

Hurricane Ike - Lessons Learned

Managing Resources & Evacuee Tracking



Are you prepared to handle the massive staging operation for State and Federal assets during a disaster?

1,300 Passenger Coach Buses
1,300 seats of Para-Transit transport

100 State Ambulances
300-600 FEMA Ambulances

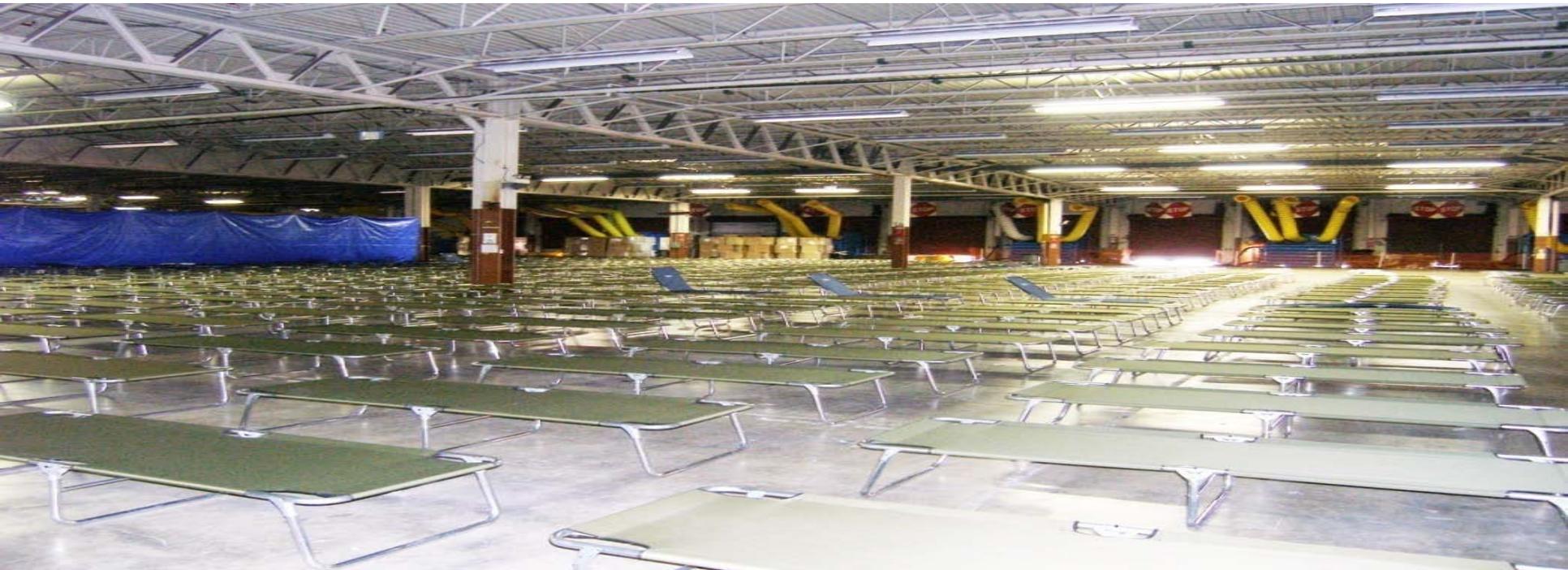
For staging you must consider location:

- **Size (footprint)**
- **Ease of ingress/egress**
- **Access to food, water, fuel, restrooms, utilities, etc.**
- **Security**
- **Availability of buildings**



Support Services for Responders

- Anticipated duration of operation
- Parking for responders & support services
- Support services:
 - Food
 - Water & ice
 - Trash service
 - Restrooms & hygiene facilities



Ambulance Staging

- Type 4
 - 25 Ambulances (5 EMS Strike Teams)
- Type 3
 - Up to 125 Ambulances
- Type 2
 - Up to 250 Ambulances
- Type 1
 - Up to 500 Ambulances

RESOURCE: EMS STAGING AREA - Sustained Operations (> 24 hours)

CATEGORY:		Emergency Medical Services (ESF #8); Command and Control			
MINIMUM CAPABILITIES:		Type I	Type II	Type III	Type IV
Component	Metric	(500 EMS Units)	(250 EMS Units)	(125 EMS Units)	(25 EMS Units)
Personnel	Number of Personnel	40-person response (24-hour Operations)	24-person response (24-hour Operations)	14-person response (24-hour Operations)	6-person response (24-hour Operations)
	Sustained Operations	(2) Ambulance Staging Manager (2) Vehicle Staging Team Leader (4) Status Check-In Recorder (2) Mission Tasking Team Leader (1) Administrative Team Leader (2) Logistics Team Leader (4) Data Entry Technician (6) Vehicle Staging Technician (2) Communications Technician (2) Mission Tasking Technician (2) Check-Out Technician (2) Documentation Technician (1) Demobilization Team Leader (2) Logistics Technician (2) Medical Supply Technician (2) Medical Gas Technician (2) Maintenance Technician	(2) Ambulance Staging Manager (2) Vehicle Staging Team Leader (6) Vehicle Staging Technician (4) Status Check-In Recorder (2) Communications Technician (4) Logistics Technician (2) Mission Tasking Team Leader (2) Data Entry Technician	(2) Ambulance Staging Manager (2) Vehicle Staging Team Leader (4) Vehicle Staging Technicians (2) Status Check-In Recorders (2) Logistics Technicians (2) Communications Technician	(2) Ambulance Staging Manager (2) Vehicle Staging Technician (1) Communications Technician (1) Data Entry Technician
Operational Area	Parking and Support	272,000 sq ft (12' x 35' / vehicle) + 20,000 sqft Operations Area	136,000 sq ft (12' x 35' / vehicle) + 10,000 sq ft Operations Area	73,000 sq ft (12' x 35' / vehicle) + 10,000 sq ft Operations Area	22,600 sq ft (12' x 35' / vehicle) + 10,000 sq ft Operations Area
	Sleeping Area	24,000 sq ft	12,000 sq ft	6,000 sq ft	1,250 sq ft
Equipment	Command Vehicles	(1) Type I or Type II "Mobile EOC" (1) 8x20 Enclosed Trailer with Power and Climate Control (4) Type IV "Mobile EOC"	(1) Type I or Type II "Mobile EOC" (1) 8x20 Enclosed Trailer with Power and Climate Control (4) Type IV "Mobile EOC"	(1) Type I or Type II "Mobile EOC" (1) 8x20 Enclosed Trailer with Power and Climate Control (2) Type IV "Mobile EOC"	(1) Type IV "Mobile EOC" (1) 8x20 Enclosed Trailer with Power and Climate Control
	Tow Vehicles	(6) 1-ton Trucks	(4) 1-ton Trucks	(3) 1-ton Trucks	(2) 1-ton Trucks
	Power Generation	(1) 125kw Generator (Type VI) Shoreline Power (2) 60kw Generator Shoreline Power (4) 6.5 kw Generator Command Backup Power	(2) 60kw Generator Shoreline Power (4) 6.5 kw Generator Command Backup Power	(2) 60kw Generator Shoreline Power (4) 6.5 kw Generator Command Backup Power	(1) 60kw Generator Shoreline Power (2) 6.5 kw Generator Command Backup Power
	All Terrain Mobility	(6) John Deere Gator All Terrain Utility Vehicle	(3) John Deere Gator All Terrain Utility Vehicle	(2) John Deere Gator All Terrain Utility Vehicle	None
	Area Lighting	(8) to (12) Generator powered Light Towers - trailer mounted (Terex AL 8000 HT)	(6) to (8) Generator powered Light Towers - trailer mounted (Terex AL 8000 HT)	(4) to (6) Generator powered Light Towers - trailer mounted (Terex AL 8000 HT)	(2) to (4) Generator powered Light Towers - trailer mounted (Terex AL 8000 HT)

RESOURCE: EMS STAGING AREA - Sustained Operations (> 24 hours) - continued

Emergency Medical Services (ESF #8); Command and Control					
MINIMUM CAPABILITIES:		Type I	Type II	Type III	Type IV
Component	Metric	(500 EMS Units)	(250 EMS Units)	(125 EMS Units)	(25 EMS Units)
Equipment	Computer Equipment	(15) Laptop Computers Redundant Internet Access (4) Printers (networked) (1) Scanner	(10) Laptop Computers Redundant Internet Access (2) Printers (networked) (1) Scanner	(5) Laptop Computers Redundant Internet Access (1) Printer	(2) Laptop Computers Redundant Internet Access (1) Printer
	Communications Equipment	(3) VSAT Internet System (12) EVDO / Cellular Internet Cards (4) GPS Unit (20) Cellular Telephones / NEXTEL (24) Radios, Interoperable (1) Speaker Phone System	(2) VSAT Internet System (8) EVDO / Cellular Internet Cards (2) GPS Unit (12) Cellular Telephones / NEXTEL (12) Radios, Interoperable (1) Speaker Phone System	(1) VSAT Internet System (4) EVDO / Cellular Internet Cards (2) GPS Unit (8) Cellular Telephones / NEXTEL (8) Radios, Interoperable (1) Speaker Phone System	(1) VSAT Internet System (2) EVDO / Cellular Internet Cards (1) GPS Unit (4) Cellular Telephones / NEXTEL (4) Radios, Interoperable (1) Speaker Phone System
	Administrative Supplies	(4) Staging - Admin Kit (16) Staging - Parking Kit (2) Tool Kit	(2) Staging - Admin Kit (8) Staging - Parking Kit (2) Tool Kit	(1) Staging - Admin Kit (4) Staging - Parking Kit (1) Tool Kit	(1) Staging - Admin Kit (1) Staging - Parking Kit (1) Tool Kit
	Power Supply	Power Strip and Extension Cord Phone and Device Chargers, Uninterrupted Power Supply, Spare batteries & DC Transformer	Power Strip and Extension Cord Phone and Device Chargers, Uninterrupted Power Supply, Spare batteries & DC Transformer	Power Strip and Extension Cord Phone and Device Chargers, Spare batteries & DC Transformer	Power Strip and Extension Cord Phone and Device Chargers, Spare batteries & DC Transformer
Services	Food Service	MRE: 400 cases / day Catering: (2 & 1) 2400 meals daily and 60 cases of MREs / day Catering (3 hot meals) 3600 / day	MRE: 200 cases / day Catering: (2 & 1) 1200 meals daily and 30 cases of MREs / day Catering (3 hot meals) 1800 / day	MRE: 100 cases / day Catering: (2 & 1) 600 meals daily and 15 cases of MREs / day Catering (3 hot meals) 900 / day	MRE: 25 cases / day Catering: (2 & 1) 150 meals daily and 4 cases of MREs / day Catering (3 hot meals) 300 / day
	Potable Water (daily)	1200 gallons (1 gal/person/day) 600 cases (1 case/vehicle/day)	600 gallons (1 gal/person/day) 300 cases (1 case/vehicle/day)	300 gallons (1 gal/person/day) 150 cases (1 case/vehicle/day)	100 gallons (1 gal/person/day) 50 cases (1 case/vehicle/day)
	Ice (daily)	1200 small bag (8 lbs) / day 600 large bags (15-20 lbs) / day	600 small bag (8 lbs) / day 300 large bags (15-20 lbs) / day	150 small bag (8 lbs) / day 75 large bags (15-20 lbs) / day	100 small bag (8 lbs) / day 50 large bags (15-20 lbs) / day
	Trash Service	(2) 8 cu ft Dumpsters Emptied Daily	(1) 8 cu ft Dumpster Emptied Daily	(1) 4 cu ft Dumpster Emptied every other day	(1) 2 cu ft Dumpster Emptied every other day
	Restrooms	Access to 20-24 toilets and 10-12 sinks/handwashing stations Serviced Twice Daily	Access to 20-24 toilets and 10-12 sinks/handwashing stations Serviced Daily	Access to 8-12 toilets and 4-8 sinks/handwashing stations Serviced Daily	Access to 2-4 toilets and 1-2 sinks/handwashing stations Serviced Daily
	Hygiene Facilities	Access to (20) Showers Access to (36) Hygiene Sinks	Access to (12) Showers Access to (24) Hygiene Sinks	Access to (8) Showers Access to (12) Hygiene Sinks	Access to (2) Showers Access to (4) Hygiene Sinks
Support Capability	E.M.S. Responders	Approximately 1200 Personnel	Approximately 600 Personnel	Approximately 300 Personnel	Approximately 75 Personnel

Evacuee Tracking

- **Texas Special Needs Evacuee Tracking System (SNETS)**
 - Track people, pets & medical equipment
 - Track transport vehicles with barcode & GPS
- **WebEOC Boards**
 - Patients, medical special needs, vehicles, shelters, people locator, etc.
- **EMTrack**
 - Track patients & medical special needs
- **SNETS, WebEOC & EMTrack systems are being interfaced for live bi-directional data sharing**

Tracking System Components





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Medical Operations Center Advantages:

- A single set of objectives
- Improved information and coordination
- Joint priorities and restrictions
- Mutual voice for ESF-8
- Integrated with MACC
- Documented best practice
- Coordinate medical mission priorities



“One Stop Shop”

- Unmet Needs
- Information
- Tracking et al
- Evacuation
- Restoration
- Presentation
- Trending
- EMS Staging
- Special Needs
- Resource Allocation
- Coordination of Mass Fatality Issues



CMOC Command Structure

