CYBERCOM

SPACECOM

JOINT TASK FORCE

THEATER ARMY

JFACC

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CORPS

DIVISION

BRIGADE

SPACE

AIR

MARITIME

LAND

Long-Range Fires System

Integrated Air Defense System

CYBERSPACE

INTELLIGENCE SUPPORT TO TARGETING

Intelligence Support to Targeting in Multidomain Operations: A Doctrinal Approach from Competition to Crisis to Armed Conflict

by Chief Warrant Officer 5 (Retired) Rich Smith & Chief Warrant Officer 3 Benjamin Denham

> *The supreme art of war is to subdue the enemy without fighting.*
> —Sun Tzu

Introduction

For the last two decades, our competitors observed as we engaged in counterterrorism and irregular warfare, aided humanitarian assistance and disaster relief, and supported steady-state operations around the globe. They invested in and employed capabilities to challenge our superiority. To meet the challenge imposed by our adversaries, the Army has taken lessons from recent conflicts such as the Second Nagorno-Karabakh War and the Russian-Ukrainian conflict to shape the new war-fighting concept—multidomain operations. Multidomain operations establishes an operational framework, bridging five domains and three dimensions, to help leaders visualize the conditions that impact the conduct of operations. The complexity of the operational environment highlights the significance of intelligence support across all domains, and intelligence support to targeting in particular.

Currently, the Army faces a significant challenge with its understanding of what targeting means for both current and future operational environments, and how targeting varies in its generation of complementary and reinforcing effects at each echelon. At the tactical level, intelligence Soldiers prepare for large-scale ground combat operations by developing high-payoff target lists for collection and targeting operations that will achieve the commander's objectives. For special operations forces in Africa, targeting focuses on the human dimension, such as insurgent cell leaders and financiers or winning the hearts and minds of the local population. The joint targeting team for a combatant command develops electronic target folders to support nomination and validation of targets on the joint target list. To better understand the intelligence warfighting function's responsibilities when supporting targeting, we should take a closer look at those actions undertaken during each of the strategic contexts in which Army forces conduct operations.

FM 3-0, *Operations*, defines *multidomain operations* as "the combined arms employment of joint and Army capabilities to create and exploit relative advantages that achieve objectives, defeat enemy forces, and consolidate gains on behalf of joint force commanders."[1] This transformation in the way we think and contend with peer threats enables Army forces to employ the four tenets of operations–agility, convergence, endurance, and depth[2]–to provide the joint force commander with options for achieving objectives. While the recently published FM 3-0 remains rooted in the traditional principles of war, it also highlights significant changes that allow U.S. forces to remain decisive against our peer and near-peer adversaries.

Some of the more noticeable changes help with visualization of the complex operational environment, including its relationship to the physical, information, and human dimensions. Most importantly, FM 3-0 codifies a modern perspective and expands the scope of military operations in competition below armed conflict, crisis, and armed conflict–the Army's strategic contexts.

The Army Strategic Contexts

FM 3-0 describes c*ompetition below armed conflict* as a general state "when two or more state or non-state adversaries have incompatible interests, but neither seeks armed conflict."[3] Our adversaries view competition as a normal state of affairs across all aspects of national power. They have been mostly successful in achieving their strategic objectives below the threshold of armed conflict and in ways contrary to our national interests. Correspondingly, "Army forces are successful during competition when they deter adversary malign action, enable the attainment of other national objectives, and maintain the ability to swiftly and effectively transition to armed conflict when deterrence fails."[4]

Wisconsin Army National Guardsmen secure and prepare an M119 howitzer for sling-load operations during Northern Strike at Grayling Army Airfield, MI, Jan. 24, 2023. (Photo by Air Force MSgt Scott Thompson National Guard)

we plan for effects with artillery, air support, or close combat—warheads on foreheads. Similarly, we have introduced cyberspace actions within the physical dimension, but seldom have we considered the information and human dimensions. Targeting must now converge effects against adversaries from the land, sea, air, space, and cyberspace domains, to exploit relative advantage across the physical, informational, and human dimensions to compel the enemy to do our will. We must change how we conduct intelligence support to succeed in the new paradigm.

Each strategic relationship, competition, crisis, and armed conflict, offers a distinct perspective for the United States to engage with the adversary. The Army's current targeting process uses the decide, detect, deliver, and assess (D3A) methodology. This method can easily support each strategic context.

Targeting in Multidomain Operations

Competition. The United States is constantly competing with its global adversaries. Therefore, the Army needs to establish targeting procedures to set conditions for possible engagements. Activities in competition focus on achieving two end states: deterring adversary malign action, and when deterrence fails, setting the requirements for the effective transition to crisis or armed conflict.

Targeting to support deterrence centers on the information and human dimensions of the operational environment; nonlethal effects are the key to success. These efforts may include policy changes, key leader engagements, information operations, and even military exercises and demonstrations to influence the adversary's decision-making process. While this does not reflect targeting in the conventional sense, these activities are only achievable with targeting guiding the process. Fundamental intelligence support to targeting functions such as nominating targets, creating prioritized target lists, and synchronizing effects with the desired end states are some examples of intelligence support actions required during competition.

A *crisis* is "an emerging incident or situation involving a possible threat to the United States, its citizens, military forces, or vital interests that develops rapidly and creates a condition of such diplomatic, economic, or military importance that commitment of military forces and resources is contemplated to achieve national and/or strategic objectives."[5] "Success during a crisis, is a return to a state of competition in which the United States, its allies, and partners are in a position of increased relative advantage or–should deterrence fail–positioned to defeat the adversary during armed conflict."[6] Army forces provide that range of flexible deterrent options or flexible response options to the joint force commander.

Armed conflict encompasses the conditions of a strategic relationship in which opponents use lethal force as the primary means for achieving objectives and imposing their will on the other.[7] Lethal force impacts the physical, information, and human dimensions by reducing the enemy's capabilities and capacity while influencing their behaviors and decision making. Armed conflict is usually a combination of conventional and irregular warfare. For Army forces to be successful in armed conflict, they must create advantages, preserve combat power, and exploit opportunities as they arise.[8]

How does the Army conduct targeting within the framework of the competition continuum's strategic relationships, and what does targeting look like for the intelligence professional? Historically, the Army campaigns within the physical dimension; a target is identified, and to achieve the desired outcome,

Likewise, a simultaneous effort must also exist to set the conditions for a transition to crisis and armed conflict. The targeting process includes target development and establishment of priorities within the physical dimension. Target development is a systematic examination of potential target systems and their components, individual targets, and elements of targets to determine the type and duration of action that must be exerted to create an effect consistent with the commander's objectives.[9] The intelligence staff plays a critical role in leading or supporting functions such as target research, nomination, and target materials production. Target development results in four products: target development nominations, target folders, collection and exploitation requirements, and target briefs.[10]

All intelligence disciplines support target development by identifying targets, target signatures, and activities. Personnel from each intelligence discipline compile data and include it in target development nominations, which gets the targets registered on the appropriate target list. From this point, validation and prioritization occur for future placement on the high-payoff target list. This process of validation and prioritization prepares for timely engagement if operations transition to crisis or armed conflict. Target development is a comprehensive process that requires input from the entire intelligence enterprise. It is not something to undertake without forethought.

Crisis. The transition from competition to crisis occurs when interactions with an adversary become tense due to a perception of escalation or rapid changes in the environment that indicate imminent military action. While lethal effects are not the primary means for achieving objectives during this stage, increasing force posture may be necessary—escalate to deescalate. Intelligence collection can help identify observable actions indicating a change to crisis, specifically collection by geospatial intelligence, signals intelligence, and human intelligence reporting. These indicators may be overlooked if proper target development did not occur during competition.

Additionally, targeting efforts during crisis can vary significantly for each echelon. At the tactical level, this primarily mirrors the targeting activities undertaken during the military decision-making process. Specifically, those executed through the D3A methodology and the creation of products such as high-value and high-payoff targets, target selection standards, and attack guidance matrix. With the likelihood of hostilities being greater, completing these products facilitates a smoother transition to conflict, should the need arise.

At the operational and strategic levels, the focus is on updating, refining, and revalidating targets previously identified during competition and nominating new targets to account for adversary activity. Overall, the process stays primarily the same—use the ongoing situation and current intelligence to support target nomination and validation to ensure the friendly forces' ability to shape the environment when entering armed conflict.

During crisis, both friendly and adversary forces conduct nonlethal targeting through the information and human dimensions to sway opinions of the foreign civilian populace and government leaders. If the environment continues to shift toward armed conflict, both sides want the backing of the people. Targeting is essential for identifying the needs and wants of the foreign population, and then using that information to achieve positive results.

Armed Conflict. Intelligence support to targeting activities within armed conflict is continuous and follows the D3A methodology. For the intelligence staff, the *decide* and *detect* functions of the targeting process focus on information collection. During the military decision-making process, the staff creates and refines the information collection plan ensuring alignment with the commander's desired course of action. A portion of this process is confirming that targeting priorities have adequate coverage so the threat targets are detectable and ready for engagement. Coordination with higher echelons and subordinate elements is necessary to ensure consideration of enemy activities in the deep and close area.

Depending on the target type and engagement criteria, positive identification from multiple sources may be required prior to engagement. To satisfy this, the intelligence staff should balance mixing assets and using redundancy and cueing for collection of targeting intelligence requirements. This strategy will ensure synchronization of target detection with the target selection standards.

The intelligence staff has minimal responsibility during the *deliver* function; however, their role in the *assess* portion of D3A is vital. Having an in-depth understanding of the targets, an understanding of what constitutes achievement of the desired effects, and an understanding of the criteria for target reengagement or follow-on actions is critical to mission success. Combat assessment is the process of determining the effectiveness of force employment and consists of three components:

✦ Battle damage assessment (BDA) is the estimate of target damage or effect resulting from lethal and nonlethal engagements on targets designated by the commander.[11] The article *Fusing Data into a Battle Damage Assessment for the Commander*, by MAJ Jared Cohen and CW3 Joshua Ryker, also in this special edition, provides an in-depth look into BDA.

✦ Munitions effectiveness assessment is an assessment of the military force in terms of the weapon system and munitions effectiveness.[12]

✦ Reengagement recommendation occurs when failure to achieve BDA, or failure to achieve necessary effects as a result of BDA, results in a decision from the commander as to whether to continue as planned or to reengage the target.[13]

The information collection plan is also the means for intelligence support to BDA. Post-strike collection and analysis, led by geospatial intelligence personnel with support from signals intelligence and human intelligence, provides the intelligence and operations staff with an assessment of the effectiveness of an attack. This collection requires a level of flexibility built into the information collection synchronization matrix. The

timing of lethal effects cannot always be predicted. They occur if or when the target is identified. The result is that collection in support of BDA will likely be an ad hoc requirement, requiring "white space" in the information collection synchronization matrix to ensure adequate resources are available.

Conclusion

We must now conceptualize effects across the five domains and three dimensions, as intelligence support to targeting is vital for the Army of 2030 and beyond. Targeteers and intelligence professionals need to broaden their foundation from focusing on lethal targeting as the primary method of engagement to integrating nonlethal means across the strategic contexts. If not, then adopting a "figure it out as we go" approach will incur harsh repercussions during armed conflict. Establishing the appropriate processes and procedures during competition prepares the intelligence enterprise to successfully support engaging the enemy in armed conflict. Army leaders must seek out opportunities to incorporate rigorous targeting training into their operations and ensure its conduct is in accordance with the targeting process. The intelligence profession must critically deliberate to achieve an end state where all military intelligence professionals can support the targeting process regardless of echelon or operational domain. ✳

Epigraph

Sun Tzu, *The Art of War* (London, UK: Chartwell Books, 2011).

Endnotes

1. Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 1 October 2022), 1-2.

2. Ibid., 3-2.

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4. Ibid., 4-1.

5. Office of the Chairman of the Joint Chiefs of Staff, Joint Publication (JP) 3-0, *Joint Operations* (Washington, DC: The Joint Staff, 18 June 2022), GL-9.

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10. Department of the Army, Army Techniques Publication 3-60, *Targeting* (Washington, DC: GPO, 7 May 2015), 2-8.

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PERSPECTIVE ON ARMY TARGET INTELLIGENCE

by Chief Warrant Officer 2 Marques Nelson

Introduction

Over the last 20-plus years, the U.S. Army intelligence enterprise focused its efforts on a counterinsurgency fight to defend our Nation against terrorism and violent extremist organizations. The wars in Iraq and Afghanistan were fought against an enemy that primarily used unconventional weapons and guerrilla warfare, which shaped how the United States Army now conducts intelligence and targeting operations against non-state actors. The United States continues to face multiple challenges—those involving peer threats in great power competition and persistent threats that require continuous monitoring. To prepare for 21st century conflict, the Army will need to revise the current methods of planning and the way we conduct intelligence and targeting operations.

Making the Shift

The counterinsurgency-centric wars in the Central Command theater prompted a profound change in how the U.S. Army planned and conducted targeting and intelligence operations against our adversaries. This change put the emphasis for Army intelligence analysis mostly on supporting the dynamic targeting of non-state actors' organizations, personnel, and equipment. To meet theater and tactical objectives in this environment, a tactical echelon's target nominations were linked to centers of gravity within the social network analysis of personnel targets. Targeting intelligence primarily used organic air assets to characterize and assess enemy activity (previously known as pattern of life). This process provided positive identification of the adversary's activity and intentions so that U.S. forces could decide, detect, and deliver effective munitions to deny, degrade, and disrupt the adversary's intentions and actions. Positive identification assessments from intelligence sections provided targeting officers and joint terminal attack controllers with an initial assessment to prosecute a target and deliver effects on the battlefield.

The ability of theater and joint operations to gain and maintain air superiority proved vital to ground force operations. Additionally, U.S. ground forces maintained a significant tactical advantage with vastly superior ground systems and capabilities; however, a peer threat will contest this superiority in all domains during large-scale combat operations. Targeting operations against a peer threat will differ significantly based on the threats' ability to disrupt the battlespace and the Army's ability to "shoot, move, and communicate." To prepare for this shift, the Army can achieve its goal of being effective in the antiaccess and area denial environments and increase its intelligence support to joint targeting by—

- ✦ Acknowledging the nature of the threat outlined in the National Defense Strategy and its impact on modernizing the Army.
- ✦ Understanding how the tenets of Army multidomain operations in a joint environment affect intelligence support to targeting against enemy forces.
- ✦ Identifying where the Army can focus intelligence efforts today to improve the Army's readiness to support the joint force to fight and win tomorrow.

The European Theater and the Awoken Bear

As the Army modernizes for a peer or near-peer fight, much can be learned from the Russia-Ukraine conflict. Russia's "special military operation" turned protracted war in Ukraine presents an instable security environment in the European Theater. The conflict is having an enormous impact on the diplomatic, informational, military, and economic (DIME) facets of national power. Russia is attempting to leverage aspects of DIME to pressure NATO and other European countries to stand by without intervening. Western allies identify Russia's unprovoked aggression as an effort to regain former Soviet Union territory and demonstrate Russia's superior military power in the region. Pro-Russia supporters leverage disinformation campaigns to link the special military operation with unifying ethnic Russians and countering NATO expansion to the east.

The war was supposed to be a hasty victory for the much more formidable Russia through military overmatch and political withdrawal. Russia's lack of planning and inability to employ a systematic approach to targeting, targeting intelligence, and logistics will ultimately make this war costlier than Russia and its supporters expected. Russia's failures in Ukraine illuminate the shortfalls in their ability to project power in a sustained military conflict. Russia's miscalculation of having the superior force in the conflict has led to considerable damage to their forces and future objectives. Their show of hand will have unintended consequences in shaping regional conditions for an expansion of Russian influence. The U.S. Army must capture the lessons from this conflict in combating a conventional force short of overmatch with improvised means. Learning from these events will assist the United States and our allies and partners in posturing for future conflict against a peer or near-peer threat.

Strategic Direction

The National Defense Strategy, published by the Office of the Secretary of Defense, provides a clear roadmap and identifies critical areas of focus and development to direct the Department of Defense (DoD) in meeting current and future objectives. For many years, the DoD followed the strategic direction outlined in the 2008 National Defense Strategy, which emphasized winning the "Long War" against violent extremist

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Antiaccess and Area Denial[1]

Antiaccess (A2) and area denial (AD) are two strategic and operational approaches to preclusion.

Antiaccess is an action, activity, or capability, usually long-range, designed to prevent an enemy force from entering an operational area (JP 3-0).

Area denial is an action, activity, or capability, usually short-range, designed to limit an enemy force's freedom of action within an operational area (JP 3-0).

Some examples of approaches to **A2** include:
- ✦ Intercontinental ballistic missiles.
- ✦ Long-range bombers.
- ✦ Surveillance and reconnaissance.

Some examples of approaches to **AD** include:
- ✦ Land-based missiles.
- ✦ Long-range artillery.

organizations while preventing adversaries from acquiring and using weapons of mass destruction as the central objective of the United States.[2] This strategy also sought to further shape China and Russia as stakeholders in the international system. It looked to India to assume greater responsibility commensurate with its growing economic, military, and soft power. This emphasis continued to shape the way we fought wars in the Middle East for the next 12 years, while Russia and China put their attention on growing power and influence in other regions.

In 2022, Secretary of Defense Lloyd Austin developed a new National Defense Strategy to focus the Department's "path forward. . . from helping to protect the American people, to promoting global security, to seizing new strategic opportunities, and to realizing and defending our democratic values."[3] The Secretary identifies The People's Republic of China as the Department's pacing challenge in supporting a stable and open international system. The Department must also collaborate with NATO allies and partners against Russian aggression while not forgetting the necessity to mitigate and protect against threats from North Korea, Iran, and violent extremist organizations. In crafting the 2022 National Defense Strategy, the Department integrated its strategic reviews—the National Defense Strategy, the Nuclear Posture Review, and the Missile Defense Review—into one consolidated document to better link strategies with resources. "The Nuclear Posture Review (NPR) describes United States nuclear strategy, policy, posture, and forces in support of the National Security Strategy (NSS) and National Defense Strategy (NDS)."[4] "The 2022 Missile Defense Review (MDR) provides direction to the Department of Defense (DoD) and guidance to its interagency partners on U.S. missile defense strategy and policy in support of the National Defense Strategy (NDS)."[5] The consolidated strategy outlines deterrence objectives and establishes the framework of *integrated deterrence* for flexible deterrent options during competition, crisis, and conflict. Achieving integrated deterrence occurs by implementing actions of denial, resilience, and cost imposition to reduce our adversaries' perceptions of the benefits to adverse behaviors. The United States will employ new operational concepts that will strengthen and sustain deterrence and, if necessary, enable the force to prevail in conflict. The Secretary prioritizes a future force that is lethal, sustainable, resilient, survivable, agile, and responsive. [6]

The Army Futures Command leads the Army's priority to modernize the force, which it executes through a gamut of cross-functional teams, organizations, governance boards, and enterprise solutions. The DOTMLPF–P[7] framework for design will enable and assist in realigning manpower, systems, equipment, and personnel to support multidomain operations.

Multidomain Operations

Multidomain operations is a warfighting concept to focus U.S. Army operations on the "*use of all available combat power from each domain to accomplish missions at least cost.*"[8] Multidomain operations are how Army forces maintain a competitive edge across the competition continuum to deter adversaries while assuring our allies and partners. This concept "proposes detailed solutions to the specific problems posed by the militaries of post-industrial, information-based states like China and Russia."[9] For the Army to posture itself, it must continue to evolve as a part of the joint force. In parallel to the National Defense Strategy, multidomain operations focus on the threats that China and Russia pose from competition to conflict in an information-dominant environment. These adversaries pose a significant threat to the ability of the United States to project power and maintain military advantage in the regions where they operate.

The tenets of multidomain operations are attributes that relate to how to employ the Army's operational concept. They are—

- ✦ Agility.
- ✦ Convergence.
- ✦ Endurance.
- ✦ Depth.

The tenets are critical to the success of the Army and the joint force as they assist in gaining a relative advantage across the competition continuum. As the United States shifts its mission course from the Global War on Terrorism, a realignment of resources, personnel, and equipment will quickly follow to reassign organizations to a broader mission and operational set. The containment and eradication of terrorism and violent extremist organizations have long been the focus

of U.S. military operations and will continue to exist, but less so in a future conflict. A new force structure will enable the Army to be better organized, trained, and equipped for great power competition in large-scale combat operations and multidomain operations. The second tenet—convergence—in the context of multidomain operations and modernization is "an outcome created by the concerted employment of capabilities from multiple domains and echelons against combinations of decisive points in any domain to create effects against a system, formation, decision maker, or in a specific geographic area."[10] Convergence creates opportunities for mission accomplishment.

Improving Target Intelligence

Target intelligence is a multidisciplinary and multifaceted culmination of the operations and intelligence processes. The modernization of Army target intelligence should posture the Service to best support the joint force from competition to crisis against a peer or near-peer adversary. To modernize hastily for a future fight, the civilian sector and industry's emerging technologies must be part of the technological solution. The Army's transition to large-scale combat operations and multidomain operations will rely heavily on the ability of the Army intelligence enterprise to provide more persistent, penetrating, and reliable intelligence solutions to meet the demand for deliberate and dynamic targeting.

Target intelligence solutions should focus on assisting the theater army and geographic combatant commands in the processing and potential prosecution of hundreds, if not thousands, of targets across all domains. The pace of operations in future large-scale combat across time and space will significantly differ from counterinsurgency and any other conflict the U.S. military has faced. The Army must swiftly prevail in the contested areas of air, maritime, space, and cyberspace to meet theater and national objectives. The convergence of information, intelligence analysis, and targeting will be critical in shaping great power competition in the pursuit of Army 2030 and 2040 Force (formerly known as WayPoint 2028 and AimPoint 2035, respectively).

Artificial Intelligence, Machine Learning, and Automation

Data in the 21st century is becoming more complex, versatile, and abundant. With the ever-expanding use of social media, web-based platforms, and mass data collection by the civil,

commercial, and intelligence community, we must be able to harness it. Effective utilization of foundational and intelligence data provides relevancy for tactical and strategic commanders alike. Artificial intelligence, machine learning, and automation will streamline the understanding, visualization, and wrangling of substantial amounts of data in the next war.

The wrangling of "big data" in a persistent race to understand the operational environment is critical for every theater's indicators and warning intelligence. With a growing apparatus of intelligence, surveillance, and reconnaissance systems, managing the processing, understanding, and visualization of a collective group of systems and sensors will be impractical without a solution to the mass collection, storage, and processing of information.[11] Big data without adequate algorithms and structured data sets will become pollution, in a sense, to the common operational picture and current intelligence picture.

> " Artificial intelligence, machine learning, and automation will streamline the understanding, visualization, and wrangling of substantial amounts of data in the next war. "

Winning with People

To complement the joint force in the joint operational area, the Army must address shortfalls in grade plate, education, training, and experience in key leadership positions supporting target intelligence at the Army Service component command (ASCC) and geographic combatant command level. The current grade plate for target intelligence officers at the ASCC and echelons corps and below is in the rank of captain. Other Services assign a senior major or lieutenant colonel intelligence officer to manage target intelligence operations at this level. This slating disadvantages the Army by providing personnel with minimal key targeting experience who may lack the knowledge, depth, and skills required to manage and direct target intelligence operations at the theater and joint level.

In addition to grade plate increases, the Army must address education, training, and experience because they are critical to integrating Army target intelligence into the joint fight. In 2016 as the result of a study to identify gaps in Army targeting, the Chief of Staff of the Army, through the U.S. Army Training and Doctrine Command, assigned the Fires Center of Excellence as the proponent for targeting modernization. The Fires Center of Excellence stood up the Army Multi-Domain Targeting Center with the evolving mission of addressing Army targeting doctrine, policy, and program oversight within the Army community. The Army Multi-Domain Targeting Center provides the Army with Defense Intelligence Agency and National Geospatial-Intelligence Agency accredited targeting

courses. The Army Multi-Domain Targeting Center fills a significant gap in the education and training of Army personnel on targeting and target intelligence.

Target Development Work Center

Over the last 3 years, the U.S. Army Intelligence and Security Command (INSCOM) has developed a critical capability to support targeting and intelligence across multiple geographic combatant commands and ASCCs in the competition phase. INSCOM supports targeting and global campaign plans during competition through its established and accredited Target Development Work Center. A Target Development Work Center is an accredited space that has the systems, software, personnel, and training to conduct advanced target development. The work center's efforts include point precision mensuration, combat assessment (also known as battle damage assessment), and collateral damage estimate. This capability provides the Army with augmented target development support at the joint and Army level.

Over the last 2 years, the Target Development Work Center has supported theater operational, contingency, and global integrated planning by providing intermediate and advanced target development products to geographic combatant commands and ASCCs. The Target Development Work Center also provides support to intelligence community programs to close the gap in foundational military intelligence and make significant contributions to maintaining and updating the Modernized Integrated Database. This military intelligence worldwide database provides data for basic order of battle, equipment, and facility holdings. These contributions provide decision makers at all levels the information and intelligence to better understand friendly and adversary locations.

Conclusion

The U.S. Army will be called upon to fight and win our Nation's wars within multidomain and joint all-domain operations environments in joint operational areas. To ensure operational and strategic success, we must invest Army resources in target intelligence personnel, systems, and capabilities to compete, penetrate, disintegrate, exploit, and recompete against our adversaries when called upon to act.

This transformation must drive change within the current DOTMLPF–P process (and faster methods) to inform modernization. The Army's investment in intelligence support to targeting increases the Army and joint force's lethality and readiness to fight and win our Nation's war—from competition to crisis and conflict. ✳

Endnotes

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2. Department of Defense, 2008 *National Defense Strategy of the United States of America* (Washington, DC, June 2008), 6–8.

3. Department of Defense, 2022 *National Defense Strategy of the United States of America* (Washington, DC, October 27, 2022), iii.

4. Ibid., 1.

5. Ibid.

6. Ibid., iii, 2, 8.

7. DOTMLPF–P: doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy.

8. Department of the Army, FM 3-0, *Operations*, 1-2 (emphasis added).

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10. Department of the Army, FM 3-0, *Operations*, 3-3.

11. Department of the Army, Army Futures Command, "Data Science Basics" (PowerPoint presentation), 2-14.

CW2 Marques Nelson is an Army departmental requirements officer who manages geospatial intelligence (GEOINT) collection requirements for Army modernization, exercises, and analysis within the National Geospatial-Intelligence Agency (NGA). His previous assignments include mission manager for the Army GEOINT Battalion, National Ground Intelligence Center; GEOINT officer in charge, 10th Army Air and Missile Defense Command; J2T collection manager, Joint Intelligence Operations Center (JIOC), U.S. Indo-Pacific Command (INDOPACOM); and GEOINT senior noncommissioned officer in charge, NGA support team, INDOPACOM JIOC Southeast Asia Division.

OPERATIONALIZING THE MILITARY INTELLIGENCE BRIGADE-THEATER OPERATIONS BATTALION

by Lieutenant Colonel Christina Fanitzi, Major Michael Brady, and Major Brian Wadas

ACE

✦ Provides the USARPAC commander with adversary ground order of battle, high-payoff target list, and situation template through all-source intelligence analysis.

✦ Provides the operational and strategic picture through production and analysis.

✦ Aligns analysis via regional teams.

Pacific PED Center

✦ Provides multidomain processing, exploitation, and dissemination of national, joint, and theater assets collection in support of lethal and nonlethal targeting.

✦ Holds high-payoff target list targets in continuous custody for prosecution by the Target Development Work Center in both competition and conflict.

✦ Experiments with emerging technologies.

Target Development Work Center

✦ Provides targeting linkage from the ACE and the Pacific PED Center to the theater fires element in both competition and conflict.

✦ Develops the operations plan and competition targets in support of USARPAC commander priorities.

✦ Integrates intelligence process with targeting process, which enables continuous target development and refinement.

Introduction

A recent force structure expansion at the 500th Military Intelligence Brigade-Theater's (MIB–T's) operations battalion provided an additional 57 analysts and associated equipment to support the U.S. Army Pacific (USARPAC) theater all-source analysis and single-source collection. The expansion gave the 205th Military Intelligence Battalion (MI BN) (Operations) a unique opportunity to reassess how to execute assigned missions, restructure systems and processes, and reorganize units of operation to effectively operationalize the battalion in support of the theater army and the USARPAC commander's priorities. This included a shift in focus toward targeting by reorganizing the analysis and control element (ACE) and establishing the Pacific Processing, Exploitation, and Dissemination (PED) Center. These two battalion elements support modernization and work together to provide targetable data to the commander via the USARPAC Target Development Work Center.

Support Targeting and Seize the Initiative Faster

Delivery of the common operational picture and common intelligence picture solely to the division commander does not leverage all intelligence support available to operations, at echelon, in the large-scale combat fight. Therefore, the intelligence community must reconsider how it operationalizes intelligence to provide the strategic and operational picture to commanders so that they can understand and target the threat. This requires a look at how intelligence, at echelon, can provide multidomain operations-capable formations, deep sensing, and an accurate, timely intelligence picture to the command. In the Pacific theater, the 205th MI BN conducted this evaluation through full mission analysis and task organization. It then moved toward operationalizing its intelligence units of operation in order to develop and implement a new and efficient information flow. The goals were to support targeting, increase support to priority threat and ground order of battle analysis, and increase support to indications and warning intelligence, enabling USARPAC to "seize the initiative" faster.

The Convergence of Warfighting Systems

The convergence of warfighting systems capable of autonomously interacting across intelligence, operations, and fires functions begins with refined sensor to shooter processes during competition. The ability to discern the adversary's warnings and the enemy's intentions and capabilities, across all domains, informs the commander's decisions and realistic assessment of the operational and tactical risk. The MIB–T, specifically through its operations battalion, provides this support to the theater army commander using its single-source (PED), all-source (ACE—ground order of battle and indications and warning intelligence), and dissemination (intelligence and electronic warfare systems and the Advanced Miniaturized Data Acquisition System [AMDAS] Dissemination Vehicle) capabilities. Military intelligence (MI) units must conduct mission analysis of their organizational posture in order to task organize and shape their support to the large-scale combat fight and multidomain operations. When analyzing the organizational posture and processes for target data flow, MI units should also consider how "advances in intelligence, surveillance, and reconnaissance (ISR), bolstered by machine learning, will improve the flexibility and responsiveness of deep[-sensing] operations."[1] Changing the Army's intelligence unit's conventional structure requires a shift in our leaders' mindsets, away from a force provider mentality, in order to drive the integration of the units of operation and to drive operations that support targeting.

An Operational Approach to the Problem

Using the military decision-making process, the 205th MI BN (Operations) created an operational approach to solving this problem by delineating operational support, rather than analytical production, for each of its units of operation, in support to targeting. The demand signal from the newly formed Target Development Work Center to provide targetable data to the theater army required additional capabilities from PED single-source collection with a clear delineation and different requirements from all-source analysis. The delineation of support roles for the units of operation included efforts to assign senior leader mission roles between the G-2 staff directorate and the MI BN chain of command in order to increase efficiency and harness the full weight of intelligence support to the commander (Figure, on the next page). This approach highlighted the importance that MI command organizations, in support, can drive collection and intelligence operations for the G-2's analytical efforts and the commander's priorities by determining, synchronizing, and resourcing operational requirements.

The battalion also identified that the integration of its ACE and PED capabilities, as two newly separated entities, lacked the coordination and synchronization required to deliver an operational strategic picture to the commander to drive targeting. In addition, as expected from two newly established entities, the Pacific PED Center and the Target Development Work Center, when integrated with the ACE, lacked defined processes, roles, and responsibilities to support one another. Using the military decision-making process, as directed by the battalion commander, the battalion staff framed the problem, developed courses of action, and produced an operations order to organize and operationalize the battalion's theater-level enabling assets to support the Target Development Work Center and execute effects on targets throughout the U.S. Indo-Pacific Command (USINDOPACOM).[2]
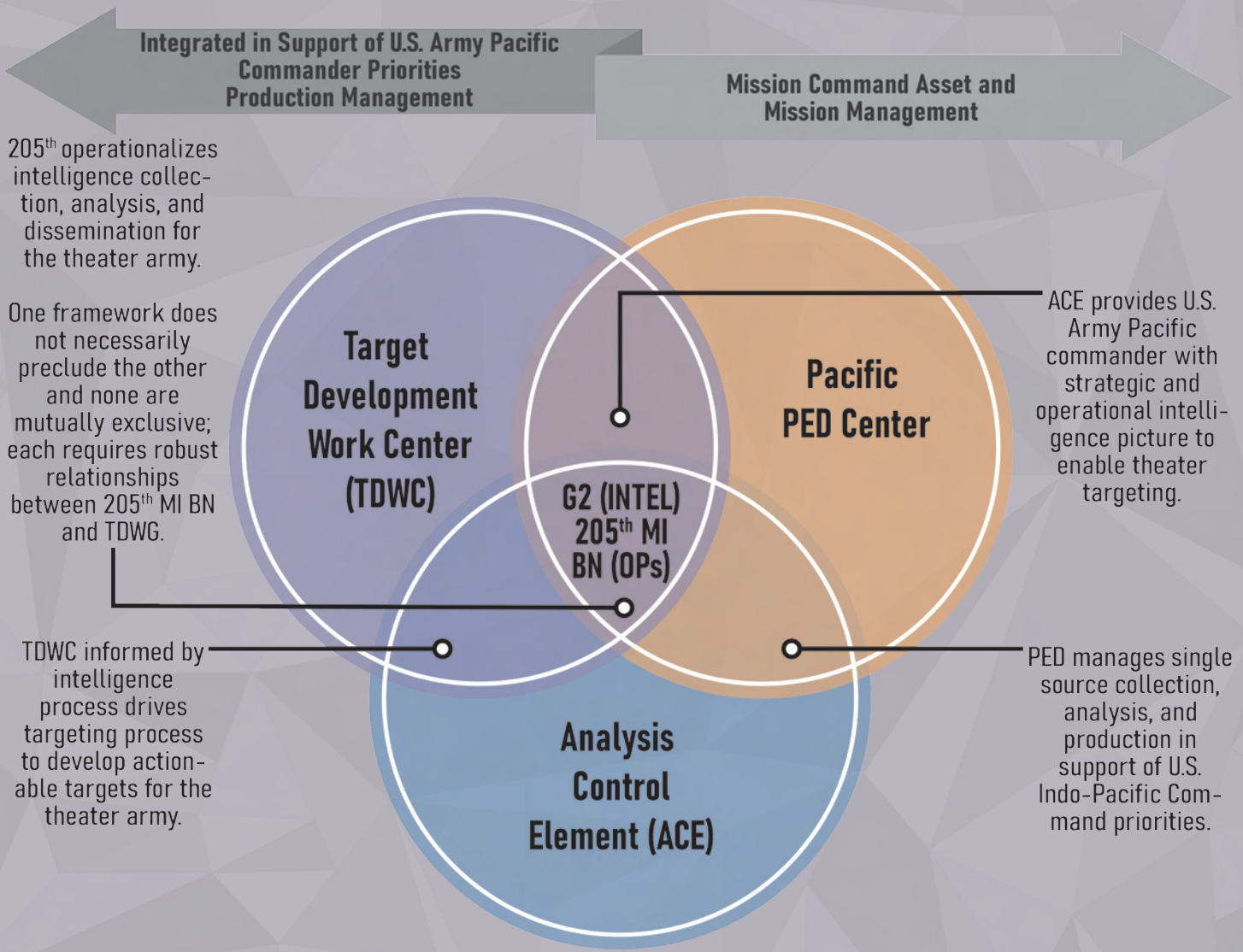
Figure. Integration of the ACE, PED Center, and TDWC

The mission analysis and modifications to the existing structure showed that MI operations battalions are uniquely equipped with the staff, expertise, and resources to analyze, frame, and solve challenging complex problems. Navigating these problem sets requires direct tasking and synchronization with the ACE, PED Center, and intelligence and electronic warfare, which the supported G-2 cannot, nor should not, provide for tasking management and overall leader development, training, and resourcing. This support is the responsibility of the operations battalion and its staff. The battalion staff is responsible for developing and maintaining the running estimates required to visualize the problem, assess operations, manage the information within each section's area of expertise, and identify risk, which helps to inherently advise the commander so that the commander may drive the required intelligence collection and analysis for their supported G-2.[3]

Improving Intelligence Support to Targeting

The 205th MI BN's approach resulted in three primary advances to improve intelligence support to targeting:

ACE Reorganization to Support Targeting through Ground Order of Battle Expansion. The 205th MI BN reorganized the ACE from a regionally aligned concept to a functionally aligned concept with clearly established ACE operations, long-term analysis, ground order of battle, ground domain awareness cell, and targeting teams in order to drive targeting and provide the commander with indications and warning intelligence against the pacing threat. The reorganization standardized processes and procedures to ensure the predictability of tasks and to keep the focus on the mission despite daily intelligence requirements. The ACE operations section provides an interface to field requests for information and allows analysts to focus on long-term analysis, ground order of battle, and targeting. The new structure placed 90 percent of its analytical efforts on the People's Republic of China and increased its ground order of battle support by about 300 percent to drive targeting. Targeting data comes from the long-term analysis team and the experiences and expertise of individuals in the ground domain awareness cell that tracks the ground order of battle. Reorganization of the ACE will increase focus, efficiencies, predictability, and the ability to effectively target centers of gravity throughout competition, a transition to crisis, and conflict.

Pacific PED Center Interoperability. In support of the USARPAC G-2, and as USARPAC builds its PED capacity, the 205th MI BN increased the functionality and synchronization of single-source intelligence. The Pacific PED Center, as USARPAC's contribution to joint targeting, endeavors to maintain critical target custody and provide support to lethal and nonlethal targeting. This requires very narrowly defined requirements prioritization, data flow, and output processes in order to provide near real time targetable data. The battalion continues its mission analysis support to external site build-out and the internal organizational structure and information flow of its single-source intelligence support.

Bodhi Common Operational Picture and Common Intelligence Picture. Bodhi is an application that the National Reconnaissance Office developed for visualization, collaboration, and presentation. It allows users to create and establish customized situational awareness and common operational picture views. Bodhi provides a presentation and storytelling capability to enable collaboration and data sharing.[4] The 205th MI BN leads working groups that focus on the Bodhi common operational picture and common intelligence picture to leverage the battalion's intelligence and electronic warfare resources. This has resulted in architecture improvements to the SECRET Internet Protocol Router Network and the Joint Worldwide Intelligence Communications System, which ensure data flow from the ACE to USINDOPACOM. The weekly Bodhi working group meetings and the creation of a shared Confluence page for the MIB–T and USARPAC enable synchronization and the team's input into Bodhi's development. To maintain proficiency, Soldiers interact daily with the Bodhi application and participate in a USINDOPACOM J-2 training course. This ensures that there are enough Bodhi-trained operators and helps to improve processes to maintain an updated common operational picture and common intelligence picture for the command.

Way Forward

The 205th MI BN reorganized its ACE and established the Pacific PED Center's initial operational capability in early January 2022. The 205th MI BN intends to share lessons learned to determine their relevance for other theaters. As the Army modernizes and prepares for large-scale combat operations, additional opportunities exist for the intelligence warfighting function to increase its presence and request additional force structure. These opportunities require further exploration and evaluation. They include—

✦ Determining the delineation of intelligence support between corps, division, and theater.

✦ Establishing clear intelligence handover lines.

✦ Determining the ability of the expeditionary-military intelligence brigade to provide both multidomain operations-capable and deep-sensing formations to corps and division commanders.

✦ Determining the ability of the MIB–T to set the theater and provide an aggressive posture of collection assets for deep sensing.

✦ Determining the ability of the Multi-Domain Task Force to serve as the theater army's multidomain operations-capable formation. ✺

Endnotes

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2. Department of the Army, Army Doctrine Publication 5-0, *The Operations Process* (Washington, DC: U.S. Government Publishing Office [GPO], 31 July 2019).

3. Department of the Army, Field Manual 6-0, *Commander and Staff Organization and Operations* (Washington, DC: U.S. GPO, 16 May 2022).

4. "GEOINT Services OpenSphere," National Geospatial-Intelligence Agency, accessed 23 May 2022, https://home.gs.mil/trainings/opensphere.

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Geospatial Intelligence Support to Targeting

by Chief Warrant Officer 4 John R. Livesey III

Introduction

The Global War on Terrorism led to a changed operational environment, forcing the Army to adapt. The lessons learned over time and differences in threat circumstances created a new targeting paradigm. This targeting process was slow, reactive in nature, and required a steady back-and-forth exchange between the various elements of the intelligence and fires sections.

Khost, Afghanistan, 2005

Forward Operating Base 12 was responsible for operations in the Khost province of Afghanistan. Intelligence reports began filtering in indicating that insurgents had begun massing across the Pakistan border for an attack on a checkpoint manned by a joint garrison of United States and Afghani forces. The garrison commander immediately prioritized the potential threat and tasked the intelligence section with confirming the reports and pinpointing locations of insurgent elements. The commander also ordered the operations and intelligence sections to develop a targeting plan with the intent of protecting the checkpoint.

Over the course of the next 2 days, geospatial intelligence (GEOINT) personnel confirmed multiple insurgent staging areas, each with a sizable number of fighters. They passed the information to the fires section for target development, who in turn generated a request for information to the GEOINT section for additional data necessary to conduct mensuration and a collateral damage estimation. The GEOINT section provided the required intelligence and target development continued.

Twenty-four hours later the target working group briefed the commander. The commander approved the operation, and the insurgent staging areas were struck with multiple volleys from 155mm howitzers. The intelligence section was then tasked with providing post-strike battle damage assessment to confirm that the commander's intent had been met. The entire process took close to a week, and the mission was declared an overwhelming success.

A process like the one in the vignette was repeated hundreds of times during counterinsurgency operations in Iraq and Afghanistan with each unit adding their own unique variations based on their command's preferences. While effective, this system is poorly suited to meet the Army's targeting needs of today in multidomain operations against a peer or near-peer threat.

The Army's Force Modernization Effort

As U.S. forces spent more time focusing on counterinsurgency operations, Army doctrine also adapted to the insurgent threat. Then, in 2017, FM 3-0, *Operations*, changed the Army's operational focus from counterinsurgency to large-scale combat operations. The Army further solidified this focus on large-scale combat operations against a peer threat with the multidomain operations strategy found in the latest version of FM 3-0 published in October 2022. Multidomain operations are the combined arms employment of joint and Army capabilities to create and exploit relative advantages that achieve objectives, defeat enemy forces, and consolidate gains on behalf of joint force commanders.[1] These operations exist along a continuum that include competition, crisis, and armed conflict. Multidomain operations provide a means to exploit opportunities presented when the threat is destroyed, dislocated, isolated, and disintegrated.[2]

The Army is currently emersed in a massive modernization effort designed to ensure the Army is appropriately investing its time and money to build a force capable of shaping the deep maneuver and fires areas with long-range precision fires and other lethal and nonlethal effects. Changes to align with the tenets of operations (agility, convergence, endurance, depth) are occurring across the Army's DOTMLPF–P[3] spectrum. Some of these changes require innovative solutions, such as changing the unit of action from the brigade combat team to the division, or new long-range precision fires equipment, such as the Army's midrange precision strike missile system; however, not all solutions to the Army's multidomain operations challenges require innovative technology or tactics, techniques, and procedures. For some, more effectively using capabilities we already have is the answer. Targeting is one process that if employed properly (and more specifically, GEOINT support to targeting) can make solving challenges presented by multidomain operations less difficult.

GEOINT, through its support to targeting, can provide a crucial component for success as a defeat mechanism in multidomain operations. However, Army GEOINT has seen little to no change in its current training methodologies that would support multidomain operations. Army GEOINT can immediately affect all four tenets of operations while addressing gaps related to long-range precision fires and Soldier lethality by incorporating joint-level targeting training into the Army's GEOINT training pipeline.

The Tenets of Multidomain Operations[4]

- ✦ **Agility** – The ability to move forces and adjust their dispositions and activities more rapidly than the enemy.
- ✦ **Convergence** – The concerted employment of capabilities from multiple domains and echelons against combination of decisive points in any domain to create effects against a system, formation, decision maker, or in a specific geographic area.
- ✦ **Endurance** – The ability to persevere over time throughout the depth of an operational environment.
- ✦ **Depth** – The extension of operations in time, space, or purpose to achieve definitive results.

As one of the seven single-source intelligence disciplines, GEOINT provides exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the Earth.[5] GEOINT directly supports the tenets of multidomain operations. When collected and analyzed in a timely manner, GEOINT gives the commander at a minimum locations of adversary personnel, equipment, and logistics pathways. This valuable information provides insight into the operational environment and supports the *agility* to strike and maneuver with a *convergence* of coordinated capabilities across multiple domains. Accurate and timely GEOINT enhances force *endurance* and *depth* by fostering the preservation of combat resources and protection of forces through its support to target development and to battle damage assessments. GEOINT contributes to the commander's overall situational understanding and understanding of the threat's strengths, weaknesses, and disposition.

The Intelligence Support to Targeting Mission

Targeting provides a key for success in multidomain operations. It creates advantages and opportunities to counter our enemies' capabilities, create depth, and protect friendly formations. Appendix B of FM 2-0, *Intelligence*, outlines tactical tasks for the intelligence warfighting function. One of those tasks is Army Tactical Task (ART) 2.4, "Provide Intelligence Support to Targeting and Information Operations." This task further divides with two targeting specific sub-tasks:

- ✦ ART 2.4.1, "Provide Intelligence Support to Targeting." In this task the intelligence warfighting function has the responsibility for target development and target detection.
- ✦ ART 2.4.3, "Provide Intelligence Support to Combat Assessment." This task requires the intelligence warfighting function to perform physical and functional damage assessments.[6]

These tasks comprise the core of intelligence support to targeting. GEOINT performs a vital function in each of these sub-tasks.

Geospatial Intelligence Support to Targeting

Unfortunately, over the last 20 years, the Army has become increasingly deficient at providing GEOINT support to the targeting process. In counterinsurgency, this type of support was often not necessary because the conflict environment was very reactive, and U.S. forces had dominance across all domains. GEOINT support to targeting primarily consisted of following targets with unmanned aircraft systems and conducting drone strikes. The Army, and joint forces, will require revitalized and refined GEOINT to support future multidomain operations. To increase the Army's chance of success in large-scale combat operations in the multidomain operational environment, GEOINT analysts will need to be fully engaged in the targeting process to counter the threat's antiaccess and area denial capabilities such as integrated air defenses, antisatellite technology, and electromagnetic warfare equipment.

No better set of personnel exists within our formation to perform target development and assessment tasks than the Army's GEOINT professionals—military occupational specialty (MOS) 35G, GEOINT Imagery Analyst, and MOS 350G, GEOINT Imagery Technician. The training these specialists receive embed skills that prepare them to fulfill many of the requirements for intelligence support to targeting and combat assessment. To prepare for future operations, Army GEOINT targeting and combat assessment training must expand to encompass joint targeting standards. An emphasis on joint targeting standards prepares Army GEOINT Soldiers to enable the joint force during armed conflict.

GEOINT analysts that have joint targeting training give commanders, at all echelons, the direct ability to identify and exploit relative advantages in real time. GEOINT analysts assigned to a military intelligence brigade-theater (MIB-T) can supply deep area targeting data to the tactical echelon while simultaneously supporting joint fires. This allows them to support deliberate targeting to shape the deep fight. It also enables GEOINT personnel at division and below to provide dynamic targeting support to the close fight. The MIB-T becomes an effective anchor point, directly influencing operations across the entire operational environment.

This level of targeting coordination is only possible when the GEOINT analysts and technicians have a common baseline of targeting training. The analysts would be using the same techniques and reporting systems that feed targeting data into both Army and joint fires systems, generating attack orders that provide mensurated coordinates, collateral damage estimates, and combat assessments in support of a commander's objectives.
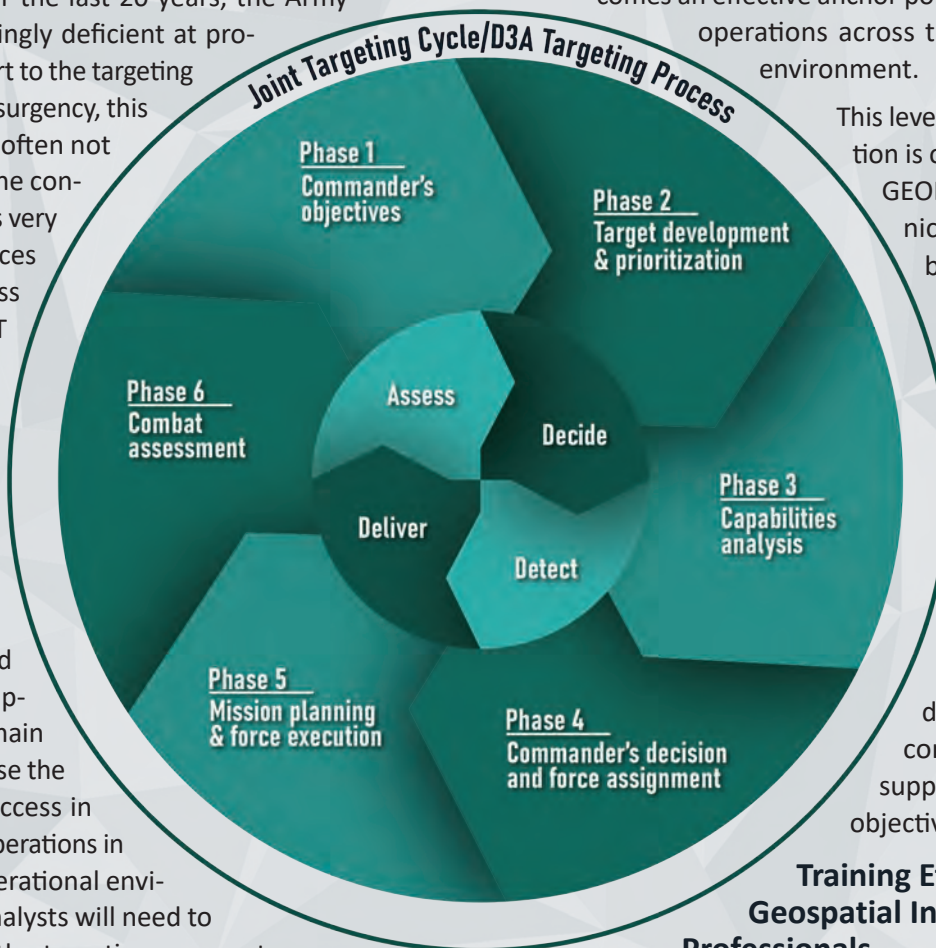
Training Effective Geospatial Intelligence Professionals

For GEOINT professionals to meet the requirements of multidomain operations, the Army should implement changes to all three of its training domains: institutional, operational, and self-development.

Institutional Training. Institutional training—from initial training and subsequent functional training to professional military education for noncommissioned officers (NCOs) and warrant officers—can prepare GEOINT professionals to perform the critical tasks that are common to both the joint targeting cycle and the Army targeting methodology of decide, detect, deliver, and assess, also known as D3A.

Entry level training: The GEOINT Imagery Analyst advanced individual training (enlisted skill level 10) course is implementing the following Army Multi-Domain Targeting Center and Joint Targeting School courses:

✦ Target Mensuration Only: Teaches and certifies analysts on multiple mensuration techniques that produce a targetable coordinate for precision-guided weapon systems in support of both dynamic and deliberate targeting.

✦ Collateral Damage Estimate: Teaches and qualifies analysts to perform imagery analysis in accordance with the body of joint standards, methods, techniques, and

processes used to conduct collateral damage analysis and produce collateral damage estimates, informing the commander about potential unintended damage and casualties resulting from a weapon strike to the areas surrounding a target.

✦ Combat Assessment: Teaches and certifies analysts to determine the overall effectiveness of force employment during military operations by performing physical and functional damage assessments, collateral damage assessments, munitions effectiveness assessments, and restrike recommendations using imagery.

These courses are taught over three weeks and will create baseline knowledge for skill level 10 imagery analysts. These Soldiers will be capable of serving across all three Army components and at all echelons supporting the employment of long-range precision fires through GEOINT support to targeting. This will significantly shorten the sensor to shooter time and increase Soldier lethality by enabling one individual to perform multiple steps in the targeting process. The training also creates a common baseline, ensuring the targeting products imagery analysts create are fully interoperable with Army and joint fires systems.

Noncommissioned officer training: The Advanced Leader's Course (enlisted skill level 30) should add the Joint Targeting School's Intermediate Target Development course, which teaches NCOs the basic skills needed to develop and database targets to the point where they can supply target significance, description, functional characterization, expectation, critical target elements, and collateral damage considerations. The course builds upon the entry-level imagery work by providing a deeper understanding of how target development and intelligence can support the targeting process while strengthening the typical NCO role of quality control.

Warrant officer professional military education: The Warrant Officer Basic Course and Warrant Officer Advanced Course should implement the Joint Targeting Staff Course from the Joint Targeting School, which teaches the integration of operations and intelligence functions through the joint targeting process to provide targeting functions in support of the commander's objectives, to include the various roles within the targeting working group. The course builds upon the base of enlisted levels of training to elevate and better align with the warrant officer's role as the subject matter expert by creating warrant officers who can immediately operate in a joint environment or leverage joint capabilities at their operational echelon.

Operational Training. Development of operational GEOINT training needs to occur across all echelons to maintain currency of skills developed in institutional training while further building skillsets to meet the specific mission requirements of the unit. Operational training should include periodic training events that require GEOINT personnel to perform all aspects of unit targeting requirements using realistic scenarios. Unit warrant officers, NCOs, and enlisted targeting personnel, working in tandem with their counterparts in the fires section, would fulfill their designated duties as defined by their unit's mission essential task list. The training should require the section to perform tasks and create products in an environment that closely emulates what they would experience during real-world targeting operations, exercising all steps in the joint targeting cycle or the D3A methodology.

The events would enable the maintenance and development of GEOINT skills, such as:

✦ Basic tactical identification.

✦ Specialized targeting skills in a realistic environment.

✦ Annual currency skill requirements for targeting personnel.

Additionally, commanders can use these events to evaluate their unit's readiness and to develop additional training that addresses any identified deficiencies.

A final consideration is the Military Intelligence Training Strategy (MITS) outlined in the TC 2-19.400 series of publications. MITS provides guidance on how to plan, prepare, and execute certification for the military intelligence personnel assigned to the brigade engineer battalion of the brigade combat team. It can, however, be adapted for training and certification at other echelons.

Self-Development. Opportunities for GEOINT personnel to conduct geospatial or imagery related self-development training are limited. Creative thinking is necessary to continue training outside of formal venues.

GEOINT professionals at all levels who support targeting can continue their self-development by attending targeting training through online programs like the Advanced Global Intelligence Learning Environment or by contacting their local Target Coordinate Mensuration program manager and requesting practical exercises from the various targeting courses. Both options facilitate maintenance of critical targeting skills between institutional and operational training events.
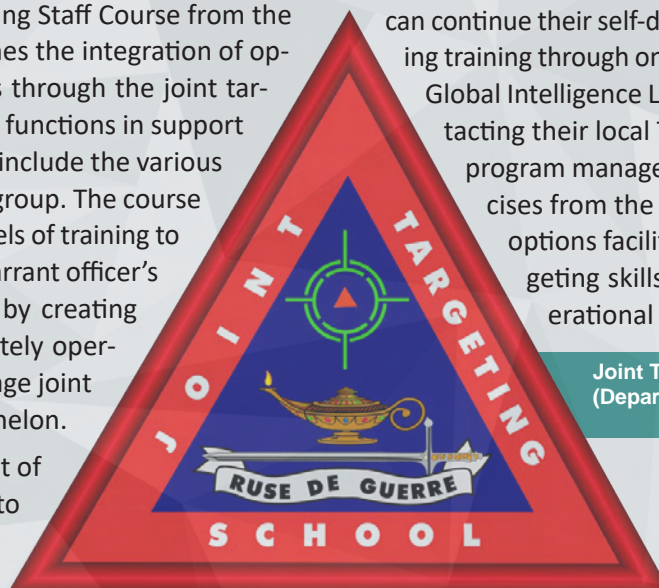
Joint Targeting School Logo.
(Department of Defense Graphic)

Conclusion

The Army will always fight as a member of a joint force. Revitalizing GEOINT training across the training domains will better facilitate intelligence support to targeting. A coordinated, reinforced approach using joint targeting training will ensure that the Army has the capabilities to fulfill the tenets of multidomain operations, to execute long-range precision fires, and to offer increased Soldier lethality. These initiatives are attainable at minimal cost because the courses already exist. The Army only needs to certify instructors and incorporate the training. ✳

Endnotes

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2. Ibid.

3. DOTMLPF–P: doctrine, organization, training, material, leadership and education, personnel, facilities, and policy.

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FUSING DATA INTO A BATTLE DAMAGE ASSESSMENT FOR THE COMMANDER

by Major Jared B. Cohen & Chief Warrant Officer 3 Joshua Ryker

Targeting Decisions Affect Wet Gap Crossing

It was a rainy Sunday morning during the corps warfighter exercise. After 72 hours of deliberate targeting against the enemy, the commanding general asked his staff during the targeting decision board (TDB) if the corps had set conditions for the divisions to conduct their wet gap crossing (WGX). The corps commander looked to the G-2 for an assessment. The G-2 targeting officer (G-2T) and fire support coordinator briefed the overall strength of the enemy and assessed the combat systems removed from the battlefield, but they did not provide an assessment of targeting's overall effects on the enemy's ability to affect the WGX. Based on the number of combat systems removed from the battlefield, the commanding general ordered the division to begin the WGX.

At 0400, the 1st Armored Brigade Combat Team (ABCT) ordered the Multi-Role Bridge Company from the Brigade Engineer Battalion to bridge two 107-meter gaps across the river to enable the division's crossing. The Multi-Role Bridge Company immediately received indirect fire from enemy 9A52s and 2S19s belonging to the 20th Integrated Fires Command (IFC), causing heavy casualties and destroying the bridging assets. Additionally, 2S6M air defense artillery (ADA) systems protecting enemy defenses near the WGX destroyed six AH-64 Apache helicopters supporting 1st ABCT. The corps deputy commanding general for maneuver, who controlled the fight from the tactical command post (CP), ordered 1st ABCT to cease crossing operations and to establish a hasty defense while the division attempted to destroy the enemy ADA and artillery affecting the WGX. The deputy commanding general for maneuver looked to the G-2 and G-3 for an update. He asked why 1st ABCT and the combat aviation brigade (CAB) received such heavy casualties from enemy artillery and ADA when the staff briefed all 9A52s and 2S6Ms supporting defenses near the WGX were destroyed.

After reevaluating the battle damage assessment (BDA) provided to the commander, the G-2 realized that several factors led to an inaccurate assessment regarding enemy composition, disposition, and capability with respect to the WGX. First, the G-2T incorrectly assessed the number of combat systems removed from the battlefield. He did not account for decoys on the battlefield, and he counted effects on the same 2S6M and 2S19 battery twice because the CAB and the infantry battalion both reported BDA on the same enemy unit. Second, when the G-2T briefed the commanding general on the number of combat systems removed from the battlefield, he did not delineate between those tasked to affect the WGX and those aligned against the other friendly divisions. Finally, nobody provided the commanding general with a description of what enemy capabilities remained on the battlefield and how the enemy could use those capabilities to interrupt the WGX. As a result, based on the way the G-2 section briefed their BDA, the commanding general believed the corps had met its targeting objectives to enable the WGX when, in reality, the enemy retained the capability to halt the division and force them into a hasty defense.

Introduction

The preceding vignette highlights the importance of accurately analyzing the damage inflicted upon enemy combat systems by friendly targeting efforts and applying that knowledge to holistically assess the enemy's remaining capability to affect friendly operations. Unfortunately, the lack of a standardized BDA process within Army doctrine hinders a unit's ability to develop an effective BDA framework. At present, units rely on individual experience, commander's guidance, and trial and error to train G-2 analysts on how to collect, refine, and assess BDA during large-scale combat operations. This article serves as a supplement to Army doctrine by describing all elements of BDA to help analysts provide commanders with more than just the number of systems removed from the battlefield. It offers recommendations on how to train and organize the G-2T section and highlights the most effective ways to conduct BDA that support both targeting and the commander's decision-making process.

What is Battle Damage Assessment?

BDA is the timely and accurate estimate of damage against a predetermined target (enemy weapon systems, personnel, or capabilities) caused by lethal or non-lethal military force.[1] BDA is more than counting the number of casualties or pieces of equipment destroyed. BDA helps answer three questions:

- ✦ Did we destroy targets on the commander's high-pay-off target list (HPTL)? This is targeting effectiveness.
- ✦ If so, does the enemy need to adjust combat power to achieve its objective? This is the enemy's counteraction.
- ✦ Do we need to reattack high-payoff targets (HPTs) to set conditions for mission success? This is reattack criteria.

BDA is broken down into three components to help assess effects on a target:[2]

- ✦ Physical Damage Assessments: What was observed or interpreted? The extent of damage to a target.

  Example: 2 of 3 x 2S19s destroyed near Objective (OBJ) X-RAY.

- ✦ Functional Damage Assessments: Can the enemy target perform its intended mission? This interim assessment must include the estimated time it will take for the enemy to replace or fix the capability.

  Example: The remaining 1 x 2S19 vicinity OBJ X-RAY maintains limited capability to effectively target friendly forces at OBJ X-RAY because the enemy cannot mass fires on the WGX. However, 20th IFC can reposition a multiple rocket launcher battalion (MRL BN) within two hours to range the WGX.

- ✦ Target System Assessments: A broad assessment of the overall impact and effectiveness engagements had against an entire target system capability.

  Example: While friendly targeting achieved the desired effects against the 2S19s affecting OBJ X-RAY, it did not destroy all the systems the 20th IFC relies upon to support and enable defenses near OBJ X-Ray (CPs, IL220 radars, 9A52s, SA-17s, and 2S6Ms).

Providing an accurate target system assessment is the most critical component to BDA because it helps the commander and staff both to understand the effects against an entire system and to determine if the enemy unit can still accomplish its task. While assessing effects against a target system is a crucial first step toward providing situational understanding, analysts must also understand why BDA is vital to the commander's targeting process. Once analysts understand how BDA supports the targeting process, they can effectively prioritize battle damage reports and use the assessments to develop a shared understanding of the enemy threat.

Why is Battle Damage Assessment Important?

Commanders utilize BDA to visualize the threat and understand whether conditions are set for units to achieve the next phase of the operation. Accurate BDA contributes to the commander's understanding of risk and assists with identifying windows of opportunity for exploitation. It is a critical component within the commander's decision-making process, and it requires the G-2 section to provide more than just the assessed number of combat systems destroyed.

BDA must contribute to the commander's understanding of the threat by providing an estimate of remaining enemy capabilities and their ability to disrupt friendly operations in conjunction with a description of how friendly targeting disrupted the enemy's course of action, intentions, and decision-making cycle.[3] When assessing the enemy's remaining critical capabilities, analysts must account for decoys, over reporting, force displacement, and enemy reconstitution or reinforcements to provide an accurate assessment and to refine deliberate targeting operations. Additionally, analysts must assess how long effects of targeting will last. For example, destruction of all 9A52s supporting the battle zone may only provide an 8-hour window before the enemy reinforces the IFC. The commander needs to understand this time constraint to either adjust the operational tempo or to maneuver forces to exploit the opportunity created through targeting.

Limited resources available to units and commanders during large-scale combat operations require detailed information and assessments to enable the best use of all available combat power. Understanding the commander's objectives and desired end state is a critical step to effective collection management, targeting, and BDA.[4] Staffs cannot effectively decide what HPTs to collect against, destroy, and assess in time and space to support the commander's objectives if they do not clearly understand the desired end state. If the G-2 and staff only report numbers and fail to provide an assessment that helps the commander to visualize the threat, the commander will not be able to effectively allocate resources or to determine whether reengagement of HPTs is necessary.

Establishing the G-2 Targeting Section

Successful units support the commander's decision-making process by effectively organizing the targeting enterprise for combat, utilizing a clearly defined BDA framework and routinely exercising these processes with the same personnel. This begins with organizing the G-2T section.

Although corps and division G-2 sections understand the significance of conducting accurate BDA, they typically do not allocate sufficient personnel, training, or systems to achieve the required level of accuracy and analysis to inform targeting and decision making. Because there is a 35F, Intelligence Analyst, personnel shortage across the Army intelligence enterprise, G-2T sections typically consists of only two to four Soldiers to perform BDA. These analysts often lack sufficient training on the targeting process, the enemy's order of battle, and the unit's approach to BDA to be successful. To build an effective targeting team, the G-2 must first identify Soldiers to serve as BDA analysts and ensure they remain in the position throughout the unit's training and deployment cycle.
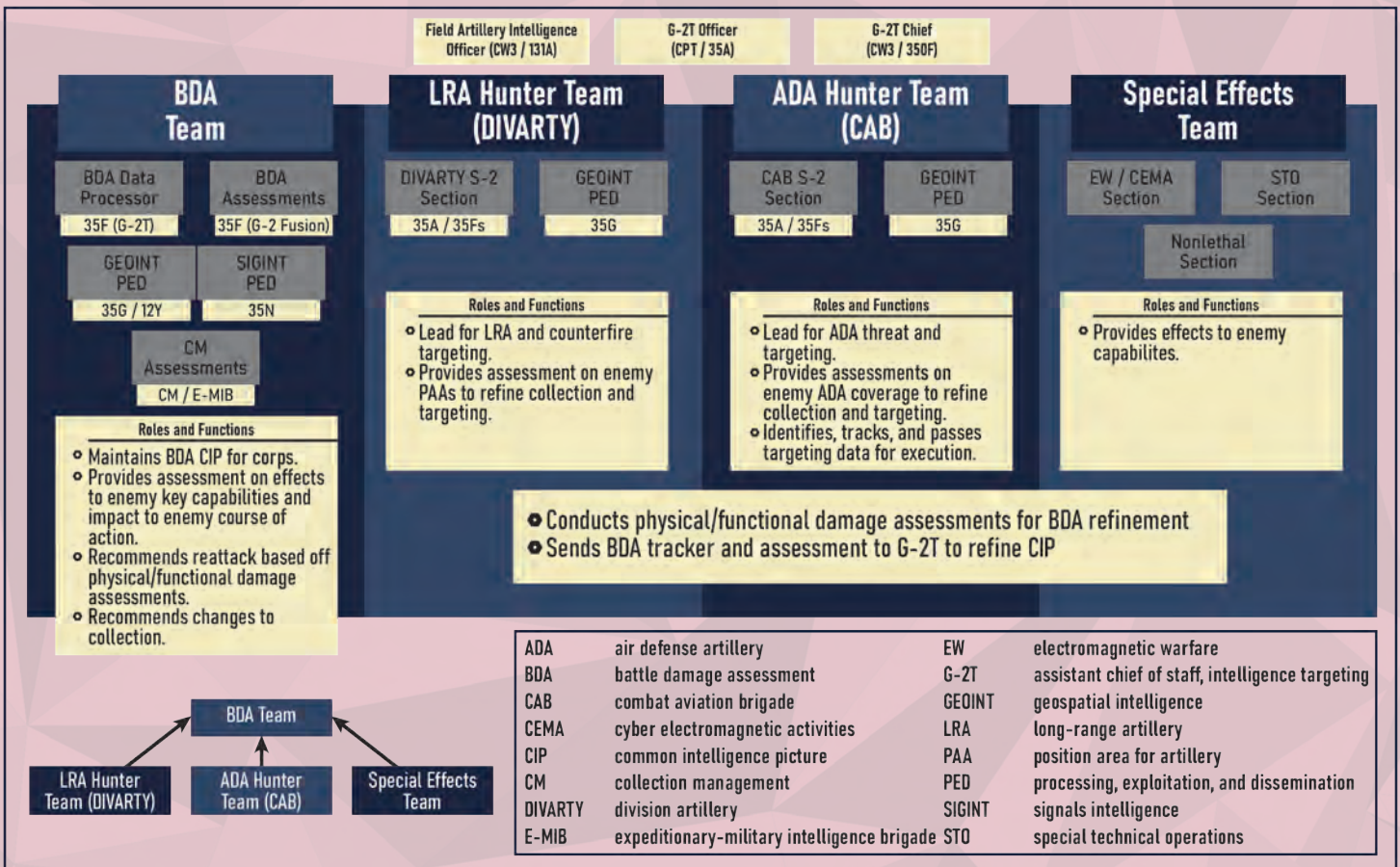
Figure 1. Establishing a G-2 Targeting Section

The targeting section concept depicted in Figure 1 is a way both to establish a G-2T section at a corps or division and to synchronize its efforts with the functional brigades. Once established, units must develop a plan to train targeting section analysts on the following:

✦ Enemy order of battle and critical capabilities.

✦ Unit methodology for reporting, tracking, and assessing BDA at echelon.

✦ Data management tools and processes.

✦ BDA's contribution to targeting and situational understanding.

While the G-2T is responsible for the overall management of the BDA common intelligence picture and targeting process, the division artillery or field artillery brigade and the CAB S-2s have responsibilities to submit BDA to higher and analyze the enemy artillery and ADA threat. Synchronizing these efforts provides greater analysis on critical enemy capabilities that threaten the unit's operations since the CAB and division artillery S-2's expertise and primary focus are on those threats. However, to ensure these units fully understand their roles and functions in support of targeting and the BDA process, the G-2 must also clearly define their roles and responsibilities in the G-2 and division tactical standard operating procedures. Once the G-2 section establishes roles and responsibilities, it must standardize BDA reporting formats and timings to streamline the process and prevent double counting or gaps in physical damage reporting to the greatest extent possible.

Battle Damage Assessment Reporting Requirements

BDA reporting is fast paced and can quickly overwhelm an analyst if procedures are not established, disseminated in orders, and adhered to by all units and enablers within the unit's area of operation. Accepting multiple BDA reporting formats increases the risk of duplicate battle damage reports, creating over reporting and inaccurate assessments. Units should implement a standardized automation process to ingest reports (C104 and C119 BDA reports) in the Distributed Common Ground System-Army and create a BDA tracker that at a minimum includes the following:

✦ Date-time group and mission number.

✦ Enemy unit, either assessed or confirmed.

✦ Military Grid Reference System coordinates. This helps with unit correlation and where effects occurred on the battlefield.

✦ Tasked detection and delivery asset. This ensures tasking of assets for BDA.

✦ The unit who reported BDA, to include a point of contact if further clarification is required.

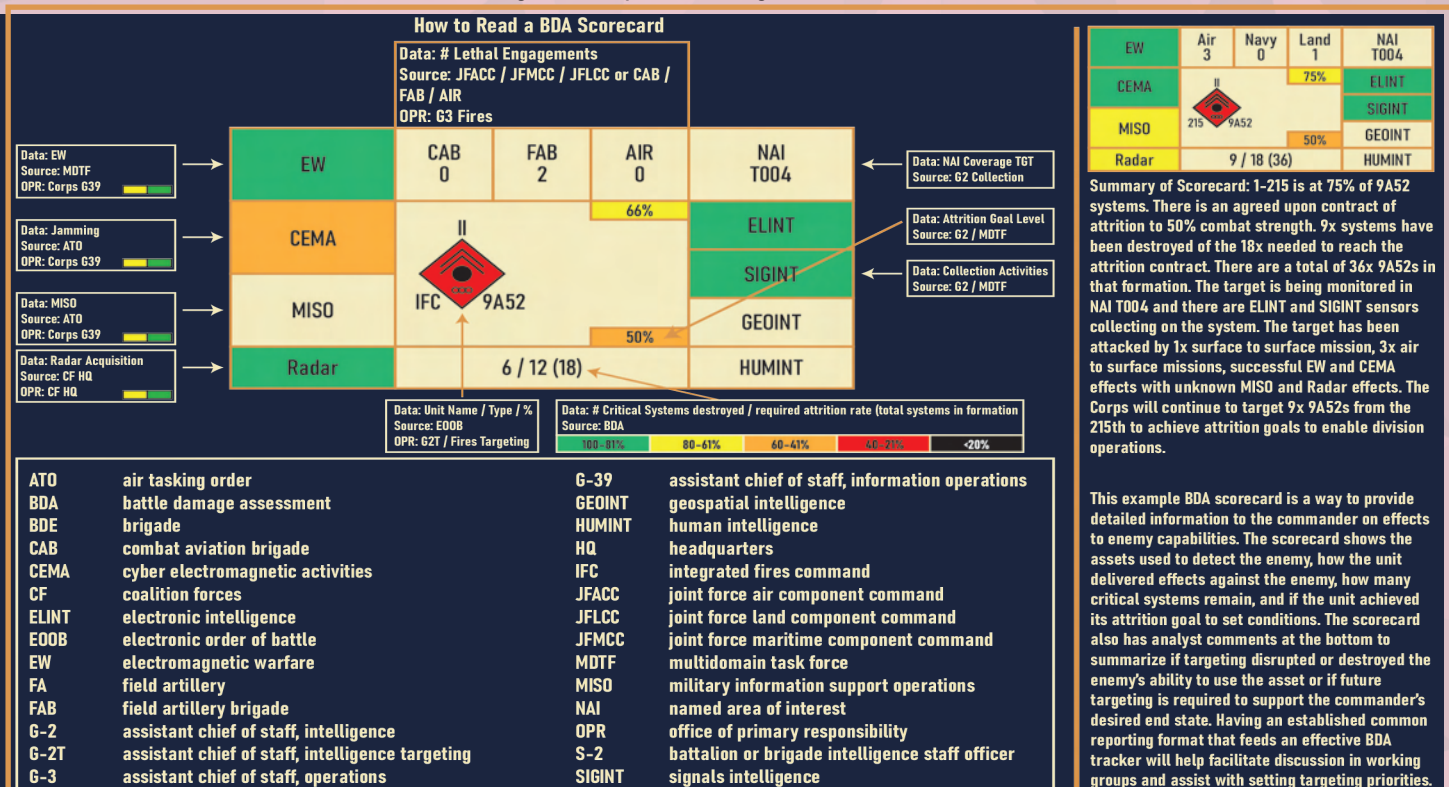- Effects against the target (physical/functional damage assessment).
  - Include measures of effectiveness to expand assessments beyond simple order of battle charts depicting physical damage.
- How the unit confirmed the initial BDA. (What collection asset observed the BDA?)
  - Green = BDA confirmed by a collection asset.
  - Yellow = BDA needs to be confirmed/reconfirmed.
  - Red = there were no effects.
- Recommended reattack criteria based on enemy attrition requirements.

While trackers, such as the one depicted in Figure 2, help consolidate data for the G-2T analysts to process, BDA charts also help analysts to describe effects achieved on enemy capabilities. For example, whether the unit destroyed an entire target system capability killing friendly formations and what critical capabilities remain. These charts help refine targeting and set conditions for current and future operations. These products should be standalone and used as briefing tools in the targeting working group (TWG). BDA charts should also provide enough detail for the commander and staff to inform their decisions. All BDA products must have a date-time group to prevent the staff from using obsolete data when developing assessments. Additionally, units must establish a PACE[5] plan to disseminate the reports promptly.

45 REC BDE

UNIT	1 REC BN	2 REC BN	3 TANK BN	4 MEI BN	6 FA BN	6 ADA BN	FIRE 8 RADAR 8/C2	ADA RADAR 8/C2
EQP	BMP, BRDM	BMP, BRDM	T90A	BMP	2S19	256M1	PRP4	PPRU
AUTH	3.1	31	30	50	18	18	9	1
OH	3.1	0	30	0	0	18	9	1
%								

105 AT BDE

UNIT	1 AT BN	2 AT BN	3 AT BN	4 AT BN		6 ADA BN		
EQP	2S25	2S25	2S25	2S25		256M1		
AUTH	24	24	24	24		12		
OH	24	24	24	24		12		
%								

364 TANK BTG

UNIT	1 TANK BN	2 TANK BN	3 TANK BN	4 MEI BN	6 FA BN	6 ADA BN	FIRE 8 RADAR 8/C2	ADA RADAR 8/C2
EQP	T90A	T90A	T90A	BMP	2S19	256M1	PRP4	PPRU
AUTH	30	30	30	50	18	18	9	1
OH	30	30	30	50	18	18	9	1
%								

12 COR NO %-BDE 3 STAND ALONE

Figure 2. Example Battle Damage Assessment Tracker

How to Read a BDA Scorecard

Data: # Lethal Engagements
Source: JFACC / JFMCC / JFLCC or CAB / FAB / AIR
OPR: G3 Fires

Data: EW
Source: MDTF
OPR: Corps G39

Data: Jamming
Source: ATO
OPR: Corps G39

Data: MISO
Source: ATO
OPR: Corps G39

Data: Radar Acquisition
Source: CF HQ
OPR: CF HQ

Data: NAI Coverage TGT
Source: G2 Collection

Data: Attrition Goal Level
Source: G2 / MDTF

Data: Collection Activities
Source: G2 / MDTF

EW	CAB 0	FAB 2	AIR 0	NAI T004
CEMA			66%	ELINT
MISO	IFC 9A52			SIGINT
			50%	GEOINT
Radar	6 / 12 (18)			HUMINT

Data: Unit Name / Type / %
Source: EOOB
OPR: G2T / Fires Targeting

Data: # Critical Systems destroyed / required attrition rate (total systems in formation
Source: BDA

100–81%	80–61%	60–41%	40–21%	<20%

EW	Air 3	Navy 0	Land 1	NAI T004
CEMA			75%	ELINT
MISO	215 9A52			SIGINT
Radar	9 / 18 (36)		50%	GEOINT
				HUMINT

Summary of Scorecard: 1–215 is at 75% of 9A52 systems. There is an agreed upon contract of attrition to 50% combat strength. 9x systems have been destroyed of the 18x needed to reach the attrition contract. There are a total of 36x 9A52s in that formation. The target is being monitored in NAI T004 and there are ELINT and SIGINT sensors collecting on the system. The target has been attacked by 1x surface to surface mission, 3x air to surface missions, successful EW and CEMA effects with unknown MISO and Radar effects. The Corps will continue to target 9x 9A52s from the 215th to achieve attrition goals to enable division operations.

This example BDA scorecard is a way to provide detailed information to the commander on effects to enemy capabilities. The scorecard shows the assets used to detect the enemy, how the unit delivered effects against the enemy, how many critical systems remain, and if the unit achieved its attrition goal to set conditions. The scorecard also has analyst comments at the bottom to summarize if targeting disrupted or destroyed the enemy's ability to use the asset or if future targeting is required to support the commander's desired end state. Having an established common reporting format that feeds an effective BDA tracker will help facilitate discussion in working groups and assist with setting targeting priorities.

ATO	air tasking order	G–39	assistant chief of staff, information operations
BDA	battle damage assessment	GEOINT	geospatial intelligence
BDE	brigade	HUMINT	human intelligence
CAB	combat aviation brigade	HQ	headquarters
CEMA	cyber electromagnetic activities	IFC	integrated fires command
CF	coalition forces	JFACC	joint force air component command
ELINT	electronic intelligence	JFLCC	joint force land component command
EOOB	electronic order of battle	JFMCC	joint force maritime component command
EW	electromagnetic warfare	MDTF	multidomain task force
FA	field artillery	MISO	military information support operations
FAB	field artillery brigade	NAI	named area of interest
G–2	assistant chief of staff, intelligence	OPR	office of primary responsibility
G–2T	assistant chief of staff, intelligence targeting	S–2	battalion or brigade intelligence staff officer
G–3	assistant chief of staff, operations	SIGINT	signals intelligence

Battle Damage Assessment Working Group

Once battle damage reports are processed, units normally do not have a working group or system to refine BDA with subordinate units and higher headquarters. Often, the G-2 discusses BDA during the G-2 Synch or TWG because there are already too many meetings and not enough time for work. While this avoids creating another forum, these meetings do not provide ample time to review BDA discrepancies, remaining BDA requirements, and future operations that require BDA collection. Successful units conduct BDA working groups that meet before the TWG and TDB to allow enablers to refine assessments of the enemy's strength, of the impacts on the enemy commander's critical capabilities (i.e., HPTs) and systems, and of the enemy commander's reaction based off achieved targeting effects. Additionally, the BDA working group enables the collection manager to synchronize collection assets before the TWG for BDA, reattack requirements, or target development based on physical and functional damage assessments. Synchronizing assets and targeting requirements will ensure the unit achieves the required air tasking order (ATO) effects. At a minimum, subordinate unit targeting officers, field artillery intelligence officers, collection enablers, collection managers, and Combined Forces Air Component Command liaison officers must attend the working group to achieve the desired inputs and outputs for the meeting. Figure 3 outlines the intent and purpose of a BDA working group, an example agenda, and inputs and outputs for the meeting. The required outputs include collection requirements and reattack recommendations that feed directly into the subsequent collection management (CM) working group and TWG.

Role of Collection in the Battle Damage Assessment Process

Planning and balancing collection requirements for targeting, BDA, and situational understanding in advance helps ensure assets are available at the required time and location for HPT detection. Additionally, it prevents the unit from dynamically retasking assets to search for HPTs instead of collecting BDA to refine situational understanding.[6] While tasking assets for BDA collection is vital to understanding the threat, it will limit available assets for target development and acquisition. The CM working group verifies coverage of collection requirements and synchronizes assets for situational understanding, target development, and BDA collection. The working group also helps the G-2 develop indicators for the collection plan prior to collection. This is crucial to timely assessments, especially if observation of the damage or effect is required. Indicators allow analysts to—

✦ Identify critical targets quickly.

✦ Task resources capable of collecting the required information.

Purpose: Review battle damage to provide accurate assessments that inform the targeting process and the commander's decision making.

Intent: Coordinate and deconflict BDA to develop a common intelligence picture (CIP) on division/corps effects to enemy cpabilities. Synchronize collection for successful HPT and BDA collection. Identify recommended enemy reattack criteria for TWG based off physical and functional damage assessments to achieve required ATO "Kill Contract" effects.

Frequency: 2x daily, prior to TWG and TDB (enable time to make changes to BDA and enemy situation).

Chair: G-2T or Fusion Chief

Lead: G-2T

Attendees:
- G-2T team (at echelon)
- Field Artillery Intellignece Officer
- CM
- E-MIB (BDA or CM Assessments section)
- Targeting enablers (EW, CEMA, Nonlethal, STO etc.)
- Fires Targeting Officer
- G-35 Representative

Inputs/Actions:
- Review BDA discrepancies at echlon to refine BDA CIP.
- Did we achieve BDA effects required for ATO "Kill Contract"?
- Was collection focus correct? (Did we find HPTs?)
- Recommended adjustments to collection for BDA support.
- Recommended reattack criteria to set conditions.

Outputs (Feeds TWG and TDB):
- BDA common intelligence picutre (CIP) at echelon on effects to enemy capabilities (physical / functional assessments).
- Recommended collection requirements to support targeting and BDA collection.
- Recommendations for reattack based off physical and functional damage assessments. (Did we achieve desired effects and conditions against the enemy?)

Agenda:

SWO: Impacts to planned collection or targeting missions.

G-2T (at echelon): Review BDA discrepancies at echelon to refine BDA CIP. (Did we achieve BDA effects?)

G-2 Target Officer: 24–48 hour enemy assessment focused on changes that impact agreed upon ATO "Kill Contract."
- What effects did we have on enemy capabilities and how will enemy react?

G-35: Changes to division/corps mission.

G-2 CM/E-MIB: Was collection focus correct? (Did we find HPTs?)
- Recommended adjustments to collection for BDA support.

G-2T (at echelon): Recommendations for reattack based off physical and functional damage assessments. (Did we achieve desired effects and conditions against the enemy?)

ATO	air tasking order
BDA	battle damage assessment
CEMA	cyber electromagnetic activities
CIP	common intelligence picture
CM	collection management
E-MIB	expeditionary-military intelligence brigade
EW	electromagnetic warfare
G-2T	assistant chief of staff, intelligence targeting
G-35	assistant chief of staff, operations and plans
HPT	high-payoff target
STO	special technical operations
SWO	staff weather officer
TDB	targeting decision board
TWG	targeting working group

Figure 3. Battle Damage Asessment Working Group

- ✦ Identify best collection times.
- ✦ Provide specific changes in activity the sensor should collect.
- ✦ Assess how the change in activity impacts the target's functional status.

Once BDA is collected, the G-2T and Fusion sections conduct analysis to determine if the unit achieved the desired effects from targeting. These results must be discussed in the BDA working group and included in the G-2T's TWG assessment to determine if reattack or adjustments to the collection plan are required.[7]

The example intelligence, surveillance, and reconnaissance plan in Figure 4 is a method of ensuring adequate coverage for all the collection focus areas. It provides an appropriate allocation of collection assets to support target development, BDA, and situational understanding, as well as a clear identification of collection gaps and risk mitigation measures prior to each TWG and TDB. The collection manager uses the TWG and CM working group to prepare the assessment and collection requirements for the commander and staff in the TDB.

Turning Battle Damage into Combat Assessments for the Commander

Outcomes from the BDA and CM working group assist the G-2T analysts with fusing battle damage reports into detailed assessments that facilitate targeting. The commander's HPTL by phase of the operation clearly delineates enemy capabilities important to the commander and informs analysts what critical enemy capabilities will significantly contribute to the friendly course of action when destroyed.[8] G-2T analysts must prioritize battle damage reports based on the HPTL and use the data to assess impacts against the enemy. Analysts must also focus on assessing the enemy's remaining critical capabilities. The G-2T must account for decoys, force displacement, and the enemy's ability to reconstitute or reinforce units in order to provide an accurate assessment and to refine deliberate targeting for current and future operations. Similar to the U.S. Army, adversaries will attempt to replace losses in combat power and capability to prevent the loss from disrupting operations.
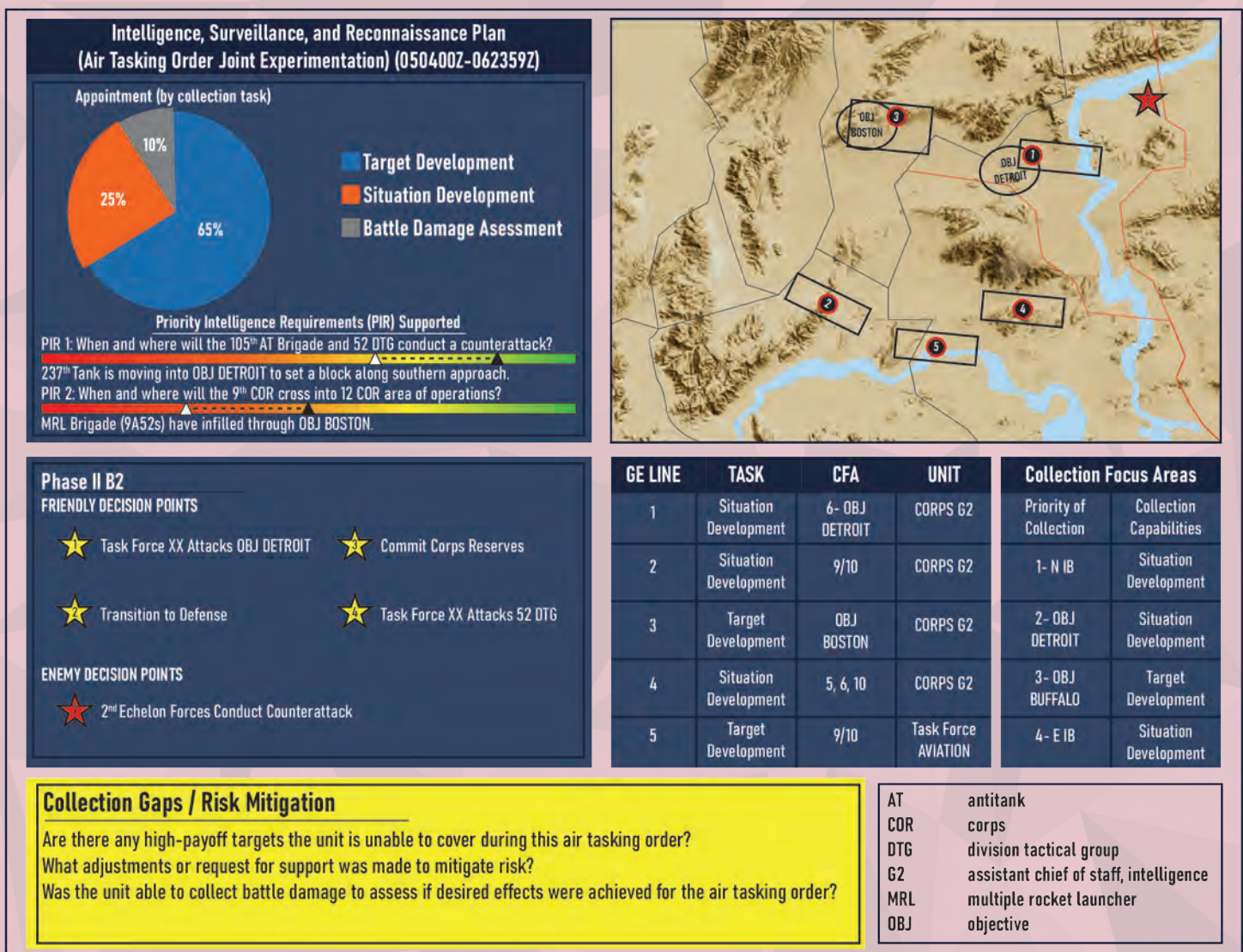

Figure 4. Example Intelligence, Surveillance, and Reconnaissance Plan

G-2T analyst should develop combat assessment products, like the one shown in Figure 5, that provide the commander with a visual depiction of the effects targeting had on the enemy and how the enemy will react to mitigate or replace the combat losses. These assessments are crucial to helping the commander determine if reengagement is necessary before moving assets for follow-on targeting efforts. These products, along with the G-2's verbal description, must include the critical components of physical damage, functional damage, and target system assessment to inform the commander and staff if the enemy can employ its capabilities to disrupt the mission.[9]

At a minimum, a 24–48-hour combat assessment must include the following details:

✦ Effects achieved on enemy capabilities (BDA, account for decoys and over reporting).

✦ Targeting impacts to the enemy's course of action and decision making.

✦ Enemy's reaction to prevent combat power loss from disrupting their course of action (account for asset displacement and ability to reconstitute or reinforce units).

✦ Recommendations for reattack based on shaping requirements and situational understanding. (What enemy capabilities need to be disrupted or destroyed for mission success?)

✦ Timeline of when we will achieve conditions against the enemy to enable the commander's decision making and mission success.

The staff uses the assessment to articulate effects against the enemy in time and space, prioritize remaining critical enemy capabilities to target in future ATOs, and adjust the operational timeline, when necessary. The vignette, below, is an example of how combat assessments inform the commander's decisions.

Figure 5. Combat Assessment Tool

Wet Gap Crossing Combat Assessment

Ma'am we have destroyed 1 x MRL BN CP, 2 x 1L219 radars, 18 x 9A52s, 6 x 2S19s, and 3 x 2S6Ms supporting defenses along the wet gap, preventing 20th IFC from massing fires and protecting HTPs near the WGX **[What]**. We have achieved conditions against the enemy 24 hours earlier than previously assessed to enable 3ID to cross the wet gap. We have approximately 6 hours until OSC-S reinforces defenses with an additional MRL BN and 2S6M company **[So What]**. Therefore, between now and 1800, 3 CAB will have air superiority to target remaining enemy defenses and the enemy will not be able to mass fires with long range artillery against 3ID **[Which Means]**. We recommend conducting the WGX in the next 4–6 hours to take advantage of disrupted enemy capabilities and to prevent the enemy from reinforcing their defenses along the WGX with obstacles, artillery, and ADA **[Recommendation]**.
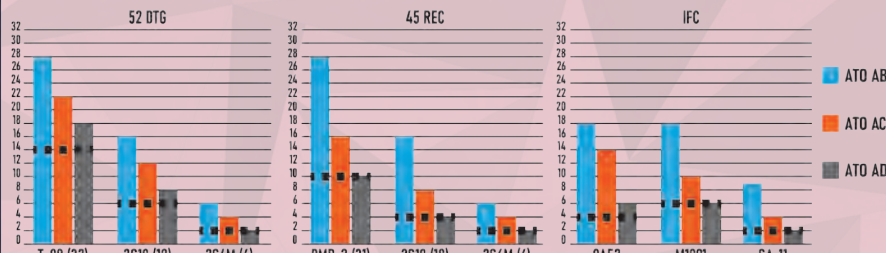
Presenting comprehensive combat assessments that include the what, so what, which means, and recommendation during the TWG and TDB highlight the effects achieved on enemy capabilities and provides a timeframe for how long it will take the enemy to replace the capability. This analysis informs the G-3 of opportunities against the enemy and recommends changes to the operational timeline to synchronize targeting and enable the commander's decisions.

Roles and Responsibilities of the Commander and Staff

The TWG and TDB synchronize all staff efforts in support of the targeting discussed in this article. The TWG supports the TDB by reviewing initial collection requirements, as required, and prioritizing targets based on the commander's guidance during the previous decision board.[10] Critical to the TWG is the integration of crucial targeting enablers at the action officer level that will assist in achieving desired targeting effects. The TWG also determines the targets that require BDA. Units should select only the most critical targets since valuable collection assets and analytic capability must be diverted to perform BDA.

Prior coordination in the BDA and CM working groups will help facilitate discussion and provide the necessary analysis for planning and allocating resources in the TWG. The G-2 section plays a critical role in providing threat assessments of the enemy, allowing other staff sections and enablers to determine how to employ capabilities in support of targeting efforts (See Figure 6, on the next page).

During the TWG, the G-2 should brief the following:[11]

✦ Enemy situation and upcoming assessed enemy decision points (combat assessment).

✦ BDA from the previous ATO and its impact on the enemy course of action.

✦ Reattack recommendations, if the unit did not achieve the desired effects.

✦ Predictive 24–72-hour assessment of the enemy most likely course of action, most dangerous course of action, and how the enemy will react.

✦ Assessed and confirmed dispositions of the HPTs within the ATO timeline.

✦ Recommended changes and updates to the HPTL.

✦ Recommended changes to priority intelligence requirements (PIR) for the commander's approval (staff reviewed).

✦ Current and proposed changes to the information collection plan.

Once the G-2 section provides its assessment, enablers and staff must provide inputs on integrating their capabilities or resources to support the targeting efforts. Staff sections and enablers need to apply critical thought and foresight to assist the planning efforts and influence the G-2's assessment. The enemy threat is constantly evolving because of operational variables. If time allows, the G-2 needs to notify the staff regarding critical enemy threat updates before the TDB, especially if it negatively affects the plan developed in the TWG. Units must avoid using the TWG as a rehearsal for the TDB. Doing so prevents enablers and staff sections from brainstorming and synchronizing effects delivered against a target, degrading targeting efforts.

The TDB is one of the few opportunities for the staff to provide the commander with an accurate assessment of the threat and how the unit plans to defeat the enemy and accomplish the mission. The TDB is not an information brief. Instead, the staff receives guidance and decisions from the commander that drive future planning, allocation of resources, and targeting operations. Staffs must use the TDB to seek clarification. Units fail when they do not seek clarification on the commander's guidance. Some commander-level decisions the staff should request are:

✦ Approval to reallocate commander's critical assets to support targeting.

✦ Changes to the HPTL and/or reprioritizing HPTs.

✦ Approval for updated commander's critical information requirements (PIRs and friendly force information requirements).

✦ Changes to the operating tempo, if required.

Commanders can be extremely helpful in acquiring additional resources from higher headquarters to achieve desired effects. During the TDB, the staff must articulate support requests for the commander to pursue during their dialogue with the higher headquarters commander. Requests for support should only occur after the staff has completed the "science" behind the request and all staff-to-staff coordination is exhausted.

A running estimate that provides an assessment in time and space is beneficial to help the commander retain the analysis provided during a lengthy TDB. The G-2 Fusion section should be responsible for developing the intelligence running estimate for the commander. While running estimates are based on a commander's preferred method to receive information, the running estimate should include:

✦ Enemy combat strength by echelon.

✦ Enemy most likely course of action and most dangerous course of action.

✦ If the enemy is on plan to achieve the course of action.

✦ Risks the enemy poses to friendly force operations.

- ✦ G-2's recommended focus against the enemy.
- ✦ Future enemy decision points by ATO.

Accurate BDA and communication between enablers and subordinate units will help ensure estimates provide necessary analysis for the commander to visualize the threat.

Conclusion

The fast and constantly evolving environment during large-scale combat operations requires well-trained analysts with systems in place to quickly capture and analyze data that refine assessments to support targeting and the commander's decision making. Similar to friendly force combat slants, BDA will never be 100 percent accurate. Nevertheless, successful units develop a BDA framework that assist with the commander's visualization of the threat to make informed decisions and synchronize operations. When units employ a comprehensive BDA process that incorporates the key ideas and recommendations discussed in this article, commanders will more effectively visualize the threat, allocate resources, and adjust friendly operations to mitigate risk and exploit opportunities. ✳

The G-2 supports the targeting process by...
- ○ Decide—"What are my targets?"
  - ○ Targeting working group products.
    - ○ High-payoff targets to target in time and space.
    - ○ Effects on enemy capabilities (battle damage assessment).
    - ○ Updates to enemy course of action and decisive points.
    - ○ Recommended reattack criteria.
- ○ Detect—"Where are my targets?"
  - ○ Collection management working group synchronizes collection to find and fix.
  - ○ High-payoff targets based on guidance from targeting working group/tactical database.
  - ○ PED analysts send targets to field artillery intelligence officer for execution.
- ○ Assess—"Did we achieve our effects"
  - ○ Battle damage assessment helps determine enemy's combat effectiveness and remaining capabilities.
  - ○ Is reengagement necessary before moving to the next objective?
  - ○ Helps G-3 manage operating tempo.
    - ○ Opportunities to exploit success.
    - ○ Delay operations based on reattack requirements.

|	
ELINT	electronic intelligence
FFAHQ	free-fire area headquarters
G-2	assistant chief of staff, intelligence
G-2T	assistant chief of staff, intelligence targeting
G-3	assistant chief of staff, operations
GMTI	ground moving target indicator
JAGIC	joint air-ground integration center
NTISR	nontraditional intelligence, surveillance, and reconnaissance
PED	processing exploitation, and dissemination
TVA	technical vulnerability assessment
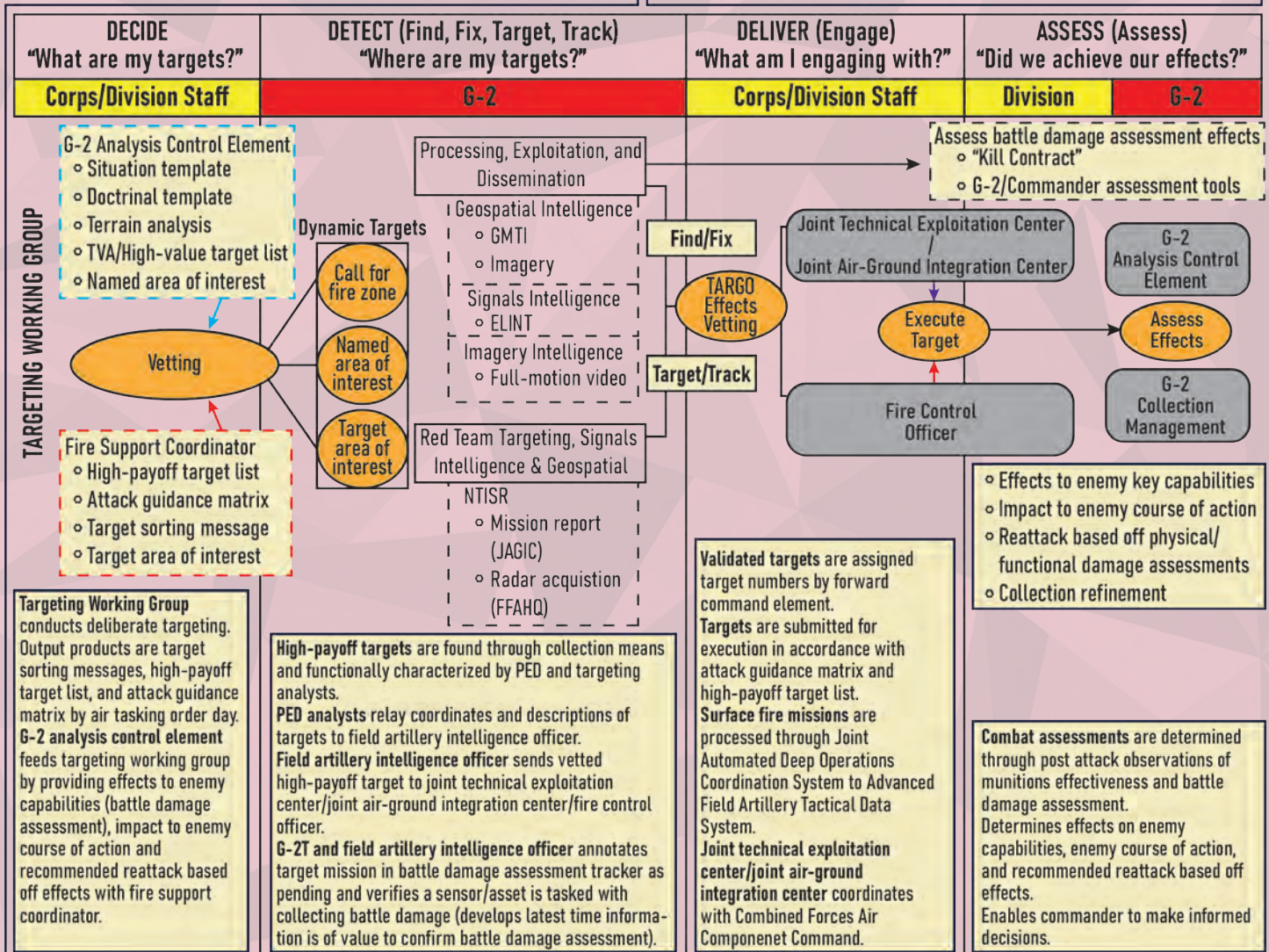
Figure 6. G-2 Support to Targeting Process

Endnotes

1. Department of the Army, Army Techniques Publication (ATP) 3-60, *Targeting* (Washington, DC: Government Publishing Office [GPO], 07 May 2015), 2-14.

2. Ibid., 2-15.

3. Ibid., 2-14–2-15.

4. Office of the Chairman of the Joint Chiefs of Staff, Chairman of the Joint Chiefs of Staff Instruction 3162.02, *Methodology for Combat Assessments* (Washington, D.C.: The Joint Staff, 08 March 2019), B-1.

5. A PACE plan establishes primary, alternate, contingency, and emergency methods of communications for each warfighting function, typically from higher to lower echelons. Department of the Army, Field Manual 6-0, *Commander and Staff Organization and Operations* (Washington, DC: GPO, 16 May 2022), 6-8.

6. Office of the Chairman of the Joint Chiefs of Staff, Joint Publication 3-60, *Joint Targeting* (Washington, DC: The Joint Staff, 28 September 2018), D-3.

7. Department of the Army, ATP 3-60, *Targeting*, 2-15.

8. Ibid., 2-2.

9. Ibid., 2-15.

10. Office of the Chairman of the Joint Chiefs of Staff, Joint Publication 3-60, *Joint Targeting*, III-7.

11. Department of the Army, ATP 3-60, *Targeting*, 4-15.

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