

This article presents several observations made by the MAGTF Staff Training Program (MSTP) personnel during joint and Service exercises with the operating forces and the MCU, and focuses on command and control (C2) systems training. These observations identified C2 support training shortfalls and proposed remedies. Although many of these shortfalls and remedies have been previously identified, the solutions require actions on many fronts. This article offers four potential training and organizational alternatives to remedy these critical operational shortfalls.

Observations

The origin of many Marine Corps C2 systems can be traced to a strategy of leveraging the research and developmental efforts of our sister Services. This strategy has helped the Marine Corps avoid expending limited research and development resources, but has also resulted in fielding systems such as the contingency Theater Air Control System automated planning system (CTAPS), Integrated Fire Support Automated System (IFSAS), and tactical combat operations (TCO) without comprehensive training plans. More recently, theater battle management core system (TBMCS), Advanced Field Artillery Tactical Data System (AFATDS), and Intelligence Operations Server (IOS) V(1) have followed the same fielding path.

The varying developmental timelines and production pipelines have led to difficulties in integrating these systems into a coherent C2 framework. The result is a conglomeration of dissimilar hardware and disjointed networks that make it difficult to implement an integrated C2 system.

While recently fielded C2 systems have addressed some interoperability issues, training remains a basic shortfall of Marine Corps C2. The absence of a comprehensive C2 training strategy for Marine Corps officers, staff noncommissioned officers (SNCOs), and system operators degrades the full potential of this technology. An effective C2 training strategy must encompass the entire spectrum of skills progression training—from entry level, to new system fielding, to sustainment training—and must address the use of these systems by commanders and their staffs, not merely from the perspective of a technician.

While recent initiatives have made improvements in the area of C2 systems training, this issue still plagues the operating forces. One of these initiatives involves an annual series of mobile training teams (MTTs) conducted by MSTP with the operating forces. These MTTs are broken into two principal categories—technical and functional. It is generally accepted that the technical aspects of network development and implementation fall within the staff cognizance of the G-6/S-6. However, when discussing functional advocacy for C2 systems, the delineations become less defined. MSTP's functional MTT focuses on collaborative planning, C2 systems familiarization (with particular emphasis on those C2 systems which lack a functional sponsor), and the command's information management efforts.

Originally conceived as part of the "C4I for the Warrior" initiative, the MSTP MTTs are a collaborative effort between Marine Corps Combat Development Command (MCCDC) and Marine Corps Systems Command (MARCORSYSCOM) to fill operational training shortfalls. As other training shortfalls were identified, the MTTs evolved to address these shortfalls and provide interim solutions. While this strategy provides operating force units with system training in support of specific exercises, it does not address the systemic changes needed within our C2 systems training. Training and Education Command (TECOM) has also recognized this deficiency and within the past year has begun developing C2 systems training. The continued support and involvement of the operating forces is vital to realize a comprehensive, integrated training package.

Training Solutions

As a first step in providing training solutions, MSTP has created a Command and Control Systems Lab within its' Battle Staff Training Facility (BSTF) at Quantico. The vision for the lab is to provide an immediate training resource that will be available to Marine Corps University (MCU) students. The lab includes all doctrinal C2 systems across the warfighting functions that exist within a MAGTF COC to include IOS V(1), IOS V(2), AFATDS, TBMCS, and the Global Command and Control System (GCCS).

In addition, the lab incorporates currently fielded collaborative planning tools and applications. One of the challenges is generating visibility and interest in using the lab. Currently no formal instruction exists for MCU students to get hands-on training with these systems nor has time been allocated during the Occupational Field Expansion Course (OFEC) portion of their academic year. The lab could provide the student with an opportunity to use these systems in the classroom and reduce the steep learning curve experienced upon their return to the operating forces.

The second training solution expands the existing functional MTTs to include a C2 systems training track. This requires TECOM, in conjunction with MSTP and MARCORSYSCOM, to develop a program of instruction that supports MAGTF C2 training requirements until the formal establishment of a MAGTF C2 Systems Training Course. This training could be provided in a formal course at Quantico, through distance learning, by contractor provided training, or by using the training resources of our Expeditionary Warfare Training Group (EWTG) Centers.

The operating forces need a ready training resource that does not require the MAGTF commander to dedicate organic tactical assets towards the training problem. MARCORSYSCOM should support efforts to procure additional C2 systems that could be placed in local C2 training facilities or labs at major posts and stations.

Organizational Solutions

The first organizational solution is to establish a stronger connection between the systems developer, MARCORSYSCOM, and the Corps' training provider, TECOM. The absence of integration between systems and training has left many units without personnel with the integrated skill sets required by these C2 systems. This problem is routinely evident during the MEF exercises supported by MSTP. MARCORSYSCOM and TECOM must coordinate their efforts to ensure that MAGTF staffs and their chief systems integrator—the information management officer (IMO)—receive formal C2 systems training. This training should be based on performance standards derived from a clearly articulated operational C2 architecture.

Understanding the capabilities and limitations of each system—and more importantly the relationships between systems—enables the MAGTF officers, SNCOs, and Marines in the combat operations center to focus on information that supports the commander and his decisionmaking. It is imperative that these relationships are captured by the information management plan (IMP) and understood by the commander, his staff, and those Marines manning the various command posts. The IMP reflects all three elements of C2—information, people, and C2 support structure. Development of an IMP is a vital step to ensure decisionmakers have the information they require, when they need it, in a format that they quickly understand. Each command must develop an IMP tailored to manage its information in the context of its mission and the current situation or event.

The final solution deals with the formal establishment of two key billets within the MAGTF and the major subordinate commands—the information systems officer (ISO) within the G-6 and the information management officer (IMO) under the cognizance of the chief of staff. With the recent explosion in

technology and the ever-increasing complexity of C2 systems, the need for full-time staff officers to address both the technical and operational aspects of C2 systems employment is clear.

The designation of trained officers to hold these key billet holders has been a challenge. Skill sets and training for IMOs and ISOs follow no set pattern. Without the formal establishment of responsibilities, training, and assignment policy, this trend is certain to continue. Discussions with operating force commanders, the Total Force Structure Division (MCCDC), and Manpower Management (HQMC) indicate that assigning officers on a Special Education Program payback and ground SNCOs as part of a post-SNCO Degree Completion Program is a possible remedy. Measures such as these will provide a source of officers and SNCOs with the requisite skill sets needed to function effectively at the MAGTF and major subordinate command level.

Conclusion

Technical systems are part of effective C2. These tools must be used within the framework of how we operate. The C2 system must be built on a firm foundation of training. Marine Corps Warfighting Publication (MCWP) 3-40.2, *MAGTF Information Management*, now in final edit, addresses the issues discussed above, and elaborates on C2 systems training. Once published, it will establish the doctrinal framework and guidance for C2 systems training. In the interim, this article is meant to stimulate some professional discussion on the way ahead for formalizing C2 systems training within the Marine Corps.