

Tennessee Fire Service Emergency Response Plan



Resource Typing Guidance Document

Version 1

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Pre-Designated Mutual Aid Task Force and Strike Team Protocol

Background

It is the intent of the Tennessee Fire Chiefs Association's (TFCA) Mutual Aid Committee to develop and recognize pre-designated task forces and strike teams that can be quickly assembled and deployed during a mutual aid request or disaster response. This document creates the minimum criteria for the development of these teams across the state.

Designation of Teams (Locations, Identification, etc)

A local agency or group of agencies who's intent is to participate as a pre-designated task force and/or strike team will meet the criteria designated in this chapter and present to the mutual aid committee for approval and will receive the task force/strike team designation and number.

Task Force and Strike Teams will be designated by a three number system. The first number will correspond with the District number where the resource is located:

First TN = 1

East TN = 2

Southeast = 3

Upper Cumberland = 4

Greater Nashville = 5

South Central = 6

Northwest TN = 7

Southwest TN = 8

Memphis Area = 9

The second number will be a 0 or 1 for pre-designated teams and 2 through 9 for teams that are developed during an event.

The third number will be the task force or strike team number for that area.

Example: The first Task Force from the Greater Nashville district would be "Task Force 501." An Engine Strike Team from the Memphis Area that was assembled during an event would be "Engine Strike Team 921."

Pre-designated task forces' will be documented in the mutual aid database as a resource.

Criteria

All resource elements within a Task Force/Strike Teams must have common communications and a designated Team Leader. Refer to the appropriate section of this document for specific typing of equipment and credentialing of personnel.

Task Force: Any combination of resources assembled to support a specific mission or operational need, and a Team Leader.

- A Structural Task Force will consist of 1 Chief Officer and Chief's Aid, 3 Type I Engine Companies, and 1 Type I Ladder Company.
- A Wildland Task Force will consist of one Type I or II Engine, three Type III through VI Engines (Brush), one Type I or II Water Tender, and Chief and Chief's Aide.

Strike Team: A set number of resources of the same kind and type that have an established minimum number of personnel, and a Team Leader.

- An Engine Strike Team will consist of 5 Type I engine companies and a Chief Officer and Chief's Aide.
- A Tender Strike Team will consist of 5 Type I or II water tenders (tankers) and a Chief Officer and Chief's Aide.
- A Wildland Strike Team will consist of 5 Type III through VI Engines and a Chief Officer and Chief's Aide.

All Task Force/Strike Team personnel must meet the Training Credentials and Minimum Qualification Requirements as outlined in TFS Emergency Response Plan Appendix F.

Teams are expected to train, drill, and exercise with all members on a regular basis, and have an established accountability system in place. Communication equipment that is reliable and programmed with designated mutual aid frequencies is required of each team to coordinate operations during an incident.

A Team Leader must be designated for each Task Force/Strike Team and will be the point of contact for each team, and responsible for the operations of the team. This will include ensuring all team members and equipment meet the required training and qualifications in accordance to the TFS Emergency Response Plan.

Deployment

A Task Force or Strike Team that is requested to respond to an event will assemble at the pre-designated rally point and will respond to the event's staging area as a unit. Each team should be self-sufficient during the duration of the response mode.

- **Scramble Response:** en route in 30 minutes or less and on-site up to 24 hours.
- **Standard Response:** en route within 3 hours, on-site up to 72 hours.
- **Extended Response:** en route within 24 hours, on-site up to 14 days.
- **Planned Response:** schedule event for a specified time and location (i.e. exercise, training, etc.)

Excluding scramble responses, responding personnel shall bring food, water, clothing and personal hygiene items to support themselves up to a 72 hour mission. For a basic list of personal and team items needed for a deployment, refer to Appendix G – Pre-Trip Checklist of the TFS Emergency Response Plan. These are basic checklists, the Team Leader should add to this list as appropriate based upon the mission and prevailing conditions.

Resource Typing

FEMA Typing

All departmental resources will be typed in accordance to the FEMA 508-4 ***Typed Resource Definitions Fire and Hazardous Materials Resources*** and FEMA 508-8 ***Typed Resource Definitions Search and Rescue Resources***.

State Specific Typing




For departmental resources that are not identified in the FEMA Resource Typing documents, this document will be used to categorize the equipment and teams in a standardized manner. Additional typing for criteria have been identified for some of the FEMA typed resources in order to further categorize resources that might be requested and are available within the state. These items are identified in this document.

Unless otherwise noted, all references to NFPA standards are for the current edition. Additionally, the minimum equipment for specialized rescue teams are referenced from NFPA 1006 Appendix G *Technical Rescuer Tool Kit*.

RESOURCE:		Engine, Fire (Pumper)						
CATEGORY:	Firefighting (ESF #4)				KIND:	Equipment		
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V	TYPE VI	TYPE VII
COMPONENT	METRIC							
Equipment	Meets NFPA	1901	1901	1906	1906	1906	1906	1906
Equipment	Pump Capacity	1,000 GPM	500 GPM	150 GPM	50 GPM	50 GPM	50 GPM	10 GPM
Equipment	Tank Capacity	300 Gal.	300 Gal.	500 Gal.	750 Gal.	400 Gal.	150 Gal.	50 Gal.
Equipment	Hose, 2.5 inch	800 ft.	800 ft.					
Equipment	Hose, 1.5 inch	400 ft.	400 ft.	1,000 ft.	300 ft.	300 ft.	300 ft.	
Equipment	Hose, 1 inch	200 ft.	200 ft.	500 ft.	300 ft.	300 ft.	300 ft.	200 ft.
Equipment	Pump and Roll Capability	No	No	Yes	Yes	Yes	Yes	Yes
Personnel	Staffing	4 1 Fire Officer I 1 Fire Apparatus Driver, 2 Firefighter I	3 1 Fire Officer I 1 Fire Apparatus Driver 1 Firefighter I	3 1 Wildland Fire Officer I 2 Wildland Firefighters	2 1 Wildland Fire Officer I 1 Wildland Firefighter	2 1 Wildland Fire Officer I 1 Wildland Firefighter	2 1 Wildland Fire Officer I 1 Wildland Firefighter	2 1 Wildland Fire Officer I 1 Wildland Firefighter
COMMENTS:	<p>Typically Type I and II engines apply to structural engines. Type III-VII engines apply to wildland engines.</p> <p>Type I-II engines must meet NFPA 1901 requirement at time of manufacture and tested and maintained in accordance with NFPA 1911.</p> <p>Type III –VII engines must meet NFPA 1906 requirements at time of manufacture or applicable NWCG standards.</p> <p>When thread patterns do not meet NFPA 1906, adapters shall be provided.</p> <p>Personal protective equipment and other safety equipment will be determined by the AHJ consistent with existing standards and regulations.</p>							

RESOURCE: Water Tender, Tactical Fire (Tanker)						
CATEGORY: Firefighting (ESF #4)			KIND: Equipment			
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V
COMPONENT	METRIC					
Equipment	Tank Capacity	2,000 gallon	1,000 gallon	2,000 gallon	1,000 gallon	
Equipment	Pump Capacity	250 GPM	250 GPM	No pump: < 250 GPM	No Pump: < 250 GPM	Vacuum
Personnel	Staffing	2 1 Fire Apparatus Driver 1 Firefighter I	2 1 Fire Apparatus Driver 1 Firefighter I	2 1 Fire Apparatus Driver 1 Firefighter I	2 1 Fire Apparatus Driver 1 Firefighter I	2 1 Fire Apparatus Driver 1 Firefighter I
COMMENTS:	Must meet NFPA 1901 requirements at time of manufacture and tested and maintained in accordance with NFPA 1911.			Applies to tenders that have less than 250 GPM pump or are gravity feed dumping only.		
	All apparatus must be equipped with a minimum 6" quick dump capacity					

RESOURCE:		Aerial Ladder, Fire					
CATEGORY:	Firefighting (ESF #4)					KIND:	Equipment
MINIMUM CAPABILITIES:		TYPE I	TYPE II	TYPE III	TYPE IV	OTHER	
COMPONENT	METRIC						
Equipment	Meets NFPA	1901	1901				
Equipment	Aerial	75 ft.	50 ft.				
Equipment	Elevated Stream	500 GPM	500 GPM				
Equipment	Ground Ladders	115 ft.	115 ft.				
Personnel	Staffing	4 1 Fire Officer I 1 Fire Apparatus Driver 2 Firefighter I	4 1 Fire Officer I 1 Fire Apparatus Driver 2 Firefighter I				
COMMENTS:	Must meet NFPA 1901 requirements at time of manufacture and tested and maintained in accordance with NFPA 1911. Quints shall be classified as an Aerial Ladder.						

Resource:		Rescue Truck			
Category:	Firefighting (ESF #4)			Kind:	Equipment
Minimum Capabilities:		Type I	Type II	Type III	
Component	Metric				
Equipment	Meets NFPA *	1901	1901	1901	
Equipment	Chassis	Class 7; GVWR > 26,000 lbs.	Class 5: GVWR 16,000 to 19500 lbs.	Class 3; GVWR 10,000 to 14,000 lbs.	
Equipment	Generator	Onboard, ≥10 kW	Portable, ≥ 5kW	Portable, ≥ 5kW	
Equipment	Winch	Fixed, 12,000 lb.	Portable, ≥ 9,500 lbs. w/mounted receiver	Portable, ≥ 1000 lbs.	
Equipment	Extrication	Powered Hydraulic	Powered Hydraulic	Powered Hydraulic	
Equipment	Shoring	Low, High pressure air bags	Cribbing	Cribbing	
Personnel	Minimum Staffing	1 Officer 1 Apparatus Driver 2 Rescuers	1 Officer 1 Apparatus Driver	1 Officer 1 Apparatus Driver	
	Examples				
Comments:	<p>All personnel must meet minimum training requirements specific to the capabilities of the apparatus and intended use of equipment.</p> <p>*Meets NFPA 1901 for Special Service Apparatus. Minimum equipment capabilities should meet the chart titled “Minimum Rescue Equipment per Specialty (NFPA 1006)”</p>				

Resource: Air						
Category:	Firefighting (ESF #4)				Kind:	Equipment
Minimum Capabilities:		Type I	Type II	Type III	Type IV	Type V
Component	Metric					
Equipment	Mobile Compressor	6,000 psi				
Equipment	Mobile Cascade		6,000 psi	3,000 psi		
Equipment	Cylinder Tender				Min. 20 4,500 psi cylinders	Min. 20 2,250 psi cylinders
Equipment						
Personnel						
Comments:						

Resource:	Tennessee Swiftwater/ Flood Search and Rescue					
Category:	Search and Rescue (ESF #9)				Kind	Team
Minimum Capabilities:		Type I	Type II	Type III	Type VI	
Component	Metric					
Equipment	Rescue Boats	2 - Fueled RIB Boats 1 Non powered -4 person	1 - Fueled RIB Boat 1 Non powered 4 person	1 Non powered 4 person	N/A	
Team	Capabilities	Manage search operations Power vessel operations Helicopter rescue operational Haz Mat ALS Communications Logistics	Power vessel operations Helicopter rescue operational Haz Mat BLS	Non-Power watercraft Haz Mat BLS	Non-Power watercraft Haz Mat BLS Supplemental Personnel	
Team	Sustained Operations	24 hour Operation	24 hour Operation	24 hour Operation	24 hour Operation	
Team	Helicopter Aquatic Operations	2	1	N/A	N/A	
Team	Powered Boat Operators	2	1	N/A	N/A	
Team	Specialty SAR Training	Contact and Self Rescue Skills Hazmat Operations ICS Swiftwater Rescue Technician Rope Rescue Technician Helicopter Operations	Contact and Self Rescue Skills Hazmat Operations ICS Swiftwater Rescue Technician Rope Rescue Technician Helicopter Operations	Contact and Self Rescue Skills Hazmat Operations ICS Swiftwater rescue technician	Contact and self-rescue skills HazMat Operations ICS Swiftwater rescue technician	
Medical	Certification	2 EMT- P	1 EMT- B	1 EMT- B	1 EMT- B	
Team	Personnel	(14) Team Members 1 Managers 2 Squad Leaders 10 Swiftwater Rescuers	(6) Team Members 1 Squad Leader 5 Swiftwater Rescuers	(4) Team Members 1 Squad Leader 3 Swiftwater Rescuers	(3) Team Members 1 Squad Leader 2 Swiftwater Rescuers	
Comments:	Conduct search and rescue operations in all water environments including swiftwater and flood conditions. Water rescue teams come with all team equipment required to safely and effectively conduct operations.					

Resource: Tennessee Swiftwater Rescue Boat							
Category:	Search and Rescue (ESF #9)					Kind:	Equipment
Minimum Capabilities:		Type I	Type II	Type III	Type IV	Type V	
Component	Metric						
Equipment	Minimum Victim Transport Per Trip	5+	3 to 5	3	2	2	
Equipment	Special Needs and Notes	May Need a Ramp	May Need a Ramp	Hand Launch	Hand Launch	Hand Launch	
Equipment	Motor Size	150hp+	60hp+	30hp+		No Motor	
Equipment	Type Boat	V-Hull	RIB	RIB	Personal Water Craft (PWC)	Raft	
Team	Personnel	2	2	2	1 per watercraft	3	
Comments:	Requests should include vehicle capabilities when necessary (i.e., four-wheel drive).						

Resource: Tennessee Flood Evacuation Team						
Category:	Search and Rescue (ESF #9)			Kind:	Team	
Minimum Capabilities:		Type I	Type II	Type III	Type V	
Component	Metric					
Equipment	Rescue Boats	1 - Powered 3 person	1 Non powered 4 person			
Team	Capabilities	Assist in still water evacuation operations Power vessel operations Haz Mat Awareness ICS First Aid	Assist in still water evacuation. operations Non-Power watercraft Haz Mat Awareness ICS First Aid			
Team	Sustained Operations	12 hour Operation	12 hour Operation			
Team	Powered Boat Operators	2	0			
Team	Specialty SAR Training	Contact and self-rescue skills Haz Mat Power Boat Operations ICS Swiftwater Rescue Ops	Contact and self-rescue skills Haz Mat ICS Swiftwater Rescue Ops			
Team	Powered Boat Operators	2	0			
Medical	Certification	1 EMT- B	1 EMT- B			
Team	Personnel	(3) Team Members 1 Flood Evacuation Leader 2 Flood Evacuation Operators	(4) Team Members 1 Flood Evacuation Leader 3 Flood Evacuation Operators			
Comments:	Swiftwater Rescue Team must be activated immediately if the following occur: 1. Water current >1 knot 2. Ropes required in order to achieve rescue 3. If water is rising too fast to retrieve all victims in safely manner					

Resource:		Floodwater Boats							
Category:		Search and Rescue (ESF #9)				Kind:		Equipment	
Minimum Capabilities:		Type I	Type II	Type III	Type IV	Type V	Type VI	Type VII	
Component	Metric								
Equipment	Minimum Victim Transport Per Trip	5+	3 to 5	3	3	3	2	2	
Equipment	Special Needs and Notes	May Need a Ramp	May Need a Ramp	Hand Launch	May Need a Ramp	May Need a Ramp	Hand Launch	Hand Launch	
Equipment	Motor Size	100hp+	60hp+	30hp+	25hp+	25hp+		No Motor	
Equipment	Type Boat	V-Hull	Inflatable/RIB	Inflatable/RIB	Flat	V-Hull	Personal Water Craft (PWC)	Raft	
Team	Personnel	2	2	2	2	2	1 per watercraft	3	
Comments:	<p>Swiftwater Rescue Team must be activated immediately if the following occur:</p> <ol style="list-style-type: none"> 1. Water current >1 knot 2. Ropes required in order to achieve rescue 3. If water is rising too fast to retrieve all victims in safely manner 								

Resource: Rope Rescue					
Category: Firefighting/ Search and Rescue (ESF# 4/9)				Kind:	Team
Minimum Capabilities:		Type I	Type II	Type III	
Component	Metric				
Personnel	Training and Qualifications to Meet: NFPA 1670 addresses standards on Operations and Training for Technical Search and Rescue Incidents. NFPA 1006 Standard for Rescue Technician Professional Qualifications	Technician Level Vertical 45 - 90 degrees High Line / Traverse Height of 200 feet or greater (Ex. Radio / Cell Towers, Industrial)	Technician / Operation Level Vertical 45 - 90 degree Maximum height of 200 feet (Ex. Cliffs, Buildings 10 floors or under)	Operation Level Low Angle Horizontal less than 45 degrees (Ex. Embankments)	
Equipment		600' ½" Rope (2) 300' ½" Rope (2) 150' ½" Rope (4) ½" Caribeners (60) Prusik Cords 8mm (30) Figure 8's (4) Brakebar Racks G Rated (4) Class III Harness (10) Litter Basket Sked Single Pulleys (8) Double Pulleys (8) 1" Webbing 20' (30) Victim Helmets (2) Load Releasing Hitch (4) Edge Protectors (6) Anchor Plates (4) Load Releasing Hitch (4) Tripods (2) Line Gun Fall Arrest Lanyard (2) Gibbs Ascenders (8) Kootney (Pulley) (2) Pickoff Straps (2) Set of fours (4)	300' ½" Rope (2) ½" Caribeners (30) Prusik Cords 8mm (20) Figure 8's (2) Brakebar Racks G Rated (2) Class III Harness (8) Litter Basket Sked Single Pulleys (4) Double Pulleys (4) 1" Webbing 20' (20) Victim Helmets (2) Load Releasing Hitch (2) Edge Protectors (6) Edge Rollers (2) Anchor Plates (4) Load Releasing Hitch (4) Gibbs Ascenders (6) Pickoff Straps (2)	150' ½" Rope (2) ½" Caribeners (15) Prusik Cords 8mm (10) Figure 8's (2) Brakebar Racks (2) Class II Harness (6) Litter Basket Sked Single Pulleys (2) Double Pulleys (2) 1" Webbing 20' (10) Victim Helmets (2)	

		300' 6mm Equipment line Spider (Litter Rig) Etrier (4)		
Personnel	Staffing	Technicians (8)	Technicians (4) Operations (4)	Operations (6)
Comments:	<p>Operations Level - This level represents the capability of organizations to respond to technical search and rescue incidents and to identify hazards, use equipment and apply limited techniques specific in this standard to support and participate in technical search and rescue.</p> <p>Technical Level - This level represents the capability of organizations to respond to technical search and rescue incidents, to identify hazards, use equipment and apply advanced techniques specified in this standard necessary to coordinate, perform and supervise technical search and rescue.</p> <p>***Personal protective and other safety equipment will be determined by the AHJ consistent with existing standards and regulations</p>			

Resource: Collapse Search and Rescue Teams					
Category:		Search and Rescue (ESF 9)		Kind: Team	
Minimum Capabilities		Type I	Type II	Type III	Type IV
Component	Metric				
Personnel	Training and Certification	Trained to the HazMat Technician Level (NFPA 472). Comply with NFPA 1006 Technician Level requirements for their area of specialization or organization Operations Level for support personnel as outlined in NFPA 1670.	Trained to the HazMat First Responder Operational Level (NFPA 472). Comply with organization Operations Level for support personnel as outlined in NFPA 1670.	Trained to the HazMat First Responder Operational Level (NFPA 472). Comply with organization Operations Level for support personnel as outlined in NFPA 1670.	Trained to HazMat First Responder Awareness Level (NFPA 472). Comply with organization Awareness Level for support personnel as outlined in NFPA 1670.
Team	Training	Trained for Heavy Floor Construction, Pre-cast Concrete Construction, Steel Frame Construction, High Angle Rope Rescue (including highline systems), Confined Space Rescue (permit required), and Mass Transportation Rescue.	Trained for Heavy Wall Construction, High Angle Rope Rescue (not including highline systems), Confined Space (no permit required) and Trench and Excavation Rescue.	Trained for Light Frame Construction and Low Angle Rope Rescue.	Trained for Surface Rescue and Non-Structural Entrapment in Non-Collapsed Structures.

Minimum Capabilities		Type I	Type II	Type III	Type IV
Component	Metric				
Team	Sustained Operations	Capable of sustained heavy operations for 18-24 hours.	Medium operations for 12-24 hours. Typically require relief for sustained 24-hour operations.	Light operations for 6-12 hours. Typically require assistance from additional team for sustained 12-hour operations.	Basic operations for 3-6 hours. Typically require assistance for sustained 6-hour operations.
Team	Safe and Effective Response Operation Incidents	Conduct safe and effective search and rescue operations at incidents involving collapse or failure of heavy floor, pre-cast concrete, and steel frame construction.	Conduct safe and effective search and rescue operations at structural incidents involving the collapse of failure of heavy wall construction.	Conduct safe and effective search and rescue operations at structure collapse incidents involving the collapse or failure of light frame construction.	Conduct safe and effective search and rescue operations at incidents involving non-structural entrapments and minimal removal of debris and building contents.
Team	Specialty Search and Rescue Capabilities	Conduct High Angle Rope Rescue (including highline systems), Confined Space Rescue (permit required), and extraction of entrapped victims for Mass Transportation Rescue.	Conduct High Angle Rope Rescue (not including highline systems), Confined Space Rescue, and Trench and Excavation Rescue.	Conduct Low Angle Rope Rescue.	
Team	Certifications	Confined space permit.			

Minimum Capabilities		Type I	Type II	Type III	Type IV
Component	Metric				
Equipment	Technical Search Resources	Audible and optical search equipment to conduct technical search, shoring assortment, rebar cutters, demolition hammers, rotary hammers, reciprocating saws, hydraulic concrete breakers, hydraulic vehicle rescue system, hammer drill, chain saw, nail gun, cutting torch, assorted hand tools, generator, lights, extensions cords, hoisting slings and shackles, rope equipment (kernmantal and lifeline rope, ascenders/descenders, pulleys, tripod hauling system, carabineers) air blower, fire extinguishers, visual inspection devices, listening devices(seismic and acoustic), hand held radios.	Shoring assortment, rebar cutters, demolition hammers, rotary hammers, reciprocating saws, hydraulic concrete breakers, hydraulic vehicle rescue system, hammer drill, chain saw, nail gun, cutting torch, assorted hand tools, generator, lights, extensions cords, hoisting slings and shackles, rope equipment (kernmantal and lifeline rope, ascenders/descenders, pulleys, tripod hauling system, carabineers) air blower, fire extinguishers.	Shoring assortment, rebar cutters, demolition hammers, rotary hammers, reciprocating saws, hydraulic concrete breakers, hydraulic vehicle rescue system, hammer drill, chain saw, nail gun, cutting torch, assorted hand tools, generator, lights, extensions cords, hoisting slings and shackles, rope equipment (kernmantal and lifeline rope, ascenders/descenders, pulleys, tripod hauling system, carabineers) air blower, fire extinguishers.	Shoring assortment, rebar cutters, reciprocating saws, chain saw, assorted hand tools, generator, lights, extensions cords, air blower, fire extinguishers.

Minimum Capabilities		Type I	Type II	Type III	Type IV
Component	Metric				
Breathing Apparatus	Materials and Supplies	Breathing apparatus, self-contained (SCBA), respiratory protection, air bags.	Air bags.	Air bags.	
Medical Equipment	Materials and Supplies	Medical aid equipment, backboards, Stokes stretcher.	Medical aid equipment, backboards Stokes, stretcher.	Medical aid equipment, backboards, Stokes stretcher.	Medical aid equipment, backboards, Stokes stretcher.
HazMat Equipment	Materials and Supplies	HazMat monitoring equipment, sampling detection kit, 4-gas meters, rad monitoring, decontamination equipment, 4-gas meter.	HazMat monitoring equipment, sampling detection kit, 4-gas meters, rad monitoring, decontamination equipment, 4-gas meter.	4-gas meter.	

Resource: Confined Space		
Category: Firefighting/ Search and Rescue (ESF# 4/9)		Kind: Team
Minimum Capabilities:		Type I
Component	Metric	
Training	Complies with OSHA 29 CFR 1910.146 and OSHA 29 CFR 1910.147. Meets NFPA 1670 Meets NFPA 1006	Technician Level
Equipment		Entry Permit Air Carts (2) Escape Bottle Packs (4) Class 3 Harness (8) Tripod or Equiv. 4 to 1 Haul System Atmospheric Monitors 5 Gas (2) 300' Ropes 1/2" (4) Double/ Single Pulleys Prusik (6) 1/2" Caribeners Steel/Alum. G Rated (20) Racks (2) 20' 1" Webbing (10) 30' 1" Webbing (10) Prusik cords 8mm (20) Edge Protector Mariner Hitch Anchor Plates (2) Ventilation Fan w/Flex Hose Sked Stretcher LP Halfback Lock out/ Tag out Kits
Personnel	Staffing	Rescuers (2) Backups (2) Entry Supervisor Safety Air Supply Air Monitor Atmospheric Ventilation Rope Rigging (4-6) Lock out/ Tag out
Comments	***SCBA's are permissible as approved air supplies for entry rescue teams, however extreme caution should be utilized and all SCBA's should be equipped with 4500 psi bottles. Personal protective and other safety equipment will be determined by the AHJ consistent with existing standards and regulations	

Resource: Trench Rescue			
Category:	Firefighting/ Search and Rescue (ESF 4/9)	Kind:	Team
Minimum Capabilities:		Type I	
Component	Metric		
Equipment	Meets NFPA 1670 addresses standards on Operations and Training for Technical Search and Rescue Incidents., NFPA 1006 Standard for Rescue Technician Professional Qualifications	Technician Level	
		Pneumatic Struts	Standard Wood
Equipment		US&R Maxiforce Liftbag Kit US&R Rescue Strut system Tripod Conversion Kit Fly Raker Kit Optional Raker Center Brace Kit C/K Rescue Cushion Kit Pakhammer 90 Kit (2) Angle Base Assembly (4) Channel Base (16) V-Base (4) Hinged Base w/Anchor Ring (4) Ratchet Belt with Finger Hook (4) Hooligan Tool 30" Lt. w/Stand (2) PRT Kit (2) Buster w/ Std. Claw (2) Bipod Conversion (2) Monopoly Pulley Kit 5,000 kw Generator Air Carts (2) SCBA's (4) Shoring Panels (8)	3/4" Exterior grade CDX plywood (16) 2"x12"x12' planks (12) 4"x4"x8' lumber (16) 2"x4"x8' lumber (12) 50 lb. box 16 penny nails Sledge Hammers (4) 3' Wrecking Bars (4) 24 oz. Framing Hammers (4) 25' Measuring tape (4) Tri or Speed Square (2) Carpenter Belt w/nail bag (4) 5 Gallon buckets (6) Small shovels (4) Long handle shovel round point Long handle shovel square point 10 1/4" circular saws (2) Atmospheric Monitors 5 gas (2) Ventilation Fan w/Flex Hose Class 3 Harness (6) 24' ladders (4) Sked Stretcher

Equipment		LP Halfback 20 feet 1" Webbing (20) 30 feet 1" Webbing Prusik cords 8mm (10) 4 to 1 Haul System 150' Ropes 1/2" (3) Dbl/ Sgl Pulleys Prusick (3) 1/2" Caribeners Steel/ Alum. G Rated (10) Air Carts (2) SCBA's (4) 5,000kw Generator
Personnel	8- Shoring/ Rescuers (6 relief personnel) 2- Backup 1-Entry Supervisor 1-Safety 1-Air Supply 1-Air Monitor 1-Atmospheric 1-Ventilation 4-6 Rope Rigging	
Comments	***SCBA's are permissible as approved air supplies for entry rescue teams, however extreme caution should be utilized and all SCBA's should be equipped with 4500 psi bottles. ***Personal protective and other safety equipment will be determined by the AHJ consistent with existing standards and regulations ***Equipment can be Standard Wood or US&R pneumatic strut systems either is acceptable	

Resource:		Service Truck		
Category:	Firefighting (ESF #4)	Kind:	Equipment	
Minimum Capabilities:		Type I	Type II	Type III
Component	Metric			
Equipment	SCBA (min. 30 Min w/spare cylinder)	6		
Equipment	Hand light (4v wet or 6v dry)	4		
Equipment	Floodlights (500 watts)	3		
Equipment	Pike Poles (6', 8', & 10")	2 each		
Equipment	Power Saw	1		
Equipment	Large Spray Nozzle (500 gpm minimum)	1		
Equipment	Smoke Ejector	1		
Equipment	Salvage Covers (12"x18")	10		
Equipment	Ladders (10' collapsible)	1		
Equipment	Ladder (14' extension)	1		
Equipment	Cutting unit/tool	1		
Equipment	Generator (2500 watts)	1		
Personnel	2	2		
Comments	ISO Service Company and equivalency list for service company. NFPA 1901 Chapter 10 refers to Special Service Fire Apparatus. Will need to add water/dry extinguishers and suction hose to above lists.			

Resource:		Light/Generator						
Category:	Firefighting (ESF #4)				Kind:	Equipment		
Minimum Capabilities:		Type I	Type II	Type III	Type IV	Type V	Type VI	Type VII
Component	Metric							
Equipment	Generator	≥ 10 Kw	≥ 5 Kw					
Equipment	Light Tower Boom	Yes						
Equipment	Portable Lights	Yes	Yes					
Comments:								

Resource:	Mass Decon Unit				
Category:	Firefighting (ESF #4)			Kind:	Equipment
Minimum Capabilities:		Type I	Type II	Type III	Type IV
Component	Metric				
Equipment	Minimum Victims	300	200	100	50
Equipment	Ambulatory	Yes	Yes	Yes	Yes
Equipment	Non-ambulatory	Yes	Yes	Yes	No
Equipment	Contaminated Water Collection	Yes	Yes	Yes	Yes
Equipment	Provide Heated Water	Yes	Yes	Yes	Yes
Equipment	Victim Dress Kits	Yes	Yes	Yes	Yes
Team	Operations Level haz-mat Training	Yes	Yes	Yes	Yes
Team	Personnel	10	8	6	4
Comments:	NFPA 471 chapter 9 refers to decontamination. Haz-Mat Operations Level training for all team members.				

Resource:		ATV							
Category:	Firefighting (ESF #4)					Kind:	Equipment		
Minimum Capabilities:		Type I	Type II	Type III	Type IV	Type V	Type VI	Type VII	TYPE VIII
Component	Metric								
Equipment		Firefighting Multi-Purpose Utility Vehicle	EMS Multi-Purpose Utility Vehicle	Firefighting Multi-Purpose Utility Vehicle	EMS Multi-Purpose Utility Vehicle	Firefighting ATV Utility Straddle Type	EMS ATV Utility Straddle Type	Golf Cart	Amphibious Vehicle
Equipment	Chassis	6 X 6	6 X 6	4 X 4	4 X 4	4 X 4	4 X 4	4 X 2	6 x 6/8 x 8, or tracked
Equipment	Winch	2500 lb. Fixed	2500 lb. Fixed	2500lb fixed	2500lb fixed	2500lb fixed	2500lb fixed	N/A	8,000 fixed
Equipment	Compartment	Bed	Bed	Bed	Bed	N/A	N/A	Bed	N/A
Equipment	PT Transport System		Backboard, first aid kit, oxygen,		Backboard, first aid kit, oxygen,		Trailer for PT transport: Backboard, first aid kit, oxygen,	Backboard, first aid kit, oxygen,	
Equipment	Firefighting	50 GPM gas driven pump, 55 gallon tank, 50 ft 1' hose, 5 gallon foam. Or CAF system.		50 GPM gas driven pump, 55 gallon tank, 50 ft. 1" hose, 5 gallon foam. Or CAF system.		Trailer with 50 GPM gas driven pump, 55 gallon tank, 50 ft. 1" hose, 5 gallon foam. Or CAF system.		N/A	
Personnel		One Operator One Rider	One Operator One Rider	One Operator One Rider	One Operator One Rider	One Operator	One Operator	One Operator One Rider	One Operator 5 Riders
Comments:	<p>All personnel are required to wear all safety apparatus including seat belts and helmets Cannot find anything in NFPA about ATV's. Any of the Type I and Type III can be utilized for PT transport or firefighting or equipped for both. Amphibious vehicle may have tracks for additional traction. Various vehicle configurations. Example: Hydratrek, which also has props for water.</p>								

Minimum Rescue Equipment per Specialty (NFPA 1006)

Kit Contents	Basic Kit	Rope Rescue	Confined Space Rescue	Water Rescue	Vehicle and Machinery Rescue	Trench Rescue	Structural Collapse	Dive Rescue
Air-monitoring equipment			X			X	X	
Assorted 4x4 cribbing					X	X	X	
Assorted 2x2 cribbing	X				X	X	X	
Assorted wedges					X	X	X	
Audio-visual signaling device	X	X	X	X	X	X	X	X
Binoculars	X	X	X	X	X		X	X
Boards, short-and long-spine	X	X	X	X	X	X	X	X
Boogie board				X				
Buoyancy control devices								X
Camera							X	
Camming devices		X	X	X		X	X	
Carabineers locking	X	X	X	X		X	X	
Chain saw, electric or gas						X	X	
Chain sling, 9 ft					X	X	X	
Chain sling,5 ft					X	X	X	
Charged 1 1/2 in. hose line					X			
Clamp "Ellis"							X	

Kit Contents	Basic Kit	Rope Rescue	Confined Space Rescue	Water Rescue	Vehicle and Machinery Rescue	Trench Rescue	Structural Collapse	Dive Rescue
Class B foam application supplies	X	X	X	X		X	X	
Come-along					X		X	
Communication devices, fixed and portable	X	X	X	X	X	X	X	X
Community resources lists				X	X	X	X	X
DECON equipment			X	X			X	X
Descending/ascending devices (friction or mechanical)	X	X	X	X		X	X	
Detector, electrical energy	X	X	X	X	X	X	X	X
Dewatering pumps						X	X	
Edge protection, hard and soft	X	X	X	X		X	X	
Extension cords			X		X	X	X	
Fins, swim				X				X
Fire extinguisher	X	X	X	X	X	X	X	X
First aid and oxygen kits	X	X	X	X	X	X	X	X
Flathead ax	X			X	X		X	
Food, packable								
Generator	X		X		X	X	X	
Gloves	X	X	X	X	X	X	X	X

Kit Contents	Basic Kit	Rope Rescue	Confined Space Rescue	Water Rescue	Vehicle and Machinery Rescue	Trench Rescue	Structural Collapse	Dive Rescue
Halligan bar	X				X		X	
Hammer, demolition, 45 lb, bull and chisel							X	
Hammer, demolition, 60 lb, bull and chisel							X	
Hammer, 1 1/2 in. rotary with carbide-tipped bits 1/8 in. to 2 in., and bull point bit							X	
Hand tools kit	X		X		X	X	X	X
Heavy excavating equipment resources						X	X	
Helmets	X	X	X	X	X	X	X	X
Hose inflator				X				X
Hydraulic cutters					X		X	
Hydraulic rams					X	X	X	
Hydraulic shores					X	X	X	
Hydraulic spreaders					X	X	X	
Jacks, screw, scissor, and /or hydraulic						X	X	
Junction box, electrical	X				X	X	X	
KED or equivalent	X	X	X		X	X	X	
Knife, rescue	X	X	X	X	X	X	X	X
Lighting, flood	X			X	X	X	X	

Kit Contents	Basic Kit	Rope Rescue	Confined Space Rescue	Water Rescue	Vehicle and Machinery Rescue	Trench Rescue	Structural Collapse	Dive Rescue
Lighting, hand and/or helmet (Factory Mutual approved)	X	X	X	X	X	X	X	
Line gun				X			X	X
Lumber and timber (assorted)					X	X	X	
Lockout/ tagout kit			X			X		
Marking kit, paint, chalk, crayon, pencil					X	X	X	
Navigational instruments-compass, GPS	X			X				X
Packs								
Pen/ pencils	X	X	X	X	X	X	X	X
Perimeter or scene-marking devices	X	X	X	X	X	X	X	X
Personal flotation devices (PDFs)	X			X				X
Personal accountability system	X	X	X	X	X	X	X	X
Personal alarm device			X			X	X	
Pickets, steel stakes	X	X		X	X	X	X	
Pneumatic bags					X	X	X	
Pneumatic chisels					X	X		
Pneumatic shores					X	X	X	

Kit Contents	Basic Kit	Rope Rescue	Confined Space Rescue	Water Rescue	Vehicle and Machinery Rescue	Trench Rescue	Structural Collapse	Dive Rescue
Pneumatic soil knife						X		
Pneumatic soil vacuum (hand and/or truck)						X		
PPE- bunker gear					X	X	X	
PPE- HazMat, Levels B and C			X					
PPE- helmet water rescue				X				X
PPE- knees pads			X				X	
PPE- mask and snorkel								X
PPE- SABA			X					
PPE- SCBA	X		X	X	X		X	
PPE- SCUBA with console, secondary								X
PPE-suit, dry				X				X
PPE-Personal escape pack			X					
PPE- suit, wet				X				X
Preplans/ maps	X	X	X	X	X	X	X	X
Prusik cord	X	X	X	X		X	X	
Pulleys, selection of	X			X				X
Reach extension devices								X
Rope- life safety	X	X	X	X	X	X	X	X
Rope- utility	X	X	X	X	X	X	X	X

Kit Contents	Basic Kit	Rope Rescue	Confined Space Rescue	Water Rescue	Vehicle and Machinery Rescue	Trench Rescue	Structural Collapse	Dive Rescue
Rope- water rescue				X				X
Safety glasses and hearing protection	X	X	X	X	X	X	X	X
Saw, circular, carbide tip, metal cutting, and continuous rim diamond blades					X	X	X	
Saw, reciprocating with wood and metal blades					X	X	X	
Sheeting						X		
SKED or equivalent and/ or rigid litter		X	X	X	X	X	X	X
Spring-loaded center punch	X			X	X		X	X
Tactical worksheets	X	X	X	X	X	X	X	X
Tarps						X	X	X
Thermal imager			X				X	
Throw bags				X				X
Torch, kit, oxyacetylene					X		X	
Torpedo buoy, ring buoy or equivalent				X				X
Traffic control devices	X	X	X	X	X	X	X	X
Trench box, shield						X		
Tripod			X		X		X	

Kit Contents	Basic Kit	Rope Rescue	Confined Space Rescue	Water Rescue	Vehicle and Machinery Rescue	Trench Rescue	Structural Collapse	Dive Rescue
Victim protective coverings	X	X	X	X	X	X	X	X
Watercraft- manual or motorized				X				X
Water	X	X	X	X	X	X	X	X
Webbing	X	X	X	X	X	X	X	
Weight belt and weights								X
Winches	X				X			

Swiftwater/ Floodwater Team Criteria

Swift Water/ Flood -Search and Rescue Mutual Aid Plan

Introduction

Local and widespread swiftwater and flood emergencies often occur. Many of these incidents strain local resources creating a need for mutual aid resources. This document focuses on the development and identification of specific SF/ SAR (Swiftwater- Flood/ Search and Rescue) resources.

This document is intended to provide guidance and develop recommendations for Tennessee's SF/SAR resources. This includes but is not limited to:

- Organizational Development
- Resource Typing
- Training and Equipment
- Procedures and Guidelines for Incident Operations

It is the responsibility of agencies responding to mutual aid swiftwater/flood requests, to provide qualified personnel and equipment that meet or exceed the recommended level of skills and capabilities stipulated in this document.

The recommended training, skills and equipment lists are contained in this document. This document correlates to the Tennessee Fire Chiefs Association Emergency Response Plan (ERP).

Initial Response

The first arriving public safety officer shall direct initial swiftwater/flood search and rescue (SF/SAR) operations. This officer shall assume initial command of the operation as the Incident Commander. Subsequent changes in the incident command structure should be based on the needs of the incident with consideration of jurisdictional responsibilities, established agreements, state and local statutes, and shall be accomplished by following established ICS procedures.

Additional resources, specifically trained and equipped for SF/SAR operations may be required. These SF/SAR resources may be assigned as a single resource, strike team or grouped together to form Task Forces.

Due to the unique hazards and complexity of SF/SAR incidents, the Incident Commander may require a variety of different multi-disciplinary resources to accomplish the SF/SAR mission.

SF/SAR resources have been categorized or “typed” (APPENDIX A. Swiftwater/Flood Search and Rescue Resource Typing). Typing reflects identified operational capabilities, based on specialized training, skills and equipment. This typing is based on team qualifications, available equipment and training, as needed for safe and efficient rescue operations for identified SF/SAR tasks.

SF/SAR incidents may occur that could require rescue operations that exceed the on-scene personnel’s capabilities. When the magnitude or type of incident exceeds that capability level, the Incident Commander should have the flexibility to conduct search and rescue operations in a safe and appropriate manner until adequate resources can be obtained or the incident is terminated.

Unified Command

A Unified Command should be implemented at SF/SAR incidents when multiple agencies or jurisdictions with statutory or political authority and financial responsibility are involved. Unified Commanders involved in a Unified Command shall be co-located. A single Command Post is the best method to ensure effective communications, coordination of resources, and overall operational management of the incident.

Swiftwater/Flood Incident Teams

All Teams

1. Shall be certified to the Swiftwater Rescue- Technician Level
2. Shall be certified to the Rope Rescue - Technician Level
3. Shall be certified in HAZMAT Operations NFPA 472
4. Shall have minimum BLS and DOT First Responder certifications
5. Shall have the minimum safety equipment for each rescuer as needed for the type of team
6. Shall be capable of supporting 18-24 hour operations
7. Shall have UHF, VHF, or 800 capability (minimum of 2 radios per squad) Must have all current Interoperability / Mutual Aid Channels for their spectrum
8. Shall be able to transport team and watercraft (as defined) to designated location safely and all passengers in vehicles must have seatbelts
9. Shall have the capability to make fuel, food, and water purchases during the deployment and provide documentation of those purchases

To be considered a Type IV Team

1. 3-member team consisting of 1 swiftwater squad leader and 2 swifter rescuers
2. Equipped with boat capable of transporting 3 victims and crew (can be non-motorized) and PPE for those 3 victims
3. Low Risk, Land Based, Hazmat, EMS- BLS, Capable of 24 hr. Ops

To be considered a Type III Team

1. 4-member team consisting of 1 swiftwater squad leader and 3 swiftwater rescuers
2. Equipped with boat capable of transporting 3 victims and crew (non-motorized boat) and PPE for those 3 victims
3. In-water contact rescues, assist in search operations, non-power water craft, Hazmat, EMS- BLS, capable of 24 hr. Ops

To be considered a Type II Team

1. 6-member team consisting of 1 swiftwater squad leader and 5 swift water rescuers
2. Shall be able to manage search operations independently upon receiving dispatch orders
3. Shall have technical rope system training
4. Should be equipped with 1 power boat and 1 non-motorized inflatable boats

5. Manage search operations, Power Vessel ops, Helicopter Operations, Technical Rope Systems, Hazmat, EMS- BLS, capable of 24hr Ops.

To be considered a Type I Team

1. 13-member team consisting of 2 manager, 2 swift water squad leaders, and 10 swift water rescuers (divided into 2 squads)
2. Shall be able to manage search operations independently upon receiving dispatch orders
3. Shall have technical rope system training
4. Shall be equipped with 2 power boats and 1 non-motorized inflatable boat
5. Shall have at least 2 paramedics with minimum 2 ALS kit and 2 BLS Kits
6. Manage Search Ops, Power Vessel Ops, In Water Contact rescues, Helicopter Operations, Technical Rope Systems, Hazmat, EMS- ALS, Communications, Logistics, Capable 24hr Ops.

Job Title and Credentials

Swiftwater Manager

Description: A *Swiftwater/Flood Rescue Manager* is a mid-level position within a water rescue task force that supervises Swiftwater/Flood Rescue Technicians and/or Swiftwater/Flood Boat Squads and provides direct supervision, general leadership, and wellness and safety of team members within an ICS Unit.

Category Criteria

Fulfillment of applicable requirement(s) as stated in the following standard(s), or equivalent:

1. NFPA 1006: Standard for Technical Rescuer, or equivalent
2. NFPA 1670, or equivalent
3. NFPA 472 HazMat Operations and/or OSHA 1910.120(Q)(6)(ii), HazMat
4. Operations Training or equivalent basic instruction on responding to and operating in a CBRNE incident

Completion of the following baseline criteria:

1. OSHA 1910.120 and/or 1910.134(f) Respiratory Protection
2. Emergency medical first responder per NFPA 1006, A 3-3.5
3. Risk assessment
4. Hazard mitigation
5. PPE
6. Use of related tools and devices
7. Hydrology
8. Advance rope skills
9. Active and passive search techniques

10. Low head dam rescue operations
11. Multiple victims
12. Managing squad-sized teams during emergency operations
13. GPS/maps and compass

Training

Completion of the following courses and/or curricula:

- | | |
|---|--|
| 1. ICS-100: Introduction to ICS | 6. NIMS Operations Section Chief training |
| 2. ICS-200: Basic ICS | 7. NIMS Planning Section Chief training |
| 3. ICS-300: Intermediate ICS | 8. Applicable positions or "Rescue Technician" per NFPA 1006 |
| 4. FEMA IS-700: National Incident Management System (NIMS), An Introduction | 9. Managing Search Operations |
| 5. FEMA IS-800: National Response Framework (NRF), An Introduction | |
- Recertification of all training requirements listed*

Physical/ Medical Fitness:

1. National: NFPA 1006 7.1.12 (Swim or float with and without aids)
2. NFPA 1582, Standard on Medical Requirements for Fire Fighters

Education:

1. EMT- P and/or EMT- B level per appendices of NFPA 1006 as a minimum

Swiftwater/ Flood Rescue Technician

Description: A *Swiftwater/Flood Rescue Technician* is an entry-level position within a water rescue task force that responds to searches and rescues from shore and in water, consistent with NFPA 1006.

Category Criteria

Fulfillment of applicable requirement(s) as stated in the following standard(s):

1. NFPA 1006: Standard for Technical Rescuer, or equivalent
2. NFPA 1670, or equivalent
3. NFPA 472 HazMat Operations and/or OSHA 1910.120(Q)(6)(ii), HazMat
4. Operations Training or equivalent basic instruction on responding to and operating in a CBRNE incident

Completion of the following baseline criteria:

1. OSHA 1910.120 and/or 1910.134(f) Respiratory Protection
2. Emergency Medical First Responder per NFPA 1006 A 3-3.5
3. Risk assessment
4. Hazard mitigation
5. PPE

6. Use of related tools and devices
7. Hydrology
8. Night operations

Training

Completion of the following courses and/or curricula:

1. ICS-100: Introduction to ICS
2. ICS-200: Basic ICS
3. FEMA IS-700: NIMS, An Introduction
4. FEMA IS-800: NRF, An Introduction
5. Applicable positions or "Rescue Technician" per NFPA 1006 (2003)

Recertification of all training requirements listed

Physical/ Medical Fitness:

1. National: NFPA 1006 7.1.12 (Swim or float with and without aids)
2. NFPA 1582, Standard on Medical Requirements for Fire Fighters³⁰

Swiftwater/Flood Rescue Technician- Boat Bowman

Swiftwater/Flood Rescue Technician- Boat Bowman is an entry-level position within a Swiftwater/ Flood boat rescue task force that can affect in-water and boat-based (paddle and powered) rescues, while meeting the requirements to be a Swiftwater/ Flood Rescue Technician, as consistent with NFPA 1006.

Category Criteria

Fulfillment of applicable requirement(s) as stated in the following standard(s):

1. NFPA 1006: Standard for Technical Rescuer (2008), or equivalent
2. NFPA 1670, or equivalent
3. NFPA 472 HazMat Operations and/or OSHA 1910.120(Q)(6)(ii), HazMat
4. Operations Training or equivalent basic instruction on responding to and operating in a CBRNE incident

Completion of the following baseline criteria:

1. OSHA 1910.120 and/or 1910.134(f) Respiratory Protection
5. Emergency Medical First Responder per NFPA 1006 A 3-3.5
6. Risk assessment
7. Hazard mitigation
8. PPE
9. Use of related tools and devices
10. Use of appropriate craft in aquatic environment
11. Boat and motor support (maintenance, trailering, and repair)
12. GPS/maps and compass

13. SRT/Flood Technician
14. Use of related tools and devices
15. Hydrology
16. Night operations

Training

Completion of the following courses and/or curricula:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. ICS-100: Introduction to ICS 2. ICS-200: Basic ICS 3. FEMA IS-700: NIMS, An Introduction 4. FEMA IS-800: NRF, An Introduction | <ol style="list-style-type: none"> 5. Fundamentals of Search and Rescue 6. Applicable positions or “Rescue Technician” per NFPA 1006 (2003) |
|---|---|

Recertification of all training requirements listed

Physical/ Medical Fitness:

3. National: NFPA 1006 7.1.12 (Swim or float with and without aids)
4. NFPA 1582, Standard on Medical Requirements for Fire Fighters³⁰

Swiftwater/ Flood Rescue Technician- Boat Operator

A *Swiftwater/Flood Rescue Technician- Boat Operator* is an entry-level position within a Swiftwater/ Flood boat rescue task force that affects in-water and boat-based (paddle and powered) rescues while meeting the requirements to be a Swiftwater/ Flood Rescue Technician, as consistent with NFPA 1006. This position is considered “boat captain” as has the ultimate responsibility for boat operations.

Category Criteria

Fulfillment of applicable requirement(s) as stated in the following standard(s):

1. NFPA 1006: Standard for Technical Rescuer (2008), or equivalent
2. NFPA 1670, or equivalent
3. NFPA 472 HazMat Operations and/or OSHA 1910.120(Q)(6)(ii), HazMat
4. Operations Training or equivalent basic instruction on responding to and operating in a CBRNE incident

Completion of the following baseline criteria:

1. OSHA 1910.120 and/or 1910.134(f) Respiratory Protection
2. Emergency Medical First Responder per NFPA 1006 (2000) A 3-3.5
3. Risk assessment
4. Hazard mitigation
5. PPE
6. Use of related tools and devices

7. Use of appropriate craft in aquatic environment
8. Boat and motor support (maintenance, trailering, and repair)
9. GPS/maps and compass
10. SRT/Flood Technician
11. Completion of TWRA Boat Operator Course
12. Use of related tools and devices
13. Hydrology
14. Night operations

Training

Completion of the following courses and/or curricula:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. ICS-100: Introduction to ICS 2. ICS-200: Basic ICS 3. FEMA IS-700: NIMS, An Introduction | <ol style="list-style-type: none"> 4. FEMA IS-800: NRF, An Introduction 5. Applicable positions or “Rescue Technician” per NFPA 1006 (2003) |
|---|---|

Recertification of all training requirements listed

Physical/ Medical Fitness:

1. National: NFPA 1006 7.1.12 (Swim or float with and without aids)
2. NFPA 1582, Standard on Medical Requirements for Fire Fighters

Swiftwater/ Flood Rescue Technical Specialist

A Swiftwater/Flood Rescue Technical Specialist is a qualified Swiftwater/Flood Rescue Technician that is used in an advisory capacity to provide knowledge and assistance in the use of boats and/or swift/water rescue teams during water SAR operations.

Category Criteria

Fulfillment of applicable requirement(s) as stated in the following standard(s):

1. NFPA 1006: Standard for Technical Rescuer (2008), or equivalent
2. NFPA 1670, or equivalent
3. NFPA 472 HazMat Operations and/or OSHA 1910.120(Q)(6)(ii), HazMat
4. Operations Training or equivalent basic instruction on responding to and operating in a CBRNE incident

Completion of the following baseline criteria:

1. OSHA 1910.120 and/or 1910.134(f) Respiratory Protection
2. Emergency Medical First Responder per NFPA 1006 (2000) A 3-3.5
3. Risk assessment
4. Hazard mitigation
5. PPE

6. Use of related tools and devices
7. Use of appropriate craft in aquatic environment
8. Hydrology
9. Advance Rope Skills
10. GPS/maps and compass
11. Active and passive search techniques
12. Low head dam rescue operations
13. Multiple Victims
14. Completion of TWRA Boat Operator Course
15. Night operations
16. Managing squad-sized teams during emergency operations
17. Helicopter and Boat Operations Awareness
18. USGS/I-Flow/National Weather Service (NWS) Flood warning and notification systems

Training

Completion of the following courses and/or curricula:

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. ICS-100: Introduction to ICS 2. ICS-200: Basic ICS 3. FEMA IS-700: NIMS, An Introduction 4. FEMA IS-800: NRF, An Introduction 5. ICS-300: Intermediate ICS 6. NIMS Planning Section Chief 7. Helicopter Operations 8. Confined Space Operations 9. Rope Operations 10. Search operations and planning (advanced GPS and map skills) 11. Search Operations (map skills) | <ol style="list-style-type: none"> 12. Knowledge of federal, state, or EMAC disaster response procedures 13. NIMS Operations Section Chief 14. Applicable positions or “Rescue Technician” per NFPA 1006 (2003) 15. EMT- P and/or EMT- B level per appendices of NFPA 1006 as a minimum 16. Fundamentals of Search and Rescue 17. Managing Search Operations |
|---|--|

Recertification of all training requirements listed

Experience

1. Three years’ experience in Swiftwater/Flood Rescue operations.
2. Ability to work well with others and develop new working relationships

Physical/ Medical Fitness:

1. National: NFPA 1006 7.1.12 (Swim or float with and without aids)
2. NFPA 1582, Standard on Medical Requirements for Fire Fighters³⁰

Swiftwater/ Flood Rescue Unit Leader

Description: A *Swiftwater/Flood Rescue Unit Leader* is a qualified Swiftwater/Flood Rescue Manager responsible for direct supervision of multiple Managers or teams within an Operational Division/Group.

Category Criteria

Fulfillment of applicable requirement(s)
as stated in the following standard(s):

1. NFPA 1006: Standard for Technical Rescuer, or equivalent
2. NFPA 1670, or equivalent
3. NFPA 472 Haz Mat Operations and/or OSHA 1910.120(Q)(6)(ii), Haz Mat
4. Operations Training or equivalent basic instruction on responding to and operating in a CBRNE incident

Completion of the following baseline criteria:

1. OSHA 1910.120 and/or 1910.134(f) Respiratory Protection
2. Emergency Medical First Responder per NFPA 1006 A 3-3.5
3. Risk assessment
4. Hazard mitigation
5. PPE
6. Use of related tools and devices
7. Hydrology
8. Advance Rope Skills
9. Active and passive search techniques
10. Low head dam rescue operations
11. Multiple Victims
12. Managing squad-sized teams during emergency operations
13. GPS/maps and compass

Training

Completion of the following courses and/or curricula:

- | | |
|---------------------------------------|--|
| 1. ICS-100: Introduction to ICS | 6. Managing Search Operations Applicable positions or "Rescue Technician" per NFPA 1006 (2003) |
| 2. ICS-200: Basic ICS | |
| 3. ICS-300: Intermediate ICS | |
| 4. FEMA IS-700: NIMS, An Introduction | 7. Applicable positions or "Rescue Technician" per NFPA 1006 (2003) |
| 5. FEMA IS-800: NRF, An Introduction | 8. EMT- P and/or EMT- B level per appendices of |

NFPA 1006 as a
minimum
9. Fundamentals of
Search and Rescue

10. Managing Search
Operations

*Recertification of all training
requirements listed*

Physical/ Medical Fitness:

1. National: NFPA 1006 7.1.12 (Swim or float with and without aids)
2. NFPA 1582, Standard on Medical Requirements for Fire Fighters³⁰

Swiftwater/Flood Search and Rescue Resource Typing

Description	Type I	Type II	Type III	Type IV
Team Composition	2 manager; 2 squad leaders; 10 personnel (14)	1 squad leader; 5 personnel (6)	1 squad leader; 3 personnel (4)	1 squad leader; 2 personnel (3)
Team Sustained	24-hour operations	24-hour operations	24-hour operations	24-hour operations
ALS Certified Personnel	2	0	0	0
Helicopter/Aquatic Rescue Operations Personnel	4	2	0	0
Powered Boat Operators	4	2	0	0
EMTs	EMT-P (2) EMT-B (2)	EMT-B (1)	EMT-B (1)	EMT-B (1)
Communications	Qty.	Qty.	Qty.	Qty.
Bags, Waterproof, radio	12	6	4	3
Phone, Cell	3	2	1	1
Portable radio with inoperable channels programmed	14	6	4	3
Personal Equipment				
Aerial Flares	12	6	4	3
ALS Medical Kit	2	0	0	0
BLS Medical Kit	2	1	1	1
Dye Markers	12	6	4	3
Dry gear bags	12	6	4	3
Dry Suit with liner	12	6	4	3
Fins, pair	12	6	4	3
Flashlight	12	6	4	3
Gloves- water	12	6	4	3
Gloves- leather	12	6	4	3
Handheld flares	12	6	4	3
Handheld survival strobe light	12	6	4	3
Headlamps, waterproof	12	6	4	3
Helmet, water rescue	12	6	4	3
PFD, Type V, Tethered	12	6	4	3
Rescue Knives	12	6	4	3
Smoke Marking Device	12	6	4	3
Stokes type litter (or equivalent capability)	1	1	1	0
Stokes type litter float kit (or equivalent capability)	1	1	1	0
Spine Board, Floating (or equivalent capability)	1	1	1	0
Water Rescue Boots	12	6	4	3
Whistles	12	6	4	3

Carabineer, locking "D", Aluminum	24- (2 each)	12- (2 each)	8- (2 each)	6- (2each)
Prusiks, tandem	24- (2 each)	12- (2 each)	8- (2 each)	6- (2each)
Team Equipment				
Admin Kit/ICS-Agency Forms	1	1	1	1
Air Monitors	2	1	1	0
Axe, Pick head or Flat Head	1	1	1	0
Body Bag	4	4	2	0
Brake bar rack	2	2	0	0
Carabineer, locking "D", Steel	5	5	0	0
Carabineer, locking "D", Aluminum	10	5	0	0
Chain Saw with Kit (Minimum 14 inch bar)	1	1	1	0
Dust Mask, N95, disposable	2 Boxes	1 Box	1 Box	1 Box
Edge Protection	2	2	2	0
Figure Eight Plate	2	1	1	0
Forcible Entry Tool, Haligan	2	1	1	1
5 gallon Fuel Cans, Air Transportable	4	2	2	0
GPS, hand held	3	1	1	1
Harness, Full Body	5	3	1	0
Hand Held Spot Light	2	1	1	0
Hammer, Sledge	2	1	1	0
Helmet, Victim	4	4	4	0
Inflatable Hose kit with Hose (Fire Hose with caps)	2	1	1	0
Knot Passing Pulley	1	1	0	0
Line Thrower	1	1	0	0
PFD, Victim, Type III, various	4	4	4	4
Picket	6	6	0	0
Pole, reaching (i.e., Pike)	2	2	1	1
Prusiks, tandem	6	6	0	0
Pulley	4	4	0	0
Rope, 200' with bag	2	1	0	0
Rope, 300' with bag	2	1	0	0
Rope, 600' with bag	1	1	0	0
Shovel, hand	2	1	1	1
Swimmer Rescue Board	4	1	1	1
Throw Bags	12	6	4	3
Throwable Flotation Device	1	1	1	1
Victim Harness	1	1	1	0
Webbing 1" x 5' Nylon Tubular	2	1	1	0
Webbing 1" x 12' Nylon Tubular	2	1	1	0
Webbing 1" x 15' Nylon Tubular	2	1	1	0

Webbing 1" x 20' Nylon Tubular	2	1	1	0
Decontamination Equipment	Decontamination Unit to Provide			
Decontamination Equip. Kit				
2.5 gallon pressure sprayer				
5 gallon bucket				
40 gallon plastic work box				
110 volt submersible pump				
(2) 25' garden hose				
Garden hose wye				
110 volt power washer				
Soap and Bleach Solution				
Motorized Inflatable Rescue Boat (IRB) <i>Support equipment specific to vessel used</i>				
Air, manual inflation pump or compressed air	2	1	0	0
IRB, 12' minimum	2	1	0	0
IRB Repair Kit	2	1	0	0
Lanyard, wrist, kill switch	4	2	0	0
Motor, 30 HP (Minimum)	2	1	0	0
Motor Flush Kit	1	1	0	0
Paddles	8	4	0	0
Prop, spare	2	1	0	0
Non- Motorized Inflatable Rescue Boat				
Inflatable 6 person Raft Minimum	2	1	1	1
Air, Inflation pump or compressed air	2	1	1	1
Rescue Boat Repair Kit	2	1	1	1
Paddles	8	4	4	4
Logistical Support				
Air Horn	2	1	1	0
Attic Ladder, 10'	1	1	1	0
Bar Oil, 2 gal	1	1	0	0
Battery Charger or jumper cables	1	1	1	1
Battery, 9v	14	6	4	3
Battery, AA	56-(4 each)	24-(4 each)	16-(4 each)	12- (4 each)
Battery, C	28-(2 each)	12-(2 each)	8- (2 each)	6- (2 each)
Battery, D	28-(2 each)	12-(2 each)	8- (2 each)	6- (2 each)
Boat Motor Fuel (in gallons)	20	20	0	0
Bolt Cutter, 24"	1	1	1	0
Broom	1	1	1	0
Chain Saw Fuel (in gallons) with oil mix	1	1	1	0
Chain Saw Chain, Spare	1	1	1	0
Center Punch	12	6	4	3

Cots	14	6	4	3
Cups, 8 oz.	56-(4 each)	24-(4 each)	12-(4 each)	12- (4- each)
Cyalume Stick, 12 hr. – one color	56-(4 each)	24-(4 each)	12-(4 each)	12-(4- each)
Drysuit Repair Kit	4	2	2	1
Eating Utensils packet	56-(4 each)	24- (4 each)	16-(4 each)	12- (4- each)
Electrical Connection assortment	1	1	1	1
Emergency Blanket	14	6	4	3
Extension Cord, 12/3, 100'	2	2	2	2
Fans, 18"	For Shelter	For Shelter	For Shelter	For Shelter
Funnel kit, various sizes	1	1	1	1
Road flares, 30 minute minimum	3	3	3	1
Generator 3K with lights (2 must be portable)	2	1	1	1
Generator Fuel (in gallons)	10	10	10	10
Hand Disinfectant Bottles (Minimum 2 oz.)	12	6	4	3
Hearing Protection, case	1	1	1	1
Ice Chest, 120 qt.	2	1	1	1
Meals Ready to Eat	56-(4 each)	24-(4 each)	16-(4 each)	12- (4 each)
MRE Heaters	56-(4 each)	24-(4 each)	16-(4 each)	12-(4 each)
Pads, Sleeping	14	6	4	3
Porta Toilet	2	1	1	1
Rain Gear	14	6	4	3
Roll of Paper Towels	14	6	4	3
Roll of Toilet Paper	14	6	4	3
Shovel, Spade	2	1	1	0
Sleeping Bags	14	6	4	3
Stakes, For Tent	As Required	As Required	As Required	As Required
Tents/Shelter (appropriate for weather conditions)	Accommodate 14 person team	Accommodate 6 person team	Accommodate 4 person team	Accommodate 3 person team
Tool Box	1	1	1	1
Tree Pruner	1	1	1	1
Water Cooler, 5 gallon	1	1	1	1
Water, Bottle, 12 oz./24/cs (Camelback if possible)	56-(4 each)	24-(4 each)	16-(4 each)	12- (4 each)
Wire Cutter, 8"	1	1	1	1
Zip Tie/Wire Tie (minimum 6")	100	50	25	25
Vehicle/Transportation				
Vehicle(s) capable of transporting team members and equipment in the field environment in the area of operations	As Required	As Required	As Required	As Required
Vehicle(s) must adequately support three day operations such as fuel, tires, and maintenance requirements	As Required	As Required	As Required	As Required

Additional Swiftwater/Flood Search and Rescue Resources

American Red Cross (ARC). The American Red Cross provides disaster victims assistance such as food, clothing, shelter, and supplemental medical. The ARC provides the emergency mass care to congregate groups and also provides individual/family assistance. Upon the request of government, resources permitting, the ARC may assist with warning, rescue, or evacuations.

Animal Rescue Team. A specialized resource having extensive experience and appropriate equipment required to support the rescue of small domestic pets and large animals' commonly encountered in rural settings. This resource may be available through the Mutual Aid request procedures.

Tennessee Wildlife Resource Management Agency (TWRA). State resources capable of supplying boats, specialize law enforcement and water rescue. Orders for specialized equipment must be specific when requesting from this resource through the Mutual Aid request procedure.

Heavy Equipment. Heavy equipment such as cranes, front loaders, and dump trucks are often needed in large quantities during regional water emergencies. They are normally available through local public works departments and private contractors (a pre-signed MOU is recommended). If additional heavy equipment resources are needed, they can be ordered through Mutual Aid request procedure.

Swiftwater/Flood Search and Rescue Technical Specialist. A SF/SAR Technical Specialist may be requested to assist the incident management team with technical expertise in SF/SAR. The specialist is normally assigned to the Planning Section. This resource is ordered through the Mutual Aid request procedure.

Search and Rescue Water Dogs. Dogs specifically scent certified in water, trained to search for and find drowning victims. Search and Rescue Water Dogs are ordered through the Mutual Aid request procedures.

Search Manager. A person qualified and capable of managing the specific search and rescue mission.

Salvation Army. During an emergency, the Salvation Army may be called upon to provide food, clothing, furniture, housing, emergency communication, mobile canteen services, and spiritual ministry for disaster victims. This is generally a local resource; however, it may be requested through the Mutual Aid request procedure.

Structural/ Soil Engineers. In most cases, responding resources will have access to local structural and soils engineers through their local agencies. Additional engineers may be ordered through the Mutual Aid request procedure.

Tennessee Highway Patrol (THP)

Tennessee National Guard (TNG)

Incident Management Team (IMT)

US Coast Guard (USCG)

Tennessee Park Service (TPS)

Flood Evacuation -Search and Rescue Mutual Aid Plan

Introduction

Local and widespread swiftwater and flood emergencies often occur. Many of these incidents strain local resources creating a need for mutual aid resources. This document focuses on the development and identification of specific FE/ SAR (Flood Evacuation/ Search and Rescue) resources.

This document is intended to provide guidance and develop recommendations for Tennessee's Flood Evacuation/ Search and Rescue resources. This includes but is not limited to:

- Organizational Development
- Resource Typing
- Training and Equipment
- Procedures and Guidelines for Incident Operations

It is the responsibility of agencies responding to mutual aid flood evacuation requests to provide qualified personnel and equipment that meet or exceed the recommended level of skills and capabilities stipulated in this document.

The recommended training, skills and equipment lists are contained in this document. This document correlates to the Tennessee Fire Chief's Association Emergency Response Plan (ERP).

Initial Response

The first arriving public safety officer shall direct initial Flood Evacuation/ Search and Rescue (FE/SAR) operations. This officer will assume initial command of the operation as the Incident Commander. Subsequent changes in the incident command structure will be based on the needs of the incident with consideration of jurisdictional responsibilities, established agreements, state and local statutes, and shall be accomplished by following established ICS procedures.

Flood Evacuation Team must call for a qualified Swift Water Rescue Team if the following is observed:

3. Water current >1 knot
4. Ropes required to achieve the rescue
5. If water is rising too fast to retrieve all victims in safe manner

****Flood Evacuation Leader shall receive assignments, direction and guidance from the Command, Operations or Swift Water Manager. This will depend on the scale of the incident***

Additional resources, specifically trained and equipped for FE/SAR operations may be required. These FE/SAR resources may be assigned as a single resource, task force or grouped together with a Swift Water Rescue Team to form strike teams.

Due to the unique hazards and complexity of FE/SAR incidents, the Incident Commander may require a variety of different multi-disciplinary resources to accomplish the FE/SAR mission.

FE/SAR resources have been categorized or “typed” (APPENDIX B. Flood Evacuation/Search and Rescue Resource Typing). Typing reflects identified operational capabilities, based on specialized training, skills and equipment. This typing is based on team qualifications and available equipment and training as needed for safe and efficient rescue operations for identified FE/SAR tasks.

FE/SAR incidents may occur that will require rescue operations that exceed on-scene personnel capabilities. When the magnitude or type of incident exceeds that capability level, the Incident Commander will have the flexibility to conduct search and rescue operations in a safe and appropriate manner until adequate resources can be obtained or the incident is terminated.

Unified Command

A Unified Command should be implemented at FE/SAR incidents when multiple agencies or jurisdictions with statutory or political authority and financial responsibility are involved. Unified Commanders involved in a Unified Command shall be co-located. A single Command Post is the best method to ensure effective communications, coordination of resources, and overall operational management of the incident.

Flood Evacuation Incident Teams

All Teams

10. Must be certified to the Swift Water Rescue Operations
11. Must be certified in HAZMAT Awareness Level NFPA 472
12. Must have minimum Basic Life Support certifications
13. Must have the minimum safety equipment for each rescuer as needed for the type of team
14. Must be capable of supporting 12-18 hour operations
15. Must have UHF, VHF, or 800 capability (minimum of 2 radios per squad) Must have all current Interoperability / Mutual Aid Channels for their spectrum
16. Must be able to transport team and watercraft (as defined) to designated location safely and all passengers in vehicles must have seatbelts
17. Must have the capability to make fuel, food, and water purchases during the deployment and provide documentation of those purchases

To be considered a Type I Team

4. 3-member team consisting of 1 Flood Evacuation leader (must be 1 Leader on land directly supervising crew) and 2 Flood Evacuation Operators
5. Equipped with boat capable of transporting 3 victims and crew (gasoline - motorized) and PPE for those 3 victims
6. Low Risk, Basic First Aid, Capable of 12hr Ops

To be considered a Type II Team

1. 4-member team consisting of 1 Flood Evacuation leader (must be 1 Leader on land directly supervising crew) and 3 Flood Evacuation Operators
2. Equipped with boat capable of transporting 2 victims and crew (non-motorized) and PPE for those 2 victims
3. Low Risk, Basic First Aid, Capable of 12hr Ops

Job Title and Credentials

Flood Evacuation Leader

Description: A *Flood Evacuation Leader* is a mid-level position within a water rescue task force or strike team that supervises a Flood Evacuation Team and provides direct supervision, general leadership, wellness and safety of team members within an ICS Unit.

Category Criteria

Fulfillment of applicable requirement(s) as stated in the current edition following standard(s), or equivalent:

5. NFPA 1006: Surface Water Rescue Operations, or equivalent
6. NFPA 472 HazMat Awareness and/or OSHA 1910.120(Q)(6)(i), HazMat
7. Operations Training or equivalent basic instruction on responding to and operating in a CBRNE incident

Completion of the following baseline criteria:

14. OSHA 1910.120 and/or 1910.134(f) Respiratory Protection
15. Emergency medical first responder per NFPA 1006, A 3-3.5
16. Risk assessment
17. Hazard mitigation
18. PPE
19. Self-Rescue
20. Pre- operations safety checks
21. Use of related tools and devices
22. Hydrology
23. Active and passive search techniques
24. Multiple victims
25. Managing squad-sized teams during emergency operations
26. GPS/maps and compass

Training

Completion of the following courses and/or curricula:

- | | |
|--|--|
| 10. ICS-100: Introduction to ICS | 14. FEMA IS-800: NRP, An Introduction |
| 11. ICS-200: Basic ICS | |
| 12. ICS-300: Intermediate ICS | <i>Recertification of all training requirements listed</i> |
| 13. FEMA IS-700: NIMS, An Introduction | |

Physical/ Medical Fitness:

3. National: NFPA 1006 11.1.12 (Swim or float with and without aids)
4. NFPA 1582, Standard on Medical Requirements for Fire Fighters

Flood Evacuation Operator

Description: A *Flood Evacuation Operator* is an entry-level position within a water rescue task force that responds to searches and rescues from shore and in water, consistent with NFPA 1006 Level I.

Category Criteria

Fulfillment of applicable requirement(s) as stated in the following standard(s):

5. NFPA 1006: Surface Water Rescue Operations, or equivalent

6. NFPA 472 HazMat Awareness and/or OSHA 1910.120(Q)(6)(i), HazMat
7. Operations Training or equivalent basic instruction on responding to and operating in a CBRNE incident

Completion of the following baseline criteria:

9. OSHA 1910.120 and/or 1910.134(f) Respiratory Protection
10. Certified First Aid
11. Risk assessment
12. Hazard mitigation
13. PPE
14. Pre- operations safety checks
15. Use of related tools and devices
16. Use of appropriate craft in aquatic environment
17. Boat and motor support (maintenance, trailering, and repair)
18. GPS/maps and compass

Training

Completion of the following courses and/or curricula:

6. ICS-100: Introduction to ICS
7. ICS-200: Basic ICS

8. FEMA IS-700: NIMS, An Introduction
9. FEMA IS-800: NRP, An Introduction

Recertification of all training requirements listed

Physical/ Medical Fitness:

1. National: NFPA 1006 11.1.12 (Swim or float with and without aids)
2. NFPA 1582, Standard on Medical Requirements for Fire Fighters

Flood Evacuation/ Search and Rescue Resource Typing

Description	Type I	Type II
Team Composition	1 Team Leader; 2 personnel (3)	1 Team Leader; 3 personnel (4)
Team Sustained	12-18-hour operations	12-18-hour operations
ALS Certified Personnel	0	0
Helicopter/Aquatic Rescue Operations Personnel	0	0
Powered Boat Operators	2	0
EMTs	EMT-B (1)	EMT-B (1)
Communications	Quantity	Quantity
Bags, Waterproof, radio	3	4
Phone, Cell	3	4
Portable programmable radio	3	4
Personal Equipment		
Aerial Flares	3	4
ALS Medical Kit	0	0
BLS Medical Kit	1	1
Dry gear bags	3	4
Flashlight	3	4
Gloves- water	3	4
Gloves- leather	3	4
Handheld flares	3	4
Handheld survival strobe light	3	4
Headlamps, waterproof	3	4
Helmet, water rescue	3	4
PFD, Type V, Tethered	3	4
Rescue Knives	3	4
Whistles	3	4
Team Equipment		
Admin Kit/ICS-Agency Forms (IS-214) minimum	1	1
Chain Saw with Kit (Minimum 14 inch bar)	1	1
Compressed Air Cylinder and Hose as required for IRB Inflation (if applicable)	1	1
Forcible Entry Tool, Haligan	1	1
GPS, hand held	1	1
Hand Held Spot Light	1	1
Helmet, Victim	3	3
Inflatable Hose kit with Hose (if applicable)	1	1
PFD, Victim, Type III, various	3	3
Pole, reaching (i.e., Pike)	1	1
Repair Kit, IRB (if applicable)	1	1

Throw Bags	3	4
Throwable Flotation Device	1	1
Motorized Rescue Boat		
Air, manual inflation pump-	1	0
Air, 12 volt pump- applicable to IRB	1	0
12' minimum Vessel	1	0
IRB or Vessel Support Kit	1	0
Lanyard, wrist, kill switch	1	0
Motor, 30 HP (Minimum)	1	0
Motor Flush Kit	1	0
Paddles	2	0
Prop, spare	1	0
Non- Motorized Inflatable Rescue Boat		
Inflatable 6 person Raft Minimum	0	1
Air, Inflation pump or compressed air	0	1
Rescue Boat Repair Kit	0	1
Paddles	0	4
Logistical Support		
Air Horn	1	1
Attic Ladder, 10'	1	1
Battery Charger	1	-
Battery, 9v	4	4
Battery, AA	9	9
Battery, C	6-(2 each)	6-(2 each)
Battery, D	6-(2 each)	6-(2 each)
Boat Motor Fuel (in gallons)	20	-
Bolt Cutter, 24"	1	1
Center Punch	2	2
Cups, 8 oz.	12-(4 each)	16-(4 each)
Cyalume Stick, 12 hr. – one color	12-(4 each)	16-(4 each)
Emergency Blanket	3	4
Funnel kit, various sizes	1	0
Road flares, 30 minute minimum	5	5
Hand Disinfectant Bottles (Minimum 2 oz.)	3	4
Ice Chest, 120 qt.	1	1
Meals Ready to Eat	12-(4 each)	16-(4 each)
MRE Heaters	12-(4 each)	16-(4 each)
Rain Gear	3	4
Roll of Paper Towels	3	4
Roll of Toilet Paper	3	4
Tool Box	1	1

Tree Pruner	1	1
Water Cooler, 5 gallon	1	1
Water, Bottle, 12 oz./24/cs	12-(4 each)	16-(4 each)
Wire Cutter, 8"	1	1
Zip Tie/Wire Tie (minimum 6")	25	25
Vehicle/Transportation		
Vehicle(s) capable of transporting team members and equipment in the field environment in the area of operations	As Required	As Required
Vehicle(s) must adequately support one day operations such as fuel, tires, and maintenance requirements	As Required	As Required

Incident Management Teams

PURPOSE

Emergency incidents are normally handled by the local emergency responders. The vast majority of emergency incidents are handled without the need for outside assistance. However, there is the possibility of a large incident which can stress the capabilities and resources of the local response agencies, regardless of their size. It is the intent of the Tennessee Fire Chief's Association (TFCA) to support the development of Incident Management Teams in order to have trained incident command personnel available to support the local agencies to handle the emergency. It is not the intent for the Incident Management Team (IMT) to take over the command of the incident, but rather provide support staff for the local commanders. The Incident Management Team may provide highly trained personnel that can assist and fill various needed positions within the local incident command structure. The IMT will have incident command trained personnel with expertise in various levels throughout the command and general staff positions of incident command.

The TFCA Mutual Aid District IMT will be coordinated through a local Fire Department, with members from the fire service and other emergency response disciplines throughout the Mutual Aid District area. Members shall serve on the IMT on a voluntary basis. The IMT is available to assist other Fire Departments within the Mutual Aid District and Region. The IMT can be configured to the size as needed to support the local fire department, whether a small contingency of support personnel or a large number of incident command personnel is needed.

The TFCA Mutual Aid District IMT's will currently be qualified at the Local (Type 4) level. Some IMTs may wish to attain All-Hazards (Type 3) Level in accordance with the Federal Emergency Management Agency (FEMA) National Incident Management System (NIMS).

QUALIFICATIONS

Command and General Staff Members of the TFCA Mutual Aid District IMT shall have completed ICS-100, ICS-200, ICS-300, ICS-400, ICS-700, ICS-800, and the FEMA "Command and General Staff Functions for Local Incident Management Teams" (CGSFLIMT) Course. Additional technical specialists and division supervisors assigned to the IMT, such as Communications Unit Leaders, shall have completed ICS-100, ICS-200, ICS-300, ICS-700, and ICS-800. Preferably, members shall have also completed the appropriate NIMS-approved position-specific training for their assigned position. They shall have experience in the specific position to which they are assigned. Incident Management and IMT operations should adhere to these training and standards.

LOCAL/REGIONAL (TYPE 4) IMT CONFIGURATION

The following are various configurations for the IMT. The actual IMT configuration used will be dictated by the incident complexity and the needs of the local incident commanders. In many situations, the configuration will change as the needs of the incident change, such as a smaller IMT being used initially and growing to a larger organization as the incident needs expand. The IMT Leader will have the flexibility to adjust the IMT configuration as needed to meet the requested needs of the local incident commander, as resources permit.

IMT-A (Advance)

This team shall be able to quickly respond to an incident to offer assistance and help assess the need for full IMT deployment, etc. This team would generally be made up of 2-3 members:

- 1) IMT Leader (Incident Commander)
- 2) Operations Chief
- 3) Planning Chief

IMT-B (Basic, Regular)

This team would provide the basic support personnel to assist with a moderate size emergency that does not require further overhead assistance. This team would include 6 members:

- 1) IMT Leader (Incident Commander)
- 2) Operations Chief
- 3) Planning Chief
- 4) Logistics Chief
- 5) Finance/Administrative Chief
- 6) Communications Unit Leader (COML)

IMT-C (Full)

This team will provide the support personnel to assist with the main ICS positions for a larger emergency as needed. This team would include approximately 10 members:

- 1) IMT Leader (Incident Commander)
- 2) Operations Chief
- 3) Planning Chief
- 4) Logistics Chief
- 5) Finance/Administrative Chief
- 6) Communications Unit Leader (COML)
- 7) Public Information Officer (PIO)
- 8) Safety Officer
- 9) Liaison Officer
- 10) EOC Liaison

IMT-D (Expanded)

This team would include the IMT-C (Full IMT Team) plus additional personnel as specifically needed for the incident, such as:

- Additional Operations Section Personnel
- Operations Personnel – Fire
- Operations Personnel – EMS
- Operations Personnel – Law Enforcement
- Operations Personnel – Public Works
- Additional Personnel to fill the ICS Organizational Structure
- Additional Personnel to allow for multiple operational periods, such as 2 deep in each position
- Additional Communications Personnel, including COML and COMTs
- Additional subject matter experts (SME's) to assist with the incident as needed

EQUIPMENT

IMT TEAM EQUIPMENT:

Each IMT should have a cache of equipment to support their operations. This cache should be deployed whenever an IMT-B or higher is deployed. This equipment may be comprised of equipment available from the participating fire departments, a stand-alone cache, or other resources. This equipment should include:

- **RADIO COMMUNICATIONS:** It is recommended that a cache of portable radios be deployed with the IMT. These radios should have the ability to interoperate with the local radio communications system, such as via Interop Channels or radio gateway. They should have Simplex channel to allow communications without the need for a repeater. The incident communications should be coordinated through a Communications Unit Leader (COML) provided through the local Incident Command or the IMT.
- **COMMAND/COMMUNICATIONS VEHICLE:** It is recommended that the IMT deploy with a mobile command/communications vehicle that can allow full communications in the field, including a) ability to communicate on all radio bands (VHF, UHF, 700/800 MHz), b) ability to patch disparate channels together across spectrums (Gateway, such as ACU-1000), c) Satellite Phone/Radio, d) Cellular phone capabilities, e) cellular Internet capabilities, f) satellite Internet capabilities, g) extendable radio mast, h) whiteboard, and i) command area.
- **RADIO TOWER:** A portable radio tower may be utilized for extended incidents. Portable radio towers may be available through TEMA, local Homeland Security Districts, or other sources. These may be deployed to support communications on scene.
- **ICS VEST SET:** A complete set of Incident Command System position vests shall be available. ICS Vests should be available on the Mobile Command Vehicle. These vests are not to be worn until the member has been assigned a position by the local incident commander.

- **ICS FORMS:** IMT members shall have the appropriate hard-copy and electronic versions of any needed ICS forms for their position.
- **ICS COMMAND BOARD:** The IMT should have available an Incident Command Board to assist the local Incident Commander with incident management and resource tracking.
- **CELL PHONE(S):** All members of the IMT shall have cellular phones to allow for normal communications. It is also recommended that the IMT members have field access to emails, such as via a Blackberry or PDA.
- **LAPTOP COMPUTER:** The IMT should have a Laptop Computer available. Preferably, the Laptop should have wireless (cell service) Internet capability, with access to WebEOC, HSIN, etc.
- **PRINTER:** The IMT should have a Printer available. Preferably this should be color, such as to provide maps, as well as have wireless and cordless (battery operated) capability.
- **DIGITAL CAMERA:** The IMT should have a Digital Camera to provide documentation, including sending damage assessment photos and information to the local Emergency Operations Center (EOC) as well as TEMA.
- **ICS FIELD OPERATIONS GUIDE:** IMT Members should have a copy of the ICS Field Operations Guide (FOG), including position specific information.
- **TN FIRE SERVICE FIELD RESPONSE OPERATIONS GUIDE (FROG):** IMT members should have a copy of the Tennessee Fire Service FROG and Fire Service Emergency response Plan, which is the fire service mutual aid plan for Tennessee.
- **SATELLITE RADIOS/PHONES:** The IMT should have access to Satellite Radios or Phones in the event they are needed for communications when cellular and radio communications are unavailable. Satellite Radios, such as through SkyTerra, should have the appropriate State and National Satellite Radio Channels included.

VEHICLES:

IMT members shall have appropriate vehicles for transportation to the incident location and while operating at the incident. Preferably, vehicles should be provided by the member's sponsoring agency.

PERSONAL EQUIPMENT (GO KIT):

Each IMT Member should be self-sufficient to operate for at last 3 days. Personal equipment should include:

- Food (for at least 3 days, including snack bars)
- Water (for at least 3 days)

- Bedding
 - Sleeping bag
 - Blanket
 - Pillow
- Laptop computer with wireless internet connection (Air-card)
- GPS
- Digital camera
- Cell phone, with charger
- AC/DC Converter as needed
- ICS Forms
- 2-3 Pairs of khaki pants (such as 5.11), uniform pants, or BDUs
- 2-3 Uniform work shirts. Currently, members may wear the appropriate uniform shirt for their specific sponsoring fire department or TFCA IMT shirt, when available.
- Shoes/boots, appropriate for the work environment
- Baseball cap or other appropriate hat
- Appropriate clothing for off-duty wear for extended deployments
- Jacket/coat appropriate for season and climate, preferably uniform
- Athletic shoes/walking shoes
- Rain gear
- Extra underclothing/socks
- Sunglasses, sunscreen, lip balm
- Safety glasses
- Helmet/hard hat
- Work gloves
- Ear plugs
- Firefighting turnouts, optional
- Extra batteries, as needed
- Winter clothing, as needed
 - Thermal underwear
 - Winter coat
 - Fleece jacket liner, pullover
 - Sweatshirt
- Medications (both prescription and over-the-counter)
 - Advil, Tylenol, etc.
 - Contact solution (bring glasses also)
- ID
 - Agency ID
 - Valid Driver's License
 - Agency certification cards
- Toiletry items
 - Soap, towels, washcloth
 - Toothbrush, toothpaste

- Razor and shaving cream
- Deodorant
- Lotion
- Personal hygiene items
- Insect repellent
- Flashlight
- Leatherman tool and/or pocketknife
- Cash
- Credit card
- Alarm clock
- Flip flops for shower
- Tent (suggested)
- Portable shower (suggested)
- Portable toilet (suggested)
- Notebook pads,
- Pens, pencils

DEPLOYMENT

Deployment of the IMT will be in accordance with the *“Tennessee Fire Chiefs Association Emergency Response Plan”* and Tennessee Code Annotated Title 58, also known as the *“Mutual Aid and Emergency and Disaster Assistance Agreement Act of 2004,”* unless the requesting and responding agencies have their own mutual aid agreement. This Act provides guidelines for reimbursement, workers compensation, and liability, etc. Mutual aid responses will be reimbursed according to this Tennessee Mutual Aid Law. Deployment of resources outside the State of Tennessee, such as through the Emergency Management Assistance Compact (EMAC), shall be in accordance with the Tennessee Inter-local Cooperation Act, and/or the local State Mutual Aid Legislation. Each member of the IMT shall be sponsored by a sponsoring or participating fire department or other emergency response agency, which is normally their primary agency of employment. The coordinating/sponsoring fire department may wish to obtain a memorandum of agreement (MOU) with each participating agency indicating support of their personnel on the IMT. While the IMT will operate as a Team, each member will be considered a mutual aid responder from their local sponsoring fire department. Membership on the IMT is voluntary. Response of members and equipment is considered mutual aid from the sponsoring agency to the requesting agency.

State response will be coordinated through the TFCA Mutual Aid Coordinators and TEMA. Generally, responses of resources through mutual aid will be through direct request between the agencies or via TEMA or the TFCA Mutual Aid Coordinator. TEMA and the TFCA maintain a database of various resources for emergencies and can assist local agencies during an emergency to identify the appropriate resource(s) needed.

The response of Fire Service resources will follow the *“Tennessee Fire Chiefs Association Emergency Response Plan”* (TFCA ERP). Resources utilized through the TFCA ERP shall be associated with a specific Fire Department, which shall serve as the sponsoring/coordinating agency. Although the IMT consists of members from various fire departments within the area, a single fire department will serve as the coordinating agency. This plan includes additional guidelines and information for mutual aid response. The TFCA also maintains a resource listing of fire service assets that may be needed in the event of an emergency, including contact information for deployment. Mutual Aid Coordinators working closely with TEMA can assist with the identification and coordination of resources to an emergency, as well as provide coordination support for the local incident commander(s). This system utilizes Mutual Aid Coordinators at the County, District, Regional, and State level to support local agencies via the TEMA emergency response structure.

In the event of an incident, an IMT-Advance Team may deploy to the incident to assess the situation and offer assistance to the local incident commander and/or EOC. If assistance is requested, the sponsoring fire department shall contact the IMT Leader and assist with assembly of the appropriate IMT. The sponsoring fire department will maintain updated contact information for all IMT members. The sponsoring agency shall also notify the appropriate District Mutual Aid Coordinator and State EOC regarding the response of the IMT.