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Nikki R. Haley
Governor

Catherine B. Templeton
Director

MEMORANDUM

TO: **Catherine Templeton and Adolf Zubia**
FROM: **Daniel McManus, Assistant State Fire Marshal**
DATE: **January 12, 2012**
RE: **SC Urban Search & Rescue (SC-TF1) Program Exercise and Evaluation**

The South Carolina Emergency Response Task Force (SC-TF1) completed its Operational Readiness Exercise (ORE) for its Type 1 Team Oct. 10-13, 2011 in Charlotte, N.C.

This ORE allowed the program to be evaluated and audited, by a third party consultant, based on its deployable status and ability to provide the proper resources and capabilities for which it was created. The evaluation challenged every program aspect from initial request to the demobilization process - which ended four days later.

As a state providing this service, we have several accomplishments to be proud of located within this program.

On the national level, South Carolina has built a tiered response to search and rescue that many states have (and will) use to model their own systems. During our performance evaluation (and within the final report), the lead evaluator indicated "…our team really had to dig deep to find problems within the program…".

That in itself speaks volumes and is a testament to the volunteers who have trained for a decade to bring the US&R program to its current level. With that said, there is no US&R program that cannot be further enhanced. The main focus for the assessment was to assist the program command staff in identifying the weakest points and developing a solid sustainment plan for the long term.

While on deployment, the program was evaluated in four major categories: Deployment Management, Logistics, Rescue Operations and Demobilization. After 72 hours of rigorous evaluations, the program was deemed "more than capable" and retains its deployable status.

In the final report, the evaluation team made nine program improvement recommendations. The SC-TF1 program management group is prioritizing all of the recommend items and has begun implementing several of them.

In closing, I would like to add that the only aspect of the program that received a "perfect score" was the state US&R volunteers. To date, no other state or federal US&R program has willingly participated in an independent and in-depth evaluation of this kind.

COVER PAGE

SC-TF-1 Deployment Exercise and Evaluation

October 9-13, 2011

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Memorandum

DATE: October 24, 2011
TO: Dan McManus, Assistant State Fire Marshal
FROM: Jeff Matthews, Director of Training
SUBJECT: SC-TF-1 Deployment Evaluation

Per your request, I have completed a multi-sectioned evaluation on the deployment capability of SC-TF-1. This evaluation is separated into 3 distinct sections; mobilization, operational, demobilization. Each section is further broken down into key capabilities followed by objectives and outcomes.

It was a great honor to once again work with your organization. Your personnel are very passionate and professional in all that they do; certainly a trait needed for success.

Should you have any questions, please feel free to contact me directly at (803) 322-8473.

Respectfully,

Jeff Matthews, Director of Training
TrainingTECH1, INC
251 Beulah Church Rd.
Carrollton, GA 30117

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Executive Summary

At approximately 1530 hrs on Sunday October 9, 2011 an advisory was sent via North Carolina Emergency Management (NCEM) notifying SC-TF-1 that a large structural collapse occurred in Charlotte, NC and that there was an activation potential.

SC-TF-1 deployed to Charlotte on Monday, October 10, 2011 and remained on scene until 1000 hrs Thursday October 13. During their deployment the team was exercised and evaluated on the following criteria:

Deployment Management

- Current and Comprehensive Mobilization Plan
- Personnel In-Processing
- Site Arrival and Integration
- Complement of Deployable Personnel
- Complement of Deployable Canines

Logistics

- Adequacy of Transportation Resources
- Logistics and Transportation

Rescue Operations

- Rescue Squad Operations
- Management Support to Rescue Operations
- Canine/Handler Performance

Demobilization

- Technical Demobilization Plan
- Demobilization

Deployment Management

EVALUATION FACTOR: M-1 Current and Comprehensive Mobilization Plan

ITEMS TO EVALUATE:

A mobilization plan should be complete and current (updated/reviewed within the last 12 months), and should contain as a minimum the following:

- 24-hour points of contact
- Team notification procedures for advisories, alerts, and activations
- Personnel call-out procedures and methodologies
- Disaster search canine health and authorization procedures
- Team Assembly Point – check-in process
- Personnel in-processing methods
- Personal Protective Equipment Issuance/Checkout to insure self-sufficiency for 72 hours
- Scheduled events to be at Point of Departure in 4 or 6 hours, as applicable
- Convoy plan including appropriate vehicles, planned lodging, stops, maps, maintenance
- Point of Departure Plan with military/civilian airfield

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- A Task Force Operations Manual was provided for our review. The operations manual is a typical format used by many state US&R teams and is essentially the blueprint established by FEMA for its national response US&R teams. While the manual has been changed to fit the organizational structure of South Carolina's team, there remain portions that may be specific to federal assets only. Additionally the manual dates back to 2004 or roughly the inception of SC-TF-1 and is assigned by the original program manager, Ray Wilkinson. The operations manual should be reviewed annually with revision notes attached.

  The evaluation team recommends the addition of a standalone mobilization plan. This plan would encompass contact numbers, staff, notification procedures, check-in procedures, task force fact sheet, medical check-in procedures (human and canine), and a time-line to departure. It should also address the task force management forward team.

- We found the manual to be comprehensive and included all necessary points for mobilization and deployment purposes. One suggestion would be to format certain sections into Standard Operating Guidelines (SOG's). Functions such as callout, the check-in process, PPE checklists and medical requirements would benefit from this format as the policy can easily be turned into a field-guide of sorts.

- All evaluators were impressed with SC-TF-1's use of current technologies to roster the team. TFL Webb walked the evaluation team through the roster system and its capabilities. Team roster hit some snags as many personnel who confirmed attendance called in the morning of the deployment to cancel.

- The Management Team (TFL, Planning, Logistics, Safety, Medical, and Communications) must become more comfortable with the reporting requirements for a Type 1 deployment. We cannot stress enough the importance of a formal Incident Action Plan (IAP) using the appropriate FEMA forms. Every operational period or major operation must be preceded with a formal IAP. Should the event become a federally declared disaster these IAP's will be used for information sharing, and most importantly financial reimbursement.

  A travel/convoy plan was requested by NCEM prior to SC-TF-1 deployment. This is an example of a document that should be placed in the IAP format. A formal IAP would then be distributed to each vehicle.

  Many state teams lose sight of the fact that they will NEVER be the Authority Having Jurisdiction (AHJ); SC-TF-1 will always be invited as a resource for the incident. When training, the management team should play the role of a subordinate resource and not that of command. The AHJ's Incident Management Team (IMT) will play the role of command and all operational orders will flow to the TFL from the IMT. The IAP submitted by the task force for a specific operational period is a critical tool for the IMT to issue operational order.

- One of the tasks assigned during the deployment planning process was to issue a needs and capabilities statement. The planning team did a commendable job notifying NCEM of their deployment needs such as water, food, and sanitation. In addition, the team offered a complete asset list. This asset list proved important as debris had to be moved prior to SC-TF-1 arrival to make room for their caravan.

- There were many notes by the evaluator's praising the management teams' teamwork and professionalism.

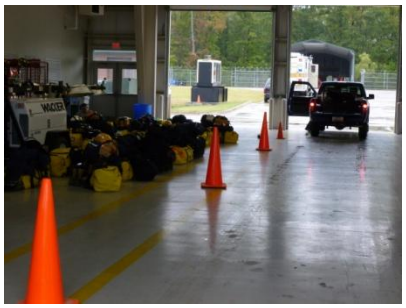
EVALUATION FACTOR: M-2 Personnel In-Processing

ITEMS TO EVALUATE:

In-processing should be completed in an effective and efficient manner. The following were evaluated by the evaluation team:

- Team Assembly Point – check-in process
- Personnel in-processing methods
- Personal Protective Equipment Issuance/Checkout to insure self-sufficiency for 72 hours

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

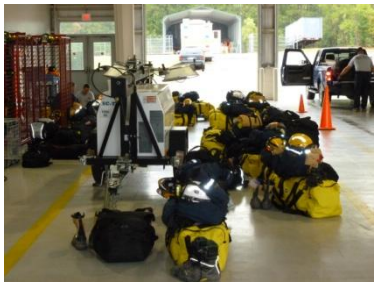


- Due to inclement weather, the bays were used as a drive-thru for personnel to drop gear bags. This was an adequate and acceptable method as it prevented personnel from carrying heavy equipment long distances.

- Once personnel dropped equipment and secured their vehicle they continued to a medical station. The medical check-in used by SC-TF-1 is a common system and is adapted from the FEMA US&R model.

- From medical check-in personnel continued into the meeting room where they were to sign a roster. A system should be developed where personnel "sign-in" as soon as they arrive on station. Equate this to any personal accountability system and someone should be assigned the duty to manage the check-in procedure. The TFL's and planning personnel should have an accurate count of who is in the facility so they can finalize the roster and members can be placed into squads. The sooner position managers have personnel assigned to them, the more efficient the mobilization process will be.

- A gear check was conducted due to time constraints in meeting the departure time. A formal gear check is addressed in the operations manual and would have been conducted under normal deployment conditions.



EVALUATION FACTOR: M-3 Site Arrival and Integration

ITEMS TO EVALUATE:

It is important for a task force to understand their role in the emergency management hierarchy. This information is gathered when they first arrive on the scene and meet with the AHJ and/or IMT. The following were evaluated by the evaluation team:

- Task Force Management Integration
- Chain of Command
- Mission Ready Status

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- A forward team was requested at 1130 along with a Lull so an area could be cleared for SC-TF-1. The forward team was able to immediately respond to the call. They began working immediately to prepare the site.

- To our knowledge, no one from SC-TF-1 formally checked in with the IMT. Some leeway is given in this criteria from the perspective that the exercise format can become confusing as to who the check-in authority is. For future reference, the on-duty TFL should formally introduce him or herself to the IMT on arrival whenever possible.

- During initial operations one TFL began working to assemble a Recon team but did not apprise the other. There was also a period of time when the TFL's were giving conflicting orders to team members. Once this was realized the TFL's corrected the situation and began collaborating with each other on decisions. Our experience has shown that SC-TF-1 has a very good work ethic and is capable of transitioning from one leader to another. However, the team must stick to the organizational chart of what half of the team is "on-duty" on arrival.

- Once the team arrived and trailers were being unloaded, the IMT gave three assignments. One was to build a shore to stabilize the building; another was for a confined space entry, and a third to establish their Base of Operations (BoO).

  One important piece of information that was not passed on to the IMT was SC-TF-1's inability to immediately deploy a rescue force on arrival. SC-TF-1 tried to fill the mission needs, but eventually reported they would require a 4-6 hour stand-down to unload the equipment cache. While this is critical information to be passed on to the AHJ, it is also a positive occurrence that SC-TF-1 leadership recognized their limitations and notified the IMT as such. The evaluation team recommends creating a Task Force fact sheet that specifically describes capability and deployment needs. While some information may need updated depending on the mission, most of

the information will remain the same. Think of this document as a marketing tool to “sell” your capability.

Since SC-TF-1 is the only sanctioned Type 1 US&R resource available in the state the evaluation team recommends organizing some of the cache into FAST boxes. This will allow one or two rescue squads to immediately be put to work. In addition to basic rescue equipment, technical search and other recon disciplines such as Haz-Mat and Structures Specialist equipment should be packed so it is immediately available.

- Communications were established in a timely manner. Early in the operation it became clear that radio traffic at the site was interfering with the radio system for the Charlotte Douglas International Airport. The communications section made the changes necessary to continue the operation.

EVALUATION FACTOR: M-4 Complement of Deployable Personnel

ITEMS TO EVALUATE:
Task Force Leaders are expected to maintain and continuously update rosters, tracking the status of its members to reflect which of its members are qualified and immediately ready for deployment.

At no time all members will be immediately ready for deployment due to personal, administrative, medical, or training reasons. In addition members who are otherwise deployable may temporarily be non-deployable due to short term situations such as sickness, injury, vacation, family reasons, or being out of the area due to business, or personal reasons.

It is desired that the maximum number of fully qualified task force members covering all specialties be immediately ready for deployment - that is, be capable of being fully mobilized and at the point of departure in 6 hours for an air deployment, or four hours for a ground deployment.

The following are the minimum requirements for a task force member to be deployable:

- Completed all position-specific requirements as required
- Has annual "fit-for-duty" certificate (health screening evaluation) on file as required
- Current annual respiratory fit test and training in accordance with 1910.134 CFR

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- The evaluation team was given an operations manual which contained position descriptions. The position descriptions are standard descriptions and consistent with those of other state teams. The evaluation team found the training records to be accurate and up to date.

- Medical Specialist positions were not filled with trained DMS personnel. The task force is addressing this by sending personnel to the training in the 2011-2012 budget year. The Task Force has a qualified Medical Manager.

- Team members are certified "fit for duty" by their home departments. Should the responder not be fit for duty, it is the home departments responsibility to inform SC-TF-1 management. This is a common practice among state response teams.

- Annual respirator fit-testing is a common problem among state teams. It becomes difficult due to scheduling and attrition to maintain this requirement. One suggestion is to ask the responders host department to conduct the respirator fit-testing. The types of respirators used by the task force generally do not use a bench-style fit-test machine and therefore are easily tested using other methods. Another suggestion is to conduct fit-testing during an annual exercise and/or administrative update period. New responders could be fit-tested during their orientation, but would need to be fit-tested again during the same year to maintain the same fit-testing date for all team members.

EVALUATION FACTOR: M-5 Complement of Deployable Canines

ITEMS TO EVALUATE:
Canine Search Teams ready for deployment must have successfully completed the FEMA/SUSAR Canine Search Specialist Certification Process. All canines must be medically certified by a veterinarian and have all deployment documentation (health certificates) in order. They must be assigned to, and available for use exclusively by the task force, and be immediately available for deployment

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- The evaluation team found all records in order for deploying canines including medical and immunization records.
- The Task Force had adequate means to transport and house the canine's for deployment.

Logistics

EVALUATION FACTOR: L-1 Adequacy of Transportation Resources

ITEMS TO EVALUATE:
Having a full complement of operational transportation resources continuously available for day to day operations, exercises, and deployments is a critical component of Logistic Readiness. It is assumed that SCTF-1 has a full complement of all types of vehicles to include tractors, trailers, box trucks, buses, forklifts, and command vehicles (SUVs, Gators).

In addition an adequate transportation resource system would have the following characteristics:

- All vehicles continuously maintained and insured in accordance with State law
- All vehicles housed in a safe, secure environment
- All vehicles marked (decals, lettering, logos) in accordance with State policies
- Contracts (blanket purchase rental agreements) in place to obtain needed supplementary transportation resources (e.g. buses) for a deployment.
- Transportation plans and cache load plans developed for all possible deployment configurations (Type I, II or III)
- Sufficient trained CDL (Class A) drivers for deployments

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- SC-TF-1 has an adequate number of transportation resources to move their cache of equipment.
- The task force has adequate warehouse storage to maintain the equipment in a safe and secure environment.
- Vehicles are marked in accordance with state regulations.
- SC-TF-1 contracted with a bus company to provide transportation and a rough terrain forklift. This is not uncommon for a state team. If not already done, the evaluation team recommends having annual rental agreements with these companies.
- Drivers were qualified to operate tractor-trailers and maintained the appropriate license and log book.

EVALUATION FACTOR: L-2 Logistics and Transportation

ITEMS TO EVALUATE:

Logistics and transportation is an important aspect to a US&R deployment. The following were evaluated by the evaluation team:

- Equipment Cache
- Vehicle Pre-Trip Inspections
- Deployment Logistics

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- Equipment was pre-loaded. Evaluation team did not have the opportunity to evaluate the loading of equipment.

- Vehicle pre-trip inspections are extremely important and should be conducted prior to each trip. When vehicles are being inspected prior to a deployment the check-out form will then become an official document to be placed in the travel/convoy plan.

- Logistics is one of the most important aspects of task force deployment. Due to members cancelling their response and/or inability to attend, a lot of work was placed on the shoulders of one logistics manager. While the evaluation team recognizes that the logistics section suffered due to a lack of trained personnel it is still important to comment on the work performed by this section.

  One suggestion by the management team would be to ensure the logistics manager is always in a management role (not in a hands on role) and that the logistics manager be included in all management and planning meetings. By being in attendance the logistics manager would have a clear idea of the missions being requested, thus allowing him to prepare his staff for the type of equipment that would be needed.

  Logistics in general were a limiting factor to the deployment when it came to equipment distribution. Crews were frequently in limbo waiting for equipment to be issued. On one noted occasion the rescue squad waited a considerable amount of time to start their evolution due to the need for a generator.

  While some logistics problems dealt with equipment disbursement, some logistics short falls could have been prevented through better planning and equipment tracking. Numerous torches did not work due to internal malfunctions (most needed cleaning, repair, or replacement), and gas bottles were sent to the rescue site not knowing if they were full. Both of these issues could have been prevented through a written maintenance schedule and tracking of gas use. (Program Manager McManus did locate additional oxygen that had been set aside without logistics' knowledge.)

  Finally, we have one documented occurrence where a rescue team member was informed that a particular item was on the scene but logistics did not want to unpack the item.

Rescue Operations

EVALUATION FACTOR: OP-1 Rescue Squad Operations

ITEMS TO EVALUATE:

The role of the rescue squad cannot be overstated. All functions of the US&R team exist to support the rescue specialist (and the medical specialist). The rescue squads must be experts in use and application of the equipment, knowledgeable in building systems and able to apply techniques learned through the SCT course in a real-world environment. The following items were evaluated:

- Squad Management and Accountability
- Operational Knowledge
- Team Work

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- Overall the rescue squad members performed as expected. Members were aware of their roles, knew their tasks and used critical thinking skills to complete the missions.

- Shoring – Members were able to identify shoring needs and build shores as needed in an efficient manner. While a costly undertaking, the evaluation team recommends training more often with large timbers such as 6x6 lumber. As a Type I team, members will be using large lumber to shore reinforced masonry and concrete structures.

- Concrete Breaching – Many of the breaching scenarios required members to operate on elevated platforms and breach the concrete through the floor to obtain access to the upper floor. Members tackled these scenarios with efficiency, by selecting the proper equipment and/or recognizing when the current technique was not working. On one occasion the squad completed their rescue task early and had to be directed to another mission.

- Crane Operations – Crews were noted to work well together and were knowledgeable in the techniques required to rig and lift the loads. Due to the proximity to the airport and low ceiling, the management team contacted the FAA for approval for crane operations. The management team did an exceptional job with communicating with the Charlotte Douglas International Airport and in finding the information they needed to continue the operation.

- Metal Cutting –Crews were able to complete the tasks assigned. Metal cutting is a technical skill that requires a great deal of practice and refresher training to master. Rescue squads had minor setbacks with equipment malfunctioning, but overcame them by developing alternative solutions.

- The evaluation team noted there were a few occurrences of accountability lapses. Personnel would leave the immediate rescue scene and their managers would not be certain where they were. Squad members should be briefed that accountability at a disaster site is not voluntary and that they do not leave the immediate rescue area without permission from their rescue squad officer.

- Many evaluators noted how well the squads worked together to get the job done. Teamwork is an important part to mission success!!

EVALUATION FACTOR: OP-2 Management Support to Rescue Operations

ITEMS TO EVALUATE:

TFL and the Planning play important roles in the success of a deployment; listening and communication skills are a must. The following were evaluated by the evaluation team:

- IAP's
- IMT interaction
- Review of previous mission logs
- Corrective action

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- The importance of IAP's was covered early in this document. While IAP writing was nearly non-existent early in the mobilization, the planning team came together during rescue operations and impressed the evaluators with their work ethic and the quality of their documentation.

- IMT interaction improved tremendously over the course of the evaluation. Team managers were on time to meetings (while seemingly minor, extremely important), and communicated with the IMT in a professional and respectable manner.

- TFL's and Planning reviewed documents as needed to prepare for the next operational period.

- The evaluation team would like to mention how impressed we were with the poise of the management team under pressure. Team frustration was mounting due to the inability to launch a rescue squad early in the operation. The TFL's and planning worked to overcome these frustrations and came together to plan and manage a successful deployment.

EVALUATION FACTOR: OP-3 Technical Search Resources Performance

ITEMS TO EVALUATE:

Canine Search Teams are an important part of locating live victims in a disaster environment. Canines and handlers must perform as one cohesive unit to be successful. The following items were evaluated:

- Canine Control
- Canine Behavior
- Ability to locate a live victim
- Technical Search Personnel

RESULTS OF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- All canines were able to indicate a live human scent and notify the handler with at least 3 repetitive barks.

- A few of the handlers were new to their canines. Continue to enhance the working relationship with the animals and work specifically on control of the canine. Two canines were noted as needing additional work on the commands of "Heel", "Stay", and "Stop".

- Post search medical evaluation showed damage to canine foot pads. Canines were not used for the remainder of the deployment.

- Ensure handlers are prepared for the operational period to include search marking material as well as hydration for the canines.

- Technical search personnel were well versed in equipment use and what their role was in the rescue. It is important for tech search personnel to realize they may spend more down time during an actual deployment. These personnel should be absorbed into other sections of the team as needed to assist in other roles until a mission is assigned that utilizes their talents.

- Canines need to be exercised on a fairly frequent basis to maintain and enhance their skills- roughly every one to three days. While in a stand-by mode at a deployment, these skill sessions should be made available for the handlers and canines as for what best suits the task force and the canine team.

Demobilization

EVALUATION FACTOR: D-1 Technical Demobilization Plan

ITEMS TO EVALUATE:
Demobilization offers a challenge to planning managers and TFL's. The ability to prepare the team to leave a disaster site while still finishing an operational period of rescue mission can be taxing on resources. The following items were evaluated:

- Demobilization IAP
- Incoming Task Force Briefing

RESULTSOF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- The Planning Team did an exceptional job in assembling the demobilization plan. The NC IMT was very satisfied with the submitted documents and SC-TF-1 met all benchmarks.

- The incoming task force briefing is a simulated briefing between SC-TF-1 and the task force assigned to relieve them. It was obvious from the onset the briefing would be thorough and include all required sections including a briefing on past and current operations (rescue and search operations), as well as a briefing by the Structures Specialist. Very well done!

EVALUATION FACTOR: D-2 Demobilization

ITEMS TO EVALUATE:

It is important that the Task Force remain on a timeline throughout the operation, including demobilization. The IMT may need the area occupied by a departing task force for incoming resources. A timely demobilization and departure process helps the IMT's stay on time. The following items were evaluated:

- Ability to meet requested departure time
- Ability to meet the criteria set forth by the IMT

RESULTSOF EVALUATION: FINDINGS, DEFICIENCIES & COMMENTS:

- On our arrival Thursday morning, SC-TF-1 was hard at work loading their equipment. Squads were broken into proportional work groups and everyone moved with a purpose. Equipment was loaded using heavy machinery as needed and was completed in a safe and effective manner.

- A 10:00 AM departure time was assigned by the IMT. SC-TF-1 met this timeline.

- The NC IMT requested demobilization documents to be provided prior to departure and for SC-TF-1 to update them on their convoy progress back to Columbia, SC. The Planning and Management team met these benchmarks.

Final Recommendations

Overall, the State of South Carolina should take great pride in the men and women of SC-TF-1. The evaluation team was very pleased with the work ethic and professionalism of the task force. Based on our past experiences with other state US&R teams, SC-TF-1 is ahead of other organizations with regard to equipment, facilities, organization, and training. Through a firm commitment from the State of South Carolina, I expect this proficiency to be maintained.

As with many of the organizations we evaluate, SC-TF-1 is very strong in their rescue skills and tactical problem solving. We often are asked, Why are the rescue squads more proficient than the rest of the team? The answer is fairly simple. Teams concentrate on the hands-on skills as those will directly save lives. In addition, the hands-on classes are usually the most financially feasible; that is, more responders receive training compared to the cost of the course.

In comparison to the rescue specialist, team management positions do not receive the same amount of training. This is a common theme amongst state US&R teams. Again, it is difficult and often not financially beneficial to host a course when only a hand-full of personnel are required to take the training. With that in mind, I would encourage SC-TF-1 to cross-train as many responders as possible and continue to offer TFL, Planning and Logistics courses.

Many state response teams, like SC-TF-1 are adopting an "All-Call" rostering method. With this method of rostering, personnel are notified of a potential response and the team is rostered based on personnel availability. The inherent problem with an "all-call" rostering method is ensuring the right number of qualified personnel are able to respond. Through adequate cross-training, it simply becomes more likely the US&R team will be adequately staffed.

Below are additional recommendations:

- Conduct an annual review of the operations manual. The forward or purpose statement should be signed by the current program manager.
- Create a stand-alone mobilization plan that can be used as a step-by-step guide for task force management during pre-deployment activities.
- Conduct additional team management training emphasizing the integration of task force management to the incident management team. This could include table-top exercises and/or additional planning and technical information specialist training as well as live field exercises.
- Continue working to complete disaster management training.
- Create "fast boxes" which will allow the rescue squads to deploy immediately on arrival at the disaster scene.
- Ensure periodic maintenance is being done on equipment that holds gasoline such as power plants, generators, petrogen torch, etc.
- Rescue squad operations exceeded expectations. To challenge them, consider working large timbers into their shoring evolutions or work with the structure's specialist to build metal shores.

- Continue giving canine team's the opportunity to train. The relationship between handler and canine cannot be overstated. The canine evaluations were satisfactory considering the limited amount of experience some of the handlers have with their canine.

- While the regional rescue teams are not under the direct supervision of Assistant State Fire Marshal Dan McManus, they are an intricate part of the South Carolina's disaster response strategy. We highly recommend a third party audit of equipment, training and capability.

In closing, the State of South Carolina has a very capable resources in SC-TF-1. Assistant State Fire Marshal Dan McManus, has done a tremendous job of pointing this team in the right direction and leading them forward.