

Maneuver Support Center and Weapons of Mass Destruction-Civil Support Team Training and Education

By Mr. Peter G. Schulze

Weapons of Mass Destruction-Civil Support Team (WMD-CST) members are motivated Soldiers and Airmen who have mastered complex technical tasks and can perform them under the most hazardous conditions.¹ While individual teams are state-controlled organizations and may vary in quality, as a group they are one of the most capable all-hazard (chemical, biological, radiological) domestic response assets in the Department of Defense (DOD). The ability to realize this capability is impacted by many issues. Among the most critical are—

- Procuring technology improvement in a timely manner, given DOD process challenges.
- Making the correct choice of technology solutions.
- Having a dedicated commitment by the leadership for both process change and the necessary investment in technology systems.
- Providing for effective training and education.

This article focuses on the latter issue, examining how the United States Army Maneuver Support Center (MANSCEN), working with the National Guard Bureau (NGB), initiated a performance analysis process that led to an effective training and education program in support of the WMD-CST mission.

Training and Education: A Long-Term Investment

Training and education can make or break any technology implementation and determine when, and if, the investment in a materiel solution continues to pay dividends in expected capability. For this reason, MANSCEN and the NGB, as the specified and functional proponents, formed a partnership dedicated to implementing training and educational solutions that can be traced to performance indicators and their causal relationships. In a larger sense, these organizations have come to fully appreciate the value of knowledge and the true benefit of a continuum of training and education throughout the tenure of assigned personnel. The complexity of CST systems, the nature of the CST organization, the congressional visibility of the program, and their assigned mission contribute to a construct that is difficult to quantify around a single Service's set of doctrine, organizational, training, materiel, leadership and education, personnel, and facilities (DOT-MLPF) analytical processes. As a result, the partnership looked toward a multi-Service, multiagency perspective to analyze requirements and develop training and educational solution sets. While this approach is not typical for traditional Army analytical practices, the perspective aligns well with a complex set of commercial off-the-shelf systems, the

associated need for technological innovation and cognitive improvement, the need to operate with civil authorities, the multi-Service composition of the team, and DOD training transformation.

DOD has published a vision for transforming how to train and educate Servicemembers to better prepare them to deal with the challenges they will face today and tomorrow.² MANSCEN and the NGB applied that vision to support a strategic goal that recognized the need to be responsive to a changing threat environment by taking a “lifelong approach” to enhancing knowledge and skills, as well as giving the unit commander maximum latitude to exercise individual and small-unit initiative. This approach applies the theoretical tenets of the 2006 Strategic Plan for Transforming DOD Training and Field Manual (FM) 7.0, *Training the Force*, into a capabilities-based training and education program designed to be responsive to technical innovation and evolving threats.

Historical Paradigm

Any look at the WMD-CST training and education program should begin with the initial tasking following the DOD Inspector General Audit D-2001-043, dated 31 January 2001. This report found that “Training programs and materiel for WMD-CST personnel were not sufficiently identified, developed, approved, and implemented.”³ On 1 February 2001, the Deputy Secretary of Defense approved a decision document that laid out the proposed corrective actions to address the department’s concerns with the program. It required DOD, under the lead of the Assistant Secretary of Defense (Reserve Affairs), to conduct a formal program review and report to the

Deputy Secretary of Defense not later than 1 August 2001. On 10 September 2001, the Deputy Secretary of Defense approved the results of that program review, which directed the adoption of interim training standards and required the Army to institutionalize training, in addition to completing a formal task analysis for the WMD-CST program. This analysis was assigned to the Commander, MANSCEN, on 28 June 2002, when the Army Assistant Chief of Staff for Operations and Plans designated MANSCEN as the specified proponent for WMD-CSTs. MANSCEN established an integrated concept development team (ICDT) that was approved on 29 May 2003. In partnership with the NGB, the ICDT established a formal process for reviewing each of the six functional areas of the CST—survey, command, operations, medical, communications, and administrative/logistics—as well as common core requirements. Starting in August 2004, the doctrine, training, and leadership (DTL) working group of the WMD-CST ICDT refocused all previous efforts and proposed an analytical plan consistent with DOD training transformation and WMD-CST program goals as aligned with CST commanders’ priorities.

Analytical Foundation

Before the establishment of the ICDT, the WMD-CST community developed a history or feeling of independence from rigid stovepipe DOD processes. As a result, building an appropriate training and education program required significant cooperation with the CST community as well as consensus and negotiations among diverse stakeholders, including the following:

- United States Army Chemical, Biological, Radiological, and Nuclear School (USACBRNS)



Civil support team response training

- United States Army North
- Joint Program Manager
- United States Army Training and Doctrine Command
- United States Army Medical Department Center and School
- United States Army Signal School

Each stakeholder had its own set of agendas, processes, perspectives, and perceived requirements to be considered and addressed in order to document and institutionalize WMD-CST training and education. Despite these and other competing institutional activities that play a part in domestic consequence management, MANSCEN was and continues to be the unifying organization that supports the NGB's efforts toward building and sustaining the overall success of the WMD-CST program.

The ICDT cochairs—NGB Joint Staff Operations Directorate—Domestic Operations and MANSCEN Chief of Staff for Army National Guard Affairs—encouraged a management approach that recognized the need to adapt many institutional products, stovepipes, redundant processes, and gaps into an integrated program applied to effectively serve the members of the WMD-CST community and their associated mission. Their strategic training and educational goal is to promote joint and interagency interoperability by advancing the procedural use of advanced detection, analytical, and communications equipment; improving techniques for operating in a hazardous environment; enhancing cognitive skills; and developing adaptive leaders. This goal emphasizes the development of the individual and the unit based on operational expectations, both in regard to necessary tangible skills and

desired intangible attributes. In order to fully implement this goal, the DTL working group devised an overarching plan that was designed to take advantage of, and maximize opportunities within, the institutional, operational, and self-development domains.

In an environment where Airmen, Soldiers, and leaders must apply and transfer learned skills to an unlimited set of conditions, limiting training and education to the institutional domain did not provide for “mastery” learning, where iteration occurs between learning, experience, and continued learning until mastery is achieved.⁴ Determining which domain provided the most effective points of intervention and reinforcement throughout the learning process is critical for personnel expected to operate in ambiguous hazardous environments and complex situations. Figure 1 illustrates how the training and education domains, skill levels, experience, and the operational environment interact and shows their associated propensity for change.

Variations of this construct, while well articulated in DOD and Army documents, are not typically applied nor encouraged by proponents and customers of the institutional training domains. There is a natural tendency to use institutional training and education as the cure for most performance problems, resulting in costly solutions that do not address the root of the problem. Identifying critical training and education solutions throughout all the domains helps reduce the overall costs while increasing the effectiveness of the WMD-CST training and education program. The structured analytical approach used by the DTL working group served to mitigate the natural tendencies for specific institutional solutions, despite significant pressure by training providers and customers to conclude every analytical effort with a formal institutional solution.

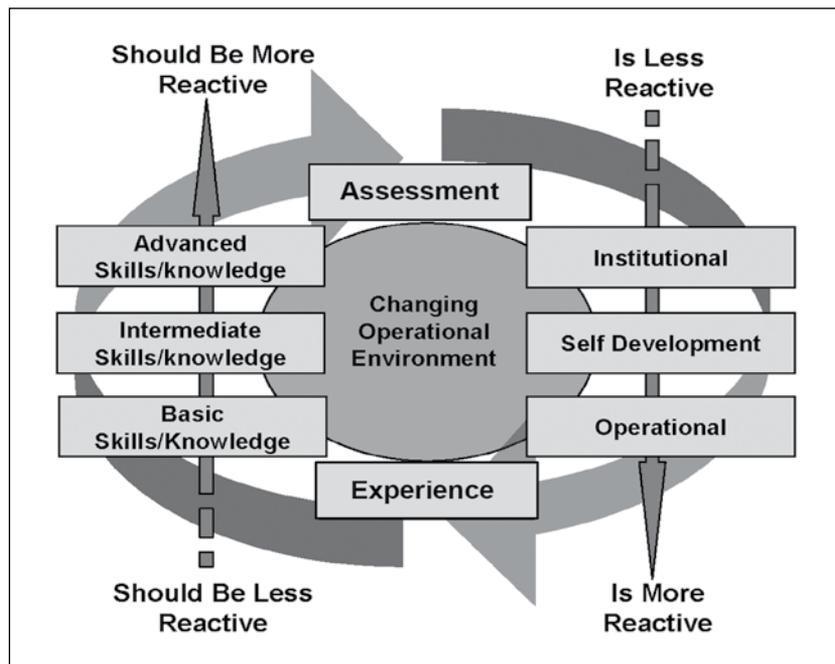


Figure 1. Training Interaction Model

Analytical Construct

The process used to validate, develop, and institutionalize WMD-CST training and education requirements continues to be a deliberate and anticipatory effort by MANSCEN and the NGB. The unique personnel composition of the teams, complex array of equipment, regulatory environment, and DOD Inspector General visibility required a more comprehensive analysis than previously attempted by MANSCEN. The DTL cochairs realized that the traditional DOTMLPF needs analysis was not structured to support a program designed to operate from a multi-Service, multiagency perspective. Army DOTMLPF analysis is nonprescriptive and is often applied as a gap-analysis tool, generating perceived requirements for each DOTMLPF component without a causal or comprehensive set of performance indicators and potential solution sets for the entire system. The

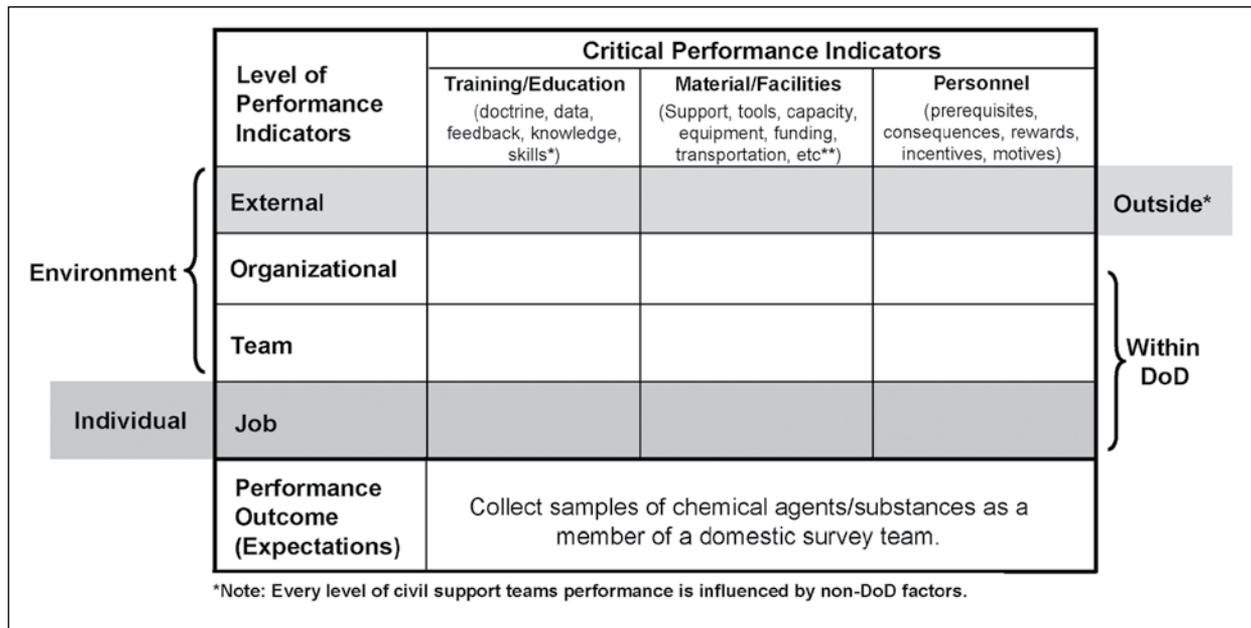


Figure 2. Modified Synchronized Analysis Model

importance of using a structured performance-analysis model is directly related to the need to align potential performance issues to their appropriate solution. The visibility of the CST program required an accurate assessment of potential performance issues in order to rapidly implement a targeted set of solutions. For that reason, under the guidance of the DTL cochairs, the USACBRNS staff approached the analysis from a human performance technology (HPT) perspective. The framework of the performance analysis was guided by the application of a modified version of Thomas Gilbert’s Behavior Engineering Model (BEM), known throughout the HPT professional community.⁵ Modification of the original BEM was initiated December 2005 by the USACBRNS staff to support military-specific doctrine, organizational, training, materiel, and personnel performance issues. The model has continued to mature and is now derived in part from Dr. Anthony Marker’s Synchronized Analysis Model (SAM).⁶ This variation of the BEM stratifies performance indicators into various levels, allowing the analyst to pinpoint potential barriers to full performance at the individual, job, organizational, and external levels. The model used for the CST program integrates the cause-analysis model of Gilbert’s BEM with levels derived from various environmental-analysis models, as populated with specific DOTMLPF elements.

Figure 2 typifies one of many performance expectations modeled by the USACBRNS staff to organize volumes of data and apply cause-and-effect relationships for various defined outcomes. This type of data organization was applied to the analysis process to validate actual or potential performance gaps that could lead to the development/modification of training and education solutions.

While the application of HPT is new to the Army, it has been used with much success throughout industry and other branches of Service, including the United

States Navy and United States Coast Guard. Applying HPT processes to support the CST program served to align performance gaps with solutions and provided the CST community with a sound rationale for specific recommendations made by the DTL working group. The success of any performance improvement process is in its ability to accomplish measurable results that are aligned with the mission and goals of the organization. Since the

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WMD-CST program was previously criticized by the DOD Inspector General for not connecting training and education to documented requirements, the process was in part designed to realign mission requirements with the appropriate training and education solutions, as well as provide a culture of continuous improvement based on changing operational imperatives. The process achieved the following results:

- Revised the basic course (Civil Support Skills Course) to include full International Fire Service Accreditation Congress compliance and reduction in course length by 4 days.
- Established a formal review cycle to update and/or modify required training and education.
- Reduced Civil Support Skills Course execution costs by 30 percent.

- Stratified domain and competencies for CST training and education requirements as documented in the NGB yearly planning guidance.
- Validated 71 percent of the courses on the CST training matrix.
- Reduced or eliminated redundant training.
- Approved an Air Force Job Qualification Requirement for the Unified Command Suite.
- Developed the Operations Sections Course.
- Developed the CST Precommand Course.
- Developed the improved Analytical Laboratory Course (Block 0).⁷
- Developed the CST Combined Arms Training Strategy (CATS).
- Developed CST doctrine (FM 3-11.22, *Weapons of Mass Destruction–Civil Support Team Operations*, 10 December 2007).

Performance issues that could not be mitigated by a training and education solution were referred to the applicable CST personnel and/or materiel working groups. While there continue to be measurable successes in the application of HPT to the WMD-CST program, some systemic problems remain. Most of these problems relate to an inability to apply clearly defined performance measures and outcomes within established institutional processes and associated unit training products. Fortunately, MANSCEN and the NGB continue to provide strategic oversight and leadership through the ICDT process. This contributes to a culture of planned improvement and will certainly lead to increasing capability for the WMD-CST program.

Summary

The challenge for MANSCEN and the NGB was to develop a comprehensive training and education program designed to support a joint unit within Army organizational and institutional constraints. The ICDT has, over the years, successfully navigated many of the complex institutional processes. It has provided a unified voice that supported and reinforced communication and negotiation among stakeholders with their own set of agendas, processes, perspectives, and perceived requirements, keeping them focused on supporting the WMD-CST mission. The ICDT structure and unified leadership of MANSCEN and the NGB contributed to the overall success by focusing all members on a training and education goal that supported the following objectives:

- Strengthen CST operations by preparing teams for evolving concepts.
- Improve team readiness by aligning education and training to mission requirements.
- Provide for unique local needs.
- Develop individuals and teams that intuitively think “multiagency.”

- Develop individuals and teams that improvise and adapt to emerging crises.
- Achieve unity of effort from a diversity of means.

When tasked by the ICDT to solve a set of WMD-CST-specific training problems, the DTL’s analytical plan produced a systematic performance-based set of solutions with broad applicability. These solutions focus on tying performance indicators with their causal relationships and implementing appropriate measures. Overall, the approach taken by MANSCEN and the NGB supports a continuous, adaptive process to ensure that all individuals and CST units receive the timely and effective education and training necessary to enable success in joint and multiagency domestic WMD response operations.



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Endnotes

¹Government Accountability Office Report, “National Guard Needs to Clarify Civil Support Teams’ Mission and Address Management Challenges,” GAO-06-498, May 2006.

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⁴M.K. McGinn and W.M. Roth, “Preparing Students for Competent Scientific Practice: Implications of Recent Research in Science and Technology Studies,” *Educational Researcher*, Volume 28, Number 3, 1999, pp. 14-24.

⁵T.E. Gilbert, *Human Competence: Engineering Worthy Performance (Tribute Edition)*, Pfeiffer: Silver Spring, Maryland, 1 March 1996.

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⁷American National Standards Institute Z490.1-2001, *Criteria for Accepted Practices in Safety, Health and Environmental Training*, American Society of Safety Engineers, August 2001.