain-of-custody and classification portion markings at the data element level. Also provides Business Intelligence reporting and analytics capabilities to the community.
- **Service Proponent/Lead COE (Lead Office):** Army RDECOM CERDEC I2WD

- **UE Core Activities Supported:** UE Core Activities (disseminate) supported by the capability
- **Status:** OCO funded. Enhanced electronics photo recognition capabilities and integration with deployer bench capabilities. Supports data fusion and information sharing with community of interest.

Distributed Common Ground Station- Army (DCGS-A)
- **Capability Description:** DCGS-A provides a net-centric, enterprise intelligence, , weather, geospatial engineering, and space operations capability to organizations of all types, at all echelons—from battalion to JTF levels. DCGS-A will be the intelligence, component of the modular and future force Battle Command System and the Army's primary system for intelligence, surveillance, and reconnaissance tasking, posting, processing, and conducting analysis concerning the threat, terrain and weather, and civil considerations at all echelons.
- DCGS-A provides the capabilities necessary for commanders to access information from all data sources and to synchronize sensors. DCGS-A provides continuous access to and synthesis of data and information from joint and interagency capabilities, multinational partners, and nontraditional sources
- These capabilities allow forces to maintain an updated and accurate awareness of the operational environment. DCGS-A contributes to visualization and situational awareness, thereby enhancing tactical maneuver, maximizing combat power, and enhancing the ability to conduct full spectrum operations in an unpredictable and changing operational environment.
- **Service Proponent/Lead COE (Lead Office):** US Army/USAICoE/RDD, TCM Sensor Processing
- **UE Core Activities Supported:** DCGS-A facilitates the rapid conduct of operations and synchronization of all warfighting functions. This capability gives commanders the ability to operate within the threat's decision cycle and shape the environment for successful operations. DCGS-A core functions are: Receipt and processing of selected intelligence sensor data; Control of selected Army sensor systems; Facilitation of ISR synchronization; Facilitation of intelligence integration; Fusion of sensor information; Direction and distribution of relevant threat information and intelligence; Facilitation of the distribution of friendly and environmental (weather and terrain) information.
- **Status:** DCGS-A is a Program of Record (POR). Distributed Common Ground station-Army FM 2-0, 23 Mar 10

Electromechanical Device Replication and Prototyping
- **Capability Description:** Comprehensive replication of electronic and electro-mechanical devices for multiple applications including: realistic threat replication and system support from schematic design to fabrication, and full test and evaluation in a single location. The Lab currently runs analysis and replication on RC, CW, and VO (pressure plate) devices.
- **Service Proponent/Lead COE (Lead Office):** US Army I2WD – Replication & Prototype Lab
- **UE Core Activities Supported:** UE Core Activities (collect, process, analyze, and disseminate) supported by the capability
- **Status:** Group is funded through JIEDDO JTB at this time. Future partnerships with COCOMs outside of CENTCOM will enable greater distribution of support products and information to better protect U.S. and Allies' interests in the global IED arena.

Electronic
- **Capability Description:** WTI Level II through Level IV Electronic characterization of unique threats utilizing documented SOP's, and the latest automation technology, to provide data from fundamental RF parameters through detailed understanding of device behavior, design practices and device characteristics. Interoperable CONUS and OCONUS support elements of all levels provide near real-time TECHINT and a unique capability to answer theater specific needs in a timely manner
- **Service Proponent/Lead COE (Lead Office):** Army RDECOM CERDEC I2WD
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** OCO Funded. Mobile bench capabilities, and automated testing and data capture

Electronic Warfare (EW) Countermeasures Technologies
- **Capability Description:** Provide tactical units a means to conduct Electronic Attack, Electronic Support, and direction finding against enemy command and control networks
- **Service Proponent/Lead COE (Lead Office):** Army RDECOM CERDEC I2WD / PM EW
- **UE Core Activities Supported:** UE Core Activities (detect, collect) supported by the capability
- **Status:** Capability proven to work under expected condition, TRL 8. Several systems to support this capability are forward in combat operational environment. Transition to POR, PM POM and JIEDDO funded

Electronic Warfare (EW) Performance Analysis
- **Capability Description:** Provide a means to perform a series of studies and tests to characterize the performance of existing vehicle C-IED systems. Studies and tests will determine where improvement can be made on current systems.
- **Service Proponent/Lead COE (Lead Office):** Army / RDECOM CERDEC STCD / PM Signal Warfare
- **UE Core Activities Supported:** UE Core Activities (detect) supported by the capability
- **Status:** In Ongoing Development, TRL 7. JIEDDO OCO and PM POM funded.

Exploitation Radar Technologies
- **Capability Description:** Provide a means to detect, track and characterize suspicious enemy actions – mounted and dismounted – in real-time and in high-resolution.
- **Service Proponent/Lead COE (Lead Office):** Army / RDECOM CERDEC I2WD
- **UE Core Activities Supported:** UE Core Activities (detect, collect) supported by the capability
- **Status:** Capability proven to work under expected condition, TRL 8. Several systems to support this capability are forward in combat operational environment. Transition planning with PEO IEW&S - (PM RSTA & PM ACS), OCO funded by JIEDDO.

Explosive Ordnance Disposal (EOD) Battalion
- **Capability Description:** The EOD Battalion is the EOD/CIED/CBRN subject matter expertise of the Division as well as the command and control headquarters for assigned EOD Companies and other CIED enablers. Serves as a key division staff enabler for the Weapons Technical Intelligence process. Synchronizes, coordinates, and integrates EOD, CIED, CBRN, and UE capabilities in support of Division priorities. Advocates parent organization priorities and initiatives to supported Division. Consolidates, processes, analyzes, and disseminates subordinate technical reports. Forwards

unit/EOD/WIT recovered items to appropriate in-theater laboratories for further analysis as required.
- **Service Proponent/Lead COE (Lead Office):** Sustainment Center of Excellence (EOD Directorate)
- **UE Core Activities Supported:** UE Core Activities (Process, analyze, disseminate) supported by the capability
- **Status:** Enduring organization

Explosive Ordnance Disposal (EOD) Company
- **Capability Description:** The EOD Company provides command and control of 3 to 5 modular EOD platoons, each consisting of 3 EOD teams, which serve as primary collectors of Weapons Technical Intelligence (WTI) related material from a site. Provides organic capabilities to conduct reconnaissance, detection, identification, neutralization, render safe, and disposal of UXO, IEDs, and CBRNE related hazards. Recovers first-seen UXO for TECHINT exploitation, to include preparing the new or modified ordnance item for evacuation to technical evaluation facilities. Evaluates an incident site's tactical design and conducts the first technical characterization of an IED event. EOD forces also conduct fragmentation analysis and post-blast forensics analysis as part of an accident or incident investigation and intelligence operations. EOD teams generate incident reports and forward all data and physical material to the EOD Battalion for further exploitation.
- **Service Proponent/Lead COE (Lead Office):** Sustainment Center of Excellence (EOD Directorate)
- **UE Core Activities Supported:** UE Core Activities (Detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Enduring organization

Firmware
- **Capability Description:** Provide forensic firmware analysis yielding operational parameters useful for force protection, device detection and countermeasures. Capabilities include authorship identification through similarity of firmware techniques and tools used and provision of evidence for prosecution. Including provision for reach back support to forward deployed elements and technical details to TECHINT and SIGINT efforts
- **Service Proponent/Lead COE (Lead Office):** Army RDECOM CERDEC I2WD / NRL / OGA
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** OCO funded. CT X-Ray capabilities to provide detail required for extraction.

Forensic Material Collection & Exploitation Course
- **Capability Description:**
- Overview: Provides soldiers (BCT evidence collection teams) with the necessary abilities to properly collect forensic materials in support of intelligence analysis and rule of law. Forensics is being introduced into the operational force through the Forensic Material Collection and Exploitation Course MTT with each unit being supplied collection kits upon completion. Additionally, institutionalization of forensics training at USAMPS, within dedicated facilities, will better enable BCT commanders to effectively task organize.
- Students will be taught how to prioritize evidence on an objective, how to protect, document, preserve, collect and transport forensic material; as well also how to process

items expeditiously at the scene in order to develop and collect latent evidence, such as fingerprints, DNA, shoe impression, etc. Each team member is cross-trained in every area, to include photography, sketching, note taking, latent print processing, and material collection.
- Requirements and Information: 4 Day course (40 hours) 15 students per class; Audience: Soldiers deploying into theater; Course: Resident and MTT; Location: NTC, JRTC, Unit Location ; Clearance: None Required
- **Service Proponent/Lead COE (Lead Office):** MSCOE, USAMPS POC: CW2 Angel Miles, Deputy Branch Chief, PIO (573)563-1083 EMAIL: angel.l.miles@us.army.mil
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process) supported by the capability
- **Status:** Funding: Pending contract after CRA is lifted. Contract will be year to year and is not an enduring capability.

Forensics
- **Capability Description:** Forensics: is the application of multi-disciplinary scientific processes to establish facts. Forensics has an integral role in intelligence functions, operational activities, force protection, host nation legal support, personnel recovery, and identity superiority in support of Joint, Interagency, and Multinational (JIM) entities throughout the Range of Military Operations (ROMO).   Forensics capabilities must provide tactical commanders the ability to monitor their environment and rapidly verify potential threats such as individuals of interest that are attempting to blend into the civilian population, improvised explosive devices (IEDs), small irregular forces, etc. Tactical commanders must be able to rapidly identify these threats in urban and complex terrain. Collectively these capabilities allow the commander to attack the threat network in the context of the emerging processes of find, fix, finish, exploit, assess, and disseminate (F3EAD) and find, fix, track, target, engage, and assess (F2T2EA)
- **Service Proponent/Lead COE (Lead Office):** U. S. Army/USAICoE/RDD, TCM Biometrics/Forensics
- **UE Core Activities Supported:** Forensics required capabilities, as determined by the Functional Area Analysis (FAA), could be classified into the six functional level categories: recognize, preserve, collect, analyze, store, and share. During the solutions analysis the tasks that support these capabilities were, for analytical purposes, categorized into three operational areas: Actions on the Objective, Processing, and Reporting.   Actions on the Objective include tasks that are generally performed at the "scene" within the joint operational environment, and include recognizing, preserving, collecting and transporting material of forensic value. Processing includes tasks that involve the testing, scientific analysis, and storage of collected forensic material. Finally, Reporting includes tasks that involve the sharing of the information garnered through the analysis of forensic material with the appropriate units, staffs, and commands to facilitate the commander's decision-making cycle. Two additional functional areas were identified by external studies and these functional areas were validated during the FNA. These additional functional areas are Governance and Training and Certification.
- **Status:** INITIAL CAPABILITIES DOCUMENT (ICD) for Forensics Support across the Range of Military Operations Validation Authority: HQDA Approval Authority: HQDA Milestone Decision Authority: USD (AT&L) ACAT III Designation: Joint Integration Prepared for Material Development Decision Draft Version 4.0, 23 July 2010

FORSCOM Counter IED Integration Cell (CI2C)
- **Capability Description:** Home Station Training Capability provides the installation senior commander a full-time resident CIED subject matter expert cell. Home Station

training capability supports Progressive Training Readiness to meet ARFORGEN timelines in preparation for MRE and deployment.

- **Service Proponent/Lead COE (Lead Office):** FORSCOM
- **UE Core Activities Supported:** Supports all UE Core Activities: detect, collect, process, analyze and disseminate.
- **Status:** Currently not a Program of record. Currently funded with OCO dollars and working on POM for FY14-18

Geospatial Intelligence

- **Capability Description:** Geospatial intelligence is the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the Earth. (Title 10, Section 467, U.S. Code, establishes GEOINT.) GEOINT consists of imagery, imagery intelligence, and geospatial information (JP 2-03). The Army has retained IMINT as a sub-discipline of GEOINT. Geospatial information is information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the Earth, including statistical data and information derived from, among other things, remote sensing; mapping and surveying technologies; and mapping, charting, geodetic data, and related products. There are many producers of GEOINT, and the users of GEOINT extend from the national level to the lowest tactical level. The overall GEOINT enterprise supporting operations extends across all Services, multinational partners, and other organizations during joint operations and unified action. GEOINT requirements, methods of collection (and associated systems), and products vary widely based on the echelon of support and the various types of operations. The Army does not perform GEOINT operations in isolation. Many ongoing operations and activities across the DOD involve GEOINT. The National System for Geospatial-Intelligence (NSG) manages operations through guidance, policy, programs, and organizations. The NSG is the combination of technology, policies, capabilities, doctrine, activities, people, data, and communities necessary to produce GEOINT in the form of integrated intelligence across multiple environments. GEOINT is an intelligence field that: Incorporates intelligence analysis into all aspects of it; Uses multiple types of sensors and advanced sensor technology; Combines multiple types of geospatial data; Uses intelligence and data from other intelligence disciplines to provide context; Provides the capability to visualize in three dimensions; Integrates the element of time and movement, allowing for realistic motion to create dynamic and interactive visual products; Provides the geospatial foundation layer for the COP.
- **Service Proponent/Lead COE (Lead Office):** US Army Intelligence Center of Excellence (USAICoE)
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Intelligence discipline

Intermediate Search Course

- **Capability Description:** The purpose of the Intermediate Search Course is to provide students the ability to carry out intelligence-led Military Search Operations by assessing the threat, applying systematic procedures, and employing the appropriate equipment and personnel in a safe and professional manner in order to deprive the enemy of resources, protecting potential targets, gain intelligence, gather evidence, collect biometric data, and employ tactical questioning enabling defeating the device and attacking the network. Intermediate Search Course is a 10 Day course (80 hours), 30 students (3 x 8 man squads) (6 SA's per course); Audience: Open to Any Branch and

Occupational Skill, Primarily Combat Arms, USMC, Coalition Forces, DoD Civilians, and Contractors; First week is classroom, demonstration and PE; Second week is all PE with Search Advisors planning missions and Search Teams executing. **Search Advisor:** Overview of search skills, methodologies, theory and doctrine - Enables leaders (**SFC – MAJ**) to plan search operations and incorporate other enablers i.e. EOD, CBRN, MP, MI, (all the INT's), Dogs. Currently CEHC is the only trainer of Unit Search Advisors. **Intermediate Searcher:** Provides unit teams (**PVT - SSG**) the skills, tools and methodology to conduct search operations worldwide.

- **Service Proponent/Lead COE (Lead Office):** MSCOE, USAES POC: Mike Carpenter, CEHC-Plans DSN: 676-6083 EMAIL: michael.s.carpenter@us.army.mil
- **UE Core Activities Supported:** UE Core Activities (detect, collect) supported by the capability
- **Status:** Funding: Currently OCO, awaiting POI approval from TRADOC then funding

Joint Tactical Radio System (JTRS)
- **Capability Description:** JTRS is focused on the networking and transporting of Brigade and below voice, data, and video secure communications. The JTRS provides a scalable and modular networked RF communication capability to meet radio requirements at the tactical edge. As a key enabler of tactical military communications, JTRS will provide critical transformational communications capabilities across the spectrum of operations in a Joint environment. JTRS provides secure, multi-band, multi-mode, and networked software programmable digital radios for the electronic transport of emerging and anticipated Warfighter mission command requirements. It is critical in implementing a mobile, flexible, on the move, networking infrastructure for sharing voice, data, and video among commanders operating in dispersed and dynamic environments. JTRS will provide Brigade Combat Teams and maneuver battalion commanders and their command posts, companies, platoons and individual soldiers the ability to access and receive relevant, near-real time, and tactically relevant needed information. Additionally, JTRS provides the Division G6 and BCT S6 the ability to allocate communications capacity consistent with the commander's priorities, as well as controlling, monitoring, and maintaining the network. JTRS is a family of radios and is not a total tactical radio replacement system.
- **Service Proponent/Lead COE (Lead Office):** Army/Signal Center of Excellence
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
  Status: Program of Record (POR) ACAT 1D; currently in the LRIP Phase, various MOTE(s) scheduled for FY 12 -14

Law Enforcement Professionals (LEP) Site Exploitation Capabilities
- **Capability Description:** Extremists/Insurgents replicate organized crime groups and street gangs. Conventional military strategies have proven to be ineffective. To combat this type of organization/group, we must understand international organizations, their intent, motives, structure and methods of movement of personnel, money and arms. LEP Advise, Assist, Mentor and Train US Forces in site exploitation for intelligence gathering which facilitates Commander's targeting decisions. LEP personnel advise and assist US and Coalition Commanders and their staff, using their Law Enforcement expertise and methodology, to understand, identify, target, penetrate, interdict, and suppress criminal-like insurgent network enterprises and special group criminals; to include but not limited to their employment of Improvised Explosive Devices (IED).
- **Service Proponent/Lead COE (Lead Office):** MSCOE, USAMPS POC: Mr. Richard Carter (571) 305-4328

- **UE Core Activities Supported:** UE Core Activities (detect, collect, process) supported by the capability
- **Status:** Funding: Criminal Investigations Command. Organization at all echelons, Training – Police Intelligence Operations, Material – LEPs are issued forensic kits for investigations, Leader development and education for US/Coalition Commanders, Personnel – contracted former Law Enforcement officials, Facilities – Expeditionary Forensic Lab (EFL).

Measurement and Signature Intelligence (MASINT)
- **Capability Description:** MASINT is intelligence obtained by quantitative and qualitative analysis of data (metric, angle, spatial, wavelength, time dependence, modulation, plasma, and hydro magnetic) derived from specific technical sensors for identifying any distinctive features associated with the emitter or sender, and to facilitate subsequent identification and/or measurement of the same. The detected feature may be reflected or emitted (JP 2-0). MASINT provides intelligence to commanders in full spectrum operations to facilitate situational understanding. MASINT can defeat many of the camouflage, concealment, and deception techniques currently used to deceive ISR systems. The most familiar MASINT systems used today are employed by ground surveillance and chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE) reconnaissance elements. MASINT spans the entire electromagnetic spectrum. Its capabilities complement the other intelligence disciplines. MASINT provides, to varying degrees, the capability to: Use automatic target recognition and aided target recognition; Penetrate manmade and natural camouflage; Penetrate manmade and natural cover, including the ability to detect subterranean anomalies or targets; Counter stealth technology; Detect recently placed mines; Detect natural or manmade environmental disturbances on the Earth's surface not discernible through other intelligence means; Provide signatures (target identification) to munitions and sensors; Enhance passive identification of friend or foe; Detect the presence of CBRNE agents before, during, or after employment; Detect signature anomalies that may affect target-sensing systems.
- **Service Proponent/Lead COE (Lead Office):** US Army Intelligence Center of Excellence (USAICoE)
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Intelligence discipline

Mechanical
- **Capability Description:** Analysis and tool development of VOIED. Capturing data regarding operating parameters, and requirements for counter measures. I2WDs ability to rapidly prototype custom mechanical test sets facilitates CONUS and OCONUS needs to characterize evolving threat trends.
- **Service Proponent/Lead COE (Lead Office):** Army RDECOM CERDEC I2WD
- **UE Core Activities Supported:** UE Core Activities (collect, process, analyze, and disseminate) supported by the capability
- **Status:** JIEDDO / OCO funded. Additional tool development to assist in capturing data in OCONUS locations

Military Working Dogs (MWDs)
- **Capability Description:** The family of MWDs is a mix of sensor capabilities that search/detect for explosive, firearms, ammunition, narcotics, and human scent (friendly

and adversaries) in buildings, vehicles, areas, routes, and minefields. The MWD can work seven days a week if provided proper rest, work in any environment, and work day or night. MWDs provide commanders with a full spectrum capability (e.g. support to the Warfighter, law enforcement and force protection missions at the installation). MWDs, specifically explosive detection, are the Army's most effective assets detecting pre-detonation explosive hazards in current operations. The current MWD capabilities include: Patrol Explosive Detection Dog (PEDD), Patrol Narcotics Explosive Detection Dog (PNDD), Specialized Search Dog (SSD), Mine Detection Dog (MDD), and Tactical Explosive Detection Dog (TEDD) (contracted). MWD provides the following: explosive search/detection along routes in support of site exploitation teams (PEDD, SSD, MDD, and TEDD); Provide initial clearance of targeted sites (PEDD, SSD, MDD, and TEDD); Conduct building search/sweeps (occupied, vacant, and derelict) within the targeted site (PEDD, SSD, and TEDD); Thorough cache searches will be conducted once the site is secure (PEDD, SSD, MDD, and TEDD); Presence of MWDs can provide a psychological deterrence to the local population and adversaries. (PEDD, PNDD, SSD, MDD, and TEDD); Once a sensitive site is secure, MWD can provide perimeter security to enhance force protection while the exploitation team is on site.

- **Service Proponent/Lead COE (Lead Office):** MSCOE, USAMPS POC: USAMPS MWD Career Manager 2326 MSCOE/CDID/CODDD/TMS Concepts Branch (573)563-8040 EMAIL: cory.lorenz@us.army.mi
- **UE Core Activities Supported:** UE Core Activities (detect, collect) supported by the capability
- **Status:** The MWD DOTMLPF assessment was completed in OCT 2008, approved by the MSCoE CG (NOV 2008), and the TRADOC ARCIC Director (MAY 2009), and sent to HQDA for staffing (JUN 2009); ARSTAFF directed MSCoE submit a Force Design Update (FDU) and Military Occupational Classification Structure (MOCS) proposal to further define the recommendations from the MWD study; The FDU was submitted to TRADOC ARCIC FDD in FEB 2010 and is currently awaiting HQDA Force Integration Functional Area (FIFA) analysis; The MOCS was submitted to HQDA G1 in AUG 2010 and approved in SEP 2011; New MOS (upon approval of the FDU) will be implemented in FY15 (OCT 2014).

Networked Electronic Warfare (EW) Technologies
- **Capability Description:** Provide a means to Integrated capability for simultaneous and autonomous detection, classification, and geo-location of modern emitters in battlefield and urban environments. Surgical and coordinated disruption and/or neutralization of Remote Controlled Improvised Explosive Devices (RCIEDs) and Command and Control (C2) nodes.
- **Service Proponent/Lead COE (Lead Office):** Army / RDECOM CERDEC/ PM EW
- **UE Core Activities Supported:** UE Core Activities (detect, collect, and disseminate) supported by the capability
- **Status:** In Development, TRL 6. Some technologies transitioned to a POR. HQDA funded.

Open Source Intelligence (OSINT)
- **Capability Description:** OSINT is the discipline that pertains to intelligence produced from publicly available information that is collected, exploited, and disseminated in a timely manner to an appropriate audience for addressing a specific intelligence requirement (FM 2-0). OSINT is derived from the systematic collection, processing, and analysis of publicly available, relevant information in response to intelligence requirements. Two important related terms are open source and publicly available

information: Open source is any person or group that provides information without the expectation of privacy—the information, the relationship, or both is not protected against public disclosure. Publicly available information is data, facts, instructions, or other material published or broadcast for general public consumption; available on request to a member of the general public; lawfully seen or heard by any casual observer; or made available at a meeting open to the general public. *Note.* All OSINT operations performed by intelligence personnel must comply with the legal restrictions in EO 12333, DODD 5100.20, and AR 381-10.

- **Service Proponent/Lead COE (Lead Office):** US Army Intelligence Center of Excellence (USAICoE)
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Intelligence discipline

Optical Device Characterization
- **Capability Description: :** Using custom automated test sets (hardware and software) provides an accurate and repeatable optical test environment for the collection of fundamental and essential Optical parameters for device characterization.
- **Service Proponent/Lead COE (Lead Office):** Army RDECOM CERDEC I2WD
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Group is funded through JIEDDO JTB at this time. Previous OCO funded was received. Future partnerships with COCOMs outside of CENTCOM will enable greater distribution of support products and information to better protect U.S. and Allies' interests in the global IED arena.

Radio Frequencies (RF) and Infrared (IF) Threat Signature Library
- **Capability Description:** Provide a means to conduct repeatable testing for characterization of diverse threat Radio Frequencies and Infrared signatures.
- **Service Proponent/Lead COE (Lead Office):** Army / RDECOM CERDEC
- **UE Core Activities Supported:** UE Core Activities (collect, process, analyze) supported by the capability
- **Status:** Ongoing Efforts. JIEDDO OCO and organization mission dollars funded.

Signals
- **Capability Description:** Provides in depth analysis of signals structures both CONUS and as reach back from fielded elements to identify key features for exploitation and identification in support of techniques development and SIGINT operations
- **Service Proponent/Lead COE (Lead Office):** Army RDECOM CERDEC I2WD / OGA
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** OCO Funded. Continued collaboration with OGAs for tool and techniques development

Signals Intelligence (SIGINT)
- **Capability Description:** SIGINT is intelligence derived from communications, electronic, and foreign instrumentation signals (JP 2-0). SIGINT provides unique intelligence information, complements intelligence derived from other sources, and is often used for cueing other sensors to potential targets of interest. For example, SIGINT that identifies activity of interest may be used to cue GEOINT to confirm that activity. Conversely, changes detected by GEOINT can cue SIGINT collection against new targets. The

discipline is subdivided into three subcategories:. Communications Intelligence (COMINT). Electronic Intelligence (ELINT). Foreign instrumentation signals intelligence (FISINT).

- SIGINT provides intelligence on threat capabilities, disposition, composition, and intentions. In addition, SIGINT provides targeting information for the delivery of lethal and nonlethal fires. Tactical Army SIGINT elements rely heavily on the National Security Agency (NSA) for many integrated functions and, conversely, NSA relies on tactical resources for intelligence. These functions and interfaces include NSA network connectivity to perform analytic and data exchanges, as well as connect with databases. NSA supports Army SIGINT collectors and analysts with specific SIGINT equipment and tools.
- *Electronic Warfare* refers to any military action involving the use of electromagnetic or directed energy to control the electromagnetic spectrum or to attack the adversary (JP 3-13.1). SIGINT is often confused or misrepresented as EW or a subdivision of EW known as electronic warfare support (ES). ES is achieved by assets tasked or controlled by ground force commanders. These assets search for, intercept, identify, and locate or localize sources of intentional or unintentional radiated electromagnetic energy. The purpose of ES tasking is immediate threat recognition, planning, preparation, execution and assessment of future operations, and other tactical actions such as threat avoidance, targeting, and homing. (See JP 3-13.1.) ES is intended to respond to immediate commanders' requirements. However, the same assets and resources that are tasked with ES can simultaneously collect intelligence that meets other collection requirements. That is not to say that data collected for intelligence cannot meet immediate requirements. Intelligence collected for ES purposes is normally also processed by the appropriate parts of the intelligence community for further exploitation after the commander's ES requirements are met. (See JP 3-13.1.) SIGINT can support and be supported by the components of EW. This means preserving the electromagnetic spectrum for friendly use while denying its use to the adversary. For example, ES data can be used to produce SIGINT; this provides intelligence information for electronic or lethal attack or targeting.
- **Service Proponent/Lead COE (Lead Office):** US Army Intelligence Center of Excellence (USAICoE)
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Intelligence discipline

Signatures
- **Capability Description:** Provide analysis of Radio Frequency emissions of IED trigger devices includes spectrograms and detected signal levels to the noise floor with chamber capabilities from 30MHz – 18GHz, and automated data collection processes for standardized data capture.
- **Service Proponent/Lead COE (Lead Office**):DIA
- **UE Core Activities Supported:** UE Core Activities (detect, collect, analyze, and disseminate) supported by the capability
- **Status:** Expanding test capabilities through custom sensor development to extend signatures capture below the noise floor.

Soft Target Exploitation and Fusion
- **Capability Description:** Provide a means to enable tracking & exploitation of "high value" individual(s) and facilitate determination of their social network relationships by automatically determining links and relationships between high-value individuals (HVI's) within forensic and near-real time (NRT) all-source data.
- **Service Proponent/Lead COE (Lead Office):** Army / RDECOM CERDEC)
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** In Development, TRL 5. Plan to transition to PM DCGS-A . HQDA funded.

Technical Intelligence (TECHINT)
- **Capability Description:** TECHINT is derived from the collection, processing, analysis, and exploitation of data and information pertaining to foreign equipment and material for the purposes of preventing technological surprise, assessing foreign scientific and technical capabilities, and developing countermeasures designed to neutralize any adversary's technological advantages (JP 2-0). TECHINT ensures that Soldiers understand the full technological capabilities of the threat. With this understanding, U.S. forces can adopt appropriate countermeasures, operations, and tactics. TECHINT has three goals: Ensure U.S. armed forces maintain technological advantage against any threat. Provide timely, relevant, accurate, predictive, and tailored TECHINT support to the Soldier throughout the spectrum of conflict, including using captured enemy material (CEM) to provide U.S. forces intelligence, information, and training on foreign weapons systems. Analyze certain design traits of foreign weapons systems to develop, confirm, or deny indicators of threat intent.
- TECHINT includes the subset of weapons technical intelligence (WTI), which is intelligence derived from the forensic and technical collection and exploitation of improvised explosive devices (IEDs), associated components, improvised weapons, and other weapons system. WTI has four goals: Forensically examine events and/or devices or weapons to better understand linkages between technical design and tactical use to guide efforts of the protection warfighting function. Enable targeting by identifying, selecting, prioritizing, and tracking individuals and matching them with groups, weapons material, financiers, suppliers, insurgent leaders, and other related elements. Provide limited forensic analysis of IEDs, improvised weapons, and weapon components to identify the origin of material and components. Use information from CEM collected during site exploitation to further detain, and potentially support prosecution of, individuals for criminal activity.
- **Service Proponent/Lead COE (Lead Office):** US Army Intelligence Center of Excellence (USAICoE)
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Intelligence discipline

Techniques Working Group
- **Capability Description:** Based on priorities established by the Threat Working Group for Radio Controlled IEDs (RCIEDs), develop waveforms and programming techniques to counter IEDs in theatre and worldwide. Pass the waveforms and techniques to Material Developers who will program Jamming Systems to protect US and Coalition forces. Do this in a Working Group environment lead by the Navy, PMS 408.
- **Service Proponent/Lead COE (Lead Office):** The Army, PM CREW and the Navy, PMS 408 are jointly responsible for keeping the Jammer Systems that they have

developed and fielded, current with the proper waveforms (Load-sets) to protect US and Coalition Forces in theatre and worldwide.
- **UE Core Activities Supported:** UE Core Activities (process, analyze, and disseminate) Threat characterization and exploitation, development of specific Jammer programming profiles, passing of information to Load-set developers and testing of waveforms in the Lab and at field test ranges.
- **Status:** The Techniques Working Group currently works via Navy funding and meets periodically (6 months) to consolidate the develop techniques and to share exploitation efforts for current and future Systems.

Threat Working Group
- **Capability Description:** Determine and prioritize IED Threats in theatre and worldwide, indicating method of emplacements and technical characteristics for use by the CIED Community
- **Service Proponent/Lead COE (Lead Office):** JIEDDO is responsible for providing threat priority and method of emplacement to the CIED Community. I2WD & NGIC has been tasked by JIEDDO to Co-chair the Threat Working Group
- **UE Core Activities Supported:** UE Core Activities **:** (process, analyze, and disseminate) Threat identification, description/characteristics, priority, method of emplacement and test, jammer programming priority and input to other Counter IED Working Groups; includes dissemination at regular (every 4 months) Meetings of the CIED Community (Services, SOCOM, Development & Test Organizations, Test Ranges and Labs, State Department and Coalition Partners.
- **Status:** The Threat Working Group has been operating for six years, distributing threat information. I2WD and NGIC are currently waiting funding from JIEDDO to continue to manage this Group.

US Army Criminal Investigation Command (USACIDC)
- **Capability Description:** : Investigates serious crime; conducts sensitive/serious investigations; collect, analyzes, and disseminates criminal intelligence; conduct protective service operations; provide forensic laboratory services; maintains Army criminal records
- **Service Proponent/Lead COE (Lead Office):** Army Criminal Investigations
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** POM funded via MDEP XCID

US Army Criminal Investigation Expeditionary Forensics Division (EFD) (from OPMG)
- **Capability Description:** The USACIL Expeditionary Forensic Division conducts global Expeditionary Forensics, providing Forensic Expertise, necessary Infrastructure, and Reach Back capacity, to the Combatant Commands enabling Actionable Information for Targeting, Rule of Law Prosecution, Force Protection and Medical purposes across the range of military operations.
- **Service Proponent/Lead COE (Lead Office):** Per DoDD 5205.15E, Secretary of the Army is designated the DoD EA for Forensics; OPMG is designated the Responsible Official per Secretary of the Army dated 12 AUG 11; and USACIL is pending designation as the Forensic Science CoE.
- **UE Core Activities Supported:** Process, Analyze, Store, and Share/Disseminate in support of levels 2/3 (as defined by WTI Handbook).
- **Status:** FY 11 approved Concept Plan and TDA; currently OCO funded. USACIL submits base funding requirements through USACIDC.

US Army Criminal Investigation Expeditionary Forensics Lab (EFL)
- **Capability Description:** Modular, adaptive, and technologically sophisticated deployable forensic capability that enhances the exploitation of Captured Enemy Material (CEM). EFLs align critical scientific, technical, and managerial capabilities to increase forensic analytical process efficiency to enhance informed decision-making.
- **Service Proponent/Lead COE (Lead Office):** Per DoDD 5205.15E, Secretary of the Army is designated the DoD EA for Forensics; OPMG is designated the Responsible Official per Secretary of the Army dated 12 AUG 11; and USACIL is pending designation as the Forensic Science COE (FSCOE).
- **UE Core Activities Supported:** Collect, process, analyze, and share/disseminate in support of COCOMs at level 1/2 (as defined in the WTI Handbook).
- **Status:** FY 11 approved Concept Plan and TDA; currently OCO funded. USACIL submits base funding requirements through USACIDC.

US Army Criminal Investigation Lab (USACIL)
- **Capability Description:** Provides full-service forensic support (Traditional, Expeditionary and Reach-Back) to Army and DoD entities worldwide; provides specialized forensics training and research capabilities; serves as the Executive Agent for DoD Convicted Offender DNA Databasing Program; technically manages the USACIDC Criminalistics and Visual Information Programs; and provides forensic services to other federal departments and agencies, when appropriate.
- **Service Proponent/Lead COE (Lead Office):** Per DoDD 5205.15E, The Secretary of the Army is designated the DoD Executive Agent for Forensics; OPMG is designated the Responsible Official per Secretary of the Army dated 12 AUG 11; and USACIL is pending designation as the Forensic Science COE (FSCOE).
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** POM funded via MDEP XCID

US Army Document and Media Exploitation (DOMEX) Program
- **Capability Description:** The Army Document and Media Exploitation (DOMEX) Program provides development and application of Programs of Instruction (POI) standardizing DOMEX best practices, methodology, and procedures as well as the creation of reference material and scenario based training aids. The Army DOMEX program provides initial and sustainment training of Site, Document, Media, and Cell Phone Exploitation and DOMEX reporting and dissemination to the majority of deploying Brigade Combat Teams, Multi-Function Teams (MFT), and DOMEX related Requests for Forces (RFF) personnel. The Army DOMEX Program also provides technical expertise and support to DOMEX operations from both forward and Reachback locations. Additionally, Harmony and FIRES facilitate processing, storage, analysis, and dissemination of captured documents and media. Harmony provides a centralized DOMEX repository for Combatant Commanders and Analysts throughout the Department of Defense and Intelligence Community (IC), as well as Key Partner Nations, with access to raw foreign documents, media exploitation materials, and translations. Harmony supports tactical operations, intelligence reports, and foreign military, scientific, and technical studies. Harmony is the IC's only open-access DOMEX dissemination tool. The Harmony Program also develops and maintains a suite of deployable tool sets that enable US Forces and NATO allies to answer immediate war-fighter PIRs and share highly perishable DOMEX intelligence with worldwide strategic analysts in a timely manner. FIRES is the sole DoD repository of blueprints, drawings, sketches and related construction documentation for facilities, infrastructures and

supporting engineering systems of operational interest to the US Government, its Armed Forces, and Allies.

- **Service Proponent/Lead COE (Lead Office):** Media Exploitation Division, National Ground Intelligence Center, INSCOM (PM-PME-ME).
- **UE Core Activities Supported:** UE Core Activities: Collect, Process, Analyze, and Disseminate.
- **Status:** The Department of Defense (DoD) Directive 3300.03 DoD DOMEX, 11 Jan 2011, provides authority to the Army DOMEX Program and states that each military service shall -
  10. SECRETARIES OF THE MILITARY DEPARTMENTS. The Secretaries of the Military Departments, in addition to the responsibilities in section 9 of this reference, shall:
  a. Provide a representative to the DDC for each Military Service.
  b. Establish and maintain DOMEX capabilities in support of national intelligence needs and military operations.
- c. Develop and maintain Service-unique standardized DOMEX training curricula focused on the skills required by combat unit site exploitation teams, military intelligence analysts, and unit staffs. The Army DOMEX Program is directed by DA/G2 and intelligence and Security Command (INSCOM) to fill training, knowledge, and operational support gaps initially identified through DOMEX support requests made by CJTF-7, C2 in March 2004 and later in JROCM 113-09 and JROCM 096-10. The Army DOMEX Program mission is to ensure standardization of DOMEX, provide operational support, provide operational training and as an interim effort, skills acquisition training, to deploying forces. Request for Forces (RFF) 440, RFF 645, RFF 1015, and Decision Point (DP) 115, provide authority and specific tasks to the Army DOMEX Program. Army DOMEX Program funding is MIP-OCO. Harmony is a Director of National Intelligence (DNI) National Intelligence Program (NIP) funded program providing support to IC analysts and deployed coalition forces since 1998. The 1994 DODIIS Migration Board selected Harmony as the DoD DOMEX repository, a 2002 DCI memo identified Harmony as IC DOMEX repository, and in 2010 Army G2 issued a Directive to transition Harmony DOMEX data dissemination capability to DCGS-A. Harmony dissemination support for the IC is currently migrating technology to ultimately provide daily data updates to the Army's Distributed Common Ground System (DCGS-A) Cloud and DIA's High Compute Environment (FY13), and integration of dissemination tools with NMEC's National Exploitation System (NEXSYS). Harmony will continue to maintain a content management capability that supports worldwide DOMEX collection activities and deconflict metadata duplication and translation management. Harmony is primarily GDIP base funded, with additional OPTEMPO funding from Overseas Contingency Operations (OCO), and direct funding from DOMEX customers. FIRES was founded by the NGIC Commander in 1997 in order to best support ground forces with graphical construction data and was subsequently supported by direct Congressional funding via the Community Open Source Project Office and Customer Funding until 2001. After 9/11, FIRES gained support from the National Geospatial-Intelligence Agency. In 2010 the Army G2 issued a Directive to transition FIRES data dissemination capability to DCGS-A. FIRES funding is NIP-OCO.

US Special Operations Command (USSOCOM) Identity Operations

- **Capability Description:** USSOCOM SOF Site Exploitation PoR provides 3 levels of organic exploitation (tactical, operational, theater/strategic) capability for SOF Forces focused on the collection and processing of Biometrics, Forensics and DOMEX data

- **Service Proponent/Lead COE (Lead Office):** USSOCOM J24-I (Operational and Intelligence Lead) and USSOCOM SORDAC (Program Management Lead) are the lead offices for USSOCOM SSE PoR
- **UE Core Activities Supported:** USSOCOM Core SSE capabilities exploit Biometrics, Forensics and DOMEX in support of F3EAD. These capabilities are supported by a Web Based Architecture and Identity Management Cell that provides near real time responses 24/7/365 to globally deployed SOF.
- **Status:**
    - USSOCOM Approved Program of record as of 2006 (current SSE CPD v2 dated 30 Oct 2009)
    - USSOCOM POM funded
    - Biometrics at FOC/ Forensic Support Kit at IOC (roughly 40% for Operator Advanced/Enabler Kit and projected FOC for Exploitation Analysis Capability Kits 2nd QTR FY12.
    - Institutional training established (Joint Exploitation Training Center at Ft. Bragg NC) with TRADOC approved additional skill identifiers assigned upon graduation
    - Implementing SSE requirements into all future SOF Exercises as well as integration into CTC's
    - USSOCOM is the Operational Manager and Transition Manager for the TCM Biometrics Forensics Rapid Site Exploitation JCTD.

Warfighter Information Network Tactical (WIN-T) Increment 2
- **Capability Description:** WIN-T Increment 2 is focused on Brigade Combat Teams (BCT). This increment will provide BCT and maneuver battalion commanders and their command posts, as well as selected companies the ability to access and receive relevant, near-real time, tactically-relevant needed information, unfettered by range, terrain, or vegetation limitations, without tethering them to traditional static locations. Additionally, this increment provides the Division G6 and BCT S6 the ability to allocate communications capacity consistent with the commander's priorities, as well as controlling, monitoring, and maintaining the network. This increment does not replace the Intel or Combat Service Support specific networks but can incorporate them to provide an alternate transmission means.
- **Service Proponent/Lead COE (Lead Office):** Army/Signal Center of Excellence
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** Program of Record (POR) ACAT 1D; currently in the LRIP Phase, IOTE scheduled for 2Q FY12.

Weapons Intelligence Team (WIT), Weapons Technical Intelligence (WTI)
- **Capability Description:** WITs are specially trained teams that provide weapons-focused TECHINT support to operations and are dispatched according to the commander's intelligence collection requirements.   WITs focus on the exploitation of IEDs, improvised weapons, other weapons systems, and associated components. WITs usually accompany EOD teams given mutually supporting roles. WITs can deploy independently in accordance with the operating tempo and availability of force protection security escorts.   Although these teams operate as collection assets, they are formed to go beyond collection and into other WTI operations activities—exploitation or analysis—or provide a direct connection to experts in continental United States locations. Commanders conceptualize the effect specialized teams have on the operational variables (political, military, economic, social, information, infrastructure, physical environment, and time [PMESII-PT]) and mission variables (mission, enemy, terrain and

weather, troops and support available, time available, civil considerations [METT-TC]). Commanders do this to verify that their application is consistent with the desired end state for current operations as well as the effect that capabilities that are more intrusive might have on future operations. Commanders should regularly evaluate the use of specialized teams in the AO. WITs fully exploit a site of intelligence value by: Collecting WTI material; Performing tactical questioning; Collecting forensic materials, including latent fingerprints; Preserving and documenting DOMEX, including cell phones and Global Positioning Systems; Providing in-depth documentation of the site, including sketches and photographs; Evaluating the effects of threat weapons systems; Preparing material for evacuation.

- **Service Proponent/Lead COE (Lead Office):** US Army/USAICoE/RDD
- **UE Core Activities Supported:** UE Core Activities (detect, collect, process, analyze, and disseminate) supported by the capability
- **Status:** WIT (Weapons Intelligence Team), Weapons Technical Intelligence (WTI), TC 2-22.41, 19 Oct 10

Appendix G - Future UE Capabilities

This appendix provides the Army's future force with broad operational Unified Exploitation (UE) capabilities to use as a starting point for the Warfighting Function CBAs. This Appendix is designed to provide a baseline for follow-on concept development, analysis and experimentation. These future capabilities are <u>not all encompassing or prioritized.</u>

Table G-1

Future UE capabilities

#	Future UE Capability	DOTMLPF	Source/References
1 OPMG	The Future Force requires the capability to conduct Traditional and Expeditionary Forensics in support of JFC Operations in order to provide timely and accurate information in support of Information Collection and Rule of Law. (detect, collect, process, analyze and disseminate)	DOTMLPF	DoDD 5205.15E (26 Apr 12) designating SecArmy as DoD EA for Forensics & SecArmy Memo (12 Aug 11) designating PMG as the Responsible Official.
2 OPMG	The Future Force requires the capability to operate a full service traditional and expeditionary forensic capability that provides a global expeditionary forensics, forensic expertise, necessary Infrastructure, and reach back capacity, to the Combatant Commands enabling actionable information for targeting, rule of law prosecution, force protection and medical purposes across the range of military operations. Align critical scientific, technical, and managerial capabilities to increase forensic analytical process efficiency and improve leadership and management effectiveness. Be prepared to deploy a expeditionary capability modeled after the Army Force Generation (ARFORGEN) cycle; providing a standardized exploitation process via integration of weapons technical exploitation capabilities (explosive exploitation and electronic re-engineering) with their inherent forensic disciplines of serology, deoxyribonucleic acid (DNA), chemistry, latent prints, and firearms/ tool marks, in support of COCOMs operational priorities. (detect, collect, process, analyze and disseminate)	DOTMLPF	DoDD 5205.15E (26 Apr 12) designating SecArmy as DoD EA for Forensics & SecArmy Memo (12 Aug 11) designating PMG as the Responsible Official.

#	Future UE Capability	DOTMLPF	Source/References
3 OPMG	The Future Force requires the capability to Investigate serious crime; conducts sensitive/serious investigations; collect, analyzes, and disseminates criminal intelligence; conduct protective service operations; provide forensic laboratory services; maintains Army criminal records (detect, collect, process, analyze and disseminate)	DOTMLPF	DoDD 5205.15E (26 Apr 12) designating SecArmy as DoD EA for Forensics & SecArmy Memo (12 Aug 11) designating PMG as the Responsible Official.
4 OPMG	The Future Force requires the capability to provide a full-service forensic support (Traditional, Expeditionary and Reach-Back) to Army and DoD entities worldwide; provides specialized forensics training and research capabilities; serves as the Executive Agent for DoD Convicted Offender DNA Databasing Program; technically manages the USACIDC Criminalistics and Visual Information Programs; and provides forensic services to other federal departments and agencies, when appropriate. (detect, collect, process, analyze and disseminate)	DOTMLPF	DoDD 5205.15E (26 Apr 12) designating SecArmy as DoD EA for Forensics & SecArmy Memo (12 Aug 11) designating PMG as the Responsible Official. Additionally, memorandum to be approved designating USACIL as the DoD Forensic Science Center of Excellence
5 OPMG	The Future Force requires the capability to provide a global Expeditionary Forensics, providing Forensic Expertise, necessary Infrastructure, and Reach Back capacity, to the Combatant Commands enabling Actionable Information for Targeting, Rule of Law Prosecution, Force Protection and Medical purposes across the range of military operations. (process, analyze and disseminate)	DOTMLPF	DoDD 5205.15E (26 Apr 12) designating SecArmy as DoD EA for Forensics & SecArmy Memo (12 Aug 11) designating PMG as the Responsible Official. Additionally, memorandum to be approved designating USACIL as the DoD Forensic Science Center of Excellence & the Defense Forensics Information Sharing Enterprise (DFISE)
6 OPMG	The Future Force requires the capability to provide a modular, adaptive, and technologically sophisticated deployable forensic capability that enhances the exploitation of Captured Enemy Materiel (CEM). Align critical scientific, technical, and managerial capabilities to increase forensic analytical process efficiency to enhance informed decision making. (process, analyze and disseminate)	OTMPF	DoDD 5205.15E (26 Apr 12) designating SecArmy as DoD EA for Forensics & SecArmy Memo (12 Aug 11) designating PMG as the Responsible Official.

#	Future UE Capability	DOTMLPF	Source/References
7 AV	Army Aviation requires the capability to conduct combat damage and catastrophic aircraft shoot down assessments in a joint operational environment in order to; provide prompt and sustained force protection; deter aircraft shoot down and loss of life; preclude enemy success; provide critical threat information and counter-tactic insights for commanders, crews and combat developers; and lastly conduct the full spectrum of UE Core Activities (detect, collect, process, analyze and disseminate) both with a service centric specialized capability and as part of the Joint Combat Assessment Team (JCAT), a multi-service organization conducting aviation specific UE missions in support of deployed aviation formations. (detect, collect, process, analyze, and disseminate)	DOTMLPF	AR 95-1 and CONPLAN, 2007.
8 ICoE	The current and future force requires the capability to conduct Multi-Intelligence (SIGINT, HUMINT, GEOINT, TECHINT, WTI, DOMEX, Biometrics, and Forensics) operations in the context of a joint operational environment in order to provide commanders, at all echelons, timely and precise collection in support of situation/target development and mission over watch. Pursuit and Exploitation (P&E) provides Multifunctional Teams within the BCT, BfSB, and MIB (MF) the required capability to conduct Multi-INT operations at the lowest tactical echelon. MFTs provide close-access (on-the-objective), rapid Multi-INT collection, exploitation, analysis, and network enabled dissemination of actionable intelligence in support of formations at the tactical edge. The force, corps and below, lacks sufficient capacity and capability to collect information and intelligence to satisfy commanders' PIR. More specifically, the force must have the human and technical capability to effectively derive the shared understanding needed to fully support combined arms maneuver and wide area security operations. This includes the capabilities to collect and exploit with sufficient capacity against emerging indicators, signatures, and conditions. (detect, collect, process, analyze and disseminate)	DOTMLP	Intelligence Warfighting Function CBA, DICR, and ICD; TRADOC PAM 525-2-1

#	Future UE Capability	DOTMLPF	Source/References
9 ICoE	The Future Force requires the capability to perform unified exploitation activities in order to support the conduct of the Intelligence Warfighting Function activities within unified land operations. (detect, collect, process, analyze and disseminate)	TBD	Intelligence Warfighting Function CBA (TBD), TRADOC PAM 525-2-1.
10 ICoE	The Future Force requires the capability to provide Networked enabled Multi-INT capability with access to inherent sensor and supporting sensor NRT data providing a current, holistic, and accurate depiction of the operational environment in support of persistent area assessment, situation/target development and mission over watch across the ROMO. (detect)	DOTMLPF	Intelligence Warfighting Function CBA, DICR, and ICD; TRADOC PAM 525-2-1
11 ICoE	The Future Force requires the capability to employ advanced Multi-INT technical and non-technical collection capabilities and methods with sufficient flexibility and modularity to adapt to the complexity and fluidity of the operational environment. (collect)	DOTMLPF	Intelligence Warfighting Function CBA, DICR, and ICD; TRADOC PAM 525-2-1
12 ICoE	The Future Force requires the capability to provide organic and networked enabled capabilities (hardware, software, personnel) to rapidly process raw intelligence data into a format compatible with the established standards of the collaborative enterprise for time sensitive data sharing (cross cueing/tipping), analysis, reporting, and storage. (process)	DOTMLP	Intelligence Warfighting Function CBA, DICR, and ICD; TRADOC PAM 525-2-1
13 ICoE	The Future Force requires the capability to provide analysts access to the applications (embedded and/or networked), databases, and networks required to develop timely, accurate, fused intelligence products enabling commanders and staffs to make confident, well-informed decisions. (analyze)	DOTMLP	Intelligence Warfighting Function CBA, DICR, and ICD; TRADOC PAM 525-2-1
14 ICoE	The Future Force requires the capability to access to applications and network enterprises (Intelligence and Mission Command) at the lowest tactical echelon for rapid data sharing, collaborative analysis, and timely reporting. (disseminate)	DOTMLP	Intelligence Warfighting Function CBA, DICR, and ICD; TRADOC PAM 525-2-1

#	Future UE Capability	DOTMLPF	Source/References
15 MSCoE	The future force requires the capability to collect, secure and transport property, material, and information seized from personnel or site in an operational environment, to maintain the proper chain of custody in order to secure for future use of analytical or forensic examination that will preserve the Rule of Law during Unified Land Operations. (collect and process)	DOTMLPF	FM 3-19.13, Law Enforcement Investigations, 10 Jan 05 FM 3-39, Military Police Operations FM 3-37, Protection, 30 Sep 09 FM 3-34.210, Explosive Hazards Operations, 27 Mar 07 FM 3-90.119, Combined Arms Improvised Explosive Device Defeat Operations (inc Chg 1), 21 Sep 07 ATTP 4-32 Explosive Ordnance Disposal (EOD) Operations Disposal (EOD) Operations TRADOC Pam 525-3-0, The Army Capstone Concept, 21 Dec 09 TRADOC Pam 525-3-5, The U.S. Army Functional Concept for Protection 2016-2028, 13 Oct 10
16 MSCoE	The future force requires the capability to perform analytical and forensic examinations within the operational environment in order to expedite the findings of an investigation to the commander while supporting and preserving the Rule of Law during Unified Land Operations. (detect, collect, process, analyze, and disseminate)	DOTMLPF	FM 3-34, Engineer Operations, 4 Aug 11 FM 3-34.210, Explosive Hazards Operations, 27 Mar 07 FM 3-90.119, Combined Arms Improvised Explosive Device Defeat Operations (Incl Chg 1), 21 Sep 07 FM 3-34.210, Explosive Hazards Operations, 27 Mar 07 ATTP 4-32 Explosive Ordnance Disposal (EOD) Operations FM 3-34.170, Engineer Reconnaissance, 25 Mar 08 TRADOC Pam 525-3-0, The Army Capstone Concept, 21 Dec 09 TRADOC Pam 525-3-6, The U.S. Army Functional Concept for Maneuver 2016-2028, 13 Oct 10 TRADOC Pam 525-4-1, The U.S. Army Functional Concept for Sustainment 2016-2028
17 MSCoE	The future force requires the capability to detect, neutralize, and collect device components in all environments; in order to protect personnel, equipment, and facilities in support of the exploitation process during Unified Land Operations. (detect and collect)	DOTMLPF	FM 3-11.14, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, 31 Dec 09 FM 3-11.21, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Consequence Management Operations, Apr 08 FM 3-11.34, Multiservice Tactics, Techniques, and Procedures for Installation CBRN Defense, 6 Nov 07 FM 3-37, Protection, 30 Sep 09 FM 3-34.210, Explosive Hazards Operations, 27 Mar 07 FM 3-90.119, Combined Arms Improvised Explosive Device Defeat Operations (inc Chg 1), 21 Sep 07 ATTP 4-32 Explosive Ordnance Disposal (EOD) Operations TRADOC Pam 525-3-0, The Army Capstone Concept, 21 Dec 09 TRADOC Pam 525-3-5, The U.S. Army Functional Concept for

#	Future UE Capability	DOTMLPF	Source/References
			Protection 2016-2028, 13 Oct 10
18 MSCoE	The future force requires the capability to detect, mitigate, collect, and analyze CBRN/WMD materials in all environments in order to support the exploitation process during Unified Land Operations. (detect, collect, process, analyze, and disseminate)	DOTMLPF	FM 3-11.14, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, 31 Dec 09 FM 3-11.21, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Consequence Management Operations, Apr 08 FM 3-11.34, Multiservice Tactics, Techniques, and Procedures for Installation CBRN Defense, 6 Nov 07 FM 3-37, Protection, 30 Sep 09 FM 3-34.210, Explosive Hazards Operations, 27 Mar 07 FM 3-90.119, Combined Arms Improvised Explosive Device Defeat Operations (inc Chg 1), 21 Sep 07 ATTP 4-32 Explosive Ordnance Disposal (EOD) Operations TRADOC Pam 525-3-0, The Army Capstone Concept, 21 Dec 09 TRADOC Pam 525-3-5, The U.S. Army Functional Concept for Protection 2016-2028, 13 Oct 10
19 MSCoE	The future force requires the capability to conduct explosive ordnance disposal operations in order to detect, collect, render safe explosive hazards in all environments for analysis in support of exploitation process during Unified Land Operations. (detect, collect, process, analyze, and disseminate)	DOTMLPF	FM 3-100.38, Multi-Service Tactics, Techniques, and Procedures for Unexploded Explosive Ordnance Operations, 23 Nov 10 FM 3-34.170, Engineer Reconnaissance, 25 Mar 08 FM 3-34.210, Explosive Hazards Operations, 27 Mar 07 FM 3-90.119, Combined Arms Improvised Explosive Device Defeat Operations (inc Chg 1), 21 Sep 07 ATTP 4-32 Explosive Ordnance Disposal (EOD) Operations *ATTP 4-32.1 The EOD Company and Platoon (Under Development)* TRADOC Pam 525-3-0, The Army Capstone Concept, 21 Dec 09 TRADOC Pam 525-3-5, The U.S. Army Functional Concept for Protection 2016-2028, 13 Oct 10
20 MSCoE	The future force requires the capability to integrate non-organic technical enablers in all environments in order to support the exploitation process during Unified Land Operations. (detect, collect, process and analyze)	DOTMLPF	TRADOC Pam 525-3-0, The Army Capstone Concept, 21 Dec 09 TRADOC Pam 525-3-3, The U.S. Army Functional Concept for Mission Command 2016-2028, 13 Oct 10

#	Future UE Capability	DOTMLPF	Source/References
21 MSCoE	The future force requires the capability to interact within the human dimension of the operating environment in order to detect, collect, analyze information in support of the exploitation process during Unified Land Operations. (detect, collect, process, analyze, and disseminate)	DOTMLPF	FM 3-05.401 – Civil Affairs Tactics, Techniques, and Procedures FM 3-57 Civil Affairs Operations
22 MSCoE	The future force requires the capability to communicate in real time in all environments in order to synchronize and collaborate in a unified effort, the intelligence and criminal information collected during the onsite exploitation in support of Unified Land Operations. (process, analyze and disseminate)	DOTMLPF	TRADOC Pam 525-3-0, The Army Capstone Concept, 21 Dec 09 TRADOC Pam 525-3-1, Army Operating Concept, 19 Aug 10
23 Sust CoE	The future force requires the capability to conduct reconnaissance, detection, identification, and neutralization of explosive hazards and explosive ordnance from safe distances in order to protect personnel, materiel, facilities, and freedom of movement. (detect)	DOTMLPF	AR 75-15, Policy for Explosive Ordnance Disposal; ATTP 4-32, EOD Operations; JP 1-02 used as reference for EH and EO definitions.
24 Sust CoE	The future force requires the capability to collect captured enemy material from a site in order to affect force protection, targeting, component and materiel sourcing, and prosecution. (collect)	DOTMLPF	AR 75-15, Policy for Explosive Ordnance Disposal; ATTP 4-32, EOD Operations; TC 2-22.4, Technical Intelligence; WTI Handbook.
25 Sust CoE	The future force requires the capability to process collected physical material and contextual data on-site in order to provide a timely first tactical and technical assessment of an explosive hazard or explosive ordnance event. (process)	DOTMLPF	AR 75-15, Policy for Explosive Ordnance Disposal; ATTP 4-32, EOD Operations; TC 2-22.4, Technical Intelligence; WTI Handbook. Also, captures the intent of pushing capabilities down the tactical ladder.
26 Sust CoE	The future force requires the capability to process collected physical material and contextual data at a fixed site in order to conduct detailed analysis which results in timely enemy and friendly TTP updates (process)	DOTMLPF	ATTP 4-32, EOD Operations; WTI Handbook
27 Sust CoE	The future force requires the capability to integrate, evaluate, and analyze processed physical material and contextual data from single or multiple sources to affect force protection, targeting, sourcing, prosecution, and enhanced decision-making. (analyze)	DOTMLPF	

#	Future UE Capability	DOTMLPF	Source/References
28 SIG COE	Future Army forces require the capability to utilize an integrated network (voice, data, imagery, and video) consisting of line-of-sight and beyond-line-of-sight means that are reliable, protected, secure and defended in a cyberspace and electronic warfare environment to enable the timely flow of essential information in a unified action and in all conditions.	DOTMLPF	TRADOC Pam 525-5-600 TRADOC Pam 525-3-0 TRADOC Pam 525-7-8
29 SIG COE	Future Army forces require the capability to allocate and defend network resources in accordance with the commander's priorities to ensure network-enabled mission command in a unified action and in all conditions.	DOTMLPF	TRADOC Pam 525-5-600 TRADOC Pam 525-3-0 TRADOC Pam 525-7-8
30 SIG COE	Future Army forces require the capability to manage knowledge through the systematic process of organizing data and information to enable the timely flow of essential information in a unified action and in all conditions.	DOTMLPF	TRADOC Pam 525-5-600 TRADOC Pam 525-3-0 TRADOC Pam 525-7-8
31 SIG COE	Future Army forces require the capability to coordinate and collaborate with authenticated unified action partners to exchange relevant intelligence and operational information with assurance, to enable unity of effort while achieving unity of command during unified land operations.	DOTMLP	TRADOC Pam 525-5-600 TRADOC Pam 525-3-0 TRADOC Pam 525-7-8
32 MCOE	The future force requires the capability to conduct UE operations as a part of Attack the Network to conduct lethal and nonlethal operations against friendly, neutral and threat networks conducted continuously and simultaneously at multiple levels. (DTLP) TC 3-90.50	DOTMLPF	*ATP 3-90.50 (Under development)*
33 MCOE	Future Army maneuver forces require the capability of a versatile mix of task organized and networked combined arms organizations trained and ready to conduct decisive action in Unified Land Operations.	DOTMLP	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 1.2. The ability to develop, enhance, adapt and sustain the total force to effectively support National security.

#	Future UE Capability	DOTMLPF	Source/References
34 MCOE	Future Army divisions and corps, as Army tactical HQ, require the capability to conduct reconnaissance and security to deny the enemy freedom of action, enable freedom of maneuver, rapid transitions and to exploit success	TML	Links to JCA 2.1 - The ability to conduct activities to meet the intelligence needs of national and military decision-makers. JCA 7.1 - The ability to neutralize an imminent attack or defeat attacks on personnel (combatant/non-combatant) and physical assets.
35 MCOE	Future Army maneuver forces require lethal and nonlethal capabilities coupled with information to effectively engage targets in the physical and cyber environments at extended range to shape the fight, reduce casualties, and minimize damage.	DOTMLP	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 2.1.2 The ability to obtain required information to satisfy intelligence needs. Links to JCA 3.2 The ability to use kinetic and non-kinetic means in all environments to generate the desired lethal and/or non-lethal effects from all domains and the information environment. 3.2.2.4. - The ability to conduct non-kinetic engagements to attack and defend the interdependent network of information technology infrastructures and the data within them.
36 MCOE	Future Army BCTs require capabilities to enable effective maneuver, and to allow the reconnaissance squadron to focus on reconnaissance and security to enable freedom of maneuver, rapid transition, exploitation of success, and flexibility to the BCT.	DOTMLP	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 3.1.3. - The ability to move to a position of advantage in all environments in order to affect the behavior, capabilities, will, or perceptions of partner, competitor, or adversary leaders, military forces, and relevant populations.
37 MCOE	Future Army maneuver forces require the capability to conduct integrated air and ground wide area persistent aerial reconnaissance and reporting while conducting area surveillance and security operations to collect actionable combat information.	TML	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 2.1.4 The ability to assess the results of ISR operations and intelligence products to ensure that user requirements are being met.

#	Future UE Capability	DOTMLPF	Source/References
38 MCOE	Future Army forces require the capability to determine friend, enemy, neutral, and noncombatant combat identification to enable decisive action and protect friendly forces and civilian populations.	DOTML	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 2.1.2.5.5 - The ability to gather information on an individual based on measurable anatomical, physiological, and behavioral characteristics. 2.1.3.2. - The ability to identify, classify and verify objectives/targets enabling further analysis or action.
39 MCOE	Future Army forces require the capability to conduct reconstruction efforts in a joint environment to increase stability and security for the host nation.	OTML	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 8.2 - The ability to conduct activities to affect the perceptions, will, behavior, and capabilities of partner, competitor, or adversary leaders, military forces, and relevant populations to further U.S. national security or shared global security interests.
40 MCOE	Future forces require the capability to predict, detect, prevent, neutralize, and protect from hazards and obstacles in a joint OE to assure mobility for the joint force, and to deploy and maneuver where and when desired without interruption or delay.	DTML	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 2.1.2 – The ability to obtain required information to satisfy intelligence needs. 4.6.1. - The ability to employ engineering capabilities and activities other than combat engineering, that modify, maintain, or protect the physical environment. 4.6.2.1. - The ability to locate and neutralize the full range of enemy and friendly explosive hazards that may impede routine operations and, in particular, decrease mobility or present a threat to force protection. ,
41 MCOE	Future Army BCT reconnaissance squadrons require the ability to simultaneously conduct mounted and dismounted reconnaissance and surveillance operations with organic reconnaissance platoons to maintain the tempo of operations.	DOTMLP	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10.

#	Future UE Capability	DOTMLPF	Source/References
42 MCOE	Future Army maneuver forces require leaders and Soldiers educated and trained in joint and interagency roles and capabilities to execute decisive action in a joint and interagency environment.	DTML	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 1.2.1. - The ability to enhance the capacity to perform specific functions and tasks using institutional, operational, or self-development (to include distance learning) domains in order to improve the individual or collective performance of personnel, units, forces, and staffs.
43 MCOE	Future Army Maneuver Forces require the capability to predict, detect, collect, analyze, exploit, disrupt, and neutralize adaptive threat networks across the continuum of operations in order to support and influence friendly and neutral networks.	DOTMLP	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09. TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10.
44 MCOE	Future Army forces require the capability to detect, identify, and rapidly defeat enemy UAS with lethal and non-lethal means	DTML	TRADOC PAM 525-3-0 The Army Capstone Concept, 21 DEC 09.TRADOC PAM 525-3-6 The United States Army Functional Concept for Movement and Maneuver 2016-2028, 13 OCT 10. Links to JCA 3.2.1.3.1. – The ability to kinetically engage moving targets in the region beginning at the upper boundary of the land or water and extending upward to the lower boundary of the Earth's ionosphere (approximately 50 KMs). JCA 3.2.2.3.1. - The ability to non-kinetically engage moving targets in the region beginning at the upper boundary of the land or water and extending upward to the lower boundary of the Earth's ionosphere (approximately 50 KMs).
45 AMC (I2WD)	The current and future force requires the capability to conduct electro-mechanical exploitation, characterization, reverse engineering, and replication of IED components in support of electronic warfare reprogramming, as well as SIGINT systems and countermeasures research and development. Threat device replication for use by strategic level organizations will facilitate configuration management for the research, development, and test community.	DOTMLPF	Joint Publication 3-15.1 Counter-Improvised Explosive Device Operations 09 January 2012 (pg A-5), Weapons Intelligence Handbook 2009 Edition V1.0, Joint DOTMLPF-P Change Recommendation for Weapons Technical Intelligence (DRAFT)

Table G-2

Future UE capabilities by echelon

Echelon/Capability #	1 OPMG	2 OPMG	3 OPMg	4 OPMG	5 OPMG	6 OPMG	7 AvCoE	8 ICoE	9 ICoE	10 ICoE	11 ICoE	12 ICoE	13 ICoE	14 ICoE	15 MSCoE	16 MSCoE	17 MSCoE	18 MSCoE	19 MSCoE	20 MSCoE	21 MSCoE	22 MSCoE	23 SCoE	24 SCoE	25 SCoE	26 SCoE	27 SCoE
Joint, combatant command	x	x	x	x	x	x	AV	x	TBD	x	x	x	x	x	x	x	x	x	x	x		x					x
ASCC, theater	x	x	x	x	x	x	AV	x	TBD	x	x	x	x	x	x	x	x	x	x	x		x					x
Corps	x	x	x	x	x	x	AV	x	TBD	x	x	x	x	x	x	x	x	x	x	x		x					x
Division	x	x	x	x	x	x	AV	x	TBD	x	x	x	x	x	x	x	x	x	x	x		x					x
Brigade, BCT	x	x	x	x	x	x	AV	x	TBD	x	x	x	x	x	x	x	x	x	x	x	x	x				x	x
Battalion	x	x	x					x	TBD	x	x	x	x	x	x	x	x	x	x	x	x	x				x	x
Company	x	x	x					x	TBD	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x

Echelon/Capability #	28 SIGCoE	29 SIGCoE	30 SIGCoE	31 SIGCoE	32 MCoE	33 MCoE	34 MCoE	35 MCoE	36 MCoE	37 MCoE	38 MCoE	39 MCoE	40 MCoE	41 MCoE	42 MCoE	43 MCoE	44 MCoE	45 AMC
Joint, combatant command	x	x	x	x	x			x		x	x	x			x		x	x
ASCC, theater	x	x	x	x	x	x		x		x	x	x	x		x	x	x	x
Corps	x	x	x	x	x	x	x	x		x	x	x	x		x	x	x	x
Division	x	x	x	x	x	x	x	x		x	x	x	x		x	x	x	x
Brigade, BCT	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
Battalion	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	
Company	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	