

# Applying Multi-Domain Effects to Operation Inherent Resolve

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*Soldiers with Alpha Company, 1st Battalion, 6th Infantry Regiment, 2nd Armored Brigade Combat Team, 1st Armored Division, fire illumination rounds from a 120mm mortar during base defense live-fire training in the Central Command area of responsibility on 16 March 2021.*

*Photo by SGT Torrance Saunders*

*“Out of intense complexities,  
intense simplicities emerge.”*

— Sir Winston Churchill<sup>1</sup>

**M**ulti-domain operations (MDO) are the U.S. Department of Defense’s most recent solution to the complex, multifaceted problem of state actors subverting Westphalian conventions.<sup>2</sup> At its heart, MDO evolved from the natural and inevitable fusion of accelerated improvements in technology, the complexity of modern competition, and need for rapid battlefield decisions at echelon. The concept of simultaneously employing ways and means across multiple domains to achieve a specific end is not new. This employment technique historically provided commanders options for executing simultaneous and sequential operations by integrating capabilities across domains. When applied appropriately, these operations present multiple dilemmas to an adversary, achieve friendly physical and psychological advantages, and maximize influence and control over the operational environment.<sup>3</sup> This is as true for the Combined Joint Task Force (CJTF) in Phase IV of Operation Inherent Resolve (OIR) as it is for the doctrinal MDO problem set of anti-access and area denial (A2AD) systems.

Although MDO shares common traits with concepts like Airland Battle, there are important differences. Airland Battle doctrine focused on the three dimensional and technological impacts of modern warfare that prescribed rapid, integrated air, and ground maneuvers and viewed a battlefield extended in both the dimensions of geography and time.<sup>4</sup> This informed NATO’s deep battle warfighting concept to combat against a potential Soviet attack in Europe. In comparison, MDO focuses on the competition continuum and the requirement for parity of effort throughout. It incorporates the fundamental changes in the character of warfare and acknowledges that constant competition between nations with sporadic escalation to conflict is the new normal. While not a direct translation of MDO doctrine into application, Operation Inherent Resolve’s current activities fit the model in practice. At the lower echelons, organizational structure, resource availability, and competition spectrum specifics may not truly match the MDO model. However, it can be scaled to function in varying environments through the understanding and deliberate application of the U.S. Army’s principles.<sup>5</sup> CJTF-OIR created the Multi-Domain Effects Directorate (MDED) as a functional bridge to enable a typical CJTF structured headquarters to leverage the advantages created through a multi-domain approach.

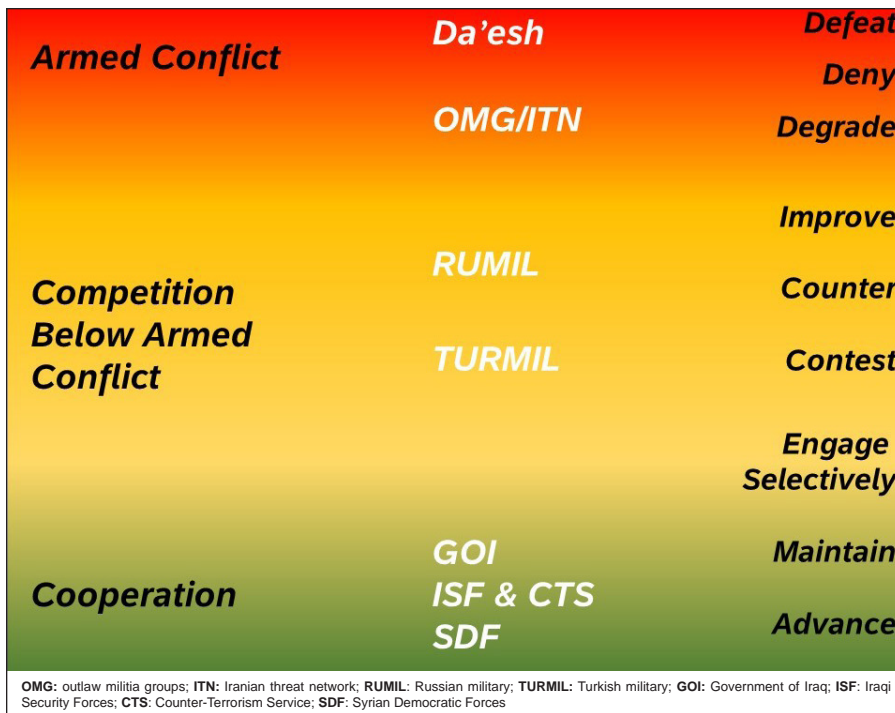
Conceptually, U.S. forces seek to execute MDO in several stages. Initially, the main effort is the penetration of enemy A2AD systems to enable strategic and operational maneuver.<sup>6</sup> The next step is the disintegration of the aforementioned A2AD system to enable operational and

tactical maneuver for U.S. forces and partners. Exploiting the resulting freedom of maneuver achieves operational and strategic objectives which defeats enemy forces across the domains. The final stage is re-entering normal competition and consolidating gains before forces return to competition on favorable terms to the United States and allies.<sup>7</sup>

CJTF-OIR’s initial analysis of restructuring into an MDO approach was a function of environmental complexity and change from Phase III to Phase IV. CJTF’s primary mission is the defeat of Daesh across designated regions of Iraq and Syria. The design of the campaign enables whole-of-government actions to increase regional stability and is currently in its fourth and final phase. During the first three phases of the campaign, running from 2014 through mid-2020, the Coalition trained and equipped partner forces in Iraq and Syria, advised and accompanied those forces during operations, provided intelligence, and conducted airstrikes to enable the territorial defeat of Daesh. As a result, Daesh lost its territorial hold in Iraq in December 2017 and in Syria in March 2019, but it has continued to operate as a low-level insurgency in both countries. In the summer of 2020, OIR transitioned to Phase IV of the campaign. In this phase, the Coalition largely shifted from hands-on training, developing, and assisting partner forces in both Iraq and Syria to advising and enabling them, mainly remotely, from consolidated bases during operations against Daesh. Training of partner forces continues in Syria, while in Iraq Coalition efforts focus on reforming and professionalizing Iraqi security institutions and combating corruption to ensure the enduring defeat of Daesh.

In both Iraq and Syria, OIR’s most significant security threats come not just from Daesh but from other forces working against Coalition interests in each country. In Iraq, several Iranian-aligned militia groups (IAMG), including some incorporated into the Popular Mobilization Forces (PMF), remain hostile toward the U.S. troop presence.<sup>8</sup> IAMG violence against Coalition interests in Iraq increased ahead of the first anniversary of the U.S. strike on the Iranian Revolutionary Guards Corps’ Quds Force Commander, General Qassem Soleimani, and again with the advent of Ramadan. In Syria, Coalition forces continue to operate in a complex security environment in close proximity to Russian, Iranian-aligned, Syrian regime, and pro-regime forces. These actors moved into the areas of northeastern Syria U.S. troops vacated when Turkey launched an incursion into northern Syria in October 2019.<sup>9</sup> The Defense Intelligence Agency reported that malign actors, including Daesh and forces associated with Iran and the Syrian regime, pose the most significant threat to the Coalition and its mission.<sup>10</sup> Moreover, the U.S. must embrace the complexities of a Joint Coalition headquarters, and relationships with the Government of Iraq (Gol), the Iraqi Security Forces (ISF), and Counter-Terrorism Service (CTS) forces, as well as Coalition Aligned Syrian Forces (CASF). Plotted graphically, the complexity of actors in the CJTF area of operations represents points on nearly every section of the cooperation/conflict continuum.





**Figure 1 — Actors in the CJTF-OIR Operational Area Span the Competition Continuum from Cooperation to Armed Conflict**

Daesh remains the primary adversary and they demonstrate a willingness to try to retake territory in Iraq displaying the makings of a growing and dangerous insurgency. While technically defeated, they maintain the capability to conduct limited actions against the local populace and Coalition forces in Iraq and Syria, thus efforts to prevent their resurgence cannot be underemphasized. As part of the natural progression of conflict, the kinetic tools and methods previously employed in Phase III (Defeat-Daesh) operations are no longer appropriate and relevant to Phase IV (Normalize). Non-kinetic means and non-lethal effects now have primacy while the Coalition achieves the gradual and deliberate transition of operations to the host nation forces.

During Phase III operations, the CJTF-OIR staff structure included a Fires cell (CJ34) and an Information Operations (IO) cell (CJ39). Fires had limited assets with a sole focus on kinetic strikes and consisted of High Mobility Artillery Rocket System (HIMARS), M777A2, and air assets. In contrast, IO focused on longer term planning and consisted of multiple information-related capabilities (IRCs), including cyber and electromagnetic activities (CEMA), Psychological Operations (PSYOP), special technical operations (STO), special activities, and space (specifically Space Force). This is not atypical for a standard military (especially U.S.) headquarters (HQ) staff. Indeed, there was some overlap in the functions of Fires and IO as might be found in a typical U.S. JTF or division-level headquarters. However, integration and interaction were not the default. This organizational construct created particular disadvantages. First, there were limited interactions between the Fires and IO cells. With a focus on purely kinetic strikes, the Fires cell had minimal deliberate interactions with the non-kinetic IO

cell. Additionally, increasing levels of classification for IO capabilities up to U.S. Top Secret (TS)/Alternative Compensatory Control Measures (ACCM)/Not Releasable to Foreign Nationals (NOFORN) means those particular functions became stovepipes. Often separated from the remainder of the HQ, IO staff members planned and conducted their tasks in isolation from other sections and sometimes independently of other capabilities within CJ39. On occasion, this even resulted in divergence from the campaign's priorities and objectives which had the potential to degrade the efficiency of the capabilities themselves and the HQ as a whole. Predictably, the lack of a truly integrated effects function created a substantial gap in effectiveness during Phase IV planning and execution.

To adapt to the changing operational environment, CJTF-OIR undertook a structural review in January 2021, creating the MDED. The intent was to scale down from the pure MDO model (multi-domain task force) in order to meet the requirements of the CJTF-OIR Phase IV environment.<sup>11</sup> Additionally, this new staff section would establish itself and function as a microcosm of the wider staff. The MDED organization draws from appropriately qualified and experienced pan-service Five Eyes personnel within CJTF-OIR.<sup>12</sup> Accordingly, the design of the organization was not from the ground up, with a requirements model and an understanding of the exact nature of operational effectiveness.

In simple terms, the creation of the CJTF-OIR MDED consolidated the CJ34 and CJ39 sections — a fusion of kinetic and non-kinetic fires to provide integrated delivery of lethal and non-lethal effects by design. This model has proven efficacious, and conditional recommendations are only slight modifications, each depending on the exact requirements of the operational environment. The conditions to successfully operate in Phase IV primarily emphasize non-lethal effects and environmental influence while reducing the employment of lethal fires. CJTF-OIR's Line of Effort 2 is "Enhance Partner Force Capabilities" so MDED's primary planning focus was to ensure that the ISF, CTS, Syrian Democratic Forces (SDF), and other CASF conducted kinetic operations while Coalition efforts focused on the ability to shape the environment so that the kinetic effects were optimized. Consequently, MDED's primary charter is the convergence of partner operations and Coalition non-lethal effects. The MDED, while not strictly adhering to MDO as outlined by U.S. Army Training and Doctrine Command (TRADOC) Publication 525-3-1, *The U.S. Army in Multi-Domain Operations 2028*, adopted multi-domain thinking and an MDO approach to the CJTF-OIR mission. Through the creation of the MDED, CJTF-OIR created a scaled down MDO hub within the larger headquarters.

The ultimate benefit of changing CJTF-OIR's HQ structure to an MDED concept versus the standard Joint Effects concept may be subtle, but it is real. An important point of clarity is that MDO is not just combined arms with some space and cyber capabilities mixed in, but it is a fundamentally new way of thinking about warfare across both the competition and conflict phases of war to either make conflict unpalatable or victory decisive. Integration of all effects substantially increases effectiveness, and the MDED achieves this by serving as CJTF-OIR's integration cell for multi-domain operations and effects. This requires an intimate understanding of the environment, campaign objectives, intermediate military objectives, and operational effects while ensuring that all assets and organizations align optimally to achieve these effects with the requisite synergy and convergence.

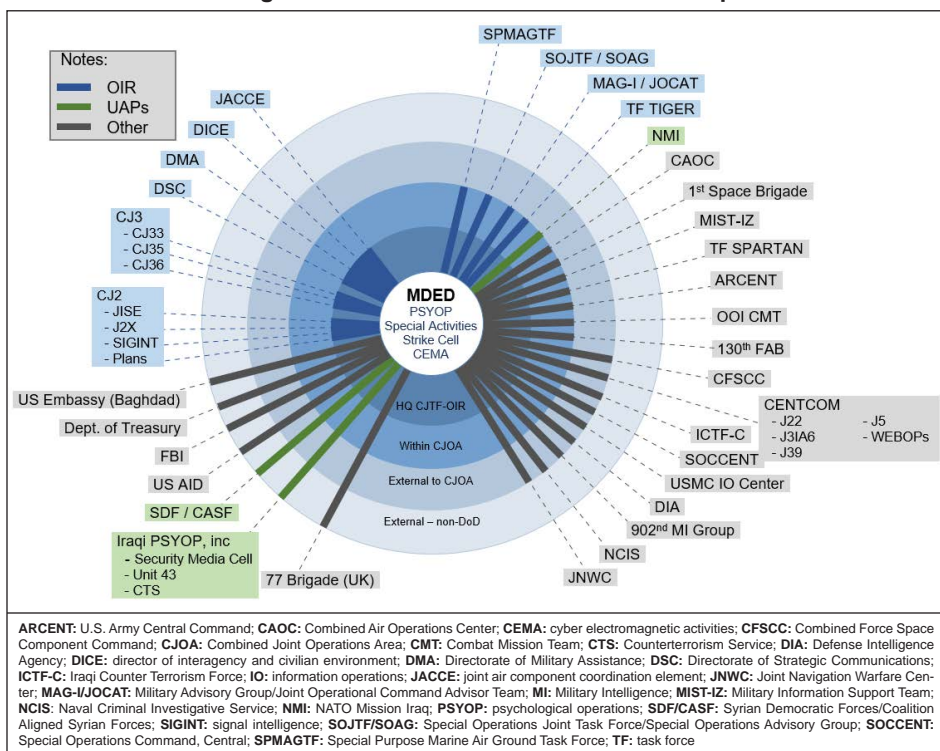
Conceptually, in lieu of a pan-staff MDO approach, the MDED naturally became CJTF-OIR's nexus by serving as its primary integrator, with reach extending into the various other staff sections and, importantly, into subordinate and external units and other governmental agencies. This integrative capacity is the root of MDO in practice. Consequently, the MDED's influence is broad, and it has become a significant contributor to CJTF-OIR's operational effectiveness; it is exponentially more effective than the sum of CJ34 and CJ39.

By ensuring the inculcation of a multi-domain approach, MDED planners in each functional area are better equipped to employ their own effects in conjunction with other capabilities to enhance operational effectiveness. This is a learning process, so it was not immediately apparent, but the leaders

quickly understood the benefit and actively supported the process. Additionally, with more emphasis on the MDO team versus individual assets, the senior capability representatives were able to step up and away from their stovepipes and more efficiently lend their experience to shaping multiple plans across the HQ. Finally, with more senior capability representatives engaged in the process, there was enough functional overlap that the team created an increased capacity for planning and cross-domain influence throughout the current and future operations staff sections as well as to commanders. In practice, only a moderate amount of time and effort determines which domain was relevant or how many domains to leverage for the sake of multi-domain adherence. Instead, the MDED solved problems using all the available assets, organic or externally requested, including the doctrinal air/land/sea/cyber/space as well as interagency, special operations forces (SOF), human, informational, and any other "domain" available. Thus, regardless of how one defines a domain, MDED leveraged it. There was less concern about which domains to employ and more focus on maximizing the use of resources to achieve the desired effect on targets.

Physical structural changes enabled and accelerated this cohesion. The creation of bigger, open workspaces ensured previously disparate teams were now in close proximity. While obvious to the point of cliché, and frequently downplayed as a merely superficial technique, it created an immediate dividend for the CJTF-OIR MDED team. Previously, the split of CJ34 and CJ39 across three distinct office spaces and two sensitive compartmented information facilities (SCIFs) exacerbated the functional stovepiping. By creating a large, open planning room, a large conference room, and one executive area, it nested team members together and they became more collaborative, which enabled the creation of novel solutions against tactical and operational issues. To mitigate against segregated SCIF areas, there were several weekly touchpoints introduced to ensure the SCIF workers had regular interactions with the remainder of the team. These centered around two weekly MDED meetings conducted each Saturday; the first was a morning huddle in which every team member, agnostic of rank, briefed their current projects for no longer than five minutes. The second meeting was an afternoon leadership seminar that served as an informal touchpoint and encouraged lateral thinking and problem solving within the group. These seminars were unique and beneficial as the topics were independent of current problem sets. Finally, daily touchpoints each morning quickly covered priorities, changes in the environment, progress on tasks, or other topics.

Figure 2 — MDED Stakeholder Relationships





The primary manifestation of these changes was the noticeably enhanced team cohesion and increased unity of effort across the MDED. A more integrated team enabled mutual understanding and deconfliction of capabilities while simultaneously promoting diversity of thought. This led to increased effectiveness of planning and problem solving by introducing novel solutions to traditionally stovepiped problems, which achieved the desired effects. A microcosm of this increased efficiency was the MDED plans team's approach to CJTF-OIR planning groups. Planners in the MDED are both lethal and non-lethal subject matter experts (SMEs) so they continually look for opportunities to leverage assets and effects across domains to create convergence of effects, as well as spatial or temporal advantages and opportunities to defeat competitors' short-term niche environmental supremacy. The CJ39 personnel's full integration into the larger staff created the most dramatic effect, facilitating a noticeable depth of environmental awareness and response time.

MDED planners operate in both the current and future operations sphere, so they have awareness of operational impacts as they happen, insight into how current conditions affect future operations, and the ability to anticipate changes in the operational and information environment. Having broader awareness has created a better ability to plan and operate under the umbrella of campaign priorities; this ensures the organization is deliberately driving toward the correct effects and desired endstates or conditions. As a result, the MDED achieves better understanding of desired effects across the HQ and highlights opportunities to leverage multiple assets for convergence, which creates a temporal or spatial advantage. Placing the relevant capability SME into the planning event at the right time enables efficient planning. More efficient use of SME time provides an ability to focus on relevant problem sets, improve synchronization, and then effectively employ the available assets.

A secondary benefit was the inculcation of an execution-focused mentality into the information-related capabilities. By being better linked to the Strike Cell and the tactical forward HQ, these previously long lead capabilities' SMEs were exposed to the benefits of maintaining awareness of the current tactical dilemmas. They could now access pre-authorized response options and concepts of operations (CONOPs) to use in real-time situations, which empowered commanders with the ability to leverage a wide range of lethal and non-lethal effects. This gave them the ability to create multiple dilemmas for our adversaries, which in turn generated flexibility in decision making at the operational level and mitigated CJTF-OIR's inability to ensure supremacy across a wide combined joint operational area

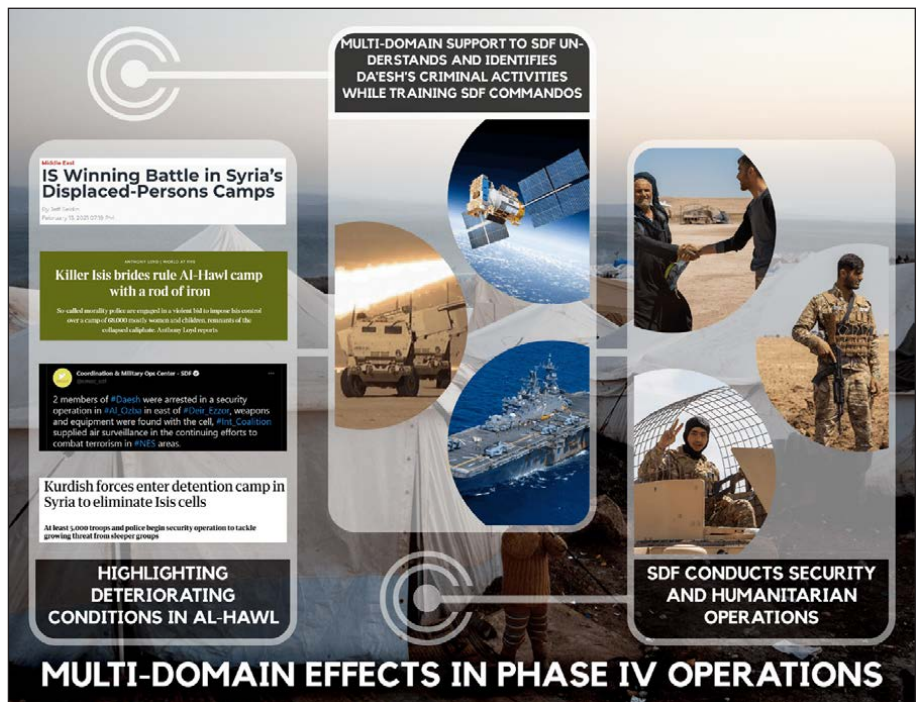


Figure 3 — Multi-Domain Effects in Phase IV Operations

by guaranteed provision of localized superiority at the commander's time and place of choosing.

Instead of agonizing about the difference between joint and multi-domain, consider multi-domain as the natural extension of joint. Joint is a step up from past operations, which were fairly service/domain centric. The joint concept focused on the integration of services and took the military's ability to synchronize and coordinate to the "next level." MDO is the natural extension of joint — it is the new next level. Where previously conducting joint operations was a pivotal milestone, it should now be the baseline. When you shift your baseline, you must conceptualize what your next step up must be. Multi-domain improves joint operations. We have enough practice and experience with joint operations to refine, improve, and introduce further complexity. Also, when the joint concept originated, the threat was markedly different than current and future threat environments. Joint simply isn't good enough anymore. MDO enables us to simplify the conduct of operations with partner force and ground forces, coalition, cyber, space, and technical effects to ensure success at a specific point in the tactical battlefield. MDO is not just a concept applicable to great power competition in the Pacific. The CJTF-OIR MDED experience proves that it can and should be modified to fit the environment then applied whenever and wherever U.S. forces operate.

Notes

- <sup>1</sup> Sir Winston S. Churchill, *The World Crisis, Volume III: 1916-1918* (London: 1927).
- <sup>2</sup> Dean S. Hartley III and Kenneth O. Jobson, *Cognitive Superiority: Information to Power* (Zurich: Springer International Publishing, 2021).
- <sup>3</sup> LTG Michael D. Lundy, "Meeting the Challenge of Large-Scale Combat Operations Today and Tomorrow," *Military Review* 98(5) (September-October 2018): 111.
- <sup>4</sup> COL (Retired) Scott King and MAJ (Retired) Dennis B. Boykin

IV, "Distinctly Different Doctrine: Why Multi-Domain Operations Isn't Airland Battle 2.0," *Army* 69 (3) (March 2019).

<sup>5</sup> TRADOC Publication 525-3-1, *The U.S. Army in Multi-Domain Operations in 2028*, 6 December 2018.

<sup>6</sup> A2AD is commonly accepted as layered and integrated; long-range precision-strike systems, littoral anti-ship capabilities, air defenses, and long-range artillery and rocket systems.

<sup>7</sup> U.S. Army Multi-Domain Transformation – Ready to Win in Competition and Conflict, Chief of Staff Paper #1, 16 March 2021, accessed from <https://api.army.mil/e2/c/downloads/2021/03/23/eeac3d01/20210319-csa-paper-1-signed-print-version.pdf>.

<sup>8</sup> Lead Inspector General for OIR's Quarterly Report to the U.S. Congress, October 1, 2020 – December 31, 2020, Washington DC: 9 February 2021.

<sup>9</sup> Edwin van Veen, Engin Yüksel, and Haşim Tekineş, "Waiting for Blowback: The Kurdish Question and Turkey's New Regional Militarism," Clingendael's Conflict Research Unit Policy Brief, September 2020.

<sup>10</sup> Lead Inspector General for OIR's Quarterly Report.

<sup>11</sup> Thomas Brading, "First Multi-Domain Task Force Plans to be Centerpiece of Army Modernization," *Army News Service*, 1 February 2021, [https://www.army.mil/article/242849/first\\_multi\\_domain\\_task\\_force\\_plans\\_to\\_be\\_centerpiece\\_of\\_army\\_modernization](https://www.army.mil/article/242849/first_multi_domain_task_force_plans_to_be_centerpiece_of_army_modernization).

<sup>12</sup> CJTF-OIR's MDED includes personnel from all five services (USA, USN, USMC, USAF, and USSF) as well as the UK (Army and RAF), Canada (Army), and Australia (Army).

**Major Benjamin Murphy (UK)** served as a multi-domain effects planner for Combined Joint Task Force - Operation Inherent Resolve (CJTF-OIR). He is currently serving as the UK Ministry of Defence's targeting lead for the Middle East. Major Murphy was commissioned into the Royal Artillery in 2012. His other assignments include serving as an AS90 troop commander on Salisbury Plain; assistant adjutant with the King's Troop Royal Horse Artillery; operations officer for P Battery (The Dragon Troop) Royal Artillery; fire support team commander with C Battery Royal Horse Artillery; and SO3 intelligence, surveillance, reconnaissance with the 12th (United Kingdom) Armoured Infantry Brigade where he deployed on numerous NATO exercises in France and Poland. He also deployed with Standing Joint Force Headquarters as SO2 J5 (Land) and on Operation Rescript as SO2 J3. He then served as brigade executive officer (XO) and lead on integration with 1st Armored Brigade Combat Team, 1st Armored Division in preparation for their deployment as part of Operation Atlantic Resolve.

**COL G. Damon Wells** served as the director of Multi-Domain Effects for CJTF-OIR in Kuwait and Iraq. He is currently serving as commander of Division Artillery, 4th Infantry Division, Fort Carson, CO. Some of his previous assignments include serving as director of the Commanding General's Planning Group at the Fires Center of Excellence, Fort Sill, OK; commander of 2nd Battalion, 20th Field Artillery, Fort Hood, TX, and Fort Sill, OK; rear detachment commander for 2nd Armored Brigade Combat Team, 1st Cavalry Division, Fort Hood; deputy commander of the 214th Fires Brigade, Fort Sill; security force assistance team leader in Afghanistan; executive officer for 2nd Battalion, 4th Field Artillery (MLRS), 214th Fires Brigade; and combatives and boxing instructor, powerlifting coach, and regimental guidance officer at the U.S. Military Academy at West Point, NY. COL Wells earned a bachelor's degree in psychology and master's degrees in kinesiology and strategic studies.

## VIGNETTE: Multi-Domain Effects in Phase IV: Humanitarian and Security Operations in Al-Hawl IDP Camp

In early 2021, Al-Hawl internally displaced persons (IDP) camp was in the midst of a wave of Daesh-inspired assassinations and violence. There were 66 attacks on refugees by Daesh sympathizers, and intelligence reports identified the camp as Daesh's nexus of smuggling and recruitment in northern Syria. The Syrian Democratic Forces highlighted Al-Hawl as a regionally destabilizing influence and requested CJTF-OIR support for their upcoming operation to provide security and humanitarian assistance to the camp's residents. This problem necessitated a multi-domain solution to enhance the partner force's capacity and ensure the enduring defeat of Daesh.

Understanding the environment and setting the operational conditions required contributions across multiple domains. SOF continued mentoring and training SDF commandos in preparation for the operation while air and naval platforms conducted electronic reconnaissance of the camp to understand how and where Daesh were operating. Additionally, space and CEMA assets conducted selective disruption of known Daesh frequencies to enhance the effectiveness of electronic surveillance, which identified Daesh command and control networks within Al-Hawl and links into their wider area smuggling and criminal activities. Liaison with various international and government agencies provided further intelligence, which helped to outline the best way to conduct security and humanitarian assistance in the camp while ensuring the safety of its residents. Concurrently, the Global Coalition highlighted Al-Hawl's deteriorating conditions from Daesh violence while CEMA amplified this in the information environment. The convergence and synergy of these effects provided Coalition and SDF commanders with understanding of the operational environment, which set the conditions for the upcoming operation.

The operation began with a carrier strike group maneuvering into the Eastern Mediterranean to ensure continued support from platforms both afloat and in the air. Additionally, the air component provided extensive intelligence, surveillance, and reconnaissance support to identify Daesh movement within and around Al-Hawl while an AC-130 gunship was on standby throughout in case of Daesh counterattacks against the IDP camp. To deceive Daesh of the focus of the upcoming operation, both conventional forces and SOF conducted a number of diversionary operations elsewhere in Syria. CEMA and space assets used their previous electronic surveillance to selectively disrupt Daesh command and communication networks in and around Al-Hawl, which allowed security and humanitarian assistance without Daesh interference. In conjunction with SDF assistance, Coalition and non-governmental organizational medical capabilities were ready to help any civilians wounded by Daesh. Public affairs teams and journalists recorded the SDF's efforts in Al-Hawl, and then CEMA amplified these stories in the information environment to highlight the SDF operation's positive impact on the camp.

The operation's success derived from convergence and synergy of effects across multiple domains at critical junctures. It was an archetypal Phase IV operation for CJTF-OIR employing multi-domain effects to support joint planning followed by partner force execution.