Born Multinational
Capability Solutions for Joint, Multinational, and Coalition Operations

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U.S. military operations are conducted in a multinational environment. This is true today and for the foreseeable future. Given this fact and the Chairman of the Joint Chiefs of Staff's emphasis on working with allies and other international partners, there are many advantages to certain capabilities being *born multinational*. A multinational development team offers the benefits of both inherent interoperability and a broad set of perspectives, insights, and knowledge sources. The pooling of resources also enables cost savings for each participant. The Multinational Capability Development Campaign (MCDC) provides a quick, affordable way to conduct projects designed to develop concepts and capabilities in collaboration with a

broad set of international mission partners. MCDC capability development projects offer a model of effectiveness and efficiency.

What Exactly Is MCDC?

MCDC is a Joint Staff program led by the director of Joint Force Development (J7). The program consists of 24 partner nations and international organizations focused on developing nonmateriel solutions to fill capability gaps for joint, multinational, and coalition operations. These capabilities are intended to meet the present and future needs of the United States and its potential mission partners. MCDC provides a mechanism for pooling and sharing resources in multinational collaborative development efforts directed at solving or mitigating common problems. The focus is on providing interoperable solutions at the best value. Economics is not, however, the sole driver of the MCDC approach.

Some may wonder why the United States supports the MCDC program given the other possible pathways for capability development. The National Military Strategy and our Joint Concepts envision multinational operations as the primary mechanism for mobilizing collective action from the international community. The United States works daily with multinational partners to address global risks and share the burdens of maintaining global security. Looking across U.S. strategy, threats, commitments, and recent experience, it is clear that current and future operations of most types will be multinational by nature. This view is clearly reflected and reinforced in the strategy, doctrine, concepts, and priorities of the many multinational partners with whom we will team.

Every nation, the United States included, brings cultural perspectives to capability development. When capabilities are developed by U.S. mechanisms and then transitioned to a multinational environment, a lot of time and effort may be required to address others' perspectives. Similarly, partner nations and organizations may have unique insights

into solution paths that others might not see. MCDC takes the approach that a broader set of perspectives makes for a better solution to a multinational problem. Projects undertaken as partnered efforts from the start are, in effect, born multinational.

The Joint Staff J7 established the MCDC program in 2013 in order to build and expand from the Multinational Experimentation (MNE) program. The legacy MNE series focused on concept development and experimentation (CD&E), with an emphasis on the latter. MCDC maintains the foundational building blocks that made the MNE series successful but moves into the realm of delivering solutions. MCDC builds on and goes beyond the MNE foundation, incorporating key changes in scope and mission necessary to meet the capability development requirements of the United States and its partners. In other words, MCDC is translating concepts into usable multinational capability.

For multinational force development purposes, it was important that MCDC not be constrained to CD&E methodologies but instead be able to define, produce, and transition relevant solutions and capabilities that could be used now and in the foreseeable future. While some MCDC projects still use basic CD&E methodologies to develop operational concepts, others elect to apply system design and engineering, Business Process Engineering, Six Sigma, Lean, and other methodologies and frameworks. All efforts examine the specific operational gaps and develop solutions to fill these using the doctrine, organization, training, materiel, leadership and education, people, facilities, and policy and interoperability framework to ensure results are comprehensive enough to have an operational impact.

MCDC continues to evolve and improve over time. As it begins its third iteration with the 2017–2018 program of work, significant improvements have been incorporated into the project proposal process, product quality control and consistency, documentation of internal processes, and transition of products to end users.

Nations desiring to become members of the MCDC community do so by requesting membership to the MCDC Executive Steering Group (ESG) via the MCDC secretariat. Information on membership as well as program details can be obtained from the secretariat in the Joint Staff J7. Generally, individual nations or intergovernmental organizations (IGOs)—for example, the North Atlantic Treaty Organization (NATO) and Economic Development Administration—apply to the ESG chair in writing and indicate their desired category of participation. There are two categories of participation to which a member of the MCDC community may belong: contributor or observer. The ESG chair will distribute such applications to the current ESG members for approval under silence. If no one has broken silence at the end of the suspense—usually 30 days—then the application is accepted and a nation or IGO becomes a member of the MCDC community.

How a Capability Development Campaign Works

MCDC uses a 24-month lifecycle for each program of work. This begins with a 6-month requirements analysis and planning phase, followed by a 16-month execution and production phase and a 2-month approval phase. The process starts with member nations and organizations proposing gaps, problems, or issues for consideration by the MCDC partners. The member nations use a blend of informal and formal processes to identify and *downselect* the set of common problems to be addressed in a campaign cycle, which is in effect the MCDC program of work.

The basic selection method is for those proposing projects to recruit members into a multinational project team to conduct the necessary work. Each MCDC contributing member has the ability to invite representatives from its national networks of public, private, and academic institutions as well as functional expertise from other centers of excellence and communities of practice to become project team members. This reachback feature of the program is instrumental in

producing innovative and nontraditional solutions. Those projects that are able to draw interest and resources sufficient to meet requirements are included in the program of work.

Past campaigns have resulted in several useful capabilities being implemented. Some examples include:

- Countering Hybrid Warfare, led by Norway, developed a common conceptual lexicon and framework for multinational efforts and determined conceptual linkages between policy, strategy, and operational implementation when countering hybrid challenges. The outcome was a better understanding of hybrid warfare and an operational framework for how nations and coalitions can deter, mitigate, and counter these threats.
- Counter Unmanned Autonomous Systems [C](UAxS), led by NATO Allied Command Transformation, developed an overarching concept to explore the potential threats to military and civilian personnel, leadership, and facilities and implement protection and countermeasure solutions; conduct a study exploring the evolving technology and future operation implications of UAxS in four domains (ground; air; sea; and command, control, communication, intelligence, and surveillance); explore policy recommendations on priority areas for both future capability implementation and integration with existing assets; and develop policy recommendations on priority areas for both future capability implementation and integration with existing assets.
- Integrated Communication Demonstration (ICD), co-led by Germany and Sweden, developed a validated prototype set of solutions to address processes, organizational structures, and tools for integrated communication and communication management, including practical recommendations for policy, doctrine, standard operating procedures, and training concepts. ICD deployed a capability for designing demonstration events

needed to engage future customers and users of the prototype.
- Multinational Defensive Cyber Operations (MDCO), led by the United States, created a MDCO planning guide for use by a multinational force commander. It provides repeatable processes for quickly and effectively integrating multinational forces to conduct defensive cyber operations.
- Federated Mission Network/Mission Partner Environment Civil-Military Enhancement, co-led by the United States and NATO, provided an improved ability to rapidly and effectively respond to international crises through enhanced collaboration and cooperation between military and civilian organizations. The capability development focused on standardizing processes for identifying information, data exchanges, and service requirements; facilitating timely mission-specific information exchange; and developing a means of validating interoperable and compatible information systems and support tools.

The current MCDC campaign includes projects that enable the challenges our multinational team is facing. These include:

- Countering Hybrid Warfare 2
- Globally Integrated Logistics for Rapid Aggregation
- International Cyberspace Operations Planning Curricula
- Integrated Coalition Personnel Recovery Capability
- Integration of Lethal and Nonlethal Actions
- Information Age Command and Control Concepts
- Military Strategic Communication Implementation
- Medical Modular Approaches
- Federated Mission Networking/ Mission Partner Environment Civilian-Military Information-Sharing Project (FMCM, second scenario).

The MCDC project to improve FMCM information-sharing provides an excellent example of how well this

approach works. FMCM2 is the second scenario of the FMCM information-sharing project. This project, which sees a continuation and expansion of the 2016 implementation, serves as a good example of how MCDC works and the results that can be achieved.

FMCM2 is a multinational project developing a capability for mission partners to share information with nonmission partners—especially international and multinational organizations—when operating in a common environment. This capability is important where:

- Nations' military forces are participating in either Federated Mission Networking (FMN) or Mission Partner Environment (MPE), or frequently operate alongside nations that do so.
- These military forces have operational requirements to share information with nonmilitary entities such as governmental agencies of other nations, international civilian organizations, or the humanitarian community.

The FMCM2 project addresses both FMN/MPE capability development requirements for civilian-military information-sharing and the need for an operational concept and guidebook to support implementation by member nations choosing to apply the concepts, practices, and standards. FMCM is a military-led effort performed by a team made up of MCDC members. The team is actively sharing information with key organizations including the Department of State, U.S. Agency for International Development, United Nations (UN) Civil-Military Coordination Section, International Committee of the Red Cross, and International Federation of Red Cross and Red Crescent Societies. When implemented, FMCM will provide architectures, standards, techniques, and procedures for information-sharing using the public Internet environment, compatible with those used by nonmilitary entities such as governmental agencies of other nations, international organizations, and the humanitarian community.

U.S. Soldier deployed in support of CJTF–Operation *Inherent Resolve* discusses operations with 9th Iraqi army division leaders during offensive to liberate West Mosul from Islamic State, near Al Tarab, Iraq, March 19, 2017 (U.S. Army/Jason Hull)

Background

As with any project, the first step was problem identification and definition. This problem was analyzed during the 2015–2016 MCDC cycle within the FMN/MPE civilian-military 15/16 project to address technical, process, and standards-based challenges related to civilian-military information-sharing. The major indicator that this problem existed was found through research.

A review of FMN/MPE and other international resources indicated that there was no extant joining, membership, or exiting instruction templates for civilian-military information-sharing as described above. Also, no similar protocols were identified under any other international standardization effort. A survey of after action reviews and lessons learned drawn from multiple nations' experiences indicated chronic problems in this area.

Other studies, such as the one conducted by the Stockholm International Peace Research Institute, identified problems with civilian-military information-sharing as fundamental to issues that occurred during humanitarian and disaster response operations. The UN Office for the Coordination of Humanitarian Affairs has recognized this as a problem area. This finding was reinforced by surveys of and focus sessions and interviews with experts from both the military and civilian communities.

Specific statements collected by the FMCM 15/16 solution development team related to these problems included:

- The problem affects all MCDC participating nations who are also users of the FMN/MPE approach to multinational network federation.
- A set of architectures and instructions for information-sharing outside

the FMN/MPE environment does not exist outside those produced by FMCM.

Current Project

FMCM is anticipated to have a big payoff in terms of information-sharing with civilians in the mission space. It will provide military forces using FMN/MPE the capability to conduct civilian-military information-sharing between members of a federated network and entities operating external to the network utilizing a public Internet environment to leverage common core services. The FMCM approach will allow information-sharing to be established in a coordinated process early in the operations rather than ad hoc over a much longer period. This will result in improved unity of effort by responding military forces to coordinate, collaborate, and cooperate with civilian

entities within both the affected state and humanitarian organizations. Better information-sharing will support the development of a common awareness of the operational environment and development of a common operating picture among all participants. Additionally, information shared by non-FMN/MPE entities directly with the FMN/MPE network would be available to all FMN/MPE member participants as part of the military-military common operating picture. Information-sharing among stakeholders is foundational to a comprehensive approach for multi-dimensional crisis response and peace operations.

Information-sharing via the public Internet is critical for FMCM. Military-military information-sharing developed by FMN/MPE will be incomplete if it does not also include the ability for multinational forces to share information external to the network in an unclassified environment using the public Internet. Inability to do this would necessitate that each FMN/MPE nation establish a separate information-sharing approach to the non-FMN/MPE entities. This would create an unmanageable burden for the limited capabilities of these nonmilitary entities to handle information exchanges. That in turn reduces the availability of information to develop and share a common operational picture.

Success will result in more timely, reliable, and clearer civilian-military information-sharing between a FMN/MPE federation network and non-FMN/MPE entities. The FMN/MPE federated network will serve as a single point of contact for humanitarian organizations and affected states to exchange information with FMN military forces instead of the current requirement to have individual information exchange paths between responding military commands and non-FMN/MPE entities. Enhanced information-sharing will support improved overall situational awareness, deconfliction of operations, and better coordination for both military and civilian participants.

The MCDC path is proving successful for FMCM because MCDC offers the

Joint Publications (JPs) Under Revision (to be signed within 6 months)

JP 1-05, *Religious Affairs in Joint Operations*

JP 3-07.3, *Peace Operations*

JP 3-07.4, *Counterdrug Operations*

JP 3-11, *Operations in CBRN Environments*

JP 3-12, *Cyberspace Operations*

JP 3-15.1, *Counter–Improvised Explosive Device Operations*

JP 3-17, *Air Mobility Operations*

JP 3-24, *Counterinsurgency*

JP 3-28, *Defense Support of Civil Authorities*

JP 3-29, *Foreign Humanitarian Assistance*

JP 3-32, *C2 for Joint Maritime Operations*

JP 3-57, *Civil-Military Operations*

JP 4-0, *Joint Logistics*

JP 4-04, *Joint Contingency Basing*

JP 4-09, *Distribution Operations*

JP 4-10, *Operational Contract Support*

JPs Revised (signed within last 6 months)

JP 1, *Doctrine for the Armed Forces*

JP 3-22, *Foreign Internal Defense*

JP 3-27, *Homeland Defense*

JP 3-33, *Joint Task Force Headquarters*

JP 3-35, *Deployment and Redeployment Operations*

JP 3-60, *Joint Targeting*

JP 3-72, *Nuclear Operations*

JP 4-01, *The Defense Transportation System*

JP 4-02, *Joint Health Services*

following payoffs and benefits that capability developers should consider:

- born multinational capabilities
- lower cost
- broader perspective
- early consensus
- speed of delivery.

MCDC offers the United States and its mission partners an opportunity to collaboratively, rapidly, and affordably define operational capabilities and nonmateriel solutions. These solutions are born multinational. Multinational solutions are more readily adopted by our allies and other partners because of the consensus-building inherent in MCDC. Any U.S. command or organization with a capability requirement can leverage the MCDC as an opportunity to exploit these benefits. **JFQ**