

Enterprise Distance Learning for WMD-CST

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Enterprise Distance Learning for Weapons of Mass Destruction – Civil Support Team (WMD-CST)

**Case Study Report**

**Introduction**

Congress passed the Defense Against Weapons of Mass Destruction Act in 1996. It directed the Federal government to enhance the ability to deter, prevent, and respond to terrorist attacks involving Weapons of Mass Destruction. It also led to the formation of Weapons of Mass Destruction Civil Support Teams (WMD-CSTs) in each State in the U.S. and its territories. The teams provide direct support to the local and state emergency response organizations. The groups belong to the State they are located in, but they are Federally and State-funded. They meet the pressing demands as part of a state emergency response structure. Now, the U.S. has 57 teams of 22 people for in each State. It also has two teams in Florida, two in California, and one in Puerto Rico and the Virgin Islands (Bogart, 2001). In this case study, we will analyze individual roles and functions within the 31st Civil Support Team in the State of Delaware and describe how the learning and development (L&D) plan is executed. Our research question is what stages of Learning and Development do CST learning programs occupy, and how can we maximize the efficiency of L&D based on analytics and findings?

**Methodology**

For research methodology, we will conduct a case study of WMD-CST teams based on scholarly sources and Department of Defense (DOD) vs. Enterprise learning programs as both entities are required for teams' qualifications. Then, we will conduct Learning and Development (L&D) stage analysis and propose a solution for improving the CST yearly training plan by developing an online Hazmat course and a mentorship program to support it.

Based on the learning and development matrix, WMD-CST organization can be placed under three stages:

- Stage 2 Consistent Events
- Stage 3 Institutionalized L&D
- Stage 4 Enterprise Learning

Reasons for placing CSTs' L&D under three stages are as follows:

- Due to our research, we found out that Department of Defense is considering such limited overseas missions as assisting foreign nations in developing Weapons of Mass Destruction response teams at international events, such as the Olympics, in helping provide critical monitoring and response support where enterprise use of equipment will be necessary (United States Government Accountability Office, 2006).
- It is also proposing a limited role for the CSTs to coordinate and operate with Mexican and Canadian officials in the event of a cross-border WMD incident (D'Agostino, 2006, p.87).
- The U.S. National Guard Bureau is the first organizational adopter of real-time physiological monitoring for operational safety and performance; with system rollout occurring in 2017 to its 57 CST teams across the U.S. and its territories. This requires the development of training materials and a medical, technical directive for suggested operating guidelines, and logistics integration (Tharion et al., 2017).
- The complexities of future events could even be more daunting because a terrorist attack in the U.S. could include more than one ground zero, which intensifies CST training program (Heffelfinger et al., 2013).

- Widely available chemical, biological, radiological, nuclear, high yield explosive, and cyberspace security materials, technologies, and equipment often have dual uses. Preventing terrorist organizations from acquiring these materials is a necessary but formidable challenge.
- Additionally, the cyber domain has grown tremendously and may be used to target vital infrastructure and resources (Stewart, 2009).
- In its annual learning and development plan, WMD-CSTs have to include traditional military education and civilian training from several specialized agencies. If the team does not plan each line of training and each stage of development carefully, it is easy to fall behind on the requirements that are not optional and that are federally and State-enforced. We highlighted and explained the specific categories of CSTs' learning and development stages in Appendix 1 at the end of this document.

### **Literature Review of the Case Study**

Major Adrian T. Bogart III, 2001, analyzed Civil Support Teams as an example of how the Department of Defense supports civil authorities' efforts to meet the emerging threats of the 21st century, which allows us to place CST's learning and development plan under certain stages of L&D Matrix. The CST members follow an in-depth emergency responder training program. They undergo more than 600 hours of initial training over and above their military occupational specialty qualification or professional military education requirements. The teams are on call 24-hours-a-day, 7-days-a-week during contingencies, major exercises, and national security special events. They are considered joint task teams that consist of Army and Air Force personnel. They work with the FBI, Homeland Security, Bomb Squads, and Police. The teams are fielded with a combination of 30 percent Army standard and 70 percent of commercial off-the-shelf equipment (Bogart, 2001).

The WMD-CSTs are assigned to their States and operationally committed to an incident by the military chain of command. They go through a series of on-site and online training before they even attempt to step into real-life situations. All the training is directed Federally, and the State makes sure CSTs follow all National Guard Army and Air Force requirements. It means that, although the teams work full-time and they are on call 24/7, they still have to take a physical fitness test every six months, they still have to qualify with their weapons, and they follow all the commands given by a Government of the State they belong to. All online training is usually Army and Air Force mandatory requirements, while all in-class instruction is provided in specialized facilities that resemble the closest to real-life scenarios. For example, the teams go through Chemical and Biological training at Fort Leonard Wood, Missouri. However, they go through nuclear training in California. They also have to go through secret emergent threats training in Maryland. The teams' training and learning are guided by the President's directive but are managed by the State they belong to, which allows the teams to fall under all three stages of L&D Matrix. However, stage 4, which includes enterprise learning, is easy to fall behind due to lack of advanced online hazmat courses specific for WMD-CSTs (Bogart, 2001).

### **Tools and Technology**

The training and development for every Civil Support Weapons of Mass Destruction Team (WMD-CSTs) can be divided into two major parts. The first one is the Army and Airforce specific training, and the second is the WMD-CSTs training. The Army also has one of the most extensive Army Learning Management System (ALMS) which is an online training and education system for Soldiers and civilians, which is often underutilized by WMD-CSTs. Analyzing these parts of learning and development will help us to place WMD-CSTs under three stages of L&D Matrix and identify shortages in Enterprise Learning Stage.

- **Army and Air Force Specific Training**

All WMD-CST members must have a 74D, CBRN (Chemical, Biological, Radiological, and Nuclear) MOS (Military Occupational Specialty). All Soldiers pursuing this career must go to the United States Army CBRN School (USACBRNS) at Fort Leonard Wood, Missouri. To meet the challenges of the current combat situations within the country and outside, the Army created the One Army School System (OASS) which is comprised of active and reserve component schools. It is based on centralized training content, design, delivery, and quality assurance. The schools provide training in Army and Air Force specific military occupations, as well as exercises necessary for combat operations and leadership development (Homeland Security, 2019).

- **WMD-CSTs Specific Training**

The unit's training includes military and emergency responder courses. Beyond Army specific professional military education, CST members require many hours of individual, initial and institutional, collective, sustainment, and leader training and development (Bogart, 2001).

#### Individual training

Soldiers selected for the WMD-CST must be fully qualified in their primary military occupational specialty in CBRN school. They also must attend all the courses tailored to their specific position of the team within the first twelve months. The courses include intensive hands-on, performance-oriented exercises, formal classroom instruction, and online courses. Civil Support Teams are federally and State-funded with specific for their mission equipment to be able to conduct an up-to-date exercise required for weapons of mass destruction warfare (Headquarters Department of the Army, 2007).

- **Collective training**

Collective training consists of unit training with other Civil Support Teams and first responders. It is focused on interagency cooperation. It is usually very challenging and realistic, and it replicates the scenarios the CSTs are likely to respond to. They last seventy-two hours straight to make sure the teams can perform under stress and even sleep deprived if necessary (Headquarters Department of the Army, 2007).

➤ **Sustainment training**

The unit's commander and the Operations section of the team make sure that all the required skills learned by team members are maintained and can be appropriately executed in response to WMD accidents and natural and human-made disasters. The Operations section plans the sustainment training a year in advance. It consists of hands-on and online courses that can be taken within the unit (Headquarters Department of the Army, 2007).

➤ **Leader training and development**

Leader training and development is Army and Air Force specific, but it is required and also included in all aspects of mission operation. Therefore, the commanders of the units must keep track of leader development courses for the team members to prepare them for the next rank and position within the group. The leader development courses are usually provided by the Army schoolhouses and additional online courses through the Army Learning Management System (Headquarters Department of the Army, 2007).

➤ **Army Learning Management System**

The Army Learning Management System (ALMS) is the Army online system for training Soldiers and civilian contractors. It provides online training for 1.2 million authorized users, flexibility, and increases readiness (Lenahan-Bernard, 2012). The system allows the servers to regularly update its software and shows every user with his or her personalized homepage, which

includes a graphical user interface. The system also tracks what class a user is taking, assigned training items, and identifies deadlines specific for each user and profession in the military (United States Army, 2014).

➤ **Analytics**

The training within 31st CST team of Delaware and all other groups is standardized, which means that every other team goes through the same practice. Every team's training readiness is measured and evaluated through an exercise strategy. Every year CST teams participate in three types of exercises:

- Simulation Exercises (SIMEX);
- Live Training Exercises (LTX);
- Regional Training Exercises (RTX).

Simulation exercises are conducted after individual training of each soldier of the team is completed. The individual training is evaluated at the end of each specific course. The evaluation usually includes written tests and practical exercise. The 31st CST team conducts SIMEX exercise every week and live training exercises (LTX) happen every month. Regional Training Exercises are organized quarterly. Participation in RTXs is coordinated between CST teams, the federal, state, and local responders within their designated federal region. These types of exercises simulate real-life situations that can happen in times of natural and WMD disasters (Legg, 2000).

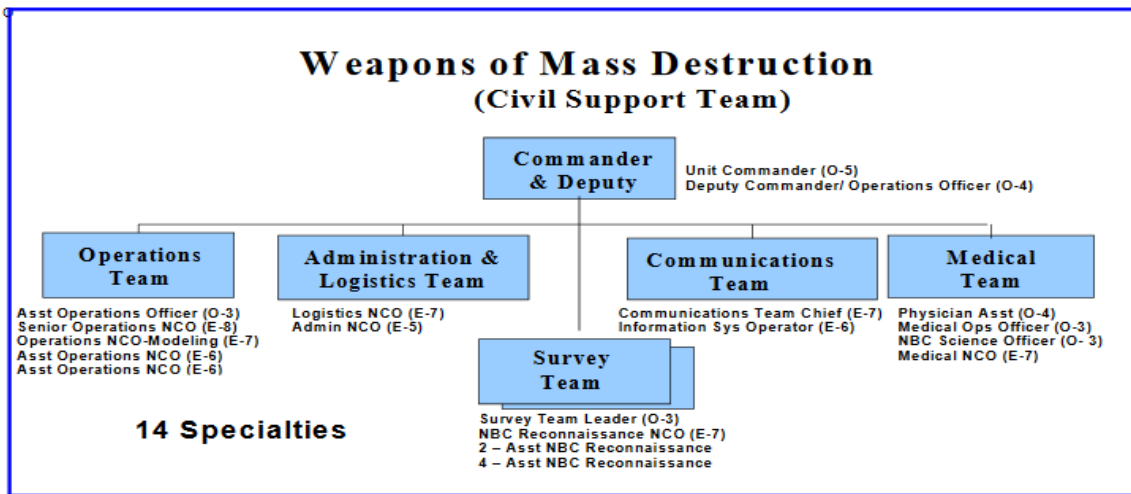
Every eighteen months the teams are tested by Army North representatives. The Army North provides a list of tasks the CSTs must be able to perform to standards and conditions. If the teams receive a no go in any of the functions, they are given a chance to retest within the following six months (Army Logistician, 2006). If they do not pass the evaluation again, the



teams risk dismissal from their duties until marked as fully trained or retrained, which makes them fall behind on Stage 4 of L&D Matrix of Enterprise Learning (Consequence Management Program, n.d.).

**Competencies**

As was mentioned above, each WMD-CST consists of 22 members. They are divided into six sections. The layout of duties is presented in the chart below. It shows that Enterprise Learning is a requirement for each section of the team. (Consequence Management Program, n.d.).



(Consequence Management Program, n.d.).

If we take Association for Training Development (ATD) Model into consideration, all WMD-CSTs have to score expert in the following foundational competencies that can be seen below. (ATD, 2014). The full model can be divided into two parts that are interconnected: TD Areas of Expertise and Foundational Competencies (ATD, 2014).



- **Industry Knowledge**

To be able to	Assessment Level
Maintain own professional knowledge	Expert
Keep abreast of industry changes and trends	Expert
Build industry sector knowledge	Expert

- **Interpersonal Skills**

To be able to	Self-assessment level
Build trust	Expert
Communicate effectively	Expert
Influence stakeholders	Expert
Network and partner	Expert

Demonstrate emotional intelligence	Expert
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- **Personal Skills**

To be able to	Self-assessment level
Demonstrate adaptability	Expert
Model personal development	Expert

- **Technology Literacy**

To be able to	Self-assessment level
Demonstrate awareness of technologies	Expert
Use technology effectively	Expert

**Analytics and Findings**

In our case report, we found out that WMD-CST is a unique and complex organization that falls under the three stages of Learning and Development. The reason CST organizations fall under all three stages is that it is a complex program that utilizes the resources of both Department of Defense consistent events and institutionalized and enterprise learning capabilities. We highlighted and explained the specific categories of CSTs' learning and development in Appendix 1. However, the rapid reconfiguration of education and training happens with updates in technology and CBRN attacks. Enterprise agencies and research centers often do not have enough time and resources to facilitate face-to-face training for the teams on time. Besides, the teams do not have a well-developed mentorship program that would help with incoming new personnel. The groups are also very culturally diverse. They have to work with

different agencies within the United States as well as outside of it. In this section of our research, we will perform the needs analysis of online learning, mentorship program development, and specific courses necessary to facilitate a successful enterprise learning and overall relationship foundation between the members of the team and outside agencies.

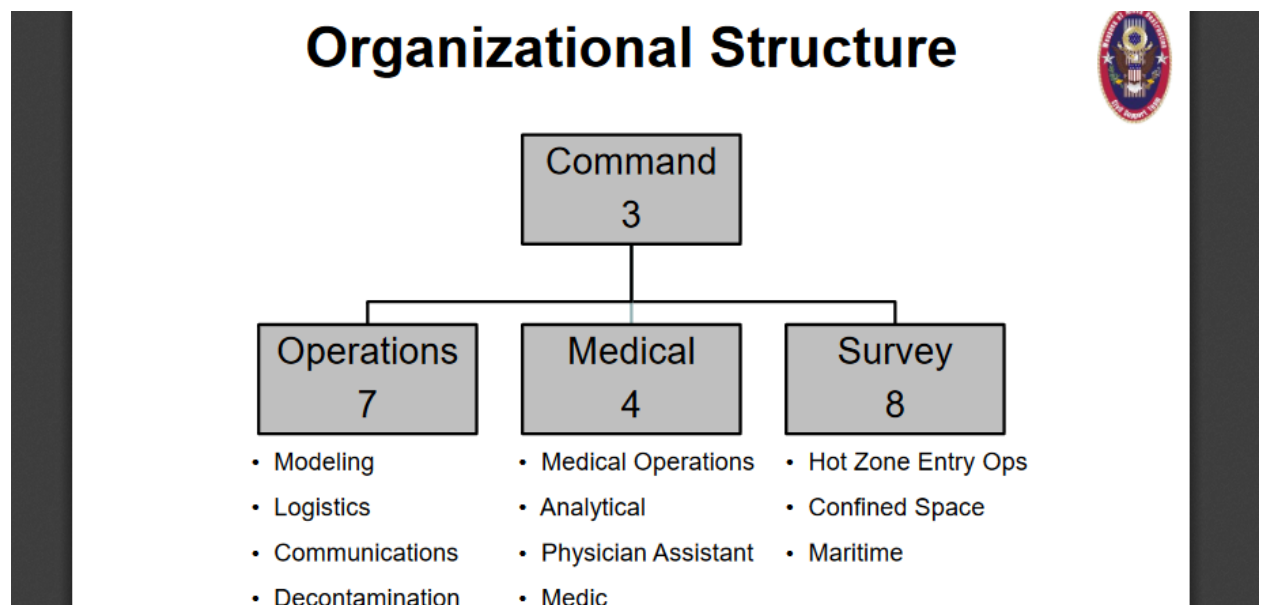
**Conclusion of the Case Study**

WMD-CST is a unique and complex organization that falls under the three stages of Learning and Development. The reason it gradually ascends from the second stage of consistent events to the fourth stage of enterprise learning is that in its annual learning and development plan WMD-CSTs have to include traditional military education and special civilian training from a number of specialized agencies.

**Proposal of Distance Education Course and Mentorship Program for WMD-CST  
(Weapons of Mass Destruction – Civil Support Team)**

❖ **Online Hazmat Course**

Civil Support Team’s organizational structure is outlined below:



(Woolums, n.d.)

Although the team's organizational structure may seem uncomplicated, the first-year training requirements are quite intense. CST first year training requirements include (Woolums, n.d.):

### **Entire Team**

- NFPA HAZMAT Technician
- Incident Command System (ICS)
- Trained to DPH (Department of Public Health) Lab Standards
- Trained to FBI Evidence Collection Standards

### **Specialized Training**

- Medical Effects of Ionizing Radiation
- Medical Management of Chem/Bio casualties (Edgewood)
- Advanced Microscopy
- Confined Space/Collapsed Structure
- Field Identification of Biological Warfare Agents
- Chemical & Biological Warfare Courses

Average Specialized Individual Training takes 740 hours to complete. All 740 hours have to be completed within the first year of being hired. However, if a newly appointed person is a former active army soldier with 74D MOS (Military Occupational Specialty), some of the courses have already been covered at the soldier's AIT (Advances Initial Training). AIT is where all active duty members are shipped directly after the Basic Training Course. It is not optional. However, the soldiers can take an online hazmat refresher course instead. Currently, Army Learning Management System does not allow CST members to attend those courses online. The

soldiers have to go to a repetitive two-month course at the school facility, which is unnecessary as they are already familiar with the material. CST has to pay a lot of money out of their allocated for the fiscal year funds for that course. Therefore, we propose to develop and design online hazmat refresher course for newly hired personnel with 74D Military Occupational Specialty (Woolums, n.d.).

Civil Support Teams are on call 24/7. They also travel a lot and support many public events. The up-tempo is high and not many members last at these positions because it is a demanding job. Although the team does offer this job as a lifetime opportunity, the people who have children and a family often quit. The team has to hire new personnel to fulfill the positions, but then the team is still considered not operational because all new staff have to go to a two-month course to Fort Leonard Wood, Missouri. Therefore, having an opportunity to complete those initial courses online from the office will help the team to meet the needs of 24/7 operational readiness. If the demand for online hazmat refresher courses is not met, then the turnover of personnel will continue to grow, and the team will be at stand-by modes for more extended periods. Then the state is considered as not ready to respond to Weapons of Mass Destruction incidents unless it pulls resources from other CST teams from neighboring states, which is rather costly (Bogart & Major, 2001).

### **Hazmat Response Online Course**

We propose to purchase and make necessary corrections to an online Hazmat Response course for CST-WMD newly hired personnel, which will save the team time and money. Action Training Systems is a multi-media production company that takes pride in the quality of the video content as well as the program's instructional design. Its interactive programs are proven to significantly increase learner competency and are all based on current national standards.

Purchasing an online course from the company will benefit the CST organizations in supporting and enhancing essential education. Action Training Systems offers DVD programs and online courses that are designed to be utilized as instructor directed resources in and out of the classroom, as well as a self-directed resource for refresher training, which will help WMD-CST teams to meet their training goals faster and more efficiently. The ability to take the course online will ensure the team's 24/7 first responder readiness and will place the team under the Stage 4 Enterprise Learning of L&D maturity level (ActionTraining, 2005).

### **Course Outline**

The online Hazmat Response course will have the following Modules that are available in face-to-face mode and will have to be converted to online modules through Army Learning Management platform:

#### **Module 1: Hazardous Material Response Sources and Terminology (ActionTraining, 2005)**

- Introduction
- Referencing Hazard & Response Information
- Material Behavior Terminology
- Health and Hazard Terminology
- Module Assessment (quiz)



### **Module 2: Hazardous Material Containers and Scene Safety (ActionTraining, 2005)**

- Hazmat Containers
- Container Markings
- Facility Markings
- Conditions at a Hazmat Scene
- Module Assessment (quiz)



### **Module 3: Hazardous Material Defensive Options and Objectives (ActionTraining, 2005)**

- Limiting Exposures
- Establishing Defense Objectives
- Assessing Risk to Responders
- Module Assessment (quiz)





**Module 4: Hazardous Material Protection and Decontamination** (ActionTraining, 2005)

- Choosing Respiratory Protection
- Selecting Protective Clothing
- Contamination
- Module Assessment (quiz)



**Module 5: Hazardous Material Scene Control and Safety Measures** (ActionTraining, 2005)

- Establishing Scene Control
- Determining Control Zones
- Taking Protective Actions
- Locating Decontamination Areas

- Module Assessment (quiz)



**Module 6: Terrorism and Awareness** (ActionTraining, 2005)

- Identifying Types of Terrorism
- Potential Targets of Terrorism
- Indications of a Terrorist Threat
- Response Group Coordination
- Module Assessment (quiz)



**Cost Analysis**

**Course Development**

To develop a course, we will need the following experts/expertise to produce a high-quality product:

- Fixed Course Items

Personnel Involved	Involved	Per Hour	No. of Hours	Total Cost
Instructional Designer		\$60	80	\$4,800
Web Designer		\$26	30	\$780
Audio-visual Specialist		\$14	40	\$560
Video Editor		\$25	51	\$1,275
Graphic Designer		30	59	\$1,770
Subject Matter Expert		42.31	130	\$5,500
Library Consultant		\$28	50	\$1,400
Faculty Training		42.31	160	\$6,770
				TOTAL
				\$22,855

- Variable Cost Items

Methods and Personnel	Per Hour	No. of Hours	Total Cost
Course Owner (can vary)	50	50	\$2,500
Method of Video production (can vary)	50	50	\$2,500
Course Management	\$55	50	\$2,750
			TOTAL
			\$7,750

All the pay rates were taken from the Bureau of Labor and Statistics, payscale.com and glassdoor.com. Since we do not have a fixed pay rate for each of the fixed cost items chosen, we put a ‘can vary’ next to each pay as some of them were two to three units higher or lower. Some of them we rounded towards our course development interest. We took an hourly pay and multiplied it by the number of hours we deemed necessary for developing an eight-week course. Then we summed up a total of fixed items and a total of variable items to figure out the total amount needed for developing a course:

$$\text{Total Fixed + Variable} = \$22,855 + \$7,750 = \$30,605$$

To calculate the total cost for course development, we used Hulsmann’s total cost equation:

In this slightly simplified case, the total costs are the sum of the fixed and variable costs:

**Total Costs = Fixed costs + Variable costs**

**TC = F + V x N**

Where:

*TC = Total Costs*

*F = Fixed costs*

*V = Variable costs*

*N = number of students*

We took N out of the equation since the number of students can vary and we do not receive money from them (Hulsmann, 2004).

The total amount necessary for developing a Hazmat course is \$30,605.

**Course Delivery**

- Fixed Course Items

Methods and Personnel	Per Hour	No. of Hours	Total Cost
Instructor	\$20	240	\$4,800
Teaching assistant	\$15	250	\$3,750
			TOTAL
			\$8,550

- Variable Cost Items

Methods and Personnel		Per Hour	No. of Hours		Total Cost
Technical support		\$17	160		\$2,720
Adjunct Instructor		\$17	240		\$4,080
				TOTAL	\$6,800

For delivery of the course, we decided that we do not need too many experts. Therefore, a teaching assistant or a mentor who will be as available as an instructor, and sometimes even more, will be needed. The instructor can also work on his/her own; it can also be an adjunct instructor hired for teaching this course or all three of them can perform a function to support large projects workload. Although we might need only one instructor, we decided to include all three payment rates to make sure we request extra funds to ensure high-quality instruction. Besides, distance education cannot work without technical support as with everything new there are always technical difficulties until everything syncs in. Again, we used payment data available online to identify each item’s price, and we added total fixed pay rates and variable rates to calculate the total delivery costs.

Total Fixed (\$8,550) + Variable (\$6,800) = \$15,350

The total of delivery costs is \$15, 350

**Maintenance Cost Items**

- Fixed/Variable Cost Items

Methods and Personnel	Per Hour	No. of Hours	Total Cost
Copyright	\$ 400	1	\$400
Editing and Design	\$ 50	50	\$2,500
			Total
			\$2,900

Depending on what kind of resources will be chosen for the course, some copyright items might have to be purchased, some URL(s) will have to be updated over time, and some editing and design help will be needed to maintain the course look. Some copyright fees can go up to \$400. Editing and design will not regularly be required, but in cases when the upgrade is needed throughout the course, editing and design personnel’s help can be quite valuable. The rest of the course maintenance should be simple enough for the instructor to maintain without extra support.

Now we will go back to delivery total costs and take total maintenance costs to identify our expenses after the course has been developed:

$$\text{Total Delivery } (\$15,350) + \text{Maintenance } (\$2,900) = \$18,250$$

Currently every WMD-CST newly hired person spends at least two months at Fort Leonard Wood, MO, taking the course that can be done at their own time online instead. Each student cost CST about \$15,000. It would make sense to purchase and design a course and train several students all the time instead of one for the same amount of money. Besides, the team is forced to be on a standby when not all 22 people are available to respond to incidents.

❖ **Coaching and Mentoring**

According to Clark and Kurtz, 2014, coaches need to have the ability to follow three primary traits: active listening, reinforcing the desired behaviors, and asking open-ended questions. First, they have to believe in the coachee’s potential to improve and be successful, or the coaching will

have limited impact and meaning. Second, there must also be an authentic interest in and commitment to creating shared success, because when coaching takes place the needs of the coach and the company must be aligned (Clark & Kurtz, 2014). The CST personnel who have been on the team for a long time, have a lot of experience in the field of WMD. They went through millions of hours of training, participated in real-life events and situations. The team has a very advanced coaching program. All newly hired personnel are assigned a team chief who is ultimately a coach. After the Soldiers return from a two-months Civil Support Skills course from Fort Leonard Wood, MO, which we identified above as unnecessary if a hired soldier already has a 74D MOS, they are assigned a team chief who is responsible for preparing and setting up the chemical, biological, radiological, and nuclear training events. They are also responsible for teaching the new members how the team operates, administrative nuances, and overall layout of yearly training.

Clark and Kurtz define coaching as something that is “not about telling people what to do or just about fixing problems. It is about creating shared success, by collaboratively working toward solutions that align and balance the needs of the individual and organization” (Clark & Kurtz, 2014). CST coaches are excellent because when the real-life events do happen, the team needs to work in sync to save lives.

When we talk about coaching, the relationship between a coach and a trainee is more likely to be short-term with a specific outcome in mind. When we talk about mentoring, the link tends to be more long-term. Although the Army does have a mentoring program in place, CST teams do not use it because coaching is more performance driven and designed to improve on-the-job performance. It is generally more structured and designed to meet the specific needs of the coachee. Mentoring, on the other hand, is development driven, looking not just at the current

job function but beyond professional development. It is less structured and mostly informally guided by a mentor. The main reason CSTs do not implement the mentoring program is time management. Coaching is specific and measurable, showing signs of improvement or positive change in the desired performance area practically instantly. In mentoring, there is less interest in accurate, quantifiable results or changed behavior and more interest in the overall development of the mentee, which can take a long time (Clark & Kurtz, 2014).

However, if CST decides to implement distance education courses into their training, they will need a well-developed mentoring system. They need to adopt both concepts of mentoring and coaching to drive the team to success. When we interviewed all 22 members of the 31st Civil Support Team of Delaware, they all confirmed that they do not have a mentor but would like to have one. The reason for it is more psychological than professional, but it ultimately facilitates the professional environment. Coaches are expected to train the new team members within three months, after that the new team members learn from experience on the fields on their own. All 22 members of the Delaware team said that it would be very beneficial if they knew that they could ask for any advice or guidance from a trusted member. Therefore, we will propose an online mentorship program that will be part of each Soldier's login into the classes page of the Army Learning Management System (ALMS) or Army Knowledge Online (AKO). We believe that new approaches to mentoring can empower workers to direct their career development. Current generation Y has grown from the global crowd of the Internet, but they need some mentoring support to process and synthesize the information in a manner that will make sense to them (Site Staff, 2012). If the mentor and the mentee of the team can talk to each other online, it will help with time management and confidentiality. It will also help the



team to meet the goals of 24/7 readiness because learning weapons of mass destruction that are constantly changing can be like mentoring – a life-long process.

### Mentorship Program Proposal

Army Knowledge Online (AKO) already has a mentorship program in place. However, the WMD-CST hardly ever use the program because it is not accessible through mobile devices. We are proposing to upload all necessary certificates to Soldiers’ iPhone and Android to be able to access AKO. The teams travel a lot, about six months out of a year, and if they are not securely connected to a military computer, they are unable to access the program. If they cannot access the program on the go, they cannot use it. Military ID card certificate can be uploaded on a mobile device through a secure military network. All WMD-CST teams are issued a government mobile device that is already secured. Now all they have to do is to allow access to the AKO (Tharpe et al.,1999).

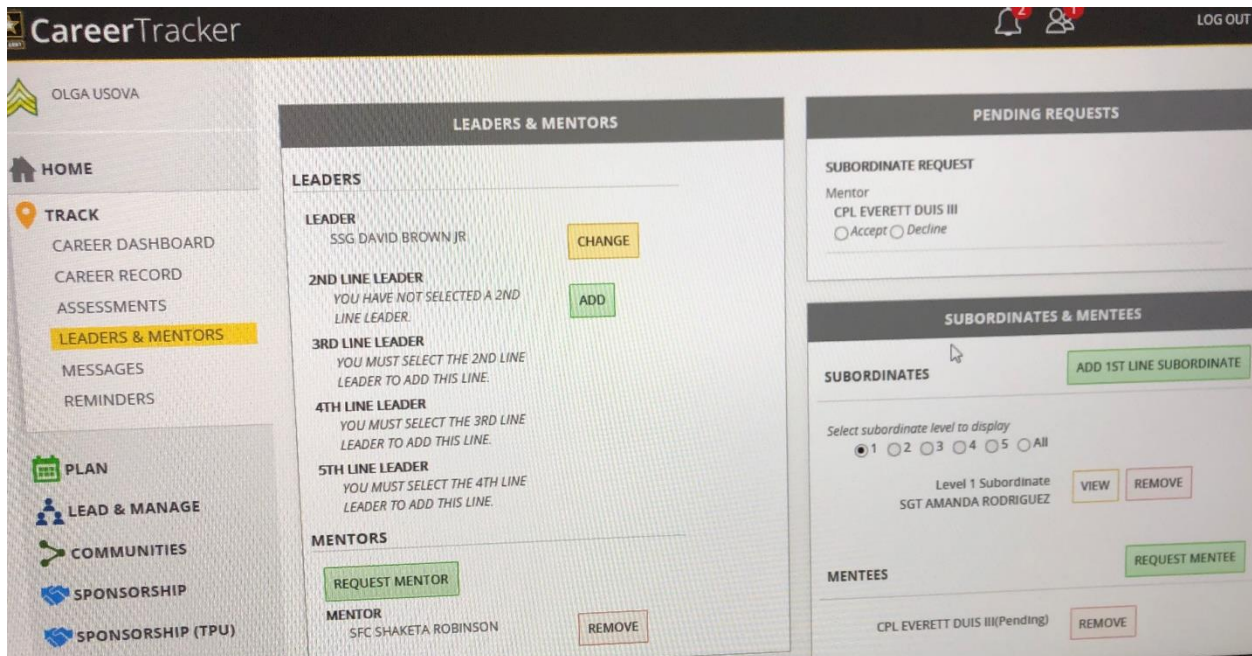
Once the CST Soldiers are allowed access to AKO through mobile devices, they will be able to log into Army Career and Self-Development that they will be able to find on AKO.



After they click on Army Career Tracker, it will bring them through the window that you can see below, which will allow the security system certificates enough time to process. Then the CST Soldiers will be able to log in Career Tracker.

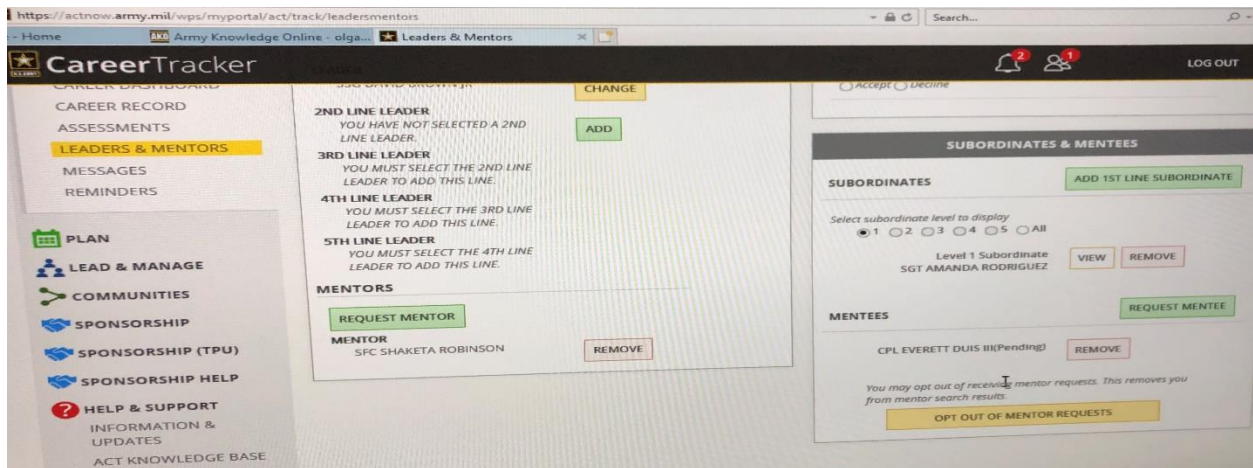


Once the access is granted, the Soldiers will be able to log in to the page where they will see everything they achieved throughout their military career. On this page, they will be able to find a leaders & mentors tab where they can request a mentor. Once the connection between the mentor and the mentee is established, they can communicate on a regular basis and see each other’s career progress.



If a mentor or a mentee do not want to accept a request form one or another, they can always opt out of mentor/mentee request. The system will allow the two to go both ways. The

mentors or the mentees do not have to be from the same team or the same military unit. It can be any military leader or a mentee in the military.



### Training Evaluation and L&D

For evaluation of our proposed mentorship and hazmat training programs we will use the Kirkpatrick Model which has four levels (Kirkpatrick, 2009):

#### Level 1: Reaction

- **Satisfaction with the program** – a degree to which the Soldiers and leadership of WMD-CST will find the training favorable, engaging, and relevant to their job. We will compose a survey the results of which will be evaluated every half a year.
- **Engagement** – we will keep a close track of the newly hired Soldier’s progress in completing the Hazmat course and the frequency of mentorship program participation. Every log in into the online mentorship system will be tracked by operations office. Assigned mentors will write a monthly report on the new Soldier’s progress.
- **Relevance** - training participants will have the opportunity to use or apply what they learned in training on the job. Every week, the Soldiers will have hands-on training on what they learn in hazmat courses with their mentors and coaches.

#### Level 2: Learning

Every month WMD-CST conduct collective training with other teams to make sure the Soldiers acquire knowledge, confidence, and commitment to be able to perform in real-life events.

### **Level 3: Behavior**

When the Soldiers are ready to secure major real-life events, the mentors will ensure the reinforcement of their knowledge, encouragement of well-performed tasks, and the reward of their performance during critical missions.

### **Level 4: Results**

- **Leading Indicators** - mentors and coaches will perform short- and long-term observations and measurements suggesting that critical behaviors and task performance are on track to create a positive impact on desired results.

### **Level of L&D**

Implementation of hazmat courses and mentorship programs online will ensure that the CST units training is placed in Stage 4 of the L&D Matrix. The agenda will support the fast-paced life of the organization, as well as its yearly report on the level of readiness, training, and development.

### **Conclusion**

After performing analysis of the L&D needs for WMD-CSTs, we identified the needs of distance education hazmat course and an online mentorship program. WMD-CST(s) have a professional coaching program in place, but they lack mentorship because time constraints prevent the units from mentorship implementation. We proposed a mentorship program online which would be accessed through the Army Learning Management System and Army Knowledge Online page. The teams proposed programs will ensure that the organizations are

placed in Stage 4 Enterprise Learning as well as all other Stages necessary for effective learning and development of today's world of technology.

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**Appendix 1**

**Stages of the WMD-CST L&D Maturity Matrix**

	<b>Stage 2</b> <b>Consistent</b> <b>Events</b>	<b>Stage 3</b> <b>Institutionalized</b> <b>L&amp;D</b>	<b>Stage 4</b> <b>Enterprise Learning</b>
<b>Main Tools/Technology</b>	<p>Organization (SUPCEN, TRADOC, DOD, USACBRNS, OASS, ALMS) ALMS eLearning Competency Model</p>	<p>Performance and knowledge management by WMD-CSTs operations</p>	<p>Enterprise Learning Model &amp; Performance Support: CBRN Research Centers; CST specific training</p>
<b>Jobs/Roles/Competencies</b>	<p>T&amp;D Excellence: - Local and global response operations;</p>	<p>Talent and Performance Improvement: - 14 specialties</p>	<p>Competency-based Talent Management: - Technology literacy; - Industry knowledge;</p>

	<ul style="list-style-type: none"> <li>- Constant progress in training and development.</li> </ul>	<ul style="list-style-type: none"> <li>- within the team;</li> <li>- Cooperation and training with different agencies</li> </ul>	<ul style="list-style-type: none"> <li>- Interpersonal skills;</li> <li>- Personal skills</li> </ul>
<b>Primary Analytics</b>	<p>Quantitative &amp; Qualitative</p> <ul style="list-style-type: none"> <li>- Simulation Exercises (SIMEX);</li> <li>- Live Training Exercises (LTX);</li> <li>- Regional Training Exercises (RTX).</li> </ul>	<p>ROI, ROE</p> <ul style="list-style-type: none"> <li>- Federally and State funded without return on engagement (a one-way process)</li> </ul>	<p>Net Worth</p>
<b>Primary Drivers</b>	<p>Change Readiness</p> <ul style="list-style-type: none"> <li>- Changes often and rapidly depending on changes in</li> </ul>	<p>Business Results</p>	<p>Learning Aligned with Business Strategy and Execution</p> <ul style="list-style-type: none"> <li>- Although it is not a business company, learning is aligned with the goals of</li> </ul>

	<p>enemy capabilities</p>		<p>emergency response systems.</p>
<p><b>Learning Process</b></p>	<p><b>Planned</b></p> <ul style="list-style-type: none"> <li>- Learning and trainings are always planned a year ahead.</li> </ul>	<p><b>Strategic</b></p> <ul style="list-style-type: none"> <li>- Learning and training is strategic due to the nature of the DOD response system.</li> </ul>	<p><b>Agile Learning</b></p> <ul style="list-style-type: none"> <li>- Learning is agile because it has to meet the requirement of military and civilian entities.</li> </ul>
<p><b>Business Structure Focus</b></p>	<p><b>Consolidation of Operations</b></p> <ul style="list-style-type: none"> <li>- All operations are consolidated and consequential to meet the overall goal of CBRN protection</li> </ul>	<p>Learning Culture</p>	<p><b>Rapid Reconfiguration</b></p> <ul style="list-style-type: none"> <li>- Rapid reconfiguration of learning and training happens with updates in technology and CBRN attacks.</li> </ul>

	against enemies.		
<b>Decision Support</b>	<b>Information</b>	<b>Knowledge</b>	Wisdom