South Central Task Force

EMS Subcommittee
EMS Task Forces

"Lebanon (PA) Veterans Administration Medical Center Evacuation – EMS Operations"

After Action Report/Improvement Plan

July 21 - 22, 2010

COCCIARDI and Associates, Inc.
Safety • Health • Environmental
Consulting and Training

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4. This after action report was designed and written in accordance with the Homeland Security Exercise and Evaluation Program (HSEEP).

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EXECUTIVE SUMMARY

On Wednesday, July 21st , 2010, the weather in South Central Pennsylvania was hot and humid with temperatures in the mid 90's and a heat index of approximately 104°F. The weather, coupled with problems in the air conditioning systems at the Lebanon (PA) Veterans Administration Medical Center would combine to force the evacuation of 79 patients over a 26 hour period. The evacuation involved the relocation of patients to fourteen receiving healthcare facilities across two states, spanning a distance of almost 200 miles. The evacuation involved the use of 50 ambulances and wheelchair vans and approximately 150 personnel. Outstanding care and service were provided to the patients, no responders were injured during evacuation operations and valuable lessons were learned in the process.

Among the areas for improvement identified during the incident and in subsequent after action review are the following:

- While work has been accomplished toward this end, a standardized process for notification and dispatch of regional EMS Task Forces does not exist in a finished format.
- While some elements of ICS were used to great advantage, there are issues that require attention such as Unified Command, use of the regional Incident Management Team and attention to the details of ICS, such as demobilization planning.
- Although the incident did not result in any adverse effects to patients or crews, some safety issues such as adherence to work/rest periods, communications, and demobilization should be improved.

This incident not only highlighted some areas for improvement but also yielded some examples of how regional, organizational and personal improvements have provided benefits. Among the strengths noted were:

- Initial responders recognized the regional scope of the incident and did not strip the local area of EMS units.
- Some elements of a written incident action plan were developed for the 2nd operational period.
- First Aid and Safety Patrol and the Lebanon County Emergency Management Agency worked well together.

For the individuals and organizations involved in the July 2010 evacuation of the Lebanon (PA) Veterans Administration Medical Center, the incident presented new and unique challenges and opportunities for growth. These opportunities have not been lost on those involved and it is hoped that through this After Action Report and subsequent improvement plans, lessons learned during the incident will be brought to life and future incidents, responders and planners will benefit.

INCIDENT OVERVIEW

Incident Name: "Lebanon VA Medical Center Evacuation"
Type of Incident: Large-scale hospital evacuation
Incident Start Date: Wednesday, July 21, 2010
Incident End Date: Thursday, July 22, 2010
Duration: Approximately 20 hours (Two operational periods)
Location: Lebanon Veterans Administration Medical Center
1700 South Lincoln Avenue
Lebanon, PA 17042
Mission: This incident affected the mission area of Response.
Capabilities[1]

- Onsite Incident Management
- Triage and Pre-Hospital Treatment
- Medical Surge

Responding Organizations

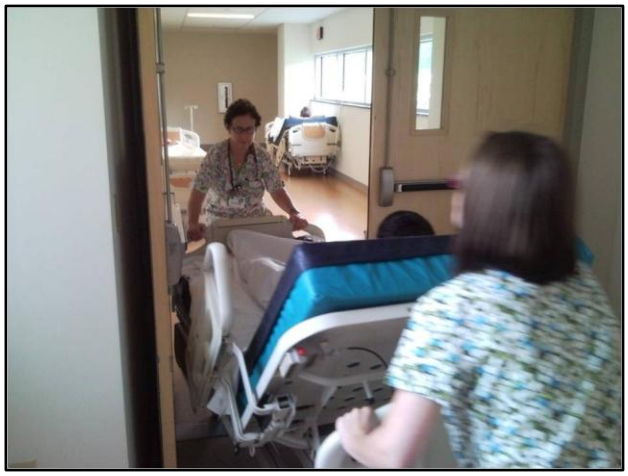
- Lebanon Veterans Administration Medical Center
- Lebanon County Emergency Management Agency
- Lancaster County Emergency Management Agency
- First Aid and Safety Patrol, Lebanon, PA
- Emergency Health Services Federation (EHSF)
- SCTF EMS Task Force 38 (Dauphin/Lebanon)
  - Susquehanna Township EMS
  - Life Team EMS
  - South Central EMS
  - First Aid and Safety Patrol
  - Upper Dauphin County EMS
- SCTF EMS Task Force 36 (Lancaster)
  - Northwest EMS
  - Lancaster EMS Association
  - Manheim Township EMS
  - Susquehanna Valley EMS
- SCTF EMS Task Force 67 (York)
  - White Rose Ambulance
- SCTF EMS Task Force 21 (Cumberland/Perry)
  - Cumberland Goodwill EMS
  - Duncannon EMS
  - West Shore EMS
- Lebanon Transit
- Central Medical Ambulance
- Warwick Community Ambulance
- Northern Lancaster County Transport
- Eastern PA EMS Council

Receiving Hospitals

- Reading Hospital
- Penn State Milton S. Hershey Medical Center
- Good Samaritan Hospital, Lebanon
- Holy Spirit Hospital, Camp Hill
- Philhaven

[1] U.S. Department of Homeland Security, Target Capabilities List, September 2007

- Wilmington (DE) Veterans Administration Medical Center
- Wilkes-Barre Veteran's Administration Medical Center
- Altoona Veteran's Administration Medical Center
- Coatesville Veterans Administration Medical Center
- Lancaster Hospice
- Horsham Clinic
- Heart of Lancaster Medical Center, Lancaster
- Philadelphia Veterans Administration Medical Center
- Manor Care - York



Purpose

The purpose of this report is to review emergency medical services (EMS) notification, mobilization, operations and demobilization related to the evacuation of the Lebanon (PA) Veterans Administration (VA) Medical Center that occurred on Wednesday, July 21st and Thursday, July 22nd , 2010. The report will provide a description of the incident, review of those aspects cited above, recognition of strengths in the response and identification of opportunities for improvement for future operations.

It is not the purpose of this report to find fault or blame for any aspect of the incident, but rather to garner lessons learned.

Scope

The scope of this report is limited to the evaluation of EMS protocols and operations as they relate primarily to the evacuation incident at the Lebanon VA Medical Center on July 21st and 22nd , 2010. This report does not attempt to evaluate the decisions or operations of the Lebanon VA Medical Center administration or its subordinate organizations, except where those decisions or operations had a direct impact on the decisions and outcomes of operations involving the EMS response.

After Action Conference

This report was generated following a formal after action conference conducted on Thursday, September 23rd, 2010 at the offices of the Emergency Health Services Federation (EHSF) at 711 Limekiln Road, New Cumberland, Pennsylvania.

The after action conference was facilitated by Mr. Joseph Schmider, Director of the Pennsylvania Department of Health's Bureau of Emergency Medical Services. Numerous agencies and personnel who were involved with the hospital evacuation were present at the after action conference, including Mr. Bryan Smith, EMT-P, Director of First Aid and Safety Patrol of Lebanon, PA and Mr. C. Steven Lyle, EMT-P, Director of the Emergency Health Services Federation. Bryan Smith led EMS operations for the first operational period of the incident and Steve Lyle relieved Mr. Smith for the second operational period. Table 1, below, lists the personnel who were present at the after action conference, the agency they represented at the incident and their primary role in the response.

Name/Level	Organization	Incident Role
Joe Schmider, Director	PA Dept of Health, Bureau of EMS	AAC Facilitator
Bradley DeLancey / EMT-B	Susquehanna Twp EMS Dauphin/Lebanon EMS TF	Facilitated response of Dauphin/Lebanon EMS TF Coordinated notifications within Dauphin County
Suzette Kreider / EMT-P	Northwest EMS Lancaster EMS TF	Facilitated response of Lancaster EMS TF and Northwest EMS
Jon Williams / EMT-B	Cocciardi and Associates, Inc.	No incident role. Recorder for After Action Conference.
Claudia Christensen/ EMT-P	Swatara EMS Dauphin/Lebanon EMS TF	Team Leader in Dauphin/Lebanon EMS TF
Saul Elertas /EMT-B	Community Life Team EMS Dauphin/Lebanon EMS TF	Patient transport during 1st Operational Period
Janet Bradley / EMT-P	First Aid and Safety Patrol Dauphin/Lebanon EMS TF	Staging Officer for 2nd Operational Period
Brian Metzger / EMT-B	Cumberland Goodwill EMS Cumberland/Perry EMS TF	Coordinated Cumberland/Perry EMS TF
Justin Parrish / EMT-P	Lancaster EMS Association Lancaster EMS TF	Coordinated Lancaster EMS TF
Patrick Osborne / EMT-P	Lancaster EMS Association Lancaster EMS TF	Team Leader in Lancaster EMS TF
Robert Burns / EMT-B	Manheim Township EMS Lancaster EMS TF	Patient transport during 3rd Operational Period
Ernie Powell / EMT-P	Emergency Health Services Federation	Logistics coordination
Doug Bitner / EMT-P	West Shore EMS/Franklin Co. Franklin/Adams EMS TF	Logistics coordination
Bryan Smith / EMT-P	First Aid and Safety Patrol Dauphin/Lebanon EMS TF	Medical Branch Director Overall coordination of EMS
Mark Moure / EMT-P	SVEMS Lancaster EMS TF	Coordinated resources from Lancaster EMS TF
Brenda Pittman	Lancaster EMA	Coordination at County EMA
Tony Deaven / EMT-B	First Aid and Safety Patrol Dauphin/Lebanon EMS TF	Transport Group Supervisor at Lebanon VA during 1st Ops
Joshua Schware / EMT-B	First Aid and Safety Patrol Dauphin/Lebanon EMS TF	Assisted Transport Group Sup during 1st Ops Period
Aileen Williams / EMT-P	First Aid and Safety Patrol Dauphin/Lebanon EMS TF	Transport Group Supervisor at Lebanon VA during 2nd Ops
Shannon (Tracy) Fouts / RN/PHRN	White Rose Ambulance York EMS TF	Remote coordination via electronic communications
Ron Sterchak / EMT-P	West Shore EMS/Franklin Div Franklin/Adams EMS TF	Patient transport
Dennis Stoner / EMT-B	White Rose Ambulance York EMS TF	Patient transport
Meghan Hollinger / EMT-B	Emergency Health Services Federation	No direct incident role
Steve Lyle / EMT-P	Emergency Health Services Federation	Logistics during 1st Ops; Medical Branch Director for 2nd Ops
Sue Dutko / EMT-B	Emergency Health Services Federation	No direct incident role

Table 1. After Action Conference participants

Incident Description

On Wednesday, July 21st , 2010, the weather in South Central Pennsylvania was hot and humid with temperatures in the mid 90's and a heat index of approximately 104°F. Daily high temperature had risen through the week and the forecast included hotter temperatures as the week continued.

The Veterans Administration Medical Center in Lebanon, Pennsylvania was experiencing problems with the facility's air conditioning capabilities that week. At approximately 1900 hours on that Wednesday evening, VA Medical Center administrators made the decision that more than 100 inpatients would have to be evacuated due to rising temperatures in the facility. Originally, the VA had planned to conduct the evacuation on Thursday, July 22nd . In consultation with representatives from Lebanon County EMA, the decision was made to begin the evacuation immediately to take advantage of lower overnight temperatures and less road traffic.

Incident Timeline/Major Activities

Date	Time	Action
Wednesday, July 21, 2010	1830 hrs	Lebanon VA experienced a mechanical failure in the facility's cooling system. Lebanon VA notified Lebanon County Emergency Management Agency about the air conditioning system issue. VA requested that EMA send a representative to the hospital.
	1850 hrs	Lebanon County EMA contacted First Aid and Safety Patrol of Lebanon. Bryan Smith, Director of First Aid and Safety Patrol, was notified by his staff. Lebanon County EMA requested Bryan Smith to come to the County EMA office.
	1920 hrs	A conference call was conducted with the VA Hospital, Lancaster County EMA and First Aid and Safety Patrol. VA indicated that they need to evacuate more than 100 patients. The VA requested a "transport officer" from EMS. The VA initially suggested to wait until morning to begin the evacuation process. Brian Burke, with Lebanon County EMA, suggested that if EMS could muster the resources, the evacuation should be done overnight to take advantage of cooler temperatures and less traffic on the road. Lebanon VA and First Aid and Safety Patrol concurred. FASP would supply a "transport officer" and requested Lebanon VA to set patient transport priorities and FASP would determine and arrange for the type of EMS transport units required. Initial resource requirements were estimated at two (2) EMS Task Forces (10+ ambulances). Work was estimated to require two (2), 12-hour operational periods.

Date	Time	Action
Wednesday, July 21, 2010	1930 hrs	Steve Lyle, Executive Director of the Emergency Health Services Federation was notified of the incident by both Bryan Smith and Joe Schmider.
	1930 hrs	Suzette Kreider received a phone call from the director of Northwest EMS regarding the request for ambulances. Suzette confirmed that this should be a task force deployment, then began coordinating responses of county teams, maintaining contact with Bryan Smith and Steve Lyle during the operational periods.
	2015 hrs	Ernie Powell from EHSF began to make preparations to mobilize Portable Hospital and Surge trailer resources.
	2015 hrs	Bryan Smith requested that Lebanon County EMA alert the Cumberland/Perry and Lancaster EMS Task Forces (EMS Task Forces 21 and 36). Shortly after this request, the order was changed from the Cumberland/Perry EMSTF to the York County EMSTF. Lebanon County EMA notified Steve Shaver, SCTF Chair, to request the EMSTF resources. Mr. Shaver granted the request. The EMS Task Force notification was conducted primarily by phone calls from EMS Task Force leaders to their individual members. This process occurred starting at approximately 2030 hrs.
	2030 hrs	York and Lancaster EMS Task Force notification process occurred.
	2030 hrs	FASP EMS Transport Officer in place at Lebanon VA Emergency Department.
	2030 hrs	Lancaster County EMS TF representative Suzette Kreider communicated with Dauphin/Lebanon County EMS Task Force representative Brad DeLancey to determine if Dauphin County can comprise the Dauphin/Lebanon EMS Task Force.
	2045 hrs	An ambulance staging area was established at Parking Lot #1 adjacent to the VA Medical Center Emergency Department. Initial units included four ambulances from FASP and one unit from Central Medical Ambulance.
	2200 hrs	VA staff began moving critical care patients to a patient evacuation staging area near the Emergency Department. Lancaster EMS Task Force units began arriving at the Lebanon VA. Bryan Smith notified Steve Lyle that this incident will require two operational periods and they made arrangements for Steve to relieve Bryan at approximately 0800 hrs on Thursday, July 22nd . Notifications are started to acquire staffing and resources for the second operational period.
	2230 hrs	First patient transported from VA Medical Center.

Date	Time	Action
Thursday, July 22, 2010	0200 hrs	Development of an incident action plan for the second operational period continued.
	0800 hrs	Dauphin County contingency for the Dauphin/Lebanon EMS Task Force and Cumberland/Perry and Franklin/Adams EMS Task Forces deployed for the second operational period.
	0800 hrs	1st Operational Period complete. 2nd Operational Period starting. Steve Lyle relieves Bryan Smith.
	1835 hrs	The final patient was transported from the Lebanon VA Medical Center.
	2100 hrs	The final patient was received at the Wilkes-Barre VA Medical Center. The evacuation process was complete.
	2230 hrs	Final transport crew was in quarters. A total of 79 patients were transported in approximately 26 hours of operations.

Table 2. Evacuation incident timeline

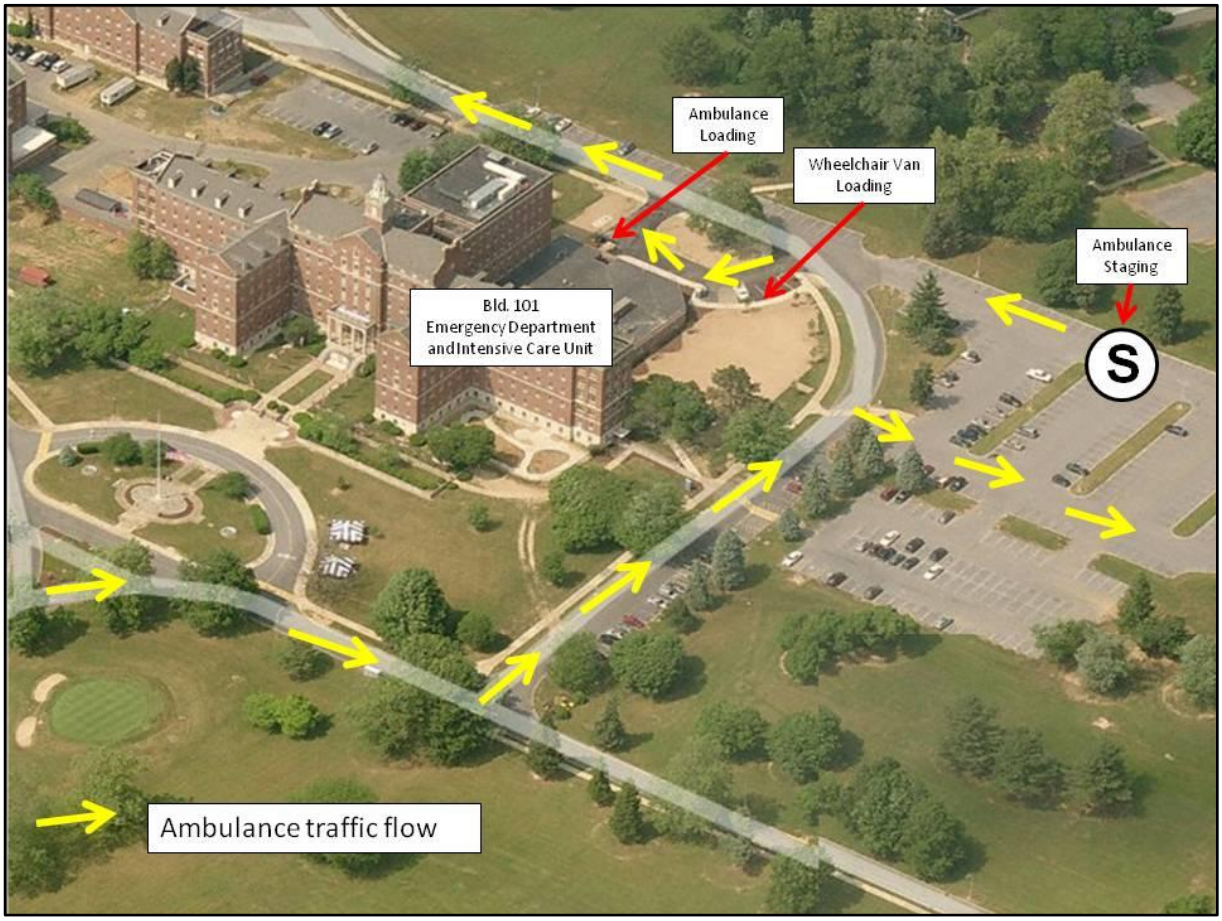


Figure 1. Ambulance staging and traffic flow at the Lebanon VA Hospital

PERFORMANCE ANALYSIS

This section of the report reviews the performance of the operational capabilities involved during this incident. This section is organized by breaking the incident into segments – notification/dispatch, mobilization, organization, operations and demobilization. Within each of these segments there are items defined as "strengths" and others defined as "areas for improvement". Consumers of this report should acknowledge that while the Improvement Plan found in this document focuses on the "areas for improvement", those items noted as "strengths" should be recognized and, where possible, enhanced across the region or within a particular EMS Task Force or member organization.

Notification/Dispatch

Observation N1: STRENGTH – Early in the incident, Lebanon County Emergency Management Agency recognized the potential magnitude of the incident. The leadership of the EMS agency having local jurisdiction, First Aid and Safety Patrol, was notified quickly and an initial Unified Command meeting was conducted.

Observation N2: STRENGTH – First Aid and Safety Patrol (FASP) recognized early on that the movement of more than 100 patients would require a large number of transport vehicles and staff. The decision was made to request one or more regional EMS Task Forces.

Observation N3: STRENGTH – The EMS Task Force leaders from across the region communicated quickly by telephone to begin the process of notifying Task Force member organizations and team members. While this "peer-to-peer" method is not the ideal means for making notifications, lacking a standardized process, the Task Force leaders were able to quickly make notifications.

Observation N4: AREA FOR IMPROVEMENT – The region's 911 centers do not have standardized processes and procedures for notifying and dispatching regional EMS Task Forces. There is concern that perhaps some staff members in the 911 centers and county EMA organizations may not be aware of the existence, or at least the capability of, the EMS Task Forces. In this particular incident, as Lebanon County reached out to other counties in the region, there was some initial confusion as to the process for notifying an EMS Task Force. As noted in the "strength" above, the informal process of team leaders contacting one another by cell phone was somewhat effective, however this informal process should not be relied upon as the primary means of notification. In many cases, the county emergency Management Agencies made telephone calls to individual EMS organizations to make necessary notifications.

It is recognized that the SCTF EMS Subcommittee has developed a regional notification plan and that that plan has been presented to the SCTF Communications Subcommittee (representing the region's 911 centers). There is also work underway to populate the region's Everbridge Aware notification system with contact information for members and organizations of the region's five EMS Task Forces. In its final form, the dispatch and notification process should also provide a streamlined means for "declaration" of the need for dispatch of one or more regional EMS Task Forces.

Mobilization

Observation M1: STRENGTH – The Incident Commander recognized several instances of EMS units "self-dispatching". These cases were dealt with immediately and it was quickly communicated through proper channels that this activity would not be tolerated.

Observation M2: STRENGTH - FASP leadership made the conscious decision to not decimate EMS response capability from the immediate area but rather to assemble the needed transport capability from across the broader region.

Observation M3: STRENGTH – The Lancaster EMS Task Force (Task Force 36) mobilized and responded as a task force. Task Force 36 arrived on site at the Lebanon VA within 90 minutes of the initial request.

Observation M4: STRENGTH – First Aid and Safety Patrol and the Lebanon County Emergency Management Agency worked well together throughout the incident and especially in the initial planning and mobilization efforts.

Observation M5: AREA FOR IMPROVEMENT – The EMS Task Forces that responded did so with transport units only – no EMS Task Force trailers were mobilized. The EMS Task Force trailers bring with them on-site incident management facilities, as well as technology for communications and patient tracking. During this incident, the on-site incident management facilities (shelter, tables, chairs, etc.) would have benefitted the Staging Officer during the first operational period.

Observation M6: AREA FOR IMPROVEMENT – First Aid and Safety Patrol initially identified what was deemed to be a suitable location for staging of transport vehicles on the VA Medical Center campus. As initial plans for use of the area were being finalized, VA officials determined that the area could not be used for that purpose due to concerns with construction traffic anticipated on the next morning. This staging area had not been pre-planned. This issue resulted in delays in the initial establishment of the staging area.

Organization

Observation ORG1: STRENGTH – First Aid and Safety Patrol leadership worked well with Lebanon VA Medical Center officials, Lebanon VA Medical Center nursing staff and with Lebanon County EMA to establish an incident organization capable of effecting the transport of more than 100 patients.

Observation ORG2: STRENGTH – An Incident Action Plan was developed for the second operational period. Standard ICS forms were used in the creation of this IAP.

Observation ORG3: AREA FOR IMPROVEMENT – First Aid and Safety Patrol placed a Transport Officer at the Lebanon VA Medical Center, however this staff member was not embedded with the Lebanon VA Medical Center Command Center (HCC). There were communications problems between the Transport Officer at the VA and FASP and EMA officials, primarily due to portable radio and cell phone signals. The Lebanon County EMA did embed a representative with the Hospital Command Center, however it does not appear that a truly "Unified Command" existed (consisting of the VA Medical Center, FASP, and Lebanon EMA *co-located*).

Observation ORG4: AREA FOR IMPROVEMENT – While the overall outcome of the incident was good and there were no injuries to personnel or patients, it is not clear in the aftermath of the incident exactly who was the "incident commander" and what the incident objectives were, especially regarding the first operational period. Consideration was given to requesting a response from the South Central Task Force Incident Management Team however the IMT was never requested. It was recognized at the After Action Conference that the IMT may have been of value in helping to create better organization during the first operational period.

Operations

Observation OP1: STRENGTH – Triage tags were used for all patients leaving the VA Medical Center. This was critical as a backup to the Hospital's electronic patient tracking system.

Observation OP2: STRENGTH – The Emergency Health Services Federation suggested that the air conditioning units (HVAC) from the Portable Hospital System (PHS) could be used at the VA Medical Center. Two HVAC units from the PHS were used to good advantage by the VA.

Observation OP3: AREA FOR IMPROVEMENT – The Lebanon VA Police Department was assigned to escort several ambulance in convoy that were transporting behavioral health patients to the VA Hospital in Coatesville, Pennsylvania. The ambulances thought that the escort would be provided to the final destination however, the VA Police could only provide an escort to the boundary of their jurisdiction, which includes the VA property and the surrounding contiguous municipalities. While the VA Police are not faulted here, better communications regarding mission parameters and expectations among all parties would have improved this situation.

Observation OP4: AREA FOR IMPROVEMENT – The Lebanon VA Police Department required that ambulances taking behavioral health patients to the VA Medical Center in Coatesville operate with red lights and siren from Lebanon to Coatesville. The ambulances involved were not given an explanation of why the police were requiring this but still complied with the officers' orders. The condition of the patients being transported did not warrant the use of red lights and sirens, and the use of sirens could have increased the level of anxiety of the patients. The ambulance operator is always in command of the vehicle and has the final say on how the vehicle is operated. In conjunction with the crew member providing patient care, the crew determines the need for transport expediency based upon the patient's condition, distance from appropriate care facilities and other factors.

Observation OP5: AREA FOR IMPROVEMENT – There is room for improvement in making best use of limited resources. First, as a strength, resources used included wheelchair vans however there are no wheelchair vans assigned as resources within the EMS Task Forces. This observation does not necessitate their inclusion in the EMS Task Force resources, but rather that evacuation plans should include them as a potentially valuable resource. Second, patients were moved one per ambulance regardless of their condition. In many cases, less acute patients could have been transported in pairs in order to reduce the total number of trips. Third, the assigned Transport Group Supervisor was not fully engaged by the Medical Center in the decision making process to determine the best available unit to handle various transport assignments. For example, the VA Medical Center requested a bariatric transport unit. When the bariatric transport unit was in place to load the patient, the patient actually

walked to the unit. This patient could have been transported via a wheelchair van without tying up the bariatric transport resource.

Observation OP6: AREA FOR IMPROVEMENT – There were a variety of issues during the incident which may be categorized as safety issues. It is not known whether there was a Safety Officer assigned within the Medical Center's Hospital Command staff, however there was no Safety Officer or Assistant Safety Officer assigned to the ambulance operations aspect of the incident.

Fatigue presented safety hazards throughout the incident, though there were fortunately no injuries to anyone working the incident. One key member of the incident management staff reported having worked approximately 27 hours straight considering time already spent during his regular work shift coupled with the incident timeline. In other cases, ambulance crew members (including driver/operators) found themselves in similar circumstance – driving long distances after having worked all or part of their regular work shift.

Provision of nutrition and hydration services and resources proved challenging for incident managers. First attempts to secure the services of the local Salvation Army canteen met with resistance, although these services were eventually provided. (The Salvation Army initially declined to provide service based upon the explanation that this incident did not involve the local fire services).

Personnel accountability also proved to be a challenge, especially with regard to transport units travelling great distances. This issue is discussed in greater depth under the "Demobilization" heading.

Observation OP7: AREA FOR IMPROVEMENT – As with most large-scale incidents there were some issues with communications. The variety of different radio systems and frequencies in use by responding agencies in addition to the distance that some units transported patients combined to present challenges to communications efforts. A variety of communications links and patches were assembled by Lebanon County 911 Center staff. For a 4-hour period on the morning of July 22nd , the FASP Transport Officer at the Lebanon VA facility was not able to communicate with the Transport Coordinator stationed at the Lebanon Emergency Management Agency facility. This was due to problems with portable radio and cell phone signals. Communications with units en route to long-distance destinations was conducted primarily through the use of personal cellular telephone calls, which of course, are limited by service access and other issues.

Observation OP8: AREA FOR IMPROVEMENT – The process for meeting unmet needs was exercised during this incident. Unmet needs were processed through Lebanon County and, in turn, the County processed unmet needs through to the Pennsylvania Emergency Management Agency. One issue that arose is that of verification back to the originator of the request that progress is being made on fulfilling the request. This did not occur during the incident.

Demobilization

Observation D1: AREA FOR IMPROVEMENT – There was not an organized process for demobilization of units and personnel assigned to the incident. There was no demobilization plan created or implemented. On large-scale incidents across the nation, lack of a demobilization plan and/or lack of adherence to the plan has led to issues with safety,

accountability, resource management, compensation and claims, property loss, and other problems.

CONCLUSION

The July 2010 evacuation of the Lebanon (PA) Veterans Administration Medical Center involved the eventual relocation of a total of 79 patients via emergency medical services transport to fourteen receiving healthcare facilities across two states, spanning a distance of almost 200 miles. The evacuation involved 26 hours of operations using 50 ambulances and wheelchair vans and approximately 150 personnel. Perhaps the best outcomes were that outstanding care and service were provided to the patients, that no responders were injured during evacuation operations and that valuable lessons were learned in the process.

Among the areas for improvement identified during the incident and in subsequent after action review are the following:

- While work has been accomplished toward this end, a standardized process for notification and dispatch of regional EMS Task Forces does not exist in a finished format.
- While some elements of ICS were used to great advantage, there are issues that require attention such as Unified Command, use of the regional Incident Management Team and attention to the details of ICS, such as demobilization planning.
- Although the incident did not result in any adverse effects to patients or crews, some safety issues such as adherence to work/rest periods, communications, and demobilization should be improved.

This incident not only highlighted some areas for improvement but also yielded some examples of how regional, organizational and personal improvements have provided benefits. Among the strengths noted were:

- Initial responders recognized the regional scope of the incident and did not strip the local area of EMS units.
- Some elements of a written incident action plan were developed for the 2nd operational period.
- First Aid and Safety Patrol and the Lebanon County Emergency Management Agency worked well together.

For the individuals and organizations involved in the July 2010 evacuation of the Lebanon (PA) Veterans Administration Medical Center, the incident presented new and unique challenges and opportunities for growth. These opportunities have not been lost on those involved and it is hoped that through this After Action Report and subsequent improvement plans lessons learned during the incident will be brought to life and future incidents, responders and planners will benefit.

APPENDIX A: IMPROVEMENT PLAN

This IP has been developed to aid the South Central Task Force EMS Task Forces in making improvements to the regional response for hospital evacuations and other large-scale, long-duration incidents.

Capability	Observation Title	Observation	Recommendation or Corrective Action Description	Primary Responsible Organization and Organization Contact Info	Start Date	Completion Date
Notification	Procedures	**Observation N4**: The region's 911 centers do not have standardized processes and procedures for notifying and dispatching regional EMS Task Forces. There is concern that perhaps some staff members in the 911 centers and county EMA organizations may not be aware of the existence or at least the capability of the EMS Task Forces. In this particular incident, as Lebanon County reached out to other counties in the region, there was some initial confusion as to the process for notifying an EMS Task Force. It is recognized that the SCTF EMS Subcommittee has developed a regional notification plan and that that plan has been presented to the SCTF Communications Subcommittee (representing the region's 911 centers). There is also work underway to populate the region's Everbridge Aware notification system with contact information for members and organizations of the region's five EMS Task Forces.	The informal process of team leaders contacting one another by cell phone was somewhat effective, however this informal process should not be relied upon as the primary means of notification. Continue to work with the Communications Subcommittee and, if necessary, the individual county 911 centers to implement an EMS Task Force Dispatch and Notification procedure. In its final form, the dispatch and notification process should also provide a streamlined means for "declaration" of the need for dispatch of one or more regional EMS Task Forces. Work with the county 911 centers and county EMAs to educate personnel on the regional capability of the EMS Task Forces.	EMS Subcommittee		
Mobilization	Mobilization of EMS Task Force trailers	**Observation M5:** The EMS Task Forces that responded did so with transport units only – no EMS Task Force trailers were mobilized. The EMS Task Force trailers bring with them on-site incident management facilities, as well as technology for communications and patient tracking. During this incident, the on-site incident management facilities (shelter, tables, chairs, etc.) would have benefitted the Staging Officer during the first operational period.	When an EMS Task Force is dispatched, the assigned trailer should be mobilized so that the full capability of the Task Force is available.	EMS Subcommittee		
	Pre-Planned Staging Areas for Hospital Evacuations	**Observation M6:** FASP initially identified what seemed to be a suitable location for staging of transport vehicles on the VA Medical Center campus. As initial plans for use of the area were being finalized, VA Medical Center police declared that the area could not be used for that purpose. This staging area had not been pre-planned.	Hospitals across the region should work with local EMS agencies and their County EMA to identify pre-planned ambulance staging areas to be used in hospital evacuation operations.	SCTF Hospital and Healthcare Facilities Subcommittee		

Capability	Observation Title	Observation	Recommendation or Corrective Action Description	Primary Responsible Organization and Organization Contact Info	Start Date	Completion Date
Organization	Unified Command	**Observation ORG3:** FASP placed a Liaison Officer at the Lebanon VA Medical Center, however this staff member was not embedded with the Lebanon VA Medical Center Command Center. There were communications problems between this Liaison Officer and the VA HCC. It does not appear that a truly "Unified Command" existed (consisting of the VA Medical Center, FASP, and Lebanon EMA *co-located*).	The EMS Subcommittee, Fire/Rescue/Haz Mat Subcommittee and HHF Subcommittee should provide a briefing to all members that during incidents that involve heavy participation by a hospital (or incidents that are hospital-centric), Command should assign an Assistant Liaison Officer or a Deputy Operations Section Chief to be embedded in the Hospital Command Center.	SCTF EMS SC SCTF FRHM SC SCTF HHF SC		
	Incident Management	**Observation ORG4:** While the overall outcome of the incident was good and there were no injuries to personnel or patients, it is not clear in the aftermath of the incident exactly who was the "incident commander" and what the incident objectives were, especially regarding the first operational period. Consideration was given to requesting a response from the South Central Task Force Incident Management Team however the IMT was never requested. It was recognized at the After Action Conference that the IMT may have been of value in helping to create better organization during the first operational period.	The SCTF EMS, FRHM, HHF Subcommittees and the SCTF Incident Management Team should discuss the issue of command for hospital-centric incidents and develop a general understanding of who will ultimately be recognized as the Incident Commander. An Incident Commander should be identified for each incident.	SCTF EMS SC SCTF FRHM SC HHF SC		
Operations	Escort of Ambulances	**Observation OP3:** The Lebanon VA Police Department was assigned to escort several ambulance in convoy that were transporting behavioral health patients to the VA Hospital in Coatesville, Pennsylvania. The ambulances thought that the escort would be provided to the final destination however, the VA Police could only provide an escort to the boundary of their jurisdiction, which includes the VA property and the surrounding contiguous municipalities. While the VA Police are not faulted here, better communications regarding mission parameters and expectations among all parties would have improved this situation.	The SCTF EMS, FRHM, HHF, and CJ Subcommittees and the Emergency Health Services Federation should develop a recommendation on the use of police escorts during incidents. Any ambulance that is to be escorted by a police unit should clarify with that officer exactly what is expected during the escort process, route to be travelled and other pertinent information.	SCTF EMS SC EHSF SCTF HHF SC SCTF CJ SC		

Capability	Observation Title	Observation	Recommendation or Corrective Action Description	Primary Responsible Organization and Organization Contact Info	Start Date	Completion Date
Operations (continued)	Vehicle Operations	**Observation OP4:** The Lebanon VA Police Department required that ambulances taking behavioral health patients to the VA Medical Center in Coatesville operate with red lights and siren from Lebanon to Coatesville. The ambulances involved were not given an explanation of why the police were requiring this but still complied with the officers' orders. The condition of the patients being transported did not warrant the use of red lights and sirens, and the use of sirens could have increased the level of anxiety of the patients.	The ambulance operator is always in command of the vehicle and has the final say on how the vehicle is operated. In conjunction with the crew member providing patient care, the crew determines the need for transport expediency based upon the patient's condition, distance from appropriate care facilities and other factors.	SCTF EMS SC EMS Task Force Team Leaders		
	EMS Involvement in Transport Decisions	**Observation OP5:** There is room for improvement in making best use of limited resources. First, as a strength, resources used included wheelchair vans however there are no wheelchair vans assigned as resources within the EMS Task Forces. This observation does not necessitate their inclusion in the EMS Task Force resources, but rather that evacuation plans should include them as a potentially valuable resource. Second, patients were moved one per ambulance regardless of their condition. In many cases, less acute patients could have been transported in pairs in order to reduce the total number of trips. Third, the assigned Transport Group Supervisor was not fully engaged by the Hospital in the decision making process to determine the best available unit to handle various transport assignments. For example, the VA Medical Center requested a bariatric transport unit. When the bariatric transport unit was in place to load the patient, the patient actually walked to the unit. This patient could have been transported via a wheelchair van without tying up the bariatric transport resource.	The Regional Hospital Evacuation Plan should include wheelchair vans as transport resources. Evacuation planners should consider transporting two patients per ambulance where possible. Hospitals and EMS organizations should work together to ensure that EMS transport capabilities are being used to the greatest advantage. The SCTF EMS SC and the SCTF HHF SC should have dialogue on this issue.	SCTF EMS SC SCTF HHF SC		

Capability	Observation Title	Observation	Recommendation or Corrective Action Description	Primary Responsible Organization and Organization Contact Info	Start Date	Completion Date
Operations (continued)	Safety Issues	**Observation OP6:** There were a variety of issues during the incident which may be categorized as safety issues. It is not known whether there was a Safety Officer assigned within the Hospital's incident management staff, however there was no Safety Officer or Assistant Safety Officer assigned to the ambulance operations aspect of the incident. Fatigue presented safety hazards throughout the incident, though there were fortunately no injuries to anyone working the incident. One key member of the incident management staff reported having worked approximately 27 hours straight considering time already spent during his regular work shift coupled with the incident timeline. In other cases, ambulance crew members found themselves in similar circumstance – driving long distances after having worked all or part of their regular work shift. Provision of nutrition and hydration services and resources proved challenging for incident managers. First attempts to secure the services of the local Salvation Army canteen met with resistance, although these services were eventually provided. (The Salvation Army initially declined to provide service based upon the explanation that this incident did not involve the local fire services.) Personnel accountability also proved to be a challenge, especially with regard to transport units travelling great distances. This issue is discussed in greater depth under the "Demobilization" heading.	Assign an Incident Safety Officer on all significant incidents. Assign Assistant Safety Officers as needed. Limit all work periods to no more than 12 hours. Make provisions for crew rotations to ensure that personnel do not work for more than a 12-hour shift. Provide nutrition to all incident staff who are working more than 4 hours. Ensure that all incident staff have access to adequate amounts of drinking water. Ensure personnel accountability through the use of check-in lists; span of control; resource management processes; personnel accountability checks; and task assignment and report-back procedures. The EMS Subcommittee should develop a one-page brief on the issues listed above and disseminate that brief through the EMS Task Force Team Leaders to all EMS Task Force personnel.	SCTF EMS TF EMS TF Team Leaders		
	Communications	**Observation OP7:** As with most large-scale incidents there were some issues with communications. The variety of different radio systems and frequencies in use by responding agencies in addition to the distance that some units transported patients combined to present challenges to communications efforts. A variety of communications links and patches were assembled by Lebanon County 911 Center staff. For a 4-hour period on the morning of July 22nd , the FASP Liaison Officer at the Lebanon VA facility was not able to communicate with Transport Coordinator stationed at the Lebanon Emergency Management Agency facility. This was due to poor signals from portable radios and cell phones. Communications with units en route to long-distance destinations was conducted primarily through the use of personal cellular telephone calls, which of course, are limited by service access and other issues.	The EMS Subcommittee should develop procedures for communicating with transport units over long distances. The EMS Task Forces should explore the idea of using the SCTF portable radio cache to communicate via the Commonwealth of Pennsylvania's 800 mhz system which is monitored statewide by Eastern PA MedCom.	SCTF EMS SC EMS Task Force Team Leaders		

Capability	Observation Title	Observation	Recommendation or Corrective Action Description	Primary Responsible Organization and Organization Contact Info	Start Date	Completion Date
Operations (continued)	Unmet Needs	**Observation OP8:** The process for meeting unmet needs was exercised during this incident. Unmet needs were processed through Lebanon County and, in turn, the County processed their unmet needs through to the Pennsylvania Emergency Management Agency. One issue that arose is that of verification back to the originator of the request that progress is being made on fulfilling the request. This did not occur during the incident.	The SCTF EMS Subcommittee should engage the Department of Health and the Pennsylvania Emergency Management Agency in a dialogue regarding how the status of unmet needs requests can be transmitted to the end user.	SCTF EMS SC		
Demobilization	Demobilization Plan	**Observation D1:** There was not an organized process for demobilization of units and personnel assigned to the incident. There was no demobilization plan created or implemented. On large-scale incidents across the nation, lack of a demobilization plan and/or lack of adherence to the plan has led to issues with safety, accountability, resource management, compensation and claims, property loss, and other problems.	A demobilization plan should be developed for all large-scale incidents and certainly for those that last more than one operational period and involve resources being spread over a large geographic area. The SCTF EMS Task Force should adopt language in its Standard Operating Guidelines that requires development of and adherence to a demobilization plan during all incidents.	SCTF EMS SC		

APPENDIX B: RECEIVING HOSPITALS

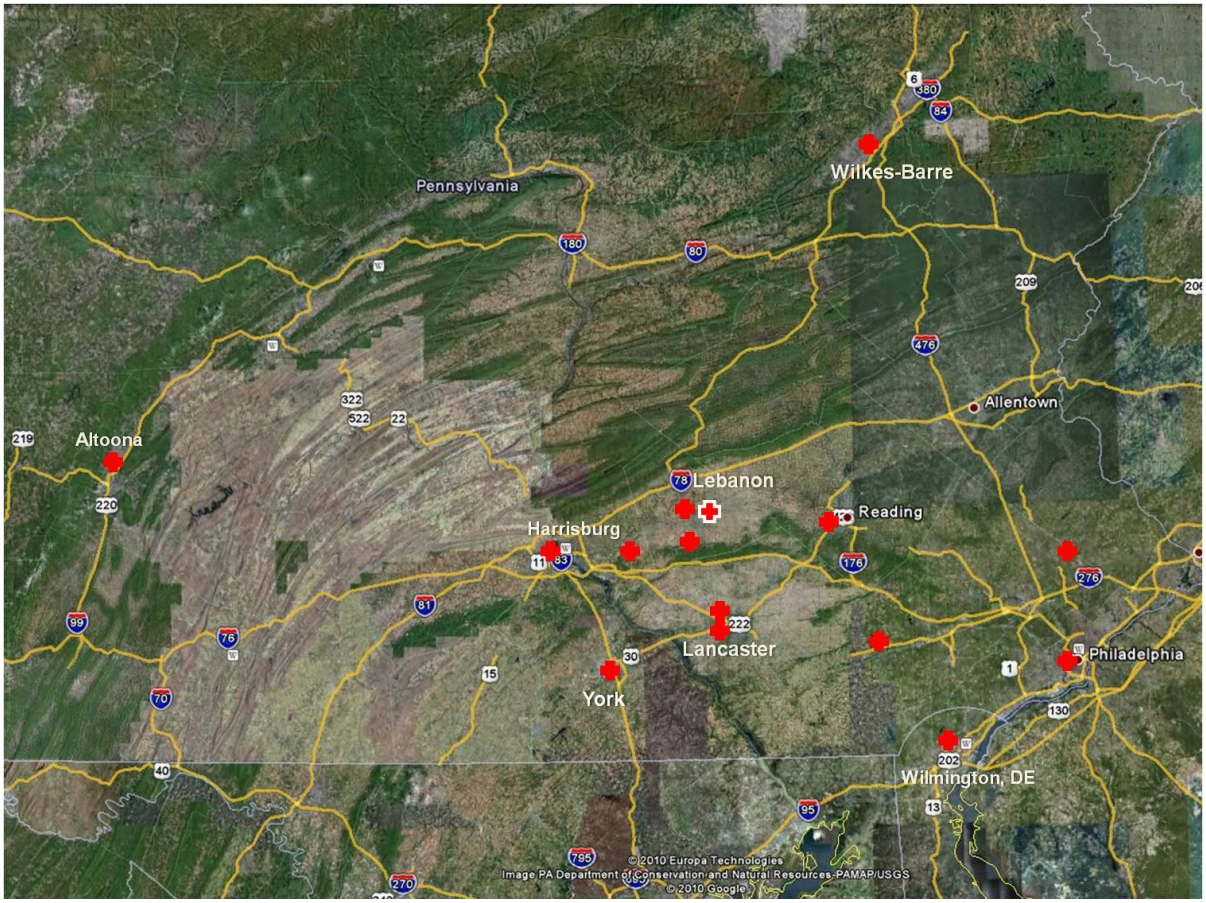


Figure B-1. Receiving hospitals

The transportation of patients from the Lebanon VA Medical Center involved ambulance operations over approximately 5,286 square miles of the Commonwealth of Pennsylvania and the State of Delaware. Roundtrip mileage for patient transports included trips of 174 miles to Philadelphia, 176 miles to Wilkes-Barre and 328 miles to Altoona.

The following hospitals received patients:

- Reading Hospital
- Penn State Milton S. Hershey Medical Center, Hershey
- Good Samaritan Hospital, Lebanon
- Holy Spirit Hospital, Camp Hill
- Philhaven, Lebanon
- Wilmington (DE) Veterans Administration Medical Center
- Wilkes-Barre Veterans Medical Center
- Altoona Veterans Administration Medical Center
- Coatesville Veterans Medical Center
- Lancaster Hospice
- Horsham Clinic
- Heart of Lancaster Medical Center, Lancaster
- Philadelphia Veterans Medical Center
- Manor Care, York

APPENDIX C: LIST OF ACRONYMS

Acronym	Meaning
AAR	After Action Report
ED	Emergency Department
EHSF	Emergency Health Services Federation
EMA	Emergency Management Agency
EMS	Emergency Medical Service
EMSTF	Emergency Medical Services Task Force
EMT-B	Emergency Medical Technician – Basic
EMT-P	Emergency Medical Technician – Paramedic
EOP	Emergency Operations Plan
FASP	First Aid and Safety Patrol of Lebanon, PA
FOUO	For Official Use Only
HCC	Hospital Command Center
HIC	Hospital Incident Commander
HICS	Hospital Incident Command System
HSEEP	Homeland Security Exercise and Evaluation Program
ICS	Incident Command System
IP	Improvement Plan
LEMSA	Lancaster Emergency Medical Services Association
MCBD	Medical Care Branch Director
MOU	Memorandum of Understanding
NIMS	National Incident Management System
Ops (Period)	Operational Period
PA DOH	Pennsylvania Department of Health
PHS	Portable Hospital System
PIO	Public Information Officer
SCTF	South Central (PA) Task Force
SVEMS	Susquehanna Valley Emergency Medical Services
VA	Veteran's Administration

Table C-1. Acronyms used in this report.