

# MARYLAND-NATIONAL CAPITAL REGION EMERGENCY RESPONSE SYSTEM



*Building and Enhancing Interjurisdictional and Interdisciplinary Emergency  
Response Capabilities in Montgomery and Prince George's County, Maryland.*

## **Fiscal Year 2017 Annual Report**

**June 1, 2018 – May 31, 2019**







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# PROGRAM OVERVIEW



The National Capital Region (NCR) encompasses the District of Columbia and twenty-one metropolitan Washington local jurisdictions in Virginia and Maryland.

The NCR's concentration of residents, tourists, jurisdictions, authorities, critical infrastructure, wealth, cultural touchstones, and commercial facilities is unlike any other region in the United States. This population produces a distinct risk profile that reflects the region's unique operating environment.

The Maryland-National Capital Region Emergency Response System (MDERS) represents Montgomery and Prince George's County, Maryland.

The NCR has endured numerous natural and man-made crises in recent years that led to extensive examinations of, and changes to, the NCR's preparedness, priorities, and overall coordination.

To address these threats, funds from the Department of Homeland Security's Urban Area Security Initiative (UASI) grant program are allocated to the National Capital Region. This program assists high-threat, high-density Urban Areas in efforts to build and sustain the capabilities necessary to prevent, protect against, mitigate, respond to, and recover from acts of terrorism.

Maryland ERS works with response agencies in Montgomery and Prince George's Counties to build and sustain critical response capabilities. Much of this work is supported by the UASI funds allocated to the NCR.





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# MARYLAND – NATIONAL CAPITAL REGION EMERGENCY RESPONSE SYSTEM

## FISCAL YEAR 2017 ANNUAL REPORT

### **MESSAGE FROM THE DIRECTOR**

The Maryland-National Capital Region Emergency Response System (MDERS) was instituted to optimize emergency response to routine and large-scale incidents. By coordinating amongst multiple agencies and disciplines through a regional approach, preparedness is enhanced and interoperability ensured. The core partners include local, county, and state stakeholders from Fire/Rescue/Emergency Medical Services, Law Enforcement, Hospitals, Public Health, and Emergency Management. Beyond local coordination, MDERS works closely with the neighboring Emergency Response Systems of Northern Virginia and the District of Columbia to standardize response throughout the National Capital Region.

Fiscal Year 2017 has been another very successful period for MDERS. Supported by a multi-million-dollar federal Urban Area Security Initiative grant, the program has taken major steps to improve interoperable response capabilities in Montgomery and Prince George's Counties. These enhancements address some of the most significant threats to the Region that transcend traditional disciplinary boundaries. This report is intended to provide an overview of the activity and accomplishments of the program during this period.

Since 2014, the staff and stakeholders have applied a capability-based approach to efforts undertaken by the organization. This approach, based on measurable target outcomes, encompasses all aspects necessary to operationalize and achieve the target. This includes Planning, Organizing, Equipping, Training, Exercising, and Evaluating. The approach has emphasized comprehensive planning throughout the project lifecycle in order to most effectively and efficiently achieve target response capabilities and capacities throughout the Region. Fiscal Year 2017 was the third complete budget cycle during which this approach was applied consistently for the entirety of the period. The results of the approach have offered extensive solutions to complicated and interdependent capabilities.

To better support the capability development process, MDERS continued with its current staffing strategy as identified by the Steering Committee. This includes a Director, a Planning and Organization Program Manager, two Emergency Response Planners, a Finance and Logistics Program Manager, a Logistician, a Financial Administrator, a Training and Exercise Program Manager, a Training Coordinator, and an Exercise Coordinator. The staff come together to create a thorough system of developing capabilities and supporting stakeholders to achieve their mission areas.

The National Capital Region Homeland Security Executive Committee (NCR HSEC) directed several million dollars to be invested in Maryland MDERS staff, programs, and projects during Fiscal Year 2017. This has allowed the program to accomplish a number of initiatives towards building capabilities, including:

- Acquiring wireless vital sign monitors for Medical Ambulance Buses to allow for monitoring and treating multiple patients simultaneously.
- Providing fire and rescue departments with high fidelity manikins to enhance their medical skills.
- Ascertaining mobile software to allow for accurate medication calculation for field providers.



- Creating eight Command Competency Labs for Prince George's Fire and EMS to train, develop, and test current and aspiring incident commanders.
- Adding four Northern Virginia jurisdictions and the District of Columbia to the FirstWatch situational awareness platform, increasing regional collaboration and coordination on routine and large-scale events.
- Expanding the response continuum to include civilians as immediate responders by providing Public Access Trauma Care kits for schools, government buildings, and areas of mass gathering.
- Enhancing Bomb Squad response capabilities by procuring night vision goggles, portable x-ray laptops and tablets, explosive ordnance disposal personal protective equipment, tactical robots, mobile lighting, throw robots, and breathing apparatus.
- Outfitting SWAT personnel with additional tactical equipment, including night vision, dual communications devices, bounce image cameras, and shock initiators.
- Providing legal and policy development services, as well as pilot training, to public safety agencies in preparation for unmanned aerial system equipment acquisition.
- Continuing to input asset information into a custom software suite that allows for resource management and inventory control across the region with user access for all partner agencies.
- Offering 37 specialty training courses to response personnel, including travel to many world-renown programs and conferences.
- Delivering 30 discussion and functional exercises to evaluate the plans and operational readiness of response capabilities.
- Hosting the fourth annual Emergency Response Symposium, providing approximately 400 attendees with a full day of sessions presented by leadership and first responders of the United Kingdom terror attacks of 2017.

Further details on the highlighted projects above, as well as other initiatives completed over the past year, can be found throughout this report.

As we look back on the success of this past year, the staff and stakeholders look forward to continuing to build upon these capabilities and undertaking new ones in the coming year. Initiatives planned for Fiscal Year 2018 include support staff, the training/exercise program, expansion and refinement of Command Competency Labs for fire/rescue, a Disability and Access Functional Needs Coordinator for the region, health coordinators for public health, unmanned aerials systems, public access trauma care kits, emergency management response vehicles and kits, SWAT and tactical medical response vehicles, tactical emergency casualty care mannequins, mass casualty incident response support, continued expansion of FirstWatch in the National Capital Region, and a variety of specialized tactical equipment for law enforcement agencies.

On behalf of the stakeholder agencies and the citizens they serve, I extend a great deal of gratitude to the National Capital Region Homeland Security Executive Committee for continuing to acknowledge the value of interjurisdictional and interdisciplinary response. The support and financial investments of this leadership body have provided a means to accomplish enhancements that would otherwise be impossible.

I extend further gratitude to the Maryland Institute for Emergency Medical Services Systems (MIEMSS). The agency has administered the financial, personnel, and procurement aspects of the Emergency Response Program since its inception. Its staff offers countless hours and immeasurable effort to supporting the community by assisting in building the response capabilities. The continued support of MIEMSS is invaluable to the existence and success of the ERS program.



I also extend thanks to the representatives of the stakeholder agencies who serve on the Steering Committee, providing ongoing strategic direction for the program. Likewise, we are grateful to the countless subject matter experts from the agencies that lend their time to building these regional capabilities.

I congratulate the stakeholders and staff for all the accomplishments that are detailed in this report. Your efforts benefit the overall response capacity, thereby enhancing the service to the citizens we serve. I look forward to continuing to work with our response community to further grow our capabilities in the coming years.

Sincerely,



Luke Hodgson  
Director  
Emergency Response System  
Maryland-National Capital Region



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# MARYLAND-NATIONAL CAPITAL REGION EMERGENCY RESPONSE SYSTEM

## MISSION

To support the integration of fire, rescue, emergency medical services, law enforcement, emergency management, public health, and healthcare systems to ensure a coordinated response to emergency incidents through strategic planning, information sharing, training, exercises, equipment acquisition and evaluation.

## VISION

To serve as the single point of collaboration between all disciplines involved in emergency response in order to achieve integration to optimize all capabilities and provide superior service to the residents and visitors of Montgomery and Prince George's Counties.

## ORGANIZATION

The Maryland-National Capital Region Emergency Response System (MDERS) was organized in 2014 to support the development of coordinated emergency response in Montgomery and Prince George's Counties. The disciplines represented in MDERS include Fire/Rescue/Emergency Medical Services, Law Enforcement, Critical Healthcare Facilities, Emergency Management, and Public Health. Direction is provided by a Steering Committee composed of representatives from all five disciplines from each county as well as the state.

The main MDERS Office is located at 5111 Berwyn Road, Suite 110, College Park, MD 20740 and houses the Director, the Planning and Organization Staff, and the Finance and Logistics Staff. Training and Exercise Staff are housed at the Montgomery County Public Safety Headquarters, 100 Edison Park Drive, Gaithersburg, Maryland 20878. The Maryland Institute for Emergency Medical Services Systems (MIEMSS) serves as the fiscal agent and administrative home for the MDERS.







## METHOD USED FOR CAPABILITY DEVELOPMENT

MDERS uses the POETEE process for developing response capabilities. POETEE is an acronym for the six critical elements of capability development planning for its stakeholder agencies, including Planning, Organization, Equipment, Training, Exercises, and Evaluation. As the final step in the cycle, Evaluation allows the process to begin again, informed by the strengths developed and gaps identified. The POETEE resource elements are solution areas that MDERS invests in to build and sustain capabilities.

**Planning:** The development of policies, plans, procedures, mutual aid agreements, strategies, and other publications that comply with relevant laws, regulations, and guidance necessary to perform assigned missions and tasks.

**Organizing:** The development of individual teams, an overall organizational structure, and leadership at each level in the structure that comply with relevant laws, regulations, and guidance necessary to perform assigned tasks. Organization includes paid and volunteer staff who meet the qualification and certification standards necessary to perform their duties.

**Equipping:** The acquisition, deployment, maintenance, and tracking of equipment, supplies, and systems that comply with relevant standards necessary to support missions and tasks.

**Training:** The development and delivery of various forms of instruction to ensure personnel are competent and capable of performing their assigned duties.

**Exercising:** Instruments such as tabletop discussions, functional drills, games, and full-scale multi-agency events that provide an opportunity to demonstrate, evaluate, and improve the ability to perform tasks to standards necessary to achieve successful capability outcomes.

**Evaluating:** Metrics are used to evaluate skill proficiency in practice, as well as determine field usage and success rates. Information used for evaluation is gathered from both exercises and real-world events.





### **PLANNING AND ORGANIZATION PROGRAM**

The goal of the Planning and Organization Program is to support multidisciplinary, regional planning for the development of established capabilities that will ensure optimum response to emergency incidents in Montgomery and Prince George's Counties and throughout the National Capital Region.

#### **The Planning and Organization Program**

Planning is an integral part of the capability building cycle. It encompasses needs assessment, research, development, and evaluation. The Planning Team works with the Finance and Logistics Program to assist in the development of equipment guidance and standards of use. The team also works with the Training and Exercise Program to develop training to improve the capabilities identified and exercises to test those capabilities. This is part of the Evaluation process, which also includes the tracking of metrics identified in Capability Development Plans.

#### **Planning and Organization Program Management**

The Program Manager works with other Program Managers to coordinate the development of capability development plans and related guides. This includes gap analyses, literature reviews, stakeholder interviews, subject matter expert conceptualizing, regular interface with all stakeholder agencies, and project development workshops. The Program is also responsible for the development of the MDERS Annual Report, the MDERS Strategic Plan update and other key documents, as well as maintaining the MDERS website, [www.MDERS.org](http://www.MDERS.org).

#### **Methodology**

The Planning and Organization Program coordinates multiple work groups of stakeholders and subject matter experts that are an integral part of capability development. These groups provide the agency- and region-specific input to assist with gap analyses and needs assessments, which are the foundational information for writing capability development plans. The groups also use information found in after action report documents from all stakeholder agencies following the responses to large-scale incidents within the region, as well as various planned events, such as Presidential Inaugurations and exercises.

The Planning Team works closely with the Maryland Emergency Management Agency (MEMA) Disabilities, Access and Functional Needs (DAFN) workgroup and the Maryland Department of Disabilities (MDOD) on developing tools for use in all planning efforts.

In addition to these workgroups, input is sought from the Region V Emergency Preparedness Coalition, which includes representation from hospitals, critical healthcare facilities, EMS, public health, and emergency management. The Maryland Department of Health (DOH), MDOD, MEMA, Maryland Institute for Emergency Medical Services Systems (MIEMSS), and Maryland State Police (MSP), among others, provide state guidance and support for MDERS planning efforts. MDERS staff also collaborate across the NCR through participation in Metropolitan Washington Council of Governments (MWCOG) regional planning committees, including Regional Programmatic Workgroups, Emergency Support Functions, and the Advisory Council.

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### **Maryland-National Capital Region Emergency Response System**



MDERS staff also participates in initiatives such as the annual NCR Threat and Hazard Identification and Risk Assessment (THIRA).

### **The Planning and Organization Staff**

The Planning and Organization Staff consists of the Program Manager and two full time planners assigned and utilized as needed to participate in all the various planning program activities.

## **FINANCE AND LOGISTICS PROGRAM**

The goal of the Finance and Logistics Program is to develop, maintain, improve, and coordinate the fiscal, procurement, and resource management responsibilities of the MDERS staff and stakeholders.

### **The Finance and Logistics Program**

Equipping and tracking assets is critical aspect of the capability building cycle. The Finance and Logistics Team works with the Planning and Organization Program in the development of policies, procedures, guidance, and standards of use for all assets, including the Training and Exercise Program for all necessary training and subsequent evaluation. This Program directs all purchases of equipment and supplies required to fulfill the capabilities being developed or enhanced. It also assists stakeholder agencies with sustainment planning to ensure the developed capabilities can be maintained.

### **Finance and Logistics Program Management**

The Program Manager oversees the financial aspect of all capability development plans and related documents, manages the purchase of equipment and resources to support the MDERS staff and its mission, and directs related financial tracking responsibilities.

### **Methodology**

The Finance and Logistics Program works through the entire capability development cycle. From generating budgets to submitting grant proposals to purchasing equipment, the program is an integral contributor to the process. Once the equipment and supplies are purchased, the program tracks the items, oversees deployment, and plans for maintenance and replacement. The program also handles all financial matters, including seeking grant reimbursement for all organization expenditures.

### **Finance and Logistics Program Staff**

The Finance and Logistics Program staff consists of the Program Manager, a Logistician who fulfills multiple responsibilities across both stakeholder counties, and a Financial Administrator who fulfills multiple accounting, budgetary, and procurement responsibilities.

## **TRAINING AND EXERCISE PROGRAM**

The goal of the Training and Exercise (T&E) Program is to establish and maintain an effective exercise and training program that coordinates and integrates with the Planning and Organization



and Finance and Logistics Programs to support the development and evaluation of targeted response capabilities for stakeholders in Montgomery and Prince George's Counties.

### **The Training and Exercise Program**

The Training and Exercise Program is a major portion of the capability building cycle, and contributes to knowledge, skills, and abilities across the homeland security workforce. The program leads the training, exercising, and evaluating phases of capability development and coordinates with other MDERS programs to assist in the planning, organizing and equipping phases.

### **Training and Exercise Program Management**



There are four main components of Training and Exercise Program Management:

Budget Management: Coordinates available funding and manages budget responsibilities.

Training and Exercises: Oversees the development of a multi-year training and exercise plan that supports the development of stakeholder targeted response capabilities. Exercises are conducted in a manner consistent with the Homeland Security Exercise and Evaluation Program (HSEEP), ensuring that, as capabilities are developed, they are tested and evaluated in a manner that reflects the complexity of the current expected state of the capability.

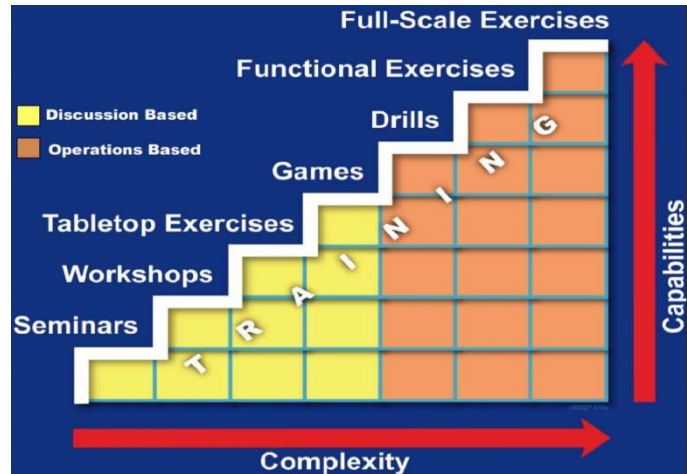
Monitoring and Reporting: Monitors Training and Exercise activities to ensure that program goals are met and actively participates in exercise development, conduct, evaluation, and improvement planning.

Improvement Planning: Ensures that the improvements identified in exercises or real-world incidents are communicated to appropriate stakeholders. The Program Manager works with MDERS program staff to track the improvement process and ensures the improvements are incorporated into future plans and exercises and evaluated to test the status of the upgraded capabilities.



### Training and Exercise Project Management

The Homeland Security Exercise and Evaluation Program (HSEEP) is an accepted national standard for planning, conducting, and evaluating exercise activities. MDERS ensures that all sponsored exercises follow HSEEP guidelines, using a building block approach as depicted to the right. The three primary components of the HSEEP project management process include Design and Development, Conduct, and Evaluations.



**Design and Development:** Identify exercise objectives, design scenario, and design evaluation process.

**Conduct:** Conduct the exercise based upon injects provided by the exercise staff to the exercise players.

**Evaluations:** Evaluate exercise player performance against the standards identified in the targeted response capabilities. The exercise planning team will then create a written evaluation report and an improvement plan.

### Training and Exercise Program Personnel

The Training and Exercise Program has three assigned personnel, including the Program Manager, the Training Coordinator, and the Exercise Coordinator. The Program Manager oversees all MDERS training and exercise activities that include program and project management. The Training Coordinator oversees, coordinates, and supports the delivery of MDERS-sponsored training initiatives and conferences. The Exercise Coordinator oversees the design, development, conduct, and evaluation of MDERS-sponsored exercises. Training and Exercise Program personnel also provide support to stakeholders in planning, conducting, and evaluating their agency's internal training and exercise initiatives.



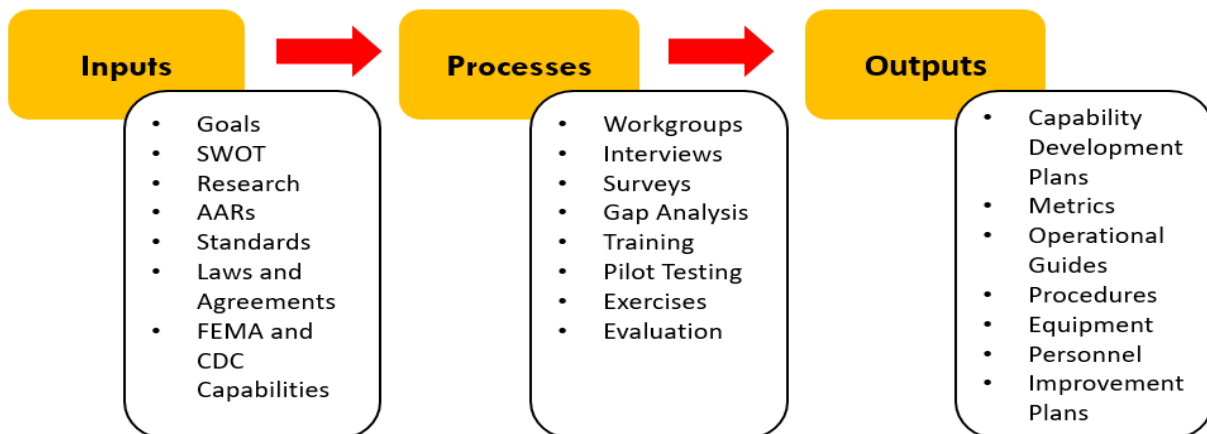
## FY 2017 CAPABILITY DEVELOPMENT

The capabilities described in this report were developed based upon goals established by the Steering Committee and defined in the MDERS Strategic Plan. The following are the strategic goals of the program, as determined by the Steering Committee.

- The Maryland-National Capital Region emergency response partners can expeditiously, effectively, and efficiently respond to and mitigate an active violence event to minimize harm and impact to victims.
- The Maryland-National Capital Region emergency response partners can triage, treat, and transport to definitive care victims of a mass casualty incident in a coordinated, interagency, and interdisciplinary response while maintaining the system's ability for continuity of operations.
- The Maryland-National Capital Region emergency response partners will establish and utilize the incident command system to coordinate response operations for all hazards events, including large-scale, interagency, interdisciplinary responses.
- The Maryland-National Capital Region emergency response partners will procure and operationalize first responder health and safety tools and equipment to protect responders from chemical, biological, and ballistic threats to an established extent.
- The Maryland-National Capital Region emergency response partners will effectively track, deploy, and ensure stakeholder access to regional assets during mitigation of an incident.
- The Maryland-National Capital Region emergency response partners will effectively communicate and share information at all times to maintain situational awareness.

Using the agreed upon goals as a starting point, a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) was conducted by MDERS staff with the Steering Committee to identify target capabilities. A regional gap analysis was completed which further refined these capabilities. The Steering Committee then prioritized capabilities based upon the SMART (Specific, Measurable, Achievable, Realistic, and Time-phased) criteria.

The graph below provides a snapshot of that development process.





This report contains summaries of capability development that occurred through MDERS in FY17 for the following capabilities:

- Training and Exercise Program
- Public Access Trauma Care (PATC)
- SWAT and Bomb Squad Equipment
- Mass Casualty Incident Response
- Incident Command System Capability
- FirstWatch Situational Awareness Software
- Tactical Equipment for Law Enforcement
- Remote Situational Awareness
- Health Information Exchange

## **COMPLEX COORDINATED ATTACK (CCA)**

In Fiscal Year 2017, the Homeland Security Executive Committee (HSEC) awarded funds to the National Capital Region Complex Coordinated Attack (CCA) Workgroup. This interdisciplinary, interjurisdictional workgroup was charged with identifying investments that would enhance the Region's preparedness for a CCA event. In previous grant years MDERS has managed funds for Tactical Emergency Casualty Care supplies, training, and deployment. The region's fire/EMS departments, police departments, and hospitals received this capability.

This year, MDERS pushed to include the entire continuum of care by providing bystanders with the tools and training to become immediate responders. This is a critical capability with time sensitive injuries, when traditional EMS will not have access, or the quantity of patients will demand empowered civilians to assist.

MDERS is working with Montgomery County Public Schools to provide kits and training in all 210 schools within the county. MDERS staff is working with Prince George's County officials to provide the kits and training in government buildings. Both will be multi-year efforts as the program continues to be expanded. MDERS has also invested in 50 training caches to allow response agencies to deliver this training to civilians.

Information on the specific program funded through the CCA Workgroup and managed by Maryland ERS can be found in the Public Access Trauma Care (PATC) section of this report on pages 30-31.





**NCR**  
MARYLAND

## Training and Exercise Program

### QUICK FACTS:

#### Projects:

- 1 Education Symposium
- 19 Homeland Security Exercise & Evaluation Program (HSEEP) discussion-based and operational exercises.
- 34 sponsored training events.

#### Special Events:

Emergency Response Symposium 2019:  
Multidisciplinary Response to Emergency  
Incidents - 2017 United Kingdom Terrorist Attacks

#### Subgrantee:

Maryland Institute for Emergency Medical  
Services Systems (MIEMSS).

#### MDERS Budget:

*This budget does not consider personnel costs.*

Quantity	Item	Amount
1	Symposium	\$64,600.06
37	Training & travel expenses	\$382,156.82
30	Training supplies	\$47,578.17
1	Management and Administration	\$12,500.00
<b>Total</b>	<b>UASI FY17</b>	<b>\$506,835.05</b>

#### Capability:

All MDERS targeted capabilities are supported with a robust training and exercise program that is integrated with planning, financial, and logistics functions.

#### Outcomes:

- Response leaders provided lessons learned from multidisciplinary, multijurisdictional responses at the Emergency Response Symposium 2019: Response to Multidisciplinary Response to Emergency Incidents - 2017 United Kingdom Terrorist Attacks.
- Designed, developed, and delivered 11 Tabletop-in-a-Box (TTBX) workshops for the Prince George's Fire/EMS Department that serve as a basis for the Command Officer Professional Development program.
- Designed, developed, and delivered 3 Tabletop-in-a-Box (TTBX) workshops for the Rockville City Police Department that serve as a basis for Incident Command System capability implementation.
- Designed, developed, and deployed 500 job aids, slick sheets, and support materials for discipline-specific training projects.
- Delivered 37 specialty training courses and conferences to emergency response personnel in the Maryland-National Capital Region.





## Training Program

The Training & Exercise Program offers several opportunities for MDERS partners to develop and build capabilities. Many of these opportunities are outside of the NCR and require staff time for coordination of registration, travel, and lodging arrangements and reimbursement. The following table provides a brief overview of training delivered for each target capability, the disciplines that participated, and the location of the training.

Target Capability	Disciplines	Total Training / Conferences	Local Training	Travel Training
Mass Casualty Incident	Hospitals, EM	1	Y	
High Threat Medicine	LE, Fire/EMS	6	Y	Y
Incident Command System	Hospitals, PH, EM	2	Y	
LE Tactical	LE	5		Y
LE Tactical Command	LE	2		Y
Mass Casualty Response	All	1	Y	
MCI/ICS	All	6	Y	
TECC/ICS	Fire/EMS	6	Y	Y
SWAT	LE	4		Y
Rappelling	LE	3		Y
Search Operations	LE	1		Y
	<b>TOTALS</b>	<b>37</b>	<b>16</b>	<b>21</b>

Disciplines abbreviated as follows: Emergency Management (EM), Law Enforcement (LE), Public Health (PH), Fire and Emergency Medical Services (Fire/EMS)





Personnel from local fire departments are seen participating in a tabletop drill. This program is one of the regional training opportunities that links fire and EMS department agencies in training. Formulation of interdepartmental and interagency relationships is a foundational component of the MDERS strategy. When organizations are provided the capacity to train together, the environment allows the opportunity to share information; view new tactics, procedures and policies; and develop relationships.

A complete list of trainings provided and supported by the Maryland-National Capital Emergency Response System (MDERS) in FY17 follows.

FY17 Training Initiatives	Event Summary	Location	Discipline	Agency	Date
18th Annual Breachers Circle	Multi-agency interactive breaching workshop/training for operational breachers. The main objective of this training is to provide tactical operators with the ability to interact and learn from their peers through tactical explosive breaching as well as mechanical, ballistic, and exothermic breach training.	MS	LE	PGPD, PGPD, MSP	12/2018
All Hazards Incident Management Training (AHIMT)	Annual conference that focuses on 'lessons learned' from real world incidents and the development of incident management capabilities.	SC	EM	OEMHS	12/2018



<b>FY17 Training Initiatives</b>	<b>Event Summary</b>	<b>Location</b>	<b>Discipline</b>	<b>Agency</b>	<b>Date</b>
Alaris sUAS	Training and training services required to start a sUAS program with two parts: 2 full days of training with equipment including a scenario-based emergency management program and test preparation for the part 107 exam.	MD	LE	MCPD MCFRS	03/2019
ALERRT at Texas University	Research based interdisciplinary active shooter response training provided by the University of North Texas. Special focus on Tactical Emergency Casualty Care (TECC).	TX	LE Fire/EMS	MCFRS MCPD PGFD PGPD	03/2018
ATSCC- Field Based Training (Live Tissue Training)	Ballistic lab demonstrations & didactic presentation on the effects of ballistic wounds; practical procedures and skills lab for hemostatic agents & bandages, tourniquets and other medical devices; and a practical exercise.	VA	LE Fire/EMS	PGFD	05/2019
Direct Action Resource Center (DARC) 1 Counterterrorism Training	Basic level counterterrorism training that equips law enforcement with relevant and useful skills to combat a swarm type (Mumbai) attack. Also provides opportunity to broaden the officer's knowledge of enemy tactics and reactions to countermeasures. Two of the officers sent are on the leadership tract and are instructor candidates. They received training hours toward DHS certification as instructors.	AR	LE	PGPD PGFD	06/2018



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<b>FY17 Training Initiatives</b>	<b>Event Summary</b>	<b>Location</b>	<b>Discipline</b>	<b>Agency</b>	<b>Date</b>
Direct Action Resource Center (DARC) 1 Counterterrorism Training	Basic level counterterrorism training that equips law enforcement with relevant and useful skills to combat a swarm type (Mumbai) attack. Also provides opportunity to broaden the officer's knowledge of enemy tactics and reactions to countermeasures. Two of the officers sent are on the leadership track and are instructor candidates. They received training hours toward DHS certification as instructors.	AR	LE	PGPD	10/2018
Direct Action Resource Center (DARC) 2 Advanced Counter Terrorism Training	Continuation of the counterterrorism 1 course but includes live fire training environments, interior/exterior explosive breaching, and ballistic breaching training. The course also covers advanced hostage rescue techniques, night vision capabilities and additional development of sniper/observer support.	AR	LE	PGPD	02/2019
Direct Action Resource (DARC) Advanced Breaching & Program Supervisors Training	Advanced explosive breaching training designed for those who will manage or supervise an assaulter/entry breaching program at their organization. This course focuses primarily on explosive breaching and the development and sustainment of a breaching program.	OR	LE	PGPD	12/2018



FY17 Training Initiatives	Event Summary	Location	Discipline	Agency	Date
Direct Action Resource Center (DARC) Tactical Supervisors & Managers Course	Tactical Operations and supervisors' course for special operations (SWAT) teams. This course is designed for the supervisor or manager of the SWAT operations team. By the end of the course, participants should be able to: prepare and document what the SWAT team is doing, what it needs to do in short term and long term planning, costs to train, sustain, outfit and acquire new skills, and conduct defined operations, SOPs to carry out breaching, sniper and CQB operations.	NV	LE	PGPD	09/2018
Direct Action Resource Center (DARC) Tactical Supervisors & Managers Course	Tactical Operations and supervisors' course for special operations (SWAT) teams. This course is designed for the supervisor or manager of the SWAT operations team. By the end of the course, participants should be able to: prepare and document what the SWAT team is doing, what it needs to do in short term and long term planning, costs to train, sustain, outfit and acquire new skills, and conduct defined operations, SOPs to carry out breaching, sniper and CQB operations.	MD	LE	PGPD	03/2019
FAA UAS Symposium	This annual event provides stakeholders with the opportunity to meet with industry leaders to discuss research, regulations, and procedures related to the start-up, maintenance and sustainment of a small unmanned aerial system (sUAS) program.	MD	LE Fire/EMS EM Hospitals MDERS	MCFRS, MCPD PGFD PGPD OEMHS MDERS	04/2019



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<b>FY17 Training Initiatives</b>	<b>Event Summary</b>	<b>Location</b>	<b>Discipline</b>	<b>Agency</b>	<b>Date</b>
Forced Entry Tactical Training (FETT) 8th Annual Breachers Circle	Unique training opportunity that combines classroom and workshop style training with practical application. The first day is spent with didactics: debriefs, operator safety and industry developments; the remaining days include 'putting it all together' with practical application of the reinforcement and new and emerging skills.	AZ	LE	MCPD PGPD	10/2017
Forced Entry Tactical training (FETT) Tactical Explosive Breachers Course	A comprehensive explosive breaching course geared toward LE personnel who need the knowledge and skill to obtain an active explosive breacher status, build an explosive breaching program for their agency and expand or enhance their existing one. Students are taught, drilled and tested to go from a basic breacher to intermediate explosive breacher status.	MD	LE	MCPD PGPD	05/2019
Fire Stats Training	This training focused primarily on statistical and spatial analysis of fire department operations. The course is intended to integrate and support TECC, LEEMS outcomes/data.	VA	Fire/EMS	PGFD, MCFRS	02/2019
International Association of Fire Chiefs (IAFC) Hazmat Conference	This conference provides the latest classroom, hands-on, and field-based training on developing trends covering all aspects of HazMat operations including transportation, safety, WMD, gear, terrorism, decontamination and bioterrorism.	MD	LE	MCFRS PGFD	06/2018



FY17 Training Initiatives	Event Summary	Location	Discipline	Agency	Date
Inlets Active Shooter Training	FBI related 1-day training that provides a holistic view toward indicators of those who have a propensity toward violence and mass casualty events.	MD	LE	MCPD	08/2018
JEMS	Annual and premiere EMS conference with significant training opportunities on dynamic/active threats and MCI management. Leadership development training, simulations, Stop-the-Bleed are also aspects of this training opportunity.	MD	Fire/EMS	MCFRS PGPD PGFD HOSP	02/2019
Joint Commission Emergency Preparedness Conference	The annual emergency preparedness conference sponsored by the Joint Commission for the hospitals. This 2-day event showcases responses to real life threats, disasters that hospitals may encounter and will address the accreditation standards related to them.	DC	Hospitals	Holy Cross, WAH, Shady Grove, Medstar Montgomery, UMPGHC, Medstar Southern MD	04/2019
K-9 TECC Training	Police K-9 teams are an integral part of a tactical response capability. This training allows tactical medics and K-9 handlers to learn best practices in comprehensive treatment and evacuation of the K-9 team and provided training for handlers as well as the tactical medic.	MD	LE	PGFD PGPD MCFRS MCPD MSP	03/2019



## Fiscal Year 2017 Annual Report

<b>FY17 Training Initiatives</b>	<b>Event Summary</b>	<b>Location</b>	<b>Discipline</b>	<b>Agency</b>	<b>Date</b>
Maryland Emergency Management Agency	The annual MDEMA Homeland Security and Emergency Management Symposium is a 4-day training and education event for all levels of government, the private sector / private partners and stakeholders alike. Participants are provided educational sessions to explore recent events, best practices and current and emerging trends in Homeland Security and Emergency Management. This year topics/speakers include but are not limited to Active Assailant matters.	MD	EM	PGOEM OEMHS	5/2019
National Healthcare Coalition (MESH) Conference	Annual national conference conceived and designed for healthcare coalitions. The presentations are a collaboration with partners and stakeholders from healthcare, public health, EMS, public safety, government and academia with the goal of building a resilient healthcare infrastructure to support a whole community model for healthcare preparedness and response.	LA	PH Hospitals	UMPGHC, Holy Cross, MCPH, Medstar Montgomery	11/2018
National Homeland Security Conference	The National Homeland Security Conference provides attendees with education and informative sessions on best practices and emerging trends in homeland security and emergency management.	NY	EM MDERS	OEMHS	07/2018



FY17 Training Initiatives	Event Summary	Location	Discipline	Agency	Date
National Hurricane Conference	This conference presents a national forum for federal, state and local officials to exchange ideas, and a unique opportunity for education and professional development in hurricane preparedness and response capabilities. There are special topics for various stakeholder populations, including hospital response.	LA	EM	PGOEM	04/2019
National Tactical Officers Association Command Class	This course is designed to expose SWAT commanders and supervisors to contemporary SWAT issues, tactics and procedures. Topics include incident debriefs, leadership issues, emotional intelligence, SWAT team justification, selection, training, discipline of supervisors and team members; crisis negotiations, tactical operation center considerations, planning and sustaining a team.	MD	LE	MCPD	03/2019
Ohio Active Assailant Initiative	EMS leadership conference focused on senior and mid-level EMS managers with a view toward capability development, best practices and management and sustainment of EMS programs.	FL	LE	MSP	10/2018
Pinnacle	Annual healthcare coalition conference addressing the issues and needs of healthcare coalitions in preparing for and responding to all-hazards, incidents.	CA	Fire/EMS	MCFRS PGFD MDERS	08/2018



## Fiscal Year 2017 Annual Report

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<b>FY17 Training Initiatives</b>	<b>Event Summary</b>	<b>Location</b>	<b>Discipline</b>	<b>Agency</b>	<b>Date</b>
Special Operations Medical Association (SOMA)	The annual SOMA conference is the opportunity to advance the art and science of special operations medicine. The conference offers a variety of trainings in TECC related courses and providing medical care in austere environments. CONTOMS is also offered for medical personnel.	NC	Fire/EMS	PGFD MCPD Physicians	05/2019
Tactical Energetic Entry Systems (TEES) Explosive Breacher Training	Training aimed at enhancing the skills of an existing breacher by introducing them to advanced skills for breaching hard targets. The training is conducted on commercial structures such as schools, hospitals, apartments, etc. This course lays the foundation toward achieving Master Breacher status.	OH	LE	PGPD	03/2019
Tactical Energetic Entry Systems (TEES) Explosive Breacher Training	Training aimed at enhancing the skills of an existing breacher by introducing them to advanced skills for breaching hard targets. The training is conducted on commercial structures such as schools, hospitals, apartments, etc. This course lays the foundation toward achieving Master Breacher status.	FL	LE	MCPD	01/2019
Tomahawk Rural-Woodlands Tactical Operations	Rural tactical operations including patrolling formations and movement, tactical searches and tracking, target site approach and containment with sniper overwatch and reporting including doing so under no light or low light circumstances	MD	LE	MCPD PGFD	03/2019



FY17 Training Initiatives	Event Summary	Location	Discipline	Agency	Date
Tomahawk Tactical Entry Course	5-day CQB course and building clearance class. Focus is places on SWAT teams building clearance methods with hostage rescue tactics. This includes, but is not limited to mission planning, target structure approach and containment, post mission AAR. Debriefs include whiteboard discussion and critiques with 360-degree video debriefing.	MD	LE	MCFRS PGFD	11/2018
Tomahawk Tactical Entry Course	5-day CQB course and building clearance class. Focus is places on SWAT teams building clearance methods with hostage rescue tactics. This includes, but is not limited to mission planning, target structure approach and containment, post mission AAR. Debriefs include whiteboard discussion and critiques with 360-degree video debriefing.	MD	LE	MCPD PGPD	05/2019
MDERS staff instruction and training.	Courses delivered include ICS300, ICS,400, Homeland Security Exercise and Evaluation Program (HSEEP).	MD	Fire/EMS LE Hospitals EM PH	MDERS	Multiple dates

Disciplines abbreviated as follows: Emergency Management (EM), Law Enforcement (LE), Public Health (PH), Fire and Emergency Medical Services (Fire/EMS)





Command staff from the Prince George's County Fire/EMS Department demonstrate the components of the Command Officer Professional Development Program. Regional fire departments from Fairfax County, Virginia, Howard County, Maryland, and the City of Charlotte, North Carolina participated. The group received a comprehensive briefing on the products created for this program. Those include a tactical worksheet that provides the incident commander quick and efficient methods to record units and assign responsibilities.



Members from the Prince George's County Fire/EMS Department, Montgomery County Fire and Rescue Service, Rockville City Police, and MDERS staff plan the Tabletop in a Box training sessions. The expansion of this program includes public health departments in both counties, local hospitals, and several police departments. This tool supports the tasks and activities stated in the Incident Command System Capability Development Plan.





## Exercise Program

As part of the capability development process, MDERS works with partner organizations to examine current performance against targeted capability levels, thereby identifying identify gaps. That information frames the next set of requirements to address the needed policy, resources, and metrics for improvement and further capability enhancement.

The following table summarizes the support provided by MDERS staff for exercise activity that took place during the FY17 period of performance.

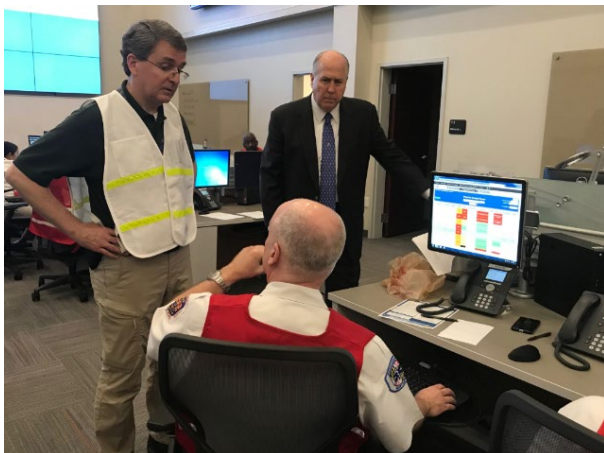
Exercise Name	Exercise Type	Exercise Date(s)	ERS Role	Lead Agency	Description of ERS Involvement
Tabletop in a Box (TTX) Train-the-Trainer	Tabletop	8/20/18 8/27/18 9/10/18 9/11/18	Conducting	MDERS	This is a follow up to the beta series of table-top exercises (TTX) with personnel from the Prince George's County Fire and Emergency Medical Services (EMS) Department. This exercise is designed to train fire personnel at the Battalion Chief level and higher how to deliver the TTX in A Box program at the station level.
Tabletop in a Box (TTX) for Emergency Medical Services Supervisors	Tabletop	02/04/19 02/08/19 02/15/19 02/25/19 02/28/19 03/01/19 03/08/19	Conducting	MDERS	The goal of the exercises is to assess EMS personnel's ability to manage a Mass Casualty Incident (MCI) utilizing the Incident Command System (ICS).
Emergency Response Symposium	Workshop	04/18/19	Conducting	MDERS	The MDERS annual symposium explores the interdisciplinary and coordinated response to emergency incidents. The objectives for the symposium are to: exchange information and ideas among the stakeholders; identify lessons learned from the interdisciplinary response to an emergency incident; compare and contrast the approach to the incident with what is done in the NCR; provide a foundation for POETEE initiatives and next steps to close jurisdictional gaps based on lessons learned from the response.



<b>Exercise Name</b>	<b>Exercise Type</b>	<b>Exercise Date(s)</b>	<b>ERS Role</b>	<b>Lead Agency</b>	<b>Description of ERS Involvement</b>
Tabletop in A Box – Rockville City Police Department	Tabletop	05/13/19 05/24/19 07/10/19	Conducting	MDERS	The goal of the exercises is to assess RCPD's supervisors and command staff's ability to effectively execute an Incident Action Plan (IAP) and to reinforce knowledge and understanding of RCPD's All-Hazards Response Plan and all other relevant plans, policies, and procedures.
MCOEMHS Rock Bill Tornado	Function	04/26/19	Evaluators	MCOEMHS	Functioned as evaluators to assess the staff's ability to implement the county Continuity of Operations Plan. This was based on a tornado that touched down in Rockville.
MCOEMHS Functional Exercise	Functional	09/14/17	Supporting	MCOEMHS	MDERS staff functioned as evaluators for the OEMHS full scale exercise. MDERS staff attended a briefing session the day prior to the event to review all expected actions. A just in time training session was included to review documentation, administrative requirements, and roles. On the day of the exercise, MDERS provided three keys roles at this full scale exercise. First, was the role of observer for the tasks and activities of the exercise. Second, staff documented notes using exercise forms to include if and how targets were met. Finally, staff using the exercise and evaluation documents assigned a rating for the objective. This information is forwarded from staff to the POC for the improvement plan document.



Exercise Name	Exercise Type	Exercise Date(s)	ERS Role	Lead Agency	Description of ERS Involvement
PG OEM Functional Exercise	Functional	05/23/19	Supporting	PG OEM	MDERS staff attended a briefing session the day prior to the event to review all expected actions. On the day of the exercise, MDERS provided three key roles at this full scale exercise. First, was the role of controller in the simulation center. MDERS participated in the preparation of the injects for the exercise radio transmission sequence, tempo of events, and public safety agency messaging. Second, MDERS staff functioned as evaluators. Stationed with the emergency operations center staff personnel, MDERS staff observed the actions of participants. From a detailed and extensive set of criteria and categories activities were document in the action report. MDERS staff completed a comprehensive set of detailed notes into the exercise and evaluation guides to support the numerical assignment for performance of the role and duties of the assigned personnel.



Members of the Prince George's County Public Safety leadership, Office of Emergency Management, and Prince George's County Fire/EMS Department participate in a functional exercise. This level of interdepartmental communication is critical in the exercise phase. Building these relationships from shared experience provides the foundation of collaboration that will be used during events. These event tasks, activities, and processes enhance the jurisdiction's ability to partner throughout the region to deliver resources at emergency incidents.





## SWAT and Bomb Squad Equipment

### QUICK FACTS

The equipment purchased in this grant will provide Maryland-NCR bomb squad personnel with an enhanced capability to respond to the types of devices, tactics, and threats often employed in terrorist events, complex coordinated attacks, and other high-risk situations that incorporate the use of explosive devices meant to harm large numbers of people.

#### MDERS Budget:

Quantity	Item	Amount
12	Night visions goggles	\$150,700.00
30	Handheld X-ray system laptops	\$40,800.00
3	Bomb protective suits	\$8,200.00
2	Tactical robots and bags	\$90,000.00
3	Mobile Pelican lighting	\$9,000.00
8	Small throw robots	\$11,000.00
1	Breathing apparatus	\$24,500.00
1	Bomb Squad X-ray system	\$134,000.00
1	Long Range Amplified Device	\$29,000.00
<b>Total</b>	<b>UASI FY 17</b>	<b>\$497,200.00</b>

#### Capability:

This grant purchased of a variety of equipment for Maryland-NCR Bomb Squad personnel to respond to terrorist events, complex coordinated attacks, and other situations requiring specialized equipment to handle explosive devices.

#### Outcomes:

- This grant directly addresses the bomb and explosive equipment shortfall challenges identified by local police and fire departments.
- This equipment creates the opportunity to train partner disciplines, exercise for integrated response, and respond to improvised explosive packages, incendiary devices, and bomb type events.
- These resources provide tacticians, supervisors, managers, and leaders with state of art equipment.
- The enhancements include self-contained breathing apparatus for bomb squad personnel, allowing them to work in environments without being exposed to toxins or immediate dangers to life and health.
- This program furthers the objective of multiple agencies and jurisdictions being capable of expeditiously responding to high threat environments and effectively neutralizing the threat.





## SWAT and Bomb Squad Equipment



Night Vision goggles provide specialty team members the ability to see and operate in low light conditions. The lightweight design with low profile lens allows for easy storage. A clip helmet mount provides single action installation. This allows a hands-free operation. Equipped with a set of heavy-duty batteries, the units run multiple hours. Built for rugged environments, the frame supports the lens in a watertight assembly. These units are equipped with an extra-wide field of view up to 100 yards. The automatic lens provides for dynamic light adjustment to deliver optimal lighting of the environment for the operator.



The handheld X-ray systems provide local bomb teams the ability to visualize possible explosives in fine detail. Built on a portable platform, these lightweight devices are agile and easily-deployable. This handheld nature of the units provides the operator the mobility to check multiple packages in a short period of time. Each system has a two-battery lithium system for deployment and fast change over. SmartScreen technology provides high resolution for a clear image. Wireless connectivity with a WIFI range up to 300 yards and single point network connection make this a valuable tool for managing remote operations at a large scene.



The Power Hawk Tool allows for safe operations by reducing the need for personnel to directly interact with suspicious devices or operate in hazardous environments. Each device is portable and travels with the bomb team resources. Attached to a mobile robot platform, the claw moves downrange to the target with precision. The device is versatile with multiple tips for prying, cutting locks, or grabbing hold of an object. This provides a standardized tools across multiple agencies and jurisdictions for common bomb squad operations.





## Public Access Trauma Care (PATC)

### QUICK FACTS

This project provides equipment to support the Public Access Trauma Care (PATC) Program for the Maryland-National Capital Region.

#### MDERS Budget:

Number	Item	Amount
1572	Public Access Bleeding Control Kits (5-pack kits)	\$431,406.99
647	Public Access Bleeding Control Kits (individual kits)	\$31,593.01
50	Training caches for delivery of training to stakeholders and public	\$99,573.72
<b>Total</b>	<b>UASI FY17</b>	<b>\$562,573.72</b>

#### Capability:

The Public Access Trauma Care (PATC) Program enhances the response community by empowering civilians and bystanders to treat patients with life-threatening injuries. These kits will allow the public to access life-saving supplies prior to emergency response personnel arrival. The program includes instructional materials, hands-on training, and deployment of bleeding control supplies at public buildings, schools, and facilities.

#### Outcomes:

- Provide civilians with the medical materials and training to effectively control bleeding on extremities, the torso, and the head.
- Provide civilians with the medical materials and training to effectively treat sucking chest wounds and other breathing difficulties.
- Provide civilians with the awareness of environmental hazards and how to protect the patient from further injury.
- Provide civilians with the tools and training to help regulate body temperature.
- Provide civilians with the proper training on how to provide psychological support to injured patients.
- Provide civilians with the proper training on how to best communicate the emergency incident to a 9-1-1 operator.





## Public Access Trauma Care (PATC)



The Public Access Bleeding Control (PABC) kit provides bystanders and first responders with quick and easy access to essential medical equipment for stopping life-threatening bleeding and traumatic injuries. The PABC 5-pack includes five (5) Bleeding Control Kits that are contained inside of an easy-to-open nylon carrying case, intended to at least five patients. Equipped with a sling strap, the kit and contents are quickly deployable from a single point or on the move. This kit has a disposable quick litter for rapid deployment to move a non-ambulatory patient. These kits are designed for deployment in areas of mass gathering.



The single pack Public Access Bleeding Control (PABC) kit contains the supplies for bystanders to take immediate action to treat traumatic bleeding and injuries. Each kit contains gloves, a tourniquet, chest seals, pressure dressings/bandages, gauze, shears, medical tape, emergency blanket, and a marker. Also included are step-by-step illustrated “just in time” pictorial instructions, so even untrained providers can render aid. The kits are packaged in an “easy-open” vacuum-sealed clear plastic bag.



Hands-on training was completed with the Montgomery County Public School System nurses, health room technicians, and security officers. This collaborative process included trainers from the Montgomery County Police Department and Maryland-National Capital Region Emergency Response System. This link to the school community provides a foundation for the force multiplier and early access process. The PATC program empowers civilians with the training, equipment, and supplies to provide life-saving interventions prior to the arrival of emergency responders.





## Mass Casualty Incident Response

### QUICK FACTS

This project provides several resources to emergency medical personnel to enhance their ability to respond to mass casualty incidents. Included is a web-based medication calculation tool for pediatric and hazardous materials incidents, mannequins to simulate patient care, wireless vital sign monitors for treating several patients simultaneously, casualty collection point bags, first aid kits for additional fire/rescue vehicles, and patient movement devices.

#### MDERS Budget:

Quantity	Item	Amount
2	Handtevy software	\$9,000.00
17	Supplies for Casualty Collection Point bags	\$14,000.28
6	Wireless vital sign monitors	\$36,814.43
2	Patient care mannequins	\$83,860.00
60	First aid kits	\$4,797.00
31	Binder Lifts	\$20,317.07
<b>Total</b>	<b>UASI 2017</b>	<b>\$168,788.71</b>

#### Capability:

This project will purchase equipment and supplies intended to increase and enhance the capability and capacity for Maryland-NCR first responders to respond to mass casualty incidents, including those created by terrorist events.

#### Outcomes:

- Provide county-wide licenses (for both Prince George's and Montgomery Counties) of the Handtevy Medication System software. This cloud-based application provides medication and treatment guidelines for chemical and biological events.
- Increase the number of medical bags by deploying on additional fire/rescue vehicles.
- Increase the availability of Casualty Collection Point bags by deploying on additional fire/rescue vehicles.
- Provide high-fidelity mannequins to simulate patients during medical interventions by EMS clinicians.
- Enhance the ability to simultaneously monitor several patients. These devices are interoperable between the county fire departments, providing a subregional standard for interoperability on large-scale events.





## Mass Casualty Incident Response



SimMan ALS provides a mobile, durable solution that will meet the training needs of pre-hospital clinicians. From basic assessment and skills to advanced life support interventions, this mannequin provides lifelike conditions to challenge the clinician. The mannequin allows for training in unique patient etiologies, such as those encountered during a terrorism event, including chemical exposure or traumatic injury. Training for these high-impact, low probability patient encounters allows clinicians to develop critical patient care skills in a controlled environment.

15 kg	20 kg	25 kg
Epi 1:1,000 IM 0.15 mL	Epi 1:1,000 IM 0.2 mL	Epi 1:1,000 IM 0.25 mL
Epi 1:10,000 IV 1.5 mL	Epi 1:10,000 IV 2 mL	Epi 1:10,000 IV 2.5 mL
Amiodarone 1.5 mL	Amiodarone 2 mL	Amiodarone 2.5 mL
Bicarb 8.4% 15 mL	Bicarb 8.4% 20 mL	Bicarb 8.4% 25 mL
D <sub>5</sub> W 30 mL	D <sub>5</sub> W 40 mL	D <sub>5</sub> W 50 mL
Normal Saline 300 mL	Normal Saline 400 mL	Normal Saline 500 mL
Lorazepam 0.75 mL	Lorazepam 1 mL	Lorazepam 1.25 mL
*Diazepam IM/IN 0.6 mL	*Diazepam IM/IN 0.8 mL	*Diazepam IM/IN 1 mL
ETT / King / LMA 8U / 2 / 2	ETT / King / LMA 8.5U / 2 / 2.5	ETT / King / LMA 8.5U / 2 / 2.5

10 kg	30 kg
Epi 1:1,000 IM 0.1 mL	Epi 1:1,000 IM 0.3 mL
Epi 1:10,000 IV 1 mL	Epi 1:10,000 IV 3 mL
Amiodarone 1 mL	Amiodarone 3 mL
Bicarb 8.4% 10 mL	Bicarb 8.4% 30 mL
D <sub>5</sub> W 20 mL	D <sub>5</sub> W 30 mL
Normal Saline 200 mL	Normal Saline 600 mL
Lorazepam 0.5 mL	Lorazepam 1.5 mL
*Diazepam IM/IN 0.4 mL	*Diazepam IM/IN 1.2 mL
ETT / King / LMA 4U / - / 2	ETT / King / LMA 8.5U / 2 / 3

\*NOTE: The Diazepam IV dose is HALF (1/2) the volume of the Solid Diazepam IM / IN dose.  
PEC 2014 ver 12

The Handtevy™ Pediatric Code

Treating a pediatric patient in medical distress is difficult and time sensitive for even seasoned first responders. The Handtevy Pediatric System is the leading software solution designed to give fire and EMS teams rapid access to lifesaving dosing information while documenting in real time. Integration with MIEMSS protocols allows clinicians to deliver high acuity medications in accordance with state guidelines. The application is web-based and operates on multiple devices.



This medical aid kit provides a basic set of medical supplies to address time sensitive medical conditions. The kit contains common basic life support interventions, supplies, and equipment to allow for immediate treatment of patients. This expands these basic kits to staff vehicles, allowing for more rapid treatment and the ability to treat more patients during surge events. The standard inventory allows interoperable use with first responders at all levels.





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## Incident Command System Capability

### QUICK FACTS

This project allows Prince George's County first responders to expand and enhance their incident command capability by creating a Command Competency Lab for use by current and potential incident commanders in the public safety community. In these labs, candidates encounter simulated incidents and interactions, providing a realistic environment in which to develop their skills.

#### MDERS Budget:

Quantity	Item	Amount
1	Sims U Share Software	\$38,250.00
1	LED monitor	\$4,000.00
8	Command competency lab audio-visual equipment kits	\$60,400.00
10	Wall-mounted projector	\$71,547.00
10	Laptop computers	\$33,500.00
200	Incident Command System guides	\$15,800.00
1	Mobile data computer	\$4,080.00
1	Portable audio-visual kit	\$7,378.00
4	Pelican case	\$1,500.00
<b>Total</b>	<b>UASI 2017</b>	<b>\$245,955.00</b>

#### Capability:

The Maryland-National Capital Region emergency response partners are able to effectively direct and control incident activities by using the Incident Command System (ICS) consistent with the National Incident Management System (NIMS).

#### Outcomes:

- Provides a high-resolution projector, large wall-mounted screen, and speakers at eight separate training locations and a complete portable setup.
- Supporting technical products for this interoperable platform include eight laptops, keyboards, mice, GoPro cameras, and one mobile data computer. This regional process allows leaders to deliver training at the station, battalion, or connected to the county internet service.
- This grant addresses command equipment gaps with a tactical worksheet, command action guides, and a heavy-duty binder book. This provides the incident commander with a standard toolbox to manage incidents.
- Simulation software is provided to the jurisdiction through Sims U Share technology. This web-based application allows the user to create specific scenarios identified from recent incidents. The application is user friendly, allowing quick set up and easy updating as needed.





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## Incident Command System Capability



The Mobile Data Computer Terminal (MDC) is a key component for the incident commander. All resources dispatched to an emergency incident are linked to the MDC. Regular updates are pushed to the device for real time dispatch information. From those dispatches incident command personnel create objectives to manage the incident. Using the incident command system principals, units are assigned to complete tasks. Including this device in the Command Competency Lab further contributes to an environment that accurately simulates the environment in which incident commanders will perform.

The tactical worksheet is a tool utilized in the incident command process. A single double-sided sheet was designed by public safety response personnel to draw out the policies, procedures, and tactics used to manage incidents. Space in the chart permits the assignment of designated units for specific tasks. A wide area provides space to hand sketch the incident, which allows the user to receive information and build an accurate picture. Color coded blocks on the page indicate key roles that must be filled with appropriate resources. The back side of the sheet has a check list box design for quick assignment of critical tasks.



The Sims U Share software provides personnel the ability to design structure fire incidents. Personnel can take photos of local structures, specific target hazards, or past incidents. That data is placed into a working file for immediate access. With that foundation, file users add elements of smoke, fire, and other conditions. Training to use these tools is completed by webinar, from the host website, or in face-to-face sessions. A team of subject matter experts is available for advice, consultation, or instruction. The ability to create custom simulations allows for targeted skill development for incident commanders.





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## FirstWatch Situational Awareness

### QUICK FACTS

FirstWatch is a secure system that captures raw data and turns it into useful information in real time to help agencies improve situational awareness, operational performance, and clinical patient outcomes.

#### MDERS Budget:

Quantity	Item	Amount
1	FirstWatch software - MCFRS	\$30,079.00
1	FirstWatch software - PGFD	\$41,968.00
1	FirstWatch software - DCFD	\$65,409.00
1	FirstWatch software - Loudoun County	\$75,931.00
1	FirstWatch software - Prince William County	\$106,019.00
1	FirstWatch software - Alexandria	\$66,199.00
1	FirstWatch software - Arlington County	\$7,488.33
<b>Total</b>	<b>UASI FY17</b>	<b>\$393,093.33</b>

**Capability:** FirstWatch provides the National Capital Region emergency responders the ability to convert raw data into meaningful information. The software connects to existing computer systems to securely capture, translate, and transmit data to communicate and share situational awareness. Built with a sophisticated software package, the components gather computer aided dispatch and EMS records to improve performance and delivery of services.

#### Outcomes:

- Provides real time and actionable data for the assignment of resources.
- Provides a regional hospital status dashboard that monitors EMS transport units at each hospital to allow for informed and efficient transport decisions.
- Creates an evidence driven system to support decisions.
- Creates a real time reporting tool for performance monitoring and improvement.
- Provides monitoring for critical clinical incidents, such as stroke, trauma, and cardiac arrest incidents. That information is converted to performance improvements in real time.
- Performs real time analytics and builds visual graphs to explain performance to responders, managers, and leaders.
- Serves as a single point for EMS situational awareness at all times, particularly during regional surge events.





## FirstWatch Situational Awareness

The FirstWatch program is a National Capital Region initiative to provide emergency response partners the ability to effectively communicate and share information to maintain situational awareness. Services provided include data collection and analysis from the CAD system, patient care records, and local information sources. This provides a common platform to allow for a uniform picture of the status of emergency medical services systems throughout the NCR. Some key features include:

- **A variety of data sources:**
  - Any information that is captured in a database (e.g., CAD, ProQA, ePCR, RMS) can be monitored and aggregated by FirstWatch. The process is automated.
- **Improved operational performance:**
  - FirstWatch monitors key performance indicators in real time, such as response times, scene times, and hospital drop-offs.
- **Improved clinical performance:**
  - FirstWatch provides automated, real-time feedback on adherence to patient care protocols, enabling more effective quality improvement programs.
- **Dashboards:**
  - Performance indicators are presented on dashboards so users can quickly and easily see the status of any dataset they wish to add on any device that connects to the internet.
- **Early warning utility:**
  - FirstWatch can be set to alert for early signs of a chemical, biological, radioactive, or nuclear attack (CBRNE), or for naturally occurring epidemics or pandemics.
- **Sentinel event/situational awareness alerts:**
  - FirstWatch can be used to reduce workload and increase awareness by automating key notifications for sentinel or situational awareness events.
- **Customized alerting:**
  - When a FirstWatch trigger is activated, the user determines to whom and how an alert will automatically be sent.
- **Pre-set or customized triggers:**
  - Users can use pre-set triggers to provide alerts for common types of incidents and can also have customized triggers for their specific needs.



Incident Drill-down			
Incident Details			
fwCust_ID	11 00	Time_FirstCallTakingKeystroke	2017-07-04 14:11
ID	00000000	Time_CallEnteredQueue	2017-07-04 14:11
FWTimeStamp	2017-07-04 14:11	Time_CallTakingComplete	2017-07-04 14:11
Response_Date	2017-07-04 14:11	Time_CallClosed	2017-07-04 14:11
Master_Incident_Number	00000000	Time_FirstUnitAssigned	2017-07-04 14:11
Agency_Type	XXXX	Time_FirstUnitArrived	2017-07-04 14:11
Jurisdiction	XXX XXXXX	Cancel_Reason	1 - CANCEL - COMPLETE
Division	000000	Call_Disposition	1 - CANCEL - COMPLETE
Response_Area	11 0000	EMD_Used	1
Problem	000000000000000000000000	CIS_Used	1
Priority_Number	1	Determinant	1 - 000
Location_Name	000000000000000000000000	ProQA_CaseNumber	0000000000000000
Address	#### XXXXXXXX Xx	Call_Is_Active	0
Apartment		CreatedByPrescheduleModule	
City	XXX XXXXX	Caller_Type	
State	00	Location_Type	
Postal_Code	####	Priority_Description	Lowest 1 - Medical
Map_Info	####Xx	ClockStartTime	2017-07-04 14:11





**NCR**  
MARYLAND

## Tactical Equipment for Law Enforcement

### QUICK FACTS

This project provided multiple pieces of equipment to allow law enforcement special operations personnel with enhanced response capabilities for active threat situations. These items will be deployed to SWAT officers to enhance their ability to respond to adverse situations.

#### MDERS Budget:

Quantity	Item	Amount
20	Urban night vision kits for SWAT operators	\$22,000.00
8	Night vision-enabled spotting scopes and tripods	\$11,600.00
12	Night vision binoculars	\$132,000.00
36	Dual communications devices	\$46,800.00
8	Tactical bags	\$14,000.00
2	Bounce image cameras	\$10,600.00
2	Dual shock initiator	\$2,400.00
<b>Total</b>	<b>UASI FY17</b>	<b>\$239,400.00</b>

#### Capability:

This project purchased additional gear for Montgomery and Prince George's County SWAT team members and other special operations personnel for use when responding to terrorist events, complex coordinated attacks, and other high threat situations.

#### Outcomes:

- The night vision scopes allow team members the ability to perform remote observation during field operations in dark and shadow conditions.
- Night vision scopes can be placed on and off the tactical helmet. This tool allows for long range, sometimes long-term observation of tactical, structural, or rescue operations.
- Dual communication devices allow special operations personnel to simultaneously communicate to multiple disciplines and jurisdictions during complex events, bridging the gap between multiple entities.
- The increased number of tactical medical bags and supplies allow for interoperable deployment by first responders.
- The bounce camera addresses the challenges of 360-degree view in a hostile environment while keeping personnel at a safe distance.





## Tactical Equipment for Law Enforcement



A bounce camera system provides a full 360-degree view for situational awareness. The camera maintains vertical and horizontal video stability even as the system rolls, bounces, or hangs on a rope. Deployed by a single user, the camera is lightweight, portable, and requires no other equipment to place into action. The device is linked to an encrypted web-based server that allows connection to multiple devices. A commander in one location can provide direction to other resources at safe, remote location. This device is low cost for the department, requires a minimum training investment, and is interoperable.



Tactical medicine is used by clinicians to deliver emergency medical care within a high threat area, wherein traditional EMS services are not accessible. The tactical medical bags carry equipment for managing a critically injured patient. The Maryland standard inventory allows for interoperable use by certified first responders. These kits are deployed with tactical medics to allow for immediate treatment of personnel and civilians inside high threat environments. The design of the bag provides for easy transport using the handle or backpack types straps. A rugged nylon exterior protects the interior supplies from exposure to moisture, wind, and dirt.



Dual communications devices allow tactical operators and commanders with the ability to communicate on several disparate radio systems simultaneously. This is a common occurrence during high threat events, during which tactical medical providers must communicate with both law enforcement and fire and rescue assets at the same time. These devices maximize situational awareness and cross-disciplinary coordination.





**NCR**  
MARYLAND

## Remote Situational Awareness Tools

### QUICK FACTS

This project provides small unmanned aerial systems (sUAS) and related equipment for use by public safety agencies in Montgomery County to gain real-time situational awareness and scene assessments during complex and hazardous situations. A portion of the funding provided subject matter expert consultation for development of policies and procedures that adhere to all national, state, and local guidelines and requirements.

#### MDERS Budget:

Quantity	Item	Amount
1	Policy development and training	\$16,900.00
6	MCPD sUAS aircraft	\$10,600.00
6	MCPD sUAS equipment and toolkits	\$13,000.00
<b>Total</b>	<b>UASI FY17</b>	<b>\$40,500.00</b>

NOTE: As of the date of publication of this report, this program is on extension and awaiting policy approval by the Department of Homeland Security and Federal Emergency Management Agency, which must be granted prior to purchase of sUAS equipment and accessories.

#### Capability:

The Maryland-National Capital Region emergency response partners use technology to observe scenes and conditions and perform tactical operations while preserving personnel safety.

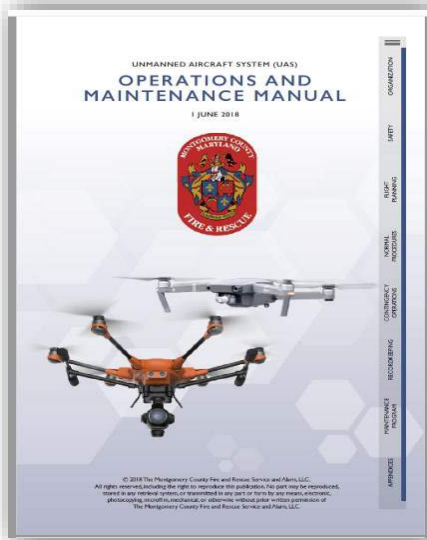
#### Outcomes:

- In a CBRNE event, sUAS provides aerial views to public safety to assist in scene assessment to understand the impacts on infrastructure, life safety situations, and the environment.
- sUAS devices can be used by law enforcement personnel to monitor hostile events from a safe distance, gathering accurate situational awareness to best deploy and direct response resources.
- The sUAS tools provide a fast, efficient, and safe method to gain situational awareness of a fire scene, water rescue, or active law enforcement activity.
- The sUAS technology maintains rigorous standards. These include flight instruction, certification, and maintenance of all aircraft.
- sUAS vehicles can carry a payload of supplies to victims trapped at water emergencies, in need of medical supplies, or other events.
- Emergency management agencies can use sUAS technology to perform scene assessments after disasters.





## Remote Situational Awareness Tools



Professional services for the small Unmanned Aerial System (sUAS) program were obtained from a local subject matter expert. A unique operations manual was created for the Montgomery County and Fire Rescue Service and Montgomery County Police Department. The information and instructions provided in this manual are intended to assist the public safety departments with the safe operation of their sUAS. The instructions provided in this manual have been written specifically for personnel who have received training in the operation and maintenance of the sUAS they are flying. In addition, MDERS staff worked extensively with local, state, regional and federal authorities to create model policy. This framework established a guide for all public safety agencies to craft similar policies that conform to DHS, FEMA, FAA, and other governing agencies' requirements.



The drone aircraft provide several distinct features for fire and police agencies. This tool is lightweight and easy to launch. It is capable of delivering critical data, such as the size of the incident, location of personnel, and hazard assessment. These features deliver key facts to guide the appropriate safe direction for first responders and impacted communities. The tool can access austere environments, protecting personnel from unnecessarily being exposed to threats. Commanders and leaders gain the real-time information required to inform residents of events, actions required, and conditions.



The drone tool kit provides the components to service the aircraft. Federal Aviation Administration regulation requires a regular maintenance process. The Operations Manual created as part of this program outlines the maintenance and repair requirements and procedures. This kit will be used by personnel from each agency who have been certified to service the equipment. Each kit provides the necessary tools, replacements parts, and calibration equipment to service and adjust all components.





## Health Information Exchange

### QUICK FACTS

This project developed a real-time data exchange between the State of Maryland's EMS Electronic Patient Care Reporting System, eMEDS, and the State recognized Health Information Exchange (HIE), Chesapeake Regional Information System for our Patients (CRISP).

#### MDERS Budget:

Quantity	Item	Amount
1	Software license and installation	\$40,000.00
1	Configuration, authentication, and Elite user acceptance testing	\$40,000.00
1	Setup of Elite trigger methods in eMEDS	\$40,000.00
1	Setup of HIE production environment	\$30,000.00
1	CRISP programming and integration work	\$10,000.00
1	Sustainment/technical support	\$79,800.00
<b>Total</b>	<b>UASI FY17</b>	<b>\$239,800.00</b>

#### Capability:

The health information exchange process allows patient information to move electronically among different health information systems. This system allows integration across multiple healthcare providers, including EMS units and hospitals, to share vital patient records. This is meant to optimize patient care while also providing for family reunification.

#### Outcomes:

- The health information exchange is a data bridge that allows for EMS data, for patients opting into the program, to be seamlessly transferred over to the CRISP (Chesapeake Regional Information System for our Patients) database, which can then be accessed throughout the patient's medical treatment.
- The new program provides EMS Operational Programs, County Emergency Managers, and Local Health Departments with a more comprehensive mechanism to identify patient disposition following a mass casualty incident.
- The program provides data transfers to the CRISP database with prehospital and hospital demographics data, which provides the opportunity to locate patients who were transported by EMS, as well as patients transported by any other transport means from scene to hospital.
- This health information exchange process allows patient information to move electronically among different health information systems.





## Health Information Exchange

On September 1, 2018, MIEMSS implemented the Health Information Exchange (HIE). MIEMSS worked with jurisdictional stakeholders, as well as regional and national partners, on identifying more comprehensive means of locating patients through Maryland's healthcare system regardless of how the patient was transported and which destination received the patient, without using a separate tool to accomplish the mission.

This process has included discussions with many organizations throughout the country that have experienced devastating mass casualty incidents over the last five years. The lessons learned from these events, coupled with the experience of Maryland's own EMS Operational Programs, led to integrating prehospital data with the Chesapeake Regional Information System for our Patients (CRISP), the statewide health information exchange. CRISP is a regional health information exchange (HIE) serving Maryland and the District of Columbia. It is a non-profit organization made up of a wide range of stakeholders who are responsible for healthcare throughout the region.



### What is CRISP?

The Chesapeake Regional Information System for our Patients was formally designated as Maryland's statewide health information exchange by the Maryland Health Care Commission. This health information exchange process allows patient information to move electronically among different health information systems.



### CRISP Website

The integration project facilitates a data linkage between two existing systems, the State of Maryland's EMS patient care reporting system (eMEDS) and the State of Maryland's designated Health Information Exchange (CRISP). Providing a mechanism for these two key systems to communicate and share data opens up several potential efficiencies in the response and recovery from a terrorist attack. Principally, through an existing reunification portal hosted by CRISP, officials can search for patients that have been treated at a CRISP participating healthcare facility and identify the patient's current location or point of release from the system.



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## ACRONYMS & ABBREVIATIONS

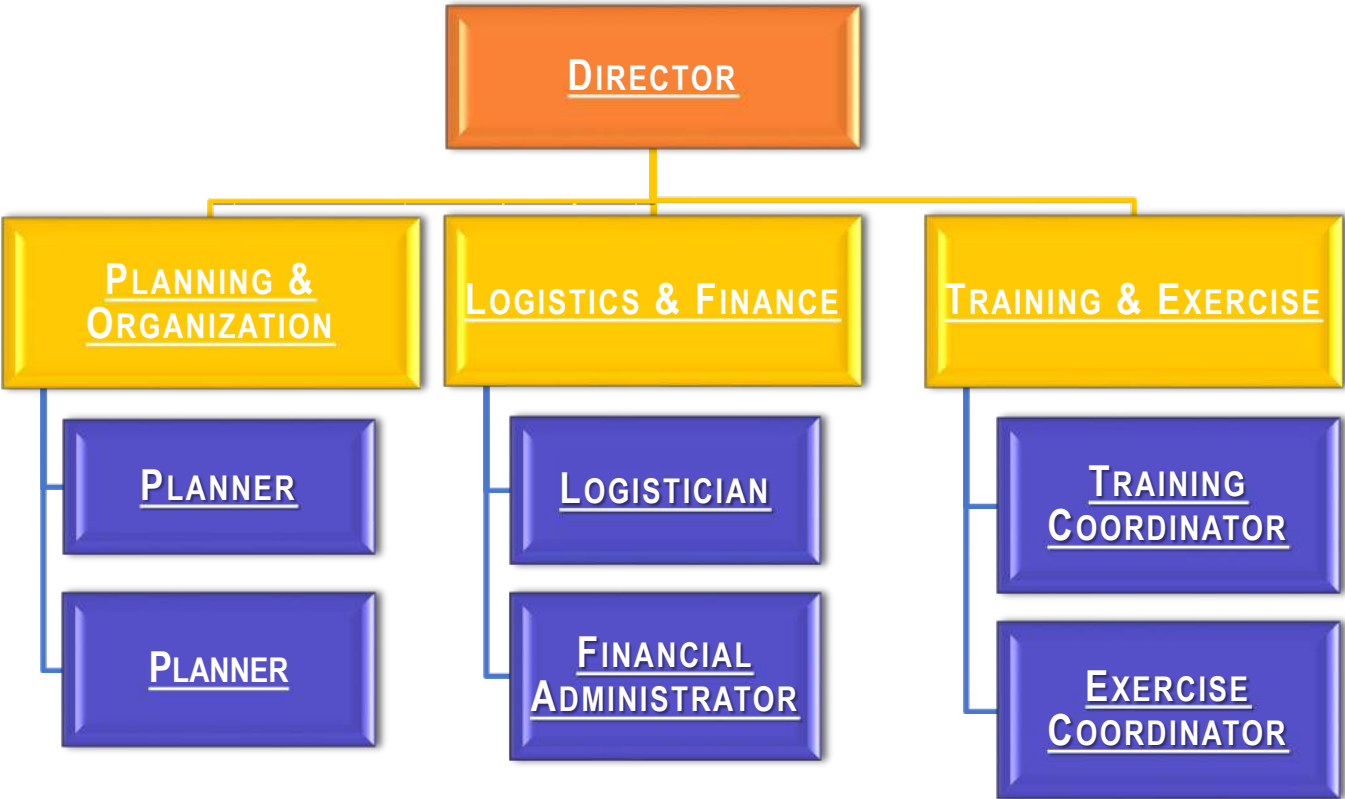
Acronym	Definition
AARs	After Action Reports
CAD	Computer Aided Dispatch
CBRNE	Chemical, Biological, Radiological, Nuclear, Explosive
CCA	Complex Coordinated Attack
CDC	Center for Disease Control
C-TECC	Committee for Tactical Emergency Casualty Care
DFAN	Disabilities, Access and Functional Needs workgroup
DHHS	Department of Health and Human Services
DHMH	Department of Health and Mental Hygiene
EM	Emergency Management
EMS	Emergency Medical Services
EOC	Emergency Operations Center
ePCR	Electronic Patient Care Report
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
HSEEP	Homeland Security Exercise Evaluation Program
IAP	Incident Action Plan
ICS	Incident Command System
LE	Law Enforcement
MCI	Mass Casualty Incident
MCPD	Montgomery County Police Department
MDOD	Maryland Department of Disabilities
MEMA	Maryland Emergency Management Agency
MCFRS	Montgomery County Fire & Rescue Service
MCOEMHS	Montgomery County Office of Emergency Management Homeland Security
MDERS	Maryland-National Capital Emergency Response System



MD-NCR	Maryland National Capital Region (Montgomery & Prince George's County)
MIEMSS	Maryland Institute for Emergency Medical Services Systems
MSP	Maryland State Police
MWCOG	Metropolitan Washington Council of Governments
NCR	National Capital Region
OEM	Office of Emergency Management
PH	Public Health
PGFD	Prince George's County Fire/EMS Department
PGPD	Prince George's County Police Department
POETEE	Planning, Organization, Equipping, Training, Exercise, Evaluation
ProQA	Quality Assurance
RESF	Regional Emergency Support Function
RMS	Risk Management System
SAA	State Administrative Agent
SOD	Special Operations Division
SMART	Specific, Measurable, Achievable, Realistic, Time phased
SWAT	Special Weapons & Tactics Team
SWOT	Strengths, Weaknesses, Opportunities, Threats
T&E	Training & Exercise
TECC	Tactical Emergency Casualty Care
THIRA	Threat Hazard Identification and Risk Analysis
TTB	Table–Top-in-a-Box
UAS	Unmanned Aerial System
sUAS	Small Unmanned Aerial System
UASI	Urban Area Security Initiative



ORGANIZATIONAL CHART





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## FISCAL YEAR 2017 EXPENDITURES

Category	Expense
<b>Administrative</b>	
Meeting Support	\$5,256
Communications	\$20,366
Computer Equipment & Peripherals	\$40,383
Management & Administrative Costs (MIEMSS)	\$12,500
Office & Storage Supplies	\$8,996
Office Equipment Rental (Copier)	\$4,000
Office Furniture Rent	\$17,036
Office Space Cleaning	\$3,000
Office Space Rent	\$33,807
MDERS Staff	\$1,079,985
Disability and Access Functional Needs (DAFN) Coordinator	\$146,000
Postage	\$187
Printing	\$1,318
Software	\$33,307
Staff Local Travel (mileage, parking)	\$1,339
Subscriptions (EBSCO)	\$9,757
Website Maintenance	\$8,339
<b>Total Administrative</b>	<b>\$1,425,576</b>
<b>Projects</b>	
Tactical Emergency Casualty Care Equipment – Maryland (CCA)	\$562,574
SWAT/Bomb Squad Equipment	\$497,200
FirstWatch System Monitoring Continuation	\$393,093
Remote Situational Awareness (sUAS)	\$40,500
Mass Casualty Incident Response Support	\$168,789
Incident Command System Capability Development (Prince George's County)	\$245,955
Tactical Equipment for Law Enforcement	\$239,400
Electronic Patient Tracking System	\$239,800
Training and Exercise	\$506,835
<b>Total Projects</b>	<b>\$2,894,146</b>
<b>TOTAL FY17 UASI FUNDS</b>	<b>\$4,319,722</b>



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*The Maryland-National Capital Region Emergency Response System is supported by a National Capital Region Urban Area Security Initiative (UASI) grant from the Federal Emergency Management Agency's Grant Programs Directorate, U.S. Department of Homeland Security (DHS). The program is administered by the Maryland Institute for Emergency Medical Services Systems (MIEMSS).*



**FEMA**

