MEDICAL SUPPORT UNIT

The Eastern Healthcare Preparedness Coalition (EHPC) Medical Support Unit (MSU) was based on the Charlotte Fire Medical Support Unit (MSU) that was designed as a prototype hard patient care facility with several primary missions. Those include but are not limited to:

- Remote support/patient care facilities for the level II SMAT's
- USAR teams medical support
- Planned event minor treatment station
- Responder rehabilitation/Haz mat medical monitoring
- Sick call/medical station at a base camp, large staging area or shelter
- General Population shelter support

Advantages of the trailer concept of the MSU's are first, they are mobile. If, because of an inaccurate needs assessment, they are deployed to an area that does not need additional pre-hospital surge capacity they can immediately be redeployed to areas less fortunate. Secondly, they can begin seeing patients within minutes of arriving on the scene as opposed to, at best, several hours for the SMAT II's. This, because the treatment area is already setup, there are no box boxes to unpack or tents to throw. All the MSU has to do is stabilize the trailer, start the generator and open the doors.

The unit is intended to be utilized at the ALS/Paramedic to mid level (Physician Assistant or Nurse Practitioner) provider level although they may be utilized at any provider level. They contain four well lit, beds or treatment areas and a "chairs area" that can support two additional patients all in a heated and air conditioned environment (note that MSU's in other coalitions are configured slightly different). If needed, provided enough gas is available, oxygen can be delivered simultaneously to six patients inside and additional patients outside. Additionally they contain a work area, one with a standing height counter. The pharmacy and treatment cache will depend on the staffing available, although sufficient provisions should be maintained on all MSU's that mid level or physician from another team could step on to the trailer and have the necessary basic tools to work. All EHPC's MSU's were stocked with the same supplies and equipment to be self sufficient for a working event.

The staffing for the unit can be adjusted based on the mission and patient load, but should be no less than one paramedic and two EMT Basics per daily operations period. Staffing may be as robust as a team of nine. One unit leader, two mid-level providers, two nurses, two paramedics and two EMT Basics.

Currently there are six of these trailers in Eastern North Carolina; Halifax County EMS (MSU 101), Wilson County EMS (MSU 102), Task Force 10 USAR with Greenville Fire and Rescue (MSU 103), Lenoir County EMS (MSU 104), Nash County EMS (105), and Dare County EMS (106). It is understood that these units are available to all counties of EHPC as a regional asset. It should be noted that additional MSU's are located in Wilmington, Raleigh, Mocksville, and Charlotte (however, their configurations are slightly different.

SMAT II Support

The SMAT II support concept has been developed based on several federal DMAT experiences over the past five or six hurricane seasons. The DMAT's tend to get overwhelmed by the "worried well". These are generally patients who have no physical manifestation of injury or illness, but are worried that they may get sick. A prime example is when the media reports that "everyone exposed to contaminated water should receive a tetanus booster". The public shows up to get their shots by the hundreds and overwhelm the DMAT's. Thus making it extremely difficult to appropriately triage and treat the legitimately ill or injured.

During this mission the proposed purpose of the MSU's is to have multiple rapidly deployable, extremely mobile "community based" units that will deploy in a spoke pattern around an SMAT II as a hub. They provide triage, "treat and street" or "treat and refer" to the SMAT II for more definitive or long term care. The MSU brings the medical care to the community instead of bringing the community to the medical care, this is a core tenant of the MSU concept. The MSU's should be assigned to the SMAT III's as it is in their current mission plan to be considerable more mobile and have faster jump times than any other component of the SMRS.

USAR Medical Support.

The USAR medical support mission is extremely task force specific. However the MSU concept provides the team medical providers a clean, quiet work area to provide care for ill or injured team members. Should it be required the unit could be utilized for victim treatment until evacuation arrangements are made. It is extremely important that in this roll the unit be staffed with the highest level provider feasible. The unit must have the capability to take care of its own as much as possible. A complete ALS cache with diverse analgesic and sedation selection must be available should a team members suffer a severe traumatic injury. The trailer concept provides an isolation area should a team member become ill but cannot or does not need to be evacuated, thus acting as an important preventative medicine tool to prevent potentially contaminating the balance of the team.

As long as the mission remains team health and welfare staffing during this type of mission can be scaled back to one physician or mid level, one paramedic and one EMT-Basic per ops period.

Planned Event Minor Treatment Station

During planned events it is difficult to maintain patient confidentiality because of the environment treatment is often offered. Many times the environment is so noisy is it difficult at best to perform an adequate assessment. At this mission the MSU will provide a quiet, controlled, confidential environment plus act as a central coordination point for all medical activities during the event. Again it can be staffed at any provider level. However because of the potential multiagency utilization of the facility the MSU should have one SMAT member assigned so any walkup patients can be handled and the unit's asset protection and appropriate documentation are assured.

Responder Rehab and Hazardous Materials Incident Medical Monitoring

During extended, complex or environmentally hostile incidents, many times the responders whether they be fire, police or EMS are not provided sufficient facilities to be appropriately medically monitored in order to minimize the potential for injury. Responders by nature will not admit that they are fatigued or not feeling well; however their physiological response to the situation will tell the tale without them admitting to it. Again in this mission the MSU will primarily act in a preventative medicine role. Should treatment such as IV therapy, breathing treatments, minor wound care, etc. Be needed it can be administered in the MSU potentially eliminating the need for the member to be transported to the emergency department.

Again, an advantage is that the MSU is extremely mobile and can be up and running within minutes of arriving on the scene. The facility allows one ALS crew room to monitor and if necessary, treat three to six responders without being cramped in the back of an ambulance.

Sick call/medical station at a base camp, large staging area

Similar to the responder rehab scenario, many times we're so busy taking care of others we don't care for ourselves. The MSU provides an excellent platform for a base camp or large staging area "sick call". Being a rapidly deployable fixed facility the Incident Commander can assign the unit to logistics and the responder medical sector takes care of its self without have to find a facility or tentage to house it.

General Population shelter support

Shelter populations, often times special needs, are left to fend for the selves. Typically if a medical emergency occurs the local EMS system is called to provide care. These ties up local resources that are needed for 911 responses in the community. The MSU concept provides a facility for care to be provided at such facilities. It will need to be supplemented by other elements of the SMRS but again provides a rapidly deployable foundation from which to work.

Immunization Clinic

In the event that a mass immunization clinic is required for seasonal flu, pan flu or any similar epidemic. These units could be provided to Public Health Departments for Immunization clinics. The flow though pattern of front and rear doors lend themselves to high pass through traffic. Patients can be registered under the awnings and filed through the trailer for immunization and back out. This would not be suitable for a large town or area but would be very suitable for rural area access to public health immunization services during a crisis. As similar mission was performed by SORT in their like unit for all the Charlotte Fire Responders to a flooding event about 10 years ago there all members were given Tetanus boosters. This ended up being an ideal platform for about 150 members.