



A statue of Gen. Walton Walker stands outside Eighth Army headquarters on U.S. Army Garrison Humphreys, South Korea. Walker was the second commanding general of Eighth Army and led Eighth Army at the beginning of the Korean War. (Photo by Sgt. John Stevens, U.S. Army; Eighth Army shoulder sleeve insignia courtesy of the U.S. Army)

# An Experiment

## Eighth Army Operational Effects Directorate

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Throughout history, military staff structures developed in response to the character of war. For the United States, staff structure derives its origin from the Napoleonic Continental System.<sup>1</sup> Now, as then, staffs support commanders in understanding the operational environment (OE), making decisions, and coordinating operations.<sup>2</sup> This manifests as codified positions responsible for functions like personnel, intelligence, operations, etc. During the mid-twentieth century, the U.S. military began to conceptualize the domains and dimensions of the OE.<sup>3</sup> The acknowledgment of the contemporary relevance of the civil dynamic and information considerations of war resulted in the current staff structure additions of information operations, cyberspace electromagnetic activities (CEMA), and civil affairs sections. However, these additions have stood as separate entities, identified as “nonlethal” opposite from the primarily destructive character of war. From experience in the contemporary Korean theater, this separation has primed staff and commanders to fundamentally separate lethal from nonlethal operations, creating a challenge as they seek to implement the Army’s multidomain operations (MDO) operational concept. Recent solutions the Army has fielded to enable MDO include the multidomain task forces, Army space support teams, multidomain effects battalions, and theater information advantage detachments.<sup>4</sup> These are initial attempts to operationalize multidomain effects. However, *these do not solve the root problem*. The organization of staff inherently challenges the conceptualization and implementation of MDO.

The staff problem has three components: people, structure, and processes. The *people* component consists of expertise, personalities, and inherent biases. The *structure* is the staff’s organization for synergy. *Processes* are how people on staff interact. Eighth Army (8A) sought a solution to address all these by creating an operational Effects Directorate, combining its lethal and nonlethal sections under one director unified by the targeting process with a multidomain and multidimensional view.

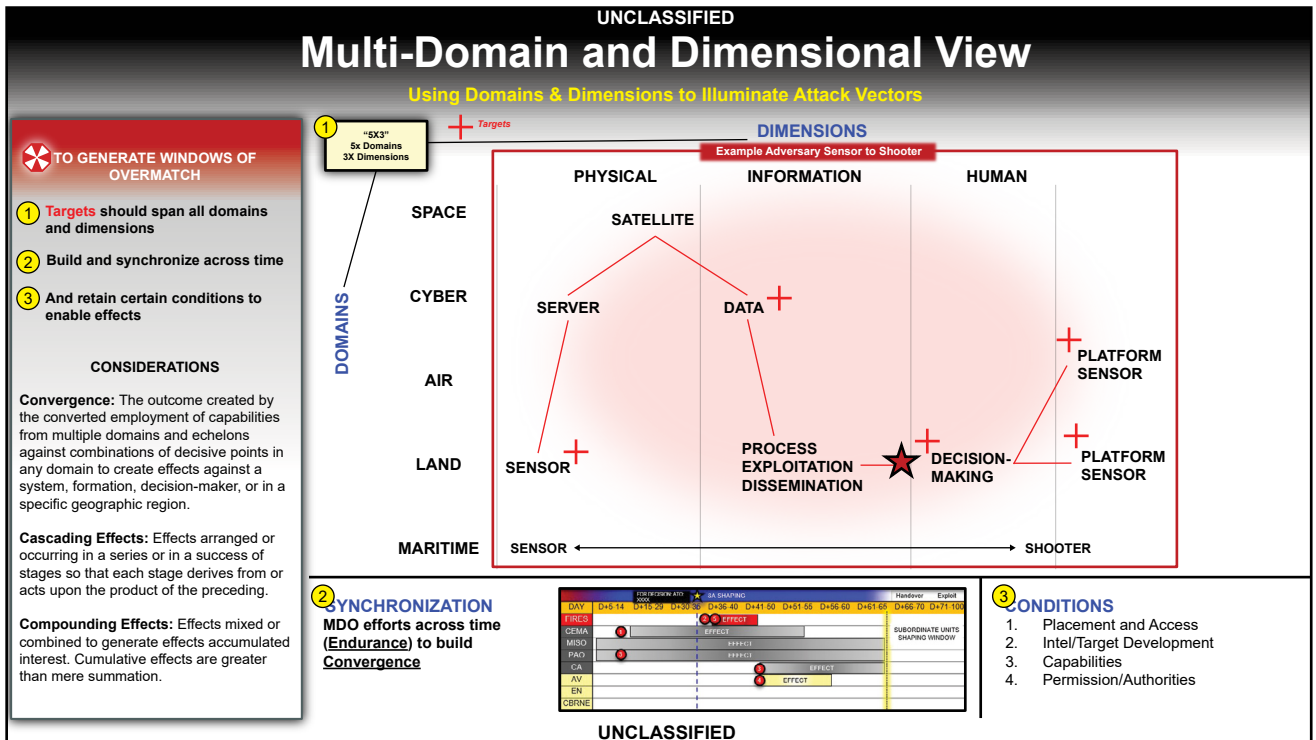
Why the need for the G-3 Effects Directorate? Field Manual (FM) 3-0, *Operations*, depicts the OE as intersecting all domains, hinting intuitively that future warfighting is becoming more and more interdisciplinary.<sup>5</sup> With multiple stovepipes of excellence

and classification enclaves, the management of lines of effort and lines of operations across this interconnected network becomes impossible without a complementing shift in staff structure—ultimately, to enable the commander to make decisions. Further implied by this depiction is that effects are no longer linear but at times regressive and counterregressive. The management of effects into a holistic picture to enable decision-making requires a unified effects directorate.

## Multidomain Operations in Korea

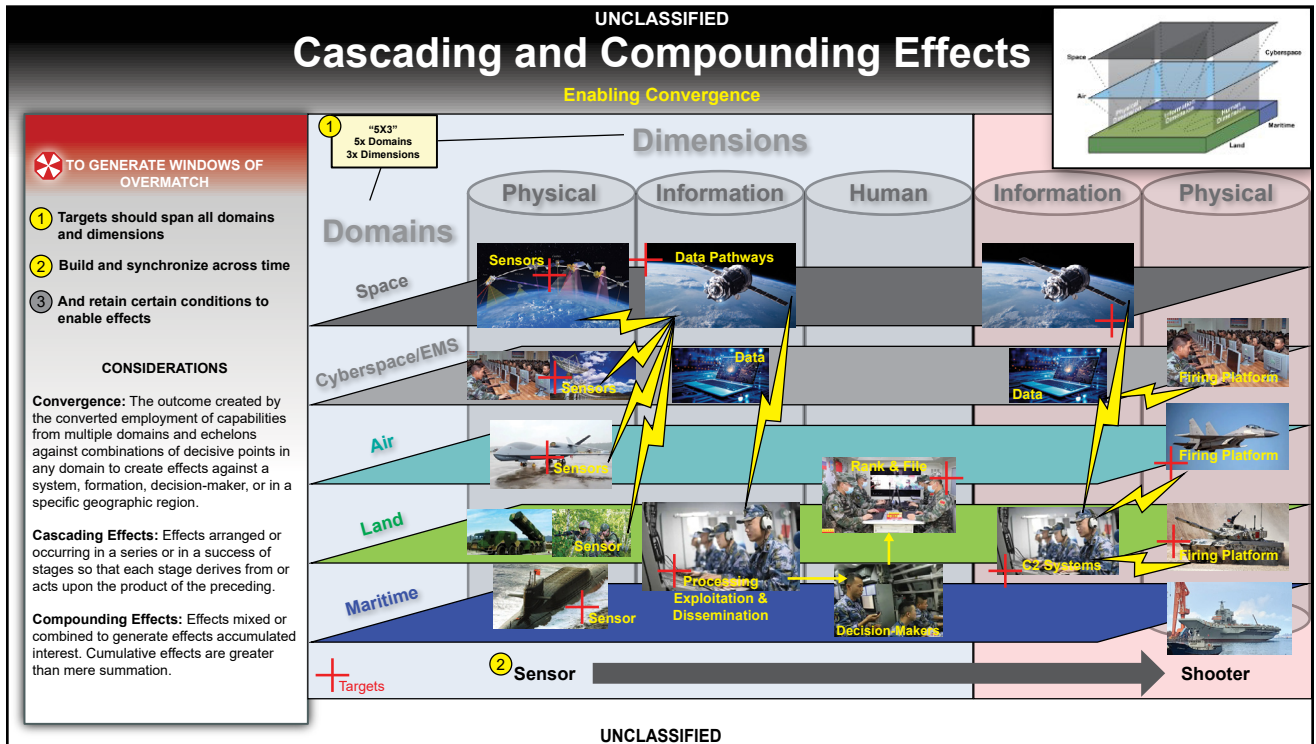
As 8A experimented with MDO in its biannual exercises, leaders began to understand that the five domains are not enough. The OE’s three dimensions are necessary and equally important. To better understand and visualize the Korean theater’s OE, 8A adopted the “5 x 3” view, a deeper understanding of the OE’s five domains and three dimensions (see figure 1). “5 x 3” outlines the space, cyberspace, air, land, and maritime domains vertically, while horizontally intersecting with the physical, information and human dimensions in the OE. “5 x 3” is a realization that the five domains must fuse with the three dimensions to understand and view interconnectedness. 8A originally implemented the “5 x 3” to understand the OE; however, it also applied the view to better comprehend a target’s exploitable vectors. The approach advanced staff processes, such as 8A’s intelligence preparation of the operational environment and targeting, to move away from one-dimensional lethal and nonlethal “effects layering.”

Using the 5 x 3 in targeting, for example, identifies targetable elements, information pathways, and vectors across the domains and dimensions against a target system, as indicated by the red cross hairs in figure 1. The “5 x 3” generates a unified target system analysis that focuses lethal and nonlethal activities into cohesion. Lethal and nonlethal actions against a target system contribute to the same ends. Applying the “5 x 3” approach is like using a modified combined obstacle overlay (MCOO) when planning the scheme of maneuver for an operation. In maneuver, the MCOO provides feasible axis of attack or maneuver; in parallel, the “5 x 3” provides lethal and nonlethal effects vectors, or *effects maneuver corridors*. Applying the MDO imperatives and tenets was revolutionary for multiple warfighting functions on the 8A staff, and it provided cohesion to the protection warfighting function’s efforts.



(Figure by Maj. Alistair Fider)

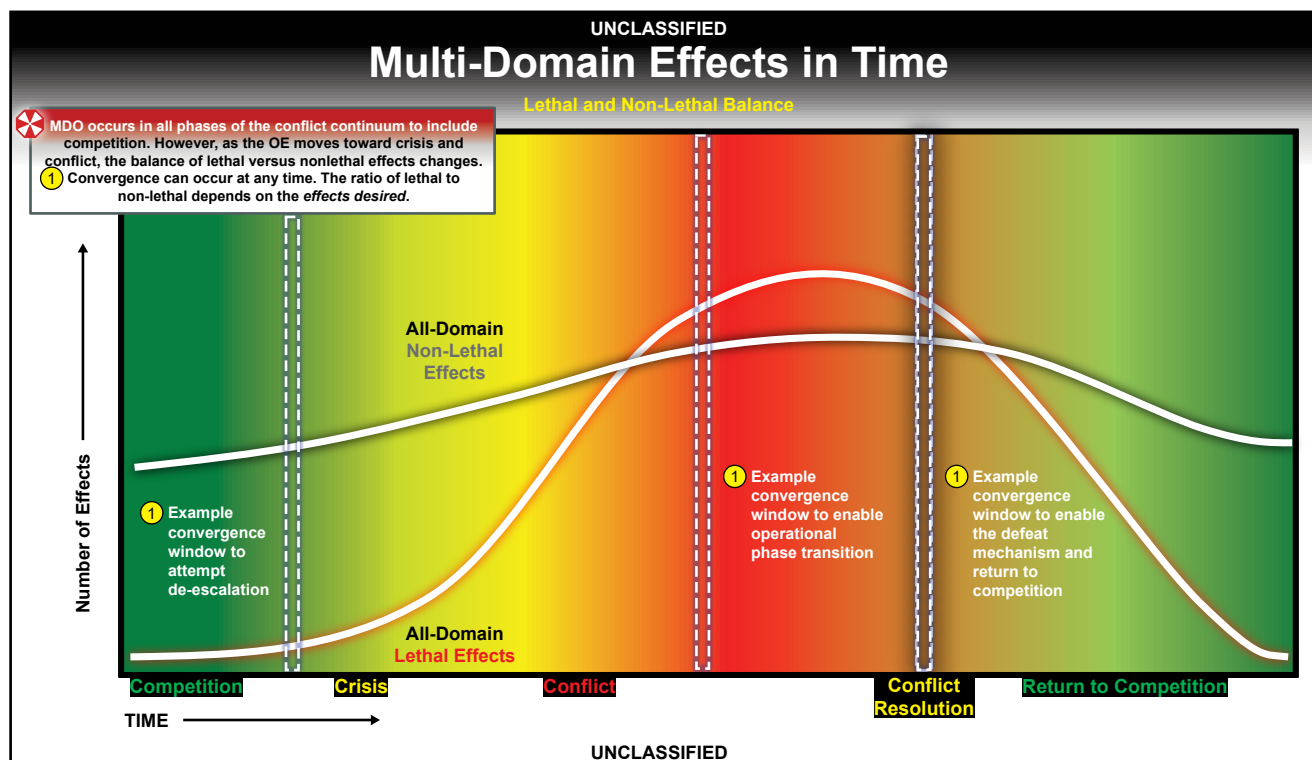
**Figure 1. Multidomain and Dimensional View**



(Figure by Maj. Alistair Fider)

**Figure 2. Cascading and Compounding Effects**





(Figure by Maj. Alistair Fider)

**Figure 3. Multidomain Effects in Time**

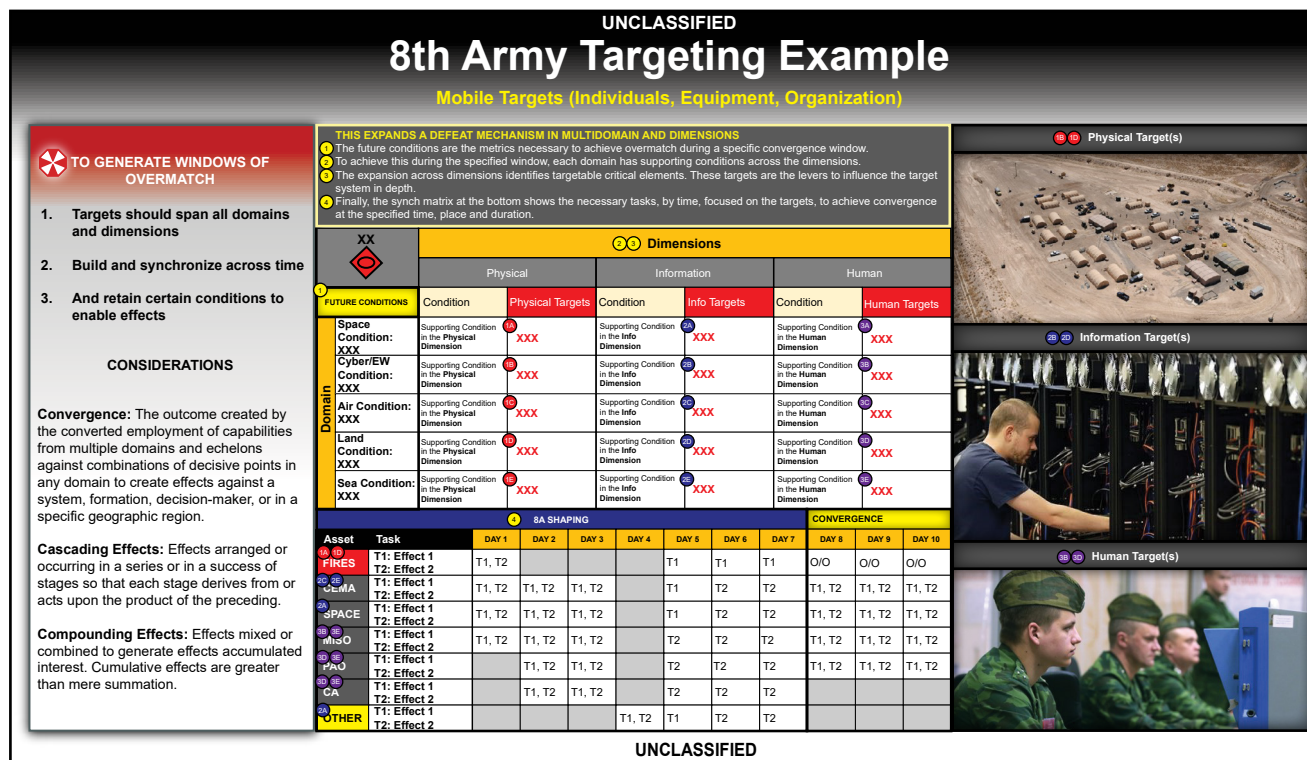
The next key concept that 8A has come to understand is the compounding and cascading of effects. FM 3-60, *Army Targeting*, defines convergence as “an outcome created by the concerted employment of capabilities from multiple domains and echelons against combinations of decisive points in any domain to create effects against a system, formation, decision maker, or in a specific geographic area.”<sup>6</sup> However, 8A expanded this definition to include *compounding* and *cascading* effects. Compounding effects are the combination of several direct and/or indirect effects that produce greater outcomes. Cascading effects ripple through a target system, influencing other systems in depth. This typically occurs through nodes and links that are common and critical to related systems.

Referring to figure 2, starting from the first column (Physical), physical actions such as destruction or jamming of sensors affect the information dimension, specifically the data pathways. Affecting this data pathway then affects their processing, exploitation, and dissemination capability, which impacts the decision-maker’s ability to make decisions, resulting

in soldiers and units becoming vulnerable. This is the first-order effect, which has *compounded*. As we move to the right in figure 2, we see the second-order, or *cascading*, effects. Previously targeting their sensors and data pathways results in second-order effects against their command-and-control systems, which also affects the firing platforms. Understanding and mapping out this complexity is necessary, especially to ensure we have convergence at the critical time and place to enable the other MDO tenets and imperatives.

Another dimension of MDO within Korea is the idea of lethal and nonlethal effects over time. MDO is continuous, occurring in all phases of the conflict continuum. As the OE moves toward crisis and conflict, the balance of lethal versus nonlethal effects changes (see figure 3). Convergence does not tie to a specific ratio; rather the *desired effect at convergence* defines it.

In previous schools of thought and since the Goldwater-Nichols Act, joint targeting has focused on the lethal effects integration across services.<sup>7</sup> Nonkinetic effects associated with electronic warfare, cyber, and space have always stood separate.



(Figure by Maj. Alistair Fider)

**Figure 4. 8th Army Targeting Example: Mobile Targets**

This can be seen in the air tasking order (ATO). The ATO is a framework that multiple combatant commands have used, to include the Korean theater, to synchronize the services' weapons systems against targets. However, the emphasis is on lethal effects, specifically directing the use of weapons such as the Army Tactical Missile System, the Joint Direct Attack Munitions, etc. MDO calls for the integration of all lethal and nonlethal effects, to include capabilities in the space and cyber domains, into a single into a *multidomain tasking order* that achieves an operational end state. This MDO tasking order could follow the seventy-two-hour ATO model, or it could be longer, considering the long lead time to generate placement, access, intelligence, and authorities.

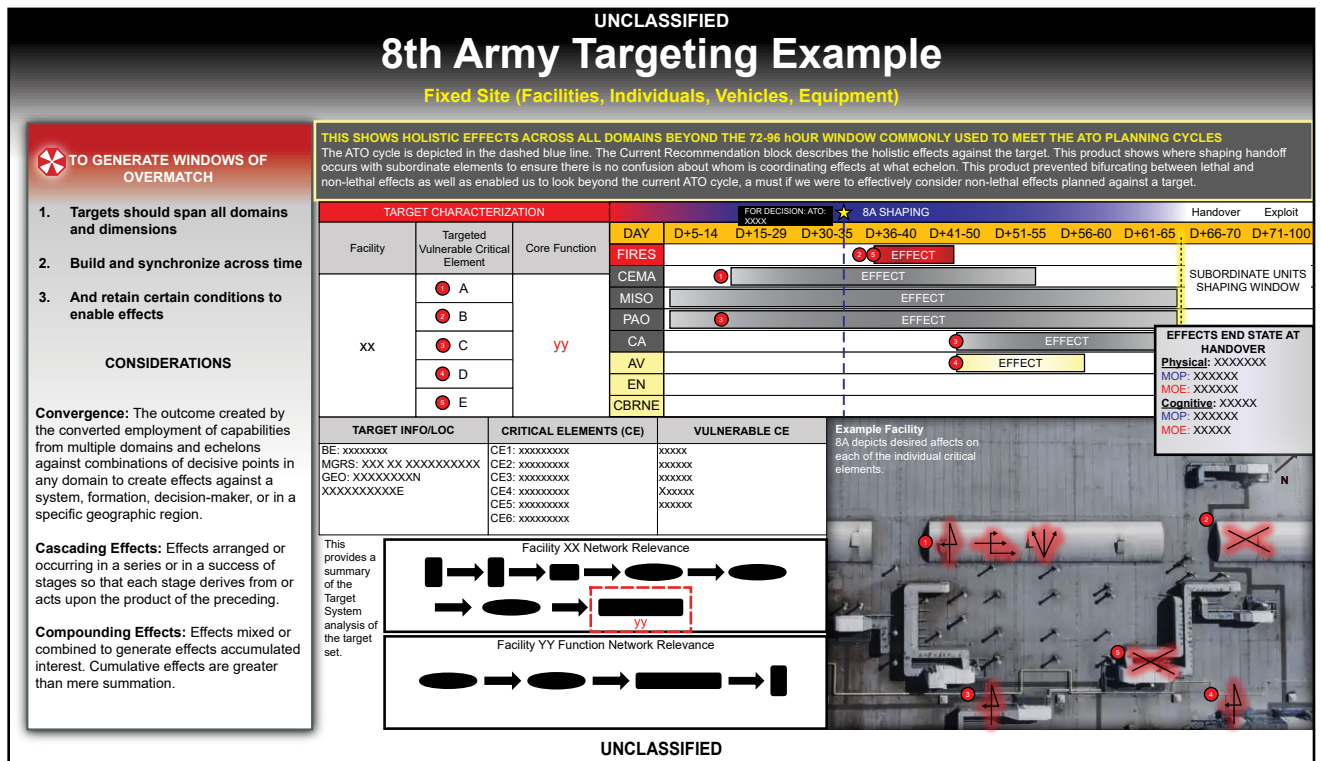
In addition, integrating both lethal and nonlethal effects over an extended time can generate operational flexibility, considering the often-unpredictable outcomes of information warfare and psychological operations. Shaping effects in the information and human dimension are less precise but may generate supporting branch plans to achieve an end state without ever

having to fire a shot. This can conserve lethal munitions and preserve magazine depth in wartime stocks, important when Class V needs during large-scale combat operations outpace the U.S. and allies' ability to replenish—especially in early phase of conflict before our Nation's industrial base can pivot.

Put into practice, the problem set in figure 4 shows the application of convergence and compounding/cascading effects against an example mobile target during conflict. Figure 5 shows the application toward fixed sites spanning the conflict continuum. Both these examples show the generation of a convergence window to enable tactical units' combined arms maneuver at a critical place and time.

## Eighth Army's Necessary Staff Change

The above conceptual change exacerbated a deep-rooted staff problem. 8A's G-3 Fire Support Element, CEMA, and Information Advantage directorates planned in stovepipes, conflicting with one another. This magnified with the size and physical



**Figure 5. 8th Army Targeting Example: Fixed Site**

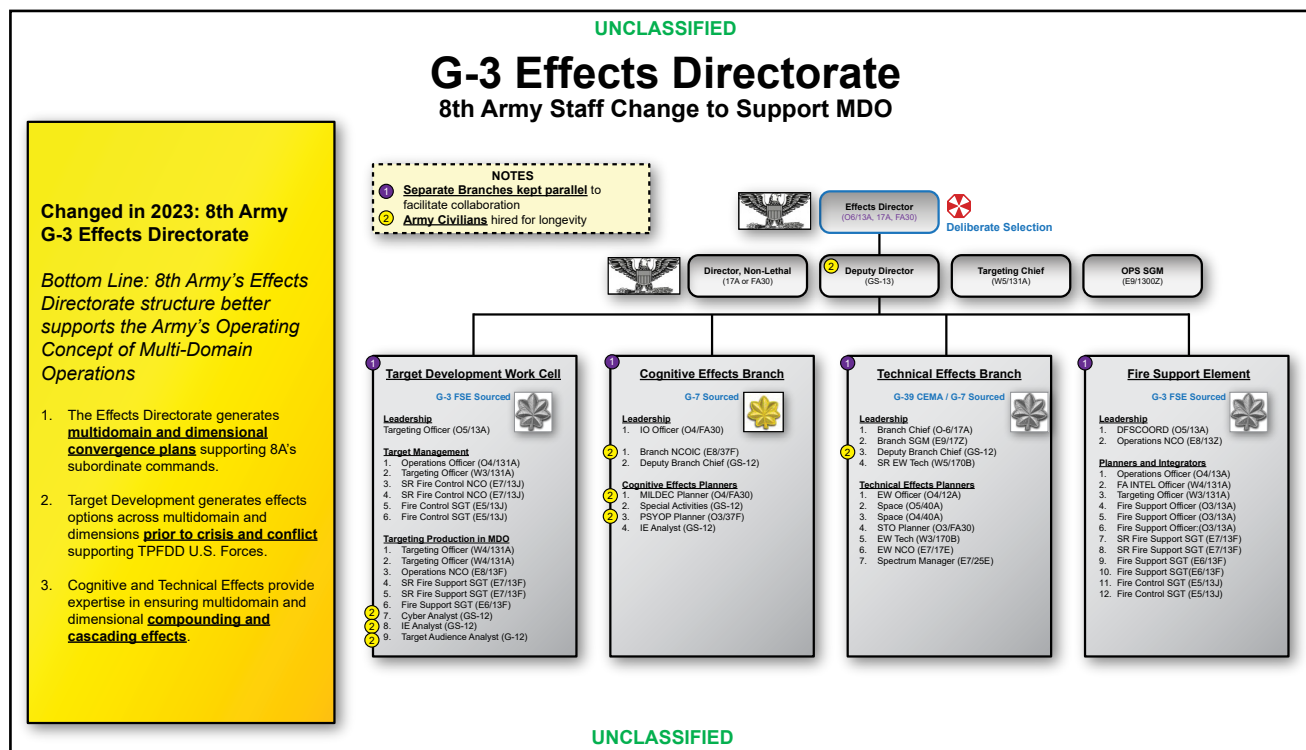
design of 8A's headquarters, which encouraged "silos of excellence." To focus lethal and nonlethal effects into cohesion, 8A's chief of staff and G-3 directed the combination of its fire support, information advantage, and CEMA sections under one effects directorate, G-3 Effects. The intent of unifying was to induce synergized plans that nested within MDO, focus priority, and provide informed perspective, particularly in how to integrate nonlethal capabilities. Prior to this change, personalities, priorities, and perspectives generated staff friction, preventing both a unified approach to setting the theater in competition and setting conditions for subordinate echelons in crisis and conflict. To execute this change, 8A leadership directed an examination and change of necessary people, structure, and processes.

**People and structure.** As stated earlier, 8A leadership directed the combination of lethal and nonlethal staff sections. People and structure were 8A's biggest change. After multiple staffing sessions, the approved solution was achieved (depicted in figure 6). The G-3 Effects' director and deputy (both colonels) are opposing lethal and nonlethal experts, by design, balancing

inherent lethal and nonlethal biases. Underneath are four parallel branches: Targeting, Cognitive, Technical, and Fire Support.

Targeting has become the engine to generate MDO plans, as a doctrinal integrating process and the bridge to the joint targeting cycle.<sup>8</sup> Targeting leverages and synchronizes the other branches to produce multi-domain and multidimensional targeting strategies. In addition to conducting target discovery, intermediate target development, advanced target development, and target maintenance, Targeting bridges strategies to 8A's larger plans, future operations, and current operations planning horizons. Finally Targeting nominates effects to Korea's Combined Forces Command's joint targeting cycle to integrate the other domains' effects. Targeting specifically enables the "5 x 3" by its unified lethal and nonlethal targeting strategies, which create exploitable relative physical, information, and human advantages in all domains that accrue over time.

The Cognitive Branch provides the holistic scope of information advantage to affect adversary decision-makers. The Cognitive Branch enables target



(Figure by Maj. Alistair Fider)

**Figure 6. G-3 Effects Directorate**

development through a human, or cognitive, lens. The critical function of the Cognitive Branch is coordinating with external agencies, both military and civilian, to coordinate the delivery of effects supporting the targeting strategy. These materialize as nonlethal concepts of operations, preapproved in competition to gain permissions and/or authorities to execute information operations and military information support operations when needed in crisis and conflict. Integrated within the targeting strategy, the Cognitive Branch enables the “5 x 3” with decision dominance, leveraging activities across the domains to affect the human dimension of the operating environment such as influencing changes in the behavior of specific groups or the decisions of adversary leaders.

Next, the Technical Branch enables target discovery, intermediate target development, and advanced target development within cyber, electronic warfare, and space. Like Cognitive, the Technical Branch liaises with external agencies, both military and civilian, to coordinate the delivery of effects originating from computer networks and the electromagnetic spectrum to produce

effects across the dimensions of the operational environment. This also requires the production of nonlethal concepts of operation to gain permission and/or authorities to execute. Integrated within the targeting strategy, the Technical Branch enables the “5 x 3” by contributing to the overall objectives through computer and electromagnetic spectrum-based effects.

Lastly, the Fire Support branch ensures execution of planned targeting strategies developed by the other branches. This entails receiving approved plans earlier than seventy-two hours from execution, tracking and refining plans, and coordinating to ensure the commander's intent is being followed. As the low-density skills for certain effects lie in the other branches, Fire Support leverages members of the other branches to understand, adjust, and execute the targeting strategies. Should the 8A Combined Operations and Intelligence Center execute dynamic targeting, the Fire Support Branch is the lead branch in rapid planning, preparing, executing, and assessing.

G-3 Effects' fusion of experts has enabled lethal and nonlethal synchronization beyond simple layering of



assets and capabilities. This is important because of the long lead time in developing and obtaining certain nonlethal effects, as well as the understanding that lethal can support nonlethal. G-3 Effects optimizes effects against adversaries during competition, crisis, and conflict. This is separate from effects that support friendly operations.

**Processes.** As stated earlier, G-3 Effects uses Targeting as the central process to focus MDO effects, reflecting current doctrine.<sup>9</sup> This decision to use the targeting process came after focus groups and senior leader guidance. Targeting was seen as the most effective existing boards, bureaus, centers, cells, and working groups (B2C2WG) event that could unify warfighting functions and nest with higher and lower B2C2WG. Crucially, the targeting working group and boards have representatives from all 8A, and the targeting process provides a commander-approved, united *targeting guidance* that encompasses all effects.

In the deliberate horizon, supporting the targeting process, the Cognitive Branch leads the Effects Working Group (EWG), which encompasses both lethal and non-lethal effects, and the Technical Branch conducts its own

working group. Both these meetings occur before and focus deeper than the Targeting Working Group (TWG), providing fidelity *addressing* the approved targeting guidance. The TWG then takes the focused outputs from these working groups and synthesizes them into feasible, acceptable, and suitable targeting strategies—the way to *accomplish* the targeting guidance.

Operationally, the EWG, the Tech Effects working group, and the TWG align in workflow. During contingency, 8A's EWG and Tech Effects Working Group focus five days in advance of execution. This part generates ideas, concepts, and initial joint target list and/or restricted target list nominations for *all* effects. The next day, the TWG synthesizes EWG and Tech Effects Working Group's outputs into targeting strategies, which gain 8A command concurrence or nonconcurrence at the targeting board on the same day, four days in advance. The output then feeds Korea's combined joint targeting cycle, which has also centralized effects in the targeting process, built around the ATO cycle.

This nesting is the ways to deliver the desired effects. Assuming approval at the combined joint targeting board, further changes within seventy-two hours happen via the Battlefield Coordination Detachment in the dynamic window. In competition, these time horizons expand

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into monthly cycles, and the Battlefield Coordination Detachment plays a crucial role.

**Remaining challenges.** The implementation of the 8A G-3 Effects Directorate within Korea represents a successful first step within the global operational theaters. Our experience in this theater has revealed the deeply rooted tribal silos that are ingrained in military structure, doctrine, and thinking. This experimental but necessary change to operate in MDO, notably in a zero-sum staff change, has been effective, but surprisingly difficult to inculcate. Further, we cannot speculate whether this model could apply in other regions like U.S. Central Command, U.S. European Command, and U.S. North Command.

Earlier, we mentioned the OE's interconnectedness and the needed interdisciplinary approach to achieve end states. However, potential friction occurs when two branches of the G-3 Effects Directorate require the same priority or resource dynamically. Often, interdependence generates optimized use of resources, but upon execution, deeper analysis reveals conflicting or dissonant effects. This increases the level of real-time coordination and communication between branches; however, it is hard to maintain if time is short, operational pressure is high, and people are spread thin.

Patriot missile systems belonging to 2nd Battalion, 1st Air Defense Artillery Regiment, 35th Air Defense Artillery Brigade, are positioned in a standby mode during the Freedom Shield training exercise in South Korea on 19 March 2023. The purpose of the training was to improve individual soldier capability and to maintain unit readiness. (Photo by Sgt. Josephus Tudtud, U.S. Army)

Additionally, bringing multiple existing branches under one command-and-control structure can have conflicts when dynamic effects require decision authorities above the command. For example, cyber activities often reside at a national level, making execution unwieldy and inflexible. This challenge will need a solution outside the organization; however internally, 8A can optimize decision points with the commander for concurrence or nonconcurrence, efficient routing to the next higher command, and so forth. This was especially seen in various exercises conducted with Korean partners and integrating their national caveat effects with ours.

More systematically, how does G-3 Effects synchronize doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P) and ensure organizational endurance?

- ◆ *Personnel, materiel, and facilities.* The new task organization affects rating schemes, modified table

of organization and equipment, and workspace, considering integration between systems. 8A is drafting this into the next force design update.

- *Organization.* External interfaces often take additional explanations, as other organizations still bifurcate lethal and nonlethal workflows. This generates challenges in effects routing and request processes.
- *Doctrine.* How does 8A manage holistic effects against adversaries, friendly, and neutral? Effects currently focuses on adversaries but should complement civil and public affairs. Initial ideas are an engagements “targeting cycle” synchronized by the field army campaign plan.
- *Leadership and training.* How can HQDA produce the effects director’s skill set? The directorate is dependent on its leader having a background in multiple lethal and nonlethal fields. This breadth of knowledge was critical; no surprise as the civilian sector sees the same trends.<sup>10</sup> Initial ideas are a twelve-month course that distills necessary knowledge.

Finally, what changes need to occur in other warfighting functions? 8A must continue to experiment via forums, tabletop exercises, and other exercises.

## Conclusion

The creation of 8A’s G-3 Effects Directorate represents an incremental step in MDO implementation. FM 3-0’s OE is its driving charge, presenting a challenge

to the force on how to integrate, plan, and dynamically adjust differing army stovepipes in a unified direction. Merging lethal and nonlethal staff sections under one directorate helps the synchronization and promotes synergy of strategies that have proven effective in isolation over the last two decades. However, effectiveness in isolation is less potent than effectiveness in unison toward an operational end state.

As this experiment continues, no doubt this staff change will emerge in other combatant commands’ theaters. However, these staff changes will likely not be an exact carbon copy. The staff changes will need to reflect the uniqueness of their environments and also reflect the larger interconnectedness of the global OE. The common denominator will be the unification of lethal and nonlethal staff sections and the understanding of the domains and dimensions.

MDO transformation requires action, sensing, and responding.<sup>11</sup> Multidomain task forces and theater information advantage detachments are initial actions, but leaders at 8A have sensed that this is not far enough to implement MDO. Regarding Army warfighting functions, the G-3 Effects operational directorate will play one part in becoming MDO capable, but other warfighting functions will need to potentially transform likewise. 8A’s current G-3 Effects Directorate is a response to MDO’s challenge. The G-3 Effects Directorate is far from perfect but is a vital part of experimentation and iteration. ■

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## Notes

1. *Britannica*, “General Staff,” accessed 5 February 2025, <https://www.britannica.com/topic/general-staff>.

2. Field Manual (FM) 6-0, *Commander and Staff Organization and Operations* (U.S. Government Publishing Office [GPO], 2022), 2-1.

3. Marc Ambinder, “The Secret Pentagon Spy Ring,” *Atlantic*, 20 May 2010, <https://www.theatlantic.com/politics/archive/2010/05/the-secret-pentagon-spy-ring/56956/>.

4. Mark Pomerleau, “Army Considering Theater Information Advantage Detachments,” *Defense Scoop*, 31 March 2023, <https://defensescoop.com/2023/03/31/army-considering-theater-information-advantage-detachments/>.

5. FM 3-0, *Operations* (U.S. GPO, 2022), 1-16–1-17.

6. FM 3-60, *Army Targeting* (U.S. GPO, 2023), 1-3.

7. The 1986 Goldwater-Nichols Department of Defense Reorganization Act improved service cooperation, namely in

providing a unified command. In joint targeting, this enabled a single command to leverage all the services effects in synchronization. See James R. Locher, *Victory on the Potomac: The Goldwater-Nichols Act Unifies the Pentagon* (Texas A&M University Press, 2002), 45.

8. FM 6-0, *Commander and Staff Organization and Operations*, 1-39.

9. FM 3-0, *Operations*, 3-4.

10. David Epstein, *Range: Why Generalists Triumph in a Specialized World* (Riverhead Books, 2019), 171–90.

11. H. William Dettmer, *Systems Thinking and the Cynefin Framework: A Strategic Approach to Managing Complex Systems* (Goal Systems International, 2011), 8–21, <https://static1.squarespace.com/static/578d0f8459c6877481865ef/t/57ec5284579fb363a5b9a18c/1475105417186/Systems-Thinking-and-the-Cynefin-Framework-Final.4.pdf>.