

Running Head: URBAN SEARCH AND RESCUE STRATEGIC PLANNING

Executive Analysis of Fire Service Operations in Emergency Management

Developing a Strategic Plan for the South Carolina Urban Search and Rescue Program

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

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Abstract

The South Carolina Emergency Response Task Force (SCERTF) does not have a long-range strategic plan that will direct the organization's survival past the initial implementation phase. The purpose of this research identified critical elements aiding in development of a plan to provide sustained guidance. Action research was used to answer the following questions and develop the strategic plan:

- a. Which best practices exist to facilitate organizational vision?
- b. What elements are critical in developing strategic plans?
- c. What emerging issues are concerns for the organizational future?
- d. What opportunities should be pursued to establish organizational success?

A literature review included the search of private and public sector publications, textbooks, and web-based information. Literature discussing governmental and non-governmental planning was reviewed in addition to fire service information. Articles written by organizational management experts were also reviewed and lent to understanding of best practices and essential criteria for successful plans. Organizational master plans were also reviewed to discover how needs were addressed and how they presented their case for adoption.

Finally, key emergency service leaders in South Carolina were surveyed for perspective on the future of the program. The results concluded that the SCERTF should work with the South Carolina Firefighter Mobilization Oversight Committee, the Department of Fire and Life Safety, and other key agencies to adopt a state US&R program led by a full-time program manager; requiring response assets to adhere to national typing definitions; to determine the presence of existing rescue assets and develop their capability to aid in a response plan; and to continue to participate in networking and standard development opportunities.

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Developing a Strategic Plan for the South Carolina Urban Search and Rescue Program

Introduction

In July 2000, Governor Jim Hodges signed into law the South Carolina Firefighter Mobilization Act of 2000, which charged the newly-appointed State Firefighter Mobilization Oversight Committee with establishing a coordinated response to disaster requests both in and out-of-state.

The events of September 11, 2001 shook the world and with it, the State of South Carolina, spurring into action a renewed dedication toward development of an urban search and rescue program. A team of individuals was assigned to create a plan (South Carolina State Firefighter's Association, 2002) for implementation and in July 2003, the South Carolina Emergency Response Task Force was unveiled at the South Carolina Firefighters' Association Annual Conference.

The program was one of the first in the nation to meet the Federal Emergency Management Agency's 2003-2004 cache recommendations as well as staffing the team with trained emergency responders. Within two years of the introduction, South Carolina Emergency Response Task Force leaders met with representatives from nineteen other states and Puerto Rico as they created a grass-roots advocacy group to share information and training resources across the nation (State Urban Search and Rescue Alliance, 2006). The program enjoyed recognition from the South Carolina General Assembly (2005) as well as from the overall emergency response community. In September 2005, the task force was legally deployed to the disaster of Hurricane Katrina and was the first urban search and rescue team to go into service in St. Bernard Parish, Louisiana (South Carolina Emergency Response Task Force, 2005).

The problem is that the South Carolina Emergency Response Task Force does not have a long-range strategic plan that will direct the organization's survival past the initial implementation phase. The purpose of this research identified critical elements and best practices for strategic plans and aided in developing a plan to provide sustained operational guidance. Action research was used to answer the following questions and develop a strategic plan:

- a. Which best practices exist to facilitate organizational vision?
- b. What elements are critical in developing strategic plans?
- c. What emerging issues are concerns for the organizational future?
- d. What opportunities should be pursued to establish organizational success?

Background and Significance

South Carolina's state urban search and rescue (US&R) program was originally crafted to facilitate the delivery of search and rescue under several disaster scenarios. The program was built using an initial implementation plan (Mayers, 2004) that provided guidance for the initial stages of development. The objective was to build a state-level urban search and rescue task force modeled after the federalized US&R task forces, using federal grant funds, and staffed by personnel from all parts of the state. The problem, however, is that the US&R program required a long-range strategic plan to guide the leadership and to carry the organization into a sustained operation phase.

The development of a strategic plan is useless if it does not consider inclusion of goals to solve existing problems or does not contain sufficient vision to anticipate growth. Review of literature was indicated to find if there were elements critical in developing plans and

comparison of the long-range plans of businesses, non-governmental organizations, and other emergency agencies was warranted to determine if best practices existed.

This research project was significant to the South Carolina Emergency Response Task Force (SCERTF) and to the State of South Carolina in that it aided in the development of a draft strategic plan that will be proposed to the State Firefighter Mobilization Oversight Committee for adoption, in an effort to lead the organization into the future. The project also intended to provide sufficient vision to consider emerging issues so that a higher level of service will be provided to the citizens of the state.

Study of literature and the surveys and development of the draft plan was related to the National Fire Academy's *Executive Analysis of Fire Service Operations in Emergency Management* course goal to prepare senior fire executives in the administrative functions necessary to manage the operational component of a fire department effectively (National Fire Academy, 2006, p. SM 1-3).

The research is also specifically applicable to the U.S. Fire Administration's operational objective of "responding appropriately in a timely manner to emerging issues" (National Fire Academy, 2003, p. II-2). The creation and support of specialized regional emergency response assets was considered in several recently published reports, especially in the wake of Hurricane Katrina (The White House, 2006; also Trainor, et al., 2007), as a solution to bridging the gap between local first responders and the federalization of the disaster.

The State of South Carolina measures 32,020 square miles; a population base of 4,255,083 (United States Census Bureau, 2000) exists with a substantial permanent and visitor concentration in three areas along the Atlantic coast at Hilton Head Island, Myrtle Beach, and in the state's largest metropolitan area of Charleston. The Greenville and Spartanburg metroplex is

located in the upstate. The capital, Columbia, is South Carolina's second largest city, centrally positioned in the state.

Manufacturing and tourism are the two most important elements comprising the state's economy (Encarta, 2005) supplemented by agriculture and governmental support; loss of any of those key sectors could be devastating, as South Carolina is one of the nation's least economically successful states (South Carolina Almanac, 2005).

South Carolina is vulnerable to natural disasters. The Great Charleston Earthquake of 1886 was the most catastrophic in history to strike the eastern American coast. Hurricane Hugo struck South Carolina in September 1989 with detrimental effect on both coastal and inland communities.

When Governor Jim Hodges signed South Carolina Public Law Title 23, Chapter 49 establishing the State Firefighter Mobilization Oversight Committee, this body was charged with establishing a coordinated fire service response to disaster requests both in and out-of-state.

South Carolina Code of Laws Chapter 49, the "Firefighter Mobilization Act of 2000", states:

The South Carolina Firefighter Mobilization Oversight Committee shall establish the South Carolina Firefighter Mobilization Plan. The purpose of the plan is to provide for responding firefighting and rescue resources from one part of the State to another part of the State or from one state to another state. The plan is operative (1) under emergencies declared by the Governor, or the President of the United States, (2) when a local fire chief needs additional assistance after mutual aid agreements have been utilized, or (3) when another state requests assistance in dealing with an emergency when a state mutual aid

agreement exists between South Carolina and the other state. In addition, the plan operates and is a part of the State Emergency Response Plan (Section 23-49-50).

As a result, the State Emergency Operations Plan was amended (South Carolina Emergency Management Division, 2002), assigning responsibility for US&R to the South Carolina Department of Labor, Licensing, and Regulation, parent agency of the Division of Fire and Life Safety and the Office of the State Fire Marshal. By designation, the response arm of the Firefighter Mobilization Plan, the SCERTF, has a lawful duty to act.

SCERTF is compelled in South Carolina to conduct search and rescue efforts for persons affected by natural disaster. The organization is obligated to handle search and rescue in the most efficient way possible, by providing resources to localities to search for victims of the disaster and to rescue those victims from the hazards present. SCERTF has done this by operating a Type 1 US&R task force modeled after the federal task forces and complying with the proposed National Incident Management System (NIMS) search and rescue typed resource definitions (FEMA, 2005b).

The implementation of a strategic plan is essential to the effective operation of the organization because it will provide focus and guidance for the future success of the program. In the absence of a plan, this valuable resource lacks the road map that will lead the program to deliver life-saving service to affected jurisdictions. Furthermore, issues that are becoming apparent in the transition from the implementation to the sustained phase require identification and recommendations for addressing these issues must be made manifest.

Conventional wisdom lends credence to the concept that organizations that do not plan for their future tend to be less than successful. Time and time again, business and organizational

leaders expound on the logic that even the act of planning is beneficial to the survival of the organization. Failing to plan, in any event, is inexcusable.

SCERTF's continued survival is desired because it delivers a response asset that is otherwise unavailable to communities affected by disaster within a reasonable period of time. According to the White House report *The Federal Response to Hurricane Katrina: Lessons Learned* (2006), much of the disaster's complexity evolved from the lack of a coordinated and timely response at the state level. Since SCERTF responds to requests for disaster assistance as part of the South Carolina Emergency Operations Plan, a healthy plan is essential for success. As has been said often before, since people die quickly in major disasters, the faster the service is delivered, the more lives are saved. The creation of a strategic plan for US&R in South Carolina then, has the potential to be a life-saving effort and therefore, invaluable.

Literature Review

A literature review included the search of various private and public sector occupational publications, textbooks, and web-based information. Literature discussing planning issues in governmental and non-governmental organizations was reviewed in addition to fire service information. Articles written by experts in strategic planning and organizational management were also reviewed.

Further review and refinement of information was conducted to understand best practices and to identify essential parts of successful plans. Finally, review of other organizational master plans were also conducted to discover how these groups addressed their needs and presented their case for plan adoption.

The extensive literature review lent support toward development of a draft strategic plan for the South Carolina US&R program.

This section will discuss critical findings in:

- a. Which best practices exist to facilitate organizational vision?
- b. What elements are critical in developing strategic plans?
- c. What emerging issues are concerns for the organizational future?
- d. What opportunities should be pursued to establish organizational success?

Best practices to facilitate organizational vision

President Dwight D. Eisenhower's military expertise lent him to observe, "plans themselves are nothing, whereas planning is everything" (as cited in Center for Applied Research, 2005). The act of self-analysis, of seeking the answers to questions about the future, reviewing where others have forged ahead, provides insight into the soul of an organization that all leaders should have to inspire their efforts. Plans help us focus on the result; the planning process facilitates learning.

The martial genius Sun Tzu (n.d.) related that in order for generals to fight successfully, they must have certain knowledge. The general must know the power of the enemy, the terrain in which the battle will be fought, the risks and benefits of the campaign, and who will carry the plan into action. Above all, however, Sun Tzu recognized that a good leader must know one's own limitations first. Introspection and understanding one's weaknesses and strengths are essential for victory and in themselves, constitute practices that should be undertaken in creating any plan.

An article published in 1999 by the Center for Applied Research indicated that there are no single best practices for successful strategic plans. According to the article, high-performing businesses shared similarities including a strong culture, targeted strategies, adaptability, and a focus on delivering value to their stakeholders. Consideration of organizational role in their

particular industry, too, encourages businesses to see themselves as part of an interdependent network. Is the organization the center of a complex and dynamic industry as a leader, or does the business hold a lesser but expert position in a volatile market, filling a crucial need? Evaluation of where the organization exists in the larger picture helps provide insight into identification of vision and mission.

Before jumping into the planning process wholesale, however, issues that besiege organizations should be realized in order to avoid them. According to a 2001 report published by the Foundation for Community Association Research, pitfalls that often trip up planners include obsessing over current problems and by doing so, not spending sufficient time on long-range planning; failing to include other stakeholders other than the planning committee; not using the plan as a standard for measuring performance; rejecting the formal planning process by making intuitive decisions conflicting with the data; and failure to develop goals suitable for forming the plan (Foundation for Community Association Research, 2001, p.13).

Significant insight into best practices of strategic planning came from several articles published by consulting groups, as well as a fire service training manual. According to at least one of these sources, some of the most advantageous efforts can come from practicing creative thinking and creating goals that stretch the organization's abilities, forcing them to reach out of their comfort zone to exceed the status quo (Alliance for Nonprofit Management, 2007). Each of the articles advocated a *SWOT* analysis of the organization, an acronym representing analysis of the organization's strengths and weaknesses, opportunities for improvement or success, and threats to the organizational success in order to identify the framework of needs for the strategic plan (International Fire Safety Training Association [IFSTA], 2006; also Foundation for

Community Association Research, 2001; Center for Applied Research, 2005; Vistage International, 2006).

Shaw, Brown and Bromiley (1998) discussed in the *Harvard Business Review* the use of narratives rather than the traditional presentation of the strategic plan. Formatting the plan as a story, the authors argued, enables the stakeholder to not only know what the goals are, but also how to reach them.

The article posed that bulletized points of a plan are typically too generic, leave critical relationships unspecified, and leave critical assumptions about how the organization works unstated. Planning by narrative, as the article suggests, is much like traditional storytelling; the storyteller needs to set the stage, introduce dramatic conflict, and reach resolution. As is also with good stories, the plan must tell the reader how to overcome obstacles and succeed, and the conclusion has to be logical and concise as well as leading to the desired outcome.

The same article pointed to research published in *Scientific American* by William Calvin (1994) suggesting that stories play an important role in learning. According to this research, high school students recalled up to three times more information using the story-based style of Time and Newsweek in contrast to the amount learned after reading traditional textbooks.

The relevance is that as “a good story defines relationships, a sequence of events, cause and effect, and a priority among items, those elements are likely to be remembered as a complex whole” when presented in narrative format (p.101).

Information conveyed to users in a strategic plan is important, but if the information is not conveyed in a manner that can be digested and discussed intelligently, then it isn't worth the paper it is written on. Plans can contain a treasure trove of data, but if the plan remains on the shelf because it is unreadable, then why take the time to bother creating one?

Elements critical in developing strategic plans

The multiple ways in which organizations and communities present strategic plans lend to significant variation in critical element identification. Perspective of what constitutes a good business plan versus what constitutes a good emergency services plan really depends upon the philosophy and culture of the organization.

Wikipedia defines a *plan* as a “proposed or intended method of getting from one set of circumstances to another” (2007). Clarification of strategic goals provides focus and helps leaders understand where best to allocate resources. Knowing where the organization intends to go and identifying benchmarks helps leaders make decisions on a daily basis.

In every plan, the basic intent is to identify the current status of the organization and define the expected result. The method of conveying the expected path, however, is subject to interpretation. Twelve fire department master plans were analyzed as well as nine community related strategic plans (see Appendix A). In addition, two governmental master plan templates, one from Canada (Government of Newfoundland and Labrador, 2005) and one from the United States (Virginia Commonwealth University, 2007), were used for comparison. Elements that appeared to be consistent in each were mission statements, organizational needs, goals, actions and strategies, and a means of measuring the results. Elements that appeared frequently but weren't in all plans included formation of organizational vision, values, and action plans.

As evidenced by much of the literature, a good strategic plan should be developed through a process of group discussions, research, drafting and review (National States Geographic Information Council, 2006; also McNamara, 2007; Alliance for Nonprofit Management, 2007), resulting in long-term goals that support the organizational mission. These

goals aid in the completion of the strategic planning process providing a consistent framework for articulating organizational purpose, values, roles, objectives, strengths and weaknesses.

Before those goals can be developed, however, every organization must have a mission statement. Mission statements should be able to answer the question, “Why did we start this organization?” With a well-defined mission statement, every activity can be measured against it; without one, the organization may experience lack of necessary focus (Alliance for Nonprofit Management, 2007). The goals should naturally evolve from the activities necessary to make the mission statement reality.

According to Cothran and Wysocki (2005), insuring that these goals are achievable and definable requires an element of objectivity. A common acronym to describe these objectives is *SMART*; specific, measurable, achievable, relevant, and time-based. An internet search of the origin of SMART goals yielded over 406,000 hits; one of those selections (Measure-X, 2007) reported that the origin of the acronym is lost and the specific traits not universally agreed upon, but SMART goals provide a great framework for improved goal setting.

As Cothran and Wysocki reported, specificity is an important trait of established goals in order to provide a description of what is to be accomplished. By insuring goals are measurable, they provide a target to achieve and to clearly define the result desired. If goals are not attainable, then they cause stakeholders to become demoralized because they do not see success as possible to be achieved. However, establishing stretch goals are important to raise the bar and to cause the organization to strive for excellence. A goal that has no chance of being achieved should be reconsidered and either altered or abandoned.

Relevancy is assuredly a quality of good goals that insures that they do not conflict with other organizational goals. If the goal does not advance the organization toward achievement of the mission, it is not relevant and should also be re-evaluated.

Finally, goals should have a starting and an ending point with intermediate benchmarks to measure the progress toward the target. Limiting the time in which the goal must be achieved helps to focus the effort toward achievement.

Not all of the plans reviewed came with specific action plans for identified objectives. There did not appear to be any specific reason for excluding these items, except that perhaps they caused the document to be less concise, and no reason could be found to substantiate that thought. However, McNamara (2007) indicated that action planning is often ignored, leaving a plan that is not used because of the lack of direction included. McNamara continued by pointing out that overall strategic planning tends to be creative and exhilarating whereas the action plans seem to be tedious and detailed in comparison.

Therefore, it seemed incongruous that organizational vision and values, especially as they are linked so closely to the mission statement, were not always part of the plans as well. A compelling vision, if it is shared by the organization, energizes and motivates. Acquiring that vision is not necessarily dependent upon others, but the focus required to make the vision a reality indicates that soliciting the input of those who have to carry the plan forward would be a good idea.

Strategic planning requires the leadership to get buy-in from key personnel so that essential intelligence about the organization and its environment is conveyed. Key personnel are not going to be as forthcoming if they do not see their vision and values being shared within the plan. Thus, serious consideration must be made to illustrate a compelling vision of the future

that encompasses the vision of the people who are desired to make the plan a success. Vision, as defined within an article from the Alliance for Nonprofit Management (2007), is “a guiding image of success formed in the terms of a contribution to society” (p.13). Vision answers the question, “What will success look like?” providing a visual picture of what the end result will be in a succinct fashion. An interesting quote emerged from the article: “There is one universal rule of planning; you will never be greater than the vision that guides you.” (p.13). A clear vision of extraordinary performance fuels the discipline needed for ultimate success.

Organizational values define the acceptable standards for personnel (Foundation for Community Association Research, 2001). Without these, individuals will take action by whatever means they feel are acceptable, in line with their own value system. Values must be in line with the organizational mission and vision. A strong corporate culture exists where personnel act in line with the corporate values because the values are shared. If the organizational culture is weak, the values will have to be conveyed through behavioral controls like policies and procedures to insure that individual values don't supplant those of the organization. Therefore, it appears to be of utmost importance that if there are concerns about individual values overriding organizational values, appropriate direction should be provided to insure adequate compliance.

Organizations all over the world create plans for all sorts of contingencies and using different formats. However, certain elements exist that are essential in developing strategic plans useful for plotting the future of the organization. Of all good characteristics, insuring the plan conveys the vision and values of the organization while discussing measurable goals appears to be among the most important items to incorporate into the document.

Emerging issues for the organizational future

There are significant issues in the future of emergency services that directly affect the future of US&R programs as well as issues specific to the US&R industry. As a manager and plan author, these issues must be understood and appreciated in order to adequately form a US&R program strategic plan. Generally, the issues revolve around funding, organizational relationships, conceptual changes, and compliance with governmental and industry standards.

Go to any gathering of emergency service leaders and ask the attendees to rank their organization's most perplexing issues; chances are that most all will say that funding ranks somewhere high on their list. Experience shows that in the competition for limited funds, US&R programs tend to be low on most priority lists. Given the infrequency of responses and the high cost of maintaining these programs, many chiefs steer clear of allocating serious resources toward addressing these needs.

A general perception that the need for these programs is low is exacerbated by the lack of published data on state US&R plans. Data was simply not available on non-federalized US&R programs. In an informal survey posed to members of the State Urban Search and Rescue Alliance (SUSAR), an organization representing state-level US&R programs, of the 36 programs that answered the survey, only six states had a sustained revenue stream independent of non-recurring federal grant funds (see Appendix B). Of the 25 without that level of funding, at least five others were working on legislation that would sustain their programs. While lecturing on governmental relations to over 300 state team leaders in attendance at SUSAR's February 2006 conference in College Station, TX, the discussions from attendees revealed that although these programs were established using grant funds, there were limited plans for how to provide for services, maintenance, and other operating costs (personal communication, SUSAR conference presentation, February 21, 2007). The prevailing philosophy was that even though many of these

teams created their program with no strategic plan in place, as one attendee stated, he would take the chance to “get the money while it’s there and we’ll figure out how to support the program later” (personal communication, Anonymous, February 21, 2007).

In the case of South Carolina, the program was established with an implementation plan that had as one of its early goals the establishment of a sustained revenue stream. As a result, efforts were being made almost immediately after the introduction of the system to find a source to sustain the operational needs. A budget proviso passed by the South Carolina General Assembly (2007) provided \$980,850 for the state US&R program in fiscal year 2007-2008. Simultaneous to the time this research is being published, finalization of this funding as a permanent line item is expected.

Aside from the question to SUSAR members on existing US&R funding, no other data was found regarding the activities of state US&R programs, and Bea (2006) reports that comprehensive data is not readily available for federal programs either.

Bea stated that federal funding of US&R response occurs through the Disaster Relief Fund as administered by FEMA. According to the report, however, Bea was given reason to believe that “hosting agencies serve as the primary source of funds for the task forces” (p. CRS-4), implying that the sustained funding for these programs was originating at the local or state level. This statement, however, is subject to debate.

In an audit of the National Urban Search and Rescue Response System as published by the Department of Homeland Security Office of the Inspector General (2006), the report implied that FEMA never intended to have an in-house rescue capability of its own and instead established the response system as a “federal-state-local” partnership (p.2). The programs that received this support from FEMA were to have done so based on their existing capabilities when

brought into the system, with a reasonable expectation that FEMA funding was not going to provide a sustained funding stream, especially since much of this funding occurred in grant awards rather than as recurring funds (p.5).

However, when confronted with explaining why certain teams failed to pass a deployment assessment, the answer was simple; they stated they were relying on grant funds from FEMA to operate the team, and because the funds were not reliable, they were unable to operate as expected. After all, the funding for the program fluctuated from \$10 million in 2001, to \$43 million in 2002, \$61 million in 2003, \$65 million in 2004, and dropping back down to \$30 million in 2005 (p.6).

The result was that with allocations that were meant to subsidize existing programs, not fully fund them, dependence on this unreliable funding stream was sure to spell disaster. To underscore the severity of the situation, this flawed thinking was exactly what was stated in four separate statements on a single page of the Office of the Inspector General report:

Six of seven task forces audited did not hire sufficient staff to manage their day-to-day operations, which hindered their ability to achieve their grant goals and standards; ...budget considerations were primary factors in staff shortages; ...task force leadership decided to defer the hiring of some administrative staff to leave more grant funds for some of the remaining goals; ...task force leaders were reluctant to spend grant funds to fully achieve goals due to insufficient grant funds to cover all of the grant goals, and uncertainty over the amount of future funding. (p.10)

The subsidy of at least six of the seven teams was not a subsidy after all, but was expected to be the primary funding necessary to sustain these programs.

At least four of the six evaluated task forces estimated annual funding needs in excess of the current grant awards and because the shortfall was not made up by their sponsoring agencies, this was indicated in the audit as the reason for failing to achieve the objectives or standards (p.10) and the primary obstacle to achieving FEMA requirements (p.13).

The disappointing news is that this study unintentionally implicates the overall program, which has been an example of cooperative effort for years, instead of serving as an indictment of the poor management of particular programs. By failing to recognize that the majority of the teams are operationally sound and provide excellent service, the Office of the Inspector General report gave the entire federal US&R program a black eye and casts suspicion on their practices.

Especially at the state and national levels, competition for funding increases the tension in dealing with external contemporaries, creating potential competitors in organizations and individuals that really should be challenged to become partners. Within South Carolina, state and local funding, service delivery relationships, and simple agreements as to who provides which service are continually complicated by bureaucratic turf guarding, power grabbing, and establishment of stovepipes.

The response to search and rescue, for example, in South Carolina, despite the decree of law, remains beset by confusion even by the powers that enforce those regulations. Search and rescue response is defined in the South Carolina Emergency Operations Plan as being the responsibility of the Department of Fire and Life Safety for “urban” situations and the Department of Natural Resources for “rural” situations (South Carolina Emergency Management Division, 2002, ESF-9). The South Carolina Department of Health and Environmental Control, with absolutely no authority whatsoever in regard to search and rescue, advocates on its website a non-certified, non-public safety affiliated search and rescue team (South Carolina Department

of Health and Environmental Control, n.d.), the Search Tactics and Rescue Recovery (STARR) Team. The South Carolina Army National Guard continues to maintain a presence in this issue on a website (Global Security, 2007) stating that they have the sole responsibility for urban search and rescue, which has not been the case since 1999. Unsanctioned and unauthorized canine search and rescue groups have historically shown up at emergencies uninvited (Paprocki, 2006) and even advertise “Urban Search and Rescue” on their vehicles, which are outfitted to look like official response units. Obviously, the free response environment adds to the confusion as to whom the responsible party for search and rescue is, and to what end their jurisdiction is permitted.

Aside from the immediate implications of organizations with no legal authority nor equipment, training, or any other qualification being summoned to assist at a disaster, there are the issues of funding being diverted from one agency or entity to a free-lance group, and competing interests. Without a legal duty to act, these agencies are just in the way; however, the struggle for which agency manages search and rescue events would not be as traumatic if organizations could work together toward a common goal. The vertical hierarchy that drives traditional emergency response agencies, however, is not universally fit toward a flatter, more horizontal approach necessary for working with the myriad non-governmental agencies that now flood to the scene.

According to Burkle and Hayden (2001), in a disaster setting, the unified command model is inherently logical, especially since the vertically oriented model of disaster management is plagued by coordination and communication problems. The article suggests, “cooperation and coordination is replaced by competition, rivalry for public attention and

resources, disrupted communications, differing priorities, differential leadership styles, cultural differences, and inconsistent procedures, all leading to delays in response” (p.88).

Quarantelli’s (2003) discussion on organizational behavior in disasters reinforces this belief. Regarding points specific to disaster response operations, organizations typically exhibit three sets of crisis management challenges: information flow problems in communications within and between organizations; “overwork”, which could be interpreted as overload, both of information and conflict regarding authority, also confusion over jurisdictional responsibilities; and problems in interorganizational coordination. The solution, he poses, involves preparedness planning establishing formal links between key groups; drilling and rehearsing; sharing information; and obtaining involvement of citizens, businesses, and non-emergency public agencies, among other things. Interestingly enough, Quarantelli states, “The production of a document or written plan, while sometimes legally necessary, is never as important as the planning process.” (p.6)

Given this framework, it appears that creating opportunities for public and private partnerships in advance of disaster response would be beneficial toward eliminating those differences and should be facilitated.

With the recent dismal evaluations of selected federal US&R task forces, it seems that organizations serving as Type 1 or Type 2 US&R task forces would do well to first utilize the *FEMA Task Force Self-Assessment* (2004), which outlines expectations for operations, logistics, and administration for those assets. This document, however, only references the needs for a US&R organization at the task force level and discusses nothing about the types of responses that are driving rescue in the nation today.

US&R's mission continues to evolve. Is urban flood rescue part of the mission? The Texas and California programs lead the nation in developing these assets within the realm of US&R (California Governor's Office of Emergency Services, 2005; also Schapelhouman, 2005; Trainor, et al., 2007). The addition of response to Weapons of Mass Destruction (WMD) incidents has involved equipping and training particular US&R assets (Wong & Robinson, 2004). Or perhaps US&R teams should develop educational opportunities to present hazard awareness and light rescue techniques to local responders, which would seem to be the direction some experts (Aguirre, 1994) favor as being better for the outcome of rescue after a disaster.

US&R is such a new concept that rapid changes in industry occur from which agencies are delivering service to changes in technology involving robotics; increased requirements for education are driving the need for leaders to be more visionary and innovative. However, compliance with governmental and industry standards are issues that continually surface, especially as the regulations change to reflect the often-changing horizon of the rescue industry.

Aside from the obvious need to meet federal and state regulations in regard to workplace safety and incident management (FEMA, 1995), effective planning for US&R programs is critical in regard to compliance with the existing National Fire Protection Association standard for rescuer professional qualifications (National Fire Protection Association [NFPA], 2003), and the training and operations standard for rescue teams (NFPA, 2004). Although it appears that many rescue service professionals can't even seem to differentiate between when one of these standards should be used instead of the other, quoting one reference when they should be using another, they are actually an improvement on the FEMA US&R task force job descriptions and qualifications (FEMA, 2005a), which were really just an incorporation of course objectives and job responsibilities rather than an actual defining standard.

With the introduction of *Homeland Security Presidential Directive 5* (2003a) and *Homeland Security Presidential Directive 8* (2003b), there is obviously the requirement to adopt the *National Incident Management System* (United States Department of Homeland Security [DHS], 2004) and to be consistent with the *National Response Plan* (DHS, 2006). US&R assets are expected to define team and personnel expectations consistent with FEMA standards on resource typing (2005a) and job qualifications (2006), which continue to be draft versions and prove problematic for long-term planning, as they may very well change again by the time this is published. These recommendations, however, pose more concrete answers to how these assets were previously defined. The need for resource typing and personnel accreditation is apparent; local or state emergency managers requesting resources require the ability to call for a resource and expect that the resource is exactly as advertised and the team or individual isn't an unqualified or unauthorized responder (Barrett, 2007). SCERTF is called to insure that the state US&R program is in compliance with these requirements.

Wong and Robinson (2004) worked with the National Institute of Justice and the Department of Homeland Security to identify and define functional technologies meeting the needs of US&R teams as well as law enforcement agencies. The report found recurring requirements that surfaced as high priority needs: improvement on real-time data; survivor location technologies; robust improvement on communication; lighter and more efficient power sources; improved monitoring systems; improvements in personal protective equipment; integrated functions of equipment; improved breaching, shoring, and debris removal systems; and standardization of equipment (p.5).

The future of any organization requires leaders to review any challenges that may affect their planning. With the changes in the rescue industry as a result of many recent disasters, there

are quite a few observations on past organizational plans that must be considered to eliminate problems and target successful outcomes.

Opportunities to establish organizational success

Much of what exists in the realm of emerging issues can also prove to be opportunities for growth and innovation. The US&R industry, as stated earlier, is young and ever changing. Technology advances, especially in search robotics, will revolutionize the way victims are found (National Institute of Standards and Technology, 2007); partnerships to develop networking and isomorphic learning opportunities will also lead to sharing resources with inter- and intrastate responder agencies; and breaking out from responses specific to US&R by adding command and control support (personal communication, SCERTF Task Force Leaders meeting, October 18, 2006) and water rescue capability (California Governor's Office of Emergency Services, 2005; also Trainor, et al., 2007; Schapelhouman, 2006) will expand the usefulness of these assets. Although flexibility will be the key, planning for these assumptions is paramount to insure survival and to avoid becoming locked into any one scenario.

As in every good business, learning to flex and adapt will provide for continued improvement and usefulness. A change in mission could occur tomorrow simply with the release of new technology, requiring the entire organization to rethink its existence. The leaders of the organization must continually expand their horizons and seek new ways of providing a valuable service to their communities.

Key revisions to the *National Response Plan* (2006a) will cause vertically-oriented organizations to interact more directly with non-governmental agencies, especially volunteer and faith-based organizations that may not respond as well to that traditional military or paramilitary hierarchy (Hamblet & Kline, 2000). A flatter hierarchy may be warranted to improve

communication and to incorporate these organizations into the planning process (Burkle & Hayden, 2001).

Decentralization of the national US&R program may also pose an opportunity for excellence. The concept of assisting states in developing programs and entering into national mutual aid agreements is now being openly advocated by disaster response professionals (Trainor, et al., 2007), much to the dismay of some. If this situation is legislatively mandated, the outcomes will be that either funding will be diverted from the existing program to bolster an already-developing state level response or the funds will dry up and weed out the pretenders. In either case, sharing of resources will be at the forefront; response will come from states that are part of the existing Emergency Management Assistance Compact or through an emerging national mutual aid system (International Association of Fire Chiefs, 2006). Survival of programs will depend on the level of commitment from the states to provide a response network on their own. A purely US&R-driven program will likely meet with varied resistance from already budget- challenged policy makers.

Opportunities paving the way forward are rooted in networking through advocacy organizations. Whereas the National Association of Search and Rescue (NASAR) was recognized as an organization representing the issues of the overall rescue industry, their ranks have been inundated by members specializing in water, wilderness, and canine disciplines rather than pure US&R (personal communication, K. Miller, May 8, 2007). This change in their membership demographic has served as a source of frustration to many members of the US&R fraternity, who have long been interested in having some say in the way rescue service is provided in the nation and have had to endure their issues being set aside to discuss issues more pertinent to civil search and rescue (personal communication, B. Rousseau, May 6, 2005).

The State Urban Search and Rescue Alliance (SUSAR), however, was developed by several state rescue leaders in response to support issues particular to their US&R programs (SUSAR, 2007). These team managers desired to train and share ideas with other teams, especially the federal US&R task forces but because their programs were not part of the federal system, they met with considerable resistance. To solve that challenge, those same leaders decided to form a network in which they traded training opportunities, shared protocols and other procedures, and otherwise worked together to solve their challenges. The South Carolina and New Jersey US&R programs were the co-founders of this movement and have been very well served by involvement; with 41 states now represented, keeping involved in that network would be beneficial.

Issues involving technology are hard to anticipate and therefore difficult to plan for. If one knew what the future held, it would eliminate the need to provide for contingencies. In the event the technologies discussed in Wong and Robinson (2004) become available, SCERTF's plan must be flexible enough to incorporate them into their operation, but also, SCERTF should reach out to the Savannah River National Laboratory in Aiken, South Carolina, where this effort was produced, to develop a partnership.

Networks exist to develop sharing and innovation; failing to push forward and seek new ideas can cause an organization to stagnate and eventually become obsolete. Just within the seven core disciplines in US&R: command, search, rescue, planning and technical, hazardous materials, medical, and logistics, there are more changes and expertise needed to stay current than any one person could ever hope to handle. Organizations that provide rescue services must continually exchange ideas and learn from one another, as well as exchange ideas and communicate between the disciplines to achieve a workable whole. Member involvement is

necessary to develop a strategic plan, but even more so, working outside the organization to develop relationships, share resources, and solve problems is necessary to provide excellent customer service.

Literature review summary

The organizational development of an US&R response asset winds precariously through relatively uncharted waters. The industry as a whole is very much in its infancy, but like a child, the industry is always exploring and learning. Bea's report *Urban Search and Rescue Task Forces: Facts and Issues* (2006) identified the genesis of the federal role in US&R as the congressional enactment of the federal *Earthquake Hazards Reduction Act of 1977*. This statute recognized that federal and non-federal entities, both public and private, must work together and share responsibilities to reduce losses from earthquakes.

Bea then reported that in 1980, the most significant change relevant to the history of the US&R task forces was where Congress added responsibility for disaster response by requiring the director of the Federal Emergency Management Agency (FEMA) to submit an "interagency coordination plan for earthquake hazard mitigation and response" to Congress (p. CRS-2).

As a result of the Loma Prieta earthquake of 1989, Congress and FEMA then revisited the scope of the National Earthquake Hazards Reduction Program and enacted the *National Earthquake Hazards Reduction Program Reauthorization Act of 1990*. This act subsequently established the National Urban Search and Rescue Response System and further led to the institution of the *National Response Plan*.

Even in this very short span of time, there should be much to be said about isomorphic learning in the context of what these innovators did in the span of time up to the creation of South Carolina's task force in 2003, but a surprising lack of published material makes learning

from their experiences nearly impossible. Earlier research published by the author in regard to US&R response models (Mayers, 2007) discussed the prevalence of anecdotal evidence rather than scientific exploration; although these response model theories have held strong over time, the fact remains that improvement can always be advanced by looking at different industries with similar tools, components, techniques, or procedures in their operations to see what those outside the industry are doing.

The initial developers of these teams did just that in regard to the application of techniques used in structural relocation, construction and demolition (FEMA, 1995). They used incident management techniques refined in wildfire suppression. They also recently looked to existing water rescue initiatives to explore delivery of that service (Trainor, et al., 2007). The management and strategic planning of these programs, however, has generally not explored private sector initiatives nor has it looked into how other governments provide similar services. The prevailing philosophy so far has been, if it worked for our predecessors, it will work for us.

The previous failure of leaders to develop long-term plans for their organizations has been mostly attributed to the lack of, or the inability to predict, funding. Although an adequate revenue stream is imperative for program survival and a results-oriented budget necessary to provide a direction for positive movement, none of the arguments that defend the lack of a plan are defensible. The long and short of it is; that without a plan, most policy makers will continue to be reluctant to provide funding.

Given the failures of the FEMA US&R task forces to establish permanent funding that isn't tied to grants, and given that no changes to that scenario are anticipated (Bea, 2006; also Trainor, et al., 2007), the fate of at least a few of these organizations is headed down the road to disaster. One would have a difficult time going into the bank and asking for a loan to start a

business without a plan; why would anyone assume that this should be any different in the US&R world, other than the emotional argument that lives will be lost if we fail to act immediately?

Since US&R is, as said before, very much in its infancy, there is a lot of room for imagination as how it could evolve. That ambiguity, however, causes anxiety in the people who don't have vision as to what this service could strive for. Instead of pure US&R service, the tools and talent required for these teams could be effectively used for a wide range of disaster assistance, maximizing effectiveness and stretching the use of tax dollars. The South Carolina US&R Program must view each organizational issue and threat as an opportunity to capitalize upon. The first step toward doing so involves the development of a strategic plan.

Procedures

Research methodology

The desired outcome of this action research project was to develop a strategic plan for the State of South Carolina's urban search and rescue program. In order to create a high quality plan, evaluation of the existing body of information to determine the best practices for developing strategic plans was considered necessary. Furthermore, review of literature was indicated to determine what issues currently exist in the rescue industry that might pose problems or create opportunities for the organization, and surveying the organization's leadership to determine what course would be desirable to carry the program into the future was indicated.

Process

Searches were conducted for existing literature at the Learning Resource Center (LRC) of the National Fire Academy at Emmitsburg, Maryland; the Fire and Rescue Department Library, Hilton Head Island, South Carolina; at the Beaufort County (South Carolina) Library; the

Medical University of South Carolina Learning Resource Center; and the Savannah (Georgia) Technical Institute Library. Studies and reports were obtained through the Internet, and in particular, the archives of the University of Delaware Disaster Research Center and the University of Colorado at Boulder Natural Hazards Center.

The literature review supported the need to assess the program's strengths and weaknesses and to determine the priorities of the leadership. In order to obtain that information, the next step was to gather data by surveying the two groups most responsible for the overall management of the urban search and rescue program, the members of the South Carolina Firefighter Mobilization Oversight Committee, and the South Carolina Emergency Response Task Force Command Staff. The results were utilized to reconcile the strengths and weaknesses and the priorities for success as perceived from the Director's point of view with those of the governing bodies of the organization.

The participants of the first survey were members of the South Carolina Firefighter Mobilization Oversight Committee. This group represents the political and policy-authorizing arm of the equation. The chairman of the committee by law is the Chief State Fire Marshal and the vice-chairman the South Carolina Emergency Management Division Director. Further appointments to this committee are by gubernatorial authorization as recommended by the state's fire service representative organizations and one representative each from a county emergency management authority and the State Forester. The Executive Director of the South Carolina State Firefighters' Association also serves on the committee in a non-voting role. Not necessarily by design, these fire service members are all very respected and influential chiefs of department from fire departments around the state.

The second survey was given to command staff members of the South Carolina Emergency Response Task Force, who represent the operational management of the organization. This group is normally made up of the Director and Deputy Directors (Operations and Administration), Chief Medical Officer, Training Coordinator, Senior Advisor, and the Task Force Leaders. Each command staff member has significant background in urban search and rescue operations and training for their particular discipline, as well as years of management and leadership in their own home organizations.

Both surveys (see Appendix C) measured the same questions, asking the respondent to answer from their perspective as either a member of the State Firefighter Mobilization Oversight Committee or as a member of the SCERTF Command Staff. Each respondent was e-mailed the survey using an official task force mail list commonly used for corresponding within each group. All of the e-mail addresses were validated prior to sending the survey out to confirm that all members of both groups were receiving official task force correspondence at those addresses. In both cases, the e-mail was titled “South Carolina US&R Task Force Master Planning Survey” so that there was no confusion as to the nature of the e-mail and attachment. In the e-mail, the respondents were advised that the desired outcome of the survey was to gain information to develop a long-range strategic plan for the organization, and that in addition to the survey answers, if any desired to comment further or to explain the rationale behind a particular answer, to feel free to e-mail or call.

The survey’s introductory paragraph asked respondents to complete the survey and return it by a specified date. Two steps were required to answer questions; the respondent had to read the question, and then mark in the corresponding box with an “X”. The survey was formatted in a Microsoft Word document so that the respondent could mark it and return it electronically, or

print it and either fax it or mail it. The return e-mail address was embedded with a hyperlink on the first page; a phone number for any questions was also on the front page.

The publication *A Step-by-Step Guide to Developing Effective Questionnaires and Survey Procedures for Program Evaluation and Research* (Diem, 2002) was used to develop the survey format. A fixed response was desired and answers to each question were on a continuum format, given values of one through six as to not have a neutral choice. The choice of *one* indicated a low or less than favorable response and the selection of *six* indicated a high or positive response. The survey provided an equal ratio of positive to negative answers as to not skew responses in one direction or another.

In answer to the first question, “In addition to US&R response, what should be the role of the State US&R task force?” the respondents were to rate eleven items. The question was intended to measure the respondent’s perception as to what the mission of the US&R program should encompass. As part of the question, non-US&R issues that had been proposed in the past were added to investigate the interest of adding goals for those needs.

The questions were answered on a continuum with *one* representing “should not be addressed”; *two* representing “strongly disagree”; *three* representing “disagree”; *four* representing “agree”; *five* representing “highly agree”; and *six* representing “urgent, highest priority”. The items included questions on whether the US&R task force should respond to US&R incidents only; to support regional US&R needs; or to support traditionally non-US&R responses like water rescue, hazardous material releases, mass casualty incidents, or wildfires. Other items included questions on the US&R task force’s role in sharing knowledge with local departments, other state agencies, or with the public; in staffing incident support teams to work with the state’s planned incident management teams; working to increase the capabilities of the

regional US&R teams to a National Incident Management System (NIMS) Type 1 Collapse Rescue team (FEMA, 2005b); or to provide intelligence and reconnaissance for the State Warning Point.

The second question asked, “What do you see as the strengths and weaknesses of the current State US&R task force?” which intended to assess the perceived strengths and weaknesses of the current system, which covered past areas of concern. The respondents were to evaluate nineteen items on the continuum with *one* representing “completely unsuccessful”; *two* representing “unsuccessful”; *three* representing “occasionally unsuccessful”; *four* representing “some success”; *five* representing “moderate success”; and *six* representing “completely successful”. The items included personnel management issues like leadership, morale, professionalism, recruiting, education and training, and attendance. Other items included sharing knowledge with other agencies; interaction with vendors and the South Carolina Fire Academy; program evaluation and exercises; and planning of work. Items on financial management of the currently allocated budget and the progress in securing a sustained funding stream were asked to be evaluated, as well as items regarding apparatus, facility, equipment maintenance, communications, and the US&R task force website.

Question three asked the respondents, “What do you think should be the priorities of the State US&R task force?” The question intended to quantify the priority on addressing needs of the program. The respondents used the same nineteen items from the previous question which were rated on the continuum with *one* representing “should not be addressed”; *two* representing “very low priority”; *three* representing “low priority”; *four* representing “moderate priority”; *five* representing “high priority”; and *six* representing “urgent, highest priority”.

The final question, “Of these issues, which of these items reflect your ultimate vision of the State US&R task force?” was meant to inquire if there were other future opportunities or avenues of growth that the program should be concentrating on, in an effort to deliver a more valuable service to the constituency. The items covered in that question involved some of the options from the first question to test if respondents simply wanted to maintain the current status and not establish stretch goals, or if perhaps the program was too progressive for what respondents thought it should be. Other items were added to determine if respondents desired the program to continue forward with participation in standards and advocacy groups like the National Fire Protection Association and the State Urban Search and Rescue Alliance; contracting out for particular services like hazardous materials or medical support; to keep costs down; or to keep training to a minimum.

In question four, the respondents were to rank twenty items on the continuum with *one* representing “strongly disagree”; *two* representing “disagree”; *three* representing “not sure”; *four* representing “agree”; *five* representing “highly agree”; and *six* representing “urgent, highest priority.

As surveys were received, they were kept segregated by group to allow comparison of the answers between the views of the State Firefighter Mobilization Oversight Committee and those of the SCERTF Command Staff, in order to determine whether or not there was disparity in what one group saw as a priority or challenge, versus another.

The answers from each survey were scored corresponding to the number; then points were totaled and subsequently divided by the number of returned surveys to determine the average score for each answer. All scores were rounded to the nearest tenth.

Limitations and assumptions

The results of this research project were limited by some factors that should be noted. The literature review was limited by existing research on the subject; there were no instances where strategic plans could be found for urban search and rescue programs independent of several paragraphs in the plans of governing agencies of those programs. Much of the literature on urban search and rescue is restricted to anecdotal information supplied on search and rescue task forces by members of those same programs, implying a potential bias, rather than based on scientific findings.

Limitations present in the survey include the bias of the survey respondents, as their experiences and education would lend them to perceive one issue or another as being more or less important and might not necessarily represent the needs of the greater community. Assumptions were made that the respondents were well versed on the terminology and current concept of operation. There were failures of some to respond to the request for the survey, despite additional communications to encourage participation. This additional prompting encouraged some to fulfill the request, but not all.

Furthermore, the method of scoring the answers could cause any widely divergent point of view to be lost if there were a subsequent number of opposing answers, resulting in a deviation that would not reflect that discrepancy. In an effort to avoid that phenomenon, any wide variance in scoring was noted in the results and discussed, especially since those issues were ones that usually required more analysis.

A final limitation was that the survey population could have been opened up to more individuals in order to develop a more significant base of intelligence; this was not pursued for the purposes of the study. There is, however, a focus group meeting with the 24 current

SCERTF task force managers and Command Staff scheduled for September 19, 2007, where this body will be tasked with reviewing the draft strategic plan and making comments for the purpose of improvement or clarification.

Terms defined

Hazardous materials response (HAZMAT): For the purposes of the survey, existing hazardous materials response teams associated with the *South Carolina Emergency Operations Plan* and not associated with the Task Force were considered as a possible outside source for hazardous materials response issues.

Incident management teams: For the purposes of the survey, future incident management teams proposed for the *South Carolina Emergency Operations Plan* and not associated with the Task Force were suggested as a possible partnership for response issues.

Medical response: For the purposes of the survey, existing medical response teams associated with the *South Carolina Emergency Operations Plan* and not associated with the Task Force were considered as a possible outside source for medical response issues.

National incident management system (NIMS): The *National Incident Management System* search and rescue response asset equivalency was referenced for collapse rescue teams and urban search and rescue task forces.

Regional urban search and rescue: As defined in the South Carolina US&R Program, local fire departments identified and selected for response to US&R emergencies at the *National Incident Management System* equivalency for Type 2 Collapse Rescue Teams (FEMA, 2005b); intended to be part of a tiered response asset between local jurisdictional response and the State US&R Task Force response.

State Warning Point: As defined in the *South Carolina Emergency Operations Plan*, point of contact for the State Emergency Operations Division and necessary for collecting intelligence on disaster (or potential disaster) situations in the state.

Water rescue: For the purposes of the survey, existing water rescue response teams surveyed for future inclusion in the *South Carolina Emergency Operations Plan* and not associated with the Task Force were considered as a possible outside source for water rescue issues.

Results

Survey 1: South Carolina Firefighter Mobilization Oversight Committee members

Utilizing this group of individuals, eight out of eleven members responded to the survey, seven by e-mail and one by fax. In answer to the first question, “In addition to US&R response, what should be the role of the State US&R task force?” working with the regional US&R teams to increase their capabilities to a NIMS Type 1 classification received the highest mark of 5.1; in the cases of where sharing knowledge with local departments, state agencies, and the public were concerned, each of these achieved an average of 5.0. Responding also to support regional US&R teams at smaller incidents received an average score of 4.6; whereas staffing an incident support team to work with the proposed state incident management teams achieved a 4.4; and providing intelligence and reconnaissance for the State Warning Point scored a 4.3. Responding to support existing water rescue teams received a 3.8; supporting non-US&R activities like mass casualty incidents and wildfires received a 3.6; and supporting existing hazardous materials response teams received a 3.5. Responding to large-scale incidents only received an average score of 2.4.

In response to the question, “What do you see as the strengths and weaknesses of the current State US&R task force?” professionalism and current financial management received

scores of 5.4 and 5.5 respectively; education and training of personnel earned a 5.3; quality and appropriateness of issued uniforms and personal protective equipment rated a 5.1. Leadership and personnel management, recruitment of personnel, and quality and appropriateness of tools and equipment all received an average of 5.0 points.

Website issues scored an average of 4.9; planning of assigned work, apparatus categories, and attendance of personnel each rated a 4.6; and facility issues gained a 4.5. Interaction with vendors and program evaluation both rated a 4.4 average; equipment maintenance and the internal communications both scored an average of 4.0; morale of personnel scored 4.2. The sustained funding stream and budget planning issue achieved a 2.8 average from the survey.

When the State Mobilization Oversight Committee members were asked, “What do you think should be the priorities of the State US&R task force?” developing the sustained funding stream and planning the budget was the highest rated at 6.0; internal communications earned a 5.5; the category leadership and personnel management a 5.4; morale and attendance categories scored a 5.1.

Education and training of personnel as well as work planning and facility issues all shared a 5.0 rating. Professionalism of personnel and financial management both scored 4.9 along with and equipment maintenance and inventory; program evaluation and exercises earned a 4.8 rating; apparatus purchase and leasing fell in at 4.4; with tools and equipment right behind that category at 4.3 and interaction with vendors a 4.1. Sharing education with other agencies and uniforms and personal protective clothing issues shared a 3.8. Education of external customers ranked lowest at 3.5.

The final question was, “of these issues, which of these items reflect your ultimate vision of the State US&R task force?” Responding to support regional US&R teams at smaller incidents

was the highest rated at 4.9; sharing our knowledge with other state agencies, sharing knowledge with the public to prevent disaster, and daily staffing of personnel to insure program continuity rated similarly at 4.8; and sharing our knowledge with local departments achieved a 4.5.

Leading others through participation in advocacy scored a 4.4 and supporting others with customizable services scored a 4.3. Both categories of responding to support existing water rescue teams in flooding and leading others through participating in standards process earned a 4.0. Having our own typed water rescue response capability averaged 3.8; responding to support non-US&R activities achieved a 3.3; and responding to support existing hazardous materials teams at extended operations scored a 3.1. Turning over hazardous materials issues to contracted hazardous materials teams scored a 2.9; having our own typed hazardous materials response capability earned a 2.5; and keeping training to a minimum scored similarly to keeping attendance of personnel a minimum at 2.1.

Turning over medical issues to contracted medical teams and keeping costs low by using low bids whenever possible both earned a 2.0 rating; while responding to large scale US&R incidents only got a 1.6 and maintaining status quo achieved a 1.4 rating.

Survey 2: South Carolina Emergency Response Task Force Command Staff members

Eight out of the nine members responded to the survey, all of them by e-mail. In answer to the first question, “In addition to US&R response, what should be the role of the State US&R task force?” responding to support regional US&R teams at smaller incidents scored the highest with an average of 5.5, while working with the regional US&R teams to increase their capabilities to a NIMS Type 1 classification received a 5.1; sharing knowledge with other state agencies and staffing incident support teams to work with the incident management teams both scored 5.0.

Responding to support existing water rescue teams in flooding received an average score of 4.9; whereas sharing our knowledge with local departments gained a 4.8, as well as providing intelligence and reconnaissance for the State Warning Point. Sharing our knowledge with the public to prevent disaster received a 4.5; supporting non-US&R activities like mass casualty incidents and wildfires received a 3.8; and supporting existing hazardous materials response teams received a 2.9 and responding to large scale incidents only received an average score of 1.5.

The second question, “What do you see as the strengths and weaknesses of the current State US&R task force?” apparatus issues rated highest at 5.6, while the categories of quality and appropriateness of issued uniforms and personal protective equipment as well as that of tools and equipment both rated a 5.5. Leadership and personnel management shared a 4.5 score with professionalism of personnel, financial management of the current budget, and education and training.

Planning of assigned work earned a 4.4; recruitment a 3.9; and morale of personnel shared a 3.6 with interaction of vendors. Equipment maintenance scored a 3.4 average; attendance of personnel achieved a 3.3; program evaluation and exercises a 2.9; and sharing education with other agencies gained a 2.8. Internal communications was given a 2.6 average and the facility issues harbored a 2.5 score, followed by the sustained funding stream and budget planning with a 2.3 and the website with a 1.9.

The question, “What do you think should be the priorities of the State US&R task force?” resulted in the category of developing the sustained funding stream being given a rating of 5.8. Leadership and personnel management gained a 5.5 along with morale; professionalism of personnel was rated at 5.4 beside financial management of the current budget, program

evaluation and exercises, and attendance of personnel. Education and training of personnel shared a 5.3 with internal communication issues; securing a facility ranked a 5.1, as well as did equipment maintenance and inventory issues; work planning and apparatus issues achieved a 5.0; quality and appropriateness of tools and equipment a 4.9; interaction with vendors and sharing education with other agencies at 4.8; and quality and appropriateness of issued uniforms and personal protective clothing obtained a 4.6. External education scored a 4.4 and recruitment of personnel was lowest ranked at 4.3.

As with the first survey, the final question was, “of these issues, which of these items reflect your ultimate vision of the State US&R task force?” daily staffing of personnel to insure program continuity led with a 5.5; responding to support regional US&R teams at smaller incidents and leading others through participation in advocacy were both rated at 5.3; responding to support existing water rescue teams in flooding achieved a 5.1; and leading others through participating in the standards process earned a 5.0 average.

Sharing our knowledge with local departments scored an average of 4.9; sharing our knowledge with other state agencies a 4.8; and sharing knowledge with the public to prevent disaster was rated at 4.5. Having our own typed water rescue response capability averaged 4.3; responding to support non-US&R activities achieved a 4.0; to support existing hazardous materials teams at extended operations scored a 3.9; and supporting others with customizable services averaged a 3.8.

Turning over medical issues to contracted medical teams was equally popular as having our own typed hazardous materials response capability, which both earned a 2.5; responding to large scale US&R incidents received a 2.3; using low bids and keeping training to a minimum

both gained a 1.4; and maintaining status quo shared a 1.1 rating with keeping attendance of personnel to a minimum.

The survey purpose was to obtain information to assist in the development of the strategic plan by interviewing the primary leadership involved in the program. The intent was to determine the perceived role of the state US&R task force, strengths and weaknesses of the existing program, the participants' perspectives on priorities for the program, and opinions as to the future opportunities for the program growth. The questions asked in the survey were considered important to gauge the vision of the respondents and to investigate as to whether maintaining status quo was desired, or whether reaching out and delivering a better product was indicated. From that beginning, a proposed strategic plan was developed (see Appendix E) for submission to the State Firefighter Mobilization Oversight Committee and the SCERTF Command Staff for review and comment.

The information gathered was essential to establishing a new vision, mission, and goals. The goals listed in the plan adhered to the recommendations of being specific, measurable, achievable, and relevant (Cothran & Wysocki, 2005) to describe the end-target desired. Since it is unrealistic to thrust a time frame on the personnel who have to implement the plan without their feedback, that requirement will be met after scheduled discussions with managerial personnel.

The plan incorporated emerging issues that could pose challenges to the organization, but must also take on opportunities for success as they arise, which will make the organization stronger and sustainable. Many of the goals developed came as a result of the *FEMA US&R Task Force Self-Assessment Manual* (2004), but also took into account the vision of external customer service needs as expressed necessary by the survey participants.

Since the state US&R program had no strategic plan, the need to create a compelling vision and end-target in order to keep the organization moving in the direction desired was evident. However, the initial desire to create a plan that spanned a ten-year period was argued against in several articles (Center for Applied Research, 2005; also Foundation for Community Association Research, 2001; IFSTA, 2006) because of the rapid changes in technology, which could cause a plan to be quickly obsolete. As a result, the plan was established to cover a five-year span.

Discussion

The literature review provided a significant amount of information as to the development of a strategic plan and in how it should be constructed, as well as identified some of the issues pertinent to the future planning for the state US&R program.

Problems found with some long-term planning efforts indicated that failing to get input from key stakeholders and rejecting a formal planning process by making intuitive decisions conflicting with data were some of the reasons that caused failures in planning (Foundation for Community Association Research, 2001); thus the need to talk with leadership personnel and to survey their beliefs. This reason was one of the compelling arguments for conducting a survey.

The surveys incorporated questions to determine the strengths, weaknesses, opportunities, and threats to the organization (IFSTA, 2004; also McNamara, 2007; Alliance for Nonprofit Management, 2007). However, a few questions also were included to gauge the response to stretch goals (Vistage International, 2006), which are different than performance targets in that they are goals intended to inspire innovation processes considered currently unachievable, but can be striven for.

Given the information found in the literature review and the state US&R task force's current capabilities, it appeared that there were other opportunities that could expand the usefulness of this asset and allow it to provide a more meaningful contribution to the state's emergency response needs, especially in compliance with *Homeland Security Presidential Directives 5 and 8* to consider all-hazards response capability instead of focusing on terrorist events. A strategic plan to provide a map for the direction of the program will facilitate capitalization on these opportunities. The strategic plan must be readable, describe the desired outcome, and provide benchmarks along the way to identify successful progress (Shaw, et al., 1998; also IFSTA, 2004).

The surveys identified that the State Firefighter Mobilization Oversight Committee and the SCERTF Command Staff were not critically divergent from one another in their perception of the current status of the task force or in their vision for the future. With only a few exceptions, one could lay a transparency of one survey over the other and have achieved roughly the same result, which is comforting in that the operational leadership does not appear to be in conflict with what the political leadership envisions as a desired outcome.

Referring to the role of the State US&R task force, both the Mobilization Committee and the Command Staff specified in their survey returns that responding only to large scale US&R incidents was lowest ranked, indicating that they felt it was suitable to utilize the task force for other emergency support as necessary. Stepping outside of the realm of pure US&R missions is extraordinarily controversial in the greater US&R community (Trainor, et al., 2007) and has resulted in heated discussion not just at the federal levels, but also at the state and local levels as well. However, the survey participants appeared open-minded enough to see that for some issues, like support of the regional US&R teams, working with the regional teams to increase

capability, and response to support water rescue teams, were all considered to be within the role of the program.

Participants agreed that educating local departments and the public, as well as acting as a reconnaissance agent for the State Warning Point were also roles for the task force to perform (see Table D1).

Identification of strengths and weaknesses of the current State US&R task force, however, indicated some slight differences that may be related only to the phrasing of the questionnaire (see Table D2). The Command Staff rated the issues of apparatus, uniforms, personal protective equipment, tools and equipment as being successful strengths of the program, while the Mobilization Committee only indicated these same issues as moderately so.

Each group appeared to agree that the funding stream issue was the most critical weakness, but the facility, program evaluation and exercises, sharing education with other agencies and the website had mixed opinions, with the Command Staff being most critical of the website and the facility, in comparison to the Mobilization Committee opinion of those two subjects, which had them rated with some success.

Similar issues are found significant in other US&R organizations as well (Bea, 2006; also Trainor, et al., 2007; SUSAR, 2006). These three issues have had the most effort from both groups to try to rectify and will continue to be areas where resources must be allocated to shore up their impact on the organization.

In 2007, the working relationships SCERTF maintained with other agencies resulted in some successes that were not reflected in the answers of the survey. The funding stream issue was partially resolved with a proviso in the general appropriations bill (South Carolina General Assembly, 2007) that was largely the result of intervention of the South Carolina Firefighters'

Association; the area at the state fire academy which has been home for SCERTF since the beginning of the program was known to be a temporary solution to the warehousing question, but in partnership with the Department of Fire and Life Safety and the state fire academy, design was completed and bids have already been awarded for the construction of a new facility projected for completion in Spring 2008 (personal communication, J. Reich, July 29, 2007). The Department of Fire and Life Safety was also instrumental in assisting with website issues, among many other things, which were partially resolved by assigning the site maintenance to personnel allocated to doing this on a regular basis, permitting this valuable educational tool to be kept in a more professional manner.

Looking forward then, the two groups appeared to also agree on the perceived priorities of the state US&R program, resulting in the almost unanimous placement of the funding stream and budget planning as the first priority (see Table D3), with the leadership, management and morale of personnel coming up very closely behind. Budget planning issues are illustrated as a priority issue with the Governor's Office also, as indicated within the *Executive Budget* (Sanford, 2006). Recommendations to insure that the budget allocations are results oriented are a key desire of the Governor and therefore should be strongly considered.

Personnel recruitment was last in both surveys as well; informal discussions with respondents indicated that this was probably a result of the success that has already been established in obtaining a steady stream of applicants and the difficulty in maintaining the requirements of the personnel already on the roster.

The shared vision of the state US&R task force provided the most interesting observations though. Given the relatively tight responses for support of staffing, sharing knowledge with the public, as well as local and state responders, participating in advocacy and

standard promulgation, and supporting regional special operations response, there appears to be consensus with these issues (see Table D4).

Just as well, there appears to be no support to maintain status quo, minimize training or attendance, accept a low-bid only posture, or to limit response. Likewise, turning over medical issues to contracted medical teams didn't appear to be supported.

Response to support of non-US&R activities, having our own typed water rescue capability, and turning over hazardous materials issues were not consistent on either survey. Where the implication of non-US&R support may have lent to confusion as to what missions the organization might take on, there is obviously some dissent in regard to how involved the program should be on the subject of the water rescue and hazardous materials.

In regard to the water rescue issues, further discussions with both groups seemed to indicate a desire to use existing water rescue teams to provide this service and SCERTF only to provide the overhead assistance by providing a more robust command and control structure.

Trainor, et al. (2007) related that in an interview with at least one key federal US&R informant,

“We should have a line item for resource development within all the states to do everything from urban search and rescue through swift-water rescue, hazardous materials, so that we got a nationwide system. And then what you've got is not just 28, you know, very elite task forces, (but instead) you've got literally hundreds of well trained, well qualified teams that can be used interchangeably anywhere in the country.” (p.32)

The hazardous materials discussion also goes to logic of whether or not to use an under-utilized resource that already exists in South Carolina, where literally tens of millions of dollars have been poured into funding local assets with suspect ability to deploy and operate. Instead, the thought goes, to satisfy the need of the US&R task force to deploy personnel and equipment

for hazardous materials/WMD considerations, some of those local teams could be selected to undergo an evaluation and typing, and then the selected asset would be deployed instead. The savings in using the existing teams to fulfill the hazardous materials component on the task force would not only reduce cost to the program, but also minimizing the impact of staffing these positions with task force personnel when they could be used to staff other areas. Simply working with several of the fourteen hazardous materials teams that participate in the state's WMD response program (COBRA) to identify a pool of personnel who could be trained and able to respond would provide relief from that situation. In any case, contracting outside services does not appear to have wholesale support and therefore should not be a major emphasis of the program.

The presence of so many redundant components within the local and state emergency response providers and very little in regard to a jointly managed and supported response seems wasteful and inefficient. Burkle and Hayden (2001) state that horizontal organizations have emerged as options to the vertical model of management, especially when a multi-agency or multi-disciplinary approach has been required like as exists in US&R response. This concept is especially workable when trying to solve major problems for which no one agency or organization has the answer.

Traditional governmental and non-governmental agencies have vertical management structures that foster *stovepipes*, or obstructions to communication where access is only at the top or bottom, no connections across from one pipe to the next, and characterized by little or no communication or possibility of functional collaboration between the pipes.

Therefore, it seems imperative that disciplines should be talking with other disciplines, agencies to other agencies, and governmental agencies talking with non-governmental agencies,

private industry and the public. The sharing of information within focus groups or work teams will only aid in functional communications when the next crisis comes to bear on the community.

Trainor, et al. and Bea's reports on the current FEMA US&R system and recommendations for the future of that program correlate with the findings of the surveys conducted with the State Firefighter Mobilization Oversight Committee and the SCERTF Command Staff. There seems to be plenty of indication that increasing capability, creating a network approach among local actors and state assets, and better long-term planning are positive efforts toward a visionary state US&R program.

Recommendations

As it exists currently, the state US&R program consists only of SCERTF in its form as a Type 1 or Type 2 US&R task force. The regional response teams are essentially assets that respond under the State Mutual Aid Agreement and there are currently no binding agreements that make those teams part of the state US&R program any more than an individual fire department is part of the state program.

These regional response teams were rescue teams that existed prior to the creation of the program. An effort to unite US&R response in the state under one plan might be problematic, but incentive to do so should be encouraged by giving the regional teams an opportunity to be part of a unified program. These players would remain independent and agree to offer the US&R asset if available, as was understood when they were issued equipment and vehicles through the State Homeland Security Assistance Grants. The goal, however, would be to agree on a scope of operation for particular responses and to agree on the criteria for remaining part of the program, including adherence to typing and credentialing standards. The benefit to the

regional teams would be inclusion into the response plan, plus some financial support of their program to offset some of the costs of training and equipment use.

The development of an overall state strategic plan would be beneficial, but because SCERTF is a state-wide resource and utilizes the talents shared from over forty separate emergency agencies, the organization will continue to be at the mercy of the sponsoring departments of the membership in regard to allowing certain levels of participation and supporting members with reimbursement for expenses incurred in training or logistics sessions.

Egos tend to exacerbate problems when someone feels their employee or their response asset isn't getting their due. All of the chiefs and managers of these affected organizations need to put their egos aside to realize a greater whole and the state US&R program must do a better job of keeping those chiefs informed and supported as well. So far, this effort has been hugely successful, although there have been one or two moments where challenges have occurred. Education of the emergency service leaders and recruitment of informed and enlightened leaders for the state US&R program appears to be a key. If practiced correctly, a strategic plan is the glue holding the entire program together.

Opportunities exist to virtually reinvent the current state US&R program, setting an example of good stewardship to other emergency providers by using existing assets to create more comprehensive support to the emergency response community. Instead of four or five local departments purchasing additional equipment to form teams that might respond occasionally, a unified program can acquire supplementary equipment that might not be used as often at the local level, and respond it as needed to the disasters. If an equitable partnership could be achieved with the state fire academy, there could be a wealth of support for educating

more than just the US&R team personnel; there could be the opportunity to educate all of the local responders who choose to form water rescue or lower-tier US&R response teams.

The partnerships we have formed through SUSAR with neighboring states have become valuable in securing back-up assets to the plan and will only grow using the Emergency Management Assistance Compact, or in the future, a national mutual aid program. In each scenario, active participation in networks will build these capabilities.

The question is to whether the current way that South Carolina is providing search and rescue is the most effective use of taxpayer funds, or not. California and Texas have already begun the aggressive transition from a pure US&R application to that of providing state-sponsored response to other types of incidents and these assets, particularly the water response with command and control packages, have been tested over and over again during the summer of 2007 with the heavy rains in Texas.

South Carolina is no different from any other state when it comes to the presence of first responder technical rescue teams; many seem to exist at the local level, only they traditionally struggle with funding. That funding struggle usually translates to lesser-than-desired capabilities in particular areas: multi-unit command and control, communications, and logistical support, of the most obvious. It does not seem to be an effective use of taxpayer funds for the state US&R program to create another response asset for these types of incidents when those assets already exist and need support to enhance them to a desired capability. Logic dictates that developing a support structure for these assets would be a wise choice.

For example, water rescue teams, because of their size and their ability to move, have to travel light, but these teams require logistical support for more prolonged operations. They do not normally travel with hazardous materials decontamination abilities and the water they will be

operating in is most assuredly contaminated. This seems to be a good application for a joint deployment with one of the state's hazardous materials teams. Water rescue teams are not equipped with berthing capabilities or robust communications abilities. SCERTF has these resources loaded and ready to move at a moment's notice.

Likewise, the collapse rescue team models are a lot like the water rescue team models, and equipped for much of what will be seen after a hurricane in regard to rescue in associated debris, but not with all of the overhead support of a task force. The most apparent solution would be to utilize existing resources married to the reinforced assets of the state US&R task force that could be sent into a community and insure proper coverage of rescue needs.

Local response assets should be employed to perform light duty rescue and hasty search as has been developed in California and is currently being advocated in Florida's US&R program. These assets would be grouped with other resources to create strike teams as part of a statewide mutual aid system. Again, if utilized along with appropriate support, these could be valuable to search missions and a plan for utilizing these assets in that method would be strongly recommended.

The literature review lent further credence to the idea that US&R teams around the nation were making attempts to stretch their horizons by including hazardous materials/WMD and water rescue response to their capabilities, but that these adaptations were not being seriously considered by the federal policy-makers in the FEMA US&R program management office (Trainor, et al., 2007).

The surveys answered some questions in the manner already suspected from the literature review; that our capabilities would be wisely used in support to local providers, building trust and cooperation, especially in regard to educating them and providing a robust command and

control asset to manage disasters. These responders could not afford this ability on their own, they would not use it as regularly even if they could afford it, and they don't possess the human resources to staff these type of resources anyway. Deciding to do so anyway in the presence of these assumptions would appear to be counterintuitive.

Earlier research revealed that failures for some agencies to incorporate a state asset into their disaster plans had to do with mistrust of the intentions of those assets (Mayers, 2005). Capacity building in this tiered response mode should help alleviate some of those concerns. Success in disaster management is directly related to risk identification, which leads to analysis and preparation; the key is getting the state's emergency service leaders to realize that and act accordingly.

As part of the action research requirement, a proposed strategic plan (see Appendix E) has been made a part of this report. In it, the plan proposes these recommendations to advance the cause of the state US&R program:

- a. The state US&R program shall develop and utilize a strategic plan based on best practices that include results-oriented budgeting, meeting goals designed to achieve the vision and mission of the program, and relating to the program's core values.
- b. The state US&R program shall be established as an entity under oversight of the State Fire Marshal and the State Firefighter Mobilization Oversight Committee, appointing a full-time program manager to coordinate and supervise the fulfillment of the Strategic Plan.
- c. The SCERTF shall work with the state US&R program as a response asset, joined by the four regional US&R response teams, to establish a Program Management

Group assisting the US&R program manager in the implementation of the Strategic Plan.

- d. The state US&R program shall adopt the National Incident Management System definitions for resource typing and credentialing and submit that terminology for amendments to the State Emergency Operations Plan.
- e. The state US&R program should identify and develop water rescue assets and US&R engine companies at the local levels and form response capability that could be used creatively in the scope of a disaster.
- f. The state US&R program should continue to be active in sharing information and obtaining ideas through participation in industry working groups and committees, working to use objective evidence to develop plans and capacity.

The strategic plan utilizes the best practices obtained through the research of this paper and incorporates the analysis of strengths, weaknesses, opportunities, and threats to develop a workable plan with measurable goals and objectives. This project will be turned over to the South Carolina Firefighter Mobilization Oversight Committee and the SCERTF Command Staff for further review, discussion, and revision to include input from those key personnel. A meeting is scheduled of the SCERTF managers in September 2007 to further receive input and come to a workable solution.

South Carolina's US&R program must consider the challenges issued by Governor Sanford in the Executive Budget, to insure expenditures are related to goals and are output driven. Since SCERTF has a call to deliver a more rapid response to save lives, there are innovative methods that can be employed to improve that service. Participation in networking

opportunities improves the organization's knowledge base as well as enhancing the knowledge of other providers both in and out of the state.

South Carolina has the opportunity to race to the lead in providing a world-class emergency service with local community values. Developing a strategic plan that reflects those values will be the element to take the program there.

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Appendix A

Table A1

List of fire service master plans reviewed

Fire service master plans		
Organization	State/Province	Year Conducted
Alachua County Fire and EMS	Florida	2004
Boulder Fire Department	Colorado	1996
Bozeman Fire Department	Montana	2006
Castle Rock Fire and Rescue	Colorado	2004
Gilroy Fire Department	California	2003
Hilton Head Island Fire and Rescue Department	South Carolina	2005
Maple Ridge Fire and Rescue	Ontario, Canada	2003
Olympia Fire Department	Washington	2004
Pasadena Fire Department	California	2005
Santa Rosa Fire Department	California	2005
Shreveport Fire Department	Louisiana	2005
Texas Commission on Fire Protection	Texas	2007

Table A2

List of community master plans reviewed

Entity	Community master plans		Program that plan was conducted for
	State or Province	Year Conducted	
Desert Shores (Las Vegas)	Nevada	2006	Planned community
Crystal Lakes (Larimer County)	Colorado	2001	Road and recreation association
Long Beach (City of)	New York	2005	Municipal
Los Ranchos (Village of)	New Mexico	2000	Municipal
Palm Bay	Florida	2006	Utility and water
Pelican Cove (Sarasota)	Florida	2001	Condominium association
Tellico Village (Loudon)	Tennessee	2000	Planned community
University of Utah	Utah	2001	Campus
Village at Craig Ranch (N. Las Vegas)	Nevada	1999	Homeowners association

Appendix B

Results of informal question on sustained funding of state urban search and rescue programs

Question: “Does your state urban search and rescue program have a current sustained revenue stream?”

Clarification: Funding for operational needs independent of federal non-recurring grants; “Yes” indicates state does have a funding stream in place, “No” indicates the state does not.

State		State	
Alabama	Did not reply	Montana	Did not reply
Alaska	No	Nebraska	Did not reply
Arizona	Did not reply	Nevada	Did not reply
Arkansas	No	New Jersey	Yes
California	Yes	New Hampshire	Did not reply
Colorado	Did not reply	New Mexico	Did not reply
Connecticut	No	New York	Yes (2007)
Delaware	No	North Carolina	No
District of Columbia	Did not reply	North Dakota	Did not reply
Florida	Yes	Ohio	No
Georgia	No	Oklahoma	No
Hawaii	No	Oregon	No
Illinois	No	Pennsylvania	Did not reply
Idaho	No	Puerto Rico	No
Indiana	No	Rhode Island	No
Iowa	No	South Carolina	Yes (2007)
Kansas	No	South Dakota	Did not reply
Kentucky	No	Tennessee	No
Louisiana	No	Texas	Yes
Maine	Did not reply	Utah	Did not reply
Maryland	No	Vermont	No
Massachusetts	Did not reply	Virginia	Did not reply
Michigan	No	Washington	Did not reply
Minnesota	No	West Virginia	No
Missouri	Did not reply	Wisconsin	Did not reply
Mississippi	Did not reply	Wyoming	Did not reply

Appendix C

Example of survey sent to South Carolina Firefighter Mobilization Oversight Committee and South Carolina Emergency Response Task Force command staff

Dear Mobilization Committee and Task Force Command Staff members;

I have been working toward the development of a long-range plan for the organization. As it works out, I have also chosen to perform this duty to satisfy a research requirement of the Executive Fire Officer Program and would like your perspective on where you see our program and where we should be heading. If you could take the time to complete this survey and return it to me by April 27th, I would be very appreciative. You can just mark the box with an "X" and return it by e-mail, or print it, complete it, and fax it to me at 843-785-2809. If you have any questions, or wish to comment, please feel free to do so. You can e-mail me at truck6alpha@aol.com or call me at 803-518-7609. Many thanks for your support of our program so far and for your guidance in the future.

Mick Mayers
 Director, Urban Search and Rescue Program

From your perspective as a member of MOBCOM or the Task Force Command Staff...

1. Of these issues, what should be the role of the State US&R task force? (This is IN ADDITION TO US&R response).

	1- Should not be addressed; 2- Strongly disagree; 3- Disagree; 4- Agree; 5- Highly agree; 6; Urgent, highest priority					
	1	2	3	4	5	6
• Respond to large scale US&R incidents only						
• Respond also to support regional US&R teams at smaller incidents						
• Respond to support existing water rescue teams in flooding						
• Respond to support existing HAZMAT teams at extended operations						
• Respond to support non-US&R activities (mass casualty incident support, wildfire support, etc.)						
• Sharing our knowledge with local departments						
• Sharing our knowledge with other state agencies						
• Sharing our knowledge with the public to prevent disaster						
• Staff incident support teams to work with planned state IMTs						
• Work with regional US&R teams to increase capabilities to Type 1 Collapse Rescue teams (not US&R task forces)						
• Provide intelligence and reconnaissance for the State Warning Point						

From your perspective as a member of MOBCOM or the Task Force Command Staff...

2. What do you see as the strengths and weaknesses of the current State US&R task force?

	1- Completely unsuccessful; 2- Unsuccessful; 3- Occasionally unsuccessful; 4- Some success; 5- Moderate success; 6; Completely successful					
	1	2	3	4	5	6
• Leadership and personnel management						
• Morale of personnel						
• Professionalism of personnel						
• Financial management of currently allocated budget						
• Sustained funding stream and budget planning						

• Recruitment of personnel						
• Education and training of personnel						
• Sharing education with other agencies						
• Interaction with vendors, including SC Fire Academy						
• Program evaluation and exercises						
• Planning of assigned work						
• Quality and appropriateness of issued uniforms and PPE						
• Quality and appropriateness of tools and equipment						
• Apparatus						
• Facility						
• Equipment maintenance						
• Internal communications						
• Website						
• Attendance of personnel						

From your perspective as a member of MOBCOM or the Task Force Command Staff...

1- Should not be addressed; 2- Very low priority; 3- Low priority; 4- Moderate priority; 5- High priority; 6; Urgent, high highest priority

3. What do you think should be the priorities of the State US&R task force?

	1	2	3	4	5	6
• Leadership and personnel management						
• Morale of personnel						
• Professionalism of personnel						
• Financial management of currently allocated budget						
• Sustained funding stream and budget planning						
• Recruitment of personnel						
• Education and training of personnel						
• Sharing education with other agencies						
• Interaction with vendors, including SC Fire Academy						
• Program evaluation and exercises						
• Planning of assigned work						
• Quality and appropriateness of issued uniforms and PPE						
• Quality and appropriateness of tools and equipment						
• Apparatus (purchase or leasing of apparatus including cranes, trucks, buses, etc.)						
• Facility (headquarters and training areas, warehousing, etc.)						
• Equipment maintenance and inventory						
• Internal communications (website, e-groups, communication lists, etc.)						
• External education (website, brochures, conference booths, etc.)						
• Attendance of personnel						

From your perspective as a member of MOBCOM or the Task Force Command Staff...

1- Strongly disagree; 2- Disagree; 3- Not sure; 4- Agree; 5- Highly agree; 6; Urgent, highest priority

4. Of these issues, which of these items reflect your ultimate vision of the State US&R task force?

	1	2	3	4	5	6
• Respond to large scale US&R incidents only						
• Respond also to support regional US&R teams at smaller incidents						
• Respond to support existing water rescue teams in flooding						
• Respond to support existing HAZMAT teams at extended operations						
• Respond to support non-US&R activities (mass casualty incident support, wildfire support, etc.)						
• Sharing our knowledge with local departments						
• Sharing our knowledge with other state agencies						
• Sharing our knowledge with the public to prevent disaster						
• Supporting others with customizable services						
• Leading others through participation in standards process (NFPA)						
• Leading others through participation in advocacy (SUSAR)						
• Turning over HAZMAT issues to contracted HAZMAT teams						
• Turning over medical issues to contracted medical teams						
• Maintaining status quo to not disrupt current system						
• Keeping costs low by using low bids whenever possible						
• Having our own typed HAZMAT response capability						
• Having our own typed water rescue response capability						
• Keep training to a minimum						
• Keep attendance of personnel to a minimum						
• Daily staffing of personnel to insure continuity of program						

Appendix D

Table D1

Results of survey question 1: “What should be the role of the State US&R task force?”

Item	Responses					
	High		Low		Average	
	MOB	CMD	MOB	CMD	MOB	CMD
Respond to large scale US&R incidents only	3 (3)	3 (1)	2 (5)	1 (5)	2.4	1.5
Respond also to support regional US&R teams at smaller incidents	5 (5)	6 (5)	4 (3)	4 (1)	4.6	5.5
Respond to support existing water rescue teams in flooding	4 (6)	6 (2)	3 (2)	4 (3)	3.8	4.9
Respond to support existing HAZMAT teams at extended operations	4 (4)	5 (1)	3 (4)	1 (2)	3.5	2.9
Respond to support non-US&R activities (mass casualty incident support, wildfire support, etc.)	4 (5)	6 (1)	3 (3)	1 (1)	3.6	3.8
Sharing our knowledge with local departments	5 (8)	6 (1)	-	4 (3)	5.0	4.8
Sharing our knowledge with other state agencies	5 (8)	6 (1)	-	4 (1)	5.0	5.0
Sharing our knowledge with the public to prevent disaster	5 (8)	6 (1)	-	3 (1)	5.0	4.5
Staff incident support teams to work with planned state IMTs	5 (5)	6 (2)	3 (2)	4 (2)	4.4	5.0
Work with regional US&R teams to increase capabilities to Type 1 Collapse Rescue Teams (not US&R task forces)	6 (3)	6 (2)	4 (2)	4 (1)	5.1	5.1
Provide intelligence and reconnaissance for the State Warning Point	5 (4)	5 (6)	3 (2)	4 (2)	4.3	4.8

Note. *High* and *low* indicate highest score and lowest score given with number of responses at

that level in parentheses. MOB = State Firefighter Mobilization Oversight Committee response; CMD = Task Force Command Staff response. Dashes indicate unanimous score in that category. 6 = Urgent, high priority; 5 = Highly agree; 4 = Agree; 3 = Disagree; 2= Strongly disagree; 1= Should not be addressed.

Table D2

Results of survey question 2: “What do you see as the strengths and weaknesses of the current State US&R task force?”

Item	Responses					
	High		Low		Average	
	MOB	CMD	MOB	CMD	MOB	CMD
Leadership and personnel management	5 (8)	6 (1)	-	4 (5)	5.0	4.5
Morale of personnel	5 (2)	4 (5)	4 (6)	3 (3)	4.3	3.6
Professionalism of personnel	6 (3)	5 (5)	5 (5)	3 (1)	5.4	4.5
Financial management of currently allocated budget	6 (4)	5 (4)	5 (4)	4 (4)	5.5	4.5
Sustained funding stream and budget planning	4 (4)	5 (1)	1 (2)	1 (4)	2.8	2.3
Recruitment of personnel	6 (2)	5 (2)	4 (2)	3 (3)	5.0	3.9
Education and training of personnel	6 (2)	5 (4)	5 (6)	4 (4)	5.3	4.5
Sharing education with other agencies	6 (2)	4 (2)	4 (4)	2 (4)	4.8	2.8
Interaction with vendors, including SC Fire Academy	6 (1)	4 (5)	3 (2)	3 (3)	4.4	3.6
Program evaluation and exercises	5 (3)	4 (2)	4 (5)	2 (3)	4.4	2.9
Planning of assigned work	5 (5)	5 (3)	4 (3)	4 (5)	4.6	4.4
Quality and appropriateness of issued uniforms and PPE	6 (3)	6 (4)	4 (2)	5 (4)	5.1	5.5
Quality and appropriateness of tools and equipment	6 (2)	6 (4)	4 (2)	5 (4)	5.0	5.5
Apparatus	5 (5)	6 (5)	4 (3)	5 (3)	4.6	5.6
Facility	5 (4)	4 (2)	4 (4)	1 (1)	4.5	2.5
Equipment maintenance	5 (3)	5 (1)	3 (3)	2 (1)	4.0	3.4

Item	Responses					
	High		Low		Average	
	MOB	CMD	MOB	CMD	MOB	CMD
Internal communications	5 (3)	4 (1)	3 (3)	2 (4)	4.0	2.6
Website	6 (2)	3 (2)	4 (3)	1 (3)	4.9	1.9
Attendance of personnel	5 (5)	4 (2)	4 (3)	3 (6)	4.6	3.3

Note. *High* and *low* indicate highest score and lowest score given with number of responses at that level in parentheses. MOB = State Firefighter Mobilization Oversight Committee response; CMD = Task Force Command Staff response. Dashes indicate unanimous score in that category. 6 = Completely successful; 5 = Moderate success; 4 = Some success; 3 = Occasionally unsuccessful; 2= Unsuccessful; 1= Completely unsuccessful.

Table D3

Results of survey question 3: “What do you think should be the priorities of the State US&R task force?”

Item	Responses					
	High		Low		Average	
	MOB	CMD	MOB	CMD	MOB	CMD
Leadership and personnel management	6 (3)	6 (4)	5 (5)	5 (4)	5.4	5.5
Morale of personnel	6 (3)	6 (4)	4 (2)	5 (4)	5.1	5.5
Professionalism of personnel	5 (7)	6 (3)	4 (1)	5 (5)	4.9	5.4
Financial management of currently allocated budget	6 (1)	6 (3)	4 (2)	5 (5)	4.9	5.4
Sustained funding stream and budget planning	6 (8)	6 (6)	-	5 (2)	6.0	5.8
Recruitment of personnel	5 (1)	5 (3)	2 (2)	3 (1)	3.1	4.3
Education and training of personnel	6 (2)	6 (2)	4 (2)	5 (6)	5.0	5.3
Sharing education with other agencies	4 (6)	6 (2)	3 (2)	4 (4)	3.8	4.8
Interaction with vendors, including SC Fire Academy	5 (2)	6 (2)	3 (1)	4 (4)	4.1	4.8
Program evaluation and exercises	6 (2)	6 (3)	4 (4)	5 (5)	4.8	5.4
Planning of assigned work	6 (2)	6 (2)	4 (2)	4 (2)	5.0	5.0
Quality and appropriateness of issued uniforms and PPE	5 (2)	6 (2)	2 (1)	3 (1)	3.8	4.6
Quality and appropriateness of tools and equipment	5 (3)	6 (2)	3 (1)	4 (3)	4.3	4.9
Apparatus (purchase or leasing of apparatus, including cranes, trucks, buses, etc.)	5 (5)	6 (2)	2 (1)	4 (2)	4.4	5.0
Facility (headquarters and training areas, warehousing, etc.)	6 (3)	6 (2)	4 (3)	4 (1)	5.0	5.1
Equipment maintenance and inventory	5 (7)	6 (1)	4 (1)	5 (7)	4.9	5.1

Item	Responses					
	High		Low		Average	
	MOB	CMD	MOB	CMD	MOB	CMD
Internal communications (website, e-groups, communication lists, etc.)	6 (5)	6 (2)	4 (1)	5 (6)	5.5	5.3
External education (website, brochures, conference booths, etc.)	5 (2)	6 (2)	2 (1)	3 (2)	3.5	4.4
Attendance of personnel	6 (3)	6 (3)	4 (2)	5 (5)	5.1	5.4

Note. *High* and *low* indicate highest score and lowest score given with number of responses at

that level in parentheses. MOB = State Firefighter Mobilization Oversight Committee response; CMD = Task Force Command Staff response. Dashes indicate unanimous score in that category. 6 = Urgent, high priority; 5 = High priority; 4 = Moderate priority; 3 = Low priority; 2= Very low priority; 1= Should not be addressed.

Table D4

Results of survey question 4: “Of these issues, which of these items reflect your ultimate vision of the State US&R task force?”

Item	Responses					
	High		Low		Average	
	MOB	CMD	MOB	CMD	MOB	CMD
Respond to large scale US&R incidents only	3 (1)	4 (1)	1 (4)	1 (2)	1.6	2.3
Respond also to support regional US&R teams at smaller incidents	6 (2)	6 (4)	4 (3)	4 (2)	4.9	5.3
Respond to support existing water rescue teams in flooding	5 (2)	6 (3)	3 (2)	3 (1)	4.0	5.1
Respond to support existing HAZMAT teams at extended operations	5 (1)	6 (1)	2 (3)	1 (1)	3.1	3.9
Respond to support non-US&R activities (mass casualty incident support, wildfire support, etc.)	5 (1)	6 (1)	2 (2)	1 (1)	3.3	4.0
Sharing our knowledge with local departments	5 (4)	5 (7)	4 (4)	4 (1)	4.5	4.9
Sharing our knowledge with other state agencies	6 (1)	5 (6)	4 (3)	4 (2)	4.8	4.8
Sharing our knowledge with the public to prevent disaster	6 (1)	5 (4)	4 (3)	4 (4)	4.8	4.5
Supporting others with customizable services	6 (1)	5 (2)	3 (2)	4 (3)	4.3	3.8
Leading others through participation in standards process (NFPA)	6 (1)	4 (2)	3 (3)	4 (2)	4.0	5.0
Leading others through participation in advocacy (SUSAR)	6 (1)	6 (3)	3 (1)	4 (1)	4.4	5.3
Turning over HAZMAT issues to contracted HAZMAT teams	4 (2)	5 (1)	2 (3)	1 (1)	2.9	3.0
Turning over medical issues to contracted medical teams	3 (1)	5 (1)	1 (1)	1 (2)	2.0	2.5
Maintaining status quo to not disrupt current system	2 (3)	2 (1)	1 (5)	1 (7)	1.4	1.1
Keeping costs low by using low bids whenever possible	3 (2)	3 (1)	1 (2)	1 (6)	2.0	1.4
Having our own typed HAZMAT capability	4 (2)	6 (1)	1 (1)	1 (2)	2.5	2.5

Item	Responses					
	High		Low		Average	
	MOB	CMD	MOB	CMD	MOB	CMD
Having our own typed water rescue response capability	5 (2)	6 (3)	3 (4)	2 (1)	3.8	4.3
Keep training to a minimum	4 (1)	2 (3)	1 (4)	1 (5)	2.1	1.4
Keep attendance of personnel to a minimum	4 (1)	2 (1)	1 (3)	1 (7)	2.1	1.1
Daily staffing of personnel to insure continuity of program	6 (1)	6 (4)	4 (3)	5 (4)	4.8	5.5

Note. *High* and *low* indicate highest score and lowest score given with number of responses at

that level in parentheses. MOB = State Firefighter Mobilization Oversight Committee response; CMD = Task Force Command Staff response. Dashes indicate unanimous score in that category. 6 = Urgent, high priority; 5 = Highly agree; 4 = Agree; 3 = Not sure; 2= Disagree; 1= Strongly disagree.

Appendix E

South Carolina Urban Search and Rescue Program Strategic Plan Fiscal Years 2008 - 2013

South Carolina Emergency Response Task Force and the South Carolina Firefighter Mobilization Oversight Committee



EXECUTIVE SUMMARY

The South Carolina Urban Search and Rescue Program was organized for the purpose of meeting the needs of the State of South Carolina as related to urban search and rescue (US&R); that is, to *“respond to natural and man-made disasters to provide search and rescue, medical support, damage assessment, and assist in the coordination of relief.”* The program uses the talents of our state’s finest emergency service personnel, aided by civilian providers; physicians, structural engineers, and others like them, in a totally cooperative effort to help those affected by disaster.

As illustrated during Hurricane Hugo and as recently as Hurricane Katrina, the Southeastern United States, and South Carolina in particular, have the potential for disaster. The charge handed down by Presidential Directive includes an “all-hazards” approach to meet these forces of nature as well as to counter the effects of man-made disasters upon the community. As made evident by many recent disasters, waiting for federalization of an emergency is no solution.

A strategic plan was necessary to facilitate the transition between the initial implementation plan and the future of the program. The plan has so far incorporated the assets of the South Carolina Emergency Response Task Force (SCERTF) and four regional response teams to provide an appropriate and cost-efficient response to this challenge.

The state US&R program strategic plan makes certain changes to improve the service delivery of the program. The goals and objectives identified shall establish the state US&R program as an entity led by a program manager reporting to the State Fire Marshal and advised by the South Carolina Firefighter Mobilization Oversight Committee; establishes support staff reporting to the program manager; modifies the current program with improvements to capability, particularly in support to local and regional response; and brings the regional response teams into the program with more opportunity to contribute to the overall outcome.

Major philosophy changes include establishing SCERTF as an entity supported by the program with defined direction; identification and support of selected local assets to create a water rescue capability; and similarly identifying and supporting selected local assets to create a light US&R response that can form US&R strike teams for wide-area post-disaster search and rescue.

Funding for the necessary physical resources has been so far provided through federally funded grants, utilization of the \$165,000 allocated to South Carolina Firefighter Mobilization, and a proviso allocation of \$983,850 through the General Assembly. The lack of sustained funding, however, hinders the future of the US&R program. A concentrated effort is necessary to meet this challenge.

The South Carolina Emergency Response Task Force, as the primary operational asset in the state US&R program, in partnership with the South Carolina Firefighter Mobilization Oversight Committee and the South Carolina Department of Labor, Licensing, and Regulation, Division of Fire and Life Safety, will set the initial direction. Support is required from local emergency leadership, state emergency service leaders, and especially from our state and federal elected

representatives. Failure to support a workable strategy will result in the eventual loss of this program, waste of taxpayer dollars, and more importantly, endanger the lives of our citizens.

CURRENT SITUATION

INTRODUCTION

South Carolina's state urban search and rescue (US&R) program facilitates the delivery of a tiered search and rescue response asset under several disaster scenarios. An implementation plan provided guidance for the initial stages of development. The problem, however, is that the US&R program lacked a long-term strategic plan to guide and carry the organization into a sustained operational phase.

South Carolina is vulnerable to natural and man-made disasters. The great Charleston Earthquake of 1886 was the most catastrophic in history to strike the eastern American coast. Hurricane Hugo struck South Carolina in September 1989 with detrimental effect on both coastal and inland communities, and other hurricanes have significantly impacted the state as well.

When Governor Jim Hodges signed South Carolina Public Law Title 23, Chapter 49 establishing the State Firefighter Mobilization Oversight Committee (MOBCOM), this body was charged with establishing a coordinated fire service response to disaster requests both in and out-of-state. The Firefighter Mobilization Act of 2000 caused the State Emergency Operations Plan (SEOP) to be amended, assigning responsibility for US&R to the South Carolina Department of Labor, Licensing, and Regulation, parent agency of the Division of Fire and Life Safety (DFLS) and the Office of the State Fire Marshal.

To meet the need for a state-level US&R asset, the South Carolina Emergency Response Task Force was created to act as the response arm of the Firefighter Mobilization Plan. Four existing heavy rescue programs across the state were picked to serve as regional response teams. As a result of the Firefighter Mobilization Act and the subsequent incorporation into the SEOP, the state US&R program, SCERTF, and the regional response teams have a lawful duty to act.

SCERTF is compelled in South Carolina to conduct search and rescue efforts for victims of disasters. The organization is obligated to provide disaster aid in the most efficient way possible, by providing expert resources to localities to search for victims of the disaster and to conduct rescue from the hazards present. Since the organization has past served to coordinate the overall US&R program, administration of the individual asset needs is a high priority.

A strategic plan is essential to the effective operation of the organization because it will focus and guide the future success of the program. In the absence of a long-term plan, this valuable resource lacks the map to lead the program in delivering life-saving service to affected jurisdictions. Challenges are already becoming apparent in the transition from the implementation to the sustained phase, requiring identification. Recommendations for addressing these issues must be made manifest.

Organizations that do not plan for their future tend to be less than successful and may even perish. Time and time again, organizational leaders point out that even the act of analyzing information in the effort to develop a plan is beneficial to the survival of the organization, as strengths and opportunities are revealed and weaknesses and threats identified. Failing to plan, in any event, is inexcusable. A recent report on the Federal Emergency Management Agency's National US&R Response System identified significant failures of six of the seven task forces evaluated; in each failure, one glaring fact stood out. Each of those substandard teams for one reason or another was lacking a strategic plan.

SCERTF delivers a response asset that was previously unavailable to communities affected by disaster within a reasonable period of time. According to the report on lessons learned from Hurricane Katrina¹, much of the

¹ The Federal Response To Hurricane Katrina: Lessons Learned. The White House, February 2006.

disaster's complexity evolved from the lack of a coordinated and timely response at the state level. At the same time, a joint report by the National Fire Protection Association and the United States Fire Administration revealed that of South Carolina's local fire departments unable to handle a significant technical rescue in their jurisdiction with in-house resources, less than 20 percent have a written plan for handling the emergency².

SCERTF responds to requests for disaster assistance as part of the SCEOP, so a healthy plan is essential for success. It is not a matter of *if* a disaster will ever occur; the question is *when*. Since people die quickly in major disasters, the faster and more efficiently the service is delivered, the more lives are saved, and thus the significance of this strategic plan.

SCENARIO

Throughout history, hurricanes, tornadoes, and earthquakes have affected each region of South Carolina. Rapid residential growth and increased commercial development increases the potential for disaster as well, and increased emphasis on preparation for Weapons of Mass Destruction/ Chemical, Biological, Radiological, Nuclear, or Explosive (WMD/CBRNE) incidents calls for a proportionate response capability.

Statistics show the most victims are rescued during the immediate post impact period³. In part because of the inevitable delays that occur at the local levels and the extended deployment times of federal US&R resources, a gap exists where the success of rescuing victims decreases exponentially. The development of a regional and state response to these emergencies is essential to provide relief to victims and these communities.

Technical rescue is dangerous work, made all the more hazardous by the infrequency of events resulting in complacency of responders, and failure of communities to adequately staff and equip for their eventuality. The NFPA/USFA joint study illustrated that many local agencies are ill-equipped or poorly trained to handle collapses in buildings that result in mass casualty emergencies; nor have these agencies identified plans to secure outside assistance in saving affected victims.

In response to the events of September 11, 2001, Homeland Security Presidential Directive 5 (HSPD-5) was promulgated to address, among other things, the operational readiness of responders as related to terrorism events. However, in 2003, President Bush issued Homeland Security Presidential Directive 8 (HSPD-8) to direct the Department of Homeland Security to take a more "all hazards" approach to the management of disaster, rather than to focus exclusively on the effects of WMD/CBRNE. This perspective was largely forgotten in the focus of meeting the needs of counterterrorism even though, according to the Department of Homeland Security (DHS) in a United States Government Accountability Office (GAO) report⁴, the need is obvious that efforts should be shifted to meeting that approach. In fact, this report identified that "*capabilities common to all hazards are on-site emergency management and search and rescue.*"

As was graphically illustrated in the response to Hurricane Katrina⁵, search and rescue is an integral part of managing catastrophic events; the logical progression of relief encompasses a robust effort to complement local providers with regional and state assistance prior to the request of federal assets.

VISION AND MISSION

The over-arching vision of the South Carolina Emergency Response Task Force is this:

"World-class emergency service with local community values."

² South Carolina Fire Service Needs Assessment. Hall, J. and Karter, M. National Fire Protection Association. June 2004.

³ Managing Multi-organizational Emergency Responses: Emergent Search and Rescue Networks in Natural Disasters and Remote Area Settings. Drabek, T.E., et al. University of Colorado. 1981.

⁴ DHS' Efforts To Enhance First Responders' All-Hazards Capabilities Continue To Evolve; United States Government Accountability Office [GAO] Report. July 2005. GAO-05-652. Page 5.

⁵ The White House. February 2006.

Our vision of the organization is a model of professional, innovative, and progressive action tempered by caring, neighborly, and honorable conduct. When SCERTF arrives in a disaster stricken community, by nature of our arrival, we want victims to understand we are there help relieve their suffering, within our ability. Although our priorities involve the search and rescue of victims, we should also be able to look within our hearts to help wherever we can, be that by giving a bottle of water to a thirsty person, or finding a lost dog, or shoveling out the soggy remains of a business, so long as we are not committed to priority assignments by the local incident commander. Our response should exhibit compassion and thoughtfulness, not that of an invading army, coming to take over the scene.

In that regard, SCERTF is called upon to act as identified in our mission statement:

“Respond to natural and man-made disasters to provide search and rescue, medical support, damage assessment, and assist in the coordination of relief.”

SCERTF will serve the State of South Carolina and our neighboring communities by driving implementation of the state US&R program and acting as the program’s premier asset.

The concept of operation developed a response plan to address previously identified shortfalls in service between the local response and federalization of an emergency. The plan serves to also develop resources to assist the lawfully responsible parties in securing the assistance they need to address more technically challenging rescue by promoting a tiered response of assets.

To address our vision and mission, SCERTF operates under four established core beliefs; these now translate to the core beliefs of the state US&R program:

- ***We shall contribute to the reduction of preventable injury and death.***
- ***We shall work to provide regional and state response to emergencies using a tiered concept.***
- ***We shall provide a cost-effective solution to the state’s emergency service needs.***
- ***We shall act as a change agent by improving public safety and security through innovative processes.***

These core beliefs echo in each goal and objective that will be found throughout the strategic plan and in everything our organization does. Primarily, we address these beliefs by providing a US&R response when called upon; however, the players now comprising the entire state US&R program have the talent and the ability to share and inform others, to use allocated funds wisely, and to work with others to improve our industry. These should be shared as the main objectives of the state US&R program staff, SCERTF, the regional response teams, and South Carolina’s emergency service providers.

Our operational directives aid to develop and maintain an improved capability to respond to the site of a critical incident and to conduct emergency operations within the capabilities of the team. These directives develop a standardized and interoperable response capability and structure based on common plans and procedures to allow for predefined integration with US&R teams and incident management systems from other jurisdictions. As a result, our program fully embraces the requirements of the National Incident Management System (NIMS) for incident management, typing, and credentialing. Our program is also involved in industry boards and committees including the National Fire Protection Association and is one of the founding teams of the State Urban Search and Rescue Alliance.

In Fiscal Year 2007-2008, the South Carolina General Assembly included a proviso⁶ in the State Budget which permitted funding for operating the state US&R program. The program was allocated \$983,850; part of this amount includes a phased capital expenditure program to continue improvement on the system; to add support apparatus for other applicable types of rescue response; and to provide specialized equipment.

⁶ H.3620, General Appropriations Act Fiscal Year 2007-2008. 117th South Carolina General Assembly.

SCERTF has embraced the concept of results based budgeting. Our goals and efforts shall concentrate on outputs, insuring measurable objectives via the Strategic Plan. Our decision making process shall involve collaborative and participative endeavors. Our organization shall deliver our service with a new, creative approach.

We have strived to establish a program-wide philosophy that is in concert with the desires of the community. For example, as discussed in the South Carolina Executive Budget for Fiscal Year 2007-2008⁷, Governor Sanford points out that South Carolina government currently operates at a ratio of 234 state employees per 10,000 residents; this figure is 34% higher than the national average of 174 state employees per 10,000 residents. A key benefit of our program design is that it draws on the expertise of local volunteer emergency responders from around the state and proposes economy by adding a minimal amount of staff in order to provide continuity for particular projects instead of creating more full-time positions.

Other benefits to our philosophy include the fact that where other programs propose spending to fund agencies, SCERTF maintains their service by effectively “purchasing” the activities from the local fire, emergency medical, and law enforcement agencies. The organization must continue to be a responsible steward of the taxpayer’s money. One aspect to consider is a proposal for SCERTF to seek status as a non-profit organization, allowing the organization to solicit funds over and above what is allocated, which can also be used to offset the overall cost to the taxpayers.

Any work performed as a result of the plan shall be outcome driven and should reflect flexible and ingenious solutions to issues that require constructive thought. Not only should overall direction of the team include everyone possible from the program’s assets; intra-agency cooperation should be stressed to avoid redundancy, especially where efforts include regional responses for technical and water rescue.

As an example of resource sharing, as part of an earlier federal grant, the state US&R program, in partnership with the Department of Fire and Life Safety, began the process for construction of a permanent facility, where SCERTF assets will be secured and given a home, as well as providing administrative support areas for program and SCERTF staff. In another instance of innovation, efforts are being made to identify existing water rescue resources in the state to develop a tiered response to those emergencies as well, which will minimize costs required to bring this response plan to fruition.

In order to create an effective strategic plan, the funding stream will have to be made permanent, and the funding stream will require incremental increases over time to account for phased apparatus and equipment replacement, to cover increases in material costs, and to provide increases for personnel benefits as necessary to retain quality staff.

This strategic plan is the final step in bringing this program into existence, but the first step toward permanence. According to observations of the GAO report⁸, a connection can be established between multi-year funding and program stability. Without multi-year funding, no agency can commit to sustaining the proposed capability on an on-going basis. Furthermore, without funding there is no accurate way to project capability over an extended period of time and subsequently, no ability to manage a strategic plan.

As discussed earlier, there is no single local agency capable of sustaining this program; the success of the program so far has been in its ability to draw on the cooperation of many agencies for the greater good. This shared relationship has been derided by some emergency service “leaders” who feel that such a program is exclusively the responsibility of state government; others do not understand the approach and resent the need to support it. Ironically, the South Carolina US&R model has been evaluated at the national level by FEMA and is currently being implemented by other states as a best practice, as evidenced by our work with the State Urban Search and Rescue Alliance.

Support is required from local and state emergency service leaders, and especially from our state and federal elected representatives. Failure to achieve a sustained funding stream and to encourage and support participation in the program will result in the eventual loss of this valuable resource and a waste of taxpayer dollars.

⁷ State of South Carolina Executive Budget Fiscal Year 2007-2008. Sanford, Gov. Mark. January 2007. Pg. 5.

⁸ GAO Report, pg. 6.

STRATEGY

The strategy we propose will formalize the state US&R program as an entity that provides oversight for the entire US&R program; that is, SCERTF, the regional response teams, and any other response assets that occur as a result of implementation of this plan. This entity shall be allocated a program manager who reports to the State Fire Marshal, and also oversees other aspects of the State Firefighter Mobilization Plan as advised by MOBCOM.

The Program Management Group responsible for developing the original program will change to reflect the more holistic view of the program; we recommend the appointment of representatives from each of the state US&R program assets (five SCERTF Command Staff representatives and one representative from each of the four regional response teams) and the newly developed program manager serving as Chairman.

SCERTF shall exist as a response organization that serves as the state-level urban search and rescue task force, using their personnel and equipment to deliver a higher level of response than would be found at the regional level. SCERTF's Chief of Rescue Operations and Task Force Command Staff shall manage the organization. This organization shall also evolve to take on some support capabilities for water rescue and other emergency situations.

The regional response teams shall remain managed and supported by their sponsoring agencies, but inclusion in the Program Management Group will permit these necessary elements of the program to help shape and direct the state US&R program and provide input into the strategic plan.

This strategic plan strengthens and maintains the state US&R program's three major categories of readiness: operational, logistical, and administrative. Our strategy involves customer relations as well, with other agencies, organizations, and communities, in order to gain insight as well as to contribute meaningfully to our ultimate mission; that is, to preserve life. Under each category, broad goals have been established that are achievable and will cause the program to meet the needs of the state. These goals are further broken down into objectives and timelines illustrating the path to be taken to achieve success; objectives and analysis for each goal are found in the Recommendations section of this document.

OPERATIONAL READINESS GOALS

To insure operational readiness to disasters within and outside of the state, SCERTF will maintain a tiered response plan. Each listed resource in the plan shall have an ample number of trained and deployable personnel (including disaster search canines, if applicable), an updated, effective and tested mobilization plan, and conduct necessary drills and exercises to evaluate capabilities.

Personnel and Canines

1.1 The state US&R program shall require a standard number of credentialed personnel, including canines if applicable, to provide coverage for all positions on a deployable US&R resource.

Training

1.2 The state US&R program shall facilitate and document training to comply with OSHA and other applicable regulations and standards as they relate to US&R activities.

Mobilization Plan

1.3 The state US&R program shall maintain a functioning and tested mobilization plan updated at least annually.

Capability Drills and Exercises

1.4 The state US&R program shall both schedule drills and exercises over a twelve-month period to effectively evaluate capability for both SCERTF and the regional response teams.

LOGISTICAL READINESS GOALS

The state US&R program will maintain the appropriate cache of equipment, provide suitable transportation, conduct necessary training and exercises to evaluate our capabilities, maintain an accurate cache inventory, and insure an adequate facility for our program.

Cache

2.1 The state US&R program shall require a standard complement of equipment to conduct and support search and rescue operations as a deployable US&R resource.

Transportation

2.2 The state US&R program shall require each identified response asset to have adequate and appropriate ground transportation for delivery of personnel and equipment to requests for assistance.

Logistics Training and Exercises

2.3 The state US&R program shall require both SCERTF and the regional teams to conduct regular training and exercises on logistics issues targeted at appropriate and effective deployment of these assets.

Cache Inventory

2.4 The state US&R program shall utilize a cache inventory program capable of support and interface with the material accounting and finance systems, using a robust inventory management information technology system.

Facility

2.5 The state US&R program shall ensure adequate warehouse space is allocated to accommodate assigned equipment so that accessibility is controlled, that proper safety, security, sanitary, and environmental controls are maintained.

ADMINISTRATIVE READINESS GOALS

To insure administrative readiness, SCERTF will maintain sufficient administrative staffing and resources; prepare and submit satisfactory reports to include performance and expenditure reports to MOBCOM and State Homeland Security; develop strategic plans, programming, and budgets; maintain records management systems to include memoranda of understanding and contracts, personnel information (including training and medical records), and a cache and excess property database; develop and conduct financial management, accounting, and adequate procurement processes.

Administrative Staffing and Resources

3.1 The state US&R program shall maintain staff, adequate facilities and resources to achieve all of the specified program goals.

Reporting Requirements

3.2 The state US&R program shall provide monthly reports on performance and expenditures for dissemination by MOBCOM and State Homeland Security.

Records Management

3.3 The state US&R program shall maintain records pertinent to administration of US&R assets.

Strategic Planning, Programming and Budget

3.4 The state US&R program shall establish annual and strategic plans to provide guidance for immediate, mid-range, and long-range activities.

Financial Accounting and Management

3.5 The state US&R program shall utilize accepted practices for financial accounting, budget management and procurement.

Procurement

3.6 The state US&R program procurement processes shall permit timely purchase of goods and services to support immediate deployments and daily operations.

CUSTOMER RELATIONS GOALS

Our vision of the program calls for “world-class” emergency service. World class implies progressive and innovative action and collaborative partnerships. These opportunities occur when we break down the barriers to communication, educate ourselves and others, participate in sharing information, and leading positive change. To do these things requires stretch goals on behalf of our external customer base.

Local Responders

4.1 The state US&R program shall create a plan of action to enhance local responder capability to include education as well as identification and assistance to existing assets that can be incorporated into the overall response plan.

Regional, State, Military and Non-Governmental Partners

4.2 The state US&R program shall seek and conduct positive relations with regional, state, military and non-governmental partners.

National Partners

4.3 The state US&R program shall interact and participate in national and international standard development and advocacy organizations.

PROPOSED BUDGET DETAILS

PERSONNEL SERVICES		\$201,850.00
Asst. State Fire Marshal - Emergency Response Manager (FTE)	\$108,800.00	
Logistics/Purchasing Coordinator (PTE)	\$31,200.00	
SCERTF Chief of Rescue Operations (PTE)	\$17,850.00	
Logistics Technician (PTE- Pool)	\$19,000.00	
Logistics Technician (PTE- Pool)	\$19,000.00	
INSURANCE/BONDING/RESERVES		\$175,000.00
Vehicle Insurance	\$20,000.00	
Worker's Compensation	\$65,000.00	
Medical Malpractice and Liability	\$55,000.00	
Property and Liability	\$30,000.00	
Reserve Fund	\$5,000.00	
COMPUTER/SOFTWARE		\$15,000.00
Notification Support	\$1,500.00	
Software Purchase (New)	\$1,500.00	
Fire-Trax	\$1,500.00	
Software Support and Licensing	\$10,500.00	
ANNUAL COMMUNICATION FEES		\$27,500.00
Cell Phone Service	\$8,500.00	
Satellite Phone Service	\$4,800.00	
Computer Cellular Wireless Service	\$800.00	
800 mHz Service	\$5,900.00	
Office Phone and Fax Service	\$1,000.00	
Satellite/Internet Network Service	\$1,500.00	
Broadband VPN Cards and Service	\$5,000.00	
SUPPLIES AND CONSUMABLES		\$47,000.00
Office Supplies	\$1,000.00	
Medical Supplies	\$20,000.00	
Postage and Printing	\$1,000.00	
Operational Materials	\$4,000.00	
Fuel, vehicle and non-vehicle	\$20,000.00	
Housekeeping and grounds	\$1,000.00	
EQUIPMENT		\$25,000.00
Damage Repair and Replacement	\$15,000.00	
Vehicle Maintenance (Routine)	\$10,000.00	
PERSONNEL AND INCENTIVES		\$13,000.00
Uniforms and PPE (new and replacement)	\$5,000.00	
Meals for volunteer work details	\$4,000.00	
Customer relations materials and promotion	\$2,500.00	
Inoculations, pre- and post-deployment	\$1,500.00	
TRAINING/PLANNING/EXERCISES		\$76,000.00
Task Force Business Travel	\$6,000.00	
Training and Training Related Expenses	\$45,000.00	
Exercise and Exercise Related Expenses	\$25,000.00	
REGIONAL TEAM SUBSIDY		\$140,000.00
Regional Team Subsidy for Materials	\$40,000.00	
Regional Team Subsidy for Training	\$100,000.00	
CAPITAL EXPENDITURE PLAN ANNUAL		\$250,000.00
Annual Planned Expenditures	\$250,000.00	
PROGRAM TOTAL		\$983,850.00

RECOMMENDATIONS

The method of measuring the success of the strategic plan and whether funding allocation is sufficient can be established by way of meeting these objectives. Each objective is either directly or indirectly tied to the four core beliefs of our state US&R program strategy:

- *We shall contribute to the reduction of preventable injury and death.*
- *We shall work to provide regional and state response to emergencies using a tiered concept.*
- *We shall provide a cost-effective solution to the state's emergency service needs.*
- *We shall act as a change agent by improving public safety and security through innovative processes.*

OPERATIONAL READINESS GOALS

Scope: To insure operational readiness to disasters within and outside of the state, the state US&R program will maintain a tiered response plan. Each listed resource in the plan shall have an ample number of trained and deployable personnel (and disaster search canines, if applicable), an updated, effective and tested mobilization plan, and have conducted necessary drills and exercises to evaluate capabilities.

Relates to: Personnel services allocations are necessary for support of personnel to administer and manage program, especially in regard to operations, training, development of plans, and management of drills and exercises; insurance allocations are required to insure civilian personnel for worker's compensation, malpractice, and liability; computer and software allocations must be made to support record management and internal communications through the website and e-mail; communication allocation supports management by paying for business, fax, and cellular service, also supports communications equipment service for incident support units; supplies are necessary for administration and facility support, as well as to obtain materials for exercises and response; the canine asset allocation supports canine activities and response; personnel/incentive allocation is utilized to motivate and reward participation of personnel and to replace worn safety equipment and uniforms; training/planning/exercises allocation is necessary to obtain education for personnel, as well as to conduct exercises to measure performance; facility allocations support participation by providing classrooms for personnel and a place to work from; the regional team subsidy supports regional team training and operations.

Personnel and Canines

GOAL

1.1 The state US&R program shall require a standard number of credentialed personnel, including canines if applicable, to provide coverage for all positions on a deployable US&R resource.

MEASUREMENTS

1.1.1 The state US&R program shall develop and implement credentialing of personnel to meet specified US&R resource typing in all positions using the NIMS recommendations.

1.1.2 SCERTF shall maintain the standard number of credentialed personnel to conduct and support operations as a NIMS-equivalent Type 1 and Type 2 US&R task force.

1.1.3 The regional response teams shall maintain the standard number of credentialed personnel to conduct and support operations as a NIMS-equivalent Type 1 and Type 2 collapse rescue team.

1.1.4 SCERTF shall maintain a cadre of deployable search canines that have successfully completed the FEMA disaster canine readiness evaluation.

1.1.5 SCERTF shall staff and roster an incident support team which can respond to immediate requests for service by deploying two units with at least four command personnel to a disaster-stricken community.

1.1.6 SCERTF shall staff and roster a team which can support deployed water rescue teams with a command, control, computer, and communications (C4) package for NIMS-equivalent Type 1 and Type 2 Water Rescue Teams.

1.1.7 The state US&R program shall pursue agreements with state or federal organizations or individuals to secure structural engineers eligible to be trained for NIMS credentialing.

1.1.8 The state US&R program shall hire part-time civilian personnel under special memoranda of understanding to fill necessary positions, particularly in medical, communications, engineering, and cache management positions, for the purpose of extending liability, malpractice, and worker's compensation coverage.

ANALYSIS

The current plan in regard to numbers of staffed personnel has only indicated a desire to follow in the footsteps of the FEMA programs, and this only applies to SCERTF. Since the state US&R program desires to maintain the recommendations of the proposed NIMS typing, all assets should maintain the numbers necessary to be able to deploy in the requested configuration. There is not, however, any requirement that requires teams to staff two, three, or four deep. Two deep would seem to be the minimum, so backups can be available, but there is no prohibition to staffing more than that aside from the ability to support those members.

The state US&R program shall require a standard number of personnel to provide coverage for all positions on a deployable US&R resource. The state US&R program shall utilize local responders to meet the immediate needs of US&R responses, regional teams to meet a more robust need, and SCERTF to meet heavy, complex, or sustained operational needs.

SCERTF can deploy the requisite number of personnel for all positions in a NIMS-compliant Type 1 or Type 2 US&R task force except those of the canine teams and the structural engineers. Training should continue to insure that all participants are educated to the levels recommended in the NIMS requirements for their position. As discussed, a full complement according to FEMA US&R Task Force specifications involves 210 completely qualified personnel. However, the short-term goal for personnel numbers should more accurately be set at 140 in order to assure a higher quality level, with a long-term goal at 210. Within those numbers, the total number of deployable personnel shall include a minimum of three medical manager physicians and three fully qualified structural engineers.

Since there are no requisite numbers associated with NIMS-complaint Type 2 Collapse Rescue Teams as of yet, we can only assume the direction of other similarly structured assets, such as those operating as Medium Level Collapse Rescue Teams under the California FIRESCOPE program. Those teams specify fourteen qualified members: one Team Leader, one Logistics Officer, and two Squads, each with a Squad Officer and five Rescue Specialists. The regional teams, with the exception of one, have a sufficient number of personnel to insure response and backfill to those personnel if needed.

Regional response teams should maintain at least 28 completely qualified personnel in order to compensate for sickness, injury, vacation, or other absences. If teams are finding this a difficult number to maintain, they should be encouraged to reach out and embrace partnerships with neighboring agencies to reinforce their program.

These regional response teams are an important element of the state US&R program as they fill the gap between local response and state response. However, adding more regional teams should not be an option, as the frequency of response does not warrant such a recommendation. Furthermore, other interested agencies would be better served to participate in other aspects of the program, such as the US&R Engine Companies and Strike Teams, as well as water rescue teams.

In three of the four regional teams, personnel have not indicated that participation is a serious problem, especially since these assets train and meet within their home department areas and personnel are not gone for entire days on most of their training. On SCERTF, retention and participation of personnel is problematic. According to interviews with personnel, much of this is due to the perceived lack of support outside the teams; in most cases, significant travel is involved for any meetings or training. Time off is granted for most personnel, but not all, to attend necessary logistics days. More often than not, personnel spend their own money to pay for gasoline, phone

service, and other expenses, and must purchase their meals while working, and really don't see much appreciation from outside the organization.

Opportunities exist to remedy these issues for SCERTF, since it is the most profoundly affected; funds have been budgeted to at least feed the personnel who show up to training or to assist with work details; a budget amount has been allocated but plans must be made to recognize the participants with a merit program involving awards and honors.

In regard to staffing deficiencies, original plans to obtain agreements with engineers through Clemson University should be further pursued as well as opening up opportunities to secure engineers through the United States Army Corps of Engineers.

SCERTF shall maintain a cadre of deployable search canines that have successfully completed the FEMA disaster canine readiness evaluation. The minimum number of canines shall be eight, which all shall have passed a FEMA Type 2 evaluation, be medically certified by a veterinarian, and have all health certificates in order. SCERTF needs to recruit more potential canine handlers and aggressively seek new canines, as well as aid the existing handlers with reimbursing expenditures for canine care, especially since the canines are property of the US&R program. The goal number of canines is twelve and the goal qualifications are to be certified as Type 1 canines.

SCERTF shall staff and roster an incident support team which can respond to immediate requests for service by deploying two units with at least four command personnel to a disaster-stricken community. The incident support units (Suburbans) should be uniformly equipped with a robust radio and satellite communications system, laptops with wireless and VPN access capability, and appropriate forms for response and operations.

The state US&R program should also identify and recruit water rescue teams to enter into agreements with (similar to the regional US&R teams) and be able to provide water rescue assets if called upon. As with the regional US&R teams, having these teams train and meet locally will alleviate some of the travel and time requirements, establish service closer to the demand areas, and SCERTF's involvement as support for sustained operations will not, relatively speaking, require as immediate of a response.

Finally, the state US&R program shall hire part-time civilian personnel to fill necessary positions, in medical, communications, engineering, and cache management positions; doing so would permit the organization to provide liability, malpractice, and worker's compensation coverage for these members. These personnel could be placed on staff for a token amount for the purposes of providing coverage, with the agreement that during declared emergencies, reimbursement at the federal disaster force reimbursement rates would be sufficient for compensation.

Training

GOAL

1.2 The state US&R program shall facilitate and document training to comply with OSHA and other applicable regulations and standards as they relate to US&R activities.

MEASUREMENTS

1.2.1 The state US&R program shall require personnel to meet or exceed the FEMA NIMS credentialing requirements for their assigned position on a deployable US&R resource.

1.2.2 The state US&R program shall facilitate and document individual training complying with NFPA 1006 performance requirements for assigned positions, especially relative to structural collapse rescue, confined space rescue, trench rescue, and rope rescue.

1.2.3 The state US&R program shall conduct and document compulsory training to comply with OSHA regulations.

1.2.4 SCERTF shall facilitate and document training to comply with FEMA NIMS requirements for assigned positions as they relate to water rescue, especially as they relate to flood response and support positions.

ANALYSIS

The current program only specifies the training requirements for SCERTF; those being the requirements spelled out for similar positions on the FEMA US&R task forces. However, the NIMS recommendations will affect all US&R response assets, which will include the regional teams.

One primary concern is that compulsory training to comply with OSHA regulations must be conducted and documented. The original intent was to have this training conducted by the sponsoring agencies but this solution has proven problematic as the training may or may not be occurring and response teams cannot accept the liability of not having the training conducted. This training involves compliance with respiratory protection (including fit testing), confined space, forklift/crane, and commercial driving license regulations.

The regional teams were directed to train their personnel to the general guidelines set out by the NIMS recommendations for Type 2 Collapse Rescue Teams and from what we have been told, this is occurring; some evaluation of that capability should be performed to insure compliance.

For the future, on both SCERTF and the regional response teams, fully trained members shall be considered as those meeting or exceeding the FEMA NIMS credentialing recommendations for their assigned position. For the regional teams, those positions should begin with training for collapses of heavy wall constructed buildings, for high angle rope rescue (not including high-line systems), confined space and trench rescue.

Ultimately, the goal shall be to insure both levels of personnel are trained to meet both the NIMS credentialing standard and the NFPA 1006⁹ Level II in their area of specialty for collapses in heavy floor, pre-cast, and steel frame constructed buildings, high angle rope rescue including high-line systems, permit required confined space rescues, and mass transportation rescues. There is a particular need to have the communications personnel and the canine personnel obtain FEMA-equivalent training in their disciplines because of their direct interaction with FEMA teams.

Stretch objectives shall be identified to have SCERTF personnel credentialed in water rescue as it pertains to flood rescue operations, so that personnel can serve as managers of the C4 support package. There is no desire for the state US&R program to develop a quick response asset for water rescue as the timeliness of the response would not be sufficient to save lives. In that regard, local assets should be encouraged to develop these responses if the appropriate hazards exist in their community, and SCERTF could aid them in providing a robust support for extended situations.

Mobilization Plan

GOAL

1.3 The state US&R program shall maintain a functioning and tested mobilization plan updated at least annually.

MEASUREMENTS

1.3.1 The state US&R program shall maintain an effective and tested mobilization plan updated at least annually. The plan shall include a back-up notification method which shall also be tested at least annually.

1.3.2 SCERTF shall recruit, train, and roster a cache management team comprised of personnel located near to the cache that can be deployed in advance of an activation to prepare the mission package, shortening time required for deployment.

⁹ Professional Qualifications Standard for Rescue Technicians, 2008 edition. (NFPA 1006). National Fire Protection Association. January 2008.

ANALYSIS

The state US&R program has a presently functioning mobilization plan that has been tested and works; notification was performed using a back-up plan at the 2007 Operational Readiness Exercise, but the issue with REACH should have been resolved and needs to be re-tested. Each of the points recommended by the FEMA Self-Assessment are addressed in the current SCERTF Mobilization Plan.

The plan in both cases, however, is in critical need of updating and revision. “Go” lists need to be constructed for each discipline and the step process from the Point of Departure to the Point of Arrival needs to be refined and documented. For the task force, the Point of Departure check-in process needs a temporary revision with signage for keys, gear drop, and staging. The pending construction of the SCERTF Headquarters will positively affect this with our plans for how to set up for pre-deployment check-in.

There is also a critical need to test the regional teams and insure their readiness. Testing this annually should not be a problem, as it is in the current budget, but efforts must be made to continue to budget that item. Roster maintenance for all of the assets, however, is a huge problem. This could be resolved using internet-based rostering, if we could obtain a dedicated server for our use. An incident support team roster is in the process of being developed and promulgated.

The regional response teams and SCERTF shall both maintain an effective and tested mobilization plan updated at least annually. The mobilization plan shall include 24-hour points of contact, team notification procedures, Point of Departure check-in and in-processing procedures, personal protective equipment and issuance procedures to insure appropriate self-sufficiency, equipment assembly and packing methods for ground deployment, scheduled Point of Departure events, and communication procedures with SCERTF Incident Support Team and sponsoring agencies.

SCERTF task force leaders are expected to maintain and continuously update rosters tracking the status of members to reflect contact numbers and qualifications, as well as other necessary information. Each month a roster of available personnel shall be created so that each position is staffed with members able to be fully mobilized and at the point of departure within four hours of activation, equipped with the proper personally-issued items, and able to pass a pre-deployment medical assessment. The rosters should incorporate plans for the mobilization of NIMS Type 1 and Type 2 US&R task forces, or an incident support team as specified by SCERTF procedures.

SCERTF should also recruit, train, and roster a cache management team consisting of local personnel, who would be deployed to the cache ahead of an activation to begin the deployment process. Optimally, these would not be team members and actually could be civilian volunteers from the community who are interested in providing a support element. This would free up responders from having to perform double-duty and permit them to concentrate on their upcoming mission.

SCERTF also must recruit, train, and roster more personnel from the Midlands and the Upstate; most of the rostered personnel are employees of coastal departments. In the event of a potential hurricane strike, these members will not be permitted to respond until their sponsoring agency is assured that they will not be affected. Even though this scenario should involve a Type 2 US&R task force response (and consider using two), the program should also maximize the use of non-affected assets and especially create upstate strike teams of US&R engine companies capable of wide-area post-hurricane search and rescue.

Capability Drills and Exercises***GOAL***

1.4 The state US&R program shall both schedule drills and exercises over a twelve-month period to effectively evaluate capability for both SCERTF and the regional response teams.

MEASUREMENTS

1.4.1 The state US&R program shall schedule limited drills and exercises over each twelve-month period to effectively evaluate capability.

1.4.2 The state US&R program shall schedule and conduct at least one full-scale operational readiness exercise annually.

ANALYSIS

SCERTF has conducted two limited operational readiness exercises over the first two years of the program. With one exception, the regional teams have conducted assessments of their programs as well. There is the opportunity for a total program exercise in Spring 2008 with a state-wide disaster drill that should be capitalized upon. Funds have been allocated for measuring the program capability and therefore, should be programmed accordingly.

The regional response teams and SCERTF shall both schedule drills and exercises over a twelve month period to effectively evaluate capability. Limited exercises can be conducted (static, short-duration, limited objectives); however, at least one full-scale operational readiness exercise shall occur annually, defined as a dynamic exercise taking place over 2-3 days, involving personnel and canines in search and rescue functions. Having extra exercises would certainly be of benefit to the program and not discouraged.

LOGISTICAL READINESS

Scope: To insure logistical readiness, SCERTF will maintain the appropriate cache of equipment, provide suitable transportation, conduct necessary training and exercises to evaluate our capabilities, maintain an accurate cache inventory, and insure an adequate facility for our program.

Relates to: Personnel services allocations pay for personnel to administer and manage logistical aspects of program, especially in regard to performing cache maintenance, inventory, loading and restocking, development of specifications, procurement, allocation of equipment, and management of records; insurance allocations are required to insure equipment and apparatus assets owned by the program; computer and software allocations support record management and e-mail, also provide ability to track and locate equipment and apparatus; the communication allocation supports business, fax, and cellular service, developing proposals and research, also supports communications equipment for communication with vendors and suppliers; supplies are necessary for administration and facility support, fuel for equipment and apparatus, replacement of consumables, fees for storage of medical supplies; personnel/incentive allocation is utilized to motivate and reward participation of volunteers who assist in logistical support; training/planning/exercises allocation is necessary to support scheduled exercises measuring deployment performance also to keep equipment and apparatus in a ready status; the facility allocation supports storage of equipment and apparatus, minimizing theft and damage, and by providing work areas; the regional team subsidy supports reimbursement of regional teams in material use from training and operations.

Cache

GOAL

2.1 The state US&R program shall require a standard complement of equipment to conduct and support search and rescue operations as a deployable US&R resource.

MEASUREMENTS

2.1.1 SCERTF shall maintain the standard complement of equipment to conduct and support operations as a deployable NIMS-equivalent Type 1 and Type 2 US&R task force.

2.1.2 The regional response teams shall maintain the standard complement of equipment to conduct and support operations as a deployable NIMS-equivalent Type 2 collapse rescue team.

2.1.3 The state US&R program shall develop and implement a plan to increase the complement of equipment of the regional response teams to that of NIMS-equivalent Type 1 collapse rescue teams.

2.1.4 SCERTF shall obtain sufficient water rescue equipment and boats to conduct and support operations as a two deployable NIMS-equivalent Type 1 water rescue teams.

2.1.5 The state US&R program shall maintain an adequate cache of consumable and/or perishable materials needed to support sustained operations at disaster incidents.

2.1.6 The state US&R program shall obtain memoranda of understanding to acquire consumable and/or perishable materials, including medical supplies, in the event of shortfalls.

2.1.7 The state US&R program shall plan and budget for capital expenditures to include phased replacement of apparatus and equipment, especially technologically sensitive equipment.

ANALYSIS

According to our records, each of the assets has all of the equipment required to meet the NIMS recommendations for their specific typing. The regional teams have what is necessary for their current level, but the desire is to increase their classification to a Type 1 Collapse Rescue Team in the short-term, requiring some allocations from the capital expenditures line item to do so. Although SCERTF currently has appropriate communications, there is a desire to have more robust communications gear in the ISTs to make them more useful on a disaster scene. There is an immediate need to stock equipment as specified on the trailers and the box truck that will facilitate best deployment.

The opportunity exists for SCERTF to obtain sufficient water rescue equipment to move toward deploying two Type 1 Swiftwater/Flood Rescue Teams under the command, control, computers and communications package (C4) of the task force. This proposal would add three additional "suitcase" inflatables and motors to the cache to supplement one existing inflatable boat/motor combination, fill out existing water rescue equipment to provide for deployment of a total of four water rescue teams either organic or from outside (boats are stored deflated and palletized on proposed flatbed with equipment and inflated using SCBA cylinders).

SCERTF should also continue with plans to build a communications trailer using one existing trailer and communications gear; future plans should be made to enter into an agreement with the State Law Enforcement Division for communications assistance, and long-term possibility to purchase the old SLED Communications Center for MOBCOM use when SLED upgrades their unit.

The state US&R program shall require a standard complement of equipment to conduct and support search and rescue operations as a deployable US&R resource. The program shall identify the needs of identified local response assets to meet immediate US&R response, budget for supplementing those needs, and acquire the equipment necessary to assist the local response assets in the event of an emergency.

Both SCERTF and the regional teams shall maintain an adequate cache of consumable and/or perishable materials needed to operate at disaster incidents and have pre-established purchase agreements for acquiring those materials in the event of shortfalls. These materials include, but are not limited to, gasoline and oil, industrial and medical gases, medications and other medical supplies, saw blades, food and water, office supplies, and other items.

Regional teams shall also maintain an inventory appropriate to their current mission as a NIMS Type 2 Collapse Rescue Team, with the ultimate goal of identifying, specifying, acquiring, and maintaining the appropriate equipment to meet requirements as a Type 1 Collapse Rescue Team.

SCERTF shall continue to meet the equipment needs for NIMS Type 1 and Type 2 urban search and rescue task forces, maintain an appropriate cache of training equipment, and plan for the appropriate allocation of equipment to support regional response for US&R incidents as well as water rescue teams operating in prolonged scenarios.

SCERTF shall also establish an immediate goal of identifying and assigning a water rescue asset; subsequent to that, the task force should look into acquiring appropriate water rescue equipment and boats that can be made available to support operations during flooding emergencies.

The capital expenditures line item shall have a plan for phased replacement of apparatus and equipment including replacement of the current forklift and crane. Other items include replacing apparatus and equipment using a 10-year rotation cycle on cargo carrying apparatus (tractor/trailers, box trucks, dually) and 6-year rotation on passenger carrying apparatus (IST units). A phased replacement of technologically sensitive equipment like computers, search cameras and acoustics, and PPE should be forecast as well.

Transportation

GOAL

2.2 The state US&R program shall require each identified response asset to have adequate and appropriate ground transportation for delivery of personnel and equipment to requests for assistance.

MEASUREMENTS

2.2.1 SCERTF shall maintain a standard complement of appropriate ground transportation for delivery of personnel and equipment for NIMS-equivalent Type 1 and Type 2 US&R task forces and to conduct operations in the affected areas.

2.2.2 The state US&R program shall obtain two additional trailers sufficient for use with the existing SCERTF prime movers, one allocated for water rescue equipment and one for support of light US&R strike team assets in wide-area search and rescue.

2.2.3 The state US&R program shall maintain memoranda of understanding with vendors to secure coach transport of personnel in the event of out-of-state deployments.

2.2.4 The regional response teams shall maintain appropriate ground transportation for delivery of personnel and equipment, and to conduct operations in the affected areas.

2.2.5 The state US&R program shall pursue memoranda of understanding with military assets to obtain buses, 2 ½-ton trucks, heavy machinery, and/or flatbed tractor-trailer combinations if necessary for operations.

2.2.6 The state US&R program shall obtain one tractor with day cab to complete the required transportation package.

ANALYSIS

With the exception of the final SCERTF tractor, the assets of the state US&R program have sufficient transportation. It is not recommended for the state program to continue to purchase prime movers or trailers for the regional teams unless grant funds can be obtained. SCERTF should obtain the final tractor to complete the US&R needs and budget for a future flatbed where the water rescue equipment can be put in Conex boxes and stored for deployment using existing tractors.

Opportunities should also be pursued with the military for buses, 2 ½-ton 6x6 trucks, heavy machinery, and flatbed trailers. Other stretch goals include bus or car-pooling agreements in regions to transport SCERTF members from staging areas, leaving personal-owned vehicles in secure areas and minimizing personal vehicle use while maximizing accountability.

The State US&R plan shall require each identified response asset to have adequate and appropriate ground transportation for delivery of personnel and equipment to requests for assistance. This transportation need can be met through the purchase or lease of apparatus, or through contracts or memoranda of understanding. Any apparatus utilized should be serviced, safe to operate, and properly insured, titled, and registered.

SCERTF shall maintain a minimum vehicle configuration of four over-the-road tractors, three curtain-sided trailers and one flat-bed trailer, one box truck, one forklift (minimum of 15,000 pounds capacity), one logistics support vehicle, three Wells Cargo trailers, and four incident support vehicles. SCERTF shall insure continued maintenance of these vehicles and develop a replacement plan. SCERTF shall also have a plan for acquiring personnel transportation using Fire Academy buses or either by lease/purchase, memoranda of understanding, or contract.

Logistics Training and Exercises

GOAL

2.3 The state US&R program shall require both SCERTF and the regional teams to conduct regular training and exercises on logistics issues targeted at appropriate and effective deployment of these assets.

MEASUREMENTS

2.3.1 The state US&R program shall require that equipment and systems shall be used frequently in training, exercises, or local/state activations so that personnel are well-qualified in operation and necessary maintenance and repair actions are well-understood and implemented.

2.3.2 The State US&R plan shall require both SCERTF and the regional teams to conduct regular training and exercises on logistics issues targeted at appropriate and effective deployment of these assets.

ANALYSIS

The state US&R program has been well served by our logistics plan so far; equipment has been purchased and allocated to SCERTF and to the regions. Although the regional equipment was allocated and the program took a hands-off stance on the training and exercising of that equipment, these teams should not have too much trouble deploying as their equipment cache is carried predominantly on the vehicles we issued them; examining their ability to respond quickly with those packages should be less than problematic.

SCERTF's logistics team has also done a great job of determining the best method of assigning equipment, but with some changes to mission packages based on experience gained in Louisiana and through discussion, a new plan has been formulated to make the packaging that much more efficient. There is a need for continued logistics leadership and SCERTF not only needs to recruit and maintain more logistics personnel, but should utilize the part-time logistics personnel allocated through the budget to expedite the plan.

There is an opportunity to conduct several logistics exercises to test the response to various missions. SCERTF needs to improve their logistics work periods by incorporating more training of cache deployment. There is also a need to educate the members on the extremely important priority in maintaining and exercising the cache; this seems to be considered by some members as unnecessary and an inconvenient use of time.

The State US&R plan shall require both SCERTF and the regional teams to conduct regular training and exercises on logistics issues targeted at appropriate and effective deployment of these assets. The training and exercises shall include cache-loading plans to evaluate the anticipated sequence of equipment use at disaster sites and measure the methods utilized to move equipment from the warehouse to waiting vehicles as rapidly as possible. Different types of exercises shall be conducted to reflect different cache configurations for assigned missions.

Equipment and systems shall be used frequently in training, exercises, or local/state activations so that personnel are well-qualified in operation and necessary maintenance and repair actions are well-understood and implemented; these efforts should include timing exercises involving equipment assembly, packaging and shipping with different cache configurations. Procedures must be created and exercised for items like setting up satellite communications. Ground transport deployments shall be rehearsed as well as procedures to rehabilitate the cache and return to the pre-incident state of readiness after completion of an exercise, deployment, or local/state activation.

Cache Inventory

GOAL

2.4 The state US&R program shall utilize a cache inventory program capable of support and interface with the material accounting and finance systems, using a robust inventory management information technology system.

MEASUREMENTS

2.4.1 The state US&R program shall utilize a cache inventory program shall support and interface with the material accounting and finance systems, using a robust inventory management information technology system.

2.4.2 Both SCERTF and the regional teams shall utilize an efficient and standardized inventory system to manage their assigned cache.

ANALYSIS

The state US&R program has acquired SPECTRE and some of the assets are currently populating that database (SCERTF and Hilton Head). The program should obtain copies of that software and distribute it to the remaining assets as well. The program should also acquire training from the designers of the program, optimally having those developers come to South Carolina to maximize the numbers of personnel who can be trained in its use. SCERTF and the regional teams should continue to use this program and the FireTrax system should probably be scrapped or the elements of it sold to another FireTrax user. A more aggressive effort must be made to recall issued equipment from personnel who have been moved off the deployment roster so that equipment can be re-allocated to new personnel.

The cache inventory program shall support and interface with the material accounting and finance systems, using a robust inventory management information technology system. Both SCERTF and the regional teams shall utilize an efficient and standardized inventory system to manage their assigned cache. The characteristics of the system shall include compatibility between each of the assets in the program and the ability to efficiently identify, receive, issue, store, kit, track, ship and dispose (due to obsolescence or damage) of items in the cache.

The system shall support maintenance, replacement (of consumables), pre-certification (hazardous materials), and upgrade of items (including those that are time-sensitive) and contain the ability to report usage and support periodic physical inventory accounting and reconciliation, property tracking and recording, and color-coding and bar code labels to show different categories of cache equipment. The system shall also have ability to maintain equipment under the state and federal requirements for excess property.

Facility

GOAL

2.5 The state US&R program shall ensure adequate warehouse space is allocated to accommodate assigned equipment so that accessibility is controlled, that proper safety, security, sanitary, and environmental controls are maintained.

MEASUREMENTS

2.5.1 The state US&R program shall continue their partnership with the South Carolina Fire Academy to develop and build a shared headquarters facility.

2.5.2 The state US&R program shall develop a long-term plan for the headquarters facility to obtain secure storage for the balance of the cache and apparatus in one area, co-located with task force offices and training facility.

ANALYSIS

The state US&R program relies on the sponsoring agencies of the regional teams to house the regional team equipment. Other than requiring the sponsoring agencies to take reasonable care of their equipment and insure it is secure and maintained, that should be the extent of the involvement.

In regard to SCERTF, the partnership with the South Carolina Fire Academy to develop and build a shared headquarters facility is in progress and construction should be in progress by the time this plan is approved. On a long-term basis, thought should be given toward assisting the Fire Academy with another building on the premises where the task force could eventually use the entire building, giving the program all of the storage ultimately needed. In the short term, consideration should be made toward purchase of a locking/security system using coded identification card access to provide hierarchal access to specific areas as needed.

Both SCERTF and the regional teams shall ensure adequate warehouse space to accommodate their assigned equipment so that accessibility is controlled, that proper safety, security, sanitary, and environmental control is maintained.

SCERTF shall insure that their facility has the ability to store the main balance of the cache in one area and that the facility is co-located near the task force offices and training facility. Adequate square footage is necessary to support current cache requirements and support future growth. The warehouse shall be properly outfitted with large truck access, storage, and material handling equipment and if needed, shall be capable of minor renovations and modifications that can be made to improve warehouse efficiency.

ADMINISTRATIVE READINESS

Scope: To insure administrative readiness, SCERTF will maintain sufficient administrative staffing and resources; prepare and submit satisfactory reports to include performance and expenditure reports to MOBCOM and State Homeland Security; develop strategic plans, programming, and budgets; maintain records management systems to include memoranda of understanding and contracts, personnel information (including training and medical records), and a cache and excess property database; develop and conduct financial management, accounting, and adequate procurement processes.

Relates to: Personnel services allocations to fund staff to meet administrative needs, especially in regard to compliance with reporting requirements, development of work plans, accounting for receipts and expenditures, and management of records; insurance allocations are required to insure civilian personnel for worker's compensation and liability; computer and software allocations support record management and internal communications through the website and e-mail; communication allocation supports business, fax, and cellular service to comply with requirements; supplies are necessary for office materials, postage, shipping and other administrative needs; facility allocations support office space and records storage.

Administrative Staffing and Resources

GOAL

3.1 The state US&R program shall maintain staff, adequate facilities and resources to achieve all of the specified program goals.

MEASUREMENTS

3.1.1 The state US&R program shall staff a full-time designated manager reporting to the State Fire Marshal to oversee the program, whose responsibilities would include coordination of the state's ESF-4 and ESF-9 functions; working in the State or Fire Marshal EOC; liaison and coordination with SCERTF, the regional response teams, and the proposed US&R engine company strike teams; budgeting, procurement and grant management; strategic planning; liaison to local, state, and federal officials.

3.1.2 The state US&R program shall staff a part-time coordinator reporting to the program manager to specifically administrate logistics, service and training procurement for the program; to maintain records and conduct liaison activities; assist with coordination of US&R activities between state US&R assets and the SCFA; oversight of the US&R training props and training cache; and serve as deputy to the program manager.

3.1.3 The state US&R program shall staff a part-time Chief of Rescue Operations for SCERTF reporting to the program manager to coordinate functions particular to SCERTF; to supervise the task force leaders in conduct of planning, preparing and operations; to respond to incidents as part of the Incident Support Team; and to develop and maintain the Task Force Operations Manual.

3.1.4 The state US&R program shall develop a pool of part-time personnel reporting to the program manager or his designee, who will be used to staff priority logistics work details or other program administration as identified by the program manager.

3.1.5 The state US&R program shall maintain adequate facilities and office space for the conduct of business.

3.1.6 The state US&R program shall obtain a dedicated server for records storage, internet management, and communication with personnel.

ANALYSIS

The state US&R program does not currently have a specifically designated manager; this is in the process of being immediately resolved. The program has been predominantly driven by the task force and the regional teams have been left to work out their plan through a committee of the team leaders. The regional program would be strengthened by formalizing a management team to implement the recommendations of the strategic plan. Regional teams shall continue to designate a point of contact for coordination with the state US&R program, as well as assign appropriate staff to administer training coordination and cache management.

Although the program has a current staff, because of their part-time status, they cannot dedicate the time and effort necessary to managing the program, and as a result, the program is suffering. The program needs at least a full-time manager and an administrator. There should be a phased plan to increase personnel to at least add a procurement manager and a training officer. A pool of qualified part-time personnel should be utilized to perform high-priority work details; this will ensure project completion and not keep personnel on payroll simply marking time.

Although a better partnership with the South Carolina Fire Academy would be beneficial and an effort in that direction to utilize sharing of resources would be most effective, the experience has been less than cooperative or collaborative. As a result, the relationship with SCFA needs to continue to be conducted directly through the Deputy Director of LLR. The downside to that is that a partnership with the SCFA could be phenomenal if the program could work with an administration that has vision and is not simply trying to profit from the relationship at the program's expense. The opportunity exists to develop a training program that could be at least competitive with world-class US&R training programs. This opportunity could bring revenue to the Fire Academy and to the community, as well as guaranteeing a source of excellent training.

SCERTF shall maintain staff to administer the day-to-day affairs of the state US&R program, in particular the administrative affairs of SCERTF, to include: program management, cache and excess property management, medical management, training management, management of memoranda of understanding.

SCERTF shall maintain a point of contact from the Command Staff designated as the Task Force Duty Officer. This officer will be authorized to activate SCERTF in any mission package (Type 1 or 2 US&R Task Force, IST, C4, or any variation as needed to satisfy the mission) for incidents provided the legal requirements of the SEOP are met and a tasking order has been assigned.

The state US&R program shall maintain adequate facilities and resources (such as supplies and office equipment, computers, telephones, and filing capacity) to achieve all of the specified program goals. As a stretch goal, the program shall also develop the capacity to format all files electronically to eliminate paper waste and to minimize

storage space, as well as to provide robust back-up of critical records and more efficient distribution via internet access.

Reporting Requirements

GOAL

3.2 The state US&R program shall provide monthly reports on performance and expenditures for dissemination by MOBCOM and State Homeland Security.

MEASUREMENTS

3.2.1 The state US&R program shall provide monthly reports on performance and expenditures for dissemination by MOBCOM and State Homeland Security.

3.2.2 SCERTF and the regional teams shall provide monthly briefs and after action reports to the program manager to be included in the monthly report.

3.2.3 The state US&R program shall edit and publish monthly reports and after action reports to the internet via the webpage for public information and communication to personnel.

ANALYSIS

Since the state US&R program is still in the initial stages of development, mandating reporting requirements should be fairly straightforward. A plan should be utilized by all assets to insure that the appropriate agencies receive the necessary reports for proper communication of our progress.

The state US&R program shall provide monthly reports on performance and expenditures for dissemination by MOBCOM and State Homeland Security; these reports should include successes and challenges, goals met to achieve the needs of the strategic plan, audit compliance narratives, changes to program operations or administration, and any other pertinent information.

SCERTF and the regional teams shall provide monthly briefs and after action reports on activities to the state US&R program on similar items to be included in the Program Monthly Report. These reports should be reviewed and edited to insure no security or personnel issues are included, then sanitized, and placed on the internet for public access.

Records Management

GOAL

3.3 The state US&R program shall maintain records pertinent to administration of US&R assets.

MEASUREMENTS

3.3.1 The state US&R program shall maintain for SCERTF and the regional teams a secure personnel database, available to US&R management for maintenance and use via the internet.

3.3.2 The state US&R program shall also coordinate a database of vendors and suppliers to maintain information for deployment needs, which will be available for use by US&R management and SCERTF Logistics Managers via the internet.

3.3.3 The state US&R program shall also maintain a database of cache equipment and excess equipment, as well as information on the medical and veterinary health records for each assigned disaster search canine.

ANALYSIS

Along with the recommendations as the previous section, since this is a relatively new program, a minimal effort could be employed to insure that all reporting and records are maintained electronically. With the right software and information support, all further applications and records could be made and maintained online and personnel could make changes to their files online in conjunction with a program that permitted access to certain areas. This should be done at the regional level as well, so that some oversight could be provided throughout the system, however, it would be a lower priority than that of securing this ability for SCERTF, because of the task force's state-wide configuration and difficulty in maintaining this information. A strong recommendation would be made to use outside contractors to develop this capability, as similar records management support from internal personnel has historically been less than desirable.

A wide variety of records, databases and documentation are required to support the state US&R program on a daily basis and insure that it is ready to immediately deploy. The state US&R program shall maintain for SCERTF and the regional teams a personnel database including assignments and positions qualified for, contact numbers, addresses, and other pertinent personnel records; training information including qualifications, certification and recertification dates, expiration dates, compliance, and accumulated hours; medical records including clearance to use respirators, compliance with pre-deployment physical requirements, inoculations and vaccinations, health monitoring especially post-incident; and memoranda of understanding between the member's sponsoring agency.

The state US&R program shall also coordinate with SCERTF and the regional teams a database of vendors and suppliers to maintain information for deployment needs.

The state US&R program shall also maintain a database of cache equipment and excess equipment, as well as information on the medical and veterinary health records for each assigned disaster search canine.

Strategic Planning, Programming and Budget**GOAL**

3.4 The state US&R program shall establish annual and strategic plans to provide guidance for immediate, mid-range, and long-range activities.

MEASUREMENTS

3.4.1 SCERTF and the regional teams shall provide an annual work plan to include specific member training and recertification plans, schedules and types of training, budget plans, equipment procurement and maintenance plans, corrective action plans, and the plan for selecting members for deployment (rotation schedule).

3.4.2 SCERTF and the regional teams shall provide a mid- and long-range activities plan to forecast budget needs, equipment rotation and major and maintenance plans, corrective action plans, and operational needs.

3.4.3 The state US&R program shall establish a strategic plan to provide guidance over a 3-5 year period, to include policy and procedural development and regular updates of the Task Force Operations Manual, as well as annual budgeting, while also considering the input of the plans developed by SCERTF and the regional response teams.

ANALYSIS

The state US&R program was developed and has been operating on the initial implementation plan. The goal was to transition to a strategic plan encompassing a five-year span. With the change in administration in 2005, the long-term plan and the scheduled re-write of the Operations Manual had to be put on hold. South Carolina's state US&R program could be the next major leader in the US&R industry with the right vision and planning, but the implementation will have to be managed by personnel who share that vision.

As a further point of concern, the officer currently performing strategic development may not be able to continue in the program after January 2008; as a result, the program management may need to consider annual program analysis and adjustment and may have to secure a subcontractor, adding to future expenditures. Establishment of the strategic plan shall be conducted by the state US&R program to provide guidance over a 3-5 year period.

SCERTF's Operations Manual still needs a critical re-write which is over a year overdue; work plans must reflect policy and procedural development and regular updates of the Task Force Operations Manual, as well as annual budgeting.

Annually, SCERTF and the regional teams shall provide an annual work plan to include specific member training and recertification plans, schedules and types of training, budget plans, equipment procurement and maintenance plans, corrective action plans, and the plan for selecting members for deployment (rotation schedule).

Programming shall occur that takes into account securing memoranda of understanding for the necessary resources needed for deployment and daily operations, as well as development of insurance documentation for civilian members (forecasting required attendance for logistics, training, and deployment), and completion of forms documenting member compensation, fringe benefits, and legal liability issues (pre-filled EMAC REQ-A spreadsheet). Agreements with vendors shall include, but are not limited to, vendors and pharmacies, transportation assets, groceries, accommodations, catering and water, and veterinarians.

As part of the plan, development and recurring updates of the Memorandum of Agreement with South Carolina Emergency Management, South Carolina Firefighter Mobilization, and the State of South Carolina must be performed.

Financial Accounting and Management

GOAL

3.5 The state US&R program shall utilize accepted practices for financial accounting, budget management and procurement.

MEASUREMENTS

3.5.1 The state US&R program shall utilize accepted practices for financial accounting, budget management and procurement in regard to the state US&R program.

3.5.2 The state US&R program's financial accounting system must have the ability to track financial expenditures to the strategic plan goal statements in order to insure compliance with our results-oriented budgeting philosophy.

3.5.3 The state US&R program's financial systems and documentation shall be readily accessible and auditable by federal, congressional, state, and agency audit agencies, especially as they support on-site audits by authorized agency CPAs or licensed public accountants.

ANALYSIS

The state US&R program has the ability to continue a very stringent accounting for finances by continuing to use the state purchasing policies.

SCERTF shall utilize accepted practices for financial accounting, budget management and procurement in regard to the state US&R program. The program shall have systems and written procedures to permit preparation of reports as well as tracing of expenditures to insure that funds have been spent as intended. Expenditures shall be comparable with budgeted amounts in cost amounts and transfers between accounts made in accordance with terms of the state policies. The system must have the ability to track financial expenditures to the strategic plan goal statements in order to insure compliance with our results-oriented budgeting philosophy.

Any applicable cost-sharing/matching/in-kind values must be verifiable and traceable to appropriate grant requirements. Accounting records shall be used that identify the sources and uses of funds including awards, obligations, un-obligated balances, assets, liabilities, expenditures, outlays and income as well as practice effective internal control and accountability for cash, real and personal property and other assets.

Procedures shall be developed and utilized to minimize time elapsed between receipt of funds through grant awards and expenditure of those funds by the program, insuring compliance with federal and state grant requirements. Source documents (canceled checks, paid bills, payroll, time and attendance records, purchase agreements and contracts) to support accounting records shall be maintained and sponsoring agency records supporting timely submission of claims for reimbursement following demobilization shall be appropriately processed.

All systems and documentation shall be readily accessible and auditable by federal, congressional, state, and agency audit agencies, especially as they support on-site audits by authorized agency CPAs or licensed public accountants.

Procurement

GOAL

3.6 The state US&R program procurement processes shall permit timely purchase of goods and services to support immediate deployments and daily operations.

MEASUREMENTS

3.6.1 The state US&R program shall utilize procurement processes that permit timely purchase of goods and services to support immediate deployments and daily operations. Policies, procedures and thresholds shall be established for use of small purchase, simplified acquisition methods including credit/"gift" cards and petty cash to support daily and deployment needs.

3.6.2 The state US&R program shall use state policies and procedures that include reviews to avoid unnecessary purchases, promote full, fair and open competition, as well as clearly describing the basis on which award of a contract shall be made.

3.6.3 The state US&R program shall utilize state policy to employ methods for handling disputes, claims, and award protests and procedures to obtain economical, efficient goods and services using intra-governmental agreements, as well as an administration system to insure contracts are performed in accordance with their terms, and timely procurement processes respond to the needs of the program. Furthermore, state policy shall also be utilized to govern performance of employees involved in award and administration of contracts.

ANALYSIS

A major problem with the current procurement process is that it does not permit timely purchase; in fact, it is extremely cumbersome and does not utilize best practices. If this issue isn't resolved, the US&R program will strangle in red tape. There are no advantages to a procurement system that requires virtually every purchase to go through many layers of management prior to approval. Some trust that purchases are indeed necessary and apply good procurement practices is desired; checks and balances can be put into effect that limit the amount of error that could occur if things go wrong, by using credit or debit cards with strict limits, setting limits of spending authority, or by keeping a small petty cash account. There is also a need to have immediate access to several major credit cards for deployment concerns. Those can be kept under very critical oversight, but currently, the card situation is limited.

The state US&R program procurement processes shall permit timely purchase of goods and services to support immediate deployments and daily operations. Policies, procedures and thresholds shall be established for use of small purchase, simplified acquisition methods including credit/"gift" cards and petty cash to support daily and deployment needs.

Procurements shall use state policies and procedures that include reviews to avoid purchase of unnecessary items, solicitations with clear, accurate descriptions of requirements to enhance full and open competition, as well as clearly describing the basis on which award of a contract shall be made. Solicitations shall also, based on state policy, provide equitable consideration for awards to small and minority businesses, women's business enterprises, and firms in labor surplus areas. Records of contract award histories including method of procurement (sealed bids or proposals), contract type, use of full and open competition or basis for restricting competition, contractor selection, and basis for contract price (cost or price analysis) shall be maintained.

The state US&R program shall also utilize state policy to employ methods for handling disputes, claims, and award protests and procedures to obtain economical, efficient goods and services using intra-governmental agreements, as well as an administration system to insure contracts are performed in accordance with their terms, and timely procurement processes respond to the needs of the program. Furthermore, state policy shall also be utilized to govern performance of employees involved in award and administration of contracts.

CUSTOMER RELATIONS GOALS

Scope: Our vision of the program calls for "world-class" emergency service. World class implies progressive and innovative action and collaborative partnerships. These opportunities occur when we break down the barriers to communication, educate our own people and others, participate in sharing information, and lead positive change. To do these things require stretch goals on behalf of our external customer base.

Relates to: Personnel services allocations are necessary for support of personnel to educate and provide liaison to external customers, especially in regard to local, state, federal, and non-governmental communities, associations, or agencies; insurance allocations insure vehicles used during customer relations missions; computer and software allocations support the website as it is used for education of civilian and public safety communities, and e-mail for correspondence with the same; communication allocation supports business, fax, and cellular service for conducting communications with customers, also supports communications equipment service for incident support units which are used to provide customer service; supplies are necessary for administration and facility support, as well as to fund materials for education and promotion; the canine asset allocation supports canine activities which are historically very important public relations tools; personnel/incentive allocation is utilized to motivate and reward participation of personnel who can assist in delivering customer service, also to fund customer relations materials and promotion; training/planning/exercises allocation is necessary to support travel to conferences and meetings to work with external customers, especially other US&R programs, standard promulgation authorities, and the State Firefighter Conference; facility allocations support classrooms for educating customers and establishing a tangible place to visualize the program contributions to the community; the regional team subsidy benefits local communities by establishing a service they would not have otherwise.

Local Responders

GOAL

4.1 The state US&R program shall create a plan of action to enhance local responder capability to include education as well as identification and assistance to existing assets that can be incorporated into the overall response plan.

MEASUREMENTS

4.1.1 The state US&R program shall recruit and develop at least twenty "US&R Engine Companies" using NIMS recommendations for Type 4 collapse rescue teams, defined as: one engine or rescue company with specified equipment, staffed with four personnel each trained for search and rescue in light frame collapses and low angle rope rescue operations

4.1.2 The state US&R program shall recruit and develop at least twelve Type 4 water rescue teams, using the NIMS recommendations for such: one team of four trained and credentialed personnel with a transport unit, motorized boat, and water rescue equipment, which could be assigned as needed for flood rescue and assistance

4.1.3 The state US&R program shall aid in educating communities in the hazards of technical rescue response to reduce preventable injury and death, but also provide assistance to local communities in their efforts to educate the public.

ANALYSIS

South Carolina’s communities and their local fire departments serve as our primary customer base; whatever our organization does in creating a plan for action should keep their needs at the forefront. In addition to our call to serve these departments, they are also the heart of our most valuable asset, our personnel.

Through a survey conducted in 2004 and in speaking with representatives from these organizations, they have indicated that they want help with planning for these events and in finding funds for bolstering their own services. Their reluctance to find the resources internally and to actually call for assistance once an event occurs, however, needs examining to discover what we can do to assist them.

Opportunities exist to further our tiered response capability by decreasing the amount of time it takes to deliver the first trained and equipped US&R providers through local engine and rescue companies. These designated US&R companies, functioning as Type 4 collapse rescue teams, could be assigned with other similar resources to create strike teams. A stretch goal is suggested for the recruitment and development of at least 20 Type 4 companies: one engine or rescue company with specified equipment, staffed with four personnel each trained for search and rescue in light frame collapses and low angle rope rescue operations. Upon deployment, these assets would be sent to a rally point in teams of five companies, assigned a supervisor, and respond to an area to perform wide-area search and rescue, or to assist state or regional assets in more technical incidents.

Similarly, a stretch goal of recruiting and developing 12 Type 4 water rescue companies should be undertaken: one rescue or unit likewise trained in water rescue at that level, which could be assigned as needed for flood rescue and assistance.

In both cases, the departments wishing to field these companies should be required to train their personnel and equip an apparatus to the appropriate standard in order to be designated a deployable asset. However, the state US&R program should maintain a cache of equipment that could reinforce the equipment brought by the local assets for those types of incidents, especially equipment that isn’t normally carried by the specific companies, instead of purchasing equipment and assigning it to departments.

Other stretch goals should include educating communities in the hazards of technical rescue response to reduce preventable injury and death, but also provide assistance to local communities in their efforts to educate the public. Incentives should be provided to state US&R program members to inspire their participation in these programs.

Regional, State, Military and Non-Governmental Partners

GOAL

4.2 The state US&R program shall seek and conduct positive relations with regional, state, military and non-governmental partners.

MEASUREMENTS

4.2.1 The state US&R program shall maintain and enhance effective response elements for mitigation of terrorist and natural disasters including the ability to provide resource allocation in advance of an incident (“push”) to minimize effect on communities.

4.2.2 The state US&R program shall support the state’s efforts to meet national domestic all-hazard preparedness goals, in particular the requirements of HSPD-8 as related to on-site emergency management and search and rescue.

4.2.3 The state US&R program shall develop collaborative relationships with non-governmental organizations, state, federal, and military agencies to leverage their assets in a way that minimizes bureaucratic obstacles and complements and strengthens response.

ANALYSIS

The state US&R program must create formal and informal partnerships with governmental and non-governmental entities to provide better service to disaster communities. County and regional agencies, state agencies (SCEMD, Homeland Security, SCFA, University of South Carolina, Clemson University, SC State Guard, DHEC, DNR, etc.) have resources we can share, or may be working on initiatives similar to our own. The federal military authorities (SCANG, USACE, USCG, USMC, etc.) were instrumental in our success in Louisiana and should be tapped for logistics support as well as communication and control assistance. NGOs (Red Cross, operating engineer union, etc.) have expertise in certain areas and also resources that can be capitalized on.

Examples of opportunities include tapping regional government to coordinate at their level, especially in regard to educating their constituency, mobilizing and utilizing COBRA teams for HAZMAT and DECON support, and coordinating the water rescue and US&R strike team concept. The military logistics and manpower proved invaluable in previous disaster experiences. Coordination is the key, however, and again, this is where partnerships with agencies with this type of expertise, like SCEMD, need to be fostered. Another opportunity that could be capitalized upon: If SCERTF were to work closely with some identified COBRA assets and develop a suitable working arrangement, the joint team could qualify as an enhanced WMD team, of which there are virtually none in the southeast.

Another opportunity that should be resurrected is the Southeastern Emergency Response Alliance, an informal association between SCERTF, Savannah River National Laboratories, Fort Gordon, and the Medical College of Georgia. This was an effort that was initiated some time ago and died off. There are opportunities to be on the development side of search and rescue, as well as serving as a Beta test subject, which would again go to the vision of innovative service.

If anything, goals for the program should involve private and non-profit sectors in planning and response in the future, as advised in the ICMA Networked Approach to Improvements in Emergency Management (August 2006). This effort would work toward alleviating stovepipes in communication and coordination when disaster strikes by getting all of the players working together, or at least aware of what the other was doing.

National Partners

GOAL

4.3 The state US&R program shall interact and participate in national and international standard development and advocacy organizations.

MEASUREMENTS

4.3.1 The state US&R program shall participate in NFPA standard development committees that relate to technical rescue and US&R, through committee and working group membership, review and comment on proposals, leading discussion, education, and networking.

4.3.2 The state US&R program shall participate in SUSAR, through committee and working group membership, review and comment on proposals, discussion and education, and networking.

4.3.3 The state US&R program shall participate in FEMA committees and working groups that relate to US&R and NIMS, reviewing and commenting on proposals, leading discussion, education, and networking.

ANALYSIS

SCERTF has been involved heavily in leadership of national initiatives since its inception. Our strengths lie in those partnerships; the participation on NFPA technical rescue standard development committees, working to create and lead the SUSAR revolution, our contributions to FEMA and NIMS working groups, and the relationships we have created during all of those activities.

Our challenges are currently with FEMA and NIMS; despite repeated efforts, these two groups continue to exhibit reluctant information sharing and cooperation, which in fact was some of the reason SUSAR came about to begin with. FEMA obviously has the political clout, and the state US&R program needs to develop some heavy hitters in our corner, which should be a matter of education and mutual support.

The state US&R program should aid in first responder training by offering guest lectures or demonstrations, and be at the forefront of the credentialing concept. Our organization could, by taking advantage of the networking opportunities during those efforts, improve communications and interoperability considerably.

ANNEXES

ANNEX 1: STATE EMERGENCY OPERATIONS PLAN OVERVIEW

The current plan for managing large-scale emergencies within the State of South Carolina calls for the utilization of local resources prior to requesting outside assistance. If the incident were larger or more complex than the local public safety agency could effectively manage with their assigned resources, assistance from mutual aid organizations within the area would be utilized next. If those mutual aid resources were insufficient, a call to the county Emergency Management coordinator or directly to the South Carolina Emergency Management Division (SCEMD) State Warning Point could obtain additional resources. The resources of the State US&R Program could then be activated by the South Carolina Firefighter Mobilization Oversight Committee as through the State Mutual Aid Agreement, or by enacting the South Carolina Emergency Operations Plan (SCEOP) under the following criteria:

- The county and local response capabilities are overwhelmed; and
- The county or local government requests State assistance; and
- The Governor formally declares that a disaster has occurred, as per Section 25-1-440, SC Code of Laws, which authorizes the Governor to declare emergencies for all or part of the state and to utilize all available resources of state government to respond to the emergency; OR
- If disaster threatens prior to the ability of the Governor to issue an Executive Order proclaiming the existence of a State of Emergency, the Director of SCEMD is authorized to activate the SCEOP and implement any emergency response actions that may be necessary for the immediate protection of life and property.

Within the State US&R Program, four *regional response teams* and one statewide *urban search and rescue task force* exist. Depending upon the nature of the emergency, these regional teams or the state task force can be summoned, or both levels may respond. The regional response teams are meant to provide a method of tiered response, not unlike the response of emergency medical personnel: First Responders providing elemental care, then more advanced care by emergency medical technicians, then more definitive care provided by paramedics.

A similar concept is necessary for response to flood rescue, where local responders handle acute incidents and subsequent requests for regionalized or state assets can be utilized to provide assistance to emergencies that are more complex. Currently there is no plan for that eventuality.

ANNEX 2: STATE US&R PROGRAM OVERVIEW

Under the SCEOP, the South Carolina Department of Labor, Licensing, and Regulation's Division of Fire and Life Safety (DFLS) has primary responsibility for urban search and rescue under Emergency Support Function 9 (ESF-9). Several other state agencies support DFLS during those operations under the direction of SCEMD.

Under ESF-9, DFLS has allocated responsibility for search and rescue to the South Carolina Firefighter Mobilization Oversight Committee (MOBCOM), as per the SC Code of Laws, Title 23, Chapter 49, the Firefighter Mobilization Act of 2000. This act established the Firefighter Mobilization Plan and encompasses US&R response under: 1) gubernatorial or presidentially declared emergencies, or 2) when a local fire chief needs additional resources after existing mutual aid agreements have been utilized, or 3) when another state requests assistance in dealing with an emergency. To meet the criteria of the law, MOBCOM formed the South Carolina Emergency Response Task Force (SCERTF).

SCERTF was organized to meet the needs of the State of South Carolina as they relate to urban search and rescue; that is, to:

Respond to natural and man-made disasters to provide search and rescue, medical support, damage assessment, and assist in the coordination of relief.

SCERTF developed the original response plan to address shortfalls in service between the local response and federalization of an emergency, especially in the wake of man-made or natural disasters. Since not every emergency with capability to overwhelm a local authority had the likelihood of becoming federalized, the plan could also serve to develop resources to assist the lawfully responsible parties in securing the assistance they need to address more technically challenging rescue. Creating a “tiered” response of assets appears to be the most logical and cost-efficient model for meeting these needs.

Since the nearest units capable of sustained heavy US&R operations were located in Tennessee, Virginia, or Florida, there proved to be a possibility for considerable delay in the response of resources. The State US&R Program incorporated existing resources to address the regional need and established South Carolina US&R Task Force One (SC-TF1) to meet the need for a more robust response prior to the response of outside help.

Since the inception of the program, however, there began the need to widen the umbrella of the state US&R program to incorporate not just SC-TF1 into the plan, but the regional response assets, and water rescue teams. As was proposed in the US&R Program Strategic Plan, SCERTF/SC-TF1 became an entity supported by the state US&R program, and the regional response teams were given membership to the Program Management Group, to reflect the more holistic nature of the relationship.

All of the teams in the program are comprised of our state’s emergency service personnel and aided by civilian providers; physicians, structural engineers, and others like them, in a totally cooperative effort to help those affected by disaster. This mission is carried out through rapid response and assistance to jurisdictions to address the consequences of a critical incident. Response and assistance may include pre-deployment of assets to assist in crisis management activities due to a credible threat in South Carolina or in other jurisdictions as requested through the Emergency Management Assistance Compact (EMAC).

Up until 2007, the South Carolina State US&R Program has functioned simply through cooperation and individual sacrifice, yet serves as a model to other states on appropriate response to the challenge of covering the gap between local response and a presidentially declared federal response. This program has been integral in meeting the needs of the state in that regard and also serves to meet several objectives of the State Homeland Security Assessment and Strategy (SHSAS)¹⁰.

For the purposes of the program and for operational consistency, these teams all meet requirements for their resource type as specified by the FEMA Typed Resource Definitions: Search and Rescue Resources document (FEMA 508-8)¹¹. The nomenclature of these teams, however, appears to be widely misunderstood and therefore begs clarification.

ANNEX 3: STATE US&R TASK FORCE

SCERTF is truly a statewide resource, consisting of personnel representing many emergency service organizations from throughout the state, as well as civilian members. SCERTF can be configured as a Type 1 or a Type 2 Urban Search and Rescue Task Force (70 or 28 personnel and equipment, depending upon the type) as identified in the 508-8 document¹². SCERTF can also employ several mission packages to support regional teams, local responders, or other specialized assets, providing advanced command and control, shelter, food and water, communications, HAZMAT, medical, and logistical support. SCERTF’s missions have been varied in nature: assets have been used to search for a lost man in Chesterfield County; to provide reconnaissance and damage assessment after flooding in Greenville County; to provide technical rescue advice during a grain silo rescue in Darlington County; to offer technical rescue services to the City of Charleston in the wake of the tragic Sofa Superstore fire; as well as preparing for several hurricanes and the deployment to Louisiana for Hurricane Katrina.

¹⁰ South Carolina State Homeland Security Assessment and Strategy.

<http://www.sled.state.sc.us/CISystem/Images/NewsPress/SNP0044.pdf>

¹¹ FEMA Typed Resource Definitions: Search and Rescue Resources (FEMA 508-8); November 2005. http://www.fema.gov/pdf/nims/508-8_search_and_rescue_resources.pdf

¹² FEMA 508-8; pages 36-38.

SCERTF is staffed by volunteers who must check and maintain equipment, train, and of course, be prepared to go into the heart of a disaster to search for, and rescue, victims. Although in some cases, employers support these members by granting leave and by covering Worker's Compensation, there are members who are self-employed, or employed by companies who choose not to support their endeavors. Our physician members, for example, worked since the beginning with absolutely no Worker's Compensation coverage, nor have they had malpractice or liability insurance that has supported their efforts.

Task Force members attend regular uncompensated training, and they also volunteer to perform duties like maintaining the equipment cache. Specialized training has been secured in the past through grants covering the course tuition, travel, meals and lodging, but depending upon the level of support from their sponsoring department, these members often must take vacation or arrange duty exchanges to go to the weeklong training. Despite this, the majority of members have gone through FEMA-equivalent position training, at times held in Texas, Illinois, New Jersey, or other regions of the nation.

The SCERTF equipment cache and the equipment furnished to the regional teams have been almost exclusively purchased by federal grants. The cost for operating this equipment, however, has been borne by the local departments in the cases of the regional teams, and through the \$165,000 allocated to MOBCOM for running the Firefighter Mobilization Plan in the case of SCERTF. As was apparent since the beginning, there are costs involved in maintaining this program that cannot be provided through grant allocations; the funds were specifically not permitted to pay for service and are quickly dwindling anyway.

Furthermore, since SCERTF is comprised of a volunteer force, there is the need for administrative and logistical personnel to manage the daily activities and assure coordination and consistency. The management of a task force is a full-time job and the act of coordinating specifications and purchasing, receipt of equipment, and oversight of maintenance and inventory control is as well. Records must be kept to insure compliance with industry regulations, and training activities must be coordinated.

The method by which SCERTF accomplishes the US&R mission is to provide a statewide heavy search and rescue proficiency that can be deployed to incidents requiring this capability. In order for the entire US&R program to be able to function in this capacity, SCERTF must continue to develop and maintain the following capabilities:

- Physical, canine, and electronic search capability.
- Rescue operations in a variety of environments, including, but not limited to, structural collapse, during and after flooding and other disasters, or as a result of terrorist activity
- Advanced life support capability, specializing in disaster medicine.
- Structural integrity assessments of structures in rescue operations.
- Hazardous materials assessments in rescue operations.
- Heavy equipment operations for rescue efforts.
- Communications within the task force, with the IST, and with the home jurisdiction.
- Resource accountability, maintenance, and equipment procurement.
- Technical documentation.
- Public information.
- Task Force management and coordination.

In addition to having the above listed capabilities, the task force is structured to be able to operate under the following guidelines:

- 24-hour operations in two 12-hour shifts.
- Self-sufficiency for 72 hours.
- Report to the POD within 4 hours of activation.
- Cross-trained personnel.
- Standard equipment and training.
- Standard operating procedures.
- Operate using the National Incident Management System (NIMS).

The SCERTF US&R Incident Support Team provides state and local officials with technical assistance in the acquisition and utilization of US&R resources through advice, incident command assistance, management and coordination of the US&R task force, and obtaining logistics support.

In order to ensure the efficiency and operational readiness of the task force, SCERTF has adopted the FEMA Operational Readiness Evaluation Process. This program provides for a thorough inspection of all task force components to determine the general readiness of the task force to respond and operate on the scene of a disaster. The objectives of the process include:

- Provide a uniform method to determine the current operational readiness levels of all task force assets participating in the State US&R Program.
- Identify major strengths and shortfalls in the current and planned system of task force development.
- Develop a fair and objective process that can be conducted by local program management, state officials and SCERTF to determine readiness levels.
- Provide feedback regarding the strengths and weaknesses for inclusion into a plan of action for further development and improvement.

ANNEX 4: REGIONAL RESPONSE TEAMS

The regional response teams, located in Greenville, Myrtle Beach, Charleston, and Hilton Head Island, all meet or exceed the requirements for Type 2 Collapse Rescue Teams as identified in the 508-8 document¹³. These teams provide 14 personnel equipped and trained to rescue victims in collapsed structures of un-reinforced masonry and frame construction, as might be found in most communities after a tornado or windstorm. By virtue of their training and equipment, these teams are also able to mitigate technical rescue emergencies in confined spaces, at elevation, in trench or excavation collapses, or in machinery or farm entrapment. These teams, however, are NOT equipped for sustained operations, nor do they possess anything more than basic command and control capabilities. They can be supplemented by specific mission packages deployed from SCERTF which make them very versatile, and can also be used in that configuration to provide a “back-up” response if SCERTF were engaged elsewhere.

ANNEX 5: US&R ENGINE COMPANIES

The US&R engine company format would provide a local response capability that could also be teamed up within designated regions to create US&R Engine Strike Teams. We recommend that companies would meet the staffing and equipment requirements for Type 4 Collapse Rescue Teams as identified in the 508-8 document¹⁴. Each of these companies would provide four personnel equipped and trained to rescue victims in wide-area search and rescue, such as would be necessary for the majority of victims after a tornado or windstorm. These teams could work to remove minimal or light debris to remove victims, but would not be tasked with extricating patients. These teams are also NOT equipped for sustained operations. Aside from their use as first responders, if they were deployed to a large emergency, it would be done as part of a strike team. They must be supplemented by specific mission packages deployed from SCERTF. They would alleviate some of the workload currently assigned to US&R teams by handling areas where searches would have to be performed of stable structures, like after flooding when the flood waters have receded, or areas with a large number of surface victims.

A request would be placed to all interested departments to be able to staff an engine company with one officer, one driver, and two personnel. The NIMS standard calls for these personnel to have been through HAZMAT Awareness and their team able to perform at the Awareness level of 1670; we would recommend that they exceed that by maintaining HAZMAT Operations and the core competencies of NFPA 1006. The Fire Academy could be tasked to develop training in cooperation with the state US&R program to insure needs are adequately met. Equipment, however, would remain fairly basic.

ANNEX 6: WATER RESCUE TEAMS

¹³ FEMA 508-8; pages 18-20.

¹⁴ FEMA 508-8; pages 18-20.

The water rescue teams would be selected from existing local response teams to continue to support local response capability and can also be deployed within designated regions to create a more rapid response of qualified and equipped personnel. We recommend that teams would meet the staffing and equipment requirements for Type 2 Water Rescue Teams as identified in the 508-8 document¹⁵. Under the state US&R program needs, these teams could work to remove victims from drive-in situations, or stuck in homes, but would not be tasked with swiftwater rescue. These teams are not equipped for sustained operations. If these teams were deployed to a large emergency, they would do so as part of a reinforced response augmented by the SCERTF C4 mission package. SCERTF would be able to also field a Type 1 team from its own personnel.

A request would be placed to all interested departments to be able to staff a water rescue team with one officer and five water rescue personnel equipped and trained to rescue victims in water search and rescue, such as would be necessary for rescue of victims after widespread flooding. The NIMS standard calls for these personnel to have been through HAZMAT Operations as well as search operations, power vessel operations, helicopter rescue, animal rescue, basic life support, and rope systems. These members shall have also gone through a public safety diver course and swiftwater rescue training.

¹⁵ FEMA 508-8; pages 30-32.